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Lab Number: L2320537

Client: Anchor QEA

ATTN: Deborah Chiavelli

Project Name: GASCO HYDROCARBON INVESTIG

Project Number: 000029-02.78 T12A

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CC Summary - PAH12 Run: 05/04/23 23:33	1126
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MW2112-041723-NET (L2320537-02D) Analyzed: 05/04/23 17:57	1132
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STD 10 Injected on: 01/20/23 20:11	1938
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STD 200 Injected on: 01/21/23 00:33	2092
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QC Batch WG1769534	2226
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ICAL Sequence for FID17 on 18-JAN-2023 00:00 ICAL19667	2229
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Analytical Event	2234
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CC Quant - WG1772076-4 Inst. FID17 05/04/23 18:13	2243
Sample Raw Data	2246
MW2112-041723-NET (L2320537-02D) Analyzed: 05/04/23 16:45	2247
Analytical Event	2253
Continuing Calibration	2254

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CC Quant - WG1770521-1 Inst. FID6 04/24/23 12:58	2257
CC Summary - FID6 Run: 04/25/23 10:46	2260
CC Quant - WG1770521-2 Inst. FID6 04/25/23 10:46	2262
Sample Raw Data	2265
MW2112-041723-NAPL (L2320537-01) Analyzed: 04/25/23 03:30	2266
Analytical Event	2290
Continuing Calibration	2291
CC Summary - FID6 Run: 04/27/23 12:23	2292
CC Quant - WG1772076-1 Inst. FID6 04/27/23 12:23	2294
CC Summary - FID6 Run: 04/28/23 01:27	2297
CC Quant - WG1772076-2 Inst. FID6 04/28/23 01:27	2299
Sample Raw Data	2302
MW2112-041723-NET (L2320537-02) Analyzed: 04/27/23 22:33	2303
Batch Quality Control	2332
Method Blank Raw Data	2333
Laboratory Method BI (WG1769534-1) Analyzed: 04/24/23 17:20	2334
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LCS Duplicate (WG1769534-3) Analyzed: 04/24/23 21:42	2401
LCS Duplicate (WG1770361-3) Analyzed: 04/27/23 19:38	2420
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Sample Delivery Group Information



Sample Delivery Group Summary

Alpha Job Number : L2320537

Received : 18-APR-2023

Reviewer : Andrew Kussmaul

Account Name : Anchor QEA, LLC

Project Number : 000029-02.78 T12A

Project Name : GASCO HYDROCARBON INVESTIGATION

Delivery Information

Samples Delivered By : Express Ship

FedEx (1001891732560000204800771873183980)

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	6.0	

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 COC & sample labels? | 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? | YES |
| 8) All sampling equipment returned? | NA |

Volatile Organics/VPH

- | | |
|--|----|
| 1) Reagent Water Vials Frozen by Client? | NO |
|--|----|

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
May 09 2023, 11:53 am

Login Number: L2320537

Account: ANCHOR Anchor QEA, LLCProject: 000029-02.78 T12A

Received: 18APR23 Due Date: 09MAY23

Sample #	Client ID	Mat PR Collected
L2320537-01	MW2112-041723-NAPL	6 S0 17APR23 09:30
L2320537-01 DUP DO NOT OVERDILUTE samples and run at the LOWEST Dilution possible - client is concerned about diltions of low level forensic compounds used for ratios Report to the MDL; Full Narration needed Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery DPKG-FULL Package Due Date: 05/09/23		
A2-ALKPAH,A2-DUP,A2-PIANO8260,A2-SHC,DISPOSAL,DPKG-FULL,E&I-FEE,TS100		
L2320537-02	MW2112-041723-NET	7 S0 17APR23 09:30
Combine both nets from jars A & B for extraction in order to increase signal DO NOT OVERDILUTE samples and run at the LOWEST Dilution possible - client is concerned about diltions of low level forensic compounds used for ratios Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery Report to the MDL; Full Narration needed Package Due Date: 05/09/23		
A2-ALKPAH,A2-SHC,TS100		

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L2320537-01A Vial-A-20	INTACT	27-APR-23	A2-CUSTODY-REFRIDGE	A2-VOA-ANALYSIS	Cassandra Norton	A2-CUSTODY-REFRIG-E1-S1	A2-CUSTODY-REFRIG-E1-S1	Cassandra Norton
L2320537-01A Vial-A-20	INTACT	27-APR-23	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-E1-S1	Cassandra Norton	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Cassandra Norton
L2320537-01A Vial-A-20	INTACT	21-APR-23	A2-CUSTODY-REFRIDGE	A2-VOA-ANALYSIS	Cassandra Norton	A2-CUSTODY-REFRIG-E1-S1	A2-CUSTODY-REFRIG-E1-S1	Cassandra Norton
L2320537-01A Vial-A-20	INTACT	21-APR-23	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-E1-S1	Cassandra Norton	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Cassandra Norton
L2320537-01A Vial-A-20	INTACT	21-APR-23	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Natasha Gambarov	A2-CUSTODY-REFRIG-E1-S1	A2-CUSTODY-REFRIG-E1-S1	Natasha Gambarov
L2320537-01A Vial-A-20	INTACT	21-APR-23	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-E1-S1	Natasha Gambarov	A2-ORGANIC PREP	A2-ORGANIC PREP	Natasha Gambarov
L2320537-01A Vial-A-20	INTACT	18-APR-23	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	A2-CUSTODY-REFRIG-E1-S1	A2-CUSTODY-REFRIG-E1-S1	Andrew Kussmaul
L2320537-01A Vial-A-20	INTACT	18-APR-23	A2-LOGIN	A2-LOGIN	Andrew Kussmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul
L2320537-02A Glass-AH.120	EMPTY	24-APR-23	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B2-S1	Brittany Robinson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brittany Robinson
L2320537-02A Glass-AH.120	INTACT	18-APR-23	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	A2-CUSTODY-REFRIG-B2-S1	A2-CUSTODY-REFRIG-B2-S1	Andrew Kussmaul
L2320537-02A Glass-AH.120	INTACT	18-APR-23	A2-LOGIN	A2-LOGIN	Andrew Kussmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul
L2320537-02B Glass-AH.120	EMPTY	24-APR-23	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Brittany Robinson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brittany Robinson
L2320537-02B Glass-AH.120	INTACT	24-APR-23	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B2-S1	Brittany Robinson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brittany Robinson
L2320537-02B Glass-AH.120	INTACT	18-APR-23	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	A2-CUSTODY-REFRIG-B2-S1	A2-CUSTODY-REFRIG-B2-S1	Andrew Kussmaul
L2320537-02B Glass-AH.120	INTACT	18-APR-23	A2-LOGIN	A2-LOGIN	Andrew Kussmaul	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul

Chain of Custody

4/18/23

L2320537

laboratory Number (Alpha): _____

Date: 4-17-2023

Project Name: Gasco Hydrocarbon Investigation

Project Number: 000029-02.78 T12A

Project Manager: Delaney Peterson

Phone Number: 360.715.2707

Shipment Method: Fed Ex


[illegible][illegible]

Relinquished By: _____ Company: Anchor QEA, LLC

Dan Ruff Day Leffon 4/17/23 11:00
Signature/Printed Name Date/Time

Received By:	Company: <u>Fedex</u>
Signature/Printed Name	Date/Time

Relinquished By:	Company: <u>Fedex</u>
Signature/Printed Name	Date/Time

Received By:	Company:
 Dylan Snook	Alpha
Signature/Printed Name	Date/Time
	4/18/23 1049

ORIGIN ID: BNOA (206) 459-2738
DOUG LAFFOON
ANCHOR QEA
6720 SOUTH MACADAM AVE.
SUITE 125
PORTLAND, OR 97219
UNITED STATES US

SHIP DATE: 17APR23
ACTWGT: 6.00 LB
CAD: 109495568/INET4535
DIMS: 13x10x9 IN
BILL SENDER

TO LIZ PORTA
ALPHA ANALYTICAL INC.
320 FORBES BLVD
ATTN: LIZ PORTA
MANSFIELD MA 02048

583J378CFE2D

(508) 844-4124
INV: 000029-02.84 T - 01.001K
PC: DOUG LAFFOON

REF: 000029-02.84 T - 01.001K

DEPT: ANALYTICAL

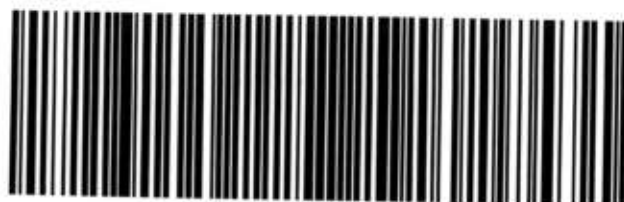


TRK# 7718 7318 3980
0201

TUE - 18 APR 10:30A
PRIORITY OVERNIGHT

XE PYMA

02048
MA-US BOS



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Organics

GC/MS 8260

Analysis

Initial Calibration

Response Factor Report VOA9

Method Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Method File : P9040423W.M
 Title : PIANO VOLATILES
 Last Update : Wed Apr 05 08:18:42 2023
 Response Via : Initial Calibration

Calibration Files

2 =V9004408.D 5 =V9004409.D 50 =V9004411.D 100 =V9004412.D 200 =V9004413.D 20 =V9004410.D

Compound		2	5	50	100	200	20	Avg	%RSD
-----		-----							
1) I	Chlorobenzene-D5 [IS]	-----ISTD-----							
2)	3-Methyl-1-butene	0.522	0.633	0.550	0.585	0.550	0.583	0.5705	6.79
3)	Isopentane	0.219	0.248	0.199	0.210	0.194	0.214	0.2142	8.92
4)	1-Pentene	0.270	0.314	0.268	0.277	0.264	0.277	0.2785	6.59
5)	2-Methyl-1-butene	0.360	0.463	0.400	0.417	0.396	0.406	0.4071	8.25
6)	Pentane	0.329	0.413	0.326	0.343	0.321	0.343	0.3458	9.83
7)	trans-2-Pentene	0.390	0.509	0.442	0.455	0.434	0.443	0.4455	8.66
8)	2-Methyl-1,3-butadiene	0.264	0.342	0.314	0.329	0.324	0.312	0.3140	8.57
9)	cis-2-Pentene	0.364	0.385	0.404	0.424	0.407	0.406	0.3984	5.24
10)	Tertiary butanol		0.063	0.068	0.067	0.070	0.063	0.0663#	4.42
11)	2,2-Dimethylbutane	0.210	0.224	0.232	0.236	0.228	0.233	0.2270	4.20
12)	4-Methyl-1-pentene	0.244	0.254	0.285	0.289	0.277	0.275	0.2707	6.55
13)	Cyclopentane	0.169	0.180	0.187	0.193	0.184	0.190	0.1836	4.70
14)	2,3-Dimethylbutane	0.127	0.135	0.139	0.142	0.135	0.138	0.1359	3.65
15)	2-Methylpentane	0.370	0.375	0.405	0.410	0.391	0.393	0.3905	4.06
16)	MTBE	0.705	0.739	0.806	0.807	0.790	0.750	0.7662	5.39
17)	3-Methylpentane	0.363	0.369	0.406	0.412	0.395	0.394	0.3900	5.08
18)	1-Hexene	0.190	0.194	0.231	0.235	0.230	0.217	0.2162	9.08
19)	Hexane	0.308	0.325	0.362	0.369	0.355	0.352	0.3452	6.89
20)	Diisopropyl ether	0.533	0.561	0.648	0.642	0.626	0.601	0.6018	7.70
21)	trans-2-Hexene	0.318	0.350	0.406	0.413	0.407	0.389	0.3804	10.05
22)	2-Methyl-2-pentene	0.360	0.386	0.463	0.471	0.464	0.438	0.4303	10.85
23)	cis-2-Hexene	0.282	0.310	0.366	0.372	0.362	0.346	0.3397	10.55
24) S	Dibromofluoromethane (surr)	0.289	0.287	0.294	0.294	0.293	0.293	0.2917	0.93
25)	Ethyl tertiary butyl ether	0.583	0.627	0.747	0.751	0.741	0.689	0.6897	10.28
26)	2,2-Dimethylpentane	0.424	0.463	0.512	0.521	0.502	0.499	0.4869	7.51
27)	Methylcyclopentane	0.383	0.417	0.454	0.456	0.444	0.438	0.4321	6.42
28)	2,4-Dimethylpentane	0.294	0.322	0.373	0.374	0.364	0.350	0.3464	9.23
29)	2,2,3-Trimethylbutane	0.381	0.410	0.465	0.468	0.451	0.443	0.4363	7.81
30)	1,2-Dichloroethane	0.330	0.295	0.341	0.339	0.331	0.320	0.3261	5.15
31)	3,3-Dimethylpentane	0.391	0.401	0.460	0.464	0.448	0.438	0.4335	7.07
32)	Cyclohexane	0.316	0.343	0.382	0.381	0.367	0.370	0.3599	7.15

Response Factor Report VOA9

Method Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Method File : P9040423W.M
 Title : PIANO VOLATILES
 Last Update : Wed Apr 05 08:18:42 2023
 Response Via : Initial Calibration

Calibration Files

2 =V9004408.D 5 =V9004409.D 50 =V9004411.D 100 =V9004412.D 200 =V9004413.D 20 =V9004410.D

Compound		2	5	50	100	200	20	Avg	%RSD
33)	2-Methylhexane	0.326	0.348	0.399	0.402	0.390	0.384	0.3748	8.20
34) M	Benzene	1.044	0.983	1.028	1.008	0.981	0.997	1.0067	2.50
35)	2,3-Dimethylpentane	0.317	0.334	0.372	0.372	0.363	0.351	0.3516	6.27
36)	Thiophene	0.477	0.515	0.575	0.569	0.557	0.549	0.5402	6.94
37)	1,1-Dimethylcyclopentane	0.215	0.257	0.296	0.297	0.290	0.286	0.2734	11.76
38)	3-Methylhexane	0.310	0.318	0.350	0.350	0.344	0.335	0.3344	5.04
39)	TAME	0.907	0.760	0.771	0.775	0.769	0.722	0.7840	8.09
40)	cis-1,3-Dimethylcyclopentane	0.242	0.211	0.252	0.260	0.257	0.239	0.2435	7.36
41)	3-Ethylpentane	0.386	0.416	0.453	0.462	0.448	0.440	0.4341	6.56
43)	1-Heptene/trans-1,2-DMCP	0.174	0.175	0.207	0.213	0.213	0.196	0.1964	9.23
44)	Isooctane	0.815	0.913	1.011	1.014	1.012	0.971	0.9560	8.28
45)	trans-3-Heptene	0.194	0.226	0.276	0.271	0.272	0.241	0.2466	13.24
46)	Heptane	0.254	0.289	0.322	0.323	0.320	0.304	0.3021	8.91
48)	trans-2-Heptene	0.216	0.236	0.283	0.289	0.288	0.263	0.2625	11.69
49)	cis-2-Heptene	0.188	0.205	0.256	0.261	0.260	0.231	0.2337	13.33
50)	2,2-Dimethylhexane	0.726	0.811	0.925	0.929	0.913	0.876	0.8633	9.30
51)	Methylcyclohexane	0.363	0.402	0.470	0.478	0.471	0.445	0.4380	10.50
52)	2,5-Dimethylhexane	0.343	0.406	0.460	0.463	0.456	0.437	0.4277	10.91
53)	2,4-Dimethylhexane	0.284	0.314	0.373	0.371	0.367	0.351	0.3433	10.60
54)	Ethylcyclopentane	0.320	0.335	0.388	0.389	0.383	0.365	0.3634	8.12
55)	2,2,3-Trimethylpentane	0.623	0.680	0.759	0.755	0.747	0.724	0.7146	7.50
57)	2,3,4-Trimethylpentane	0.388	0.405	0.477	0.479	0.470	0.451	0.4449	8.83
58)	2,3,3-Trimethylpentane	0.333	0.346	0.400	0.399	0.394	0.380	0.3752	7.75
59)	2,3-Dimethylhexane	0.336	0.367	0.429	0.424	0.419	0.400	0.3958	9.39
60)	2-Methylheptane	0.304	0.355	0.423	0.425	0.418	0.396	0.3869	12.54
61)	4-Methylheptane	0.327	0.395	0.468	0.461	0.454	0.440	0.4243	12.78
62) S	Toluene-d8 (surr)	1.113	1.104	1.113	1.114	1.118	1.119	1.1137	0.49
63)	3-Methylheptane	0.396	0.364	0.353	0.342	0.342	0.326	0.3540	6.86
64) S	2-Bromo-1-chloropropane (...)	0.309	0.302	0.378	0.381	0.377	0.349	0.3494	10.28
65)	3-Ethylhexane	0.451	0.475	0.495	0.496	0.479	0.475	0.4783	3.47
66) M	Toluene	0.988	1.040	1.142	1.139	1.127	1.087	1.0872	5.71
67)	2-Methylthiophene	0.750	0.793	0.935	0.943	0.944	0.858	0.8704	9.67
68)	trans-1,4-Dimethylcyclohe...	0.445	0.500	0.578	0.589	0.585	0.537	0.5391	10.69

Response Factor Report VOA9

Method Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Method File : P9040423W.M
 Title : PIANO VOLATILES
 Last Update : Wed Apr 05 08:18:42 2023
 Response Via : Initial Calibration

Calibration Files

2 =V9004408.D 5 =V9004409.D 50 =V9004411.D 100 =V9004412.D 200 =V9004413.D 20 =V9004410.D

Compound		2	5	50	100	200	20	Avg	%RSD
69)	3-Methylthiophene	0.748	0.799	0.951	0.957	0.963	0.871	0.8815	10.36
70)	1-Octene	0.139	0.156	0.205	0.207	0.210	0.183	0.1835	16.37
71)	Octane	0.294	0.346	0.426	0.423	0.420	0.393	0.3838	13.84
72)	trans-1,2-Dimethylcyclohe...	0.269	0.308	0.355	0.356	0.353	0.337	0.3295	10.62
73)	1,2-Dibromoethane	0.234	0.237	0.293	0.300	0.300	0.267	0.2718	11.34
75)	cis-2-Octene	0.190	0.233	0.306	0.314	0.308	0.273	0.2707	18.51
76)	Isopropylcyclopentane	0.341	0.388	0.443	0.458	0.455	0.420	0.4176	10.95
77)	cis-1,2-Dimethylcyclohexane	0.256	0.293	0.348	0.350	0.350	0.319	0.3193	12.05
78)	2,5-Dimethylheptane	0.418	0.494	0.628	0.662	0.648	0.595	0.5742	16.94
79)	3,5-Dimethylheptane	0.492	0.658	0.776	0.755	0.762	0.742	0.6975	15.61
80)	3,3-Dimethylheptane	0.343	0.399	0.492	0.485	0.486	0.456	0.4437	13.55
81)	1,1,4-Trimethylcyclohexane	0.345	0.399	0.483	0.480	0.485	0.454	0.4411	12.95
82)	2,3-Dimethylheptane	0.359	0.419	0.506	0.499	0.497	0.468	0.4578	12.70
83)	3,4-Dimethylheptane	0.249	0.284	0.325	0.319	0.316	0.302	0.2991	9.48
84)	4-Methyloctane	0.349	0.412	0.508	0.493	0.502	0.470	0.4554	13.80
85)	2-Methyloctane	0.317	0.354	0.451	0.448	0.440	0.425	0.4058	13.94
86)	Ethylbenzene	1.010	1.135	1.348	1.340	1.344	1.243	1.2368	11.22
87) S	1-Chloro-2-fluorobenzene ...	0.614	0.651	0.743	0.745	0.749	0.700	0.7004	8.08
88)	2-Ethylthiophene	0.728	0.830	1.026	1.037	1.046	0.947	0.9358	13.91
89)	3-Methyloctane	0.570	0.703	0.863	0.860	0.875	0.800	0.7783	15.49
90)	3,3-Diethylpentane	0.664	0.760	0.937	0.934	0.947	0.860	0.8504	13.60
91)	p/m-Xylene	0.766	0.865	1.056	1.061	1.067	0.977	0.9652	12.91
92)	1-Nonene	0.127	0.148	0.217	0.223	0.233	0.187	0.1892	23.04
93)	trans-3-Nonene	0.174	0.237	0.320	0.321	0.332	0.285	0.2781	22.25
94)	cis-3-Nonene	0.215	0.279	0.358	0.365	0.378	0.322	0.3196	19.58
95)	Nonane	0.256	0.340	0.440	0.439	0.446	0.415	0.3893	19.62
96)	Styrene	0.546	0.657	0.895	0.920	0.940	0.788	0.7909	20.22
97) S	1,4-Dichlorobutane (H/surr)	0.345	0.319	0.406	0.410	0.420	0.364	0.3772	10.85
98)	o-Xylene	0.814	0.911	1.092	1.095	1.100	0.995	1.0012	11.84
99)	2-Nonene	0.194	0.239	0.329	0.330	0.341	0.287	0.2866	20.51
100)	Isopropylcyclohexane	0.337	0.388	0.498	0.502	0.517	0.454	0.4492	16.06
101) S	4-Bromofluorobenzene (surr)	0.471	0.484	0.515	0.515	0.527	0.500	0.5020	4.19
102)	Isopropylbenzene	1.098	1.211	1.399	1.400	1.416	1.287	1.3016	9.85

Response Factor Report VOA9

Method Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Method File : P9040423W.M
 Title : PIANO VOLATILES
 Last Update : Wed Apr 05 08:18:42 2023
 Response Via : Initial Calibration

Calibration Files

2 =V9004408.D 5 =V9004409.D 50 =V9004411.D 100 =V9004412.D 200 =V9004413.D 20 =V9004410.D

Compound	2	5	50	100	200	20	Avg	%RSD
103) 3,3-Dimethyloctane	0.503	0.616	0.779	0.783	0.806	0.709	0.6992	16.93
104) n-Propylbenzene	1.077	1.251	1.628	1.631	1.654	1.462	1.4504	16.47
105) 2-Methylnonane	0.229	0.284	0.413	0.411	0.424	0.359	0.3534	22.68
106) 3-Methylnonane	0.314	0.384	0.552	0.555	0.574	0.478	0.4762	22.29
107) 1-Methyl-3-ethylbenzene	0.959	1.127	1.436	1.437	1.468	1.309	1.2892	15.93
108) 1-Methyl-4-ethylbenzene	0.932	1.094	1.385	1.396	1.424	1.246	1.2462	15.85
109) 1,3,5-Trimethylbenzene	0.752	0.887	1.203	1.222	1.248	1.063	1.0627	19.15
110) 1-Decene	0.132	0.158	0.245	0.253	0.263	0.208	0.2100	25.89#
111) Isobutylcyclohexane	0.375	0.456	0.568	0.575	0.601	0.524	0.5164	16.66
112) 1-Methyl-2-ethylbenzene	1.001	1.200	1.457	1.474	1.485	1.323	1.3232	14.56
113) Decane	0.260	0.310	0.426	0.437	0.448	0.369	0.3750	20.42
114) tert-Butylbenzene	0.752	0.889	1.085	1.096	1.114	0.979	0.9859	14.53
115) 1,2,4-Trimethylbenzene	0.819	0.957	1.280	1.300	1.323	1.113	1.1320	18.34
116) Isobutylbenzene	0.929	1.096	1.384	1.387	1.391	1.244	1.2386	15.42
117) sec-Butylbenzene	1.103	1.294	1.593	1.607	1.610	1.438	1.4407	14.41
118) 1-Methyl-3-isopropylbenzene	0.903	1.058	1.394	1.415	1.434	1.221	1.2376	17.68
119) 1-Methyl-4-isopropylbenzene	0.890	1.059	1.391	1.405	1.421	1.219	1.2308	17.72
120) 1,2,3-Trimethylbenzene	0.868	1.003	1.337	1.346	1.355	1.156	1.1776	17.48
121) 1-Methyl-2-isopropylbenzene	0.919	1.102	1.411	1.426	1.433	1.242	1.2555	16.78
122) Indan	0.891	1.012	1.273	1.283	1.276	1.123	1.1429	14.38
123) 1,3-Diethylbenzene	0.572	0.676	0.901	0.916	0.924	0.780	0.7948	18.35
124) 1-Methyl-3-propylbenzene	1.059	1.259	1.677	1.703	1.699	1.458	1.4757	18.27
125) Indene	0.787	0.927	1.235	1.247	1.224	1.053	1.0787	17.72
126) 1-Methyl-4-propylbenzene	1.287	1.500	2.000	2.016	1.970	1.714	1.7478	17.35
127) n-Butylbenzene	1.045	1.197	1.548	1.550	1.518	1.349	1.3679	15.42
128) 1,2-Dimethyl-4-ethylbenzene	0.971	1.118	1.523	1.554	1.534	1.281	1.3302	18.57
129) 1,2-Diethylbenzene	0.484	0.555	0.723	0.733	0.723	0.625	0.6406	16.27
130) 1-Methyl-2-propylbenzene	1.181	1.339	1.814	1.818	1.794	1.549	1.5823	17.31
131) 1,4-Dimethyl-2-ethylbenzene	0.891	1.008	1.420	1.434	1.440	1.179	1.2284	19.56
132) Undecane	0.361	0.421	0.574	0.566	0.521	0.490	0.4888	17.18
133) 1,3-Dimethyl-4-ethylbenzene	1.118	1.287	1.712	1.742	1.714	1.457	1.5052	17.38
134) 1,3-Dimethyl-5-ethylbenzene	0.999	1.116	1.549	1.571	1.549	1.301	1.3476	18.43
135) 1,3-Dimethyl-2-ethylbenzene	1.119	1.240	1.677	1.695	1.681	1.413	1.4709	17.12

Response Factor Report VOA9

Method Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Method File : P9040423W.M
 Title : PIANO VOLATILES
 Last Update : Wed Apr 05 08:18:42 2023
 Response Via : Initial Calibration

Calibration Files

2 =V9004408.D 5 =V9004409.D 50 =V9004411.D 100 =V9004412.D 200 =V9004413.D 20 =V9004410.D

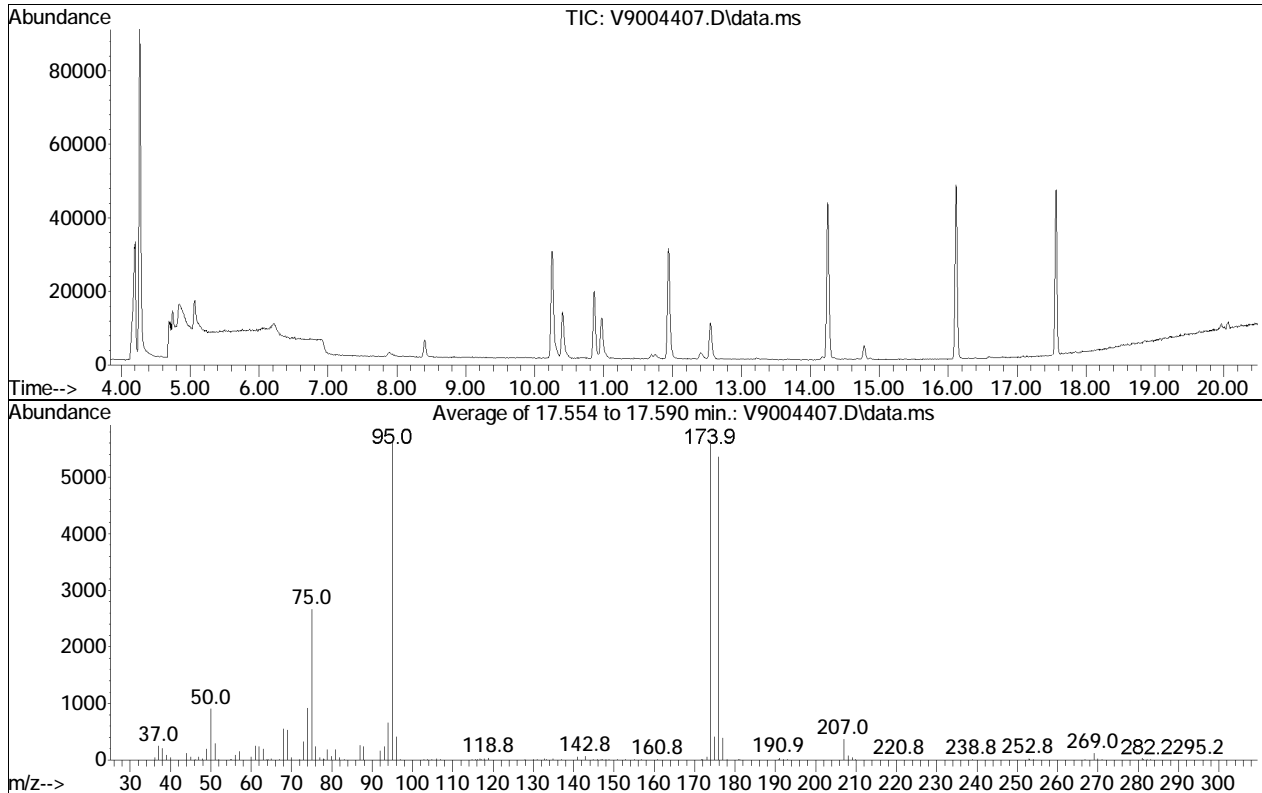
Compound	2	5	50	100	200	20	Avg	%RSD
136) 1,2-Dimethyl-3-ethylbenzene	0.998	1.101	1.512	1.531	1.532	1.264	1.3229	17.93
137) 1,2,4,5-Tetramethylbenzene	1.020	1.155	1.582	1.606	1.618	1.329	1.3851	18.57
138) 1,2,3,5-Tetramethylbenzene	0.952	1.089	1.459	1.473	1.472	1.238	1.2804	17.51
139) Pentylbenzene	0.910	0.994	1.335	1.334	1.333	1.138	1.1739	16.15
140) 1,2,3,4-Tetramethylbenzene	1.297	1.463	1.952	1.973	1.974	1.657	1.7195	17.08
141) 1,3-DM-5-tert-Butylbenzene	0.874	0.983	1.365	1.387	1.384	1.152	1.1907	18.83
142) Dodecane	0.288	0.334	0.415	0.339	0.275	0.383	0.3390	15.89
143) 1,3,5-Triethylbenzene	0.549	0.621	0.865	0.878	0.900	0.726	0.7565	19.53
144) Naphthalene	1.377	1.427	1.775	1.761	1.757	1.532	1.6048	11.35
145) Benzothiophene	0.781	0.840	1.066	1.061	1.062	0.914	0.9542	13.27
146) 1,2,4-Triethylbenzene	0.522	0.566	0.808	0.823	0.834	0.679	0.7055	19.51
147) Hexylbenzene	0.777	0.885	1.214	1.193	1.188	1.053	1.0519	17.42
148) MMT	0.429	0.483	0.660	0.665	0.669	0.556	0.5769	18.03
149) Tridecane	0.356	0.454	0.456	0.344	0.300	0.479	0.3983	18.60
150) 2-Methylnaphthalene	0.815	0.905	1.209	1.208	1.221	1.034	1.0654	16.50
151) 1-Methylnaphthalene	0.748	0.803	1.079	1.078	1.090	0.915	0.9523	16.01
152) Tetradecane	0.310	0.374	0.316	0.253	0.245	0.319	0.3025	15.79
153) Pentadecane	0.200	0.220	0.228	0.198	0.201	0.193	0.2067	6.74

(#) = Out of Range

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004407.D
 Acq On : 04 Apr 2023 11:09 pm
 Operator : VOA9:RAY
 Sample : WG1762942-1,31
 Misc : WG1762942
 ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Title : PIANO VOLATILES
 Last Update : Wed Apr 05 08:18:42 2023



Spectrum Information: Average of 17.554 to 17.590 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.0	906	PASS
75	95	30	60	47.2	2664	PASS
95	95	100	100	100.0	5644	PASS
96	95	5	9	7.2	406	PASS
173	174	0.00	2	0.9	52	PASS
174	95	50	100	99.9	5636	PASS
175	174	5	9	7.4	415	PASS
176	174	95	101	95.1	5359	PASS
177	176	5	9	7.4	395	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004408.D
 Acq On : 04 Apr 2023 11:39 pm
 Operator : VOA9:RAY
 Sample : I904042301
 Misc : WG1762942
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 08:17:47 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	291299	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.11	113	84315	49.303	ug/L	0.00
Spiked Amount 50.000	Range 78 - 118		Recovery =	98.61%		
62) Toluene-d8 (surr)	31.20	98	324326	50.003	ug/L	0.00
Spiked Amount 50.000	Range 87 - 113		Recovery =	100.01%		
64) 2-Bromo-1-chloropropan...	31.44	77	3597M4	1.631	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	3.26%#		
87) 1-Chloro-2-fluorobenze...	40.68	130	7156	1.653	ug/L	0.01
Spiked Amount 50.000	Range 70 - 130		Recovery =	3.31%#		
97) 1,4-Dichlorobutane (H/...	43.96	55	4019M4	1.698	ug/L	0.03
Spiked Amount 50.000	Range 70 - 130		Recovery =	3.40%#		
101) 4-Bromofluorobenzene (...)	46.49	95	137258	45.753	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery =	91.51%		
Target Compounds						
					Qvalue	
2) 3-Methyl-1-butene	7.60	55	6081	1.899	ug/L	96
3) Isopentane	8.15	43	2548	2.195	ug/L	94
4) 1-Pentene	8.82	42	3141	2.010	ug/L	85
5) 2-Methyl-1-butene	9.15	55	4194	1.798	ug/L	89
6) Pentane	9.21	43	3832	2.019	ug/L #	55
7) trans-2-Pentene	9.67	55	4540	1.763	ug/L	95
8) 2-Methyl-1,3-butadiene	9.84	67	3074	1.681	ug/L	95
9) cis-2-Pentene	10.06	55	4241	1.803	ug/L	92
10) Tertiary butanol	10.98	59	4791M4	12.043	ug/L	
11) 2,2-Dimethylbutane	11.09	43	2442	1.811	ug/L #	80
12) 4-Methyl-1-pentene	12.44	43	2847	1.717	ug/L	95
13) Cyclopentane	12.93	70	1964	1.803	ug/L	96
14) 2,3-Dimethylbutane	12.92	71	1483	1.837	ug/L #	92
15) 2-Methylpentane	13.14	43	4316	1.831	ug/L	98
16) MTBE	13.50	73	8219M4	1.750	ug/L	
17) 3-Methylpentane	14.13	57	4232	1.790	ug/L	98
18) 1-Hexene	14.74	56	2213	1.645	ug/L	93
19) Hexane	15.35	57	3584	1.699	ug/L	86
20) Diisopropyl ether	15.68	45	6211M4	1.646	ug/L	
21) trans-2-Hexene	15.85	55	3702	1.567	ug/L	95
22) 2-Methyl-2-pentene	16.02	69	4190	1.552	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004408.D
 Acq On : 04 Apr 2023 11:39 pm
 Operator : VOA9:RAY
 Sample : I904042301
 Misc : WG1762942
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 08:17:47 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
23) cis-2-Hexene	16.59	55	3289	1.542	ug/L	94
25) Ethyl tertiary butyl e...	17.16	59	6790M4	1.560	ug/L	
26) 2,2-Dimethylpentane	17.40	57	4943	1.657	ug/L	97
27) Methylcyclopentane	17.68	56	4465	1.689	ug/L	95
28) 2,4-Dimethylpentane	17.84	43	3431	1.578	ug/L	90
29) 2,2,3-Trimethylbutane	18.46	57	4441	1.640	ug/L	91
30) 1,2-Dichloroethane	19.18	62	3848M4	1.937	ug/L	
31) 3,3-Dimethylpentane	20.13	43	4556M4	1.700	ug/L	
32) Cyclohexane	20.60	56	3680	1.653	ug/L	91
33) 2-Methylhexane	21.04	43	3801	1.635	ug/L	95
34) Benzene	21.24	78	12165	2.032	ug/L	97
35) 2,3-Dimethylpentane	21.35	56	3699	1.705	ug/L	95
36) Thiophene	21.69	84	5554	1.658	ug/L	92
37) 1,1-Dimethylcyclopentane	21.80	83	2506	1.456	ug/L	94
38) 3-Methylhexane	21.85	43	3616M4	1.774	ug/L	
39) TAME	22.27	73	10573	2.355	ug/L	85
40) cis-1,3-Dimethylcyclop...	22.65	70	2823M4	1.921	ug/L	
41) 3-Ethylpentane	22.81	43	4493	1.701	ug/L	94
43) 1-Heptene/trans-1,2-DMCP	23.18	70	4049M4	3.353	ug/L	
44) Isooctane	23.30	57	9502	1.613	ug/L	96
45) trans-3-Heptene	23.92	41	2262	1.407	ug/L	96
46) Heptane	24.06	43	2965	1.579	ug/L	96
48) trans-2-Heptene	24.71	56	2515	1.525	ug/L	93
49) cis-2-Heptene	25.49	56	2196M4	1.470	ug/L	
50) 2,2-Dimethylhexane	26.25	57	8459	1.570	ug/L	98
51) Methylcyclohexane	26.46	83	4234	1.547	ug/L	95
52) 2,5-Dimethylhexane	27.17	57	3996	1.490	ug/L	84
53) 2,4-Dimethylhexane	27.41	57	3312	1.524	ug/L	79
54) Ethylcyclopentane	27.44	69	3726M4	1.649	ug/L	
55) 2,2,3-Trimethylpentane	27.65	57	7259M4	1.641	ug/L	
57) 2,3,4-Trimethylpentane	29.22	43	4522M4	1.626	ug/L	
58) 2,3,3-Trimethylpentane	29.78	43	3876	1.662	ug/L	90
59) 2,3-Dimethylhexane	30.05	43	3910M4	1.564	ug/L	
60) 2-Methylheptane	30.48	57	3542	1.436	ug/L	92
61) 4-Methylheptane	30.67	43	3813	1.398	ug/L	96
63) 3-Methylheptane	31.25	43	4617M4	2.245	ug/L	
65) 3-Ethylhexane	31.35	43	5250M4	1.819	ug/L	
66) Toluene	31.57	91	11517	1.731	ug/L	97
67) 2-Methylthiophene	31.74	97	8739	1.605	ug/L	88
68) trans-1,4-Dimethylcycl...	32.21	97	5181	1.538	ug/L	91
69) 3-Methylthiophene	32.52	97	8721	1.575	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004408.D
 Acq On : 04 Apr 2023 11:39 pm
 Operator : VOA9:RAY
 Sample : I904042301
 Misc : WG1762942
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 08:17:47 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) 1-Octene	32.93	55	1615M4	1.350	ug/L	
71) Octane	33.76	43	3431	1.383	ug/L	95
72) trans-1,2-Dimethylcycl...	34.04	55	3132	1.513	ug/L #	75
73) 1,2-Dibromoethane	34.29	107	2721	1.593	ug/L	98
75) cis-2-Octene	35.14	55	2209	1.240	ug/L	94
76) Isopropylcyclopentane	35.26	68	3972	1.538	ug/L	93
77) cis-1,2-Dimethylcycloh...	37.03	55	2986	1.472	ug/L #	84
78) 2,5-Dimethylheptane	37.38	57	4874	1.333	ug/L	91
79) 3,5-Dimethylheptane	37.51	57	5737	1.268	ug/L	93
80) 3,3-Dimethylheptane	37.76	57	4002	1.395	ug/L	91
81) 1,1,4-Trimethylcyclohe...	38.29	69	4024	1.430	ug/L	90
82) 2,3-Dimethylheptane	39.45	43	4182	1.420	ug/L	99
83) 3,4-Dimethylheptane	39.75	43	2906M4	1.536	ug/L	
84) 4-Methyloctane	40.06	43	4063	1.374	ug/L	93
85) 2-Methyloctane	40.12	43	3689M4	1.404	ug/L	
86) Ethylbenzene	40.65	91	11771	1.499	ug/L	99
88) 2-Ethylthiophene	40.80	97	8487	1.420	ug/L	100
89) 3-Methyloctane	40.79	57	6643	1.321	ug/L	100
90) 3,3-Diethylpentane	41.77	57	7739	1.418	ug/L	95
91) p/m-Xylene	41.92	91	17849M4	2.900	ug/L	
92) 1-Nonene	42.57	56	1475	1.165	ug/L	91
93) trans-3-Nonene	42.98	55	2022	1.085	ug/L	97
94) cis-3-Nonene	43.27	55	2506M4	1.200	ug/L	
95) Nonane	43.34	43	2980M4	1.163	ug/L	
96) Styrene	43.79	104	6359M4	1.219	ug/L	
98) o-Xylene	44.18	91	9479	1.489	ug/L	91
99) 2-Nonene	44.61	55	2265M4	1.183	ug/L	
100) Isopropylcyclohexane	45.88	83	3930M4	1.355	ug/L	
102) Isopropylbenzene	46.51	105	12789	1.570	ug/L	98
103) 3,3-Dimethyloctane	47.01	71	5866	1.292	ug/L	93
104) n-Propylbenzene	48.96	91	12546	1.322	ug/L	91
105) 2-Methylnonane	49.01	43	2672	1.110	ug/L	98
106) 3-Methylnonane	49.40	57	3657	1.136	ug/L	97
107) 1-Methyl-3-ethylbenzene	49.54	105	11169	1.335	ug/L	99
108) 1-Methyl-4-ethylbenzene	49.71	105	10857	1.346	ug/L	98
109) 1,3,5-Trimethylbenzene	50.26	105	8764	1.250	ug/L	98
110) 1-Decene	50.39	41	1538M4	1.076	ug/L	
111) Isobutylcyclohexane	50.54	83	4368	1.320	ug/L	98
112) 1-Methyl-2-ethylbenzene	50.58	105	11668	1.375	ug/L	100
113) Decane	50.75	43	3029	1.222	ug/L	95
114) tert-Butylbenzene	51.01	119	8761	1.386	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004408.D
 Acq On : 04 Apr 2023 11:39 pm
 Operator : VOA9:RAY
 Sample : I904042301
 Misc : WG1762942
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 08:17:47 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
115) 1,2,4-Trimethylbenzene	51.42	105	9547	1.280	ug/L	100
116) Isobutylbenzene	51.61	91	10827M6	1.343	ug/L	
117) sec-Butylbenzene	51.66	105	12848	1.384	ug/L	94
118) 1-Methyl-3-isopropylbe...	52.04	119	10516	1.294	ug/L	98
119) 1-Methyl-4-isopropylbe...	52.24	119	10375	1.281	ug/L	97
120) 1,2,3-Trimethylbenzene	52.50	105	10115	1.299	ug/L	95
121) 1-Methyl-2-isopropylbe...	52.71	119	10709	1.303	ug/L	95
122) Indan	52.79	117	10385	1.400	ug/L	94
123) 1,3-Diethylbenzene	52.94	105	6670	1.270	ug/L	98
124) 1-Methyl-3-propylbenzene	53.06	105	12335	1.262	ug/L	98
125) Indene	53.22	115	9166	1.274	ug/L	92
126) 1-Methyl-4-propylbenzene	53.21	105	14994	1.287	ug/L	95
127) n-Butylbenzene	53.21	91	12177	1.350	ug/L	96
128) 1,2-Dimethyl-4-ethylbe...	53.32	119	11315	1.275	ug/L	99
129) 1,2-Diethylbenzene	53.41	119	5643	1.339	ug/L	100
130) 1-Methyl-2-propylbenzene	53.61	105	13759	1.302	ug/L	99
131) 1,4-Dimethyl-2-ethylbe...	53.91	119	10377	1.255	ug/L	97
132) Undecane	53.95	57	4202	1.257	ug/L	95
133) 1,3-Dimethyl-4-ethylbe...	54.00	119	13032	1.306	ug/L	99
134) 1,3-Dimethyl-5-ethylbe...	54.13	119	11638	1.289	ug/L	97
135) 1,3-Dimethyl-2-ethylbe...	54.35	119	13038	1.335	ug/L	99
136) 1,2-Dimethyl-3-ethylbe...	54.72	119	11623	1.320	ug/L	98
137) 1,2,4,5-Tetramethylben...	55.12	119	11888	1.290	ug/L	96
138) 1,2,3,5-Tetramethylben...	55.21	119	11098	1.306	ug/L	99
139) Pentylbenzene	55.69	91	10609	1.364	ug/L	95
140) 1,2,3,4-Tetramethylben...	56.03	119	15116	1.329	ug/L	98
141) 1,3-DM-5-tert-Butylben...	56.01	147	10181	1.280	ug/L	99
142) Dodecane	56.18	43	3352	1.385	ug/L	94
143) 1,3,5-Triethylbenzene	56.90	147	6402	1.271	ug/L	98
144) Naphthalene	57.06	128	16039	1.551	ug/L	97
145) Benzothiophene	57.14	134	9104	1.466	ug/L	96
146) 1,2,4-Triethylbenzene	57.47	147	6081	1.291	ug/L	98
147) Hexylbenzene	57.97	91	9058	1.281	ug/L	94
148) MMT	58.23	134	5004	1.301	ug/L	100
149) Tridecane	58.28	57	4144	1.558	ug/L	95
150) 2-Methylnaphthalene	59.84	142	9497	1.349	ug/L	98
151) 1-Methylnaphthalene	60.32	142	8721	1.388	ug/L	98
152) Tetradecane	60.59	57	3612	1.965	ug/L	95
153) Pentadecane	63.42	57	2327	1.752	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004408.D
 Acq On : 04 Apr 2023 11:39 pm
 Operator : VOA9:RAY
 Sample : I904042301
 Misc : WG1762942
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 08:17:47 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

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

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

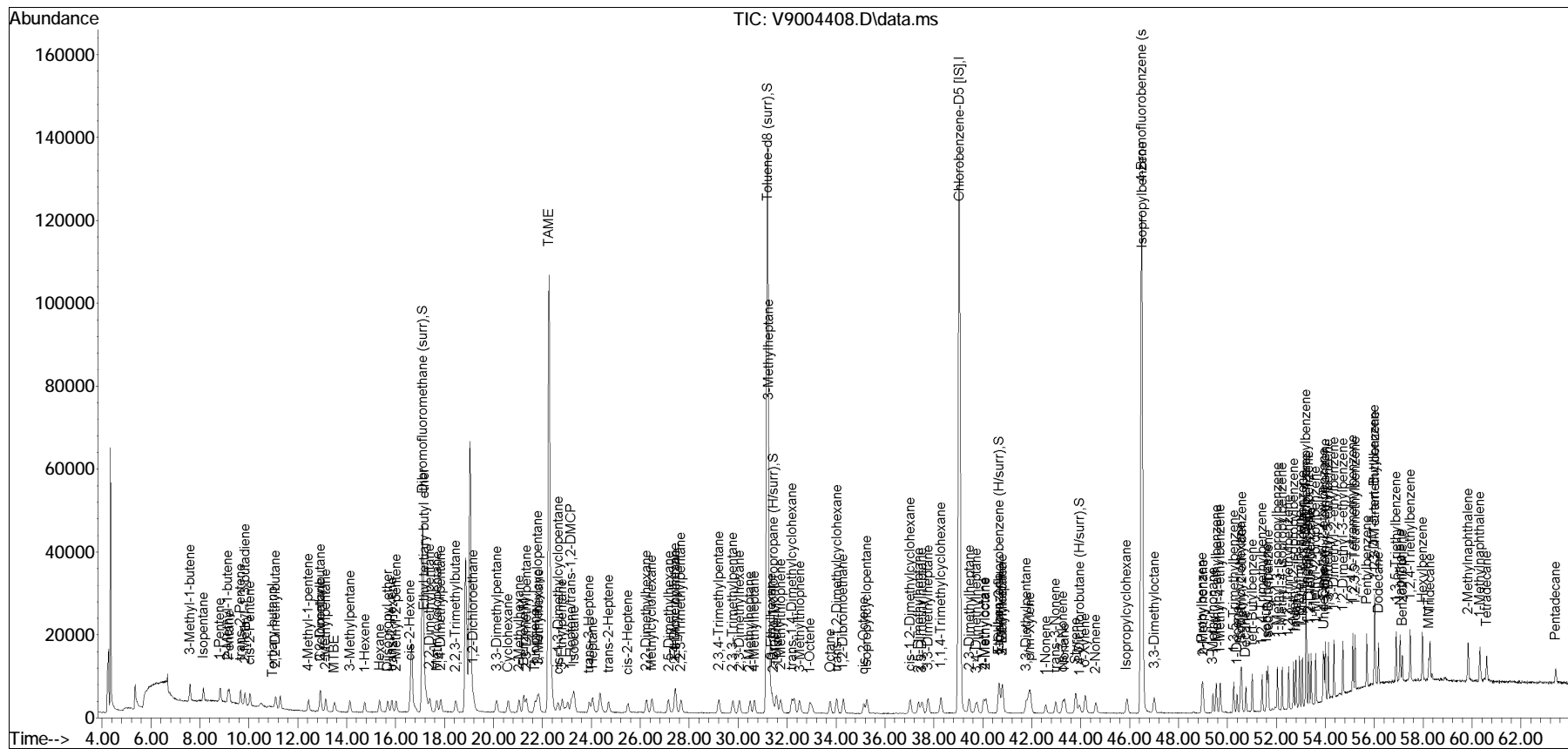
Quantitation Report

(QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
Data File : V9004408.D
Acq On : 04 Apr 2023 11:39 pm
Operator : VOA9:RAY
Sample : I904042301
Misc : WG1762942
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 08:17:47 2023
Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
Quant Title : PIANO VOLATILES
QLast Update : Wed Apr 05 08:03:27 2023
Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004409.D
 Acq On : 05 Apr 2023 12:51 am
 Operator : VOA9:RAY
 Sample : I904042302
 Misc : WG1762942
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 08:09:31 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	293266	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.11	113	84262	48.942	ug/L	0.00
Spiked Amount 50.000	Range 78 - 118		Recovery =	97.88%		
62) Toluene-d8 (surr)	31.20	98	323743	49.578	ug/L	0.00
Spiked Amount 50.000	Range 87 - 113		Recovery =	99.16%		
64) 2-Bromo-1-chloropropan...	31.44	77	8871	3.996	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	7.99%#		
87) 1-Chloro-2-fluorobenze...	40.68	130	19102	4.383	ug/L	0.01
Spiked Amount 50.000	Range 70 - 130		Recovery =	8.77%#		
97) 1,4-Dichlorobutane (H/...	43.95	55	9346	3.923	ug/L	0.02
Spiked Amount 50.000	Range 70 - 130		Recovery =	7.85%#		
101) 4-Bromofluorobenzene (...)	46.49	95	142079	47.042	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery =	94.08%		
Target Compounds						
					Qvalue	
2) 3-Methyl-1-butene	7.59	55	18564	5.760	ug/L	97
3) Isopentane	8.15	43	7285	6.234	ug/L	93
4) 1-Pentene	8.83	42	9221	5.862	ug/L	95
5) 2-Methyl-1-butene	9.14	55	13581	5.784	ug/L	97
6) Pentane	9.20	43	12101	6.333	ug/L	85
7) trans-2-Pentene	9.67	55	14934	5.761	ug/L	98
8) 2-Methyl-1,3-butadiene	9.84	67	10030	5.446	ug/L	95
9) cis-2-Pentene	10.05	55	11289	4.766	ug/L	96
10) Tertiary butanol	10.97	59	9299M4	23.217	ug/L	
11) 2,2-Dimethylbutane	11.09	43	6564	4.834	ug/L	94
12) 4-Methyl-1-pentene	12.43	43	7445	4.460	ug/L	90
13) Cyclopentane	12.92	70	5275	4.811	ug/L	96
14) 2,3-Dimethylbutane	12.93	71	3956	4.869	ug/L #	89
15) 2-Methylpentane	13.13	43	10984	4.629	ug/L	94
16) MTBE	13.51	73	21676M4	4.585	ug/L	
17) 3-Methylpentane	14.13	57	10819	4.545	ug/L	99
18) 1-Hexene	14.73	56	5698	4.207	ug/L	98
19) Hexane	15.34	57	9533	4.490	ug/L	96
20) Diisopropyl ether	15.68	45	16446M4	4.329	ug/L	
21) trans-2-Hexene	15.83	55	10275	4.320	ug/L	97
22) 2-Methyl-2-pentene	16.03	69	11320	4.165	ug/L	98
23) cis-2-Hexene	16.59	55	9095	4.235	ug/L	95
25) Ethyl tertiary butyl e...	17.16	59	18378M4	4.195	ug/L	

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004409.D
 Acq On : 05 Apr 2023 12:51 am
 Operator : VOA9:RAY
 Sample : I904042302
 Misc : WG1762942
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 08:09:31 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 2,2-Dimethylpentane	17.41	57	13571	4.518	ug/L	90
27) Methylcyclopentane	17.69	56	12237	4.597	ug/L	93
28) 2,4-Dimethylpentane	17.84	43	9454	4.318	ug/L	94
29) 2,2,3-Trimethylbutane	18.46	57	12034	4.414	ug/L	93
30) 1,2-Dichloroethane	19.19	62	8658	4.330	ug/L	99
31) 1,3-Dimethylpentane	20.12	43	11758	4.359	ug/L	98
32) Cyclohexane	20.60	56	10069	4.493	ug/L	96
33) 2-Methylhexane	21.05	43	10203	4.359	ug/L	89
34) Benzene	21.25	78	28830	4.783	ug/L	95
35) 2,3-Dimethylpentane	21.33	56	9809	4.490	ug/L	98
36) Thiophene	21.70	84	15114	4.482	ug/L	97
37) 1,1-Dimethylcyclopentane	21.79	83	7529M4	4.344	ug/L	
38) 3-Methylhexane	21.86	43	9316	4.540	ug/L	96
39) TAME	22.26	73	22291	4.932	ug/L	93
40) cis-1,3-Dimethylcyclop...	22.64	70	6186	4.181	ug/L	97
41) 3-Ethylpentane	22.82	43	12193	4.584	ug/L	93
43) 1-Heptene/trans-1,2-DMCP	23.21	70	10277	8.454	ug/L	91
44) Isooctane	23.30	57	26762	4.512	ug/L	95
45) trans-3-Heptene	23.92	41	6620	4.089	ug/L	96
46) Heptane	24.05	43	8469	4.480	ug/L	94
48) trans-2-Heptene	24.70	56	6909	4.162	ug/L	93
49) cis-2-Heptene	25.50	56	6005	3.993	ug/L	98
50) 2,2-Dimethylhexane	26.25	57	23792	4.386	ug/L	100
51) Methylcyclohexane	26.49	83	11779M4	4.275	ug/L	
52) 2,5-Dimethylhexane	27.16	57	11907	4.409	ug/L	95
53) 2,4-Dimethylhexane	27.40	57	9206	4.207	ug/L	90
54) Ethylcyclopentane	27.44	69	9833	4.322	ug/L	90
55) 2,2,3-Trimethylpentane	27.66	57	19937	4.476	ug/L	97
57) 2,3,4-Trimethylpentane	29.21	43	11864	4.239	ug/L	95
58) 2,3,3-Trimethylpentane	29.78	43	10150	4.322	ug/L	97
59) 2,3-Dimethylhexane	30.06	43	10765	4.276	ug/L	97
60) 2-Methylheptane	30.49	57	10401	4.189	ug/L	96
61) 4-Methylheptane	30.67	43	11584	4.219	ug/L	98
63) 3-Methylheptane	31.23	43	10689M4	5.163	ug/L	
65) 3-Ethylhexane	31.35	43	13917	4.791	ug/L	86
66) Toluene	31.56	91	30490	4.552	ug/L	98
67) 2-Methylthiophene	31.73	97	23261	4.243	ug/L	98
68) trans-1,4-Dimethylcycl...	32.19	97	14668	4.324	ug/L	97
69) 3-Methylthiophene	32.50	97	23433	4.203	ug/L	95
70) 1-Octene	32.94	55	4586	3.808	ug/L	95
71) Octane	33.76	43	10155	4.066	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004409.D
 Acq On : 05 Apr 2023 12:51 am
 Operator : VOA9:RAY
 Sample : I904042302
 Misc : WG1762942
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 08:09:31 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) trans-1,2-Dimethylcycl...	34.02	55	9022	4.328	ug/L	# 86
73) 1,2-Dibromoethane	34.28	107	6945	4.037	ug/L	98
75) cis-2-Octene	35.14	55	6831	3.809	ug/L	95
76) Isopropylcyclopentane	35.26	68	11381M4	4.377	ug/L	
77) cis-1,2-Dimethylcycloh...	37.04	55	8580	4.202	ug/L	99
78) 2,5-Dimethylheptane	37.37	57	14473	3.930	ug/L	97
79) 3,5-Dimethylheptane	37.52	57	19289M4	4.236	ug/L	
80) 3,3-Dimethylheptane	37.77	57	11708	4.054	ug/L	98
81) 1,1,4-Trimethylcyclohe...	38.29	69	11704	4.130	ug/L	89
82) 2,3-Dimethylheptane	39.44	43	12277	4.140	ug/L	96
83) 3,4-Dimethylheptane	39.73	43	8336M4	4.377	ug/L	
84) 4-Methyloctane	40.03	43	12080M4	4.058	ug/L	
85) 2-Methyloctane	40.12	43	10380M3	3.925	ug/L	
86) Ethylbenzene	40.67	91	33288	4.210	ug/L	97
88) 2-Ethylthiophene	40.80	97	24355	4.049	ug/L	94
89) 3-Methyloctane	40.79	57	20604	4.071	ug/L	97
90) 3,3-Diethylpentane	41.78	57	22280	4.055	ug/L	96
91) p/m-Xylene	41.90	91	50713	8.185	ug/L	96
92) 1-Nonene	42.57	56	4339	3.404	ug/L	93
93) trans-3-Nonene	42.98	55	6963	3.710	ug/L	96
94) cis-3-Nonene	43.27	55	8180M6	3.892	ug/L	
95) Nonane	43.35	43	9976M6	3.868	ug/L	
96) Styrene	43.79	104	19261	3.668	ug/L	96
98) o-Xylene	44.20	91	26723	4.171	ug/L	99
99) 2-Nonene	44.62	55	7021	3.643	ug/L	98
100) Isopropylcyclohexane	45.90	83	11366	3.892	ug/L	93
102) Isopropylbenzene	46.52	105	35515	4.330	ug/L	97
103) 3,3-Dimethyloctane	47.01	71	18057	3.950	ug/L	95
104) n-Propylbenzene	48.96	91	36676	3.840	ug/L	97
105) 2-Methylnonane	49.01	43	8324	3.434	ug/L	96
106) 3-Methylnonane	49.41	57	11271	3.479	ug/L	95
107) 1-Methyl-3-ethylbenzene	49.54	105	33060	3.926	ug/L	96
108) 1-Methyl-4-ethylbenzene	49.71	105	32096	3.952	ug/L	96
109) 1,3,5-Trimethylbenzene	50.26	105	26007	3.685	ug/L	97
110) 1-Decene	50.39	41	4633	3.220	ug/L	97
111) Isobutylcyclohexane	50.54	83	13368	4.012	ug/L	99
112) 1-Methyl-2-ethylbenzene	50.57	105	35181	4.118	ug/L	97
113) Decane	50.75	43	9088	3.641	ug/L	94
114) tert-Butylbenzene	51.01	119	26069	4.096	ug/L	99
115) 1,2,4-Trimethylbenzene	51.42	105	28053	3.736	ug/L	99
116) Isobutylbenzene	51.60	91	32144M6	3.960	ug/L	

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004409.D
 Acq On : 05 Apr 2023 12:51 am
 Operator : VOA9:RAY
 Sample : I904042302
 Misc : WG1762942
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 08:09:31 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
117)	sec-Butylbenzene	51.66	105	37942	4.061	ug/L	97
118)	1-Methyl-3-isopropylbe...	52.04	119	31040	3.795	ug/L	97
119)	1-Methyl-4-isopropylbe...	52.24	119	31047	3.807	ug/L	97
120)	1,2,3-Trimethylbenzene	52.50	105	29419	3.752	ug/L	96
121)	1-Methyl-2-isopropylbe...	52.71	119	32311	3.904	ug/L	100
122)	Indan	52.80	117	29671	3.974	ug/L	97
123)	1,3-Diethylbenzene	52.94	105	19829	3.750	ug/L	96
124)	1-Methyl-3-propylbenzene	53.06	105	36914	3.752	ug/L	99
125)	Indene	53.22	115	27188	3.754	ug/L	98
126)	1-Methyl-4-propylbenzene	53.21	105	43995	3.751	ug/L	95
127)	n-Butylbenzene	53.21	91	35090	3.864	ug/L	97
128)	1,2-Dimethyl-4-ethylbe...	53.32	119	32794	3.671	ug/L	99
129)	1,2-Diethylbenzene	53.42	119	16275	3.836	ug/L	93
130)	1-Methyl-2-propylbenzene	53.60	105	39274	3.692	ug/L	99
131)	1,4-Dimethyl-2-ethylbe...	53.91	119	29552	3.549	ug/L	98
132)	Undecane	53.95	57	12346	3.668	ug/L	98
133)	1,3-Dimethyl-4-ethylbe...	54.00	119	37747	3.759	ug/L	99
134)	1,3-Dimethyl-5-ethylbe...	54.13	119	32740	3.603	ug/L	100
135)	1,3-Dimethyl-2-ethylbe...	54.35	119	36372	3.699	ug/L	99
136)	1,2-Dimethyl-3-ethylbe...	54.72	119	32289	3.642	ug/L	99
137)	1,2,4,5-Tetramethylben...	55.13	119	33877	3.651	ug/L	98
138)	1,2,3,5-Tetramethylben...	55.21	119	31926	3.732	ug/L	99
139)	Pentylbenzene	55.69	91	29160	3.724	ug/L	97
140)	1,2,3,4-Tetramethylben...	56.02	119	42901	3.746	ug/L	100
141)	1,3-DM-5-tert-Butylben...	56.00	147	28824	3.600	ug/L	100
142)	Dodecane	56.18	43	9803	4.024	ug/L	96
143)	1,3,5-Triethylbenzene	56.90	147	18211	3.590	ug/L	96
144)	Naphthalene	57.05	128	41837	4.018	ug/L	97
145)	Benzothiophene	57.14	134	24648	3.942	ug/L	99
146)	1,2,4-Triethylbenzene	57.47	147	16611	3.504	ug/L	98
147)	Hexylbenzene	57.97	91	25966	3.647	ug/L	98
148)	MMT	58.23	134	14152	3.656	ug/L	95
149)	Tridecane	58.28	57	13326	4.978	ug/L	96
150)	2-Methylnaphthalene	59.83	142	26541	3.744	ug/L	99
151)	1-Methylnaphthalene	60.31	142	23544	3.721	ug/L	100
152)	Tetradecane	60.60	57	10964	5.924	ug/L	96
153)	Pentadecane	63.42	57	6458	4.829	ug/L	97

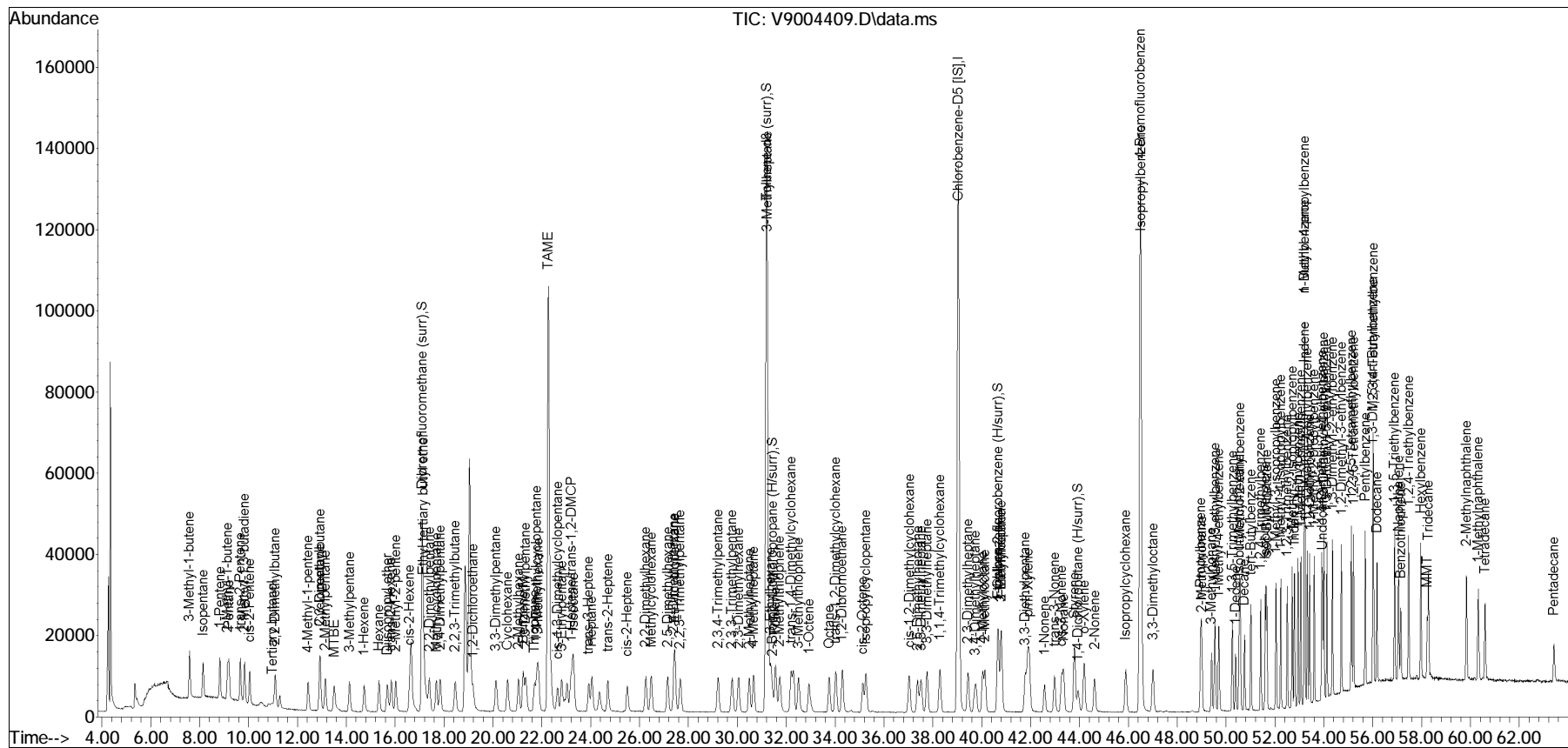
(#) = qualifier out of range (m) = manual integration (+) = signals summed

(QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
Data File : V9004409.D
Acq On : 05 Apr 2023 12:51 am
Operator : VOA9:RAY
Sample : I904042302
Misc : WG1762942
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 05 08:09:31 2023
Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
Quant Title : PIANO VOLATILES
QLast Update : Wed Apr 05 08:03:27 2023
Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004410.D
 Acq On : 05 Apr 2023 02:03 am
 Operator : VOA9:RAY
 Sample : I904042303
 Misc : WG1762942
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 08:11:37 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	296807	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.10	113	86823	49.827	ug/L	0.00
Spiked Amount 50.000	Range 78 - 118		Recovery =	99.65%		
62) Toluene-d8 (surr)	31.20	98	332244	50.273	ug/L	0.00
Spiked Amount 50.000	Range 87 - 113		Recovery =	100.55%		
64) 2-Bromo-1-chloropropan...	31.44	77	41433	18.442	ug/L	0.01
Spiked Amount 50.000	Range 70 - 130		Recovery =	36.88%#		
87) 1-Chloro-2-fluorobenze...	40.67	130	83103	18.839	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	37.68%#		
97) 1,4-Dichlorobutane (H/...	43.93	55	43160	17.901	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	35.80%#		
101) 4-Bromofluorobenzene (...)	46.49	95	148263	48.504	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery =	97.01%		
Target Compounds						
					Qvalue	
2) 3-Methyl-1-butene	7.59	55	69236	21.225	ug/L	99
3) Isopentane	8.14	43	25464	21.530	ug/L	98
4) 1-Pentene	8.83	42	32934	20.685	ug/L	98
5) 2-Methyl-1-butene	9.14	55	48213	20.288	ug/L	99
6) Pentane	9.20	43	40678	21.034	ug/L	97
7) trans-2-Pentene	9.67	55	52617	20.056	ug/L	99
8) 2-Methyl-1,3-butadiene	9.84	67	36993	19.848	ug/L	97
9) cis-2-Pentene	10.05	55	48258	20.132	ug/L	97
10) Tertiary butanol	10.93	59	37438M4	92.359	ug/L	
11) 2,2-Dimethylbutane	11.10	43	27679	20.141	ug/L	95
12) 4-Methyl-1-pentene	12.44	43	32693	19.351	ug/L	98
13) Cyclopentane	12.93	70	22546	20.317	ug/L	99
14) 2,3-Dimethylbutane	12.93	71	16400	19.943	ug/L	100
15) 2-Methylpentane	13.15	43	46601	19.406	ug/L	98
16) MTBE	13.51	73	89017	18.604	ug/L	98
17) 3-Methylpentane	14.13	57	46801	19.425	ug/L	100
18) 1-Hexene	14.73	56	25803	18.825	ug/L	98
19) Hexane	15.34	57	41815	19.458	ug/L	99
20) Diisopropyl ether	15.68	45	71383	18.567	ug/L	97
21) trans-2-Hexene	15.84	55	46158	19.175	ug/L	97
22) 2-Methyl-2-pentene	16.03	69	51992	18.903	ug/L	97
23) cis-2-Hexene	16.60	55	41103	18.911	ug/L	99
25) Ethyl tertiary butyl e...	17.16	59	81851	18.460	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004410.D
 Acq On : 05 Apr 2023 02:03 am
 Operator : VOA9:RAY
 Sample : I904042303
 Misc : WG1762942
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 08:11:37 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 2,2-Dimethylpentane	17.40	57	59301	19.508	ug/L	96
27) Methylcyclopentane	17.69	56	51983	19.296	ug/L	99
28) 2,4-Dimethylpentane	17.85	43	41524	18.740	ug/L	98
29) 2,2,3-Trimethylbutane	18.46	57	52576	19.055	ug/L	97
30) 1,2-Dichloroethane	19.18	62	38009	18.781	ug/L	95
31) 3,3-Dimethylpentane	20.13	43	51970	19.037	ug/L	97
32) Cyclohexane	20.61	56	43873	19.342	ug/L	97
33) 2-Methylhexane	21.05	43	45583	19.240	ug/L	99
34) Benzene	21.24	78	118325	19.396	ug/L	96
35) 2,3-Dimethylpentane	21.35	56	41632	18.830	ug/L	98
36) Thiophene	21.70	84	65178	19.098	ug/L	97
37) 1,1-Dimethylcyclopentane	21.80	83	33932	19.342	ug/L	99
38) 3-Methylhexane	21.86	43	39740	19.134	ug/L	98
39) TAME	22.25	73	85727	18.742	ug/L	96
40) cis-1,3-Dimethylcyclop...	22.64	70	28341	18.924	ug/L	95
41) 3-Ethylpentane	22.82	43	52182	19.385	ug/L	97
43) 1-Heptene/trans-1,2-DMCP	23.20	70	46544	37.829	ug/L	92
44) Isooctane	23.30	57	115282	19.204	ug/L	99
45) trans-3-Heptene	23.92	41	28577	17.442	ug/L	99
46) Heptane	24.05	43	36046	18.839	ug/L	99
48) trans-2-Heptene	24.70	56	31230	18.588	ug/L	97
49) cis-2-Heptene	25.50	56	27470	18.049	ug/L	99
50) 2,2-Dimethylhexane	26.26	57	104048	18.952	ug/L	98
51) Methylcyclohexane	26.48	83	52850	18.951	ug/L	98
52) 2,5-Dimethylhexane	27.15	57	51896	18.985	ug/L	99
53) 2,4-Dimethylhexane	27.41	57	41613	18.789	ug/L	97
54) Ethylcyclopentane	27.45	69	43335	18.818	ug/L	97
55) 2,2,3-Trimethylpentane	27.67	57	85947	19.066	ug/L	99
57) 2,3,4-Trimethylpentane	29.22	43	53532	18.897	ug/L	97
58) 2,3,3-Trimethylpentane	29.78	43	45058	18.957	ug/L	99
59) 2,3-Dimethylhexane	30.05	43	47496	18.641	ug/L	100
60) 2-Methylheptane	30.48	57	47062	18.728	ug/L	96
61) 4-Methylheptane	30.66	43	52219	18.793	ug/L	98
63) 3-Methylheptane	31.23	43	38737	18.487	ug/L	95
65) 3-Ethylhexane	31.36	43	56404	19.185	ug/L	96
66) Toluene	31.56	91	129058	19.036	ug/L	97
67) 2-Methylthiophene	31.73	97	101810	18.350	ug/L	100
68) trans-1,4-Dimethylcycl...	32.20	97	63778	18.579	ug/L	99
69) 3-Methylthiophene	32.50	97	103399	18.325	ug/L	99
70) 1-Octene	32.92	55	21763	17.854	ug/L	99
71) Octane	33.75	43	46640	18.451	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004410.D
 Acq On : 05 Apr 2023 02:03 am
 Operator : VOA9:RAY
 Sample : I904042303
 Misc : WG1762942
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 08:11:37 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) trans-1,2-Dimethylcycl...	34.03	55	39962	18.942	ug/L	97
73) 1,2-Dibromoethane	34.29	107	31736	18.230	ug/L	100
75) cis-2-Octene	35.14	55	32446	17.876	ug/L	99
76) Isopropylcyclopentane	35.26	68	49912	18.966	ug/L	97
77) cis-1,2-Dimethylcycloh...	37.03	55	37876	18.330	ug/L	95
78) 2,5-Dimethylheptane	37.37	57	70665	18.961	ug/L	100
79) 3,5-Dimethylheptane	37.51	57	88076M4	19.112	ug/L	
80) 3,3-Dimethylheptane	37.76	57	54127	18.520	ug/L	97
81) 1,1,4-Trimethylcyclohe...	38.30	69	53920	18.800	ug/L	100
82) 2,3-Dimethylheptane	39.45	43	55547	18.507	ug/L	100
83) 3,4-Dimethylheptane	39.75	43	35839	18.592	ug/L	96
84) 4-Methyloctane	40.04	43	55743	18.503	ug/L	96
85) 2-Methyloctane	40.13	43	50507M3	18.869	ug/L	
86) Ethylbenzene	40.65	91	147627	18.449	ug/L	100
88) 2-Ethylthiophene	40.81	97	112435	18.469	ug/L	100
89) 3-Methyloctane	40.79	57	94922	18.530	ug/L	98
90) 3,3-Diethylpentane	41.78	57	102138	18.367	ug/L	99
91) p/m-Xylene	41.92	91	232028	37.003	ug/L	98
92) 1-Nonene	42.57	56	22204	17.210	ug/L	97
93) trans-3-Nonene	42.97	55	33805	17.797	ug/L	95
94) cis-3-Nonene	43.26	55	38244M6	17.981	ug/L	
95) Nonane	43.34	43	49220M6	18.856	ug/L	
96) Styrene	43.77	104	93533	17.599	ug/L	99
98) o-Xylene	44.18	91	118111	18.214	ug/L	100
99) 2-Nonene	44.62	55	34063	17.464	ug/L	99
100) Isopropylcyclohexane	45.90	83	53910	18.240	ug/L	99
102) Isopropylbenzene	46.52	105	152762	18.401	ug/L	99
103) 3,3-Dimethyloctane	47.01	71	84136	18.185	ug/L	99
104) n-Propylbenzene	48.96	91	173529	17.952	ug/L	100
105) 2-Methylnonane	49.01	43	42656	17.385	ug/L	97
106) 3-Methylnonane	49.41	57	56747	17.306	ug/L	97
107) 1-Methyl-3-ethylbenzene	49.54	105	155427	18.236	ug/L	99
108) 1-Methyl-4-ethylbenzene	49.71	105	147942	17.999	ug/L	100
109) 1,3,5-Trimethylbenzene	50.26	105	126227	17.671	ug/L	99
110) 1-Decene	50.38	41	24676	16.947	ug/L	98
111) Isobutylcyclohexane	50.54	83	62168	18.436	ug/L	99
112) 1-Methyl-2-ethylbenzene	50.58	105	157038	18.161	ug/L	100
113) Decane	50.76	43	43827	17.351	ug/L	98
114) tert-Butylbenzene	51.01	119	116224	18.044	ug/L	99
115) 1,2,4-Trimethylbenzene	51.41	105	132180	17.392	ug/L	99
116) Isobutylbenzene	51.61	91	147736M6	17.985	ug/L	

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004410.D
 Acq On : 05 Apr 2023 02:03 am
 Operator : VOA9:RAY
 Sample : I904042303
 Misc : WG1762942
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 08:11:37 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
117)	sec-Butylbenzene	51.66	105	170688	18.051	ug/L	99
118)	1-Methyl-3-isopropylbe...	52.04	119	144975	17.515	ug/L	100
119)	1-Methyl-4-isopropylbe...	52.24	119	144724	17.533	ug/L	100
120)	1,2,3-Trimethylbenzene	52.50	105	137289	17.301	ug/L	99
121)	1-Methyl-2-isopropylbe...	52.70	119	147434	17.601	ug/L	100
122)	Indan	52.80	117	133276	17.638	ug/L	99
123)	1,3-Diethylbenzene	52.94	105	92548	17.295	ug/L	99
124)	1-Methyl-3-propylbenzene	53.06	105	173132	17.390	ug/L	100
125)	Indene	53.22	115	124977	17.052	ug/L	98
126)	1-Methyl-4-propylbenzene	53.21	105	203456	17.139	ug/L	100
127)	n-Butylbenzene	53.20	91	160131	17.421	ug/L	97
128)	1,2-Dimethyl-4-ethylbe...	53.32	119	152059	16.821	ug/L	99
129)	1,2-Diethylbenzene	53.41	119	74145	17.266	ug/L	100
130)	1-Methyl-2-propylbenzene	53.60	105	183888	17.081	ug/L	99
131)	1,4-Dimethyl-2-ethylbe...	53.91	119	139995	16.613	ug/L	99
132)	Undecane	53.94	57	58193	17.085	ug/L	98
133)	1,3-Dimethyl-4-ethylbe...	54.00	119	173008	17.022	ug/L	99
134)	1,3-Dimethyl-5-ethylbe...	54.13	119	154496	16.799	ug/L	100
135)	1,3-Dimethyl-2-ethylbe...	54.35	119	167797	16.860	ug/L	99
136)	1,2-Dimethyl-3-ethylbe...	54.72	119	150041	16.721	ug/L	100
137)	1,2,4,5-Tetramethylben...	55.12	119	157838	16.808	ug/L	99
138)	1,2,3,5-Tetramethylben...	55.21	119	147010	16.979	ug/L	100
139)	Pentylbenzene	55.69	91	135054	17.044	ug/L	98
140)	1,2,3,4-Tetramethylben...	56.02	119	196763	16.978	ug/L	99
141)	1,3-DM-5-tert-Butylben...	56.00	147	136749	16.878	ug/L	98
142)	Dodecane	56.18	43	45451	18.433	ug/L	98
143)	1,3,5-Triethylbenzene	56.89	147	86204	16.793	ug/L	98
144)	Naphthalene	57.05	128	181920	17.264	ug/L	98
145)	Benzothiophene	57.14	134	108467	17.140	ug/L	99
146)	1,2,4-Triethylbenzene	57.47	147	80605	16.801	ug/L	99
147)	Hexylbenzene	57.97	91	125068	17.355	ug/L	97
148)	MMT	58.23	134	66023	16.853	ug/L	97
149)	Tridecane	58.28	57	56886	20.996	ug/L	98
150)	2-Methylnaphthalene	59.83	142	122805	17.118	ug/L	99
151)	1-Methylnaphthalene	60.31	142	108665	16.968	ug/L	100
152)	Tetradecane	60.60	57	37824	20.195	ug/L	99
153)	Pentadecane	63.42	57	22971	16.971	ug/L	97

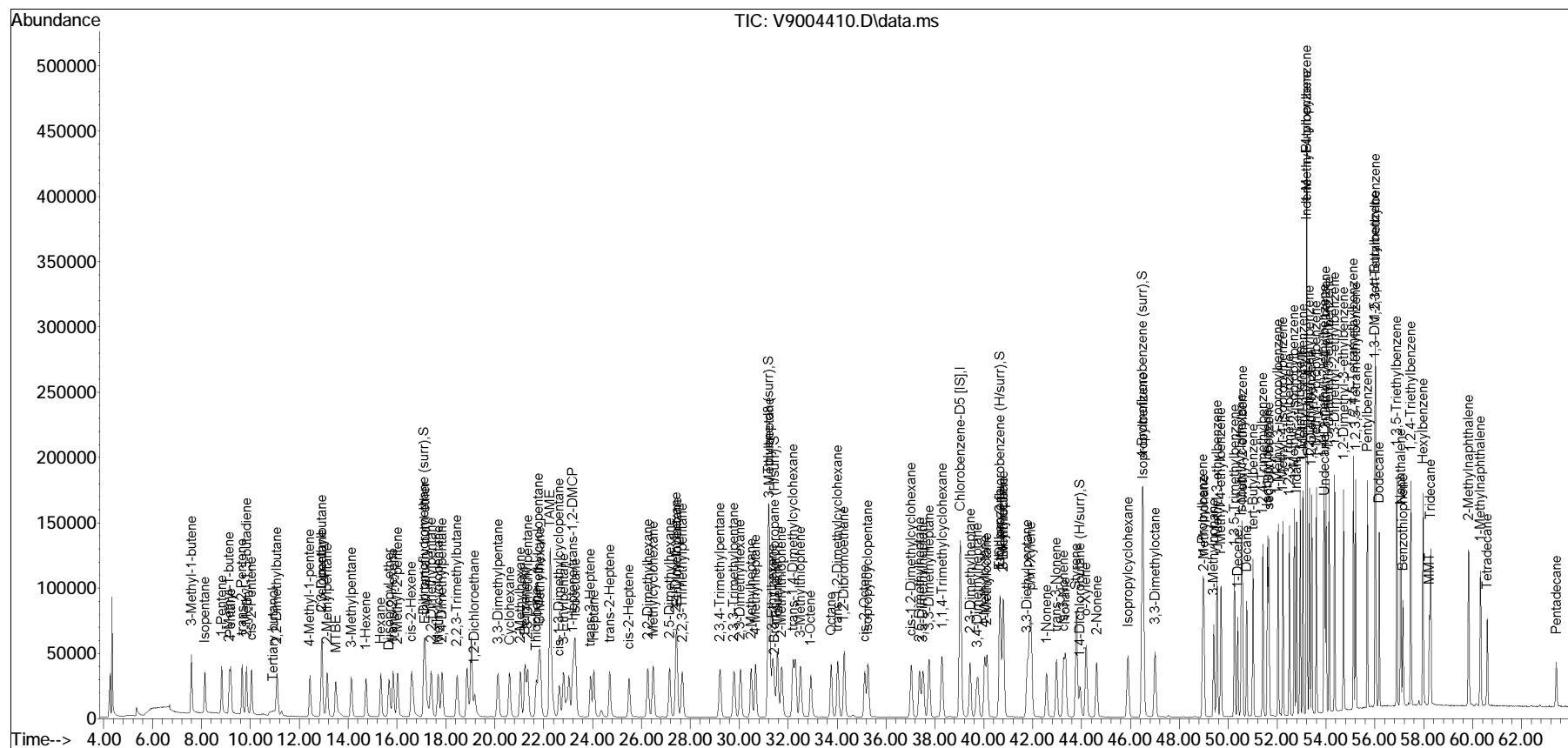
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
Data File : V9004410.D
Acq On : 05 Apr 2023 02:03 am
Operator : VOA9:RAY
Sample : I904042303
Misc : WG1762942
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 05 08:11:37 2023
Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
Quant Title : PIANO VOLATILES
QLast Update : Wed Apr 05 08:03:27 2023
Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004411.D
 Acq On : 05 Apr 2023 03:15 am
 Operator : VOA9:RAY
 Sample : I904042304
 Misc : WG1762942
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 08:02:01 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Mon Feb 13 08:13:49 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	300167	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.10	113	88110	46.321	ug/L	0.00
Spiked Amount 50.000	Range 78 - 118		Recovery =	92.64%		
62) Toluene-d8 (surr)	31.20	98	334181	45.603	ug/L	0.00
Spiked Amount 50.000	Range 87 - 113		Recovery =	91.21%		
64) 2-Bromo-1-chloropropan...	31.43	77	113606	55.355	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	110.71%		
87) 1-Chloro-2-fluorobenze...	40.67	130	223054	54.263	ug/L	-0.01
Spiked Amount 50.000	Range 70 - 130		Recovery =	108.53%		
97) 1,4-Dichlorobutane (H/...	43.93	55	121915	60.184	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	120.37%		
101) 4-Bromofluorobenzene (...)	46.49	95	154566	54.779	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 120		Recovery =	109.56%		
Target Compounds						
					Qvalue	
2) 3-Methyl-1-butene	7.59	55	164947	47.683	ug/L	98
3) Isopentane	8.14	43	59805	37.563	ug/L	97
4) 1-Pentene	8.83	42	80508	49.992	ug/L	99
5) 2-Methyl-1-butene	9.15	55	120164	49.992	ug/L	99
6) Pentane	9.20	43	97790	49.136	ug/L	98
7) trans-2-Pentene	9.67	55	132657	50.870	ug/L	99
8) 2-Methyl-1,3-butadiene	9.84	67	94245	51.286	ug/L	97
9) cis-2-Pentene	10.05	55	121213	50.316	ug/L	99
10) Tertiary butanol	10.96	59	102486M4	249.181	ug/L	
11) 2,2-Dimethylbutane	11.09	43	69491	50.781	ug/L	98
12) 4-Methyl-1-pentene	12.44	43	85431	53.075	ug/L	99
13) Cyclopentane	12.93	70	56115	51.524	ug/L	98
14) 2,3-Dimethylbutane	12.93	71	41583	51.241	ug/L	96
15) 2-Methylpentane	13.14	43	121429	52.482	ug/L	99
16) MTBE	13.49	73	241948	52.742	ug/L	99
17) 3-Methylpentane	14.13	57	121832	53.056	ug/L	97
18) 1-Hexene	14.73	56	69309	54.656	ug/L	98
19) Hexane	15.33	57	108668	45.994	ug/L	99
20) Diisopropyl ether	15.67	45	194408	55.727	ug/L	99
21) trans-2-Hexene	15.84	55	121723	53.404	ug/L	99
22) 2-Methyl-2-pentene	16.02	69	139082	54.069	ug/L	98
23) cis-2-Hexene	16.59	55	109905	55.306	ug/L	97
25) Ethyl tertiary butyl e...	17.15	59	224206	55.524	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004411.D
 Acq On : 05 Apr 2023 03:15 am
 Operator : VOA9:RAY
 Sample : I904042304
 Misc : WG1762942
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 08:02:01 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Mon Feb 13 08:13:49 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 2,2-Dimethylpentane	17.40	57	153709	53.822	ug/L	99
27) Methylcyclopentane	17.68	56	136223	53.850	ug/L	99
28) 2,4-Dimethylpentane	17.84	43	112043	54.371	ug/L	98
29) 2,2,3-Trimethylbutane	18.45	57	139518	53.509	ug/L	97
30) 1,2-Dichloroethane	19.18	62	102333	51.919	ug/L	100
31) 3,3-Dimethylpentane	20.12	43	138043	55.059	ug/L	97
32) Cyclohexane	20.60	56	114698	55.334	ug/L	100
33) 2-Methylhexane	21.05	43	119800	55.258	ug/L	98
34) Benzene	21.24	78	308483	50.742	ug/L	98
35) 2,3-Dimethylpentane	21.35	56	111801	54.157	ug/L	99
36) Thiophene	21.70	84	172576	54.519	ug/L	99
37) 1,1-Dimethylcyclopentane	21.80	83	88707	54.428	ug/L	98
38) 3-Methylhexane	21.86	43	105020	55.055	ug/L	98
39) TAME	22.25	73	231292	48.520	ug/L	97
40) cis-1,3-Dimethylcyclop...	22.64	70	75727	52.849	ug/L	98
41) 3-Ethylpentane	22.81	43	136120	54.111	ug/L	99
43) 1-Heptene/trans-1,2-DMCP	23.21	70	124430	108.250	ug/L	91
44) Isooctane	23.30	57	303549	54.385	ug/L	98
45) trans-3-Heptene	23.91	41	82849	55.747	ug/L	98
46) Heptane	24.05	43	96752	55.597	ug/L	98
48) trans-2-Heptene	24.70	56	84955	55.000	ug/L	96
49) cis-2-Heptene	25.49	56	76960	56.912	ug/L	99
50) 2,2-Dimethylhexane	26.26	57	277611	54.957	ug/L	99
51) Methylcyclohexane	26.49	83	141015	54.914	ug/L	99
52) 2,5-Dimethylhexane	27.15	57	138221	55.738	ug/L	99
53) 2,4-Dimethylhexane	27.41	57	111989	54.447	ug/L	100
54) Ethylcyclopentane	27.45	69	116445	55.043	ug/L	99
55) 2,2,3-Trimethylpentane	27.67	57	227948	54.490	ug/L	98
57) 2,3,4-Trimethylpentane	29.21	43	143245	56.698	ug/L	98
58) 2,3,3-Trimethylpentane	29.79	43	120187	56.320	ug/L	96
59) 2,3-Dimethylhexane	30.05	43	128840	56.808	ug/L	98
60) 2-Methylheptane	30.48	57	127066	57.136	ug/L	98
61) 4-Methylheptane	30.66	43	140508	57.642	ug/L	98
63) 3-Methylheptane	31.23	43	105955	53.400	ug/L	99
65) 3-Ethylhexane	31.36	43	148667	54.607	ug/L	95
66) Toluene	31.56	91	342819	53.220	ug/L	99
67) 2-Methylthiophene	31.73	97	280548	55.233	ug/L	98
68) trans-1,4-Dimethylcycl...	32.20	97	173585	55.300	ug/L	98
69) 3-Methylthiophene	32.50	97	285316	55.159	ug/L	97
70) 1-Octene	32.92	55	61638	58.789	ug/L	98
71) Octane	33.76	43	127819	58.703	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004411.D
 Acq On : 05 Apr 2023 03:15 am
 Operator : VOA9:RAY
 Sample : I904042304
 Misc : WG1762942
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 08:02:01 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Mon Feb 13 08:13:49 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) trans-1,2-Dimethylcycl...	34.03	55	106677	55.705	ug/L	99
73) 1,2-Dibromoethane	34.28	107	88031	53.954	ug/L	98
75) cis-2-Octene	35.13	55	91781	58.367	ug/L	96
76) Isopropylcyclopentane	35.26	68	133071	54.402	ug/L	98
77) cis-1,2-Dimethylcycloh...	37.03	55	104487	56.378	ug/L	98
78) 2,5-Dimethylheptane	37.37	57	188456	57.793	ug/L	100
79) 3,5-Dimethylheptane	37.51	57	233033M4	59.315	ug/L	
80) 3,3-Dimethylheptane	37.76	57	147786	57.335	ug/L	97
81) 1,1,4-Trimethylcyclohe...	38.29	69	145025	57.013	ug/L	97
82) 2,3-Dimethylheptane	39.44	43	151768	58.130	ug/L	97
83) 3,4-Dimethylheptane	39.75	43	97472	57.575	ug/L	99
84) 4-Methyloctane	40.04	43	152337	57.310	ug/L	96
85) 2-Methyloctane	40.14	43	135351M4	59.045	ug/L	
86) Ethylbenzene	40.65	91	404614	55.599	ug/L	100
88) 2-Ethylthiophene	40.80	97	307841	56.171	ug/L	99
89) 3-Methyloctane	40.79	57	259027	57.709	ug/L	100
90) 3,3-Diethylpentane	41.78	57	281202	57.277	ug/L	99
91) p/m-Xylene	41.90	91	634148	112.616	ug/L	100
92) 1-Nonene	42.57	56	65240	60.437	ug/L	99
93) trans-3-Nonene	42.97	55	96048	59.722	ug/L	96
94) cis-3-Nonene	43.26	55	107551M6	57.021	ug/L	
95) Nonane	43.34	43	131996M6	58.538	ug/L	
96) Styrene	43.78	104	268749	56.843	ug/L	97
98) o-Xylene	44.18	91	327908	56.633	ug/L	100
99) 2-Nonene	44.61	55	98626	58.992	ug/L	97
100) Isopropylcyclohexane	45.90	83	149451	56.114	ug/L	98
102) Isopropylbenzene	46.52	105	419795	55.170	ug/L	99
103) 3,3-Dimethyloctane	47.01	71	233949	56.944	ug/L	98
104) n-Propylbenzene	48.96	91	488786	57.667	ug/L	100
105) 2-Methylnonane	49.01	43	124066	59.764	ug/L	98
106) 3-Methylnonane	49.41	57	165807	59.824	ug/L	99
107) 1-Methyl-3-ethylbenzene	49.54	105	430975	57.405	ug/L	99
108) 1-Methyl-4-ethylbenzene	49.70	105	415631	57.324	ug/L	99
109) 1,3,5-Trimethylbenzene	50.26	105	361209	58.173	ug/L	99
110) 1-Decene	50.39	41	73626	60.010	ug/L	99
111) Isobutylcyclohexane	50.54	83	170517	55.444	ug/L	98
112) 1-Methyl-2-ethylbenzene	50.58	105	437242	56.340	ug/L	100
113) Decane	50.75	43	127723	60.159	ug/L	100
114) tert-Butylbenzene	51.01	119	325704	56.648	ug/L	98
115) 1,2,4-Trimethylbenzene	51.41	105	384305	58.376	ug/L	100
116) Isobutylbenzene	51.61	91	415368M6	57.189	ug/L	

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004411.D
 Acq On : 05 Apr 2023 03:15 am
 Operator : VOA9:RAY
 Sample : I904042304
 Misc : WG1762942
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 08:02:01 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Mon Feb 13 08:13:49 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
117)	sec-Butylbenzene	51.66	105	478135	56.633	ug/L	99
118)	1-Methyl-3-isopropylbe...	52.04	119	418550	57.485	ug/L	99
119)	1-Methyl-4-isopropylbe...	52.24	119	417391	58.234	ug/L	99
120)	1,2,3-Trimethylbenzene	52.50	105	401251	59.157	ug/L	98
121)	1-Methyl-2-isopropylbe...	52.70	119	423572	57.347	ug/L	99
122)	Indan	52.80	117	382082	57.240	ug/L	99
123)	1,3-Diethylbenzene	52.94	105	270588	58.864	ug/L	99
124)	1-Methyl-3-propylbenzene	53.05	105	503440	58.624	ug/L	99
125)	Indene	53.22	115	370600	57.638	ug/L	98
126)	1-Methyl-4-propylbenzene	53.21	105	600254	58.955	ug/L	100
127)	n-Butylbenzene	53.21	91	464782	58.202	ug/L	99
128)	1,2-Dimethyl-4-ethylbe...	53.32	119	457121	58.304	ug/L	99
129)	1,2-Diethylbenzene	53.41	119	217140	58.185	ug/L	100
130)	1-Methyl-2-propylbenzene	53.60	105	544378	59.088	ug/L	99
131)	1,4-Dimethyl-2-ethylbe...	53.91	119	426119	59.576	ug/L	100
132)	Undecane	53.94	57	172236	62.467	ug/L	99
133)	1,3-Dimethyl-4-ethylbe...	54.00	119	513933	57.816	ug/L	100
134)	1,3-Dimethyl-5-ethylbe...	54.13	119	465048	59.283	ug/L	100
135)	1,3-Dimethyl-2-ethylbe...	54.35	119	503260	58.590	ug/L	99
136)	1,2-Dimethyl-3-ethylbe...	54.72	119	453739	58.523	ug/L	99
137)	1,2,4,5-Tetramethylben...	55.12	119	474851	59.350	ug/L	98
138)	1,2,3,5-Tetramethylben...	55.21	119	437821	59.198	ug/L	100
139)	Pentylbenzene	55.69	91	400688	59.602	ug/L	99
140)	1,2,3,4-Tetramethylben...	56.02	119	586029	58.704	ug/L	98
141)	1,3-DM-5-tert-Butylben...	56.01	147	409703	58.539	ug/L	100
142)	Dodecane	56.18	43	124684	66.323	ug/L	98
143)	1,3,5-Triethylbenzene	56.90	147	259578	59.149	ug/L	99
144)	Naphthalene	57.05	128	532842	54.633	ug/L	99
145)	Benzothiophene	57.14	134	320001	52.878	ug/L	99
146)	1,2,4-Triethylbenzene	57.47	147	242596	58.581	ug/L	99
147)	Hexylbenzene	57.97	91	364408	60.817	ug/L	99
148)	MMT	58.23	134	198098	57.751	ug/L	98
149)	Tridecane	58.28	57	137003	63.651	ug/L	99
150)	2-Methylnaphthalene	59.83	142	362767	56.794	ug/L	100
151)	1-Methylnaphthalene	60.32	142	323826	56.090	ug/L	99
152)	Tetradecane	60.60	57	94709	62.273	ug/L	99
153)	Pentadecane	63.42	57	68442	68.637	ug/L	97

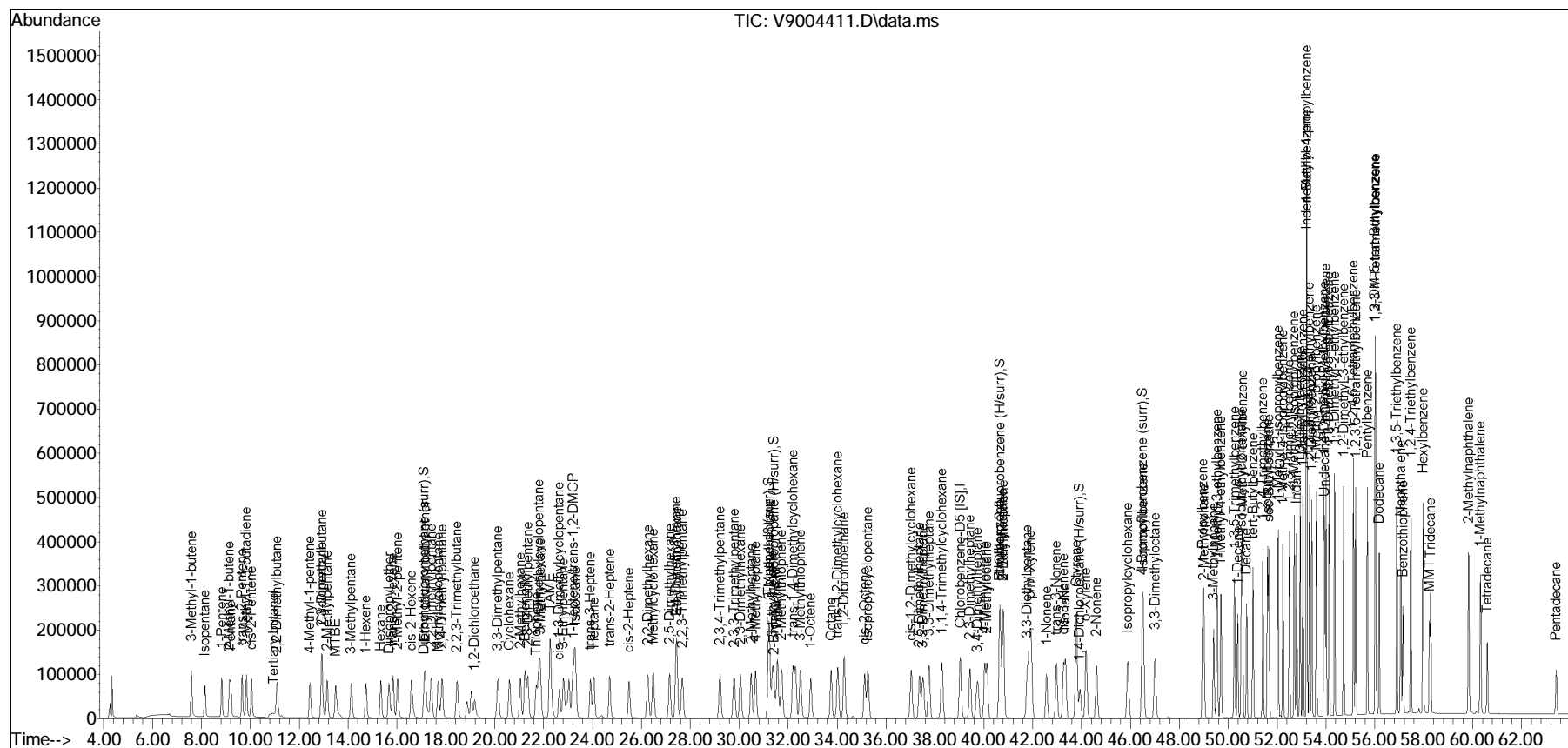
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004411.D
 Acq On : 05 Apr 2023 03:15 am
 Operator : VOA9:RAY
 Sample : I904042304
 Misc : WG1762942
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 05 08:02:01 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Mon Feb 13 08:13:49 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004412.D
 Acq On : 05 Apr 2023 04:26 am
 Operator : VOA9:RAY
 Sample : I904042305
 Misc : WG1762942
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 08:13:34 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	324429	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.12	113	95527	50.155	ug/L	0.01
Spiked Amount 50.000	Range 78	- 118	Recovery	=	100.31%	
62) Toluene-d8 (surr)	31.19	98	361357	50.023	ug/L	-0.01
Spiked Amount 50.000	Range 87	- 113	Recovery	=	100.05%	
64) 2-Bromo-1-chloropropan...	31.44	77	246957	100.562	ug/L	0.00
Spiked Amount 50.000	Range 70	- 130	Recovery	=	201.12%#	
87) 1-Chloro-2-fluorobenze...	40.67	130	483481	100.273	ug/L	0.00
Spiked Amount 50.000	Range 70	- 130	Recovery	=	200.55%#	
97) 1,4-Dichlorobutane (H/...	43.94	55	265801	100.859	ug/L	0.01
Spiked Amount 50.000	Range 70	- 130	Recovery	=	201.72%#	
101) 4-Bromofluorobenzene (...)	46.49	95	166938	49.964	ug/L	0.00
Spiked Amount 50.000	Range 76	- 120	Recovery	=	99.93%	
Target Compounds						
					Qvalue	
2) 3-Methyl-1-butene	7.60	55	379642	106.474	ug/L	98
3) Isopentane	8.15	43	136457	105.553	ug/L	97
4) 1-Pentene	8.84	42	180031	103.448	ug/L	98
5) 2-Methyl-1-butene	9.15	55	270845	104.270	ug/L	98
6) Pentane	9.21	43	222774	105.386	ug/L	99
7) trans-2-Pentene	9.67	55	295288	102.974	ug/L	99
8) 2-Methyl-1,3-butadiene	9.84	67	213455	104.776	ug/L	99
9) cis-2-Pentene	10.06	55	274927	104.926	ug/L	99
10) Tertiary butanol	10.92	59	218620M4	493.411	ug/L	
11) 2,2-Dimethylbutane	11.10	43	153170	101.967	ug/L	98
12) 4-Methyl-1-pentene	12.44	43	187557	101.562	ug/L	96
13) Cyclopentane	12.93	70	124978	103.031	ug/L	97
14) 2,3-Dimethylbutane	12.93	71	91999	102.348	ug/L	96
15) 2-Methylpentane	13.15	43	266343	101.469	ug/L	97
16) MTBE	13.49	73	523491	100.092	ug/L	100
17) 3-Methylpentane	14.14	57	267515	101.578	ug/L	99
18) 1-Hexene	14.73	56	152351	101.688	ug/L	98
19) Hexane	15.34	57	239532	101.971	ug/L	100
20) Diisopropyl ether	15.67	45	416814	99.184	ug/L	99
21) trans-2-Hexene	15.85	55	268223	101.938	ug/L	99
22) 2-Methyl-2-pentene	16.03	69	305720	101.687	ug/L	99
23) cis-2-Hexene	16.59	55	241168	101.512	ug/L	98
25) Ethyl tertiary butyl e...	17.15	59	487613	100.610	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004412.D
 Acq On : 05 Apr 2023 04:26 am
 Operator : VOA9:RAY
 Sample : I904042305
 Misc : WG1762942
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 08:13:34 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 2,2-Dimethylpentane	17.40	57	337766	101.655	ug/L	99
27) Methylcyclopentane	17.69	56	296026	100.529	ug/L	99
28) 2,4-Dimethylpentane	17.85	43	242850	100.269	ug/L	99
29) 2,2,3-Trimethylbutane	18.46	57	303832	100.743	ug/L	97
30) 1,2-Dichloroethane	19.18	62	219707	99.321	ug/L	97
31) 3,3-Dimethylpentane	20.13	43	300892	100.835	ug/L	98
32) Cyclohexane	20.61	56	247313	99.748	ug/L	98
33) 2-Methylhexane	21.05	43	260753	100.690	ug/L	98
34) Benzene	21.24	78	653976	98.072	ug/L	100
35) 2,3-Dimethylpentane	21.35	56	241133	99.776	ug/L	97
36) Thiophene	21.70	84	369006	98.916	ug/L	98
37) 1,1-Dimethylcyclopentane	21.80	83	192787	100.539	ug/L	97
38) 3-Methylhexane	21.86	43	226780	99.896	ug/L	99
39) TAME	22.25	73	502722	100.550	ug/L	97
40) cis-1,3-Dimethylcyclop...	22.64	70	168735	103.078	ug/L	99
41) 3-Ethylpentane	22.82	43	299524	101.794	ug/L	100
43) 1-Heptene/trans-1,2-DMCP	23.21	70	276501	205.596	ug/L	96
44) Isooctane	23.30	57	657780	100.246	ug/L	99
45) trans-3-Heptene	23.91	41	175952	98.247	ug/L	99
46) Heptane	24.05	43	209831	100.328	ug/L	98
48) trans-2-Heptene	24.70	56	187789	102.257	ug/L	97
49) cis-2-Heptene	25.49	56	169223	101.720	ug/L	98
50) 2,2-Dimethylhexane	26.26	57	602704	100.434	ug/L	100
51) Methylcyclohexane	26.48	83	309895	101.663	ug/L	99
52) 2,5-Dimethylhexane	27.16	57	300679	100.633	ug/L	99
53) 2,4-Dimethylhexane	27.42	57	240668	99.416	ug/L	98
54) Ethylcyclopentane	27.45	69	252666	100.378	ug/L	100
55) 2,2,3-Trimethylpentane	27.67	57	489805	99.403	ug/L	99
57) 2,3,4-Trimethylpentane	29.21	43	310627	100.317	ug/L	99
58) 2,3,3-Trimethylpentane	29.79	43	259006	99.693	ug/L	98
59) 2,3-Dimethylhexane	30.05	43	275220	98.819	ug/L	98
60) 2-Methylheptane	30.49	57	275988	100.479	ug/L	98
61) 4-Methylheptane	30.66	43	299204	98.510	ug/L	98
63) 3-Methylheptane	31.23	43	221769	96.826	ug/L	99
65) 3-Ethylhexane	31.36	43	321569	100.063	ug/L	100
66) Toluene	31.56	91	738852	99.702	ug/L	100
67) 2-Methylthiophene	31.73	97	611961	100.909	ug/L	99
68) trans-1,4-Dimethylcycl...	32.21	97	382106	101.832	ug/L	99
69) 3-Methylthiophene	32.50	97	621120	100.708	ug/L	99
70) 1-Octene	32.92	55	134449	100.907	ug/L	97
71) Octane	33.75	43	274317	99.282	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004412.D
 Acq On : 05 Apr 2023 04:26 am
 Operator : VOA9:RAY
 Sample : I904042305
 Misc : WG1762942
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 08:13:34 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) trans-1,2-Dimethylcycl...	34.03	55	230794	100.085	ug/L	98
73) 1,2-Dibromoethane	34.28	107	194393	102.155	ug/L	98
75) cis-2-Octene	35.13	55	204046	102.846	ug/L	98
76) Isopropylcyclopentane	35.26	68	297184	103.313	ug/L	99
77) cis-1,2-Dimethylcycloh...	37.04	55	227219	100.599	ug/L	98
78) 2,5-Dimethylheptane	37.38	57	429481	105.426	ug/L	99
79) 3,5-Dimethylheptane	37.51	57	489776M4	97.228	ug/L	
80) 3,3-Dimethylheptane	37.76	57	314865	98.561	ug/L	99
81) 1,1,4-Trimethylcyclohe...	38.29	69	311663	99.416	ug/L	96
82) 2,3-Dimethylheptane	39.44	43	323635	98.648	ug/L	98
83) 3,4-Dimethylheptane	39.75	43	206676	98.090	ug/L	100
84) 4-Methyloctane	40.04	43	319639	97.066	ug/L	97
85) 2-Methyloctane	40.14	43	290522M3	99.296	ug/L	
86) Ethylbenzene	40.65	91	869222	99.381	ug/L	98
88) 2-Ethylthiophene	40.81	97	672956	101.128	ug/L	98
89) 3-Methyloctane	40.79	57	557838	99.627	ug/L	100
90) 3,3-Diethylpentane	41.78	57	606136	99.716	ug/L	99
91) p/m-Xylene	41.92	91	1376324	200.804	ug/L	99
92) 1-Nonene	42.57	56	144510	102.470	ug/L	96
93) trans-3-Nonene	42.98	55	208393	100.371	ug/L	99
94) cis-3-Nonene	43.26	55	236575M6	101.758	ug/L	
95) Nonane	43.34	43	285104M6	99.921	ug/L	
96) Styrene	43.78	104	597099	102.781	ug/L	100
98) o-Xylene	44.20	91	710659	100.259	ug/L	99
99) 2-Nonene	44.61	55	213823	100.294	ug/L	98
100) Isopropylcyclohexane	45.90	83	325517	100.760	ug/L	99
102) Isopropylbenzene	46.51	105	908354	100.099	ug/L	100
103) 3,3-Dimethyloctane	47.01	71	507768	100.405	ug/L	98
104) n-Propylbenzene	48.96	91	1058552	100.186	ug/L	99
105) 2-Methylnonane	49.01	43	266387	99.328	ug/L	98
106) 3-Methylnonane	49.41	57	359953	100.428	ug/L	99
107) 1-Methyl-3-ethylbenzene	49.54	105	932098	100.051	ug/L	99
108) 1-Methyl-4-ethylbenzene	49.70	105	905893	100.828	ug/L	99
109) 1,3,5-Trimethylbenzene	50.26	105	793064	101.569	ug/L	100
110) 1-Decene	50.39	41	164408	103.301	ug/L	97
111) Isobutylcyclohexane	50.54	83	373179	101.242	ug/L	100
112) 1-Methyl-2-ethylbenzene	50.58	105	956274	101.175	ug/L	100
113) Decane	50.75	43	283767	102.779	ug/L	100
114) tert-Butylbenzene	51.01	119	711415	101.045	ug/L	99
115) 1,2,4-Trimethylbenzene	51.41	105	843448	101.530	ug/L	100
116) Isobutylbenzene	51.60	91	900290M6	100.268	ug/L	

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004412.D
 Acq On : 05 Apr 2023 04:26 am
 Operator : VOA9:RAY
 Sample : I904042305
 Misc : WG1762942
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 08:13:34 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
117)	sec-Butylbenzene	51.66	105	1042648	100.879	ug/L	100
118)	1-Methyl-3-isopropylbe...	52.04	119	918017	101.465	ug/L	100
119)	1-Methyl-4-isopropylbe...	52.24	119	911948	101.074	ug/L	98
120)	1,2,3-Trimethylbenzene	52.50	105	873449	100.701	ug/L	99
121)	1-Methyl-2-isopropylbe...	52.70	119	925291	101.057	ug/L	98
122)	Indan	52.80	117	832217	100.761	ug/L	100
123)	1,3-Diethylbenzene	52.94	105	594113	101.572	ug/L	100
124)	1-Methyl-3-propylbenzene	53.06	105	1104910	101.530	ug/L	99
125)	Indene	53.22	115	809011	100.986	ug/L	99
126)	1-Methyl-4-propylbenzene	53.21	105	1308093	100.813	ug/L	99
127)	n-Butylbenzene	53.21	91	1005907	100.120	ug/L	99
128)	1,2-Dimethyl-4-ethylbe...	53.32	119	1008171	102.027	ug/L	99
129)	1,2-Diethylbenzene	53.41	119	475931	101.395	ug/L	99
130)	1-Methyl-2-propylbenzene	53.60	105	1179547	100.237	ug/L	99
131)	1,4-Dimethyl-2-ethylbe...	53.91	119	930235	100.989	ug/L	98
132)	Undecane	53.94	57	367123	98.605	ug/L	99
133)	1,3-Dimethyl-4-ethylbe...	54.00	119	1130212	101.734	ug/L	100
134)	1,3-Dimethyl-5-ethylbe...	54.13	119	1019561	101.421	ug/L	100
135)	1,3-Dimethyl-2-ethylbe...	54.35	119	1099915	101.107	ug/L	99
136)	1,2-Dimethyl-3-ethylbe...	54.72	119	993721	101.315	ug/L	99
137)	1,2,4,5-Tetramethylben...	55.12	119	1042002	101.514	ug/L	100
138)	1,2,3,5-Tetramethylben...	55.21	119	955594	100.969	ug/L	99
139)	Pentylbenzene	55.69	91	865435	99.917	ug/L	100
140)	1,2,3,4-Tetramethylben...	56.02	119	1280481	101.080	ug/L	99
141)	1,3-DM-5-tert-Butylben...	56.01	147	899888	101.609	ug/L	100
142)	Dodecane	56.18	43	219664	81.501	ug/L	97
143)	1,3,5-Triethylbenzene	56.89	147	569671	101.524	ug/L	98
144)	Naphthalene	57.05	128	1142825	99.219	ug/L	99
145)	Benzothiophene	57.14	134	688692	99.560	ug/L	100
146)	1,2,4-Triethylbenzene	57.47	147	534126	101.853	ug/L	100
147)	Hexylbenzene	57.97	91	774222	98.286	ug/L	99
148)	MMT	58.23	134	431220	100.701	ug/L	99
149)	Tridecane	58.28	57	223097	75.332	ug/L	98
150)	2-Methylnaphthalene	59.83	142	783906	99.965	ug/L	99
151)	1-Methylnaphthalene	60.31	142	699721	99.960	ug/L	99
152)	Tetradecane	60.60	57	163871	80.043	ug/L	98
153)	Pentadecane	63.42	57	128412	86.795	ug/L	98

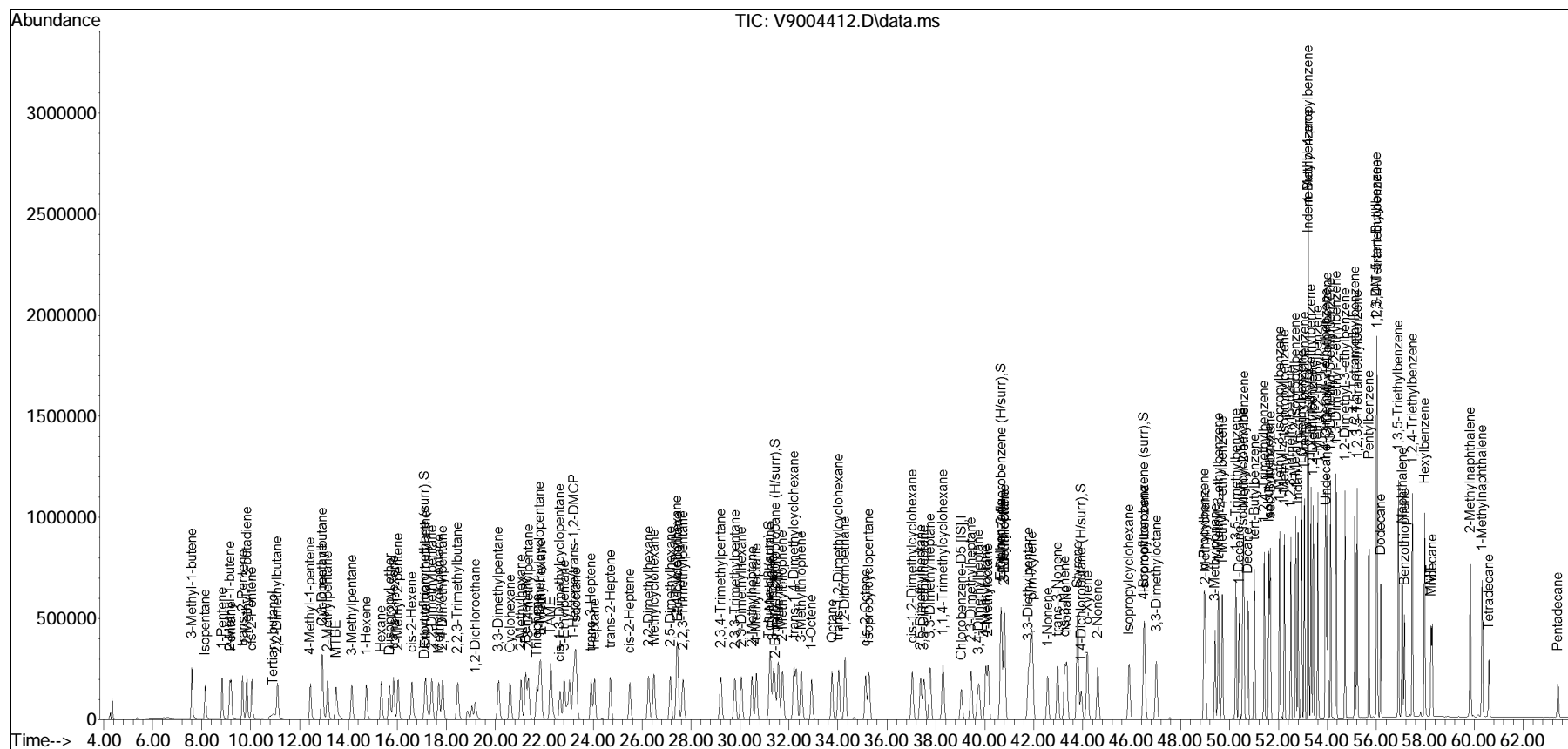
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
Data File : V9004412.D
Acq On : 05 Apr 2023 04:26 am
Operator : VOA9:RAY
Sample : I904042305
Misc : WG1762942
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 05 08:13:34 2023
Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
Quant Title : PIANO VOLATILES
QLast Update : Wed Apr 05 08:03:27 2023
Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004413.D
 Acq On : 05 Apr 2023 05:38 am
 Operator : VOA9:RAY
 Sample : I904042306
 Misc : WG1762942
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 05 08:15:24 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	346747	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.11	113	101508	49.865	ug/L	0.00
Spiked Amount 50.000	Range 78 - 118		Recovery = 99.73%			
62) Toluene-d8 (surr)	31.20	98	387788	50.226	ug/L	0.00
Spiked Amount 50.000	Range 87 - 113		Recovery = 100.45%			
64) 2-Bromo-1-chloropropan...	31.44	77	523205	199.338	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 398.68%#			
87) 1-Chloro-2-fluorobenze...	40.67	130	1038665	201.551	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 403.10%#			
97) 1,4-Dichlorobutane (H/...	43.94	55	582606	206.842	ug/L	0.01
Spiked Amount 50.000	Range 70 - 130		Recovery = 413.68%#			
101) 4-Bromofluorobenzene (...)	46.49	95	182754	51.177	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 102.35%			
Target Compounds						
					Qvalue	
2) 3-Methyl-1-butene	7.59	55	763079	200.237	ug/L	98
3) Isopentane	8.14	43	269497	195.046	ug/L	95
4) 1-Pentene	8.83	42	366284	196.924	ug/L	98
5) 2-Methyl-1-butene	9.14	55	549009	197.754	ug/L	99
6) Pentane	9.20	43	445574	197.218	ug/L	100
7) trans-2-Pentene	9.66	55	601460	196.244	ug/L	100
8) 2-Methyl-1,3-butadiene	9.84	67	448811	206.123	ug/L	99
9) cis-2-Pentene	10.05	55	564928	201.727	ug/L	99
10) Tertiary butanol	10.93	59	482325M4	1018.510	ug/L	
11) 2,2-Dimethylbutane	11.09	43	316126	196.903	ug/L	98
12) 4-Methyl-1-pentene	12.44	43	384250	194.679	ug/L	98
13) Cyclopentane	12.93	70	254859	196.581	ug/L	100
14) 2,3-Dimethylbutane	12.92	71	186901	194.543	ug/L	100
15) 2-Methylpentane	13.15	43	541790	193.121	ug/L	96
16) MTBE	13.49	73	1096168	196.099	ug/L	100
17) 3-Methylpentane	14.13	57	548495	194.864	ug/L	97
18) 1-Hexene	14.73	56	319154	199.311	ug/L	98
19) Hexane	15.34	57	492632	196.219	ug/L	100
20) Diisopropyl ether	15.67	45	867873	193.225	ug/L	99
21) trans-2-Hexene	15.84	55	564030	200.563	ug/L	99
22) 2-Methyl-2-pentene	16.02	69	643326	200.208	ug/L	99
23) cis-2-Hexene	16.59	55	501877	197.651	ug/L	99
25) Ethyl tertiary butyl e...	17.15	59	1027861	198.430	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004413.D
 Acq On : 05 Apr 2023 05:38 am
 Operator : VOA9:RAY
 Sample : I904042306
 Misc : WG1762942
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 05 08:15:24 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 2,2-Dimethylpentane	17.40	57	696913	196.245	ug/L	98
27) Methylcyclopentane	17.68	56	616369	195.844	ug/L	99
28) 2,4-Dimethylpentane	17.84	43	505275	195.193	ug/L	99
29) 2,2,3-Trimethylbutane	18.46	57	625127	193.936	ug/L	98
30) 1,2-Dichloroethane	19.18	62	459392	194.307	ug/L	98
31) 3,3-Dimethylpentane	20.13	43	621073	194.737	ug/L	96
32) Cyclohexane	20.60	56	509210	192.159	ug/L	96
33) 2-Methylhexane	21.05	43	540731	195.364	ug/L	98
34) Benzene	21.23	78	1360171	190.846	ug/L	99
35) 2,3-Dimethylpentane	21.35	56	503495	194.926	ug/L	98
36) Thiophene	21.69	84	772327	193.705	ug/L	99
37) 1,1-Dimethylcyclopentane	21.80	83	402724	196.503	ug/L	99
38) 3-Methylhexane	21.86	43	477299	196.716	ug/L	99
39) TAME	22.25	73	1067030	199.681	ug/L	97
40) cis-1,3-Dimethylcyclop...	22.64	70	355815	203.373	ug/L	99
41) 3-Ethylpentane	22.82	43	621952	197.768	ug/L	99
43) 1-Heptene/trans-1,2-DMCP	23.21	70	591685	411.638	ug/L	95
44) Isooctane	23.30	57	1403331	200.102	ug/L	96
45) trans-3-Heptene	23.91	41	377074	196.997	ug/L	99
46) Heptane	24.05	43	443461	198.388	ug/L	97
48) trans-2-Heptene	24.70	56	399693	203.638	ug/L	97
49) cis-2-Heptene	25.49	56	361304	203.202	ug/L	98
50) 2,2-Dimethylhexane	26.26	57	1265731	197.344	ug/L	99
51) Methylcyclohexane	26.49	83	652702	200.341	ug/L	100
52) 2,5-Dimethylhexane	27.15	57	632499	198.064	ug/L	98
53) 2,4-Dimethylhexane	27.42	57	509098	196.764	ug/L	97
54) Ethylcyclopentane	27.45	69	530899	197.338	ug/L	99
55) 2,2,3-Trimethylpentane	27.67	57	1035830	196.686	ug/L	98
57) 2,3,4-Trimethylpentane	29.22	43	651938	196.991	ug/L	99
58) 2,3,3-Trimethylpentane	29.79	43	545945	196.613	ug/L	97
59) 2,3-Dimethylhexane	30.05	43	580555	195.035	ug/L	99
60) 2-Methylheptane	30.49	57	579640	197.446	ug/L	96
61) 4-Methylheptane	30.67	43	630054	194.087	ug/L	99
63) 3-Methylheptane	31.24	43	474713	193.923	ug/L	100
65) 3-Ethylhexane	31.36	43	663879	193.283	ug/L	100
66) Toluene	31.56	91	1563156	197.359	ug/L	99
67) 2-Methylthiophene	31.73	97	1308802	201.924	ug/L	99
68) trans-1,4-Dimethylcycl...	32.20	97	811812	202.425	ug/L	97
69) 3-Methylthiophene	32.50	97	1335135	202.544	ug/L	100
70) 1-Octene	32.93	55	291757	204.877	ug/L	95
71) Octane	33.76	43	583151	197.472	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004413.D
 Acq On : 05 Apr 2023 05:38 am
 Operator : VOA9:RAY
 Sample : I904042306
 Misc : WG1762942
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 05 08:15:24 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) trans-1,2-Dimethylcycl...	34.04	55	489734	198.705	ug/L	97
73) 1,2-Dibromoethane	34.28	107	416270	204.673	ug/L	98
75) cis-2-Octene	35.13	55	427180	201.455	ug/L	98
76) Isopropylcyclopentane	35.27	68	631134	205.286	ug/L	98
77) cis-1,2-Dimethylcycloh...	37.04	55	485070	200.938	ug/L	98
78) 2,5-Dimethylheptane	37.38	57	899247	206.533	ug/L	99
79) 3,5-Dimethylheptane	37.51	57	1057100M4	196.345	ug/L	
80) 3,3-Dimethylheptane	37.77	57	674456	197.533	ug/L	100
81) 1,1,4-Trimethylcyclohe...	38.29	69	672198	200.620	ug/L	97
82) 2,3-Dimethylheptane	39.44	43	688978	196.492	ug/L	98
83) 3,4-Dimethylheptane	39.75	43	438255	194.611	ug/L	99
84) 4-Methyloctane	40.05	43	696396	197.866	ug/L	97
85) 2-Methyloctane	40.14	43	610107M3	195.103	ug/L	
86) Ethylbenzene	40.65	91	1864530	199.457	ug/L	99
88) 2-Ethylthiophene	40.80	97	1450669	203.968	ug/L	98
89) 3-Methyloctane	40.79	57	1213644	202.799	ug/L	99
90) 3,3-Diethylpentane	41.79	57	1314055	202.263	ug/L	99
91) p/m-Xylene	41.92	91	2958542	403.866	ug/L	100
92) 1-Nonene	42.57	56	323754	214.794	ug/L	95
93) trans-3-Nonene	42.98	55	460462	207.504	ug/L	99
94) cis-3-Nonene	43.28	55	524909M6	211.247	ug/L	
95) Nonane	43.35	43	618886M6	202.941	ug/L	
96) Styrene	43.78	104	1303276	209.899	ug/L	98
98) o-Xylene	44.19	91	1525694	201.389	ug/L	99
99) 2-Nonene	44.62	55	472735	207.466	ug/L	97
100) Isopropylcyclohexane	45.90	83	716598	207.538	ug/L	99
102) Isopropylbenzene	46.52	105	1963460	202.444	ug/L	100
103) 3,3-Dimethyloctane	47.01	71	1117379	206.728	ug/L	98
104) n-Propylbenzene	48.96	91	2293665	203.110	ug/L	99
105) 2-Methylnonane	49.01	43	588121	205.180	ug/L	97
106) 3-Methylnonane	49.41	57	796049	207.806	ug/L	97
107) 1-Methyl-3-ethylbenzene	49.54	105	2035749	204.452	ug/L	99
108) 1-Methyl-4-ethylbenzene	49.71	105	1974788	205.652	ug/L	99
109) 1,3,5-Trimethylbenzene	50.26	105	1731198	207.448	ug/L	100
110) 1-Decene	50.39	41	365338	214.775	ug/L	93
111) Isobutylcyclohexane	50.54	83	833326	211.528	ug/L	99
112) 1-Methyl-2-ethylbenzene	50.58	105	2060034	203.926	ug/L	99
113) Decane	50.76	43	621994	210.784	ug/L	97
114) tert-Butylbenzene	51.01	119	1545076	205.327	ug/L	99
115) 1,2,4-Trimethylbenzene	51.42	105	1834603	206.627	ug/L	99
116) Isobutylbenzene	51.61	91	1928827M6	200.993	ug/L	

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004413.D
 Acq On : 05 Apr 2023 05:38 am
 Operator : VOA9:RAY
 Sample : I904042306
 Misc : WG1762942
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 05 08:15:24 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
117)	sec-Butylbenzene	51.66	105	2233285	202.169	ug/L	99
118)	1-Methyl-3-isopropylbe...	52.04	119	1989187	205.707	ug/L	99
119)	1-Methyl-4-isopropylbe...	52.24	119	1970721	204.363	ug/L	99
120)	1,2,3-Trimethylbenzene	52.50	105	1879575	202.751	ug/L	99
121)	1-Methyl-2-isopropylbe...	52.70	119	1987526	203.098	ug/L	98
122)	Indan	52.80	117	1770049	200.516	ug/L	100
123)	1,3-Diethylbenzene	52.94	105	1281171	204.936	ug/L	99
124)	1-Methyl-3-propylbenzene	53.06	105	2356198	202.574	ug/L	98
125)	Indene	53.22	115	1697782	198.288	ug/L	98
126)	1-Methyl-4-propylbenzene	53.21	105	2732482	197.035	ug/L	99
127)	n-Butylbenzene	53.21	91	2105793	196.104	ug/L	99
128)	1,2-Dimethyl-4-ethylbe...	53.33	119	2128108	201.504	ug/L	100
129)	1,2-Diethylbenzene	53.42	119	1002973	199.926	ug/L	100
130)	1-Methyl-2-propylbenzene	53.60	105	2487613	197.789	ug/L	99
131)	1,4-Dimethyl-2-ethylbe...	53.91	119	1996691	202.815	ug/L	98
132)	Undecane	53.94	57	723302	181.767	ug/L	99
133)	1,3-Dimethyl-4-ethylbe...	54.00	119	2377900	200.266	ug/L	100
134)	1,3-Dimethyl-5-ethylbe...	54.13	119	2147905	199.911	ug/L	99
135)	1,3-Dimethyl-2-ethylbe...	54.35	119	2331614	200.532	ug/L	100
136)	1,2-Dimethyl-3-ethylbe...	54.72	119	2124856	202.695	ug/L	100
137)	1,2,4,5-Tetramethylben...	55.13	119	2244252	204.566	ug/L	99
138)	1,2,3,5-Tetramethylben...	55.21	119	2041160	201.790	ug/L	99
139)	Pentylbenzene	55.69	91	1848389	199.667	ug/L	99
140)	1,2,3,4-Tetramethylben...	56.02	119	2737753	202.207	ug/L	100
141)	1,3-DM-5-tert-Butylben...	56.01	147	1919373	202.773	ug/L	100
142)	Dodecane	56.18	43	381515	132.441	ug/L	95
143)	1,3,5-Triethylbenzene	56.89	147	1247802	208.065	ug/L	98
144)	Naphthalene	57.05	128	2437049	197.964	ug/L	99
145)	Benzothiophene	57.14	134	1473667	199.328	ug/L	99
146)	1,2,4-Triethylbenzene	57.47	147	1157043	206.436	ug/L	100
147)	Hexylbenzene	57.97	91	1647417	195.675	ug/L	99
148)	MMT	58.23	134	927682	202.693	ug/L	100
149)	Tridecane	58.28	57	416549	131.600	ug/L	98
150)	2-Methylnaphthalene	59.83	142	1693805	202.095	ug/L	99
151)	1-Methylnaphthalene	60.31	142	1511934	202.088	ug/L	99
152)	Tetradecane	60.60	57	339348	155.087	ug/L	98
153)	Pentadecane	63.41	57	278812	176.323	ug/L	97

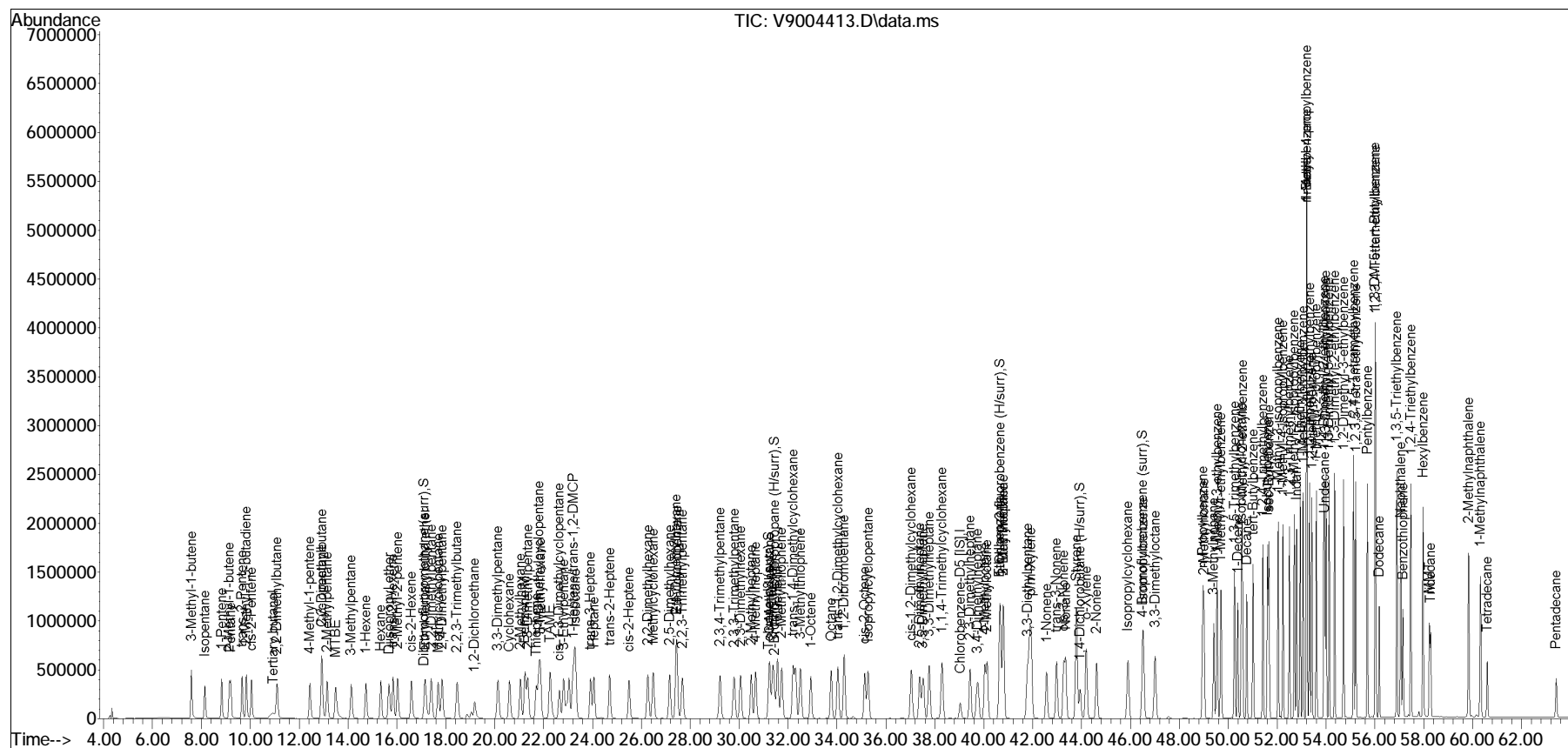
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\04\0404_I\
 Data File : V9004413.D
 Acq On : 05 Apr 2023 05:38 am
 Operator : VOA9:RAY
 Sample : I904042306
 Misc : WG1762942
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 05 08:15:24 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:03:27 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW - PIANO



Evaluate Continuing Calibration Report

Data Path : O:\ORGANICS\DATA\VOA9\2023\04\0404_I\
 Data File : V9004415.D
 Acq On : 05 Apr 2023 08:01 am
 Operator : VOA9:RAY
 Sample : CQ904042301
 Misc : WG1762942
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 09:18:21 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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	Chlorobenzene-D5 [IS]	1.000	1.000	0.0	108	0.00
4	1-Pentene	0.279	0.225	19.4	88	0.00
6	Pentane	0.346	0.308	11.0	97	0.00
10	Tertiary butanol	0.066	0.061#	7.6	106	-0.01
13	Cyclopentane	0.184	0.173	6.0	99	0.00
15	2-Methylpentane	0.391	0.370	5.4	102	0.00
16	MTBE	0.766	0.687	10.3	99	0.00
17	3-Methylpentane	0.390	0.389	0.3	107	0.01
18	1-Hexene	0.216	0.215	0.5	107	0.00
19	Hexane	0.345	0.311	9.9	96	0.00
20	Diisopropyl ether	0.602	0.543	9.8	98	0.00
24 S	Dibromofluoromethane (surr)	0.292	0.293	-0.3	108	0.00
25	Ethyl tertiary butyl ether	0.690	0.627	9.1	99	0.00
27	Methylcyclopentane	0.432	0.416	3.7	103	0.00
28	2,4-Dimethylpentane	0.346	0.340	1.7	105	0.00
32	Cyclohexane	0.360	0.359	0.3	105	0.00
33	2-Methylhexane	0.375	0.359	4.3	101	0.00
34 M	Benzene	1.007	0.965	4.2	105	0.00
35	2,3-Dimethylpentane	0.352	0.337	4.3	104	0.00
38	3-Methylhexane	0.334	0.292	12.6	94	0.00
39	TAME	0.784	0.668	14.8	100	0.01
44	Isooctane	0.956	0.892	6.7	100	0.00
46	Heptane	0.302	0.293	3.0	105	0.00
51	Methylcyclohexane	0.438	0.431	1.6	105	-0.01
60	2-Methylheptane	0.387	0.369	4.7	101	0.00
62 S	Toluene-d8 (surr)	1.114	1.105	0.8	107	0.00
63	3-Methylheptane	0.354	0.324	8.5	108	0.00
66 M	Toluene	1.087	1.057	2.8	105	0.00
71	Octane	0.384	0.362	5.7	100	0.00
86	Ethylbenzene	1.237	1.162	6.1	101	0.00
91	p/m-Xylene	0.965	0.936	3.0	104	0.00
95	Nonane	0.389	0.335	13.9	87	0.00
98	o-Xylene	1.001	0.968	3.3	105	0.00
101 S	4-Bromofluorobenzene (surr)	0.502	0.497	1.0	108	0.00
102	Isopropylbenzene	1.302	1.260	3.2	106	0.00
104	n-Propylbenzene	1.450	1.420	2.1	105	0.00
107	1-Methyl-3-ethylbenzene	1.289	1.240	3.8	103	0.00
108	1-Methyl-4-ethylbenzene	1.246	1.245	0.1	108	0.00
109	1,3,5-Trimethylbenzene	1.063	1.039	2.3	106	0.00

Evaluate Continuing Calibration Report

Data Path : O:\ORGANICS\DATA\VOA9\2023\04\0404_I\
 Data File : V9004415.D
 Acq On : 05 Apr 2023 08:01 am
 Operator : VOA9:RAY
 Sample : CQ904042301
 Misc : WG1762942
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 09:18:21 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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)
110	1-Decene	0.210	0.159	24.3	83	0.00
112	1-Methyl-2-ethylbenzene	1.323	1.305	1.4	107	0.00
113	Decane	0.375	0.330	12.0	97	0.00
115	1,2,4-Trimethylbenzene	1.132	1.048	7.4	102	0.00
117	sec-Butylbenzene	1.441	1.460	-1.3	110	0.00
126	1-Methyl-4-propylbenzene	1.748	1.607	8.1	102	0.00
127	n-Butylbenzene	1.368	1.267	7.4	102	0.00
129	1,2-Diethylbenzene	0.641	0.597	6.9	104	0.00
132	Undecane	0.489	0.438	10.4	97	0.00
134	1,3-Dimethyl-5-ethylbenzene	1.348	1.320	2.1	110	0.00
139	Pentylbenzene	1.174	1.078	8.2	103	0.00
142	Dodecane	0.339	0.352	-3.8	100	0.00

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

Quantitation Report (QT Reviewed)

Data Path : O:\ORGANICS\DATA\VOA9\2023\04\0404_I\
 Data File : V9004415.D
 Acq On : 05 Apr 2023 08:01 am
 Operator : VOA9:RAY
 Sample : CQ904042301
 Misc : WG1762942
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 09:18:21 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_VOA_LCS-NHS - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.03	117	321635	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.10	113	94084	50.145	ug/L	0.00
Spiked Amount 50.000	Range 78	- 118	Recovery	=	100.29%	
62) Toluene-d8 (surr)	31.20	98	355379	49.606	ug/L	0.00
Spiked Amount 50.000	Range 87	- 113	Recovery	=	99.21%	
101) 4-Bromofluorobenzene (...)	46.49	95	159845	49.504	ug/L	0.00
Spiked Amount 50.000	Range 76	- 120	Recovery	=	99.01%	
Target Compounds						
					Qvalue	
4) 1-Pentene	8.84	42	28884	16.121	ug/L	98
6) Pentane	9.21	43	39654	17.829	ug/L	97
10) Tertiary butanol	10.95	59	39551M4	92.679	ug/L	
13) Cyclopentane	12.93	70	22284	18.867	ug/L	# 42
15) 2-Methylpentane	13.15	43	47562	18.933	ug/L	91
16) MTBE	13.49	73	88424	17.940	ug/L	99
17) 3-Methylpentane	14.14	57	49991	19.927	ug/L	97
18) 1-Hexene	14.74	56	27607	19.848	ug/L	97
19) Hexane	15.34	57	40014	18.020	ug/L	96
20) Diisopropyl ether	15.68	45	69875	18.050	ug/L	97
25) Ethyl tertiary butyl e...	17.16	59	80651	18.178	ug/L	97
27) Methylcyclopentane	17.68	56	53541	19.261	ug/L	99
28) 2,4-Dimethylpentane	17.85	43	43710	19.616	ug/L	99
32) Cyclohexane	20.60	56	46179	19.949	ug/L	96
33) 2-Methylhexane	21.05	43	46133	19.134	ug/L	95
34) Benzene	21.23	78	124175	19.176	ug/L	98
35) 2,3-Dimethylpentane	21.35	56	43344	19.163	ug/L	97
38) 3-Methylhexane	21.86	43	37531	17.449	ug/L	94
39) TAME	22.27	73	85920	17.036	ug/L	95
44) Isooctane	23.30	57	114817	18.671	ug/L	97
46) Heptane	24.05	43	37717	19.412	ug/L	95
51) Methylcyclohexane	26.47	83	55458	19.682	ug/L	98
60) 2-Methylheptane	30.48	57	47456	19.066	ug/L	96
63) 3-Methylheptane	31.23	43	41738	18.329	ug/L	98
66) Toluene	31.56	91	135992	19.446	ug/L	99
71) Octane	33.76	43	46527	18.847	ug/L	99
86) Ethylbenzene	40.65	91	149478	18.789	ug/L	100
91) p/m-Xylene	41.91	91	240873	38.795	ug/L	98
95) Nonane	43.34	43	43064	17.196	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : O:\ORGANICS\DATA\VOA9\2023\04\0404_I\
 Data File : V9004415.D
 Acq On : 05 Apr 2023 08:01 am
 Operator : VOA9:RAY
 Sample : CQ904042301
 Misc : WG1762942
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 09:18:21 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_VOA_LCS-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) o-Xylene	44.19	91	124477	19.327	ug/L	98
102) Isopropylbenzene	46.52	105	162168	19.369	ug/L	98
104) n-Propylbenzene	48.96	91	182654	19.577	ug/L	100
107) 1-Methyl-3-ethylbenzene	49.54	105	159477	19.231	ug/L	99
108) 1-Methyl-4-ethylbenzene	49.70	105	160230	19.988	ug/L	99
109) 1,3,5-Trimethylbenzene	50.26	105	133638	19.550	ug/L	100
110) 1-Decene	50.38	41	20443	15.135	ug/L	98
112) 1-Methyl-2-ethylbenzene	50.57	105	167868	19.721	ug/L	99
113) Decane	50.75	43	42495	17.614	ug/L	96
115) 1,2,4-Trimethylbenzene	51.41	105	134858	18.519	ug/L	99
117) sec-Butylbenzene	51.66	105	187862	20.271	ug/L	100
126) 1-Methyl-4-propylbenzene	53.21	105	206808	18.395	ug/L	99
127) n-Butylbenzene	53.21	91	163029	18.528	ug/L	99
129) 1,2-Diethylbenzene	53.41	119	76837	18.645	ug/L	99
132) Undecane	53.94	57	56388	17.933	ug/L	98
134) 1,3-Dimethyl-5-ethylbe...	54.13	119	169765	19.583	ug/L	99
139) Pentylbenzene	55.69	91	138734	18.371	ug/L	99
142) Dodecane	56.18	43	45280	20.766	ug/L	95

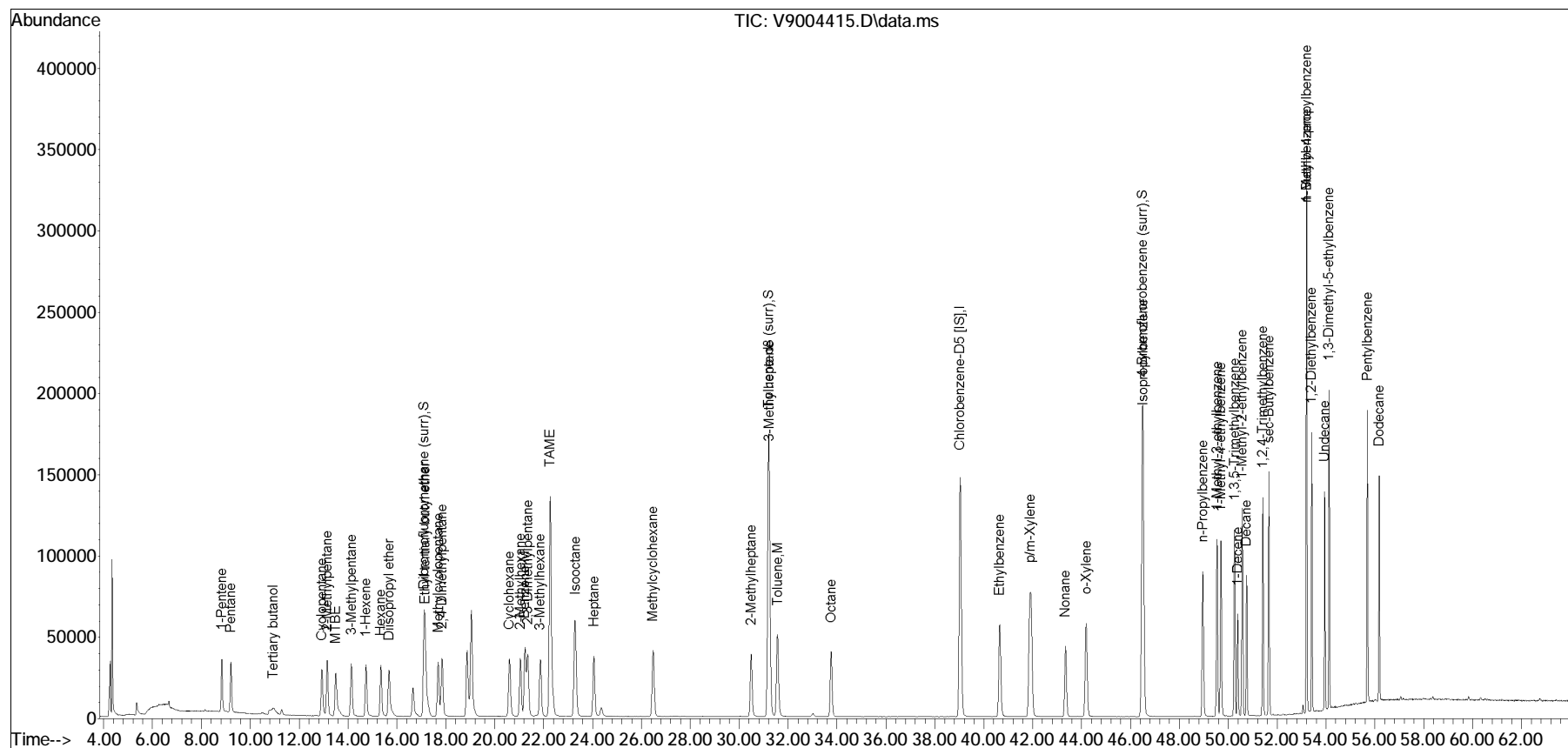
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\ORGANICS\DATA\VOA9\2023\04\0404_I\
 Data File : V9004415.D
 Acq On : 05 Apr 2023 08:01 am
 Operator : VOA9:RAY
 Sample : CQ904042301
 Misc : WG1762942
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 05 09:18:21 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\04\0404_I\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_VOA_LCS-NHS - PIANO



Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

May 09 2023, 10:57 am

Work Group: WG1774659 for Department: 31 GC/MS - Volatiles

Created: 04-MAY-23 Due: Operator: ry

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2320537-01	MW2112-041723-NAPL	S A2-PIANO8260	OIL	DONE	U		0416 0509	S0	Vial-A-20
L2324088-01	MW3-050123	S A2-PIANO8260	OIL	SEC	U		0430 0524	S0	Vial-A-20
WG1774659-1	MS BFB Tune Standard	S A2-PIANO8260	OIL	DONE	U				
WG1774659-10	MS BFB Tune Standard	S A2-PIANO8260	OIL	DONE	U				
WG1774659-11	Continuing Calibrati	S A2-PIANO8260	OIL	DONE	U				
WG1774659-12	MS BFB Tune Standard	S A2-PIANO8260	OIL	DONE	U				
WG1774659-13	Continuing Calibrati	S A2-PIANO8260	OIL	DONE	U				
WG1774659-2	Continuing Calibrati	S A2-PIANO8260	OIL	DONE	U				
WG1774659-3	Laboratory Control S	S A2-PIANO8260	OIL	DONE	U				
WG1774659-4	LCS Duplicate	S A2-PIANO8260	OIL	DONE	U				
WG1774659-5	Forensics Standard	S A2-PIANO8260	OIL	DONE	U				
WG1774659-6	Laboratory Method Bl	S A2-PIANO8260	OIL	DONE	U				
WG1774659-7	Duplicate Sample	S A2-PIANO8260	OIL	DONE	U				
WG1774659-8	MS BFB Tune Standard	S A2-PIANO8260	OIL	DONE	U				
WG1774659-9	Continuing Calibrati	S A2-PIANO8260	OIL	DONE	U				
Comments:									
WG1774659-4	WG1774659-3								
WG1774659-7	L2320537-01								

Sequence Logs

Alpha Analytical Instrument Run Log

Instrument ID: VOA9

Internal Standard/Surrogate IDs: VW040123L

Date: 04/04/23

CCV/ LCS MIX ID's VW040123G/ VW040123C

Analyst
Initials: JJT/JMB/CN

Sequence File Name: 230404.S

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Date Injected/ TIME	ph
1	BLANK	TUNE	V9004406.D	WG,ICAL		04/04/23 10:00 PM	
2	TUNE	TUNE	V9004407.D	WG,ICAL		04/04/23 11:09 PM	
3	I904042301	PIANO	V9004408.D	WG,ICAL		04/04/23 11:39 PM	
4	I904042302	PIANO	V9004409.D	WG,ICAL		04/05/23 12:51 PM	
5	I904042303	PIANO	V9004410.D	WG,ICAL		04/05/23 02:03 AM	
6	I904042304	PIANO	V9004411.D	WG,ICAL		04/05/23 03:15 AM	
7	I904042305	PIANO	V9004412.D	WG,ICAL		04/05/23 04:26 AM	
8	I904042306	PIANO	V9004413.D	WG,ICAL		04/05/23 05:38 AM	
9	BLANK	PIANO	V9004414.D	WG,ICAL		04/05/23 06:50 AM	
10	CQ904042301	PIANO	V9004415.D	WG,ICAL	ICV	04/05/23 08:01 AM	

Alpha Analytical Instrument Run Log

[illegible]

Alpha Analytical Instrument Run Log

Instrument ID: VOA9

Internal Standard/Surrogate IDs: VW040123L

Date: 05/02/23

CCV/ LCS MIX ID's VW040123G/ VW040123C

Analyst
Initials: JJT/JMB/CKN

Sequence File Name: 230502.S

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Date Injected/ TIME	ph
1	BLANK	TUNE	V9004589.D	WG,ICAL		05/02/23 10:51 AM	
2	TUNE	TUNE	V9004590.D	WG,ICAL		05/02/23 12:01 PM	
3	CCV	PIANO	V9004591.D	WG,ICAL		05/02/23 12:31 PM	
4	LCS	PIANO	V9004592.D	WG,ICAL		05/02/23 01:42 PM	
5	LCSD	PIANO	V9004593.D	WG,ICAL		05/02/23 02:55 PM	
6	LD7	PIANO	V9004594.D	WG,ICAL		05/02/23 04:07 PM	
7	BLANK	PIANO	V9004595.D	WG,ICAL		05/02/23 05:19 PM	
8	W. BLANK	PIANO	V9004596.D	WG,ICAL		05/02/23 06:31 PM	
9	L2320077-01D,31,0.1016,10,0.010	PIANO	V9004597.D	WG,ICAL		05/02/23 07:43 PM	
10	L2320077-01DupD,31,0.1018,10,0.010	PIANO	V9004598.D	WG,ICAL		05/02/23 08:55 PM	

Alpha Analytical Instrument Run Log

11	L2320077-02D,31,0.1003,10,0.010	PIANO	V9004599.D	WG,ICAL		05/02/23 10:07 PM	
12	BLANK	PIANO	V9004600.D	WG,ICAL		05/02/23 11:19 PM	
13	L2320077-01D2,31,0.1016,10,0.0005	PIANO	V9004601.D	WG,ICAL		05/03/23 12:31 PM	
14	L2320077-01DupD2,31,0.1018,10,0.0005	PIANO	V9004602.D	WG,ICAL		05/03/23 01:43 AM	
15	L2320077-02D2,31,0.1003,10,0.0005	PIANO	V9004603.D	WG,ICAL		05/03/23 02:55 AM	
16	BLANK	PIANO	V9004604.D	WG,ICAL		05/03/23 04:07 AM	
17	BLANK	PIANO	V9004605.D	WG,ICAL		05/03/23 05:18 AM	
18	TUNE	TUNE	V9004606.D	WG,ICAL		05/03/23 06:28 AM	
19	CCV	PIANO	V9004607.D	WG,ICAL	failed	05/03/23 09:26 AM	
20	CCV	PIANO	V9004608.D	WG,ICAL		05/03/23 11:15 AM	
21	L2320537-01D,31,0.1080,10,0.01	PIANO	V9004609.D	WG,ICAL	overdiluted	05/03/23 12:48 PM	
22	L2320537-01DUPD,31,0.1064,10,0.01	PIANO	V9004610.D	WG,ICAL	overdiluted	05/03/23 02:00 PM	
23	L2320803-30D2,31H,10.78,15,0.0005	PIANO	V9004611.D	WG,ICAL		05/03/23 03:12 PM	
24	TUNE	TUNE	V9004612.D	WG,ICAL		05/03/23 04:53 PM	
25	CCV	PIANO	V9004613.D	WG,ICAL		05/03/23 05:23 PM	
26	W BLANK	PIANO	V9004614.D	WG,ICAL		05/03/23 08:00 PM	
27	L2322694-04,31,0.075,5	PIANO	V9004615.D	WG,ICAL		05/03/23 09:12 PM	
28	BLANK	PIANO	V9004616.D	WG,ICAL		05/03/23 10:24 PM	
29	L2320537-01,31,0.1080,10,0.100	PIANO	V9004617.D	WG,ICAL		05/03/23 11:36 PM	
30	L2320537-01Dup,31,0.1064,10,0.100	PIANO	V9004618.D	WG,ICAL		05/04/23 12:48 PM	
31	BLANK	PIANO	V9004619.D	WG,ICAL		05/04/23 02:00 AM	
32	L2322964-01D,31,0.1035,10,0.010	PIANO	V9004620.D	WG,ICAL	overdiluted	05/04/23 03:12 AM	
33	L2322964-01DupD,31,0.1029,10,0.010	PIANO	V9004621.D	WG,ICAL	overdiluted	05/04/23 04:23 AM	
34	BLANK	PIANO	V9004622.D	WG,ICAL		05/04/23 05:35 AM	

Alpha Analytical Instrument Run Log

35	L2322964-01D2,31,0.1035,10,0.0005	PIANO	V9004623.D	WG,ICAL	do not need	05/04/23 06:47 AM	
36	L2322964-01DupD2,31,0.1029,10,0.0005	PIANO	V9004624.D	WG,ICAL	do not need	05/04/23 07:59 AM	
37	BLANK	PIANO	V9004625.D	WG,ICAL		05/04/23 09:11 AM	
38	L2324088-01D,31,0.1031,10,0.002	PIANO	V9004626.D	WG,ICAL		05/04/23 10:22 AM	
39	BLANK	PIANO	V9004627.D	WG,ICAL		05/04/23 11:35 AM	
40	BLANK	PIANO	V9004628.D	WG,ICAL		05/04/23 12:46 PM	
41	TUNE	TUNE	V9004629.D	WG,ICAL		05/04/23 01:56 PM	
42	CCV	PIANO	V9004630.D	WG,ICAL		05/04/23 03:17 PM	
43	L2322964-01D,31,0.1035,10,0.025	PIANO	V9004631.D	WG,ICAL		05/04/23 05:34 PM	
44	L2322964-01DupD,31,0.1029,10,0.025	PIANO	V9004632.D	WG,ICAL	does not match IS dropped	05/04/23 06:46 PM	
45	BLANK	PIANO	V9004633.D	WG,ICAL		05/04/23 07:58 PM	
46	L2322694-01DupD,31,0.1029,10,0.025	PIANO	V9004634.D	WG,ICAL		05/05/23 11:16 AM	
47	L2324175-01,31H,15.37,15,0.100	PIANO	V9004635.D	WG,ICAL		05/05/23 12:28 PM	

Analytical Event

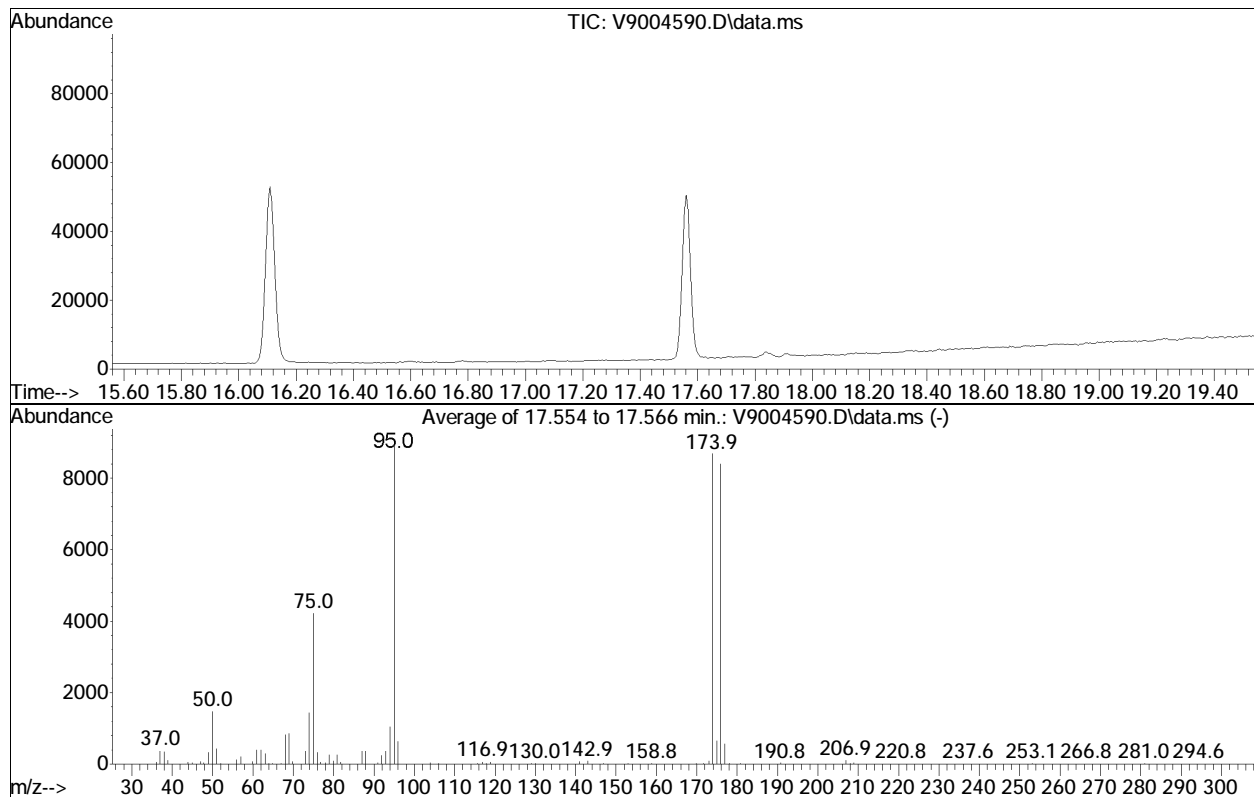
Continuing Calibration BFB Tune

BFB

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
Data File : V9004590.D
Acq On : 02 May 2023 12:01 pm
Operator : VOA9:RAY
Sample : WG1774659-1,31
Misc : WG1774659,ICAL19885
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
Title : PIANO VOLATILES
Last Update : Wed Apr 05 08:18:42 2023



Spectrum Information: Average of 17.554 to 17.566 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.4	1468	PASS
75	95	30	60	47.2	4224	PASS
95	95	100	100	100.0	8940	PASS
96	95	5	9	7.2	642	PASS
173	174	0.00	2	1.0	88	PASS
174	95	50	100	97.2	8691	PASS
175	174	5	9	7.4	645	PASS
176	174	95	101	96.6	8396	PASS
177	176	5	9	6.8	569	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004591.D
 Acq On : 02 May 2023 12:31 pm
 Operator : VOA9:RAY
 Sample : WG1774659-2,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 02 14:35:33 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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	Chlorobenzene-D5 [IS]	1.000	1.000	0.0	110	0.00
2	3-Methyl-1-butene	0.570	0.479	16.0	96	0.01
3	Isopentane	0.214	0.170	20.6	94	0.02
4	1-Pentene	0.279	0.237	15.1	97	0.01
5	2-Methyl-1-butene	0.407	0.350	14.0	96	0.01
6	Pentane	0.346	0.284	17.9	96	0.01
7	trans-2-Pentene	0.445	0.383	13.9	95	0.01
8	2-Methyl-1,3-butadiene	0.314	0.279	11.1	98	0.00
9	cis-2-Pentene	0.398	0.355	10.8	97	0.00
10	Tertiary butanol	0.066	0.058#	12.1	94	-0.04
11	2,2-Dimethylbutane	0.227	0.201	11.5	95	0.01
12	4-Methyl-1-pentene	0.271	0.247	8.9	95	0.00
13	Cyclopentane	0.184	0.166	9.8	98	0.00
14	2,3-Dimethylbutane	0.136	0.122	10.3	97	-0.01
15	2-Methylpentane	0.391	0.355	9.2	96	0.01
16	MTBE	0.766	0.706	7.8	96	-0.01
17	3-Methylpentane	0.390	0.360	7.7	97	0.00
18	1-Hexene	0.216	0.205	5.1	97	0.00
19	Hexane	0.345	0.323	6.4	98	0.00
20	Diisopropyl ether	0.602	0.575	4.5	98	0.00
21	trans-2-Hexene	0.380	0.367	3.4	99	0.00
22	2-Methyl-2-pentene	0.430	0.411	4.4	97	0.00
23	cis-2-Hexene	0.340	0.323	5.0	97	0.00
24 S	Dibromofluoromethane (surr)	0.292	0.288	1.4	108	0.00
25	Ethyl tertiary butyl ether	0.690	0.664	3.8	98	0.00
26	2,2-Dimethylpentane	0.487	0.461	5.3	99	0.00
27	Methylcyclopentane	0.432	0.399	7.6	97	0.00
28	2,4-Dimethylpentane	0.346	0.331	4.3	97	0.00
29	2,2,3-Trimethylbutane	0.436	0.413	5.3	98	0.00
30	1,2-Dichloroethane	0.326	0.300	8.0	97	0.00
31	3,3-Dimethylpentane	0.434	0.414	4.6	99	0.01
32	Cyclohexane	0.360	0.336	6.7	96	0.00
33	2-Methylhexane	0.375	0.368	1.9	101	0.00
34 M	Benzene	1.007	0.927	7.9	99	0.00
35	2,3-Dimethylpentane	0.352	0.338	4.0	100	0.00
36	Thiophene	0.540	0.510	5.6	97	0.00
37	1,1-Dimethylcyclopentane	0.273	0.265	2.9	99	0.00
38	3-Methylhexane	0.334	0.320	4.2	100	0.00
39	TAME	0.784	0.694	11.5	99	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004591.D
 Acq On : 02 May 2023 12:31 pm
 Operator : VOA9:RAY
 Sample : WG1774659-2,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 02 14:35:33 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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)
40	cis-1,3-Dimethylcyclopentan	0.243	0.233	4.1	102	0.00
41	3-Ethylpentane	0.434	0.413	4.8	100	0.00
43	1-Heptene/trans-1,2-DMCP	0.196	0.190	3.1	101	0.00
44	Isooctane	0.956	0.926	3.1	101	0.00
45	trans-3-Heptene	0.247	0.248	-0.4	99	0.00
46	Heptane	0.302	0.291	3.6	99	-0.01
48	trans-2-Heptene	0.263	0.261	0.8	101	0.00
49	cis-2-Heptene	0.234	0.236	-0.9	101	0.00
50	2,2-Dimethylhexane	0.863	0.848	1.7	101	0.00
51	Methylcyclohexane	0.438	0.428	2.3	100	0.00
52	2,5-Dimethylhexane	0.428	0.416	2.8	99	0.00
53	2,4-Dimethylhexane	0.343	0.337	1.7	99	0.00
54	Ethylcyclopentane	0.363	0.354	2.5	100	0.00
55	2,2,3-Trimethylpentane	0.715	0.694	2.9	100	0.00
57	2,3,4-Trimethylpentane	0.445	0.435	2.2	100	0.00
58	2,3,3-Trimethylpentane	0.375	0.369	1.6	101	0.00
59	2,3-Dimethylhexane	0.396	0.389	1.8	100	0.00
60	2-Methylheptane	0.387	0.378	2.3	98	0.00
61	4-Methylheptane	0.424	0.414	2.4	97	0.00
62 S	Toluene-d8 (surr)	1.114	1.164	-4.5	115	0.00
63	3-Methylheptane	0.354	0.304	14.1	95	0.00
65	3-Ethylhexane	0.478	0.444	7.1	98	0.00
66 M	Toluene	1.087	1.048	3.6	101	0.00
67	2-Methylthiophene	0.870	0.858	1.4	101	0.00
68	trans-1,4-Dimethylcyclohexa	0.539	0.528	2.0	100	0.00
69	3-Methylthiophene	0.881	0.870	1.2	101	0.00
70	1-Octene	0.184	0.181	1.6	97	0.00
71	Octane	0.384	0.367	4.4	95	0.00
72	trans-1,2-Dimethylcyclohexa	0.330	0.326	1.2	101	0.00
73	1,2-Dibromoethane	0.272	0.260	4.4	97	0.00
75	cis-2-Octene	0.271	0.270	0.4	97	0.00
76	Isopropylcyclopentane	0.418	0.421	-0.7	104	0.00
77	cis-1,2-Dimethylcyclohexane	0.319	0.321	-0.6	101	0.00
78	2,5-Dimethylheptane	0.574	0.545	5.1	95	0.00
79	3,5-Dimethylheptane	0.698	0.679	2.7	96	0.00
80	3,3-Dimethylheptane	0.444	0.429	3.4	96	0.00
81	1,1,4-Trimethylcyclohexane	0.441	0.432	2.0	98	0.00
82	2,3-Dimethylheptane	0.458	0.435	5.0	95	0.00
83	3,4-Dimethylheptane	0.299	0.280	6.4	95	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004591.D
 Acq On : 02 May 2023 12:31 pm
 Operator : VOA9:RAY
 Sample : WG1774659-2,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 02 14:35:33 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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)
84	4-Methyloctane	0.455	0.464	-2.0	100	0.00
85	2-Methyloctane	0.406	0.360	11.3	88	-0.01
86	Ethylbenzene	1.237	1.196	3.3	97	0.00
88	2-Ethylthiophene	0.936	0.934	0.2	100	0.00
89	3-Methyloctane	0.778	0.745	4.2	95	0.00
90	3,3-Diethylpentane	0.850	0.832	2.1	98	0.00
91	p/m-Xylene	0.965	0.914	5.3	95	0.00
92	1-Nonene	0.189	0.187	1.1	94	0.00
93	trans-3-Nonene	0.278	0.272	2.2	93	0.00
94	cis-3-Nonene	0.320	0.315	1.6	97	0.00
95	Nonane	0.389	0.383	1.5	96	0.00
96	Styrene	0.791	0.765	3.3	94	0.00
98	o-Xylene	1.001	0.935	6.6	94	0.00
99	2-Nonene	0.287	0.280	2.4	94	0.00
100	Isopropylcyclohexane	0.449	0.444	1.1	98	0.00
101 S	4-Bromofluorobenzene (surr)	0.502	0.473	5.8	101	0.00
102	Isopropylbenzene	1.302	1.222	6.1	96	0.00
103	3,3-Dimethyloctane	0.699	0.676	3.3	95	0.00
104	n-Propylbenzene	1.450	1.409	2.8	95	0.00
105	2-Methylnonane	0.353	0.358	-1.4	95	0.00
106	3-Methylnonane	0.476	0.478	-0.4	95	0.00
107	1-Methyl-3-ethylbenzene	1.289	1.230	4.6	94	0.00
108	1-Methyl-4-ethylbenzene	1.246	1.194	4.2	95	0.00
109	1,3,5-Trimethylbenzene	1.063	1.039	2.3	95	0.00
110	1-Decene	0.210	0.211	-0.5	95	0.00
111	Isobutylcyclohexane	0.516	0.496	3.9	96	0.00
112	1-Methyl-2-ethylbenzene	1.323	1.247	5.7	94	0.00
113	Decane	0.375	0.363	3.2	94	0.00
114	tert-Butylbenzene	0.986	0.930	5.7	94	0.00
115	1,2,4-Trimethylbenzene	1.132	1.100	2.8	94	0.00
116	Isobutylbenzene	1.239	1.193	3.7	95	0.00
117	sec-Butylbenzene	1.441	1.365	5.3	94	0.00
118	1-Methyl-3-isopropylbenzene	1.238	1.196	3.4	94	0.00
119	1-Methyl-4-isopropylbenzene	1.231	1.188	3.5	94	0.00
120	1,2,3-Trimethylbenzene	1.178	1.139	3.3	94	0.00
121	1-Methyl-2-isopropylbenzene	1.255	1.200	4.4	93	0.00
122	Indan	1.143	1.078	5.7	93	0.00
123	1,3-Diethylbenzene	0.795	0.767	3.5	93	0.00
124	1-Methyl-3-propylbenzene	1.476	1.443	2.2	95	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004591.D
 Acq On : 02 May 2023 12:31 pm
 Operator : VOA9:RAY
 Sample : WG1774659-2,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 02 14:35:33 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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)
125	Indene	1.079	1.031	4.4	92	0.00
126	1-Methyl-4-propylbenzene	1.748	1.690	3.3	93	0.00
127	n-Butylbenzene	1.368	1.310	4.2	93	0.00
128	1,2-Dimethyl-4-ethylbenzene	1.330	1.295	2.6	93	0.00
129	1,2-Diethylbenzene	0.641	0.611	4.7	93	0.00
130	1-Methyl-2-propylbenzene	1.582	1.535	3.0	93	0.00
131	1,4-Dimethyl-2-ethylbenzene	1.228	1.202	2.1	93	0.00
132	Undecane	0.489	0.496	-1.4	95	0.00
133	1,3-Dimethyl-4-ethylbenzene	1.505	1.456	3.3	93	0.00
134	1,3-Dimethyl-5-ethylbenzene	1.348	1.314	2.5	93	0.00
135	1,3-Dimethyl-2-ethylbenzene	1.471	1.421	3.4	93	0.00
136	1,2-Dimethyl-3-ethylbenzene	1.323	1.282	3.1	93	0.00
137	1,2,4,5-Tetramethylbenzene	1.385	1.355	2.2	94	0.00
138	1,2,3,5-Tetramethylbenzene	1.280	1.237	3.4	93	0.00
139	Pentylbenzene	1.174	1.139	3.0	94	0.00
140	1,2,3,4-Tetramethylbenzene	1.720	1.662	3.4	94	0.00
141	1,3-DM-5-tert-Butylbenzene	1.191	1.167	2.0	94	0.00
142	Dodecane	0.339	0.344	-1.5	91	0.00
143	1,3,5-Triethylbenzene	0.756	0.749	0.9	95	0.00
144	Naphthalene	1.605	1.493	7.0	92	0.00
145	Benzothiophene	0.954	0.891	6.6	92	0.00
146	1,2,4-Triethylbenzene	0.705	0.698	1.0	95	0.00
147	Hexylbenzene	1.052	1.054	-0.2	95	0.00
148	MMT	0.577	0.558	3.3	93	0.00
149	Tridecane	0.398	0.363	8.8	87	0.00
150	2-Methylnaphthalene	1.065	1.030	3.3	94	0.00
151	1-Methylnaphthalene	0.952	0.912	4.2	93	0.00
152	Tetradecane	0.303	0.251	17.2	87	0.00
153	Pentadecane	0.207	0.179	13.5	86	0.00

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

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004591.D
 Acq On : 02 May 2023 12:31 pm
 Operator : VOA9:RAY
 Sample : WG1774659-2,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 02 14:35:33 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	329662	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.10	113	95024	49.413	ug/L	0.00
Spiked Amount 50.000	Range 78 - 118		Recovery	=	98.83%	
62) Toluene-d8 (surr)	31.20	98	383828	52.272	ug/L	0.00
Spiked Amount 50.000	Range 87 - 113		Recovery	=	104.54%	
101) 4-Bromofluorobenzene (...)	46.49	95	155939	47.118	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery	=	94.24%	
Target Compounds						
						Qvalue
2) 3-Methyl-1-butene	7.60	55	157885	41.976	ug/L	99
3) Isopentane	8.16	43	55925	39.593	ug/L	96
4) 1-Pentene	8.84	42	78241	42.606	ug/L	98
5) 2-Methyl-1-butene	9.16	55	115413	42.997	ug/L	98
6) Pentane	9.21	43	93760	41.130	ug/L	99
7) trans-2-Pentene	9.68	55	126412	43.041	ug/L	99
8) 2-Methyl-1,3-butadiene	9.85	67	91948	44.414	ug/L	98
9) cis-2-Pentene	10.06	55	117137	44.597	ug/L	99
10) Tertiary butanol	10.92	59	96128M4	219.769	ug/L	
11) 2,2-Dimethylbutane	11.10	43	66218	44.243	ug/L	98
12) 4-Methyl-1-pentene	12.45	43	81454	45.636	ug/L	98
13) Cyclopentane	12.93	70	54715	45.198	ug/L	99
14) 2,3-Dimethylbutane	12.92	71	40250	44.922	ug/L	100
15) 2-Methylpentane	13.15	43	116881	45.395	ug/L	97
16) MTBE	13.48	73	232772	46.075	ug/L	100
17) 3-Methylpentane	14.13	57	118591	46.121	ug/L	99
18) 1-Hexene	14.73	56	67499	47.347	ug/L	98
19) Hexane	15.34	57	106616	46.843	ug/L	99
20) Diisopropyl ether	15.66	45	189666	47.800	ug/L	99
21) trans-2-Hexene	15.84	55	121023	48.253	ug/L	98
22) 2-Methyl-2-pentene	16.02	69	135544	47.775	ug/L	97
23) cis-2-Hexene	16.59	55	106440	47.522	ug/L	99
25) Ethyl tertiary butyl e...	17.15	59	218857	48.127	ug/L	98
26) 2,2-Dimethylpentane	17.40	57	151852	47.300	ug/L	98
27) Methylcyclopentane	17.68	56	131561	46.176	ug/L	98
28) 2,4-Dimethylpentane	17.84	43	109081	47.760	ug/L	99
29) 2,2,3-Trimethylbutane	18.46	57	136197	47.341	ug/L	97
30) 1,2-Dichloroethane	19.18	62	98949	46.027	ug/L	100
31) 3,3-Dimethylpentane	20.13	43	136406	47.723	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004591.D
 Acq On : 02 May 2023 12:31 pm
 Operator : VOA9:RAY
 Sample : WG1774659-2,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 02 14:35:33 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Cyclohexane	20.61	56	110665	46.643	ug/L	97
33) 2-Methylhexane	21.04	43	121218	49.051	ug/L	98
34) Benzene	21.24	78	305726	46.063	ug/L	99
35) 2,3-Dimethylpentane	21.35	56	111521	48.105	ug/L	98
36) Thiophene	21.69	84	168182	47.216	ug/L	97
37) 1,1-Dimethylcyclopentane	21.80	83	87400	48.480	ug/L	97
38) 3-Methylhexane	21.86	43	105537	47.871	ug/L	98
39) TAME	22.25	73	228768	44.255	ug/L	97
40) cis-1,3-Dimethylcyclop...	22.64	70	76905	47.909	ug/L	99
41) 3-Ethylpentane	22.81	43	136283	47.619	ug/L	97
43) 1-Heptene/trans-1,2-DMCP	23.20	70	125375	96.803	ug/L	91
44) Isooctane	23.30	57	305313	48.439	ug/L	94
45) trans-3-Heptene	23.92	41	81686	50.240	ug/L	99
46) Heptane	24.04	43	95876	48.143	ug/L	99
48) trans-2-Heptene	24.69	56	85890	49.624	ug/L	99
49) cis-2-Heptene	25.49	56	77921	50.567	ug/L	98
50) 2,2-Dimethylhexane	26.26	57	279453	49.095	ug/L	99
51) Methylcyclohexane	26.48	83	140987	48.818	ug/L	99
52) 2,5-Dimethylhexane	27.15	57	137231	48.669	ug/L	98
53) 2,4-Dimethylhexane	27.41	57	111098	49.085	ug/L	97
54) Ethylcyclopentane	27.45	69	116645	48.688	ug/L	99
55) 2,2,3-Trimethylpentane	27.67	57	228691	48.536	ug/L	98
57) 2,3,4-Trimethylpentane	29.21	43	143530	48.928	ug/L	97
58) 2,3,3-Trimethylpentane	29.78	43	121776	49.221	ug/L	98
59) 2,3-Dimethylhexane	30.05	43	128391	49.202	ug/L	98
60) 2-Methylheptane	30.48	57	124749	48.899	ug/L	97
61) 4-Methylheptane	30.66	43	136377	48.754	ug/L	99
63) 3-Methylheptane	31.24	43	100231	42.943	ug/L	99
65) 3-Ethylhexane	31.36	43	146400	46.425	ug/L	97
66) Toluene	31.56	91	345429	48.191	ug/L	100
67) 2-Methylthiophene	31.73	97	282955	49.309	ug/L	100
68) trans-1,4-Dimethylcycl...	32.20	97	174173	49.003	ug/L	97
69) 3-Methylthiophene	32.50	97	286768	49.343	ug/L	99
70) 1-Octene	32.92	55	59796	49.415	ug/L	98
71) Octane	33.75	43	120849	47.761	ug/L	99
72) trans-1,2-Dimethylcycl...	34.03	55	107553	49.502	ug/L	98
73) 1,2-Dibromoethane	34.28	107	85772	47.867	ug/L	98
75) cis-2-Octene	35.13	55	89158	49.960	ug/L	98
76) Isopropylcyclopentane	35.26	68	138850	50.427	ug/L	99
77) cis-1,2-Dimethylcycloh...	37.03	55	105725	50.219	ug/L	96
78) 2,5-Dimethylheptane	37.37	57	179815	47.498	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004591.D
 Acq On : 02 May 2023 12:31 pm
 Operator : VOA9:RAY
 Sample : WG1774659-2,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 02 14:35:33 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 3,5-Dimethylheptane	37.51	57	223790M4	48.660	ug/L	
80) 3,3-Dimethylheptane	37.76	57	141542	48.378	ug/L	97
81) 1,1,4-Trimethylcyclohe...	38.29	69	142479	48.988	ug/L	95
82) 2,3-Dimethylheptane	39.44	43	143462	47.534	ug/L	98
83) 3,4-Dimethylheptane	39.75	43	92233	46.767	ug/L	99
84) 4-Methyloctane	40.04	43	152849	50.907	ug/L	97
85) 2-Methyloctane	40.12	43	118695M3	44.368	ug/L	
86) Ethylbenzene	40.65	91	394378	48.364	ug/L	99
88) 2-Ethylthiophene	40.80	97	308029	49.927	ug/L	99
89) 3-Methyloctane	40.79	57	245661	47.872	ug/L	100
90) 3,3-Diethylpentane	41.78	57	274279	48.916	ug/L	99
91) p/m-Xylene	41.90	91	602868M4	94.735	ug/L	
92) 1-Nonene	42.56	56	61514	49.319	ug/L	98
93) trans-3-Nonene	42.98	55	89683	48.904	ug/L	98
94) cis-3-Nonene	43.26	55	103957M6	49.337	ug/L	
95) Nonane	43.34	43	126208M6	49.169	ug/L	
96) Styrene	43.78	104	252258	48.374	ug/L	98
98) o-Xylene	44.18	91	308189	46.687	ug/L	99
99) 2-Nonene	44.62	55	92456	48.927	ug/L	99
100) Isopropylcyclohexane	45.89	83	146340	49.412	ug/L	98
102) Isopropylbenzene	46.51	105	402982	46.959	ug/L	99
103) 3,3-Dimethyloctane	47.01	71	222689	48.303	ug/L	99
104) n-Propylbenzene	48.96	91	464357	48.558	ug/L	100
105) 2-Methylnonane	49.01	43	118178	50.720	ug/L	99
106) 3-Methylnonane	49.41	57	157540	50.176	ug/L	100
107) 1-Methyl-3-ethylbenzene	49.54	105	405571	47.715	ug/L	100
108) 1-Methyl-4-ethylbenzene	49.70	105	393754	47.924	ug/L	100
109) 1,3,5-Trimethylbenzene	50.26	105	342452	48.877	ug/L	100
110) 1-Decene	50.38	41	69714	50.355	ug/L	98
111) Isobutylcyclohexane	50.54	83	163353	47.978	ug/L	100
112) 1-Methyl-2-ethylbenzene	50.58	105	411165	47.128	ug/L	99
113) Decane	50.75	43	119608	48.370	ug/L	100
114) tert-Butylbenzene	51.01	119	306626	47.173	ug/L	99
115) 1,2,4-Trimethylbenzene	51.41	105	362635	48.586	ug/L	100
116) Isobutylbenzene	51.60	91	393285M4	48.159	ug/L	
117) sec-Butylbenzene	51.66	105	449968	47.371	ug/L	99
118) 1-Methyl-3-isopropylbe...	52.04	119	394290	48.322	ug/L	99
119) 1-Methyl-4-isopropylbe...	52.24	119	391726	48.271	ug/L	99
120) 1,2,3-Trimethylbenzene	52.50	105	375341	48.342	ug/L	98
121) 1-Methyl-2-isopropylbe...	52.70	119	395712	47.805	ug/L	100
122) Indan	52.79	117	355466	47.174	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004591.D
 Acq On : 02 May 2023 12:31 pm
 Operator : VOA9:RAY
 Sample : WG1774659-2,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 02 14:35:33 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
123) 1,3-Diethylbenzene	52.94	105	252688	48.219	ug/L	100
124) 1-Methyl-3-propylbenzene	53.05	105	475761	48.897	ug/L	100
125) Indene	53.22	115	339868	47.789	ug/L	100
126) 1-Methyl-4-propylbenzene	53.21	105	557271	48.360	ug/L	99
127) n-Butylbenzene	53.20	91	431879	47.887	ug/L	99
128) 1,2-Dimethyl-4-ethylbe...	53.32	119	426836	48.669	ug/L	99
129) 1,2-Diethylbenzene	53.41	119	201428	47.688	ug/L	99
130) 1-Methyl-2-propylbenzene	53.60	105	506131	48.514	ug/L	100
131) 1,4-Dimethyl-2-ethylbe...	53.91	119	396208	48.921	ug/L	100
132) Undecane	53.94	57	163360	50.688	ug/L	99
133) 1,3-Dimethyl-4-ethylbe...	54.00	119	480109	48.378	ug/L	99
134) 1,3-Dimethyl-5-ethylbe...	54.13	119	433077	48.741	ug/L	99
135) 1,3-Dimethyl-2-ethylbe...	54.35	119	468465	48.306	ug/L	99
136) 1,2-Dimethyl-3-ethylbe...	54.72	119	422487	48.438	ug/L	99
137) 1,2,4,5-Tetramethylben...	55.12	119	446586	48.901	ug/L	99
138) 1,2,3,5-Tetramethylben...	55.21	119	407850	48.313	ug/L	99
139) Pentylbenzene	55.69	91	375590	48.525	ug/L	99
140) 1,2,3,4-Tetramethylben...	56.02	119	548013	48.337	ug/L	99
141) 1,3-DM-5-tert-Butylben...	56.00	147	384832	49.020	ug/L	100
142) Dodecane	56.17	43	113526	50.798	ug/L	98
143) 1,3,5-Triethylbenzene	56.89	147	246794	49.481	ug/L	99
144) Naphthalene	57.05	128	492042	46.503	ug/L	99
145) Benzothiophene	57.14	134	293768	46.693	ug/L	100
146) 1,2,4-Triethylbenzene	57.47	147	230201	49.491	ug/L	99
147) Hexylbenzene	57.97	91	347444	50.098	ug/L	99
148) MMT	58.24	134	183891	48.344	ug/L	99
149) Tridecane	58.28	57	119622	45.552	ug/L	98
150) 2-Methylnaphthalene	59.83	142	339541	48.337	ug/L	98
151) 1-Methylnaphthalene	60.31	142	300729	47.896	ug/L	99
152) Tetradecane	60.60	57	82615	41.418	ug/L	97
153) Pentadecane	63.42	57	59103	43.363	ug/L	98

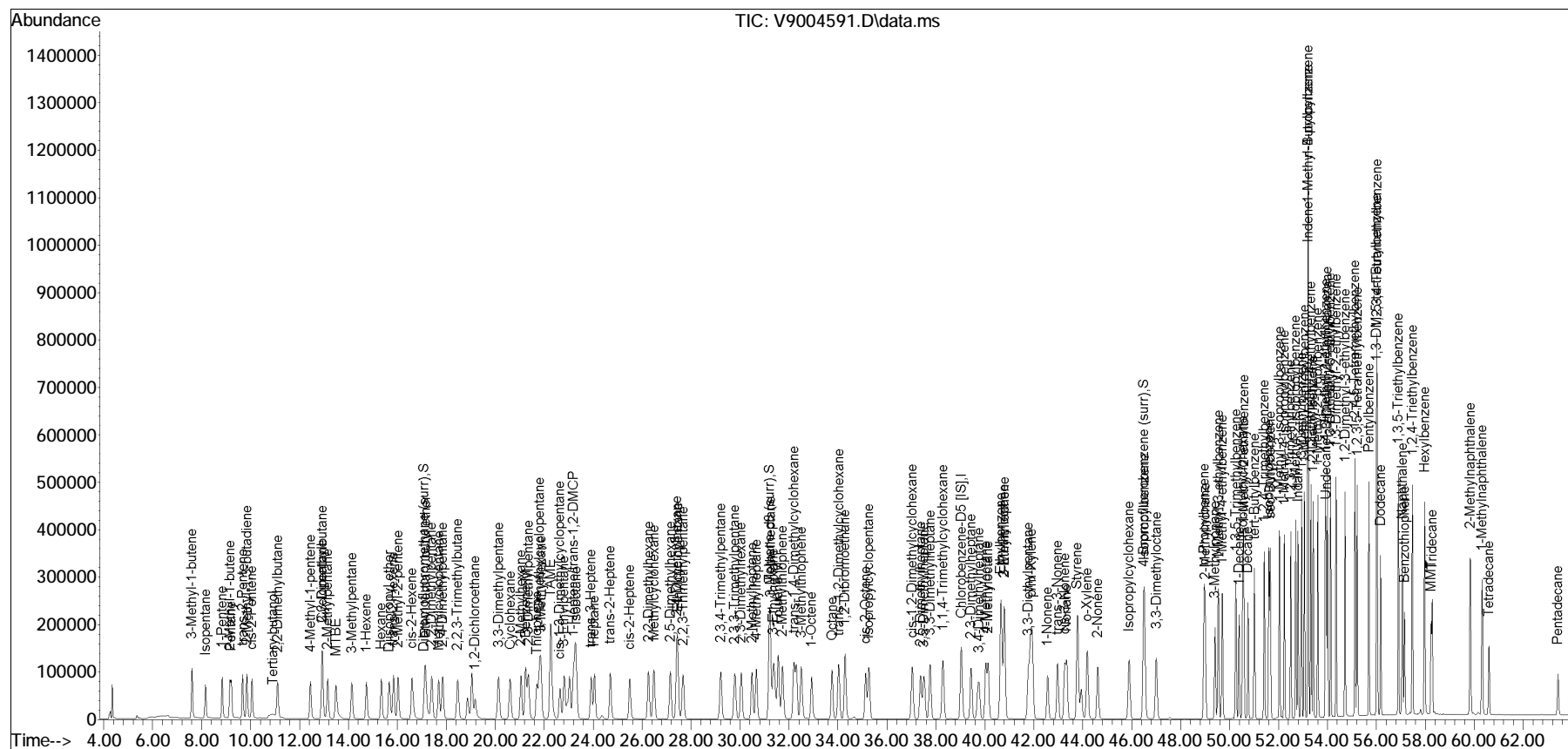
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
Data File : V9004591.D
Acq On : 02 May 2023 12:31 pm
Operator : VOA9:RAY
Sample : WG1774659-2,31,0.1000,10,0.1
Misc : WG1774659,ICAL19885
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 02 14:35:33 2023
Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
Quant Title : PIANO VOLATILES
QLast Update : Wed Apr 05 08:18:42 2023
Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO



Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004608.D
 Acq On : 03 May 2023 11:15 am
 Operator : VOA9:RAY
 Sample : WG1774659-9,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 03 12:17:42 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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	Chlorobenzene-D5 [IS]	1.000	1.000	0.0	116	0.00
2	3-Methyl-1-butene	0.570	0.450	21.1	95	0.00
3	Isopentane	0.214	0.159	25.7#	92	0.00
4	1-Pentene	0.279	0.219	21.5	95	0.00
5	2-Methyl-1-butene	0.407	0.333	18.2	96	0.00
6	Pentane	0.346	0.266	23.1	94	0.00
7	trans-2-Pentene	0.445	0.367	17.5	96	0.00
8	2-Methyl-1,3-butadiene	0.314	0.269	14.3	99	0.00
9	cis-2-Pentene	0.398	0.341	14.3	98	0.00
10	Tertiary butanol	0.066	0.058#	12.1	99	-0.03
11	2,2-Dimethylbutane	0.227	0.190	16.3	95	0.00
12	4-Methyl-1-pentene	0.271	0.235	13.3	95	0.00
13	Cyclopentane	0.184	0.162	12.0	100	0.00
14	2,3-Dimethylbutane	0.136	0.118	13.2	98	-0.02
15	2-Methylpentane	0.391	0.332	15.1	95	0.00
16	MTBE	0.766	0.699	8.7	100	0.00
17	3-Methylpentane	0.390	0.344	11.8	98	0.00
18	1-Hexene	0.216	0.198	8.3	99	0.00
19	Hexane	0.345	0.312	9.6	100	0.00
20	Diisopropyl ether	0.602	0.555	7.8	99	-0.01
21	trans-2-Hexene	0.380	0.355	6.6	101	0.00
22	2-Methyl-2-pentene	0.430	0.391	9.1	98	0.00
23	cis-2-Hexene	0.340	0.312	8.2	99	-0.01
24 S	Dibromofluoromethane (surr)	0.292	0.283	3.1	112	0.00
25	Ethyl tertiary butyl ether	0.690	0.653	5.4	101	0.00
26	2,2-Dimethylpentane	0.487	0.447	8.2	101	0.00
27	Methylcyclopentane	0.432	0.388	10.2	99	0.00
28	2,4-Dimethylpentane	0.346	0.319	7.8	99	0.00
29	2,2,3-Trimethylbutane	0.436	0.402	7.8	100	0.00
30	1,2-Dichloroethane	0.326	0.298	8.6	101	0.00
31	3,3-Dimethylpentane	0.434	0.399	8.1	100	0.00
32	Cyclohexane	0.360	0.328	8.9	99	0.00
33	2-Methylhexane	0.375	0.354	5.6	103	0.00
34 M	Benzene	1.007	0.915	9.1	103	-0.01
35	2,3-Dimethylpentane	0.352	0.330	6.2	103	0.00
36	Thiophene	0.540	0.507	6.1	102	0.00
37	1,1-Dimethylcyclopentane	0.273	0.262	4.0	103	-0.01
38	3-Methylhexane	0.334	0.309	7.5	102	-0.01
39	TAME	0.784	0.688	12.2	103	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004608.D
 Acq On : 03 May 2023 11:15 am
 Operator : VOA9:RAY
 Sample : WG1774659-9,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 03 12:17:42 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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)
40	cis-1,3-Dimethylcyclopentan	0.243	0.225	7.4	103	0.00
41	3-Ethylpentane	0.434	0.400	7.8	102	0.00
43	1-Heptene/trans-1,2-DMCP	0.196	0.189	3.6	105	-0.02
44	Isooctane	0.956	0.900	5.9	103	0.00
45	trans-3-Heptene	0.247	0.241	2.4	101	0.00
46	Heptane	0.302	0.287	5.0	103	-0.01
48	trans-2-Heptene	0.263	0.258	1.9	106	0.00
49	cis-2-Heptene	0.234	0.234	0.0	106	0.00
50	2,2-Dimethylhexane	0.863	0.831	3.7	104	-0.01
51	Methylcyclohexane	0.438	0.425	3.0	105	-0.02
52	2,5-Dimethylhexane	0.428	0.412	3.7	103	0.00
53	2,4-Dimethylhexane	0.343	0.335	2.3	104	0.00
54	Ethylcyclopentane	0.363	0.349	3.9	104	-0.01
55	2,2,3-Trimethylpentane	0.715	0.684	4.3	104	0.00
57	2,3,4-Trimethylpentane	0.445	0.427	4.0	104	0.00
58	2,3,3-Trimethylpentane	0.375	0.361	3.7	104	-0.01
59	2,3-Dimethylhexane	0.396	0.381	3.8	103	0.00
60	2-Methylheptane	0.387	0.374	3.4	102	0.00
61	4-Methylheptane	0.424	0.408	3.8	101	0.00
62 S	Toluene-d8 (surr)	1.114	1.150	-3.2	119	-0.01
63	3-Methylheptane	0.354	0.294	16.9	96	0.00
65	3-Ethylhexane	0.478	0.436	8.8	102	0.00
66 M	Toluene	1.087	1.058	2.7	107	0.00
67	2-Methylthiophene	0.870	0.862	0.9	107	0.00
68	trans-1,4-Dimethylcyclohexa	0.539	0.536	0.6	107	0.00
69	3-Methylthiophene	0.881	0.874	0.8	106	0.00
70	1-Octene	0.184	0.178	3.3	100	0.00
71	Octane	0.384	0.360	6.3	98	-0.01
72	trans-1,2-Dimethylcyclohexa	0.330	0.321	2.7	105	0.00
73	1,2-Dibromoethane	0.272	0.265	2.6	105	-0.01
75	cis-2-Octene	0.271	0.272	-0.4	103	0.00
76	Isopropylcyclopentane	0.418	0.415	0.7	108	0.00
77	cis-1,2-Dimethylcyclohexane	0.319	0.314	1.6	104	0.00
78	2,5-Dimethylheptane	0.574	0.552	3.8	102	0.00
79	3,5-Dimethylheptane	0.698	0.666	4.6	99	0.00
80	3,3-Dimethylheptane	0.444	0.428	3.6	101	0.00
81	1,1,4-Trimethylcyclohexane	0.441	0.434	1.6	104	0.00
82	2,3-Dimethylheptane	0.458	0.427	6.8	98	0.00
83	3,4-Dimethylheptane	0.299	0.276	7.7	98	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004608.D
 Acq On : 03 May 2023 11:15 am
 Operator : VOA9:RAY
 Sample : WG1774659-9,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 03 12:17:42 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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)
84	4-Methyloctane	0.455	0.420	7.7	96	0.00
85	2-Methyloctane	0.406	0.387	4.7	99	-0.01
86	Ethylbenzene	1.237	1.205	2.6	103	0.00
88	2-Ethylthiophene	0.936	0.940	-0.4	106	0.00
89	3-Methyloctane	0.778	0.735	5.5	99	0.00
90	3,3-Diethylpentane	0.850	0.824	3.1	102	0.00
91	p/m-Xylene	0.965	0.926	4.0	101	0.01
92	1-Nonene	0.189	0.187	1.1	99	-0.01
93	trans-3-Nonene	0.278	0.273	1.8	99	0.00
94	cis-3-Nonene	0.320	0.311	2.8	100	0.00
95	Nonane	0.389	0.375	3.6	99	0.00
96	Styrene	0.791	0.777	1.8	100	0.00
98	o-Xylene	1.001	0.942	5.9	100	0.00
99	2-Nonene	0.287	0.277	3.5	98	0.00
100	Isopropylcyclohexane	0.449	0.445	0.9	103	-0.01
101 S	4-Bromofluorobenzene (surr)	0.502	0.477	5.0	107	0.00
102	Isopropylbenzene	1.302	1.239	4.8	103	0.00
103	3,3-Dimethyloctane	0.699	0.671	4.0	100	0.00
104	n-Propylbenzene	1.450	1.415	2.4	101	0.00
105	2-Methylnonane	0.353	0.353	0.0	99	0.00
106	3-Methylnonane	0.476	0.476	0.0	100	0.00
107	1-Methyl-3-ethylbenzene	1.289	1.250	3.0	101	0.00
108	1-Methyl-4-ethylbenzene	1.246	1.207	3.1	101	0.00
109	1,3,5-Trimethylbenzene	1.063	1.050	1.2	101	0.00
110	1-Decene	0.210	0.212	-1.0	100	0.00
111	Isobutylcyclohexane	0.516	0.496	3.9	101	0.00
112	1-Methyl-2-ethylbenzene	1.323	1.262	4.6	100	0.00
113	Decane	0.375	0.360	4.0	98	0.00
114	tert-Butylbenzene	0.986	0.945	4.2	101	0.00
115	1,2,4-Trimethylbenzene	1.132	1.115	1.5	101	0.00
116	Isobutylbenzene	1.239	1.201	3.1	100	0.00
117	sec-Butylbenzene	1.441	1.377	4.4	100	0.00
118	1-Methyl-3-isopropylbenzene	1.238	1.206	2.6	100	0.00
119	1-Methyl-4-isopropylbenzene	1.231	1.201	2.4	100	0.00
120	1,2,3-Trimethylbenzene	1.178	1.149	2.5	99	0.00
121	1-Methyl-2-isopropylbenzene	1.255	1.219	2.9	100	0.00
122	Indan	1.143	1.086	5.0	99	0.00
123	1,3-Diethylbenzene	0.795	0.776	2.4	100	0.00
124	1-Methyl-3-propylbenzene	1.476	1.455	1.4	100	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004608.D
 Acq On : 03 May 2023 11:15 am
 Operator : VOA9:RAY
 Sample : WG1774659-9,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 03 12:17:42 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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)
125	Indene	1.079	1.038	3.8	97	0.00
126	1-Methyl-4-propylbenzene	1.748	1.703	2.6	99	0.00
127	n-Butylbenzene	1.368	1.309	4.3	98	0.00
128	1,2-Dimethyl-4-ethylbenzene	1.330	1.306	1.8	99	0.00
129	1,2-Diethylbenzene	0.641	0.619	3.4	99	0.00
130	1-Methyl-2-propylbenzene	1.582	1.544	2.4	99	0.00
131	1,4-Dimethyl-2-ethylbenzene	1.228	1.214	1.1	99	0.00
132	Undecane	0.489	0.485	0.8	98	0.00
133	1,3-Dimethyl-4-ethylbenzene	1.505	1.473	2.1	100	0.00
134	1,3-Dimethyl-5-ethylbenzene	1.348	1.330	1.3	99	0.00
135	1,3-Dimethyl-2-ethylbenzene	1.471	1.440	2.1	99	0.00
136	1,2-Dimethyl-3-ethylbenzene	1.323	1.291	2.4	99	0.00
137	1,2,4,5-Tetramethylbenzene	1.385	1.365	1.4	100	0.00
138	1,2,3,5-Tetramethylbenzene	1.280	1.261	1.5	100	0.00
139	Pentylbenzene	1.174	1.138	3.1	99	0.00
140	1,2,3,4-Tetramethylbenzene	1.720	1.681	2.3	100	0.00
141	1,3-DM-5-tert-Butylbenzene	1.191	1.185	0.5	101	0.00
142	Dodecane	0.339	0.336	0.9	94	0.00
143	1,3,5-Triethylbenzene	0.756	0.755	0.1	101	0.00
144	Naphthalene	1.605	1.524	5.0	99	0.00
145	Benzothiophene	0.954	0.918	3.8	100	0.00
146	1,2,4-Triethylbenzene	0.705	0.702	0.4	100	0.00
147	Hexylbenzene	1.052	1.051	0.1	100	0.00
148	MMT	0.577	0.567	1.7	99	0.00
149	Tridecane	0.398	0.363	8.8	92	0.00
150	2-Methylnaphthalene	1.065	1.051	1.3	101	0.00
151	1-Methylnaphthalene	0.952	0.937	1.6	101	0.00
152	Tetradecane	0.303	0.265	12.5	97	0.00
153	Pentadecane	0.207	0.202	2.4	102	0.00

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

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004608.D
 Acq On : 03 May 2023 11:15 am
 Operator : VOA9:RAY
 Sample : WG1774659-9,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 03 12:17:42 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	347362	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.10	113	98305	48.515	ug/L	0.00
Spiked Amount 50.000	Range 78 - 118		Recovery	=	97.03%	
62) Toluene-d8 (surr)	31.19	98	399335	51.613	ug/L	-0.01
Spiked Amount 50.000	Range 87 - 113		Recovery	=	103.23%	
101) 4-Bromofluorobenzene (...)	46.48	95	165646	47.501	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery	=	95.00%	
Target Compounds						
						Qvalue
2) 3-Methyl-1-butene	7.60	55	156293	39.436	ug/L	98
3) Isopentane	8.15	43	55301	37.156	ug/L	97
4) 1-Pentene	8.83	42	76217	39.389	ug/L	97
5) 2-Methyl-1-butene	9.14	55	115581	40.865	ug/L	98
6) Pentane	9.20	43	92239	38.401	ug/L	97
7) trans-2-Pentene	9.66	55	127466	41.189	ug/L	99
8) 2-Methyl-1,3-butadiene	9.84	67	93285	42.764	ug/L	99
9) cis-2-Pentene	10.04	55	118510	42.821	ug/L	99
10) Tertiary butanol	10.93	59	101145M4	219.456	ug/L	
11) 2,2-Dimethylbutane	11.10	43	66004	41.852	ug/L	97
12) 4-Methyl-1-pentene	12.43	43	81525	43.348	ug/L	99
13) Cyclopentane	12.92	70	56150	44.020	ug/L	98
14) 2,3-Dimethylbutane	12.91	71	40893	43.314	ug/L #	86
15) 2-Methylpentane	13.14	43	115433	42.548	ug/L	96
16) MTBE	13.49	73	242638	45.581	ug/L	99
17) 3-Methylpentane	14.13	57	119386	44.064	ug/L	99
18) 1-Hexene	14.73	56	68647	45.698	ug/L	99
19) Hexane	15.34	57	108207	45.120	ug/L	99
20) Diisopropyl ether	15.66	45	192858	46.128	ug/L	99
21) trans-2-Hexene	15.84	55	123231	46.630	ug/L	97
22) 2-Methyl-2-pentene	16.02	69	135979	45.486	ug/L	98
23) cis-2-Hexene	16.58	55	108415	45.937	ug/L	99
25) Ethyl tertiary butyl e...	17.15	59	226931	47.359	ug/L	97
26) 2,2-Dimethylpentane	17.40	57	155212	45.883	ug/L	97
27) Methylcyclopentane	17.68	56	134622	44.843	ug/L	98
28) 2,4-Dimethylpentane	17.84	43	110867	46.069	ug/L	97
29) 2,2,3-Trimethylbutane	18.45	57	139469	46.008	ug/L	96
30) 1,2-Dichloroethane	19.17	62	103386	45.641	ug/L	99
31) 3,3-Dimethylpentane	20.12	43	138729	46.063	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004608.D
 Acq On : 03 May 2023 11:15 am
 Operator : VOA9:RAY
 Sample : WG1774659-9,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 03 12:17:42 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Cyclohexane	20.60	56	113859	45.544	ug/L	96
33) 2-Methylhexane	21.04	43	122986	47.231	ug/L	96
34) Benzene	21.22	78	317919	45.459	ug/L	99
35) 2,3-Dimethylpentane	21.35	56	114730	46.967	ug/L	99
36) Thiophene	21.69	84	175989	46.890	ug/L	97
37) 1,1-Dimethylcyclopentane	21.79	83	91127	47.971	ug/L	94
38) 3-Methylhexane	21.85	43	107203	46.149	ug/L	99
39) TAME	22.25	73	238996	43.878	ug/L	96
40) cis-1,3-Dimethylcyclop...	22.64	70	78151	46.204	ug/L	97
41) 3-Ethylpentane	22.81	43	139009	46.097	ug/L	97
43) 1-Heptene/trans-1,2-DMCP	23.19	70	131150	96.102	ug/L	87
44) Isooctane	23.30	57	312671	47.079	ug/L	95
45) trans-3-Heptene	23.91	41	83825	48.929	ug/L	99
46) Heptane	24.04	43	99860	47.588	ug/L	96
48) trans-2-Heptene	24.69	56	89710	49.190	ug/L	99
49) cis-2-Heptene	25.49	56	81298	50.070	ug/L	96
50) 2,2-Dimethylhexane	26.25	57	288605	48.119	ug/L	99
51) Methylcyclohexane	26.47	83	147737	48.549	ug/L	100
52) 2,5-Dimethylhexane	27.14	57	142968	48.120	ug/L	97
53) 2,4-Dimethylhexane	27.42	57	116340	48.782	ug/L	99
54) Ethylcyclopentane	27.44	69	121299	48.051	ug/L	97
55) 2,2,3-Trimethylpentane	27.66	57	237428	47.823	ug/L	98
57) 2,3,4-Trimethylpentane	29.21	43	148360	47.998	ug/L	99
58) 2,3,3-Trimethylpentane	29.78	43	125530	48.153	ug/L	96
59) 2,3-Dimethylhexane	30.05	43	132212	48.085	ug/L	99
60) 2-Methylheptane	30.48	57	129909	48.327	ug/L	97
61) 4-Methylheptane	30.66	43	141707	48.078	ug/L	99
63) 3-Methylheptane	31.23	43	102184	41.549	ug/L	99
65) 3-Ethylhexane	31.36	43	151363	45.553	ug/L	97
66) Toluene	31.56	91	367348	48.638	ug/L	100
67) 2-Methylthiophene	31.73	97	299456	49.525	ug/L	99
68) trans-1,4-Dimethylcycl...	32.20	97	186326	49.751	ug/L	98
69) 3-Methylthiophene	32.50	97	303738	49.600	ug/L	99
70) 1-Octene	32.92	55	61838	48.499	ug/L	97
71) Octane	33.75	43	124992	46.881	ug/L	98
72) trans-1,2-Dimethylcycl...	34.02	55	111637	48.763	ug/L	97
73) 1,2-Dibromoethane	34.27	107	92045	48.751	ug/L	100
75) cis-2-Octene	35.12	55	94329	50.164	ug/L	97
76) Isopropylcyclopentane	35.26	68	144282	49.730	ug/L	97
77) cis-1,2-Dimethylcycloh...	37.03	55	109135	49.197	ug/L	97
78) 2,5-Dimethylheptane	37.37	57	191616	48.036	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004608.D
 Acq On : 03 May 2023 11:15 am
 Operator : VOA9:RAY
 Sample : WG1774659-9,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 03 12:17:42 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 3,5-Dimethylheptane	37.51	57	231291M4	47.728	ug/L	
80) 3,3-Dimethylheptane	37.76	57	148692	48.233	ug/L	99
81) 1,1,4-Trimethylcyclohe...	38.29	69	150794	49.206	ug/L	96
82) 2,3-Dimethylheptane	39.43	43	148379	46.658	ug/L	96
83) 3,4-Dimethylheptane	39.75	43	95768	46.085	ug/L	99
84) 4-Methyloctane	40.04	43	145769	46.075	ug/L	97
85) 2-Methyloctane	40.12	43	134522M3	47.722	ug/L	
86) Ethylbenzene	40.64	91	418706	48.731	ug/L	99
88) 2-Ethylthiophene	40.79	97	326610	50.241	ug/L	98
89) 3-Methyloctane	40.79	57	255273	47.210	ug/L	99
90) 3,3-Diethylpentane	41.78	57	286374	48.471	ug/L	99
91) p/m-Xylene	41.92	91	643547	95.974	ug/L	99
92) 1-Nonene	42.56	56	64827	49.327	ug/L	96
93) trans-3-Nonene	42.97	55	94807	49.064	ug/L	97
94) cis-3-Nonene	43.26	55	107900M6	48.599	ug/L	
95) Nonane	43.34	43	130127M6	48.113	ug/L	
96) Styrene	43.78	104	270070	49.151	ug/L	98
98) o-Xylene	44.18	91	327074	47.023	ug/L	98
99) 2-Nonene	44.60	55	96170	48.299	ug/L	98
100) Isopropylcyclohexane	45.88	83	154636	49.552	ug/L	99
102) Isopropylbenzene	46.51	105	430352	47.593	ug/L	99
103) 3,3-Dimethyloctane	47.01	71	233118	47.989	ug/L	98
104) n-Propylbenzene	48.96	91	491518	48.779	ug/L	99
105) 2-Methylnonane	49.01	43	122775	50.008	ug/L	98
106) 3-Methylnonane	49.40	57	165181	49.929	ug/L	98
107) 1-Methyl-3-ethylbenzene	49.54	105	434140	48.474	ug/L	99
108) 1-Methyl-4-ethylbenzene	49.70	105	419436	48.449	ug/L	100
109) 1,3,5-Trimethylbenzene	50.26	105	364745	49.407	ug/L	100
110) 1-Decene	50.38	41	73511	50.392	ug/L	98
111) Isobutylcyclohexane	50.54	83	172249	48.013	ug/L	100
112) 1-Methyl-2-ethylbenzene	50.57	105	438534	47.704	ug/L	99
113) Decane	50.75	43	125186	48.046	ug/L	96
114) tert-Butylbenzene	51.01	119	328352	47.941	ug/L	100
115) 1,2,4-Trimethylbenzene	51.41	105	387390	49.258	ug/L	100
116) Isobutylbenzene	51.60	91	417074M6	48.470	ug/L	
117) sec-Butylbenzene	51.66	105	478364	47.795	ug/L	99
118) 1-Methyl-3-isopropylbe...	52.04	119	418863	48.718	ug/L	99
119) 1-Methyl-4-isopropylbe...	52.24	119	417059	48.774	ug/L	100
120) 1,2,3-Trimethylbenzene	52.50	105	398999	48.771	ug/L	99
121) 1-Methyl-2-isopropylbe...	52.70	119	423454	48.550	ug/L	100
122) Indan	52.79	117	377065	47.490	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004608.D
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 Sample : WG1774659-9,31,0.1000,10,0.1
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 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 03 12:17:42 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
123)	1,3-Diethylbenzene	52.94	105	269548	48.815	ug/L	99
124)	1-Methyl-3-propylbenzene	53.05	105	505289	49.285	ug/L	99
125)	Indene	53.22	115	360479	48.104	ug/L	99
126)	1-Methyl-4-propylbenzene	53.21	105	591587	48.722	ug/L	99
127)	n-Butylbenzene	53.20	91	454538	47.831	ug/L	100
128)	1,2-Dimethyl-4-ethylbe...	53.32	119	453784	49.105	ug/L	99
129)	1,2-Diethylbenzene	53.41	119	215019	48.312	ug/L	99
130)	1-Methyl-2-propylbenzene	53.60	105	536448	48.800	ug/L	98
131)	1,4-Dimethyl-2-ethylbe...	53.91	119	421561	49.399	ug/L	99
132)	Undecane	53.94	57	168593	49.646	ug/L	99
133)	1,3-Dimethyl-4-ethylbe...	54.00	119	511606	48.925	ug/L	99
134)	1,3-Dimethyl-5-ethylbe...	54.13	119	462082	49.356	ug/L	100
135)	1,3-Dimethyl-2-ethylbe...	54.35	119	500157	48.946	ug/L	100
136)	1,2-Dimethyl-3-ethylbe...	54.71	119	448434	48.793	ug/L	99
137)	1,2,4,5-Tetramethylben...	55.12	119	474241	49.283	ug/L	100
138)	1,2,3,5-Tetramethylben...	55.21	119	437901	49.229	ug/L	100
139)	Pentylbenzene	55.69	91	395143	48.450	ug/L	99
140)	1,2,3,4-Tetramethylben...	56.02	119	584001	48.887	ug/L	99
141)	1,3-DM-5-tert-Butylben...	56.00	147	411755	49.777	ug/L	99
142)	Dodecane	56.18	43	116633	49.529	ug/L	97
143)	1,3,5-Triethylbenzene	56.89	147	262128	49.877	ug/L	98
144)	Naphthalene	57.05	128	529233	47.469	ug/L	99
145)	Benzothiophene	57.14	134	318854	48.098	ug/L	100
146)	1,2,4-Triethylbenzene	57.47	147	243769	49.738	ug/L	99
147)	Hexylbenzene	57.97	91	365134	49.966	ug/L	99
148)	MMT	58.23	134	197082	49.172	ug/L	100
149)	Tridecane	58.28	57	126207	45.611	ug/L	98
150)	2-Methylnaphthalene	59.83	142	365216	49.343	ug/L	99
151)	1-Methylnaphthalene	60.31	142	325449	49.192	ug/L	99
152)	Tetradecane	60.60	57	91961	43.755	ug/L	100
153)	Pentadecane	63.42	57	69994	48.737	ug/L	99

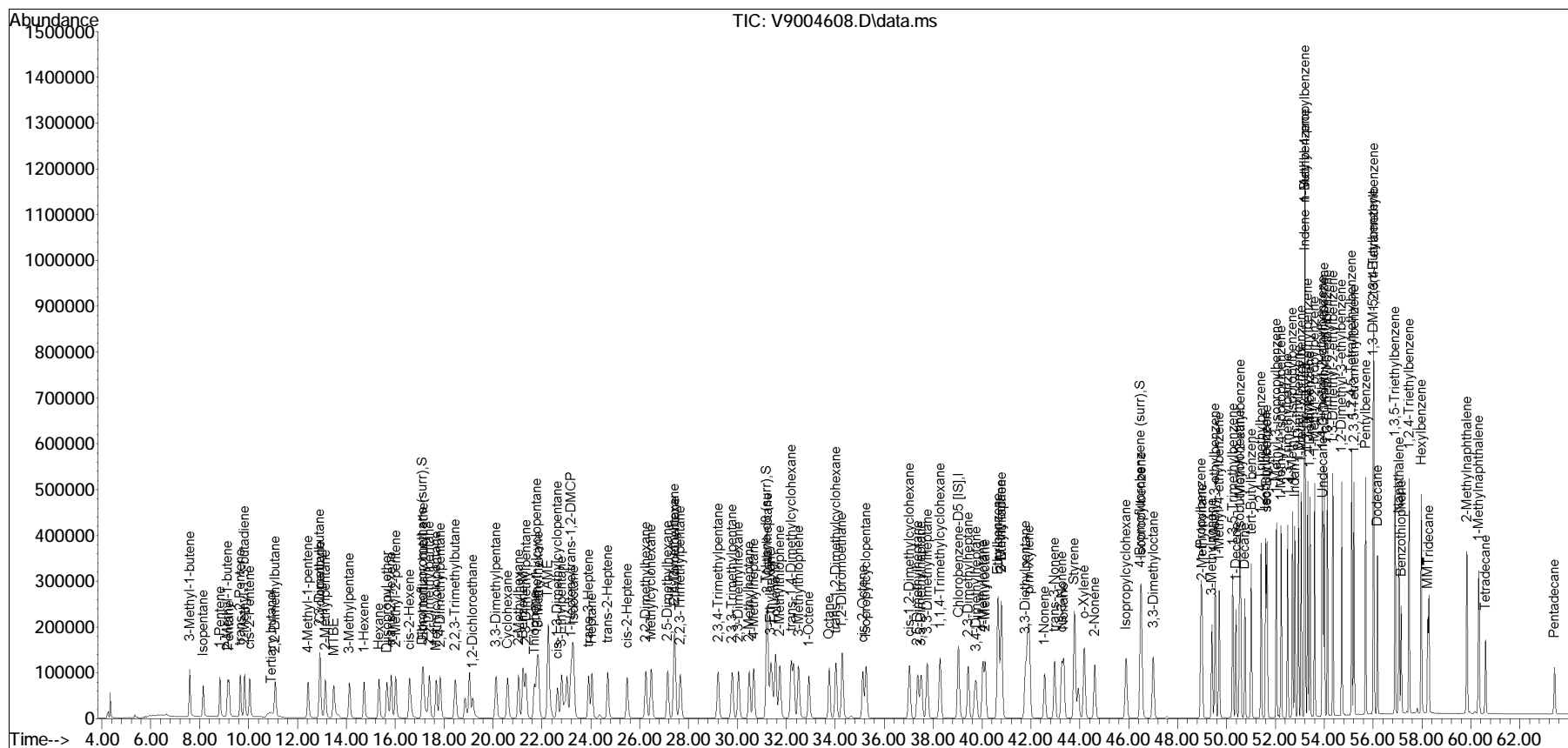
(#) = qualifier out of range (m) = manual integration (+) = signals summed

(QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
Data File : V9004608.D
Acq On : 03 May 2023 11:15 am
Operator : VOA9:RAY
Sample : WG1774659-9,31,0.1000,10,0.1
Misc : WG1774659,ICAL19885
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 03 12:17:42 2023
Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
Quant Title : PIANO VOLATILES
QLast Update : Wed Apr 05 08:18:42 2023
Response via : Initial Calibration

Sub List : PIANO NEW-NHS - PIANO



Analytical Event

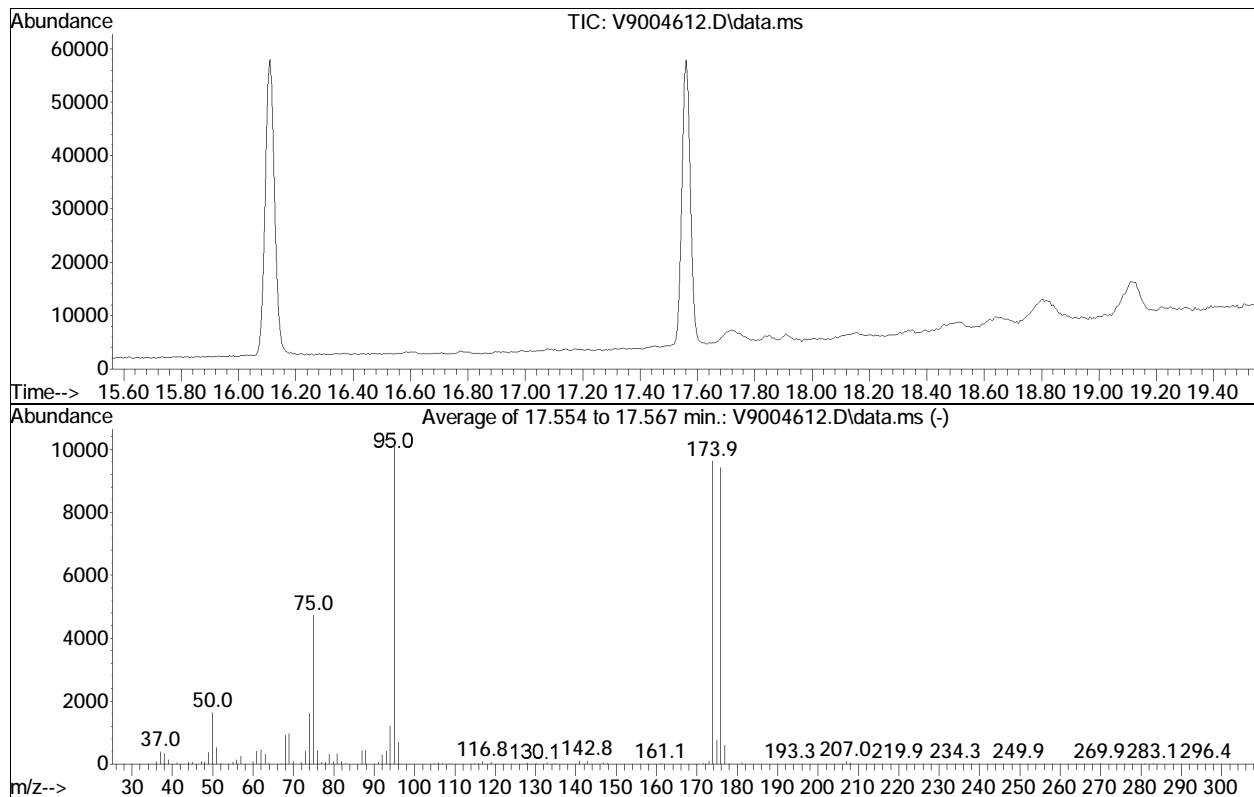
Continuing Calibration BFB Tune

BFB

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
Data File : V9004612.D
Acq On : 03 May 2023 04:53 pm
Operator : VOA9:RAY
Sample : WG1774659-10,31
Misc : WG1774659,ICAL19885
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
Title : PIANO VOLATILES
Last Update : Wed Apr 05 08:18:42 2023



Spectrum Information: Average of 17.554 to 17.567 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.2	1640	PASS
75	95	30	60	46.7	4743	PASS
95	95	100	100	100.0	10149	PASS
96	95	5	9	6.9	699	PASS
173	174	0.00	2	1.2	111	PASS
174	95	50	100	94.9	9631	PASS
175	174	5	9	7.8	754	PASS
176	174	95	101	97.8	9418	PASS
177	176	5	9	6.4	604	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004613.D
 Acq On : 03 May 2023 05:23 pm
 Operator : VOA9:RAY
 Sample : WG1774659-11,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 07:57:48 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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	Chlorobenzene-D5 [IS]	1.000	1.000	0.0	122	0.00
2	3-Methyl-1-butene	0.570	0.455	20.2	101	0.00
3	Isopentane	0.214	0.160	25.2#	98	0.00
4	1-Pentene	0.279	0.222	20.4	101	0.00
5	2-Methyl-1-butene	0.407	0.335	17.7	102	0.00
6	Pentane	0.346	0.272	21.4	102	0.00
7	trans-2-Pentene	0.445	0.368	17.3	102	0.00
8	2-Methyl-1,3-butadiene	0.314	0.271	13.7	106	0.00
9	cis-2-Pentene	0.398	0.341	14.3	103	0.00
10	Tertiary butanol	0.066	0.057#	13.6	102	-0.01
11	2,2-Dimethylbutane	0.227	0.196	13.7	104	0.00
12	4-Methyl-1-pentene	0.271	0.240	11.4	103	0.00
13	Cyclopentane	0.184	0.160	13.0	105	0.00
14	2,3-Dimethylbutane	0.136	0.120	11.8	106	-0.01
15	2-Methylpentane	0.391	0.340	13.0	103	0.00
16	MTBE	0.766	0.709	7.4	107	0.00
17	3-Methylpentane	0.390	0.348	10.8	105	0.00
18	1-Hexene	0.216	0.199	7.9	106	0.00
19	Hexane	0.345	0.315	8.7	106	0.00
20	Diisopropyl ether	0.602	0.564	6.3	106	0.00
21	trans-2-Hexene	0.380	0.354	6.8	107	0.00
22	2-Methyl-2-pentene	0.430	0.395	8.1	104	0.00
23	cis-2-Hexene	0.340	0.316	7.1	105	0.00
24 S	Dibromofluoromethane (surr)	0.292	0.289	1.0	120	0.00
25	Ethyl tertiary butyl ether	0.690	0.654	5.2	107	0.00
26	2,2-Dimethylpentane	0.487	0.445	8.6	106	0.00
27	Methylcyclopentane	0.432	0.389	10.0	105	0.00
28	2,4-Dimethylpentane	0.346	0.323	6.6	106	0.00
29	2,2,3-Trimethylbutane	0.436	0.402	7.8	106	0.01
30	1,2-Dichloroethane	0.326	0.301	7.7	108	0.00
31	3,3-Dimethylpentane	0.434	0.403	7.1	107	0.00
32	Cyclohexane	0.360	0.330	8.3	106	0.00
33	2-Methylhexane	0.375	0.357	4.8	109	0.00
34 M	Benzene	1.007	0.910	9.6	108	0.00
35	2,3-Dimethylpentane	0.352	0.329	6.5	108	0.00
36	Thiophene	0.540	0.505	6.5	107	0.00
37	1,1-Dimethylcyclopentane	0.273	0.261	4.4	108	0.00
38	3-Methylhexane	0.334	0.314	6.0	110	0.00
39	TAME	0.784	0.694	11.5	110	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004613.D
 Acq On : 03 May 2023 05:23 pm
 Operator : VOA9:RAY
 Sample : WG1774659-11,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 07:57:48 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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)
40	cis-1,3-Dimethylcyclopentan	0.243	0.226	7.0	110	0.00
41	3-Ethylpentane	0.434	0.408	6.0	110	0.00
43	1-Heptene/trans-1,2-DMCP	0.196	0.187	4.6	110	0.00
44	Isooctane	0.956	0.895	6.4	108	0.00
45	trans-3-Heptene	0.247	0.246	0.4	109	0.00
46	Heptane	0.302	0.285	5.6	108	-0.01
48	trans-2-Heptene	0.263	0.257	2.3	111	-0.01
49	cis-2-Heptene	0.234	0.231	1.3	110	0.00
50	2,2-Dimethylhexane	0.863	0.830	3.8	110	0.00
51	Methylcyclohexane	0.438	0.424	3.2	110	0.00
52	2,5-Dimethylhexane	0.428	0.415	3.0	110	0.00
53	2,4-Dimethylhexane	0.343	0.334	2.6	109	0.00
54	Ethylcyclopentane	0.363	0.347	4.4	109	0.00
55	2,2,3-Trimethylpentane	0.715	0.681	4.8	110	0.00
57	2,3,4-Trimethylpentane	0.445	0.430	3.4	110	0.00
58	2,3,3-Trimethylpentane	0.375	0.361	3.7	110	0.00
59	2,3-Dimethylhexane	0.396	0.383	3.3	109	0.00
60	2-Methylheptane	0.387	0.374	3.4	108	0.00
61	4-Methylheptane	0.424	0.405	4.5	106	0.00
62 S	Toluene-d8 (surr)	1.114	1.160	-4.1	127	-0.01
63	3-Methylheptane	0.354	0.301	15.0	104	0.00
65	3-Ethylhexane	0.478	0.431	9.8	106	-0.01
66 M	Toluene	1.087	1.048	3.6	112	0.00
67	2-Methylthiophene	0.870	0.857	1.5	112	0.00
68	trans-1,4-Dimethylcyclohexa	0.539	0.532	1.3	112	0.00
69	3-Methylthiophene	0.881	0.870	1.2	112	0.00
70	1-Octene	0.184	0.178	3.3	106	0.00
71	Octane	0.384	0.359	6.5	103	0.00
72	trans-1,2-Dimethylcyclohexa	0.330	0.318	3.6	110	0.00
73	1,2-Dibromoethane	0.272	0.262	3.7	109	0.00
75	cis-2-Octene	0.271	0.268	1.1	107	0.00
76	Isopropylcyclopentane	0.418	0.412	1.4	113	0.00
77	cis-1,2-Dimethylcyclohexane	0.319	0.318	0.3	112	0.00
78	2,5-Dimethylheptane	0.574	0.543	5.4	106	0.01
79	3,5-Dimethylheptane	0.698	0.668	4.3	105	0.00
80	3,3-Dimethylheptane	0.444	0.420	5.4	104	0.00
81	1,1,4-Trimethylcyclohexane	0.441	0.433	1.8	110	0.00
82	2,3-Dimethylheptane	0.458	0.423	7.6	102	0.00
83	3,4-Dimethylheptane	0.299	0.273	8.7	103	-0.01

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004613.D
 Acq On : 03 May 2023 05:23 pm
 Operator : VOA9:RAY
 Sample : WG1774659-11,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 07:57:48 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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)
84	4-Methyloctane	0.455	0.453	0.4	109	0.00
85	2-Methyloctane	0.406	0.347	14.5	94	0.00
86	Ethylbenzene	1.237	1.195	3.4	108	0.00
88	2-Ethylthiophene	0.936	0.935	0.1	112	0.00
89	3-Methyloctane	0.778	0.725	6.8	103	0.00
90	3,3-Diethylpentane	0.850	0.818	3.8	107	0.00
91	p/m-Xylene	0.965	0.913	5.4	106	0.01
92	1-Nonene	0.189	0.183	3.2	103	0.00
93	trans-3-Nonene	0.278	0.268	3.6	102	0.00
94	cis-3-Nonene	0.320	0.309	3.4	105	0.00
95	Nonane	0.389	0.365	6.2	101	0.00
96	Styrene	0.791	0.770	2.7	105	0.00
98	o-Xylene	1.001	0.933	6.8	104	0.00
99	2-Nonene	0.287	0.274	4.5	102	0.00
100	Isopropylcyclohexane	0.449	0.442	1.6	109	0.00
101 S	4-Bromofluorobenzene (surr)	0.502	0.478	4.8	114	0.00
102	Isopropylbenzene	1.302	1.227	5.8	107	0.00
103	3,3-Dimethyloctane	0.699	0.666	4.7	105	0.00
104	n-Propylbenzene	1.450	1.405	3.1	105	0.00
105	2-Methylnonane	0.353	0.347	1.7	103	0.00
106	3-Methylnonane	0.476	0.471	1.1	104	0.00
107	1-Methyl-3-ethylbenzene	1.289	1.239	3.9	106	0.00
108	1-Methyl-4-ethylbenzene	1.246	1.195	4.1	105	0.00
109	1,3,5-Trimethylbenzene	1.063	1.048	1.4	106	0.00
110	1-Decene	0.210	0.209	0.5	104	0.00
111	Isobutylcyclohexane	0.516	0.490	5.0	105	0.00
112	1-Methyl-2-ethylbenzene	1.323	1.246	5.8	105	0.00
113	Decane	0.375	0.356	5.1	102	0.00
114	tert-Butylbenzene	0.986	0.937	5.0	106	0.00
115	1,2,4-Trimethylbenzene	1.132	1.109	2.0	106	0.00
116	Isobutylbenzene	1.239	1.152	7.0	102	0.00
117	sec-Butylbenzene	1.441	1.354	6.0	104	0.00
118	1-Methyl-3-isopropylbenzene	1.238	1.200	3.1	105	0.00
119	1-Methyl-4-isopropylbenzene	1.231	1.196	2.8	105	0.00
120	1,2,3-Trimethylbenzene	1.178	1.138	3.4	104	0.00
121	1-Methyl-2-isopropylbenzene	1.255	1.201	4.3	104	0.00
122	Indan	1.143	1.072	6.2	103	0.00
123	1,3-Diethylbenzene	0.795	0.765	3.8	104	0.00
124	1-Methyl-3-propylbenzene	1.476	1.429	3.2	104	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004613.D
 Acq On : 03 May 2023 05:23 pm
 Operator : VOA9:RAY
 Sample : WG1774659-11,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 07:57:48 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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)
125	Indene	1.079	1.027	4.8	102	0.00
126	1-Methyl-4-propylbenzene	1.748	1.680	3.9	103	0.00
127	n-Butylbenzene	1.368	1.286	6.0	102	0.00
128	1,2-Dimethyl-4-ethylbenzene	1.330	1.288	3.2	103	0.00
129	1,2-Diethylbenzene	0.641	0.608	5.1	103	0.00
130	1-Methyl-2-propylbenzene	1.582	1.524	3.7	103	0.00
131	1,4-Dimethyl-2-ethylbenzene	1.228	1.201	2.2	103	0.00
132	Undecane	0.489	0.487	0.4	104	0.00
133	1,3-Dimethyl-4-ethylbenzene	1.505	1.454	3.4	104	0.00
134	1,3-Dimethyl-5-ethylbenzene	1.348	1.311	2.7	103	0.00
135	1,3-Dimethyl-2-ethylbenzene	1.471	1.423	3.3	104	0.00
136	1,2-Dimethyl-3-ethylbenzene	1.323	1.284	2.9	104	0.00
137	1,2,4,5-Tetramethylbenzene	1.385	1.357	2.0	105	0.00
138	1,2,3,5-Tetramethylbenzene	1.280	1.237	3.4	104	0.00
139	Pentylbenzene	1.174	1.120	4.6	103	0.00
140	1,2,3,4-Tetramethylbenzene	1.720	1.665	3.2	104	0.00
141	1,3-DM-5-tert-Butylbenzene	1.191	1.173	1.5	105	0.00
142	Dodecane	0.339	0.343	-1.2	101	0.00
143	1,3,5-Triethylbenzene	0.756	0.744	1.6	105	0.00
144	Naphthalene	1.605	1.490	7.2	103	0.00
145	Benzothiophene	0.954	0.895	6.2	103	0.00
146	1,2,4-Triethylbenzene	0.705	0.696	1.3	105	0.00
147	Hexylbenzene	1.052	1.031	2.0	104	0.00
148	MMT	0.577	0.560	2.9	104	0.00
149	Tridecane	0.398	0.371	6.8	99	0.00
150	2-Methylnaphthalene	1.065	1.038	2.5	105	0.00
151	1-Methylnaphthalene	0.952	0.917	3.7	104	0.00
152	Tetradecane	0.303	0.264	12.9	102	0.00
153	Pentadecane	0.207	0.200	3.4	107	0.00

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

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004613.D
 Acq On : 03 May 2023 05:23 pm
 Operator : VOA9:RAY
 Sample : WG1774659-11,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 07:57:48 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.03	117	366975	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.10	113	106096	49.561	ug/L	0.00
Spiked Amount 50.000	Range 78 - 118		Recovery =	99.12%		
62) Toluene-d8 (surr)	31.19	98	425567	52.064	ug/L	-0.01
Spiked Amount 50.000	Range 87 - 113		Recovery =	104.13%		
101) 4-Bromofluorobenzene (...)	46.49	95	175587	47.661	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery =	95.32%		
Target Compounds						
						Qvalue
2) 3-Methyl-1-butene	7.60	55	166898	39.861	ug/L	98
3) Isopentane	8.15	43	58728	37.350	ug/L	97
4) 1-Pentene	8.83	42	81496	39.866	ug/L	97
5) 2-Methyl-1-butene	9.15	55	122824	41.105	ug/L	99
6) Pentane	9.20	43	99947	39.386	ug/L	97
7) trans-2-Pentene	9.67	55	135107	41.324	ug/L	99
8) 2-Methyl-1,3-butadiene	9.84	67	99542	43.194	ug/L	99
9) cis-2-Pentene	10.05	55	125164	42.808	ug/L	99
10) Tertiary butanol	10.95	59	104561M4	214.743	ug/L	
11) 2,2-Dimethylbutane	11.10	43	71947	43.183	ug/L	100
12) 4-Methyl-1-pentene	12.44	43	88257	44.419	ug/L	98
13) Cyclopentane	12.93	70	58776	43.616	ug/L	98
14) 2,3-Dimethylbutane	12.92	71	43995	44.109	ug/L	94
15) 2-Methylpentane	13.14	43	124715	43.512	ug/L	96
16) MTBE	13.49	73	260042	46.239	ug/L	99
17) 3-Methylpentane	14.13	57	127850	44.666	ug/L	99
18) 1-Hexene	14.73	56	73147	46.091	ug/L	95
19) Hexane	15.34	57	115586	45.621	ug/L	99
20) Diisopropyl ether	15.67	45	206838	46.828	ug/L	99
21) trans-2-Hexene	15.84	55	129920	46.533	ug/L	98
22) 2-Methyl-2-pentene	16.02	69	144898	45.879	ug/L	98
23) cis-2-Hexene	16.59	55	115877	46.475	ug/L	97
25) Ethyl tertiary butyl e...	17.16	59	239927	47.396	ug/L	97
26) 2,2-Dimethylpentane	17.40	57	163236	45.676	ug/L	99
27) Methylcyclopentane	17.68	56	142627	44.970	ug/L	99
28) 2,4-Dimethylpentane	17.84	43	118452	46.590	ug/L	99
29) 2,2,3-Trimethylbutane	18.46	57	147437	46.037	ug/L	97
30) 1,2-Dichloroethane	19.18	62	110476	46.164	ug/L	99
31) 3,3-Dimethylpentane	20.13	43	148061	46.534	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004613.D
 Acq On : 03 May 2023 05:23 pm
 Operator : VOA9:RAY
 Sample : WG1774659-11,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 07:57:48 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Cyclohexane	20.60	56	121207	45.892	ug/L	99
33) 2-Methylhexane	21.05	43	131097	47.655	ug/L	98
34) Benzene	21.24	78	333906	45.193	ug/L	100
35) 2,3-Dimethylpentane	21.35	56	120712	46.775	ug/L	98
36) Thiophene	21.69	84	185284	46.728	ug/L	99
37) 1,1-Dimethylcyclopentane	21.80	83	95905	47.788	ug/L	99
38) 3-Methylhexane	21.86	43	115061	46.885	ug/L	98
39) TAME	22.25	73	254579	44.241	ug/L	98
40) cis-1,3-Dimethylcyclop...	22.64	70	82994	46.445	ug/L	99
41) 3-Ethylpentane	22.81	43	149893	47.050	ug/L	99
43) 1-Heptene/trans-1,2-DMCP	23.21	70	136962	94.997	ug/L	96
44) Isooctane	23.30	57	328437	46.810	ug/L	99
45) trans-3-Heptene	23.91	41	90195	49.833	ug/L	100
46) Heptane	24.04	43	104599	47.183	ug/L	97
48) trans-2-Heptene	24.69	56	94404	48.997	ug/L	96
49) cis-2-Heptene	25.49	56	84708	49.382	ug/L	97
50) 2,2-Dimethylhexane	26.26	57	304665	48.082	ug/L	99
51) Methylcyclohexane	26.48	83	155641	48.413	ug/L	99
52) 2,5-Dimethylhexane	27.15	57	152200	48.489	ug/L	98
53) 2,4-Dimethylhexane	27.41	57	122434	48.594	ug/L	99
54) Ethylcyclopentane	27.44	69	127288	47.729	ug/L	98
55) 2,2,3-Trimethylpentane	27.67	57	249775	47.621	ug/L	100
57) 2,3,4-Trimethylpentane	29.20	43	157943	48.367	ug/L	98
58) 2,3,3-Trimethylpentane	29.78	43	132357	48.058	ug/L	97
59) 2,3-Dimethylhexane	30.05	43	140667	48.426	ug/L	98
60) 2-Methylheptane	30.48	57	137120	48.283	ug/L	98
61) 4-Methylheptane	30.66	43	148690	47.751	ug/L	99
63) 3-Methylheptane	31.23	43	110451	42.510	ug/L	99
65) 3-Ethylhexane	31.35	43	158000	45.009	ug/L	99
66) Toluene	31.56	91	384730	48.217	ug/L	100
67) 2-Methylthiophene	31.73	97	314411	49.219	ug/L	100
68) trans-1,4-Dimethylcycl...	32.20	97	195244	49.346	ug/L	99
69) 3-Methylthiophene	32.50	97	319399	49.370	ug/L	99
70) 1-Octene	32.92	55	65349	48.513	ug/L	98
71) Octane	33.75	43	131764	46.780	ug/L	98
72) trans-1,2-Dimethylcycl...	34.03	55	116848	48.312	ug/L	94
73) 1,2-Dibromoethane	34.28	107	96323	48.290	ug/L	100
75) cis-2-Octene	35.12	55	98402	49.533	ug/L	97
76) Isopropylcyclopentane	35.26	68	151032	49.274	ug/L	100
77) cis-1,2-Dimethylcycloh...	37.03	55	116519	49.718	ug/L	96
78) 2,5-Dimethylheptane	37.38	57	199222	47.274	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004613.D
 Acq On : 03 May 2023 05:23 pm
 Operator : VOA9:RAY
 Sample : WG1774659-11,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 07:57:48 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 3,5-Dimethylheptane	37.51	57	245171M4	47.888	ug/L	
80) 3,3-Dimethylheptane	37.76	57	154148	47.330	ug/L	100
81) 1,1,4-Trimethylcyclohe...	38.29	69	158908	49.082	ug/L	99
82) 2,3-Dimethylheptane	39.43	43	155265	46.214	ug/L	96
83) 3,4-Dimethylheptane	39.73	43	100247	45.662	ug/L	99
84) 4-Methyloctane	40.04	43	166404	49.787	ug/L	97
85) 2-Methyloctane	40.13	43	127335M3	42.758	ug/L	
86) Ethylbenzene	40.65	91	438697	48.329	ug/L	98
88) 2-Ethylthiophene	40.80	97	343274	49.982	ug/L	99
89) 3-Methyloctane	40.79	57	266154	46.592	ug/L	100
90) 3,3-Diethylpentane	41.78	57	300233	48.101	ug/L	99
91) p/m-Xylene	41.92	91	670180	94.604	ug/L	98
92) 1-Nonene	42.56	56	67109	48.334	ug/L	97
93) trans-3-Nonene	42.96	55	98330	48.168	ug/L	97
94) cis-3-Nonene	43.26	55	113421M6	48.356	ug/L	
95) Nonane	43.35	43	133937M6	46.875	ug/L	
96) Styrene	43.78	104	282483	48.662	ug/L	98
98) o-Xylene	44.18	91	342406	46.596	ug/L	99
99) 2-Nonene	44.61	55	100463	47.758	ug/L	98
100) Isopropylcyclohexane	45.89	83	162264	49.218	ug/L	99
102) Isopropylbenzene	46.51	105	450254	47.133	ug/L	99
103) 3,3-Dimethyloctane	47.00	71	244530	47.648	ug/L	99
104) n-Propylbenzene	48.96	91	515496	48.425	ug/L	99
105) 2-Methylnonane	49.00	43	127289	49.076	ug/L	99
106) 3-Methylnonane	49.41	57	172819	49.446	ug/L	99
107) 1-Methyl-3-ethylbenzene	49.54	105	454707	48.057	ug/L	100
108) 1-Methyl-4-ethylbenzene	49.70	105	438433	47.936	ug/L	100
109) 1,3,5-Trimethylbenzene	50.26	105	384626	49.315	ug/L	100
110) 1-Decene	50.38	41	76563	49.679	ug/L	97
111) Isobutylcyclohexane	50.54	83	179833	47.448	ug/L	99
112) 1-Methyl-2-ethylbenzene	50.57	105	457208	47.077	ug/L	99
113) Decane	50.75	43	130774	47.508	ug/L	100
114) tert-Butylbenzene	51.01	119	343791	47.512	ug/L	99
115) 1,2,4-Trimethylbenzene	51.41	105	407019	48.988	ug/L	99
116) Isobutylbenzene	51.60	91	422579M6	46.485	ug/L	
117) sec-Butylbenzene	51.66	105	496945	46.997	ug/L	99
118) 1-Methyl-3-isopropylbe...	52.04	119	440431	48.489	ug/L	100
119) 1-Methyl-4-isopropylbe...	52.24	119	438955	48.591	ug/L	99
120) 1,2,3-Trimethylbenzene	52.50	105	417602	48.316	ug/L	98
121) 1-Methyl-2-isopropylbe...	52.70	119	440631	47.819	ug/L	99
122) Indan	52.79	117	393260	46.883	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004613.D
 Acq On : 03 May 2023 05:23 pm
 Operator : VOA9:RAY
 Sample : WG1774659-11,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 07:57:48 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
123) 1,3-Diethylbenzene	52.94	105	280813	48.137	ug/L	99
124) 1-Methyl-3-propylbenzene	53.05	105	524485	48.423	ug/L	99
125) Indene	53.22	115	376863	47.603	ug/L	99
126) 1-Methyl-4-propylbenzene	53.21	105	616383	48.051	ug/L	99
127) n-Butylbenzene	53.20	91	472023	47.016	ug/L	99
128) 1,2-Dimethyl-4-ethylbe...	53.32	119	472727	48.421	ug/L	100
129) 1,2-Diethylbenzene	53.41	119	223149	47.459	ug/L	99
130) 1-Methyl-2-propylbenzene	53.60	105	559300	48.160	ug/L	99
131) 1,4-Dimethyl-2-ethylbe...	53.91	119	440888	48.902	ug/L	99
132) Undecane	53.94	57	178703	49.811	ug/L	99
133) 1,3-Dimethyl-4-ethylbe...	54.00	119	533415	48.284	ug/L	99
134) 1,3-Dimethyl-5-ethylbe...	54.13	119	481100	48.641	ug/L	100
135) 1,3-Dimethyl-2-ethylbe...	54.35	119	522265	48.377	ug/L	99
136) 1,2-Dimethyl-3-ethylbe...	54.72	119	471030	48.512	ug/L	99
137) 1,2,4,5-Tetramethylben...	55.12	119	497955	48.981	ug/L	100
138) 1,2,3,5-Tetramethylben...	55.21	119	453922	48.303	ug/L	100
139) Pentylbenzene	55.69	91	411113	47.714	ug/L	100
140) 1,2,3,4-Tetramethylben...	56.02	119	610967	48.411	ug/L	99
141) 1,3-DM-5-tert-Butylben...	56.00	147	430325	49.242	ug/L	100
142) Dodecane	56.17	43	125910	50.611	ug/L	99
143) 1,3,5-Triethylbenzene	56.89	147	273112	49.190	ug/L	99
144) Naphthalene	57.05	128	546669	46.412	ug/L	99
145) Benzothiophene	57.14	134	328449	46.897	ug/L	100
146) 1,2,4-Triethylbenzene	57.47	147	255531	49.351	ug/L	99
147) Hexylbenzene	57.97	91	378294	49.001	ug/L	99
148) MMT	58.23	134	205668	48.572	ug/L	100
149) Tridecane	58.28	57	135979	46.516	ug/L	98
150) 2-Methylnaphthalene	59.83	142	380922	48.715	ug/L	99
151) 1-Methylnaphthalene	60.31	142	336487	48.142	ug/L	98
152) Tetradecane	60.60	57	97061	43.713	ug/L	97
153) Pentadecane	63.42	57	73362	48.352	ug/L	99

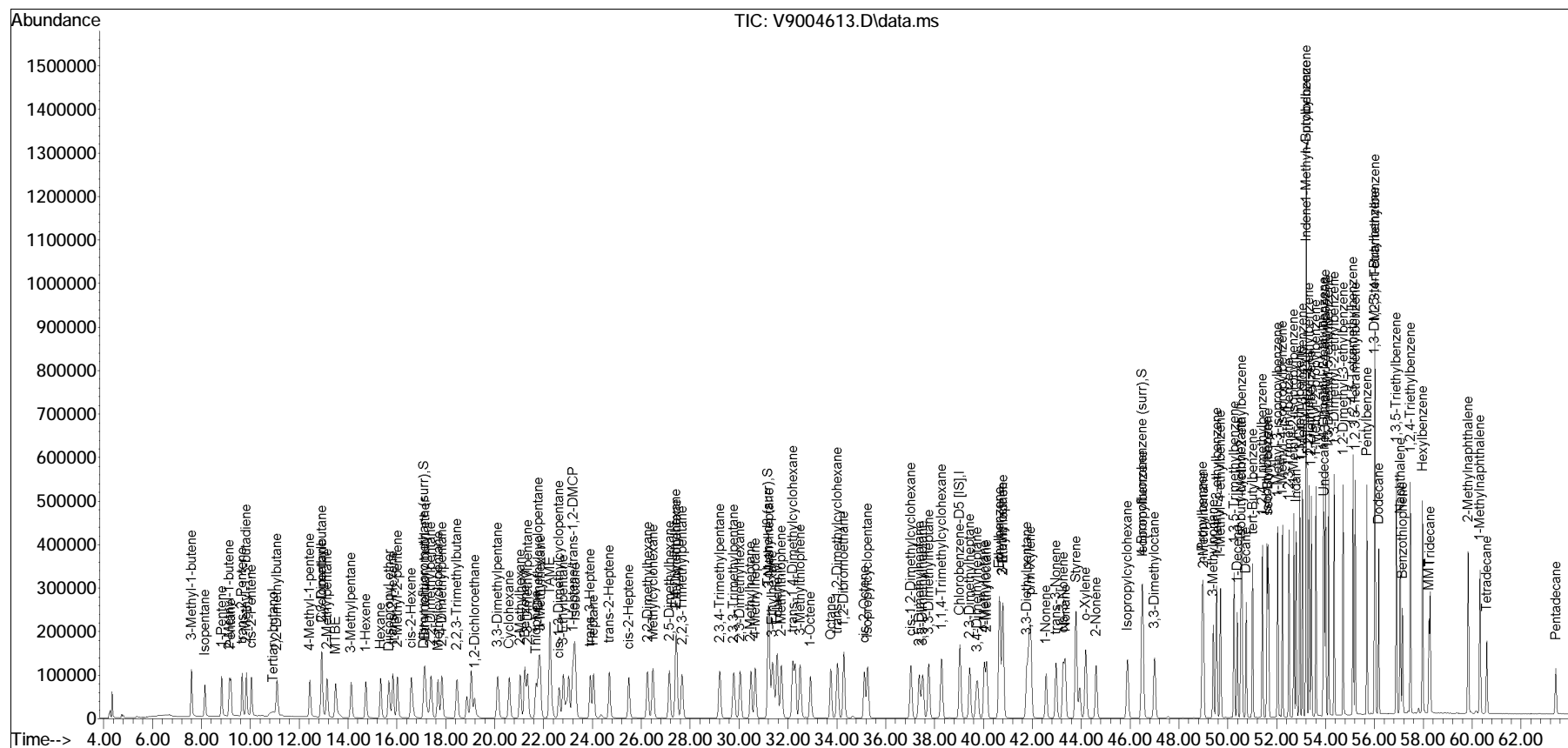
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004613.D
 Acq On : 03 May 2023 05:23 pm
 Operator : VOA9:RAY
 Sample : WG1774659-11,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 07:57:48 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO



Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004630.D
 Acq On : 04 May 2023 03:17 pm
 Operator : VOA9:RAY
 Sample : WG1774659-13,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 04 16:16:23 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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	Chlorobenzene-D5 [IS]	1.000	1.000	0.0	117	0.00
2	3-Methyl-1-butene	0.570	0.443	22.3	95	0.01
3	Isopentane	0.214	0.156	27.1#	92	0.01
4	1-Pentene	0.279	0.214	23.3	94	0.00
5	2-Methyl-1-butene	0.407	0.328	19.4	96	0.00
6	Pentane	0.346	0.265	23.4	95	0.00
7	trans-2-Pentene	0.445	0.361	18.9	96	0.00
8	2-Methyl-1,3-butadiene	0.314	0.262	16.6	98	0.00
9	cis-2-Pentene	0.398	0.334	16.1	97	0.00
10	Tertiary butanol	0.066	0.056#	15.2	96	-0.05
11	2,2-Dimethylbutane	0.227	0.188	17.2	95	0.00
12	4-Methyl-1-pentene	0.271	0.233	14.0	96	0.00
13	Cyclopentane	0.184	0.158	14.1	99	0.00
14	2,3-Dimethylbutane	0.136	0.117	14.0	99	-0.02
15	2-Methylpentane	0.391	0.331	15.3	96	0.00
16	MTBE	0.766	0.685	10.6	100	0.00
17	3-Methylpentane	0.390	0.342	12.3	99	0.00
18	1-Hexene	0.216	0.197	8.8	100	0.00
19	Hexane	0.345	0.309	10.4	100	0.00
20	Diisopropyl ether	0.602	0.546	9.3	99	-0.01
21	trans-2-Hexene	0.380	0.350	7.9	101	0.00
22	2-Methyl-2-pentene	0.430	0.401	6.7	102	0.00
23	cis-2-Hexene	0.340	0.311	8.5	100	0.00
24 S	Dibromofluoromethane (surr)	0.292	0.280	4.1	112	0.00
25	Ethyl tertiary butyl ether	0.690	0.642	7.0	101	0.00
26	2,2-Dimethylpentane	0.487	0.444	8.8	102	-0.01
27	Methylcyclopentane	0.432	0.383	11.3	99	0.00
28	2,4-Dimethylpentane	0.346	0.315	9.0	99	0.00
29	2,2,3-Trimethylbutane	0.436	0.396	9.2	100	0.00
30	1,2-Dichloroethane	0.326	0.290	11.0	100	0.00
31	3,3-Dimethylpentane	0.434	0.394	9.2	100	0.00
32	Cyclohexane	0.360	0.322	10.6	99	0.00
33	2-Methylhexane	0.375	0.351	6.4	103	0.00
34 M	Benzene	1.007	0.894	11.2	102	0.00
35	2,3-Dimethylpentane	0.352	0.327	7.1	103	0.00
36	Thiophene	0.540	0.496	8.1	101	0.00
37	1,1-Dimethylcyclopentane	0.273	0.256	6.2	102	0.00
38	3-Methylhexane	0.334	0.307	8.1	103	0.00
39	TAME	0.784	0.681	13.1	104	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004630.D
 Acq On : 04 May 2023 03:17 pm
 Operator : VOA9:RAY
 Sample : WG1774659-13,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 04 16:16:23 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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)
40	cis-1,3-Dimethylcyclopentan	0.243	0.225	7.4	105	0.00
41	3-Ethylpentane	0.434	0.399	8.1	103	0.00
43	1-Heptene/trans-1,2-DMCP	0.196	0.184	6.1	104	0.00
44	Isooctane	0.956	0.887	7.2	103	0.00
45	trans-3-Heptene	0.247	0.238	3.6	101	0.00
46	Heptane	0.302	0.281	7.0	102	0.00
48	trans-2-Heptene	0.263	0.253	3.8	105	0.00
49	cis-2-Heptene	0.234	0.228	2.6	104	0.00
50	2,2-Dimethylhexane	0.863	0.817	5.3	104	0.00
51	Methylcyclohexane	0.438	0.419	4.3	105	-0.01
52	2,5-Dimethylhexane	0.428	0.407	4.9	104	-0.01
53	2,4-Dimethylhexane	0.343	0.330	3.8	104	0.00
54	Ethylcyclopentane	0.363	0.344	5.2	104	0.00
55	2,2,3-Trimethylpentane	0.715	0.674	5.7	104	-0.01
57	2,3,4-Trimethylpentane	0.445	0.425	4.5	104	-0.01
58	2,3,3-Trimethylpentane	0.375	0.356	5.1	104	0.00
59	2,3-Dimethylhexane	0.396	0.374	5.6	102	-0.01
60	2-Methylheptane	0.387	0.369	4.7	102	0.00
61	4-Methylheptane	0.424	0.401	5.4	100	0.00
62 S	Toluene-d8 (surr)	1.114	1.156	-3.8	122	-0.01
63	3-Methylheptane	0.354	0.304	14.1	101	0.00
65	3-Ethylhexane	0.478	0.430	10.0	102	0.00
66 M	Toluene	1.087	1.035	4.8	106	0.00
67	2-Methylthiophene	0.870	0.846	2.8	106	0.00
68	trans-1,4-Dimethylcyclohexa	0.539	0.526	2.4	107	0.00
69	3-Methylthiophene	0.881	0.860	2.4	106	0.00
70	1-Octene	0.184	0.177	3.8	101	0.00
71	Octane	0.384	0.357	7.0	98	0.00
72	trans-1,2-Dimethylcyclohexa	0.330	0.317	3.9	104	0.00
73	1,2-Dibromoethane	0.272	0.258	5.1	103	-0.01
75	cis-2-Octene	0.271	0.268	1.1	103	0.00
76	Isopropylcyclopentane	0.418	0.409	2.2	108	0.00
77	cis-1,2-Dimethylcyclohexane	0.319	0.312	2.2	105	0.00
78	2,5-Dimethylheptane	0.574	0.546	4.9	102	0.00
79	3,5-Dimethylheptane	0.698	0.672	3.7	102	0.00
80	3,3-Dimethylheptane	0.444	0.419	5.6	100	0.00
81	1,1,4-Trimethylcyclohexane	0.441	0.428	2.9	104	0.00
82	2,3-Dimethylheptane	0.458	0.424	7.4	98	0.00
83	3,4-Dimethylheptane	0.299	0.274	8.4	99	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004630.D
 Acq On : 04 May 2023 03:17 pm
 Operator : VOA9:RAY
 Sample : WG1774659-13,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 04 16:16:23 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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)
84	4-Methyloctane	0.455	0.418	8.1	97	0.00
85	2-Methyloctane	0.406	0.380	6.4	99	0.00
86	Ethylbenzene	1.237	1.185	4.2	103	0.00
88	2-Ethylthiophene	0.936	0.927	1.0	106	0.00
89	3-Methyloctane	0.778	0.724	6.9	98	0.00
90	3,3-Diethylpentane	0.850	0.816	4.0	102	0.00
91	p/m-Xylene	0.965	0.905	6.2	101	0.00
92	1-Nonene	0.189	0.183	3.2	99	0.00
93	trans-3-Nonene	0.278	0.267	4.0	98	0.00
94	cis-3-Nonene	0.320	0.311	2.8	102	0.00
95	Nonane	0.389	0.360	7.5	96	0.00
96	Styrene	0.791	0.763	3.5	100	0.00
98	o-Xylene	1.001	0.925	7.6	99	0.00
99	2-Nonene	0.287	0.275	4.2	98	0.00
100	Isopropylcyclohexane	0.449	0.437	2.7	103	0.00
101 S	4-Bromofluorobenzene (surr)	0.502	0.478	4.8	109	0.00
102	Isopropylbenzene	1.302	1.219	6.4	102	0.00
103	3,3-Dimethyloctane	0.699	0.661	5.4	99	0.00
104	n-Propylbenzene	1.450	1.393	3.9	100	0.00
105	2-Methylnonane	0.353	0.350	0.8	99	0.00
106	3-Methylnonane	0.476	0.469	1.5	100	0.00
107	1-Methyl-3-ethylbenzene	1.289	1.224	5.0	100	0.00
108	1-Methyl-4-ethylbenzene	1.246	1.179	5.4	100	0.00
109	1,3,5-Trimethylbenzene	1.063	1.036	2.5	101	0.00
110	1-Decene	0.210	0.207	1.4	99	0.00
111	Isobutylcyclohexane	0.516	0.489	5.2	101	0.00
112	1-Methyl-2-ethylbenzene	1.323	1.234	6.7	99	0.00
113	Decane	0.375	0.356	5.1	98	0.00
114	tert-Butylbenzene	0.986	0.926	6.1	100	0.00
115	1,2,4-Trimethylbenzene	1.132	1.098	3.0	101	0.00
116	Isobutylbenzene	1.239	1.179	4.8	100	0.00
117	sec-Butylbenzene	1.441	1.344	6.7	99	0.00
118	1-Methyl-3-isopropylbenzene	1.238	1.189	4.0	100	0.00
119	1-Methyl-4-isopropylbenzene	1.231	1.177	4.4	99	0.00
120	1,2,3-Trimethylbenzene	1.178	1.128	4.2	99	0.00
121	1-Methyl-2-isopropylbenzene	1.255	1.191	5.1	99	0.00
122	Indan	1.143	1.065	6.8	98	0.00
123	1,3-Diethylbenzene	0.795	0.757	4.8	98	0.00
124	1-Methyl-3-propylbenzene	1.476	1.417	4.0	99	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004630.D
 Acq On : 04 May 2023 03:17 pm
 Operator : VOA9:RAY
 Sample : WG1774659-13,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 04 16:16:23 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Min. RRF : 0.100 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)
125	Indene	1.079	1.019	5.6	97	0.00
126	1-Methyl-4-propylbenzene	1.748	1.673	4.3	98	0.00
127	n-Butylbenzene	1.368	1.280	6.4	97	0.00
128	1,2-Dimethyl-4-ethylbenzene	1.330	1.283	3.5	99	0.00
129	1,2-Diethylbenzene	0.641	0.606	5.5	98	0.00
130	1-Methyl-2-propylbenzene	1.582	1.515	4.2	98	0.00
131	1,4-Dimethyl-2-ethylbenzene	1.228	1.196	2.6	99	0.00
132	Undecane	0.489	0.491	-0.4	100	0.00
133	1,3-Dimethyl-4-ethylbenzene	1.505	1.446	3.9	99	0.00
134	1,3-Dimethyl-5-ethylbenzene	1.348	1.301	3.5	99	0.00
135	1,3-Dimethyl-2-ethylbenzene	1.471	1.412	4.0	99	0.00
136	1,2-Dimethyl-3-ethylbenzene	1.323	1.279	3.3	99	0.00
137	1,2,4,5-Tetramethylbenzene	1.385	1.343	3.0	100	0.00
138	1,2,3,5-Tetramethylbenzene	1.280	1.238	3.3	100	0.00
139	Pentylbenzene	1.174	1.125	4.2	99	0.00
140	1,2,3,4-Tetramethylbenzene	1.720	1.660	3.5	100	0.00
141	1,3-DM-5-tert-Butylbenzene	1.191	1.163	2.4	100	0.00
142	Dodecane	0.339	0.333	1.8	94	0.00
143	1,3,5-Triethylbenzene	0.756	0.743	1.7	101	0.00
144	Naphthalene	1.605	1.482	7.7	98	0.00
145	Benzothiophene	0.954	0.895	6.2	99	0.00
146	1,2,4-Triethylbenzene	0.705	0.694	1.6	101	0.00
147	Hexylbenzene	1.052	1.032	1.9	100	0.00
148	MMT	0.577	0.559	3.1	99	0.00
149	Tridecane	0.398	0.349	12.3	90	0.00
150	2-Methylnaphthalene	1.065	1.027	3.6	100	0.00
151	1-Methylnaphthalene	0.952	0.915	3.9	99	0.00
152	Tetradecane	0.303	0.248	18.2	92	0.00
153	Pentadecane	0.207	0.190	8.2	98	0.00

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

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004630.D
 Acq On : 04 May 2023 03:17 pm
 Operator : VOA9:RAY
 Sample : WG1774659-13,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 04 16:16:23 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.03	117	352175	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.10	113	98528	47.960	ug/L	0.00
Spiked Amount 50.000	Range 78	- 118	Recovery	=	95.92%	
62) Toluene-d8 (surr)	31.19	98	407131	51.901	ug/L	-0.01
Spiked Amount 50.000	Range 87	- 113	Recovery	=	103.80%	
101) 4-Bromofluorobenzene (...)	46.48	95	168394	47.629	ug/L	0.00
Spiked Amount 50.000	Range 76	- 120	Recovery	=	95.26%	
Target Compounds						
						Qvalue
2) 3-Methyl-1-butene	7.60	55	155916	38.803	ug/L	98
3) Isopentane	8.15	43	54837	36.341	ug/L	97
4) 1-Pentene	8.84	42	75415	38.442	ug/L	98
5) 2-Methyl-1-butene	9.15	55	115453	40.262	ug/L	99
6) Pentane	9.21	43	93219	38.278	ug/L	96
7) trans-2-Pentene	9.67	55	127032	40.487	ug/L	98
8) 2-Methyl-1,3-butadiene	9.84	67	92439	41.797	ug/L	98
9) cis-2-Pentene	10.05	55	117671	41.937	ug/L	99
10) Tertiary butanol	10.91	59	97911M4	209.536	ug/L	
11) 2,2-Dimethylbutane	11.10	43	66248	41.433	ug/L	95
12) 4-Methyl-1-pentene	12.45	43	82035	43.023	ug/L	97
13) Cyclopentane	12.93	70	55788	43.138	ug/L	98
14) 2,3-Dimethylbutane	12.91	71	41145	42.985	ug/L #	89
15) 2-Methylpentane	13.14	43	116505	42.356	ug/L	96
16) MTBE	13.49	73	241183	44.688	ug/L	99
17) 3-Methylpentane	14.13	57	120406	43.833	ug/L	97
18) 1-Hexene	14.73	56	69369	45.548	ug/L	97
19) Hexane	15.33	57	108648	44.685	ug/L	99
20) Diisopropyl ether	15.66	45	192458	45.403	ug/L	99
21) trans-2-Hexene	15.83	55	123122	45.952	ug/L	97
22) 2-Methyl-2-pentene	16.02	69	141191	46.584	ug/L	98
23) cis-2-Hexene	16.58	55	109685	45.840	ug/L	98
25) Ethyl tertiary butyl e...	17.15	59	225925	46.505	ug/L	97
26) 2,2-Dimethylpentane	17.39	57	156225	45.551	ug/L	99
27) Methylcyclopentane	17.68	56	134960	44.341	ug/L	100
28) 2,4-Dimethylpentane	17.83	43	110971	45.482	ug/L	100
29) 2,2,3-Trimethylbutane	18.46	57	139506	45.391	ug/L	96
30) 1,2-Dichloroethane	19.17	62	102228	44.513	ug/L	96
31) 3,3-Dimethylpentane	20.12	43	138705	45.426	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004630.D
 Acq On : 04 May 2023 03:17 pm
 Operator : VOA9:RAY
 Sample : WG1774659-13,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 04 16:16:23 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Cyclohexane	20.60	56	113451	44.761	ug/L	95
33) 2-Methylhexane	21.05	43	123756	46.877	ug/L	98
34) Benzene	21.23	78	314863	44.407	ug/L	98
35) 2,3-Dimethylpentane	21.35	56	114993	46.432	ug/L	99
36) Thiophene	21.69	84	174760	45.926	ug/L	97
37) 1,1-Dimethylcyclopentane	21.80	83	90277	46.874	ug/L	97
38) 3-Methylhexane	21.86	43	108091	45.896	ug/L	99
39) TAME	22.25	73	239962	43.453	ug/L	96
40) cis-1,3-Dimethylcyclop...	22.64	70	79399	46.301	ug/L	98
41) 3-Ethylpentane	22.80	43	140407	45.924	ug/L	99
43) 1-Heptene/trans-1,2-DMCP	23.20	70	129897	93.883	ug/L	94
44) Isooctane	23.30	57	312402	46.396	ug/L	94
45) trans-3-Heptene	23.91	41	83936	48.324	ug/L	99
46) Heptane	24.05	43	99050	46.557	ug/L	94
48) trans-2-Heptene	24.69	56	89251	48.269	ug/L	98
49) cis-2-Heptene	25.49	56	80183	48.709	ug/L	99
50) 2,2-Dimethylhexane	26.25	57	287723	47.316	ug/L	99
51) Methylcyclohexane	26.47	83	147453	47.793	ug/L	99
52) 2,5-Dimethylhexane	27.14	57	143171	47.530	ug/L	98
53) 2,4-Dimethylhexane	27.41	57	116215	48.064	ug/L	98
54) Ethylcyclopentane	27.44	69	121257	47.378	ug/L	98
55) 2,2,3-Trimethylpentane	27.66	57	237414	47.166	ug/L	99
57) 2,3,4-Trimethylpentane	29.20	43	149522	47.713	ug/L	99
58) 2,3,3-Trimethylpentane	29.79	43	125443	47.462	ug/L	97
59) 2,3-Dimethylhexane	30.04	43	131741	47.259	ug/L	96
60) 2-Methylheptane	30.48	57	130014	47.705	ug/L	97
61) 4-Methylheptane	30.66	43	141208	47.254	ug/L	97
63) 3-Methylheptane	31.23	43	107040	42.929	ug/L	99
65) 3-Ethylhexane	31.36	43	151531	44.980	ug/L	97
66) Toluene	31.55	91	364425	47.591	ug/L	99
67) 2-Methylthiophene	31.73	97	298067	48.622	ug/L	99
68) trans-1,4-Dimethylcycl...	32.20	97	185112	48.752	ug/L	98
69) 3-Methylthiophene	32.50	97	302898	48.787	ug/L	97
70) 1-Octene	32.92	55	62385	48.259	ug/L	96
71) Octane	33.75	43	125797	46.538	ug/L	99
72) trans-1,2-Dimethylcycl...	34.03	55	111473	48.026	ug/L	97
73) 1,2-Dibromoethane	34.27	107	90756	47.411	ug/L	99
75) cis-2-Octene	35.12	55	94249	49.436	ug/L	98
76) Isopropylcyclopentane	35.26	68	143910	48.923	ug/L	99
77) cis-1,2-Dimethylcycloh...	37.03	55	109992	48.906	ug/L	98
78) 2,5-Dimethylheptane	37.37	57	192372	47.567	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004630.D
 Acq On : 04 May 2023 03:17 pm
 Operator : VOA9:RAY
 Sample : WG1774659-13,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 04 16:16:23 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 3,5-Dimethylheptane	37.51	57	236818M4	48.201	ug/L	
80) 3,3-Dimethylheptane	37.76	57	147726	47.264	ug/L	99
81) 1,1,4-Trimethylcyclohe...	38.29	69	150592	48.468	ug/L	97
82) 2,3-Dimethylheptane	39.43	43	149174	46.267	ug/L	98
83) 3,4-Dimethylheptane	39.74	43	96459	45.783	ug/L	98
84) 4-Methyloctane	40.04	43	147256	45.909	ug/L	95
85) 2-Methyloctane	40.13	43	133730M3	46.793	ug/L	
86) Ethylbenzene	40.65	91	417361	47.911	ug/L	99
88) 2-Ethylthiophene	40.79	97	326551	49.545	ug/L	99
89) 3-Methyloctane	40.79	57	254912	46.499	ug/L	99
90) 3,3-Diethylpentane	41.78	57	287212	47.948	ug/L	99
91) p/m-Xylene	41.91	91	637648	93.795	ug/L	100
92) 1-Nonene	42.56	56	64282	48.243	ug/L	96
93) trans-3-Nonene	42.97	55	94199	48.083	ug/L	98
94) cis-3-Nonene	43.26	55	109397M6	48.600	ug/L	
95) Nonane	43.34	43	126818M6	46.249	ug/L	
96) Styrene	43.77	104	268650	48.224	ug/L	99
98) o-Xylene	44.18	91	325642	46.177	ug/L	99
99) 2-Nonene	44.61	55	96910	48.006	ug/L	97
100) Isopropylcyclohexane	45.89	83	153967	48.664	ug/L	97
102) Isopropylbenzene	46.51	105	429457	46.845	ug/L	99
103) 3,3-Dimethyloctane	47.00	71	232637	47.235	ug/L	98
104) n-Propylbenzene	48.96	91	490747	48.037	ug/L	99
105) 2-Methylnonane	49.00	43	123096	49.454	ug/L	97
106) 3-Methylnonane	49.40	57	165009	49.195	ug/L	98
107) 1-Methyl-3-ethylbenzene	49.54	105	431136	47.480	ug/L	99
108) 1-Methyl-4-ethylbenzene	49.70	105	415358	47.322	ug/L	99
109) 1,3,5-Trimethylbenzene	50.25	105	364966	48.761	ug/L	99
110) 1-Decene	50.38	41	73051	49.392	ug/L	97
111) Isobutylcyclohexane	50.54	83	172239	47.355	ug/L	99
112) 1-Methyl-2-ethylbenzene	50.57	105	434512	46.620	ug/L	100
113) Decane	50.75	43	125424	47.479	ug/L	98
114) tert-Butylbenzene	51.01	119	326218	46.978	ug/L	100
115) 1,2,4-Trimethylbenzene	51.41	105	386785	48.509	ug/L	100
116) Isobutylbenzene	51.60	91	415365M6	47.611	ug/L	
117) sec-Butylbenzene	51.66	105	473291	46.641	ug/L	98
118) 1-Methyl-3-isopropylbe...	52.04	119	418860	48.052	ug/L	99
119) 1-Methyl-4-isopropylbe...	52.24	119	414593	47.823	ug/L	99
120) 1,2,3-Trimethylbenzene	52.50	105	397113	47.877	ug/L	99
121) 1-Methyl-2-isopropylbe...	52.70	119	419525	47.442	ug/L	99
122) Indan	52.79	117	375048	46.591	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004630.D
 Acq On : 04 May 2023 03:17 pm
 Operator : VOA9:RAY
 Sample : WG1774659-13,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 04 16:16:23 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
123)	1,3-Diethylbenzene	52.94	105	266499	47.604	ug/L	99
124)	1-Methyl-3-propylbenzene	53.05	105	499018	48.008	ug/L	99
125)	Indene	53.22	115	358940	47.244	ug/L	98
126)	1-Methyl-4-propylbenzene	53.21	105	589234	47.865	ug/L	98
127)	n-Butylbenzene	53.20	91	450952	46.805	ug/L	100
128)	1,2-Dimethyl-4-ethylbe...	53.32	119	451848	48.227	ug/L	99
129)	1,2-Diethylbenzene	53.41	119	213556	47.328	ug/L	99
130)	1-Methyl-2-propylbenzene	53.60	105	533588	47.877	ug/L	99
131)	1,4-Dimethyl-2-ethylbe...	53.91	119	421267	48.690	ug/L	99
132)	Undecane	53.94	57	172974	50.240	ug/L	99
133)	1,3-Dimethyl-4-ethylbe...	54.00	119	509252	48.034	ug/L	99
134)	1,3-Dimethyl-5-ethylbe...	54.13	119	458109	48.263	ug/L	99
135)	1,3-Dimethyl-2-ethylbe...	54.35	119	497220	47.993	ug/L	99
136)	1,2-Dimethyl-3-ethylbe...	54.71	119	450378	48.335	ug/L	99
137)	1,2,4,5-Tetramethylben...	55.12	119	472985	48.480	ug/L	99
138)	1,2,3,5-Tetramethylben...	55.21	119	436008	48.346	ug/L	99
139)	Pentylbenzene	55.69	91	396063	47.899	ug/L	99
140)	1,2,3,4-Tetramethylben...	56.02	119	584575	48.266	ug/L	99
141)	1,3-DM-5-tert-Butylben...	56.00	147	409490	48.827	ug/L	99
142)	Dodecane	56.17	43	117167	49.076	ug/L	98
143)	1,3,5-Triethylbenzene	56.89	147	261524	49.082	ug/L	98
144)	Naphthalene	57.05	128	522026	46.182	ug/L	99
145)	Benzothiophene	57.14	134	315268	46.907	ug/L	100
146)	1,2,4-Triethylbenzene	57.47	147	244468	49.199	ug/L	99
147)	Hexylbenzene	57.97	91	363299	49.036	ug/L	100
148)	MMT	58.23	134	197005	48.481	ug/L	99
149)	Tridecane	58.28	57	122812	43.777	ug/L	98
150)	2-Methylnaphthalene	59.83	142	361571	48.183	ug/L	99
151)	1-Methylnaphthalene	60.31	142	322124	48.024	ug/L	99
152)	Tetradecane	60.60	57	87258	40.949	ug/L	97
153)	Pentadecane	63.42	57	66758	45.849	ug/L	97

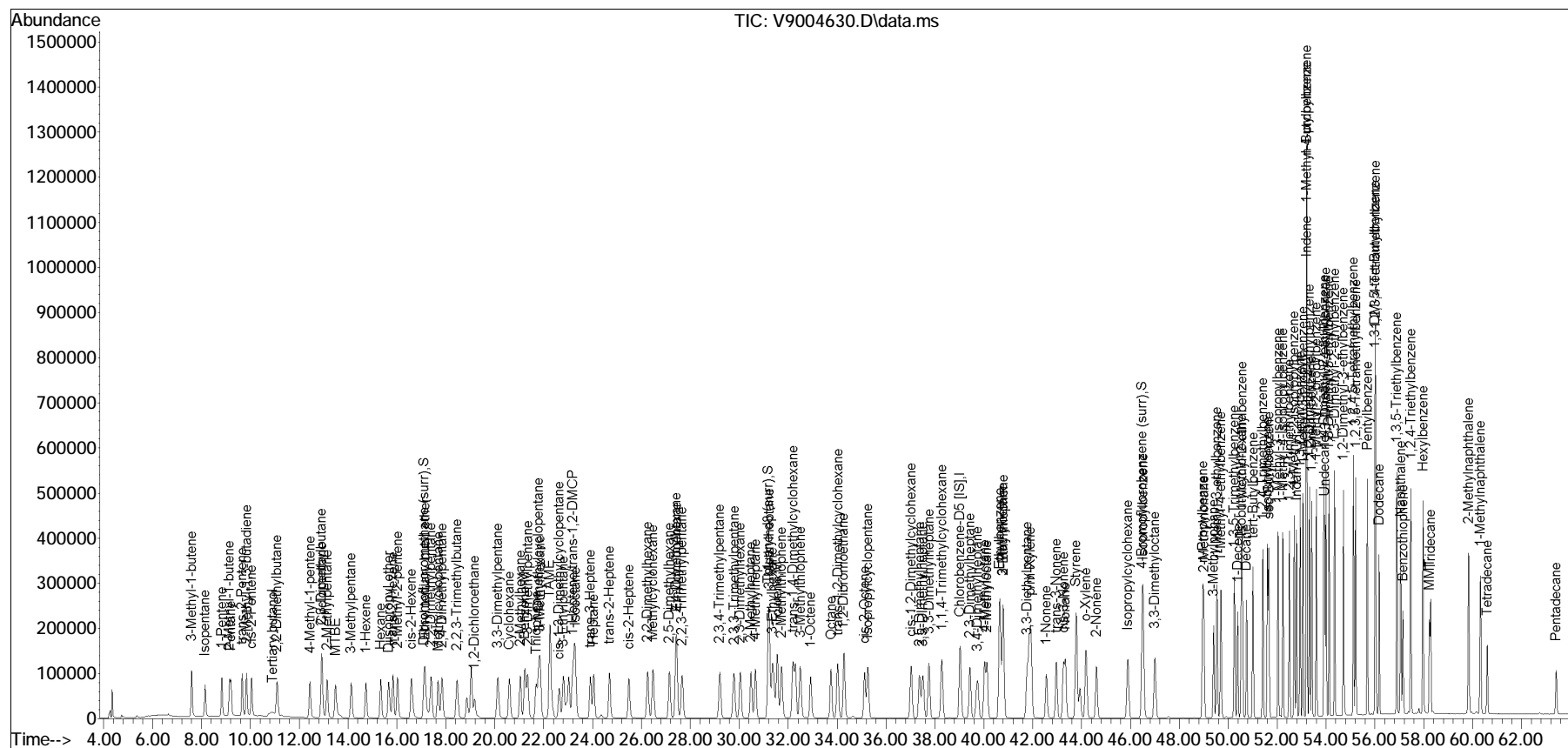
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
Data File : V9004630.D
Acq On : 04 May 2023 03:17 pm
Operator : VOA9:RAY
Sample : WG1774659-13,31,0.1000,10,0.1
Misc : WG1774659,ICAL19885
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 04 16:16:23 2023
Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
Quant Title : PIANO VOLATILES
QLast Update : Wed Apr 05 08:18:42 2023
Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004617.D
 Acq On : 03 May 2023 11:36 pm
 Operator : VOA9:RAY
 Sample : L2320537-01,31,0.1080,10,0.100
 Misc : WG1774659,ICAL19885
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 08 08:35:31 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	256640	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.10	113	91392	61.047	ug/L	0.00
Spiked Amount 50.000	Range 78 - 118		Recovery	= 122.09%#		
62) Toluene-d8 (surr)	31.19	98	311226	54.444	ug/L	-0.01
Spiked Amount 50.000	Range 87 - 113		Recovery	= 108.89%		
101) 4-Bromofluorobenzene (...)	46.49	95	109921	42.664	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery	= 85.33%		
Target Compounds						Qvalue
2) 3-Methyl-1-butene	0.00		0	N.D.	d	
3) Isopentane	0.00		0	N.D.	d	
4) 1-Pentene	0.00		0	N.D.	d	
5) 2-Methyl-1-butene	0.00		0	N.D.	d	
6) Pentane	0.00		0	N.D.	d	
7) trans-2-Pentene	0.00		0	N.D.	d	
8) 2-Methyl-1,3-butadiene	0.00		0	N.D.	d	
9) cis-2-Pentene	0.00		0	N.D.	d	
10) Tertiary butanol	0.00		0	N.D.	d	
11) 2,2-Dimethylbutane	0.00		0	N.D.	d	
12) 4-Methyl-1-pentene	0.00		0	N.D.	d	
13) Cyclopentane	0.00		0	N.D.	d	
14) 2,3-Dimethylbutane	0.00		0	N.D.	d	
15) 2-Methylpentane	0.00		0	N.D.	d	
16) MTBE	0.00		0	N.D.	d	
17) 3-Methylpentane	0.00		0	N.D.	d	
18) 1-Hexene	0.00		0	N.D.	d	
19) Hexane	0.00		0	N.D.	d	
20) Diisopropyl ether	0.00		0	N.D.	d	
21) trans-2-Hexene	0.00		0	N.D.	d	
22) 2-Methyl-2-pentene	0.00		0	N.D.	d	
23) cis-2-Hexene	0.00		0	N.D.	d	
25) Ethyl tertiary butyl e...	0.00		0	N.D.	d	
26) 2,2-Dimethylpentane	0.00		0	N.D.	d	
27) Methylcyclopentane	0.00		0	N.D.	d	
28) 2,4-Dimethylpentane	0.00		0	N.D.	d	
29) 2,2,3-Trimethylbutane	0.00		0	N.D.	d	
30) 1,2-Dichloroethane	0.00		0	N.D.	d	
31) 3,3-Dimethylpentane	0.00		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004617.D
 Acq On : 03 May 2023 11:36 pm
 Operator : VOA9:RAY
 Sample : L2320537-01,31,0.1080,10,0.100
 Misc : WG1774659,ICAL19885
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 08 08:35:31 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Cyclohexane	0.00		0	N.D.	d	
33) 2-Methylhexane	0.00		0	N.D.	d	
34) Benzene	21.24	78	3171	0.614	ug/L	99
35) 2,3-Dimethylpentane	0.00		0	N.D.	d	
36) Thiophene	0.00		0	N.D.	d	
37) 1,1-Dimethylcyclopentane	0.00		0	N.D.	d	
38) 3-Methylhexane	0.00		0	N.D.	d	
39) TAME	0.00		0	N.D.	d	
40) cis-1,3-Dimethylcyclop...	0.00		0	N.D.	d	
41) 3-Ethylpentane	0.00		0	N.D.	d	
43) 1-Heptene/trans-1,2-DMCP	0.00		0	N.D.	d	
44) Isooctane	23.30	57	1066M4	0.217	ug/L	
45) trans-3-Heptene	0.00		0	N.D.	d	
46) Heptane	0.00		0	N.D.	d	
48) trans-2-Heptene	0.00		0	N.D.	d	
49) cis-2-Heptene	0.00		0	N.D.	d	
50) 2,2-Dimethylhexane	0.00		0	N.D.	d	
51) Methylcyclohexane	26.48	83	1902	0.846	ug/L	94
52) 2,5-Dimethylhexane	0.00		0	N.D.	d	
53) 2,4-Dimethylhexane	27.42	57	312M4	0.177	ug/L	
54) Ethylcyclopentane	27.44	69	367M3	0.197	ug/L	
55) 2,2,3-Trimethylpentane	0.00		0	N.D.	d	
57) 2,3,4-Trimethylpentane	29.22	43	1046M4	0.458	ug/L	
58) 2,3,3-Trimethylpentane	29.78	43	878M4	0.456	ug/L	
59) 2,3-Dimethylhexane	30.03	43	663M4	0.326	ug/L	
60) 2-Methylheptane	30.48	57	1548	0.779	ug/L #	74
61) 4-Methylheptane	30.66	43	460	0.211	ug/L	84
63) 3-Methylheptane	0.00		0	N.D.	d	
65) 3-Ethylhexane	0.00		0	N.D.	d	
66) Toluene	31.58	91	747	0.134	ug/L	87
67) 2-Methylthiophene	0.00		0	N.D.	d	
68) trans-1,4-Dimethylcycl...	32.19	97	5735M6	2.073	ug/L	
69) 3-Methylthiophene	0.00		0	N.D.	d	
70) 1-Octene	0.00		0	N.D.	d	
71) Octane	0.00		0	N.D.	d	
72) trans-1,2-Dimethylcycl...	34.03	55	7770	4.594	ug/L	97
73) 1,2-Dibromoethane	0.00		0	N.D.	d	
75) cis-2-Octene	0.00		0	N.D.	d	
76) Isopropylcyclopentane	0.00		0	N.D.	d	
77) cis-1,2-Dimethylcycloh...	37.01	55	5370M4	3.276	ug/L	
78) 2,5-Dimethylheptane	37.37	57	5127	1.740	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004617.D
 Acq On : 03 May 2023 11:36 pm
 Operator : VOA9:RAY
 Sample : L2320537-01,31,0.1080,10,0.100
 Misc : WG1774659,ICAL19885
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 08 08:35:31 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 3,5-Dimethylheptane	37.51	57	2338M3	0.653	ug/L	
80) 3,3-Dimethylheptane	37.74	57	627M4	0.275	ug/L	
81) 1,1,4-Trimethylcyclohe...	0.00		0	N.D.	d	
82) 2,3-Dimethylheptane	39.45	43	12330	5.248	ug/L	98
83) 3,4-Dimethylheptane	39.76	43	3375M4	2.198	ug/L	
84) 4-Methyloctane	40.04	43	3290	1.408	ug/L	93
85) 2-Methyloctane	40.09	43	3059M3	1.469	ug/L	
86) Ethylbenzene	0.00		0	N.D.	d	
88) 2-Ethylthiophene	0.00		0	N.D.	d	
89) 3-Methyloctane	40.79	57	14604	3.656	ug/L	99
90) 3,3-Diethylpentane	0.00		0	N.D.	d	
91) p/m-Xylene	41.92	91	2871M4	0.580	ug/L	
92) 1-Nonene	0.00		0	N.D.	d	
93) trans-3-Nonene	0.00		0	N.D.	d	
94) cis-3-Nonene	0.00		0	N.D.	d	
95) Nonane	0.00		0	N.D.	d	
96) Styrene	0.00		0	N.D.	d	
98) o-Xylene	44.20	91	2790M4	0.543	ug/L	
99) 2-Nonene	0.00		0	N.D.	d	
100) Isopropylcyclohexane	0.00		0	N.D.	d	
102) Isopropylbenzene	46.52	105	21198	3.173	ug/L	99
103) 3,3-Dimethyloctane	47.01	71	4840	1.349	ug/L #	66
104) n-Propylbenzene	48.96	91	12366	1.661	ug/L	93
105) 2-Methylnonane	0.00		0	N.D.	d	
106) 3-Methylnonane	49.40	57	7578M3	3.100	ug/L	
107) 1-Methyl-3-ethylbenzene	49.55	105	886	0.134	ug/L	97
108) 1-Methyl-4-ethylbenzene	49.70	105	1644	0.257	ug/L	96
109) 1,3,5-Trimethylbenzene	50.26	105	1909	0.350	ug/L	95
110) 1-Decene	0.00		0	N.D.	d	
111) Isobutylcyclohexane	0.00		0	N.D.	d	
112) 1-Methyl-2-ethylbenzene	50.58	105	11380	1.676	ug/L	93
113) Decane	50.77	43	4439M4	2.306	ug/L	
114) tert-Butylbenzene	51.02	119	2998	0.592	ug/L	89
115) 1,2,4-Trimethylbenzene	51.42	105	3264	0.562	ug/L	98
116) Isobutylbenzene	51.61	91	15715M4	2.472	ug/L	
117) sec-Butylbenzene	51.66	105	33986	4.596	ug/L	99
118) 1-Methyl-3-isopropylbe...	0.00		0	N.D.	d	
119) 1-Methyl-4-isopropylbe...	0.00		0	N.D.	d	
120) 1,2,3-Trimethylbenzene	52.50	105	752	0.124	ug/L	86
121) 1-Methyl-2-isopropylbe...	52.71	119	9804	1.521	ug/L	87
122) Indan	52.80	117	12538	2.137	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004617.D
 Acq On : 03 May 2023 11:36 pm
 Operator : VOA9:RAY
 Sample : L2320537-01,31,0.1080,10,0.100
 Misc : WG1774659,ICAL19885
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 08 08:35:31 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
123) 1,3-Diethylbenzene	52.94	105	30837	7.559	ug/L	100
124) 1-Methyl-3-propylbenzene	0.00		0	N.D.	d	
125) Indene	53.22	115	2767	0.500	ug/L #	74
126) 1-Methyl-4-propylbenzene	53.21	105	10942	1.220	ug/L #	1
127) n-Butylbenzene	53.21	91	31251	4.451	ug/L #	83
128) 1,2-Dimethyl-4-ethylbe...	0.00		0	N.D.	d	
129) 1,2-Diethylbenzene	53.42	119	16907	5.142	ug/L	98
130) 1-Methyl-2-propylbenzene	0.00		0	N.D.	d	
131) 1,4-Dimethyl-2-ethylbe...	0.00		0	N.D.	d	
132) Undecane	53.96	57	24403	9.726	ug/L	86
133) 1,3-Dimethyl-4-ethylbe...	0.00		0	N.D.	d	
134) 1,3-Dimethyl-5-ethylbe...	54.13	119	61717	8.922	ug/L	100
135) 1,3-Dimethyl-2-ethylbe...	54.35	119	45699M3	6.053	ug/L	
136) 1,2-Dimethyl-3-ethylbe...	0.00		0	N.D.	d	
137) 1,2,4,5-Tetramethylben...	55.13	119	235898M6	33.180	ug/L	
138) 1,2,3,5-Tetramethylben...	0.00		0	N.D.	d	
139) Pentylbenzene	55.69	91	19635	3.259	ug/L	88
140) 1,2,3,4-Tetramethylben...	0.00		0	N.D.	d	
141) 1,3-DM-5-tert-Butylben...	0.00		0	N.D.	d	
142) Dodecane	0.00		0	N.D.	d	
143) 1,3,5-Triethylbenzene	0.00		0	N.D.	d	
144) Naphthalene	57.06	128	23675	2.874	ug/L #	47
145) Benzothiophene	0.00		0	N.D.	d	
146) 1,2,4-Triethylbenzene	57.47	147	19718	5.445	ug/L	87
147) Hexylbenzene	0.00		0	N.D.	d	
148) MMT	0.00		0	N.D.	d	
149) Tridecane	58.28	57	21005M3	10.275	ug/L	
150) 2-Methylnaphthalene	0.00		0	N.D.	d	
151) 1-Methylnaphthalene	0.00		0	N.D.	d	
152) Tetradecane	0.00		0	N.D.	d	
153) Pentadecane	0.00		0	N.D.	d	

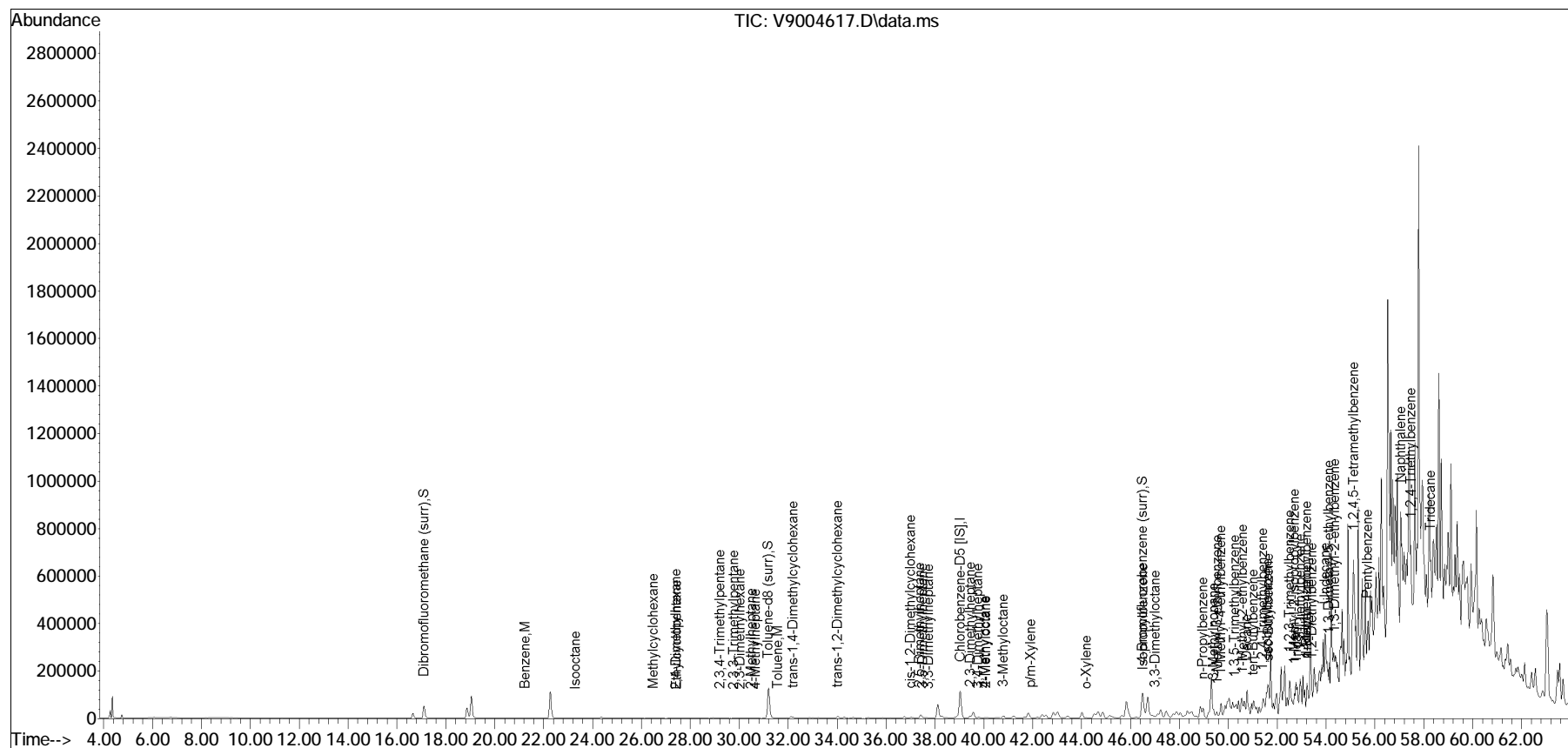
(#) = qualifier out of range (m) = manual integration (+) = signals summed

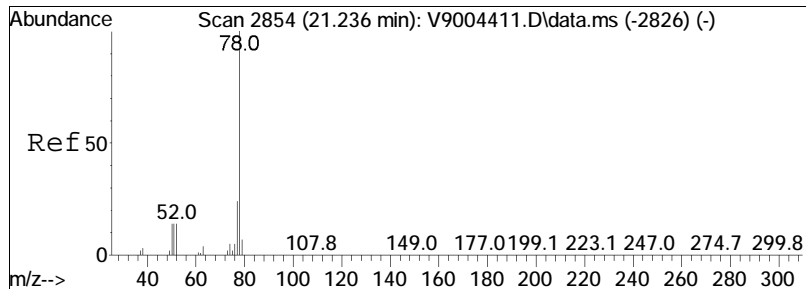
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004617.D
 Acq On : 03 May 2023 11:36 pm
 Operator : VOA9:RAY
 Sample : L2320537-01,31,0.1080,10,0.100
 Misc : WG1774659,ICAL19885
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 08 08:35:31 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

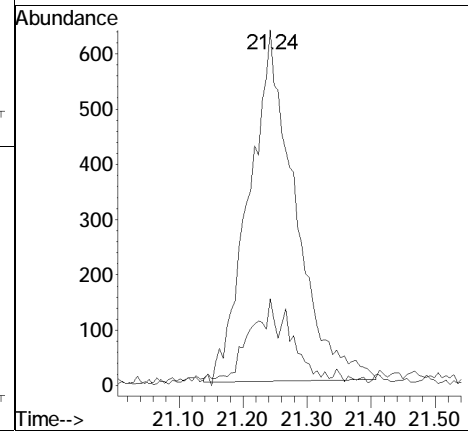
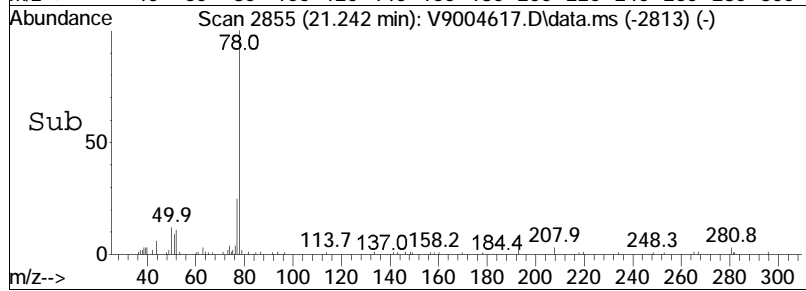
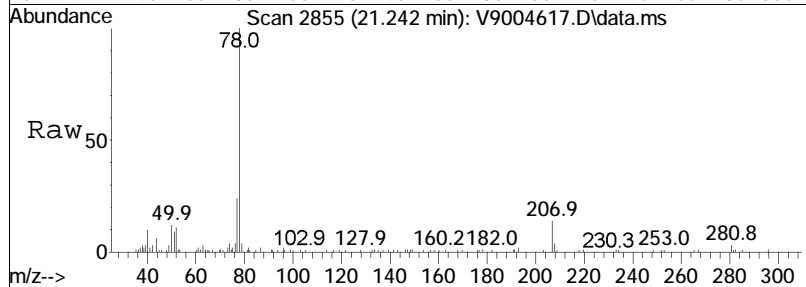
Sub List : PIANO_NEW-NHS - PIANO

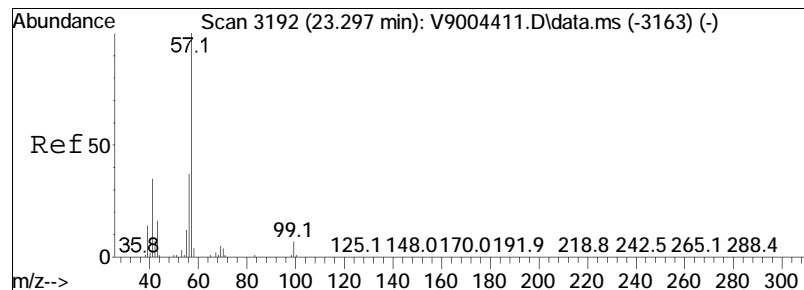




#34
Benzene
Concen: 0.61 ug/L
RT: 21.24 min Scan# 2855
Delta R.T. 0.006 min
Lab File: V9004617.D
Acq: 03 May 2023 11:36 pm

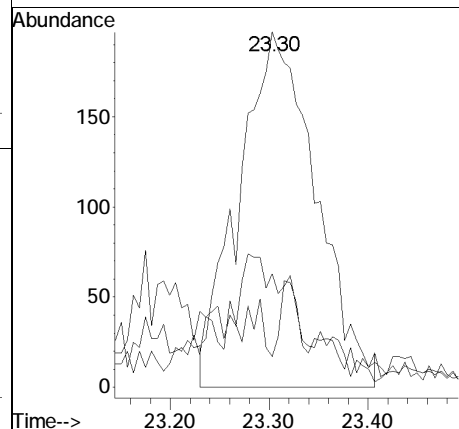
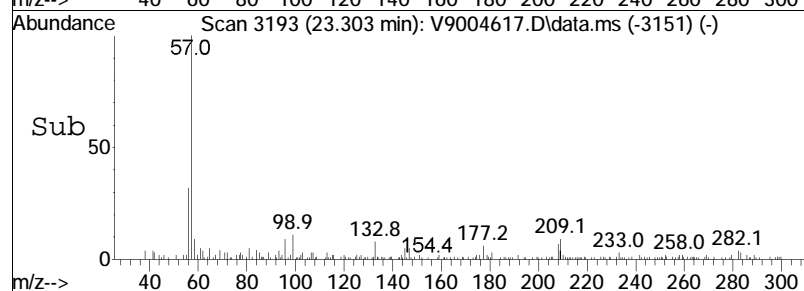
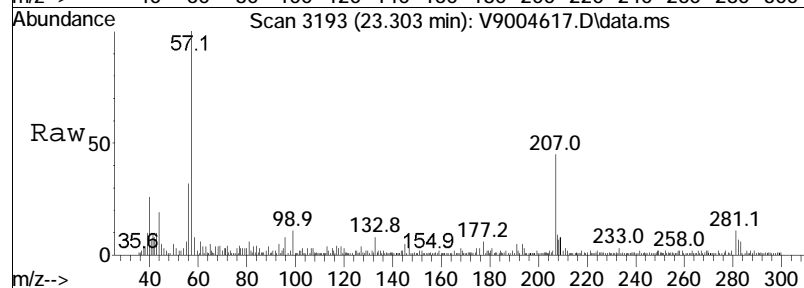
Tgt Ion: 78 Resp: 3171
Ion Ratio Lower Upper
78 100
77 24.4 4.0 44.0

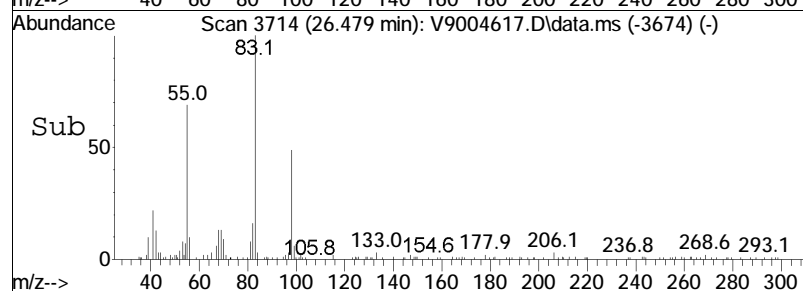
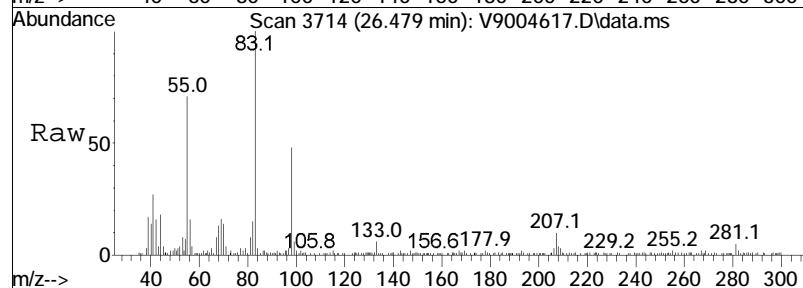
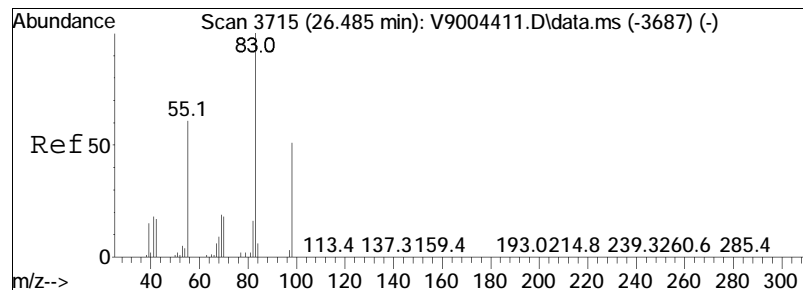




#44
 Isooctane
 Concen: 0.22 ug/L m
 RT: 23.30 min Scan# 3193
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

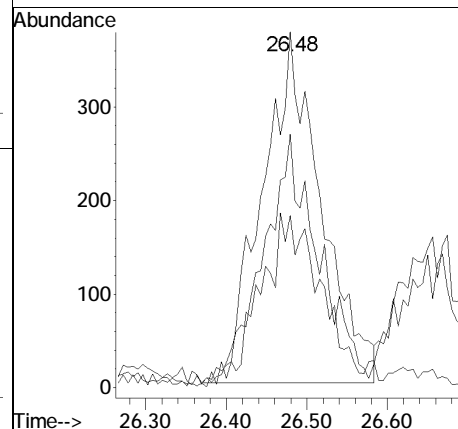
Tgt Ion	Ratio	Lower	Upper
57	100		
41	8.6	21.7	61.7#
56	32.0	30.1	70.1

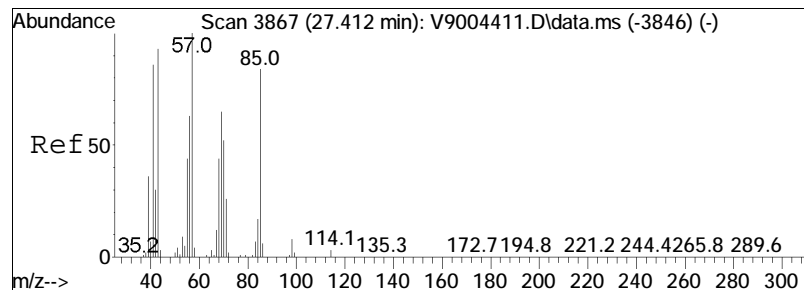




#51
Methylcyclohexane
Concen: 0.85 ug/L
RT: 26.48 min Scan# 3714
Delta R.T. -0.006 min
Lab File: V9004617.D
Acq: 03 May 2023 11:36 pm

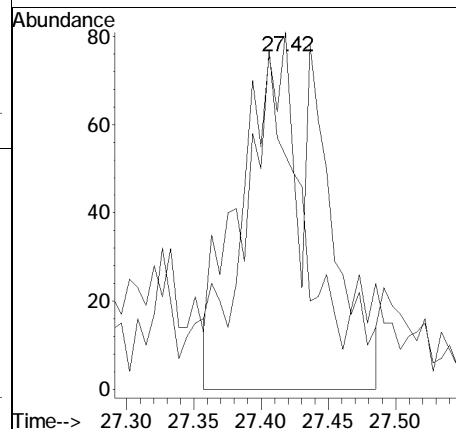
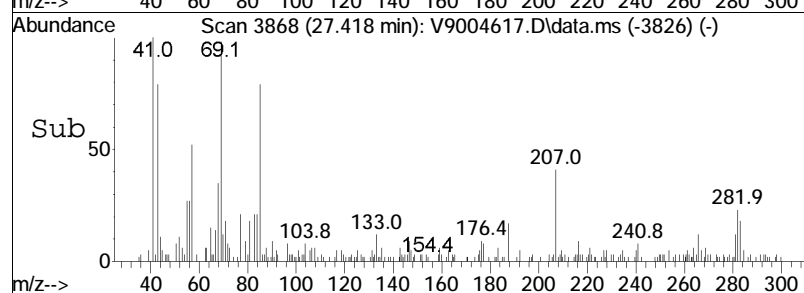
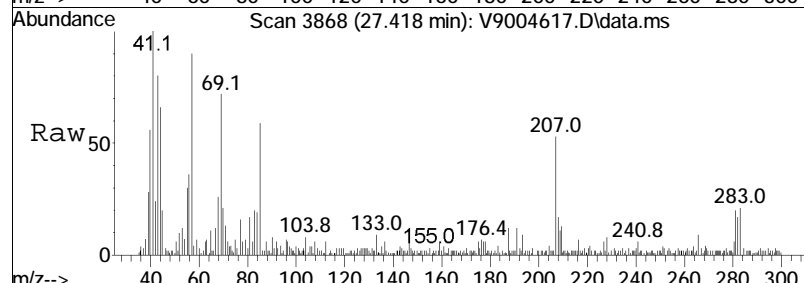
Tgt	Ion: 83	Resp:	1902
Ion	Ratio	Lower	Upper
83	100		
55	71.3	45.6	85.6
98	48.4	30.8	70.8

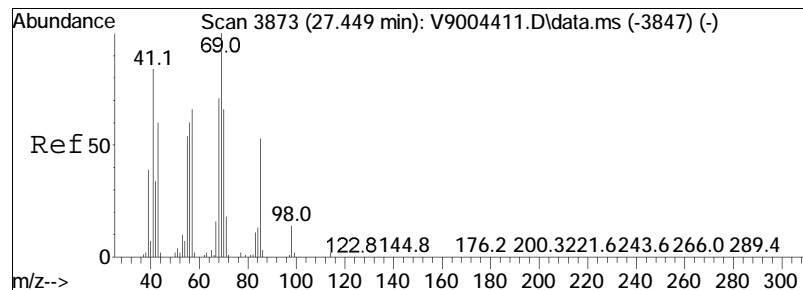




#53
 2,4-Dimethylhexane
 Concen: 0.18 ug/L m
 RT: 27.42 min Scan# 3868
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

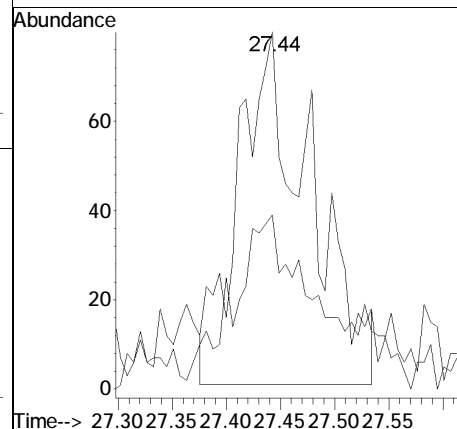
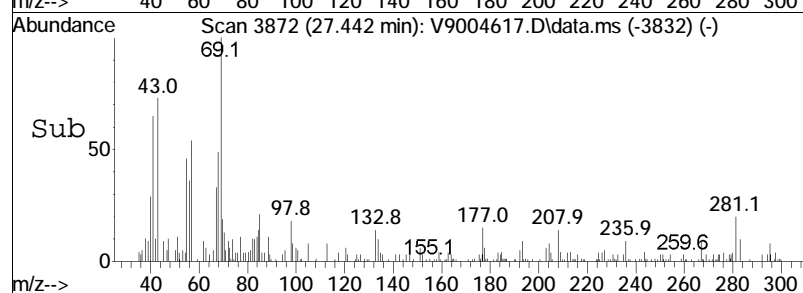
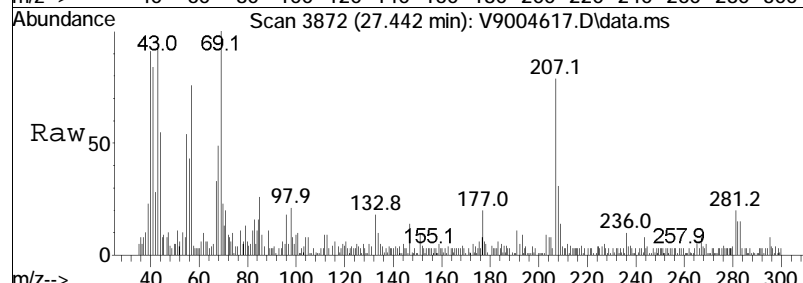
Tgt Ion	Ratio	Lower	Upper
57	100		
85	65.4	63.5	103.5

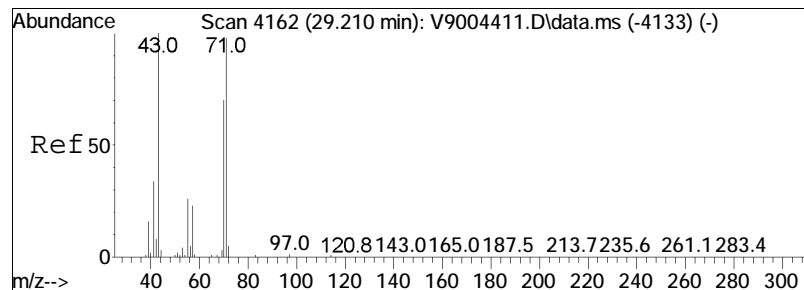




#54
 Ethylcyclopentane
 Concen: 0.20 ug/L m
 RT: 27.44 min Scan# 3872
 Delta R.T. -0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

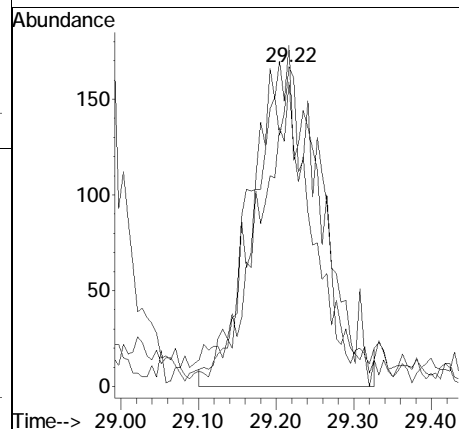
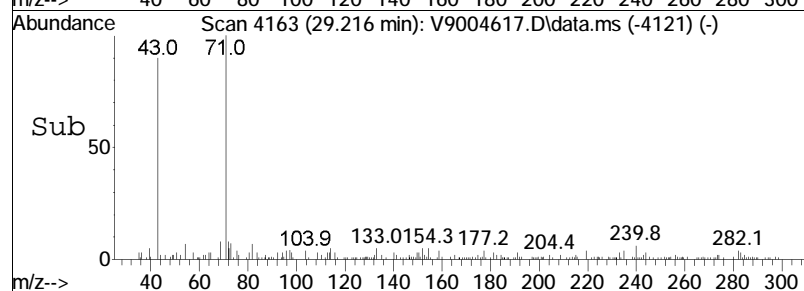
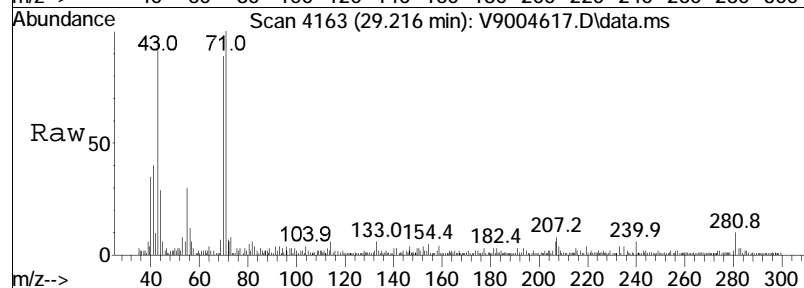
Tgt Ion	Ratio	Lower	Upper
69	100		
68	48.8	51.3	91.3#

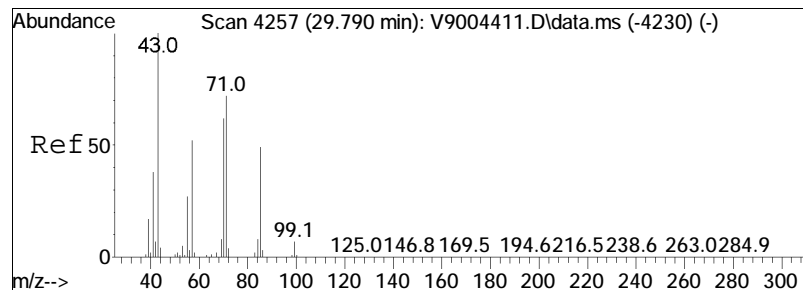




#57
 2,3,4-Trimethylpentane
 Concen: 0.46 ug/L m
 RT: 29.22 min Scan# 4163
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

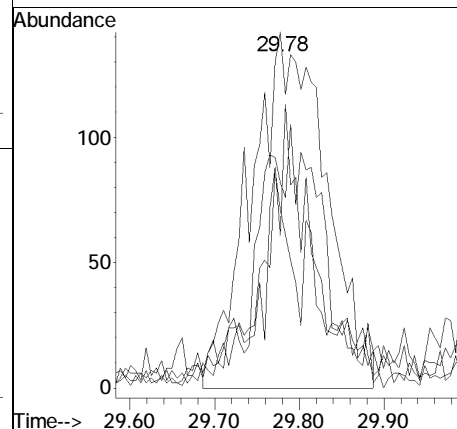
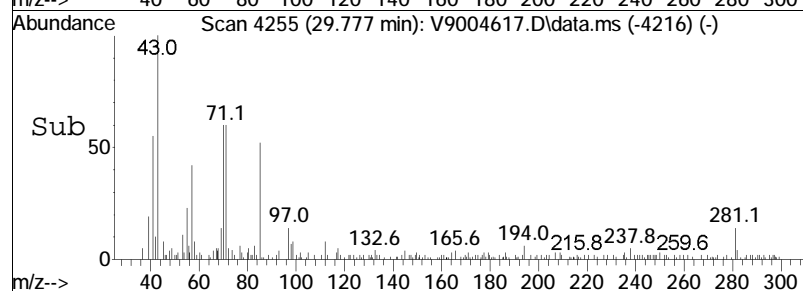
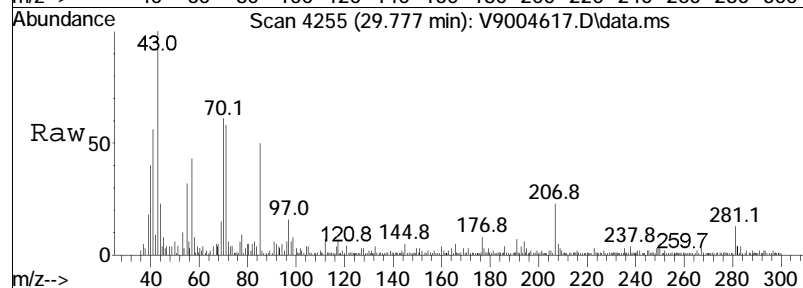
Tgt Ion	Ratio	Lower	Upper
43	100		
71	106.6	77.6	117.6
70	95.2	50.5	90.5

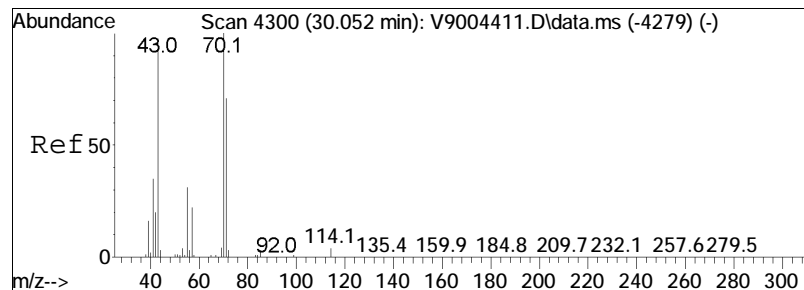




#58
 2,3,3-Trimethylpentane
 Concen: 0.46 ug/L m
 RT: 29.78 min Scan# 4255
 Delta R.T. -0.012 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

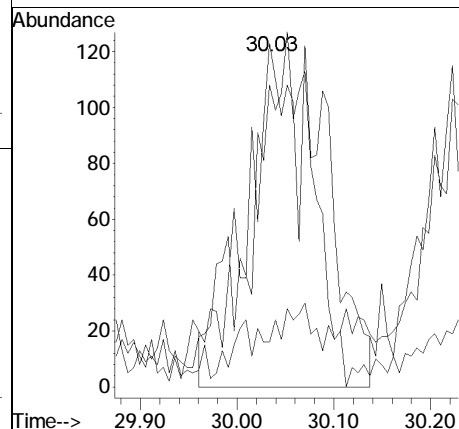
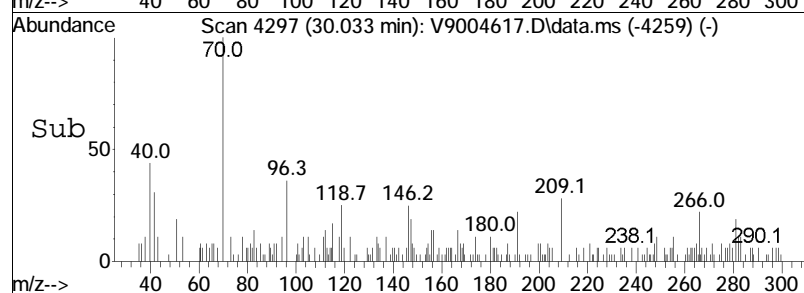
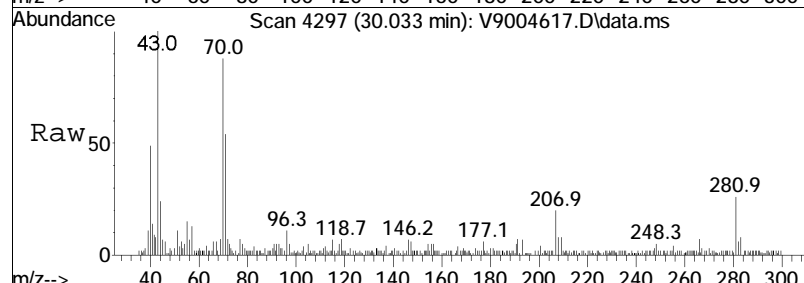
Tgt Ion:	43	Resp:	878
Ion	Ratio	Lower	Upper
43	100		
71	57.7	52.1	92.1
57	43.0	32.2	72.2
85	50.0	28.9	68.9

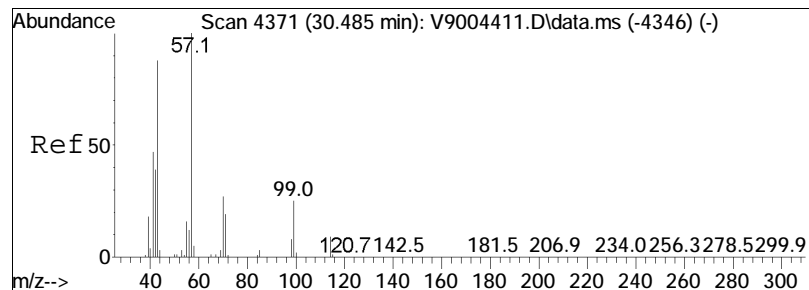




#59
 2,3-Dimethylhexane
 Concen: 0.33 ug/L m
 RT: 30.03 min Scan# 4297
 Delta R.T. -0.018 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

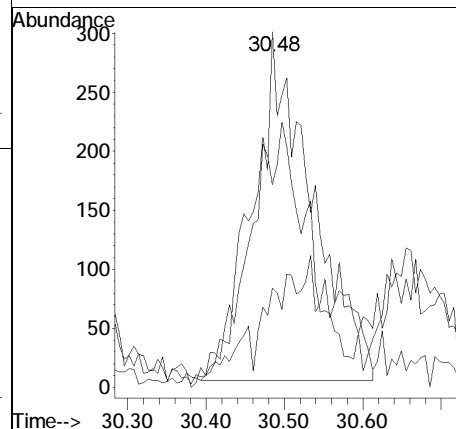
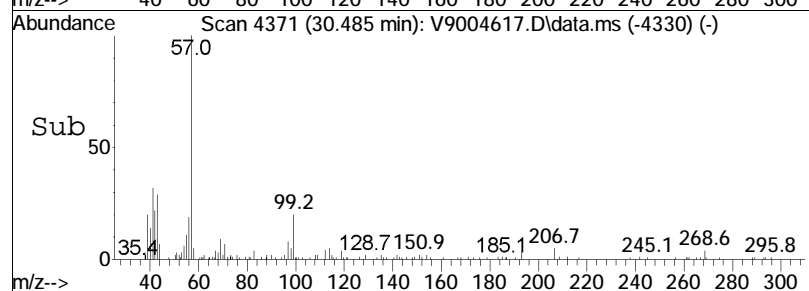
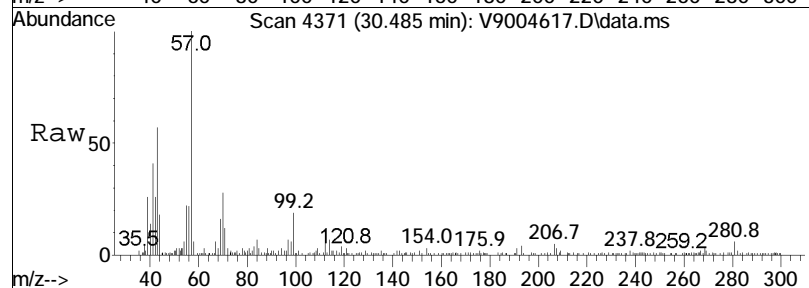
Tgt Ion:	43	Resp:	663
Ion Ratio	Lower	Upper	
43	100		
70	87.8	83.1	123.1
57	13.0	2.8	42.8

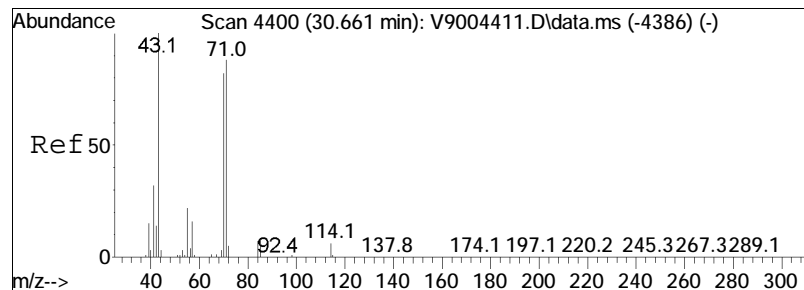




#60
 2-Methylheptane
 Concen: 0.78 ug/L
 RT: 30.48 min Scan# 4371
 Delta R.T. -0.000 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

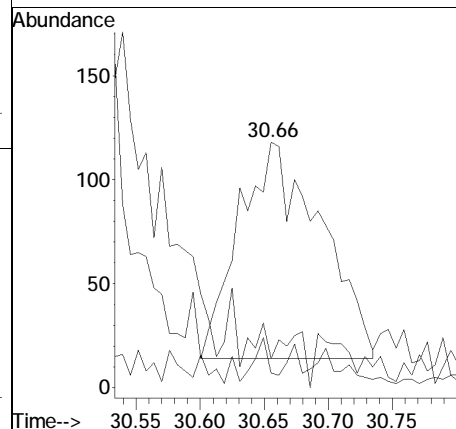
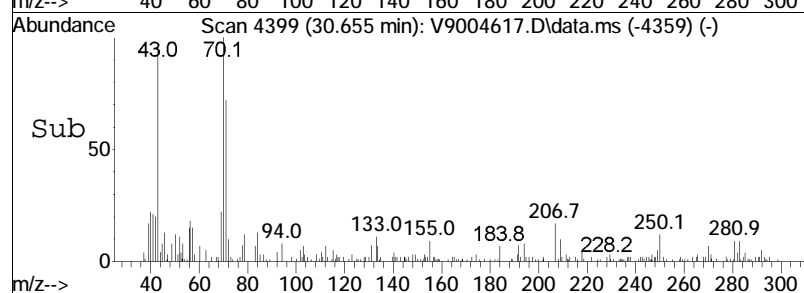
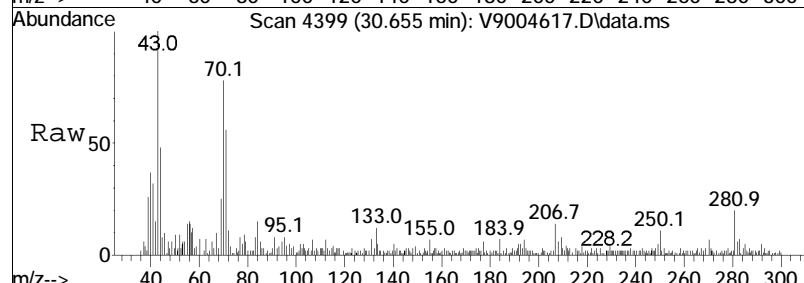
Tgt Ion	Ratio	Lower	Upper
57	100		
43	57.1	68.6	108.6#
70	27.9	7.6	47.6

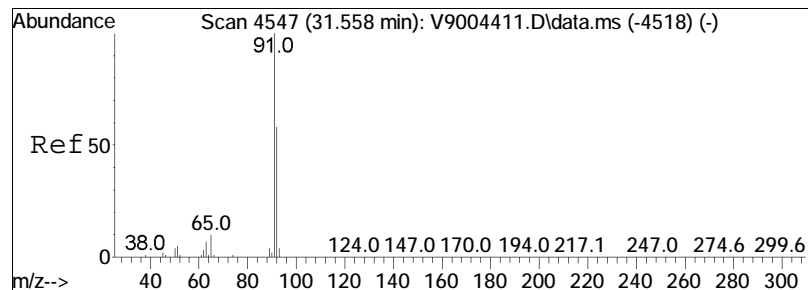




#61
 4-Methylheptane
 Concen: 0.21 ug/L
 RT: 30.66 min Scan# 4399
 Delta R.T. -0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

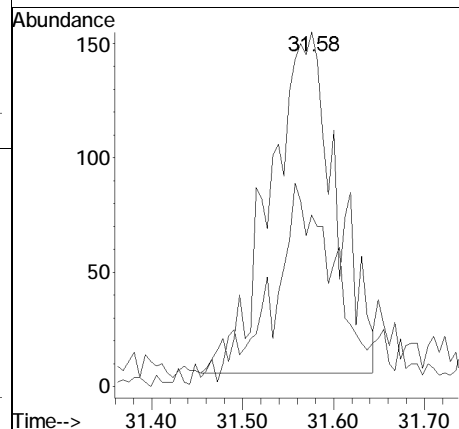
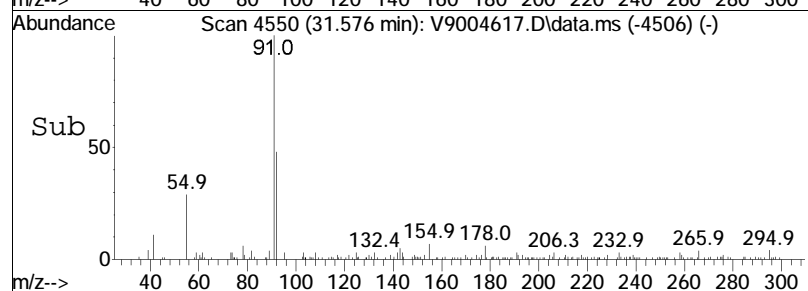
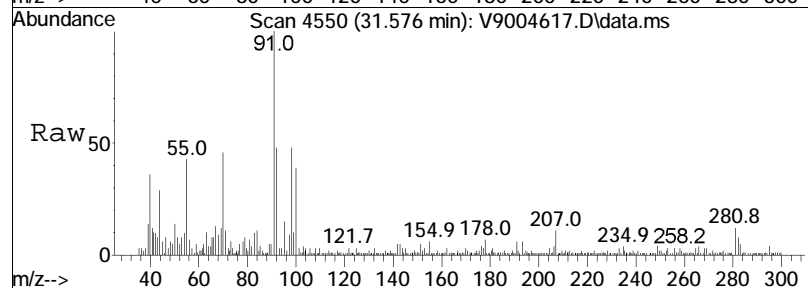
Tgt Ion:	43	Resp:	460
Ion Ratio	Lower	Upper	
43	100		
57	11.9	0.9	40.9
85	5.9	0.0	27.8

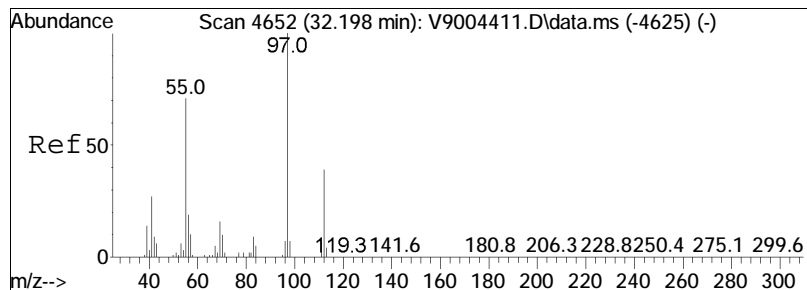




#66
Toluene
Concen: 0.13 ug/L
RT: 31.58 min Scan# 4550
Delta R.T. 0.018 min
Lab File: V9004617.D
Acq: 03 May 2023 11:36 pm

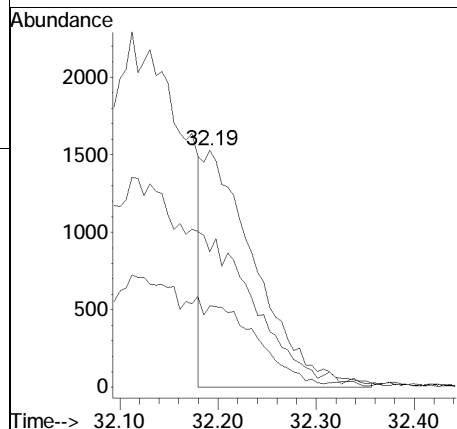
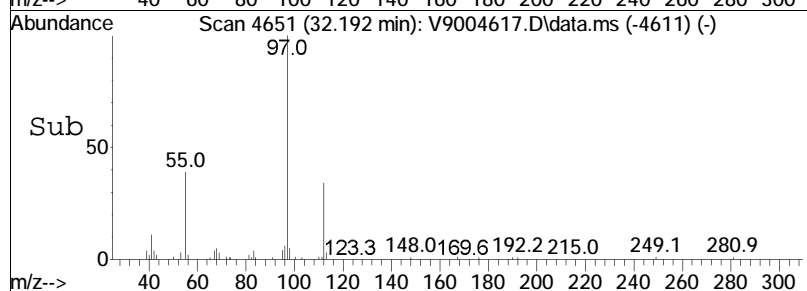
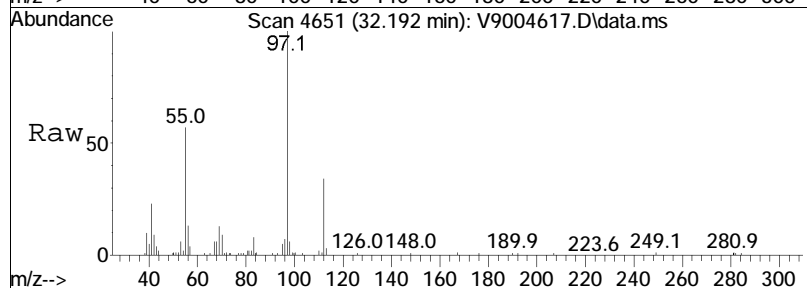
Tgt	Ion	Resp	Lower	Upper
91	100			
92	48.4	37.9	77.9	

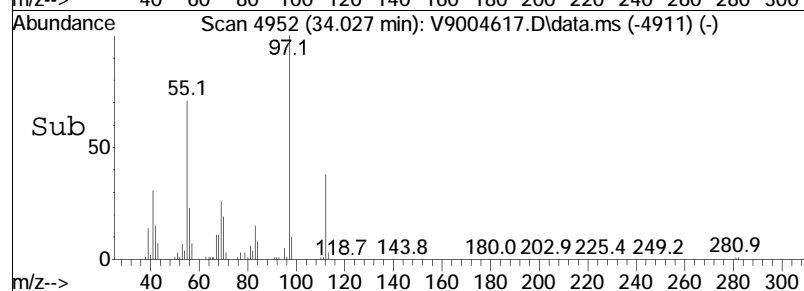
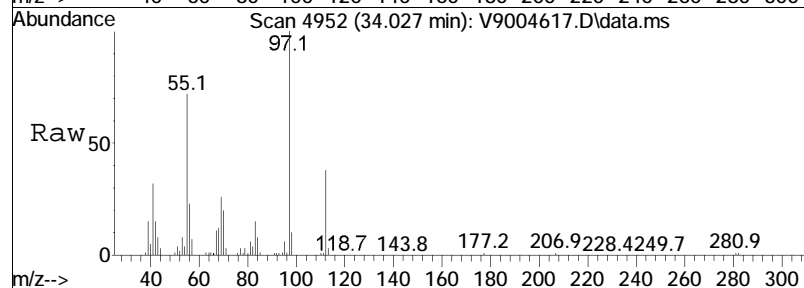
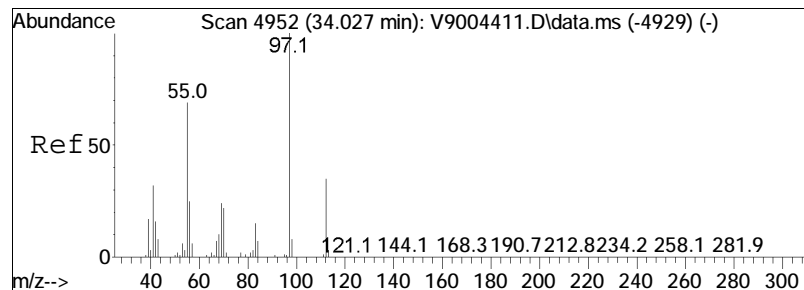




#68
 trans-1,4-Dimethylcyclohexane
 Concen: 2.07 ug/L m
 RT: 32.19 min Scan# 4651
 Delta R.T. -0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

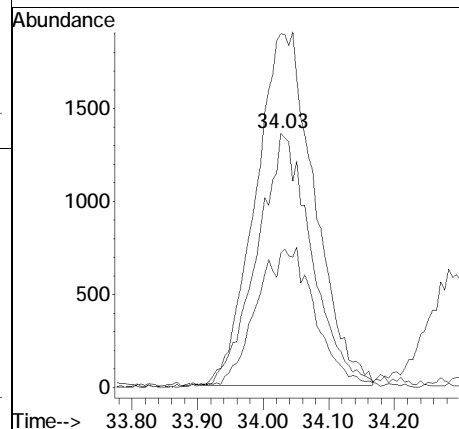
Tgt Ion	Ratio	Lower	Upper
97	100		
55	57.2	50.7	90.7
112	34.4	19.0	59.0

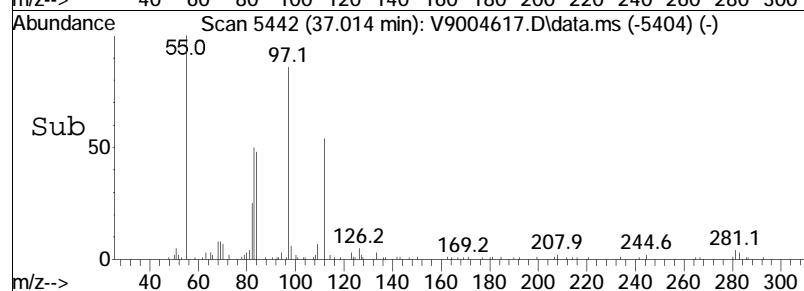
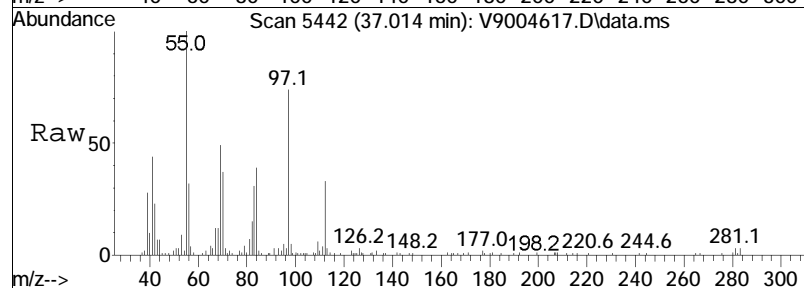
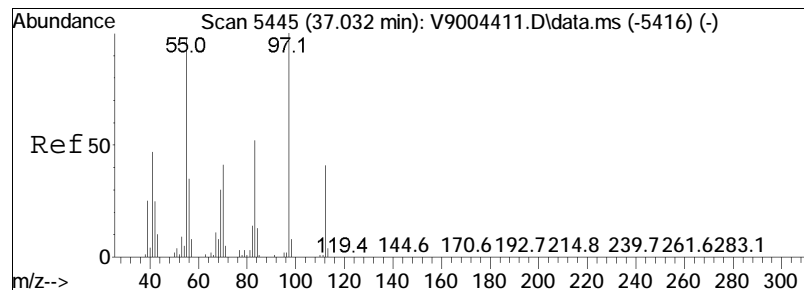




#72
 trans-1,2-Dimethylcyclohexane
 Concen: 4.59 ug/L
 RT: 34.03 min Scan# 4952
 Delta R.T. -0.000 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

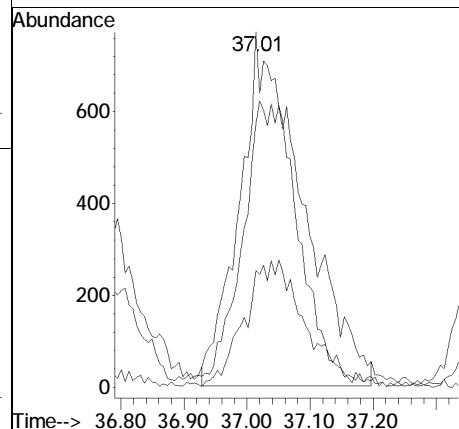
Tgt Ion:	55	Resp:	7770
Ion Ratio	Lower	Upper	
55	100		
97	139.0	123.3	163.3
112	52.8	30.5	70.5

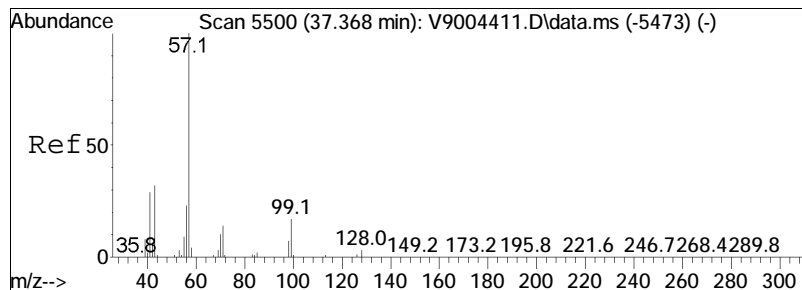




#77
 cis-1,2-Dimethylcyclohexane
 Concen: 3.28 ug/L m
 RT: 37.01 min Scan# 5442
 Delta R.T. -0.018 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

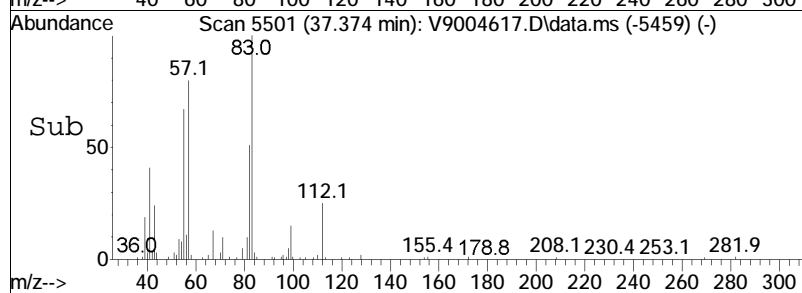
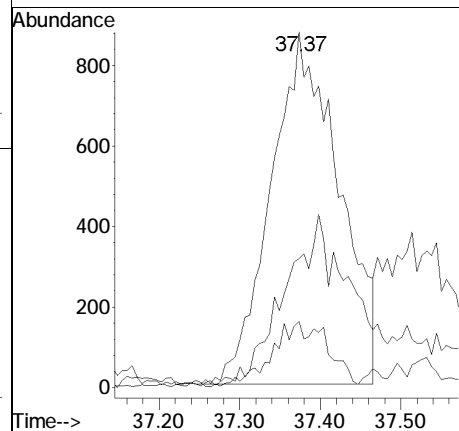
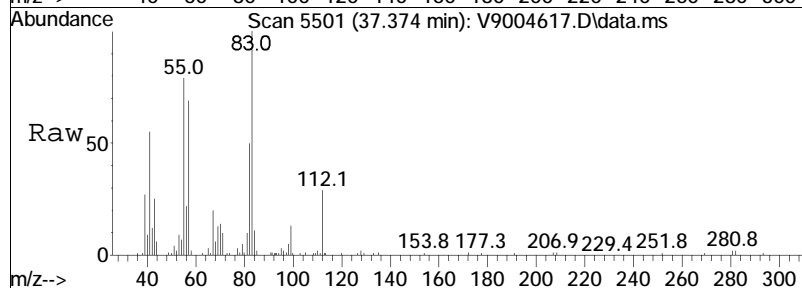
Tgt Ion	Ratio	Lower	Upper
55	100		
97	74.1	81.6	121.6#
112	32.9	21.3	61.3

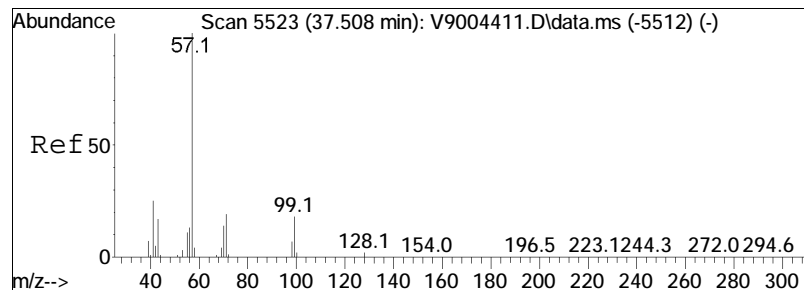




#78
 2,5-Dimethylheptane
 Concen: 1.74 ug/L
 RT: 37.37 min Scan# 5501
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

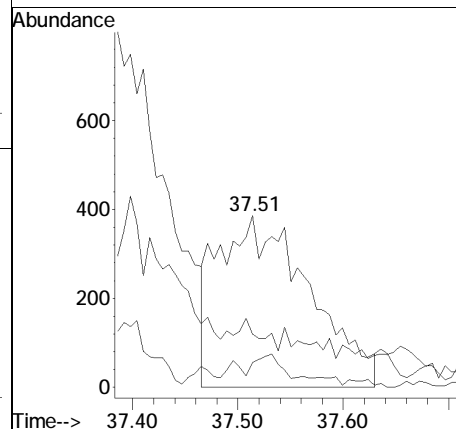
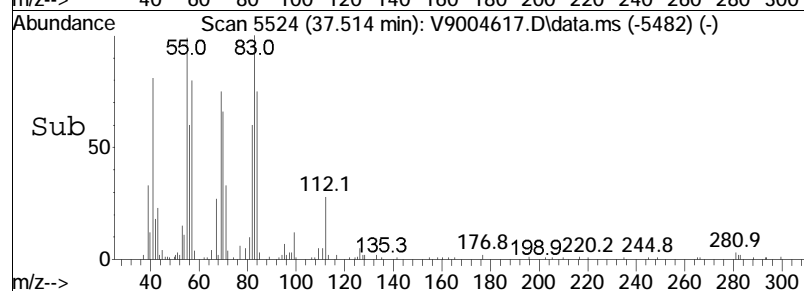
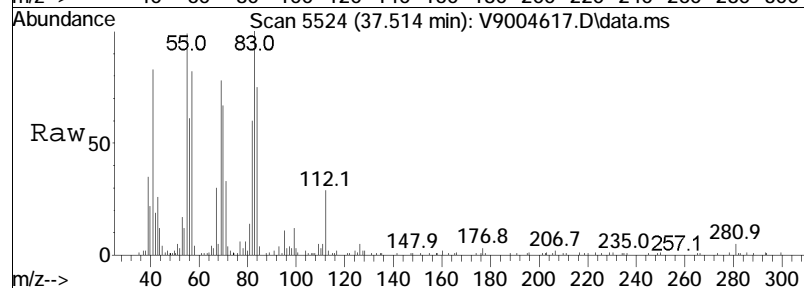
Tgt Ion	Ratio	Lower	Upper
57	100		
43	36.2	11.6	51.6
99	18.6	0.0	37.0

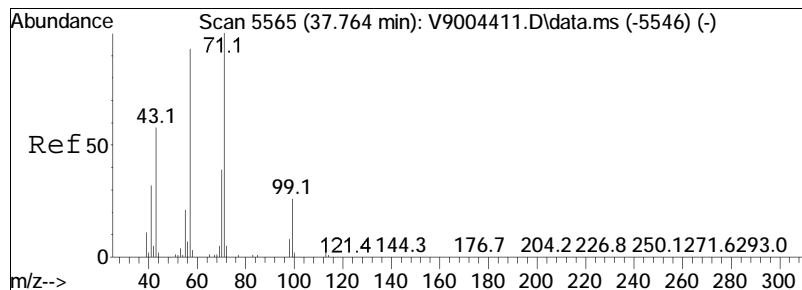




#79
 3,5-Dimethylheptane
 Concen: 0.65 ug/L m
 RT: 37.51 min Scan# 5524
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

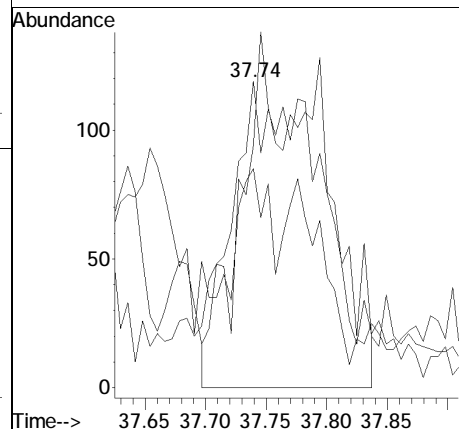
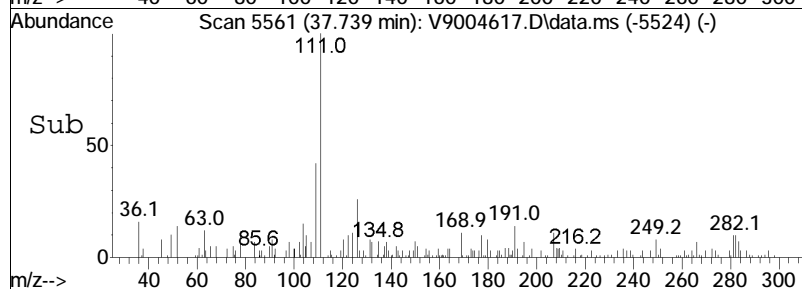
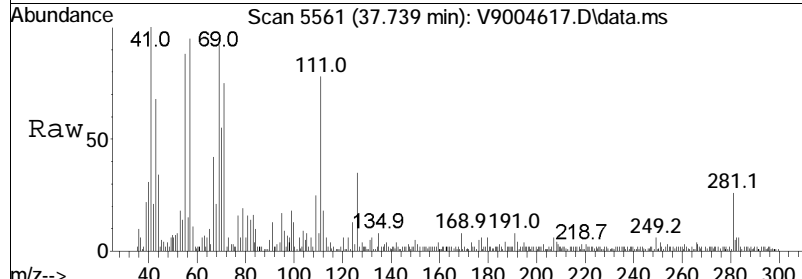
Tgt Ion:	57	Resp:	2338
Ion Ratio	Lower	Upper	
57	100		
43	31.1	0.5	40.5
99	14.5	0.0	37.3

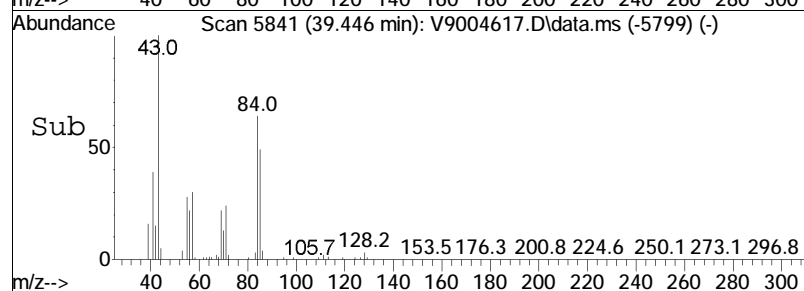
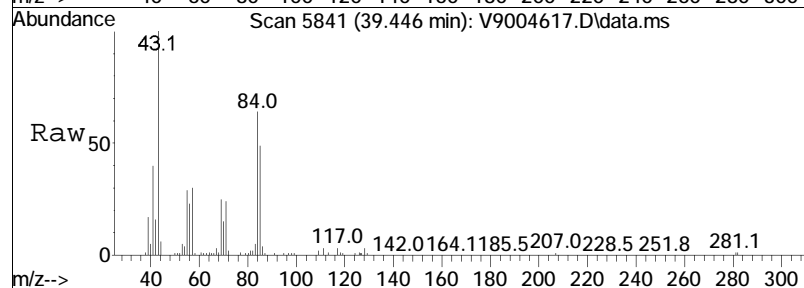
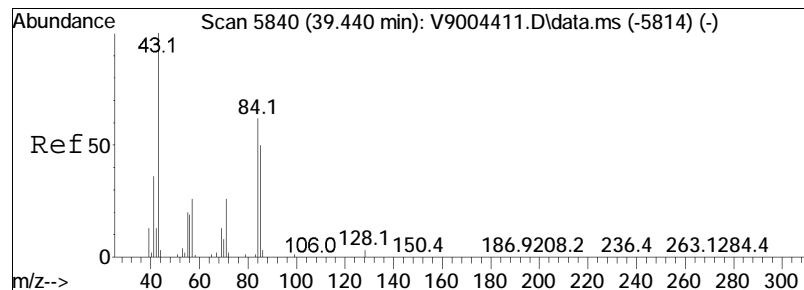




#80
 3,3-Dimethylheptane
 Concen: 0.28 ug/L m
 RT: 37.74 min Scan# 5561
 Delta R.T. -0.024 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

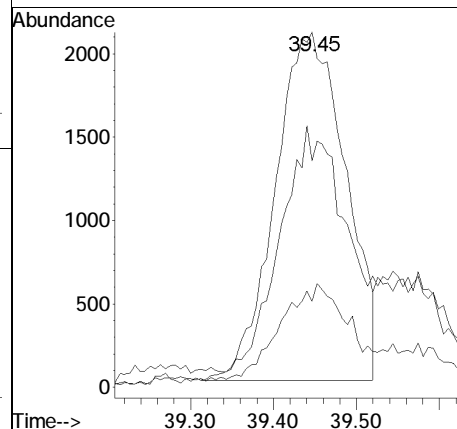
Tgt Ion	Ratio	Lower	Upper
57	100		
43	71.4	41.4	81.4
71	79.0	85.5	125.5#

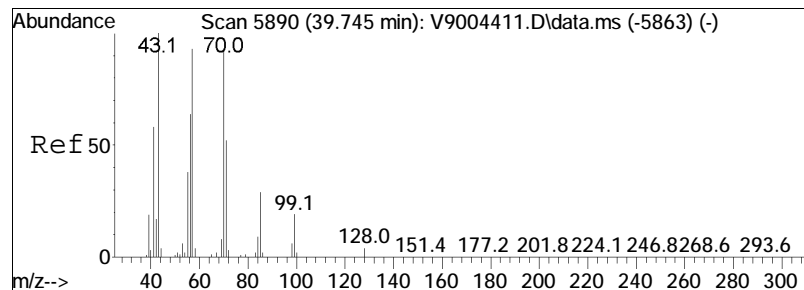




#82
 2,3-Dimethylheptane
 Concen: 5.25 ug/L
 RT: 39.45 min Scan# 5841
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

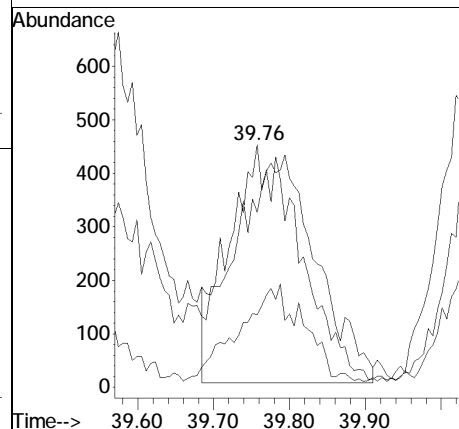
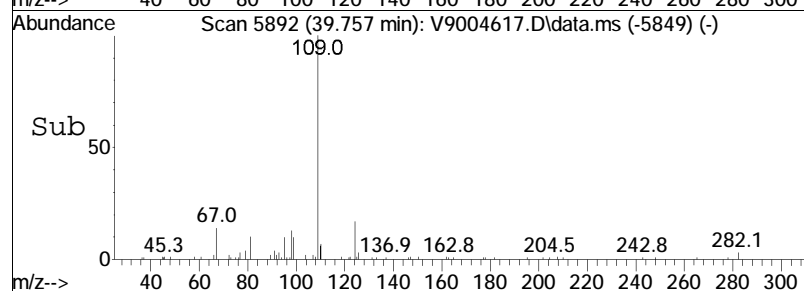
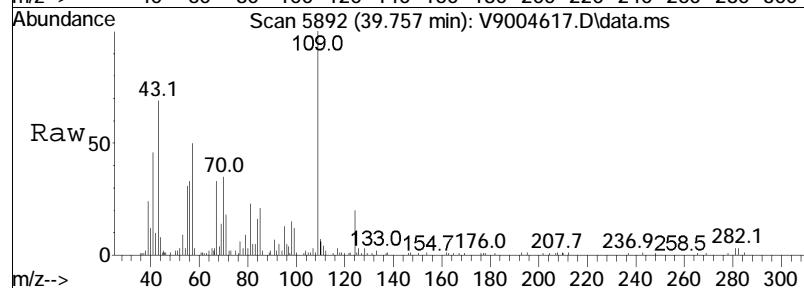
Tgt Ion:	43	Resp:	12330
Ion	Ratio	Lower	Upper
43	100		
84	63.8	42.4	82.4
71	24.2	6.0	46.0

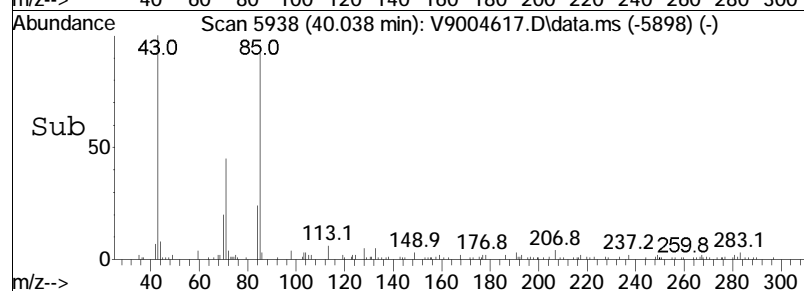
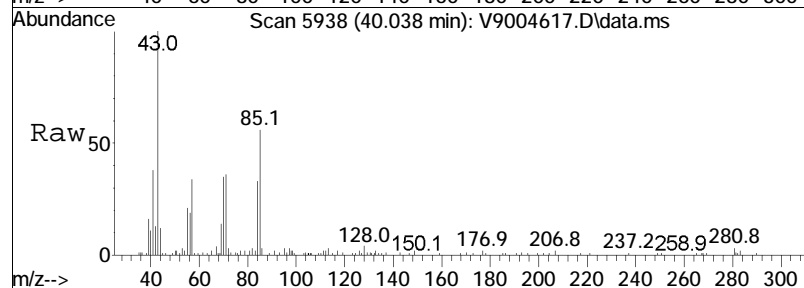
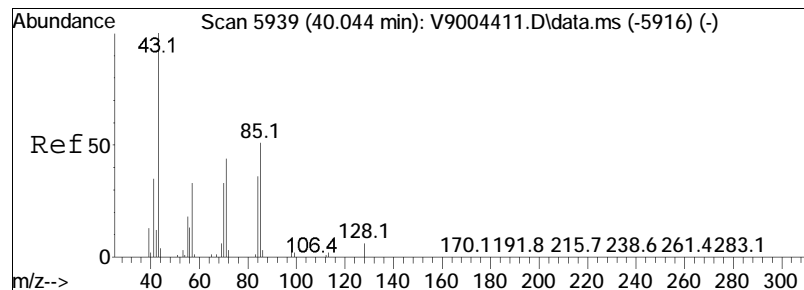




#83
 3,4-Dimethylheptane
 Concen: 2.20 ug/L m
 RT: 39.76 min Scan# 5892
 Delta R.T. 0.012 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

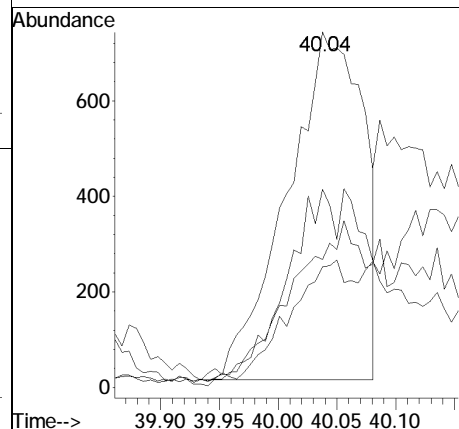
Tgt Ion	Ratio	Lower	Upper
43	100		
57	72.2	72.8	112.8#
85	30.0	9.6	49.6

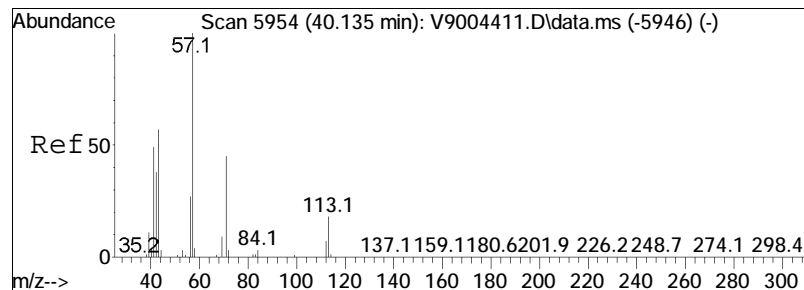




#84
 4-Methyloctane
 Concen: 1.41 ug/L
 RT: 40.04 min Scan# 5938
 Delta R.T. -0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

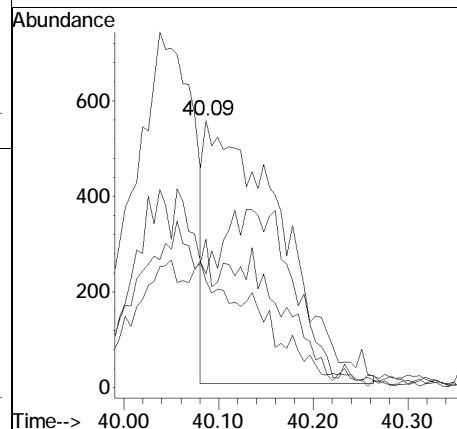
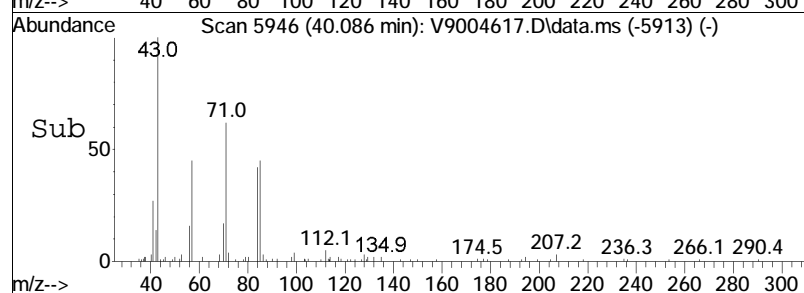
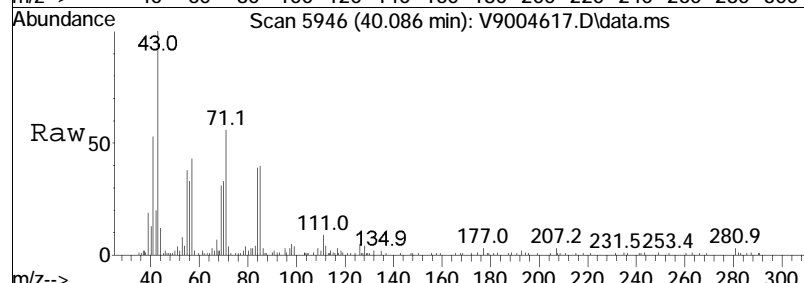
Tgt Ion:	43	Resp:	3290
Ion	Ratio	Lower	Upper
43	100		
57	34.0	13.3	53.3
71	36.0	23.6	63.6
85	55.8	30.3	70.3

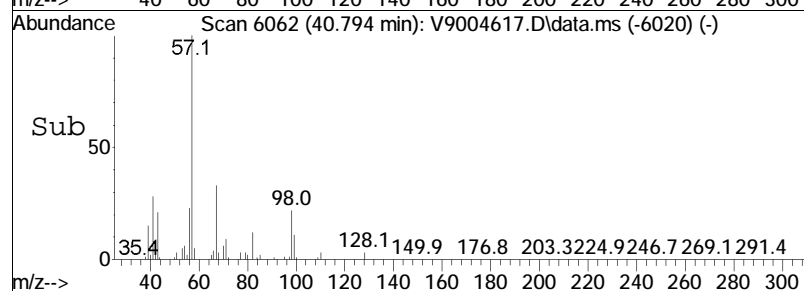
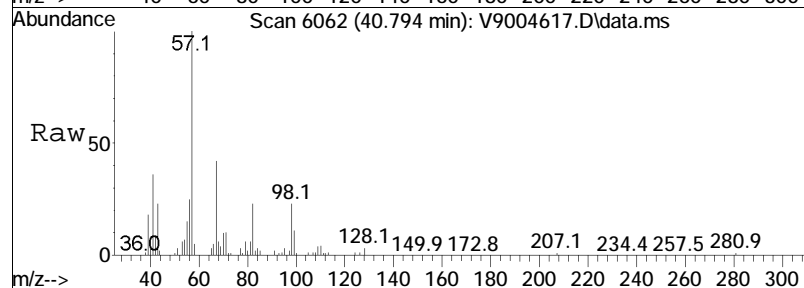
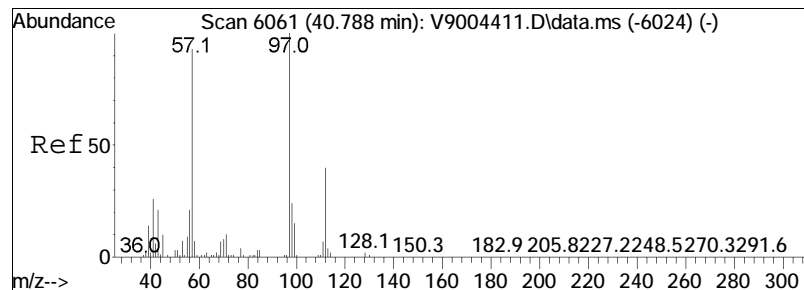




#85
 2-Methyloctane
 Concen: 1.47 ug/L m
 RT: 40.09 min Scan# 5946
 Delta R.T. -0.049 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

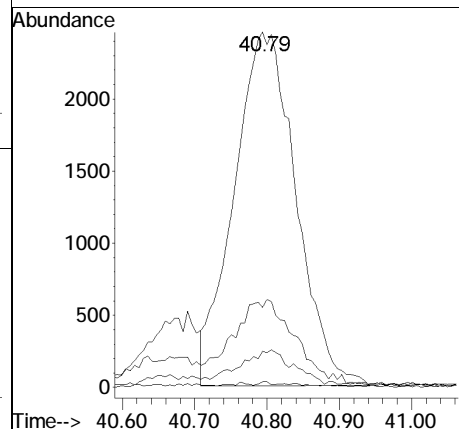
Tgt	Ion: 43	Resp:	3059
Ion	Ratio	Lower	Upper
43	100		
57	42.6	50.5	90.5#
71	55.6	32.5	72.5
85	39.9	13.1	53.1

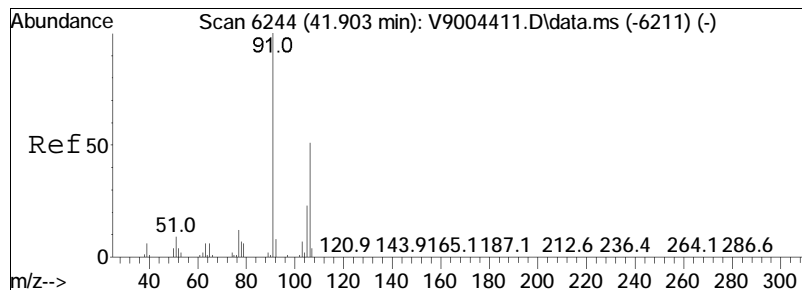




#89
 3-Methyloctane
 Concen: 3.66 ug/L
 RT: 40.79 min Scan# 6062
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

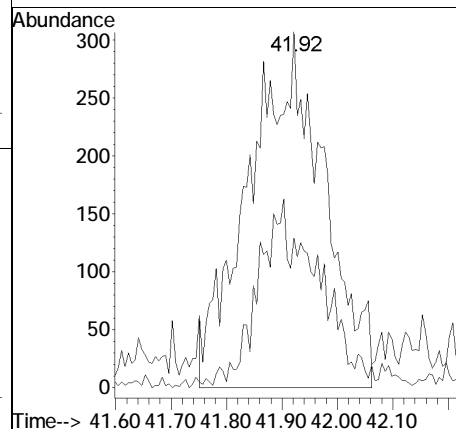
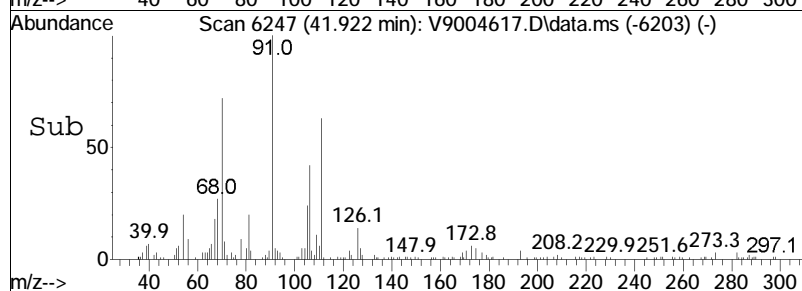
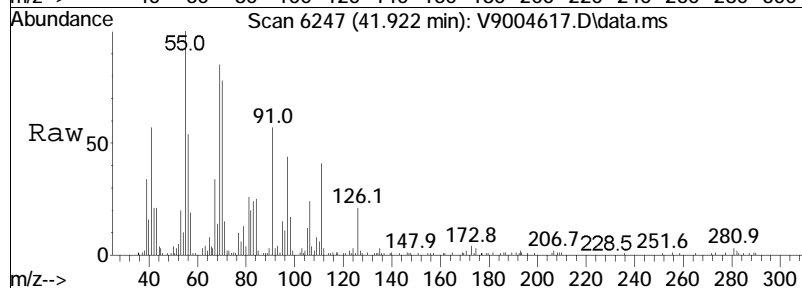
Tgt Ion:	57	Resp:	14604
Ion Ratio	Lower	Upper	
57	100		
43	22.5	2.8	42.8
71	10.1	0.0	30.7
85	1.5	0.0	23.3

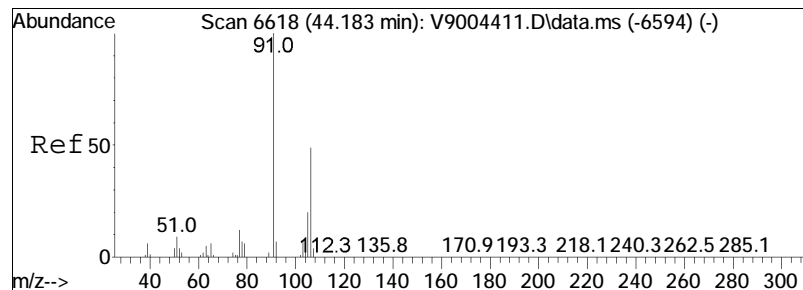




#91
p/m-Xylene
Concen: 0.58 ug/L m
RT: 41.92 min Scan# 6247
Delta R.T. 0.018 min
Lab File: V9004617.D
Acq: 03 May 2023 11:36 pm

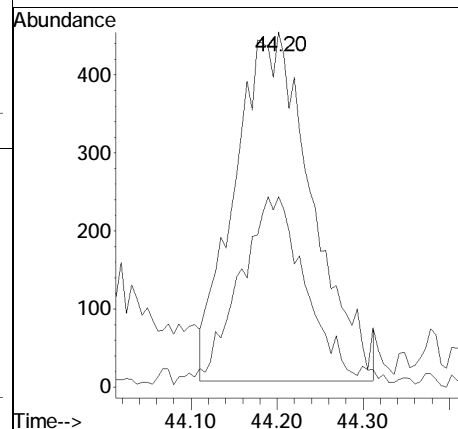
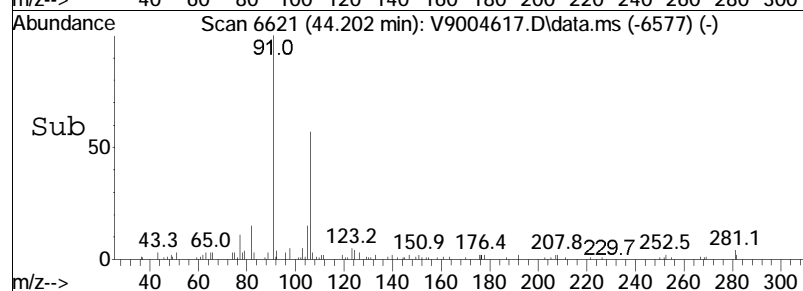
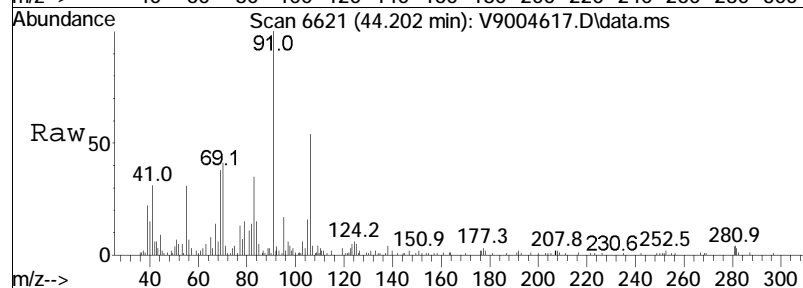
Tgt Ion	Ratio	Lower	Upper
91	100		
106	42.0	31.3	71.3

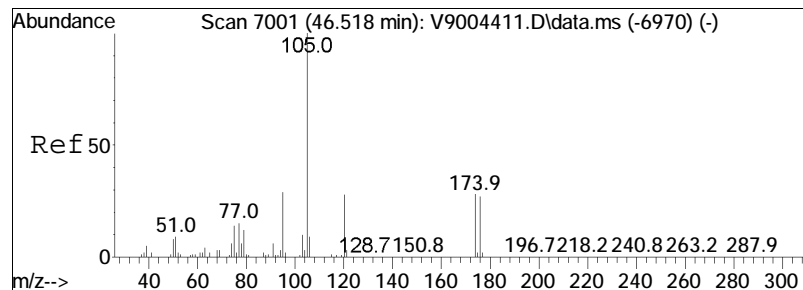




#98
o-Xylene
Concen: 0.54 ug/L m
RT: 44.20 min Scan# 6621
Delta R.T. 0.018 min
Lab File: V9004617.D
Acq: 03 May 2023 11:36 pm

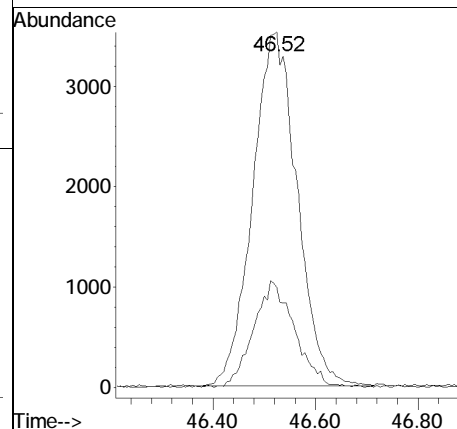
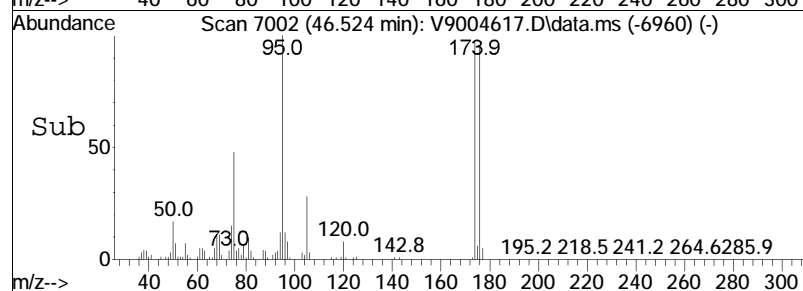
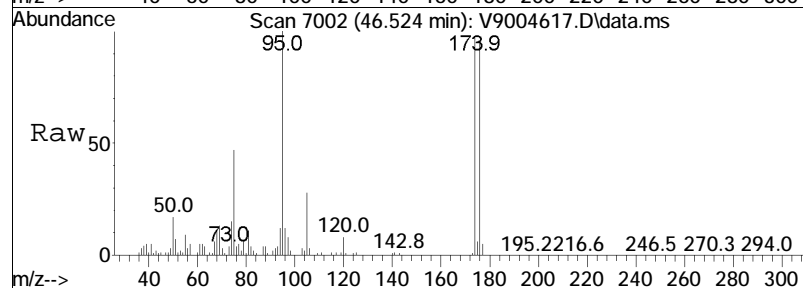
Tgt	Ion	Resp	Lower	Upper
91	100			
106	53.6	28.7	68.7	

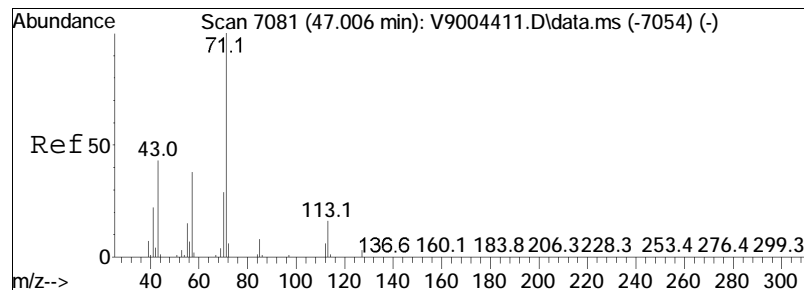




#102
Isopropylbenzene
Concen: 3.17 ug/L
RT: 46.52 min Scan# 7002
Delta R.T. 0.006 min
Lab File: V9004617.D
Acq: 03 May 2023 11:36 pm

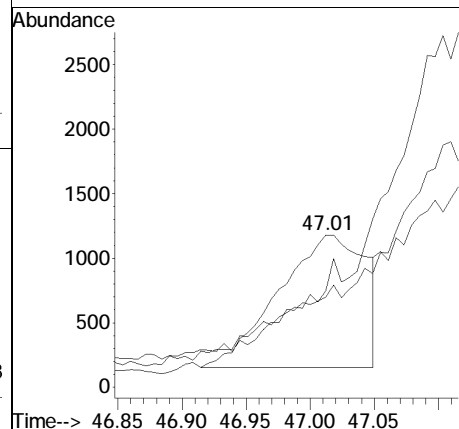
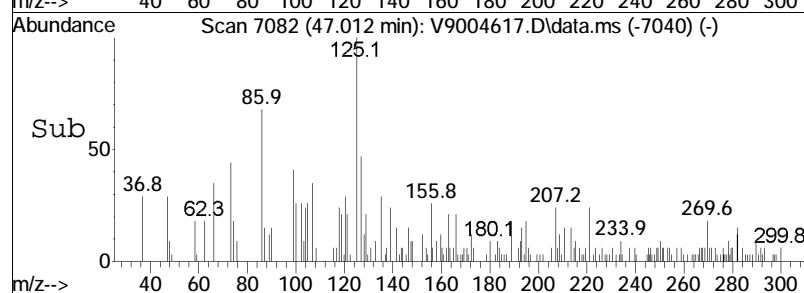
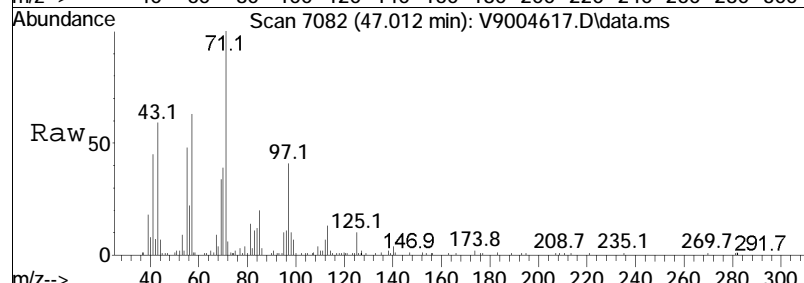
Tgt Ion	Ratio	Lower	Upper
105	100		
120	28.1	7.8	47.8

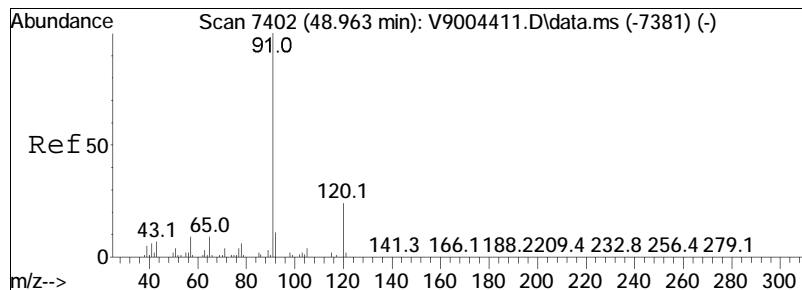




#103
 3,3-Dimethyloctane
 Concen: 1.35 ug/L
 RT: 47.01 min Scan# 7082
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

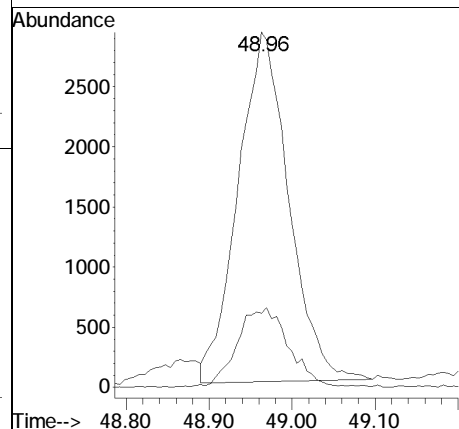
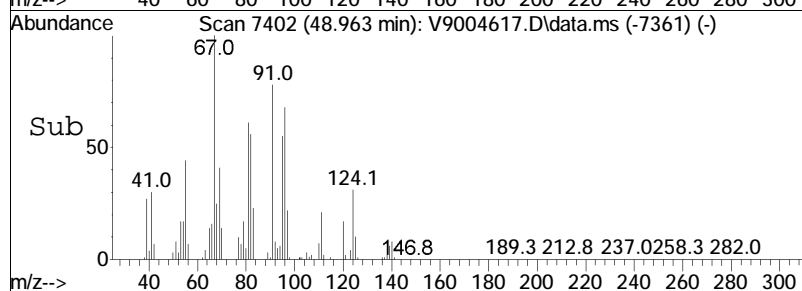
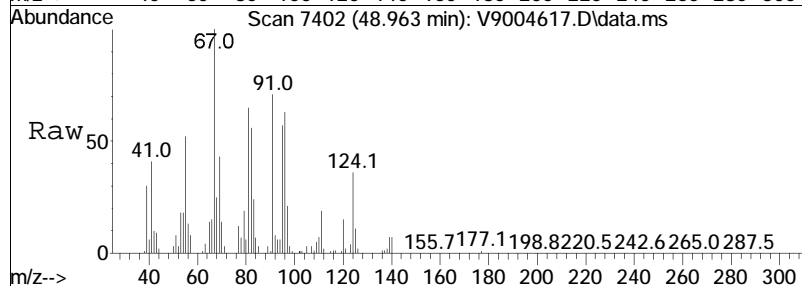
Tgt Ion	Ratio	Lower	Upper
71	100		
57	63.5	18.1	58.1#
43	59.3	22.6	62.6

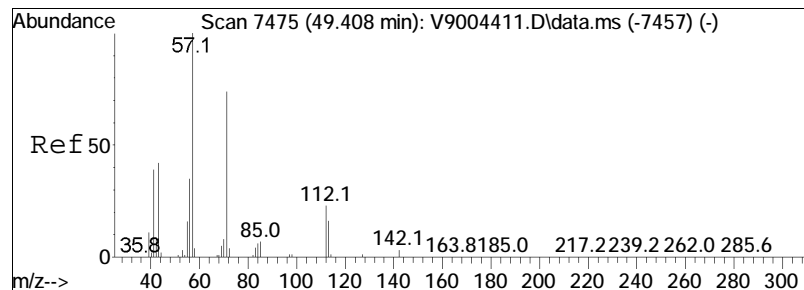




#104
 n-Propylbenzene
 Concen: 1.66 ug/L
 RT: 48.96 min Scan# 7402
 Delta R.T. -0.000 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

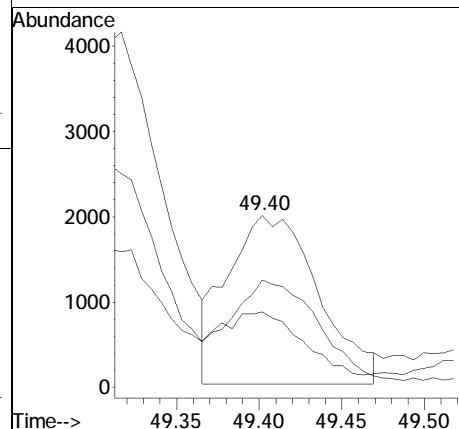
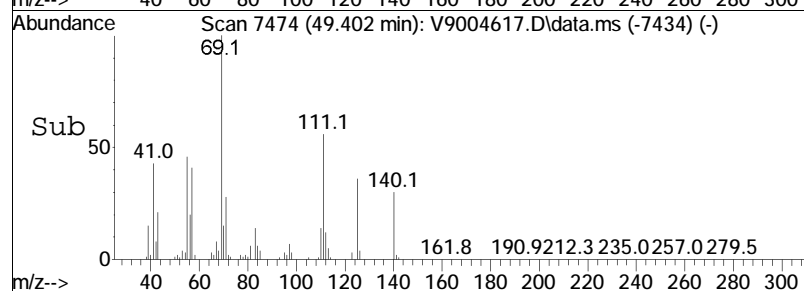
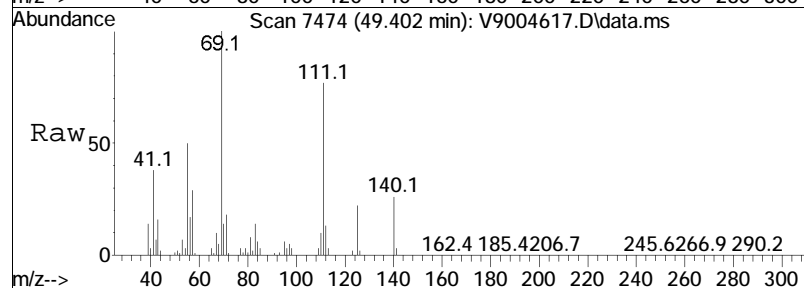
Tgt Ion	Ratio	Lower	Upper
91	100		
120	20.9	4.3	44.3

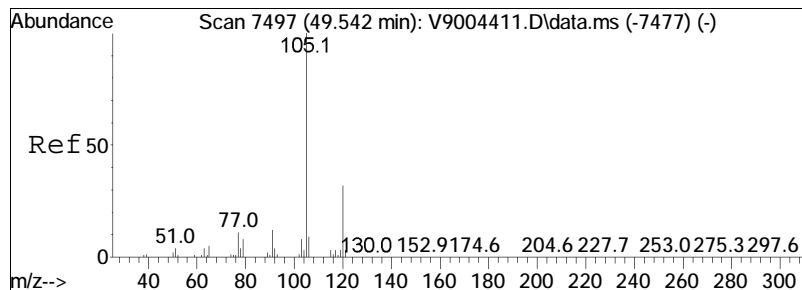




#106
 3-Methylnonane
 Concen: 3.10 ug/L m
 RT: 49.40 min Scan# 7474
 Delta R.T. -0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

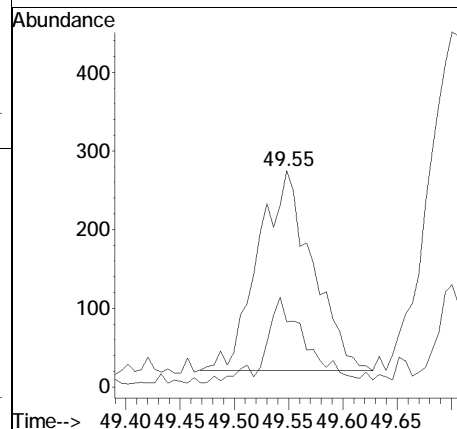
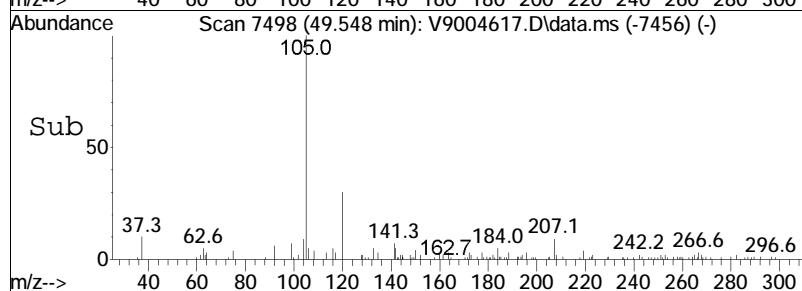
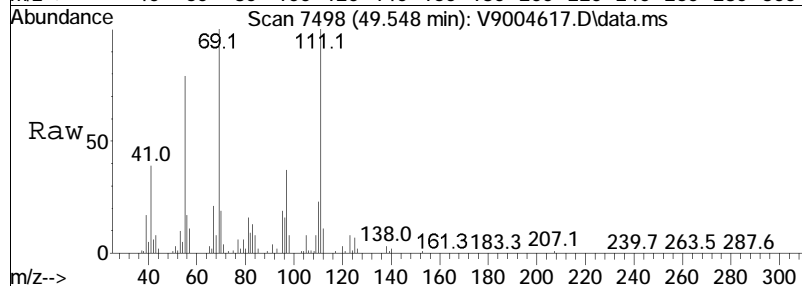
Tgt Ion	Ratio	Lower	Upper
57	100		
71	62.5	53.7	93.7
112	43.8	3.4	43.4#

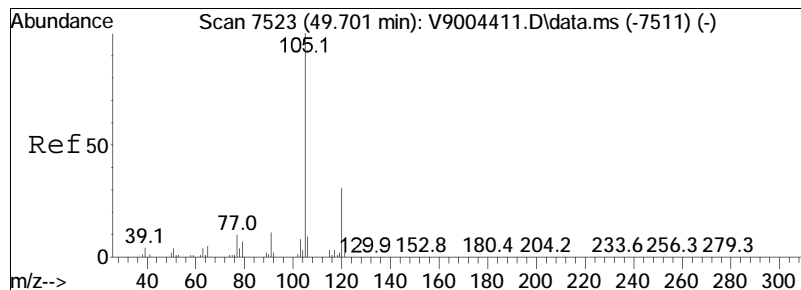




#107
 1-Methyl-3-ethylbenzene
 Concen: 0.13 ug/L
 RT: 49.55 min Scan# 7498
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

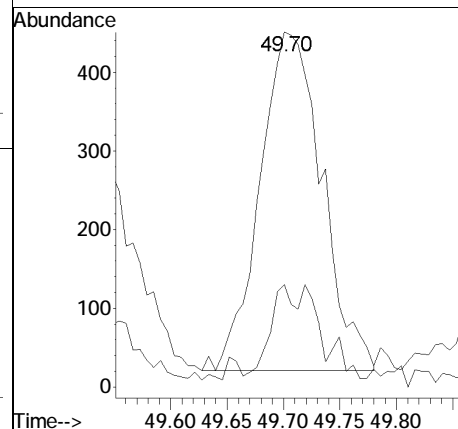
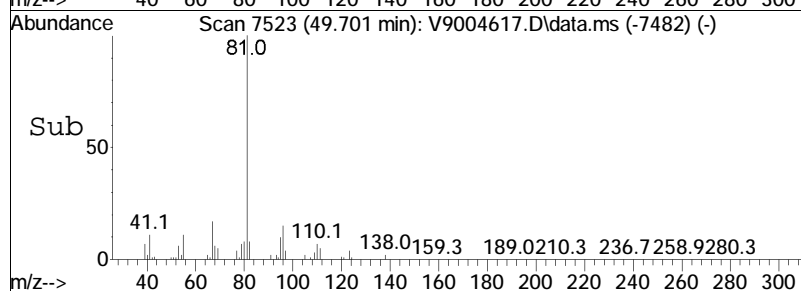
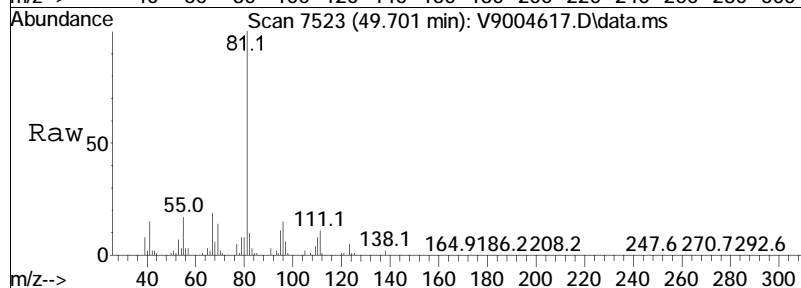
Tgt Ion	Ratio	Lower	Upper
105	100		
120	30.2	12.1	52.1

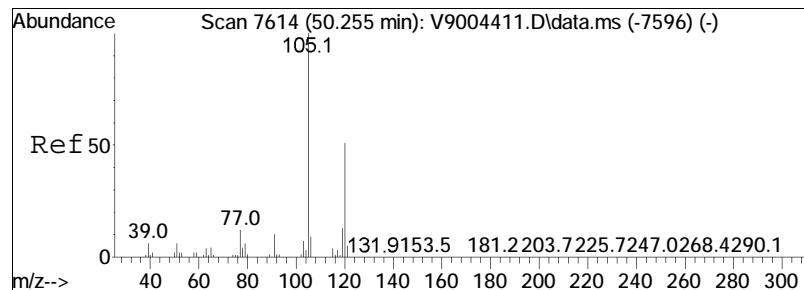




#108
 1-Methyl-4-ethylbenzene
 Concen: 0.26 ug/L
 RT: 49.70 min Scan# 7523
 Delta R.T. -0.000 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

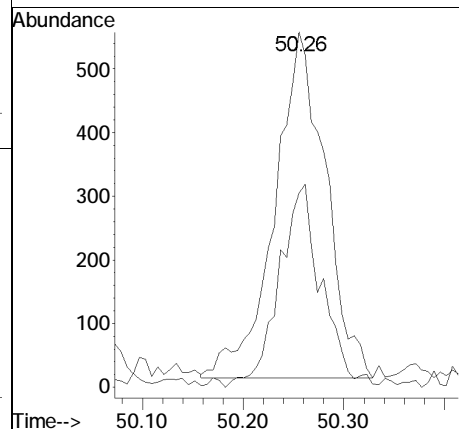
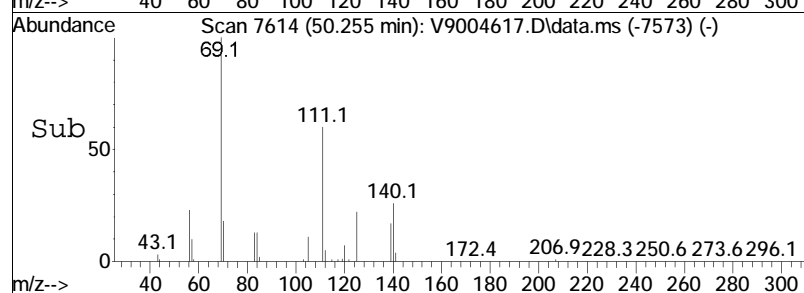
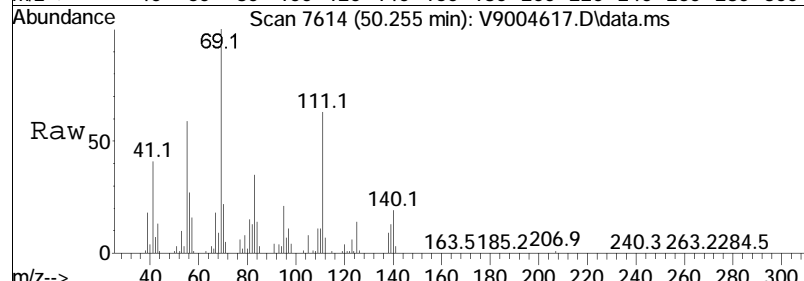
Tgt Ion	Ratio	Lower	Upper
105	100		
120	28.8	11.1	51.1

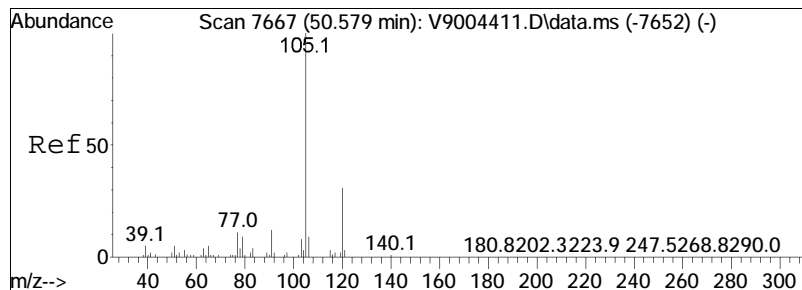




#109
 1,3,5-Trimethylbenzene
 Concen: 0.35 ug/L
 RT: 50.26 min Scan# 7614
 Delta R.T. -0.000 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

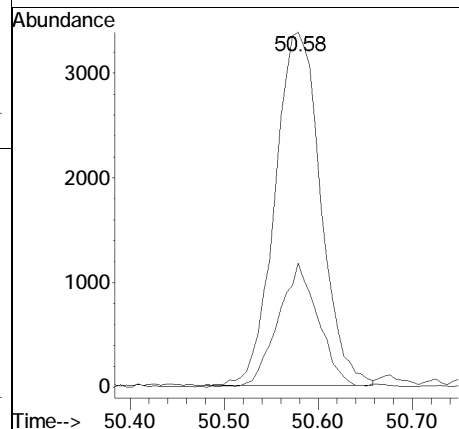
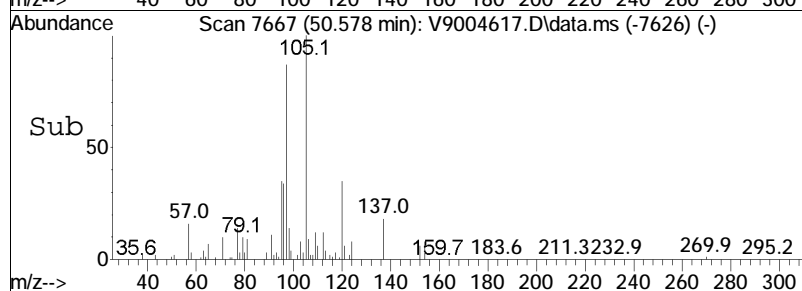
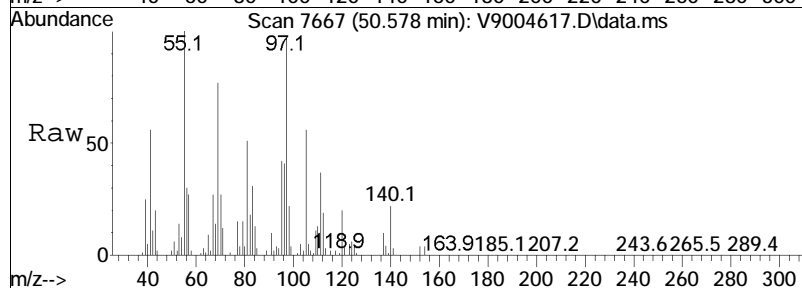
Tgt Ion	Ratio	Lower	Upper
105	100		
120	54.7	31.1	71.1

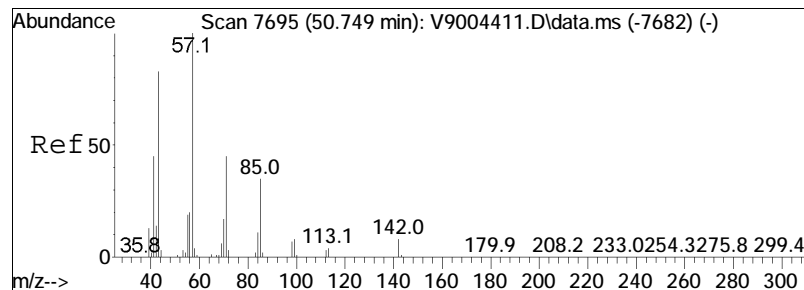




#112
 1-Methyl-2-ethylbenzene
 Concen: 1.68 ug/L
 RT: 50.58 min Scan# 7667
 Delta R.T. -0.000 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

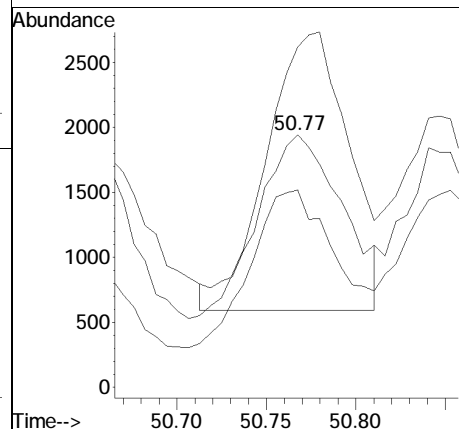
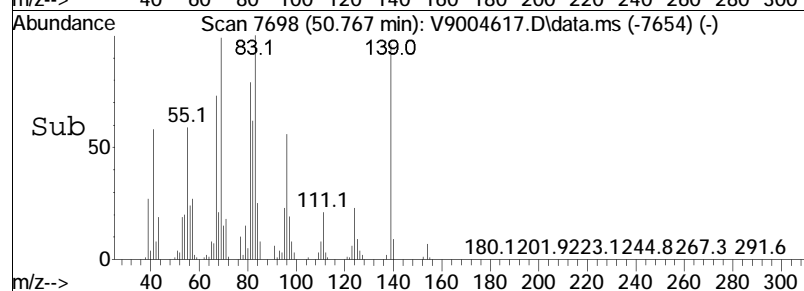
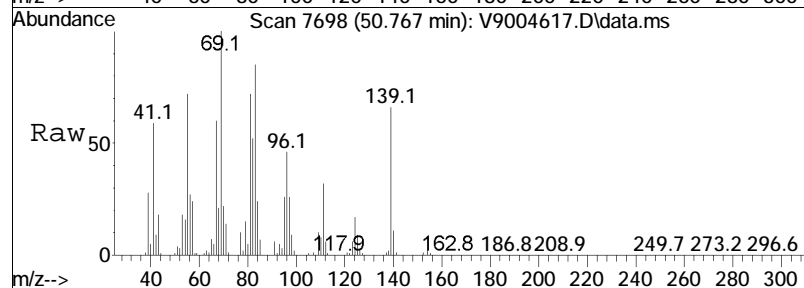
Tgt Ion	Ratio	Lower	Upper
105	100		
120	35.0	11.4	51.4

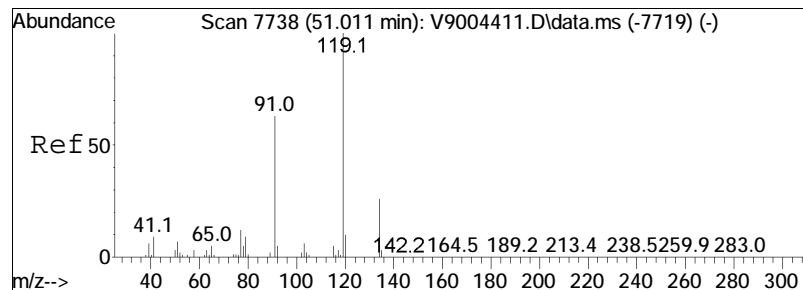




#113
Decane
Concen: 2.31 ug/L m
RT: 50.77 min Scan# 7698
Delta R.T. 0.018 min
Lab File: V9004617.D
Acq: 03 May 2023 11:36 pm

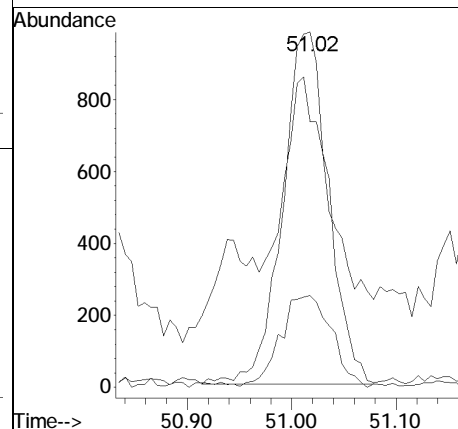
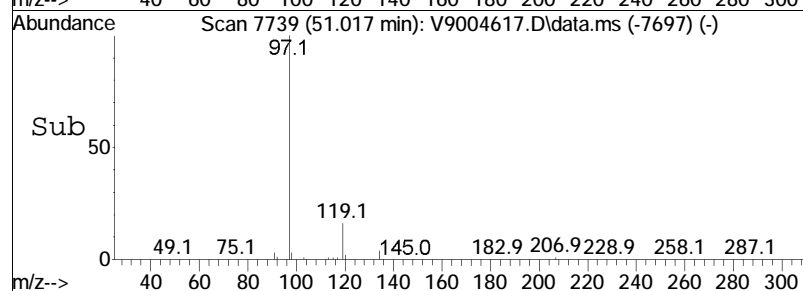
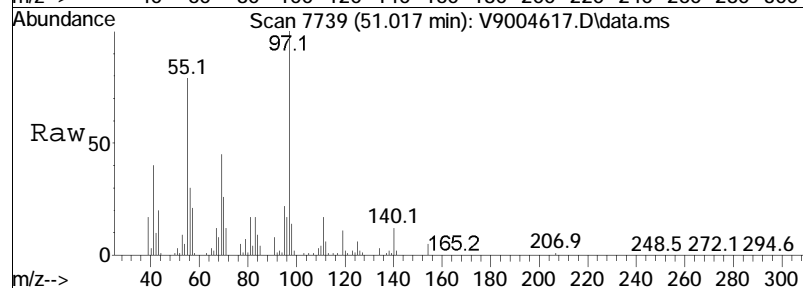
Tgt Ion	Ratio	Lower	Upper
43	100		
57	134.7	99.8	139.8
71	78.1	34.1	74.1#

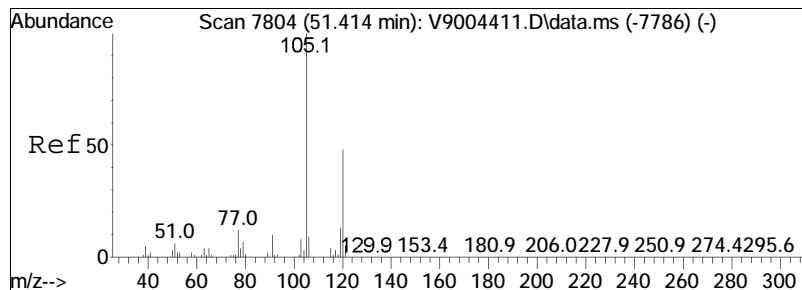




#114
 tert-Butylbenzene
 Concen: 0.59 ug/L
 RT: 51.02 min Scan# 7739
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

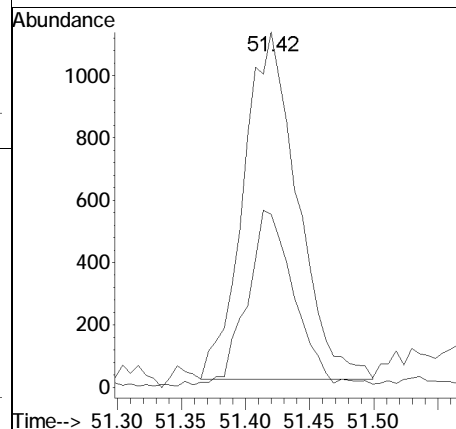
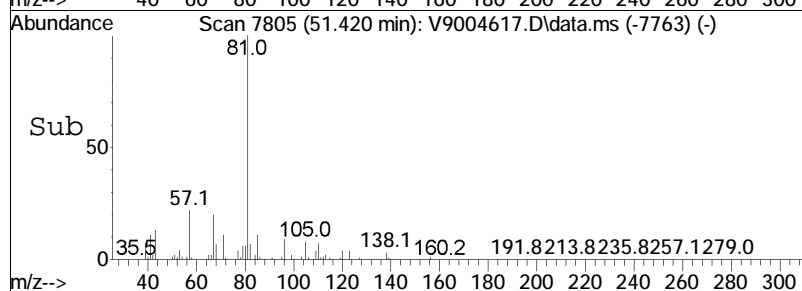
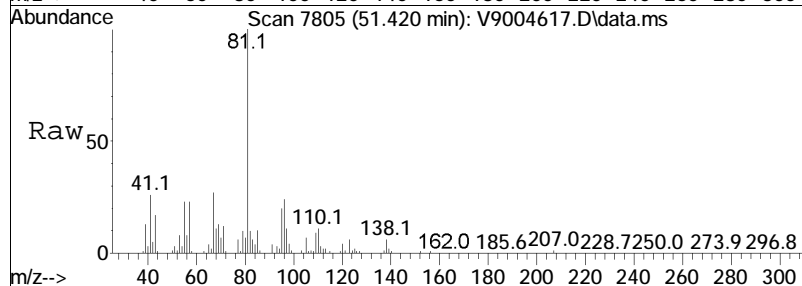
Tgt	Ion	Ratio	Lower	Upper
119	100			
91	74.8	42.9	82.9	
134	25.8	6.2	46.2	

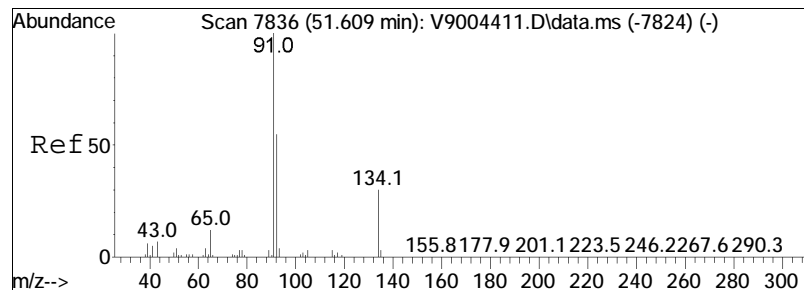




#115
 1,2,4-Trimethylbenzene
 Concen: 0.56 ug/L
 RT: 51.42 min Scan# 7805
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

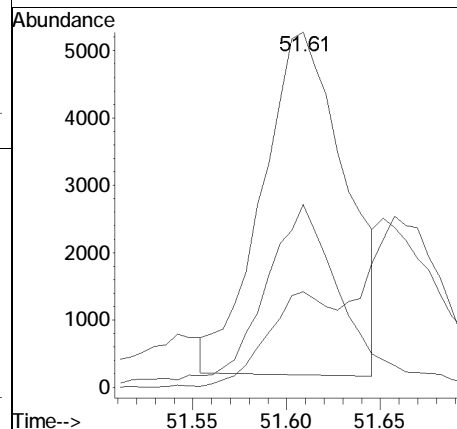
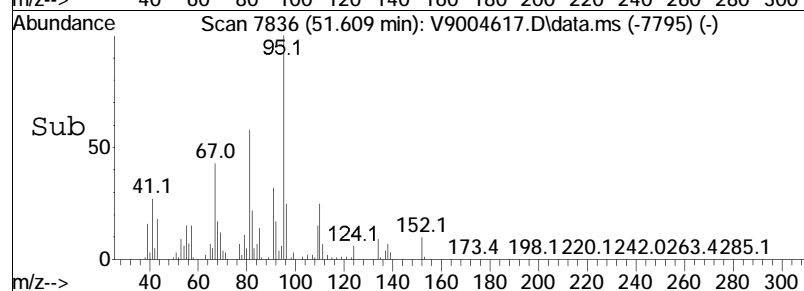
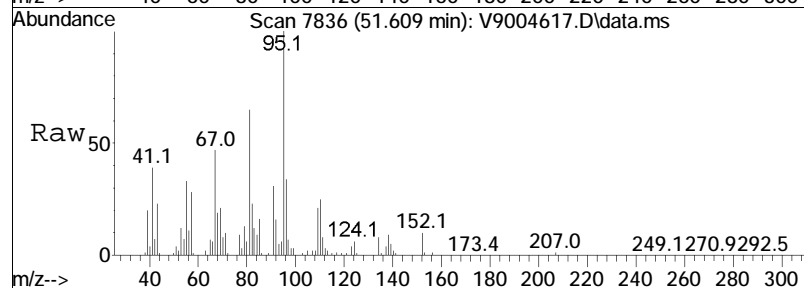
Tgt Ion	Ratio	Lower	Upper
105	100		
120	48.7	27.5	67.5

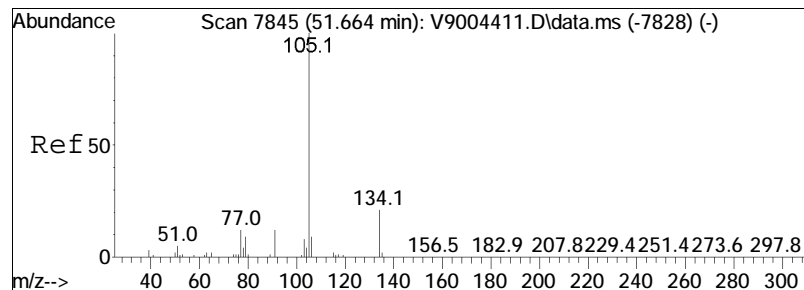




#116
Isobutylbenzene
Concen: 2.47 ug/L m
RT: 51.61 min Scan# 7836
Delta R.T. -0.000 min
Lab File: V9004617.D
Acq: 03 May 2023 11:36 pm

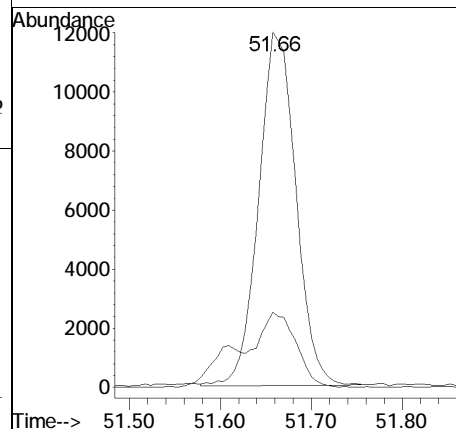
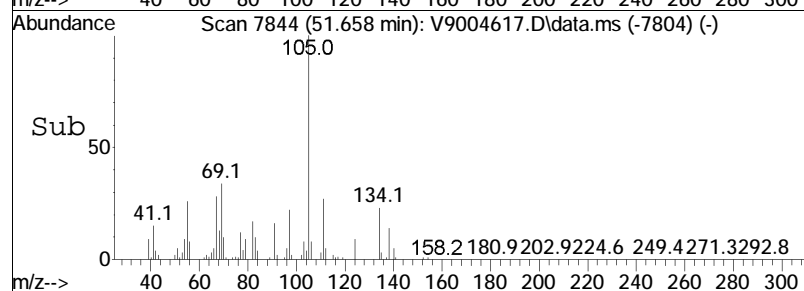
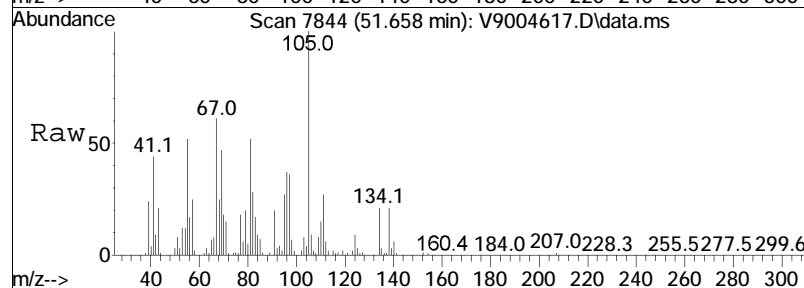
Tgt Ion	Ratio	Lower	Upper
91	100		
92	51.4	35.0	75.0
134	26.9	9.8	49.8

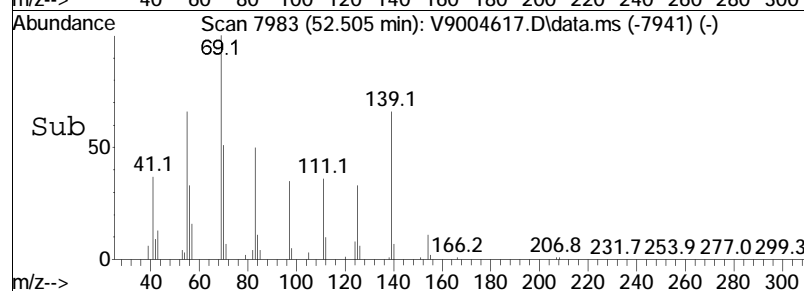
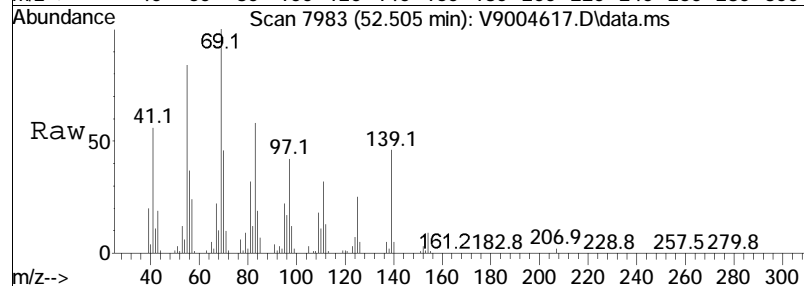
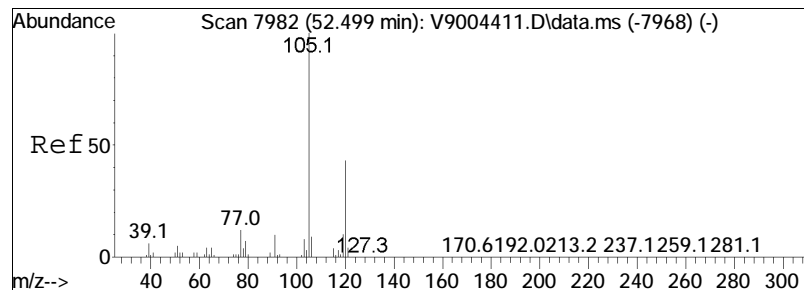




#117
 sec-Butylbenzene
 Concen: 4.60 ug/L
 RT: 51.66 min Scan# 7844
 Delta R.T. -0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

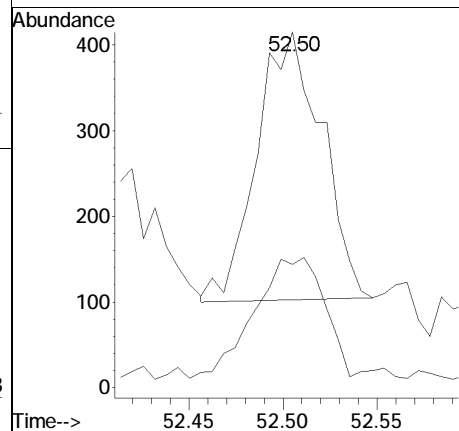
Tgt Ion	Ratio	Lower	Upper
105	100		
134	21.1	1.5	41.5

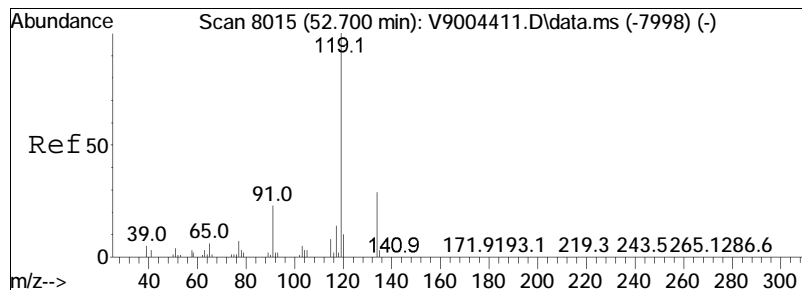




#120
 1,2,3-Trimethylbenzene
 Concen: 0.12 ug/L
 RT: 52.50 min Scan# 7983
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

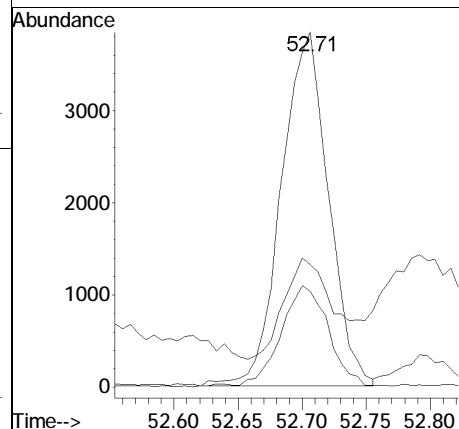
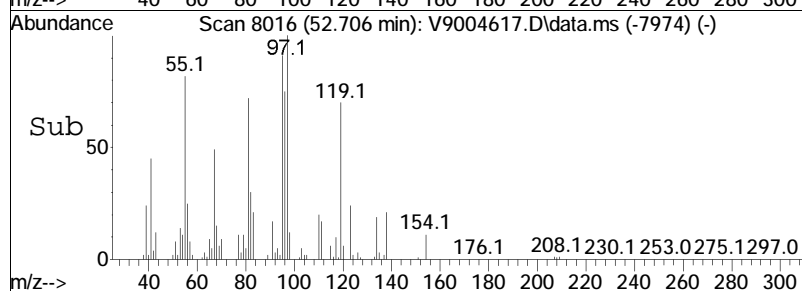
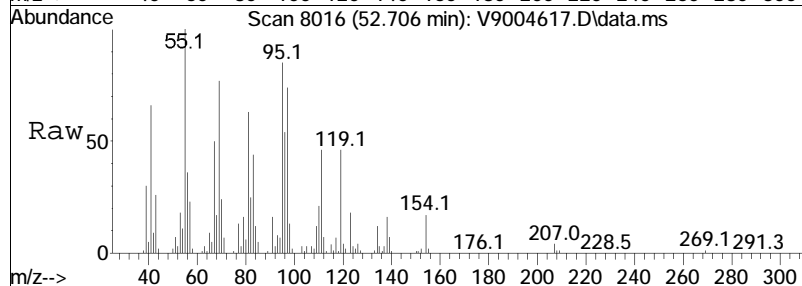
Tgt	Ion	Ratio	Lower	Upper
105	100			
120	34.7	23.4	63.4	

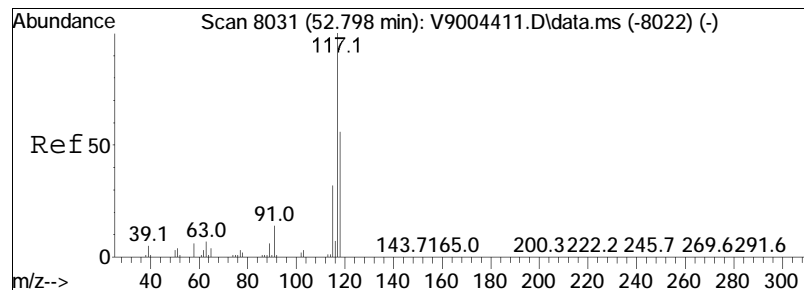




#121
 1-Methyl-2-isopropylbenzene
 Concen: 1.52 ug/L
 RT: 52.71 min Scan# 8016
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

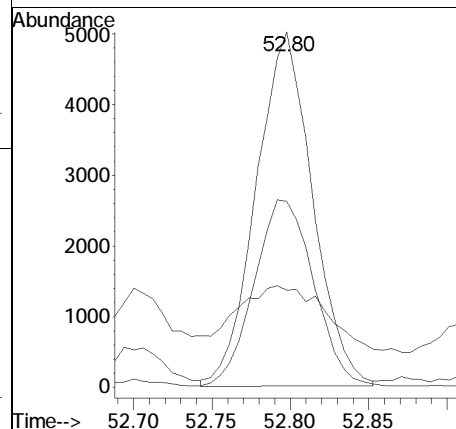
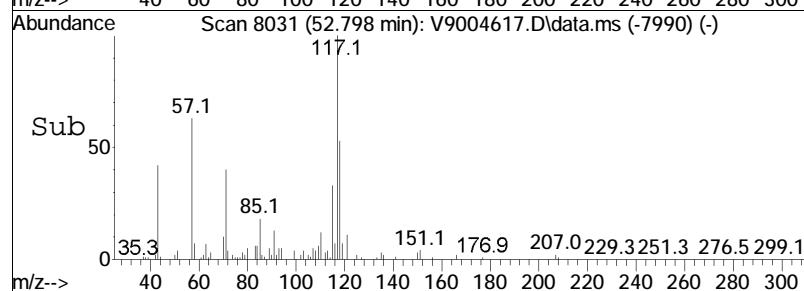
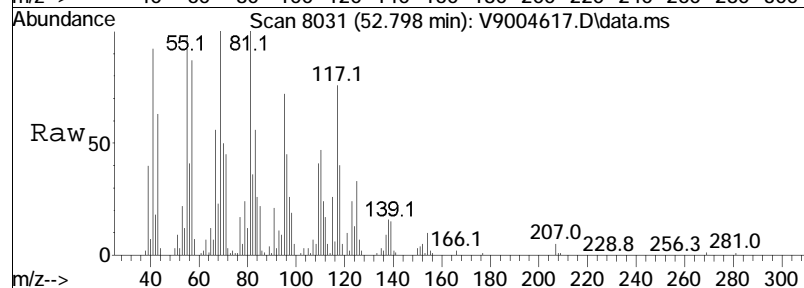
Tgt Ion:	119	Resp:	9804
Ion Ratio	Lower	Upper	
119	100		
134	27.1	8.6	48.6
91	34.5	2.6	42.6

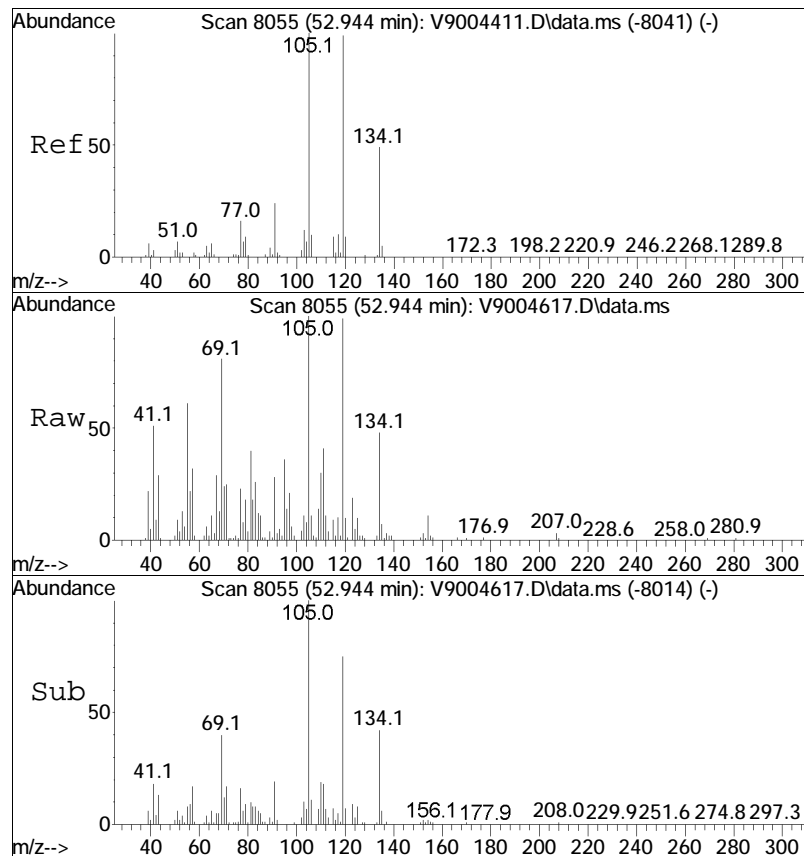




#122
Indan
Concen: 2.14 ug/L
RT: 52.80 min Scan# 8031
Delta R.T. -0.000 min
Lab File: V9004617.D
Acq: 03 May 2023 11:36 pm

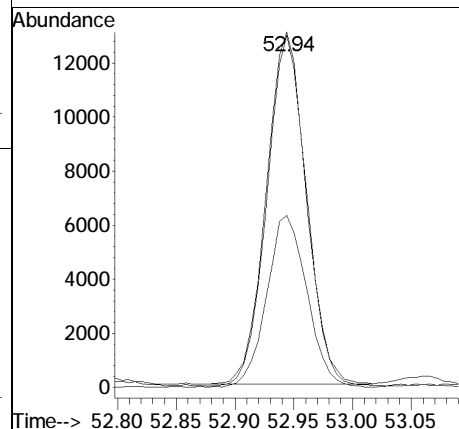
Tgt Ion	Ratio	Lower	Upper
117	100		
118	52.4	36.1	76.1
91	27.4	0.0	34.5

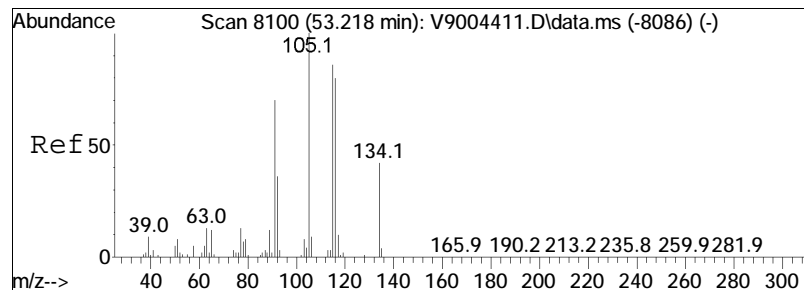




#123
 1,3-Diethylbenzene
 Concen: 7.56 ug/L
 RT: 52.94 min Scan# 8055
 Delta R.T. -0.000 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

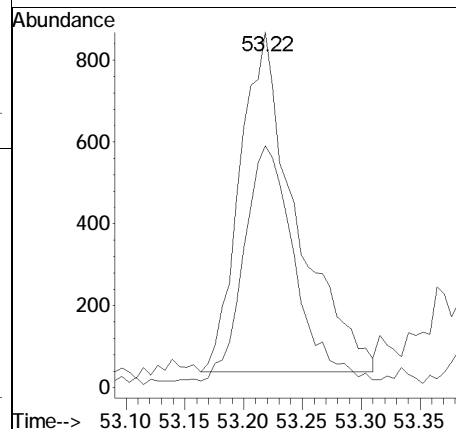
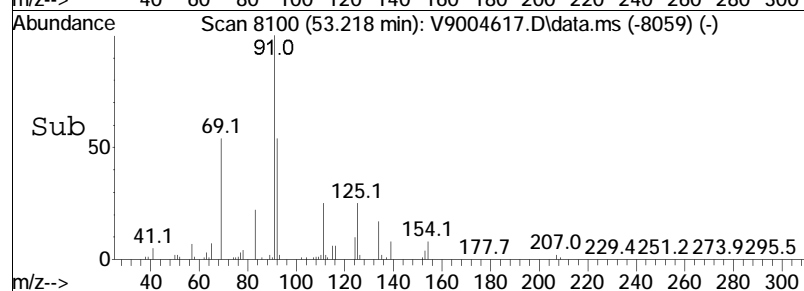
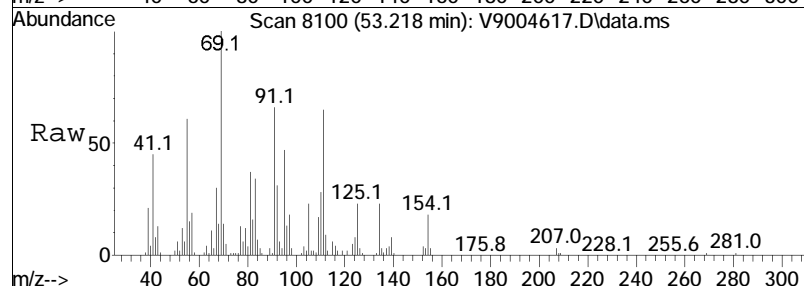
Tgt Ion:	105	Resp:	30837
Ion Ratio	Lower	Upper	
105	100		
119	99.0	78.9	118.9
134	48.4	28.9	68.9

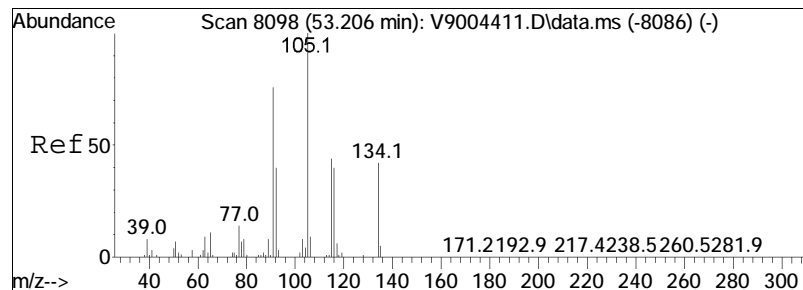




#125
Indene
Concen: 0.50 ug/L
RT: 53.22 min Scan# 8100
Delta R.T. -0.000 min
Lab File: V9004617.D
Acq: 03 May 2023 11:36 pm

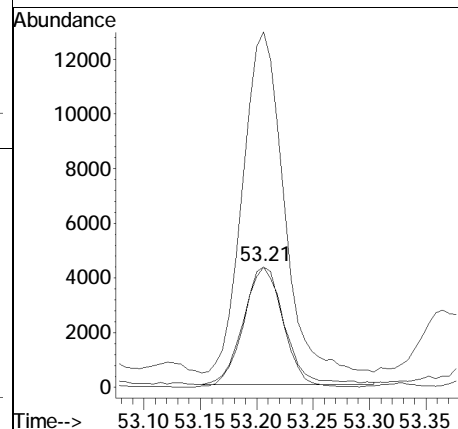
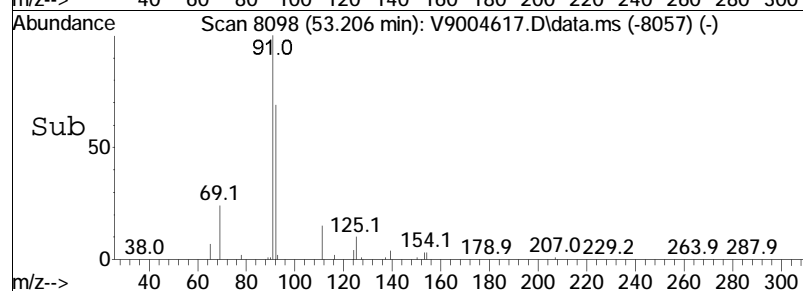
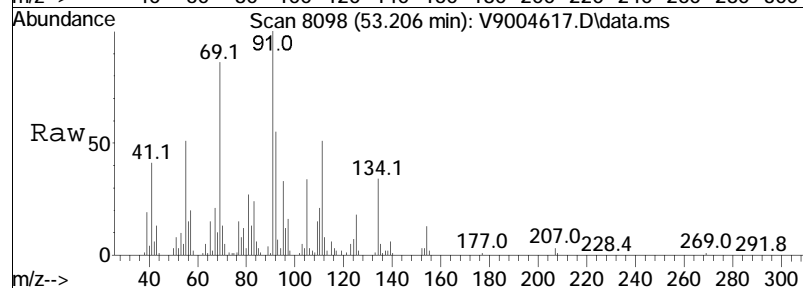
Tgt Ion: 115 Resp: 2767
Ion Ratio Lower Upper
115 100
116 68.0 73.4 113.4#

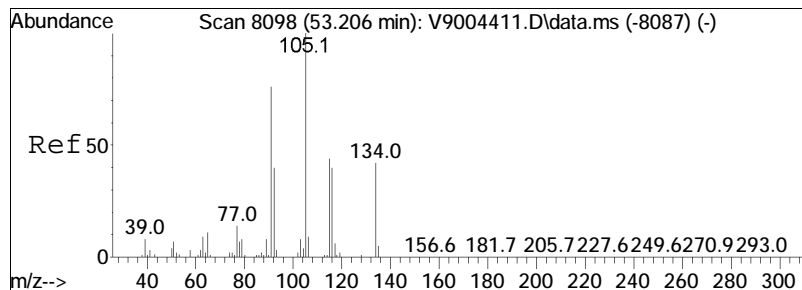




#126
 1-Methyl-4-propylbenzene
 Concen: 1.22 ug/L
 RT: 53.21 min Scan# 8098
 Delta R.T. -0.000 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

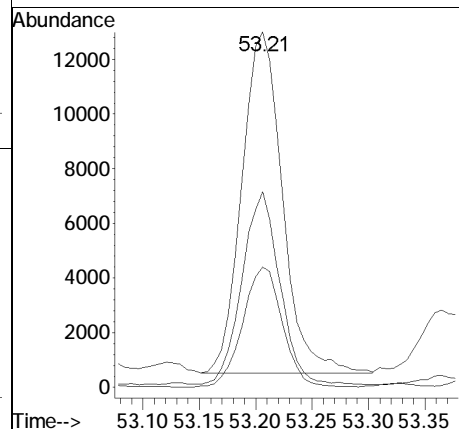
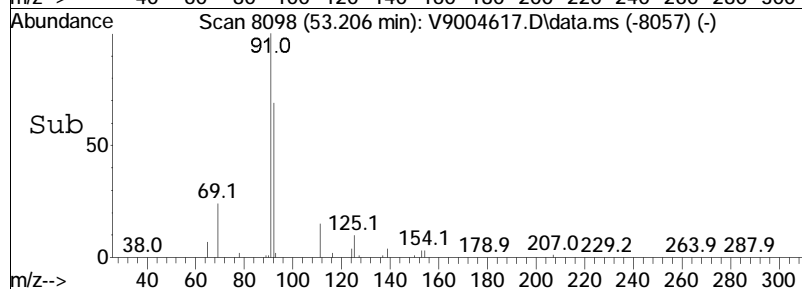
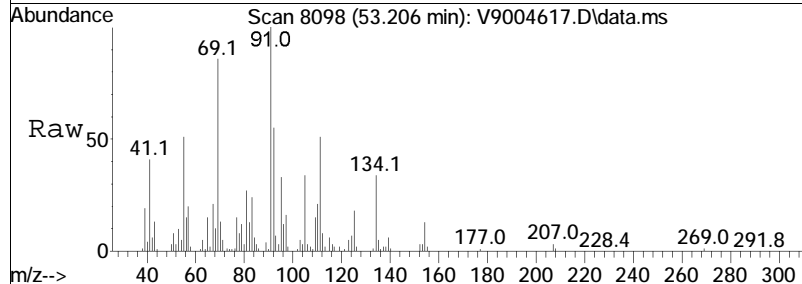
Tgt Ion:	105	Resp:	10942
Ion Ratio	Lower	Upper	
105	100		
134	99.9	21.7	61.7#
91	294.9	56.4	96.4#

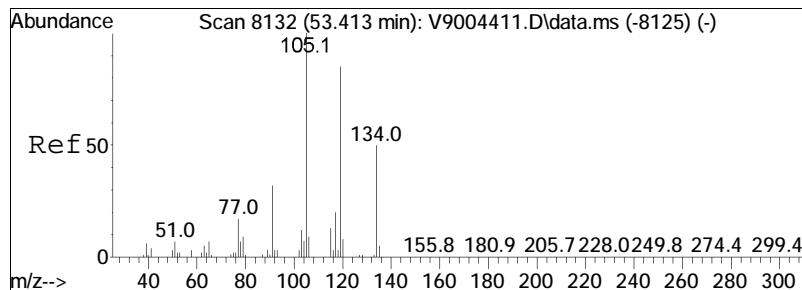




#127
 n-Butylbenzene
 Concen: 4.45 ug/L
 RT: 53.21 min Scan# 8098
 Delta R.T. -0.000 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

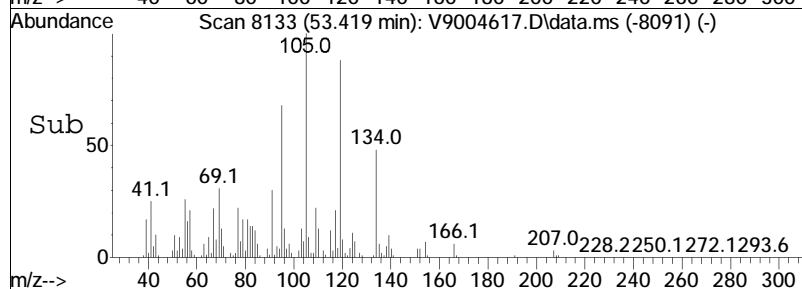
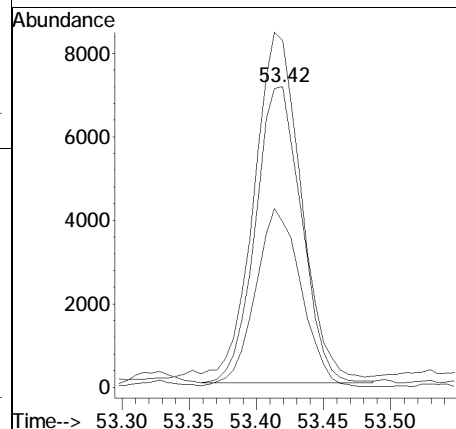
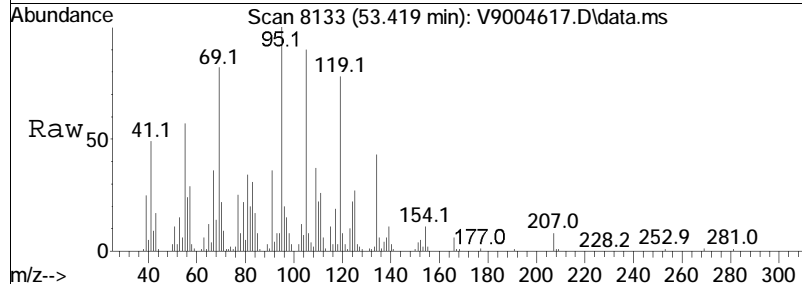
Tgt Ion:	91	Resp:	31251
Ion Ratio	Lower	Upper	
91	100		
92	55.1	31.8	71.8
134	33.9	34.6	74.6#

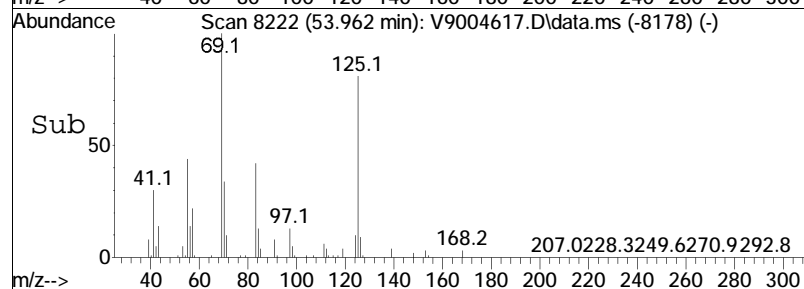
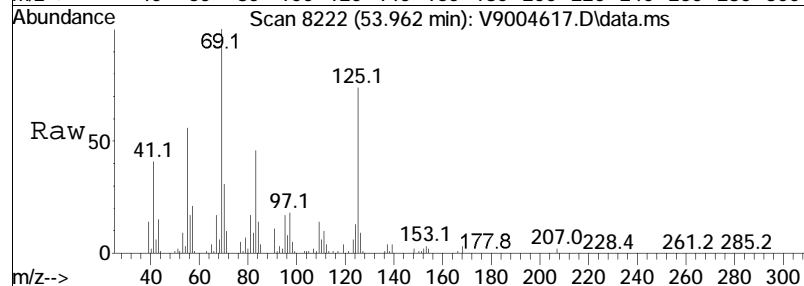
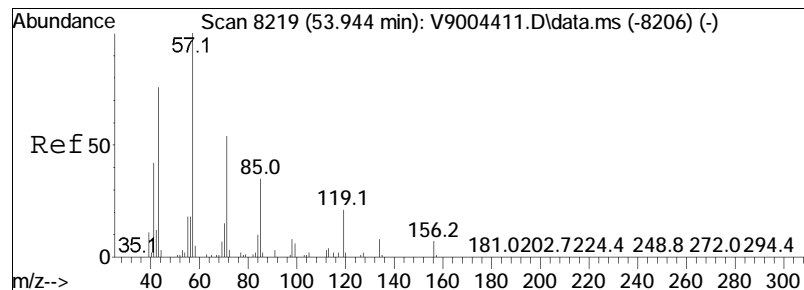




#129
 1,2-Diethylbenzene
 Concen: 5.14 ug/L
 RT: 53.42 min Scan# 8133
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

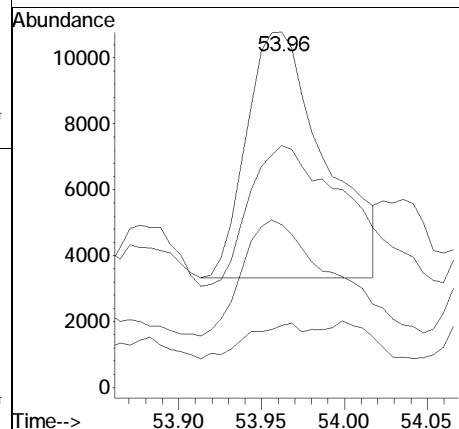
Tgt	Ion	Ratio	Lower	Upper
119	100			
105	115.3	95.9	135.9	
134	55.0	38.6	78.6	

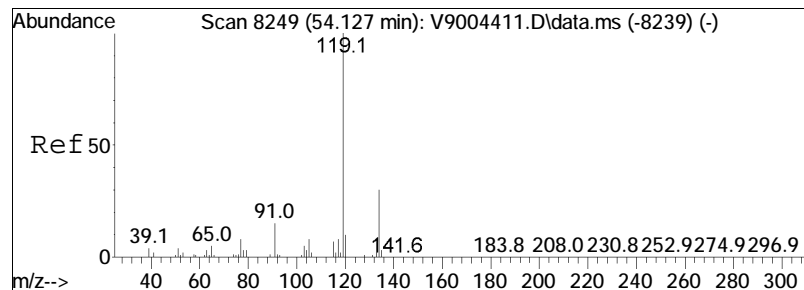




#132
Undecane
Concen: 9.73 ug/L
RT: 53.96 min Scan# 8222
Delta R.T. 0.018 min
Lab File: V9004617.D
Acq: 03 May 2023 11:36 pm

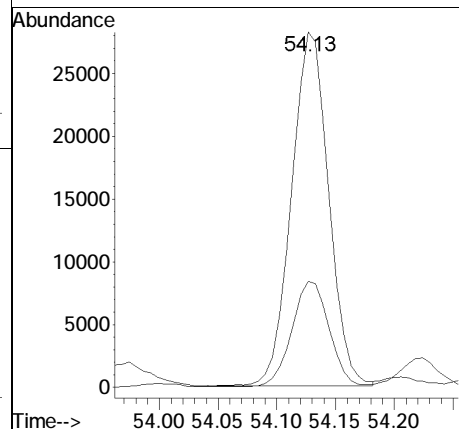
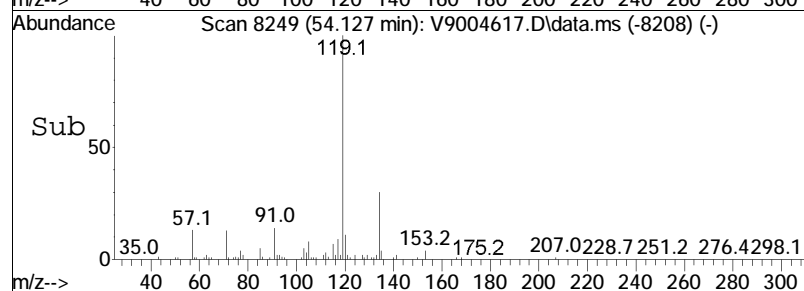
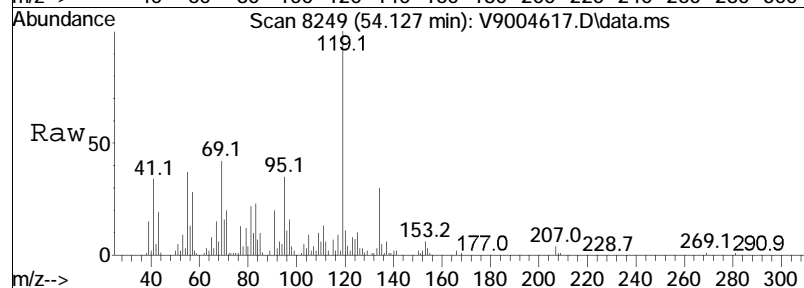
Tgt Ion:	57	Resp:	24403
Ion Ratio	Lower	Upper	
57	100		
43	68.1	56.0	96.0
71	45.8	34.2	74.2
85	17.4	14.5	54.5

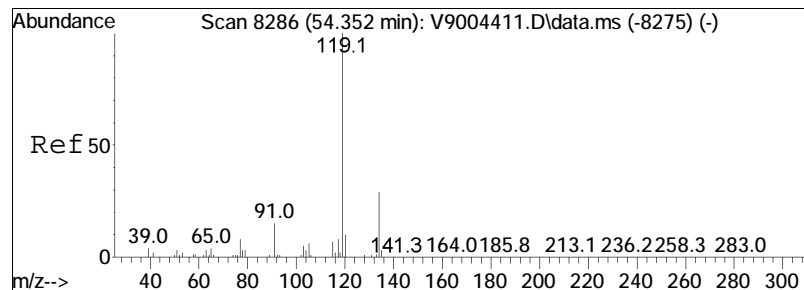




#134
 1,3-Dimethyl-5-ethylbenzene
 Concen: 8.92 ug/L
 RT: 54.13 min Scan# 8249
 Delta R.T. -0.000 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

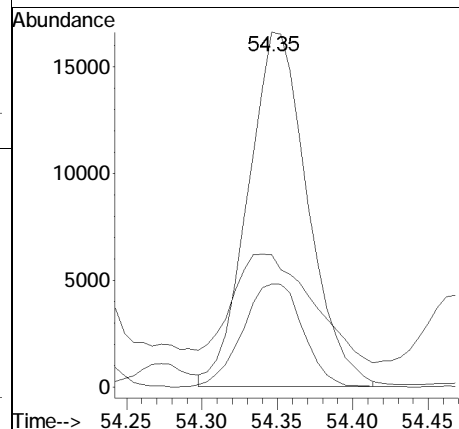
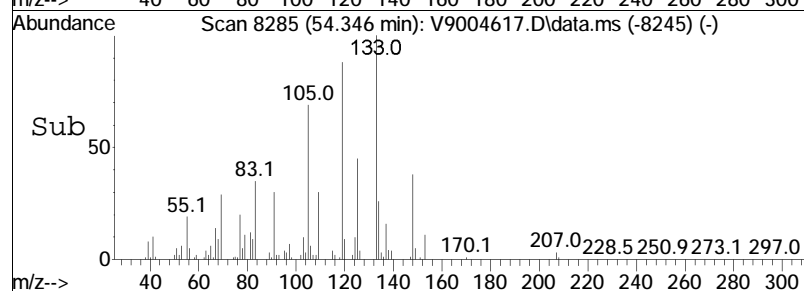
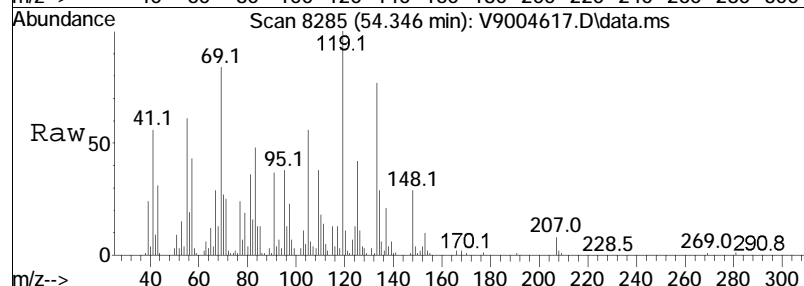
Tgt	Ion	Ratio	Lower	Upper
119	100			
134	29.8	10.0	50.0	

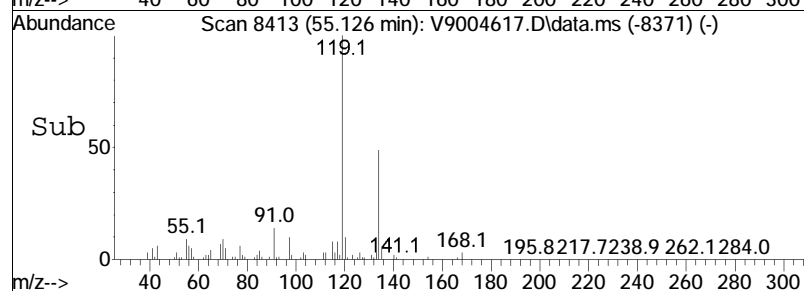
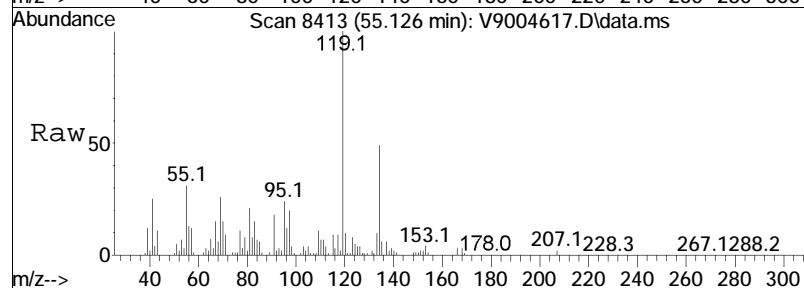
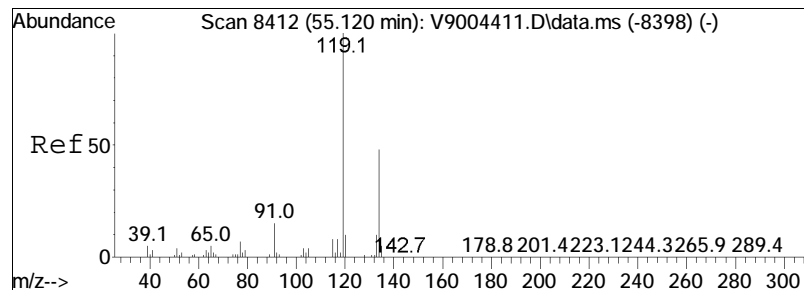




#135
 1,3-Dimethyl-2-ethylbenzene
 Concen: 6.05 ug/L m
 RT: 54.35 min Scan# 8285
 Delta R.T. -0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

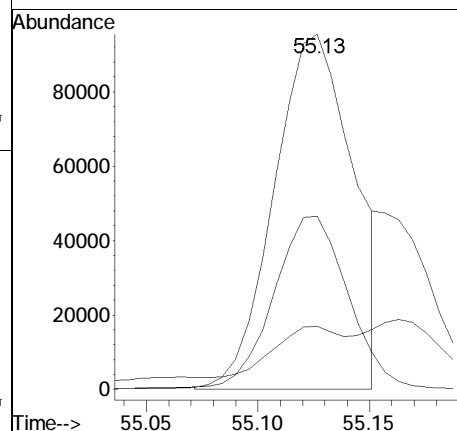
Tgt	Ion	Ratio	Lower	Upper
119	100			
134	29.1	9.3	49.3	
91	37.3	0.0	34.5	

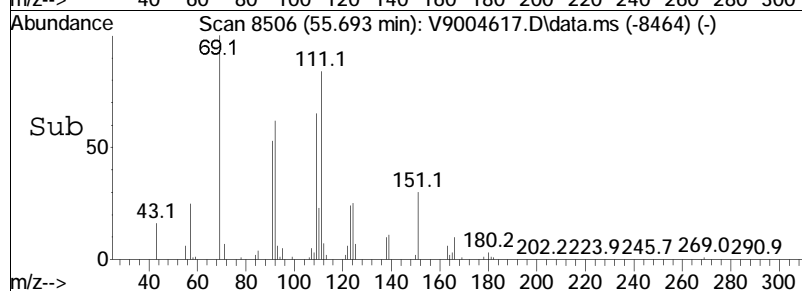
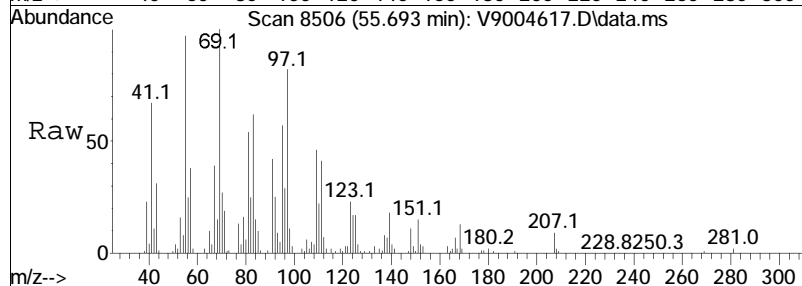
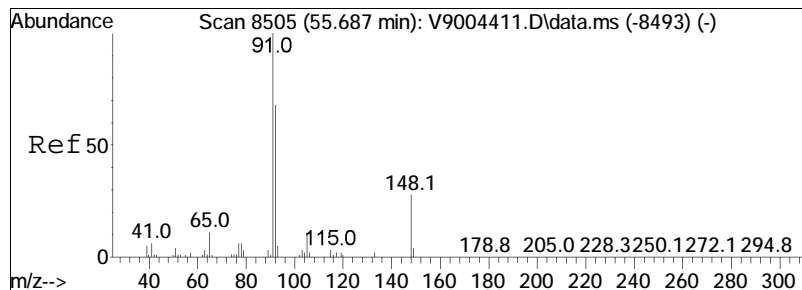




#137
 1,2,4,5-Tetramethylbenzene
 Concen: 33.18 ug/L m
 RT: 55.13 min Scan# 8413
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

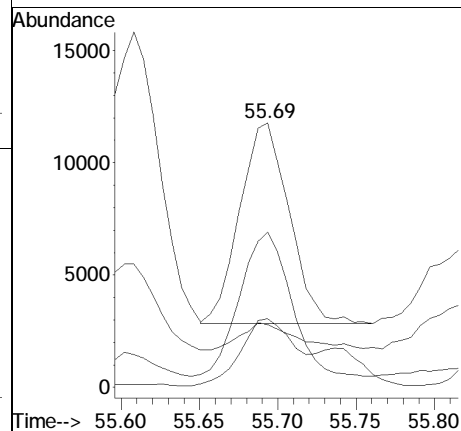
Tgt	Ion:119	Resp:	235898
Ion	Ratio	Lower	Upper
119	100		
134	48.8	28.5	68.5
91	17.8	0.0	35.2

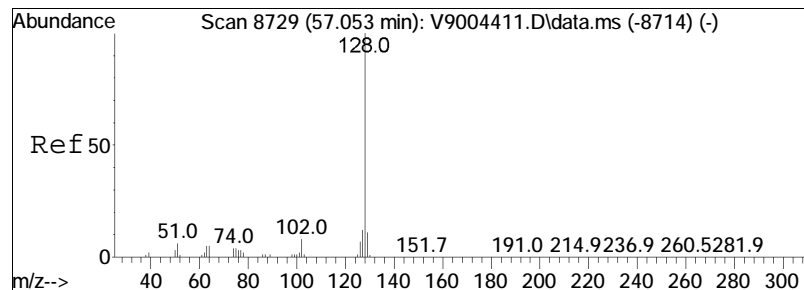




#139
 Pentylbenzene
 Concen: 3.26 ug/L
 RT: 55.69 min Scan# 8506
 Delta R.T. 0.006 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

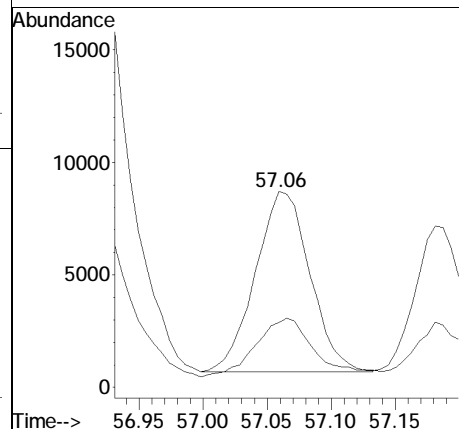
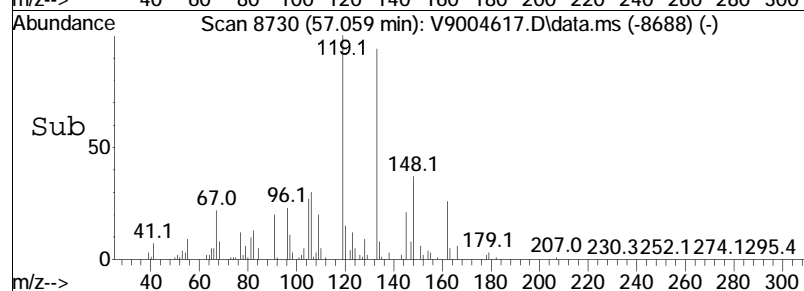
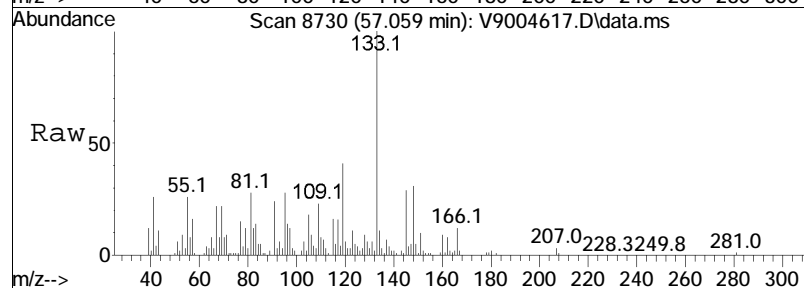
Tgt Ion:	91	Resp:	19635
Ion Ratio	Lower	Upper	
91	100		
92	58.7	47.8	87.8
65	23.7	0.0	31.4
148	26.0	8.3	48.3

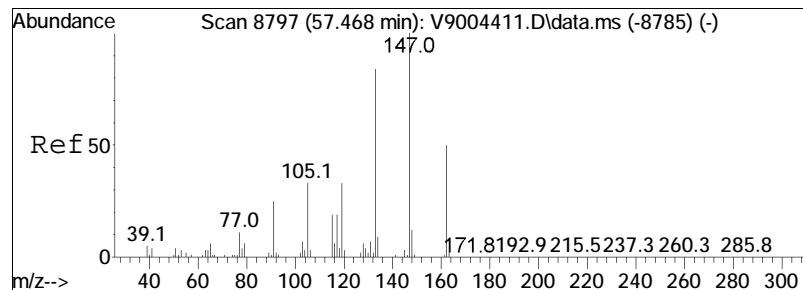




#144
Naphthalene
Concen: 2.87 ug/L
RT: 57.06 min Scan# 8730
Delta R.T. 0.006 min
Lab File: V9004617.D
Acq: 03 May 2023 11:36 pm

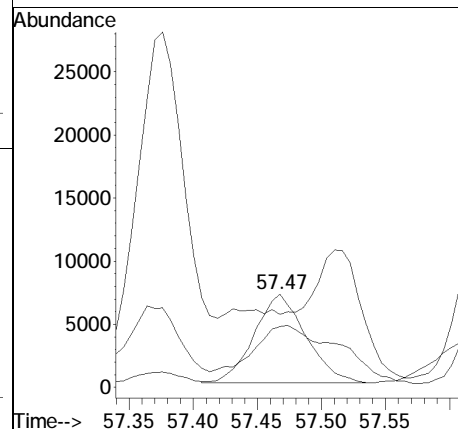
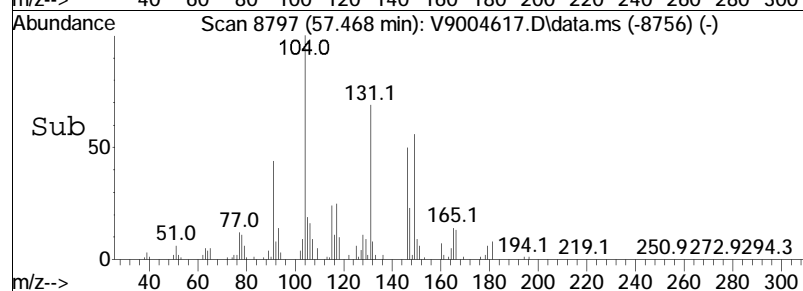
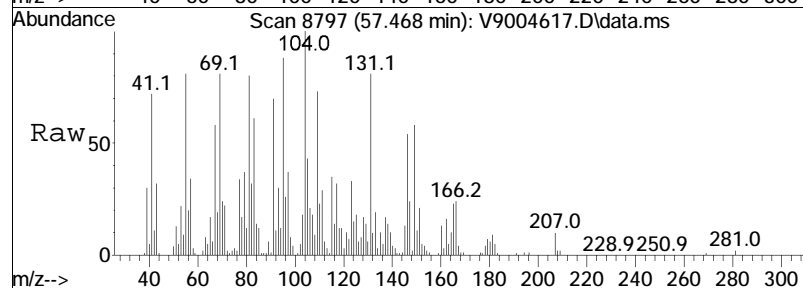
Tgt	Ion	Ratio	Lower	Upper
128	100			
127	33.1	0.0	32.4	

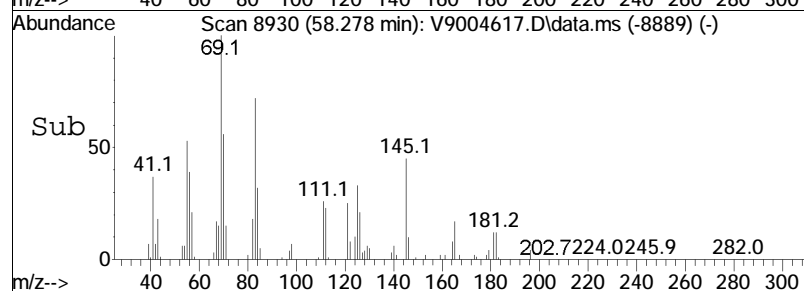
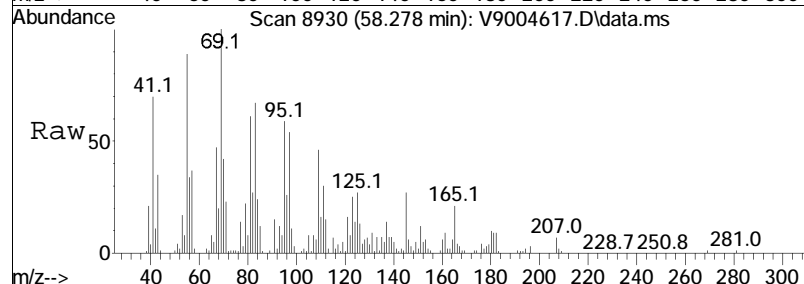
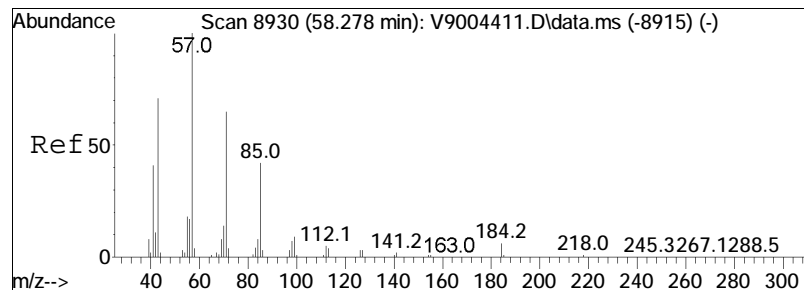




#146
 1,2,4-Triethylbenzene
 Concen: 5.45 ug/L
 RT: 57.47 min Scan# 8797
 Delta R.T. -0.000 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

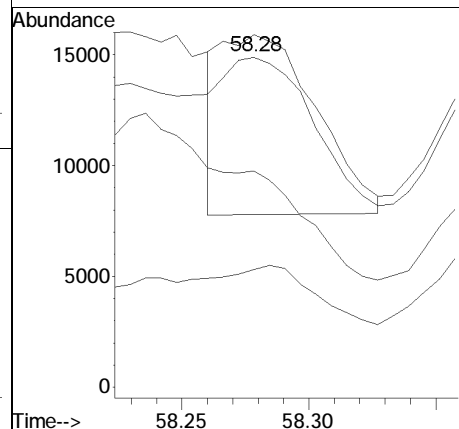
Tgt Ion	Ratio	Lower	Upper
147	100		
162	65.1	29.7	69.7
133	78.2	65.1	105.1





#149
 Tridecane
 Concen: 10.27 ug/L m
 RT: 58.28 min Scan# 8930
 Delta R.T. -0.000 min
 Lab File: V9004617.D
 Acq: 03 May 2023 11:36 pm

Tgt Ion:	57	Resp:	21005
Ion Ratio	Lower	Upper	
57	100		
43	93.5	51.2	91.2#
71	61.3	45.2	85.2
85	33.4	22.1	62.1



Batch Quality Control

Method Blank Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004595.D
 Acq On : 02 May 2023 05:19 pm
 Operator : VOA9:RAY
 Sample : WG1774659-6,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 03 08:01:00 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	314534	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.11	113	95462	52.029	ug/L	0.00
Spiked Amount 50.000	Range 78 - 118		Recovery	=	104.06%	
62) Toluene-d8 (surr)	31.20	98	359581	51.325	ug/L	0.00
Spiked Amount 50.000	Range 87 - 113		Recovery	=	102.65%	
101) 4-Bromofluorobenzene (...)	46.49	95	147299	46.648	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery	=	93.30%	
Target Compounds						Qvalue
2) 3-Methyl-1-butene	0.00		0	N.D.	d	
3) Isopentane	0.00		0	N.D.	d	
4) 1-Pentene	0.00		0	N.D.	d	
5) 2-Methyl-1-butene	0.00		0	N.D.	d	
6) Pentane	0.00		0	N.D.	d	
7) trans-2-Pentene	0.00		0	N.D.	d	
8) 2-Methyl-1,3-butadiene	0.00		0	N.D.	d	
9) cis-2-Pentene	0.00		0	N.D.	d	
10) Tertiary butanol	0.00		0	N.D.	d	
11) 2,2-Dimethylbutane	0.00		0	N.D.	d	
12) 4-Methyl-1-pentene	0.00		0	N.D.	d	
13) Cyclopentane	0.00		0	N.D.	d	
14) 2,3-Dimethylbutane	0.00		0	N.D.	d	
15) 2-Methylpentane	0.00		0	N.D.	d	
16) MTBE	0.00		0	N.D.	d	
17) 3-Methylpentane	0.00		0	N.D.	d	
18) 1-Hexene	0.00		0	N.D.	d	
19) Hexane	0.00		0	N.D.	d	
20) Diisopropyl ether	0.00		0	N.D.	d	
21) trans-2-Hexene	0.00		0	N.D.	d	
22) 2-Methyl-2-pentene	0.00		0	N.D.	d	
23) cis-2-Hexene	0.00		0	N.D.	d	
25) Ethyl tertiary butyl e...	0.00		0	N.D.	d	
26) 2,2-Dimethylpentane	0.00		0	N.D.	d	
27) Methylcyclopentane	0.00		0	N.D.	d	
28) 2,4-Dimethylpentane	0.00		0	N.D.	d	
29) 2,2,3-Trimethylbutane	0.00		0	N.D.	d	
30) 1,2-Dichloroethane	0.00		0	N.D.	d	
31) 3,3-Dimethylpentane	0.00		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004595.D
 Acq On : 02 May 2023 05:19 pm
 Operator : VOA9:RAY
 Sample : WG1774659-6,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 03 08:01:00 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Cyclohexane	0.00		0	N.D.	d	
33) 2-Methylhexane	0.00		0	N.D.	d	
34) Benzene	21.26	78	3638M4	0.574	ug/L	
35) 2,3-Dimethylpentane	0.00		0	N.D.	d	
36) Thiophene	0.00		0	N.D.	d	
37) 1,1-Dimethylcyclopentane	0.00		0	N.D.	d	
38) 3-Methylhexane	0.00		0	N.D.	d	
39) TAME	0.00		0	N.D.	d	
40) cis-1,3-Dimethylcyclop...	0.00		0	N.D.	d	
41) 3-Ethylpentane	0.00		0	N.D.	d	
43) 1-Heptene/trans-1,2-DMCP	0.00		0	N.D.	d	
44) Isooctane	0.00		0	N.D.	d	
45) trans-3-Heptene	0.00		0	N.D.	d	
46) Heptane	0.00		0	N.D.	d	
48) trans-2-Heptene	0.00		0	N.D.	d	
49) cis-2-Heptene	0.00		0	N.D.	d	
50) 2,2-Dimethylhexane	0.00		0	N.D.	d	
51) Methylcyclohexane	0.00		0	N.D.	d	
52) 2,5-Dimethylhexane	0.00		0	N.D.	d	
53) 2,4-Dimethylhexane	0.00		0	N.D.	d	
54) Ethylcyclopentane	0.00		0	N.D.	d	
55) 2,2,3-Trimethylpentane	0.00		0	N.D.	d	
57) 2,3,4-Trimethylpentane	0.00		0	N.D.	d	
58) 2,3,3-Trimethylpentane	0.00		0	N.D.	d	
59) 2,3-Dimethylhexane	0.00		0	N.D.	d	
60) 2-Methylheptane	0.00		0	N.D.	d	
61) 4-Methylheptane	0.00		0	N.D.	d	
63) 3-Methylheptane	0.00		0	N.D.	d	
65) 3-Ethylhexane	0.00		0	N.D.	d	
66) Toluene	0.00		0	N.D.	d	
67) 2-Methylthiophene	0.00		0	N.D.	d	
68) trans-1,4-Dimethylcycl...	0.00		0	N.D.	d	
69) 3-Methylthiophene	0.00		0	N.D.	d	
70) 1-Octene	0.00		0	N.D.	d	
71) Octane	0.00		0	N.D.	d	
72) trans-1,2-Dimethylcycl...	0.00		0	N.D.	d	
73) 1,2-Dibromoethane	0.00		0	N.D.	d	
75) cis-2-Octene	0.00		0	N.D.	d	
76) Isopropylcyclopentane	0.00		0	N.D.	d	
77) cis-1,2-Dimethylcycloh...	0.00		0	N.D.	d	
78) 2,5-Dimethylheptane	0.00		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004595.D
 Acq On : 02 May 2023 05:19 pm
 Operator : VOA9:RAY
 Sample : WG1774659-6,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 03 08:01:00 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 3,5-Dimethylheptane	0.00		0	N.D.	d	
80) 3,3-Dimethylheptane	0.00		0	N.D.	d	
81) 1,1,4-Trimethylcyclohe...	0.00		0	N.D.	d	
82) 2,3-Dimethylheptane	0.00		0	N.D.	d	
83) 3,4-Dimethylheptane	0.00		0	N.D.	d	
84) 4-Methyloctane	0.00		0	N.D.	d	
85) 2-Methyloctane	0.00		0	N.D.	d	
86) Ethylbenzene	0.00		0	N.D.	d	
88) 2-Ethylthiophene	0.00		0	N.D.	d	
89) 3-Methyloctane	0.00		0	N.D.	d	
90) 3,3-Diethylpentane	0.00		0	N.D.	d	
91) p/m-Xylene	0.00		0	N.D.	d	
92) 1-Nonene	0.00		0	N.D.	d	
93) trans-3-Nonene	0.00		0	N.D.	d	
94) cis-3-Nonene	0.00		0	N.D.	d	
95) Nonane	0.00		0	N.D.	d	
96) Styrene	0.00		0	N.D.	d	
98) o-Xylene	0.00		0	N.D.	d	
99) 2-Nonene	0.00		0	N.D.	d	
100) Isopropylcyclohexane	0.00		0	N.D.	d	
102) Isopropylbenzene	0.00		0	N.D.	d	
103) 3,3-Dimethyloctane	0.00		0	N.D.	d	
104) n-Propylbenzene	0.00		0	N.D.	d	
105) 2-Methylnonane	0.00		0	N.D.	d	
106) 3-Methylnonane	0.00		0	N.D.	d	
107) 1-Methyl-3-ethylbenzene	0.00		0	N.D.	d	
108) 1-Methyl-4-ethylbenzene	0.00		0	N.D.	d	
109) 1,3,5-Trimethylbenzene	0.00		0	N.D.	d	
110) 1-Decene	0.00		0	N.D.	d	
111) Isobutylcyclohexane	0.00		0	N.D.	d	
112) 1-Methyl-2-ethylbenzene	0.00		0	N.D.	d	
113) Decane	0.00		0	N.D.	d	
114) tert-Butylbenzene	0.00		0	N.D.	d	
115) 1,2,4-Trimethylbenzene	0.00		0	N.D.	d	
116) Isobutylbenzene	0.00		0	N.D.	d	
117) sec-Butylbenzene	0.00		0	N.D.	d	
118) 1-Methyl-3-isopropylbe...	0.00		0	N.D.	d	
119) 1-Methyl-4-isopropylbe...	0.00		0	N.D.	d	
120) 1,2,3-Trimethylbenzene	0.00		0	N.D.	d	
121) 1-Methyl-2-isopropylbe...	0.00		0	N.D.	d	
122) Indan	0.00		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004595.D
 Acq On : 02 May 2023 05:19 pm
 Operator : VOA9:RAY
 Sample : WG1774659-6,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 03 08:01:00 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
123) 1,3-Diethylbenzene	0.00		0	N.D.	d	
124) 1-Methyl-3-propylbenzene	0.00		0	N.D.	d	
125) Indene	0.00		0	N.D.	d	
126) 1-Methyl-4-propylbenzene	0.00		0	N.D.	d	
127) n-Butylbenzene	0.00		0	N.D.	d	
128) 1,2-Dimethyl-4-ethylbe...	0.00		0	N.D.	d	
129) 1,2-Diethylbenzene	0.00		0	N.D.	d	
130) 1-Methyl-2-propylbenzene	0.00		0	N.D.	d	
131) 1,4-Dimethyl-2-ethylbe...	0.00		0	N.D.	d	
132) Undecane	0.00		0	N.D.	d	
133) 1,3-Dimethyl-4-ethylbe...	0.00		0	N.D.	d	
134) 1,3-Dimethyl-5-ethylbe...	0.00		0	N.D.	d	
135) 1,3-Dimethyl-2-ethylbe...	0.00		0	N.D.	d	
136) 1,2-Dimethyl-3-ethylbe...	0.00		0	N.D.	d	
137) 1,2,4,5-Tetramethylben...	0.00		0	N.D.	d	
138) 1,2,3,5-Tetramethylben...	0.00		0	N.D.	d	
139) Pentylbenzene	0.00		0	N.D.	d	
140) 1,2,3,4-Tetramethylben...	0.00		0	N.D.	d	
141) 1,3-DM-5-tert-Butylben...	0.00		0	N.D.	d	
142) Dodecane	0.00		0	N.D.	d	
143) 1,3,5-Triethylbenzene	0.00		0	N.D.	d	
144) Naphthalene	57.07	128	1247	0.124	ug/L	95
145) Benzothiophene	0.00		0	N.D.	d	
146) 1,2,4-Triethylbenzene	0.00		0	N.D.	d	
147) Hexylbenzene	0.00		0	N.D.	d	
148) MMT	0.00		0	N.D.	d	
149) Tridecane	0.00		0	N.D.	d	
150) 2-Methylnaphthalene	59.84	142	895	0.134	ug/L	97
151) 1-Methylnaphthalene	60.33	142	414	0.069	ug/L	99
152) Tetradecane	0.00		0	N.D.	d	
153) Pentadecane	0.00		0	N.D.	d	

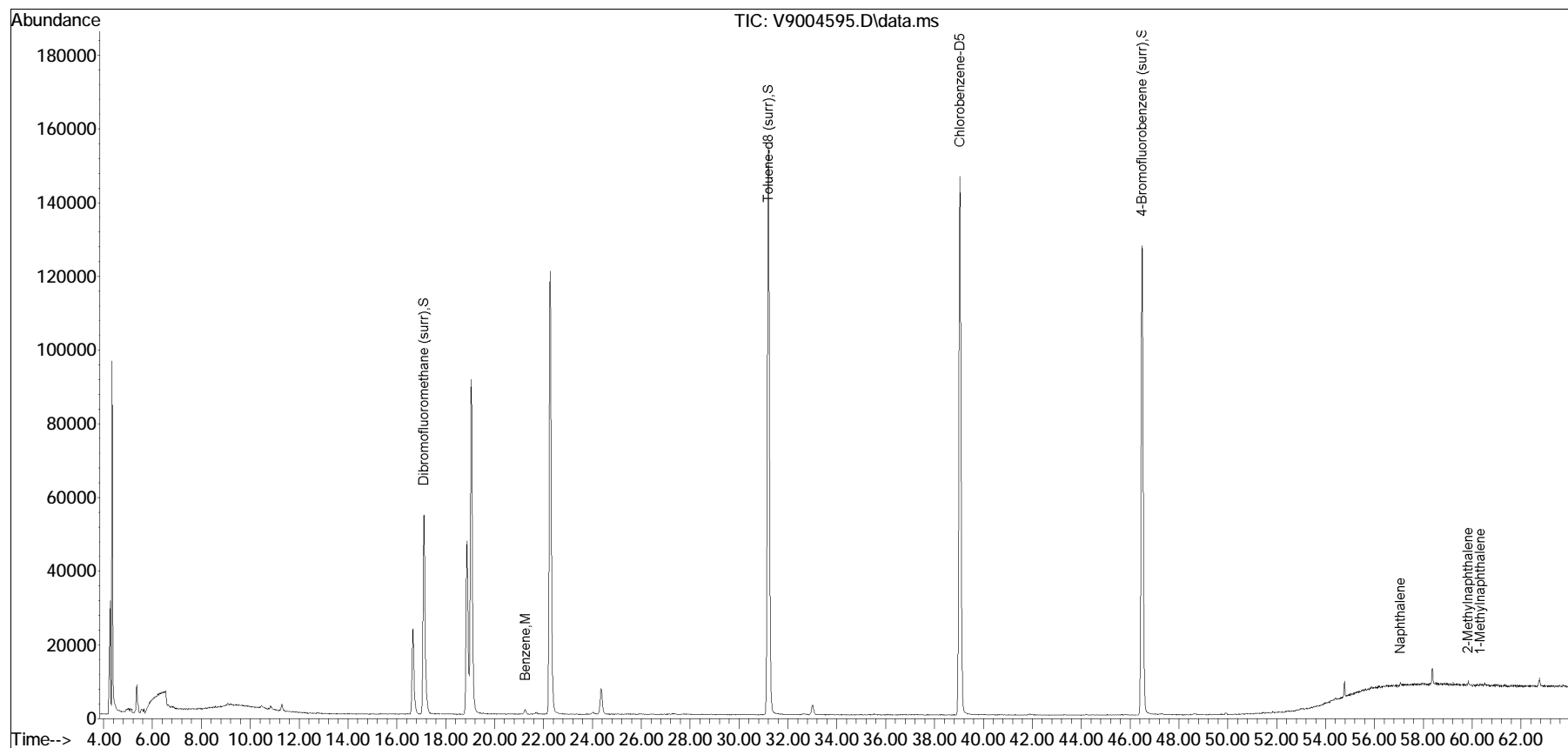
(#) = qualifier out of range (m) = manual integration (+) = signals summed

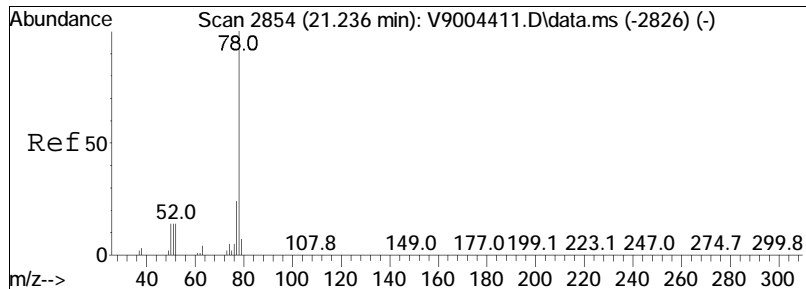
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004595.D
 Acq On : 02 May 2023 05:19 pm
 Operator : VOA9:RAY
 Sample : WG1774659-6,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 03 08:01:00 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

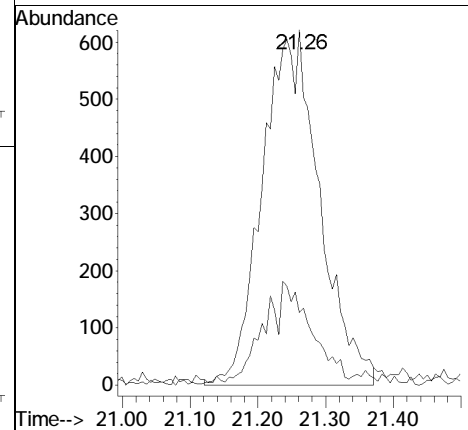
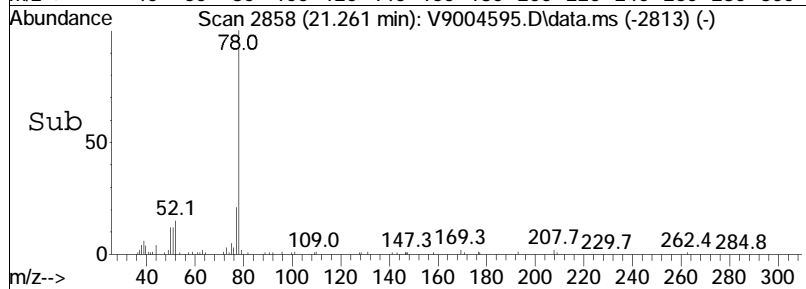
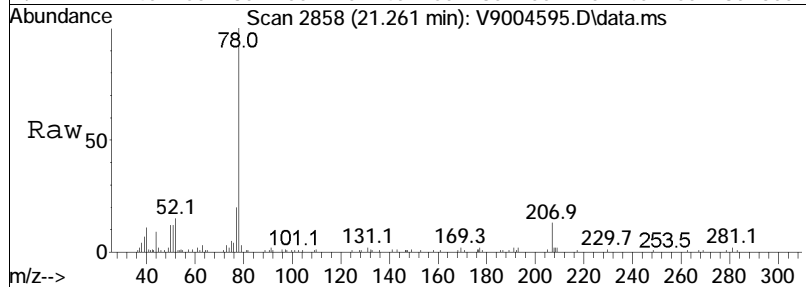
Sub List : PIANO_NEW-NHS - PIANO

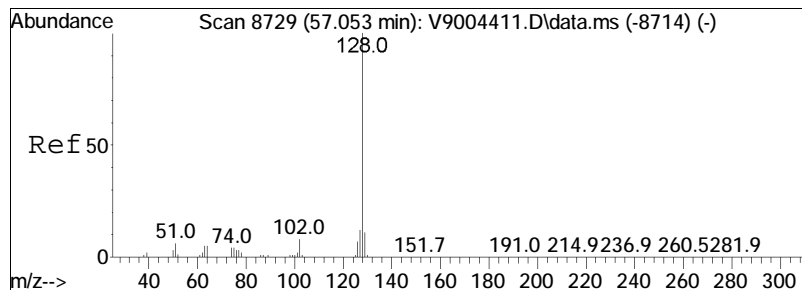




#34
Benzene
Concen: 0.57 ug/L m
RT: 21.26 min Scan# 2858
Delta R.T. 0.025 min
Lab File: V9004595.D
Acq: 02 May 2023 05:19 pm

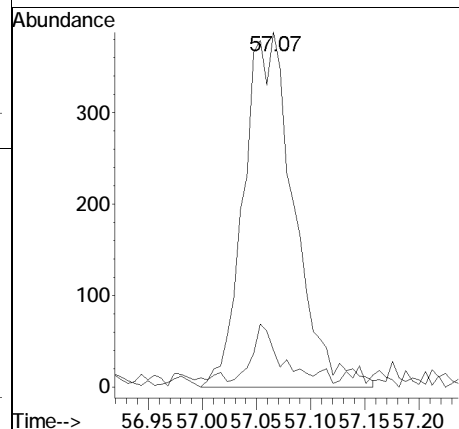
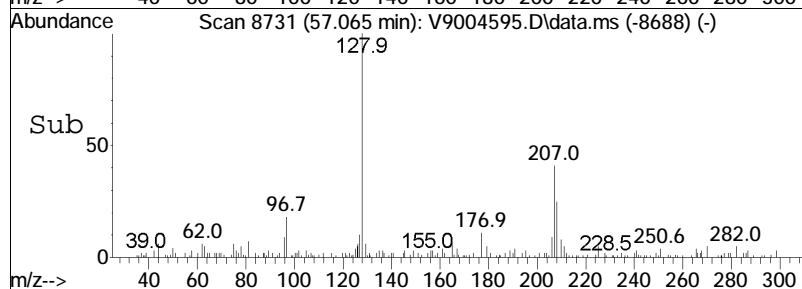
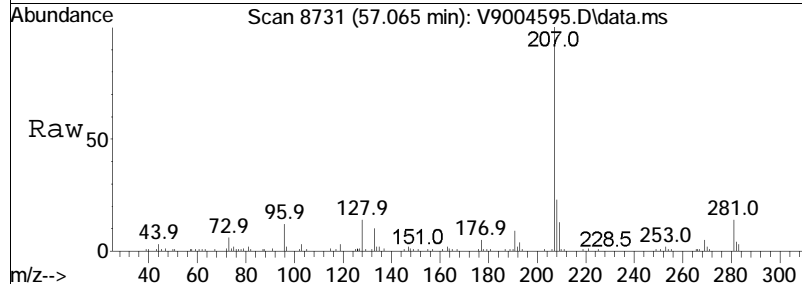
Tgt Ion: 78 Resp: 3638
Ion Ratio Lower Upper
78 100
77 20.5 4.0 44.0

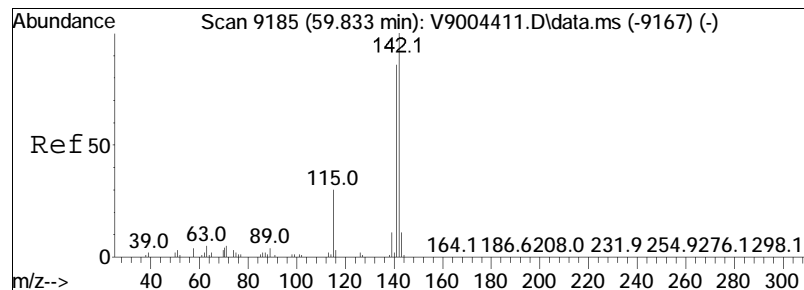




#144
Naphthalene
Concen: 0.12 ug/L
RT: 57.07 min Scan# 8731
Delta R.T. 0.012 min
Lab File: V9004595.D
Acq: 02 May 2023 05:19 pm

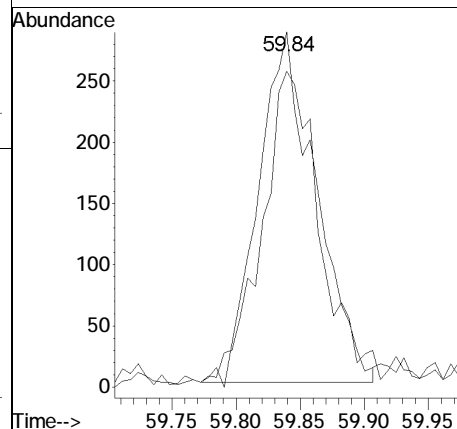
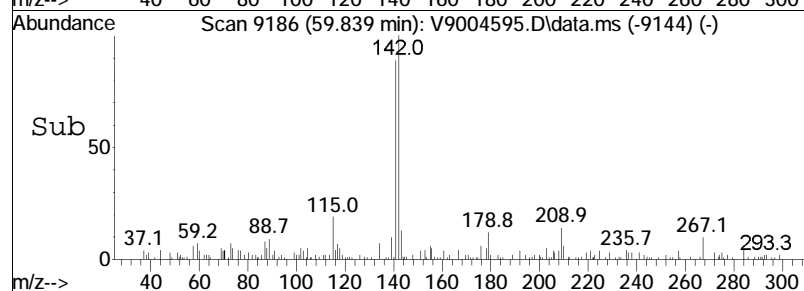
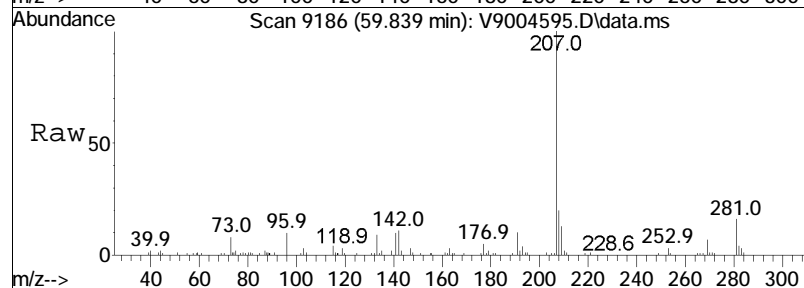
Tgt	Ion	Ratio	Lower	Upper
128	100			
127	10.3	0.0	32.4	

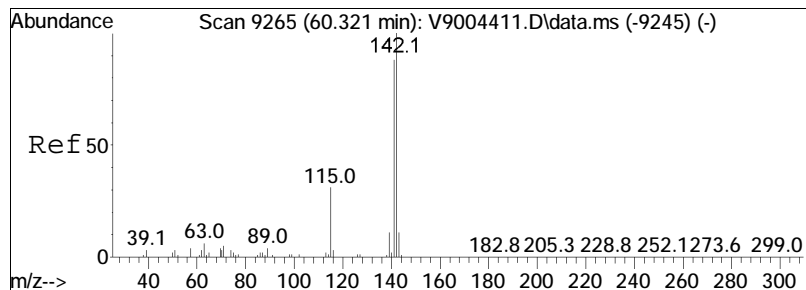




#150
 2-Methylnaphthalene
 Concen: 0.13 ug/L
 RT: 59.84 min Scan# 9186
 Delta R.T. 0.006 min
 Lab File: V9004595.D
 Acq: 02 May 2023 05:19 pm

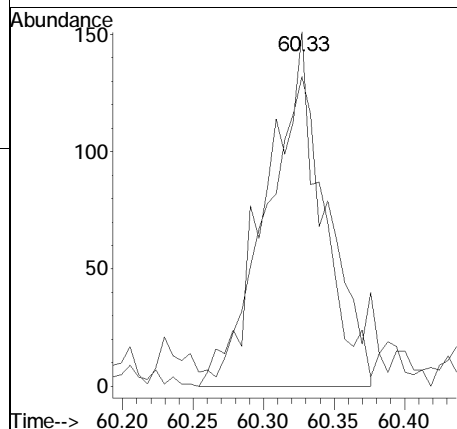
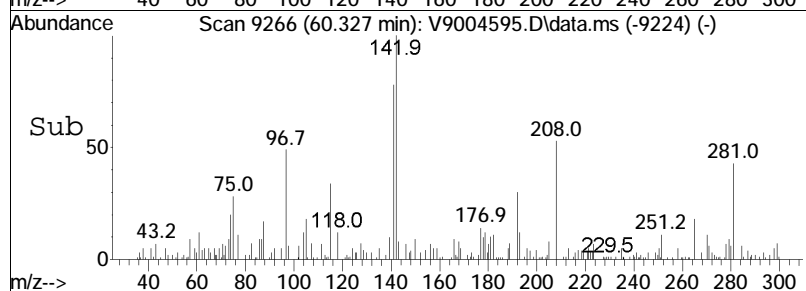
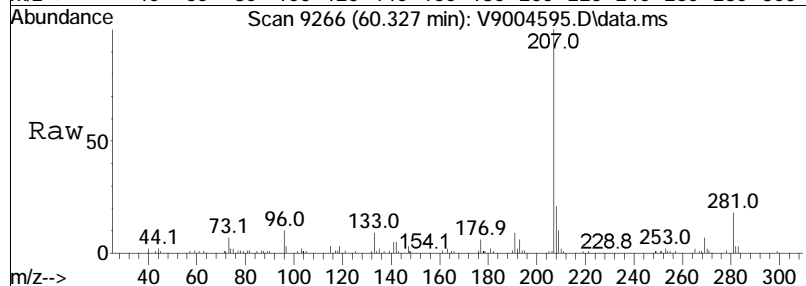
Tgt Ion	Ratio	Lower	Upper
142	100		
141	89.0	66.5	106.5





#151
 1-Methylnaphthalene
 Concen: 0.07 ug/L
 RT: 60.33 min Scan# 9266
 Delta R.T. 0.006 min
 Lab File: V9004595.D
 Acq: 02 May 2023 05:19 pm

Tgt Ion	Ratio	Lower	Upper
142	100		
141	87.4	68.2	108.2



LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004592.D
 Acq On : 02 May 2023 01:42 pm
 Operator : VOA9:RAY
 Sample : WG1774659-3,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 02 15:18:25 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_VOA_LCS-NHS - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	326966	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.11	113	97168	50.945	ug/L	0.00
Spiked Amount 50.000	Range 78 - 118		Recovery	=	101.89%	
62) Toluene-d8 (surr)	31.20	98	379667	52.132	ug/L	0.00
Spiked Amount 50.000	Range 87 - 113		Recovery	=	104.26%	
101) 4-Bromofluorobenzene (...)	46.49	95	157601	48.013	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery	=	96.03%	
Target Compounds						
						Qvalue
4) 1-Pentene	8.84	42	27807	15.267	ug/L	99
6) Pentane	9.21	43	36997	16.363	ug/L	96
10) Tertiary butanol	10.93	59	36514M4	84.167	ug/L	
13) Cyclopentane	12.93	70	20636	17.187	ug/L	# 42
15) 2-Methylpentane	13.15	43	45307	17.742	ug/L	98
16) MTBE	13.50	73	80458	16.057	ug/L	100
17) 3-Methylpentane	14.13	57	47267	18.534	ug/L	95
18) 1-Hexene	14.74	56	26329	18.620	ug/L	97
19) Hexane	15.35	57	37987	16.828	ug/L	99
20) Diisopropyl ether	15.67	45	66337	16.856	ug/L	98
25) Ethyl tertiary butyl e...	17.15	59	75581	16.757	ug/L	96
27) Methylcyclopentane	17.68	56	51500	18.225	ug/L	98
28) 2,4-Dimethylpentane	17.85	43	40805	18.014	ug/L	100
32) Cyclohexane	20.60	56	43732	18.584	ug/L	97
33) 2-Methylhexane	21.05	43	45091	18.397	ug/L	99
34) Benzene	21.24	78	120409	18.291	ug/L	99
35) 2,3-Dimethylpentane	21.35	56	41641	18.110	ug/L	98
38) 3-Methylhexane	21.86	43	35635	16.297	ug/L	94
39) TAME	22.27	73	82021	15.998	ug/L	95
44) Isooctane	23.30	57	110838	17.730	ug/L	94
46) Heptane	24.06	43	36393	18.425	ug/L	98
51) Methylcyclohexane	26.49	83	51945	18.135	ug/L	99
60) 2-Methylheptane	30.49	57	45854	18.122	ug/L	96
63) 3-Methylheptane	31.24	43	40435	17.467	ug/L	97
66) Toluene	31.56	91	129092	18.158	ug/L	98
71) Octane	33.76	43	44660	17.796	ug/L	97
86) Ethylbenzene	40.65	91	140721	17.399	ug/L	100
91) p/m-Xylene	41.91	91	226837	35.939	ug/L	98
95) Nonane	43.35	43	41742	16.396	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004592.D
 Acq On : 02 May 2023 01:42 pm
 Operator : VOA9:RAY
 Sample : WG1774659-3,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 02 15:18:25 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_VOA_LCS-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) o-Xylene	44.19	91	116910	17.856	ug/L	98
102) Isopropylbenzene	46.51	105	152253	17.888	ug/L	99
104) n-Propylbenzene	48.96	91	172284	18.164	ug/L	100
107) 1-Methyl-3-ethylbenzene	49.54	105	149213	17.700	ug/L	99
108) 1-Methyl-4-ethylbenzene	49.70	105	149295	18.321	ug/L	98
109) 1,3,5-Trimethylbenzene	50.26	105	125599	18.074	ug/L	99
110) 1-Decene	50.38	41	19750	14.383	ug/L	94
112) 1-Methyl-2-ethylbenzene	50.58	105	157067	18.152	ug/L	100
113) Decane	50.75	43	41385	16.874	ug/L	99
115) 1,2,4-Trimethylbenzene	51.41	105	125323	16.929	ug/L	99
117) sec-Butylbenzene	51.66	105	173734	18.441	ug/L	100
126) 1-Methyl-4-propylbenzene	53.21	105	193163	16.901	ug/L	98
127) n-Butylbenzene	53.21	91	153646	17.177	ug/L	99
129) 1,2-Diethylbenzene	53.41	119	70975	16.942	ug/L	100
132) Undecane	53.95	57	54127	16.933	ug/L	97
134) 1,3-Dimethyl-5-ethylbe...	54.13	119	157371	17.858	ug/L	100
139) Pentylbenzene	55.69	91	129385	16.854	ug/L	99
142) Dodecane	56.18	43	43065	19.429	ug/L	98

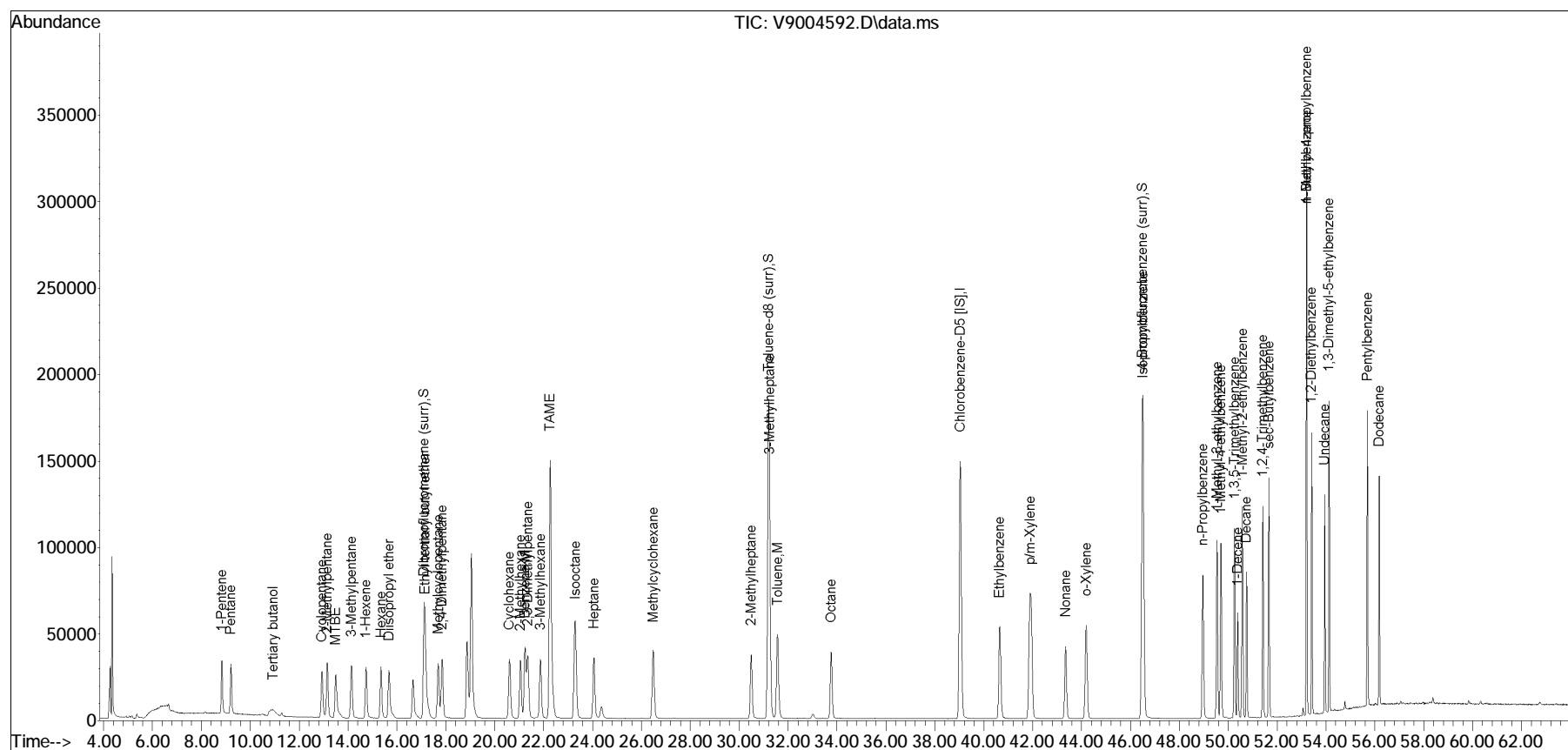
(#) = qualifier out of range (m) = manual integration (+) = signals summed

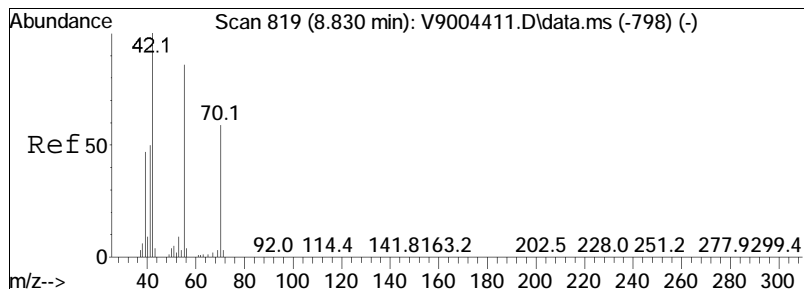
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004592.D
 Acq On : 02 May 2023 01:42 pm
 Operator : VOA9:RAY
 Sample : WG1774659-3,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 02 15:18:25 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

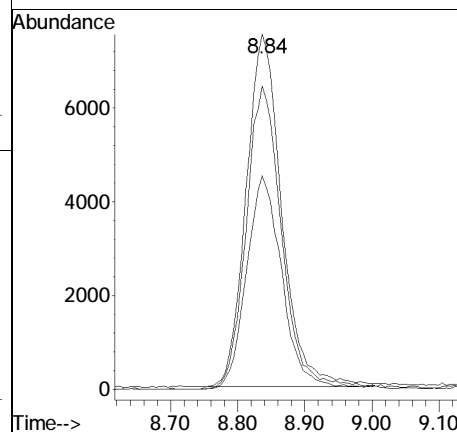
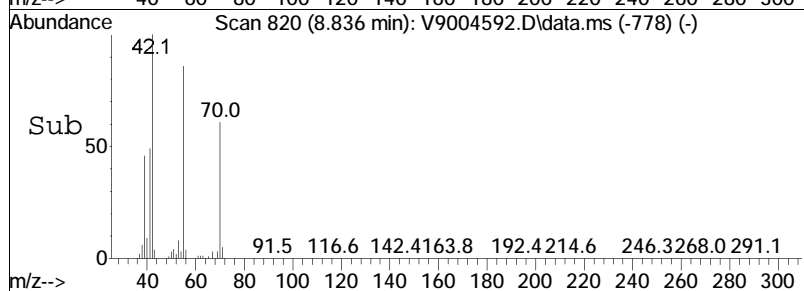
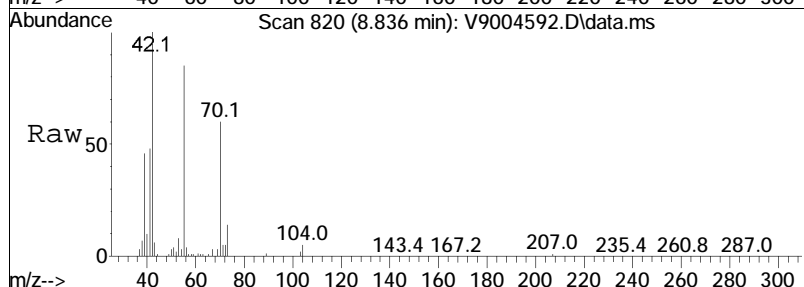
Sub List : PIANO_VOA_LCS-NHS - PIANO

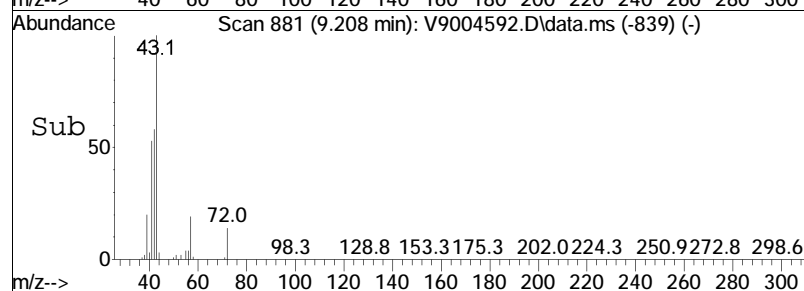
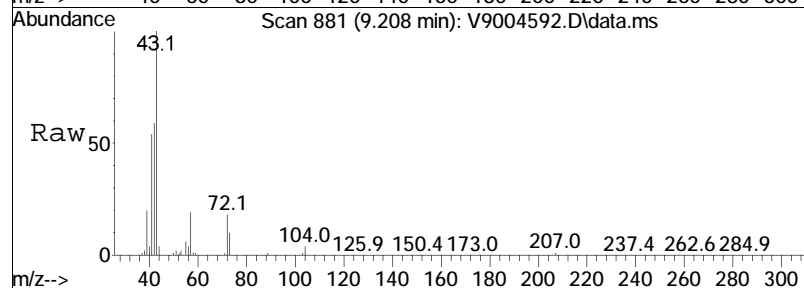
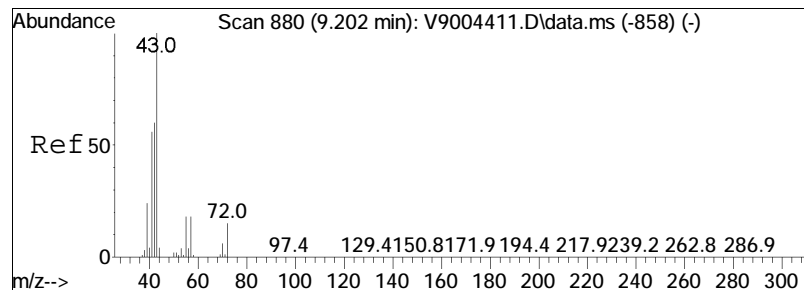




#4
 1-Pentene
 Concen: 15.27 ug/L
 RT: 8.84 min Scan# 820
 Delta R.T. 0.006 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

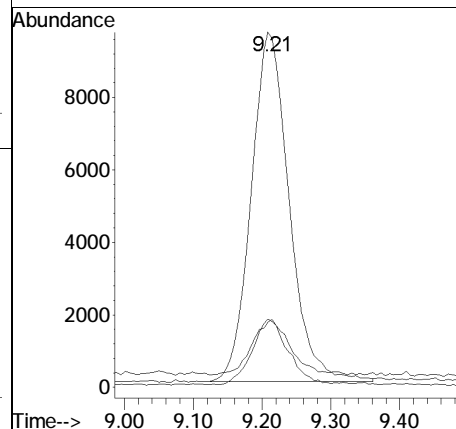
Tgt Ion: 42 Resp: 27807
 Ion Ratio Lower Upper
 42 100
 55 85.4 65.7 105.7
 70 60.1 39.1 79.1

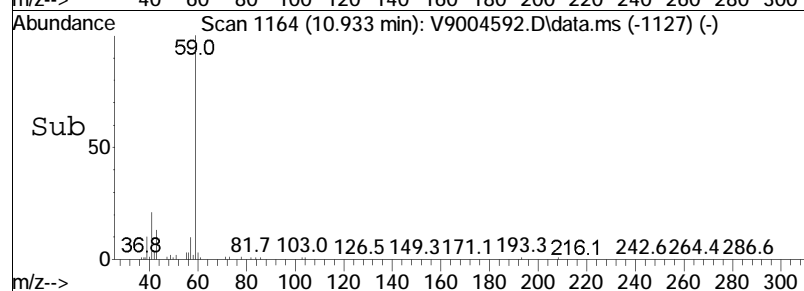
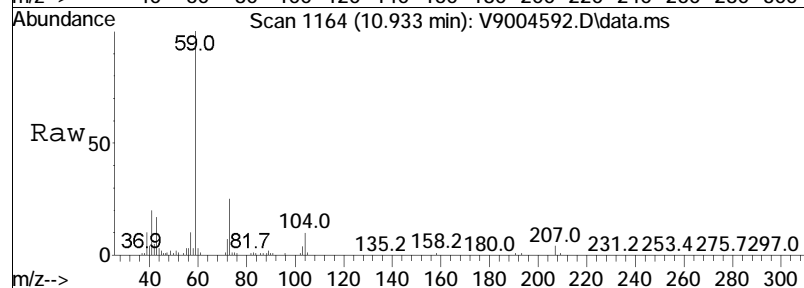
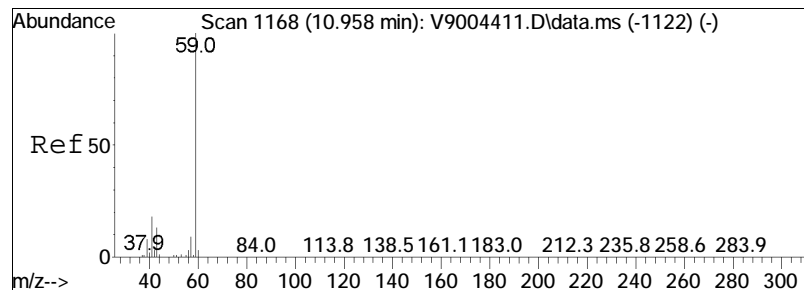




#6
 Pentane
 Concen: 16.36 ug/L
 RT: 9.21 min Scan# 881
 Delta R.T. 0.006 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

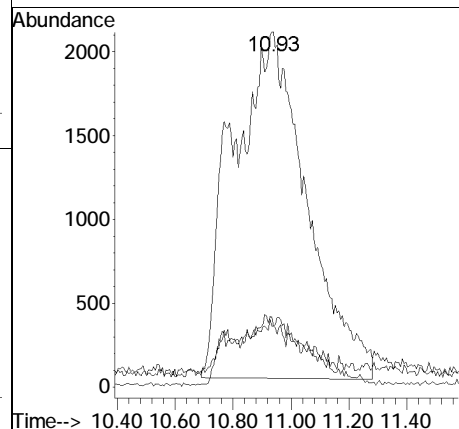
Tgt	Ion	Ratio	Lower	Upper
43	100			
57	19.3	0.0	38.5	
72	18.3	0.0	35.9	

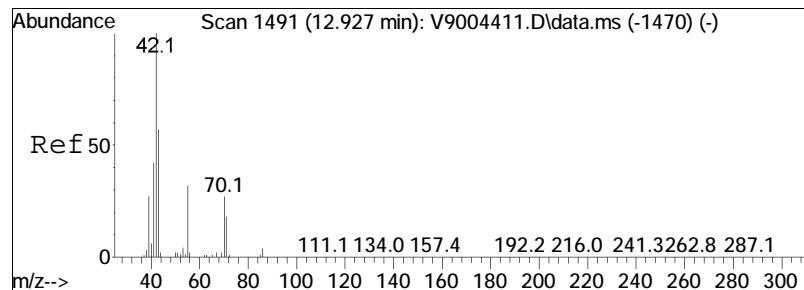




#10
Tertiary butanol
Concen: 84.17 ug/L m
RT: 10.93 min Scan# 1164
Delta R.T. -0.024 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

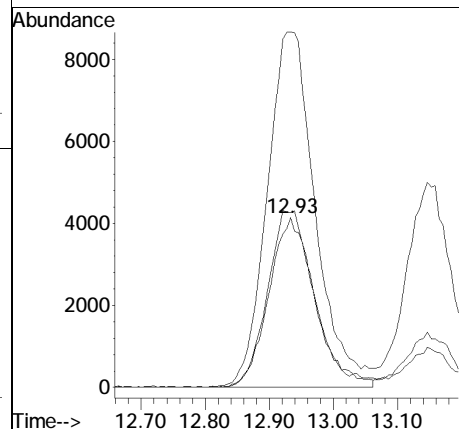
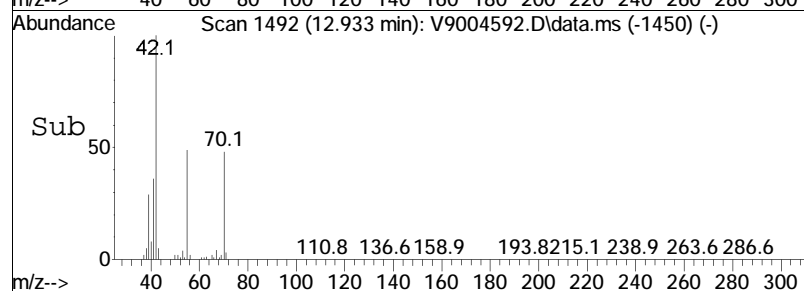
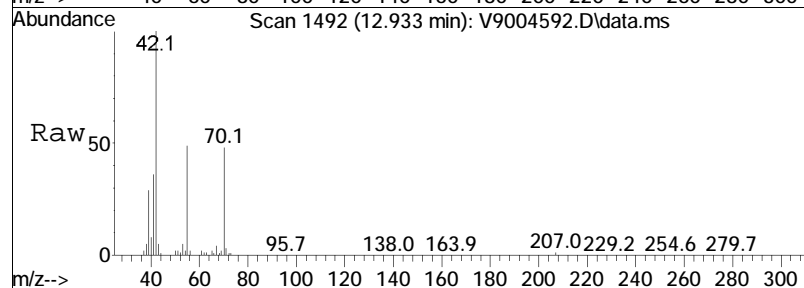
Tgt Ion:	59	Resp:	36514
Ion Ratio	Lower	Upper	
59	100		
41	19.8	0.0	38.5
43	17.2	0.0	33.5

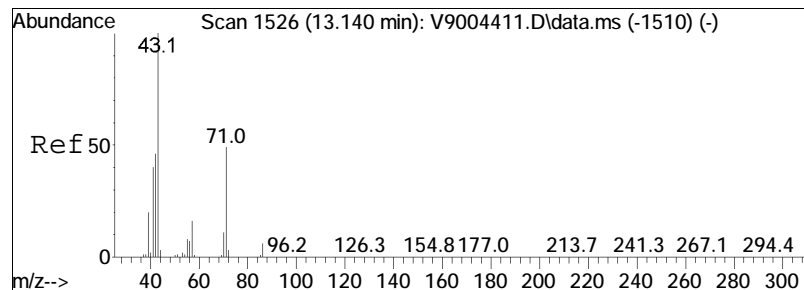




#13
Cyclopentane
Concen: 17.19 ug/L
RT: 12.93 min Scan# 1492
Delta R.T. 0.006 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

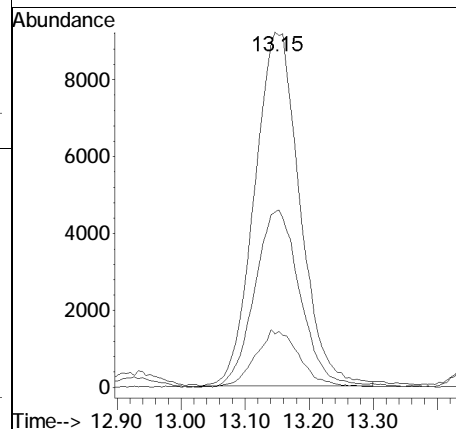
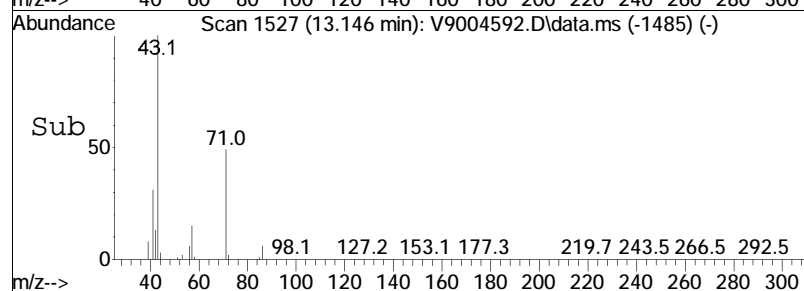
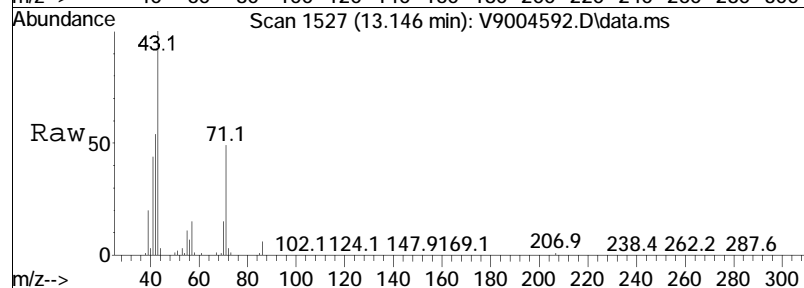
Tgt	Ion	Resp	Lower	Upper
70	100			
42	209.4	350.8	390.8#	
55	102.8	100.3	140.3	

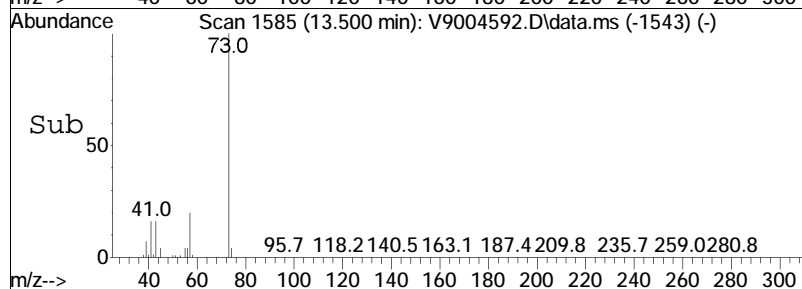
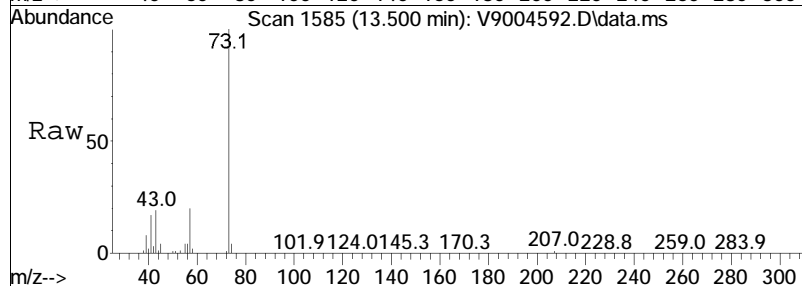
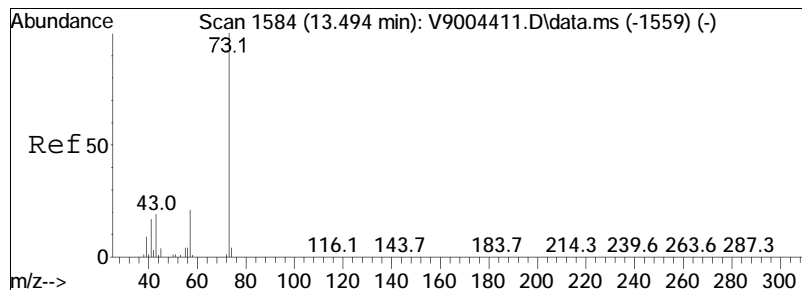




#15
 2-Methylpentane
 Concen: 17.74 ug/L
 RT: 13.15 min Scan# 1527
 Delta R.T. 0.006 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

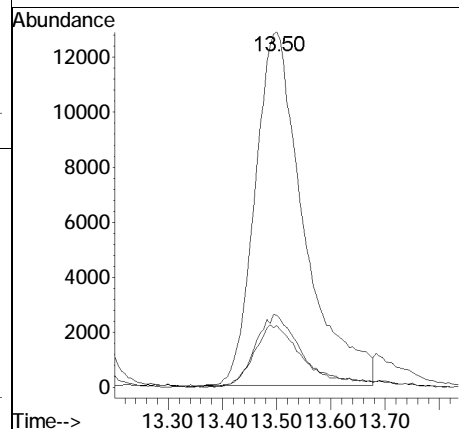
Tgt	Ion:	43	Resp:	45307
Ion	Ratio	Lower	Upper	
43	100			
71	49.4	28.2	68.2	
57	15.0	0.0	35.7	

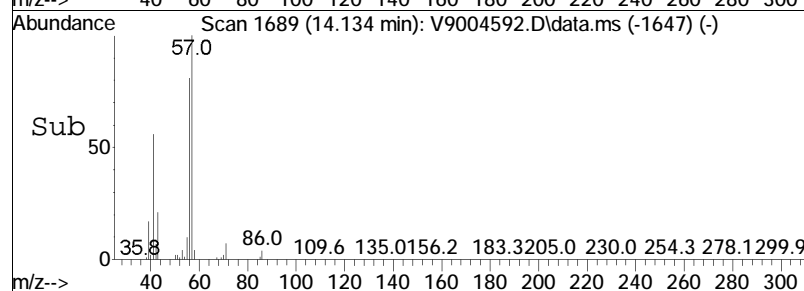
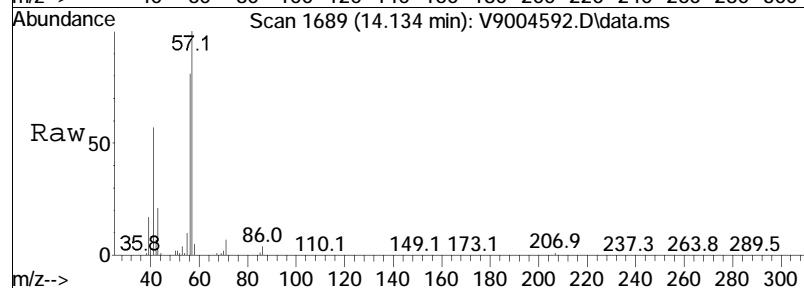
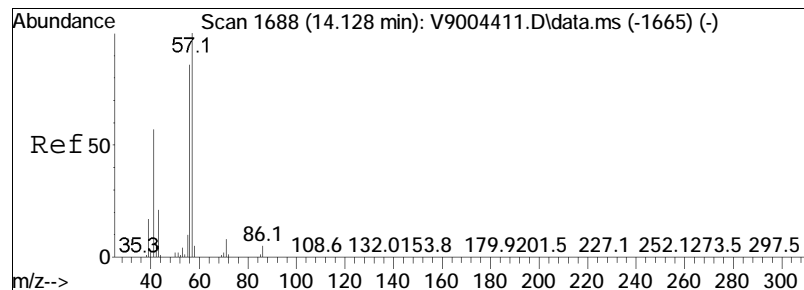




#16
MTBE
Concen: 16.06 ug/L
RT: 13.50 min Scan# 1585
Delta R.T. 0.006 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

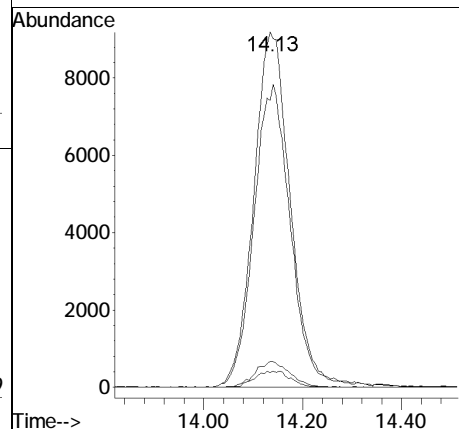
Tgt Ion	Ratio	Lower	Upper
73	100		
57	20.4	0.6	40.6
41	17.5	0.0	37.3

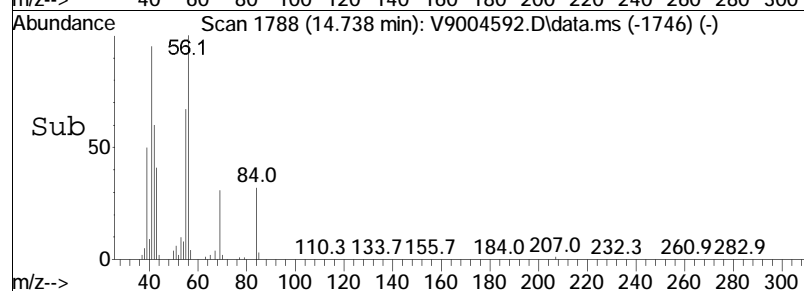
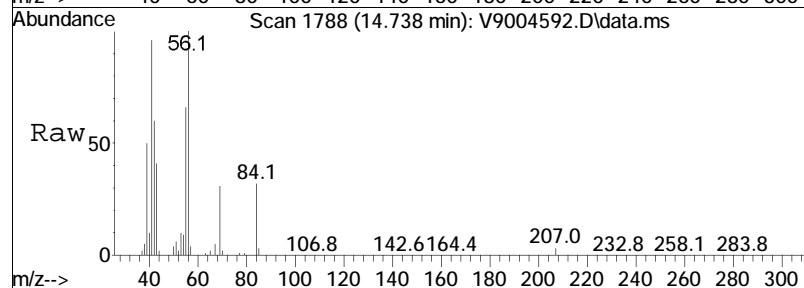
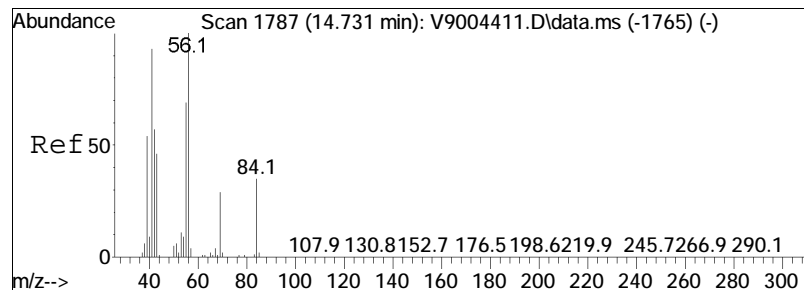




#17
 3-Methylpentane
 Concen: 18.53 ug/L
 RT: 14.13 min Scan# 1689
 Delta R.T. 0.006 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

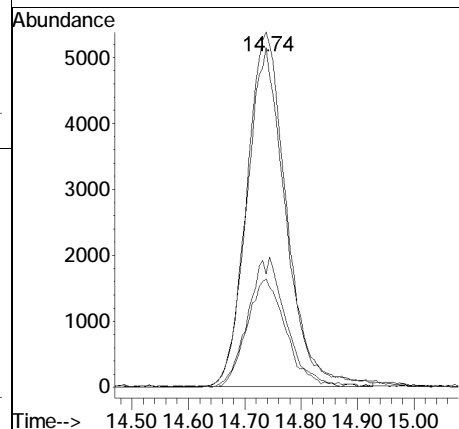
Tgt Ion:	57	Resp:	47267
Ion Ratio	Lower	Upper	
57	100		
56	80.7	65.9	105.9
71	7.4	0.0	27.5
86	4.2	0.0	24.6

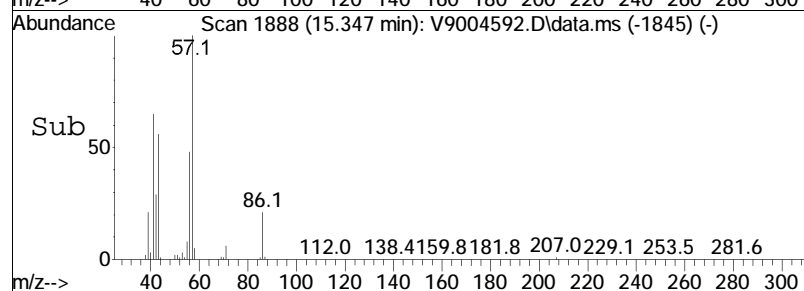
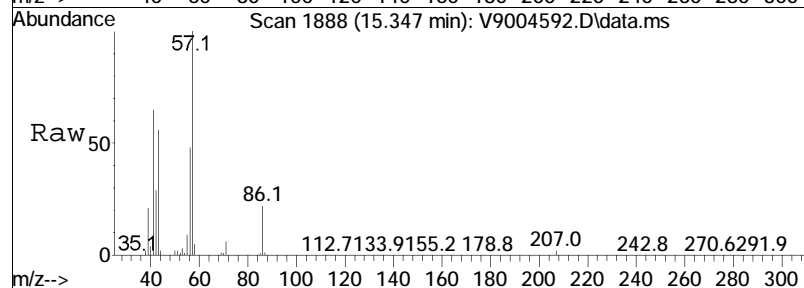
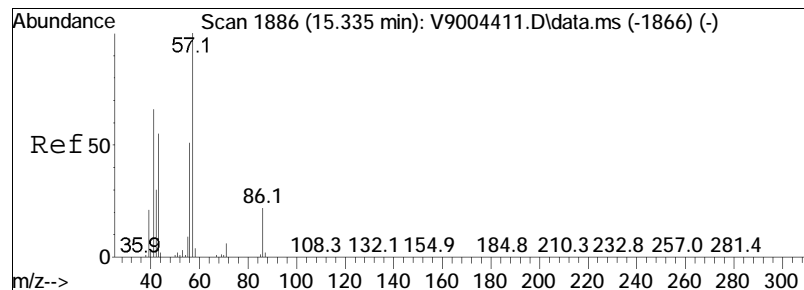




#18
 1-Hexene
 Concen: 18.62 ug/L
 RT: 14.74 min Scan# 1788
 Delta R.T. 0.006 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

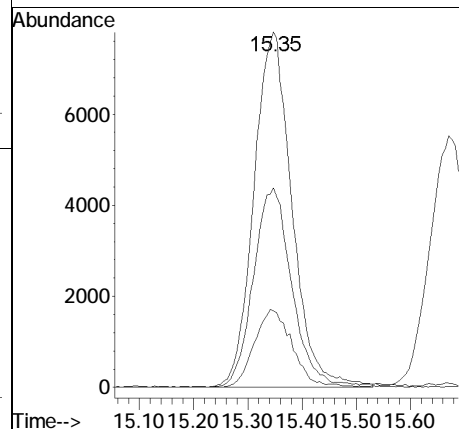
Tgt Ion: 56	Resp: 26329
Ion Ratio	Lower Upper
56 100	
41 95.6	73.5 113.5
84 32.0	14.7 54.7
69 30.5	8.9 48.9

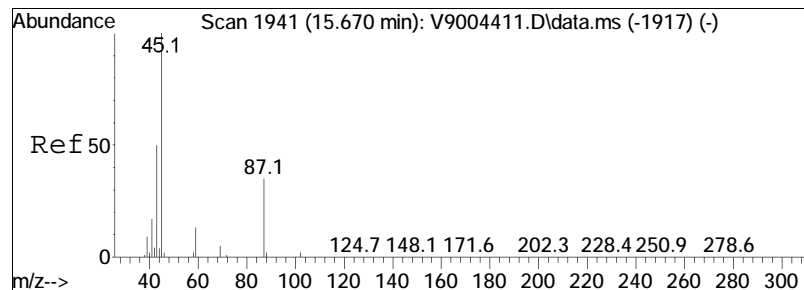




#19
Hexane
Concen: 16.83 ug/L
RT: 15.35 min Scan# 1888
Delta R.T. 0.012 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

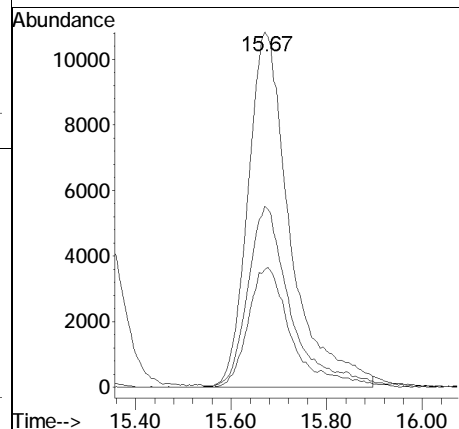
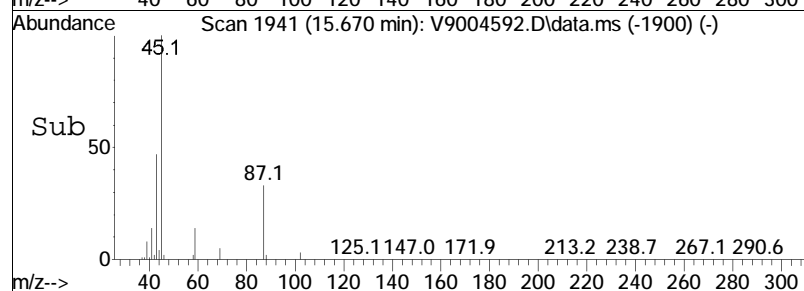
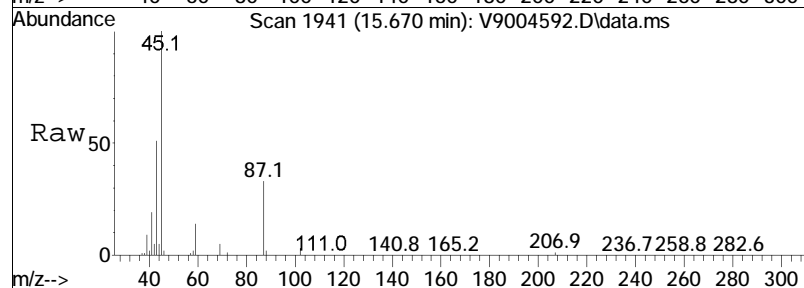
Tgt	Ion:	57	Resp:	37987
Ion	Ratio	Lower	Upper	
57	100			
43	56.2	35.4	75.4	
86	21.5	2.2	42.2	

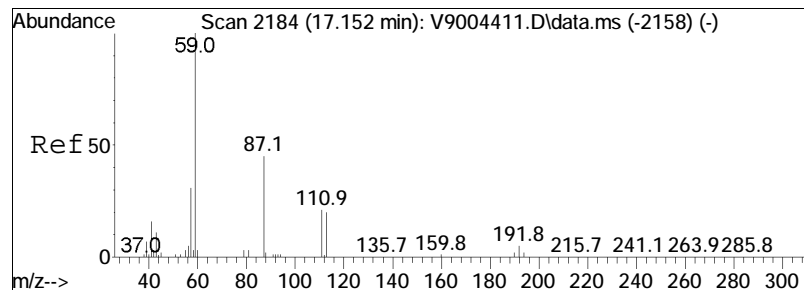




#20
 Diisopropyl ether
 Concen: 16.86 ug/L
 RT: 15.67 min Scan# 1941
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

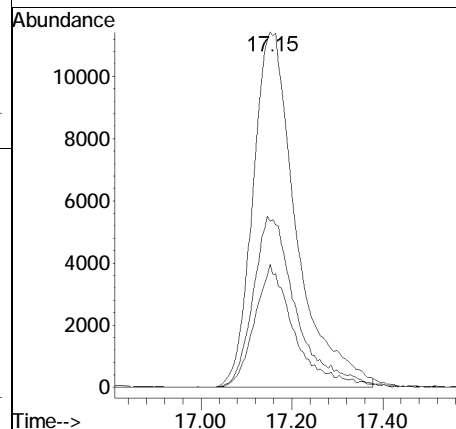
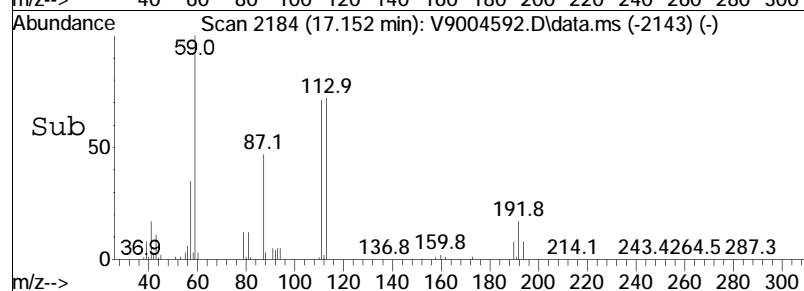
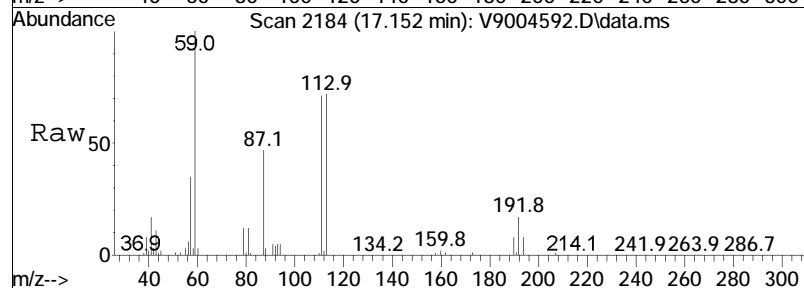
Tgt Ion:	45	Resp:	66337
Ion Ratio	Lower	Upper	
45	100		
87	33.2	14.7	54.7
43	51.0	30.3	70.3

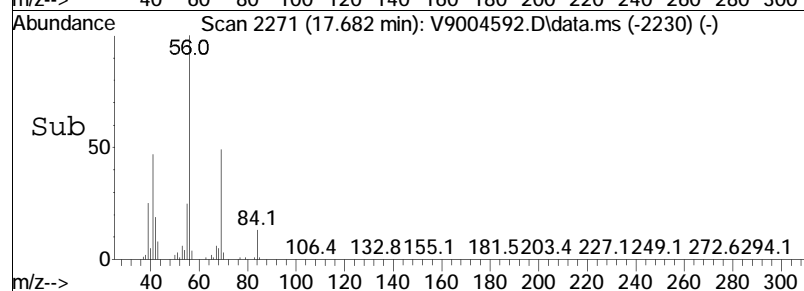
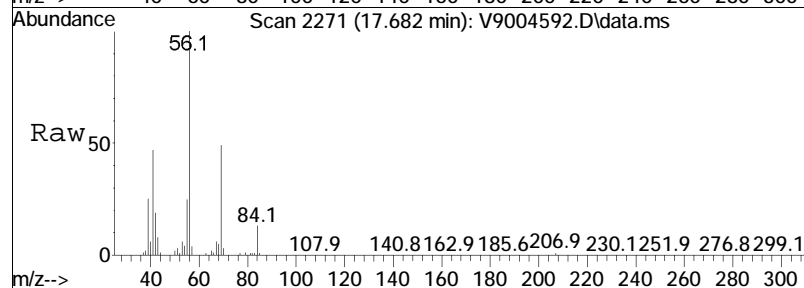
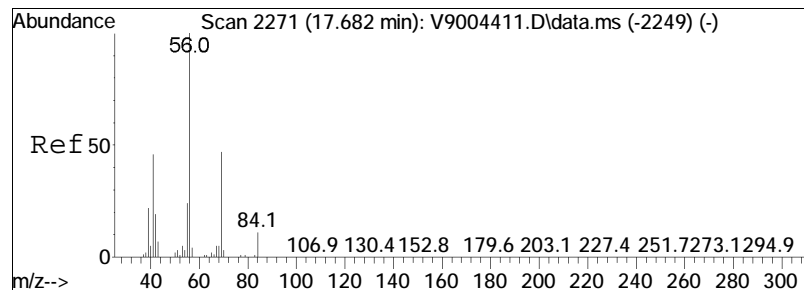




#25
 Ethyl tertiary butyl ether
 Concen: 16.76 ug/L
 RT: 17.15 min Scan# 2184
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

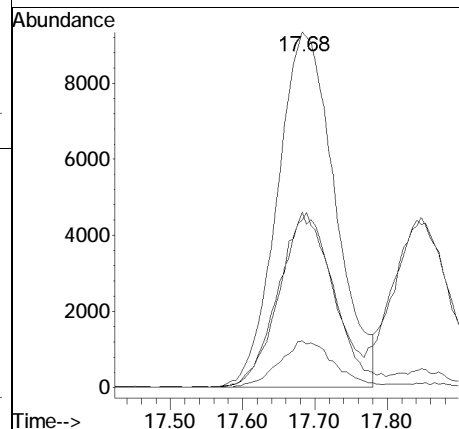
Tgt Ion	Ratio	Lower	Upper
59	100		
87	46.7	25.2	65.2
57	34.7	11.3	51.3

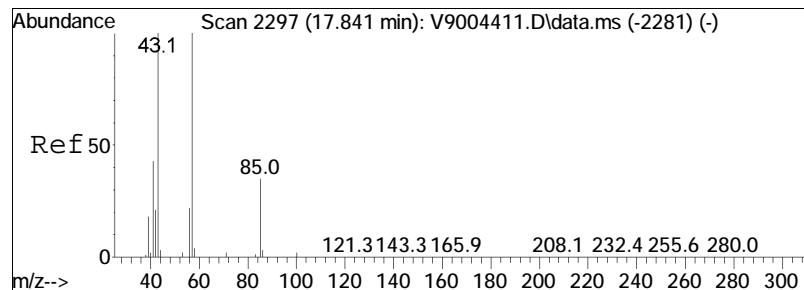




#27
Methylcyclopentane
Concen: 18.22 ug/L
RT: 17.68 min Scan# 2271
Delta R.T. 0.000 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

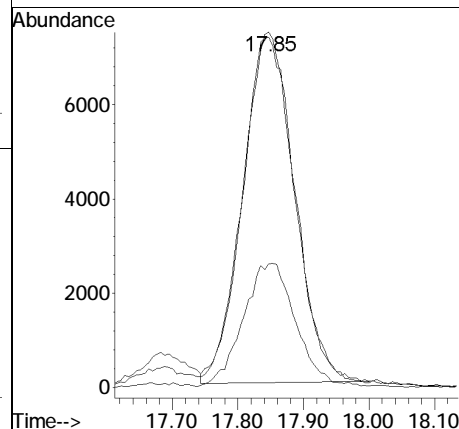
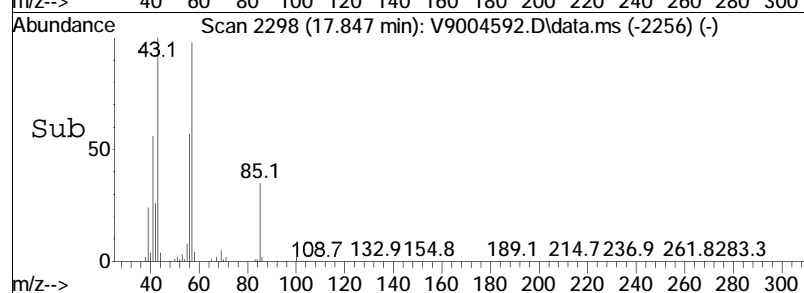
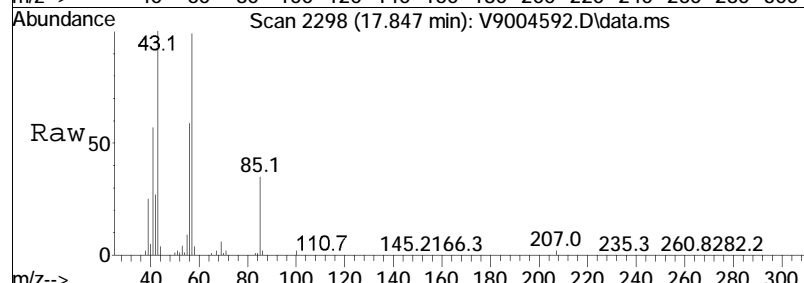
Tgt Ion:	56	Resp:	51500
Ion Ratio	Lower	Upper	
56	100		
69	49.3	27.0	67.0
41	47.1	26.5	66.5
84	13.1	0.0	31.3

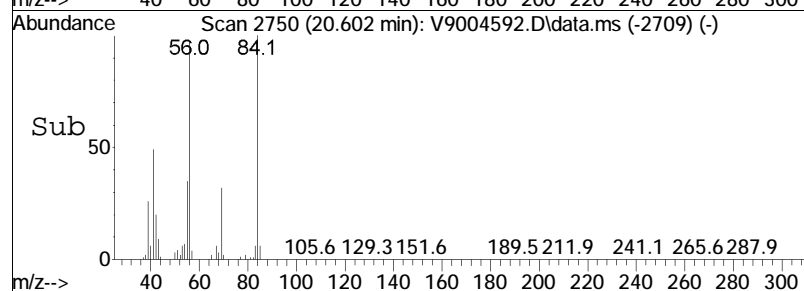
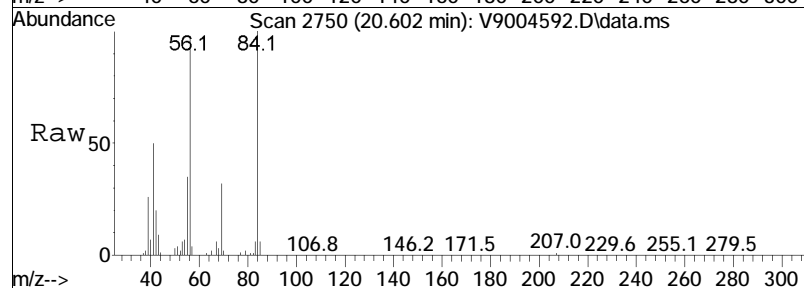
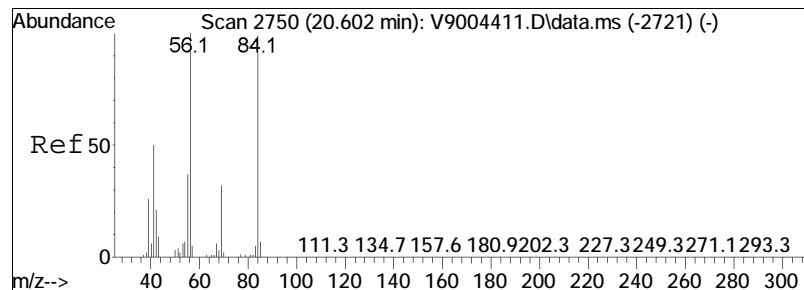




#28
 2,4-Dimethylpentane
 Concen: 18.01 ug/L
 RT: 17.85 min Scan# 2298
 Delta R.T. 0.006 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

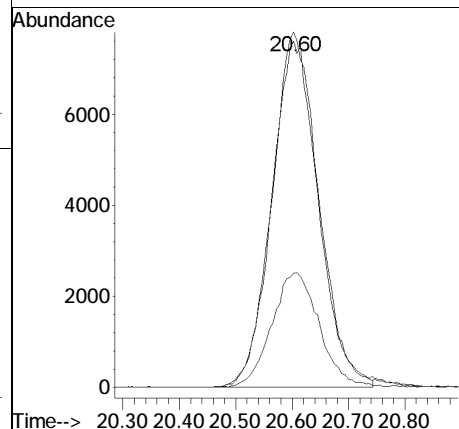
Tgt Ion:	43	Resp:	40805
Ion Ratio	Lower	Upper	
43	100		
57	98.5	78.8	118.8
85	34.8	14.3	54.3

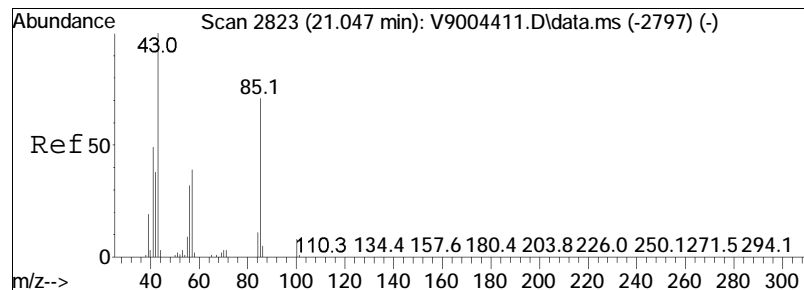




#32
Cyclohexane
Concen: 18.58 ug/L
RT: 20.60 min Scan# 2750
Delta R.T. 0.000 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

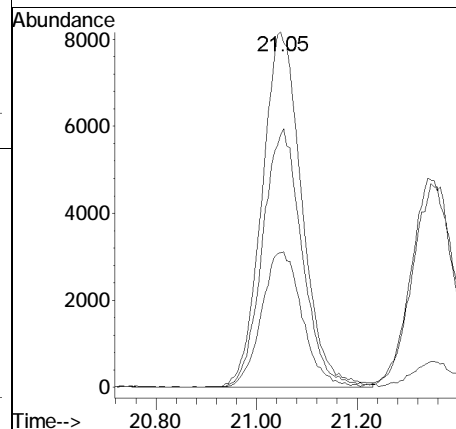
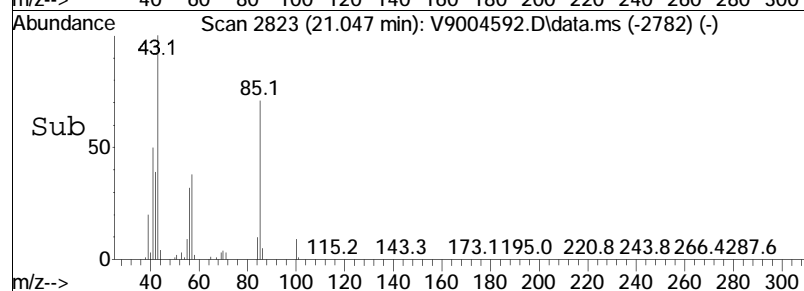
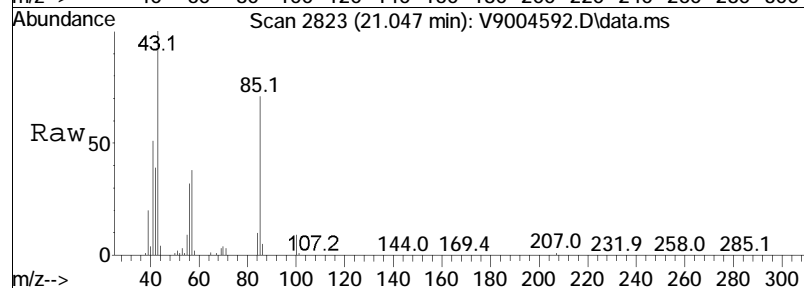
Tgt	Ion:	56	Resp:	43732
Ion	Ratio	Lower	Upper	
56	100			
84	102.6	79.5	119.5	
69	33.0	11.9	51.9	

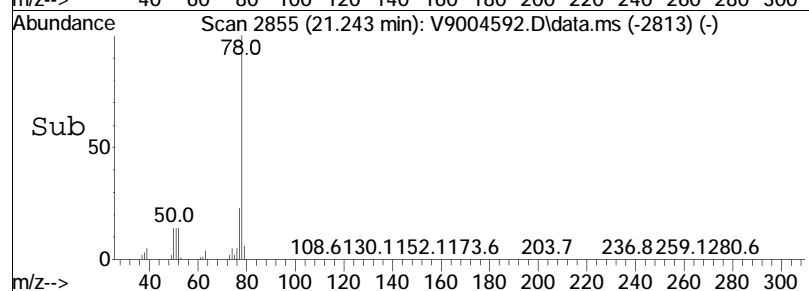
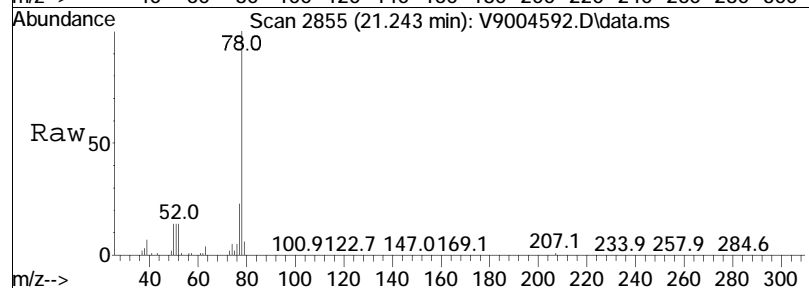
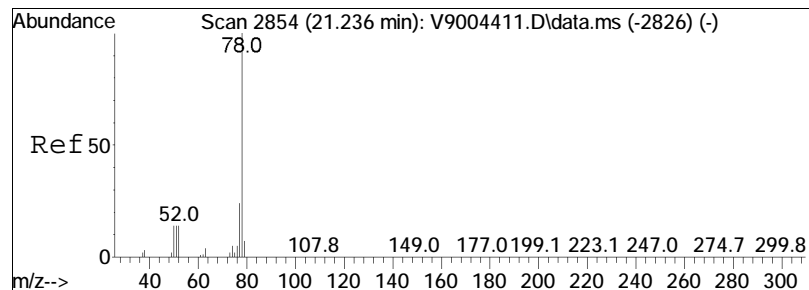




#33
 2-Methylhexane
 Concen: 18.40 ug/L
 RT: 21.05 min Scan# 2823
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

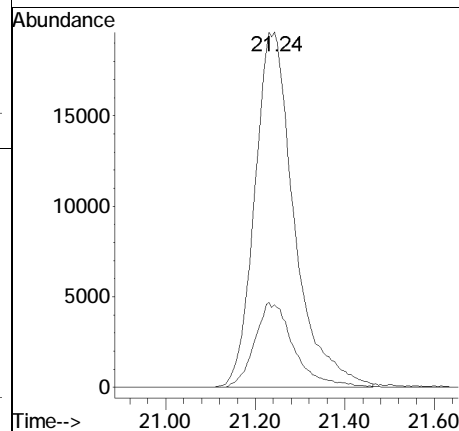
Tgt	Ion: 43	Resp:	45091
Ion	Ratio	Lower	Upper
43	100		
85	71.0	51.1	91.1
57	37.9	19.2	59.2

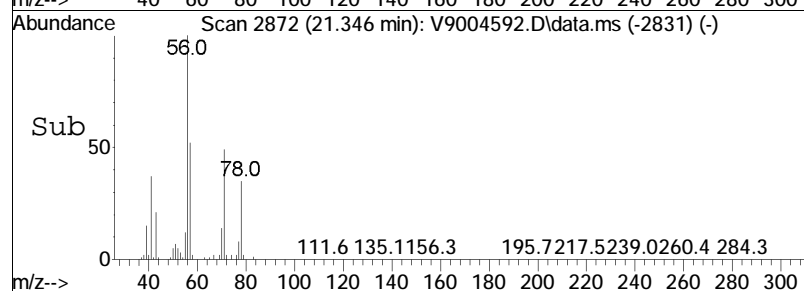
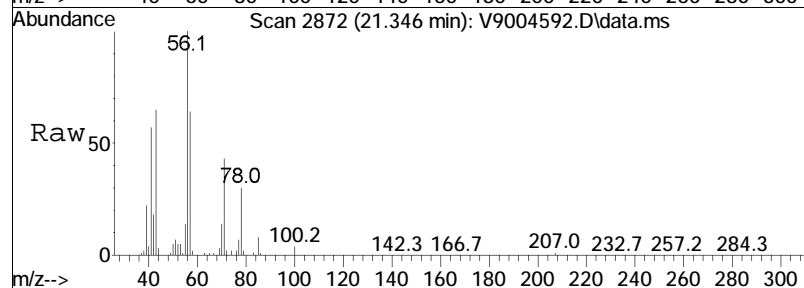
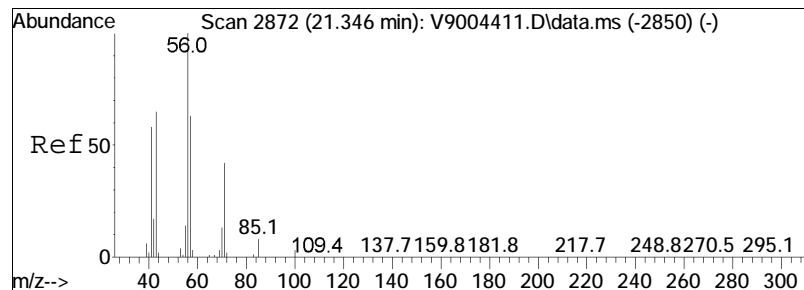




#34
Benzene
Concen: 18.29 ug/L
RT: 21.24 min Scan# 2855
Delta R.T. 0.006 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

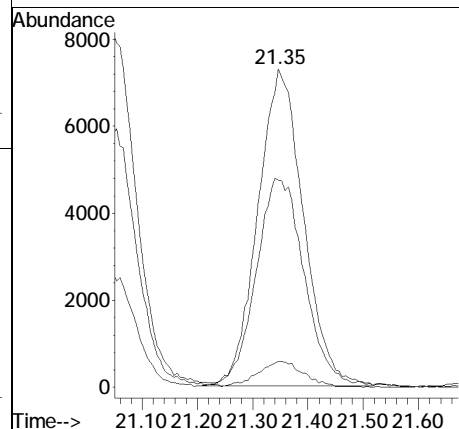
Tgt Ion	Ratio	Lower	Upper
78	100		
77	23.3	4.0	44.0

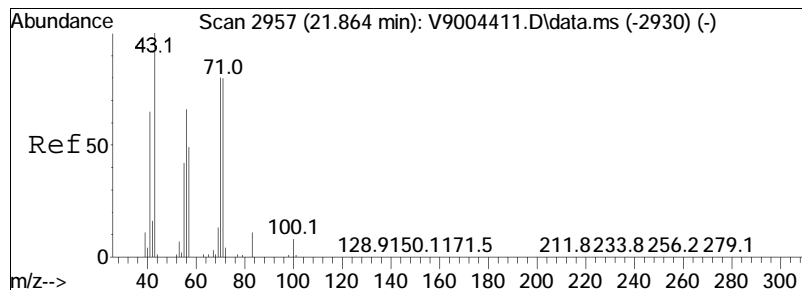




#35
 2,3-Dimethylpentane
 Concen: 18.11 ug/L
 RT: 21.35 min Scan# 2872
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

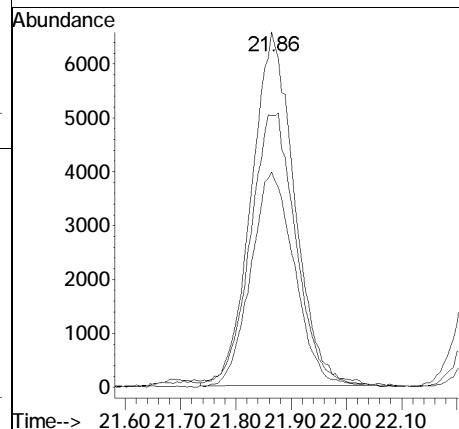
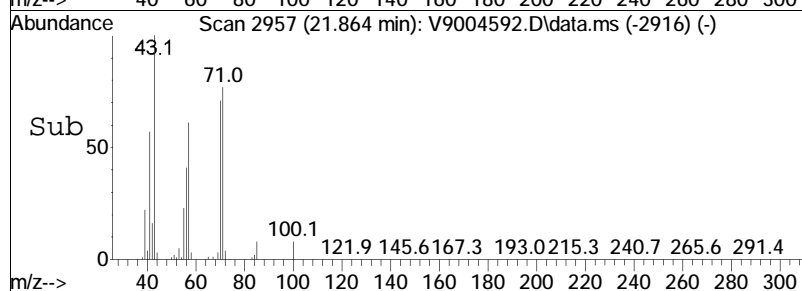
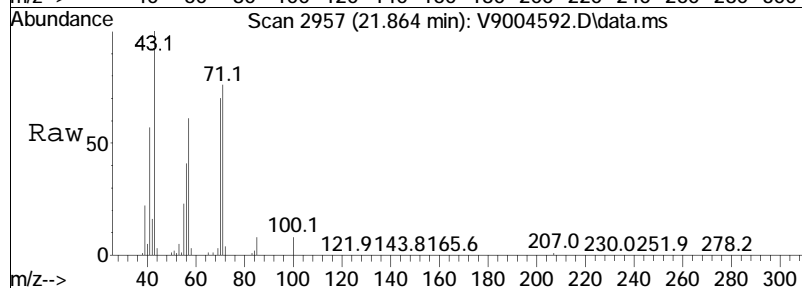
Tgt	Ion:	56	Resp:	41641
Ion	Ratio	Lower	Upper	
56	100			
43	65.1	46.7	86.7	
85	8.2	0.0	28.4	

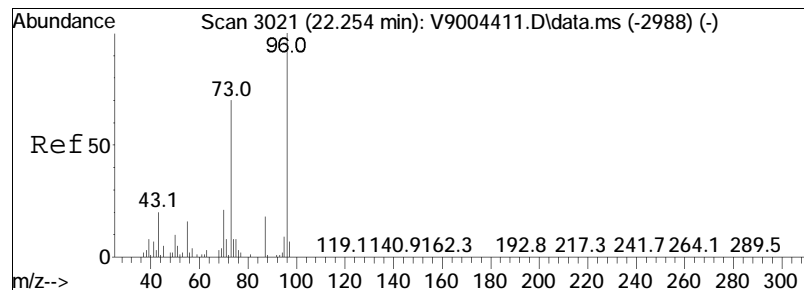




#38
 3-Methylhexane
 Concen: 16.30 ug/L
 RT: 21.86 min Scan# 2957
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

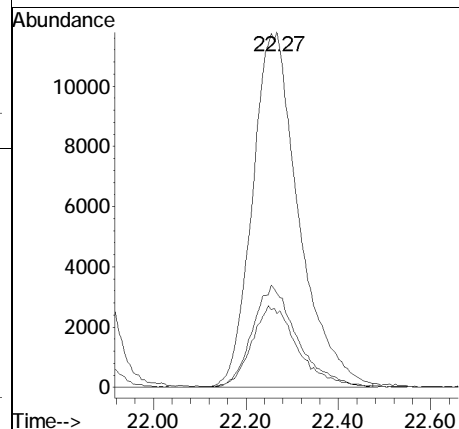
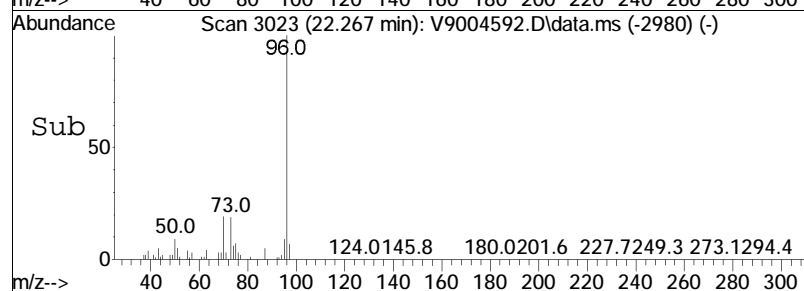
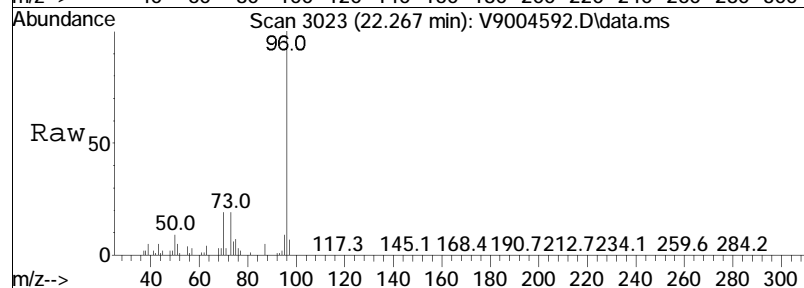
Tgt Ion:	43	Resp:	35635
Ion Ratio	Lower	Upper	
43	100		
57	60.6	46.7	86.7
71	76.5	60.6	100.6

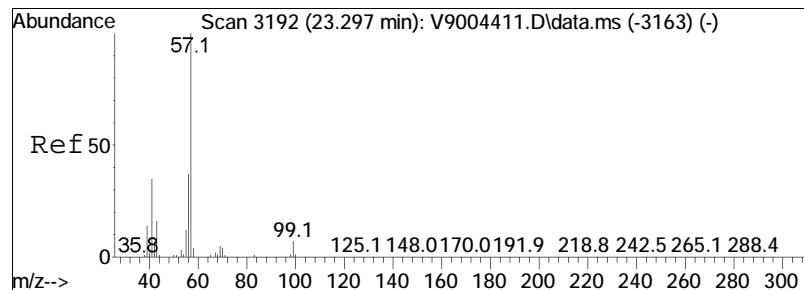




#39
TAME
Concen: 16.00 ug/L
RT: 22.27 min Scan# 3023
Delta R.T. 0.012 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

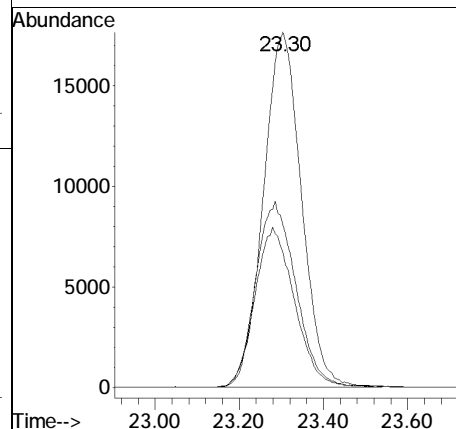
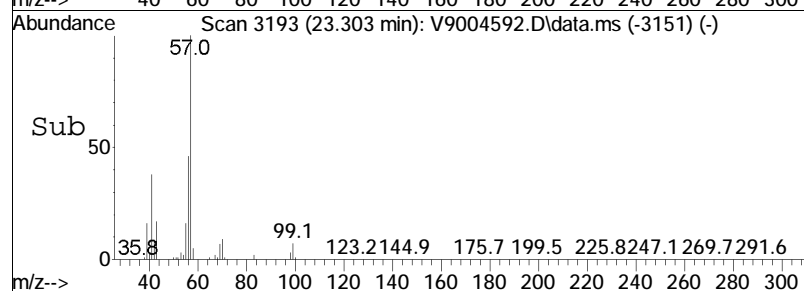
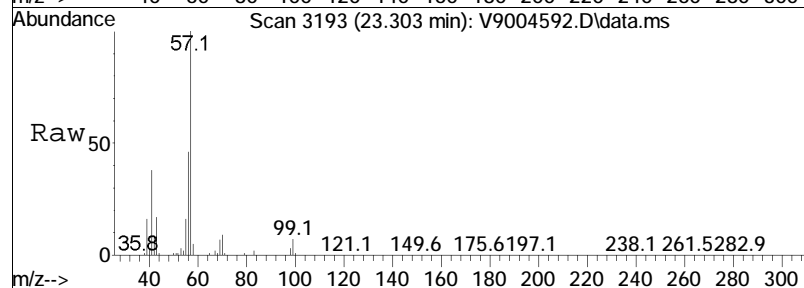
Tgt Ion	Ratio	Lower	Upper
73	100		
43	26.5	9.1	49.1
55	20.8	3.3	43.3

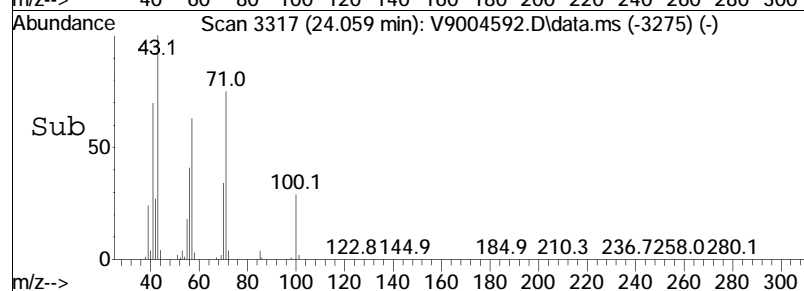
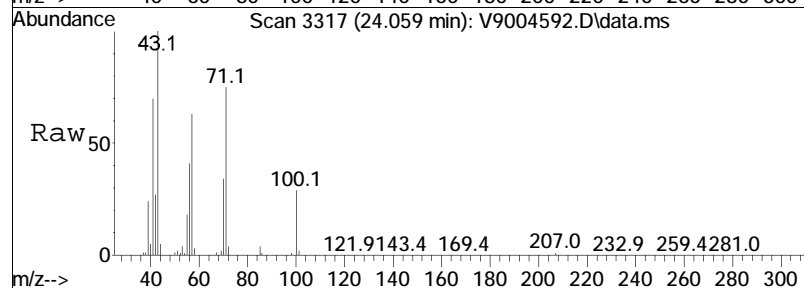
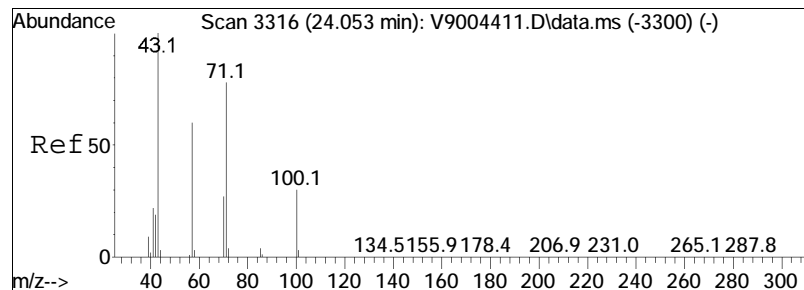




#44
 Isooctane
 Concen: 17.73 ug/L
 RT: 23.30 min Scan# 3193
 Delta R.T. 0.006 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

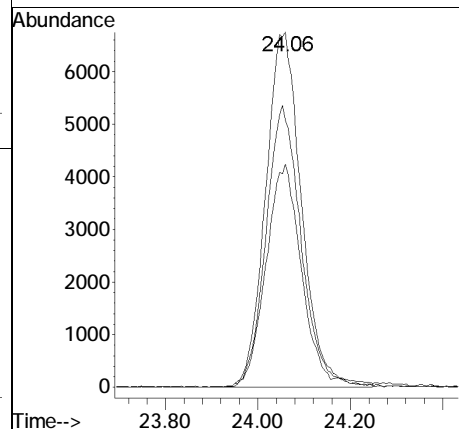
Tgt Ion	Ratio	Lower	Upper
57	100		
41	38.0	21.7	61.7
56	45.8	30.1	70.1

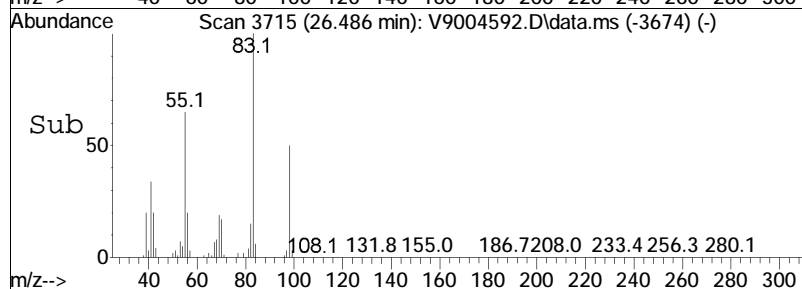
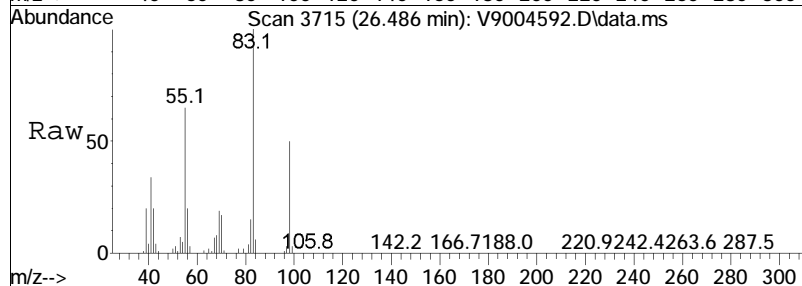
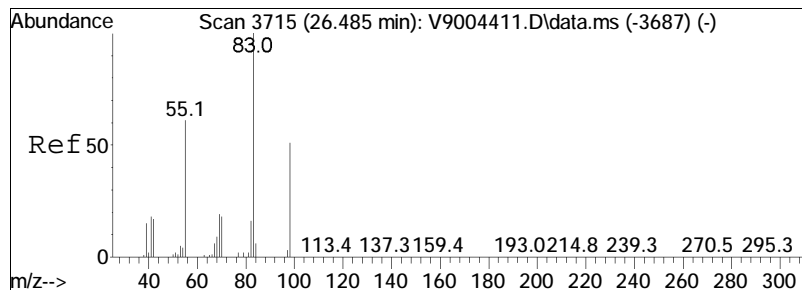




#46
 Heptane
 Concen: 18.42 ug/L
 RT: 24.06 min Scan# 3317
 Delta R.T. 0.006 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

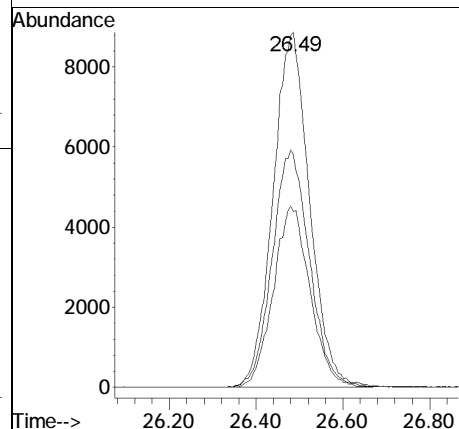
Tgt Ion:	43	Resp:	36393
Ion Ratio	Lower	Upper	
43	100		
57	62.8	41.1	81.1
71	75.2	54.3	94.3

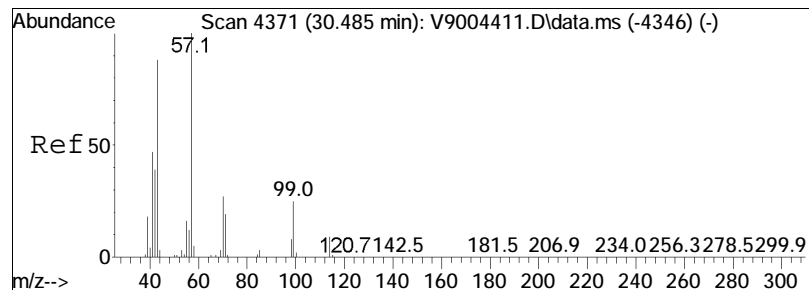




#51
Methylcyclohexane
Concen: 18.13 ug/L
RT: 26.49 min Scan# 3715
Delta R.T. 0.000 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

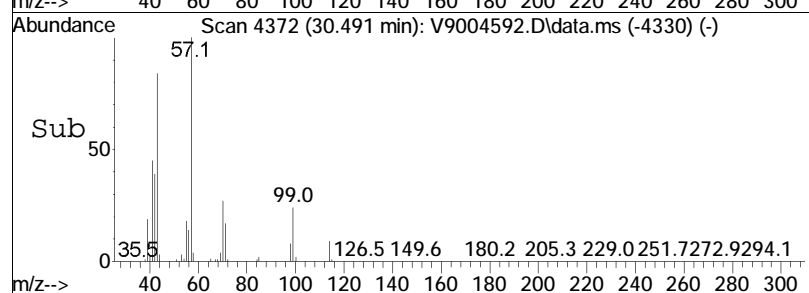
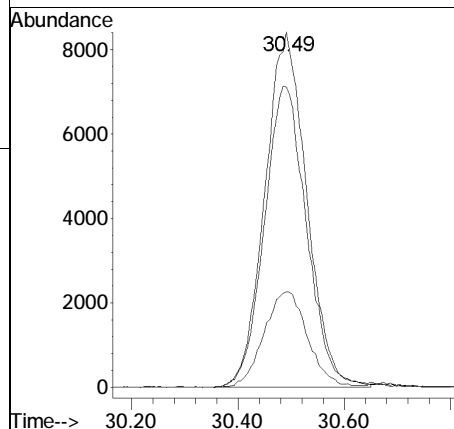
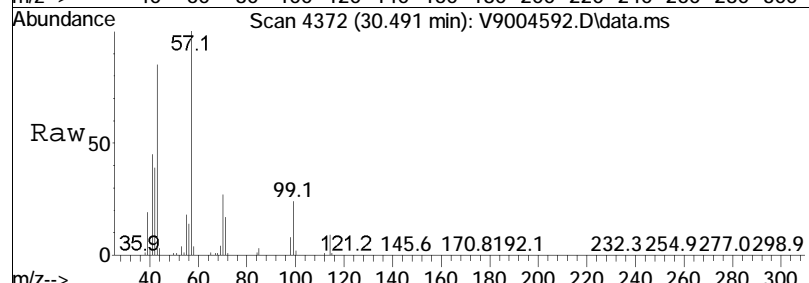
Tgt	Ion: 83	Resp:	51945
Ion	Ratio	Lower	Upper
83	100		
55	65.5	45.6	85.6
98	49.5	30.8	70.8

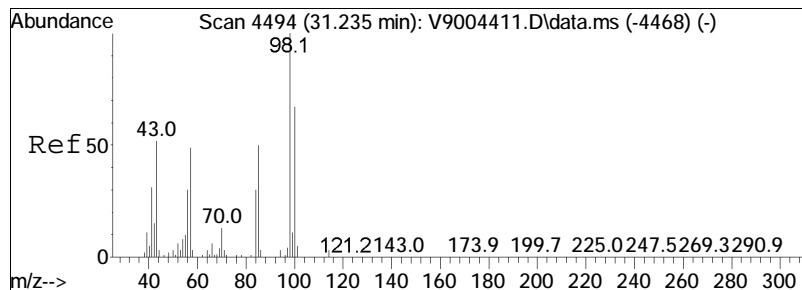




#60
 2-Methylheptane
 Concen: 18.12 ug/L
 RT: 30.49 min Scan# 4372
 Delta R.T. 0.006 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

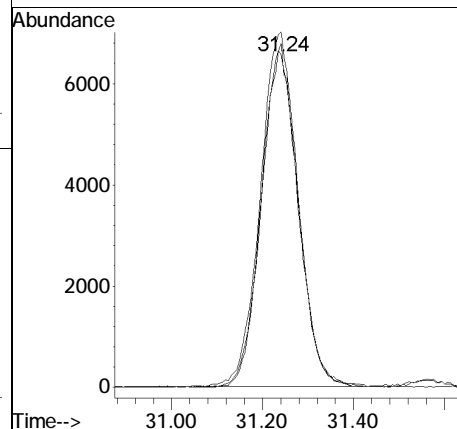
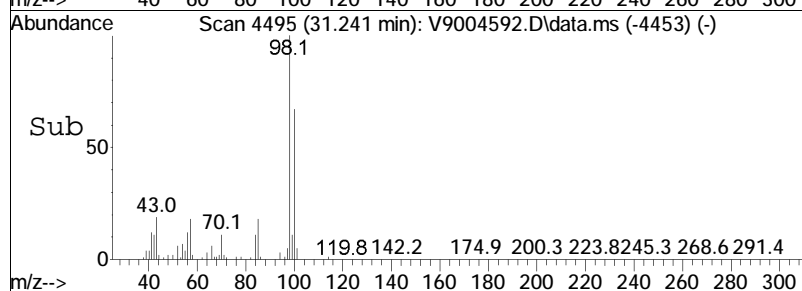
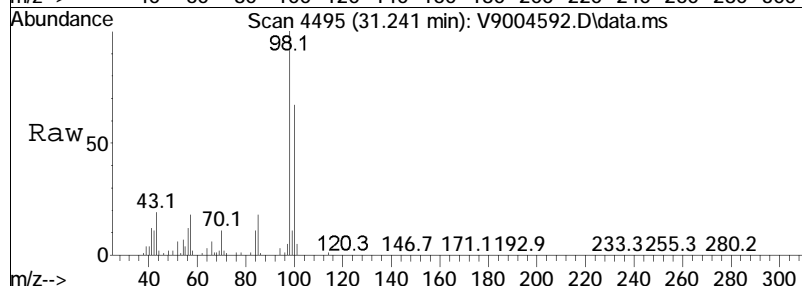
Tgt Ion	Ratio	Lower	Upper
57	100		
43	84.6	68.6	108.6
70	26.9	7.6	47.6

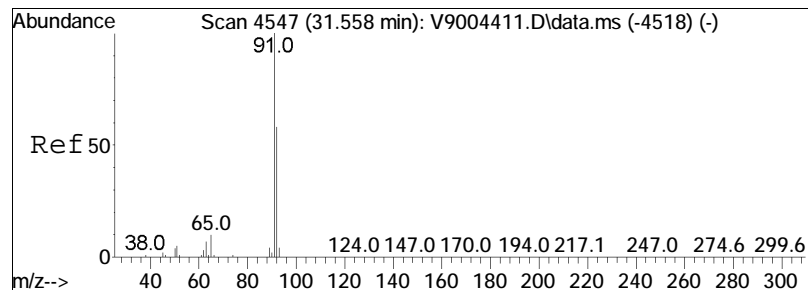




#63
 3-Methylheptane
 Concen: 17.47 ug/L
 RT: 31.24 min Scan# 4495
 Delta R.T. 0.006 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

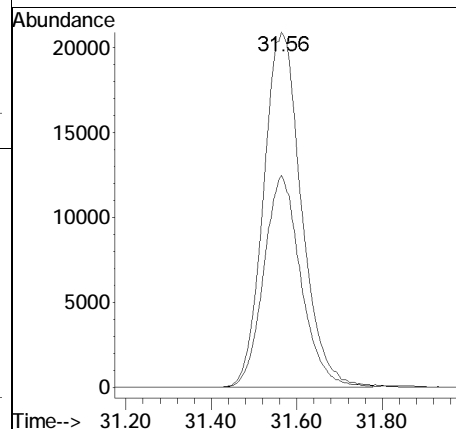
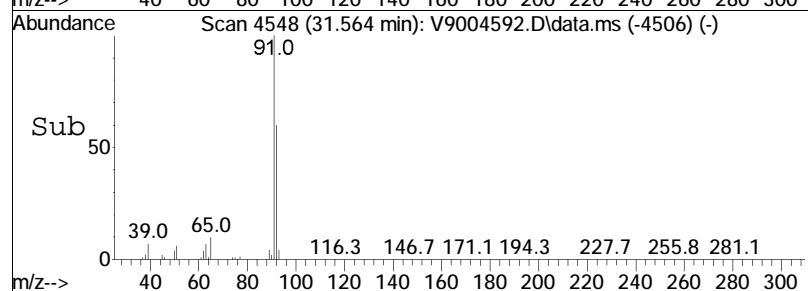
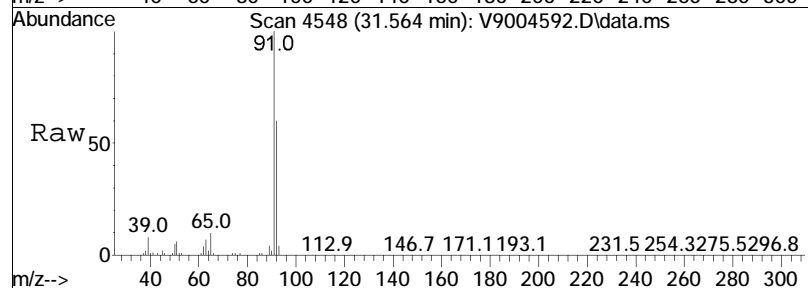
Tgt Ion	Ratio	Lower	Upper
43	100		
57	96.9	74.7	114.7
85	93.5	76.9	116.9

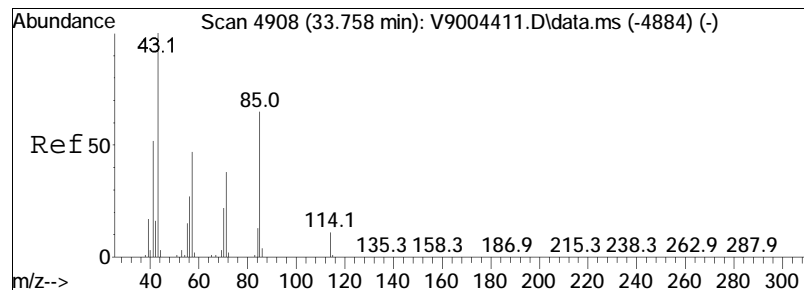




#66
Toluene
Concen: 18.16 ug/L
RT: 31.56 min Scan# 4548
Delta R.T. 0.006 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

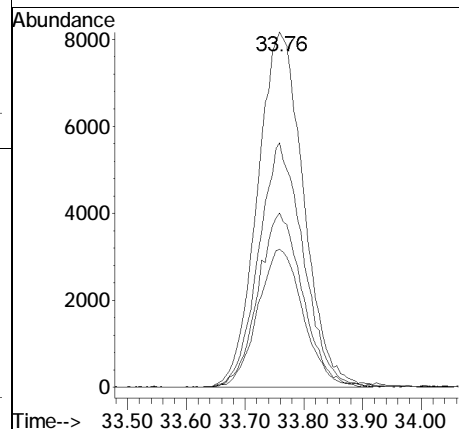
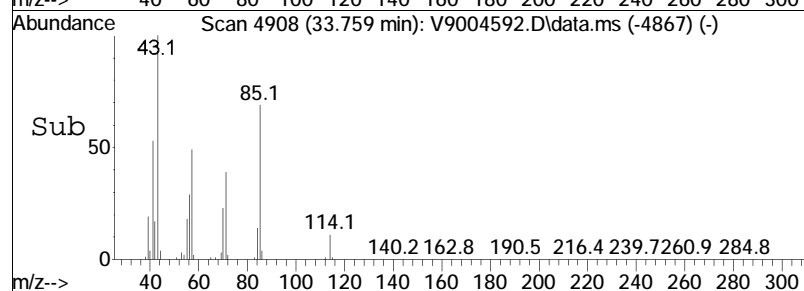
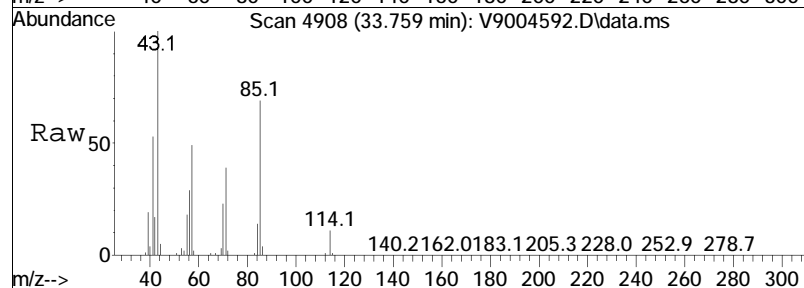
Tgt	Ion	Resp	Lower	Upper
91	100			
92	59.6	37.9	77.9	

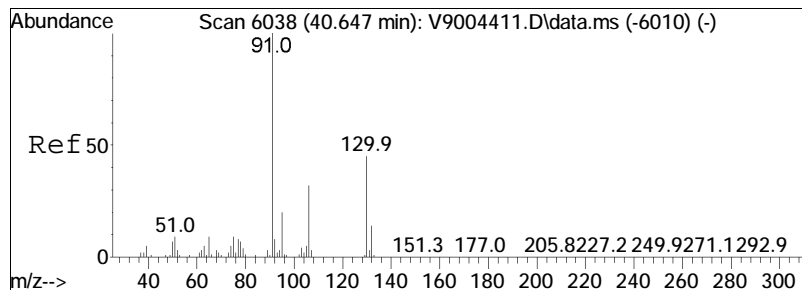




#71
 Octane
 Concen: 17.80 ug/L
 RT: 33.76 min Scan# 4908
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

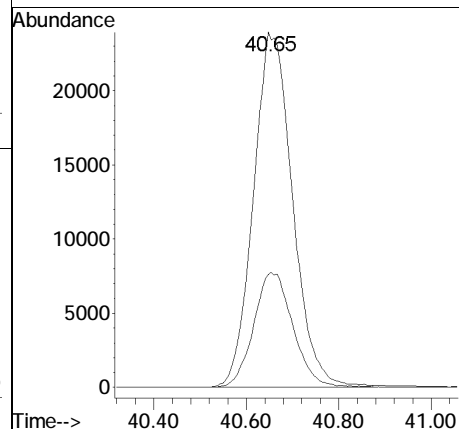
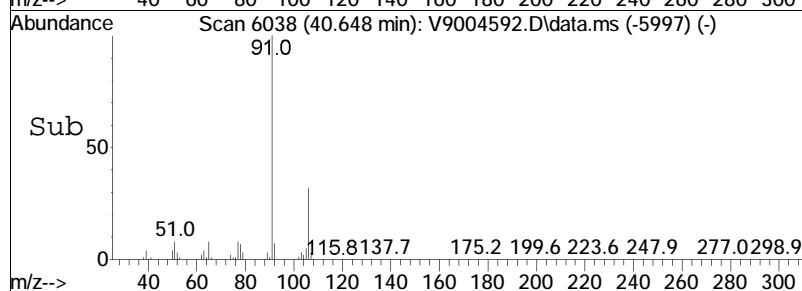
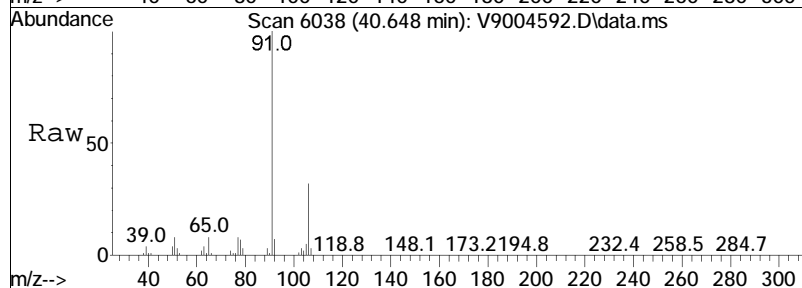
Tgt	Ion:	43	Resp:	44660
Ion	Ratio	Lower	Upper	
43	100			
57	49.1	26.9	66.9	
85	68.9	45.5	85.5	
71	38.9	18.3	58.3	

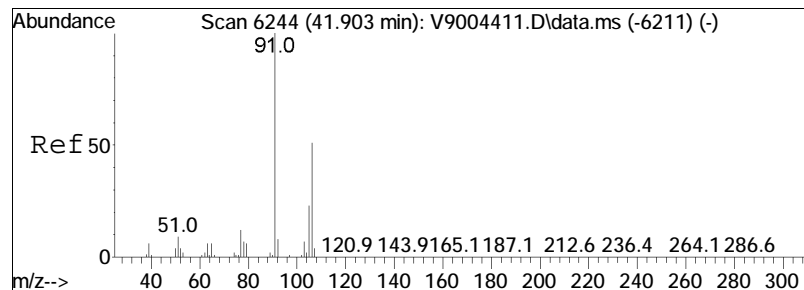




#86
Ethylbenzene
Concen: 17.40 ug/L
RT: 40.65 min Scan# 6038
Delta R.T. 0.000 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

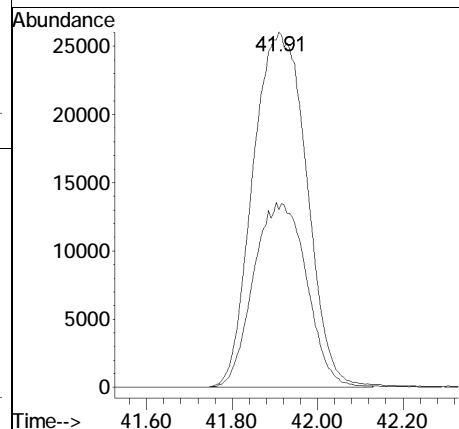
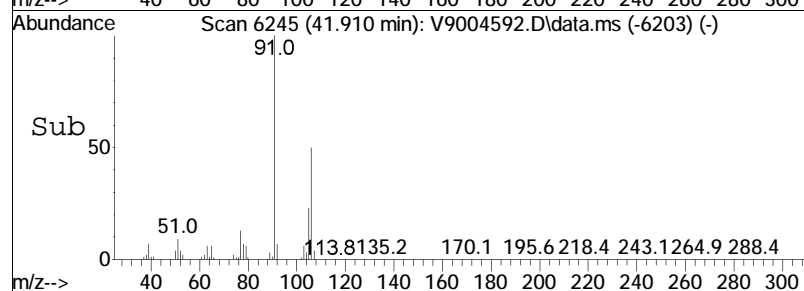
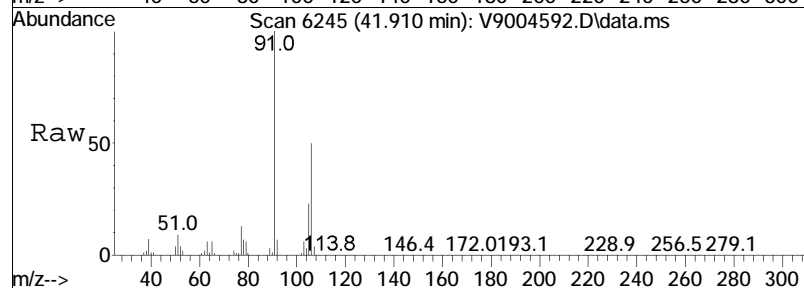
Tgt	Ion	Resp	Lower	Upper
91	100			
106	31.9	11.6	51.6	

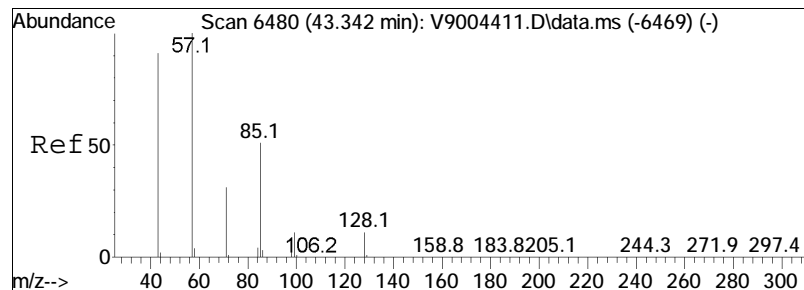




#91
p/m-Xylene
Concen: 35.94 ug/L
RT: 41.91 min Scan# 6245
Delta R.T. 0.006 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

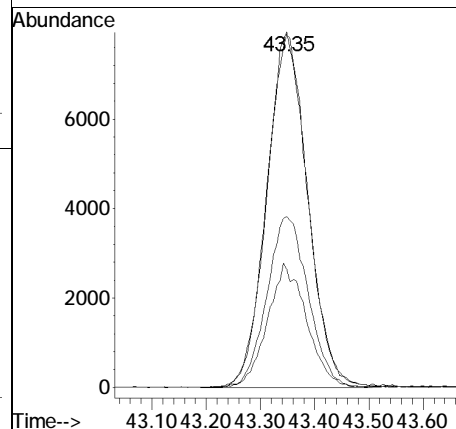
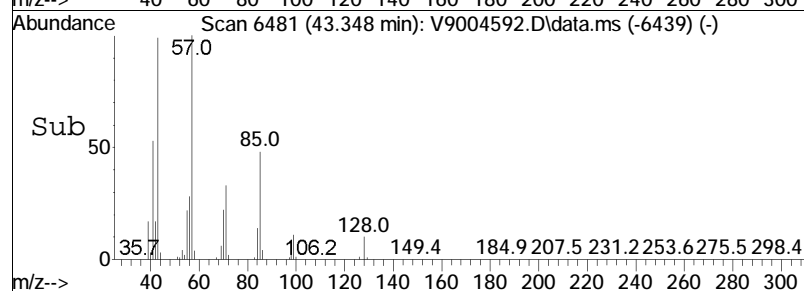
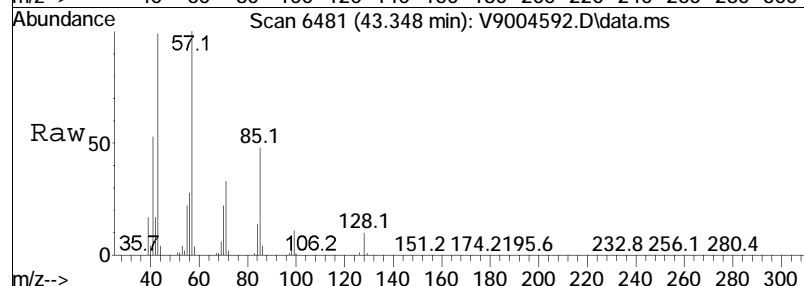
Tgt	Ion	Resp	Lower	Upper
91	100			
106	50.0	31.3	71.3	

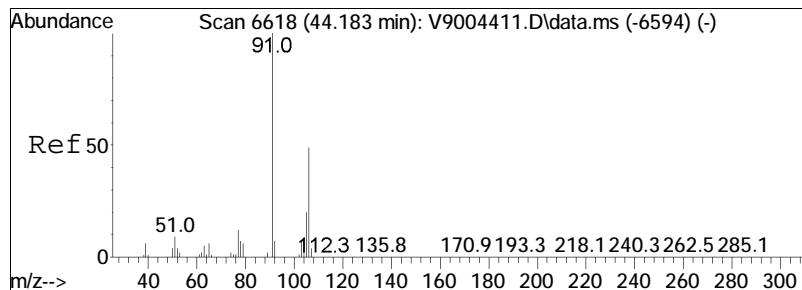




#95
Nonane
Concen: 16.40 ug/L
RT: 43.35 min Scan# 6481
Delta R.T. 0.006 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

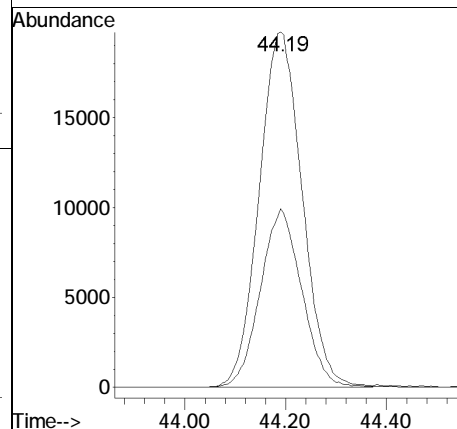
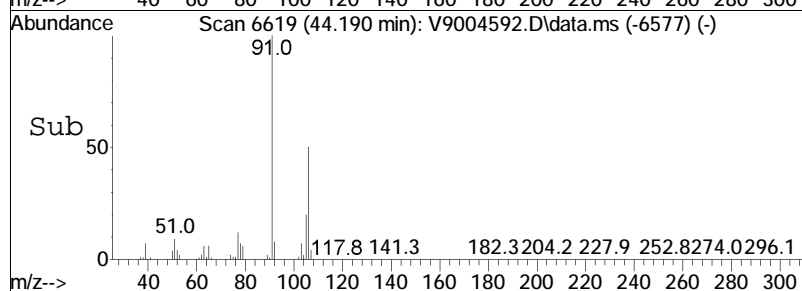
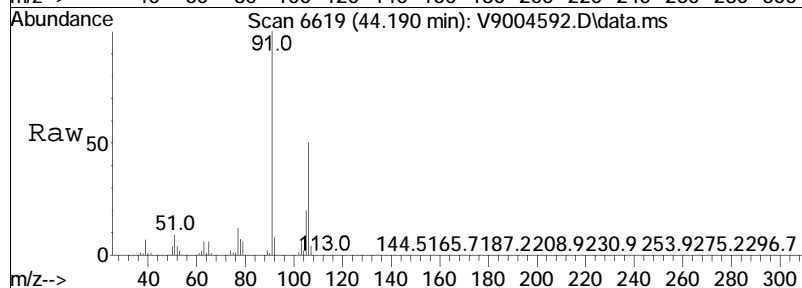
Tgt Ion:	43	Resp:	41742
Ion	Ratio	Lower	Upper
43	100		
57	100.7	79.0	119.0
85	48.4	27.1	67.1
71	33.5	13.4	53.4

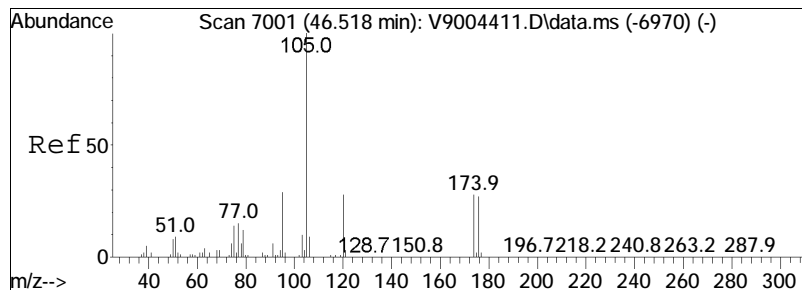




#98
o-Xylene
Concen: 17.86 ug/L
RT: 44.19 min Scan# 6619
Delta R.T. 0.006 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

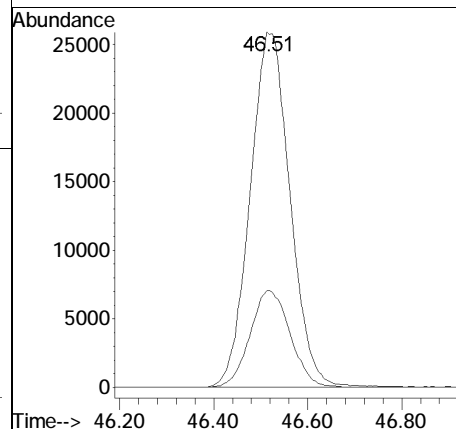
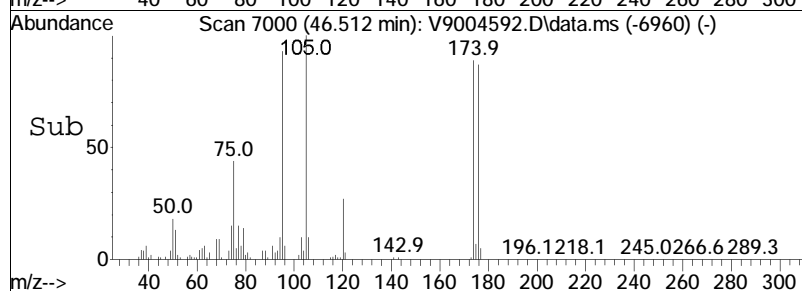
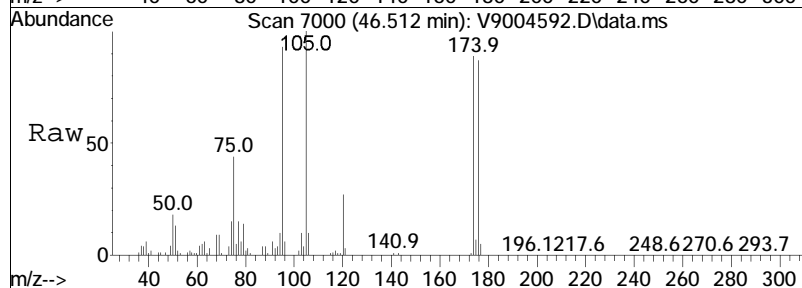
Tgt	Ion	Resp	Lower	Upper
91	100			
106	50.2	28.7	68.7	

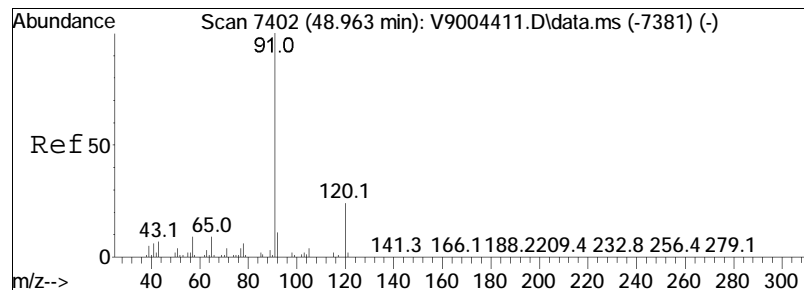




#102
 Isopropylbenzene
 Concen: 17.89 ug/L
 RT: 46.51 min Scan# 7000
 Delta R.T. -0.006 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

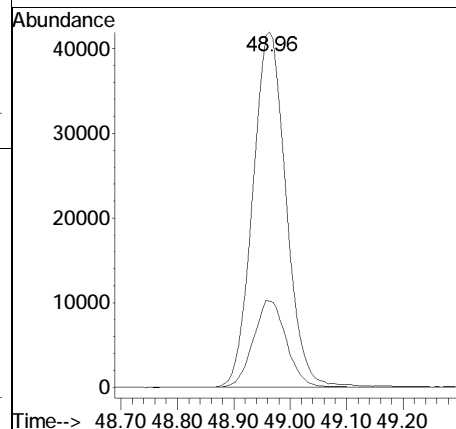
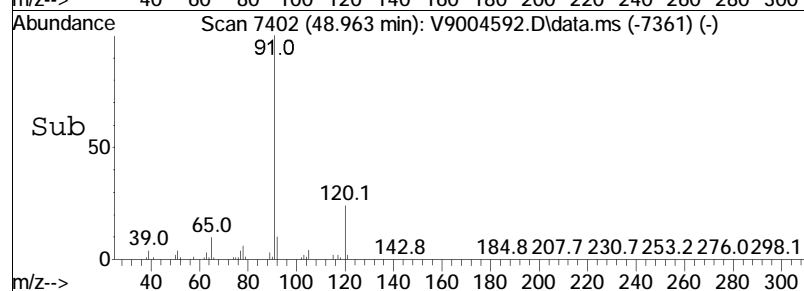
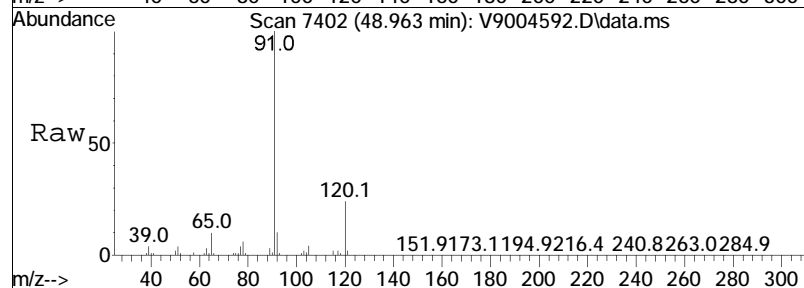
Tgt	Ion	Ratio	Lower	Upper
105	105	100		
120	120	27.1	7.8	47.8

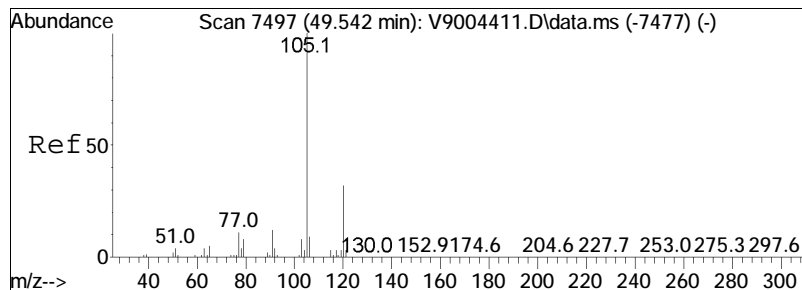




#104
 n-Propylbenzene
 Concen: 18.16 ug/L
 RT: 48.96 min Scan# 7402
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

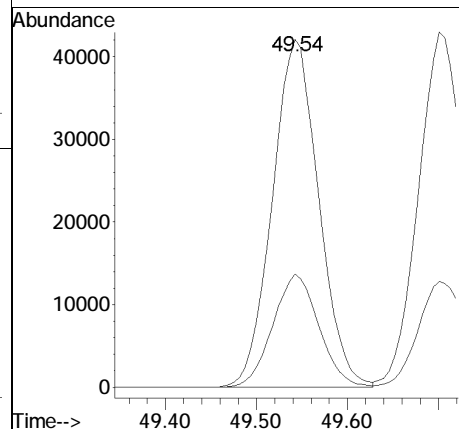
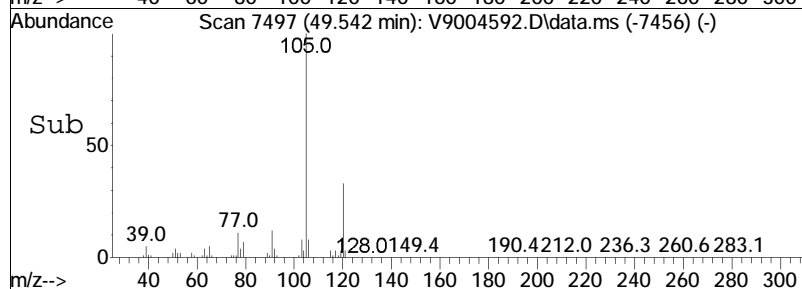
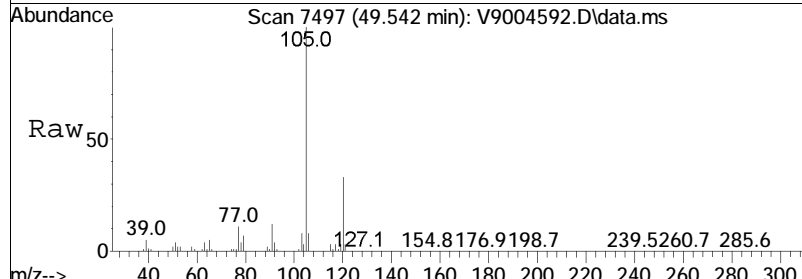
Tgt	Ion	Resp	Lower	Upper
91	100			
120	24.2	4.3	44.3	

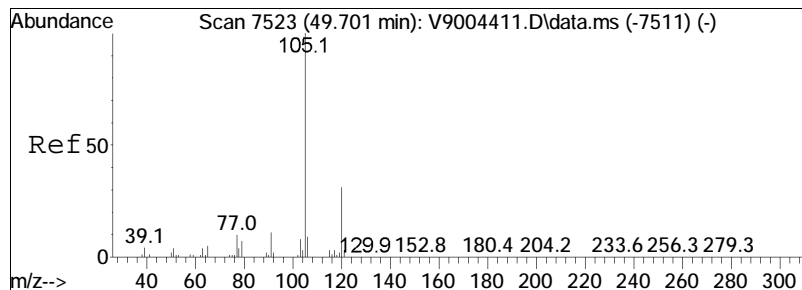




#107
 1-Methyl-3-ethylbenzene
 Concen: 17.70 ug/L
 RT: 49.54 min Scan# 7497
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

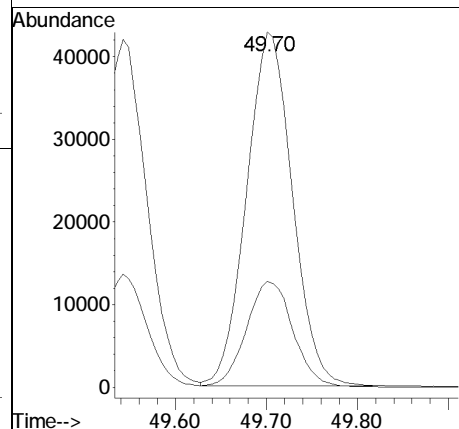
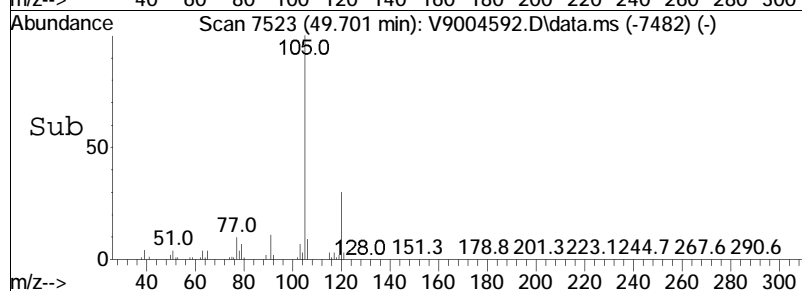
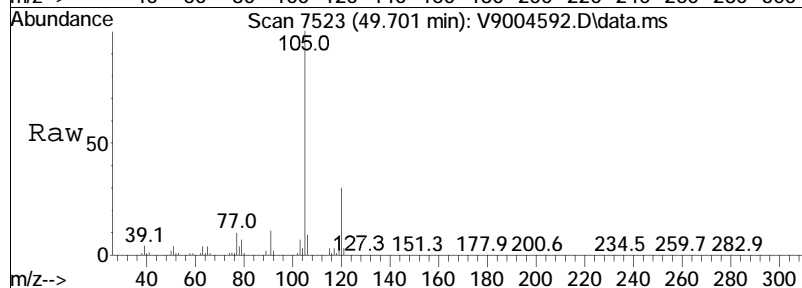
Tgt	Ion	Resp	Lower	Upper
105	100	149213		
120	32.6	12.1	52.1	

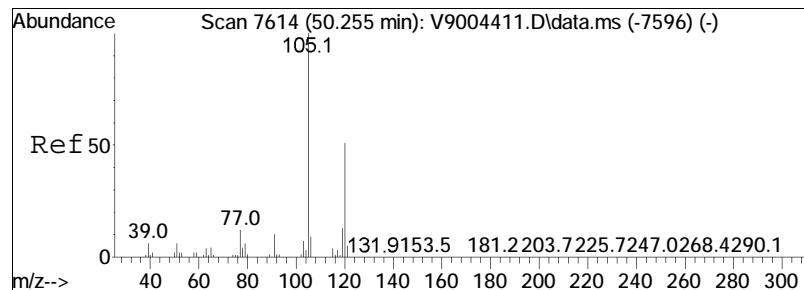




#108
 1-Methyl-4-ethylbenzene
 Concen: 18.32 ug/L
 RT: 49.70 min Scan# 7523
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

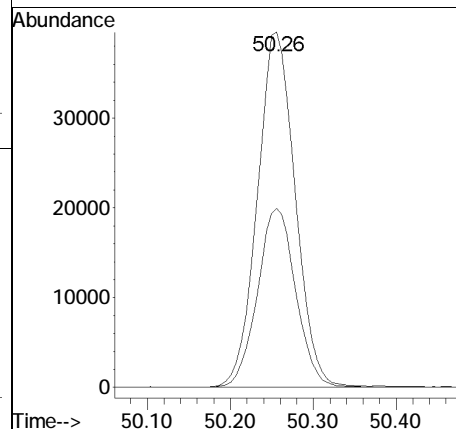
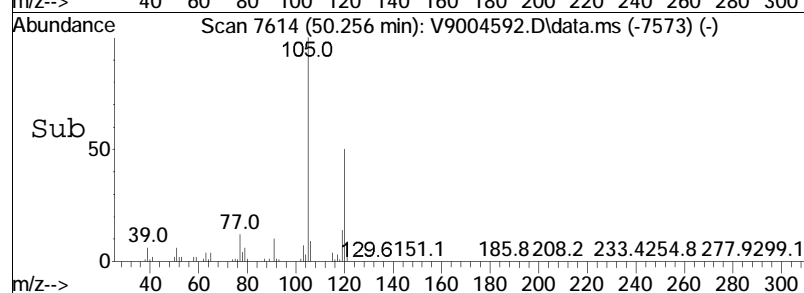
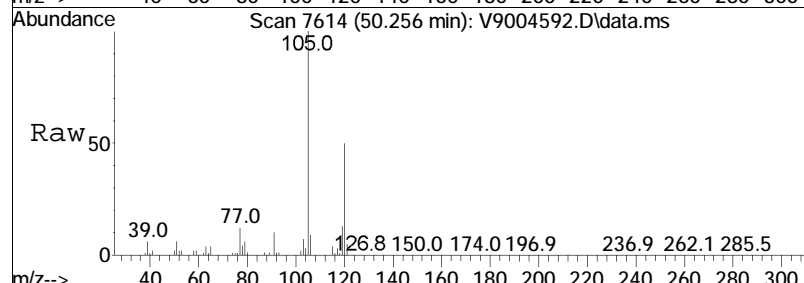
Tgt	Ion	Ratio	Lower	Upper
105	105	100		
120	120	29.8	11.1	51.1

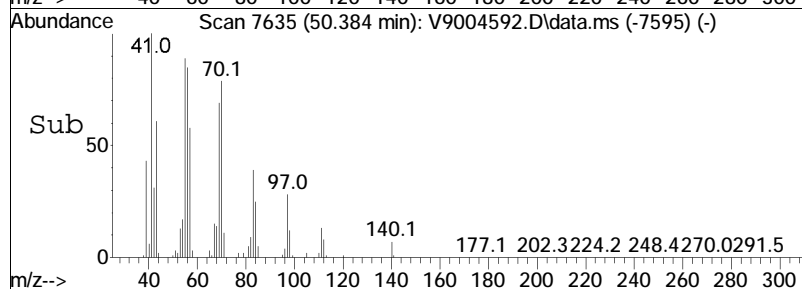
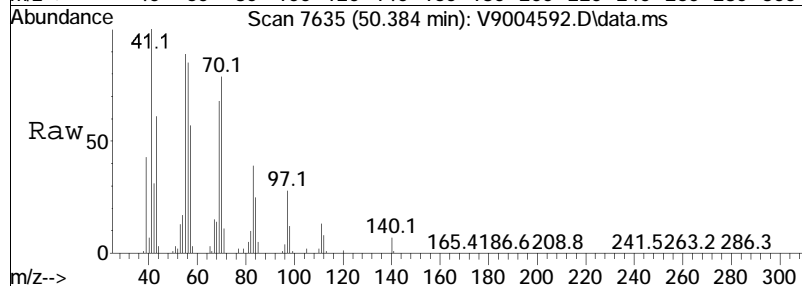
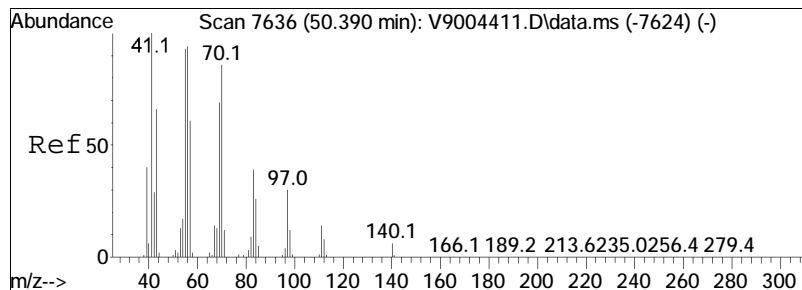




#109
 1,3,5-Trimethylbenzene
 Concen: 18.07 ug/L
 RT: 50.26 min Scan# 7614
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

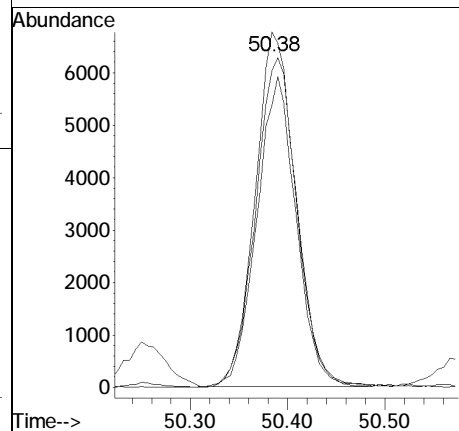
Tgt	Ion	Resp	Lower	Upper
105	100			
120	50.4	31.1	71.1	

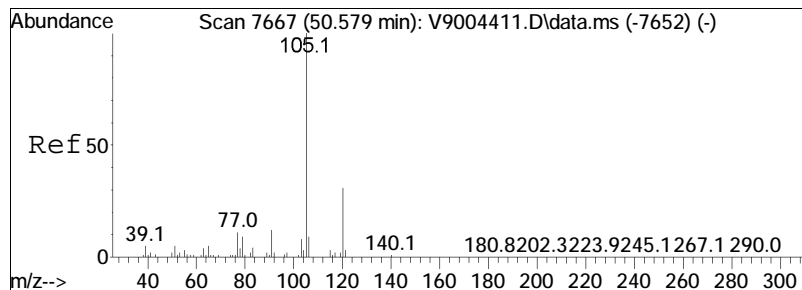




#110
1-Decene
Concen: 14.38 ug/L
RT: 50.38 min Scan# 7635
Delta R.T. -0.006 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

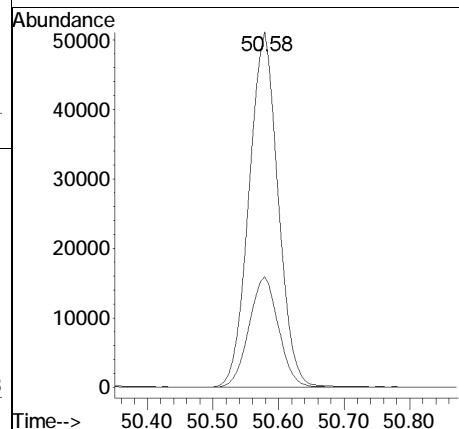
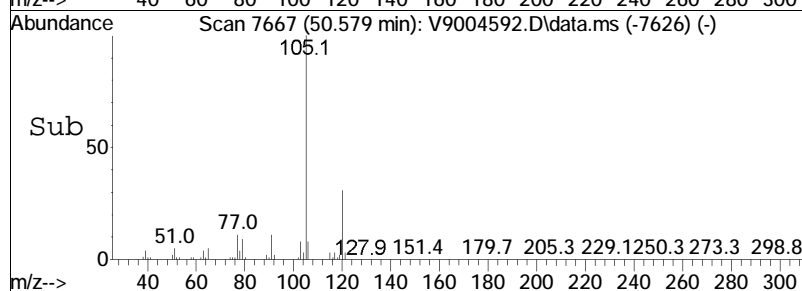
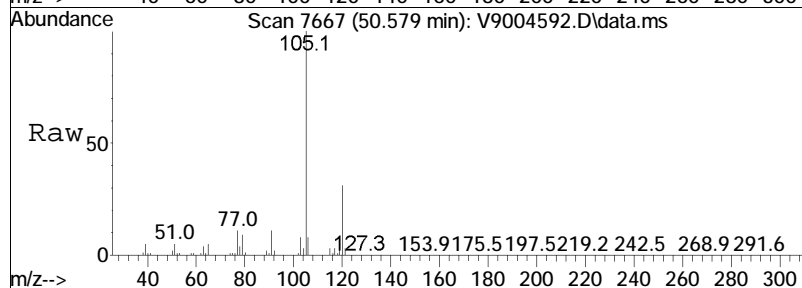
Tgt	Ion	Resp	Lower	Upper
41	100	19750		
55	89.1		73.2	113.2
70	79.4		66.1	106.1

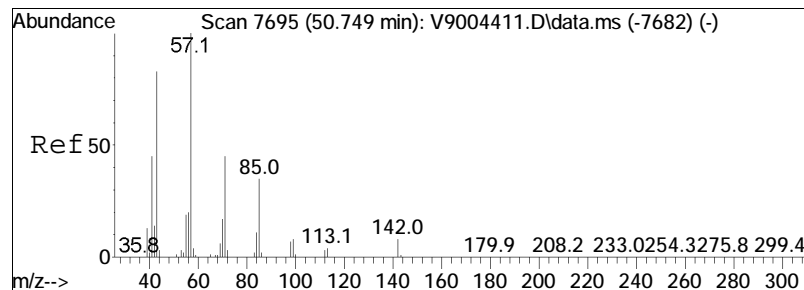




#112
 1-Methyl-2-ethylbenzene
 Concen: 18.15 ug/L
 RT: 50.58 min Scan# 7667
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

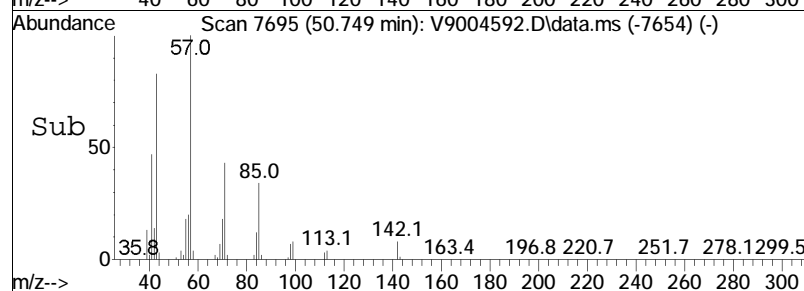
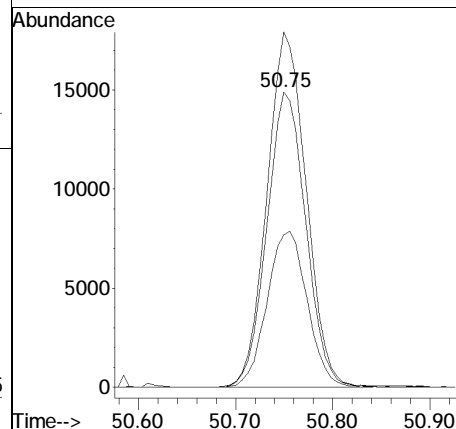
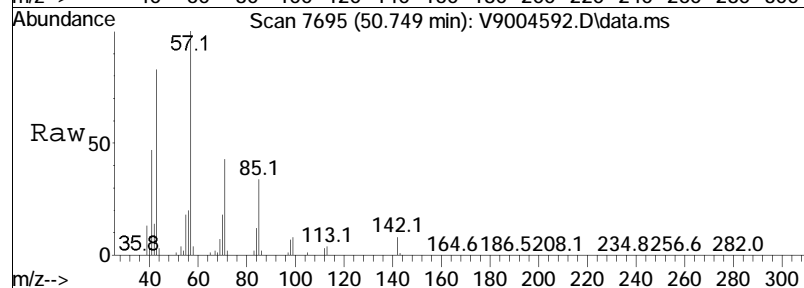
Tgt	Ion	Ratio	Lower	Upper
105	105	100		
120	120	31.1	11.4	51.4

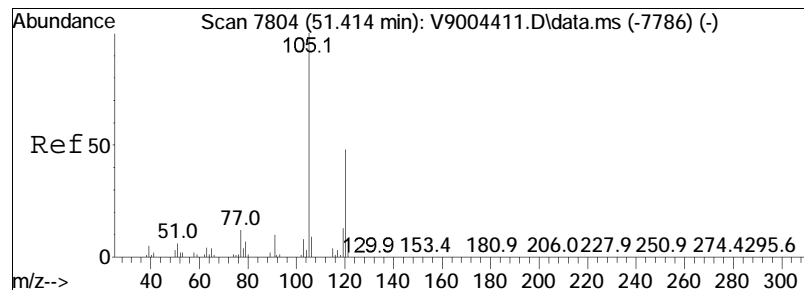




#113
Decane
Concen: 16.87 ug/L
RT: 50.75 min Scan# 7695
Delta R.T. 0.000 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

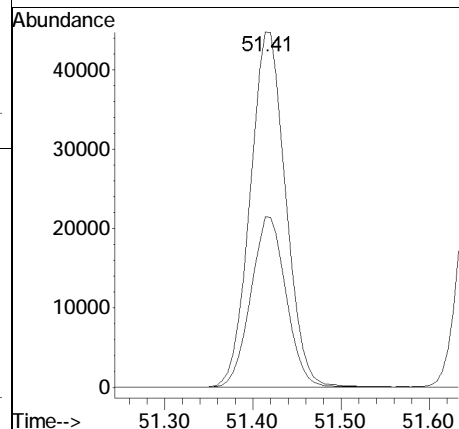
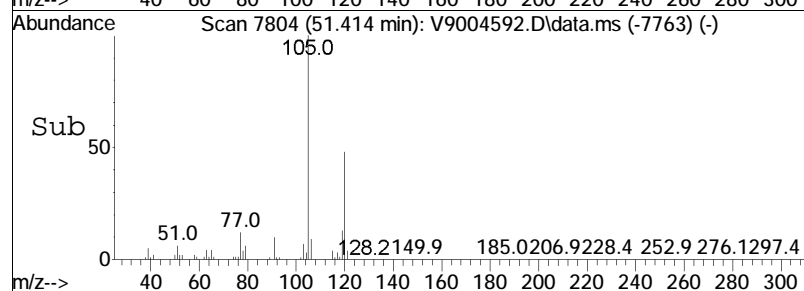
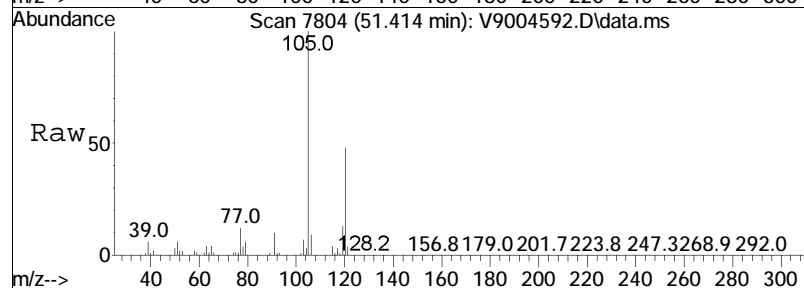
Tgt Ion:	43	Resp:	41385
Ion Ratio	Lower	Upper	
43	100		
57	120.3	99.8	139.8
71	51.6	34.1	74.1

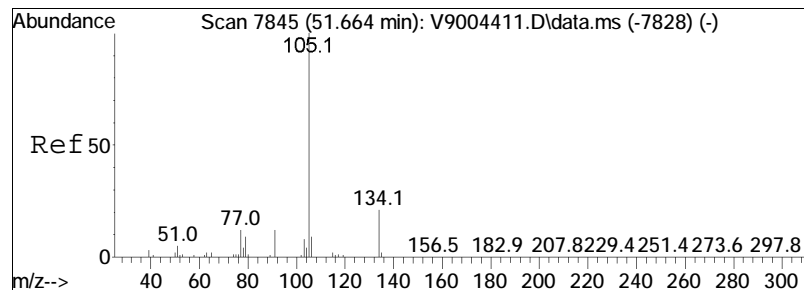




#115
 1,2,4-Trimethylbenzene
 Concen: 16.93 ug/L
 RT: 51.41 min Scan# 7804
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

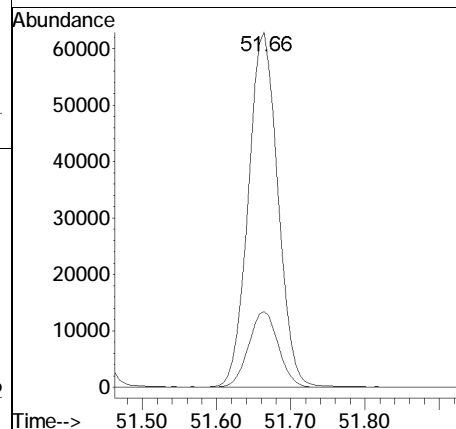
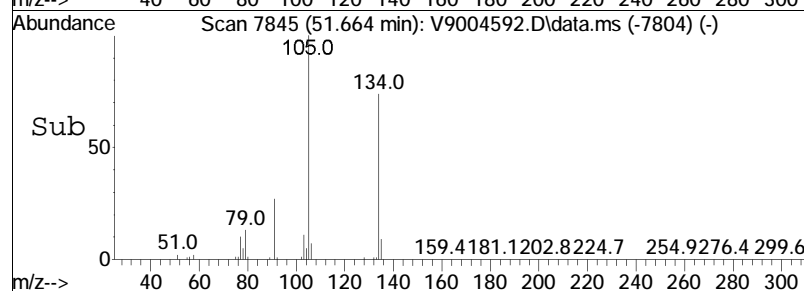
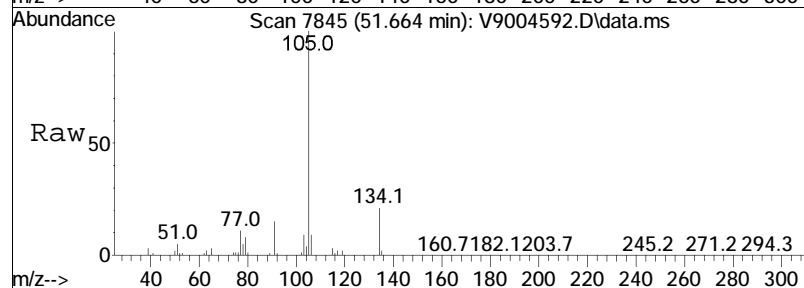
Tgt	Ion	Ratio	Lower	Upper
105	100			
120	48.0	27.5	67.5	

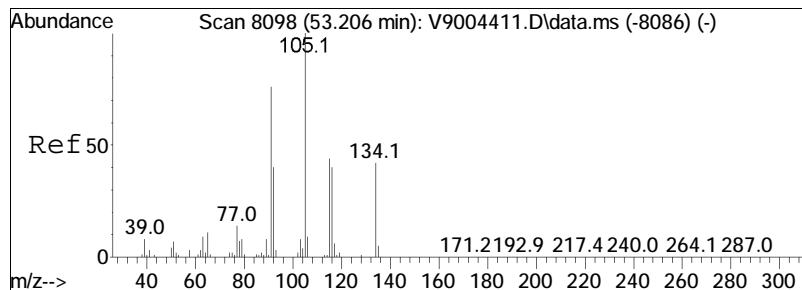




#117
 sec-Butylbenzene
 Concen: 18.44 ug/L
 RT: 51.66 min Scan# 7845
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

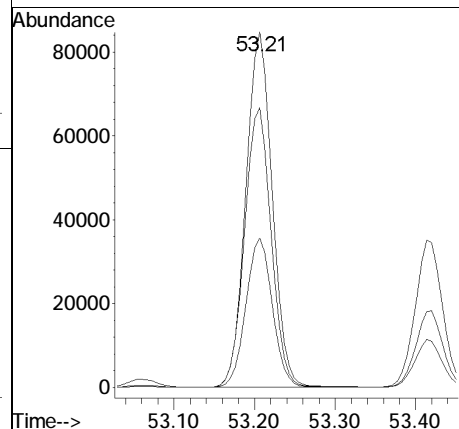
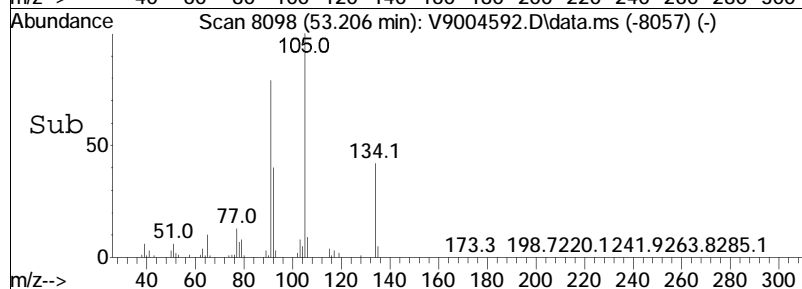
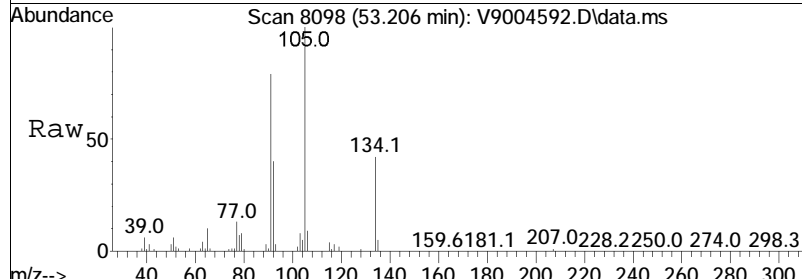
Tgt	Ion	Ratio	Lower	Upper
105	105	100		
134	134	21.3	1.5	41.5

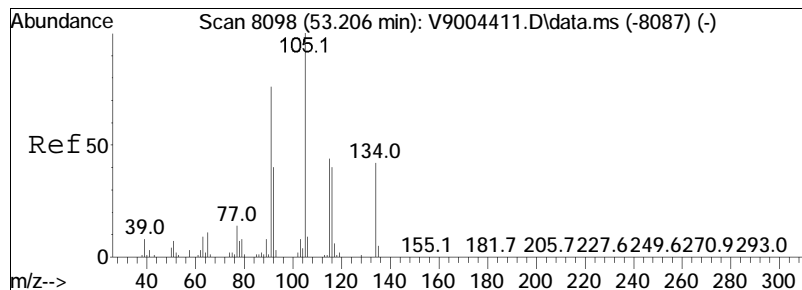




#126
 1-Methyl-4-propylbenzene
 Concen: 16.90 ug/L
 RT: 53.21 min Scan# 8098
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

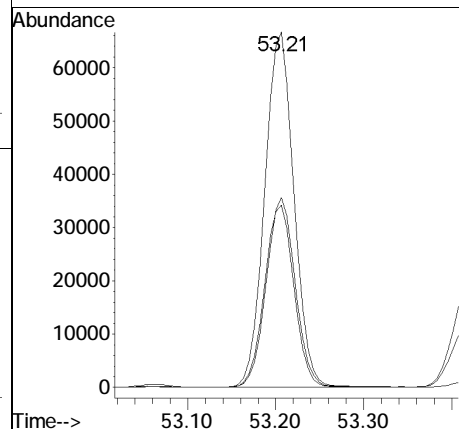
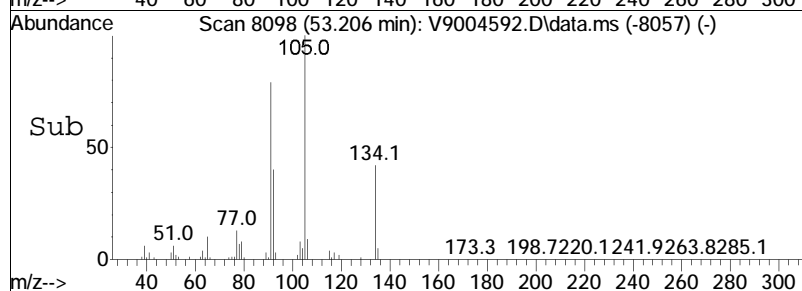
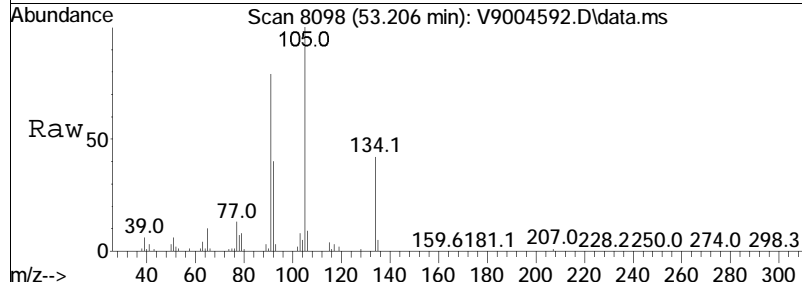
Tgt	Ion:105	Resp:	193163
Ion	Ratio	Lower	Upper
105	100		
134	42.0	21.7	61.7
91	78.7	56.4	96.4

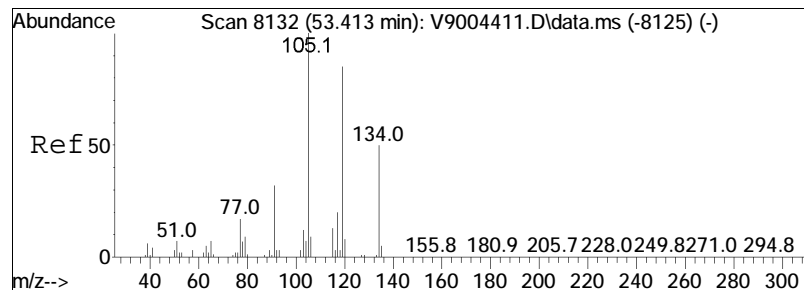




#127
 n-Butylbenzene
 Concen: 17.18 ug/L
 RT: 53.21 min Scan# 8098
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

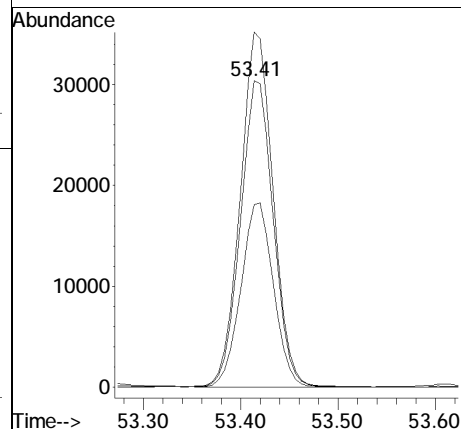
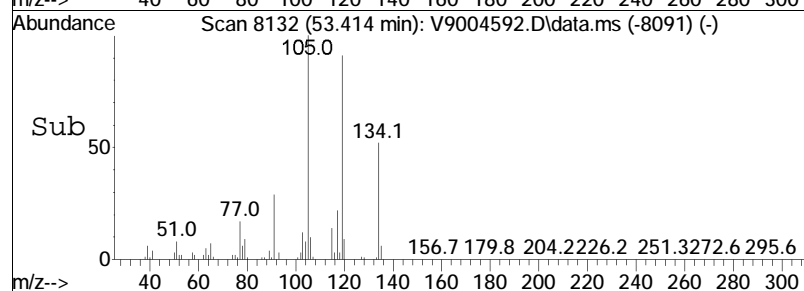
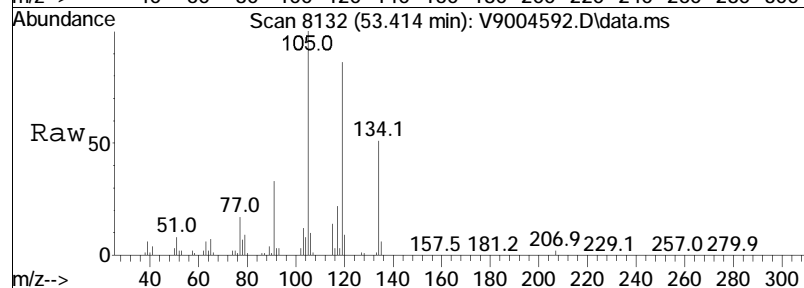
Tgt Ion:	91	Resp:	153646
Ion Ratio	Lower	Upper	
91	100		
92	51.3	31.8	71.8
134	53.4	34.6	74.6

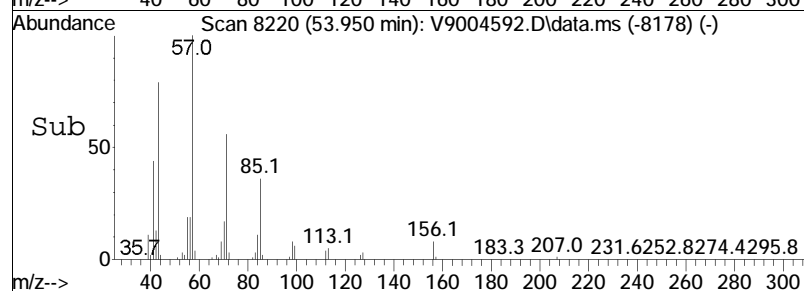
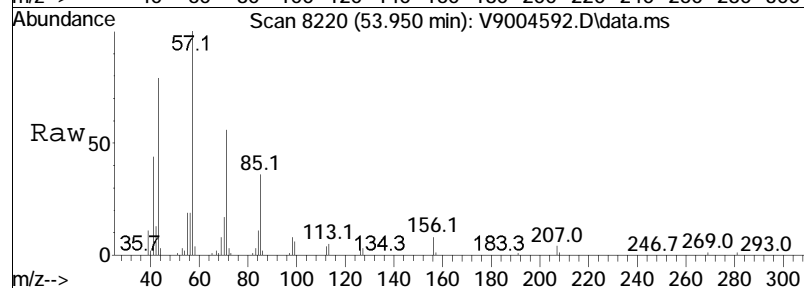
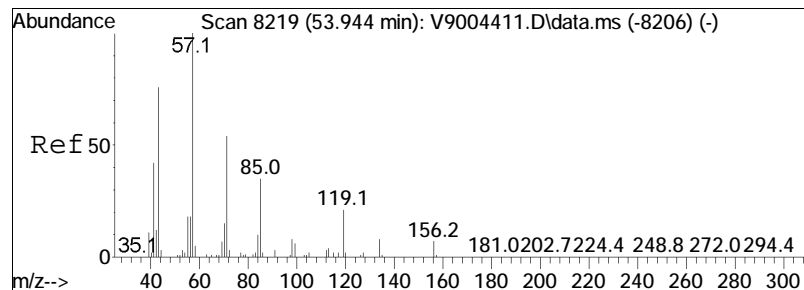




#129
 1,2-Diethylbenzene
 Concen: 16.94 ug/L
 RT: 53.41 min Scan# 8132
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

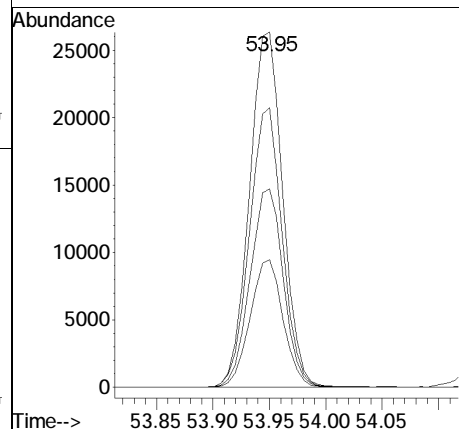
Tgt	Ion:119	Resp:	70975
Ion	Ratio	Lower	Upper
119	100		
105	115.8	95.9	135.9
134	59.5	38.6	78.6

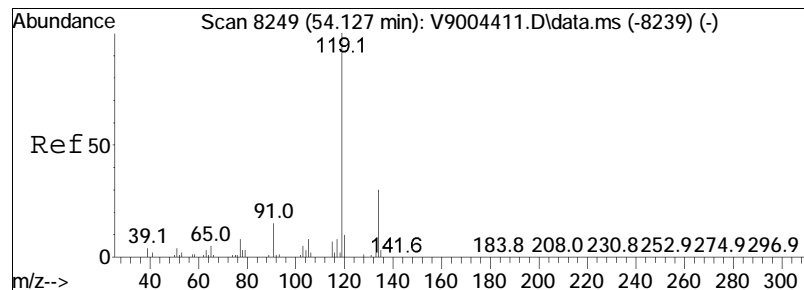




#132
Undecane
Concen: 16.93 ug/L
RT: 53.95 min Scan# 8220
Delta R.T. 0.006 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

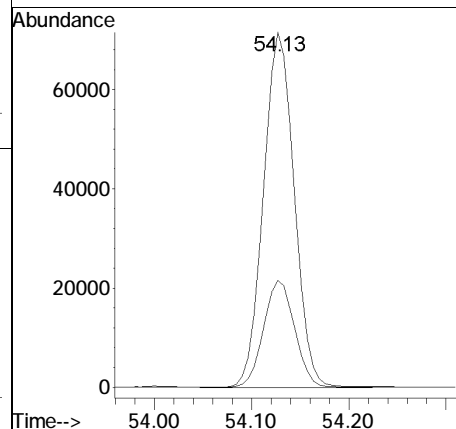
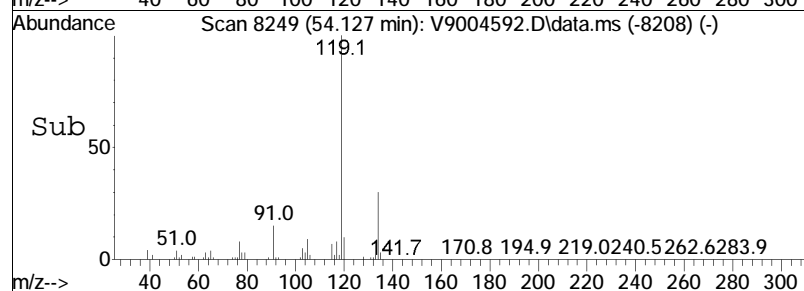
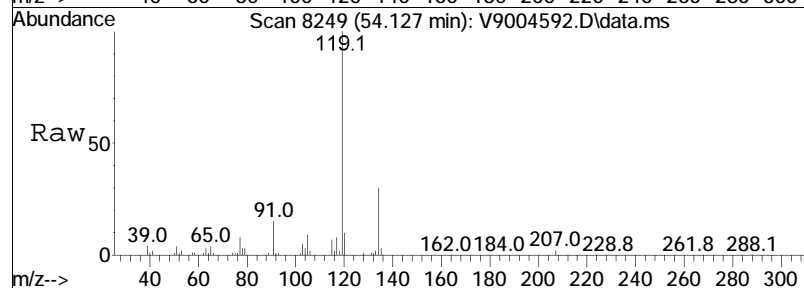
Tgt Ion:	57	Resp:	54127
Ion Ratio	Lower	Upper	
57	100		
43	78.7	56.0	96.0
71	55.9	34.2	74.2
85	36.0	14.5	54.5

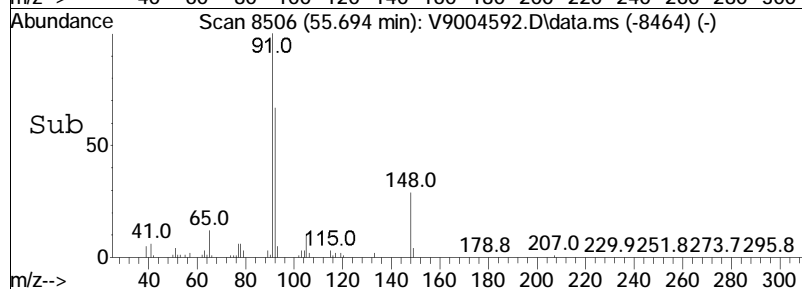
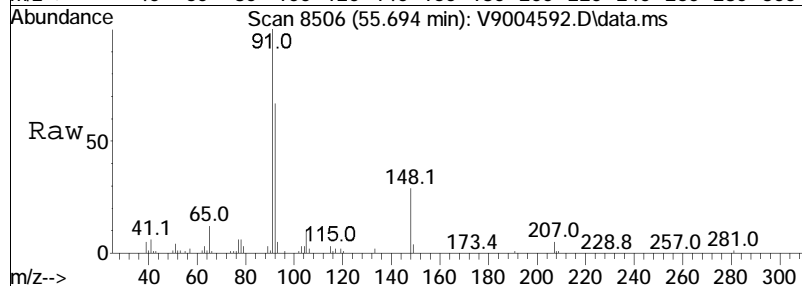
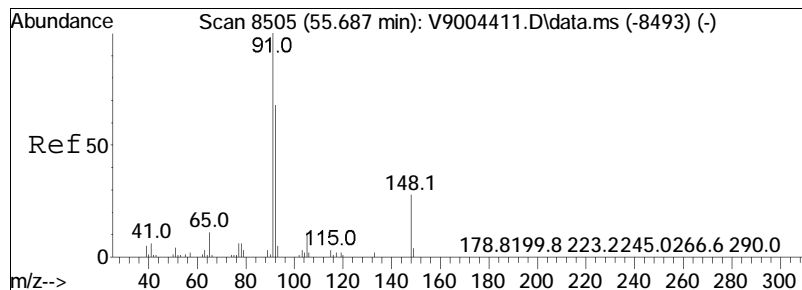




#134
 1,3-Dimethyl-5-ethylbenzene
 Concen: 17.86 ug/L
 RT: 54.13 min Scan# 8249
 Delta R.T. 0.000 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

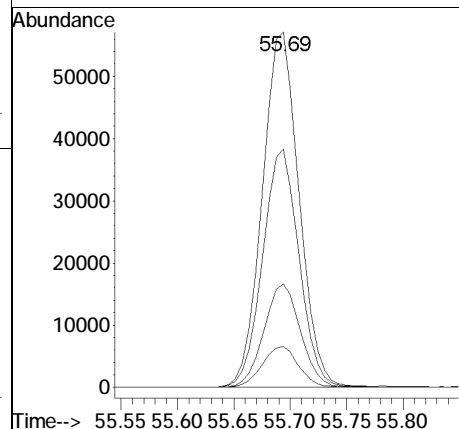
Tgt	Ion	Ratio	Lower	Upper
119	100			
134	30.1	10.0	50.0	

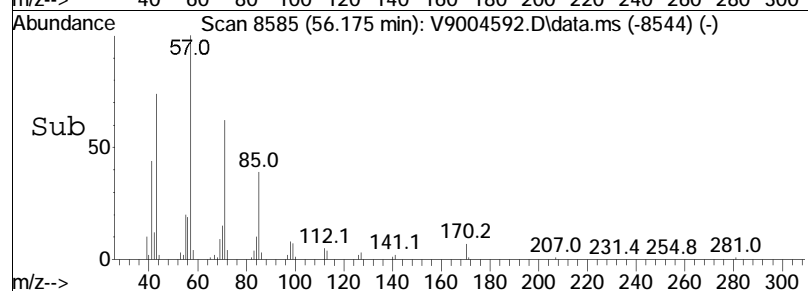
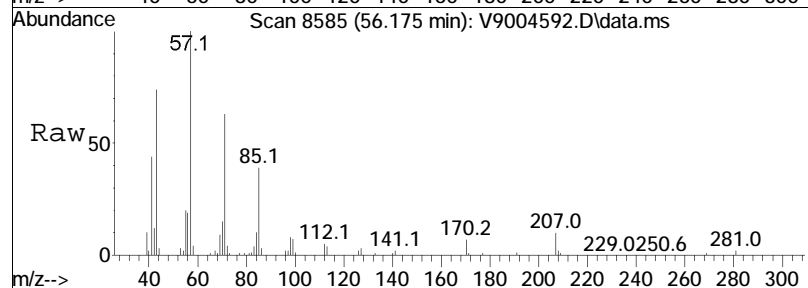
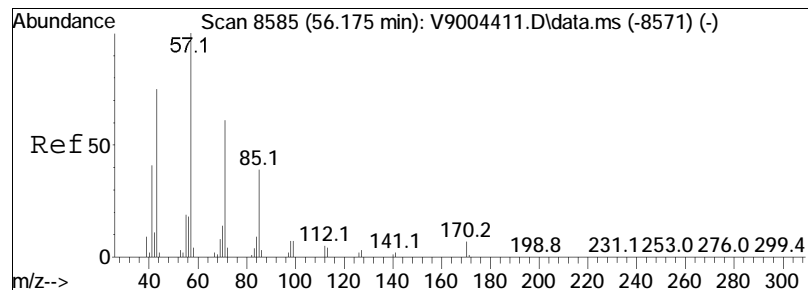




#139
 Pentylbenzene
 Concen: 16.85 ug/L
 RT: 55.69 min Scan# 8506
 Delta R.T. 0.006 min
 Lab File: V9004592.D
 Acq: 02 May 2023 01:42 pm

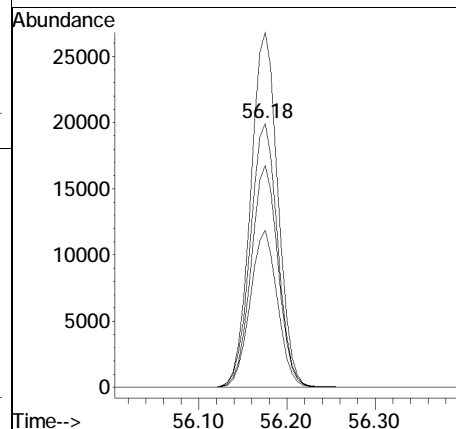
Tgt Ion:	91	Resp:	129385
Ion Ratio	Lower	Upper	
91	100		
92	67.1	47.8	87.8
65	11.5	0.0	31.4
148	29.1	8.3	48.3





#142
Dodecane
Concen: 19.43 ug/L
RT: 56.18 min Scan# 8585
Delta R.T. 0.000 min
Lab File: V9004592.D
Acq: 02 May 2023 01:42 pm

Tgt	Ion: 43	Resp:	43065
Ion	Ratio	Lower	Upper
43	100		
57	134.6	114.0	154.0
71	84.1	61.8	101.8
41	59.6	35.4	75.4



LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004593.D
 Acq On : 02 May 2023 02:55 pm
 Operator : VOA9:RAY
 Sample : WG1774659-4,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 02 15:54:13 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_VOA_LCS-NHS - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	322096	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.12	113	95711	50.940	ug/L	0.01
Spiked Amount 50.000	Range 78 - 118		Recovery	=	101.88%	
62) Toluene-d8 (surr)	31.20	98	373856	52.110	ug/L	0.00
Spiked Amount 50.000	Range 87 - 113		Recovery	=	104.22%	
101) 4-Bromofluorobenzene (...)	46.49	95	154563	47.800	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery	=	95.60%	
Target Compounds						
					Qvalue	
4) 1-Pentene	8.84	42	28270	15.756	ug/L	100
6) Pentane	9.21	43	37759	16.953	ug/L	96
10) Tertiary butanol	10.92	59	36428M4	85.238	ug/L	
13) Cyclopentane	12.93	70	21036	17.785	ug/L	# 43
15) 2-Methylpentane	13.15	43	46462	18.469	ug/L	98
16) MTBE	13.50	73	83920	17.001	ug/L	98
17) 3-Methylpentane	14.14	57	48127	19.157	ug/L	98
18) 1-Hexene	14.73	56	26956	19.352	ug/L	97
19) Hexane	15.35	57	38467	17.298	ug/L	98
20) Diisopropyl ether	15.68	45	68611	17.698	ug/L	98
25) Ethyl tertiary butyl e...	17.16	59	77634	17.473	ug/L	98
27) Methylcyclopentane	17.69	56	51518	18.507	ug/L	99
28) 2,4-Dimethylpentane	17.85	43	42440	19.019	ug/L	98
32) Cyclohexane	20.61	56	44846	19.346	ug/L	97
33) 2-Methylhexane	21.05	43	45282	18.754	ug/L	98
34) Benzene	21.24	78	121302	18.705	ug/L	99
35) 2,3-Dimethylpentane	21.35	56	42505	18.765	ug/L	96
38) 3-Methylhexane	21.86	43	35327	16.401	ug/L	97
39) TAME	22.26	73	82911	16.416	ug/L	97
44) Isooctane	23.30	57	112651	18.292	ug/L	96
46) Heptane	24.05	43	36854	18.940	ug/L	97
51) Methylcyclohexane	26.49	83	52720	18.684	ug/L	98
60) 2-Methylheptane	30.49	57	46037	18.469	ug/L	96
63) 3-Methylheptane	31.23	43	40881	17.926	ug/L	96
66) Toluene	31.57	91	130181	18.588	ug/L	100
71) Octane	33.76	43	44748	18.100	ug/L	99
86) Ethylbenzene	40.66	91	141655	17.780	ug/L	97
91) p/m-Xylene	41.91	91	228971	36.826	ug/L	98
95) Nonane	43.35	43	42052	16.768	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004593.D
 Acq On : 02 May 2023 02:55 pm
 Operator : VOA9:RAY
 Sample : WG1774659-4,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 02 15:54:13 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_VOA_LCS-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) o-Xylene	44.19	91	117594	18.232	ug/L	100
102) Isopropylbenzene	46.51	105	153287	18.282	ug/L	100
104) n-Propylbenzene	48.96	91	172489	18.461	ug/L	98
107) 1-Methyl-3-ethylbenzene	49.54	105	149952	18.056	ug/L	100
108) 1-Methyl-4-ethylbenzene	49.70	105	151879	18.920	ug/L	98
109) 1,3,5-Trimethylbenzene	50.26	105	126942	18.544	ug/L	99
110) 1-Decene	50.39	41	19966	14.760	ug/L	95
112) 1-Methyl-2-ethylbenzene	50.58	105	157551	18.483	ug/L	100
113) Decane	50.76	43	42484	17.584	ug/L	100
115) 1,2,4-Trimethylbenzene	51.41	105	126248	17.312	ug/L	99
117) sec-Butylbenzene	51.66	105	175498	18.910	ug/L	99
126) 1-Methyl-4-propylbenzene	53.21	105	194114	17.241	ug/L	98
127) n-Butylbenzene	53.21	91	155200	17.613	ug/L	99
129) 1,2-Diethylbenzene	53.41	119	72344	17.530	ug/L	99
132) Undecane	53.95	57	54919	17.441	ug/L	98
134) 1,3-Dimethyl-5-ethylbe...	54.13	119	158804	18.293	ug/L	99
139) Pentylbenzene	55.69	91	130573	17.266	ug/L	99
142) Dodecane	56.18	43	43719	20.022	ug/L	98

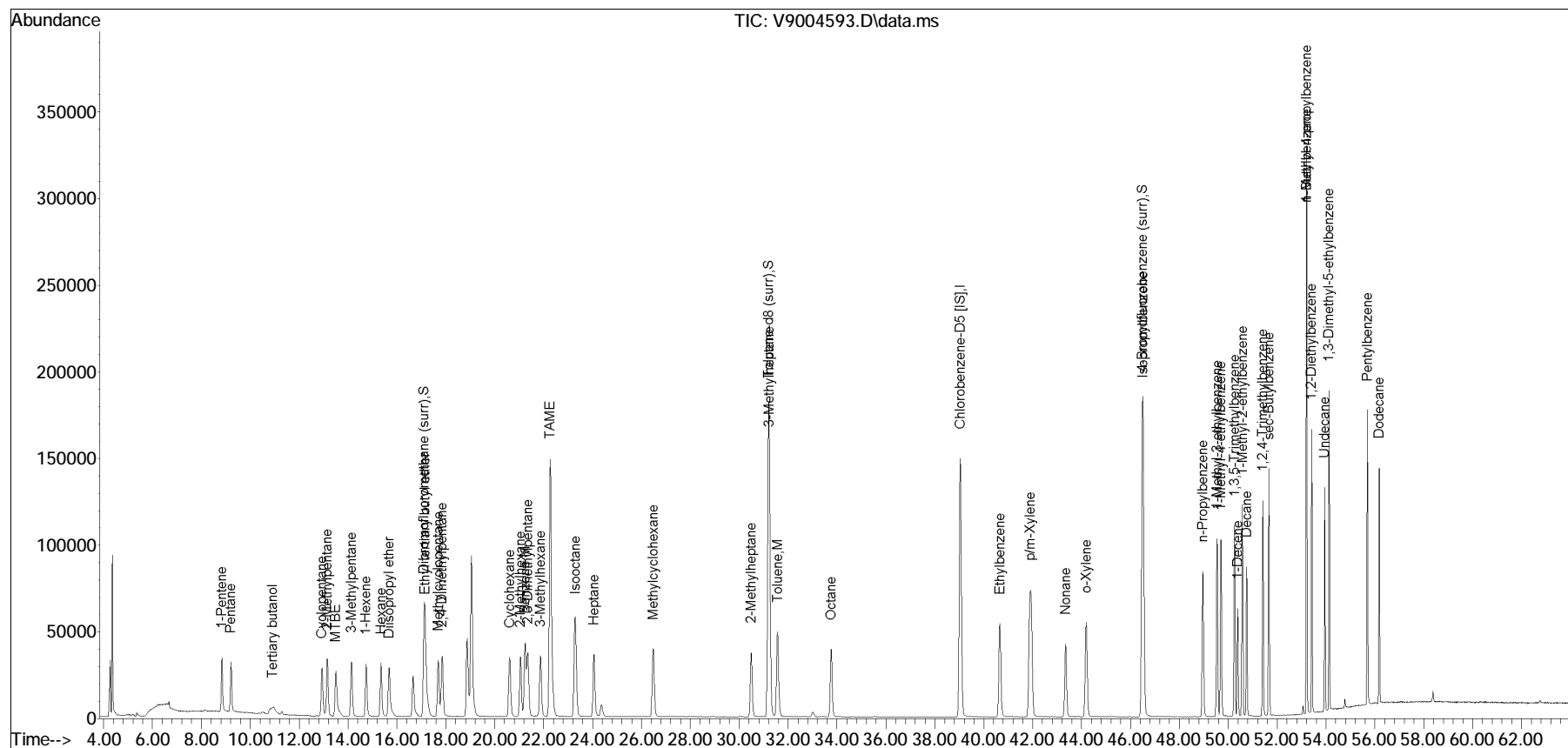
(#) = qualifier out of range (m) = manual integration (+) = signals summed

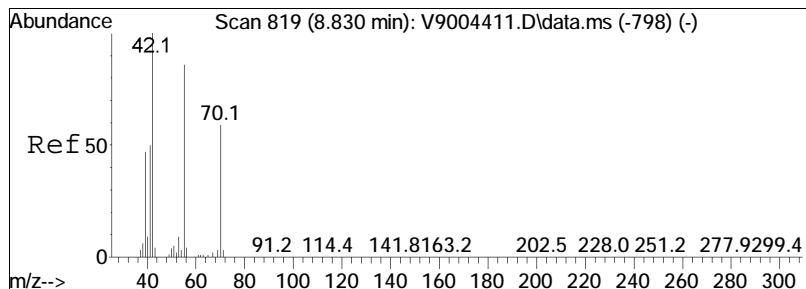
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004593.D
 Acq On : 02 May 2023 02:55 pm
 Operator : VOA9:RAY
 Sample : WG1774659-4,31,0.1000,10,0.1
 Misc : WG1774659,ICAL19885
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 02 15:54:13 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

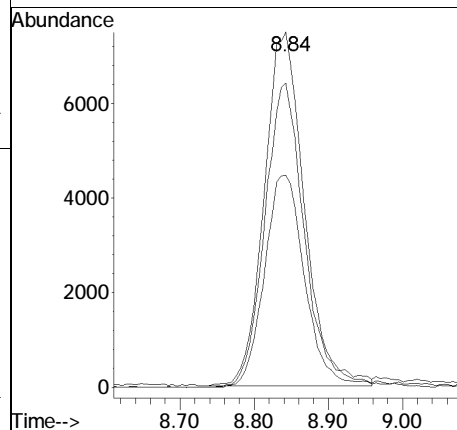
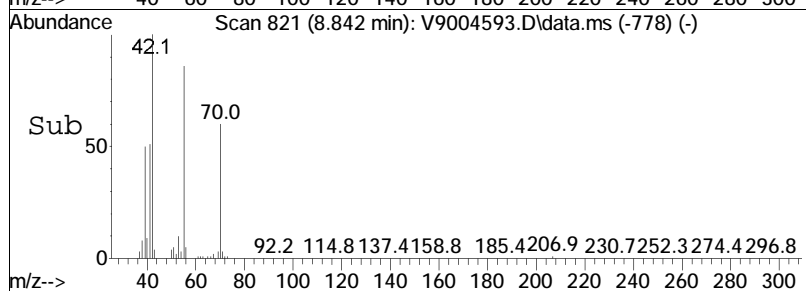
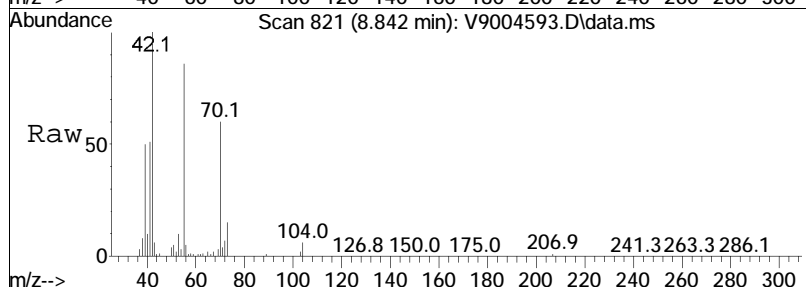
Sub List : PIANO_VOA_LCS-NHS - PIANO

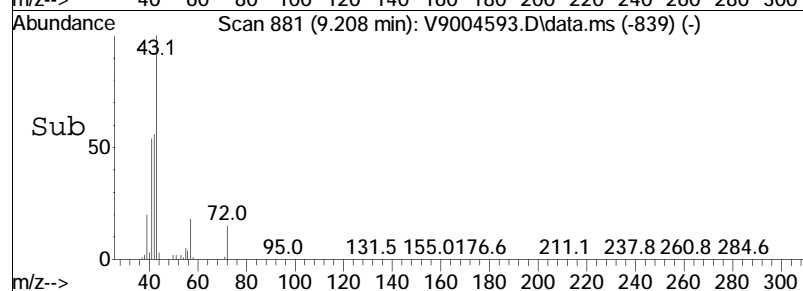
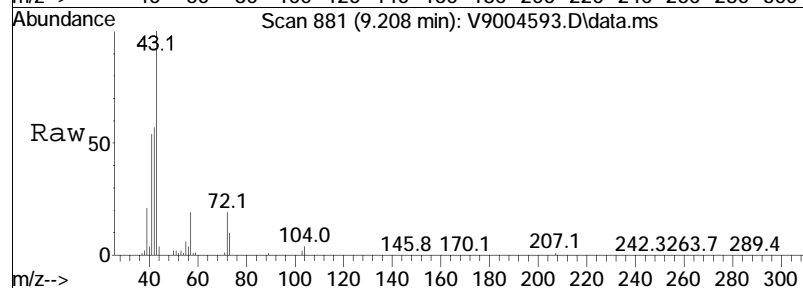
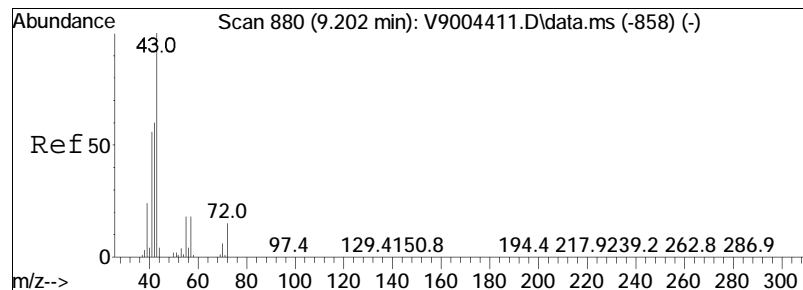




#4
 1-Pentene
 Concen: 15.76 ug/L
 RT: 8.84 min Scan# 821
 Delta R.T. 0.012 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

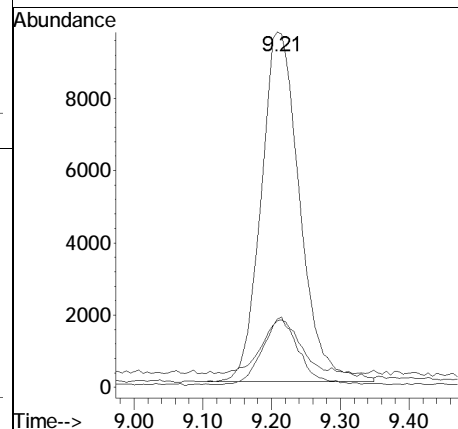
Tgt Ion: 42 Resp: 28270
 Ion Ratio Lower Upper
 42 100
 55 85.7 65.7 105.7
 70 59.7 39.1 79.1

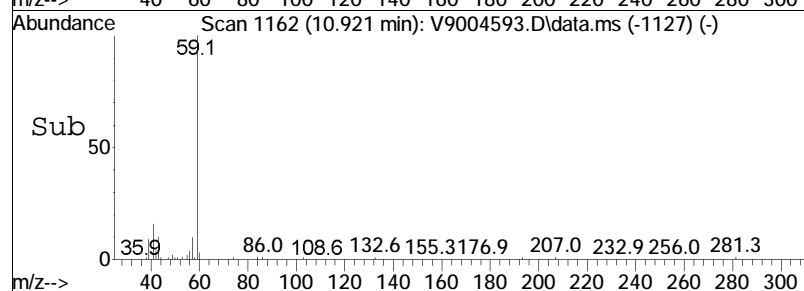
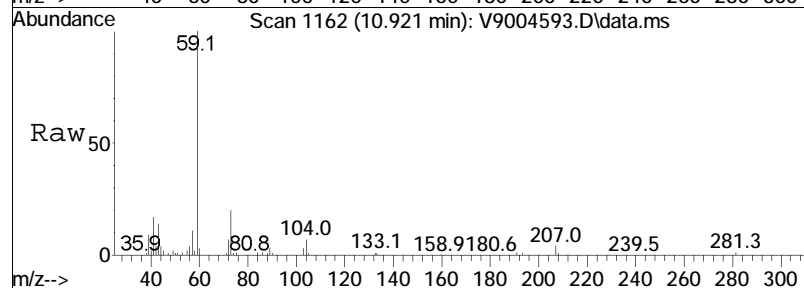
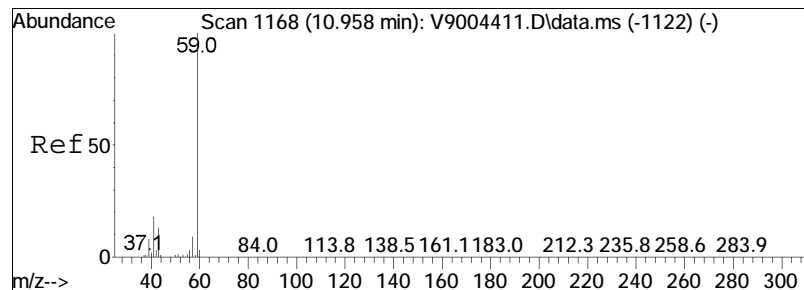




#6
 Pentane
 Concen: 16.95 ug/L
 RT: 9.21 min Scan# 881
 Delta R.T. 0.006 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

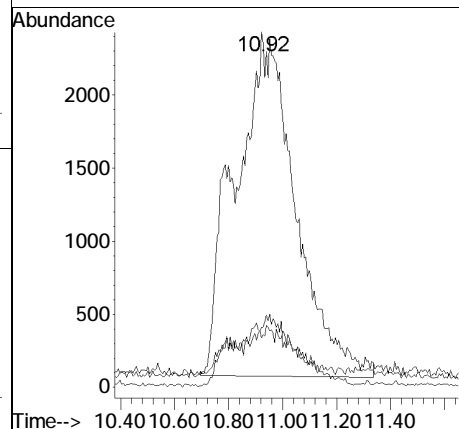
Tgt	Ion	Ratio	Lower	Upper
43	100			
57	19.2	0.0	38.5	
72	18.7	0.0	35.9	

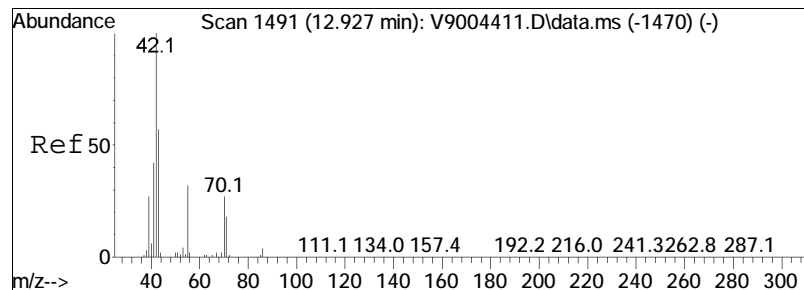




#10
 Tertiary butanol
 Concen: 85.24 ug/L m
 RT: 10.92 min Scan# 1162
 Delta R.T. -0.036 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

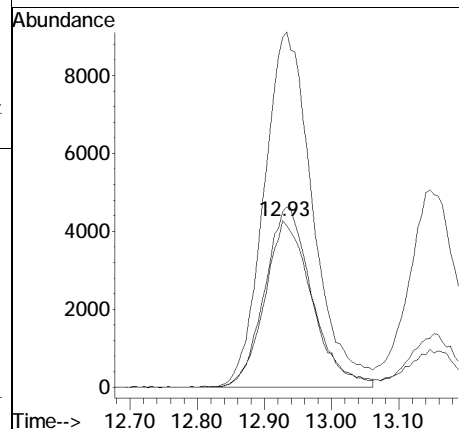
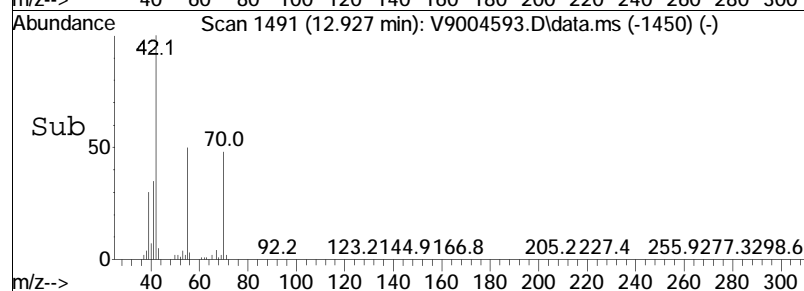
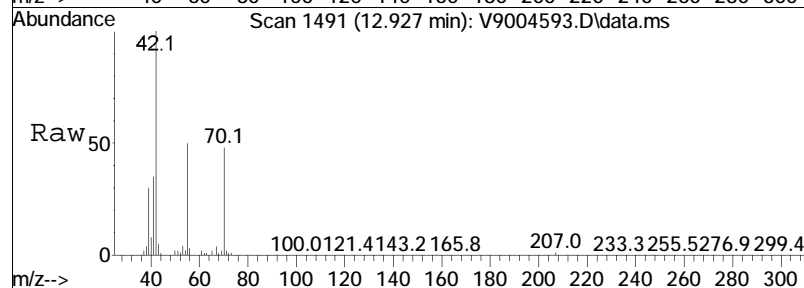
Tgt Ion:	59	Resp:	36428
Ion Ratio	Lower	Upper	
59	100		
41	16.8	0.0	38.5
43	14.0	0.0	33.5

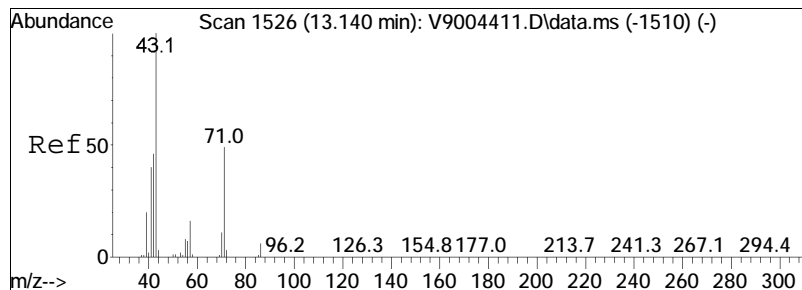




#13
Cyclopentane
Concen: 17.79 ug/L
RT: 12.93 min Scan# 1491
Delta R.T. 0.000 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

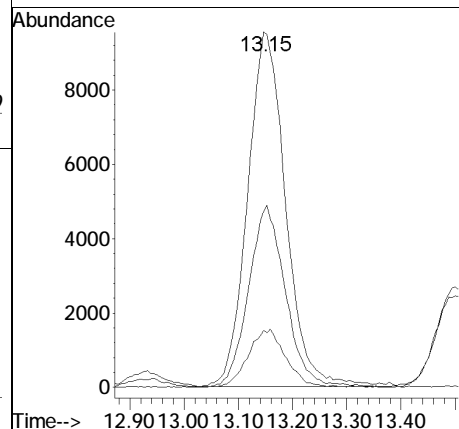
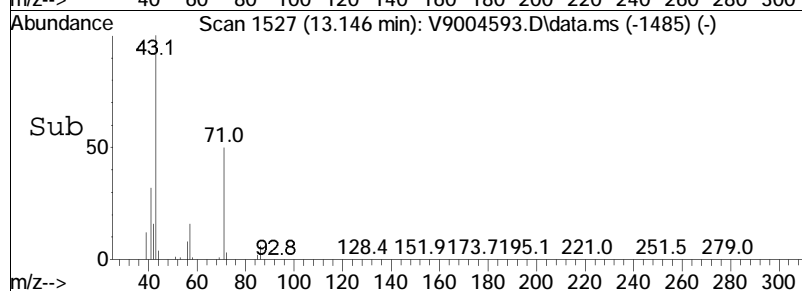
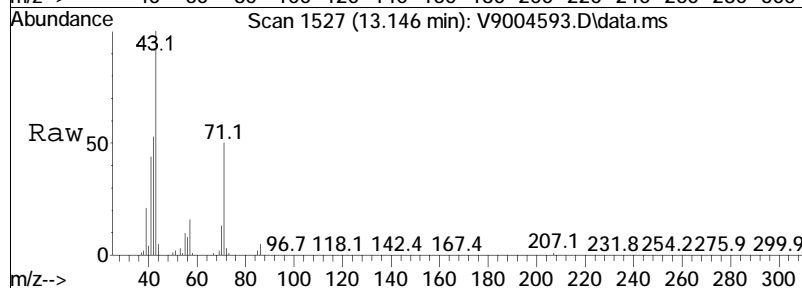
Tgt	Ion	Resp	Lower	Upper
70	100			
42	209.8	350.8	390.8#	
55	105.5	100.3	140.3	

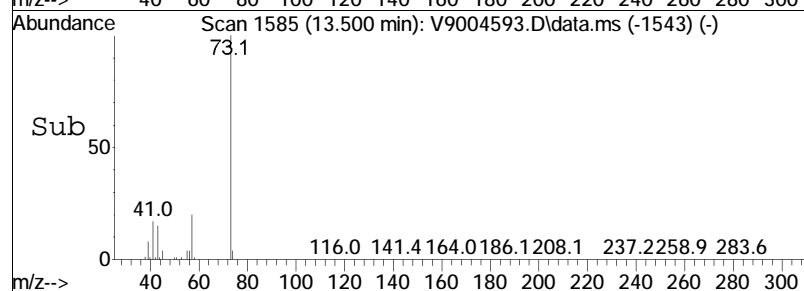
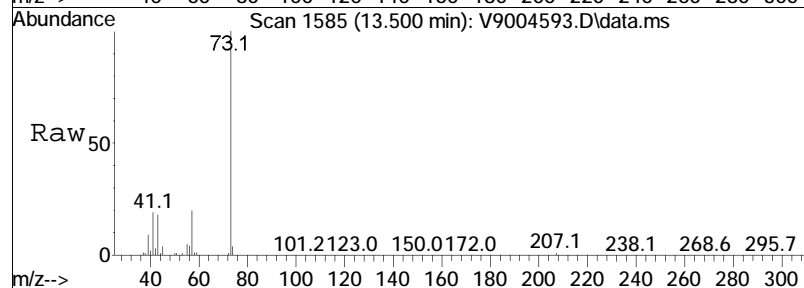
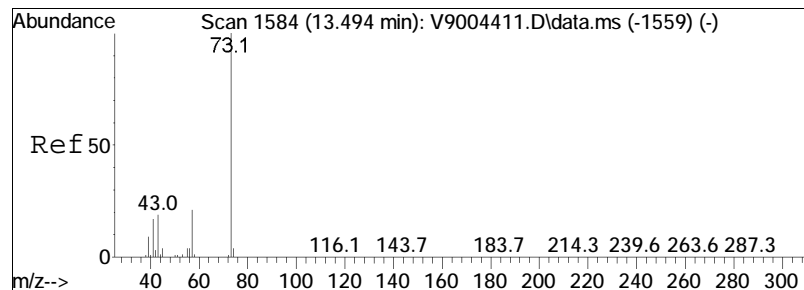




#15
 2-Methylpentane
 Concen: 18.47 ug/L
 RT: 13.15 min Scan# 1527
 Delta R.T. 0.006 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

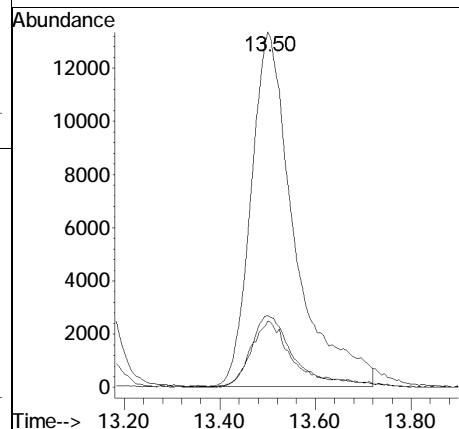
Tgt Ion	Ratio	Lower	Upper
43	100		
71	49.5	28.2	68.2
57	16.0	0.0	35.7

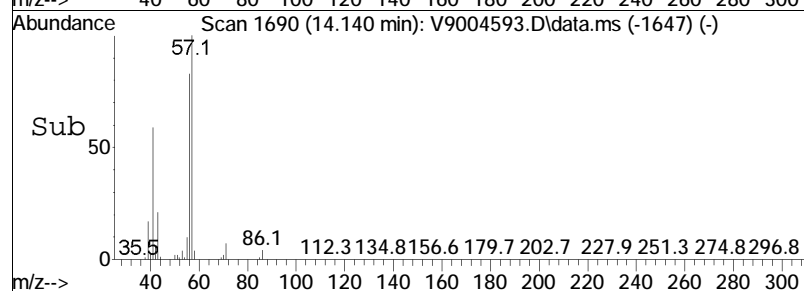
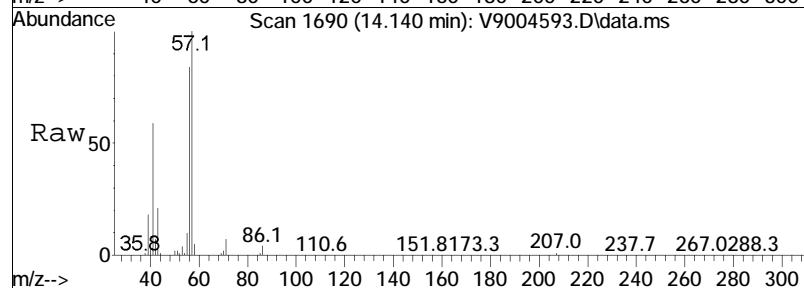
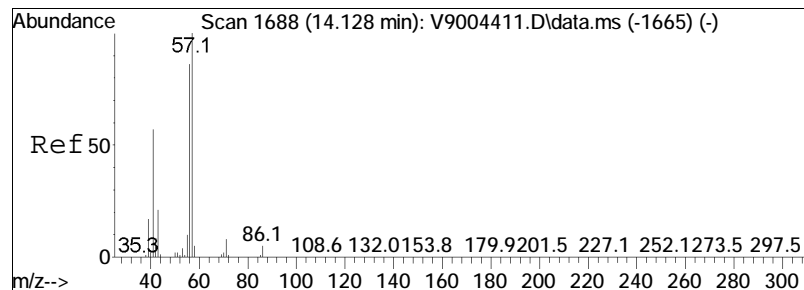




#16
MTBE
Concen: 17.00 ug/L
RT: 13.50 min Scan# 1585
Delta R.T. 0.006 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

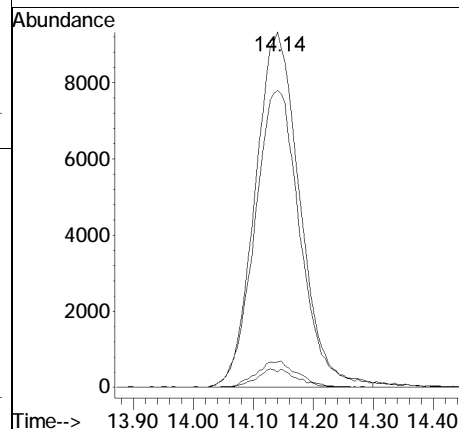
Tgt Ion	Ratio	Lower	Upper
73	100		
57	20.2	0.6	40.6
41	18.7	0.0	37.3

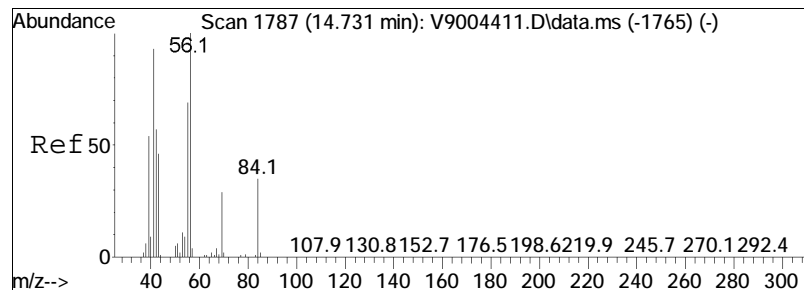




#17
 3-Methylpentane
 Concen: 19.16 ug/L
 RT: 14.14 min Scan# 1690
 Delta R.T. 0.012 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

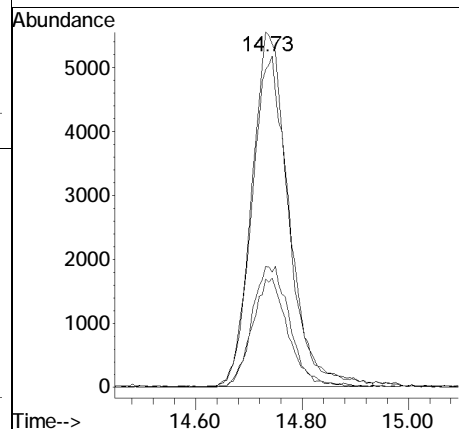
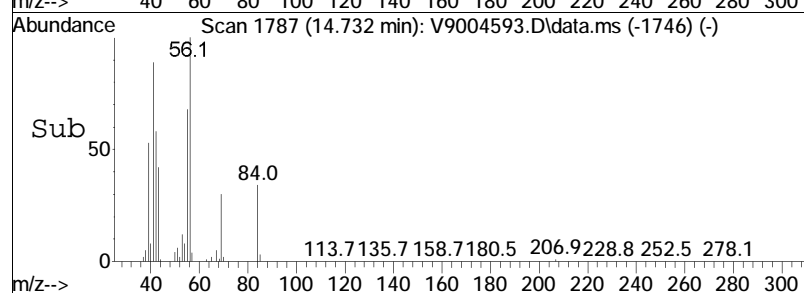
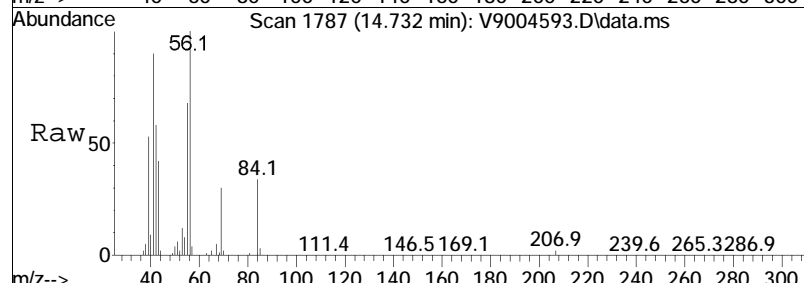
Tgt Ion:	57	Resp:	48127
Ion Ratio	Lower	Upper	
57	100		
56	83.6	65.9	105.9
71	7.2	0.0	27.5
86	4.4	0.0	24.6

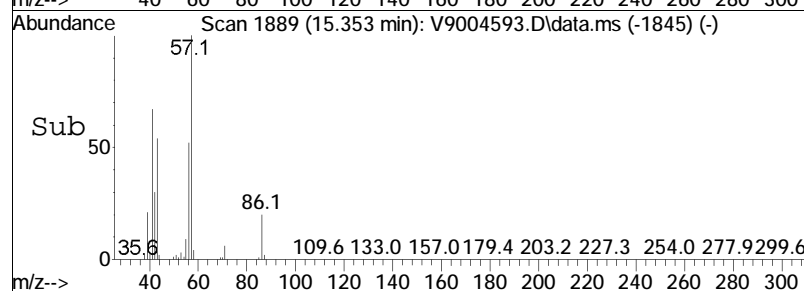
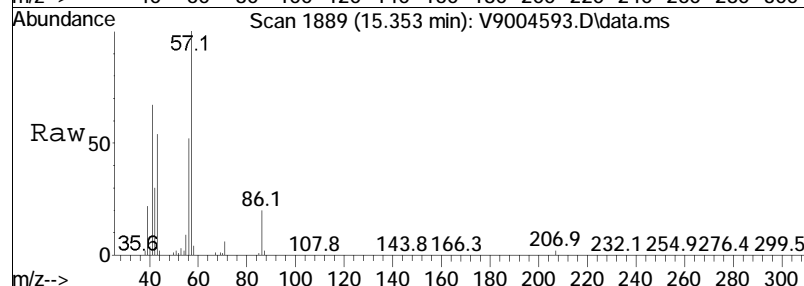
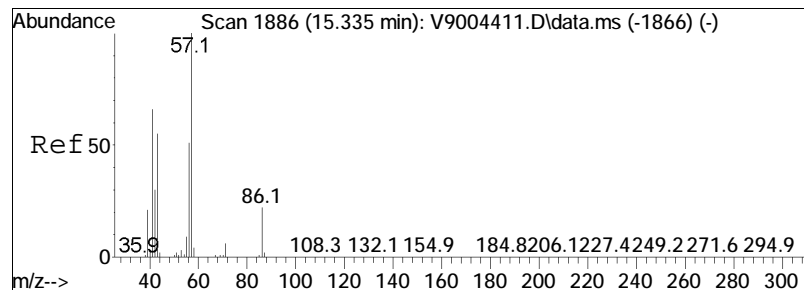




#18
 1-Hexene
 Concen: 19.35 ug/L
 RT: 14.73 min Scan# 1787
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

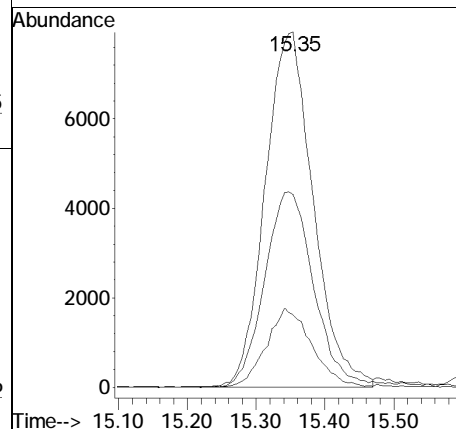
Tgt	Ion: 56	Resp:	26956
Ion	Ratio	Lower	Upper
56	100		
41	89.5	73.5	113.5
84	34.0	14.7	54.7
69	30.5	8.9	48.9

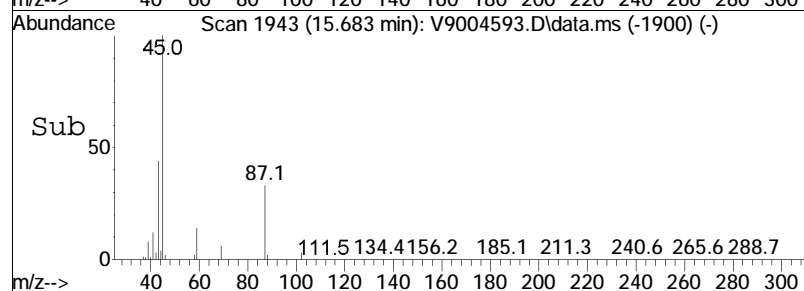
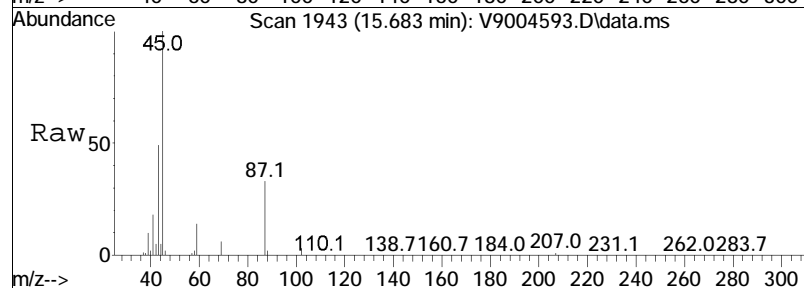
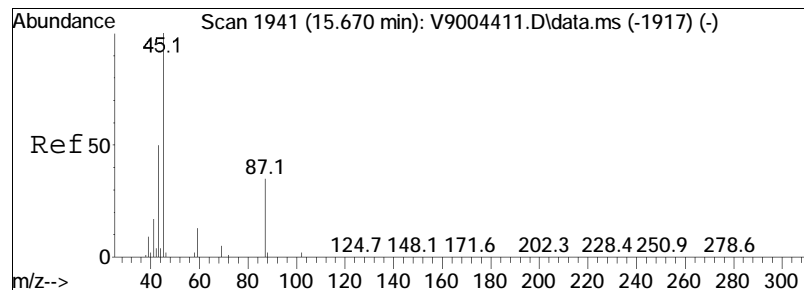




#19
Hexane
Concen: 17.30 ug/L
RT: 15.35 min Scan# 1889
Delta R.T. 0.018 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

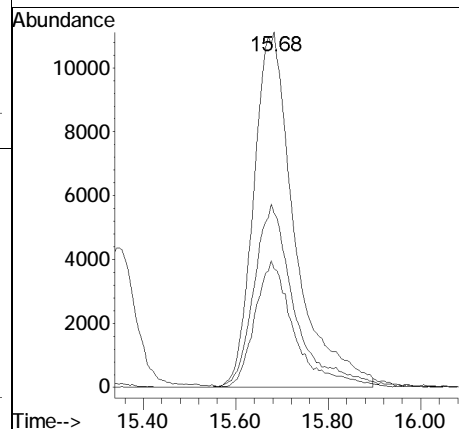
Tgt	Ion:	57	Resp:	38467
Ion	Ratio	Lower	Upper	
57	100			
43	54.3	35.4	75.4	
86	20.5	2.2	42.2	

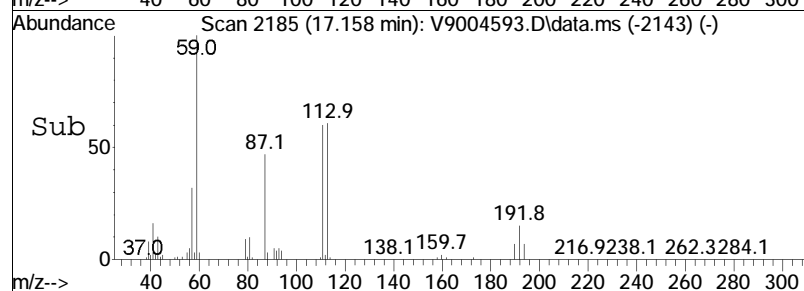
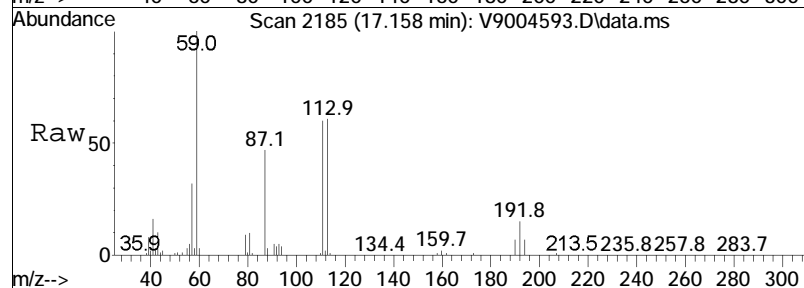
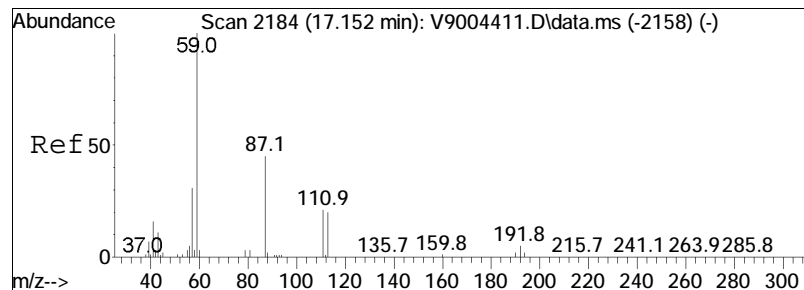




#20
Diisopropyl ether
Concen: 17.70 ug/L
RT: 15.68 min Scan# 1943
Delta R.T. 0.012 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

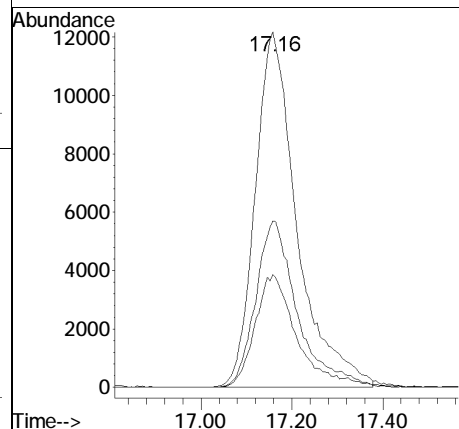
Tgt	Ion	Resp	Lower	Upper
45	100			
87	33.4		14.7	54.7
43	49.1		30.3	70.3

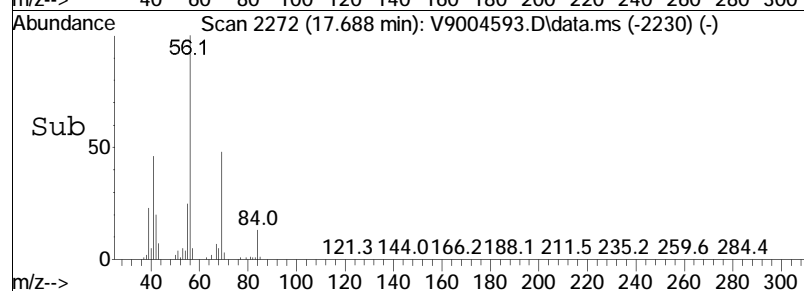
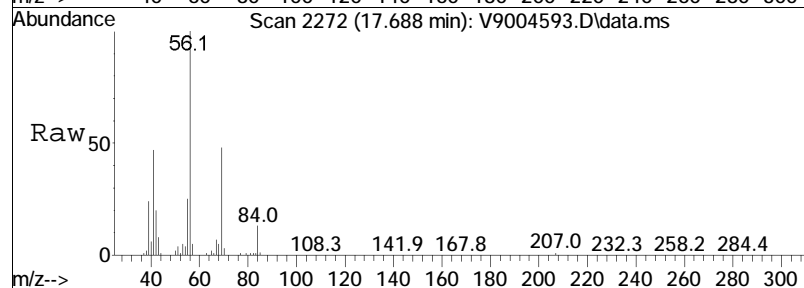
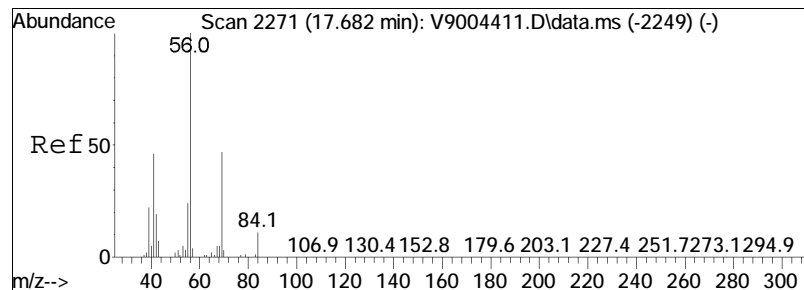




#25
 Ethyl tertiary butyl ether
 Concen: 17.47 ug/L
 RT: 17.16 min Scan# 2185
 Delta R.T. 0.006 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

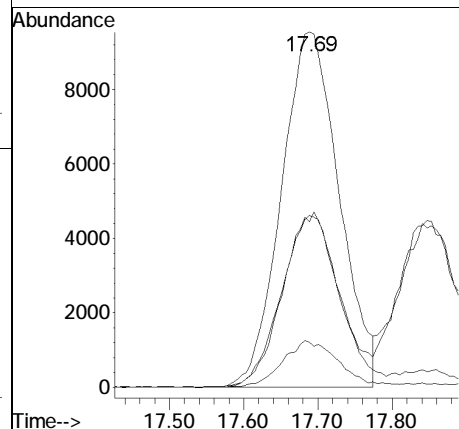
Tgt Ion:	59	Resp:	77634
Ion Ratio	Lower	Upper	
59	100		
87	46.9	25.2	65.2
57	31.8	11.3	51.3

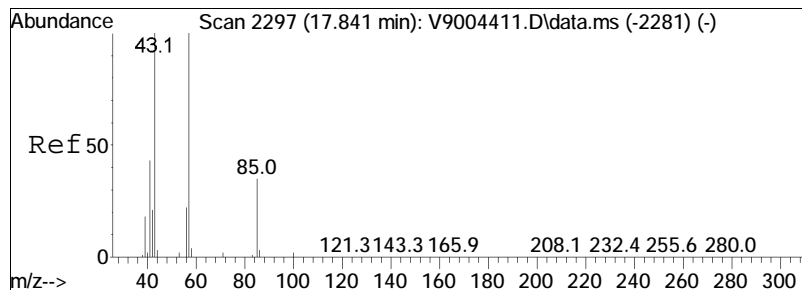




#27
Methylcyclopentane
Concen: 18.51 ug/L
RT: 17.69 min Scan# 2272
Delta R.T. 0.006 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

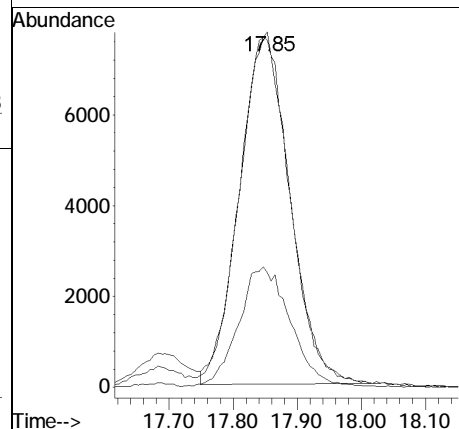
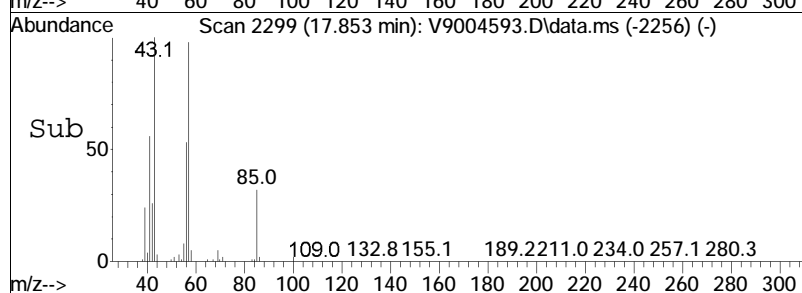
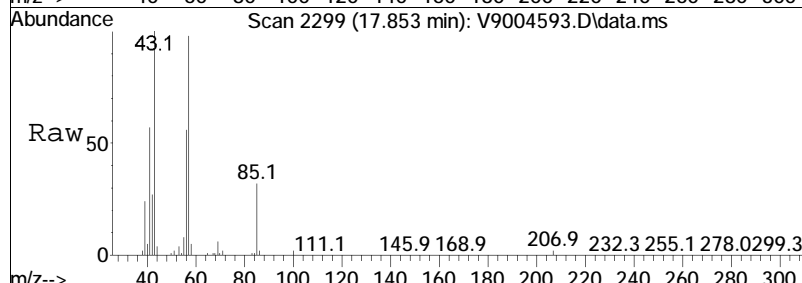
Tgt Ion:	56	Resp:	51518
Ion Ratio	Lower	Upper	
56	100		
69	48.3	27.0	67.0
41	46.6	26.5	66.5
84	12.7	0.0	31.3

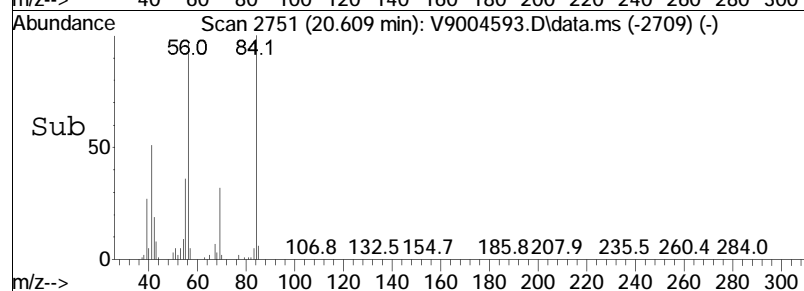
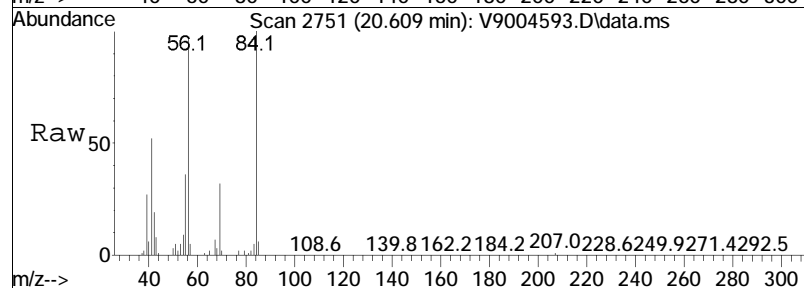
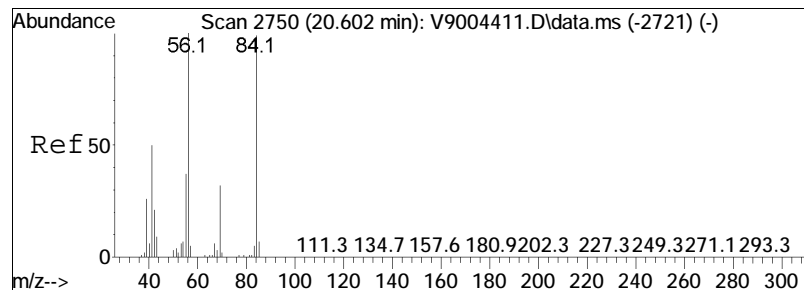




#28
 2,4-Dimethylpentane
 Concen: 19.02 ug/L
 RT: 17.85 min Scan# 2299
 Delta R.T. 0.012 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

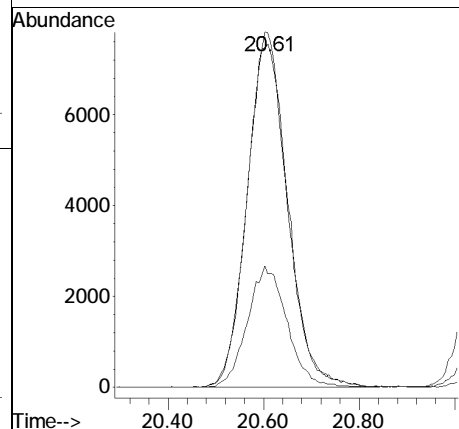
Tgt Ion	Ratio	Lower	Upper
43	100		
57	97.8	78.8	118.8
85	32.3	14.3	54.3

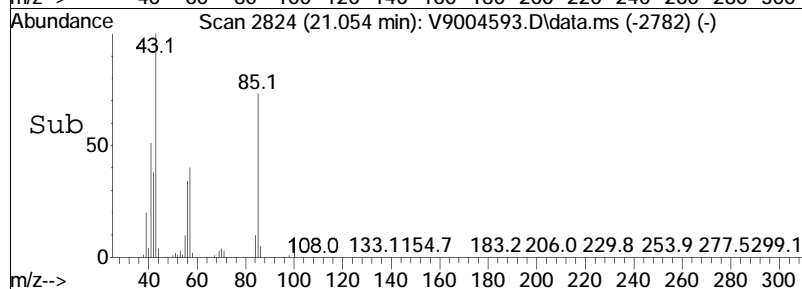
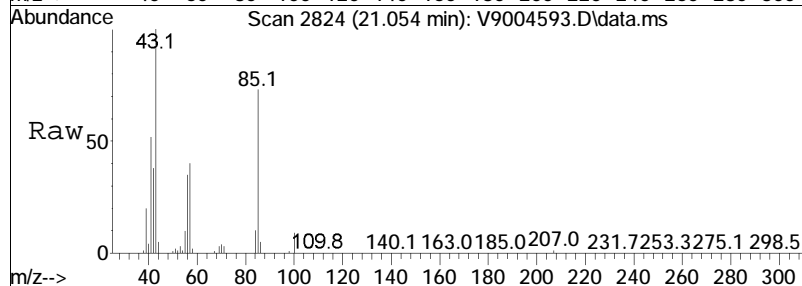
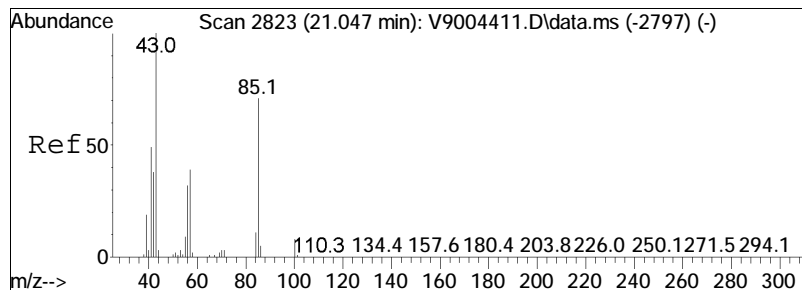




#32
Cyclohexane
Concen: 19.35 ug/L
RT: 20.61 min Scan# 2751
Delta R.T. 0.006 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

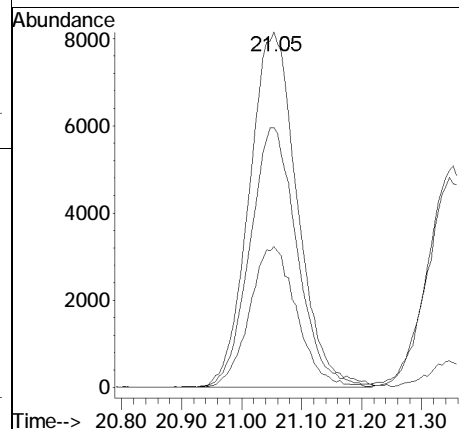
Tgt Ion:	56	Resp:	44846
Ion Ratio	Lower	Upper	
56	100		
84	103.2	79.5	119.5
69	33.0	11.9	51.9

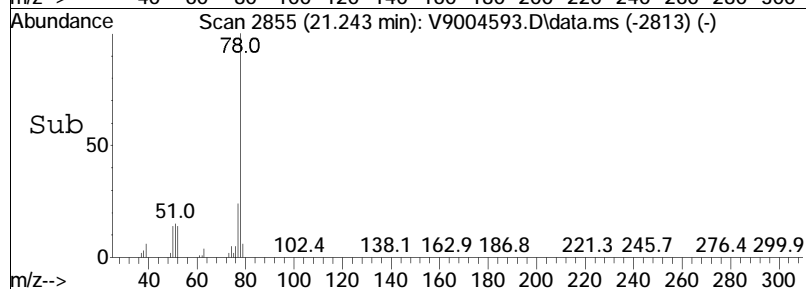
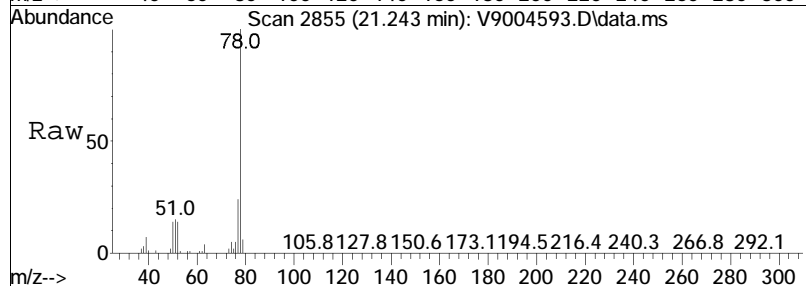
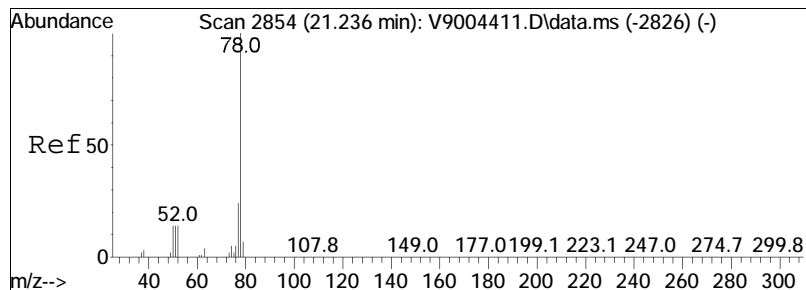




#33
 2-Methylhexane
 Concen: 18.75 ug/L
 RT: 21.05 min Scan# 2824
 Delta R.T. 0.006 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

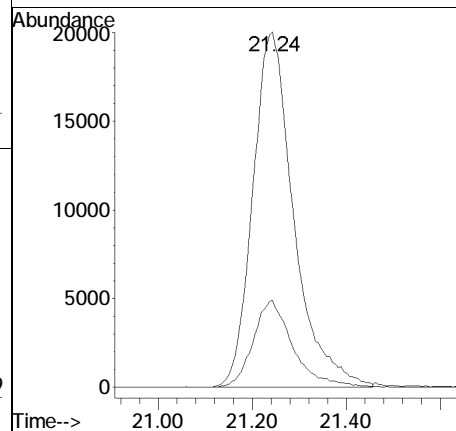
Tgt Ion:	43	Resp:	45282
Ion Ratio	Lower	Upper	
43	100		
85	73.1	51.1	91.1
57	39.6	19.2	59.2

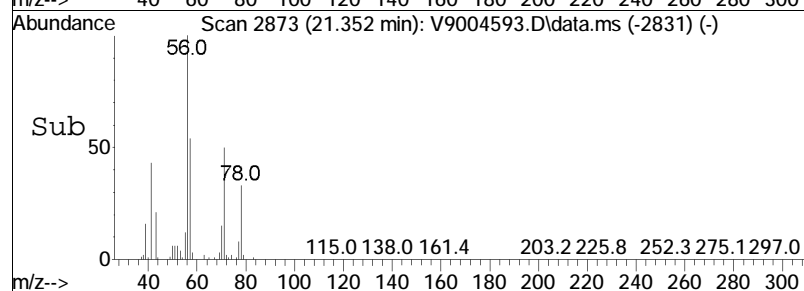
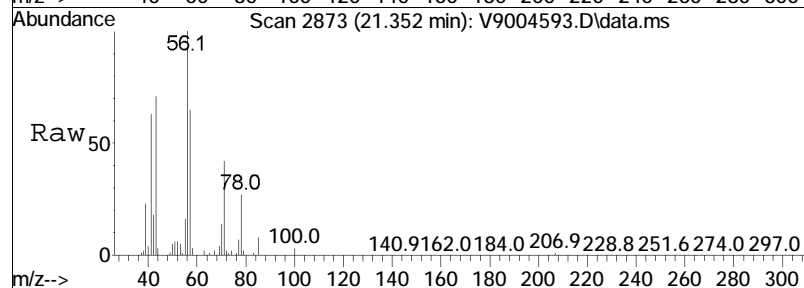
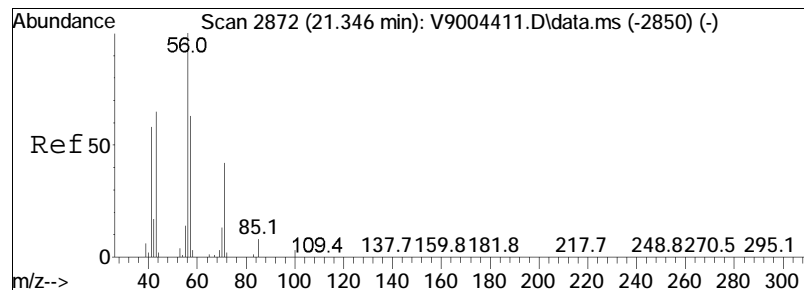




#34
Benzene
Concen: 18.71 ug/L
RT: 21.24 min Scan# 2855
Delta R.T. 0.006 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

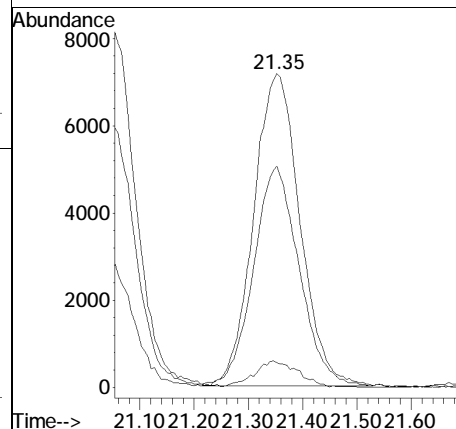
Tgt Ion	Ratio	Lower	Upper
78	100		
77	24.5	4.0	44.0

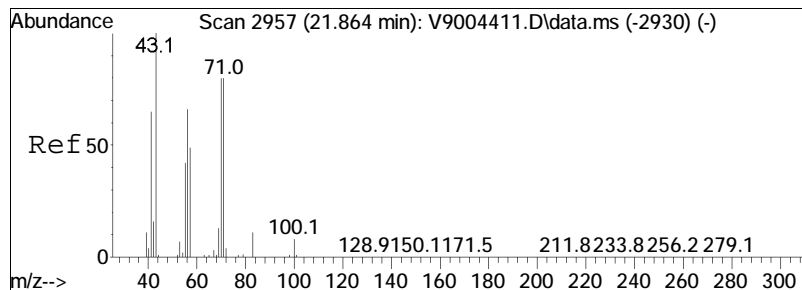




#35
 2,3-Dimethylpentane
 Concen: 18.77 ug/L
 RT: 21.35 min Scan# 2873
 Delta R.T. 0.006 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

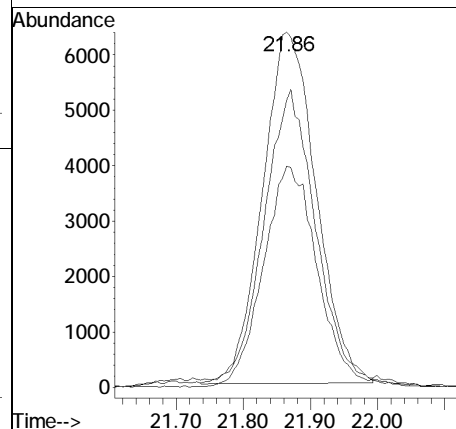
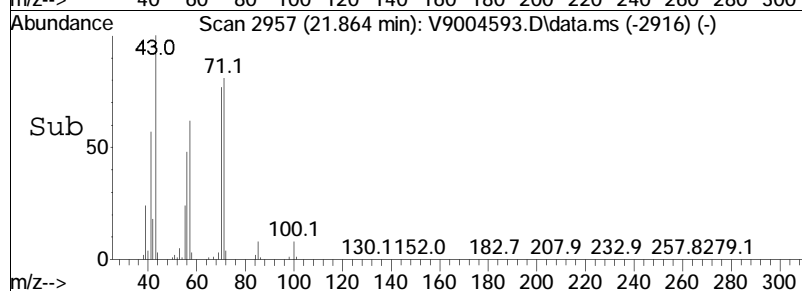
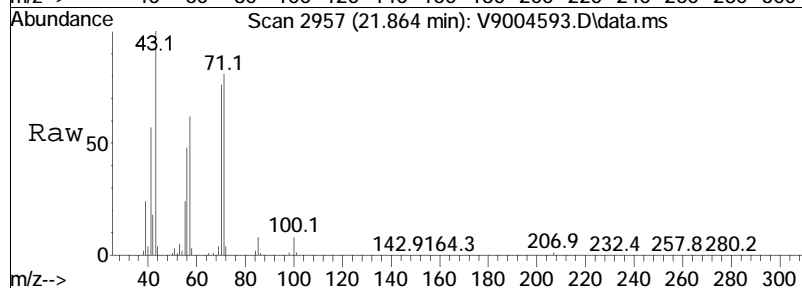
Tgt Ion:	56	Resp:	42505
Ion Ratio	Lower	Upper	
56	100		
43	70.6	46.7	86.7
85	7.9	0.0	28.4

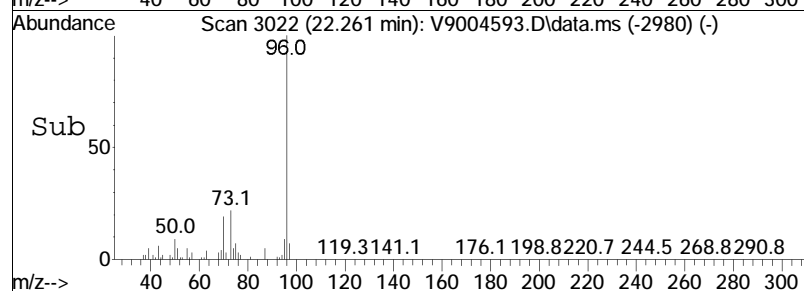
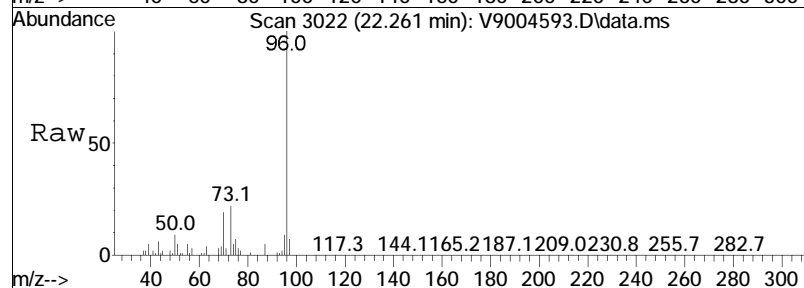
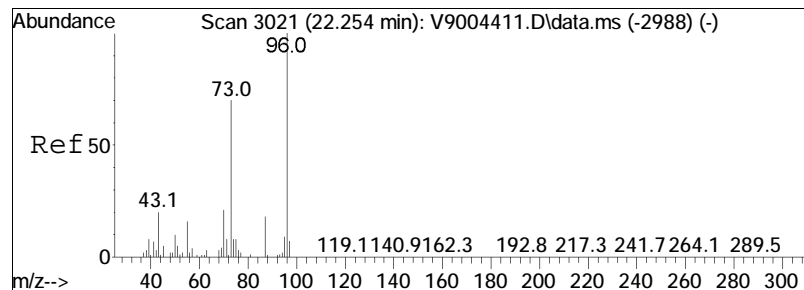




#38
 3-Methylhexane
 Concen: 16.40 ug/L
 RT: 21.86 min Scan# 2957
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

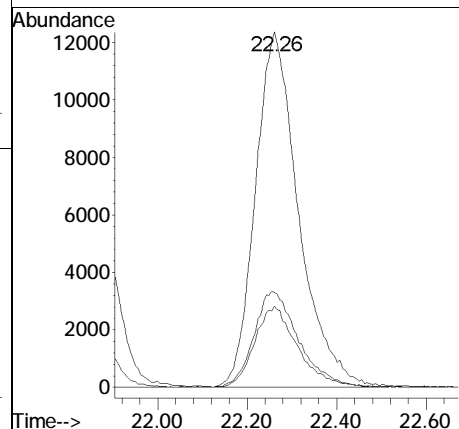
Tgt Ion:	43	Resp:	35327
Ion Ratio	Lower	Upper	
43	100		
57	62.3	46.7	86.7
71	80.9	60.6	100.6

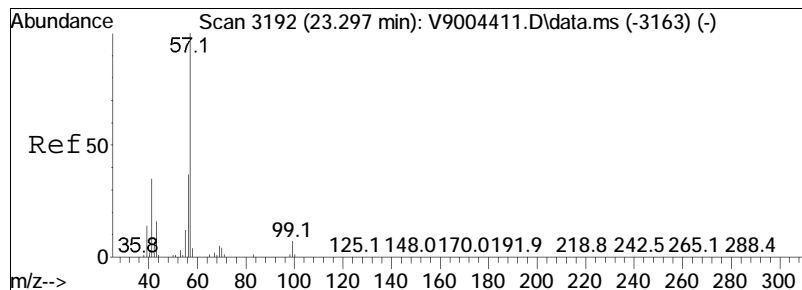




#39
TAME
Concen: 16.42 ug/L
RT: 22.26 min Scan# 3022
Delta R.T. 0.006 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

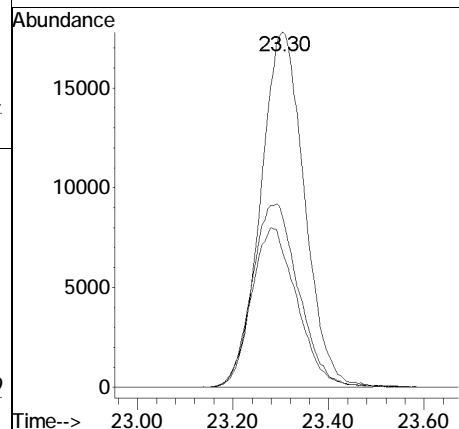
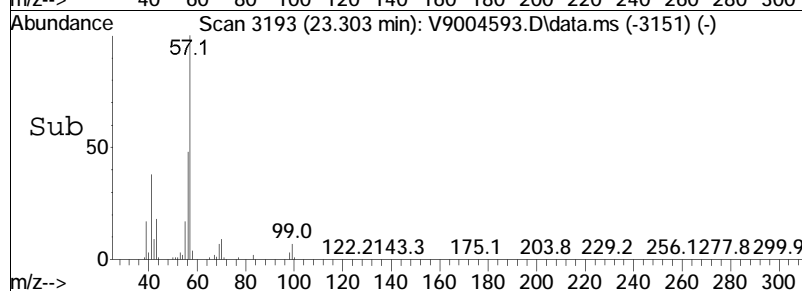
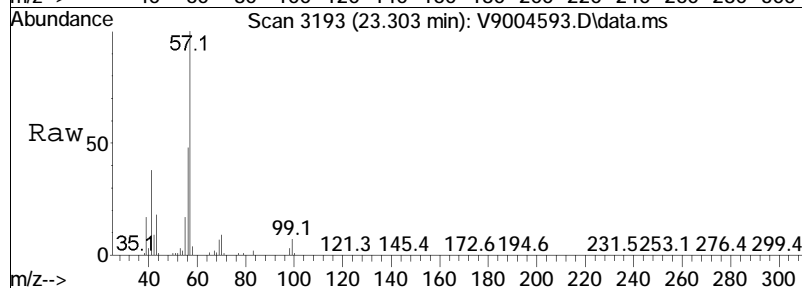
Tgt Ion	Ratio	Lower	Upper
73	100		
43	26.7	9.1	49.1
55	22.9	3.3	43.3

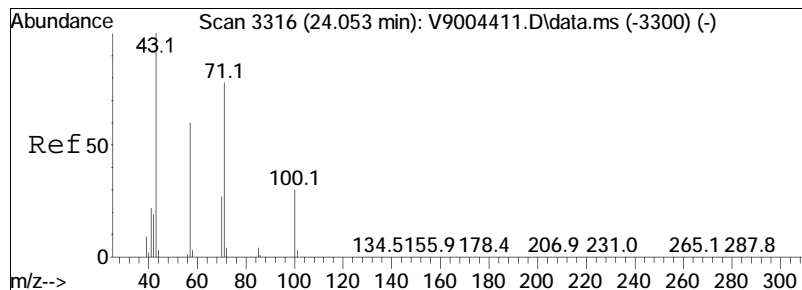




#44
 Isooctane
 Concen: 18.29 ug/L
 RT: 23.30 min Scan# 3193
 Delta R.T. 0.006 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

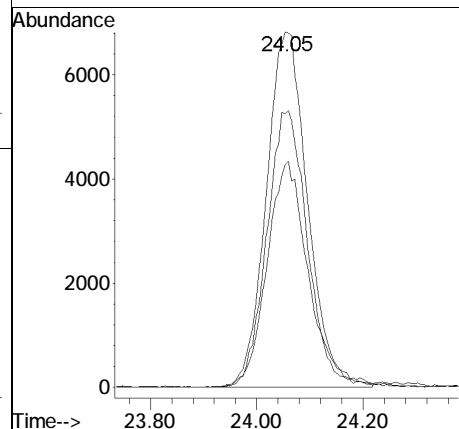
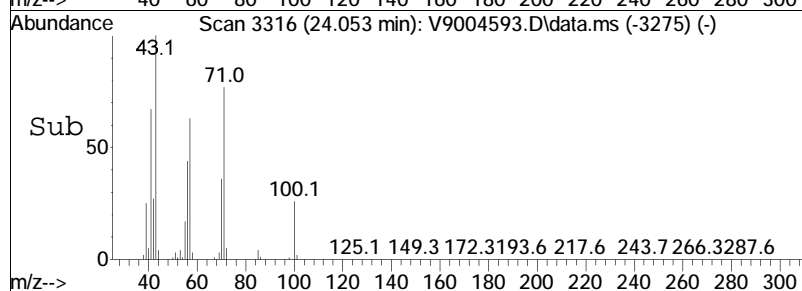
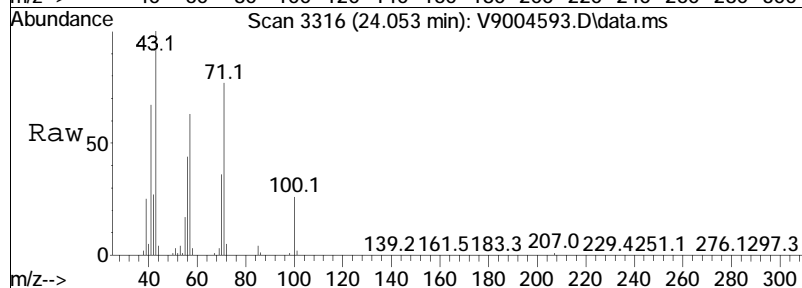
Tgt	Ion	Resp	Lower	Upper
57	100			
41	38.3	21.7	61.7	
56	48.2	30.1	70.1	

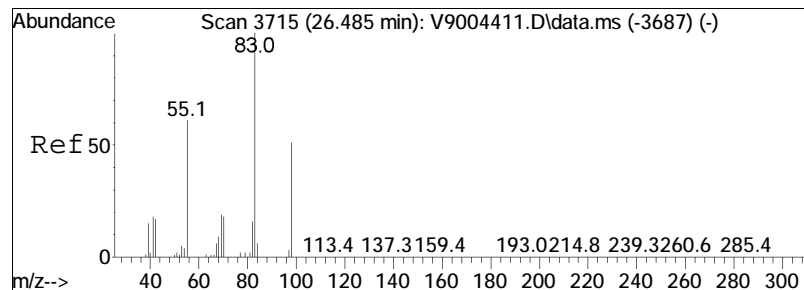




#46
 Heptane
 Concen: 18.94 ug/L
 RT: 24.05 min Scan# 3316
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

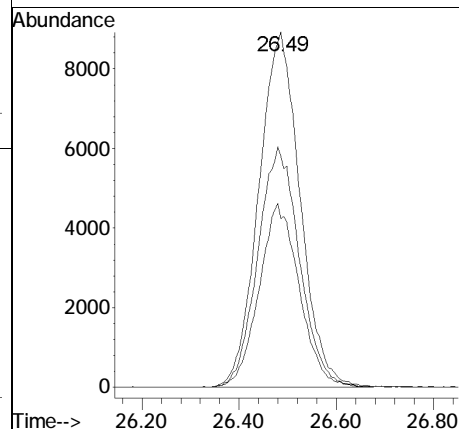
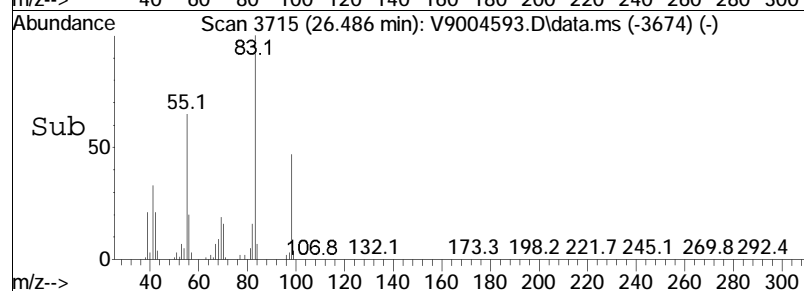
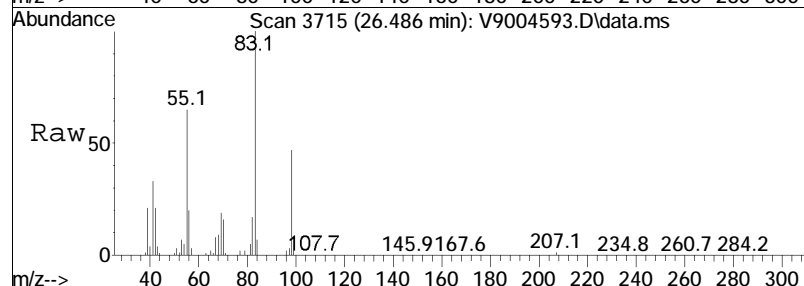
Tgt Ion	Ratio	Lower	Upper
43	100		
57	62.6	41.1	81.1
71	77.0	54.3	94.3

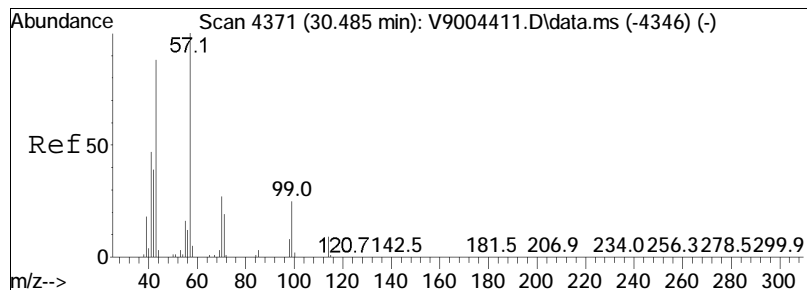




#51
Methylcyclohexane
Concen: 18.68 ug/L
RT: 26.49 min Scan# 3715
Delta R.T. 0.000 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

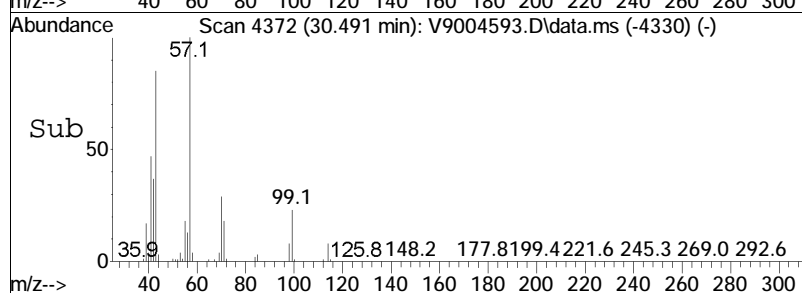
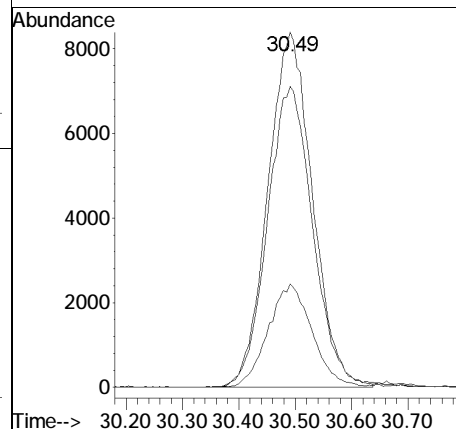
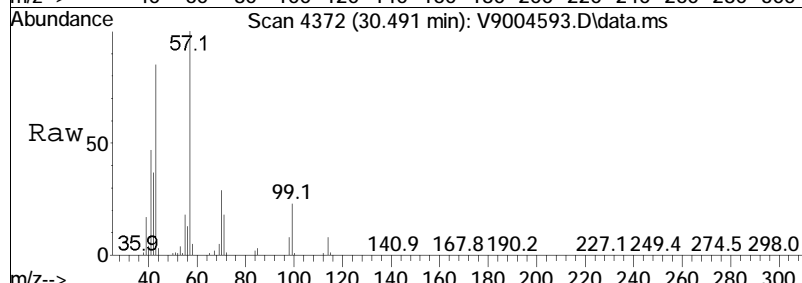
Tgt	Ion: 83	Resp:	52720
Ion	Ratio	Lower	Upper
83	100		
55	65.1	45.6	85.6
98	47.4	30.8	70.8

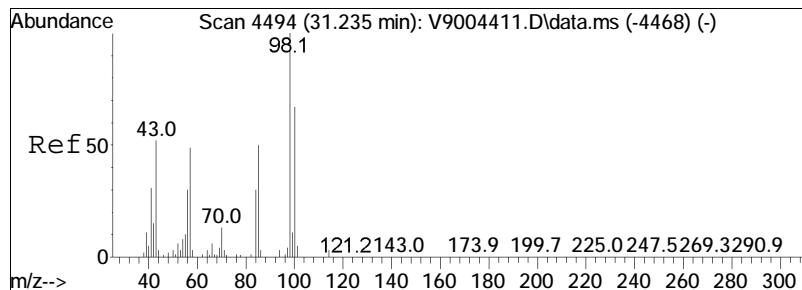




#60
 2-Methylheptane
 Concen: 18.47 ug/L
 RT: 30.49 min Scan# 4372
 Delta R.T. 0.006 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

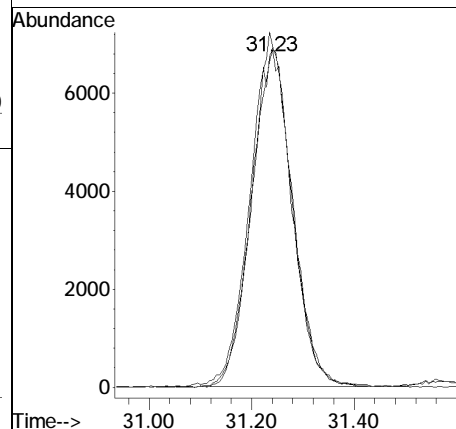
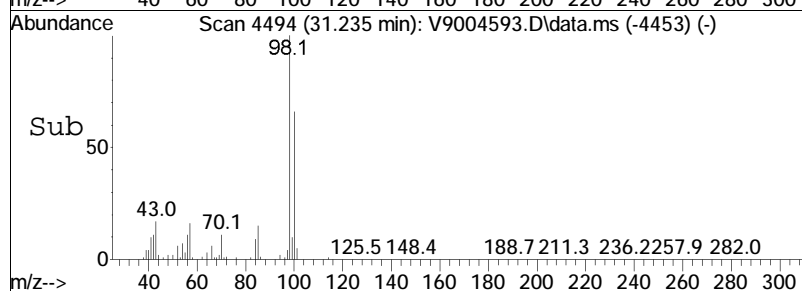
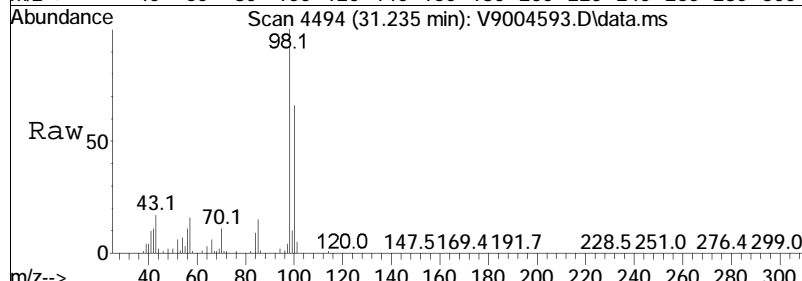
Tgt Ion	Ratio	Lower	Upper
57	100		
43	84.7	68.6	108.6
70	29.1	7.6	47.6

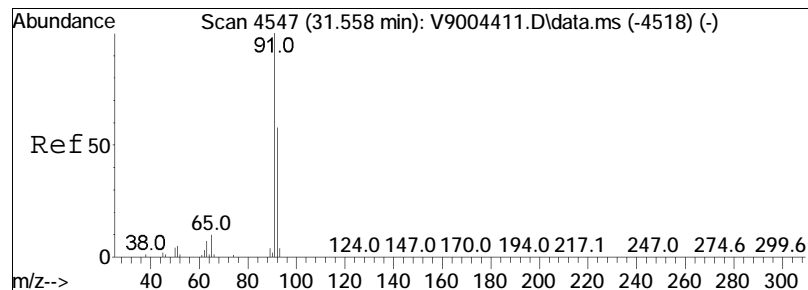




#63
 3-Methylheptane
 Concen: 17.93 ug/L
 RT: 31.23 min Scan# 4494
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

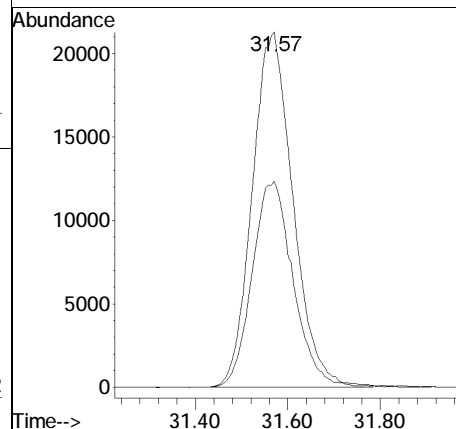
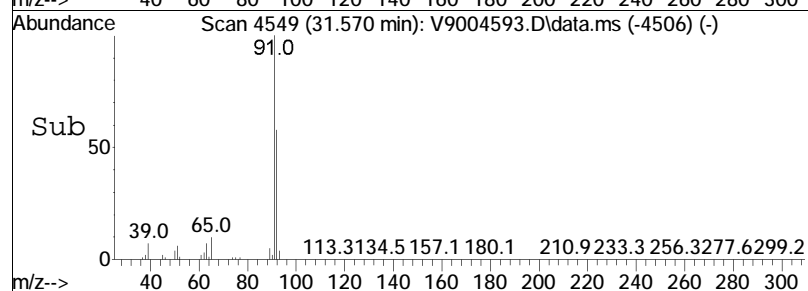
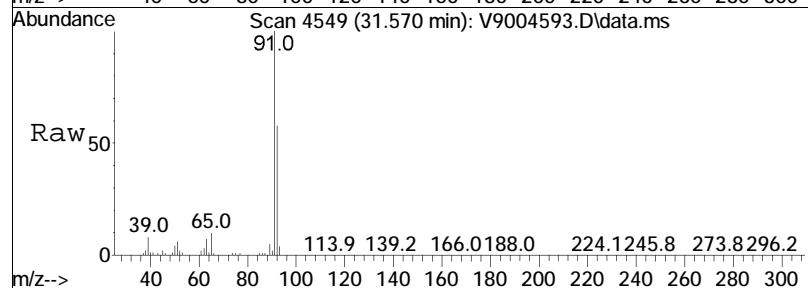
Tgt Ion	Ratio	Lower	Upper
43	100		
57	93.0	74.7	114.7
85	91.7	76.9	116.9

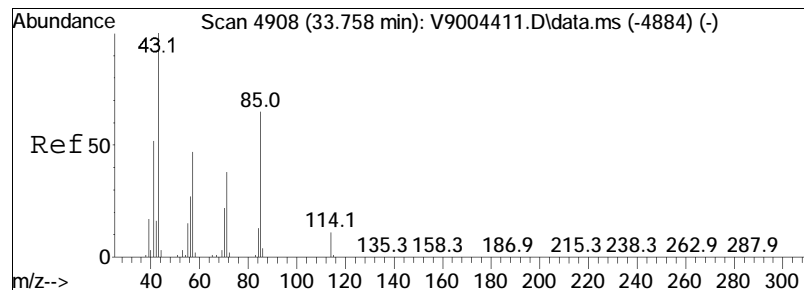




#66
Toluene
Concen: 18.59 ug/L
RT: 31.57 min Scan# 4549
Delta R.T. 0.012 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

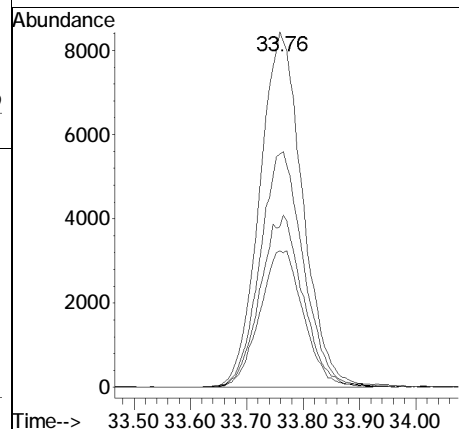
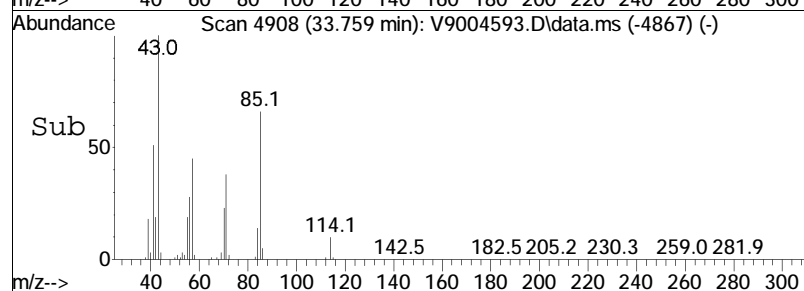
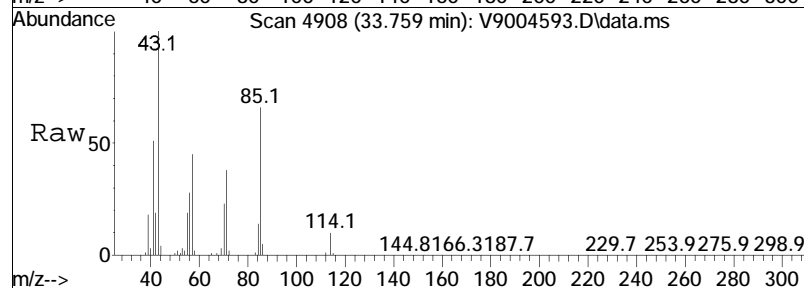
Tgt Ion	Ratio	Lower	Upper
91	100		
92	58.1	37.9	77.9

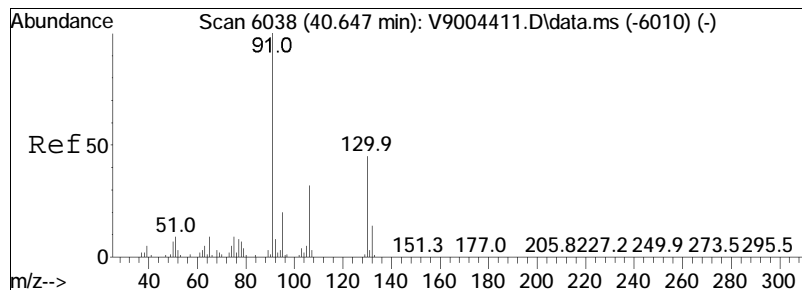




#71
 Octane
 Concen: 18.10 ug/L
 RT: 33.76 min Scan# 4908
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

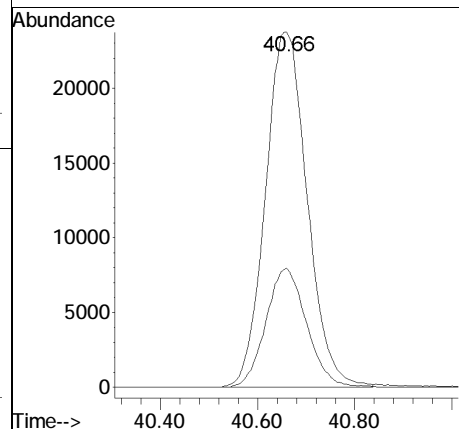
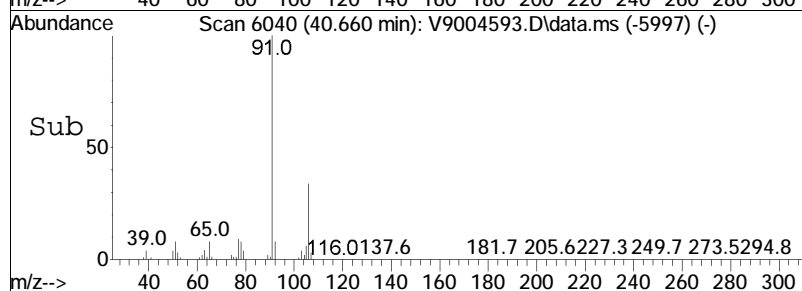
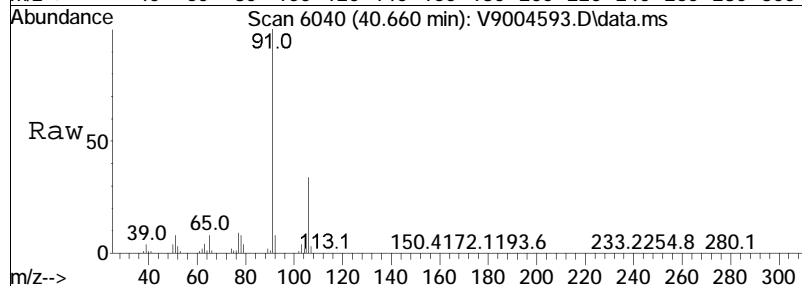
Tgt	Ion:	43	Resp:	44748
Ion	Ratio	Lower	Upper	
43	100			
57	45.2	26.9	66.9	
85	65.7	45.5	85.5	
71	38.4	18.3	58.3	

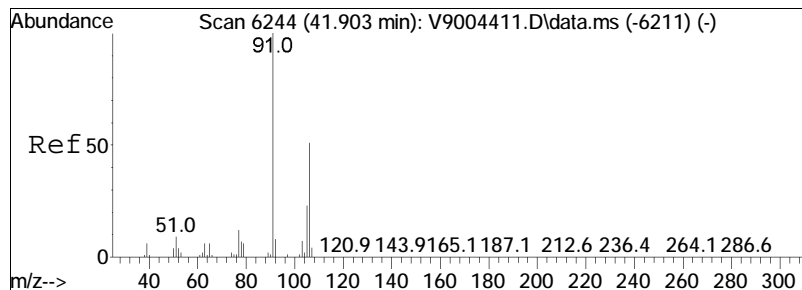




#86
Ethylbenzene
Concen: 17.78 ug/L
RT: 40.66 min Scan# 6040
Delta R.T. 0.012 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

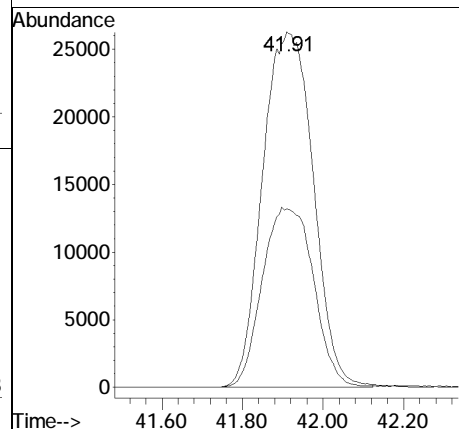
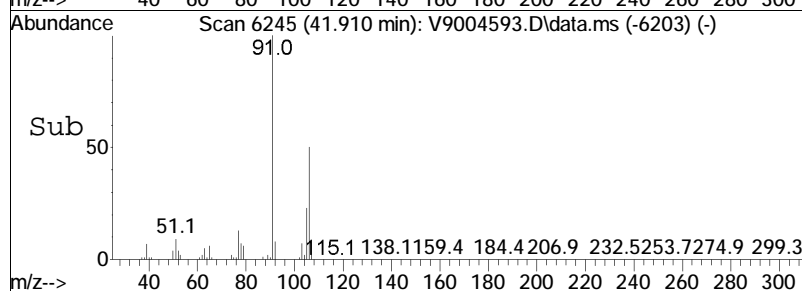
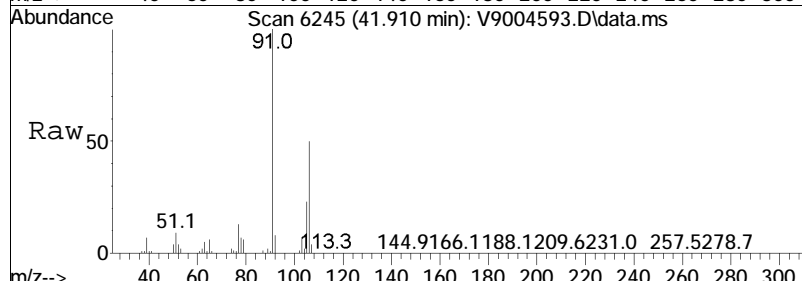
Tgt	Ion	Resp	Lower	Upper
91	100			
106	33.5	11.6	51.6	

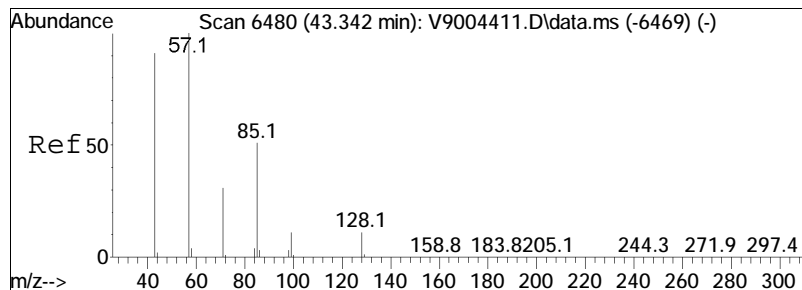




#91
p/m-Xylene
Concen: 36.83 ug/L
RT: 41.91 min Scan# 6245
Delta R.T. 0.006 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

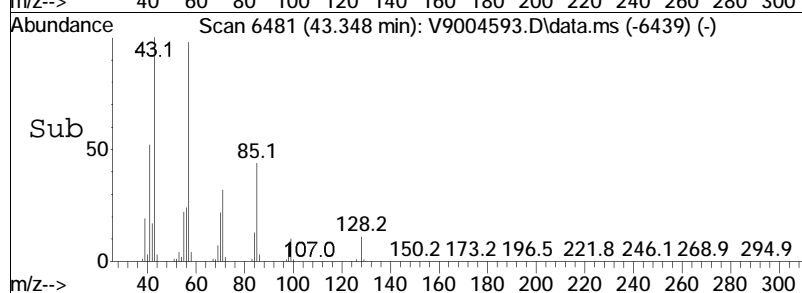
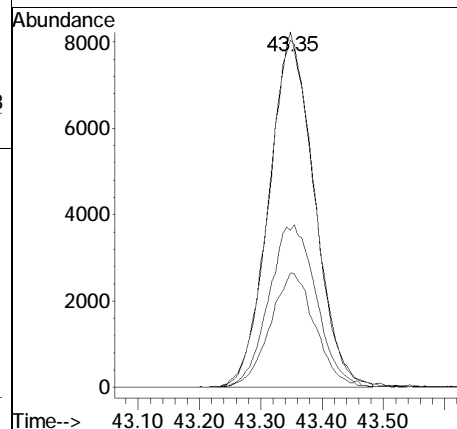
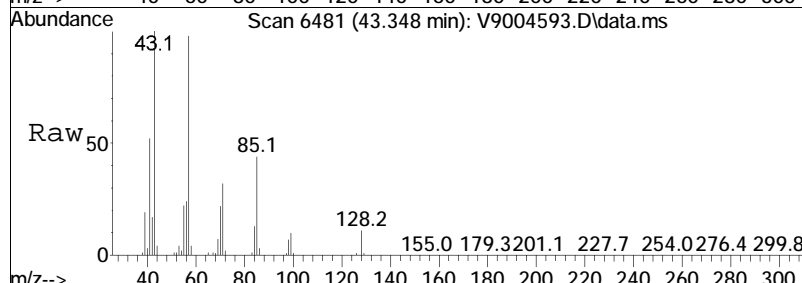
Tgt	Ion	Resp	Lower	Upper
91	100			
106	50.2	31.3	71.3	

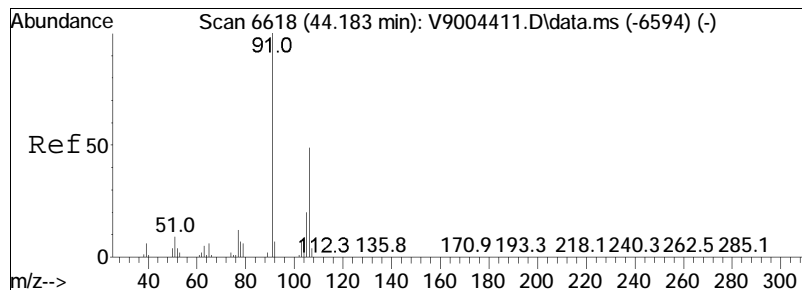




#95
Nonane
Concen: 16.77 ug/L
RT: 43.35 min Scan# 6481
Delta R.T. 0.006 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

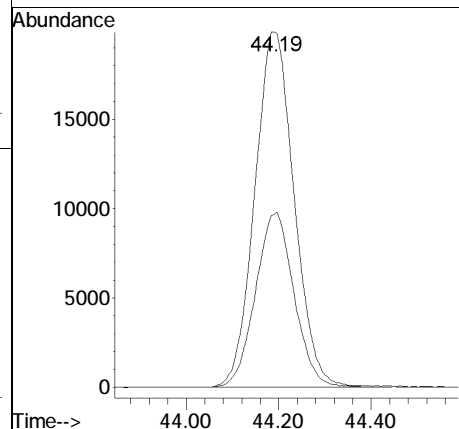
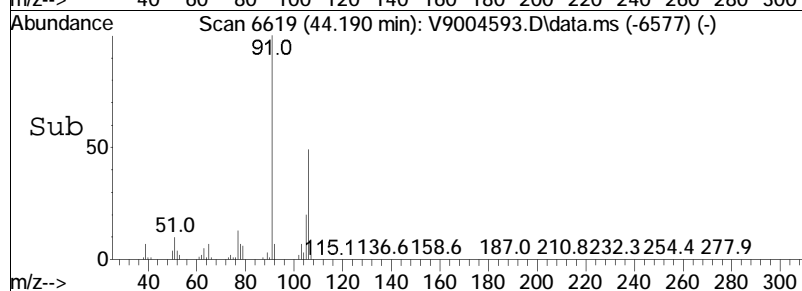
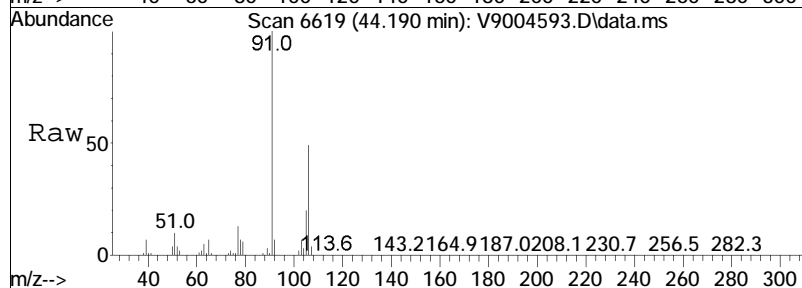
Tgt Ion:	43	Resp:	42052
Ion Ratio	Lower	Upper	
43	100		
57	97.7	79.0	119.0
85	44.2	27.1	67.1
71	32.2	13.4	53.4

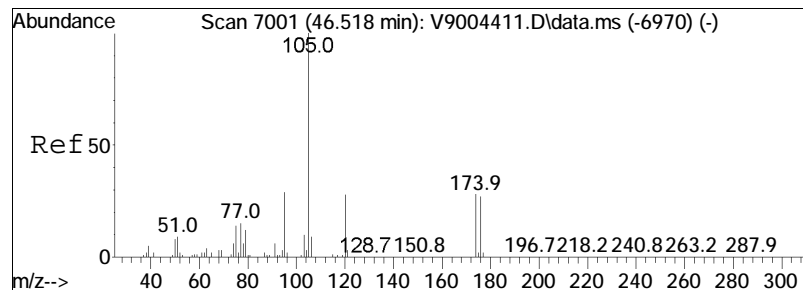




#98
o-Xylene
Concen: 18.23 ug/L
RT: 44.19 min Scan# 6619
Delta R.T. 0.006 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

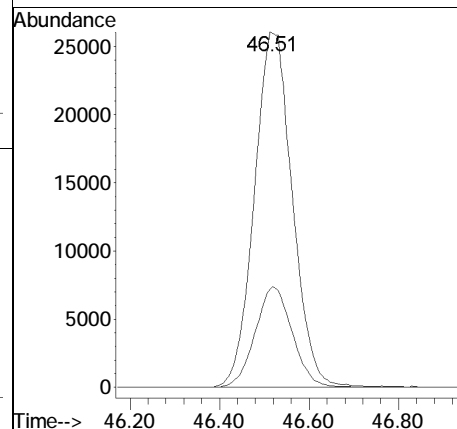
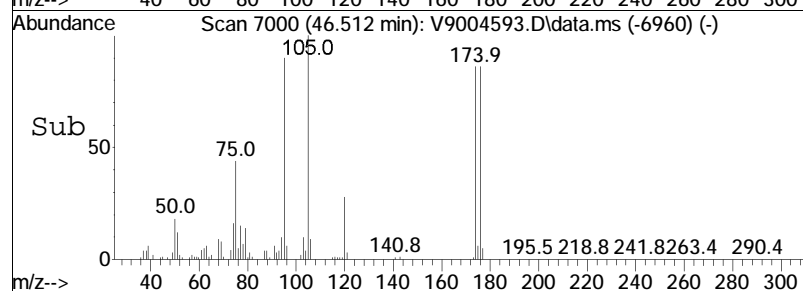
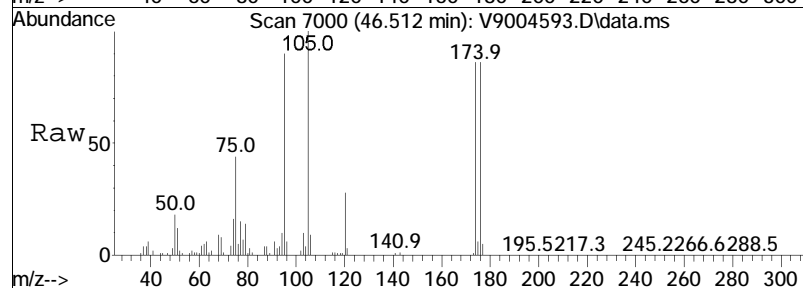
Tgt	Ion	Resp	Lower	Upper
91	100			
106	48.7	28.7	68.7	

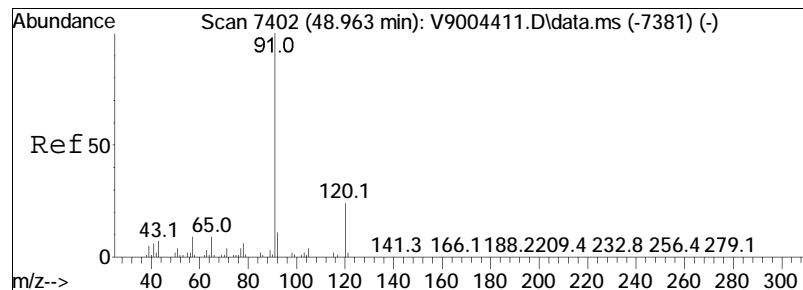




#102
Isopropylbenzene
Concen: 18.28 ug/L
RT: 46.51 min Scan# 7000
Delta R.T. -0.006 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

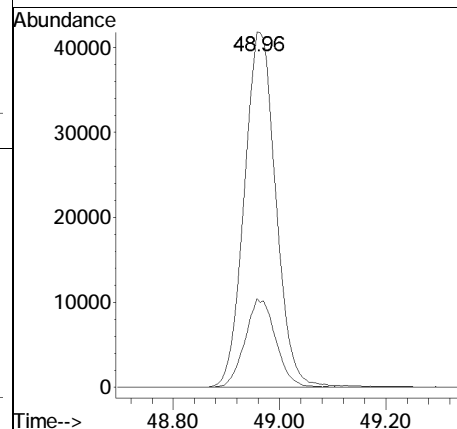
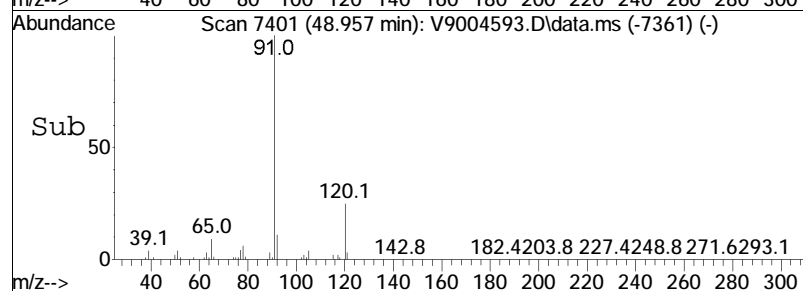
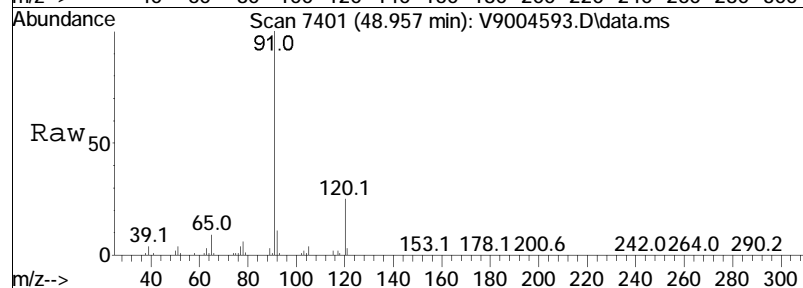
Tgt Ion	Ratio	Lower	Upper
105	100		
120	27.6	7.8	47.8

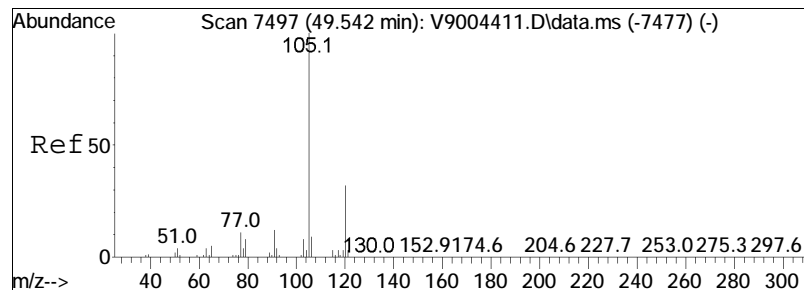




#104
 n-Propylbenzene
 Concen: 18.46 ug/L
 RT: 48.96 min Scan# 7401
 Delta R.T. -0.006 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

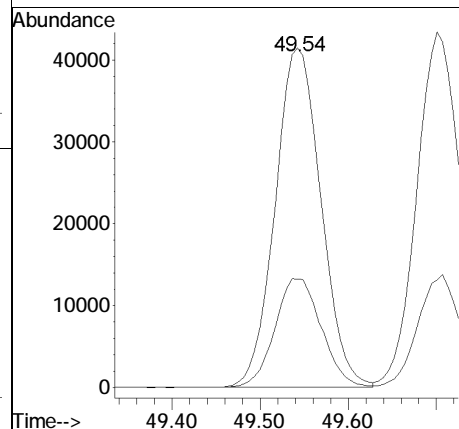
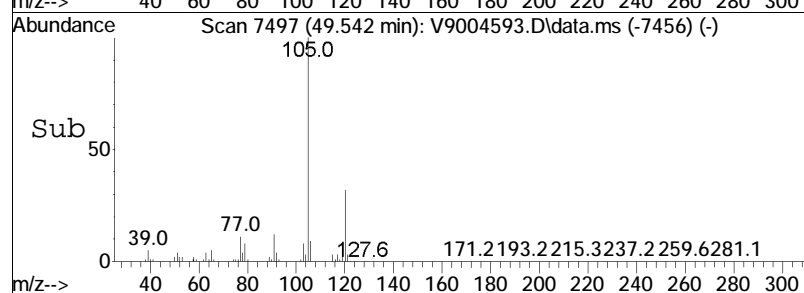
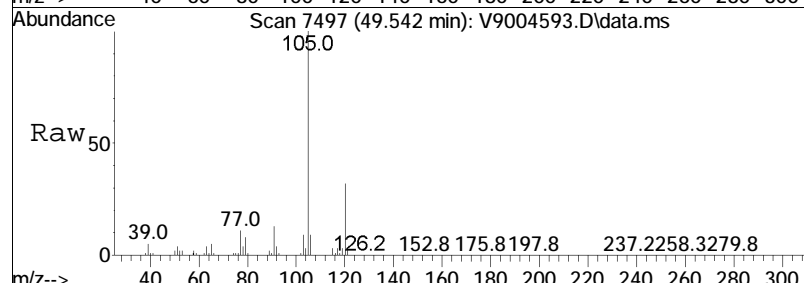
Tgt	Ion	Resp	Lower	Upper
91	100			
120	25.1	4.3	44.3	

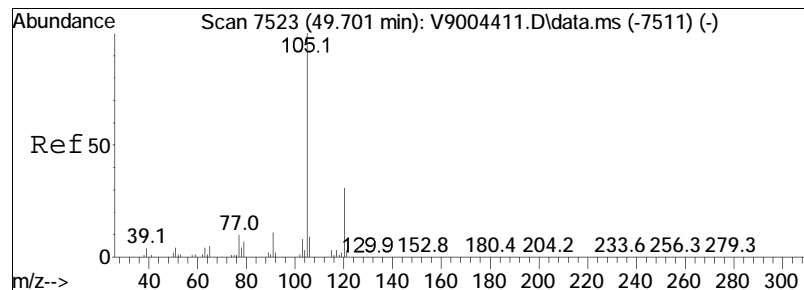




#107
 1-Methyl-3-ethylbenzene
 Concen: 18.06 ug/L
 RT: 49.54 min Scan# 7497
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

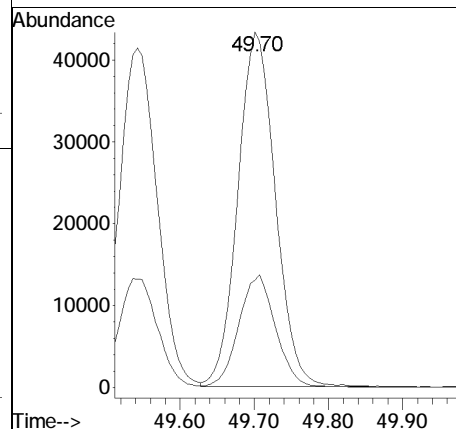
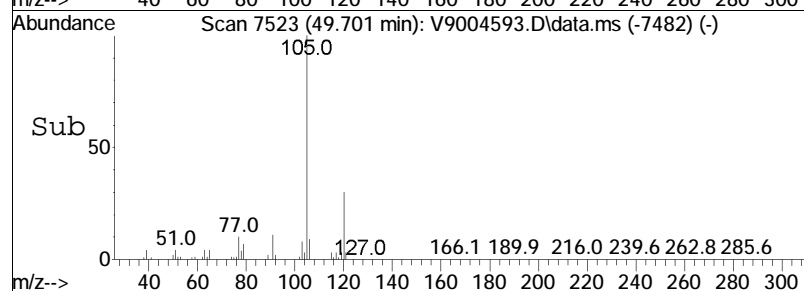
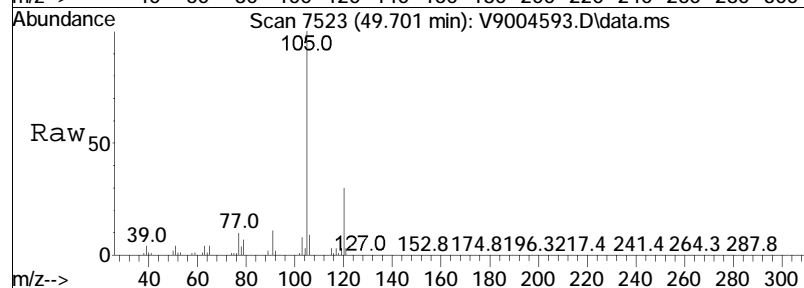
Tgt Ion	Ratio	Lower	Upper
105	100		
120	31.9	12.1	52.1

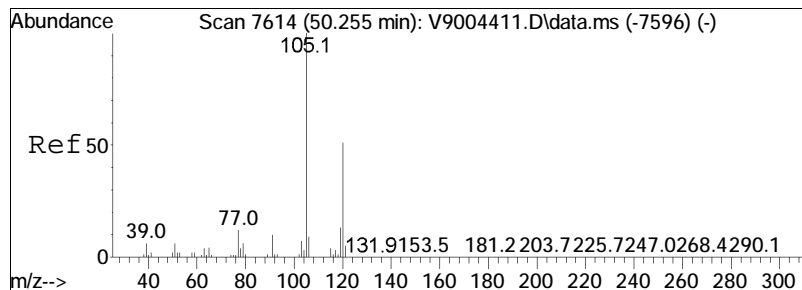




#108
 1-Methyl-4-ethylbenzene
 Concen: 18.92 ug/L
 RT: 49.70 min Scan# 7523
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

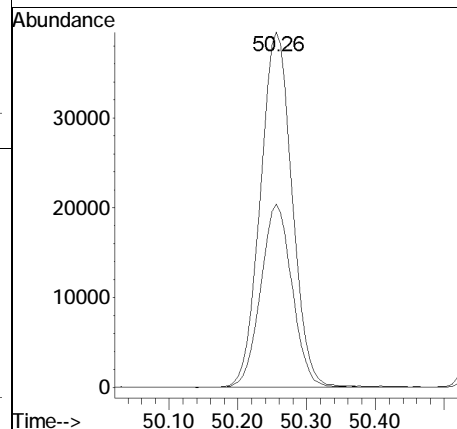
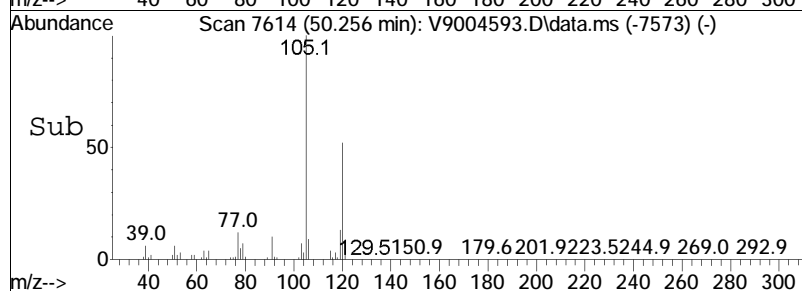
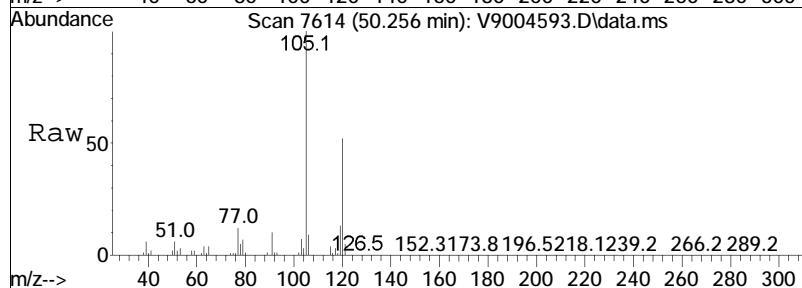
Tgt	Ion	Ratio	Lower	Upper
105	100			
120	30.2	11.1	51.1	

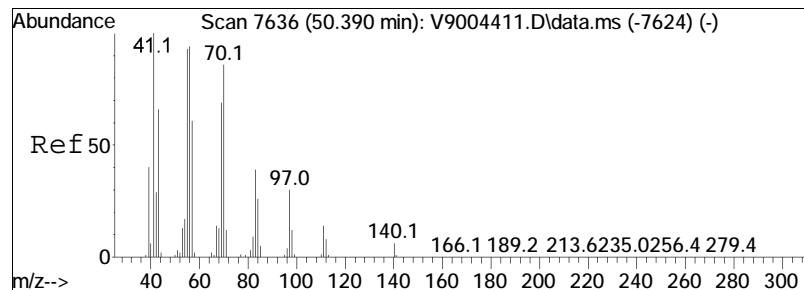




#109
 1,3,5-Trimethylbenzene
 Concen: 18.54 ug/L
 RT: 50.26 min Scan# 7614
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

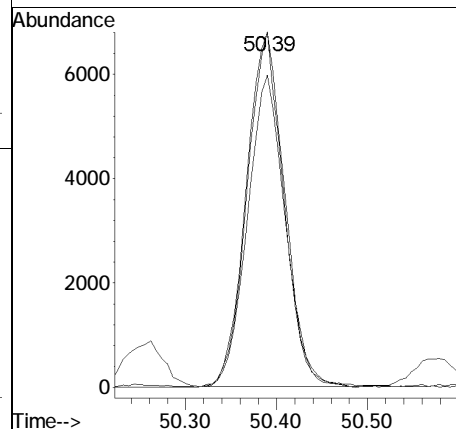
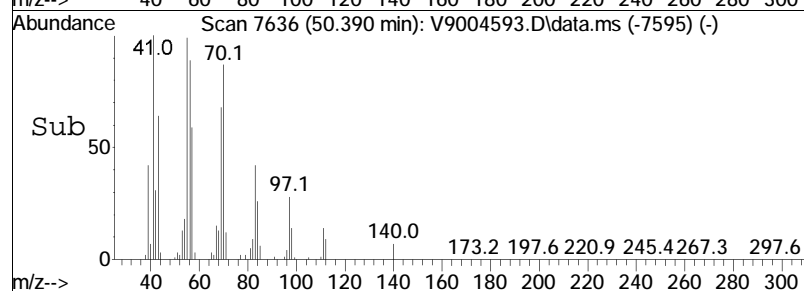
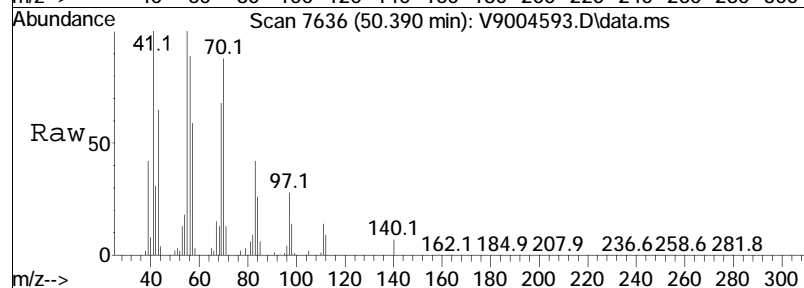
Tgt Ion	Ratio	Lower	Upper
105	100		
120	51.6	31.1	71.1

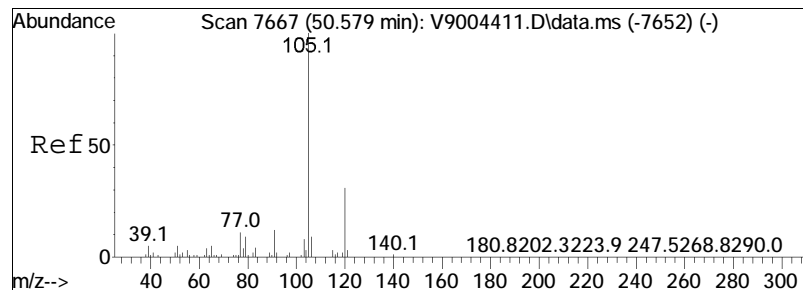




#110
 1-Decene
 Concen: 14.76 ug/L
 RT: 50.39 min Scan# 7636
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

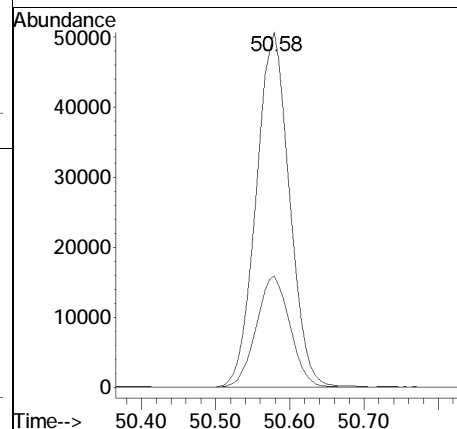
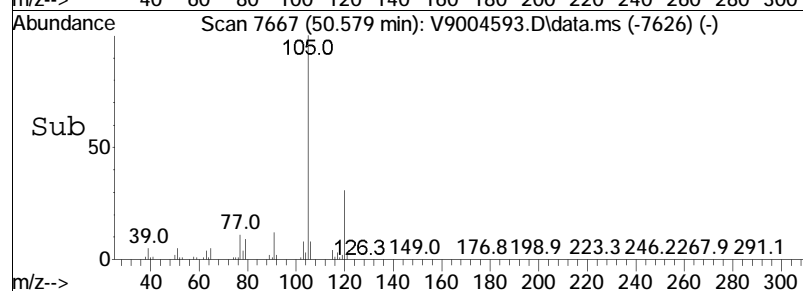
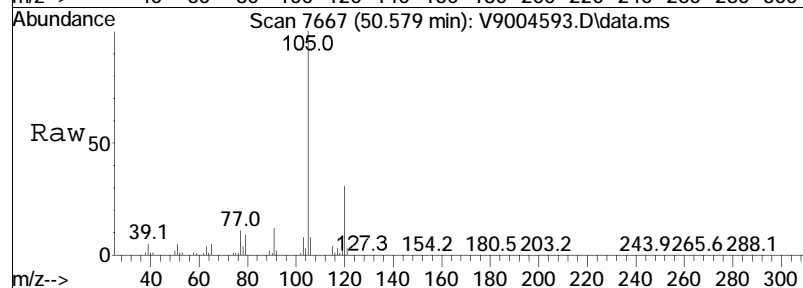
Tgt Ion:	41	Resp:	19966
Ion Ratio	Lower	Upper	
41	100		
55	100.1	73.2	113.2
70	88.0	66.1	106.1

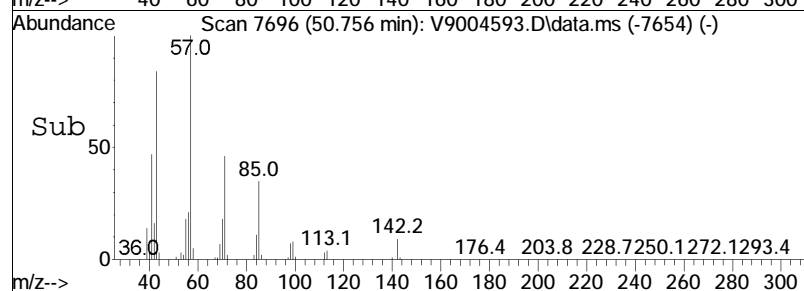
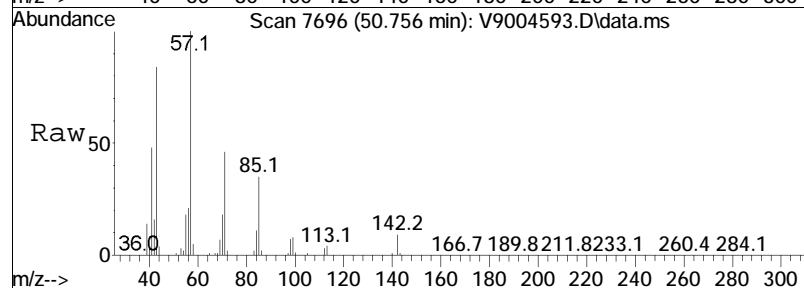
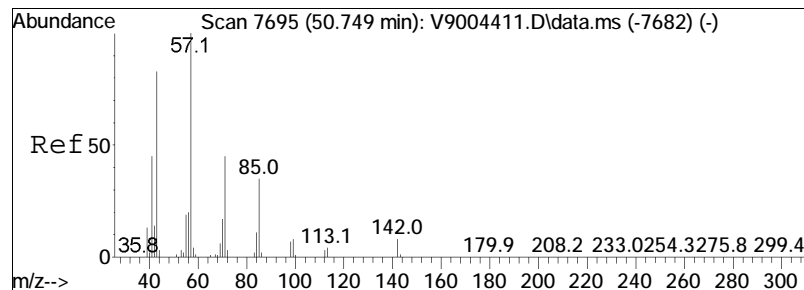




#112
 1-Methyl-2-ethylbenzene
 Concen: 18.48 ug/L
 RT: 50.58 min Scan# 7667
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

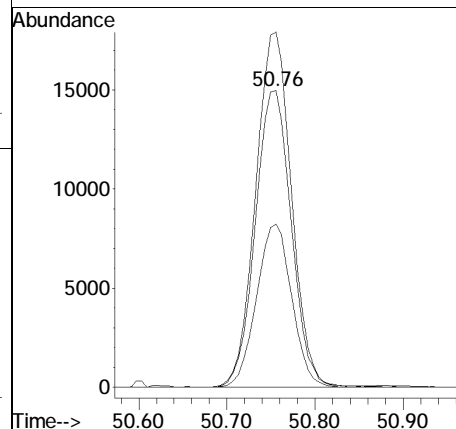
Tgt	Ion	Ratio	Lower	Upper
105	100			
120	31.4	11.4	51.4	

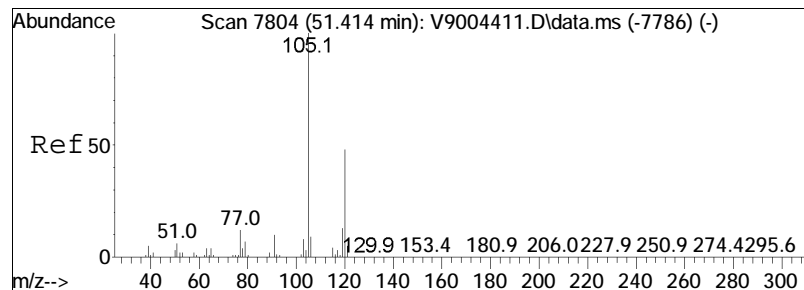




#113
Decane
Concen: 17.58 ug/L
RT: 50.76 min Scan# 7696
Delta R.T. 0.006 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

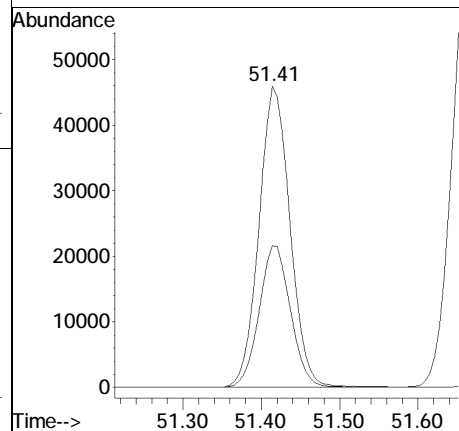
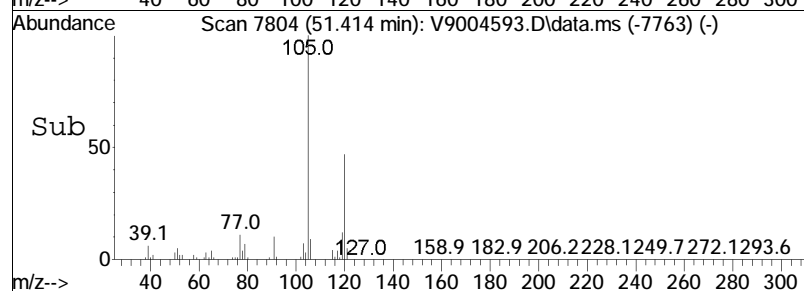
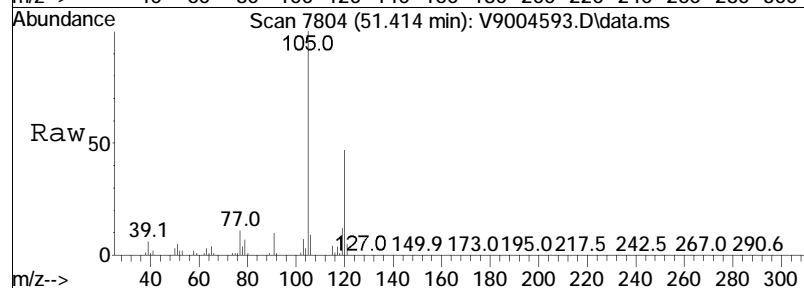
Tgt	Ion:	43	Resp:	42484
Ion	Ratio	Lower	Upper	
43	100			
57	119.7	99.8	139.8	
71	55.0	34.1	74.1	

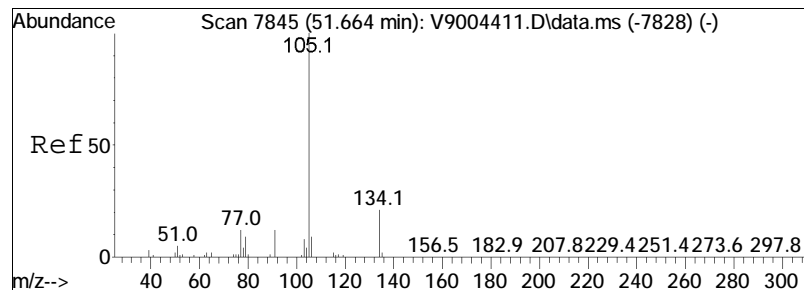




#115
 1,2,4-Trimethylbenzene
 Concen: 17.31 ug/L
 RT: 51.41 min Scan# 7804
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

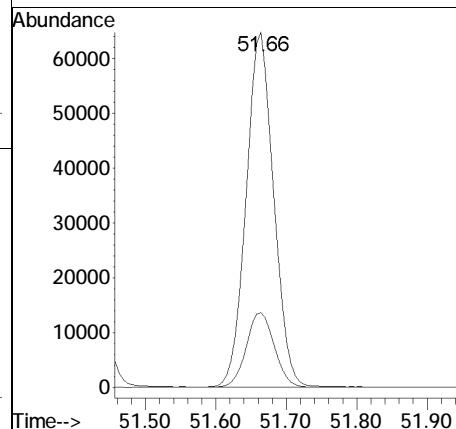
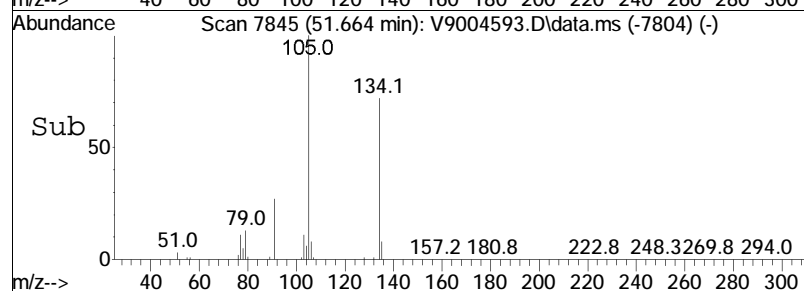
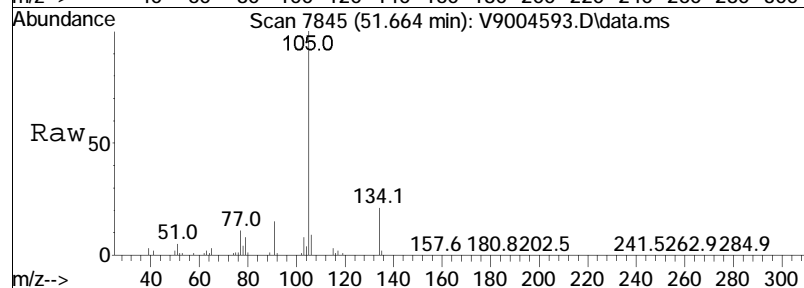
Tgt Ion	Ratio	Lower	Upper
105	100		
120	47.0	27.5	67.5

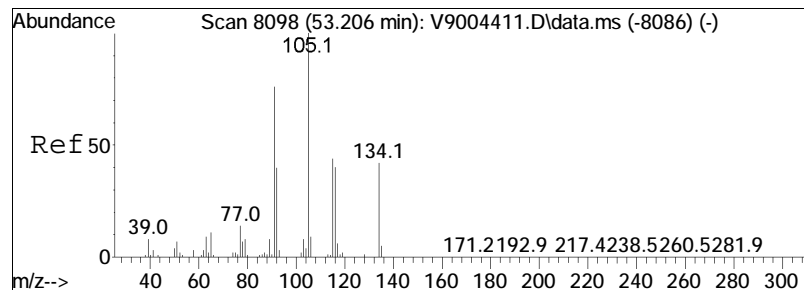




#117
 sec-Butylbenzene
 Concen: 18.91 ug/L
 RT: 51.66 min Scan# 7845
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

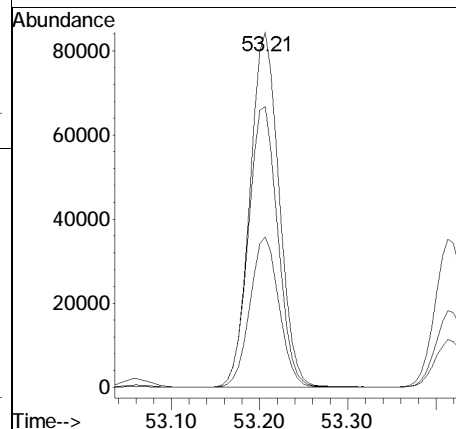
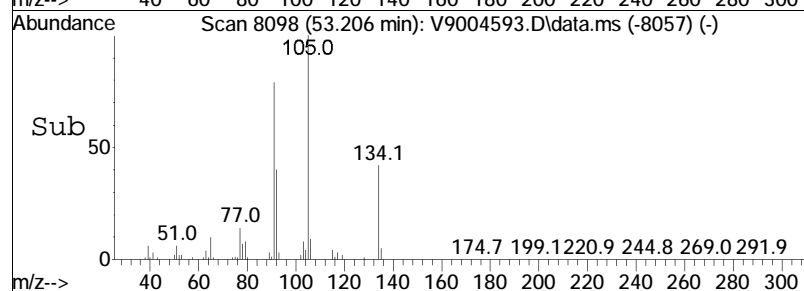
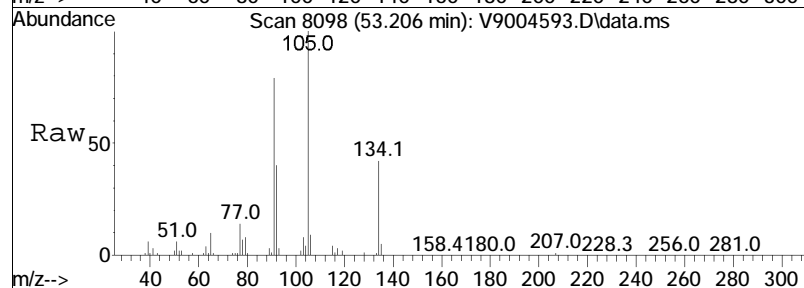
Tgt Ion	Ratio	Lower	Upper
105	100		
134	21.0	1.5	41.5

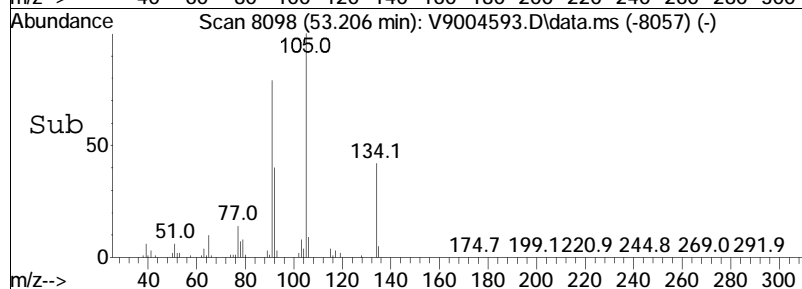
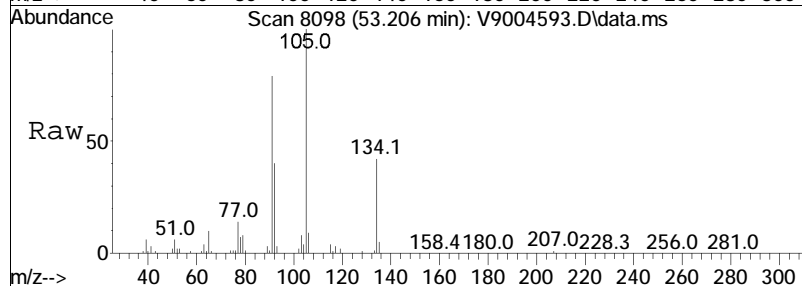
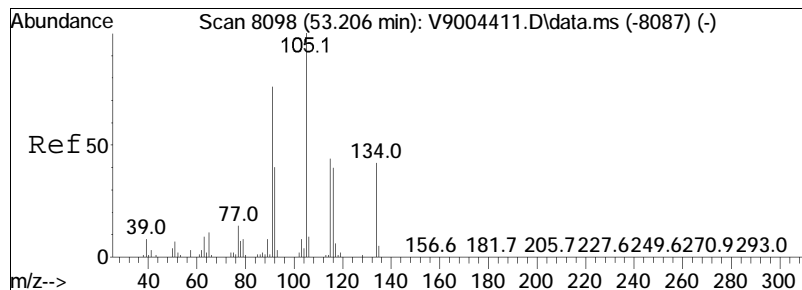




#126
 1-Methyl-4-propylbenzene
 Concen: 17.24 ug/L
 RT: 53.21 min Scan# 8098
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

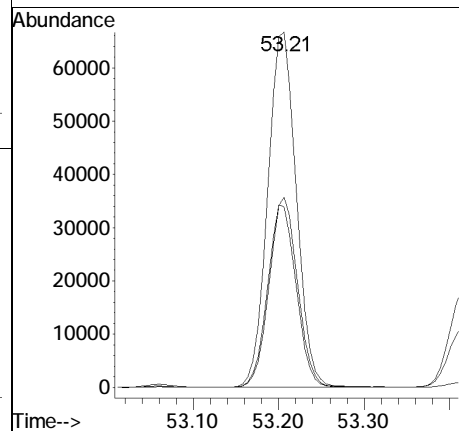
Tgt	Ion:105	Resp:	194114
Ion	Ratio	Lower	Upper
105	100		
134	42.3	21.7	61.7
91	79.0	56.4	96.4

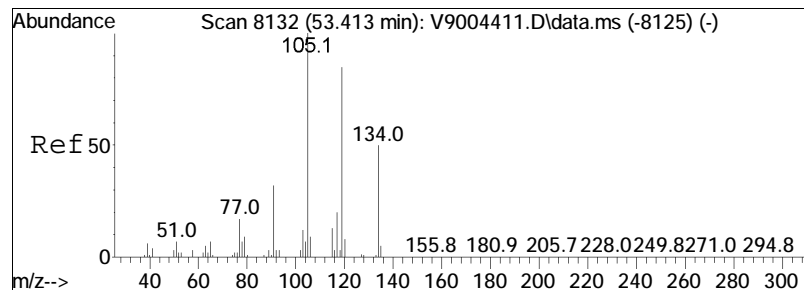




#127
 n-Butylbenzene
 Concen: 17.61 ug/L
 RT: 53.21 min Scan# 8098
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

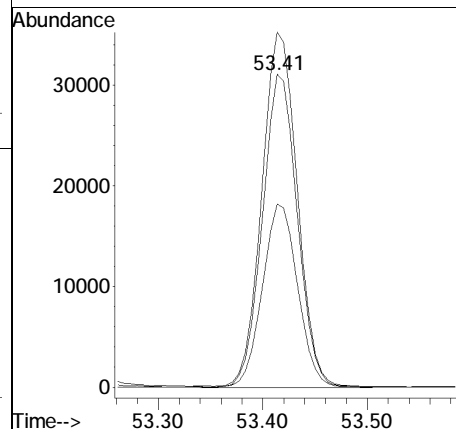
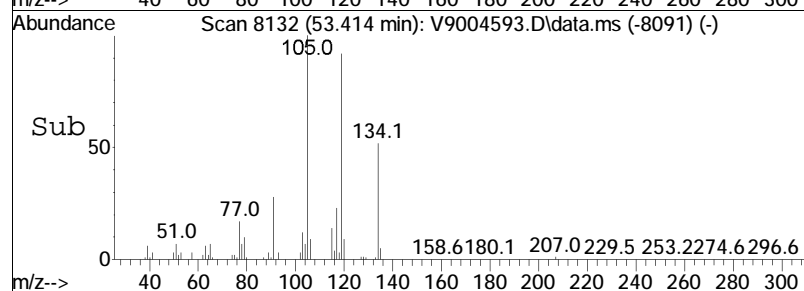
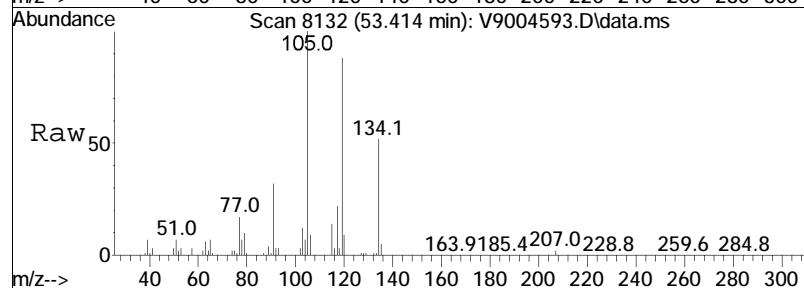
Tgt Ion:	91	Resp:	155200
Ion Ratio	Lower	Upper	
91	100		
92	50.8	31.8	71.8
134	53.6	34.6	74.6

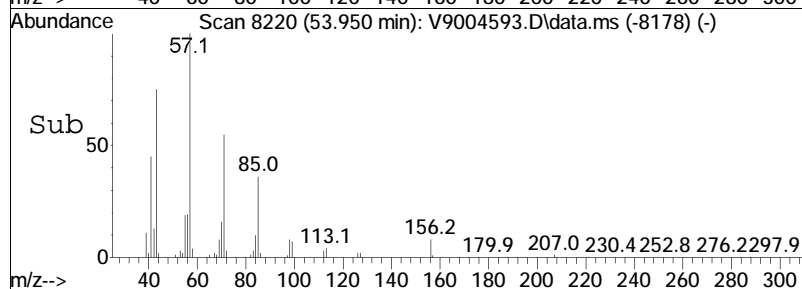
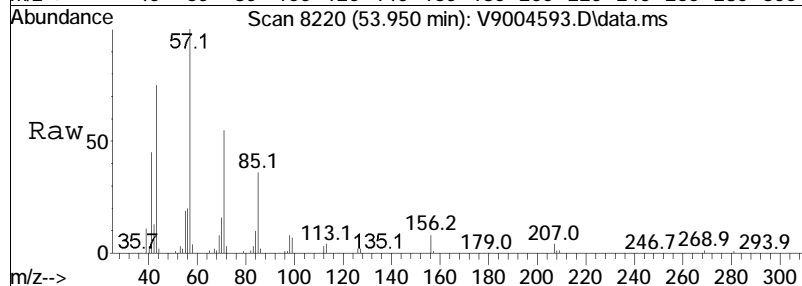
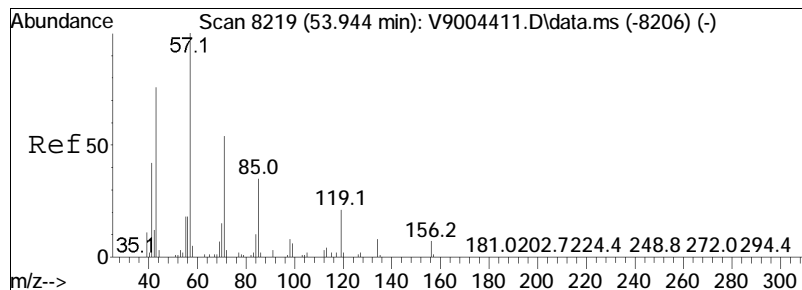




#129
 1,2-Diethylbenzene
 Concen: 17.53 ug/L
 RT: 53.41 min Scan# 8132
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

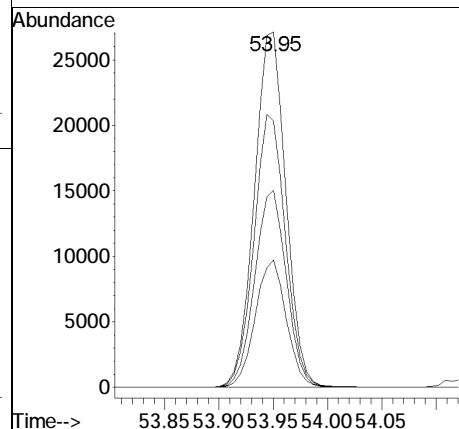
Tgt	Ion:119	Resp:	72344
Ion	Ratio	Lower	Upper
119	100		
105	113.5	95.9	135.9
134	58.6	38.6	78.6

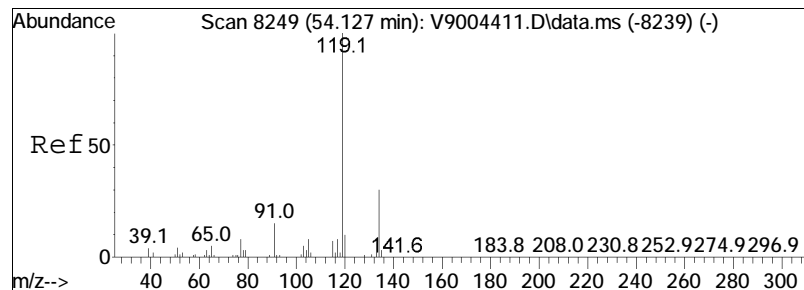




#132
Undecane
Concen: 17.44 ug/L
RT: 53.95 min Scan# 8220
Delta R.T. 0.006 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

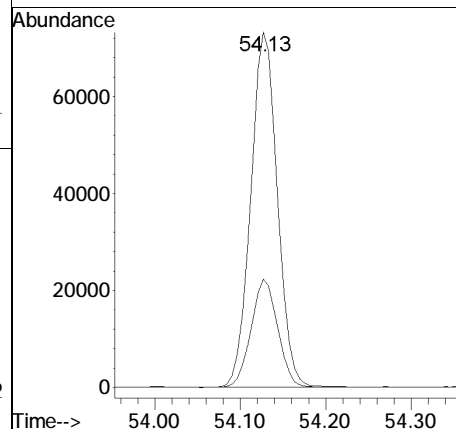
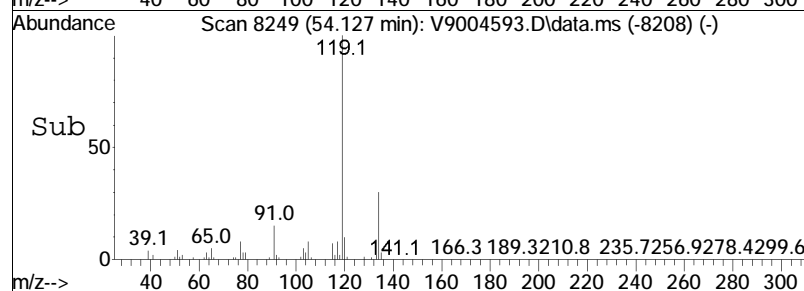
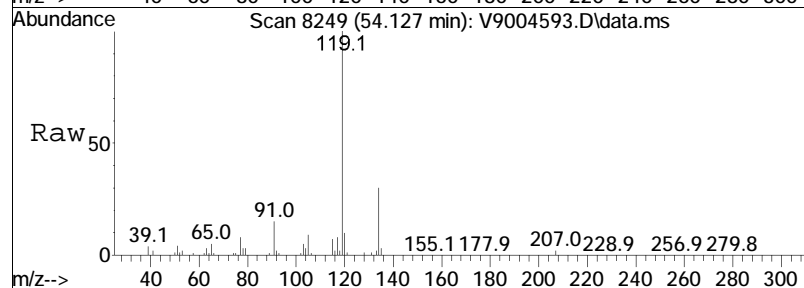
Tgt	Ion: 57	Resp:	54919
Ion	Ratio	Lower	Upper
57	100		
43	74.9	56.0	96.0
71	55.4	34.2	74.2
85	35.9	14.5	54.5

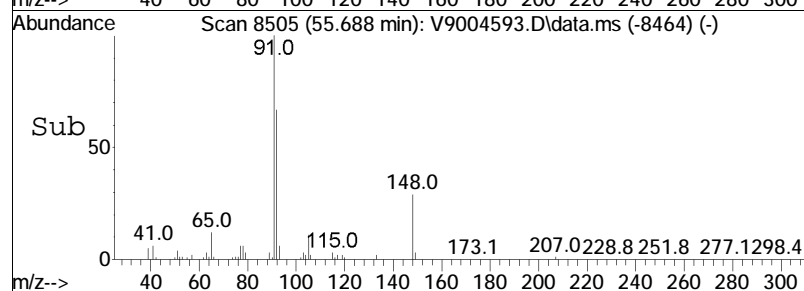
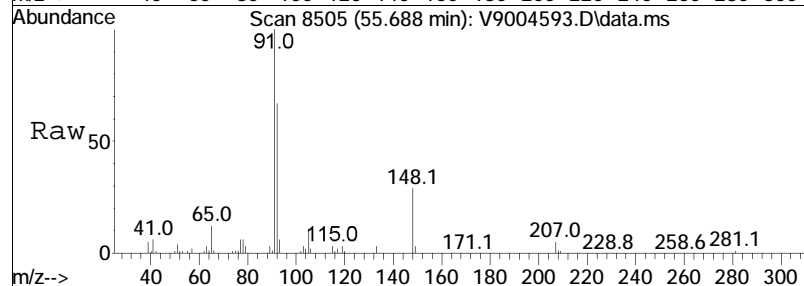
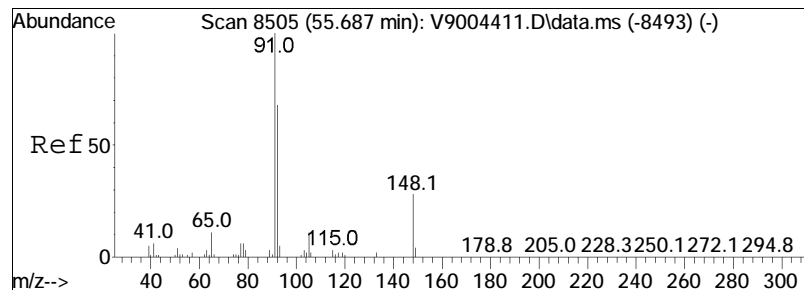




#134
 1,3-Dimethyl-5-ethylbenzene
 Concen: 18.29 ug/L
 RT: 54.13 min Scan# 8249
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

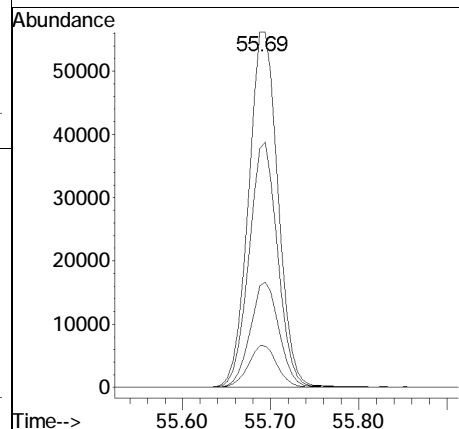
Tgt	Ion	Resp	Lower	Upper
119	100			
134	30.4	10.0	50.0	

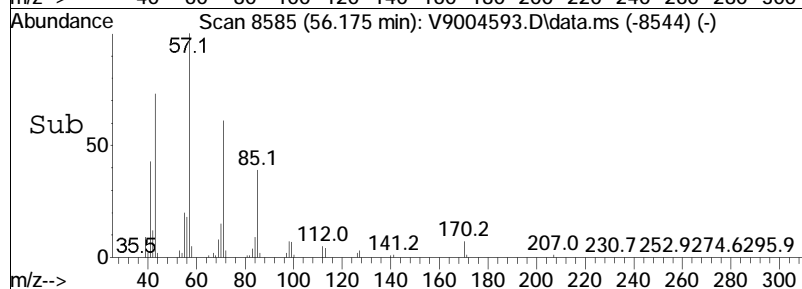
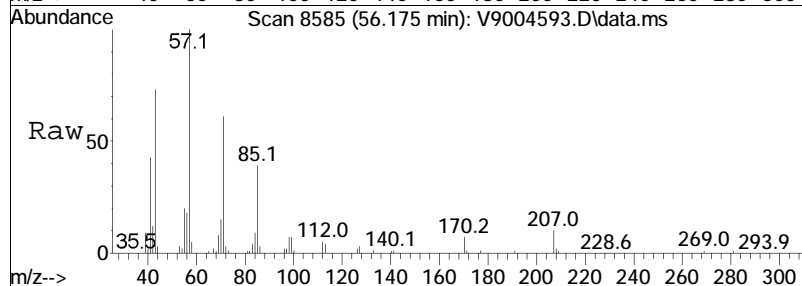
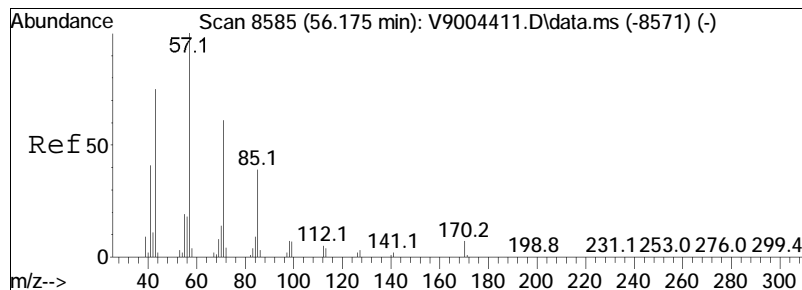




#139
 Pentylbenzene
 Concen: 17.27 ug/L
 RT: 55.69 min Scan# 8505
 Delta R.T. 0.000 min
 Lab File: V9004593.D
 Acq: 02 May 2023 02:55 pm

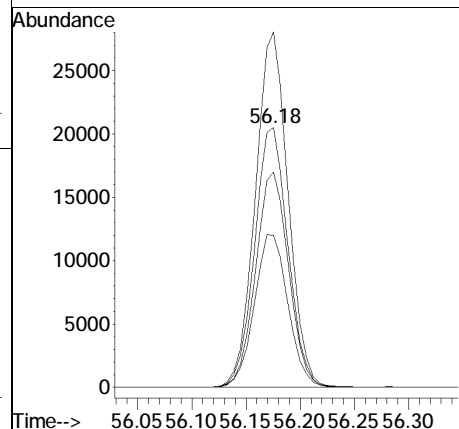
Tgt	Ion: 91	Resp:	130573
Ion	Ratio	Lower	Upper
91	100		
92	67.2	47.8	87.8
65	11.7	0.0	31.4
148	28.6	8.3	48.3





#142
Dodecane
Concen: 20.02 ug/L
RT: 56.18 min Scan# 8585
Delta R.T. 0.000 min
Lab File: V9004593.D
Acq: 02 May 2023 02:55 pm

Tgt	Ion:	43	Resp:	43719
Ion	Ratio	Lower	Upper	
43	100			
57	136.6	114.0	154.0	
71	82.8	61.8	101.8	
41	58.5	35.4	75.4	



Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004618.D
 Acq On : 04 May 2023 12:48 am
 Operator : VOA9:RAY
 Sample : WG1774659-7,31,0.1064,10,0.100
 Misc : WG1774659,ICAL19885
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 08 08:44:44 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	259544	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.10	113	93215	61.568	ug/L	0.00
Spiked Amount 50.000	Range 78 - 118		Recovery	=	123.14%#	
62) Toluene-d8 (surr)	31.20	98	319531	55.272	ug/L	0.00
Spiked Amount 50.000	Range 87 - 113		Recovery	=	110.54%	
101) 4-Bromofluorobenzene (...)	46.49	95	110932	42.575	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery	=	85.15%	
Target Compounds						
						Qvalue
2) 3-Methyl-1-butene	0.00		0	N.D.	d	
3) Isopentane	0.00		0	N.D.	d	
4) 1-Pentene	0.00		0	N.D.	d	
5) 2-Methyl-1-butene	0.00		0	N.D.	d	
6) Pentane	0.00		0	N.D.	d	
7) trans-2-Pentene	0.00		0	N.D.	d	
8) 2-Methyl-1,3-butadiene	0.00		0	N.D.	d	
9) cis-2-Pentene	0.00		0	N.D.	d	
10) Tertiary butanol	0.00		0	N.D.	d	
11) 2,2-Dimethylbutane	0.00		0	N.D.	d	
12) 4-Methyl-1-pentene	0.00		0	N.D.	d	
13) Cyclopentane	0.00		0	N.D.	d	
14) 2,3-Dimethylbutane	0.00		0	N.D.	d	
15) 2-Methylpentane	0.00		0	N.D.	d	
16) MTBE	0.00		0	N.D.	d	
17) 3-Methylpentane	0.00		0	N.D.	d	
18) 1-Hexene	0.00		0	N.D.	d	
19) Hexane	0.00		0	N.D.	d	
20) Diisopropyl ether	0.00		0	N.D.	d	
21) trans-2-Hexene	0.00		0	N.D.	d	
22) 2-Methyl-2-pentene	0.00		0	N.D.	d	
23) cis-2-Hexene	0.00		0	N.D.	d	
25) Ethyl tertiary butyl e...	0.00		0	N.D.	d	
26) 2,2-Dimethylpentane	0.00		0	N.D.	d	
27) Methylcyclopentane	0.00		0	N.D.	d	
28) 2,4-Dimethylpentane	0.00		0	N.D.	d	
29) 2,2,3-Trimethylbutane	0.00		0	N.D.	d	
30) 1,2-Dichloroethane	0.00		0	N.D.	d	
31) 3,3-Dimethylpentane	0.00		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004618.D
 Acq On : 04 May 2023 12:48 am
 Operator : VOA9:RAY
 Sample : WG1774659-7,31,0.1064,10,0.100
 Misc : WG1774659,ICAL19885
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 08 08:44:44 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Cyclohexane	0.00		0	N.D.	d	
33) 2-Methylhexane	0.00		0	N.D.	d	
34) Benzene	21.24	78	3143	0.601	ug/L	96
35) 2,3-Dimethylpentane	0.00		0	N.D.	d	
36) Thiophene	0.00		0	N.D.	d	
37) 1,1-Dimethylcyclopentane	0.00		0	N.D.	d	
38) 3-Methylhexane	0.00		0	N.D.	d	
39) TAME	0.00		0	N.D.	d	
40) cis-1,3-Dimethylcyclop...	0.00		0	N.D.	d	
41) 3-Ethylpentane	0.00		0	N.D.	d	
43) 1-Heptene/trans-1,2-DMCP	0.00		0	N.D.	d	
44) Isooctane	23.30	57	876	0.177	ug/L #	79
45) trans-3-Heptene	0.00		0	N.D.	d	
46) Heptane	0.00		0	N.D.	d	
48) trans-2-Heptene	0.00		0	N.D.	d	
49) cis-2-Heptene	0.00		0	N.D.	d	
50) 2,2-Dimethylhexane	0.00		0	N.D.	d	
51) Methylcyclohexane	26.48	83	1680	0.739	ug/L	93
52) 2,5-Dimethylhexane	0.00		0	N.D.	d	
53) 2,4-Dimethylhexane	27.42	57	329M3	0.185	ug/L	
54) Ethylcyclopentane	0.00		0	N.D.	d	
55) 2,2,3-Trimethylpentane	0.00		0	N.D.	d	
57) 2,3,4-Trimethylpentane	29.19	43	984M4	0.426	ug/L	
58) 2,3,3-Trimethylpentane	29.79	43	820M4	0.421	ug/L	
59) 2,3-Dimethylhexane	30.06	43	478	0.233	ug/L	87
60) 2-Methylheptane	30.50	57	1642M4	0.818	ug/L	
61) 4-Methylheptane	0.00		0	N.D.	d	
63) 3-Methylheptane	0.00		0	N.D.	d	
65) 3-Ethylhexane	0.00		0	N.D.	d	
66) Toluene	31.55	91	672M4	0.119	ug/L	
67) 2-Methylthiophene	0.00		0	N.D.	d	
68) trans-1,4-Dimethylcycl...	32.16	97	6894M6	2.464	ug/L	
69) 3-Methylthiophene	0.00		0	N.D.	d	
70) 1-Octene	0.00		0	N.D.	d	
71) Octane	0.00		0	N.D.	d	
72) trans-1,2-Dimethylcycl...	34.02	55	8109	4.741	ug/L	94
73) 1,2-Dibromoethane	0.00		0	N.D.	d	
75) cis-2-Octene	0.00		0	N.D.	d	
76) Isopropylcyclopentane	0.00		0	N.D.	d	
77) cis-1,2-Dimethylcycloh...	37.04	55	5522	3.332	ug/L #	79
78) 2,5-Dimethylheptane	37.38	57	5281	1.772	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004618.D
 Acq On : 04 May 2023 12:48 am
 Operator : VOA9:RAY
 Sample : WG1774659-7,31,0.1064,10,0.100
 Misc : WG1774659,ICAL19885
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 08 08:44:44 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 3,5-Dimethylheptane	37.52	57	2240M3	0.619	ug/L	
80) 3,3-Dimethylheptane	37.75	57	605M4	0.263	ug/L	
81) 1,1,4-Trimethylcyclohe...	0.00		0	N.D.	d	
82) 2,3-Dimethylheptane	39.44	43	13377	5.630	ug/L	97
83) 3,4-Dimethylheptane	39.77	43	3481M4	2.242	ug/L	
84) 4-Methyloctane	40.05	43	3776	1.597	ug/L	94
85) 2-Methyloctane	40.10	43	2598M3	1.233	ug/L	
86) Ethylbenzene	0.00		0	N.D.	d	
88) 2-Ethylthiophene	0.00		0	N.D.	d	
89) 3-Methyloctane	40.80	57	14897	3.687	ug/L	94
90) 3,3-Diethylpentane	0.00		0	N.D.	d	
91) p/m-Xylene	41.89	91	2393M4	0.478	ug/L	
92) 1-Nonene	0.00		0	N.D.	d	
93) trans-3-Nonene	0.00		0	N.D.	d	
94) cis-3-Nonene	0.00		0	N.D.	d	
95) Nonane	0.00		0	N.D.	d	
96) Styrene	0.00		0	N.D.	d	
98) o-Xylene	44.19	91	2589	0.498	ug/L	94
99) 2-Nonene	0.00		0	N.D.	d	
100) Isopropylcyclohexane	0.00		0	N.D.	d	
102) Isopropylbenzene	46.51	105	21137	3.128	ug/L	100
103) 3,3-Dimethyloctane	47.02	71	5244	1.445	ug/L #	63
104) n-Propylbenzene	48.97	91	11819	1.570	ug/L	97
105) 2-Methylnonane	0.00		0	N.D.	d	
106) 3-Methylnonane	49.40	57	5259	2.127	ug/L	79
107) 1-Methyl-3-ethylbenzene	0.00		0	N.D.	d	
108) 1-Methyl-4-ethylbenzene	49.70	105	1538	0.238	ug/L	96
109) 1,3,5-Trimethylbenzene	50.25	105	1825	0.331	ug/L	77
110) 1-Decene	0.00		0	N.D.	d	
111) Isobutylcyclohexane	0.00		0	N.D.	d	
112) 1-Methyl-2-ethylbenzene	50.57	105	10690	1.556	ug/L	99
113) Decane	0.00		0	N.D.	d	
114) tert-Butylbenzene	51.01	119	3090	0.604	ug/L #	75
115) 1,2,4-Trimethylbenzene	51.43	105	1571	0.267	ug/L	88
116) Isobutylbenzene	51.61	91	14455M4	2.248	ug/L	
117) sec-Butylbenzene	51.66	105	32140	4.298	ug/L	99
118) 1-Methyl-3-isopropylbe...	0.00		0	N.D.	d	
119) 1-Methyl-4-isopropylbe...	0.00		0	N.D.	d	
120) 1,2,3-Trimethylbenzene	0.00		0	N.D.	d	
121) 1-Methyl-2-isopropylbe...	52.71	119	9657	1.482	ug/L	85
122) Indan	52.79	117	12285	2.071	ug/L	88

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004618.D
 Acq On : 04 May 2023 12:48 am
 Operator : VOA9:RAY
 Sample : WG1774659-7,31,0.1064,10,0.100
 Misc : WG1774659,ICAL19885
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 08 08:44:44 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : PIANO_NEW-NHS - PIANO

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
123) 1,3-Diethylbenzene	52.94	105	29037	7.038	ug/L	100
124) 1-Methyl-3-propylbenzene	0.00		0	N.D.	d	
125) Indene	53.21	115	2883	0.515	ug/L #	74
126) 1-Methyl-4-propylbenzene	53.21	105	9914	1.093	ug/L #	1
127) n-Butylbenzene	53.20	91	29129	4.102	ug/L #	84
128) 1,2-Dimethyl-4-ethylbe...	0.00		0	N.D.	d	
129) 1,2-Diethylbenzene	53.41	119	16046	4.825	ug/L	98
130) 1-Methyl-2-propylbenzene	53.60	105	2479	0.302	ug/L	94
131) 1,4-Dimethyl-2-ethylbe...	0.00		0	N.D.	d	
132) Undecane	53.96	57	21867	8.618	ug/L	87
133) 1,3-Dimethyl-4-ethylbe...	0.00		0	N.D.	d	
134) 1,3-Dimethyl-5-ethylbe...	54.13	119	55054	7.870	ug/L	97
135) 1,3-Dimethyl-2-ethylbe...	54.35	119	41154M3	5.390	ug/L	
136) 1,2-Dimethyl-3-ethylbe...	0.00		0	N.D.	d	
137) 1,2,4,5-Tetramethylben...	55.13	119	210360M6	29.257	ug/L	
138) 1,2,3,5-Tetramethylben...	0.00		0	N.D.	d	
139) Pentylbenzene	55.69	91	16512	2.710	ug/L	85
140) 1,2,3,4-Tetramethylben...	0.00		0	N.D.	d	
141) 1,3-DM-5-tert-Butylben...	0.00		0	N.D.	d	
142) Dodecane	0.00		0	N.D.	d	
143) 1,3,5-Triethylbenzene	0.00		0	N.D.	d	
144) Naphthalene	57.06	128	20496	2.460	ug/L #	41
145) Benzothiophene	0.00		0	N.D.	d	
146) 1,2,4-Triethylbenzene	0.00		0	N.D.	d	
147) Hexylbenzene	0.00		0	N.D.	d	
148) MMT	0.00		0	N.D.	d	
149) Tridecane	58.28	57	20539M3	9.934	ug/L	
150) 2-Methylnaphthalene	0.00		0	N.D.	d	
151) 1-Methylnaphthalene	0.00		0	N.D.	d	
152) Tetradecane	0.00		0	N.D.	d	
153) Pentadecane	0.00		0	N.D.	d	

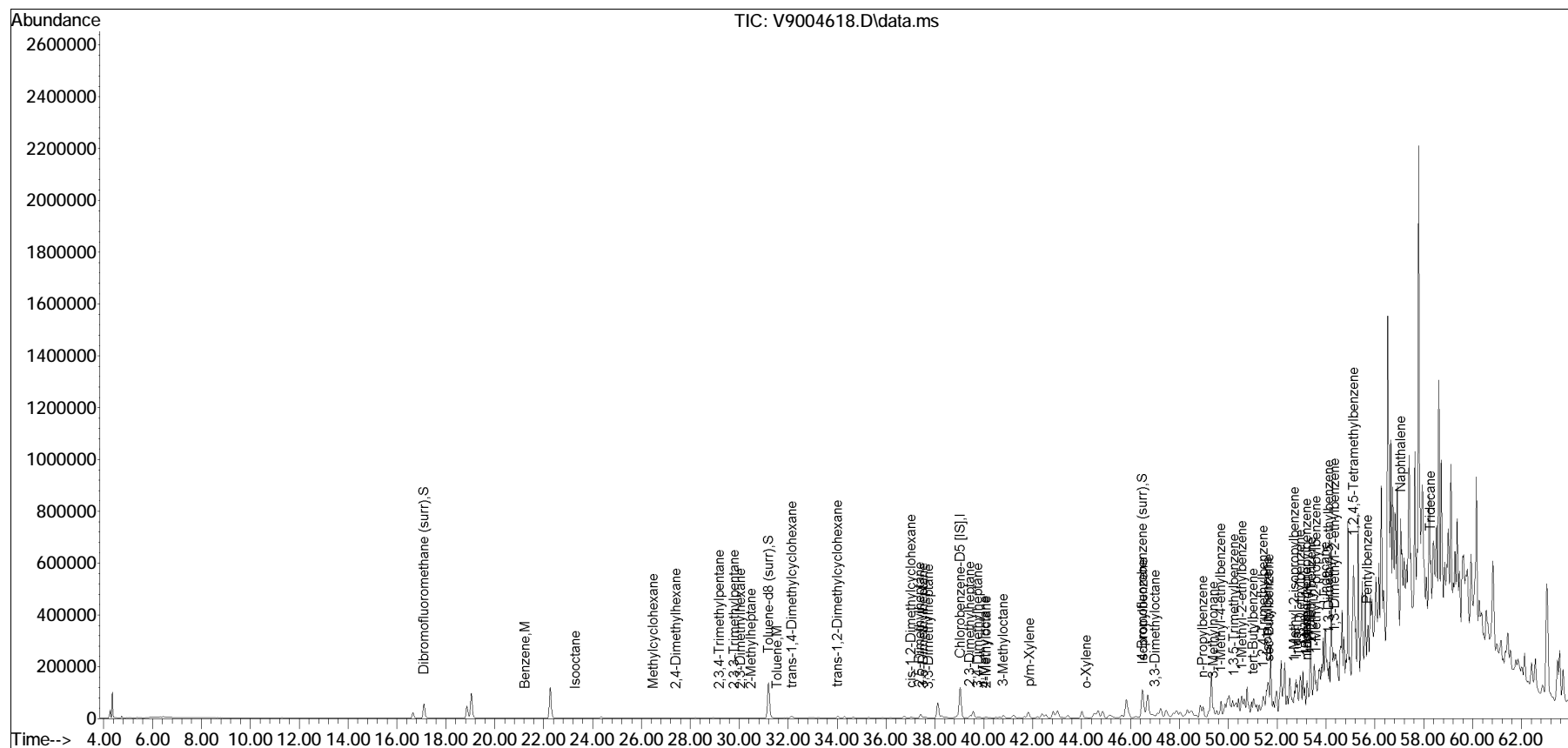
(#) = qualifier out of range (m) = manual integration (+) = signals summed

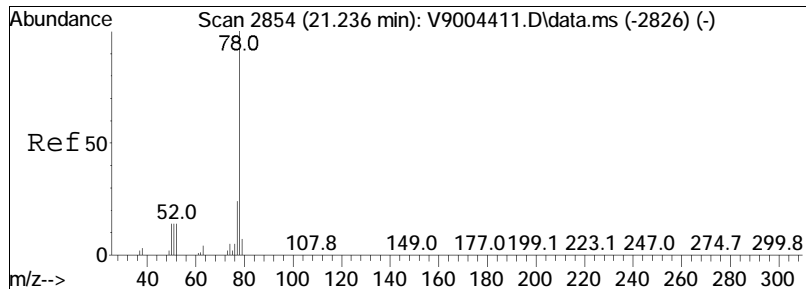
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004618.D
 Acq On : 04 May 2023 12:48 am
 Operator : VOA9:RAY
 Sample : WG1774659-7,31,0.1064,10,0.100
 Misc : WG1774659,ICAL19885
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 08 08:44:44 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
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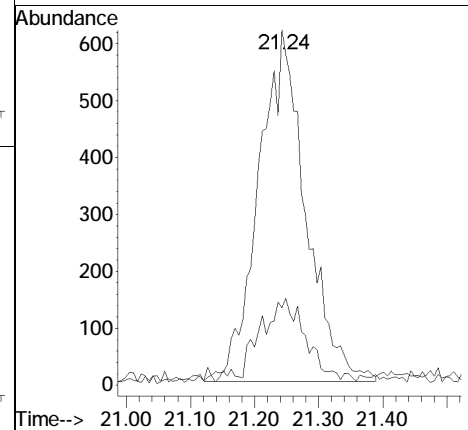
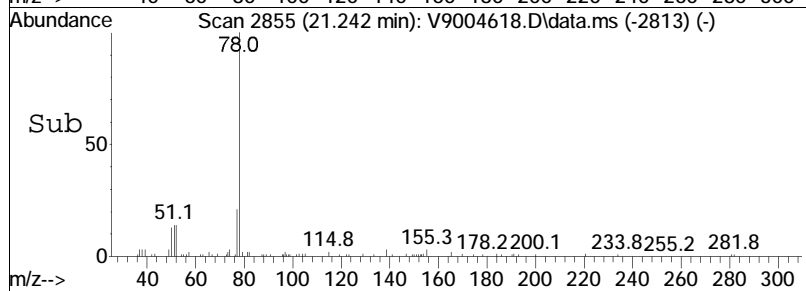
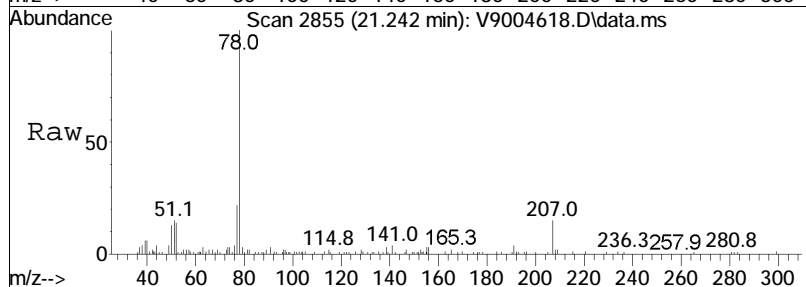
Sub List : PIANO_NEW-NHS - PIANO

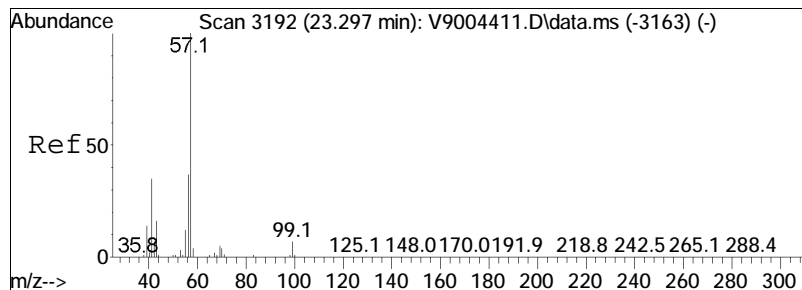




#34
Benzene
Concen: 0.60 ug/L
RT: 21.24 min Scan# 2855
Delta R.T. 0.006 min
Lab File: V9004618.D
Acq: 04 May 2023 12:48 am

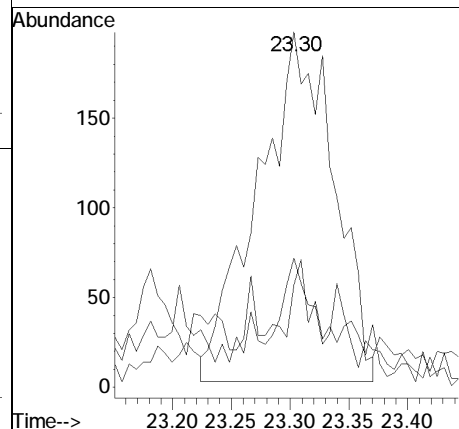
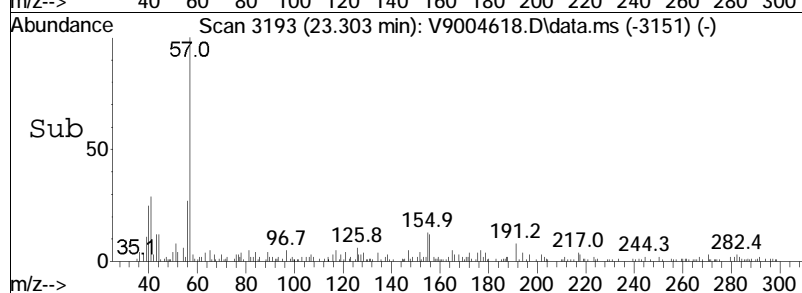
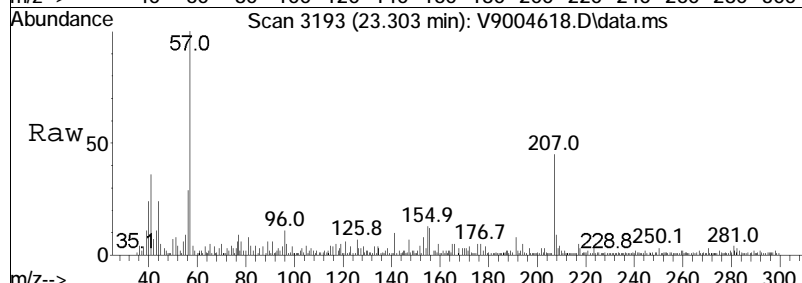
Tgt Ion: 78 Resp: 3143
Ion Ratio Lower Upper
78 100
77 21.8 4.0 44.0

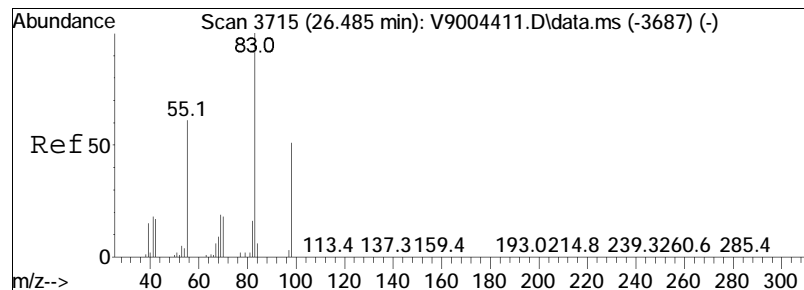




#44
 Isooctane
 Concen: 0.18 ug/L
 RT: 23.30 min Scan# 3193
 Delta R.T. 0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

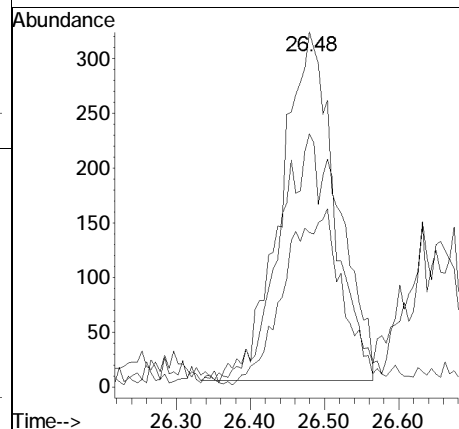
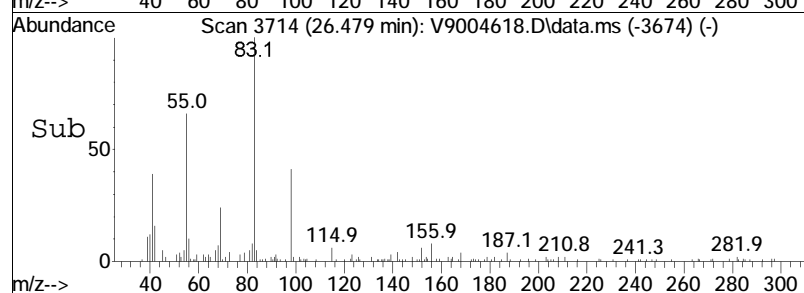
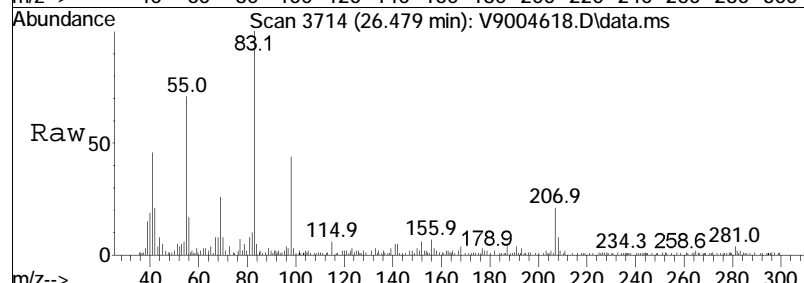
Tgt Ion	Ratio	Lower	Upper
57	100		
41	36.4	21.7	61.7
56	28.8	30.1	70.1#

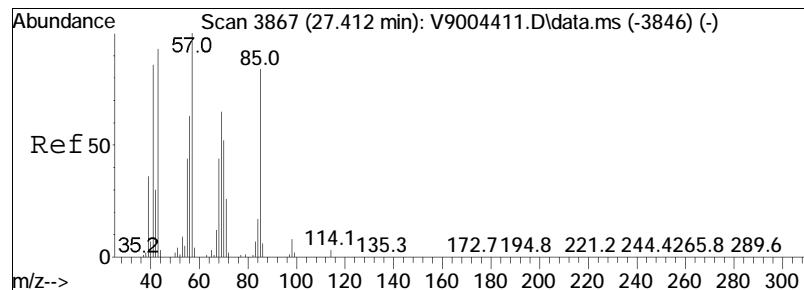




#51
Methylcyclohexane
Concen: 0.74 ug/L
RT: 26.48 min Scan# 3714
Delta R.T. -0.006 min
Lab File: V9004618.D
Acq: 04 May 2023 12:48 am

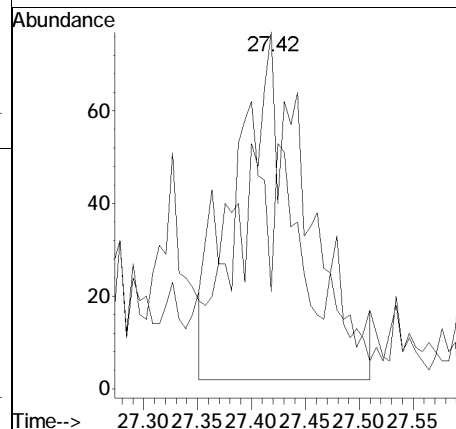
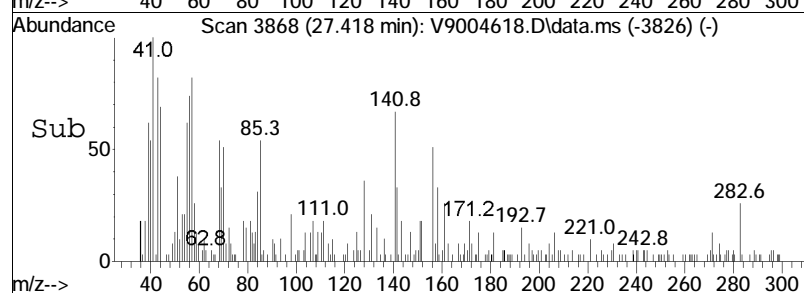
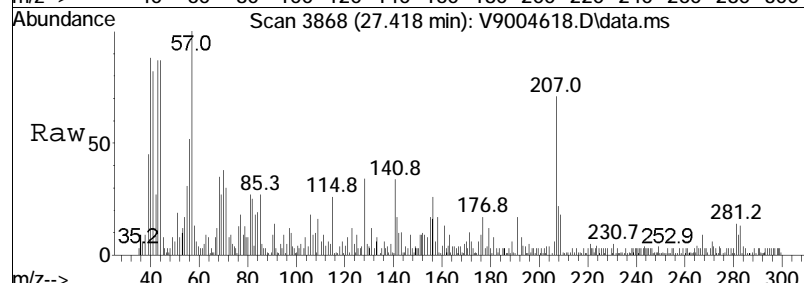
Tgt Ion	Ratio	Lower	Upper
83	100		
55	67.7	45.6	85.6
98	41.3	30.8	70.8

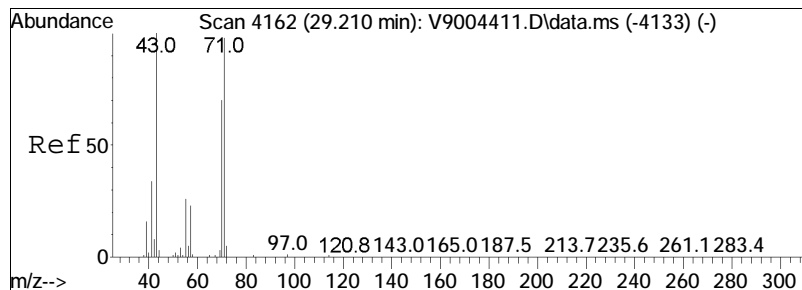




#53
 2,4-Dimethylhexane
 Concen: 0.18 ug/L m
 RT: 27.42 min Scan# 3868
 Delta R.T. 0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

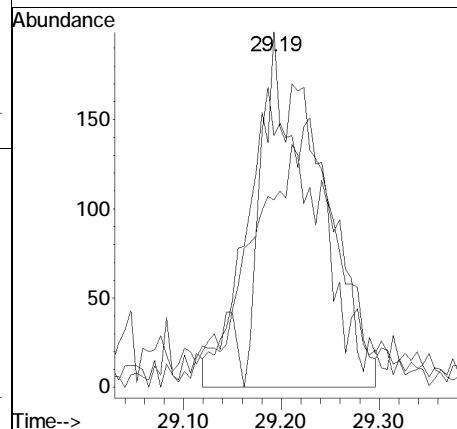
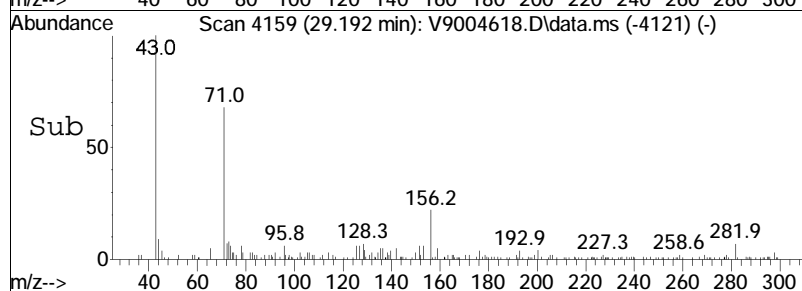
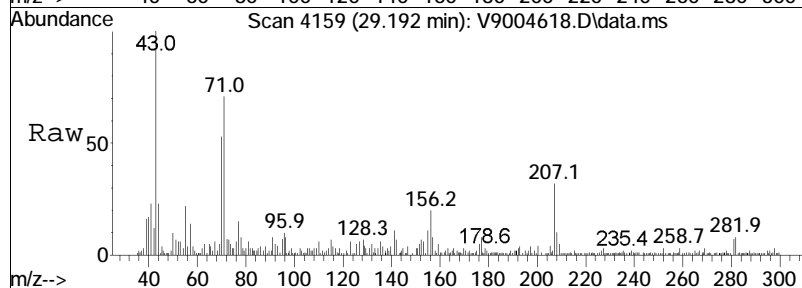
Tgt Ion: 57 Resp: 329
 Ion Ratio Lower Upper
 57 100
 85 27.3 63.5 103.5#

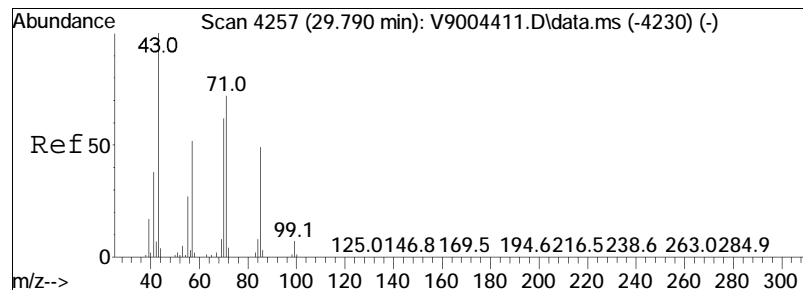




#57
 2,3,4-Trimethylpentane
 Concen: 0.43 ug/L m
 RT: 29.19 min Scan# 4159
 Delta R.T. -0.018 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

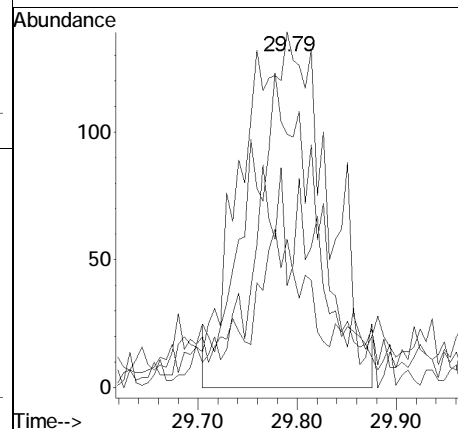
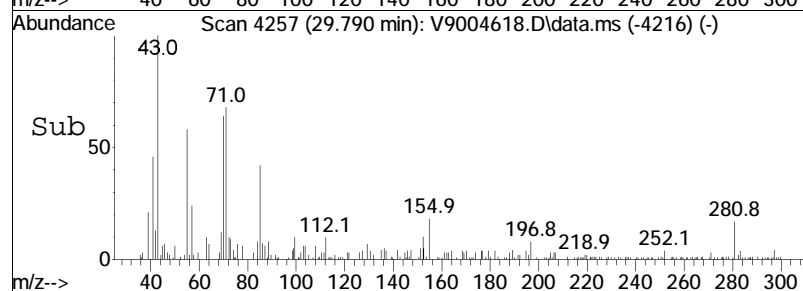
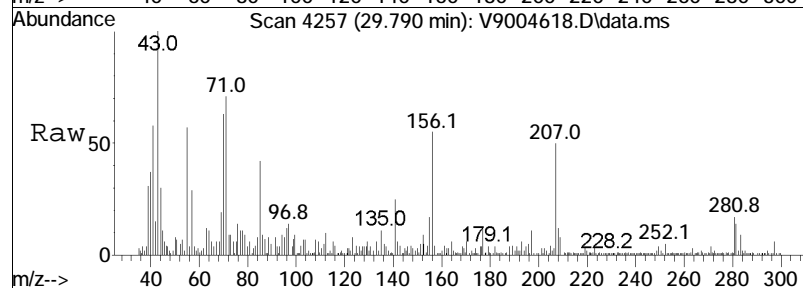
Tgt Ion:	43	Resp:	984
Ion Ratio	Lower	Upper	
43	100		
71	70.9	77.6	117.6#
70	52.8	50.5	90.5

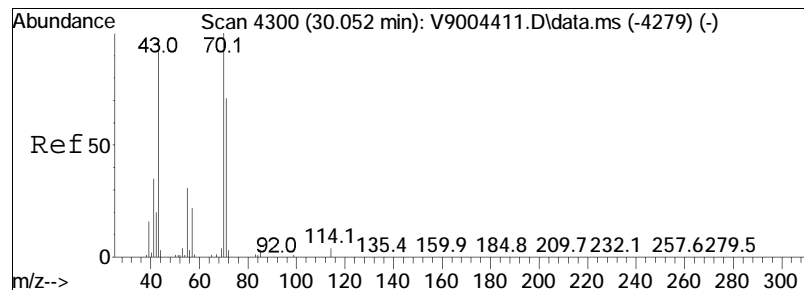




#58
 2,3,3-Trimethylpentane
 Concen: 0.42 ug/L m
 RT: 29.79 min Scan# 4257
 Delta R.T. 0.000 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

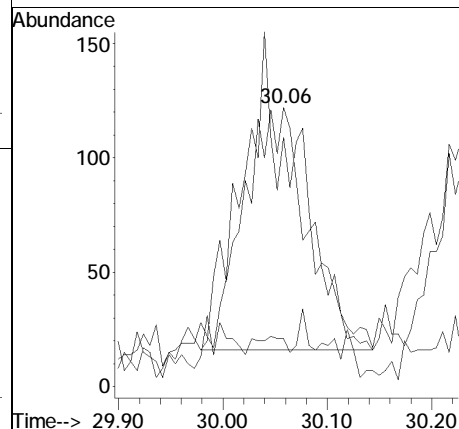
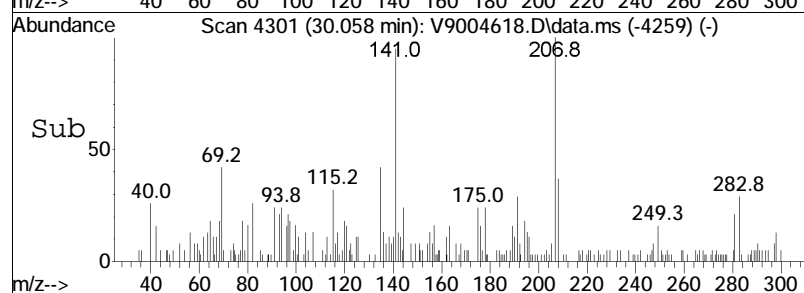
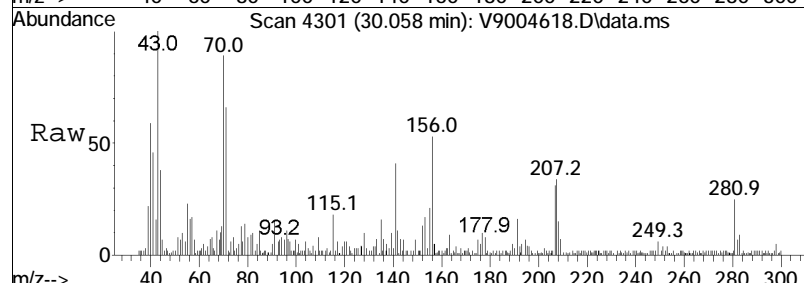
Tgt Ion:	43	Resp:	820
Ion	Ratio	Lower	Upper
43	100		
71	71.2	52.1	92.1
57	28.8	32.2	72.2#
85	41.7	28.9	68.9

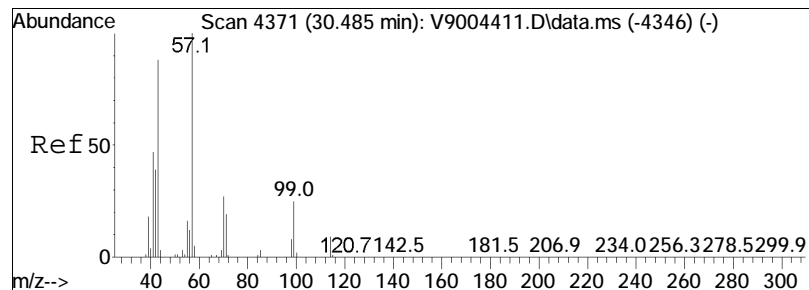




#59
 2,3-Dimethylhexane
 Concen: 0.23 ug/L
 RT: 30.06 min Scan# 4301
 Delta R.T. 0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

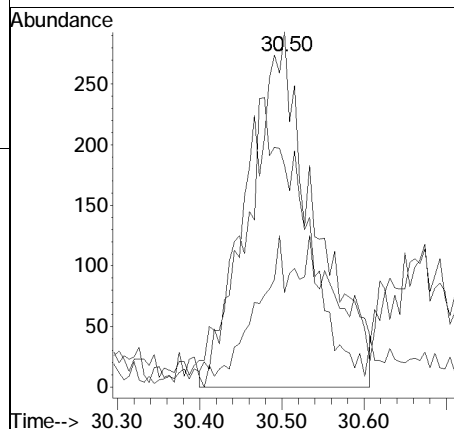
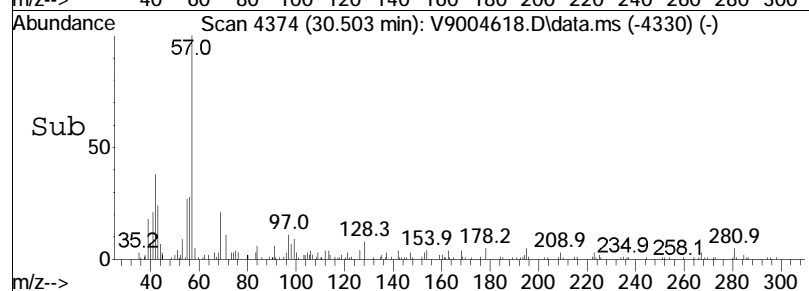
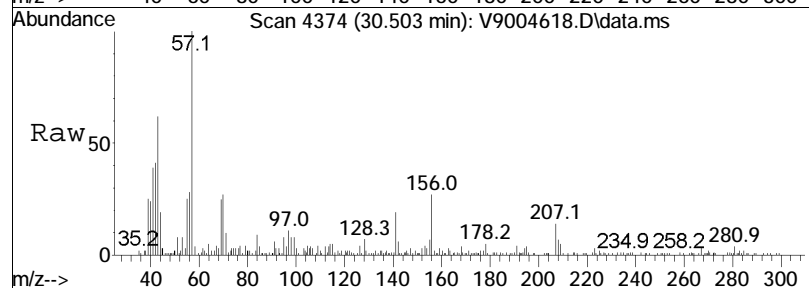
Tgt	Ion	Ratio	Lower	Upper
43	100			
70	89.3	83.1	123.1	
57	17.2	2.8	42.8	

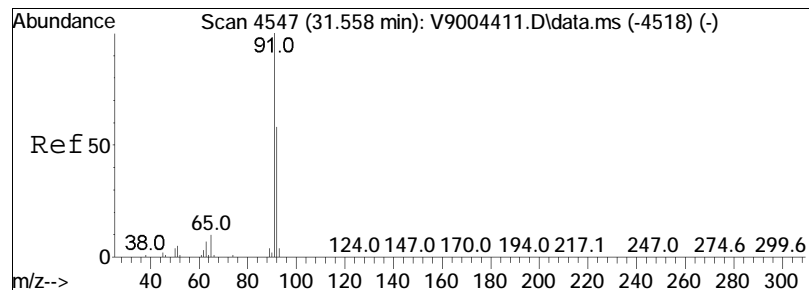




#60
 2-Methylheptane
 Concen: 0.82 ug/L m
 RT: 30.50 min Scan# 4374
 Delta R.T. 0.018 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

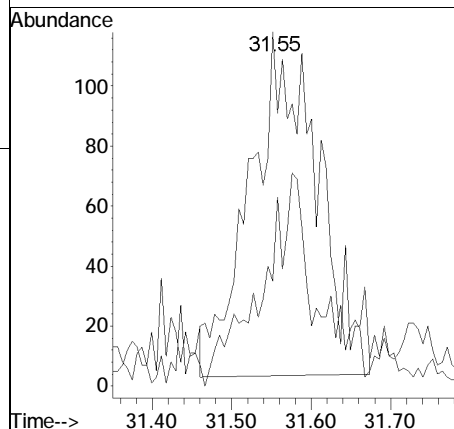
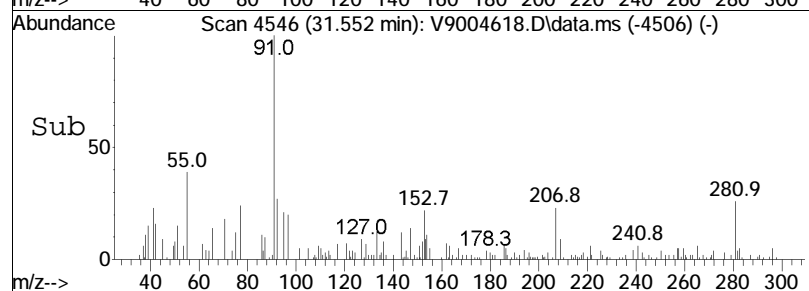
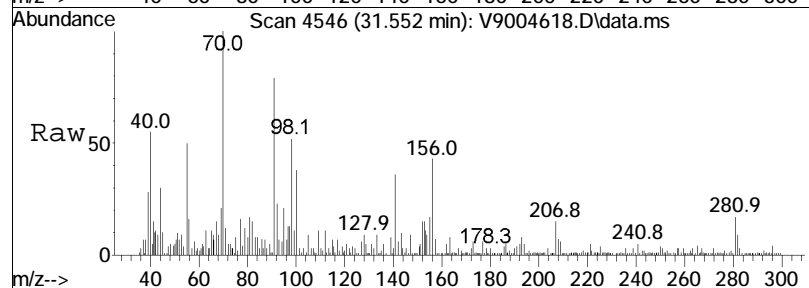
Tgt Ion	Ratio	Lower	Upper
57	100		
43	62.5	68.6	108.6#
70	26.6	7.6	47.6

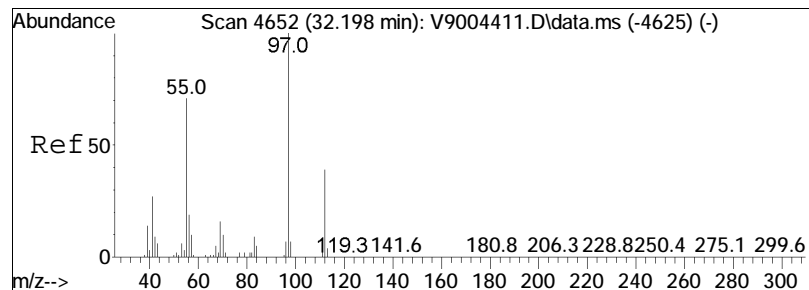




#66
Toluene
Concen: 0.12 ug/L m
RT: 31.55 min Scan# 4546
Delta R.T. -0.006 min
Lab File: V9004618.D
Acq: 04 May 2023 12:48 am

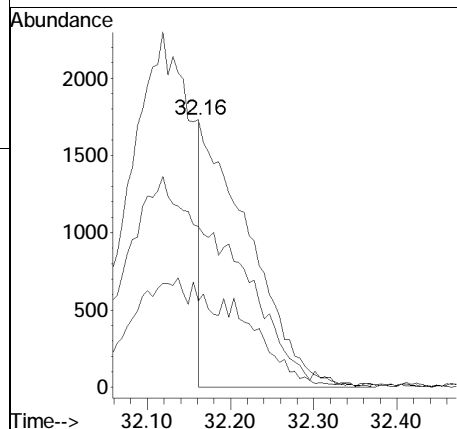
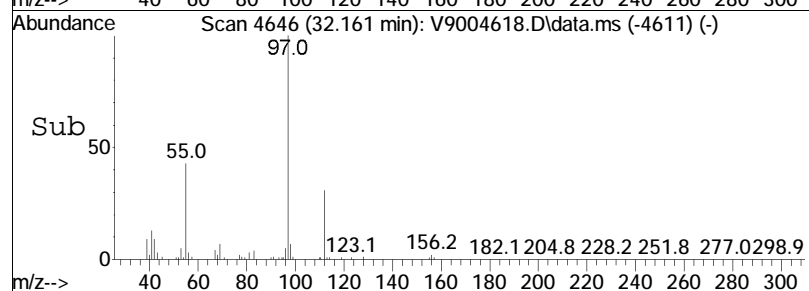
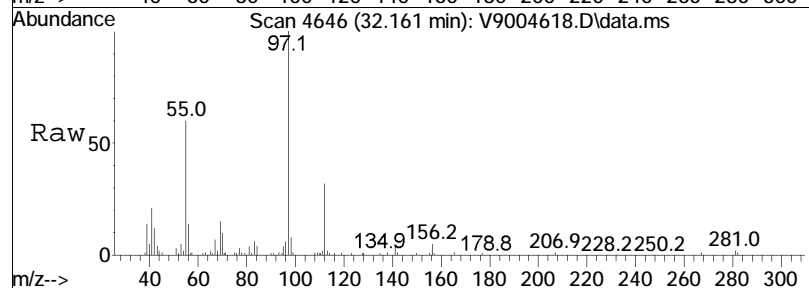
Tgt Ion	Ratio	Lower	Upper
91	100		
92	29.7	37.9	77.9#

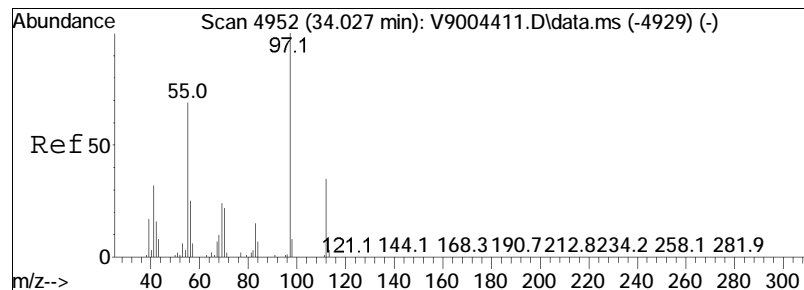




#68
 trans-1,4-Dimethylcyclohexane
 Concen: 2.46 ug/L m
 RT: 32.16 min Scan# 4646
 Delta R.T. -0.037 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

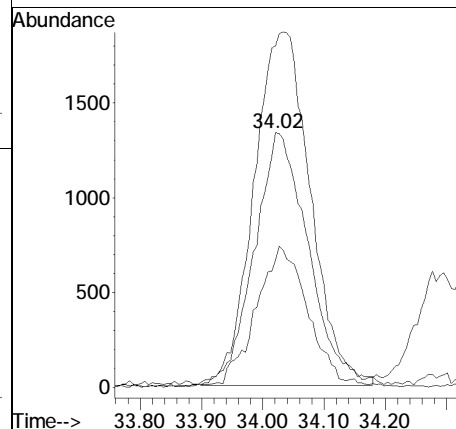
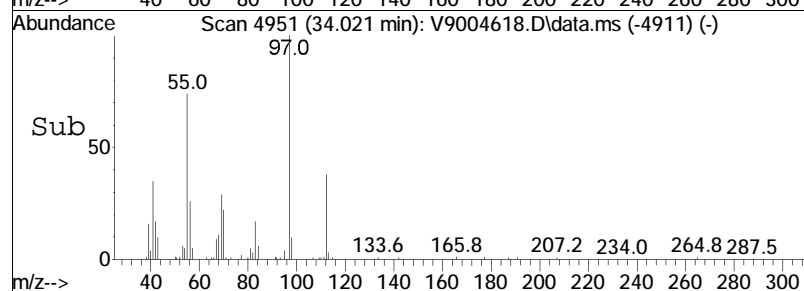
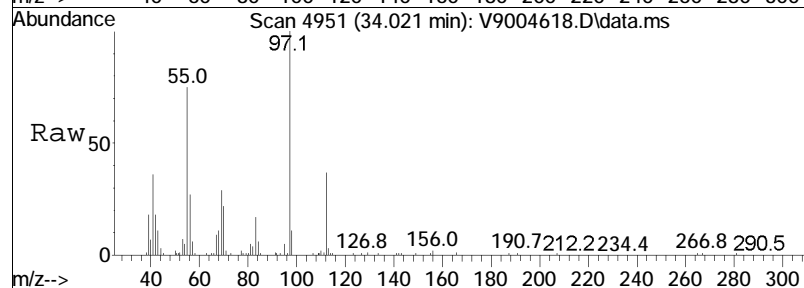
Tgt Ion:	97	Resp:	6894
Ion Ratio	Lower	Upper	
97	100		
55	60.1	50.7	90.7
112	32.4	19.0	59.0

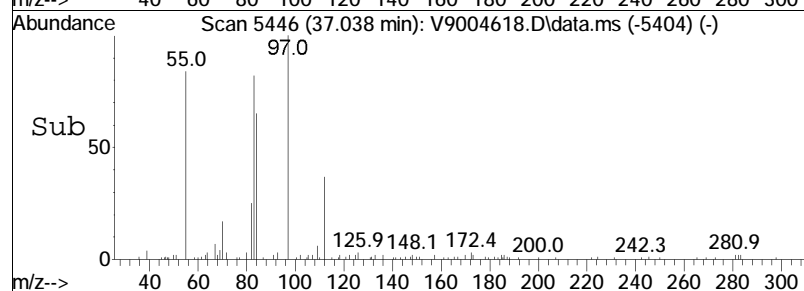
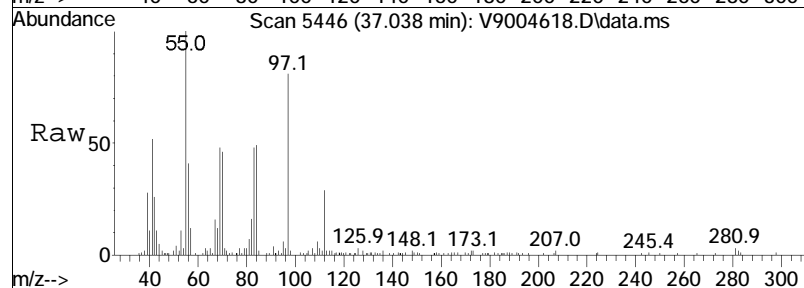
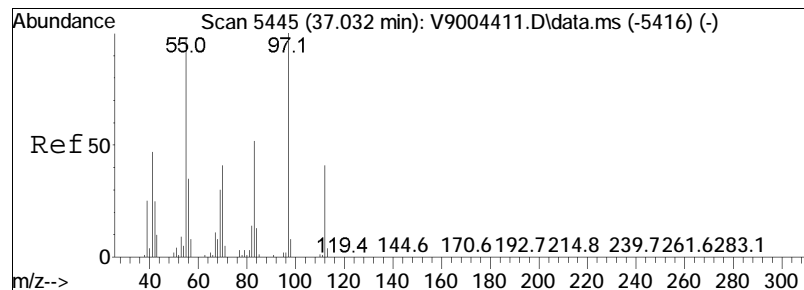




#72
 trans-1,2-Dimethylcyclohexane
 Concen: 4.74 ug/L
 RT: 34.02 min Scan# 4951
 Delta R.T. -0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

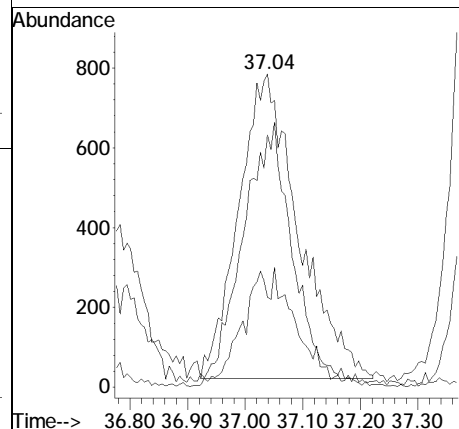
Tgt	Ion	Resp	Lower	Upper
55	100			
97	134.1	123.3	163.3	
112	50.1	30.5	70.5	

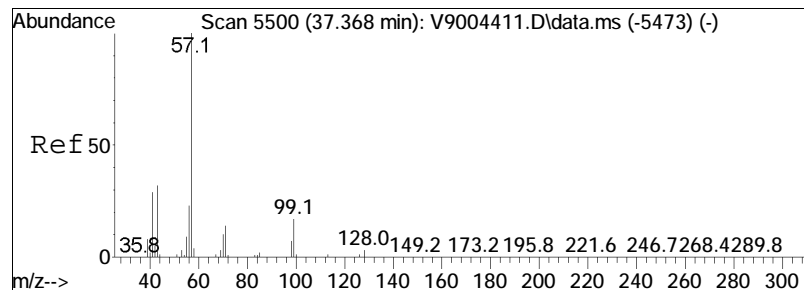




#77
 cis-1,2-Dimethylcyclohexane
 Concen: 3.33 ug/L
 RT: 37.04 min Scan# 5446
 Delta R.T. 0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

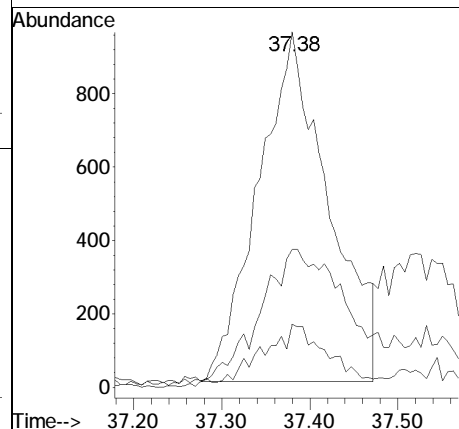
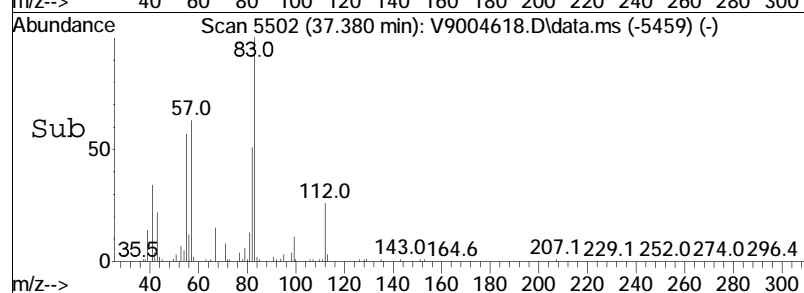
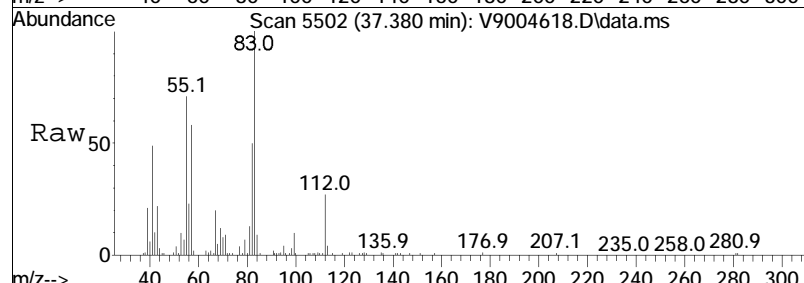
Tgt Ion	Ratio	Lower	Upper
55	100		
97	80.5	81.6	121.6#
112	28.8	21.3	61.3

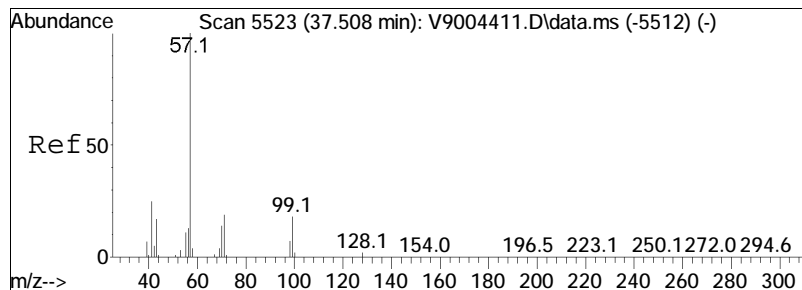




#78
 2,5-Dimethylheptane
 Concen: 1.77 ug/L
 RT: 37.38 min Scan# 5502
 Delta R.T. 0.012 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

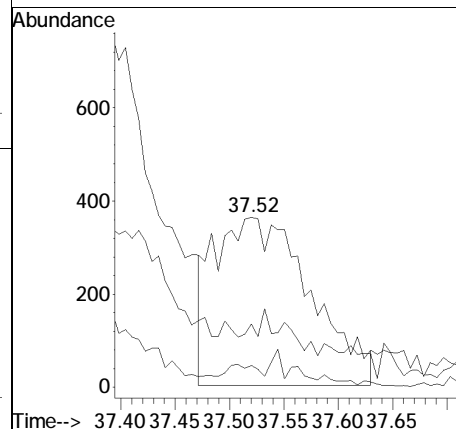
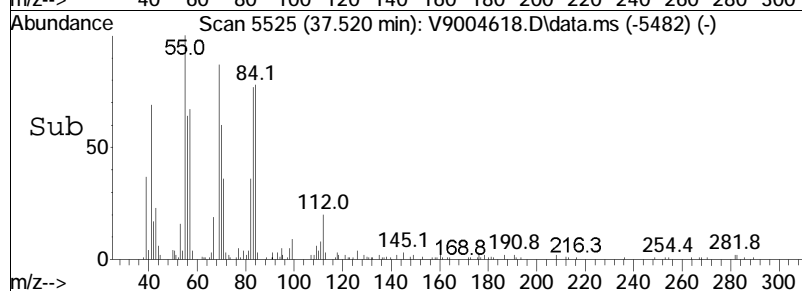
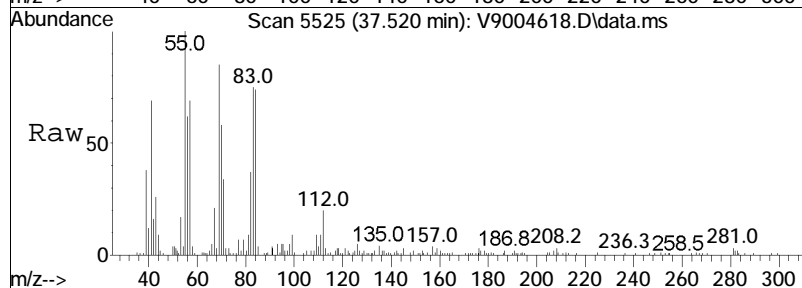
Tgt	Ion	Resp	Lower	Upper
57	100			
43	38.8	11.6	51.6	
99	17.8	0.0	37.0	

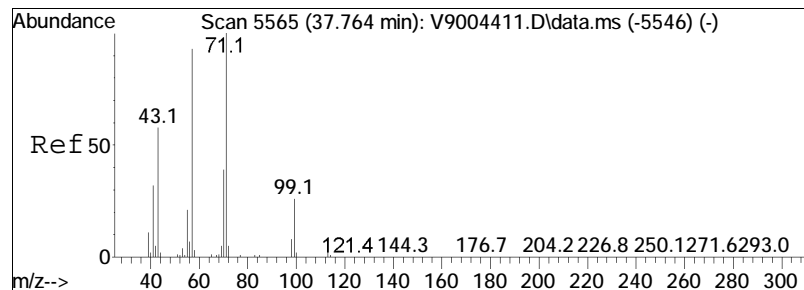




#79
 3,5-Dimethylheptane
 Concen: 0.62 ug/L m
 RT: 37.52 min Scan# 5525
 Delta R.T. 0.012 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

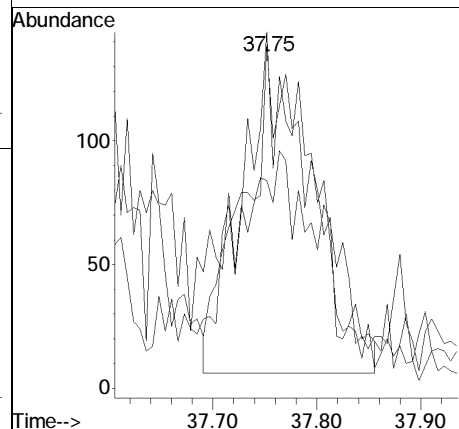
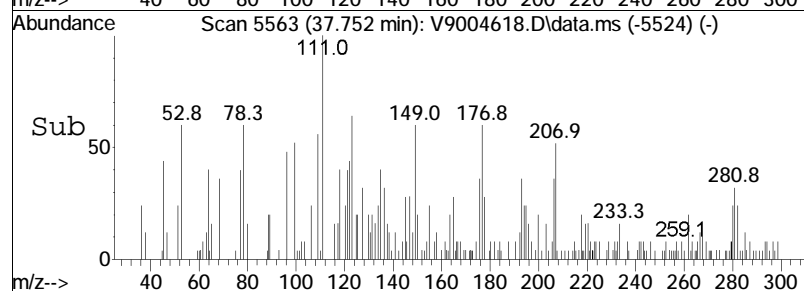
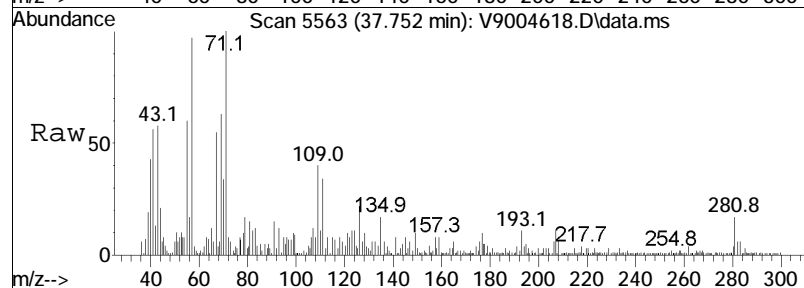
Tgt Ion	Ratio	Lower	Upper
57	100		
43	37.3	0.5	40.5
99	12.9	0.0	37.3

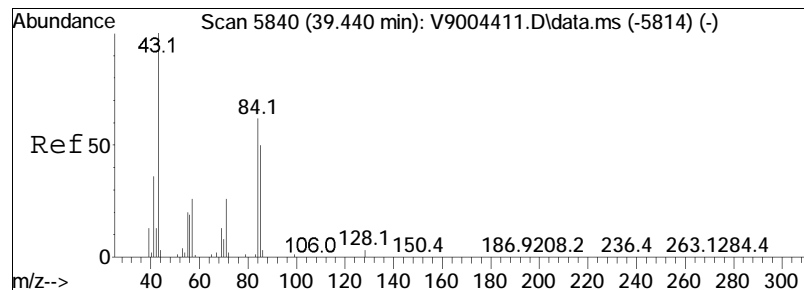




#80
 3,3-Dimethylheptane
 Concen: 0.26 ug/L m
 RT: 37.75 min Scan# 5563
 Delta R.T. -0.012 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

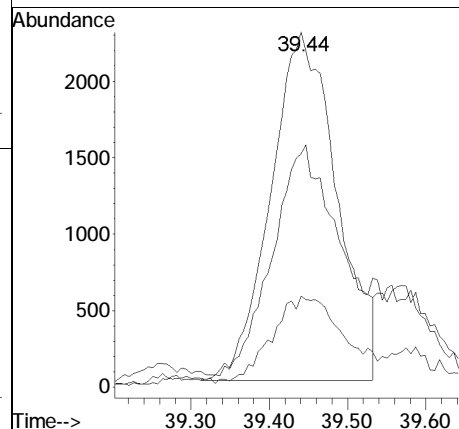
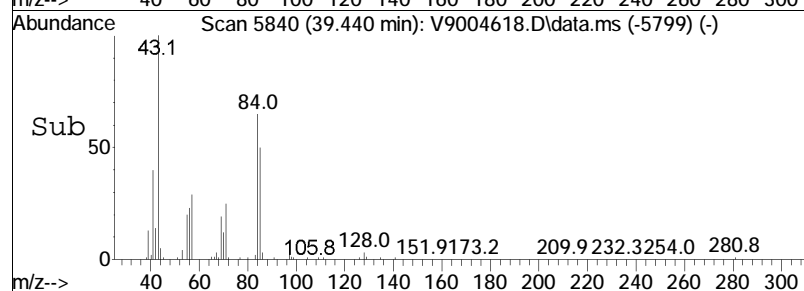
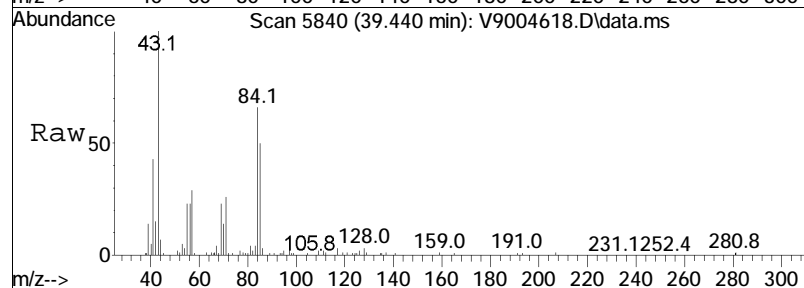
Tgt Ion:	57	Resp:	605
Ion	Ratio	Lower	Upper
57	100		
43	60.4	41.4	81.4
71	103.6	85.5	125.5

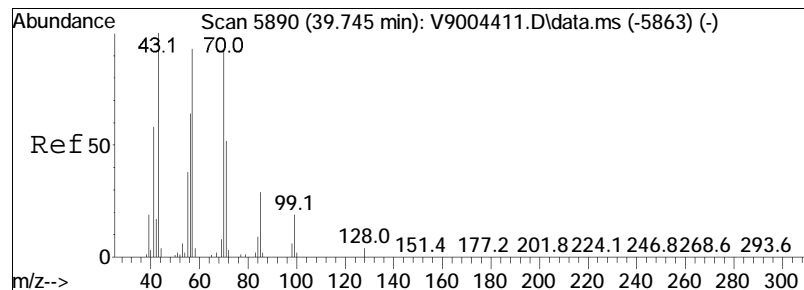




#82
 2,3-Dimethylheptane
 Concen: 5.63 ug/L
 RT: 39.44 min Scan# 5840
 Delta R.T. 0.000 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

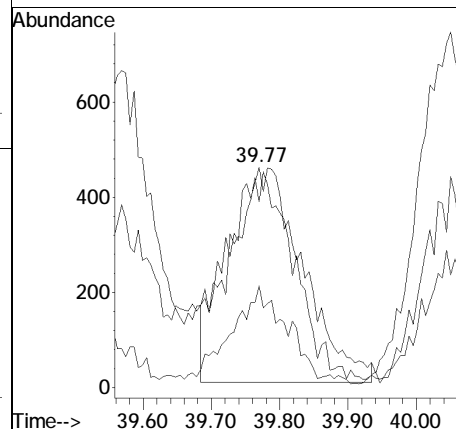
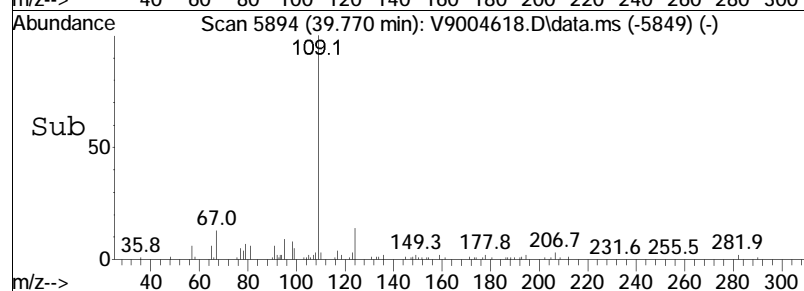
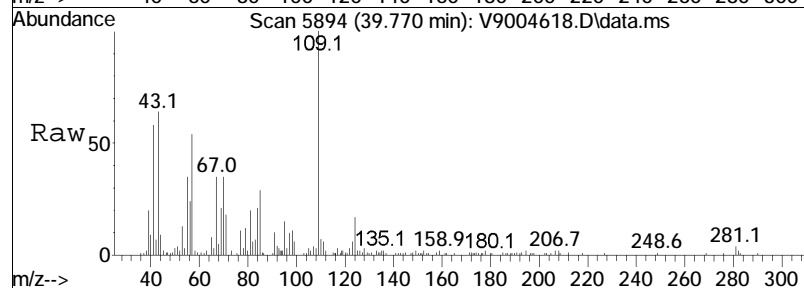
Tgt Ion	Ratio	Lower	Upper
43	100		
84	65.7	42.4	82.4
71	25.6	6.0	46.0

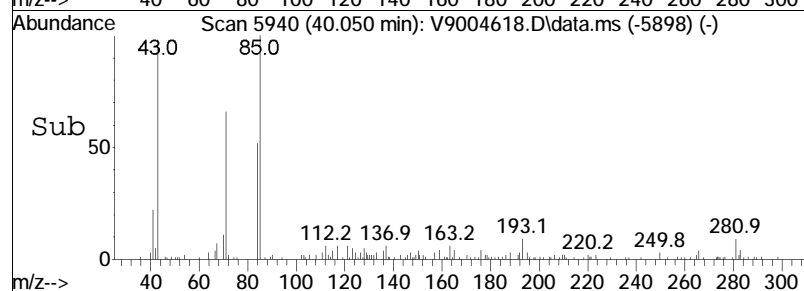
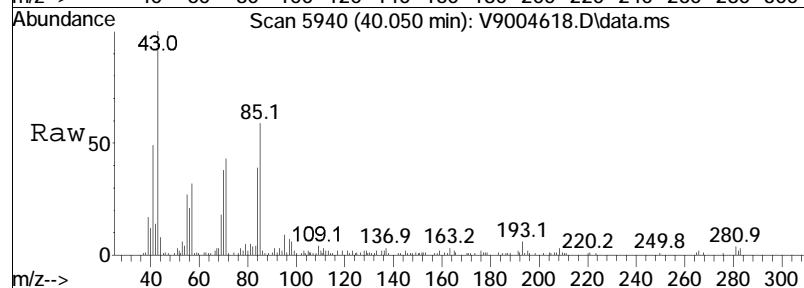
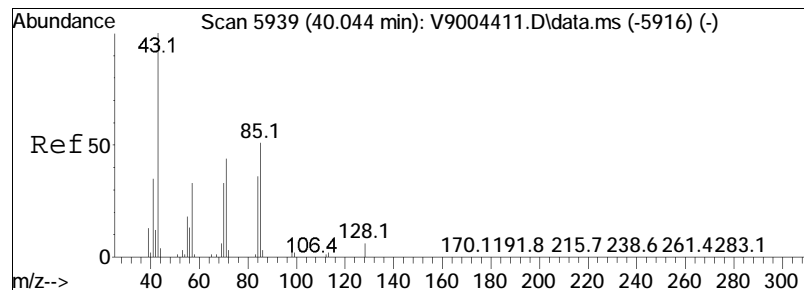




#83
 3,4-Dimethylheptane
 Concen: 2.24 ug/L m
 RT: 39.77 min Scan# 5894
 Delta R.T. 0.024 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

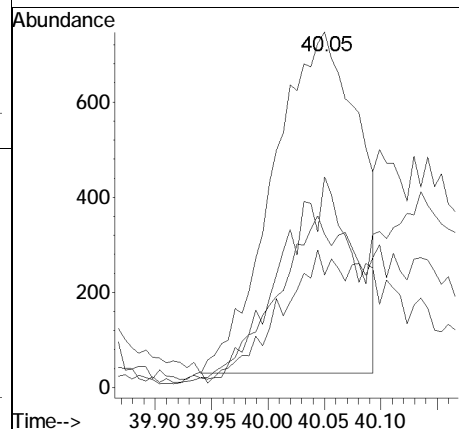
Tgt Ion	Ratio	Lower	Upper
43	100		
57	84.2	72.8	112.8
85	46.2	9.6	49.6

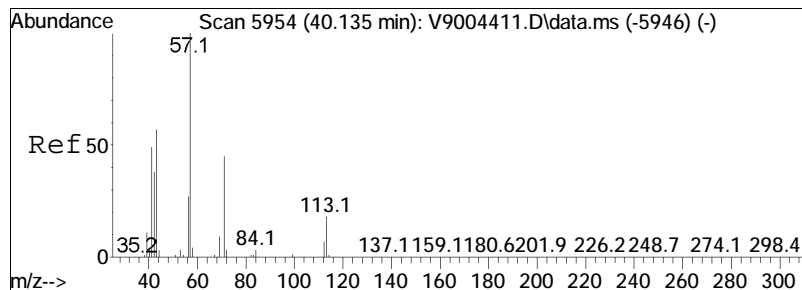




#84
 4-Methyloctane
 Concen: 1.60 ug/L
 RT: 40.05 min Scan# 5940
 Delta R.T. 0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

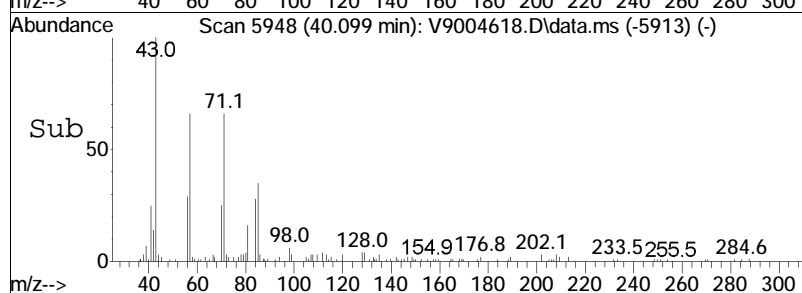
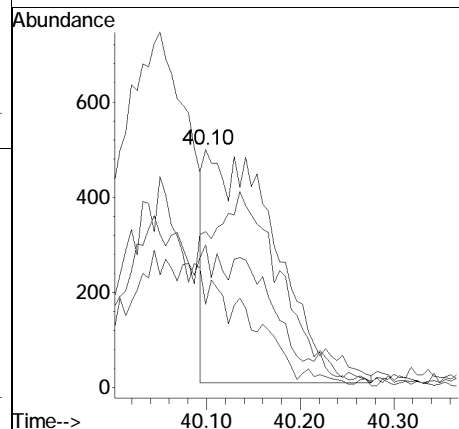
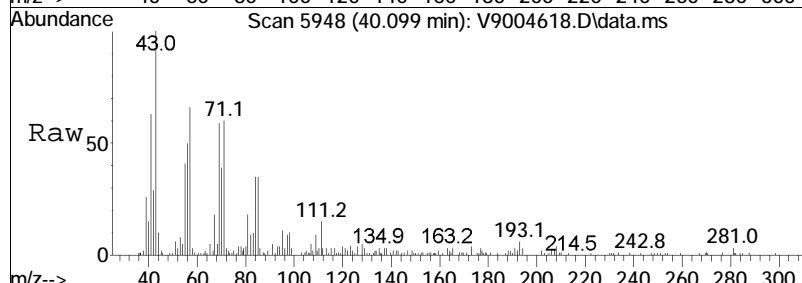
Tgt Ion:	43	Resp:	3776
Ion	Ratio	Lower	Upper
43	100		
57	31.7	13.3	53.3
71	43.1	23.6	63.6
85	59.3	30.3	70.3

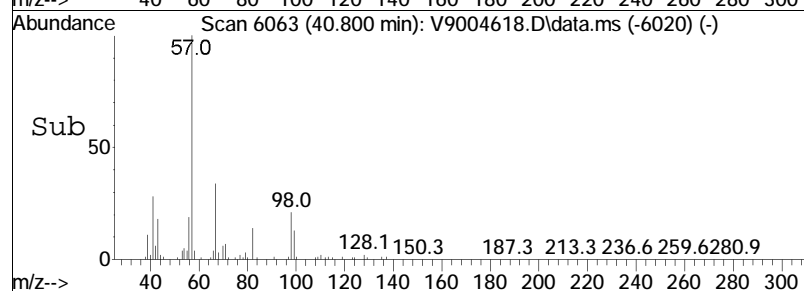
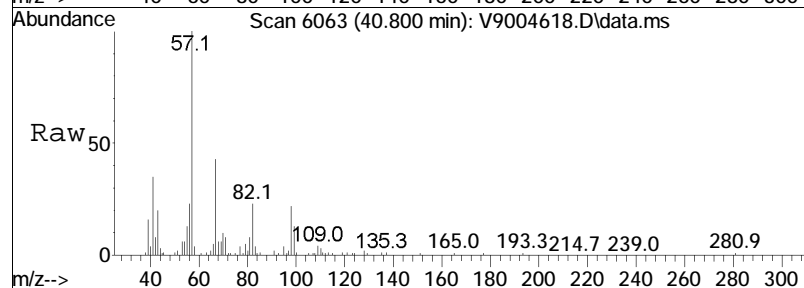
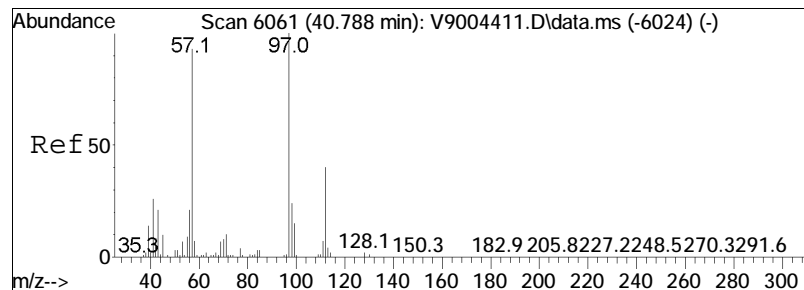




#85
 2-Methyloctane
 Concen: 1.23 ug/L m
 RT: 40.10 min Scan# 5948
 Delta R.T. -0.037 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

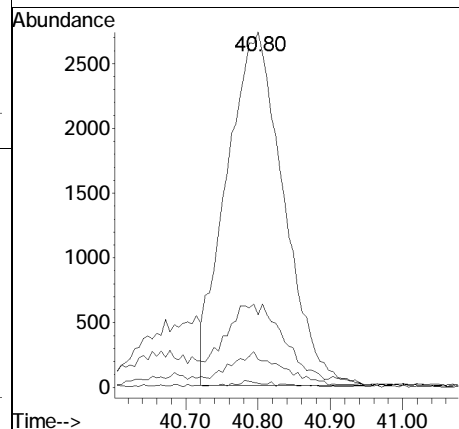
Tgt	Ion:	43	Resp:	2598
Ion	Ratio	Lower	Upper	
43	100			
57	65.6	50.5	90.5	
71	60.0	32.5	72.5	
85	35.0	13.1	53.1	

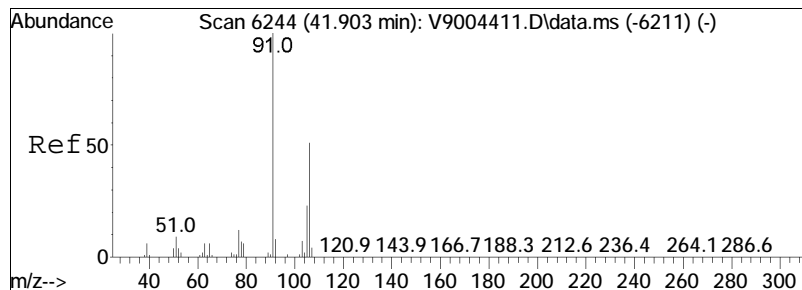




#89
 3-Methyloctane
 Concen: 3.69 ug/L
 RT: 40.80 min Scan# 6063
 Delta R.T. 0.012 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

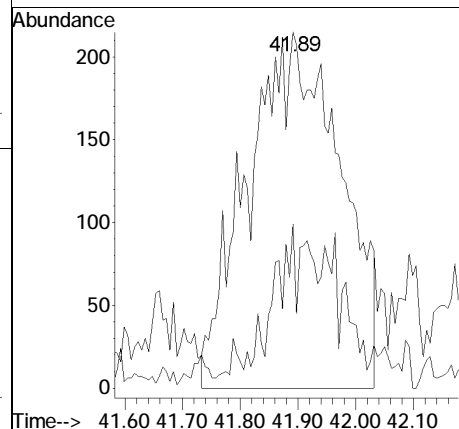
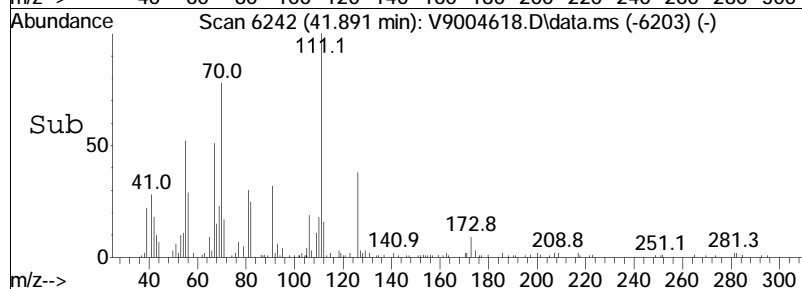
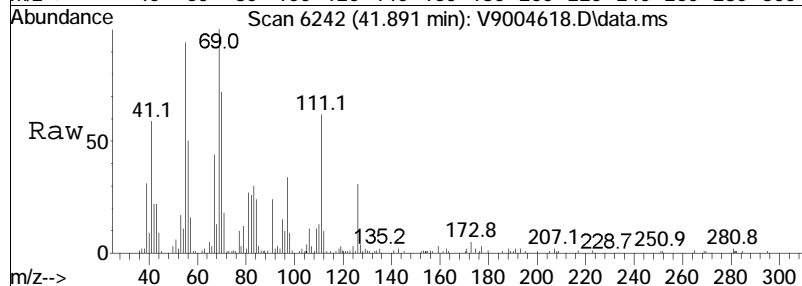
Tgt Ion:	57	Resp:	14897
Ion	Ratio	Lower	Upper
57	100		
43	20.5	2.8	42.8
71	7.8	0.0	30.7
85	1.2	0.0	23.3

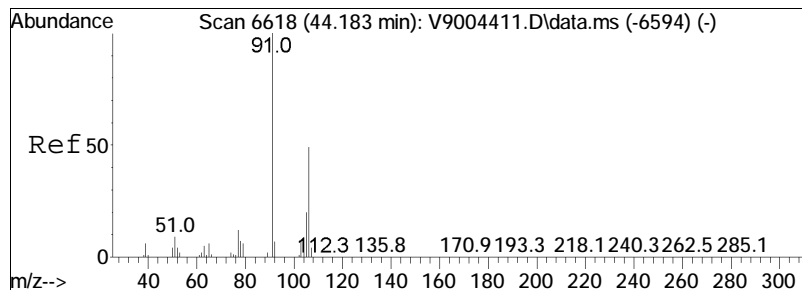




#91
 p/m-Xylene
 Concen: 0.48 ug/L m
 RT: 41.89 min Scan# 6242
 Delta R.T. -0.012 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

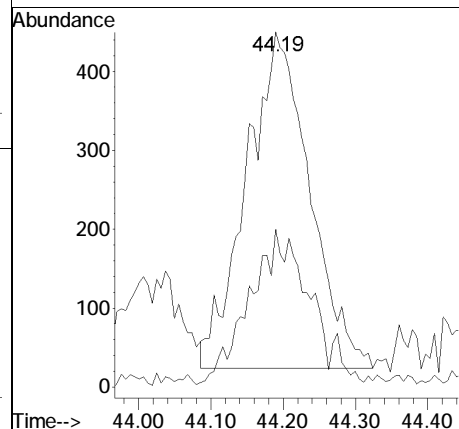
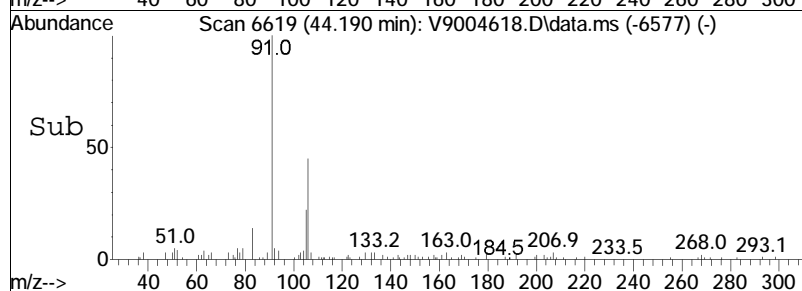
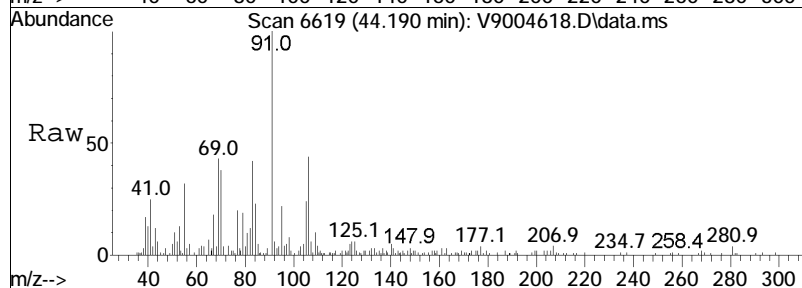
Tgt Ion	Ratio	Lower	Upper
91	100		
106	46.0	31.3	71.3

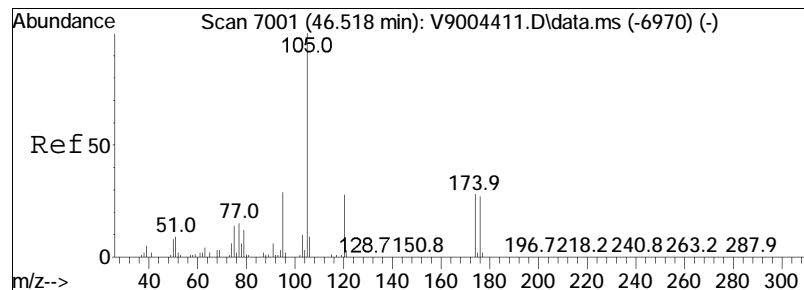




#98
o-Xylene
Concen: 0.50 ug/L
RT: 44.19 min Scan# 6619
Delta R.T. 0.006 min
Lab File: V9004618.D
Acq: 04 May 2023 12:48 am

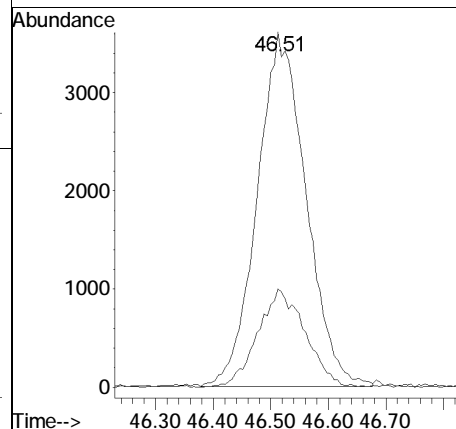
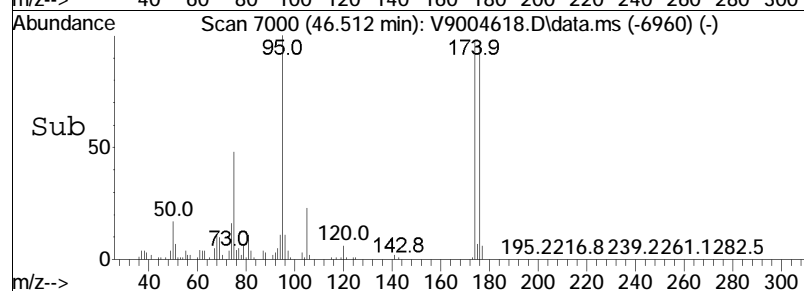
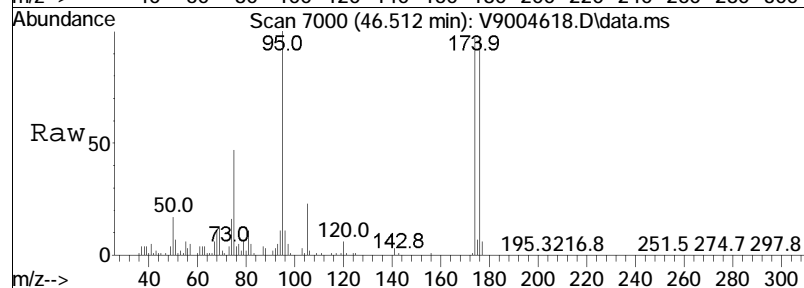
Tgt Ion: 91 Resp: 2589
Ion Ratio Lower Upper
91 100
106 44.4 28.7 68.7

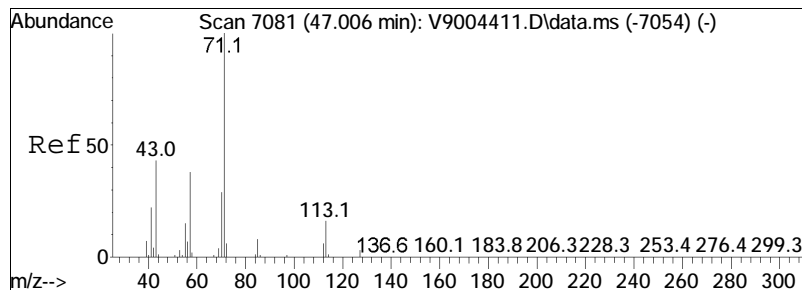




#102
Isopropylbenzene
Concen: 3.13 ug/L
RT: 46.51 min Scan# 7000
Delta R.T. -0.006 min
Lab File: V9004618.D
Acq: 04 May 2023 12:48 am

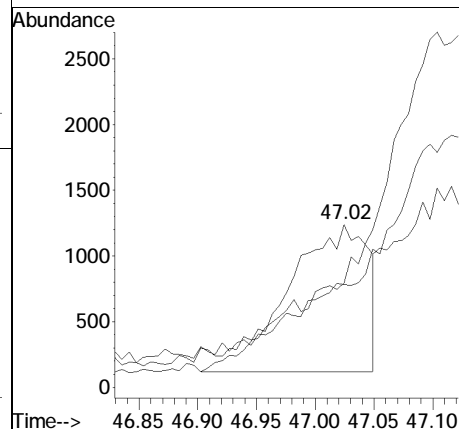
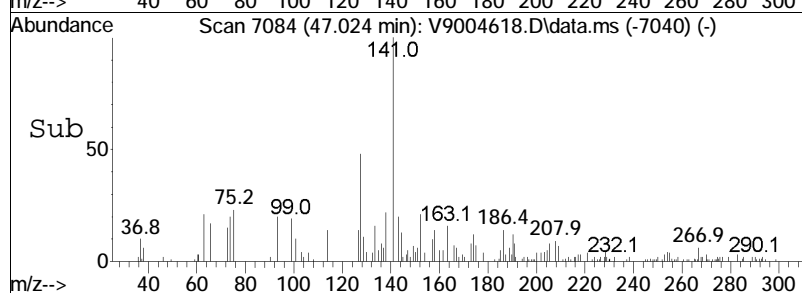
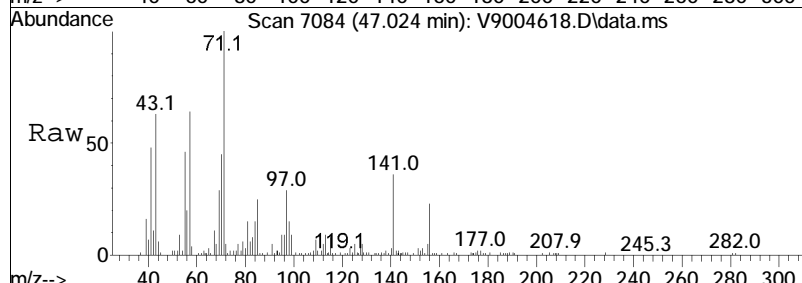
Tgt	Ion	Ratio	Lower	Upper
105	100			
120	27.7	7.8	47.8	

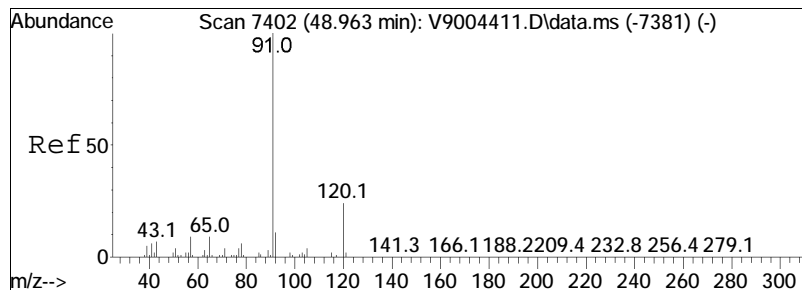




#103
 3,3-Dimethyloctane
 Concen: 1.44 ug/L
 RT: 47.02 min Scan# 7084
 Delta R.T. 0.018 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

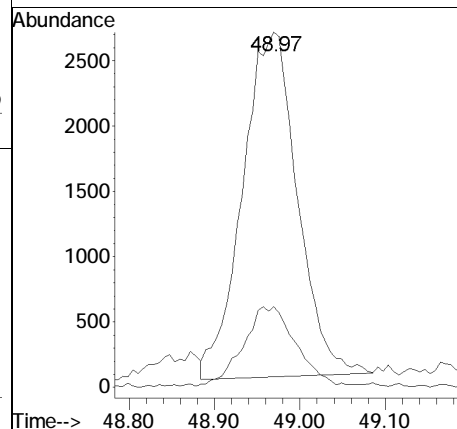
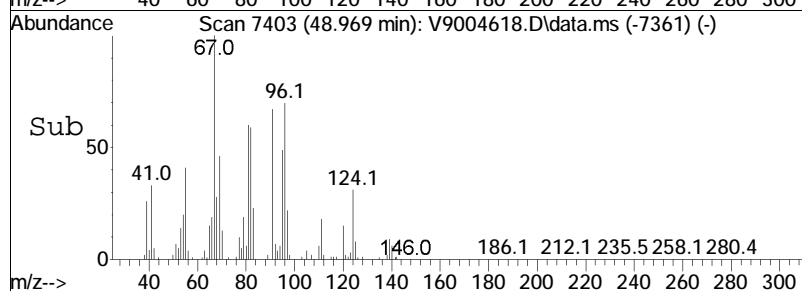
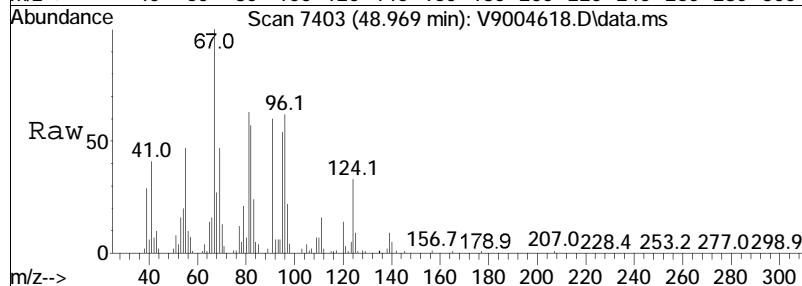
Tgt Ion:	71	Resp:	5244
Ion Ratio	Lower	Upper	
71	100		
57	64.2	18.1	58.1#
43	63.2	22.6	62.6#

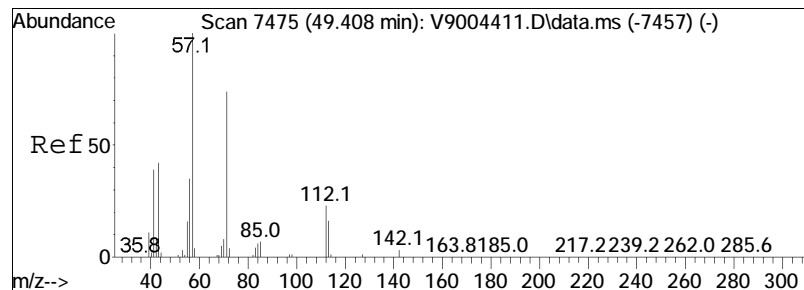




#104
 n-Propylbenzene
 Concen: 1.57 ug/L
 RT: 48.97 min Scan# 7403
 Delta R.T. 0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

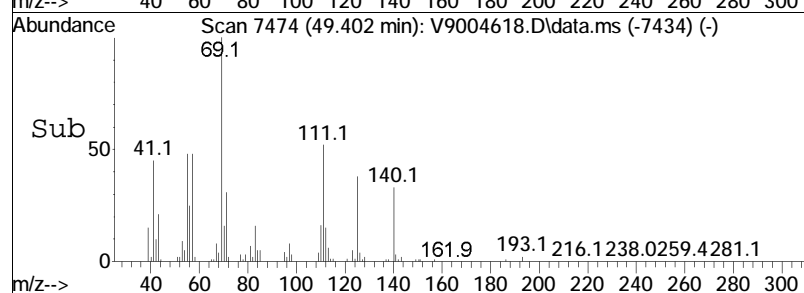
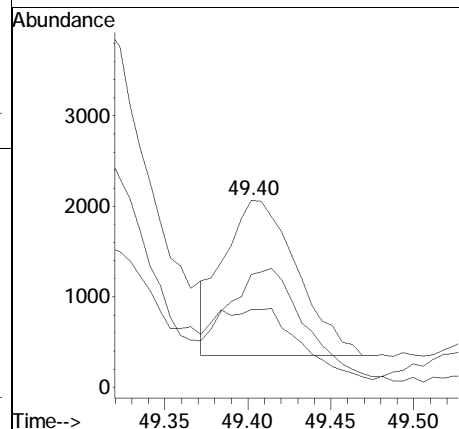
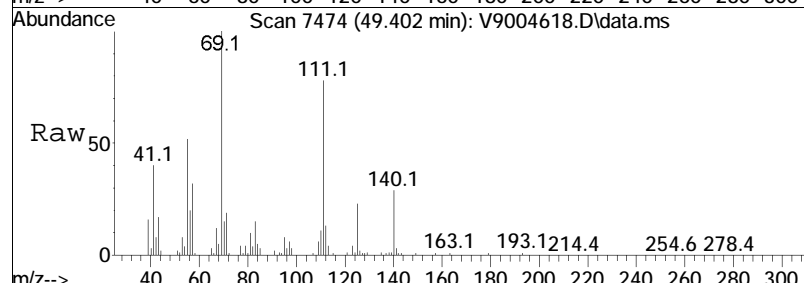
Tgt	Ion	Resp	Lower	Upper
91	100			
120	22.7		4.3	44.3

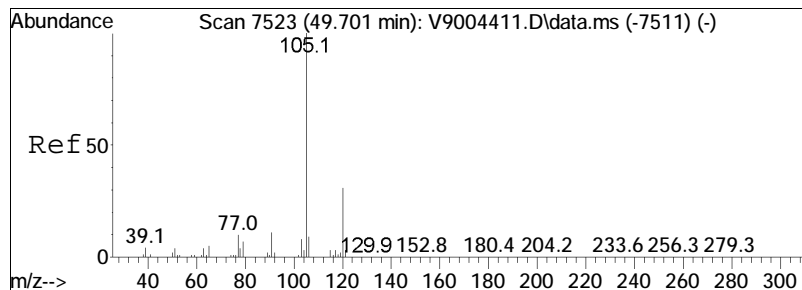




#106
 3-Methylnonane
 Concen: 2.13 ug/L
 RT: 49.40 min Scan# 7474
 Delta R.T. -0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

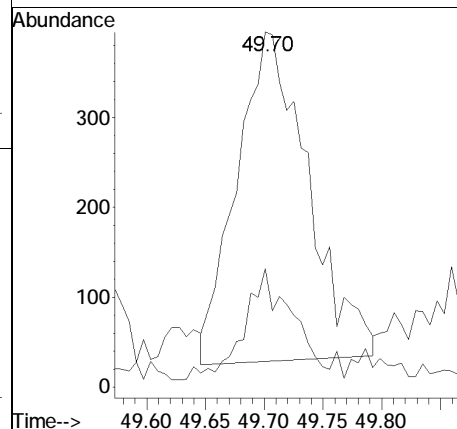
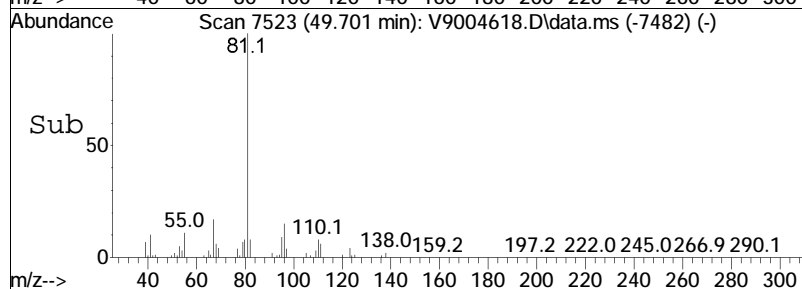
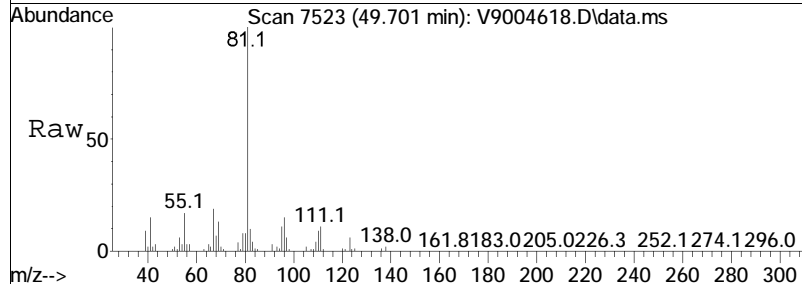
Tgt Ion	Resp	Lower	Upper
57	100		
71	60.4	53.7	93.7
112	41.6	3.4	43.4

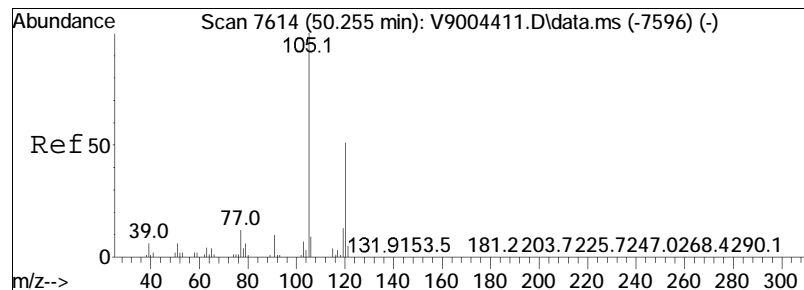




#108
 1-Methyl-4-ethylbenzene
 Concen: 0.24 ug/L
 RT: 49.70 min Scan# 7523
 Delta R.T. 0.000 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

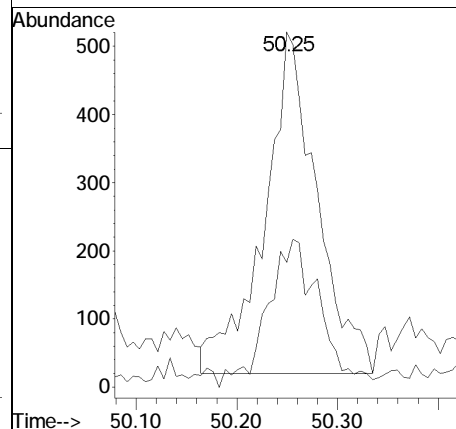
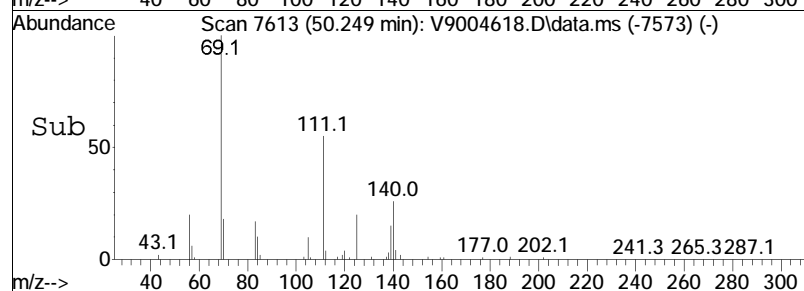
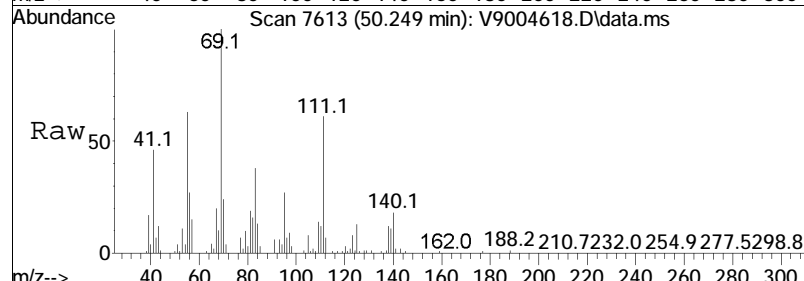
Tgt Ion	Ratio	Lower	Upper
105	100		
120	33.4	11.1	51.1

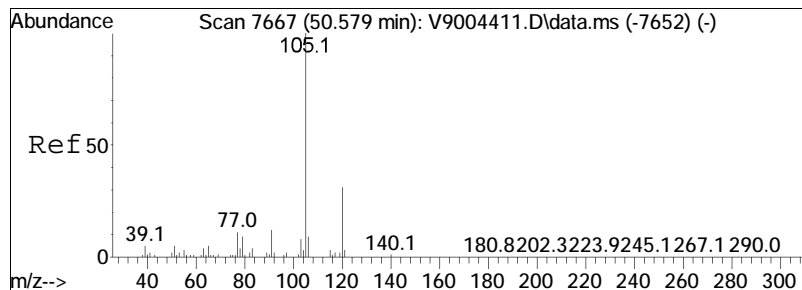




#109
 1,3,5-Trimethylbenzene
 Concen: 0.33 ug/L
 RT: 50.25 min Scan# 7613
 Delta R.T. -0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

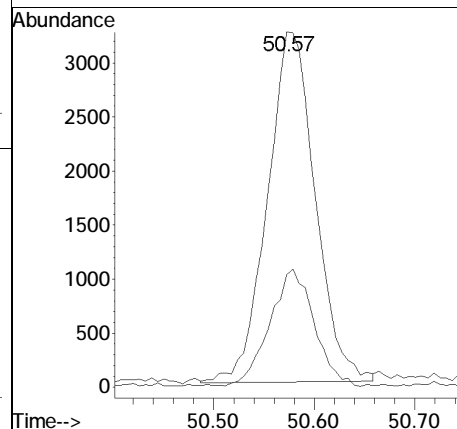
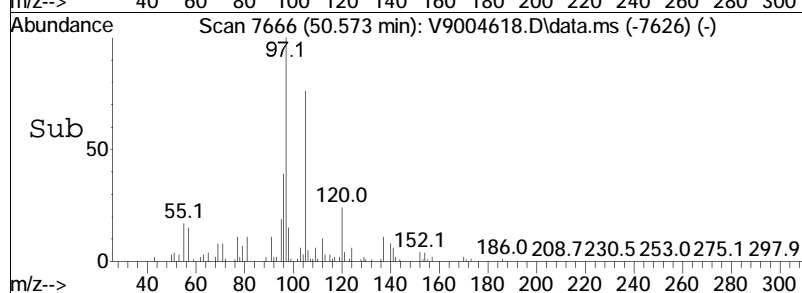
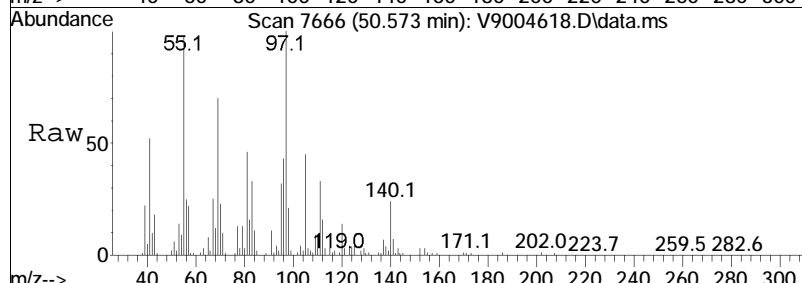
Tgt Ion	Ratio	Lower	Upper
105	100		
120	35.1	31.1	71.1

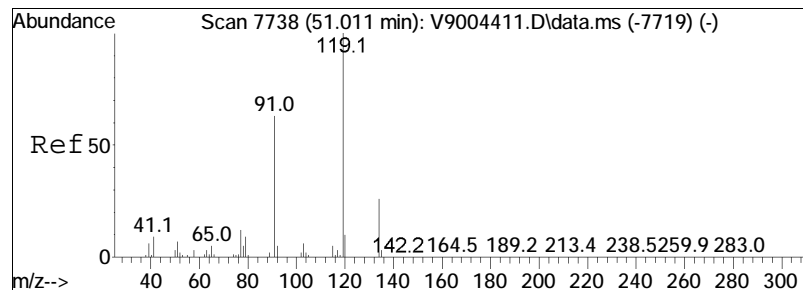




#112
 1-Methyl-2-ethylbenzene
 Concen: 1.56 ug/L
 RT: 50.57 min Scan# 7666
 Delta R.T. -0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

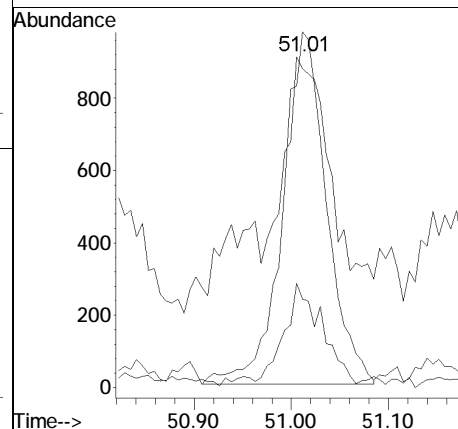
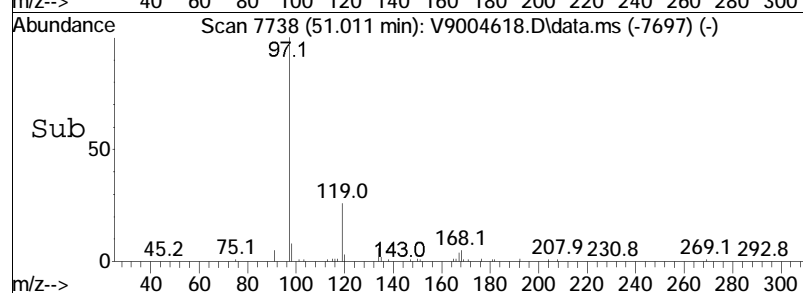
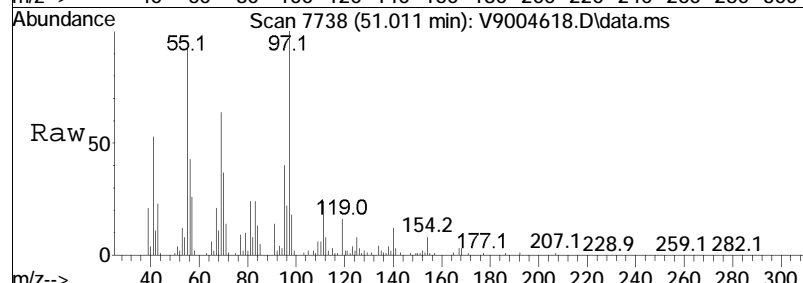
Tgt Ion	Ratio	Lower	Upper
105	100		
120	31.7	11.4	51.4

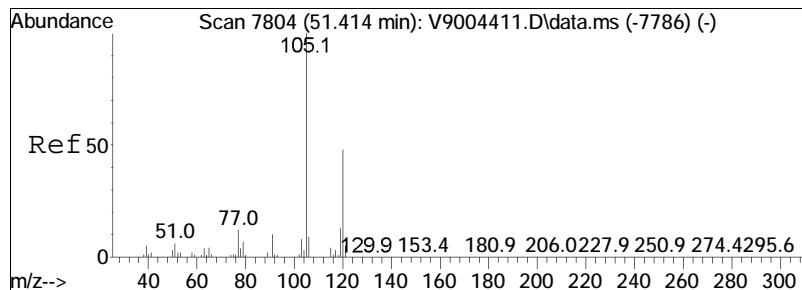




#114
 tert-Butylbenzene
 Concen: 0.60 ug/L
 RT: 51.01 min Scan# 7738
 Delta R.T. 0.000 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

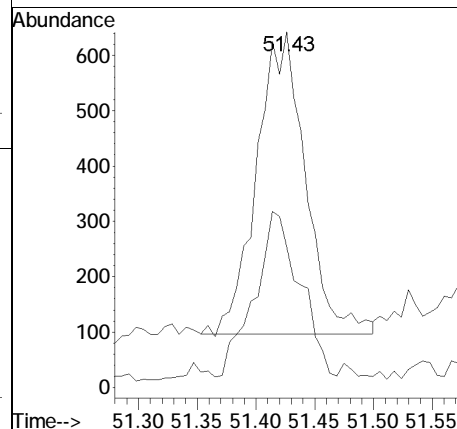
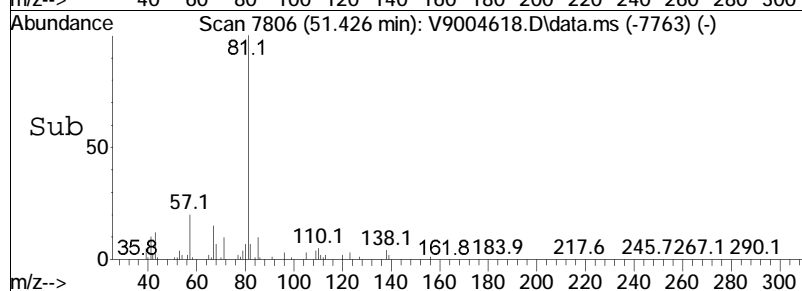
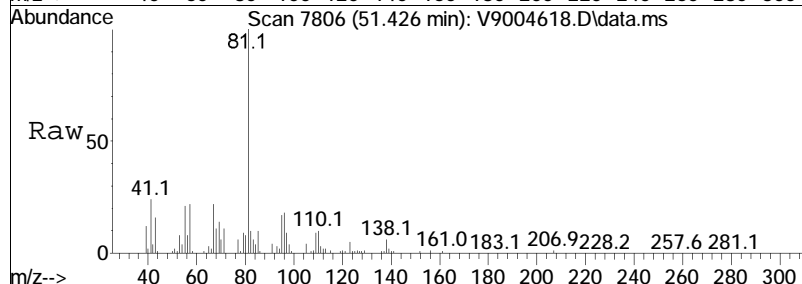
Tgt	Ion:119	Resp:	3090
Ion	Ratio	Lower	Upper
119	100		
91	89.7	42.9	82.9#
134	24.9	6.2	46.2

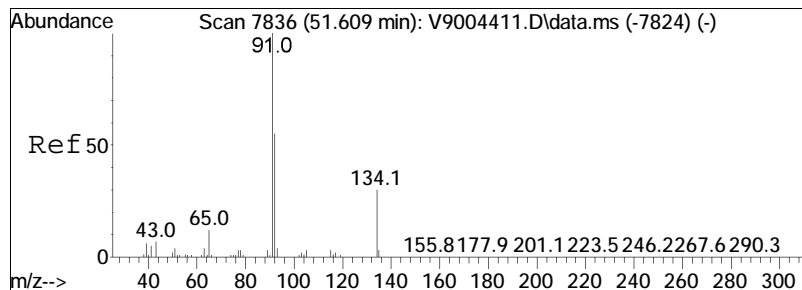




#115
 1,2,4-Trimethylbenzene
 Concen: 0.27 ug/L
 RT: 51.43 min Scan# 7806
 Delta R.T. 0.012 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

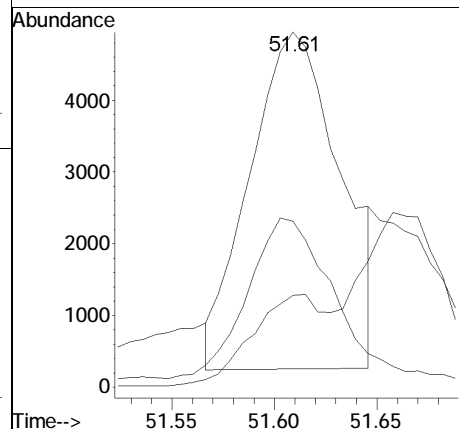
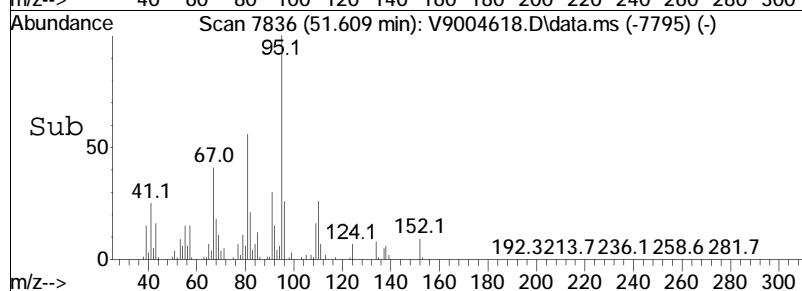
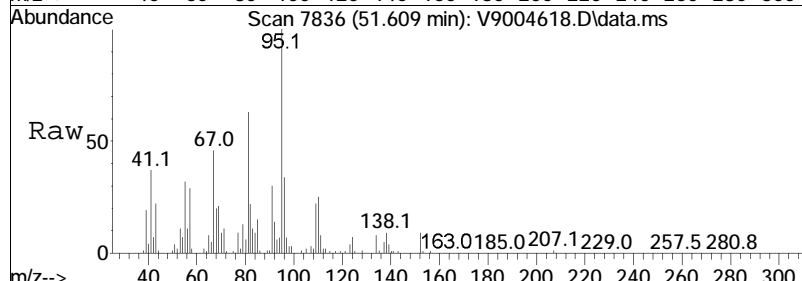
Tgt	Ion	Ratio	Lower	Upper
105	100			
120	39.6	27.5	67.5	

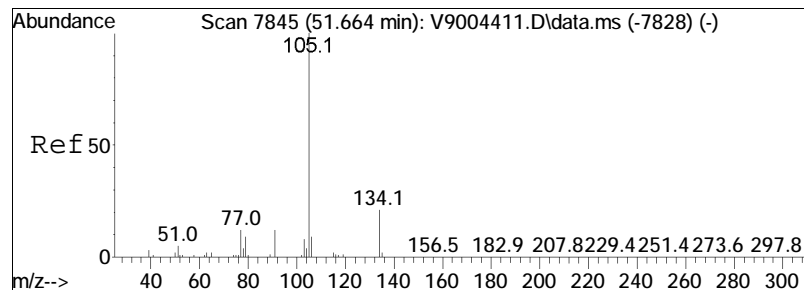




#116
Isobutylbenzene
Concen: 2.25 ug/L m
RT: 51.61 min Scan# 7836
Delta R.T. 0.000 min
Lab File: V9004618.D
Acq: 04 May 2023 12:48 am

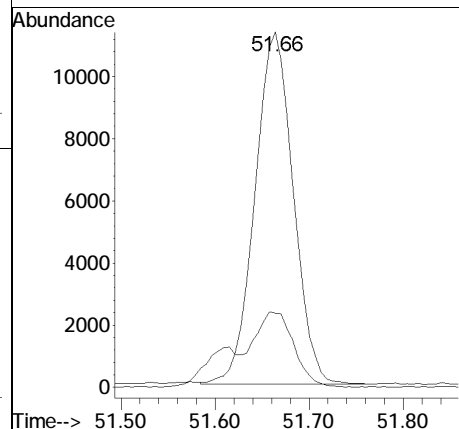
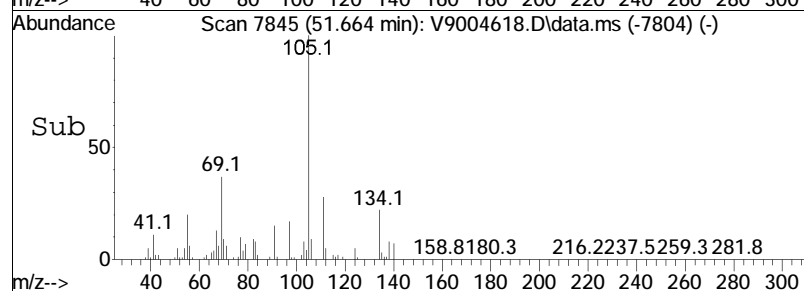
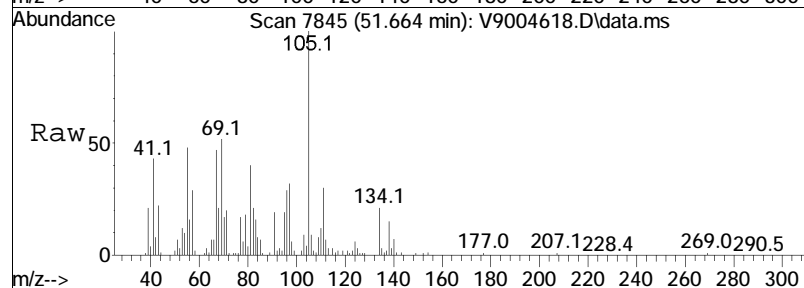
Tgt Ion:	91	Resp:	14455
Ion Ratio	Lower	Upper	
91	100		
92	46.8	35.0	75.0
134	25.9	9.8	49.8

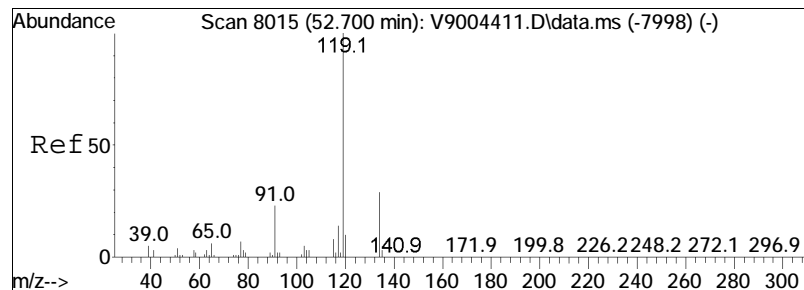




#117
 sec-Butylbenzene
 Concen: 4.30 ug/L
 RT: 51.66 min Scan# 7845
 Delta R.T. 0.000 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

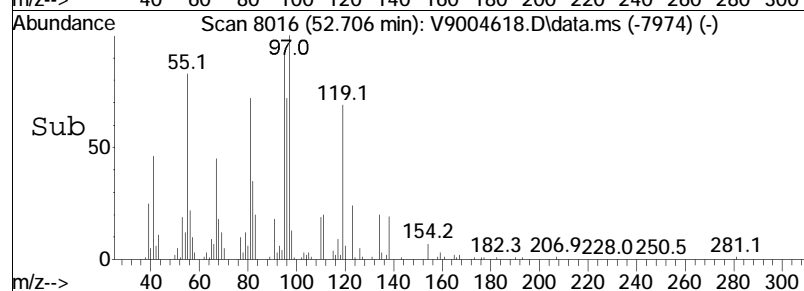
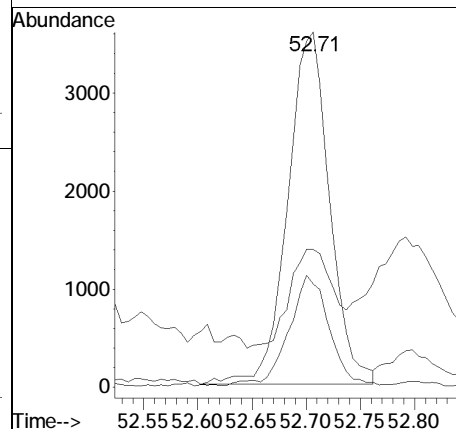
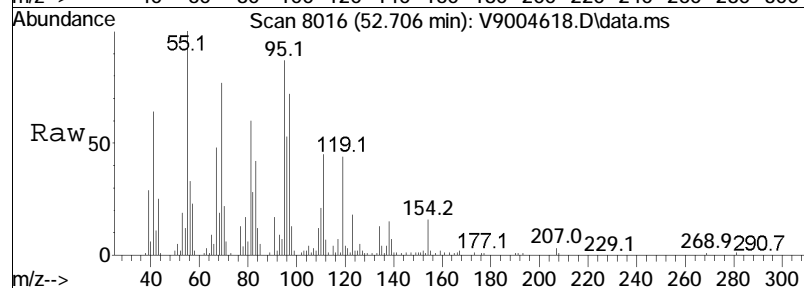
Tgt Ion	Ratio	Lower	Upper
105	100		
134	20.9	1.5	41.5

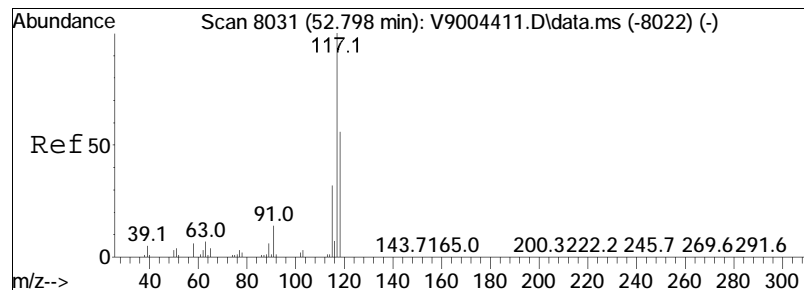




#121
 1-Methyl-2-isopropylbenzene
 Concen: 1.48 ug/L
 RT: 52.71 min Scan# 8016
 Delta R.T. 0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

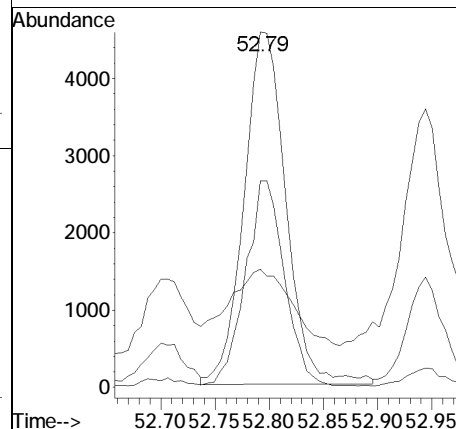
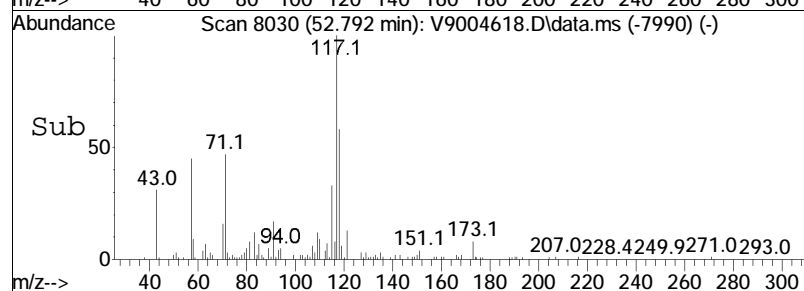
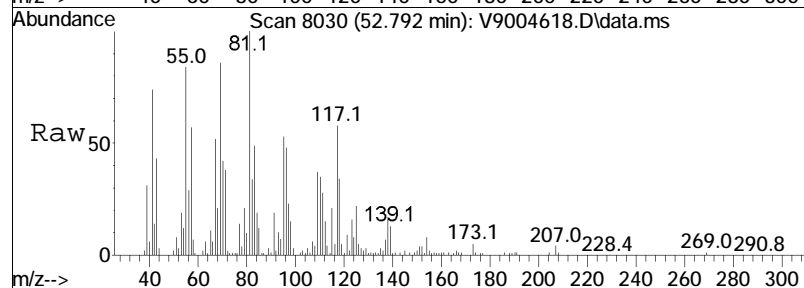
Tgt	Ion:119	Resp:	9657
Ion	Ratio	Lower	Upper
119	100		
134	29.1	8.6	48.6
91	38.8	2.6	42.6

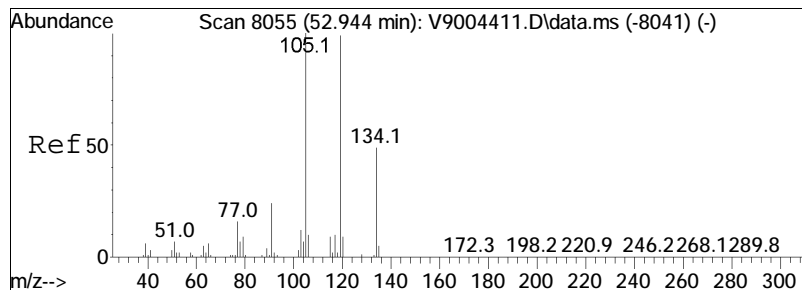




#122
 Indan
 Concen: 2.07 ug/L
 RT: 52.79 min Scan# 8030
 Delta R.T. -0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

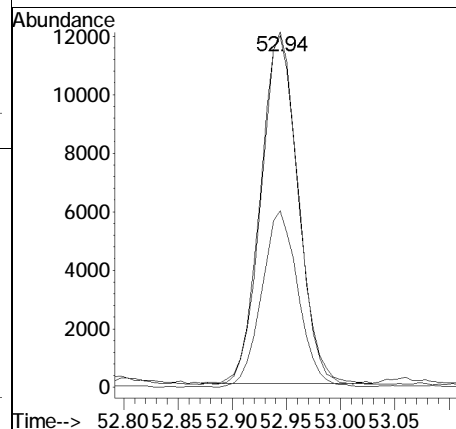
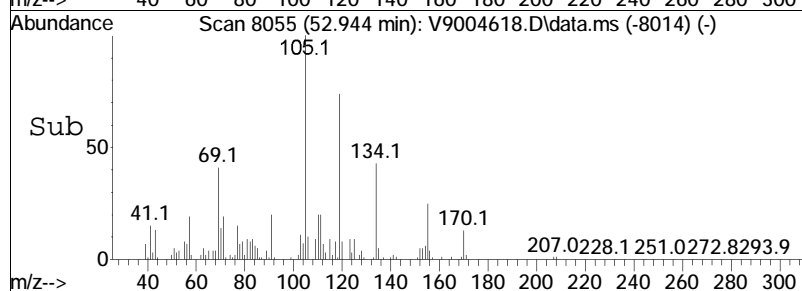
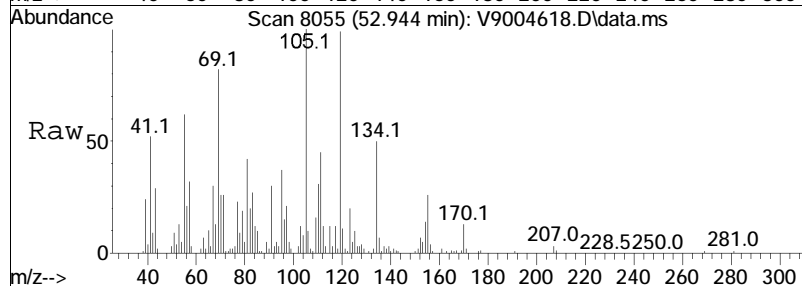
Tgt Ion	Ratio	Lower	Upper
117	100		
118	58.1	36.1	76.1
91	33.3	0.0	34.5

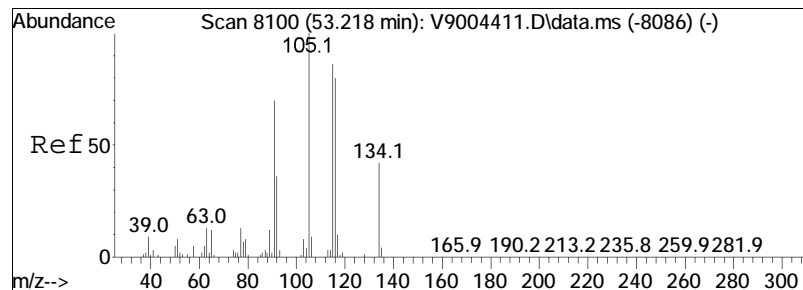




#123
 1,3-Diethylbenzene
 Concen: 7.04 ug/L
 RT: 52.94 min Scan# 8055
 Delta R.T. 0.000 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

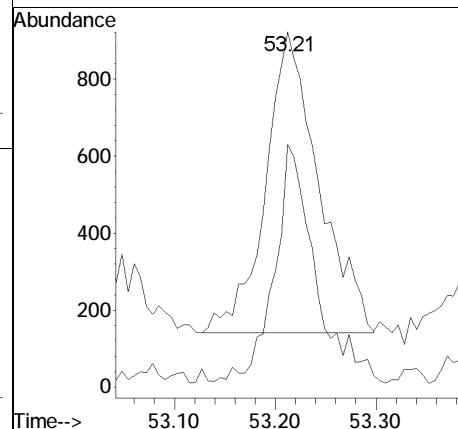
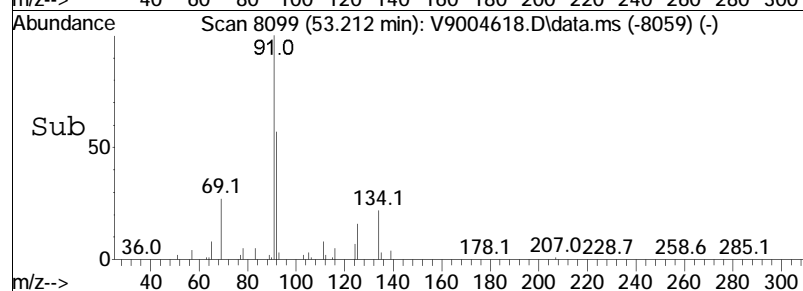
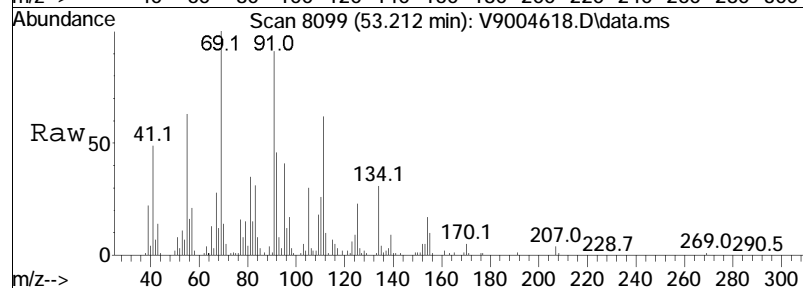
Tgt Ion:	105	Resp:	29037
Ion Ratio	Lower	Upper	
105	100		
119	99.0	78.9	118.9
134	49.7	28.9	68.9

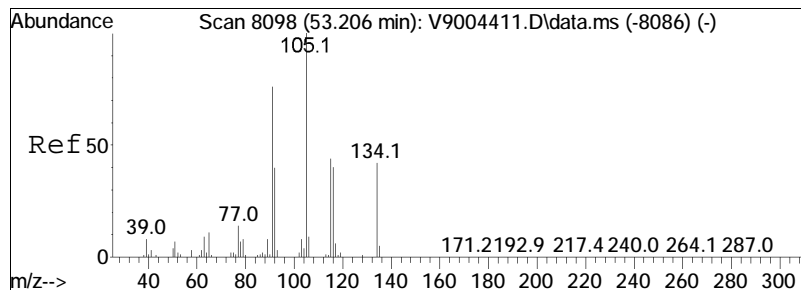




#125
 Indene
 Concen: 0.51 ug/L
 RT: 53.21 min Scan# 8099
 Delta R.T. -0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

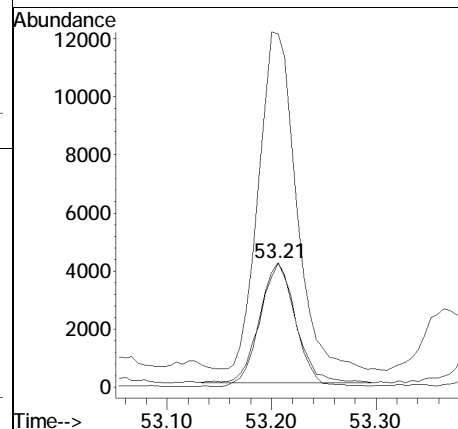
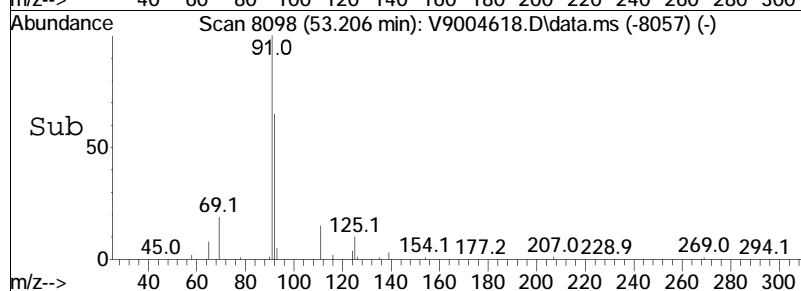
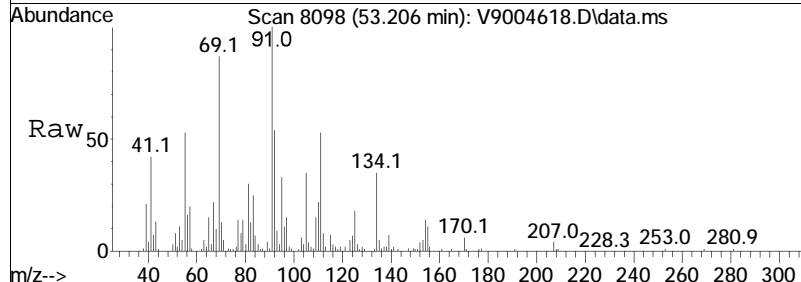
Tgt	Ion	Resp	Lower	Upper
115	100	2883		
116	68.3	73.4	113.4#	

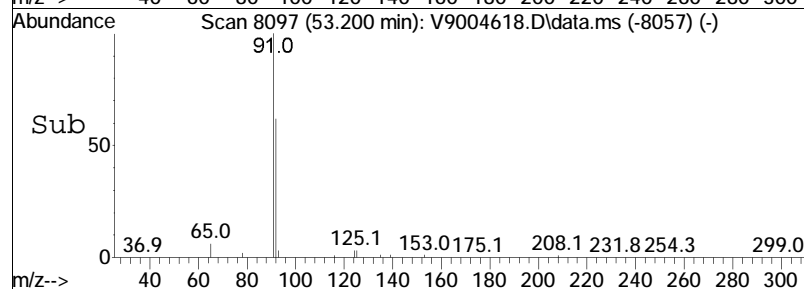
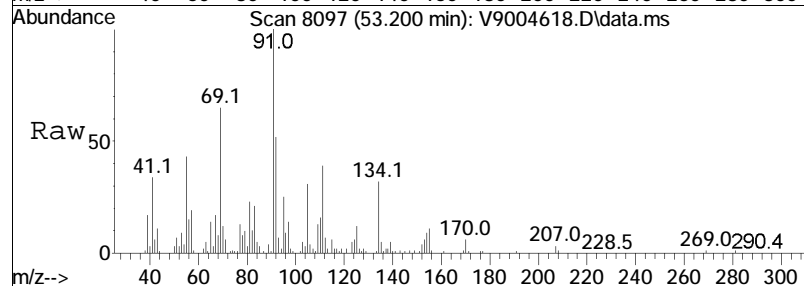
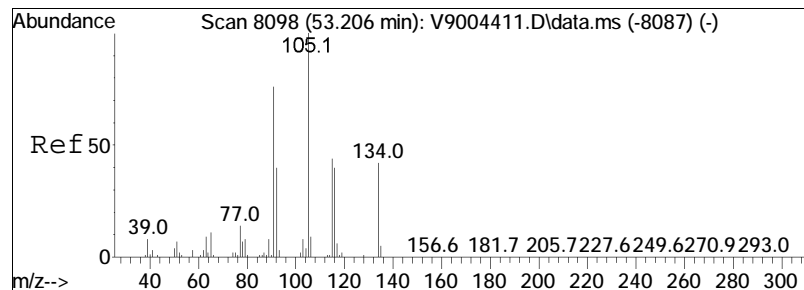




#126
 1-Methyl-4-propylbenzene
 Concen: 1.09 ug/L
 RT: 53.21 min Scan# 8098
 Delta R.T. 0.000 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

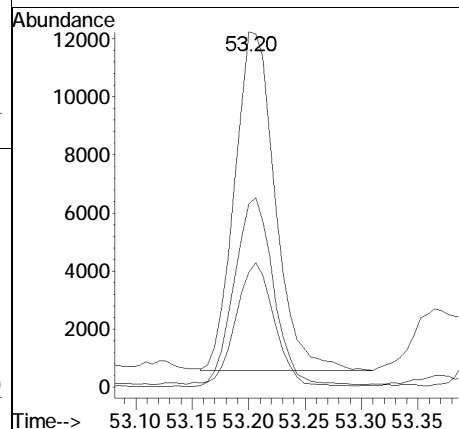
Tgt	Ion	Ratio	Lower	Upper
105	105	100		
134	134	100.3	21.7	61.7#
91	91	284.2	56.4	96.4#

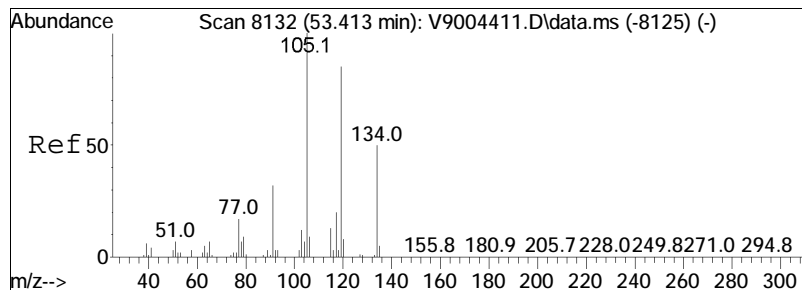




#127
 n-Butylbenzene
 Concen: 4.10 ug/L
 RT: 53.20 min Scan# 8097
 Delta R.T. -0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

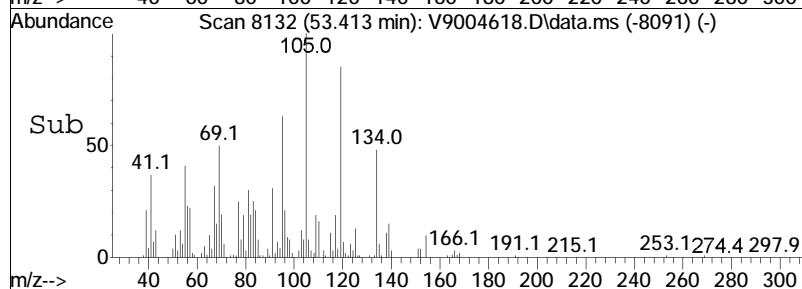
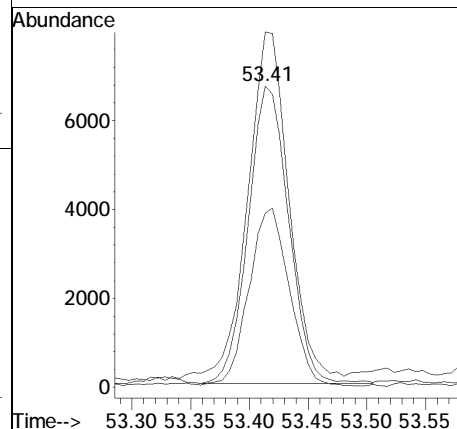
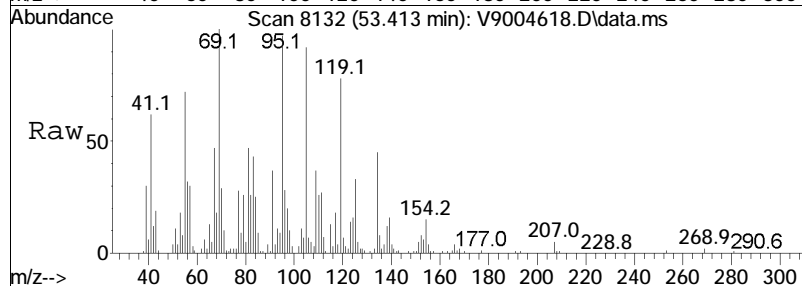
Tgt	Ion	Resp	Lower	Upper
91	100			
92	51.7		31.8	71.8
134	32.4		34.6	74.6#

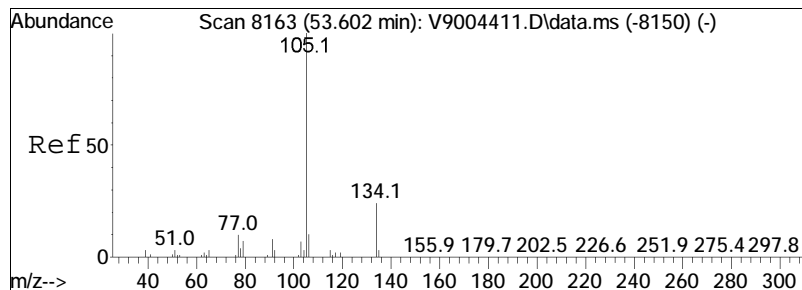




#129
 1,2-Diethylbenzene
 Concen: 4.83 ug/L
 RT: 53.41 min Scan# 8132
 Delta R.T. 0.000 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

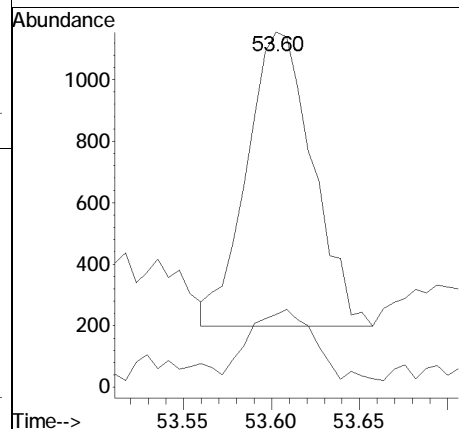
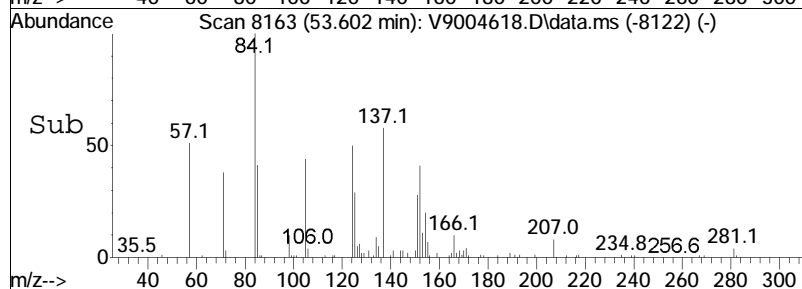
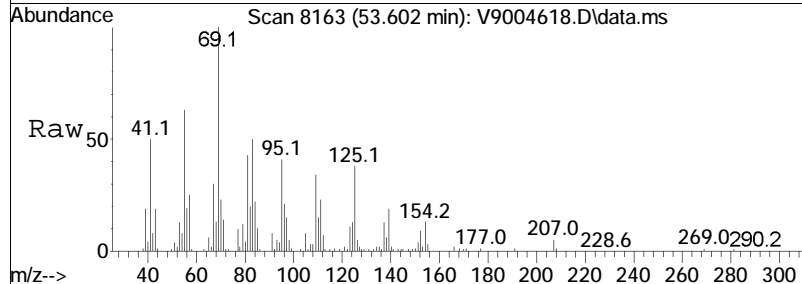
Tgt	Ion:119	Resp:	16046
Ion	Ratio	Lower	Upper
119	100		
105	118.0	95.9	135.9
134	57.8	38.6	78.6

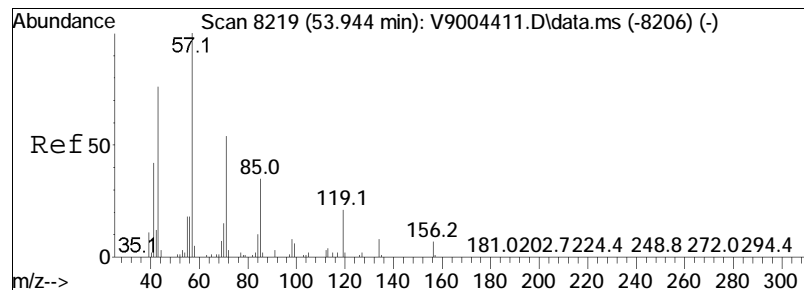




#130
 1-Methyl-2-propylbenzene
 Concen: 0.30 ug/L
 RT: 53.60 min Scan# 8163
 Delta R.T. 0.000 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

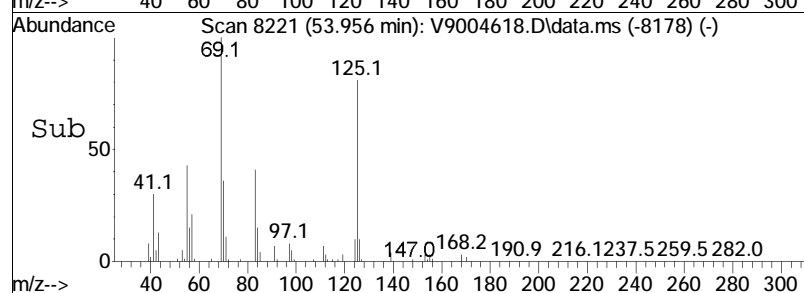
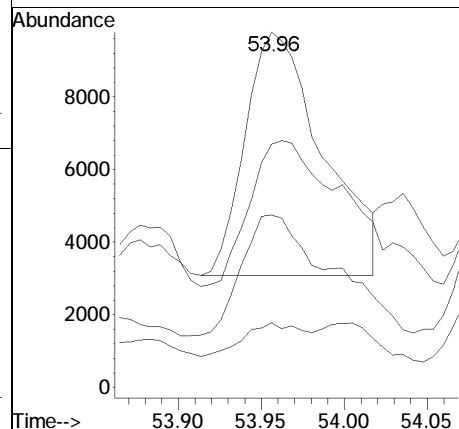
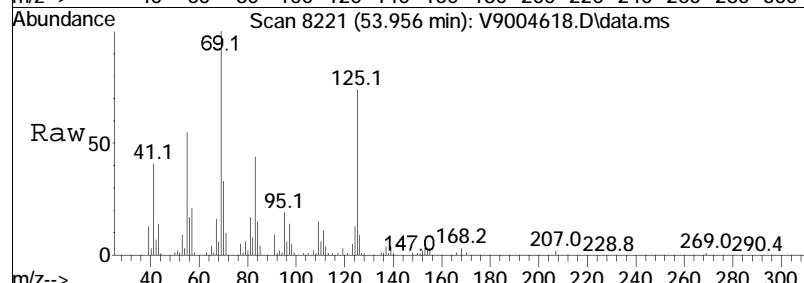
Tgt	Ion	Ratio	Lower	Upper
105	105	100		
134	134	20.5	3.7	43.7

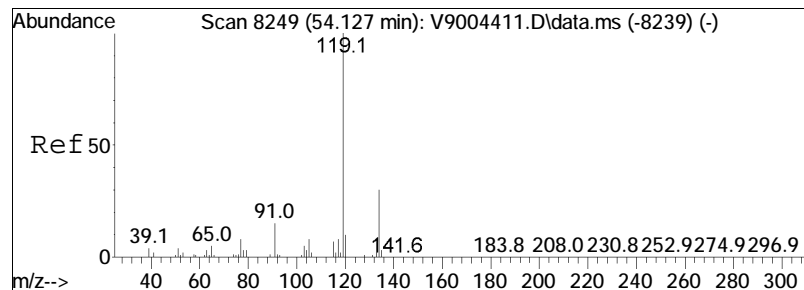




#132
Undecane
Concen: 8.62 ug/L
RT: 53.96 min Scan# 8221
Delta R.T. 0.012 min
Lab File: V9004618.D
Acq: 04 May 2023 12:48 am

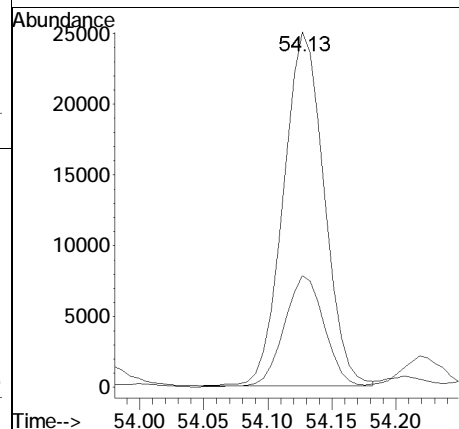
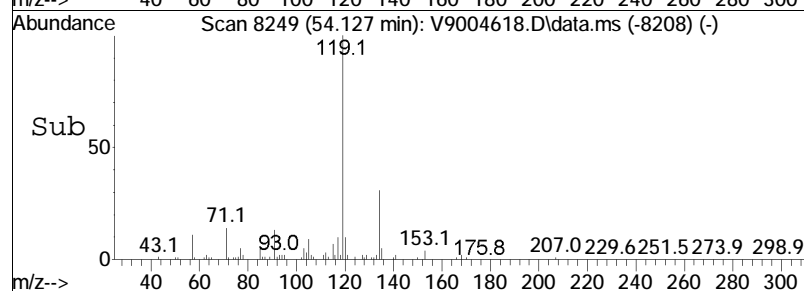
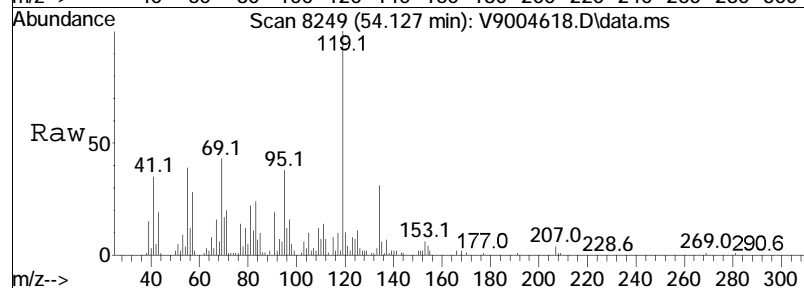
Tgt Ion:	57	Resp:	21867
Ion	Ratio	Lower	Upper
57	100		
43	68.4	56.0	96.0
71	48.5	34.2	74.2
85	18.2	14.5	54.5

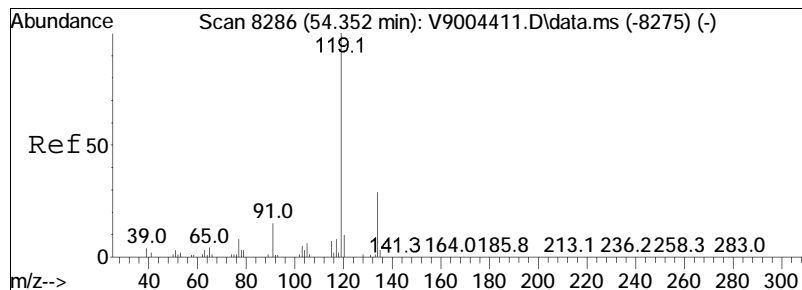




#134
 1,3-Dimethyl-5-ethylbenzene
 Concen: 7.87 ug/L
 RT: 54.13 min Scan# 8249
 Delta R.T. 0.000 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

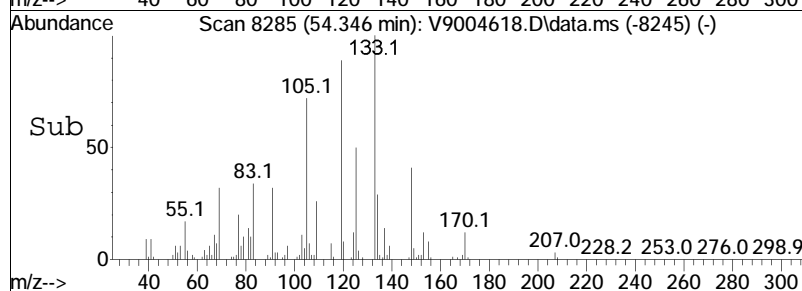
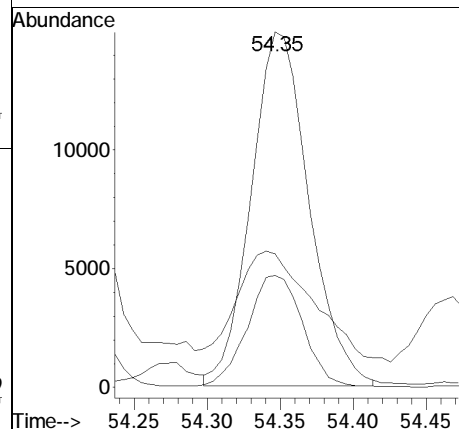
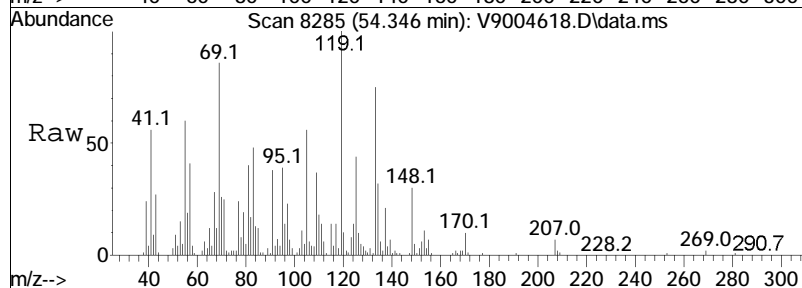
Tgt Ion	Ratio	Lower	Upper
119	100		
134	31.4	10.0	50.0

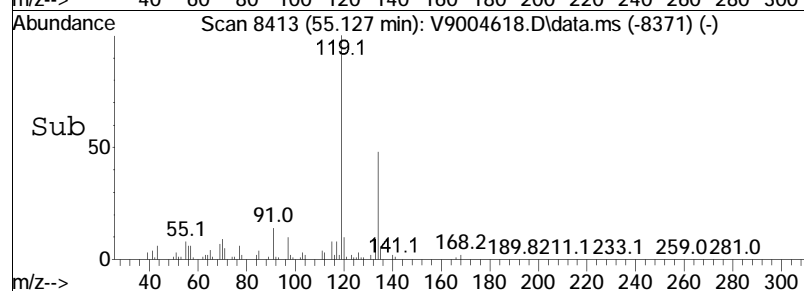
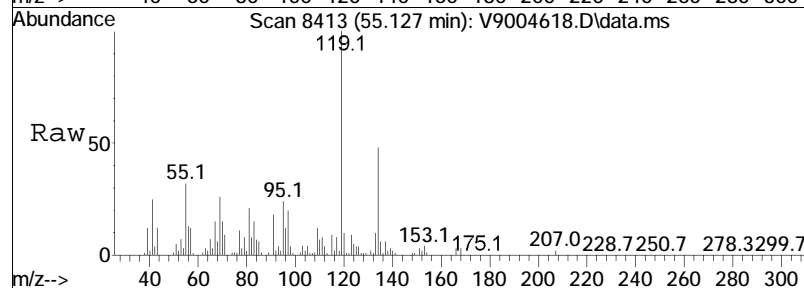
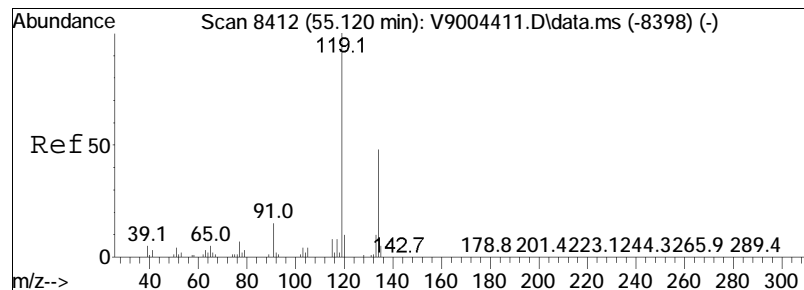




#135
 1,3-Dimethyl-2-ethylbenzene
 Concen: 5.39 ug/L m
 RT: 54.35 min Scan# 8285
 Delta R.T. -0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

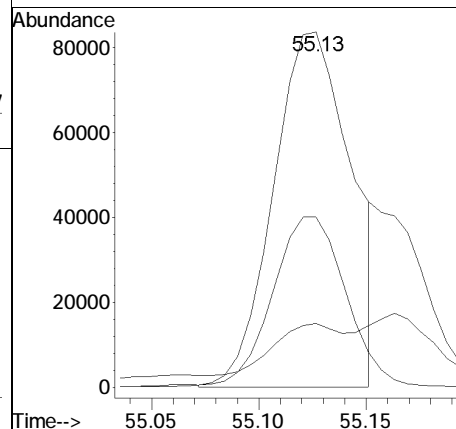
Tgt	Ion	Ratio	Lower	Upper
119	100			
134	31.5	9.3	49.3	
91	37.6	0.0	34.5	

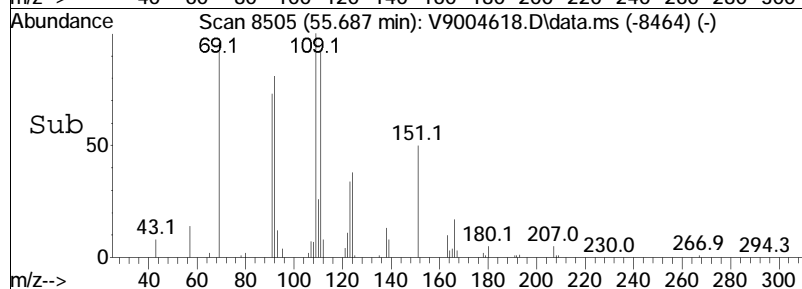
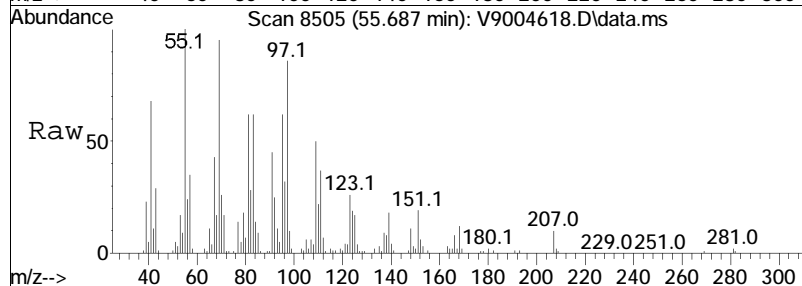
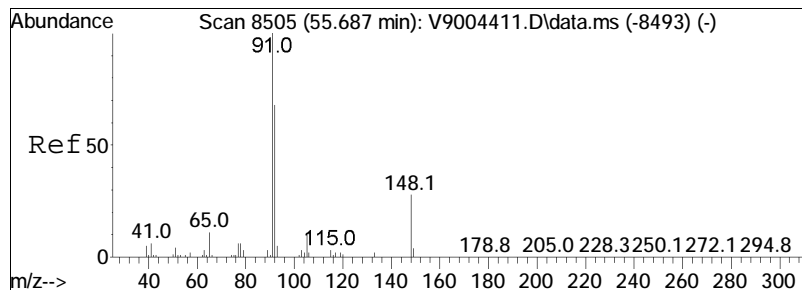




#137
 1,2,4,5-Tetramethylbenzene
 Concen: 29.26 ug/L m
 RT: 55.13 min Scan# 8413
 Delta R.T. 0.006 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

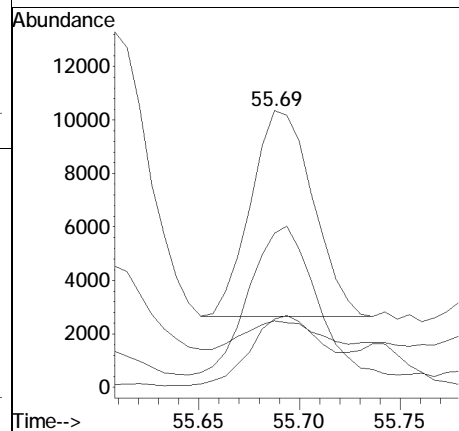
Tgt	Ion:119	Resp:	210360
Ion	Ratio	Lower	Upper
119	100		
134	47.9	28.5	68.5
91	18.0	0.0	35.2

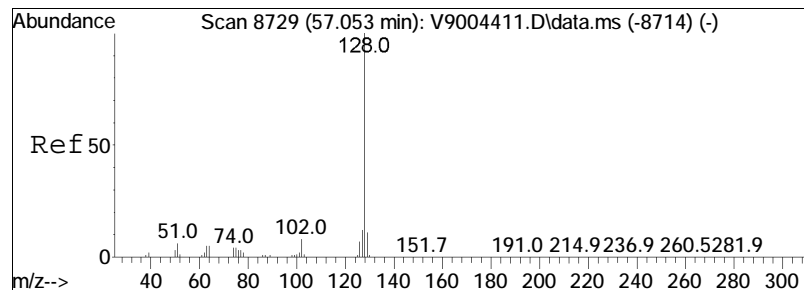




#139
 Pentylbenzene
 Concen: 2.71 ug/L
 RT: 55.69 min Scan# 8505
 Delta R.T. 0.000 min
 Lab File: V9004618.D
 Acq: 04 May 2023 12:48 am

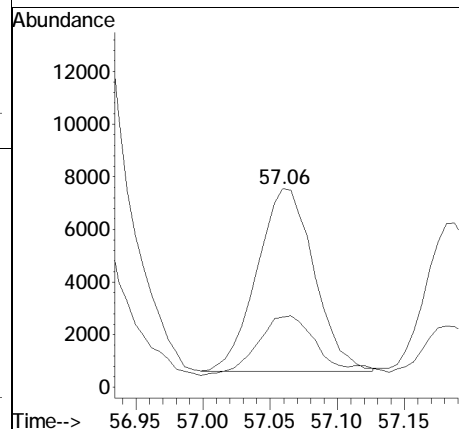
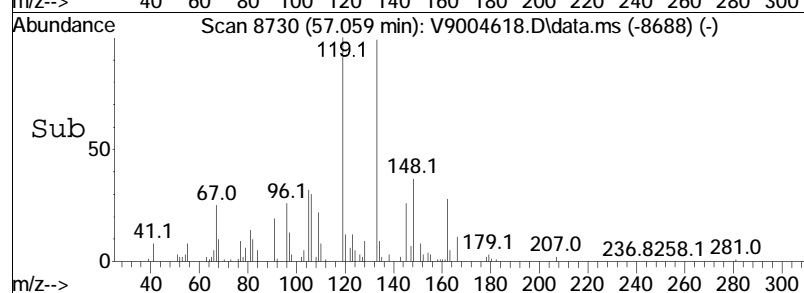
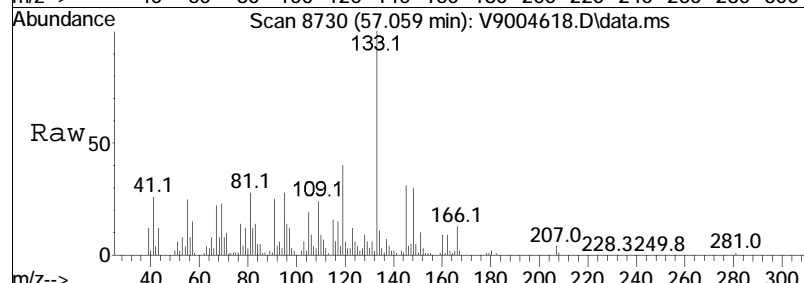
Tgt Ion:	91	Resp:	16512
Ion Ratio	Lower	Upper	
91	100		
92	55.7	47.8	87.8
65	24.1	0.0	31.4
148	24.7	8.3	48.3

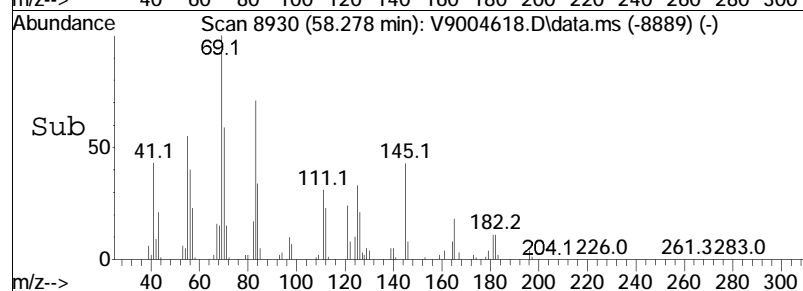
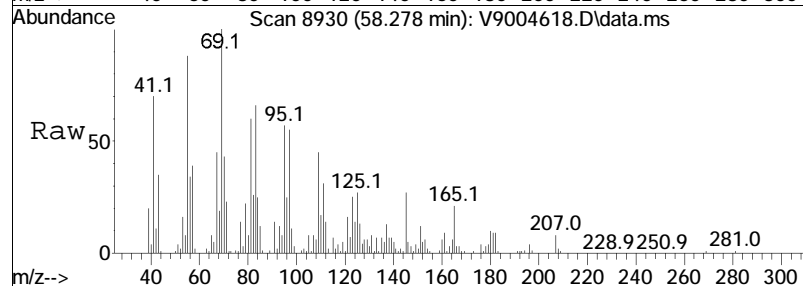
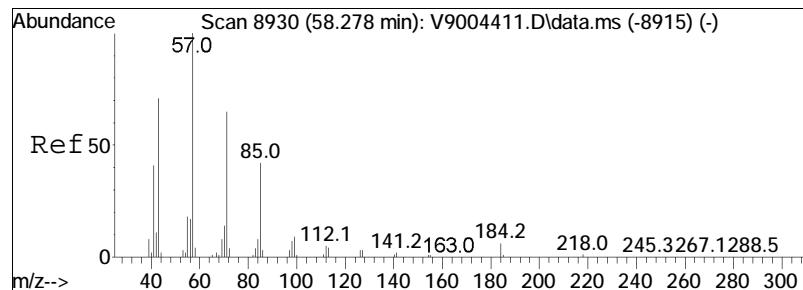




#144
Naphthalene
Concen: 2.46 ug/L
RT: 57.06 min Scan# 8730
Delta R.T. 0.006 min
Lab File: V9004618.D
Acq: 04 May 2023 12:48 am

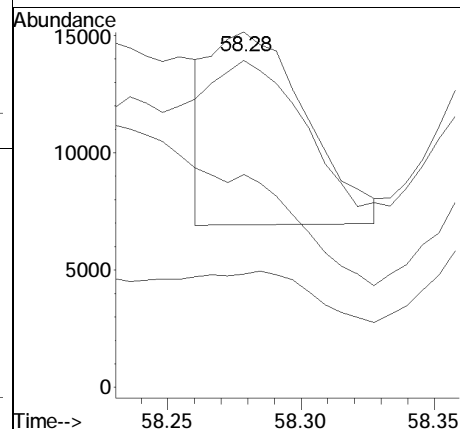
Tgt	Ion	Resp	Lower	Upper
128	100			
127	35.4	0.0	32.4	





#149
Tridecane
Concen: 9.93 ug/L m
RT: 58.28 min Scan# 8930
Delta R.T. 0.000 min
Lab File: V9004618.D
Acq: 04 May 2023 12:48 am

Tgt Ion:	57	Resp:	20539
Ion Ratio	Lower	Upper	
57	100		
43	92.0	51.2	91.2#
71	59.9	45.2	85.2
85	31.9	22.1	62.1



Gasoline Reference Oil (LD-7)

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004594.D
 Acq On : 02 May 2023 04:07 pm
 Operator : VOA9:RAY
 Sample : WG1774659-5,31,0.1033,10,0.001
 Misc : WG1774659,ICAL19885
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 03 07:58:44 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : LD7-NF - .

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

Internal Standards						
1) Chlorobenzene-D5 [IS]	39.04	117	316804	50.000	ug/L	0.00
System Monitoring Compounds						
24) Dibromofluoromethane (...)	17.10	113	93818M4	50.766	ug/L	0.00
Spiked Amount	50.000	Range	78 - 118	Recovery	=	101.53%
62) Toluene-d8 (surr)	31.20	98	369454	52.357	ug/L	0.00
Spiked Amount	50.000	Range	87 - 113	Recovery	=	104.71%
64) 2-Bromo-1-chloropropan...	0.00	77	0d	0.000	ug/L	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.00%#
87) 1-Chloro-2-fluorobenze...	0.00	130	0d	0.000	ug/L	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.00%#
97) 1,4-Dichlorobutane (H/...	0.00	55	0d	0.000	ug/L	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.00%#
101) 4-Bromofluorobenzene (...)	46.49	95	153601	48.296	ug/L	0.00
Spiked Amount	50.000	Range	76 - 120	Recovery	=	96.59%
Target Compounds						
					Qvalue	
3) Isopentane	8.15	43	85809	63.215	ug/L	99
6) Pentane	9.20	43	111730	51.002	ug/L	99
13) Cyclopentane	12.92	70	9453	8.126	ug/L #	27
14) 2,3-Dimethylbutane	12.91	71	13642	15.843	ug/L #	50
15) 2-Methylpentane	13.14	43	154581	62.473	ug/L	95
17) 3-Methylpentane	14.13	57	97196	39.335	ug/L	99
19) Hexane	15.34	57	132527	60.591	ug/L	99
26) 2,2-Dimethylpentane	17.40	57	22955	7.440	ug/L	98
27) Methylcyclopentane	17.68	56	145311	53.072	ug/L	100
28) 2,4-Dimethylpentane	17.84	43	23259	10.597	ug/L	97
32) Cyclohexane	20.60	56	210274	92.224	ug/L	97
33) 2-Methylhexane	21.04	43	89304	37.604	ug/L	100
34) Benzene	21.24	78	44227	6.934	ug/L	99
35) 2,3-Dimethylpentane	21.35	56	32386	14.537	ug/L	97
38) 3-Methylhexane	21.86	43	73488	34.687	ug/L	96
43) 1-Heptene/trans-1,2-DMCP	23.19	70	31268	25.122	ug/L	78
44) Isooctane	23.30	57	148057	24.443	ug/L	75
46) Heptane	24.05	43	121193	63.325	ug/L	98
51) Methylcyclohexane	26.47	83	522280	188.184	ug/L	99
52) 2,5-Dimethylhexane	27.15	57	25628	9.458	ug/L	98
53) 2,4-Dimethylhexane	27.41	57	26141	12.018	ug/L	98
55) 2,2,3-Trimethylpentane	27.67	57	5976	1.320	ug/L	88

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004594.D
 Acq On : 02 May 2023 04:07 pm
 Operator : VOA9:RAY
 Sample : WG1774659-5,31,0.1033,10,0.001
 Misc : WG1774659,ICAL19885
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 03 07:58:44 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : LD7-NF - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) 2,3,4-Trimethylpentane	29.20	43	25212	8.943	ug/L	97
58) 2,3,3-Trimethylpentane	29.78	43	13689	5.758	ug/L	96
59) 2,3-Dimethylhexane	30.05	43	22315	8.899	ug/L	97
60) 2-Methylheptane	30.49	57	83323	33.986	ug/L	95
63) 3-Methylheptane	31.24	43	54529	24.311	ug/L	99
65) 3-Ethylhexane	31.36	43	14657M3	4.837	ug/L	
66) Toluene	31.55	91	29620	4.300	ug/L	99
70) 1-Octene	0.00		0	N.D.	d	
71) Octane	33.75	43	148610	61.116	ug/L	99
86) Ethylbenzene	40.65	91	79802	10.184	ug/L	97
91) p/m-Xylene	41.88	91	194531	31.809	ug/L	100
92) 1-Nonene	0.00		0	N.D.	d	
95) Nonane	43.34	43	122688	49.738	ug/L	100
98) o-Xylene	44.18	91	80526	12.694	ug/L	98
102) Isopropylbenzene	46.52	105	17664	2.142	ug/L	93
104) n-Propylbenzene	48.96	91	26560	2.890	ug/L	97
107) 1-Methyl-3-ethylbenzene	49.54	105	66393	8.128	ug/L	99
108) 1-Methyl-4-ethylbenzene	49.70	105	29917	3.789	ug/L	98
109) 1,3,5-Trimethylbenzene	50.25	105	59589	8.850	ug/L	98
110) 1-Decene	0.00		0	N.D.	d	
112) 1-Methyl-2-ethylbenzene	50.57	105	27174	3.241	ug/L	98
113) Decane	50.75	43	58490	24.614	ug/L	97
115) 1,2,4-Trimethylbenzene	51.41	105	118922	16.580	ug/L	98
117) sec-Butylbenzene	51.67	105	5526	0.605	ug/L	93
118) 1-Methyl-3-isopropylbe...	52.04	119	8207	1.047	ug/L	96
119) 1-Methyl-4-isopropylbe...	52.24	119	4062	0.521	ug/L	96
121) 1-Methyl-2-isopropylbe...	52.70	119	1806	0.227	ug/L	91
122) Indan	52.79	117	10210	1.410	ug/L	95
124) 1-Methyl-3-propylbenzene	53.06	105	20967	2.242	ug/L	98
126) 1-Methyl-4-propylbenzene	53.21	105	11601	1.048	ug/L	84
127) n-Butylbenzene	53.21	91	6492	0.749	ug/L	92
128) 1,2-Dimethyl-4-ethylbe...	53.32	119	21255	2.522	ug/L	99
129) 1,2-Diethylbenzene	53.41	119	806	0.199	ug/L	85
130) 1-Methyl-2-propylbenzene	53.60	105	7722	0.770	ug/L	99
131) 1,4-Dimethyl-2-ethylbe...	53.91	119	11403	1.465	ug/L	97
132) Undecane	53.94	57	21992	7.101	ug/L	99
133) 1,3-Dimethyl-4-ethylbe...	54.00	119	14613	1.532	ug/L	97
134) 1,3-Dimethyl-5-ethylbe...	54.13	119	24267	2.842	ug/L	96
135) 1,3-Dimethyl-2-ethylbe...	54.36	119	3135M6	0.336	ug/L	
136) 1,2-Dimethyl-3-ethylbe...	54.72	119	6886	0.822	ug/L	98
137) 1,2,4,5-Tetramethylben...	55.13	119	23290M6	2.654	ug/L	

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004594.D
 Acq On : 02 May 2023 04:07 pm
 Operator : VOA9:RAY
 Sample : WG1774659-5,31,0.1033,10,0.001
 Misc : WG1774659,ICAL19885
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 03 07:58:44 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : LD7-NF - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
139) Pentylbenzene	55.69	91	3969M6	0.534	ug/L	
142) Dodecane	56.18	43	9249	4.306	ug/L	95
144) Naphthalene	57.05	128	152306	14.979	ug/L	99
149) Tridecane	58.28	57	4043	1.602	ug/L	96
150) 2-Methylnaphthalene	59.83	142	104791	15.524	ug/L	100
151) 1-Methylnaphthalene	60.32	142	47044	7.797	ug/L	99

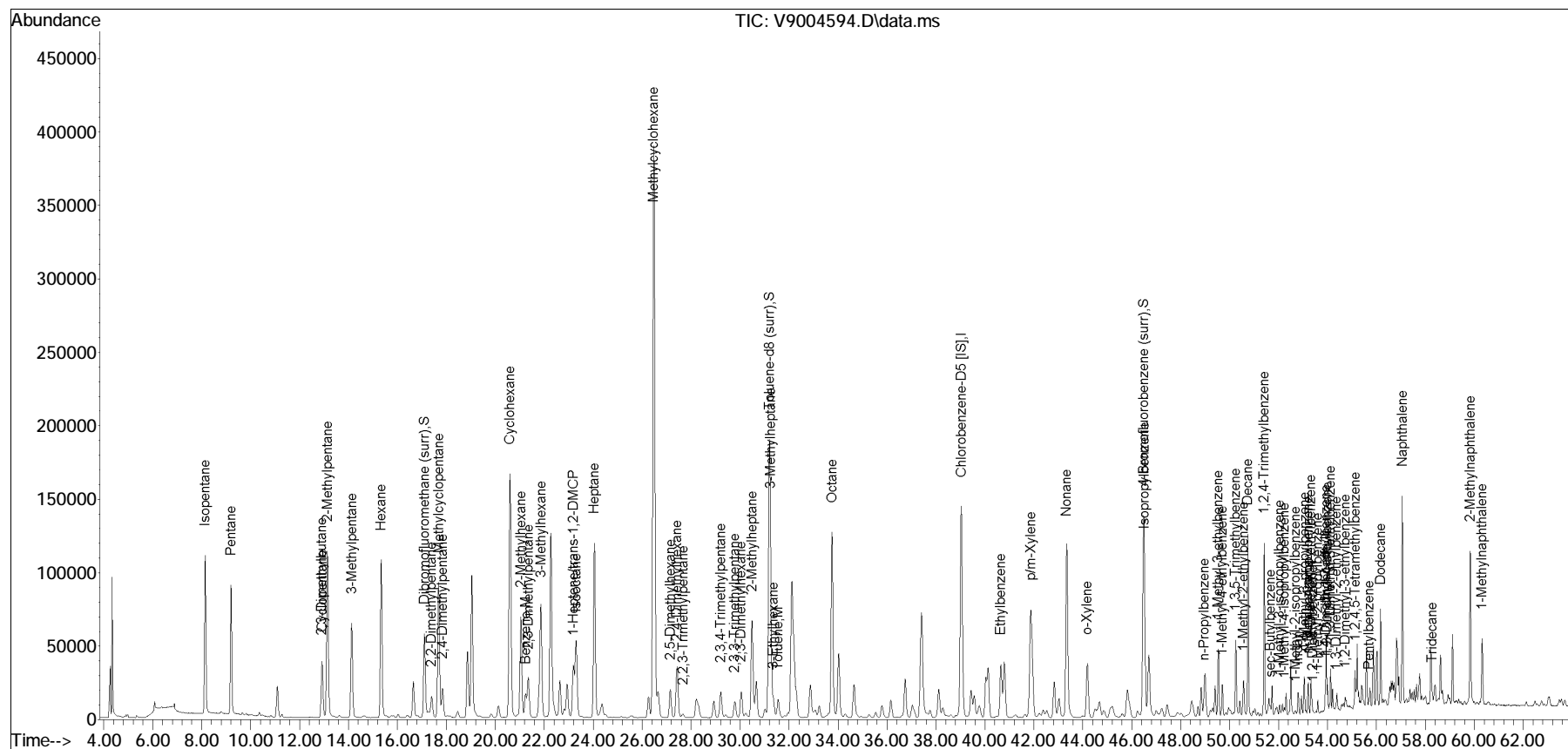
(#) = qualifier out of range (m) = manual integration (+) = signals summed

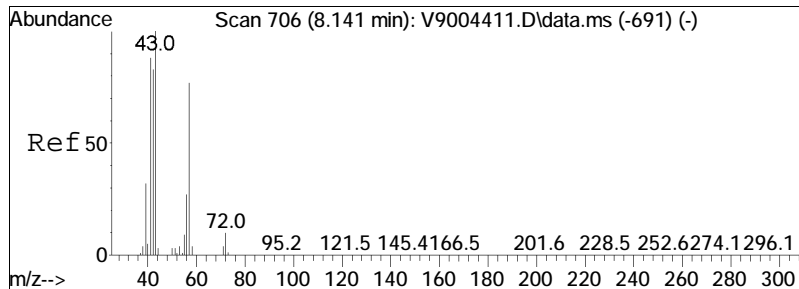
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\VOA9\2023\05\0502\
 Data File : V9004594.D
 Acq On : 02 May 2023 04:07 pm
 Operator : VOA9:RAY
 Sample : WG1774659-5,31,0.1033,10,0.001
 Misc : WG1774659,ICAL19885
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 03 07:58:44 2023
 Quant Method : O:\Organics\DATA\VOA9\2023\05\0502\P9040423W.M
 Quant Title : PIANO VOLATILES
 QLast Update : Wed Apr 05 08:18:42 2023
 Response via : Initial Calibration

Sub List : LD7-NF - .





#3

Isopentane

Concen: 63.22 ug/L

RT: 8.15 min Scan# 707

Delta R.T. 0.006 min

Lab File: V9004594.D

Acq: 02 May 2023 04:07 pm

Tgt Ion: 43 Resp: 85809

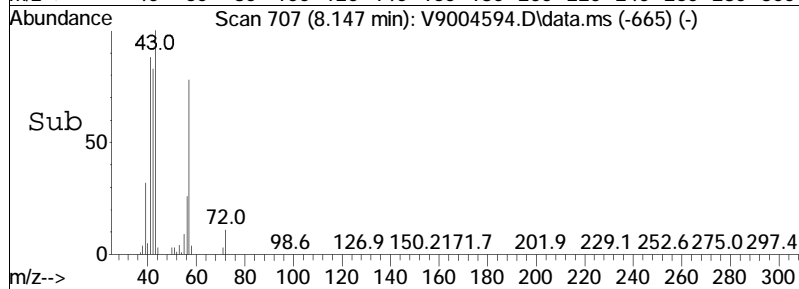
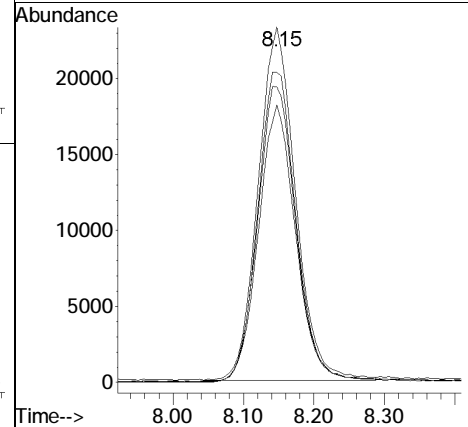
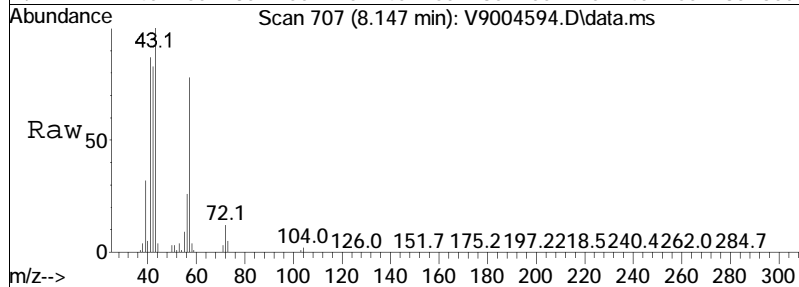
Ion Ratio Lower Upper

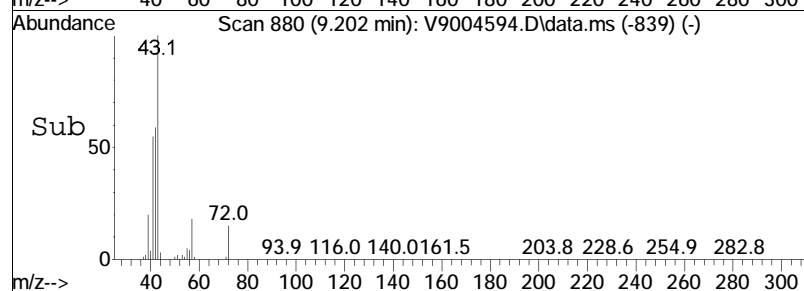
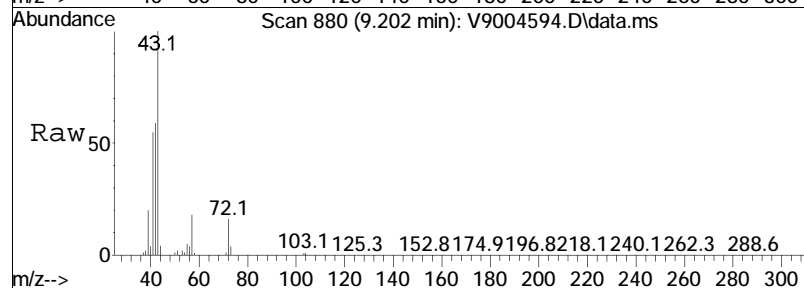
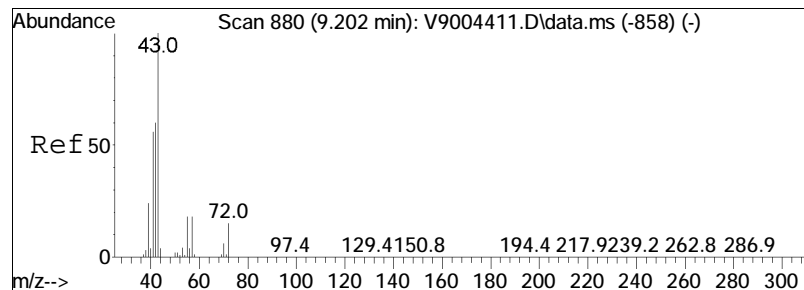
43 100

57 78.0 56.9 96.9

42 83.1 62.6 102.6

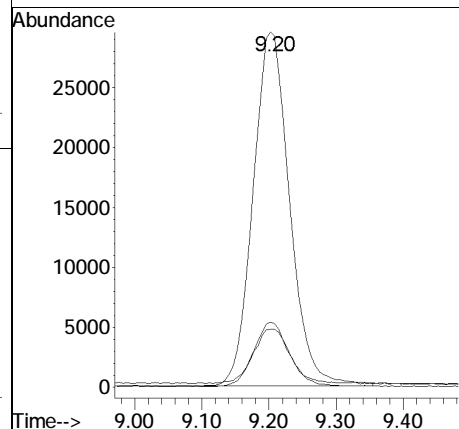
41 87.2 67.0 107.0

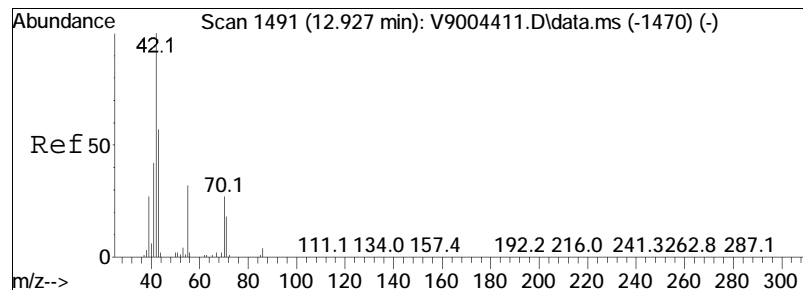




#6
 Pentane
 Concen: 51.00 ug/L
 RT: 9.20 min Scan# 880
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

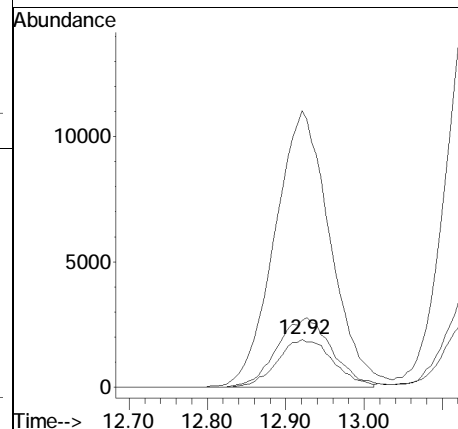
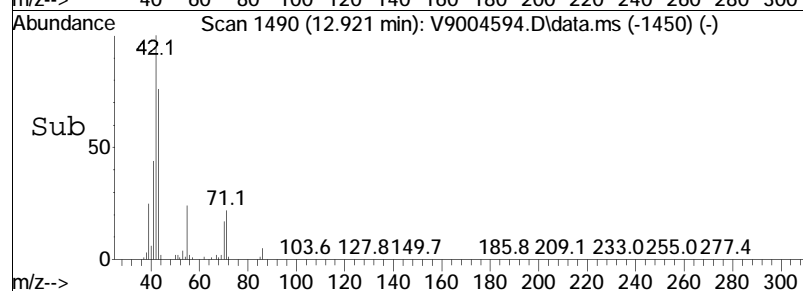
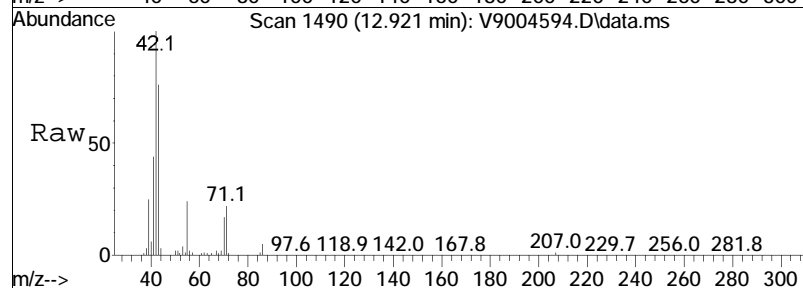
Tgt	Ion	Resp	Lower	Upper
43	100			
57	18.4	0.0	38.5	
72	16.3	0.0	35.9	

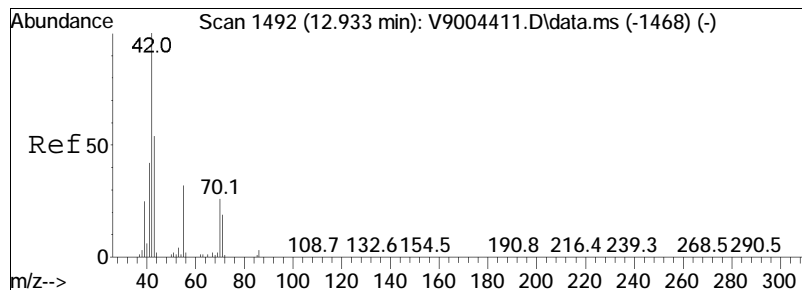




#13
Cyclopentane
Concen: 8.13 ug/L
RT: 12.92 min Scan# 1490
Delta R.T. -0.006 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

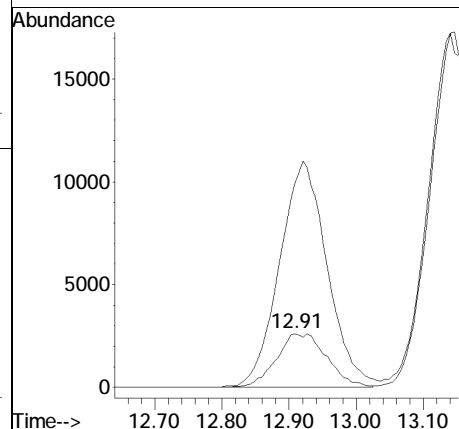
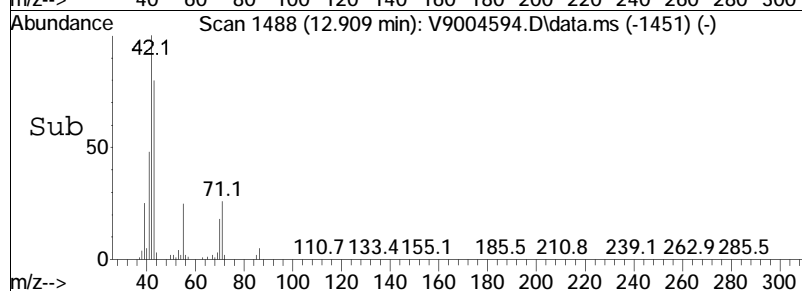
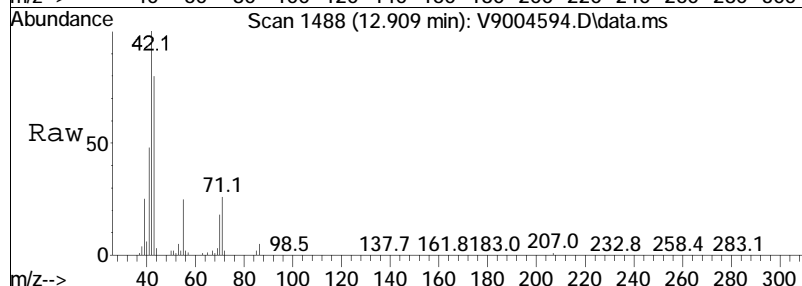
Tgt	Ion	Resp	Lower	Upper
70	100			
42	577.4	350.8	390.8#	
55	139.9	100.3	140.3	

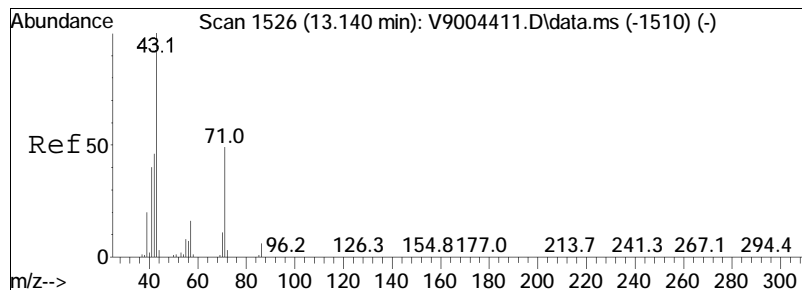




#14
 2,3-Dimethylbutane
 Concen: 15.84 ug/L
 RT: 12.91 min Scan# 1488
 Delta R.T. -0.024 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

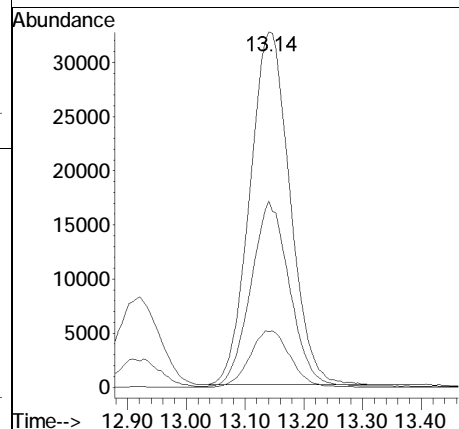
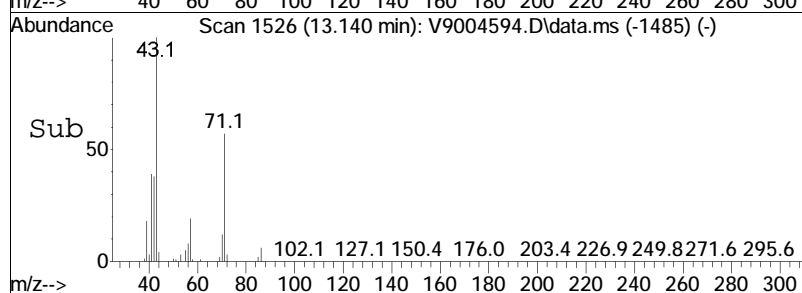
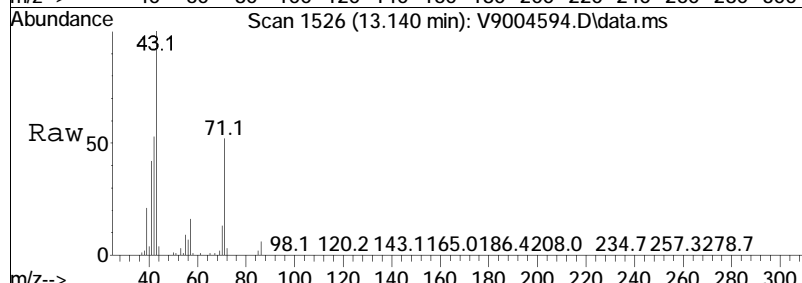
Tgt	Ion	Resp	Lower	Upper
71	100			
42	380.3	502.4	542.4	#

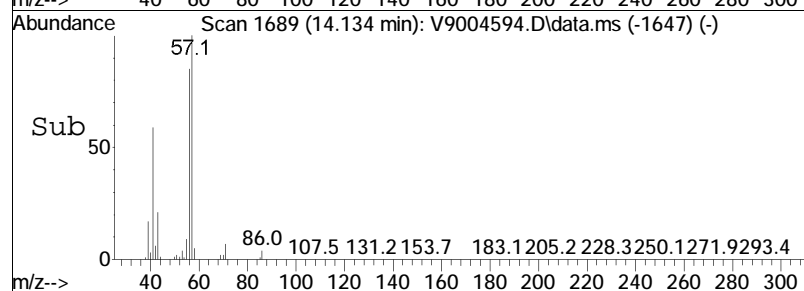
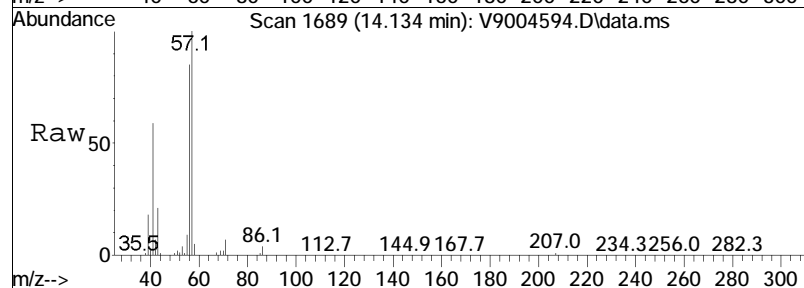
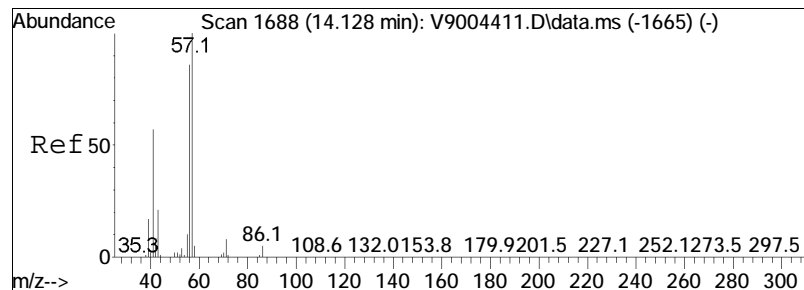




#15
 2-Methylpentane
 Concen: 62.47 ug/L
 RT: 13.14 min Scan# 1526
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

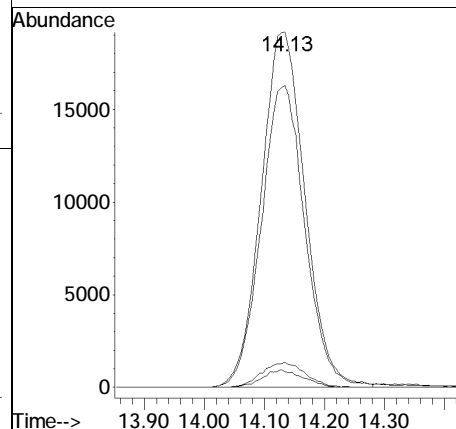
Tgt	Ion	Ratio	Lower	Upper
43	100			
71	52.4	28.2	68.2	
57	15.7	0.0	35.7	

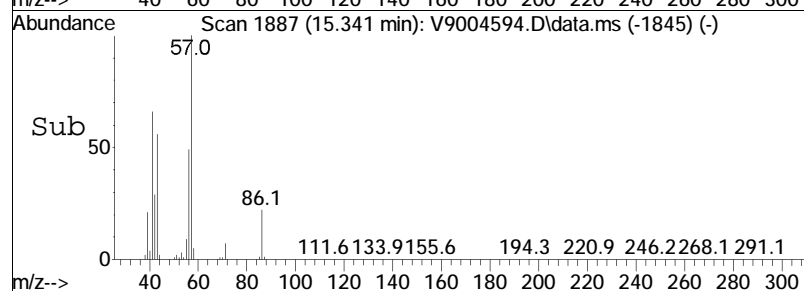
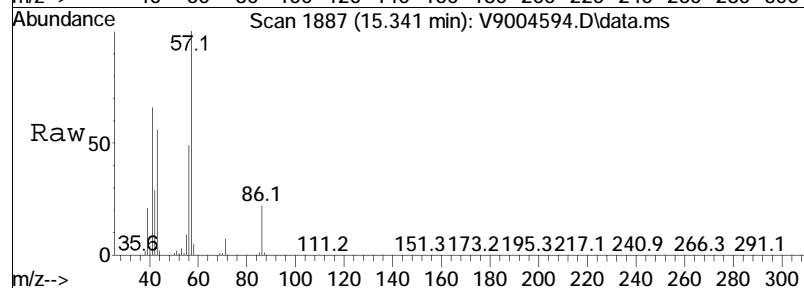
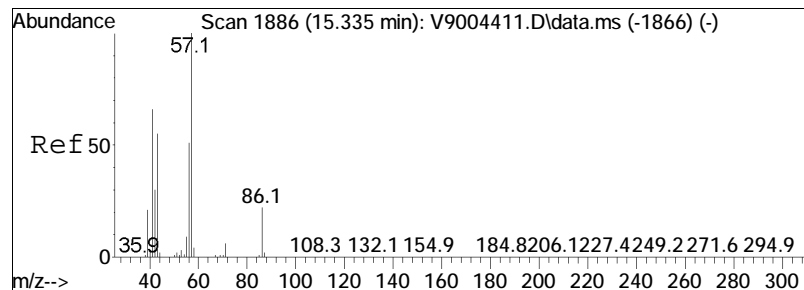




#17
 3-Methylpentane
 Concen: 39.33 ug/L
 RT: 14.13 min Scan# 1689
 Delta R.T. 0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

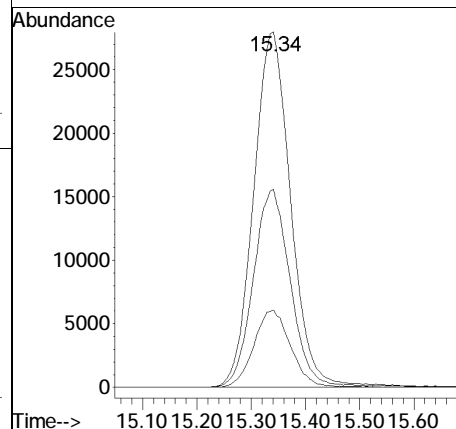
Tgt Ion:	57	Resp:	97196
Ion Ratio	Lower	Upper	
57	100		
56	84.9	65.9	105.9
71	7.1	0.0	27.5
86	4.5	0.0	24.6

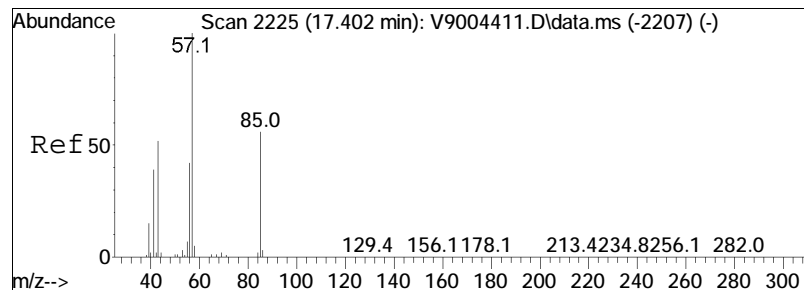




#19
Hexane
Concen: 60.59 ug/L
RT: 15.34 min Scan# 1887
Delta R.T. 0.006 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

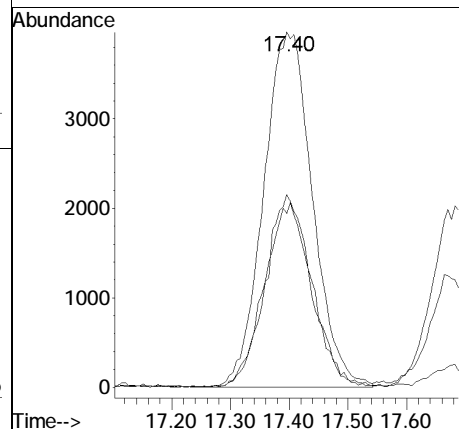
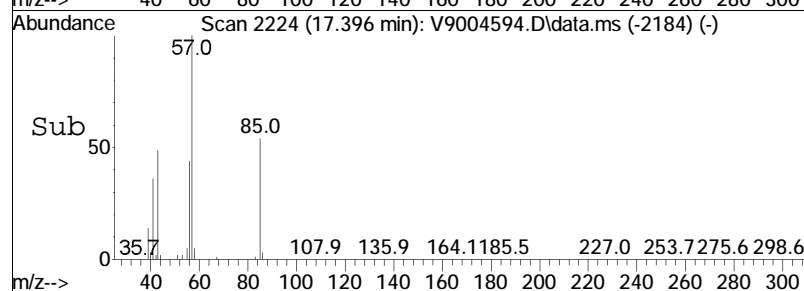
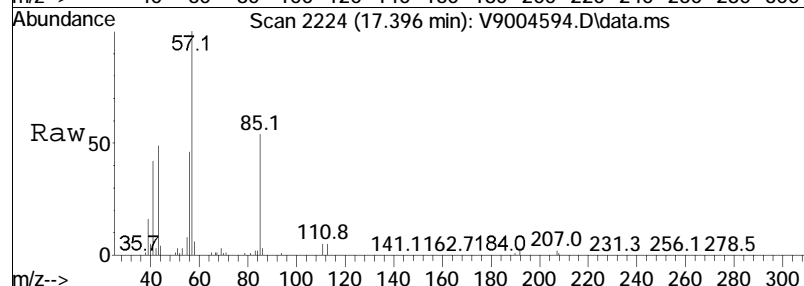
Tgt	Ion	Resp	Lower	Upper
57	100			
43	55.7	35.4	75.4	
86	21.8	2.2	42.2	

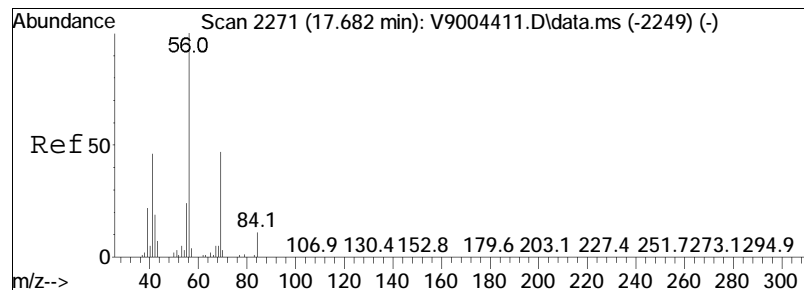




#26
 2,2-Dimethylpentane
 Concen: 7.44 ug/L
 RT: 17.40 min Scan# 2224
 Delta R.T. -0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

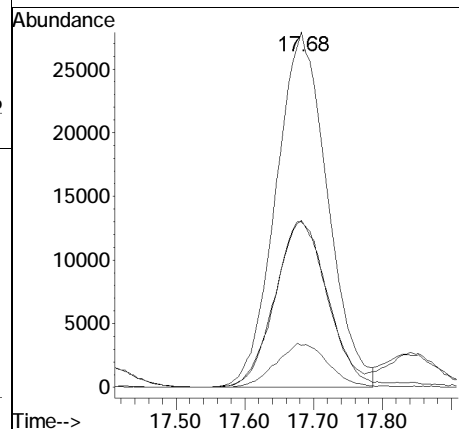
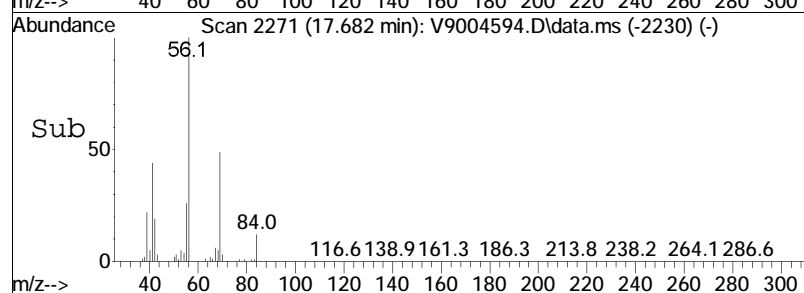
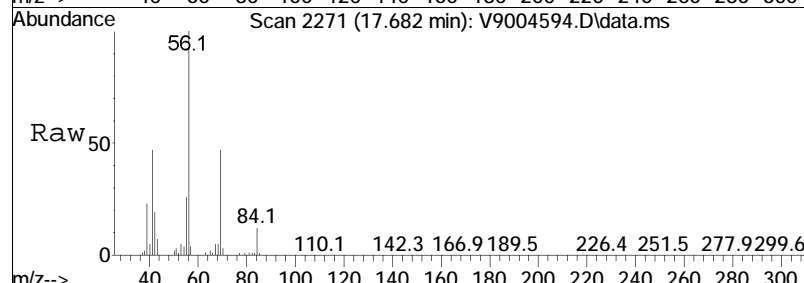
Tgt Ion:	57	Resp:	22955
Ion Ratio	Lower	Upper	
57	100		
85	54.2	33.3	73.3
43	49.0	31.5	71.5

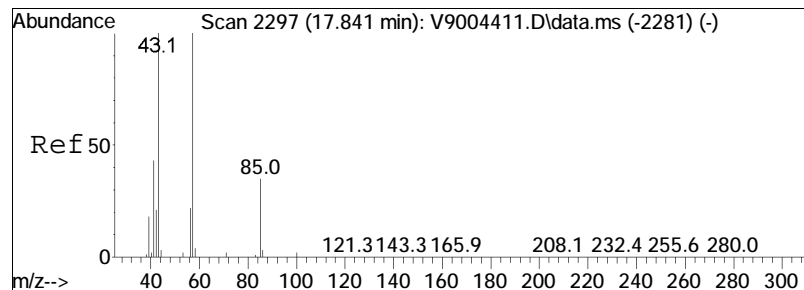




#27
Methylcyclopentane
Concen: 53.07 ug/L
RT: 17.68 min Scan# 2271
Delta R.T. 0.000 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

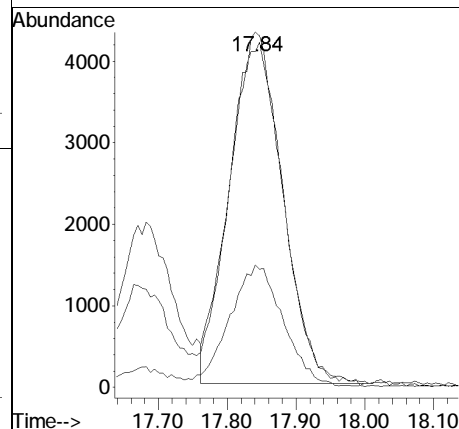
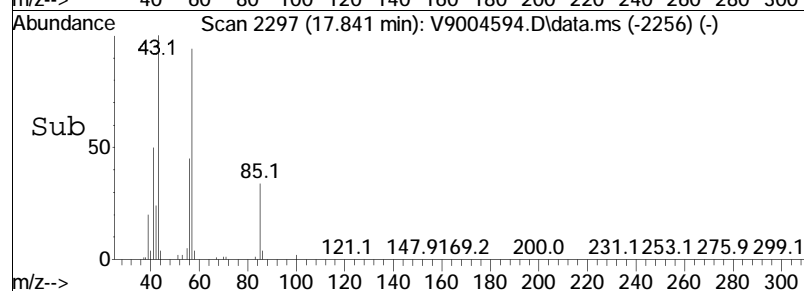
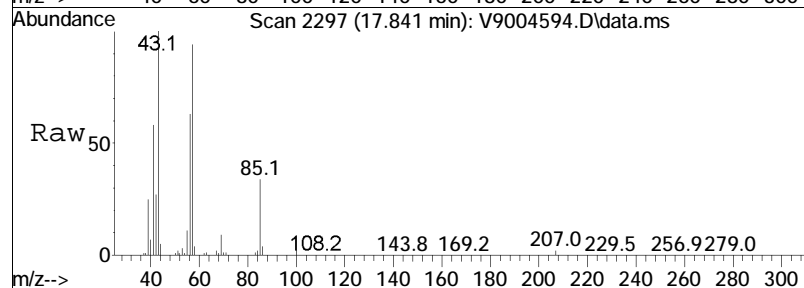
Tgt	Ion: 56	Resp:	145311
Ion	Ratio	Lower	Upper
56	100		
69	47.0	27.0	67.0
41	46.6	26.5	66.5
84	11.8	0.0	31.3

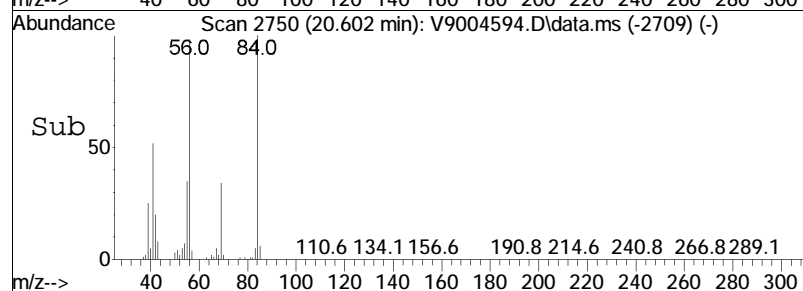
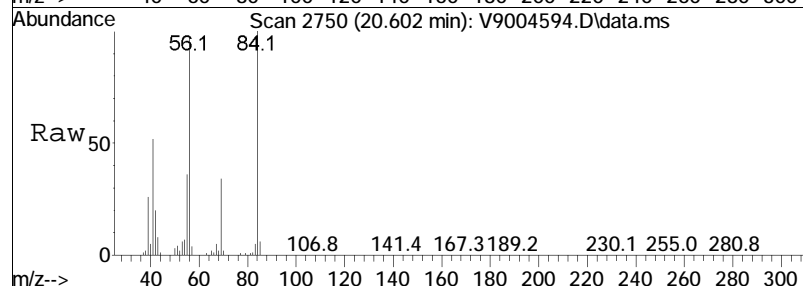
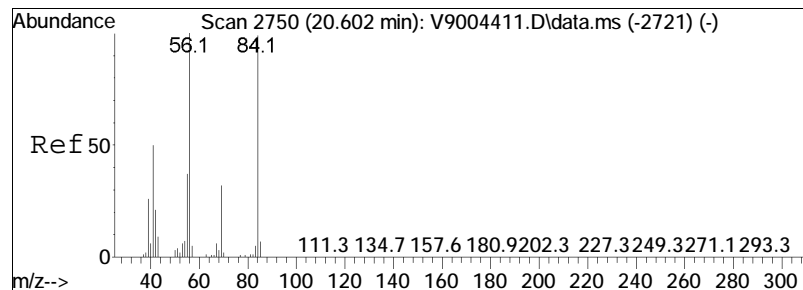




#28
 2,4-Dimethylpentane
 Concen: 10.60 ug/L
 RT: 17.84 min Scan# 2297
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

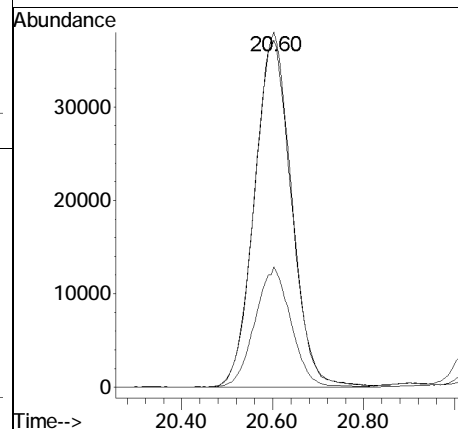
Tgt Ion	Ratio	Lower	Upper
43	100		
57	94.4	78.8	118.8
85	34.5	14.3	54.3

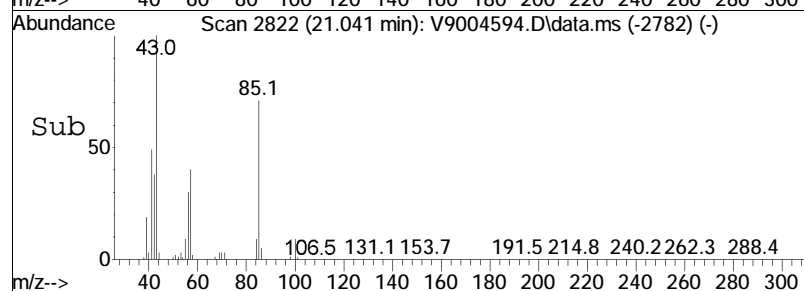
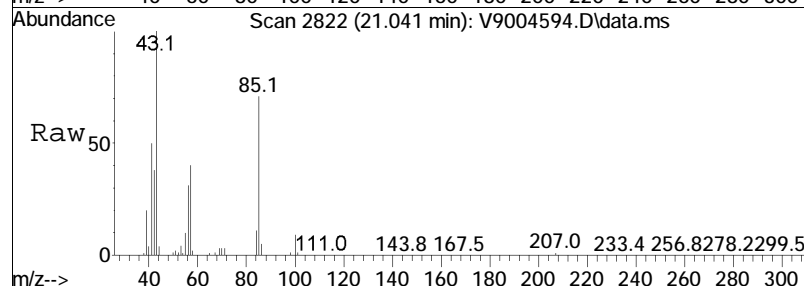
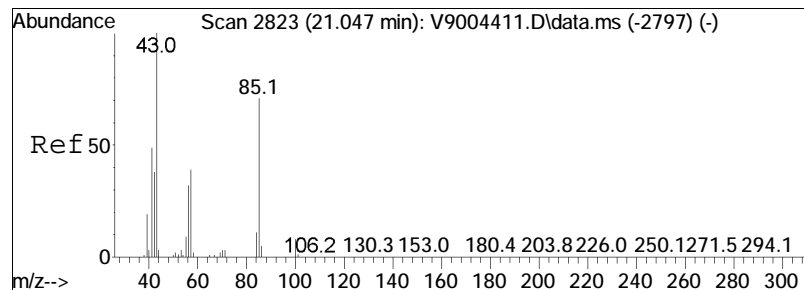




#32
Cyclohexane
Concen: 92.22 ug/L
RT: 20.60 min Scan# 2750
Delta R.T. 0.000 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

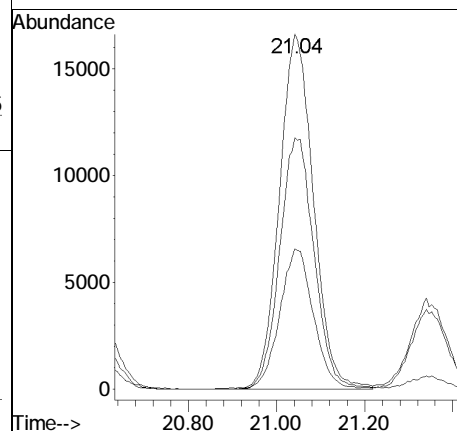
Tgt	Ion:	56	Resp:	210274
Ion	Ratio	Lower	Upper	
56	100			
84	102.3	79.5	119.5	
69	34.7	11.9	51.9	

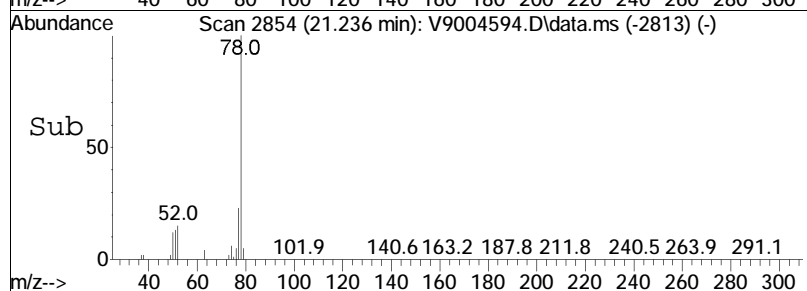
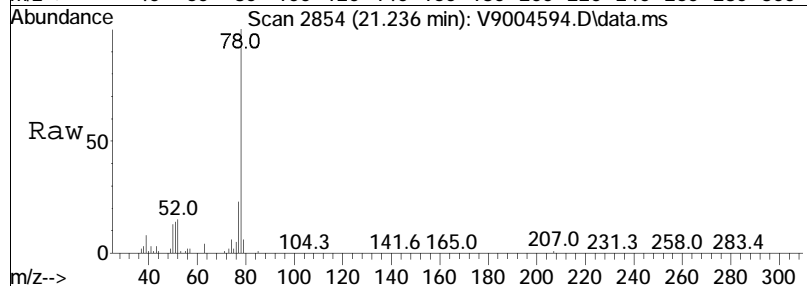
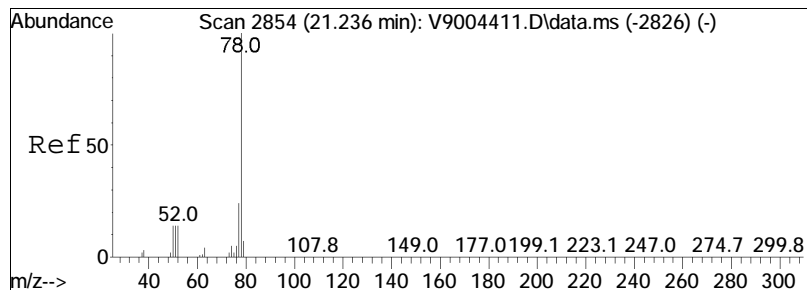




#33
 2-Methylhexane
 Concen: 37.60 ug/L
 RT: 21.04 min Scan# 2822
 Delta R.T. -0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

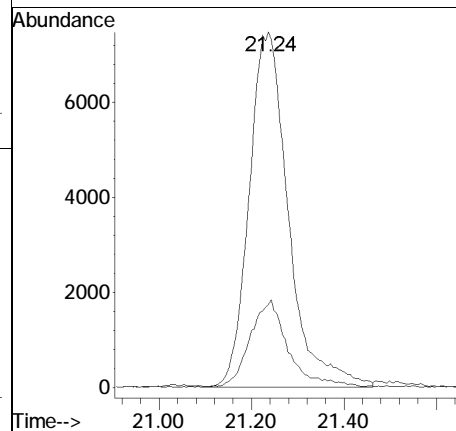
Tgt	Ion: 43	Resp:	89304
Ion	Ratio	Lower	Upper
43	100		
85	70.8	51.1	91.1
57	39.6	19.2	59.2

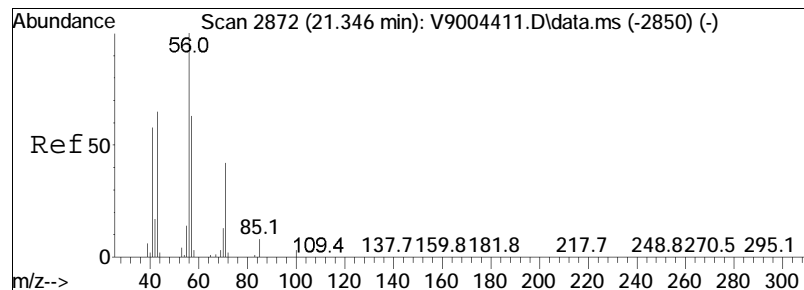




#34
Benzene
Concen: 6.93 ug/L
RT: 21.24 min Scan# 2854
Delta R.T. 0.000 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

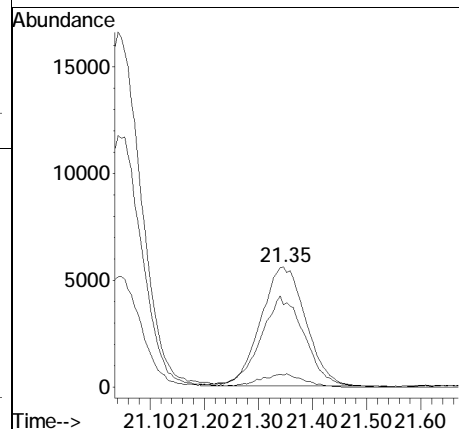
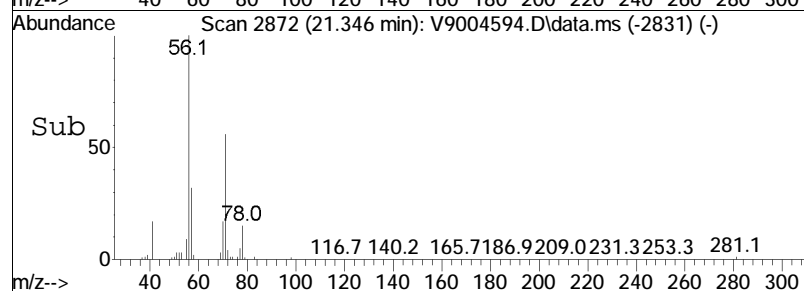
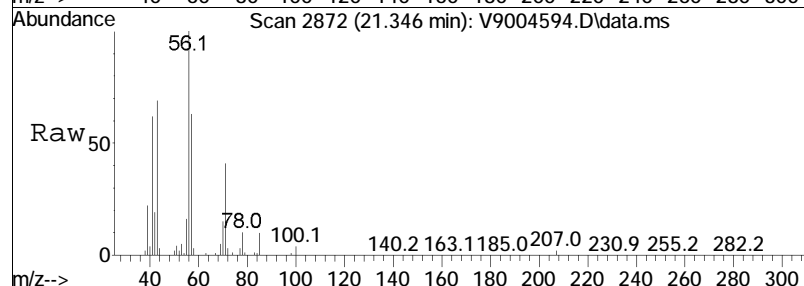
Tgt	Ion	Resp	Lower	Upper
78	100			
77	23.3	4.0	44.0	

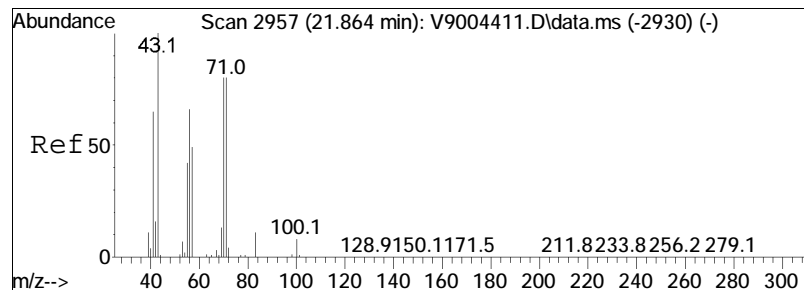




#35
 2,3-Dimethylpentane
 Concen: 14.54 ug/L
 RT: 21.35 min Scan# 2872
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

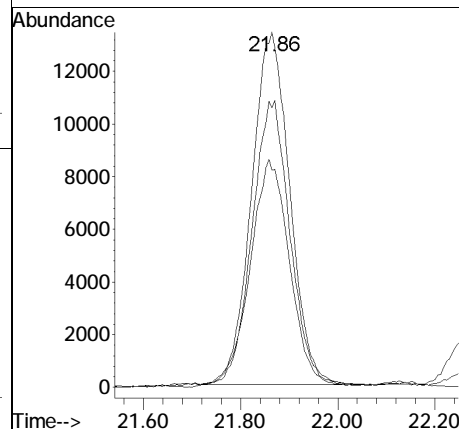
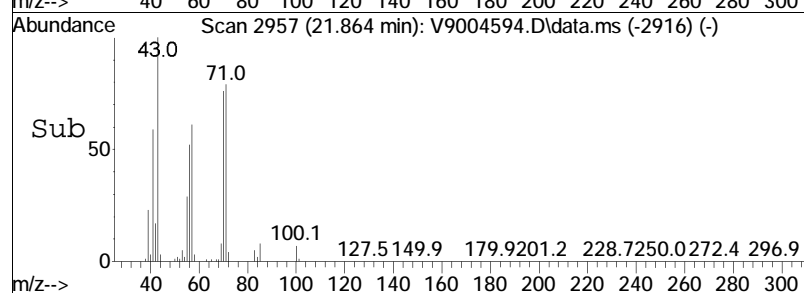
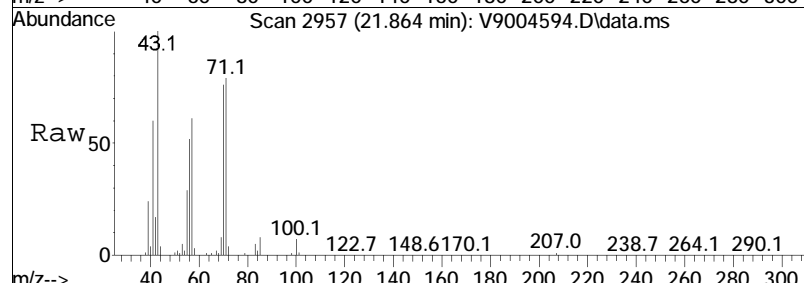
Tgt	Ion: 56	Resp:	32386
Ion	Ratio	Lower	Upper
56	100		
43	68.6	46.7	86.7
85	10.2	0.0	28.4

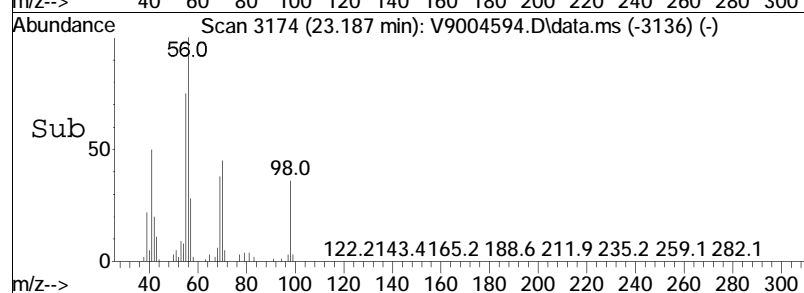
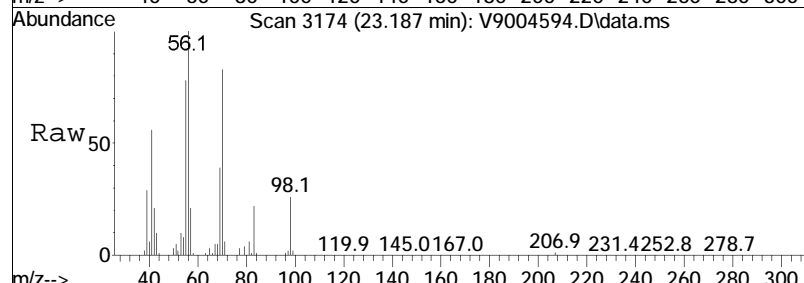
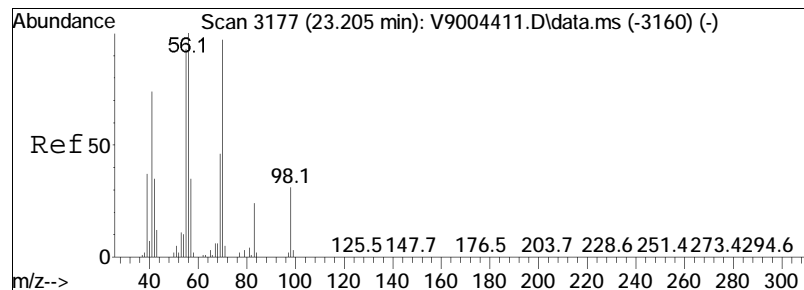




#38
 3-Methylhexane
 Concen: 34.69 ug/L
 RT: 21.86 min Scan# 2957
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

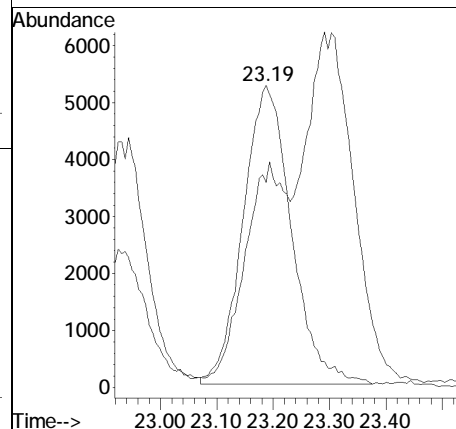
Tgt Ion:	43	Resp:	73488
Ion Ratio	Lower	Upper	
43	100		
57	61.1	46.7	86.7
71	78.6	60.6	100.6

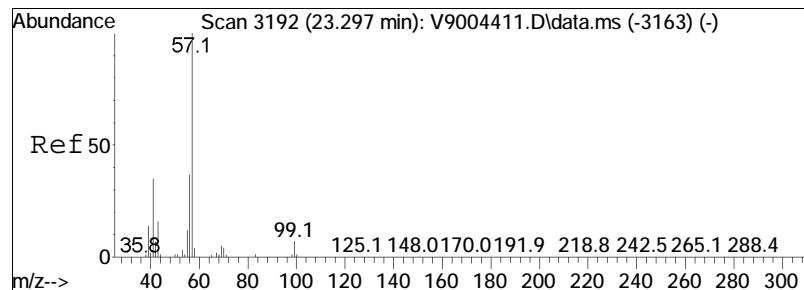




#43
 1-Heptene/trans-1,2-DMCP
 Concen: 25.12 ug/L
 RT: 23.19 min Scan# 3174
 Delta R.T. -0.018 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

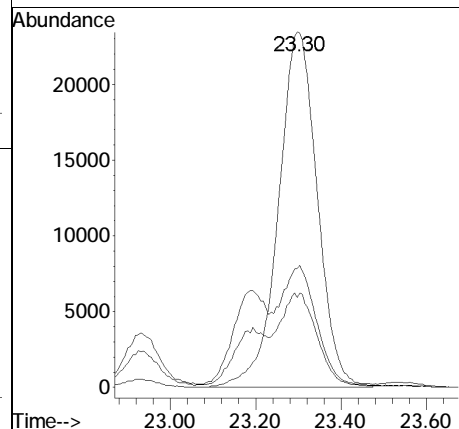
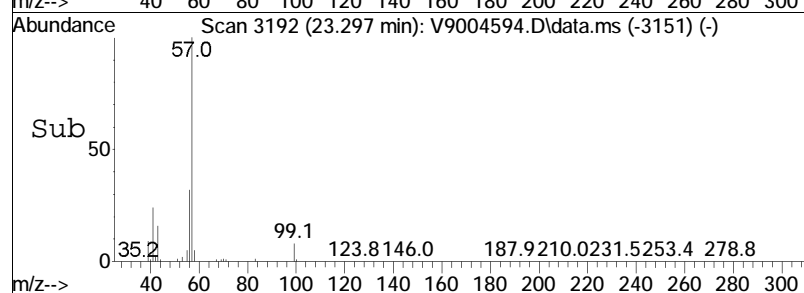
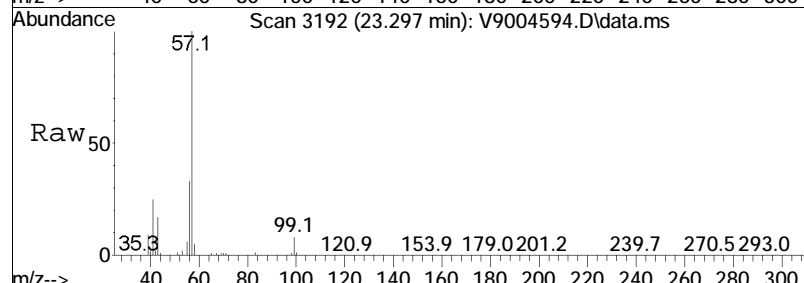
Tgt	Ion	Resp	Lower	Upper
70	100			
41	67.9	19.0	158.2	

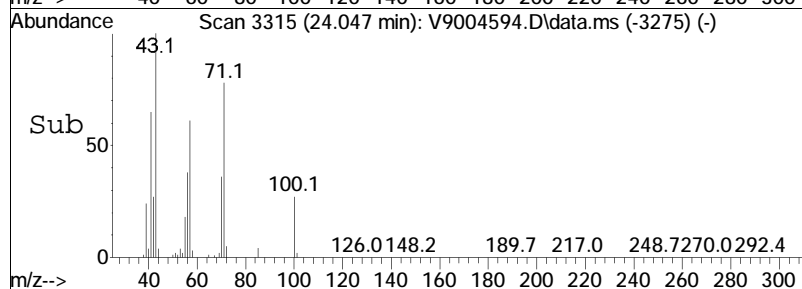
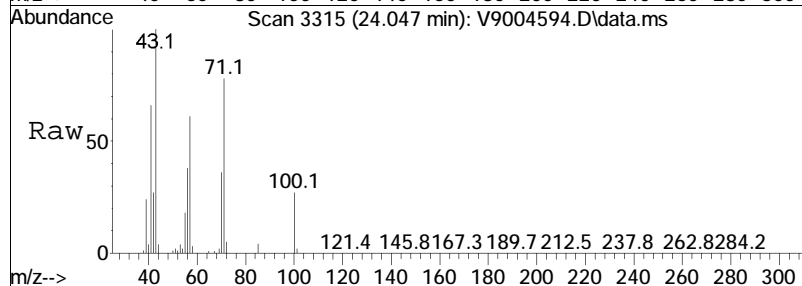
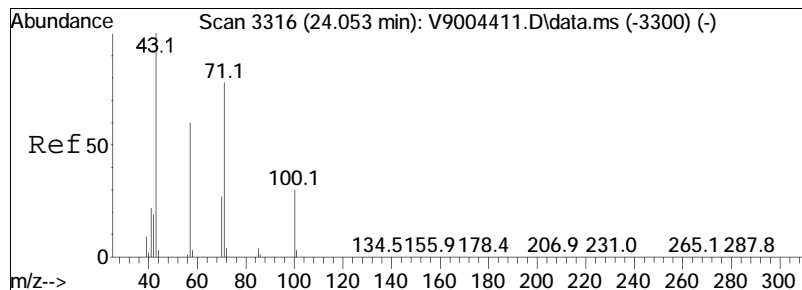




#44
 Isooctane
 Concen: 24.44 ug/L
 RT: 23.30 min Scan# 3192
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

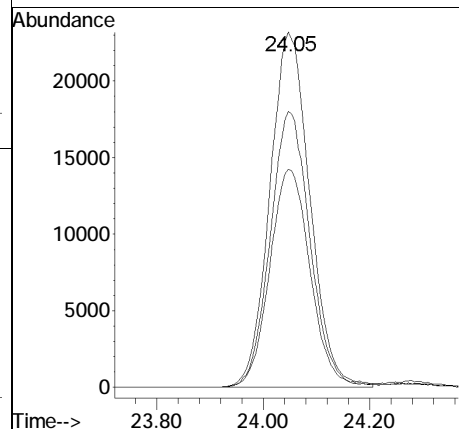
Tgt Ion	Ratio	Lower	Upper
57	100		
41	25.3	21.7	61.7
56	33.4	30.1	70.1

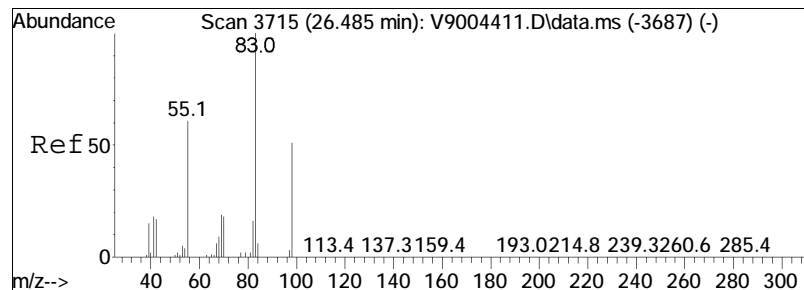




#46
 Heptane
 Concen: 63.33 ug/L
 RT: 24.05 min Scan# 3315
 Delta R.T. -0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

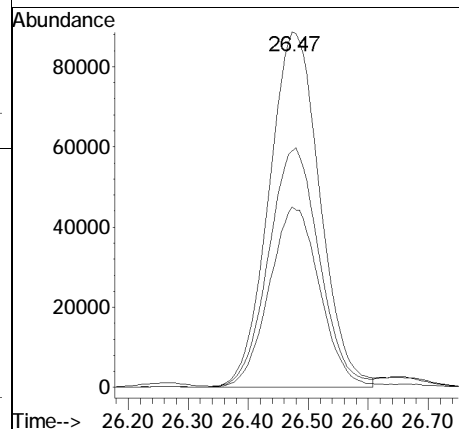
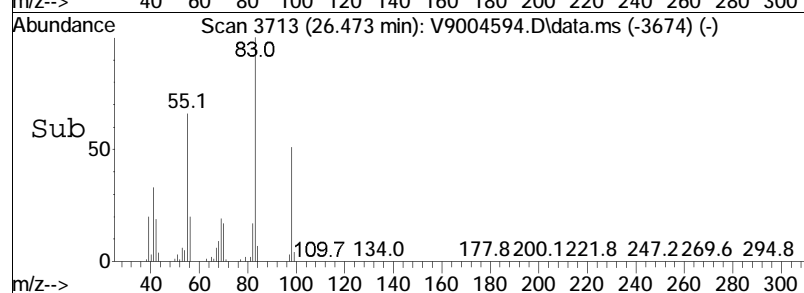
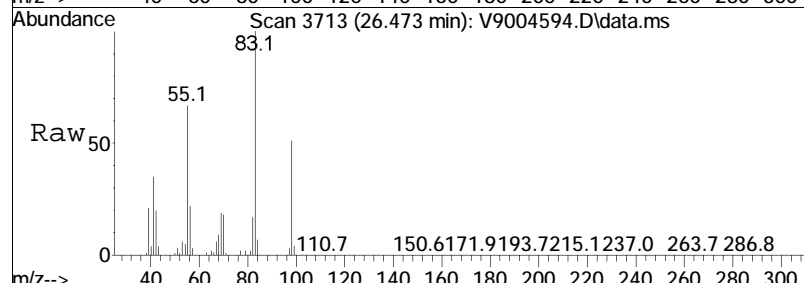
Tgt Ion	Ratio	Lower	Upper
43	100		
57	61.3	41.1	81.1
71	77.7	54.3	94.3

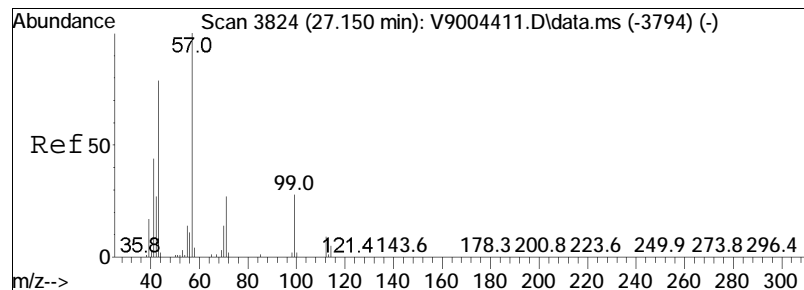




#51
Methylcyclohexane
Concen: 188.18 ug/L
RT: 26.47 min Scan# 3713
Delta R.T. -0.012 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

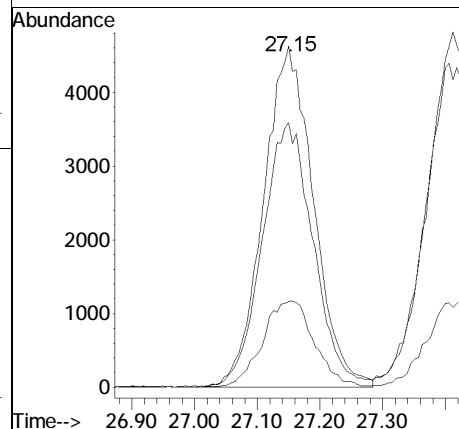
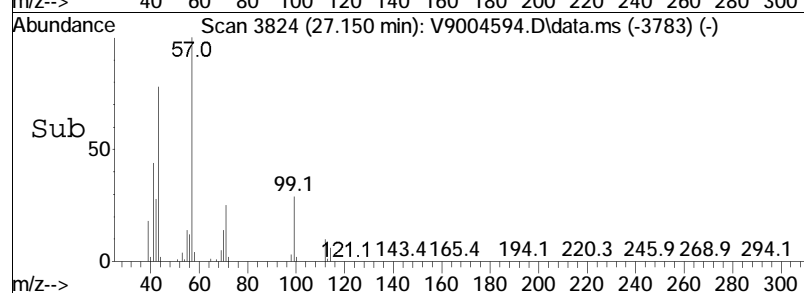
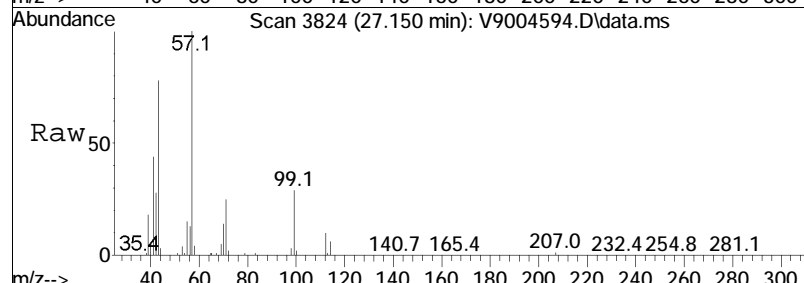
Tgt	Ion: 83	Resp:	522280
Ion	Ratio	Lower	Upper
83	100		
55	66.5	45.6	85.6
98	50.8	30.8	70.8

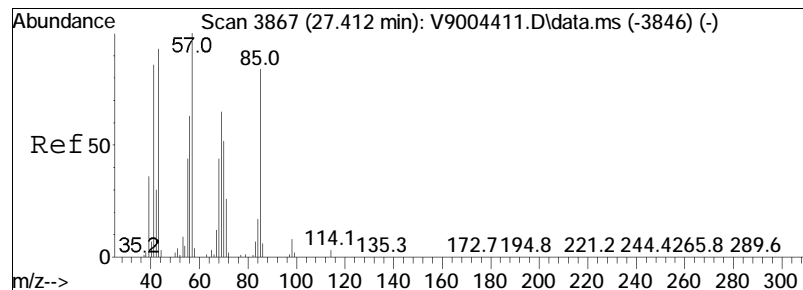




#52
 2,5-Dimethylhexane
 Concen: 9.46 ug/L
 RT: 27.15 min Scan# 3824
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

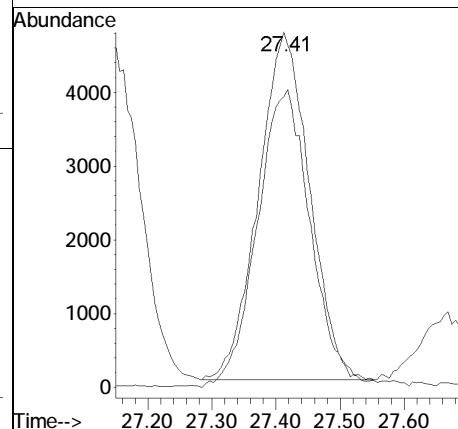
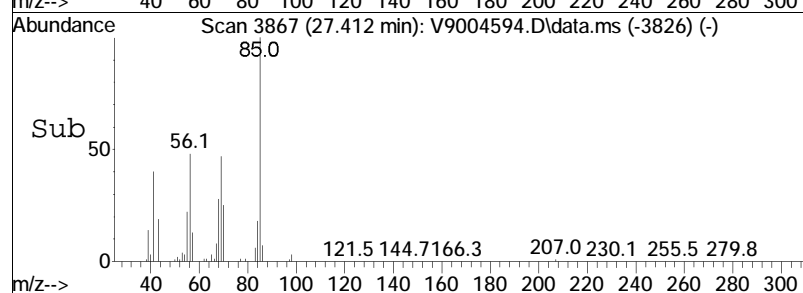
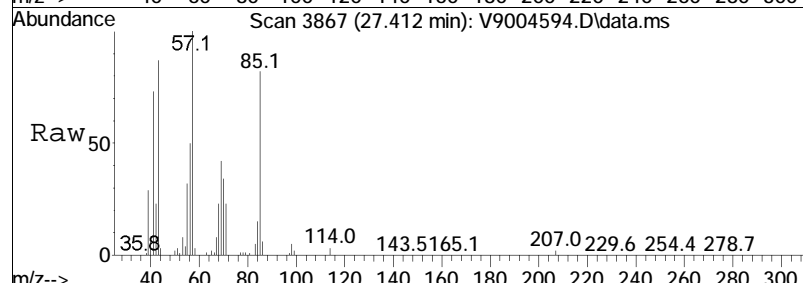
Tgt Ion:	57	Resp:	25628
Ion Ratio	Lower	Upper	
57	100		
43	77.6	59.3	99.3
71	25.2	6.7	46.7

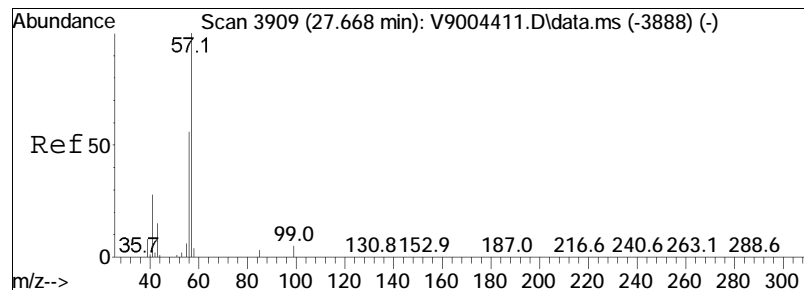




#53
 2,4-Dimethylhexane
 Concen: 12.02 ug/L
 RT: 27.41 min Scan# 3867
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

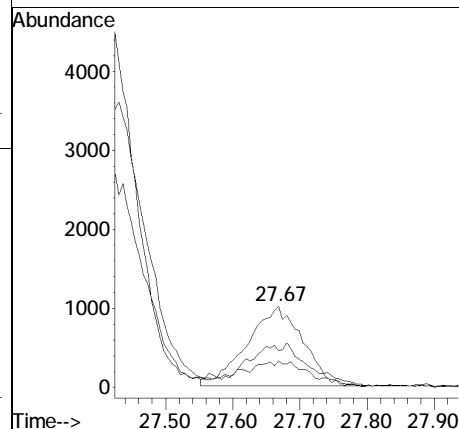
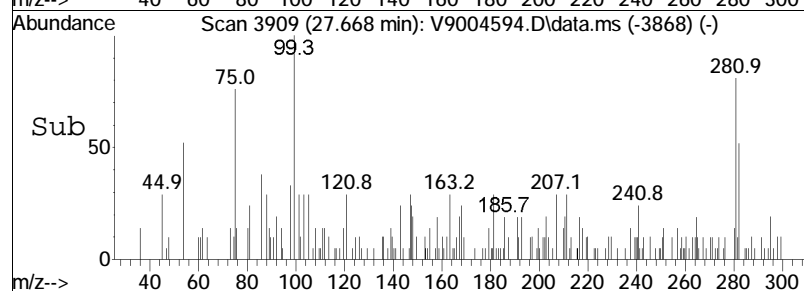
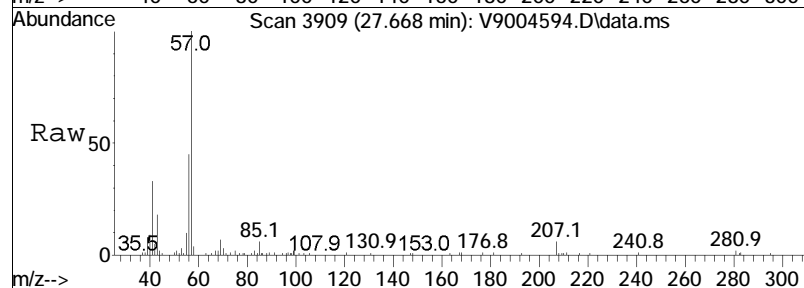
Tgt Ion	Ratio	Lower	Upper
57	100		
85	81.8	63.5	103.5

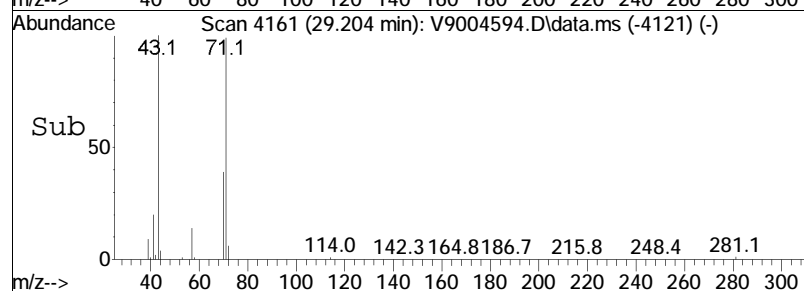
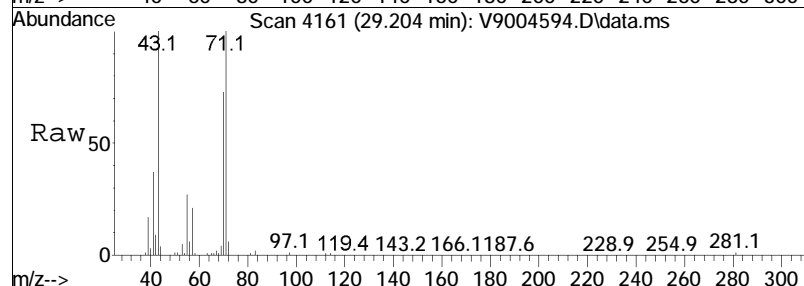
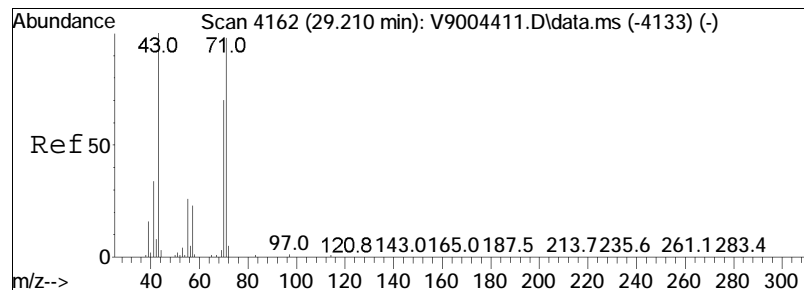




#55
 2,2,3-Trimethylpentane
 Concen: 1.32 ug/L
 RT: 27.67 min Scan# 3909
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

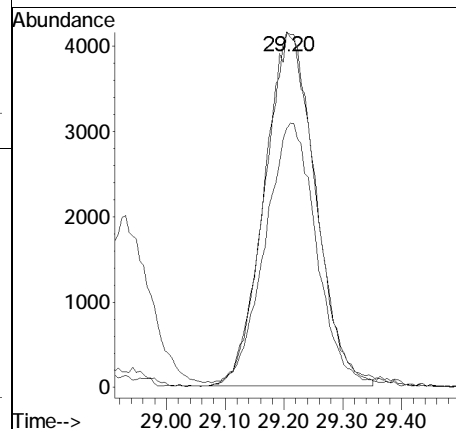
Tgt Ion:	57	Resp:	5976
Ion Ratio	Lower	Upper	
57	100		
41	32.6	10.3	50.3
56	45.1	37.2	77.2

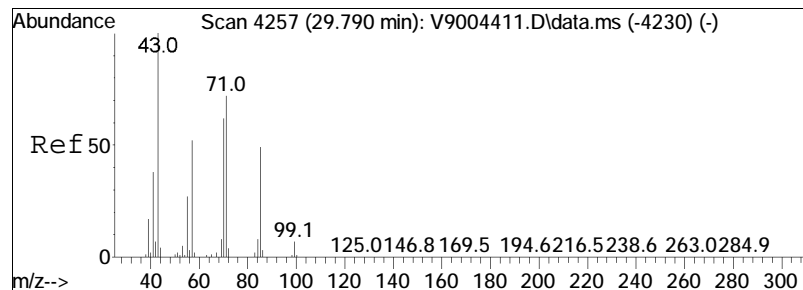




#57
 2,3,4-Trimethylpentane
 Concen: 8.94 ug/L
 RT: 29.20 min Scan# 4161
 Delta R.T. -0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

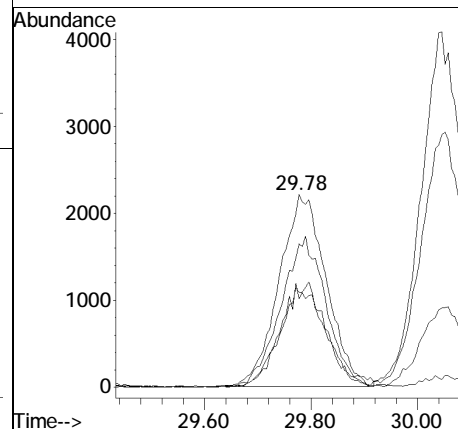
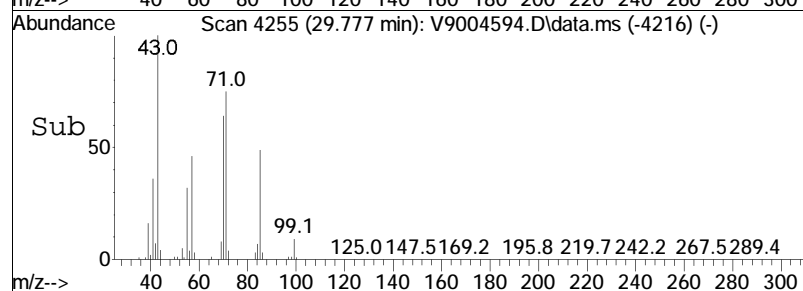
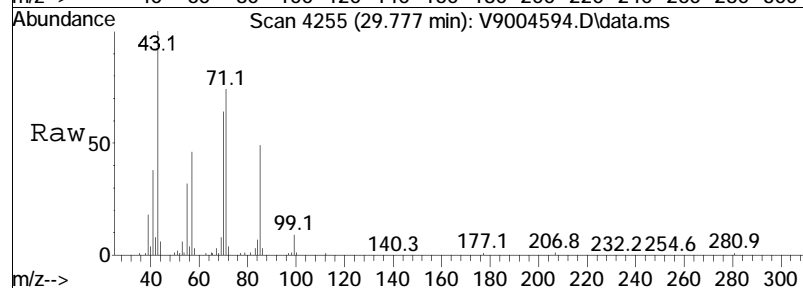
Tgt Ion:	43	Resp:	25212
Ion Ratio	Lower	Upper	
43	100		
71	100.0	77.6	117.6
70	72.9	50.5	90.5

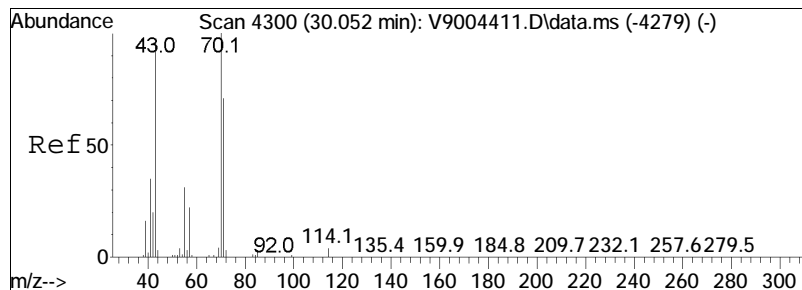




#58
 2,3,3-Trimethylpentane
 Concen: 5.76 ug/L
 RT: 29.78 min Scan# 4255
 Delta R.T. -0.012 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

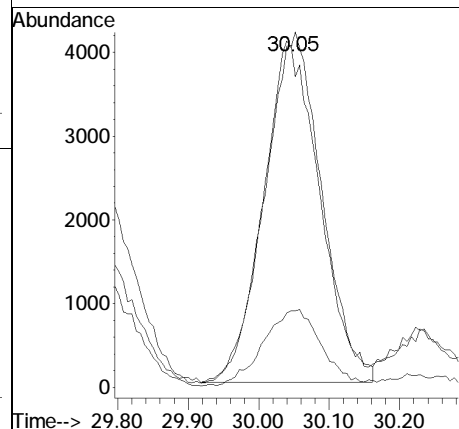
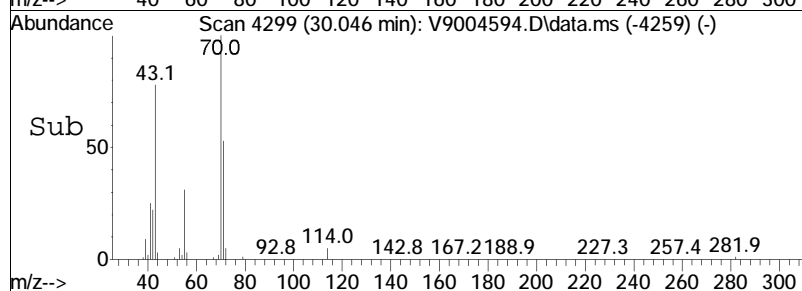
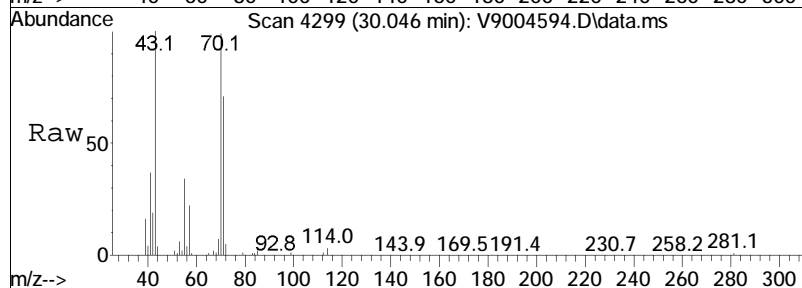
Tgt Ion:	43	Resp:	13689
Ion	Ratio	Lower	Upper
43	100		
71	74.3	52.1	92.1
57	45.9	32.2	72.2
85	49.4	28.9	68.9

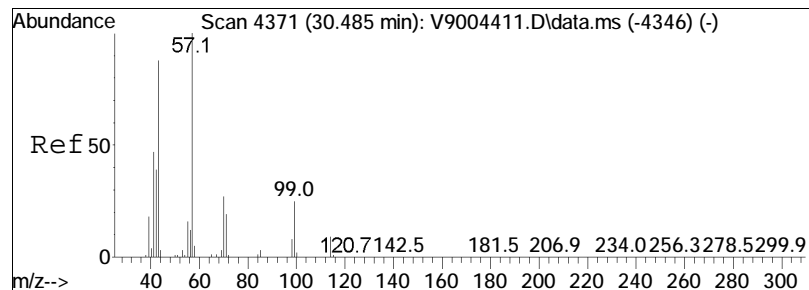




#59
 2,3-Dimethylhexane
 Concen: 8.90 ug/L
 RT: 30.05 min Scan# 4299
 Delta R.T. -0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

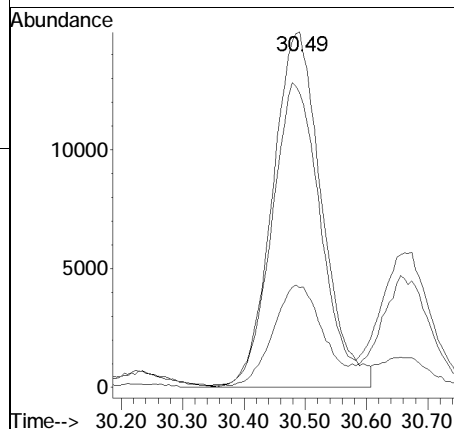
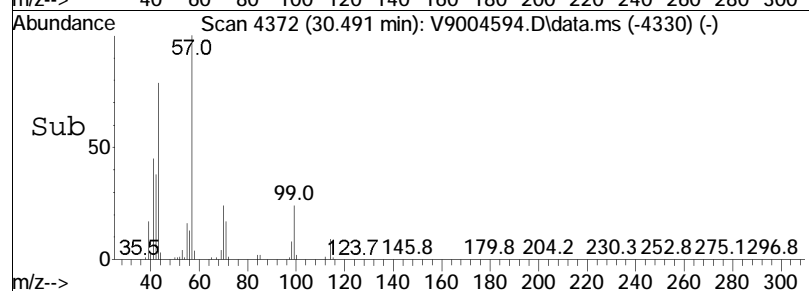
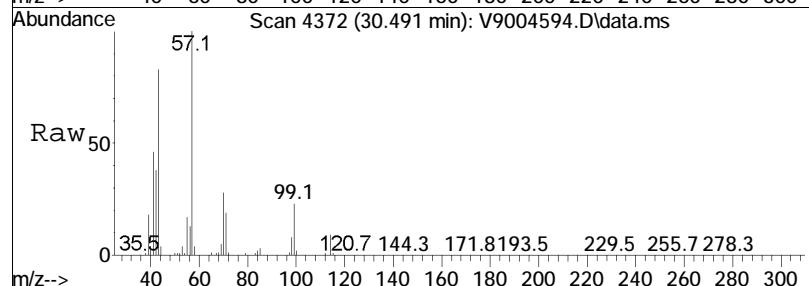
Tgt Ion:	43	Resp:	22315
Ion Ratio	Lower	Upper	
43	100		
70	99.3	83.1	123.1
57	22.4	2.8	42.8

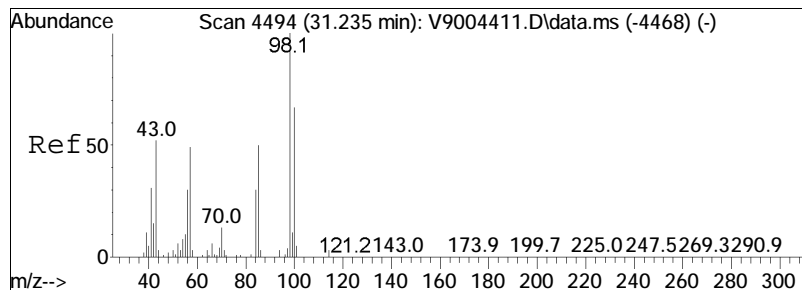




#60
 2-Methylheptane
 Concen: 33.99 ug/L
 RT: 30.49 min Scan# 4372
 Delta R.T. 0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

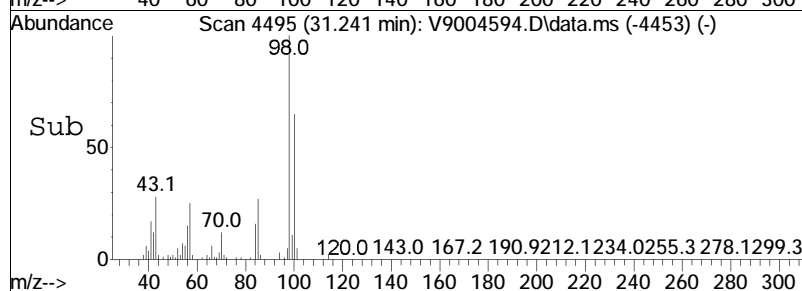
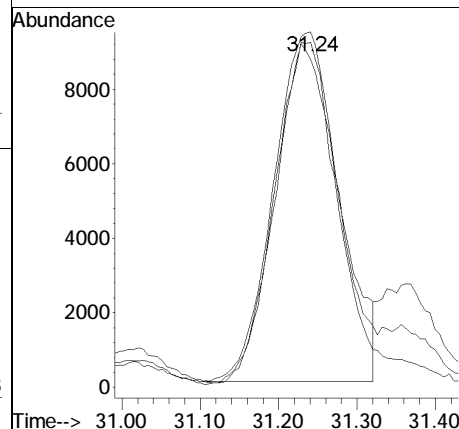
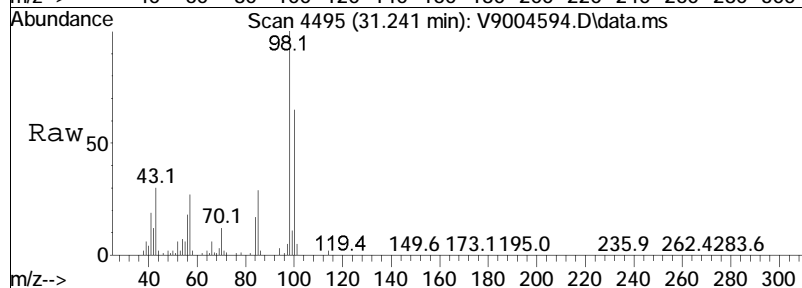
Tgt Ion	Ratio	Lower	Upper
57	100		
43	82.8	68.6	108.6
70	28.1	7.6	47.6

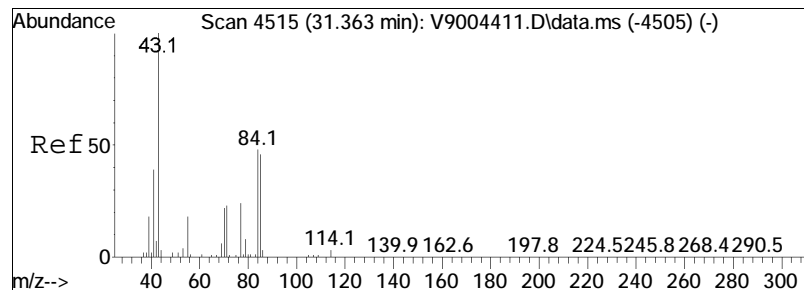




#63
 3-Methylheptane
 Concen: 24.31 ug/L
 RT: 31.24 min Scan# 4495
 Delta R.T. 0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

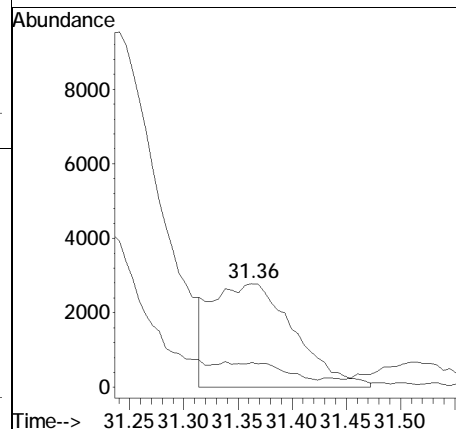
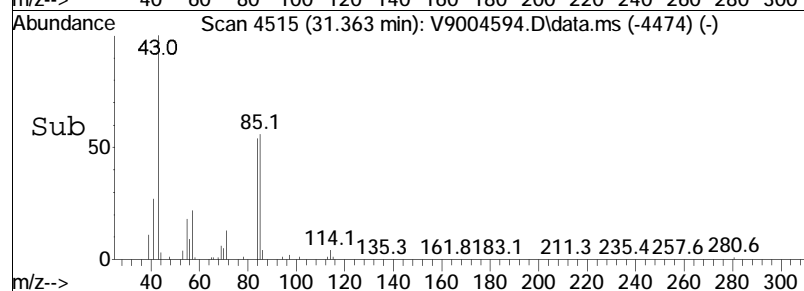
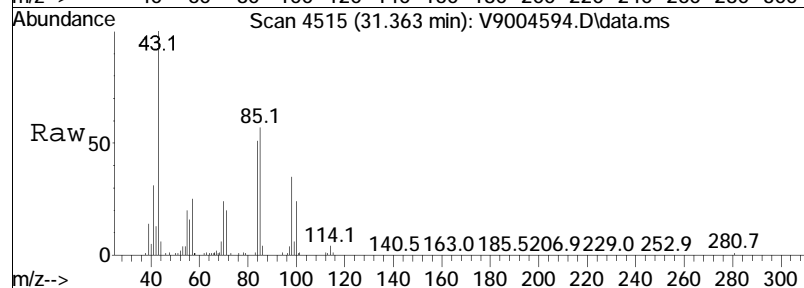
Tgt Ion	Ratio	Lower	Upper
43	100		
57	92.3	74.7	114.7
85	97.1	76.9	116.9

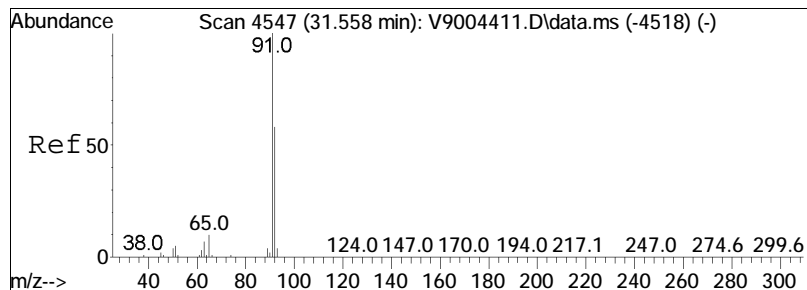




#65
 3-Ethylhexane
 Concen: 4.84 ug/L m
 RT: 31.36 min Scan# 4515
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

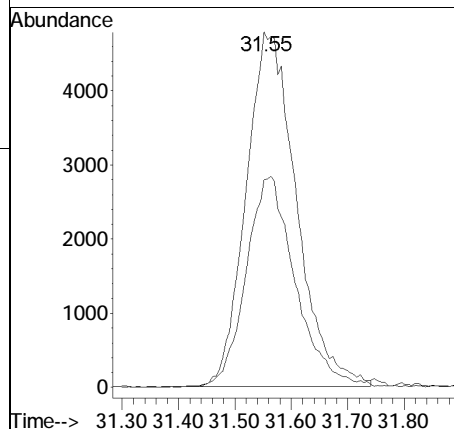
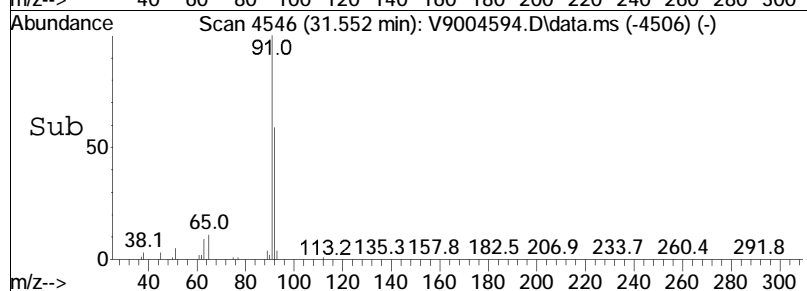
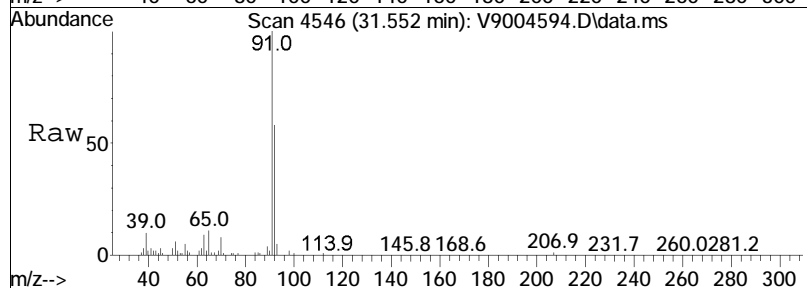
Tgt Ion	Ratio	Lower	Upper
43	100		
70	23.9	0.3	40.3

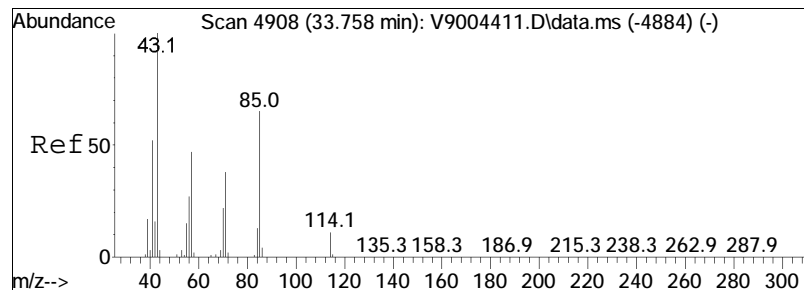




#66
Toluene
Concen: 4.30 ug/L
RT: 31.55 min Scan# 4546
Delta R.T. -0.006 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

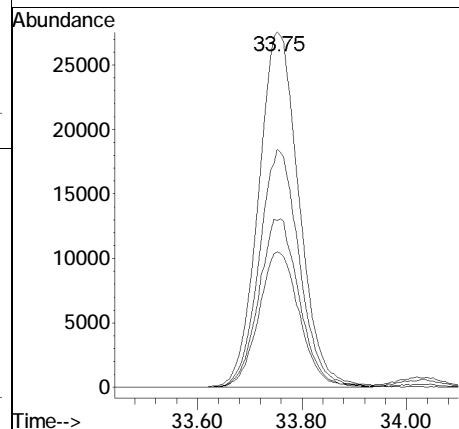
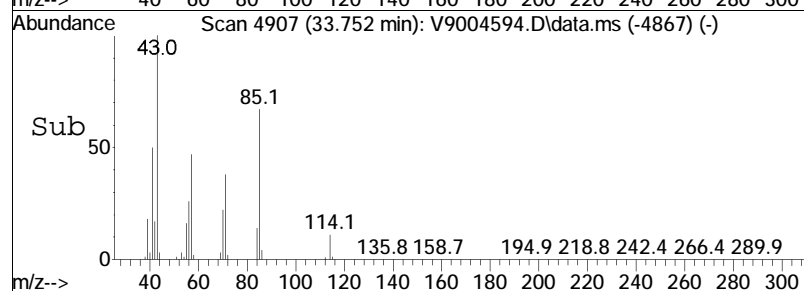
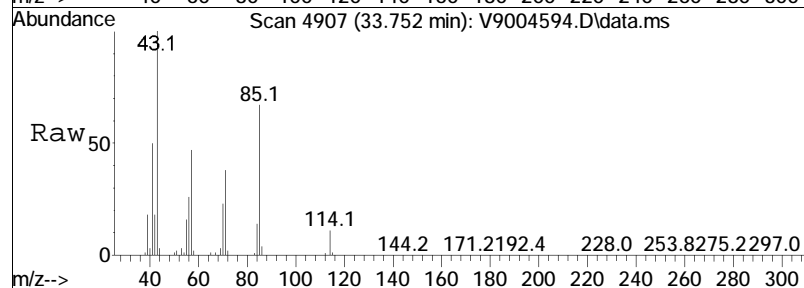
Tgt Ion	Ratio	Lower	Upper
91	100		
92	58.4	37.9	77.9

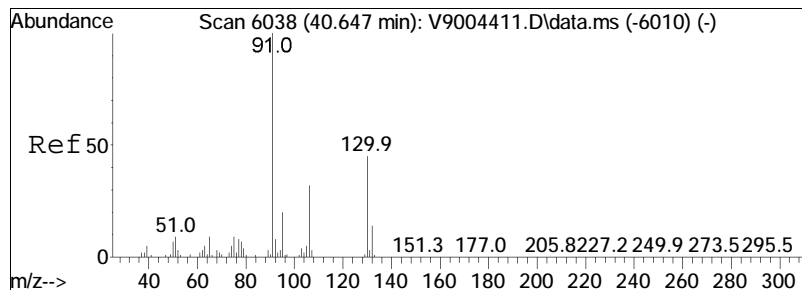




#71
 Octane
 Concen: 61.12 ug/L
 RT: 33.75 min Scan# 4907
 Delta R.T. -0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

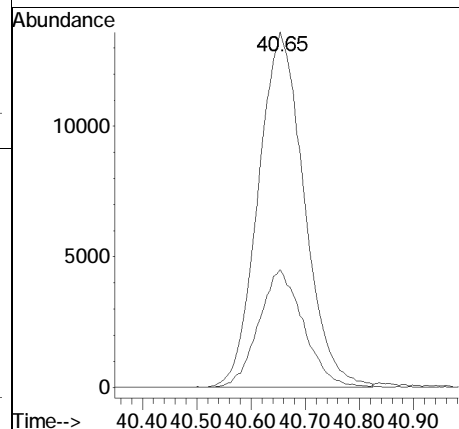
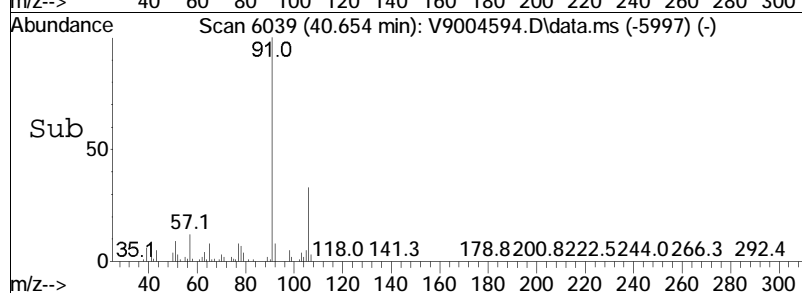
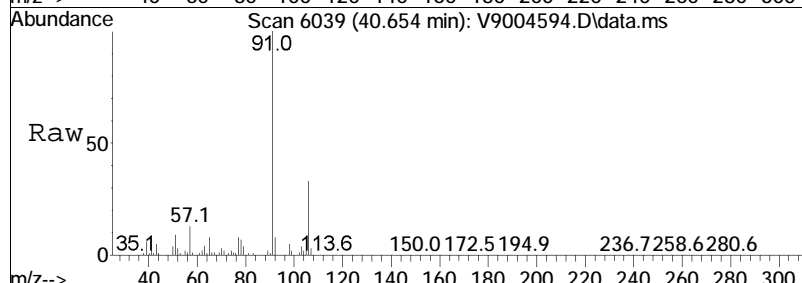
Tgt	Ion: 43	Resp:	148610
Ion	Ratio	Lower	Upper
43	100		
57	47.0	26.9	66.9
85	67.0	45.5	85.5
71	38.2	18.3	58.3

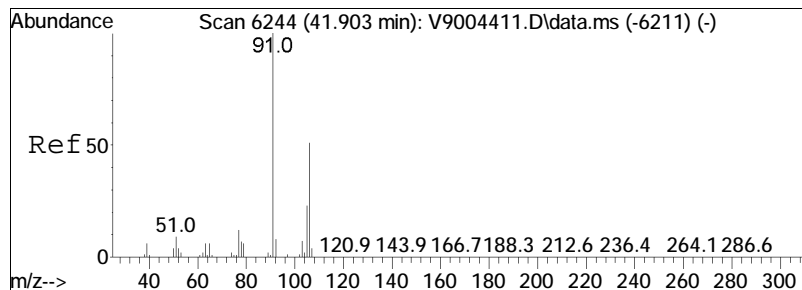




#86
Ethylbenzene
Concen: 10.18 ug/L
RT: 40.65 min Scan# 6039
Delta R.T. 0.006 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

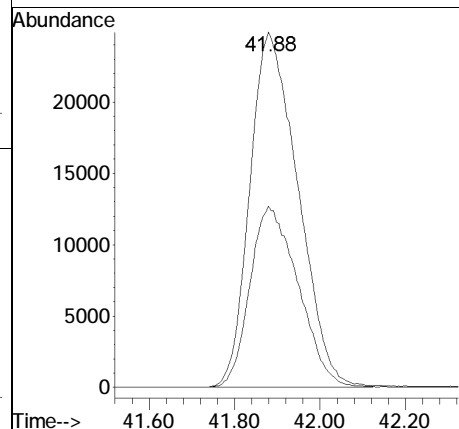
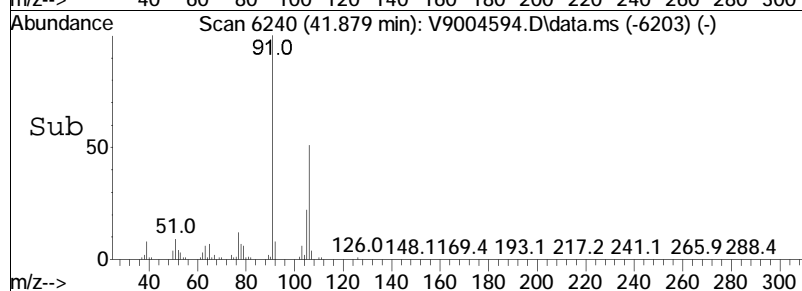
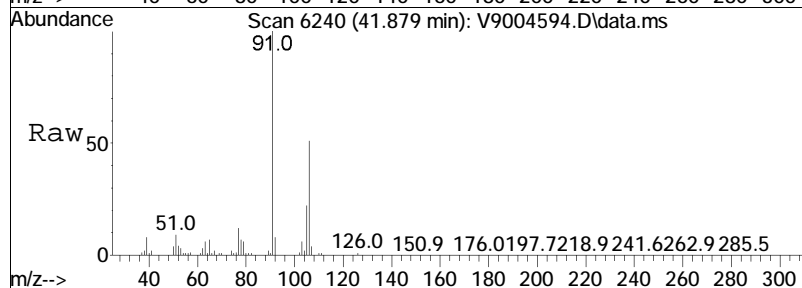
Tgt Ion	Ratio	Lower	Upper
91	100		
106	33.1	11.6	51.6

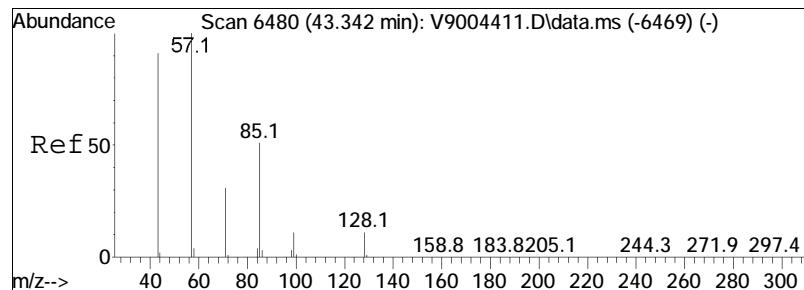




#91
 p/m-Xylene
 Concen: 31.81 ug/L
 RT: 41.88 min Scan# 6240
 Delta R.T. -0.024 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

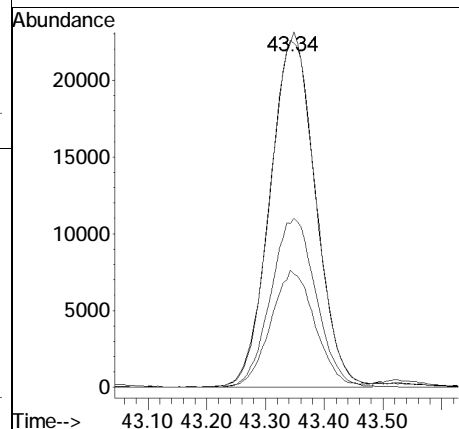
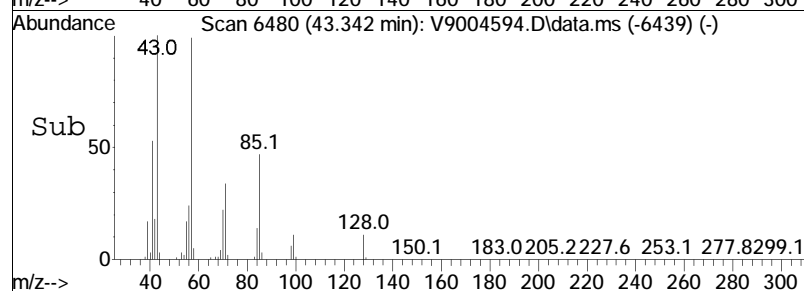
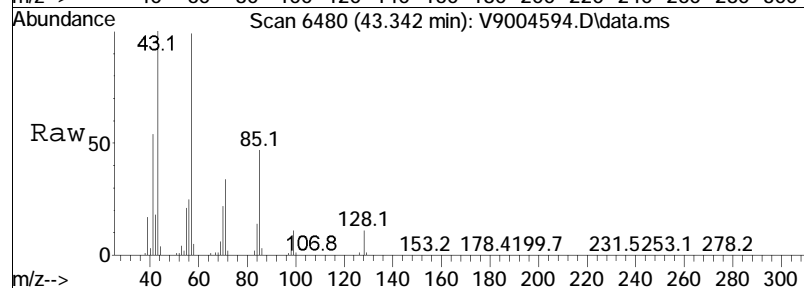
Tgt Ion	Ratio	Lower	Upper
91	100		
106	51.1	31.3	71.3

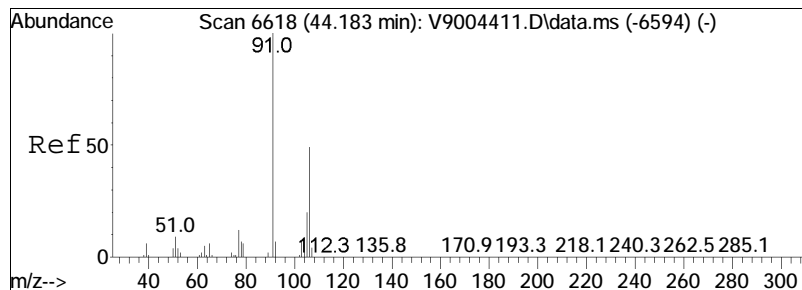




#95
Nonane
Concen: 49.74 ug/L
RT: 43.34 min Scan# 6480
Delta R.T. 0.000 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

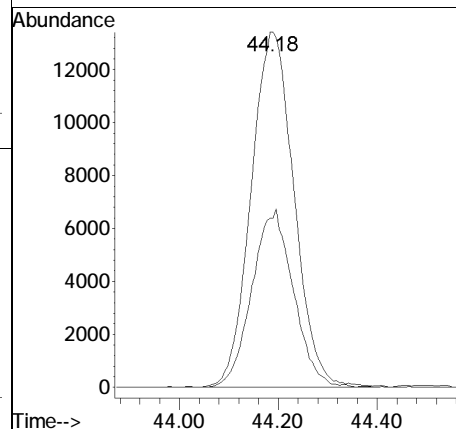
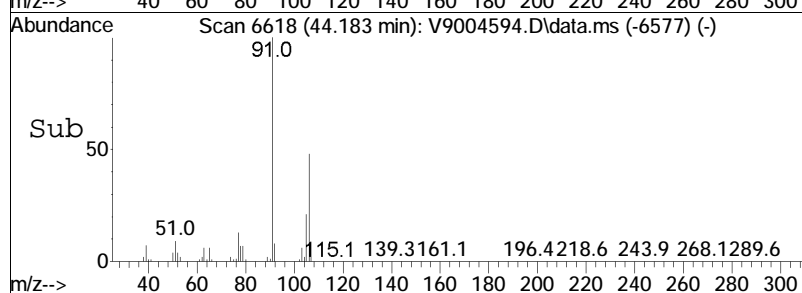
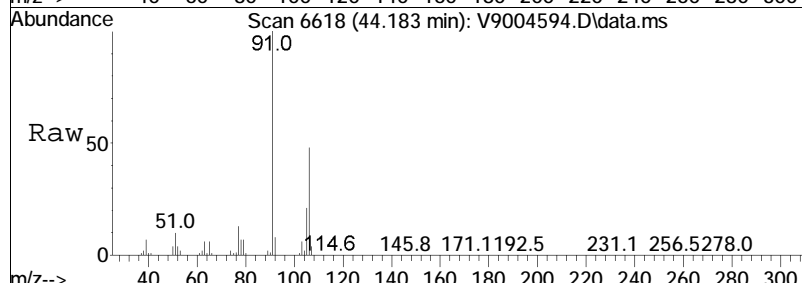
Tgt Ion:	43	Resp:	122688
Ion	Ratio	Lower	Upper
43	100		
57	99.2	79.0	119.0
85	47.3	27.1	67.1
71	33.8	13.4	53.4

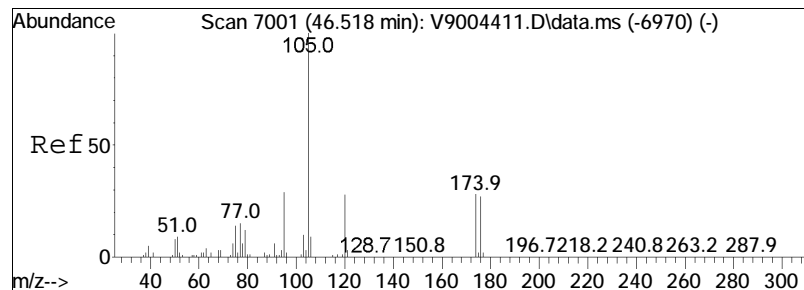




#98
o-Xylene
Concen: 12.69 ug/L
RT: 44.18 min Scan# 6618
Delta R.T. 0.000 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

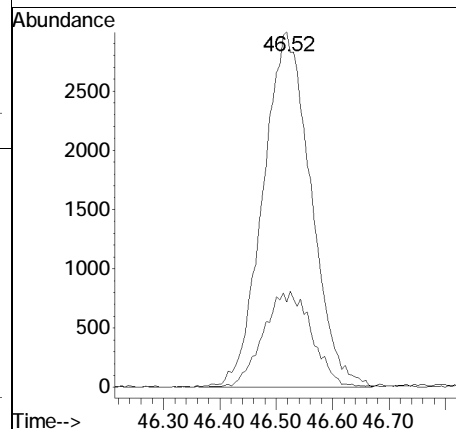
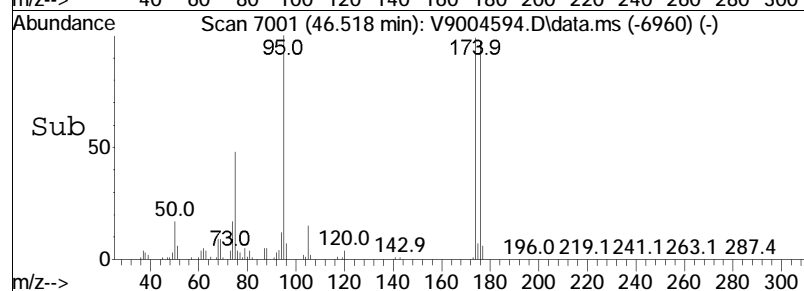
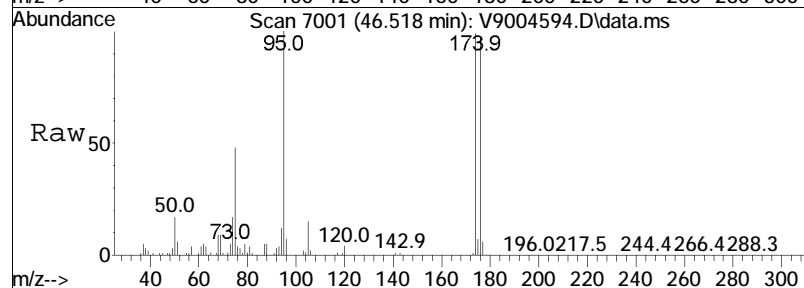
Tgt Ion	Ratio	Lower	Upper
91	100		
106	47.7	28.7	68.7

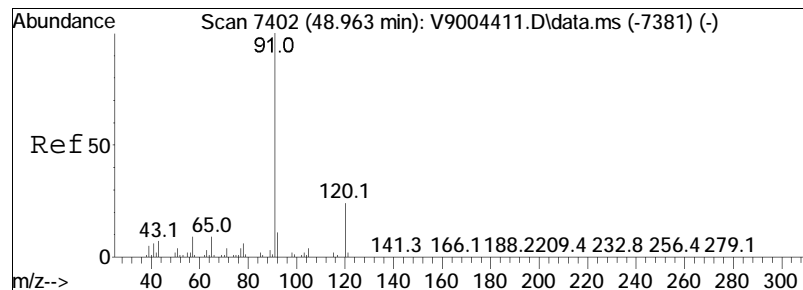




#102
Isopropylbenzene
Concen: 2.14 ug/L
RT: 46.52 min Scan# 7001
Delta R.T. 0.000 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

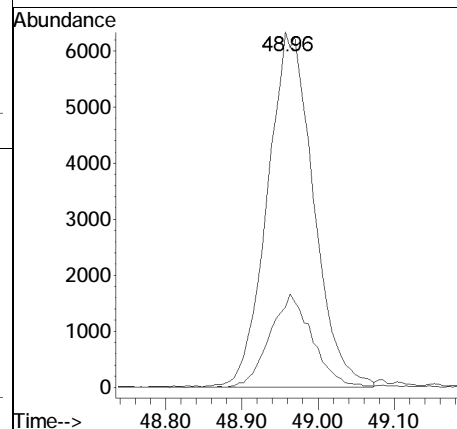
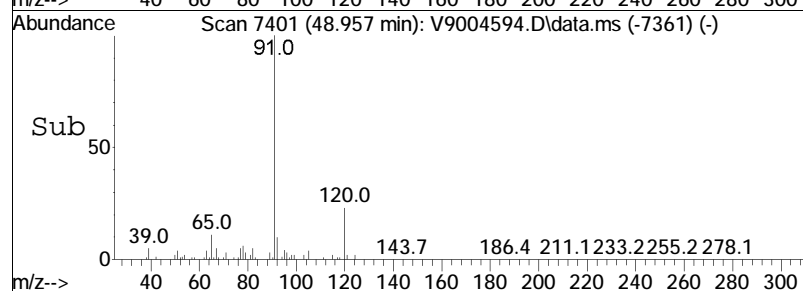
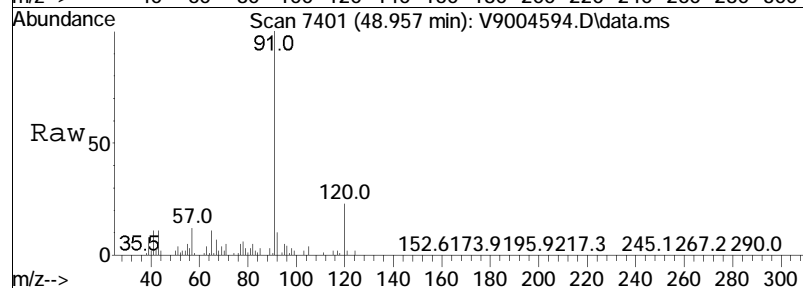
Tgt Ion	Ratio	Lower	Upper
105	100		
120	24.0	7.8	47.8

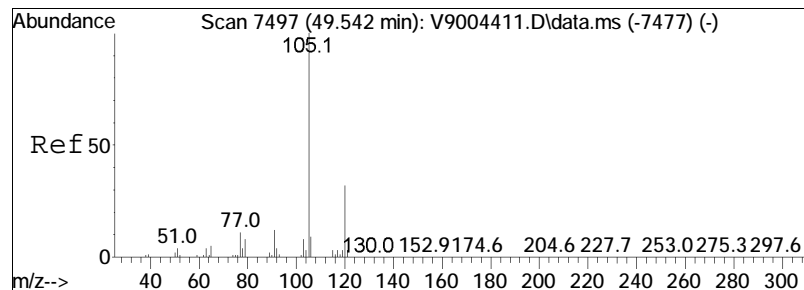




#104
 n-Propylbenzene
 Concen: 2.89 ug/L
 RT: 48.96 min Scan# 7401
 Delta R.T. -0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

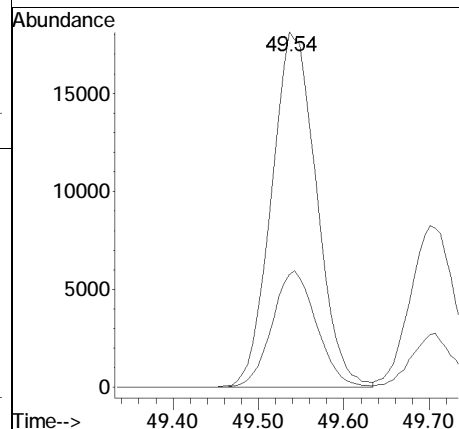
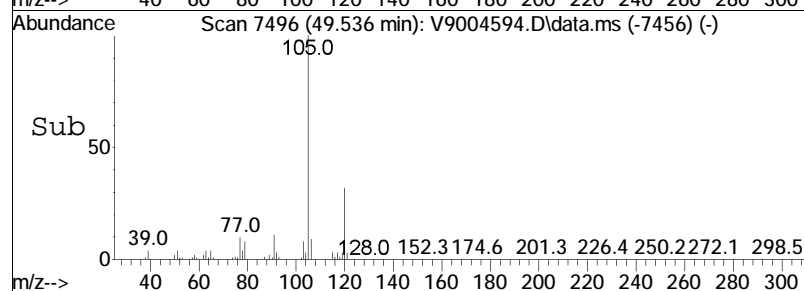
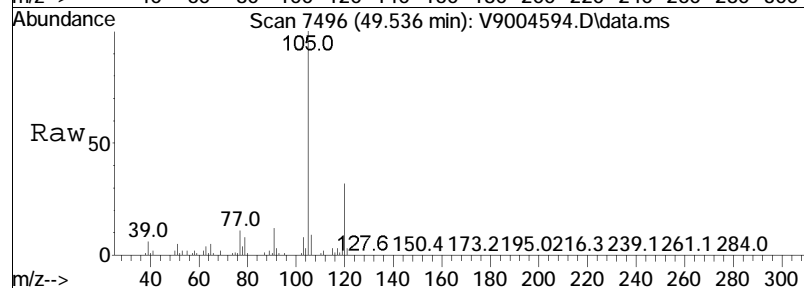
Tgt Ion	Ratio	Lower	Upper
91	100		
120	22.6	4.3	44.3

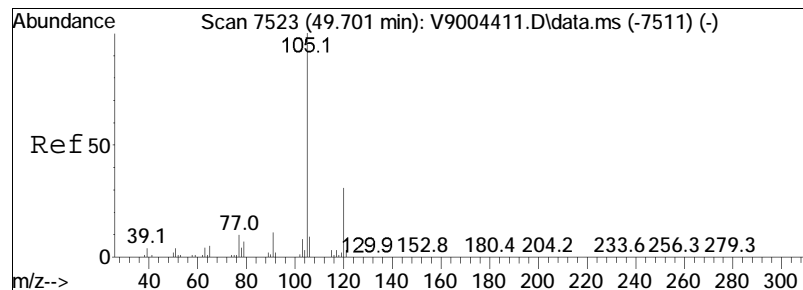




#107
 1-Methyl-3-ethylbenzene
 Concen: 8.13 ug/L
 RT: 49.54 min Scan# 7496
 Delta R.T. -0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

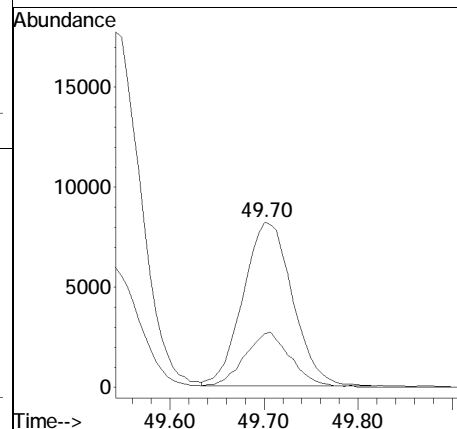
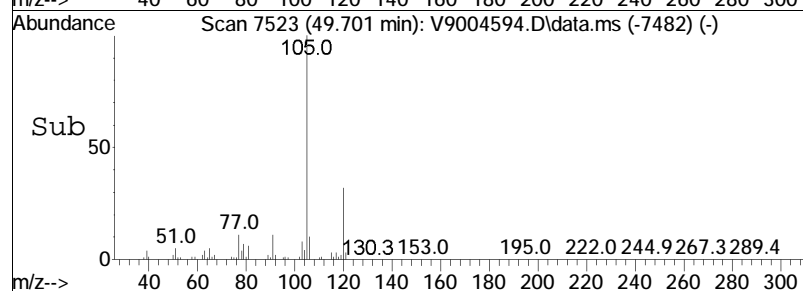
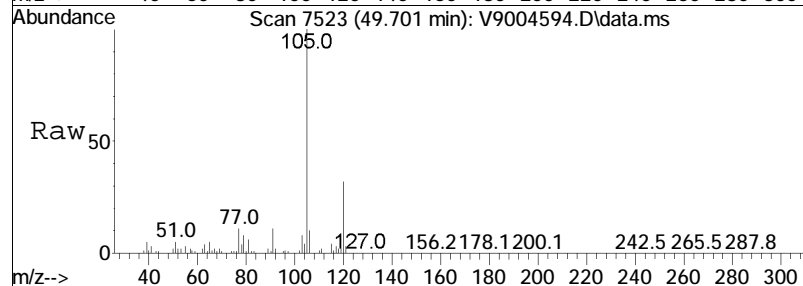
Tgt	Ion	Ratio	Lower	Upper
105	105	100		
120	120	31.8	12.1	52.1

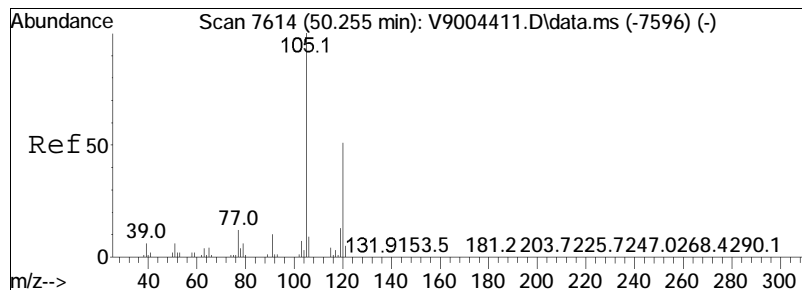




#108
 1-Methyl-4-ethylbenzene
 Concen: 3.79 ug/L
 RT: 49.70 min Scan# 7523
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

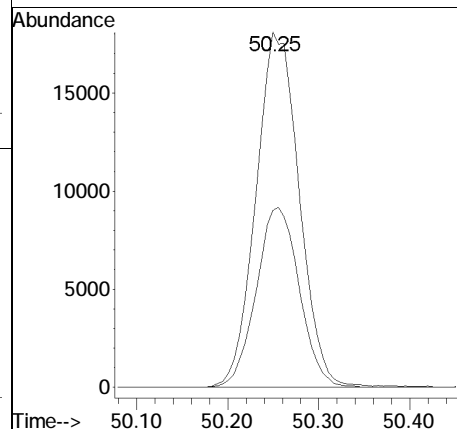
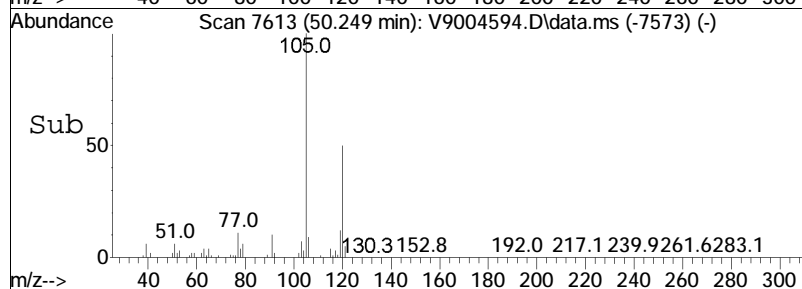
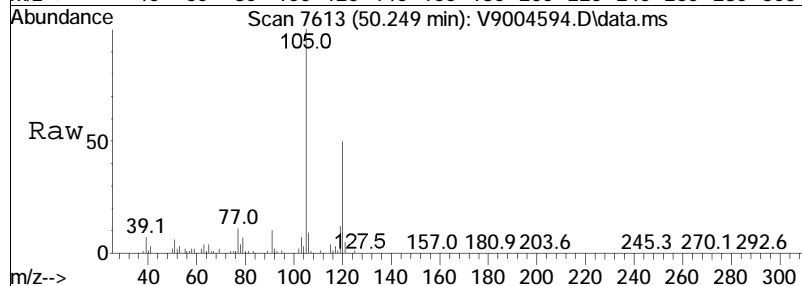
Tgt Ion	Ratio	Lower	Upper
105	100		
120	32.5	11.1	51.1

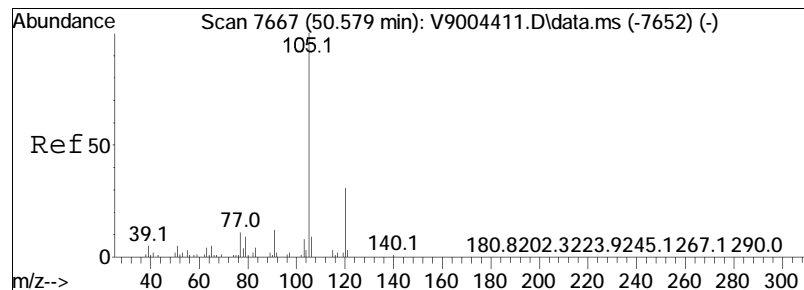




#109
 1,3,5-Trimethylbenzene
 Concen: 8.85 ug/L
 RT: 50.25 min Scan# 7613
 Delta R.T. -0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

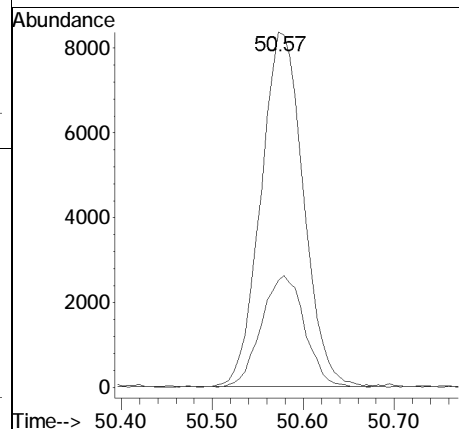
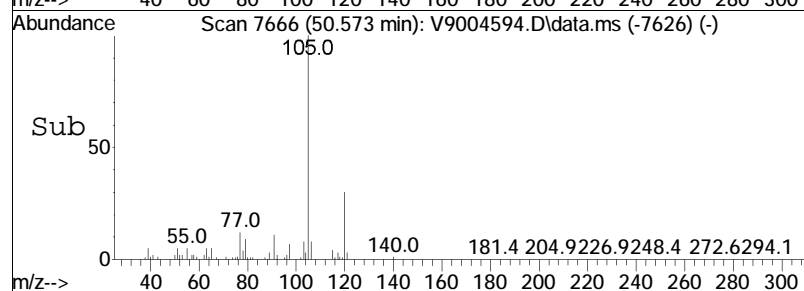
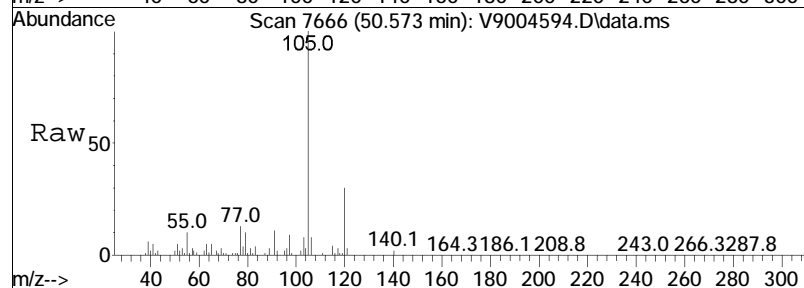
Tgt Ion	Ratio	Lower	Upper
105	100		
120	49.8	31.1	71.1

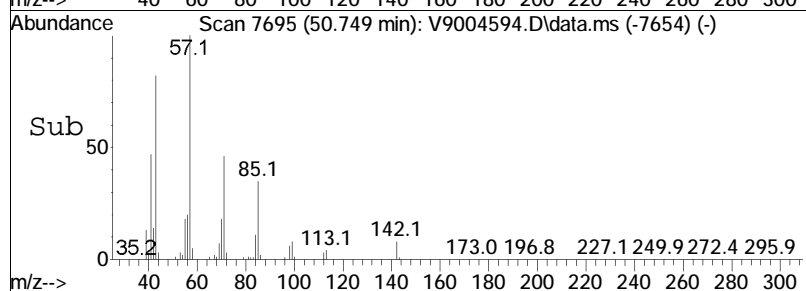
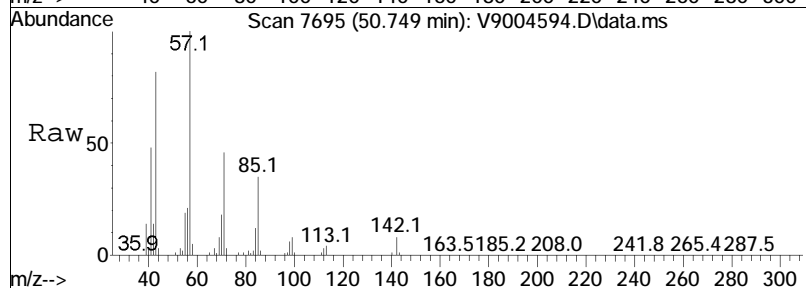
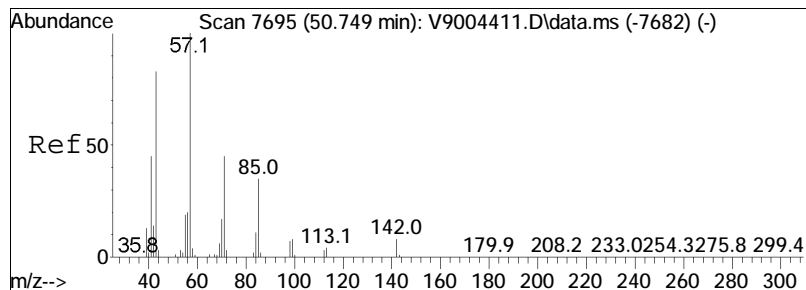




#112
 1-Methyl-2-ethylbenzene
 Concen: 3.24 ug/L
 RT: 50.57 min Scan# 7666
 Delta R.T. -0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

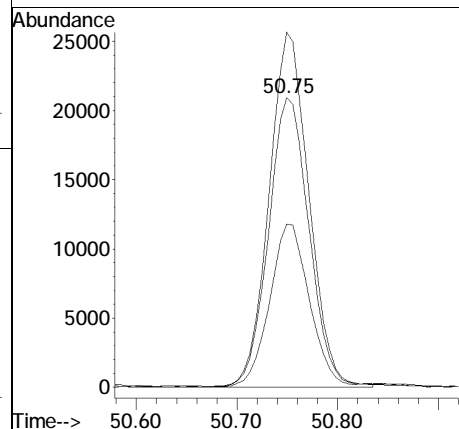
Tgt	Ion	Ratio	Lower	Upper
105	100			
120	30.2	11.4	51.4	

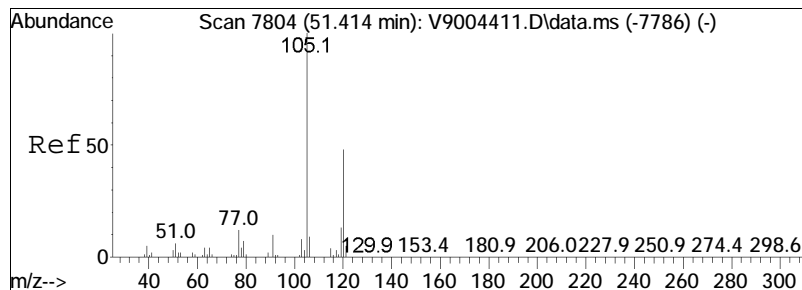




#113
Decane
Concen: 24.61 ug/L
RT: 50.75 min Scan# 7695
Delta R.T. 0.000 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

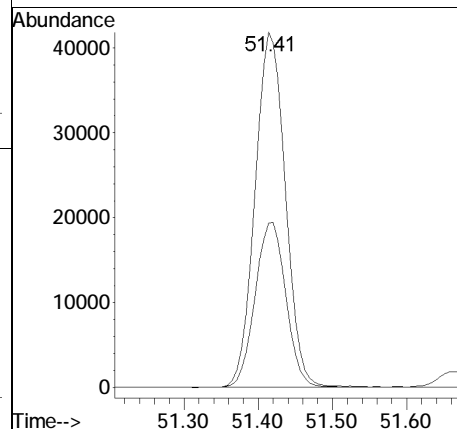
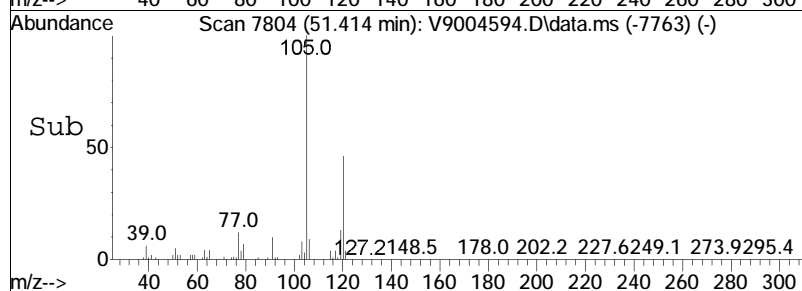
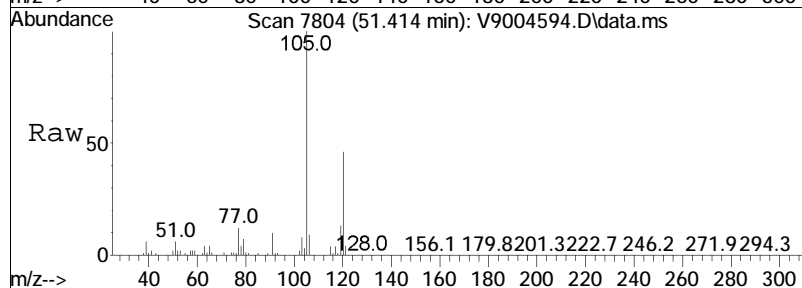
Tgt	Ion	Resp	Lower	Upper
43	100			
57	122.6	99.8	139.8	
71	56.3	34.1	74.1	

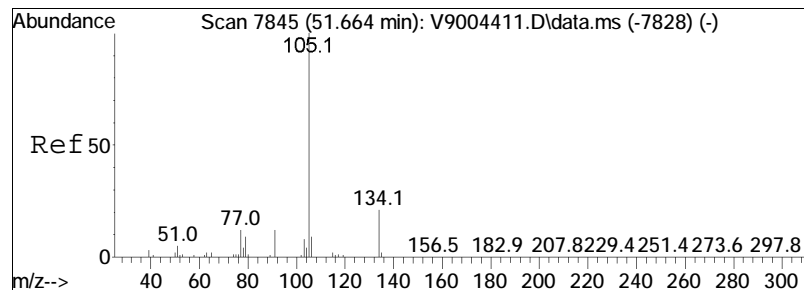




#115
 1,2,4-Trimethylbenzene
 Concen: 16.58 ug/L
 RT: 51.41 min Scan# 7804
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

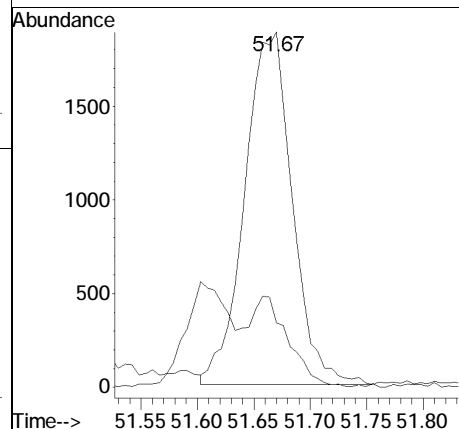
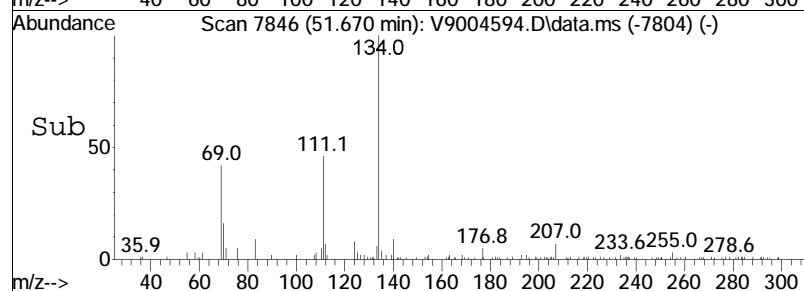
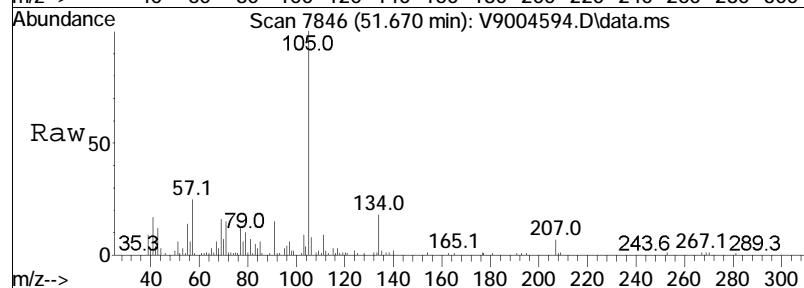
Tgt Ion	Ratio	Lower	Upper
105	100		
120	46.3	27.5	67.5

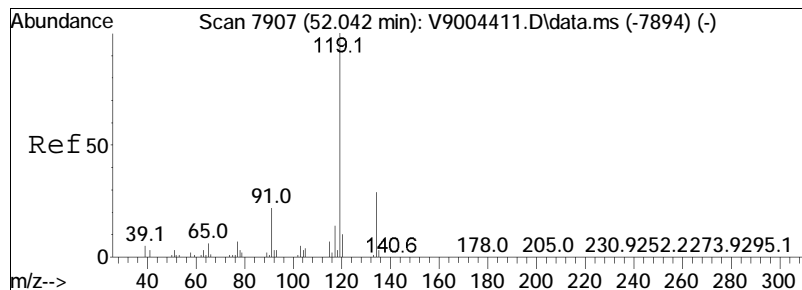




#117
 sec-Butylbenzene
 Concen: 0.61 ug/L
 RT: 51.67 min Scan# 7846
 Delta R.T. 0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

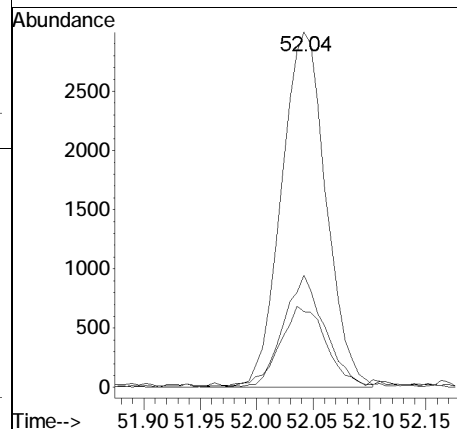
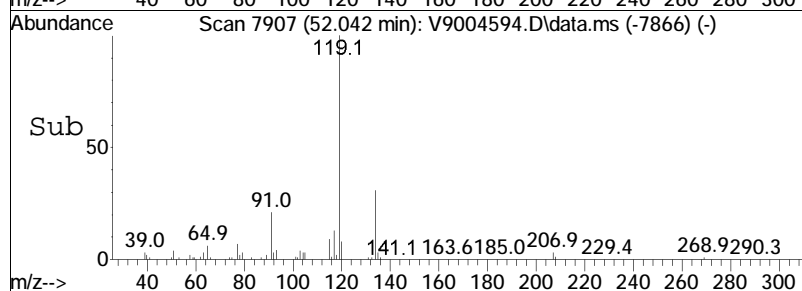
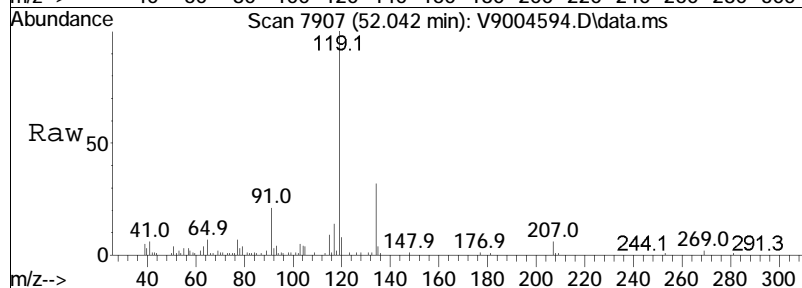
Tgt	Ion	Ratio	Lower	Upper
105	105	100		
134	134	18.2	1.5	41.5

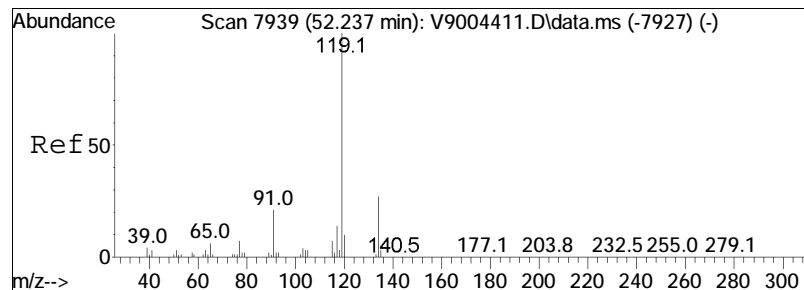




#118
 1-Methyl-3-isopropylbenzene
 Concen: 1.05 ug/L
 RT: 52.04 min Scan# 7907
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

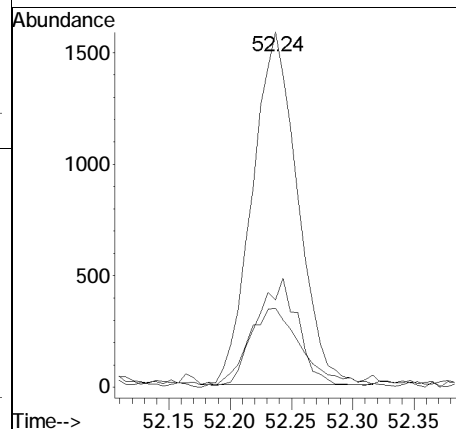
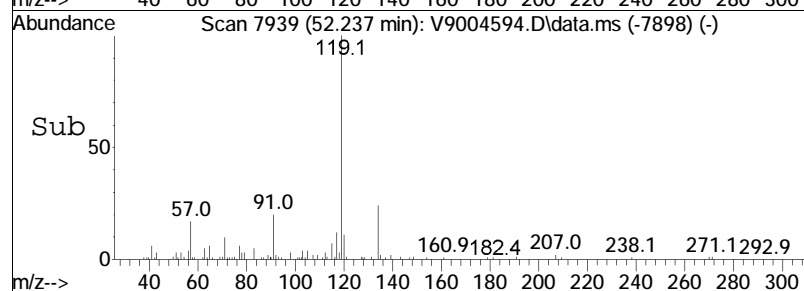
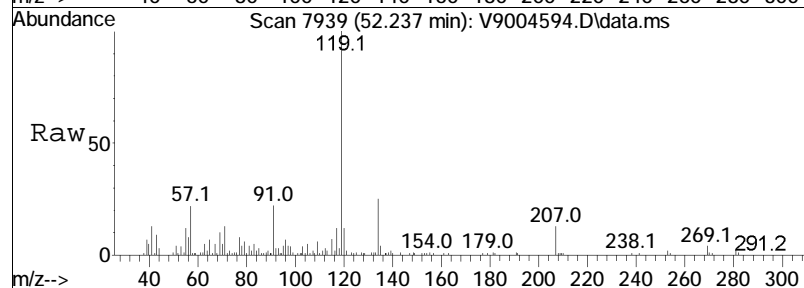
Tgt	Ion:119	Resp:	8207
Ion	Ratio	Lower	Upper
119	100		
134	31.6	8.6	48.6
91	21.3	1.8	41.8

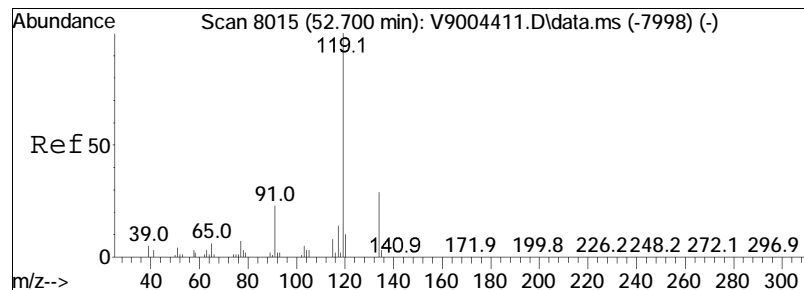




#119
 1-Methyl-4-isopropylbenzene
 Concen: 0.52 ug/L
 RT: 52.24 min Scan# 7939
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

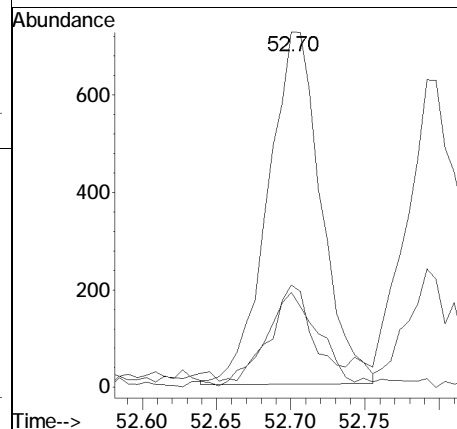
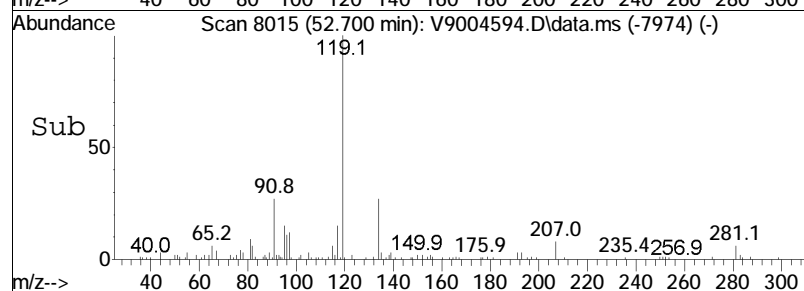
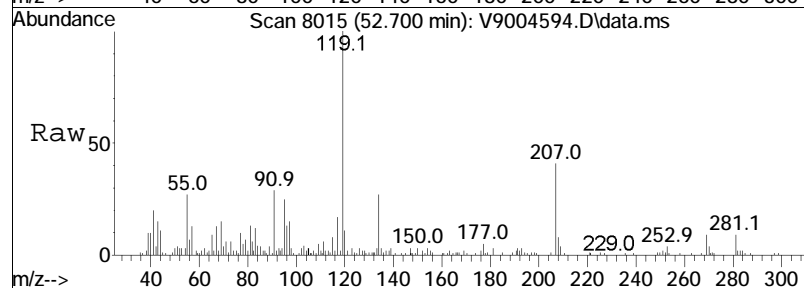
Tgt Ion:119	Resp:	4062
Ion Ratio	Lower	Upper
119	100	
134	24.6	7.3 47.3
91	22.3	1.4 41.4

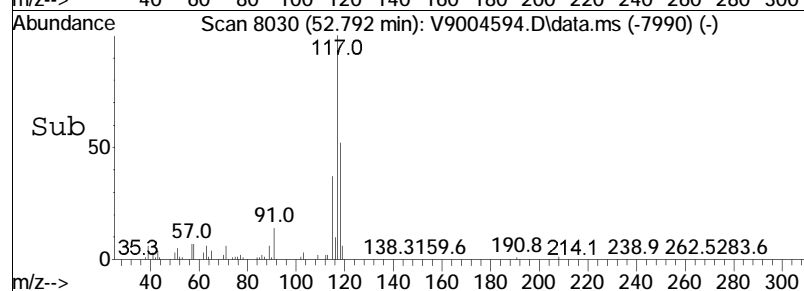
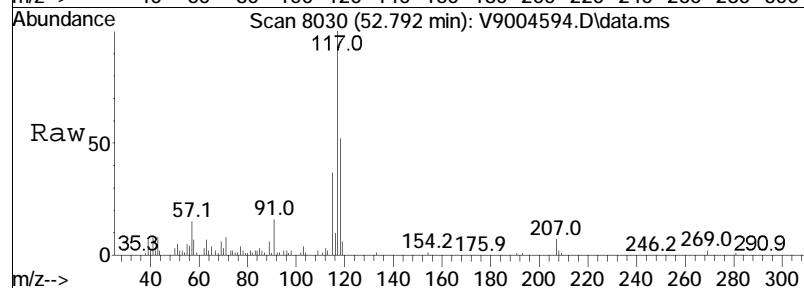
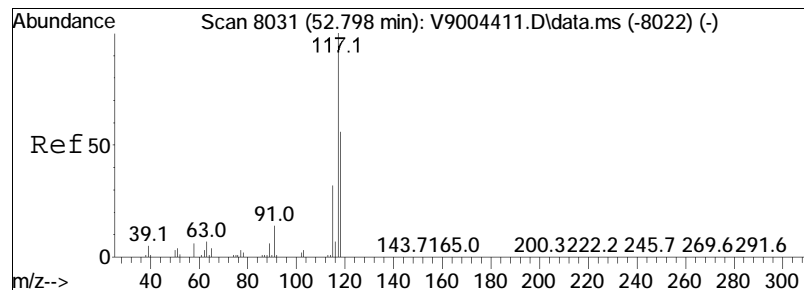




#121
 1-Methyl-2-isopropylbenzene
 Concen: 0.23 ug/L
 RT: 52.70 min Scan# 8015
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

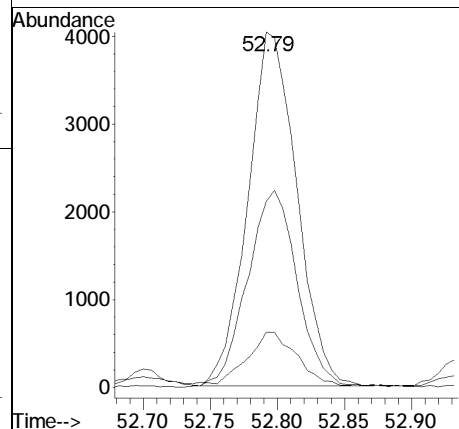
Tgt	Ion:119	Resp:	1806
Ion	Ratio	Lower	Upper
119	100		
134	26.7	8.6	48.6
91	30.3	2.6	42.6

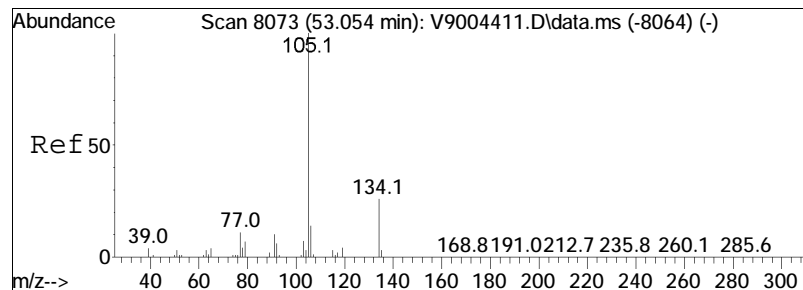




#122
 Indan
 Concen: 1.41 ug/L
 RT: 52.79 min Scan# 8030
 Delta R.T. -0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

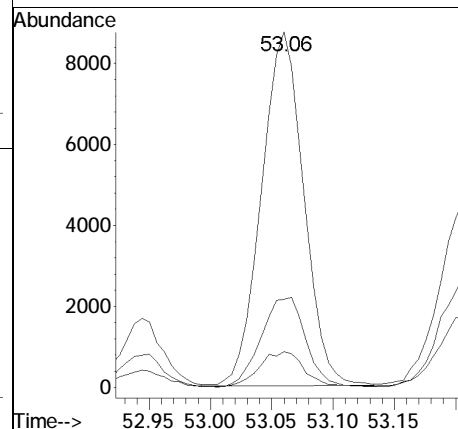
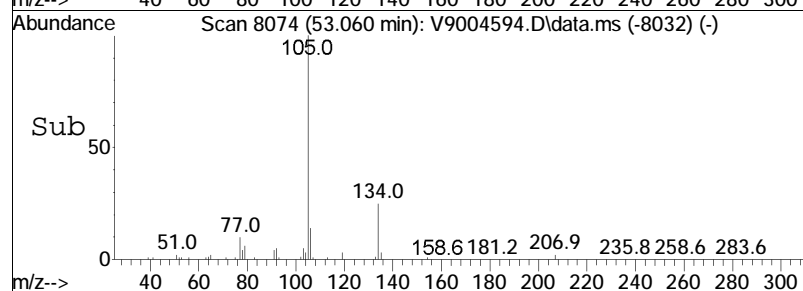
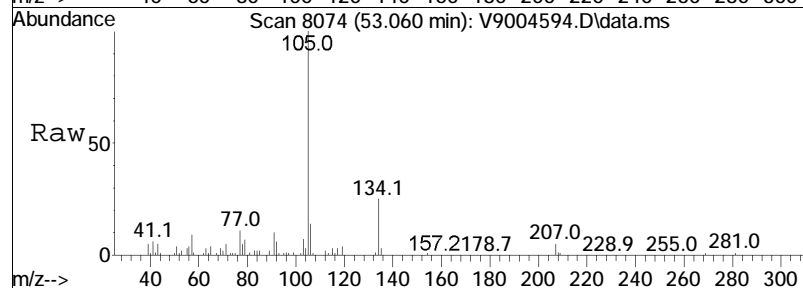
Tgt Ion	Ratio	Lower	Upper
117	100		
118	52.3	36.1	76.1
91	15.6	0.0	34.5

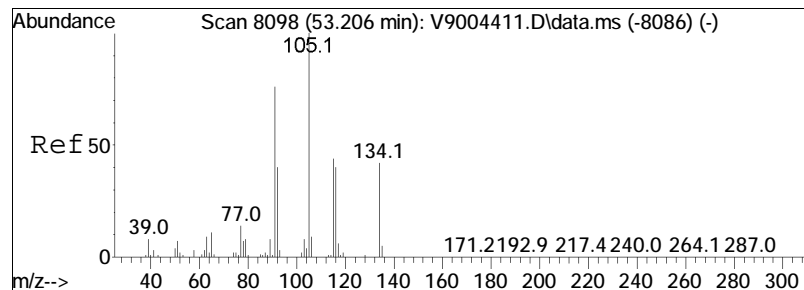




#124
 1-Methyl-3-propylbenzene
 Concen: 2.24 ug/L
 RT: 53.06 min Scan# 8074
 Delta R.T. 0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

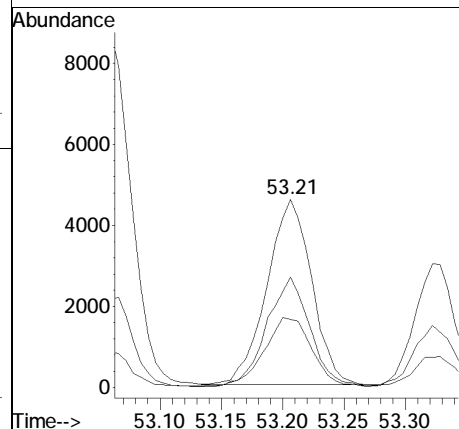
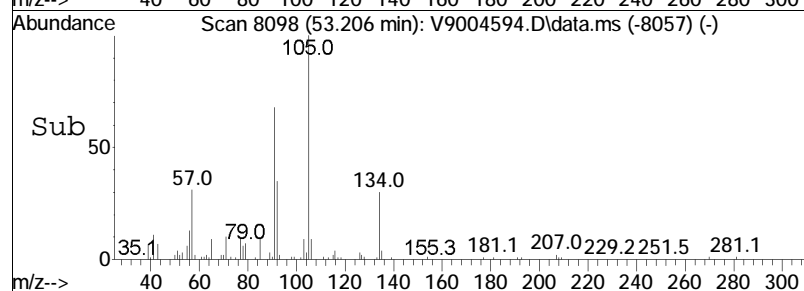
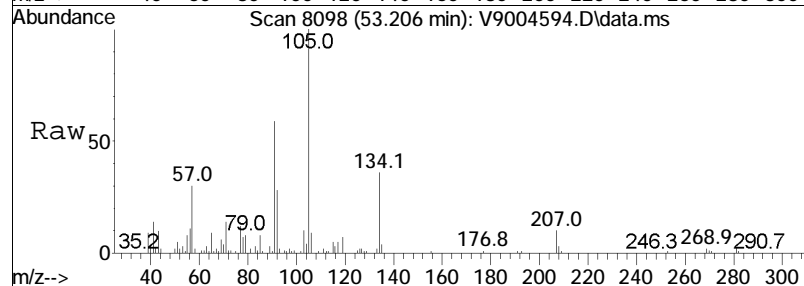
Tgt	Ion	Ratio	Lower	Upper
105	105	100		
134	134	24.8	6.5	46.5
91	91	10.1	0.0	30.0

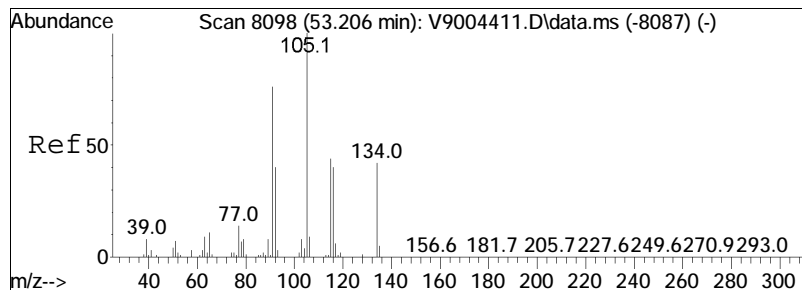




#126
 1-Methyl-4-propylbenzene
 Concen: 1.05 ug/L
 RT: 53.21 min Scan# 8098
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

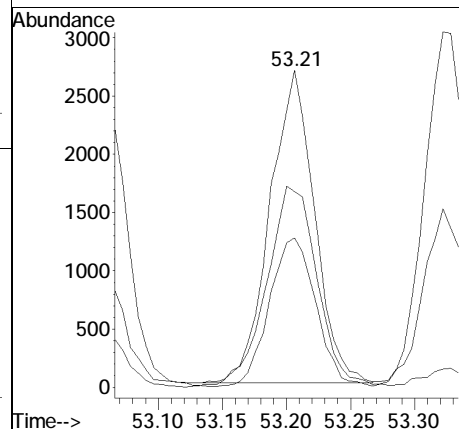
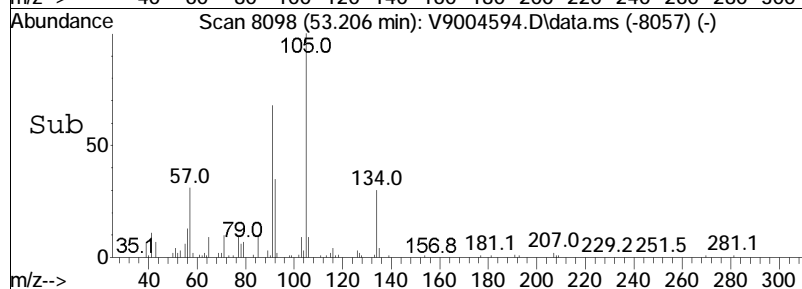
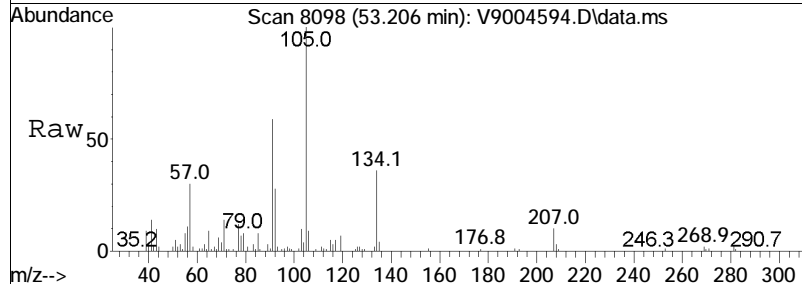
Tgt	Ion:105	Resp:	11601
Ion	Ratio	Lower	Upper
105	100		
134	36.2	21.7	61.7
91	58.6	56.4	96.4

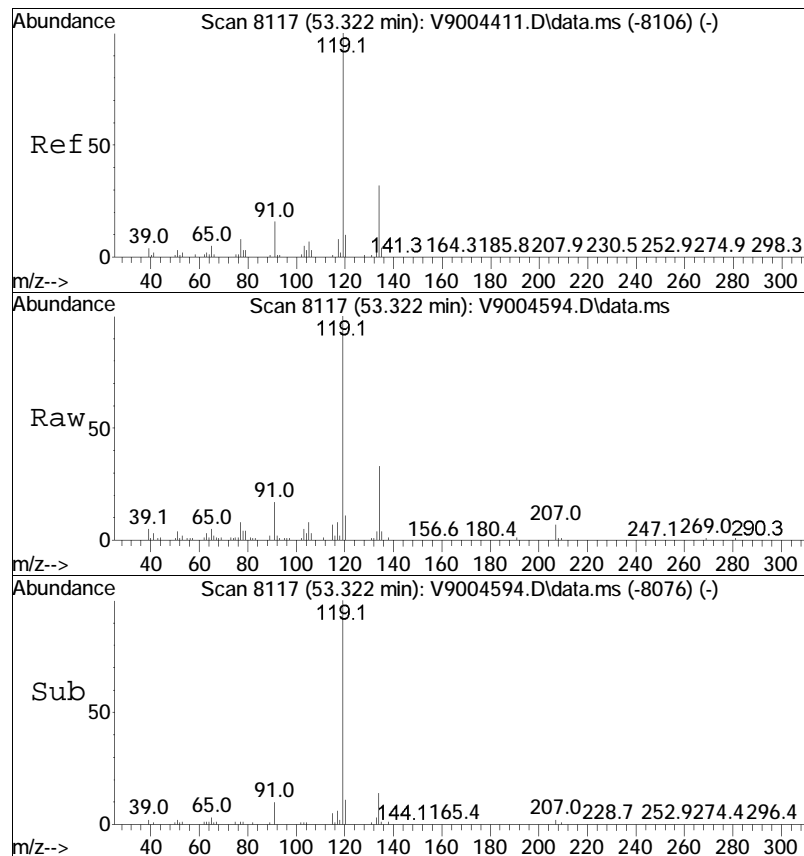




#127
 n-Butylbenzene
 Concen: 0.75 ug/L
 RT: 53.21 min Scan# 8098
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

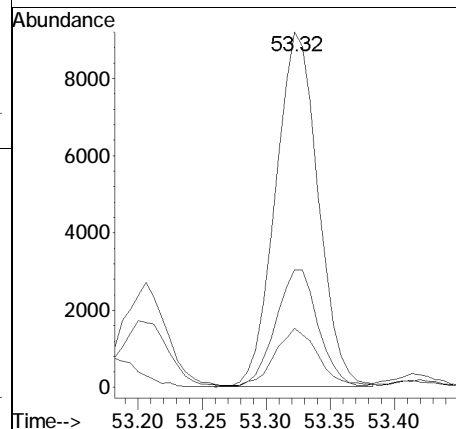
Tgt Ion:	91	Resp:	6492
Ion Ratio	Lower	Upper	
91	100		
92	47.1	31.8	71.8
134	61.7	34.6	74.6

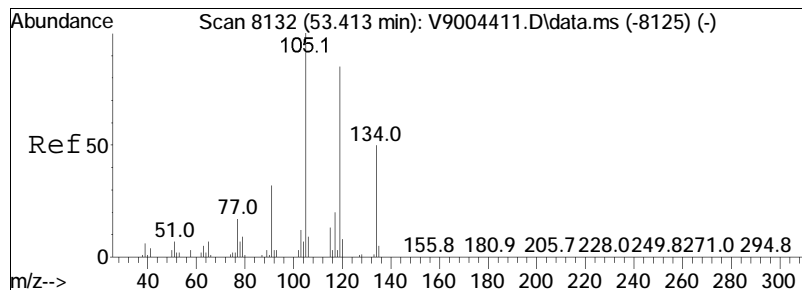




#128
 1,2-Dimethyl-4-ethylbenzene
 Concen: 2.52 ug/L
 RT: 53.32 min Scan# 8117
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

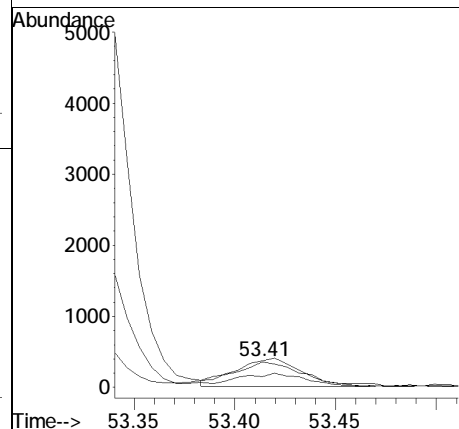
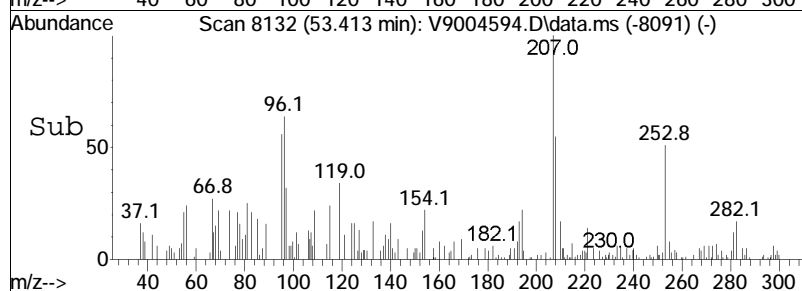
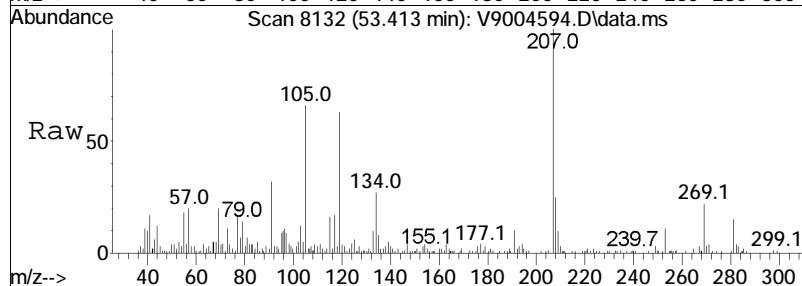
Tgt	Ion:119	Resp:	21255
Ion	Ratio	Lower	Upper
119	100		
134	33.1	12.5	52.5
91	16.7	0.0	36.3

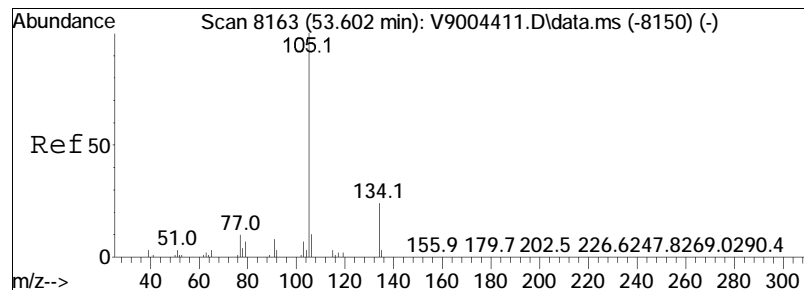




#129
 1,2-Diethylbenzene
 Concen: 0.20 ug/L
 RT: 53.41 min Scan# 8132
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

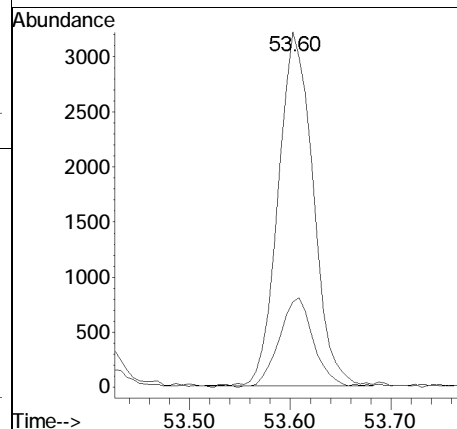
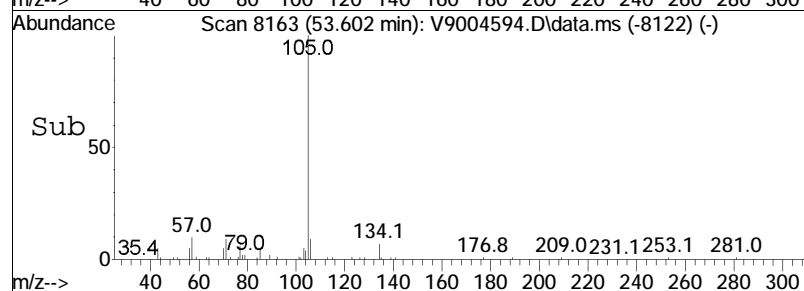
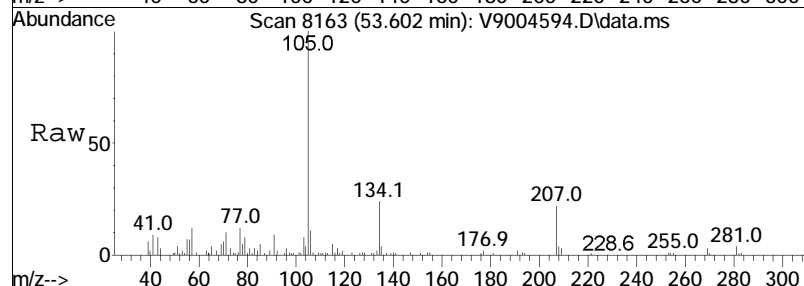
Tgt Ion	Ratio	Lower	Upper
119	100		
105	103.9	95.9	135.9
134	42.1	38.6	78.6

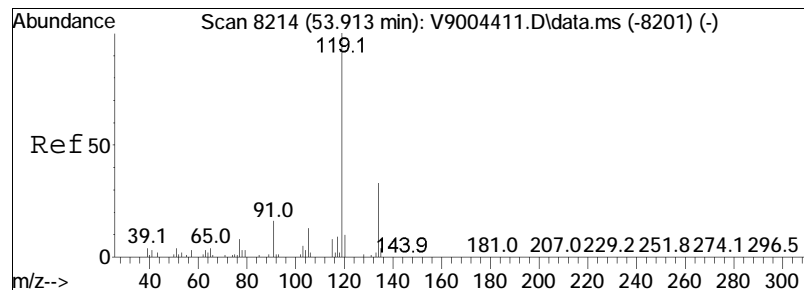




#130
 1-Methyl-2-propylbenzene
 Concen: 0.77 ug/L
 RT: 53.60 min Scan# 8163
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

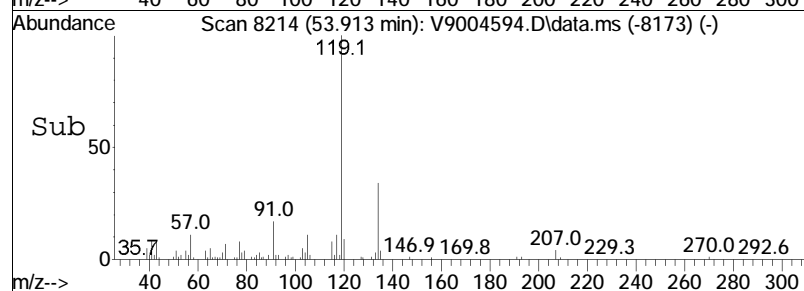
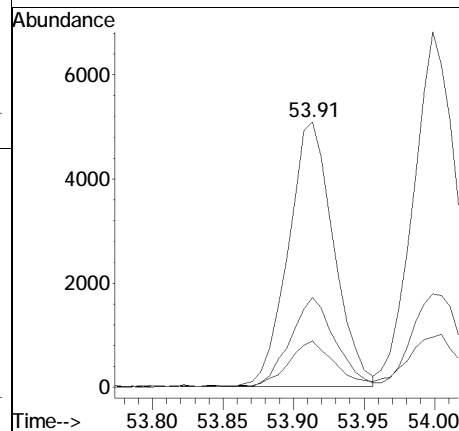
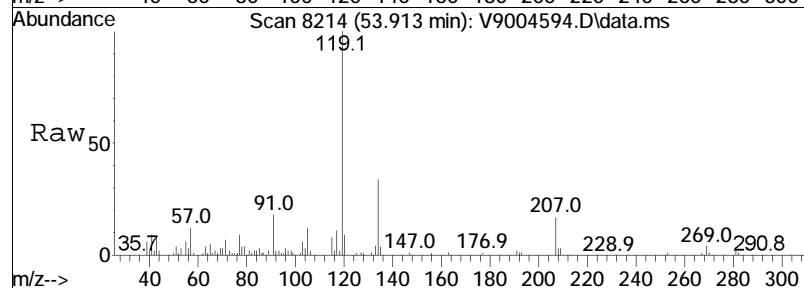
Tgt	Ion	Ratio	Lower	Upper
105	105	100		
134	134	24.1	3.7	43.7

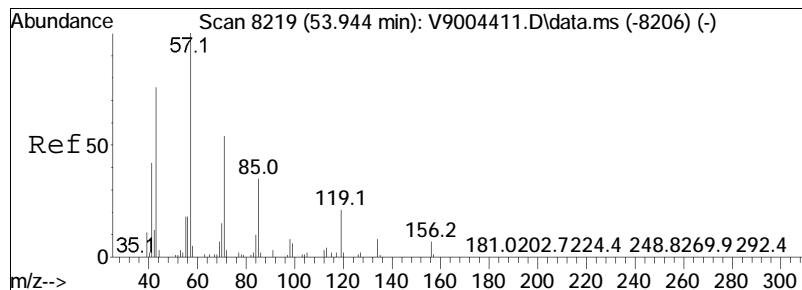




#131
 1,4-Dimethyl-2-ethylbenzene
 Concen: 1.47 ug/L
 RT: 53.91 min Scan# 8214
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

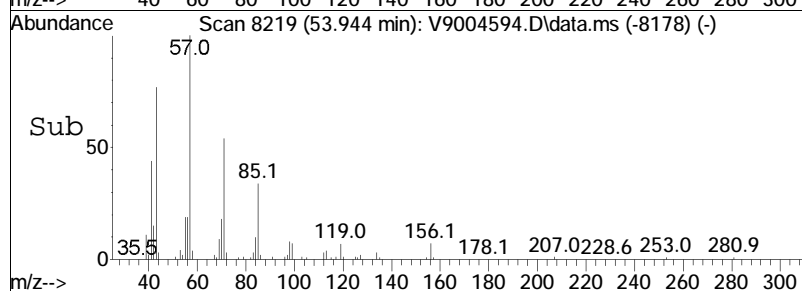
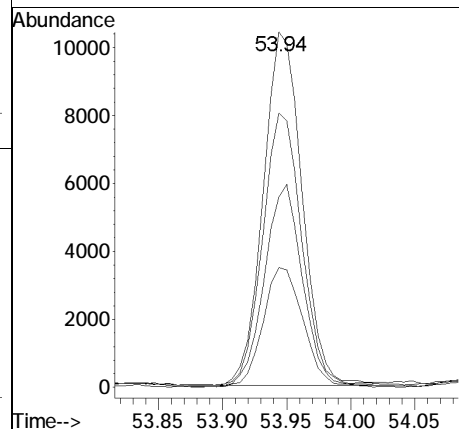
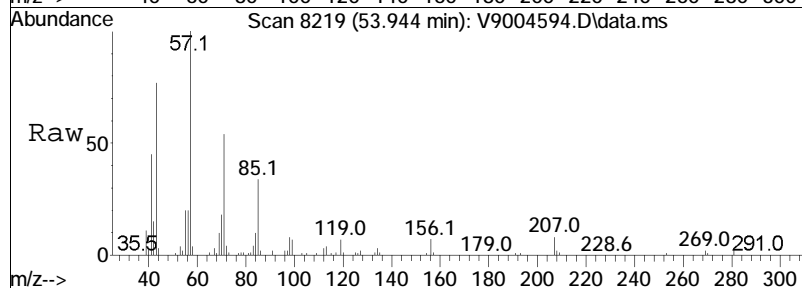
Tgt	Ion:119	Resp:	11403
Ion	Ratio	Lower	Upper
119	100		
134	33.9	12.7	52.7
91	17.5	0.0	35.6

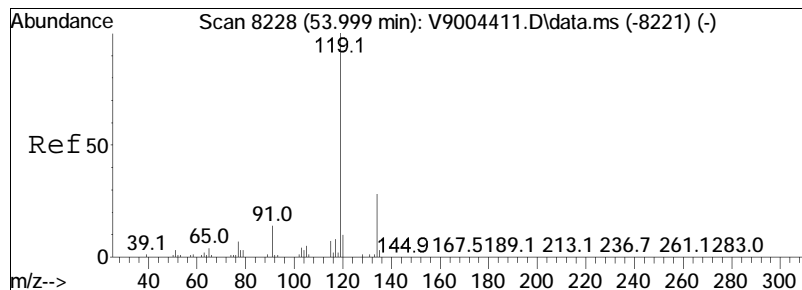




#132
Undecane
Concen: 7.10 ug/L
RT: 53.94 min Scan# 8219
Delta R.T. 0.000 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

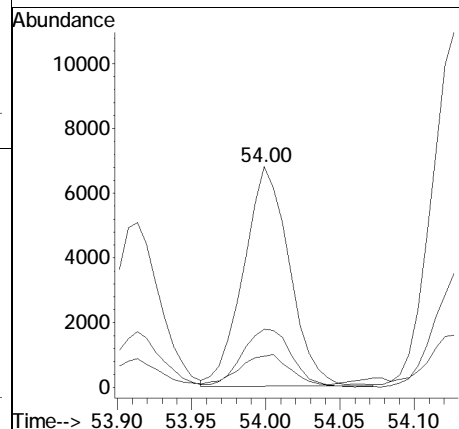
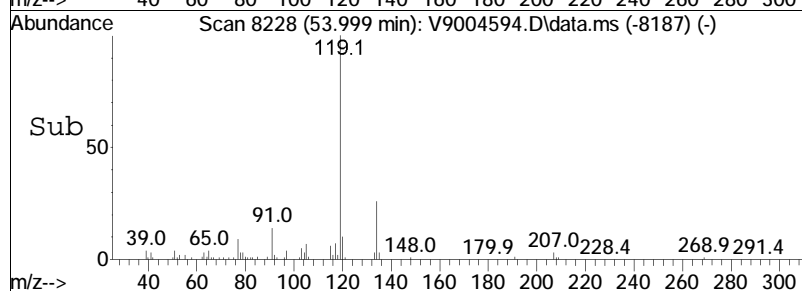
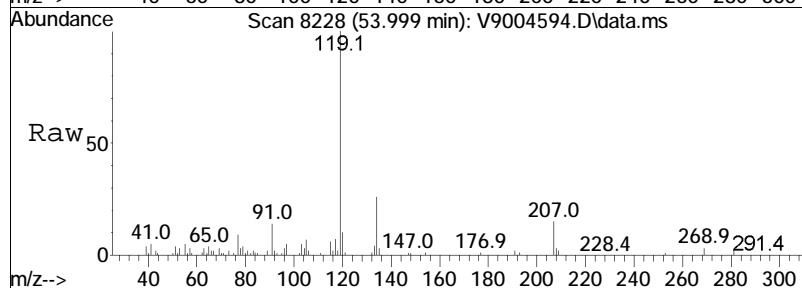
Tgt Ion:	57	Resp:	21992
Ion Ratio	Lower	Upper	
57	100		
43	77.2	56.0	96.0
71	53.6	34.2	74.2
85	33.7	14.5	54.5

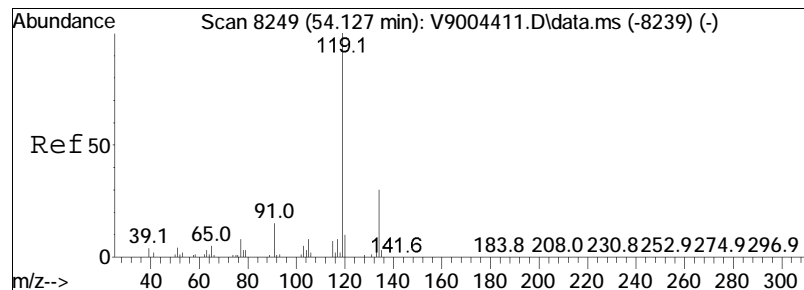




#133
 1,3-Dimethyl-4-ethylbenzene
 Concen: 1.53 ug/L
 RT: 54.00 min Scan# 8228
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

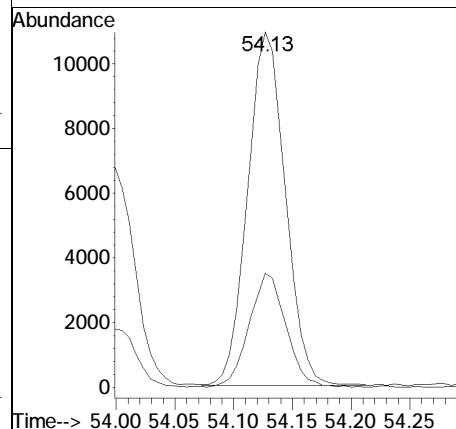
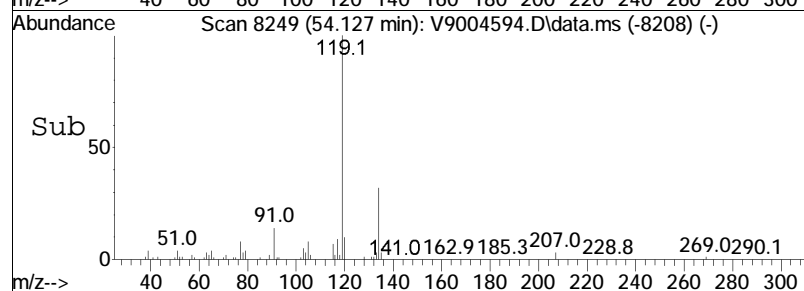
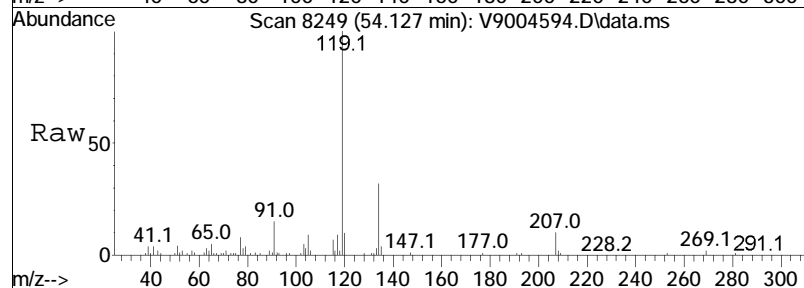
Tgt Ion:	119	Resp:	14613
Ion Ratio	Lower	Upper	
119	100		
134	26.3	8.1	48.1
91	14.1	0.0	33.8

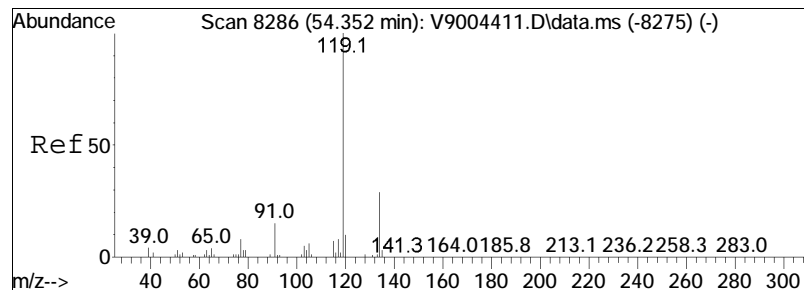




#134
 1,3-Dimethyl-5-ethylbenzene
 Concen: 2.84 ug/L
 RT: 54.13 min Scan# 8249
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

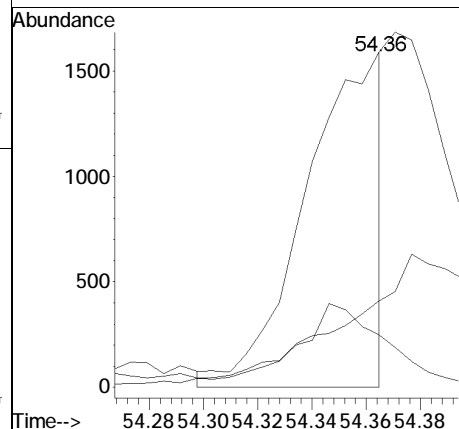
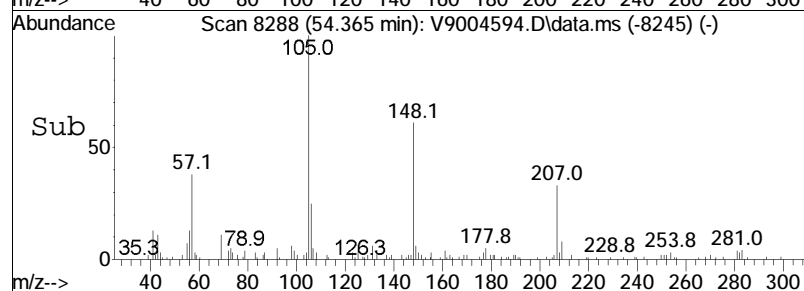
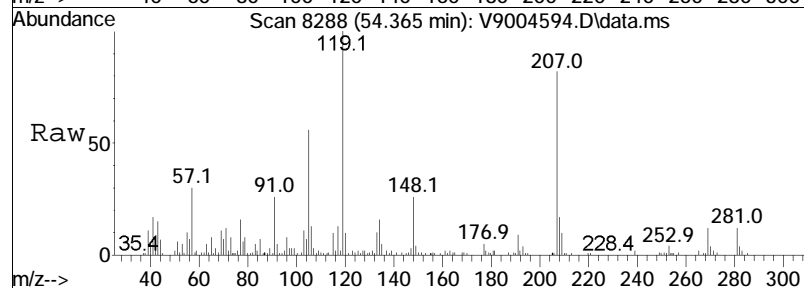
Tgt Ion	Ratio	Lower	Upper
119	100		
134	32.1	10.0	50.0

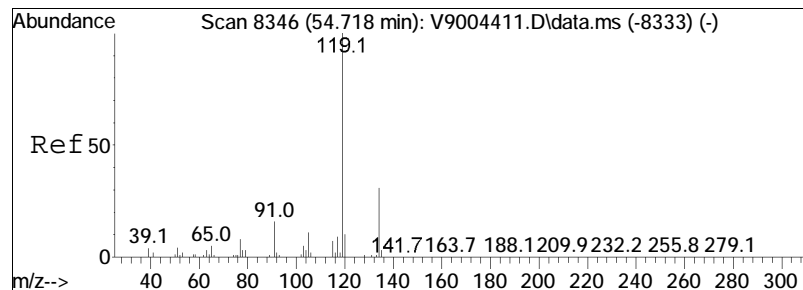




#135
 1,3-Dimethyl-2-ethylbenzene
 Concen: 0.34 ug/L m
 RT: 54.36 min Scan# 8288
 Delta R.T. 0.012 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

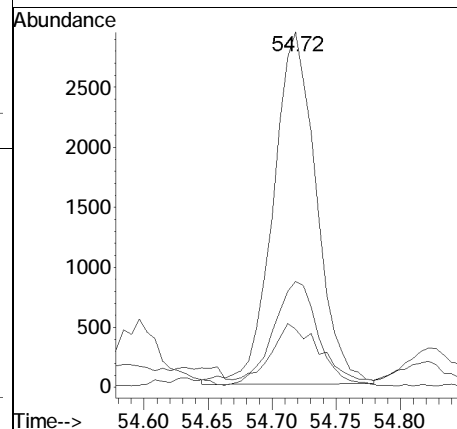
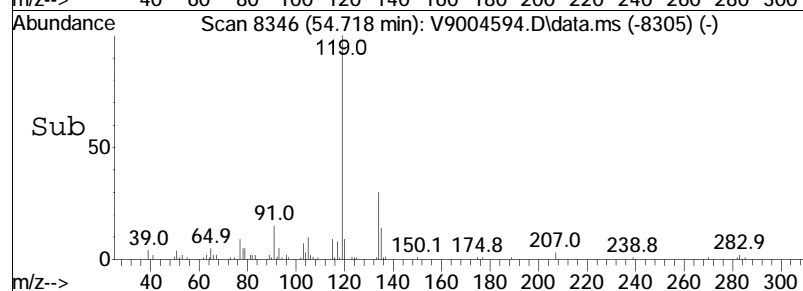
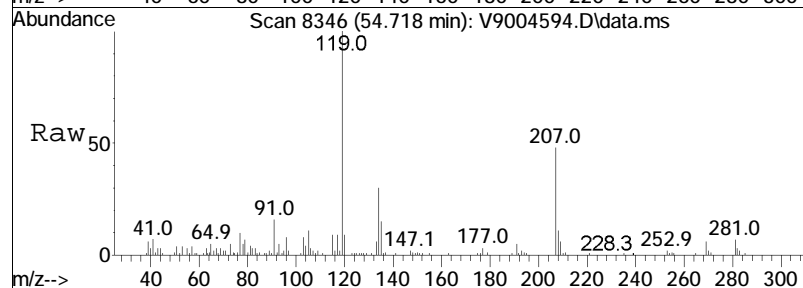
Tgt Ion:	119	Resp:	3135
Ion Ratio	Lower	Upper	
119	100		
134	15.8	9.3	49.3
91	25.7	0.0	34.5

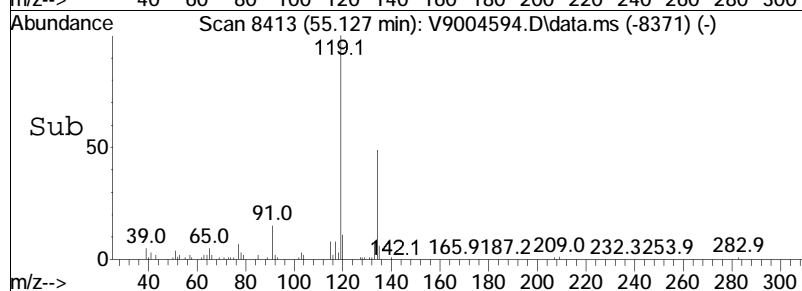
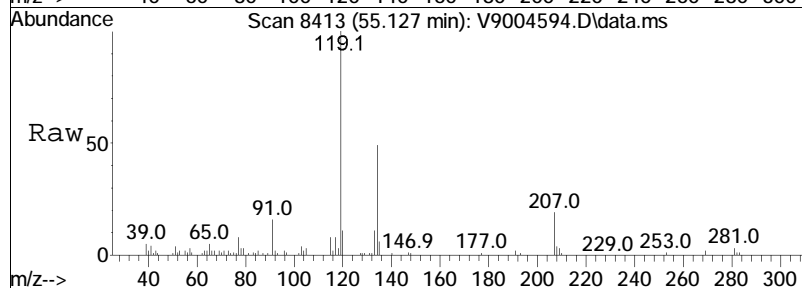
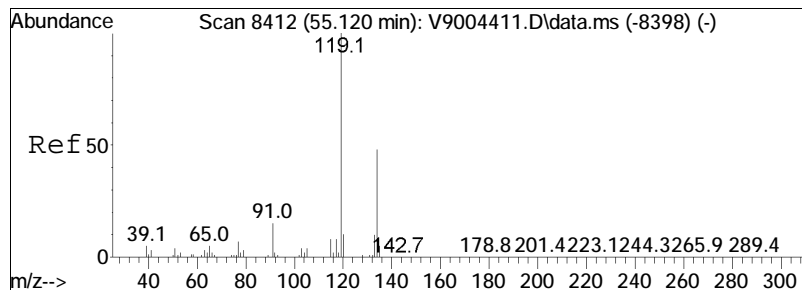




#136
 1,2-Dimethyl-3-ethylbenzene
 Concen: 0.82 ug/L
 RT: 54.72 min Scan# 8346
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

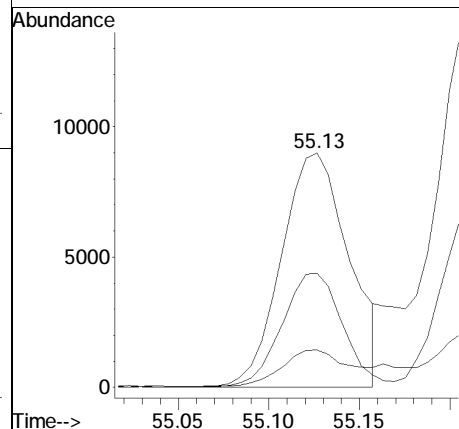
Tgt	Ion:119	Resp:	6886
Ion	Ratio	Lower	Upper
119	100		
134	29.8	11.5	51.5
91	16.4	0.0	36.2

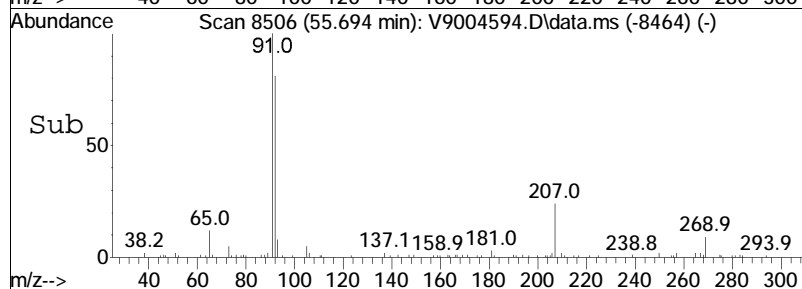
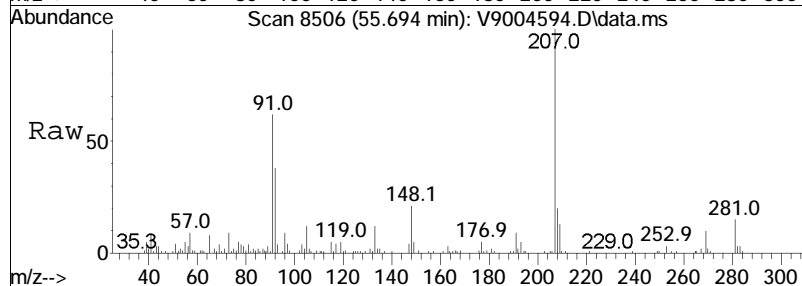
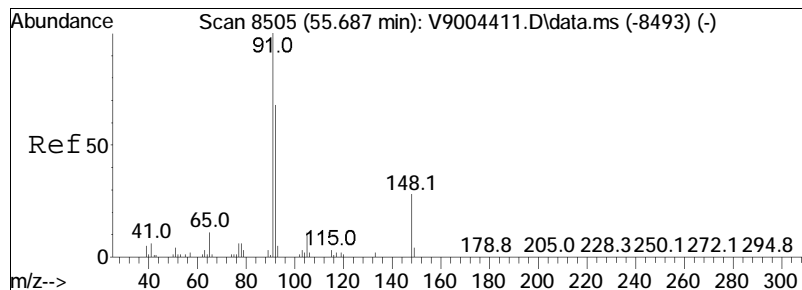




#137
 1,2,4,5-Tetramethylbenzene
 Concen: 2.65 ug/L m
 RT: 55.13 min Scan# 8413
 Delta R.T. 0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

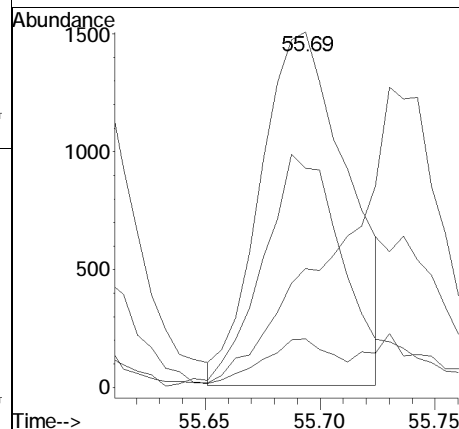
Tgt Ion:	119	Resp:	23290
Ion Ratio	Lower	Upper	
119	100		
134	48.6	28.5	68.5
91	15.9	0.0	35.2

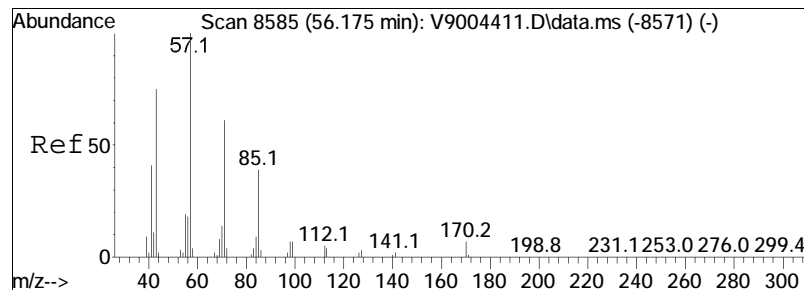




#139
 Pentylbenzene
 Concen: 0.53 ug/L m
 RT: 55.69 min Scan# 8506
 Delta R.T. 0.006 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

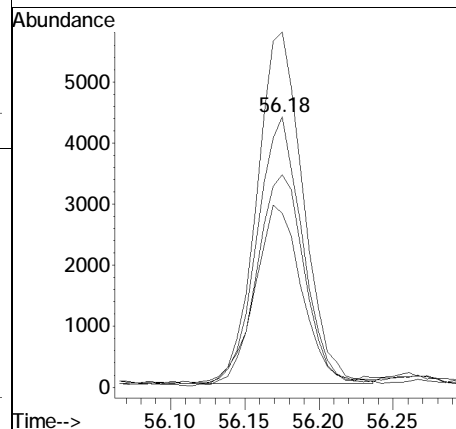
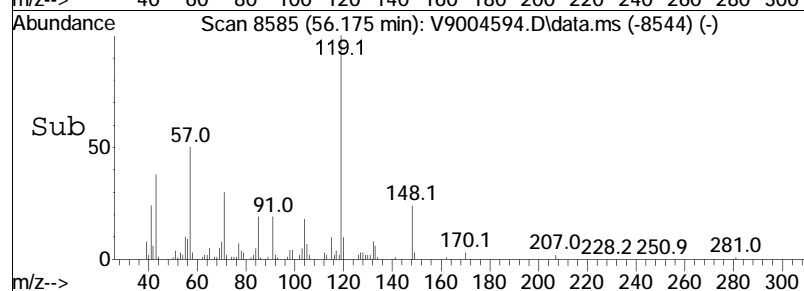
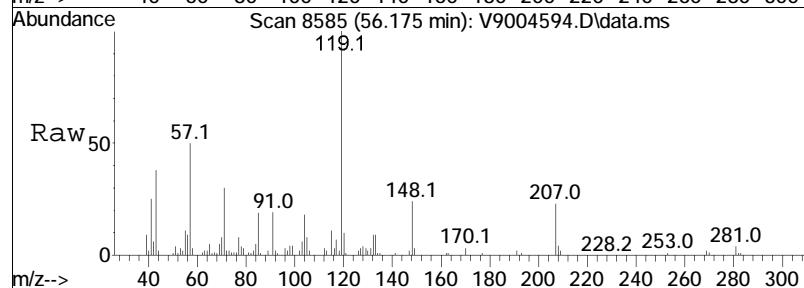
Tgt Ion:	91	Resp:	3969
Ion Ratio	Lower	Upper	
91	100		
92	61.7	47.8	87.8
65	13.7	0.0	31.4
148	33.4	8.3	48.3

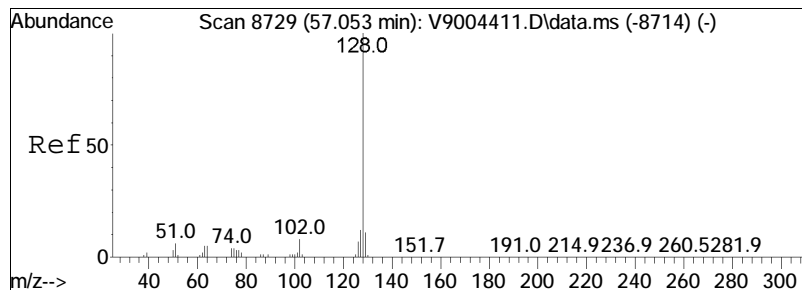




#142
Dodecane
Concen: 4.31 ug/L
RT: 56.18 min Scan# 8585
Delta R.T. 0.000 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

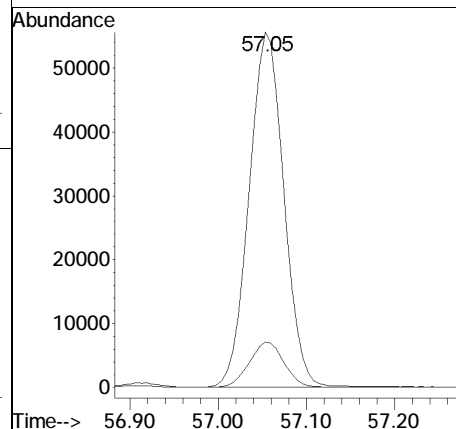
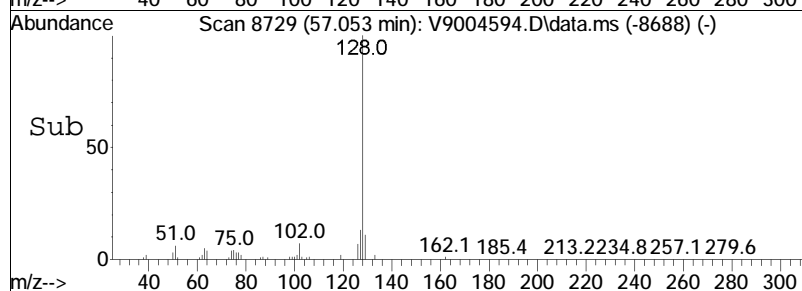
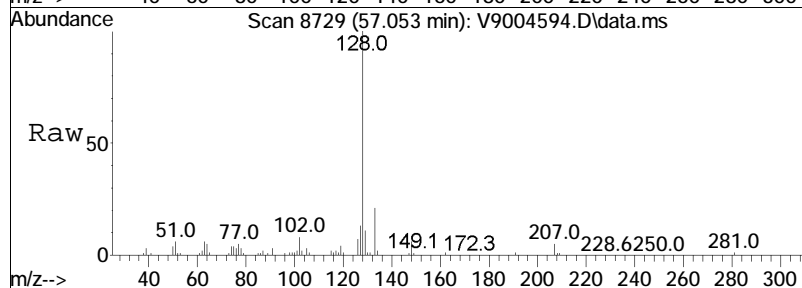
Tgt Ion:	43	Resp:	9249
Ion	Ratio	Lower	Upper
43	100		
57	131.3	114.0	154.0
71	78.6	61.8	101.8
41	64.3	35.4	75.4

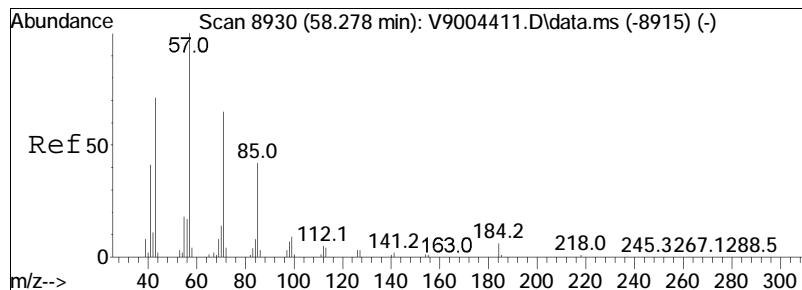




#144
Naphthalene
Concen: 14.98 ug/L
RT: 57.05 min Scan# 8729
Delta R.T. 0.000 min
Lab File: V9004594.D
Acq: 02 May 2023 04:07 pm

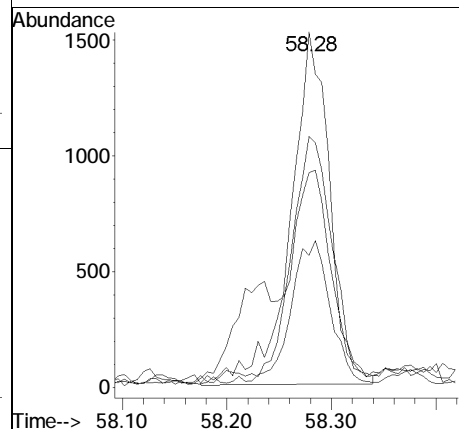
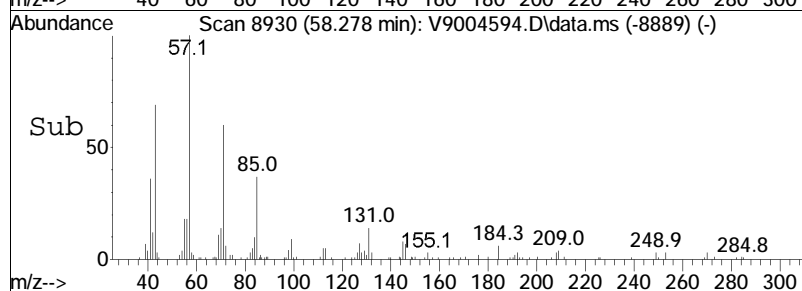
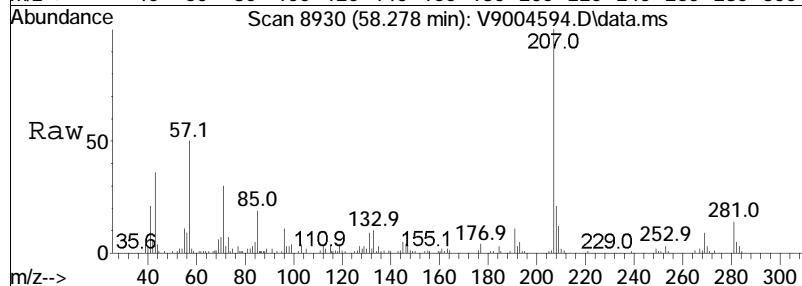
Tgt Ion	Ratio	Lower	Upper
128	100		
127	12.8	0.0	32.4

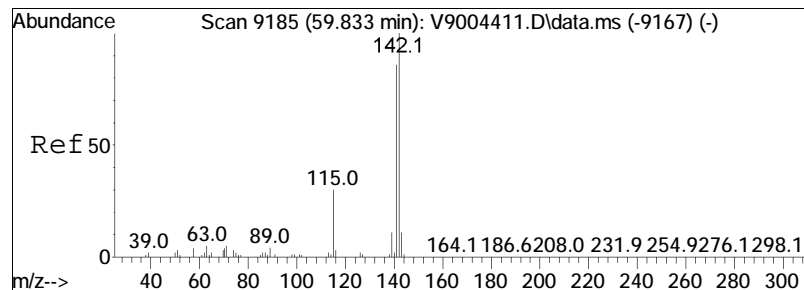




#149
 Tridecane
 Concen: 1.60 ug/L
 RT: 58.28 min Scan# 8930
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

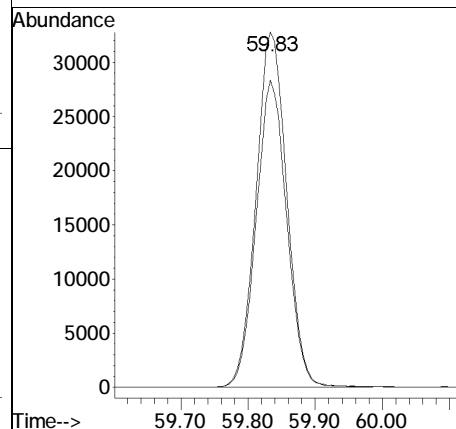
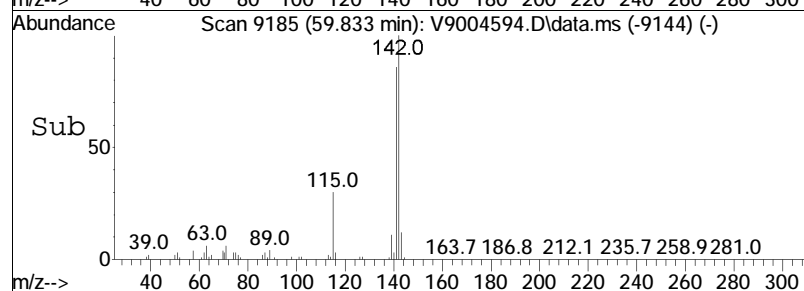
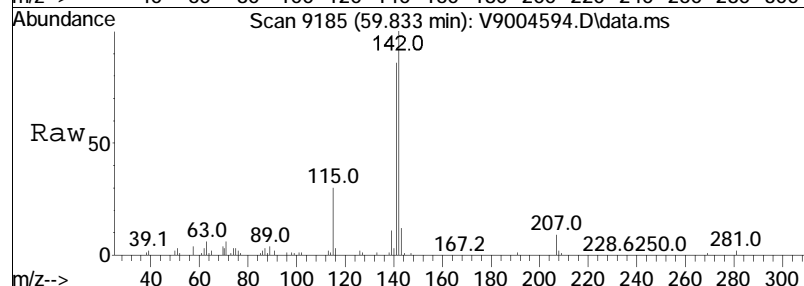
Tgt Ion:	57	Resp:	4043
Ion	Ratio	Lower	Upper
57	100		
43	70.6	51.2	91.2
71	60.5	45.2	85.2
85	37.2	22.1	62.1

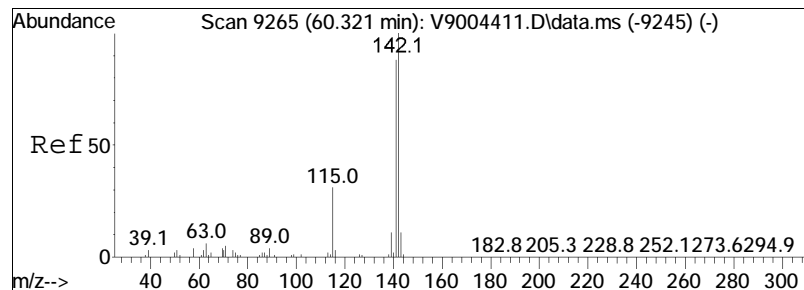




#150
 2-Methylnaphthalene
 Concen: 15.52 ug/L
 RT: 59.83 min Scan# 9185
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

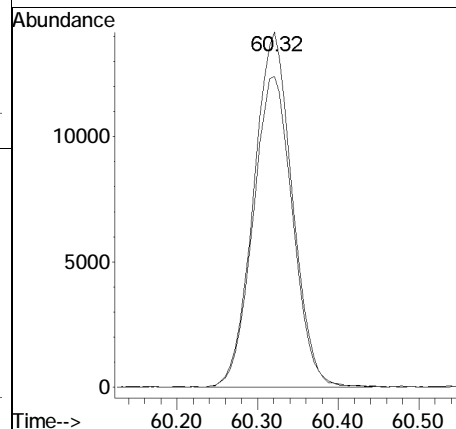
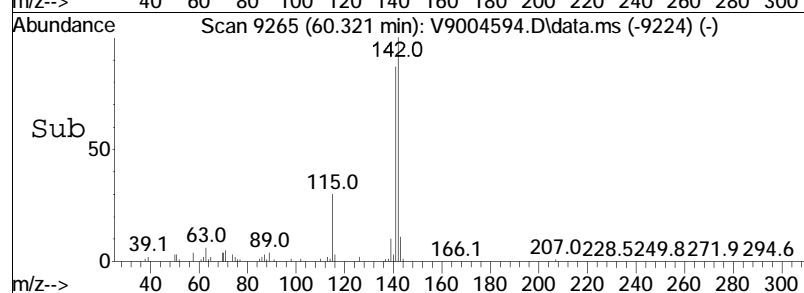
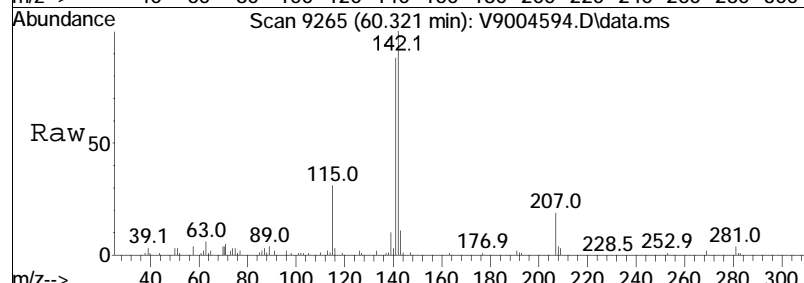
Tgt Ion	Ratio	Lower	Upper
142	100		
141	86.4	66.5	106.5





#151
 1-Methylnaphthalene
 Concen: 7.80 ug/L
 RT: 60.32 min Scan# 9265
 Delta R.T. 0.000 min
 Lab File: V9004594.D
 Acq: 02 May 2023 04:07 pm

Tgt Ion	Ratio	Lower	Upper
142	100		
141	87.6	68.2	108.2



Supporting Documentation

VOA Weights for High Level Soils

[illegible]

Summary Forms

Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : L2320537-01	Date Collected : 04/17/23 09:30
Client ID : MW2112-041723-NAPL	Date Received : 04/18/23
Sample Location : OR	Date Analyzed : 05/03/23 23:36
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004617	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : 100
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
563-45-1	3-Methyl-1-butene	ND	9.26	1.38	U
78-78-4	Isopentane	ND	9.26	1.69	U
109-67-1	1-Pentene	ND	9.26	1.69	U
563-46-2	2-Methyl-1-Butene	ND	9.26	1.44	U
109-66-0	Pentane	ND	9.26	2.89	U
646-04-8	trans-2-Pentene	ND	9.26	1.25	U
78-79-5	Isoprene	ND	9.26	1.65	U
627-20-3	cis-2-Pentene	ND	9.26	1.49	U
75-65-0	Tertiary Butanol	ND	116	15.0	U
75-83-2	2,2-Dimethylbutane	ND	9.26	2.86	U
691-37-2	4-Methyl-1-pentene	ND	9.26	1.44	U
287-92-3	Cyclopentane	ND	9.26	2.40	U
79-29-8	2,3-Dimethylbutane	ND	9.26	3.82	U
107-83-5	2-Methylpentane	ND	9.26	2.51	U
1634-04-4	Methyl tert butyl ether	ND	9.26	1.91	U
96-14-0	3-Methylpentane	ND	9.26	1.47	U
592-41-6	1-Hexene	ND	9.26	1.30	U
110-54-3	n-Hexane	ND	9.26	1.52	U
108-20-3	Isopropyl Ether	ND	9.26	1.12	U
4050-45-7	trans-2-Hexene	ND	9.26	1.21	U
625-27-4	2-Methyl-2-pentene	ND	9.26	1.42	U
7688-21-3	cis-2-Hexene	ND	9.26	1.25	U
637-92-3	Ethyl-Tert-Butyl-Ether	ND	9.26	1.40	U
590-35-2	2,2-Dimethylpentane	ND	9.26	1.24	U
96-37-7	Methylcyclopentane	ND	9.26	1.24	U



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : L2320537-01	Date Collected : 04/17/23 09:30
Client ID : MW2112-041723-NAPL	Date Received : 04/18/23
Sample Location : OR	Date Analyzed : 05/03/23 23:36
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004617	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : 100
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
108-08-7	2,4-Dimethylpentane	ND	9.26	1.14	U
464-06-2	2,2,3-Trimethylbutane	ND	9.26	1.25	U
107-06-2	1,2-Dichloroethane	ND	9.26	1.36	U
562-49-2	3,3-Dimethylpentane	ND	9.26	1.72	U
110-82-7	Cyclohexane	ND	9.26	1.14	U
591-76-4	2-Methylhexane	ND	9.26	1.46	U
71-43-2	Benzene	2.84	9.26	1.41	J
565-59-3	2,3-Dimethylpentane	ND	9.26	1.23	U
110-02-1	Thiophene	ND	9.26	1.31	U
1638-26-2	1,1-Dimethylcyclopentane	ND	9.26	1.11	U
589-34-4	3-Methylhexane	ND	9.26	1.48	U
994-05-8	Tertiary-Amyl Methyl Ether	ND	9.26	1.14	U
2532-58-3	1,3-Dimethylcyclopentane (cis)	ND	9.26	1.39	U
617-78-7	3-Ethylpentane	ND	9.26	1.34	U
592-76-7/822-50-4	1-Heptene/1,2-DMCP (trans)	ND	18.5	2.71	U
540-84-1	Isooctane	ND	9.26	1.01	U
14686-14-7	trans-3-Heptene	ND	9.26	1.44	U
142-82-5	Heptane	ND	9.26	1.61	U
14686-13-6	trans-2-Heptene	ND	9.26	1.18	U
6443-92-1	cis-2-Heptene	ND	9.26	1.79	U
590-73-8	2,2-Dimethylhexane	ND	9.26	1.34	U
108-87-2	Methylcyclohexane	3.92	9.26	1.25	J
592-13-2	2,5-Dimethylhexane	ND	9.26	1.61	U
589-43-5	2,4-Dimethylhexane	ND	9.26	1.12	U
1640-89-7	Ethylcyclopentane	ND	9.26	1.23	U



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : L2320537-01	Date Collected : 04/17/23 09:30
Client ID : MW2112-041723-NAPL	Date Received : 04/18/23
Sample Location : OR	Date Analyzed : 05/03/23 23:36
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004617	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : 100
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
564-02-3	2,2,3-Trimethylpentane	ND	9.26	1.61	U
565-75-3	2,3,4-Trimethylpentane	2.12	9.26	1.21	J
560-21-4	2,3,3-Trimethylpentane	2.11	9.26	1.84	J
584-94-1	2,3-Dimethylhexane	ND	9.26	2.24	U
592-27-8	2-Methylheptane	3.61	9.26	1.56	J
589-53-7	4-Methylheptane	ND	9.26	1.59	U
589-81-1	3-Methylheptane	ND	9.26	1.32	U
619-99-8	3-Ethylhexane	ND	9.26	1.66	U
108-88-3	Toluene	ND	9.26	1.25	U
554-14-3	2-Methylthiophene	ND	9.26	0.787	U
2207-04-7	1,4-Dimethylcyclohexane (trans)	9.60	9.26	1.20	
616-44-4	3-Methylthiophene	ND	9.26	1.08	U
111-66-0	1-Octene	ND	23.1	1.42	U
111-65-9	Octane	ND	9.26	1.09	U
6876-23-9	1,2-Dimethylcyclohexane (trans)	21.3	9.26	1.36	
106-93-4	1,2-Dibromoethane	ND	9.26	1.48	U
7642-04-8	cis-2-Octene	ND	9.26	1.06	U
3875-51-2	Isopropylcyclopentane	ND	9.26	1.36	U
2207-01-4	1,2-Dimethylcyclohexane (cis)	15.2	9.26	2.69	
2216-30-0	2,5-Dimethylheptane	8.06	9.26	1.55	J
926-82-9	3,5-Dimethylheptane	3.02	9.26	1.30	J
4032-86-4	3,3-Dimethylheptane	1.27	9.26	1.12	J
7094-27-1	1,1,4-Trimethylcyclohexane	ND	9.26	0.921	U
3074-71-3	2,3-Dimethylheptane	24.3	9.26	1.06	
922-28-1	3,4-Dimethylheptane	10.2	9.26	1.57	



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : L2320537-01	Date Collected : 04/17/23 09:30
Client ID : MW2112-041723-NAPL	Date Received : 04/18/23
Sample Location : OR	Date Analyzed : 05/03/23 23:36
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004617	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : 100
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
2216-34-4	4-Methyloctane	6.52	9.26	1.55	J
3221-61-2	2-Methyloctane	6.80	9.26	2.37	J
100-41-4	Ethylbenzene	ND	9.26	1.00	U
872-55-9	2-Ethylthiophene	ND	9.26	0.815	U
2216-33-3	3-Methyloctane	16.9	9.26	1.04	
1067-20-5	3,3-Diethylpentane	ND	9.26	1.08	U
179601-23-1	p/m-Xylene	2.68	18.5	1.76	J
124-11-8	1-Nonene	ND	23.1	1.25	U
20063-92-7	trans-3-Nonene	ND	9.26	1.10	U
20237-46-1	cis-3-Nonene	ND	9.26	1.73	U
111-84-2	Nonane (C9)	ND	9.26	1.44	U
100-42-5	Styrene	ND	9.26	0.935	U
95-47-6	o-Xylene	2.51	9.26	0.968	J
1330-20-7	Xylene (Total)	5.19	9.26	0.968	J
6434-77-1	2-Nonene	ND	23.1	1.18	U
696-29-7	Isopropylcyclohexane	ND	9.26	0.981	U
98-82-8	Isopropylbenzene	14.7	9.26	0.866	
4110-44-5	3,3-Dimethyloctane	6.24	9.26	0.935	J
103-65-1	n-Propylbenzene	7.69	9.26	0.819	J
871-83-0	2-Methylnonane	ND	9.26	1.31	U
5911-04-6	3-Methylnonane	14.4	9.26	1.29	
620-14-4	1-Methyl-3-Ethylbenzene	ND	9.26	1.46	U
622-96-8	1-Methyl-4-Ethylbenzene	ND	9.26	1.30	U
108-67-8	1,3,5-Trimethylbenzene	1.62	9.26	1.06	J
872-05-9	1-Decene	ND	9.26	1.20	U



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : L2320537-01	Date Collected : 04/17/23 09:30
Client ID : MW2112-041723-NAPL	Date Received : 04/18/23
Sample Location : OR	Date Analyzed : 05/03/23 23:36
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004617	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : 100
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
1678-98-4	Isobutylcyclohexane	ND	9.26	0.755	U
611-14-3	1-Methyl-2-Ethylbenzene	7.76	9.26	0.787	J
124-18-5	Decane (C10)	10.7	9.26	1.25	
98-06-6	tert-Butylbenzene	2.74	9.26	0.977	J
95-63-6	1,2,4-Trimethylbenzene	2.60	9.26	0.958	J
538-93-2	Isobutylbenzene	11.4	9.26	1.25	
135-98-8	sec-Butylbenzene	21.3	9.26	1.20	
535-77-3	1-Methyl-3-Isopropylbenzene	ND	9.26	1.19	U
99-87-6	1-Methyl-4-Isopropylbenzene	ND	9.26	0.981	U
526-73-8	1,2,3-Trimethylbenzene	ND	9.26	1.03	U
527-84-4	1-Methyl-2-Isopropylbenzene	7.04	9.26	1.00	J
496-11-7	Indane	9.89	9.26	0.569	
141-93-5	1,3-Diethylbenzene	35.0	9.26	1.15	
1074-43-7	1-Methyl-3-N-Propylbenzene	ND	9.26	0.935	U
95-13-6	Indene	2.31	9.26	0.537	J
1074-55-1	1-Methyl-4-N-Propylbenzene	5.65	9.26	1.16	J
104-51-8	n-Butylbenzene	20.6	9.26	0.912	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND	9.26	1.13	U
135-01-3	1,2-Diethylbenzene	23.8	9.26	1.37	
1074-17-5	1-Methyl-2-N-Propylbenzene	ND	9.26	1.15	U
1758-88-9	1,4-Dimethyl-2-Ethylbenzene	ND	9.26	0.866	U
1120-21-4	Undecane	45.0	9.26	1.03	
874-41-9	1,3-Dimethyl-4-Ethylbenzene	ND	9.26	0.898	U
934-74-7	1,3-Dimethyl-5-Ethylbenzene	41.3	9.26	1.09	
2870-04-4	1,3-Dimethyl-2-Ethylbenzene	28.0	9.26	0.690	



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : L2320537-01	Date Collected : 04/17/23 09:30
Client ID : MW2112-041723-NAPL	Date Received : 04/18/23
Sample Location : OR	Date Analyzed : 05/03/23 23:36
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004617	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : 100
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
933-98-2	1,2-Dimethyl-3-Ethylbenzene	ND	9.26	0.588	U
95-93-2	1,2,4,5-Tetramethylbenzene	154	9.26	0.718	
527-53-7	1,2,3,5-Tetramethylbenzene	ND	9.26	0.704	U
538-68-1	N-Pentylbenzene	15.1	9.26	1.15	
488-23-3	1,2,3,4-Tetramethylbenzene	ND	9.26	0.991	U
98-19-1	1,3-Dimethyl-5-tert-Butylbenzene	ND	9.26	1.32	U
112-40-3	Dodecane (C12)	ND	23.1	3.04	U
102-25-0	1,3,5-Triethylbenzene	ND	9.26	1.76	U
91-20-3	Naphthalene	13.3	9.26	3.86	
95-15-8	Benzothiophene	ND	9.26	4.89	U
877-44-1	1,2,4-Triethylbenzene	25.2	9.26	1.57	
1077-16-3	Hexylbenzene	ND	9.26	1.78	U
12108-13-3	MMT	ND	23.1	5.95	U
629-50-5	Tridecane	47.6	23.1	6.45	
91-57-6	2-Methylnaphthalene	ND	23.1	6.12	U
90-12-0	1-Methylnaphthalene	ND	23.1	6.80	U
629-59-4	Tetradecane (C14)	ND	23.1	2.83	U
629-62-9	Pentadecane	ND	23.1	5.16	U

Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : WG1774659-6	Date Collected : NA
Client ID : WG1774659-6BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/02/23 17:19
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004595	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : NA
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
563-45-1	3-Methyl-1-butene	ND	10.0	1.48	U
78-78-4	Isopentane	ND	10.0	1.83	U
109-67-1	1-Pentene	ND	10.0	1.82	U
563-46-2	2-Methyl-1-Butene	ND	10.0	1.56	U
109-66-0	Pentane	ND	10.0	3.12	U
646-04-8	trans-2-Pentene	ND	10.0	1.35	U
78-79-5	Isoprene	ND	10.0	1.78	U
627-20-3	cis-2-Pentene	ND	10.0	1.61	U
75-65-0	Tertiary Butanol	ND	125	16.2	U
75-83-2	2,2-Dimethylbutane	ND	10.0	3.08	U
691-37-2	4-Methyl-1-pentene	ND	10.0	1.56	U
287-92-3	Cyclopentane	ND	10.0	2.60	U
79-29-8	2,3-Dimethylbutane	ND	10.0	4.13	U
107-83-5	2-Methylpentane	ND	10.0	2.71	U
1634-04-4	Methyl tert butyl ether	ND	10.0	2.06	U
96-14-0	3-Methylpentane	ND	10.0	1.58	U
592-41-6	1-Hexene	ND	10.0	1.40	U
110-54-3	n-Hexane	ND	10.0	1.64	U
108-20-3	Isopropyl Ether	ND	10.0	1.21	U
4050-45-7	trans-2-Hexene	ND	10.0	1.30	U
625-27-4	2-Methyl-2-pentene	ND	10.0	1.53	U
7688-21-3	cis-2-Hexene	ND	10.0	1.36	U
637-92-3	Ethyl-Tert-Butyl-Ether	ND	10.0	1.52	U
590-35-2	2,2-Dimethylpentane	ND	10.0	1.34	U
96-37-7	Methylcyclopentane	ND	10.0	1.34	U



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : WG1774659-6	Date Collected : NA
Client ID : WG1774659-6BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/02/23 17:19
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004595	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : NA
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
108-08-7	2,4-Dimethylpentane	ND	10.0	1.24	U
464-06-2	2,2,3-Trimethylbutane	ND	10.0	1.35	U
107-06-2	1,2-Dichloroethane	ND	10.0	1.48	U
562-49-2	3,3-Dimethylpentane	ND	10.0	1.86	U
110-82-7	Cyclohexane	ND	10.0	1.24	U
591-76-4	2-Methylhexane	ND	10.0	1.58	U
71-43-2	Benzene	2.87	10.0	1.52	J
565-59-3	2,3-Dimethylpentane	ND	10.0	1.32	U
110-02-1	Thiophene	ND	10.0	1.42	U
1638-26-2	1,1-Dimethylcyclopentane	ND	10.0	1.20	U
589-34-4	3-Methylhexane	ND	10.0	1.60	U
994-05-8	Tertiary-Amyl Methyl Ether	ND	10.0	1.23	U
2532-58-3	1,3-Dimethylcyclopentane (cis)	ND	10.0	1.50	U
617-78-7	3-Ethylpentane	ND	10.0	1.44	U
592-76-7/822-50-4	1-Heptene/1,2-DMCP (trans)	ND	20.0	2.92	U
540-84-1	Isooctane	ND	10.0	1.09	U
14686-14-7	trans-3-Heptene	ND	10.0	1.56	U
142-82-5	Heptane	ND	10.0	1.74	U
14686-13-6	trans-2-Heptene	ND	10.0	1.28	U
6443-92-1	cis-2-Heptene	ND	10.0	1.94	U
590-73-8	2,2-Dimethylhexane	ND	10.0	1.45	U
108-87-2	Methylcyclohexane	ND	10.0	1.35	U
592-13-2	2,5-Dimethylhexane	ND	10.0	1.74	U
589-43-5	2,4-Dimethylhexane	ND	10.0	1.22	U
1640-89-7	Ethylcyclopentane	ND	10.0	1.32	U



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : WG1774659-6	Date Collected : NA
Client ID : WG1774659-6BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/02/23 17:19
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004595	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : NA
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
564-02-3	2,2,3-Trimethylpentane	ND	10.0	1.74	U
565-75-3	2,3,4-Trimethylpentane	ND	10.0	1.30	U
560-21-4	2,3,3-Trimethylpentane	ND	10.0	1.98	U
584-94-1	2,3-Dimethylhexane	ND	10.0	2.42	U
592-27-8	2-Methylheptane	ND	10.0	1.69	U
589-53-7	4-Methylheptane	ND	10.0	1.72	U
589-81-1	3-Methylheptane	ND	10.0	1.42	U
619-99-8	3-Ethylhexane	ND	10.0	1.79	U
108-88-3	Toluene	ND	10.0	1.36	U
554-14-3	2-Methylthiophene	ND	10.0	0.850	U
2207-04-7	1,4-Dimethylcyclohexane (trans)	ND	10.0	1.30	U
616-44-4	3-Methylthiophene	ND	10.0	1.17	U
111-66-0	1-Octene	ND	25.0	1.54	U
111-65-9	Octane	ND	10.0	1.18	U
6876-23-9	1,2-Dimethylcyclohexane (trans)	ND	10.0	1.47	U
106-93-4	1,2-Dibromoethane	ND	10.0	1.60	U
7642-04-8	cis-2-Octene	ND	10.0	1.14	U
3875-51-2	Isopropylcyclopentane	ND	10.0	1.46	U
2207-01-4	1,2-Dimethylcyclohexane (cis)	ND	10.0	2.90	U
2216-30-0	2,5-Dimethylheptane	ND	10.0	1.68	U
926-82-9	3,5-Dimethylheptane	ND	10.0	1.41	U
4032-86-4	3,3-Dimethylheptane	ND	10.0	1.21	U
7094-27-1	1,1,4-Trimethylcyclohexane	ND	10.0	0.995	U
3074-71-3	2,3-Dimethylheptane	ND	10.0	1.14	U
922-28-1	3,4-Dimethylheptane	ND	10.0	1.70	U

Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : WG1774659-6	Date Collected : NA
Client ID : WG1774659-6BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/02/23 17:19
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004595	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : NA
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
2216-34-4	4-Methyloctane	ND	10.0	1.67	U
3221-61-2	2-Methyloctane	ND	10.0	2.56	U
100-41-4	Ethylbenzene	ND	10.0	1.08	U
872-55-9	2-Ethylthiophene	ND	10.0	0.880	U
2216-33-3	3-Methyloctane	ND	10.0	1.12	U
1067-20-5	3,3-Diethylpentane	ND	10.0	1.16	U
179601-23-1	p/m-Xylene	ND	20.0	1.90	U
124-11-8	1-Nonene	ND	25.0	1.35	U
20063-92-7	trans-3-Nonene	ND	10.0	1.18	U
20237-46-1	cis-3-Nonene	ND	10.0	1.87	U
111-84-2	Nonane (C9)	ND	10.0	1.56	U
100-42-5	Styrene	ND	10.0	1.01	U
95-47-6	o-Xylene	ND	10.0	1.04	U
1330-20-7	Xylene (Total)	ND	10.0	1.04	U
6434-77-1	2-Nonene	ND	25.0	1.27	U
696-29-7	Isopropylcyclohexane	ND	10.0	1.06	U
98-82-8	Isopropylbenzene	ND	10.0	0.935	U
4110-44-5	3,3-Dimethyloctane	ND	10.0	1.01	U
103-65-1	n-Propylbenzene	ND	10.0	0.885	U
871-83-0	2-Methylnonane	ND	10.0	1.42	U
5911-04-6	3-Methylnonane	ND	10.0	1.40	U
620-14-4	1-Methyl-3-Ethylbenzene	ND	10.0	1.58	U
622-96-8	1-Methyl-4-Ethylbenzene	ND	10.0	1.41	U
108-67-8	1,3,5-Trimethylbenzene	ND	10.0	1.15	U
872-05-9	1-Decene	ND	10.0	1.30	U



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Lab ID	: WG1774659-6	Date Collected	: NA
Client ID	: WG1774659-6BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 05/02/23 17:19
Sample Matrix	: OIL	Dilution Factor	: 1
Analytical Method	: 1,8260D	Analyst	: RAY
Lab File ID	: V9004595	Instrument ID	: VOA9
Sample Amount	: 0.1 g	GC Column	: DB-VRX
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: NA	Injection Volume	: 0.100 ml
Comments	:		

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
1678-98-4	Isobutylcyclohexane	ND	10.0	0.815	U
611-14-3	1-Methyl-2-Ethylbenzene	ND	10.0	0.850	U
124-18-5	Decane (C10)	ND	10.0	1.36	U
98-06-6	tert-Butylbenzene	ND	10.0	1.06	U
95-63-6	1,2,4-Trimethylbenzene	ND	10.0	1.04	U
538-93-2	Isobutylbenzene	ND	10.0	1.35	U
135-98-8	sec-Butylbenzene	ND	10.0	1.30	U
535-77-3	1-Methyl-3-Isopropylbenzene	ND	10.0	1.29	U
99-87-6	1-Methyl-4-Isopropylbenzene	ND	10.0	1.06	U
526-73-8	1,2,3-Trimethylbenzene	ND	10.0	1.12	U
527-84-4	1-Methyl-2-Isopropylbenzene	ND	10.0	1.08	U
496-11-7	Indane	ND	10.0	0.615	U
141-93-5	1,3-Diethylbenzene	ND	10.0	1.24	U
1074-43-7	1-Methyl-3-N-Propylbenzene	ND	10.0	1.01	U
95-13-6	Indene	ND	10.0	0.580	U
1074-55-1	1-Methyl-4-N-Propylbenzene	ND	10.0	1.25	U
104-51-8	n-Butylbenzene	ND	10.0	0.985	U
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND	10.0	1.22	U
135-01-3	1,2-Diethylbenzene	ND	10.0	1.48	U
1074-17-5	1-Methyl-2-N-Propylbenzene	ND	10.0	1.24	U
1758-88-9	1,4-Dimethyl-2-Ethylbenzene	ND	10.0	0.935	U
1120-21-4	Undecane	ND	10.0	1.11	U
874-41-9	1,3-Dimethyl-4-Ethylbenzene	ND	10.0	0.970	U
934-74-7	1,3-Dimethyl-5-Ethylbenzene	ND	10.0	1.18	U
2870-04-4	1,3-Dimethyl-2-Ethylbenzene	ND	10.0	0.745	U



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : WG1774659-6	Date Collected : NA
Client ID : WG1774659-6BLANK	Date Received : NA
Sample Location :	Date Analyzed : 05/02/23 17:19
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004595	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : NA
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
933-98-2	1,2-Dimethyl-3-Ethylbenzene	ND	10.0	0.635	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	10.0	0.775	U
527-53-7	1,2,3,5-Tetramethylbenzene	ND	10.0	0.760	U
538-68-1	N-Pentylbenzene	ND	10.0	1.24	U
488-23-3	1,2,3,4-Tetramethylbenzene	ND	10.0	1.07	U
98-19-1	1,3-Dimethyl-5-tert-Butylbenzene	ND	10.0	1.42	U
112-40-3	Dodecane (C12)	ND	25.0	3.28	U
102-25-0	1,3,5-Triethylbenzene	ND	10.0	1.90	U
91-20-3	Naphthalene	ND	10.0	4.18	U
95-15-8	Benzothiophene	ND	10.0	5.28	U
877-44-1	1,2,4-Triethylbenzene	ND	10.0	1.70	U
1077-16-3	Hexylbenzene	ND	10.0	1.92	U
12108-13-3	MMT	ND	25.0	6.43	U
629-50-5	Tridecane	ND	25.0	6.96	U
91-57-6	2-Methylnaphthalene	ND	25.0	6.61	U
90-12-0	1-Methylnaphthalene	ND	25.0	7.34	U
629-59-4	Tetradecane (C14)	ND	25.0	3.06	U
629-62-9	Pentadecane	ND	25.0	5.58	U

Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : WG1774659-7	Date Collected : 04/17/23 09:30
Client ID : MW2112-041723-NAPLDUP	Date Received : 04/18/23
Sample Location :	Date Analyzed : 05/04/23 00:48
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004618	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : 100
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
563-45-1	3-Methyl-1-butene	ND	9.40	1.40	U
78-78-4	Isopentane	ND	9.40	1.72	U
109-67-1	1-Pentene	ND	9.40	1.72	U
563-46-2	2-Methyl-1-Butene	ND	9.40	1.46	U
109-66-0	Pentane	ND	9.40	2.93	U
646-04-8	trans-2-Pentene	ND	9.40	1.27	U
78-79-5	Isoprene	ND	9.40	1.68	U
627-20-3	cis-2-Pentene	ND	9.40	1.51	U
75-65-0	Tertiary Butanol	ND	117	15.2	U
75-83-2	2,2-Dimethylbutane	ND	9.40	2.90	U
691-37-2	4-Methyl-1-pentene	ND	9.40	1.46	U
287-92-3	Cyclopentane	ND	9.40	2.44	U
79-29-8	2,3-Dimethylbutane	ND	9.40	3.88	U
107-83-5	2-Methylpentane	ND	9.40	2.55	U
1634-04-4	Methyl tert butyl ether	ND	9.40	1.94	U
96-14-0	3-Methylpentane	ND	9.40	1.49	U
592-41-6	1-Hexene	ND	9.40	1.32	U
110-54-3	n-Hexane	ND	9.40	1.55	U
108-20-3	Isopropyl Ether	ND	9.40	1.14	U
4050-45-7	trans-2-Hexene	ND	9.40	1.23	U
625-27-4	2-Methyl-2-pentene	ND	9.40	1.44	U
7688-21-3	cis-2-Hexene	ND	9.40	1.27	U
637-92-3	Ethyl-Tert-Butyl-Ether	ND	9.40	1.42	U
590-35-2	2,2-Dimethylpentane	ND	9.40	1.26	U
96-37-7	Methylcyclopentane	ND	9.40	1.26	U



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : WG1774659-7	Date Collected : 04/17/23 09:30
Client ID : MW2112-041723-NAPLDUP	Date Received : 04/18/23
Sample Location :	Date Analyzed : 05/04/23 00:48
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004618	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : 100
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
108-08-7	2,4-Dimethylpentane	ND	9.40	1.16	U
464-06-2	2,2,3-Trimethylbutane	ND	9.40	1.27	U
107-06-2	1,2-Dichloroethane	ND	9.40	1.39	U
562-49-2	3,3-Dimethylpentane	ND	9.40	1.75	U
110-82-7	Cyclohexane	ND	9.40	1.16	U
591-76-4	2-Methylhexane	ND	9.40	1.48	U
71-43-2	Benzene	2.82	9.40	1.43	J
565-59-3	2,3-Dimethylpentane	ND	9.40	1.24	U
110-02-1	Thiophene	ND	9.40	1.33	U
1638-26-2	1,1-Dimethylcyclopentane	ND	9.40	1.13	U
589-34-4	3-Methylhexane	ND	9.40	1.50	U
994-05-8	Tertiary-Amyl Methyl Ether	ND	9.40	1.16	U
2532-58-3	1,3-Dimethylcyclopentane (cis)	ND	9.40	1.41	U
617-78-7	3-Ethylpentane	ND	9.40	1.36	U
592-76-7/822-50-4	1-Heptene/1,2-DMCP (trans)	ND	18.8	2.75	U
540-84-1	Isooctane	ND	9.40	1.02	U
14686-14-7	trans-3-Heptene	ND	9.40	1.46	U
142-82-5	Heptane	ND	9.40	1.64	U
14686-13-6	trans-2-Heptene	ND	9.40	1.20	U
6443-92-1	cis-2-Heptene	ND	9.40	1.82	U
590-73-8	2,2-Dimethylhexane	ND	9.40	1.36	U
108-87-2	Methylcyclohexane	3.47	9.40	1.27	J
592-13-2	2,5-Dimethylhexane	ND	9.40	1.64	U
589-43-5	2,4-Dimethylhexane	ND	9.40	1.14	U
1640-89-7	Ethylcyclopentane	ND	9.40	1.24	U



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : WG1774659-7	Date Collected : 04/17/23 09:30
Client ID : MW2112-041723-NAPLDUP	Date Received : 04/18/23
Sample Location :	Date Analyzed : 05/04/23 00:48
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004618	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : 100
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
564-02-3	2,2,3-Trimethylpentane	ND	9.40	1.63	U
565-75-3	2,3,4-Trimethylpentane	2.00	9.40	1.23	J
560-21-4	2,3,3-Trimethylpentane	1.98	9.40	1.86	J
584-94-1	2,3-Dimethylhexane	ND	9.40	2.28	U
592-27-8	2-Methylheptane	3.84	9.40	1.59	J
589-53-7	4-Methylheptane	ND	9.40	1.62	U
589-81-1	3-Methylheptane	ND	9.40	1.34	U
619-99-8	3-Ethylhexane	ND	9.40	1.68	U
108-88-3	Toluene	ND	9.40	1.27	U
554-14-3	2-Methylthiophene	ND	9.40	0.799	U
2207-04-7	1,4-Dimethylcyclohexane (trans)	11.6	9.40	1.22	
616-44-4	3-Methylthiophene	ND	9.40	1.10	U
111-66-0	1-Octene	ND	23.5	1.44	U
111-65-9	Octane	ND	9.40	1.10	U
6876-23-9	1,2-Dimethylcyclohexane (trans)	22.3	9.40	1.38	
106-93-4	1,2-Dibromoethane	ND	9.40	1.50	U
7642-04-8	cis-2-Octene	ND	9.40	1.08	U
3875-51-2	Isopropylcyclopentane	ND	9.40	1.38	U
2207-01-4	1,2-Dimethylcyclohexane (cis)	15.6	9.40	2.73	
2216-30-0	2,5-Dimethylheptane	8.33	9.40	1.57	J
926-82-9	3,5-Dimethylheptane	2.91	9.40	1.32	J
4032-86-4	3,3-Dimethylheptane	1.24	9.40	1.14	J
7094-27-1	1,1,4-Trimethylcyclohexane	ND	9.40	0.935	U
3074-71-3	2,3-Dimethylheptane	26.4	9.40	1.07	
922-28-1	3,4-Dimethylheptane	10.5	9.40	1.60	



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : WG1774659-7	Date Collected : 04/17/23 09:30
Client ID : MW2112-041723-NAPLDUP	Date Received : 04/18/23
Sample Location :	Date Analyzed : 05/04/23 00:48
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004618	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : 100
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
2216-34-4	4-Methyloctane	7.50	9.40	1.57	J
3221-61-2	2-Methyloctane	5.79	9.40	2.41	J
100-41-4	Ethylbenzene	ND	9.40	1.02	U
872-55-9	2-Ethylthiophene	ND	9.40	0.827	U
2216-33-3	3-Methyloctane	17.3	9.40	1.05	
1067-20-5	3,3-Diethylpentane	ND	9.40	1.09	U
179601-23-1	p/m-Xylene	2.25	18.8	1.79	J
124-11-8	1-Nonene	ND	23.5	1.27	U
20063-92-7	trans-3-Nonene	ND	9.40	1.11	U
20237-46-1	cis-3-Nonene	ND	9.40	1.76	U
111-84-2	Nonane (C9)	ND	9.40	1.46	U
100-42-5	Styrene	ND	9.40	0.949	U
95-47-6	o-Xylene	2.34	9.40	0.982	J
1330-20-7	Xylene (Total)	4.59	9.40	0.982	J
6434-77-1	2-Nonene	ND	23.5	1.19	U
696-29-7	Isopropylcyclohexane	ND	9.40	0.996	U
98-82-8	Isopropylbenzene	14.7	9.40	0.879	
4110-44-5	3,3-Dimethyloctane	6.79	9.40	0.949	J
103-65-1	n-Propylbenzene	7.38	9.40	0.832	J
871-83-0	2-Methylnonane	ND	9.40	1.33	U
5911-04-6	3-Methylnonane	10.0	9.40	1.31	
620-14-4	1-Methyl-3-Ethylbenzene	ND	9.40	1.48	U
622-96-8	1-Methyl-4-Ethylbenzene	ND	9.40	1.32	U
108-67-8	1,3,5-Trimethylbenzene	1.56	9.40	1.08	J
872-05-9	1-Decene	ND	9.40	1.22	U



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : WG1774659-7	Date Collected : 04/17/23 09:30
Client ID : MW2112-041723-NAPLDUP	Date Received : 04/18/23
Sample Location :	Date Analyzed : 05/04/23 00:48
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004618	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : 100
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
1678-98-4	Isobutylcyclohexane	ND	9.40	0.766	U
611-14-3	1-Methyl-2-Ethylbenzene	7.31	9.40	0.799	J
124-18-5	Decane (C10)	ND	9.40	1.27	U
98-06-6	tert-Butylbenzene	2.84	9.40	0.992	J
95-63-6	1,2,4-Trimethylbenzene	1.25	9.40	0.973	J
538-93-2	Isobutylbenzene	10.6	9.40	1.27	
135-98-8	sec-Butylbenzene	20.2	9.40	1.22	
535-77-3	1-Methyl-3-Isopropylbenzene	ND	9.40	1.21	U
99-87-6	1-Methyl-4-Isopropylbenzene	ND	9.40	0.996	U
526-73-8	1,2,3-Trimethylbenzene	ND	9.40	1.05	U
527-84-4	1-Methyl-2-Isopropylbenzene	6.96	9.40	1.02	J
496-11-7	Indane	9.73	9.40	0.578	
141-93-5	1,3-Diethylbenzene	33.1	9.40	1.17	
1074-43-7	1-Methyl-3-N-Propylbenzene	ND	9.40	0.949	U
95-13-6	Indene	2.42	9.40	0.545	J
1074-55-1	1-Methyl-4-N-Propylbenzene	5.14	9.40	1.17	J
104-51-8	n-Butylbenzene	19.3	9.40	0.926	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND	9.40	1.15	U
135-01-3	1,2-Diethylbenzene	22.7	9.40	1.39	
1074-17-5	1-Methyl-2-N-Propylbenzene	1.42	9.40	1.17	J
1758-88-9	1,4-Dimethyl-2-Ethylbenzene	ND	9.40	0.879	U
1120-21-4	Undecane	40.5	9.40	1.04	
874-41-9	1,3-Dimethyl-4-Ethylbenzene	ND	9.40	0.912	U
934-74-7	1,3-Dimethyl-5-Ethylbenzene	37.0	9.40	1.11	
2870-04-4	1,3-Dimethyl-2-Ethylbenzene	25.3	9.40	0.700	



Results Summary

Form 1

PIANO Volatile Organics by GC/MS

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Lab ID : WG1774659-7	Date Collected : 04/17/23 09:30
Client ID : MW2112-041723-NAPLDUP	Date Received : 04/18/23
Sample Location :	Date Analyzed : 05/04/23 00:48
Sample Matrix : OIL	Dilution Factor : 1
Analytical Method : 1,8260D	Analyst : RAY
Lab File ID : V9004618	Instrument ID : VOA9
Sample Amount : 0.1 g	GC Column : DB-VRX
Level : LOW	%Solids : 100
Extract Volume (MeOH) : NA	Injection Volume : 0.100 ml
Comments :	

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
933-98-2	1,2-Dimethyl-3-Ethylbenzene	ND	9.40	0.597	U
95-93-2	1,2,4,5-Tetramethylbenzene	137	9.40	0.728	
527-53-7	1,2,3,5-Tetramethylbenzene	ND	9.40	0.714	U
538-68-1	N-Pentylbenzene	12.7	9.40	1.17	
488-23-3	1,2,3,4-Tetramethylbenzene	ND	9.40	1.00	U
98-19-1	1,3-Dimethyl-5-tert-Butylbenzene	ND	9.40	1.34	U
112-40-3	Dodecane (C12)	ND	23.5	3.09	U
102-25-0	1,3,5-Triethylbenzene	ND	9.40	1.78	U
91-20-3	Naphthalene	11.6	9.40	3.92	
95-15-8	Benzothiophene	ND	9.40	4.97	U
877-44-1	1,2,4-Triethylbenzene	ND	9.40	1.60	U
1077-16-3	Hexylbenzene	ND	9.40	1.81	U
12108-13-3	MMT	ND	23.5	6.04	U
629-50-5	Tridecane	46.7	23.5	6.55	
91-57-6	2-Methylnaphthalene	ND	23.5	6.21	U
90-12-0	1-Methylnaphthalene	ND	23.5	6.90	U
629-59-4	Tetradecane (C14)	ND	23.5	2.88	U
629-62-9	Pentadecane	ND	23.5	5.24	U

Surrogate Recovery Summary

Form 2

Volatiles

Client: Anchor QEA, LLC
 Project Name: GASCO HYDROCARBON INVESTIGATION

Lab Number: L2320537
 Project Number: 000029-02.78 T12A
 Matrix: Oil

CLIENT ID (LAB SAMPLE NO.)	S1 (DBFM)	S2 (TOL)	S3 (BFB)	S4 ()	S5 ()	S6 ()	TOT OUT
MW2112-041723-NAPL (L2320537-01)	123	109	86	--	--	--	0
WG1774659-3LCS	102	104	96	--	--	--	0
WG1774659-4LCSD	102	104	96	--	--	--	0
WG1774659-6BLANK	104	103	93	--	--	--	0
MW2112-041723-NAPLDUP	123	110	85	--	--	--	0

QC LIMITS

(70-130) DBFM = DIBROMOFLUOROMETHANE

(70-130) TOL = TOLUENE-D8

(70-130) BFB = 4-BROMOFLUOROBENZENE

* Values outside of QC limits

FORM II A2-PIANO8260



Lab Duplicate Sample Summary

Form 3

Volatiles

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Client Sample ID	: MW2112-041723-NAPL	Matrix (Level)	: OIL (LOW)
Lab Sample ID	: L2320537-01	Analysis Date	: 05/03/23 23:36
Lab File ID	: V9004617	DUP File ID	: V9004618
Dup Sample ID	: WG1774659-7	DUP Analysis Date	: 05/04/23 00:48

Parameter	Sample Concentration (mg/kg)	Duplicate Concentration (mg/kg)	RPD	RPD Limit
3-Methyl-1-butene	ND	ND	NC	30
Isopentane	ND	ND	NC	30
1-Pentene	ND	ND	NC	30
2-Methyl-1-Butene	ND	ND	NC	30
Pentane	ND	ND	NC	30
trans-2-Pentene	ND	ND	NC	30
Isoprene	ND	ND	NC	30
cis-2-Pentene	ND	ND	NC	30
Tertiary Butanol	ND	ND	NC	30
2,2-Dimethylbutane	ND	ND	NC	30
4-Methyl-1-pentene	ND	ND	NC	30
Cyclopentane	ND	ND	NC	30
2,3-Dimethylbutane	ND	ND	NC	30
2-Methylpentane	ND	ND	NC	30
Methyl tert butyl ether	ND	ND	NC	30
3-Methylpentane	ND	ND	NC	30
1-Hexene	ND	ND	NC	30
n-Hexane	ND	ND	NC	30
Isopropyl Ether	ND	ND	NC	30
trans-2-Hexene	ND	ND	NC	30
2-Methyl-2-pentene	ND	ND	NC	30
cis-2-Hexene	ND	ND	NC	30
Ethyl-Tert-Butyl-Ether	ND	ND	NC	30
2,2-Dimethylpentane	ND	ND	NC	30
Methylcyclopentane	ND	ND	NC	30

Lab Duplicate Sample Summary

Form 3

Volatiles

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Client Sample ID	: MW2112-041723-NAPL	Matrix (Level)	: OIL (LOW)
Lab Sample ID	: L2320537-01	Analysis Date	: 05/03/23 23:36
Lab File ID	: V9004617	DUP File ID	: V9004618
Dup Sample ID	: WG1774659-7	DUP Analysis Date	: 05/04/23 00:48

Parameter	Sample Concentration (mg/kg)	Duplicate Concentration (mg/kg)	RPD	RPD Limit
2,4-Dimethylpentane	ND	ND	NC	30
2,2,3-Trimethylbutane	ND	ND	NC	30
1,2-Dichloroethane	ND	ND	NC	30
3,3-Dimethylpentane	ND	ND	NC	30
Cyclohexane	ND	ND	NC	30
2-Methylhexane	ND	ND	NC	30
Benzene	2.84J	2.82J	NC	30
2,3-Dimethylpentane	ND	ND	NC	30
Thiophene	ND	ND	NC	30
1,1-Dimethylcyclopentane	ND	ND	NC	30
3-Methylhexane	ND	ND	NC	30
Tertiary-Amyl Methyl Ether	ND	ND	NC	30
1,3-Dimethylcyclopentane (cis)	ND	ND	NC	30
3-Ethylpentane	ND	ND	NC	30
1-Heptene/1,2-DMCP (trans)	ND	ND	NC	30
Isooctane	ND	ND	NC	30
trans-3-Heptene	ND	ND	NC	30
Heptane	ND	ND	NC	30
trans-2-Heptene	ND	ND	NC	30
cis-2-Heptene	ND	ND	NC	30
2,2-Dimethylhexane	ND	ND	NC	30
Methylcyclohexane	3.92J	3.47J	NC	30
2,5-Dimethylhexane	ND	ND	NC	30
2,4-Dimethylhexane	ND	ND	NC	30
Ethylcyclopentane	ND	ND	NC	30

Lab Duplicate Sample Summary

Form 3

Volatiles

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Client Sample ID	: MW2112-041723-NAPL	Matrix (Level)	: OIL (LOW)
Lab Sample ID	: L2320537-01	Analysis Date	: 05/03/23 23:36
Lab File ID	: V9004617	DUP File ID	: V9004618
Dup Sample ID	: WG1774659-7	DUP Analysis Date	: 05/04/23 00:48

Parameter	Sample Concentration (mg/kg)	Duplicate Concentration (mg/kg)	RPD	RPD Limit
2,2,3-Trimethylpentane	ND	ND	NC	30
2,3,4-Trimethylpentane	2.12J	2.00J	NC	30
2,3,3-Trimethylpentane	2.11J	1.98J	NC	30
2,3-Dimethylhexane	ND	ND	NC	30
2-Methylheptane	3.61J	3.84J	NC	30
4-Methylheptane	ND	ND	NC	30
3-Methylheptane	ND	ND	NC	30
3-Ethylhexane	ND	ND	NC	30
Toluene	ND	ND	NC	30
2-Methylthiophene	ND	ND	NC	30
1,4-Dimethylcyclohexane (trans)	9.60	11.6	19	30
3-Methylthiophene	ND	ND	NC	30
1-Octene	ND	ND	NC	30
Octane	ND	ND	NC	30
1,2-Dimethylcyclohexane (trans)	21.3	22.3	5	30
1,2-Dibromoethane	ND	ND	NC	30
cis-2-Octene	ND	ND	NC	30
Isopropylcyclopentane	ND	ND	NC	30
1,2-Dimethylcyclohexane (cis)	15.2	15.6	3	30
2,5-Dimethylheptane	8.06J	8.33J	NC	30
3,5-Dimethylheptane	3.02J	2.91J	NC	30
3,3-Dimethylheptane	1.27J	1.24J	NC	30
1,1,4-Trimethylcyclohexane	ND	ND	NC	30
2,3-Dimethylheptane	24.3	26.4	8	30
3,4-Dimethylheptane	10.2	10.5	3	30



Lab Duplicate Sample Summary

Form 3

Volatiles

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Client Sample ID	: MW2112-041723-NAPL	Matrix (Level)	: OIL (LOW)
Lab Sample ID	: L2320537-01	Analysis Date	: 05/03/23 23:36
Lab File ID	: V9004617	DUP File ID	: V9004618
Dup Sample ID	: WG1774659-7	DUP Analysis Date	: 05/04/23 00:48

Parameter	Sample Concentration (mg/kg)	Duplicate Concentration (mg/kg)	RPD	RPD Limit
4-Methyloctane	6.52J	7.50J	NC	30
2-Methyloctane	6.80J	5.79J	NC	30
Ethylbenzene	ND	ND	NC	30
2-Ethylthiophene	ND	ND	NC	30
3-Methyloctane	16.9	17.3	2	30
3,3-Diethylpentane	ND	ND	NC	30
p/m-Xylene	2.68J	2.25J	NC	30
1-Nonene	ND	ND	NC	30
trans-3-Nonene	ND	ND	NC	30
cis-3-Nonene	ND	ND	NC	30
Nonane (C9)	ND	ND	NC	30
Styrene	ND	ND	NC	30
o-Xylene	2.51J	2.34J	NC	30
Xylene (Total)	5.19J	4.59J	NC	30
2-Nonene	ND	ND	NC	30
Isopropylcyclohexane	ND	ND	NC	30
Isopropylbenzene	14.7	14.7	0	30
3,3-Dimethyloctane	6.24J	6.79J	NC	30
n-Propylbenzene	7.69J	7.38J	NC	30
2-Methylnonane	ND	ND	NC	30
3-Methylnonane	14.4	10.0	36 Q	30
1-Methyl-3-Ethylbenzene	ND	ND	NC	30
1-Methyl-4-Ethylbenzene	ND	ND	NC	30
1,3,5-Trimethylbenzene	1.62J	1.56J	NC	30
1-Decene	ND	ND	NC	30

Lab Duplicate Sample Summary

Form 3

Volatiles

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Client Sample ID	: MW2112-041723-NAPL	Matrix (Level)	: OIL (LOW)
Lab Sample ID	: L2320537-01	Analysis Date	: 05/03/23 23:36
Lab File ID	: V9004617	DUP File ID	: V9004618
Dup Sample ID	: WG1774659-7	DUP Analysis Date	: 05/04/23 00:48

Parameter	Sample Concentration (mg/kg)	Duplicate Concentration (mg/kg)	RPD	RPD Limit
Isobutylcyclohexane	ND	ND	NC	30
1-Methyl-2-Ethylbenzene	7.76J	7.31J	NC	30
Decane (C10)	10.7	ND	NC	30
tert-Butylbenzene	2.74J	2.84J	NC	30
1,2,4-Trimethylbenzene	2.60J	1.25J	NC	30
Isobutylbenzene	11.4	10.6	7	30
sec-Butylbenzene	21.3	20.2	5	30
1-Methyl-3-Isopropylbenzene	ND	ND	NC	30
1-Methyl-4-Isopropylbenzene	ND	ND	NC	30
1,2,3-Trimethylbenzene	ND	ND	NC	30
1-Methyl-2-Isopropylbenzene	7.04J	6.96J	NC	30
Indane	9.89	9.73	2	30
1,3-Diethylbenzene	35.0	33.1	6	30
1-Methyl-3-N-Propylbenzene	ND	ND	NC	30
Indene	2.31J	2.42J	NC	30
1-Methyl-4-N-Propylbenzene	5.65J	5.14J	NC	30
n-Butylbenzene	20.6	19.3	7	30
1,2-Dimethyl-4-Ethylbenzene	ND	ND	NC	30
1,2-Diethylbenzene	23.8	22.7	5	30
1-Methyl-2-N-Propylbenzene	ND	1.42J	NC	30
1,4-Dimethyl-2-Ethylbenzene	ND	ND	NC	30
Undecane	45.0	40.5	11	30
1,3-Dimethyl-4-Ethylbenzene	ND	ND	NC	30
1,3-Dimethyl-5-Ethylbenzene	41.3	37.0	11	30
1,3-Dimethyl-2-Ethylbenzene	28.0	25.3	10	30

Lab Duplicate Sample Summary

Form 3

Volatiles

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Client Sample ID	: MW2112-041723-NAPL	Matrix (Level)	: OIL (LOW)
Lab Sample ID	: L2320537-01	Analysis Date	: 05/03/23 23:36
Lab File ID	: V9004617	DUP File ID	: V9004618
Dup Sample ID	: WG1774659-7	DUP Analysis Date	: 05/04/23 00:48

Parameter	Sample Concentration (mg/kg)	Duplicate Concentration (mg/kg)	RPD	RPD Limit
1,2-Dimethyl-3-Ethylbenzene	ND	ND	NC	30
1,2,4,5-Tetramethylbenzene	154	137	12	30
1,2,3,5-Tetramethylbenzene	ND	ND	NC	30
N-Pentylbenzene	15.1	12.7	17	30
1,2,3,4-Tetramethylbenzene	ND	ND	NC	30
1,3-Dimethyl-5-tert-Butylbenzene	ND	ND	NC	30
Dodecane (C12)	ND	ND	NC	30
1,3,5-Triethylbenzene	ND	ND	NC	30
Naphthalene	13.3	11.6	14	30
Benzothiophene	ND	ND	NC	30
1,2,4-Triethylbenzene	25.2	ND	NC	30
Hexylbenzene	ND	ND	NC	30
MMT	ND	ND	NC	30
Tridecane	47.6	46.7	2	30
2-Methylnaphthalene	ND	ND	NC	30
1-Methylnaphthalene	ND	ND	NC	30
Tetradecane (C14)	ND	ND	NC	30
Pentadecane	ND	ND	NC	30

Laboratory Control Sample Summary

Form 3

Volatiles

Client : Anchor QEA, LLC Lab Number : L2320537
 Project Name : GASCO HYDROCARBON INVESTIGATION Project Number : 000029-02.78 T12A
 Matrix (Level) : OIL (LOW)
 LCS Sample ID : WG1774659-3 Analysis Date : 05/02/23 13:42 File ID : V9004592
 LCSD Sample ID : WG1774659-4 Analysis Date : 05/02/23 14:55 File ID : V9004593

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (mg/kg)	Found (mg/kg)	%R	True (mg/kg)	Found (mg/kg)	%R			
1-Pentene	100	76.3	76	100	78.8	79	4	50-130	30
Pentane	100	81.8	82	100	84.8	85	4	50-130	30
Tertiary Butanol	500	421	84	500	426	85	1	50-130	30
Cyclopentane	100	85.9	86	100	88.9	89	3	50-130	30
2-Methylpentane	100	88.7	89	100	92.3	92	3	50-130	30
Methyl tert butyl ether	100	80.3	80	100	85.0	85	6	50-130	30
3-Methylpentane	100	92.7	93	100	95.8	96	3	50-130	30
1-Hexene	100	93.1	93	100	96.8	97	4	50-130	30
n-Hexane	100	84.1	84	100	86.5	86	2	50-130	30
Isopropyl Ether	100	84.3	84	100	88.5	88	5	50-130	30
Ethyl-Tert-Butyl-Ether	100	83.8	84	100	87.4	87	4	50-130	30
Methylcyclopentane	100	91.1	91	100	92.5	92	1	50-130	30
2,4-Dimethylpentane	100	90.1	90	100	95.1	95	5	50-130	30
Cyclohexane	100	92.9	93	100	96.7	97	4	50-130	30
2-Methylhexane	100	92.0	92	100	93.8	94	2	50-130	30
Benzene	100	91.4	91	100	93.5	94	3	50-130	30
2,3-Dimethylpentane	100	90.6	91	100	93.8	94	3	50-130	30
3-Methylhexane	100	81.5	82	100	82.0	82	0	50-130	30
Tertiary-Amyl Methyl Ether	100	80.0	80	100	82.1	82	2	50-130	30
Isooctane	100	88.6	89	100	91.5	92	3	50-130	30
Heptane	100	92.1	92	100	94.7	95	3	50-130	30
Methylcyclohexane	100	90.7	91	100	93.4	93	2	50-130	30
2-Methylheptane	100	90.6	91	100	92.3	92	1	50-130	30
3-Methylheptane	100	87.3	87	100	89.6	90	3	50-130	30
Toluene	100	90.8	91	100	92.9	93	2	50-130	30
Octane	100	89.0	89	100	90.5	90	1	50-130	30



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Anchor QEA, LLC Lab Number : L2320537
 Project Name : GASCO HYDROCARBON INVESTIGATION Project Number : 000029-02.78 T12A
 Matrix (Level) : OIL (LOW)
 LCS Sample ID : WG1774659-3 Analysis Date : 05/02/23 13:42 File ID : V9004592
 LCSD Sample ID : WG1774659-4 Analysis Date : 05/02/23 14:55 File ID : V9004593

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (mg/kg)	Found (mg/kg)	%R	True (mg/kg)	Found (mg/kg)	%R			
Ethylbenzene	100	87.0	87	100	88.9	89	2	50-130	30
p/m-Xylene	200	180	90	200	184	92	2	50-130	30
Nonane (C9)	100	82.0	82	100	83.8	84	2	50-130	30
o-Xylene	100	89.3	89	100	91.2	91	2	50-130	30
Isopropylbenzene	100	89.4	89	100	91.4	91	2	50-130	30
n-Propylbenzene	100	90.8	91	100	92.3	92	1	50-130	30
1-Methyl-3-Ethylbenzene	100	88.5	88	100	90.3	90	2	50-130	30
1-Methyl-4-Ethylbenzene	100	91.6	92	100	94.6	95	3	50-130	30
1,3,5-Trimethylbenzene	100	90.4	90	100	92.7	93	3	50-130	30
1-Decene	100	71.9	72	100	73.8	74	3	50-130	30
1-Methyl-2-Ethylbenzene	100	90.8	91	100	92.4	92	1	50-130	30
Decane (C10)	100	84.4	84	100	87.9	88	5	50-130	30
1,2,4-Trimethylbenzene	100	84.6	85	100	86.6	87	2	50-130	30
sec-Butylbenzene	100	92.2	92	100	94.6	95	3	50-130	30
1-Methyl-4-N-Propylbenzene	100	84.5	84	100	86.2	86	2	50-130	30
n-Butylbenzene	100	85.9	86	100	88.1	88	2	50-130	30
1,2-Diethylbenzene	100	84.7	85	100	87.6	88	3	50-130	30
Undecane	100	84.7	85	100	87.2	87	2	50-130	30
N-Pentylbenzene	100	84.3	84	100	86.3	86	2	50-130	30
Dodecane (C12)	100	97.1	97	100	100	100	3	50-130	30



LD7 Sample Summary

Form 3

Volatiles

Client : Anchor QEA, LLC Lab Number : L2320537
 Project Name : GASCO HYDROCARBON INVESTIGATION Project Number : 000029-02.78 T12A
 Matrix : NA
 Lab Sample ID : WG1774659-5 Analysis Date : 05/02/23 16:07 File ID : V9004594

Parameter	True (mg/kg)	Found (mg/kg)	%R	Recovery Limits
Isopentane	31200	30600	98	65-135
Pentane	26700	24700	92	65-135
Cyclopentane	4090	3930	96	65-135
2,3-Dimethylbutane	8480	7670	90	65-135
2-Methylpentane	33700	30200	90	65-135
3-Methylpentane	20700	19000	92	65-135
Hexane	31200	29300	94	65-135
2,2-Dimethylpentane	3930	3600	92	65-135
Methylcyclopentane	27400	25700	94	65-135
2,4-Dimethylpentane	5650	5130	91	65-135
Cyclohexane	44300	44600	100	65-135
2-Methylhexane	19900	18200	92	65-135
Benzene	3410	3360	99	65-135
2,3-Dimethylpentane	7330	7040	96	65-135
3-Methylhexane	19900	16800	84	65-135
1-Heptene/1,2-DMCP (trans)	13400	12200	91	65-135
Isooctane	12800	11800	92	65-135
Heptane	33700	30600	91	65-135
Methylcyclohexane	99600	91100	92	65-135
2,5-Dimethylhexane	4910	4580	93	65-135
2,4-Dimethylhexane	6200	5820	94	65-135
2,3,4-Trimethylpentane	4890	4330	88	65-135
2,3,3-Trimethylpentane	3110	2790	90	65-135
2,3-Dimethylhexane	4700	4310	92	65-135
2-Methylheptane	17000	16400	97	65-135
3-Methylheptane	13900	11800	85	65-135



LD7 Sample Summary

Form 3

Volatiles

Client : Anchor QEA, LLC Lab Number : L2320537
 Project Name : GASCO HYDROCARBON INVESTIGATION Project Number : 000029-02.78 T12A
 Matrix : NA
 Lab Sample ID : WG1774659-5 Analysis Date : 05/02/23 16:07 File ID : V9004594

Parameter	True (mg/kg)	Found (mg/kg)	%R	Recovery Limits
3-Ethylhexane	2160	2340	108	65-135
Toluene	2400	2080	87	65-135
n-octane	31800	29600	93	65-135
Ethylbenzene	5610	4930	88	65-135
p/m-Xylene	17200	15400	89	65-135
n-Nonane (C9)	23100	24100	104	65-135
o-Xylene	7080	6140	87	65-135
Isopropylbenzene	1180	1040	88	65-135
n-Propylbenzene	1560	1400	90	65-135
1-Methyl-3-Ethylbenzene	4710	3930	83	65-135
1-Methyl-4-Ethylbenzene	2070	1830	88	65-135
1,3,5-Trimethylbenzene	4980	4280	86	65-135
1-Methyl-2-Ethylbenzene	1840	1570	85	65-135
Decane	14800	11900	80	65-135
1,2,4-Trimethylbenzene	9410	8020	85	65-135
1-Methyl-3-N-Propylbenzene	1260	1080	86	65-135
1,2-Dimethyl-4-ethylbenzene	1560	1220	78	65-135
undecane	3950	3440	87	65-135
1,3-Dimethyl-5-ethylbenzene	1640	1380	84	65-135
1,2,4,5-Tetramethylbenzene	1480	1280	87	65-135
n-dodecane	2440	2080	85	65-135
Naphthalene	7920	7250	92	65-135
2-Methylnaphthalene	7960	7510	94	65-135
1-Methylnaphthalene	4380	3770	86	65-135



Method Blank Summary

Form 4

Volatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Lab Sample ID : WG1774659-6
Instrument ID : VOA9
Matrix : OIL

Lab Number : L2320537
Project Number : 000029-02.78 T12A
Lab File ID : V9004595
Analysis Date : 05/02/23 17:19

Client Sample No.	Lab Sample ID	Analysis Date
WG1774659-3LCS	WG1774659-3	05/02/23 13:42
WG1774659-4LCSD	WG1774659-4	05/02/23 14:55
MW2112-041723-NAPL	L2320537-01	05/03/23 23:36
MW2112-041723-NAPLDUP	WG1774659-7	05/04/23 00:48

Instrument Performance Check (Tune) Summary

Form 5

Volatiles

Bromofluorobenzene (BFB)

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATIO	Project Number	: 000029-02.78 T12A
Instrument ID	: VOA9	Analysis Date	: 04/04/23 23:09
Tune Standard	: WG1762942-1	Tune File ID	: V9004407_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	16
75	30.0 - 60.0% of mass 95	47.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.9 (.9)1
174	Greater than 50.0 of mass 95	99.9
175	5.0 - 9.0% of mass 174	7.4 (7.4)1
176	95.0 - 101% of mass 174	95 (95.1)1
177	5.0 - 9.0% of mass 176	7 (7.4)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
2	R1680348-1	V9004408	04/04/23 23:39
5	R1680348-2	V9004409	04/05/23 00:51
20	R1680348-3	V9004410	04/05/23 02:03
50	R1680348-4	V9004411	04/05/23 03:15
100	R1680348-5	V9004412	04/05/23 04:26
200	R1680348-6	V9004413	04/05/23 05:38
ICV QUANT	R1680348-7	V9004415	04/05/23 08:01

Instrument Performance Check (Tune) Summary

Form 5

Volatiles

Bromofluorobenzene (BFB)

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATIO	Project Number	: 000029-02.78 T12A
Instrument ID	: VOA9	Analysis Date	: 05/02/23 12:01
Tune Standard	: WG1774659-1	Tune File ID	: V9004590_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	16.4
75	30.0 - 60.0% of mass 95	47.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	1 (1)1
174	Greater than 50.0 of mass 95	97.2
175	5.0 - 9.0% of mass 174	7.2 (7.4)1
176	95.0 - 101% of mass 174	93.9 (96.6)1
177	5.0 - 9.0% of mass 176	6.4 (6.8)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1774659-2CCAL	WG1774659-2	V9004591	05/02/23 12:31
WG1774659-3LCS	WG1774659-3	V9004592	05/02/23 13:42
WG1774659-4LCSD	WG1774659-4	V9004593	05/02/23 14:55
WG1774659-5LD7	WG1774659-5	V9004594	05/02/23 16:07
WG1774659-6BLANK	WG1774659-6	V9004595	05/02/23 17:19
WG1774659-9CCAL	WG1774659-9	V9004608	05/03/23 11:15

Instrument Performance Check (Tune) Summary

Form 5

Volatiles

Bromofluorobenzene (BFB)

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02.78 T12A
Instrument ID : VOA9	Analysis Date : 05/03/23 16:53
Tune Standard : WG1774659-10	Tune File ID : V9004612_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	16.2
75	30.0 - 60.0% of mass 95	46.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	1.1 (1.2)1
174	Greater than 50.0 of mass 95	94.9
175	5.0 - 9.0% of mass 174	7.4 (7.8)1
176	95.0 - 101% of mass 174	92.8 (97.8)1
177	5.0 - 9.0% of mass 176	6 (6.4)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1774659-11CCAL	WG1774659-11	V9004613	05/03/23 17:23
MW2112-041723-NAPL	L2320537-01	V9004617	05/03/23 23:36
WG1774659-7DUP	WG1774659-7	V9004618	05/04/23 00:48
WG1774659-13CCAL	WG1774659-13	V9004630	05/04/23 15:17

Initial Calibration Summary

Form 6

Volatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : VOA9
Calibration dates : 04/04/23 23:39 04/05/23 05:38
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19885

Calibration Files

2 =V9004408.D 5 =V9004409.D 50 =V9004411.D 100 =V9004412.D 200 =V9004413.D 20 =V9004410.D

Compound	2	5	50	100	200	20	Avg	%RSD
1) I Chlorobenzene-D5 [IS]	-----ISTD-----							
2) 3-Methyl-1-butene	0.522	0.633	0.550	0.585	0.550	0.583	0.5705	6.79
3) Isopentane	0.219	0.248	0.199	0.210	0.194	0.214	0.2142	8.92
4) 1-Pentene	0.270	0.314	0.268	0.277	0.264	0.277	0.2785	6.59
5) 2-Methyl-1-butene	0.360	0.463	0.400	0.417	0.396	0.406	0.4071	8.25
6) Pentane	0.329	0.413	0.326	0.343	0.321	0.343	0.3458	9.83
7) trans-2-Pentene	0.390	0.509	0.442	0.455	0.434	0.443	0.4455	8.66
8) 2-Methyl-1,3-butadiene	0.264	0.342	0.314	0.329	0.324	0.312	0.3140	8.57
9) cis-2-Pentene	0.364	0.385	0.404	0.424	0.407	0.406	0.3984	5.24
10) Tertiary butanol	0.063	0.068	0.067	0.070	0.063	0.0663	0.0663#	4.42
11) 2,2-Dimethylbutane	0.210	0.224	0.232	0.236	0.228	0.233	0.2270	4.20
12) 4-Methyl-1-pentene	0.244	0.254	0.285	0.289	0.277	0.275	0.2707	6.55
13) Cyclopentane	0.169	0.180	0.187	0.193	0.184	0.190	0.1836	4.70
14) 2,3-Dimethylbutane	0.127	0.135	0.139	0.142	0.135	0.138	0.1359	3.65
15) 2-Methylpentane	0.370	0.375	0.405	0.410	0.391	0.393	0.3905	4.06
16) MTBE	0.705	0.739	0.806	0.807	0.790	0.750	0.7662	5.39
17) 3-Methylpentane	0.363	0.369	0.406	0.412	0.395	0.394	0.3900	5.08
18) 1-Hexene	0.190	0.194	0.231	0.235	0.230	0.217	0.2162	9.08
19) Hexane	0.308	0.325	0.362	0.369	0.355	0.352	0.3452	6.89
20) Diisopropyl ether	0.533	0.561	0.648	0.642	0.626	0.601	0.6018	7.70
21) trans-2-Hexene	0.318	0.350	0.406	0.413	0.407	0.389	0.3804	10.05
22) 2-Methyl-2-pentene	0.360	0.386	0.463	0.471	0.464	0.438	0.4303	10.85
23) cis-2-Hexene	0.282	0.310	0.366	0.372	0.362	0.346	0.3397	10.55
24) S Dibromofluoromethane (surr)	0.289	0.287	0.294	0.294	0.293	0.293	0.2917	0.93
25) Ethyl tertiary butyl ether	0.583	0.627	0.747	0.751	0.741	0.689	0.6897	10.28
26) 2,2-Dimethylpentane	0.424	0.463	0.512	0.521	0.502	0.499	0.4869	7.51
27) Methylcyclopentane	0.383	0.417	0.454	0.456	0.444	0.438	0.4321	6.42
28) 2,4-Dimethylpentane	0.294	0.322	0.373	0.374	0.364	0.350	0.3464	9.23
29) 2,2,3-Trimethylbutane	0.381	0.410	0.465	0.468	0.451	0.443	0.4363	7.81
30) 1,2-Dichloroethane	0.330	0.295	0.341	0.339	0.331	0.320	0.3261	5.15
31) 3,3-Dimethylpentane	0.391	0.401	0.460	0.464	0.448	0.438	0.4335	7.07
32) Cyclohexane	0.316	0.343	0.382	0.381	0.367	0.370	0.3599	7.15
33) 2-Methylhexane	0.326	0.348	0.399	0.402	0.390	0.384	0.3748	8.20
34) M Benzene	1.044	0.983	1.028	1.008	0.981	0.997	1.0067	2.50
35) 2,3-Dimethylpentane	0.317	0.334	0.372	0.372	0.363	0.351	0.3516	6.27
36) Thiophene	0.477	0.515	0.575	0.569	0.557	0.549	0.5402	6.94



Initial Calibration Summary

Form 6

Volatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : VOA9
Calibration dates : 04/04/23 23:39 04/05/23 05:38
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19885

Calibration Files

2 =V9004408.D 5 =V9004409.D 50 =V9004411.D 100 =V9004412.D 200 =V9004413.D 20 =V9004410.D

Compound	2	5	50	100	200	20	Avg	%RSD
37) 1,1-Dimethylcyclopentane	0.215	0.257	0.296	0.297	0.290	0.286	0.2734	11.76
38) 3-Methylhexane	0.310	0.318	0.350	0.350	0.344	0.335	0.3344	5.04
39) TAME	0.907	0.760	0.771	0.775	0.769	0.722	0.7840	8.09
40) cis-1,3-Dimethylcyclopentane	0.242	0.211	0.252	0.260	0.257	0.239	0.2435	7.36
41) 3-Ethylpentane	0.386	0.416	0.453	0.462	0.448	0.440	0.4341	6.56
43) 1-Heptene/trans-1,2-DMCP	0.174	0.175	0.207	0.213	0.213	0.196	0.1964	9.23
44) Isooctane	0.815	0.913	1.011	1.014	1.012	0.971	0.9560	8.28
45) trans-3-Heptene	0.194	0.226	0.276	0.271	0.272	0.241	0.2466	13.24
46) Heptane	0.254	0.289	0.322	0.323	0.320	0.304	0.3021	8.91
48) trans-2-Heptene	0.216	0.236	0.283	0.289	0.288	0.263	0.2625	11.69
49) cis-2-Heptene	0.188	0.205	0.256	0.261	0.260	0.231	0.2337	13.33
50) 2,2-Dimethylhexane	0.726	0.811	0.925	0.929	0.913	0.876	0.8633	9.30
51) Methylcyclohexane	0.363	0.402	0.470	0.478	0.471	0.445	0.4380	10.50
52) 2,5-Dimethylhexane	0.343	0.406	0.460	0.463	0.456	0.437	0.4277	10.91
53) 2,4-Dimethylhexane	0.284	0.314	0.373	0.371	0.367	0.351	0.3433	10.60
54) Ethylcyclopentane	0.320	0.335	0.388	0.389	0.383	0.365	0.3634	8.12
55) 2,2,3-Trimethylpentane	0.623	0.680	0.759	0.755	0.747	0.724	0.7146	7.50
57) 2,3,4-Trimethylpentane	0.388	0.405	0.477	0.479	0.470	0.451	0.4449	8.83
58) 2,3,3-Trimethylpentane	0.333	0.346	0.400	0.399	0.394	0.380	0.3752	7.75
59) 2,3-Dimethylhexane	0.336	0.367	0.429	0.424	0.419	0.400	0.3958	9.39
60) 2-Methylheptane	0.304	0.355	0.423	0.425	0.418	0.396	0.3869	12.54
61) 4-Methylheptane	0.327	0.395	0.468	0.461	0.454	0.440	0.4243	12.78
62) S Toluene-d8 (surr)	1.113	1.104	1.113	1.114	1.118	1.119	1.1137	0.49
63) 3-Methylheptane	0.396	0.364	0.353	0.342	0.342	0.326	0.3540	6.86
64) S 2-Bromo-1-Chloropropane	0.309	0.302	0.378	0.381	0.377	0.349	0.3494	10.28
65) 3-Ethylhexane	0.451	0.475	0.495	0.496	0.479	0.475	0.4783	3.47
66) M Toluene	0.988	1.040	1.142	1.139	1.127	1.087	1.0872	5.71
67) 2-Methylthiophene	0.750	0.793	0.935	0.943	0.944	0.858	0.8704	9.67
68) trans-1,4-Dimethylcyclohexane	0.445	0.500	0.578	0.589	0.585	0.537	0.5391	10.69
69) 3-Methylthiophene	0.748	0.799	0.951	0.957	0.963	0.871	0.8815	10.36
70) 1-Octene	0.139	0.156	0.205	0.207	0.210	0.183	0.1835	16.37
71) Octane	0.294	0.346	0.426	0.423	0.420	0.393	0.3838	13.84
72) trans-1,2-Dimethylcyclohexane	0.269	0.308	0.355	0.356	0.353	0.337	0.3295	10.62
73) 1,2-Dibromoethane	0.234	0.237	0.293	0.300	0.300	0.267	0.2718	11.34
75) cis-2-Octene	0.190	0.233	0.306	0.314	0.308	0.273	0.2707	18.51
76) Isopropylcyclopentane	0.341	0.388	0.443	0.458	0.455	0.420	0.4176	10.95



Initial Calibration Summary

Form 6

Volatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : VOA9
Calibration dates : 04/04/23 23:39 04/05/23 05:38
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19885

Calibration Files

2 =V9004408.D 5 =V9004409.D 50 =V9004411.D 100 =V9004412.D 200 =V9004413.D 20 =V9004410.D

Compound	2	5	50	100	200	20	Avg	%RSD
77) cis-1,2-Dimethylcyclohexane	0.256	0.293	0.348	0.350	0.350	0.319	0.3193	12.05
78) 2,5-Dimethylheptane	0.418	0.494	0.628	0.662	0.648	0.595	0.5742	16.94
79) 3,5-Dimethylheptane	0.492	0.658	0.776	0.755	0.762	0.742	0.6975	15.61
80) 3,3-Dimethylheptane	0.343	0.399	0.492	0.485	0.486	0.456	0.4437	13.55
81) 1,1,4-Trimethylcyclohexane	0.345	0.399	0.483	0.480	0.485	0.454	0.4411	12.95
82) 2,3-Dimethylheptane	0.359	0.419	0.506	0.499	0.497	0.468	0.4578	12.70
83) 3,4-Dimethylheptane	0.249	0.284	0.325	0.319	0.316	0.302	0.2991	9.48
84) 4-Methyloctane	0.349	0.412	0.508	0.493	0.502	0.470	0.4554	13.80
85) 2-Methyloctane	0.317	0.354	0.451	0.448	0.440	0.425	0.4058	13.94
86) Ethylbenzene	1.010	1.135	1.348	1.340	1.344	1.243	1.2368	11.22
87) S 1-Chloro-2-Fluorobenzene	0.614	0.651	0.743	0.745	0.749	0.700	0.7004	8.08
88) 2-Ethylthiophene	0.728	0.830	1.026	1.037	1.046	0.947	0.9358	13.91
89) 3-Methyloctane	0.570	0.703	0.863	0.860	0.875	0.800	0.7783	15.49
90) 3,3-Diethylpentane	0.664	0.760	0.937	0.934	0.947	0.860	0.8504	13.60
91) p/m-Xylene	0.766	0.865	1.056	1.061	1.067	0.977	0.9652	12.91
92) 1-Nonene	0.127	0.148	0.217	0.223	0.233	0.187	0.1892	23.04
93) trans-3-Nonene	0.174	0.237	0.320	0.321	0.332	0.285	0.2781	22.25
94) cis-3-Nonene	0.215	0.279	0.358	0.365	0.378	0.322	0.3196	19.58
95) Nonane	0.256	0.340	0.440	0.439	0.446	0.415	0.3893	19.62
96) Styrene	0.546	0.657	0.895	0.920	0.940	0.788	0.7909	20.22
97) S 1,4-Dichlorobutane (H/surr)	0.345	0.319	0.406	0.410	0.420	0.364	0.3772	10.85
98) o-Xylene	0.814	0.911	1.092	1.095	1.100	0.995	1.0012	11.84
99) 2-Nonene	0.194	0.239	0.329	0.330	0.341	0.287	0.2866	20.51
100) Isopropylcyclohexane	0.337	0.388	0.498	0.502	0.517	0.454	0.4492	16.06
101) S 4-Bromofluorobenzene (surr)	0.471	0.484	0.515	0.515	0.527	0.500	0.5020	4.19
102) Isopropylbenzene	1.098	1.211	1.399	1.400	1.416	1.287	1.3016	9.85
103) 3,3-Dimethyloctane	0.503	0.616	0.779	0.783	0.806	0.709	0.6992	16.93
104) n-Propylbenzene	1.077	1.251	1.628	1.631	1.654	1.462	1.4504	16.47
105) 2-Methylnonane	0.229	0.284	0.413	0.411	0.424	0.359	0.3534	22.68
106) 3-Methylnonane	0.314	0.384	0.552	0.555	0.574	0.478	0.4762	22.29
107) 1-Methyl-3-ethylbenzene	0.959	1.127	1.436	1.437	1.468	1.309	1.2892	15.93
108) 1-Methyl-4-ethylbenzene	0.932	1.094	1.385	1.396	1.424	1.246	1.2462	15.85
109) 1,3,5-Trimethylbenzene	0.752	0.887	1.203	1.222	1.248	1.063	1.0627	19.15
110) 1-Decene	0.132	0.158	0.245	0.253	0.263	0.208	0.2100	25.89#
111) Isobutylcyclohexane	0.375	0.456	0.568	0.575	0.601	0.524	0.5164	16.66
112) 1-Methyl-2-ethylbenzene	1.001	1.200	1.457	1.474	1.485	1.323	1.3232	14.56



Initial Calibration Summary

Form 6

Volatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : VOA9
Calibration dates : 04/04/23 23:39 04/05/23 05:38
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19885

Calibration Files

2 =V9004408.D 5 =V9004409.D 50 =V9004411.D 100 =V9004412.D 200 =V9004413.D 20 =V9004410.D

Compound	2	5	50	100	200	20	Avg	%RSD
113) Decane	0.260	0.310	0.426	0.437	0.448	0.369	0.3750	20.42
114) tert-Butylbenzene	0.752	0.889	1.085	1.096	1.114	0.979	0.9859	14.53
115) 1,2,4-Trimethylbenzene	0.819	0.957	1.280	1.300	1.323	1.113	1.1320	18.34
116) Isobutylbenzene	0.929	1.096	1.384	1.387	1.391	1.244	1.2386	15.42
117) sec-Butylbenzene	1.103	1.294	1.593	1.607	1.610	1.438	1.4407	14.41
118) 1-Methyl-3-isopropylbenzene	0.903	1.058	1.394	1.415	1.434	1.221	1.2376	17.68
119) 1-Methyl-4-isopropylbenzene	0.890	1.059	1.391	1.405	1.421	1.219	1.2308	17.72
120) 1,2,3-Trimethylbenzene	0.868	1.003	1.337	1.346	1.355	1.156	1.1776	17.48
121) 1-Methyl-2-isopropylbenzene	0.919	1.102	1.411	1.426	1.433	1.242	1.2555	16.78
122) Indan	0.891	1.012	1.273	1.283	1.276	1.123	1.1429	14.38
123) 1,3-Diethylbenzene	0.572	0.676	0.901	0.916	0.924	0.780	0.7948	18.35
124) 1-Methyl-3-propylbenzene	1.059	1.259	1.677	1.703	1.699	1.458	1.4757	18.27
125) Indene	0.787	0.927	1.235	1.247	1.224	1.053	1.0787	17.72
126) 1-Methyl-4-propylbenzene	1.287	1.500	2.000	2.016	1.970	1.714	1.7478	17.35
127) n-Butylbenzene	1.045	1.197	1.548	1.550	1.518	1.349	1.3679	15.42
128) 1,2-Dimethyl-4-ethylbenzene	0.971	1.118	1.523	1.554	1.534	1.281	1.3302	18.57
129) 1,2-Diethylbenzene	0.484	0.555	0.723	0.733	0.723	0.625	0.6406	16.27
130) 1-Methyl-2-propylbenzene	1.181	1.339	1.814	1.818	1.794	1.549	1.5823	17.31
131) 1,4-Dimethyl-2-ethylbenzene	0.891	1.008	1.420	1.434	1.440	1.179	1.2284	19.56
132) Undecane	0.361	0.421	0.574	0.566	0.521	0.490	0.4888	17.18
133) 1,3-Dimethyl-4-ethylbenzene	1.118	1.287	1.712	1.742	1.714	1.457	1.5052	17.38
134) 1,3-Dimethyl-5-ethylbenzene	0.999	1.116	1.549	1.571	1.549	1.301	1.3476	18.43
135) 1,3-Dimethyl-2-ethylbenzene	1.119	1.240	1.677	1.695	1.681	1.413	1.4709	17.12
136) 1,2-Dimethyl-3-ethylbenzene	0.998	1.101	1.512	1.531	1.532	1.264	1.3229	17.93
137) 1,2,4,5-Tetramethylbenzene	1.020	1.155	1.582	1.606	1.618	1.329	1.3851	18.57
138) 1,2,3,5-Tetramethylbenzene	0.952	1.089	1.459	1.473	1.472	1.238	1.2804	17.51
139) Pentylbenzene	0.910	0.994	1.335	1.334	1.333	1.138	1.1739	16.15
140) 1,2,3,4-Tetramethylbenzene	1.297	1.463	1.952	1.973	1.974	1.657	1.7195	17.08
141) 1,3-DM-5-tert-Butylbenzene	0.874	0.983	1.365	1.387	1.384	1.152	1.1907	18.83
142) Dodecane	0.288	0.334	0.415	0.339	0.275	0.383	0.3390	15.89
143) 1,3,5-Triethylbenzene	0.549	0.621	0.865	0.878	0.900	0.726	0.7565	19.53
144) Naphthalene	1.377	1.427	1.775	1.761	1.757	1.532	1.6048	11.35
145) Benzothiophene	0.781	0.840	1.066	1.061	1.062	0.914	0.9542	13.27
146) 1,2,4-Triethylbenzene	0.522	0.566	0.808	0.823	0.834	0.679	0.7055	19.51
147) Hexylbenzene	0.777	0.885	1.214	1.193	1.188	1.053	1.0519	17.42
148) MMT	0.429	0.483	0.660	0.665	0.669	0.556	0.5769	18.03



Initial Calibration Summary

Form 6

Volatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : VOA9
Calibration dates : 04/04/23 23:39 04/05/23 05:38
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19885

Calibration Files

2 =V9004408.D 5 =V9004409.D 50 =V9004411.D 100 =V9004412.D 200 =V9004413.D 20 =V9004410.D

Compound	2	5	50	100	200	20	Avg	%RSD
149) Tridecane	0.356	0.454	0.456	0.344	0.300	0.479	0.3983	18.60
150) 2-Methylnaphthalene	0.815	0.905	1.209	1.208	1.221	1.034	1.0654	16.50
151) 1-Methylnaphthalene	0.748	0.803	1.079	1.078	1.090	0.915	0.9523	16.01
152) Tetradecane	0.310	0.374	0.316	0.253	0.245	0.319	0.3025	15.79
153) Pentadecane	0.200	0.220	0.228	0.198	0.201	0.193	0.2067	6.74



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Instrument ID : VOA9
 Lab File ID : V9004591
 Sample No : WG1774659-2
 Channel :

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Calibration Date : 05/02/23 12:31
 Init. Calib. Date(s) : 04/04/23 04/05/23
 Init. Calib. Times : 23:39 05:38

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Chlorobenzene-D5 [IS]	1	1	.1	0	25	110	0
3-Methyl-1-butene	0.57	0.479	.1	16	25	96	.01
Isopentane	0.214	0.17	.1	20.6	25	94	.02
1-Pentene	0.279	0.237	.1	15.1	25	97	.01
2-Methyl-1-butene	0.407	0.35	.1	14	25	96	.01
Pentane	0.346	0.284	.1	17.9	25	96	.01
trans-2-Pentene	0.445	0.383	.1	13.9	25	95	.01
2-Methyl-1,3-butadiene	0.314	0.279	.1	11.1	25	98	0
cis-2-Pentene	0.398	0.355	.1	10.8	25	97	0
Tertiary butanol	0.066	0.058*	.1	12.1	25	94	-.04
2,2-Dimethylbutane	0.227	0.201	.1	11.5	25	95	.01
4-Methyl-1-pentene	0.271	0.247	.1	8.9	25	95	0
Cyclopentane	0.184	0.166	.1	9.8	25	98	0
2,3-Dimethylbutane	0.136	0.122	.1	10.3	25	97	-.01
2-Methylpentane	0.391	0.355	.1	9.2	25	96	.01
MTBE	0.766	0.706	.1	7.8	25	96	-.01
3-Methylpentane	0.39	0.36	.1	7.7	25	97	0
1-Hexene	0.216	0.205	.1	5.1	25	97	0
Hexane	0.345	0.323	.1	6.4	25	98	0
Diisopropyl ether	0.602	0.575	.1	4.5	25	98	0
trans-2-Hexene	0.38	0.367	.1	3.4	25	99	0
2-Methyl-2-pentene	0.43	0.411	.1	4.4	25	97	0
cis-2-Hexene	0.34	0.323	.1	5	25	97	0
Dibromofluoromethane (surr	0.292	0.288	.1	1.4	25	108	0
Ethyl tertiary butyl ether	0.69	0.664	.1	3.8	25	98	0
2,2-Dimethylpentane	0.487	0.461	.1	5.3	25	99	0
Methylcyclopentane	0.432	0.399	.1	7.6	25	97	0
2,4-Dimethylpentane	0.346	0.331	.1	4.3	25	97	0
2,2,3-Trimethylbutane	0.436	0.413	.1	5.3	25	98	0
1,2-Dichloroethane	0.326	0.3	.1	8	25	97	0
3,3-Dimethylpentane	0.434	0.414	.1	4.6	25	99	.01
Cyclohexane	0.36	0.336	.1	6.7	25	96	0
2-Methylhexane	0.375	0.368	.1	1.9	25	101	0
Benzene	1.007	0.927	.1	7.9	25	99	0
2,3-Dimethylpentane	0.352	0.338	.1	4	25	100	0
Thiophene	0.54	0.51	.1	5.6	25	97	0
1,1-Dimethylcyclopentane	0.273	0.265	.1	2.9	25	99	0
3-Methylhexane	0.334	0.32	.1	4.2	25	100	0
TAME	0.784	0.694	.1	11.5	25	99	0
cis-1,3-Dimethylcyclopenta	0.243	0.233	.1	4.1	25	102	0
3-Ethylpentane	0.434	0.413	.1	4.8	25	100	0
1-Heptene/trans-1,2-DMCP	0.196	0.19	.1	3.1	25	101	0
Isooctane	0.956	0.926	.1	3.1	25	101	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Instrument ID : VOA9
 Lab File ID : V9004591
 Sample No : WG1774659-2
 Channel :

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Calibration Date : 05/02/23 12:31
 Init. Calib. Date(s) : 04/04/23 04/05/23
 Init. Calib. Times : 23:39 05:38

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
trans-3-Heptene	0.247	0.248	.1	-0.4	25	99	0
Heptane	0.302	0.291	.1	3.6	25	99	-.01
trans-2-Heptene	0.263	0.261	.1	0.8	25	101	0
cis-2-Heptene	0.234	0.236	.1	-0.9	25	101	0
2,2-Dimethylhexane	0.863	0.848	.1	1.7	25	101	0
Methylcyclohexane	0.438	0.428	.1	2.3	25	100	0
2,5-Dimethylhexane	0.428	0.416	.1	2.8	25	99	0
2,4-Dimethylhexane	0.343	0.337	.1	1.7	25	99	0
Ethylcyclopentane	0.363	0.354	.1	2.5	25	100	0
2,2,3-Trimethylpentane	0.715	0.694	.1	2.9	25	100	0
2,3,4-Trimethylpentane	0.445	0.435	.1	2.2	25	100	0
2,3,3-Trimethylpentane	0.375	0.369	.1	1.6	25	101	0
2,3-Dimethylhexane	0.396	0.389	.1	1.8	25	100	0
2-Methylheptane	0.387	0.378	.1	2.3	25	98	0
4-Methylheptane	0.424	0.414	.1	2.4	25	97	0
Toluene-d8 (surr)	1.114	1.164	.1	-4.5	25	115	0
3-Methylheptane	0.354	0.304	.1	14.1	25	95	0
3-Ethylhexane	0.478	0.444	.1	7.1	25	98	0
Toluene	1.087	1.048	.1	3.6	25	101	0
2-Methylthiophene	0.87	0.858	.1	1.4	25	101	0
trans-1,4-Dimethylcyclohex	0.539	0.528	.1	2	25	100	0
3-Methylthiophene	0.881	0.87	.1	1.2	25	101	0
1-Octene	0.184	0.181	.1	1.6	25	97	0
Octane	0.384	0.367	.1	4.4	25	95	0
trans-1,2-Dimethylcyclohex	0.33	0.326	.1	1.2	25	101	0
1,2-Dibromoethane	0.272	0.26	.1	4.4	25	97	0
cis-2-Octene	0.271	0.27	.1	0.4	25	97	0
Isopropylcyclopentane	0.418	0.421	.1	-0.7	25	104	0
cis-1,2-Dimethylcyclohexan	0.319	0.321	.1	-0.6	25	101	0
2,5-Dimethylheptane	0.574	0.545	.1	5.1	25	95	0
3,5-Dimethylheptane	0.698	0.679	.1	2.7	25	96	0
3,3-Dimethylheptane	0.444	0.429	.1	3.4	25	96	0
1,1,4-Trimethylcyclohexane	0.441	0.432	.1	2	25	98	0
2,3-Dimethylheptane	0.458	0.435	.1	5	25	95	0
3,4-Dimethylheptane	0.299	0.28	.1	6.4	25	95	0
4-Methyloctane	0.455	0.464	.1	-2	25	100	0
2-Methyloctane	0.406	0.36	.1	11.3	25	88	-.01
Ethylbenzene	1.237	1.196	.1	3.3	25	97	0
2-Ethylthiophene	0.936	0.934	.1	0.2	25	100	0
3-Methyloctane	0.778	0.745	.1	4.2	25	95	0
3,3-Diethylpentane	0.85	0.832	.1	2.1	25	98	0
p/m-Xylene	0.965	0.914	.1	5.3	25	95	0
1-Nonene	0.189	0.187	.1	1.1	25	94	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Instrument ID : VOA9
 Lab File ID : V9004591
 Sample No : WG1774659-2
 Channel :

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Calibration Date : 05/02/23 12:31
 Init. Calib. Date(s) : 04/04/23 04/05/23
 Init. Calib. Times : 23:39 05:38

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
trans-3-Nonene	0.278	0.272	.1	2.2	25	93	0
cis-3-Nonene	0.32	0.315	.1	1.6	25	97	0
Nonane	0.389	0.383	.1	1.5	25	96	0
Styrene	0.791	0.765	.1	3.3	25	94	0
o-Xylene	1.001	0.935	.1	6.6	25	94	0
2-Nonene	0.287	0.28	.1	2.4	25	94	0
Isopropylcyclohexane	0.449	0.444	.1	1.1	25	98	0
4-Bromofluorobenzene (surr	0.502	0.473	.1	5.8	25	101	0
Isopropylbenzene	1.302	1.222	.1	6.1	25	96	0
3,3-Dimethyloctane	0.699	0.676	.1	3.3	25	95	0
n-Propylbenzene	1.45	1.409	.1	2.8	25	95	0
2-Methylnonane	0.353	0.358	.1	-1.4	25	95	0
3-Methylnonane	0.476	0.478	.1	-0.4	25	95	0
1-Methyl-3-ethylbenzene	1.289	1.23	.1	4.6	25	94	0
1-Methyl-4-ethylbenzene	1.246	1.194	.1	4.2	25	95	0
1,3,5-Trimethylbenzene	1.063	1.039	.1	2.3	25	95	0
1-Decene	0.21	0.211	.1	-0.5	25	95	0
Isobutylcyclohexane	0.516	0.496	.1	3.9	25	96	0
1-Methyl-2-ethylbenzene	1.323	1.247	.1	5.7	25	94	0
Decane	0.375	0.363	.1	3.2	25	94	0
tert-Butylbenzene	0.986	0.93	.1	5.7	25	94	0
1,2,4-Trimethylbenzene	1.132	1.1	.1	2.8	25	94	0
Isobutylbenzene	1.239	1.193	.1	3.7	25	95	0
sec-Butylbenzene	1.441	1.365	.1	5.3	25	94	0
1-Methyl-3-isopropylbenzen	1.238	1.196	.1	3.4	25	94	0
1-Methyl-4-isopropylbenzen	1.231	1.188	.1	3.5	25	94	0
1,2,3-Trimethylbenzene	1.178	1.139	.1	3.3	25	94	0
1-Methyl-2-isopropylbenzen	1.255	1.2	.1	4.4	25	93	0
Indan	1.143	1.078	.1	5.7	25	93	0
1,3-Diethylbenzene	0.795	0.767	.1	3.5	25	93	0
1-Methyl-3-propylbenzene	1.476	1.443	.1	2.2	25	95	0
Indene	1.079	1.031	.1	4.4	25	92	0
1-Methyl-4-propylbenzene	1.748	1.69	.1	3.3	25	93	0
n-Butylbenzene	1.368	1.31	.1	4.2	25	93	0
1,2-Dimethyl-4-ethylbenzen	1.33	1.295	.1	2.6	25	93	0
1,2-Diethylbenzene	0.641	0.611	.1	4.7	25	93	0
1-Methyl-2-propylbenzene	1.582	1.535	.1	3	25	93	0
1,4-Dimethyl-2-ethylbenzen	1.228	1.202	.1	2.1	25	93	0
Undecane	0.489	0.496	.1	-1.4	25	95	0
1,3-Dimethyl-4-ethylbenzen	1.505	1.456	.1	3.3	25	93	0
1,3-Dimethyl-5-ethylbenzen	1.348	1.314	.1	2.5	25	93	0
1,3-Dimethyl-2-ethylbenzen	1.471	1.421	.1	3.4	25	93	0
1,2-Dimethyl-3-ethylbenzen	1.323	1.282	.1	3.1	25	93	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Instrument ID : VOA9 Lab File ID : V9004591 Sample No : WG1774659-2 Channel :	Lab Number : L2320537 Project Number : 000029-02.78 T12A Calibration Date : 05/02/23 12:31 Init. Calib. Date(s) : 04/04/23 04/05/23 Init. Calib. Times : 23:39 05:38
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Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2,4,5-Tetramethylbenzene	1.385	1.355	.1	2.2	25	94	0
1,2,3,5-Tetramethylbenzene	1.28	1.237	.1	3.4	25	93	0
Pentylbenzene	1.174	1.139	.1	3	25	94	0
1,2,3,4-Tetramethylbenzene	1.72	1.662	.1	3.4	25	94	0
1,3-DM-5-tert-Butylbenzene	1.191	1.167	.1	2	25	94	0
Dodecane	0.339	0.344	.1	-1.5	25	91	0
1,3,5-Triethylbenzene	0.756	0.749	.1	0.9	25	95	0
Naphthalene	1.605	1.493	.1	7	25	92	0
Benzothiophene	0.954	0.891	.1	6.6	25	92	0
1,2,4-Triethylbenzene	0.705	0.698	.1	1	25	95	0
Hexylbenzene	1.052	1.054	.1	-0.2	25	95	0
MMT	0.577	0.558	.1	3.3	25	93	0
Tridecane	0.398	0.363	.1	8.8	25	87	0
2-Methylnaphthalene	1.065	1.03	.1	3.3	25	94	0
1-Methylnaphthalene	0.952	0.912	.1	4.2	25	93	0
Tetradecane	0.303	0.251	.1	17.2	25	87	0
Pentadecane	0.207	0.179	.1	13.5	25	86	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Instrument ID : VOA9
 Lab File ID : V9004608
 Sample No : WG1774659-9
 Channel :

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Calibration Date : 05/03/23 11:15
 Init. Calib. Date(s) : 04/04/23 04/05/23
 Init. Calib. Times : 23:39 05:38

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Chlorobenzene-D5 [IS]	1	1	.1	0	25	116	0
3-Methyl-1-butene	0.57	0.45	.1	21.1	25	95	0
Isopentane	0.214	0.159	.1	25.7*	25	92	0
1-Pentene	0.279	0.219	.1	21.5	25	95	0
2-Methyl-1-butene	0.407	0.333	.1	18.2	25	96	0
Pentane	0.346	0.266	.1	23.1	25	94	0
trans-2-Pentene	0.445	0.367	.1	17.5	25	96	0
2-Methyl-1,3-butadiene	0.314	0.269	.1	14.3	25	99	0
cis-2-Pentene	0.398	0.341	.1	14.3	25	98	0
Tertiary butanol	0.066	0.058*	.1	12.1	25	99	-.03
2,2-Dimethylbutane	0.227	0.19	.1	16.3	25	95	0
4-Methyl-1-pentene	0.271	0.235	.1	13.3	25	95	0
Cyclopentane	0.184	0.162	.1	12	25	100	0
2,3-Dimethylbutane	0.136	0.118	.1	13.2	25	98	-.02
2-Methylpentane	0.391	0.332	.1	15.1	25	95	0
MTBE	0.766	0.699	.1	8.7	25	100	0
3-Methylpentane	0.39	0.344	.1	11.8	25	98	0
1-Hexene	0.216	0.198	.1	8.3	25	99	0
Hexane	0.345	0.312	.1	9.6	25	100	0
Diisopropyl ether	0.602	0.555	.1	7.8	25	99	-.01
trans-2-Hexene	0.38	0.355	.1	6.6	25	101	0
2-Methyl-2-pentene	0.43	0.391	.1	9.1	25	98	0
cis-2-Hexene	0.34	0.312	.1	8.2	25	99	-.01
Dibromofluoromethane (surr	0.292	0.283	.1	3.1	25	112	0
Ethyl tertiary butyl ether	0.69	0.653	.1	5.4	25	101	0
2,2-Dimethylpentane	0.487	0.447	.1	8.2	25	101	0
Methylcyclopentane	0.432	0.388	.1	10.2	25	99	0
2,4-Dimethylpentane	0.346	0.319	.1	7.8	25	99	0
2,2,3-Trimethylbutane	0.436	0.402	.1	7.8	25	100	0
1,2-Dichloroethane	0.326	0.298	.1	8.6	25	101	0
3,3-Dimethylpentane	0.434	0.399	.1	8.1	25	100	0
Cyclohexane	0.36	0.328	.1	8.9	25	99	0
2-Methylhexane	0.375	0.354	.1	5.6	25	103	0
Benzene	1.007	0.915	.1	9.1	25	103	-.01
2,3-Dimethylpentane	0.352	0.33	.1	6.2	25	103	0
Thiophene	0.54	0.507	.1	6.1	25	102	0
1,1-Dimethylcyclopentane	0.273	0.262	.1	4	25	103	-.01
3-Methylhexane	0.334	0.309	.1	7.5	25	102	-.01
TAME	0.784	0.688	.1	12.2	25	103	0
cis-1,3-Dimethylcyclopenta	0.243	0.225	.1	7.4	25	103	0
3-Ethylpentane	0.434	0.4	.1	7.8	25	102	0
1-Heptene/trans-1,2-DMCP	0.196	0.189	.1	3.6	25	105	-.02
Isooctane	0.956	0.9	.1	5.9	25	103	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Instrument ID : VOA9 Lab File ID : V9004608 Sample No : WG1774659-9 Channel :	Lab Number : L2320537 Project Number : 000029-02.78 T12A Calibration Date : 05/03/23 11:15 Init. Calib. Date(s) : 04/04/23 04/05/23 Init. Calib. Times : 23:39 05:38
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Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
trans-3-Heptene	0.247	0.241	.1	2.4	25	101	0
Heptane	0.302	0.287	.1	5	25	103	-.01
trans-2-Heptene	0.263	0.258	.1	1.9	25	106	0
cis-2-Heptene	0.234	0.234	.1	0	25	106	0
2,2-Dimethylhexane	0.863	0.831	.1	3.7	25	104	-.01
Methylcyclohexane	0.438	0.425	.1	3	25	105	-.02
2,5-Dimethylhexane	0.428	0.412	.1	3.7	25	103	0
2,4-Dimethylhexane	0.343	0.335	.1	2.3	25	104	0
Ethylcyclopentane	0.363	0.349	.1	3.9	25	104	-.01
2,2,3-Trimethylpentane	0.715	0.684	.1	4.3	25	104	0
2,3,4-Trimethylpentane	0.445	0.427	.1	4	25	104	0
2,3,3-Trimethylpentane	0.375	0.361	.1	3.7	25	104	-.01
2,3-Dimethylhexane	0.396	0.381	.1	3.8	25	103	0
2-Methylheptane	0.387	0.374	.1	3.4	25	102	0
4-Methylheptane	0.424	0.408	.1	3.8	25	101	0
Toluene-d8 (surr)	1.114	1.15	.1	-3.2	25	119	-.01
3-Methylheptane	0.354	0.294	.1	16.9	25	96	0
3-Ethylhexane	0.478	0.436	.1	8.8	25	102	0
Toluene	1.087	1.058	.1	2.7	25	107	0
2-Methylthiophene	0.87	0.862	.1	0.9	25	107	0
trans-1,4-Dimethylcyclohex	0.539	0.536	.1	0.6	25	107	0
3-Methylthiophene	0.881	0.874	.1	0.8	25	106	0
1-Octene	0.184	0.178	.1	3.3	25	100	0
Octane	0.384	0.36	.1	6.3	25	98	-.01
trans-1,2-Dimethylcyclohex	0.33	0.321	.1	2.7	25	105	0
1,2-Dibromoethane	0.272	0.265	.1	2.6	25	105	-.01
cis-2-Octene	0.271	0.272	.1	-0.4	25	103	0
Isopropylcyclopentane	0.418	0.415	.1	0.7	25	108	0
cis-1,2-Dimethylcyclohexan	0.319	0.314	.1	1.6	25	104	0
2,5-Dimethylheptane	0.574	0.552	.1	3.8	25	102	0
3,5-Dimethylheptane	0.698	0.666	.1	4.6	25	99	0
3,3-Dimethylheptane	0.444	0.428	.1	3.6	25	101	0
1,1,4-Trimethylcyclohexane	0.441	0.434	.1	1.6	25	104	0
2,3-Dimethylheptane	0.458	0.427	.1	6.8	25	98	0
3,4-Dimethylheptane	0.299	0.276	.1	7.7	25	98	0
4-Methyloctane	0.455	0.42	.1	7.7	25	96	0
2-Methyloctane	0.406	0.387	.1	4.7	25	99	-.01
Ethylbenzene	1.237	1.205	.1	2.6	25	103	0
2-Ethylthiophene	0.936	0.94	.1	-0.4	25	106	0
3-Methyloctane	0.778	0.735	.1	5.5	25	99	0
3,3-Diethylpentane	0.85	0.824	.1	3.1	25	102	0
p/m-Xylene	0.965	0.926	.1	4	25	101	.01
1-Nonene	0.189	0.187	.1	1.1	25	99	-.01

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Instrument ID : VOA9
 Lab File ID : V9004608
 Sample No : WG1774659-9
 Channel :

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Calibration Date : 05/03/23 11:15
 Init. Calib. Date(s) : 04/04/23 04/05/23
 Init. Calib. Times : 23:39 05:38

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
trans-3-Nonene	0.278	0.273	.1	1.8	25	99	0
cis-3-Nonene	0.32	0.311	.1	2.8	25	100	0
Nonane	0.389	0.375	.1	3.6	25	99	0
Styrene	0.791	0.777	.1	1.8	25	100	0
o-Xylene	1.001	0.942	.1	5.9	25	100	0
2-Nonene	0.287	0.277	.1	3.5	25	98	0
Isopropylcyclohexane	0.449	0.445	.1	0.9	25	103	-.01
4-Bromofluorobenzene (surr	0.502	0.477	.1	5	25	107	0
Isopropylbenzene	1.302	1.239	.1	4.8	25	103	0
3,3-Dimethyloctane	0.699	0.671	.1	4	25	100	0
n-Propylbenzene	1.45	1.415	.1	2.4	25	101	0
2-Methylnonane	0.353	0.353	.1	0	25	99	0
3-Methylnonane	0.476	0.476	.1	0	25	100	0
1-Methyl-3-ethylbenzene	1.289	1.25	.1	3	25	101	0
1-Methyl-4-ethylbenzene	1.246	1.207	.1	3.1	25	101	0
1,3,5-Trimethylbenzene	1.063	1.05	.1	1.2	25	101	0
1-Decene	0.21	0.212	.1	-1	25	100	0
Isobutylcyclohexane	0.516	0.496	.1	3.9	25	101	0
1-Methyl-2-ethylbenzene	1.323	1.262	.1	4.6	25	100	0
Decane	0.375	0.36	.1	4	25	98	0
tert-Butylbenzene	0.986	0.945	.1	4.2	25	101	0
1,2,4-Trimethylbenzene	1.132	1.115	.1	1.5	25	101	0
Isobutylbenzene	1.239	1.201	.1	3.1	25	100	0
sec-Butylbenzene	1.441	1.377	.1	4.4	25	100	0
1-Methyl-3-isopropylbenzen	1.238	1.206	.1	2.6	25	100	0
1-Methyl-4-isopropylbenzen	1.231	1.201	.1	2.4	25	100	0
1,2,3-Trimethylbenzene	1.178	1.149	.1	2.5	25	99	0
1-Methyl-2-isopropylbenzen	1.255	1.219	.1	2.9	25	100	0
Indan	1.143	1.086	.1	5	25	99	0
1,3-Diethylbenzene	0.795	0.776	.1	2.4	25	100	0
1-Methyl-3-propylbenzene	1.476	1.455	.1	1.4	25	100	0
Indene	1.079	1.038	.1	3.8	25	97	0
1-Methyl-4-propylbenzene	1.748	1.703	.1	2.6	25	99	0
n-Butylbenzene	1.368	1.309	.1	4.3	25	98	0
1,2-Dimethyl-4-ethylbenzen	1.33	1.306	.1	1.8	25	99	0
1,2-Diethylbenzene	0.641	0.619	.1	3.4	25	99	0
1-Methyl-2-propylbenzene	1.582	1.544	.1	2.4	25	99	0
1,4-Dimethyl-2-ethylbenzen	1.228	1.214	.1	1.1	25	99	0
Undecane	0.489	0.485	.1	0.8	25	98	0
1,3-Dimethyl-4-ethylbenzen	1.505	1.473	.1	2.1	25	100	0
1,3-Dimethyl-5-ethylbenzen	1.348	1.33	.1	1.3	25	99	0
1,3-Dimethyl-2-ethylbenzen	1.471	1.44	.1	2.1	25	99	0
1,2-Dimethyl-3-ethylbenzen	1.323	1.291	.1	2.4	25	99	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Instrument ID : VOA9 Lab File ID : V9004608 Sample No : WG1774659-9 Channel :	Lab Number : L2320537 Project Number : 000029-02.78 T12A Calibration Date : 05/03/23 11:15 Init. Calib. Date(s) : 04/04/23 04/05/23 Init. Calib. Times : 23:39 05:38
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Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2,4,5-Tetramethylbenzene	1.385	1.365	.1	1.4	25	100	0
1,2,3,5-Tetramethylbenzene	1.28	1.261	.1	1.5	25	100	0
Pentylbenzene	1.174	1.138	.1	3.1	25	99	0
1,2,3,4-Tetramethylbenzene	1.72	1.681	.1	2.3	25	100	0
1,3-DM-5-tert-Butylbenzene	1.191	1.185	.1	0.5	25	101	0
Dodecane	0.339	0.336	.1	0.9	25	94	0
1,3,5-Triethylbenzene	0.756	0.755	.1	0.1	25	101	0
Naphthalene	1.605	1.524	.1	5	25	99	0
Benzothiophene	0.954	0.918	.1	3.8	25	100	0
1,2,4-Triethylbenzene	0.705	0.702	.1	0.4	25	100	0
Hexylbenzene	1.052	1.051	.1	0.1	25	100	0
MMT	0.577	0.567	.1	1.7	25	99	0
Tridecane	0.398	0.363	.1	8.8	25	92	0
2-Methylnaphthalene	1.065	1.051	.1	1.3	25	101	0
1-Methylnaphthalene	0.952	0.937	.1	1.6	25	101	0
Tetradecane	0.303	0.265	.1	12.5	25	97	0
Pentadecane	0.207	0.202	.1	2.4	25	102	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Instrument ID : VOA9
 Lab File ID : V9004613
 Sample No : WG1774659-11
 Channel :

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Calibration Date : 05/03/23 17:23
 Init. Calib. Date(s) : 04/04/23 04/05/23
 Init. Calib. Times : 23:39 05:38

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Chlorobenzene-D5 [IS]	1	1	.1	0	25	122	0
3-Methyl-1-butene	0.57	0.455	.1	20.2	25	101	0
Isopentane	0.214	0.16	.1	25.2*	25	98	0
1-Pentene	0.279	0.222	.1	20.4	25	101	0
2-Methyl-1-butene	0.407	0.335	.1	17.7	25	102	0
Pentane	0.346	0.272	.1	21.4	25	102	0
trans-2-Pentene	0.445	0.368	.1	17.3	25	102	0
2-Methyl-1,3-butadiene	0.314	0.271	.1	13.7	25	106	0
cis-2-Pentene	0.398	0.341	.1	14.3	25	103	0
Tertiary butanol	0.066	0.057*	.1	13.6	25	102	-.01
2,2-Dimethylbutane	0.227	0.196	.1	13.7	25	104	0
4-Methyl-1-pentene	0.271	0.24	.1	11.4	25	103	0
Cyclopentane	0.184	0.16	.1	13	25	105	0
2,3-Dimethylbutane	0.136	0.12	.1	11.8	25	106	-.01
2-Methylpentane	0.391	0.34	.1	13	25	103	0
MTBE	0.766	0.709	.1	7.4	25	107	0
3-Methylpentane	0.39	0.348	.1	10.8	25	105	0
1-Hexene	0.216	0.199	.1	7.9	25	106	0
Hexane	0.345	0.315	.1	8.7	25	106	0
Diisopropyl ether	0.602	0.564	.1	6.3	25	106	0
trans-2-Hexene	0.38	0.354	.1	6.8	25	107	0
2-Methyl-2-pentene	0.43	0.395	.1	8.1	25	104	0
cis-2-Hexene	0.34	0.316	.1	7.1	25	105	0
Dibromofluoromethane (surr	0.292	0.289	.1	1	25	120	0
Ethyl tertiary butyl ether	0.69	0.654	.1	5.2	25	107	0
2,2-Dimethylpentane	0.487	0.445	.1	8.6	25	106	0
Methylcyclopentane	0.432	0.389	.1	10	25	105	0
2,4-Dimethylpentane	0.346	0.323	.1	6.6	25	106	0
2,2,3-Trimethylbutane	0.436	0.402	.1	7.8	25	106	.01
1,2-Dichloroethane	0.326	0.301	.1	7.7	25	108	0
3,3-Dimethylpentane	0.434	0.403	.1	7.1	25	107	0
Cyclohexane	0.36	0.33	.1	8.3	25	106	0
2-Methylhexane	0.375	0.357	.1	4.8	25	109	0
Benzene	1.007	0.91	.1	9.6	25	108	0
2,3-Dimethylpentane	0.352	0.329	.1	6.5	25	108	0
Thiophene	0.54	0.505	.1	6.5	25	107	0
1,1-Dimethylcyclopentane	0.273	0.261	.1	4.4	25	108	0
3-Methylhexane	0.334	0.314	.1	6	25	110	0
TAME	0.784	0.694	.1	11.5	25	110	0
cis-1,3-Dimethylcyclopenta	0.243	0.226	.1	7	25	110	0
3-Ethylpentane	0.434	0.408	.1	6	25	110	0
1-Heptene/trans-1,2-DMCP	0.196	0.187	.1	4.6	25	110	0
Isooctane	0.956	0.895	.1	6.4	25	108	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Instrument ID : VOA9
 Lab File ID : V9004613
 Sample No : WG1774659-11
 Channel :

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Calibration Date : 05/03/23 17:23
 Init. Calib. Date(s) : 04/04/23 04/05/23
 Init. Calib. Times : 23:39 05:38

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
trans-3-Heptene	0.247	0.246	.1	0.4	25	109	0
Heptane	0.302	0.285	.1	5.6	25	108	-.01
trans-2-Heptene	0.263	0.257	.1	2.3	25	111	-.01
cis-2-Heptene	0.234	0.231	.1	1.3	25	110	0
2,2-Dimethylhexane	0.863	0.83	.1	3.8	25	110	0
Methylcyclohexane	0.438	0.424	.1	3.2	25	110	0
2,5-Dimethylhexane	0.428	0.415	.1	3	25	110	0
2,4-Dimethylhexane	0.343	0.334	.1	2.6	25	109	0
Ethylcyclopentane	0.363	0.347	.1	4.4	25	109	0
2,2,3-Trimethylpentane	0.715	0.681	.1	4.8	25	110	0
2,3,4-Trimethylpentane	0.445	0.43	.1	3.4	25	110	0
2,3,3-Trimethylpentane	0.375	0.361	.1	3.7	25	110	0
2,3-Dimethylhexane	0.396	0.383	.1	3.3	25	109	0
2-Methylheptane	0.387	0.374	.1	3.4	25	108	0
4-Methylheptane	0.424	0.405	.1	4.5	25	106	0
Toluene-d8 (surr)	1.114	1.16	.1	-4.1	25	127	-.01
3-Methylheptane	0.354	0.301	.1	15	25	104	0
3-Ethylhexane	0.478	0.431	.1	9.8	25	106	-.01
Toluene	1.087	1.048	.1	3.6	25	112	0
2-Methylthiophene	0.87	0.857	.1	1.5	25	112	0
trans-1,4-Dimethylcyclohex	0.539	0.532	.1	1.3	25	112	0
3-Methylthiophene	0.881	0.87	.1	1.2	25	112	0
1-Octene	0.184	0.178	.1	3.3	25	106	0
Octane	0.384	0.359	.1	6.5	25	103	0
trans-1,2-Dimethylcyclohex	0.33	0.318	.1	3.6	25	110	0
1,2-Dibromoethane	0.272	0.262	.1	3.7	25	109	0
cis-2-Octene	0.271	0.268	.1	1.1	25	107	0
Isopropylcyclopentane	0.418	0.412	.1	1.4	25	113	0
cis-1,2-Dimethylcyclohexan	0.319	0.318	.1	0.3	25	112	0
2,5-Dimethylheptane	0.574	0.543	.1	5.4	25	106	.01
3,5-Dimethylheptane	0.698	0.668	.1	4.3	25	105	0
3,3-Dimethylheptane	0.444	0.42	.1	5.4	25	104	0
1,1,4-Trimethylcyclohexane	0.441	0.433	.1	1.8	25	110	0
2,3-Dimethylheptane	0.458	0.423	.1	7.6	25	102	0
3,4-Dimethylheptane	0.299	0.273	.1	8.7	25	103	-.01
4-Methyloctane	0.455	0.453	.1	0.4	25	109	0
2-Methyloctane	0.406	0.347	.1	14.5	25	94	0
Ethylbenzene	1.237	1.195	.1	3.4	25	108	0
2-Ethylthiophene	0.936	0.935	.1	0.1	25	112	0
3-Methyloctane	0.778	0.725	.1	6.8	25	103	0
3,3-Diethylpentane	0.85	0.818	.1	3.8	25	107	0
p/m-Xylene	0.965	0.913	.1	5.4	25	106	.01
1-Nonene	0.189	0.183	.1	3.2	25	103	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Instrument ID : VOA9
 Lab File ID : V9004613
 Sample No : WG1774659-11
 Channel :

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Calibration Date : 05/03/23 17:23
 Init. Calib. Date(s) : 04/04/23 04/05/23
 Init. Calib. Times : 23:39 05:38

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
trans-3-Nonene	0.278	0.268	.1	3.6	25	102	0
cis-3-Nonene	0.32	0.309	.1	3.4	25	105	0
Nonane	0.389	0.365	.1	6.2	25	101	0
Styrene	0.791	0.77	.1	2.7	25	105	0
o-Xylene	1.001	0.933	.1	6.8	25	104	0
2-Nonene	0.287	0.274	.1	4.5	25	102	0
Isopropylcyclohexane	0.449	0.442	.1	1.6	25	109	0
4-Bromofluorobenzene (surr	0.502	0.478	.1	4.8	25	114	0
Isopropylbenzene	1.302	1.227	.1	5.8	25	107	0
3,3-Dimethyloctane	0.699	0.666	.1	4.7	25	105	0
n-Propylbenzene	1.45	1.405	.1	3.1	25	105	0
2-Methylnonane	0.353	0.347	.1	1.7	25	103	0
3-Methylnonane	0.476	0.471	.1	1.1	25	104	0
1-Methyl-3-ethylbenzene	1.289	1.239	.1	3.9	25	106	0
1-Methyl-4-ethylbenzene	1.246	1.195	.1	4.1	25	105	0
1,3,5-Trimethylbenzene	1.063	1.048	.1	1.4	25	106	0
1-Decene	0.21	0.209	.1	0.5	25	104	0
Isobutylcyclohexane	0.516	0.49	.1	5	25	105	0
1-Methyl-2-ethylbenzene	1.323	1.246	.1	5.8	25	105	0
Decane	0.375	0.356	.1	5.1	25	102	0
tert-Butylbenzene	0.986	0.937	.1	5	25	106	0
1,2,4-Trimethylbenzene	1.132	1.109	.1	2	25	106	0
Isobutylbenzene	1.239	1.152	.1	7	25	102	0
sec-Butylbenzene	1.441	1.354	.1	6	25	104	0
1-Methyl-3-isopropylbenzen	1.238	1.2	.1	3.1	25	105	0
1-Methyl-4-isopropylbenzen	1.231	1.196	.1	2.8	25	105	0
1,2,3-Trimethylbenzene	1.178	1.138	.1	3.4	25	104	0
1-Methyl-2-isopropylbenzen	1.255	1.201	.1	4.3	25	104	0
Indan	1.143	1.072	.1	6.2	25	103	0
1,3-Diethylbenzene	0.795	0.765	.1	3.8	25	104	0
1-Methyl-3-propylbenzene	1.476	1.429	.1	3.2	25	104	0
Indene	1.079	1.027	.1	4.8	25	102	0
1-Methyl-4-propylbenzene	1.748	1.68	.1	3.9	25	103	0
n-Butylbenzene	1.368	1.286	.1	6	25	102	0
1,2-Dimethyl-4-ethylbenzen	1.33	1.288	.1	3.2	25	103	0
1,2-Diethylbenzene	0.641	0.608	.1	5.1	25	103	0
1-Methyl-2-propylbenzene	1.582	1.524	.1	3.7	25	103	0
1,4-Dimethyl-2-ethylbenzen	1.228	1.201	.1	2.2	25	103	0
Undecane	0.489	0.487	.1	0.4	25	104	0
1,3-Dimethyl-4-ethylbenzen	1.505	1.454	.1	3.4	25	104	0
1,3-Dimethyl-5-ethylbenzen	1.348	1.311	.1	2.7	25	103	0
1,3-Dimethyl-2-ethylbenzen	1.471	1.423	.1	3.3	25	104	0
1,2-Dimethyl-3-ethylbenzen	1.323	1.284	.1	2.9	25	104	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Instrument ID : VOA9 Lab File ID : V9004613 Sample No : WG1774659-11 Channel :	Lab Number : L2320537 Project Number : 000029-02.78 T12A Calibration Date : 05/03/23 17:23 Init. Calib. Date(s) : 04/04/23 04/05/23 Init. Calib. Times : 23:39 05:38
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Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2,4,5-Tetramethylbenzene	1.385	1.357	.1	2	25	105	0
1,2,3,5-Tetramethylbenzene	1.28	1.237	.1	3.4	25	104	0
Pentylbenzene	1.174	1.12	.1	4.6	25	103	0
1,2,3,4-Tetramethylbenzene	1.72	1.665	.1	3.2	25	104	0
1,3-DM-5-tert-Butylbenzene	1.191	1.173	.1	1.5	25	105	0
Dodecane	0.339	0.343	.1	-1.2	25	101	0
1,3,5-Triethylbenzene	0.756	0.744	.1	1.6	25	105	0
Naphthalene	1.605	1.49	.1	7.2	25	103	0
Benzothiophene	0.954	0.895	.1	6.2	25	103	0
1,2,4-Triethylbenzene	0.705	0.696	.1	1.3	25	105	0
Hexylbenzene	1.052	1.031	.1	2	25	104	0
MMT	0.577	0.56	.1	2.9	25	104	0
Tridecane	0.398	0.371	.1	6.8	25	99	0
2-Methylnaphthalene	1.065	1.038	.1	2.5	25	105	0
1-Methylnaphthalene	0.952	0.917	.1	3.7	25	104	0
Tetradecane	0.303	0.264	.1	12.9	25	102	0
Pentadecane	0.207	0.2	.1	3.4	25	107	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Instrument ID : VOA9
 Lab File ID : V9004630
 Sample No : WG1774659-13
 Channel :

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Calibration Date : 05/04/23 15:17
 Init. Calib. Date(s) : 04/04/23 04/05/23
 Init. Calib. Times : 23:39 05:38

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Chlorobenzene-D5 [IS]	1	1	.1	0	25	117	0
3-Methyl-1-butene	0.57	0.443	.1	22.3	25	95	.01
Isopentane	0.214	0.156	.1	27.1*	25	92	.01
1-Pentene	0.279	0.214	.1	23.3	25	94	0
2-Methyl-1-butene	0.407	0.328	.1	19.4	25	96	0
Pentane	0.346	0.265	.1	23.4	25	95	0
trans-2-Pentene	0.445	0.361	.1	18.9	25	96	0
2-Methyl-1,3-butadiene	0.314	0.262	.1	16.6	25	98	0
cis-2-Pentene	0.398	0.334	.1	16.1	25	97	0
Tertiary butanol	0.066	0.056*	.1	15.2	25	96	-.05
2,2-Dimethylbutane	0.227	0.188	.1	17.2	25	95	0
4-Methyl-1-pentene	0.271	0.233	.1	14	25	96	0
Cyclopentane	0.184	0.158	.1	14.1	25	99	0
2,3-Dimethylbutane	0.136	0.117	.1	14	25	99	-.02
2-Methylpentane	0.391	0.331	.1	15.3	25	96	0
MTBE	0.766	0.685	.1	10.6	25	100	0
3-Methylpentane	0.39	0.342	.1	12.3	25	99	0
1-Hexene	0.216	0.197	.1	8.8	25	100	0
Hexane	0.345	0.309	.1	10.4	25	100	0
Diisopropyl ether	0.602	0.546	.1	9.3	25	99	-.01
trans-2-Hexene	0.38	0.35	.1	7.9	25	101	0
2-Methyl-2-pentene	0.43	0.401	.1	6.7	25	102	0
cis-2-Hexene	0.34	0.311	.1	8.5	25	100	0
Dibromofluoromethane (surr	0.292	0.28	.1	4.1	25	112	0
Ethyl tertiary butyl ether	0.69	0.642	.1	7	25	101	0
2,2-Dimethylpentane	0.487	0.444	.1	8.8	25	102	-.01
Methylcyclopentane	0.432	0.383	.1	11.3	25	99	0
2,4-Dimethylpentane	0.346	0.315	.1	9	25	99	0
2,2,3-Trimethylbutane	0.436	0.396	.1	9.2	25	100	0
1,2-Dichloroethane	0.326	0.29	.1	11	25	100	0
3,3-Dimethylpentane	0.434	0.394	.1	9.2	25	100	0
Cyclohexane	0.36	0.322	.1	10.6	25	99	0
2-Methylhexane	0.375	0.351	.1	6.4	25	103	0
Benzene	1.007	0.894	.1	11.2	25	102	0
2,3-Dimethylpentane	0.352	0.327	.1	7.1	25	103	0
Thiophene	0.54	0.496	.1	8.1	25	101	0
1,1-Dimethylcyclopentane	0.273	0.256	.1	6.2	25	102	0
3-Methylhexane	0.334	0.307	.1	8.1	25	103	0
TAME	0.784	0.681	.1	13.1	25	104	0
cis-1,3-Dimethylcyclopenta	0.243	0.225	.1	7.4	25	105	0
3-Ethylpentane	0.434	0.399	.1	8.1	25	103	0
1-Heptene/trans-1,2-DMCP	0.196	0.184	.1	6.1	25	104	0
Isooctane	0.956	0.887	.1	7.2	25	103	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Instrument ID : VOA9
 Lab File ID : V9004630
 Sample No : WG1774659-13
 Channel :

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Calibration Date : 05/04/23 15:17
 Init. Calib. Date(s) : 04/04/23 04/05/23
 Init. Calib. Times : 23:39 05:38

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
trans-3-Heptene	0.247	0.238	.1	3.6	25	101	0
Heptane	0.302	0.281	.1	7	25	102	0
trans-2-Heptene	0.263	0.253	.1	3.8	25	105	0
cis-2-Heptene	0.234	0.228	.1	2.6	25	104	0
2,2-Dimethylhexane	0.863	0.817	.1	5.3	25	104	0
Methylcyclohexane	0.438	0.419	.1	4.3	25	105	-.01
2,5-Dimethylhexane	0.428	0.407	.1	4.9	25	104	-.01
2,4-Dimethylhexane	0.343	0.33	.1	3.8	25	104	0
Ethylcyclopentane	0.363	0.344	.1	5.2	25	104	0
2,2,3-Trimethylpentane	0.715	0.674	.1	5.7	25	104	-.01
2,3,4-Trimethylpentane	0.445	0.425	.1	4.5	25	104	-.01
2,3,3-Trimethylpentane	0.375	0.356	.1	5.1	25	104	0
2,3-Dimethylhexane	0.396	0.374	.1	5.6	25	102	-.01
2-Methylheptane	0.387	0.369	.1	4.7	25	102	0
4-Methylheptane	0.424	0.401	.1	5.4	25	100	0
Toluene-d8 (surr)	1.114	1.156	.1	-3.8	25	122	-.01
3-Methylheptane	0.354	0.304	.1	14.1	25	101	0
3-Ethylhexane	0.478	0.43	.1	10	25	102	0
Toluene	1.087	1.035	.1	4.8	25	106	0
2-Methylthiophene	0.87	0.846	.1	2.8	25	106	0
trans-1,4-Dimethylcyclohex	0.539	0.526	.1	2.4	25	107	0
3-Methylthiophene	0.881	0.86	.1	2.4	25	106	0
1-Octene	0.184	0.177	.1	3.8	25	101	0
Octane	0.384	0.357	.1	7	25	98	0
trans-1,2-Dimethylcyclohex	0.33	0.317	.1	3.9	25	104	0
1,2-Dibromoethane	0.272	0.258	.1	5.1	25	103	-.01
cis-2-Octene	0.271	0.268	.1	1.1	25	103	0
Isopropylcyclopentane	0.418	0.409	.1	2.2	25	108	0
cis-1,2-Dimethylcyclohexan	0.319	0.312	.1	2.2	25	105	0
2,5-Dimethylheptane	0.574	0.546	.1	4.9	25	102	0
3,5-Dimethylheptane	0.698	0.672	.1	3.7	25	102	0
3,3-Dimethylheptane	0.444	0.419	.1	5.6	25	100	0
1,1,4-Trimethylcyclohexane	0.441	0.428	.1	2.9	25	104	0
2,3-Dimethylheptane	0.458	0.424	.1	7.4	25	98	0
3,4-Dimethylheptane	0.299	0.274	.1	8.4	25	99	0
4-Methyloctane	0.455	0.418	.1	8.1	25	97	0
2-Methyloctane	0.406	0.38	.1	6.4	25	99	0
Ethylbenzene	1.237	1.185	.1	4.2	25	103	0
2-Ethylthiophene	0.936	0.927	.1	1	25	106	0
3-Methyloctane	0.778	0.724	.1	6.9	25	98	0
3,3-Diethylpentane	0.85	0.816	.1	4	25	102	0
p/m-Xylene	0.965	0.905	.1	6.2	25	101	0
1-Nonene	0.189	0.183	.1	3.2	25	99	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Instrument ID : VOA9
 Lab File ID : V9004630
 Sample No : WG1774659-13
 Channel :

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Calibration Date : 05/04/23 15:17
 Init. Calib. Date(s) : 04/04/23 04/05/23
 Init. Calib. Times : 23:39 05:38

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
trans-3-Nonene	0.278	0.267	.1	4	25	98	0
cis-3-Nonene	0.32	0.311	.1	2.8	25	102	0
Nonane	0.389	0.36	.1	7.5	25	96	0
Styrene	0.791	0.763	.1	3.5	25	100	0
o-Xylene	1.001	0.925	.1	7.6	25	99	0
2-Nonene	0.287	0.275	.1	4.2	25	98	0
Isopropylcyclohexane	0.449	0.437	.1	2.7	25	103	0
4-Bromofluorobenzene (surr	0.502	0.478	.1	4.8	25	109	0
Isopropylbenzene	1.302	1.219	.1	6.4	25	102	0
3,3-Dimethyloctane	0.699	0.661	.1	5.4	25	99	0
n-Propylbenzene	1.45	1.393	.1	3.9	25	100	0
2-Methylnonane	0.353	0.35	.1	0.8	25	99	0
3-Methylnonane	0.476	0.469	.1	1.5	25	100	0
1-Methyl-3-ethylbenzene	1.289	1.224	.1	5	25	100	0
1-Methyl-4-ethylbenzene	1.246	1.179	.1	5.4	25	100	0
1,3,5-Trimethylbenzene	1.063	1.036	.1	2.5	25	101	0
1-Decene	0.21	0.207	.1	1.4	25	99	0
Isobutylcyclohexane	0.516	0.489	.1	5.2	25	101	0
1-Methyl-2-ethylbenzene	1.323	1.234	.1	6.7	25	99	0
Decane	0.375	0.356	.1	5.1	25	98	0
tert-Butylbenzene	0.986	0.926	.1	6.1	25	100	0
1,2,4-Trimethylbenzene	1.132	1.098	.1	3	25	101	0
Isobutylbenzene	1.239	1.179	.1	4.8	25	100	0
sec-Butylbenzene	1.441	1.344	.1	6.7	25	99	0
1-Methyl-3-isopropylbenzen	1.238	1.189	.1	4	25	100	0
1-Methyl-4-isopropylbenzen	1.231	1.177	.1	4.4	25	99	0
1,2,3-Trimethylbenzene	1.178	1.128	.1	4.2	25	99	0
1-Methyl-2-isopropylbenzen	1.255	1.191	.1	5.1	25	99	0
Indan	1.143	1.065	.1	6.8	25	98	0
1,3-Diethylbenzene	0.795	0.757	.1	4.8	25	98	0
1-Methyl-3-propylbenzene	1.476	1.417	.1	4	25	99	0
Indene	1.079	1.019	.1	5.6	25	97	0
1-Methyl-4-propylbenzene	1.748	1.673	.1	4.3	25	98	0
n-Butylbenzene	1.368	1.28	.1	6.4	25	97	0
1,2-Dimethyl-4-ethylbenzen	1.33	1.283	.1	3.5	25	99	0
1,2-Diethylbenzene	0.641	0.606	.1	5.5	25	98	0
1-Methyl-2-propylbenzene	1.582	1.515	.1	4.2	25	98	0
1,4-Dimethyl-2-ethylbenzen	1.228	1.196	.1	2.6	25	99	0
Undecane	0.489	0.491	.1	-0.4	25	100	0
1,3-Dimethyl-4-ethylbenzen	1.505	1.446	.1	3.9	25	99	0
1,3-Dimethyl-5-ethylbenzen	1.348	1.301	.1	3.5	25	99	0
1,3-Dimethyl-2-ethylbenzen	1.471	1.412	.1	4	25	99	0
1,2-Dimethyl-3-ethylbenzen	1.323	1.279	.1	3.3	25	99	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Instrument ID : VOA9	Calibration Date : 05/04/23 15:17
Lab File ID : V9004630	Init. Calib. Date(s) : 04/04/23 04/05/23
Sample No : WG1774659-13	Init. Calib. Times : 23:39 05:38
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2,4,5-Tetramethylbenzene	1.385	1.343	.1	3	25	100	0
1,2,3,5-Tetramethylbenzene	1.28	1.238	.1	3.3	25	100	0
Pentylbenzene	1.174	1.125	.1	4.2	25	99	0
1,2,3,4-Tetramethylbenzene	1.72	1.66	.1	3.5	25	100	0
1,3-DM-5-tert-Butylbenzene	1.191	1.163	.1	2.4	25	100	0
Dodecane	0.339	0.333	.1	1.8	25	94	0
1,3,5-Triethylbenzene	0.756	0.743	.1	1.7	25	101	0
Naphthalene	1.605	1.482	.1	7.7	25	98	0
Benzothiophene	0.954	0.895	.1	6.2	25	99	0
1,2,4-Triethylbenzene	0.705	0.694	.1	1.6	25	101	0
Hexylbenzene	1.052	1.032	.1	1.9	25	100	0
MMT	0.577	0.559	.1	3.1	25	99	0
Tridecane	0.398	0.349	.1	12.3	25	90	0
2-Methylnaphthalene	1.065	1.027	.1	3.6	25	100	0
1-Methylnaphthalene	0.952	0.915	.1	3.9	25	99	0
Tetradecane	0.303	0.248	.1	18.2	25	92	0
Pentadecane	0.207	0.19	.1	8.2	25	98	0

* Value outside of QC limits.



Internal Standard Area and RT Summary

Form 8a

Volatiles

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Instrument ID	: VOA9	Analysis Date	: 05/02/23 12:31:00
Sample No	: WG1774659-2	Lab File ID	: V9004591

	Chlorobenzene-d5		Area	RT	Area	RT
	Area	RT				
WG1774659-2	329662	39.04				
Upper Limit	659324	39.54				
Lower Limit	164831	38.54				
Sample ID						
WG1774659-3 LCS	326966	39.04				
WG1774659-4 LCSD	322096	39.04				
WG1774659-5 LD7	316804	39.04				
WG1774659-6 BLANK	314534	39.04				
WG1774659-9 CCAL	347362	39.04				

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

Volatiles

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Instrument ID	: VOA9	Analysis Date	: 05/03/23 17:23:00
Sample No	: WG1774659-11	Lab File ID	: V9004613

	Chlorobenzene-d5		Area	RT	Area	RT
	Area	RT				
WG1774659-11	366975	39.03				
Upper Limit	733950	39.53				
Lower Limit	183488	38.53				
Sample ID						
MW2112-041723-NAPL	256640	39.04				
MW2112-041723-NAPL DUP	259544	39.04				
WG1774659-13 CCAL	352175	39.03				

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



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

Initial Calibration

Response Factor Report PAH8

Method Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Method File : PAH8041923.M
 Title : Decalins & Alkylated PAH's
 Last Update : Fri Apr 21 13:24:01 2023
 Response Via : Initial Calibration

Calibration Files

10 =F804192312.D 25 =F804192313.D 100 =F804192314.D 500 =F804192315.D 5000=F804192316.D
 1e4 =F804192317.D 2e4 =F804192318.D

Compound		10	25	100	500	5000	1e4	2e4	Avg	%RSD
-----		-----								
1) i	Acenaphthene-d10	-----ISTD-----								
2) A1	trans-Decalin	0.438	0.420	0.385	0.381	0.382	0.439	0.474	0.417	8.58
3) t	cis-Decalin	0.389	0.319	0.312	0.294	0.290	0.340	0.365	0.330	11.20
4) A2	C1-Decalins	0.438	0.420	0.385	0.381	0.382	0.439	0.474	0.417	8.58
5) A2	C2-Decalins	0.438	0.420	0.385	0.381	0.382	0.439	0.474	0.417	8.58
6) A2	C3-Decalins	0.438	0.420	0.385	0.381	0.382	0.439	0.474	0.417	8.58
7) A2	C4-Decalins	0.438	0.420	0.385	0.381	0.382	0.439	0.474	0.417	8.58
8) s	Naphthalene-d8	2.307	2.172	2.237	2.108	2.072	2.161	2.370	2.204	4.85
9) A1	Naphthalene	2.477	2.412	2.460	2.446	2.333	2.279	2.509	2.417	3.42
10) A2	C1-Naphthalenes	2.477	2.412	2.460	2.446	2.333	2.279	2.509	2.417	3.42
11) A2	C2-Naphthalenes	2.477	2.412	2.460	2.446	2.333	2.279	2.509	2.417	3.42
12) A2	C3-Naphthalenes	2.477	2.412	2.460	2.446	2.333	2.279	2.509	2.417	3.42
13) A2	C4-Naphthalenes	2.477	2.412	2.460	2.446	2.333	2.279	2.509	2.417	3.42
14) t	2-Methylnaphth...	1.591	1.545	1.565	1.606	1.602	1.551	1.711	1.596	3.52
15) t	1-Methylnaphth...	1.483	1.417	1.403	1.438	1.412	1.454	1.599	1.458	4.66
16) A1	Benzothiophene	2.206	2.162	2.172	2.184	2.046	1.981	2.151	2.129	3.89
17) A2	C1-Benzo(b)thi...	2.206	2.162	2.172	2.184	2.046	1.981	2.151	2.129	3.89
18) A2	C2-Benzo(b)thi...	2.206	2.162	2.172	2.184	2.046	1.981	2.151	2.129	3.89
19) A2	C3-Benzo(b)thi...	2.206	2.162	2.172	2.184	2.046	1.981	2.151	2.129	3.89
20) A2	C4-Benzo(b)thi...	2.206	2.162	2.172	2.184	2.046	1.981	2.151	2.129	3.89
21) t	Biphenyl	1.956	1.896	1.864	1.895	1.845	1.848	2.034	1.905	3.58
22) t	2,6-Dimethylna...	1.264	1.182	1.190	1.249	1.252	1.318	1.461	1.274	7.43
23) t	Dibenzofuran	1.782	1.739	1.807	1.867	1.767	1.978	2.131	1.867	7.55
24) t	Acenaphthylene	2.133	2.100	2.141	2.283	2.296	2.326	2.502	2.254	6.29
25) t	Acenaphthene	1.438	1.346	1.409	1.472	1.441	1.450	1.581	1.448	4.91
26) t	2,3,5-Trimethy...	1.014	0.951	0.969	1.022	1.040	1.137	1.248	1.054	9.89
27) A1	Fluorene	1.462	1.391	1.435	1.530	1.515	1.567	1.724	1.518	7.16
28) A2	C1-Fluorenes	1.462	1.391	1.435	1.530	1.515	1.567	1.724	1.518	7.16
29) A2	C2-Fluorenes	1.462	1.391	1.435	1.530	1.515	1.567	1.724	1.518	7.16
30) A2	C3-Fluorenes	1.462	1.391	1.435	1.530	1.515	1.567	1.724	1.518	7.16
31) A1	Dibenzothiophene	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29

Response Factor Report PAH8

Method Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Method File : PAH8041923.M
 Title : Decalins & Alkylated PAH's
 Last Update : Fri Apr 21 13:24:01 2023
 Response Via : Initial Calibration

Calibration Files

10 =F804192312.D 25 =F804192313.D 100 =F804192314.D 500 =F804192315.D 5000=F804192316.D
 1e4 =F804192317.D 2e4 =F804192318.D

	Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
32) A2	4-Methyldibenz...	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
33) A2	2/3-Methyldibe...	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
34) A2	1-Methyldibenz...	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
35) A2	OTP	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
36) A2	C1-Dibenzothio...	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
37) A2	C2-Dibenzothio...	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
38) A2	C3-Dibenzothio...	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
39) A2	C4-Dibenzothio...	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
40) s	Phenanthrene-d10	1.348	1.270	1.302	1.306	1.321	1.614	1.686	1.406	12.01
41) A1	Phenanthrene	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
42) A2	3-Methylphenan...	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
43) A2	2-Methylphenan...	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
44) A2	2-Methylanthra...	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
45) A2	9/4-Methylphen...	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
46) A2	1-Methylphenan...	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
47) A2	C1-Phenanthren...	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
48) A2	C2-Phenanthren...	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
49) A2	5AA IS BKGD	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
50) A2	C3-Phenanthren...	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
51) A2	C4-Phenanthren...	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
52) t	Retene	0.361	0.352	0.353	0.399	0.445	0.596	0.666	0.453	28.10
53) t	Anthracene	1.806	1.696	1.752	1.955	1.899	1.867	1.880	1.836	4.90
54) t	Carbazole	3.349	2.047	1.842	1.944	1.948	2.004	2.167	2.186	23.91
56) A1	Fluoranthene	1.990	1.863	1.923	2.137	2.193	2.188	2.431	2.104	9.24
57) A1	Benzo(b)fluorene	0.997	0.883	0.946	1.092	1.193	1.325	1.495	1.133	19.39
58) A2	7H-Benzo(c)flu...	0.997	0.883	0.946	1.092	1.193	1.325	1.495	1.133	19.39
59) A1	Pyrene	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
60) A2	2-Methylpyrene	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
61) A2	4-Methylpyrene	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
62) A2	1-Methylpyrene	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
63) A2	C1-Fluoranthen...	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
64) A2	C2-Fluoranthen...	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51

Response Factor Report PAH8

Method Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Method File : PAH8041923.M
 Title : Decalins & Alkylated PAH's
 Last Update : Fri Apr 21 13:24:01 2023
 Response Via : Initial Calibration

Calibration Files

10 =F804192312.D 25 =F804192313.D 100 =F804192314.D 500 =F804192315.D 5000=F804192316.D
 1e4 =F804192317.D 2e4 =F804192318.D

Compound			10	25	100	500	5000	1e4	2e4	Avg	%RSD
65)	A2	C3-Fluoranthene...	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
66)	A2	C4-Fluoranthene...	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
67)	A1	Naphthobenzoth...	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27
68)	A2	Naphthobenzoth...	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27
69)	A2	Naphthobenzoth...	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27
70)	A2	C1-Naphthobenz...	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27
71)	A2	C2-Naphthobenz...	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27
72)	A2	C3-Naphthobenz...	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27
73)	A2	C4-Naphthobenz...	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27
74)	i	Chrysene-d12	-----ISTD-----								
75)	t	Benz[a]anthracene	1.432	1.329	1.384	1.443	1.516	1.410	1.712	1.461	8.52
77)	A2	Chrysene/Triph...	1.471	1.417	1.462	1.508	1.503	1.363	1.676	1.486	6.60
78)	A2	C1-Chrysenes	1.471	1.417	1.462	1.508	1.503	1.363	1.676	1.486	6.60
79)	A2	C2-Chrysenes	1.471	1.417	1.462	1.508	1.503	1.363	1.676	1.486	6.60
80)	A2	BBF-D12 Surr BKGD	1.471	1.417	1.462	1.508	1.503	1.363	1.676	1.486	6.60
81)	A2	C3-Chrysenes	1.471	1.417	1.462	1.508	1.503	1.363	1.676	1.486	6.60
82)	A2	C4-Chrysenes	1.471	1.417	1.462	1.508	1.503	1.363	1.676	1.486	6.60
83)	s	Benzo[b]fluora...	1.129	0.939	0.925	0.890	0.936	0.972	1.195	0.998	11.64
84)	t	Benzo[b]fluora...	1.797	1.664	1.605	1.692	1.741	1.592	1.994	1.726	8.01
85)	A1	Benzo[j]+[k]fl...	1.781	1.639	1.624	1.731	1.772	1.616	2.017	1.740	8.08
86)	A2	Benzo[a]fluora...	1.781	1.639	1.624	1.731	1.772	1.616	2.017	1.740	8.08
87)	t	Benzo[e]pyrene	1.804	1.619	1.587	1.629	1.642	1.540	1.870	1.670	7.21
88)	s	Benzo[a]pyrene...	0.806	0.670	0.674	0.646	0.704	0.895	1.107	0.786	21.28
89)	t	Benzo[a]pyrene	1.729	1.526	1.471	1.541	1.600	1.469	1.811	1.592	8.26
90)	t	Perylene	1.735	1.492	1.466	1.557	1.624	1.520	1.849	1.606	8.75
91)	t	Indeno[1,2,3-c...	2.166	1.735	1.700	1.795	1.984	1.880	2.374	1.948	12.66
92)	t	Dibenz[ah]+[ac...	1.719	1.496	1.421	1.494	1.596	1.587	1.947	1.609	11.03
93)	t	Benzo[g,h,i]pe...	2.717	1.921	1.801	1.809	1.828	1.612	1.904	1.942	18.36
128)	SA1	5B(H)Cholane -...	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
146)	A2	C20 Pregnane	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
147)	A2	C21 20-Methylp...	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66

Response Factor Report PAH8

Method Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Method File : PAH8041923.M
 Title : Decalins & Alkylated PAH's
 Last Update : Fri Apr 21 13:24:01 2023
 Response Via : Initial Calibration

Calibration Files

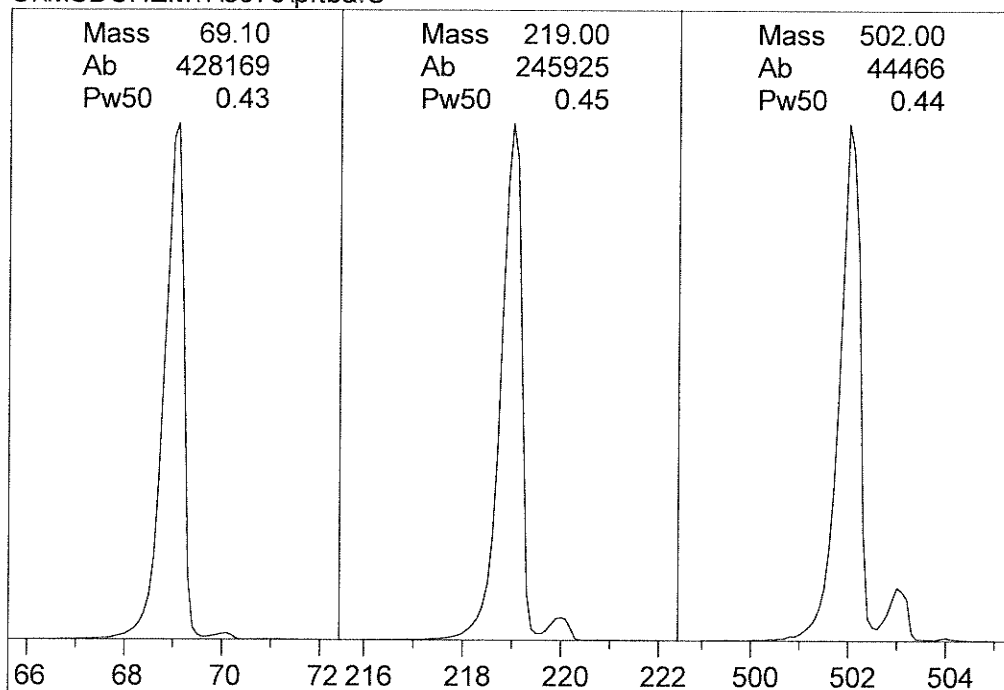
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 1e4 =F804192317.D 2e4 =F804192318.D

	Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
148) A2	C22 20-Ethylpr...	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
149) A2	C22 20-Ethylpr...	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
150) A2	C26,20S TAS	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
151) A2	C26,20R+C27,20...	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
152) A2	C28,20S TAS	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
153) A2	C27,20R TAS	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
154) A2	C28,20R TAS	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
155) A2	C29,20S TAS	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
156) A2	C29,20R TAS	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66

(#) = Out of Range

Wed Apr 19 13:11:01 2023
C:\MSDCHEM\1\5975\pftba.U

Instrument: PAH8
US92012831

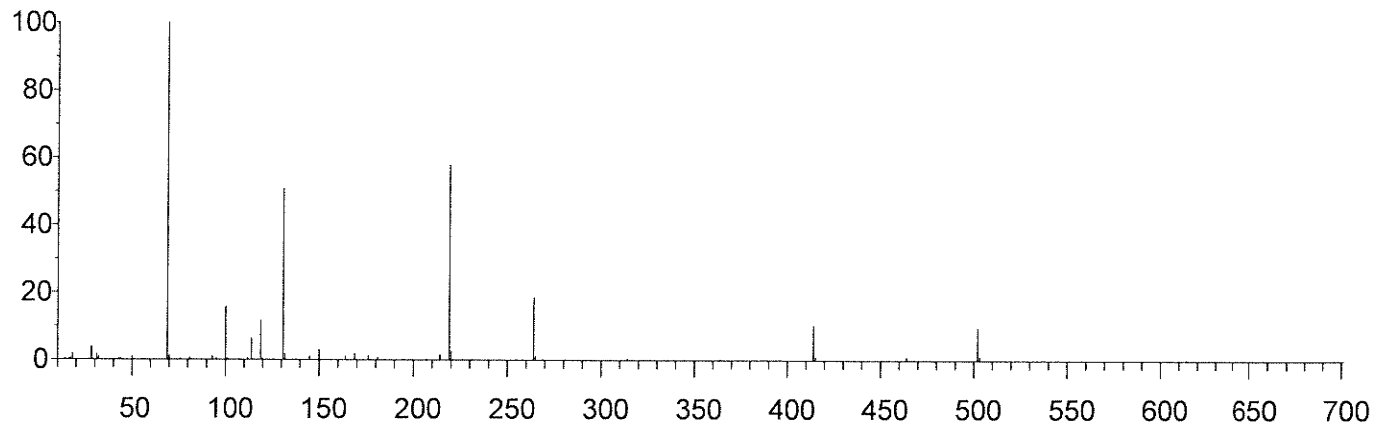


Ion Pol Pos MassGain -481
MassOffs -45
Emission 34.6 AmuGain 2388
ElEnergy 69.9 AmuOffs 137.56
Filament 1 Wid219 0.001
DC Pol Pos
Repeller 42.18
IonFcus 81.6 HEDenab On
EntLens 0.0 EMVolts 1518
EntOffs Var

PFTBA Open Samples 8
Averages 3
Stepsize 0.10

Temperatures and Pressures:
MS Source 230 Foreline 80.984
MS Quad 150 HiVac 0.00e+00

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
121 peaks Base: 69.00 Abundance: 372800



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	372800	100.00	70.00	4454	1.19
219.00	215104	57.70	220.00	9558	4.44
502.10	35712	9.58	503.10	3844	10.76

Air/Water Check: H2O~1.80% N2~3.80% O2~0.96% CO2~0.35% N2/H2O~210.91%

Column(1) Flow: 1 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:

Ion Focus Maximum 90 volts using ion 502; EM Gain 71763
Repeller Maximum 20 volts using ion 219; Gain Factor 0.72

MassGain Values(Samples): -479(3) -477(2) -469(1) -449(0) -370(FS)

TARGET MASS: 50 69 131 219 414 502 1050

Amu Offset: 137.6 137.6 137.6 137.6 137.6 137.6 137.6

Entrance Lens Offset: 7.3 8.8 10.0 10.3 15.6 17.3 17.3

Target Abund(%): 1.0 100.0 45.0 50.0 8.0 8.0

Actual Tune Abund(%): 1.0 100.0 50.7 57.7 10.3 9.6

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192312.D
 Acq On : 20 Apr 2023 3:34 am
 Operator : PAH8:MJS
 Sample : i804192301
 Misc : WG1769611,FRBF67
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 20 09:11:51 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 13 06:40:48 2023
 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	27.469	164	14394	500.000	ng/mL	0.00
74) Chrysene-d12	43.962	240	15327	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.479	136	664	9.317	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	0.93%#		
40) Phenanthrene-d10	33.354	188	388	7.660	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	0.77%#		
83) Benzo[b]fluoranthene-d12	47.910	264	346	10.777	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	1.08%#		
88) Benzo[a]pyrene-d12	49.173	264	247	9.941	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	0.99%#		
128) 5B(H)Cholane - Surr	44.574	217	49M2	8.986	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	0.90%#		
Target Compounds						
						Qvalue
2) trans-Decalin	17.121	138	63M2	4.578	ng/mL	
3) cis-Decalin	18.344	138	56M2	5.459	ng/mL	
9) Naphthalene	20.552	128	713	7.469	ng/mL	100
14) 2-Methylnaphthalene	23.253	142	458	9.150	ng/mL	100
15) 1-Methylnaphthalene	23.682	142	427	10.012	ng/mL	100
16) Benzothiophene	20.771	134	635	6.771	ng/mL	100
21) Biphenyl	25.142	154	563	9.880	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.754	156	364	9.681	ng/mL	100
23) Dibenzofuran	28.236	168	513	8.138	ng/mL#	88
24) Acenaphthylene	26.858	152	614	9.683	ng/mL	100
25) Acenaphthene	27.597	153	414	10.139	ng/mL	96
26) 2,3,5-Trimethylnaphthalen	29.148	170	292	8.911	ng/mL	95
27) Fluorene	29.614	166	421	8.740	ng/mL	96
31) Dibenzothiophene	32.953	184	616	7.513	ng/mL#	75
41) Phenanthrene	33.446	178	593	8.751	ng/mL	98
52) Retene	40.438	234	104	4.417	ng/mL	95
53) Anthracene	33.628	178	520M3	8.005	ng/mL	
54) Carbazole	34.276	167	964M4	17.640	ng/mL	
55) 1-Methylphenanthrene	35.956	192	389	7.455	ng/mL	91
56) Fluoranthene	38.229	202	573	6.504	ng/mL#	66
57) Benzo(b)fluorene	40.749	216	287	5.286	ng/mL	100
59) Pyrene	39.114	202	577	6.670	ng/mL#	62
67) Naphthobenzothiophene-2,1	42.967	234	587	5.979	ng/mL#	74

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192312.D
 Acq On : 20 Apr 2023 3:34 am
 Operator : PAH8:MJS
 Sample : i804192301
 Misc : WG1769611,FRBF67
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 20 09:11:51 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 13 06:40:48 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
75) Benz[a]anthracene	43.898	228	439	9.293	ng/mL	94
76) Chrysene	44.054	228	451	9.616	ng/mL	94
77) Chrysene/Triphenylene	44.054	228	451	9.616	ng/mL	94
84) Benzo[b]fluoranthene	47.993	252	551	10.665	ng/mL	95
85) Benzo[j]+[k]fluoranthene	48.084	252	546	10.572	ng/mL	85
87) Benzo[e]pyrene	49.063	252	553M3	10.935	ng/mL	
89) Benzo[a]pyrene	49.264	252	530	11.215	ng/mL	85
90) Perylene	49.593	252	532	10.771	ng/mL	88
91) Indeno[1,2,3-cd]pyrene	54.459	276	664M3	9.126	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.513	278	527	8.727	ng/mL	86
93) Benzo[g,h,i]perylene	55.866	276	833	11.800	ng/mL	100
94) Hopane (T19)	53.499	191	122	14.020	ng/mL#	40

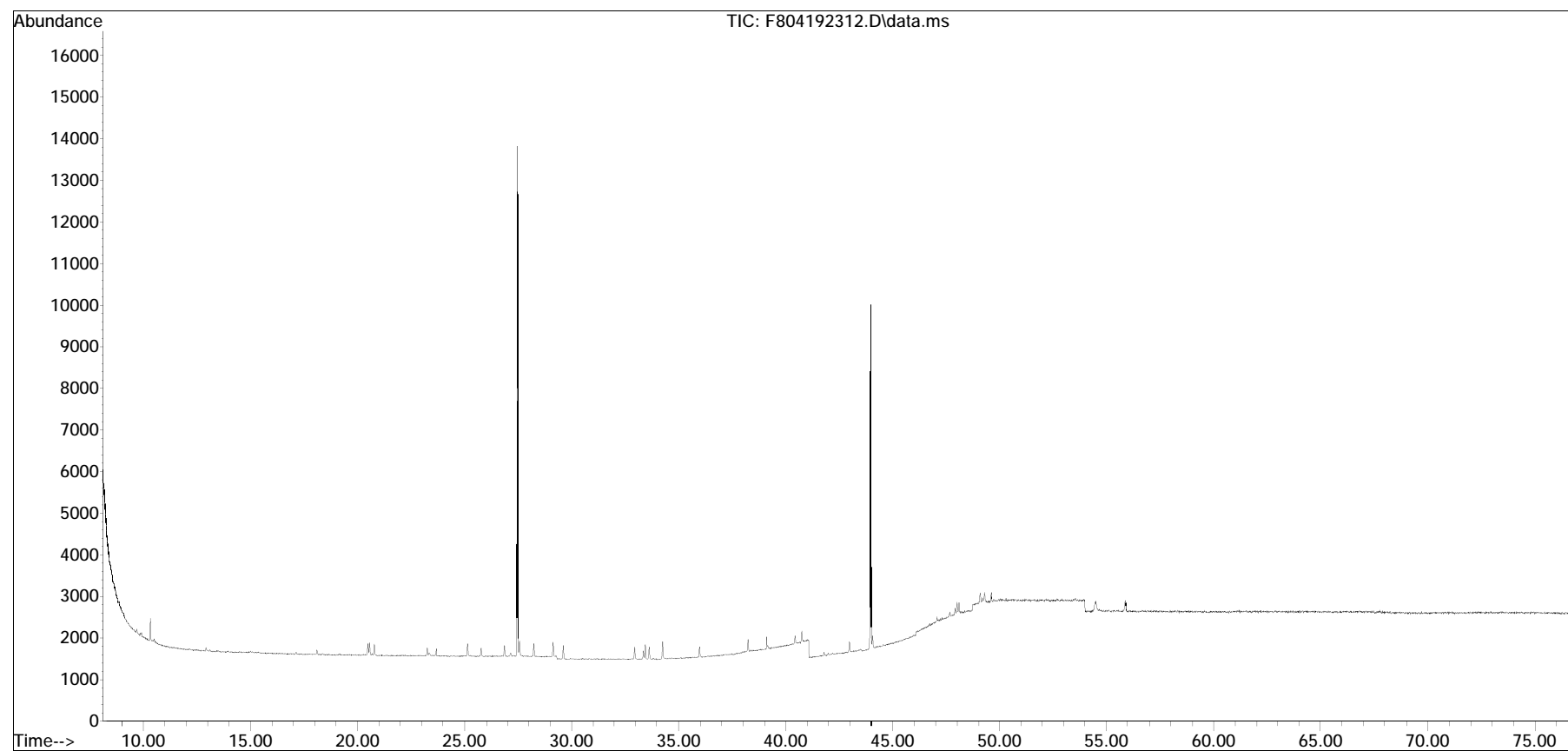
(#) = qualifier out of range (m) = manual integration (+) = signals summed

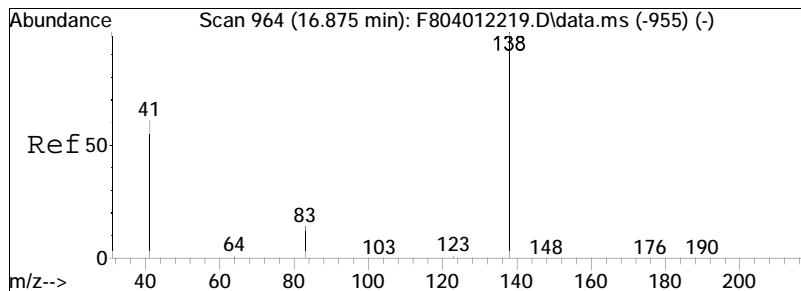
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
Data File : F804192312.D
Acq On : 20 Apr 2023 3:34 am
Operator : PAH8:MJS
Sample : i804192301
Misc : WG1769611,FRBF67
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 20 09:11:51 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 13 06:40:48 2023
Response via : Initial Calibration

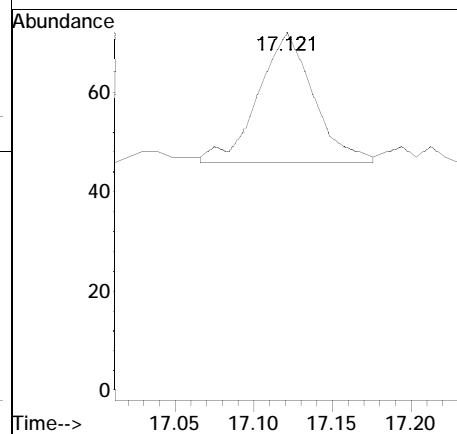
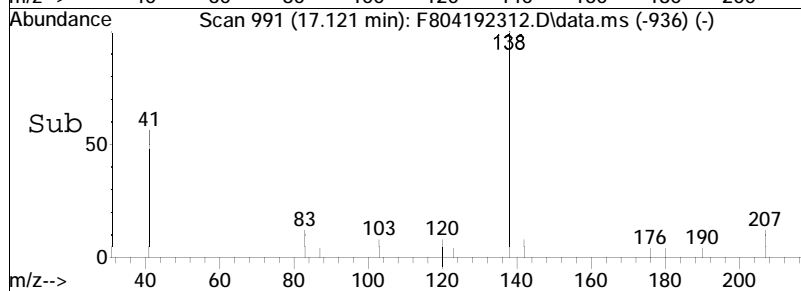
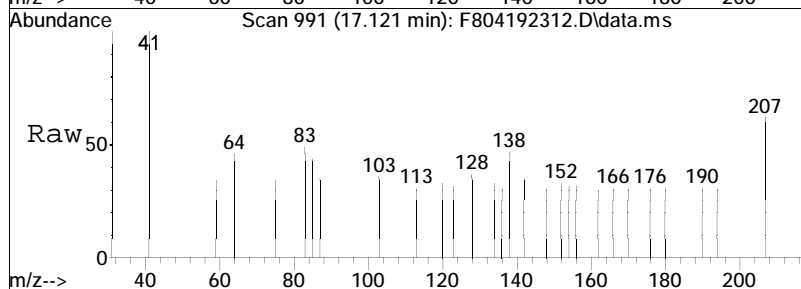
Sub List : ALKPAH_CCV - CC with five surrogates

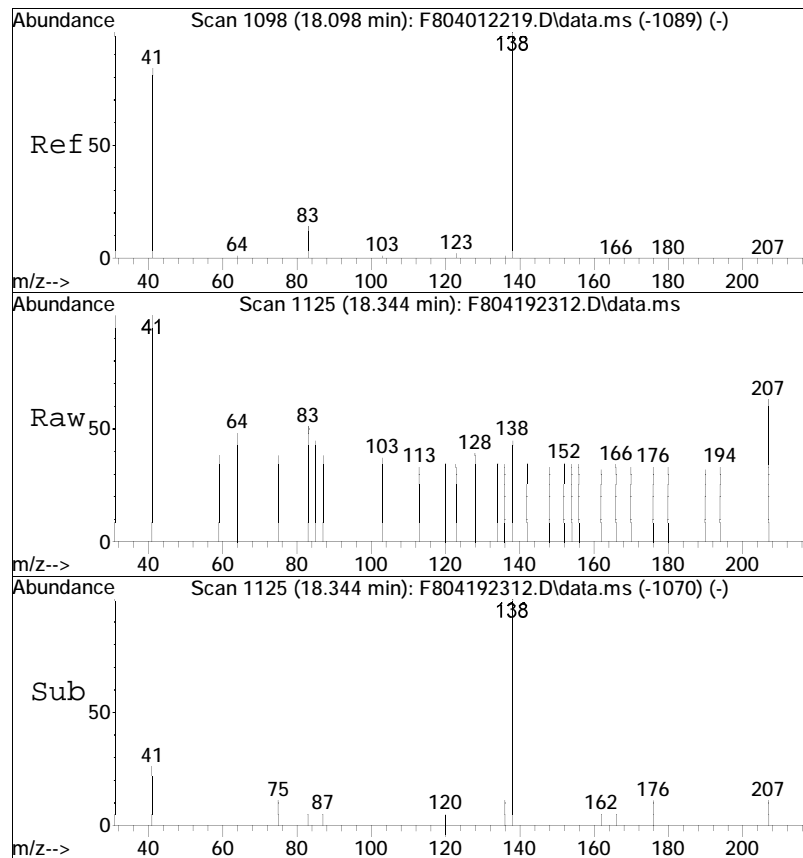




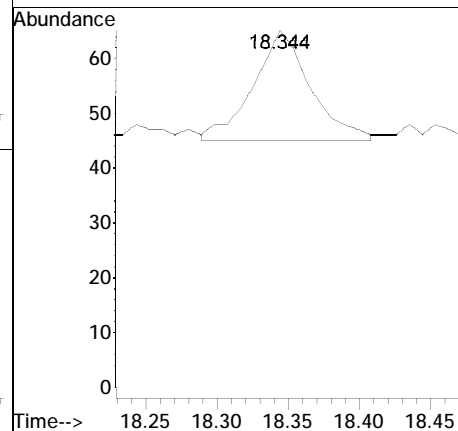
#2
trans-Decalin
Concen: 4.58 ng/mL M2
RT: 17.121 min Scan# 991
Delta R.T. -0.000 min
Lab File: F804192312.D
Acq: 20 Apr 2023 3:34 am

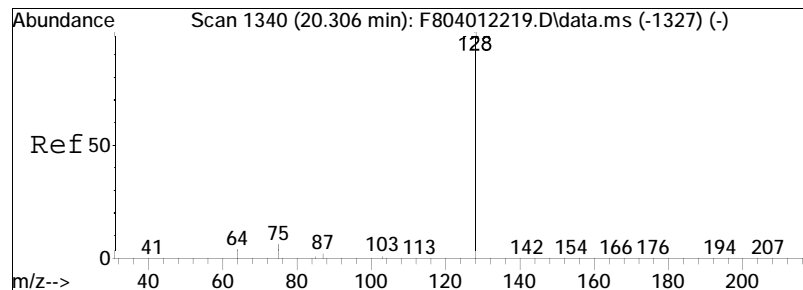
Tgt Ion:138 Resp: 63





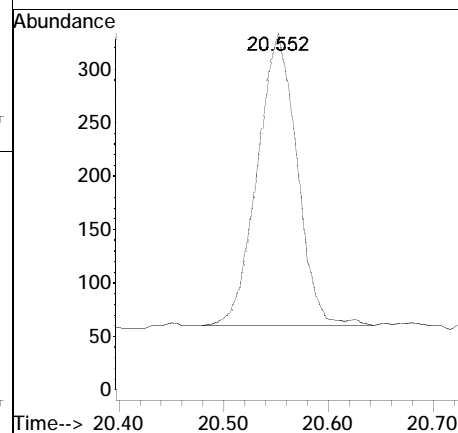
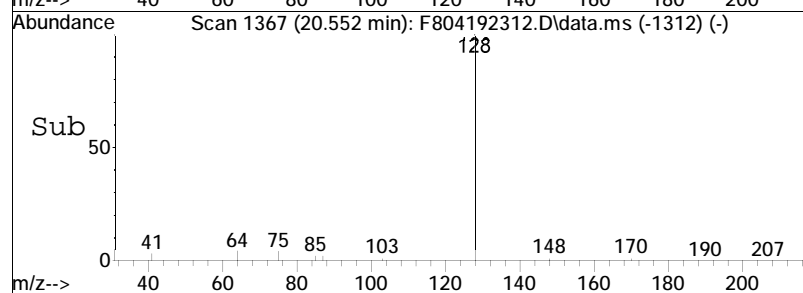
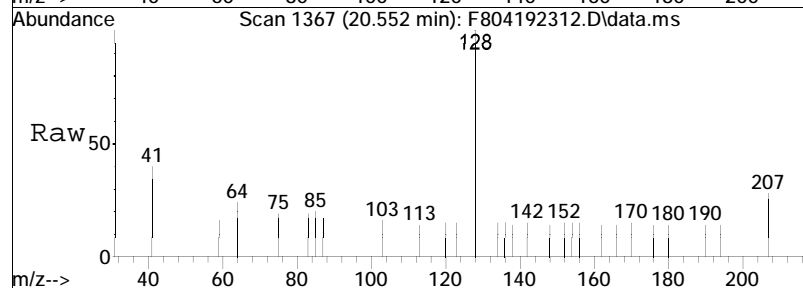
#3
 cis-Decalin
 Concen: 5.46 ng/mL M2
 RT: 18.344 min Scan# 1125
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am
 Tgt Ion:138 Resp: 56

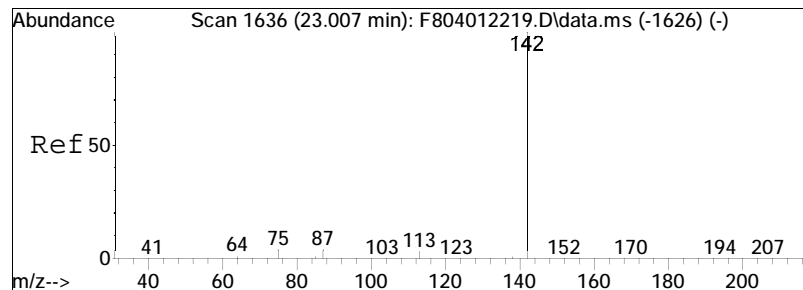




#9
 Naphthalene
 Concen: 7.47 ng/mL
 RT: 20.552 min Scan# 1367
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

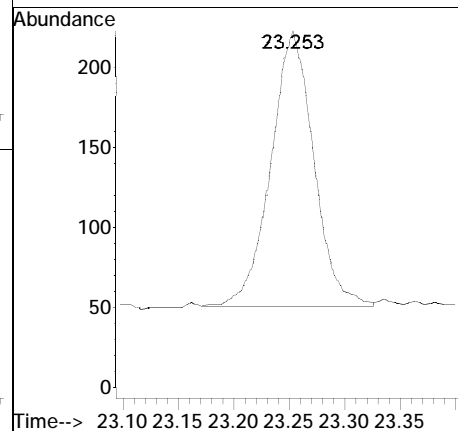
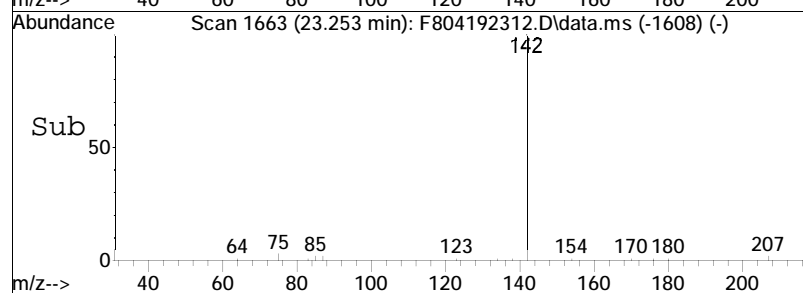
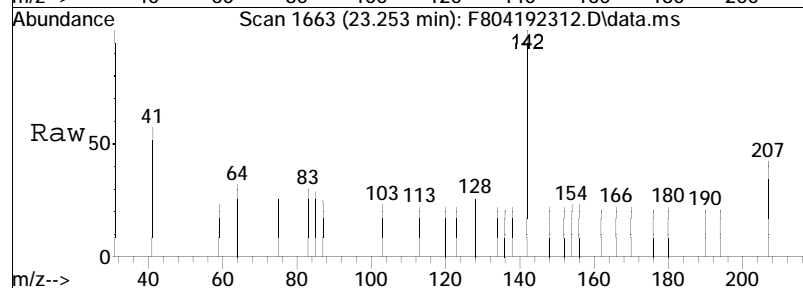
Tgt Ion:128 Resp: 713

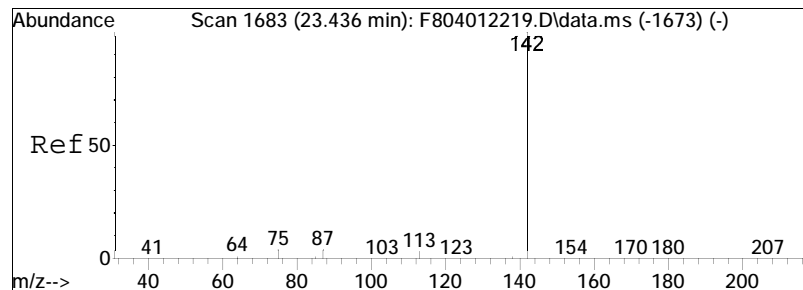




#14
 2-Methylnaphthalene
 Concen: 9.15 ng/mL
 RT: 23.253 min Scan# 1663
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

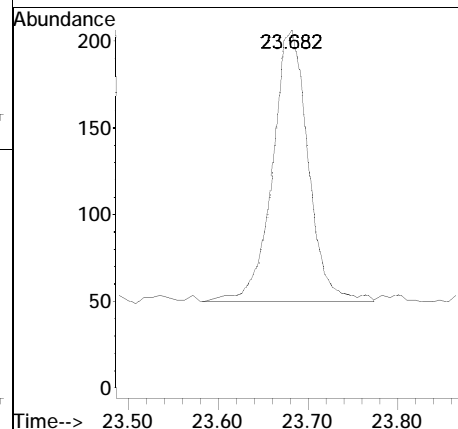
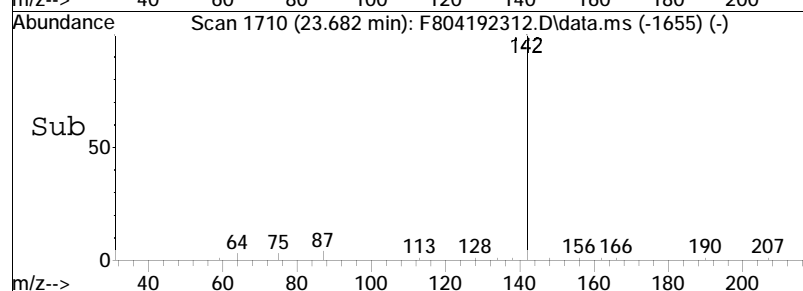
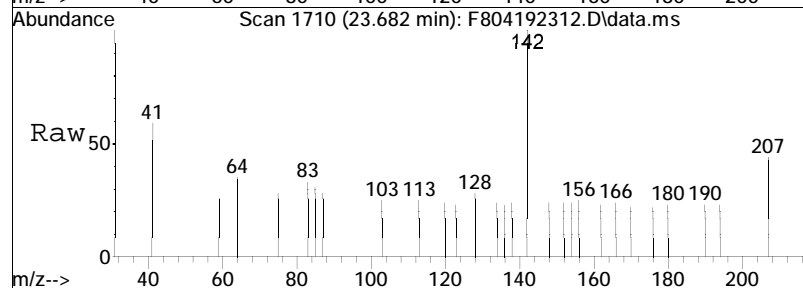
Tgt Ion:142 Resp: 458

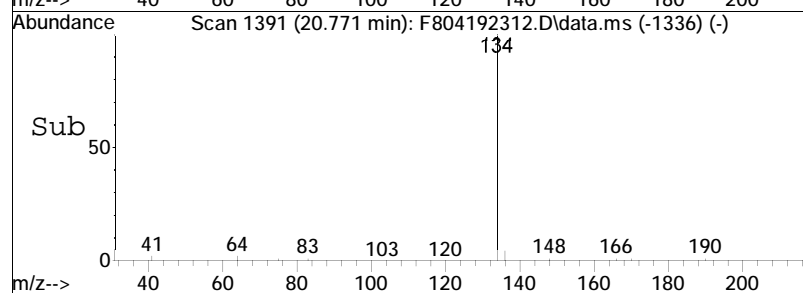
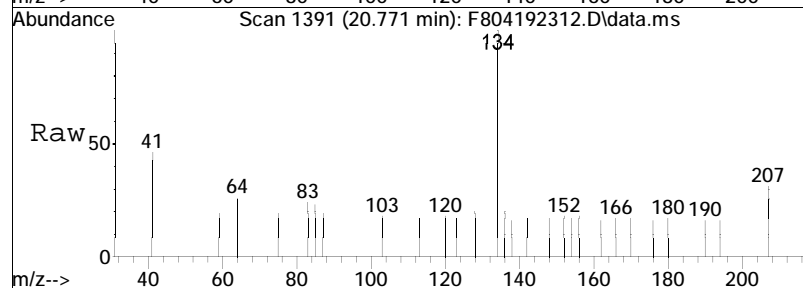
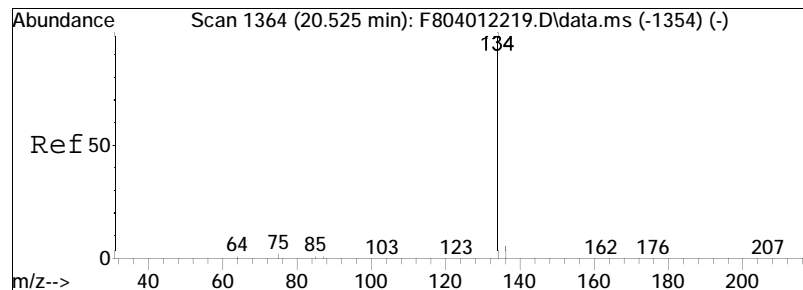




#15
1-Methylnaphthalene
Concen: 10.01 ng/mL
RT: 23.682 min Scan# 1710
Delta R.T. -0.000 min
Lab File: F804192312.D
Acq: 20 Apr 2023 3:34 am

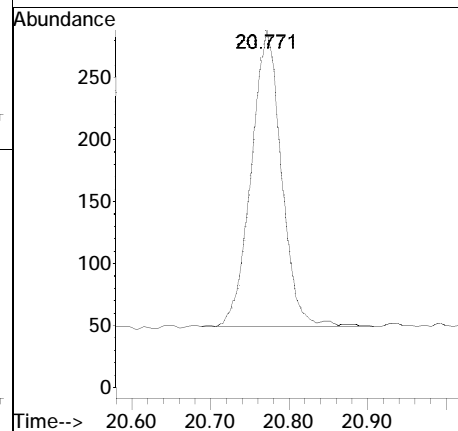
Tgt Ion:142 Resp: 427

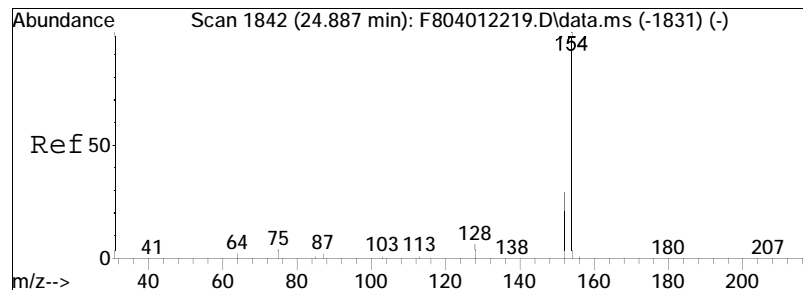




#16
Benzothiophene
Concen: 6.77 ng/mL
RT: 20.771 min Scan# 1391
Delta R.T. -0.000 min
Lab File: F804192312.D
Acq: 20 Apr 2023 3:34 am

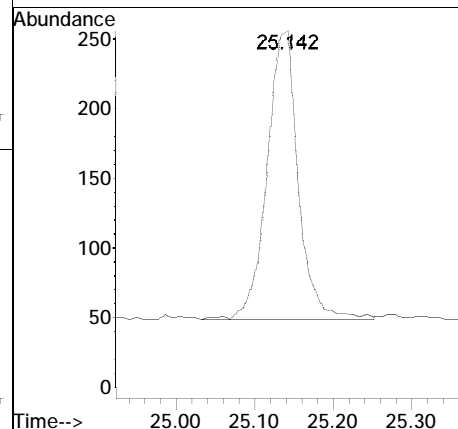
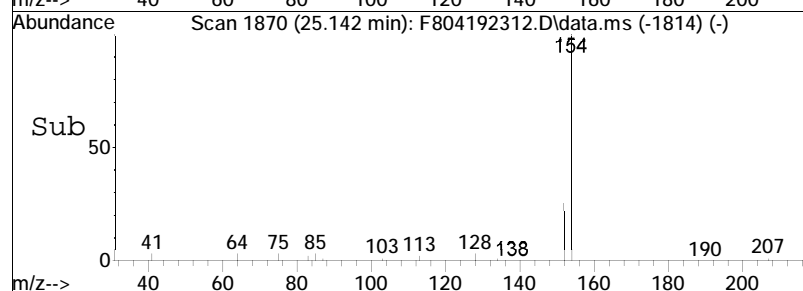
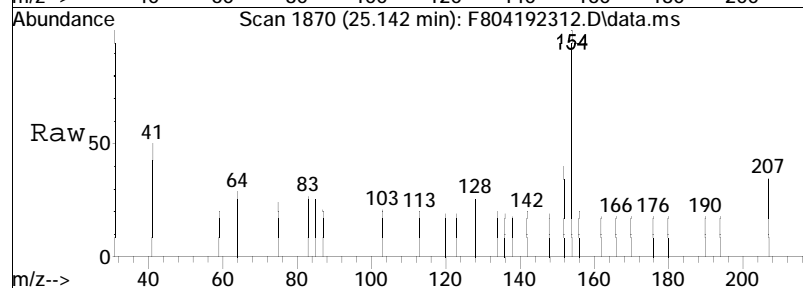
Tgt Ion:134 Resp: 635

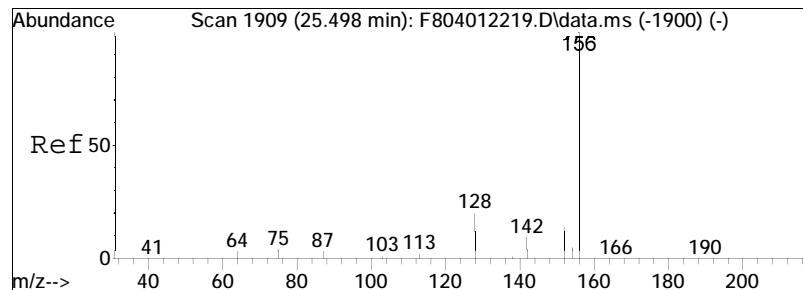




#21
 Biphenyl
 Concen: 9.88 ng/mL
 RT: 25.142 min Scan# 1870
 Delta R.T. 0.009 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

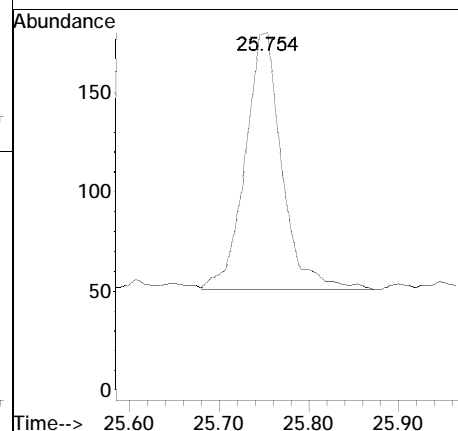
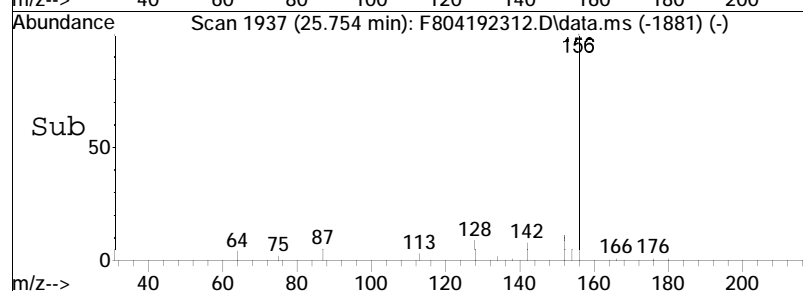
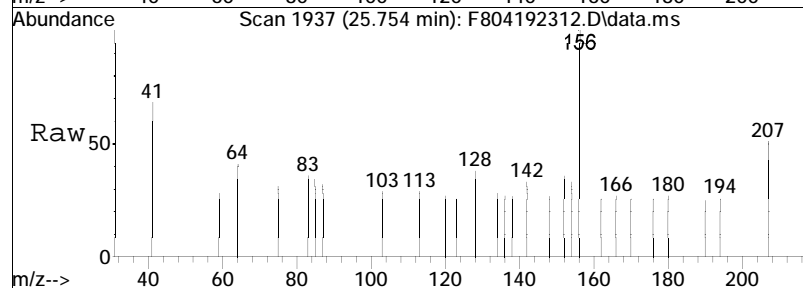
Tgt Ion:154 Resp: 563

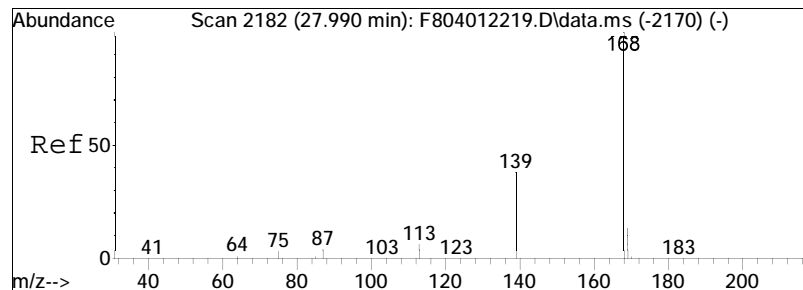




#22
 2,6-Dimethylnaphthalene
 Concen: 9.68 ng/mL
 RT: 25.754 min Scan# 1937
 Delta R.T. 0.009 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

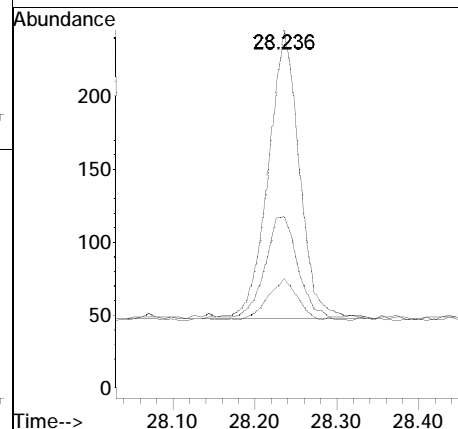
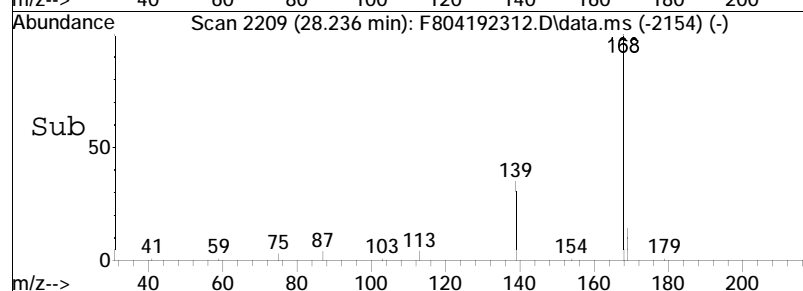
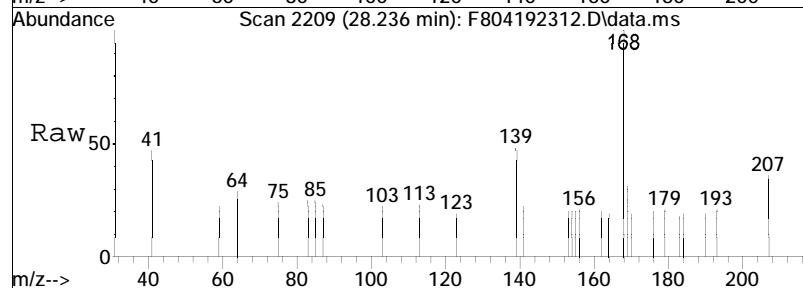
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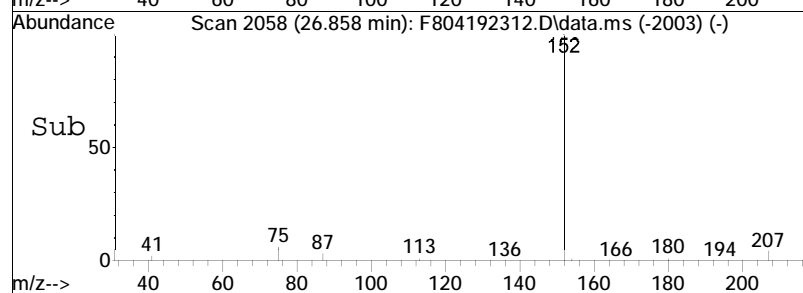
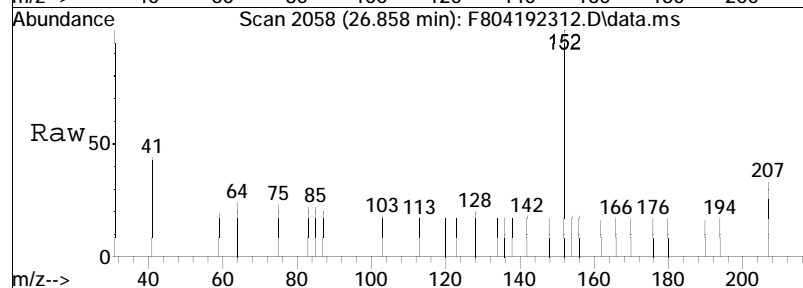
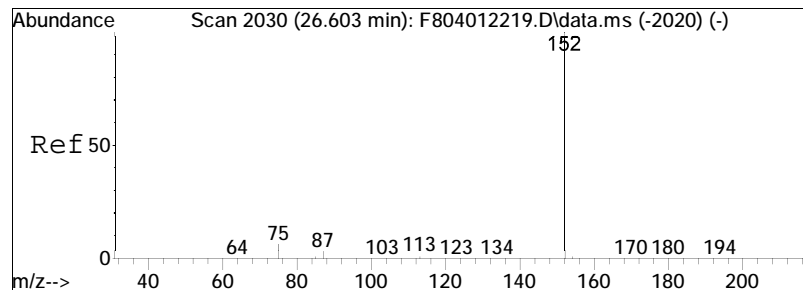




#23
Dibenzofuran
Concen: 8.14 ng/mL
RT: 28.236 min Scan# 2209
Delta R.T. -0.000 min
Lab File: F804192312.D
Acq: 20 Apr 2023 3:34 am

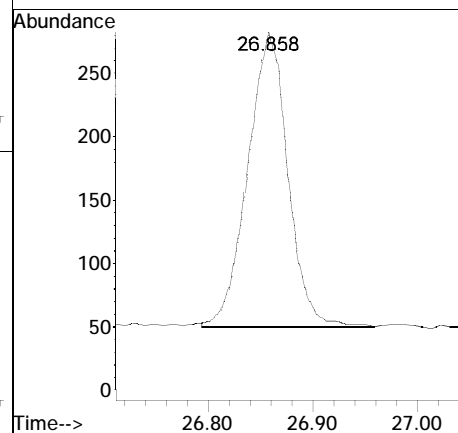
Tgt Ion	Ratio	Lower	Upper
168	100		
139	35.5	25.8	48.0
169	0.0	10.3	19.1#

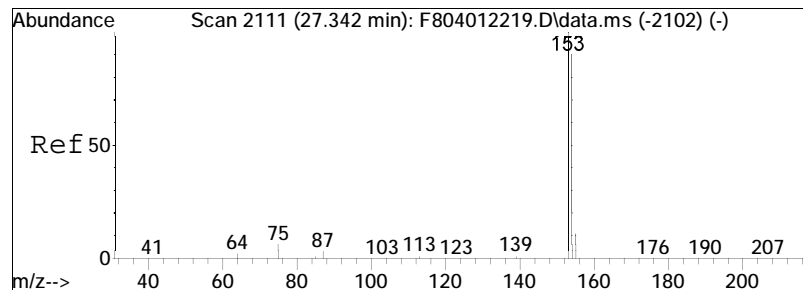




#24
 Acenaphthylene
 Concen: 9.68 ng/mL
 RT: 26.858 min Scan# 2058
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

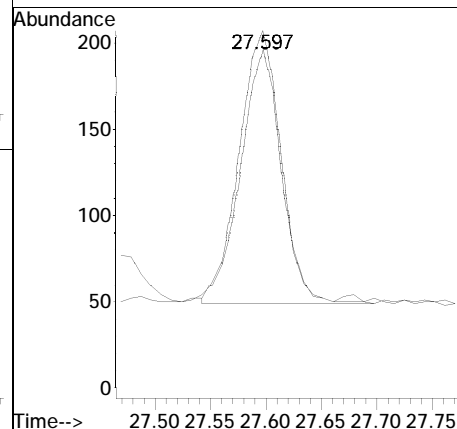
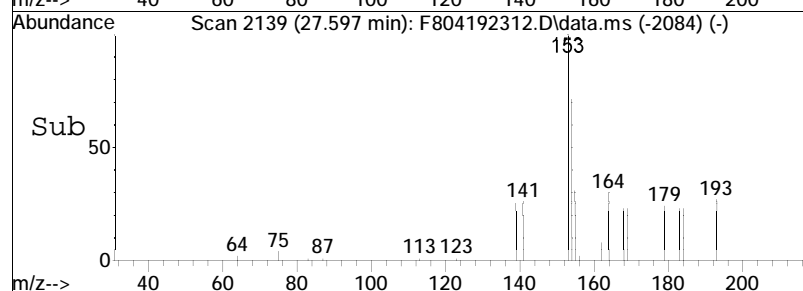
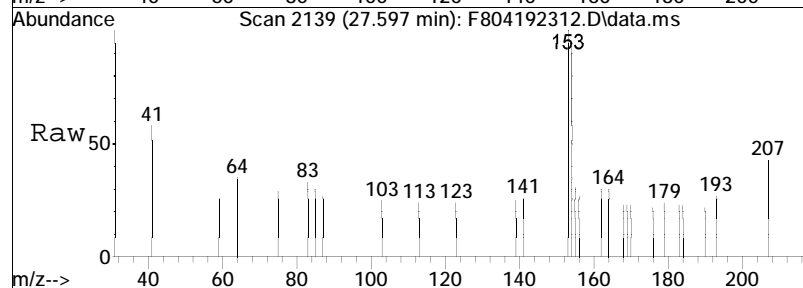
Tgt Ion:152 Resp: 614

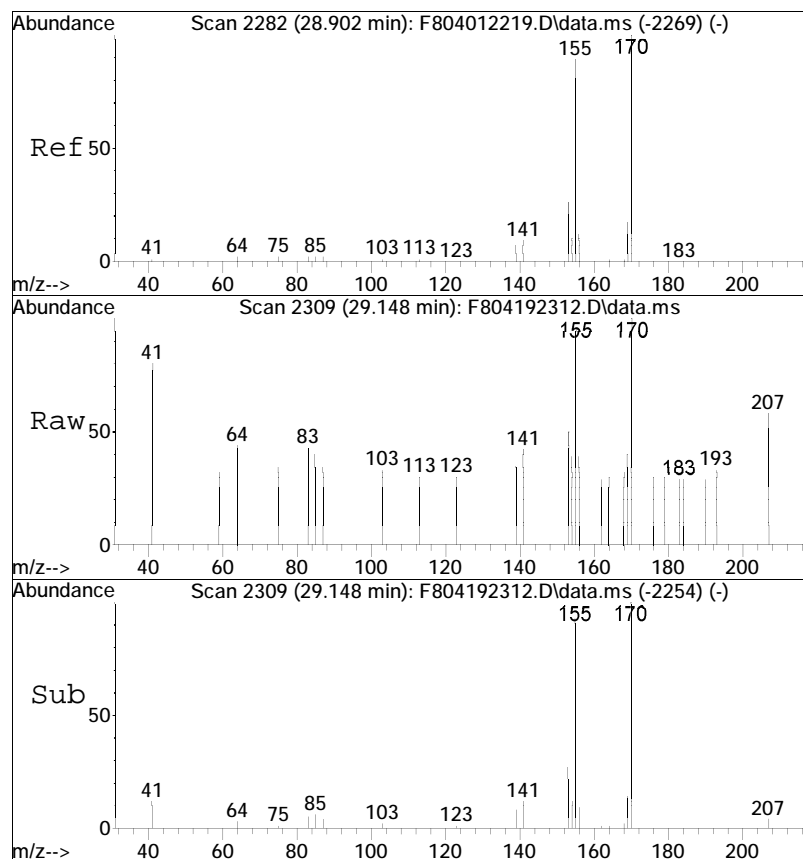




#25
 Acenaphthene
 Concen: 10.14 ng/mL
 RT: 27.597 min Scan# 2139
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

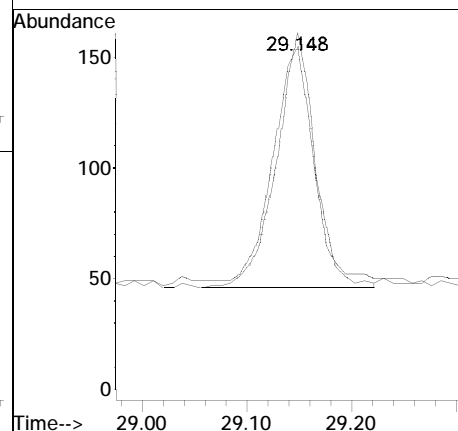
Tgt Ion	Ratio	Lower	Upper
153	100		
154	88.9	65.0	120.8

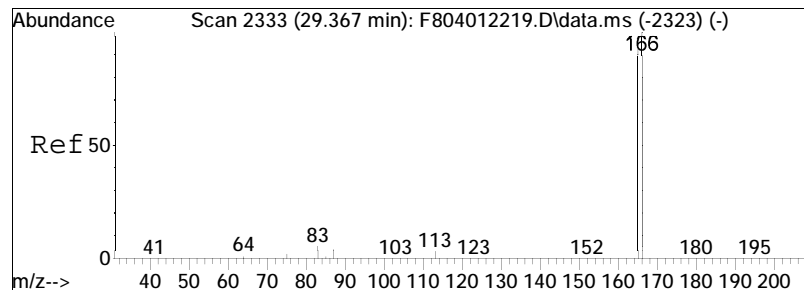




#26
 2,3,5-Trimethylnaphthalene
 Concen: 8.91 ng/mL
 RT: 29.148 min Scan# 2309
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

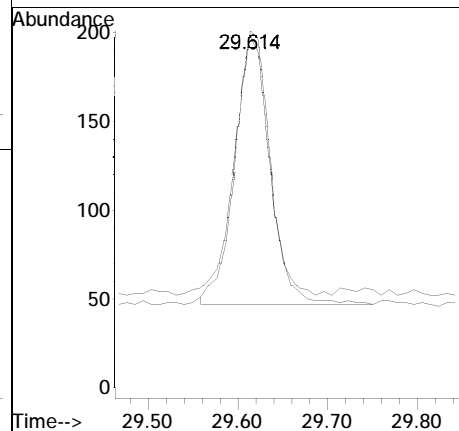
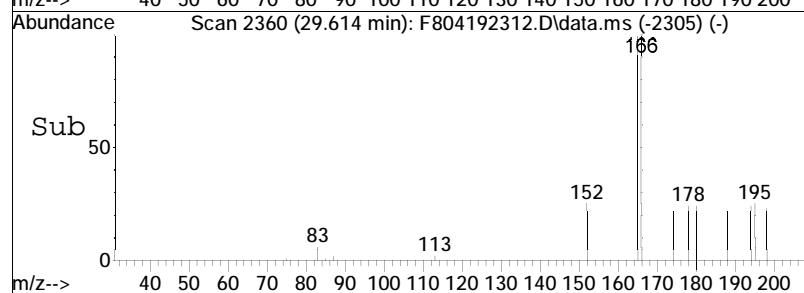
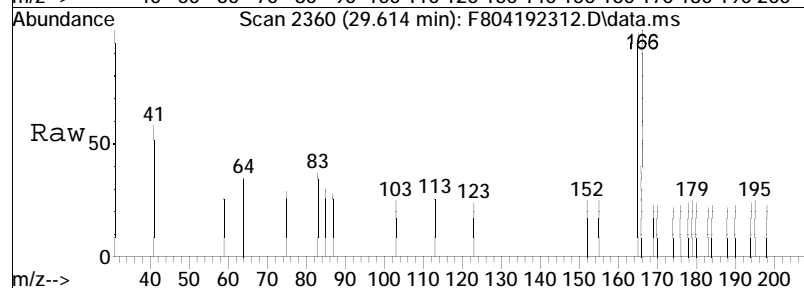
Tgt Ion	Ratio	Lower	Upper
170	100		
155	98.6	65.8	122.2

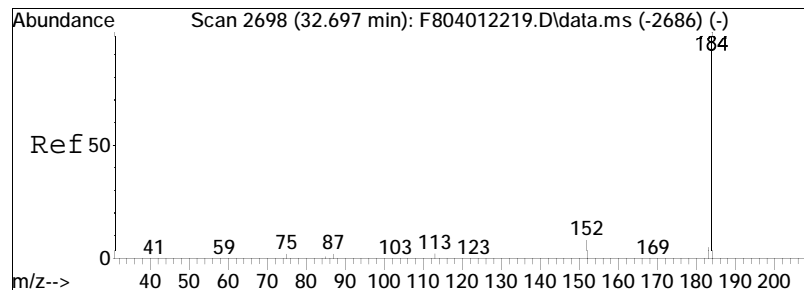




#27
 Fluorene
 Concen: 8.74 ng/mL
 RT: 29.614 min Scan# 2360
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

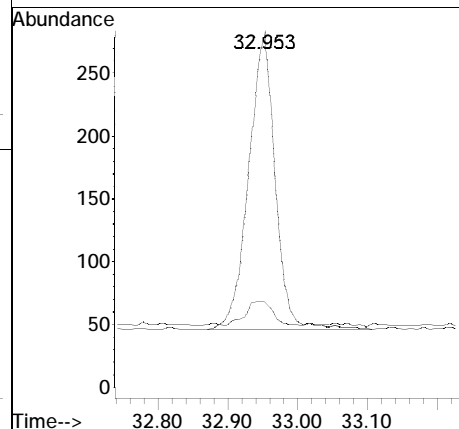
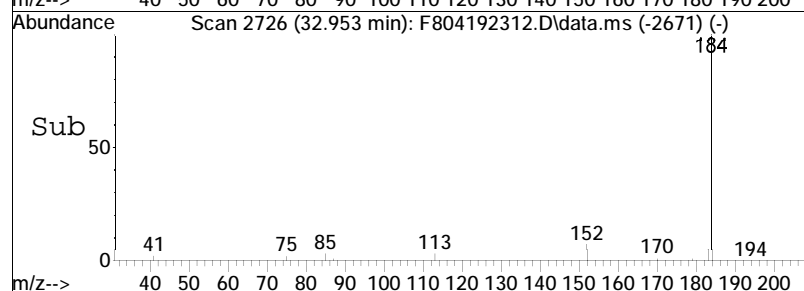
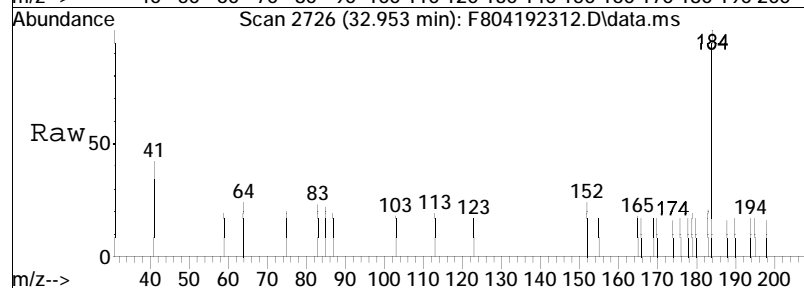
Tgt Ion	Ratio	Lower	Upper
166	100		
165	91.2	66.4	123.2

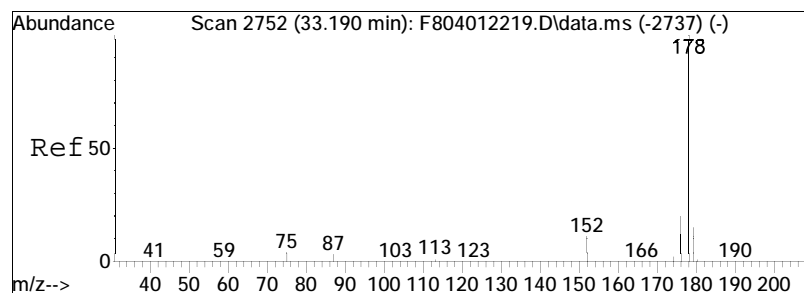




#31
 Dibenzenothiophene
 Concen: 7.51 ng/mL
 RT: 32.953 min Scan# 2726
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

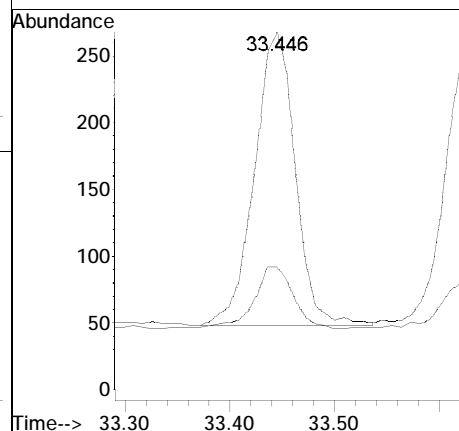
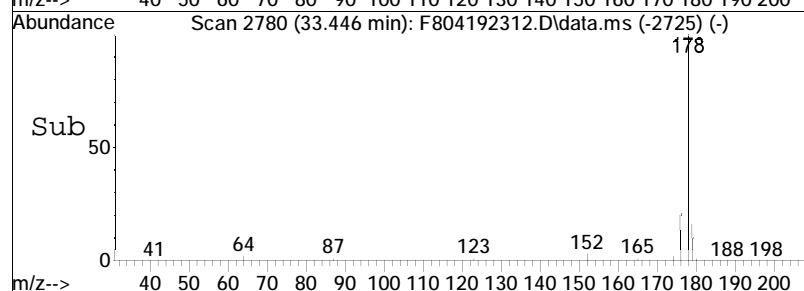
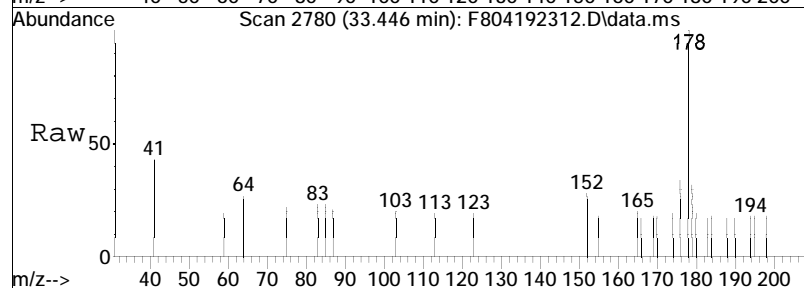
Tgt Ion	Ratio	Lower	Upper
184	100		
152	0.0	6.3	11.7#

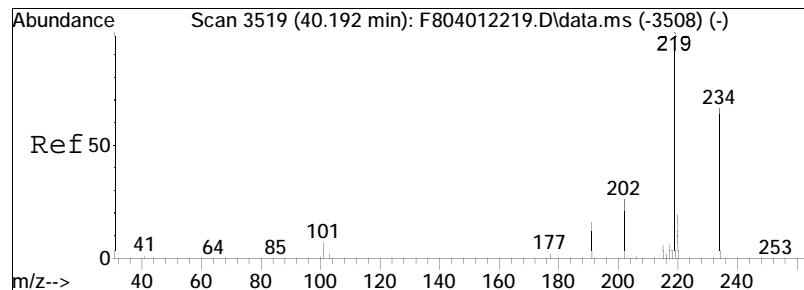




#41
 Phenanthrene
 Concen: 8.75 ng/mL
 RT: 33.446 min Scan# 2780
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

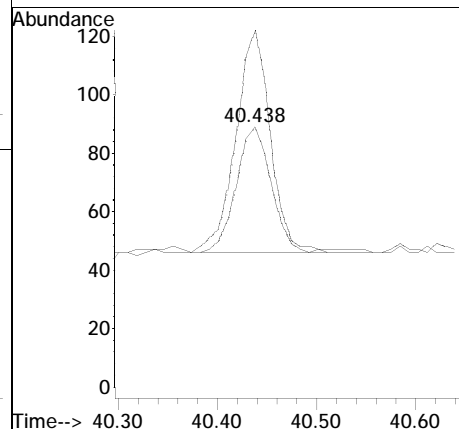
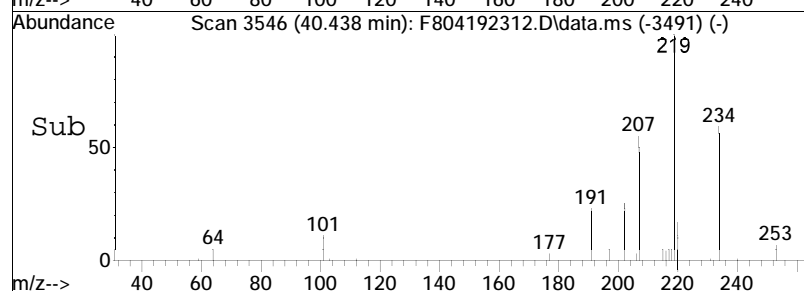
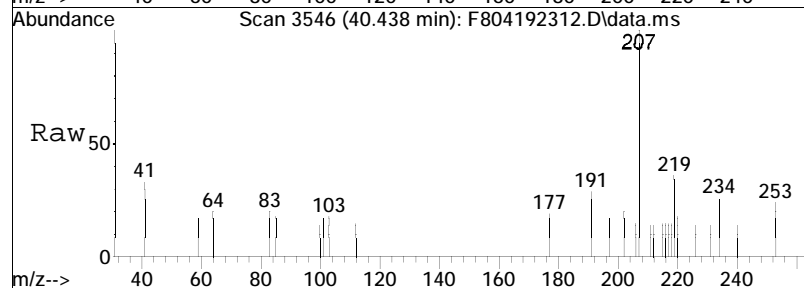
Tgt Ion	Ratio	Lower	Upper
178	100		
176	20.2	14.8	27.4

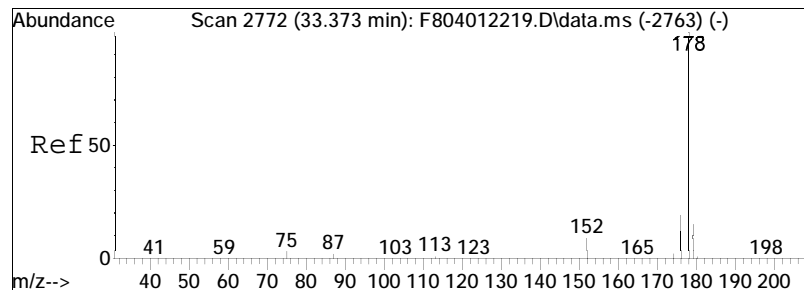




#52
 Retene
 Concen: 4.42 ng/mL
 RT: 40.438 min Scan# 3546
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

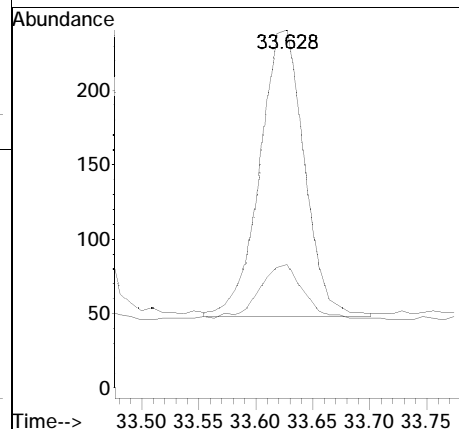
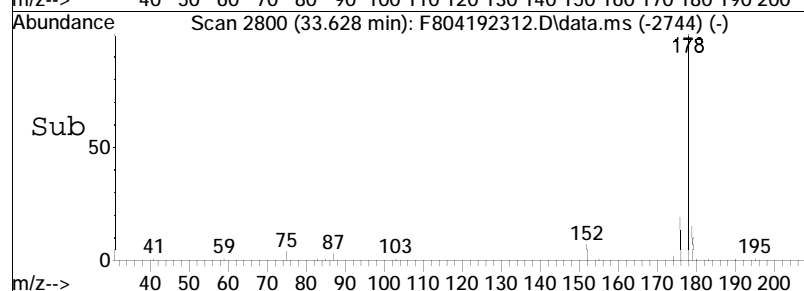
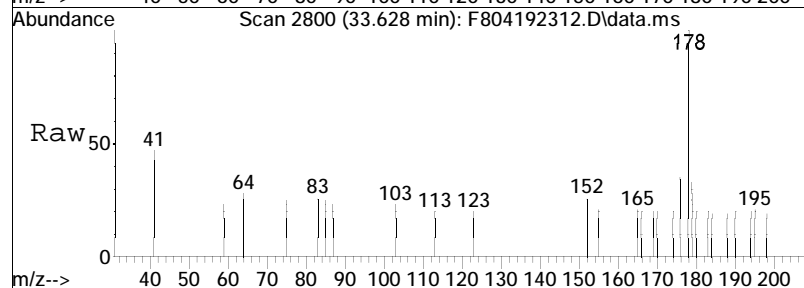
Tgt Ion	Ratio	Lower	Upper
234	100		
219	176.0	118.1	219.3

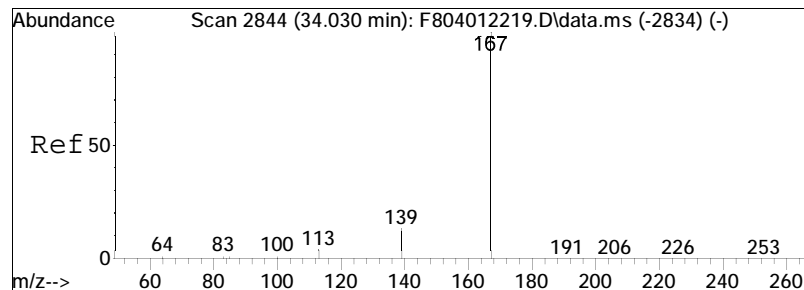




#53
 Anthracene
 Concen: 8.00 ng/mL M3
 RT: 33.628 min Scan# 2800
 Delta R.T. 0.009 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

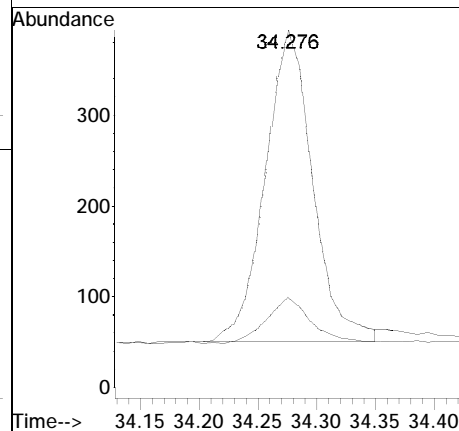
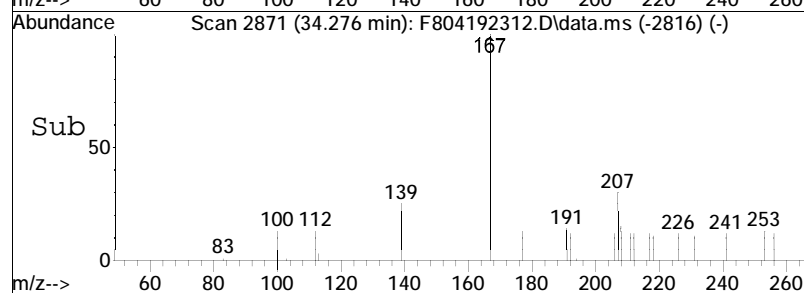
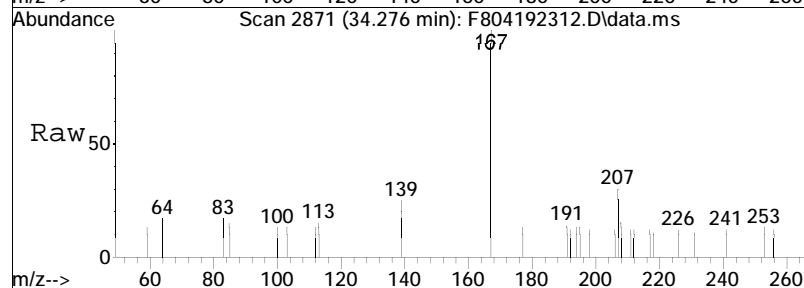
Tgt Ion	Ratio	Lower	Upper
178	100		
176	21.7	14.8	27.6

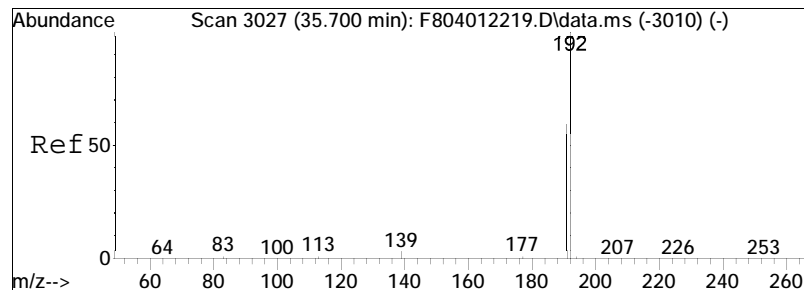




#54
 Carbazole
 Concen: 17.64 ng/mL M4
 RT: 34.276 min Scan# 2871
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

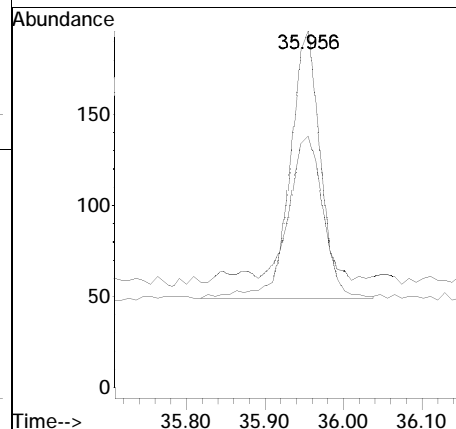
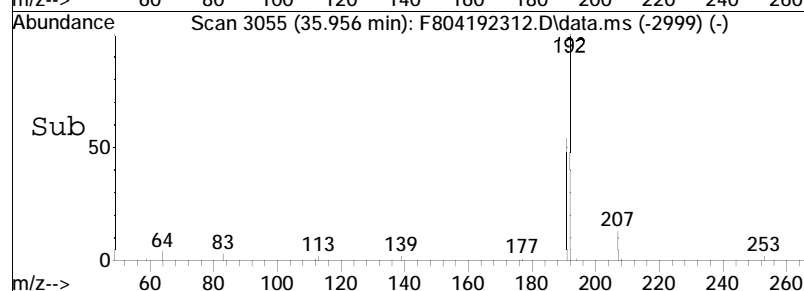
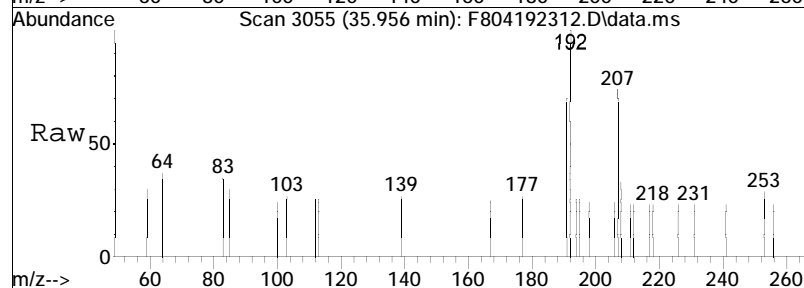
Tgt Ion	Ratio	Lower	Upper
167	100		
139	12.8	10.9	20.2

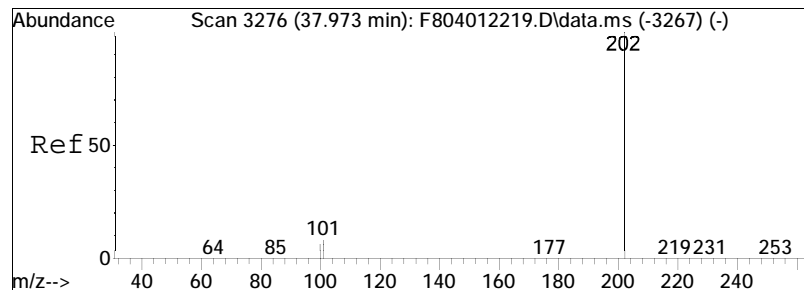




#55
 1-Methylphenanthrene
 Concen: 7.45 ng/mL
 RT: 35.956 min Scan# 3055
 Delta R.T. 0.009 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

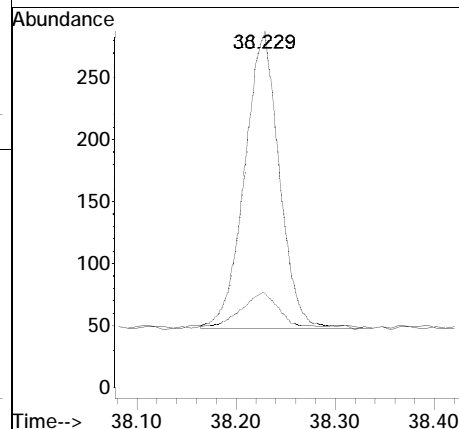
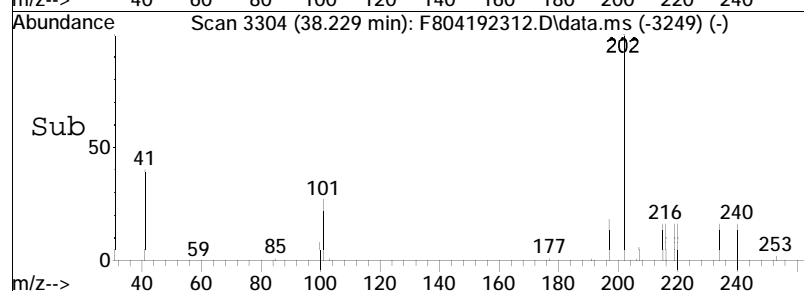
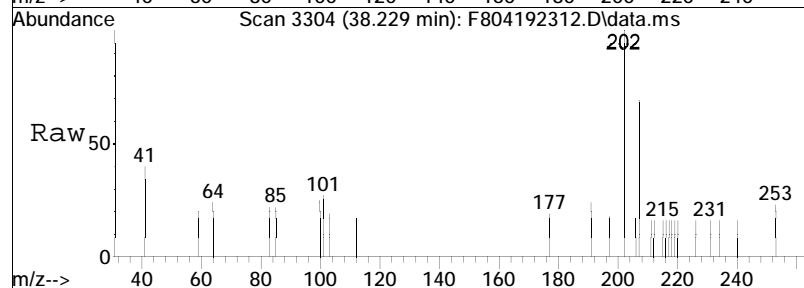
Tgt Ion	Ratio	Lower	Upper
192	100		
191	54.0	42.4	78.8

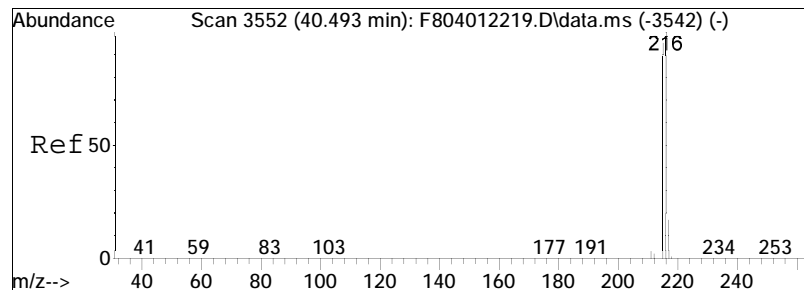




#56
 Fluoranthene
 Concen: 6.50 ng/mL
 RT: 38.229 min Scan# 3304
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

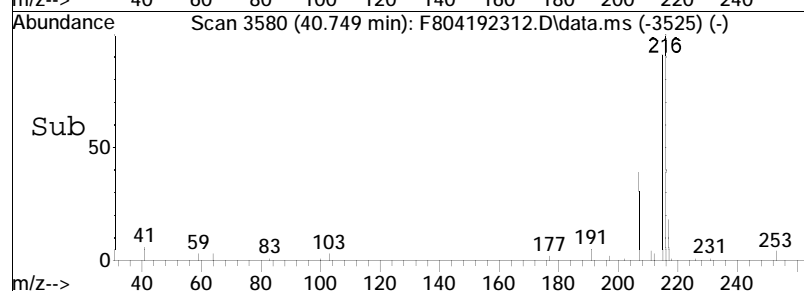
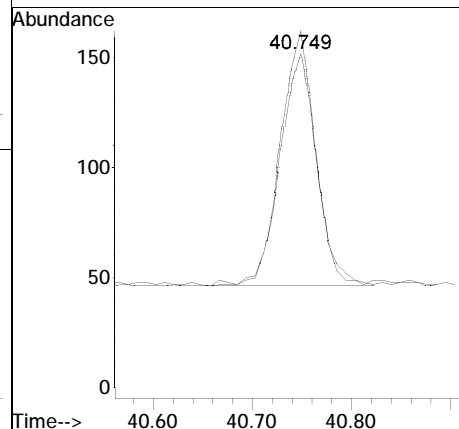
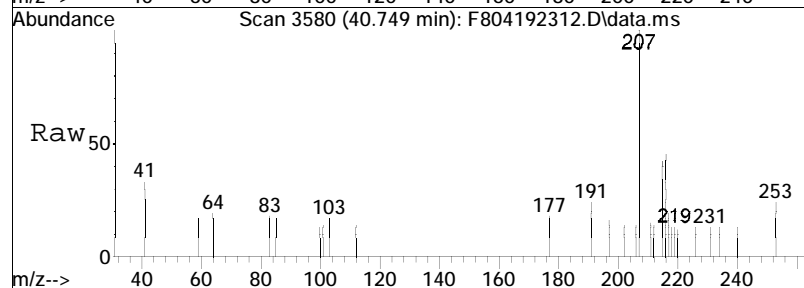
Tgt Ion	Ratio	Lower	Upper
202	100		
101	0.0	9.4	17.6#

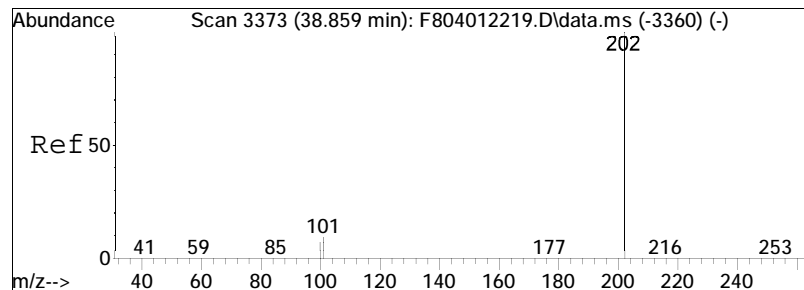




#57
 Benzo(b)fluorene
 Concen: 5.29 ng/mL
 RT: 40.749 min Scan# 3580
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

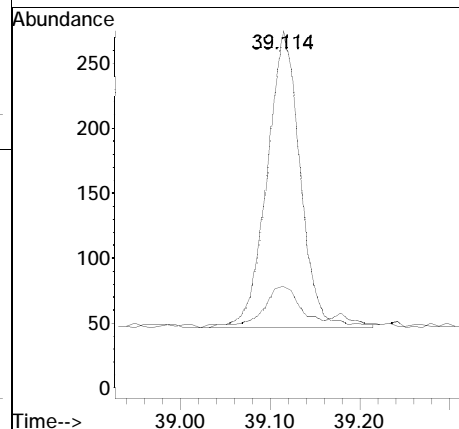
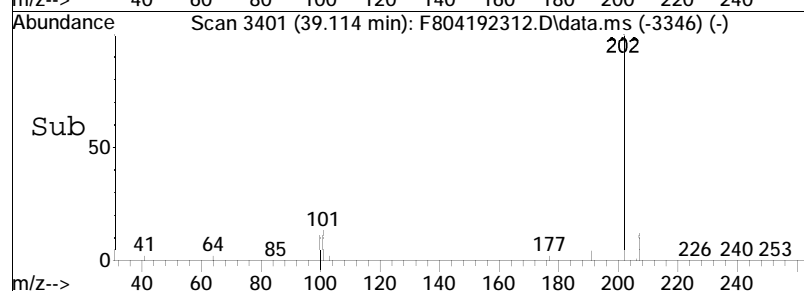
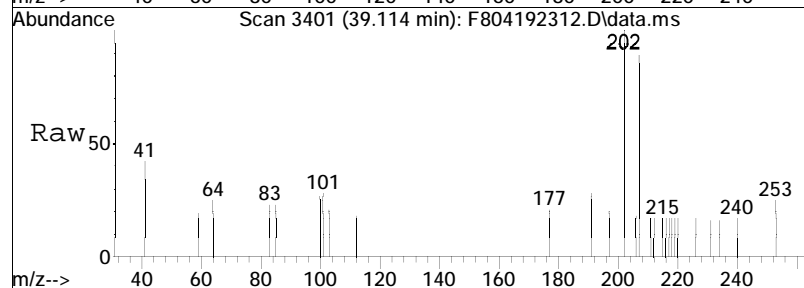
Tgt Ion	Ratio	Lower	Upper
216	100		
215	95.5	66.8	124.2

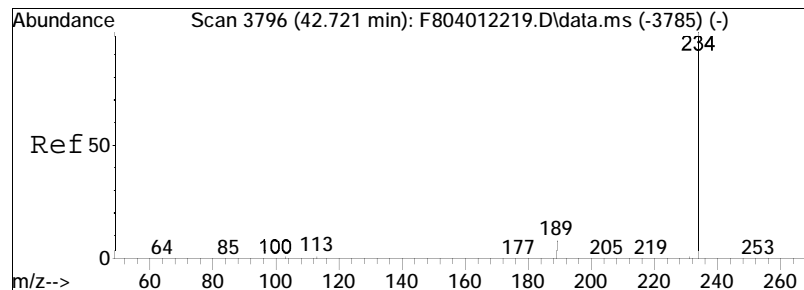




#59
 Pyrene
 Concen: 6.67 ng/mL
 RT: 39.114 min Scan# 3401
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

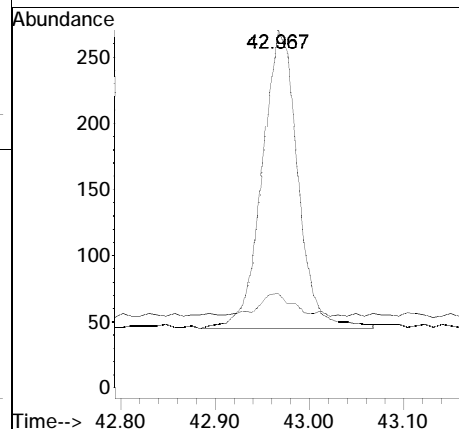
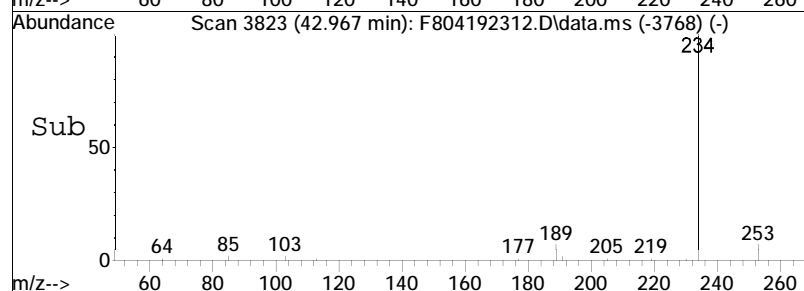
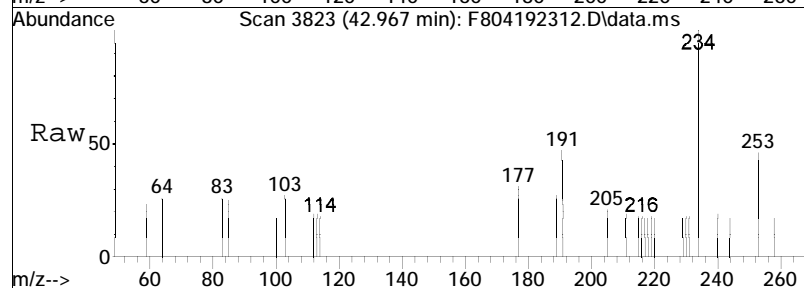
Tgt Ion	Ratio	Lower	Upper
202	100		
101	0.0	11.5	21.3#

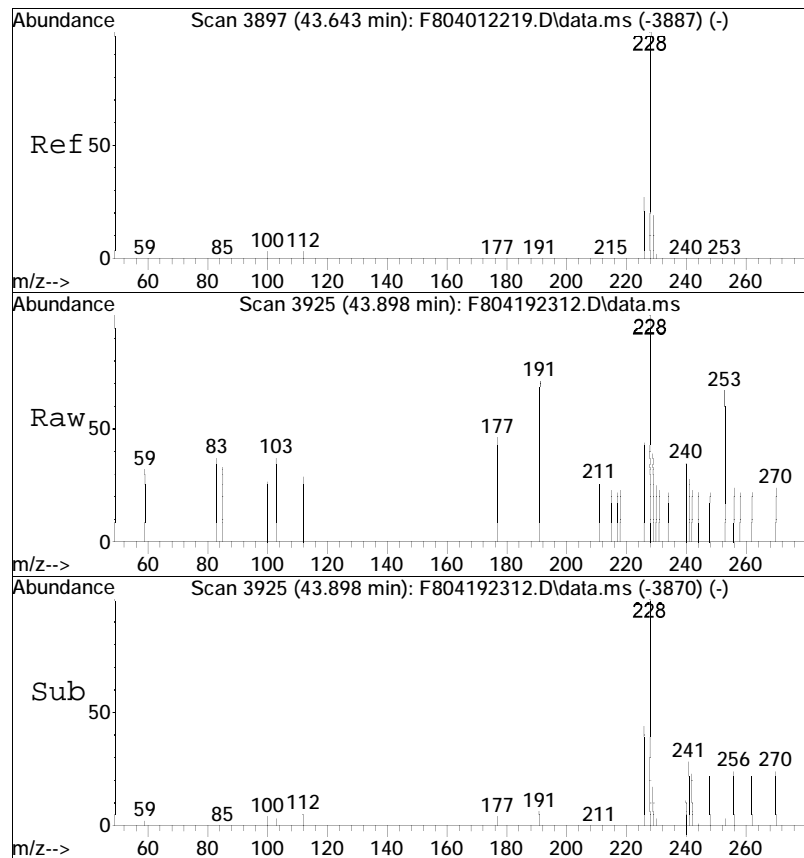




#67
 Naphthobenzothiophene-2,1-D
 Concen: 5.98 ng/mL
 RT: 42.967 min Scan# 3823
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

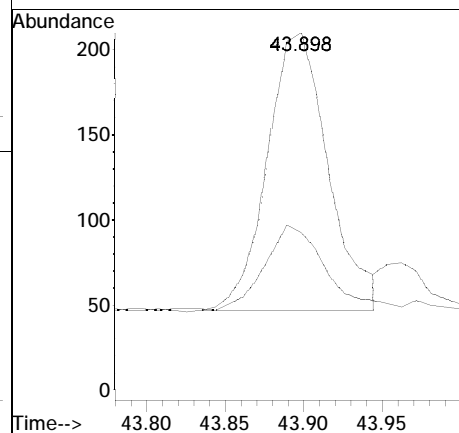
Tgt Ion	Ratio	Lower	Upper
234	100		
189	0.0	6.6	12.2#

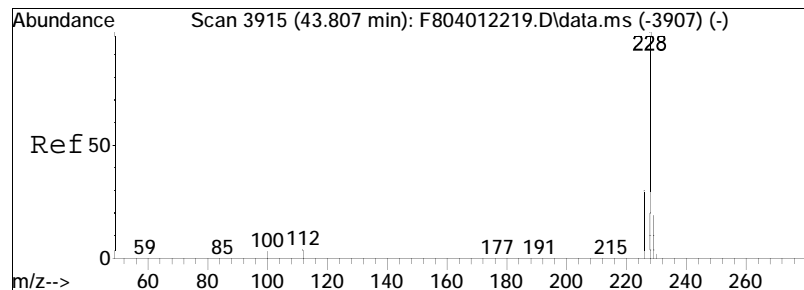




#75
Benz[a]anthracene
Concen: 9.29 ng/mL
RT: 43.898 min Scan# 3925
Delta R.T. -0.000 min
Lab File: F804192312.D
Acq: 20 Apr 2023 3:34 am

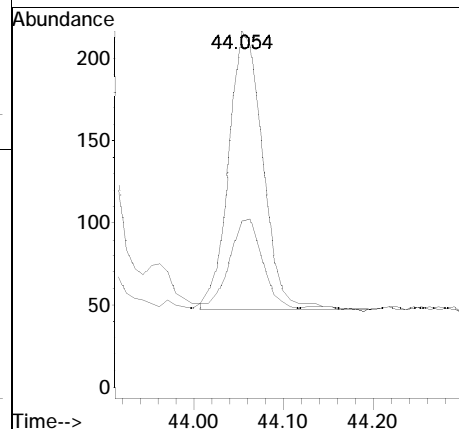
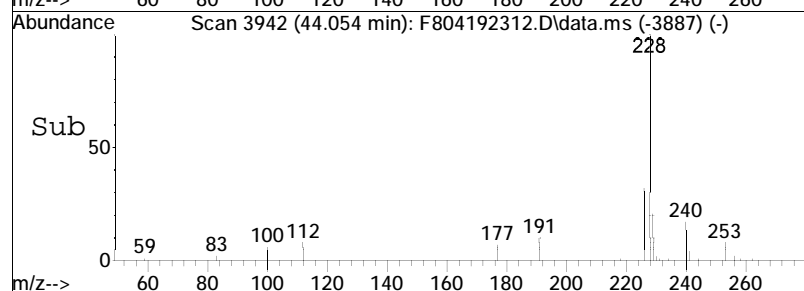
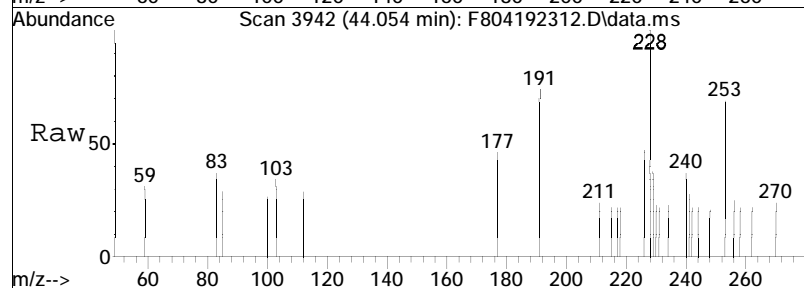
Tgt Ion	Ratio	Lower	Upper
228	100		
226	27.1	21.2	39.4

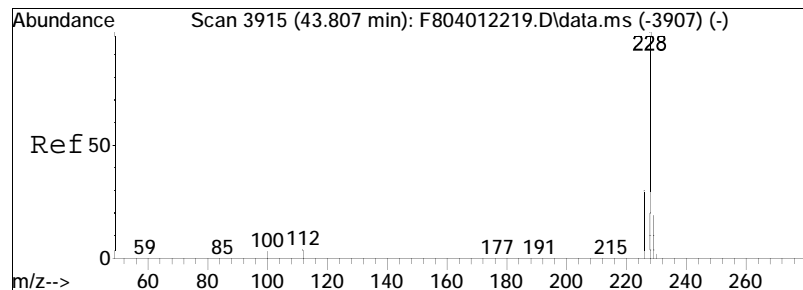




#76
 Chrysene
 Concen: 9.62 ng/mL
 RT: 44.054 min Scan# 3942
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

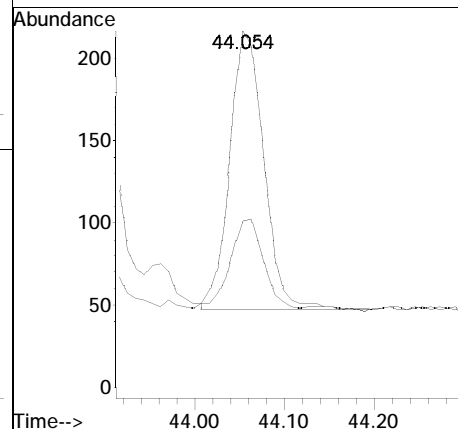
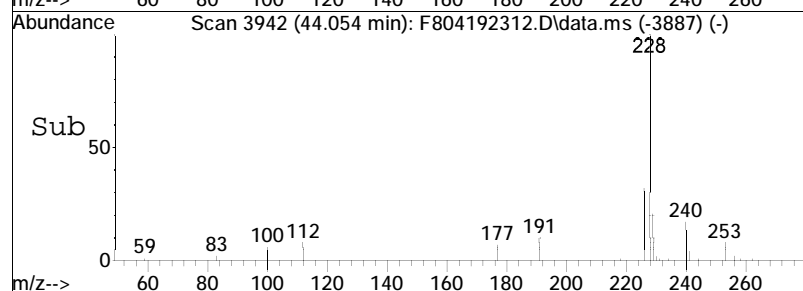
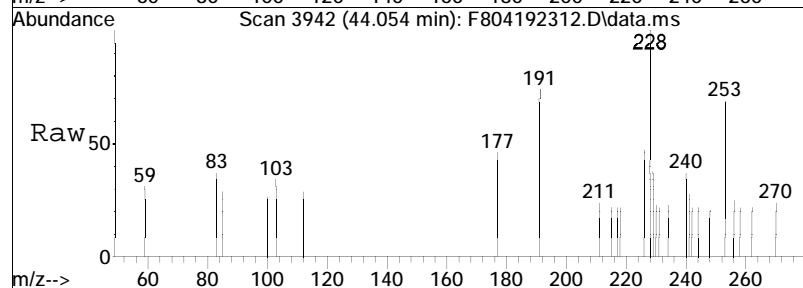
Tgt Ion: 228 Resp: 451
 Ion Ratio Lower Upper
 228 100
 226 30.6 23.7 43.9

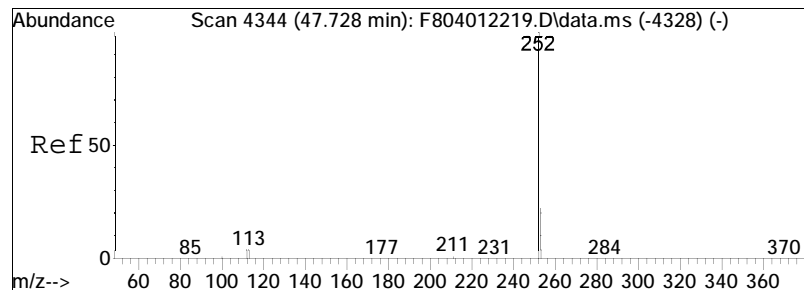




#77
 Chrysene/Triphenylene
 Concen: 9.62 ng/mL
 RT: 44.054 min Scan# 3942
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

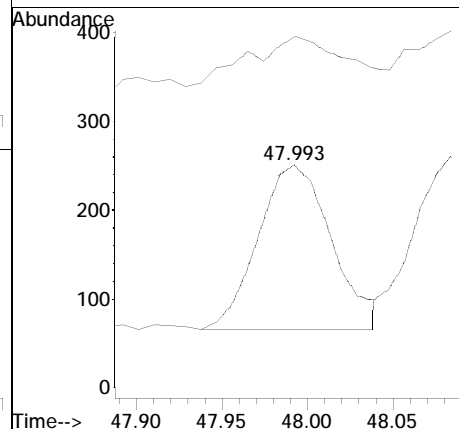
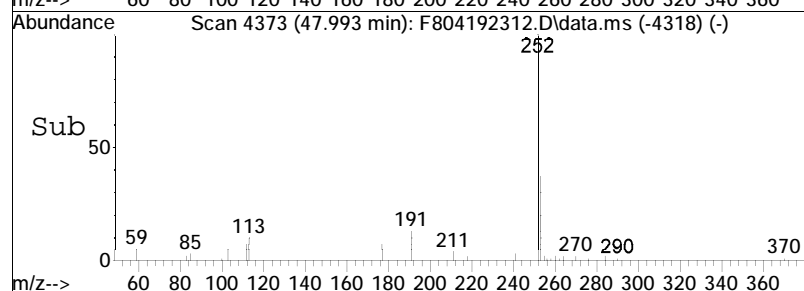
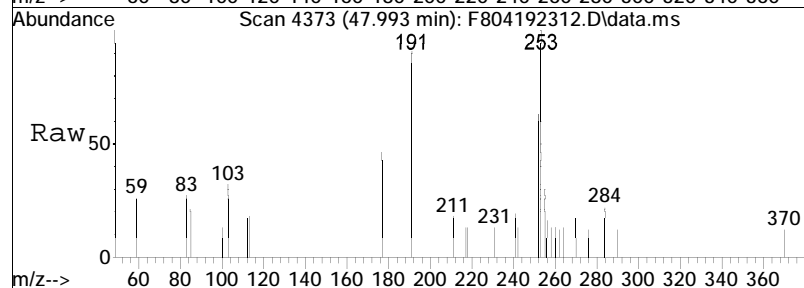
Tgt Ion: 228 Resp: 451
 Ion Ratio Lower Upper
 228 100
 226 30.6 23.7 43.9

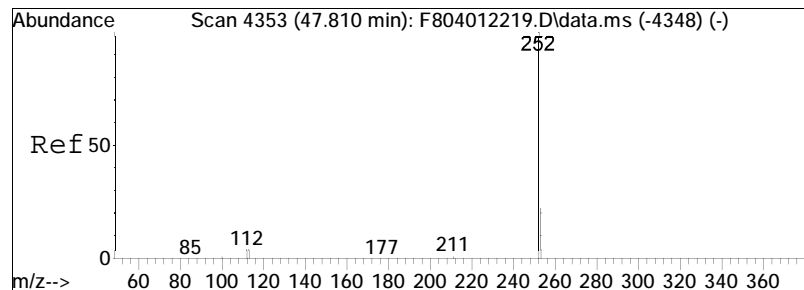




#84
 Benzo[b]fluoranthene
 Concen: 10.67 ng/mL
 RT: 47.993 min Scan# 4373
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

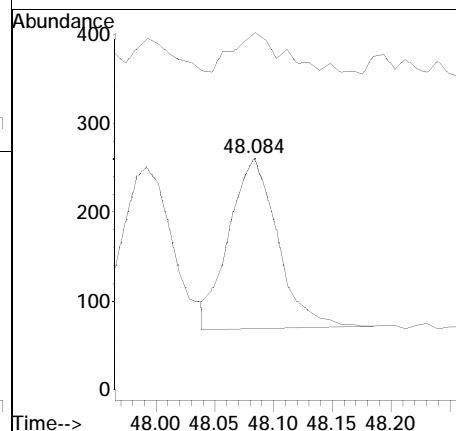
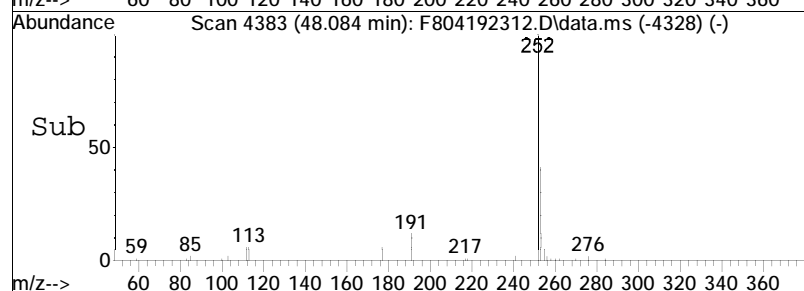
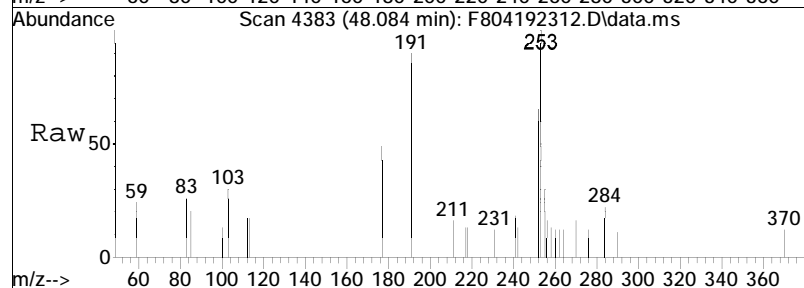
Tgt Ion	Ratio	Lower	Upper
252	100		
253	41.4	26.8	49.8

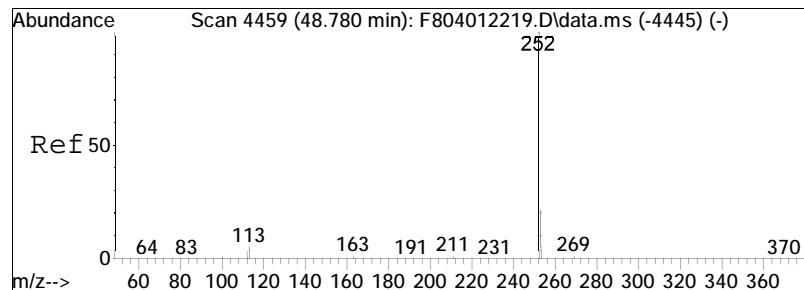




#85
 Benzo[j]+[k]fluoranthene
 Concen: 10.57 ng/mL
 RT: 48.084 min Scan# 4383
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

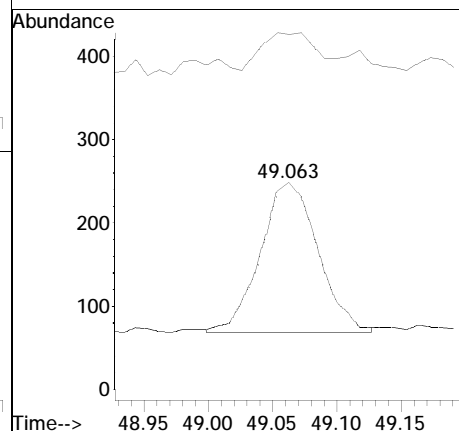
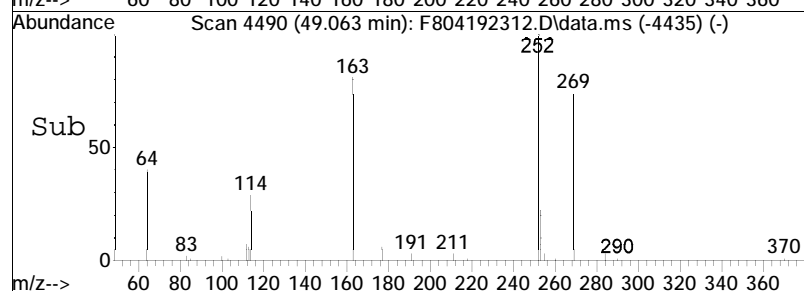
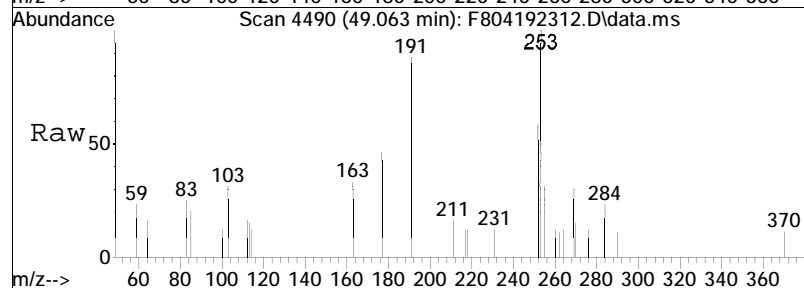
Tgt Ion	Ratio	Lower	Upper
252	100		
253	29.9	27.2	50.4

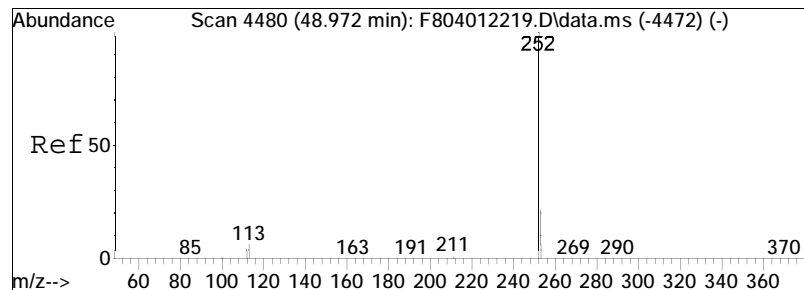




#87
 Benzo[e]pyrene
 Concen: 10.94 ng/mL M3
 RT: 49.063 min Scan# 4490
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

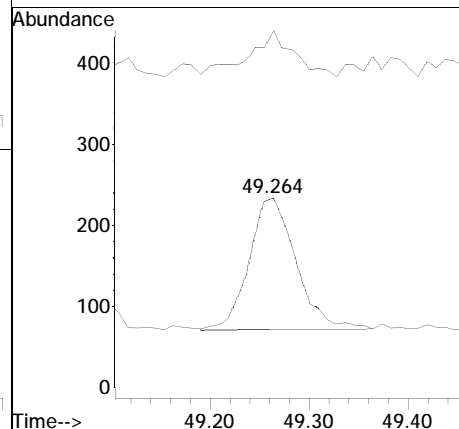
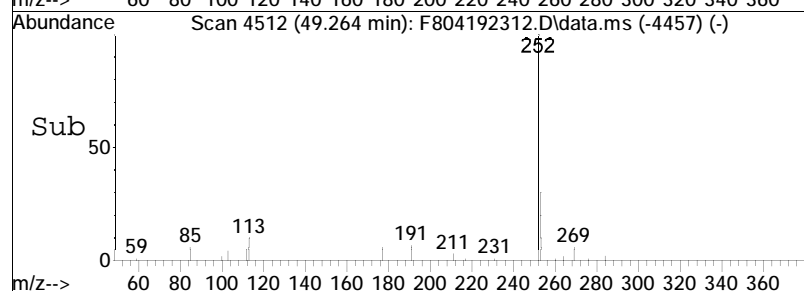
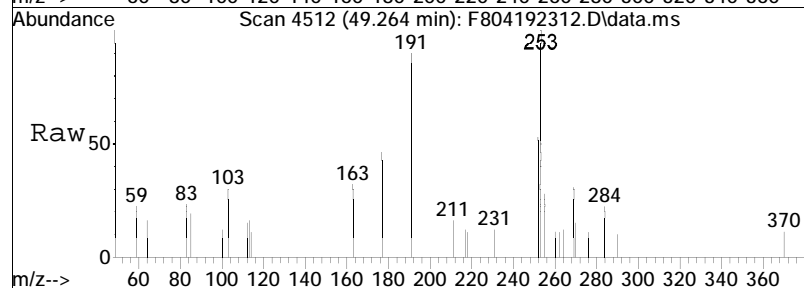
Tgt Ion	Ratio	Lower	Upper
252	100		
253	32.9	29.5	54.7

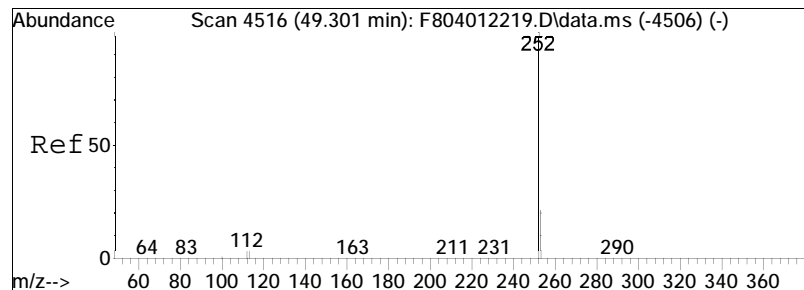




#89
 Benzo[a]pyrene
 Concen: 11.21 ng/mL
 RT: 49.264 min Scan# 4512
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

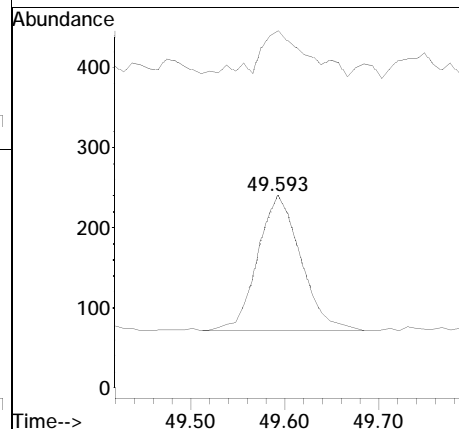
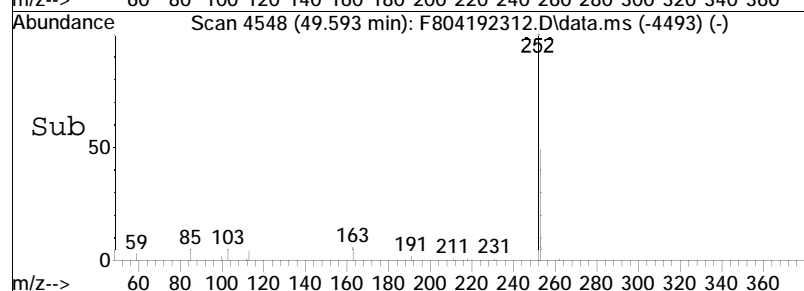
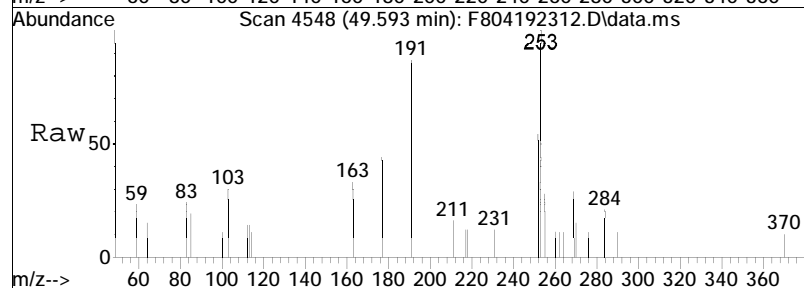
Tgt Ion	Ratio	Lower	Upper
252	100		
253	34.3	30.9	57.3

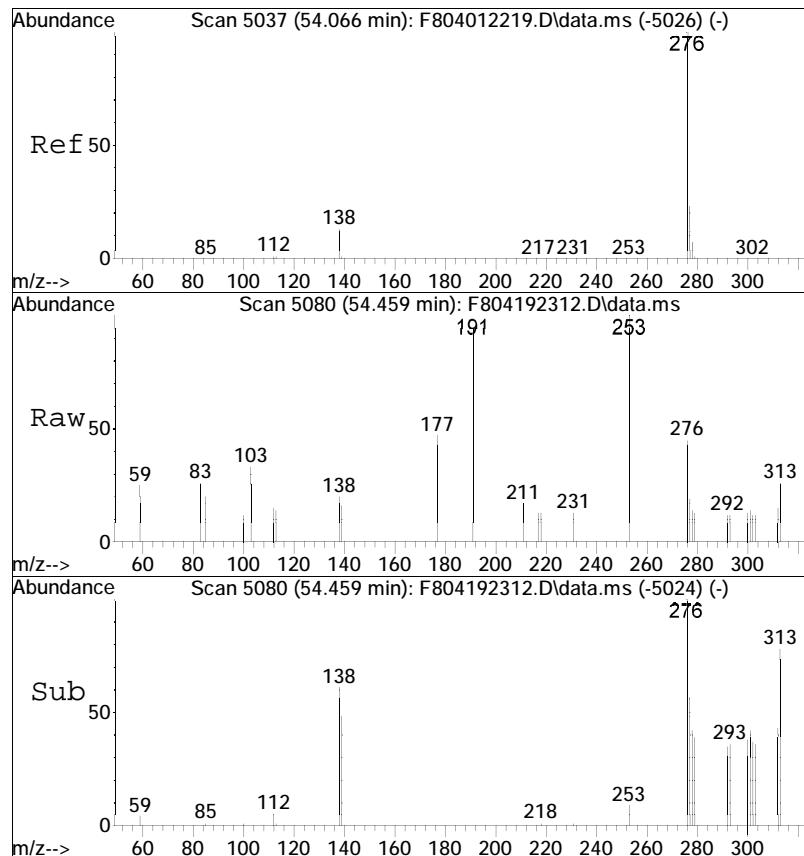




#90
Perylene
Concen: 10.77 ng/mL
RT: 49.593 min Scan# 4548
Delta R.T. -0.000 min
Lab File: F804192312.D
Acq: 20 Apr 2023 3:34 am

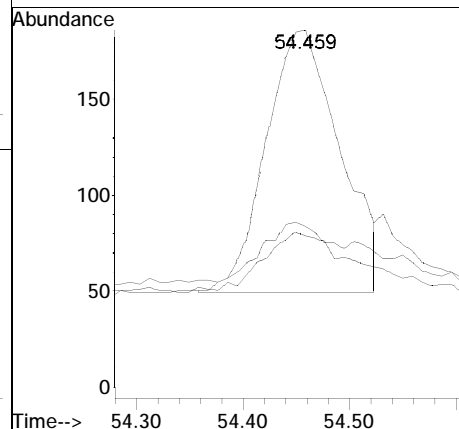
Tgt Ion	Ratio	Lower	Upper
252	100		
253	37.2	31.4	58.4

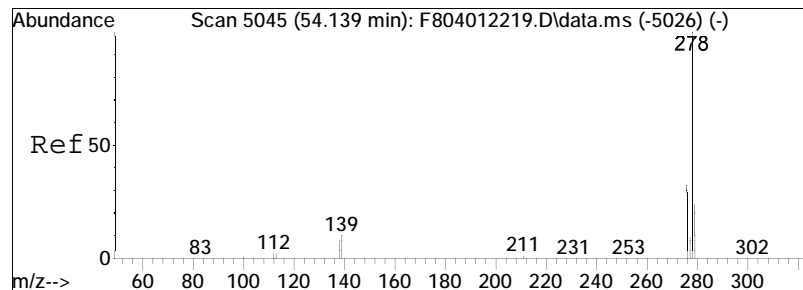




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 9.13 ng/mL M3
 RT: 54.459 min Scan# 5080
 Delta R.T. 0.009 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

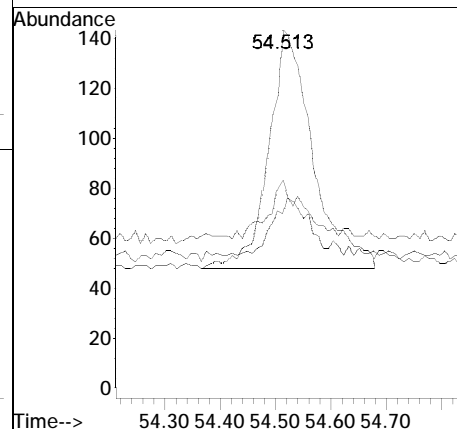
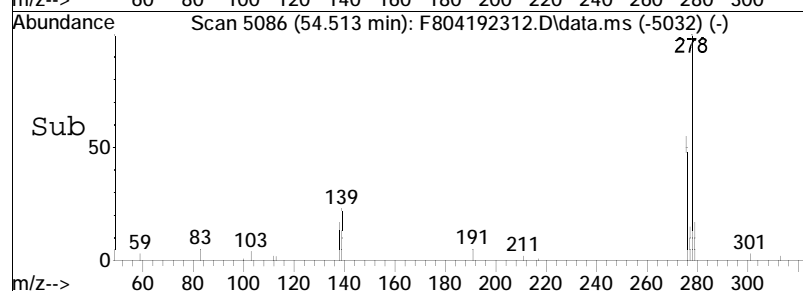
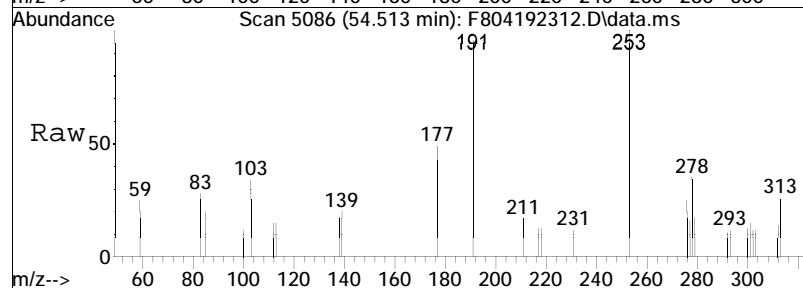
Tgt Ion:	276	Resp:	664
Ion Ratio	Lower	Upper	
276	100		
138	0.0	18.2	33.8#
277	25.2	18.6	34.5

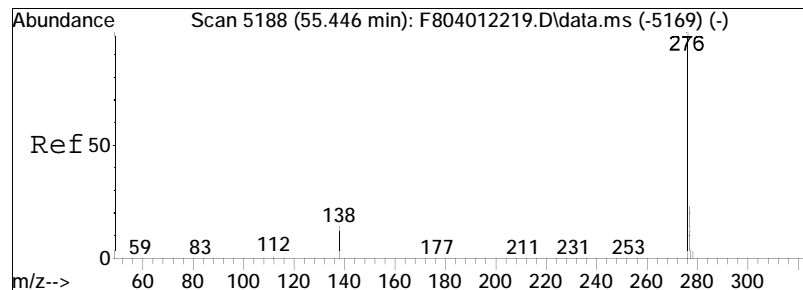




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 8.73 ng/mL
 RT: 54.513 min Scan# 5086
 Delta R.T. -0.009 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

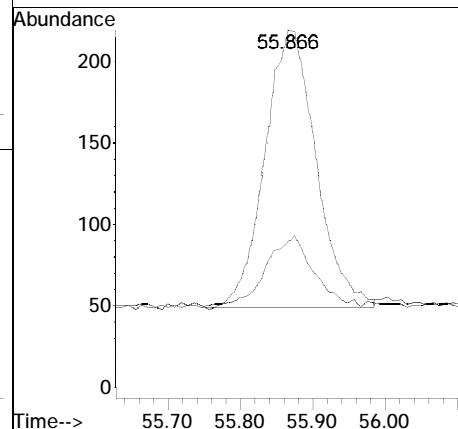
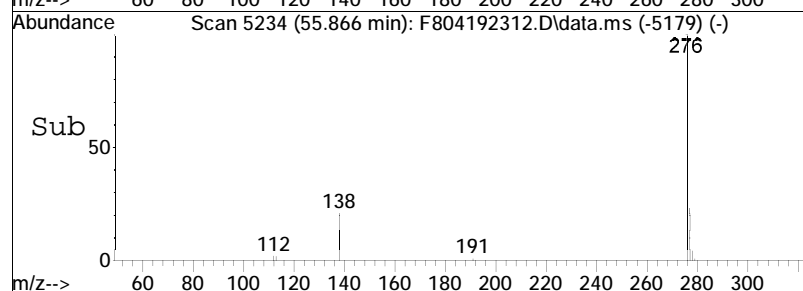
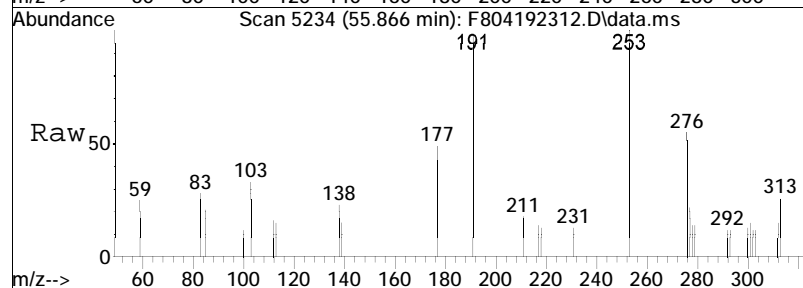
Tgt Ion:	278	Resp:	527
Ion Ratio	Lower	Upper	
278	100		
139	19.2	18.0	33.4
279	19.7	19.0	35.2

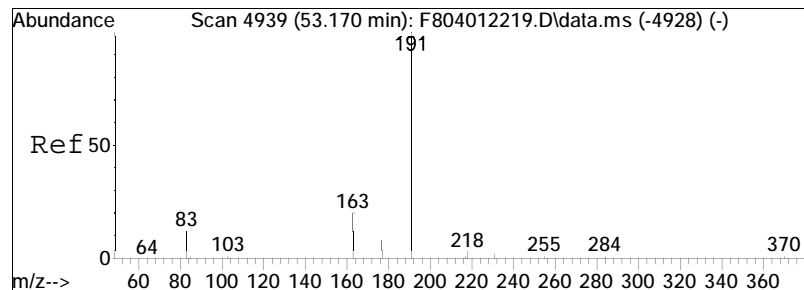




#93
 Benzo[g,h,i]perylene
 Concen: 11.80 ng/mL
 RT: 55.866 min Scan# 5234
 Delta R.T. -0.000 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

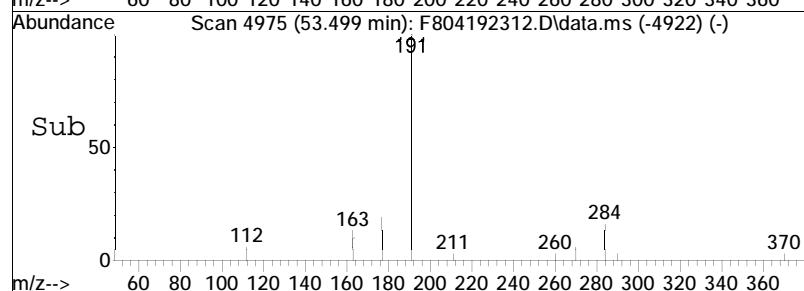
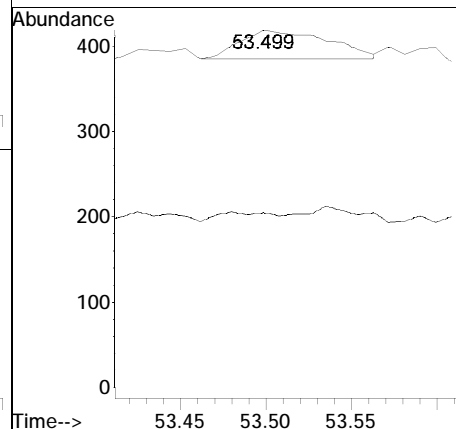
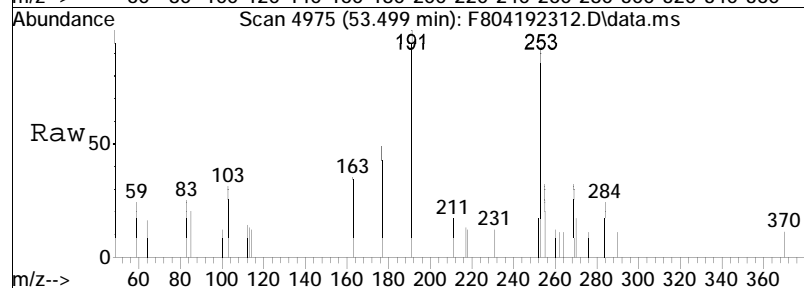
Tgt Ion	Ratio	Lower	Upper
276	100		
277	25.7	18.0	33.4





#94
 Hopane (T19)
 Concen: 14.02 ng/mL
 RT: 53.499 min Scan# 4975
 Delta R.T. -0.018 min
 Lab File: F804192312.D
 Acq: 20 Apr 2023 3:34 am

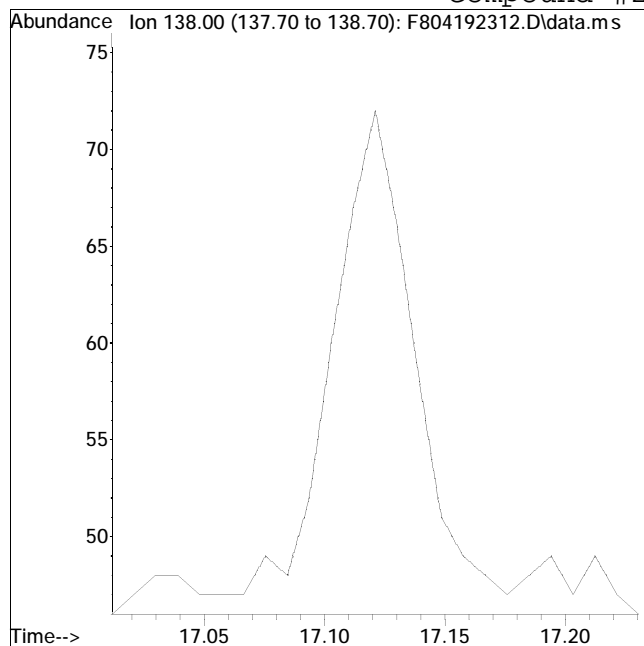
Tgt Ion: 191 Resp: 122
 Ion Ratio Lower Upper
 191 100
 177 0.0 24.4 45.2#



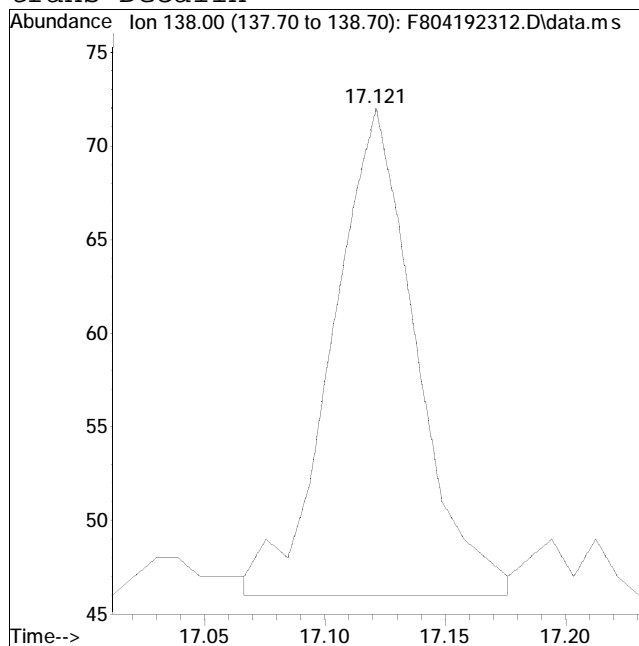
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
Data File : F804192312.D Operator : PAH8:MJS
Date Inj'd : 4/20/2023 3:34 am Instrument : PAH8
Sample : i804192301 Quant Date : 4/20/2023 9:07 am

Compound #2: trans-Decalin



Original Peak Response = 0



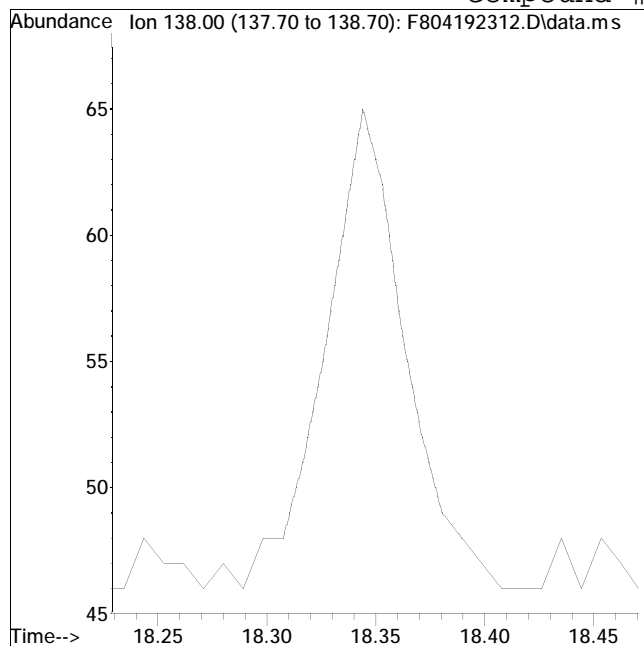
Manual Peak Response = 63 M2

M2 = Peak not found by automatic integration algorithm.

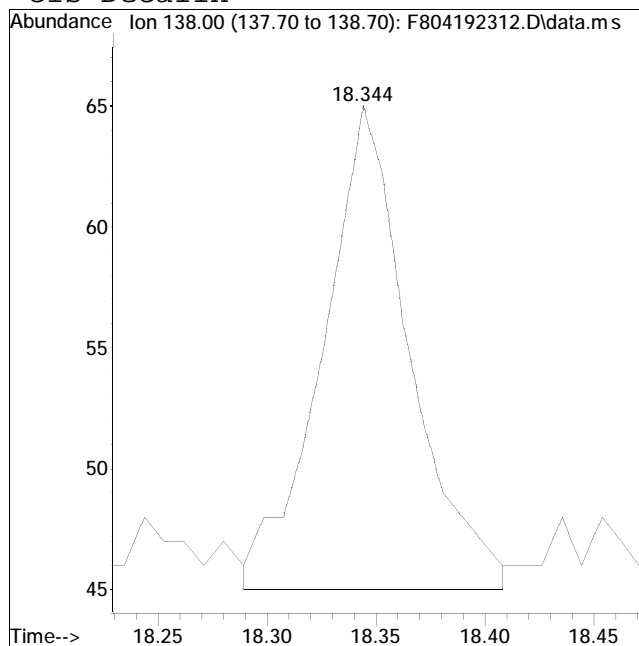
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
Data File : F804192312.D Operator : PAH8:MJS
Date Inj'd : 4/20/2023 3:34 am Instrument : PAH8
Sample : i804192301 Quant Date : 4/20/2023 9:07 am

Compound #3: cis-Decalin



Original Peak Response = 0



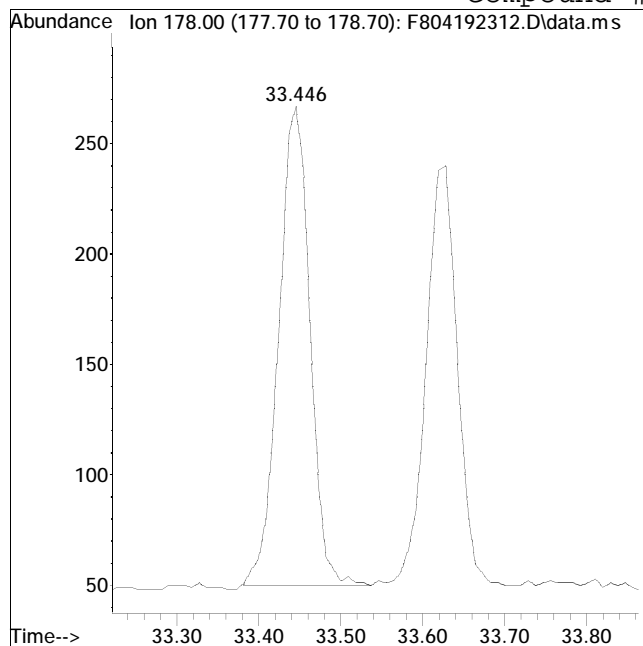
Manual Peak Response = 56 M2

M2 = Peak not found by automatic integration algorithm.

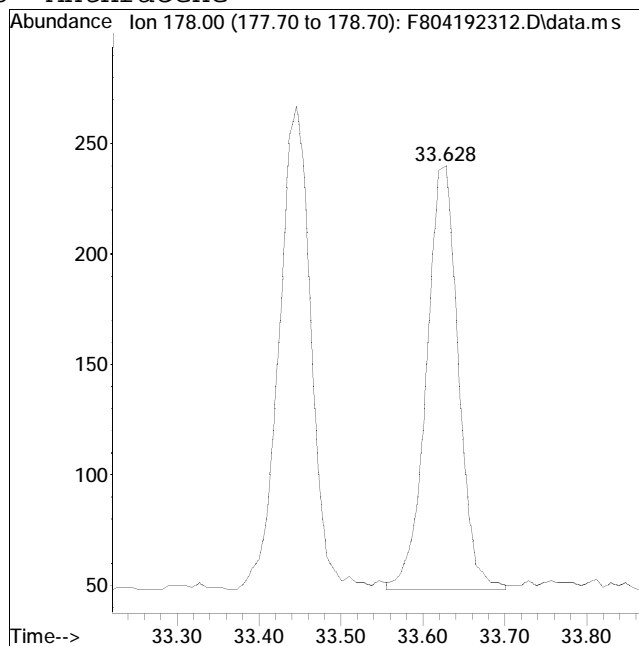
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
Data File : F804192312.D Operator : PAH8:MJS
Date Inj'd : 4/20/2023 3:34 am Instrument : PAH8
Sample : i804192301 Quant Date : 4/20/2023 9:07 am

Compound #53: Anthracene



Original Peak Response = 573



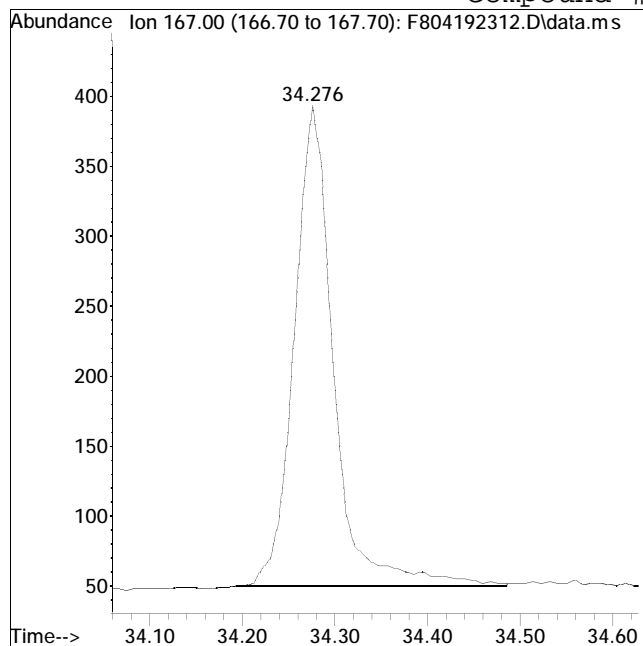
Manual Peak Response = 520 M3

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.

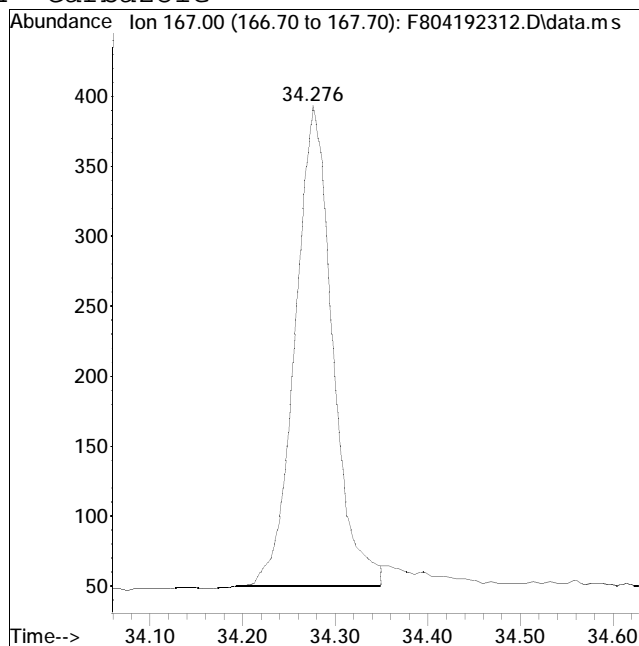
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
Data File : F804192312.D Operator : PAH8:MJS
Date Inj'd : 4/20/2023 3:34 am Instrument : PAH8
Sample : i804192301 Quant Date : 4/20/2023 9:07 am

Compound #54: Carbazole



Original Peak Response = 1018



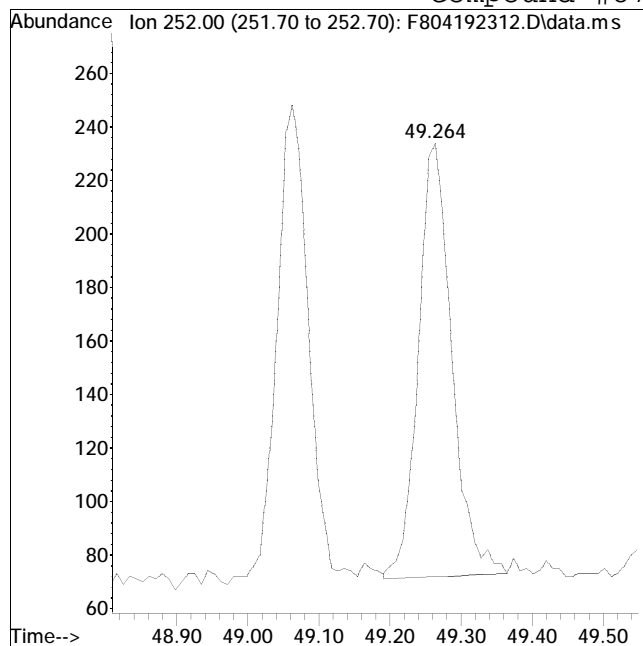
Manual Peak Response = 964 M4

M4 = Poor automated baseline construction.

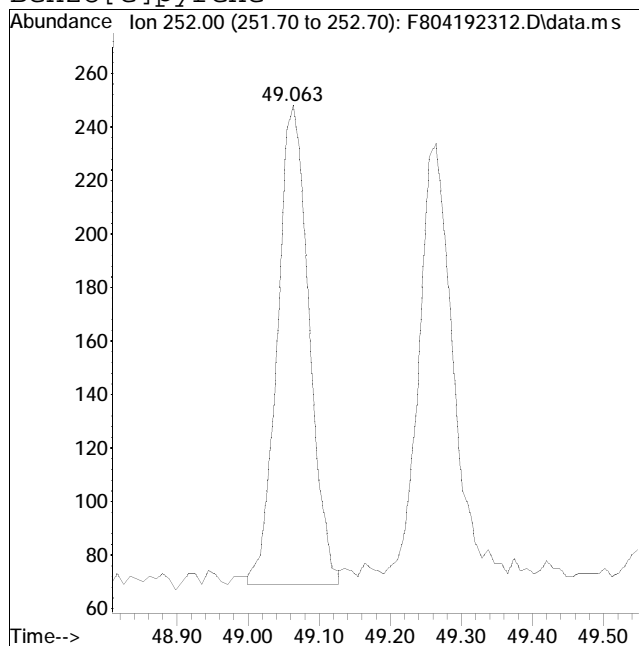
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
 Data File : F804192312.D Operator : PAH8:MJS
 Date Inj'd : 4/20/2023 3:34 am Instrument : PAH8
 Sample : i804192301 Quant Date : 4/20/2023 9:07 am

Compound #87: Benzo[e]pyrene



Original Peak Response = 530



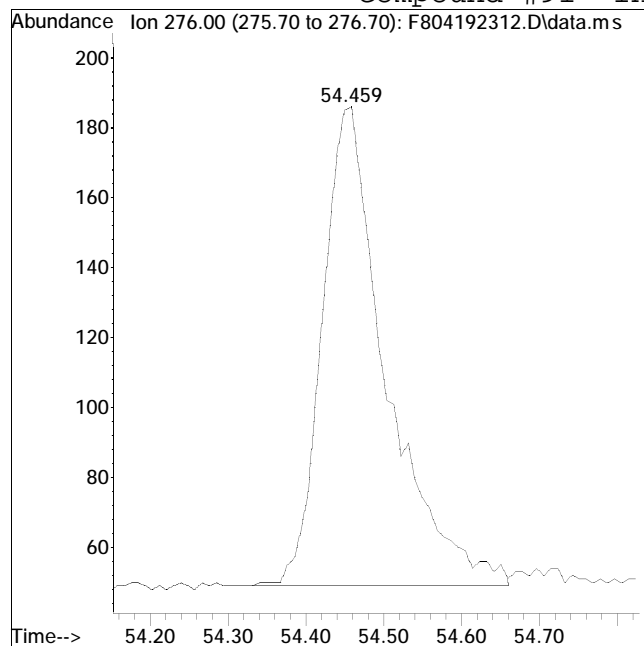
Manual Peak Response = 553 M3

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.

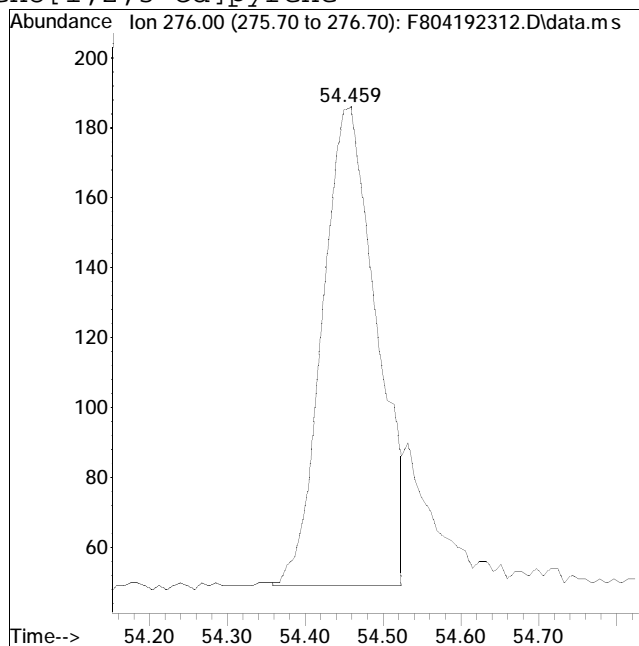
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
Data File : F804192312.D Operator : PAH8:MJS
Date Inj'd : 4/20/2023 3:34 am Instrument : PAH8
Sample : i804192301 Quant Date : 4/20/2023 9:07 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 782



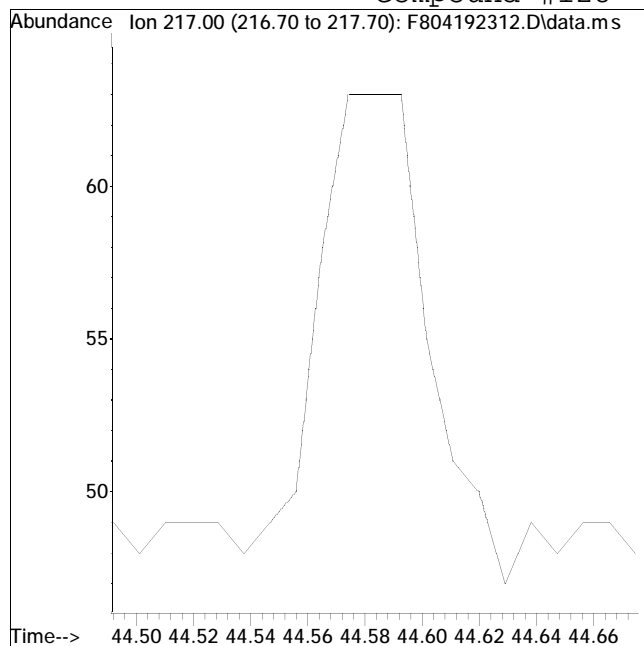
Manual Peak Response = 664 M3

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.

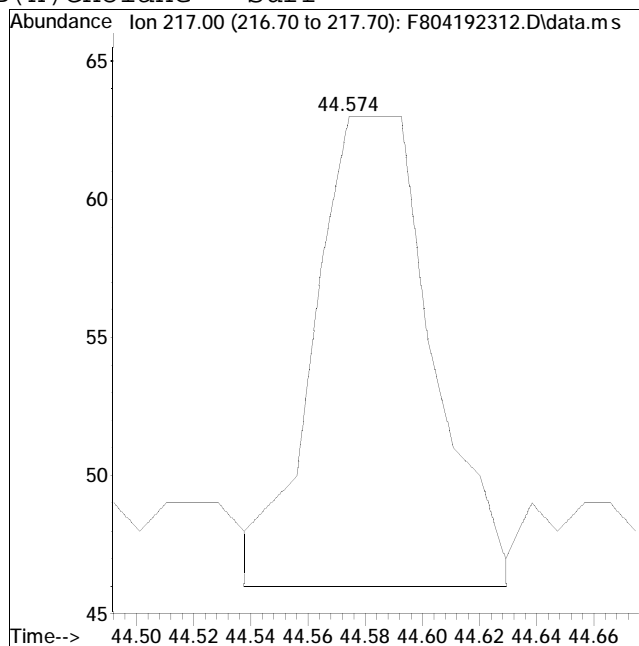
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
 Data File : F804192312.D Operator : PAH8:MJS
 Date Inj'd : 4/20/2023 3:34 am Instrument : PAH8
 Sample : i804192301 Quant Date : 4/20/2023 9:07 am

Compound #128: 5B(H)Cholane - Surr



Original Peak Response = 0



Manual Peak Response = 49 M2

M2 = Peak not found by automatic integration algorithm.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192313.D
 Acq On : 20 Apr 2023 4:59 am
 Operator : PAH8:MJS
 Sample : i804192302
 Misc : WG1769611,FRBF68
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 20 09:09:36 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 20 09:07:01 2023
 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	27.470	164	13525	500.000	ng/mL	0.00
74) Chrysene-d12	43.963	240	14159	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.479	136	1469	21.937	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	2.19%#		
40) Phenanthrene-d10	33.354	188	859	18.048	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	1.80%#		
83) Benzo[b]fluoranthene-d12	47.901	264	665	22.423	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	2.24%#		
88) Benzo[a]pyrene-d12	49.164	264	474	20.651	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	2.07%#		
128) 5B(H)Cholane - Surr	44.584	217	102	20.248	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	2.02%#		
Target Compounds						
						Qvalue
2) trans-Decalin	17.121	138	142	10.981	ng/mL	100
3) cis-Decalin	18.344	138	108	11.205	ng/mL	100
9) Naphthalene	20.552	128	1631	18.182	ng/mL	100
14) 2-Methylnaphthalene	23.254	142	1045	22.217	ng/mL	100
15) 1-Methylnaphthalene	23.683	142	958	23.905	ng/mL	100
16) Benzothiophene	20.772	134	1462	16.590	ng/mL	100
21) Biphenyl	25.134	154	1282	23.943	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.754	156	799	22.615	ng/mL	100
23) Dibenzofuran	28.236	168	1176	19.854	ng/mL	99
24) Acenaphthylene	26.858	152	1420	23.833	ng/mL	100
25) Acenaphthene	27.597	153	910	23.718	ng/mL	96
26) 2,3,5-Trimethylnaphthalen	29.149	170	643	20.884	ng/mL	96
27) Fluorene	29.614	166	941	20.790	ng/mL	99
31) Dibenzothiophene	32.944	184	1392	18.068	ng/mL	98
41) Phenanthrene	33.446	178	1330	20.889	ng/mL	96
52) Retene	40.438	234	238	10.757	ng/mL	96
53) Anthracene	33.619	178	1147	18.791	ng/mL	97
54) Carbazole	34.276	167	1384	26.952	ng/mL	95
55) 1-Methylphenanthrene	35.947	192	815	16.622	ng/mL	97
56) Fluoranthene	38.229	202	1260	15.220	ng/mL	98
57) Benzo(b)fluorene	40.740	216	597	11.702	ng/mL	96
59) Pyrene	39.114	202	1255	15.439	ng/mL	96
67) Naphthobenzothiophene-2,1	42.967	234	1212	13.139	ng/mL	98
75) Benz[a]anthracene	43.899	228	941M3	21.562	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192313.D
 Acq On : 20 Apr 2023 4:59 am
 Operator : PAH8:MJS
 Sample : i804192302
 Misc : WG1769611,FRBF68
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 20 09:09:36 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 20 09:07:01 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	44.063	228	1003	23.149	ng/mL	94
77) Chrysene/Triphenylene	44.063	228	1003	23.149	ng/mL	94
84) Benzo[b]fluoranthene	47.993	252	1178	24.683	ng/mL	87
85) Benzo[j]+[k]fluoranthene	48.084	252	1160	24.314	ng/mL	84
87) Benzo[e]pyrene	49.063	252	1146	24.531	ng/mL#	79
89) Benzo[a]pyrene	49.264	252	1080M3	24.738	ng/mL	
90) Perylene	49.593	252	1056	23.143	ng/mL	85
91) Indeno[1,2,3-cd]pyrene	54.450	276	1228M3	18.270	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.523	278	1059	18.983	ng/mL	89
93) Benzo[g,h,i]perylene	55.866	276	1360	20.854	ng/mL	92
94) Hopane (T19)	53.517	191	207M4	25.750	ng/mL	

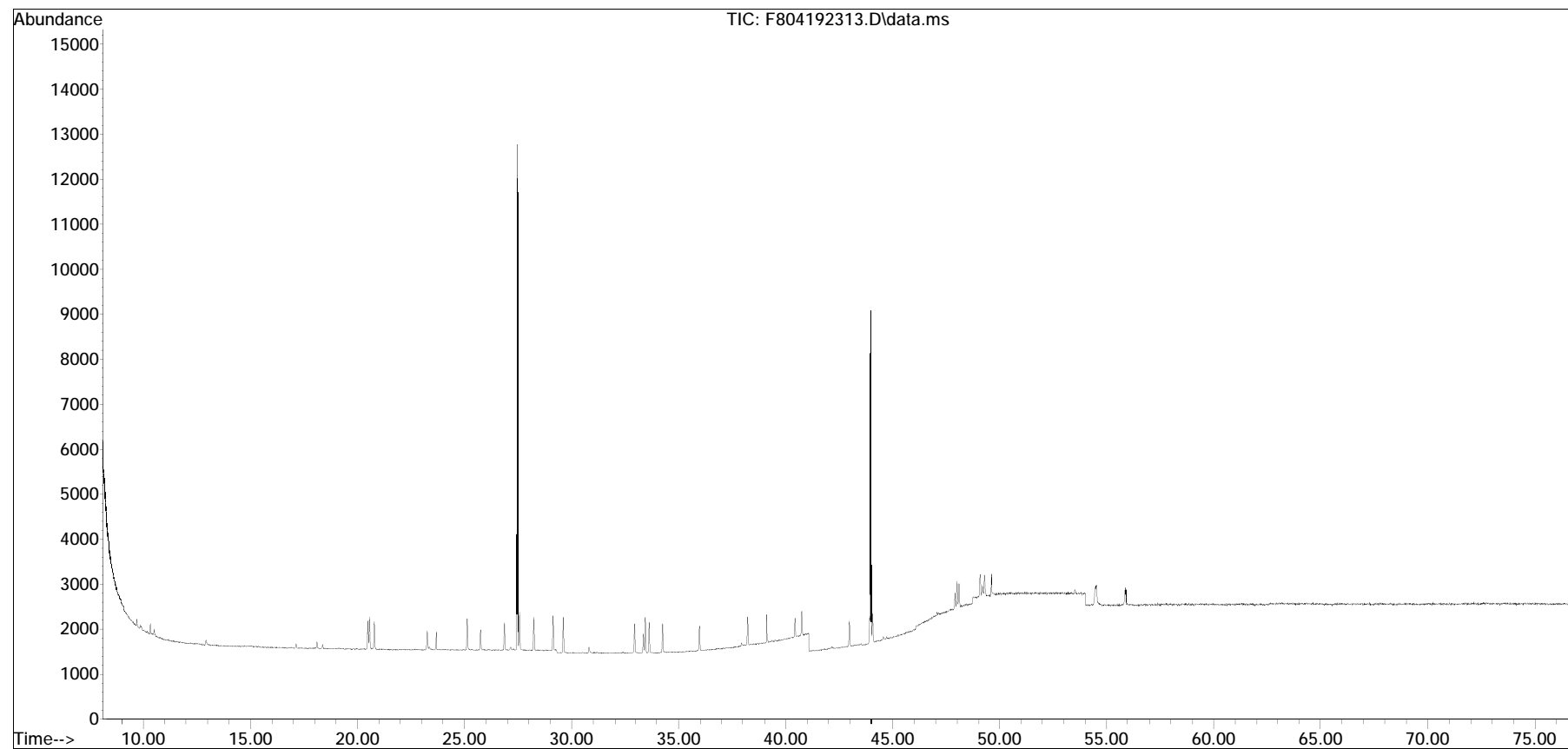
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
Data File : F804192313.D
Acq On : 20 Apr 2023 4:59 am
Operator : PAH8:MJS
Sample : i804192302
Misc : WG1769611,FRBF68
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 20 09:09:36 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 20 09:07:01 2023
Response via : Initial Calibration

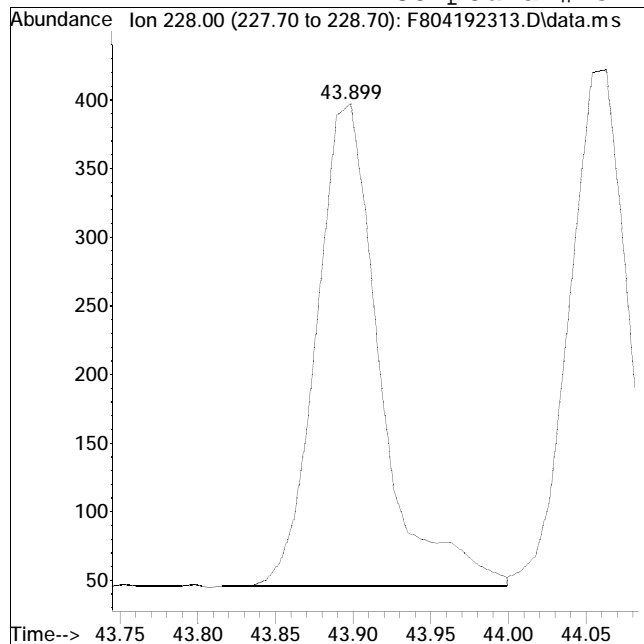
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

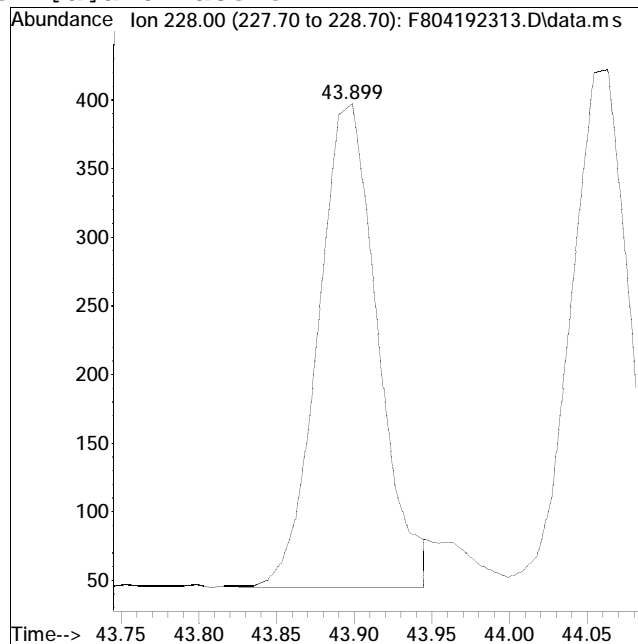
Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
 Data File : F804192313.D Operator : PAH8:MJS
 Date Inj'd : 4/20/2023 4:59 am Instrument : PAH8
 Sample : i804192302 Quant Date : 4/20/2023 9:07 am

Compound #75: Benz[a]anthracene



Original Peak Response = 998

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.

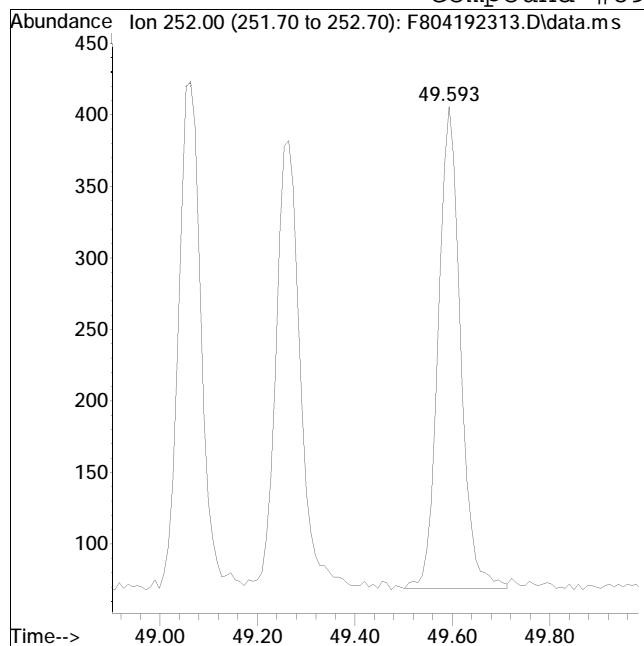


Manual Peak Response = 941 M3

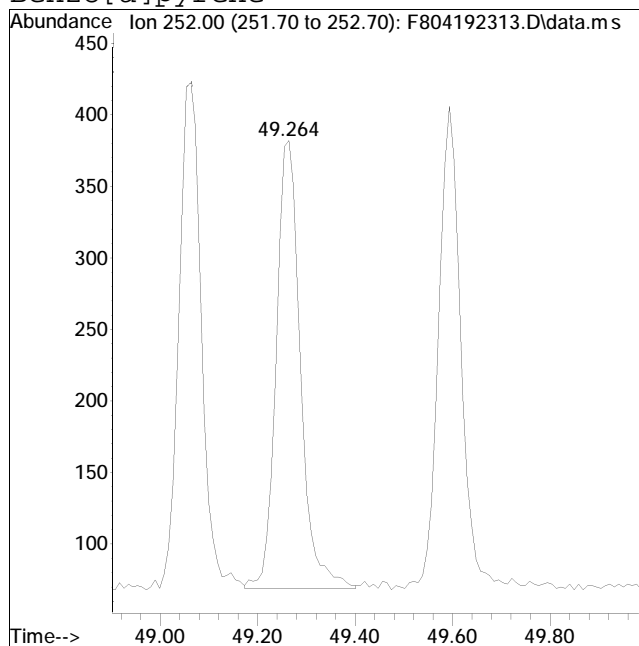
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
 Data File : F804192313.D Operator : PAH8:MJS
 Date Inj'd : 4/20/2023 4:59 am Instrument : PAH8
 Sample : i804192302 Quant Date : 4/20/2023 9:07 am

Compound #89: Benzo[a]pyrene



Original Peak Response = 1069



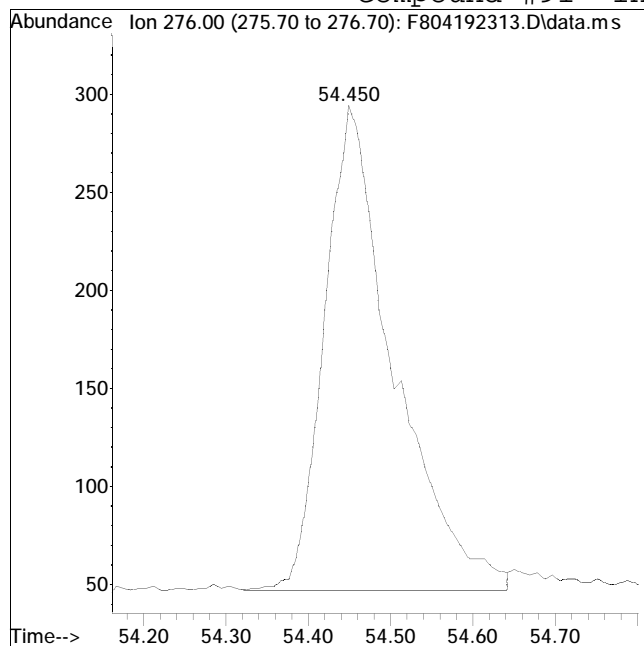
Manual Peak Response = 1080 M3

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.

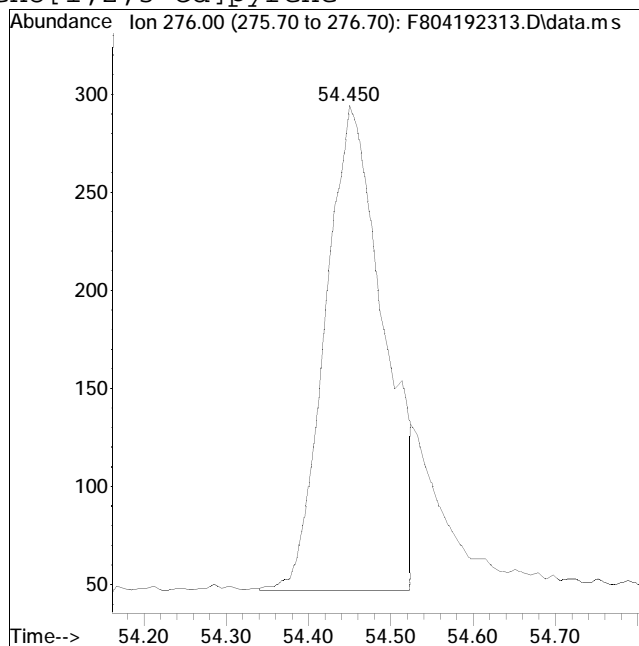
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
 Data File : F804192313.D Operator : PAH8:MJS
 Date Inj'd : 4/20/2023 4:59 am Instrument : PAH8
 Sample : i804192302 Quant Date : 4/20/2023 9:07 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 1449



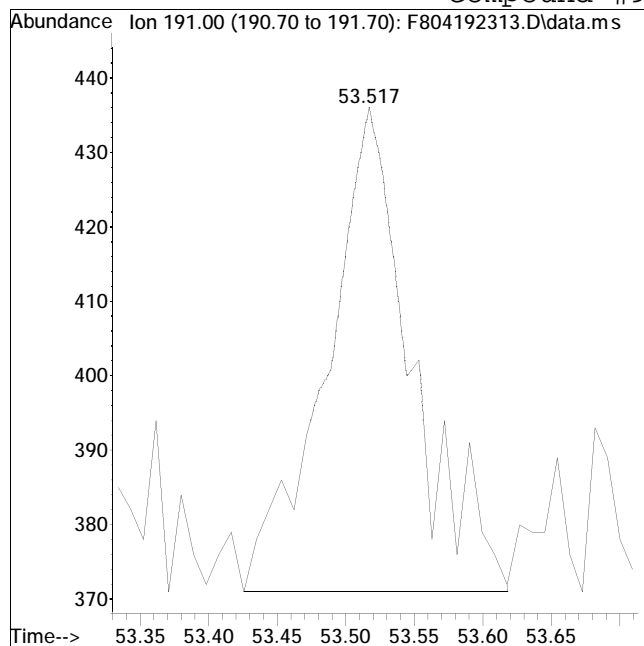
Manual Peak Response = 1228 M3

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.

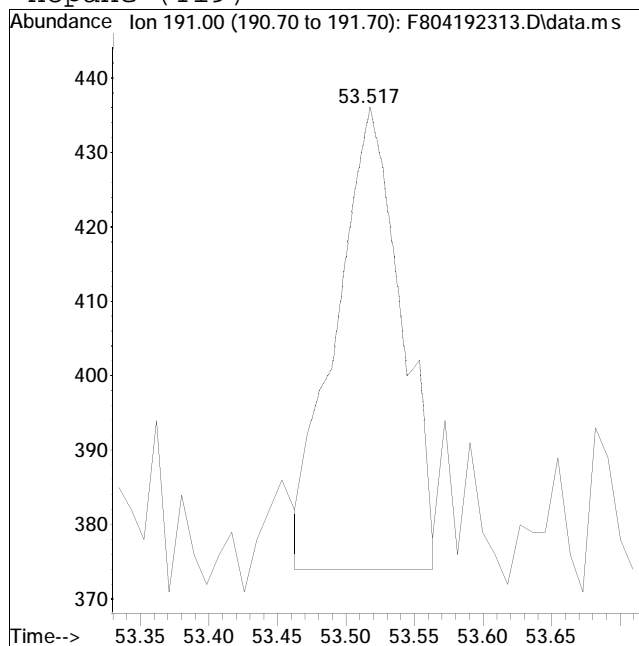
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
Data File : F804192313.D Operator : PAH8:MJS
Date Inj'd : 4/20/2023 4:59 am Instrument : PAH8
Sample : i804192302 Quant Date : 4/20/2023 9:07 am

Compound #94: Hopane (T19)



Original Peak Response = 284



Manual Peak Response = 207 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192314.D
 Acq On : 20 Apr 2023 6:24 am
 Operator : PAH8:MJS
 Sample : i804192303
 Misc : WG1769611,FRBF69
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 20 09:10:20 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 20 09:07:01 2023
 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	27.469	164	15432	500.000	ng/mL	0.00
74) Chrysene-d12	43.962	240	15950	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.470	136	6903	90.347	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	9.03%#		
40) Phenanthrene-d10	33.354	188	4018	73.990	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	7.40%#		
83) Benzo[b]fluoranthene-d12	47.901	264	2951	88.329	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	8.83%#		
88) Benzo[a]pyrene-d12	49.163	264	2149	83.113	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	8.31%#		
128) 5B(H)Cholane - Surr	44.583	217	416	73.307	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	7.33%#		
Target Compounds						
						Qvalue
2) trans-Decalin	17.121	138	594	40.259	ng/mL	100
3) cis-Decalin	18.344	138	481	43.738	ng/mL	100
9) Naphthalene	20.552	128	7593	74.186	ng/mL	100
14) 2-Methylnaphthalene	23.253	142	4829	89.981	ng/mL	100
15) 1-Methylnaphthalene	23.682	142	4331	94.716	ng/mL	100
16) Benzothiophene	20.771	134	6704	66.673	ng/mL	100
21) Biphenyl	25.133	154	5754	94.183	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.745	156	3674	91.139	ng/mL	100
23) Dibenzofuran	28.236	168	5576	82.503	ng/mL	99
24) Acenaphthylene	26.858	152	6607	97.187	ng/mL	100
25) Acenaphthene	27.597	153	4350	99.367	ng/mL	100
26) 2,3,5-Trimethylnaphthalen	29.148	170	2992	85.169	ng/mL	98
27) Fluorene	29.614	166	4430	85.778	ng/mL	99
31) Dibenzothiophene	32.953	184	6406	72.872	ng/mL	98
41) Phenanthrene	33.446	178	6133	84.421	ng/mL	97
52) Retene	40.438	234	1090	43.179	ng/mL	97
53) Anthracene	33.619	178	5406	77.619	ng/mL	97
54) Carbazole	34.276	167	5686	97.046	ng/mL	95
55) 1-Methylphenanthrene	35.946	192	3779	67.548	ng/mL	97
56) Fluoranthene	38.229	202	5935	62.834	ng/mL	97
57) Benzo(b)fluorene	40.749	216	2920	50.164	ng/mL	100
59) Pyrene	39.114	202	5824	62.791	ng/mL	96
67) Naphthobenzothiophene-2,1	42.967	234	5719	54.338	ng/mL	96
75) Benz[a]anthracene	43.898	228	4416	89.825	ng/mL	96

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192314.D
 Acq On : 20 Apr 2023 6:24 am
 Operator : PAH8:MJS
 Sample : i804192303
 Misc : WG1769611,FRBF69
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 20 09:10:20 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 20 09:07:01 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	44.054	228	4663	95.537	ng/mL	96
77) Chrysene/Triphenylene	44.054	228	4663	95.537	ng/mL	96
84) Benzo[b]fluoranthene	47.993	252	5121	95.253	ng/mL#	73
85) Benzo[j]+[k]fluoranthene	48.084	252	5182	96.418	ng/mL#	71
87) Benzo[e]pyrene	49.063	252	5062	96.190	ng/mL#	68
89) Benzo[a]pyrene	49.264	252	4691	95.385	ng/mL#	67
90) Perylene	49.593	252	4675	90.953	ng/mL#	66
91) Indeno[1,2,3-cd]pyrene	54.449	276	5424M3	71.634	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.523	278	4532	72.115	ng/mL	91
93) Benzo[g,h,i]perylene	55.866	276	5746	78.216	ng/mL	93
94) Hopane (T19)	53.517	191	906	100.048	ng/mL#	40

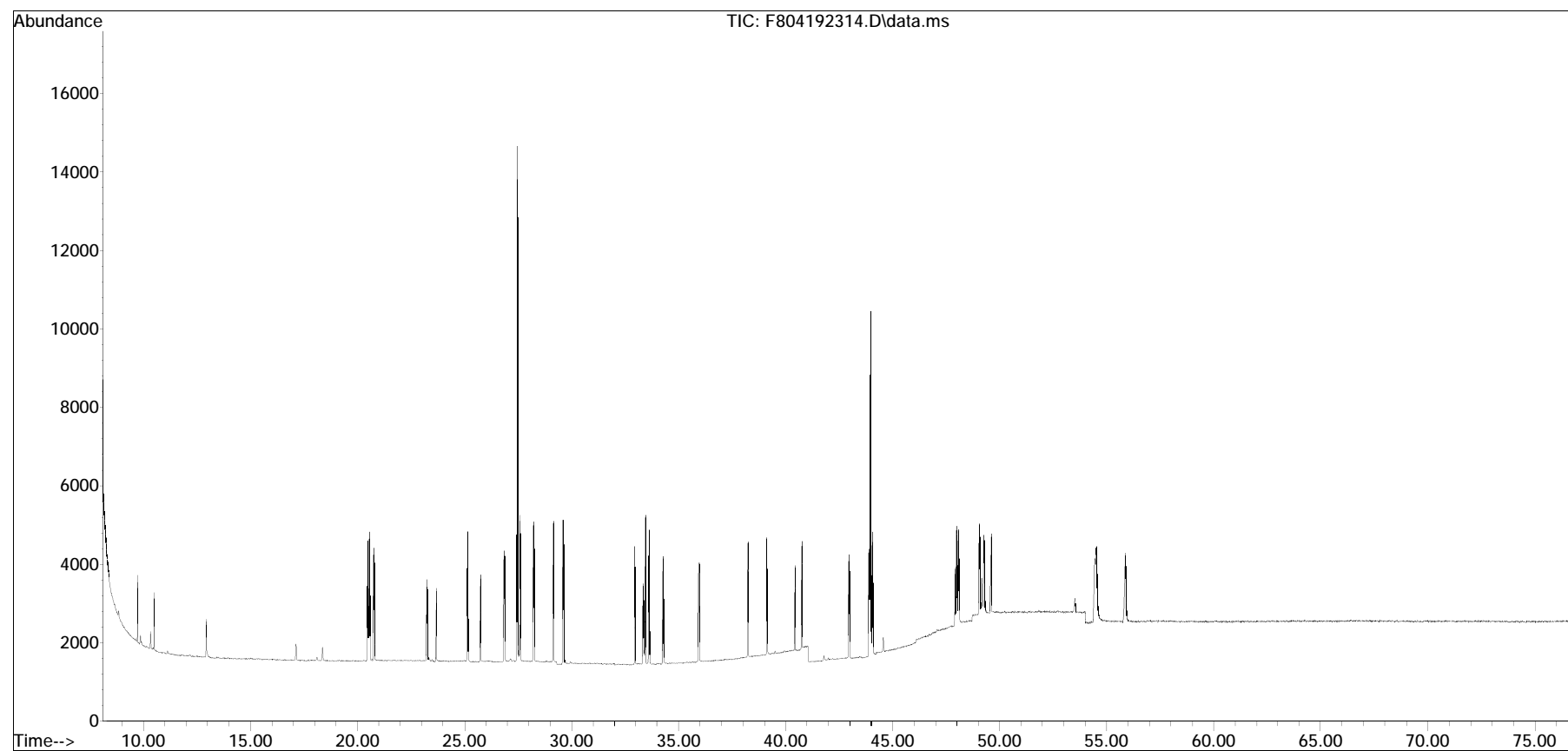
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
Data File : F804192314.D
Acq On : 20 Apr 2023 6:24 am
Operator : PAH8:MJS
Sample : i804192303
Misc : WG1769611,FRBF69
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 20 09:10:20 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 20 09:07:01 2023
Response via : Initial Calibration

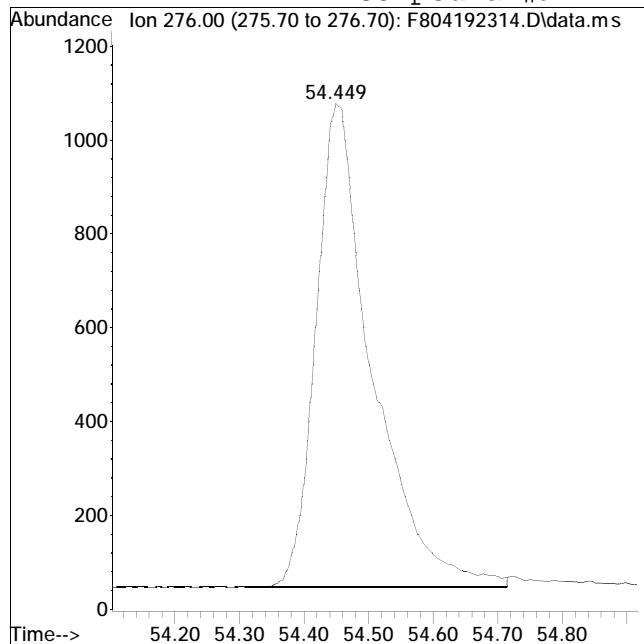
Sub List : ALKPAH_CCV - CC with five surrogates



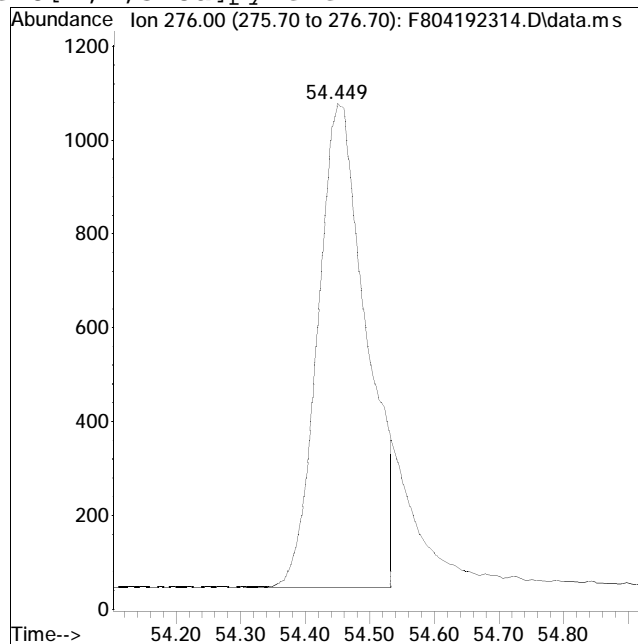
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
 Data File : F804192314.D Operator : PAH8:MJS
 Date Inj'd : 4/20/2023 6:24 am Instrument : PAH8
 Sample : i804192303 Quant Date : 4/20/2023 9:07 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 6264



Manual Peak Response = 5424 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\PAH8\2023\APR23\APR19\
 Data File : F804192315.D
 Acq On : 20 Apr 2023 7:49 am
 Operator : PAH8:MJS
 Sample : i804192304
 Misc : WG1769611,FRBF80
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 20 11:23:42 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 20 09:11:37 2023
 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	27.470	164	17136	500.000	ng/mL	0.00
74) Chrysene-d12	43.963	240	18676	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.470	136	36130	470.955	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	47.10%#		
40) Phenanthrene-d10	33.354	188	22372	499.592	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	49.96%#		
83) Benzo[b]fluoranthene-d12	47.901	264	16620	445.976	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	44.60%#		
88) Benzo[a]pyrene-d12	49.164	264	12063	450.849	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	45.08%#		
128) 5B(H)Cholane - Surr	44.584	217	3045	563.081	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	56.31%		
Target Compounds						
					Qvalue	
2) trans-Decalin	17.121	138	3264	229.940	ng/mL	100
3) cis-Decalin	18.344	138	2521	216.317	ng/mL	100
9) Naphthalene	20.552	128	41923	499.371	ng/mL	100
14) 2-Methylnaphthalene	23.254	142	27516	512.380	ng/mL	100
15) 1-Methylnaphthalene	23.683	142	24648	501.392	ng/mL	100
16) Benzothiophene	20.771	134	37418	500.838	ng/mL	100
21) Biphenyl	25.134	154	32467	497.224	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.745	156	21397	515.078	ng/mL	100
23) Dibenzofuran	28.236	168	31999	525.756	ng/mL	98
24) Acenaphthylene	26.858	152	39122	537.324	ng/mL	100
25) Acenaphthene	27.597	153	25219	526.463	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	29.149	170	17514	522.426	ng/mL	98
27) Fluorene	29.614	166	26225	535.201	ng/mL	100
31) Dibenzothiophene	32.944	184	37928	529.194	ng/mL	98
41) Phenanthrene	33.446	178	36119	525.744	ng/mL	97
52) Retene	40.438	234	6843	561.723	ng/mL	96
53) Anthracene	33.619	178	33506	558.233	ng/mL	95
54) Carbazole	34.276	167	33306	392.649	ng/mL	95
55) 1-Methylphenanthrene	35.947	192	23159	536.184	ng/mL	97
56) Fluoranthene	38.229	202	36621	554.934	ng/mL	96
57) Benzo(b)fluorene	40.749	216	18719	579.852	ng/mL	100
59) Pyrene	39.114	202	36341	553.514	ng/mL	95
67) Naphthobenzothiophene-2,1	42.967	234	34816	536.152	ng/mL	96
75) Benz[a]anthracene	43.899	228	26945	522.030	ng/mL	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192315.D
 Acq On : 20 Apr 2023 7:49 am
 Operator : PAH8:MJS
 Sample : i804192304
 Misc : WG1769611,FRBF80
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 20 11:23:42 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 20 09:11:37 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	44.054	228	28169	520.129	ng/mL	96
77) Chrysene/Triphenylene	44.054	228	28169	520.129	ng/mL	96
84) Benzo[b]fluoranthene	47.993	252	31591	500.771	ng/mL#	73
85) Benzo[j]+[k]fluoranthene	48.084	252	32325	514.704	ng/mL#	71
87) Benzo[e]pyrene	49.063	252	30428	487.841	ng/mL#	68
89) Benzo[a]pyrene	49.264	252	28774	489.105	ng/mL#	65
90) Perylene	49.593	252	29076	497.650	ng/mL#	64
91) Indeno[1,2,3-cd]pyrene	54.459	276	33528M3	480.782	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.523	278	27894	483.280	ng/mL	90
93) Benzo[g,h,i]perylene	55.866	276	33779	421.296	ng/mL	94
94) Hopane (T19)	53.517	191	5083	418.979	ng/mL#	59

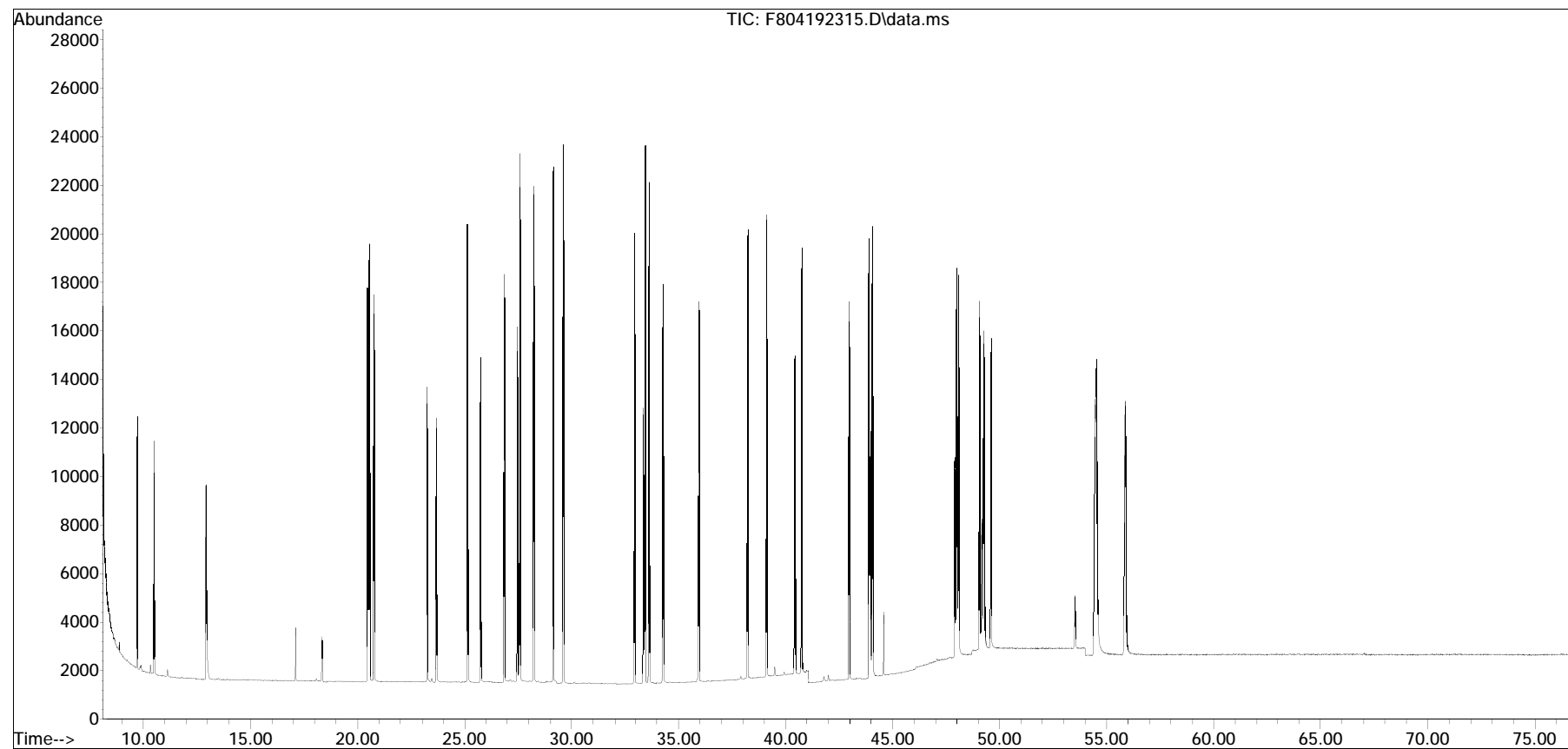
(#) = qualifier out of range (m) = manual integration (+) = signals summed

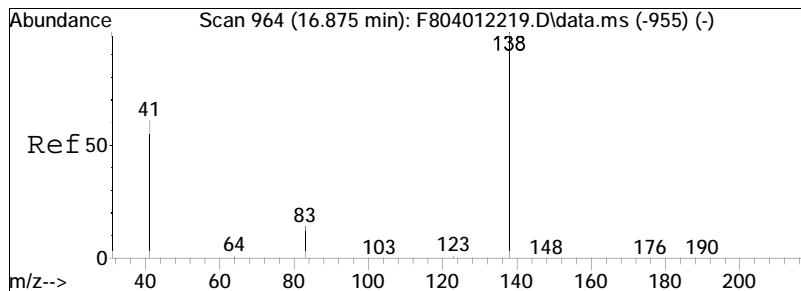
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
Data File : F804192315.D
Acq On : 20 Apr 2023 7:49 am
Operator : PAH8:MJS
Sample : i804192304
Misc : WG1769611,FRBF80
ALS Vial : 6 Sample Multiplier: 1

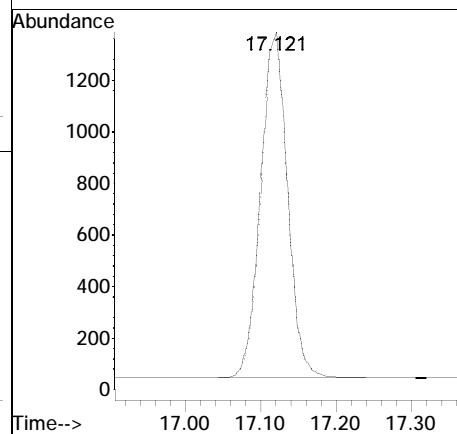
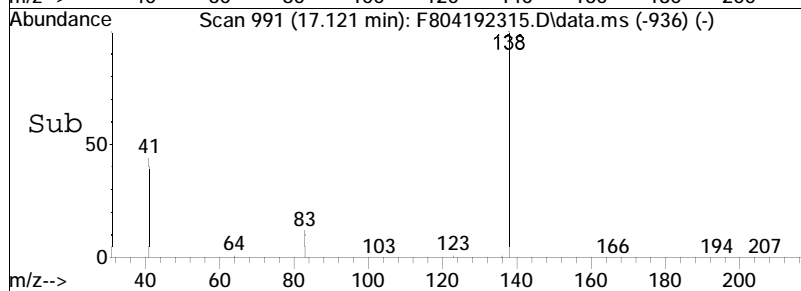
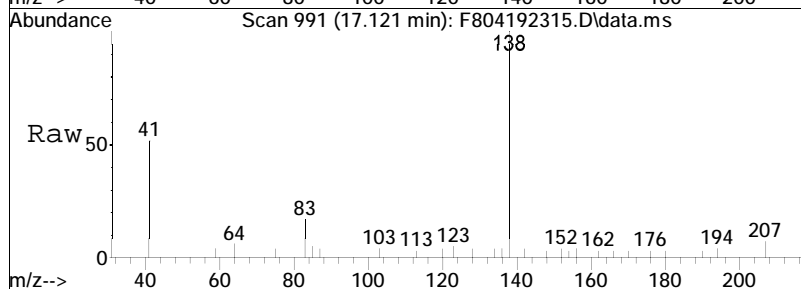
Quant Time: Apr 20 11:23:42 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 20 09:11:37 2023
Response via : Initial Calibration

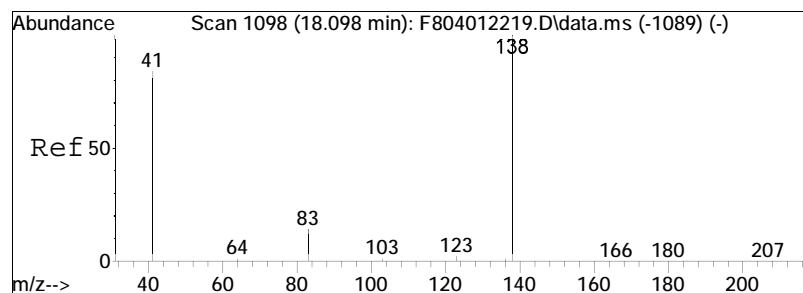
Sub List : ALKPAH_CCV - CC with five surrogates





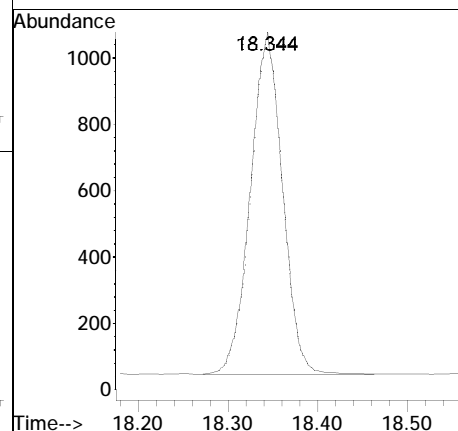
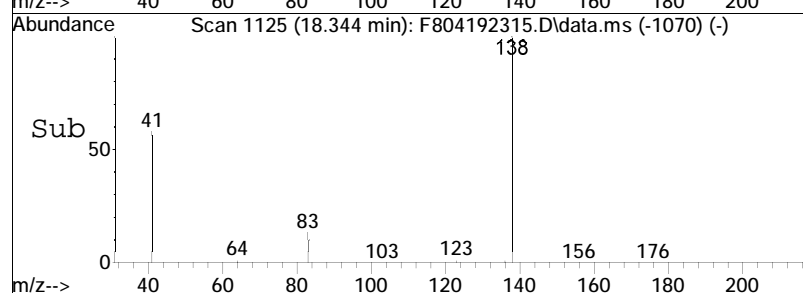
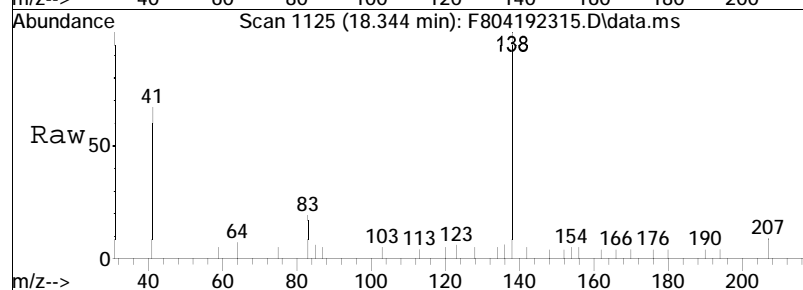
#2
trans-Decalin
Concen: 229.94 ng/mL
RT: 17.121 min Scan# 991
Delta R.T. 0.000 min
Lab File: F804192315.D
Acq: 20 Apr 2023 7:49 am
Tgt Ion:138 Resp: 3264

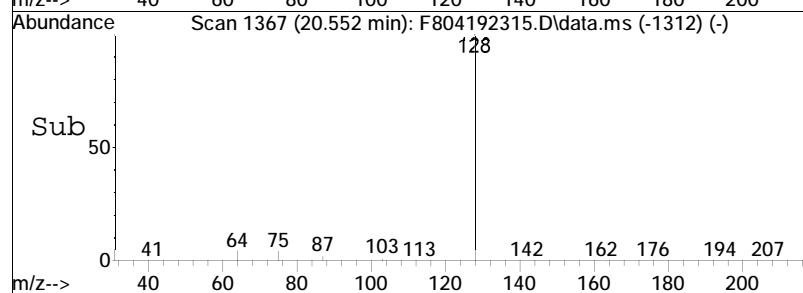
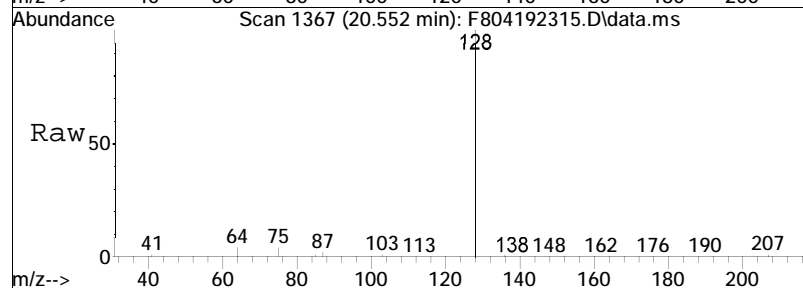
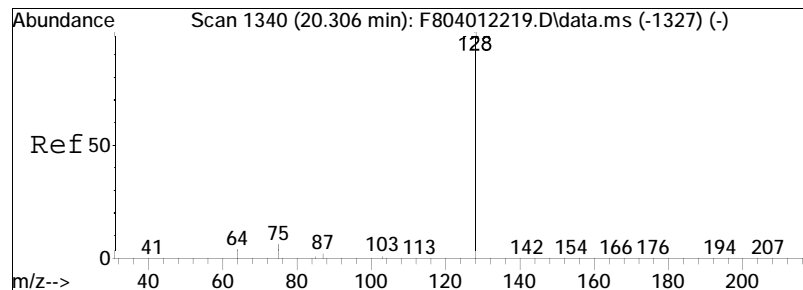




#3
 cis-Decalin
 Concen: 216.32 ng/mL
 RT: 18.344 min Scan# 1125
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

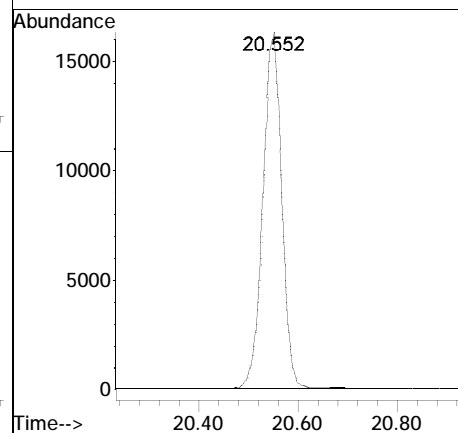
Tgt Ion:138 Resp: 2521

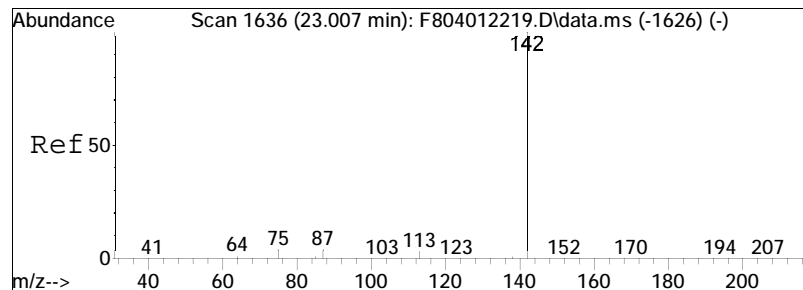




#9
 Naphthalene
 Concen: 499.37 ng/mL
 RT: 20.552 min Scan# 1367
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

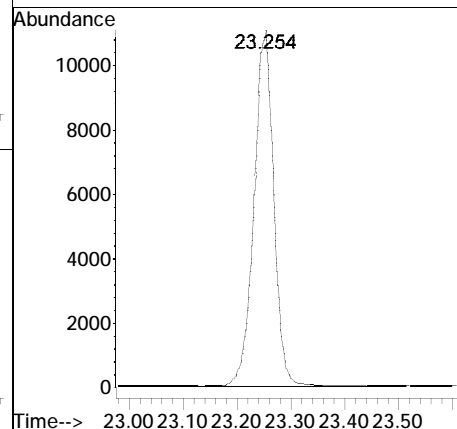
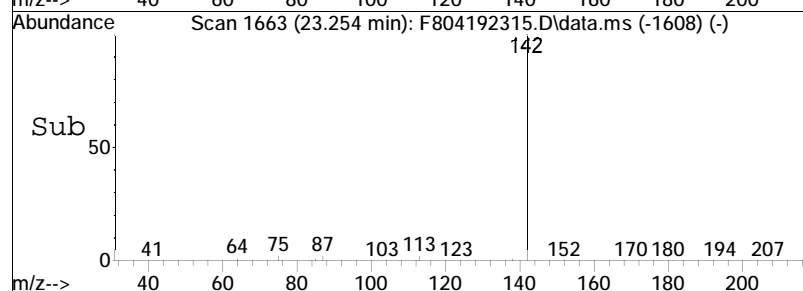
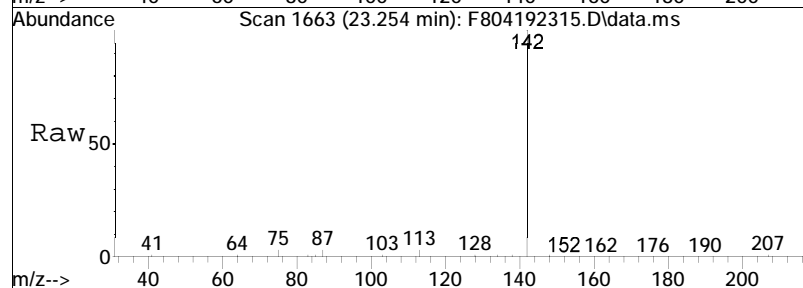
Tgt Ion:128 Resp: 41923

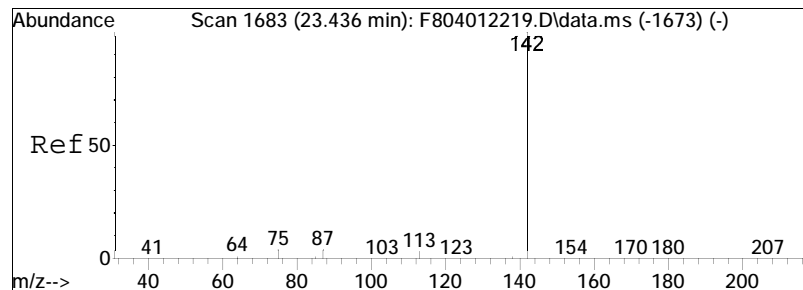




#14
 2-Methylnaphthalene
 Concen: 512.38 ng/mL
 RT: 23.254 min Scan# 1663
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

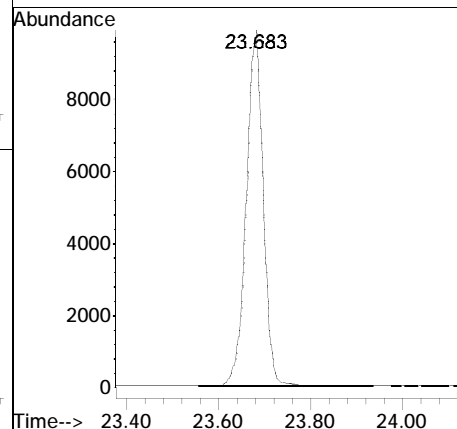
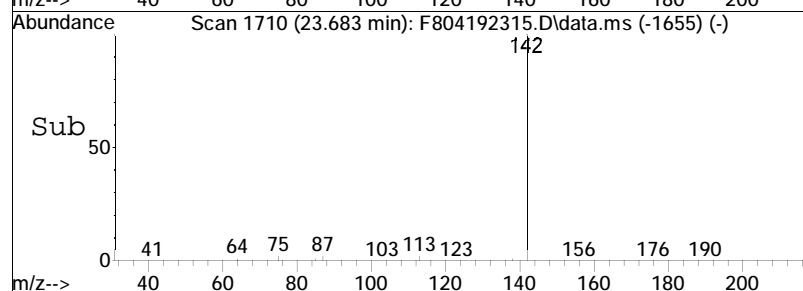
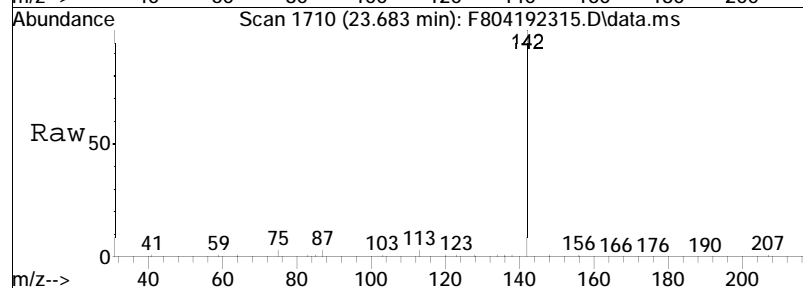
Tgt Ion:142 Resp: 27516

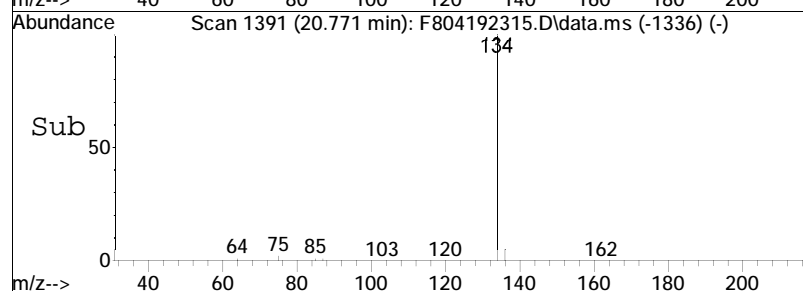
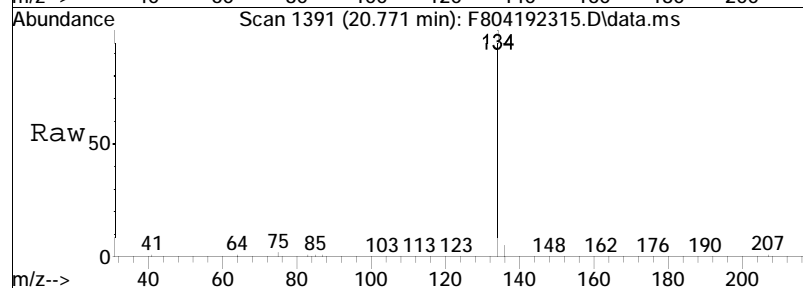
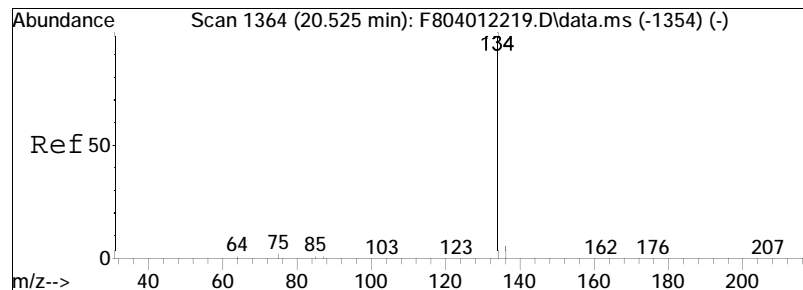




#15
1-Methylnaphthalene
Concen: 501.39 ng/mL
RT: 23.683 min Scan# 1710
Delta R.T. 0.000 min
Lab File: F804192315.D
Acq: 20 Apr 2023 7:49 am

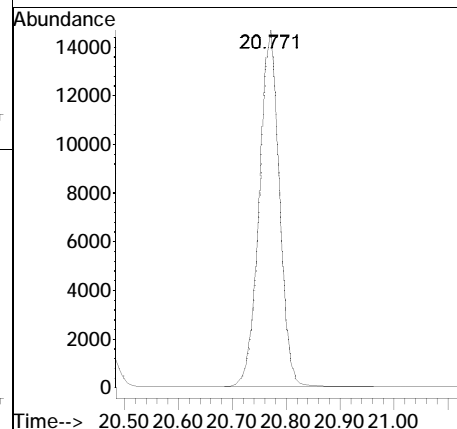
Tgt Ion:142 Resp: 24648

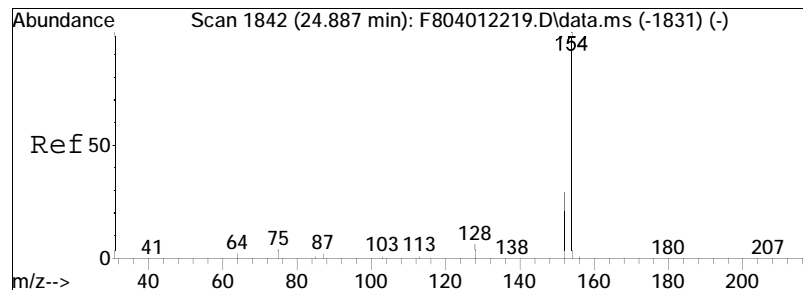




#16
 Benzo[thiophene]
 Concen: 500.84 ng/mL
 RT: 20.771 min Scan# 1391
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

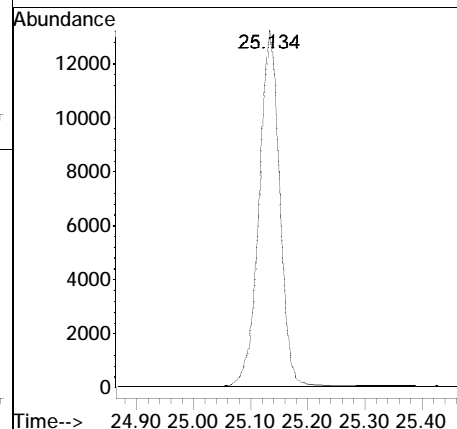
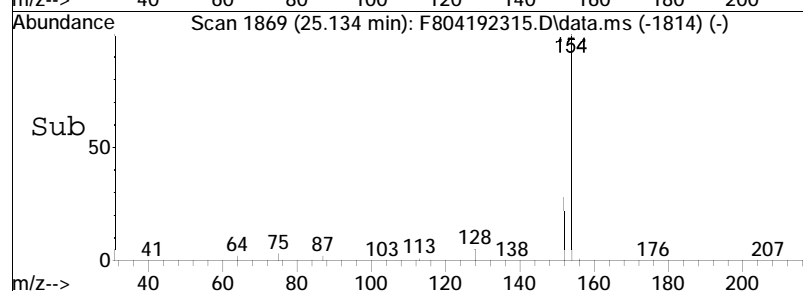
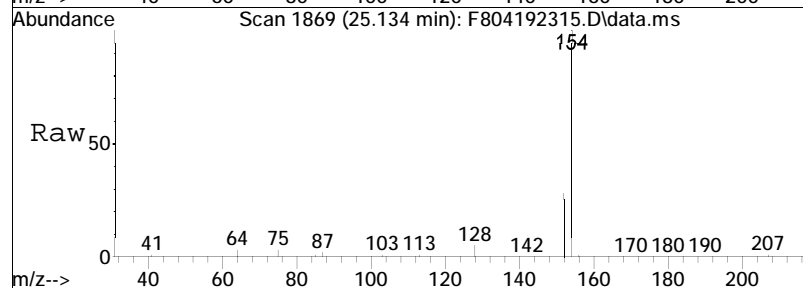
Tgt Ion:134 Resp: 37418

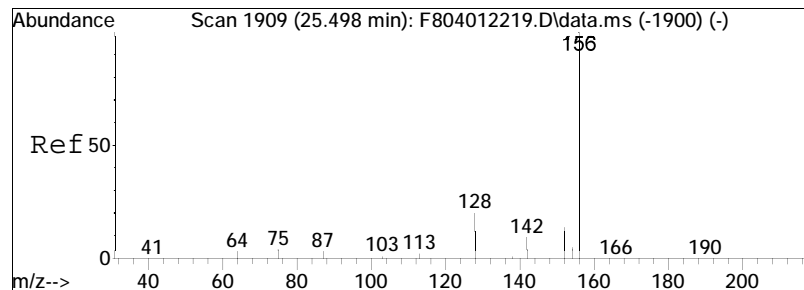




#21
Biphenyl
Concen: 497.22 ng/mL
RT: 25.134 min Scan# 1869
Delta R.T. 0.000 min
Lab File: F804192315.D
Acq: 20 Apr 2023 7:49 am

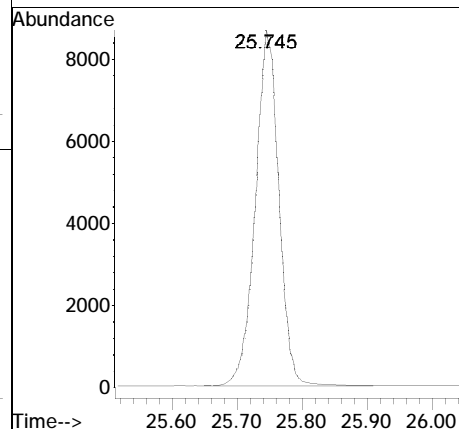
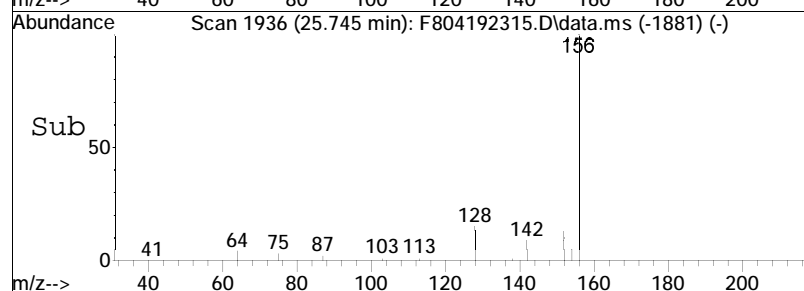
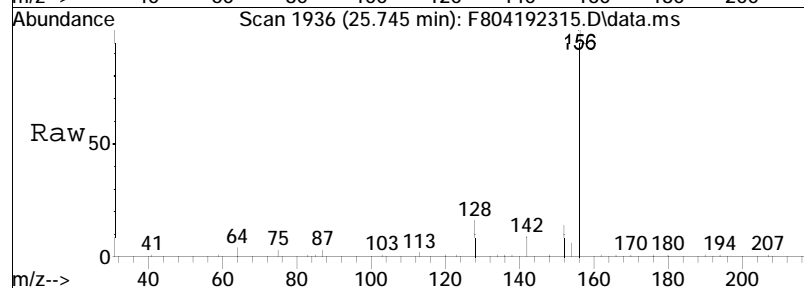
Tgt Ion:154 Resp: 32467

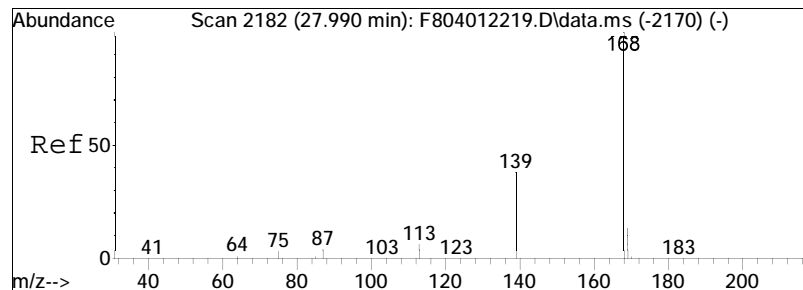




#22
2,6-Dimethylnaphthalene
Concen: 515.08 ng/mL
RT: 25.745 min Scan# 1936
Delta R.T. 0.000 min
Lab File: F804192315.D
Acq: 20 Apr 2023 7:49 am

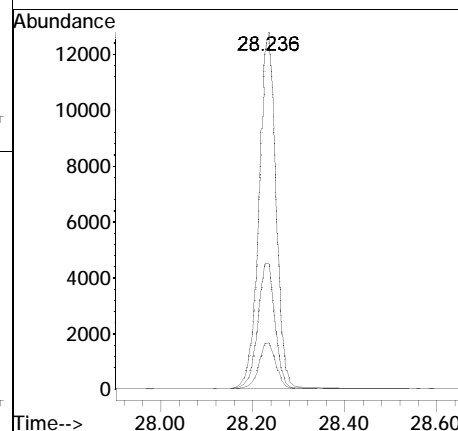
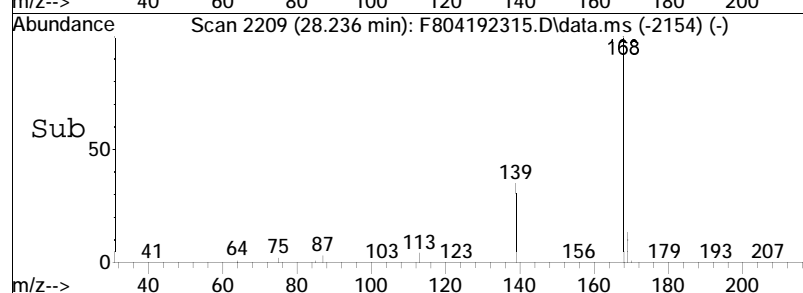
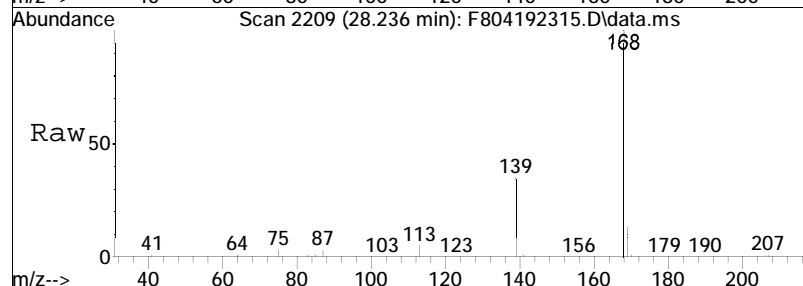
Tgt Ion:156 Resp: 21397

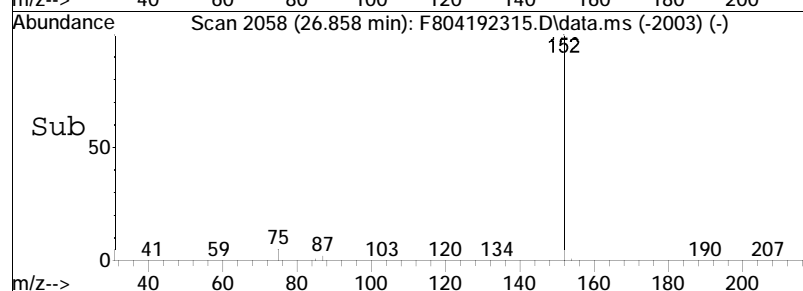
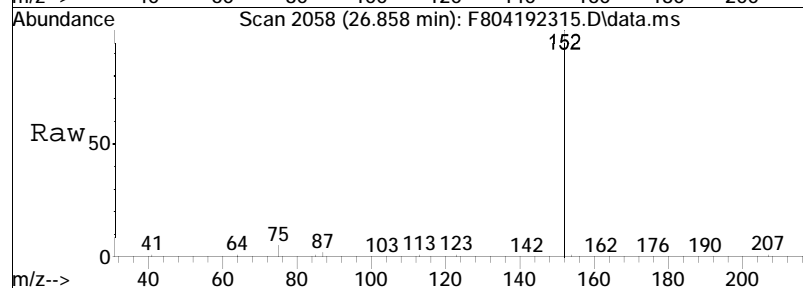
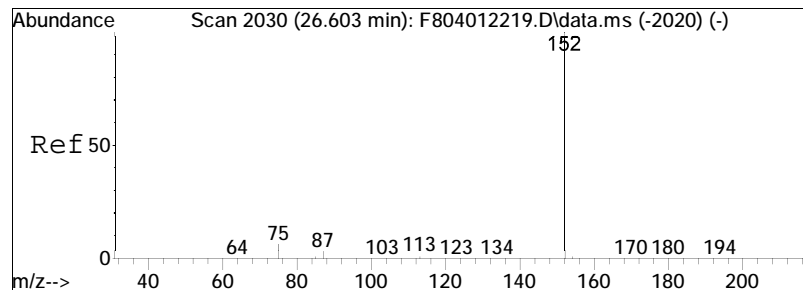




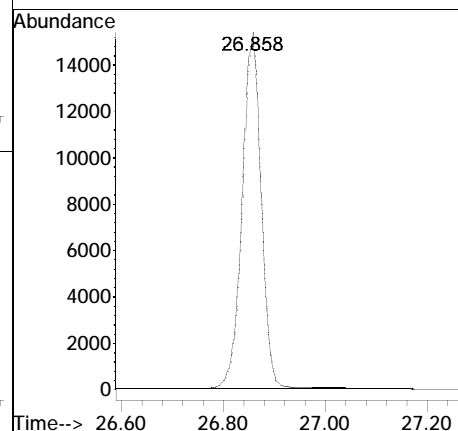
#23
 Dibenzofuran
 Concen: 525.76 ng/mL
 RT: 28.236 min Scan# 2209
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

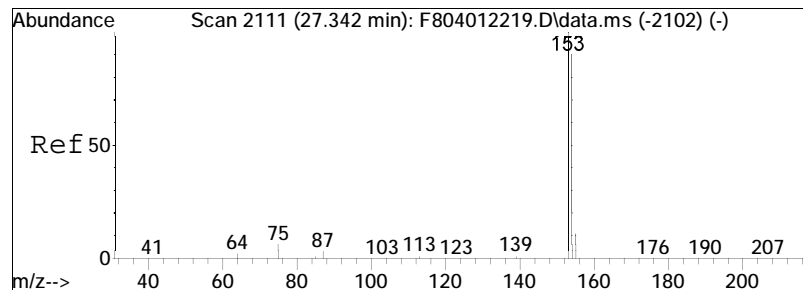
Tgt Ion:	168	Resp:	31999
Ion Ratio	Lower	Upper	
168	100		
139	35.9	25.8	48.0
169	13.0	10.3	19.1





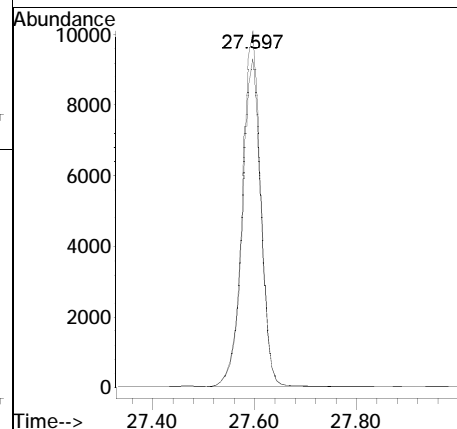
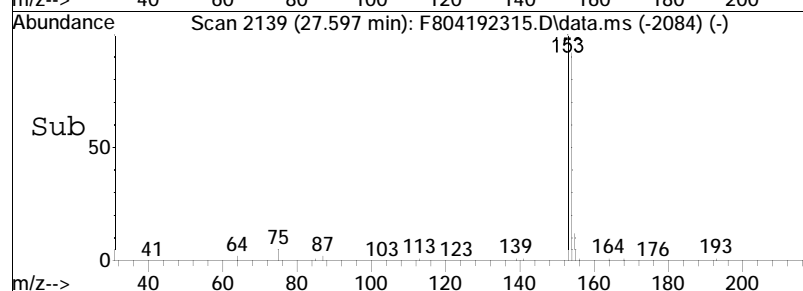
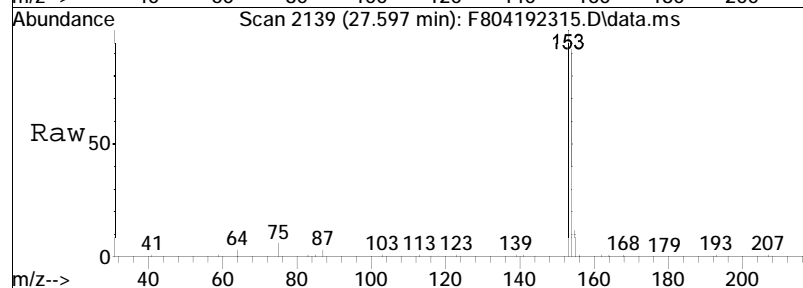
#24
Acenaphthylene
Concen: 537.32 ng/mL
RT: 26.858 min Scan# 2058
Delta R.T. 0.000 min
Lab File: F804192315.D
Acq: 20 Apr 2023 7:49 am
Tgt Ion:152 Resp: 39122

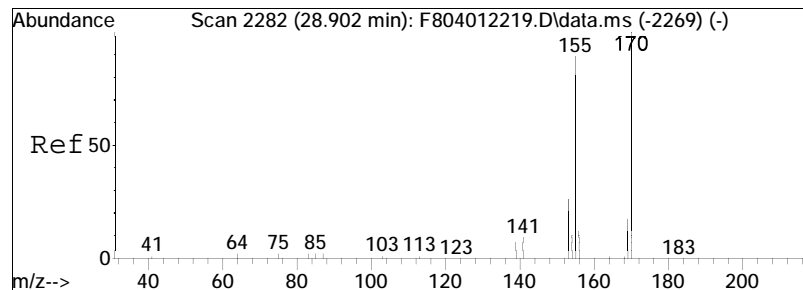




#25
 Acenaphthene
 Concen: 526.46 ng/mL
 RT: 27.597 min Scan# 2139
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

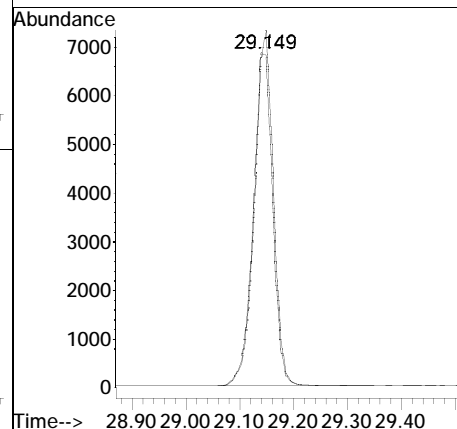
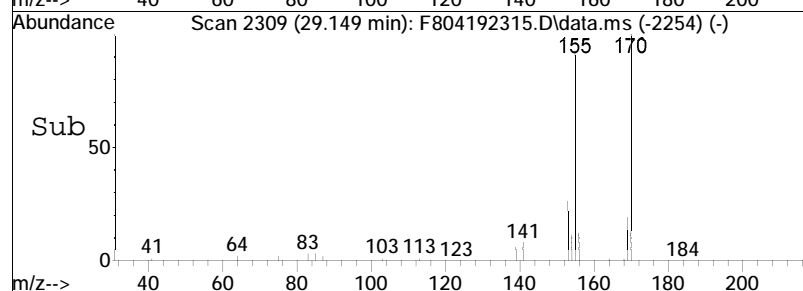
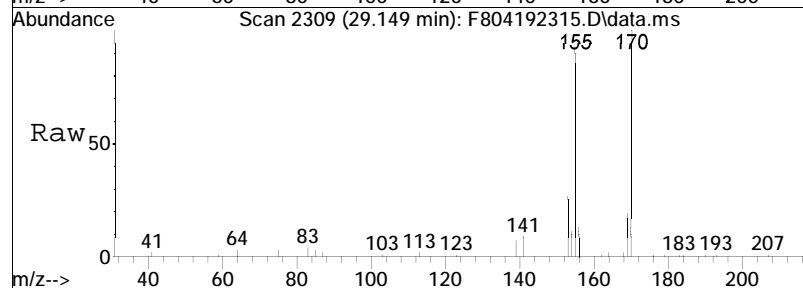
Tgt Ion	Ratio	Lower	Upper
153	100		
154	92.1	65.0	120.8

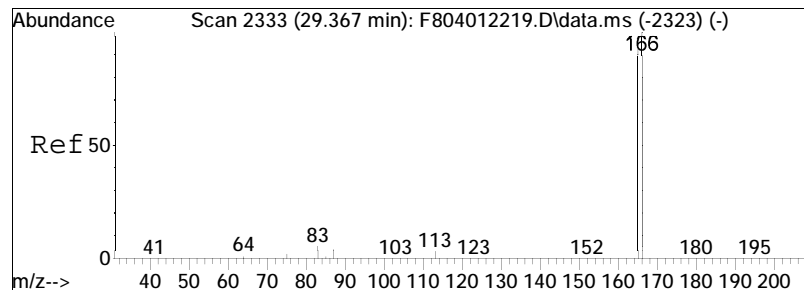




#26
 2,3,5-Trimethylnaphthalene
 Concen: 522.43 ng/mL
 RT: 29.149 min Scan# 2309
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

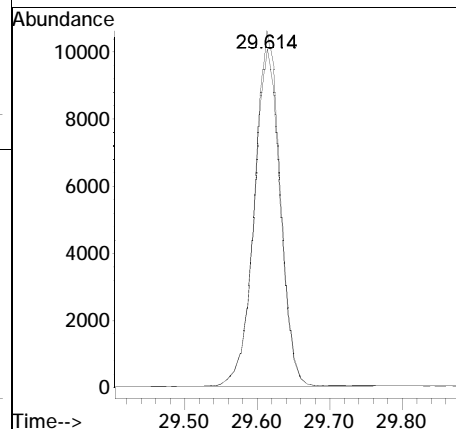
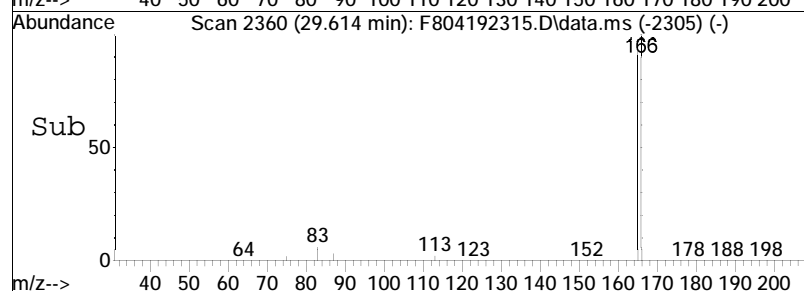
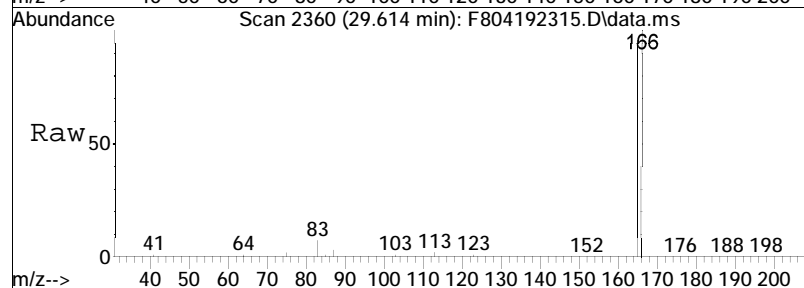
Tgt Ion	Ratio	Lower	Upper
170	100		
155	96.4	65.8	122.2

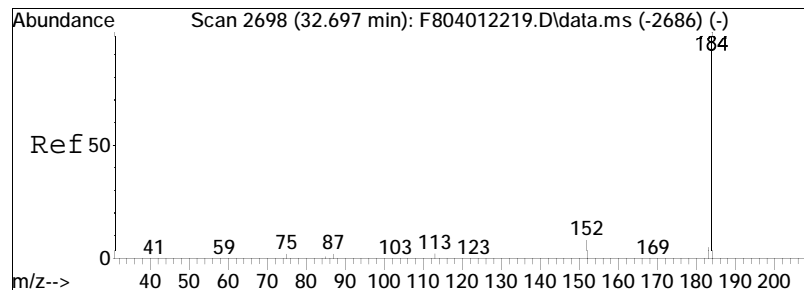




#27
 Fluorene
 Concen: 535.20 ng/mL
 RT: 29.614 min Scan# 2360
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

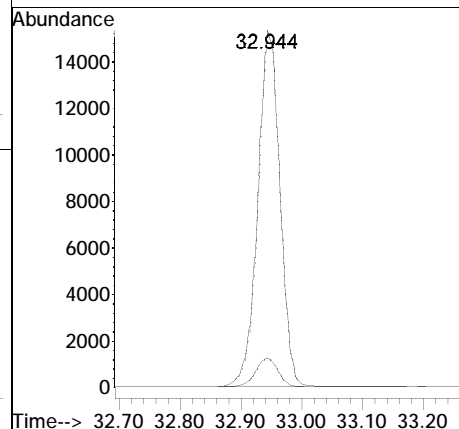
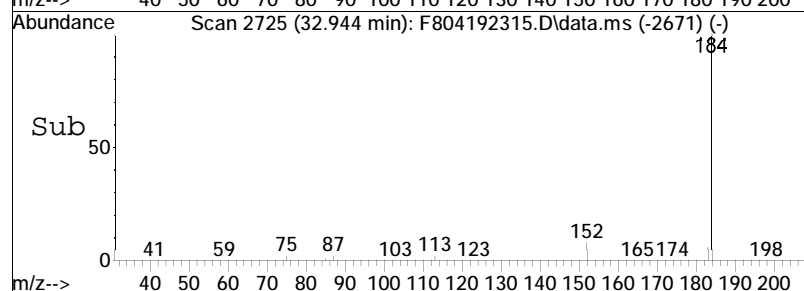
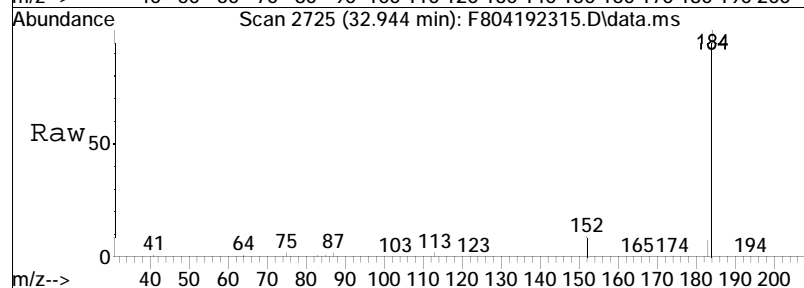
Tgt Ion	Ratio	Lower	Upper
166	100		
165	94.7	66.4	123.2

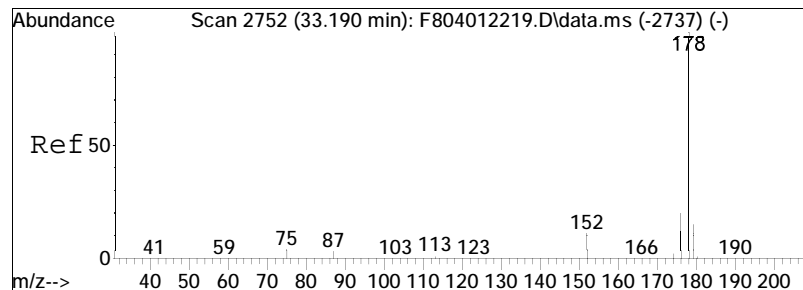




#31
Dibenzo[thiophene]
Concen: 529.19 ng/mL
RT: 32.944 min Scan# 2725
Delta R.T. -0.009 min
Lab File: F804192315.D
Acq: 20 Apr 2023 7:49 am

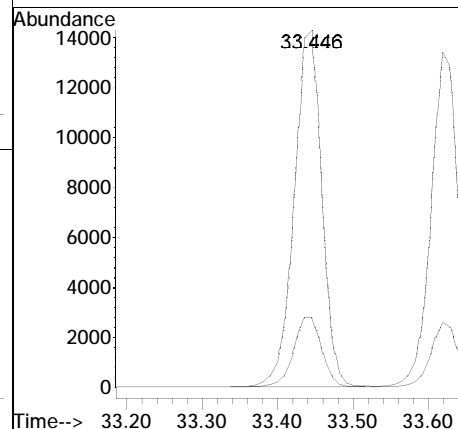
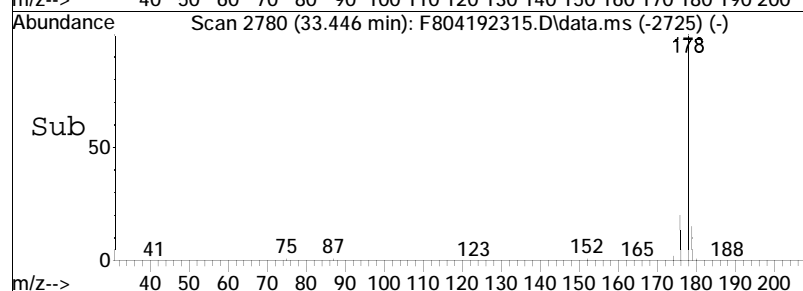
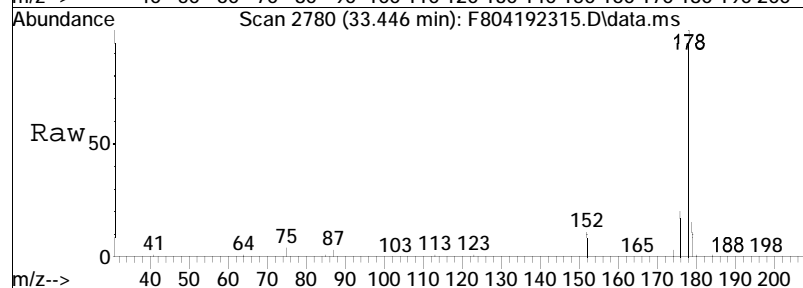
Tgt Ion	Ratio	Lower	Upper
184	100		
152	8.2	6.3	11.7

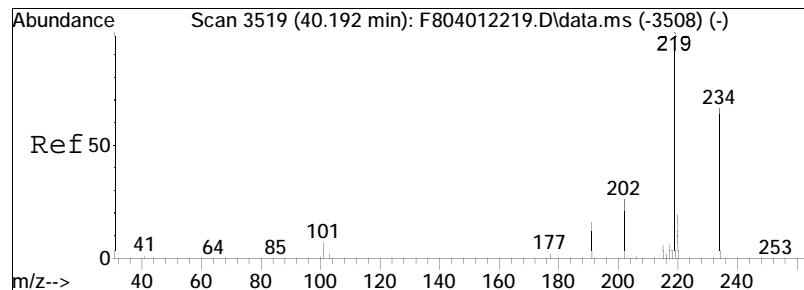




#41
 Phenanthrene
 Concen: 525.74 ng/mL
 RT: 33.446 min Scan# 2780
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

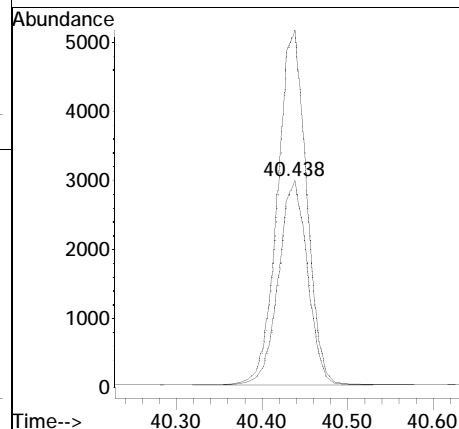
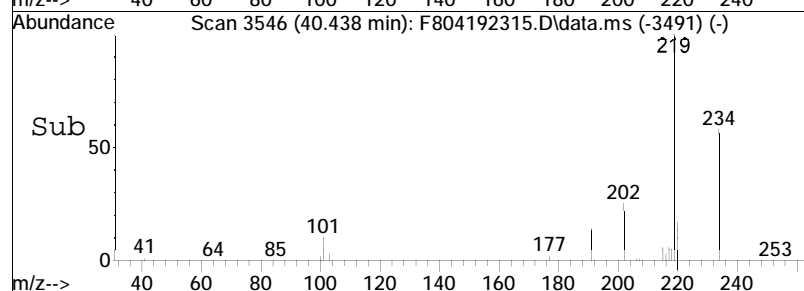
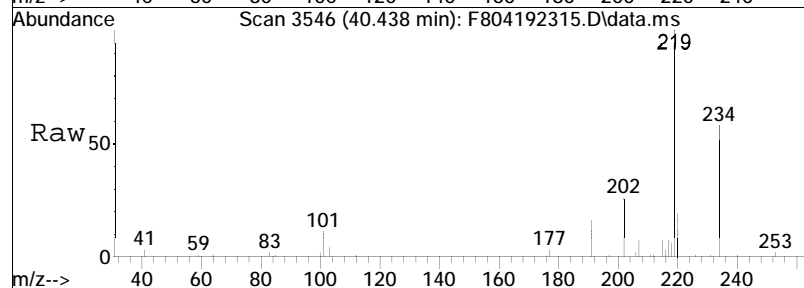
Tgt Ion	Ratio	Lower	Upper
178	100		
176	19.8	14.8	27.4

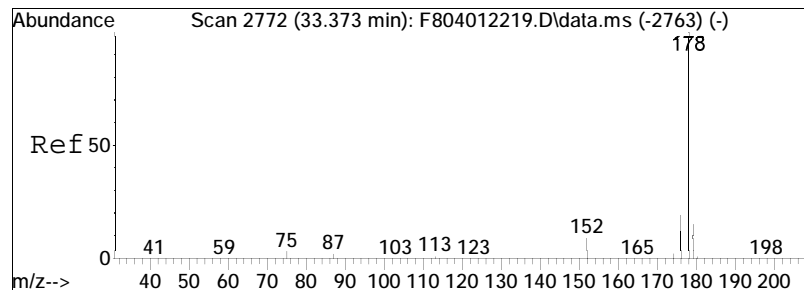




#52
 Retene
 Concen: 561.72 ng/mL
 RT: 40.438 min Scan# 3546
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

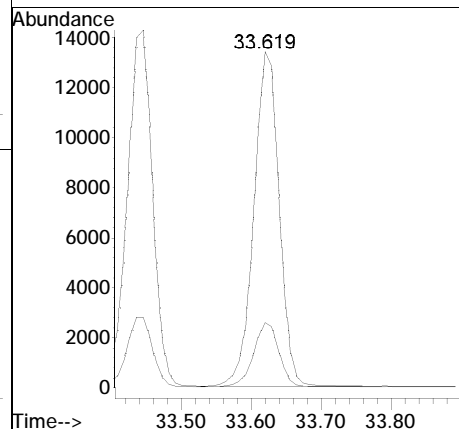
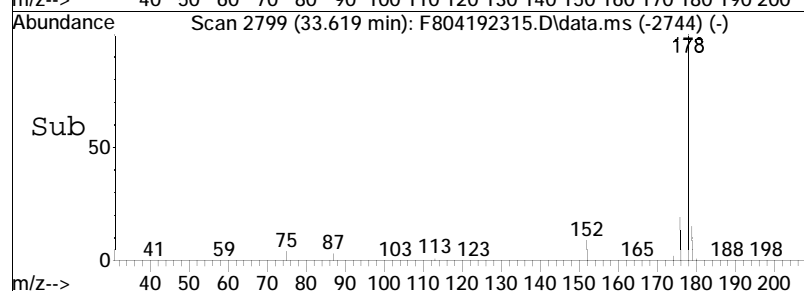
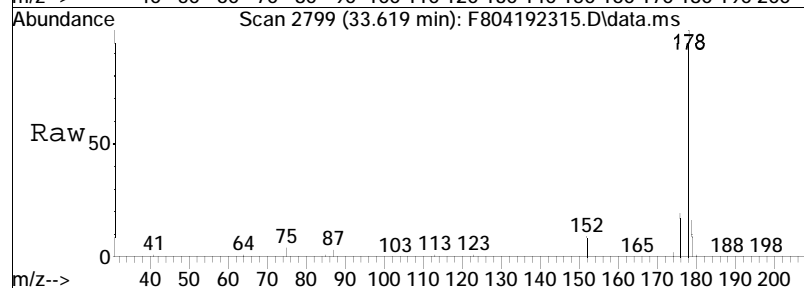
Tgt Ion	Ratio	Lower	Upper
234	100		
219	173.7	118.1	219.3

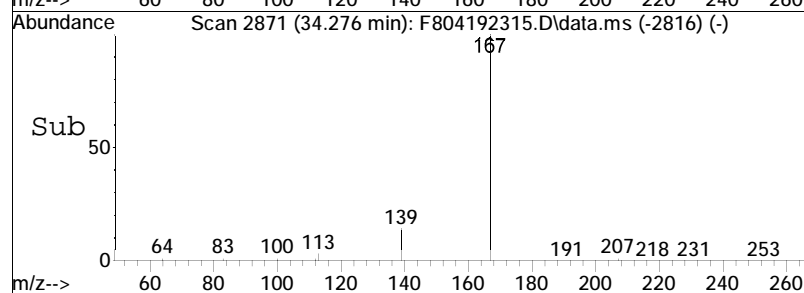
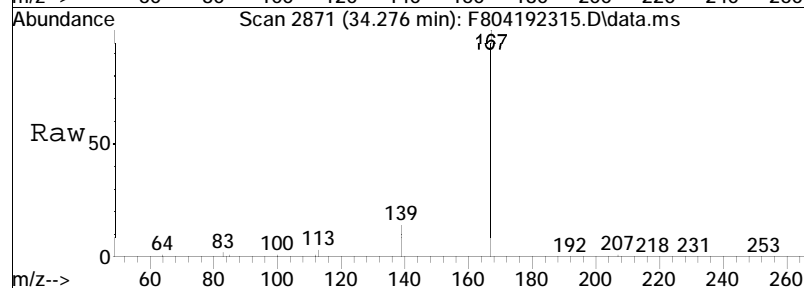
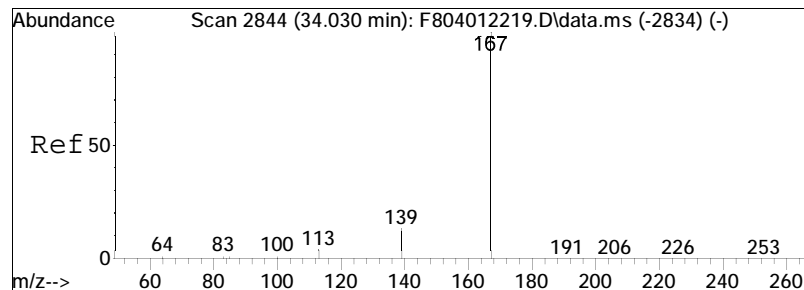




#53
 Anthracene
 Concen: 558.23 ng/mL
 RT: 33.619 min Scan# 2799
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

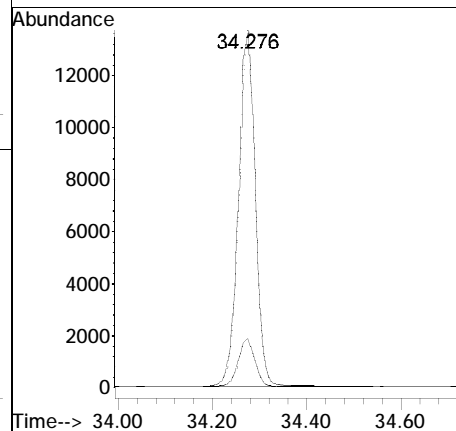
Tgt Ion	Ratio	Lower	Upper
178	100		
176	18.9	14.8	27.6

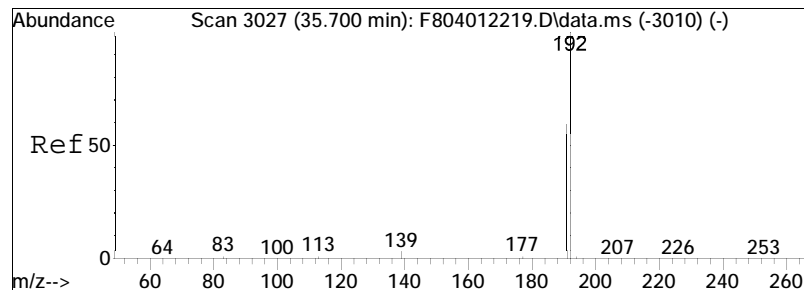




#54
 Carbazole
 Concen: 392.65 ng/mL
 RT: 34.276 min Scan# 2871
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

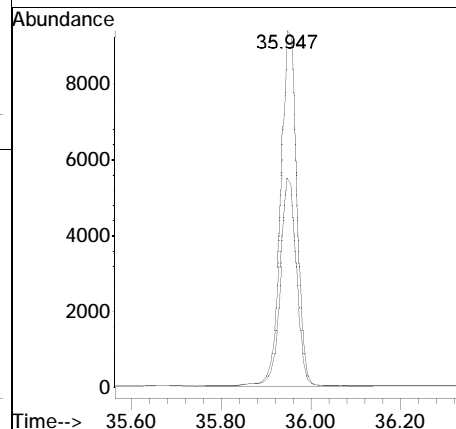
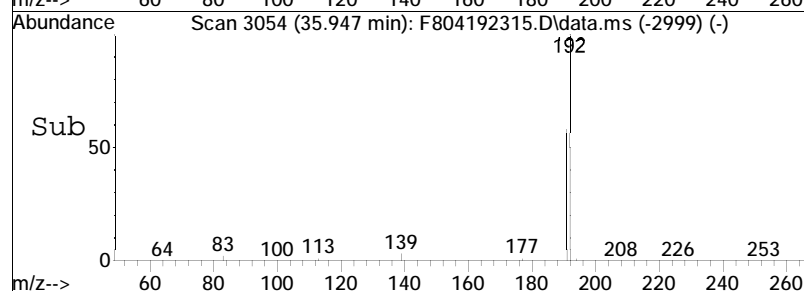
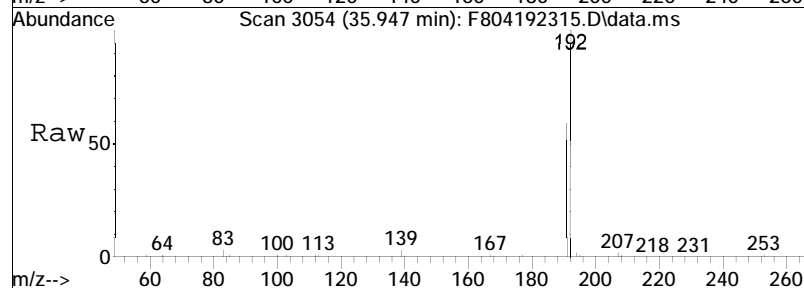
Tgt Ion	Ratio	Lower	Upper
167	100		
139	13.4	10.9	20.2

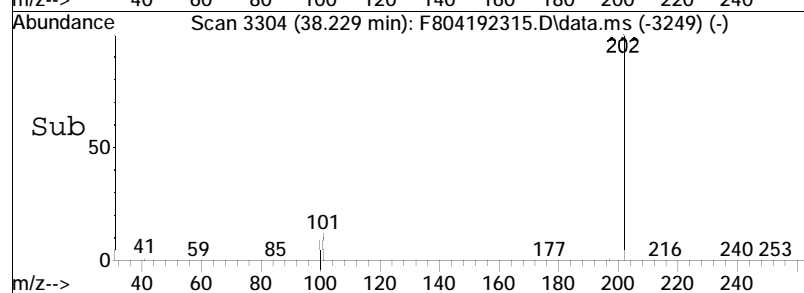
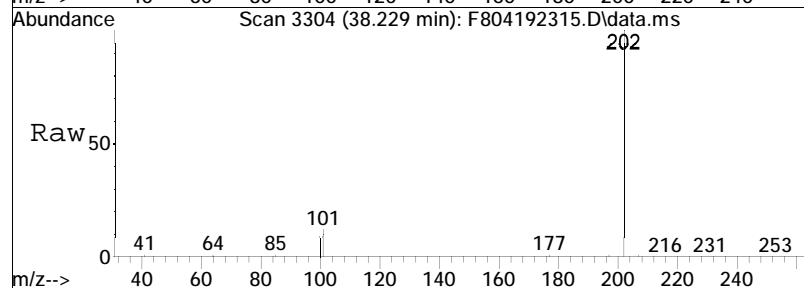
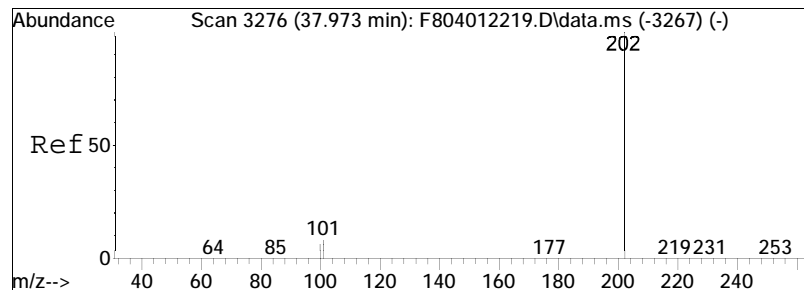




#55
 1-Methylphenanthrene
 Concen: 536.18 ng/mL
 RT: 35.947 min Scan# 3054
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

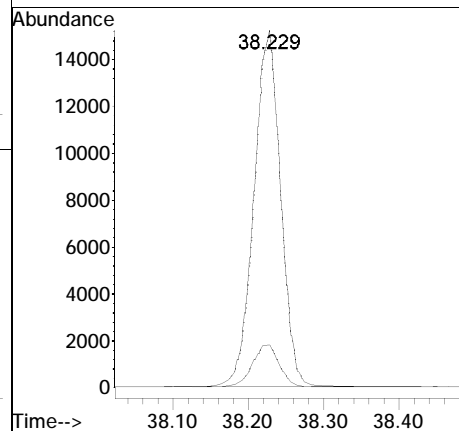
Tgt	Ion	Ratio	Lower	Upper
192	100			
191	58.6	42.4	78.8	

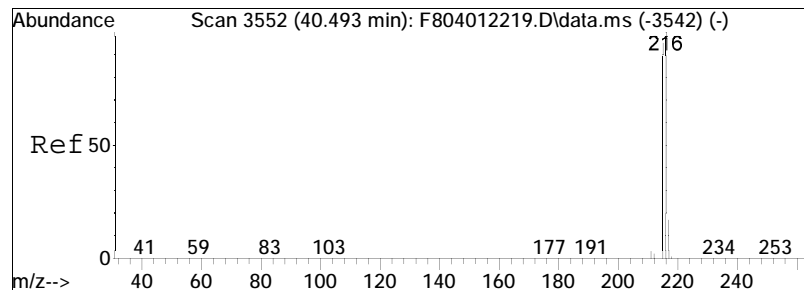




#56
 Fluoranthene
 Concen: 554.93 ng/mL
 RT: 38.229 min Scan# 3304
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

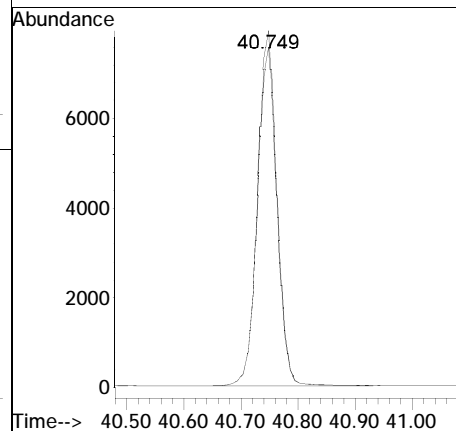
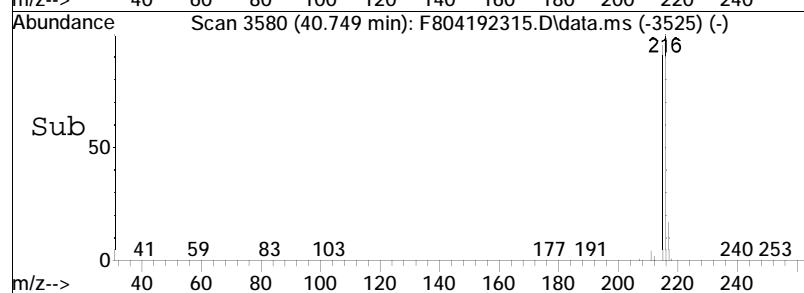
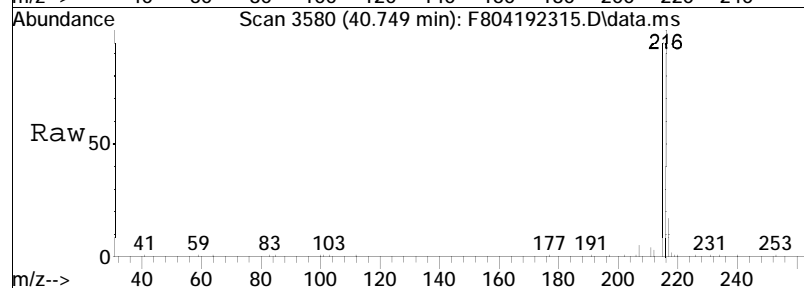
Tgt Ion	Ratio	Lower	Upper
202	100		
101	11.9	9.4	17.6

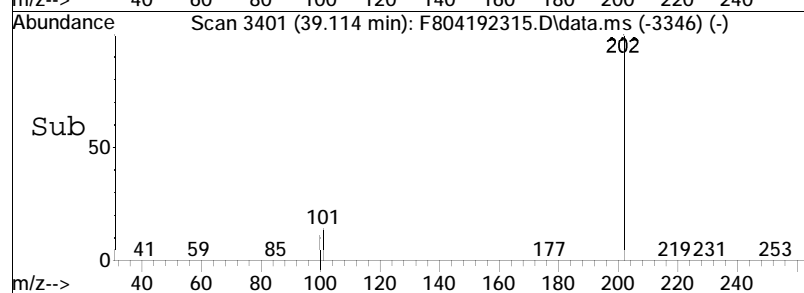
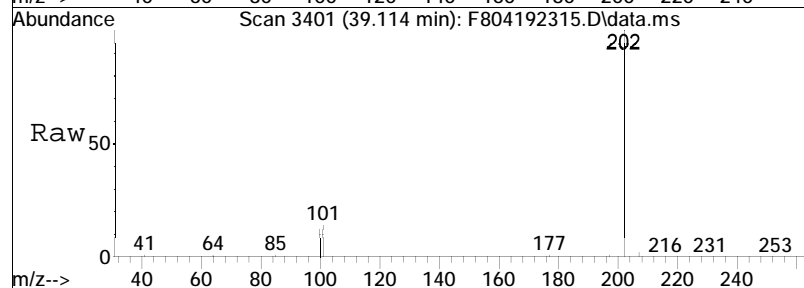
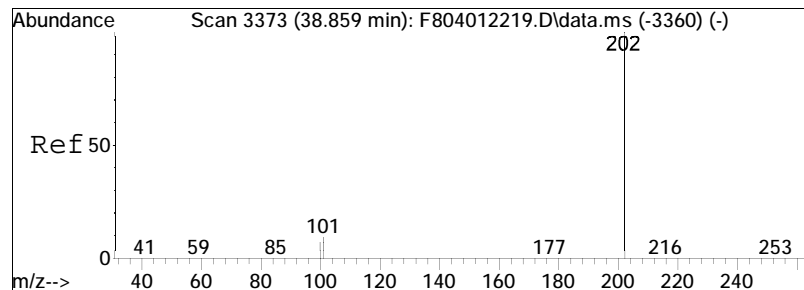




#57
 Benzo(b)fluorene
 Concen: 579.85 ng/mL
 RT: 40.749 min Scan# 3580
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

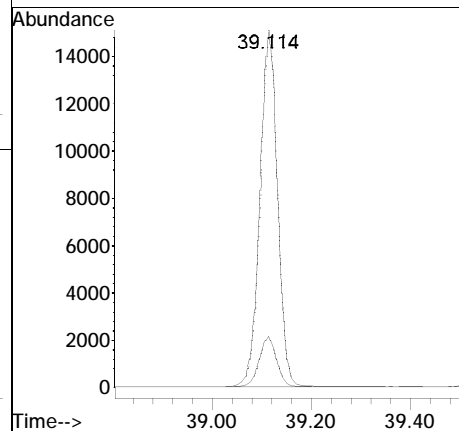
Tgt Ion	Ratio	Lower	Upper
216	100		
215	95.2	66.8	124.2

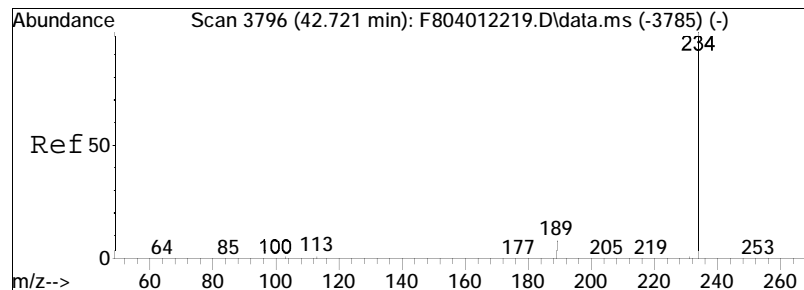




#59
 Pyrene
 Concen: 553.51 ng/mL
 RT: 39.114 min Scan# 3401
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

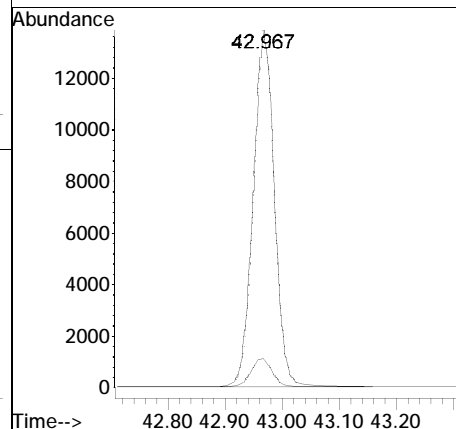
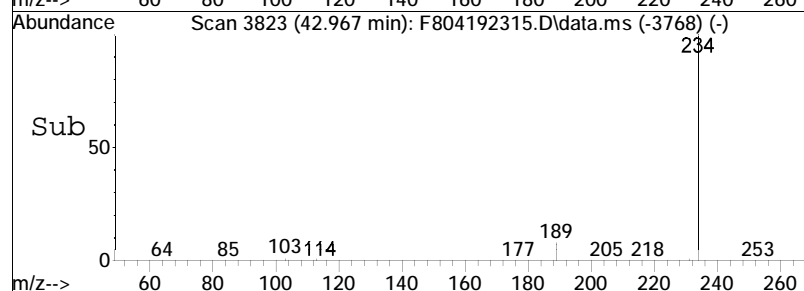
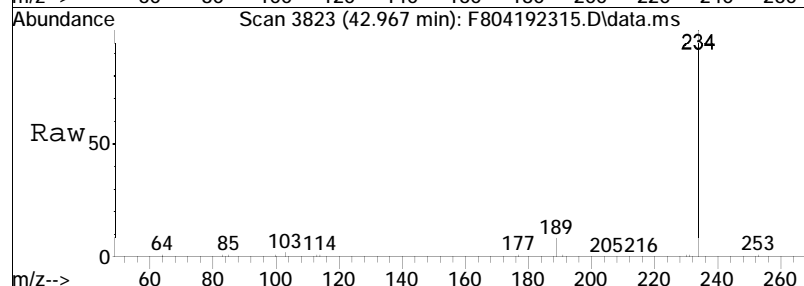
Tgt Ion	Ratio	Lower	Upper
202	100		
101	14.1	11.5	21.3

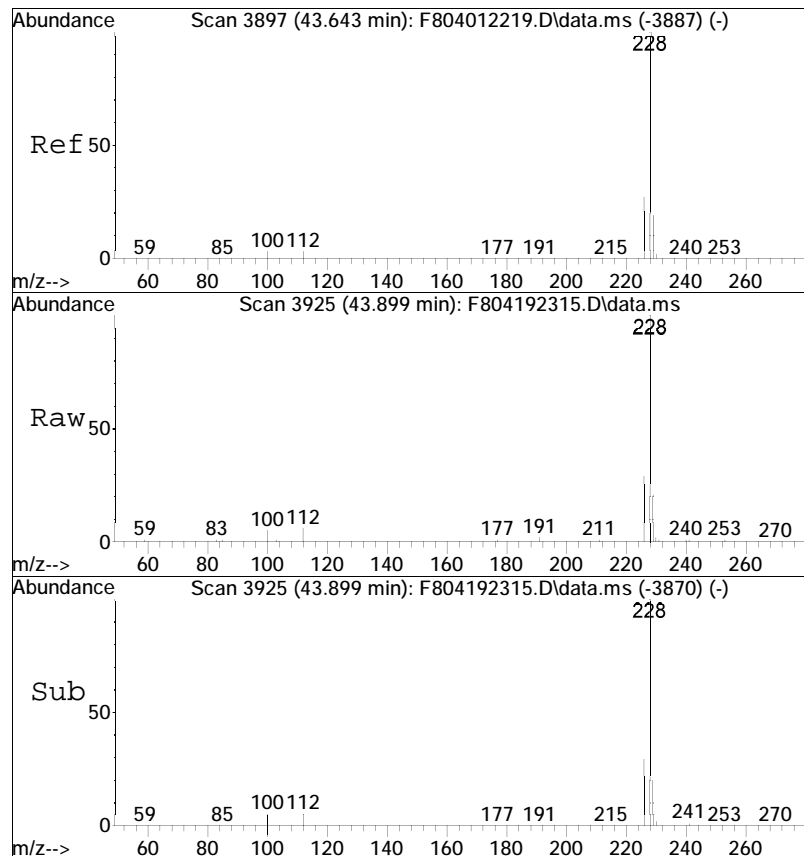




#67
 Naphthobenzothiophene-2,1-D
 Concen: 536.15 ng/mL
 RT: 42.967 min Scan# 3823
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

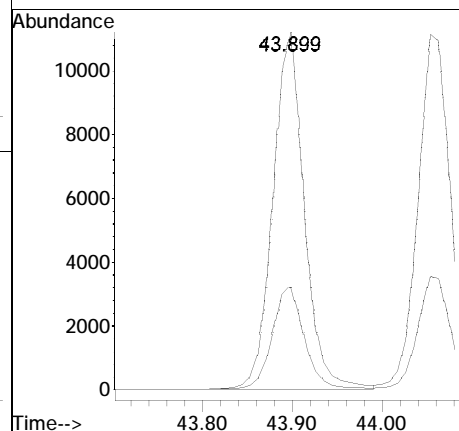
Tgt Ion	Ratio	Lower	Upper
234	100		
189	7.9	6.6	12.2

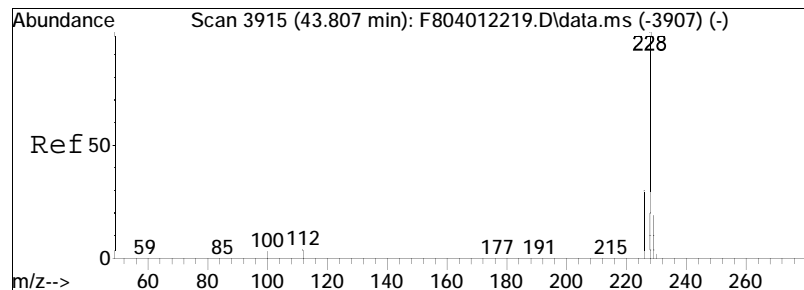




#75
Benz[a]anthracene
Concen: 522.03 ng/mL
RT: 43.899 min Scan# 3925
Delta R.T. 0.000 min
Lab File: F804192315.D
Acq: 20 Apr 2023 7:49 am

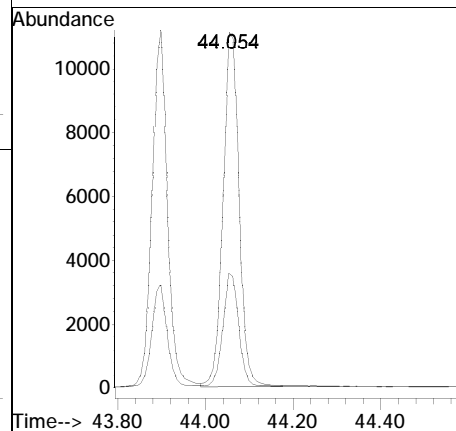
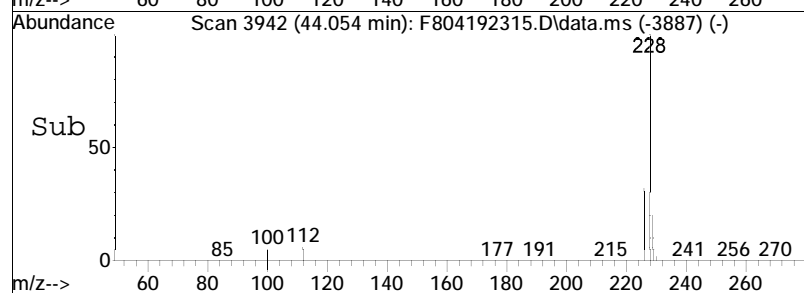
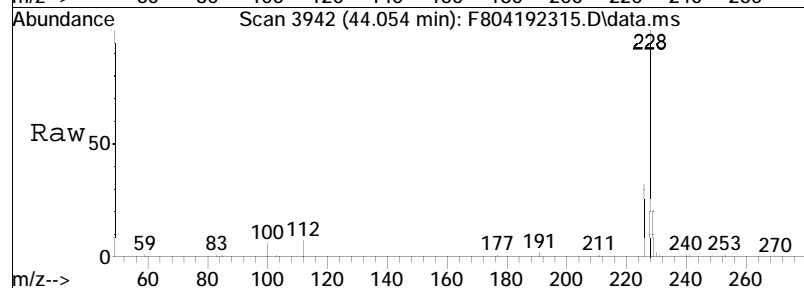
Tgt	Ion	Ratio	Lower	Upper
228	100			
226	28.6	21.2	39.4	

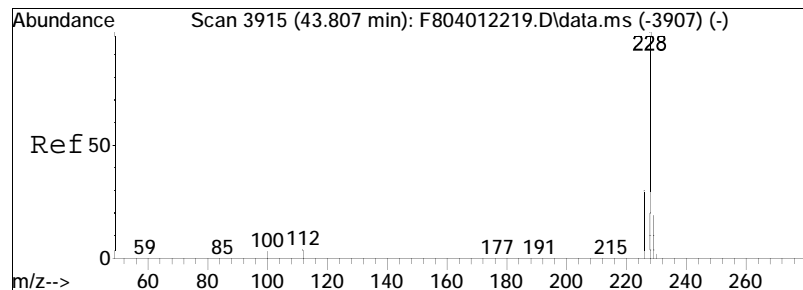




#76
 Chrysene
 Concen: 520.13 ng/mL
 RT: 44.054 min Scan# 3942
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

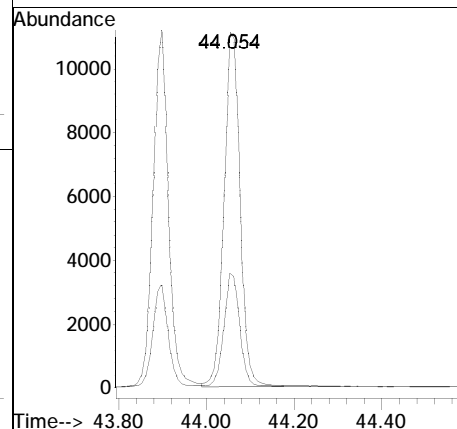
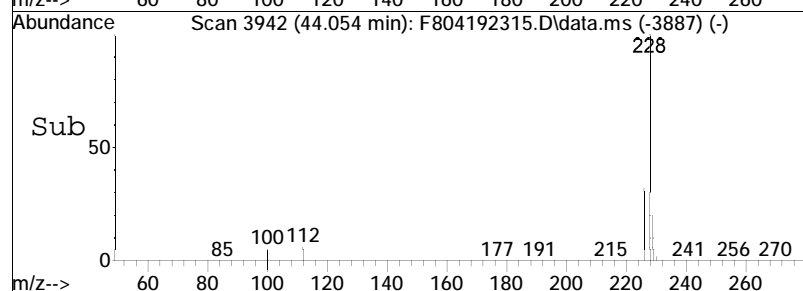
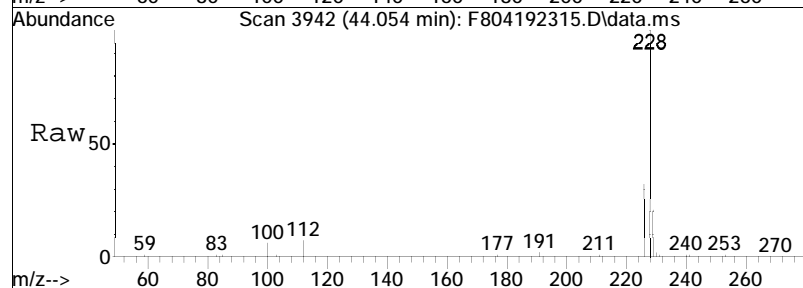
Tgt Ion	Ratio	Lower	Upper
228	100		
226	31.6	23.7	43.9

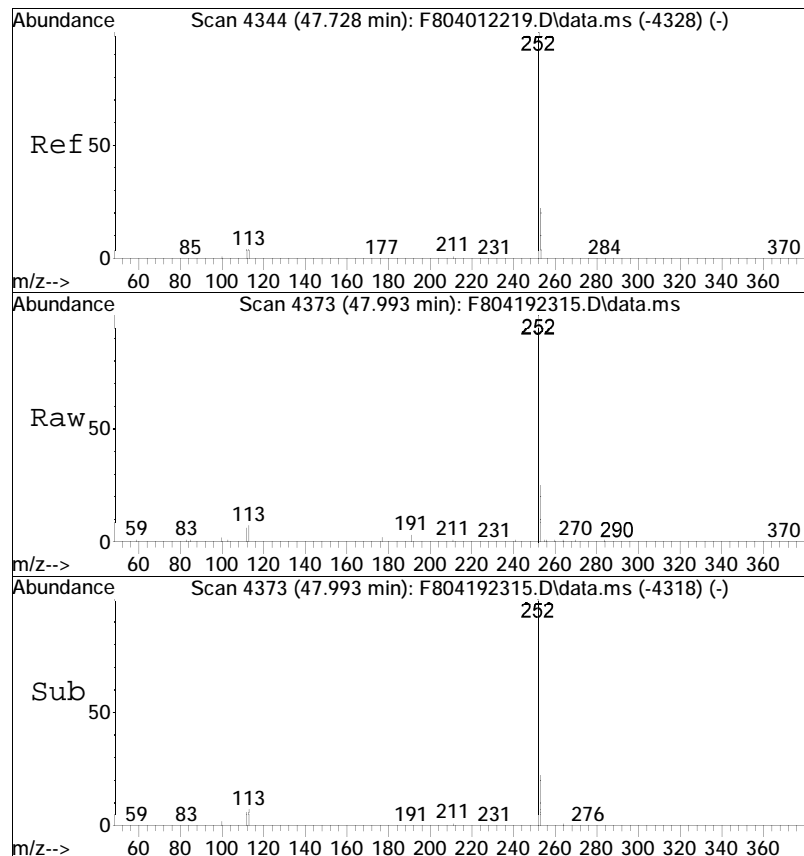




#77
 Chrysene/Triphenylene
 Concen: 520.13 ng/mL
 RT: 44.054 min Scan# 3942
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

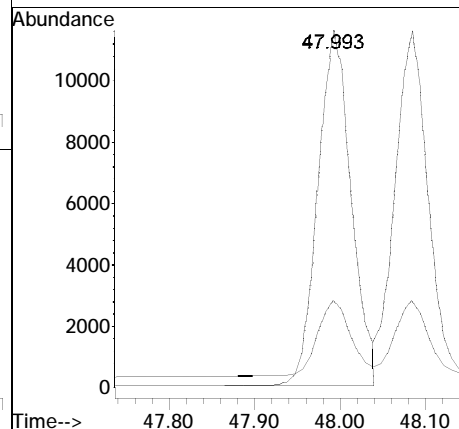
Tgt Ion	Ratio	Lower	Upper
228	100		
226	31.6	23.7	43.9

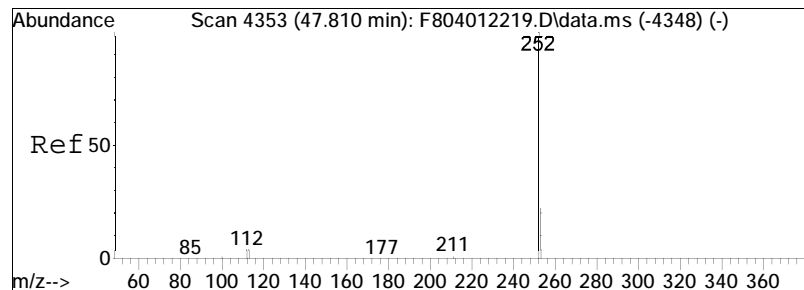




#84
 Benzo[b]fluoranthene
 Concen: 500.77 ng/mL
 RT: 47.993 min Scan# 4373
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

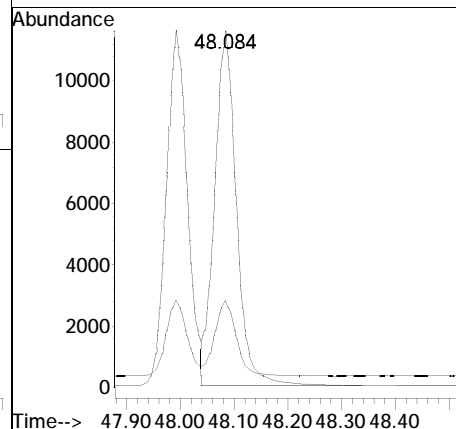
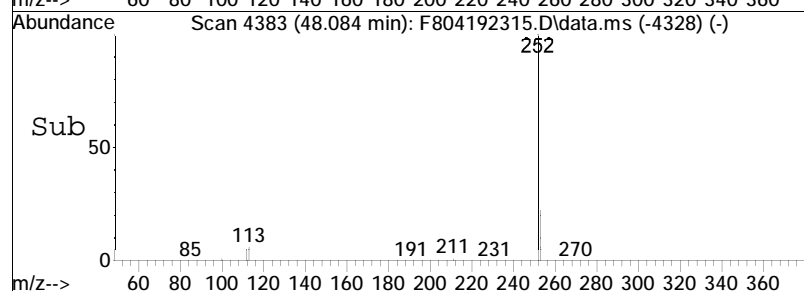
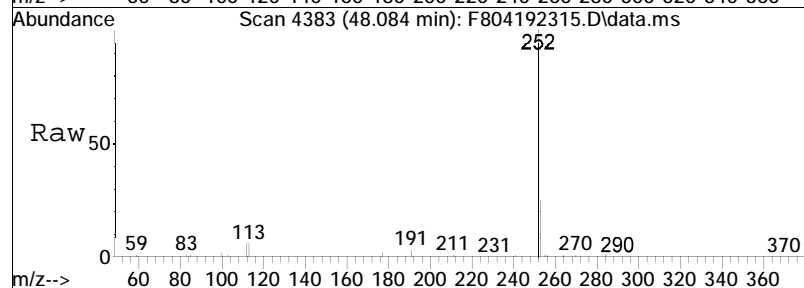
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.9	26.8	49.8#	

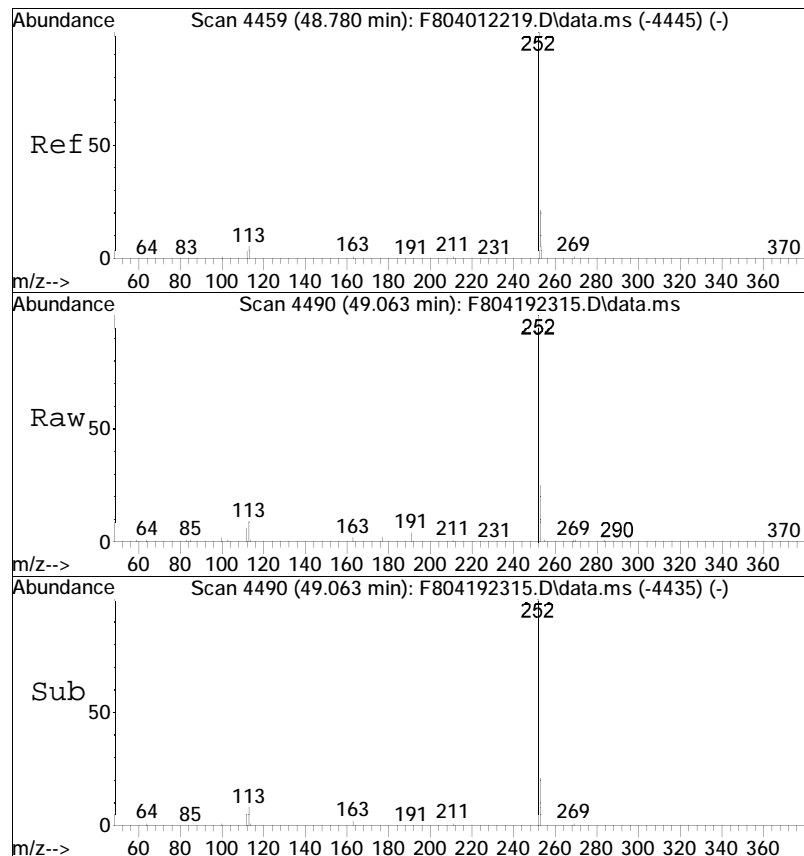




#85
 Benzo[j]+[k]fluoranthene
 Concen: 514.70 ng/mL
 RT: 48.084 min Scan# 4383
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

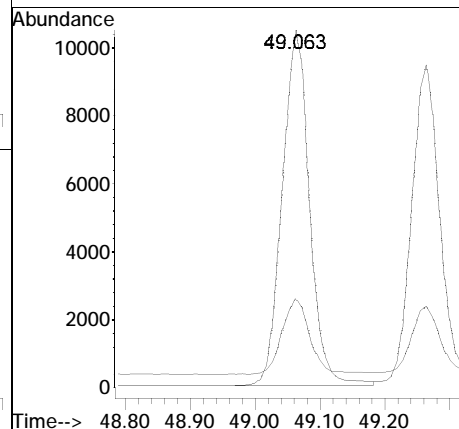
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.3	27.2	50.4	

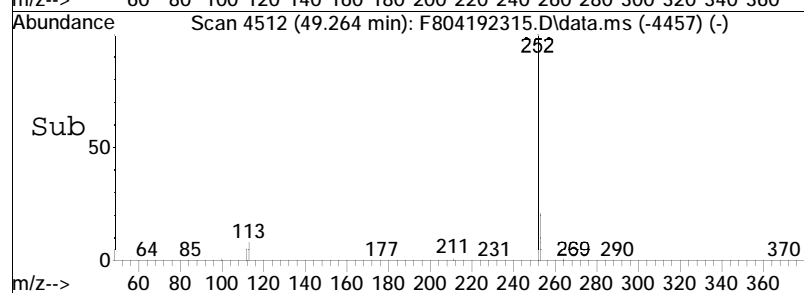
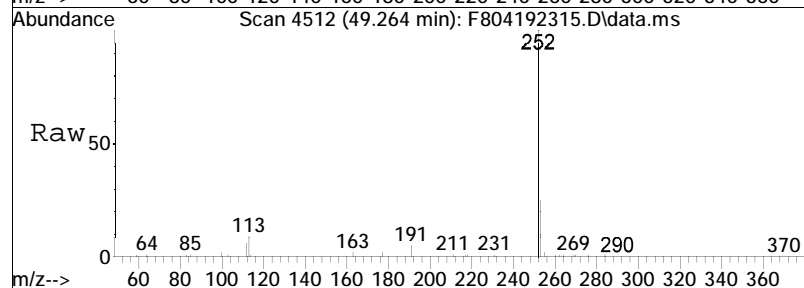
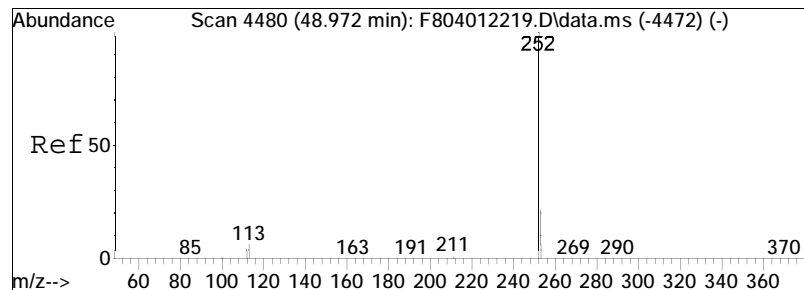




#87
 Benzo[e]pyrene
 Concen: 487.84 ng/mL
 RT: 49.063 min Scan# 4490
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.9	29.5	54.7#	





#89

Benzo[a]pyrene

Concen: 489.11 ng/mL

RT: 49.264 min Scan# 4512

Delta R.T. 0.000 min

Lab File: F804192315.D

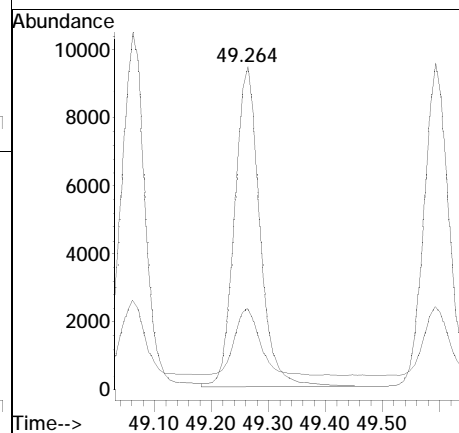
Acq: 20 Apr 2023 7:49 am

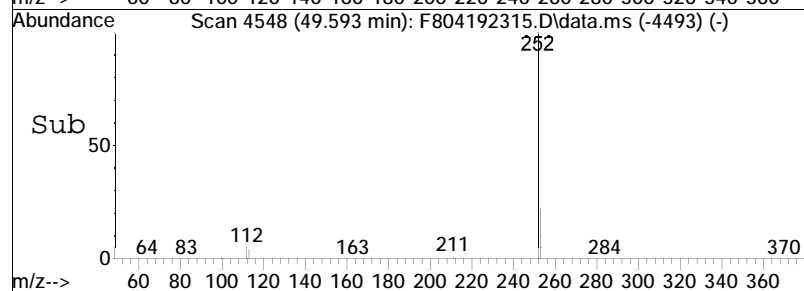
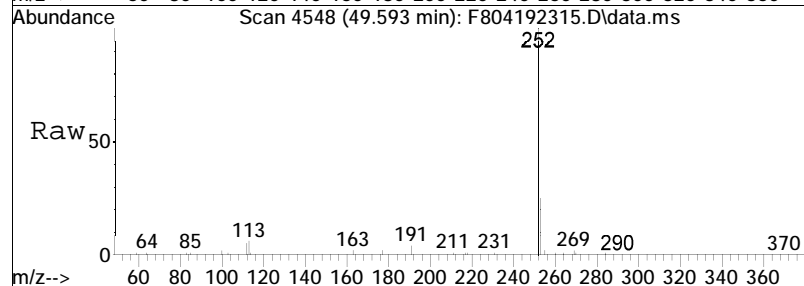
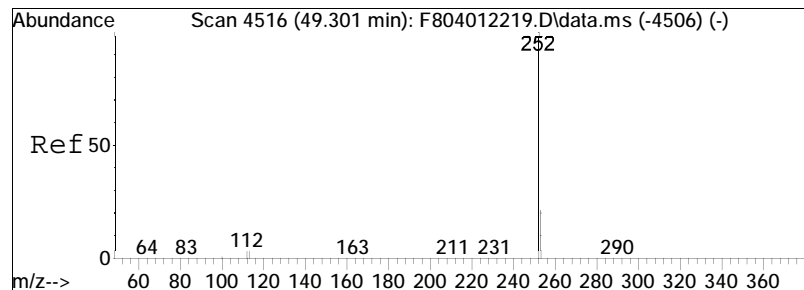
Tgt Ion: 252 Resp: 28774

Ion Ratio Lower Upper

252 100

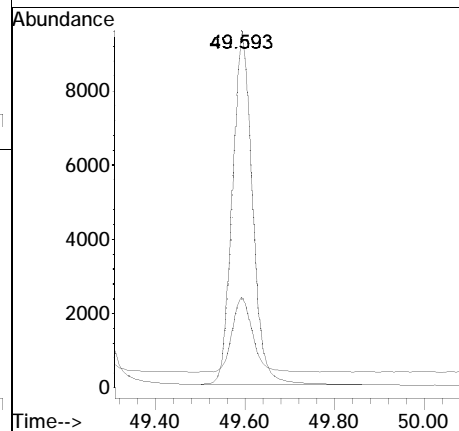
253 21.2 30.9 57.3#

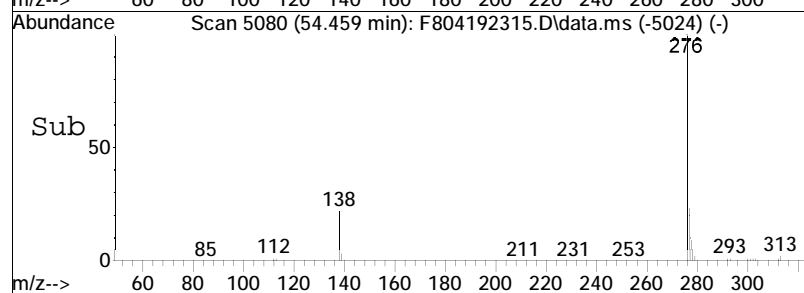
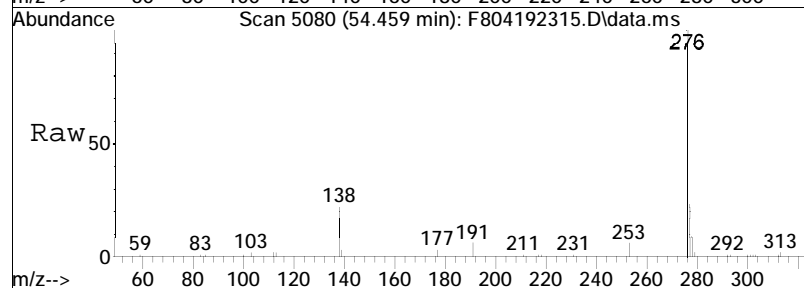
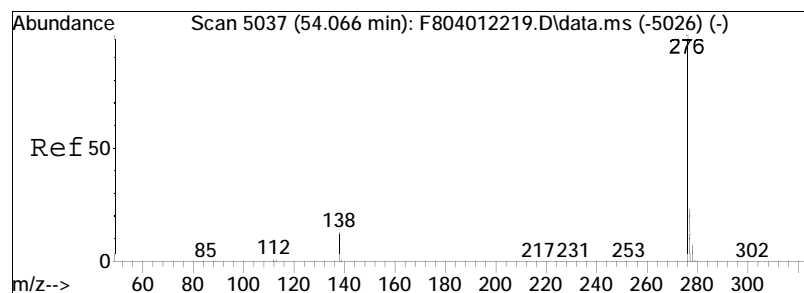




#90
Perylene
Concen: 497.65 ng/mL
RT: 49.593 min Scan# 4548
Delta R.T. 0.000 min
Lab File: F804192315.D
Acq: 20 Apr 2023 7:49 am

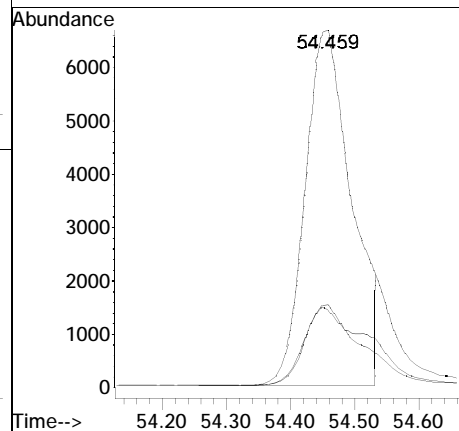
Tgt Ion	Ratio	Lower	Upper
252	100		
253	21.6	31.4	58.4#

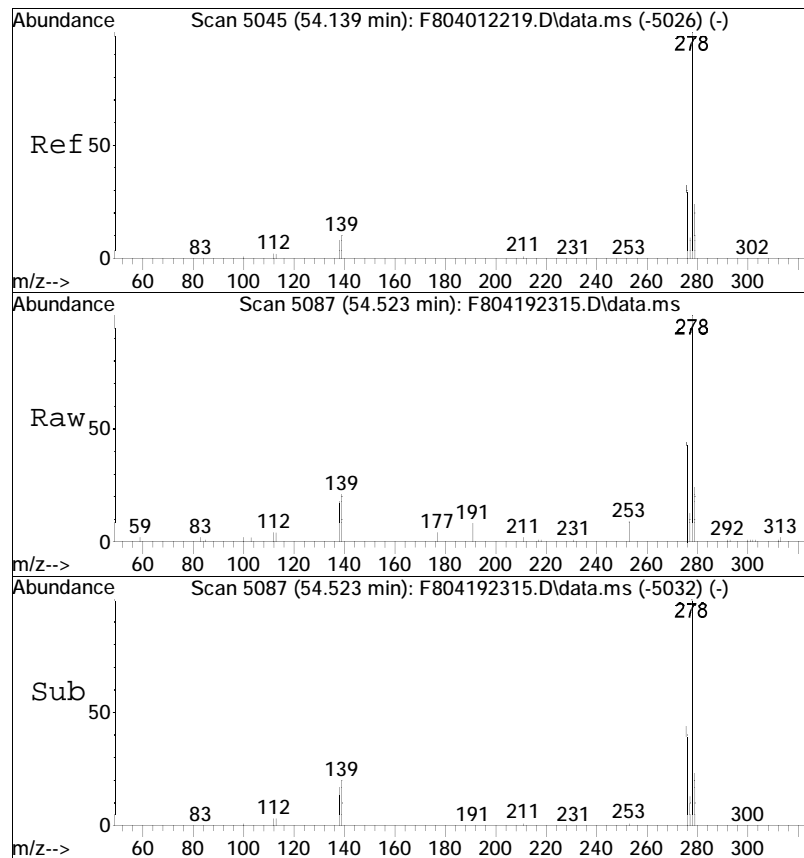




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 480.78 ng/mL M3
 RT: 54.459 min Scan# 5080
 Delta R.T. 0.009 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

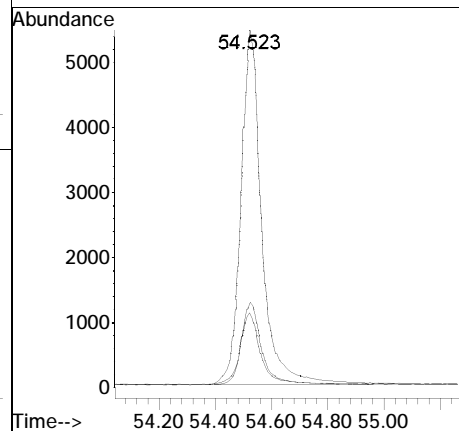
Tgt Ion	Ratio	Lower	Upper
276	100		
138	30.6	18.2	33.8
277	28.0	18.6	34.5

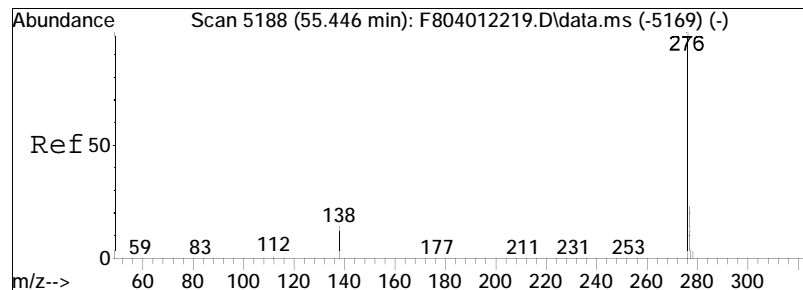




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 483.28 ng/mL
 RT: 54.523 min Scan# 5087
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

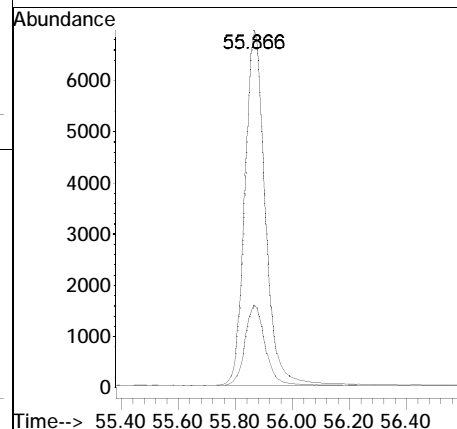
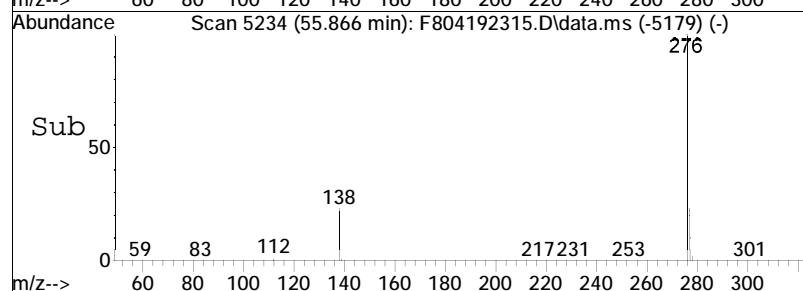
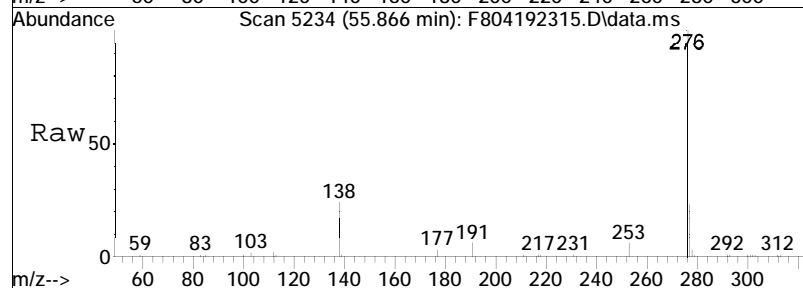
Tgt Ion:	278	Resp:	27894
Ion Ratio	Lower	Upper	
278	100		
139	19.5	18.0	33.4
279	22.6	19.0	35.2

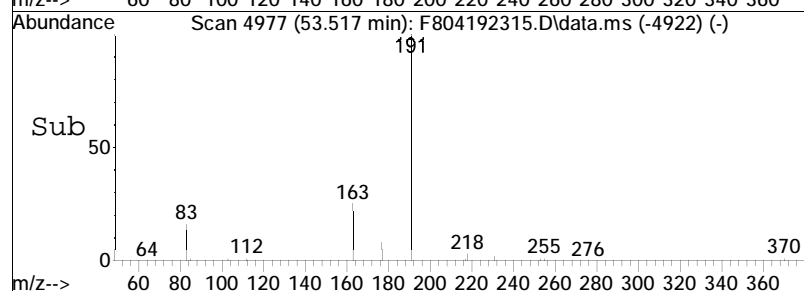
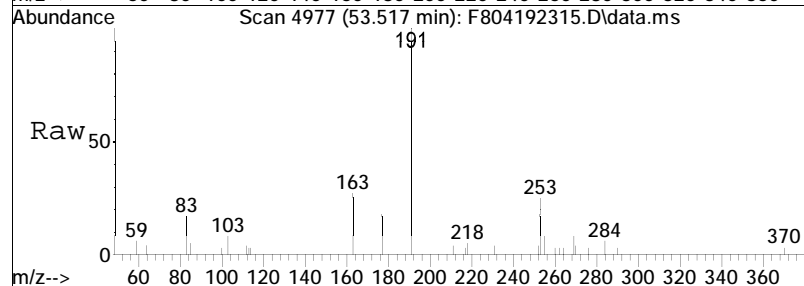
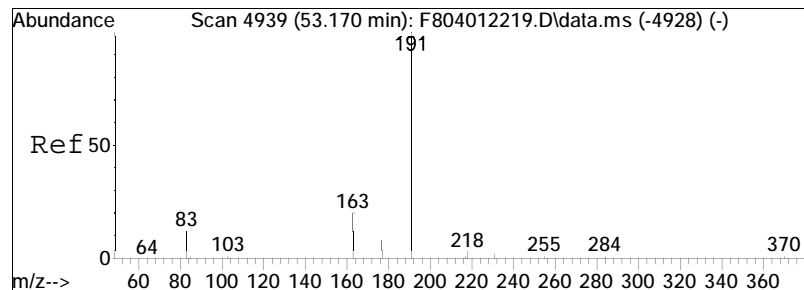




#93
 Benzo[g,h,i]perylene
 Concen: 421.30 ng/mL
 RT: 55.866 min Scan# 5234
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

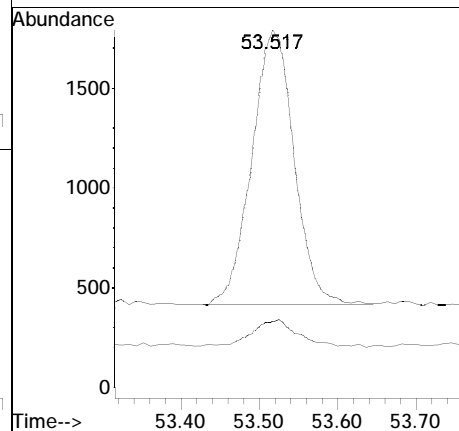
Tgt Ion	Ratio	Lower	Upper
276	100		
277	22.6	18.0	33.4





#94
 Hopane (T19)
 Concen: 418.98 ng/mL
 RT: 53.517 min Scan# 4977
 Delta R.T. 0.000 min
 Lab File: F804192315.D
 Acq: 20 Apr 2023 7:49 am

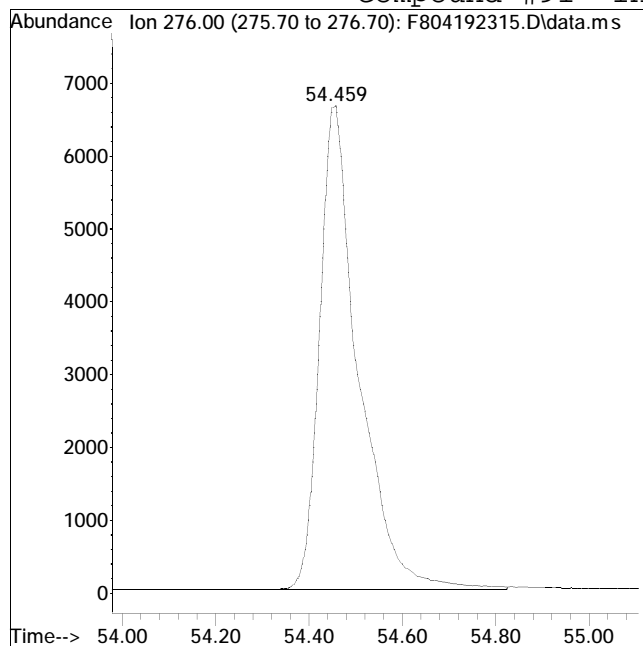
Tgt Ion	Ratio	Lower	Upper
191	100		
177	11.3	24.4	45.2#



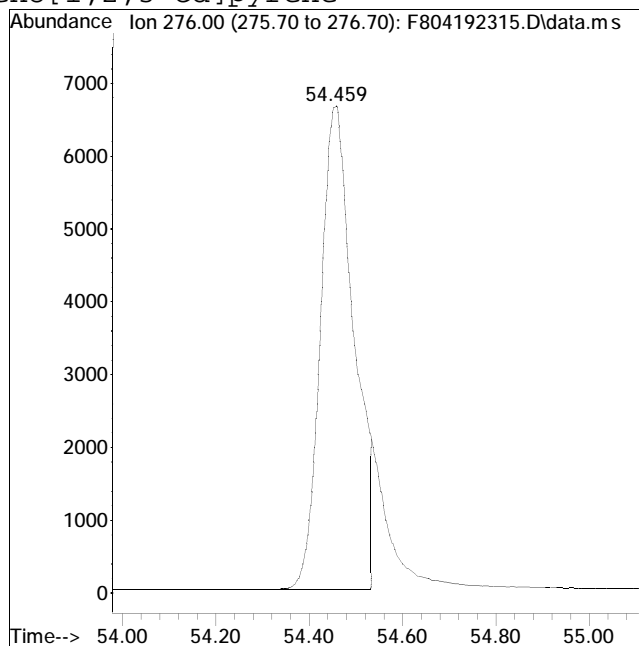
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
 Data File : F804192315.D Operator : PAH8:MJS
 Date Inj'd : 4/20/2023 7:49 am Instrument : PAH8
 Sample : i804192304 Quant Date : 4/20/2023 11:23 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 38633



Manual Peak Response = 33528 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\PAH8\2023\APR23\APR19\
 Data File : F804192316.D
 Acq On : 20 Apr 2023 9:15 am
 Operator : PAH8:MJS
 Sample : i804192305
 Misc : WG1769611,FRBF71
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 20 11:58:44 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 20 11:24:39 2023
 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	27.469	164	17264	500.000	ng/mL	0.00
74) Chrysene-d12	43.962	240	19175	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.470	136	357753	4696.951	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 469.70%#			
40) Phenanthrene-d10	33.354	188	228015	5055.112	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 505.51%#			
83) Benzo[b]fluoranthene-d12	47.919	264	179402	4818.912	ng/mL	0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery = 481.89%#			
88) Benzo[a]pyrene-d12	49.182	264	135034	5039.345	ng/mL	0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery = 503.93%#			
128) 5B(H)Cholane - Surr	44.583	217	28814	5030.941	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 503.09%#			
Target Compounds						
					Qvalue	
2) trans-Decalin	17.121	138	32975	2352.978	ng/mL	100
3) cis-Decalin	18.344	138	24996	2203.113	ng/mL	100
9) Naphthalene	20.552	128	402801	4763.939	ng/mL	100
14) 2-Methylnaphthalene	23.253	142	276648	5081.858	ng/mL	100
15) 1-Methylnaphthalene	23.682	142	243698	4917.151	ng/mL	100
16) Benzothiophene	20.771	134	353265	4691.409	ng/mL	100
21) Biphenyl	25.133	154	318510	4848.465	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.745	156	216121	5125.348	ng/mL	100
23) Dibenzofuran	28.236	168	305012	4911.064	ng/mL	98
24) Acenaphthylene	26.858	152	396397M4	5304.978	ng/mL	
25) Acenaphthene	27.597	153	248763	5087.273	ng/mL	100
26) 2,3,5-Trimethylnaphthalen	29.148	170	179498	5255.623	ng/mL	99
27) Fluorene	29.614	166	261473	5204.978	ng/mL	99
31) Dibenzothiophene	32.953	184	369620	5045.273	ng/mL	98
41) Phenanthrene	33.446	178	352474	5027.814	ng/mL	96
52) Retene	40.447	234	76791	6069.515	ng/mL	97
53) Anthracene	33.628	178	327780	5267.191	ng/mL	95
54) Carbazole	34.276	167	336259	4157.996	ng/mL	95
55) 1-Methylphenanthrene	35.956	192	240022	5417.837	ng/mL	96
56) Fluoranthene	38.229	202	378622	5542.644	ng/mL	97
57) Benzo(b)fluorene	40.758	216	206032	6091.647	ng/mL	99
59) Pyrene	39.123	202	368583	5427.094	ng/mL	95
67) Naphthobenzothiophene-2,1	42.976	234	359331	5394.999	ng/mL	96
75) Benz[a]anthracene	43.898	228	290747	5426.542	ng/mL	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192316.D
 Acq On : 20 Apr 2023 9:15 am
 Operator : PAH8:MJS
 Sample : i804192305
 Misc : WG1769611,FRBF71
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 20 11:58:44 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 20 11:24:39 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	44.063	228	288167	5130.781	ng/mL	96
77) Chrysene/Triphenylene	44.063	228	288167	5130.781	ng/mL	96
84) Benzo[b]fluoranthene	48.011	252	333788	5151.431	ng/mL#	73
85) Benzo[j]+[k]fluoranthene	48.093	252	339785	5231.068	ng/mL#	71
87) Benzo[e]pyrene	49.081	252	314797	4945.748	ng/mL#	67
89) Benzo[a]pyrene	49.282	252	306748	5106.278	ng/mL#	65
90) Perylene	49.612	252	311454	5198.074	ng/mL#	64
91) Indeno[1,2,3-cd]pyrene	54.477	276	380394M3	5364.340	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.550	278	305977	5206.802	ng/mL	89
93) Benzo[g,h,i]perylene	55.902	276	350603	4433.434	ng/mL	94
94) Hopane (T19)	53.526	191	55119	4611.916	ng/mL#	55

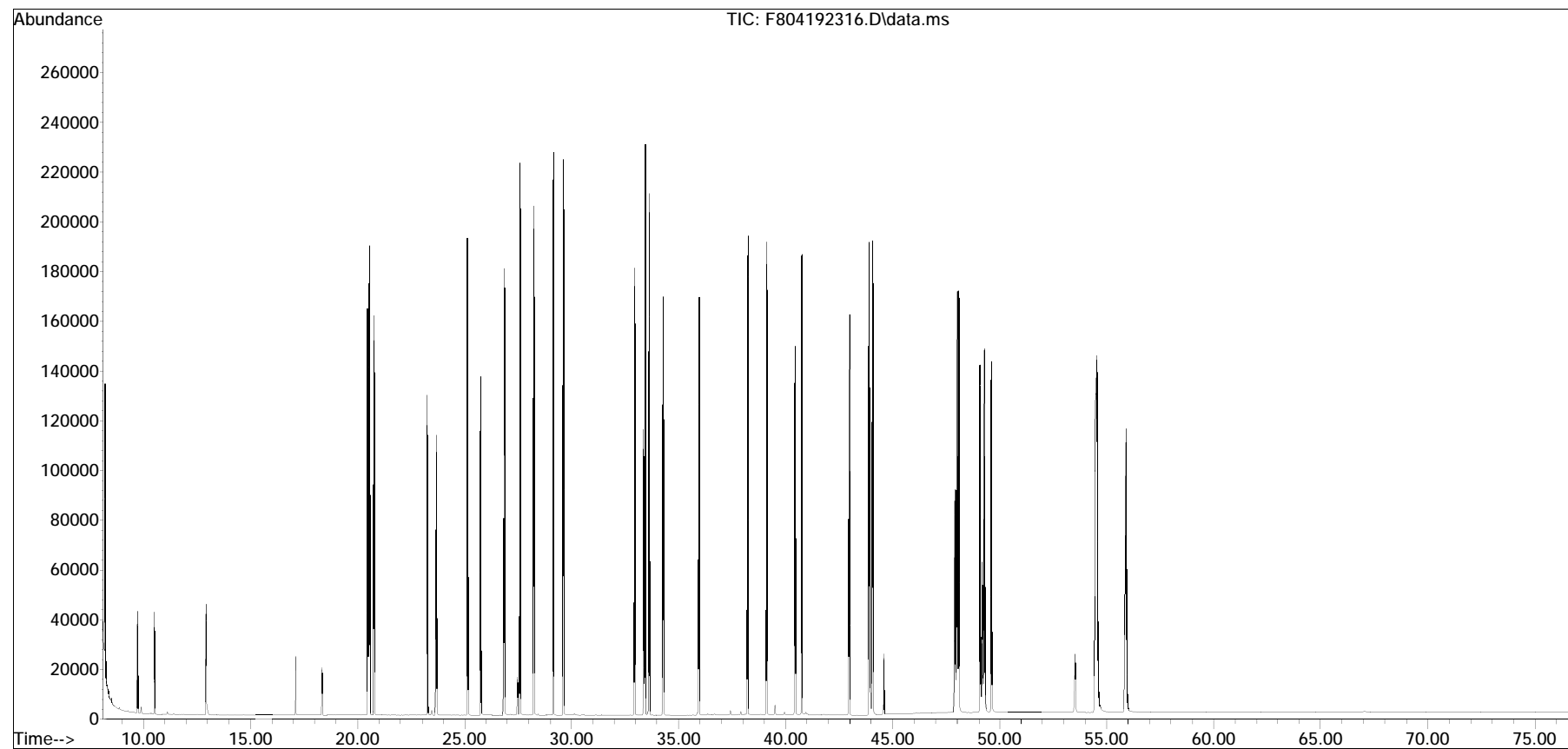
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
Data File : F804192316.D
Acq On : 20 Apr 2023 9:15 am
Operator : PAH8:MJS
Sample : i804192305
Misc : WG1769611,FRBF71
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 20 11:58:44 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 20 11:24:39 2023
Response via : Initial Calibration

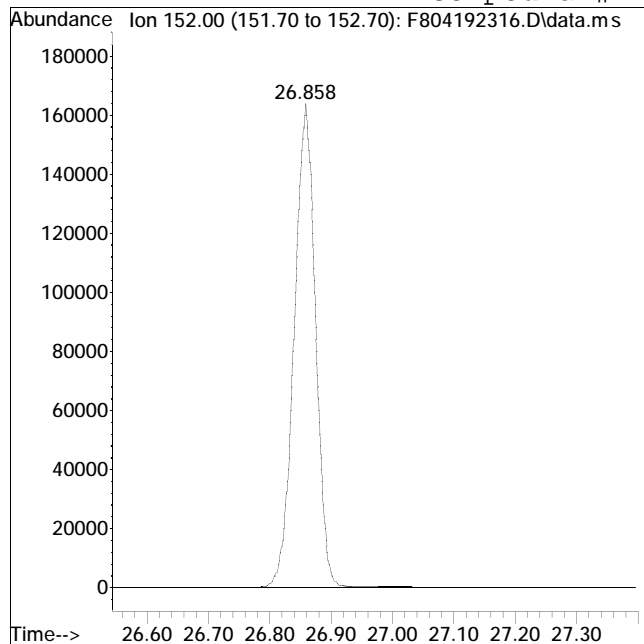
Sub List : ALKPAH_CCV - CC with five surrogates



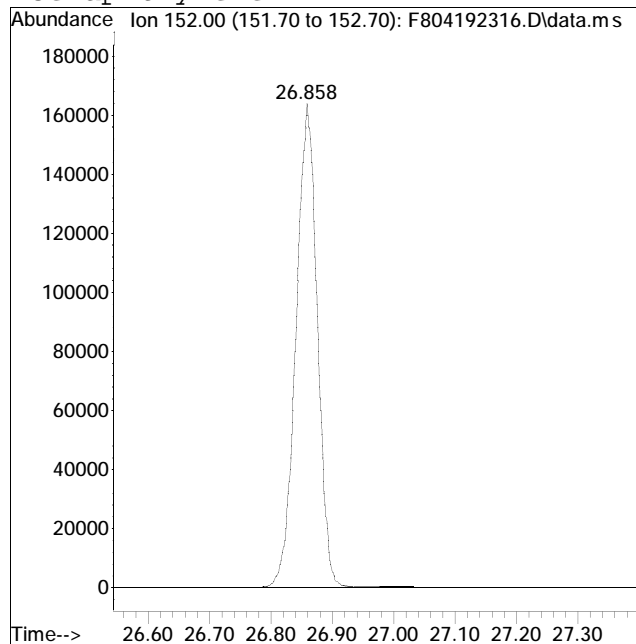
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
Data File : F804192316.D Operator : PAH8:MJS
Date Inj'd : 4/20/2023 9:15 am Instrument : PAH8
Sample : i804192305 Quant Date : 4/20/2023 11:56 am

Compound #24: Acenaphthylene



Original Peak Response = 398245



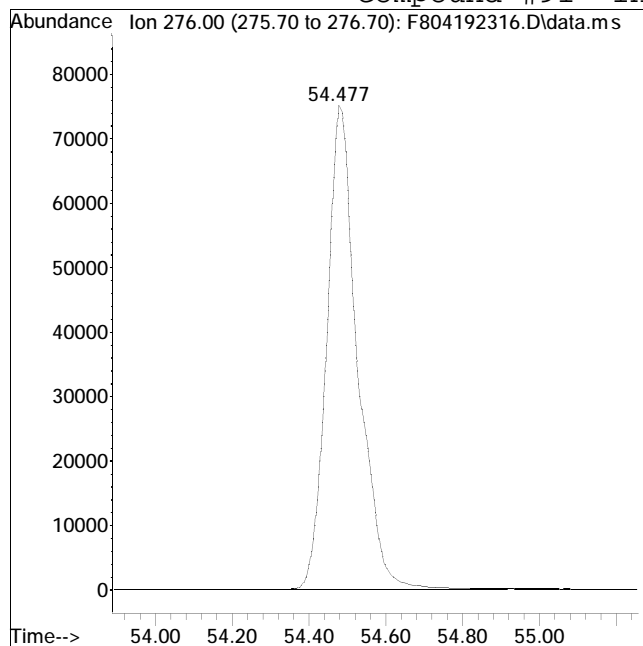
Manual Peak Response = 396397 M4

M4 = Poor automated baseline construction.

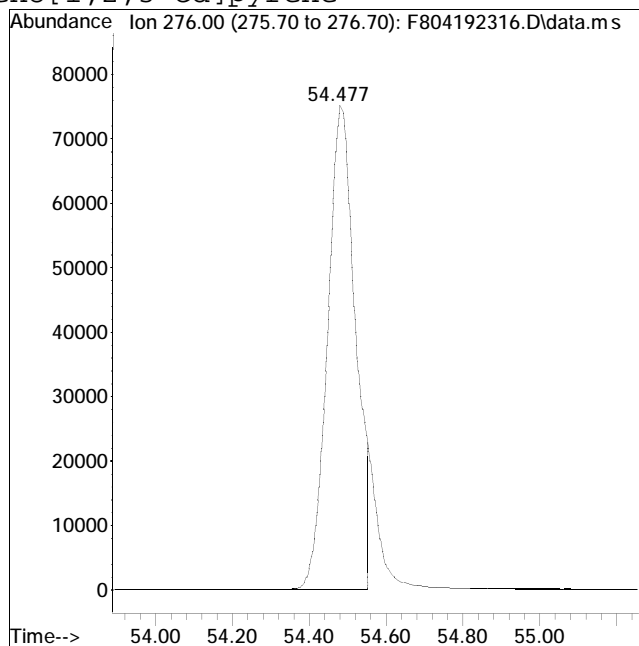
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
 Data File : F804192316.D Operator : PAH8:MJS
 Date Inj'd : 4/20/2023 9:15 am Instrument : PAH8
 Sample : i804192305 Quant Date : 4/20/2023 11:56 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 421670



Manual Peak Response = 380394 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\PAH8\2023\APR23\APR19\
 Data File : F804192317.D
 Acq On : 20 Apr 2023 10:40 am
 Operator : PAH8:MJS
 Sample : i804192306
 Misc : WGI769611,FRBF72
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 21 10:03:16 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 20 11:59:35 2023
 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	27.470	164	21439	500.000	ng/mL	0.00
74) Chrysene-d12	43.972	240	28741	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.470	136	926592	9916.419	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 991.64%#			
40) Phenanthrene-d10	33.364	188	691843	12324.108	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 1232.41%#			
83) Benzo[b]fluoranthene-d12	47.929	264	558769	10086.599	ng/mL	0.03
Spiked Amount 1000.000	Range 50 - 130		Recovery = 1008.66%#			
88) Benzo[a]pyrene-d12	49.200	264	514585	12792.005	ng/mL	0.04
Spiked Amount 1000.000	Range 50 - 130		Recovery = 1279.20%#			
128) 5B(H)Cholane - Surr	44.593	217	91722	10671.256	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 1067.13%#			
Target Compounds						
					Qvalue	
2) trans-Decalin	17.112	138	94038	5467.788	ng/mL	100
3) cis-Decalin	18.344	138	72882	5298.622	ng/mL	100
9) Naphthalene	20.553	128	976991	9393.413	ng/mL	100
14) 2-Methylnaphthalene	23.254	142	665158	9807.019	ng/mL	100
15) 1-Methylnaphthalene	23.683	142	623470	10163.790	ng/mL	100
16) Benzothiophene	20.772	134	849297	9195.880	ng/mL	100
21) Biphenyl	25.134	154	792353	9771.860	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.754	156	565302	10741.669	ng/mL	100
23) Dibenzofuran	28.236	168	847987	11033.988	ng/mL	96
24) Acenaphthylene	26.858	152	997294M4	10618.115	ng/mL	
25) Acenaphthene	27.597	153	621805	10204.152	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	29.149	170	487315	11373.476	ng/mL	95
27) Fluorene	29.623	166	671757	10680.580	ng/mL	98
31) Dibenzothiophene	32.953	184	918443	10077.031	ng/mL	98
41) Phenanthrene	33.455	178	924100	10602.910	ng/mL	95
52) Retene	40.448	234	255381	15587.490	ng/mL	93
53) Anthracene	33.628	178	800618	10250.427	ng/mL	94
54) Carbazole	34.285	167	859093	8852.509	ng/mL	93
55) 1-Methylphenanthrene	35.965	192	642184	11480.815	ng/mL	95
56) Fluoranthene	38.238	202	938325	10826.186	ng/mL	96

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192317.D
 Acq On : 20 Apr 2023 10:40 am
 Operator : PAH8:MJS
 Sample : i804192306
 Misc : WG1769611,FRBF72
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 21 10:03:16 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 20 11:59:35 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
57) Benzo(b)fluorene	40.767	216	568242	12963.097	ng/mL	97
59) Pyrene	39.133	202	956947	11155.785	ng/mL	94
67) Naphthobenzothiophene-2,1	42.986	234	929203	11059.512	ng/mL	95
75) Benz[a]anthracene	43.908	228	810498	9923.070	ng/mL	95
76) Chrysene	44.081	228	783582	9259.578	ng/mL	93
77) Chrysene/Triphenylene	44.081	228	783582	9259.578	ng/mL	93
84) Benzo[b]fluoranthene	48.020	252	914975	9364.341	ng/mL#	73
85) Benzo[j]+[k]fluoranthene	48.112	252	929040	9454.933	ng/mL#	72
87) Benzo[e]pyrene	49.090	252	885109	9297.692	ng/mL#	68
89) Benzo[a]pyrene	49.301	252	844243	9336.441	ng/mL#	66
90) Perylene	49.630	252	873869	9653.861	ng/mL#	65
91) Indeno[1,2,3-cd]pyrene	54.514	276	1080640M3	10021.059	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.568	278	912511	10274.865	ng/mL#	87
93) Benzo[g,h,i]perylene	55.939	276	926324	7996.069	ng/mL	95
94) Hopane (T19)	53.535	191	182817	10366.322	ng/mL#	55

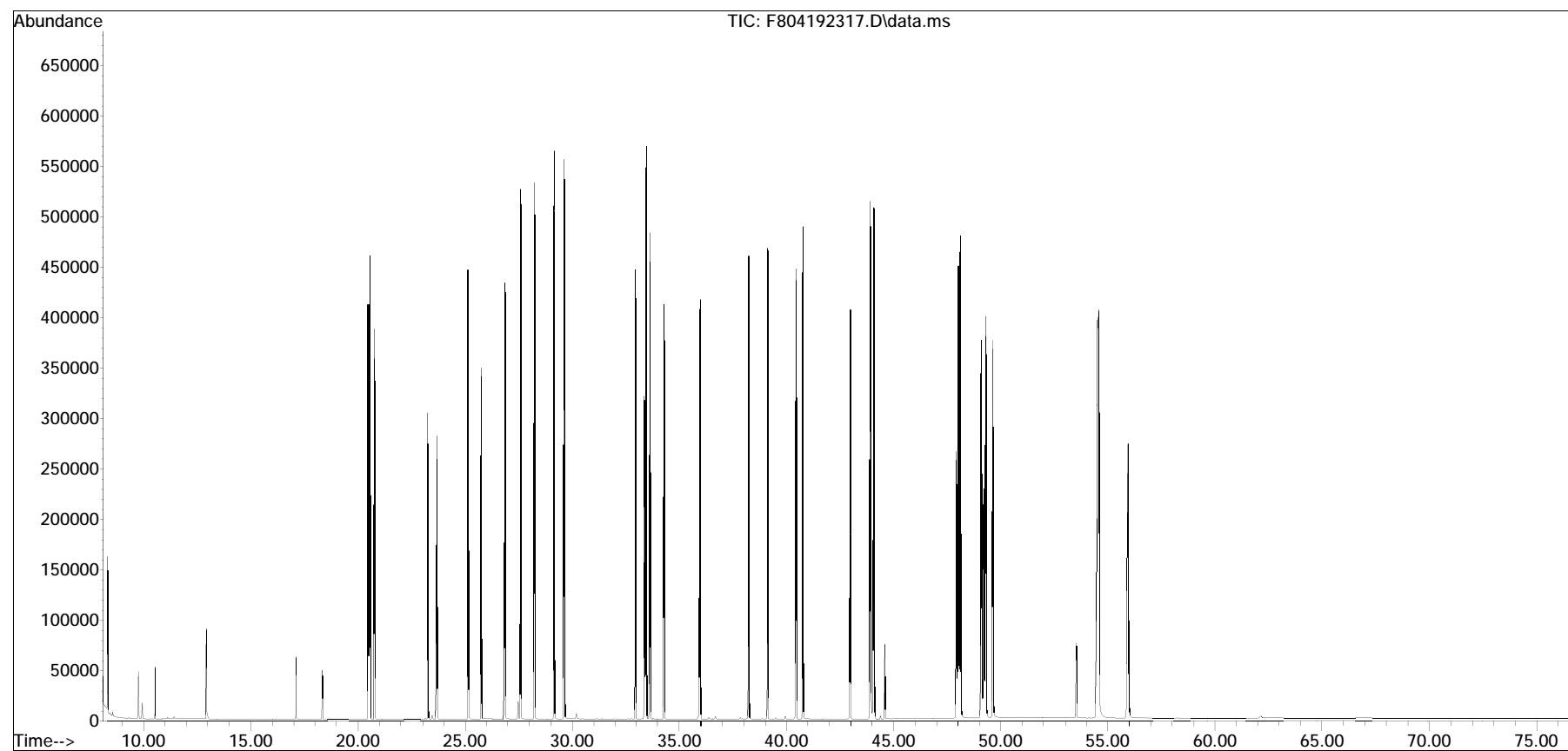
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
Data File : F804192317.D
Acq On : 20 Apr 2023 10:40 am
Operator : PAH8:MJS
Sample : i804192306
Misc : WG1769611,FRBF72
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 21 10:03:16 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 20 11:59:35 2023
Response via : Initial Calibration

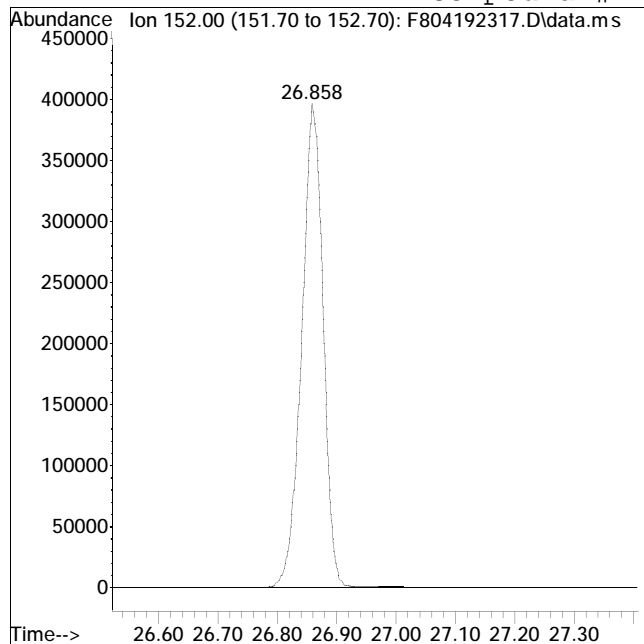
Sub List : ALKPAH_CCV - CC with five surrogates



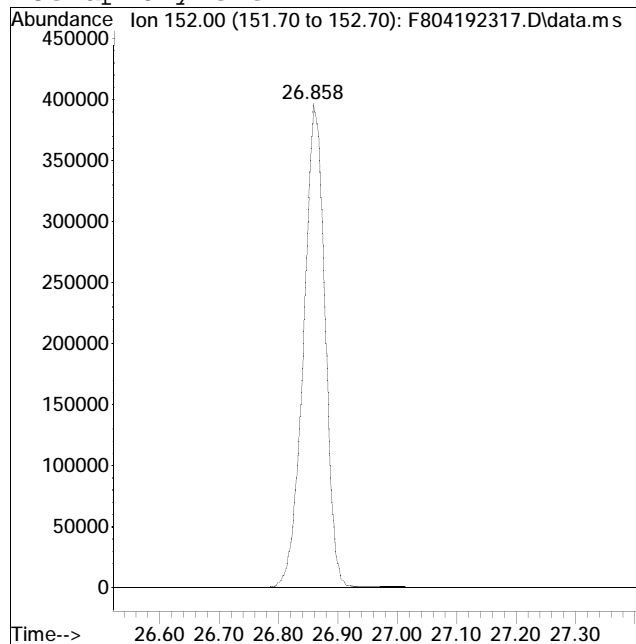
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
Data File : F804192317.D Operator : PAH8:MJS
Date Inj'd : 4/20/2023 10:40 am Instrument : PAH8
Sample : i804192306 Quant Date : 4/21/2023 10:00 am

Compound #24: Acenaphthylene



Original Peak Response = 999006



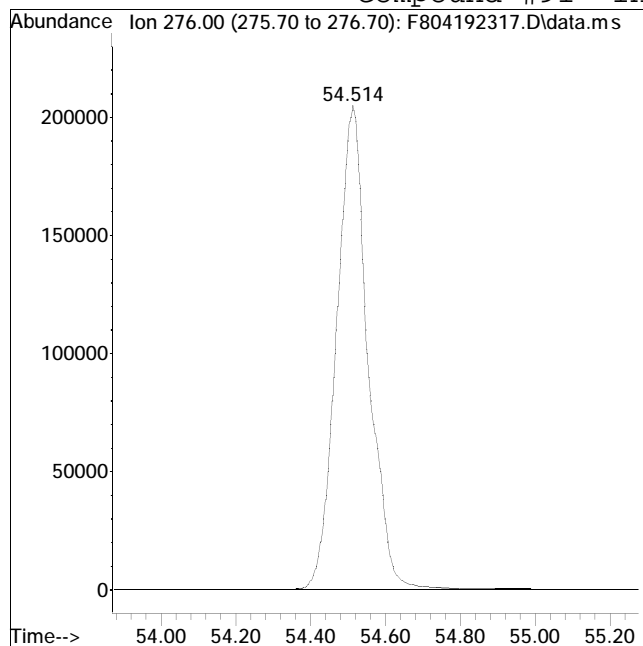
Manual Peak Response = 997294 M4

M4 = Poor automated baseline construction.

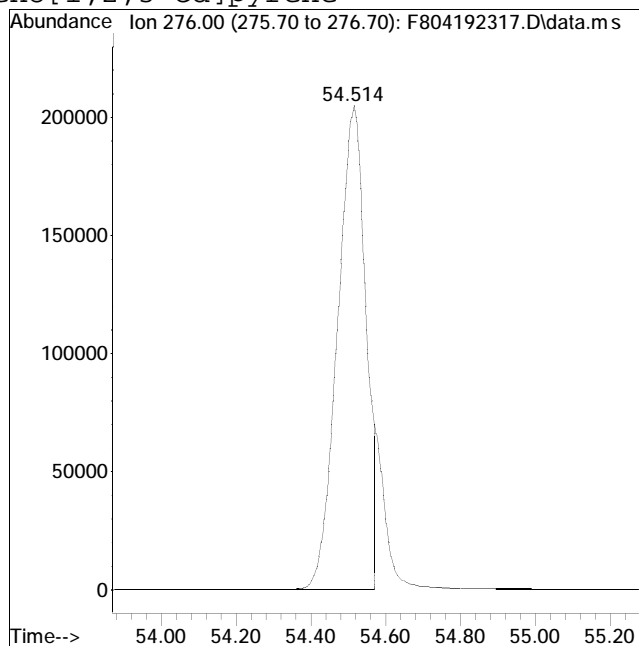
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
 Data File : F804192317.D Operator : PAH8:MJS
 Date Inj'd : 4/20/2023 10:40 am Instrument : PAH8
 Sample : i804192306 Quant Date : 4/21/2023 10:00 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 1205094



Manual Peak Response = 1080640 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\PAH8\2023\APR23\APR19\
 Data File : F804192318.D
 Acq On : 20 Apr 2023 12:06 pm
 Operator : PAH8:MJS
 Sample : i804192307
 Misc : WGI769611,FRBF73
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 21 10:05:14 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 20 11:59:35 2023
 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	27.470	164	18053	500.000	ng/mL	0.00
74) Chrysene-d12	43.981	240	22101	500.000	ng/mL	0.02
System Monitoring Compounds						
8) Naphthalene-d8	20.488	136	1711291	21749.302	ng/mL	0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery = 2174.93%#			
40) Phenanthrene-d10	33.373	188	1217212	25749.529	ng/mL	0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery = 2574.95%#			
83) Benzo[b]fluoranthene-d12	47.947	264	1056419	24799.254	ng/mL	0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery = 2479.93%#			
88) Benzo[a]pyrene-d12	49.227	264	978675	31638.066	ng/mL	0.06
Spiked Amount 1000.000	Range 50 - 130		Recovery = 3163.81%#			
128) 5B(H)Cholane - Surr	44.602	217	176702	26734.584	ng/ml	0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery = 2673.46%#			
Target Compounds						
					Qvalue	
2) trans-Decalin	17.121	138	171069	11812.307	ng/mL	100
3) cis-Decalin	18.344	138	131922	11389.771	ng/mL	100
9) Naphthalene	20.561	128	1811784	20686.852	ng/mL	100
14) 2-Methylnaphthalene	23.263	142	1235476	21632.247	ng/mL	100
15) 1-Methylnaphthalene	23.692	142	1154373	22348.142	ng/mL	100
16) Benzothiophene	20.781	134	1553563	19976.422	ng/mL	100
21) Biphenyl	25.143	154	1468890	21513.097	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.763	156	1055174	23810.607	ng/mL	100
23) Dibenzofuran	28.245	168	1538811	23778.460	ng/mL	97
24) Acenaphthylene	26.867	152	1806953M4	22846.843	ng/mL	
25) Acenaphthene	27.606	153	1141445	22245.023	ng/mL	98
26) 2,3,5-Trimethylnaphthalen	29.158	170	901493	24986.242	ng/mL	95
27) Fluorene	29.632	166	1244947	23506.537	ng/mL	97
31) Dibenzothiophene	32.962	184	1684942	21954.345	ng/mL	97
41) Phenanthrene	33.464	178	1694702	23091.630	ng/mL	95
52) Retene	40.466	234	481013	34865.794	ng/mL	94
53) Anthracene	33.646	178	1357309	20637.185	ng/mL	94
54) Carbazole	34.303	167	1565031	19151.566	ng/mL	93
55) 1-Methylphenanthrene	35.974	192	1194980	25370.499	ng/mL	95

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192318.D
 Acq On : 20 Apr 2023 12:06 pm
 Operator : PAH8:MJS
 Sample : i804192307
 Misc : WG1769611,FRBF73
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 21 10:05:14 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 20 11:59:35 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) Fluoranthene	38.256	202	1755652M4	24055.576	ng/mL	
57) Benzo(b)fluorene	40.785	216	1079771	29252.451	ng/mL	96
59) Pyrene	39.142	202	1805696	24998.389	ng/mL	94
67) Naphthobenzothiophene-2,1	42.995	234	1758114	24850.066	ng/mL	95
75) Benz[a]anthracene	43.926	228	1513232M4	24092.929	ng/mL	
76) Chrysene	44.099	228	1481895	22772.679	ng/mL	94
77) Chrysene/Triphenylene	44.099	228	1481895	22772.679	ng/mL	94
84) Benzo[b]fluoranthene	48.048	252	1762694	23460.371	ng/mL#	74
85) Benzo[j]+[k]fluoranthene	48.139	252	1783497	23604.042	ng/mL#	73
87) Benzo[e]pyrene	49.118	252	1653091	22582.141	ng/mL#	68
89) Benzo[a]pyrene	49.337	252	1600832	23022.347	ng/mL#	66
90) Perylene	49.657	252	1634346	23479.489	ng/mL#	65
91) Indeno[1,2,3-cd]pyrene	54.559	276	2098494M3	25306.394	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.605	278	1721421	25206.646	ng/mL#	88
93) Benzo[g,h,i]perylene	55.994	276	1683376	18896.645	ng/mL	96
94) Hopane (T19)	0.000		0	N.D.	d	

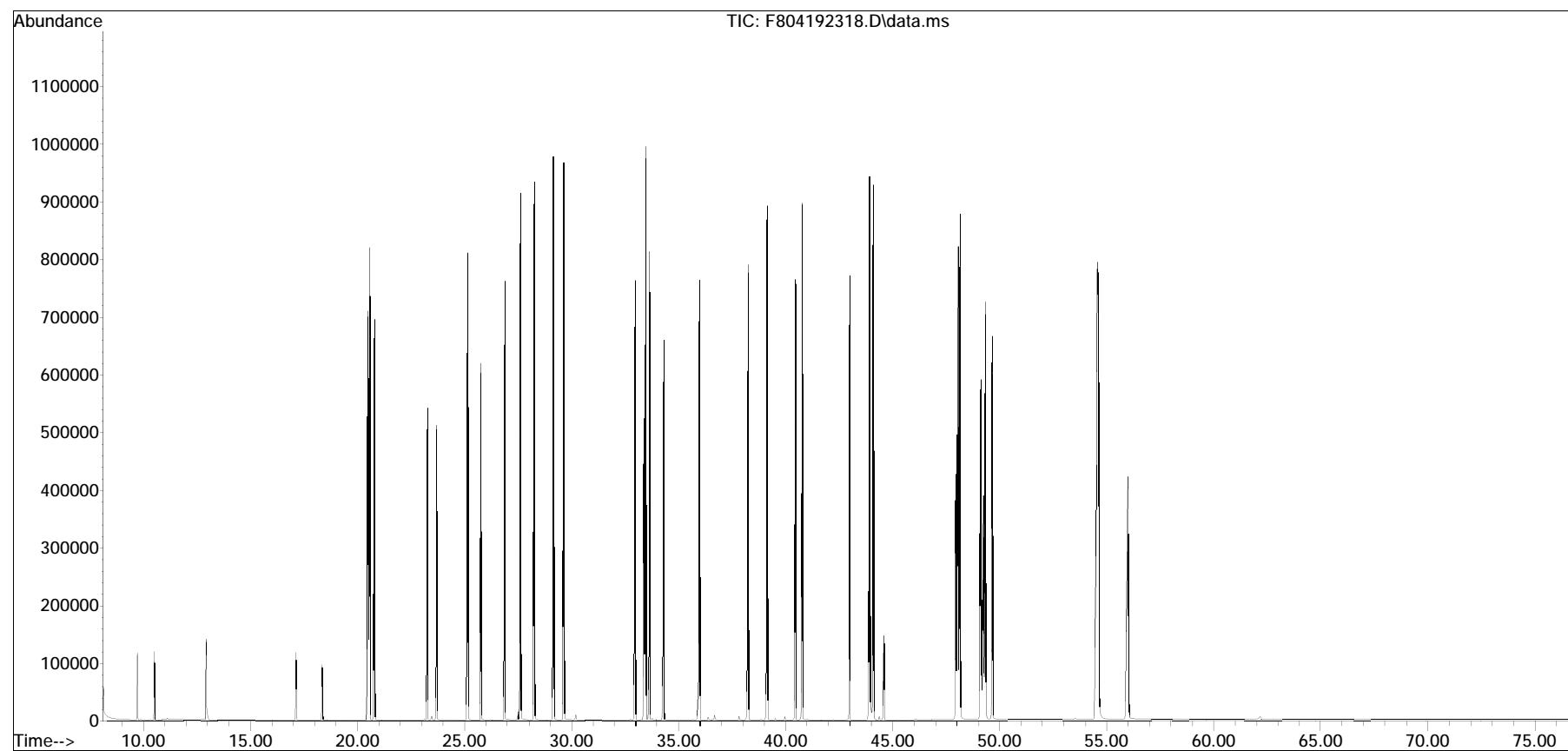
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
Data File : F804192318.D
Acq On : 20 Apr 2023 12:06 pm
Operator : PAH8:MJS
Sample : i804192307
Misc : WG1769611,FRBF73
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 21 10:05:14 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 20 11:59:35 2023
Response via : Initial Calibration

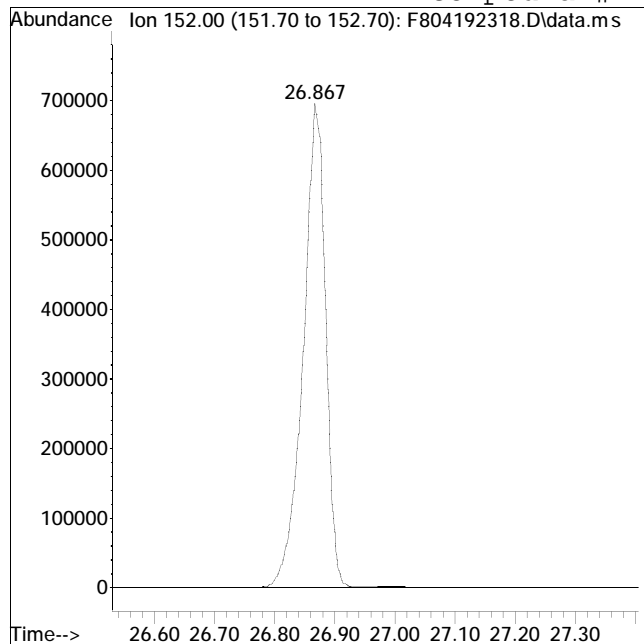
Sub List : ALKPAH_CCV - CC with five surrogates



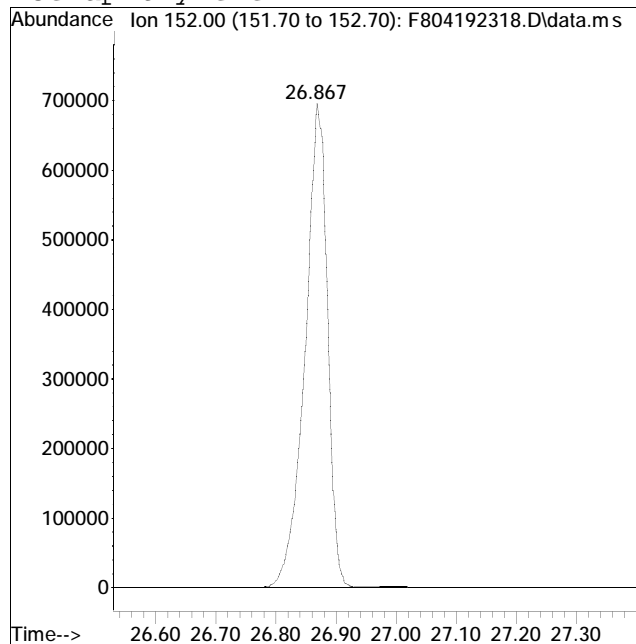
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
Data File : F804192318.D Operator : PAH8:MJS
Date Inj'd : 4/20/2023 12:06 pm Instrument : PAH8
Sample : i804192307 Quant Date : 4/21/2023 10:00 am

Compound #24: Acenaphthylene



Original Peak Response = 1811919



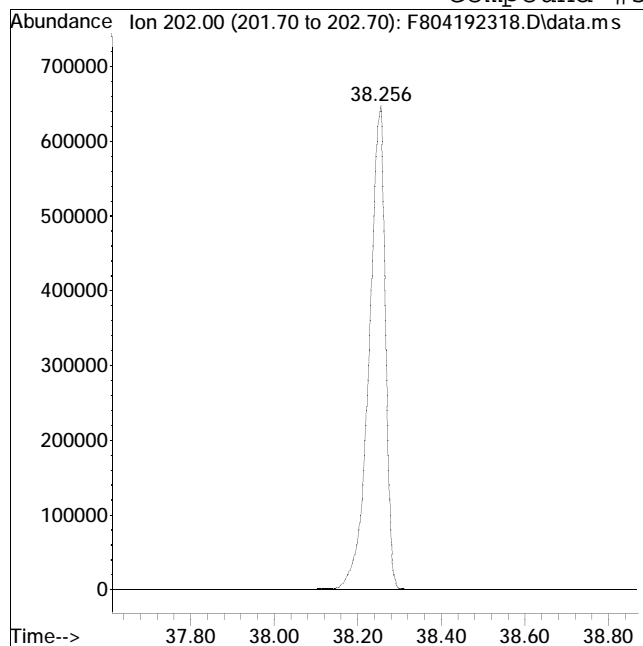
Manual Peak Response = 1806953 M4

M4 = Poor automated baseline construction.

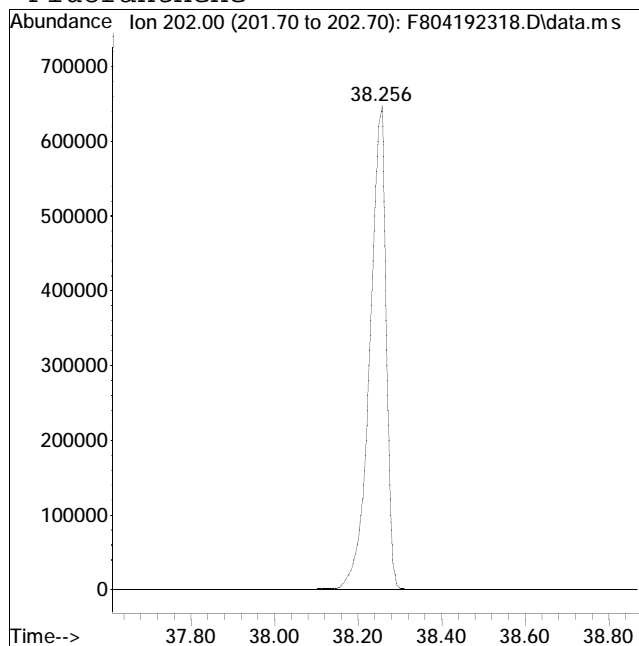
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
 Data File : F804192318.D Operator : PAH8:MJS
 Date Inj'd : 4/20/2023 12:06 pm Instrument : PAH8
 Sample : i804192307 Quant Date : 4/21/2023 10:00 am

Compound #56: Fluoranthene



Original Peak Response = 1759668



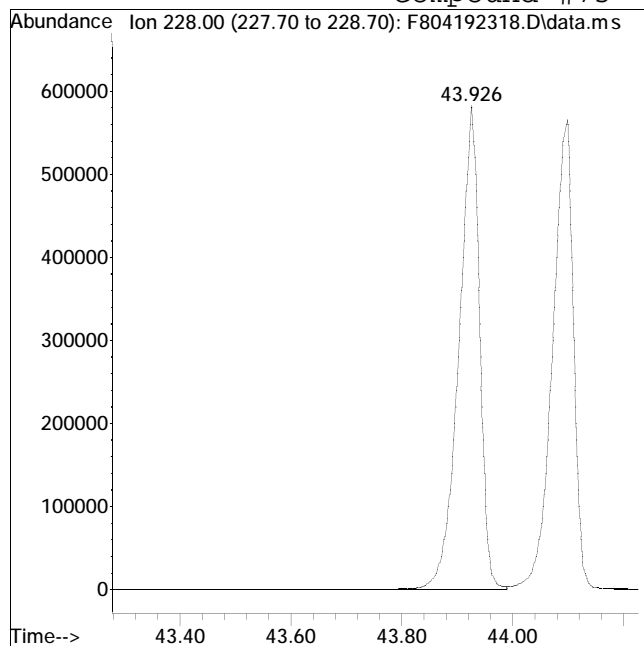
Manual Peak Response = 1755652 M4

M4 = Poor automated baseline construction.

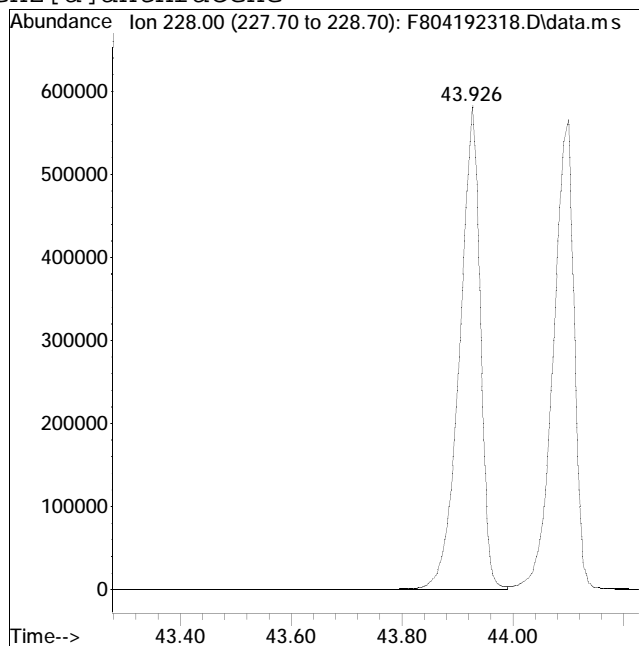
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
 Data File : F804192318.D Operator : PAH8:MJS
 Date Inj'd : 4/20/2023 12:06 pm Instrument : PAH8
 Sample : i804192307 Quant Date : 4/21/2023 10:00 am

Compound #75: Benz[a]anthracene



Original Peak Response = 1516004



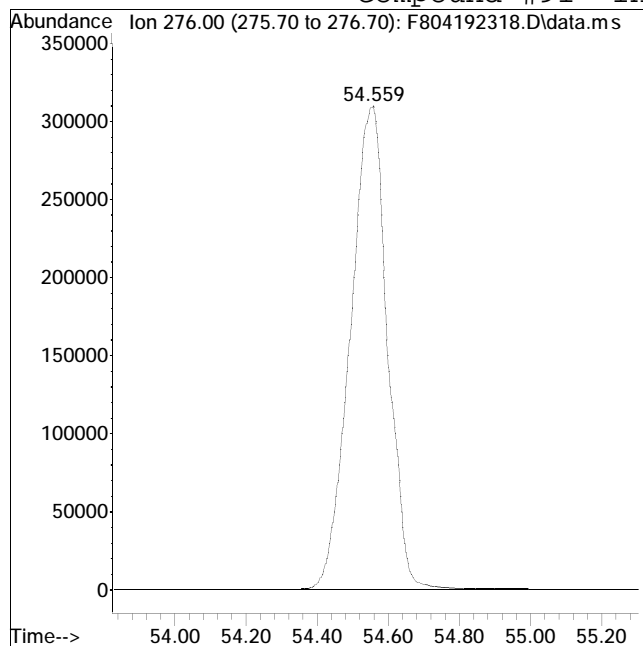
Manual Peak Response = 1513232 M4

M4 = Poor automated baseline construction.

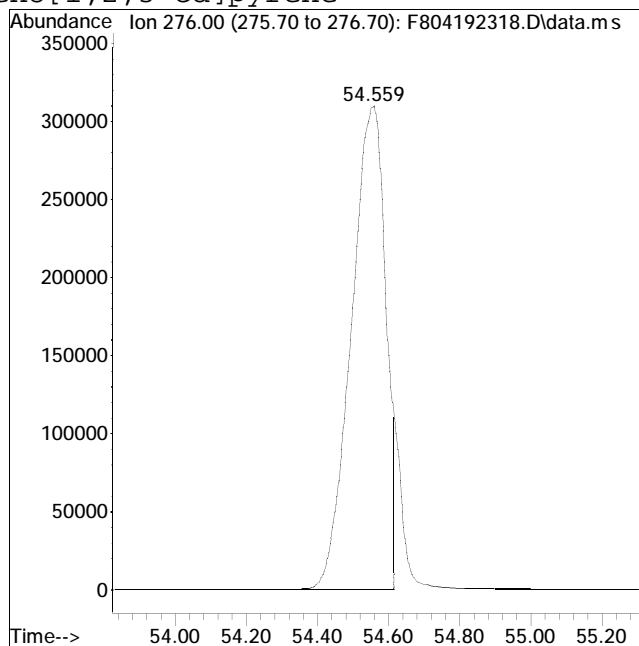
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
 Data File : F804192318.D Operator : PAH8:MJS
 Date Inj'd : 4/20/2023 12:06 pm Instrument : PAH8
 Sample : i804192307 Quant Date : 4/21/2023 10:00 am

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 2255722



Manual Peak Response = 2098494 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\PAH8\2023\APR23\APR19\
 Data File : F804192321.D
 Acq On : 20 Apr 2023 4:24 pm
 Operator : PAH8:MJS
 Sample : CQ804192301
 Misc : WG1769611,FRBF84
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 21 13:22:47 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Apr 21 13:23:21 2023
 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	89	0.00
2 A1	trans-Decalin	0.417	0.458	-9.8	106	0.00
3 t	cis-Decalin	0.330	0.352	-6.7	106	0.00
8 s	Naphthalene-d8	2.204	0.000#	100.0#	0#	-20.47#
9 A1	Naphthalene	2.417	2.711	-12.2	98	0.00
14 t	2-Methylnaphthalene	1.596	1.738	-8.9	96	0.00
15 t	1-Methylnaphthalene	1.458	1.627	-11.6	100	0.00
16 A1	Benzo[thiophene]	2.129	2.387	-12.1	97	0.00
21 t	Biphenyl	1.905	2.066	-8.5	97	0.00
22 t	2,6-Dimethylnaphthalene	1.274	1.390	-9.1	99	0.00
23 t	Dibenzofuran	1.867	2.235	-19.7	106	0.00
24 t	Acenaphthylene	2.254	2.443	-8.4	95	0.00
25 t	Acenaphthene	1.448	1.598	-10.4	96	0.00
26 t	2,3,5-Trimethylnaphthalene	1.054	1.096	-4.0	95	0.00
27 A1	Fluorene	1.518	1.658	-9.2	96	0.00
31 A1	Dibenzothiophene	2.158	2.290	-6.1	92	0.00
40 s	Phenanthrene-d10	1.406	0.000#	100.0#	0#	-33.35#
41 A1	Phenanthrene	2.095	2.236	-6.7	94	0.00
52 t	Retene	0.453	0.454	-0.2	101	0.00
53 t	Anthracene	1.836	2.064	-12.4	94	0.00
54 t	Carbazole	2.186	2.040	6.7	93	0.00
55 t	1-Methylphenanthrene	1.382	1.439	-4.1	94	0.00
56 A1	Fluoranthene	2.104	2.136	-1.5	89	0.00
57 A1	Benzo(b)fluorene	1.133	1.139	-0.5	92	0.00
59 A1	Pyrene	2.105	2.197	-4.4	92	0.00
67 A1	Naphthobenzothiophene-2,1-D	2.057	2.055	0.1	90	0.00
74 i	Chrysene-d12	1.000	1.000	0.0	82	0.00
75 t	Benz[a]anthracene	1.461	1.567	-7.3	89	0.00
76 A1	Chrysene	1.486	1.706	-14.8	93	0.00
77 A2	Chrysene/Triphenylene	1.486	1.706	-14.8	93	0.00
83 s	Benzo[b]fluoranthene-d12	0.998	0.000#	100.0#	0#	-47.90#
84 t	Benzo[b]fluoranthene	1.726	1.751	-1.4	85	0.00
85 A1	Benzo[j]+[k]fluoranthene	1.740	1.883	-8.2	89	0.00
87 t	Benzo[e]pyrene	1.670	1.780	-6.6	90	0.00
88 s	Benzo[a]pyrene-d12	0.786	0.000#	100.0#	0#	-49.16#
89 t	Benzo[a]pyrene	1.592	1.563	1.8	83	0.00
90 t	Perylene	1.606	1.612	-0.4	85	0.00
91 t	Indeno[1,2,3-cd]pyrene	1.948	1.857	4.7	85	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192321.D
 Acq On : 20 Apr 2023 4:24 pm
 Operator : PAH8:MJS
 Sample : CQ804192301
 Misc : WG1769611,FRBF84
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 21 13:22:47 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Apr 21 13:23:21 2023
 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)
92 t	Dibenz[ah]+[ac]anthracene	1.609	1.570	2.4	86	0.00
93 t	Benzo[g,h,i]perylene	1.942	1.870	3.7	85	0.00
94 A1	Hopane (T19)	0.309	0.000#	100.0#	0#	-53.52#
128 SA1	5B(H)Cholane - Surr	0.158	0.000#	100.0#	0#	-44.58#

* 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	0.90	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	0.84	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192321.D
 Acq On : 20 Apr 2023 4:24 pm
 Operator : PAH8:MJS
 Sample : CQ804192301
 Misc : WGI769611,FRBF84
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 21 13:22:47 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Apr 21 13:23:21 2023
 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	27.469	164	15182	500.000	ng/mL	0.00
74) Chrysene-d12	43.962	240	15336	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	0	0.000	ng/mL	
Spiked Amount 1000.000	Range 50 - 130		Recovery =	0.00%#		
83) Benzo[b]fluoranthene-d12	0.000	264	0d	0.000	ng/mL	
Spiked Amount 1000.000	Range 50 - 130		Recovery =	0.00%#		
88) Benzo[a]pyrene-d12	0.000	264	0	0.000	ng/mL	
Spiked Amount 1000.000	Range 50 - 130		Recovery =	0.00%#		
128) 5B(H)Cholane - Surr	0.000	217	0	0.000	ng/mL	
Spiked Amount 1000.000	Range 50 - 130		Recovery =	0.00%#		
Target Compounds						
						Qvalue
2) trans-Decalin	17.121	138	3473	274.389	ng/mL	100
3) cis-Decalin	18.344	138	2673	266.846	ng/mL	100
9) Naphthalene	20.552	128	41156	560.890	ng/mL	100
14) 2-Methylnaphthalene	23.253	142	26389	544.580	ng/mL	100
15) 1-Methylnaphthalene	23.682	142	24696	557.854	ng/mL	100
16) Benzothiophene	20.771	134	36244	560.709	ng/mL	100
21) Biphenyl	25.133	154	31368	542.194	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.745	156	21101	545.570	ng/mL	100
23) Dibenzofuran	28.236	168	33935	598.548	ng/mL	98
24) Acenaphthylene	26.858	152	37097	541.943	ng/mL	100
25) Acenaphthene	27.597	153	24264	551.832	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	29.148	170	16632	519.462	ng/mL	98
27) Fluorene	29.614	166	25177	546.284	ng/mL	99
31) Dibenzothiophene	32.944	184	34762	530.602	ng/mL	98
41) Phenanthrene	33.446	178	33954	533.755	ng/mL	96
52) Retene	40.438	234	6897	501.230	ng/mL	97
53) Anthracene	33.619	178	31341	562.068	ng/mL	95
54) Carbazole	34.276	167	30976	466.747	ng/mL	95
55) 1-Methylphenanthrene	35.946	192	21846	520.539	ng/mL	96
56) Fluoranthene	38.229	202	32422	507.554	ng/mL	96
57) Benzo(b)fluorene	40.749	216	17293	502.594	ng/mL	99
59) Pyrene	39.114	202	33356	521.864	ng/mL	95
67) Naphthobenzothiophene-2,1	42.967	234	31198	499.493	ng/mL	96
75) Benz[a]anthracene	43.898	228	24037	536.431	ng/mL	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192321.D
 Acq On : 20 Apr 2023 4:24 pm
 Operator : PAH8:MJS
 Sample : CQ804192301
 Misc : WGI769611,FRBF84
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 21 13:22:47 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Apr 21 13:23:21 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	44.063	228	26170	574.263	ng/mL	95
77) Chrysene/Triphenylene	44.063	228	26170	574.263	ng/mL	95
84) Benzo[b]fluoranthene	47.993	252	26850	507.065	ng/mL#	74
85) Benzo[j]+[k]fluoranthene	48.084	252	28884	541.180	ng/mL#	72
87) Benzo[e]pyrene	49.063	252	27304	533.036	ng/mL#	69
89) Benzo[a]pyrene	49.264	252	23963	490.702	ng/mL#	66
90) Perylene	49.593	252	24729	501.984	ng/mL#	65
91) Indeno[1,2,3-cd]pyrene	54.459	276	28483M3	476.788	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.523	278	24080	488.073	ng/mL	89
93) Benzo[g,h,i]perylene	55.875	276	28685	481.627	ng/mL	94
94) Hopane (T19)	0.000		0	N.D.		

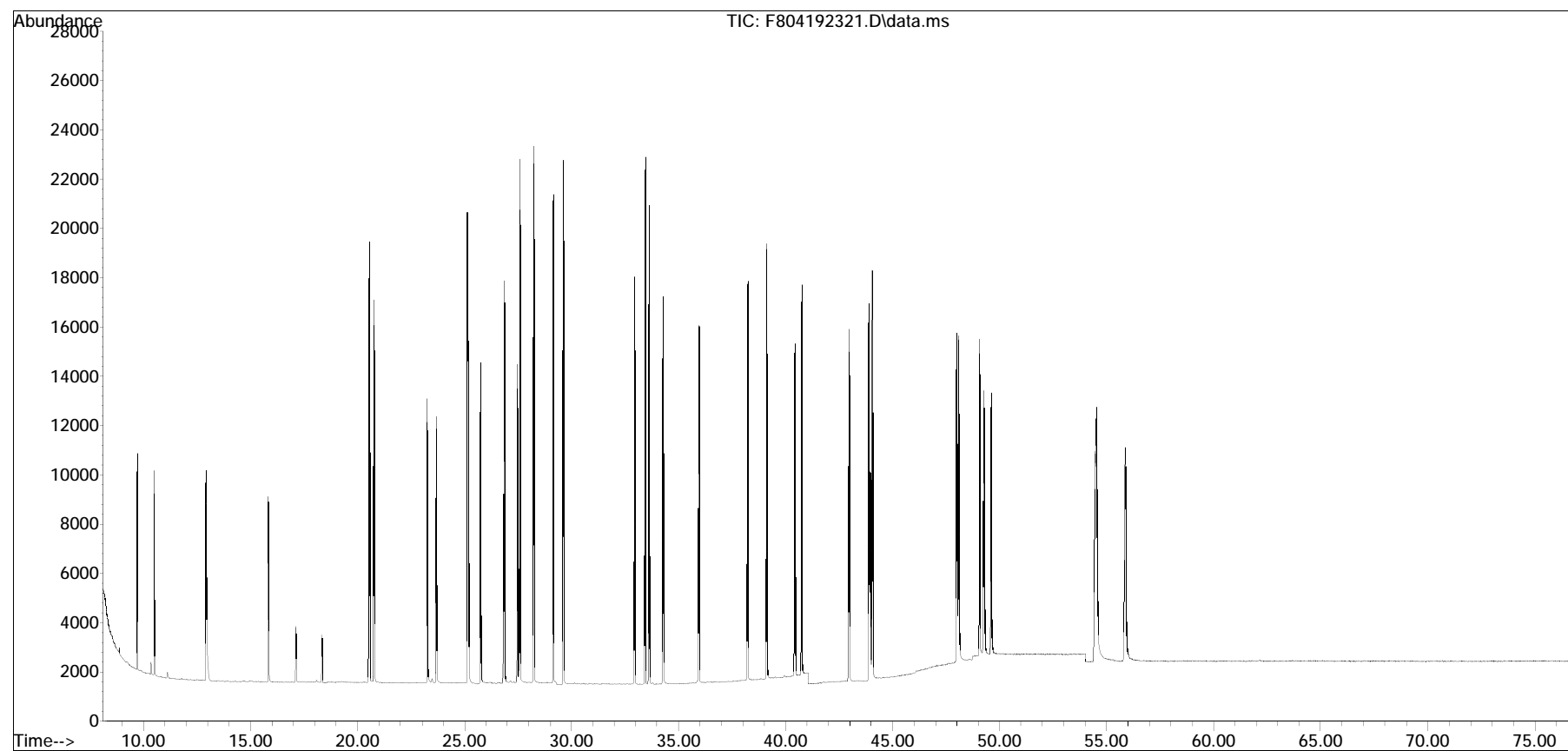
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
Data File : F804192321.D
Acq On : 20 Apr 2023 4:24 pm
Operator : PAH8:MJS
Sample : CQ804192301
Misc : WG1769611,FRBF84
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 21 13:22:47 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Apr 21 13:23:21 2023
Response via : Initial Calibration

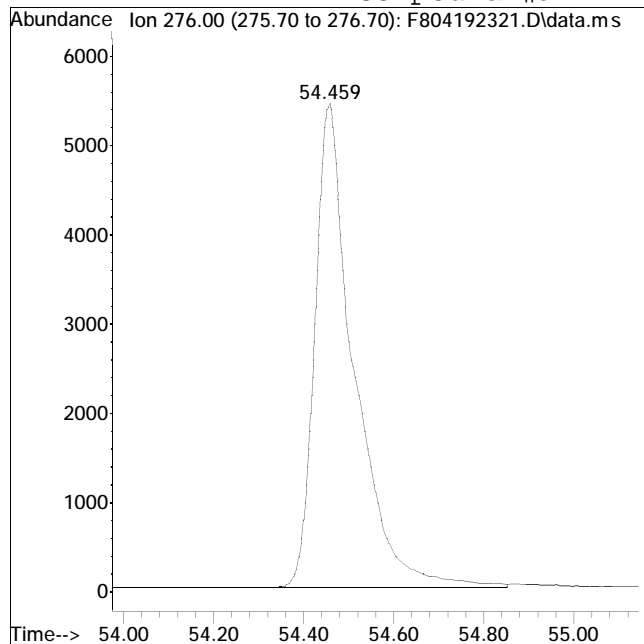
Sub List : ALKPAH_CCV - CC with five surrogates



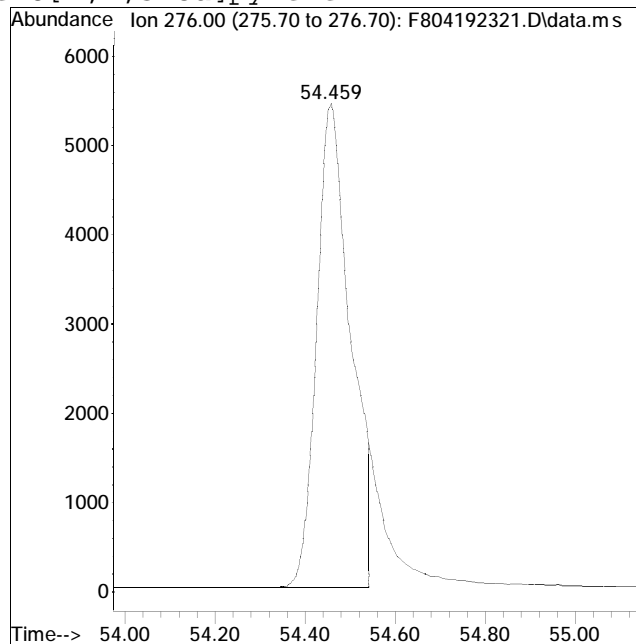
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH8\2023QMethod : PAH8041923.M
 Data File : F804192321.D Operator : PAH8:MJS
 Date Inj'd : 4/20/2023 4:24 pm Instrument : PAH8
 Sample : CQ804192301 Quant Date : 4/21/2023 1:23 pm

Compound #91: Indeno[1,2,3-cd]pyrene



Original Peak Response = 33004



Manual Peak Response = 28483 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\PAH8\2023\APR23\APR19\
 Data File : F804192323.D
 Acq On : 20 Apr 2023 7:15 pm
 Operator : PAH8:MJS
 Sample : WG1769611-1,.0539
 Misc : WG1769611,FRBF88
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 23 12:08:47 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Apr 21 13:24:35 2023
 Response via : Initial Calibration

Sub List : ALKPOI+naps_MP_PT - PAHs,optionals,isomers, naps, methyl pyrene
 s, pregnanes, all tas

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

Internal Standards						
1) Acenaphthene-d10	27.479	164	22943M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.972	240	28403	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.479	136	87453	864.798	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	86.48%		
40) Phenanthrene-d10	33.363	188	56896	881.598	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	88.16%		
83) Benzo[b]fluoranthene-d12	47.919	264	50649	893.436	ng/mL	0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery =	89.34%		
88) Benzo[a]pyrene-d12	49.182	264	45611	1021.653	ng/mL	0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery =	102.17%		
128) 5B(H)Cholane - Surr	44.593	217	7432	827.229	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	82.72%		
Target Compounds						
					Qvalue	
2) trans-Decalin	17.121	138	39506	2065.396	ng/mL	100
3) cis-Decalin	18.344	138	1564M4	103.318	ng/mL	
4) C1-Decalins	19.065	152	62213M5	3252.531	ng/mL	
5) C2-Decalins	20.397	166	50998M5	2666.204	ng/mL	
6) C3-Decalins	22.879	180	25646M5	1340.787	ng/mL	
7) C4-Decalins	26.283	194	24350M5	1273.032	ng/mL	
9) Naphthalene	20.552	128	292952	2641.918	ng/mL	100
10) C1-Naphthalenes	23.254	142	626049M5	5645.875	ng/mL	
11) C2-Naphthalenes	26.110	156	721881M5	6510.113	ng/mL	
12) C3-Naphthalenes	28.455	170	498219M5	4493.070	ng/mL	
13) C4-Naphthalenes	31.219	184	261065M5	2354.353	ng/mL	
14) 2-Methylnaphthalene	23.254	142	370626	5061.199	ng/mL	100
15) 1-Methylnaphthalene	23.682	142	255675	3821.736	ng/mL	100
16) Benzothiophene	20.762	134	2391M4	24.477	ng/mL	
17) C1-Benzo(b)thiophenes	22.815	148	11805M5	120.850	ng/mL	
18) C2-Benzo(b)thiophenes	26.301	162	20717M5	212.083	ng/mL	
19) C3-Benzo(b)thiophenes	28.291	176	40852M5	418.209	ng/mL	
20) C4-Benzo(b)thiophenes	30.033	190	35308M5	361.454	ng/mL	
21) Biphenyl	25.142	154	64211	734.440	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.763	156	178626	3056.122	ng/mL	100
23) Dibenzofuran	28.236	168	21544	251.453	ng/mL	89
24) Acenaphthylene	26.849	152	2872	27.764	ng/mL	100
25) Acenaphthene	27.606	153	4953M4	74.540	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192323.D
 Acq On : 20 Apr 2023 7:15 pm
 Operator : PAH8:MJS
 Sample : WG1769611-1,.0539
 Misc : WG1769611,FRBF88
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 23 12:08:47 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Apr 21 13:24:35 2023
 Response via : Initial Calibration

Sub List : ALKPOI+naps_MP_PT - PAHs,optionals,isomers, naps, methyl pyrene
 s, pregnanes, all tas

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 2,3,5-Trimethylnaphthalen	29.148	170	34256M3	707.985	ng/mL	
27) Fluorene	29.623	166	23565M4	338.346	ng/mL	
28) C1-Fluorenes	31.995	180	53487M5	767.965	ng/mL	
29) C2-Fluorenes	34.185	194	76747M5	1101.932	ng/mL	
30) C3-Fluorenes	36.019	208	68233M5	979.688	ng/mL	
31) Dibenzothiophene	32.953	184	65083	657.371	ng/mL#	81
32) 4-Methyldibenzothiophene(	34.732	198	66387	670.542	ng/mL	100
33) 2/3-Methyldibenzothiophen	35.079	198	52809M3	533.397	ng/mL	
34) 1-Methyldibenzothiophene(	35.499	198	18888	190.778	ng/mL	100
35) OTP	35.134	198	7761M3	78.390	ng/mL	
36) C1-Dibenzothiophenes	34.732	198	147201M5	1486.804	ng/mL	
36) C1-Dibenzothiophenes BS	34.732	198	139440M5	1408.414	ng/mL	
37) C2-Dibenzothiophenes	36.777	212	166527M5	1682.006	ng/mL	
38) C3-Dibenzothiophenes	38.219	226	152680M5	1542.145	ng/mL	
39) C4-Dibenzothiophenes	39.900	240	81583M5	824.029	ng/mL	
41) Phenanthrene	33.446	178	93021	967.633	ng/mL	100
42) 3-Methylphenanthrene(3MP)	35.417	192	38318	398.596	ng/mL	97
43) 2-Methylphenanthrene(2MP)	35.527	192	41429	430.957	ng/mL	97
44) 2-Methylantracene(2MA)	35.682	192	1321M3	13.741	ng/mL	
45) 9/4-Methylphenanthrene(9M	35.873	192	63930	665.020	ng/mL	99
46) 1-Methylphenanthrene(1MP)	35.965	192	39039	406.096	ng/mL	99
47) C1-Phenanthrenes/Anthrace	35.873	192	184768M5	1922.014	ng/mL	
48) C2-Phenanthrenes/Anthrace	37.681	206	196782M5	2046.987	ng/mL	
48) C2-Phenanthrenes/Anthr BS	37.681	206	196782M5	2046.987	ng/mL	
49) 5AA IS BKGD	0.000		0	N.D.	d	
50) C3-Phenanthrenes/Anthrace	39.525	220	127000M5	1321.093	ng/mL	
51) C4-Phenanthrenes/Anthrace	41.698	234	48820M5	507.841	ng/mL	
52) Retene	0.000		0	N.D.	d	
53) Anthracene	0.000		0	N.D.	d	
54) Carbazole	34.285	167	2685M4	26.772	ng/mL	
56) Fluoranthene	38.238	202	1759M4	18.222	ng/mL	
57) Benzo(b)fluorene	40.758	216	1498	28.810	ng/mL	82
58) 7H-Benzo(c)fluorene	40.804	216	1184	22.771	ng/mL	70
59) Pyrene	39.123	202	6276M4	64.975	ng/mL	
60) 2-Methylpyrene	40.922	216	1758M3	18.200	ng/mL	
61) 4-Methylpyrene	41.287	216	4836	50.067	ng/mL	77
62) 1-Methylpyrene	41.397	216	3147	32.581	ng/mL	92
63) C1-Fluoranthenes/Pyrenes	40.511	216	25216M5	261.059	ng/mL	
64) C2-Fluoranthenes/Pyrenes	42.629	230	42323M5	438.166	ng/mL	
65) C3-Fluoranthenes/Pyrenes	44.328	244	43683M5	452.246	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
 Data File : F804192323.D
 Acq On : 20 Apr 2023 7:15 pm
 Operator : PAH8:MJS
 Sample : WG1769611-1,.0539
 Misc : WG1769611,FRBF88
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 23 12:08:47 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Apr 21 13:24:35 2023
 Response via : Initial Calibration

Sub List : ALKPOI+naps_MP_PT - PAHs,optionals,isomers, naps, methyl pyrene
 s, pregnanes, all tas

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) C4-Fluoranthenes/Pyrenes	45.679	258	39397M5	407.874	ng/mL	
67) Naphthobenzothiophene-2,1	42.976	234	13547	143.524	ng/mL#	88
68) Naphthobenzothiophene-1,2	43.314	234	3308	35.047	ng/mL#	14
69) Naphthobenzothiophene-2,3	43.615	234	1683	17.831	ng/mL#	100
70) C1-Naphthobenzothiophenes	44.373	248	50451M5	534.505	ng/mL	
71) C2-Naphthobenzothiophenes	46.383	262	66477M5	704.293	ng/mL	
72) C3-Naphthobenzothiophenes	48.029	276	50636M5	536.465	ng/mL	
73) C4-Naphthobenzothiophenes	49.173	290	31228M5	330.846	ng/mL	
75) Benz[a]anthracene	43.908	228	812M3	9.784	ng/mL	
77) Chrysene/Triphenylene	44.035	228	13784	163.317	ng/mL	96
78) C1-Chrysenes	45.533	242	23161M5	274.418	ng/mL	
79) C2-Chrysenes	47.645	256	30938M5	366.562	ng/mL	
79) C2-Chrysenes BS	47.645	256	28841M5	341.716	ng/mL	
80) BBF-D12 Surr BKGD	47.919	256	2097	24.846	ng/mL	100
81) C3-Chrysenes	50.526	270	30692M5	363.647	ng/mL	
82) C4-Chrysenes	50.517	284	18383M5	217.807	ng/mL	
84) Benzo[b]fluoranthene	48.002	252	2127M4	21.689	ng/mL	
85) Benzo[j]+[k]fluoranthene	0.000		0	N.D.	d	
86) Benzo[a]fluoranthene	0.000		0	N.D.	d	
87) Benzo[e]pyrene	49.072	252	3742	39.444	ng/mL#	78
89) Benzo[a]pyrene	49.273	252	677M3	7.485	ng/mL	
90) Perylene	49.602	252	1064M4	11.662	ng/mL	
91) Indeno[1,2,3-cd]pyrene	54.477	276	508	4.591	ng/mL#	49
92) Dibenz[ah]+[ac]anthracene	54.541	278	382M4	4.181	ng/mL	
93) Benzo[g,h,i]perylene	55.884	276	1667	15.113	ng/mL	88
146) C20 Pregnane	43.524	231	5500	612.185	ng/mL	100
147) C21 20-Methylpregnane	44.784	231	5906	657.375	ng/mL	100
148) C22 20-Ethylpregnane (a)	45.926	231	2154	239.754	ng/mL	100
149) C22 20-Ethylpregnane (b)	46.099	231	1418	157.832	ng/mL	100
150) C26,20S TAS	49.465	231	4187	466.040	ng/mL	100
151) C26,20R+C27,20S TAS	50.535	231	14180	1578.324	ng/mL	100
152) C28,20S TAS	51.477	231	8954	996.637	ng/mL	100
153) C27,20R TAS	51.962	231	8373	931.968	ng/mL	100
154) C28,20R TAS	53.279	231	7065	786.379	ng/mL	100
155) C29,20S TAS	52.218	231	2409M4	268.137	ng/mL	
156) C29,20R TAS	54.422	231	1831	203.802	ng/mL	100

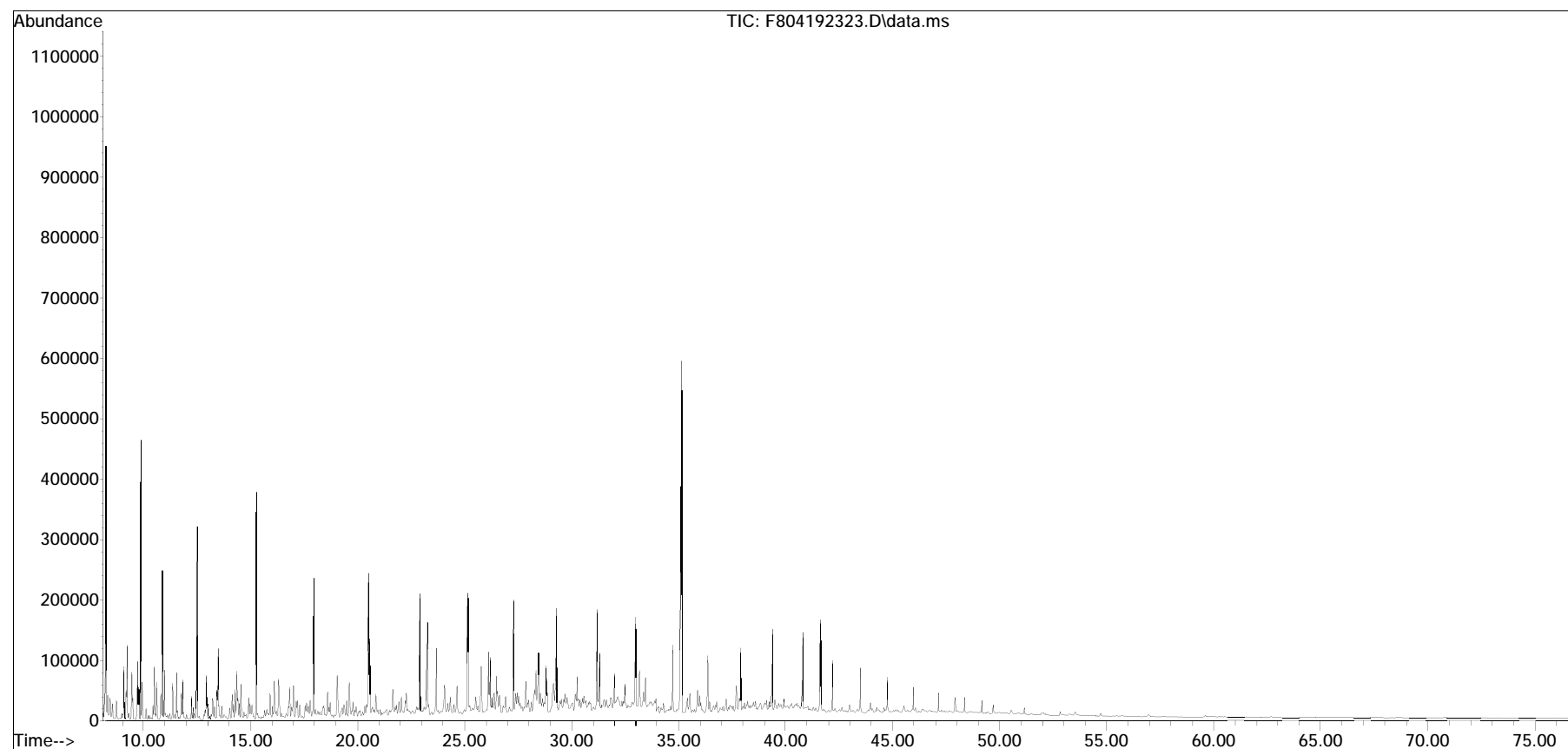
(#) = qualifier out of range (m) = manual integration (+) = signals summed

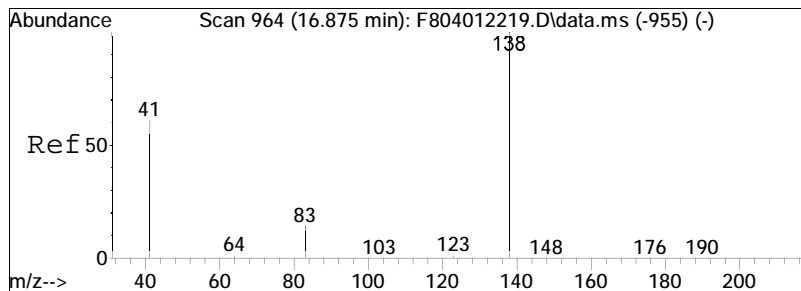
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR19\
Data File : F804192323.D
Acq On : 20 Apr 2023 7:15 pm
Operator : PAH8:MJS
Sample : WG1769611-1,.0539
Misc : WG1769611,FRBF88
ALS Vial : 13 Sample Multiplier: 1

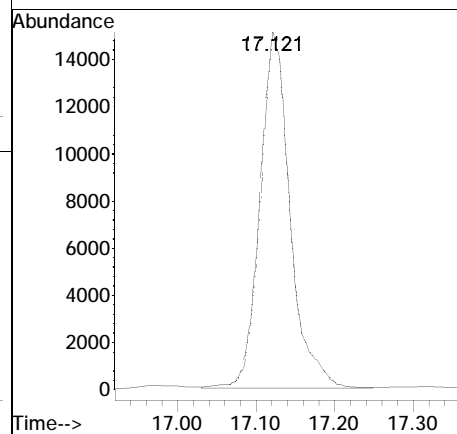
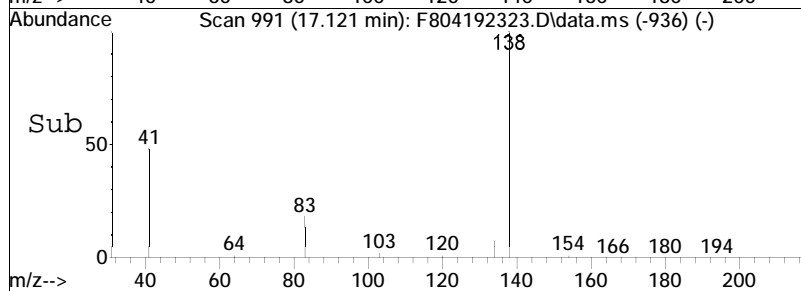
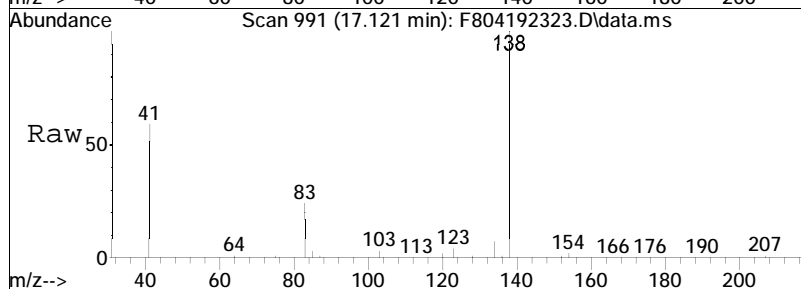
Quant Time: Apr 23 12:08:47 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR19\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Apr 21 13:24:35 2023
Response via : Initial Calibration

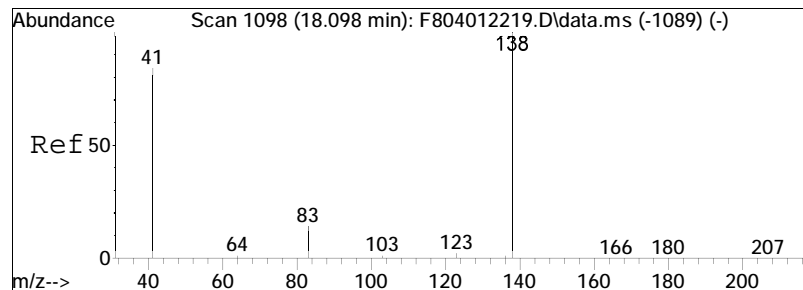
Sub List : ALKPOI+naps_MP_PT - PAHs,optionals,isomers, naps, methyl pyrenes, pregnanes, all tas





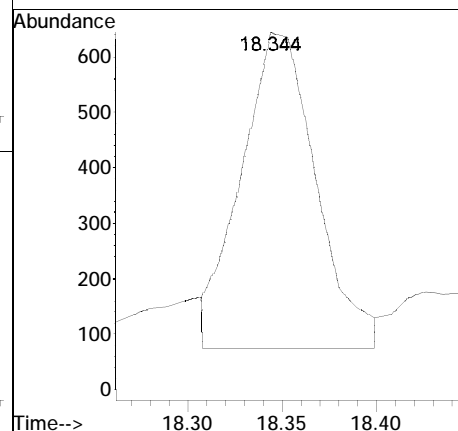
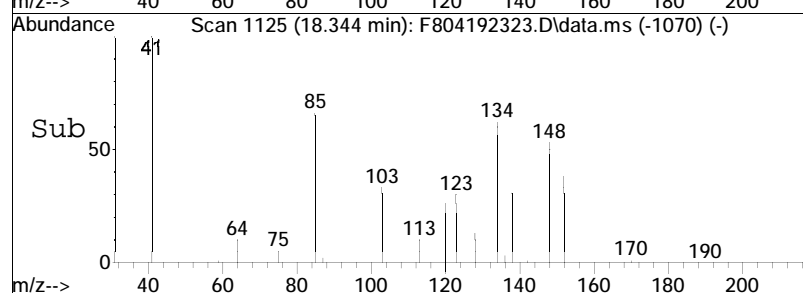
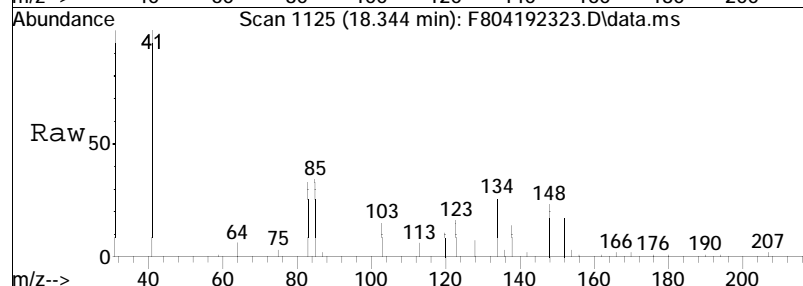
#2
trans-Decalin
Concen: 2065.40 ng/mL
RT: 17.121 min Scan# 991
Delta R.T. 0.000 min
Lab File: F804192323.D
Acq: 20 Apr 2023 7:15 pm
Tgt Ion:138 Resp: 39506

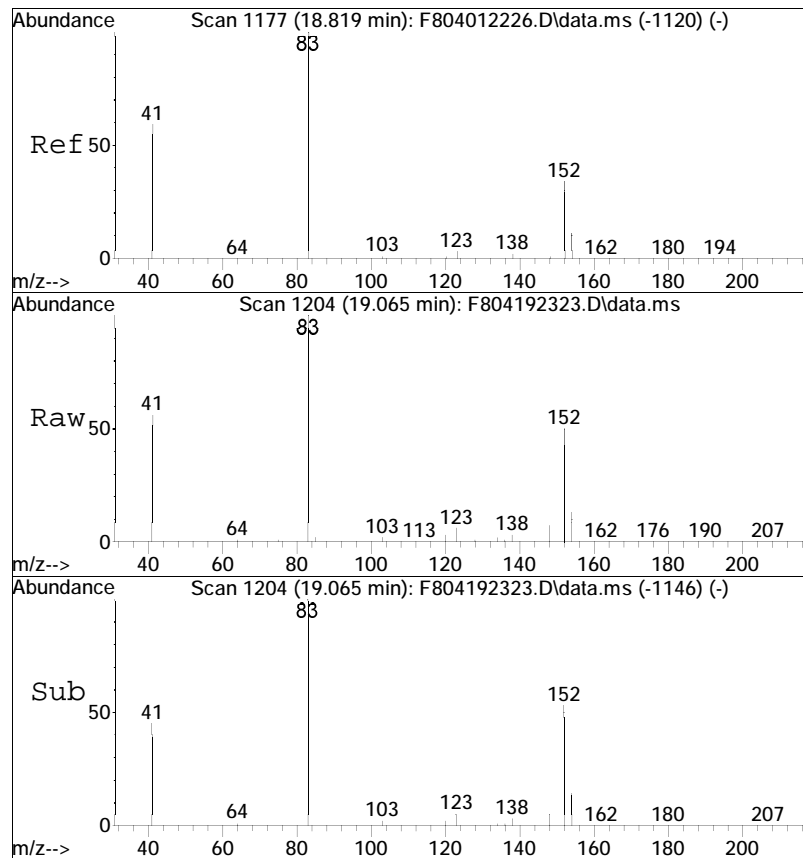




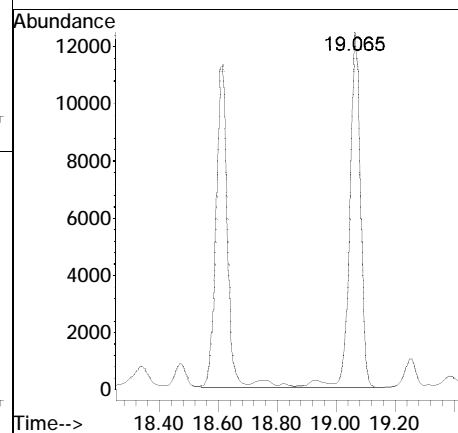
#3
 cis-Decalin
 Concen: 103.32 ng/mL M4
 RT: 18.344 min Scan# 1125
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

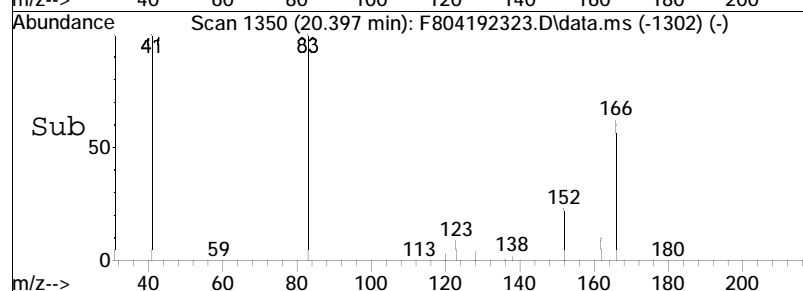
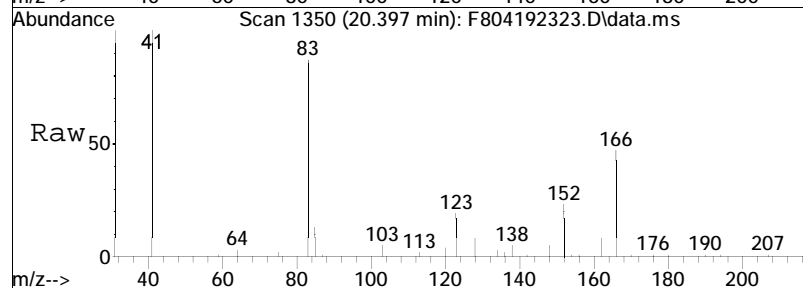
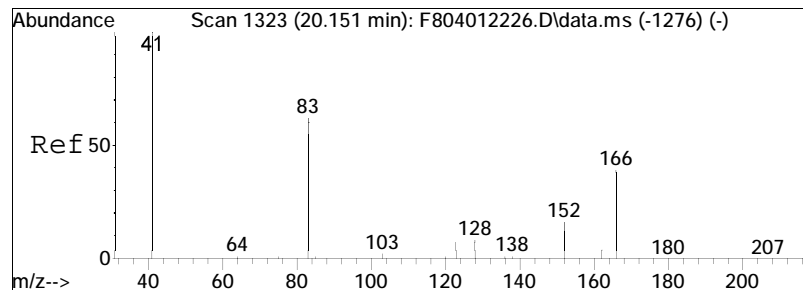
Tgt Ion:138 Resp: 1564



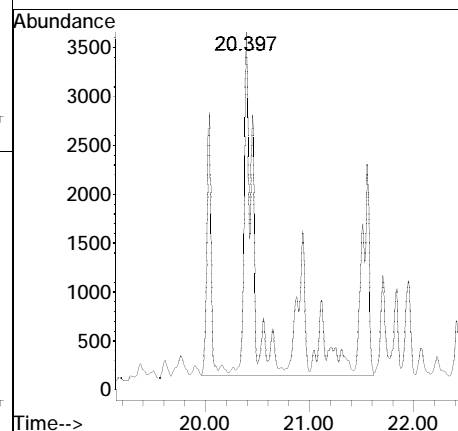


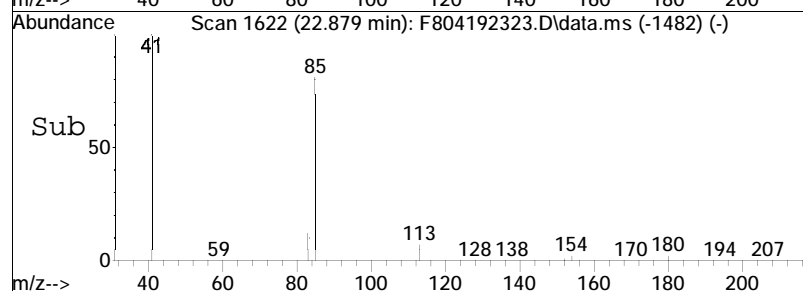
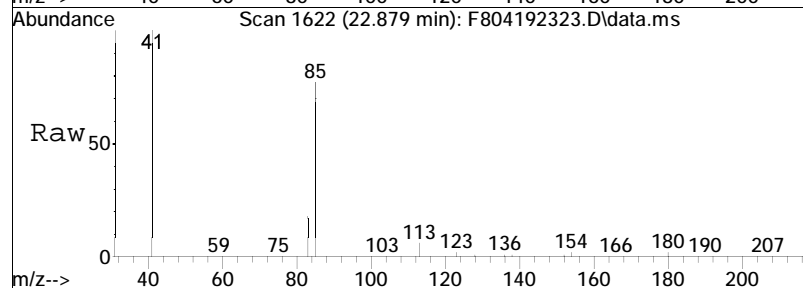
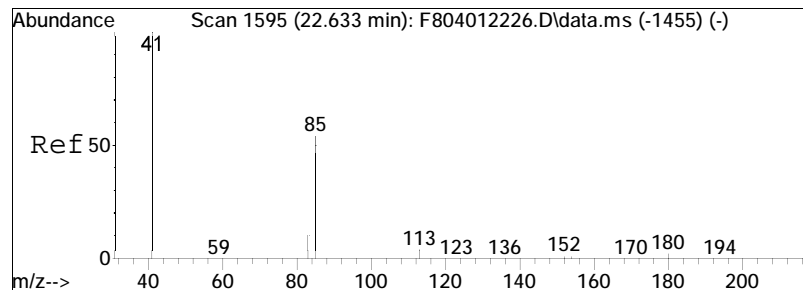
#4
 Cl-Decalins
 Concen: 3252.53 ng/mL M5
 RT: 19.065 min Scan# 1204
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm
 Tgt Ion:152 Resp: 62213





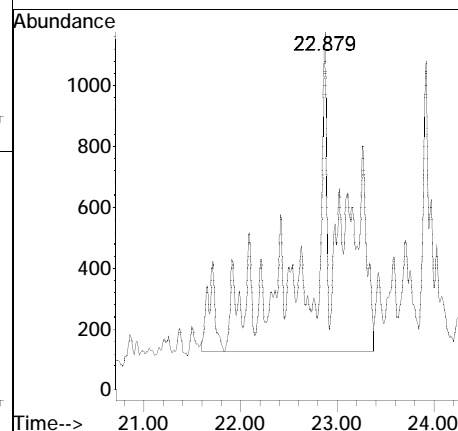
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 C2-Decalins
 Concen: 2666.20 ng/mL M5
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 Delta R.T. 0.000 min
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 Acq: 20 Apr 2023 7:15 pm
 Tgt Ion:166 Resp: 50998

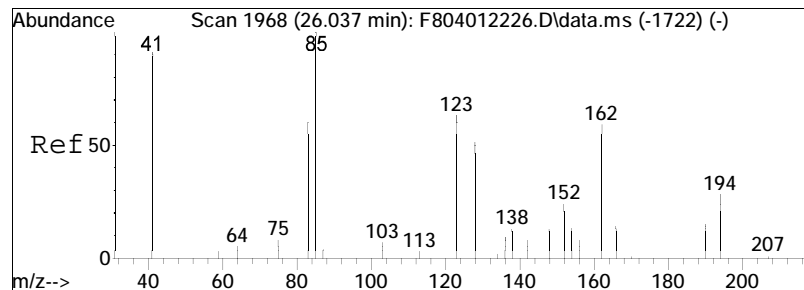




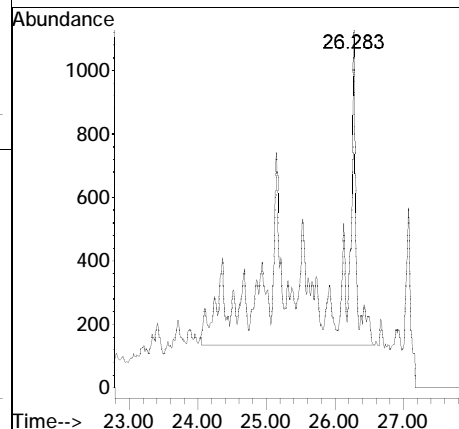
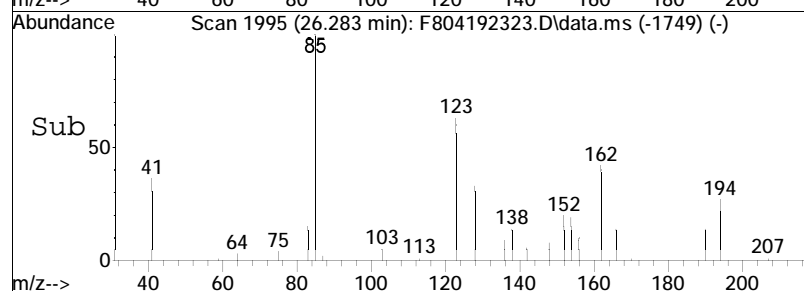
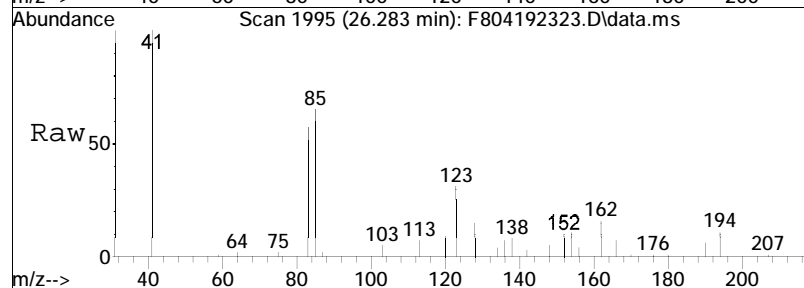
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C3-Decalins
Concen: 1340.79 ng/mL M5
RT: 22.879 min Scan# 1622
Delta R.T. 0.000 min
Lab File: F804192323.D
Acq: 20 Apr 2023 7:15 pm

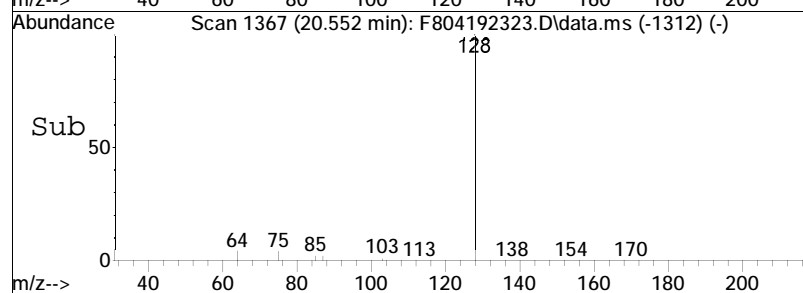
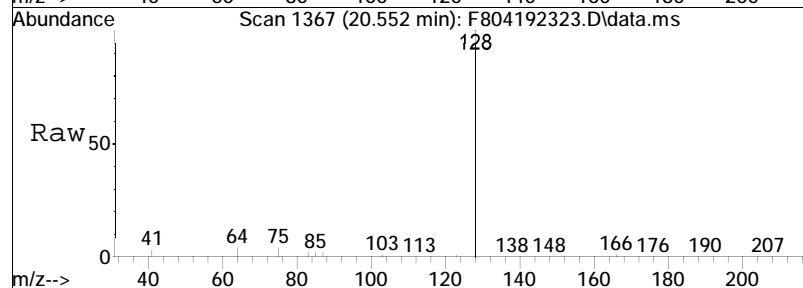
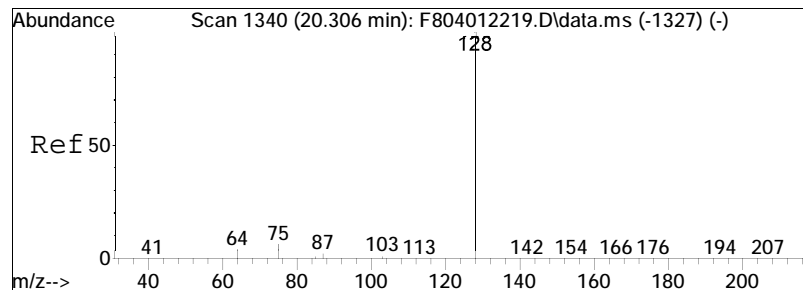
Tgt Ion:180 Resp: 25646



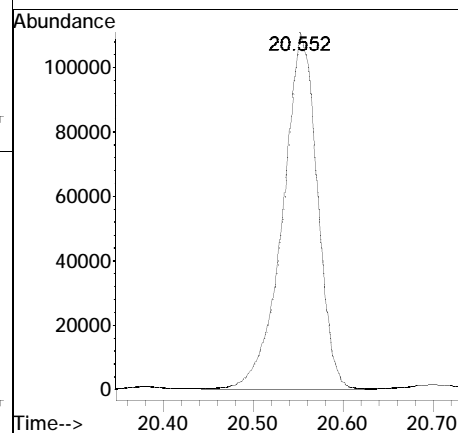


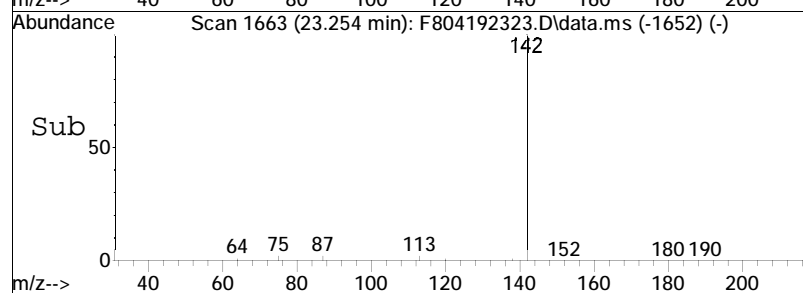
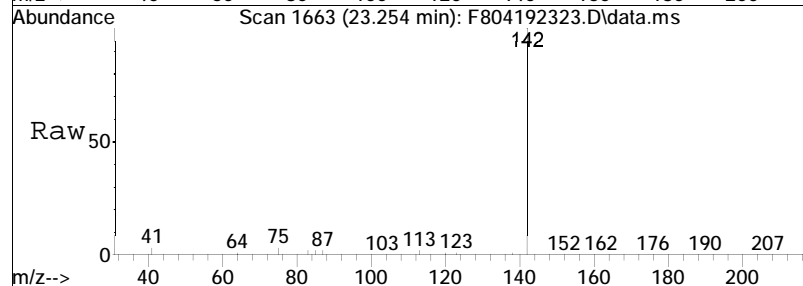
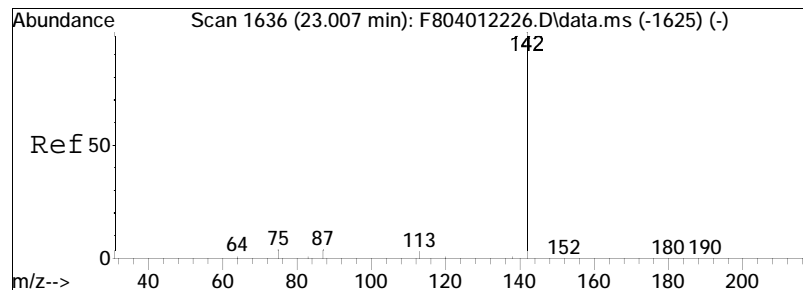
#7
C4-Decalins
Concen: 1273.03 ng/mL M5
RT: 26.283 min Scan# 1995
Delta R.T. 0.000 min
Lab File: F804192323.D
Acq: 20 Apr 2023 7:15 pm
Tgt Ion:194 Resp: 24350



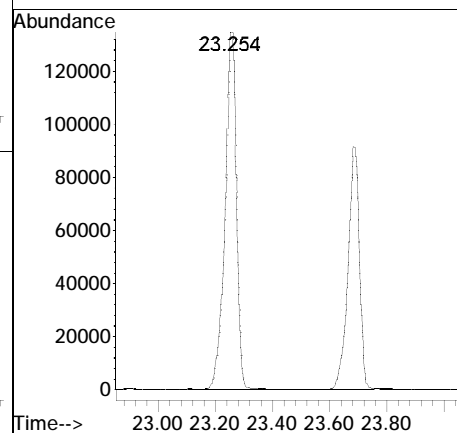


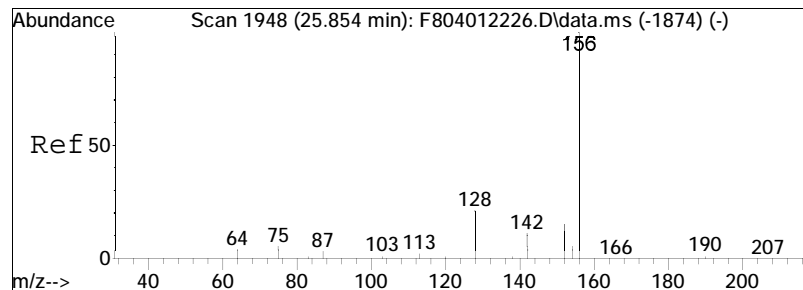
#9
 Naphthalene
 Concen: 2641.92 ng/mL
 RT: 20.552 min Scan# 1367
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm
 Tgt Ion:128 Resp: 292952



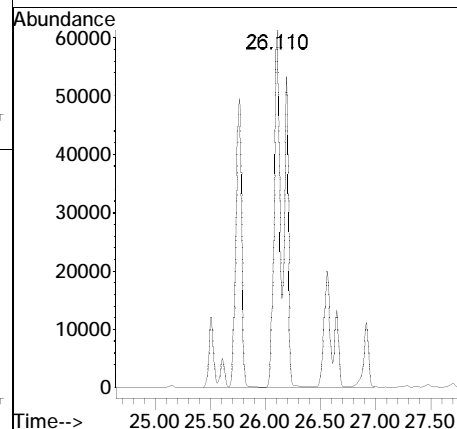
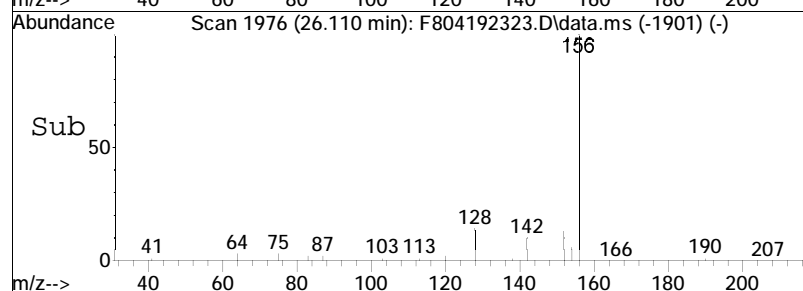
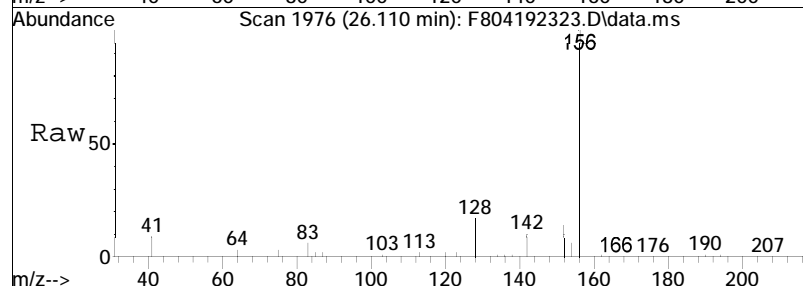


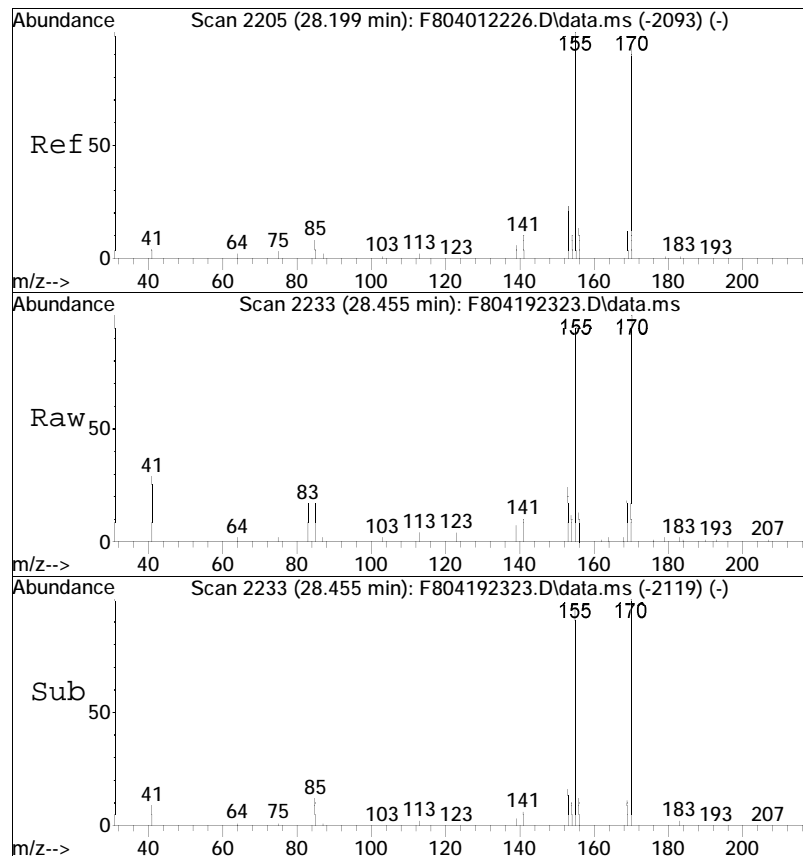
#10
 Cl-Naphthalenes
 Concen: 5645.88 ng/mL M5
 RT: 23.254 min Scan# 1663
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm
 Tgt Ion:142 Resp: 626049





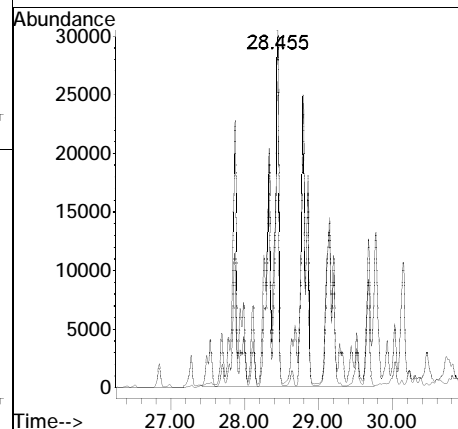
#11
 C2-Naphthalenes
 Concen: 6510.11 ng/mL M5
 RT: 26.110 min Scan# 1976
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm
 Tgt Ion:156 Resp: 721881

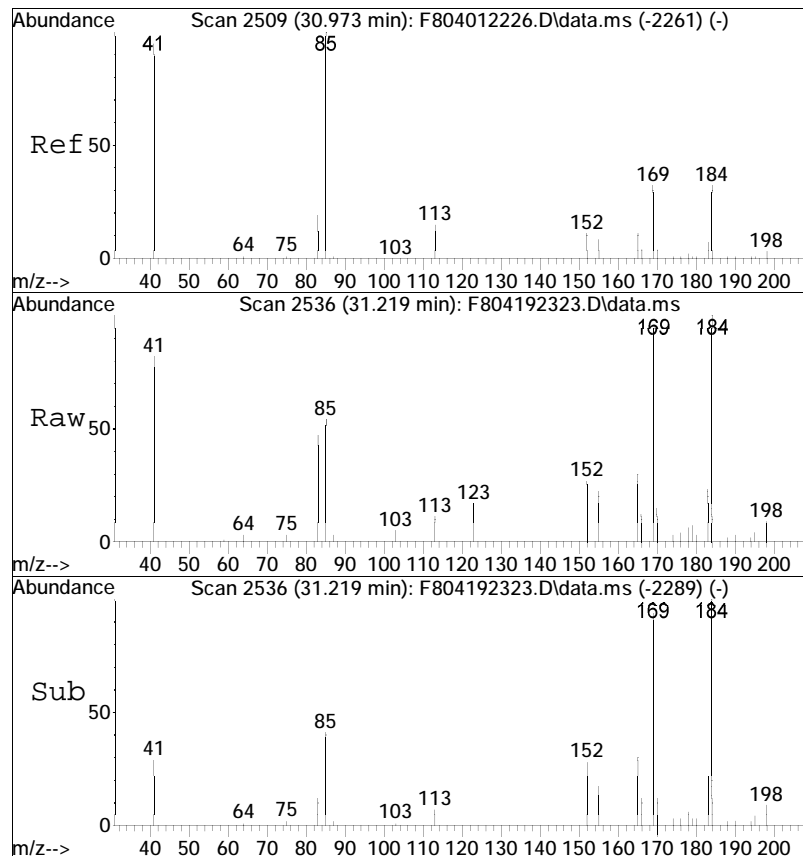




#12
 C3-Naphthalenes
 Concen: 4493.07 ng/mL M5
 RT: 28.455 min Scan# 2233
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

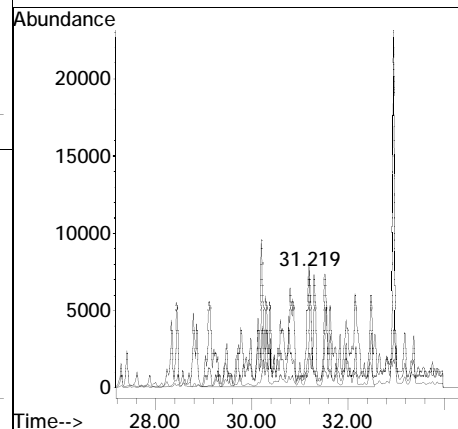
Tgt Ion	Ratio	Lower	Upper
170	100		
155	19.5	66.3	123.1#

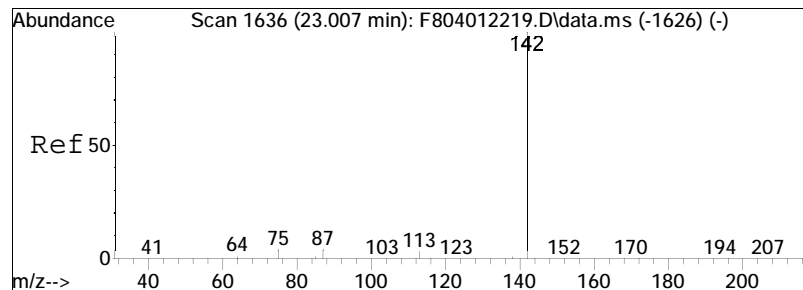




#13
 C4-Naphthalenes
 Concen: 2354.35 ng/mL M5
 RT: 31.219 min Scan# 2536
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

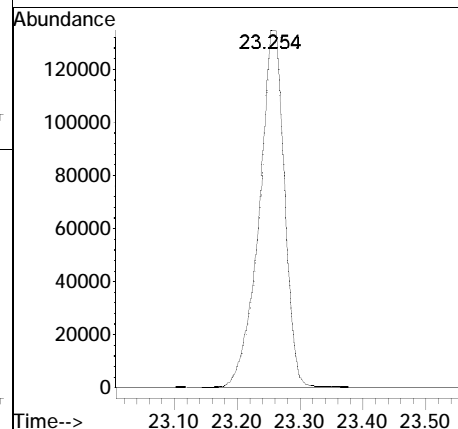
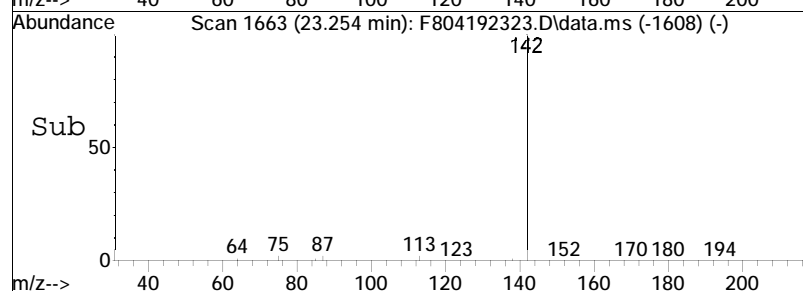
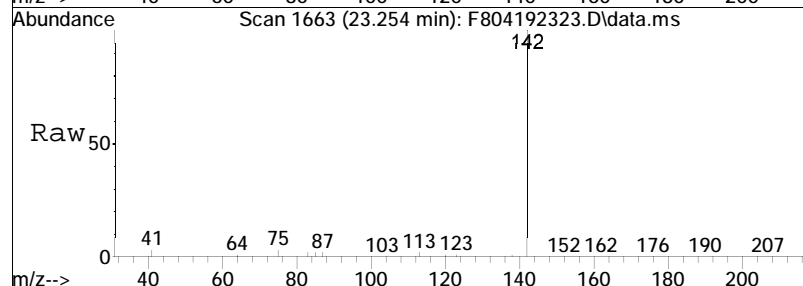
Tgt	Ion	Ratio	Lower	Upper
184	100			
169	0.9	66.4	123.2#	
183	0.2	16.0	29.8#	

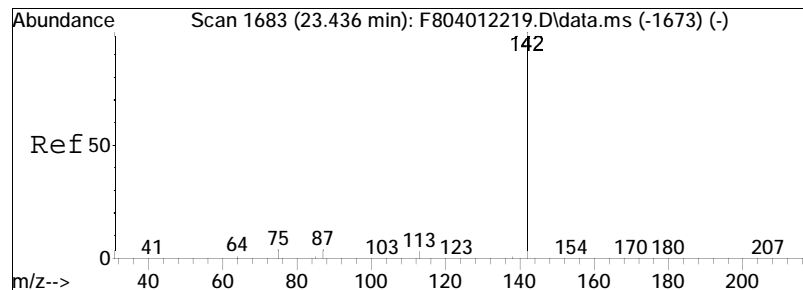




#14
2-Methylnaphthalene
Concen: 5061.20 ng/mL
RT: 23.254 min Scan# 1663
Delta R.T. 0.001 min
Lab File: F804192323.D
Acq: 20 Apr 2023 7:15 pm

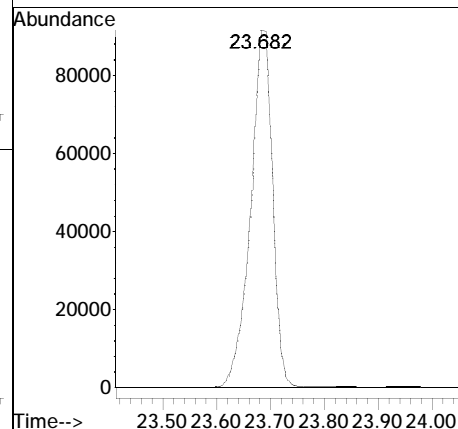
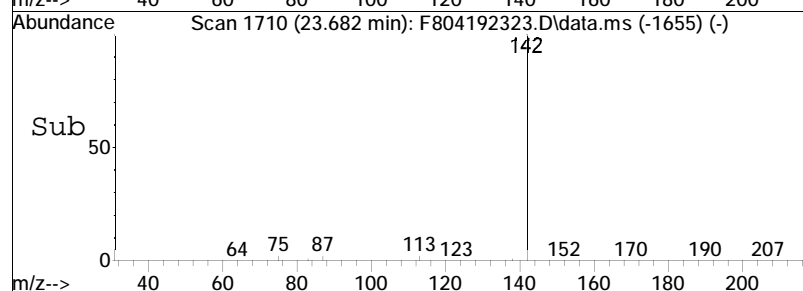
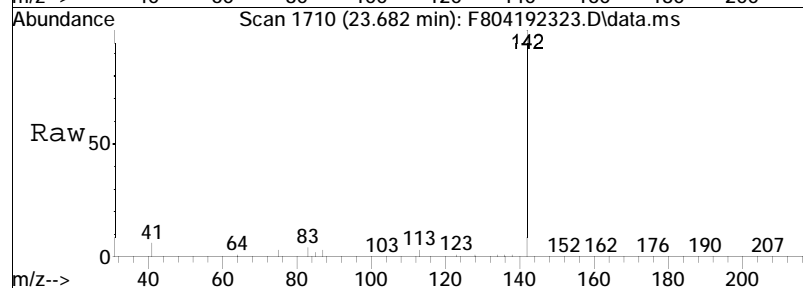
Tgt Ion:142 Resp: 370626

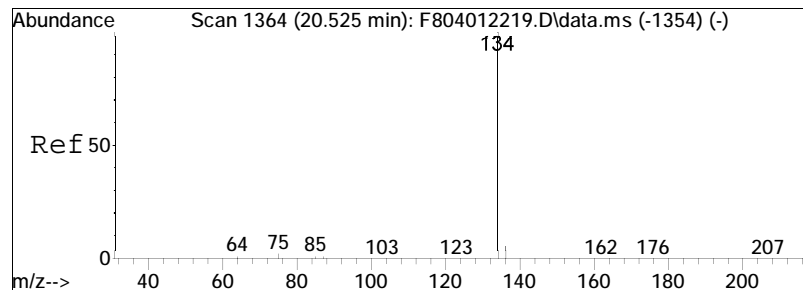




#15
1-Methylnaphthalene
Concen: 3821.74 ng/mL
RT: 23.682 min Scan# 1710
Delta R.T. 0.000 min
Lab File: F804192323.D
Acq: 20 Apr 2023 7:15 pm

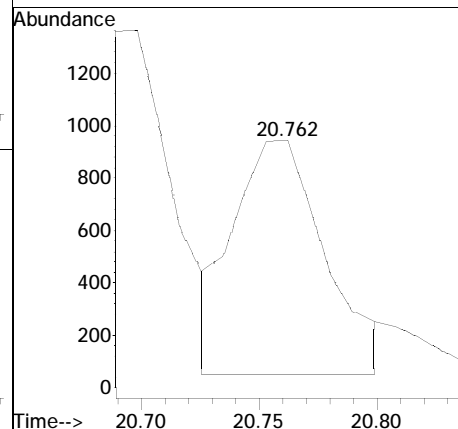
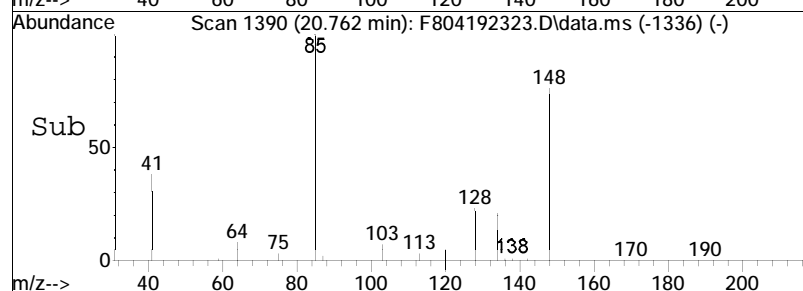
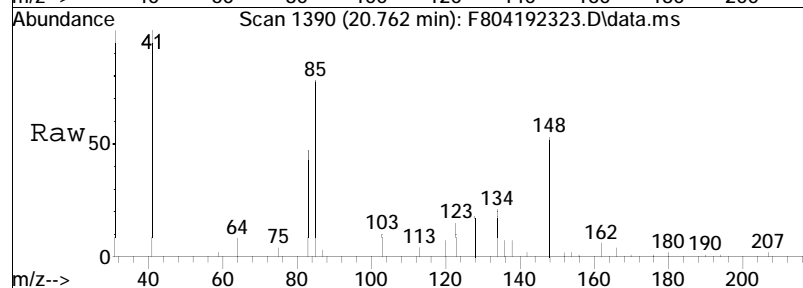
Tgt Ion:142 Resp: 255675

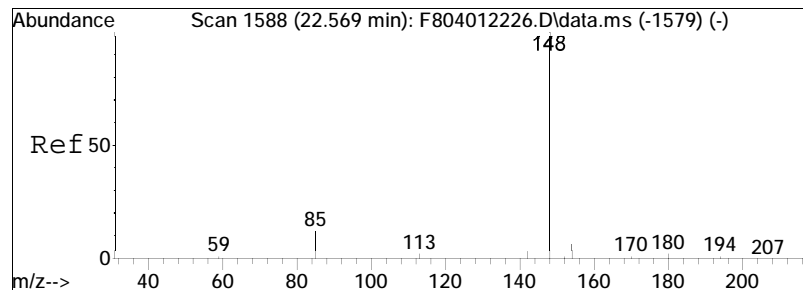




#16
 Benzothiophene
 Concen: 24.48 ng/mL M4
 RT: 20.762 min Scan# 1390
 Delta R.T. -0.009 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

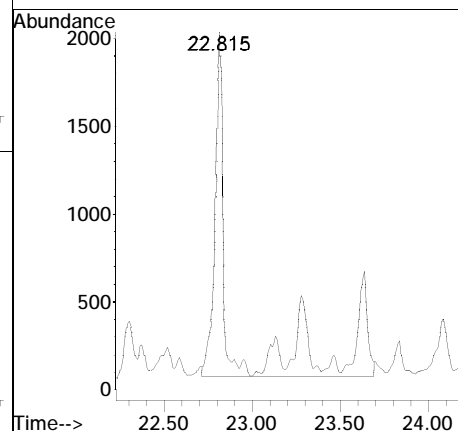
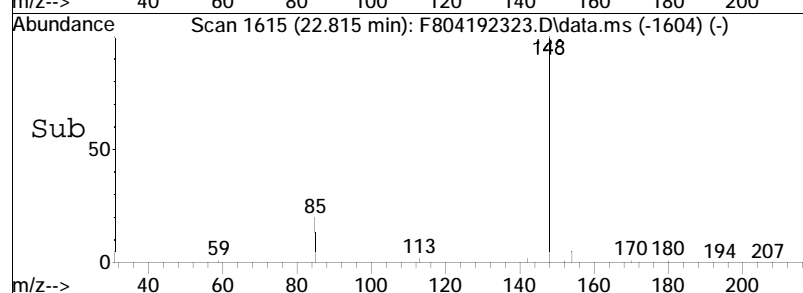
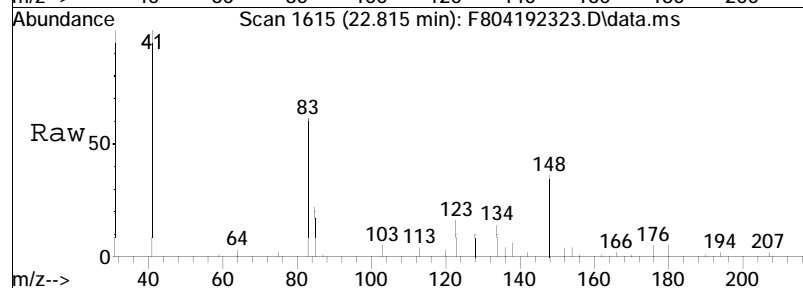
Tgt Ion:134 Resp: 2391

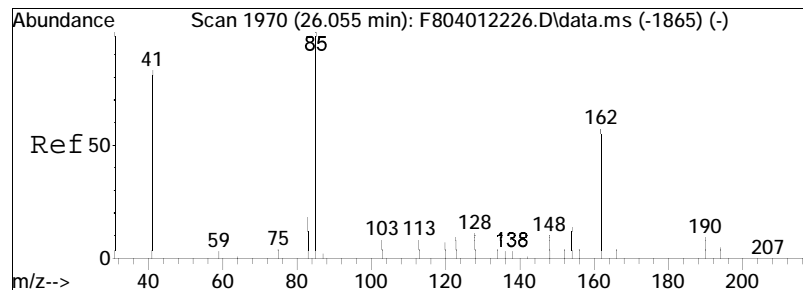




#17
 Cl-Benzo(b)thiophenes
 Concen: 120.85 ng/mL M5
 RT: 22.815 min Scan# 1615
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

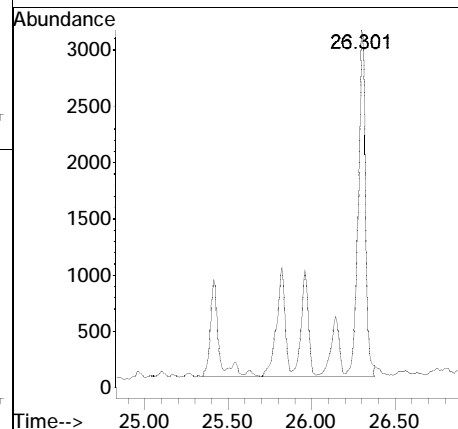
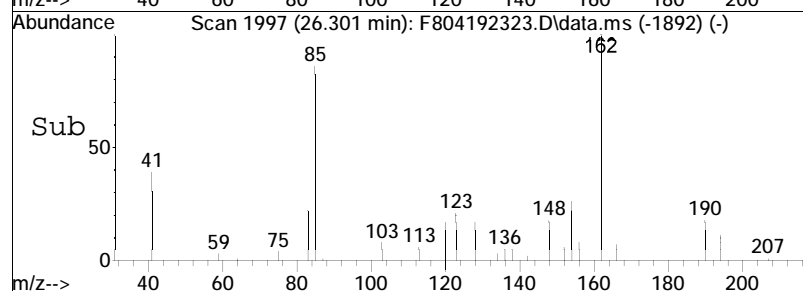
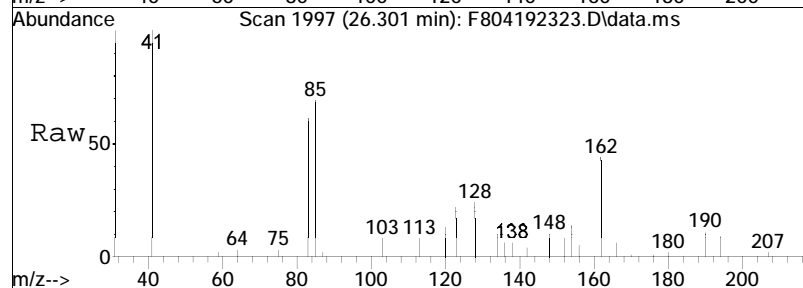
Tgt Ion:148 Resp: 11805

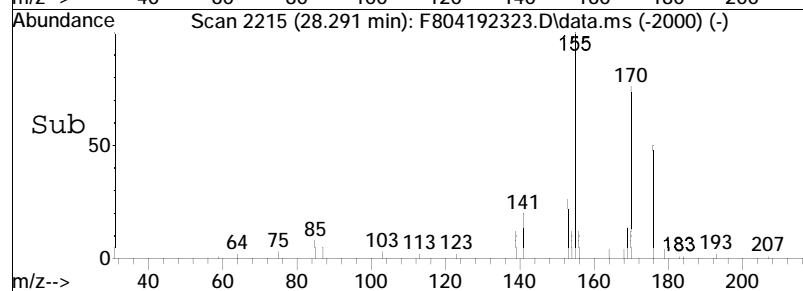
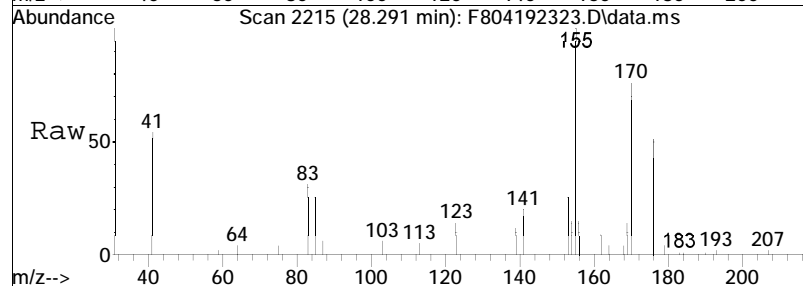
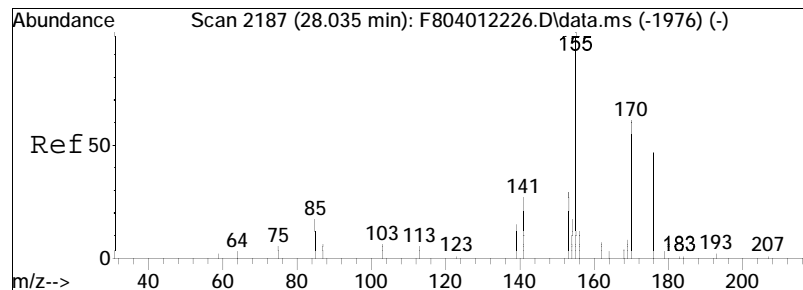




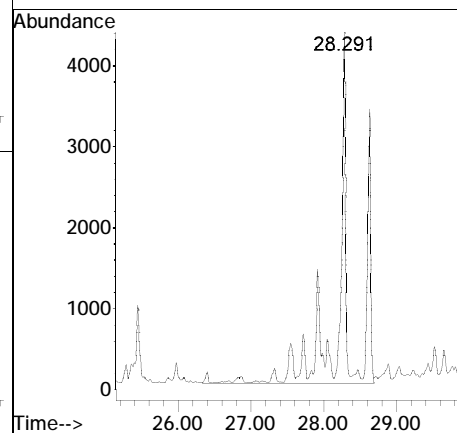
#18
 C2-Benzo(b)thiophenes
 Concen: 212.08 ng/mL M5
 RT: 26.301 min Scan# 1997
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

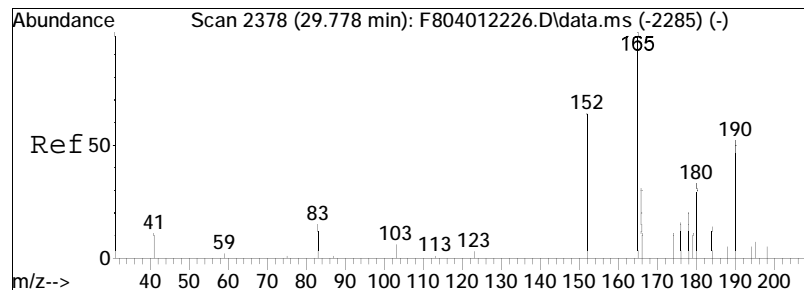
Tgt Ion:162 Resp: 20717





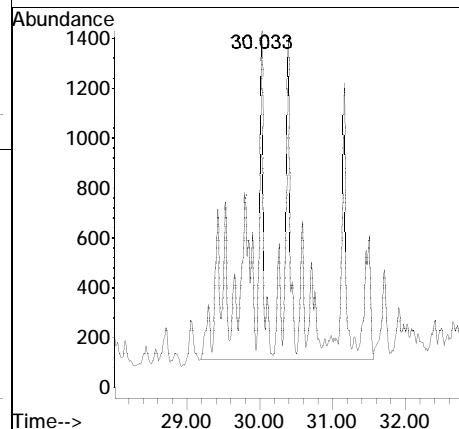
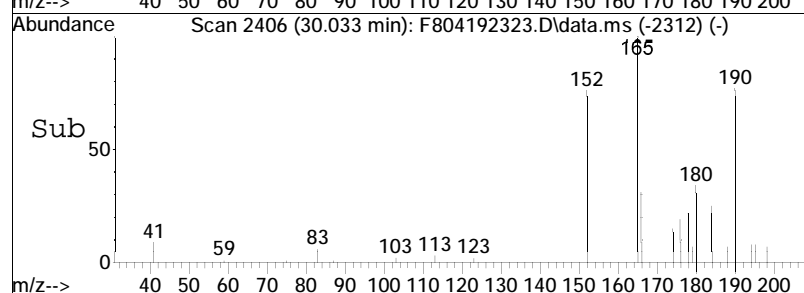
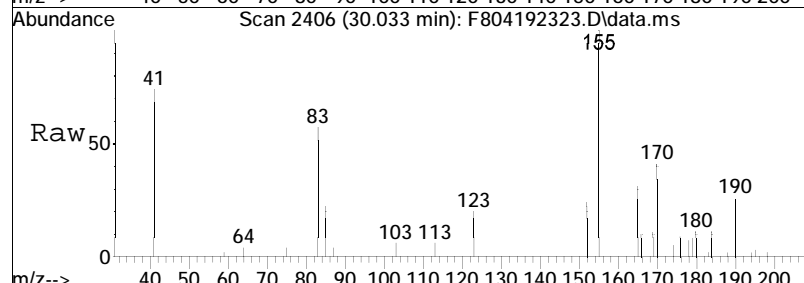
#19
C3-Benzo(b)thiophenes
Concen: 418.21 ng/mL M5
RT: 28.291 min Scan# 2215
Delta R.T. -0.000 min
Lab File: F804192323.D
Acq: 20 Apr 2023 7:15 pm
Tgt Ion:176 Resp: 40852

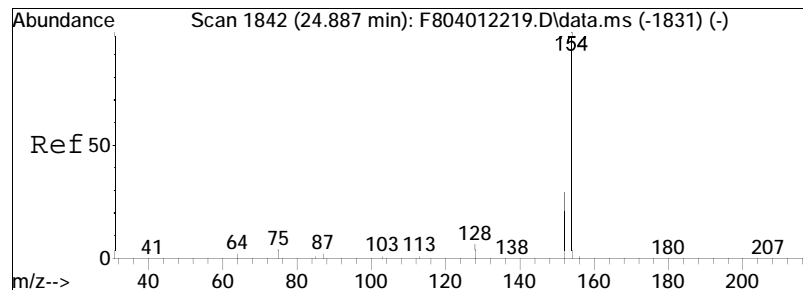




#20
 C4-Benzo(b)thiophenes
 Concen: 361.45 ng/mL M5
 RT: 30.033 min Scan# 2406
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

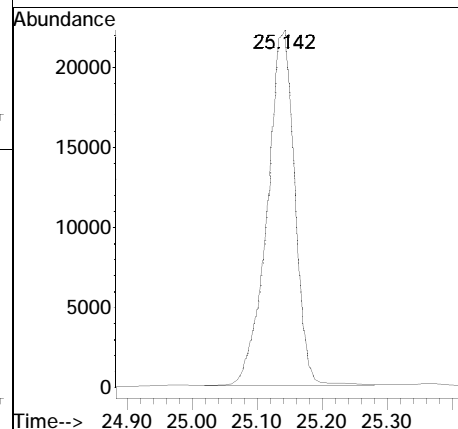
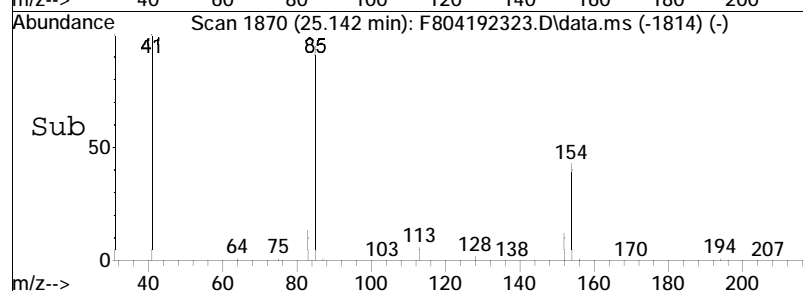
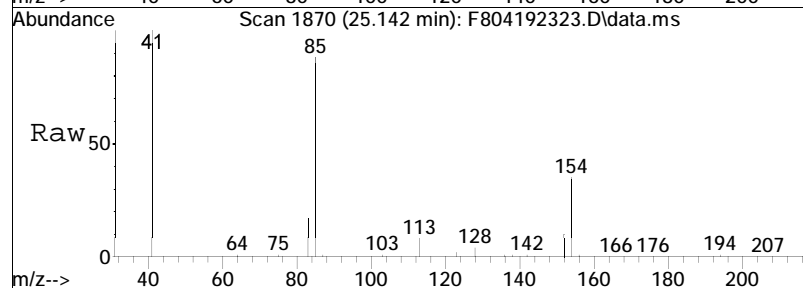
Tgt Ion:190 Resp: 35308

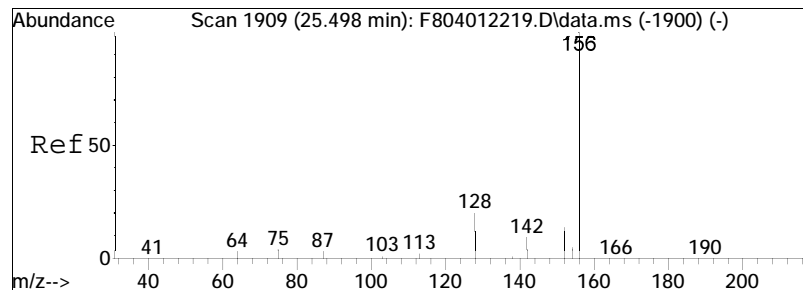




#21
 Biphenyl
 Concen: 734.44 ng/mL
 RT: 25.142 min Scan# 1870
 Delta R.T. 0.009 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

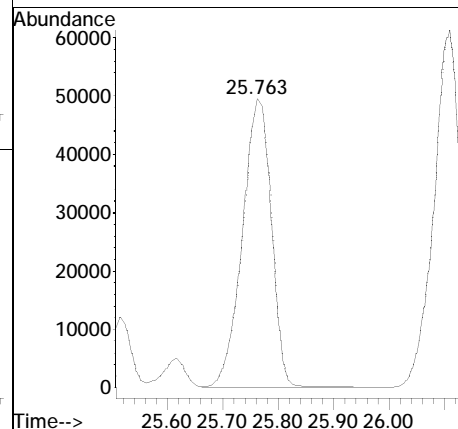
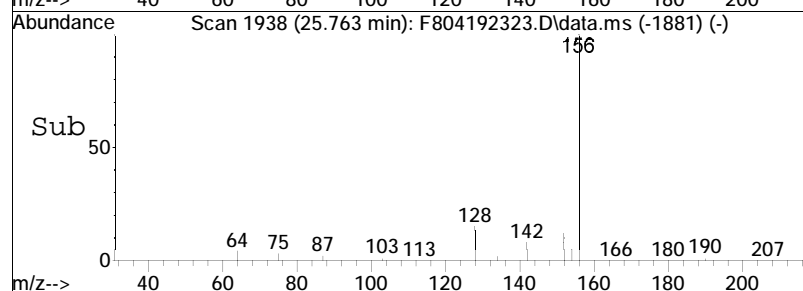
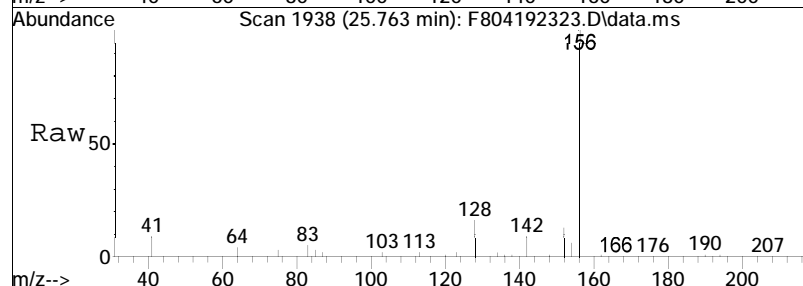
Tgt Ion:154 Resp: 64211

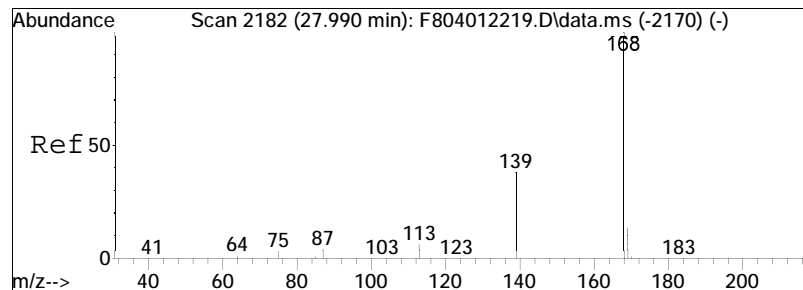




#22
 2,6-Dimethylnaphthalene
 Concen: 3056.12 ng/mL
 RT: 25.763 min Scan# 1938
 Delta R.T. 0.018 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

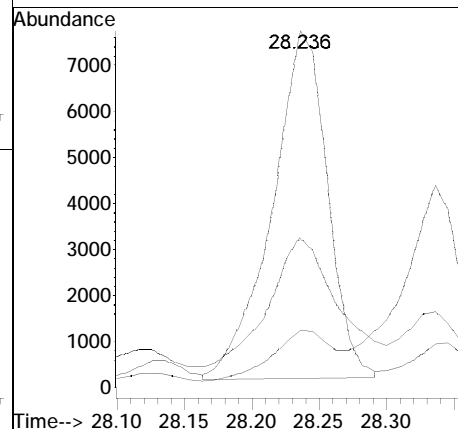
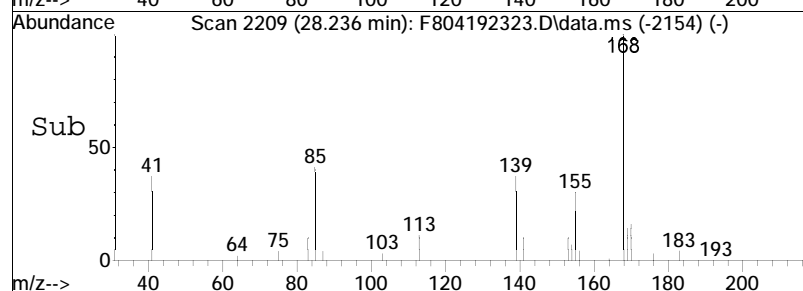
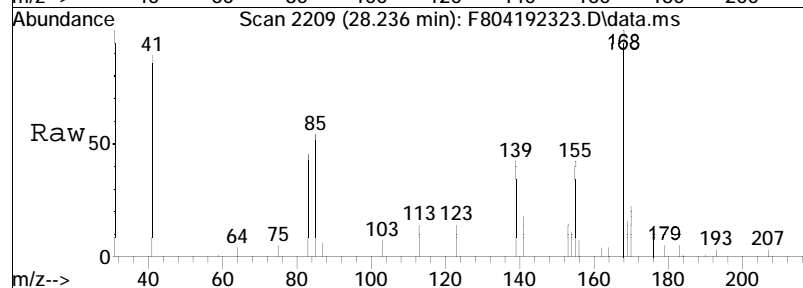
Tgt Ion:156 Resp: 178626

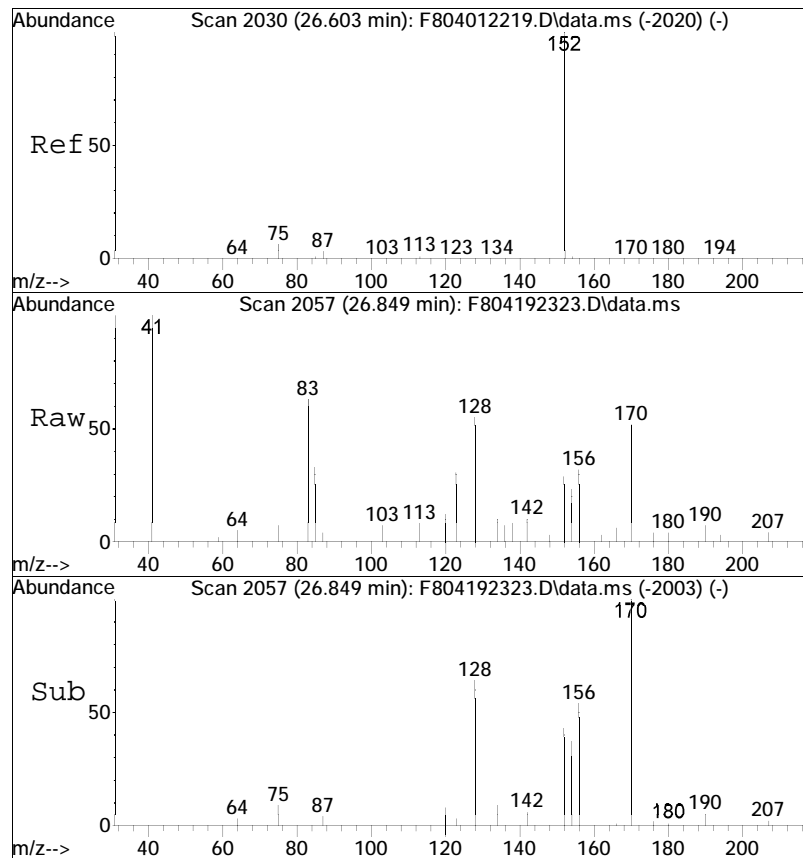




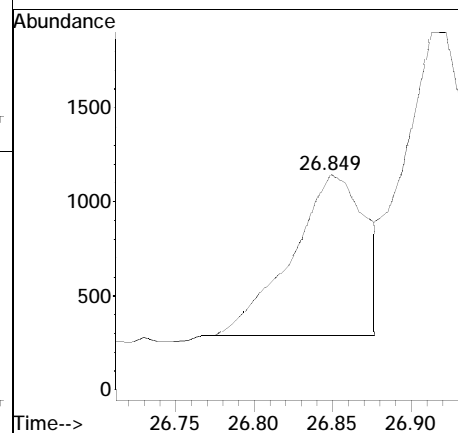
#23
 Dibenzofuran
 Concen: 251.45 ng/mL
 RT: 28.236 min Scan# 2209
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

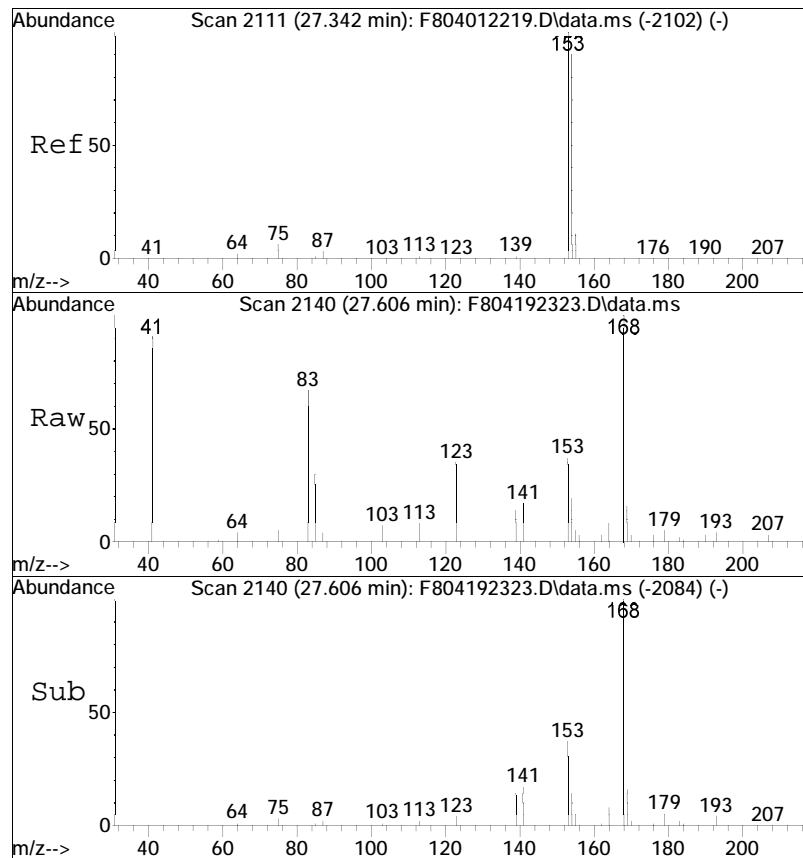
Tgt Ion	Ratio	Lower	Upper
168	100		
139	46.0	25.8	48.0
169	15.4	10.3	19.1





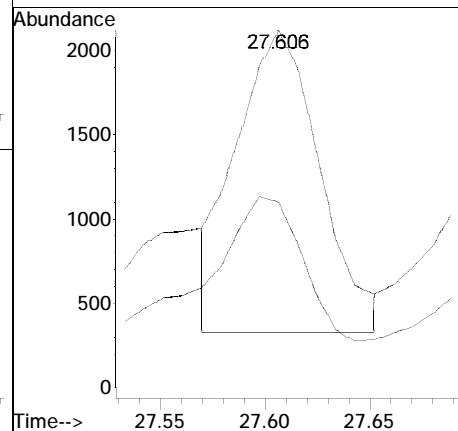
#24
Acenaphthylene
Concen: 27.76 ng/mL
RT: 26.849 min Scan# 2057
Delta R.T. -0.009 min
Lab File: F804192323.D
Acq: 20 Apr 2023 7:15 pm
Tgt Ion:152 Resp: 2872

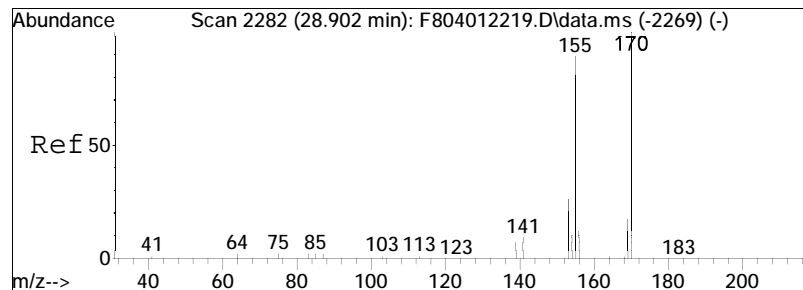




#25
 Acenaphthene
 Concen: 74.54 ng/mL M4
 RT: 27.606 min Scan# 2140
 Delta R.T. 0.009 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

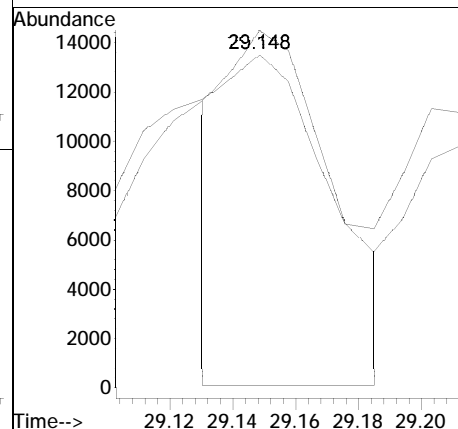
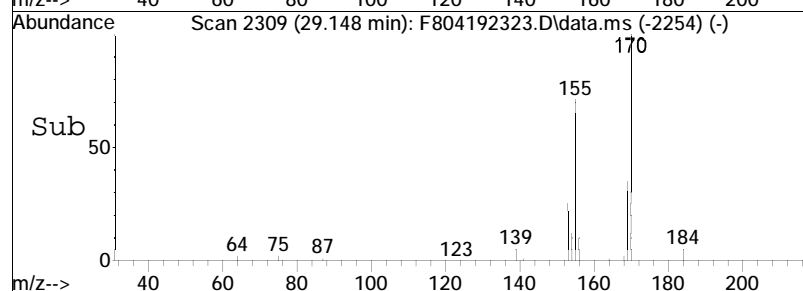
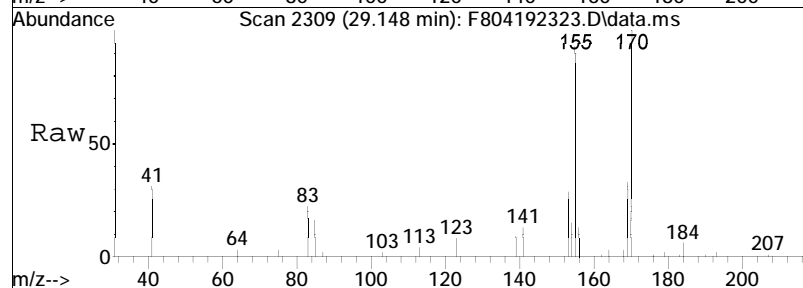
Tgt Ion	Ratio	Lower	Upper
153	100		
154	67.6	65.0	120.8

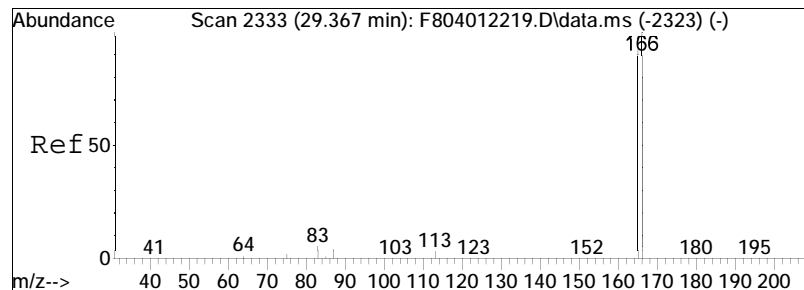




#26
 2,3,5-Trimethylnaphthalene
 Concen: 707.99 ng/mL M3
 RT: 29.148 min Scan# 2309
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

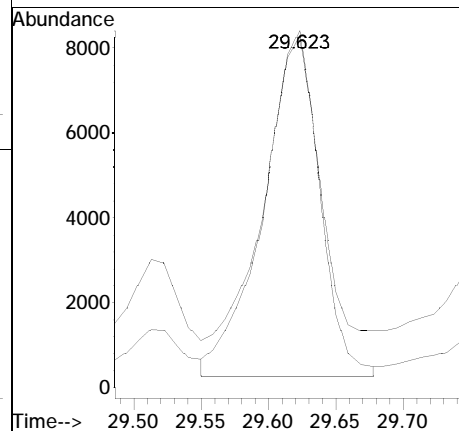
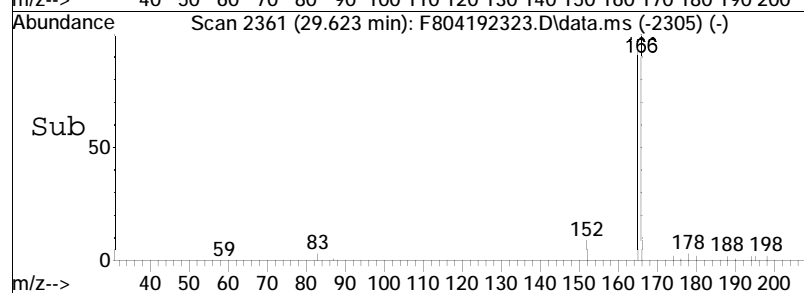
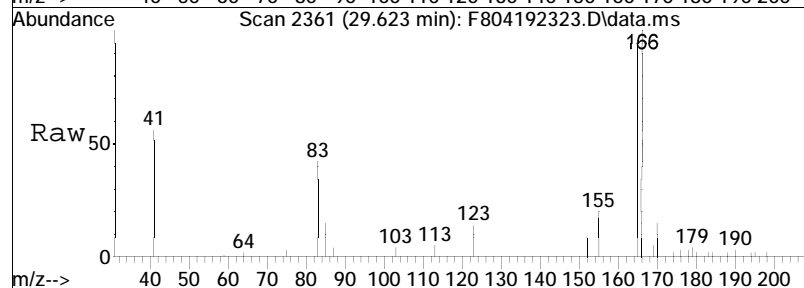
Tgt Ion	Ratio	Lower	Upper
170	100		
155	179.0	65.8	122.2#

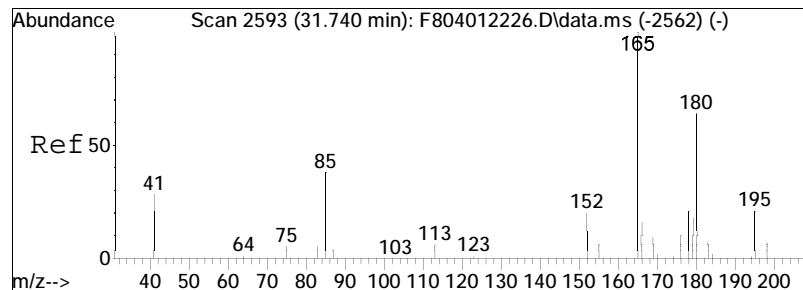




#27
 Fluorene
 Concen: 338.35 ng/mL M4
 RT: 29.623 min Scan# 2361
 Delta R.T. 0.009 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

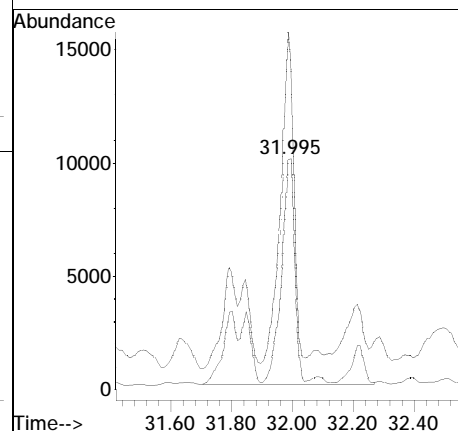
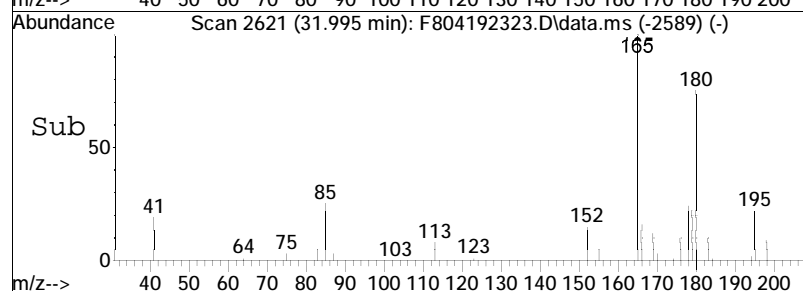
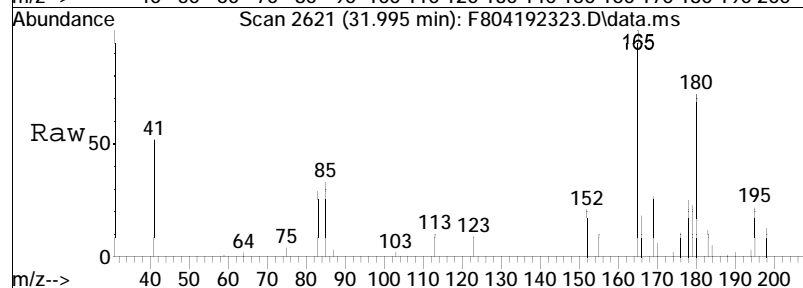
Tgt Ion	Ratio	Lower	Upper
166	100		
165	108.9	66.4	123.2

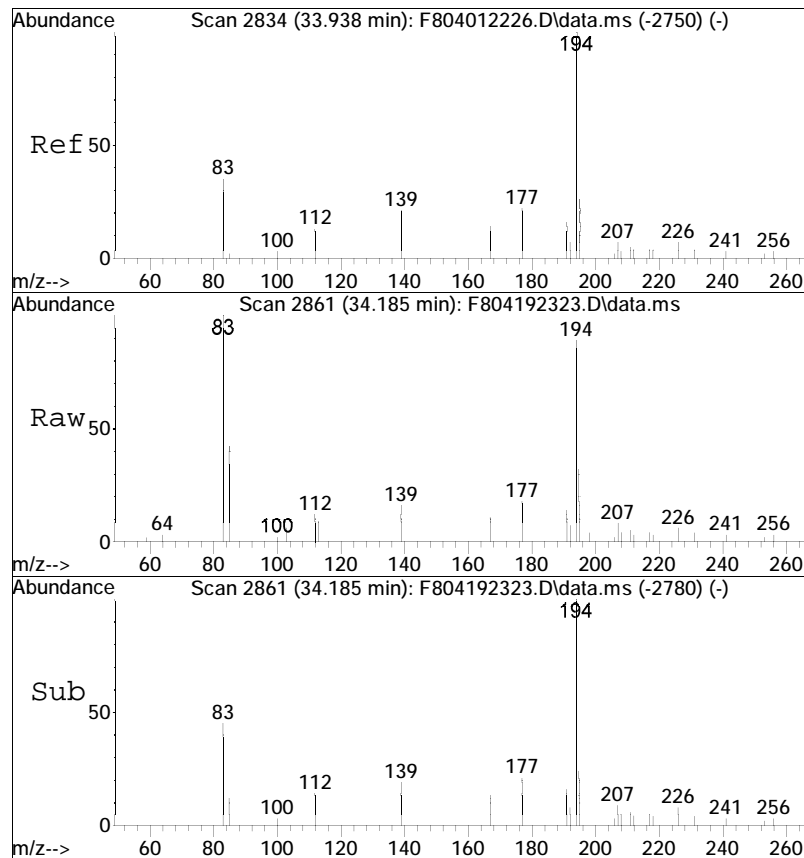




#28
 Cl-Fluorenes
 Concen: 767.97 ng/mL M5
 RT: 31.995 min Scan# 2621
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

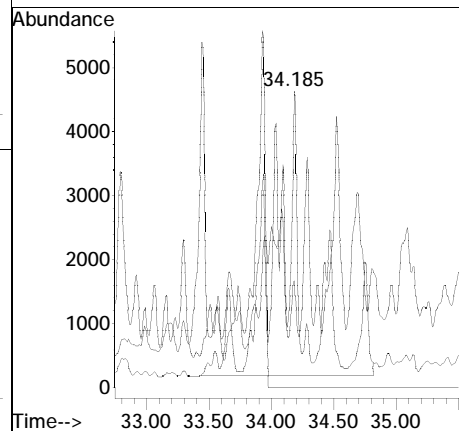
Tgt Ion	Ratio	Lower	Upper
180	100		
165	78.6	97.3	180.7#

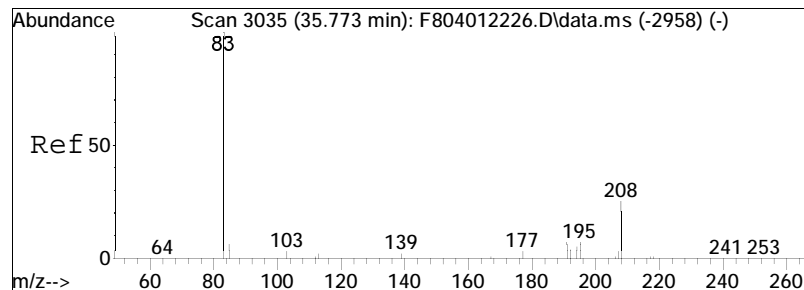




#29
 C2-Fluorenes
 Concen: 1101.93 ng/mL M5
 RT: 34.185 min Scan# 2861
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

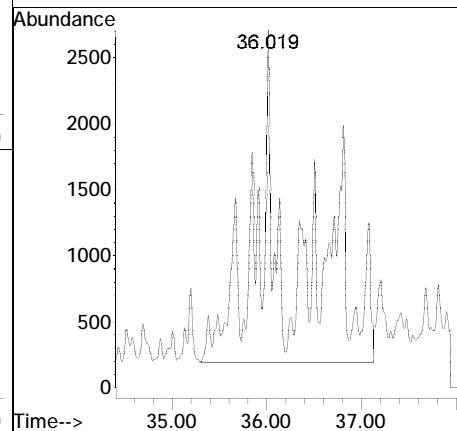
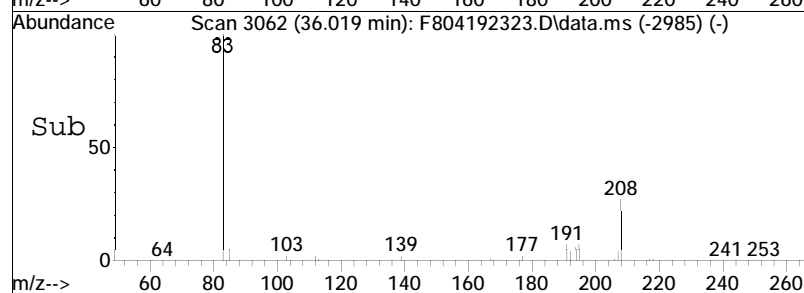
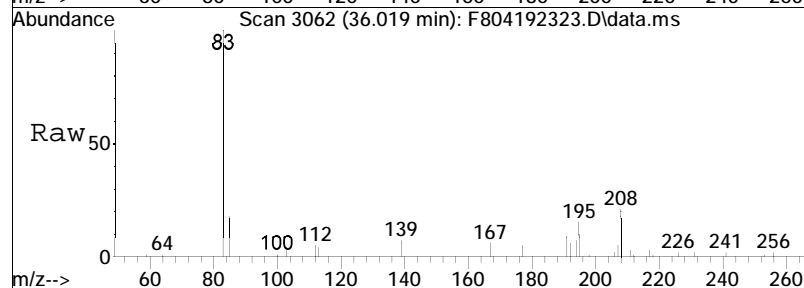
Tgt Ion:	194	Resp:	76747
Ion Ratio	Lower	Upper	
194	100		
179	0.0	0.0	0.0
195	2.7	25.3	46.9#

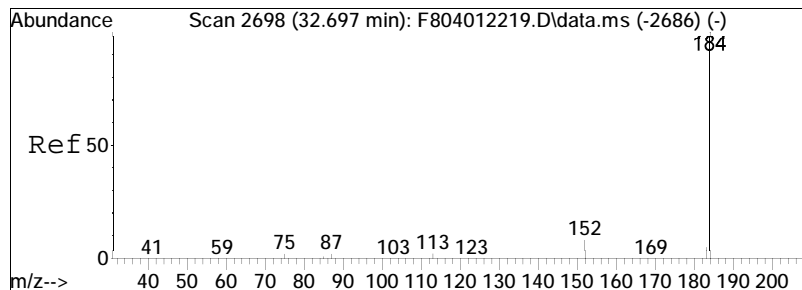




#30
C3-Fluorenes
Concen: 979.69 ng/mL M5
RT: 36.019 min Scan# 3062
Delta R.T. 0.000 min
Lab File: F804192323.D
Acq: 20 Apr 2023 7:15 pm

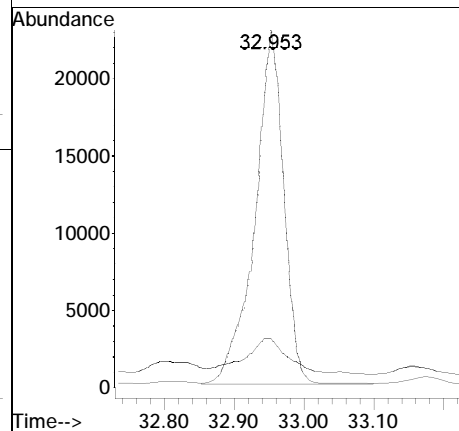
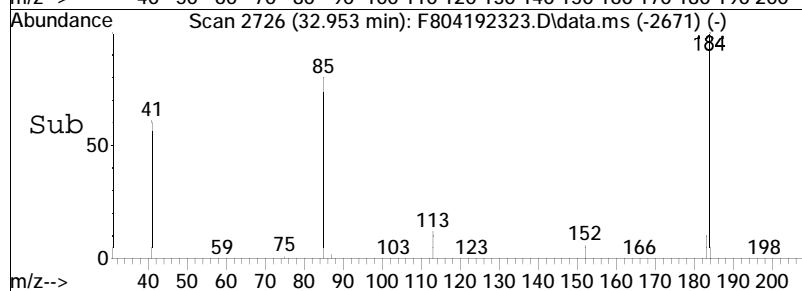
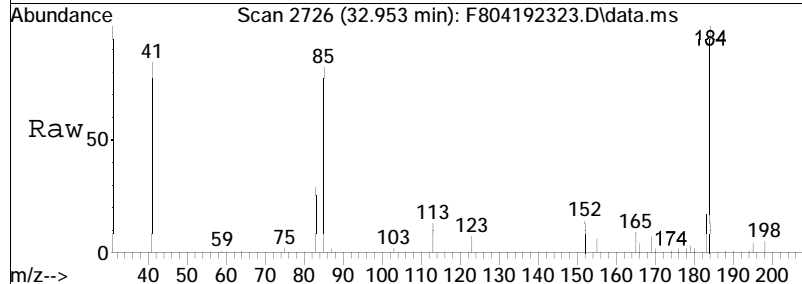
Tgt Ion: 208 Resp: 68233

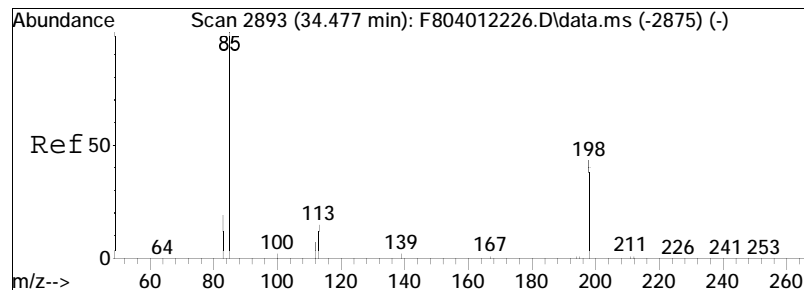




#31
 Dibenzothiophene
 Concen: 657.37 ng/mL
 RT: 32.953 min Scan# 2726
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

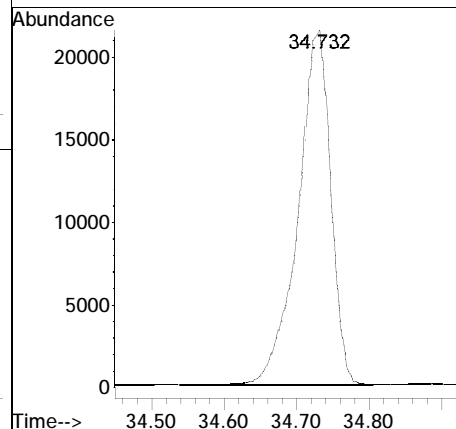
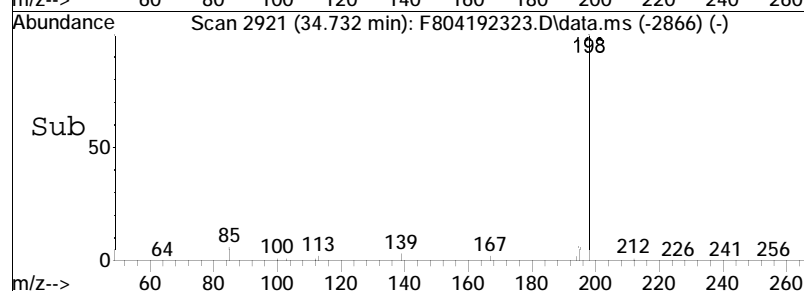
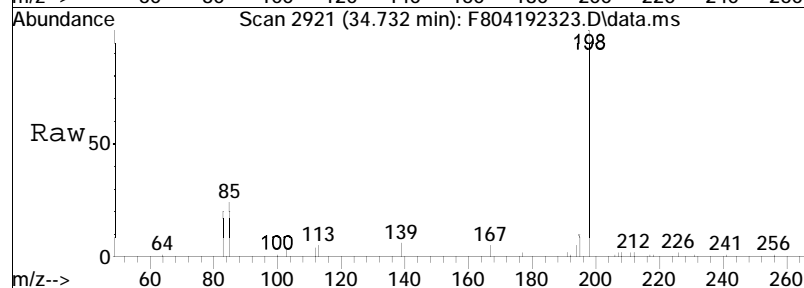
Tgt Ion	Ratio	Lower	Upper
184	100		
152	16.0	6.3	11.7#

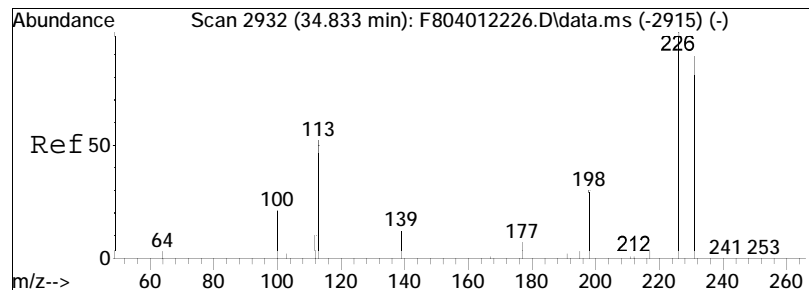




#32
 4-Methyldibenzothiophene (4MDT)
 Concen: 670.54 ng/mL
 RT: 34.732 min Scan# 2921
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

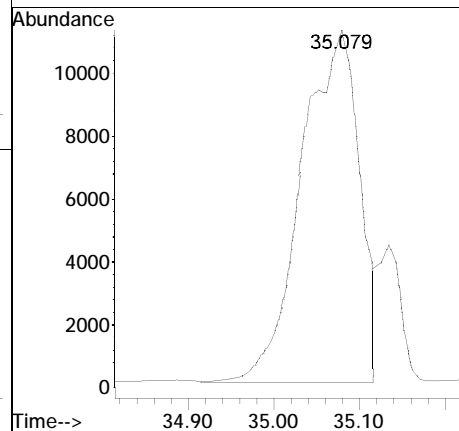
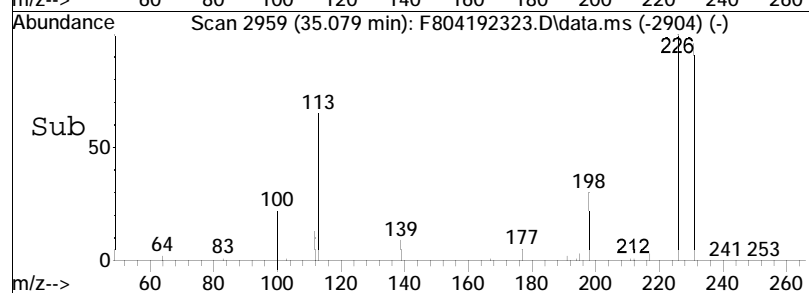
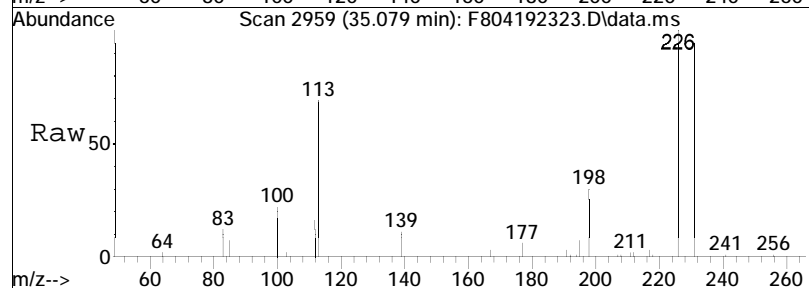
Tgt Ion: 198 Resp: 66387

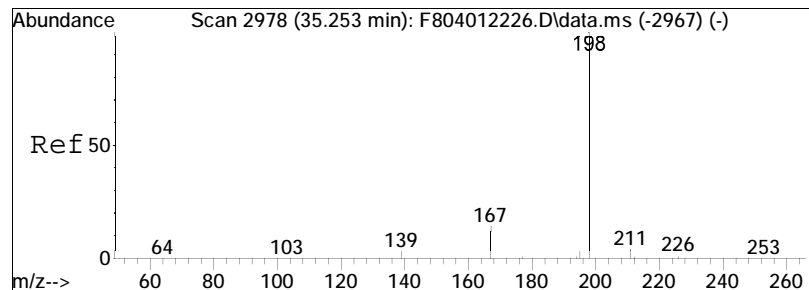




#33
 2/3-Methyldibenzothiophene (2MD)
 Concen: 533.40 ng/mL M3
 RT: 35.079 min Scan# 2959
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

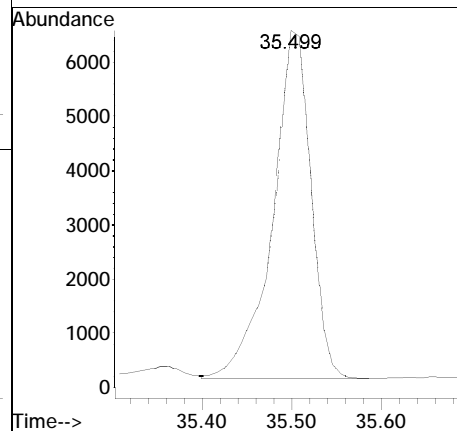
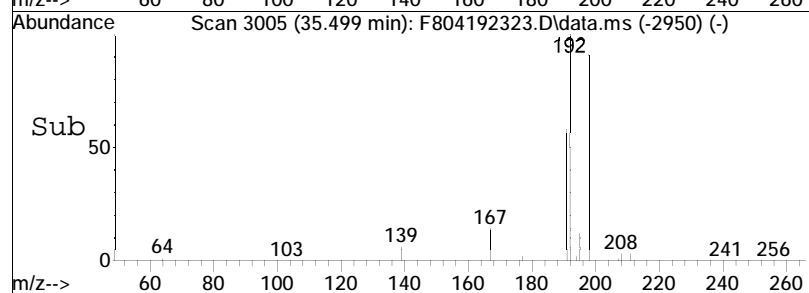
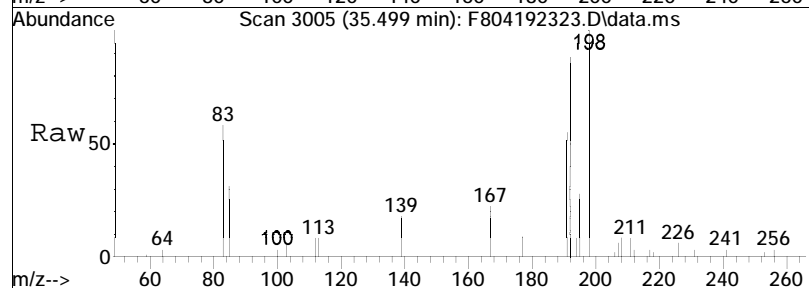
Tgt Ion:198 Resp: 52809

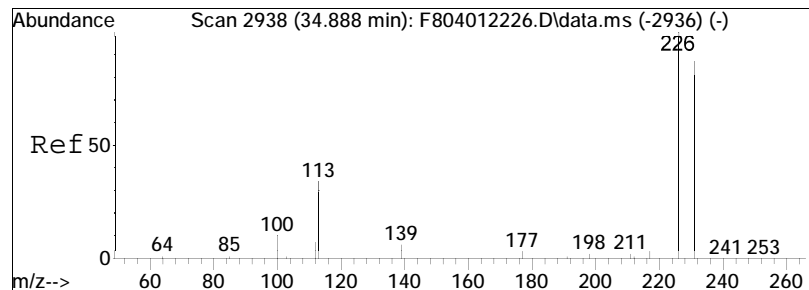




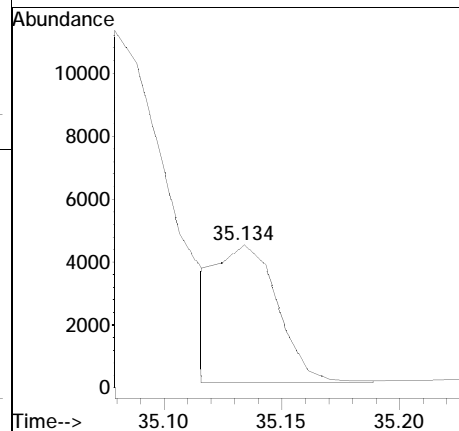
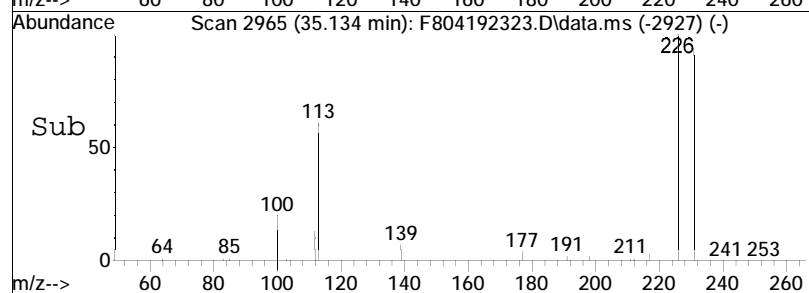
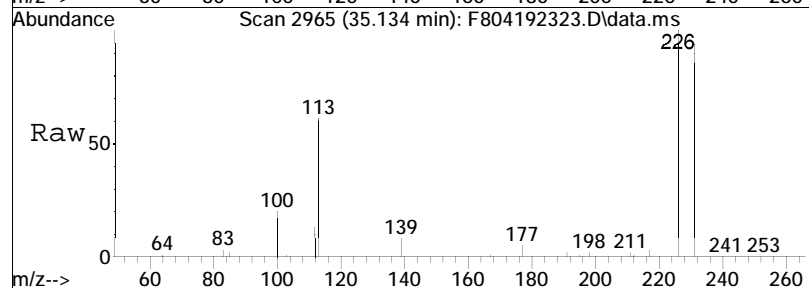
#34
 1-Methyldibenzothiophene(1MDT)
 Concen: 190.78 ng/mL
 RT: 35.499 min Scan# 3005
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

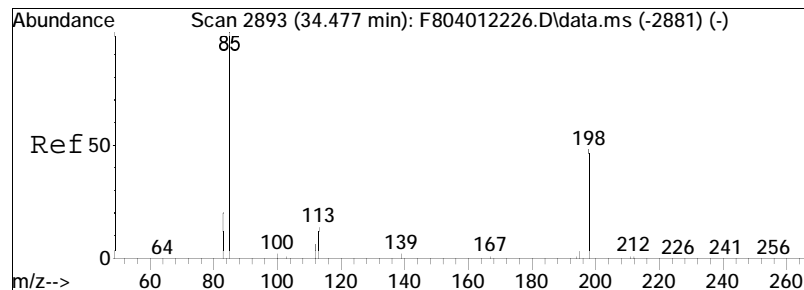
Tgt Ion:198 Resp: 18888





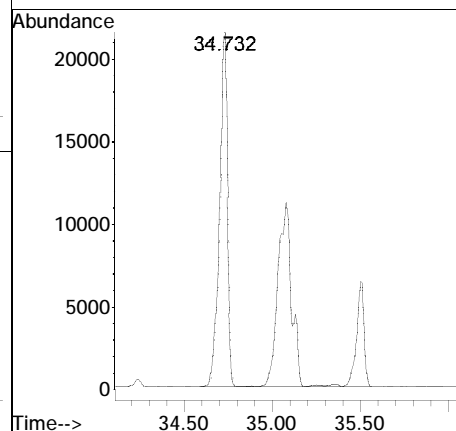
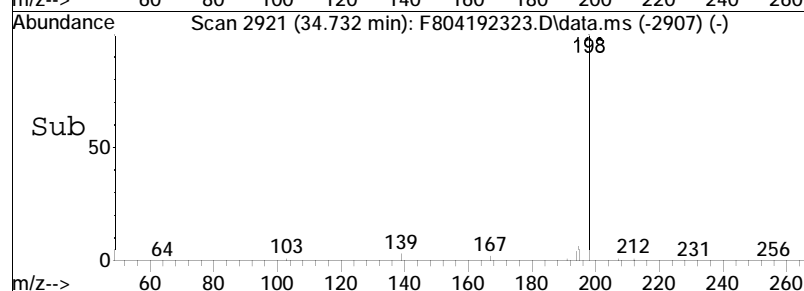
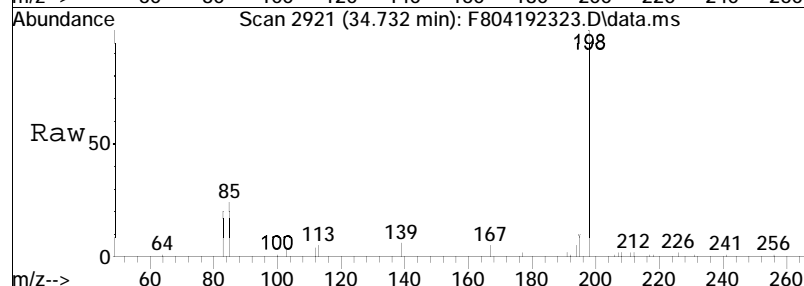
#35
 OTP
 Concen: 78.39 ng/mL M3
 RT: 35.134 min Scan# 2965
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm
 Tgt Ion:198 Resp: 7761

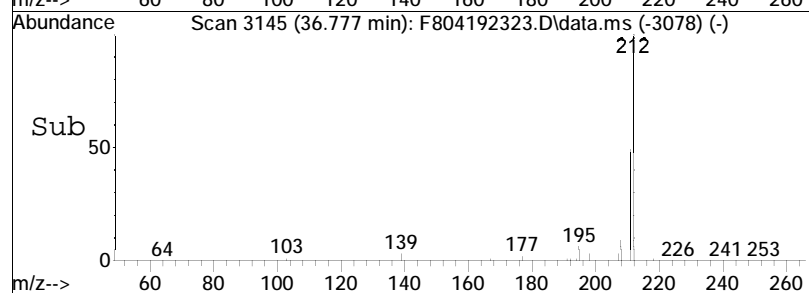
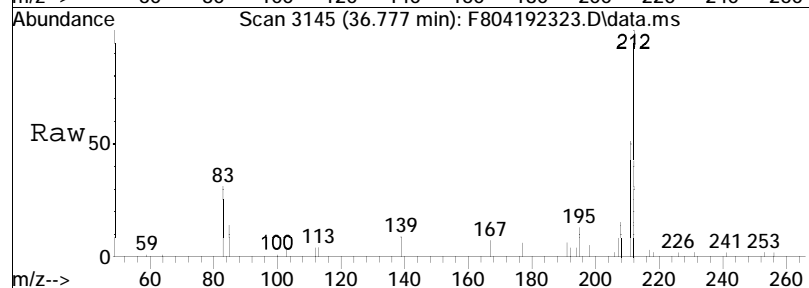
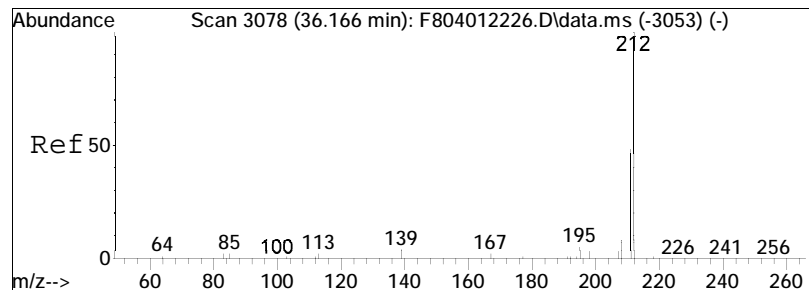




#36
Cl-Dibenzothiophenes
Concen: 1486.80 ng/mL M5
RT: 34.732 min Scan# 2921
Delta R.T. 0.000 min
Lab File: F804192323.D
Acq: 20 Apr 2023 7:15 pm

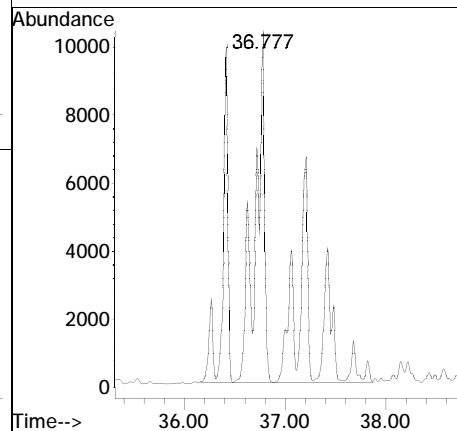
Tgt Ion:198 Resp: 147201

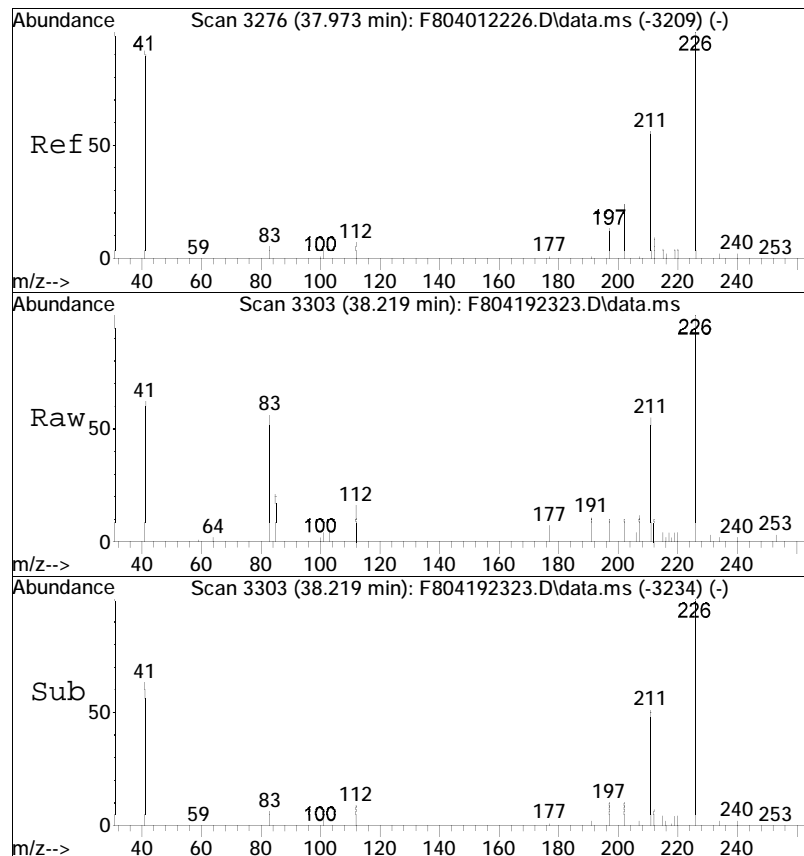




#37
 C2-Dibenzothiophenes
 Concen: 1682.01 ng/mL M5
 RT: 36.777 min Scan# 3145
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

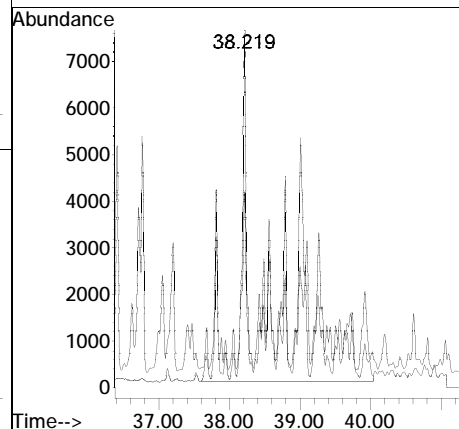
Tgt Ion: 212 Resp: 166527

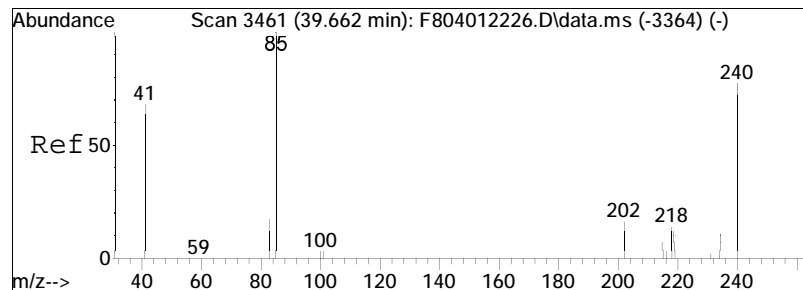




#38
 C3-Dibenzothiophenes
 Concen: 1542.14 ng/mL M5
 RT: 38.219 min Scan# 3303
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

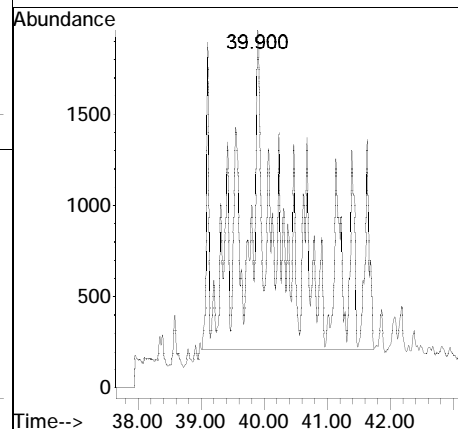
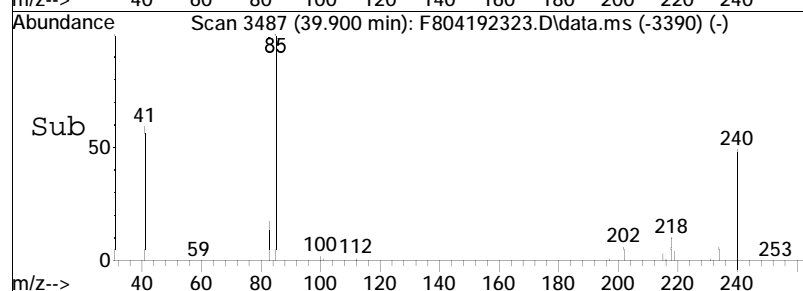
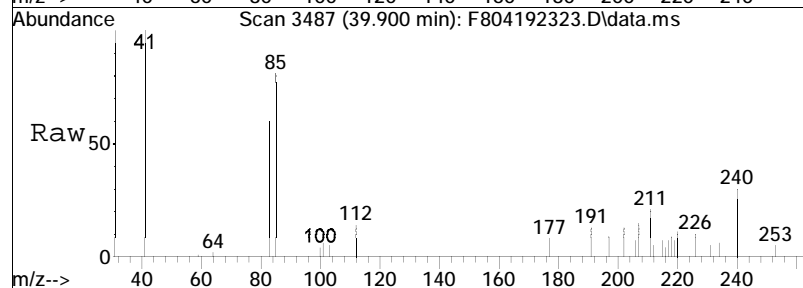
Tgt	Ion	Resp	Lower	Upper
226	100			
211	11.5	38.5	71.5#	

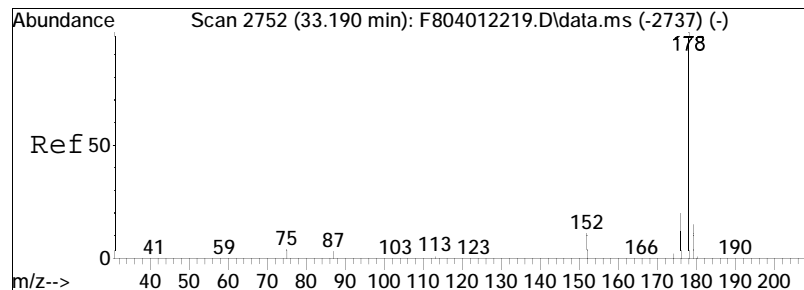




#39
 C4-Dibenzothiophenes
 Concen: 824.03 ng/mL M5
 RT: 39.900 min Scan# 3487
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

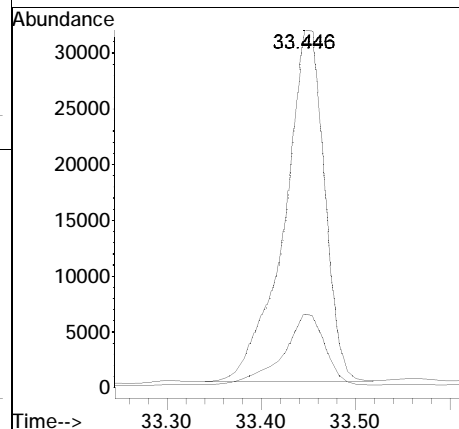
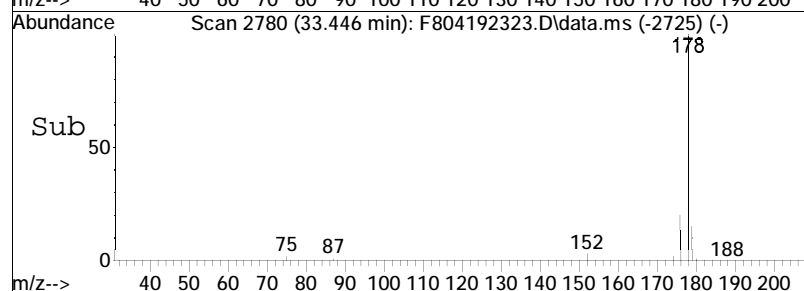
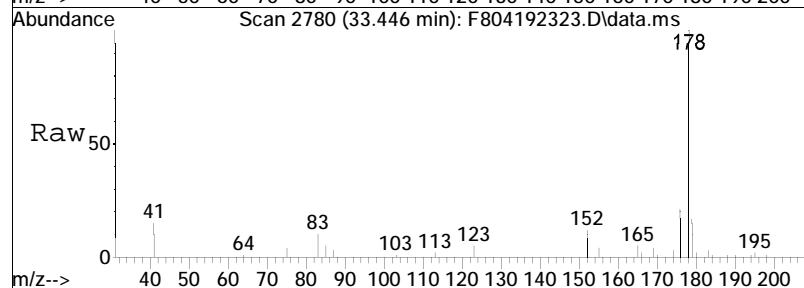
Tgt Ion: 240 Resp: 81583

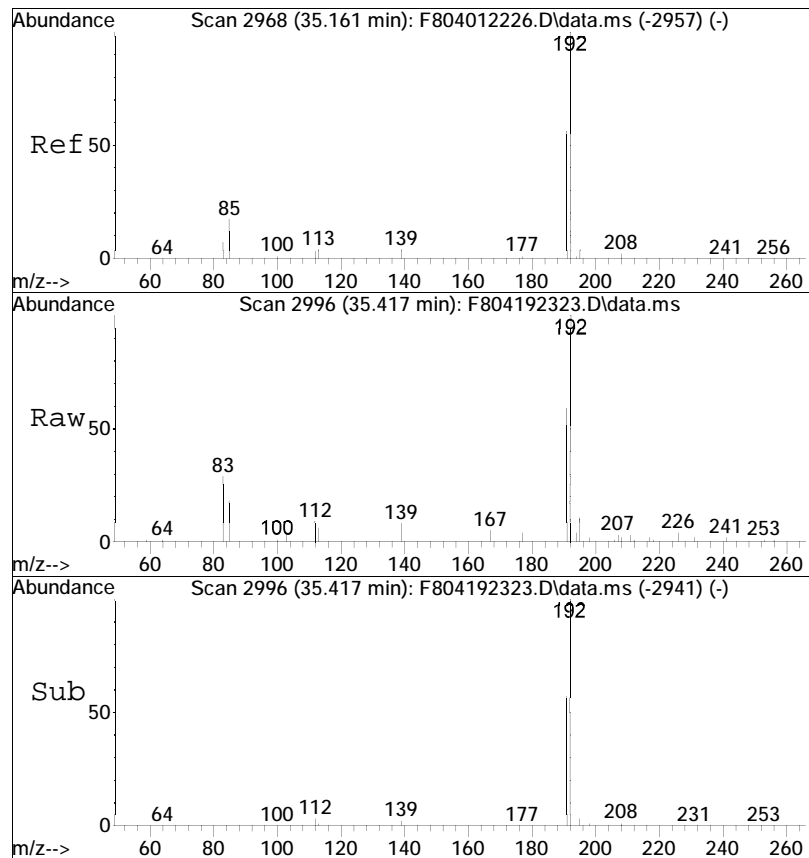




#41
 Phenanthrene
 Concen: 967.63 ng/mL
 RT: 33.446 min Scan# 2780
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

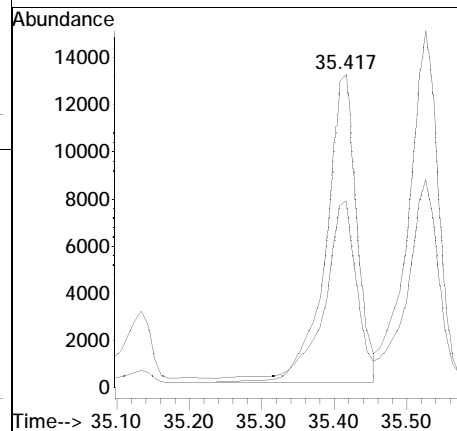
Tgt Ion	Ratio	Lower	Upper
178	100		
176	21.1	14.8	27.4

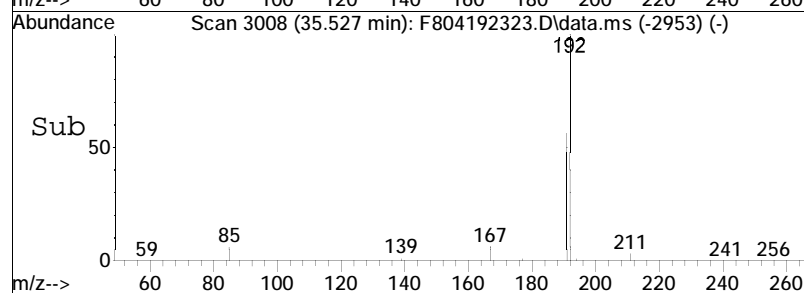
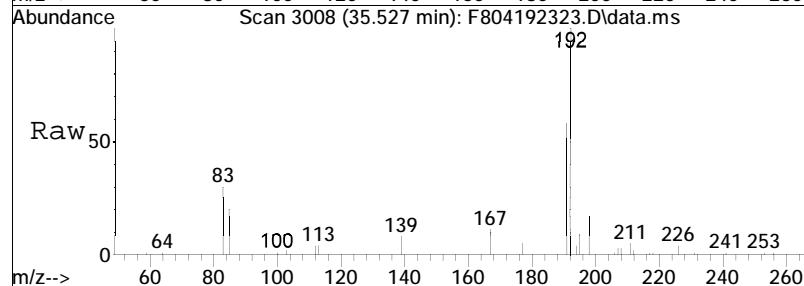
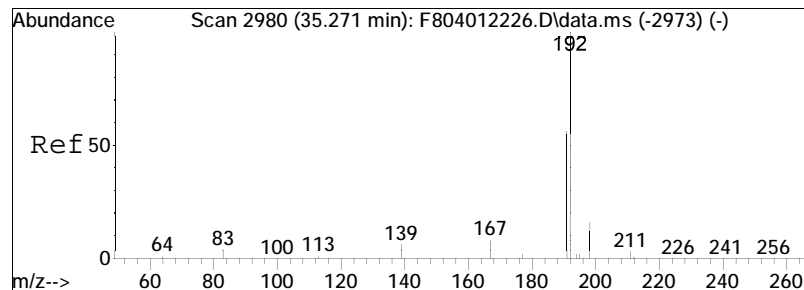




#42
 3-Methylphenanthrene (3MP)
 Concen: 398.60 ng/mL
 RT: 35.417 min Scan# 2996
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

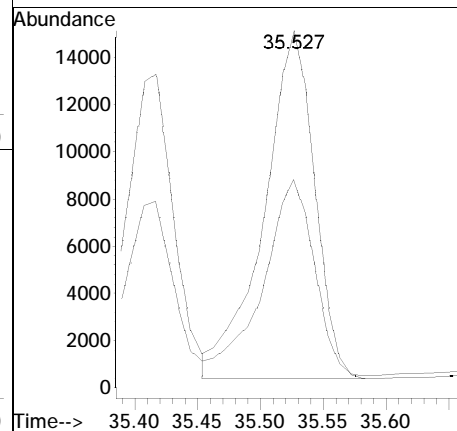
Tgt Ion	Ratio	Lower	Upper
192	100		
191	57.1	41.6	77.2

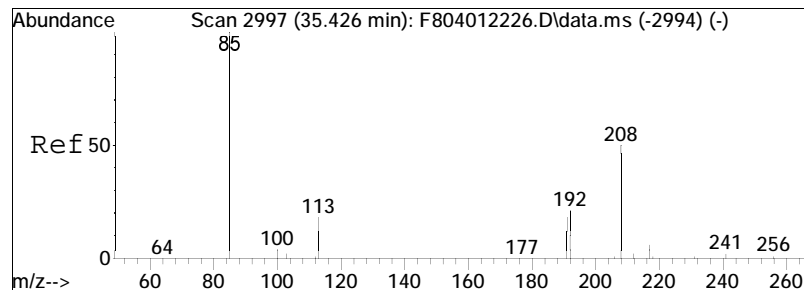




#43
 2-Methylphenanthrene (2MP)
 Concen: 430.96 ng/mL
 RT: 35.527 min Scan# 3008
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

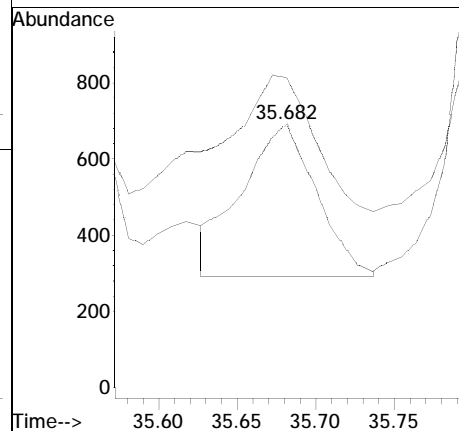
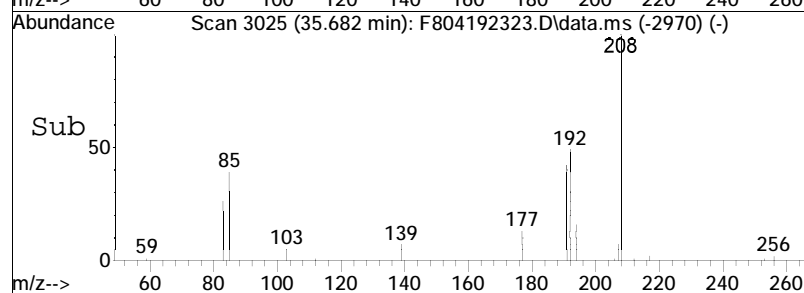
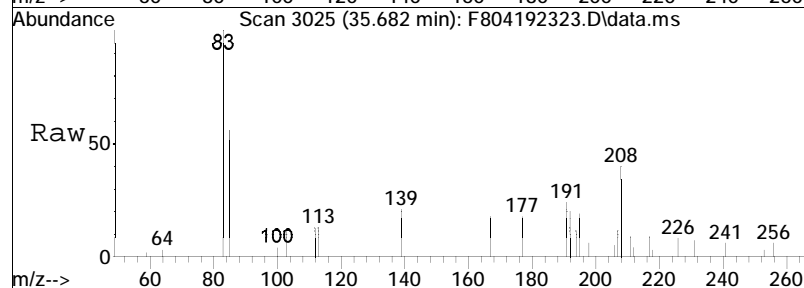
Tgt Ion	Ratio	Lower	Upper
192	100		
191	56.4	40.8	75.8

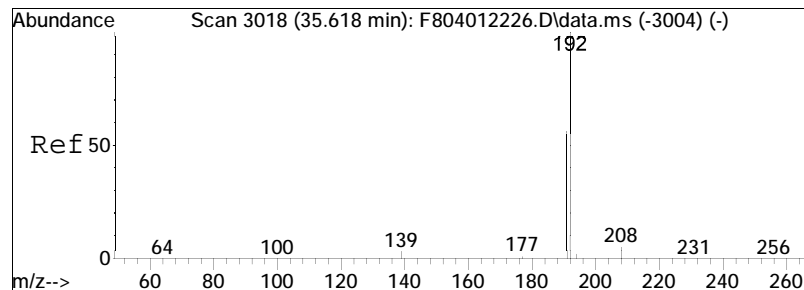




#44
 2-Methylantracene (2MA)
 Concen: 13.74 ng/mL M3
 RT: 35.682 min Scan# 3025
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

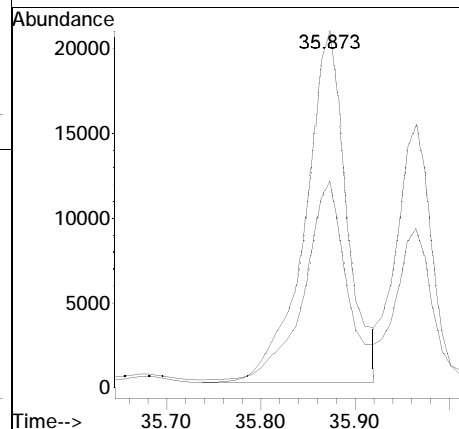
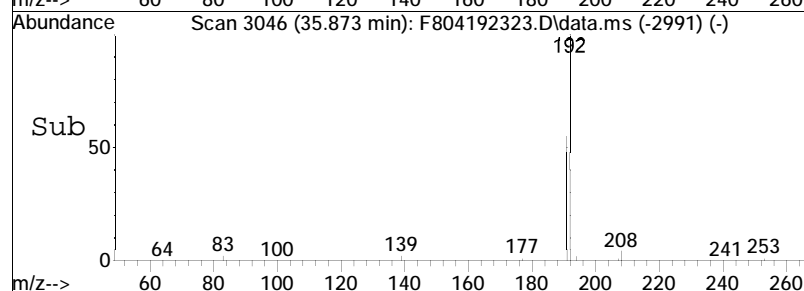
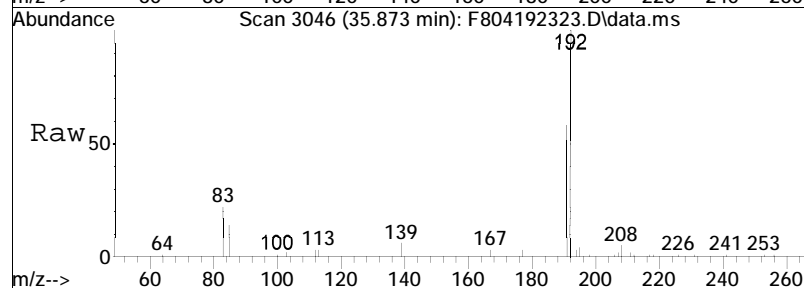
Tgt Ion	Ratio	Lower	Upper
192	100		
191	115.5	81.9	152.1

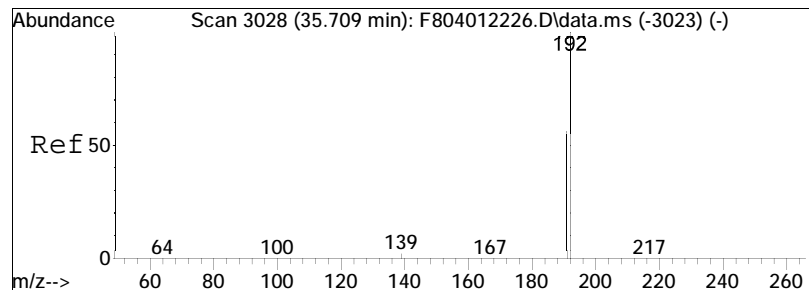




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 665.02 ng/mL
 RT: 35.873 min Scan# 3046
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

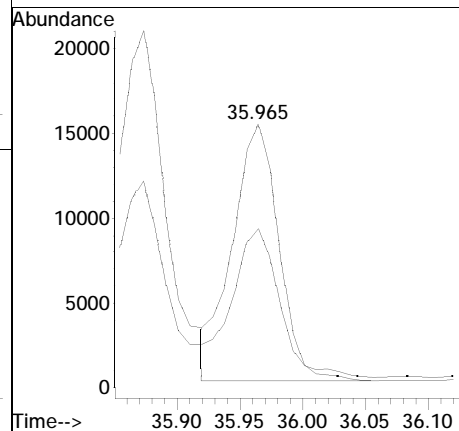
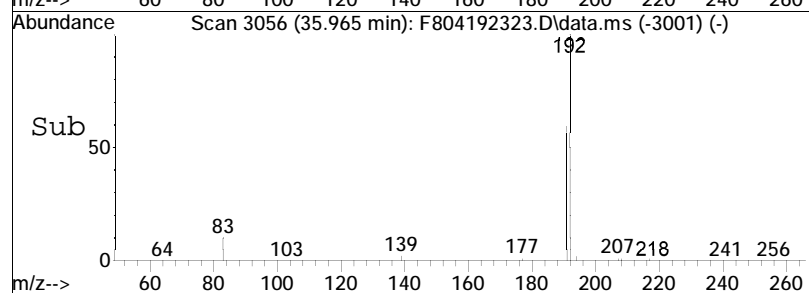
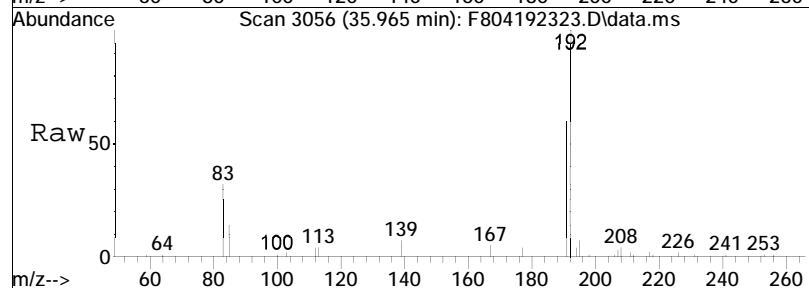
Tgt Ion	Ratio	Lower	Upper
192	100		
191	57.4	40.5	75.1

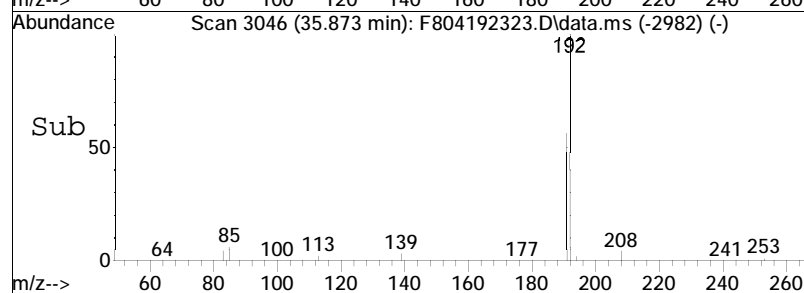
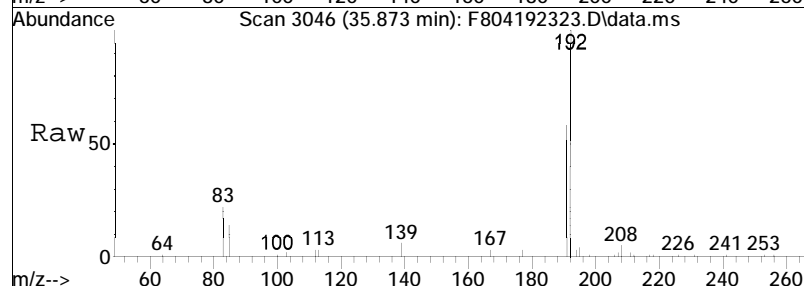
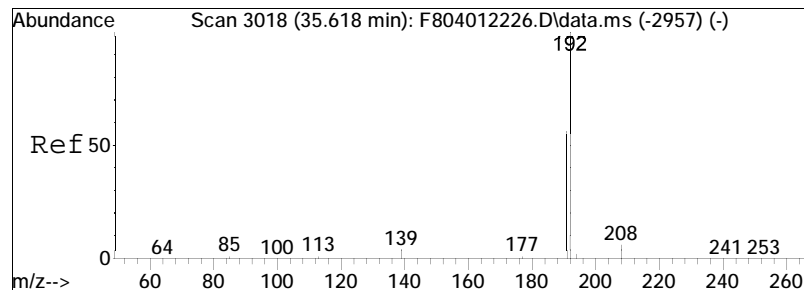




#46
 1-Methylphenanthrene (1MP)
 Concen: 406.10 ng/mL
 RT: 35.965 min Scan# 3056
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

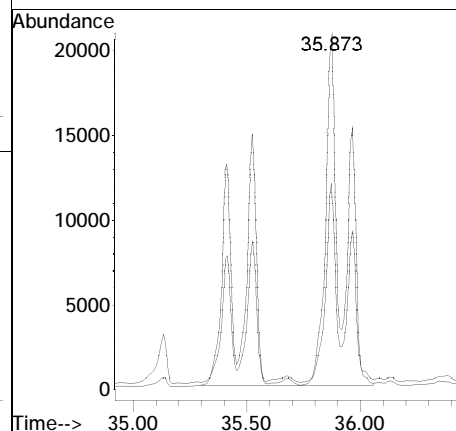
Tgt Ion	Ratio	Lower	Upper
192	100		
191	61.4	42.4	78.6

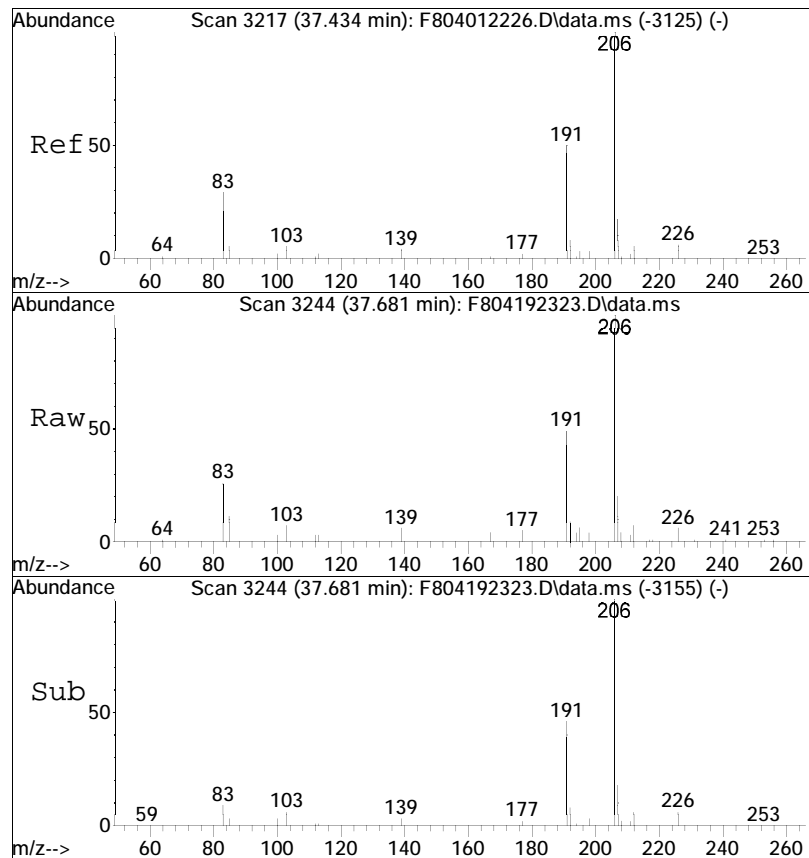




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 1922.01 ng/mL M5
 RT: 35.873 min Scan# 3046
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

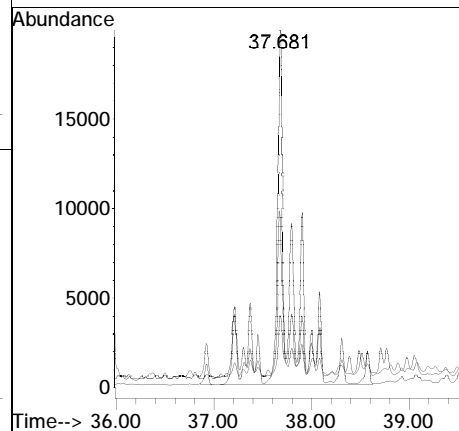
Tgt Ion	Ratio	Lower	Upper
192	100		
191	19.8	40.5	75.1#

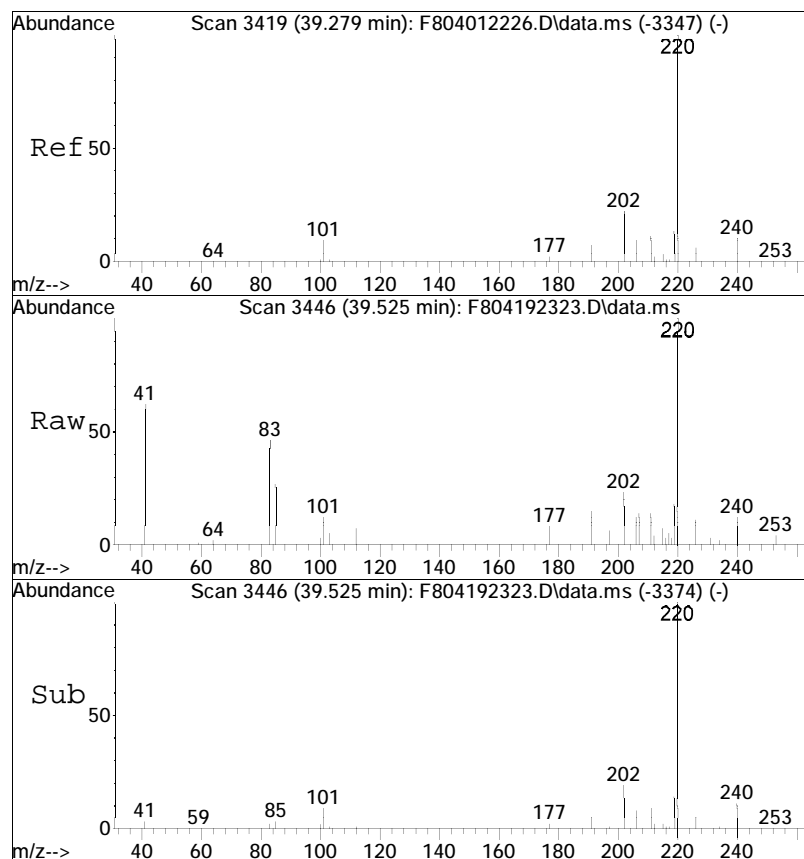




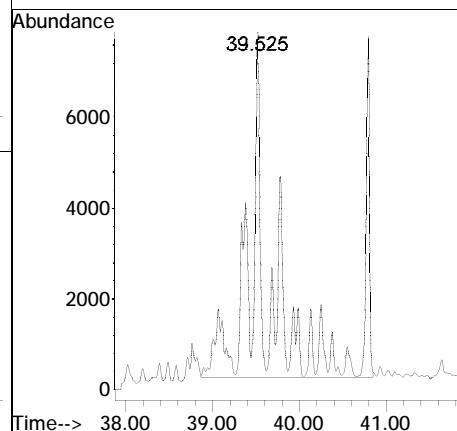
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 2046.99 ng/mL M5
 RT: 37.681 min Scan# 3244
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

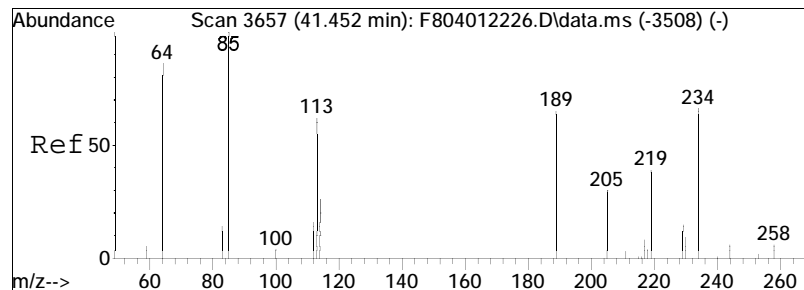
Tgt	Ion:206	Resp:	196782
Ion	Ratio	Lower	Upper
206	100		
191	15.6	34.6	64.2#
207	6.4	14.3	26.5#





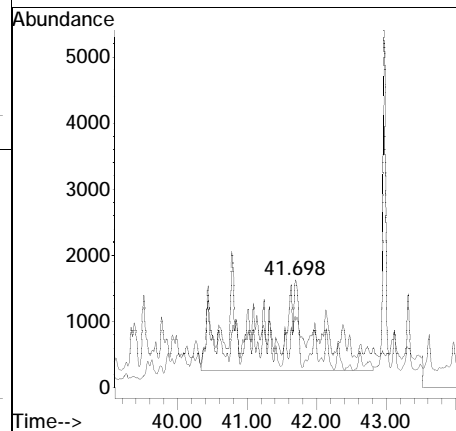
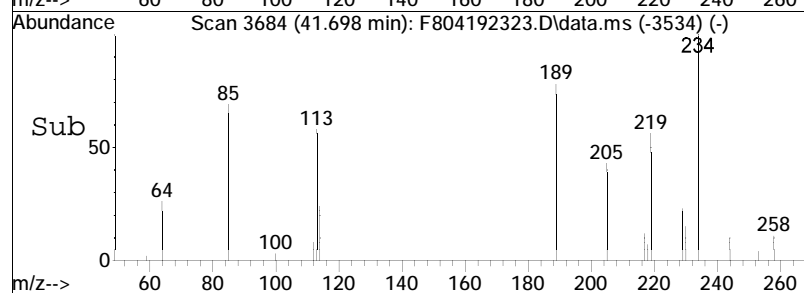
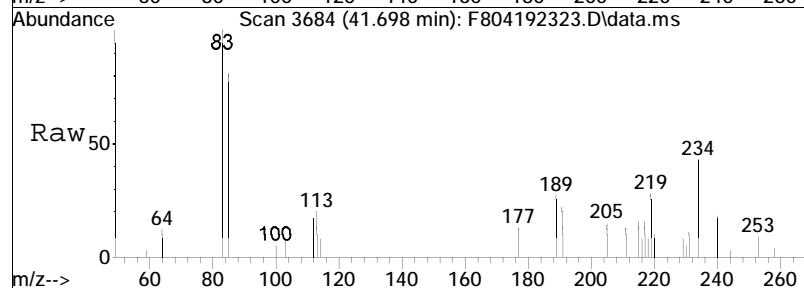
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 1321.09 ng/mL M5
 RT: 39.525 min Scan# 3446
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm
 Tgt Ion:220 Resp: 127000

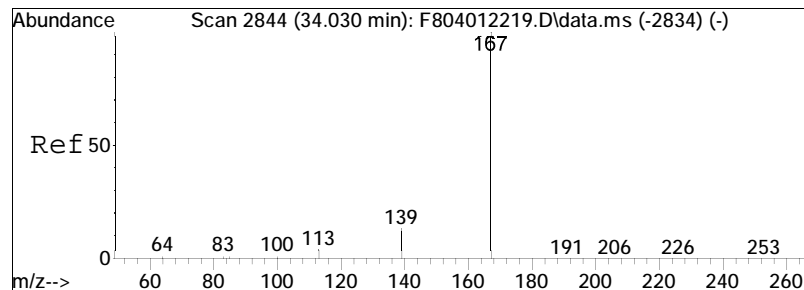




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 507.84 ng/mL M5
 RT: 41.698 min Scan# 3684
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

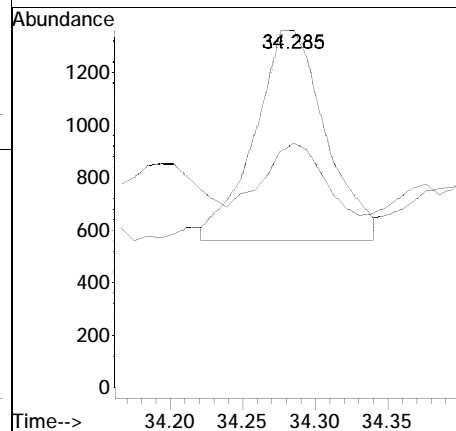
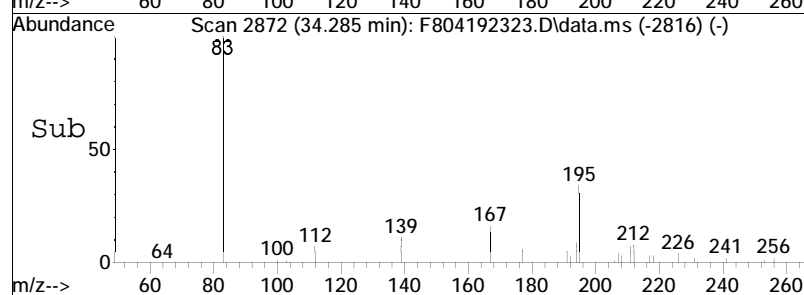
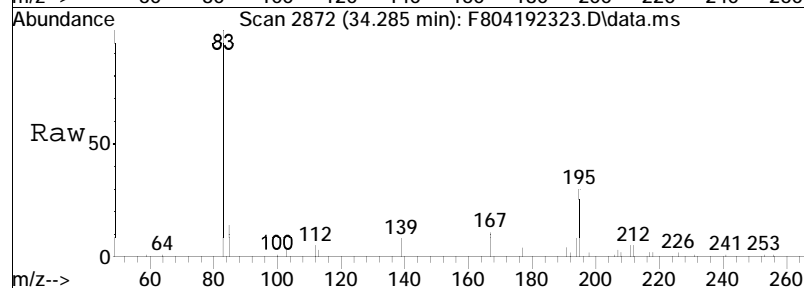
Tgt Ion: 234 Resp: 48820
 Ion Ratio Lower Upper
 234 100
 219 2.8 46.2 85.8#

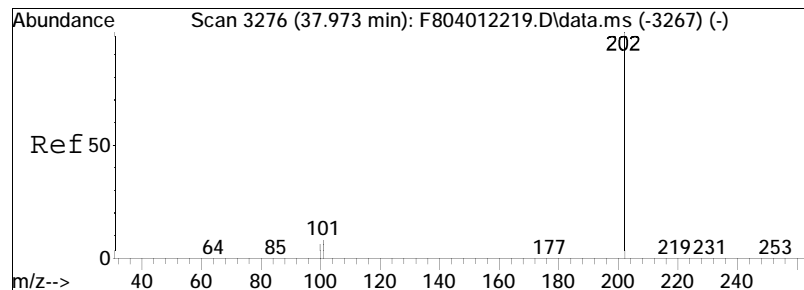




#54
 Carbazole
 Concen: 26.77 ng/mL M4
 RT: 34.285 min Scan# 2872
 Delta R.T. 0.009 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

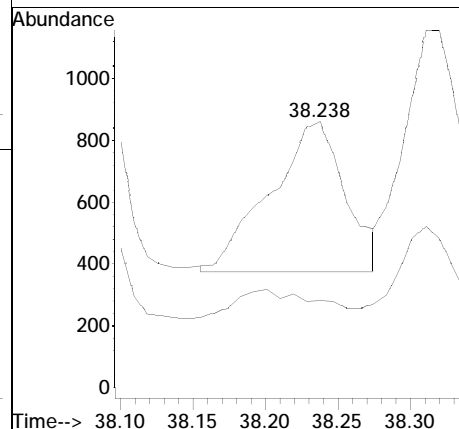
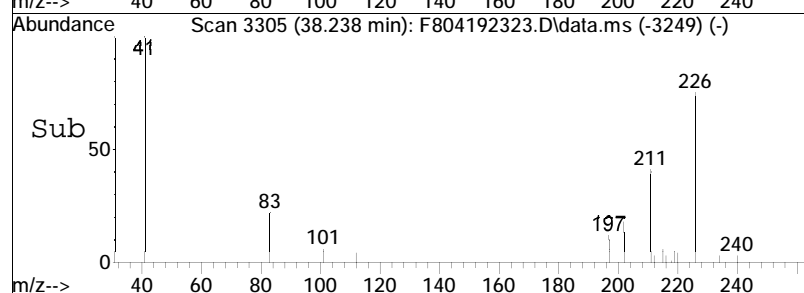
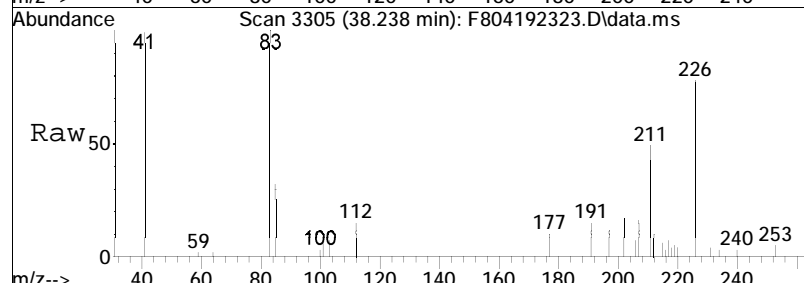
Tgt Ion	Ratio	Lower	Upper
167	100		
139	0.0	10.9	20.2#

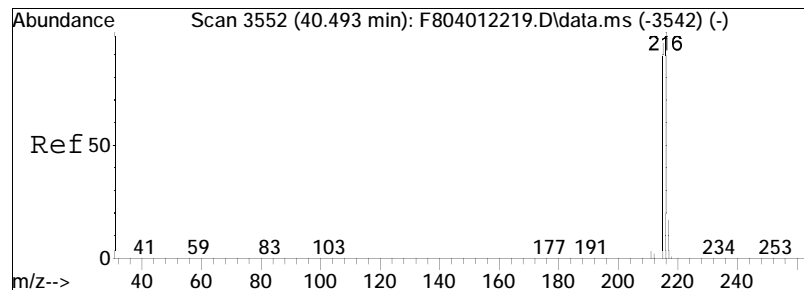




#56
 Fluoranthene
 Concen: 18.22 ng/mL M4
 RT: 38.238 min Scan# 3305
 Delta R.T. 0.009 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

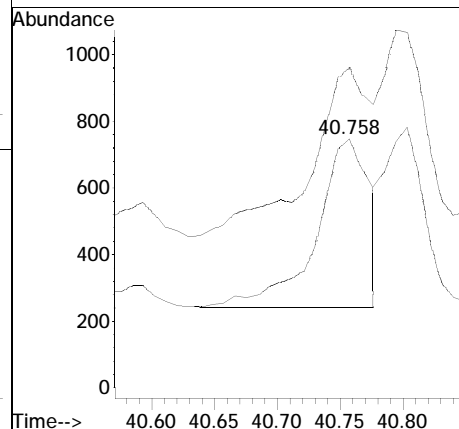
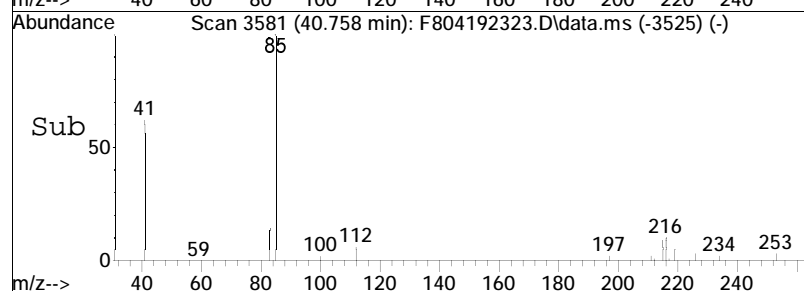
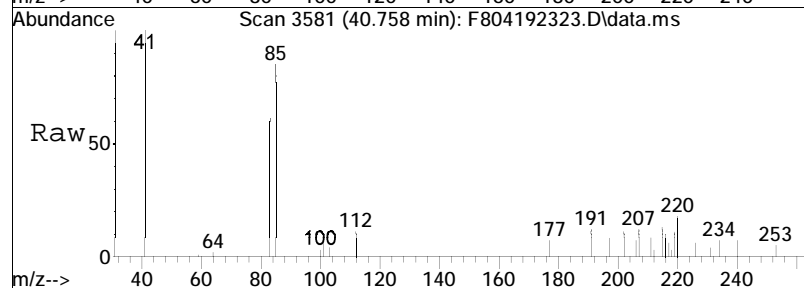
Tgt Ion	Ratio	Lower	Upper
202	100		
101	0.0	9.4	17.6#

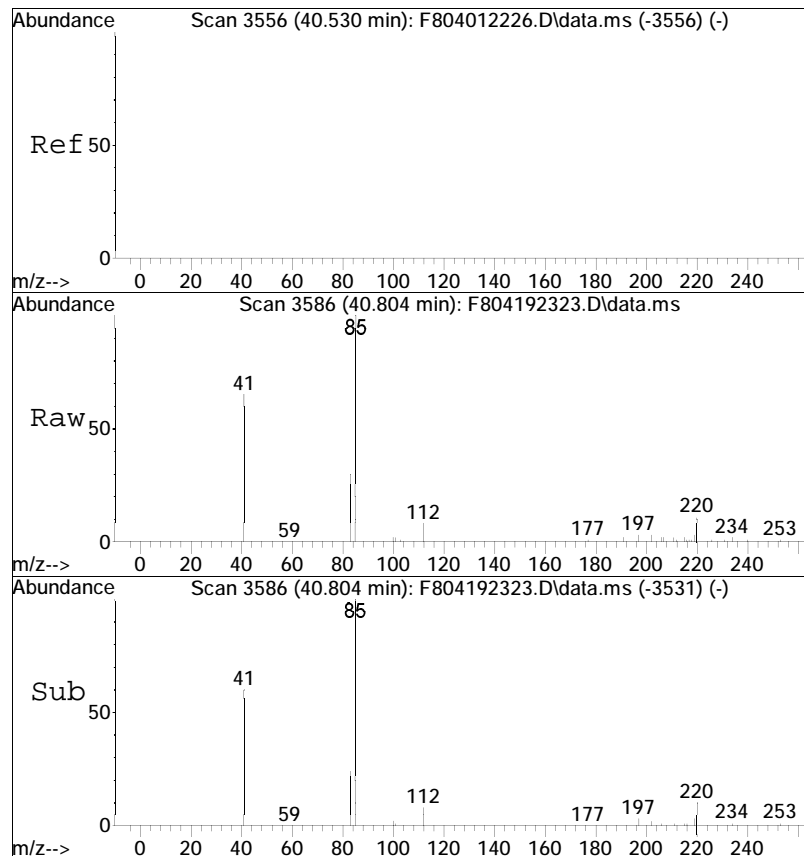




#57
 Benzo(b)fluorene
 Concen: 28.81 ng/mL
 RT: 40.758 min Scan# 3581
 Delta R.T. 0.009 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

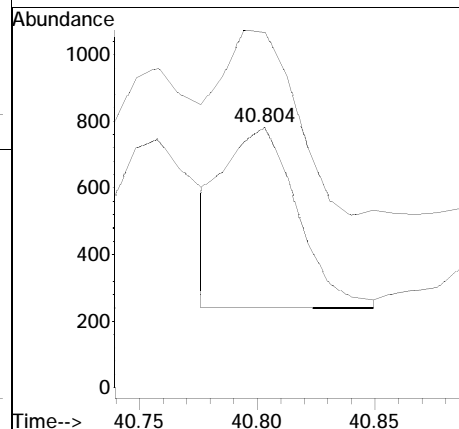
Tgt Ion	Ratio	Lower	Upper
216	100		
215	113.3	66.8	124.2

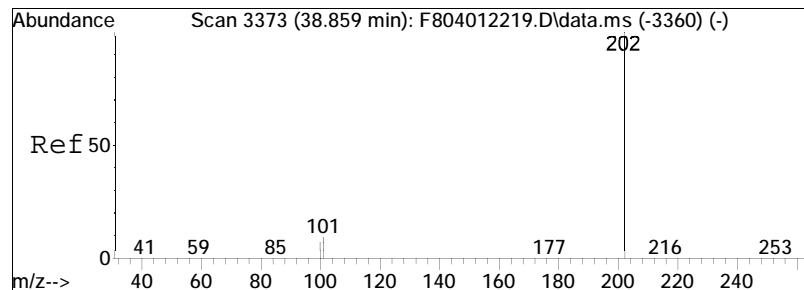




#58
 7H-Benzo(c)fluorene
 Concen: 22.77 ng/mL
 RT: 40.804 min Scan# 3586
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

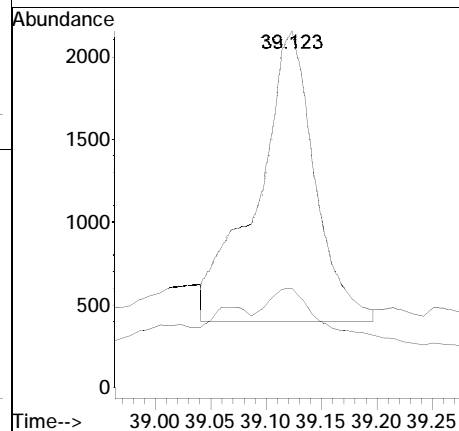
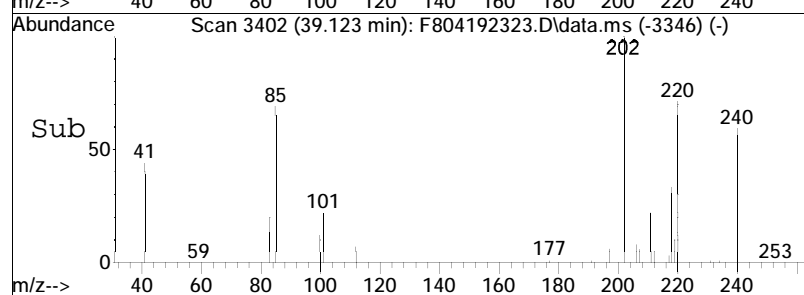
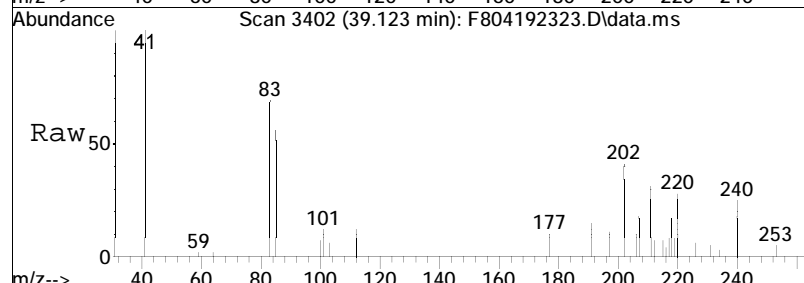
Tgt Ion:216 Resp: 1184
 Ion Ratio Lower Upper
 216 100
 215 100.6 95.3 177.1

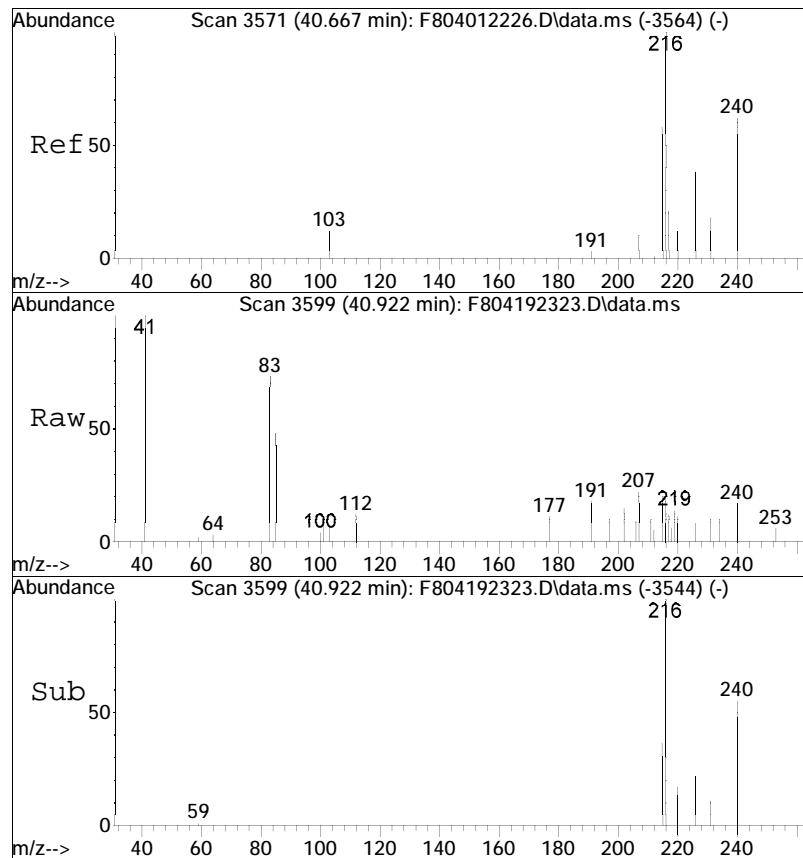




#59
 Pyrene
 Concen: 64.97 ng/mL M4
 RT: 39.123 min Scan# 3402
 Delta R.T. 0.009 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

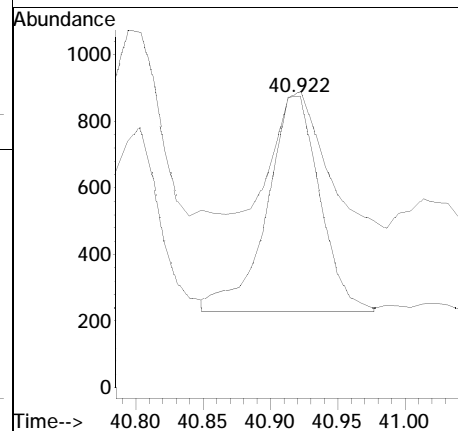
Tgt Ion	Ratio	Lower	Upper
202	100		
101	20.4	11.5	21.3

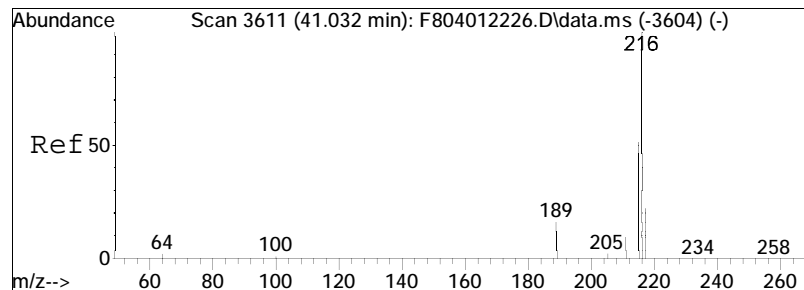




#60
 2-Methylpyrene
 Concen: 18.20 ng/mL M3
 RT: 40.922 min Scan# 3599
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

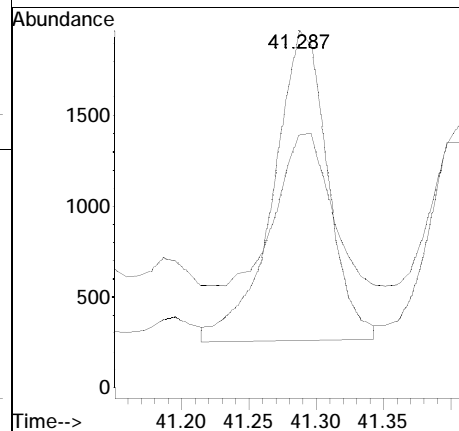
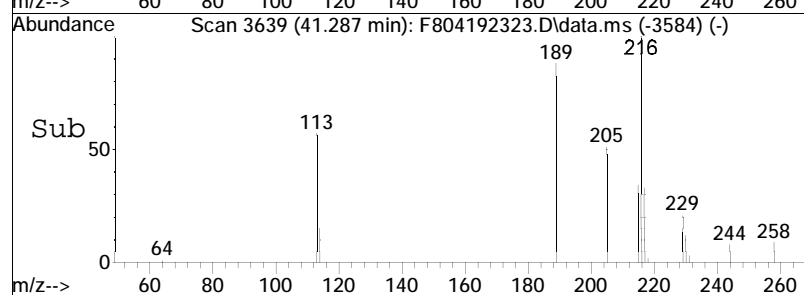
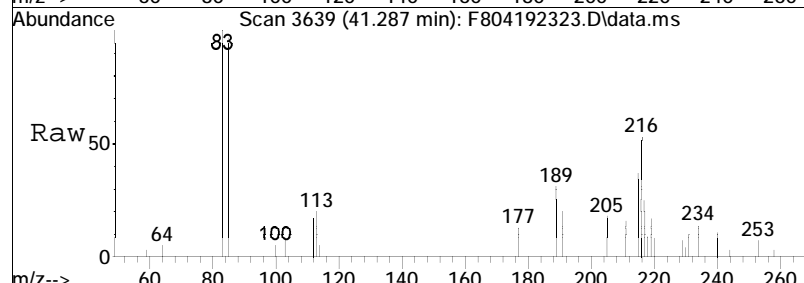
Tgt Ion	Ratio	Lower	Upper
216	100		
215	67.3	71.5	132.7#

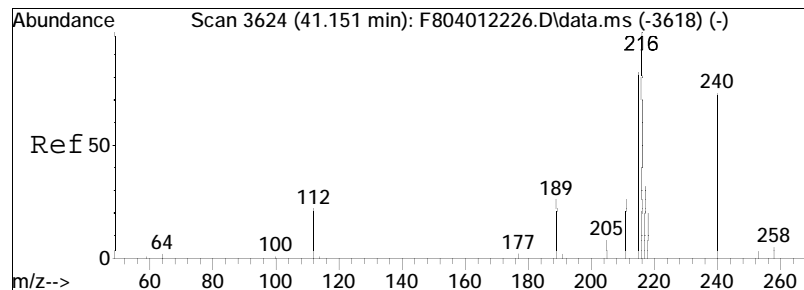




#61
 4-Methylpyrene
 Concen: 50.07 ng/mL
 RT: 41.287 min Scan# 3639
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

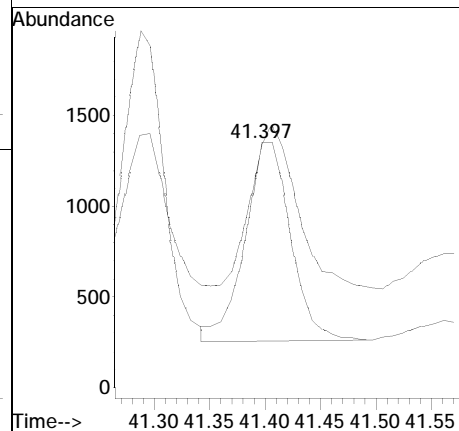
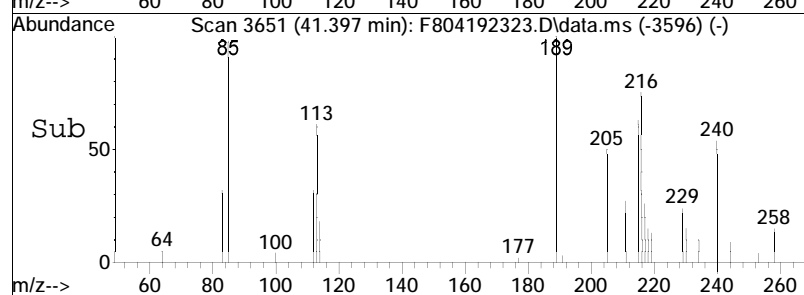
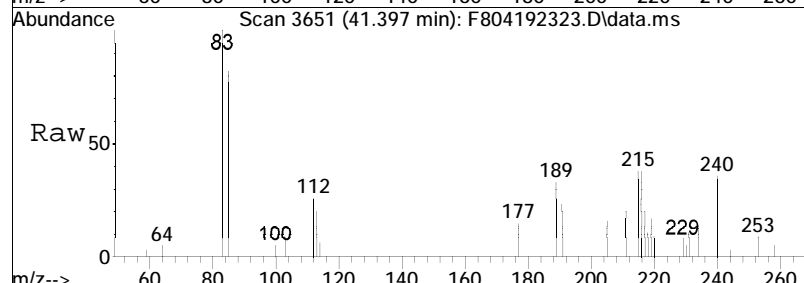
Tgt Ion	Ratio	Lower	Upper
216	100		
215	51.2	49.3	91.6

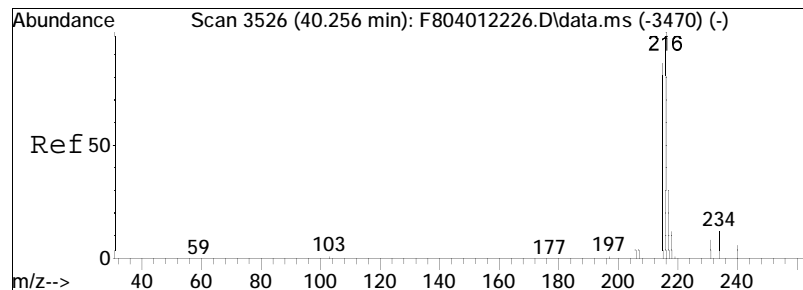




#62
 1-Methylpyrene
 Concen: 32.58 ng/mL
 RT: 41.397 min Scan# 3651
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

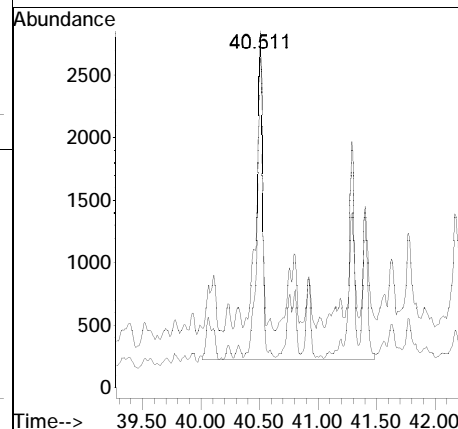
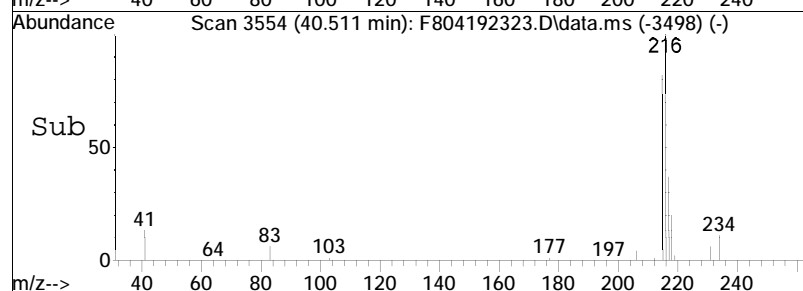
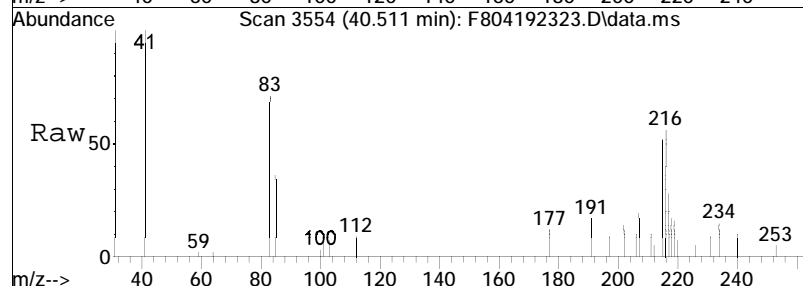
Tgt Ion	Ratio	Lower	Upper
216	100		
215	91.0	69.4	129.0

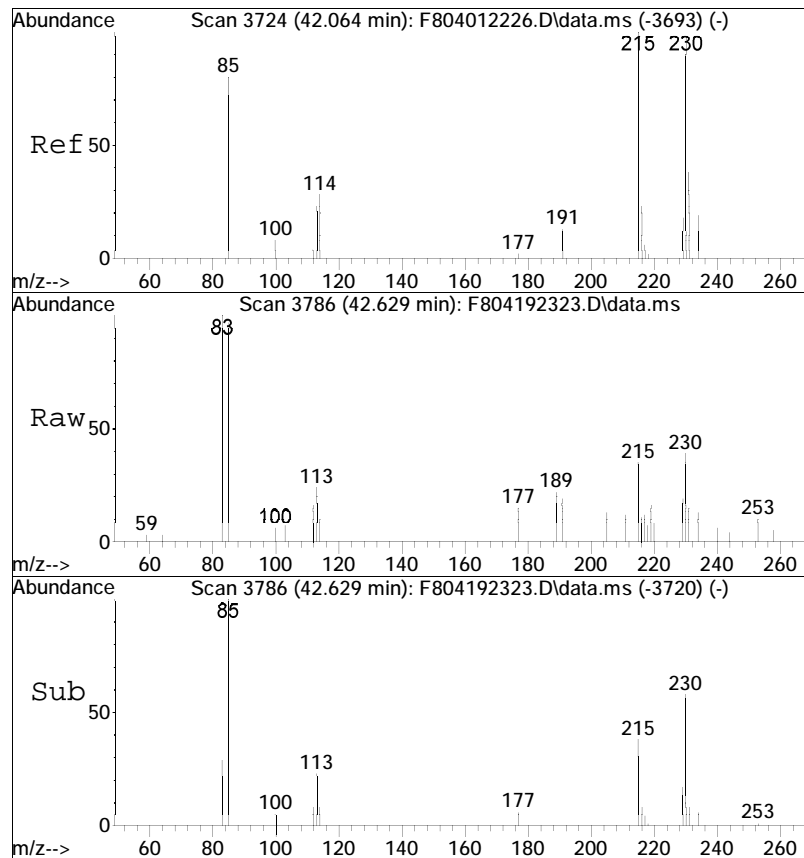




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 261.06 ng/mL M5
 RT: 40.511 min Scan# 3554
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

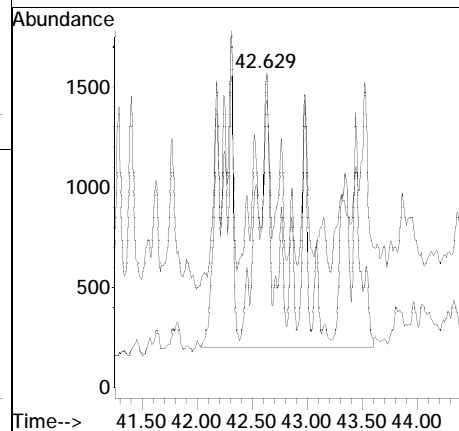
Tgt Ion	Ratio	Lower	Upper
216	100		
215	30.9	64.8	120.3#

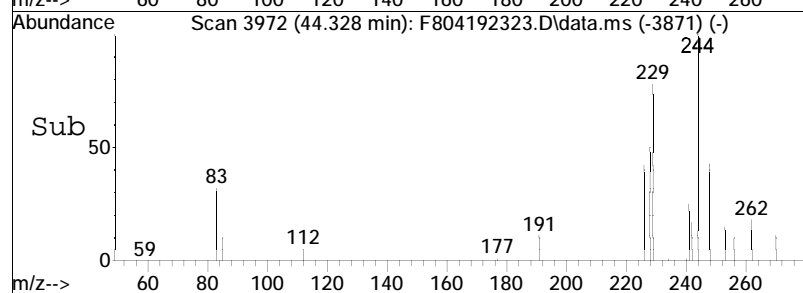
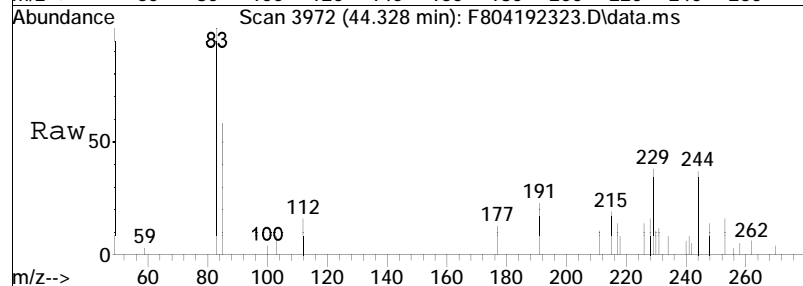
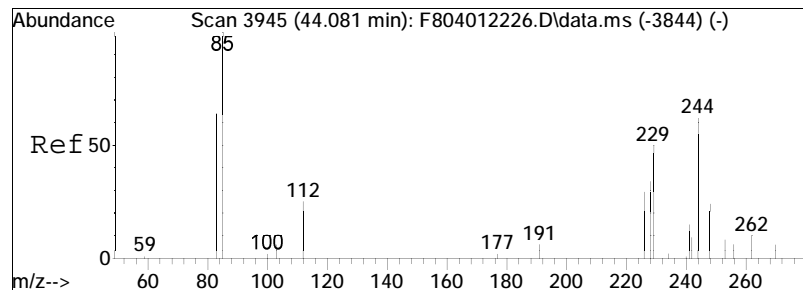




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 438.17 ng/mL M5
 RT: 42.629 min Scan# 3786
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

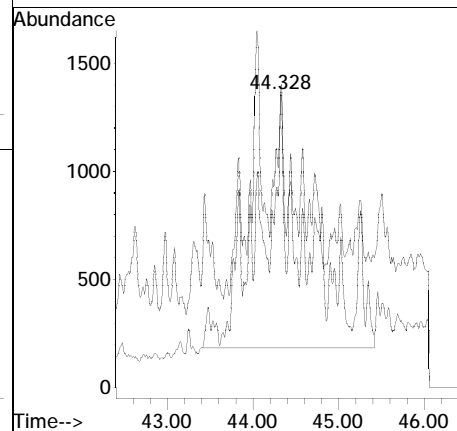
Tgt	Ion	Ratio	Lower	Upper
230	100			
215	5.2	63.3	117.7#	

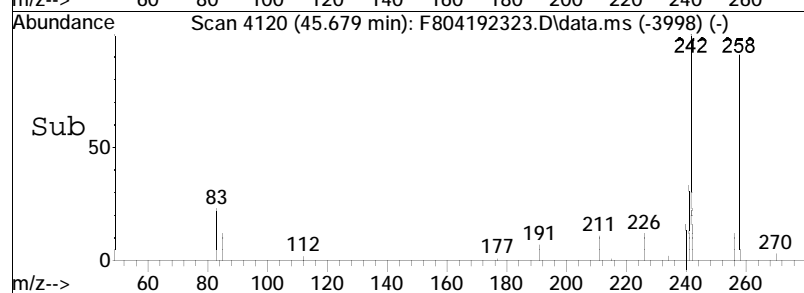
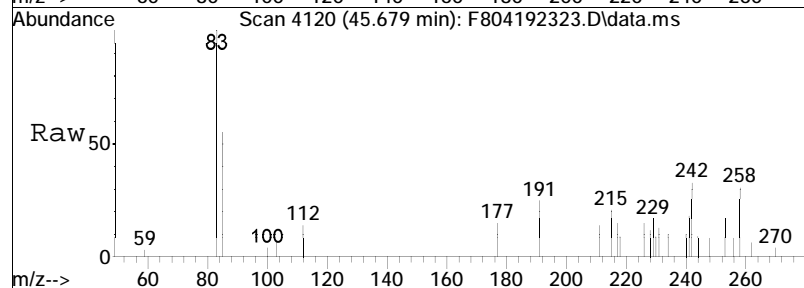
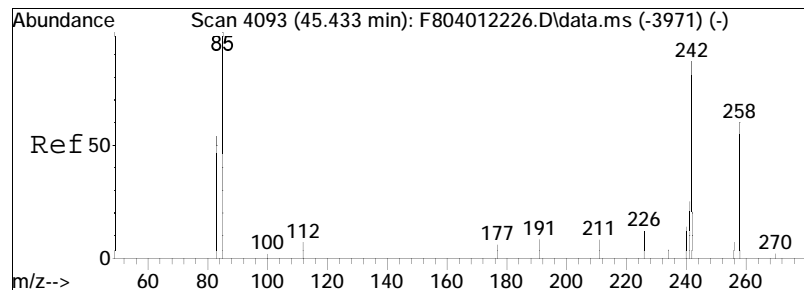




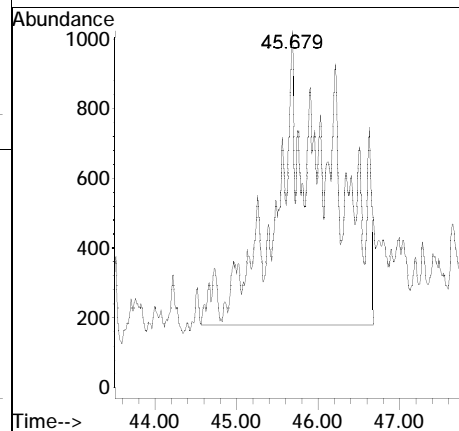
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 452.25 ng/mL M5
 RT: 44.328 min Scan# 3972
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

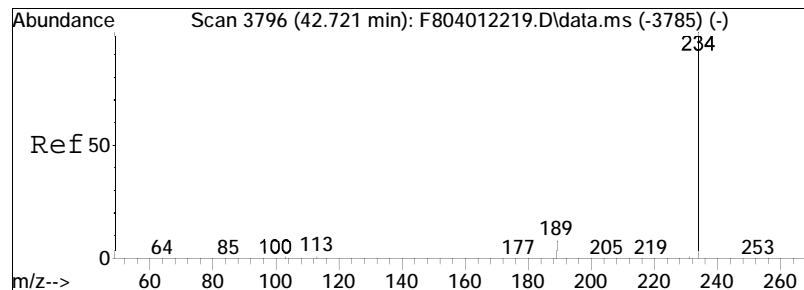
Tgt Ion	Ratio	Lower	Upper
244	100		
229	4.7	71.8	133.4#





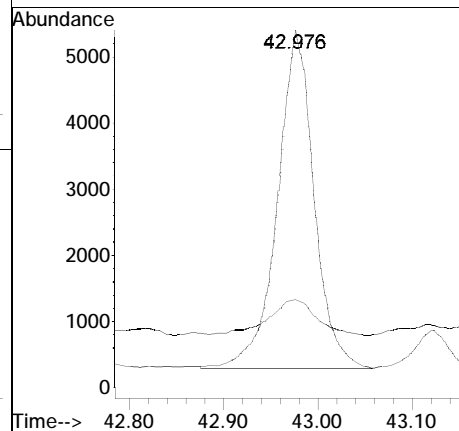
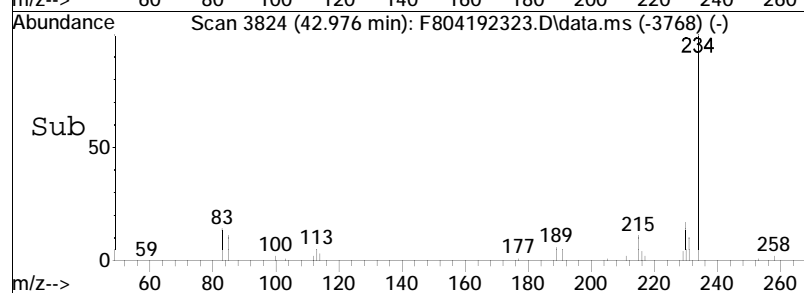
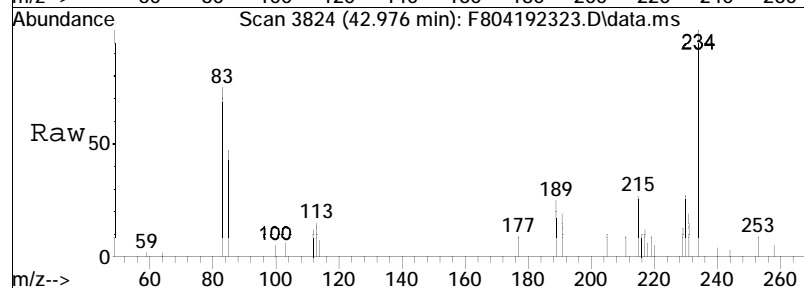
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 407.87 ng/mL M5
 RT: 45.679 min Scan# 4120
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm
 Tgt Ion: 258 Resp: 39397

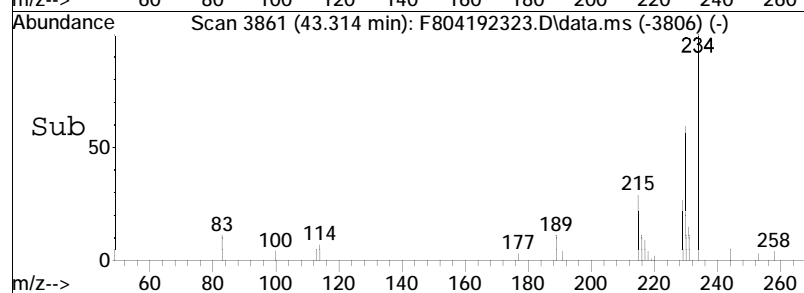
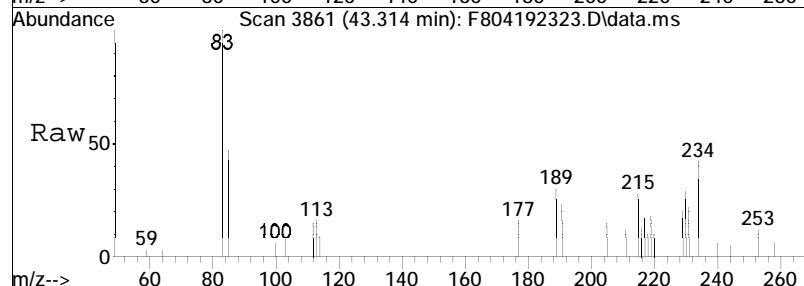
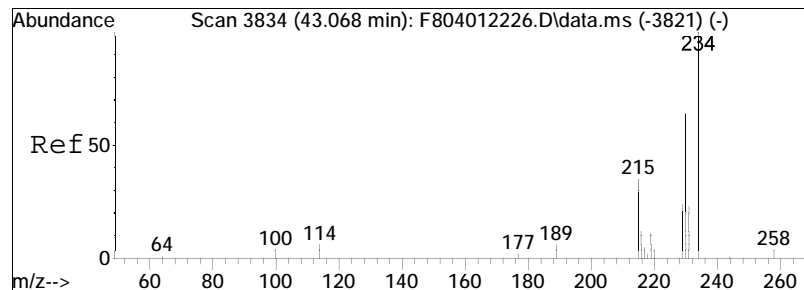




#67
 Naphthobenzothiophene-2,1-D
 Concen: 143.52 ng/mL
 RT: 42.976 min Scan# 3824
 Delta R.T. 0.009 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

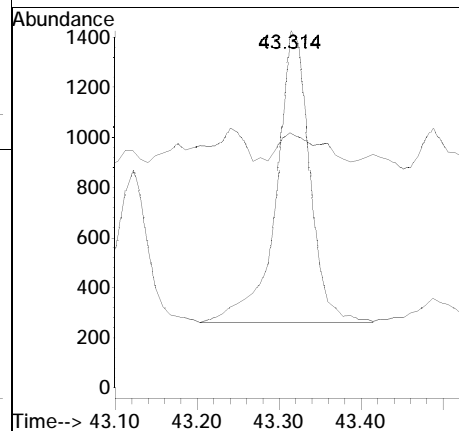
Tgt Ion	Ratio	Lower	Upper
234	100		
189	13.6	6.6	12.2#

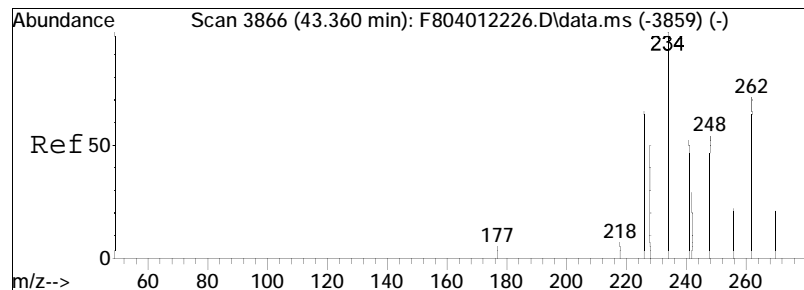




#68
 Naphthobenzothiophene-1,2-D
 Concen: 35.05 ng/mL
 RT: 43.314 min Scan# 3861
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

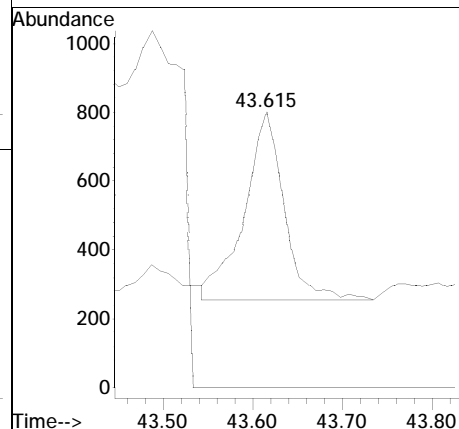
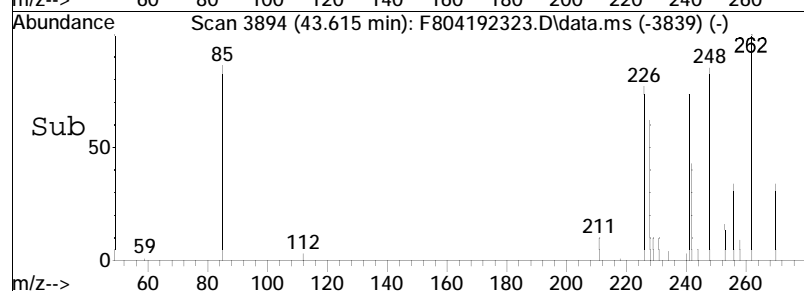
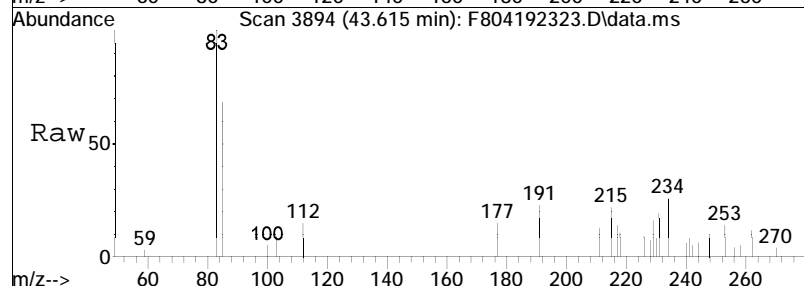
Tgt Ion	Ratio	Lower	Upper
234	100		
189	0.0	50.0	92.8#

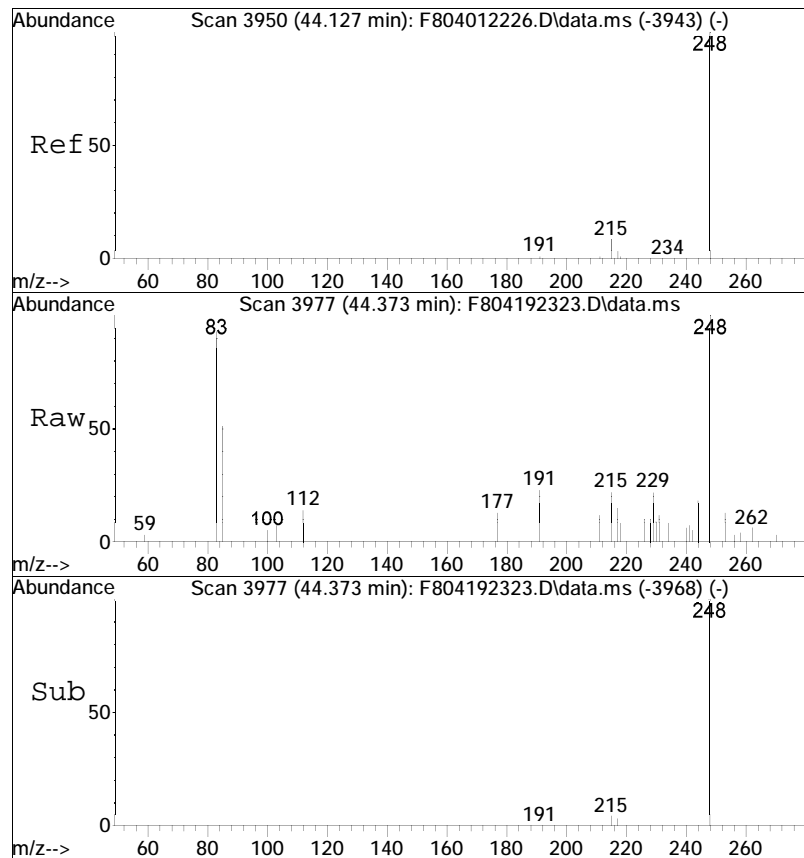




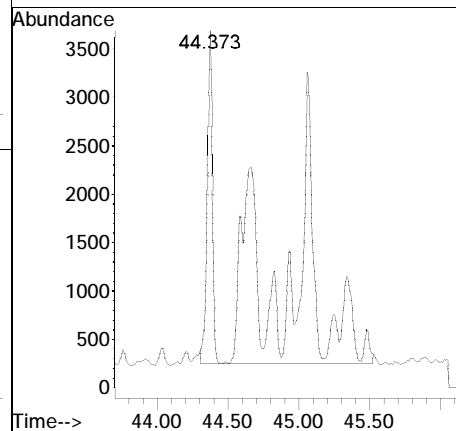
#69
 Naphthobenzothiophene-2,3-D
 Concen: 17.83 ng/mL
 RT: 43.615 min Scan# 3894
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

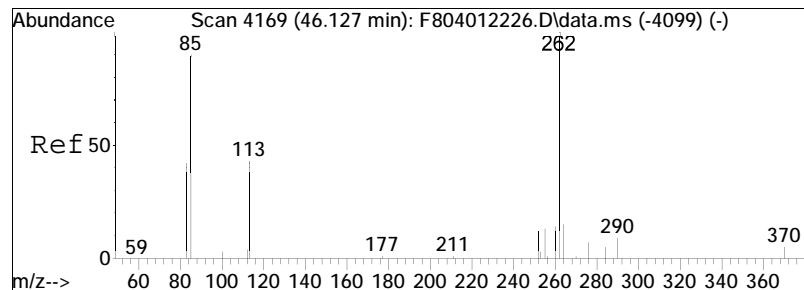
Tgt Ion: 234 Resp: 1683
 Ion Ratio Lower Upper
 234 100
 189 0.0 0.0 0.0





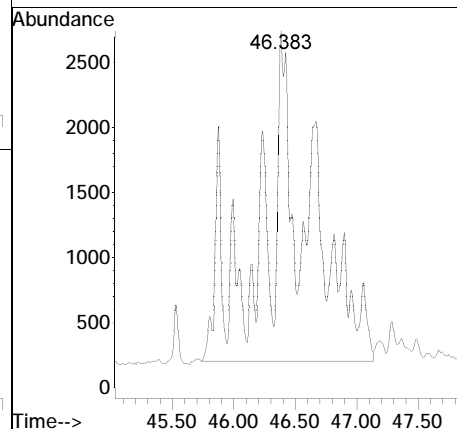
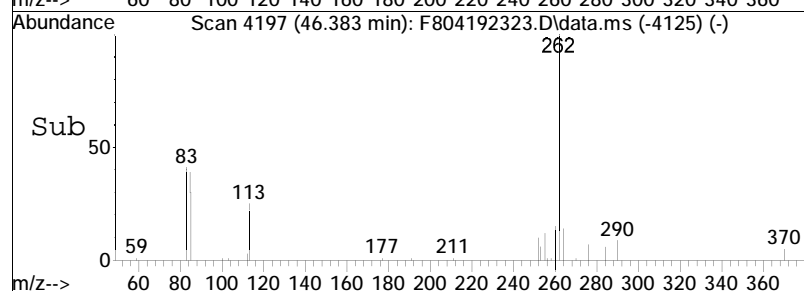
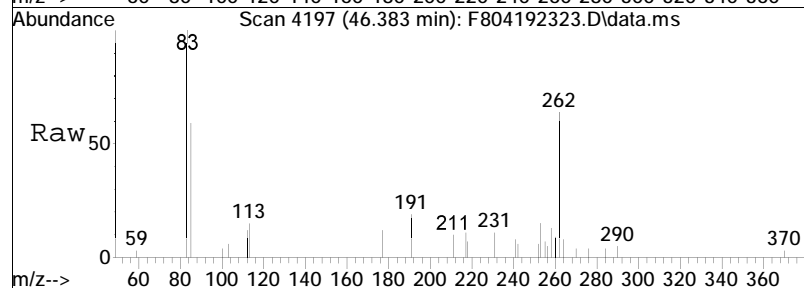
#70
 Cl-Naphthobenzothiophenes
 Concen: 534.50 ng/ml M5
 RT: 44.373 min Scan# 3977
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm
 Tgt Ion:248 Resp: 50451

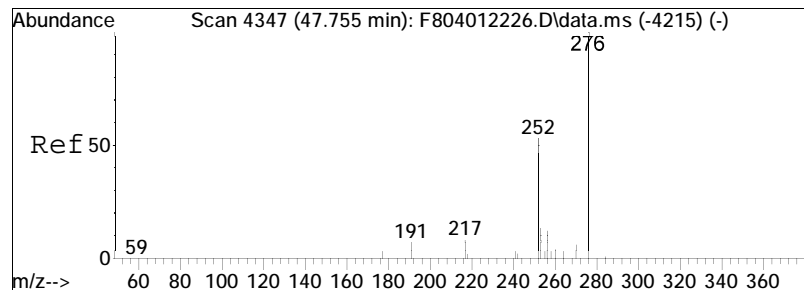




#71
 C2-Naphthobenzothiophenes
 Concen: 704.29 ng/ml M5
 RT: 46.383 min Scan# 4197
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

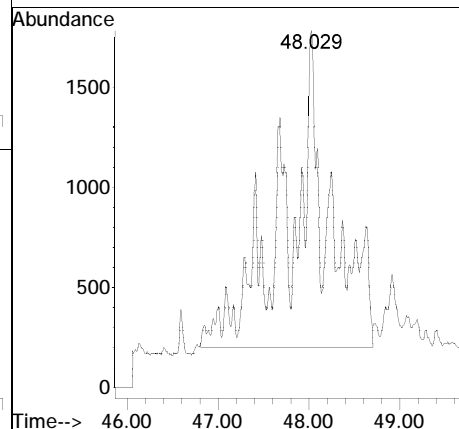
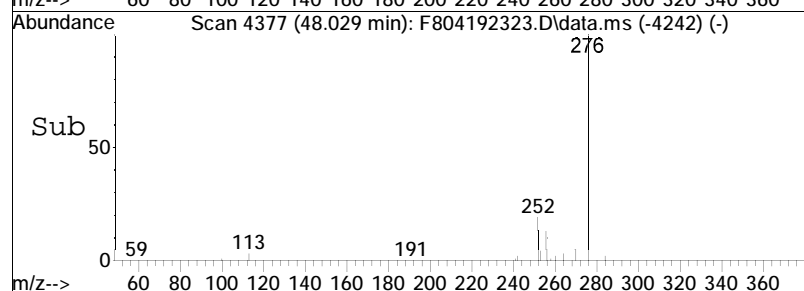
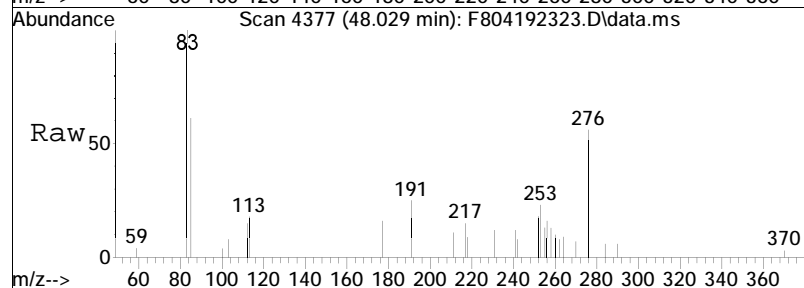
Tgt Ion: 262 Resp: 66477

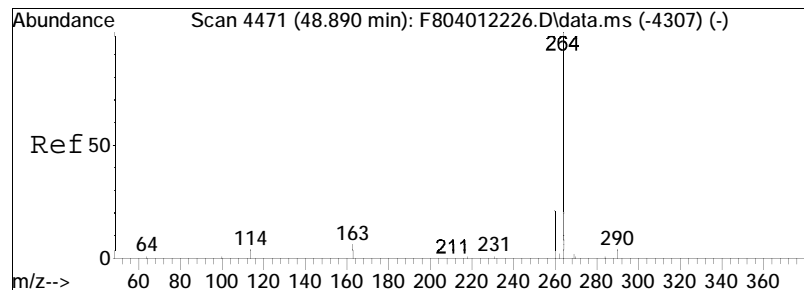




#72
 C3-Naphthobenzothiophenes
 Concen: 536.46 ng/ml M5
 RT: 48.029 min Scan# 4377
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

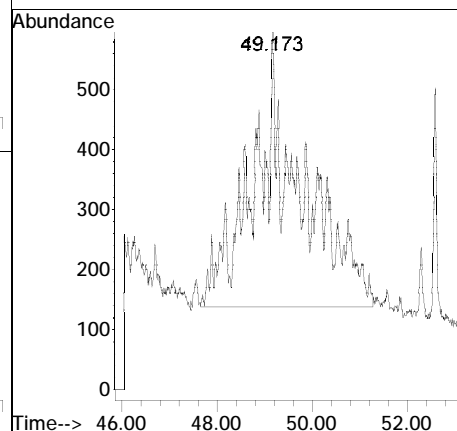
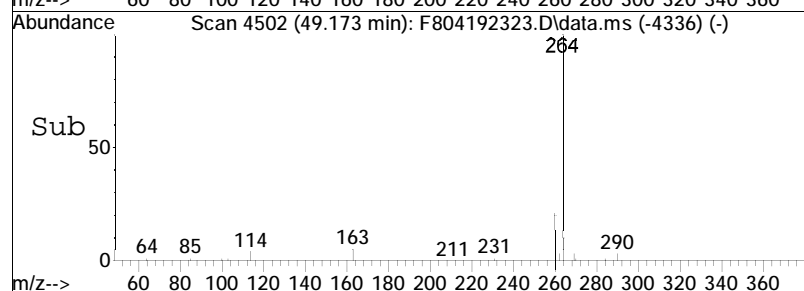
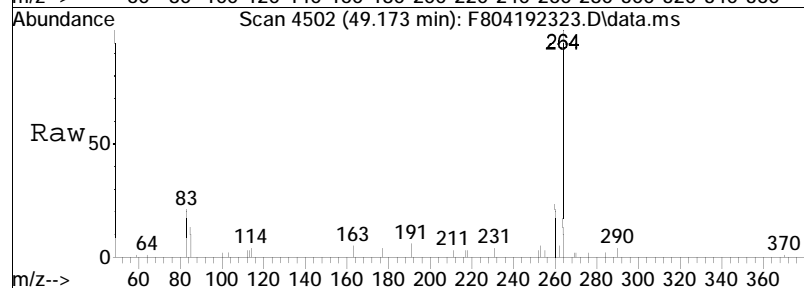
Tgt Ion: 276 Resp: 50636

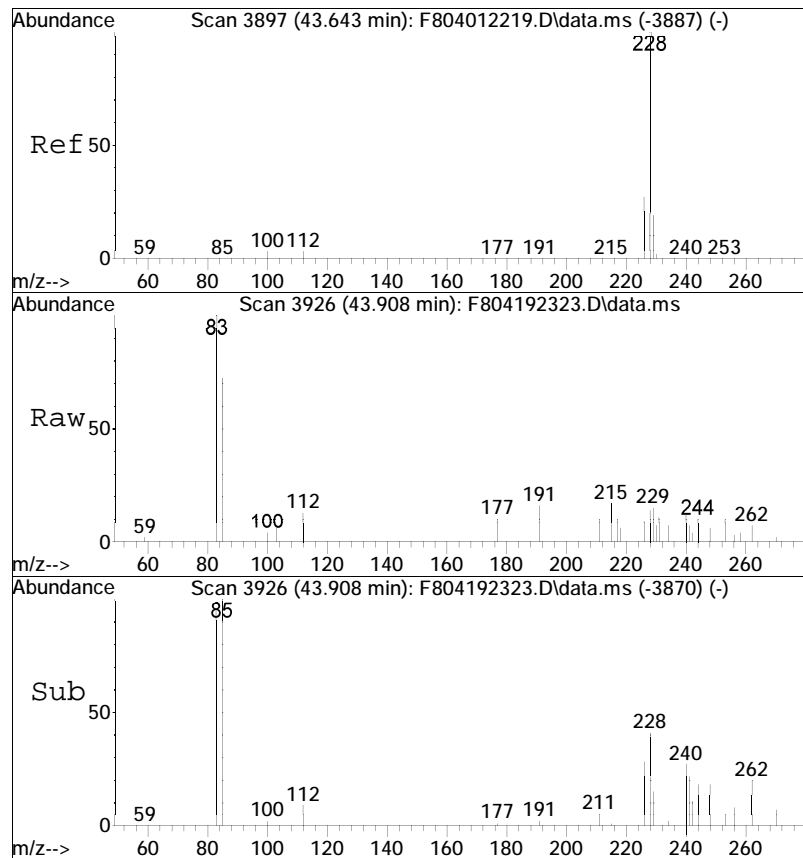




#73
 C4-Naphthobenzothiophenes
 Concen: 330.85 ng/mL M5
 RT: 49.173 min Scan# 4502
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

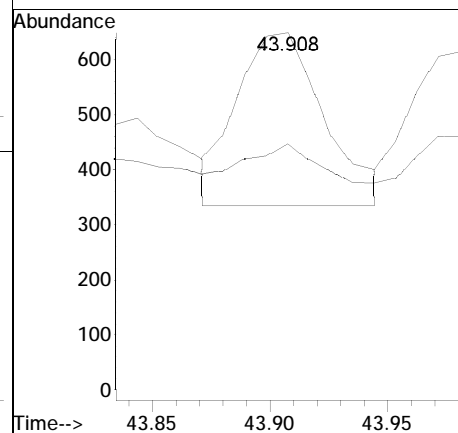
Tgt Ion: 290 Resp: 31228

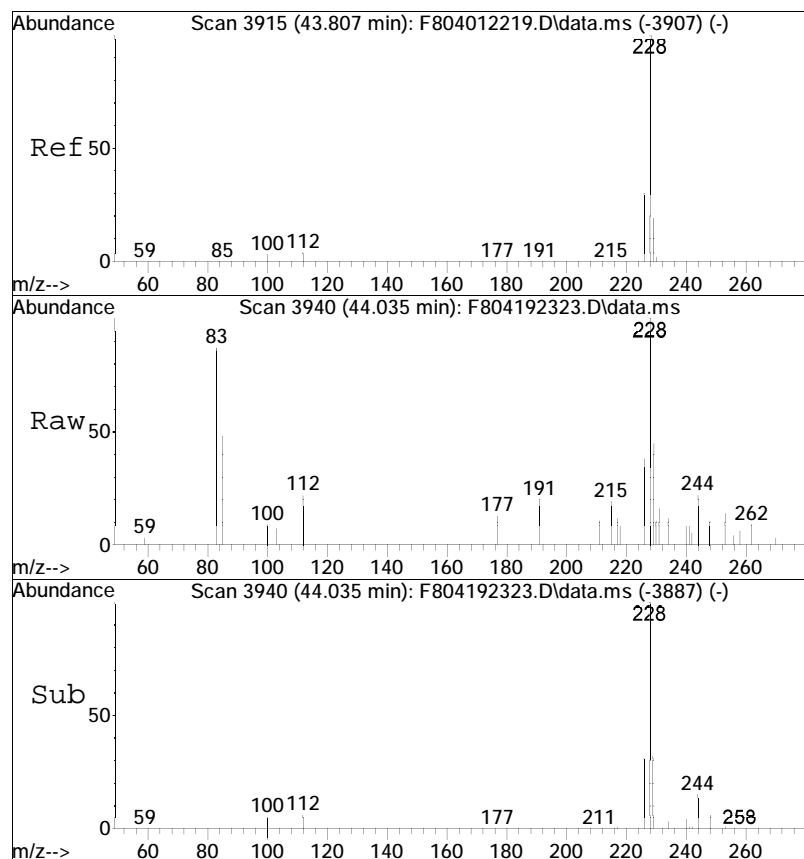




#75
Benz[a]anthracene
Concen: 9.78 ng/mL M3
RT: 43.908 min Scan# 3926
Delta R.T. 0.010 min
Lab File: F804192323.D
Acq: 20 Apr 2023 7:15 pm

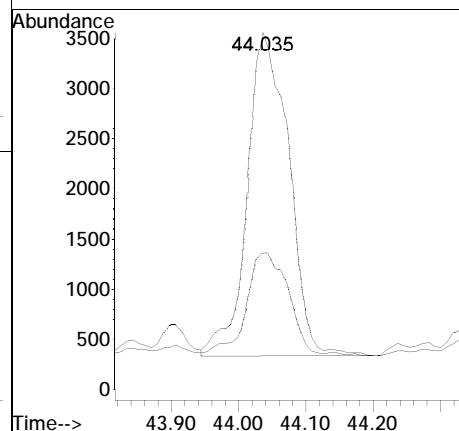
Tgt	Ion	Ratio	Lower	Upper
228	100			
226	486.5	21.2	39.4#	

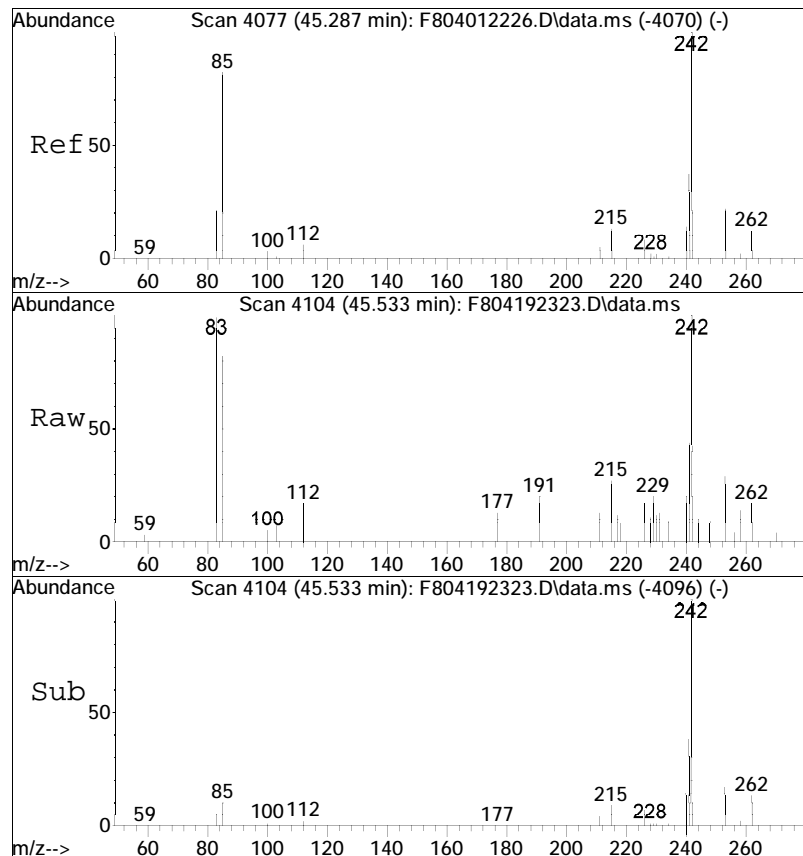




#77
 Chrysene/Triphenylene
 Concen: 163.32 ng/mL
 RT: 44.035 min Scan# 3940
 Delta R.T. -0.019 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

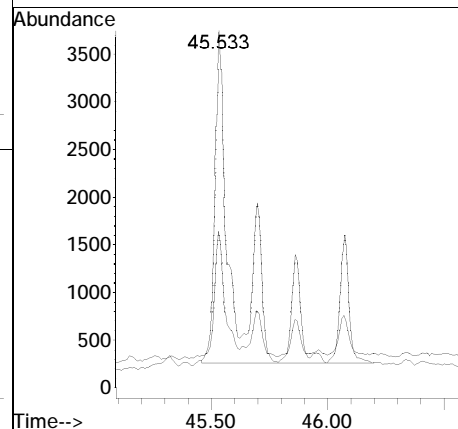
Tgt Ion: 228 Resp: 13784
 Ion Ratio Lower Upper
 228 100
 226 31.7 23.7 43.9

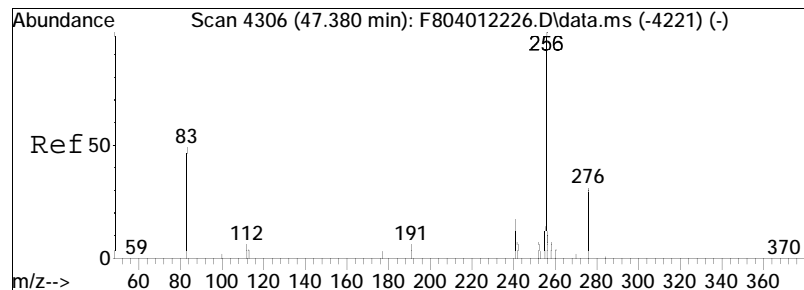




#78
 Cl-Chrysenes
 Concen: 274.42 ng/mL M5
 RT: 45.533 min Scan# 4104
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

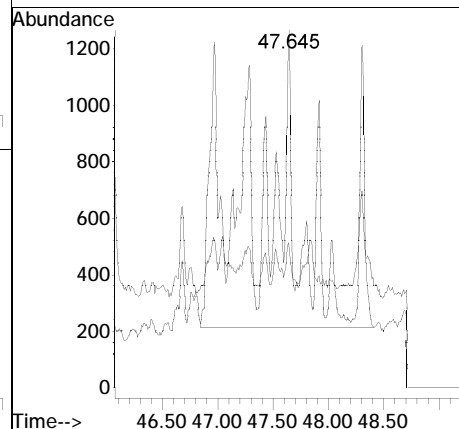
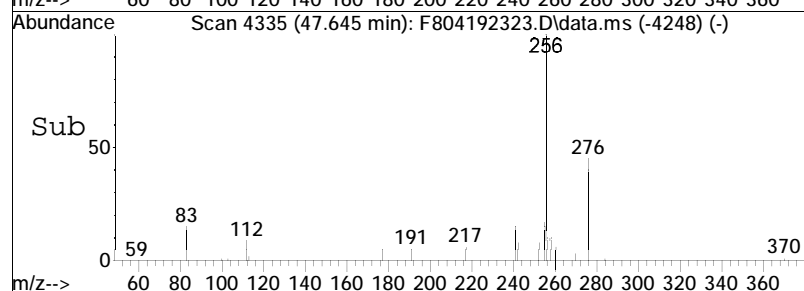
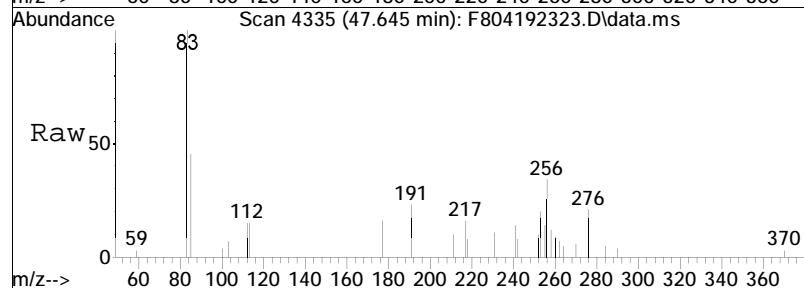
Tgt Ion	Ratio	Lower	Upper
242	100		
241	15.2	30.8	57.2#

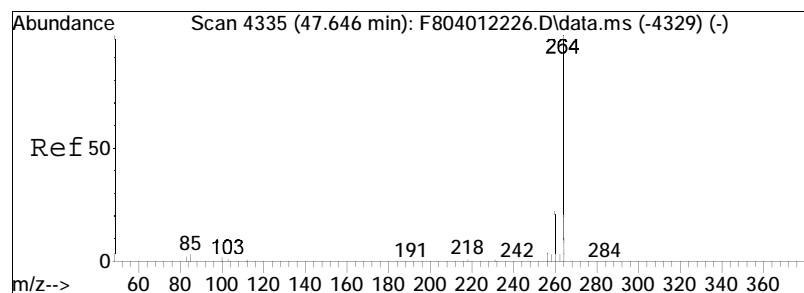




#79
 C2-Chrysenes
 Concen: 366.56 ng/mL M5
 RT: 47.645 min Scan# 4335
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

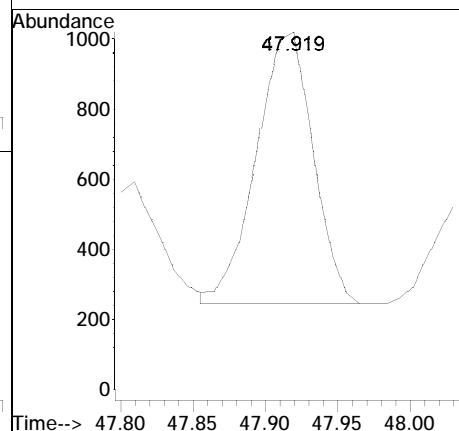
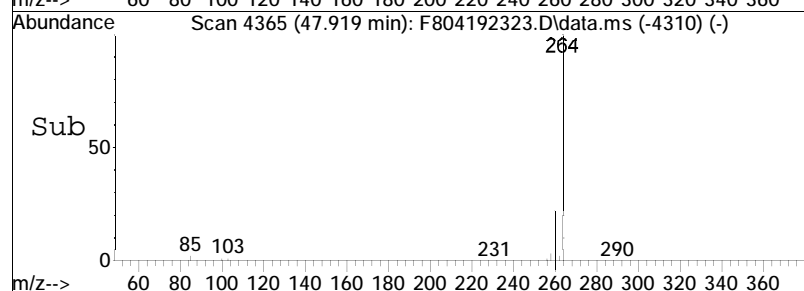
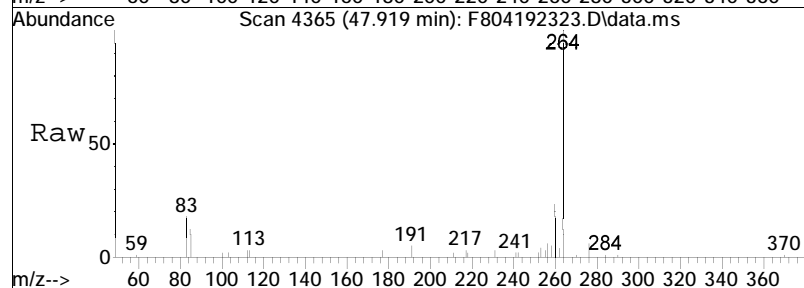
Tgt	Ion	Ratio	Lower	Upper
256	100			
241	4.3	28.3	52.7#	

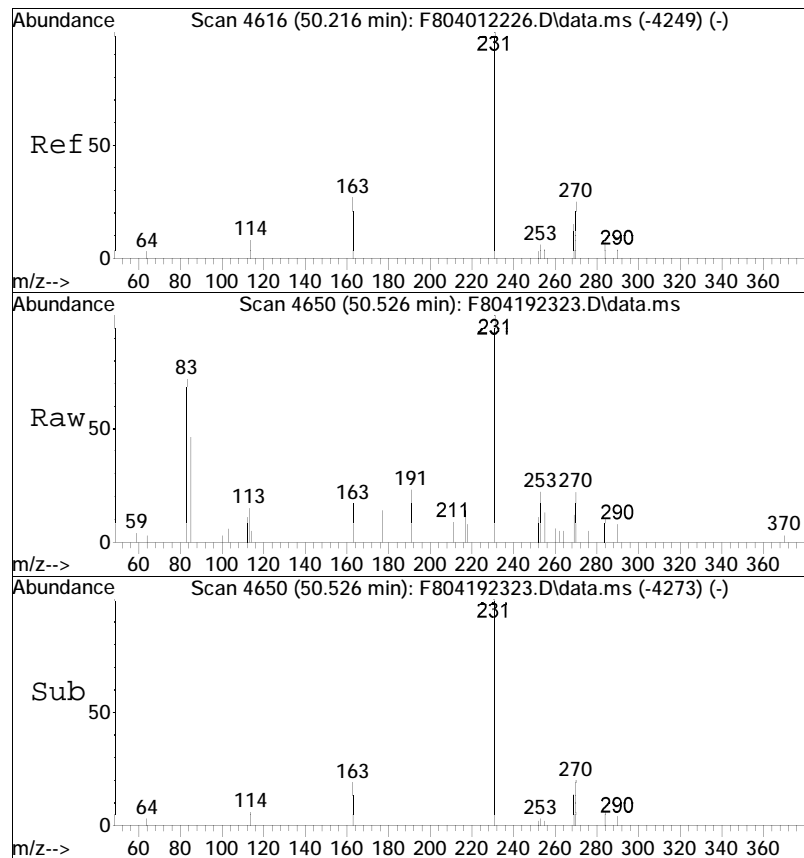




#80
 BBF-D12 Surr BKGD
 Concen: 24.85 ng/mL
 RT: 47.919 min Scan# 4365
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

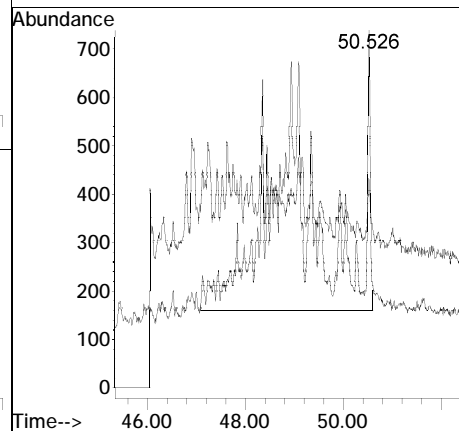
Tgt Ion: 256 Resp: 2097

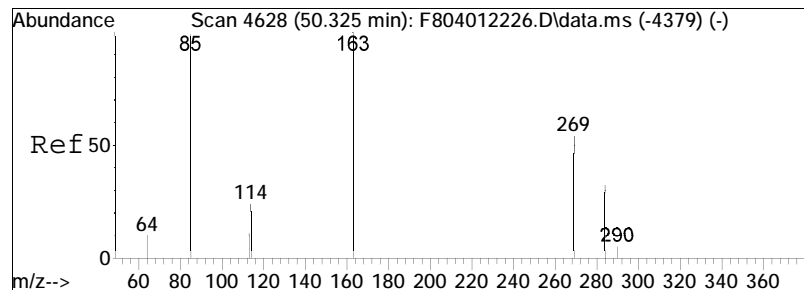




#81
 C3-Chrysenes
 Concen: 363.65 ng/mL M5
 RT: 50.526 min Scan# 4650
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

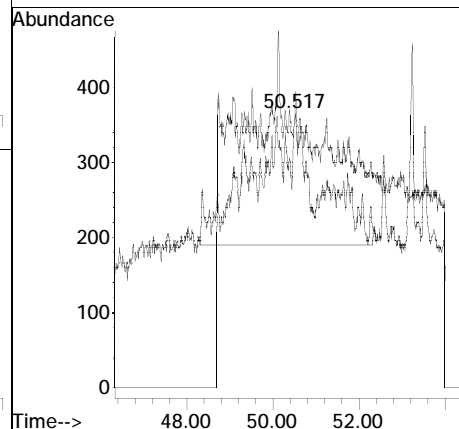
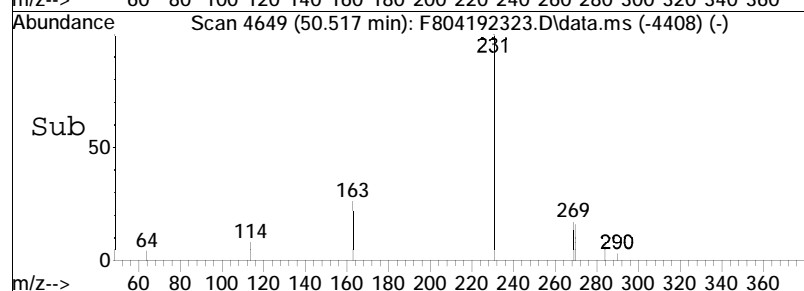
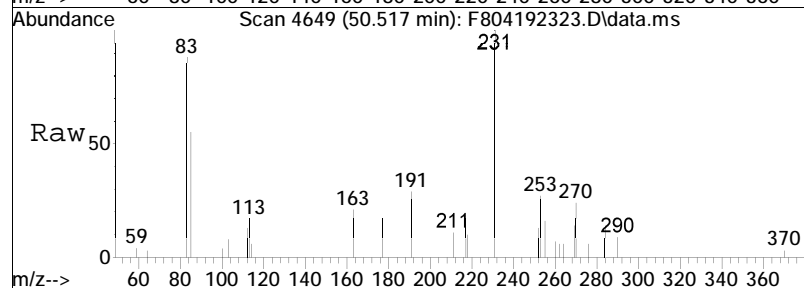
Tgt	Ion	Resp	Lower	Upper
270	100			
255	1.8	40.9	76.0#	

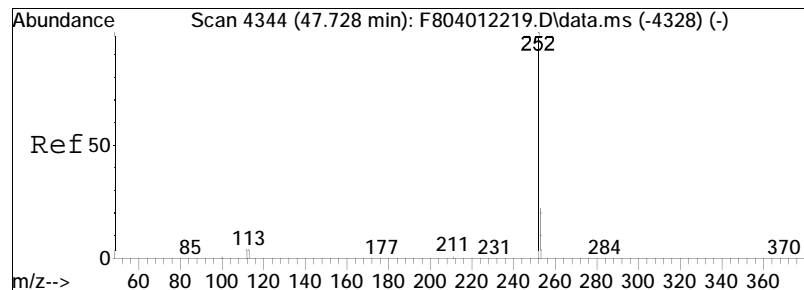




#82
 C4-Chrysenes
 Concen: 217.81 ng/mL M5
 RT: 50.517 min Scan# 4649
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

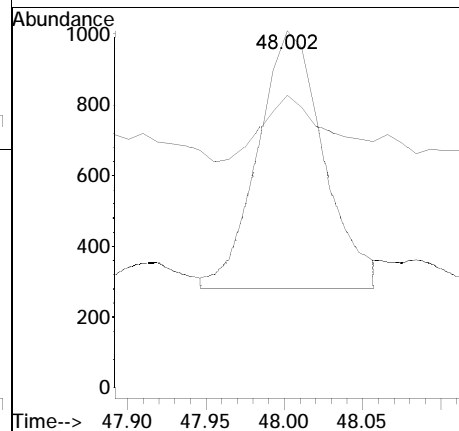
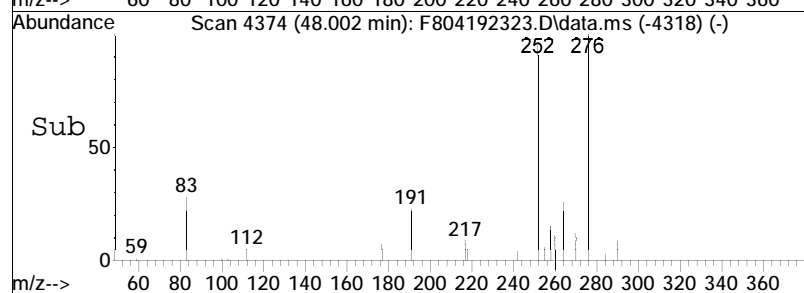
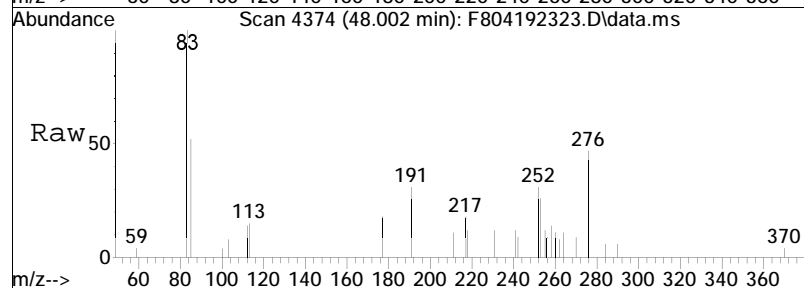
Tgt	Ion	Ratio	Lower	Upper
284	100			
269	0.0	72.7	134.9#	

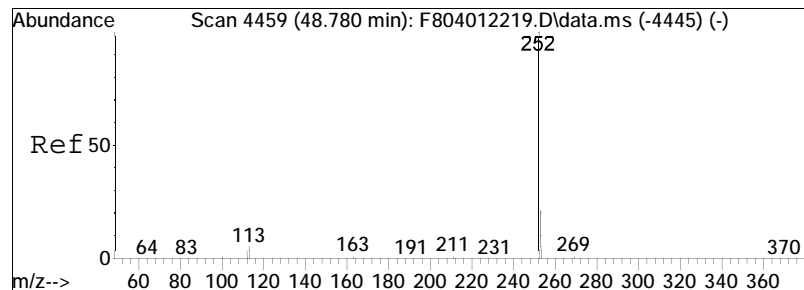




#84
 Benzo[b]fluoranthene
 Concen: 21.69 ng/mL M4
 RT: 48.002 min Scan# 4374
 Delta R.T. 0.009 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

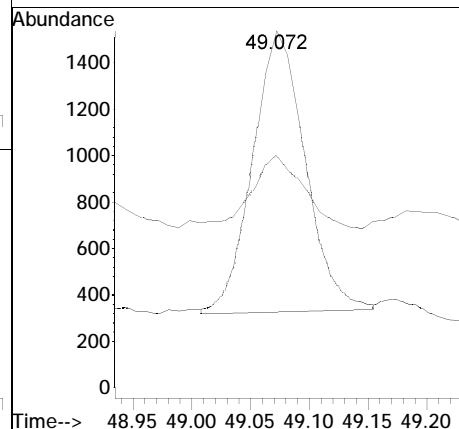
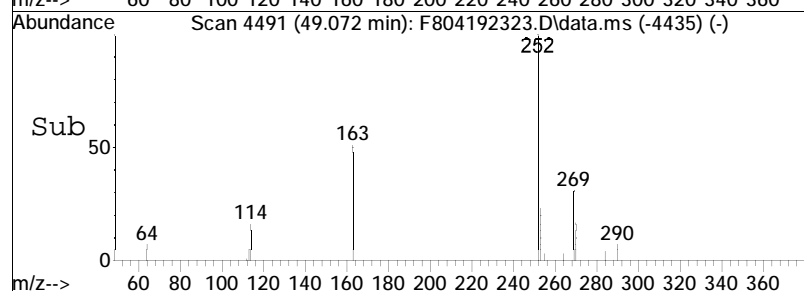
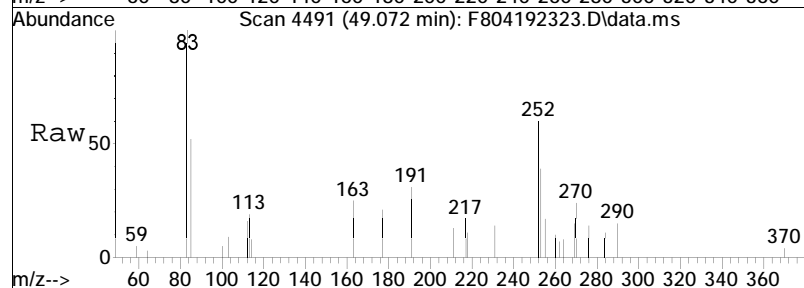
Tgt Ion	Ratio	Lower	Upper
252	100		
253	32.3	26.8	49.8

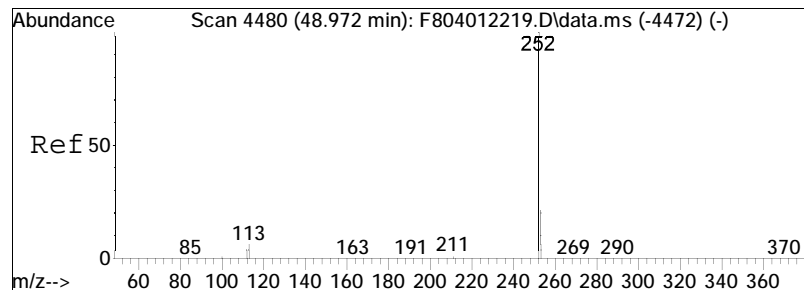




#87
 Benzo[e]pyrene
 Concen: 39.44 ng/mL
 RT: 49.072 min Scan# 4491
 Delta R.T. 0.009 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

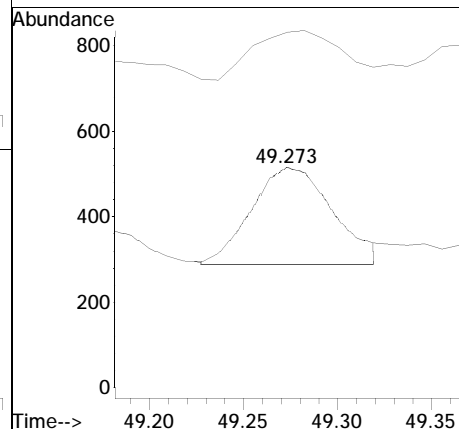
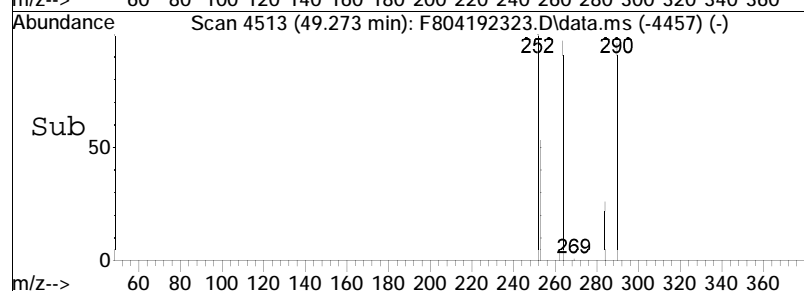
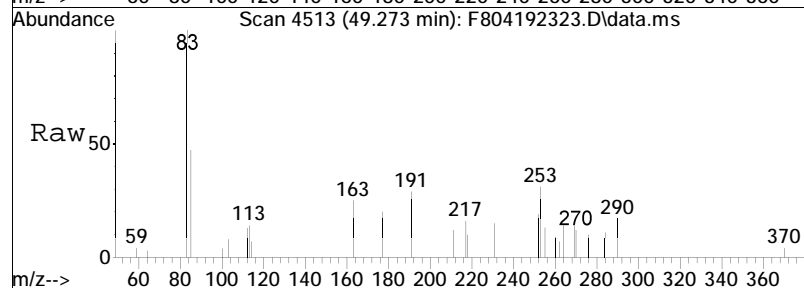
Tgt Ion	Ratio	Lower	Upper
252	100		
253	28.2	29.5	54.7#

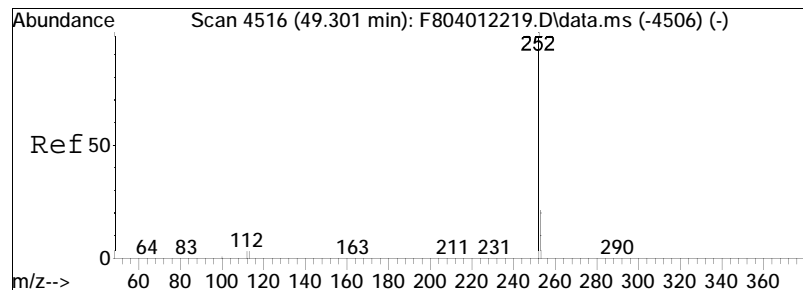




#89
 Benzo[a]pyrene
 Concen: 7.49 ng/mL M3
 RT: 49.273 min Scan# 4513
 Delta R.T. 0.009 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

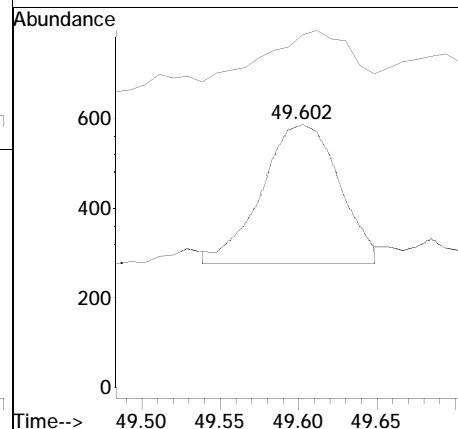
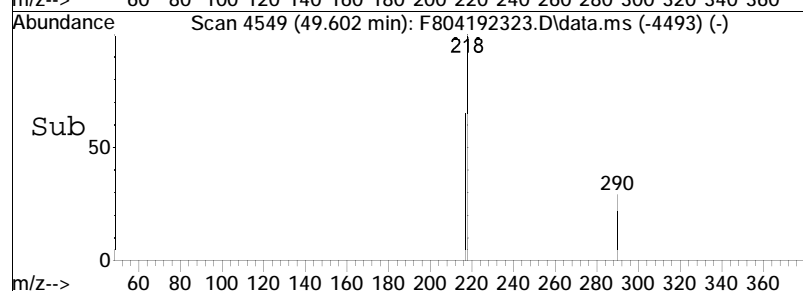
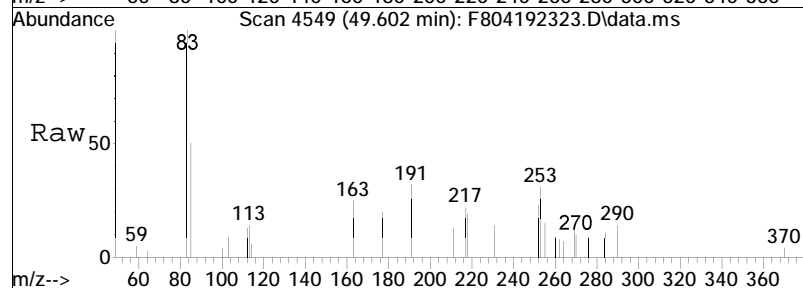
Tgt Ion	Ratio	Lower	Upper
252	100		
253	59.8	30.9	57.3#

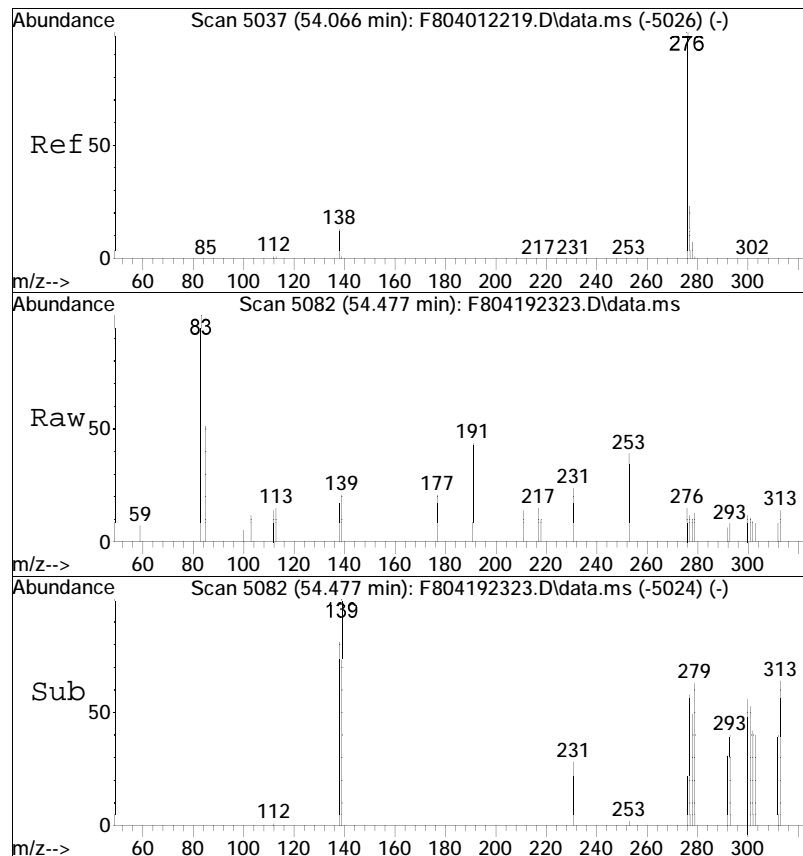




#90
Perylene
Concen: 11.66 ng/mL M4
RT: 49.602 min Scan# 4549
Delta R.T. 0.009 min
Lab File: F804192323.D
Acq: 20 Apr 2023 7:15 pm

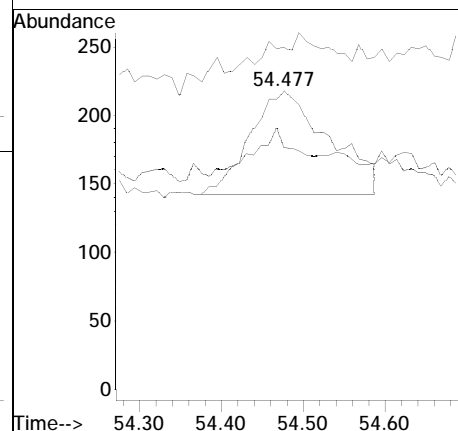
Tgt Ion	Ratio	Lower	Upper
252	100		
253	38.3	31.4	58.4

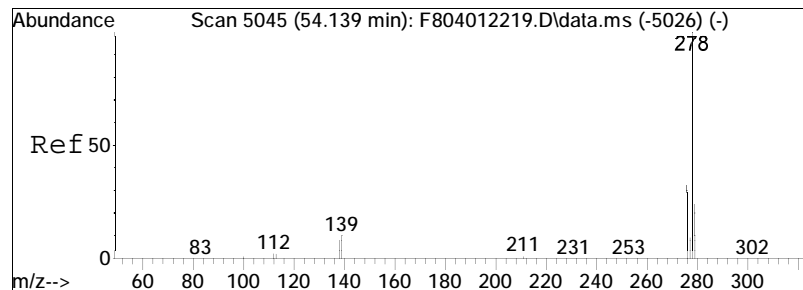




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 4.59 ng/mL
 RT: 54.477 min Scan# 5082
 Delta R.T. 0.028 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

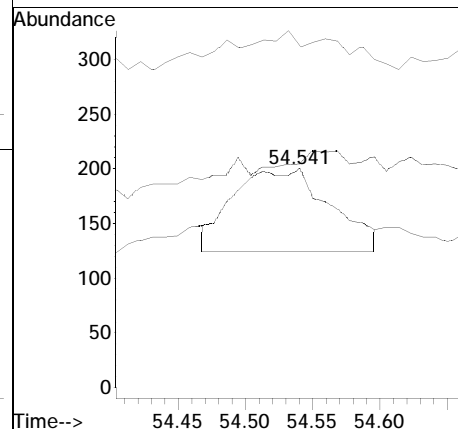
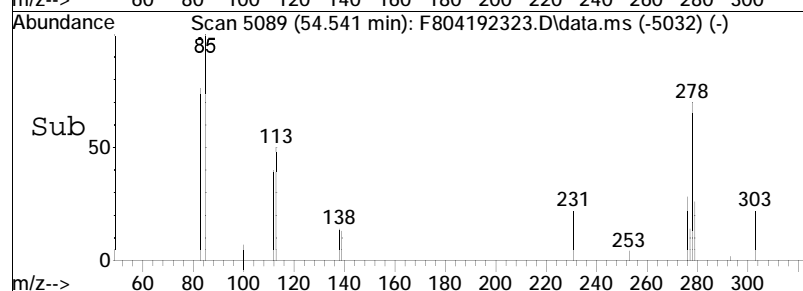
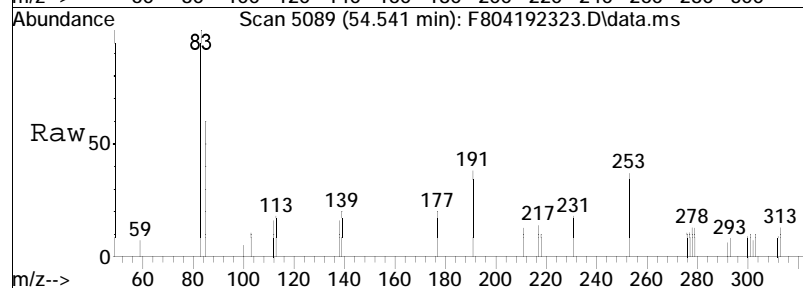
Tgt Ion:	276	Resp:	508
Ion Ratio	Lower	Upper	
276	100		
138	0.0	18.2	33.8#
277	0.0	18.6	34.5#

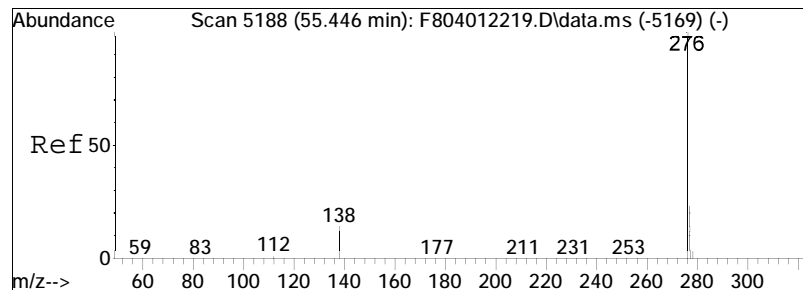




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 4.18 ng/mL M4
 RT: 54.541 min Scan# 5089
 Delta R.T. 0.018 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

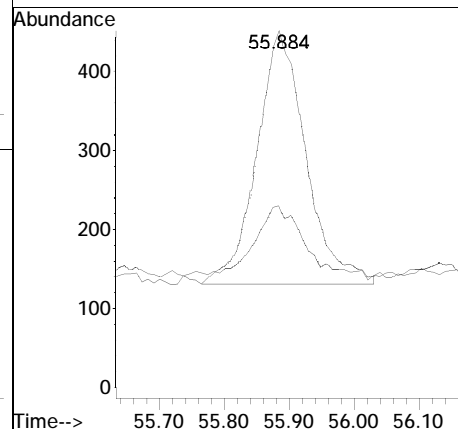
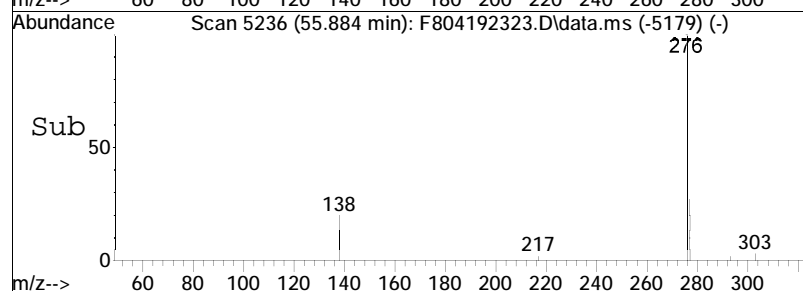
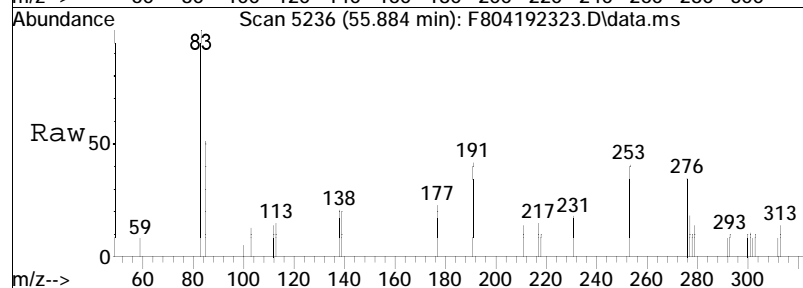
Tgt Ion	Ratio	Lower	Upper
278	100		
139	39.5	18.0	33.4#
279	0.0	19.0	35.2#

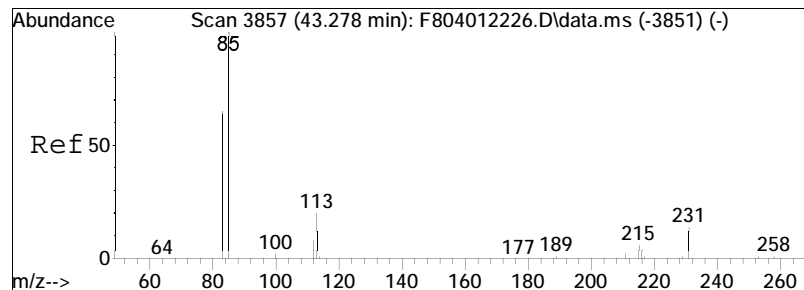




#93
 Benzo[g,h,i]perylene
 Concen: 15.11 ng/mL
 RT: 55.884 min Scan# 5236
 Delta R.T. 0.018 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

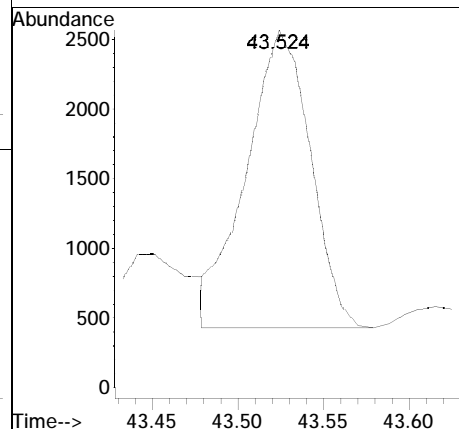
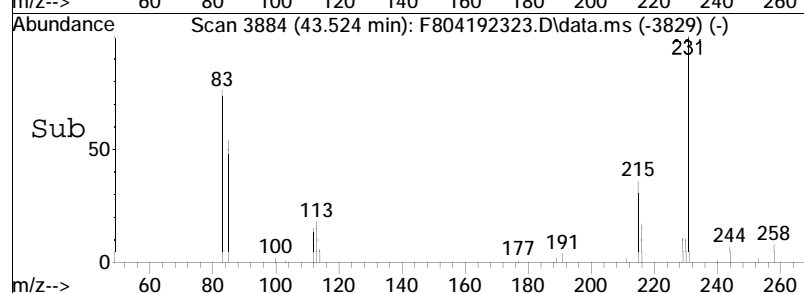
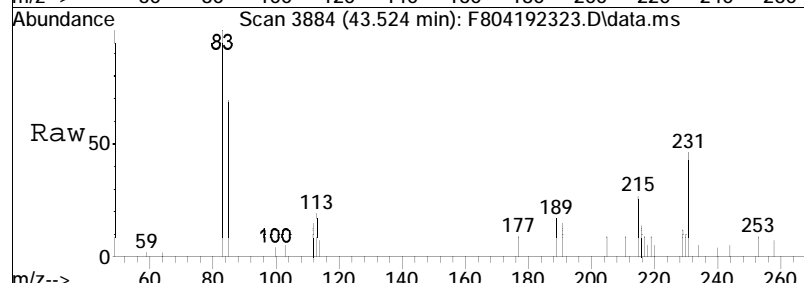
Tgt Ion	Ratio	Lower	Upper
276	100		
277	31.8	18.0	33.4

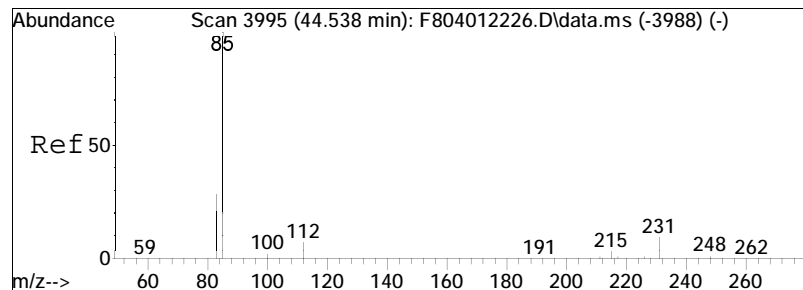




#146
 C20 Pregnane
 Concen: 612.18 ng/mL
 RT: 43.524 min Scan# 3884
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

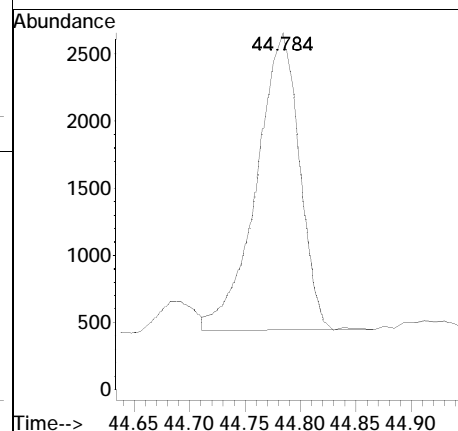
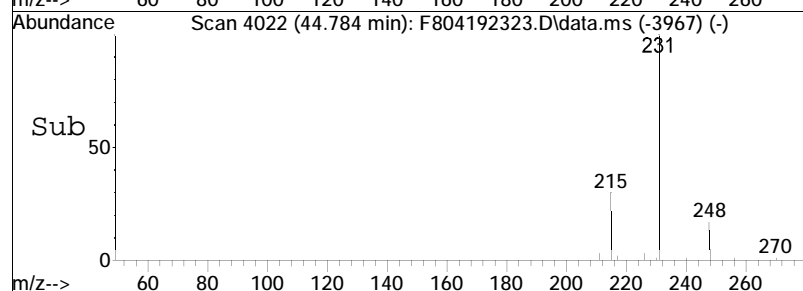
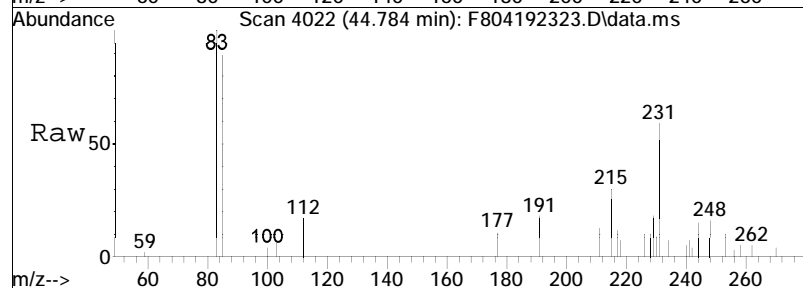
Tgt Ion: 231 Resp: 5500

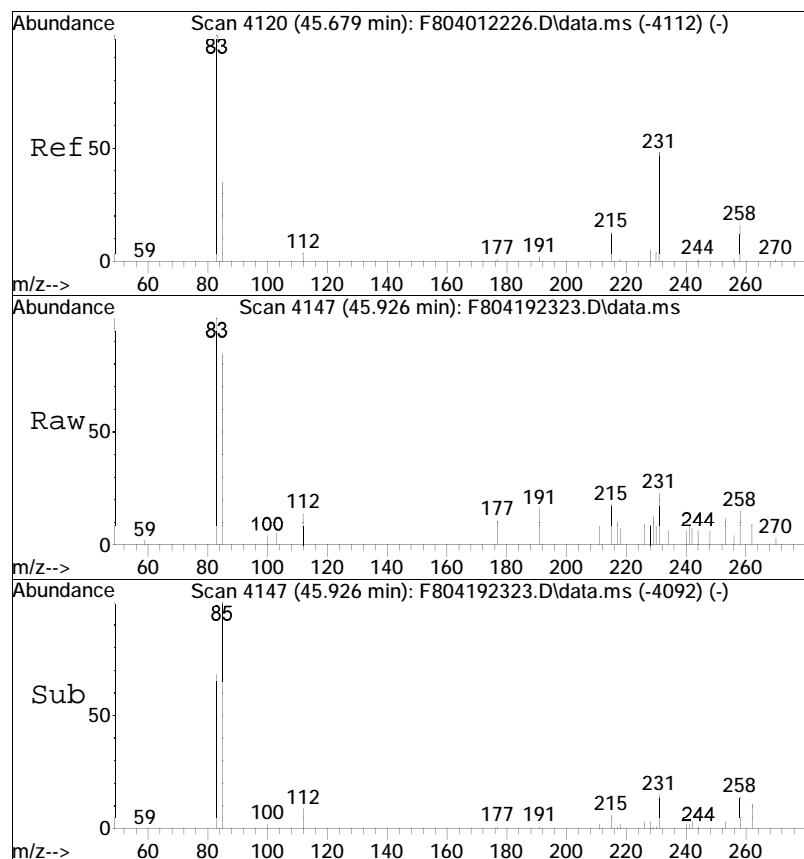




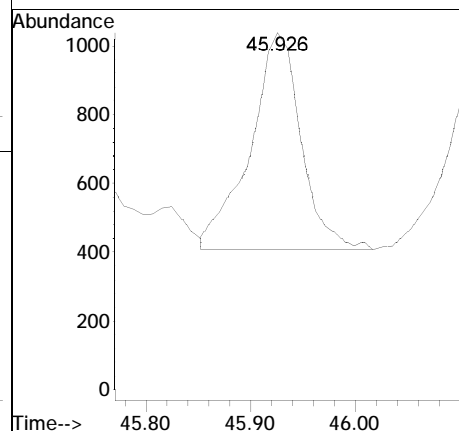
#147
 C21 20-Methylpregnane
 Concen: 657.38 ng/mL
 RT: 44.784 min Scan# 4022
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

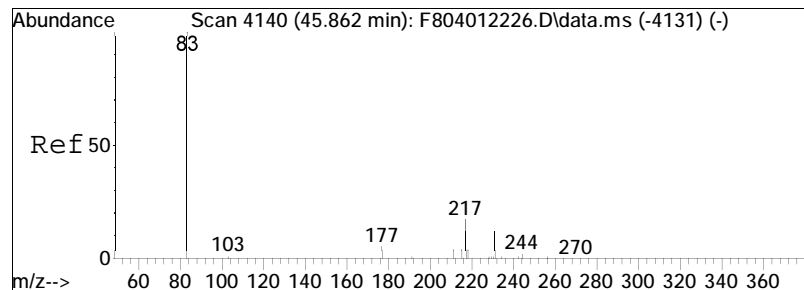
Tgt Ion: 231 Resp: 5906





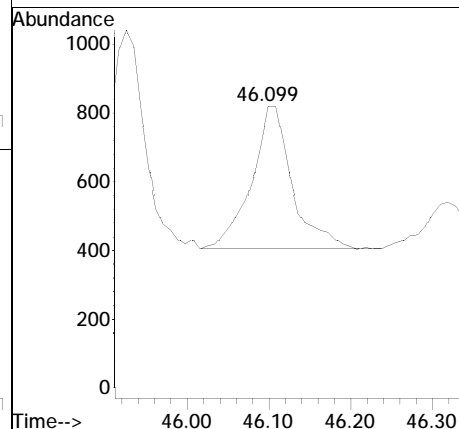
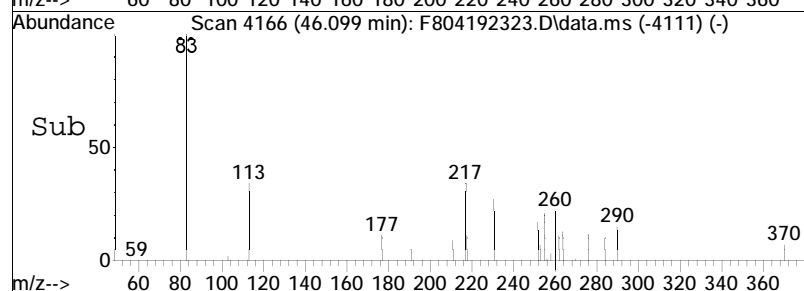
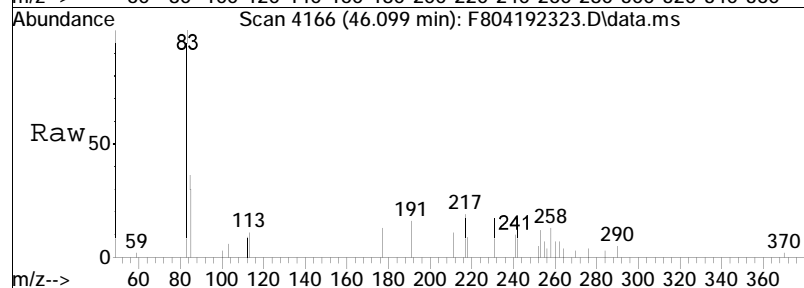
#148
 C22 20-Ethylpregnane (a)
 Concen: 239.75 ng/mL
 RT: 45.926 min Scan# 4147
 Delta R.T. -0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm
 Tgt Ion: 231 Resp: 2154

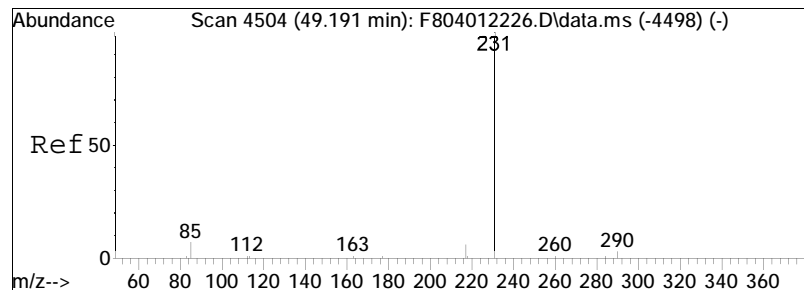




#149
 C22 20-Ethylpregnane (b)
 Concen: 157.83 ng/mL
 RT: 46.099 min Scan# 4166
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

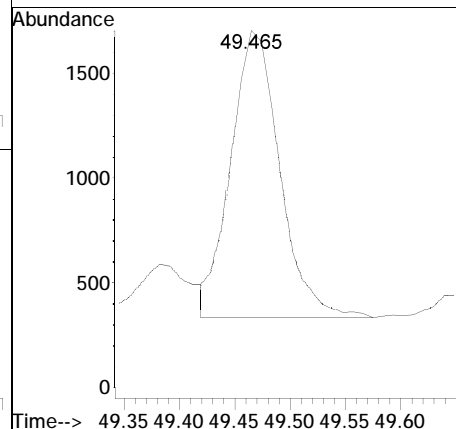
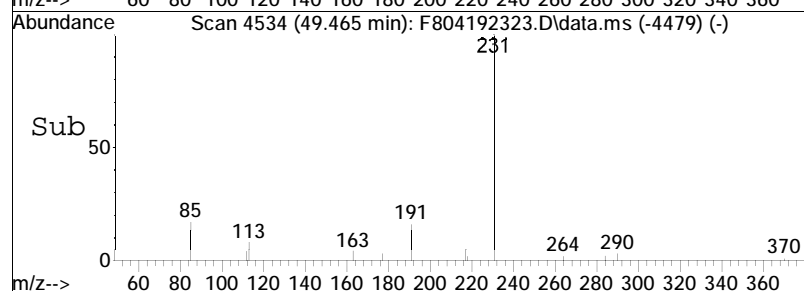
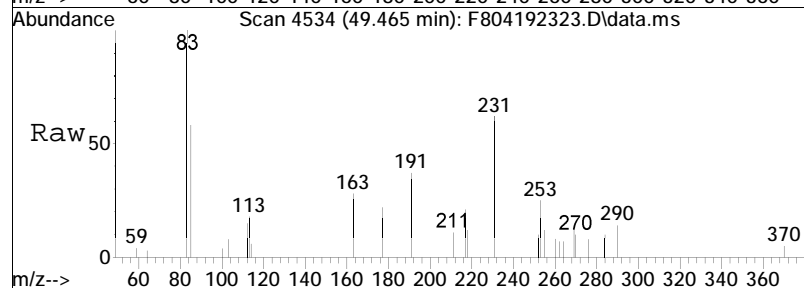
Tgt Ion: 231 Resp: 1418

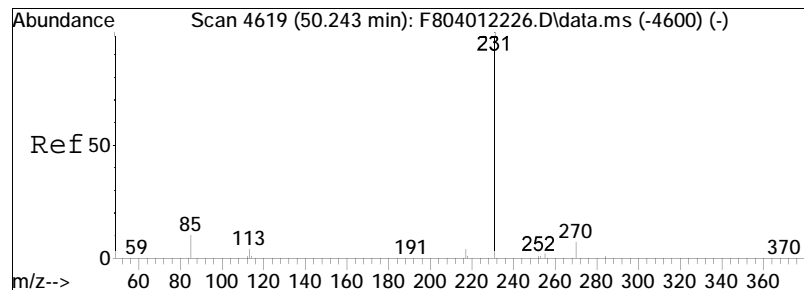




#150
 C26,20S TAS
 Concen: 466.04 ng/mL
 RT: 49.465 min Scan# 4534
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

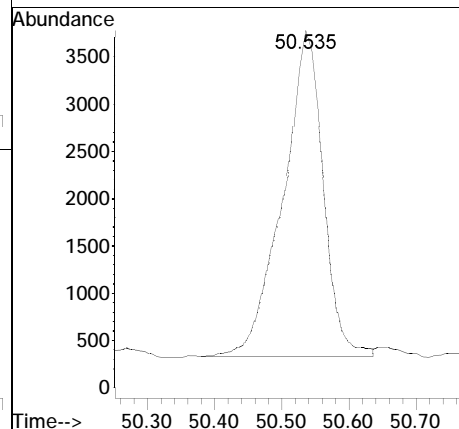
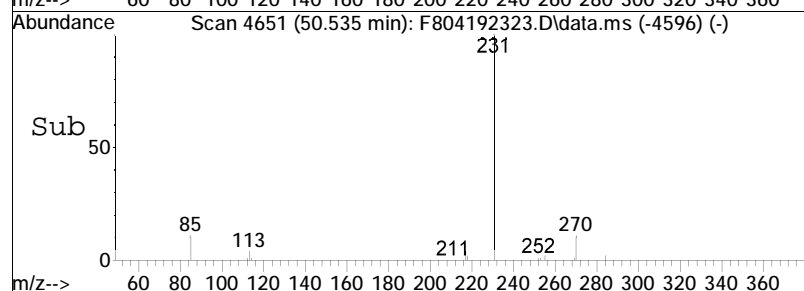
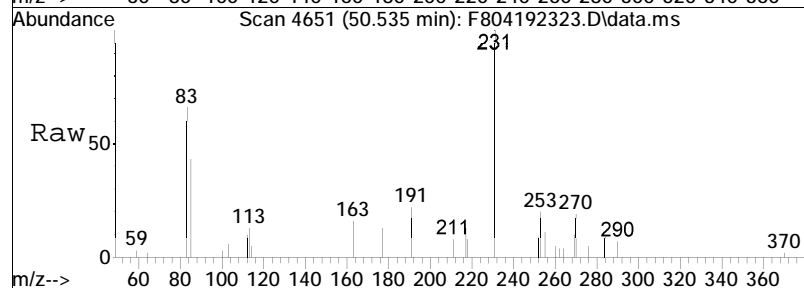
Tgt Ion: 231 Resp: 4187

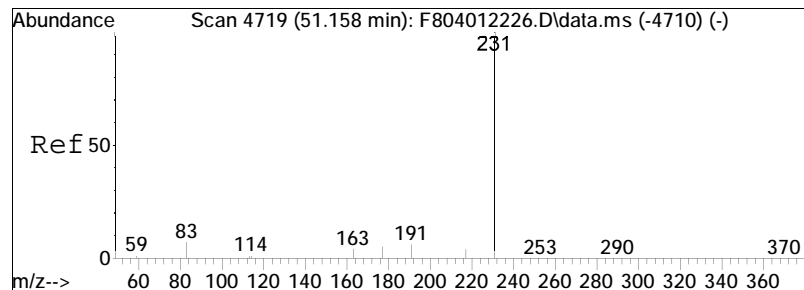




#151
 C26,20R+C27,20S TAS
 Concen: 1578.32 ng/mL
 RT: 50.535 min Scan# 4651
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

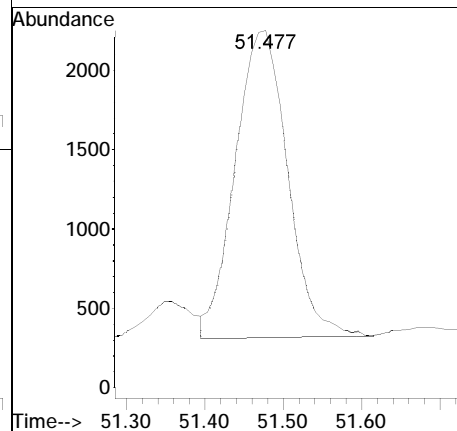
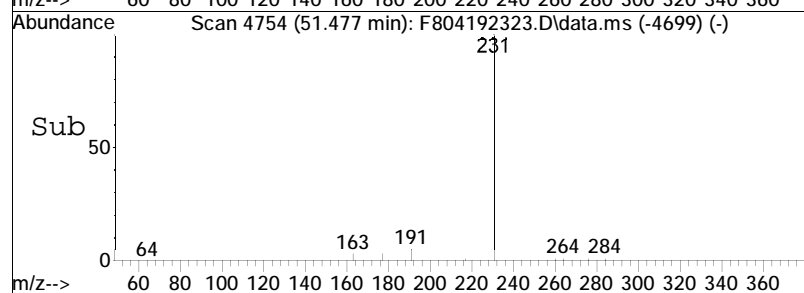
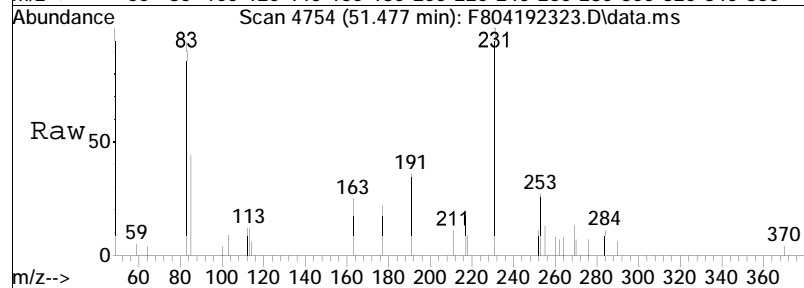
Tgt Ion: 231 Resp: 14180

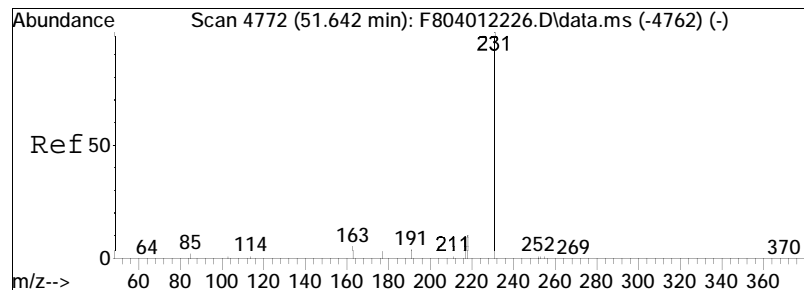




#152
 C28,20S TAS
 Concen: 996.64 ng/mL
 RT: 51.477 min Scan# 4754
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

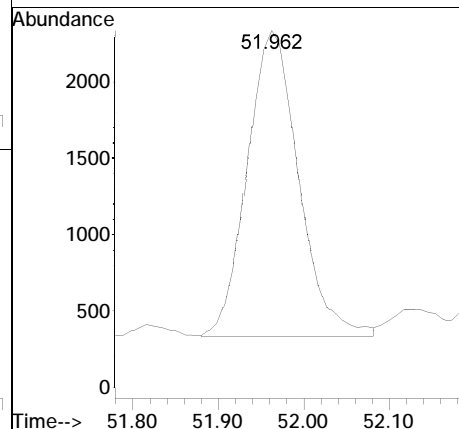
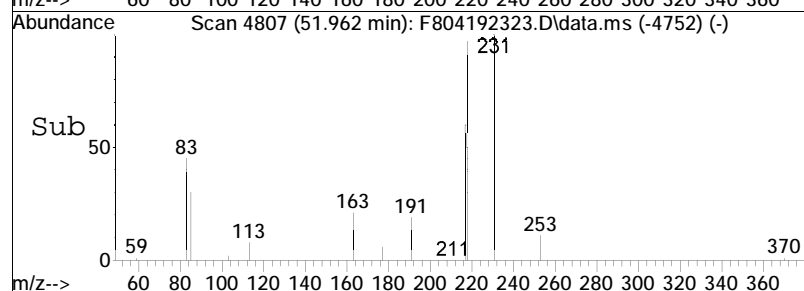
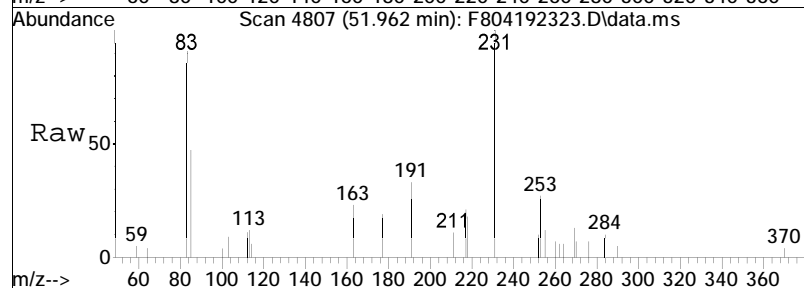
Tgt Ion: 231 Resp: 8954

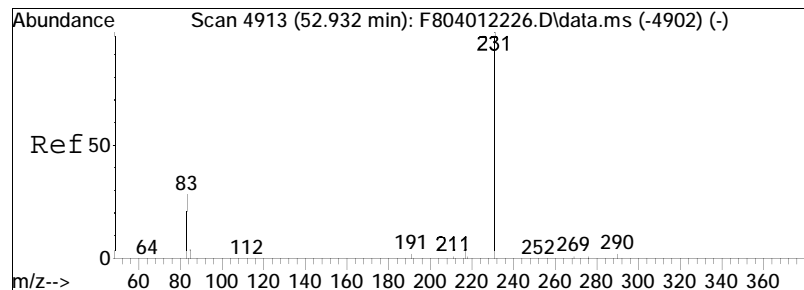




#153
 C27,20R TAS
 Concen: 931.97 ng/mL
 RT: 51.962 min Scan# 4807
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

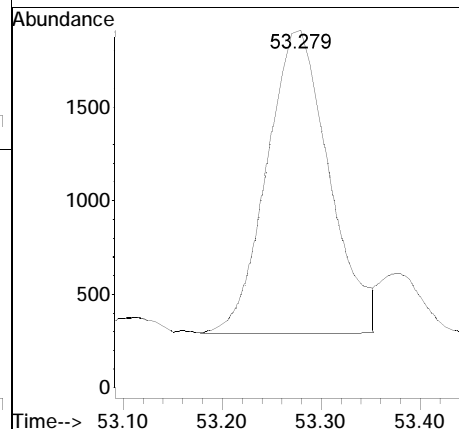
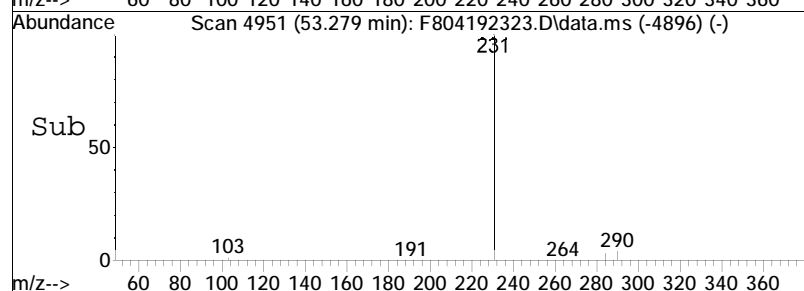
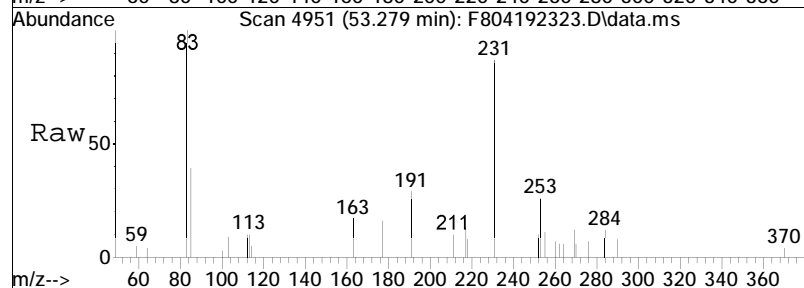
Tgt Ion: 231 Resp: 8373

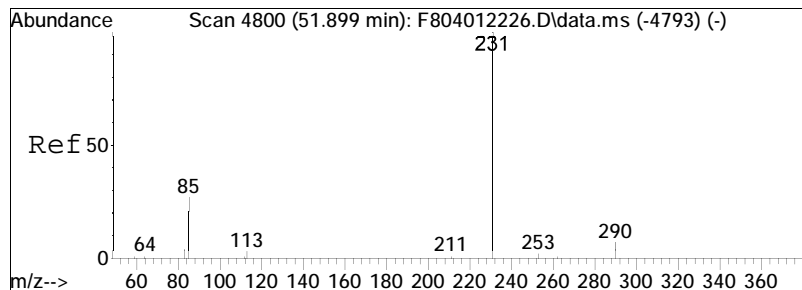




#154
 C28,20R TAS
 Concen: 786.38 ng/mL
 RT: 53.279 min Scan# 4951
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

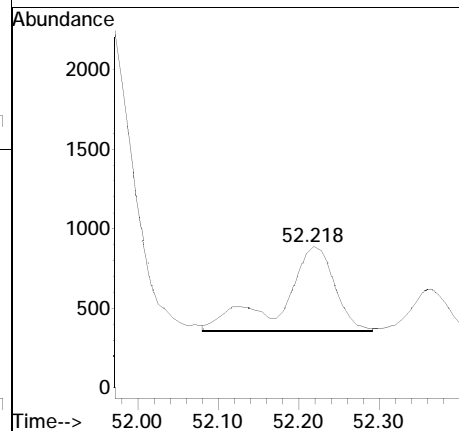
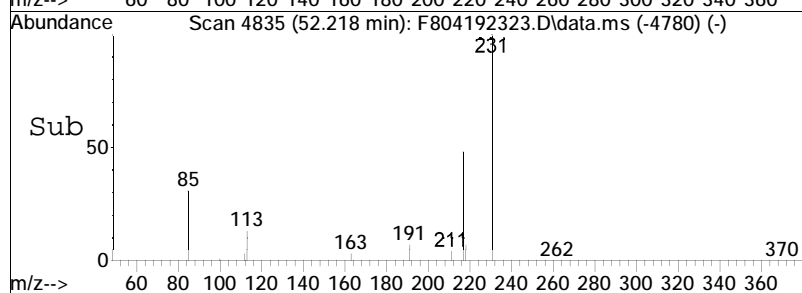
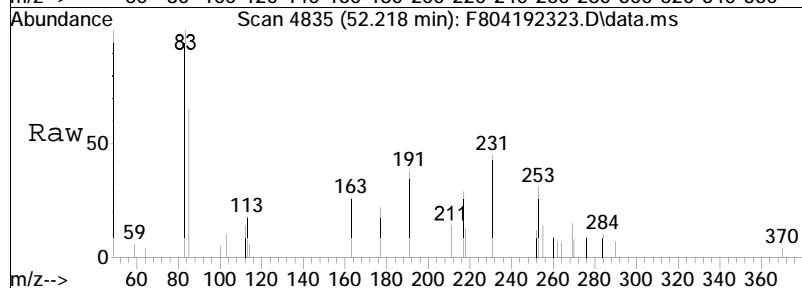
Tgt Ion: 231 Resp: 7065

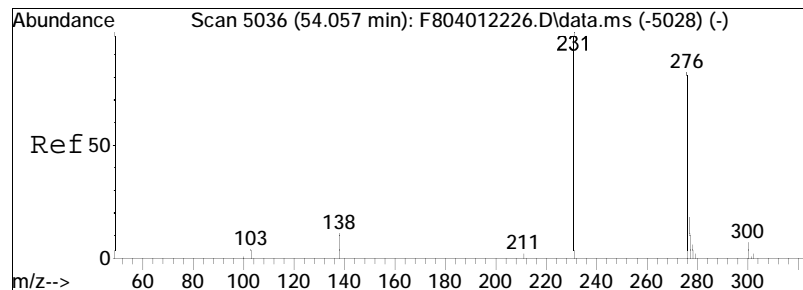




#155
 C29,20S TAS
 Concen: 268.14 ng/mL M4
 RT: 52.218 min Scan# 4835
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

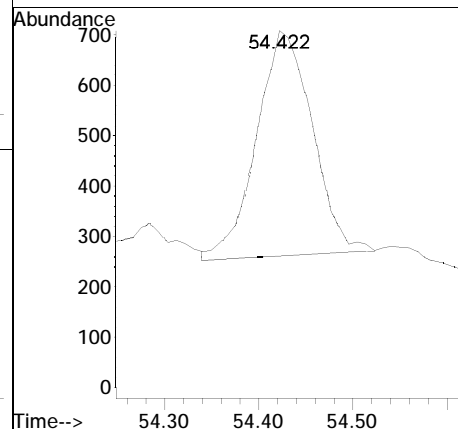
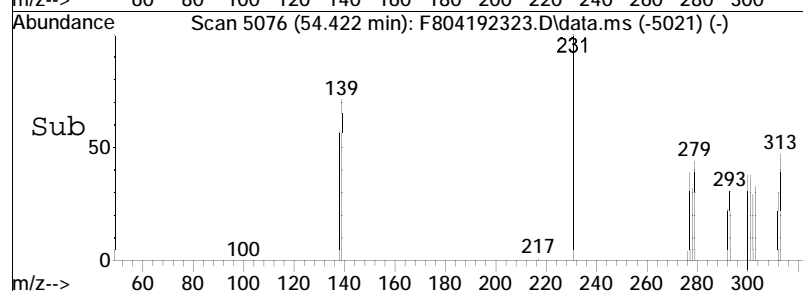
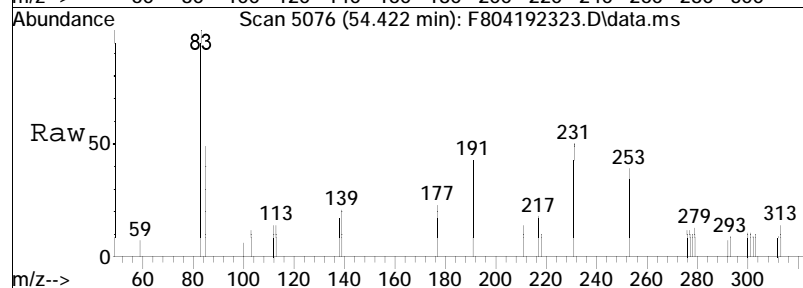
Tgt Ion: 231 Resp: 2409





#156
 C29,20R TAS
 Concen: 203.80 ng/mL
 RT: 54.422 min Scan# 5076
 Delta R.T. 0.000 min
 Lab File: F804192323.D
 Acq: 20 Apr 2023 7:15 pm

Tgt Ion: 231 Resp: 1831



Response Factor Report PAH12

Method Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Method File : PAH12042623.M
 Title : Decalins & Alkylated PAH's
 Last Update : Thu Apr 27 14:54:43 2023
 Response Via : Initial Calibration

Calibration Files

10 =F1204262303.D 25 =F1204262304.D 100 =F1204262305.D 500 =F1204262306.D 5000=F1204262307.D
 1e4 =F1204262308.D 2e4 =F1204262309.D

Compound		10	25	100	500	5000	1e4	2e4	Avg	%RSD
-----ISTD-----										
1) i	Acenaphthene-d10									
2) A1	trans-Decalin	0.460	0.485	0.482	0.486	0.431	0.499	0.484	0.475	4.78
3) t	cis-Decalin	0.421	0.369	0.376	0.380	0.339	0.393	0.379	0.380	6.55
4) A2	C1-Decalins	0.460	0.485	0.482	0.486	0.431	0.499	0.484	0.475	4.78
5) A2	C2-Decalins	0.460	0.485	0.482	0.486	0.431	0.499	0.484	0.475	4.78
6) A2	C3-Decalins	0.460	0.485	0.482	0.486	0.431	0.499	0.484	0.475	4.78
7) A2	C4-Decalins	0.460	0.485	0.482	0.486	0.431	0.499	0.484	0.475	4.78
8) s	Naphthalene-d8	1.977	1.909	2.154	2.187	2.022	2.284	2.180	2.102	6.39
9) A1	Naphthalene	2.129	2.083	2.283	2.442	2.252	2.569	2.451	2.315	7.74
10) A2	C1-Naphthalenes	2.129	2.083	2.283	2.442	2.252	2.569	2.451	2.315	7.74
11) A2	C2-Naphthalenes	2.129	2.083	2.283	2.442	2.252	2.569	2.451	2.315	7.74
12) A2	C3-Naphthalenes	2.129	2.083	2.283	2.442	2.252	2.569	2.451	2.315	7.74
13) A2	C4-Naphthalenes	2.129	2.083	2.283	2.442	2.252	2.569	2.451	2.315	7.74
14) t	2-Methylnaphth...	1.254	1.179	1.283	1.467	1.491	1.664	1.610	1.421	13.09
15) t	1-Methylnaphth...	1.242	1.131	1.170	1.393	1.350	1.592	1.531	1.344	13.07
16) A1	Benzothiophene	1.717	1.803	1.766	1.923	1.794	2.058	1.983	1.864	6.77
17) A2	C1-Benzo(b)thi...	1.717	1.803	1.766	1.923	1.794	2.058	1.983	1.864	6.77
18) A2	C2-Benzo(b)thi...	1.717	1.803	1.766	1.923	1.794	2.058	1.983	1.864	6.77
19) A2	C3-Benzo(b)thi...	1.717	1.803	1.766	1.923	1.794	2.058	1.983	1.864	6.77
20) A2	C4-Benzo(b)thi...	1.717	1.803	1.766	1.923	1.794	2.058	1.983	1.864	6.77
21) t	Biphenyl	1.556	1.633	1.658	1.833	1.761	2.012	1.916	1.767	9.27
22) t	2,6-Dimethylna...	1.055	0.994	1.035	1.158	1.182	1.393	1.336	1.165	13.10
23) t	Dibenzofuran	1.347	1.428	1.517	1.660	1.637	2.105	1.960	1.665	16.63
24) t	Acenaphthylene	1.768	1.773	1.810	1.952	2.047	2.381	2.250	1.997	12.15
25) t	Acenaphthene	1.224	1.214	1.230	1.289	1.253	1.463	1.345	1.288	6.95
26) t	2,3,5-Trimethy...	1.028	0.997	0.997	1.038	1.072	1.260	1.174	1.081	9.23
27) A1	Fluorene	1.207	1.117	1.240	1.325	1.368	1.640	1.490	1.341	13.29
28) A2	C1-Fluorenes	1.207	1.117	1.240	1.325	1.368	1.640	1.490	1.341	13.29
29) A2	C2-Fluorenes	1.207	1.117	1.240	1.325	1.368	1.640	1.490	1.341	13.29
30) A2	C3-Fluorenes	1.207	1.117	1.240	1.325	1.368	1.640	1.490	1.341	13.29
31) A1	Dibenzothiophene	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66

Response Factor Report PAH12

Method Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Method File : PAH12042623.M
 Title : Decalins & Alkylated PAH's
 Last Update : Thu Apr 27 14:54:43 2023
 Response Via : Initial Calibration

Calibration Files

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 1e4 =F1204262308.D 2e4 =F1204262309.D

	Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
32) A2	4-Methyldibenz...	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
33) A2	2/3-Methyldibe...	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
34) A2	1-Methyldibenz...	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
35) A2	OTP	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
36) A2	C1-Dibenzothio...	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
37) A2	C2-Dibenzothio...	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
38) A2	C3-Dibenzothio...	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
39) A2	C4-Dibenzothio...	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
40) s	Phenanthrene-d10	1.308	1.405	1.376	1.369	1.400	1.673	1.585	1.445	9.13
41) A1	Phenanthrene	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
42) A2	3-Methylphenan...	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
43) A2	2-Methylphenan...	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
44) A2	2-Methylanthra...	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
45) A2	9/4-Methylphen...	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
46) A2	1-Methylphenan...	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
47) A2	C1-Phenanthren...	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
48) A2	C2-Phenanthren...	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
49) A2	5AA IS BKGD	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
50) A2	C3-Phenanthren...	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
51) A2	C4-Phenanthren...	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
52) t	Retene	0.463	0.422	0.424	0.449	0.522	0.674	0.625	0.511	19.76
53) t	Anthracene	1.765	1.698	1.726	1.841	1.921	2.263	1.954	1.881	10.30
54) t	Carbazole	1.420	1.348	1.315	1.485	1.721	2.086	1.879	1.608	18.29
55) t	1-Methylphenan...	1.362	1.350	1.245	1.313	1.425	1.701	1.556	1.422	11.04
56) A1	Fluoranthene	2.000	1.917	1.962	2.049	2.181	2.470	2.249	2.118	9.21
57) A1	Benzo(b)fluorene	0.904	0.753	0.786	0.854	1.114	1.390	1.267	1.010	24.68
58) A2	7H-Benzo(c)flu...	0.904	0.753	0.786	0.854	1.114	1.390	1.267	1.010	24.68
59) A1	Pyrene	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
60) A2	2-Methylpyrene	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
61) A2	4-Methylpyrene	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
62) A2	1-Methylpyrene	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
63) A2	C1-Fluoranthen...	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89

Response Factor Report PAH12

Method Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Method File : PAH12042623.M
 Title : Decalins & Alkylated PAH's
 Last Update : Thu Apr 27 14:54:43 2023
 Response Via : Initial Calibration

Calibration Files

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 1e4 =F1204262308.D 2e4 =F1204262309.D

Compound			10	25	100	500	5000	1e4	2e4	Avg	%RSD
64)	A2	C2-Fluoranthene...	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
65)	A2	C3-Fluoranthene...	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
66)	A2	C4-Fluoranthene...	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
67)	A1	Naphthobenzoth...	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93
68)	A2	Naphthobenzoth...	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93
69)	A2	Naphthobenzoth...	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93
70)	A2	C1-Naphthobenz...	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93
71)	A2	C2-Naphthobenz...	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93
72)	A2	C3-Naphthobenz...	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93
73)	A2	C4-Naphthobenz...	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93
74)	i	Chrysene-d12	-----ISTD-----								
75)	t	Benz[a]anthracene	1.290	1.325	1.254	1.347	1.361	1.391	1.490	1.351	5.64
76)	A1	Chrysene	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
77)	A2	Chrysene/Triph...	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
78)	A2	C1-Chrysenes	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
79)	A2	C2-Chrysenes	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
80)	A2	BBF-D12 Surr BKGD	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
81)	A2	C3-Chrysenes	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
82)	A2	C4-Chrysenes	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
83)	A2	DAT-16 (t)	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
84)	s	Benzo[b]fluora...	1.198	0.962	0.978	0.959	0.952	0.982	1.093	1.018	9.13
85)	t	Benzo[b]fluora...	1.384	1.269	1.378	1.542	1.539	1.492	1.563	1.452	7.60
86)	A1	Benzo[j]+[k]fl...	1.621	1.579	1.642	1.717	1.588	1.550	1.621	1.617	3.32
87)	A2	Benzo[a]fluora...	1.621	1.579	1.642	1.717	1.588	1.550	1.621	1.617	3.32
88)	t	Benzo[e]pyrene	1.666	1.536	1.552	1.590	1.490	1.482	1.556	1.553	4.03
89)	s	Benzo[a]pyrene...	0.722	0.629	0.634	0.631	0.696	0.899	1.019	0.747	20.49
90)	t	Benzo[a]pyrene	1.303	1.231	1.277	1.356	1.378	1.332	1.348	1.318	3.85
91)	t	Perylene	1.365	1.235	1.342	1.424	1.428	1.400	1.422	1.374	5.05
92)	t	Indeno[1,2,3-c...	1.253	1.113	1.107	1.296	1.381	1.500	1.676	1.332	15.48
93)	t	Dibenz[ah]+[ac...	1.041	0.855	0.974	1.074	1.295	1.358	1.520	1.160	20.39
94)	t	Benzo[g,h,i]pe...	1.663	1.522	1.431	1.463	1.473	1.397	1.524	1.496	5.80

Response Factor Report PAH12

Method Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Method File : PAH12042623.M
 Title : Decalins & Alkylated PAH's
 Last Update : Thu Apr 27 14:54:43 2023
 Response Via : Initial Calibration

Calibration Files

10 =F1204262303.D 25 =F1204262304.D 100 =F1204262305.D 500 =F1204262306.D 5000=F1204262307.D
 1e4 =F1204262308.D 2e4 =F1204262309.D

	Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
95) A1	Hopane (T19)	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
96) A2	C23 Tricyclic ...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
97) A2	C24 Tricyclic ...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
98) A2	C25 Tricyclic ...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
99) A2	C24 Tetracycli...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
100) A2	C26 Tricyclic ...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
101) A2	C26 Tricyclic ...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
102) A2	C28 Tricyclic ...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
103) A2	C28 Tricyclic ...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
104) A2	C29 Tricyclic ...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
105) A2	C29 Tricyclic ...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
106) A2	18a-22,29,30-T...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
107) A2	C30 Tricyclic ...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
108) A2	C30 Tricyclic ...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
109) A2	17a(H)-22,29,3...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
110) A2	17a/b,21b/a 28...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
111) A2	17a(H),21b(H)-...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
112) A2	30-Norhopane (...)	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
113) A2	18a(H)-30-Norn...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
114) A2	17a(H)-Diahopa...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
115) A2	30-Normoretane...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
116) A2	18a(H)&18b(H)-...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
117) A2	Moretane (T20)	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
118) A2	30-Homohopane-...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
119) A2	30-Homohopane-...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
120) A2	Gammacerane/C3...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
121) A2	30,31-Bishomoh...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
122) A2	30,31-Bishomoh...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
123) A2	30,31-Trishomo...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
124) A2	30,31-Trishomo...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
125) A2	Tetrakishomoho...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
126) A2	Tetrakishomoho...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72

Response Factor Report PAH12

Method Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Method File : PAH12042623.M
 Title : Decalins & Alkylated PAH's
 Last Update : Thu Apr 27 14:54:43 2023
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Calibration Files

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Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
127) A2 Pentakishomoho...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
128) A2 Pentakishomoho...	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
129) SA1 5B(H)Cholane -...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
130) A2 13b(H),17a(H)-...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
131) A2 13b(H),17a(H)-...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
132) A2 13b,17a-20S-Me...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
133) A2 14a,17a-20S-Ch...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
134) A2 14a,17a-20R-Ch...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
135) A2 Unknown Steran...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
136) A2 13a,17b-20S-Et...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
137) A2 14a,17a-20S-Me...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
138) A2 14a,17a-20R-Me...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
139) A2 14a(H),17a(H)-...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
140) A2 14a(H),17a(H)-...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
141) A2 14b(H),17b(H)-...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
142) A2 14b(H),17b(H)-...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
143) A2 14b,17b-20R-Me...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
144) A2 14b,17b-20S-Me...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
145) A2 14b(H),17b(H)-...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
146) A2 14b(H),17b(H)-...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
147) A2 C20 Pregnane	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
148) A2 C21 20-Methylp...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
149) A2 C22 20-Ethylpr...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
150) A2 C22 20-Ethylpr...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
151) A2 C26,20S TAS	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
152) A2 C26,20R+C27,20...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
153) A2 C28,20S TAS	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
154) A2 C27,20R TAS	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
155) A2 C28,20R TAS	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
156) A2 C29,20S TAS	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
157) A2 C29,20R TAS	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
158) A2 5b(H)-C27 (20S...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07

Response Factor Report PAH12

Method Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
Method File : PAH12042623.M
Title : Decalins & Alkylated PAH's
Last Update : Thu Apr 27 14:54:43 2023
Response Via : Initial Calibration

Calibration Files

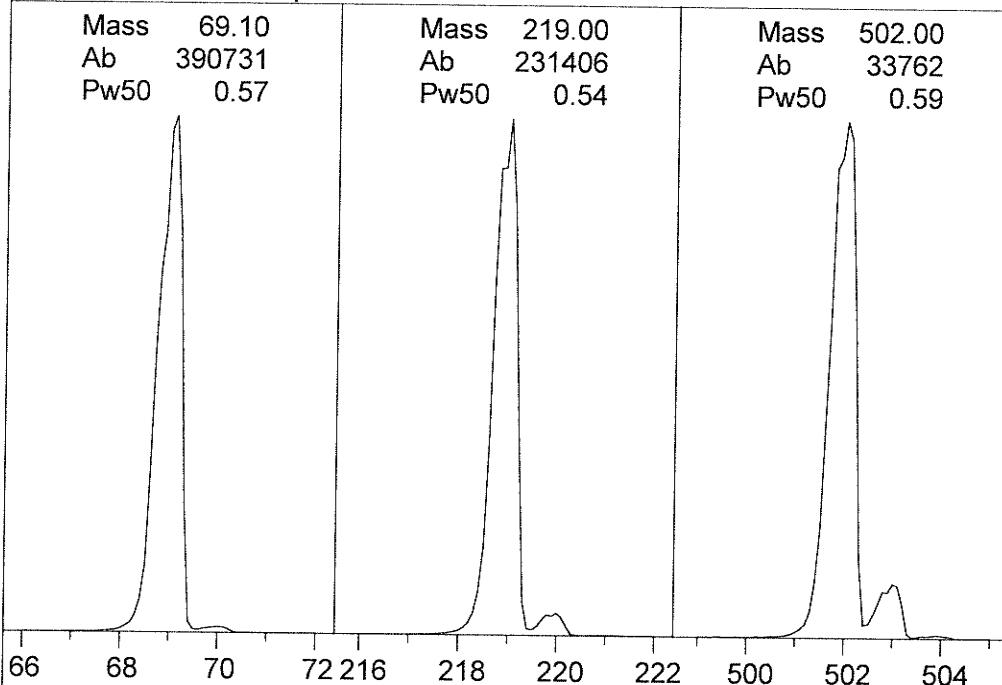
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1e4 =F1204262308.D 2e4 =F1204262309.D

Compound			10	25	100	500	5000	1e4	2e4	Avg	%RSD
159)	A2	5b(H)-C27 (20R...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
160)	A2	5a(H)-C27 (20S...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
161)	A2	5b(H)-C28 (20S...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
162)	A2	5a(H)-C27 (20R...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
163)	A2	5a(H)-C28 (20S...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
164)	A2	5b(H)-C28 (20R...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
165)	A2	5b(H)-C29 (20S...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
166)	A2	5a(H)-C29 (20S...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
167)	A2	5a(H)-C28 (20R...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
168)	A2	5b(H)-C29 (20R...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
169)	A2	5a(H)-C29 (20R...	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07

(#) = Out of Range

Wed Apr 19 09:17:04 2023
C:\MSDCHEM\1\5975\pftba.U

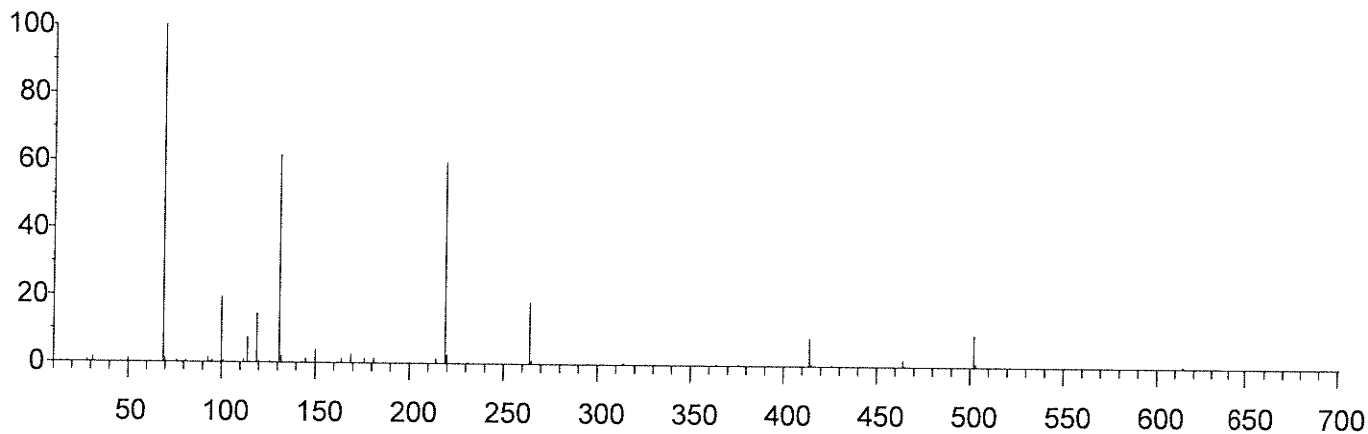
Instrument: PAH12
US71215897



Ion Pol Pos MassGain -1052
MassOffs -42
Emission 34.6 AmuGain 1192
ElEnrgy 69.9 AmuOffs 127.13
Filament 1 Wid219 -0.052
DC Pol Pos
Repeller 29.79
IonFcus 90.2 HEDenab On
EntLens 0.0 EMVolts 1929
EntOffs Var
PFTBA Open Samples 8
Averages 3
Stepsize 0.10

Temperatures and Pressures:
MS Source 230 Turbo Speed 100
MS Quad 150 HiVac 1.00e+10

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
114 peaks Base: 69.00 Abundance: 364736



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	364736	100.00	70.00	4106	1.13
219.00	217216	59.55	219.90	9238	4.25
502.00	34120	9.35	503.00	3252	9.53

Air/Water Check: H2O~0.11% N2~0.55% O2~0.20% CO2~0.06% N2/H2O~507.40%

Column(1) Flow: 1 Column(2): -1.79769e+308 ml/min. Interface Temp: 300

Ramp Criteria:

Ion Focus Maximum 90 volts using ion 502; EM Gain 87560
Repeller Maximum 30 volts using ion 219; Gain Factor 0.88

MassGain Values(Samples): -1043(3) -1035(2) -1027(1) -1009(0) -966(FS)

TARGET MASS: 50 69 131 219 414 502 1050

Amu Offset: 127.1 127.1 127.1 127.1 127.1 127.1 127.1

Entrance Lens Offset: 15.3 16.8 19.8 18.8 25.6 23.3 23.3

Target Abund(%): 1.0 100.0 55.0 50.0 8.0 8.0

Actual Tune Abund(%): 1.0 100.0 61.5 59.6 8.3 9.4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262303.D
 Acq On : 26 Apr 2023 4:02 pm
 Operator : PAH12:CNC
 Sample : i1404262301
 Misc : WG1773271,frbf67
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 27 14:52:57 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 06:18:57 2023
 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	27.223	164	61935	500.000	ng/mL	0.02
74) Chrysene-d12	43.661	240	69139	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.233	136	2449	10.149	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	1.01%#		
40) Phenanthrene-d10	33.126	188	1620	9.168	ng/mL	0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery =	0.92%#		
84) Benzo[b]fluoranthene-d12	47.591	264	1656	12.459	ng/mL	0.04
Spiked Amount 1000.000	Range 50 - 130		Recovery =	1.25%#		
89) Benzo[a]pyrene-d12	48.825	264	999	10.415	ng/mL	0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery =	1.04%#		
129) 5B(H)Cholane - Surr	44.264	217	277	11.744	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	1.17%#		
Target Compounds						
					Qvalue	
2) trans-Decalin	16.884	138	285M4	5.751	ng/mL	
3) cis-Decalin	18.107	138	261M4	6.956	ng/mL	
9) Naphthalene	20.306	128	2637	9.349	ng/mL	100
14) 2-Methylnaphthalene	23.080	142	1553M1	8.520	ng/mL	
15) 1-Methylnaphthalene	23.482	142	1538M1	9.201	ng/mL	
16) Benzothiophene	20.525	134	2127	9.714	ng/mL	100
21) Biphenyl	24.969	154	1927	9.032	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.581	156	1307	8.955	ng/mL	100
23) Dibenzofuran	28.063	168	1669	7.815	ng/mL	91
24) Acenaphthylene	26.612	152	2190	8.593	ng/mL	100
25) Acenaphthene	27.342	153	1516	8.800	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	28.948	170	1273	9.488	ng/mL	96
27) Fluorene	29.413	166	1495	8.400	ng/mL	93
31) Dibenzothiophene	32.734	184	2380	9.600	ng/mL#	76
41) Phenanthrene	33.217	178	2456	9.535	ng/mL	99
52) Retene	40.155	234	573	9.232	ng/mL	98
53) Anthracene	33.400	178	2186M4	9.266	ng/mL	
54) Carbazole	34.048	167	1759	8.138	ng/mL	93
55) 1-Methylphenanthrene	35.700	192	1687M4	9.561	ng/mL	
56) Fluoranthene	37.964	202	2477	9.026	ng/mL	97
57) Benzo(b)fluorene	40.475	216	1120M4	8.685	ng/mL	
59) Pyrene	38.850	202	2570	9.312	ng/mL	97
67) Naphthobenzothiophene-2,1	42.666	234	2181	8.848	ng/mL	99
75) Benz[a]anthracene	43.597	228	1784M3	10.326	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262303.D
 Acq On : 26 Apr 2023 4:02 pm
 Operator : PAH12:CNC
 Sample : i1404262301
 Misc : WG1773271,frbf67
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 27 14:52:57 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 06:18:57 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.762	228	2106	10.238	ng/mL	100
77) Chrysene/Triphenylene	43.762	228	2106	10.238	ng/mL	100
85) Benzo[b]fluoranthene	47.673	252	1914M3	9.900	ng/mL	
86) Benzo[j]+[k]fluoranthene	47.774	252	2241	10.111	ng/mL	87
88) Benzo[e]pyrene	48.707	252	2304M4	11.030	ng/mL	
90) Benzo[a]pyrene	48.917	252	1802M3	10.460	ng/mL	
91) Perylene	49.237	252	1888M4	10.426	ng/mL	
92) Indeno[1,2,3-cd]pyrene	53.938	276	1732M3	9.675	ng/mL	
93) Dibenz[ah]+[ac]anthracene	54.002	278	1440M4	9.660	ng/mL	
94) Benzo[g,h,i]perylene	55.272	276	2300	11.890	ng/mL	98
95) Hopane (T19)	52.959	191	696M4	14.684	ng/mL	

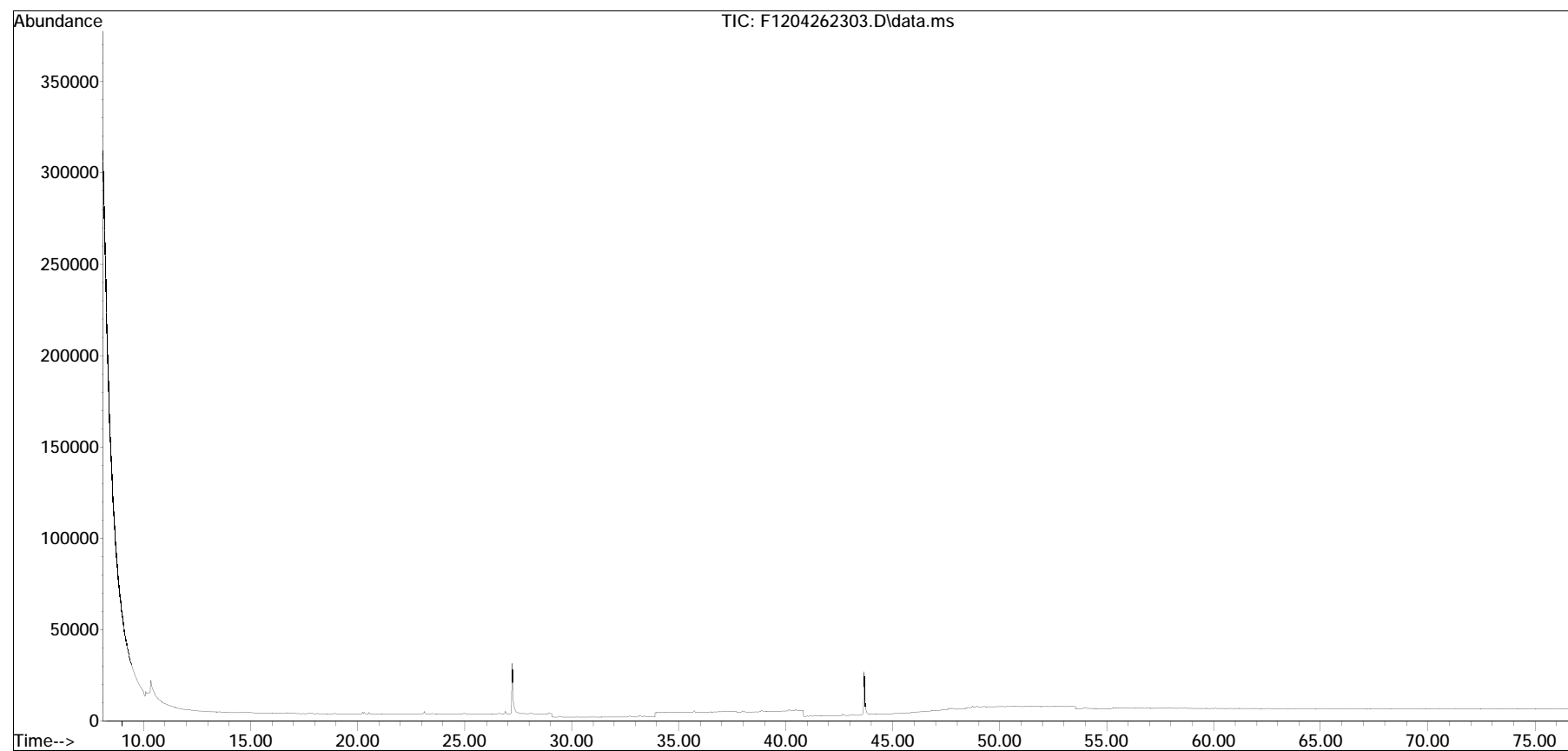
(#) = qualifier out of range (m) = manual integration (+) = signals summed

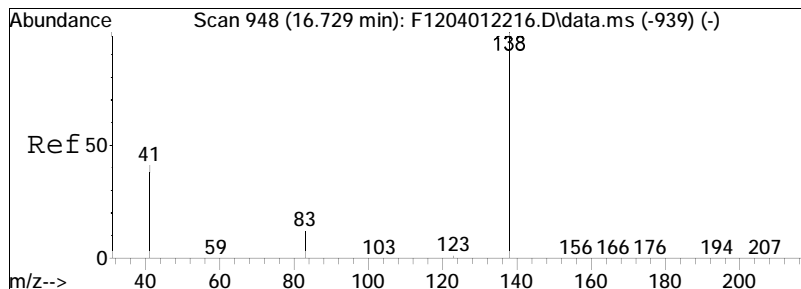
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
Data File : F1204262303.D
Acq On : 26 Apr 2023 4:02 pm
Operator : PAH12:CNC
Sample : i1404262301
Misc : WG1773271,frbf67
ALS Vial : 3 Sample Multiplier: 1

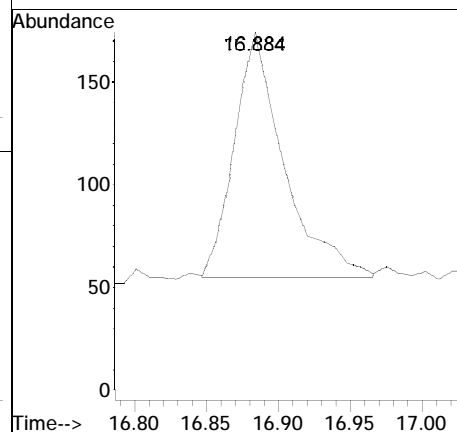
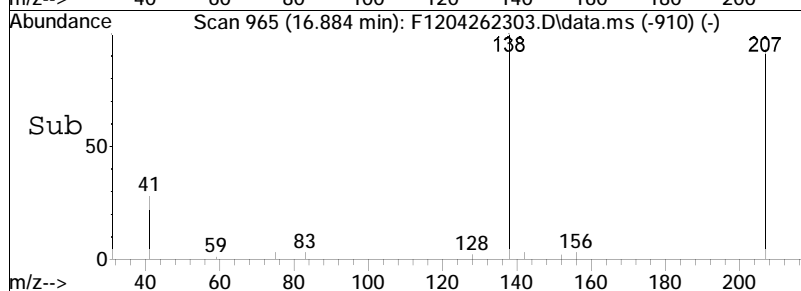
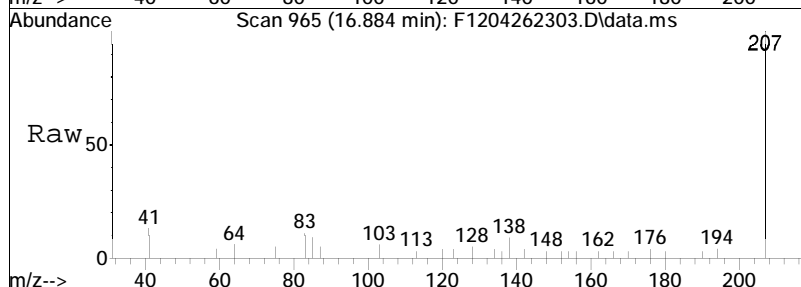
Quant Time: Apr 27 14:52:57 2023
Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 27 06:18:57 2023
Response via : Initial Calibration

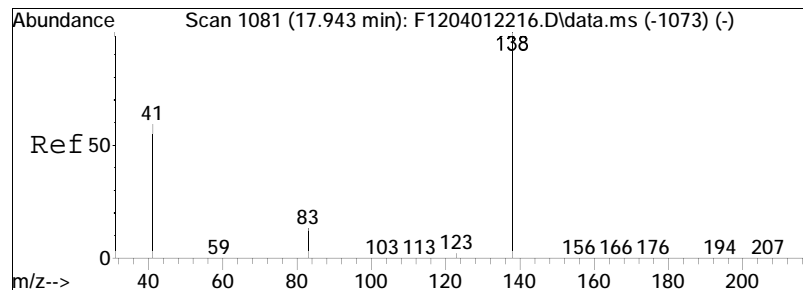
Sub List : ALKPAH_CCV - CC with five surrogates





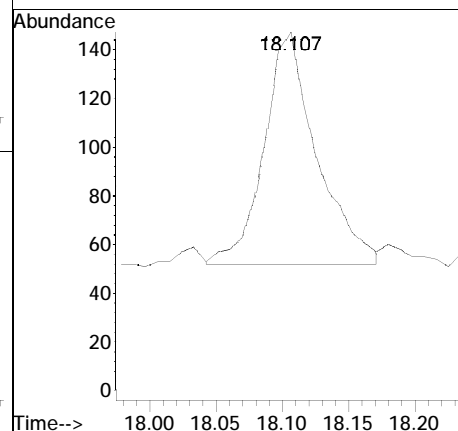
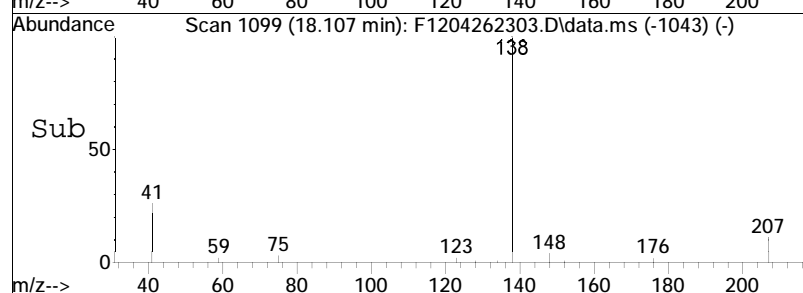
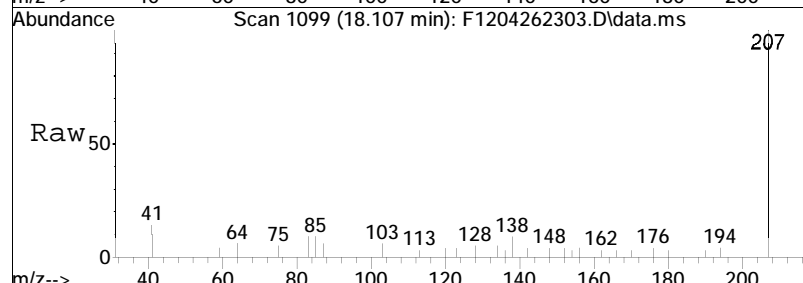
#2
trans-Decalin
Concen: 5.75 ng/mL M4
RT: 16.884 min Scan# 965
Delta R.T. -0.000 min
Lab File: F1204262303.D
Acq: 26 Apr 2023 4:02 pm
Tgt Ion:138 Resp: 285

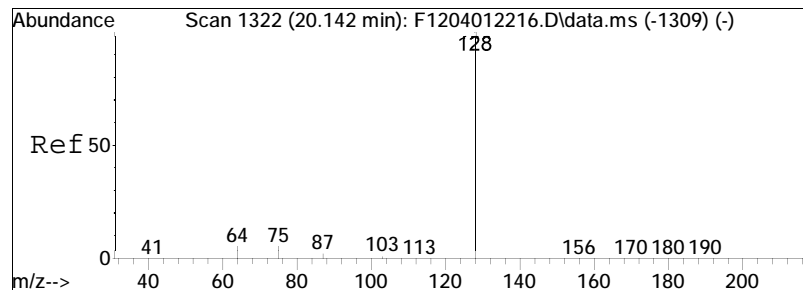




#3
 cis-Decalin
 Concen: 6.96 ng/mL M4
 RT: 18.107 min Scan# 1099
 Delta R.T. 0.009 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

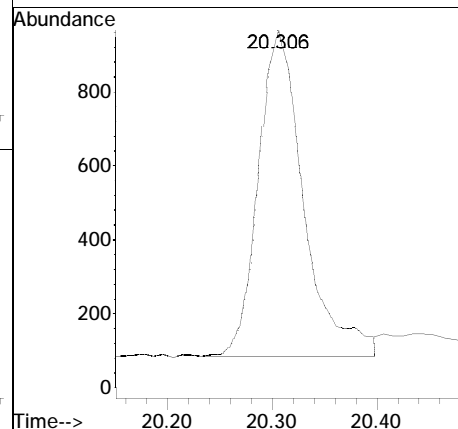
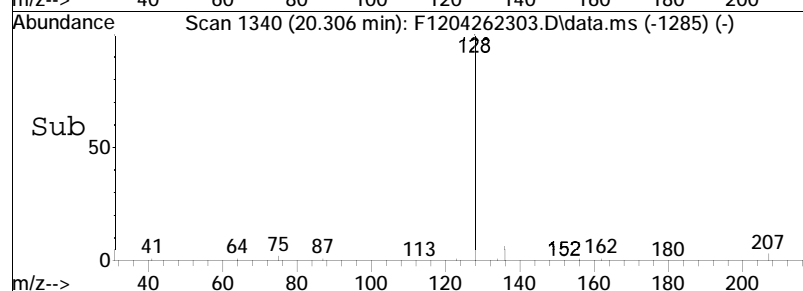
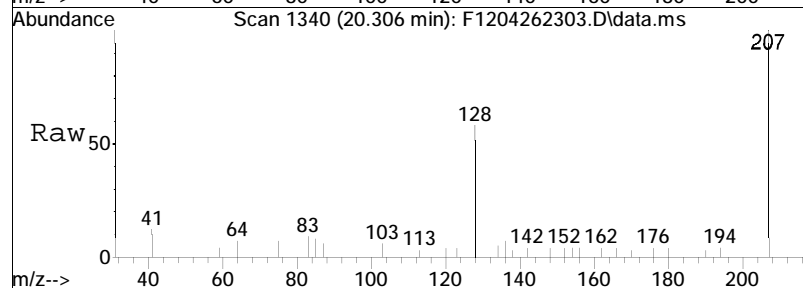
Tgt Ion:138 Resp: 261

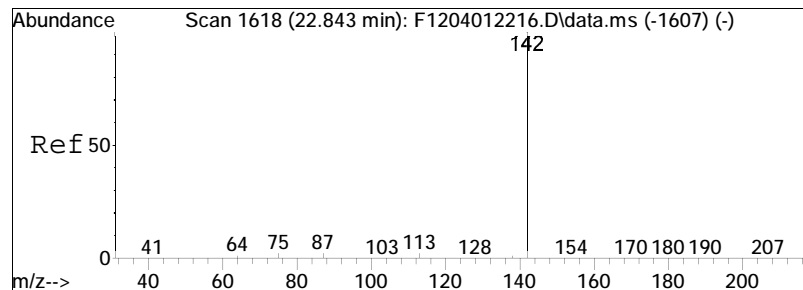




#9
Naphthalene
Concen: 9.35 ng/mL
RT: 20.306 min Scan# 1340
Delta R.T. -0.000 min
Lab File: F1204262303.D
Acq: 26 Apr 2023 4:02 pm

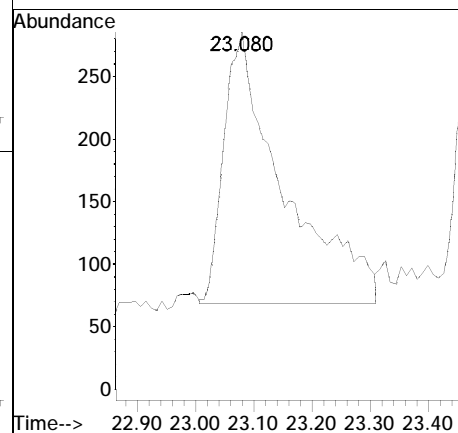
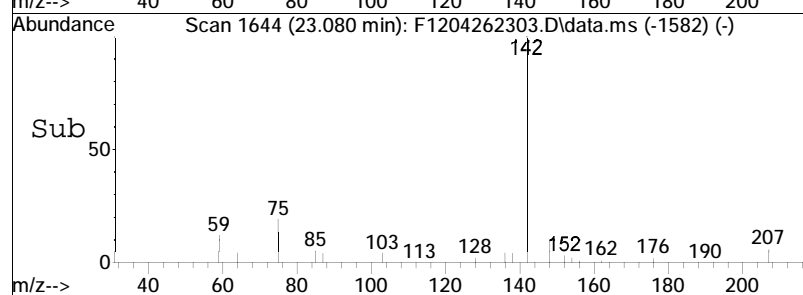
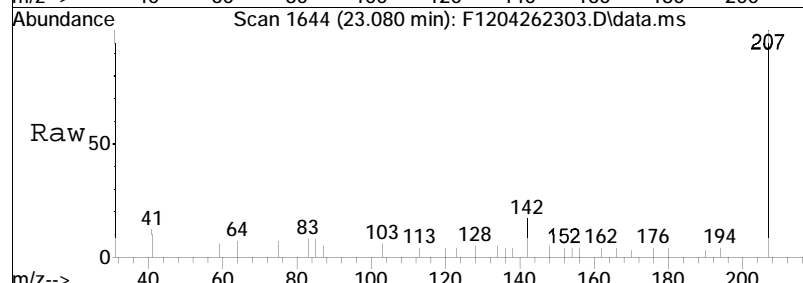
Tgt Ion:128 Resp: 2637

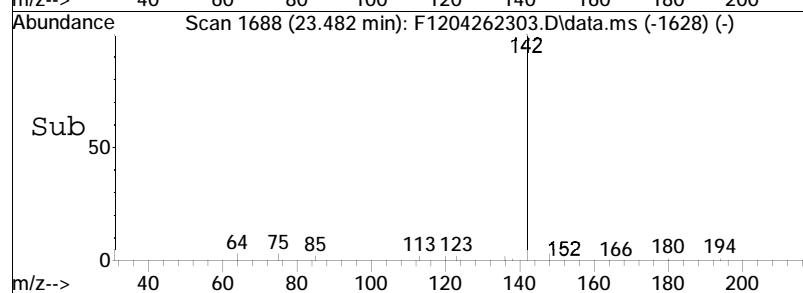
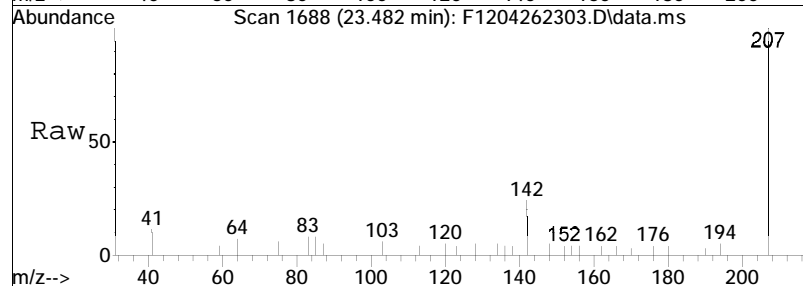
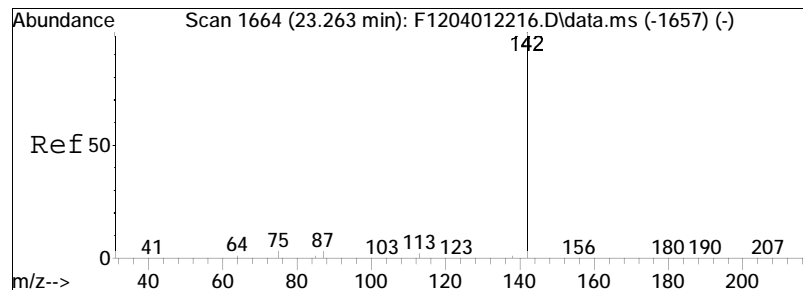




#14
 2-Methylnaphthalene
 Concen: 8.52 ng/mL M1
 RT: 23.080 min Scan# 1644
 Delta R.T. 0.064 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

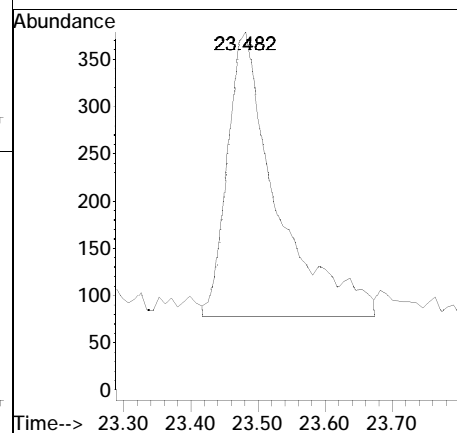
Tgt Ion:142 Resp: 1553

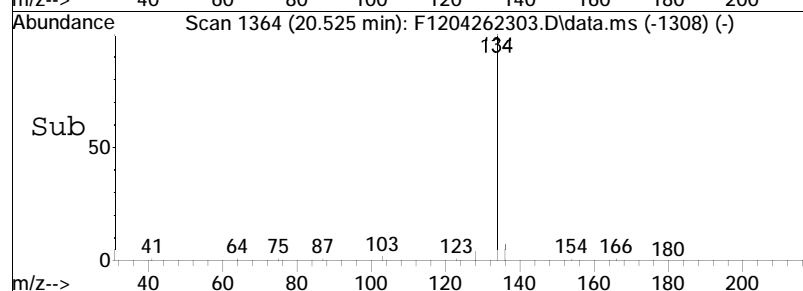
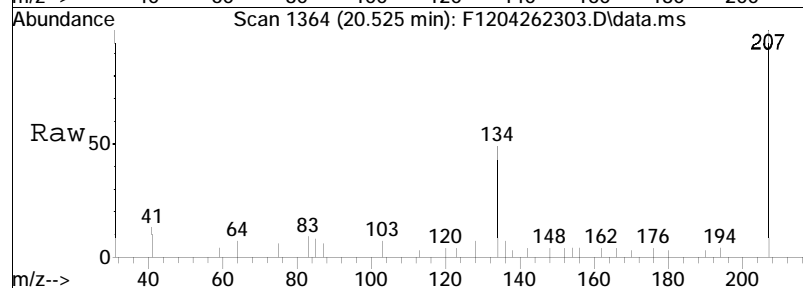
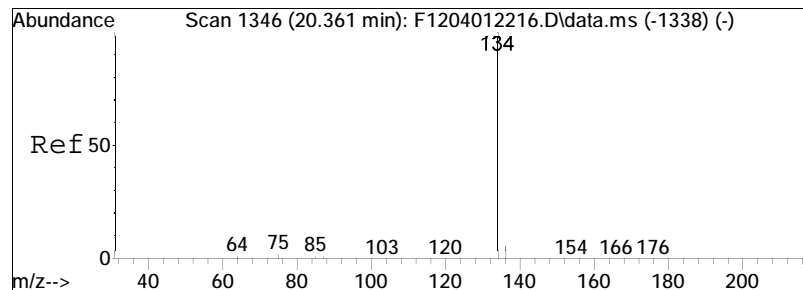




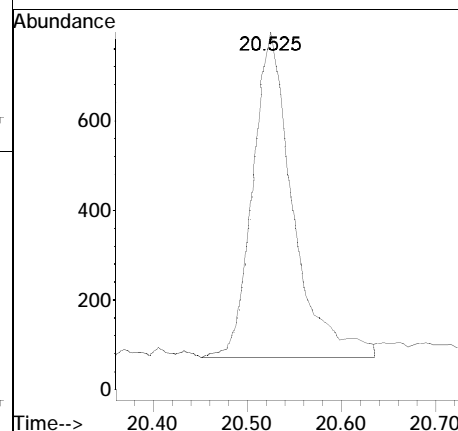
#15
1-Methylnaphthalene
Concen: 9.20 ng/mL M1
RT: 23.482 min Scan# 1688
Delta R.T. 0.045 min
Lab File: F1204262303.D
Acq: 26 Apr 2023 4:02 pm

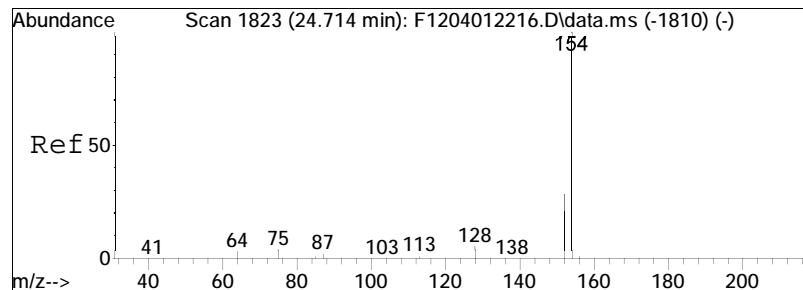
Tgt Ion:142 Resp: 1538





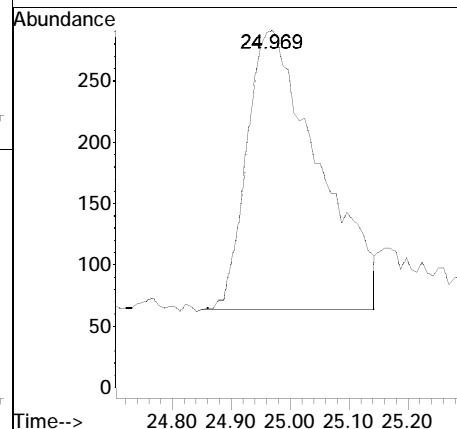
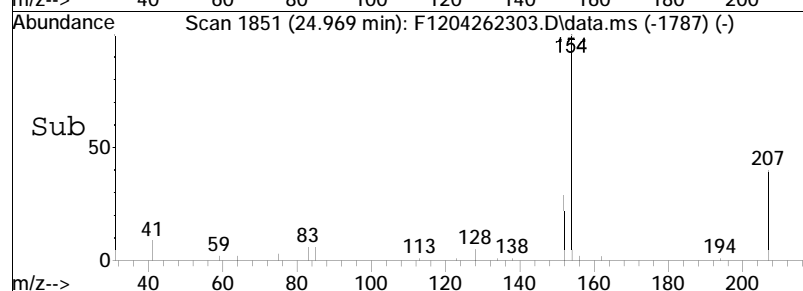
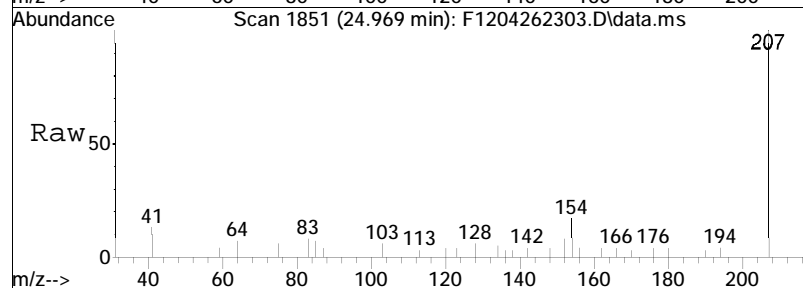
#16
Benzothiophene
Concen: 9.71 ng/mL
RT: 20.525 min Scan# 1364
Delta R.T. 0.009 min
Lab File: F1204262303.D
Acq: 26 Apr 2023 4:02 pm
Tgt Ion:134 Resp: 2127

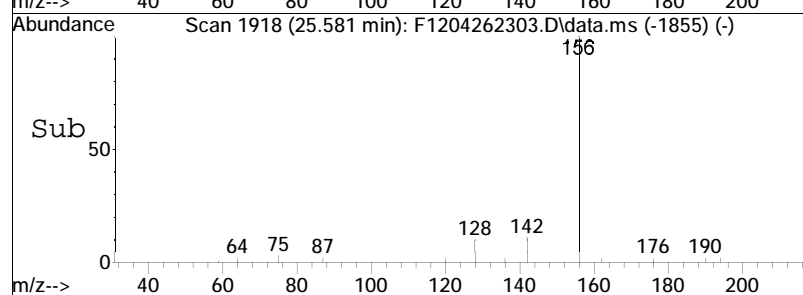
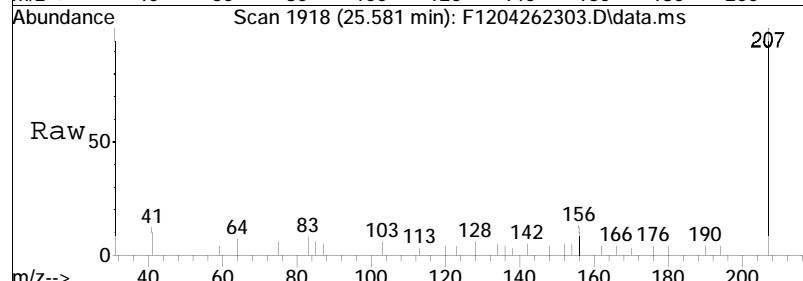
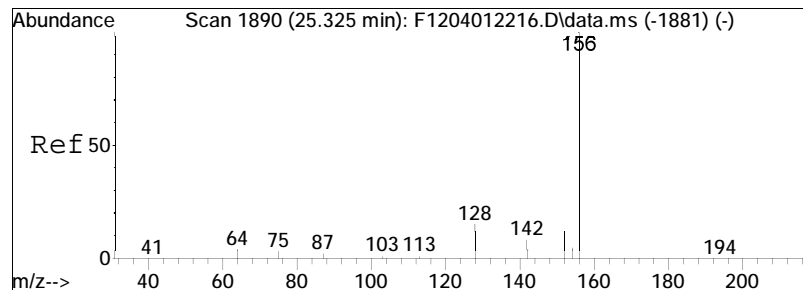




#21
 Biphenyl
 Concen: 9.03 ng/mL
 RT: 24.969 min Scan# 1851
 Delta R.T. 0.082 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

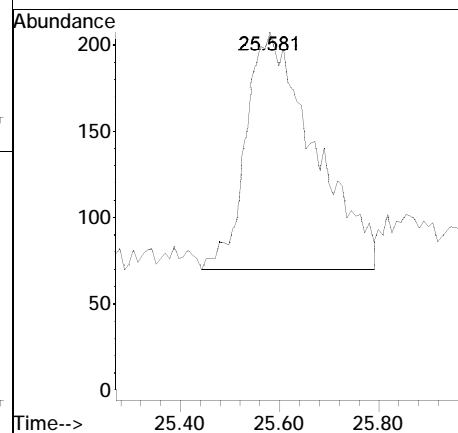
Tgt Ion:154 Resp: 1927

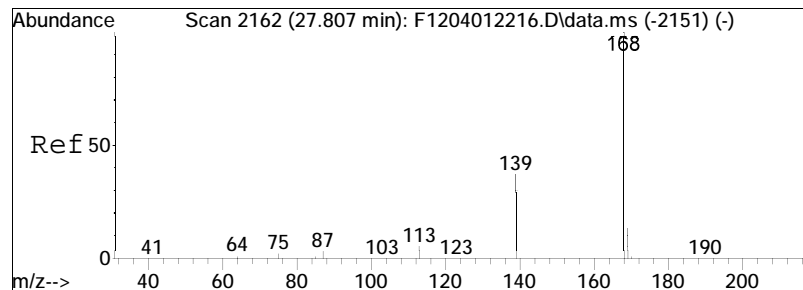




#22
2,6-Dimethylnaphthalene
Concen: 8.96 ng/mL
RT: 25.581 min Scan# 1918
Delta R.T. 0.073 min
Lab File: F1204262303.D
Acq: 26 Apr 2023 4:02 pm

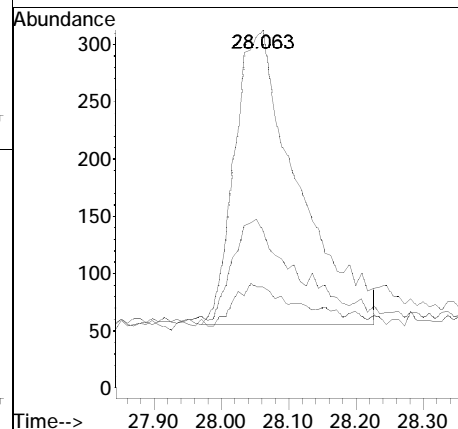
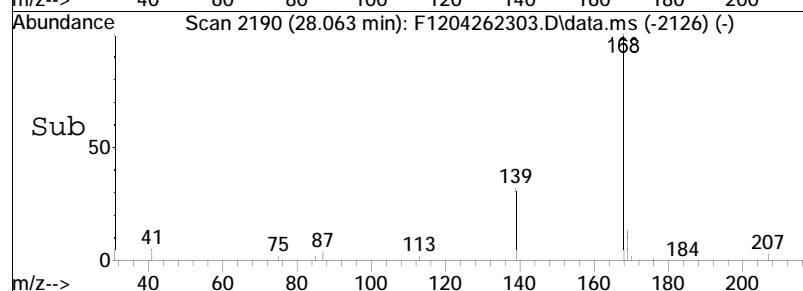
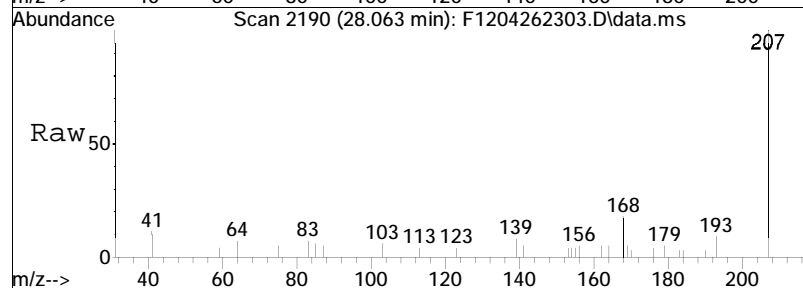
Tgt Ion:156 Resp: 1307

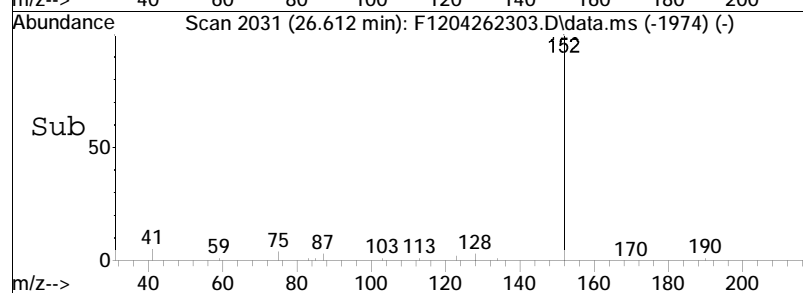
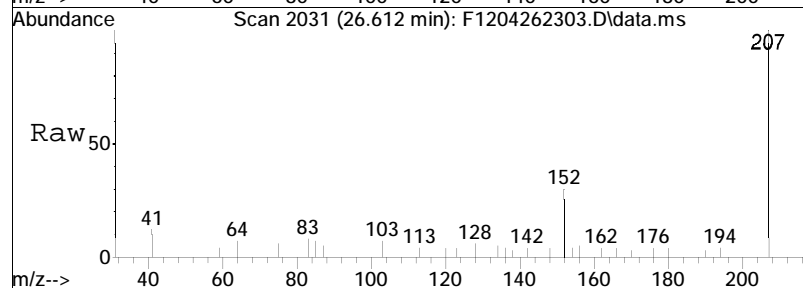
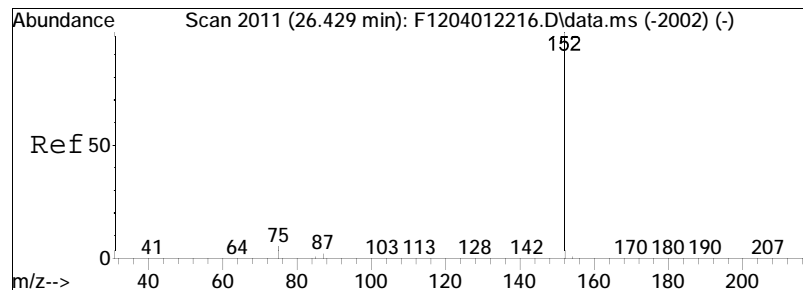




#23
 Dibenzofuran
 Concen: 7.81 ng/mL
 RT: 28.063 min Scan# 2190
 Delta R.T. 0.082 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

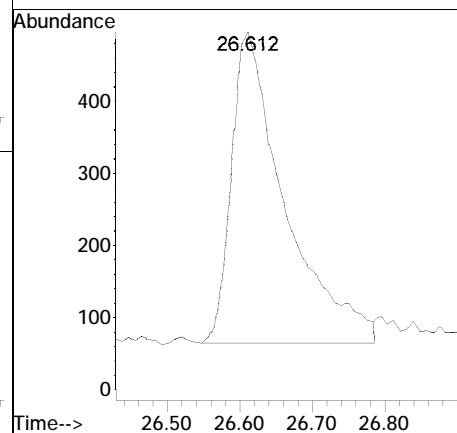
Tgt Ion:	168	Resp:	1669
Ion Ratio	Lower	Upper	
168	100		
139	28.3	24.2	45.0
169	12.2	9.4	17.4

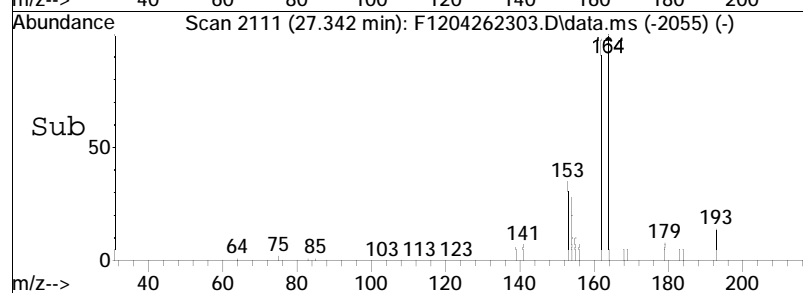
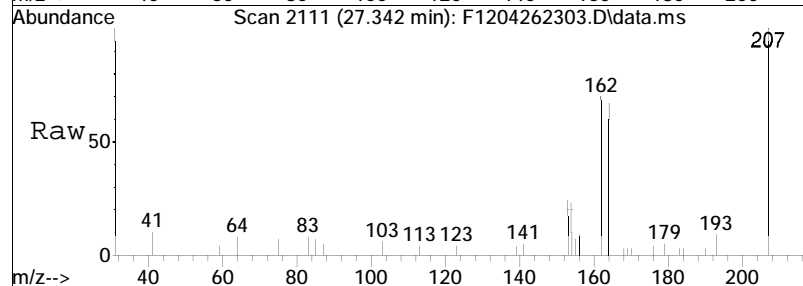
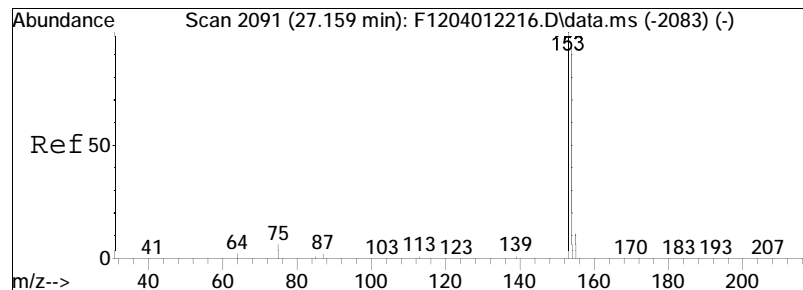




#24
Acenaphthylene
Concen: 8.59 ng/mL
RT: 26.612 min Scan# 2031
Delta R.T. 0.018 min
Lab File: F1204262303.D
Acq: 26 Apr 2023 4:02 pm

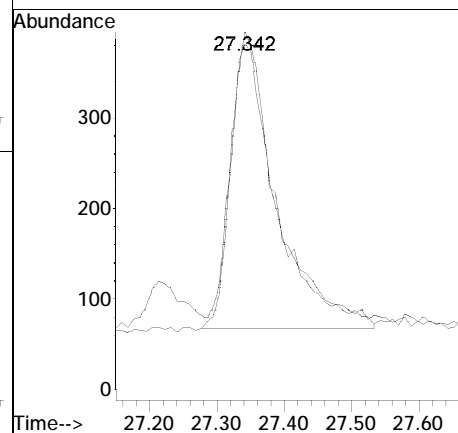
Tgt Ion:152 Resp: 2190

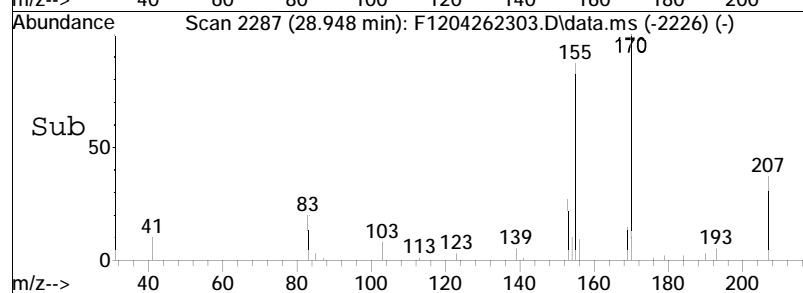
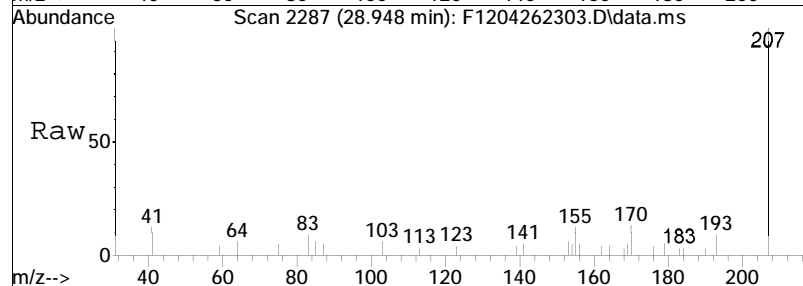
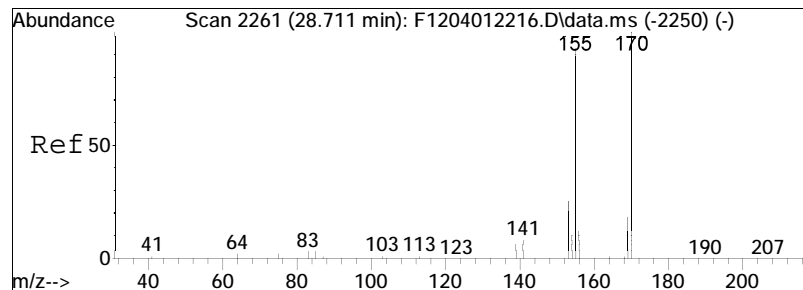




#25
 Acenaphthene
 Concen: 8.80 ng/mL
 RT: 27.342 min Scan# 2111
 Delta R.T. 0.009 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

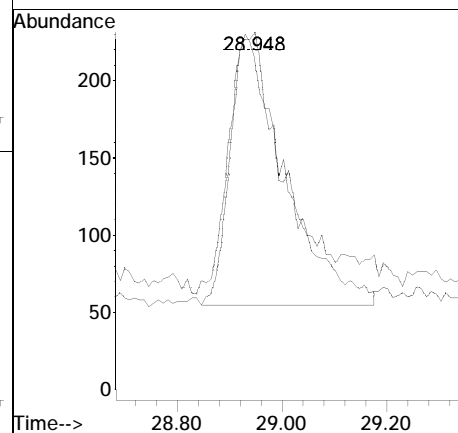
Tgt Ion	Ratio	Lower	Upper
153	100		
154	95.2	66.2	123.0

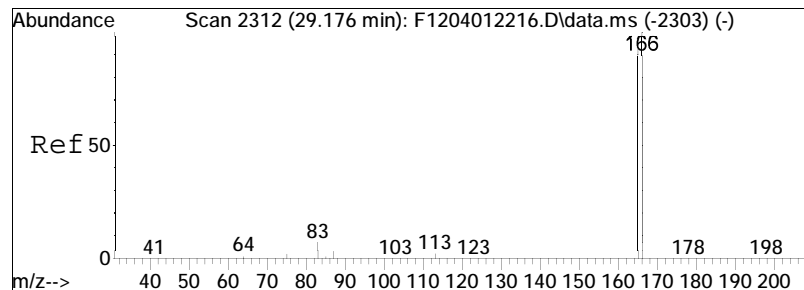




#26
 2,3,5-Trimethylnaphthalene
 Concen: 9.49 ng/mL
 RT: 28.948 min Scan# 2287
 Delta R.T. 0.055 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

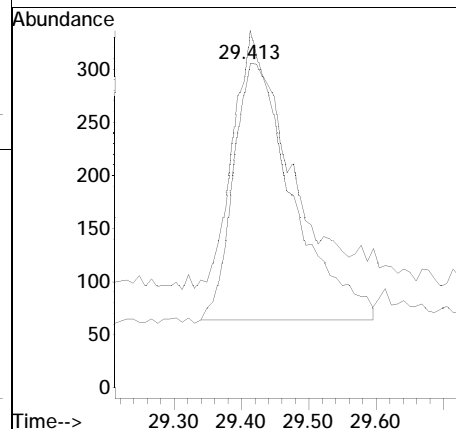
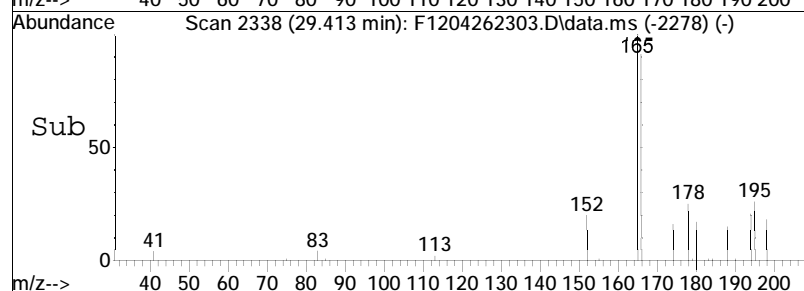
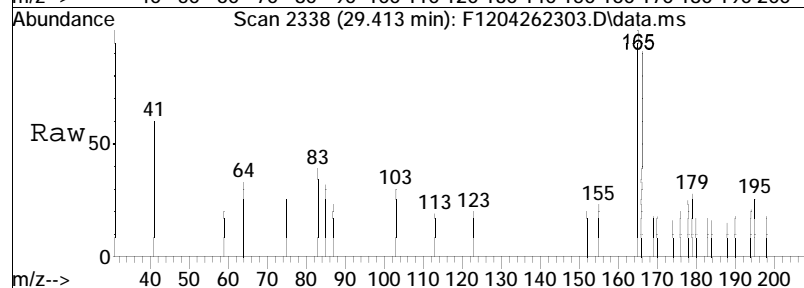
Tgt Ion: 170 Resp: 1273
 Ion Ratio Lower Upper
 170 100
 155 91.0 61.0 113.2

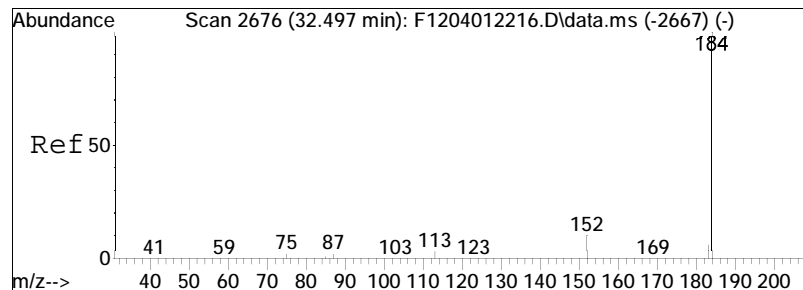




#27
 Fluorene
 Concen: 8.40 ng/mL
 RT: 29.413 min Scan# 2338
 Delta R.T. 0.045 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

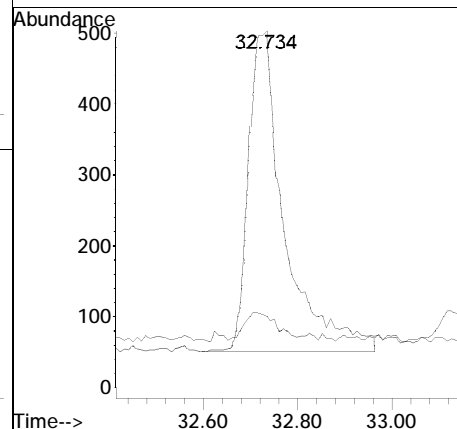
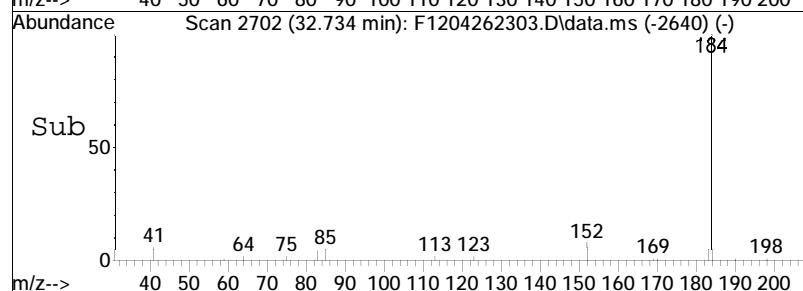
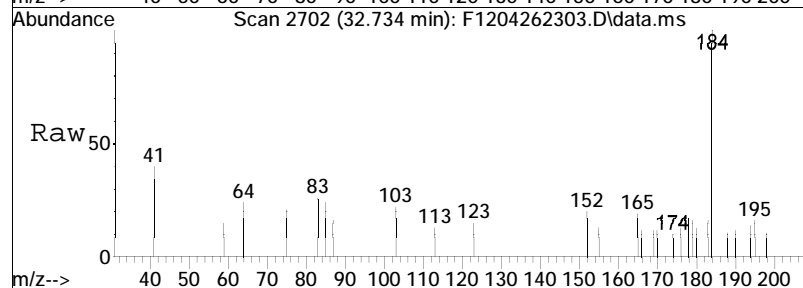
Tgt Ion	Ratio	Lower	Upper
166	100		
165	86.0	64.6	120.0

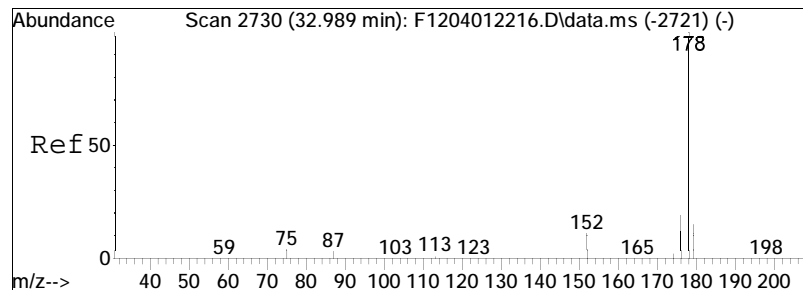




#31
 Dibenzothiophene
 Concen: 9.60 ng/mL
 RT: 32.734 min Scan# 2702
 Delta R.T. 0.064 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

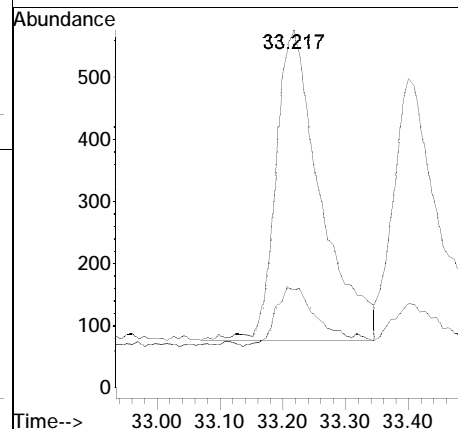
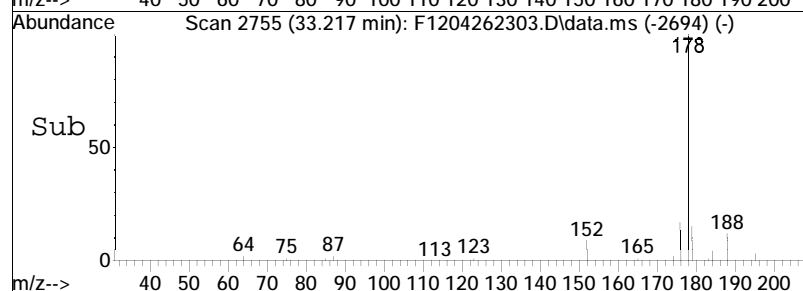
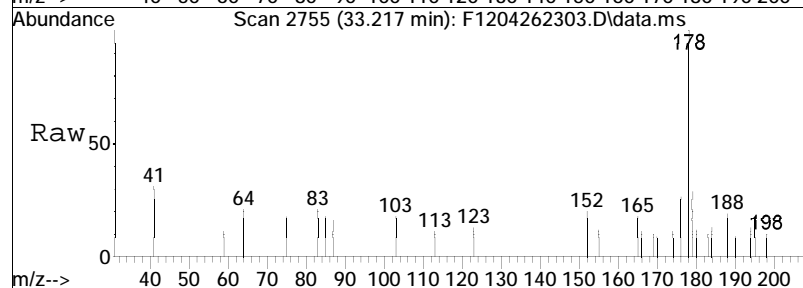
Tgt Ion	Ratio	Lower	Upper
184	100		
152	0.0	5.9	11.1#

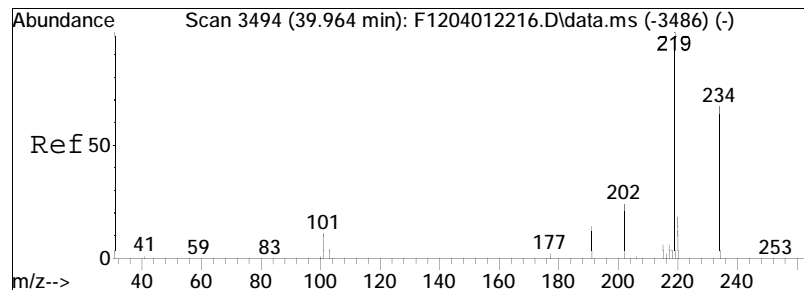




#41
 Phenanthrene
 Concen: 9.54 ng/mL
 RT: 33.217 min Scan# 2755
 Delta R.T. 0.055 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

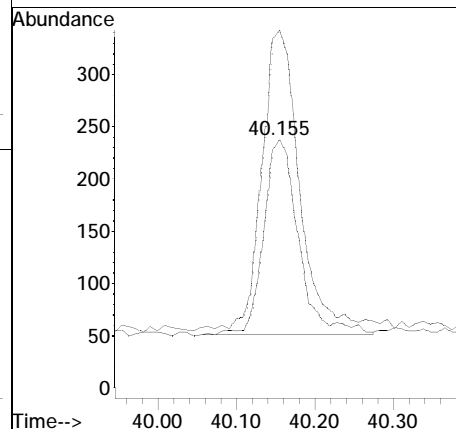
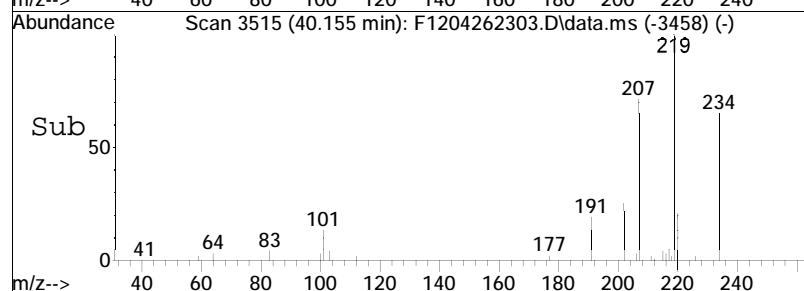
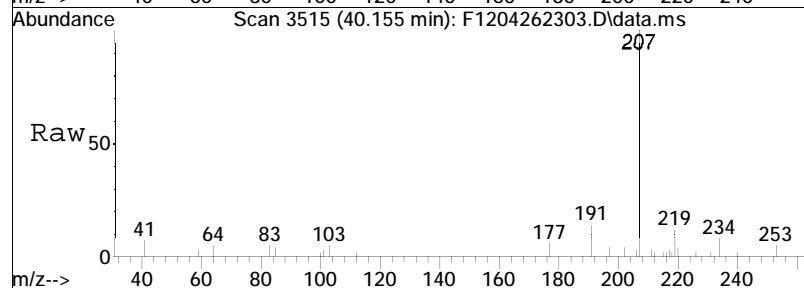
Tgt Ion	Ratio	Lower	Upper
178	100		
176	17.8	12.9	23.9

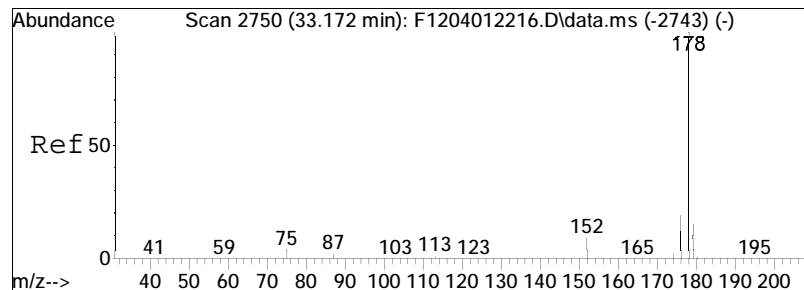




#52
 Retene
 Concen: 9.23 ng/mL
 RT: 40.155 min Scan# 3515
 Delta R.T. 0.018 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

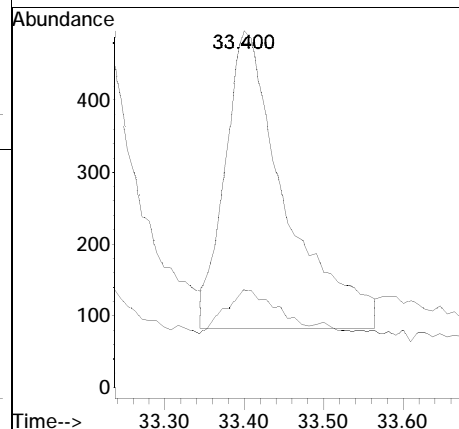
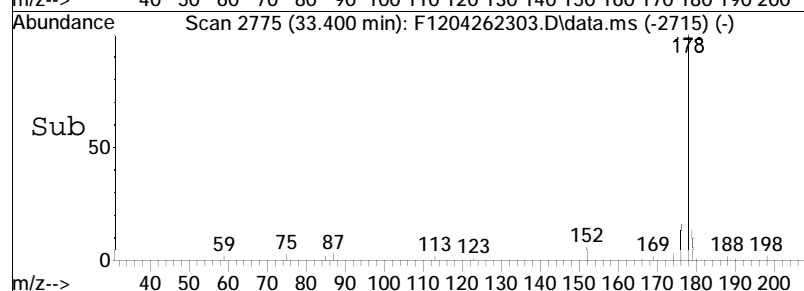
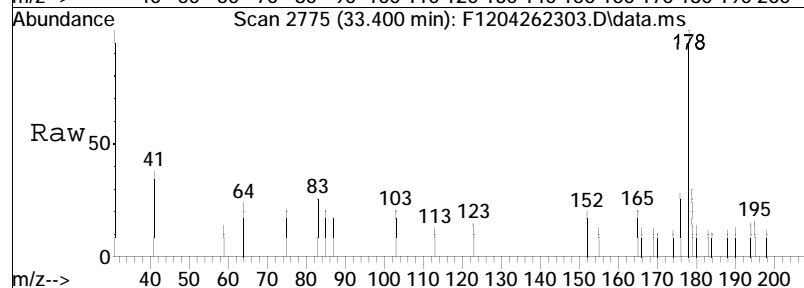
Tgt Ion	Ratio	Lower	Upper
234	100		
219	158.8	112.8	209.4

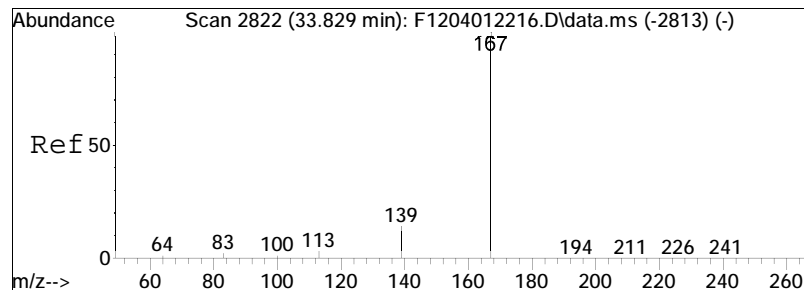




#53
 Anthracene
 Concen: 9.27 ng/mL M4
 RT: 33.400 min Scan# 2775
 Delta R.T. 0.045 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

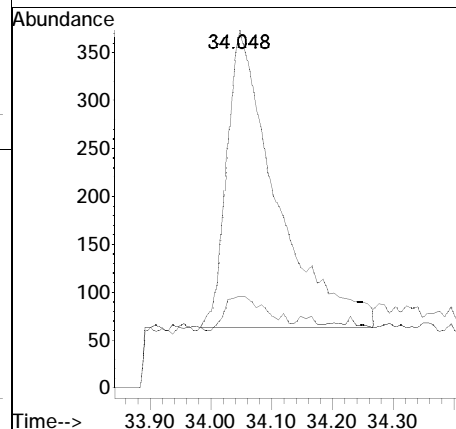
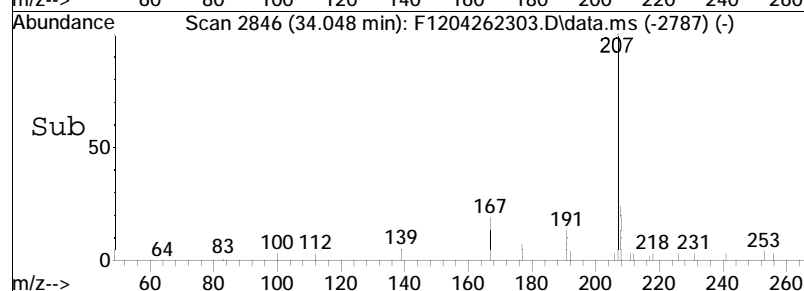
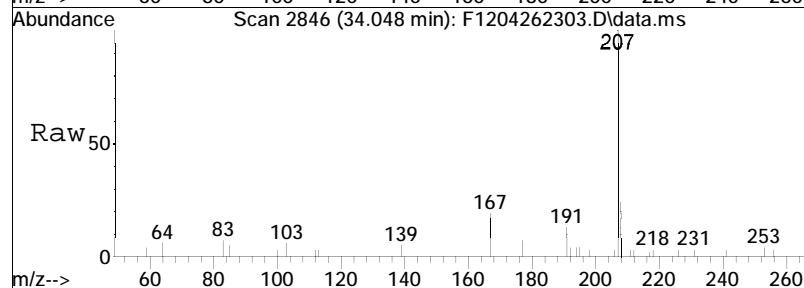
Tgt Ion: 178 Resp: 2186
 Ion Ratio Lower Upper
 178 100
 176 12.4 12.2 22.7

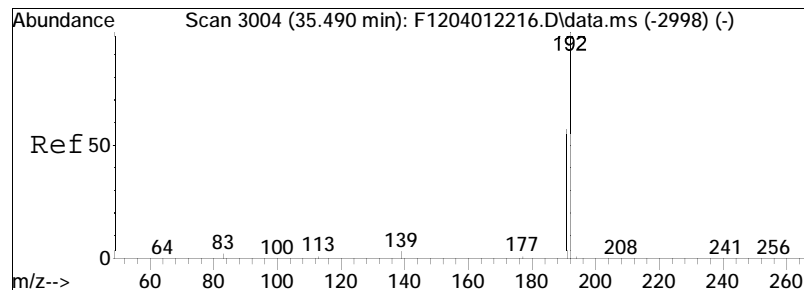




#54
 Carbazole
 Concen: 8.14 ng/mL
 RT: 34.048 min Scan# 2846
 Delta R.T. 0.036 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

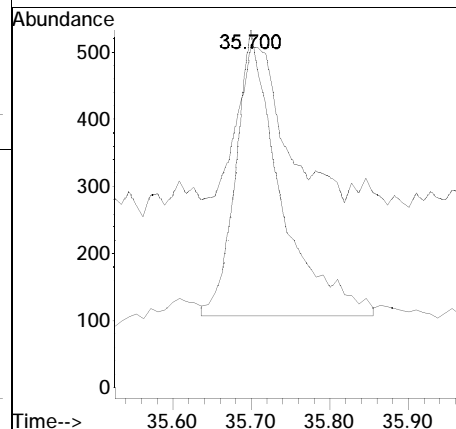
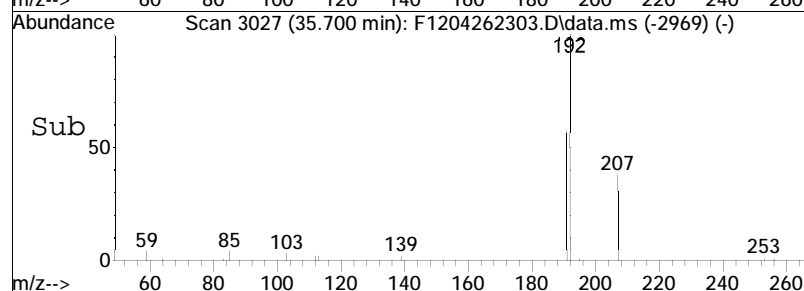
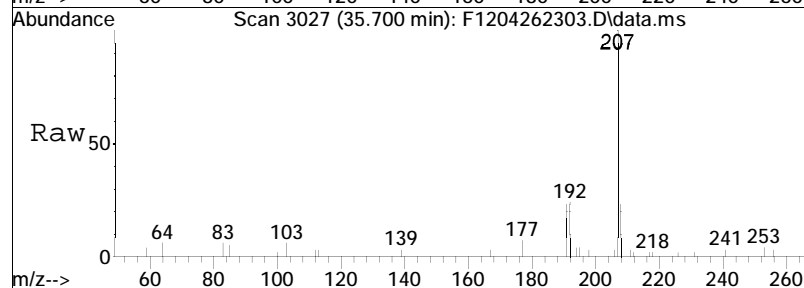
Tgt Ion	Ratio	Lower	Upper
167	100		
139	9.6	8.6	16.0

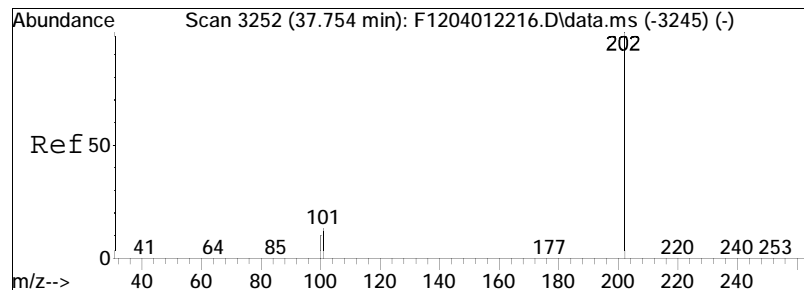




#55
 1-Methylphenanthrene
 Concen: 9.56 ng/mL M4
 RT: 35.700 min Scan# 3027
 Delta R.T. 0.027 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

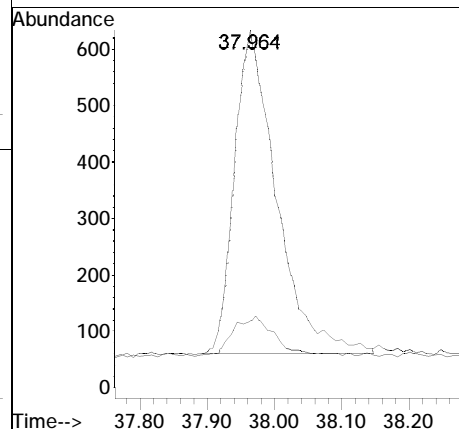
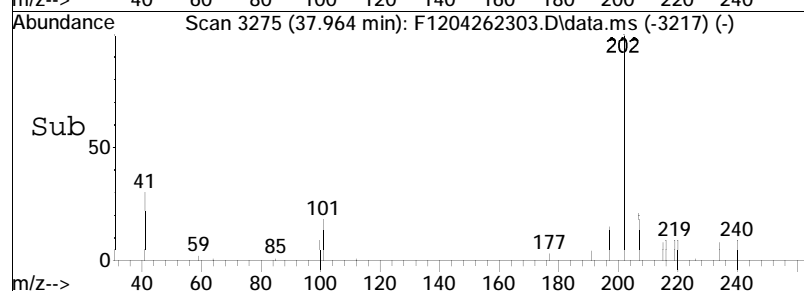
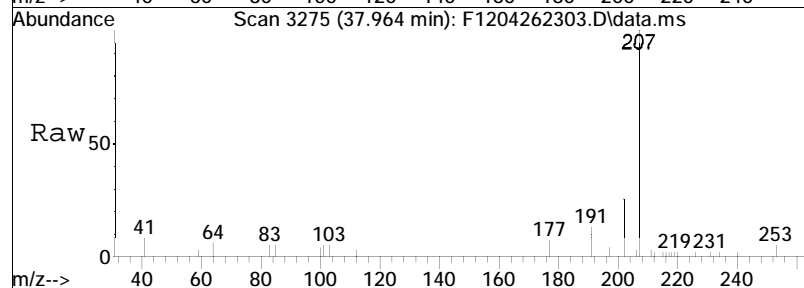
Tgt Ion: 192 Resp: 1687
 Ion Ratio Lower Upper
 192 100
 191 48.1 39.3 73.1

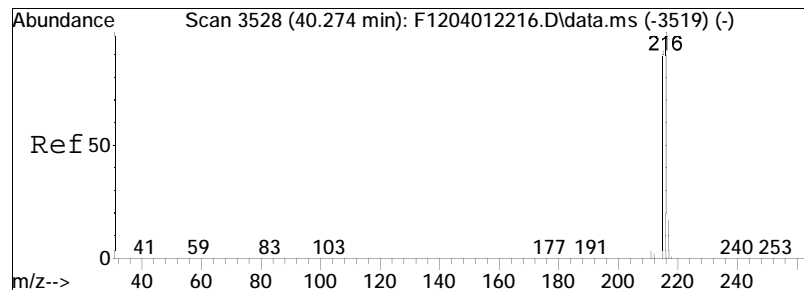




#56
 Fluoranthene
 Concen: 9.03 ng/mL
 RT: 37.964 min Scan# 3275
 Delta R.T. 0.027 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

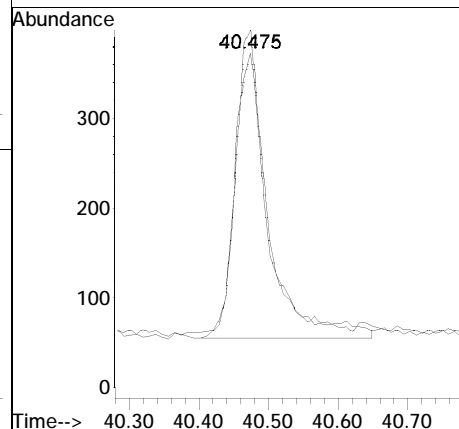
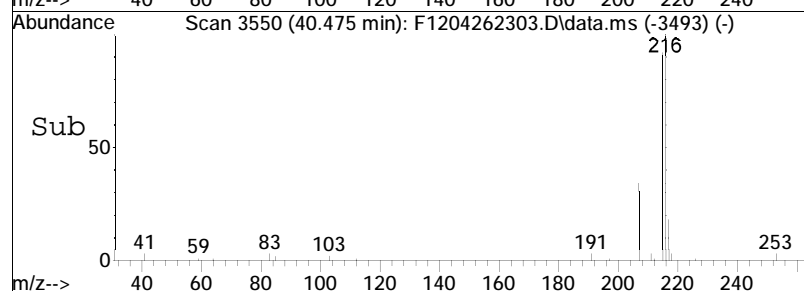
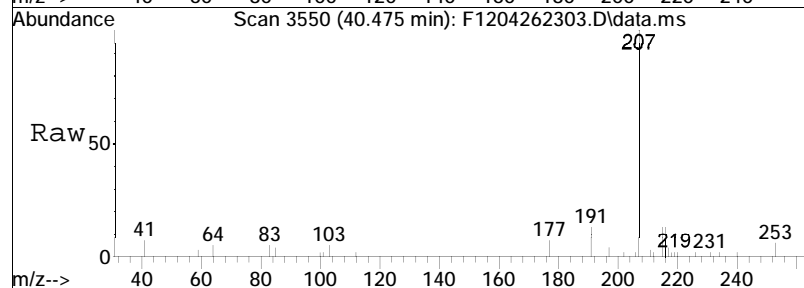
Tgt Ion: 202 Resp: 2477
 Ion Ratio Lower Upper
 202 100
 101 10.5 8.1 15.1

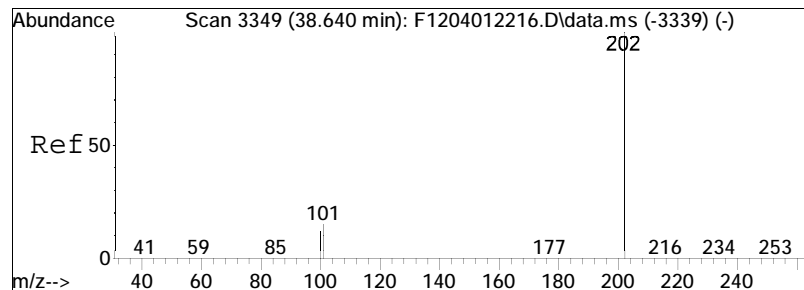




#57
 Benzo(b)fluorene
 Concen: 8.68 ng/mL M4
 RT: 40.475 min Scan# 3550
 Delta R.T. 0.018 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

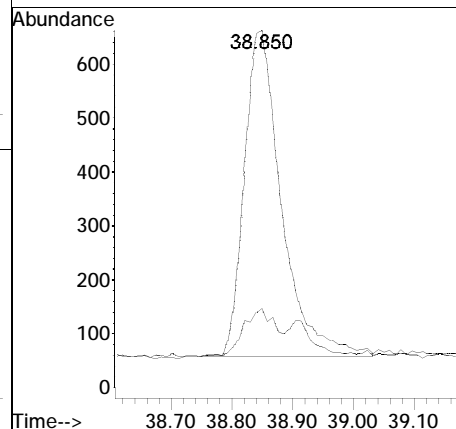
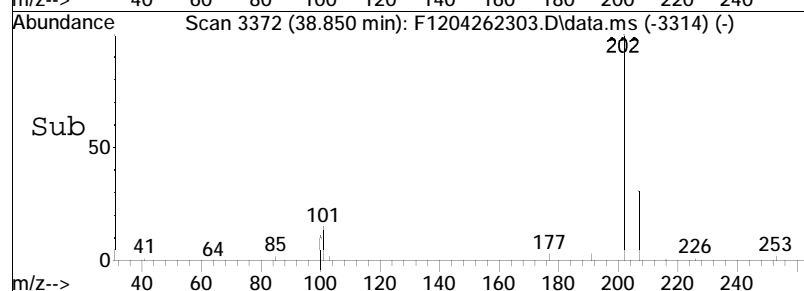
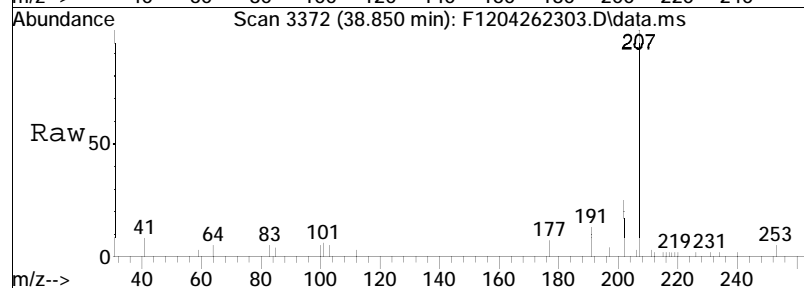
Tgt Ion	Ratio	Lower	Upper
216	100		
215	91.3	64.3	119.3

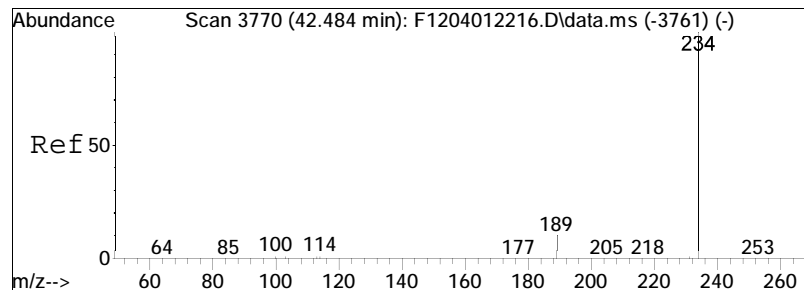




#59
 Pyrene
 Concen: 9.31 ng/mL
 RT: 38.850 min Scan# 3372
 Delta R.T. 0.027 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

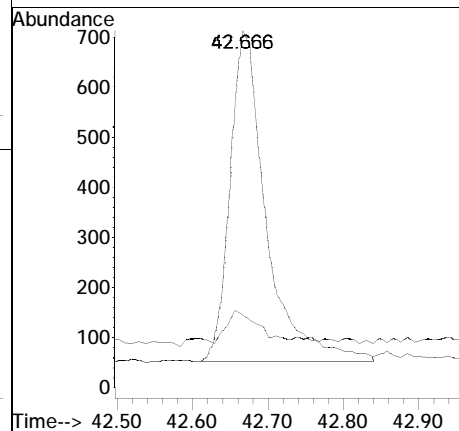
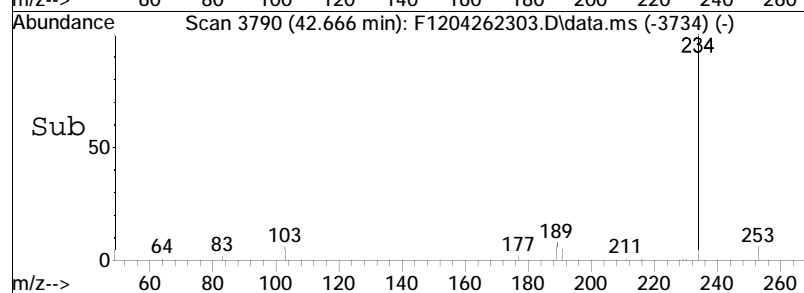
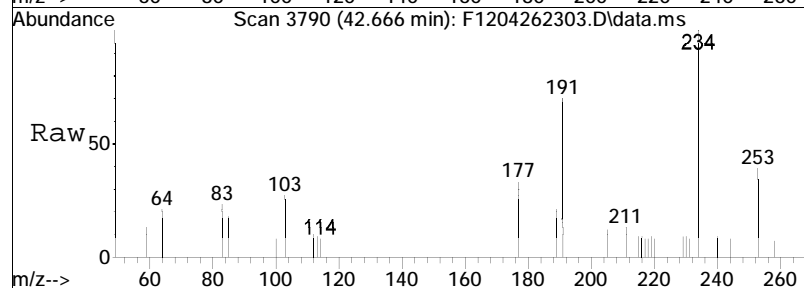
Tgt Ion	Ratio	Lower	Upper
202	100		
101	12.3	9.4	17.4

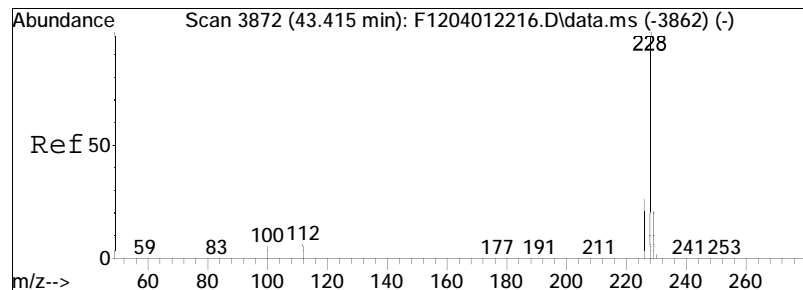




#67
 Naphthobenzothiophene-2,1-D
 Concen: 8.85 ng/mL
 RT: 42.666 min Scan# 3790
 Delta R.T. 0.009 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

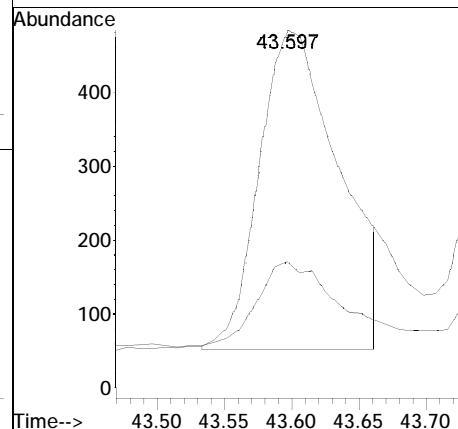
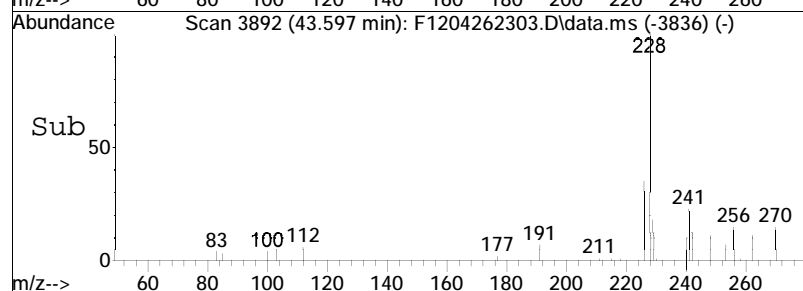
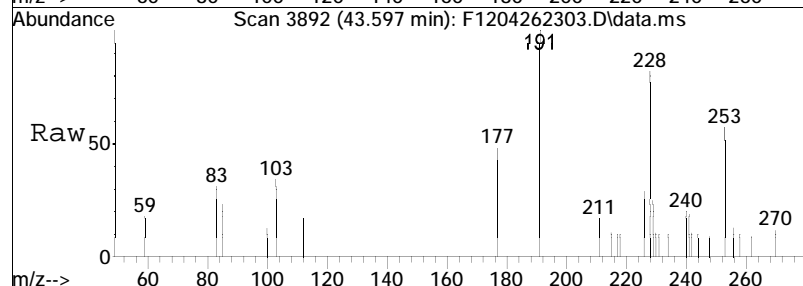
Tgt Ion	Ratio	Lower	Upper
234	100		
189	8.7	5.7	10.7

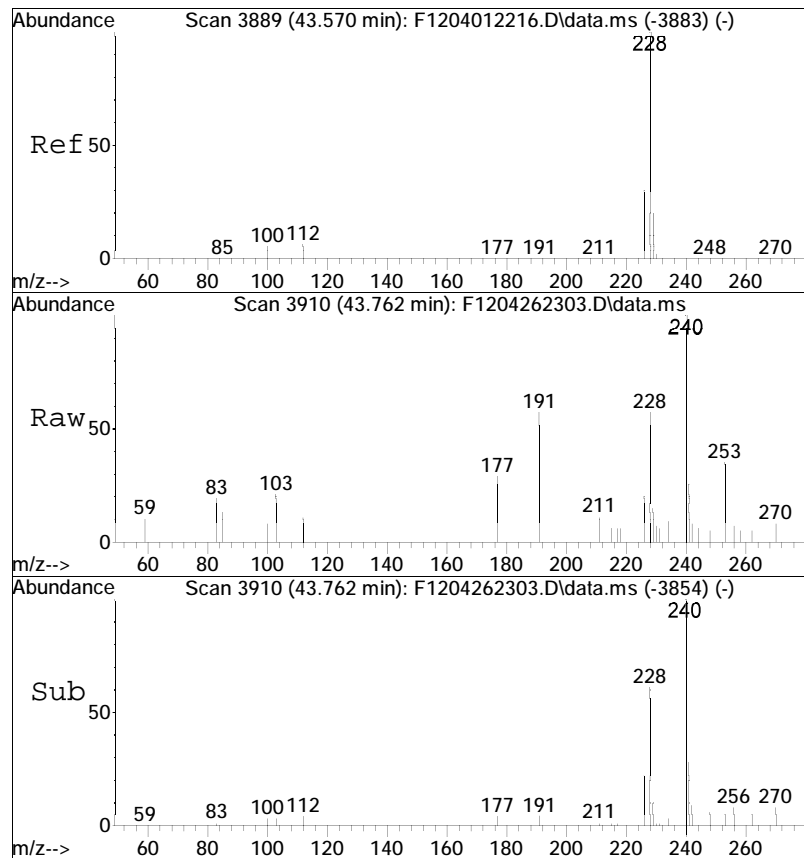




#75
Benz[a]anthracene
Concen: 10.33 ng/mL M3
RT: 43.597 min Scan# 3892
Delta R.T. 0.009 min
Lab File: F1204262303.D
Acq: 26 Apr 2023 4:02 pm

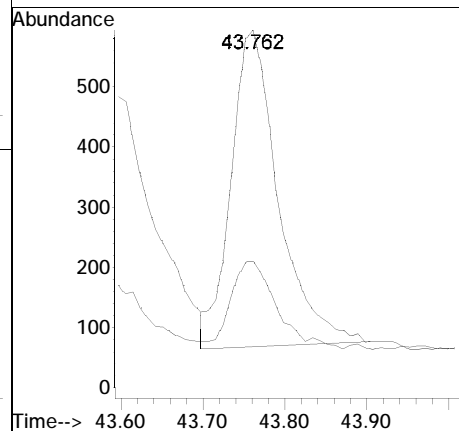
Tgt Ion	Ratio	Lower	Upper
228	100		
226	25.7	17.7	32.9

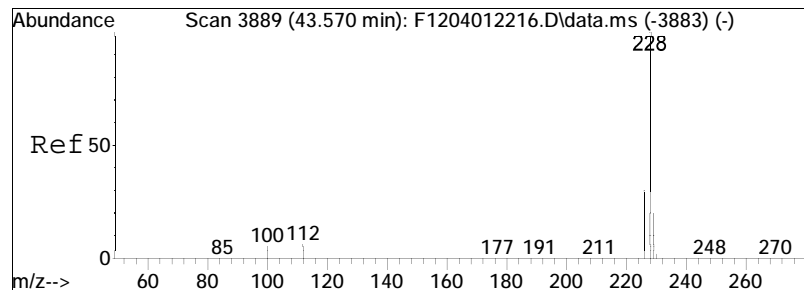




#76
 Chrysene
 Concen: 10.24 ng/mL
 RT: 43.762 min Scan# 3910
 Delta R.T. 0.009 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

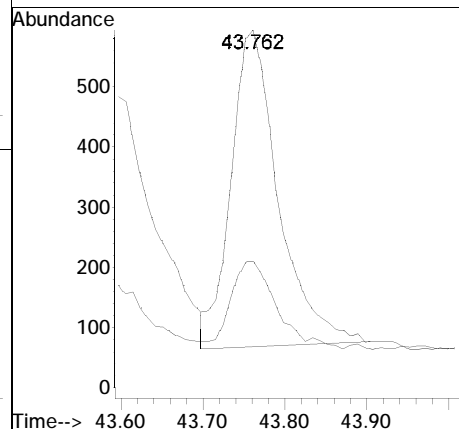
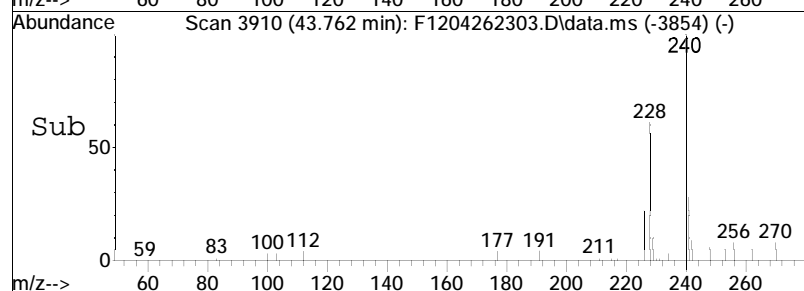
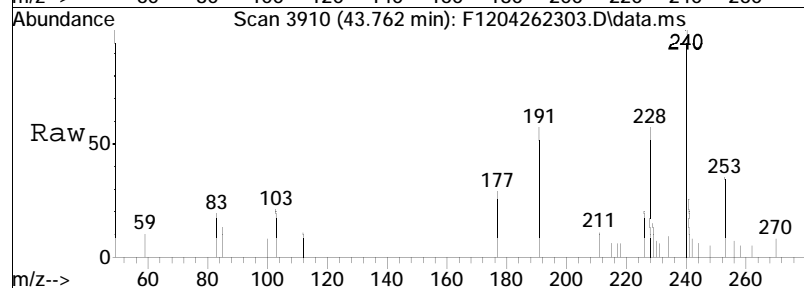
Tgt Ion	Ratio	Lower	Upper
228	100		
226	27.4	19.3	35.9

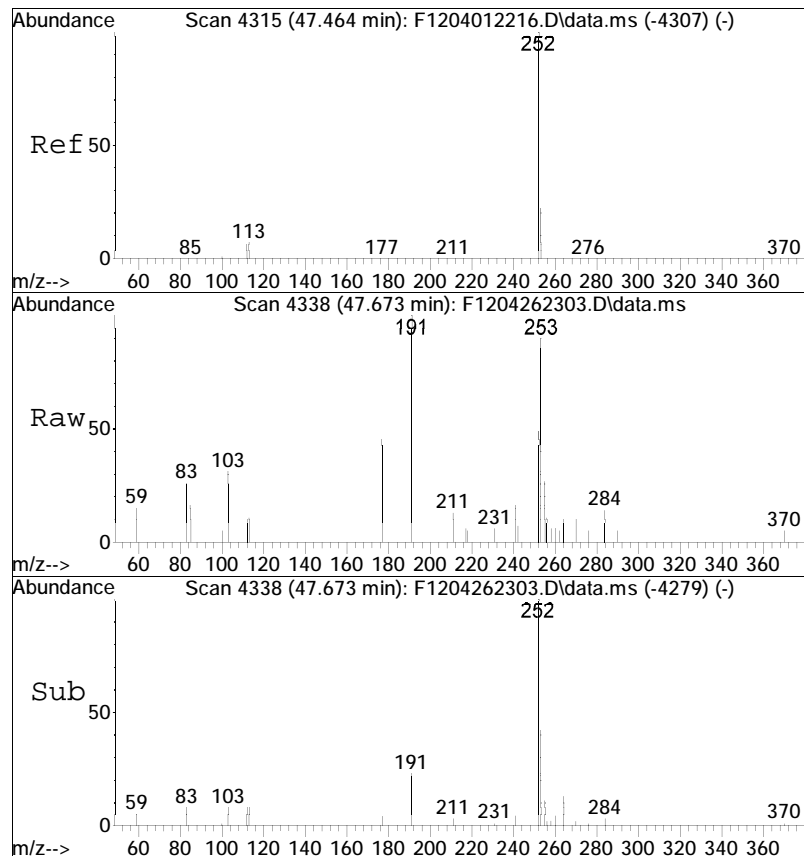




#77
 Chrysene/Triphenylene
 Concen: 10.24 ng/mL
 RT: 43.762 min Scan# 3910
 Delta R.T. 0.009 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

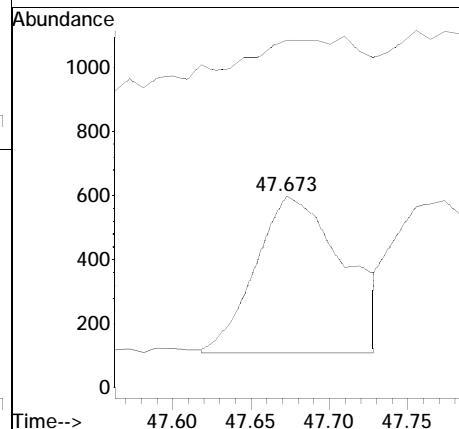
Tgt Ion	Ratio	Lower	Upper
228	100		
226	27.4	19.3	35.9

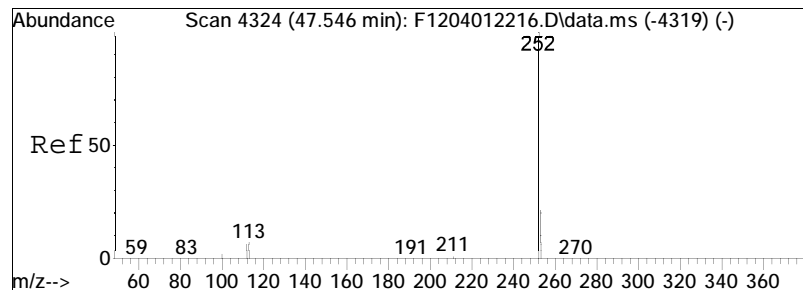




#85
 Benzo[b]fluoranthene
 Concen: 9.90 ng/mL M3
 RT: 47.673 min Scan# 4338
 Delta R.T. 0.036 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

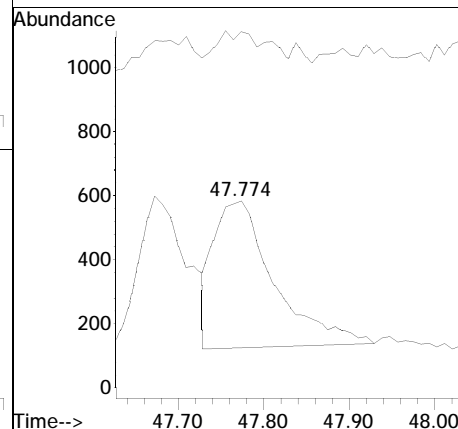
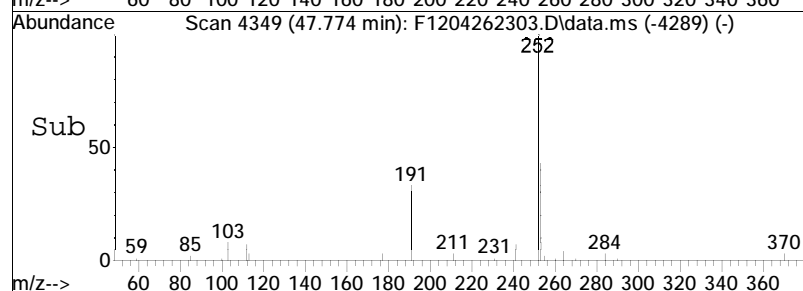
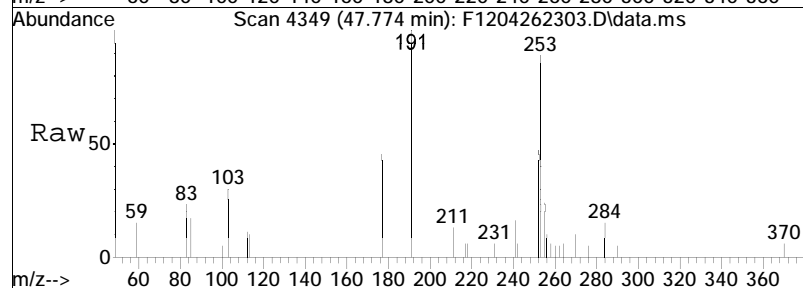
Tgt Ion	Ratio	Lower	Upper
252	100		
253	20.3	16.7	30.9

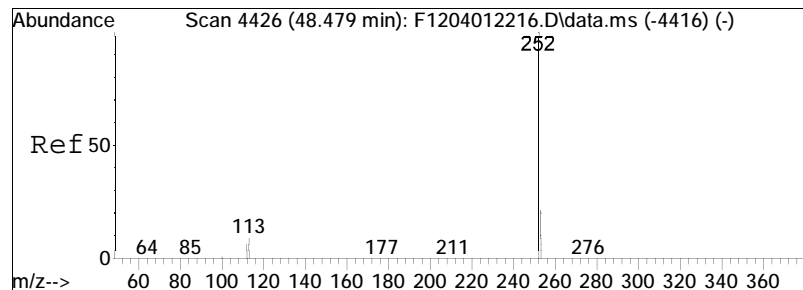




#86
 Benzo[j]+[k]fluoranthene
 Concen: 10.11 ng/mL
 RT: 47.774 min Scan# 4349
 Delta R.T. 0.046 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

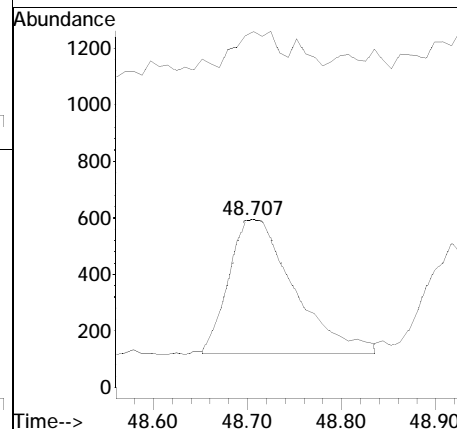
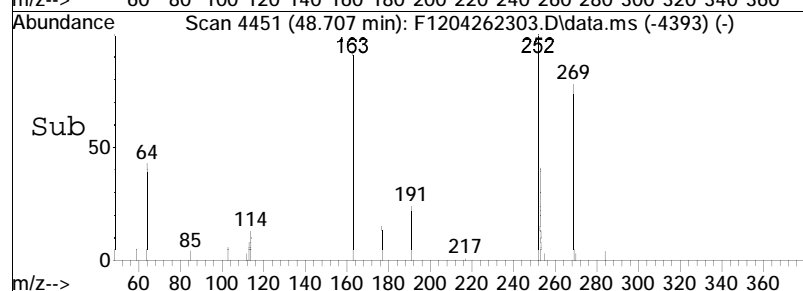
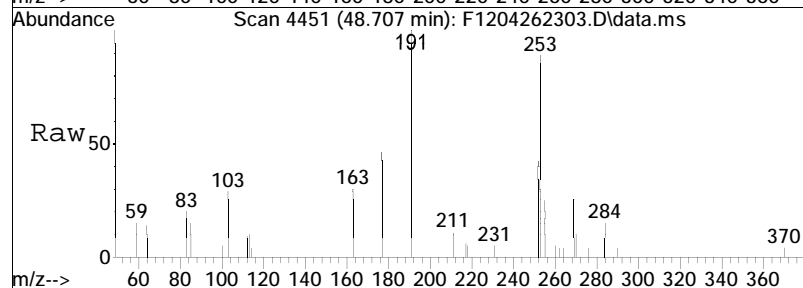
Tgt Ion: 252 Resp: 2241
 Ion Ratio Lower Upper
 252 100
 253 17.3 16.7 30.9

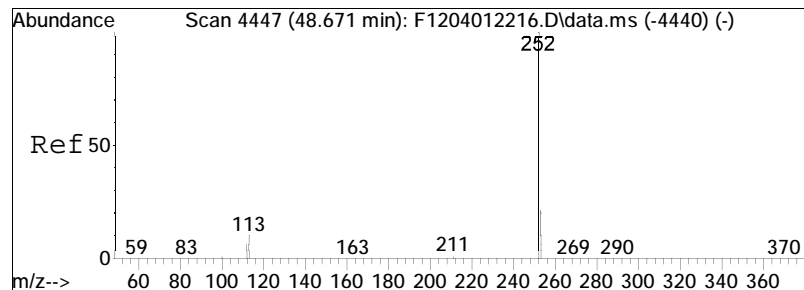




#88
 Benzo[e]pyrene
 Concen: 11.03 ng/mL M4
 RT: 48.707 min Scan# 4451
 Delta R.T. 0.027 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

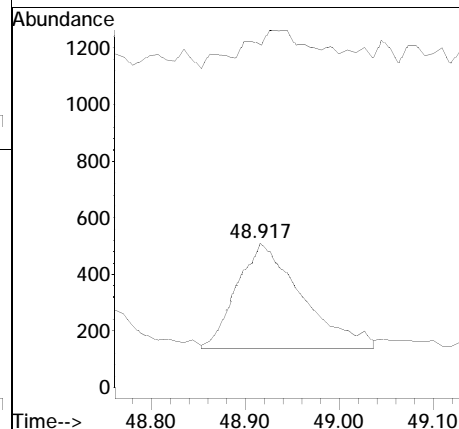
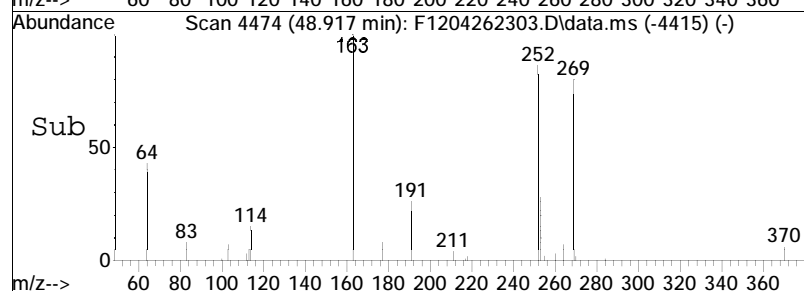
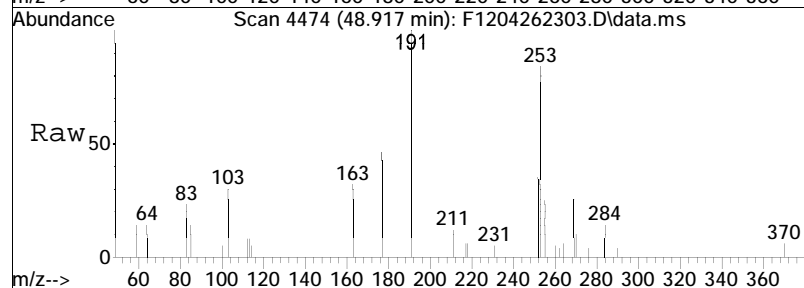
Tgt Ion: 252 Resp: 2304
 Ion Ratio Lower Upper
 252 100
 253 20.1 17.4 32.2

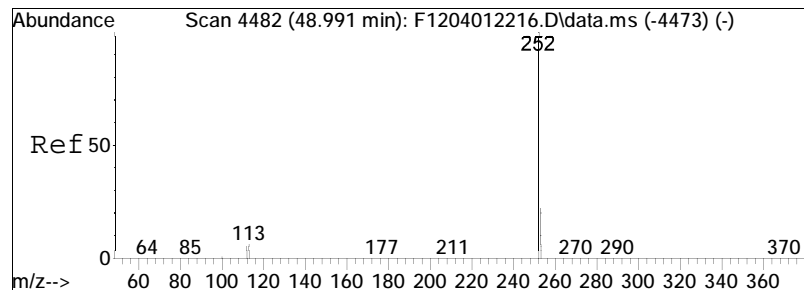




#90
 Benzo[a]pyrene
 Concen: 10.46 ng/mL M3
 RT: 48.917 min Scan# 4474
 Delta R.T. 0.036 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

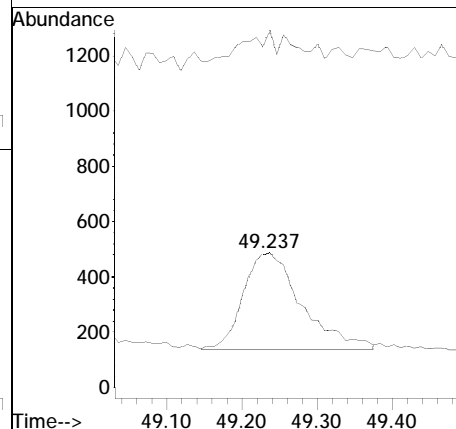
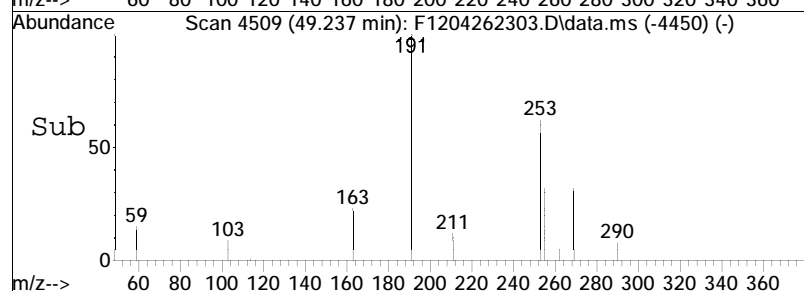
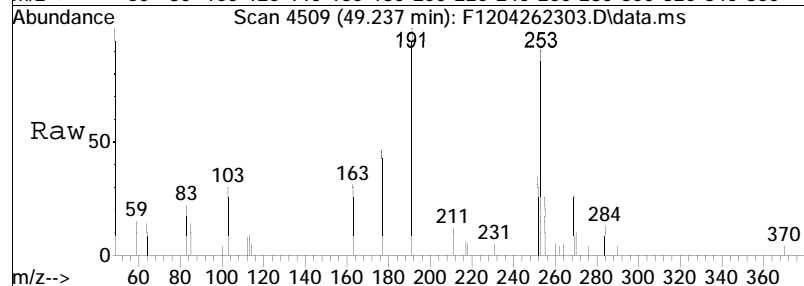
Tgt Ion	Ratio	Lower	Upper
252	100		
253	25.6	18.0	33.4

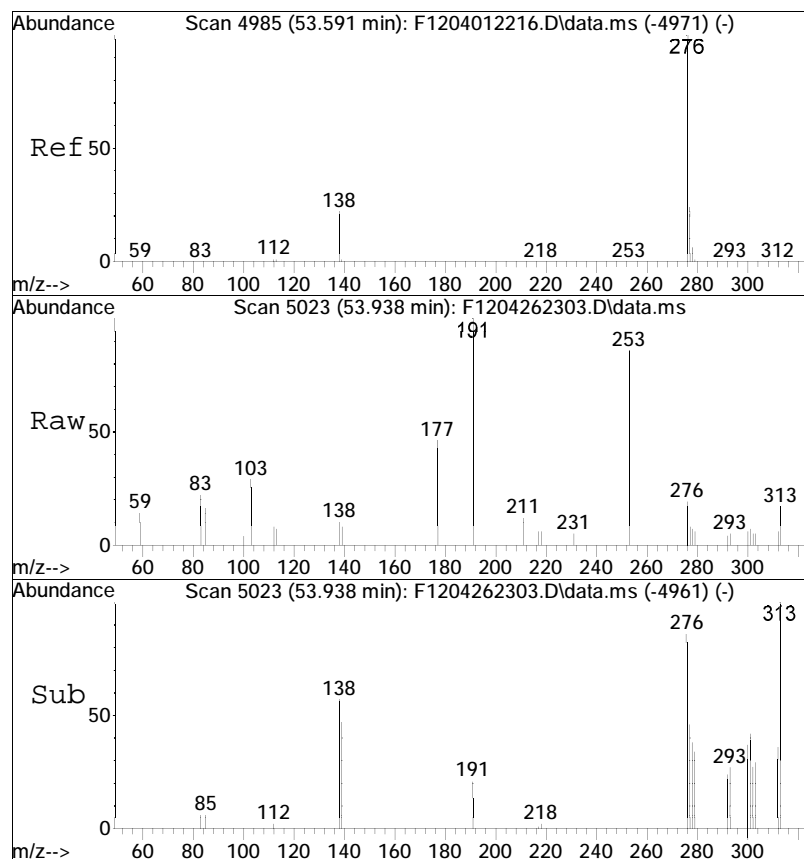




#91
Perylene
Concen: 10.43 ng/mL M4
RT: 49.237 min Scan# 4509
Delta R.T. 0.036 min
Lab File: F1204262303.D
Acq: 26 Apr 2023 4:02 pm

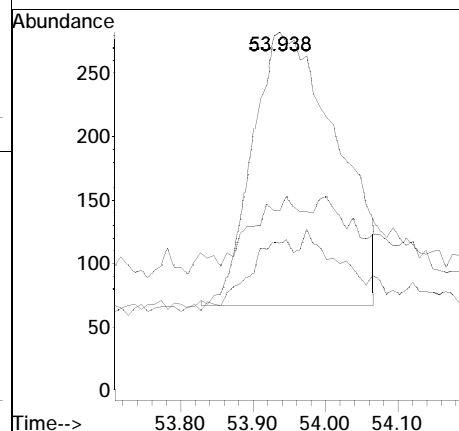
Tgt Ion	Ratio	Lower	Upper
252	100		
253	10.9	17.8	33.1#

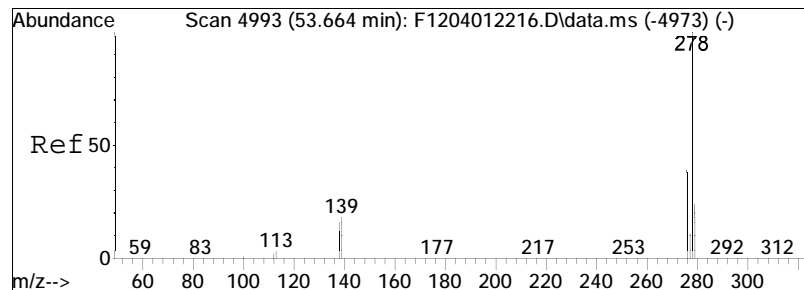




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 9.67 ng/mL M3
 RT: 53.938 min Scan# 5023
 Delta R.T. 0.064 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

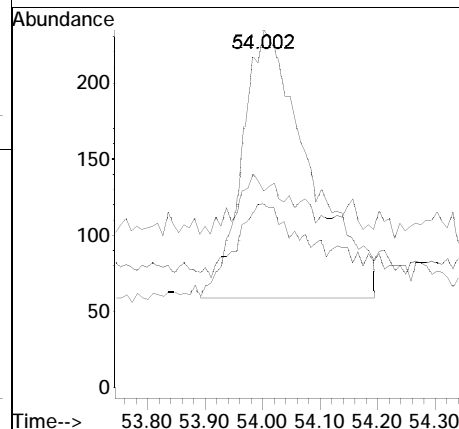
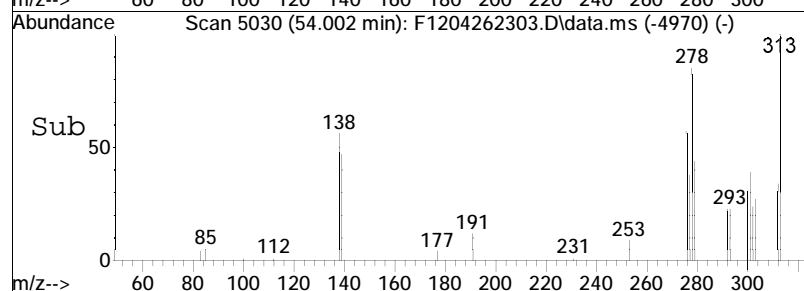
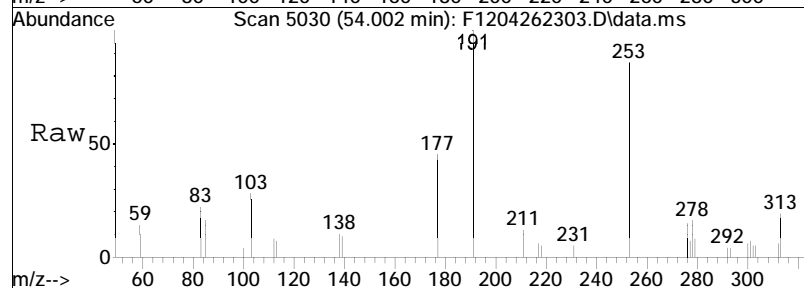
Tgt Ion:	276	Resp:	1732
Ion Ratio	Lower	Upper	
276	100		
138	0.0	16.2	30.0#
277	0.0	16.9	31.3#

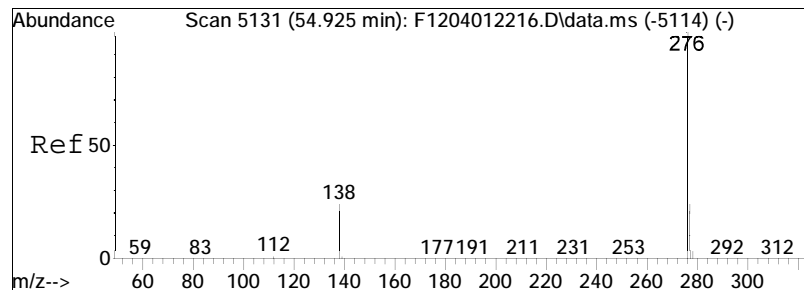




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 9.66 ng/mL M4
 RT: 54.002 min Scan# 5030
 Delta R.T. 0.045 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

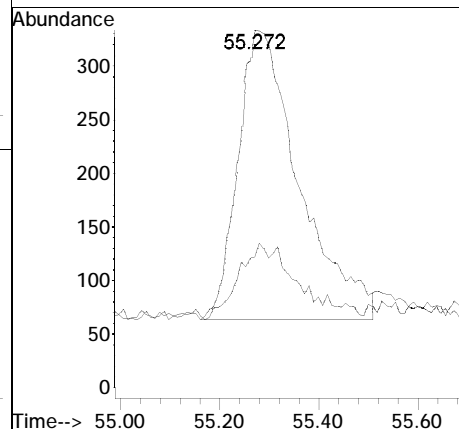
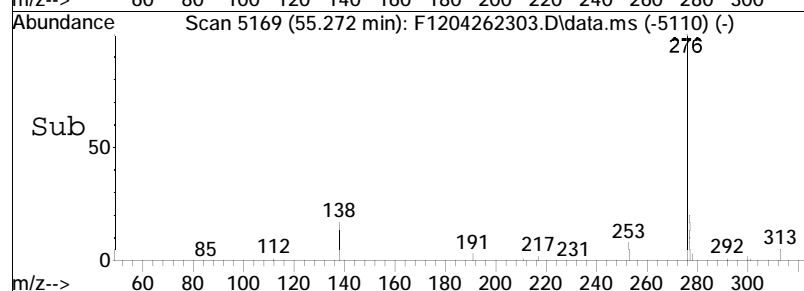
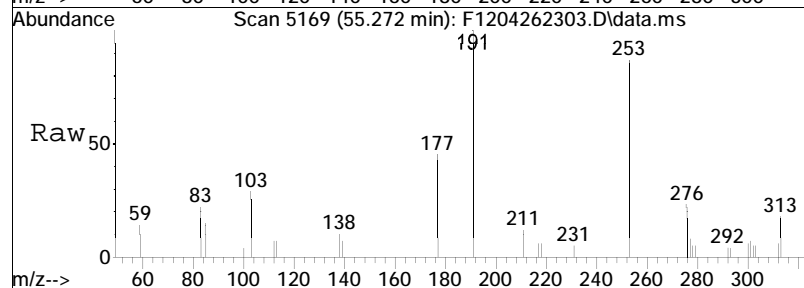
Tgt Ion	Ratio	Lower	Upper
278	100		
139	0.0	13.9	25.7#
279	12.6	17.1	31.7#

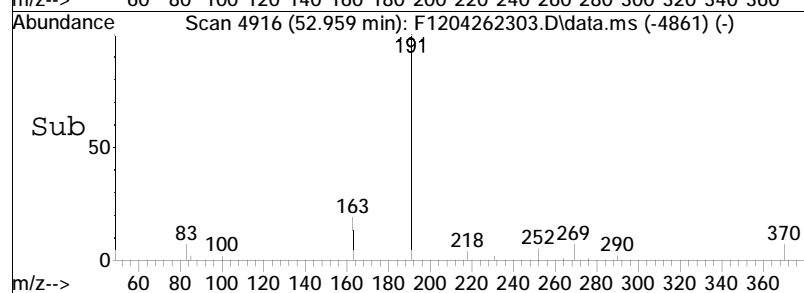
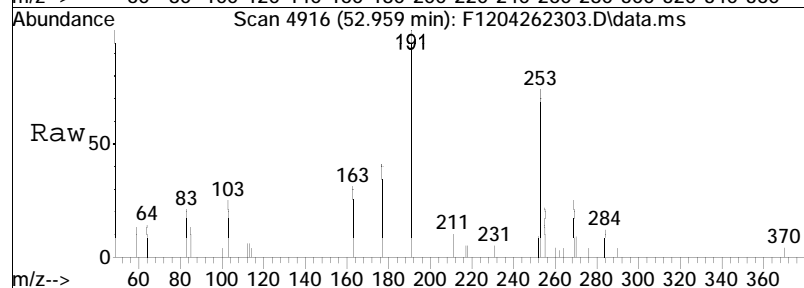
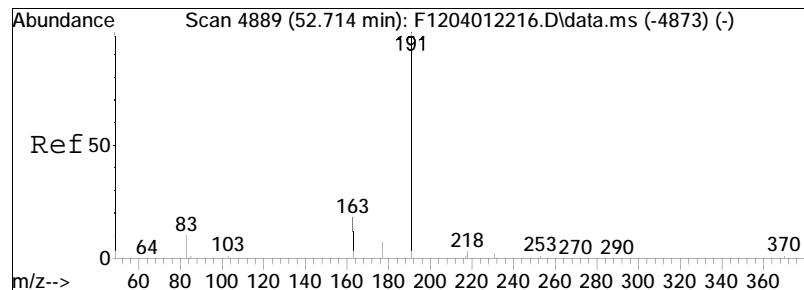




#94
 Benzo[g,h,i]perylene
 Concen: 11.89 ng/mL
 RT: 55.272 min Scan# 5169
 Delta R.T. 0.036 min
 Lab File: F1204262303.D
 Acq: 26 Apr 2023 4:02 pm

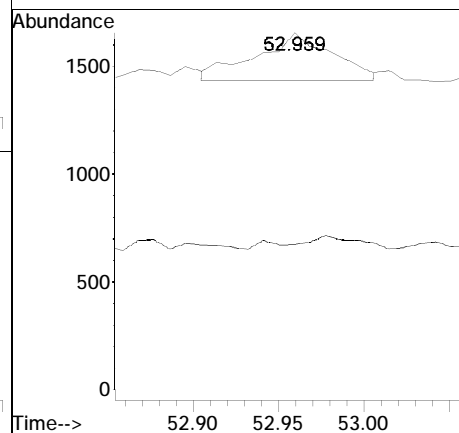
Tgt Ion: 276 Resp: 2300
 Ion Ratio Lower Upper
 276 100
 277 22.9 16.6 30.8





#95
Hopane (T19)
Concen: 14.68 ng/mL M4
RT: 52.959 min Scan# 4916
Delta R.T. -0.000 min
Lab File: F1204262303.D
Acq: 26 Apr 2023 4:02 pm

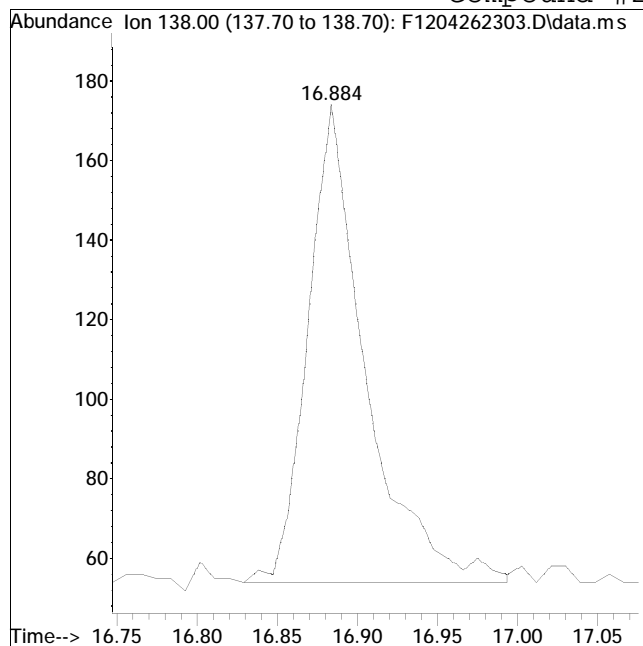
Tgt Ion: 191 Resp: 696
Ion Ratio Lower Upper
191 100
177 22.8 9.7 17.9#



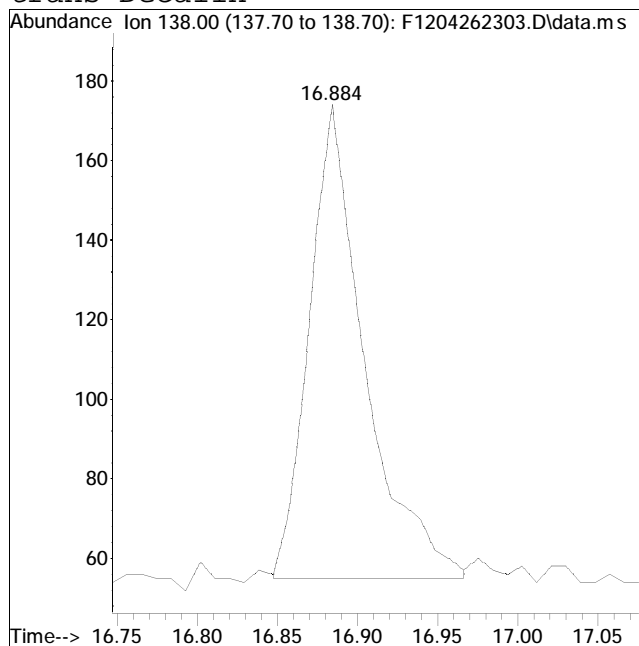
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
Data File : F1204262303.D Operator : PAH12:CNC
Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #2: trans-Decalin



Original Peak Response = 301



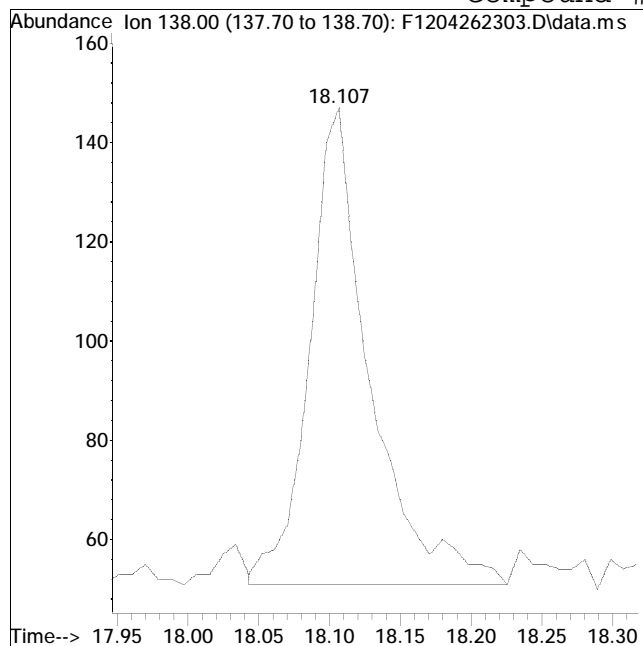
Manual Peak Response = 285 M4

M4 = Poor automated baseline construction.

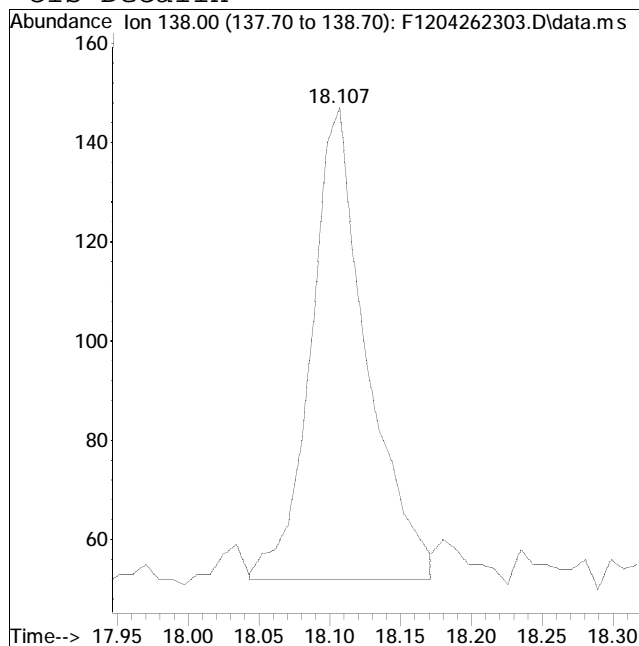
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
Data File : F1204262303.D Operator : PAH12:CNC
Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #3: cis-Decalin



Original Peak Response = 284



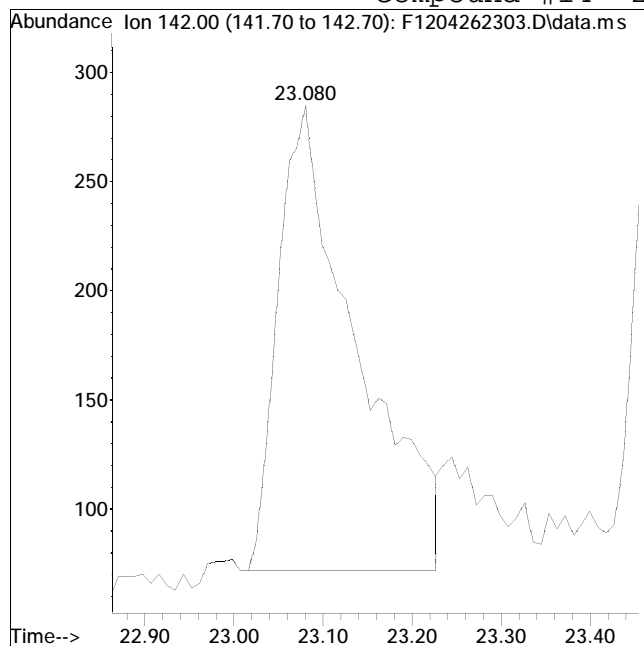
Manual Peak Response = 261 M4

M4 = Poor automated baseline construction.

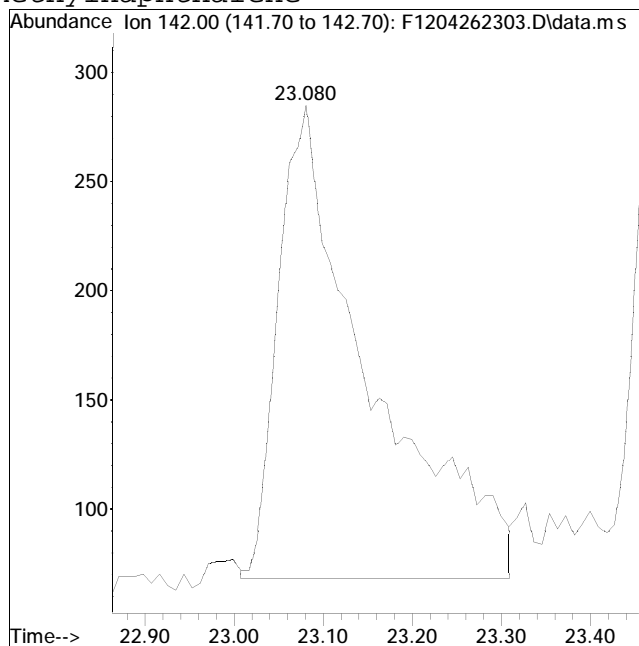
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262303.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
 Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #14: 2-Methylnaphthalene



Original Peak Response = 1299



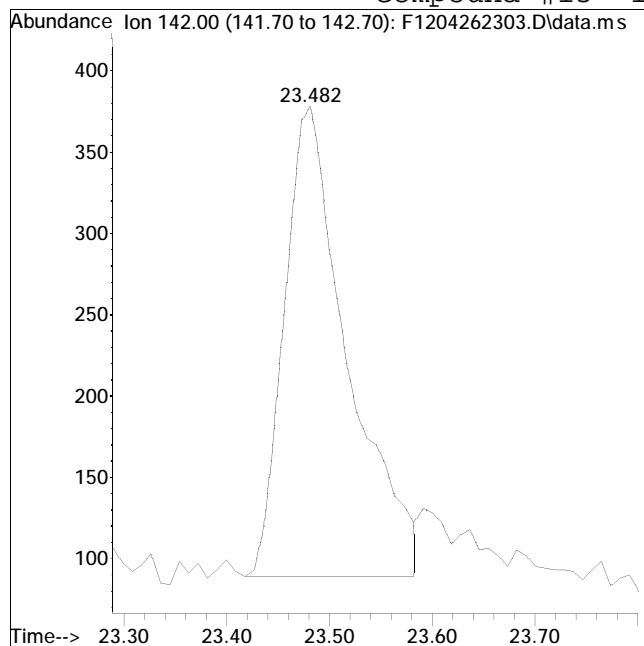
Manual Peak Response = 1553 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

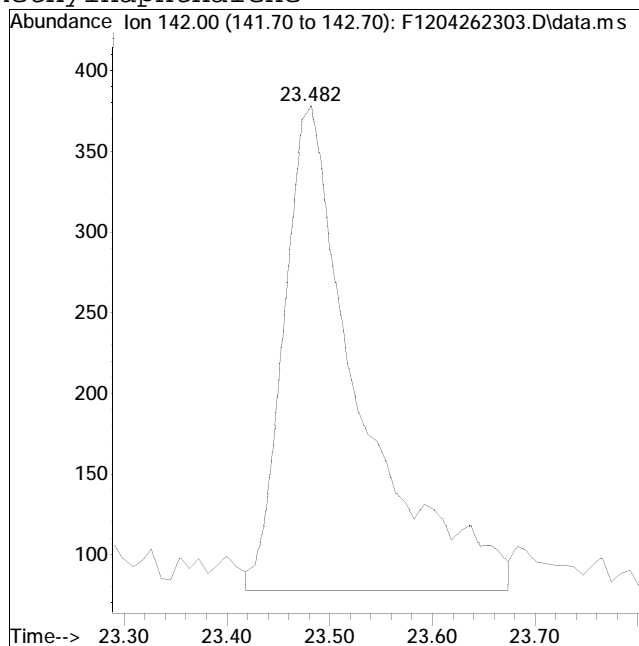
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262303.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
 Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #15: 1-Methylnaphthalene



Original Peak Response = 1237



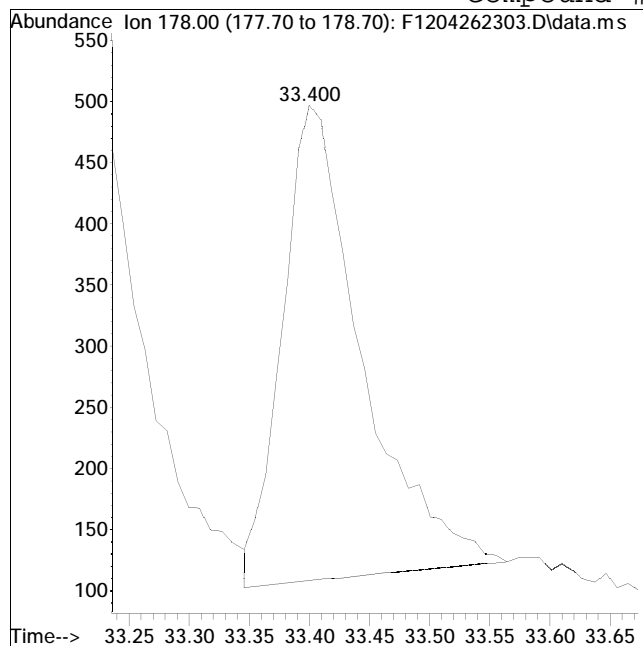
Manual Peak Response = 1538 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

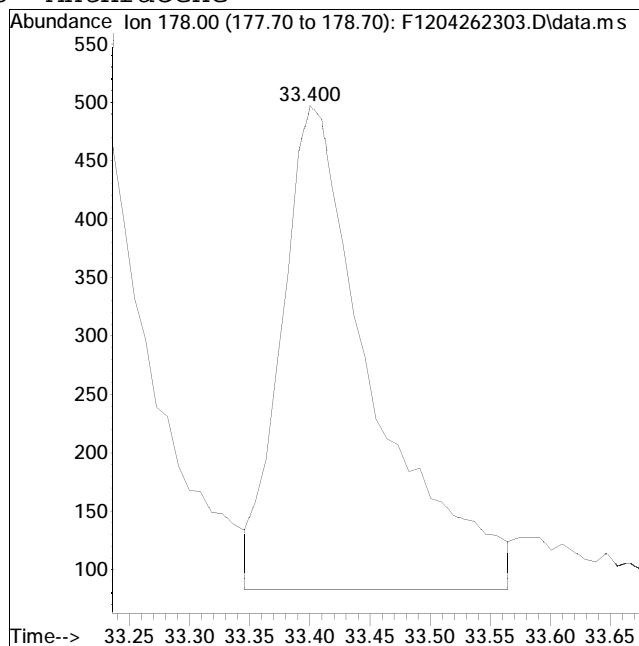
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262303.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
 Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #53: Anthracene



Original Peak Response = 1785



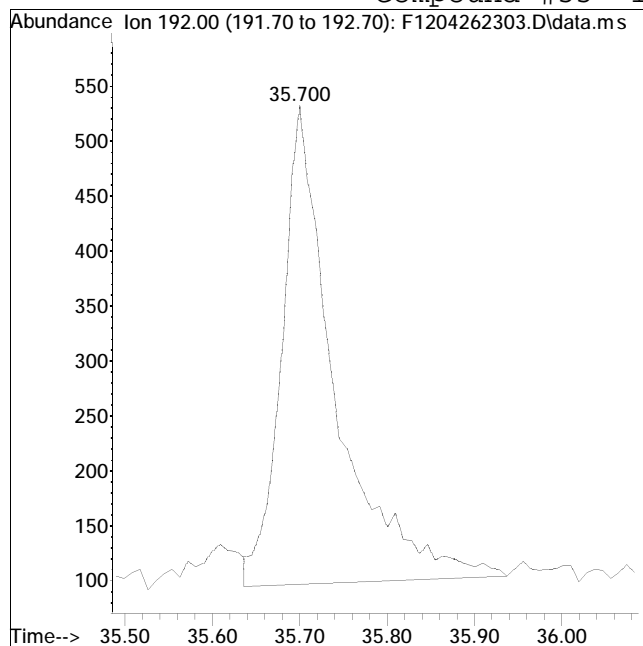
Manual Peak Response = 2186 M4

M4 = Poor automated baseline construction.

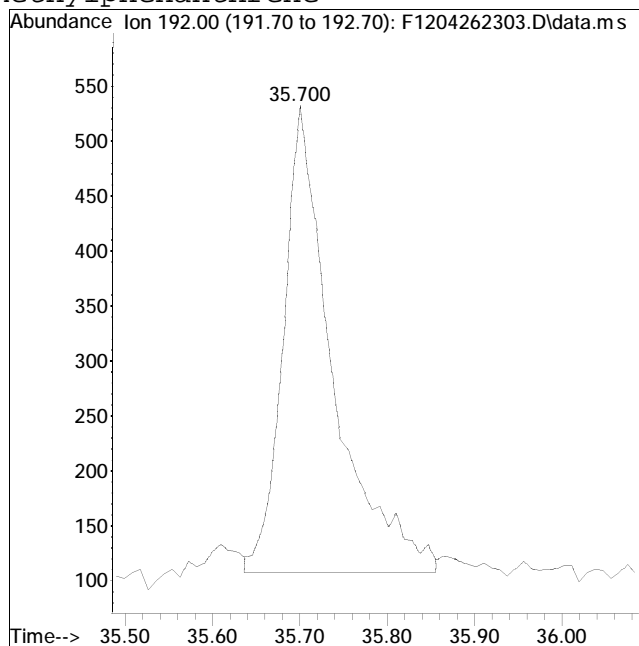
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
Data File : F1204262303.D Operator : PAH12:CNC
Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #55: 1-Methylphenanthrene



Original Peak Response = 1860



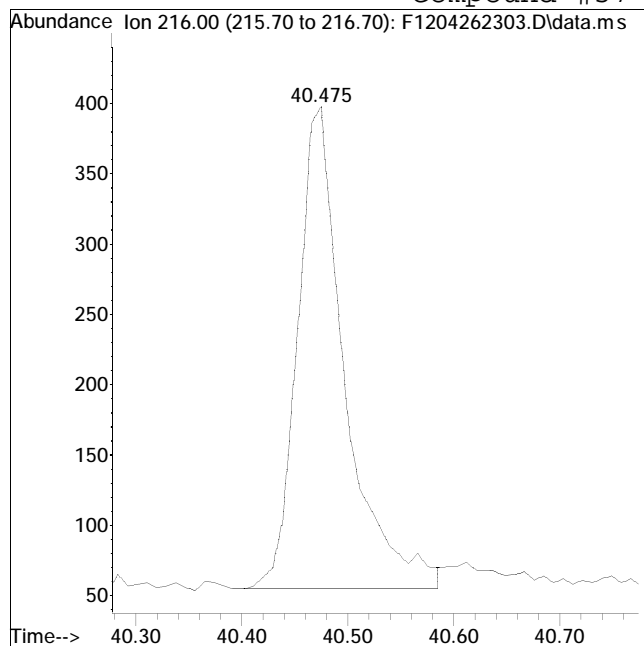
Manual Peak Response = 1687 M4

M4 = Poor automated baseline construction.

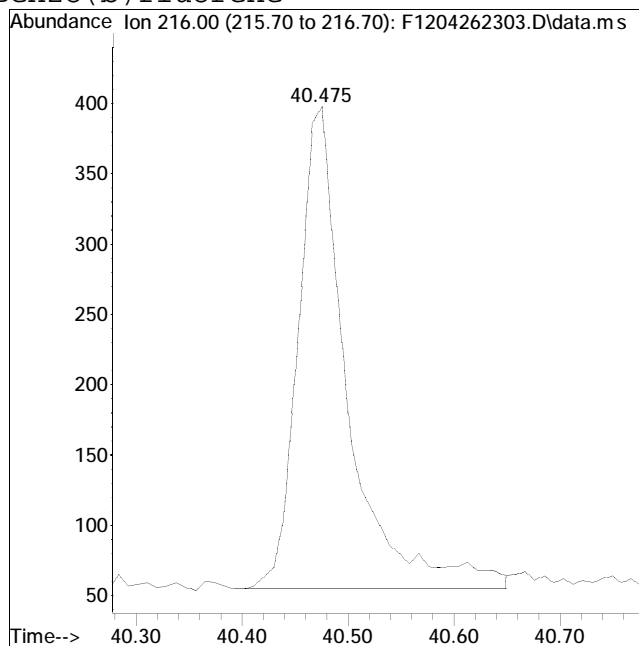
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
Data File : F1204262303.D Operator : PAH12:CNC
Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #57: Benzo(b)fluorene



Original Peak Response = 1067



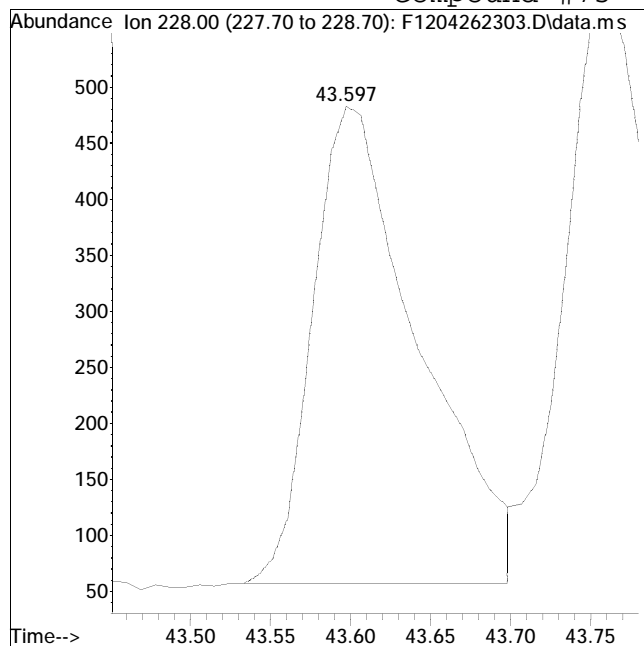
Manual Peak Response = 1120 M4

M4 = Poor automated baseline construction.

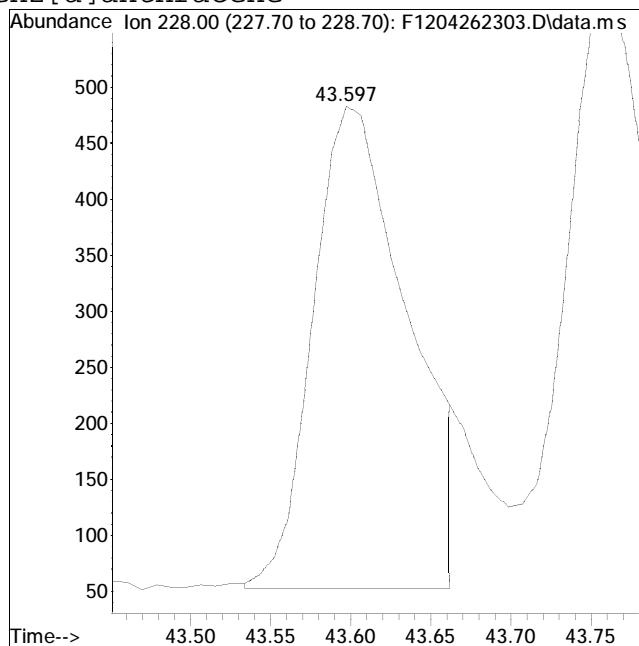
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262303.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
 Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #75: Benz[a]anthracene



Original Peak Response = 1967



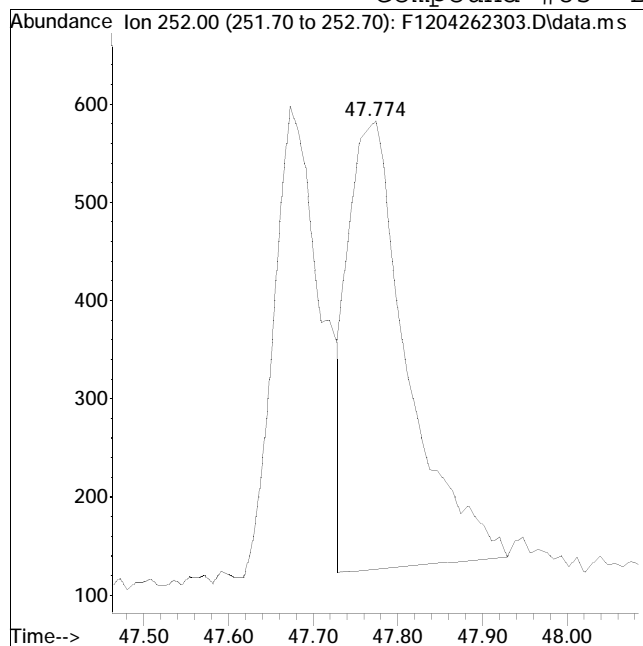
Manual Peak Response = 1784 M3

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.

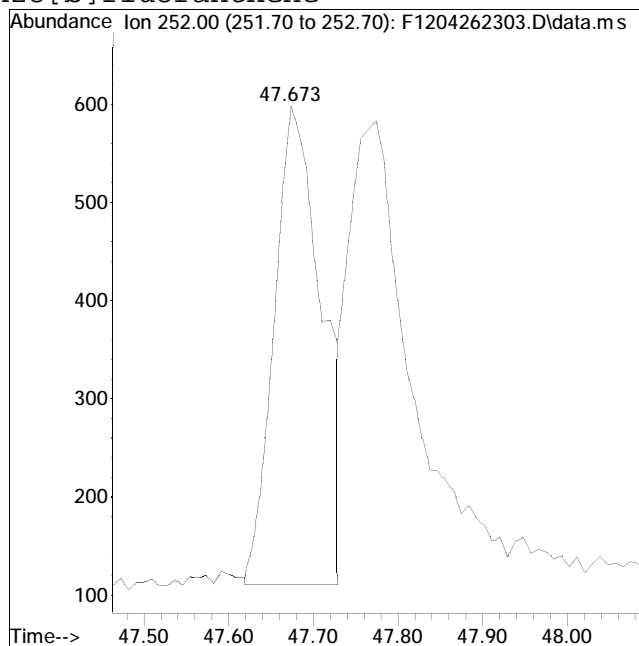
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262303.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
 Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #85: Benzo[b]fluoranthene



Original Peak Response = 2241



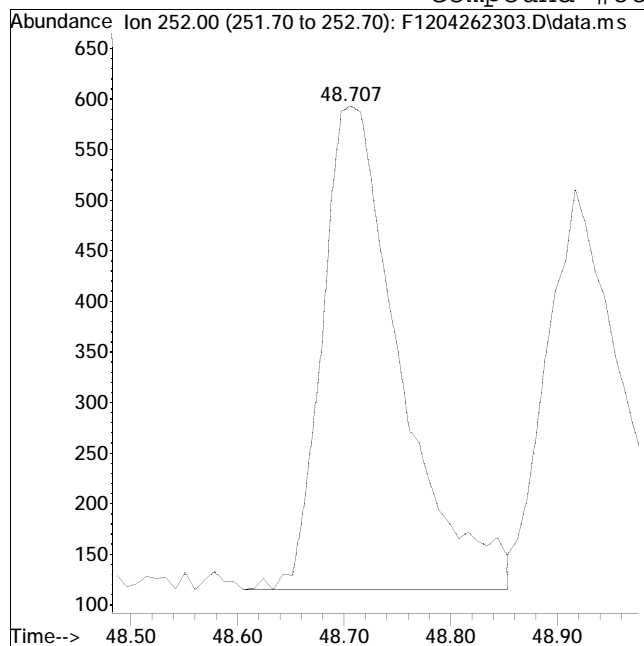
Manual Peak Response = 1914 M3

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.

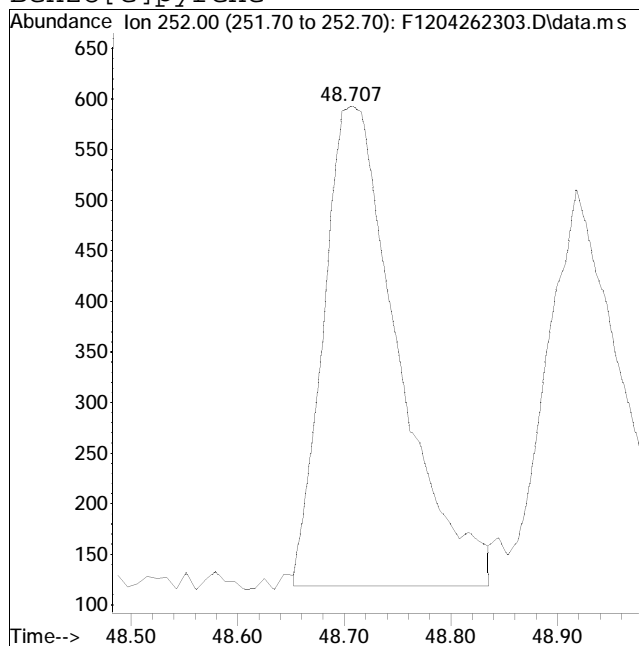
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262303.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
 Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #88: Benzo[e]pyrene



Original Peak Response = 2417



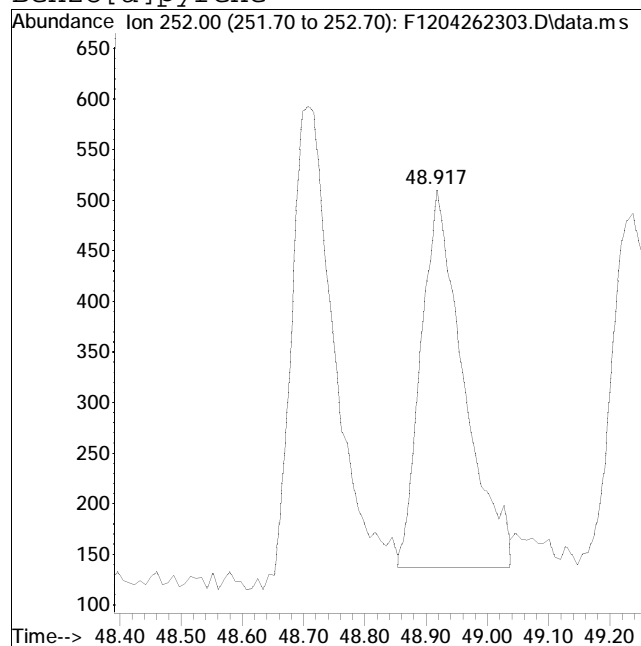
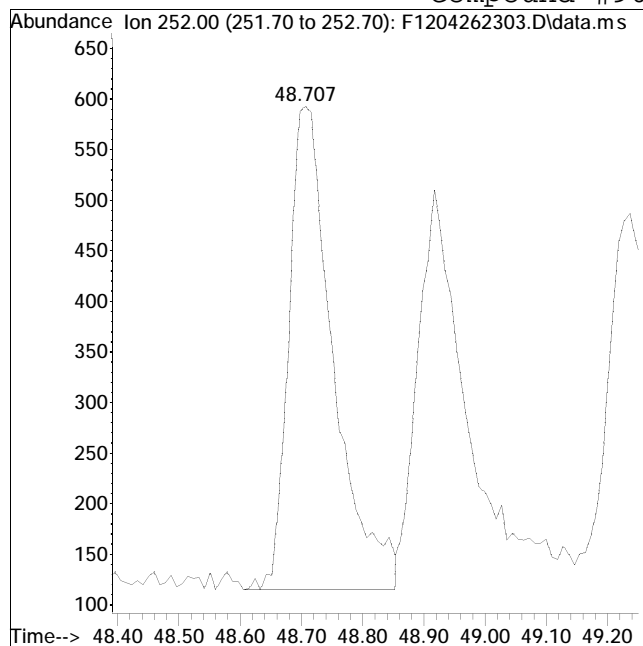
Manual Peak Response = 2304 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262303.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
 Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #90: Benzo[a]pyrene

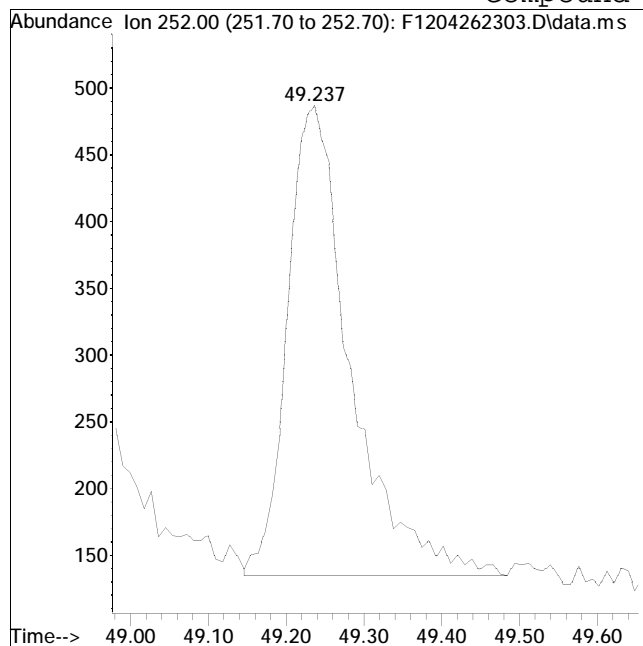


M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

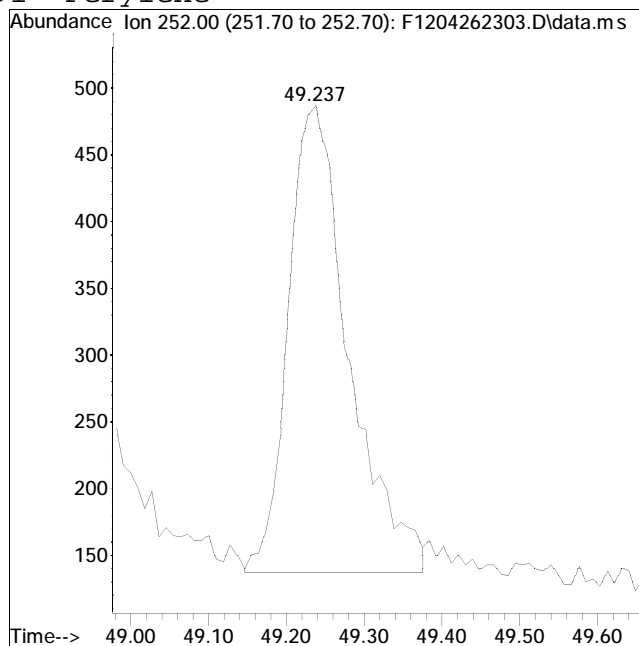
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
Data File : F1204262303.D Operator : PAH12:CNC
Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #91: Perylene



Original Peak Response = 1985



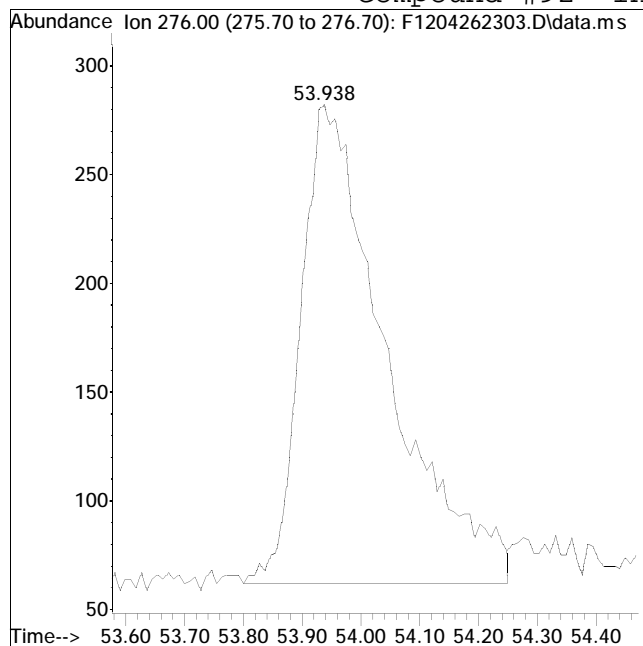
Manual Peak Response = 1888 M4

M4 = Poor automated baseline construction.

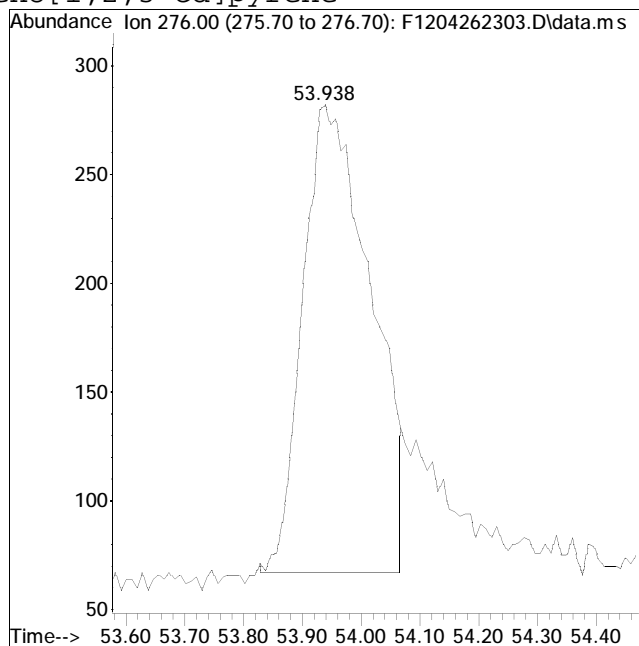
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262303.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
 Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

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



Original Peak Response = 2230



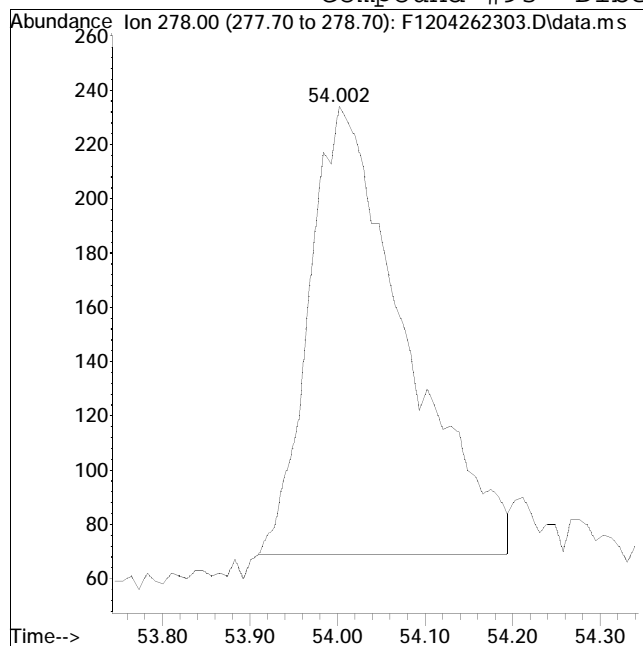
Manual Peak Response = 1732 M3

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.

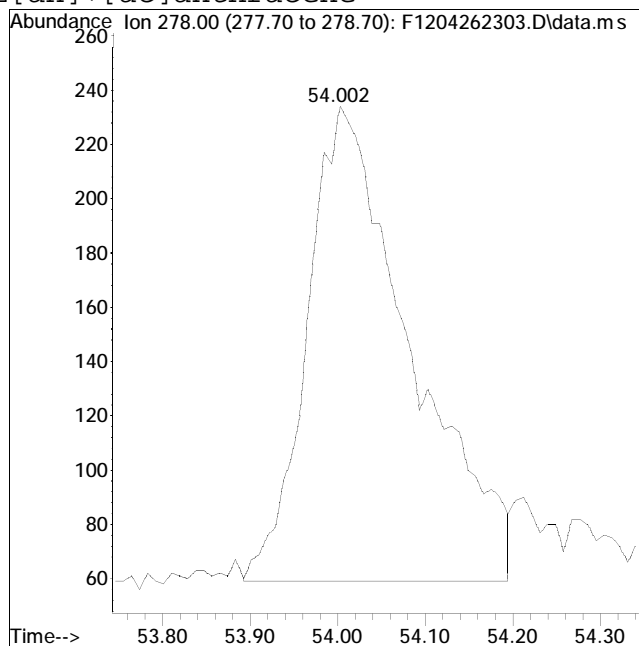
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
Data File : F1204262303.D Operator : PAH12:CNC
Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #93: Dibenz[ah]anthracene



Original Peak Response = 1260



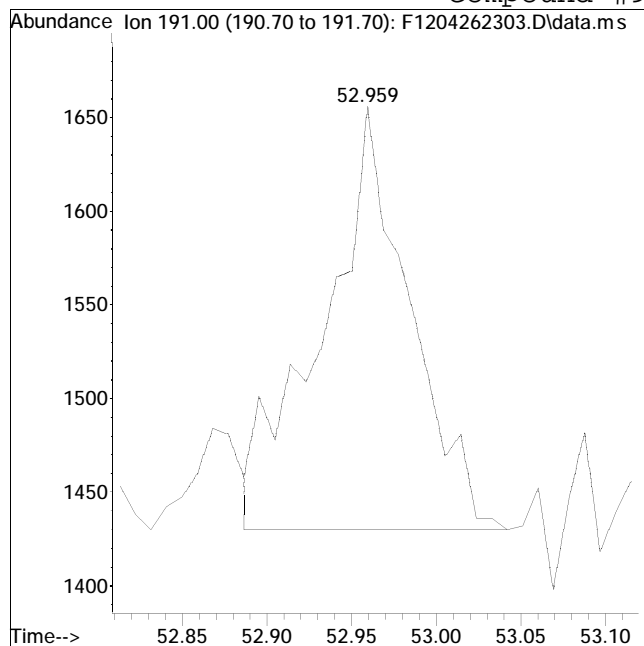
Manual Peak Response = 1440 M4

M4 = Poor automated baseline construction.

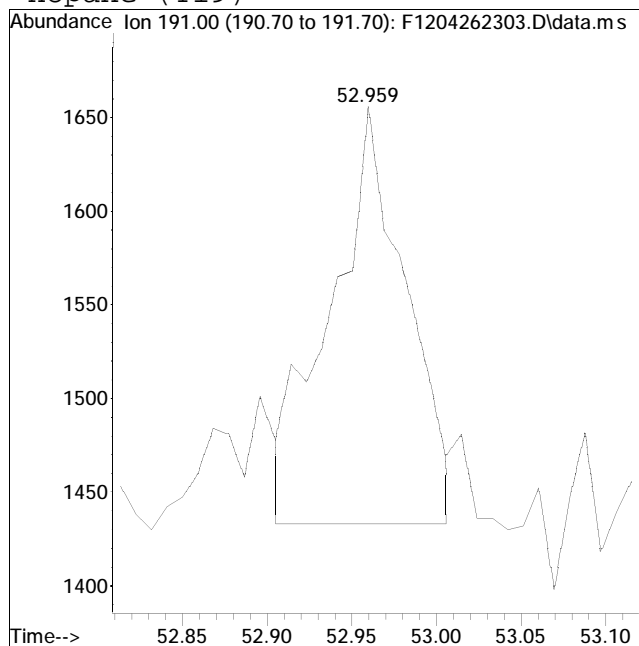
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262303.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 4:02 pm Instrument : PAH12
 Sample : i1404262301 Quant Date : 4/27/2023 6:19 am

Compound #95: Hopane (T19)



Original Peak Response = 814



Manual Peak Response = 696 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262304.D
 Acq On : 26 Apr 2023 5:27 pm
 Operator : PAH12:CNC
 Sample : i1404262302
 Misc : WGI773271,frbf68
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 27 14:53:17 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 06:18:57 2023
 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	27.214	164	62126	500.000	ng/mL	0.00
74) Chrysene-d12	43.661	240	67012	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.233	136	5931	24.504	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	2.45%#		
40) Phenanthrene-d10	33.117	188	4363	24.617	ng/mL	0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery =	2.46%#		
84) Benzo[b]fluoranthene-d12	47.582	264	3223	25.019	ng/mL	0.03
Spiked Amount 1000.000	Range 50 - 130		Recovery =	2.50%#		
89) Benzo[a]pyrene-d12	48.816	264	2107	22.664	ng/mL	0.04
Spiked Amount 1000.000	Range 50 - 130		Recovery =	2.27%#		
129) 5B(H)Cholane - Surr	44.264	217	708	30.969	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	3.10%#		
Target Compounds						
						Qvalue
2) trans-Decalin	16.884	138	753	15.149	ng/mL	100
3) cis-Decalin	18.098	138	573	15.224	ng/mL	100
9) Naphthalene	20.306	128	6471	22.872	ng/mL	100
14) 2-Methylnaphthalene	23.071	142	3662	20.029	ng/mL	100
15) 1-Methylnaphthalene	23.473	142	3514	20.958	ng/mL	100
16) Benzothiophene	20.525	134	5601	25.501	ng/mL	100
21) Biphenyl	24.951	154	5074	23.710	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.571	156	3087	21.086	ng/mL	100
23) Dibenzofuran	28.054	168	4436	20.707	ng/mL	98
24) Acenaphthylene	26.612	152	5508	21.546	ng/mL	100
25) Acenaphthene	27.342	153	3771	21.822	ng/mL	97
26) 2,3,5-Trimethylnaphthalen	28.930	170	3096	23.004	ng/mL	97
27) Fluorene	29.413	166	3471	19.442	ng/mL	99
31) Dibenzothiophene	32.716	184	5521	22.202	ng/mL	98
41) Phenanthrene	33.208	178	5386	20.847	ng/mL	100
52) Retene	40.165	234	1312	21.074	ng/mL	98
53) Anthracene	33.391	178	5275	22.291	ng/mL	94
54) Carbazole	34.048	167	4188M4	19.315	ng/mL	
55) 1-Methylphenanthrene	35.700	192	4195	23.703	ng/mL	96
56) Fluoranthene	37.964	202	5956	21.636	ng/mL	98
57) Benzo(b)fluorene	40.475	216	2340	18.089	ng/mL	100
59) Pyrene	38.841	202	6026	21.767	ng/mL	98
67) Naphthobenzothiophene-2,1	42.675	234	5169	20.905	ng/mL	97
75) Benz[a]anthracene	43.606	228	4439M4	26.508	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262304.D
 Acq On : 26 Apr 2023 5:27 pm
 Operator : PAH12:CNC
 Sample : i1404262302
 Misc : WG1773271,frbf68
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 27 14:53:17 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 06:18:57 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.762	228	5114	25.651	ng/mL	94
77) Chrysene/Triphenylene	43.762	228	5114	25.651	ng/mL	94
85) Benzo[b]fluoranthene	47.673	252	4252M3	22.691	ng/mL	
86) Benzo[j]+[k]fluoranthene	47.755	252	5292M4	24.634	ng/mL	
88) Benzo[e]pyrene	48.707	252	5146	25.419	ng/mL	100
90) Benzo[a]pyrene	48.917	252	4126	24.711	ng/mL	98
91) Perylene	49.228	252	4138	23.576	ng/mL	97
92) Indeno[1,2,3-cd]pyrene	53.947	276	3728M3	21.486	ng/mL	
93) Dibenz[ah]+[ac]anthracene	54.011	278	2866	19.835	ng/mL#	70
94) Benzo[g,h,i]perylene	55.290	276	5099	27.196	ng/mL	99
95) Hopane (T19)	52.960	191	1527M4	33.239	ng/mL	

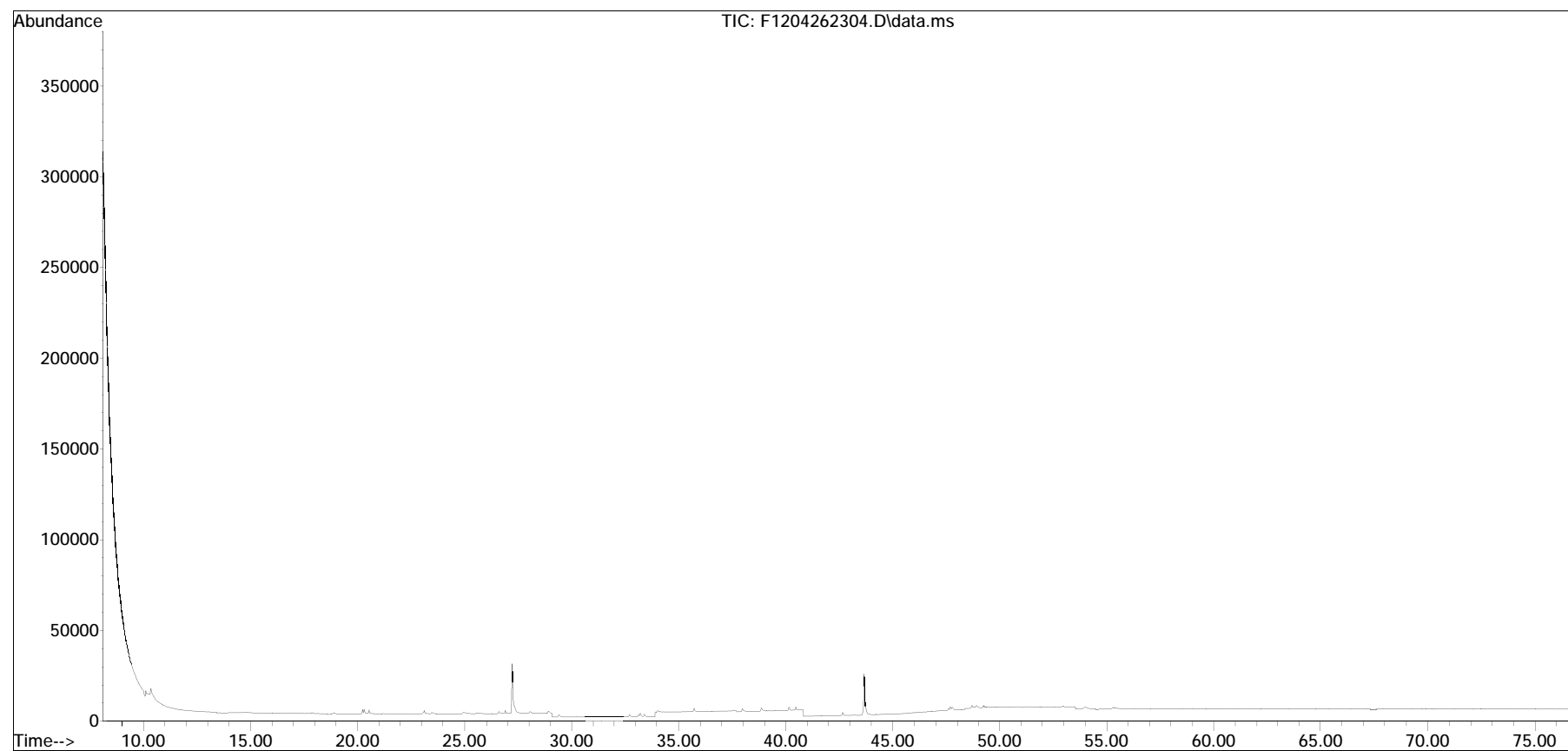
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
Data File : F1204262304.D
Acq On : 26 Apr 2023 5:27 pm
Operator : PAH12:CNC
Sample : i1404262302
Misc : WG1773271,frbf68
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 27 14:53:17 2023
Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 27 06:18:57 2023
Response via : Initial Calibration

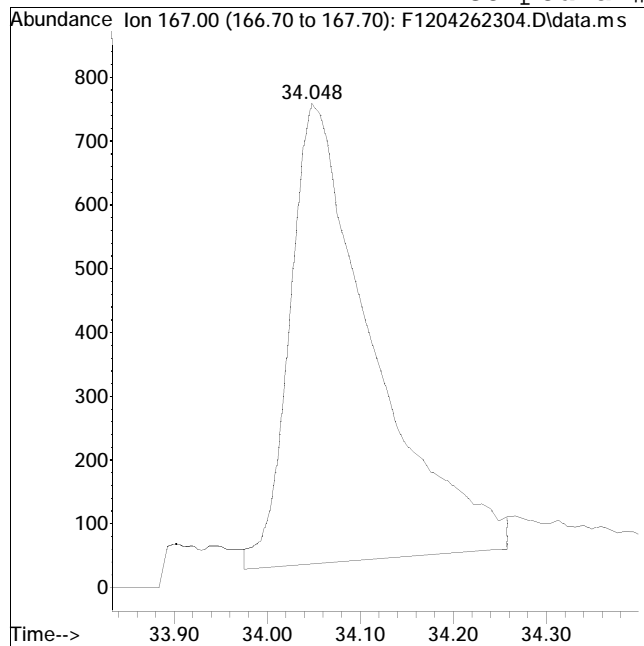
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

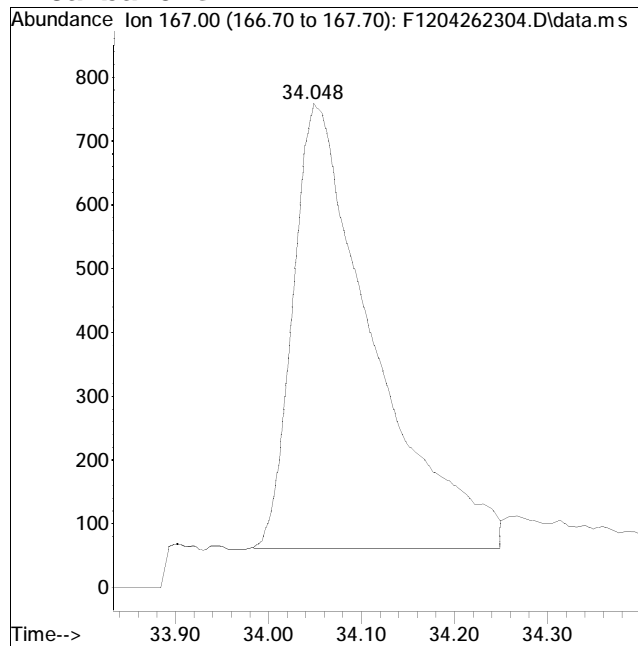
Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
Data File : F1204262304.D Operator : PAH12:CNC
Date Inj'd : 4/26/2023 5:27 pm Instrument : PAH12
Sample : i1404262302 Quant Date : 4/27/2023 6:19 am

Compound #54: Carbazole



Original Peak Response = 4505

M4 = Poor automated baseline construction.

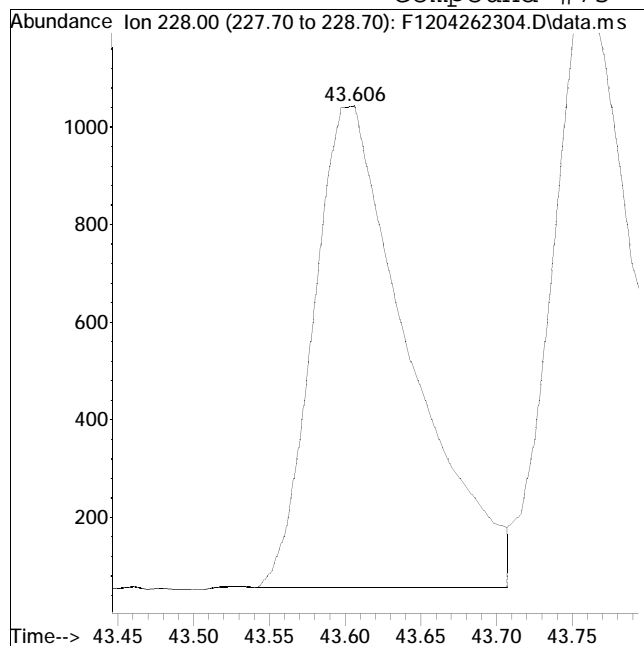


Manual Peak Response = 4188 M4

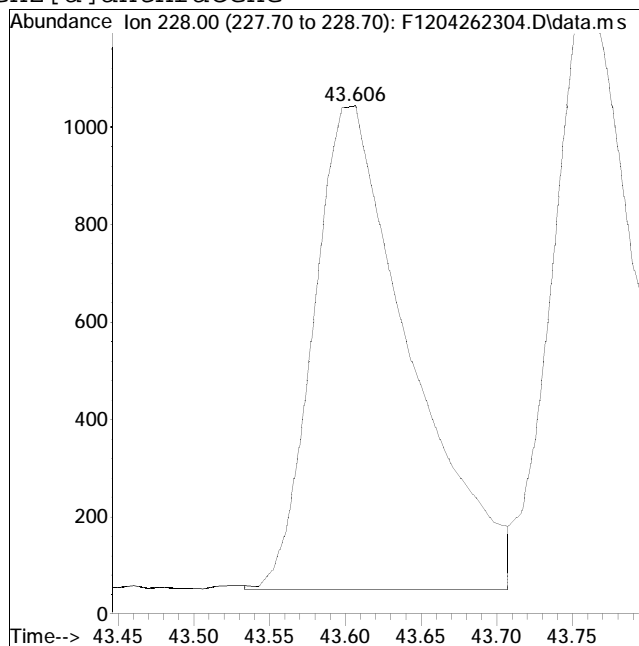
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262304.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 5:27 pm Instrument : PAH12
 Sample : i1404262302 Quant Date : 4/27/2023 6:19 am

Compound #75: Benz[a]anthracene



Original Peak Response = 4377



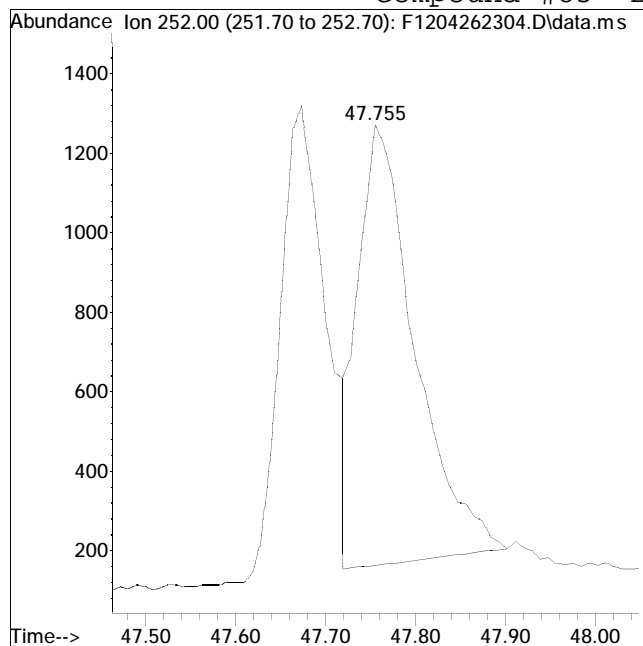
Manual Peak Response = 4439 M4

M4 = Poor automated baseline construction.

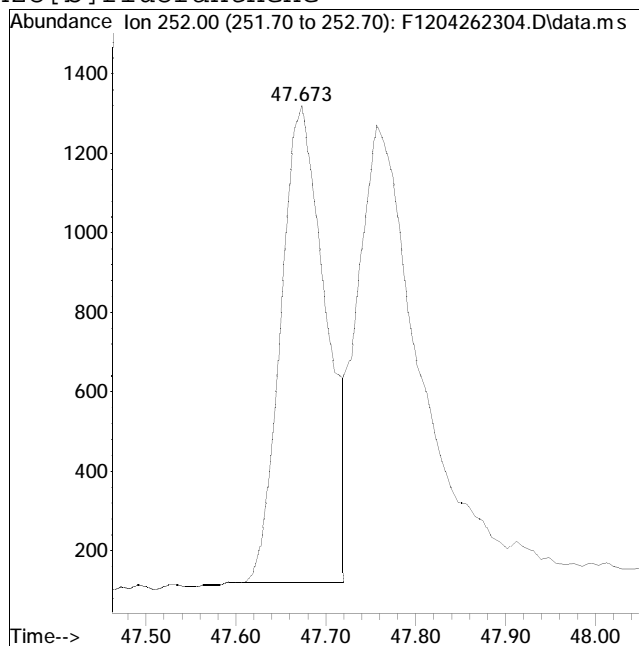
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262304.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 5:27 pm Instrument : PAH12
 Sample : i1404262302 Quant Date : 4/27/2023 6:19 am

Compound #85: Benzo[b]fluoranthene



Original Peak Response = 4902



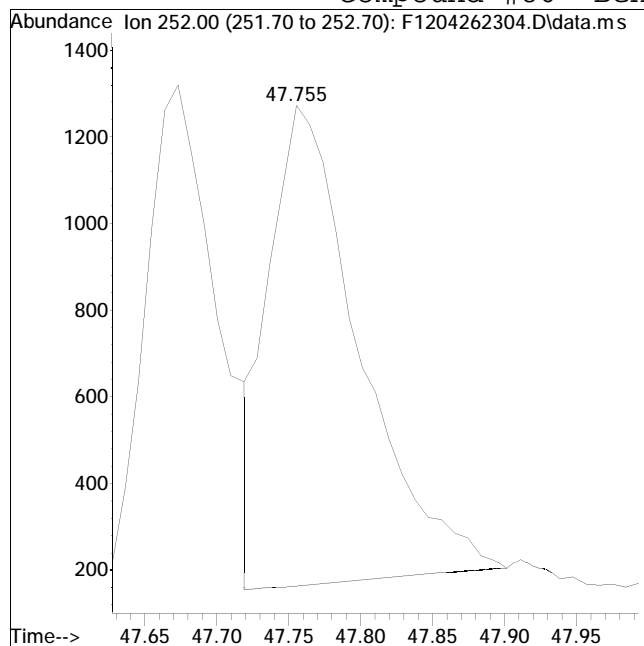
Manual Peak Response = 4252 M3

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.

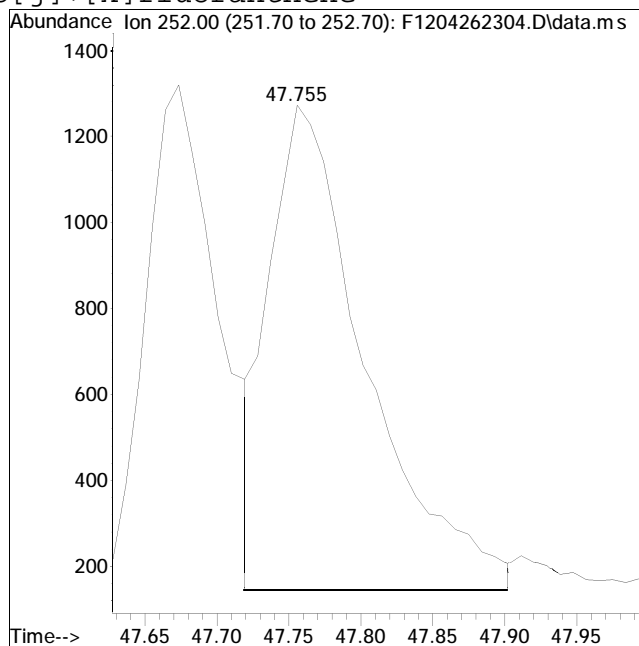
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262304.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 5:27 pm Instrument : PAH12
 Sample : i1404262302 Quant Date : 4/27/2023 6:19 am

Compound #86: Benzo[j]+[k]fluoranthene



Original Peak Response = 4902



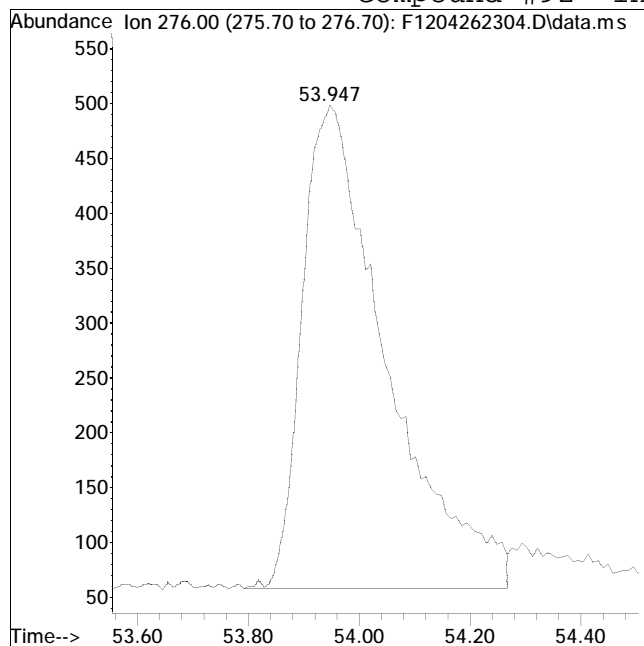
Manual Peak Response = 5292 M4

M4 = Poor automated baseline construction.

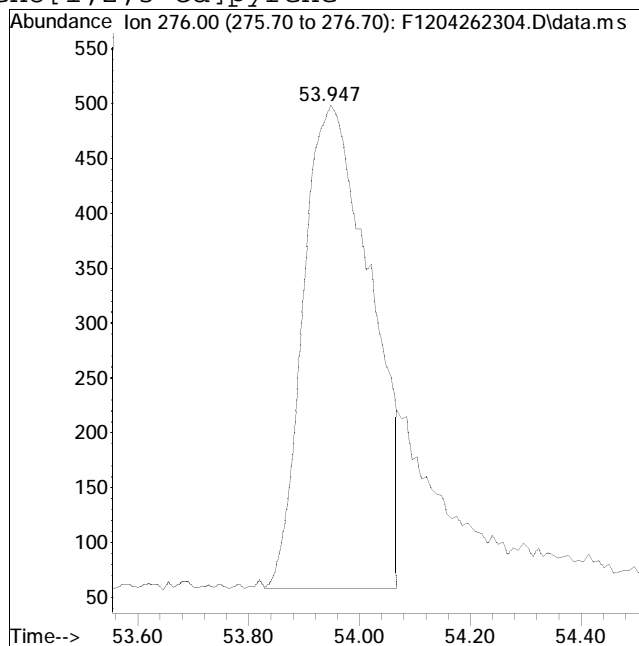
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262304.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 5:27 pm Instrument : PAH12
 Sample : i1404262302 Quant Date : 4/27/2023 6:19 am

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



Original Peak Response = 4660



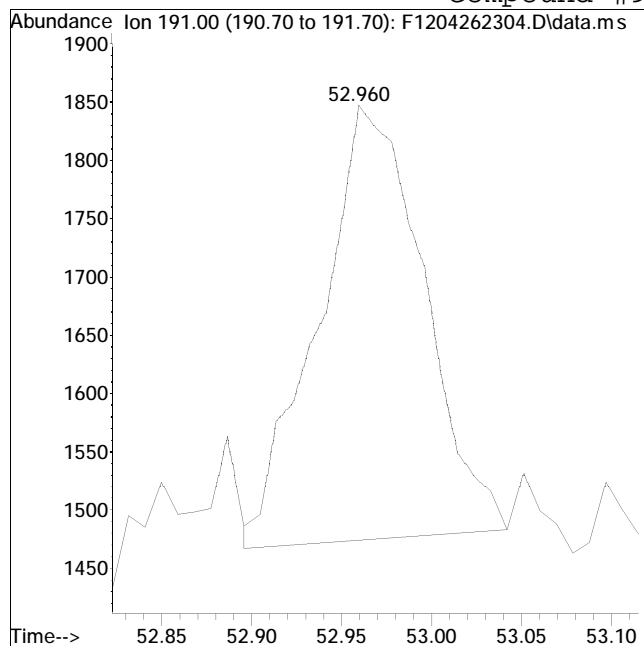
Manual Peak Response = 3728 M3

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.

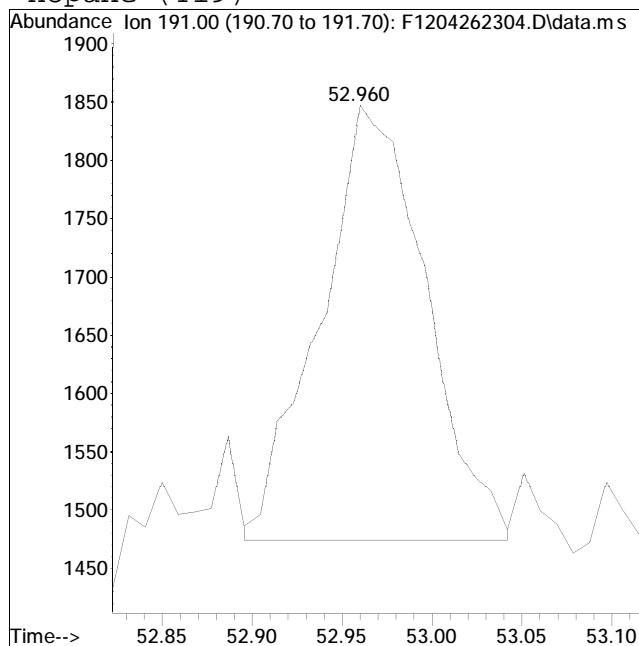
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262304.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 5:27 pm Instrument : PAH12
 Sample : i1404262302 Quant Date : 4/27/2023 6:19 am

Compound #95: Hopane (T19)



Original Peak Response = 1518



Manual Peak Response = 1527 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262305.D
 Acq On : 26 Apr 2023 6:51 pm
 Operator : PAH12:CNC
 Sample : i1404262303
 Misc : WGI773271,frbf69
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 27 06:19:10 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 06:18:57 2023
 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	27.214	164	65539	500.000	ng/mL	0.00
74) Chrysene-d12	43.661	240	71756	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.224	136	28228	110.549	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	11.05%#		
40) Phenanthrene-d10	33.099	188	18032	96.441	ng/mL	0.03
Spiked Amount 1000.000	Range 50 - 130		Recovery =	9.64%#		
84) Benzo[b]fluoranthene-d12	47.563	264	14032	101.723	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	10.17%#		
89) Benzo[a]pyrene-d12	48.798	264	9095	91.363	ng/mL	0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery =	9.14%#		
129) 5B(H)Cholane - Surr	44.264	217	2723	111.235	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	11.12%#		
Target Compounds						
						Qvalue
2) trans-Decalin	16.884	138	3162	60.301	ng/mL	100
3) cis-Decalin	18.107	138	2461	61.983	ng/mL	100
9) Naphthalene	20.306	128	29922	100.253	ng/mL	100
14) 2-Methylnaphthalene	23.053	142	16817	87.187	ng/mL	100
15) 1-Methylnaphthalene	23.464	142	15337	86.709	ng/mL	100
16) Benzothiophene	20.525	134	23144	99.885	ng/mL	100
21) Biphenyl	24.933	154	21730	96.252	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.544	156	13565	87.832	ng/mL	100
23) Dibenzofuran	28.017	168	19885	87.988	ng/mL	96
24) Acenaphthylene	26.603	152	23726M4	87.976	ng/mL	
25) Acenaphthene	27.342	153	16123	88.442	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	28.911	170	13067	92.036	ng/mL	98
27) Fluorene	29.395	166	16253	86.298	ng/mL	99
31) Dibenzothiophene	32.688	184	23524	89.672	ng/mL	100
41) Phenanthrene	33.190	178	24017	88.118	ng/mL	99
52) Retene	40.146	234	5564	84.718	ng/mL	99
53) Anthracene	33.382	178	22624	90.624	ng/mL	97
54) Carbazole	34.030	167	17243M4	75.384	ng/mL	
55) 1-Methylphenanthrene	35.691	192	16323	87.425	ng/mL	99
56) Fluoranthene	37.955	202	25719	88.561	ng/mL	100
57) Benzo(b)fluorene	40.466	216	10301	75.485	ng/mL	100
59) Pyrene	38.831	202	25455	87.161	ng/mL	98
67) Naphthobenzothiophene-2,1	42.666	234	21574	82.709	ng/mL	99
75) Benz[a]anthracene	43.597	228	17992	100.339	ng/mL	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262305.D
 Acq On : 26 Apr 2023 6:51 pm
 Operator : PAH12:CNC
 Sample : i1404262303
 Misc : WG1773271,frbf69
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 27 06:19:10 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 06:18:57 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.753	228	21097	98.823	ng/mL	100
77) Chrysene/Triphenylene	43.753	228	21097	98.823	ng/mL	100
85) Benzo[b]fluoranthene	47.655	252	19776	98.560	ng/mL	99
86) Benzo[j]+[k]fluoranthene	47.746	252	23563	102.432	ng/mL	90
88) Benzo[e]pyrene	48.688	252	22277	102.762	ng/mL	96
90) Benzo[a]pyrene	48.890	252	18331	102.528	ng/mL	96
91) Perylene	49.210	252	19263	102.494	ng/mL	94
92) Indeno[1,2,3-cd]pyrene	53.911	276	15890M3	85.524	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.993	278	13983	90.377	ng/mL#	88
94) Benzo[g,h,i]perylene	55.254	276	20537	102.295	ng/mL	99
95) Hopane (T19)	52.969	191	5541M4	112.639	ng/mL	

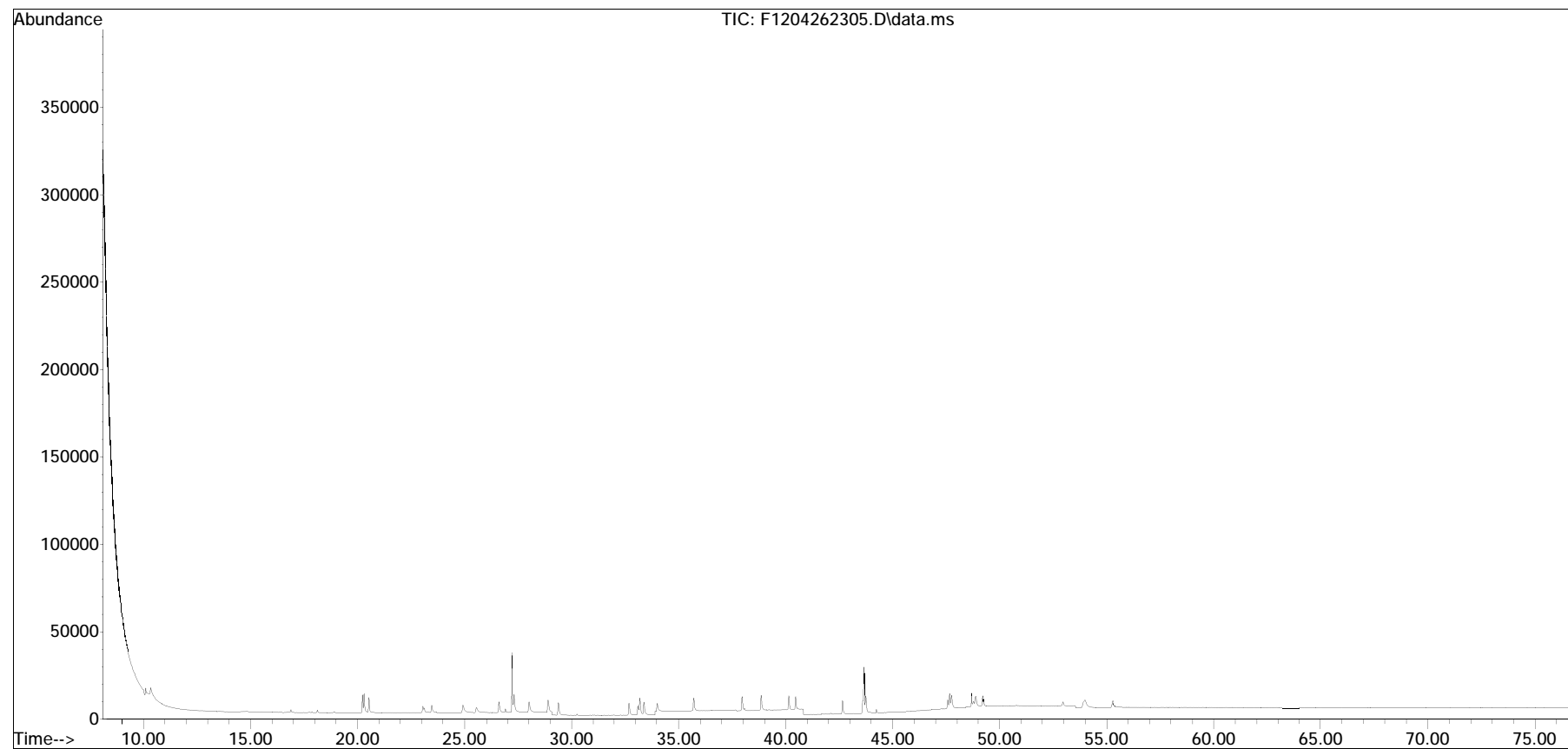
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
Data File : F1204262305.D
Acq On : 26 Apr 2023 6:51 pm
Operator : PAH12:CNC
Sample : i1404262303
Misc : WG1773271,frbf69
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 27 06:19:10 2023
Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 27 06:18:57 2023
Response via : Initial Calibration

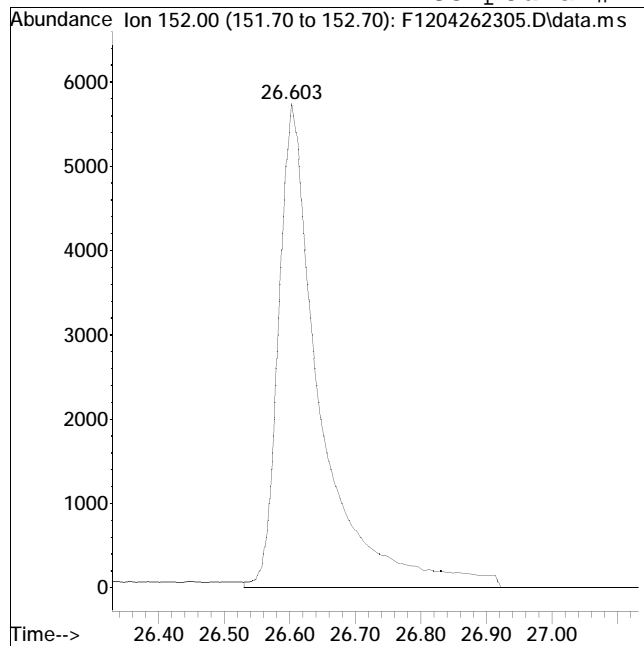
Sub List : ALKPAH_CCV - CC with five surrogates



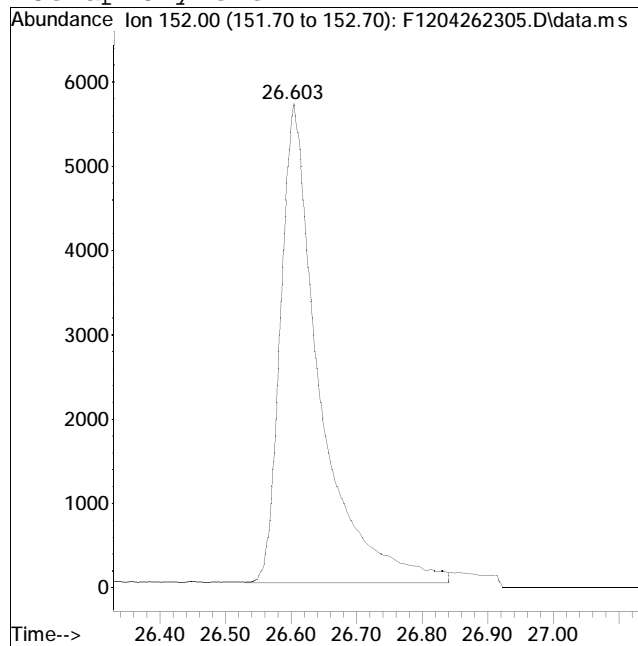
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
Data File : F1204262305.D Operator : PAH12:CNC
Date Inj'd : 4/26/2023 6:51 pm Instrument : PAH12
Sample : i1404262303 Quant Date : 4/27/2023 6:19 am

Compound #24: Acenaphthylene



Original Peak Response = 25462



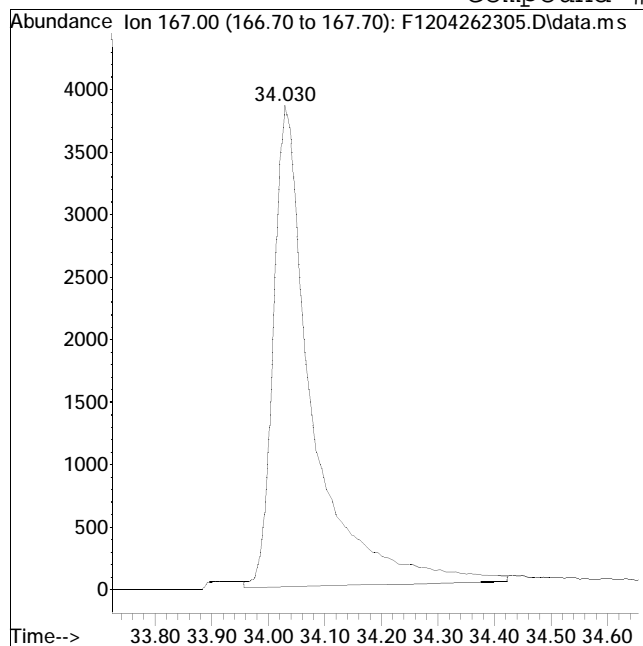
Manual Peak Response = 23726 M4

M4 = Poor automated baseline construction.

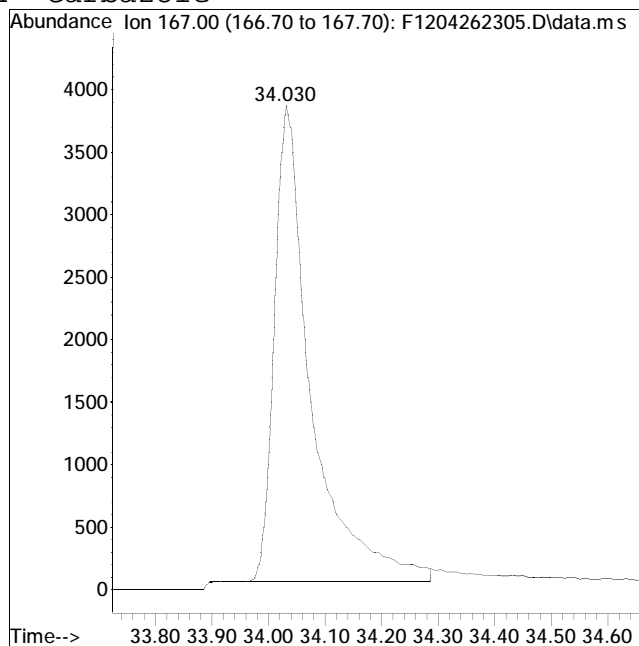
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262305.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 6:51 pm Instrument : PAH12
 Sample : i1404262303 Quant Date : 4/27/2023 6:19 am

Compound #54: Carbazole



Original Peak Response = 18465



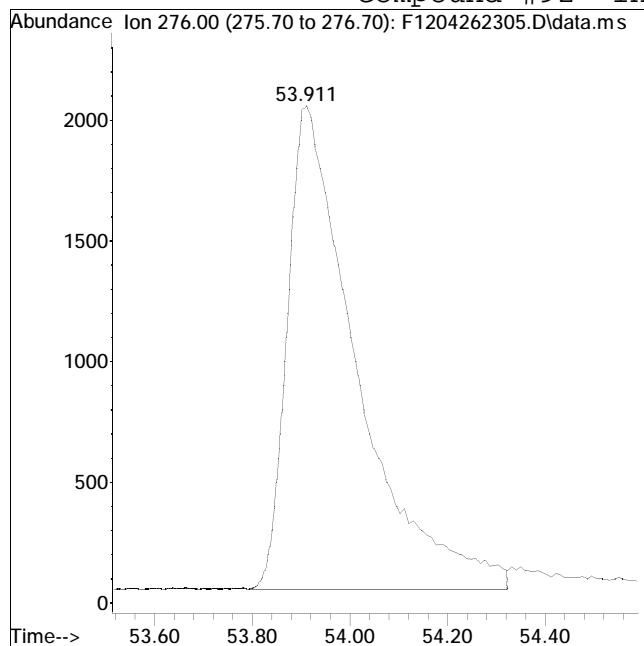
Manual Peak Response = 17243 M4

M4 = Poor automated baseline construction.

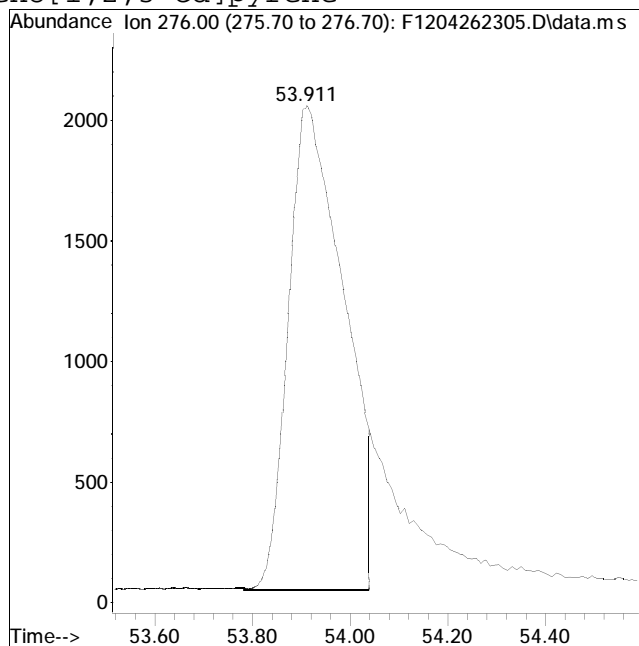
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262305.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 6:51 pm Instrument : PAH12
 Sample : i1404262303 Quant Date : 4/27/2023 6:19 am

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



Original Peak Response = 19855



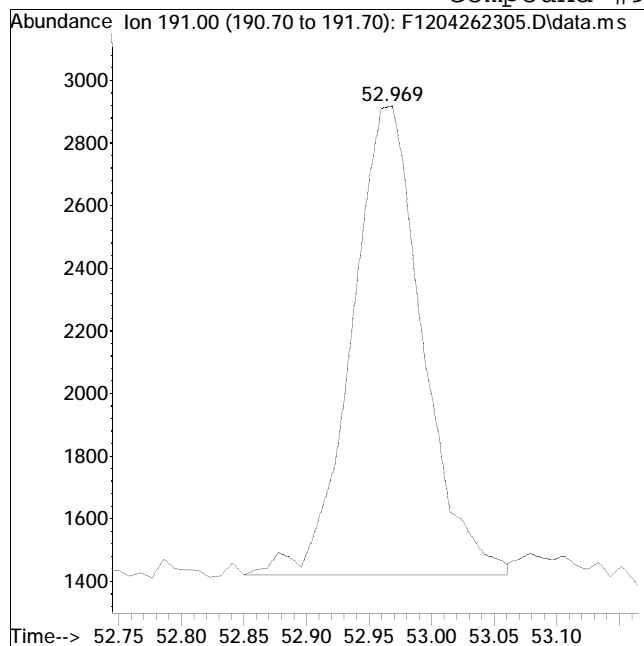
Manual Peak Response = 15890 M3

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.

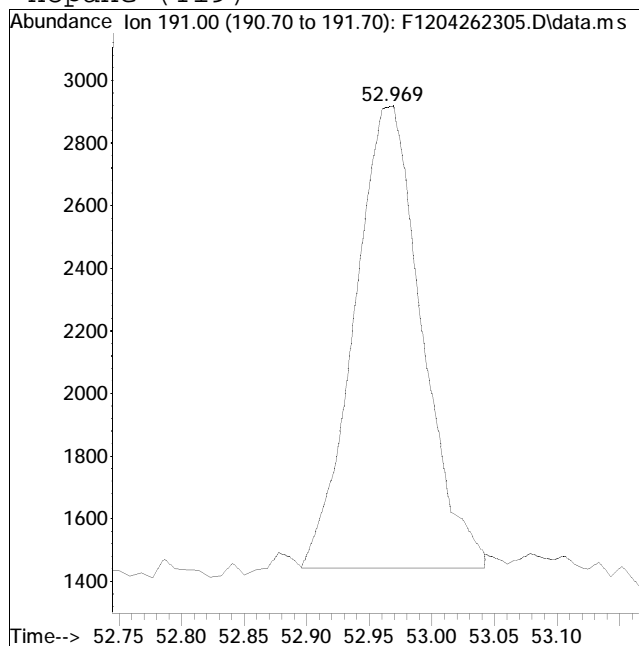
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262305.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 6:51 pm Instrument : PAH12
 Sample : i1404262303 Quant Date : 4/27/2023 6:19 am

Compound #95: Hopane (T19)



Original Peak Response = 5883



Manual Peak Response = 5541 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262306.D
 Acq On : 26 Apr 2023 8:16 pm
 Operator : PAH12:CNC
 Sample : i1404262304
 Misc : WGI773271,frbf80
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 27 06:21:19 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 06:18:57 2023
 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	27.205	164	63822	500.000	ng/mL	0.00
74) Chrysene-d12	43.652	240	71827	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.224	136	139553	561.232	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	56.12%		
40) Phenanthrene-d10	33.072	188	87385	479.936	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	47.99%#		
84) Benzo[b]fluoranthene-d12	47.554	264	68867	498.748	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	49.87%#		
89) Benzo[a]pyrene-d12	48.780	264	45310	454.708	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	45.47%#		
129) 5B(H)Cholane - Surr	44.264	217	16294	664.953	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	66.50%		
Target Compounds						
						Qvalue
2) trans-Decalin	16.884	138	15498	303.508	ng/mL	100
3) cis-Decalin	18.098	138	12118	313.414	ng/mL	100
9) Naphthalene	20.306	128	155866	536.277	ng/mL	100
14) 2-Methylnaphthalene	23.016	142	93620	498.429	ng/mL	100
15) 1-Methylnaphthalene	23.436	142	88903	516.142	ng/mL	100
16) Benzothiophene	20.516	134	122745	543.995	ng/mL	100
21) Biphenyl	24.887	154	116974	532.071	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.508	156	73931	491.576	ng/mL	100
23) Dibenzofuran	27.981	168	105918	481.282	ng/mL	99
24) Acenaphthylene	26.594	152	124602M4	474.454	ng/mL	
25) Acenaphthene	27.333	153	82288	463.533	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	28.893	170	66228	479.018	ng/mL	100
27) Fluorene	29.368	166	84573	461.138	ng/mL	99
31) Dibenzothiophene	32.670	184	121460	475.456	ng/mL	99
41) Phenanthrene	33.163	178	128461	484.001	ng/mL	99
52) Retene	40.137	234	28661	448.136	ng/mL	98
53) Anthracene	33.355	178	117500	483.324	ng/mL	99
54) Carbazole	34.011	167	94748M4	425.370	ng/mL	
55) 1-Methylphenanthrene	35.673	192	83820	461.013	ng/mL	98
56) Fluoranthene	37.937	202	130786	462.466	ng/mL	100
57) Benzo(b)fluorene	40.457	216	54533	410.363	ng/mL	99
59) Pyrene	38.822	202	129443	455.155	ng/mL	99
67) Naphthobenzothiophene-2,1	42.657	234	111970	440.814	ng/mL	99
75) Benz[a]anthracene	43.588	228	96734	538.941	ng/mL	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262306.D
 Acq On : 26 Apr 2023 8:16 pm
 Operator : PAH12:CNC
 Sample : i1404262304
 Misc : WG1773271,frbf80
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 27 06:21:19 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 06:18:57 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.753	228	108971	509.941	ng/mL	100
77) Chrysene/Triphenylene	43.753	228	108971	509.941	ng/mL	100
85) Benzo[b]fluoranthene	47.637	252	110734	551.334	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.728	252	123311	535.520	ng/mL	94
88) Benzo[e]pyrene	48.679	252	114212	526.329	ng/mL	94
90) Benzo[a]pyrene	48.881	252	97386	544.158	ng/mL	92
91) Perylene	49.201	252	102285	543.697	ng/mL	92
92) Indeno[1,2,3-cd]pyrene	53.874	276	93095M3	500.568	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.956	278	77130	498.028	ng/mL	97
94) Benzo[g,h,i]perylene	55.236	276	105053	522.752	ng/mL	99
95) Hopane (T19)	52.960	191	29746	604.087	ng/mL#	87

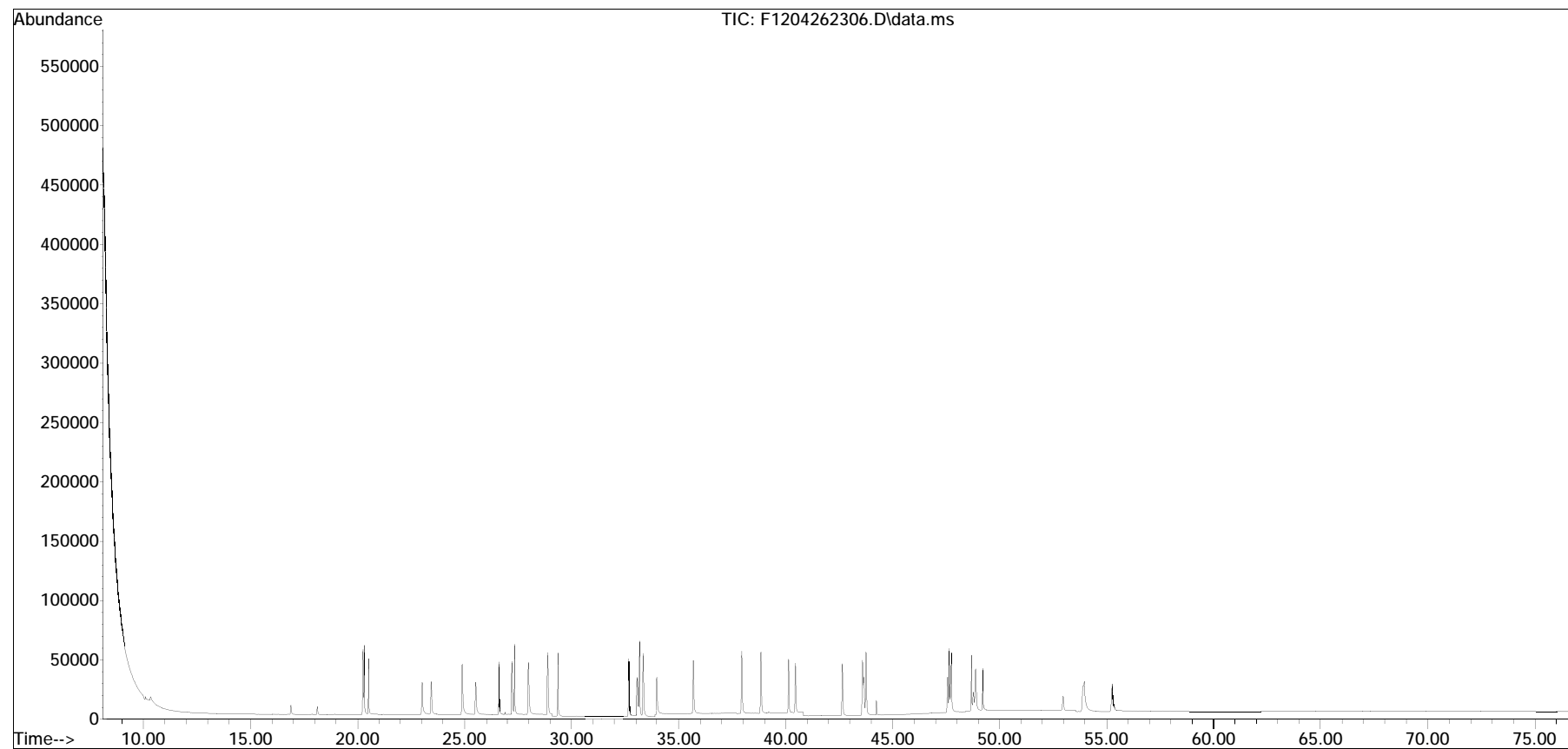
(#) = qualifier out of range (m) = manual integration (+) = signals summed

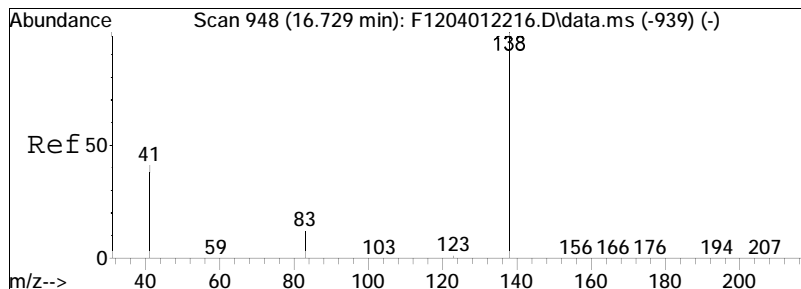
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
Data File : F1204262306.D
Acq On : 26 Apr 2023 8:16 pm
Operator : PAH12:CNC
Sample : i1404262304
Misc : WG1773271,frbf80
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 27 06:21:19 2023
Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 27 06:18:57 2023
Response via : Initial Calibration

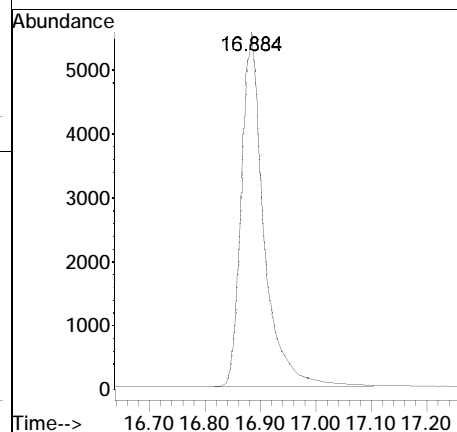
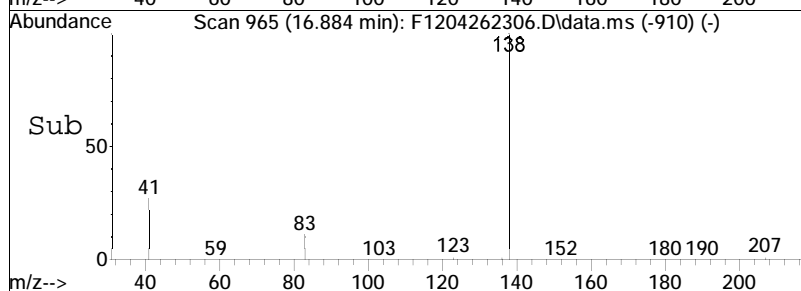
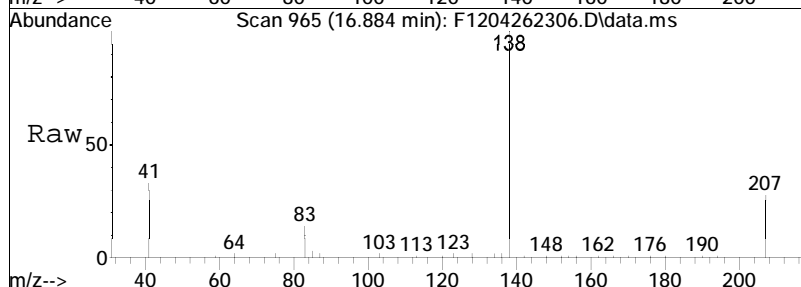
Sub List : ALKPAH_CCV - CC with five surrogates

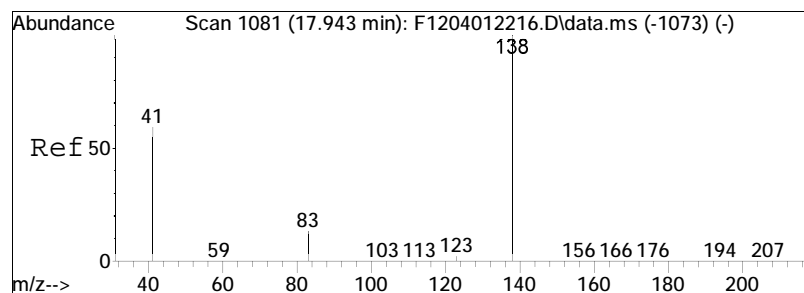




#2
trans-Decalin
Concen: 303.51 ng/mL
RT: 16.884 min Scan# 965
Delta R.T. 0.000 min
Lab File: F1204262306.D
Acq: 26 Apr 2023 8:16 pm

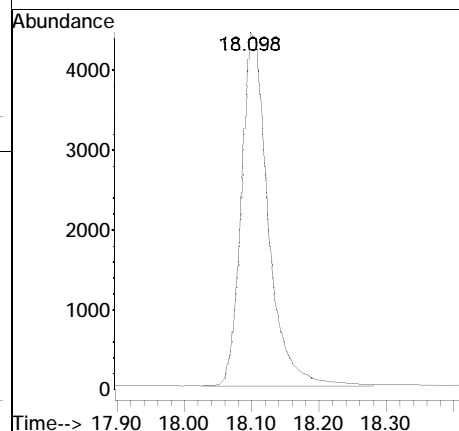
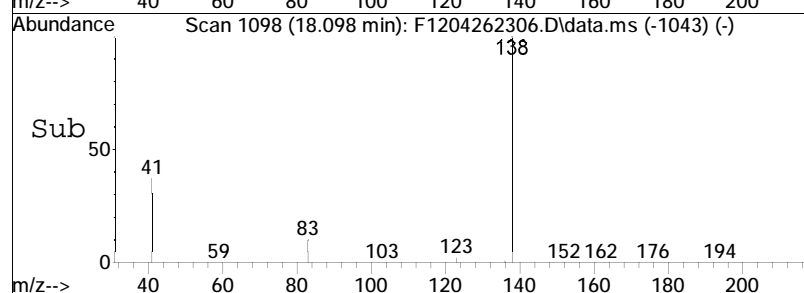
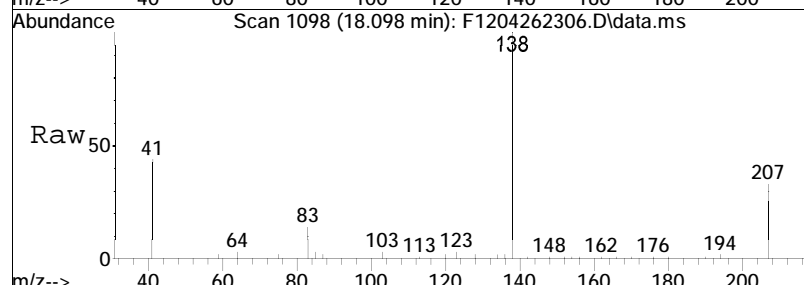
Tgt Ion:138 Resp: 15498

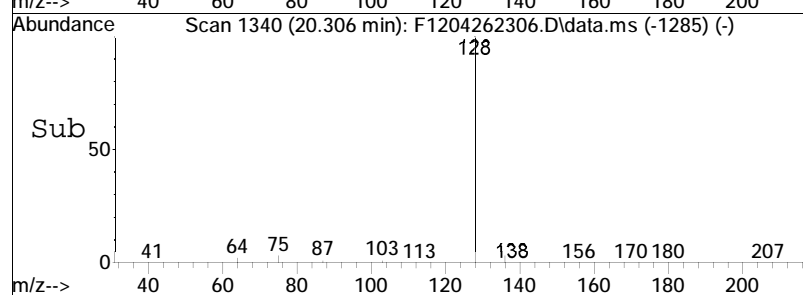
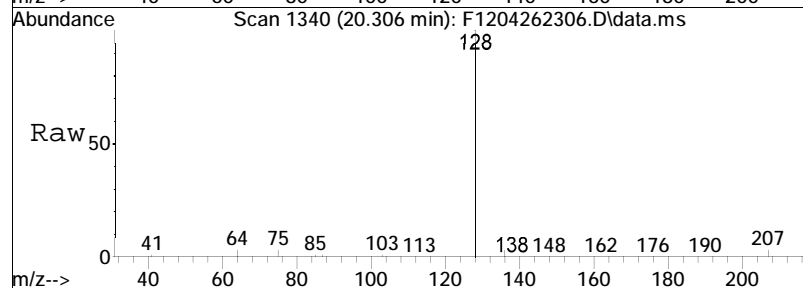
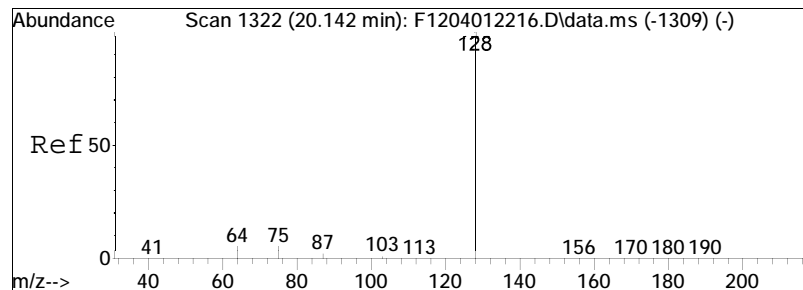




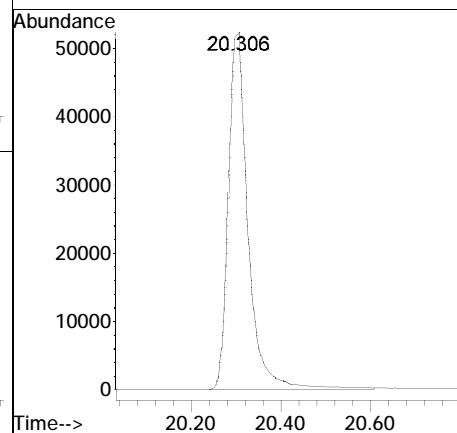
#3
cis-Decalin
Concen: 313.41 ng/mL
RT: 18.098 min Scan# 1098
Delta R.T. 0.000 min
Lab File: F1204262306.D
Acq: 26 Apr 2023 8:16 pm

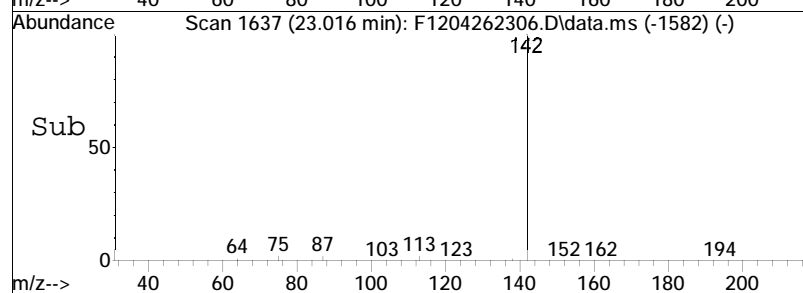
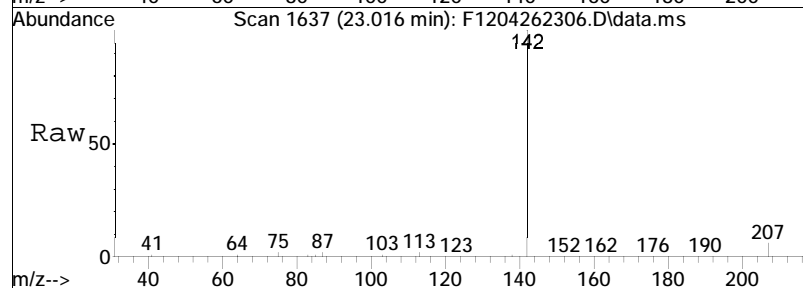
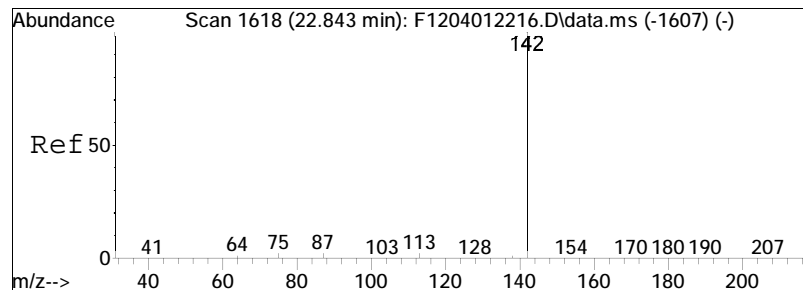
Tgt Ion:138 Resp: 12118





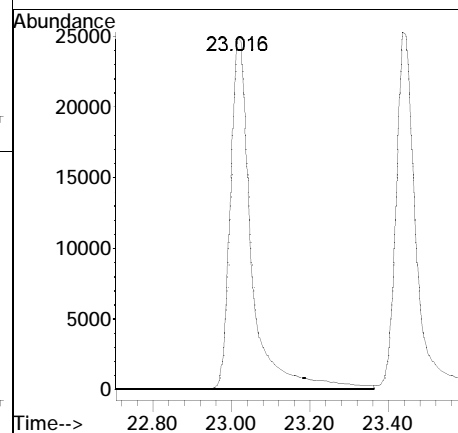
#9
 Naphthalene
 Concen: 536.28 ng/mL
 RT: 20.306 min Scan# 1340
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm
 Tgt Ion:128 Resp: 155866

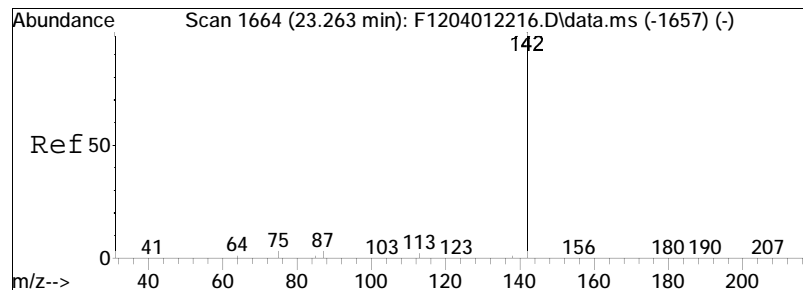




#14
2-Methylnaphthalene
Concen: 498.43 ng/mL
RT: 23.016 min Scan# 1637
Delta R.T. 0.000 min
Lab File: F1204262306.D
Acq: 26 Apr 2023 8:16 pm

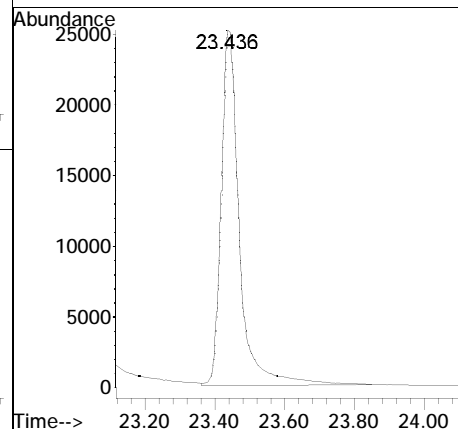
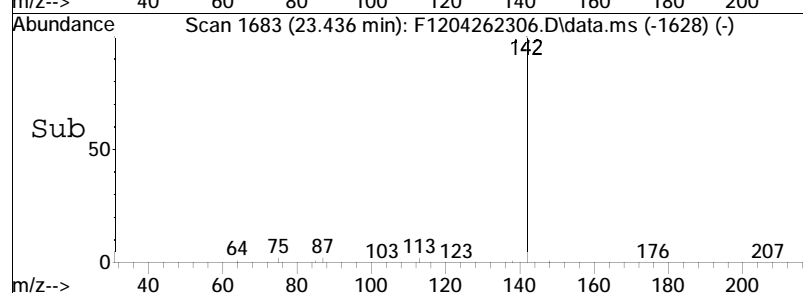
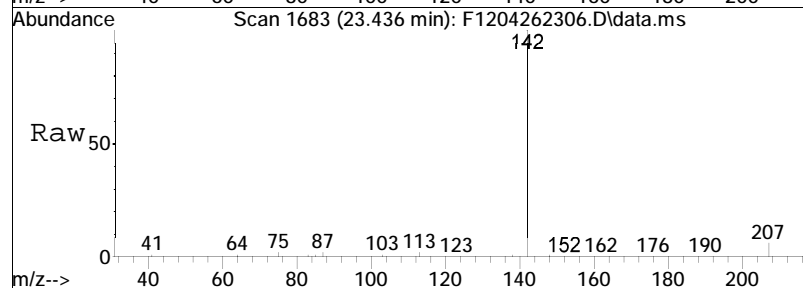
Tgt Ion:142 Resp: 93620

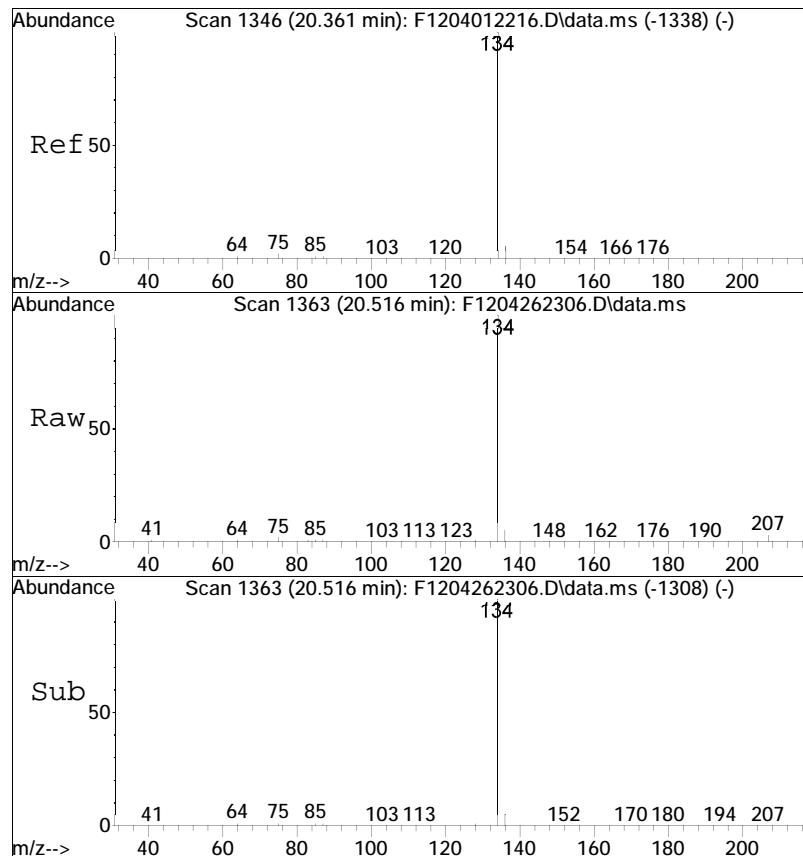




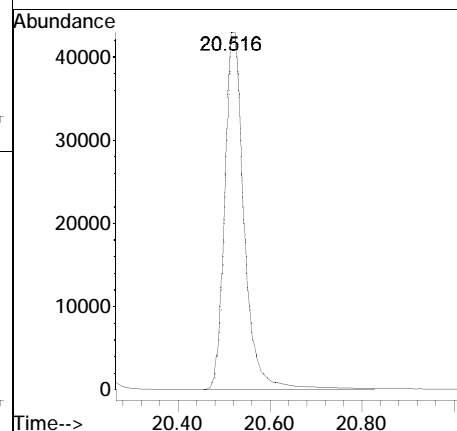
#15
 1-Methylnaphthalene
 Concen: 516.14 ng/mL
 RT: 23.436 min Scan# 1683
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

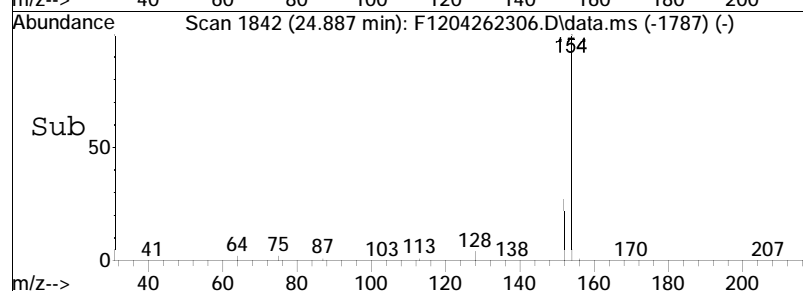
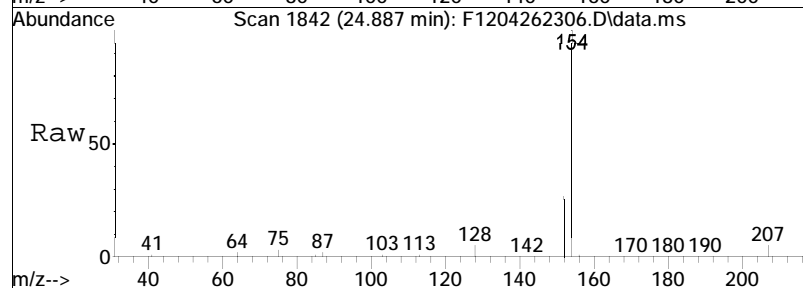
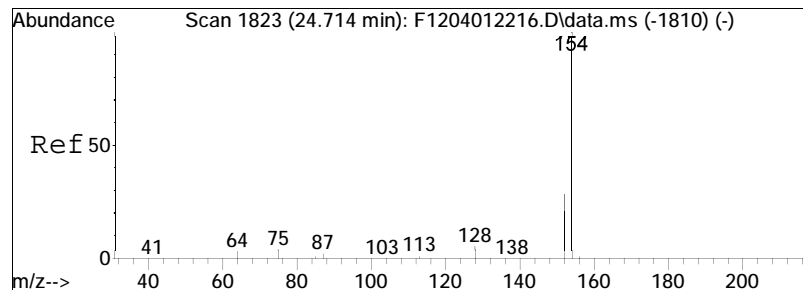
Tgt Ion:142 Resp: 88903



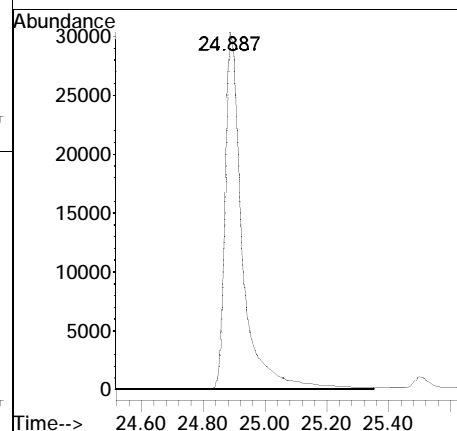


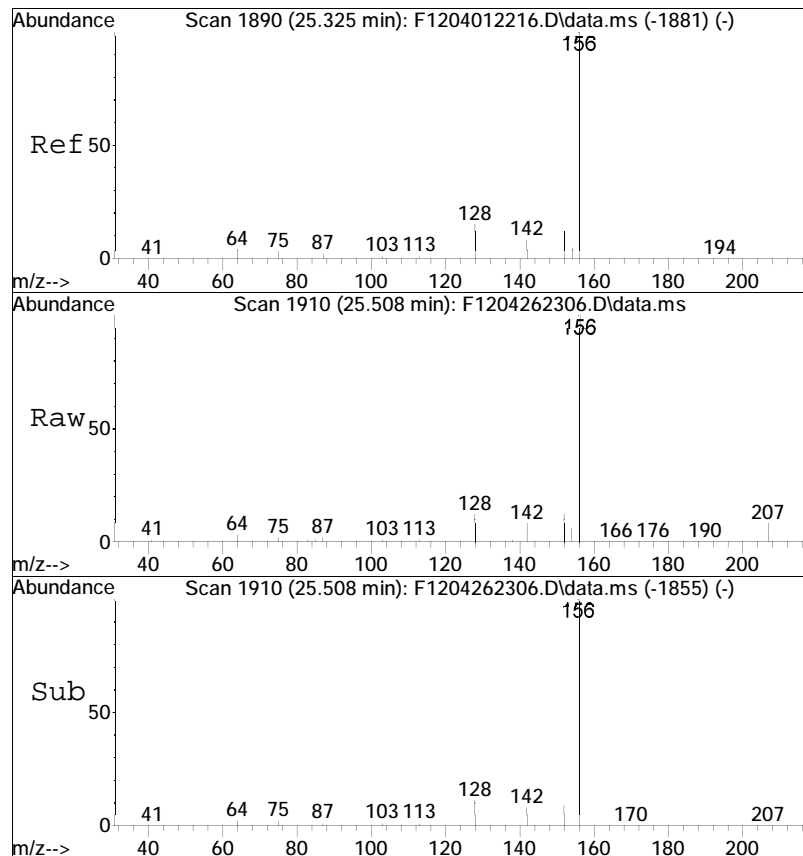
#16
Benzothiophene
Concen: 544.00 ng/mL
RT: 20.516 min Scan# 1363
Delta R.T. 0.000 min
Lab File: F1204262306.D
Acq: 26 Apr 2023 8:16 pm
Tgt Ion:134 Resp: 122745



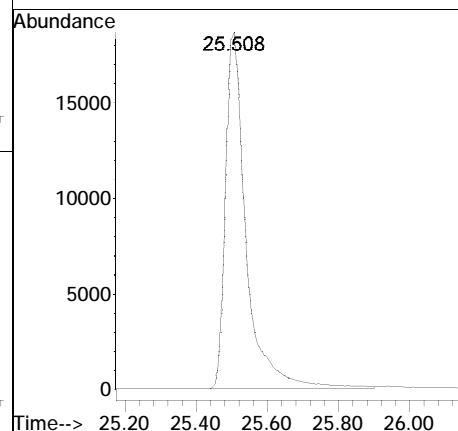


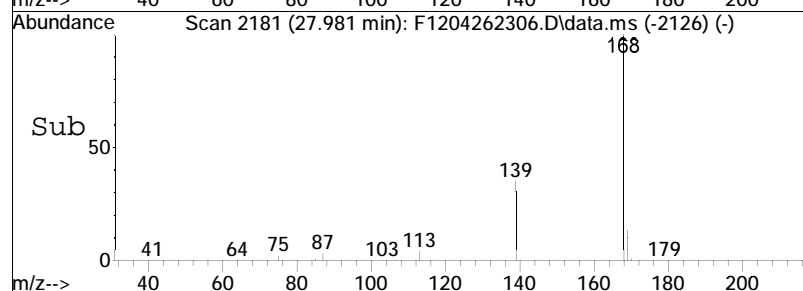
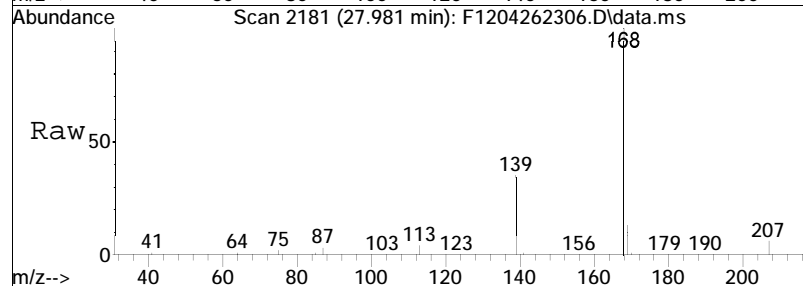
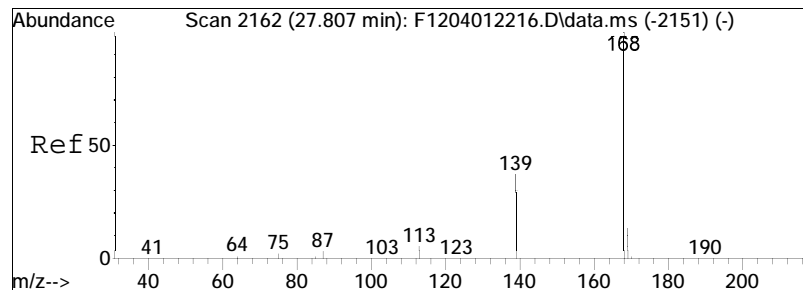
#21
Biphenyl
Concen: 532.07 ng/mL
RT: 24.887 min Scan# 1842
Delta R.T. 0.000 min
Lab File: F1204262306.D
Acq: 26 Apr 2023 8:16 pm
Tgt Ion:154 Resp: 116974





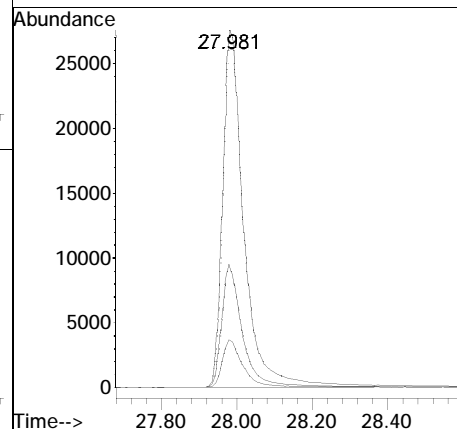
#22
 2,6-Dimethylnaphthalene
 Concen: 491.58 ng/mL
 RT: 25.508 min Scan# 1910
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm
 Tgt Ion:156 Resp: 73931

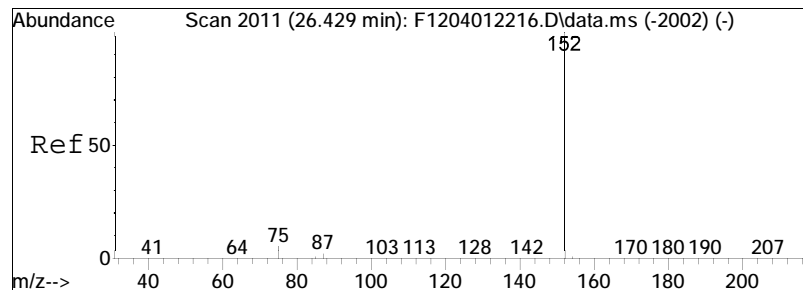




#23
 Dibenzofuran
 Concen: 481.28 ng/mL
 RT: 27.981 min Scan# 2181
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

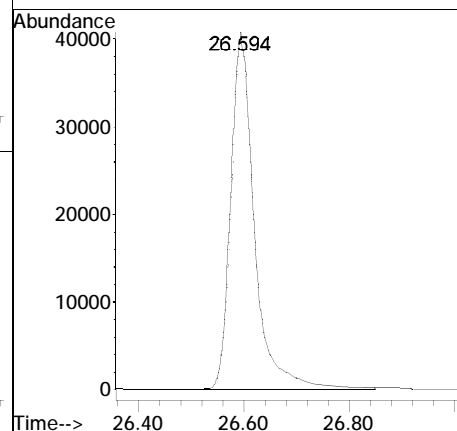
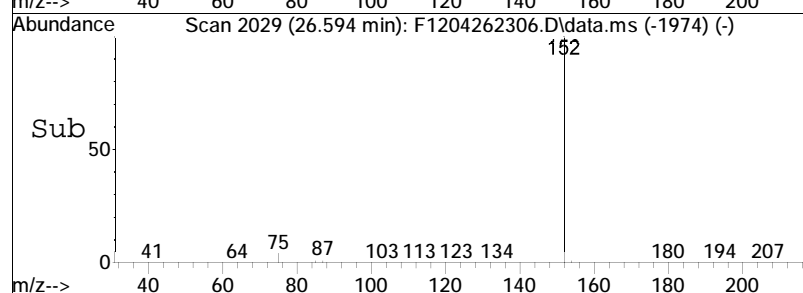
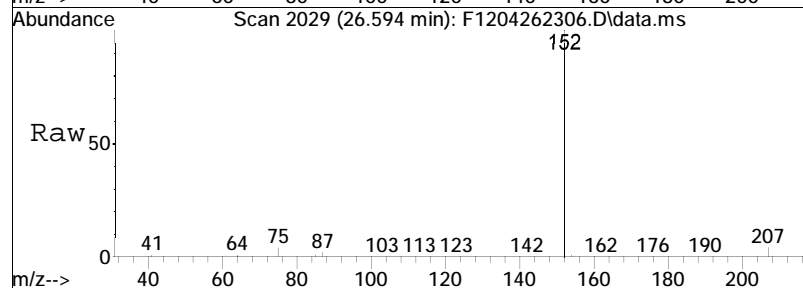
Tgt Ion	Ratio	Lower	Upper
168	100		
139	33.6	24.2	45.0
169	13.1	9.4	17.4

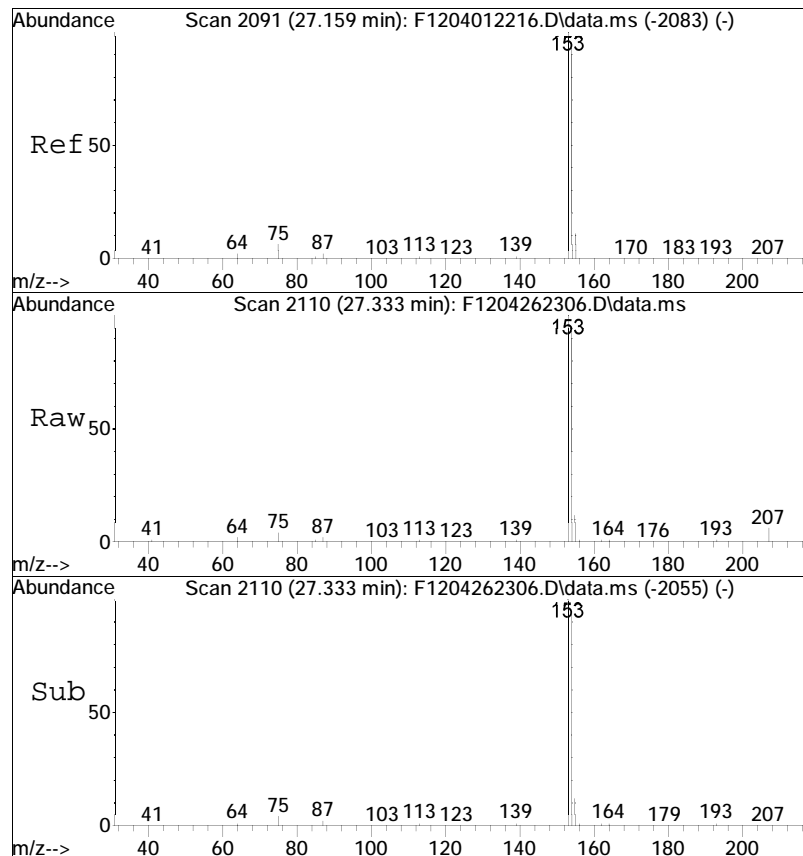




#24
Acenaphthylene
Concen: 474.45 ng/mL M4
RT: 26.594 min Scan# 2029
Delta R.T. 0.000 min
Lab File: F1204262306.D
Acq: 26 Apr 2023 8:16 pm

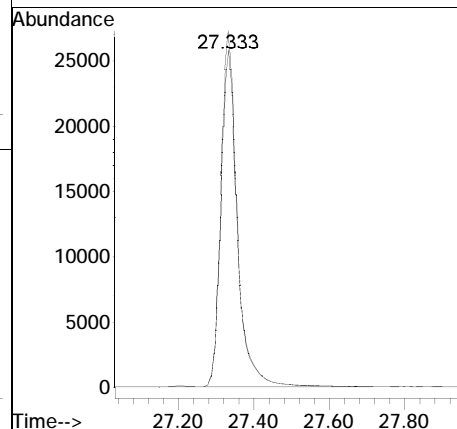
Tgt Ion:152 Resp: 124602

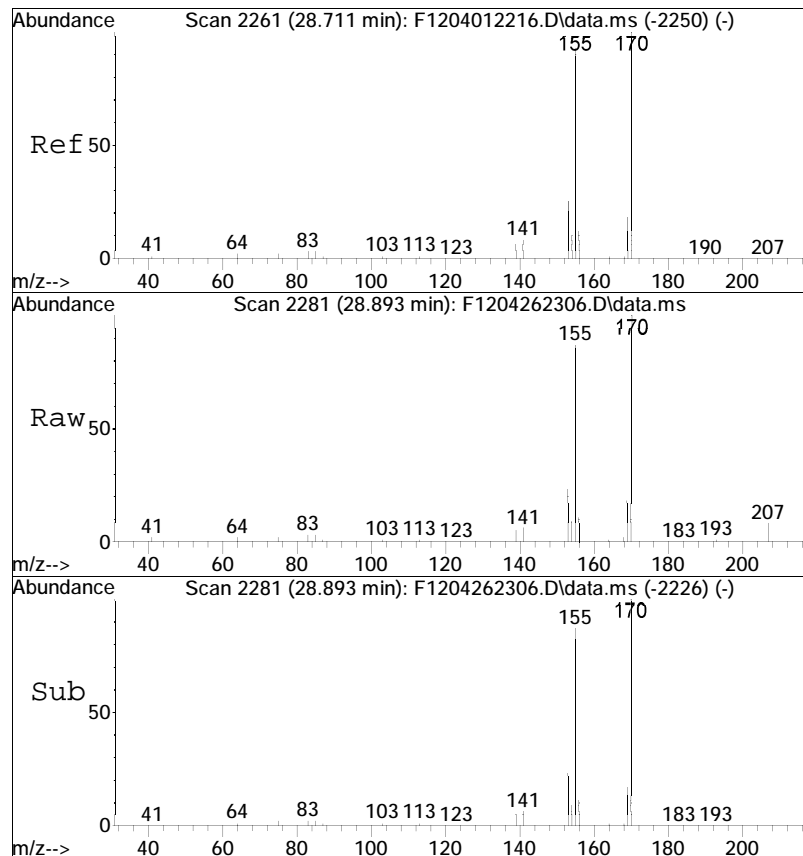




#25
 Acenaphthene
 Concen: 463.53 ng/mL
 RT: 27.333 min Scan# 2110
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

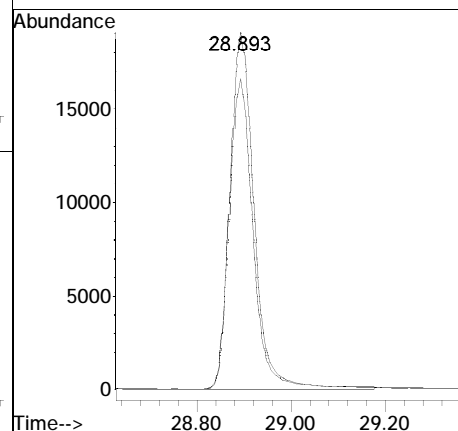
Tgt Ion	Ratio	Lower	Upper
153	100		
154	93.5	66.2	123.0

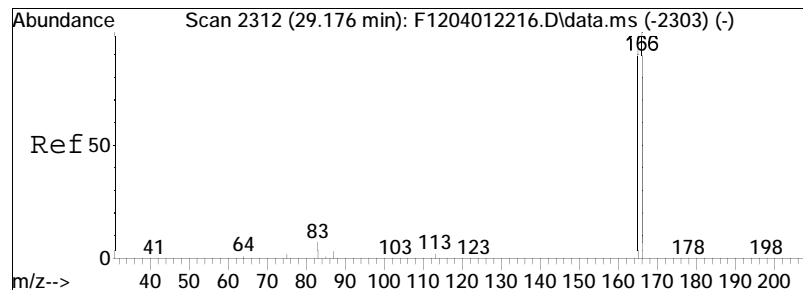




#26
 2,3,5-Trimethylnaphthalene
 Concen: 479.02 ng/mL
 RT: 28.893 min Scan# 2281
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

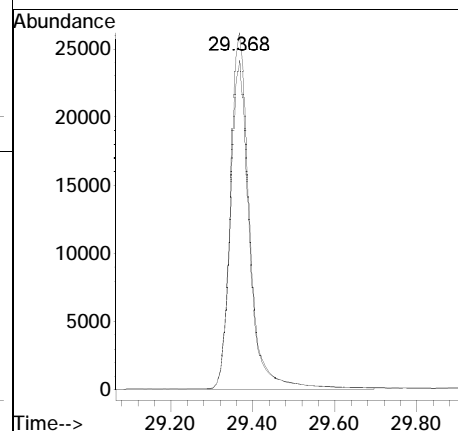
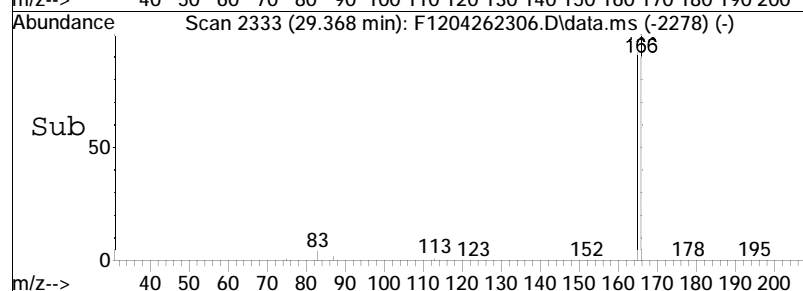
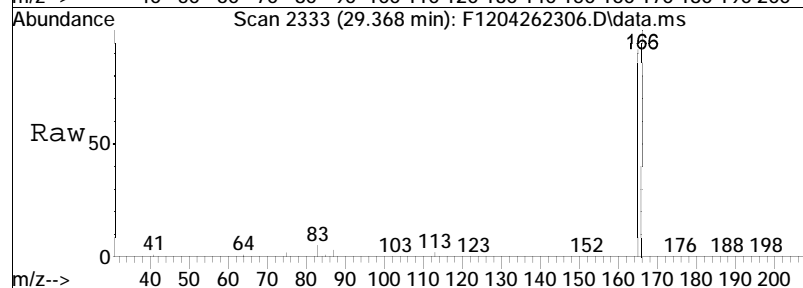
Tgt Ion	Resp	Lower	Upper
170	100		
155	86.7	61.0	113.2

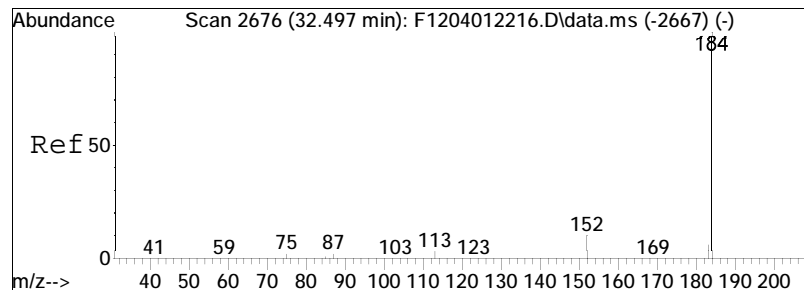




#27
 Fluorene
 Concen: 461.14 ng/mL
 RT: 29.368 min Scan# 2333
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

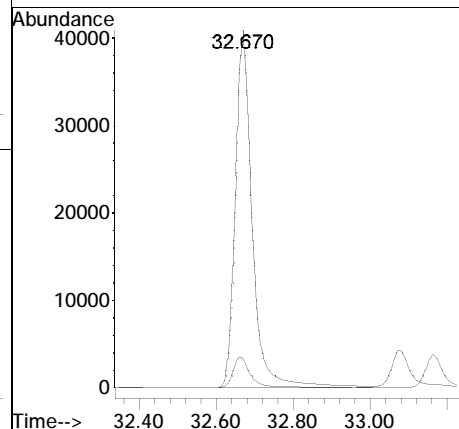
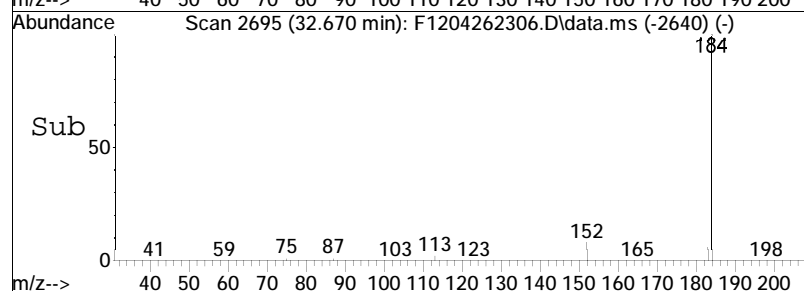
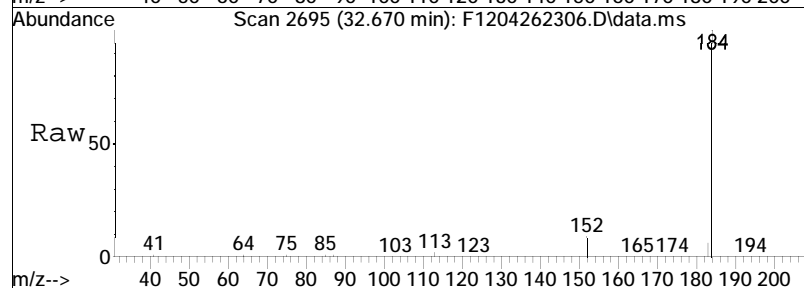
Tgt Ion	Ratio	Lower	Upper
166	100		
165	91.0	64.6	120.0

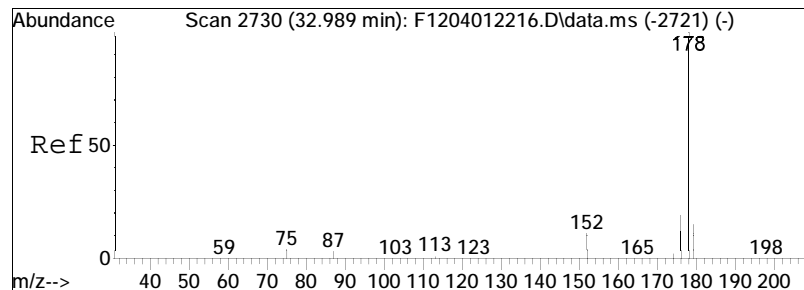




#31
 Dibenzothiophene
 Concen: 475.46 ng/mL
 RT: 32.670 min Scan# 2695
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

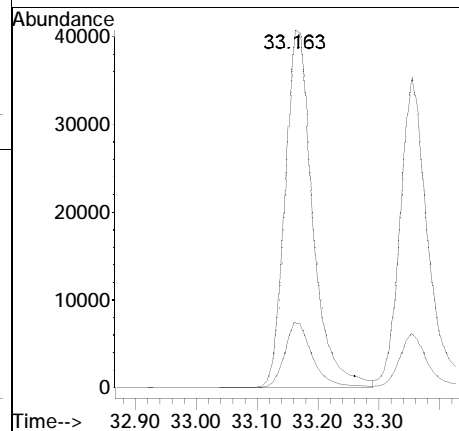
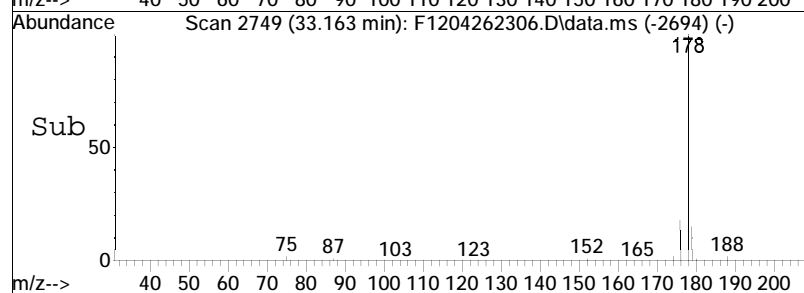
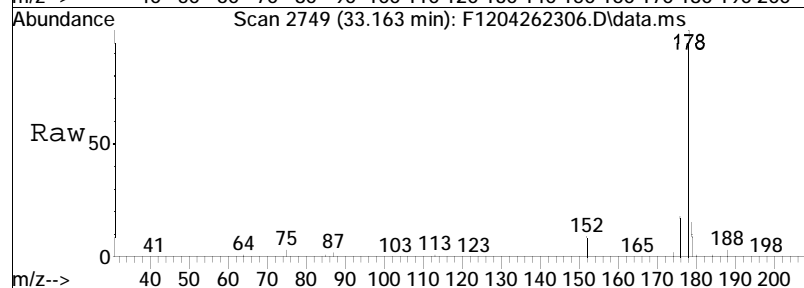
Tgt Ion	Ratio	Lower	Upper
184	100		
152	8.7	5.9	11.1

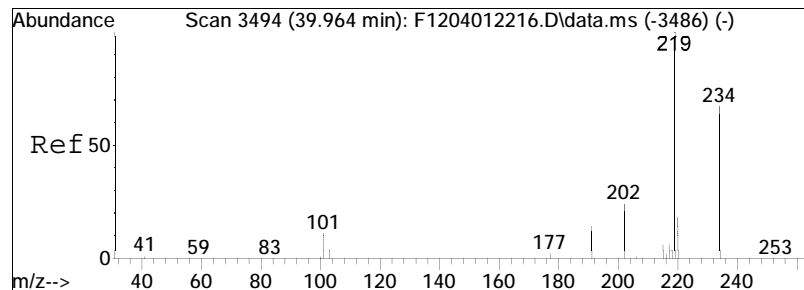




#41
 Phenanthrene
 Concen: 484.00 ng/mL
 RT: 33.163 min Scan# 2749
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

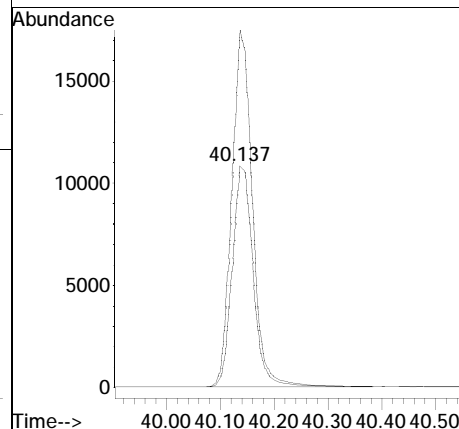
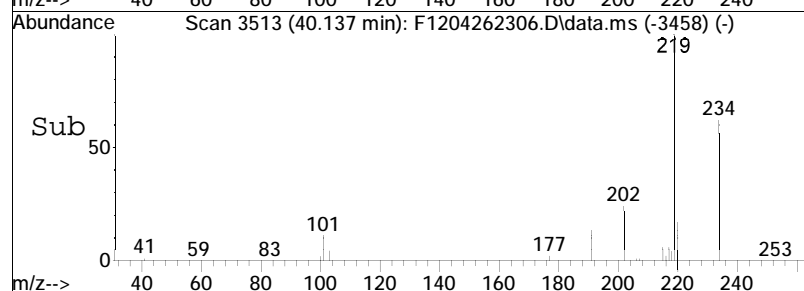
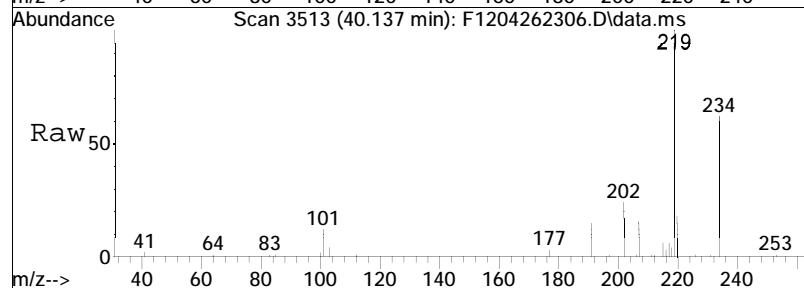
Tgt Ion	Ratio	Lower	Upper
178	100		
176	18.1	12.9	23.9

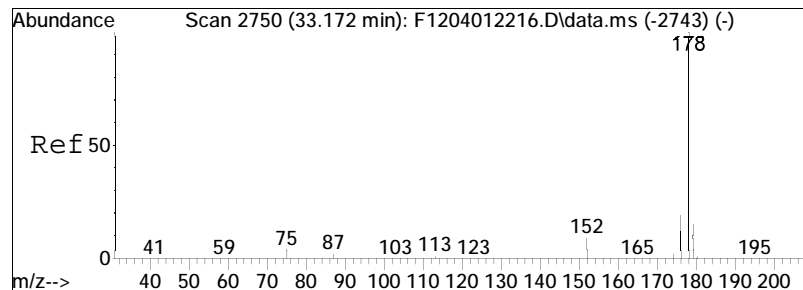




#52
 Retene
 Concen: 448.14 ng/mL
 RT: 40.137 min Scan# 3513
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

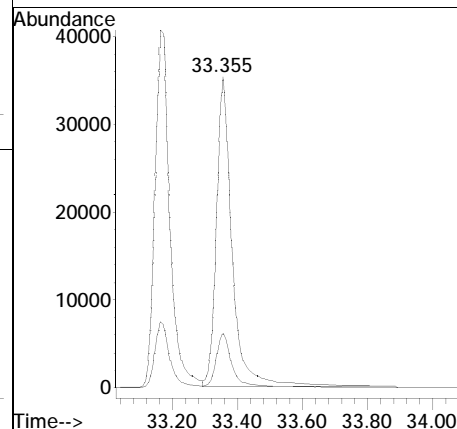
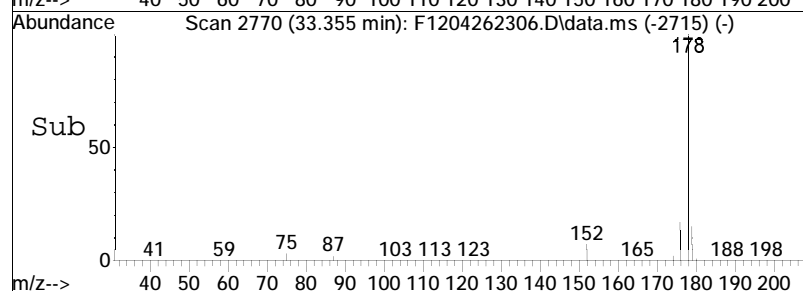
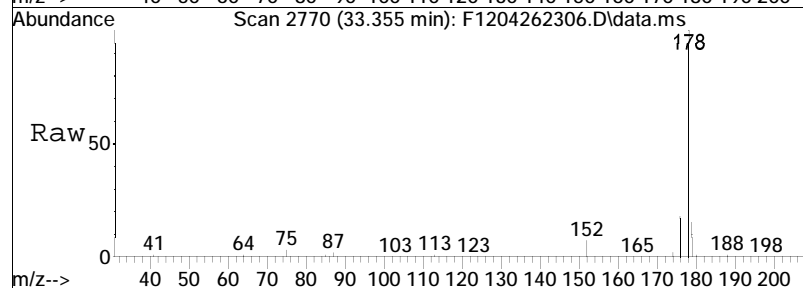
Tgt Ion	Ratio	Lower	Upper
234	100		
219	158.4	112.8	209.4

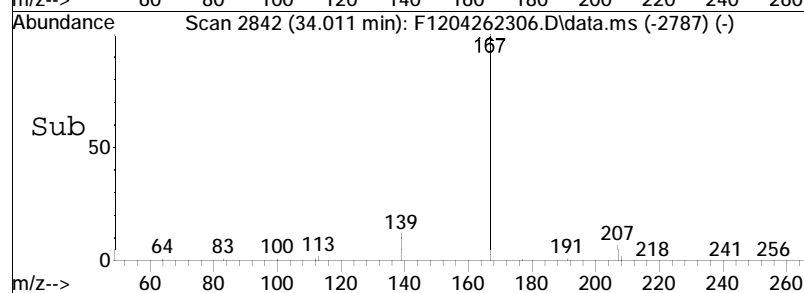
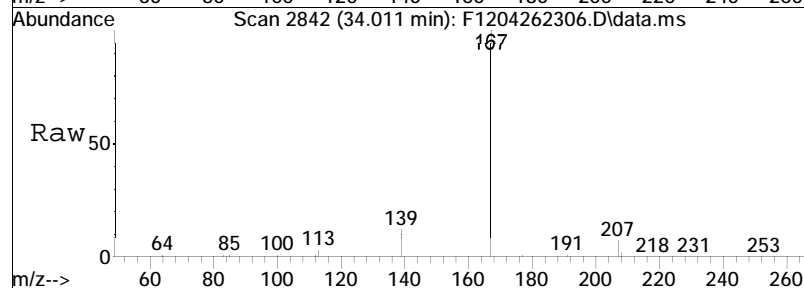
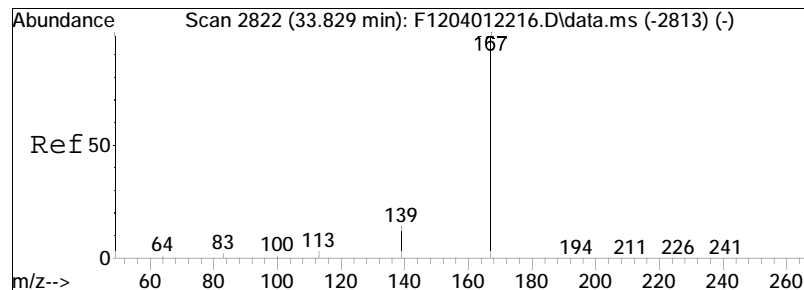




#53
 Anthracene
 Concen: 483.32 ng/mL
 RT: 33.355 min Scan# 2770
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

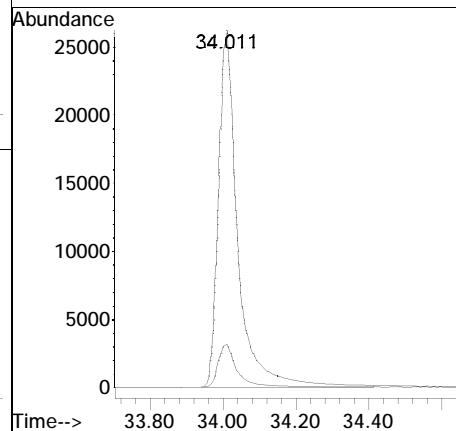
Tgt Ion	Ratio	Lower	Upper
178	100		
176	17.1	12.2	22.7

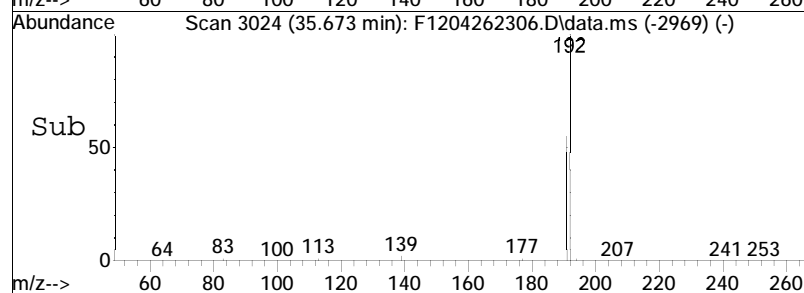
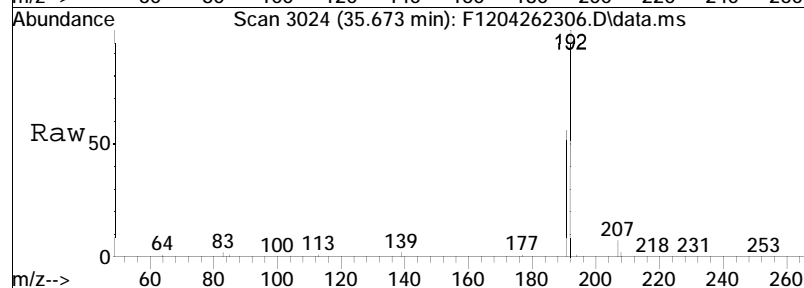
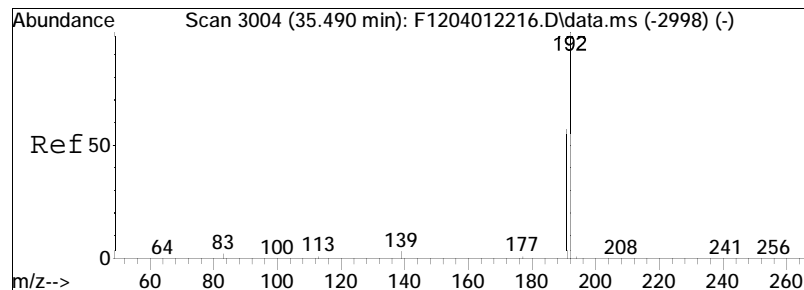




#54
 Carbazole
 Concen: 425.37 ng/mL M4
 RT: 34.011 min Scan# 2842
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

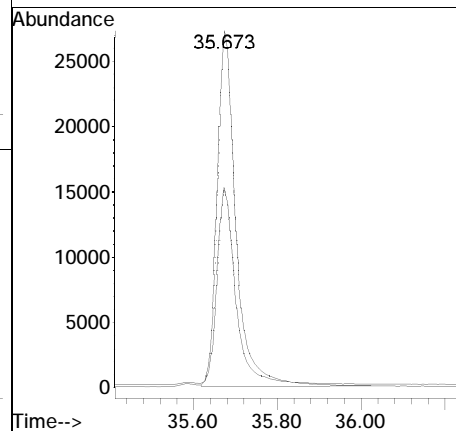
Tgt Ion	Ratio	Lower	Upper
167	100		
139	12.4	8.6	16.0

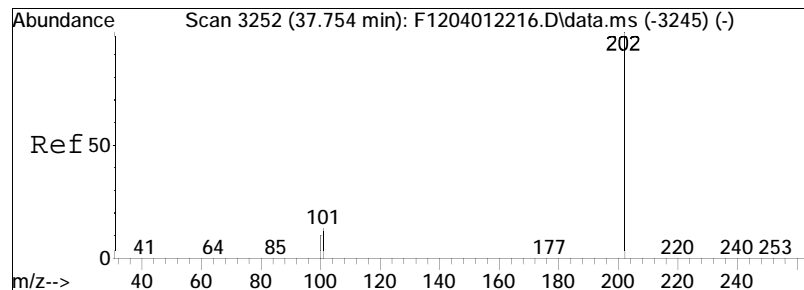




#55
 1-Methylphenanthrene
 Concen: 461.01 ng/mL
 RT: 35.673 min Scan# 3024
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

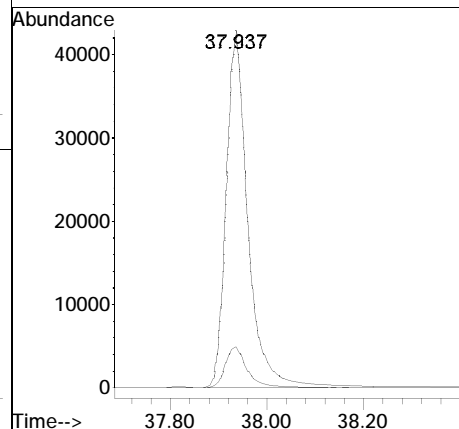
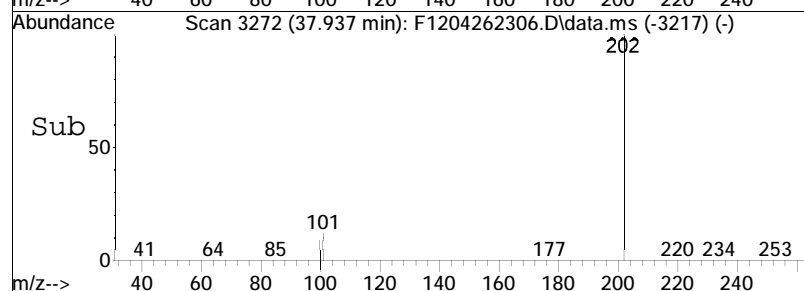
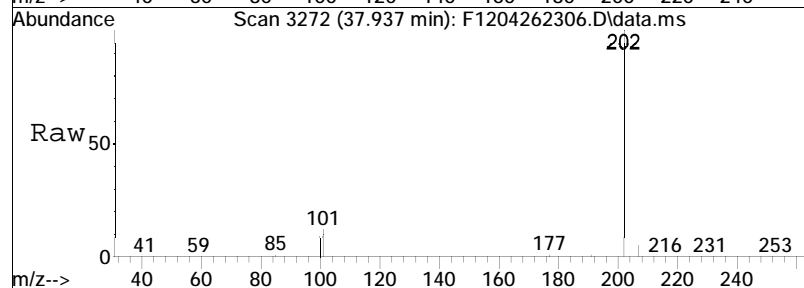
Tgt Ion	Ratio	Lower	Upper
192	100		
191	54.5	39.3	73.1

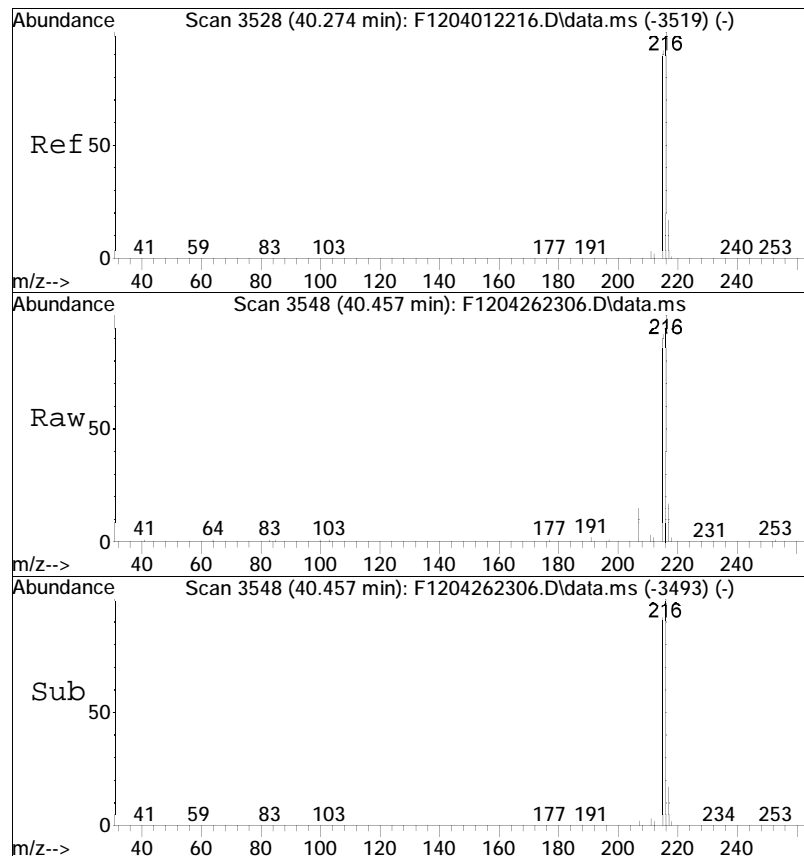




#56
 Fluoranthene
 Concen: 462.47 ng/mL
 RT: 37.937 min Scan# 3272
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

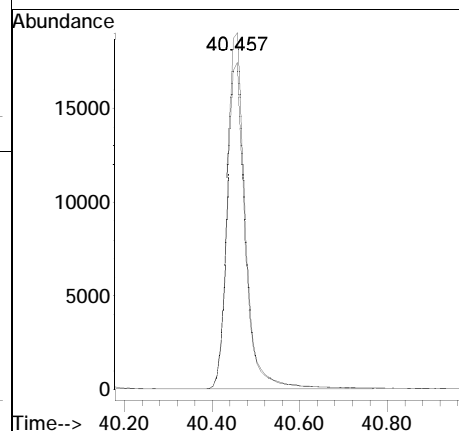
Tgt Ion	Ratio	Lower	Upper
202	100		
101	11.5	8.1	15.1

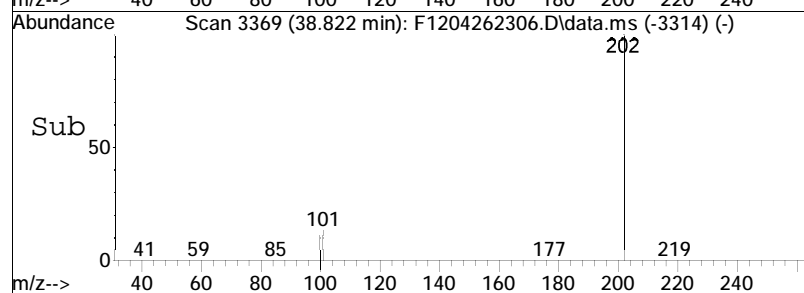
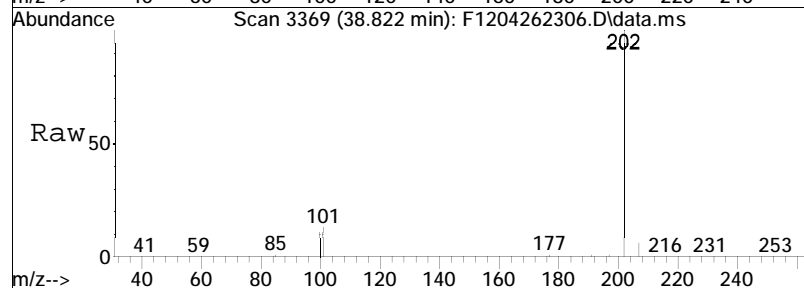
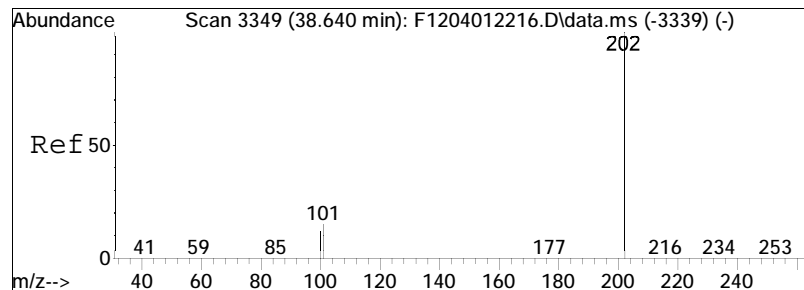




#57
 Benzo(b)fluorene
 Concen: 410.36 ng/mL
 RT: 40.457 min Scan# 3548
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

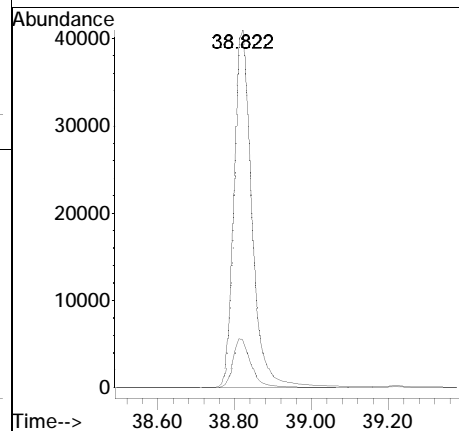
Tgt Ion	Ratio	Lower	Upper
216	100		
215	91.1	64.3	119.3

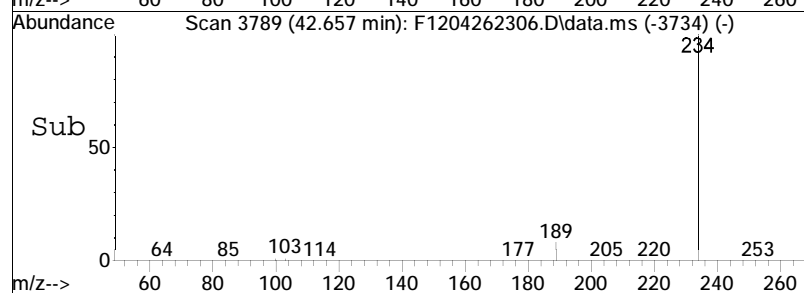
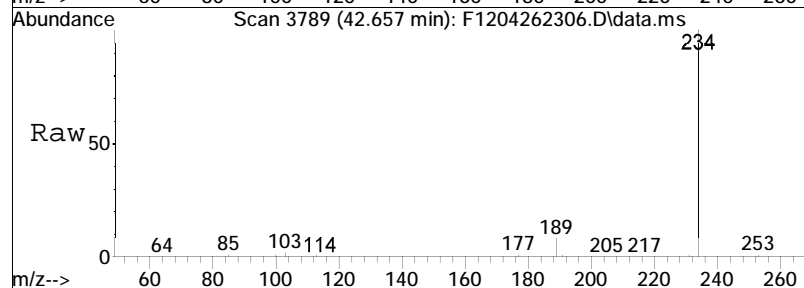
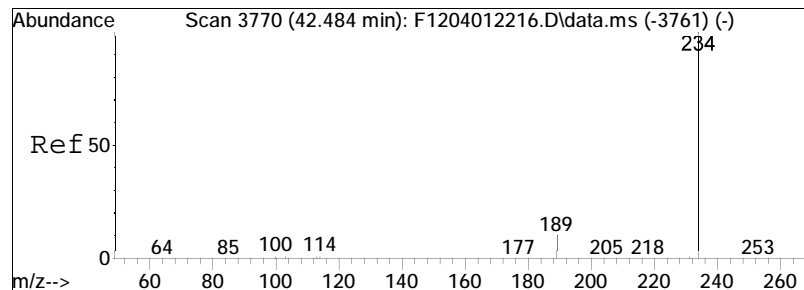




#59
 Pyrene
 Concen: 455.15 ng/mL
 RT: 38.822 min Scan# 3369
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

Tgt Ion	Ratio	Lower	Upper
202	100		
101	13.8	9.4	17.4





#67

Naphthobenzothiophene-2,1-D

Concen: 440.81 ng/mL

RT: 42.657 min Scan# 3789

Delta R.T. 0.000 min

Lab File: F1204262306.D

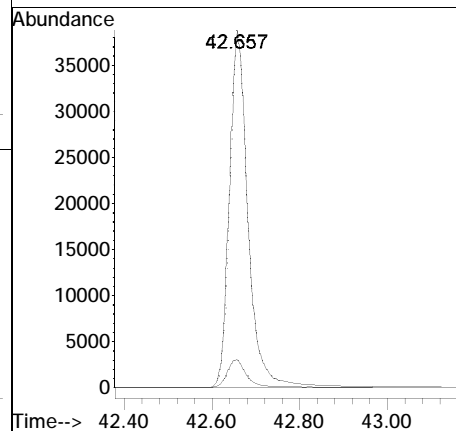
Acq: 26 Apr 2023 8:16 pm

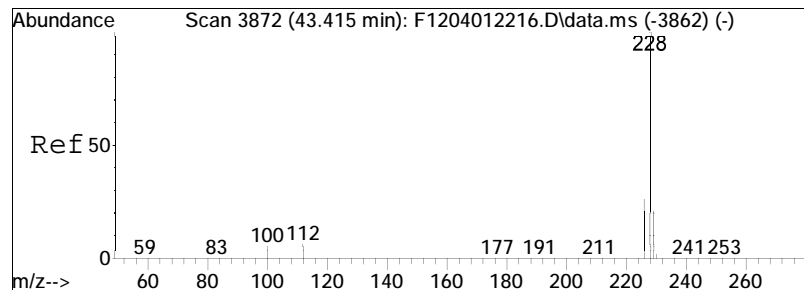
Tgt Ion: 234 Resp: 111970

Ion Ratio Lower Upper

234 100

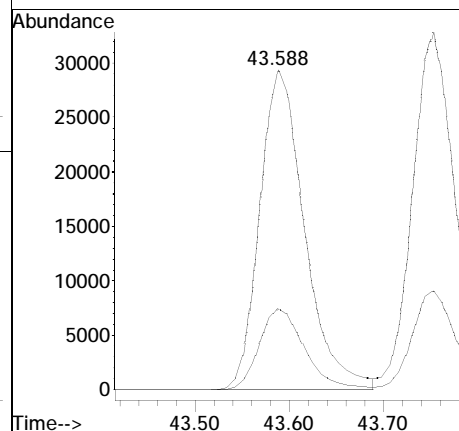
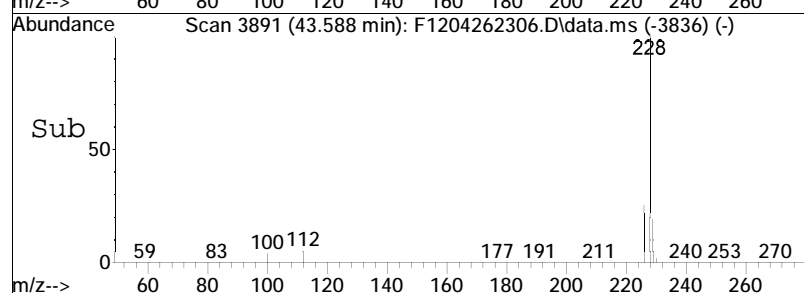
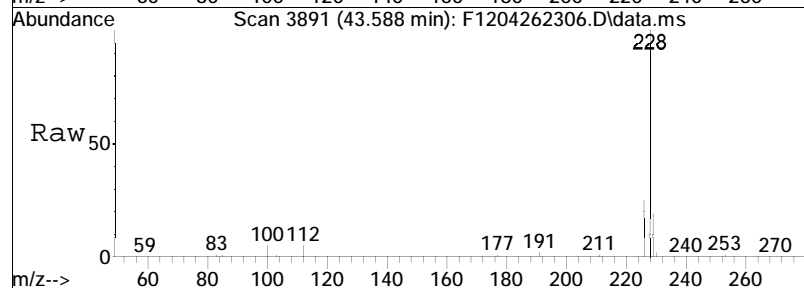
189 7.9 5.7 10.7

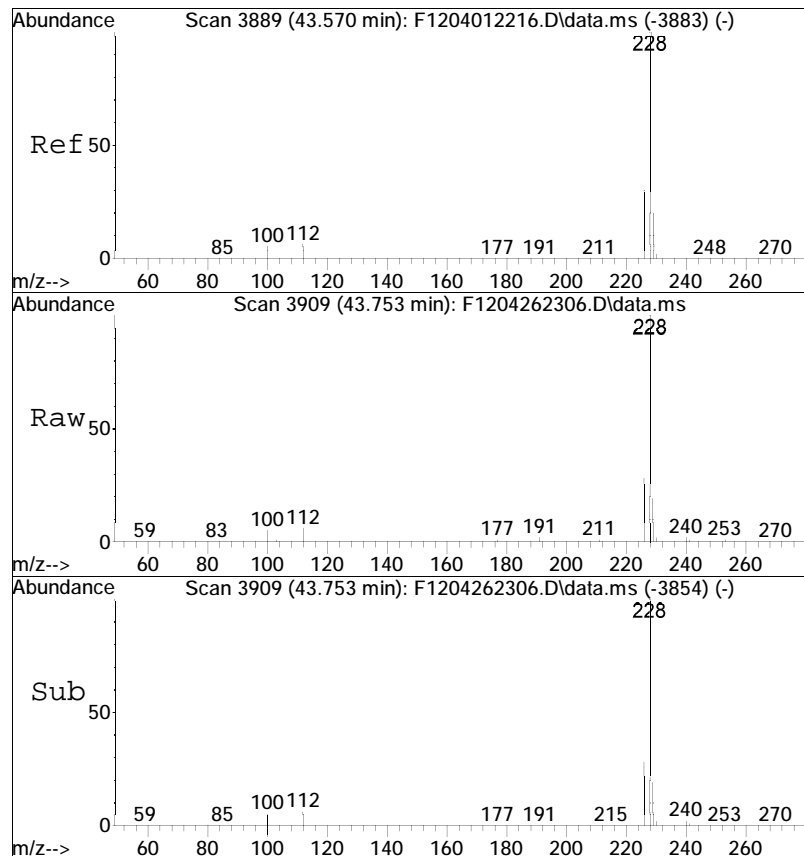




#75
Benz[a]anthracene
Concen: 538.94 ng/mL
RT: 43.588 min Scan# 3891
Delta R.T. 0.000 min
Lab File: F1204262306.D
Acq: 26 Apr 2023 8:16 pm

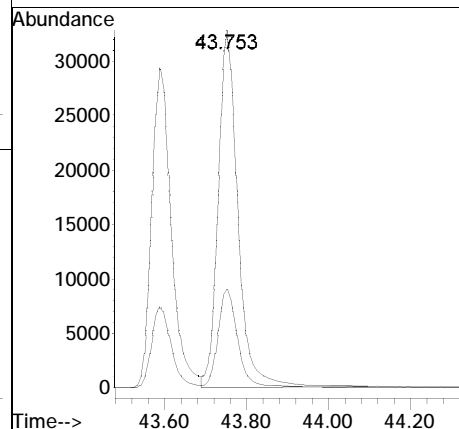
Tgt Ion	Ratio	Lower	Upper
228	100		
226	25.4	17.7	32.9

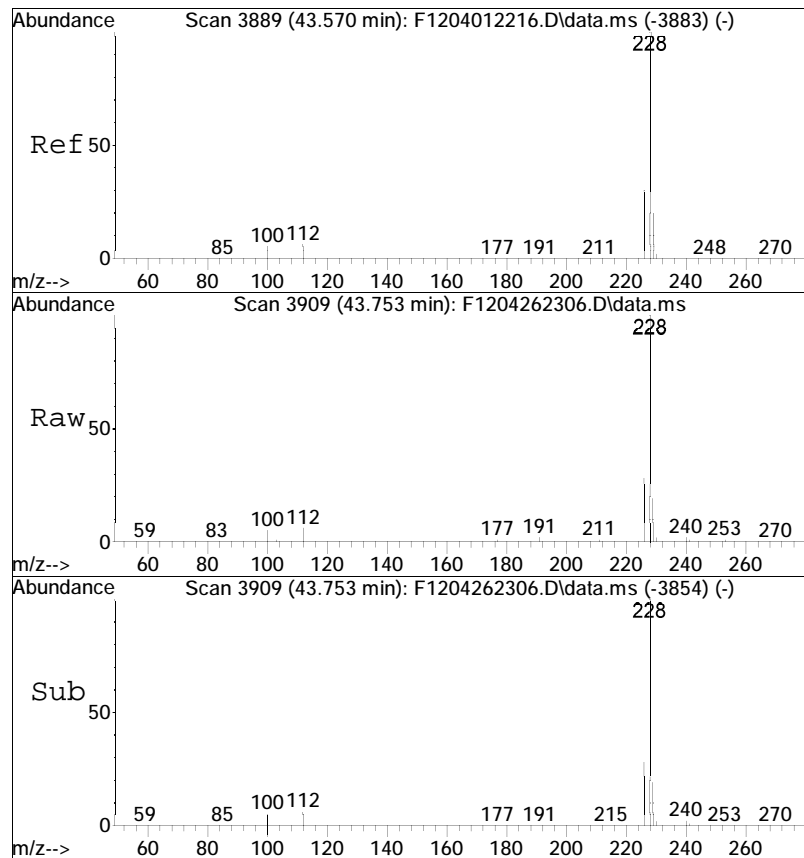




#76
 Chrysene
 Concen: 509.94 ng/mL
 RT: 43.753 min Scan# 3909
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

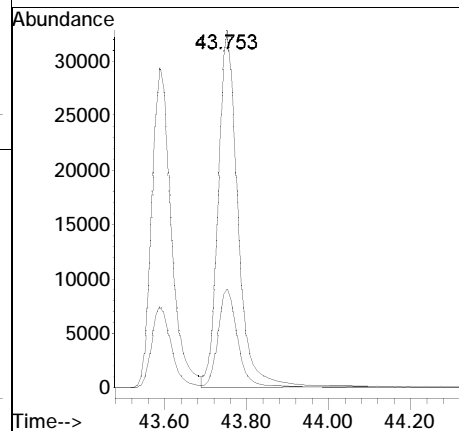
Tgt Ion	Ratio	Lower	Upper
228	100		
226	27.7	19.3	35.9

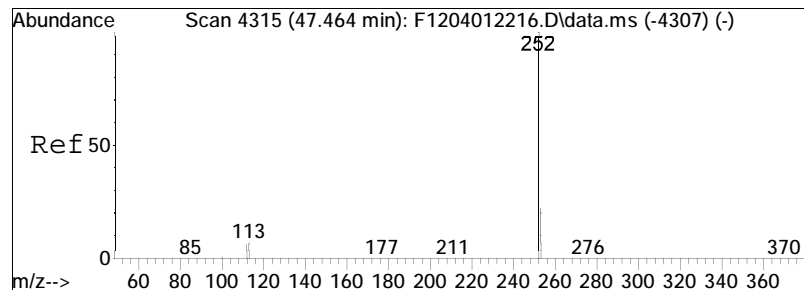




#77
 Chrysene/Triphenylene
 Concen: 509.94 ng/mL
 RT: 43.753 min Scan# 3909
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

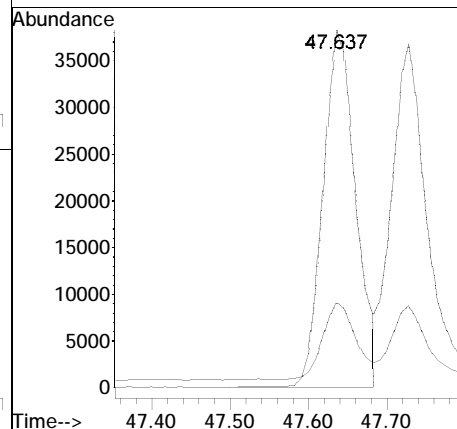
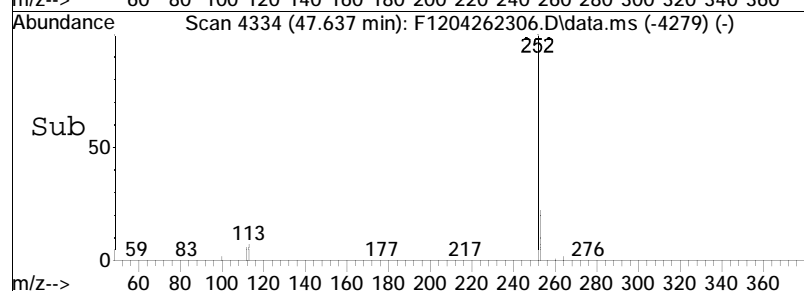
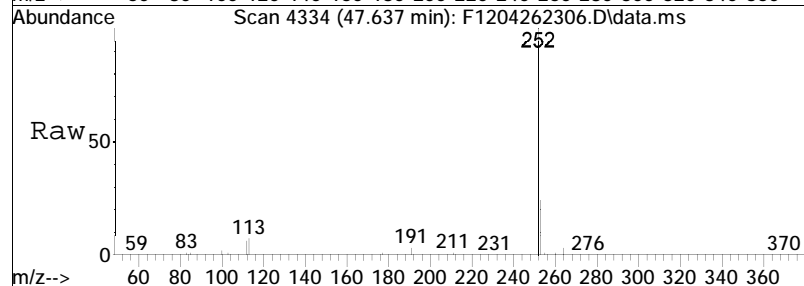
Tgt Ion	Ratio	Lower	Upper
228	100		
226	27.7	19.3	35.9

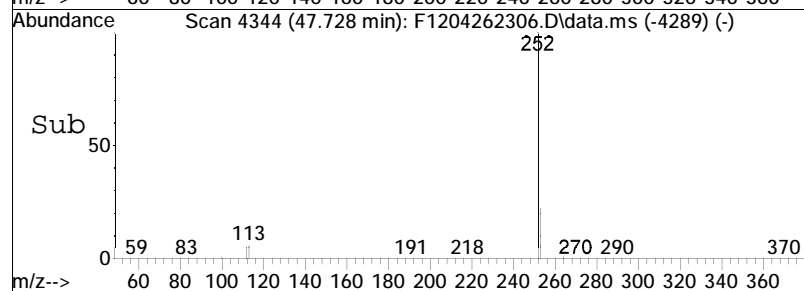
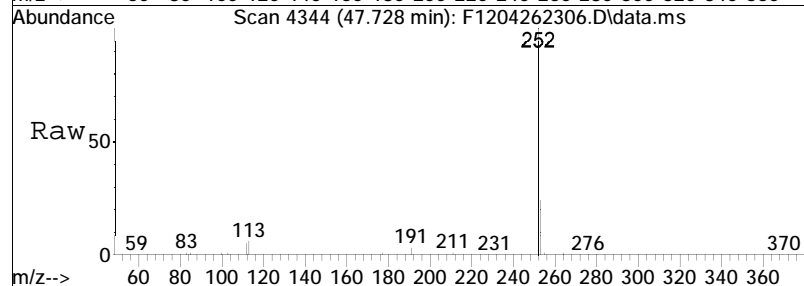
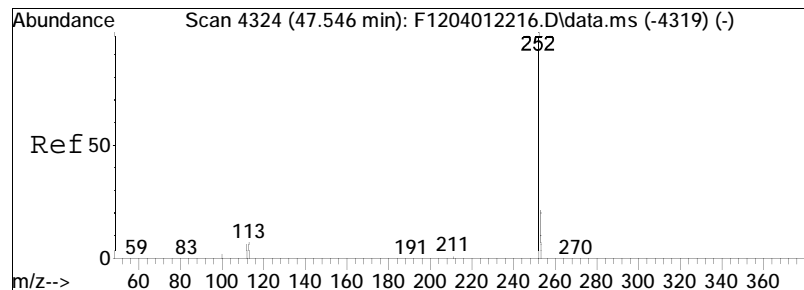




#85
 Benzo[b]fluoranthene
 Concen: 551.33 ng/mL
 RT: 47.637 min Scan# 4334
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.6	16.7	30.9	





#86

Benzo[j]+[k]fluoranthene

Concen: 535.52 ng/mL

RT: 47.728 min Scan# 4344

Delta R.T. 0.000 min

Lab File: F1204262306.D

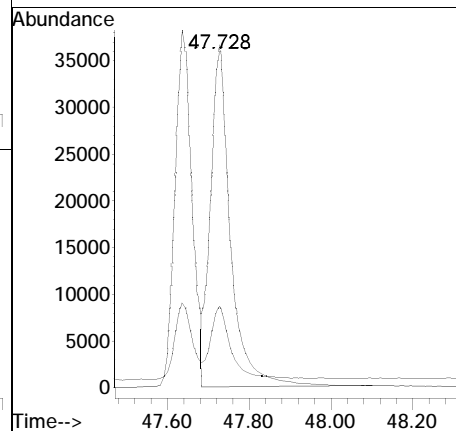
Acq: 26 Apr 2023 8:16 pm

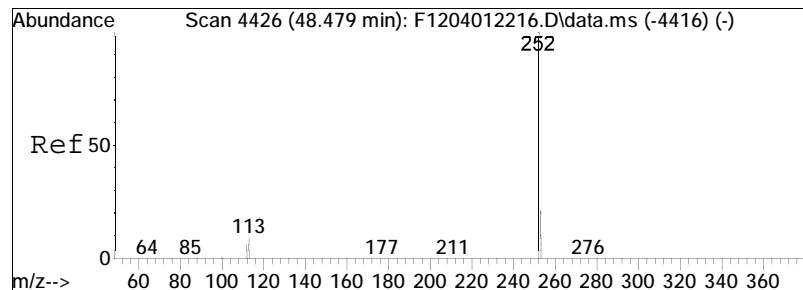
Tgt Ion: 252 Resp: 123311

Ion Ratio Lower Upper

252 100

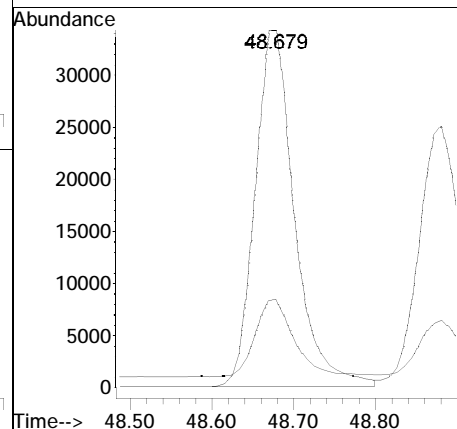
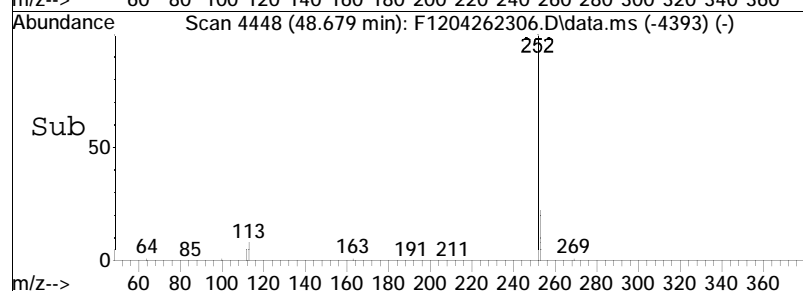
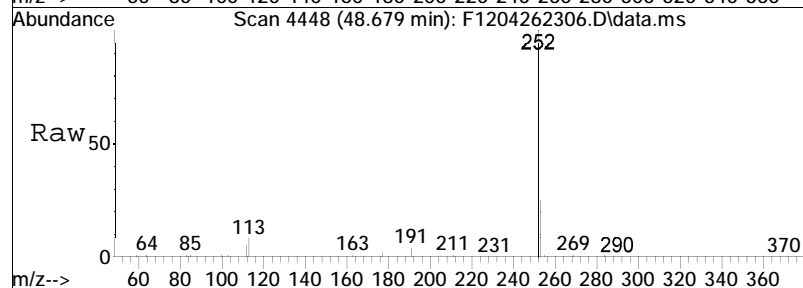
253 21.1 16.7 30.9

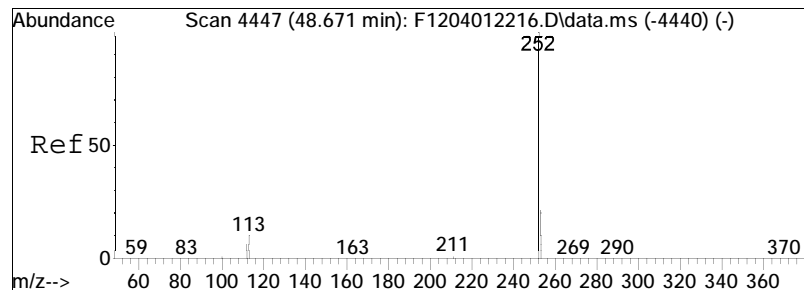




#88
 Benzo[e]pyrene
 Concen: 526.33 ng/mL
 RT: 48.679 min Scan# 4448
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

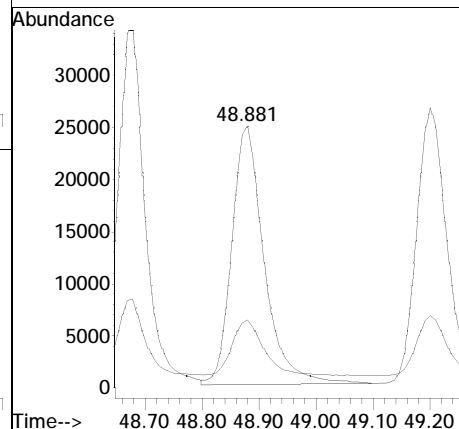
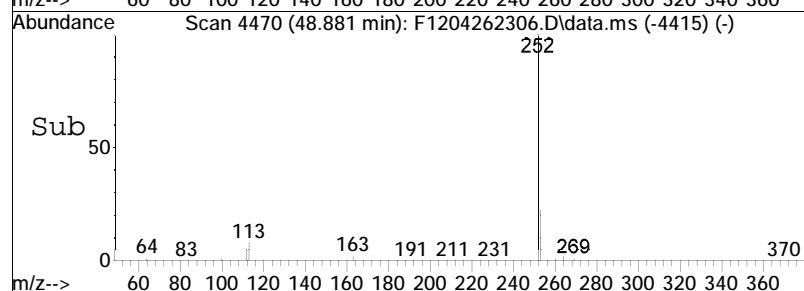
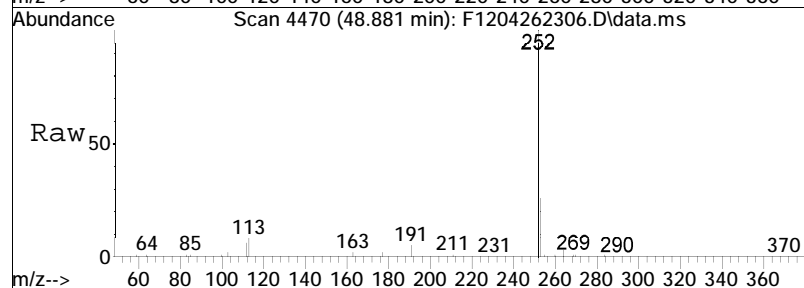
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.8	17.4	32.2	

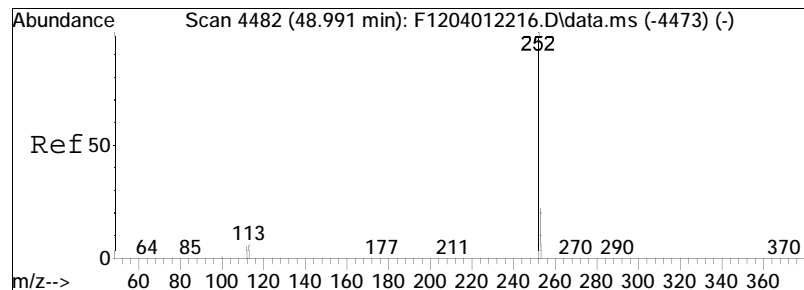




#90
 Benzo[a]pyrene
 Concen: 544.16 ng/mL
 RT: 48.881 min Scan# 4470
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

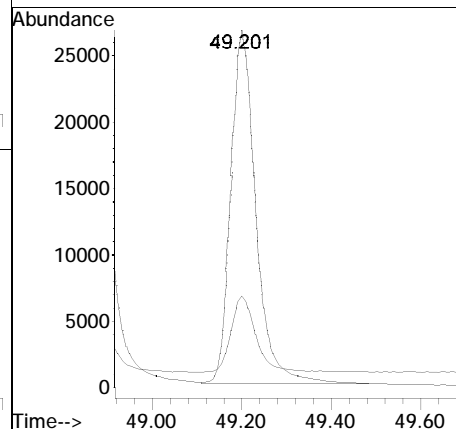
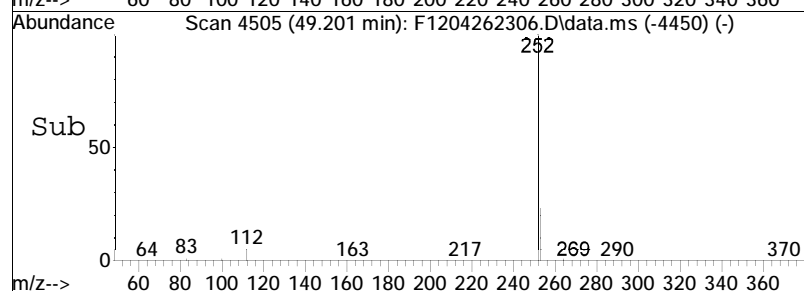
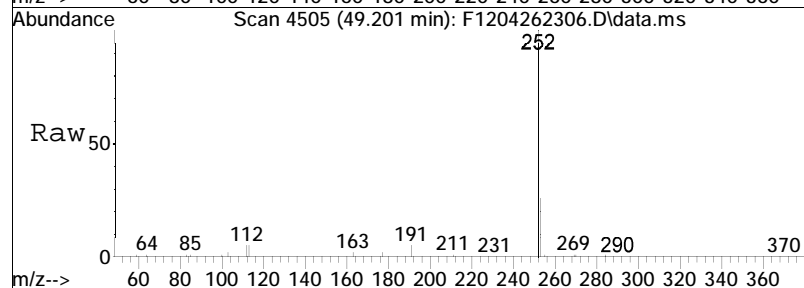
Tgt Ion	Ratio	Lower	Upper
252	100		
253	21.6	18.0	33.4

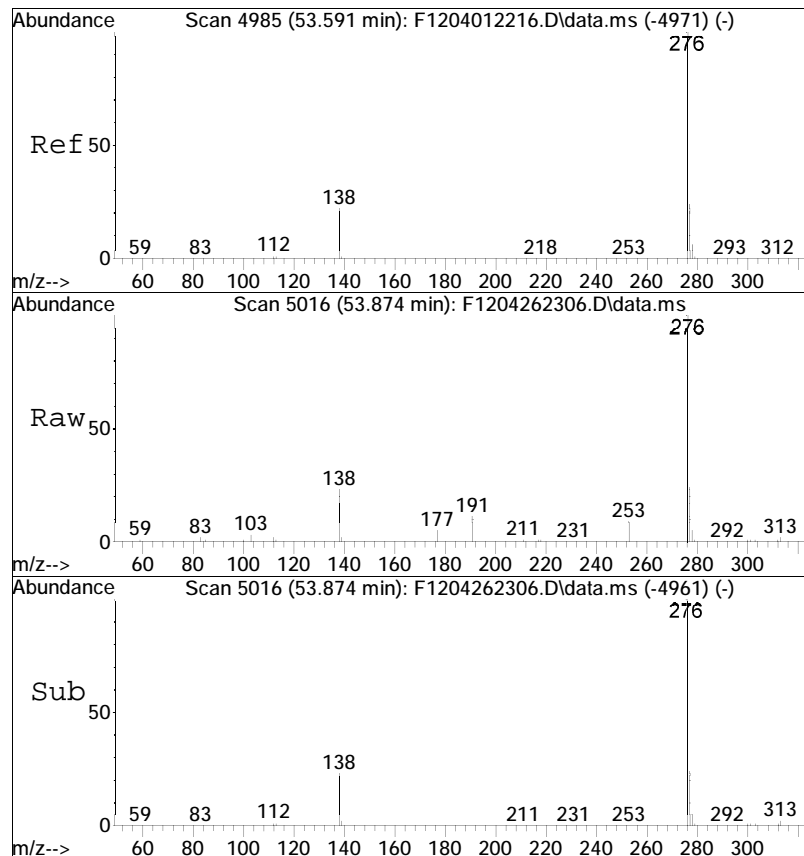




#91
Perylene
Concen: 543.70 ng/mL
RT: 49.201 min Scan# 4505
Delta R.T. 0.000 min
Lab File: F1204262306.D
Acq: 26 Apr 2023 8:16 pm

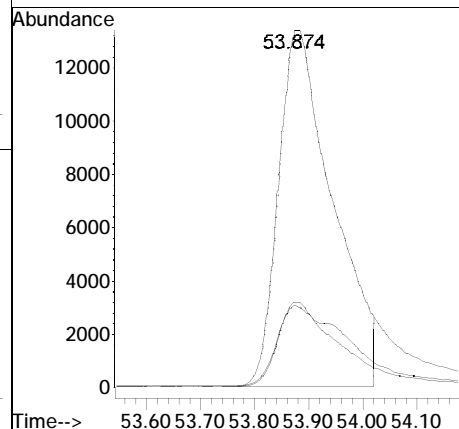
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.2	17.8	33.1	

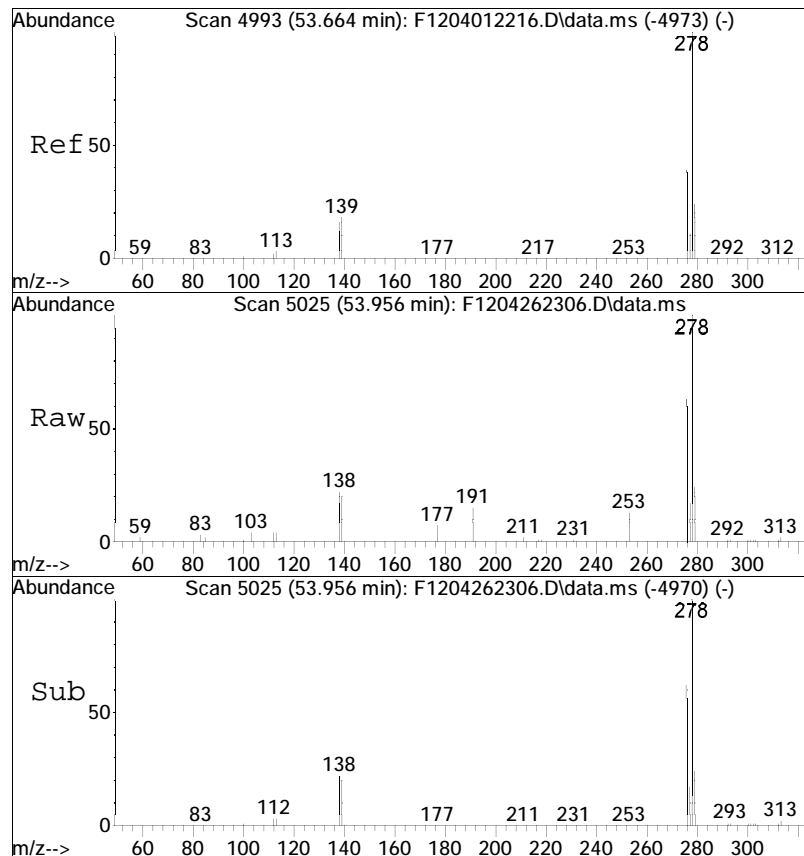




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 500.57 ng/mL M3
 RT: 53.874 min Scan# 5016
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

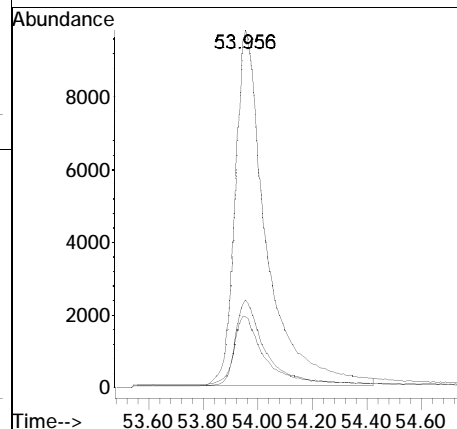
Tgt Ion:	276	Resp:	93095
Ion Ratio	Lower	Upper	
276	100		
138	31.3	16.2	30.0#
277	28.6	16.9	31.3

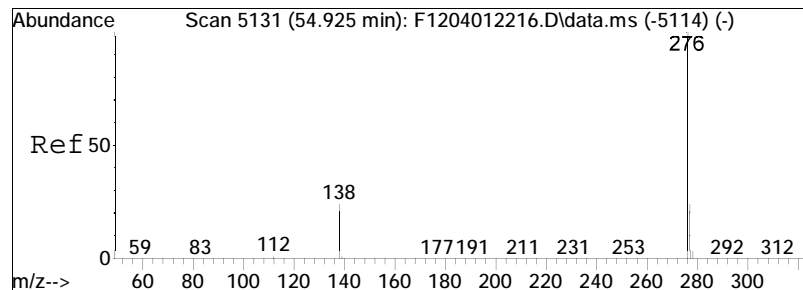




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 498.03 ng/mL
 RT: 53.956 min Scan# 5025
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

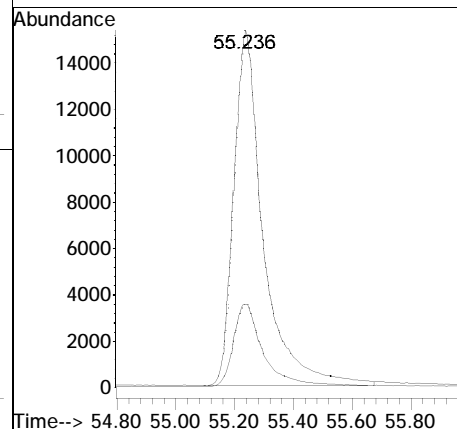
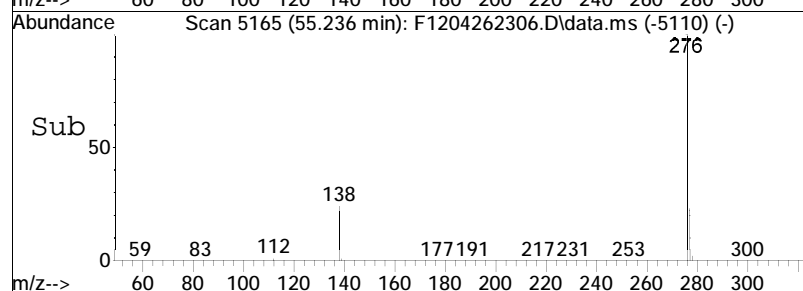
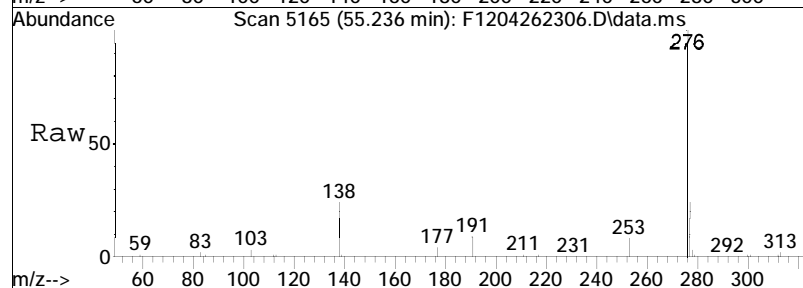
Tgt Ion:	278	Resp:	77130
Ion Ratio	Lower	Upper	
278	100		
139	18.4	13.9	25.7
279	23.1	17.1	31.7

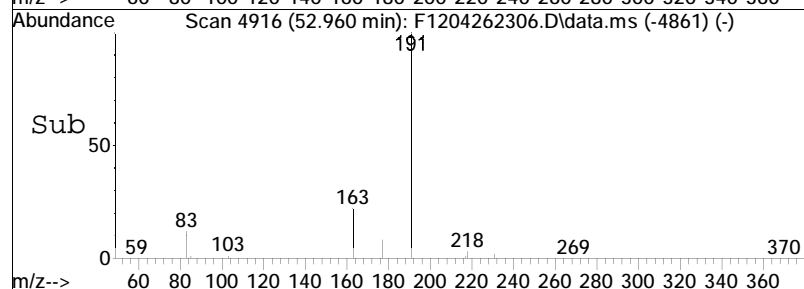
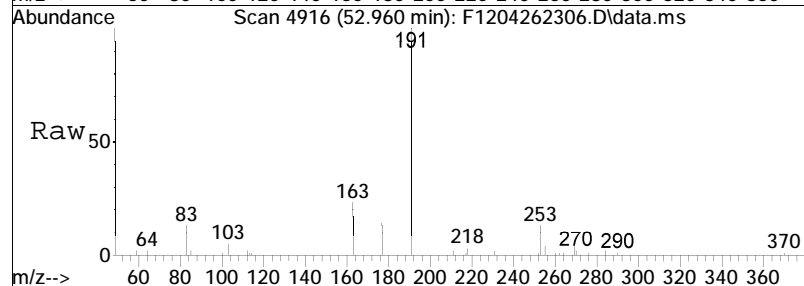
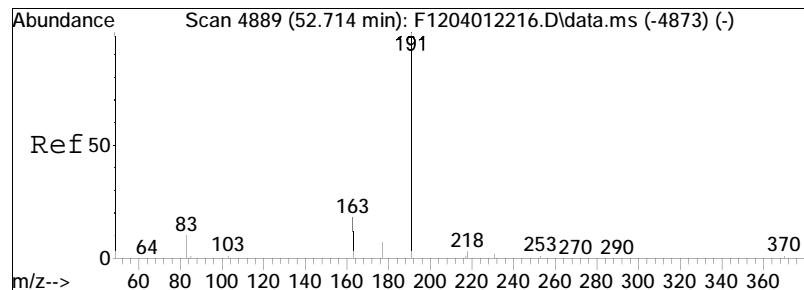




#94
 Benzo[g,h,i]perylene
 Concen: 522.75 ng/mL
 RT: 55.236 min Scan# 5165
 Delta R.T. 0.000 min
 Lab File: F1204262306.D
 Acq: 26 Apr 2023 8:16 pm

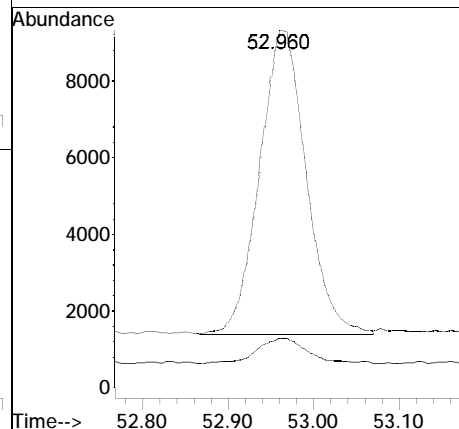
Tgt Ion	Ratio	Lower	Upper
276	100		
277	23.3	16.6	30.8





#95
Hopane (T19)
Concen: 604.09 ng/mL
RT: 52.960 min Scan# 4916
Delta R.T. 0.000 min
Lab File: F1204262306.D
Acq: 26 Apr 2023 8:16 pm

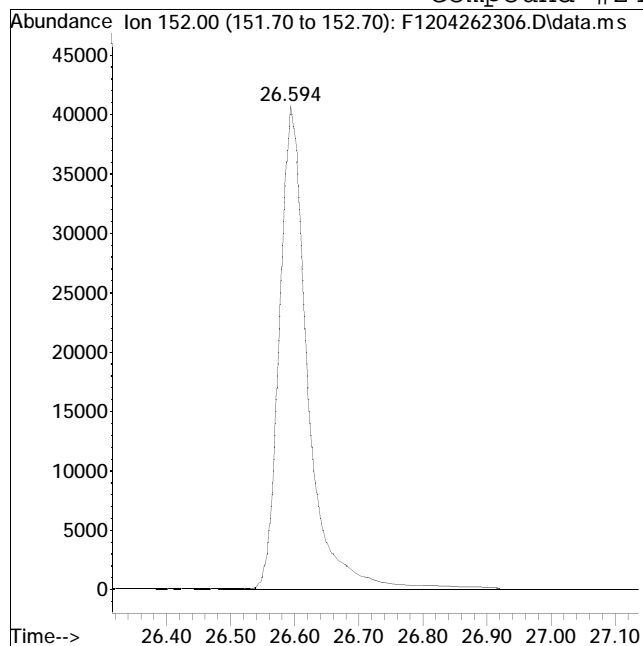
Tgt Ion	Ratio	Lower	Upper
191	100		
177	8.7	9.7	17.9#



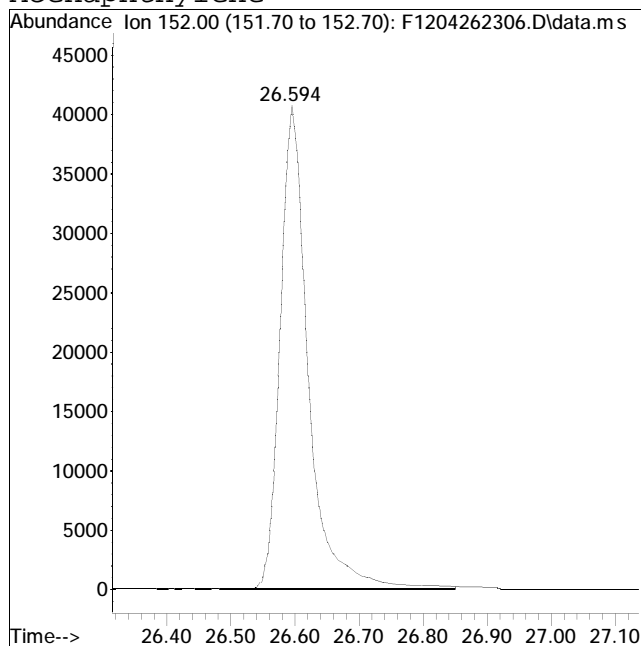
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262306.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 8:16 pm Instrument : PAH12
 Sample : i1404262304 Quant Date : 4/27/2023 6:20 am

Compound #24: Acenaphthylene



Original Peak Response = 126748



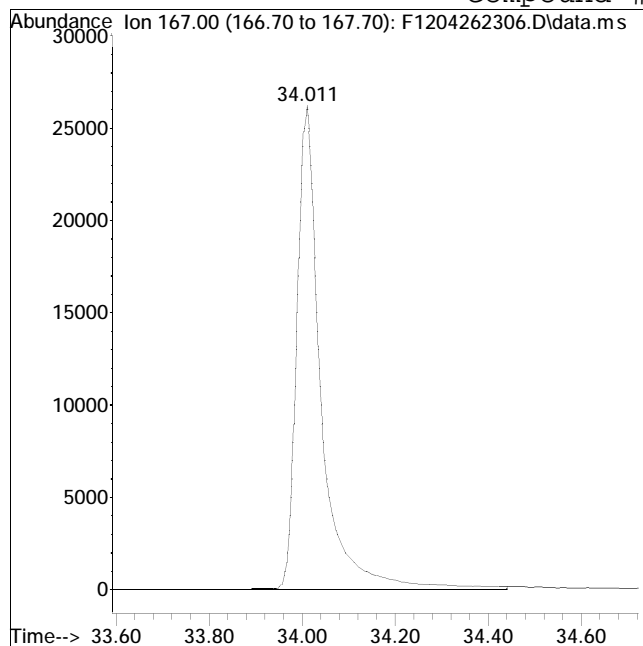
Manual Peak Response = 124602 M4

M4 = Poor automated baseline construction.

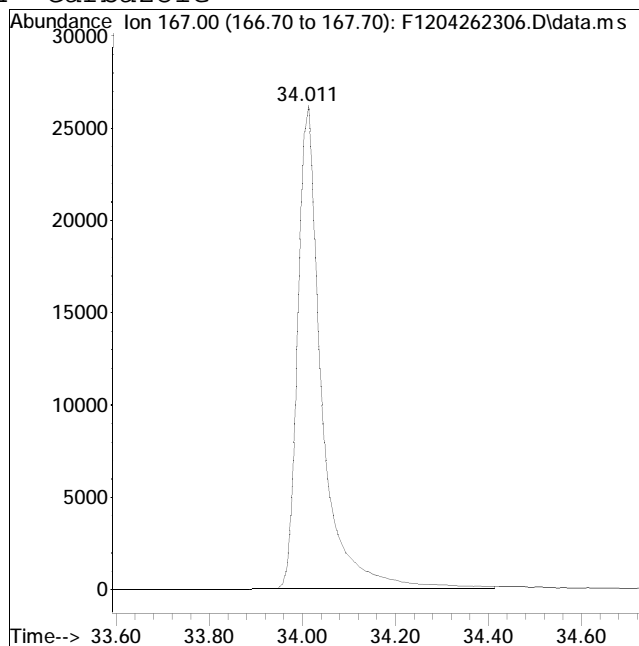
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\2020Method : PAH12042623.M
 Data File : F1204262306.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 8:16 pm Instrument : PAH12
 Sample : i1404262304 Quant Date : 4/27/2023 6:20 am

Compound #54: Carbazole



Original Peak Response = 96776



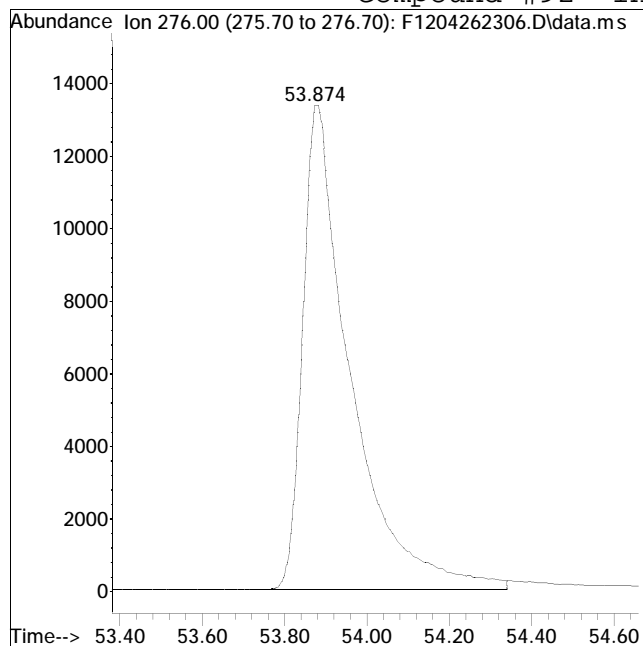
Manual Peak Response = 94748 M4

M4 = Poor automated baseline construction.

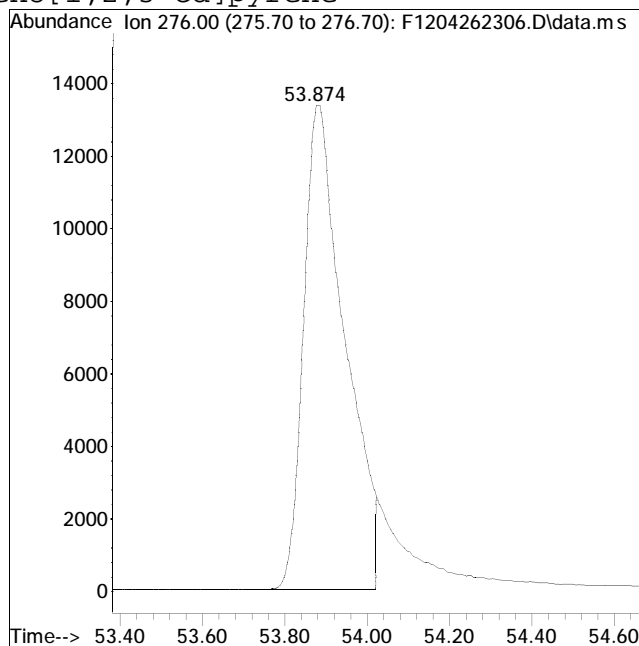
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262306.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 8:16 pm Instrument : PAH12
 Sample : i1404262304 Quant Date : 4/27/2023 6:20 am

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



Original Peak Response = 107549



Manual Peak Response = 93095 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\2023\APR23\APR26\
 Data File : F1204262307.D
 Acq On : 26 Apr 2023 9:40 pm
 Operator : PAH12:CNC
 Sample : i1404262305
 Misc : WG1773271,frbf71
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 27 06:22:26 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Apr 26 08:23:02 2023
 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	27.196	164	82812	500.000	ng/mL	0.00
74) Chrysene-d12	43.643	240	110015	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.224	136	1674620	5190.349	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 519.03%#			
40) Phenanthrene-d10	33.063	188	1159661	4908.563	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 490.86%#			
84) Benzo[b]fluoranthene-d12	47.554	264	1047101	4951.016	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 495.10%#			
89) Benzo[a]pyrene-d12	48.780	264	765934	5018.408	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 501.84%#			
129) 5B(H)Cholane - Surr	44.264	217	199478	5314.891	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 531.49%#			
Target Compounds						
					Qvalue	
2) trans-Decalin	16.884	138	178464	2693.529	ng/mL	100
3) cis-Decalin	18.098	138	140335	2797.249	ng/mL	100
9) Naphthalene	20.297	128	1864662	4944.412	ng/mL	100
14) 2-Methylnaphthalene	22.998	142	1234673	5065.983	ng/mL	100
15) 1-Methylnaphthalene	23.418	142	1118308	5003.699	ng/mL	100
16) Benzothiophene	20.516	134	1485447	5073.709	ng/mL	100
21) Biphenyl	24.869	154	1458486	5112.811	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.480	156	979011	5016.820	ng/mL	100
23) Dibenzofuran	27.962	168	1355863	4748.130	ng/mL	99
24) Acenaphthylene	26.584	152	1694991	4974.091	ng/mL	100
25) Acenaphthene	27.324	153	1037608	4504.585	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	28.875	170	887574	4947.568	ng/mL	98
27) Fluorene	29.340	166	1133079	4761.417	ng/mL	98
31) Dibenzothiophene	32.661	184	1576772	4756.887	ng/mL	99
41) Phenanthrene	33.154	178	1671730	4854.211	ng/mL	99
52) Retene	40.137	234	432649	5213.523	ng/mL	95
53) Anthracene	33.336	178	1591010	5043.720	ng/mL	100
54) Carbazole	33.984	167	1425329M4	4931.612	ng/mL	
55) 1-Methylphenanthrene	35.654	192	1180124	5002.303	ng/mL	98
56) Fluoranthene	37.927	202	1805827	4921.209	ng/mL	100
57) Benzo(b)fluorene	40.439	216	922315	5348.913	ng/mL	98
59) Pyrene	38.813	202	1768909	4793.616	ng/mL	100
67) Naphthobenzothiophene-2,1	42.657	234	1582867	4802.591	ng/mL	99
75) Benz[a]anthracene	43.579	228	1497199	5445.996	ng/mL	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262307.D
 Acq On : 26 Apr 2023 9:40 pm
 Operator : PAH12:CNC
 Sample : i1404262305
 Misc : WG1773271,frbf71
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 27 06:22:26 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Wed Apr 26 08:23:02 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.744	228	1514147	4626.077	ng/mL	100
77) Chrysene/Triphenylene	43.744	228	1514147	4626.077	ng/mL	100
85) Benzo[b]fluoranthene	47.637	252	1693095	5503.649	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.728	252	1747295	4954.225	ng/mL	96
88) Benzo[e]pyrene	48.679	252	1639043	4931.420	ng/mL	93
90) Benzo[a]pyrene	48.871	252	1515873	5530.026	ng/mL	92
91) Perylene	49.191	252	1571529	5453.855	ng/mL	92
92) Indeno[1,2,3-cd]pyrene	53.874	276	1519292M3	5333.518	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.929	278	1424821	6006.567	ng/mL	96
94) Benzo[g,h,i]perylene	55.226	276	1620143	5263.517	ng/mL	100
95) Hopane (T19)	52.969	191	407229M3	5399.397	ng/mL	

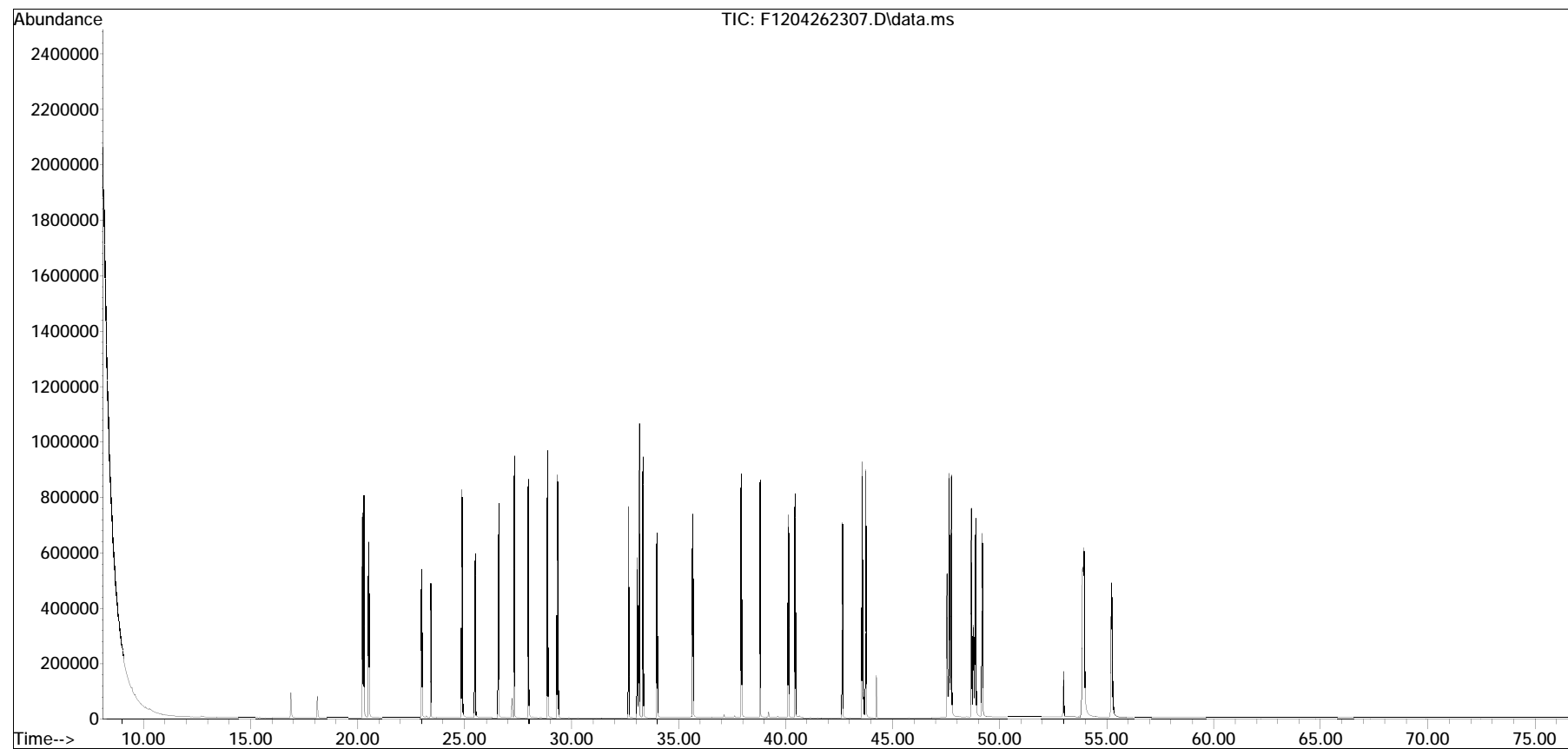
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
Data File : F1204262307.D
Acq On : 26 Apr 2023 9:40 pm
Operator : PAH12:CNC
Sample : i1404262305
Misc : WG1773271,frbf71
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 27 06:22:26 2023
Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Wed Apr 26 08:23:02 2023
Response via : Initial Calibration

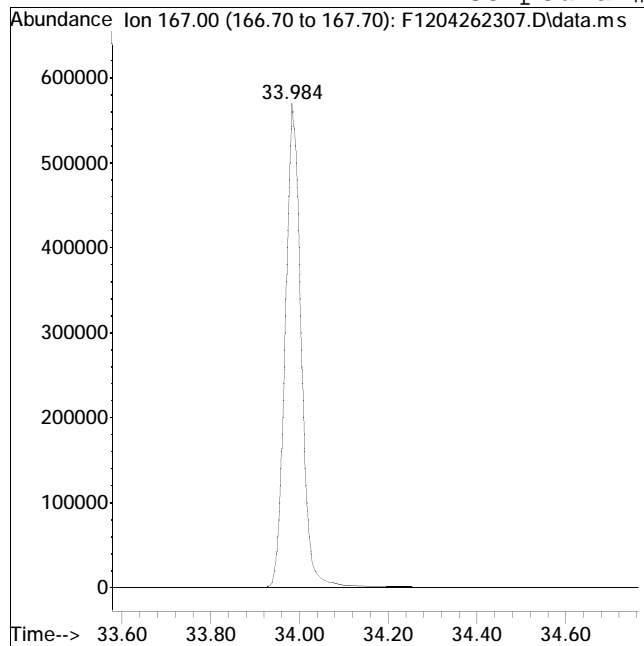
Sub List : ALKPAH_CCV - CC with five surrogates



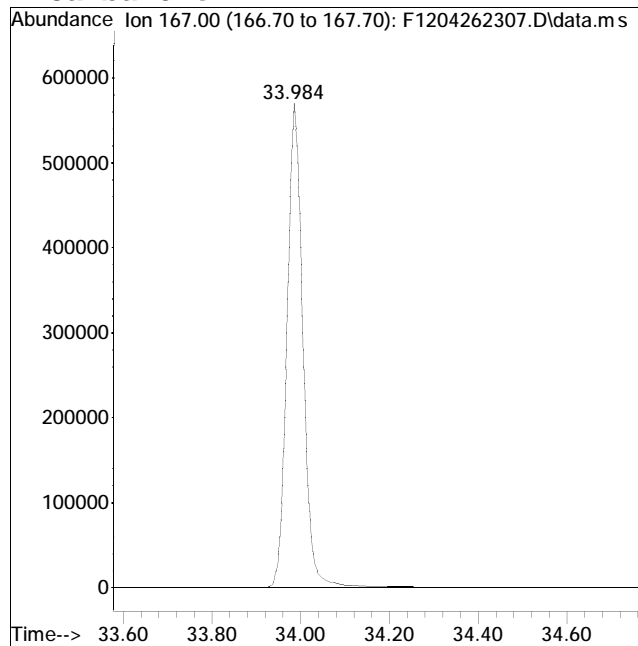
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
Data File : F1204262307.D Operator : PAH12:CNC
Date Inj'd : 4/26/2023 9:40 pm Instrument : PAH12
Sample : i1404262305 Quant Date : 4/27/2023 6:20 am

Compound #54: Carbazole



Original Peak Response = 1427646



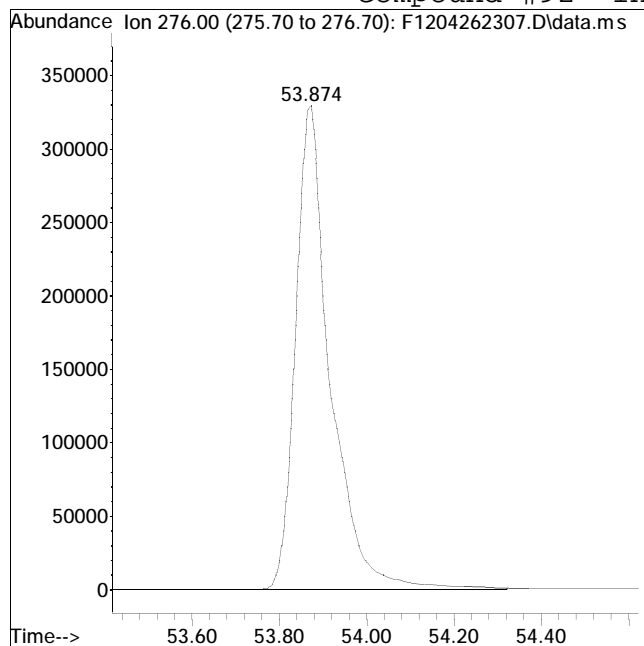
Manual Peak Response = 1425329 M4

M4 = Poor automated baseline construction.

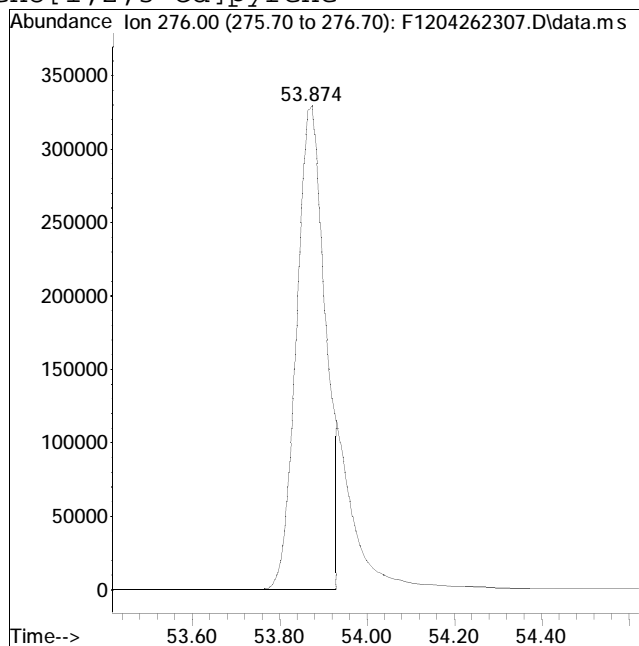
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262307.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 9:40 pm Instrument : PAH12
 Sample : i1404262305 Quant Date : 4/27/2023 6:20 am

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



Original Peak Response = 1831044



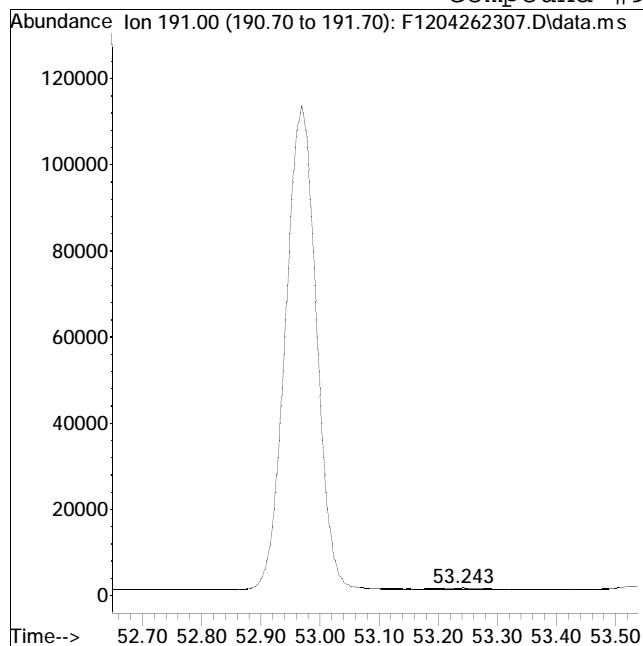
Manual Peak Response = 1519292 M3

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.

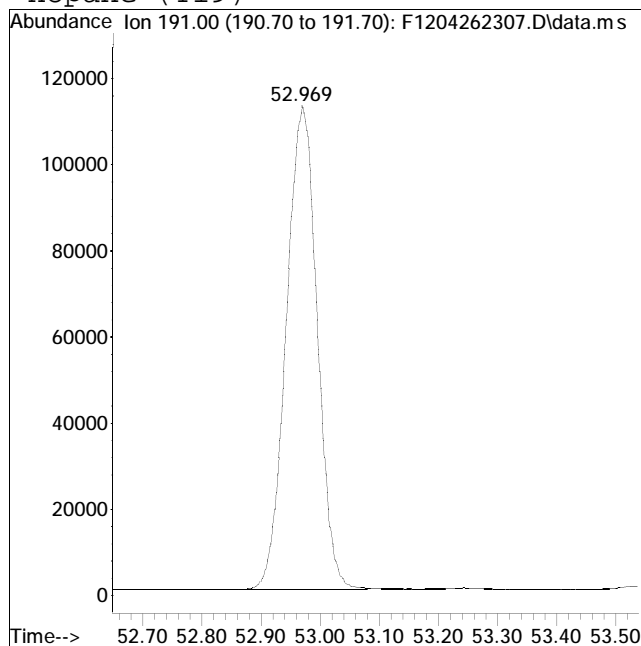
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262307.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 9:40 pm Instrument : PAH12
 Sample : i1404262305 Quant Date : 4/27/2023 6:20 am

Compound #95: Hopane (T19)



Original Peak Response = 1529



Manual Peak Response = 407229 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\2023\APR23\APR26\
 Data File : F1204262308.D
 Acq On : 26 Apr 2023 11:05 pm
 Operator : PAH12:CNC
 Sample : i1404262306
 Misc : WG1773271,frbf72
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 27 13:14:27 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 06:18:57 2023
 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	27.196	164	63048	500.000	ng/mL	0.00
74) Chrysene-d12	43.643	240	102061	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.224	136	2880169	11725.200	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 1172.52%#			
40) Phenanthrene-d10	33.063	188	2109072	11725.644	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 1172.56%#			
84) Benzo[b]fluoranthene-d12	47.563	264	2004931	10218.739	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 1021.87%#			
89) Benzo[a]pyrene-d12	48.789	264	1834259	12954.700	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 1295.47%#			
129) 5B(H)Cholane - Surr	44.273	217	379244	10892.063	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 1089.21%#			
Target Compounds						
					Qvalue	
2) trans-Decalin	16.884	138	314896	6242.523	ng/mL	100
3) cis-Decalin	18.098	138	247778	6487.088	ng/mL	100
9) Naphthalene	20.297	128	3239045	11281.153	ng/mL	100
14) 2-Methylnaphthalene	22.998	142	2098729	11310.715	ng/mL	100
15) 1-Methylnaphthalene	23.418	142	2007577	11798.422	ng/mL	100
16) Benzothiophene	20.516	134	2595568	11644.552	ng/mL	100
21) Biphenyl	24.878	154	2536439	11678.953	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.489	156	1755989	11819.107	ng/mL	100
23) Dibenzofuran	27.962	168	2653899	12207.118	ng/mL	99
24) Acenaphthylene	26.585	152	3002337	11572.513	ng/mL	100
25) Acenaphthene	27.324	153	1844888	10519.944	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	28.875	170	1588707	11631.962	ng/mL	97
27) Fluorene	29.340	166	2067502	11411.530	ng/mL	98
31) Dibenzothiophene	32.661	184	2782102	11024.248	ng/mL	100
41) Phenanthrene	33.154	178	3010782	11482.959	ng/mL	99
52) Retene	40.137	234	850007	13453.648	ng/mL	94
53) Anthracene	33.336	178	2852945	11879.370	ng/mL	100
54) Carbazole	33.993	167	2630877M4	11956.286	ng/mL	
55) 1-Methylphenanthrene	35.664	192	2145343	11944.310	ng/mL	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262308.D
 Acq On : 26 Apr 2023 11:05 pm
 Operator : PAH12:CNC
 Sample : i1404262306
 Misc : WG1773271,frbf72
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 27 13:14:27 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 06:18:57 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) Fluoranthene	37.928	202	3114613	11148.635	ng/mL	100
57) Benzo(b)fluorene	40.448	216	1752495	13349.500	ng/mL	98
59) Pyrene	38.813	202	3185095	11337.102	ng/mL	100
67) Naphthobenzothiophene-2,1	42.657	234	2910736	11599.946	ng/mL	99
75) Benz[a]anthracene	43.579	228	2838732	11130.490	ng/mL	99
76) Chrysene	43.744	228	2765492	9107.711	ng/mL	100
77) Chrysene/Triphenylene	43.744	228	2765492	9107.711	ng/mL	100
85) Benzo[b]fluoranthene	47.646	252	3046124	10673.554	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.737	252	3164201	9670.871	ng/mL	96
88) Benzo[e]pyrene	48.688	252	3024837	9810.151	ng/mL	94
90) Benzo[a]pyrene	48.881	252	2719081	10692.484	ng/mL	92
91) Perylene	49.201	252	2858316	10692.604	ng/mL	93
92) Indeno[1,2,3-cd]pyrene	53.883	276	3061200M3	11583.939	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.947	278	2771053	12592.239	ng/mL	96
94) Benzo[g,h,i]perylene	55.245	276	2851233	9984.986	ng/mL	99
95) Hopane (T19)	52.978	191	819266	11709.101	ng/mL#	85

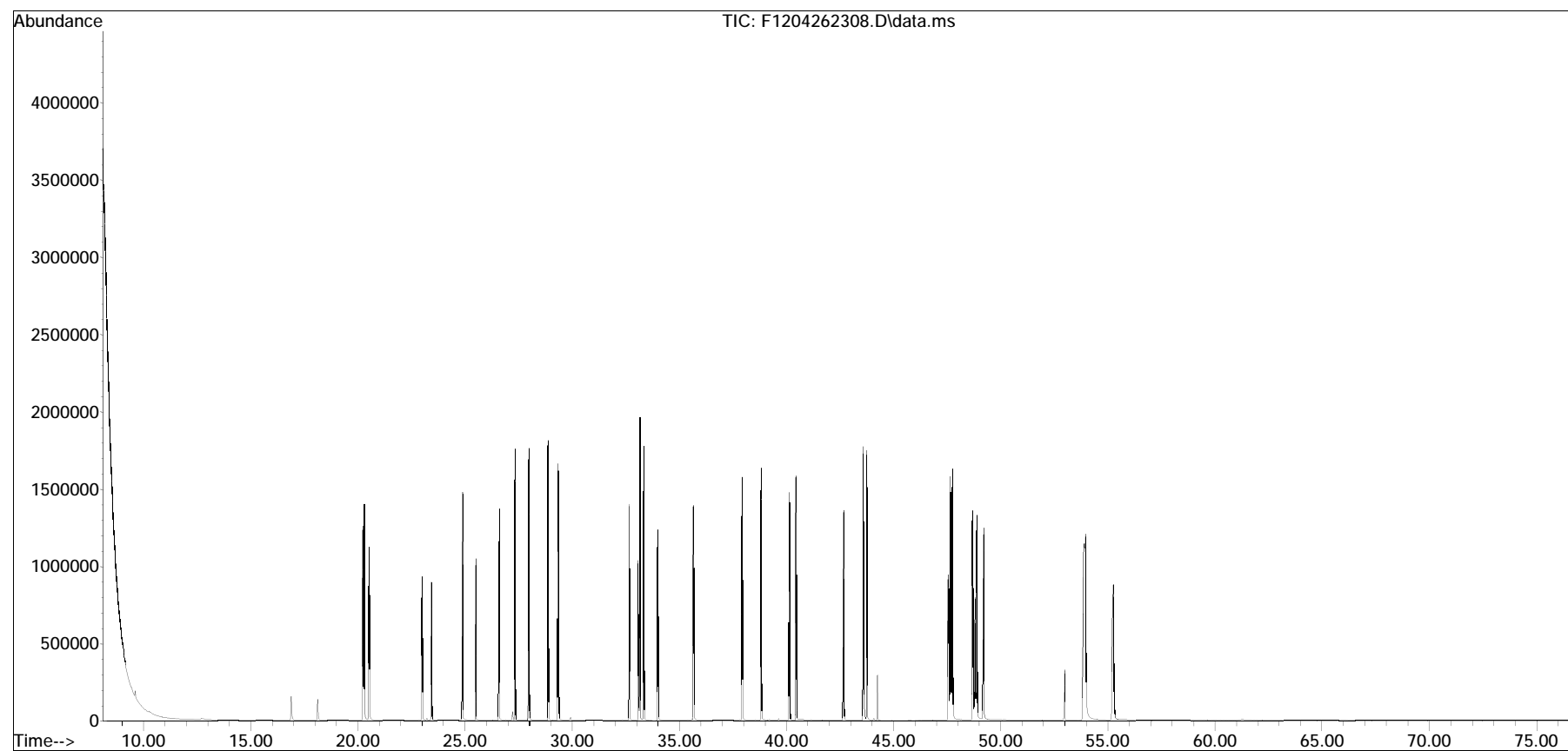
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
Data File : F1204262308.D
Acq On : 26 Apr 2023 11:05 pm
Operator : PAH12:CNC
Sample : i1404262306
Misc : WG1773271,frbf72
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 27 13:14:27 2023
Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 27 06:18:57 2023
Response via : Initial Calibration

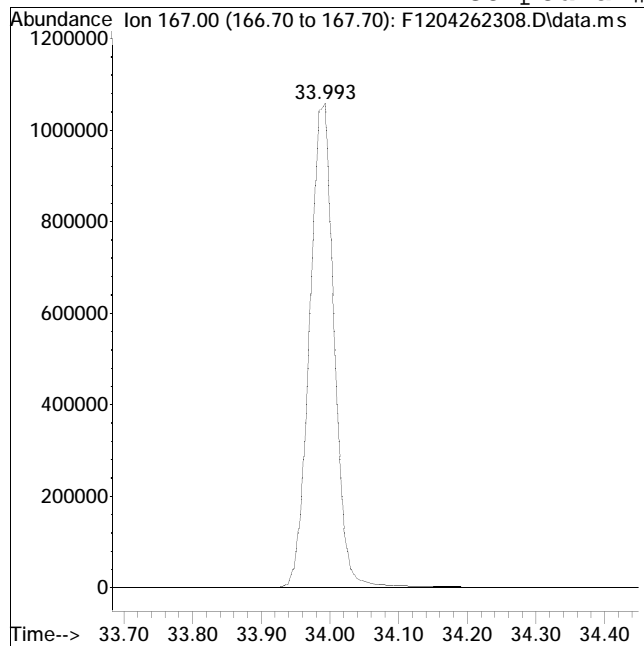
Sub List : ALKPAH_CCV - CC with five surrogates



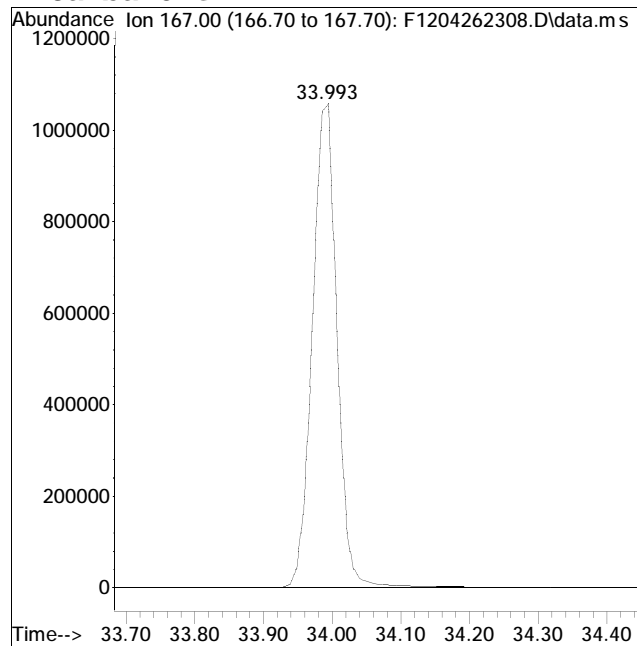
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
Data File : F1204262308.D Operator : PAH12:CNC
Date Inj'd : 4/26/2023 11:05 pm Instrument : PAH12
Sample : i1404262306 Quant Date : 4/27/2023 6:20 am

Compound #54: Carbazole



Original Peak Response = 2634632



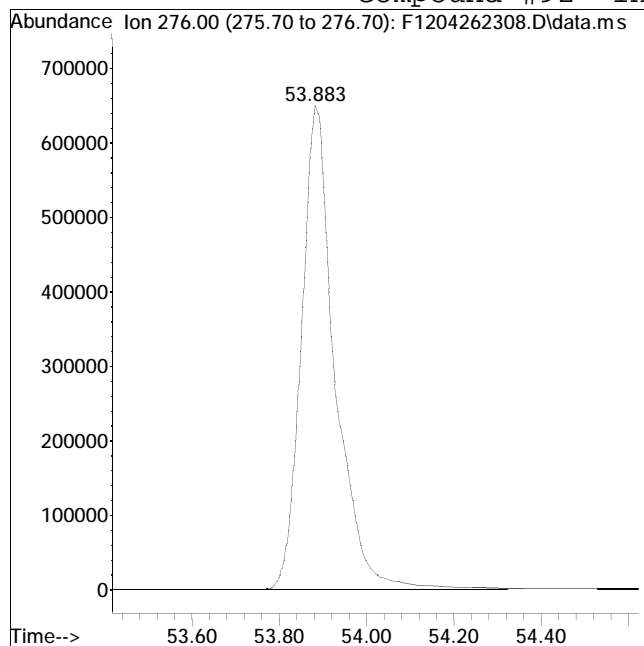
Manual Peak Response = 2630877 M4

M4 = Poor automated baseline construction.

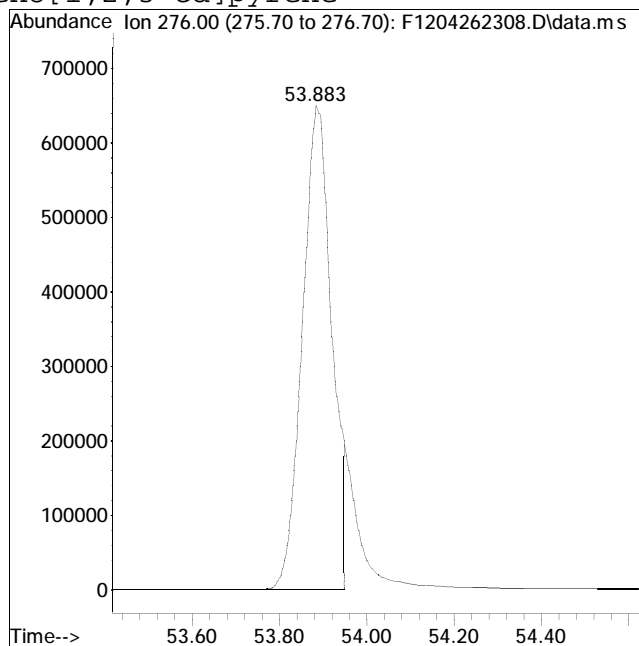
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262308.D Operator : PAH12:CNC
 Date Inj'd : 4/26/2023 11:05 pm Instrument : PAH12
 Sample : i1404262306 Quant Date : 4/27/2023 6:20 am

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



Original Peak Response = 3497649



Manual Peak Response = 3061200 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\2023\APR23\APR26\
 Data File : F1204262309.D
 Acq On : 27 Apr 2023 12:29 am
 Operator : PAH12:CNC
 Sample : i1404262307
 Misc : WGI773271,frbf73
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 27 13:15:49 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 06:18:57 2023
 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	27.196	164	71585	500.000	ng/mL	0.00
74) Chrysene-d12	43.643	240	97733	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.233	136	6242891	22383.980	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 2238.40%#			
40) Phenanthrene-d10	33.071	188	4538090	22221.209	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 2222.12%#			
84) Benzo[b]fluoranthene-d12	47.572	264	4272582	22740.859	ng/mL	0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery = 2274.09%#			
89) Benzo[a]pyrene-d12	48.807	264	3985003	29390.971	ng/mL	0.03
Spiked Amount 1000.000	Range 50 - 130		Recovery = 2939.10%#			
129) 5B(H)Cholane - Surr	44.273	217	814424	24426.464	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery = 2442.65%#			
Target Compounds						
					Qvalue	
2) trans-Decalin	16.884	138	693088	12101.262	ng/mL	100
3) cis-Decalin	18.107	138	542900	12518.611	ng/mL	100
9) Naphthalene	20.306	128	7018483	21529.257	ng/mL	100
14) 2-Methylnaphthalene	22.998	142	4611229	21887.677	ng/mL	100
15) 1-Methylnaphthalene	23.427	142	4384752	22695.829	ng/mL	100
16) Benzothiophene	20.525	134	5679092	22439.779	ng/mL	100
21) Biphenyl	24.878	154	5487607	22254.188	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.489	156	3825520	22677.890	ng/mL	100
23) Dibenzofuran	27.971	168	5611000	22730.987	ng/mL	99
24) Acenaphthylene	26.593	152	6442559	21871.367	ng/mL	100
25) Acenaphthene	27.333	153	3851002	19340.444	ng/mL	100
26) 2,3,5-Trimethylnaphthalen	28.884	170	3363026	21686.461	ng/mL	96
27) Fluorene	29.349	166	4267857	20747.085	ng/mL	97
31) Dibenzothiophene	32.670	184	5849321	20414.121	ng/mL	100
41) Phenanthrene	33.163	178	6114004	20537.591	ng/mL	99
52) Retene	40.146	234	1790036	24953.335	ng/mL	91
53) Anthracene	33.345	178	5596414M4	20523.864	ng/mL	
54) Carbazole	34.002	167	5380376M4	21535.633	ng/mL	
55) 1-Methylphenanthrene	35.663	192	4455942	21850.086	ng/mL	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262309.D
 Acq On : 27 Apr 2023 12:29 am
 Operator : PAH12:CNC
 Sample : i1404262307
 Misc : WG1773271,frbf73
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 27 13:15:49 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 06:18:57 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) Fluoranthene	37.936	202	6438555	20298.097	ng/mL	100
57) Benzo(b)fluorene	40.457	216	3627901	24339.572	ng/mL	98
59) Pyrene	38.822	202	6556654	20554.704	ng/mL	100
67) Naphthobenzothiophene-2,1	42.666	234	5928903	20810.226	ng/mL	98
75) Benz[a]anthracene	43.588	228	5825191	23851.662	ng/mL	99
76) Chrysene	43.752	228	5548549	19082.482	ng/mL	99
77) Chrysene/Triphenylene	43.752	228	5548549	19082.482	ng/mL	99
85) Benzo[b]fluoranthene	47.664	252	6109934	22357.158	ng/mL	97
86) Benzo[j]+[k]fluoranthene	47.755	252	6338234	20229.652	ng/mL	97
88) Benzo[e]pyrene	48.697	252	6083567	20603.955	ng/mL	94
90) Benzo[a]pyrene	48.899	252	5268354	21634.657	ng/mL	93
91) Perylene	49.219	252	5558792	21715.622	ng/mL	93
92) Indeno[1,2,3-cd]pyrene	53.910	276	6552501M3	25893.469	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.974	278	5940616	28190.852	ng/mL	96
94) Benzo[g,h,i]perylene	55.281	276	5957134	21785.660	ng/mL	99
95) Hopane (T19)	0.000		0	N.D.	d	

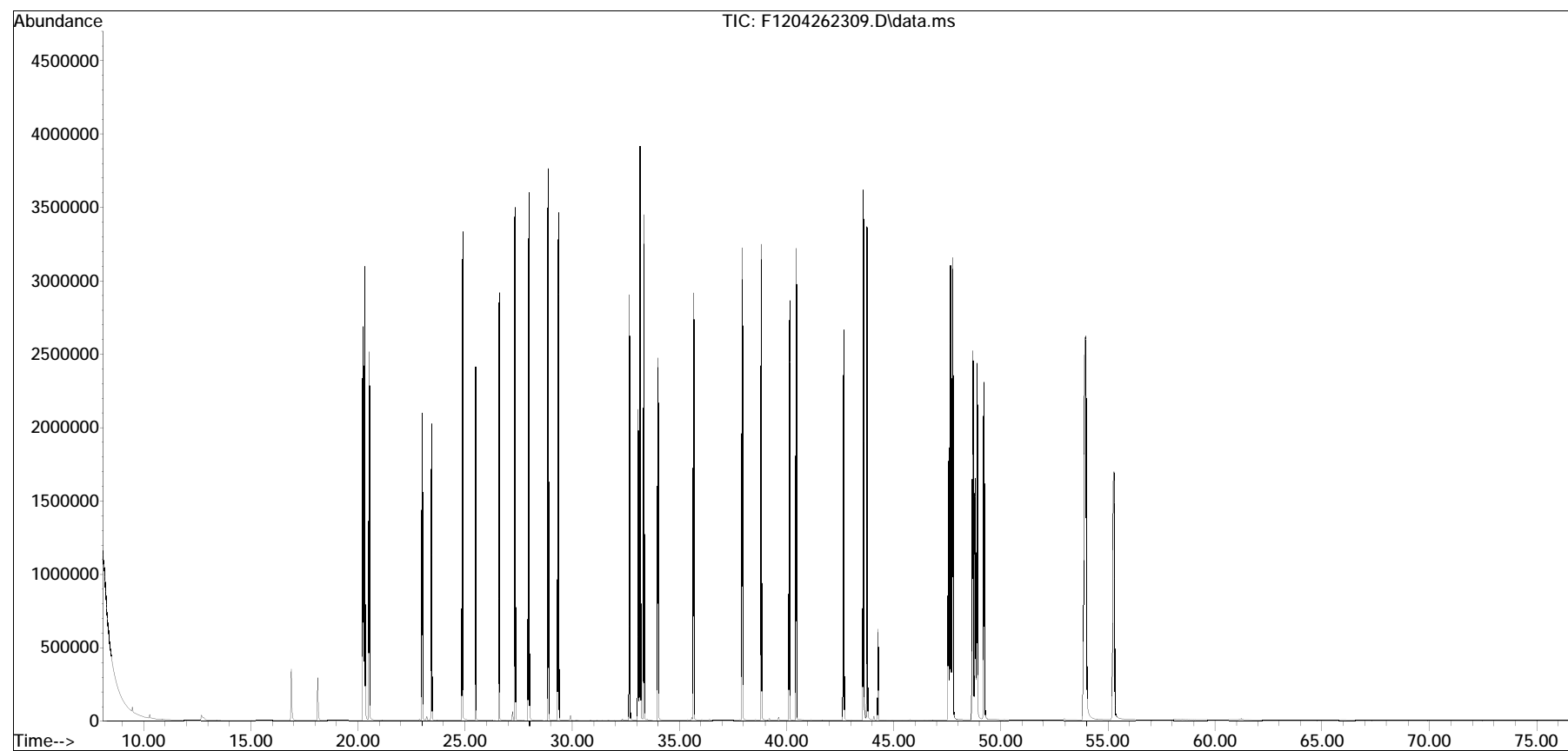
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
Data File : F1204262309.D
Acq On : 27 Apr 2023 12:29 am
Operator : PAH12:CNC
Sample : i1404262307
Misc : WG1773271,frbf73
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 27 13:15:49 2023
Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 27 06:18:57 2023
Response via : Initial Calibration

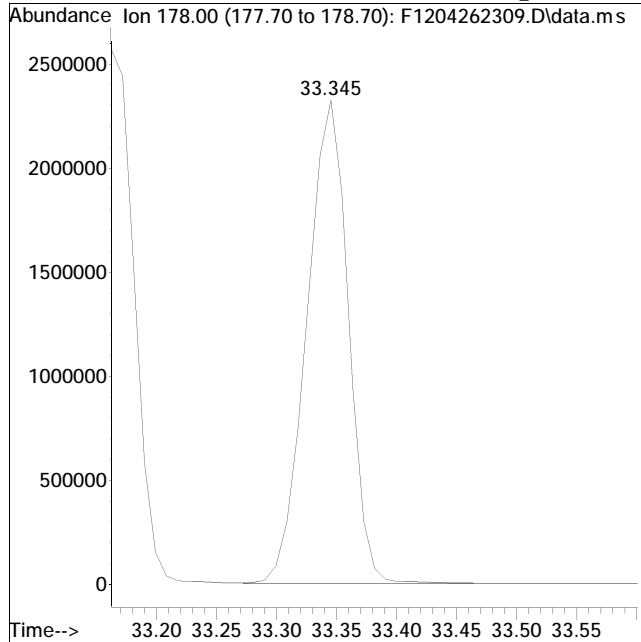
Sub List : ALKPAH_CCV - CC with five surrogates



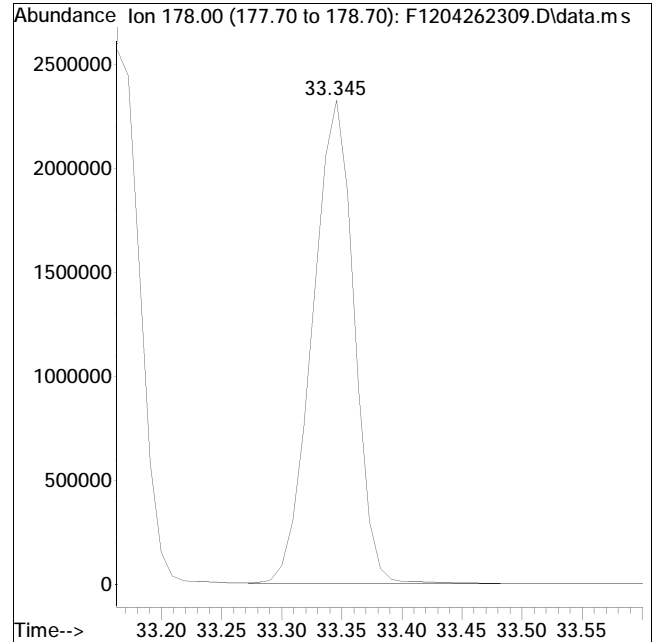
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
Data File : F1204262309.D Operator : PAH12:CNC
Date Inj'd : 4/27/2023 12:29 am Instrument : PAH12
Sample : i1404262307 Quant Date : 4/27/2023 6:20 am

Compound #53: Anthracene



Original Peak Response = 5582690



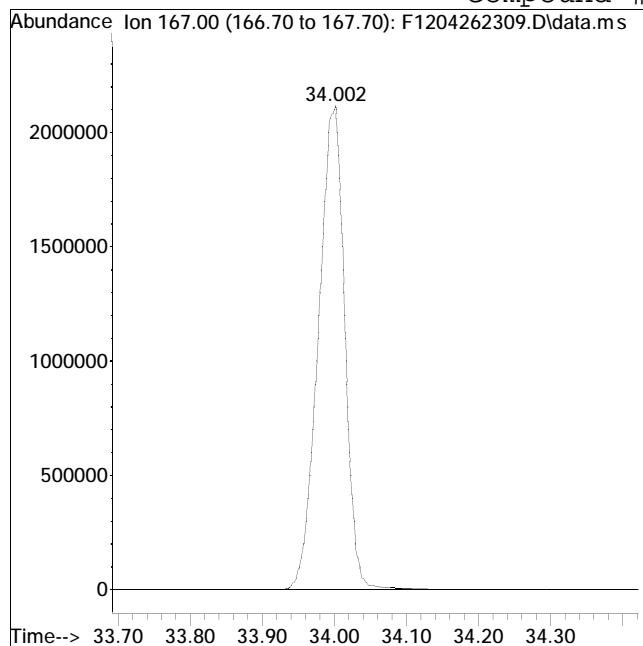
Manual Peak Response = 5596414 M4

M4 = Poor automated baseline construction.

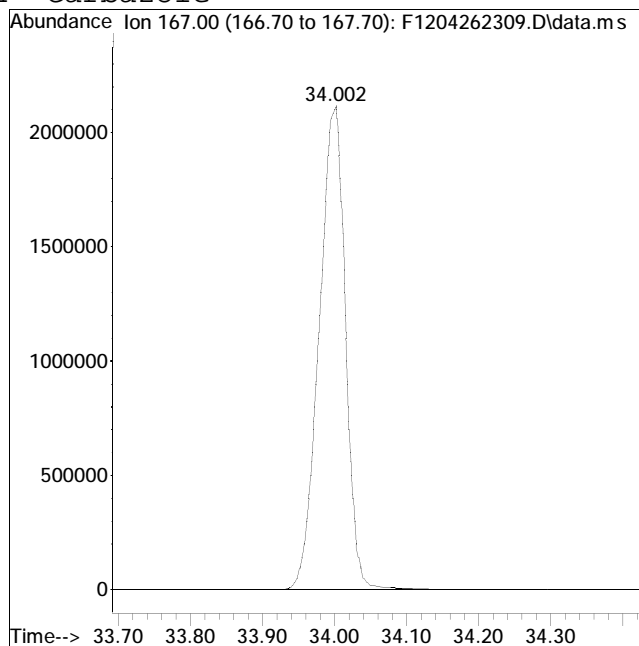
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
Data File : F1204262309.D Operator : PAH12:CNC
Date Inj'd : 4/27/2023 12:29 am Instrument : PAH12
Sample : i1404262307 Quant Date : 4/27/2023 6:20 am

Compound #54: Carbazole



Original Peak Response = 5381222



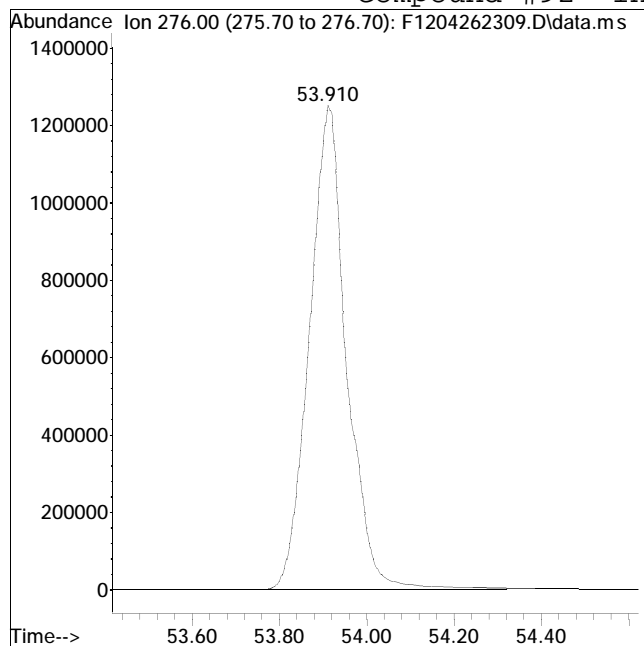
Manual Peak Response = 5380376 M4

M4 = Poor automated baseline construction.

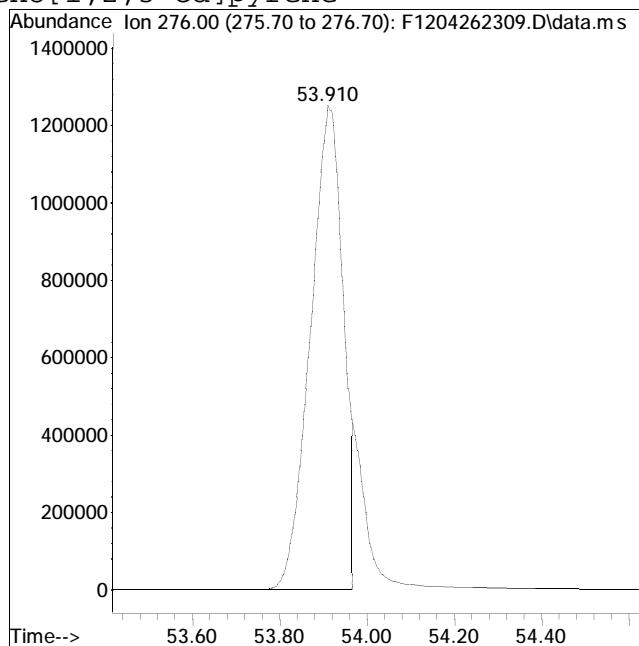
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262309.D Operator : PAH12:CNC
 Date Inj'd : 4/27/2023 12:29 am Instrument : PAH12
 Sample : i1404262307 Quant Date : 4/27/2023 6:20 am

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



Original Peak Response = 7432606



Manual Peak Response = 6552501 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\2023\APR23\APR26\
 Data File : F1204262315.D
 Acq On : 27 Apr 2023 8:55 am
 Operator : PAH12:CNC
 Sample : CQ1204262301
 Misc : WG1773271,FRBF84
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 27 13:21:57 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 13:22:32 2023
 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	108	0.00
2 A1	trans-Decalin	0.475	0.432	9.1	96	0.00
3 t	cis-Decalin	0.380	0.347	8.7	99	0.00
8 s	Naphthalene-d8	2.102	0.000#	100.0#	0#	-20.22#
9 A1	Naphthalene	2.315	2.260	2.4	100	0.00
14 t	2-Methylnaphthalene	1.421	1.379	3.0	102	0.00
15 t	1-Methylnaphthalene	1.344	1.376	-2.4	107	0.00
16 A1	Benzo[thiophene]	1.864	1.764	5.4	99	0.00
21 t	Biphenyl	1.767	1.758	0.5	104	0.00
22 t	2,6-Dimethylnaphthalene	1.165	1.119	3.9	105	0.00
23 t	Dibenzofuran	1.665	1.629	2.2	106	0.00
24 t	Acenaphthylene	1.997	1.779	10.9	99	0.00
25 t	Acenaphthene	1.288	1.251	2.9	105	0.00
26 t	2,3,5-Trimethylnaphthalene	1.081	1.003	7.2	105	0.00
27 A1	Fluorene	1.341	1.274	5.0	104	0.00
31 A1	Dibenzothiophene	1.936	1.784	7.9	102	0.00
40 s	Phenanthrene-d10	1.445	0.000#	100.0#	0#	-33.07#
41 A1	Phenanthrene	2.015	1.909	5.3	103	0.00
52 t	Retene	0.511	0.476	6.8	115	0.00
53 t	Anthracene	1.881	1.539	18.2	91	0.00
54 t	Carbazole	1.608	1.438	10.6	105	0.00
55 t	1-Methylphenanthrene	1.422	1.296	8.9	107	0.00
56 A1	Fluoranthene	2.118	2.001	5.5	106	0.00
57 A1	Benzo(b)fluorene	1.010	0.861	14.8	109	0.00
59 A1	Pyrene	2.134	1.988	6.8	106	0.00
67 A1	Naphthobenzothiophene-2,1-D	1.874	1.728	7.8	107	0.00
74 i	Chrysene-d12	1.000	1.000	0.0	111	0.00
75 t	Benz[a]anthracene	1.351	1.286	4.8	106	0.00
76 A1	Chrysene	1.455	1.467	-0.8	107	0.00
77 A2	Chrysene/Triphenylene	1.455	1.467	-0.8	107	0.00
84 s	Benzo[b]fluoranthene-d12	1.018	0.000#	100.0#	0#	-47.55#
85 t	Benzo[b]fluoranthene	1.452	1.462	-0.7	105	0.00
86 A1	Benzo[j]+[k]fluoranthene	1.617	1.647	-1.9	107	0.00
88 t	Benzo[e]pyrene	1.553	1.531	1.4	107	0.00
89 s	Benzo[a]pyrene-d12	0.747	0.000#	100.0#	0#	-48.78#
90 t	Benzo[a]pyrene	1.318	1.092	17.1	90	0.00
91 t	Perylene	1.374	1.108	19.4	86	0.00
92 t	Indeno[1,2,3-cd]pyrene	1.332	1.242	6.8	107	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262315.D
 Acq On : 27 Apr 2023 8:55 am
 Operator : PAH12:CNC
 Sample : CQ1204262301
 Misc : WG1773271,FRBF84
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 27 13:21:57 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 13:22:32 2023
 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	1.160	1.104	4.8	114	0.00
94 t	Benzo[g,h,i]perylene	1.496	1.276	14.7	97	-0.02
95 A1	Hopane (T19)	0.422	0.000#	100.0#	0#	-52.96#
129 SA1	5B(H)Cholane - Surr	0.201	0.000#	100.0#	0#	-44.26#

* 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	0.90	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	0.77	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262315.D
 Acq On : 27 Apr 2023 8:55 am
 Operator : PAH12:CNC
 Sample : CQ1204262301
 Misc : WG1773271,FRBF84
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 27 13:21:57 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 13:22:32 2023
 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	27.205	164	69147	500.000	ng/mL	0.00
74) Chrysene-d12	43.643	240	79828	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						
						Qvalue
2) trans-Decalin	16.884	138	14923	226.992	ng/mL	100
3) cis-Decalin	18.098	138	11994	228.515	ng/mL	100
9) Naphthalene	20.306	128	156249	487.943	ng/mL	100
14) 2-Methylnaphthalene	23.016	142	95386	485.326	ng/mL	100
15) 1-Methylnaphthalene	23.436	142	95148	511.819	ng/mL	100
16) Benzothiophene	20.525	134	121994	473.370	ng/mL	100
21) Biphenyl	24.887	154	121551	497.418	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.498	156	77407	480.571	ng/mL	100
23) Dibenzofuran	27.980	168	112613	489.130	ng/mL	98
24) Acenaphthylene	26.593	152	123014M4	445.350	ng/mL	
25) Acenaphthene	27.323	153	86520	485.616	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	28.884	170	69326	463.845	ng/mL	99
27) Fluorene	29.358	166	88085	474.935	ng/mL	99
31) Dibenzothiophene	32.670	184	123345	460.774	ng/mL	99
41) Phenanthrene	33.163	178	132019	473.816	ng/mL	99
52) Retene	40.137	234	32918	465.395	ng/mL	98
53) Anthracene	33.354	178	106451	409.184	ng/mL	99
54) Carbazole	34.002	167	99450	447.258	ng/mL	99
55) 1-Methylphenanthrene	35.673	192	89636	455.823	ng/mL	98
56) Fluoranthene	37.927	202	138331	472.217	ng/mL	99
57) Benzo(b)fluorene	40.447	216	59549	426.433	ng/mL	99
59) Pyrene	38.813	202	137435	465.735	ng/mL	98
67) Naphthobenzothiophene-2,1	42.657	234	119468	461.068	ng/mL	99
75) Benz[a]anthracene	43.579	228	102621	475.762	ng/mL	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262315.D
 Acq On : 27 Apr 2023 8:55 am
 Operator : PAH12:CNC
 Sample : CQ1204262301
 Misc : WG1773271,FRBF84
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 27 13:21:57 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 13:22:32 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.743	228	117076	503.891	ng/mL	100
77) Chrysene/Triphenylene	43.743	228	117076	503.891	ng/mL	100
85) Benzo[b]fluoranthene	47.636	252	116672	503.134	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.719	252	131495	509.373	ng/mL	94
88) Benzo[e]pyrene	48.670	252	122189	492.746	ng/mL	94
90) Benzo[a]pyrene	48.871	252	87200	414.425	ng/mL	91
91) Perylene	49.191	252	88426M4	403.122	ng/mL	
92) Indeno[1,2,3-cd]pyrene	53.865	276	99182M3	466.318	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.947	278	88108	475.907	ng/mL	98
94) Benzo[g,h,i]perylene	55.217	276	101842	426.391	ng/mL	100
95) Hopane (T19)	0.000		0	N.D.	d	

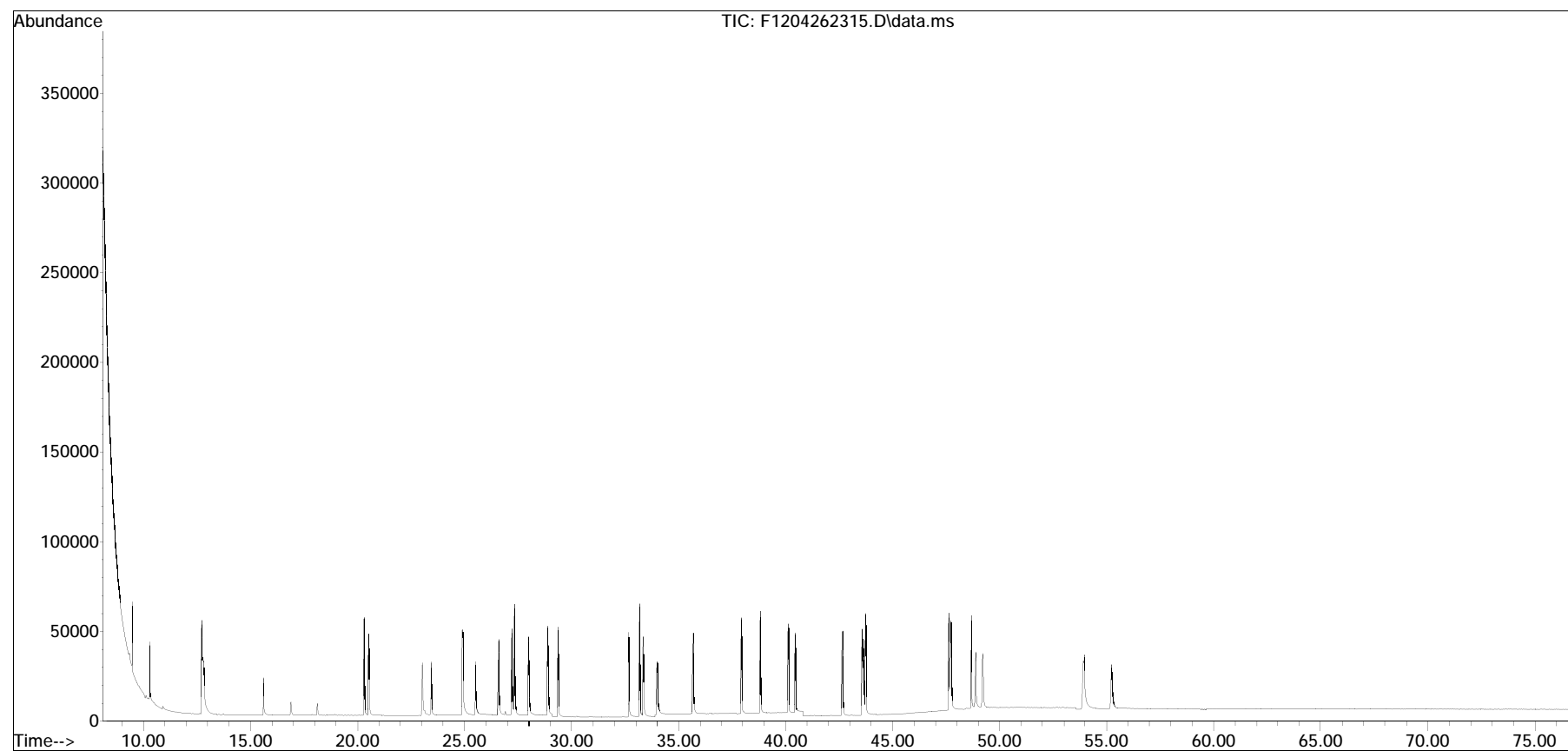
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
Data File : F1204262315.D
Acq On : 27 Apr 2023 8:55 am
Operator : PAH12:CNC
Sample : CQ1204262301
Misc : WG1773271,FRBF84
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 27 13:21:57 2023
Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 27 13:22:32 2023
Response via : Initial Calibration

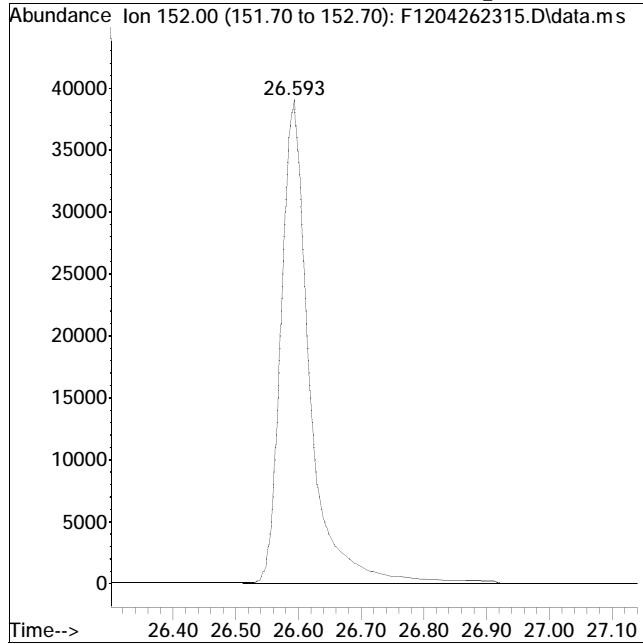
Sub List : ALKPAH_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

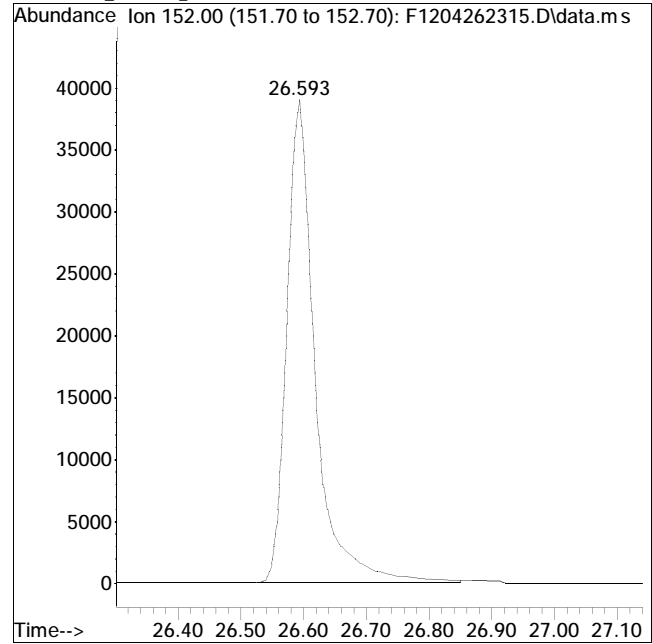
Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
Data File : F1204262315.D Operator : PAH12:CNC
Date Inj'd : 4/27/2023 8:55 am Instrument : PAH12
Sample : CQ1204262301 Quant Date : 4/27/2023 1:22 pm

Compound #24: Acenaphthylene



Original Peak Response = 125101

M4 = Poor automated baseline construction.

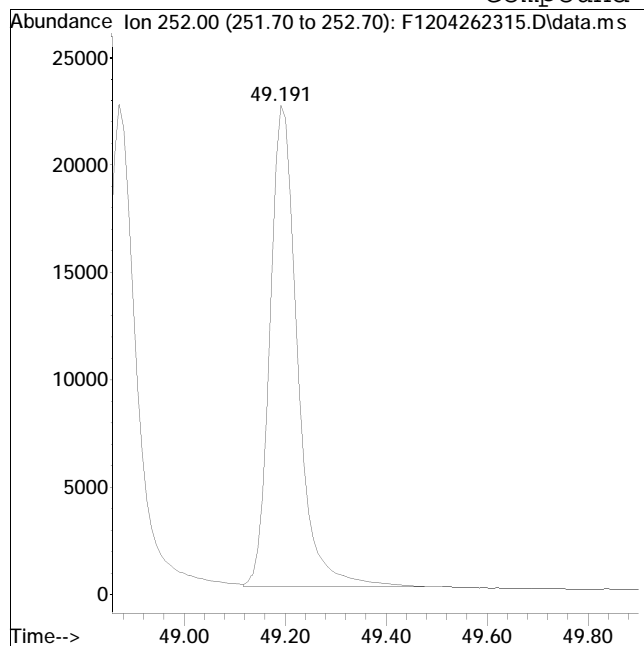


Manual Peak Response = 123014 M4

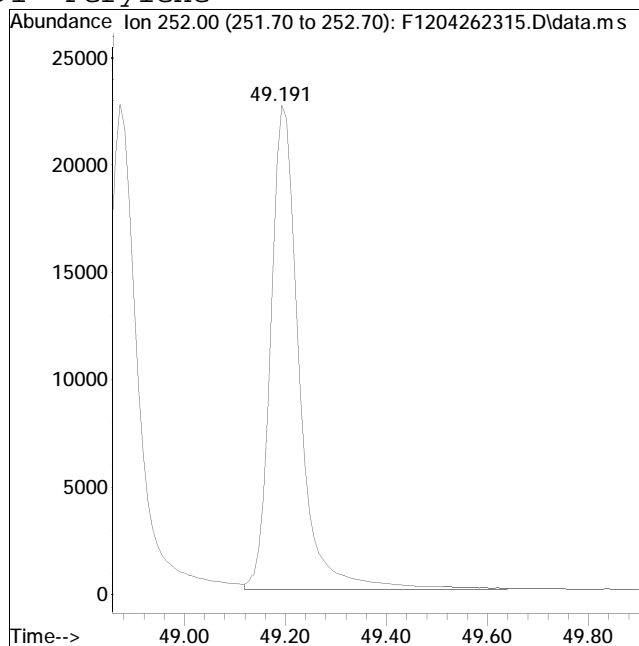
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262315.D Operator : PAH12:CNC
 Date Inj'd : 4/27/2023 8:55 am Instrument : PAH12
 Sample : CQ1204262301 Quant Date : 4/27/2023 1:22 pm

Compound #91: Perylene



Original Peak Response = 84989



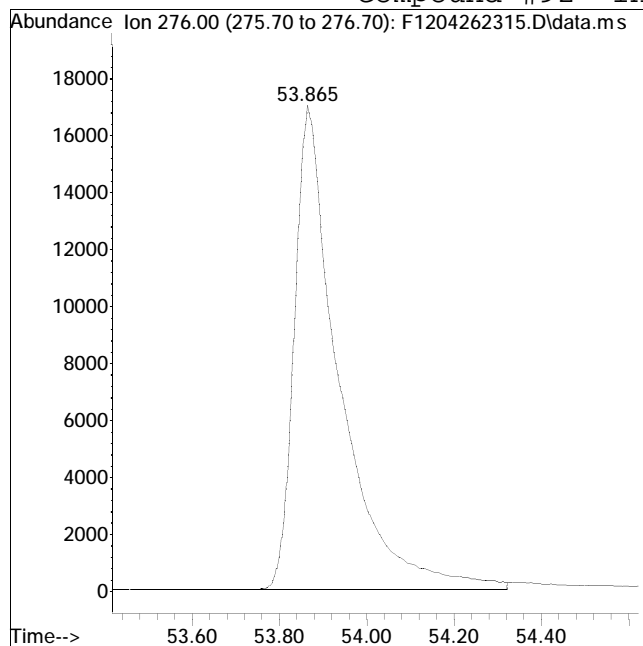
Manual Peak Response = 88426 M4

M4 = Poor automated baseline construction.

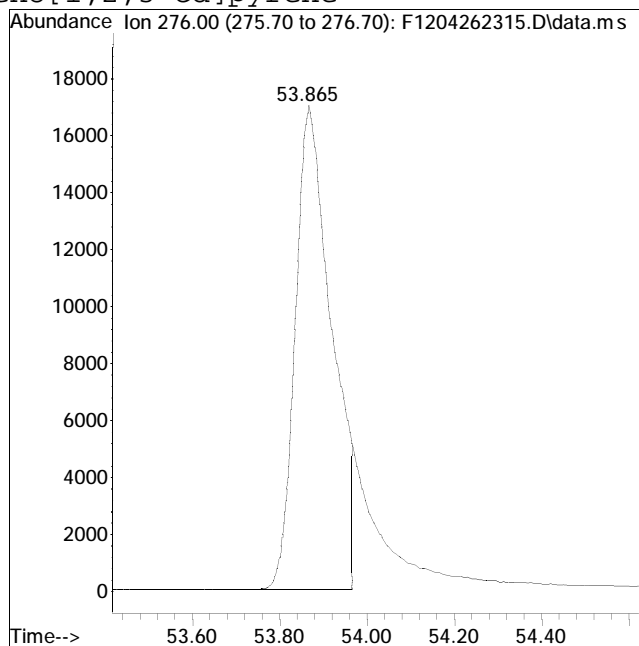
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12042623.M
 Data File : F1204262315.D Operator : PAH12:CNC
 Date Inj'd : 4/27/2023 8:55 am Instrument : PAH12
 Sample : CQ1204262301 Quant Date : 4/27/2023 1:22 pm

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



Original Peak Response = 122267



Manual Peak Response = 99182 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\2023\APR23\APR26\
 Data File : F1204262317.D
 Acq On : 27 Apr 2023 12:01 pm
 Operator : PAH12:CNC
 Sample : WG1773271-1,0.05390
 Misc : WG1773271,frbf88 5.39
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 27 14:55:44 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

Sub List : Default - All compounds listed

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

Internal Standards						
1) Acenaphthene-d10	27.196	164	100327M4	500.000	ng/mL	0.00
74) Chrysene-d12	43.643	240	127808M4	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.224	136	361228	856.501	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	85.65%		
40) Phenanthrene-d10	33.063	188	255001	879.475	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	87.95%		
84) Benzo[b]fluoranthene-d12	47.554	264	248282	954.539	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	95.45%		
89) Benzo[a]pyrene-d12	48.780	264	215816	1130.026	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	113.00%		
129) 5B(H)Cholane - Surr	44.273	217	46293	903.159	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	90.32%		
Target Compounds						
					Qvalue	
2) trans-Decalin	16.884	138	211046	2212.519	ng/mL	100
3) cis-Decalin	18.107	138	9351	122.791	ng/mL	100
4) C1-Decalins	18.819	152	329204M5	3451.238	ng/mL	
5) C2-Decalins	20.151	166	284376M5	2981.280	ng/mL	
6) C3-Decalins	22.624	180	147641M5	1547.807	ng/mL	
7) C4-Decalins	26.010	194	143921M5	1508.808	ng/mL	
9) Naphthalene	20.297	128	1233816	2655.572	ng/mL	100
10) C1-Naphthalenes	22.998	142	2609065M5	5615.554	ng/mL	
11) C2-Naphthalenes	25.836	156	3045902M5	6555.769	ng/mL	
12) C3-Naphthalenes	28.172	170	2194373M5	4723.002	ng/mL	
13) C4-Naphthalenes	30.937	184	1174977M5	2528.932	ng/mL	
14) 2-Methylnaphthalene	22.998	142	1534535	5381.228	ng/mL	100
15) 1-Methylnaphthalene	23.427	142	1080745	4006.777	ng/mL	100
16) Benzothiophene	20.507	134	10651M3	28.484	ng/mL	
17) C1-Benzo(b)thiophenes	22.560	148	56134M5	150.122	ng/mL	
18) C2-Benzo(b)thiophenes	26.037	162	83267M5	222.685	ng/mL	
19) C3-Benzo(b)thiophenes	28.008	176	160120M5	428.217	ng/mL	
20) C4-Benzo(b)thiophenes	29.751	190	143361M5	383.397	ng/mL	
21) Biphenyl	24.869	154	249518	703.754	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.499	156	749136	3205.485	ng/mL	100
23) Dibenzofuran	27.962	168	81042	242.606	ng/mL#	85
24) Acenaphthylene	26.575	152	11310M4	28.221	ng/mL	
25) Acenaphthene	27.333	153	21311M3	82.440	ng/mL	
26) 2,3,5-Trimethylnaphthalen	28.875	170	161960M3	746.861	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262317.D
 Acq On : 27 Apr 2023 12:01 pm
 Operator : PAH12:CNC
 Sample : WG1773271-1,0.05390
 Misc : WG1773271,frbf88 5.39
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 27 14:55:44 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

Sub List : Default - All compounds listed

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

27) Fluorene	29.340	166	87505M4	325.178	ng/mL	
28) C1-Fluorenes	31.703	180	191424M5	711.351	ng/mL	
29) C2-Fluorenes	33.893	194	305751M5	1136.202	ng/mL	
30) C3-Fluorenes	35.718	208	281595M5	1046.436	ng/mL	
31) Dibenzothiophene	32.661	184	208392	536.541	ng/mL#	84
32) 4-Methyldibenzothiophene(	34.431	198	206033	530.468	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.778	198	145581	374.824	ng/mL	100
34) 1-Methyldibenzothiophene(	35.198	198	57401	147.789	ng/mL	100
35) OTP	34.842	198	20466M3	52.693	ng/mL	
36) C1-Dibenzothiophenes	34.431	198	438555M5	1129.136	ng/mL	
36) C1-Dibenzothiophenes BS	34.431	198	418089M5	1076.443	ng/mL	
37) C2-Dibenzothiophenes	36.120	212	557757M5	1436.042	ng/mL	
38) C3-Dibenzothiophenes	37.918	226	526278M5	1354.994	ng/mL	
39) C4-Dibenzothiophenes	38.804	240	306304M5	788.633	ng/mL	
41) Phenanthrene	33.154	178	331035	818.848	ng/mL	97
42) 3-Methylphenanthrene(3MP)	35.116	192	135705	335.680	ng/mL	97
43) 2-Methylphenanthrene(2MP)	35.225	192	145264M4	359.325	ng/mL	
44) 2-Methylanthracene(2MA)	35.381	192	5775M4	14.285	ng/mL	
45) 9/4-Methylphenanthrene(9M	35.572	192	218294	539.972	ng/mL	99
46) 1-Methylphenanthrene(1MP)	35.664	192	154757	382.807	ng/mL	98
47) C1-Phenanthrenes/Anthrace	35.572	192	656434M5	1623.754	ng/mL	
48) C2-Phenanthrenes/Anthrace	37.380	206	771895M5	1909.358	ng/mL	
48) C2-Phenanthrenes/Anthr BS	37.380	206	771895M5	1909.358	ng/mL	
49) 5AA IS BKGD	0.000		0	N.D.	d	
50) C3-Phenanthrenes/Anthrace	39.215	220	540063M5	1335.899	ng/mL	
51) C4-Phenanthrenes/Anthrace	41.388	234	230602M5	570.417	ng/mL	
52) Retene	0.000		0	N.D.	d	
53) Anthracene	0.000		0	N.D.	d	
54) Carbazole	33.993	167	8345M4	25.866	ng/mL	
55) 1-Methylphenanthrene	35.664	192	154745	542.358	ng/mL	99
56) Fluoranthene	37.928	202	6612M4	15.556	ng/mL	
57) Benzo(b)fluorene	40.439	216	5307	26.193	ng/mL	90
58) 7H-Benzo(c)fluorene	40.484	216	3394	16.751	ng/mL	75
59) Pyrene	38.813	202	19885M4	46.443	ng/mL	
60) 2-Methylpyrene	40.603	216	5889M3	13.754	ng/mL	
61) 4-Methylpyrene	40.977	216	17531	40.945	ng/mL	80
62) 1-Methylpyrene	41.087	216	11505	26.871	ng/mL	87
63) C1-Fluoranthenes/Pyrenes	40.192	216	97817M5	228.461	ng/mL	
64) C2-Fluoranthenes/Pyrenes	42.000	230	155546M5	363.292	ng/mL	
65) C3-Fluoranthenes/Pyrenes	44.008	244	195548M5	456.721	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.360	258	169825M5	396.642	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262317.D
 Acq On : 27 Apr 2023 12:01 pm
 Operator : PAH12:CNC
 Sample : WG1773271-1,0.05390
 Misc : WG1773271,frbf88 5.39
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 27 14:55:44 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67) Naphthobenzothiophene-2,1	42.657	234	41045	109.177	ng/mL#	80
68) Naphthobenzothiophene-1,2	42.995	234	9980	26.546	ng/mL#	15
69) Naphthobenzothiophene-2,3	43.296	234	4777	12.706	ng/mL#	100
70) C1-Naphthobenzothiophenes	44.054	248	161270M5	428.966	ng/ml	
71) C2-Naphthobenzothiophenes	46.054	262	230807M5	613.929	ng/ml	
72) C3-Naphthobenzothiophenes	47.664	276	191094M5	508.295	ng/ml	
73) C4-Naphthobenzothiophenes	48.771	290	148813M5	395.831	ng/mL	
75) Benz[a]anthracene	43.579	228	3471M4	10.051	ng/mL	
76) Chrysene	43.716	228	53521	143.877	ng/mL	99
77) Chrysene/Triphenylene	43.716	228	53521	143.877	ng/mL	99
78) C1-Chrysenes	45.205	242	95293M5	256.169	ng/mL	
79) C2-Chrysenes	46.640	256	140199M5	376.887	ng/mL	
79) C2-Chrysenes BS	46.640	256	131974M5	354.776	ng/mL	
80) BBF-D12 Surr BKGD	47.554	256	8225	22.111	ng/mL	100
81) C3-Chrysenes	50.088	270	149533M5	401.979	ng/mL	
82) C4-Chrysenes	50.179	284	92298M5	248.118	ng/mL	
83) DAT-16 (t)	0.000		0	N.D.	d	
85) Benzo[b]fluoranthene	47.637	252	9191	24.756	ng/mL#	80
86) Benzo[j]+[k]fluoranthene	47.728	252	2879	6.966	ng/mL#	57
87) Benzo[a]fluoranthene	0.000		0	N.D.	d	
88) Benzo[e]pyrene	48.679	252	15870M4	39.973	ng/mL	
90) Benzo[a]pyrene	48.871	252	3782M3	11.227	ng/mL	
91) Perylene	49.191	252	4785	13.625	ng/mL#	44
92) Indeno[1,2,3-cd]pyrene	53.874	276	8773M3	25.763	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.938	278	10326	34.837	ng/mL#	54
94) Benzo[g,h,i]perylene	55.226	276	9533M4	24.929	ng/mL	
95) Hopane (T19)	52.978	191	77322	717.140	ng/mL#	85
96) C23 Tricyclic Terpane (T4	41.297	191	35666M3	330.792	ng/ml	
97) C24 Tricyclic Terpane (T5	42.018	191	19885	184.428	ng/ml	100
98) C25 Tricyclic Terpane (T6	43.543	191	19058M4	176.758	ng/ml	
99) C24 Tetracyclic Terpane (	44.839	191	6966	64.608	ng/ml	100
100) C26 Tricyclic Terpane-22S	44.556	191	7630	70.766	ng/ml	100
101) C26 Tricyclic Terpane-22R	44.648	191	6366	59.043	ng/ml	100
102) C28 Tricyclic Terpane-22S	46.932	191	8258	76.591	ng/ml	100
103) C28 Tricyclic Terpane-22R	47.097	191	7916M4	73.419	ng/ml	
104) C29 Tricyclic Terpane-22S	47.627	191	8952	83.027	ng/ml	100
105) C29 Tricyclic Terpane-22R	47.829	191	10275	95.298	ng/ml	100
106) 18a-22,29,30-Trisnorneo	49.027	191	12808	118.791	ng/ml	100
107) C30 Tricyclic Terpane-22S	49.100	191	7534	69.876	ng/mL	100
108) C30 Tricyclic Terpane-22R	49.347	191	6465M4	59.961	ng/mL	
109) 17a(H)-22,29,30-Trisnorho	49.594	191	16420	152.291	ng/ml	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
 Data File : F1204262317.D
 Acq On : 27 Apr 2023 12:01 pm
 Operator : PAH12:CNC
 Sample : WG1773271-1,0.05390
 Misc : WG1773271,frbf88 5.39
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 27 14:55:44 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) 17a/b,21b/a 28,30-Bisnorh	50.838	191	3142	29.141	ng/ml	100
111) 17a(H),21b(H)-25-Norhopan	50.600	191	3727	34.567	ng/ml	100
112) 30-Norhopane (T15)	51.533	191	42251	391.866	ng/ml	100
113) 18a(H)-30-Norneohopane-C2	51.643	191	10462M4	97.032	ng/ml	
114) 17a(H)-Diahopane (X)	51.771	191	6157M4	57.104	ng/ml	
115) 30-Normoretane (T17)	52.347	191	4899	45.437	ng/ml	100
116) 18a(H)&18b(H)-Oleananes (	0.000		0	N.D.	d	
117) Moretane (T20)	53.700	191	7462	69.208	ng/ml	100
118) 30-Homohopane-22S (T21)	54.852	191	31250	289.835	ng/ml	100
119) 30-Homohopane-22R (T22)	55.099	191	26416	245.001	ng/ml	100
120) Gammacerane/C32-diahopane	55.674	191	5465	50.686	ng/mL	100
121) 30,31-Bishomohopane-22S (	56.497	191	22129	205.240	ng/ml	100
122) 30,31-Bishomohopane-22R (	56.890	191	16348	151.623	ng/ml	100
123) 30,31-Trishomohopane-22S	58.735	191	17628	163.495	ng/ml	100
124) 30,31-Trishomohopane-22R	59.384	191	11500	106.659	ng/ml	100
125) Tetrakishomohopane-22S (T	61.513	191	12361	114.645	ng/ml	100
126) Tetrakishomohopane-22R (T	62.455	191	9249	85.782	ng/ml	100
127) Pentakishomohopane-22S (T	64.840	191	12743	118.188	ng/ml	100
128) Pentakishomohopane-22R (T	66.201	191	9414	87.312	ng/ml	100
130) 13b(H),17a(H)-20S-Diachol	45.771	217	12056	235.208	ng/ml	100
131) 13b(H),17a(H)-20R-Diachol	46.191	217	6433	125.505	ng/ml	100
132) 13b,17a-20S-Methyldiachol	46.887	217	6115M4	119.301	ng/ml	
133) 14a,17a-20S-Chol/13b,17a-	47.774	217	14389	280.724	ng/ml	100
134) 14a,17a-20R-Chol/13b,17a-	48.313	217	17763	346.549	ng/ml	100
135) Unknown Sterane (S18)	48.606	217	4329	84.457	ng/ml	100
136) 13a,17b-20S-Ethyldiachole	48.871	217	1006	19.627	ng/ml	100
137) 14a,17a-20S-Methylcholest	49.045	217	7430	144.956	ng/ml	100
138) 14a,17a-20R-Methylcholest	49.786	217	7787	151.921	ng/ml	100
139) 14a(H),17a(H)-20S-Ethylch	50.152	217	10162M4	198.257	ng/ml	
140) 14a(H),17a(H)-20R-Ethylch	51.112	217	8169	159.374	ng/ml	100
141) 14b(H),17b(H)-20R-Cholest	47.874	218	10027M4	195.623	ng/ml	
142) 14b(H),17b(H)-20S-Cholest	47.957	218	10806M4	210.821	ng/ml	
143) 14b,17b-20R-Methylcholest	49.219	218	10765	210.021	ng/ml	100
144) 14b,17b-20S-Methylcholest	49.301	218	13658M4	266.462	ng/ml	
145) 14b(H),17b(H)-20R-Ethylch	50.408	218	14725M3	287.279	ng/ml	
146) 14b(H),17b(H)-20S-Ethylch	50.445	218	10512M3	205.085	ng/ml	
147) C20 Pregnane	43.205	231	22868	446.146	ng/mL	100
148) C21 20-Methylpregnane	44.456	231	23734	463.041	ng/mL	100
149) C22 20-Ethylpregnane (a)	45.597	231	7830	152.760	ng/mL	100
150) C22 20-Ethylpregnane (b)	45.780	231	6081	118.638	ng/mL	100
151) C26,20S TAS	49.063	231	19283	376.204	ng/mL	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
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 ALS Vial : 14 Sample Multiplier: 1

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 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
152)	C26,20R+C27,20S TAS	50.097	231	62980	1228.716	ng/mL	100
153)	C28,20S TAS	51.002	231	38775	756.485	ng/mL	100
154)	C27,20R TAS	51.469	231	39236	765.479	ng/mL	100
155)	C28,20R TAS	52.731	231	32374	631.604	ng/mL	100
156)	C29,20S TAS	51.716	231	13377M4	260.980	ng/mL	
157)	C29,20R TAS	53.828	231	8466	165.168	ng/mL	100
158)	5b(H)-C27 (20S) MAS+	45.205	253	14680	286.401	ng/mL	100
159)	5b(H)-C27 (20R) MAS+	45.917	253	9536	186.044	ng/mL	100
160)	5a(H)-C27 (20S) MAS	46.082	253	2893	56.441	ng/mL	100
161)	5b(H)-C28 (20S) MAS+	46.228	253	18055	352.246	ng/mL	100
162)	5a(H)-C27 (20R) MAS	46.905	253	2229	43.487	ng/mL	100
163)	5a(H)-C28 (20S) MAS	47.015	253	15731	306.906	ng/mL	100
164)	5b(H)-C28 (20R) MAS+	47.088	253	12629M4	246.387	ng/mL	
165)	5b(H)-C29 (20S) MAS+	47.143	253	4009M3	78.214	ng/mL	
166)	5a(H)-C29 (20S) MAS	47.829	253	5050	98.524	ng/mL	100
167)	5a(H)-C28 (20R) MAS	47.929	253	1748M3	34.103	ng/mL	
168)	5b(H)-C29 (20R) MAS+	47.993	253	17191M3	335.390	ng/mL	
169)	5a(H)-C29 (20R) MAS	48.871	253	4037	78.760	ng/mL	100

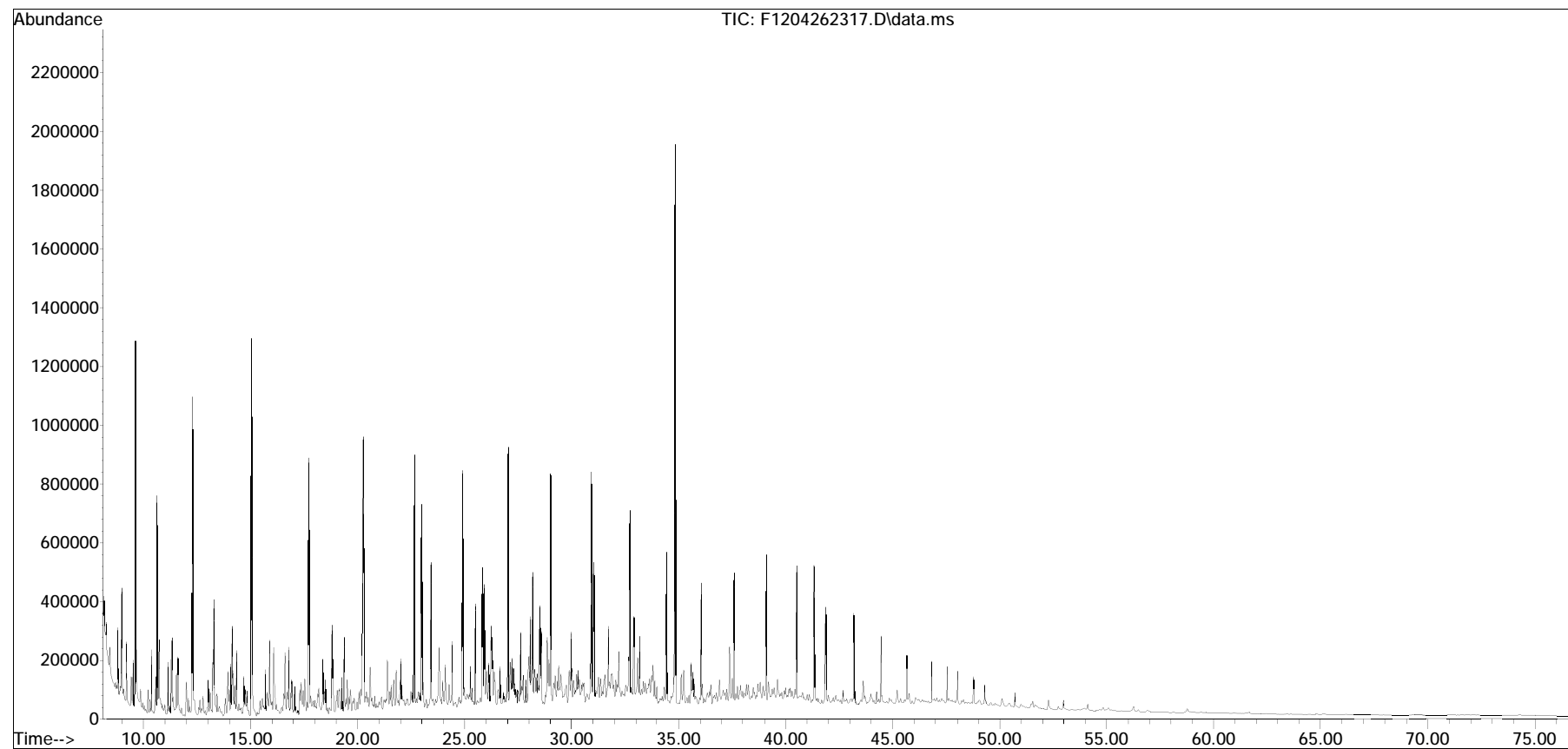
(#) = qualifier out of range (m) = manual integration (+) = signals summed

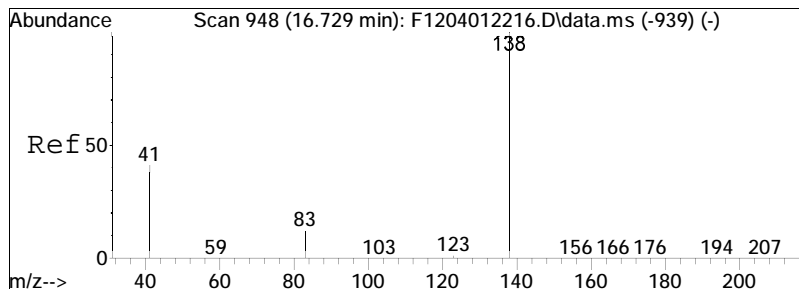
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\APR23\APR26\
Data File : F1204262317.D
Acq On : 27 Apr 2023 12:01 pm
Operator : PAH12:CNC
Sample : WG1773271-1,0.05390
Misc : WG1773271,frbf88 5.39
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 27 14:55:44 2023
Quant Method : O:\Forensics\Data\PAH12\2023\APR23\APR26\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 27 14:56:04 2023
Response via : Initial Calibration

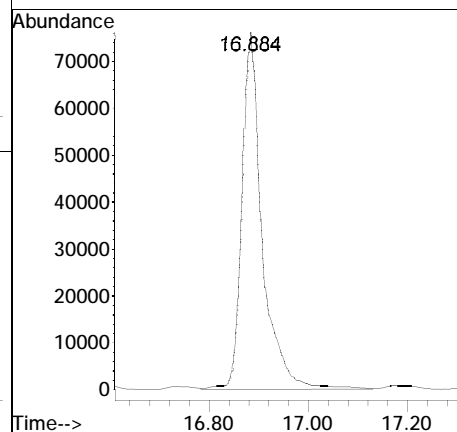
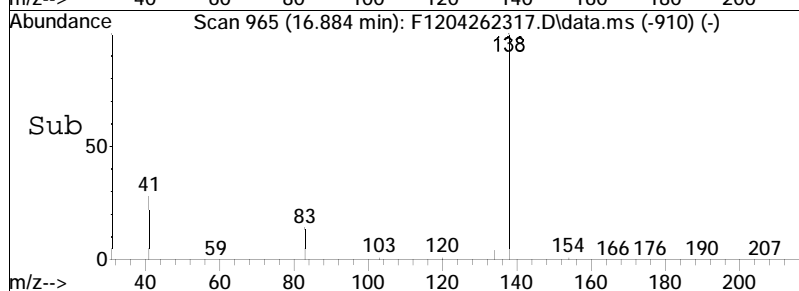
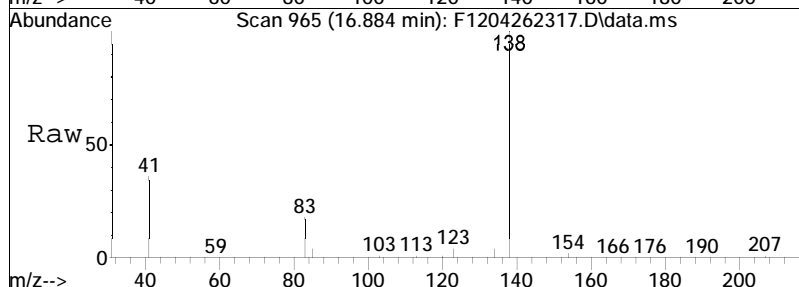
Sub List : Default - All compounds listed

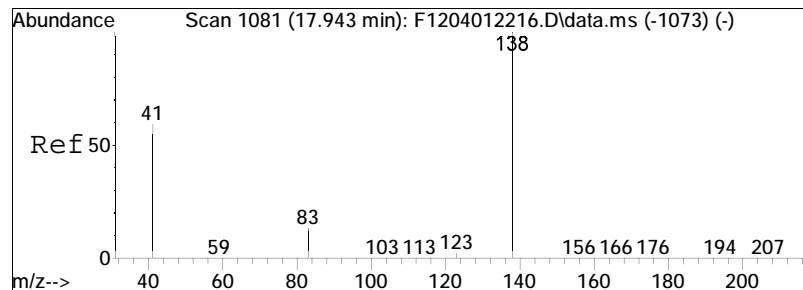




#2
trans-Decalin
Concen: 2212.52 ng/mL
RT: 16.884 min Scan# 965
Delta R.T. 0.000 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

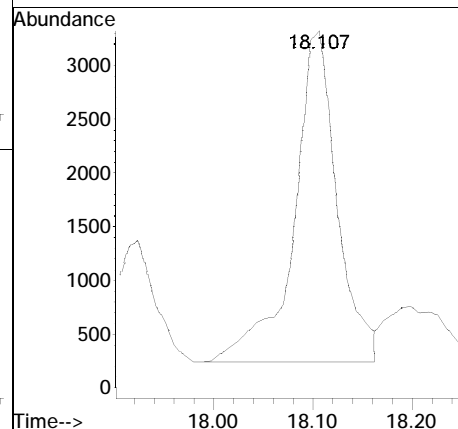
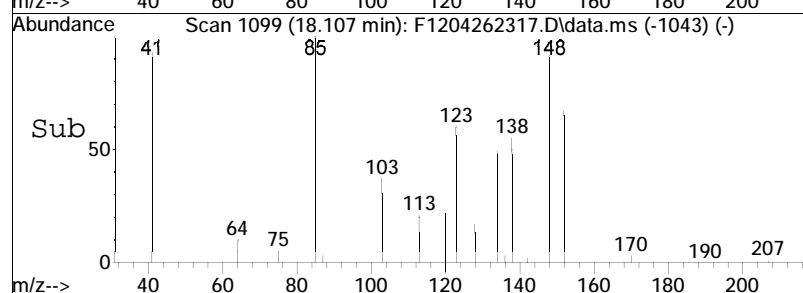
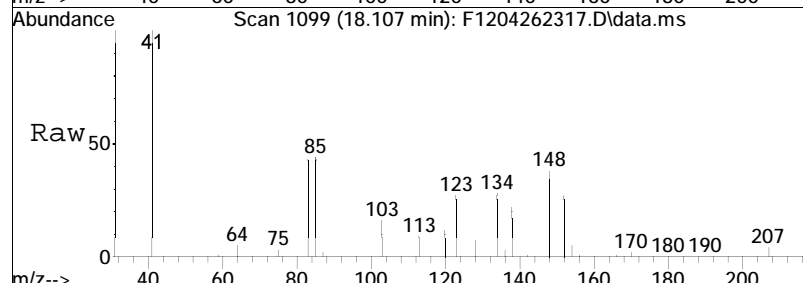
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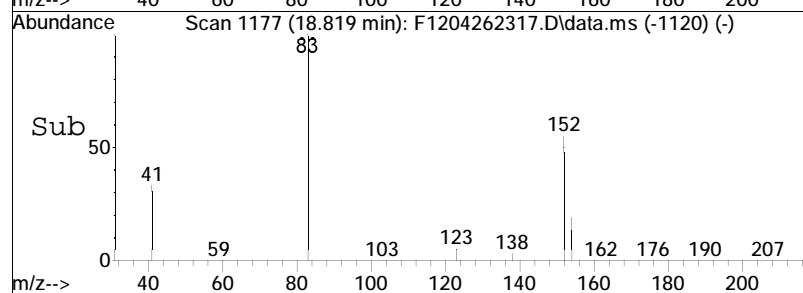
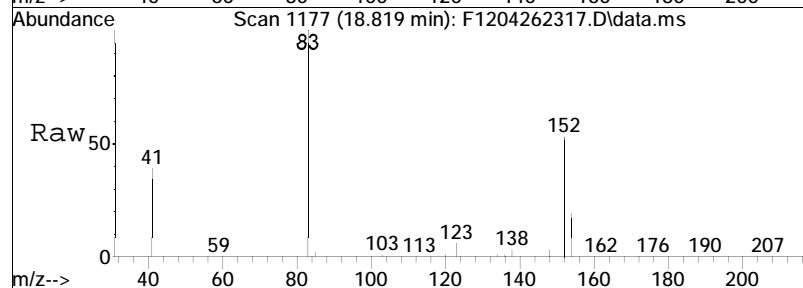
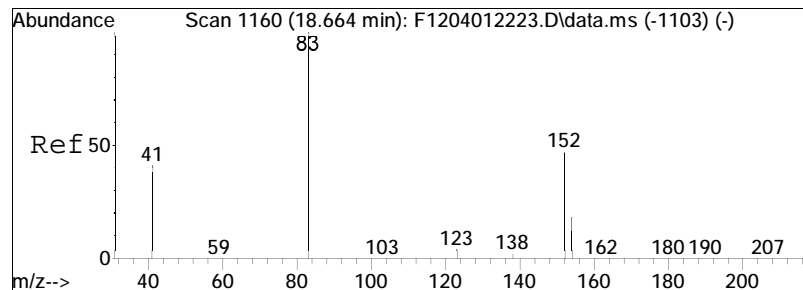




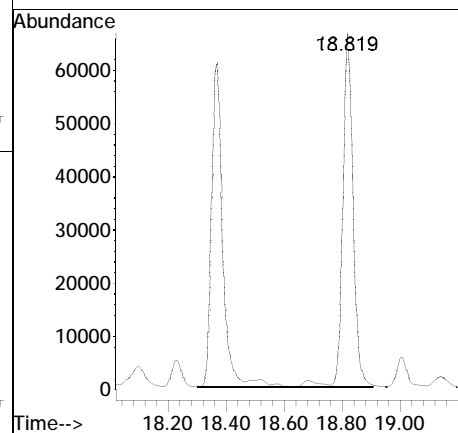
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 cis-Decalin
 Concen: 122.79 ng/mL
 RT: 18.107 min Scan# 1099
 Delta R.T. 0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

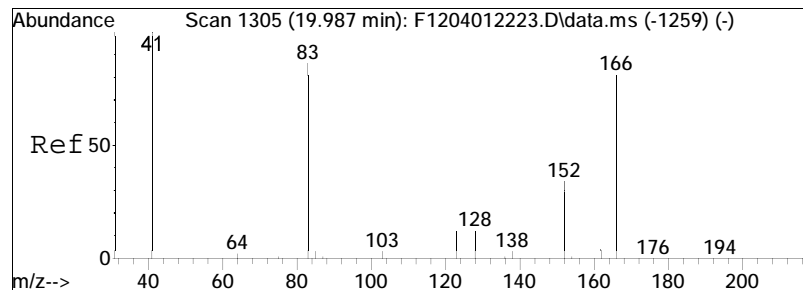
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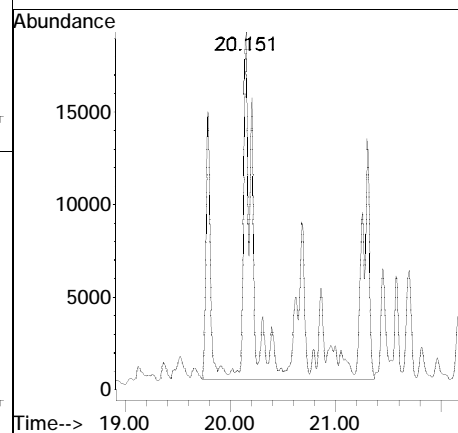
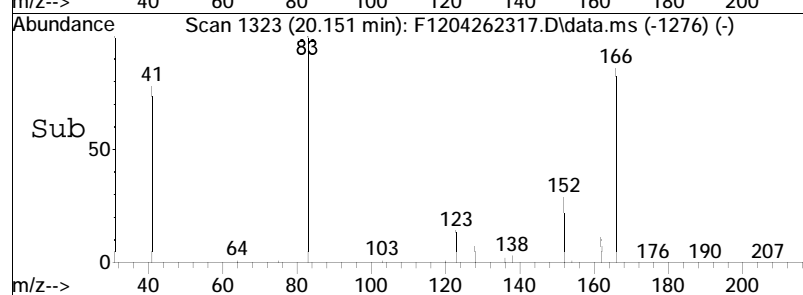
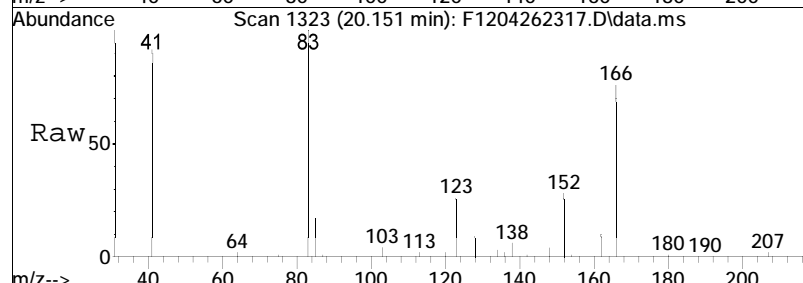
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 Cl-Decalins
 Concen: 3451.24 ng/mL M5
 RT: 18.819 min Scan# 1177
 Delta R.T. 0.441 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:152 Resp: 329204

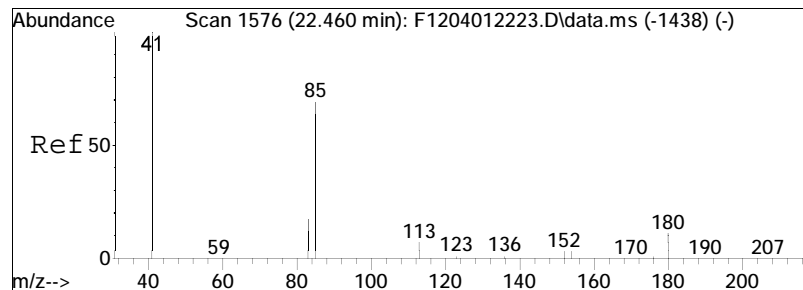




#5
 C2-Decalins
 Concen: 2981.28 ng/mL M5
 RT: 20.151 min Scan# 1323
 Delta R.T. -0.005 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

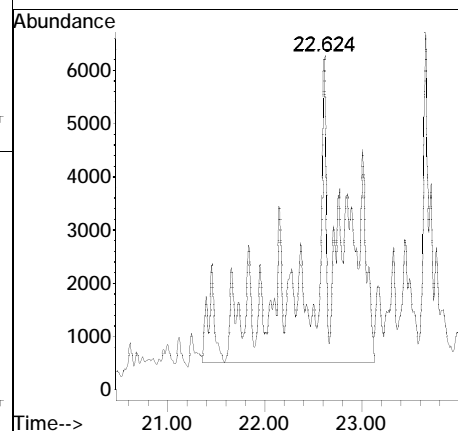
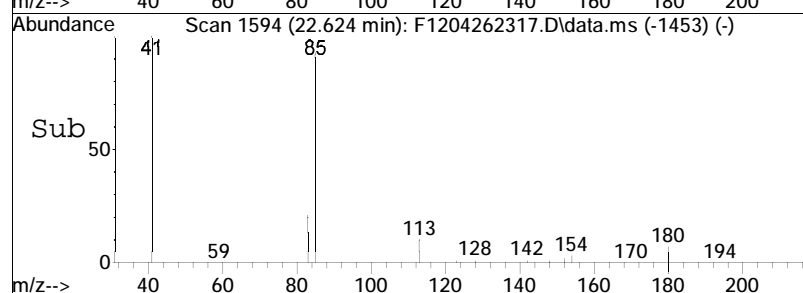
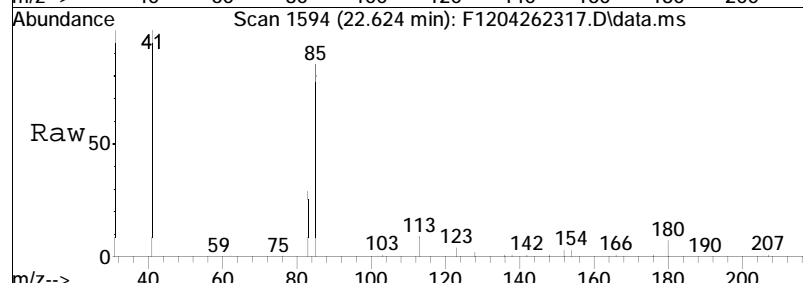
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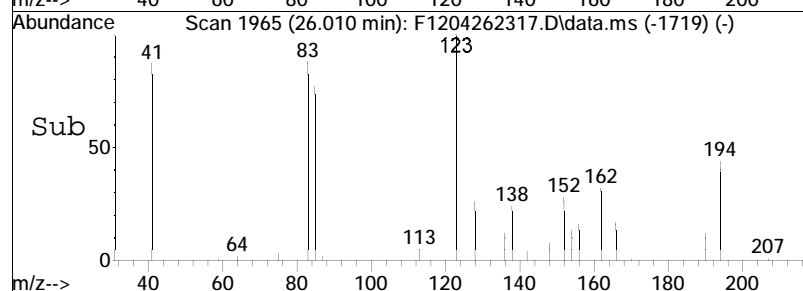
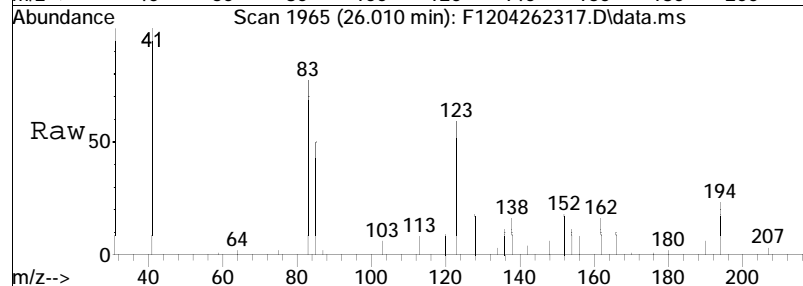
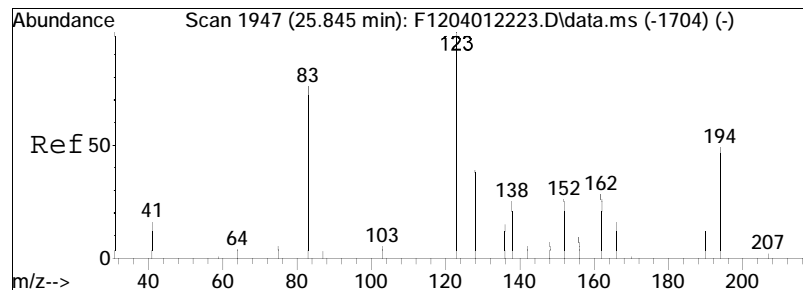




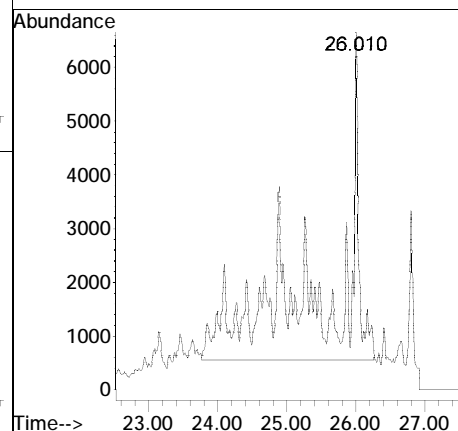
#6
C3-Decalins
Concen: 1547.81 ng/mL M5
RT: 22.624 min Scan# 1594
Delta R.T. -0.003 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

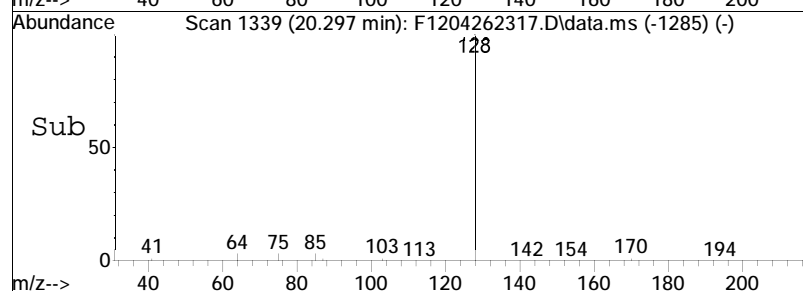
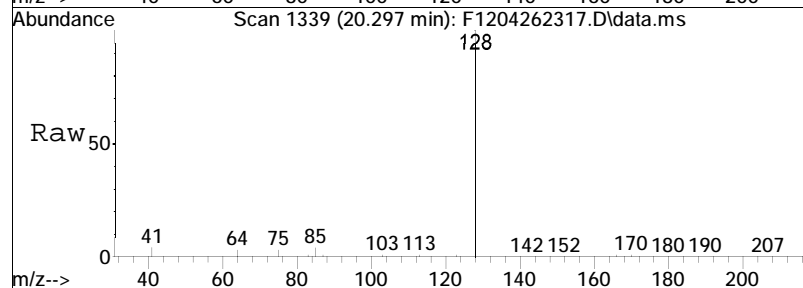
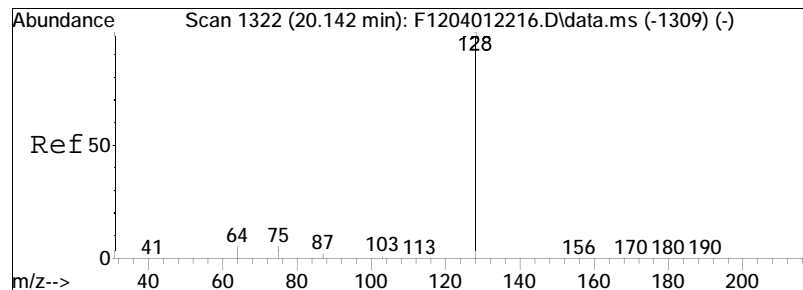
Tgt Ion:180 Resp: 147641



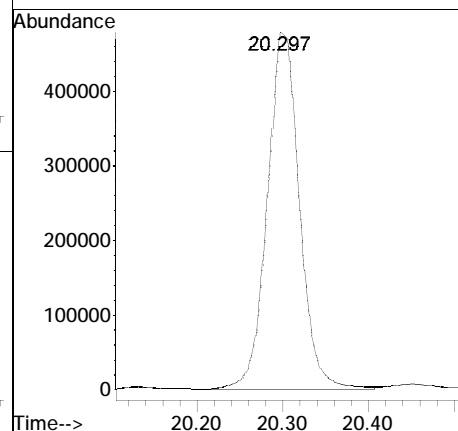


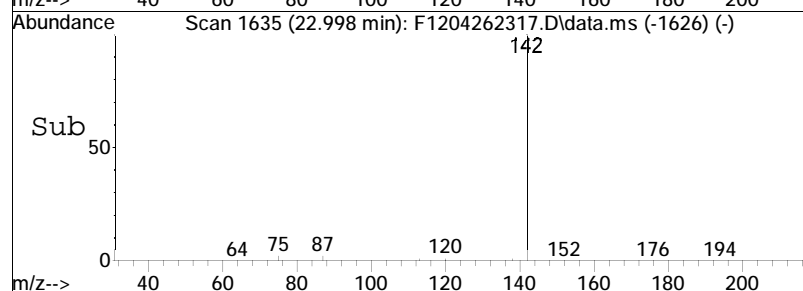
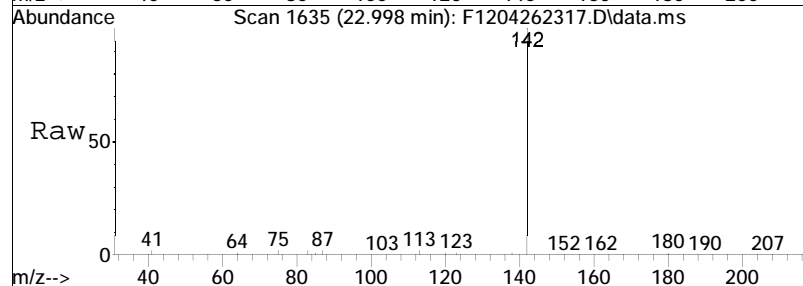
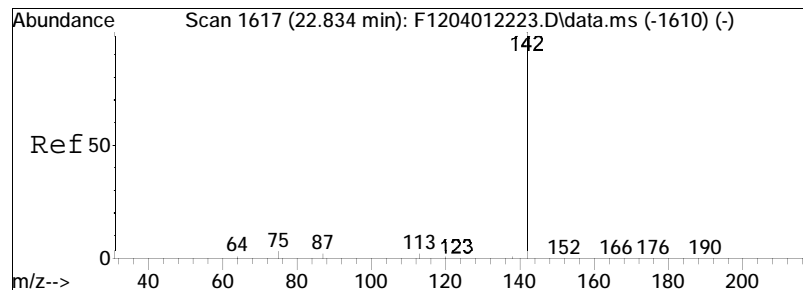
#7
 C4-Decalins
 Concen: 1508.81 ng/mL M5
 RT: 26.010 min Scan# 1965
 Delta R.T. 1.111 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:194 Resp: 143921





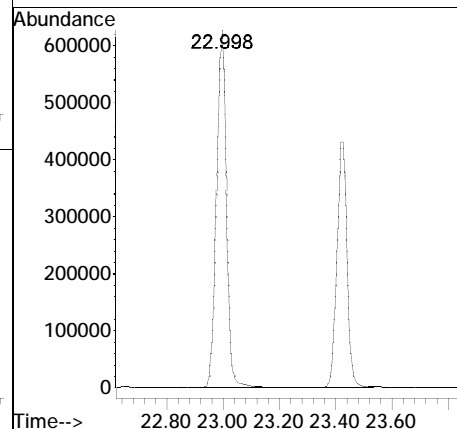
#9
Naphthalene
Concen: 2655.57 ng/mL
RT: 20.297 min Scan# 1339
Delta R.T. -0.009 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm
Tgt Ion:128 Resp: 1233816

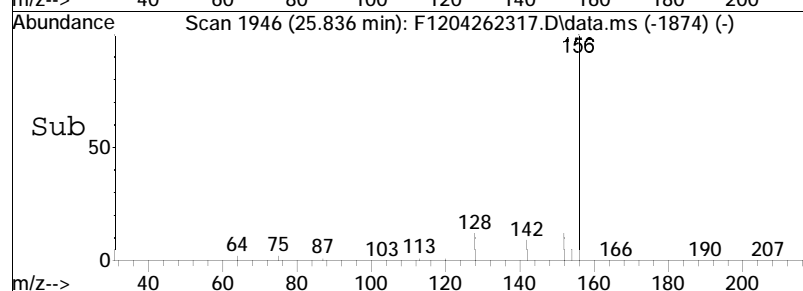
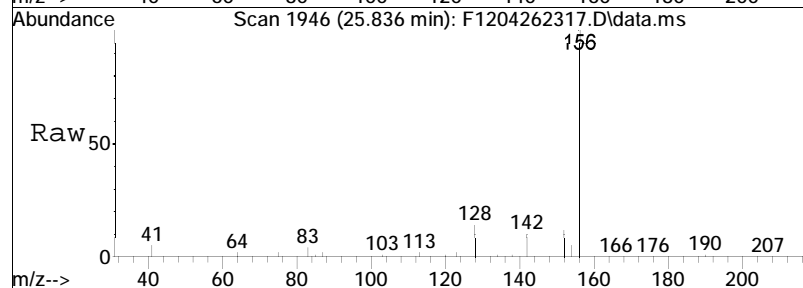
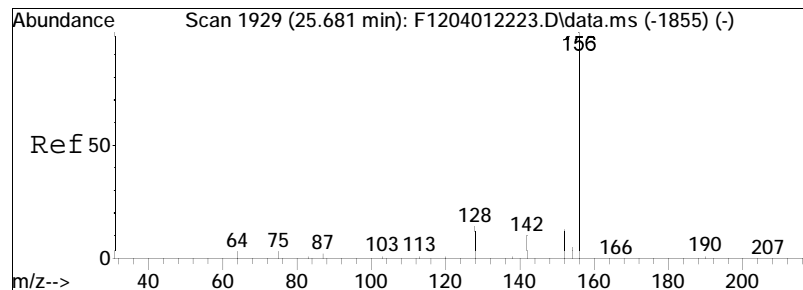




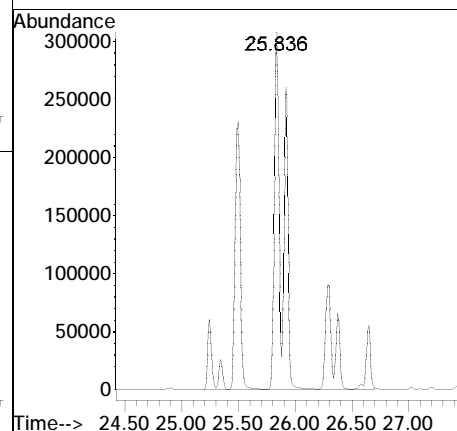
#10
 Cl-Naphthalenes
 Concen: 5615.55 ng/mL M5
 RT: 22.998 min Scan# 1635
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

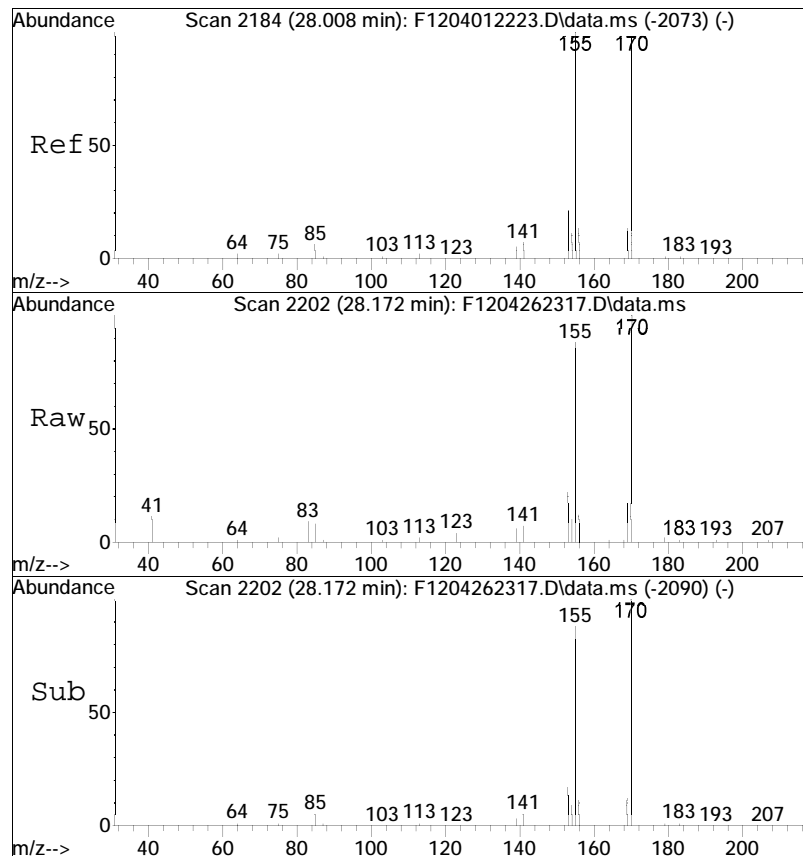
Tgt Ion:142 Resp: 2609065





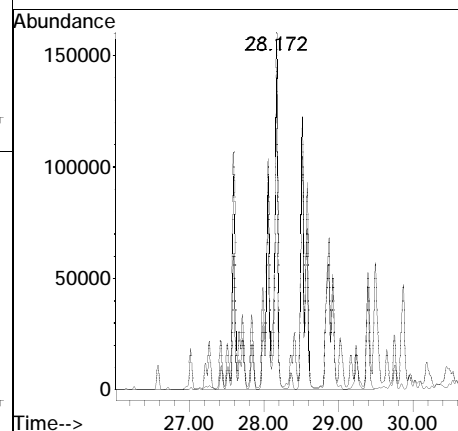
#11
 C2-Naphthalenes
 Concen: 6555.77 ng/mL M5
 RT: 25.836 min Scan# 1946
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:156 Resp: 3045902

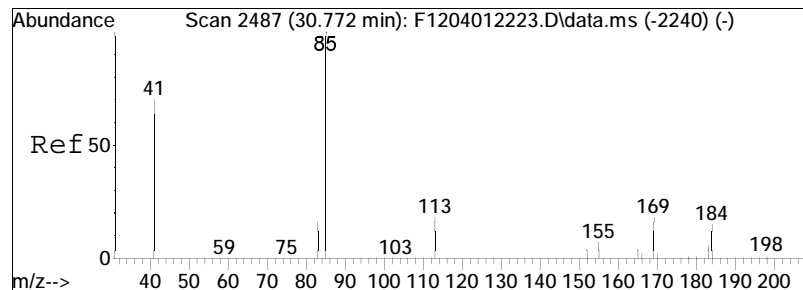




#12
 C3-Naphthalenes
 Concen: 4723.00 ng/mL M5
 RT: 28.172 min Scan# 2202
 Delta R.T. -0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

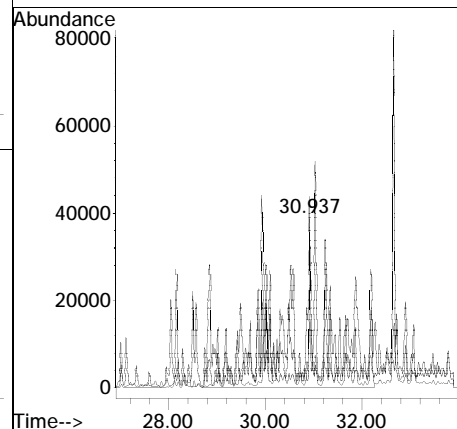
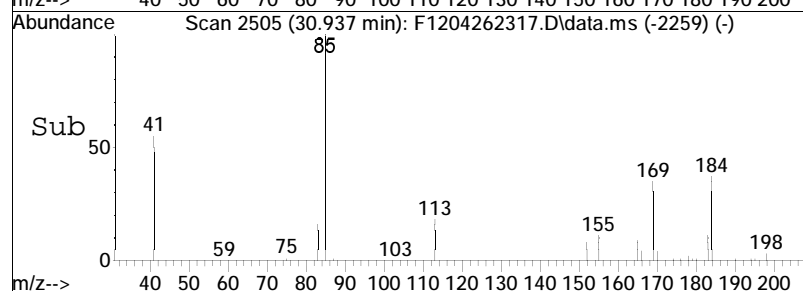
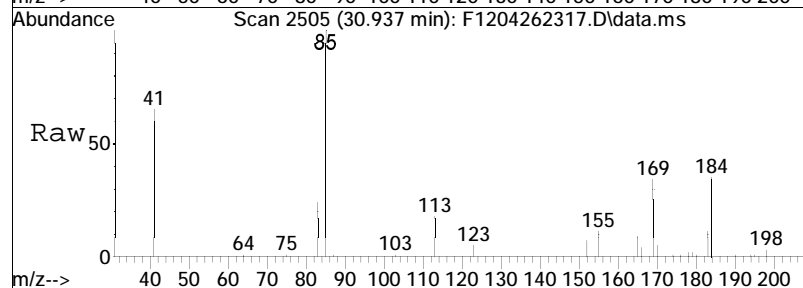
Tgt Ion	Ratio	Lower	Upper
170	100		
155	17.4	59.6	110.6#

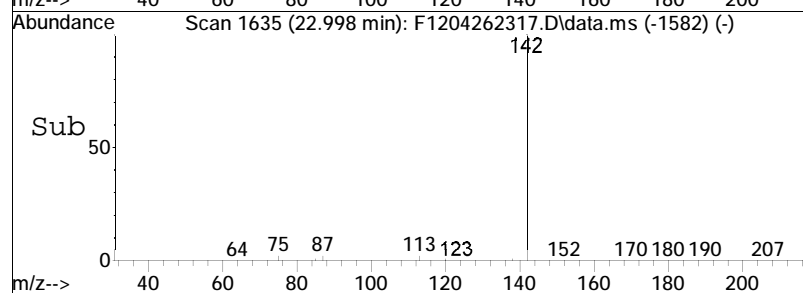
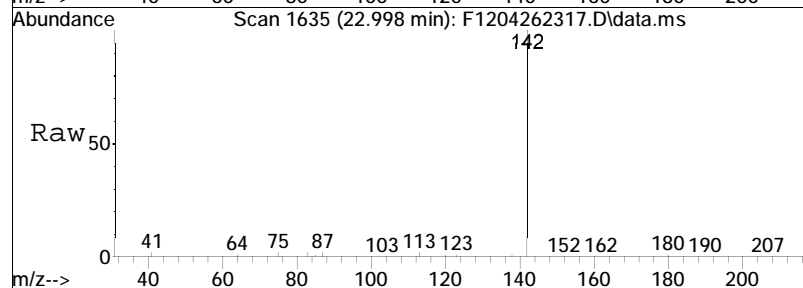
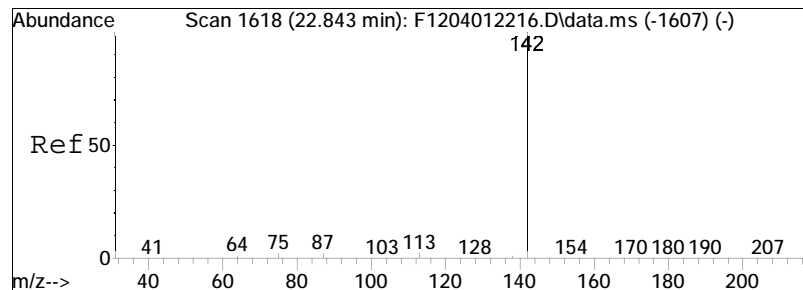




#13
 C4-Naphthalenes
 Concen: 2528.93 ng/mL M5
 RT: 30.937 min Scan# 2505
 Delta R.T. -0.007 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

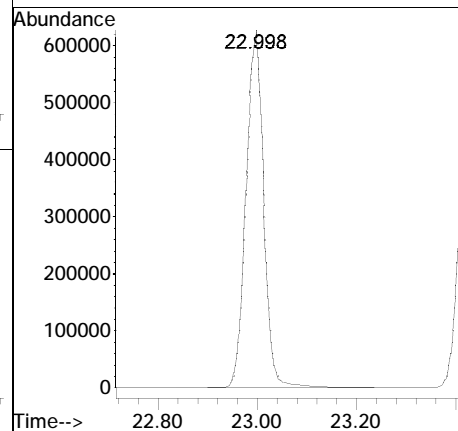
Tgt Ion	Ratio	Lower	Upper
184	100		
169	10.7	64.8	120.4#
183	2.8	20.2	37.6#

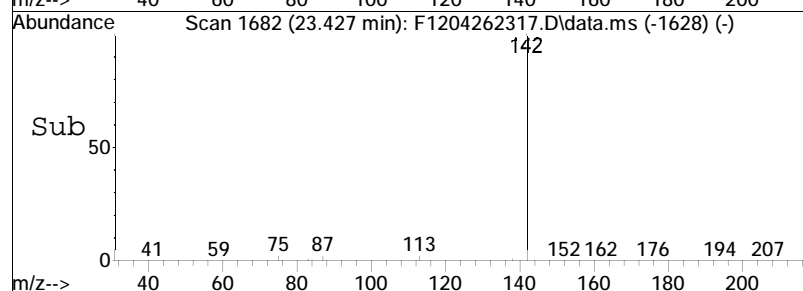
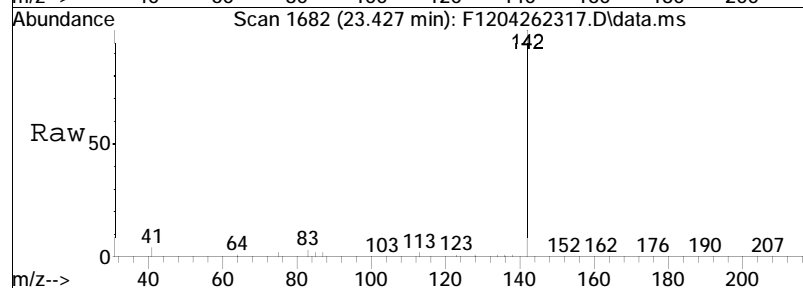
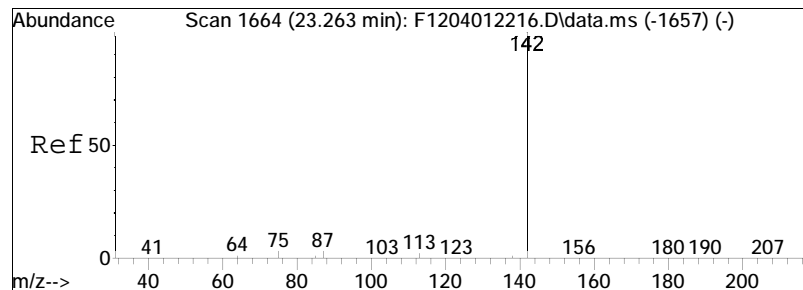




#14
 2-Methylnaphthalene
 Concen: 5381.23 ng/mL
 RT: 22.998 min Scan# 1635
 Delta R.T. -0.018 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

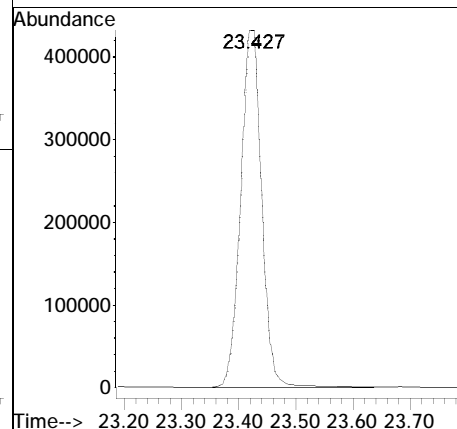
Tgt Ion:142 Resp: 1534535

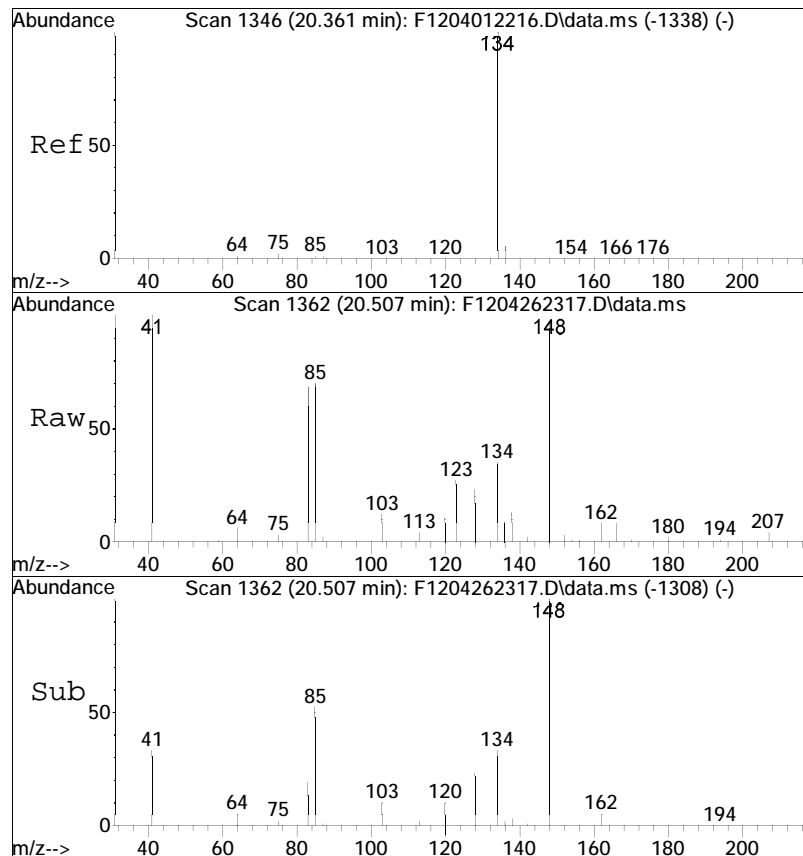




#15
 1-Methylnaphthalene
 Concen: 4006.78 ng/mL
 RT: 23.427 min Scan# 1682
 Delta R.T. -0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

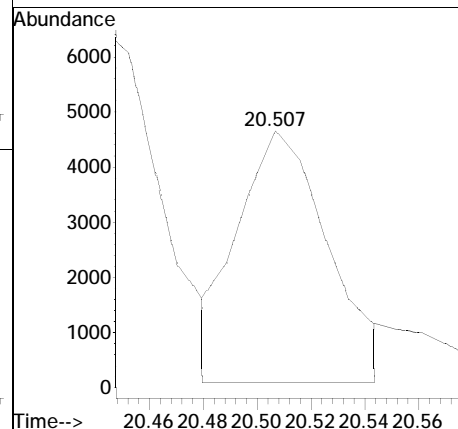
Tgt Ion:142 Resp: 1080745

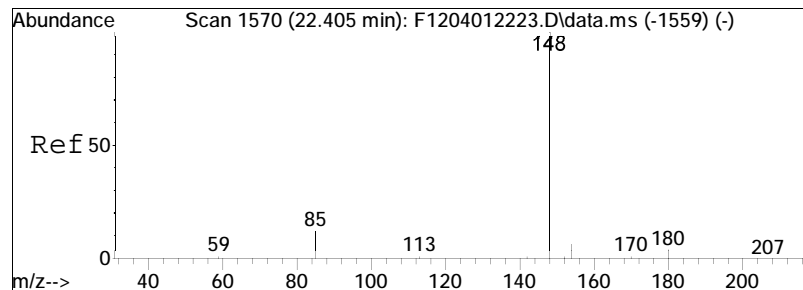




#16
Benzothiophene
Concen: 28.48 ng/mL M3
RT: 20.507 min Scan# 1362
Delta R.T. -0.009 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

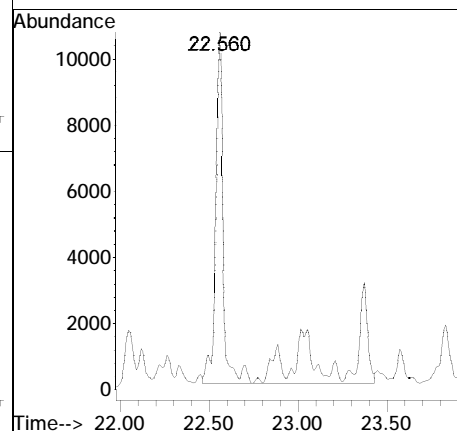
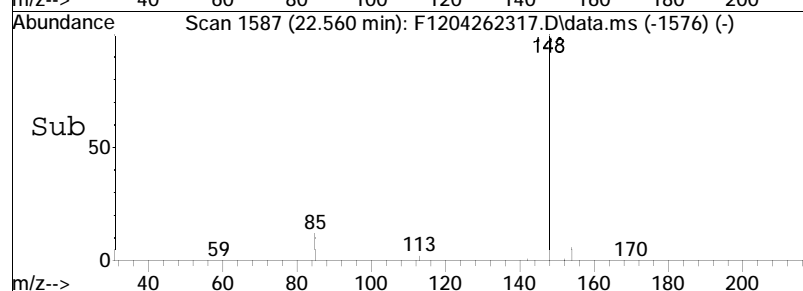
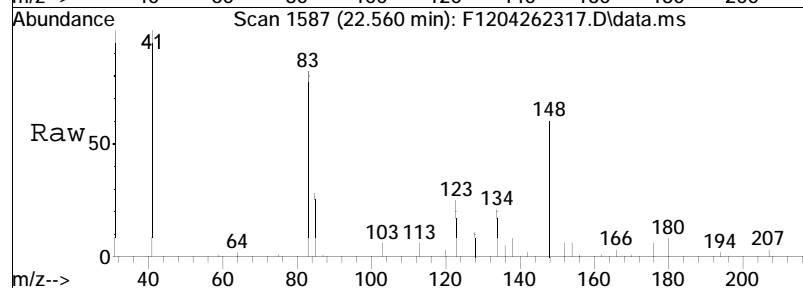
Tgt Ion:134 Resp: 10651

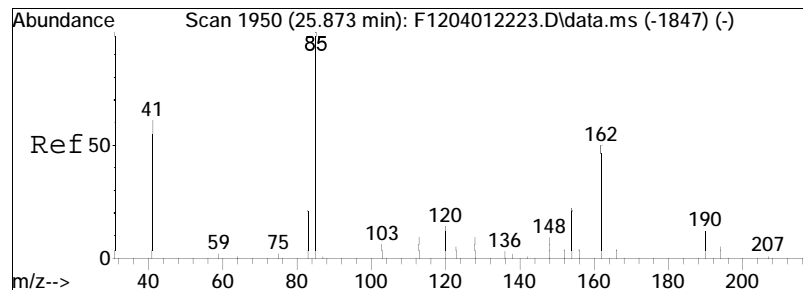




#17
 Cl-Benzo(b)thiophenes
 Concen: 150.12 ng/mL M5
 RT: 22.560 min Scan# 1587
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

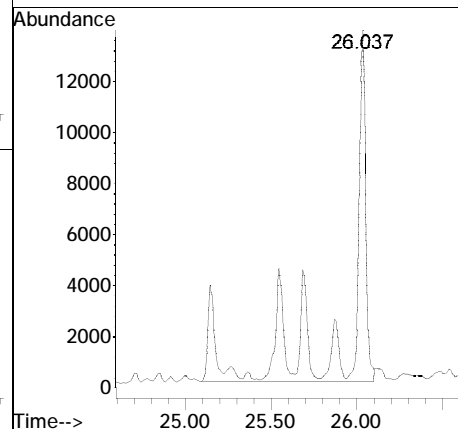
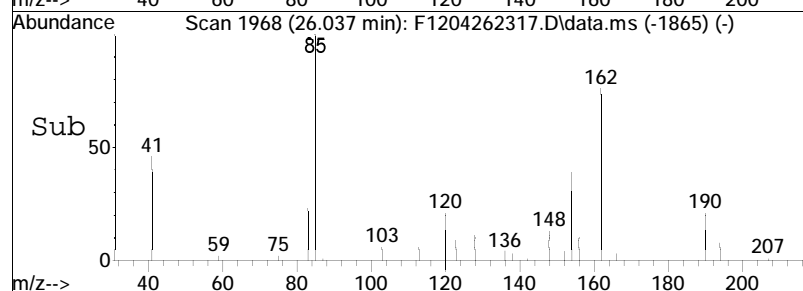
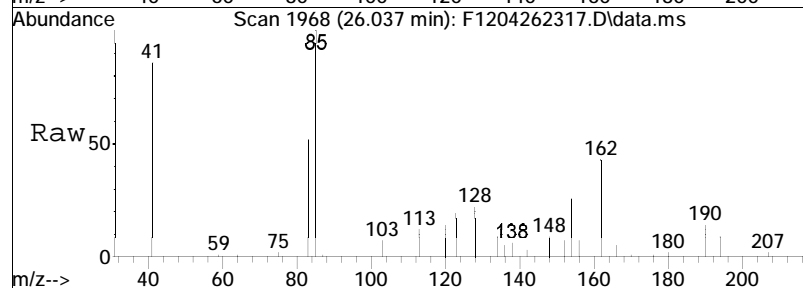
Tgt Ion:148 Resp: 56134

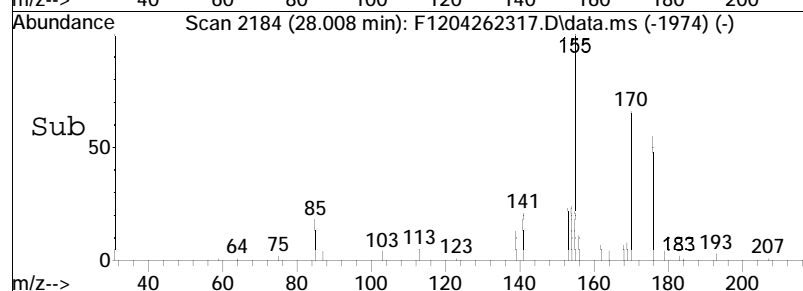
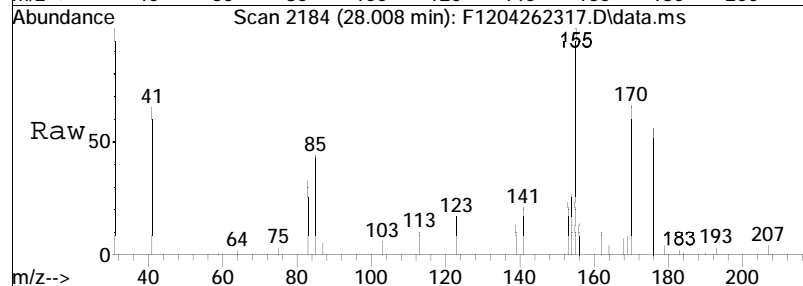
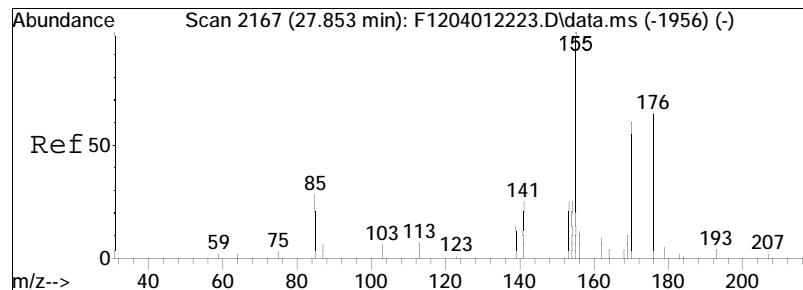




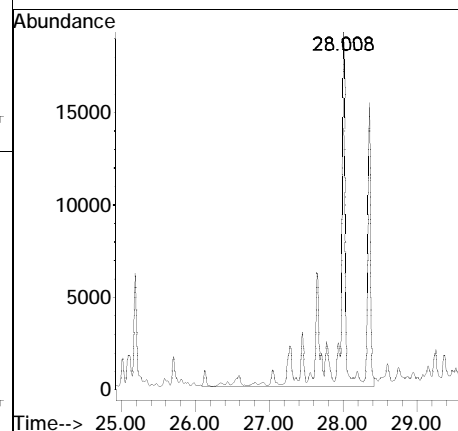
#18
 C2-Benzo(b)thiophenes
 Concen: 222.69 ng/mL M5
 RT: 26.037 min Scan# 1968
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

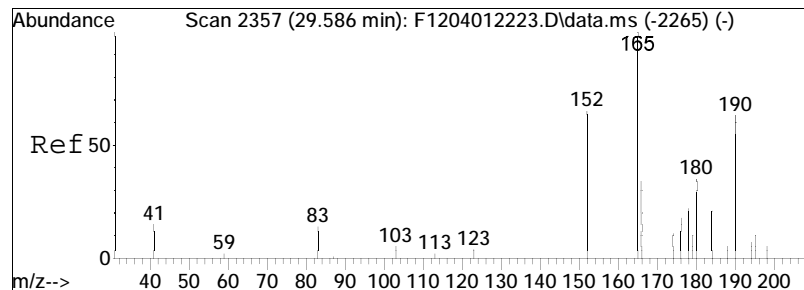
Tgt Ion:162 Resp: 83267





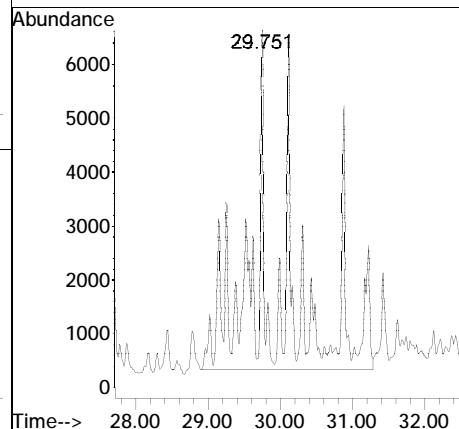
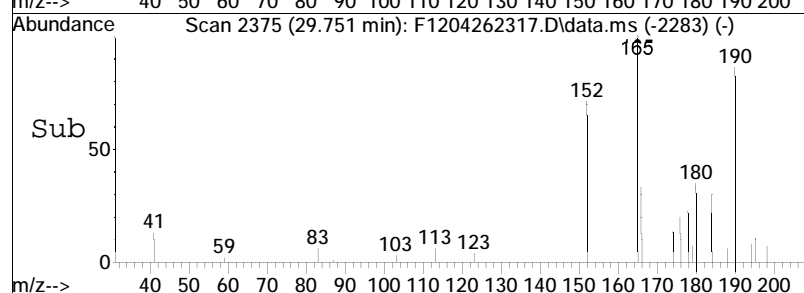
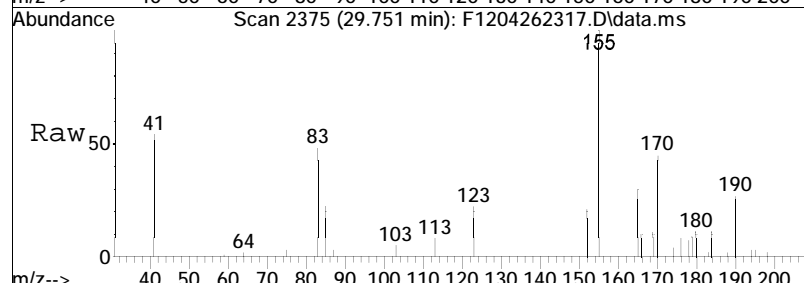
#19
 C3-Benzo(b)thiophenes
 Concen: 428.22 ng/mL M5
 RT: 28.008 min Scan# 2184
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:176 Resp: 160120

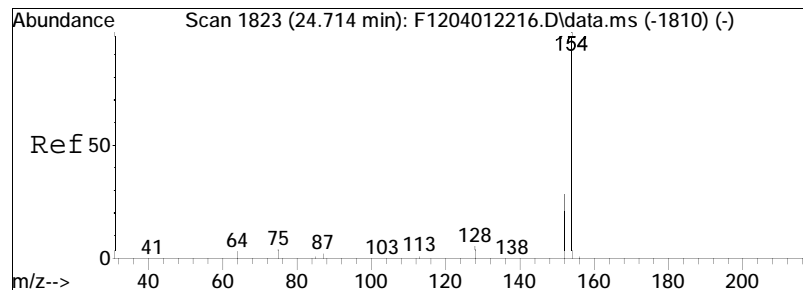




#20
 C4-Benzo(b)thiophenes
 Concen: 383.40 ng/mL M5
 RT: 29.751 min Scan# 2375
 Delta R.T. -0.008 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

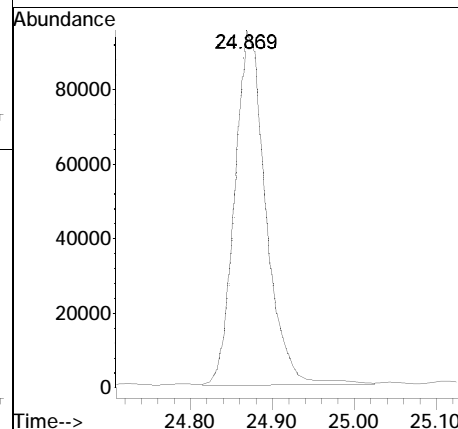
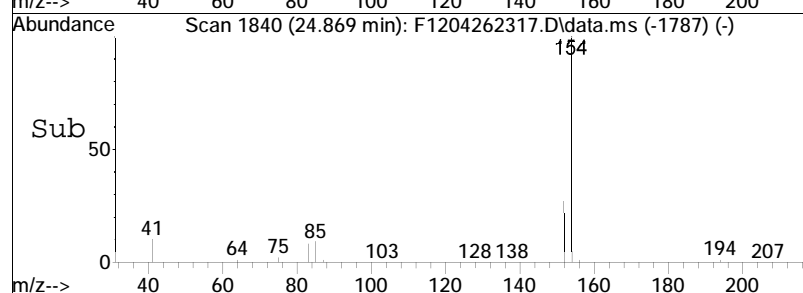
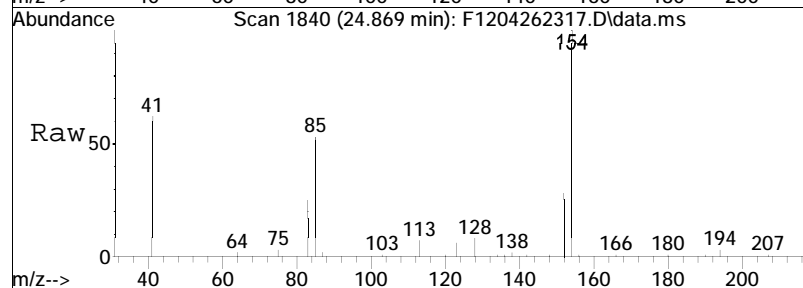
Tgt Ion:190 Resp: 143361

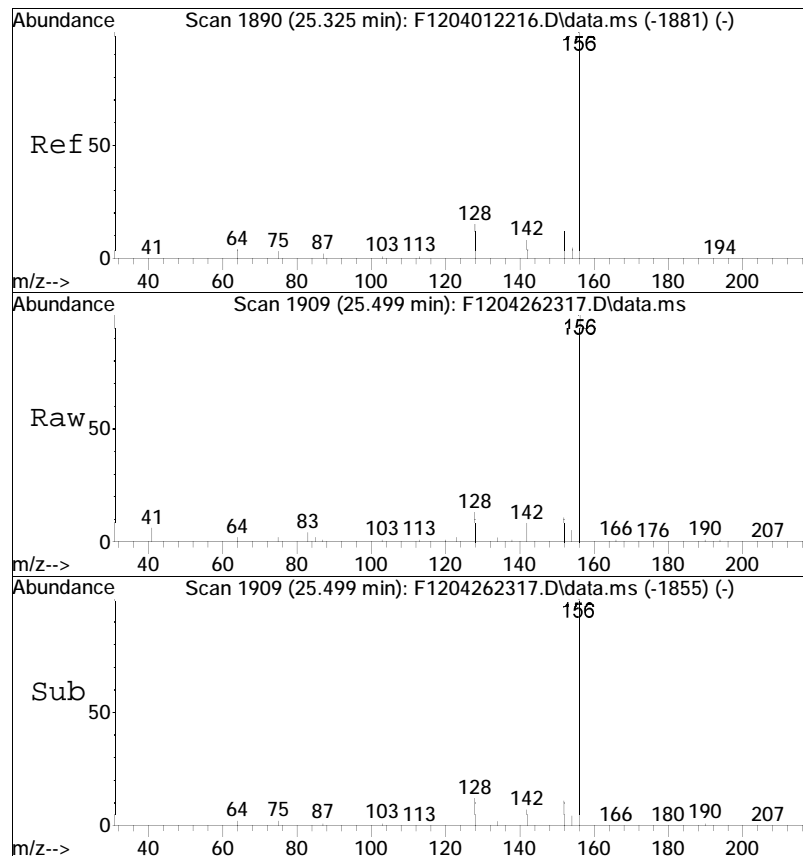




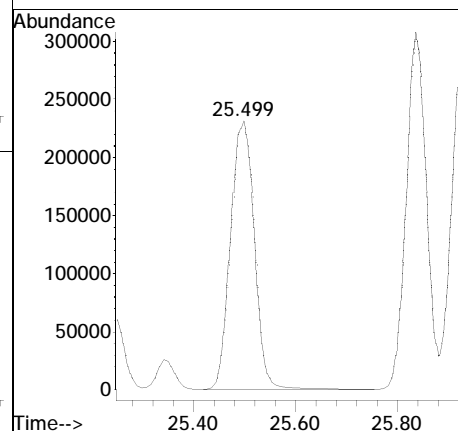
#21
Biphenyl
Concen: 703.75 ng/mL
RT: 24.869 min Scan# 1840
Delta R.T. -0.018 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

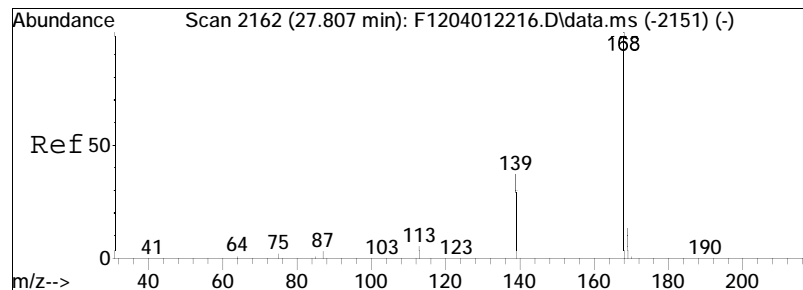
Tgt Ion:154 Resp: 249518





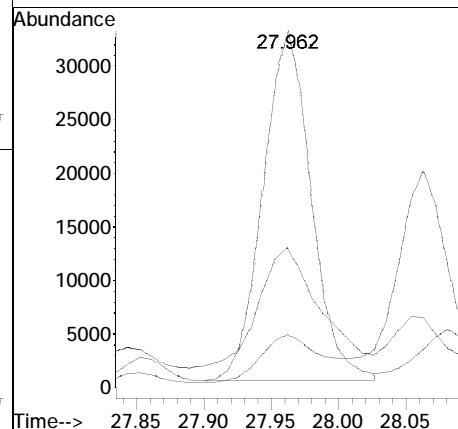
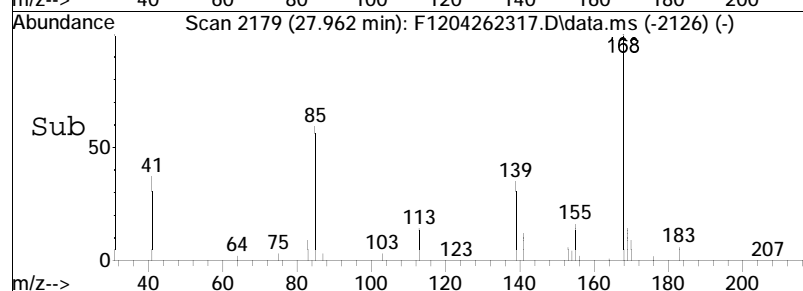
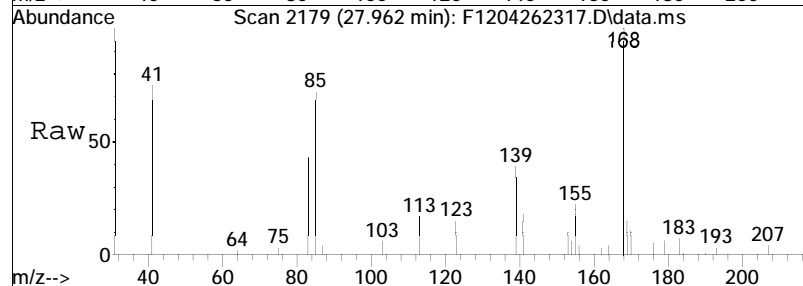
#22
 2,6-Dimethylnaphthalene
 Concen: 3205.48 ng/mL
 RT: 25.499 min Scan# 1909
 Delta R.T. -0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:156 Resp: 749136

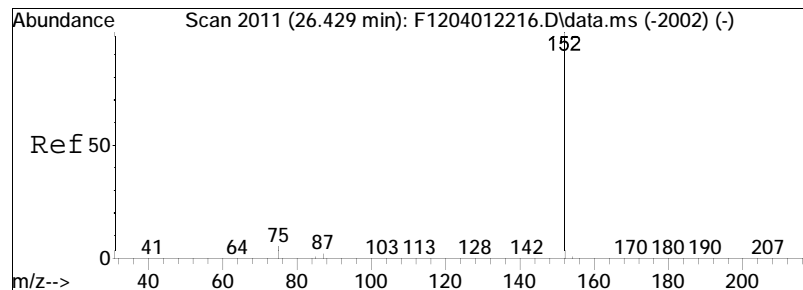




#23
Dibenzenofuran
Concen: 242.61 ng/mL
RT: 27.962 min Scan# 2179
Delta R.T. -0.019 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

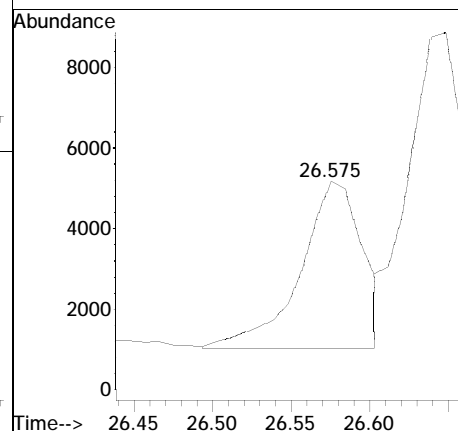
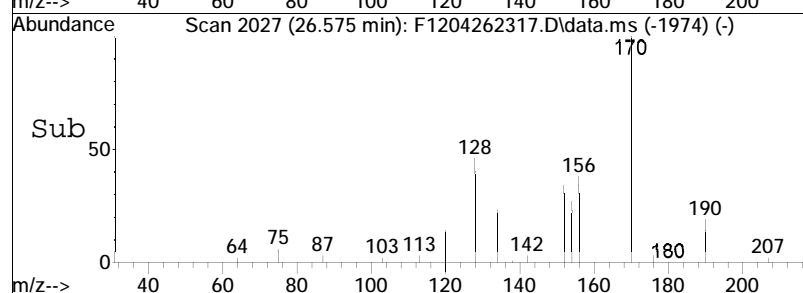
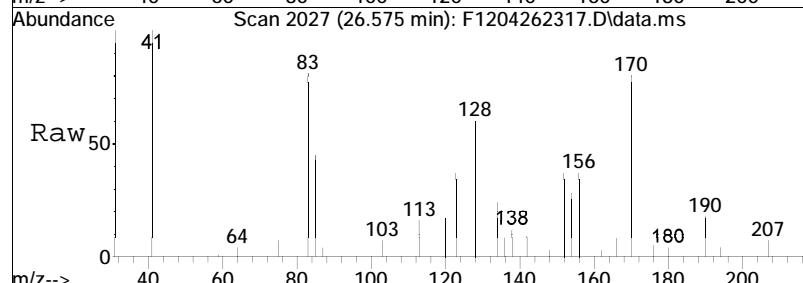
Tgt Ion	Ratio	Lower	Upper
168	100		
139	43.8	24.2	45.0
169	18.4	9.4	17.4#

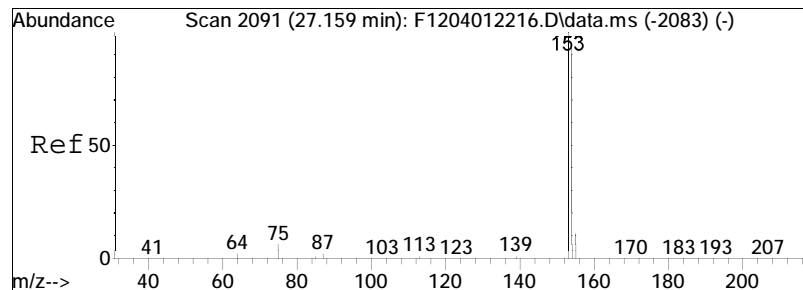




#24
 Acenaphthylene
 Concen: 28.22 ng/mL M4
 RT: 26.575 min Scan# 2027
 Delta R.T. -0.019 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

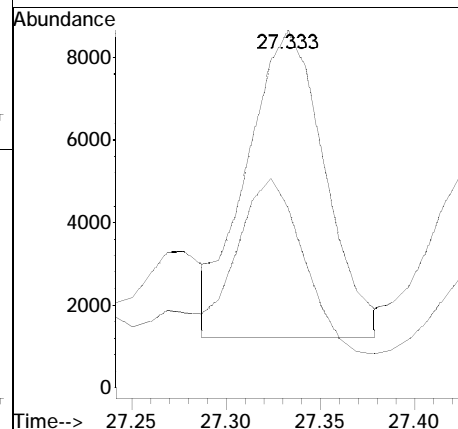
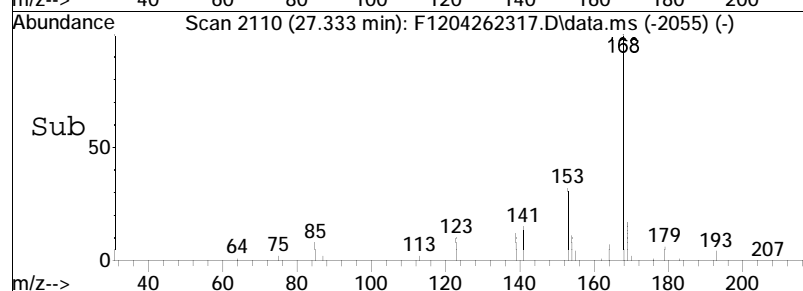
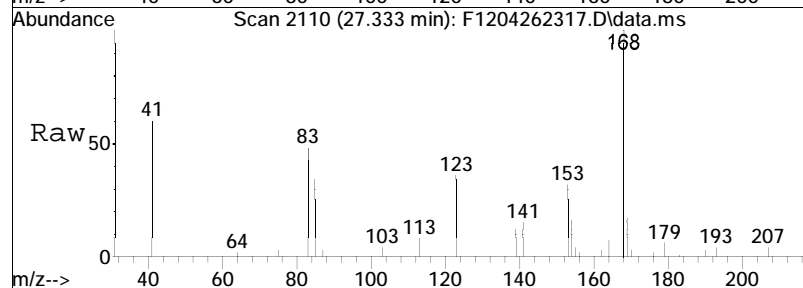
Tgt Ion:152 Resp: 11310

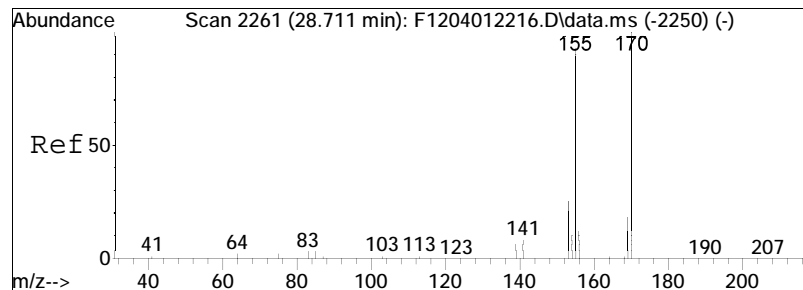




#25
 Acenaphthene
 Concen: 82.44 ng/mL M3
 RT: 27.333 min Scan# 2110
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

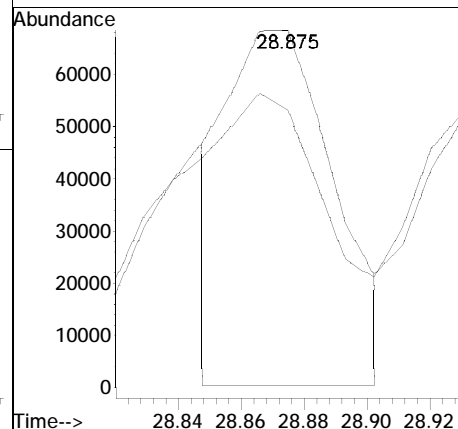
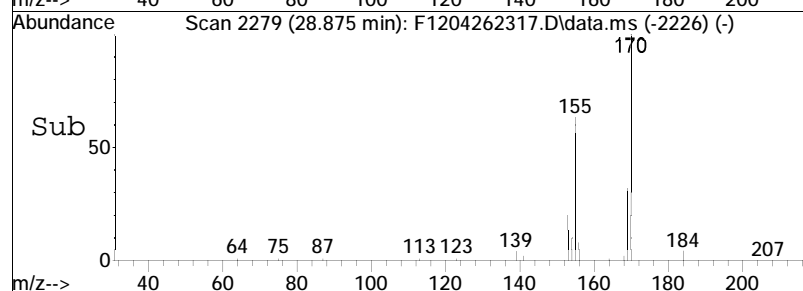
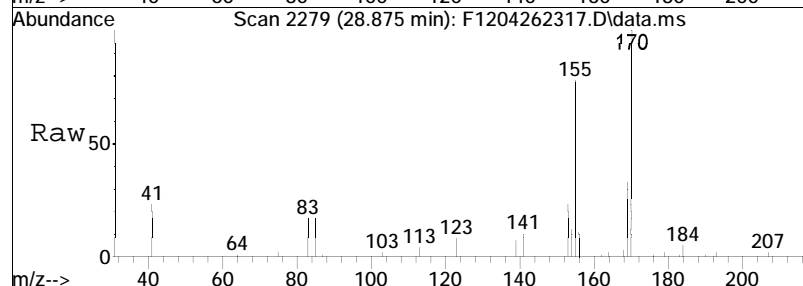
Tgt Ion	Ratio	Lower	Upper
153	100		
154	60.0	66.2	123.0#

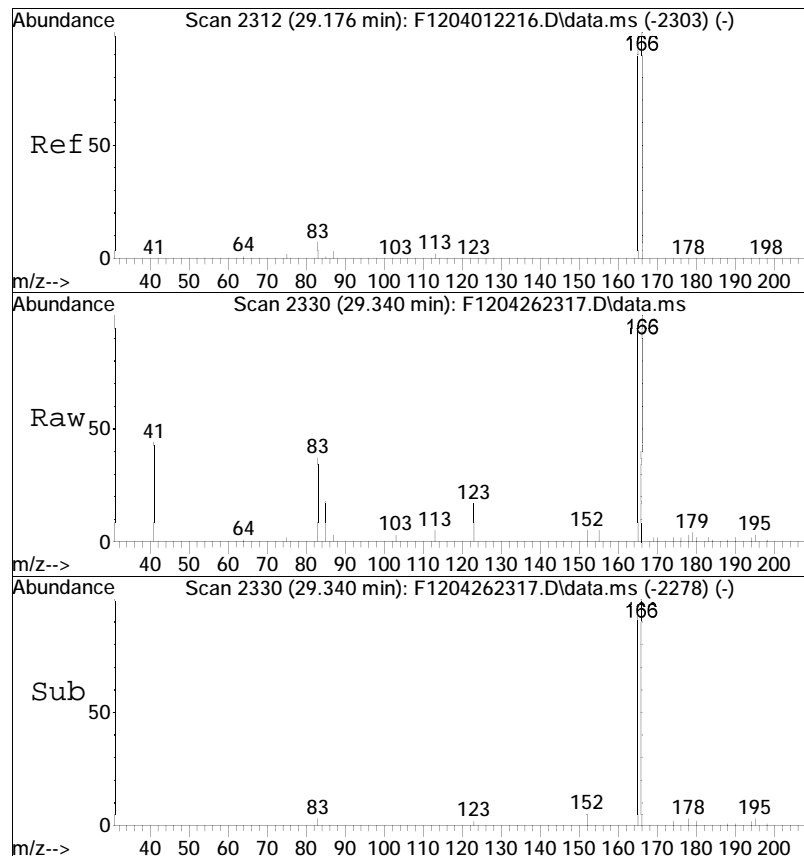




#26
 2,3,5-Trimethylnaphthalene
 Concen: 746.86 ng/mL M3
 RT: 28.875 min Scan# 2279
 Delta R.T. -0.018 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

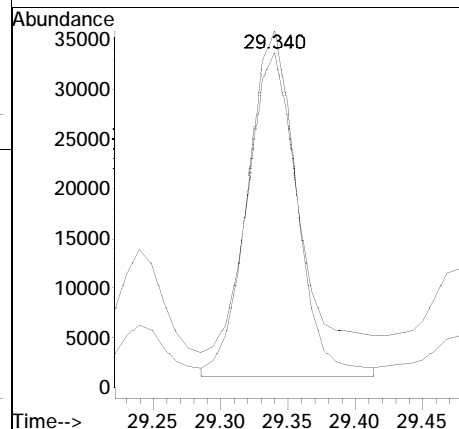
Tgt Ion	Ratio	Lower	Upper
170	100		
155	126.6	61.0	113.2#

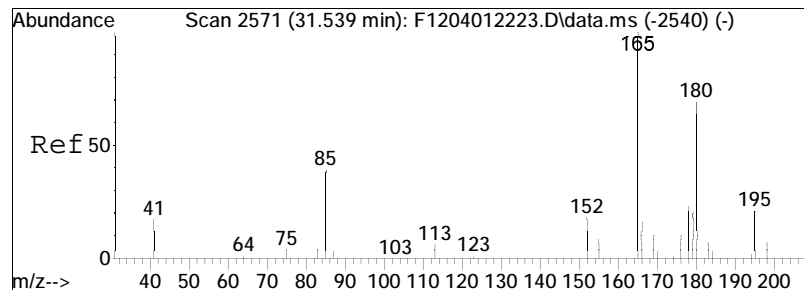




#27
 Fluorene
 Concen: 325.18 ng/mL M4
 RT: 29.340 min Scan# 2330
 Delta R.T. -0.028 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

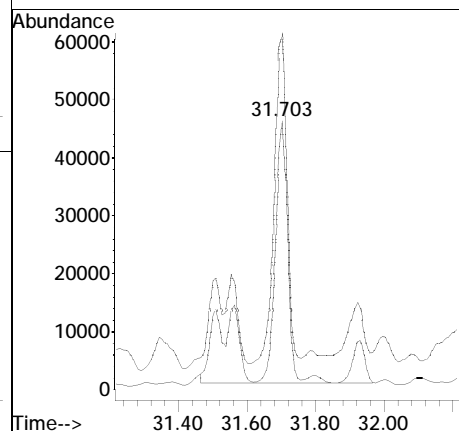
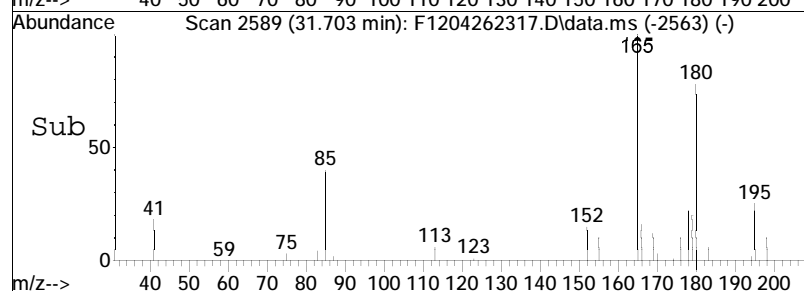
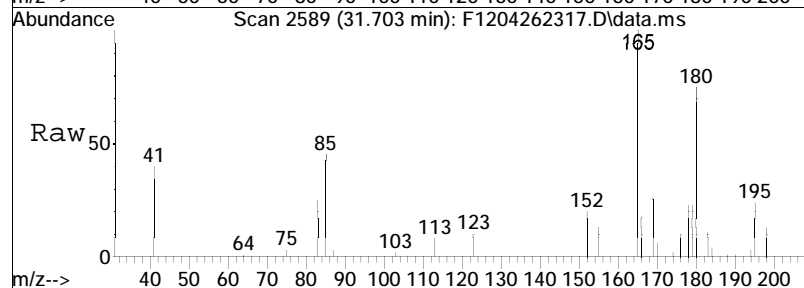
Tgt	Ion	Ratio	Lower	Upper
166	100			
165	111.9	64.6	120.0	

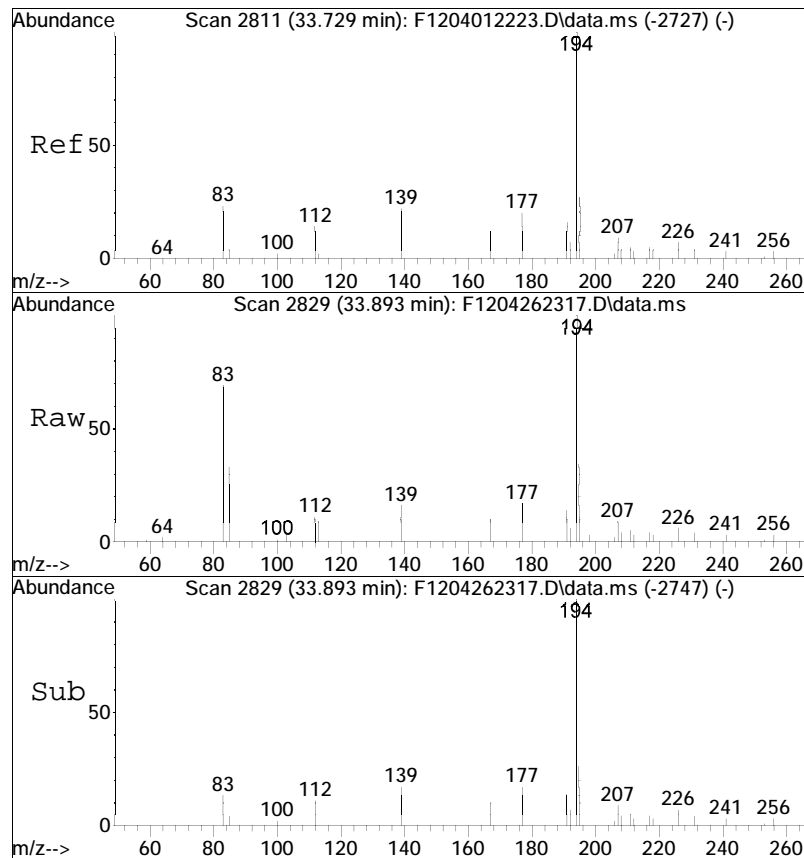




#28
 Cl-Fluorenes
 Concen: 711.35 ng/mL M5
 RT: 31.703 min Scan# 2589
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

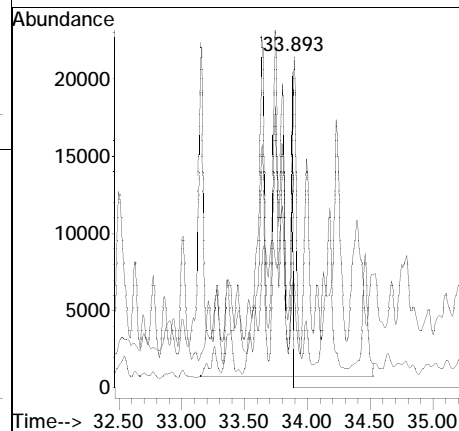
Tgt Ion	Ratio	Lower	Upper
180	100		
165	75.2	92.1	171.1#

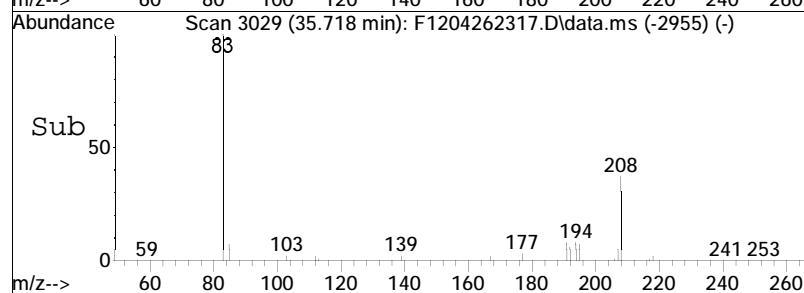
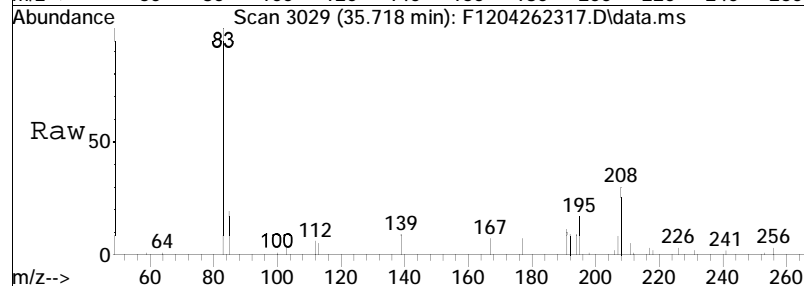
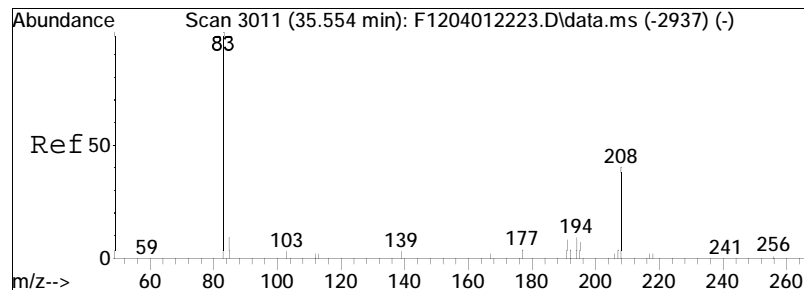




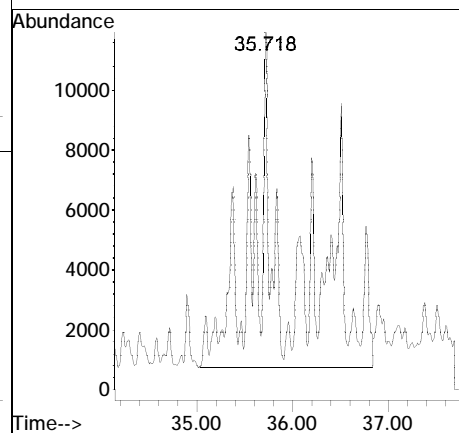
#29
 C2-Fluorenes
 Concen: 1136.20 ng/mL M5
 RT: 33.893 min Scan# 2829
 Delta R.T. -0.005 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

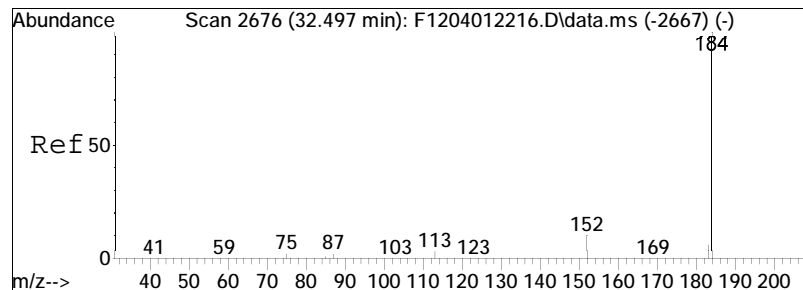
Tgt	Ion	Ratio	Lower	Upper
194	100			
179	8.0	0.0	0.0#	
195	3.9	23.8	44.2#	





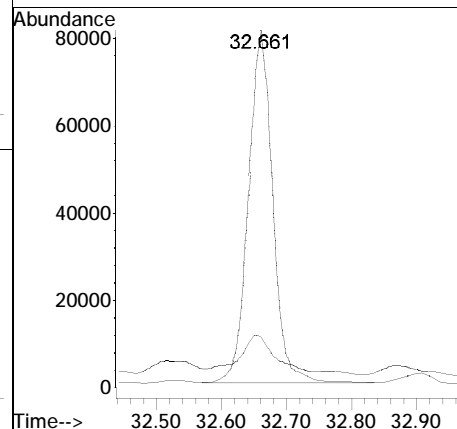
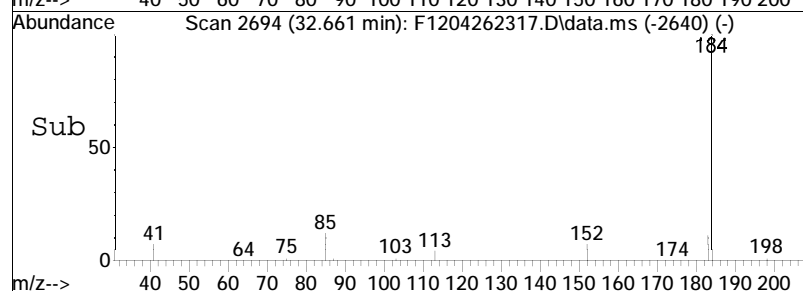
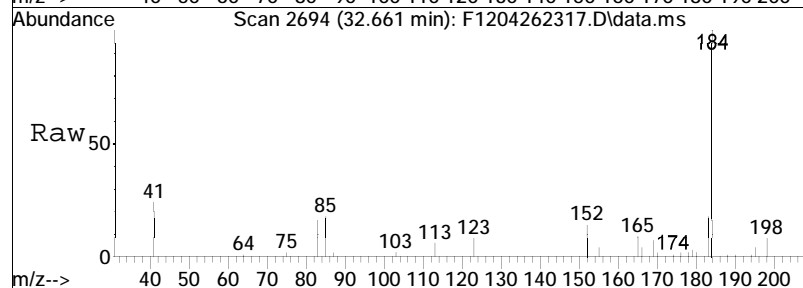
#30
C3-Fluorenes
Concen: 1046.44 ng/mL M5
RT: 35.718 min Scan# 3029
Delta R.T. -0.013 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm
Tgt Ion:208 Resp: 281595

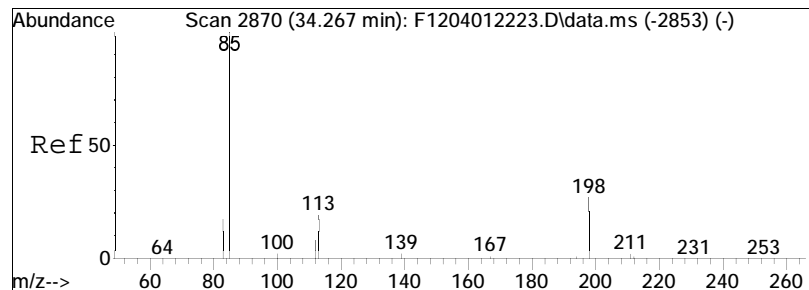




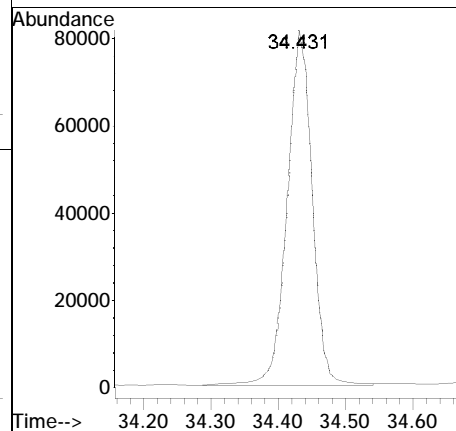
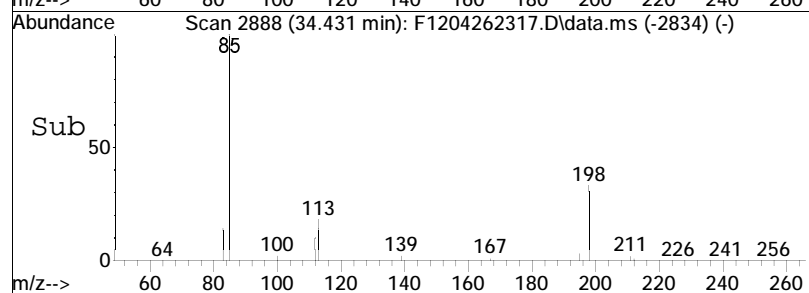
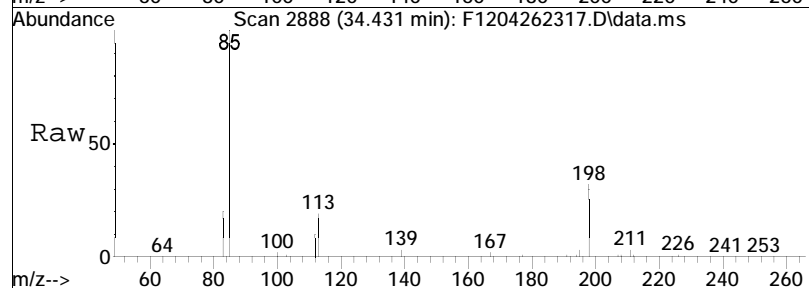
#31
 Dibenzothiophene
 Concen: 536.54 ng/mL
 RT: 32.661 min Scan# 2694
 Delta R.T. -0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

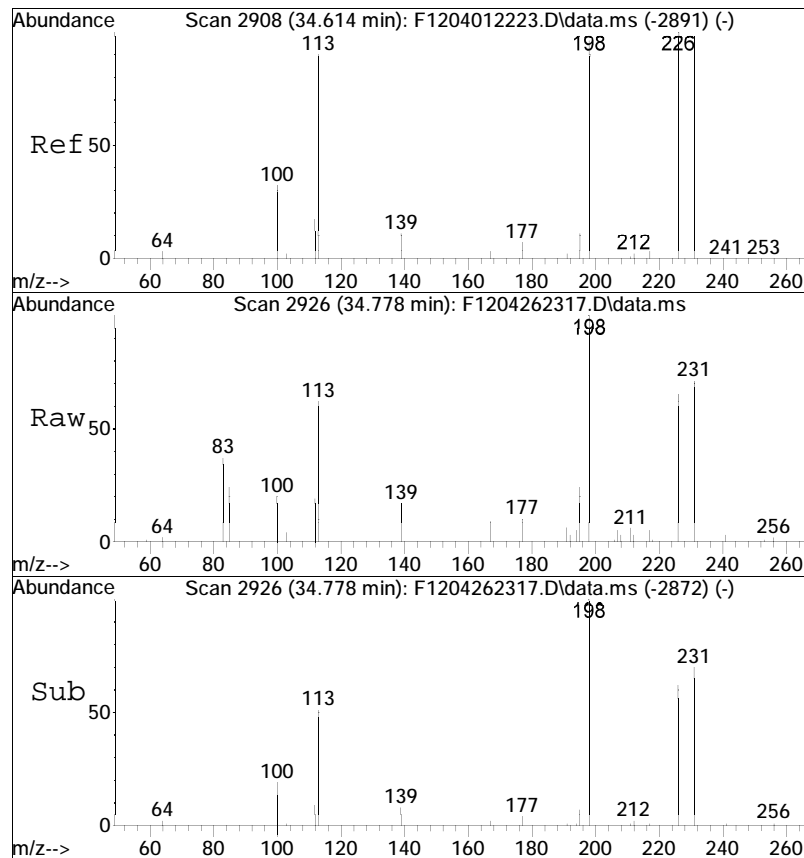
Tgt Ion	Ratio	Lower	Upper
184	100		
152	14.1	5.9	11.1#



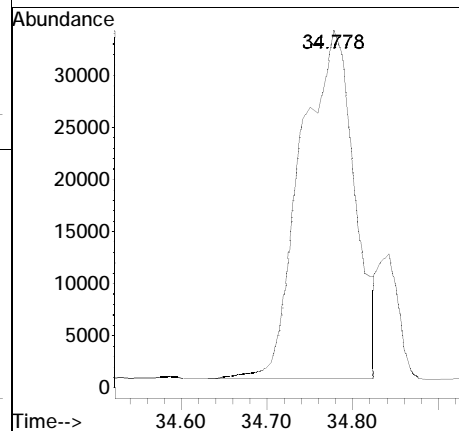


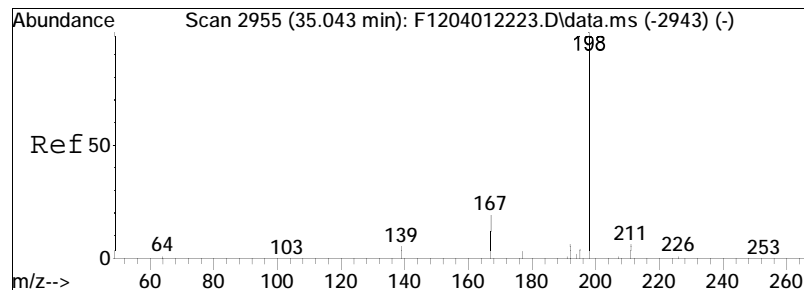
#32
4-Methyldibenzothiophene(4MDT)
Concen: 530.47 ng/mL
RT: 34.431 min Scan# 2888
Delta R.T. -0.005 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm
Tgt Ion:198 Resp: 206033



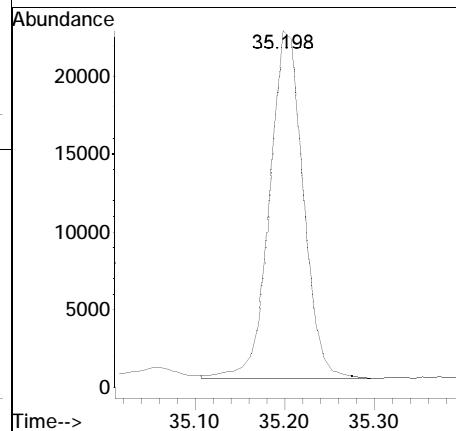
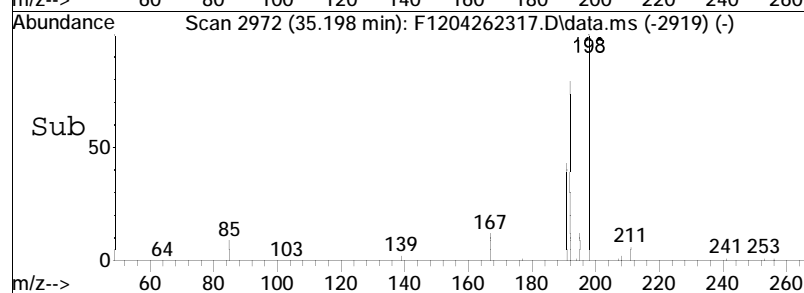
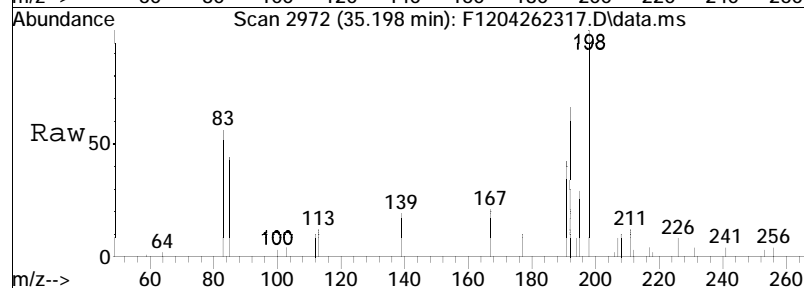


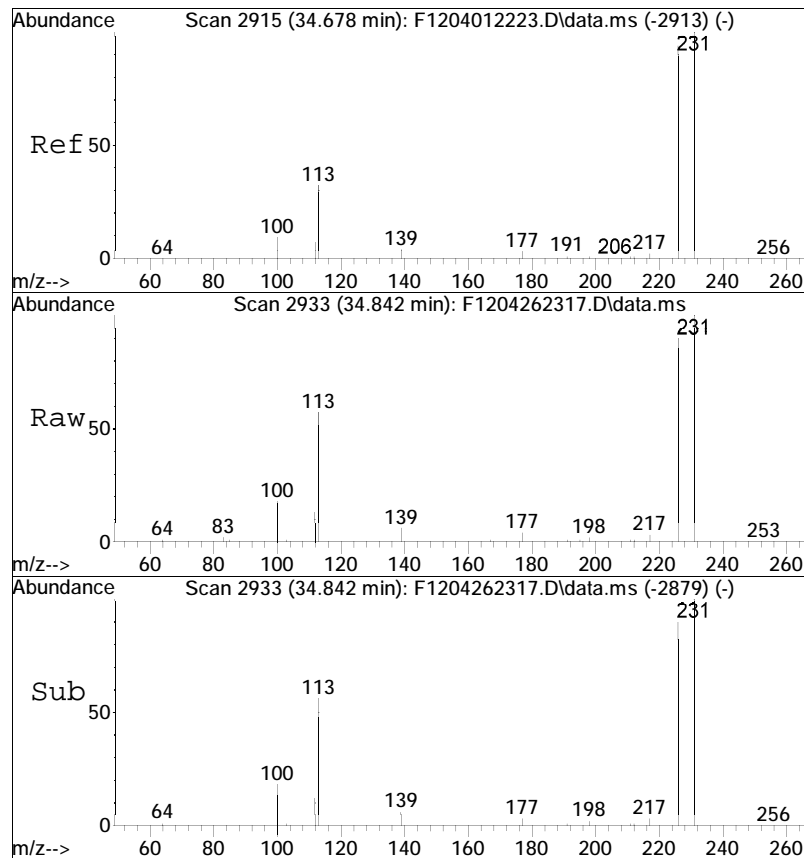
#33
 2/3-Methyldibenzothiophene(2MD)
 Concen: 374.82 ng/mL
 RT: 34.778 min Scan# 2926
 Delta R.T. -0.005 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:198 Resp: 145581



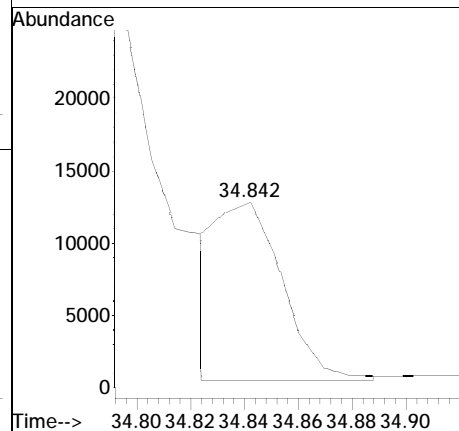


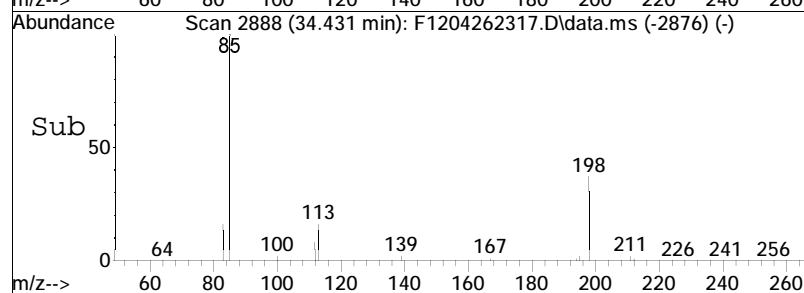
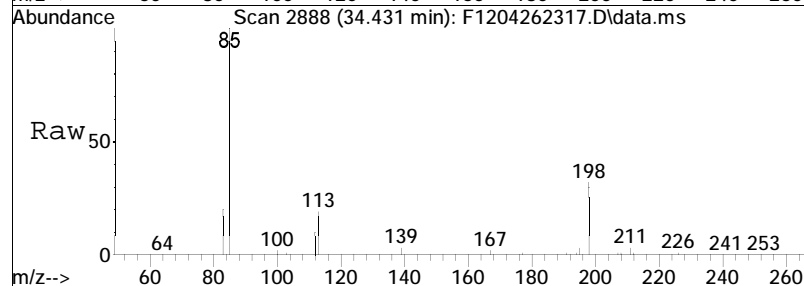
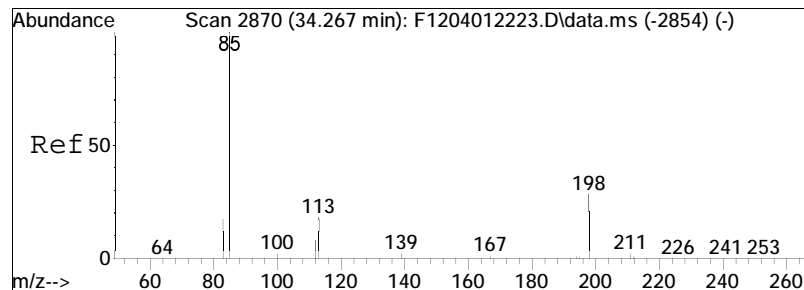
#34
1-Methyldibenzothiophene(1MDT)
Concen: 147.79 ng/mL
RT: 35.198 min Scan# 2972
Delta R.T. -0.014 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm
Tgt Ion:198 Resp: 57401





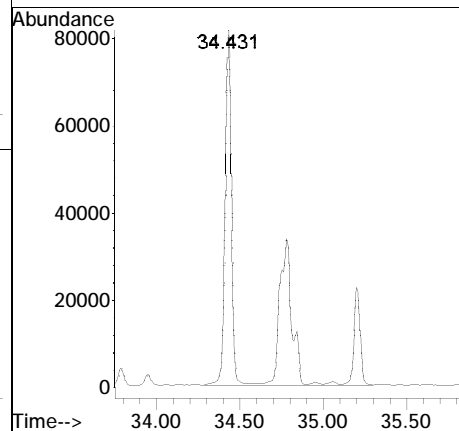
#35
 OTP
 Concen: 52.69 ng/mL M3
 RT: 34.842 min Scan# 2933
 Delta R.T. -0.005 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:198 Resp: 20466

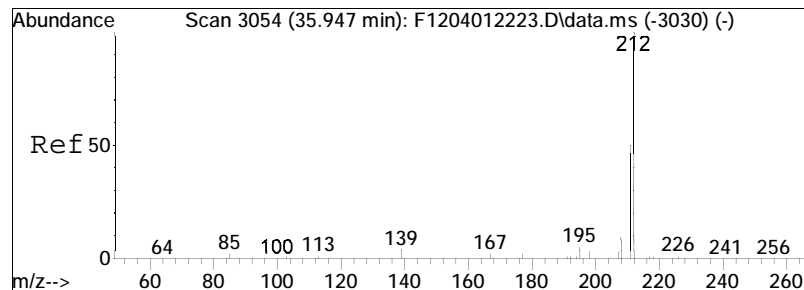




#36
Cl-Dibenzothiophenes
Concen: 1129.14 ng/mL M5
RT: 34.431 min Scan# 2888
Delta R.T. -0.005 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

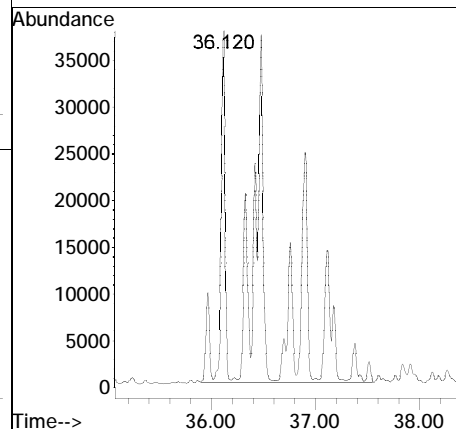
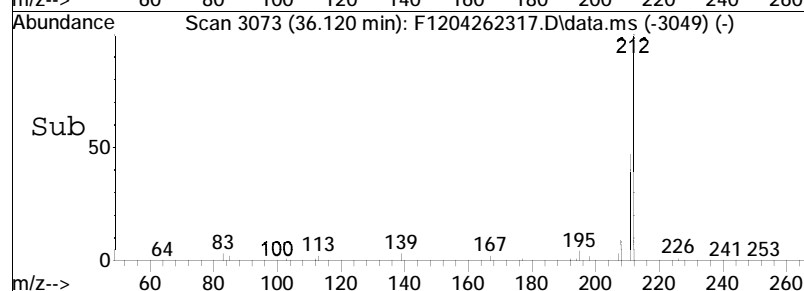
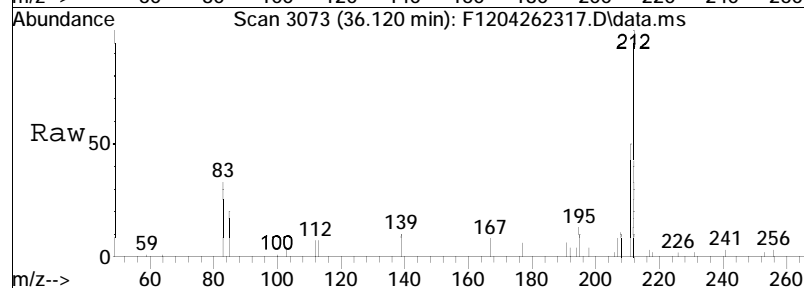
Tgt Ion:198 Resp: 438555

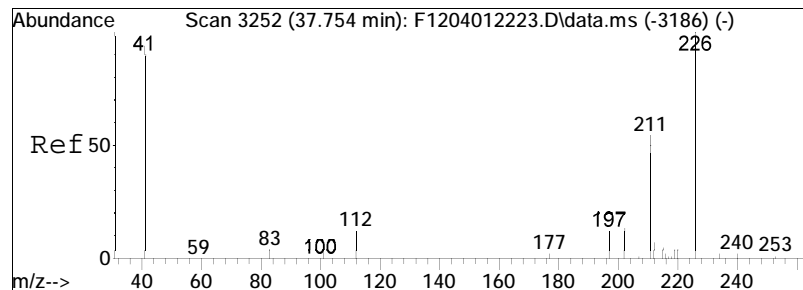




#37
C2-Dibenzothiophenes
Concen: 1436.04 ng/mL M5
RT: 36.120 min Scan# 3073
Delta R.T. 0.009 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

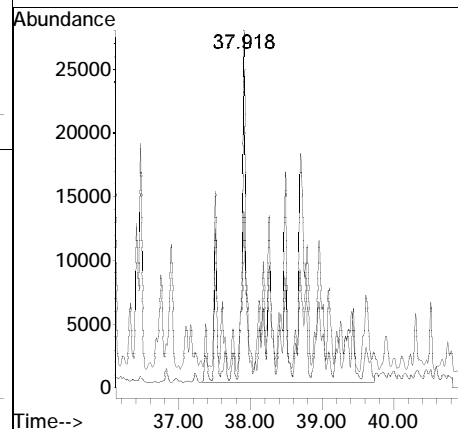
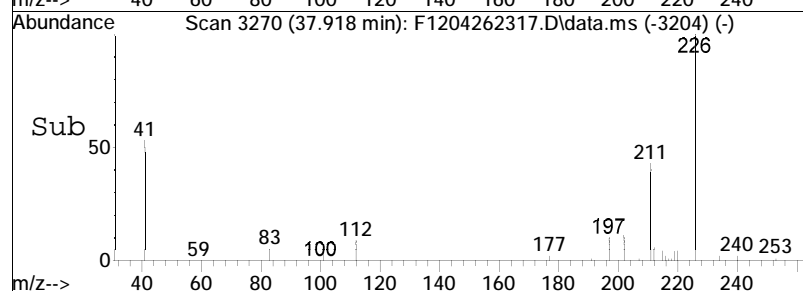
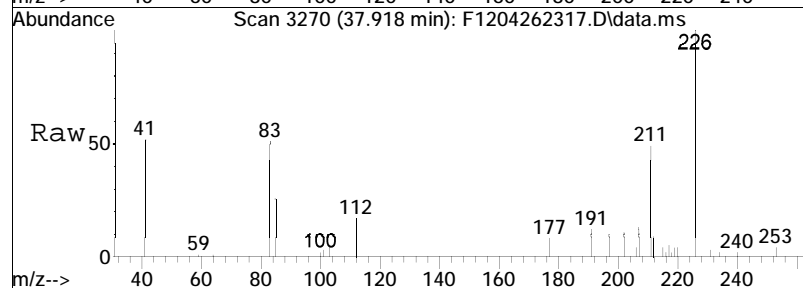
Tgt Ion:212 Resp: 557757

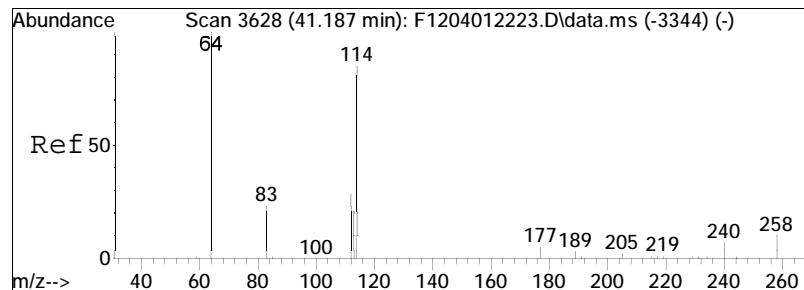




#38
 C3-Dibenzothiophenes
 Concen: 1354.99 ng/mL M5
 RT: 37.918 min Scan# 3270
 Delta R.T. -0.003 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

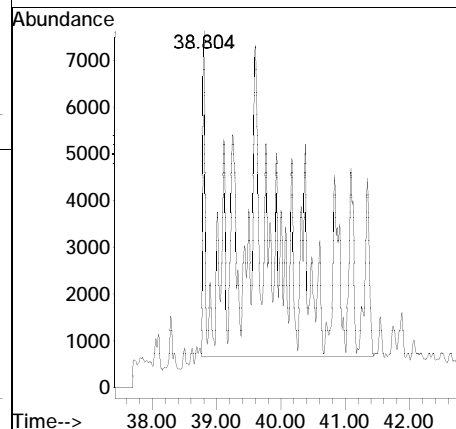
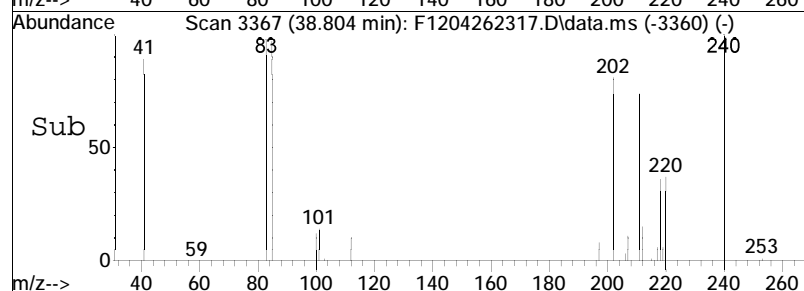
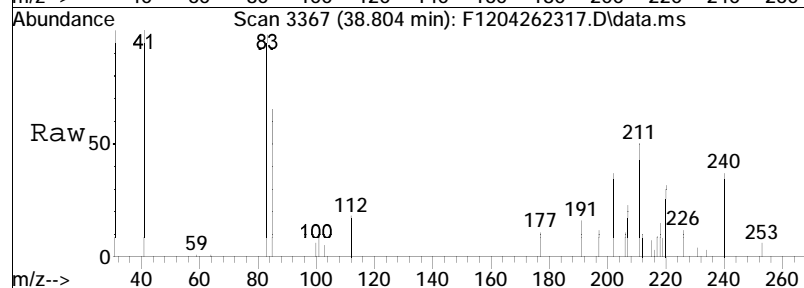
Tgt Ion	Ratio	Lower	Upper
226	100		
211	11.0	34.6	64.3#

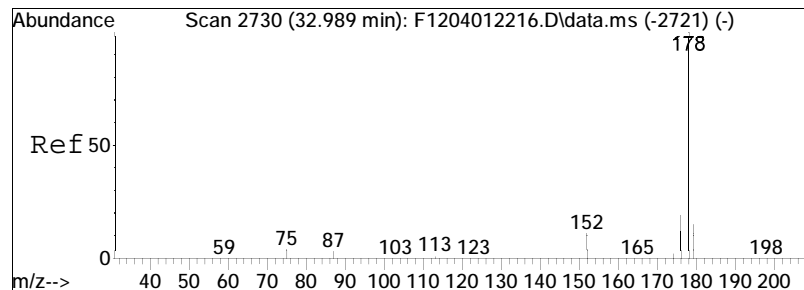




#39
 C4-Dibenzothiophenes
 Concen: 788.63 ng/mL M5
 RT: 38.804 min Scan# 3367
 Delta R.T. -0.796 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

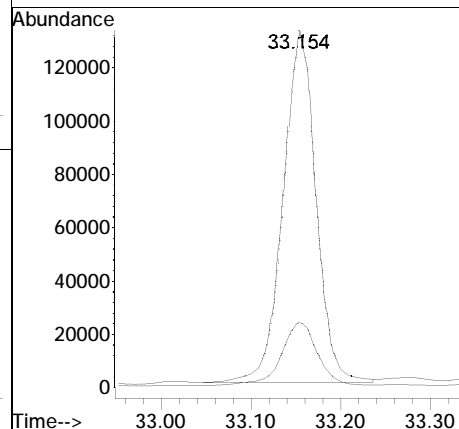
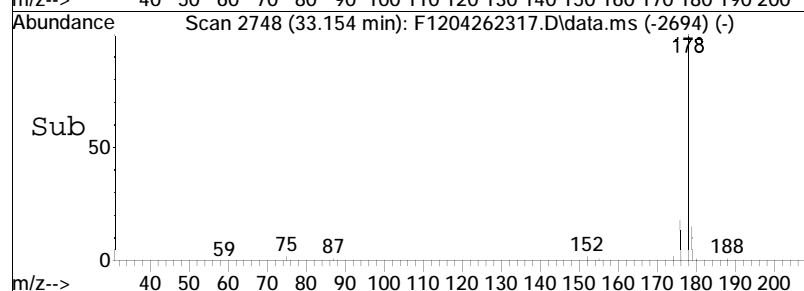
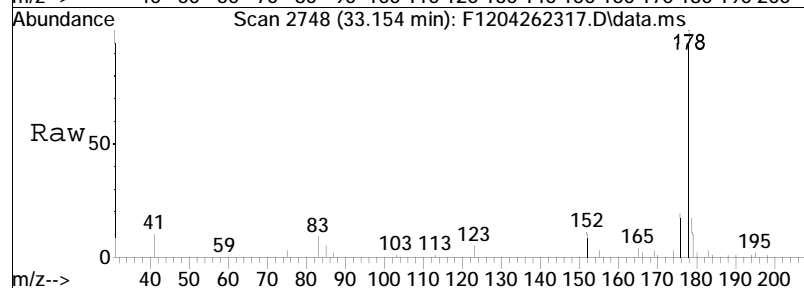
Tgt Ion: 240 Resp: 306304

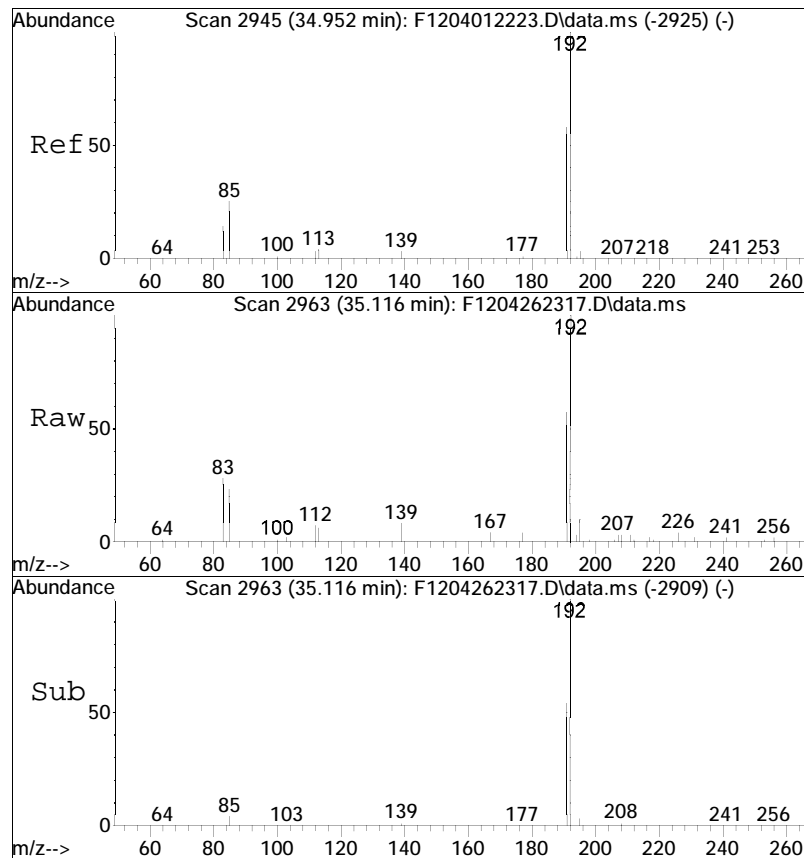




#41
 Phenanthrene
 Concen: 818.85 ng/mL
 RT: 33.154 min Scan# 2748
 Delta R.T. -0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

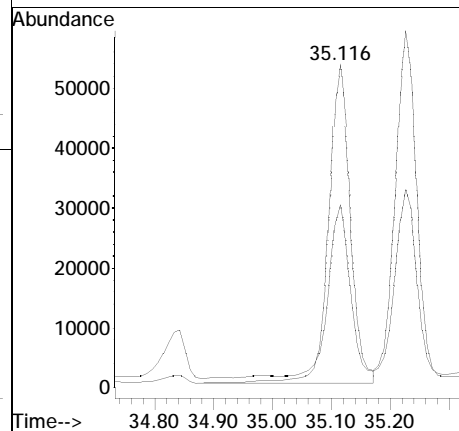
Tgt Ion	Ratio	Lower	Upper
178	100		
176	19.6	12.9	23.9

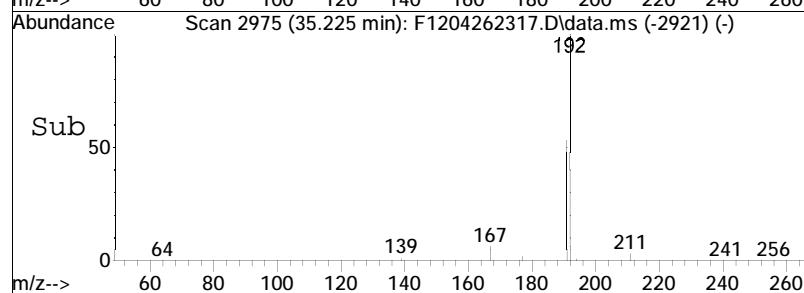
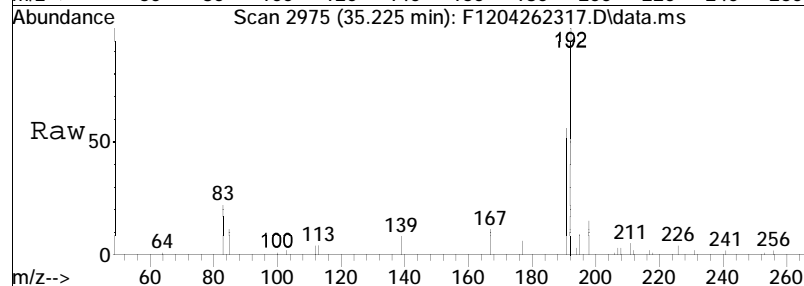
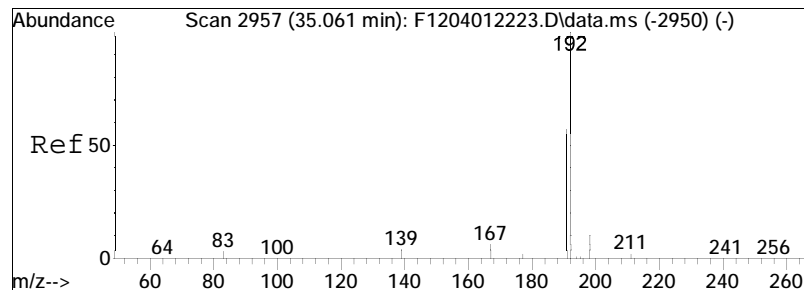




#42
 3-Methylphenanthrene (3MP)
 Concen: 335.68 ng/mL
 RT: 35.116 min Scan# 2963
 Delta R.T. -0.004 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

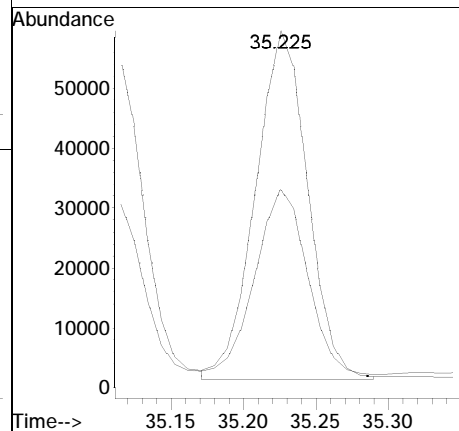
Tgt Ion	Ratio	Lower	Upper
192	100		
191	54.0	39.5	73.3

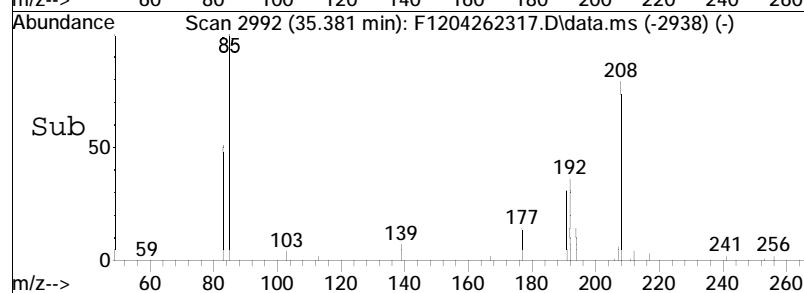
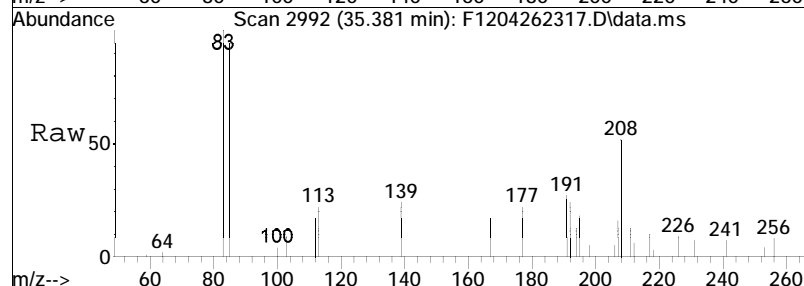
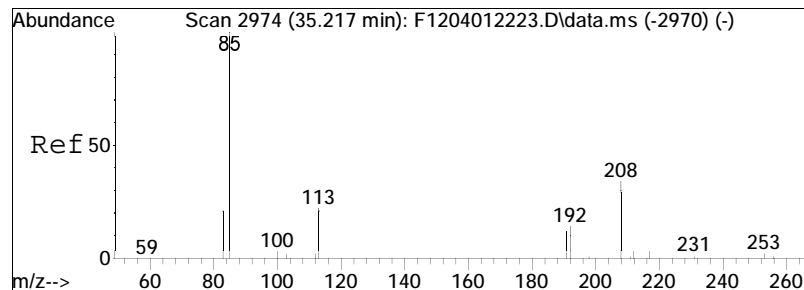




#43
 2-Methylphenanthrene (2MP)
 Concen: 359.32 ng/mL M4
 RT: 35.225 min Scan# 2975
 Delta R.T. -0.005 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

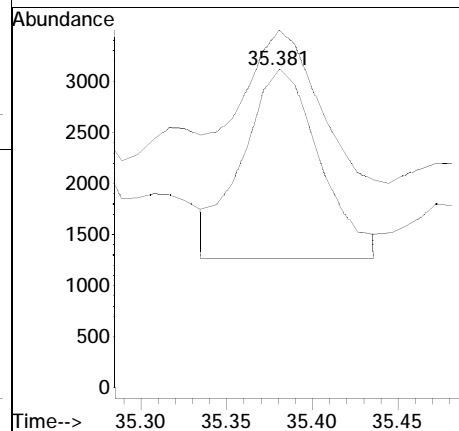
Tgt Ion	Ratio	Lower	Upper
192	100		
191	52.7	38.9	72.3

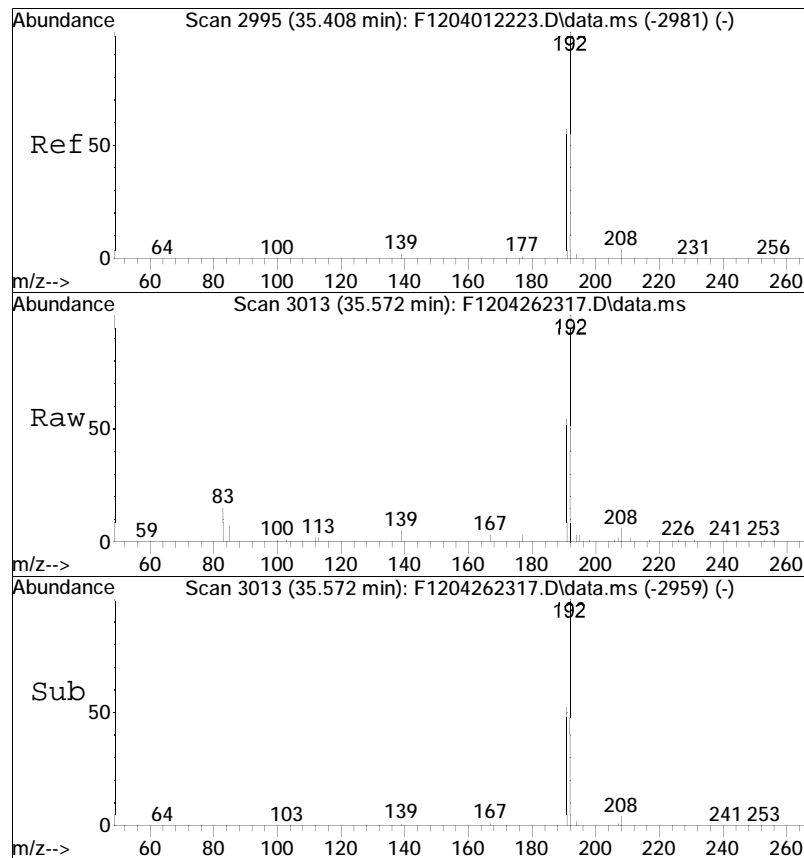




#44
 2-Methylantracene(2MA)
 Concen: 14.29 ng/mL M4
 RT: 35.381 min Scan# 2992
 Delta R.T. -0.004 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

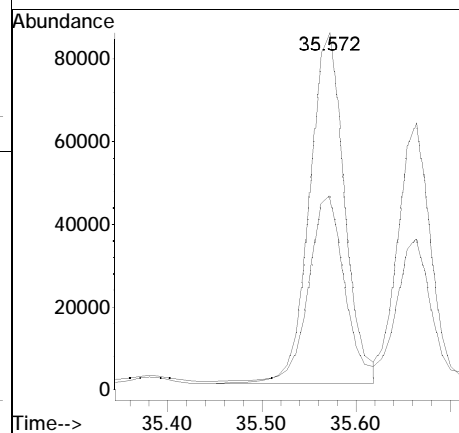
Tgt Ion	Ratio	Lower	Upper
192	100		
191	73.9	82.0	152.2#

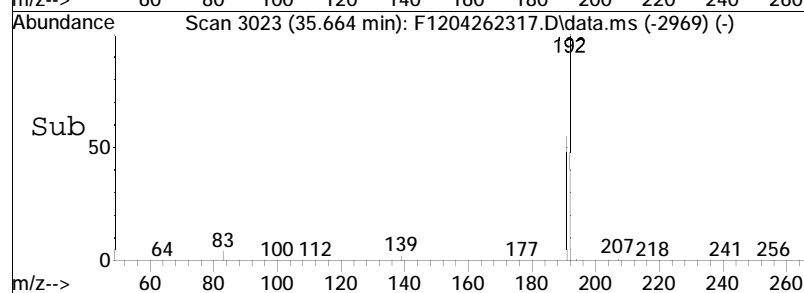
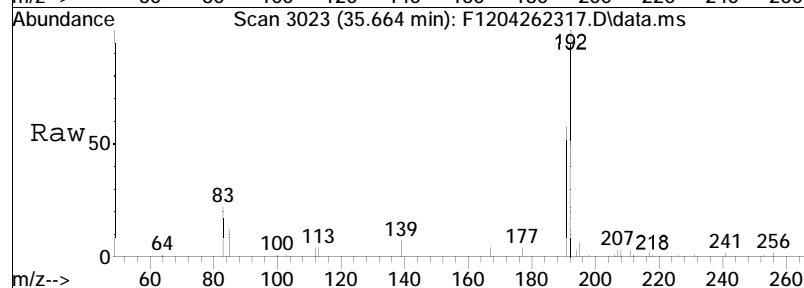
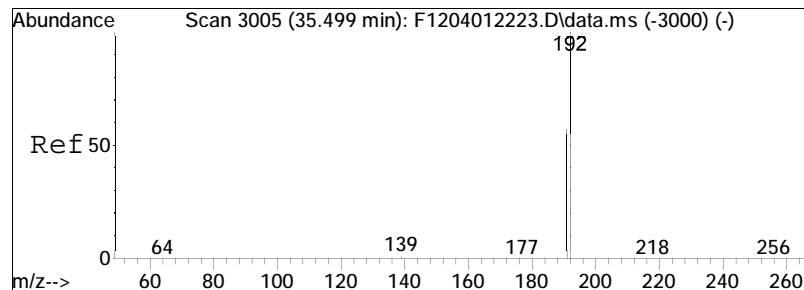




#45
 9/4-Methylphenanthrene(9MP)
 Concen: 539.97 ng/mL
 RT: 35.572 min Scan# 3013
 Delta R.T. -0.004 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

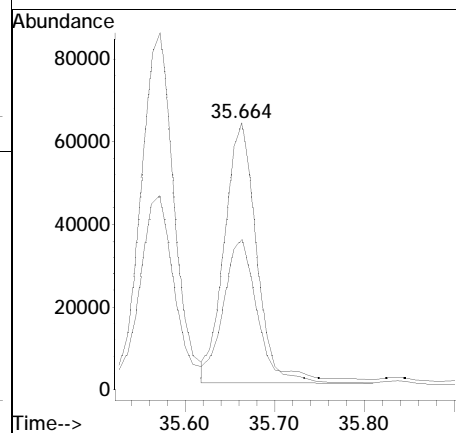
Tgt	Ion	Resp	Lower	Upper
192	100			
191	54.2	38.5	71.5	

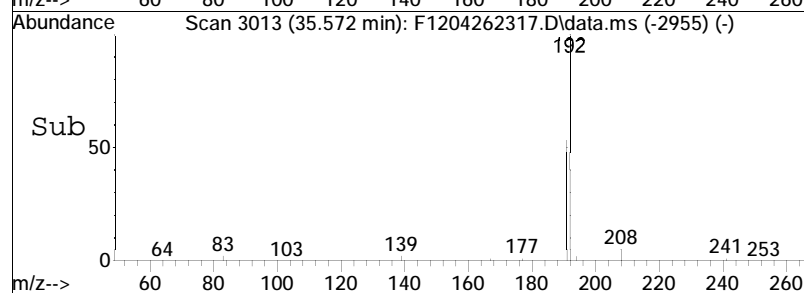
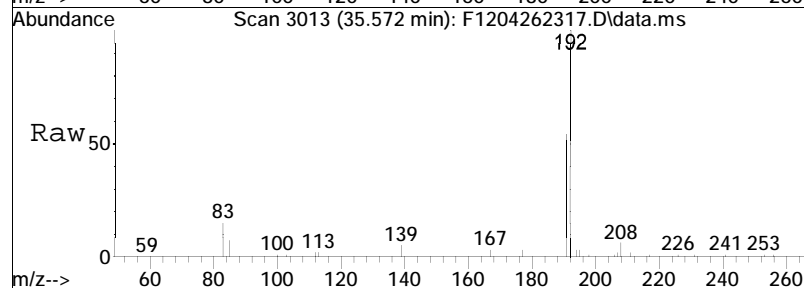
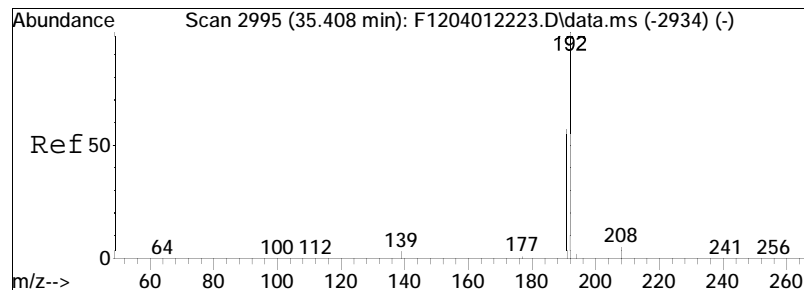




#46
 1-Methylphenanthrene (1MP)
 Concen: 382.81 ng/mL
 RT: 35.664 min Scan# 3023
 Delta R.T. -0.004 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

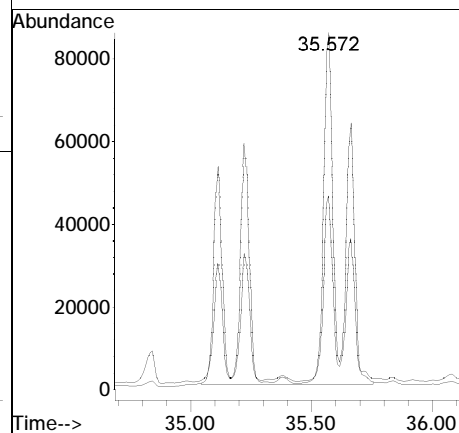
Tgt Ion	192	191	Ratio	Lower	Upper
Resp	154757				
Ratio	100	55.7		40.0	74.4

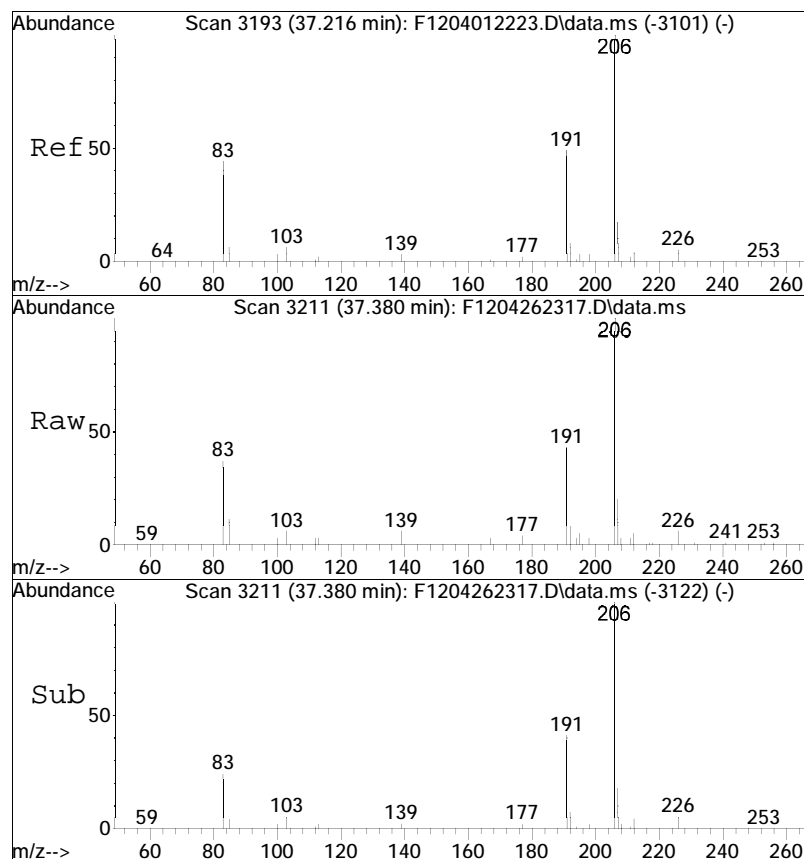




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 1623.75 ng/mL M5
 RT: 35.572 min Scan# 3013
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

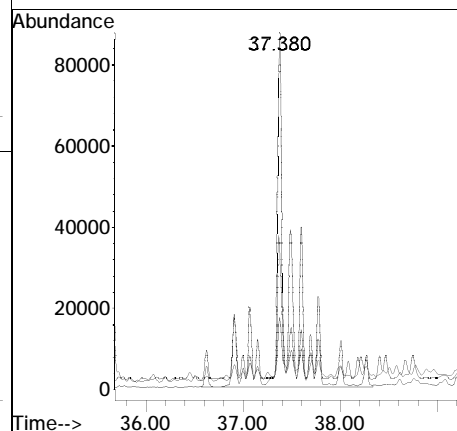
Tgt	Ion	Ratio	Lower	Upper
192	100			
191	18.0	37.7	69.9	

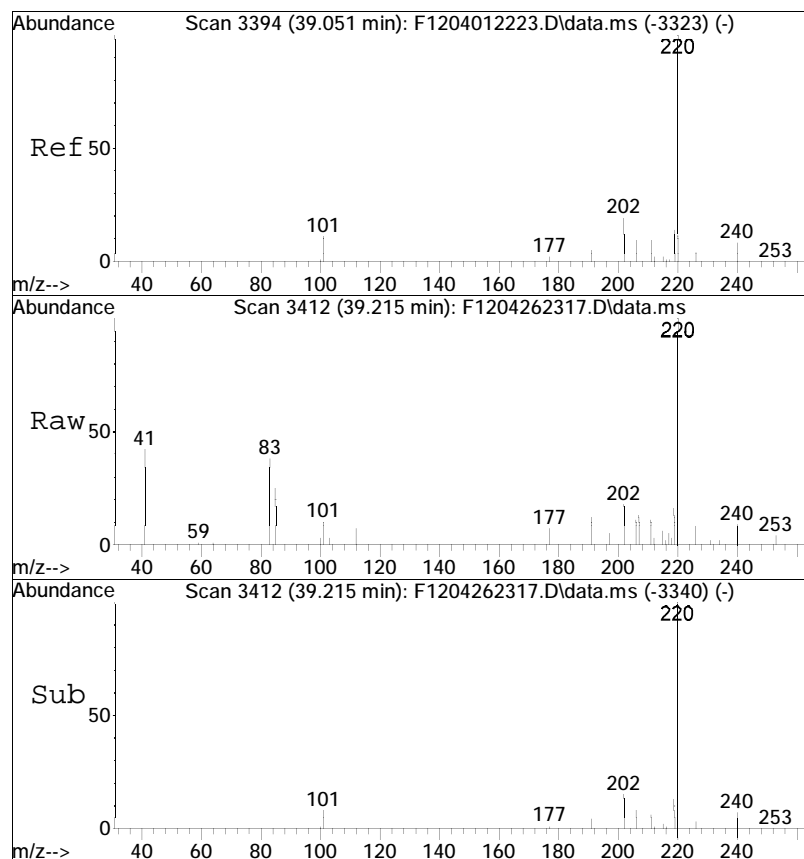




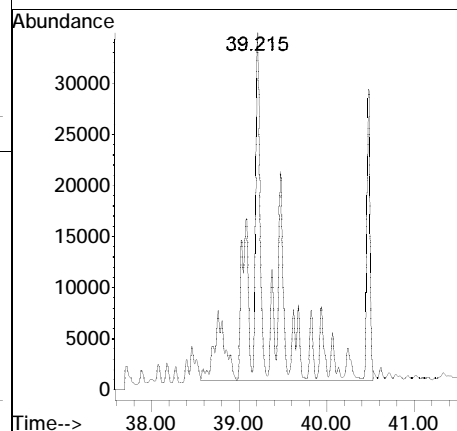
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 1909.36 ng/mL M5
 RT: 37.380 min Scan# 3211
 Delta R.T. -0.003 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

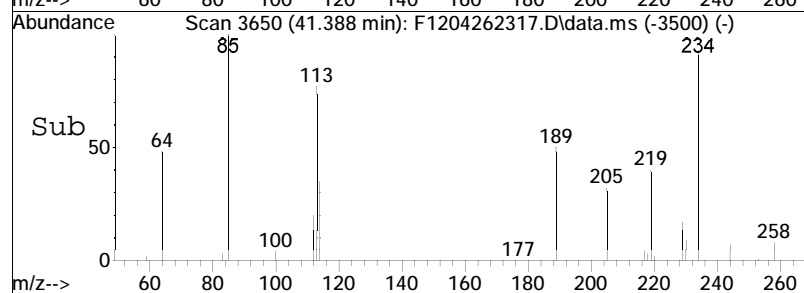
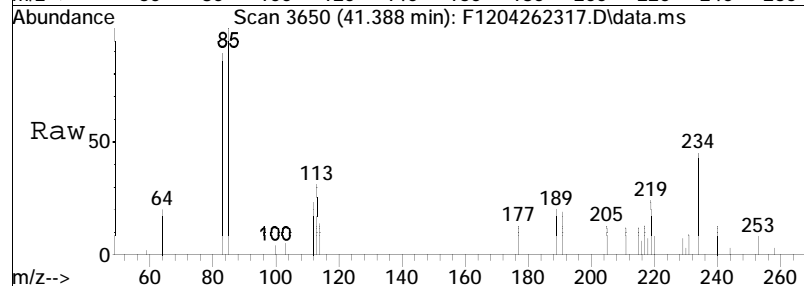
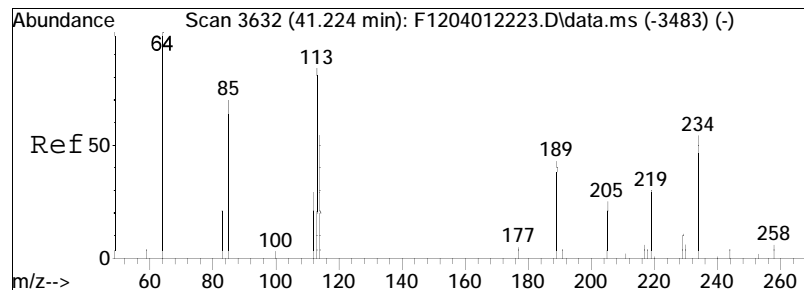
Tgt	Ion:206	Resp:	771895
Ion	Ratio	Lower	Upper
206	100		
191	13.3	30.2	56.2#
207	6.1	14.1	26.1#





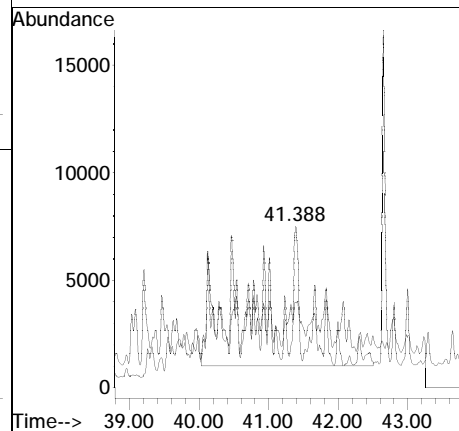
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 1335.90 ng/mL M5
 RT: 39.215 min Scan# 3412
 Delta R.T. -0.002 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:220 Resp: 540063

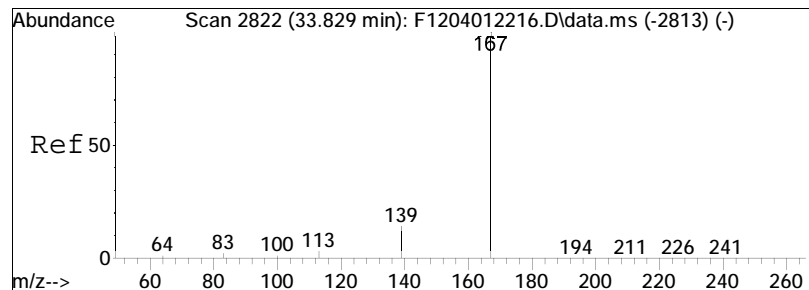




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 570.42 ng/mL M5
 RT: 41.388 min Scan# 3650
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

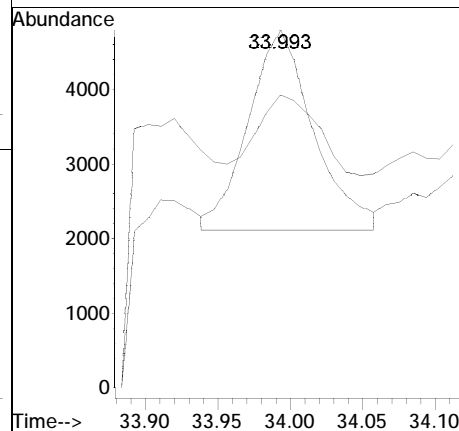
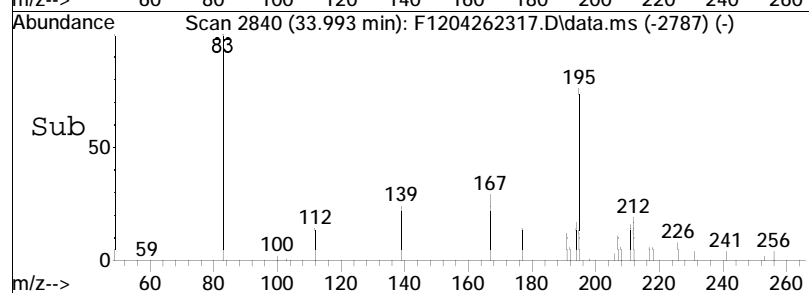
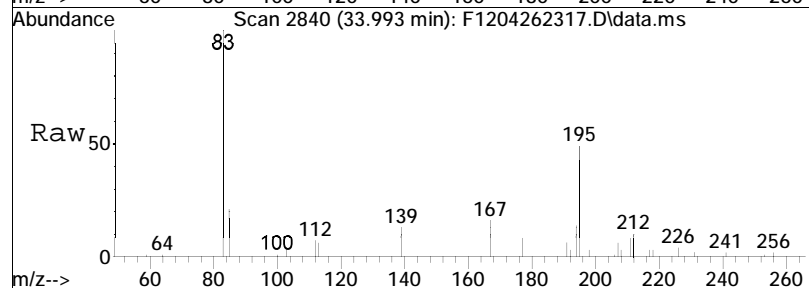
Tgt Ion	Ratio	Lower	Upper
234	100		
219	1.4	35.9	66.7#

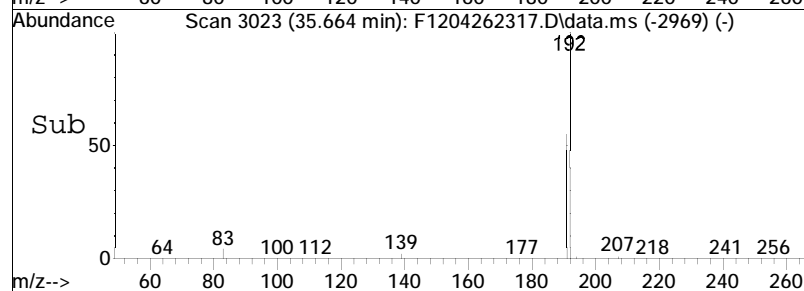
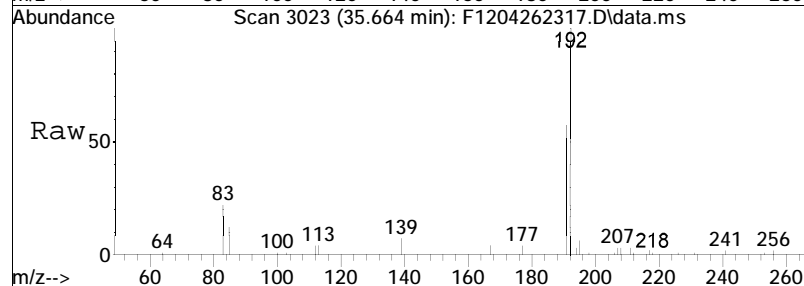
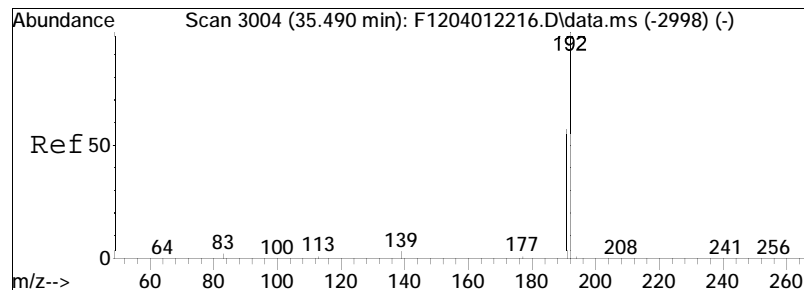




#54
 Carbazole
 Concen: 25.87 ng/mL M4
 RT: 33.993 min Scan# 2840
 Delta R.T. -0.018 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

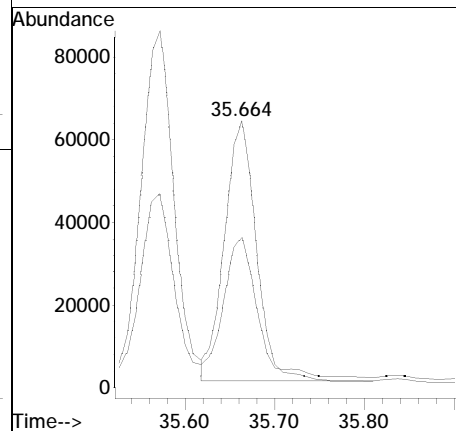
Tgt Ion	Ratio	Lower	Upper
167	100		
139	0.0	8.6	16.0#

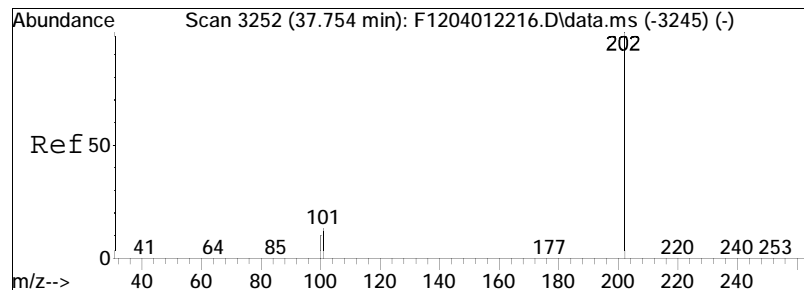




#55
 1-Methylphenanthrene
 Concen: 542.36 ng/mL
 RT: 35.664 min Scan# 3023
 Delta R.T. -0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

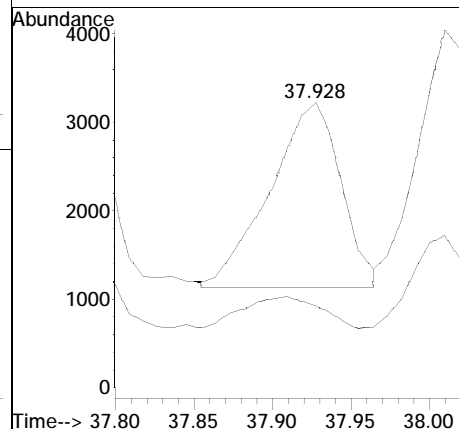
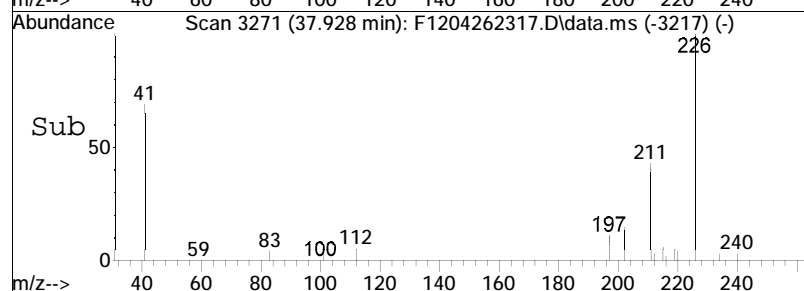
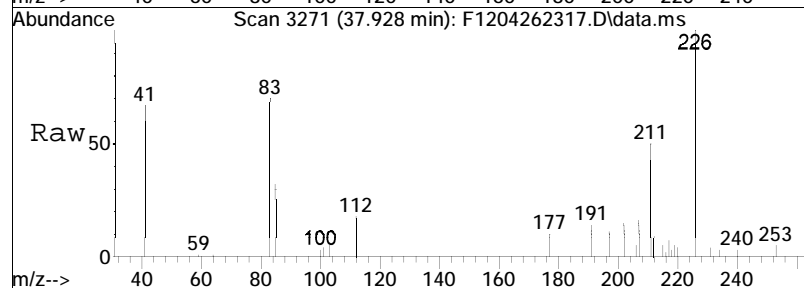
Tgt	Ion	Resp	Lower	Upper
192	100			
191	55.7	39.3	73.1	

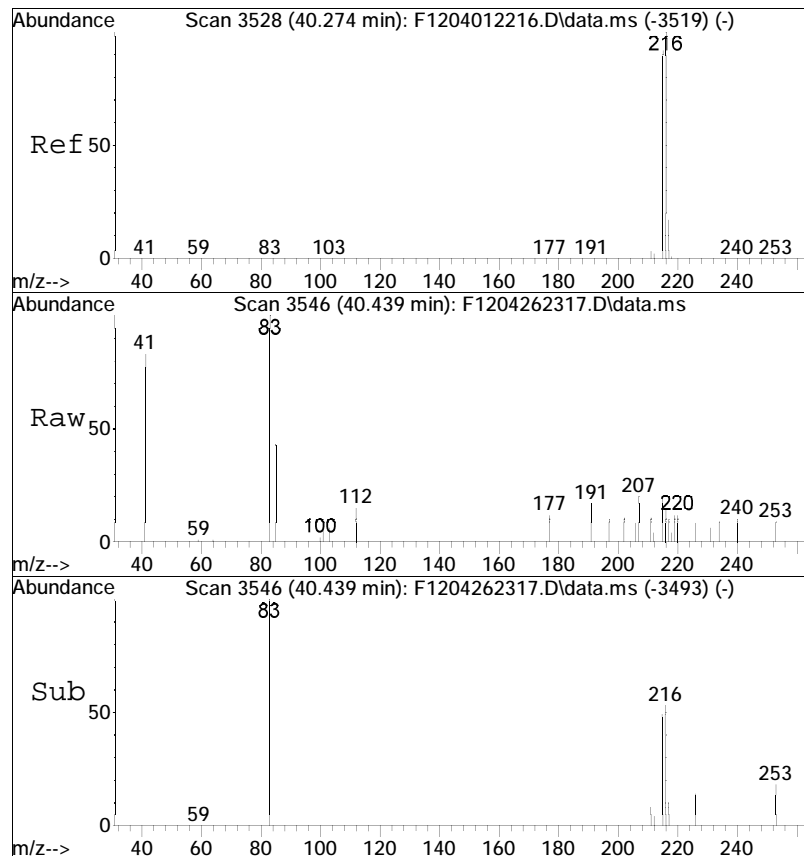




#56
 Fluoranthene
 Concen: 15.56 ng/mL M4
 RT: 37.928 min Scan# 3271
 Delta R.T. -0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

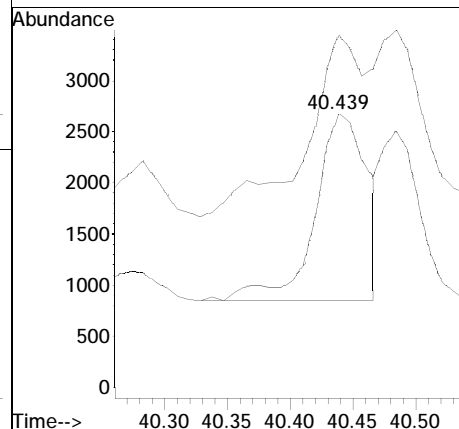
Tgt Ion	Ratio	Lower	Upper
202	100		
101	33.7	8.1	15.1#

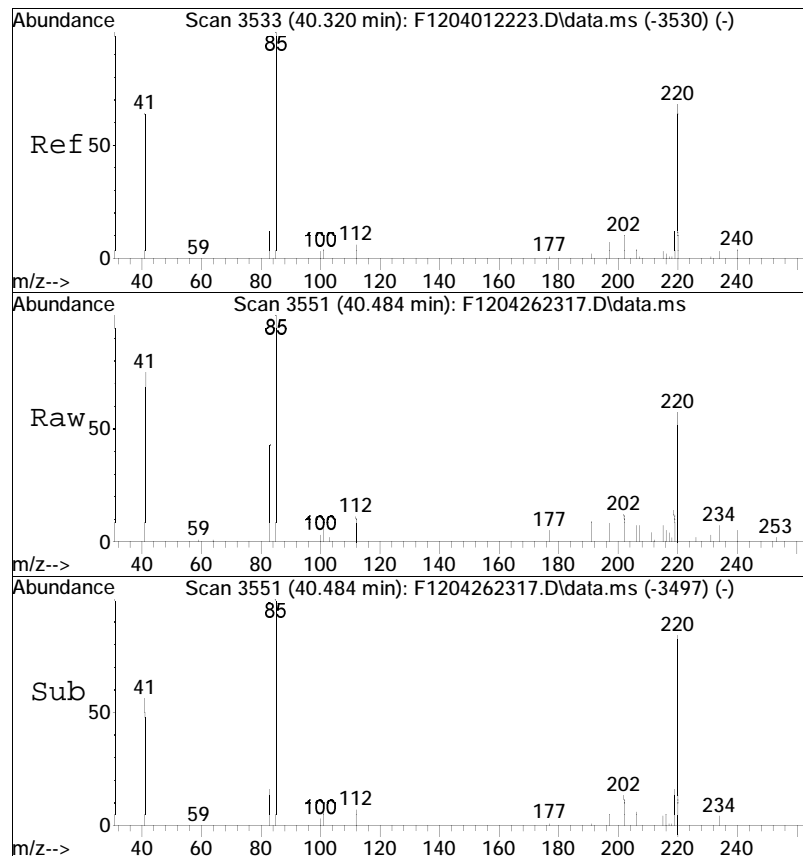




#57
 Benzo(b)fluorene
 Concen: 26.19 ng/mL
 RT: 40.439 min Scan# 3546
 Delta R.T. -0.018 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

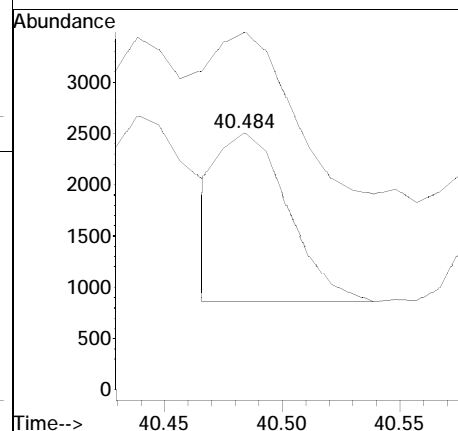
Tgt Ion	Ratio	Lower	Upper
216	100		
215	101.3	64.3	119.3

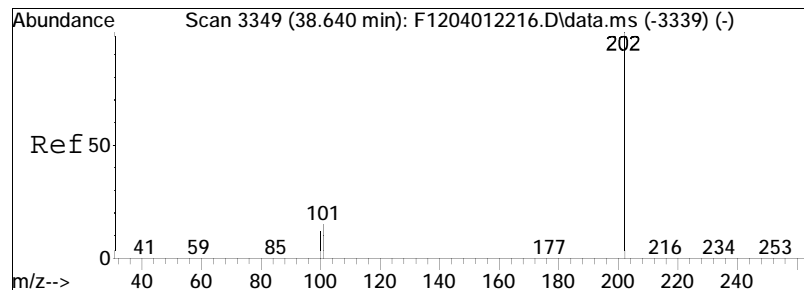




#58
 7H-Benzo(c)fluorene
 Concen: 16.75 ng/mL
 RT: 40.484 min Scan# 3551
 Delta R.T. -0.010 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

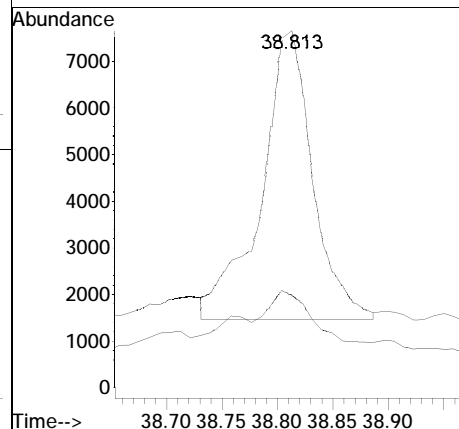
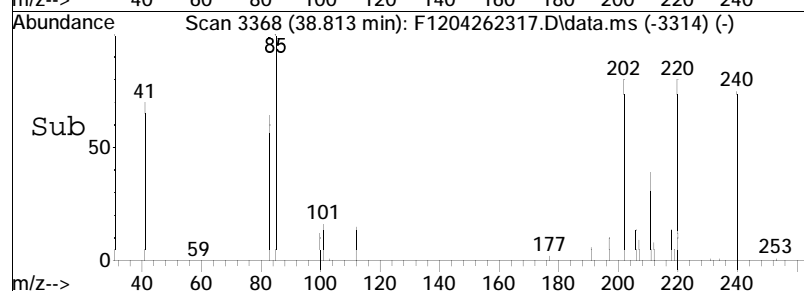
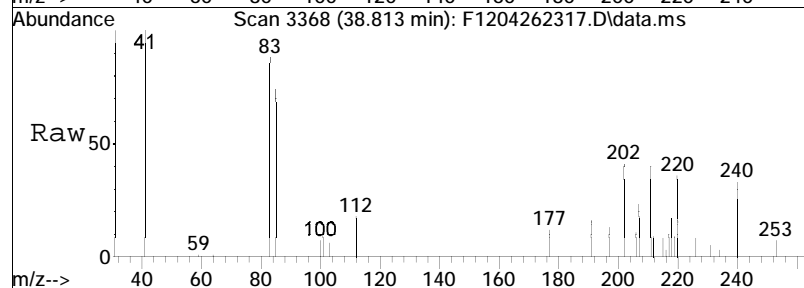
Tgt Ion: 216 Resp: 3394
 Ion Ratio Lower Upper
 216 100
 215 108.8 96.9 179.9

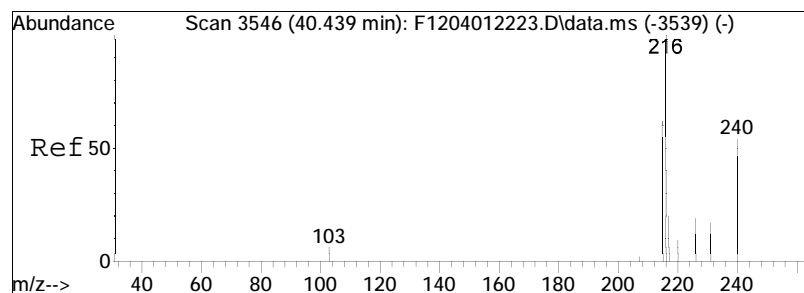




#59
 Pyrene
 Concen: 46.44 ng/mL M4
 RT: 38.813 min Scan# 3368
 Delta R.T. -0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

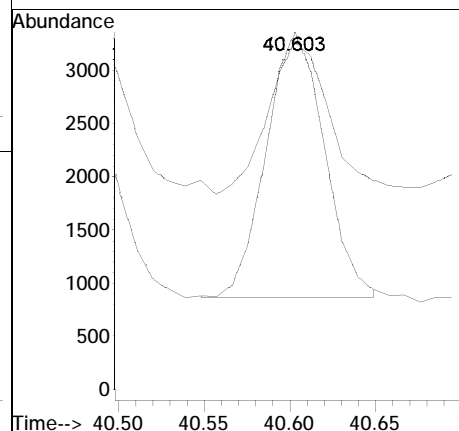
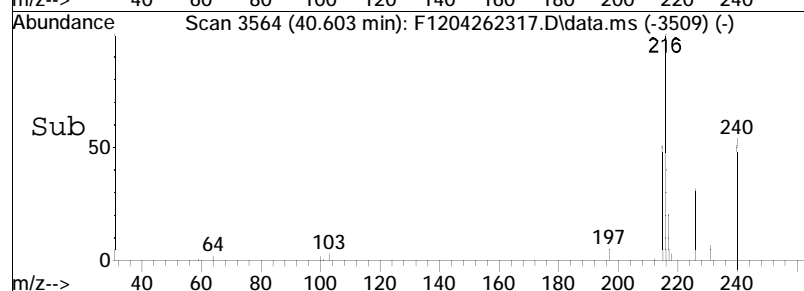
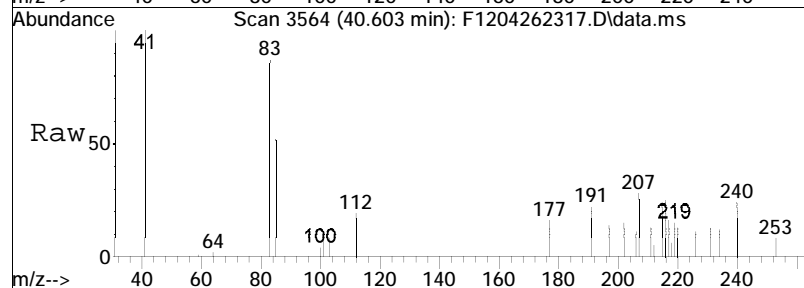
Tgt Ion	Ratio	Lower	Upper
202	100		
101	23.1	9.4	17.4#

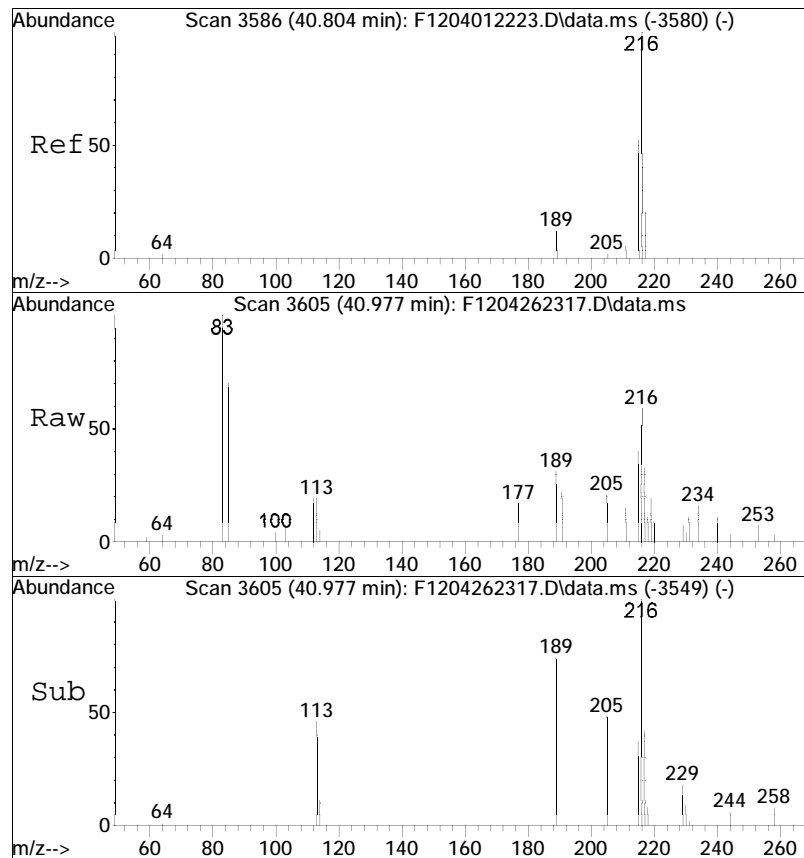




#60
 2-Methylpyrene
 Concen: 13.75 ng/mL M3
 RT: 40.603 min Scan# 3564
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

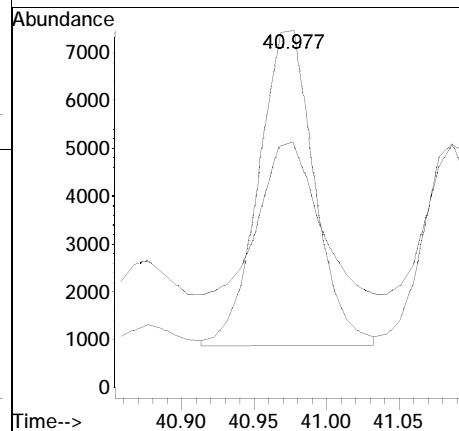
Tgt Ion	Ratio	Lower	Upper
216	100		
215	62.7	68.2	126.6#

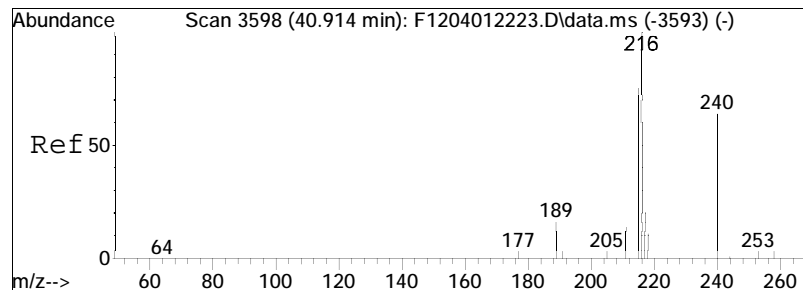




#61
 4-Methylpyrene
 Concen: 40.95 ng/mL
 RT: 40.977 min Scan# 3605
 Delta R.T. 0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

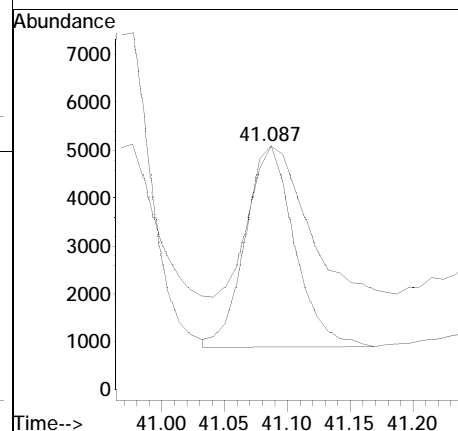
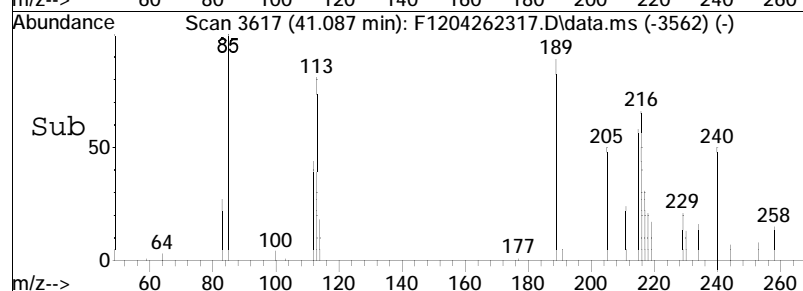
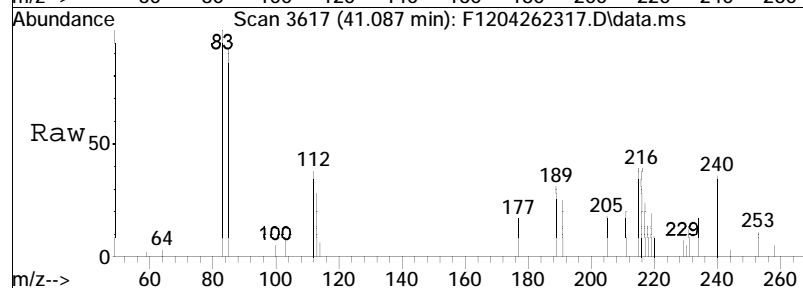
Tgt Ion	Ratio	Lower	Upper
216	100		
215	51.4	47.3	87.9

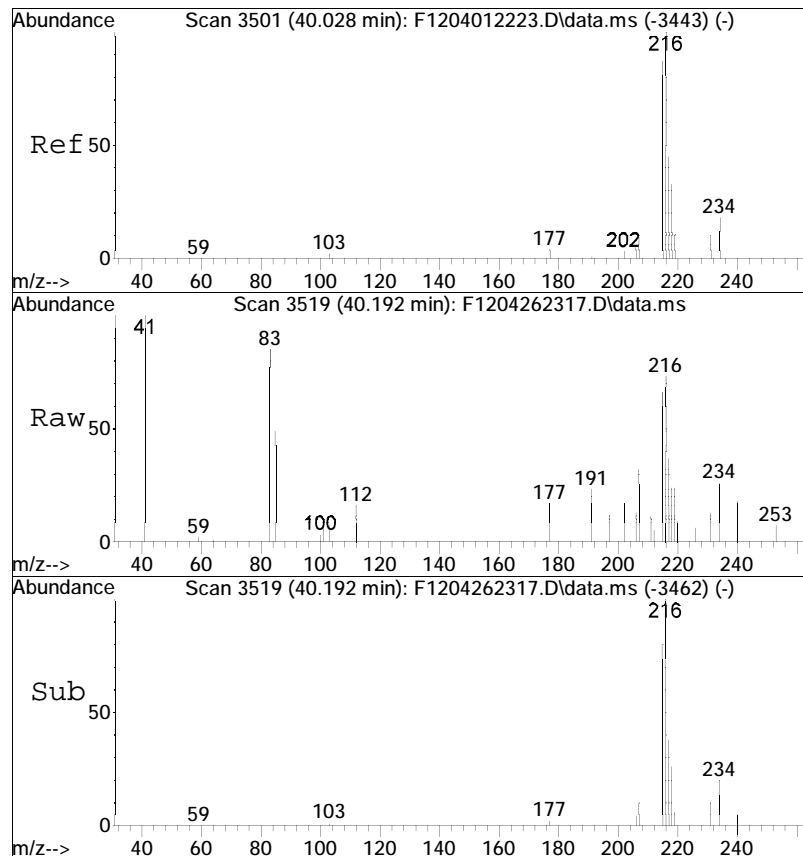




#62
 1-Methylpyrene
 Concen: 26.87 ng/mL
 RT: 41.087 min Scan# 3617
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

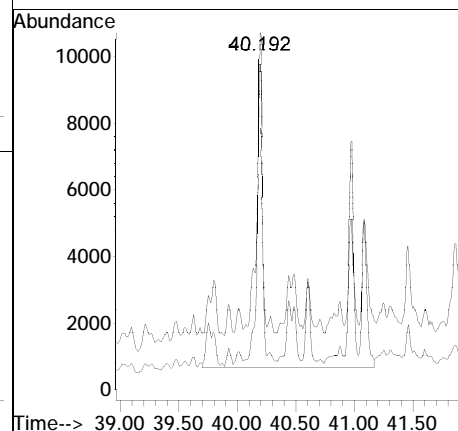
Tgt Ion	Ratio	Lower	Upper
216	100		
215	86.0	69.6	129.2

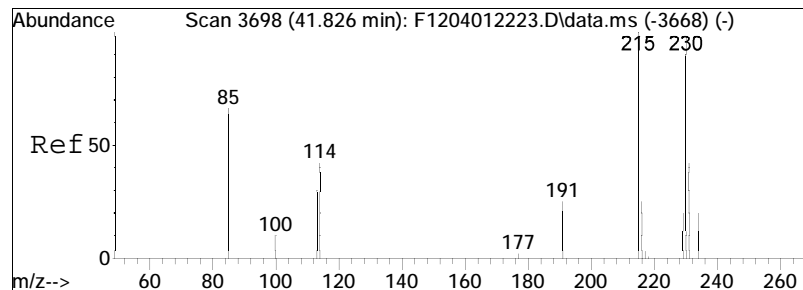




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 228.46 ng/mL M5
 RT: 40.192 min Scan# 3519
 Delta R.T. -0.010 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

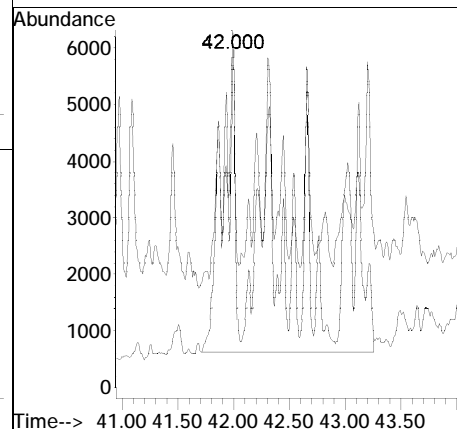
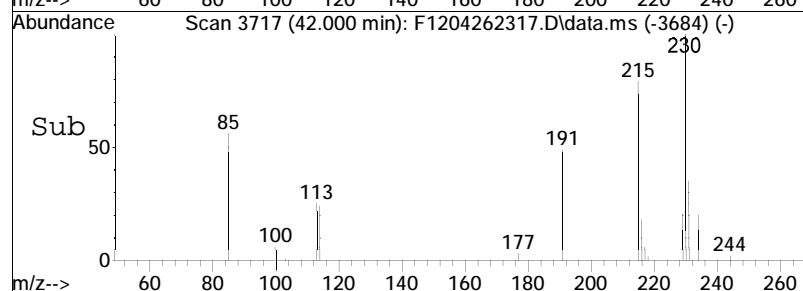
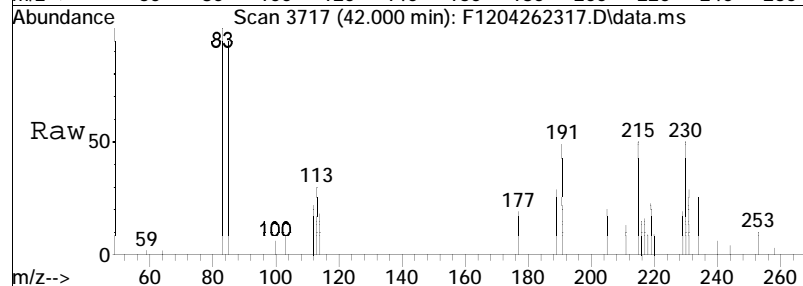
Tgt Ion	Ratio	Lower	Upper
216	100		
215	25.8	63.1	117.1#

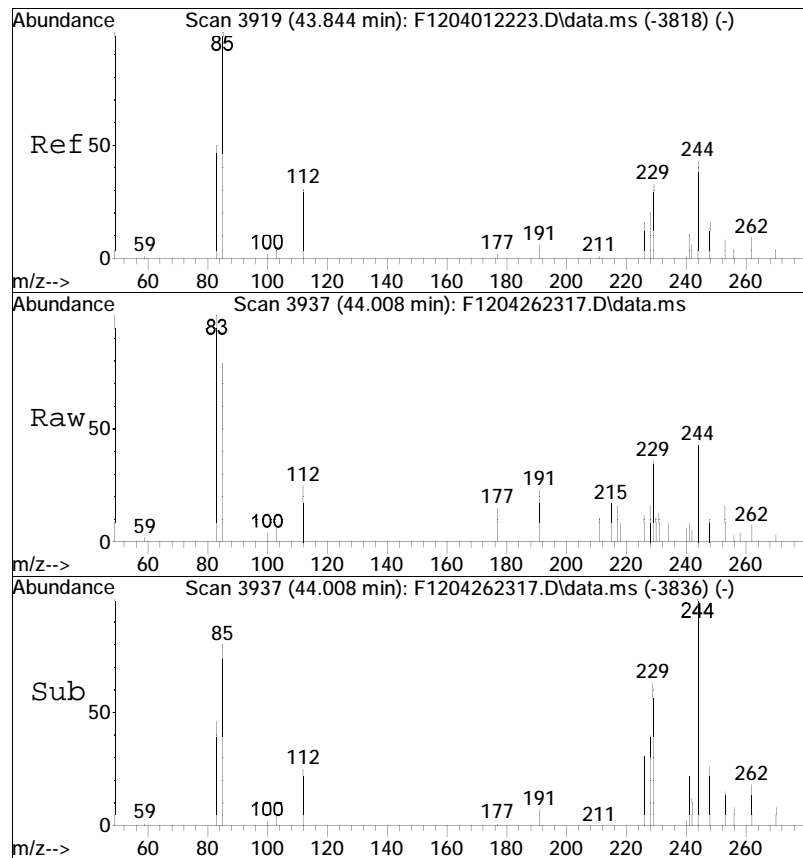




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 363.29 ng/mL M5
 RT: 42.000 min Scan# 3717
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

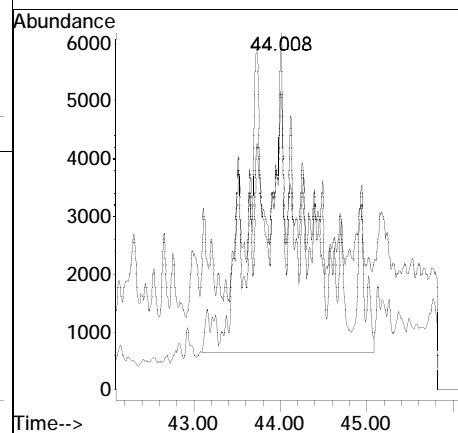
Tgt Ion: 230 Resp: 155546
 Ion Ratio Lower Upper
 230 100
 215 7.3 69.0 128.1#

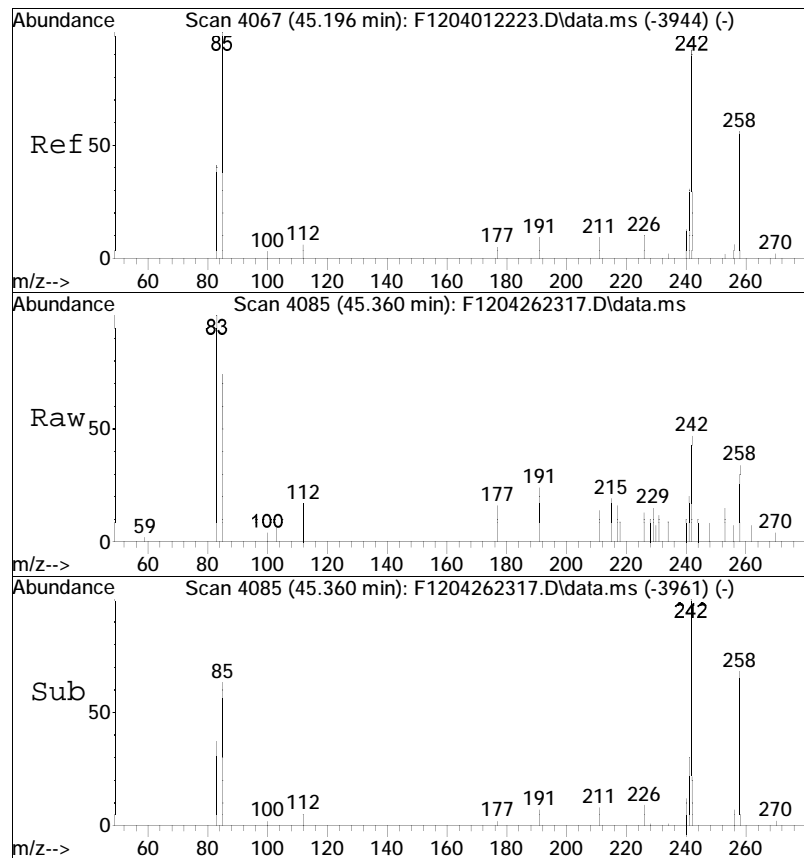




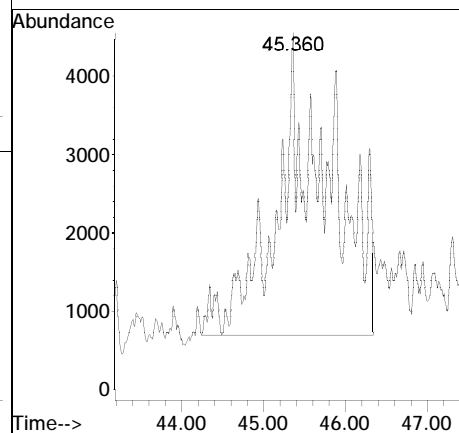
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 456.72 ng/mL M5
 RT: 44.008 min Scan# 3937
 Delta R.T. 0.001 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

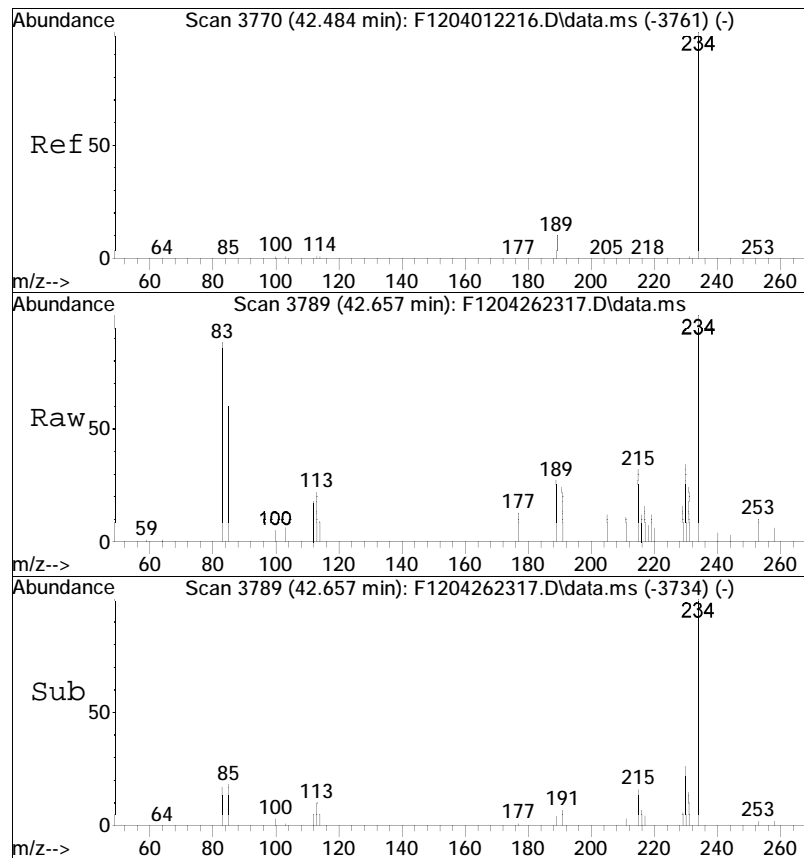
Tgt Ion	Ratio	Lower	Upper
244	100		
229	4.2	57.2	106.2#





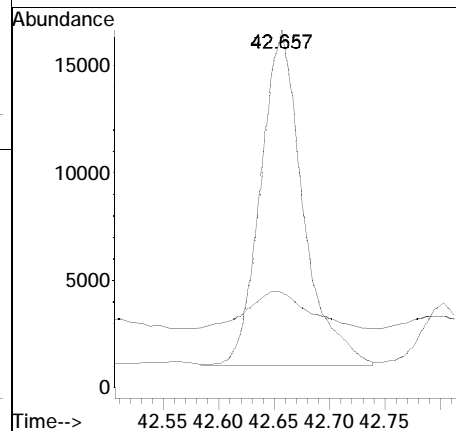
#66
C4-Fluoranthenes/Pyrenes
Concen: 396.64 ng/mL M5
RT: 45.360 min Scan# 4085
Delta R.T. 0.003 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm
Tgt Ion:258 Resp: 169825

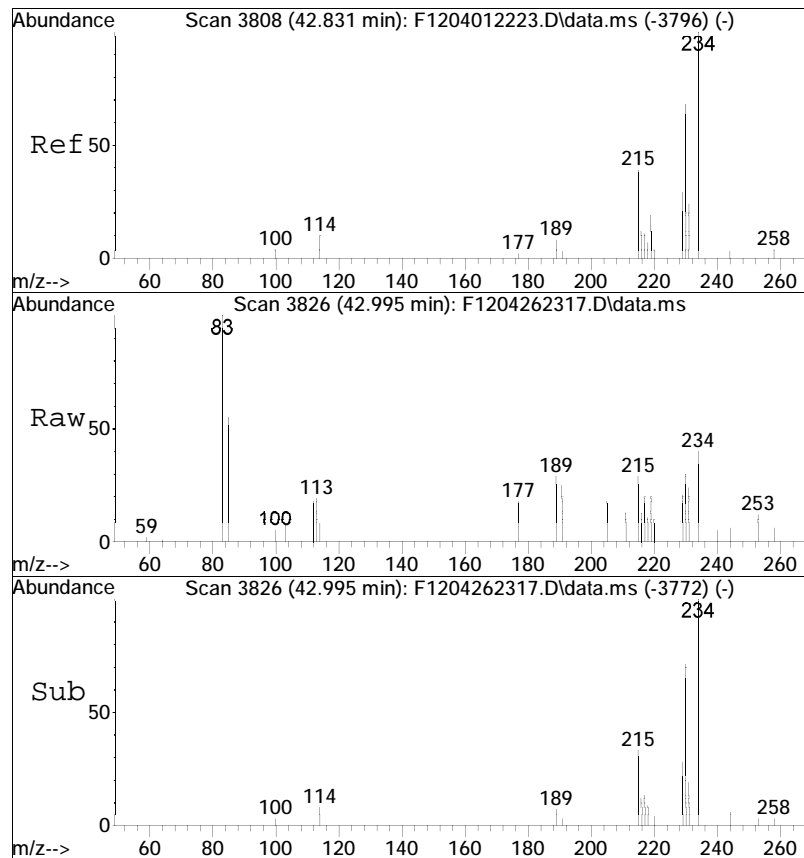




#67
 Naphthobenzothiophene-2,1-D
 Concen: 109.18 ng/mL
 RT: 42.657 min Scan# 3789
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

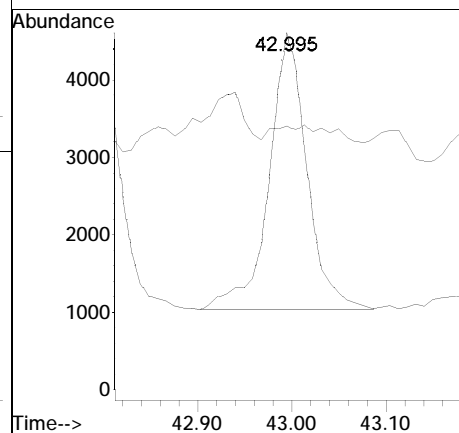
Tgt Ion: 234 Resp: 41045
 Ion Ratio Lower Upper
 234 100
 189 15.2 5.7 10.7#

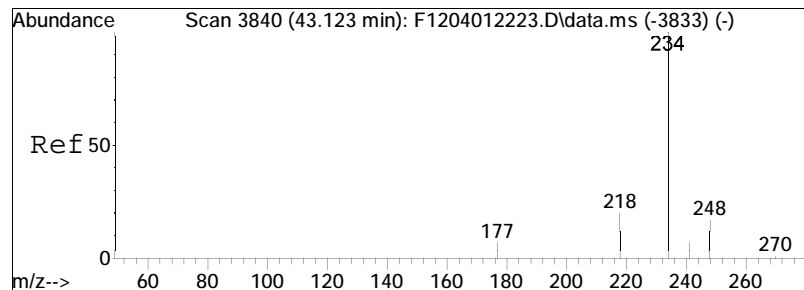




#68
 Naphthobenzothiophene-1,2-D
 Concen: 26.55 ng/mL
 RT: 42.995 min Scan# 3826
 Delta R.T. -0.008 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

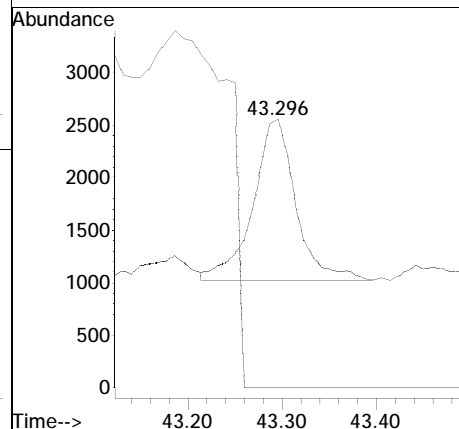
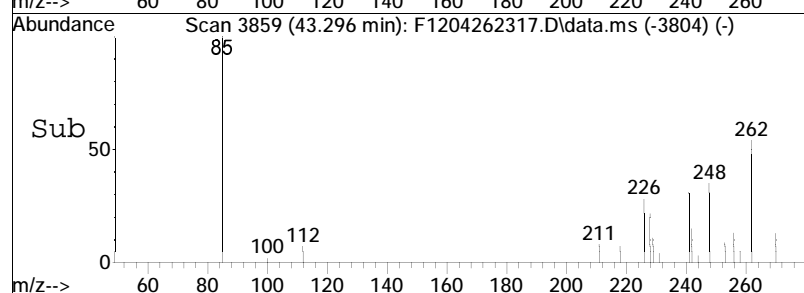
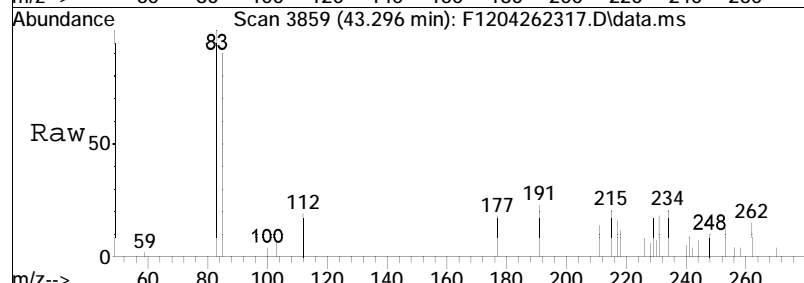
Tgt Ion	Ratio	Lower	Upper
234	100		
189	0.0	49.1	91.3#

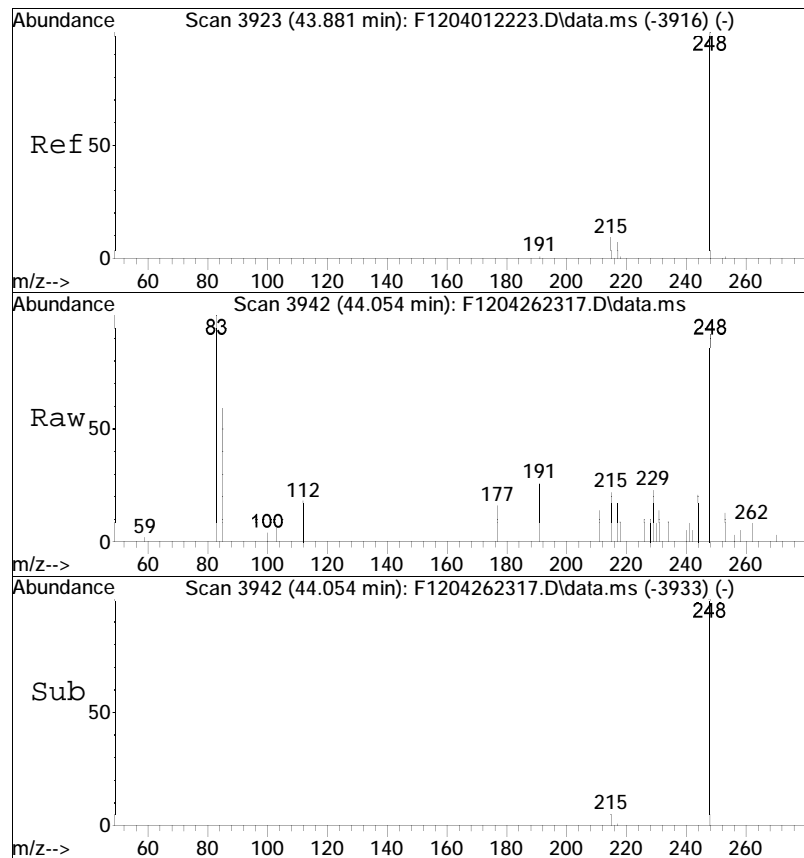




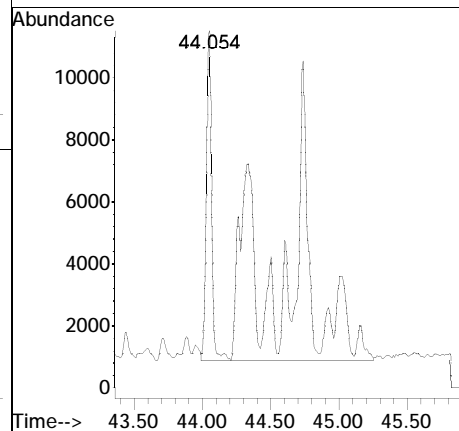
#69
 Naphthobenzothiophene-2,3-D
 Concen: 12.71 ng/mL
 RT: 43.296 min Scan# 3859
 Delta R.T. 0.001 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

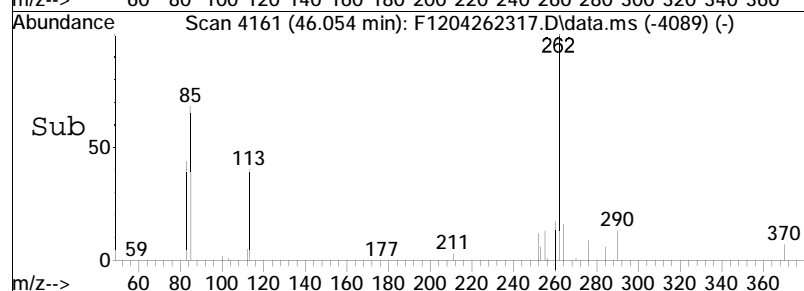
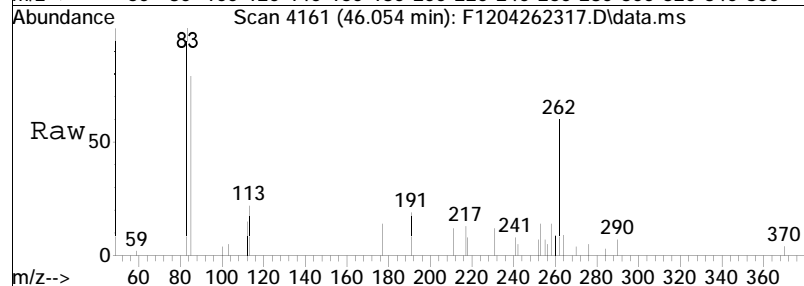
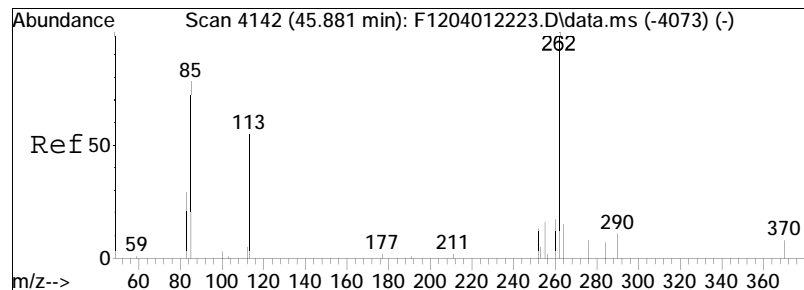
Tgt Ion: 234 Resp: 4777
 Ion Ratio Lower Upper
 234 100
 189 0.0 0.0 0.0





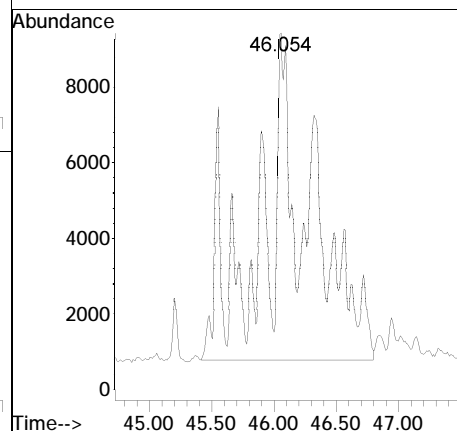
#70
 Cl-Naphthobenzothiophenes
 Concen: 428.97 ng/ml M5
 RT: 44.054 min Scan# 3942
 Delta R.T. -0.683 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:248 Resp: 161270

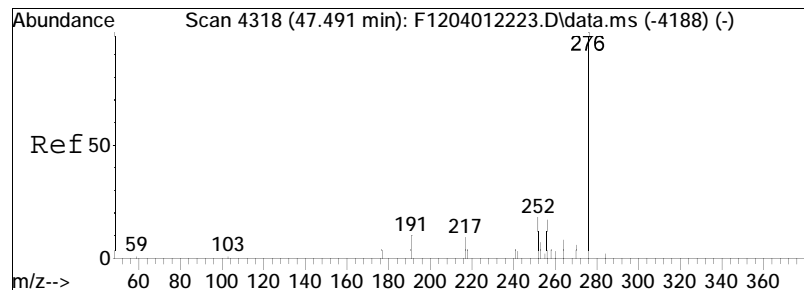




#71
C2-Naphthobenzothiophenes
Concen: 613.93 ng/ml M5
RT: 46.054 min Scan# 4161
Delta R.T. 0.003 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

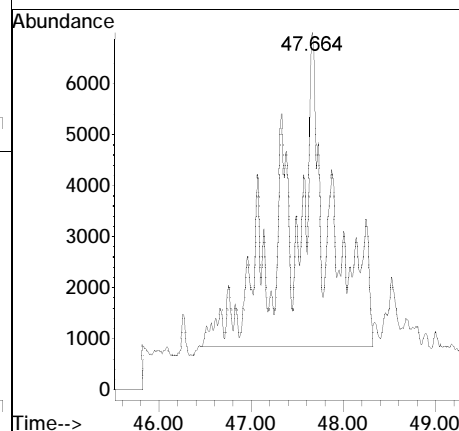
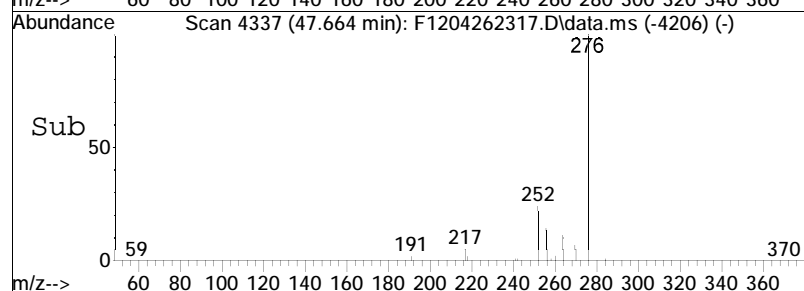
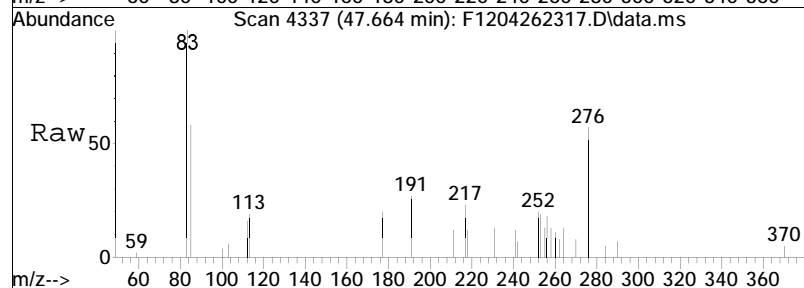
Tgt Ion: 262 Resp: 230807

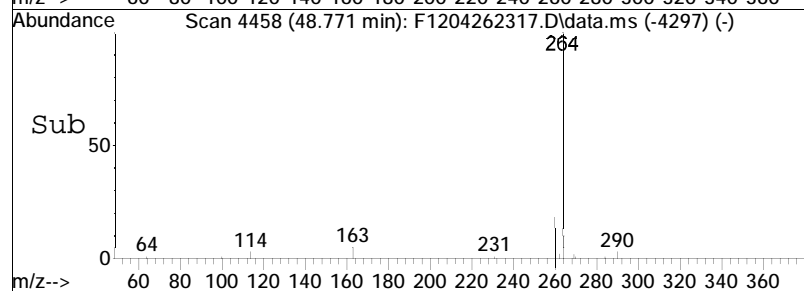
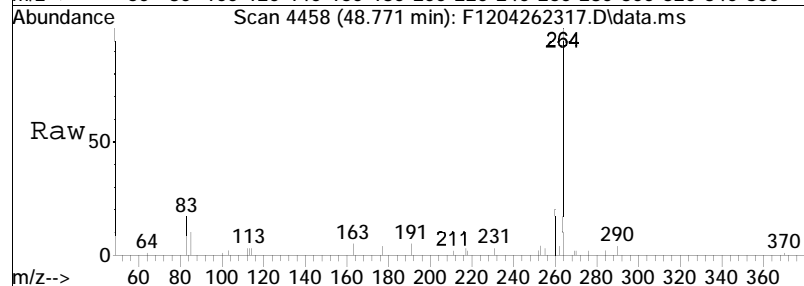
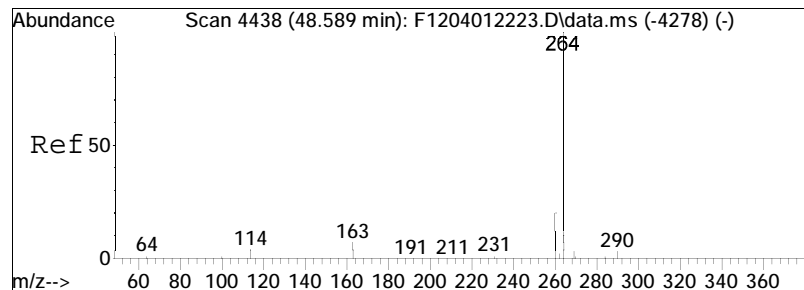




#72
C3-Naphthobenzothiophenes
Concen: 508.30 ng/ml M5
RT: 47.664 min Scan# 4337
Delta R.T. -0.005 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

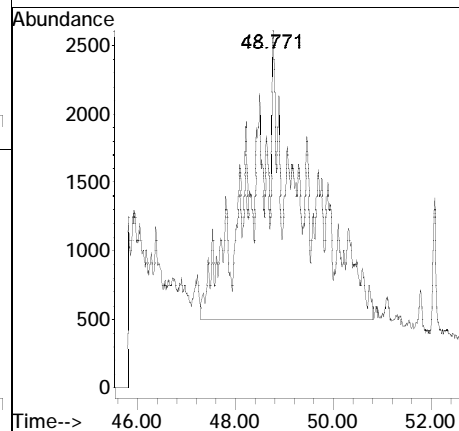
Tgt Ion: 276 Resp: 191094

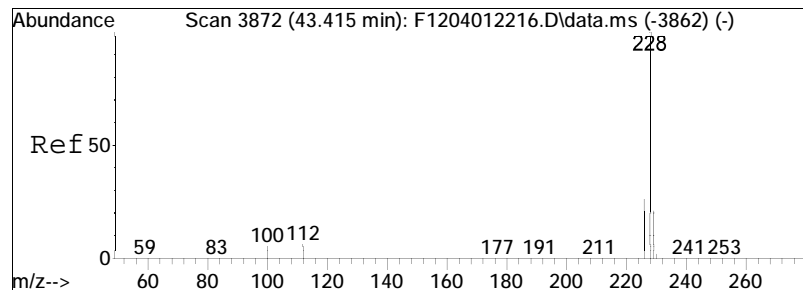




#73
 C4-Naphthobenzothiophenes
 Concen: 395.83 ng/mL M5
 RT: 48.771 min Scan# 4458
 Delta R.T. -0.004 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

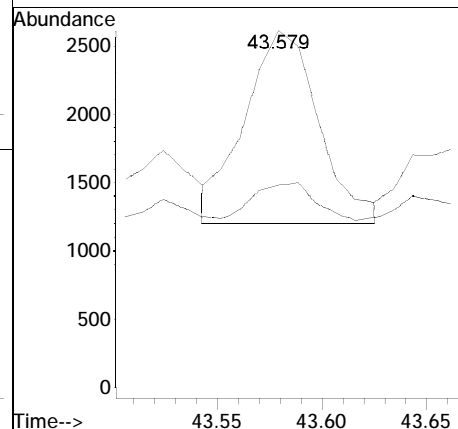
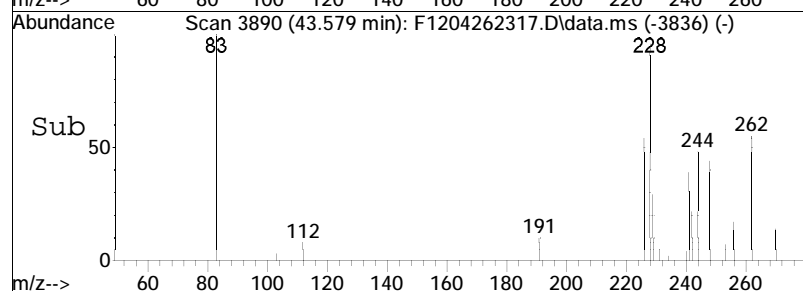
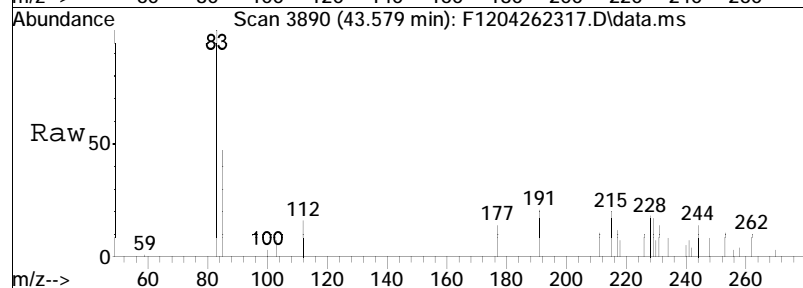
Tgt Ion: 290 Resp: 148813

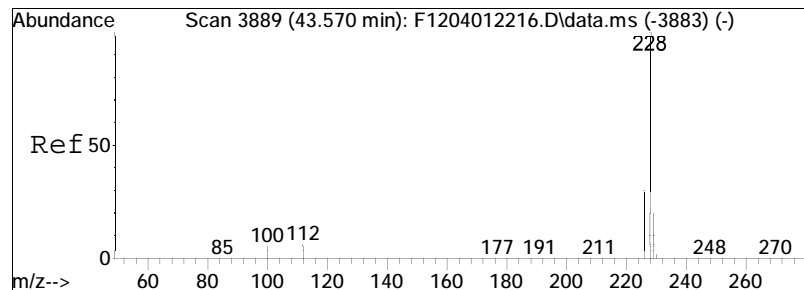




#75
Benz[a]anthracene
Concen: 10.05 ng/mL M4
RT: 43.579 min Scan# 3890
Delta R.T. -0.009 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

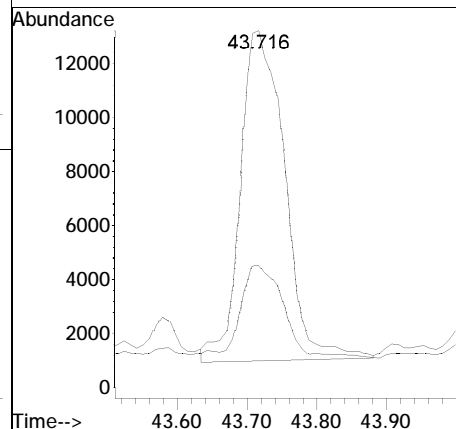
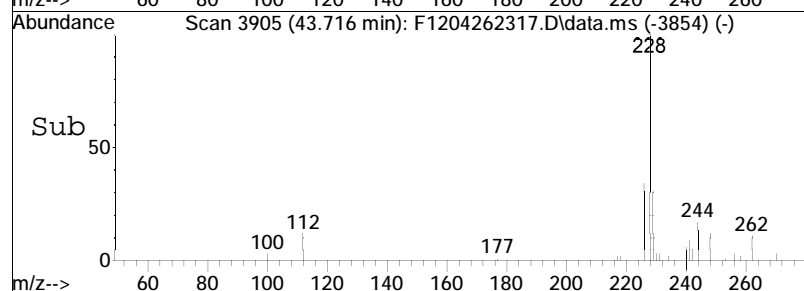
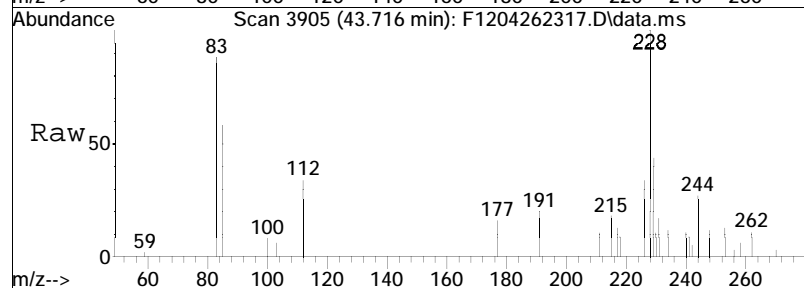
Tgt Ion	Ratio	Lower	Upper
228	100		
226	414.3	17.7	32.9#

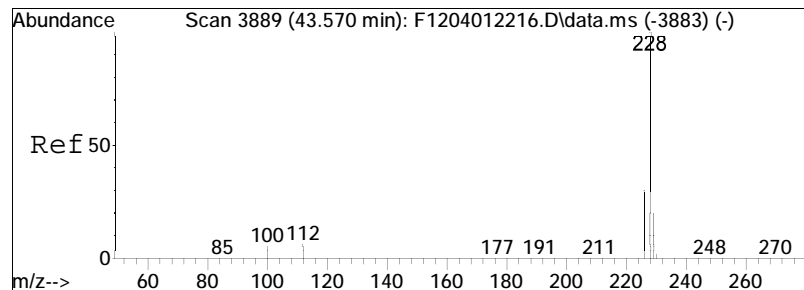




#76
 Chrysene
 Concen: 143.88 ng/mL
 RT: 43.716 min Scan# 3905
 Delta R.T. -0.037 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

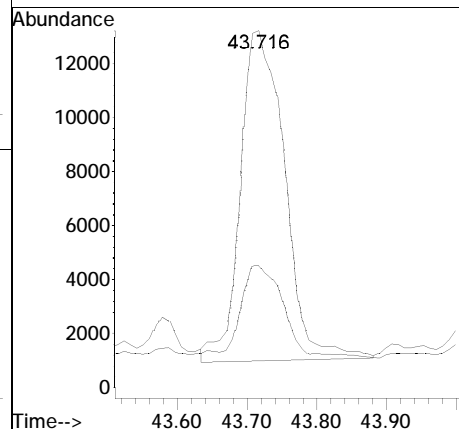
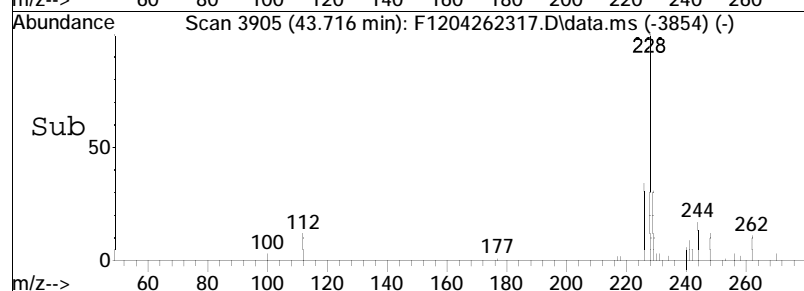
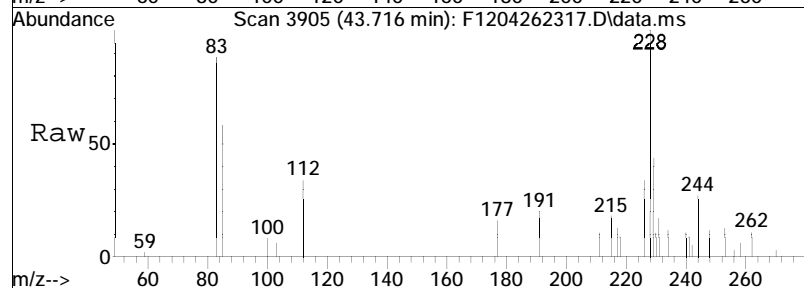
Tgt Ion	Ratio	Lower	Upper
228	100		
226	26.9	19.3	35.9

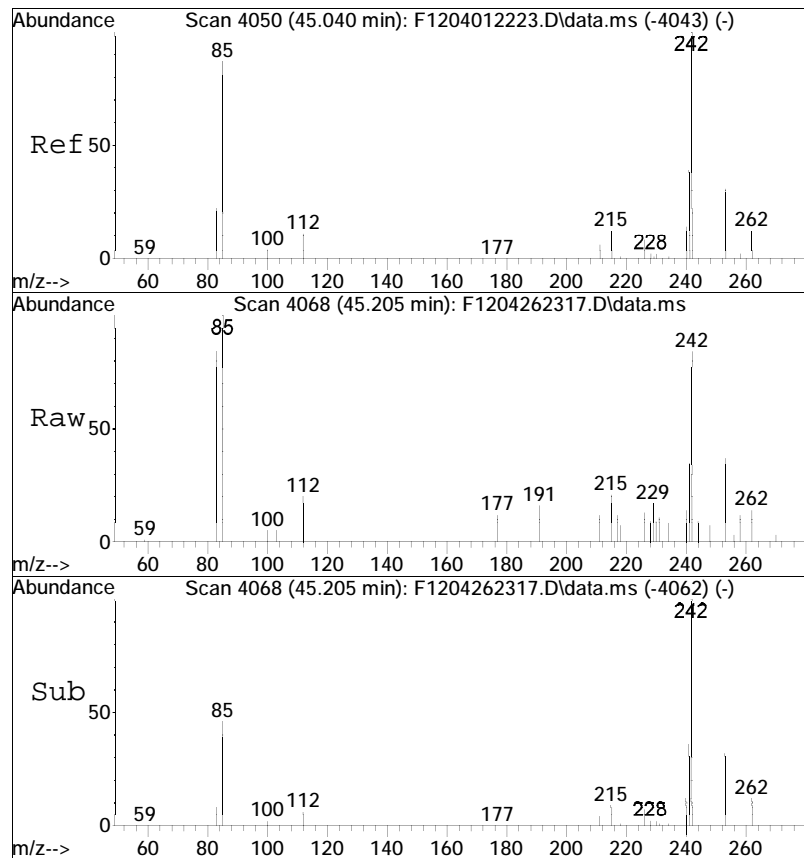




#77
 Chrysene/Triphenylene
 Concen: 143.88 ng/mL
 RT: 43.716 min Scan# 3905
 Delta R.T. -0.037 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

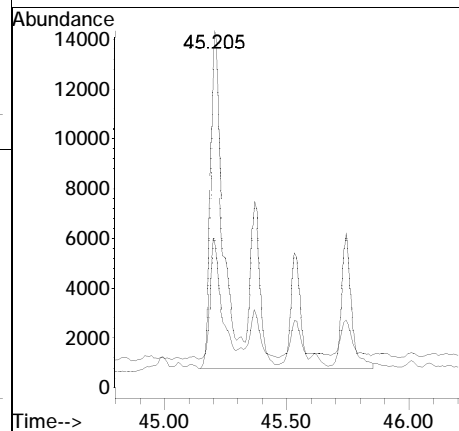
Tgt Ion	Ratio	Lower	Upper
228	100		
226	26.9	19.3	35.9

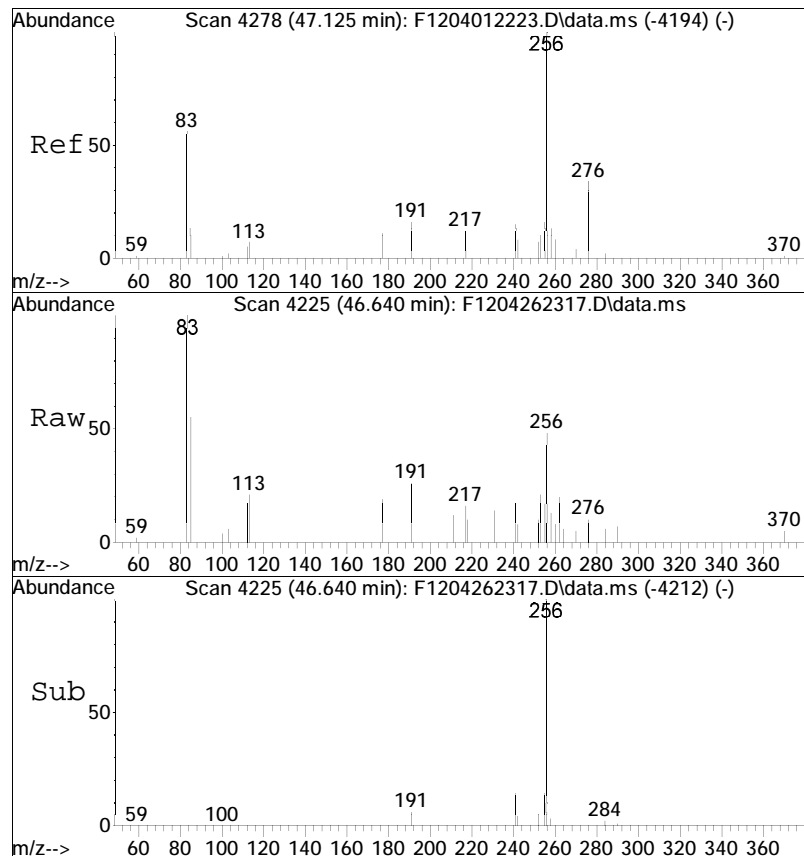




#78
 Cl-Chrysenes
 Concen: 256.17 ng/mL M5
 RT: 45.205 min Scan# 4068
 Delta R.T. -0.018 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

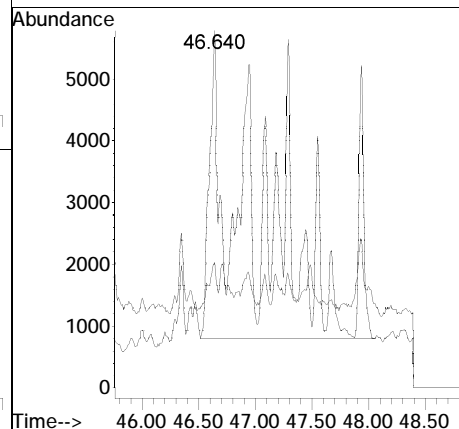
Tgt Ion	Ratio	Lower	Upper
242	100		
241	15.5	28.6	53.0#

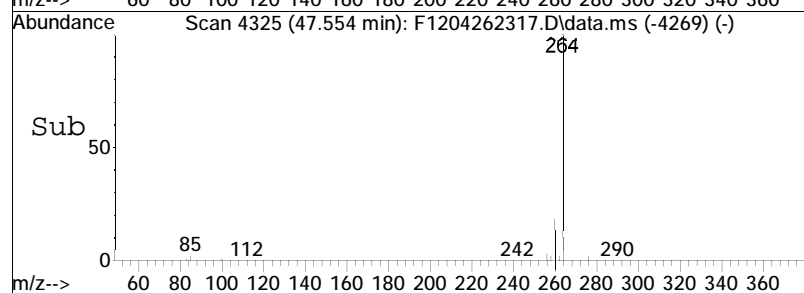
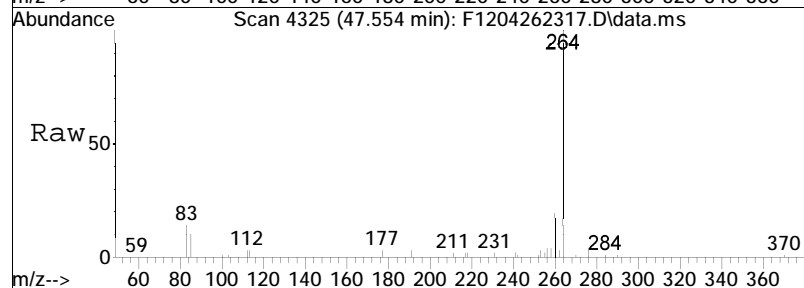
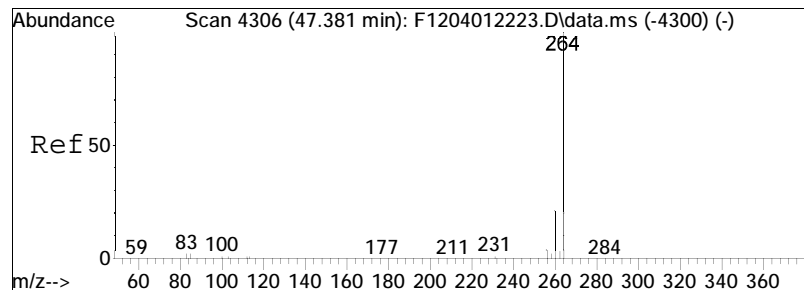




#79
 C2-Chrysenes
 Concen: 376.89 ng/mL M5
 RT: 46.640 min Scan# 4225
 Delta R.T. -0.667 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

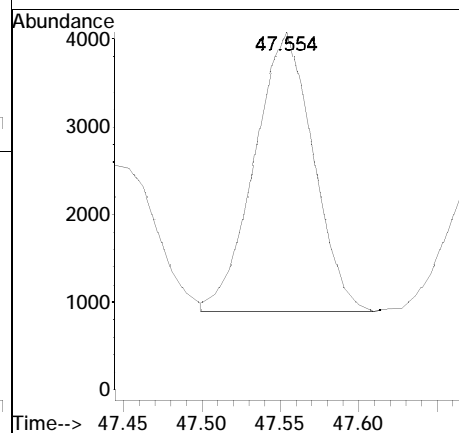
Tgt	Ion	Ratio	Lower	Upper
256	100			
241	2.9	21.3	39.5#	

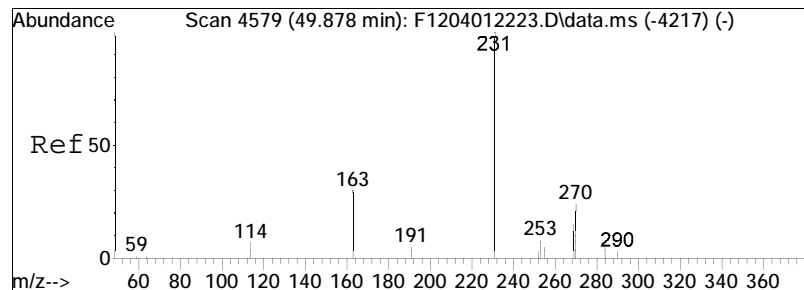




#80
BBF-D12 Surr BKGD
Concen: 22.11 ng/mL
RT: 47.554 min Scan# 4325
Delta R.T. 0.009 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

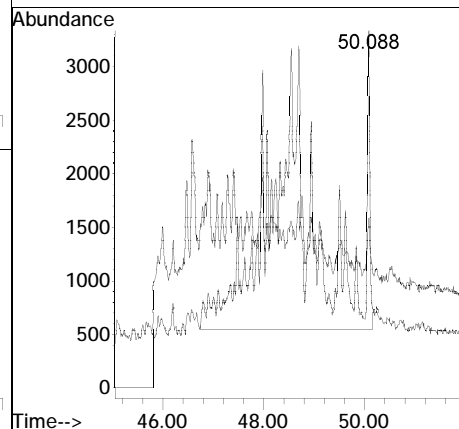
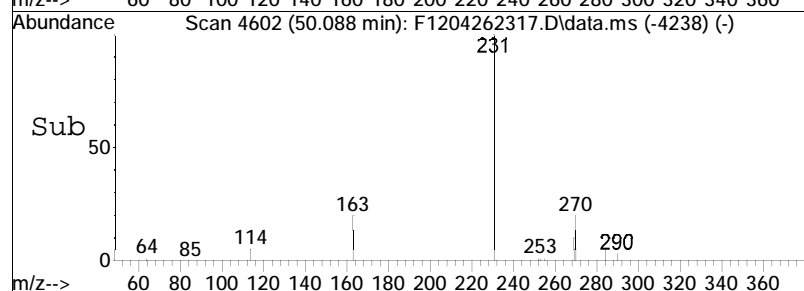
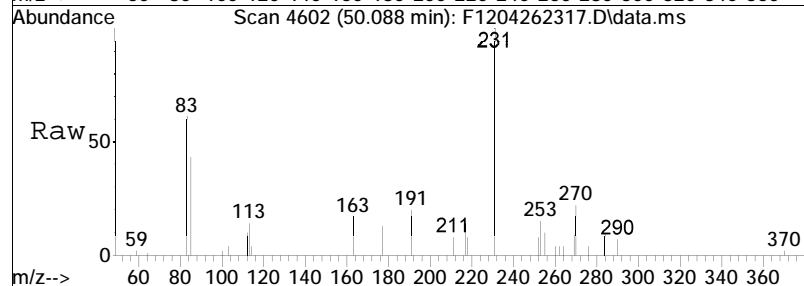
Tgt Ion: 256 Resp: 8225

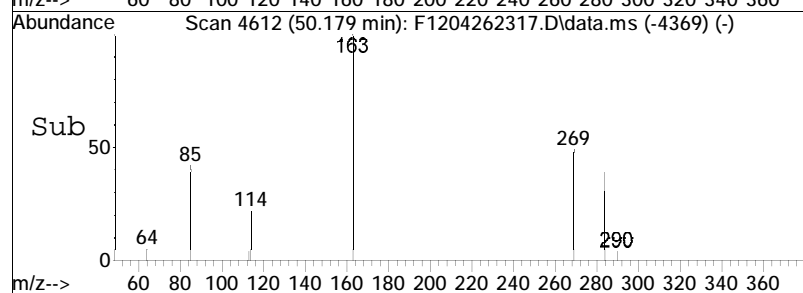
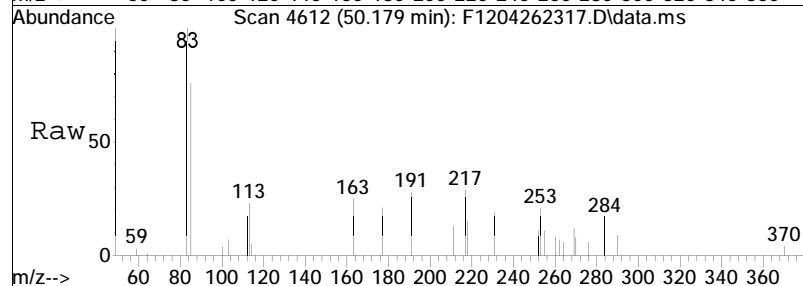
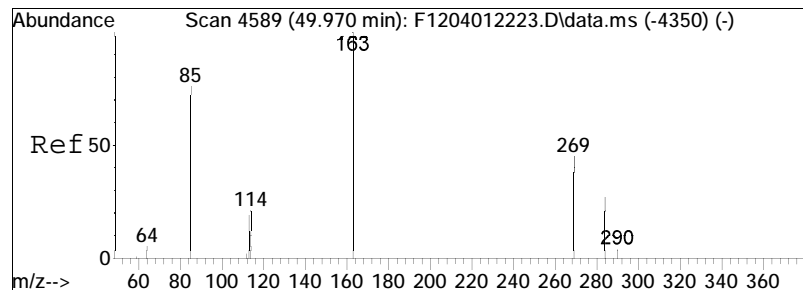




#81
 C3-Chrysenes
 Concen: 401.98 ng/mL M5
 RT: 50.088 min Scan# 4602
 Delta R.T. -0.016 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

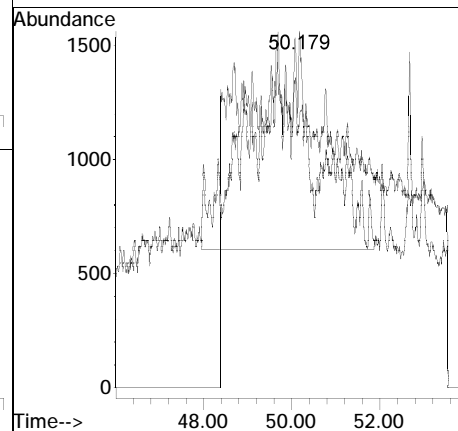
Tgt Ion: 270 Resp: 149533
 Ion Ratio Lower Upper
 270 100
 255 0.7 29.3 54.3#

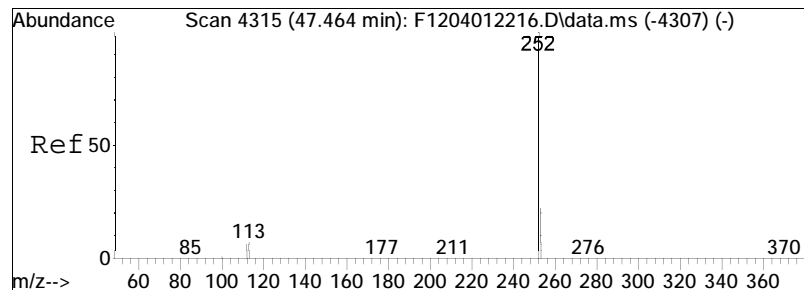




#82
 C4-Chrysenes
 Concen: 248.12 ng/mL M5
 RT: 50.179 min Scan# 4612
 Delta R.T. 0.066 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

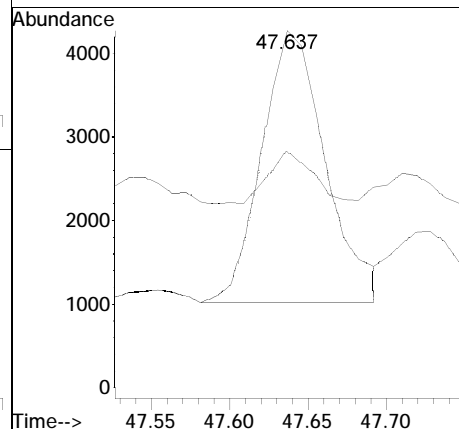
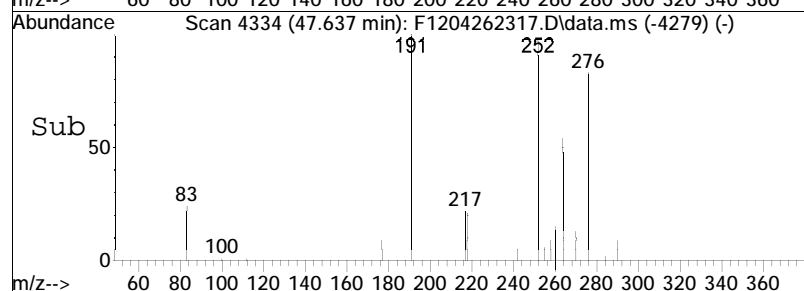
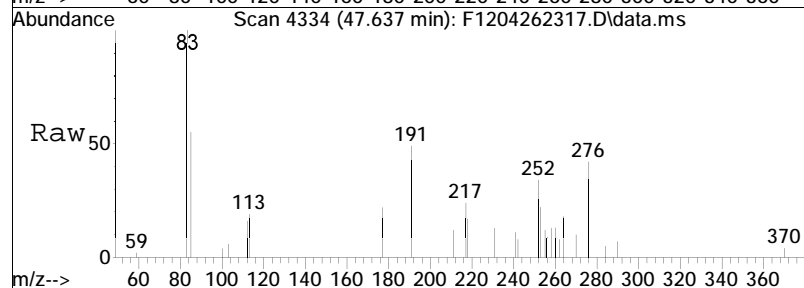
Tgt	Ion	Ratio	Lower	Upper
284	100			
269	0.0	57.5	106.7#	

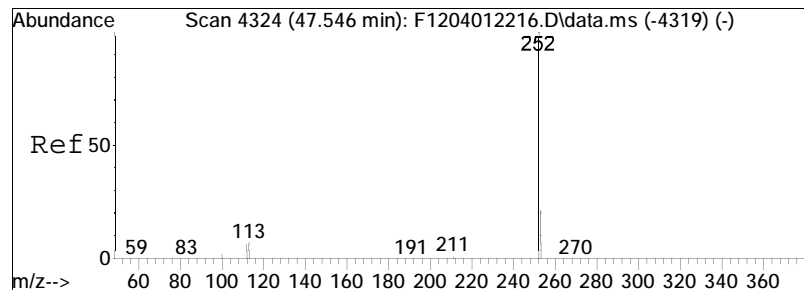




#85
 Benzo[b]fluoranthene
 Concen: 24.76 ng/mL
 RT: 47.637 min Scan# 4334
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

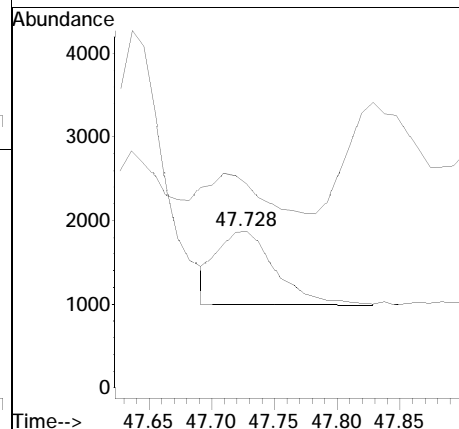
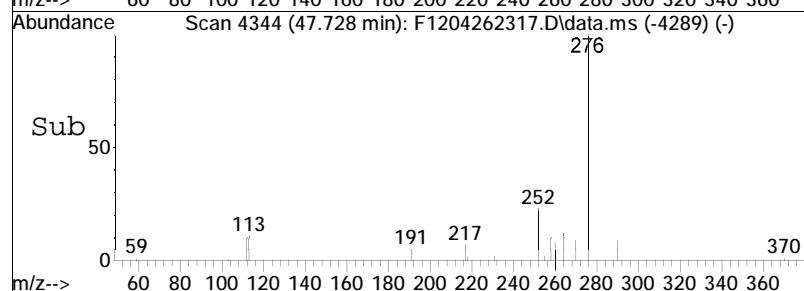
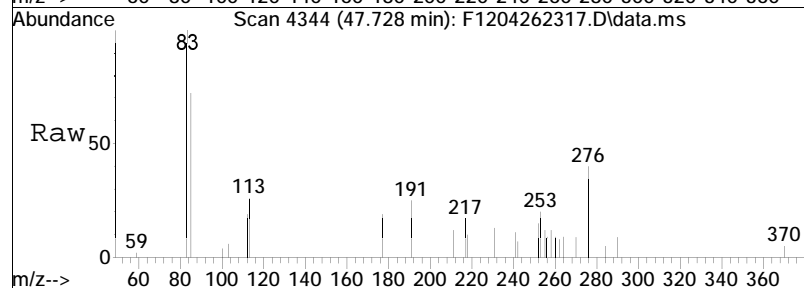
Tgt Ion	Ratio	Lower	Upper
252	100		
253	14.1	16.7	30.9#

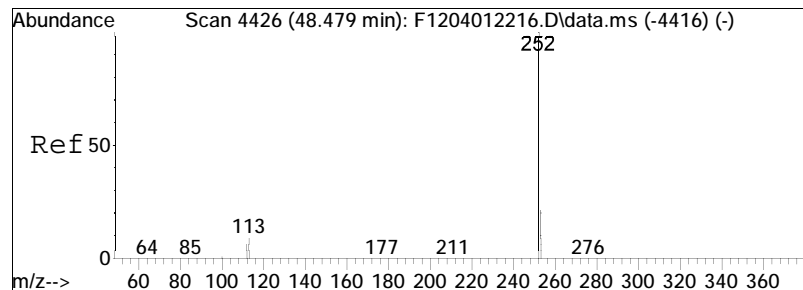




#86
 Benzo[j]+[k]fluoranthene
 Concen: 6.97 ng/mL
 RT: 47.728 min Scan# 4344
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

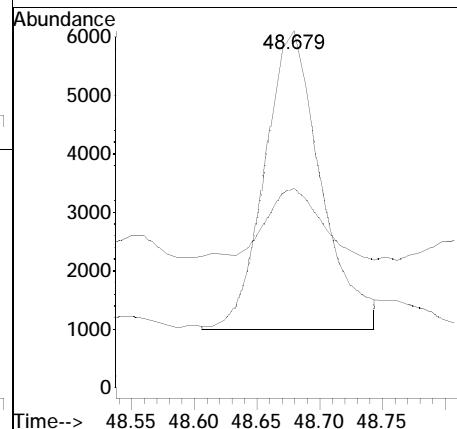
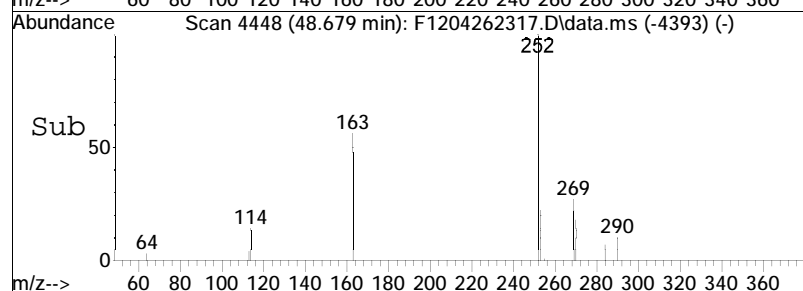
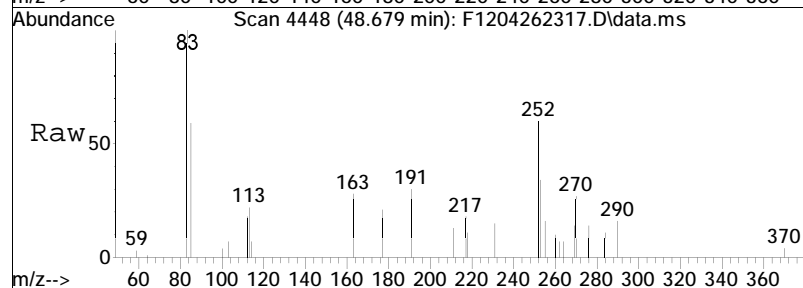
Tgt Ion	Ratio	Lower	Upper
252	100		
253	44.8	16.7	30.9#

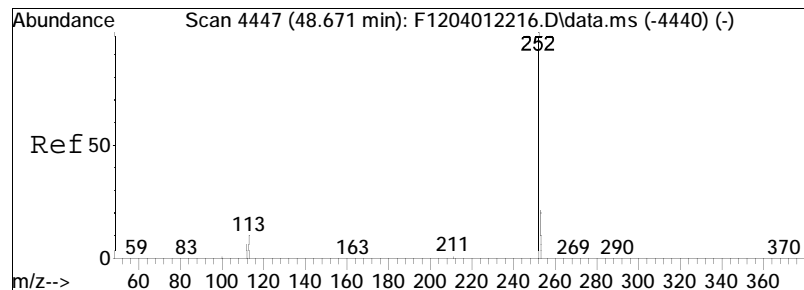




#88
 Benzo[e]pyrene
 Concen: 39.97 ng/mL M4
 RT: 48.679 min Scan# 4448
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

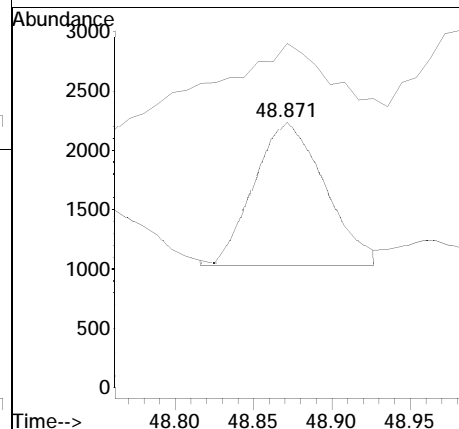
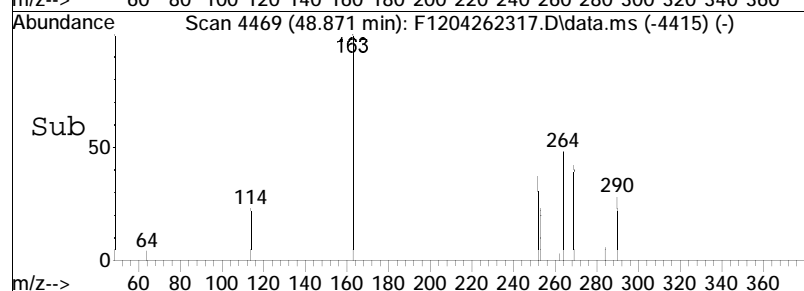
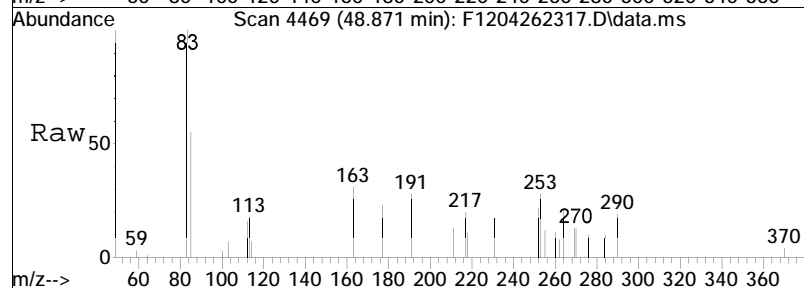
Tgt Ion	Ratio	Lower	Upper
252	100		
253	27.1	17.4	32.2

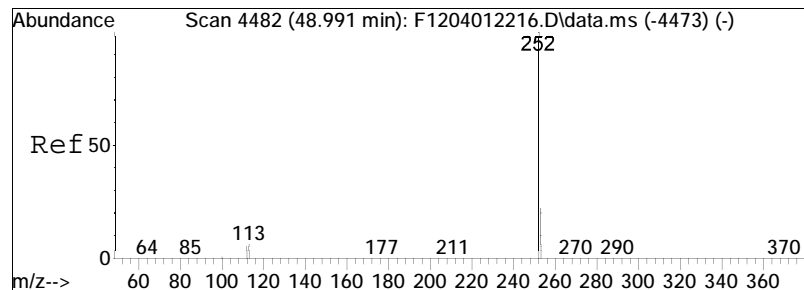




#90
 Benzo[a]pyrene
 Concen: 11.23 ng/mL M3
 RT: 48.871 min Scan# 4469
 Delta R.T. -0.010 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

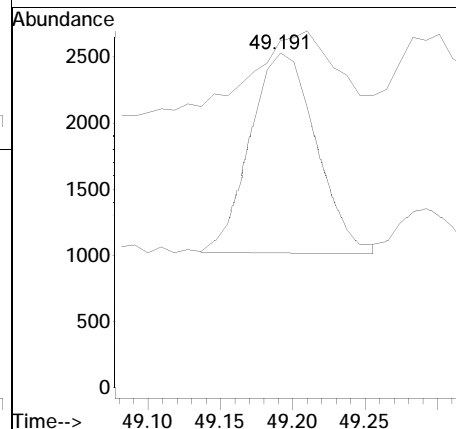
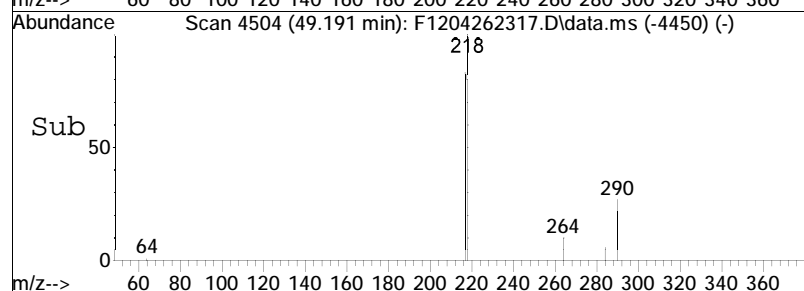
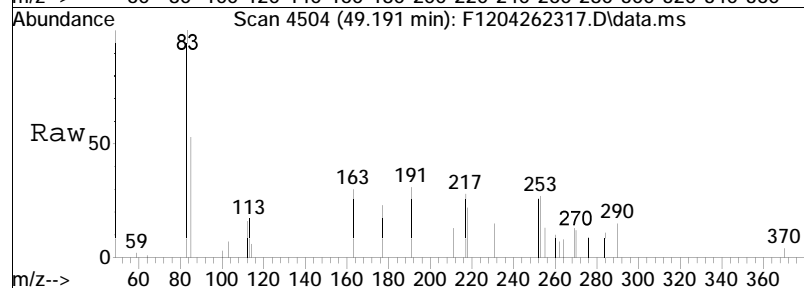
Tgt Ion	Ratio	Lower	Upper
252	100		
253	102.4	18.0	33.4#

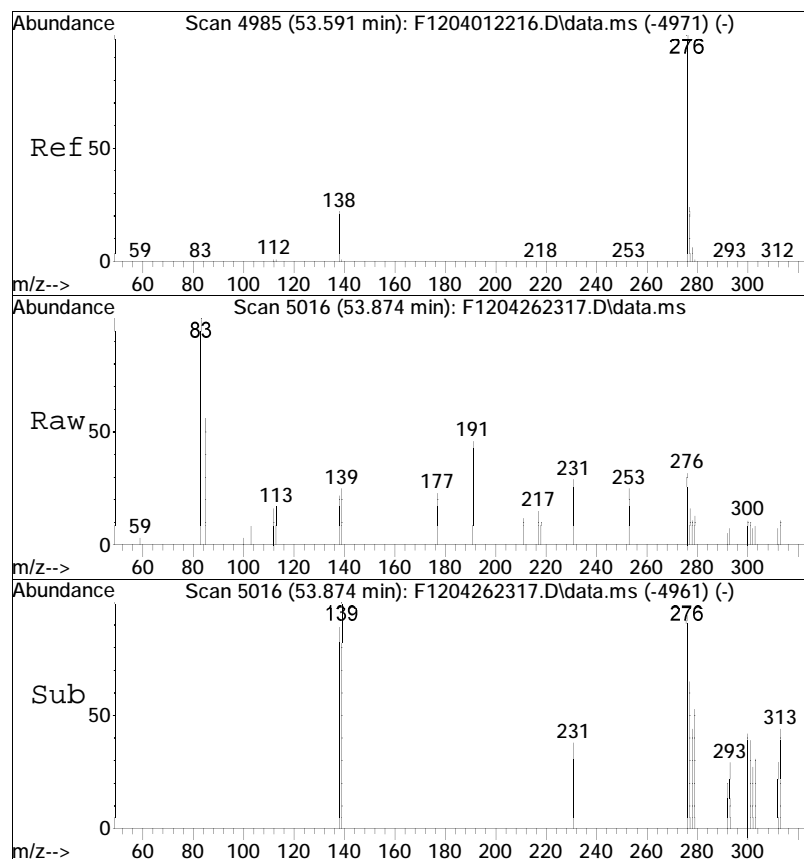




#91
Perylene
Concen: 13.62 ng/mL
RT: 49.191 min Scan# 4504
Delta R.T. -0.010 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

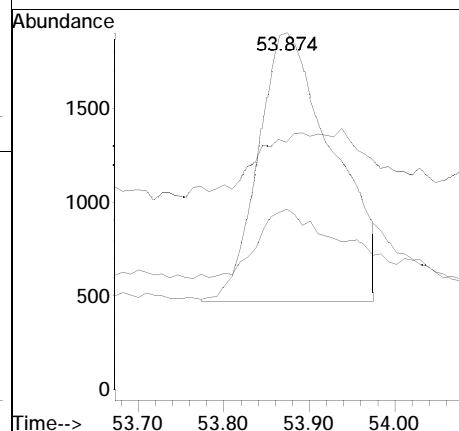
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	53.9	17.8	33.1	

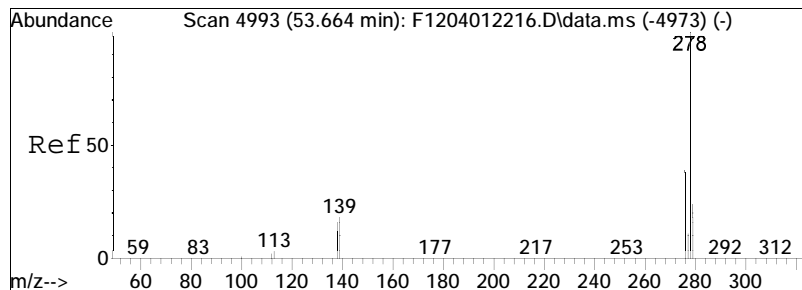




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 25.76 ng/mL M3
 RT: 53.874 min Scan# 5016
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

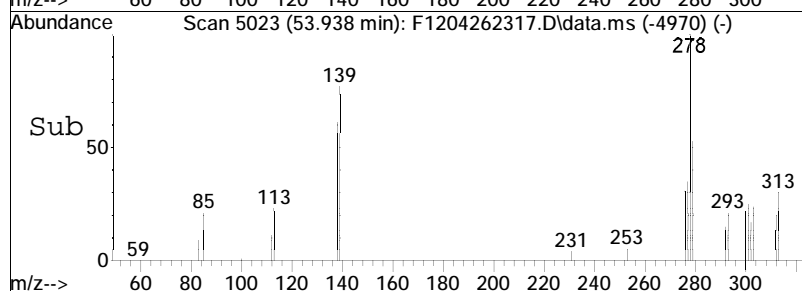
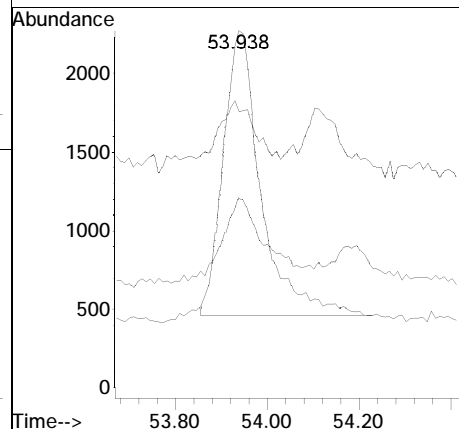
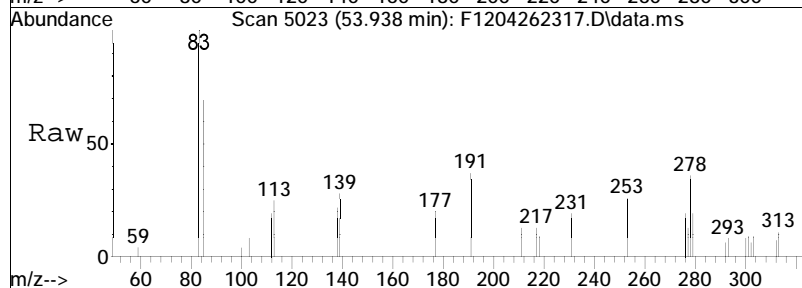
Tgt Ion:	276	Resp:	8773
Ion Ratio	Lower	Upper	
276	100		
138	0.0	16.2	30.0#
277	17.8	16.9	31.3

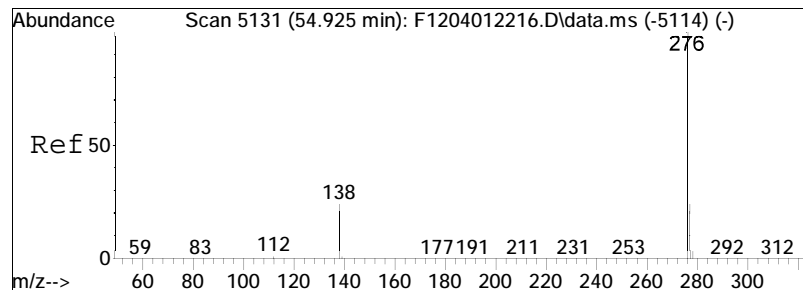




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 34.84 ng/mL
 RT: 53.938 min Scan# 5023
 Delta R.T. -0.018 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

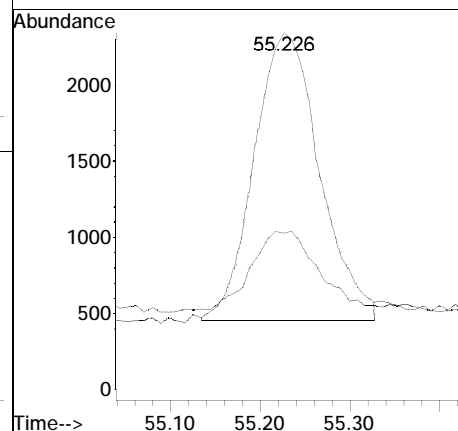
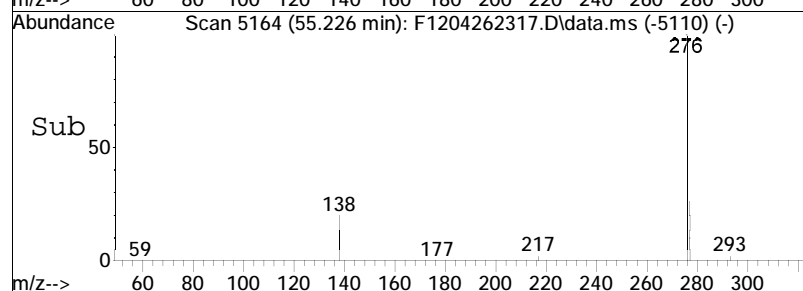
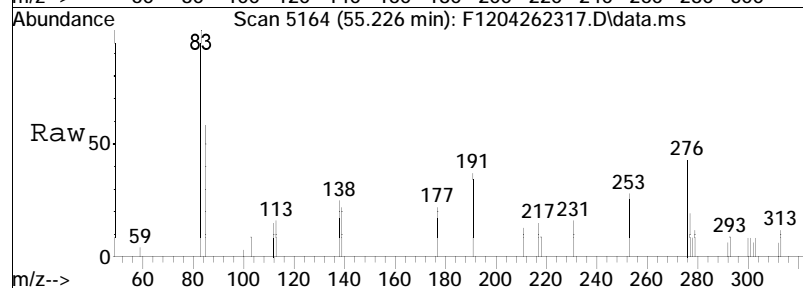
Tgt Ion	Ratio	Lower	Upper
278	100		
139	0.0	13.9	25.7#
279	0.0	17.1	31.7#

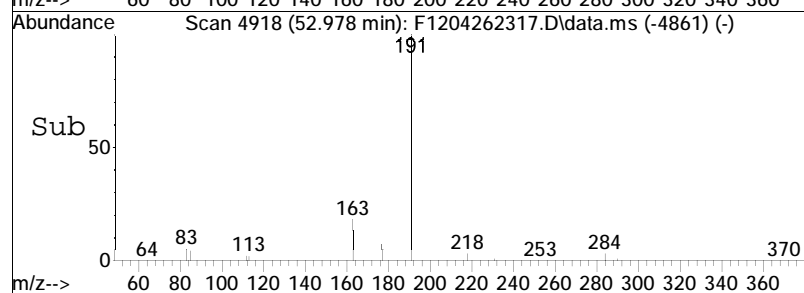
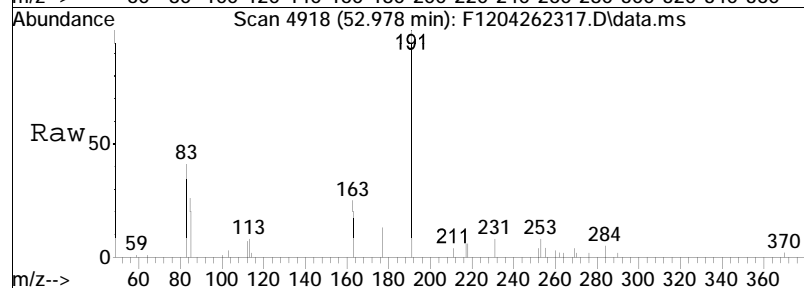
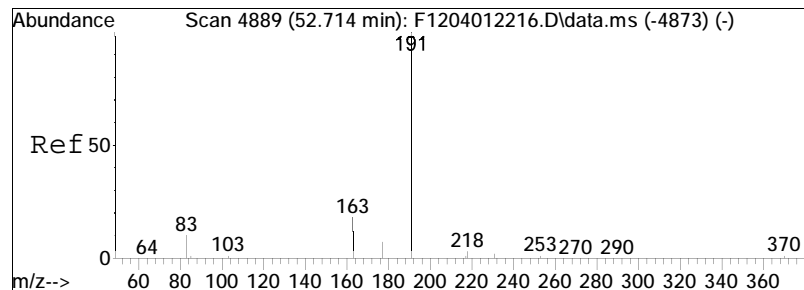




#94
 Benzo[g,h,i]perylene
 Concen: 24.93 ng/mL M4
 RT: 55.226 min Scan# 5164
 Delta R.T. -0.010 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

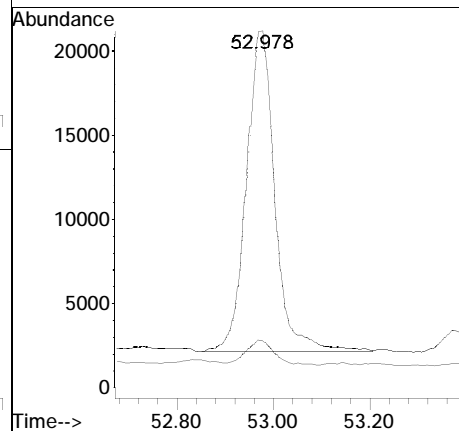
Tgt Ion: 276 Resp: 9533
 Ion Ratio Lower Upper
 276 100
 277 29.6 16.6 30.8

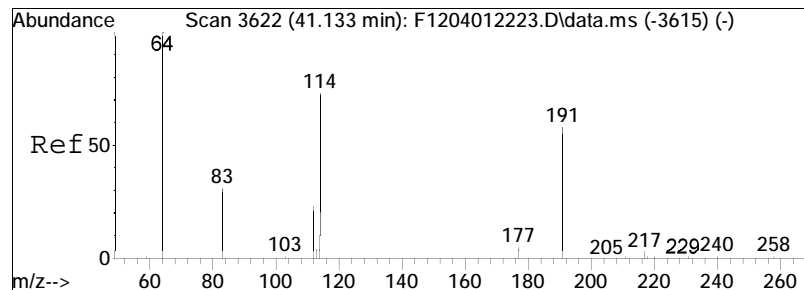




#95
Hopane (T19)
Concen: 717.14 ng/mL
RT: 52.978 min Scan# 4918
Delta R.T. 0.018 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

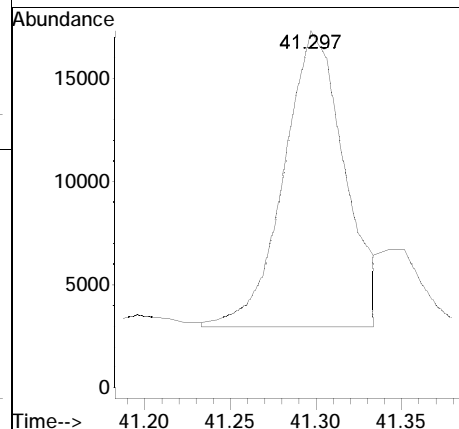
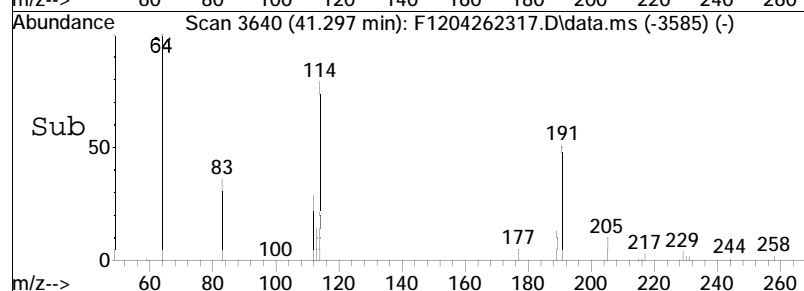
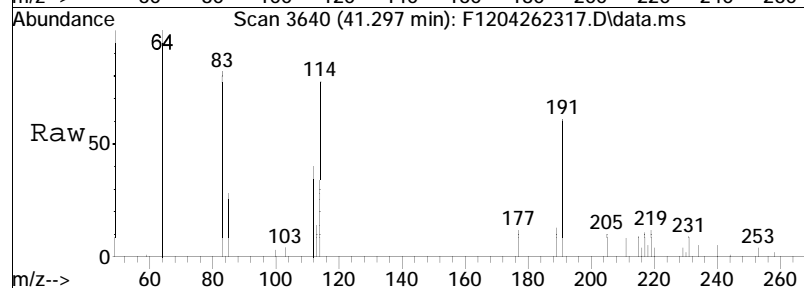
Tgt Ion	Ratio	Lower	Upper
191	100		
177	7.6	9.7	17.9#

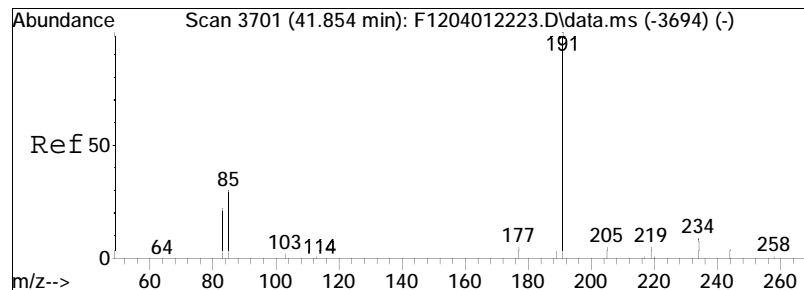




#96
 C23 Tricyclic Terpane (T4)
 Concen: 330.79 ng/ml M3
 RT: 41.297 min Scan# 3640
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

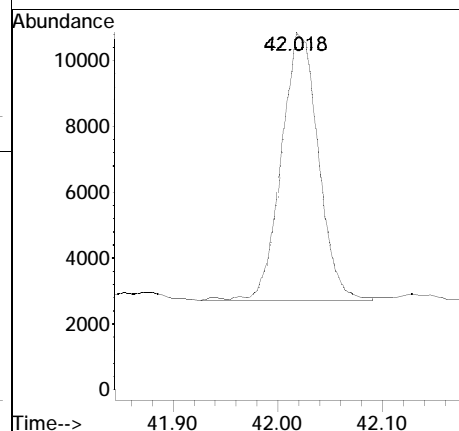
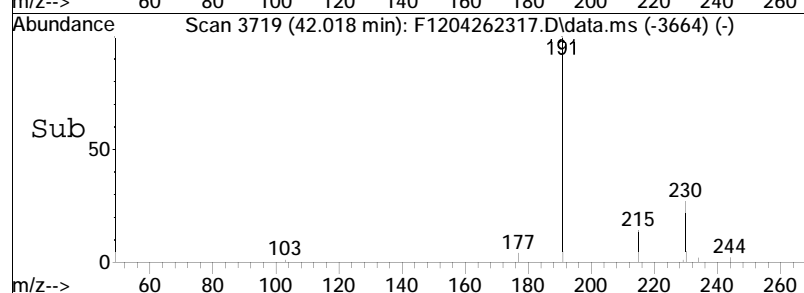
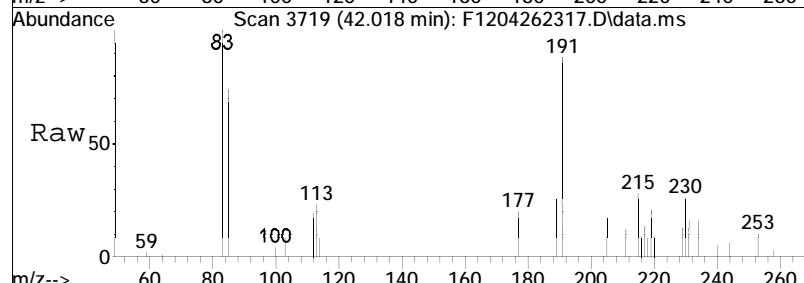
Tgt Ion:191 Resp: 35666

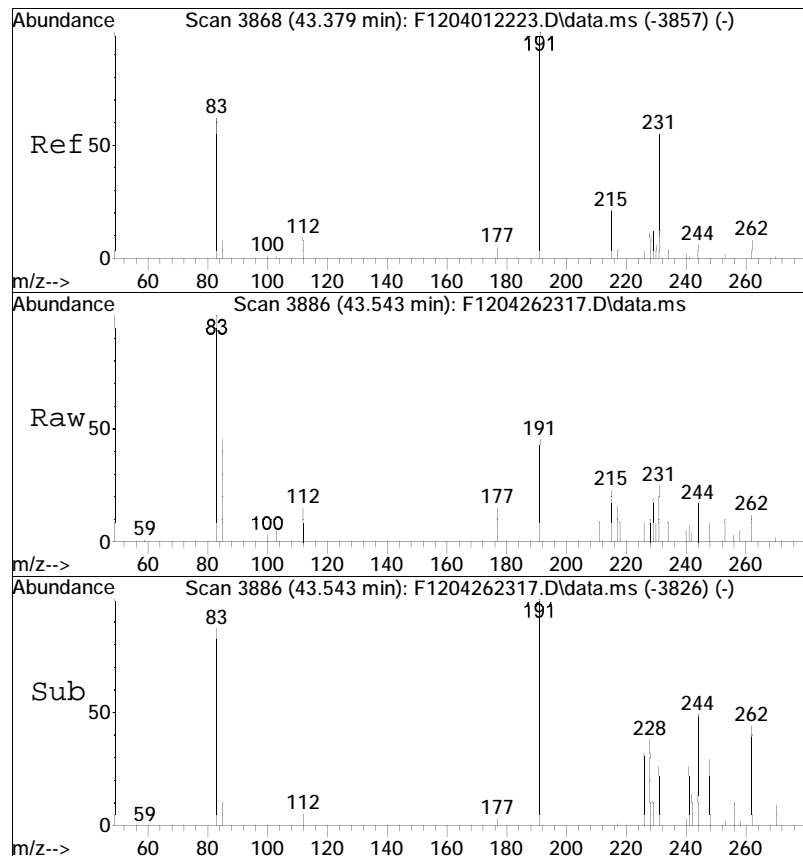




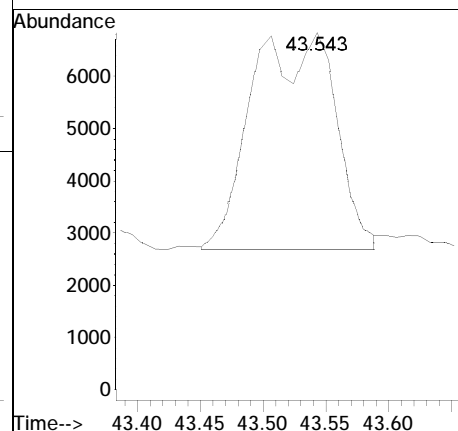
#97
 C24 Tricyclic Terpane (T5)
 Concen: 184.43 ng/ml
 RT: 42.018 min Scan# 3719
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

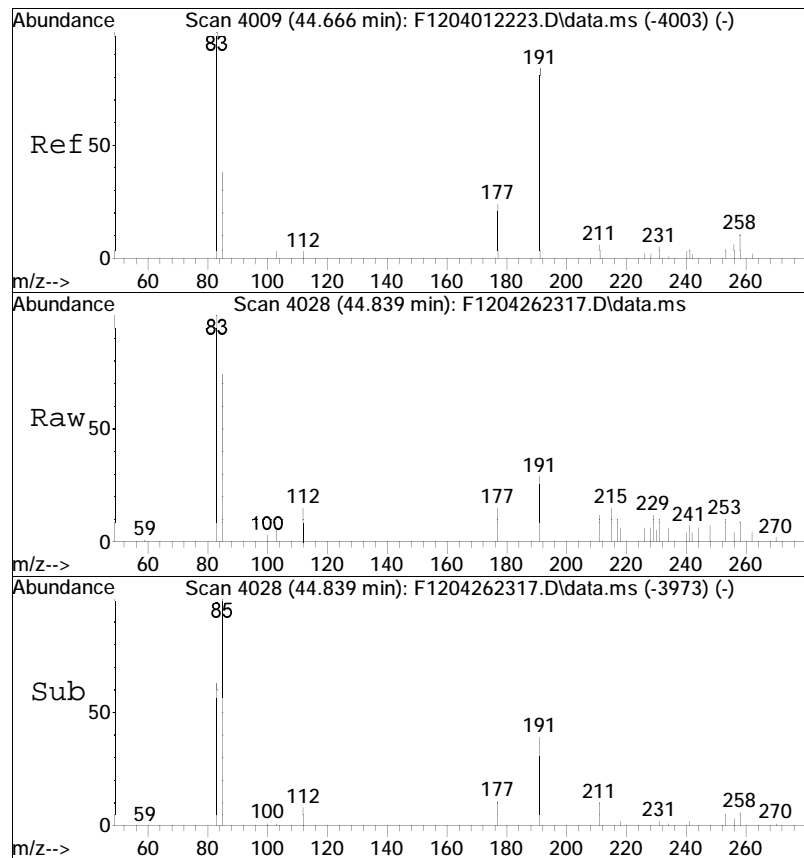
Tgt Ion:191 Resp: 19885



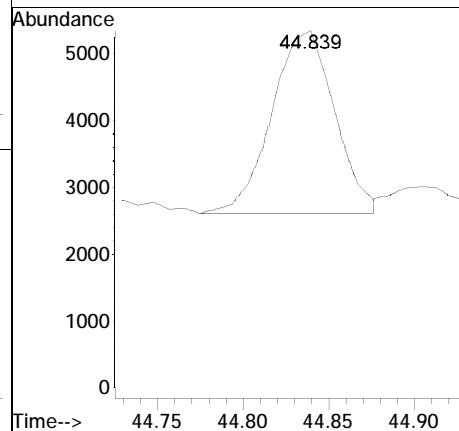


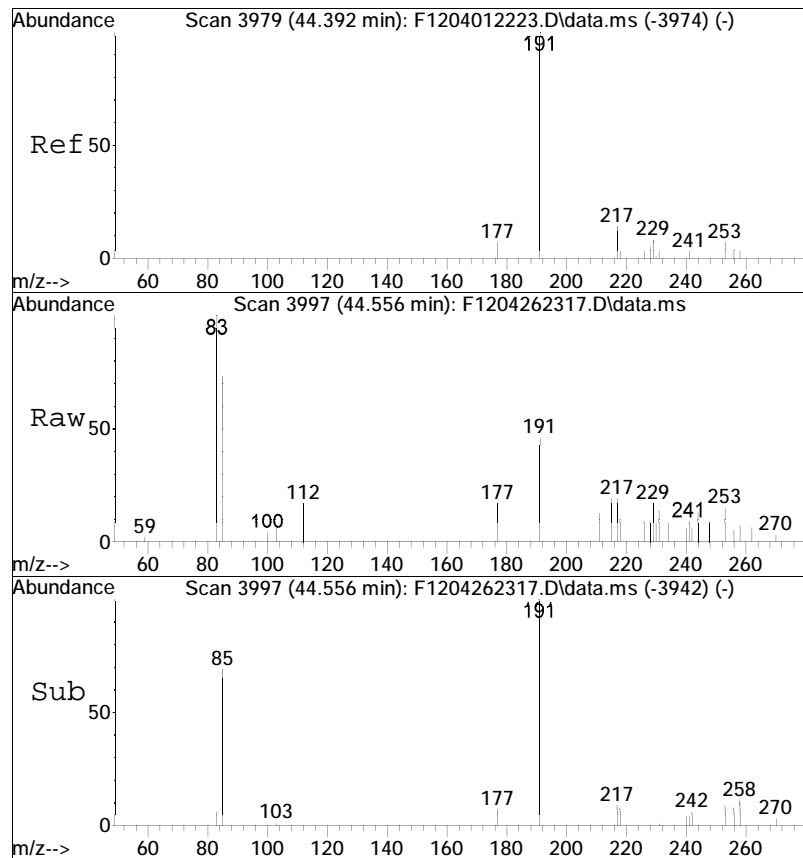
#98
 C25 Tricyclic Terpane (T6)
 Concen: 176.76 ng/ml M4
 RT: 43.543 min Scan# 3886
 Delta R.T. 0.046 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:191 Resp: 19058



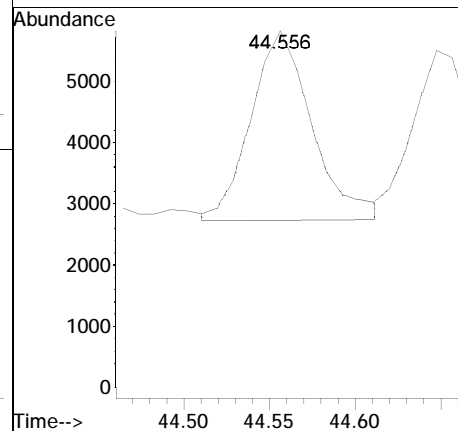


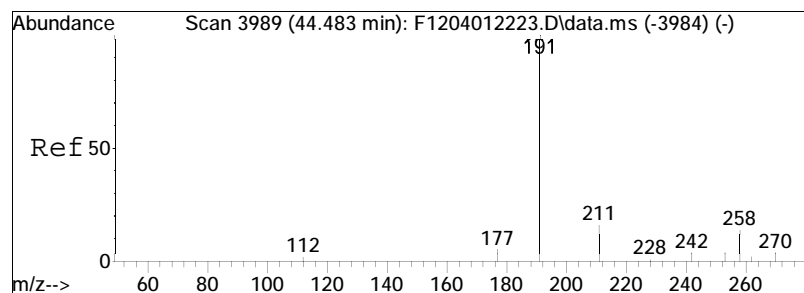
#99
 C24 Tetracyclic Terpane (T6a)
 Concen: 64.61 ng/ml
 RT: 44.839 min Scan# 4028
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:191 Resp: 6966



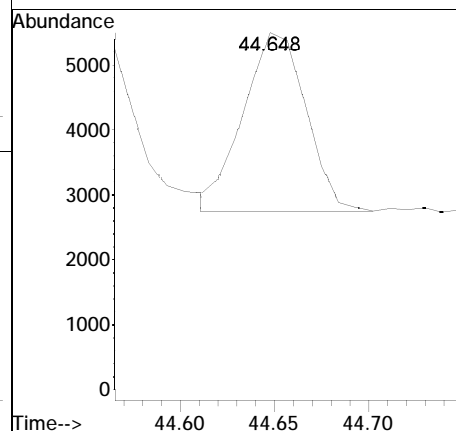
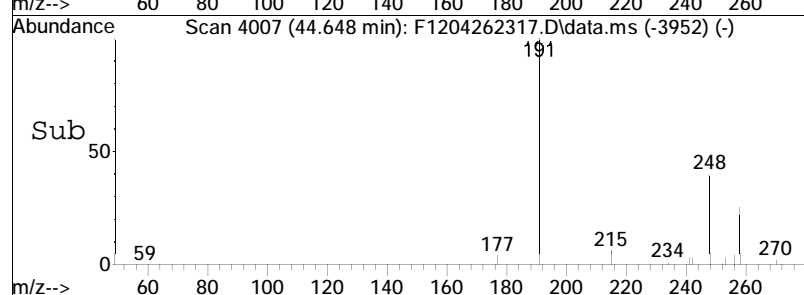
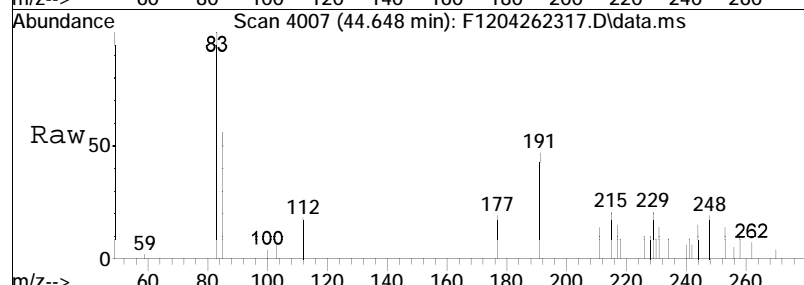


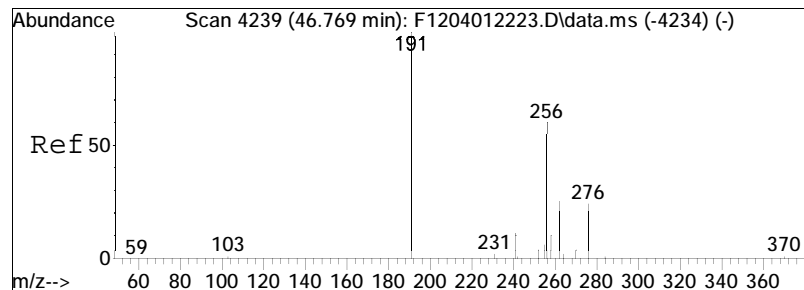
#100
 C26 Tricyclic Terpane-22S (T6b)
 Concen: 70.77 ng/ml
 RT: 44.556 min Scan# 3997
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:191 Resp: 7630





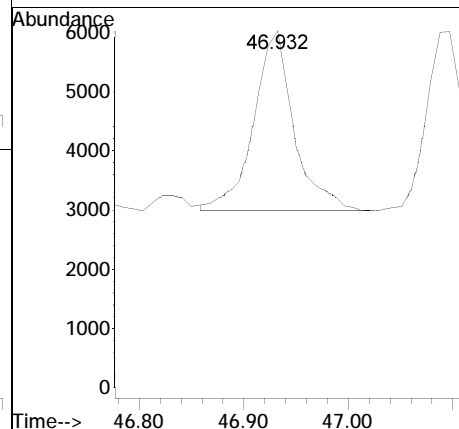
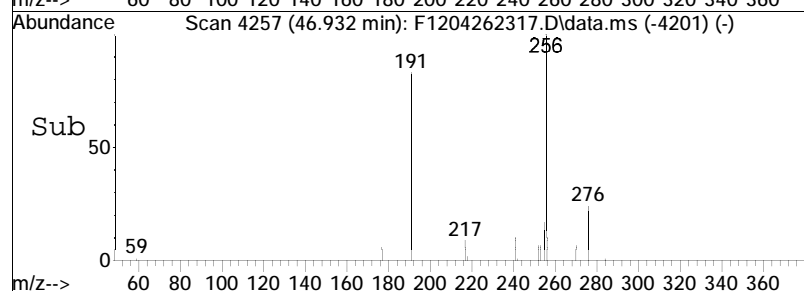
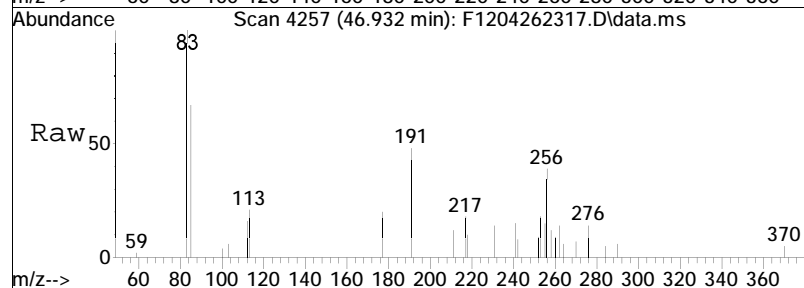
#101
 C26 Tricyclic Terpane-22R (T6c
 Concen: 59.04 ng/ml
 RT: 44.648 min Scan# 4007
 Delta R.T. 0.001 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:191 Resp: 6366

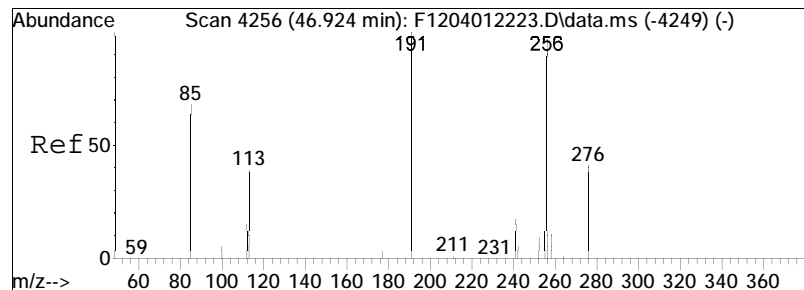




#102
 C28 Tricyclic Terpane-22S (T7)
 Concen: 76.59 ng/ml
 RT: 46.932 min Scan# 4257
 Delta R.T. 0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

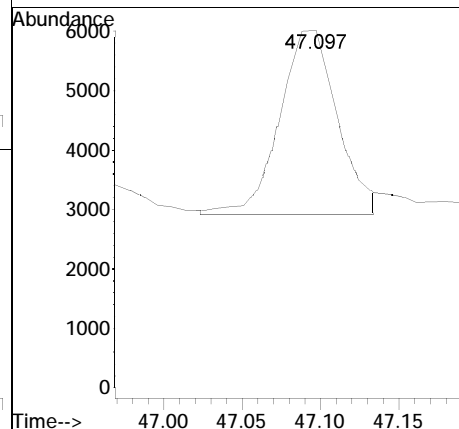
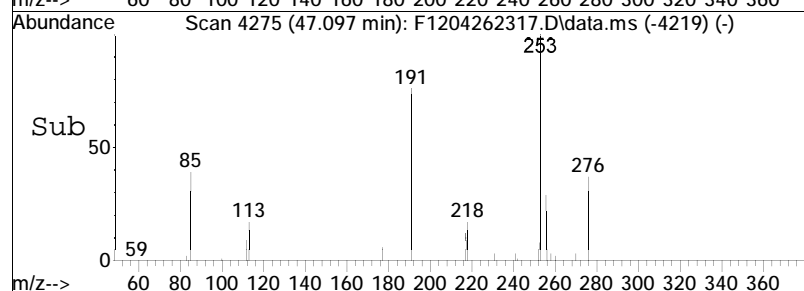
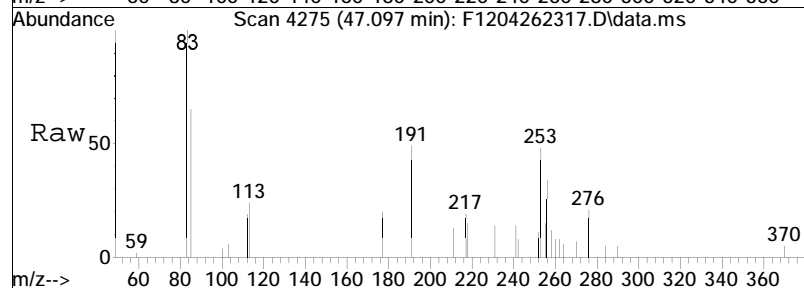
Tgt Ion:191 Resp: 8258

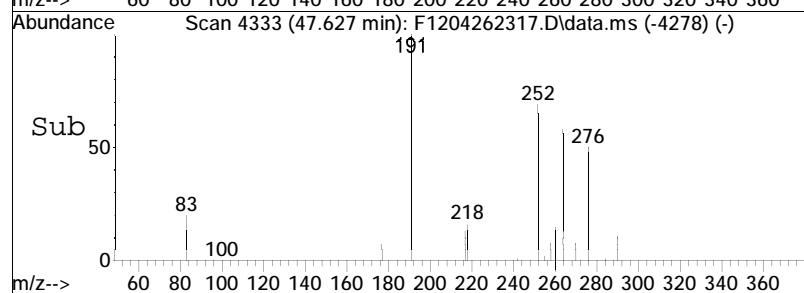
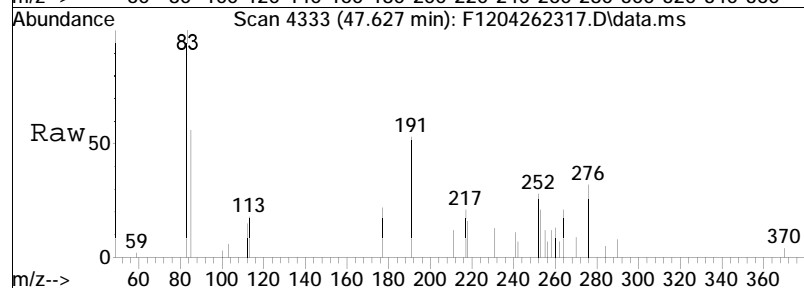
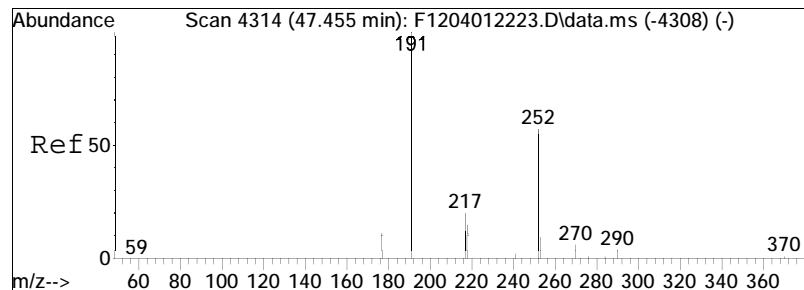




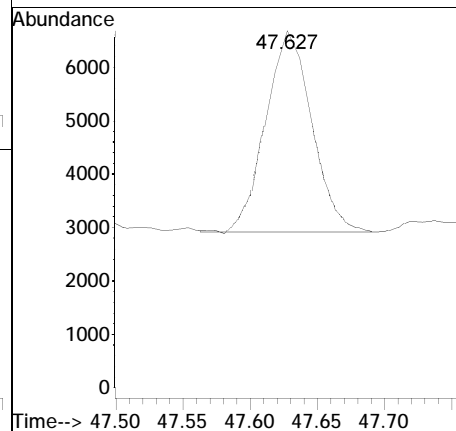
#103
 C28 Tricyclic Terpane-22R (T8)
 Concen: 73.42 ng/ml M4
 RT: 47.097 min Scan# 4275
 Delta R.T. 0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

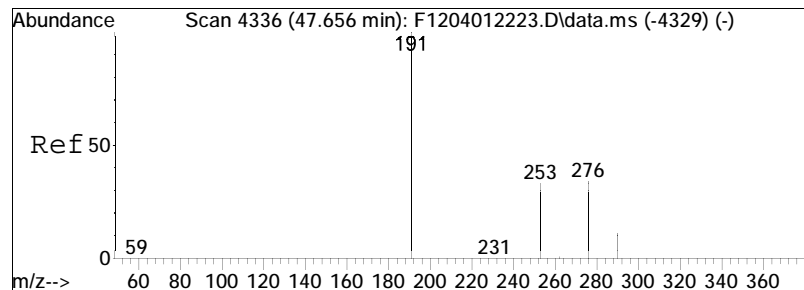
Tgt Ion:191 Resp: 7916





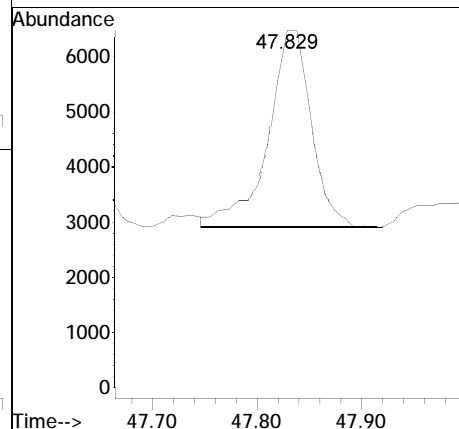
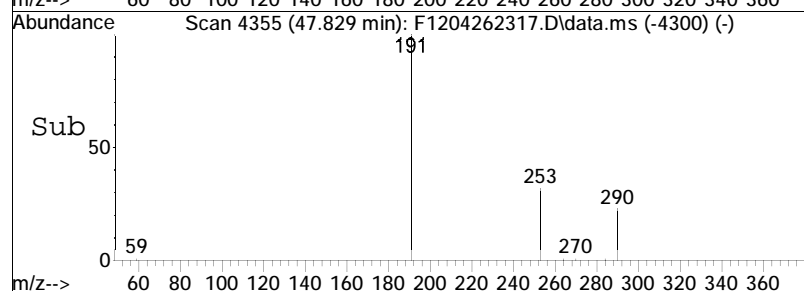
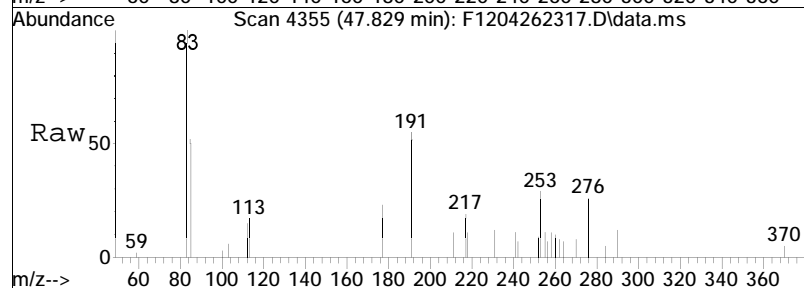
#104
C29 Tricyclic Terpane-22S (T9)
Concen: 83.03 ng/ml
RT: 47.627 min Scan# 4333
Delta R.T. 0.000 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm
Tgt Ion:191 Resp: 8952

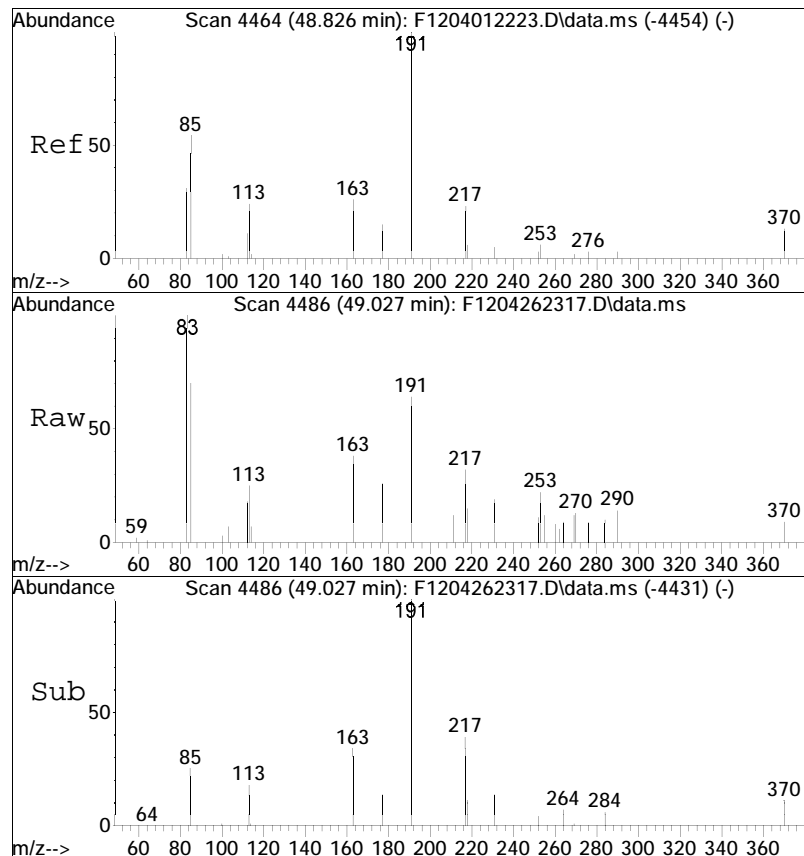




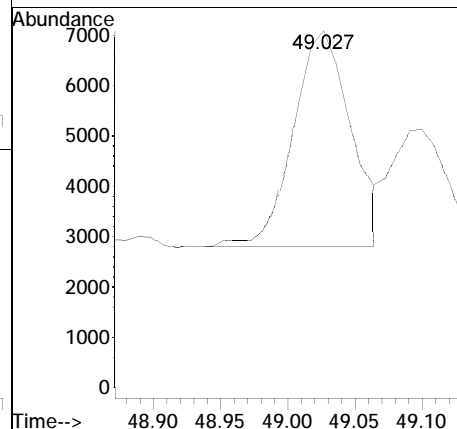
#105
 C29 Tricyclic Terpane-22R (T10)
 Concen: 95.30 ng/ml
 RT: 47.829 min Scan# 4355
 Delta R.T. 0.001 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

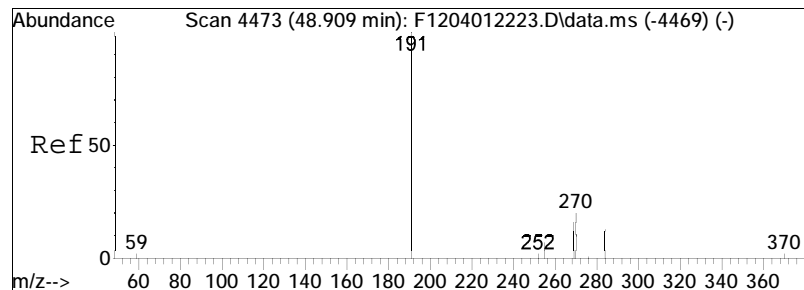
Tgt Ion:191 Resp: 10275





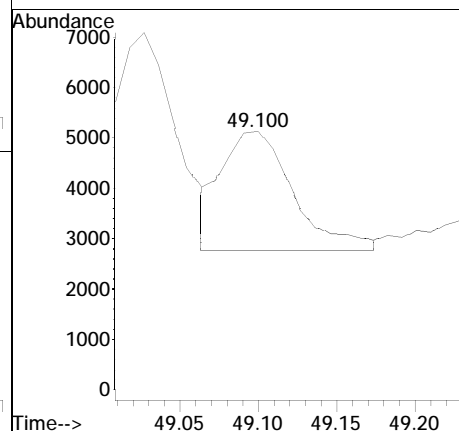
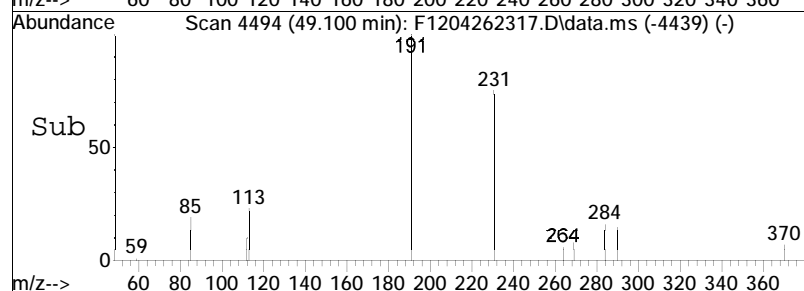
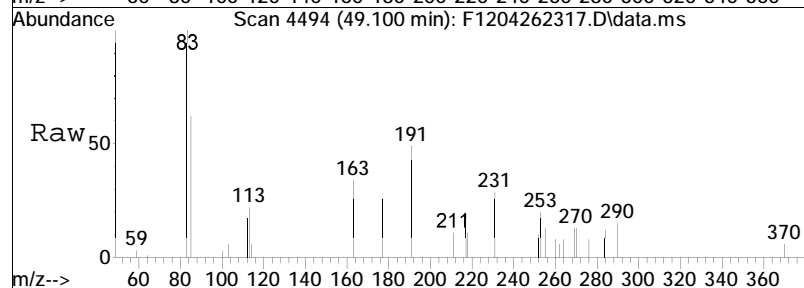
#106
 18a-22,29,30-Trisnorneohopane-
 Concen: 118.79 ng/ml
 RT: 49.027 min Scan# 4486
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:191 Resp: 12808

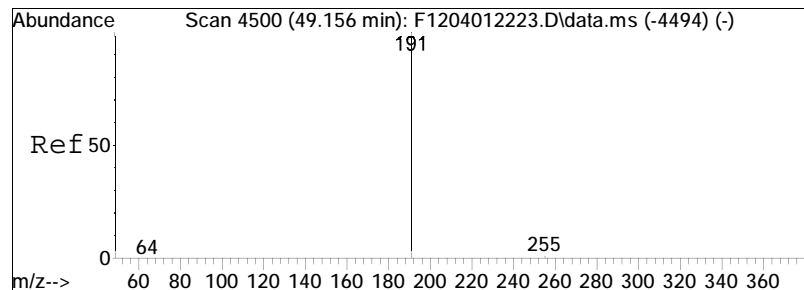




#107
 C30 Tricyclic Terpane-22S
 Concen: 69.88 ng/mL
 RT: 49.100 min Scan# 4494
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

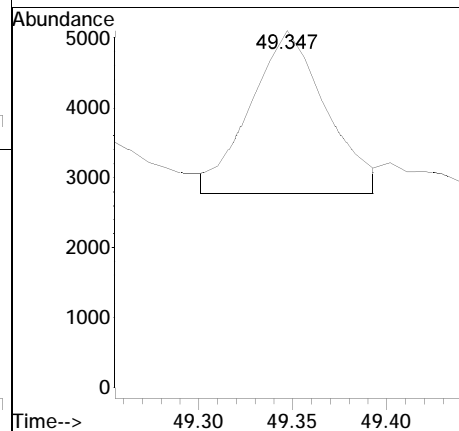
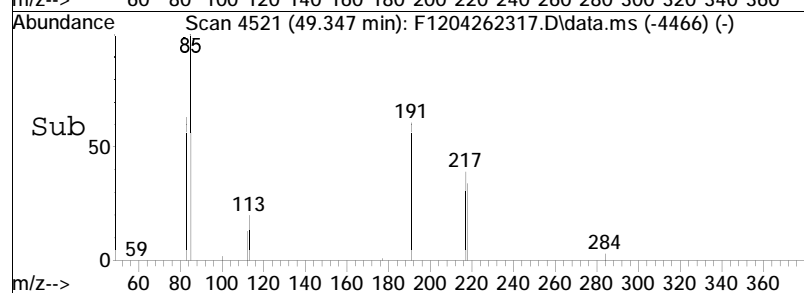
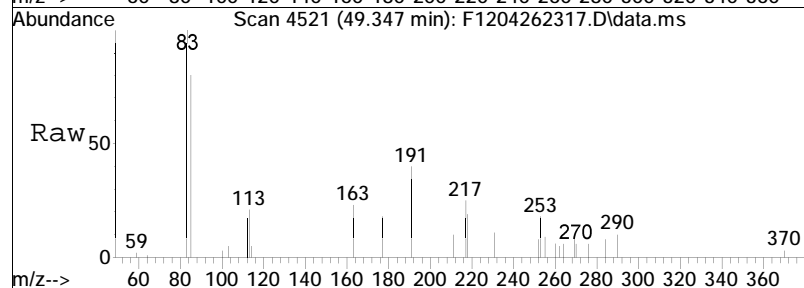
Tgt Ion:191 Resp: 7534

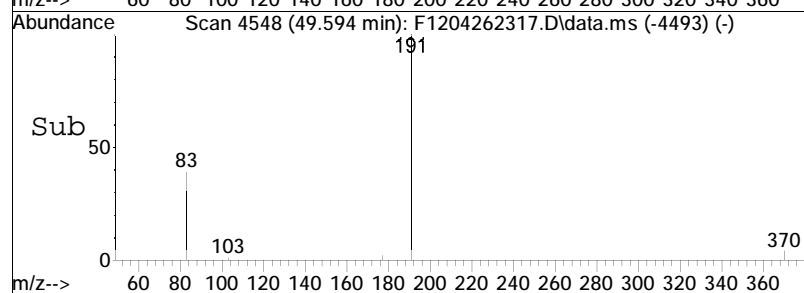
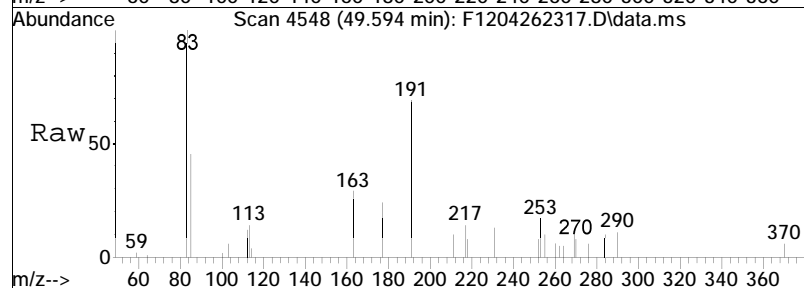
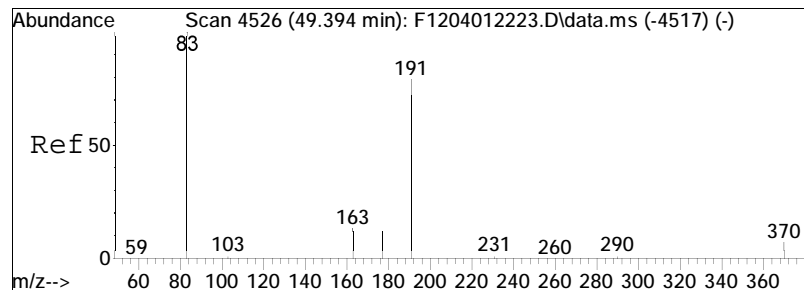




#108
 C30 Tricyclic Terpane-22R
 Concen: 59.96 ng/mL M4
 RT: 49.347 min Scan# 4521
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

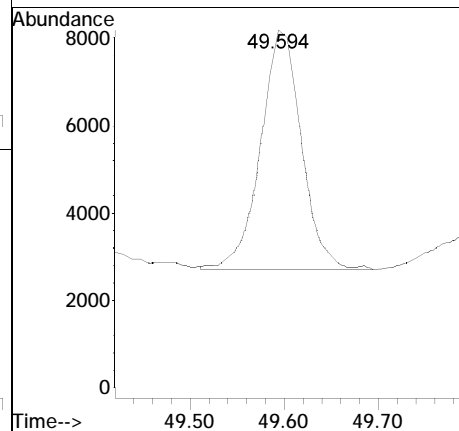
Tgt Ion:191 Resp: 6465

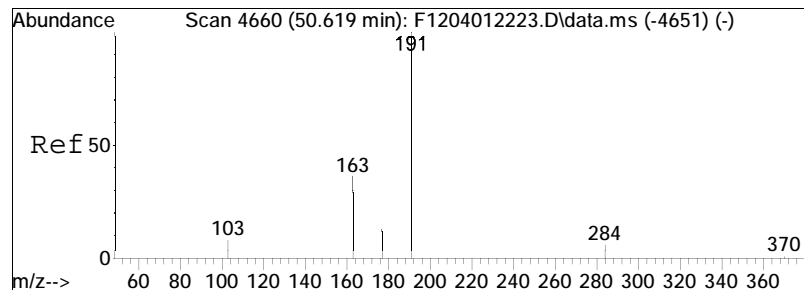




#109
 17a(H)-22,29,30-Trisnorhopane-
 Concen: 152.29 ng/ml
 RT: 49.594 min Scan# 4548
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

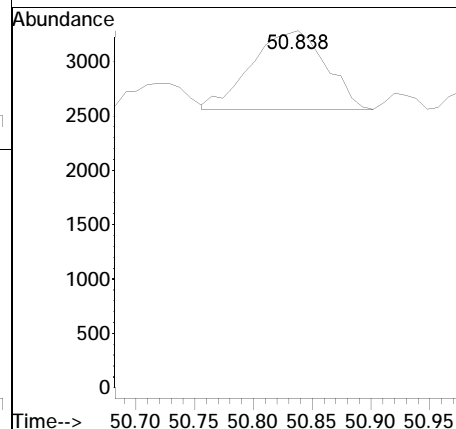
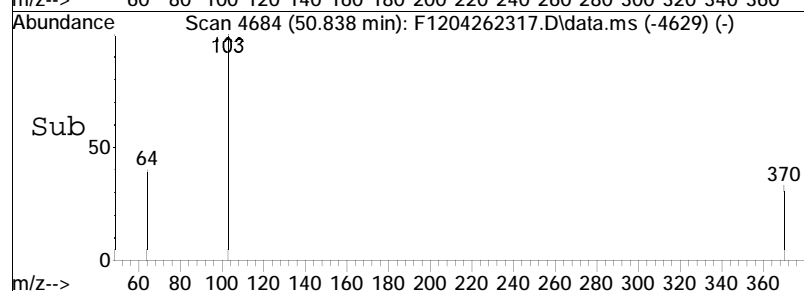
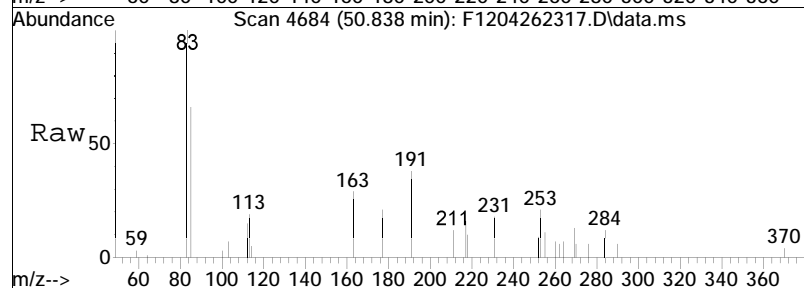
Tgt Ion:191 Resp: 16420

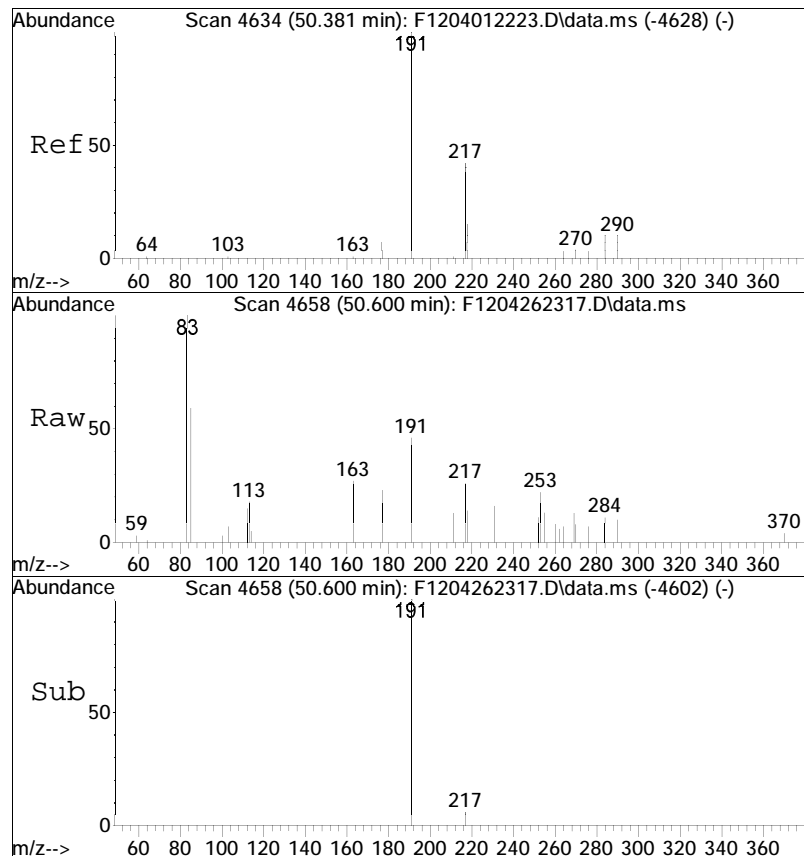




#110
 17a/b,21b/a 28,30-Bisnorhopane
 Concen: 29.14 ng/ml
 RT: 50.838 min Scan# 4684
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

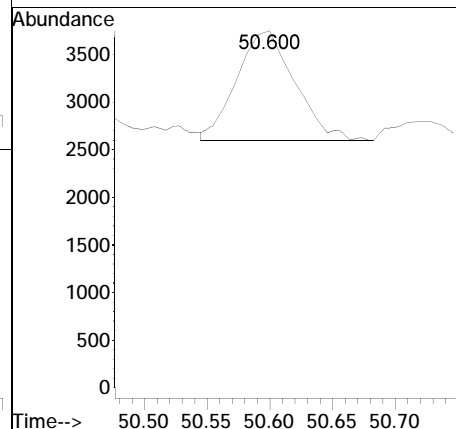
Tgt Ion:191 Resp: 3142

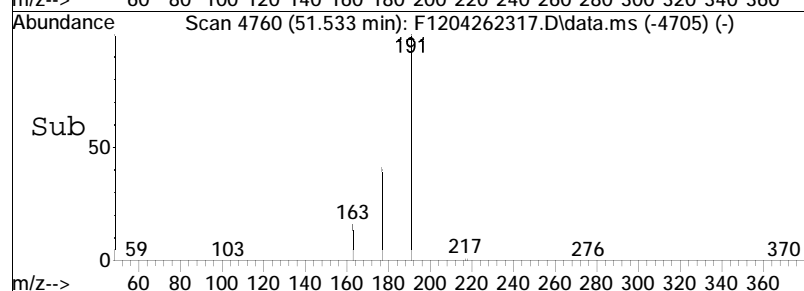
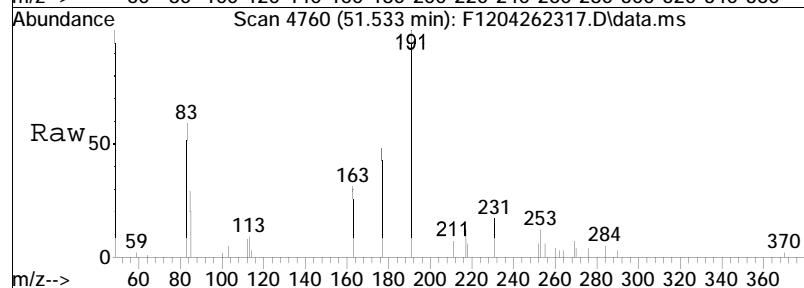
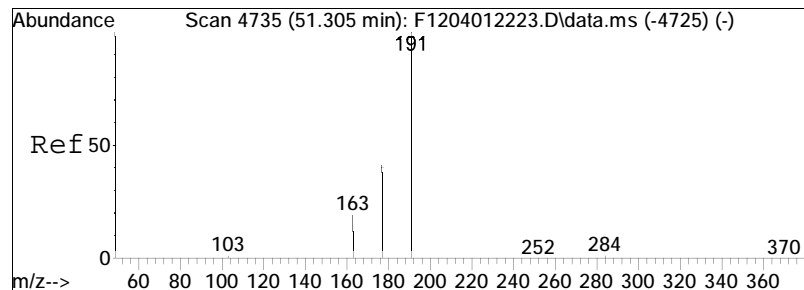




#111
 17a(H),21b(H)-25-Norhopane (T1
 Concen: 34.57 ng/ml
 RT: 50.600 min Scan# 4658
 Delta R.T. 0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

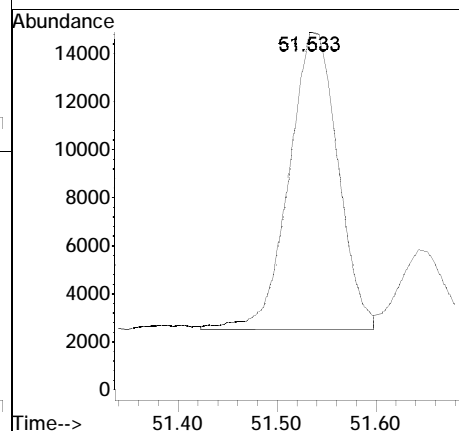
Tgt Ion:191 Resp: 3727

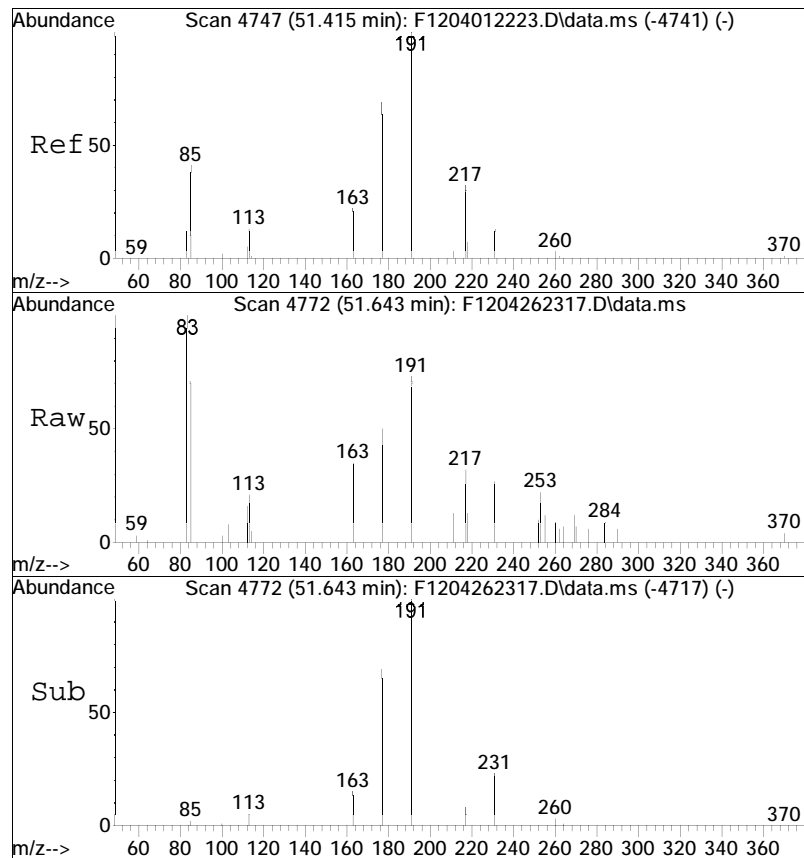




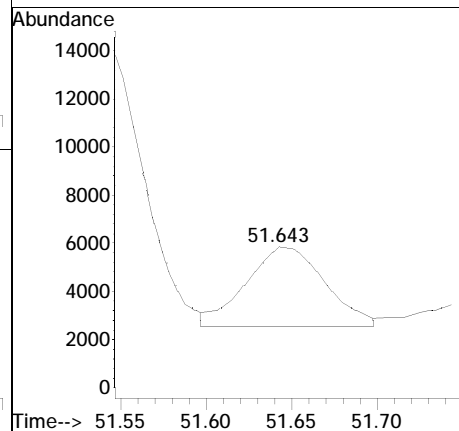
#112
30-Norhopane (T15)
Concen: 391.87 ng/ml
RT: 51.533 min Scan# 4760
Delta R.T. -0.000 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

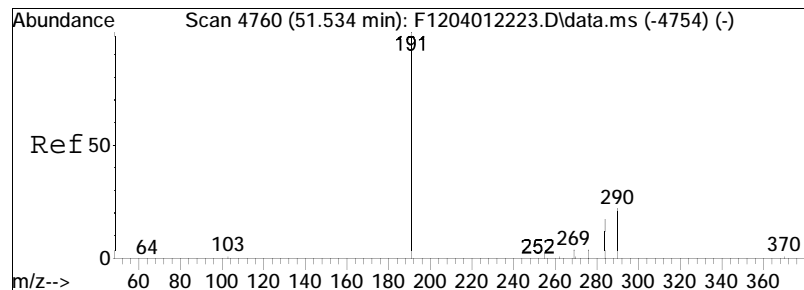
Tgt Ion:191 Resp: 42251





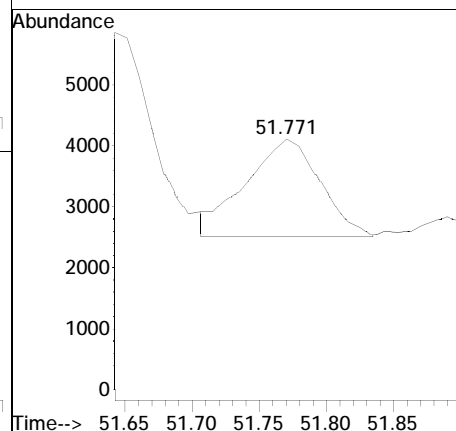
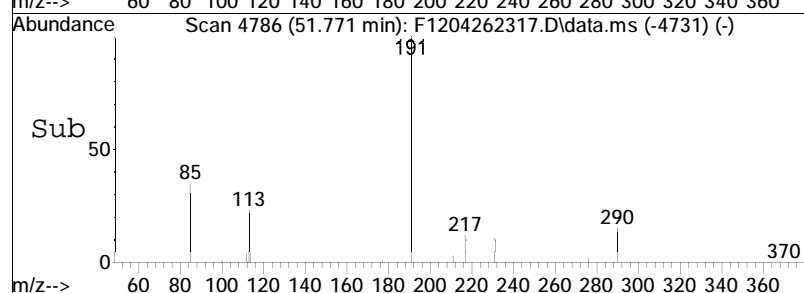
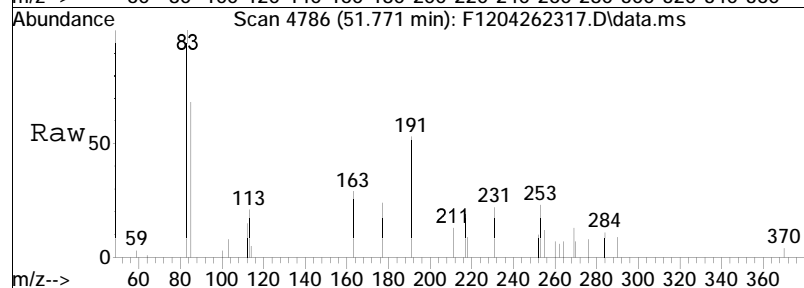
#113
 18a(H)-30-Norneohopane-C29Ts (
 Concen: 97.03 ng/ml M4
 RT: 51.643 min Scan# 4772
 Delta R.T. 0.001 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:191 Resp: 10462

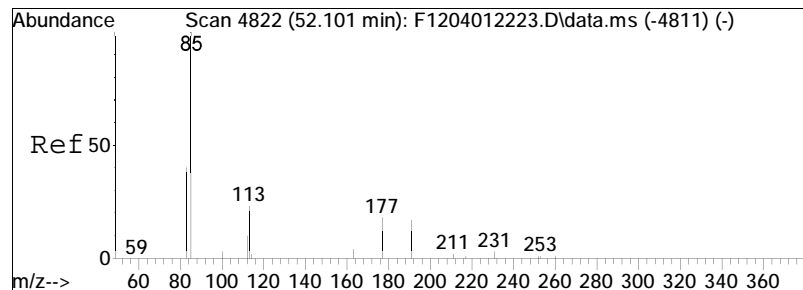




#114
 17a(H)-Diahopane (X)
 Concen: 57.10 ng/ml M4
 RT: 51.771 min Scan# 4786
 Delta R.T. 0.001 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

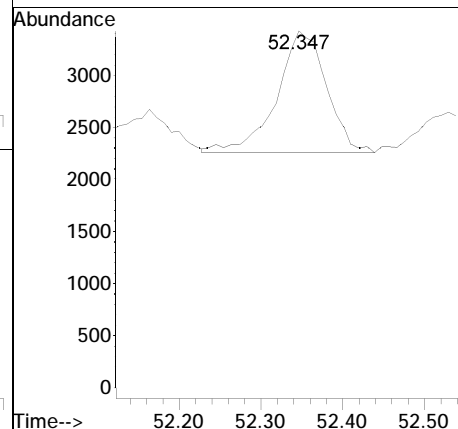
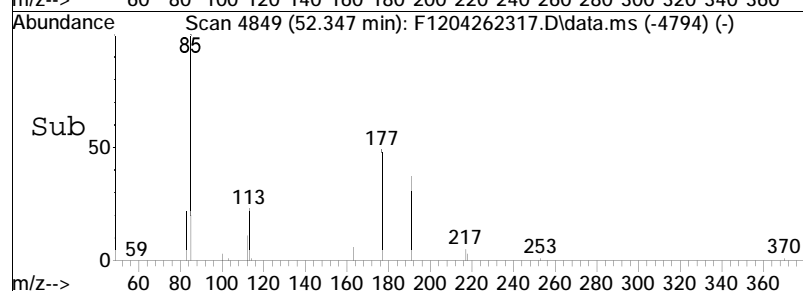
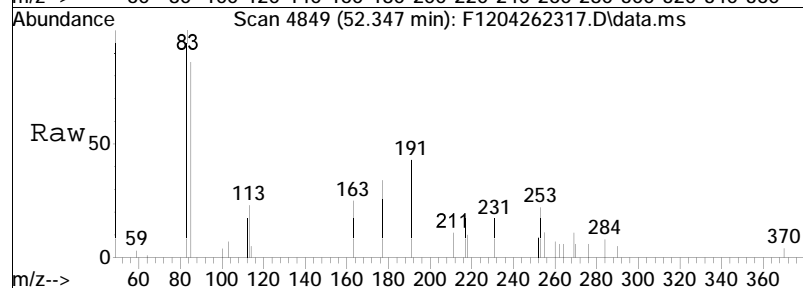
Tgt Ion:191 Resp: 6157

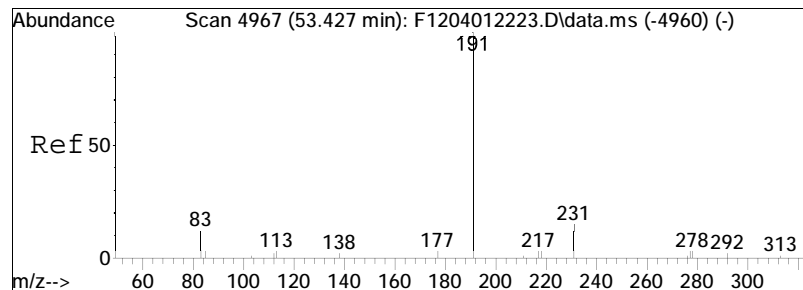




#115
 30-Normoretane (T17)
 Concen: 45.44 ng/ml
 RT: 52.347 min Scan# 4849
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

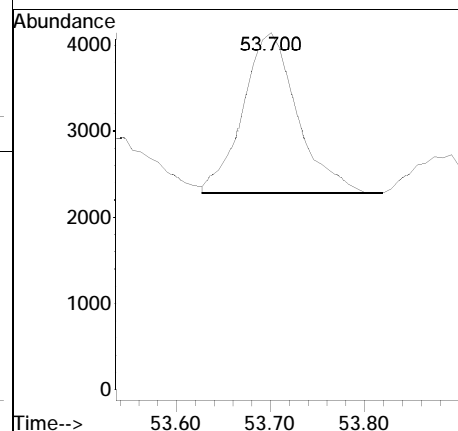
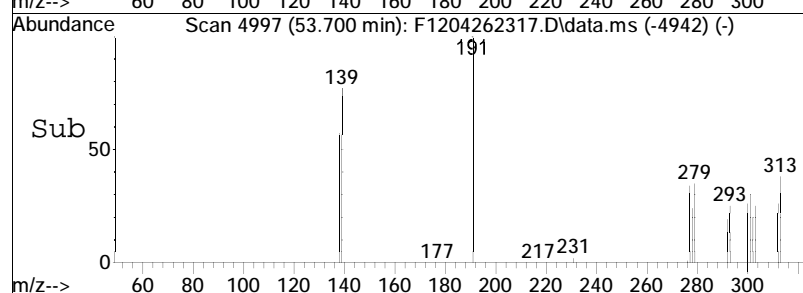
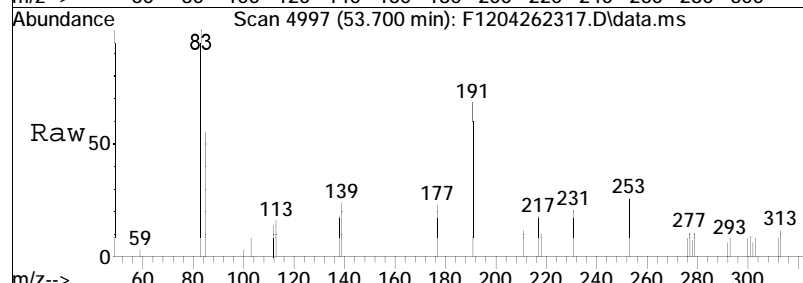
Tgt Ion:191 Resp: 4899

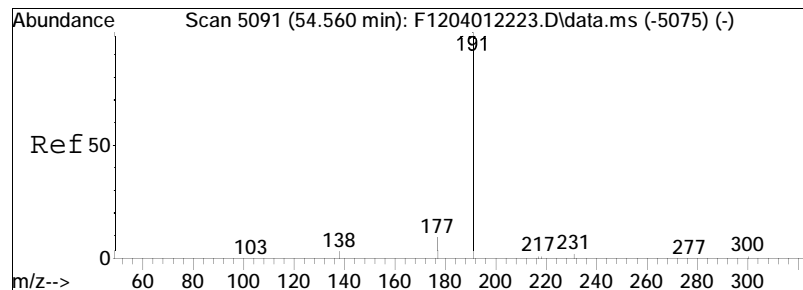




#117
 Moretane (T20)
 Concen: 69.21 ng/ml
 RT: 53.700 min Scan# 4997
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

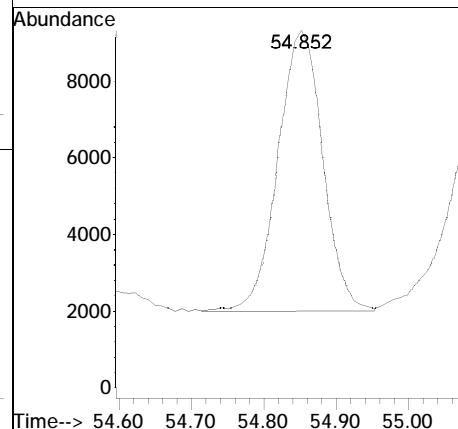
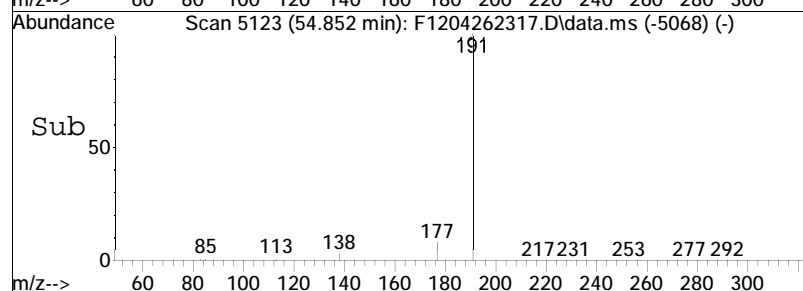
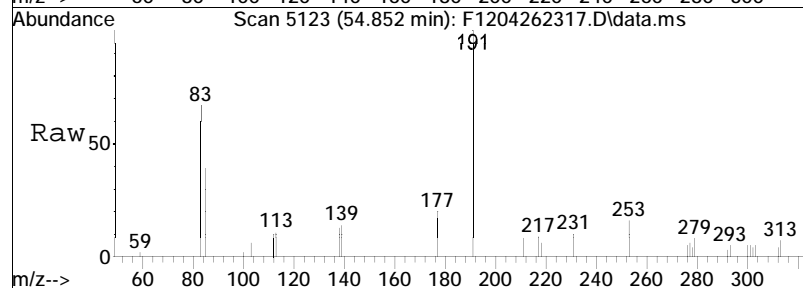
Tgt Ion:191 Resp: 7462

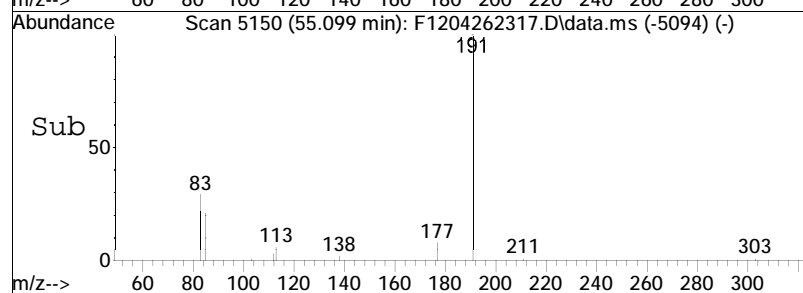
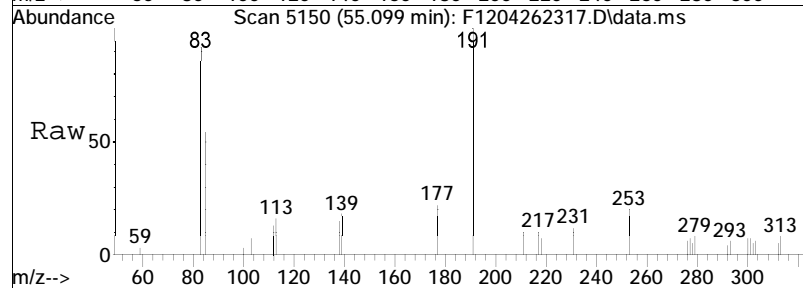
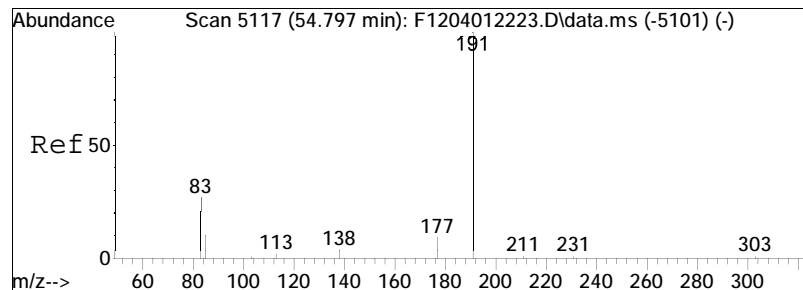




#118
 30-Homohopane-22S (T21)
 Concen: 289.84 ng/ml
 RT: 54.852 min Scan# 5123
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

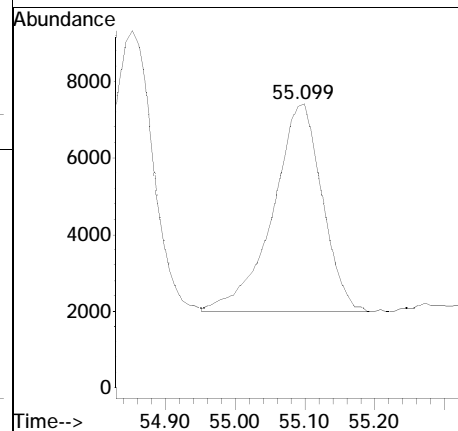
Tgt Ion:191 Resp: 31250

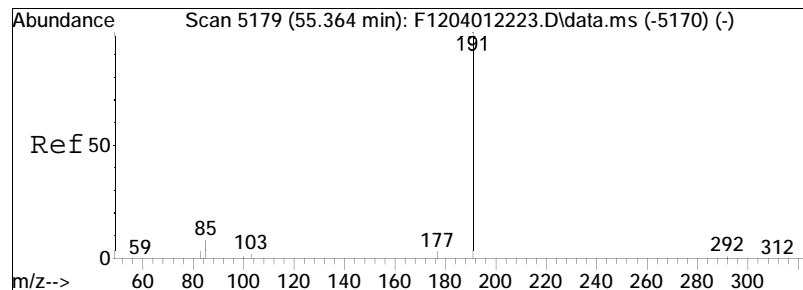




#119
 30-Homohopane-22R (T22)
 Concen: 245.00 ng/ml
 RT: 55.099 min Scan# 5150
 Delta R.T. 0.010 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

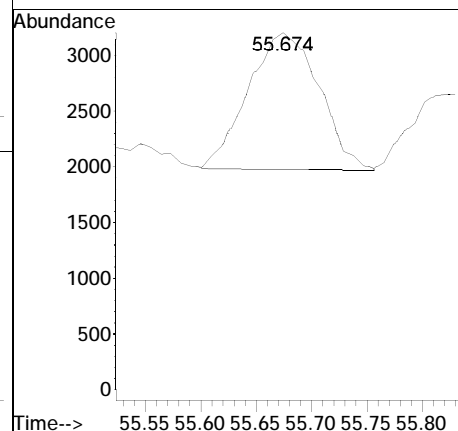
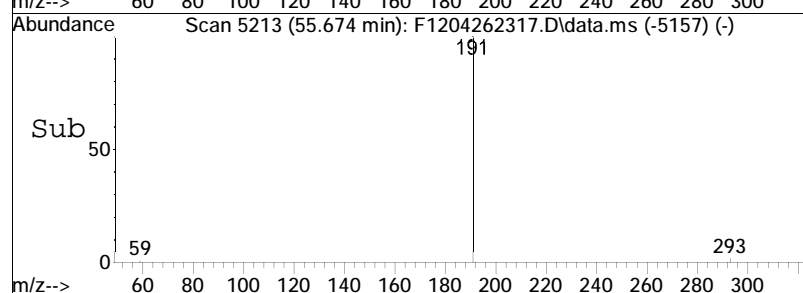
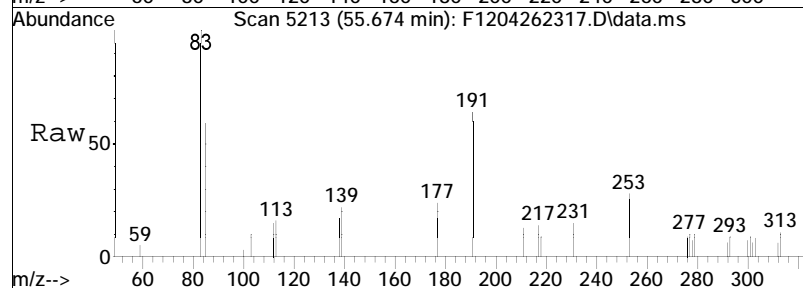
Tgt Ion:191 Resp: 26416

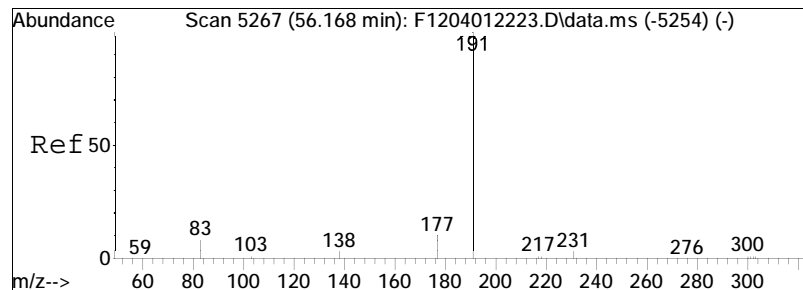




#120
 Gammacerane/C32-diahopane
 Concen: 50.69 ng/mL
 RT: 55.674 min Scan# 5213
 Delta R.T. 0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

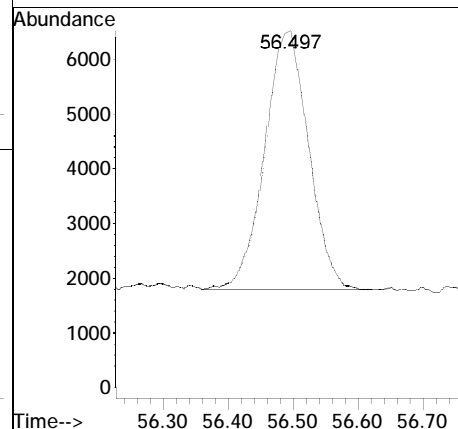
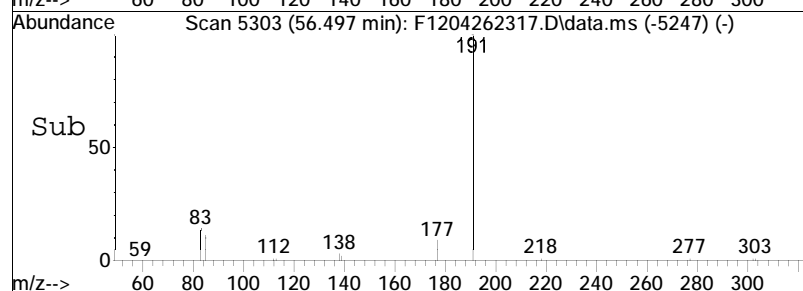
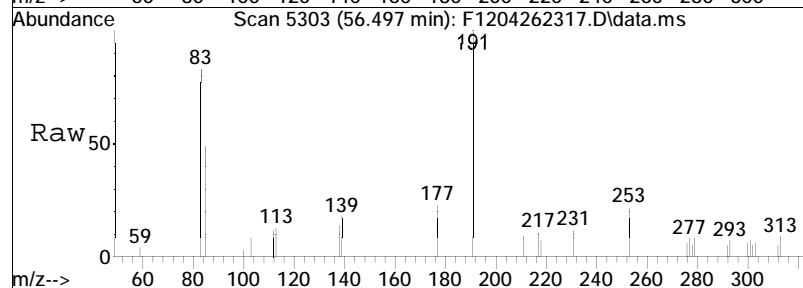
Tgt Ion:191 Resp: 5465

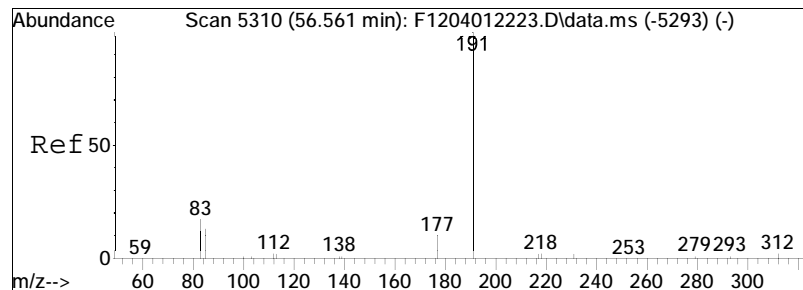




#121
 30,31-Bishomohopane-22S (T26)
 Concen: 205.24 ng/ml
 RT: 56.497 min Scan# 5303
 Delta R.T. 0.010 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

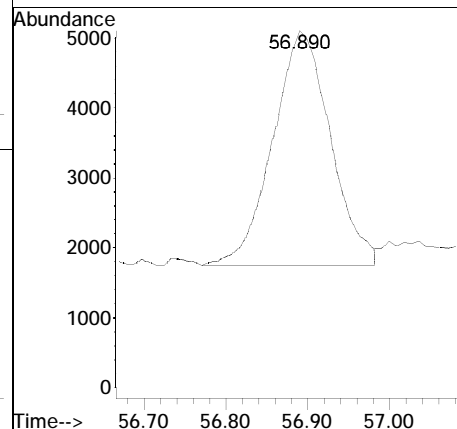
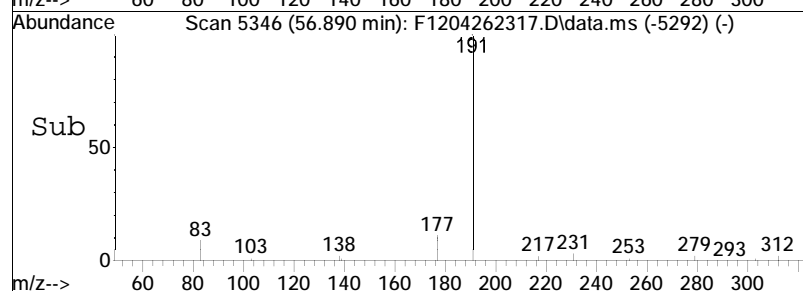
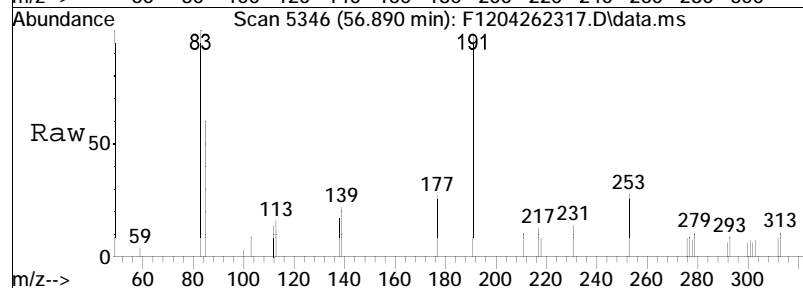
Tgt Ion:191 Resp: 22129

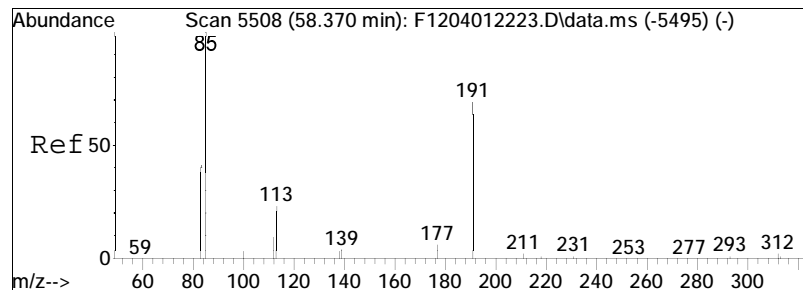




#122
 30,31-Bishomohopane-22R (T27)
 Concen: 151.62 ng/ml
 RT: 56.890 min Scan# 5346
 Delta R.T. -0.008 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

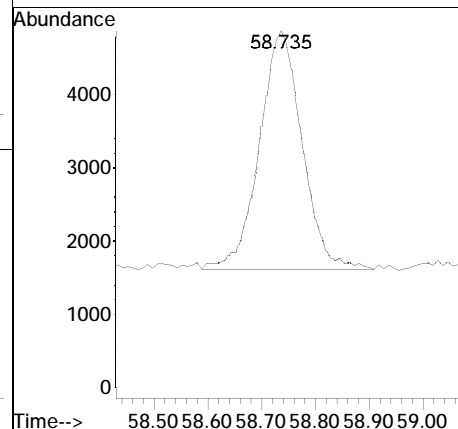
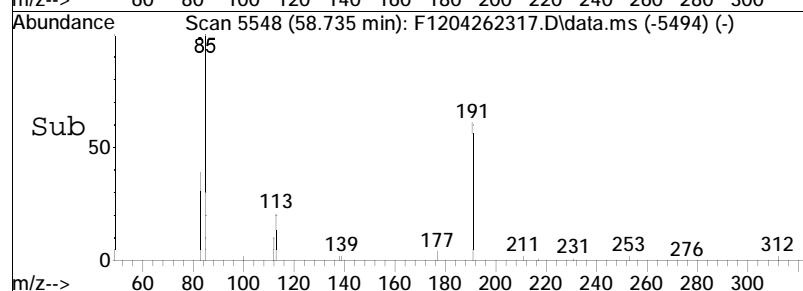
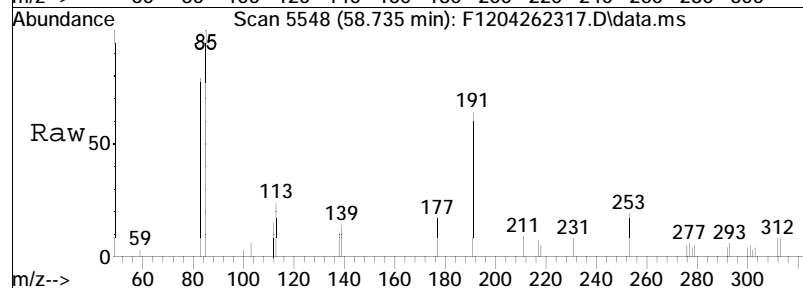
Tgt Ion:191 Resp: 16348

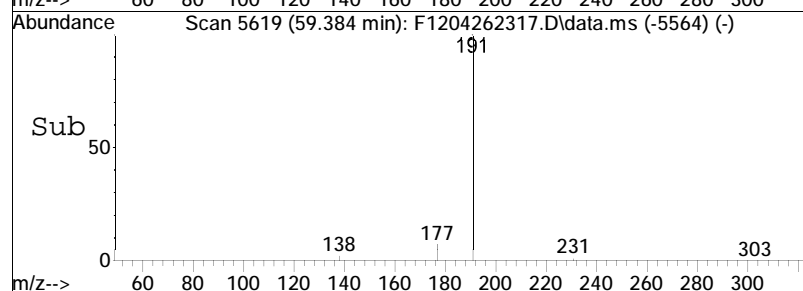
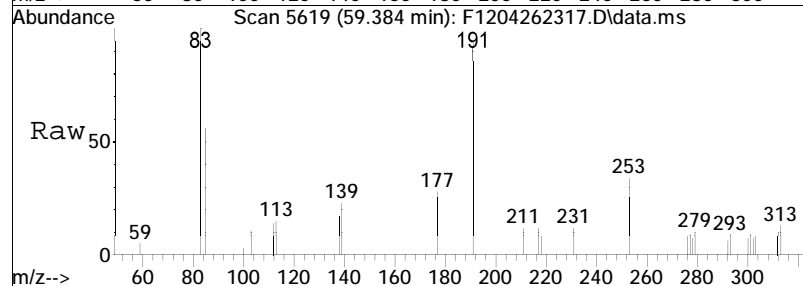
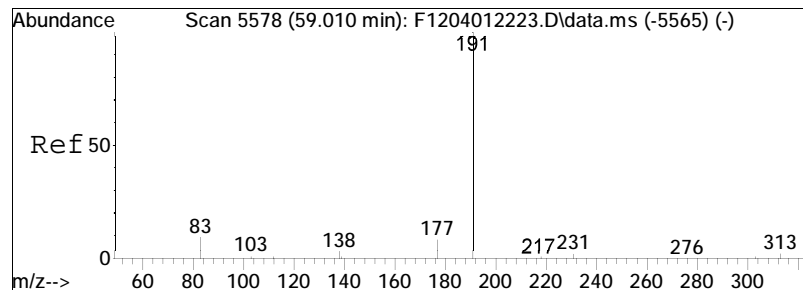




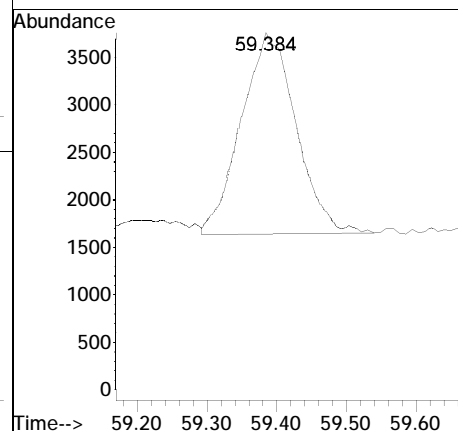
#123
 30,31-Trishomohopane-22S (T30)
 Concen: 163.49 ng/ml
 RT: 58.735 min Scan# 5548
 Delta R.T. -0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

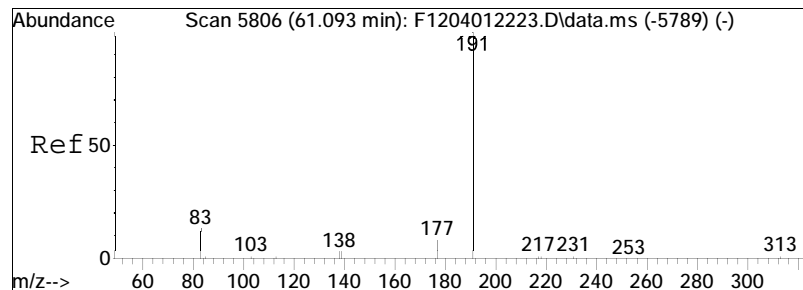
Tgt Ion:191 Resp: 17628





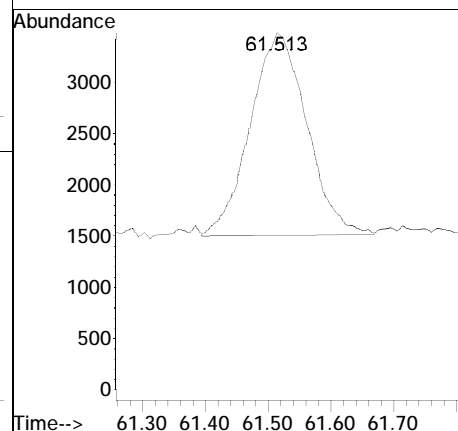
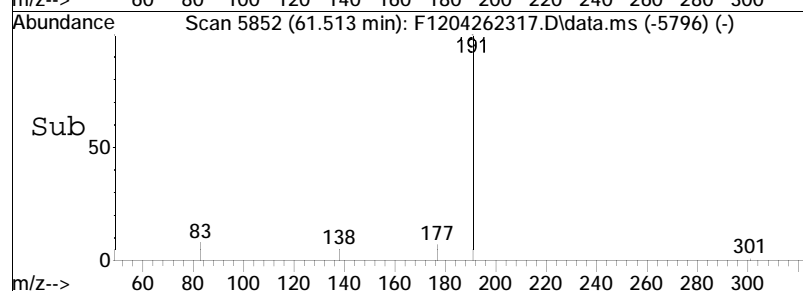
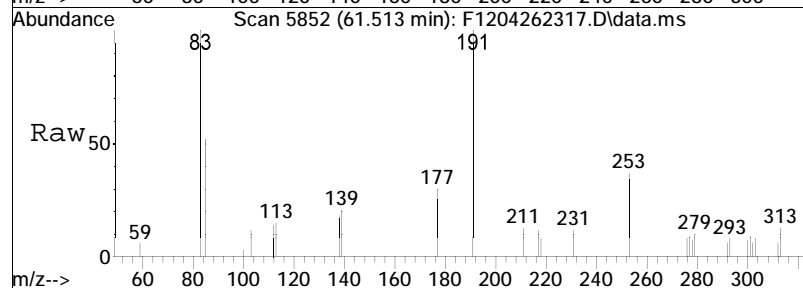
#124
 30,31-Trishomohopane-22R (T31)
 Concen: 106.66 ng/ml
 RT: 59.384 min Scan# 5619
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:191 Resp: 11500

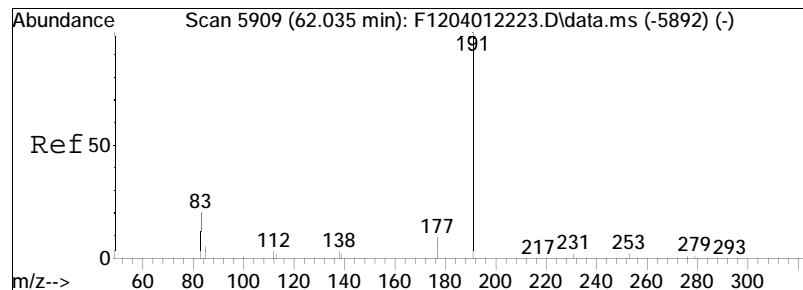




#125
 Tetrakishomohopane-22S (T32)
 Concen: 114.64 ng/ml
 RT: 61.513 min Scan# 5852
 Delta R.T. 0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

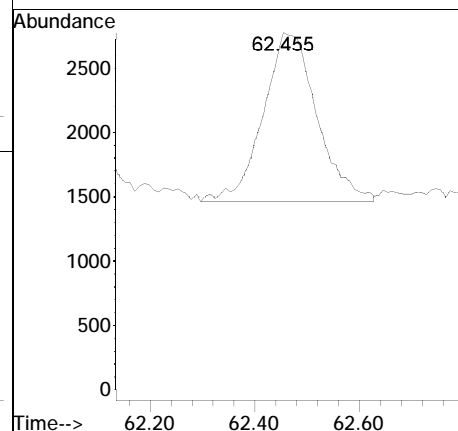
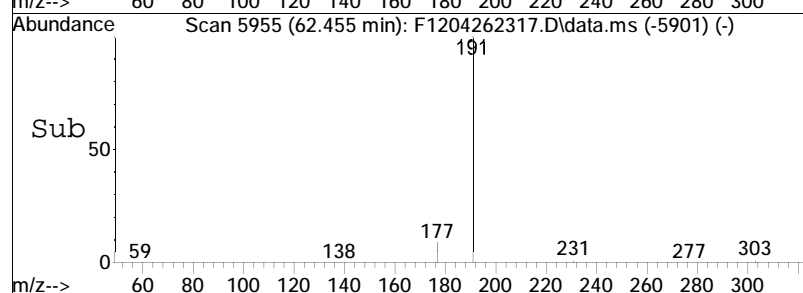
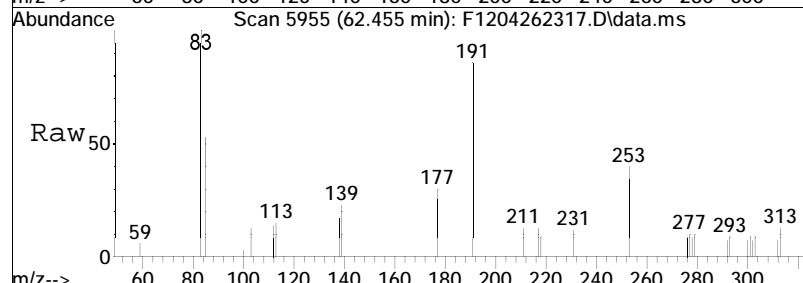
Tgt Ion:191 Resp: 12361

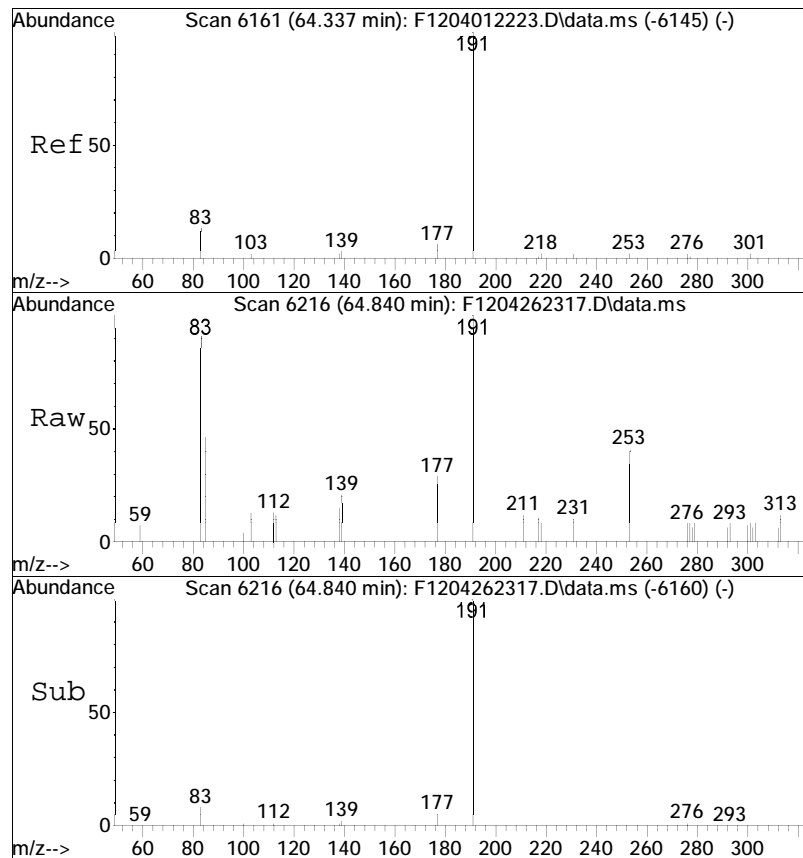




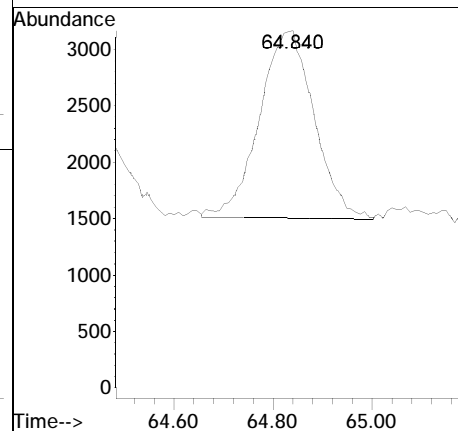
#126
 Tetrakishomohopane-22R (T33)
 Concen: 85.78 ng/ml
 RT: 62.455 min Scan# 5955
 Delta R.T. -0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

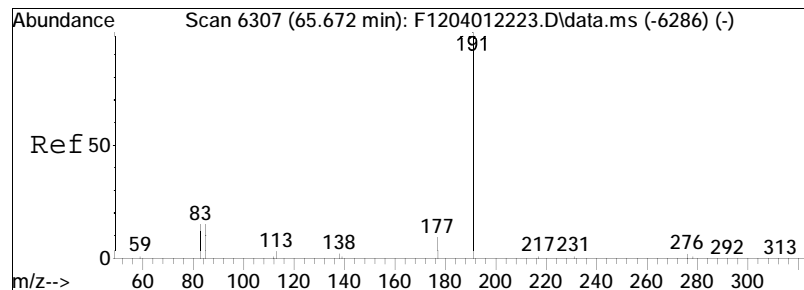
Tgt Ion:191 Resp: 9249





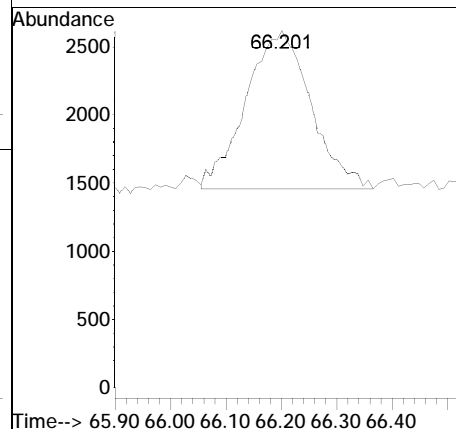
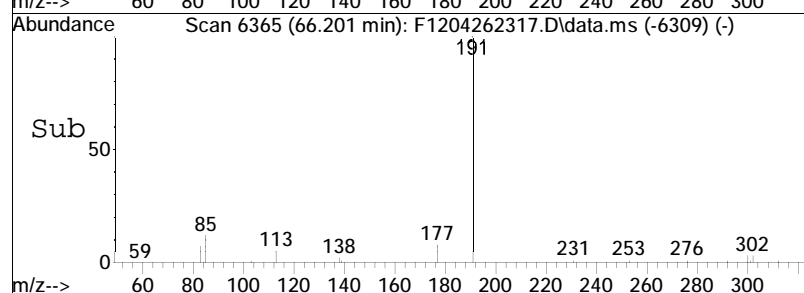
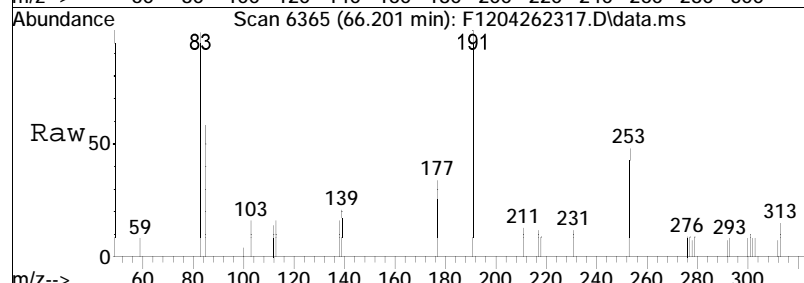
#127
 Pentakishomohopane-22S (T34)
 Concen: 118.19 ng/ml
 RT: 64.840 min Scan# 6216
 Delta R.T. 0.010 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:191 Resp: 12743

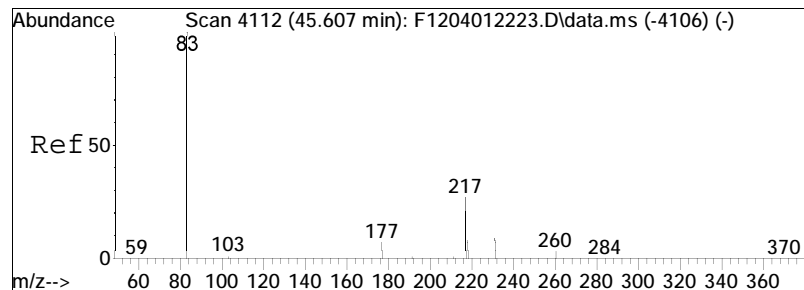




#128
 Pentakishomohopane-22R (T35)
 Concen: 87.31 ng/ml
 RT: 66.201 min Scan# 6365
 Delta R.T. 0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

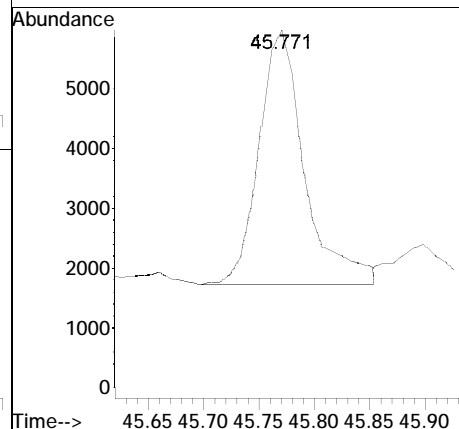
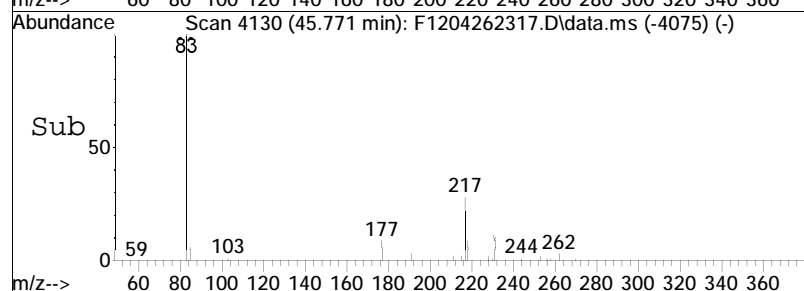
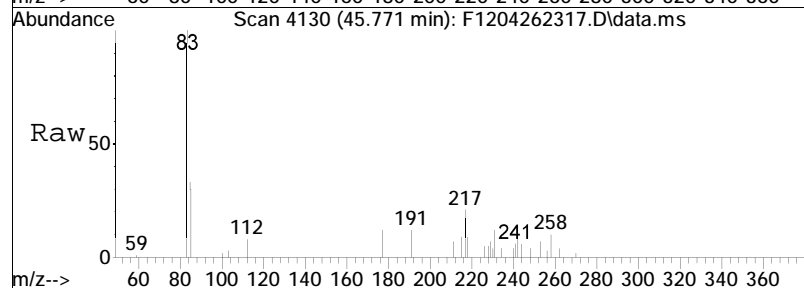
Tgt Ion:191 Resp: 9414

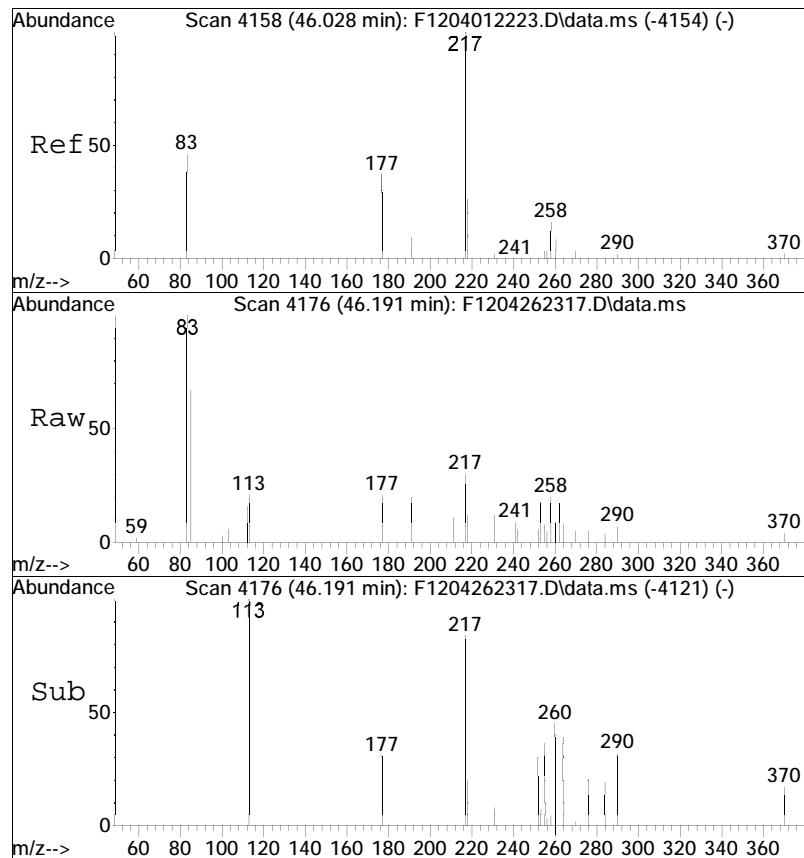




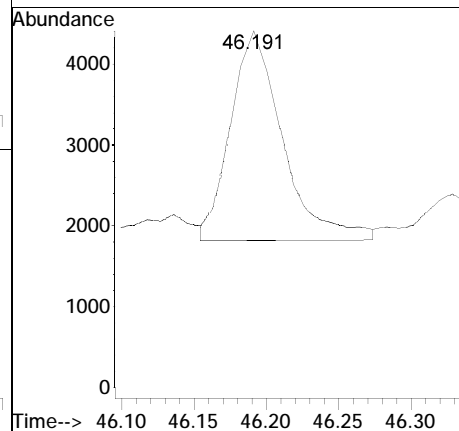
#130
 13b(H),17a(H)-20S-Diacholestane
 Concen: 235.21 ng/ml
 RT: 45.771 min Scan# 4130
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

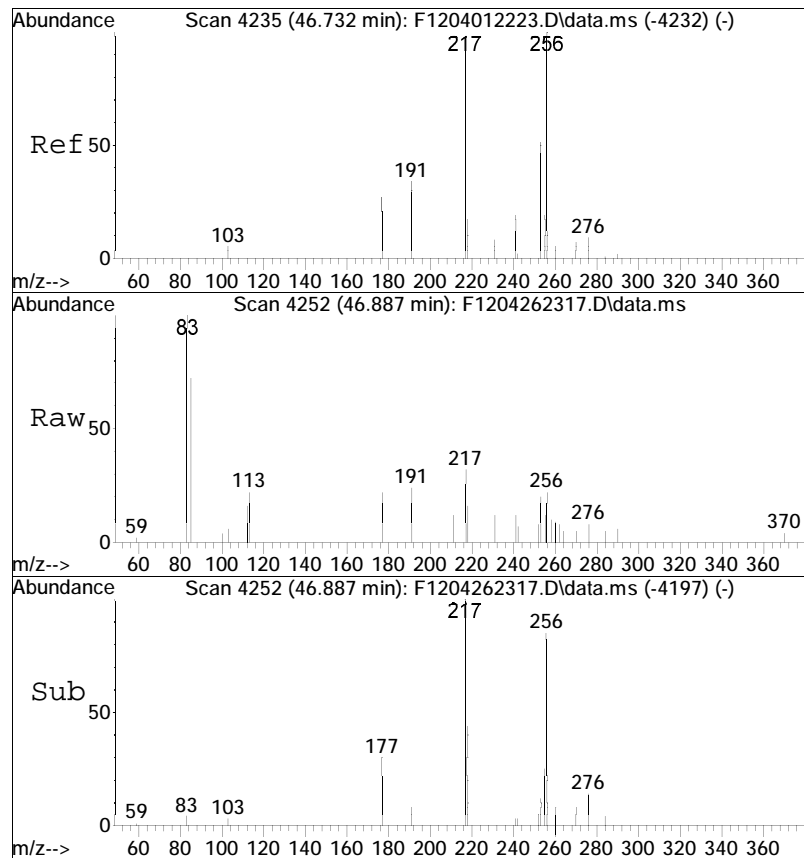
Tgt Ion:217 Resp: 12056



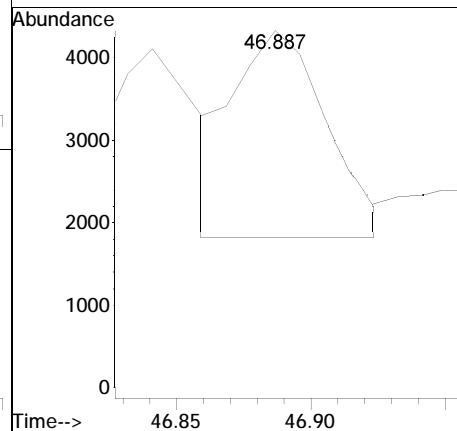


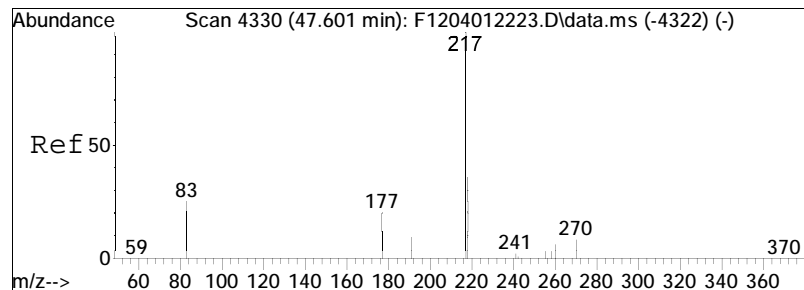
#131
 13b(H),17a(H)-20R-Diacholestane
 Concen: 125.51 ng/ml
 RT: 46.191 min Scan# 4176
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:217 Resp: 6433





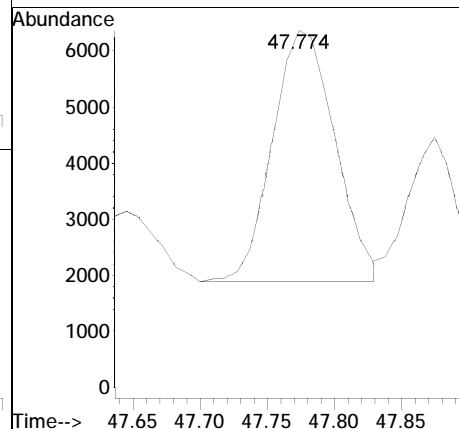
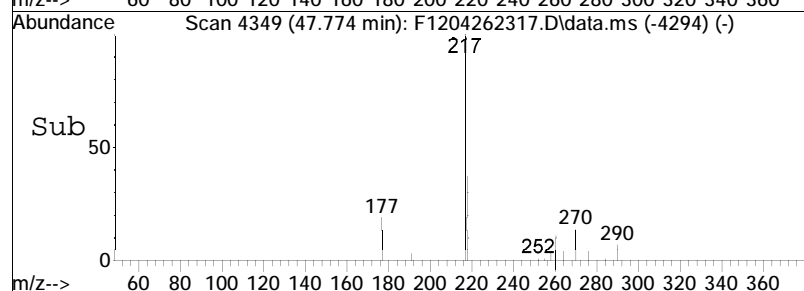
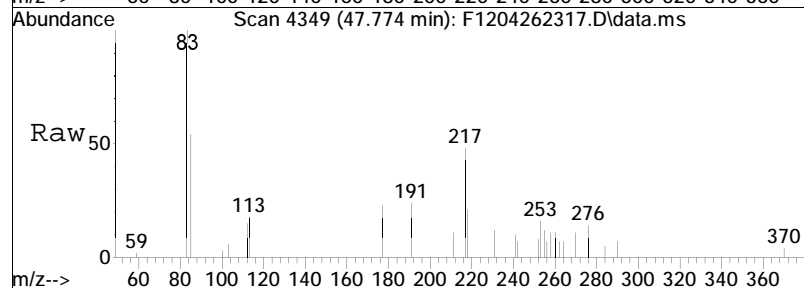
#132
 13b,17a-20S-Methyldiacholestan
 Concen: 119.30 ng/ml M4
 RT: 46.887 min Scan# 4252
 Delta R.T. 0.001 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:217 Resp: 6115

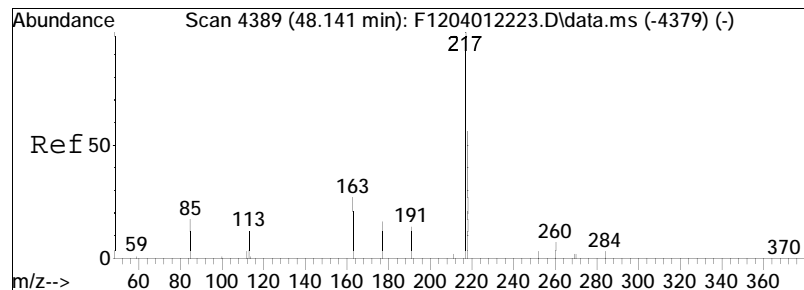




#133
 14a,17a-20S-Chol/13b,17a-20S-E
 Concen: 280.72 ng/ml
 RT: 47.774 min Scan# 4349
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

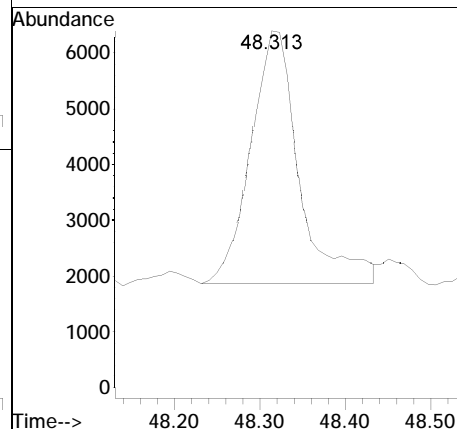
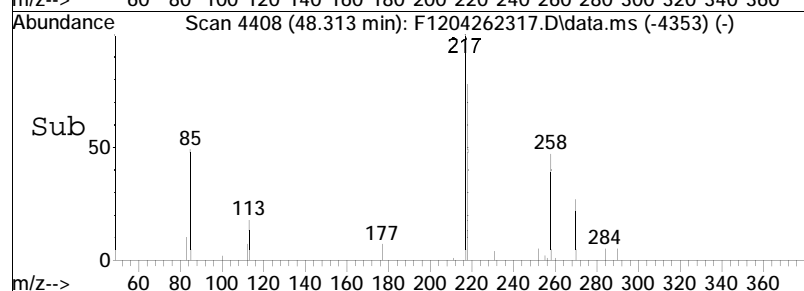
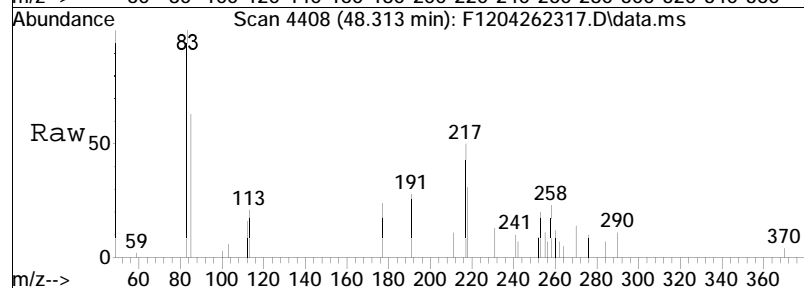
Tgt Ion:217 Resp: 14389

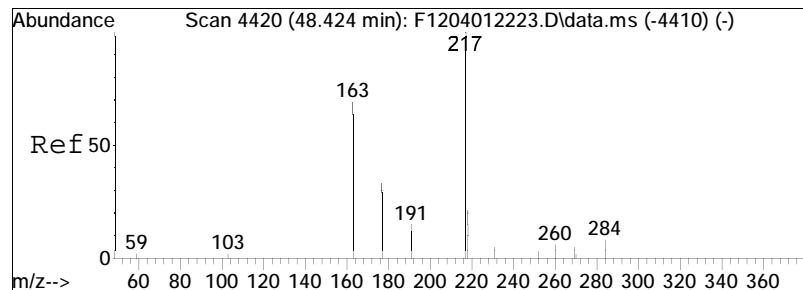




#134
 14a,17a-20R-Chol/13b,17a-20R-E
 Concen: 346.55 ng/ml
 RT: 48.313 min Scan# 4408
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

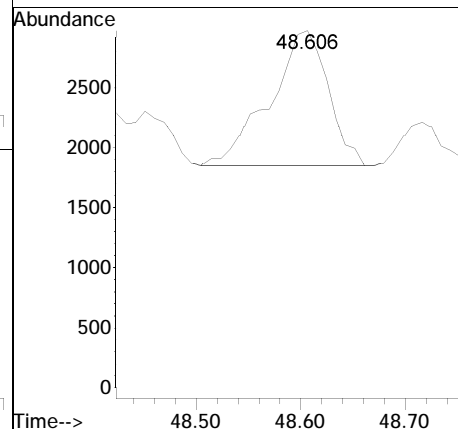
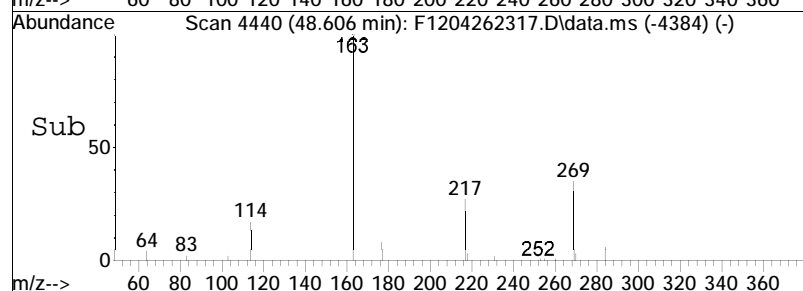
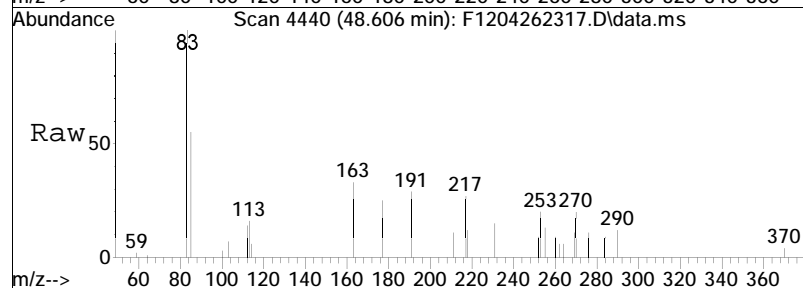
Tgt Ion:217 Resp: 17763

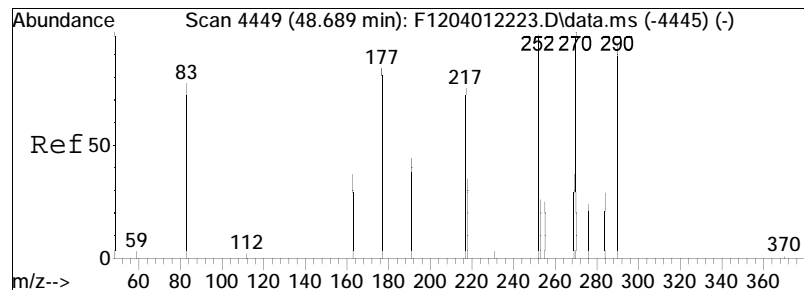




#135
 Unknown Sterane (S18)
 Concen: 84.46 ng/ml
 RT: 48.606 min Scan# 4440
 Delta R.T. 0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

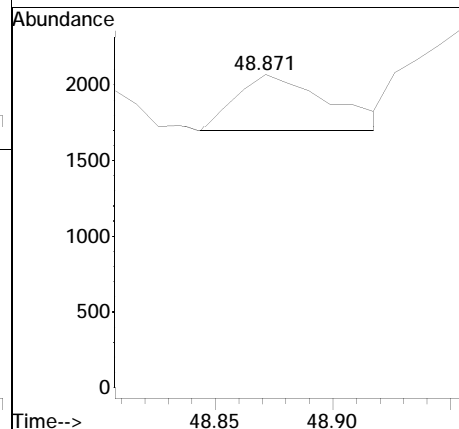
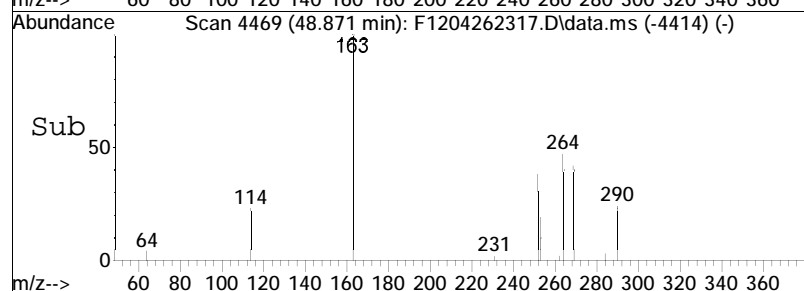
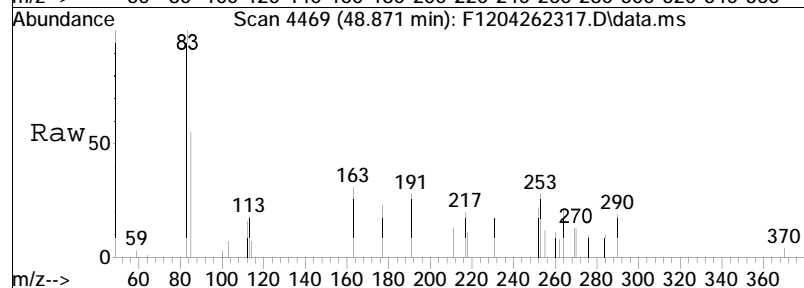
Tgt Ion: 217 Resp: 4329

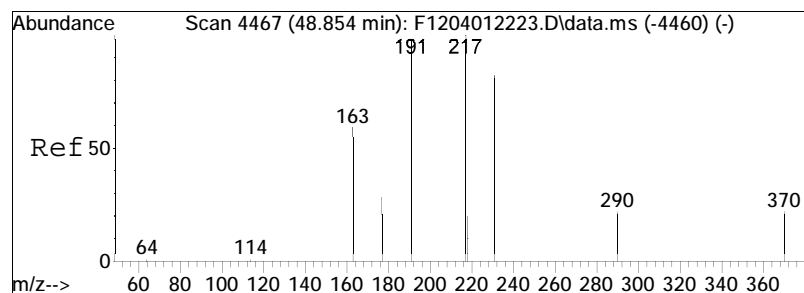




#136
13a,17b-20S-Ethyldiacholestane
Concen: 19.63 ng/ml
RT: 48.871 min Scan# 4469
Delta R.T. 0.000 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

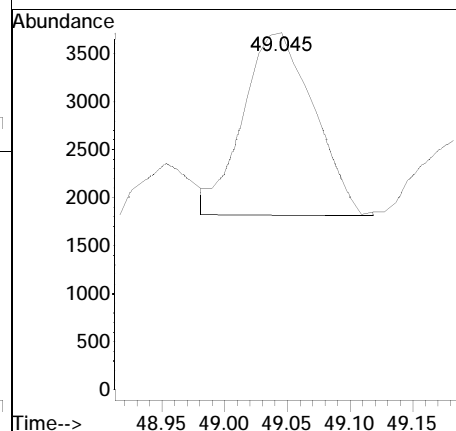
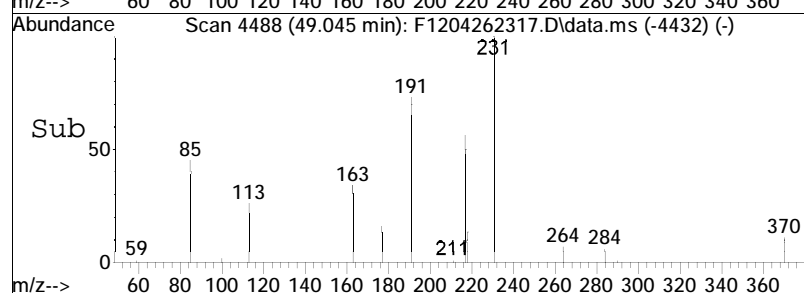
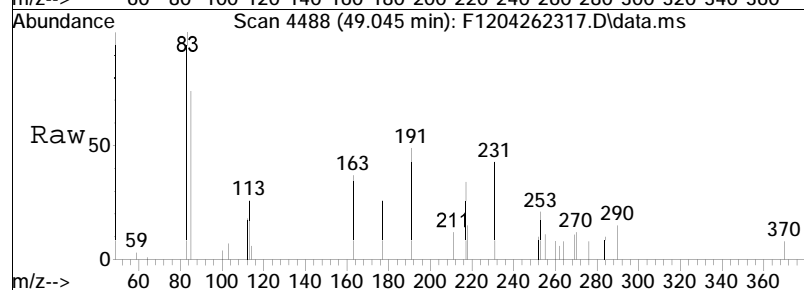
Tgt Ion:217 Resp: 1006

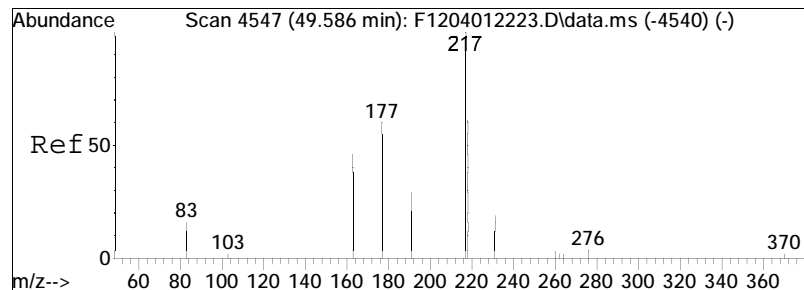




#137
 14a,17a-20S-Methylcholestane (
 Concen: 144.96 ng/ml
 RT: 49.045 min Scan# 4488
 Delta R.T. 0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

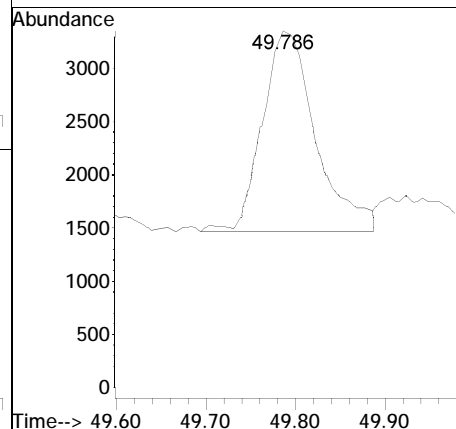
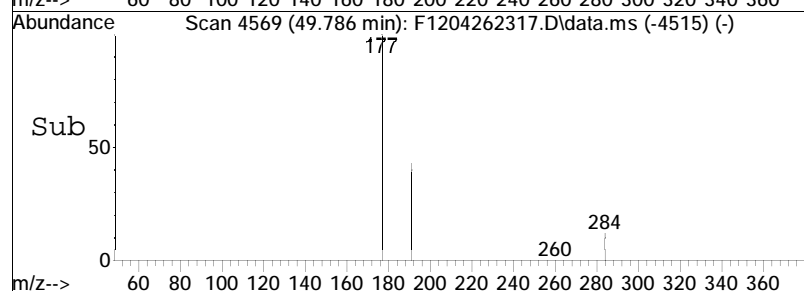
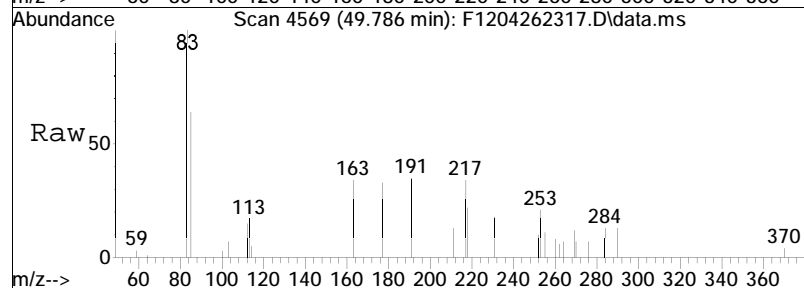
Tgt Ion:217 Resp: 7430

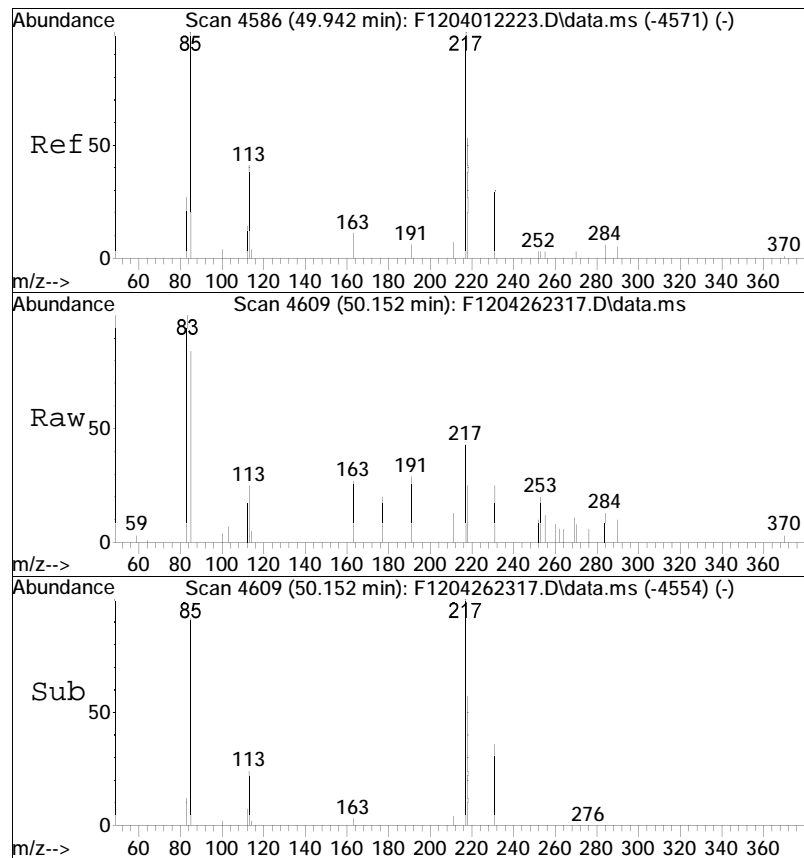




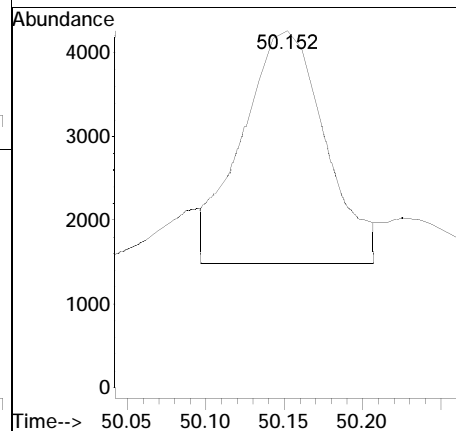
#138
 14a,17a-20R-Methylcholestane (
 Concen: 151.92 ng/ml
 RT: 49.786 min Scan# 4569
 Delta R.T. -0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

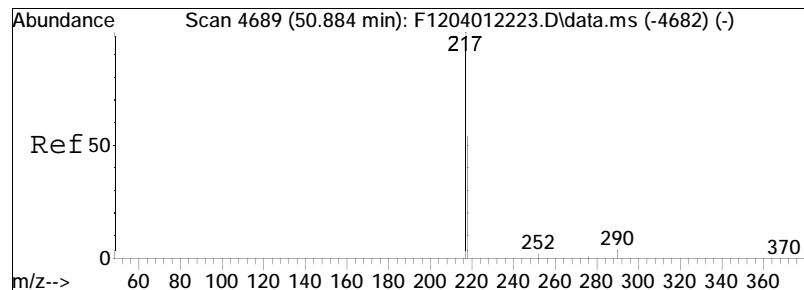
Tgt Ion:217 Resp: 7787





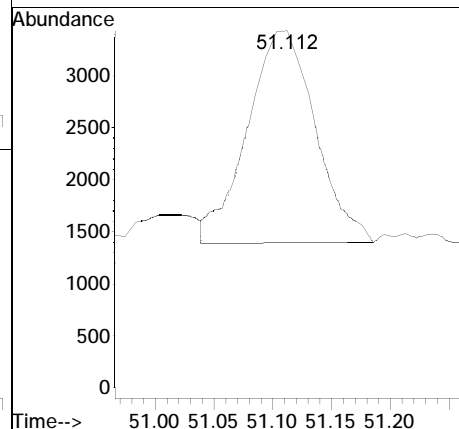
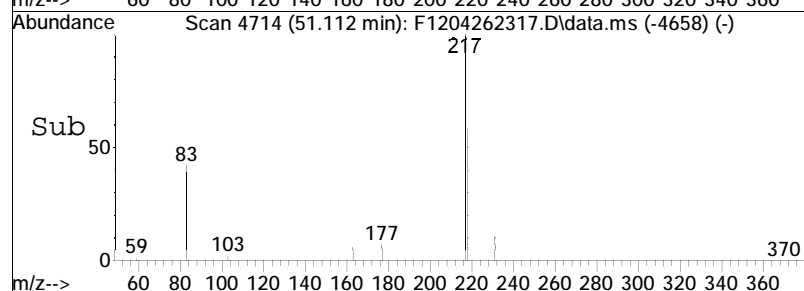
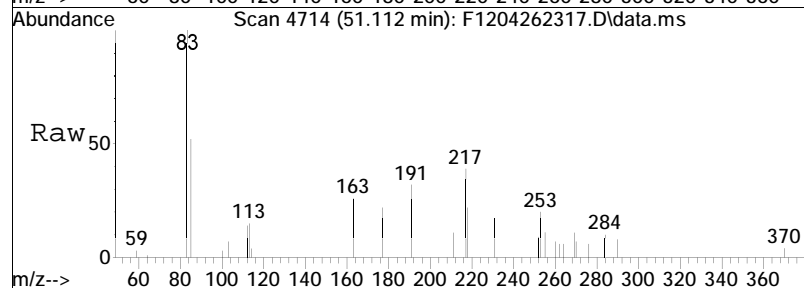
#139
 14a(H),17a(H)-20S-Ethylcholest
 Concen: 198.26 ng/ml M4
 RT: 50.152 min Scan# 4609
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:217 Resp: 10162

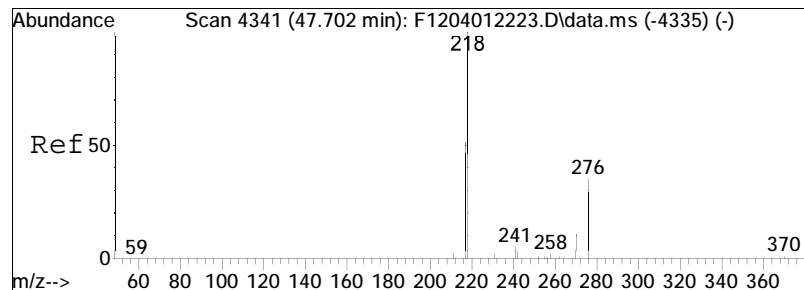




#140
14a(H),17a(H)-20R-Ethylcholest
Concen: 159.37 ng/ml
RT: 51.112 min Scan# 4714
Delta R.T. 0.009 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

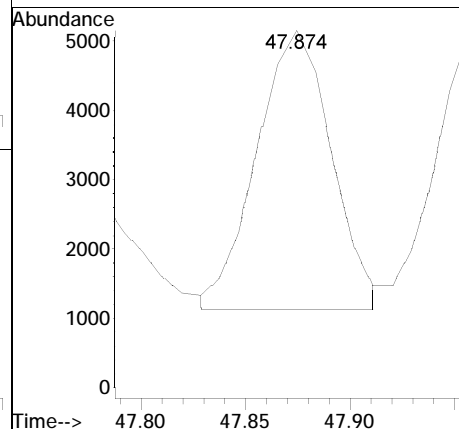
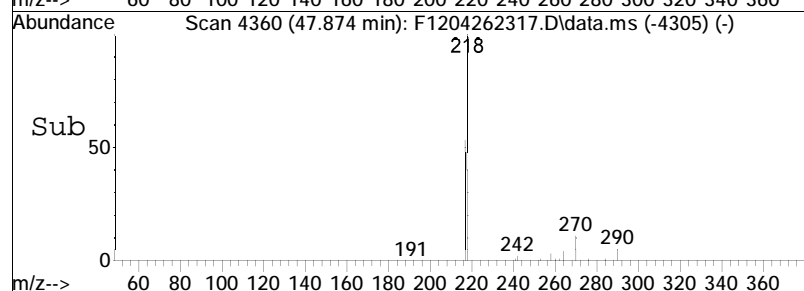
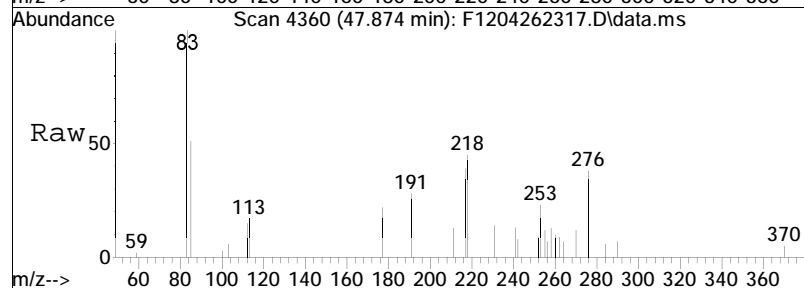
Tgt Ion:217 Resp: 8169

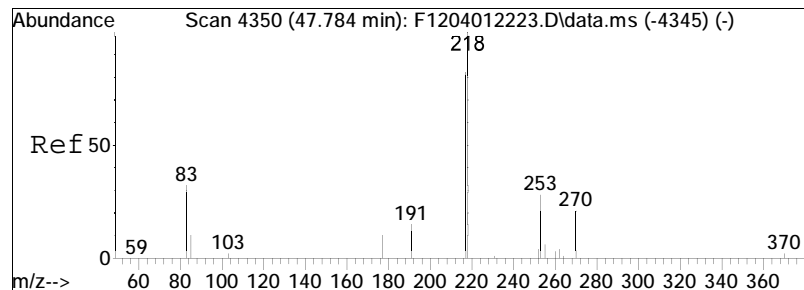




#141
 14b(H),17b(H)-20R-Cholestane (
 Concen: 195.62 ng/ml M4
 RT: 47.874 min Scan# 4360
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

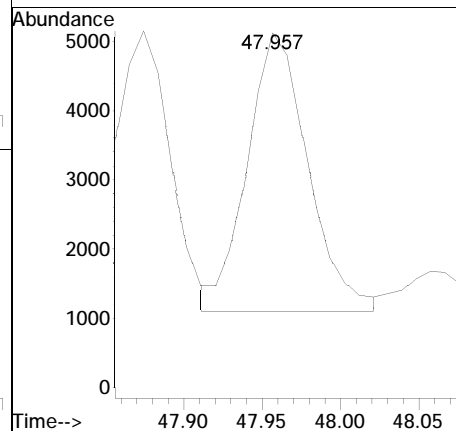
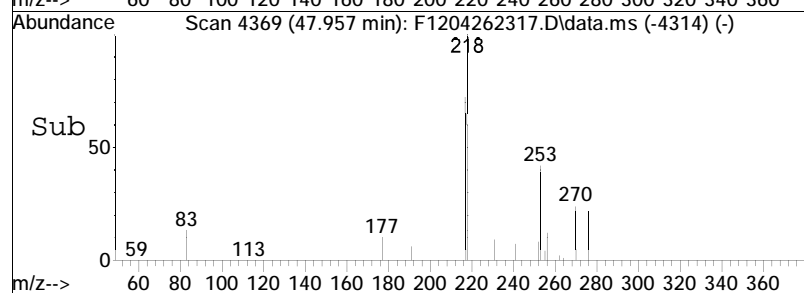
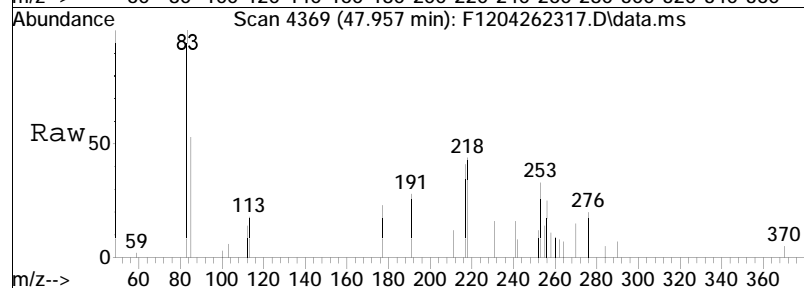
Tgt Ion:218 Resp: 10027

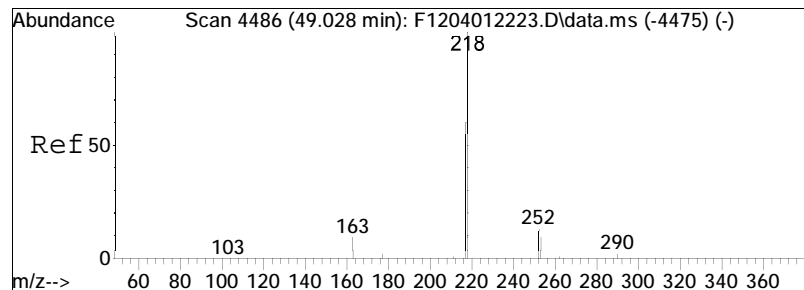




#142
 14b(H),17b(H)-20S-Cholestane (
 Concen: 210.82 ng/ml M4
 RT: 47.957 min Scan# 4369
 Delta R.T. 0.001 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

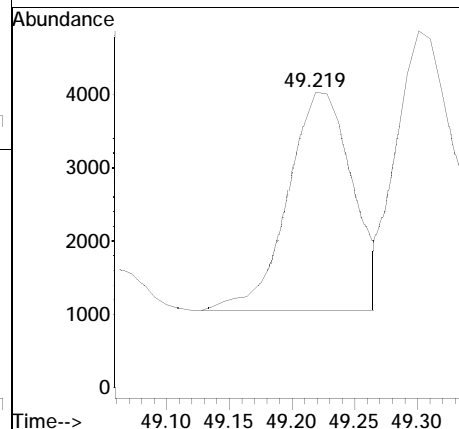
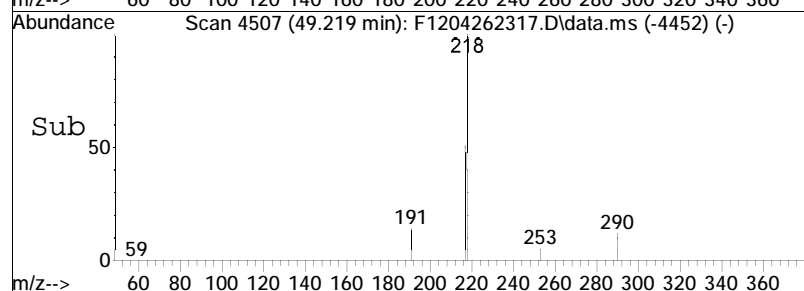
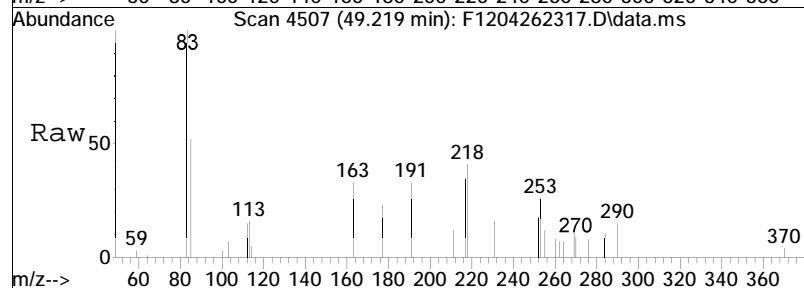
Tgt Ion:218 Resp: 10806

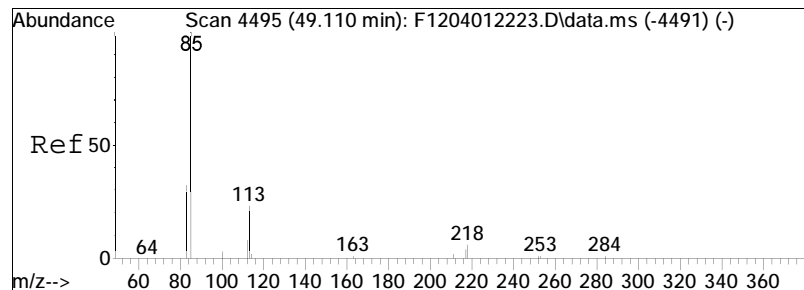




#143
 14b,17b-20R-Methylcholestane (
 Concen: 210.02 ng/ml
 RT: 49.219 min Scan# 4507
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

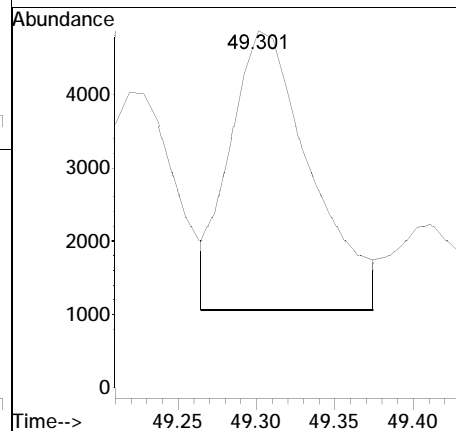
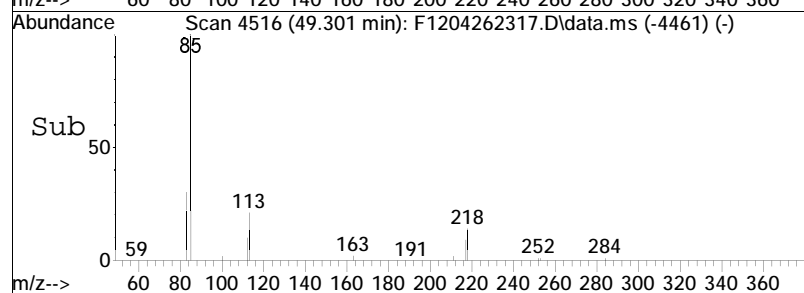
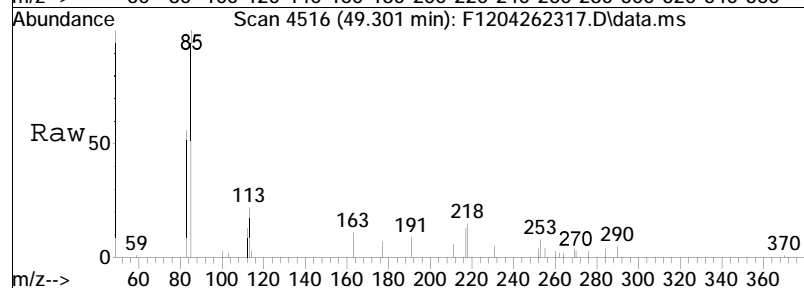
Tgt Ion:218 Resp: 10765

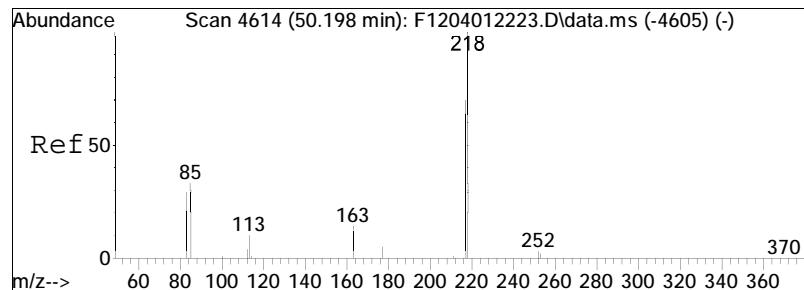




#144
 14b,17b-20S-Methylcholestane (
 Concen: 266.46 ng/ml M4
 RT: 49.301 min Scan# 4516
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

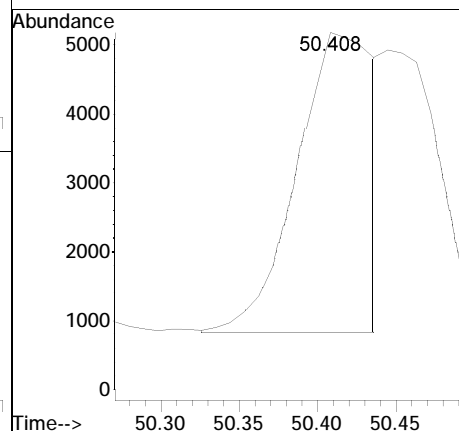
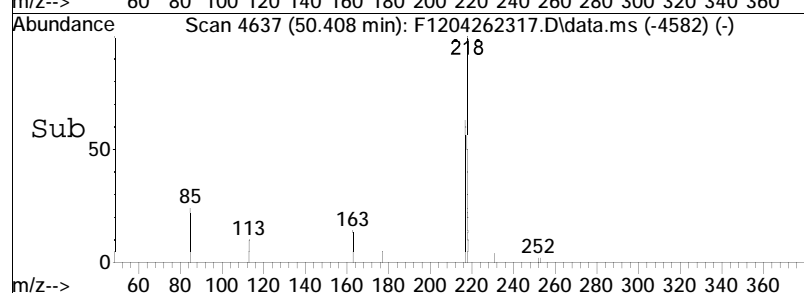
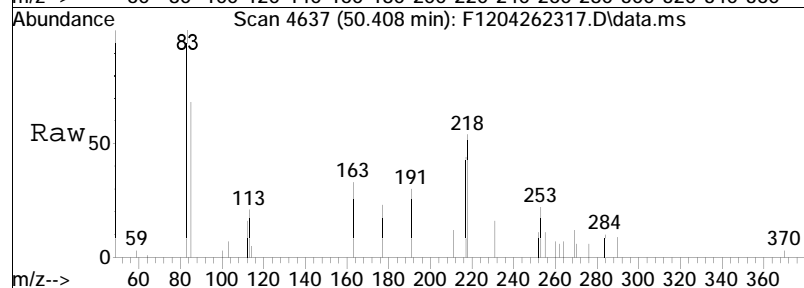
Tgt Ion:218 Resp: 13658

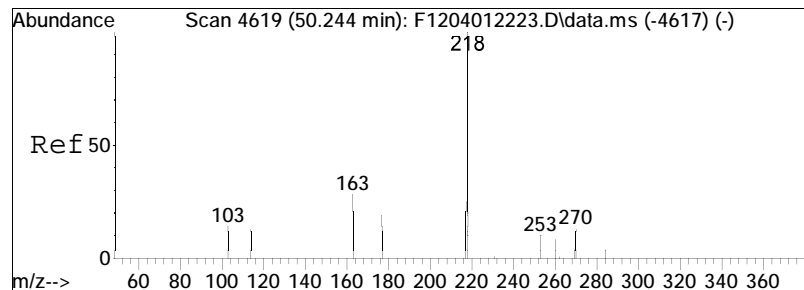




#145
 14b(H),17b(H)-20R-Ethylcholest
 Concen: 287.28 ng/ml M3
 RT: 50.408 min Scan# 4637
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

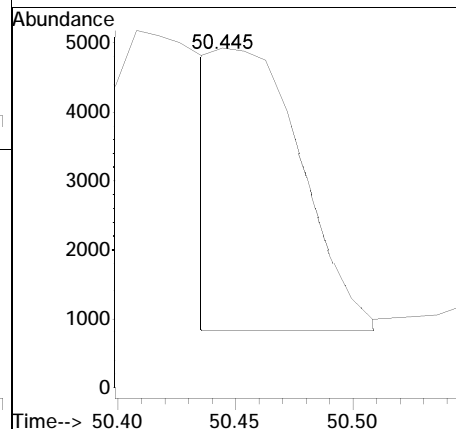
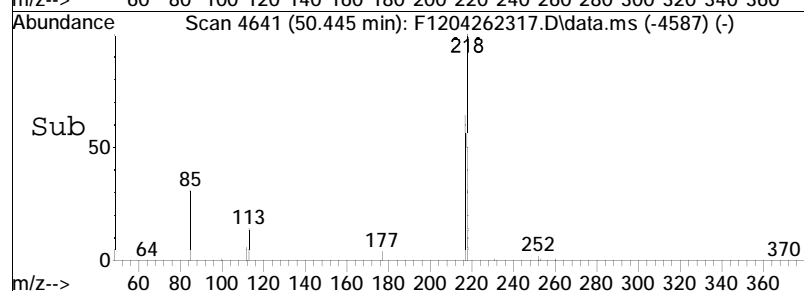
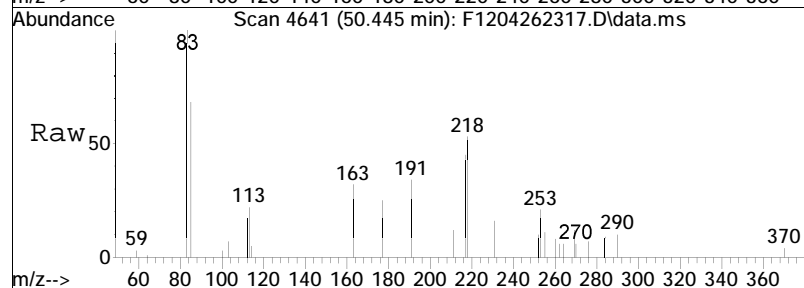
Tgt Ion:218 Resp: 14725

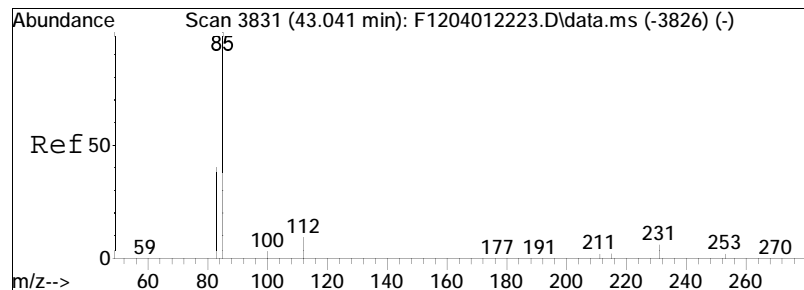




#146
 14b(H),17b(H)-20S-Ethylcholest
 Concen: 205.09 ng/ml M3
 RT: 50.445 min Scan# 4641
 Delta R.T. -0.008 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

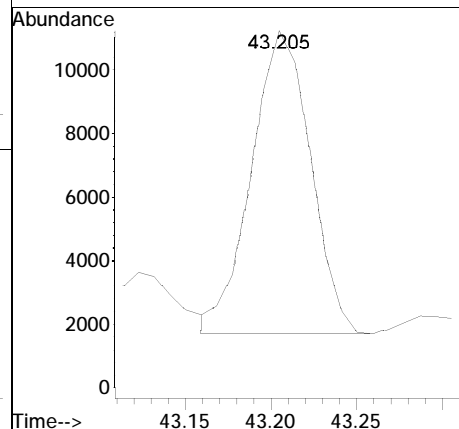
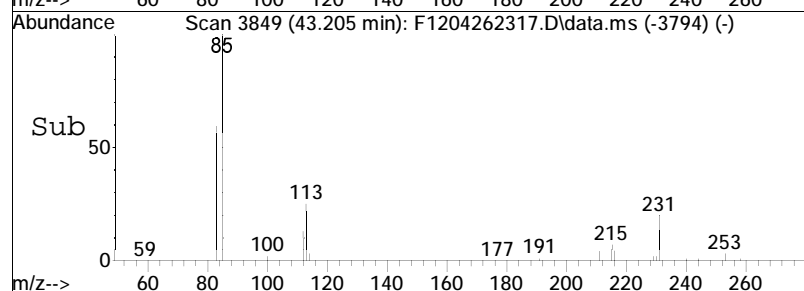
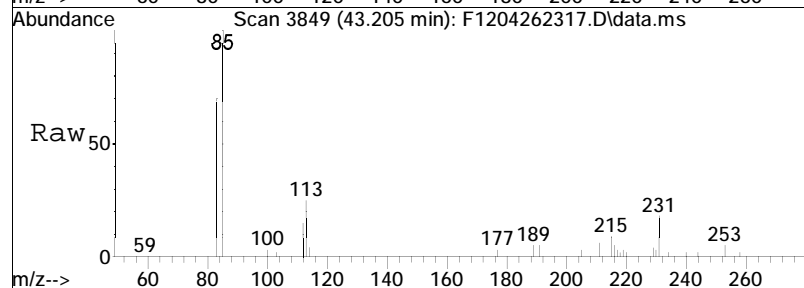
Tgt Ion:218 Resp: 10512

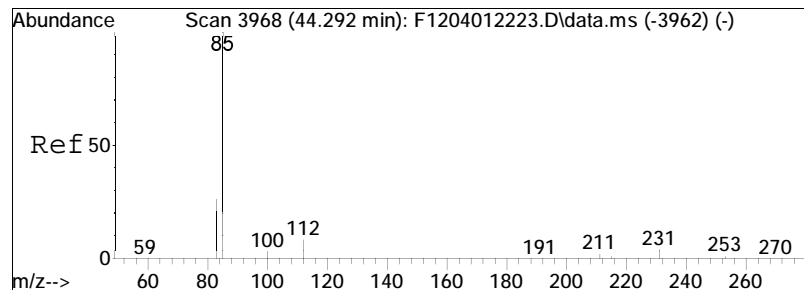




#147
C20 Pregnane
Concen: 446.15 ng/mL
RT: 43.205 min Scan# 3849
Delta R.T. -0.000 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

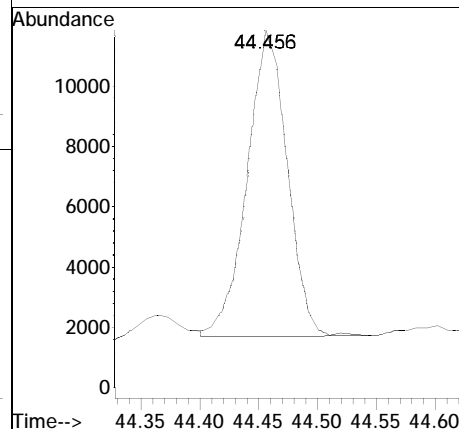
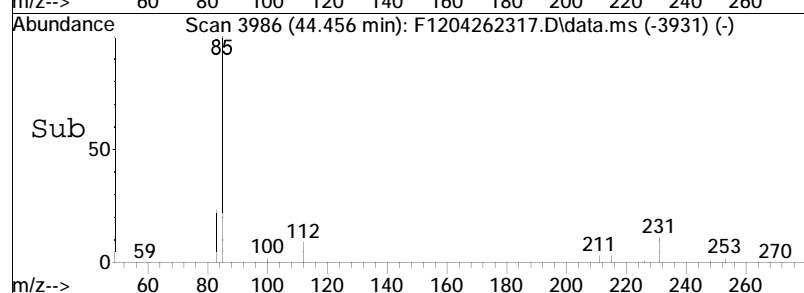
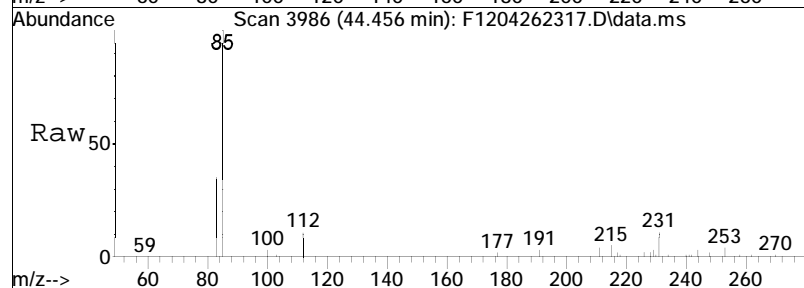
Tgt Ion:231 Resp: 22868

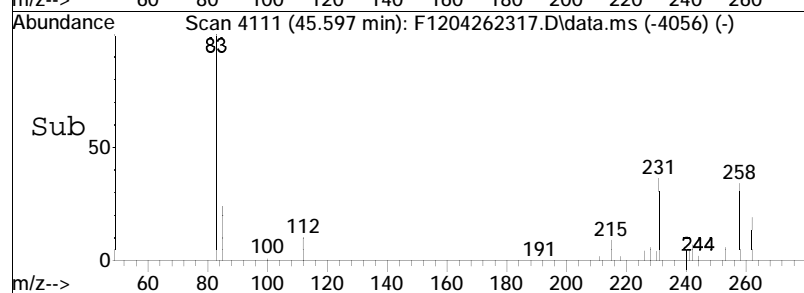
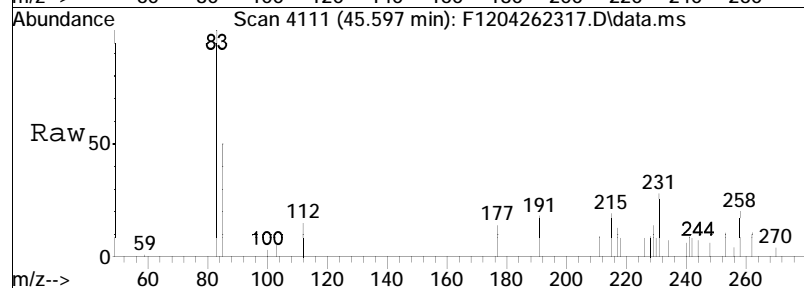
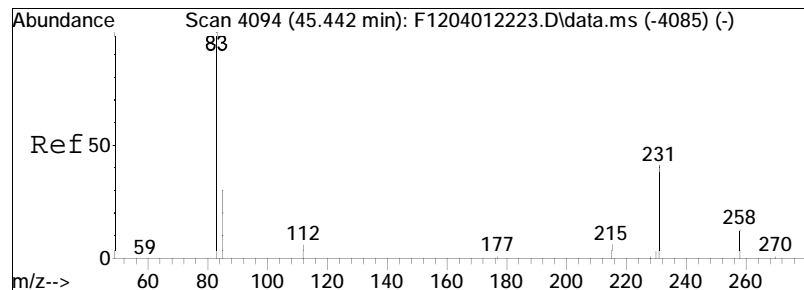




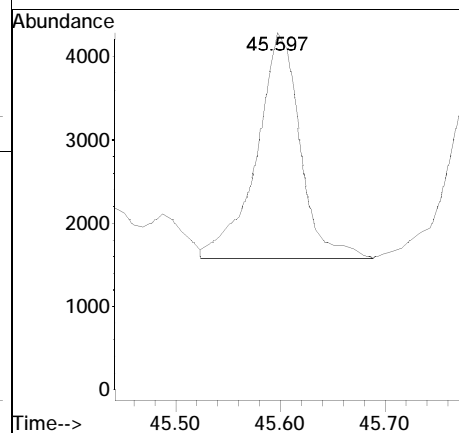
#148
C21 20-Methylpregnane
Concen: 463.04 ng/mL
RT: 44.456 min Scan# 3986
Delta R.T. -0.000 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

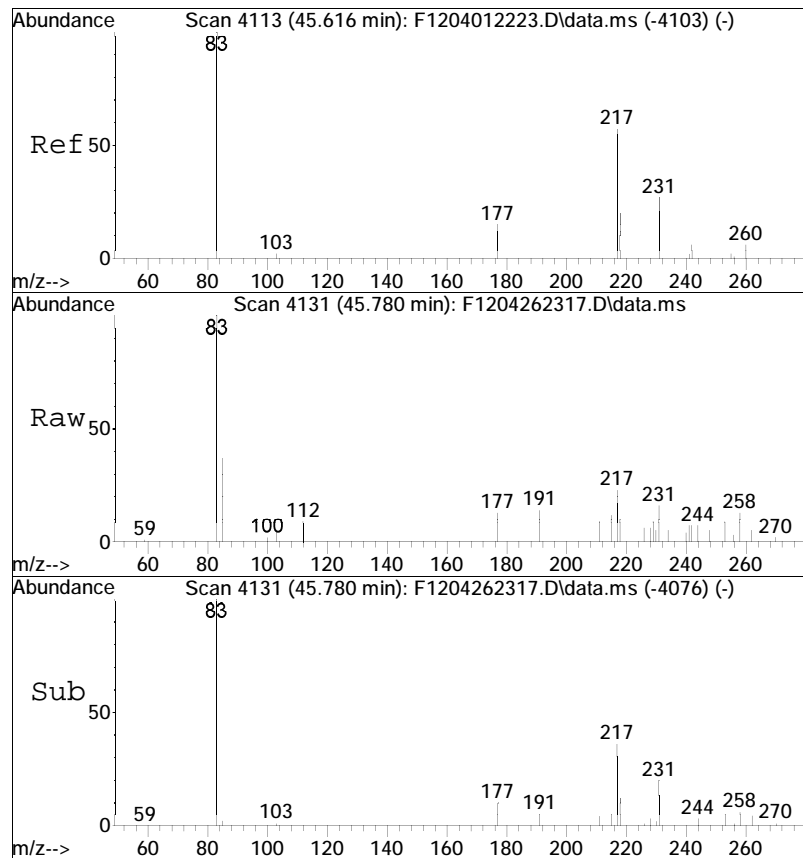
Tgt Ion: 231 Resp: 23734



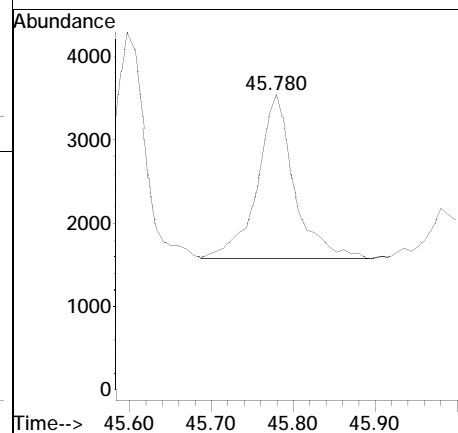


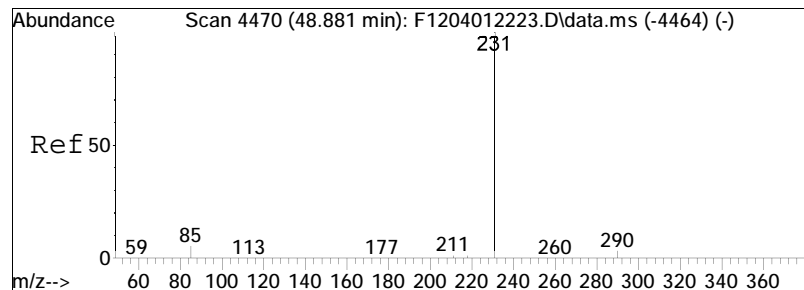
#149
C22 20-Ethylpregnane (a)
Concen: 152.76 ng/mL
RT: 45.597 min Scan# 4111
Delta R.T. 0.000 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm
Tgt Ion:231 Resp: 7830





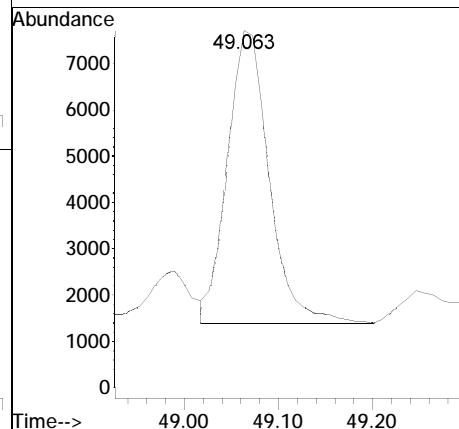
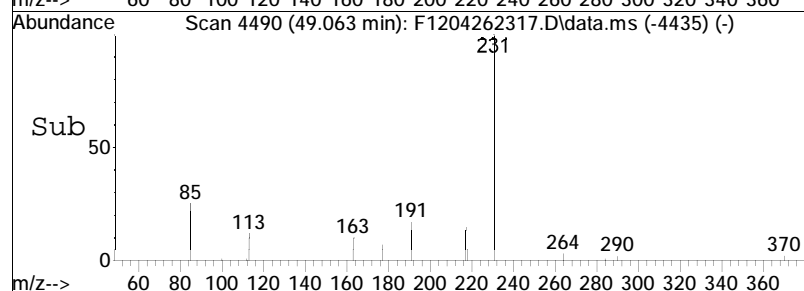
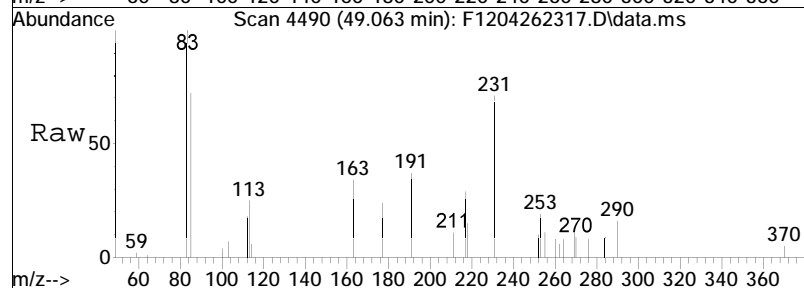
#150
 C22 20-Ethylpregnane (b)
 Concen: 118.64 ng/mL
 RT: 45.780 min Scan# 4131
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:231 Resp: 6081

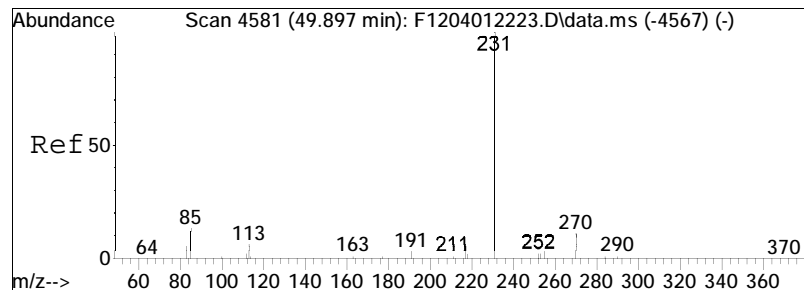




#151
 C26,20S TAS
 Concen: 376.20 ng/mL
 RT: 49.063 min Scan# 4490
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

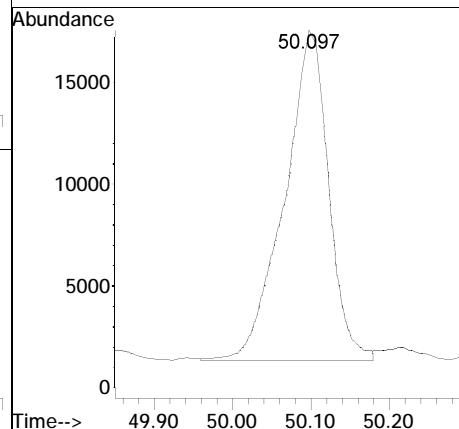
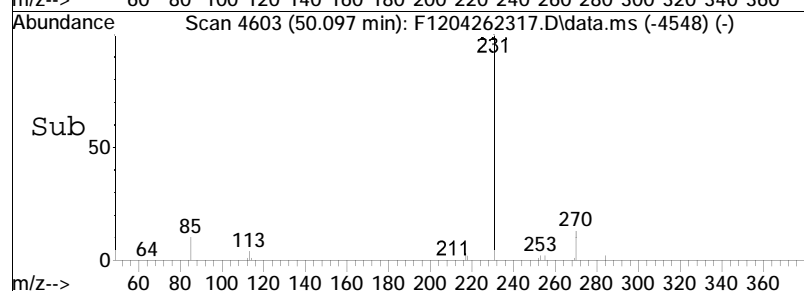
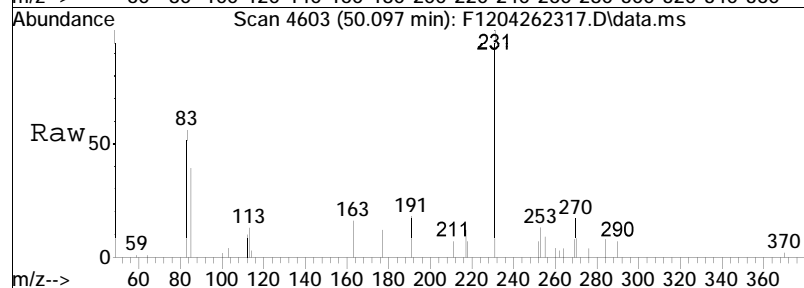
Tgt Ion: 231 Resp: 19283

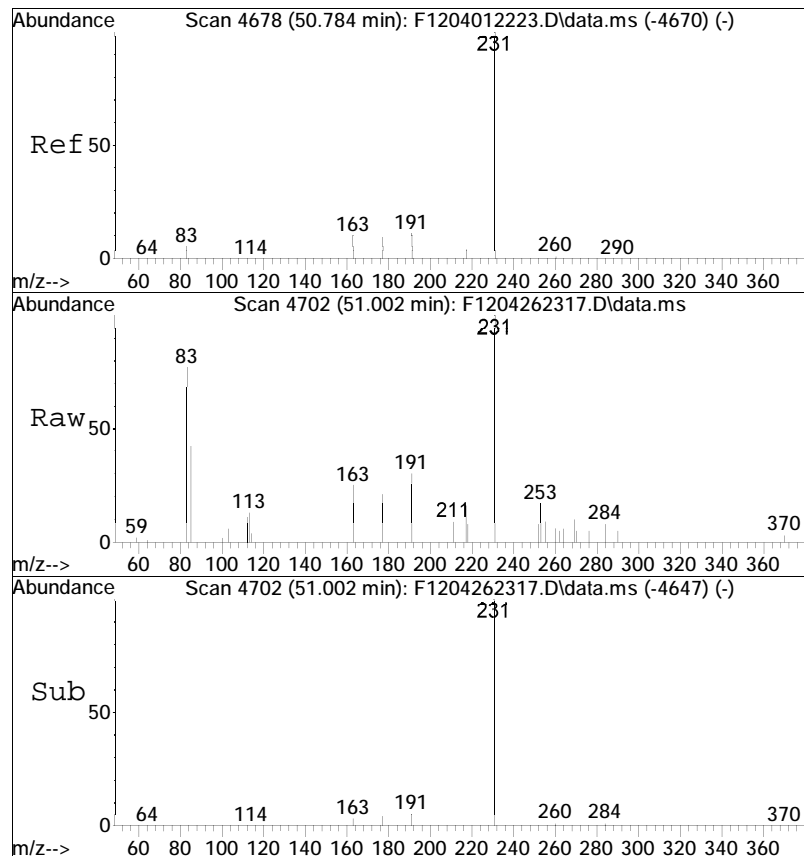




#152
 C26,20R+C27,20S TAS
 Concen: 1228.72 ng/mL
 RT: 50.097 min Scan# 4603
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

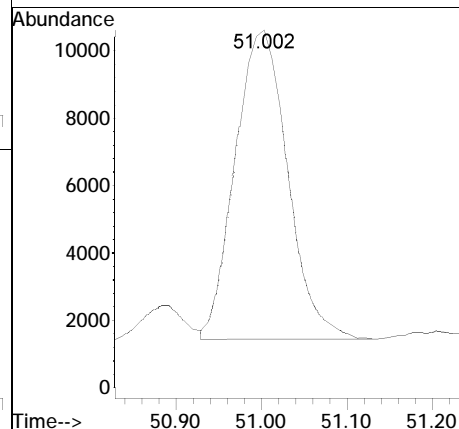
Tgt Ion: 231 Resp: 62980

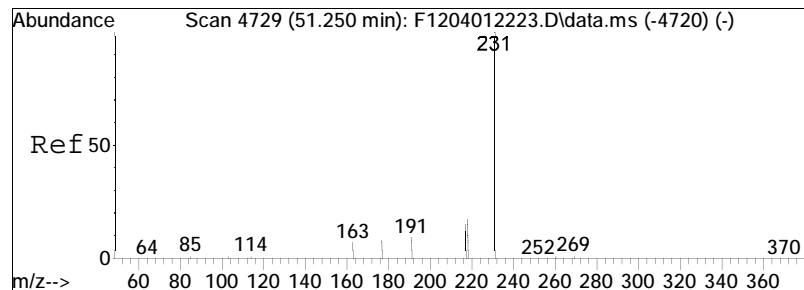




#153
C28,20S TAS
Concen: 756.49 ng/mL
RT: 51.002 min Scan# 4702
Delta R.T. 0.000 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

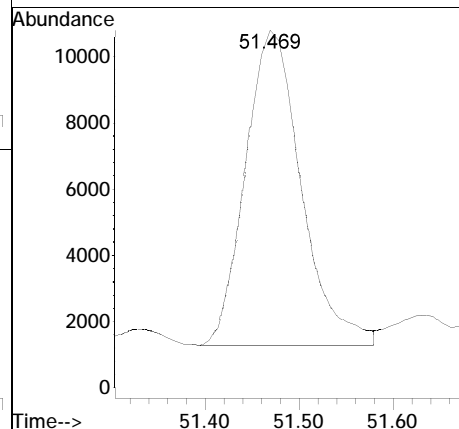
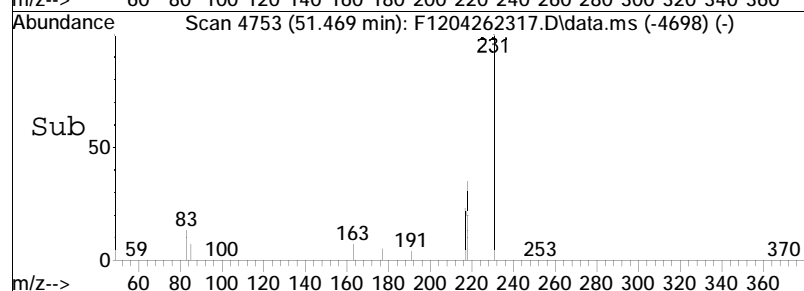
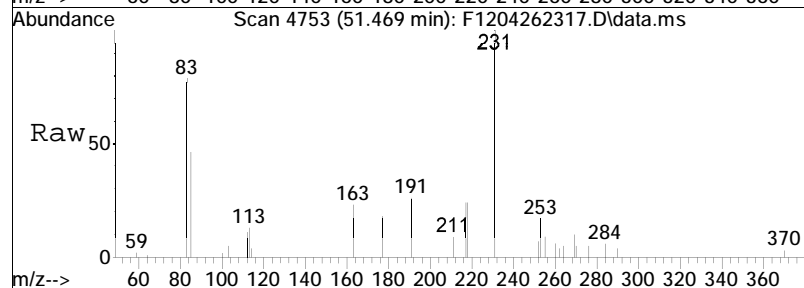
Tgt Ion:231 Resp: 38775

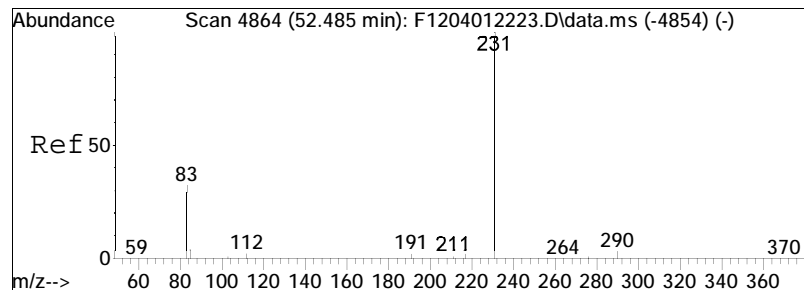




#154
 C27,20R TAS
 Concen: 765.48 ng/mL
 RT: 51.469 min Scan# 4753
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

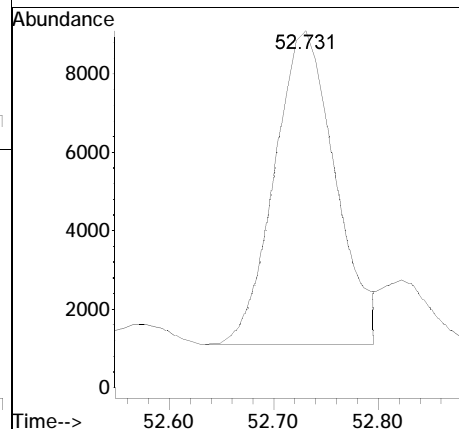
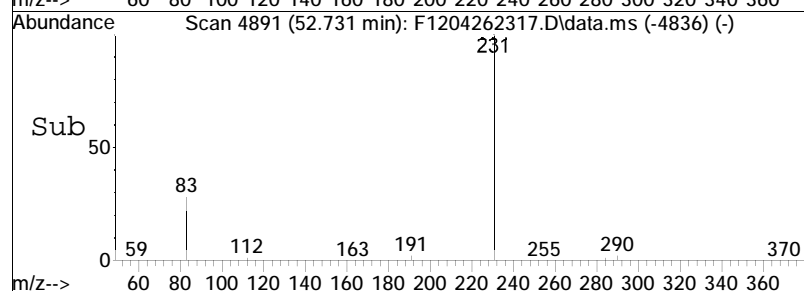
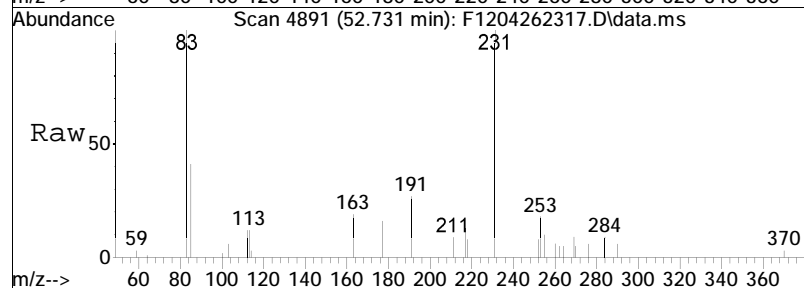
Tgt Ion: 231 Resp: 39236

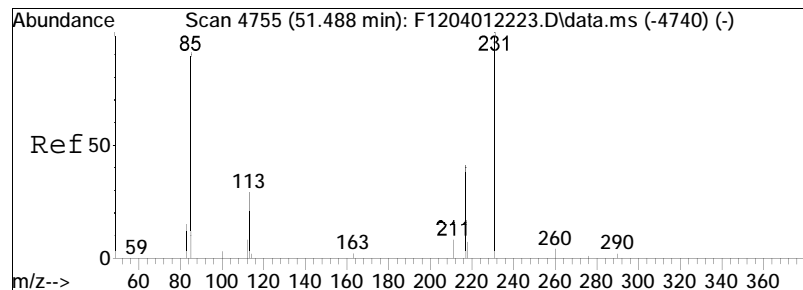




#155
 C28,20R TAS
 Concen: 631.60 ng/mL
 RT: 52.731 min Scan# 4891
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

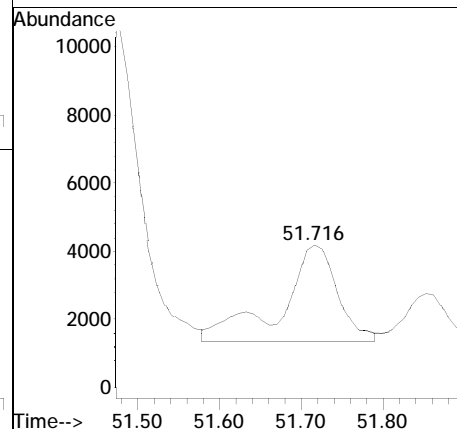
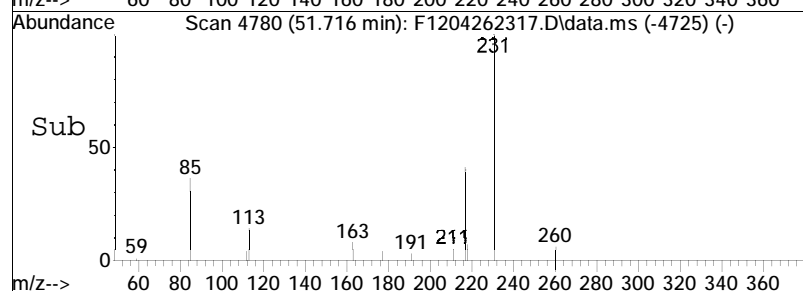
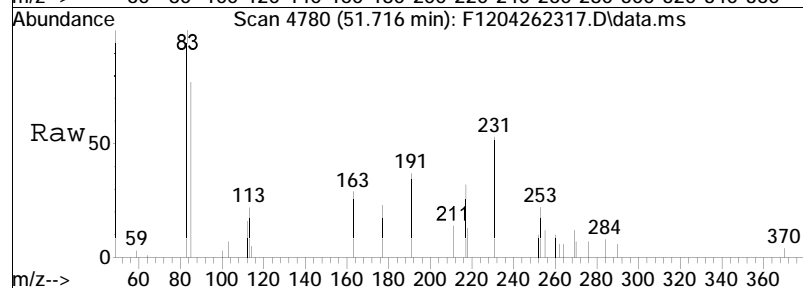
Tgt Ion: 231 Resp: 32374

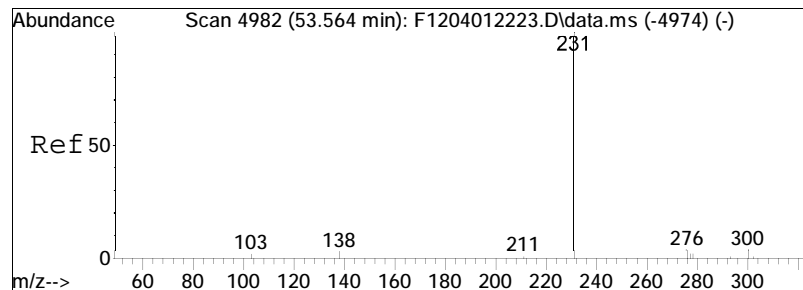




#156
 C29,20S TAS
 Concen: 260.98 ng/mL M4
 RT: 51.716 min Scan# 4780
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

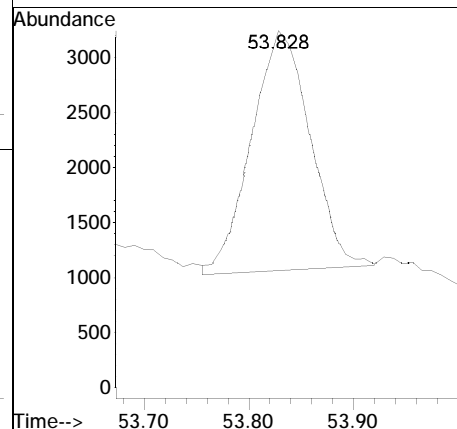
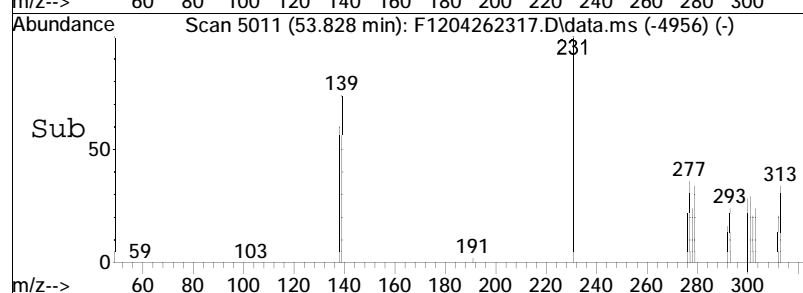
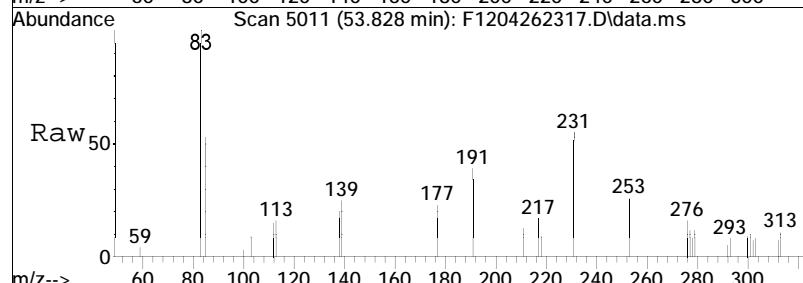
Tgt Ion: 231 Resp: 13377

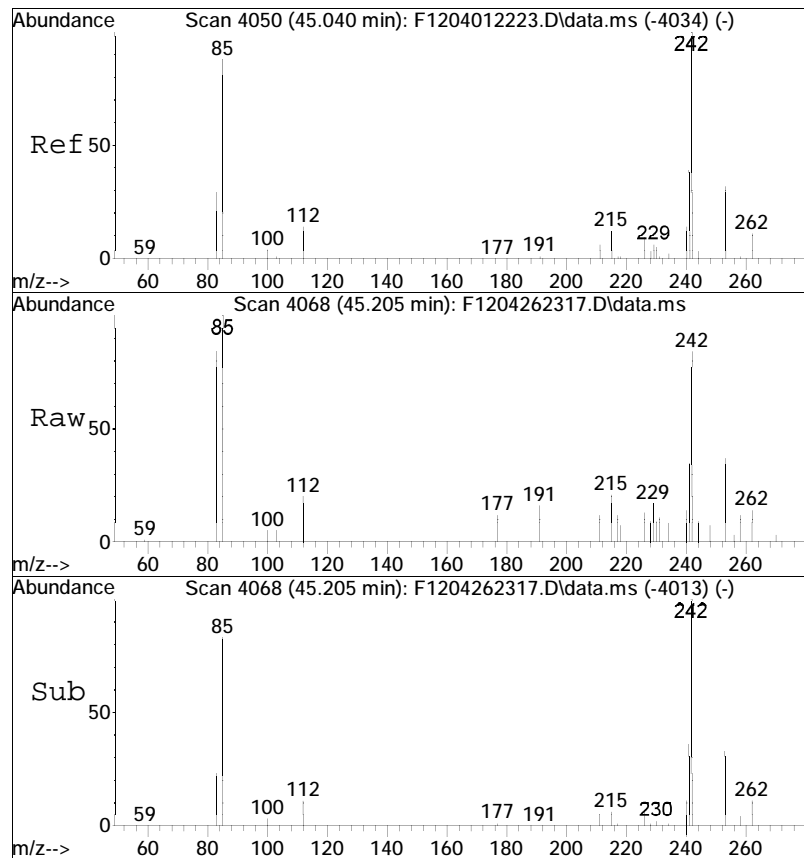




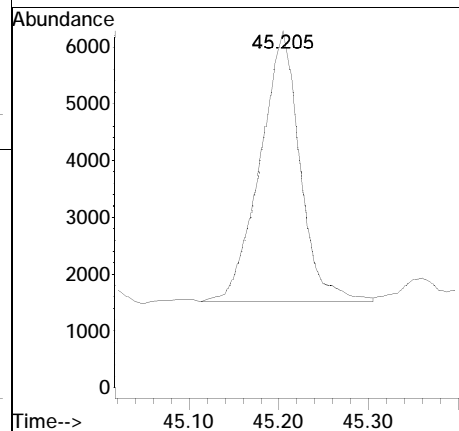
#157
 C29,20R TAS
 Concen: 165.17 ng/mL
 RT: 53.828 min Scan# 5011
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

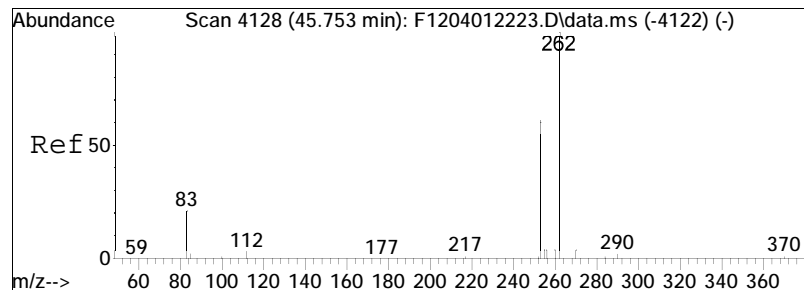
Tgt Ion: 231 Resp: 8466





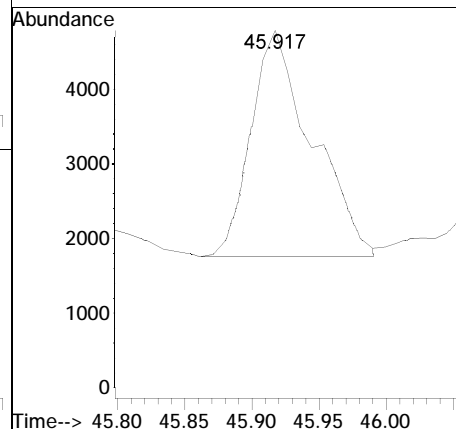
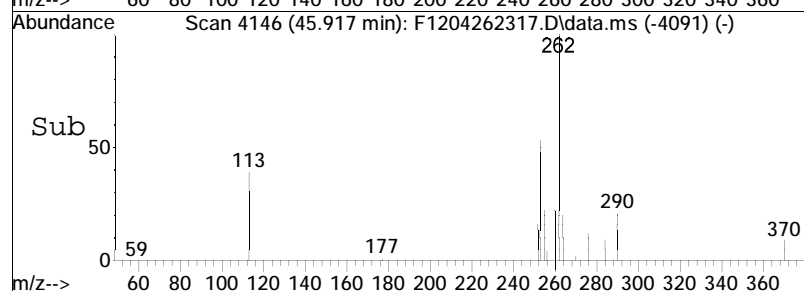
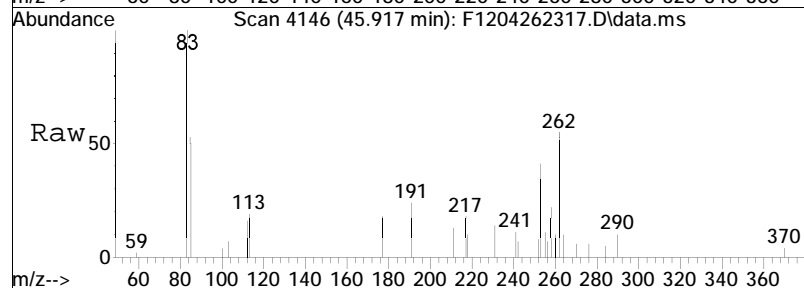
#158
 5b(H)-C27 (20S) MAS+
 Concen: 286.40 ng/mL
 RT: 45.205 min Scan# 4068
 Delta R.T. 0.001 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm
 Tgt Ion:253 Resp: 14680

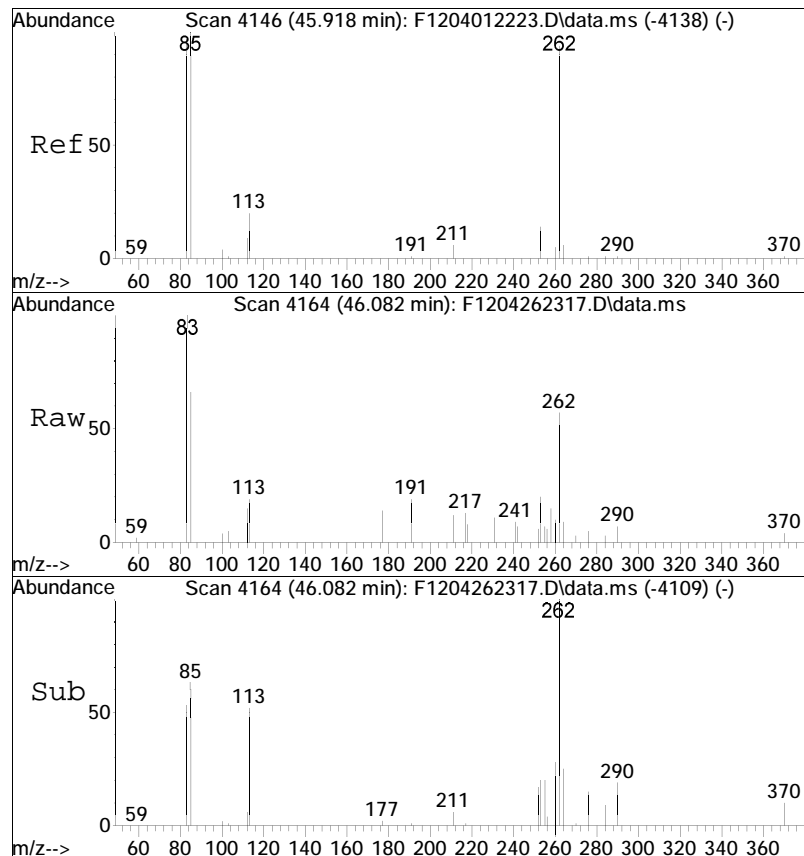




#159
 5b(H)-C27 (20R) MAS+
 Concen: 186.04 ng/mL
 RT: 45.917 min Scan# 4146
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

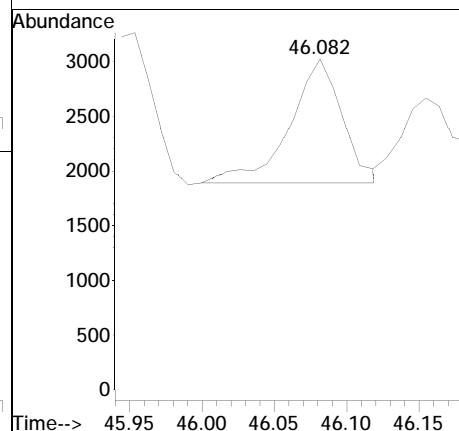
Tgt Ion: 253 Resp: 9536

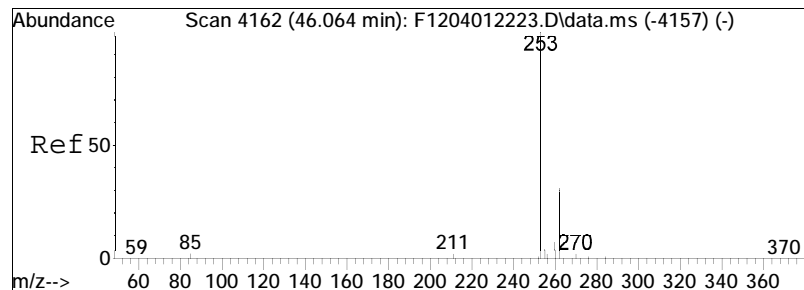




#160
 5a(H)-C27 (20S) MAS
 Concen: 56.44 ng/mL
 RT: 46.082 min Scan# 4164
 Delta R.T. 0.001 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

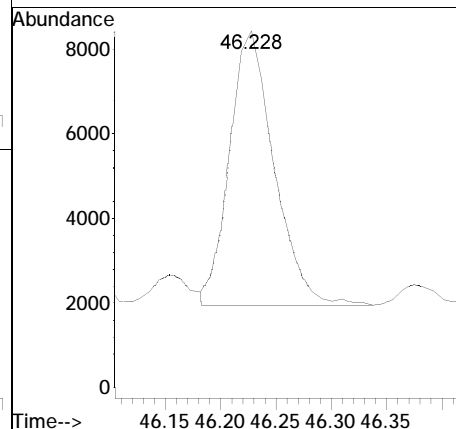
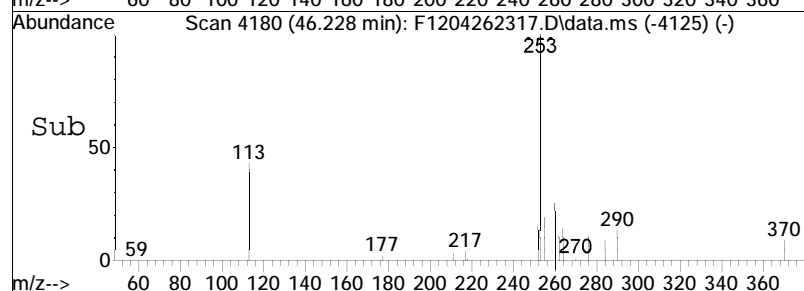
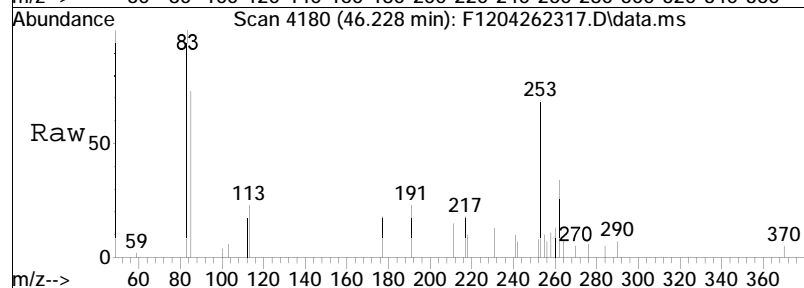
Tgt Ion: 253 Resp: 2893

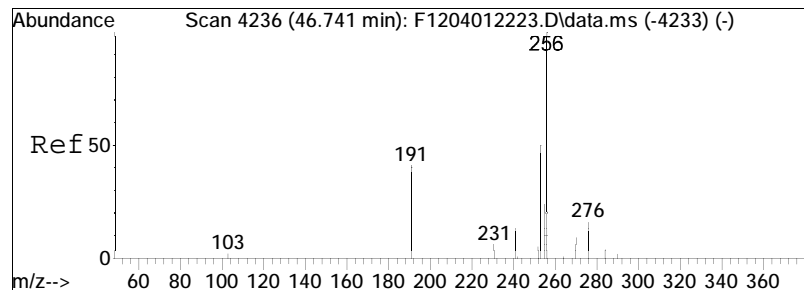




#161
 5b(H)-C28 (20S) MAS+
 Concen: 352.25 ng/mL
 RT: 46.228 min Scan# 4180
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

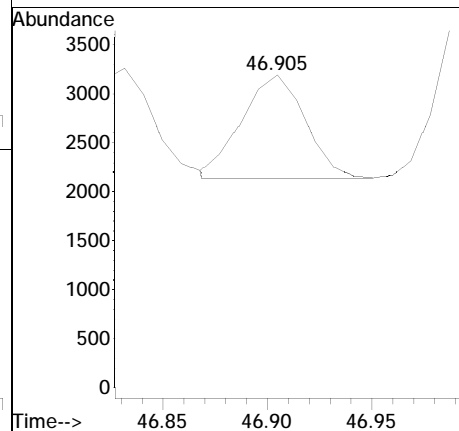
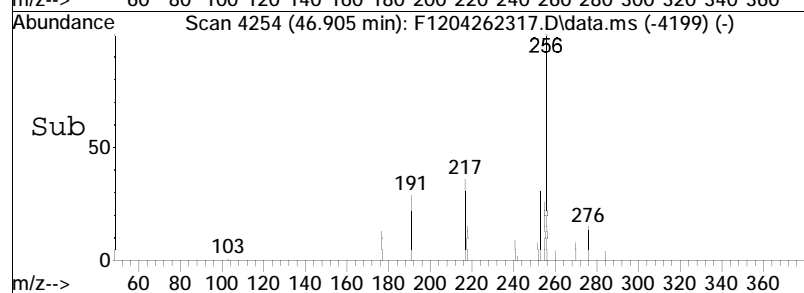
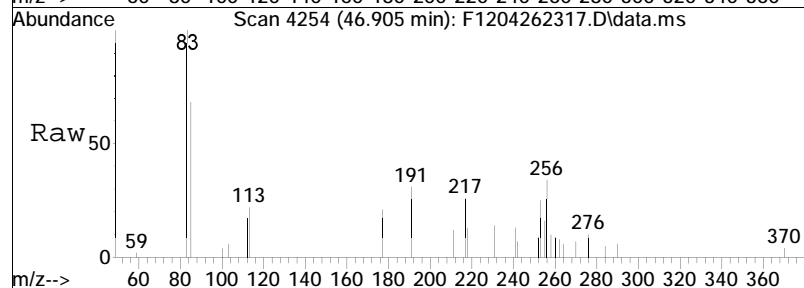
Tgt Ion: 253 Resp: 18055

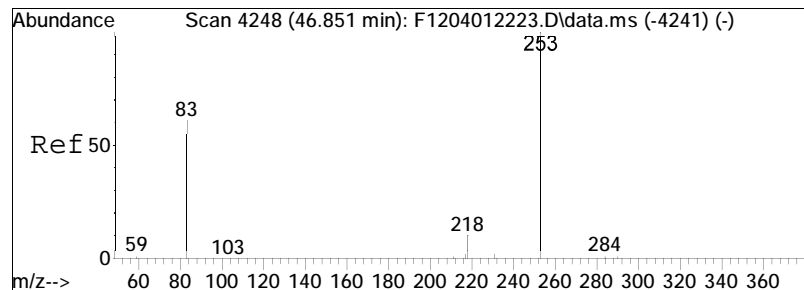




#162
 5a(H)-C27 (20R) MAS
 Concen: 43.49 ng/mL
 RT: 46.905 min Scan# 4254
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

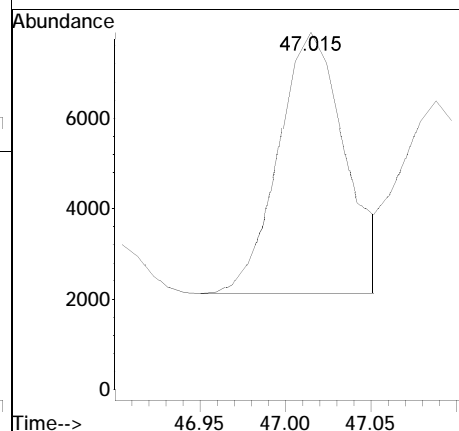
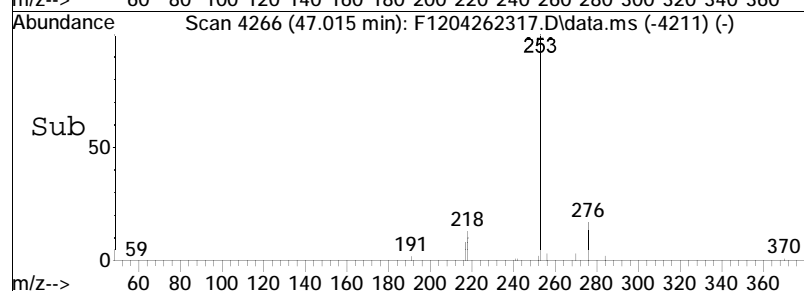
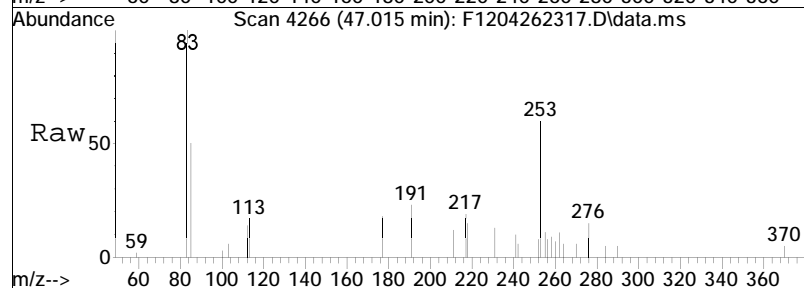
Tgt Ion: 253 Resp: 2229

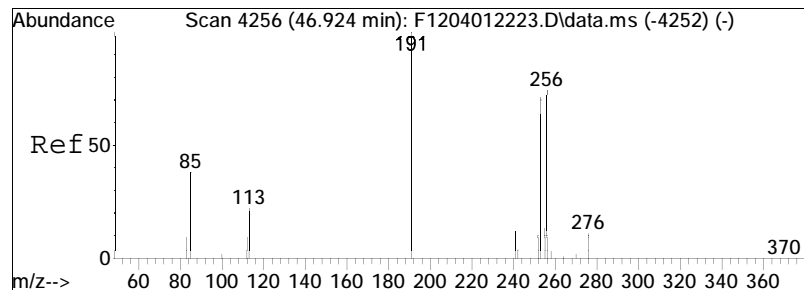




#163
 5a(H)-C28 (20S) MAS
 Concen: 306.91 ng/mL
 RT: 47.015 min Scan# 4266
 Delta R.T. 0.001 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

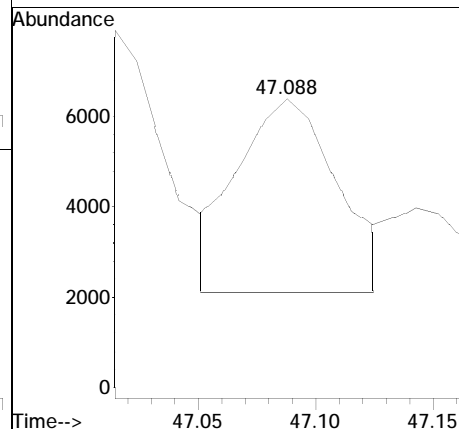
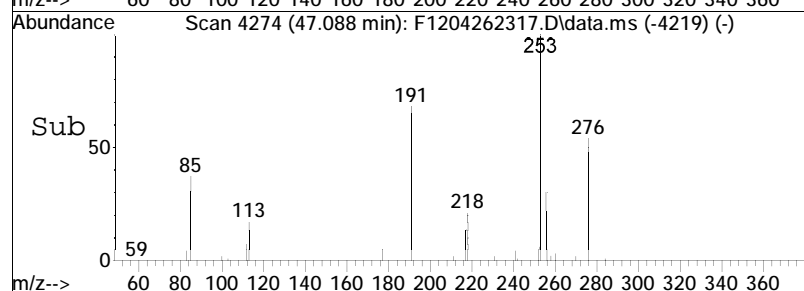
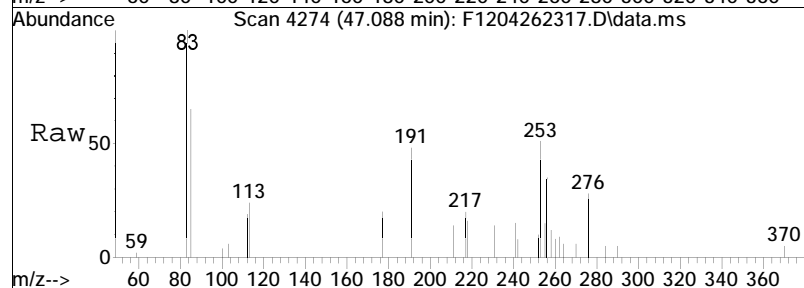
Tgt Ion: 253 Resp: 15731

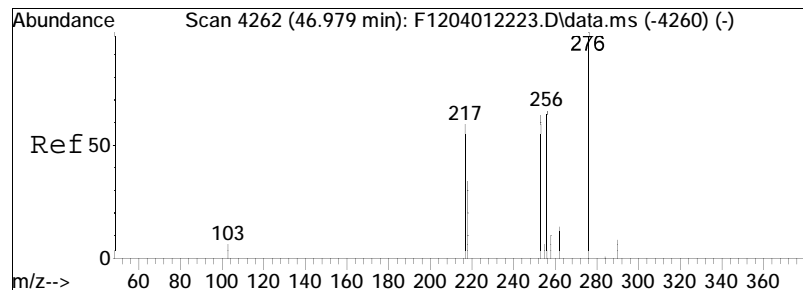




#164
 5b(H)-C28 (20R) MAS+
 Concen: 246.39 ng/mL M4
 RT: 47.088 min Scan# 4274
 Delta R.T. -0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

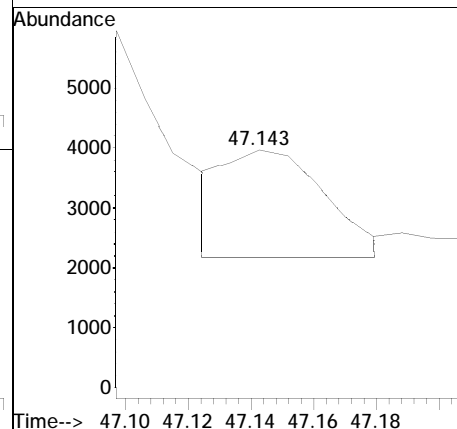
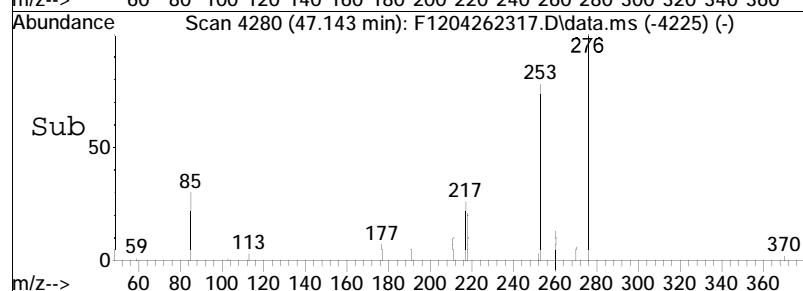
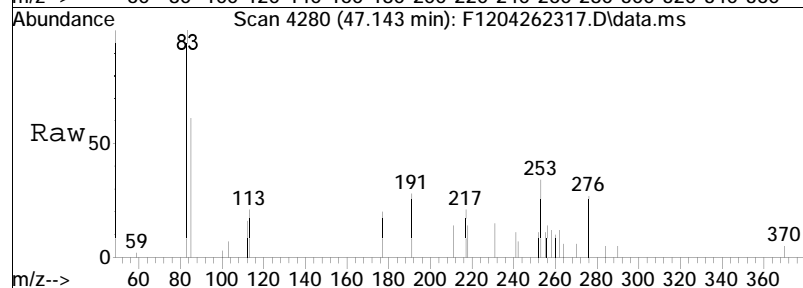
Tgt Ion: 253 Resp: 12629

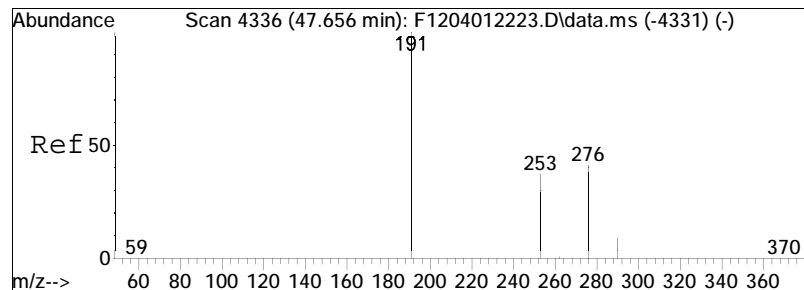




#165
 5b(H)-C29 (20S) MAS+
 Concen: 78.21 ng/mL M3
 RT: 47.143 min Scan# 4280
 Delta R.T. 0.001 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

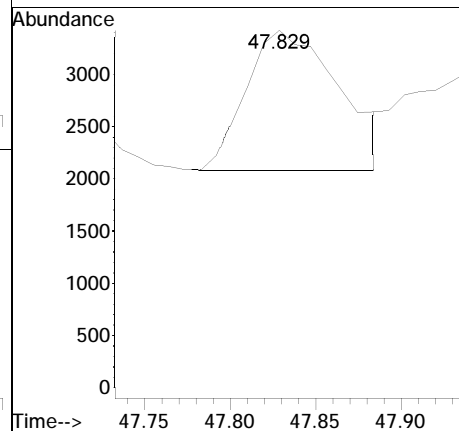
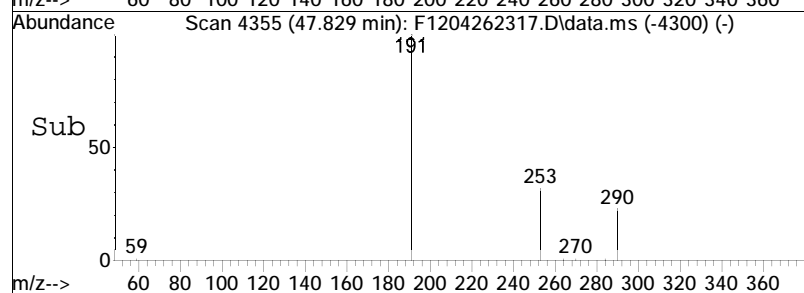
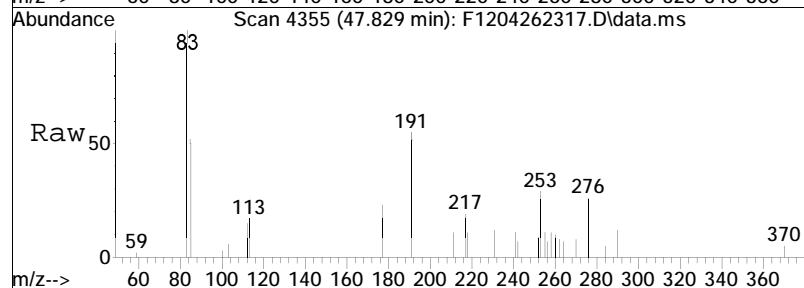
Tgt Ion: 253 Resp: 4009

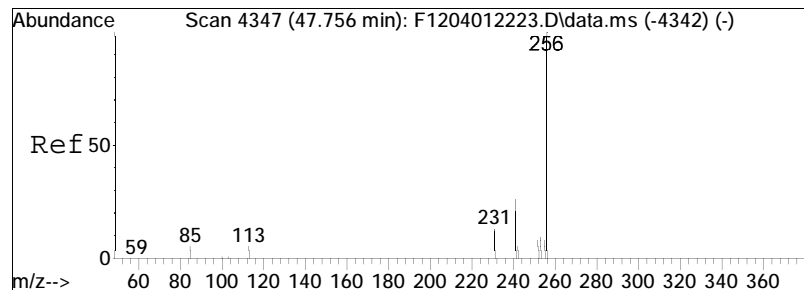




#166
5a(H)-C29 (20S) MAS
Concen: 98.52 ng/mL
RT: 47.829 min Scan# 4355
Delta R.T. 0.001 min
Lab File: F1204262317.D
Acq: 27 Apr 2023 12:01 pm

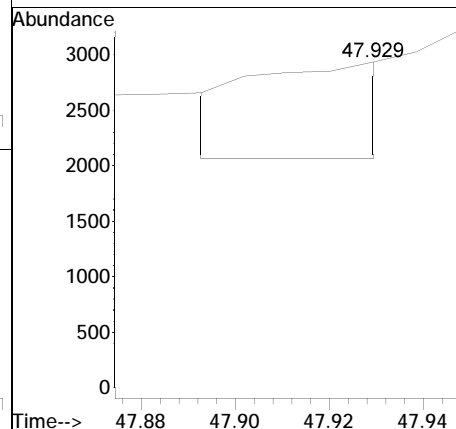
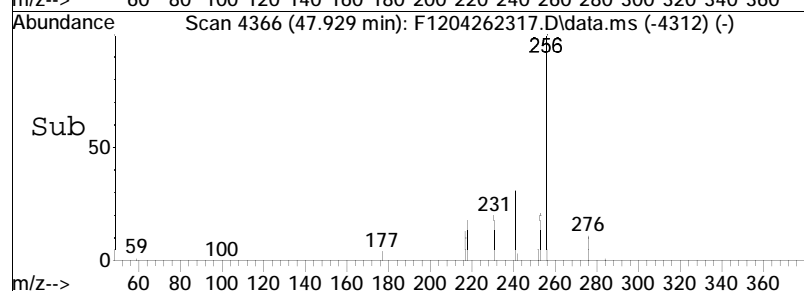
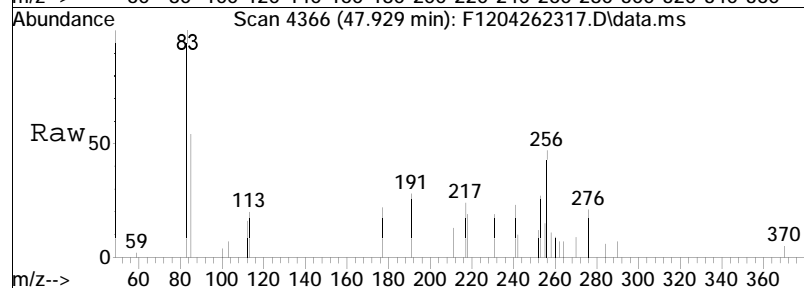
Tgt Ion: 253 Resp: 5050

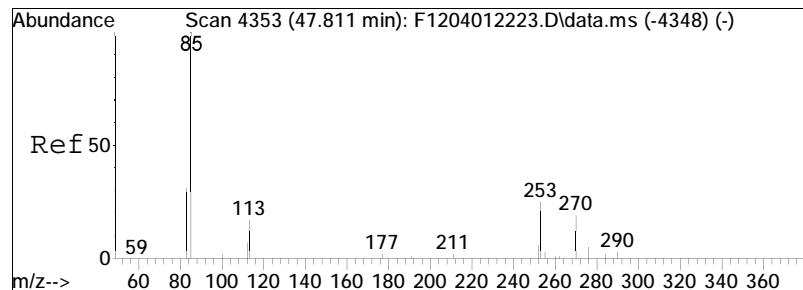




#167
 5a(H)-C28 (20R) MAS
 Concen: 34.10 ng/mL M3
 RT: 47.929 min Scan# 4366
 Delta R.T. -0.009 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

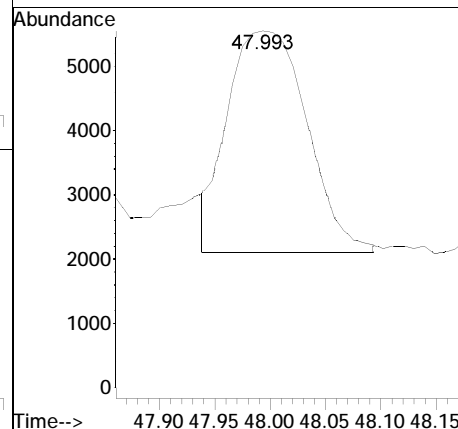
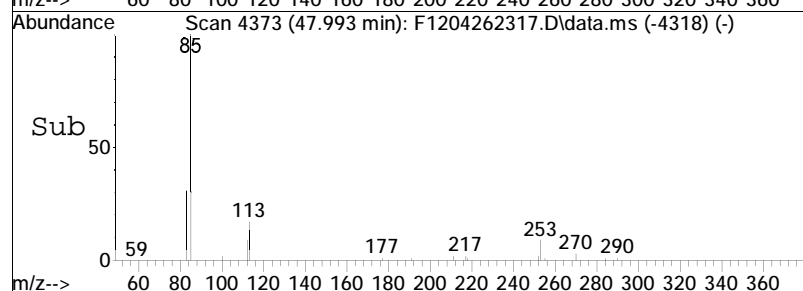
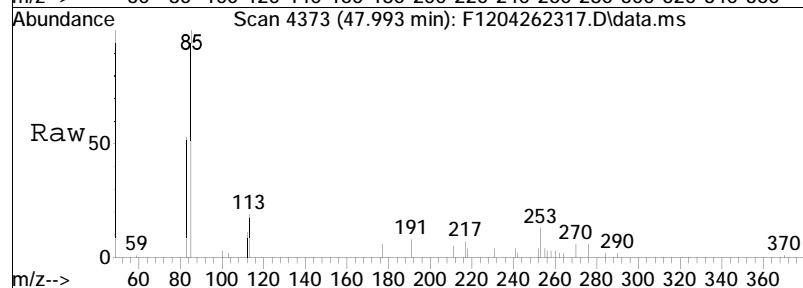
Tgt Ion: 253 Resp: 1748

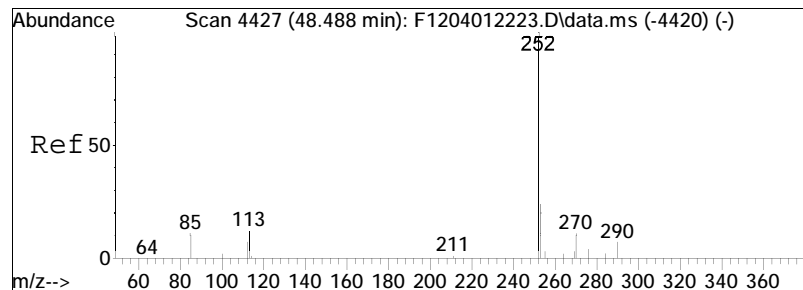




#168
 5b(H)-C29 (20R) MAS+
 Concen: 335.39 ng/mL M3
 RT: 47.993 min Scan# 4373
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

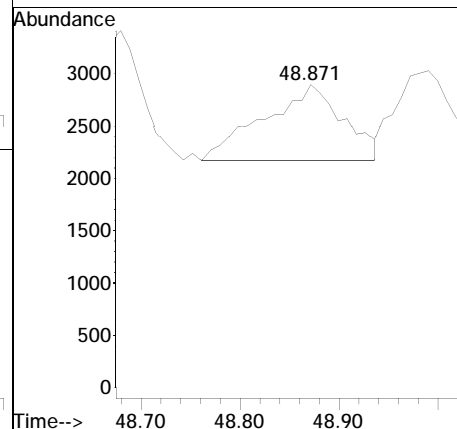
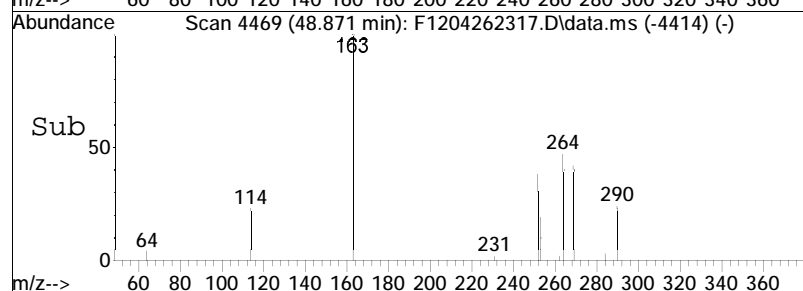
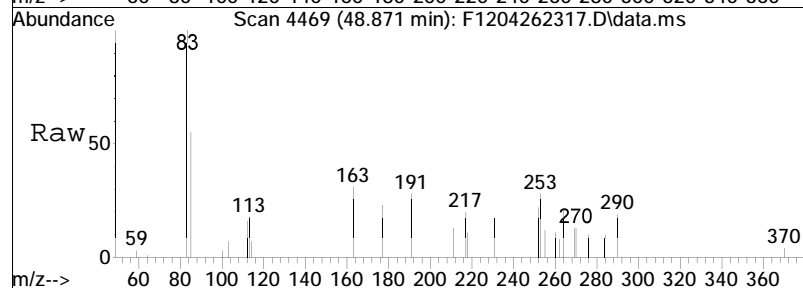
Tgt Ion: 253 Resp: 17191





#169
 5a(H)-C29 (20R) MAS
 Concen: 78.76 ng/mL
 RT: 48.871 min Scan# 4469
 Delta R.T. 0.000 min
 Lab File: F1204262317.D
 Acq: 27 Apr 2023 12:01 pm

Tgt Ion: 253 Resp: 4037



Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

May 05 2023, 02:42 pm

Work Group: WG1769534 for Department: 2 Organic Preparation

Created: 21-APR-23 Due: Operator: NAG

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2320537-01	MW2112-041723-NAPL	S A2-ALKPAH	OIL	DONE	U		0416 0509	S0	Glass-A.06
L2320537-01	MW2112-041723-NAPL	S A2-SHC	OIL	DONE	U		0416 0509	S0	Glass-A.06
WG1769534-1	Laboratory Method Bl	S A2-SHC	OIL	DONE	U				
WG1769534-1	Laboratory Method Bl	S A2-ALKPAH	OIL	DONE	U				
WG1769534-2	Laboratory Control S	S A2-SHC	OIL	DONE	U				
WG1769534-2	Laboratory Control S	S A2-ALKPAH	OIL	DONE	U				
WG1769534-3	LCS Duplicate	S A2-SHC	OIL	DONE	U				
WG1769534-3	LCS Duplicate	S A2-ALKPAH	OIL	DONE	U				
WG1769534-4	Duplicate Sample	S A2-ALKPAH	OIL	DONE	U				
WG1769534-4	Duplicate Sample	S A2-SHC	OIL	DONE	U				
Comments:									
WG1769534-3	WG1769534-2								
WG1769534-4	L2320537-01								

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

May 05 2023, 02:42 pm

Work Group: WG1770361 for Department: 2 Organic Preparation

Created: 24-APR-23 Due: Operator: BLR

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2320537-02	MW2112-041723-NET	S A2-ALKPAH	WIPE	DONE	U	0501	0509	S0	Glass-AH.120
L2320537-02	MW2112-041723-NET	S A2-SHC	WIPE	DONE	U	0501	0509	S0	Glass-AH.120
WG1770361-1	Laboratory Method Bl	S A2-ALKPAH	WIPE	DONE	U				
WG1770361-1	Laboratory Method Bl	S A2-SHC	WIPE	DONE	U				
WG1770361-2	Laboratory Control S	S A2-ALKPAH	WIPE	DONE	U				
WG1770361-2	Laboratory Control S	S A2-SHC	WIPE	DONE	U				
WG1770361-3	LCS Duplicate	S A2-SHC	WIPE	DONE	U				
WG1770361-3	LCS Duplicate	S A2-ALKPAH	WIPE	DONE	U				
Comments:									
WG1770361-3	WG1770361-2								

Sequence Logs

Analysis log File

Total Files Reported in Log : 24

Log Generated From Directory: O:\Forensics\Data\PAH8\2023\APR23\APR19\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F804192301.D	FRNC8AF.M	pRIME	1X	4/19/2023	8:58 am
2	F804192302.D	FRNC8A.M	ll		4/19/2023	1:18 pm
3	F804192303.D	FRNC8A.M	pRIME	1X	4/19/2023	2:44 pm
4	F804192304.D	FRNC8A.M	pRIME	1X	4/19/2023	4:10 pm
5	F804192305.D	FRNC8A.M	pRIME	1X	4/19/2023	5:36 pm
6	F804192306.D	FRNC8A.M	pRIME	1X	4/19/2023	7:02 pm
7	F804192307.D	FRNC8A.M	pRIME	1X	4/19/2023	8:28 pm
8	F804192308.D	FRNC8A.M	pRIME	1X	4/19/2023	9:54 pm
9	F804192309.D	FRNC8A.M	pRIME	1X	4/19/2023	11:19 pm
10	F804192310.D	FRNC8A.M	ll	1X	4/20/2023	12:44 am
11	F804192311.D	FRNC8A.M	ll	1X	4/20/2023	2:09 am
12	F804192312.D	FRNC8A.M	i804192301	WG1769611,FRBF67	4/20/2023	3:34 am
13	F804192313.D	FRNC8A.M	i804192302	WG1769611,FRBF68	4/20/2023	4:59 am
14	F804192314.D	FRNC8A.M	i804192303	WG1769611,FRBF69	4/20/2023	6:24 am
15	F804192315.D	FRNC8A.M	i804192304	WG1769611,FRBF80	4/20/2023	7:49 am
16	F804192316.D	FRNC8A.M	i804192305	WG1769611,FRBF71	4/20/2023	9:15 am
17	F804192317.D	FRNC8A.M	i804192306	WG1769611,FRBF72	4/20/2023	10:40 am
18	F804192318.D	FRNC8A.M	i804192307	WG1769611,FRBF73	4/20/2023	12:06 pm
19	F804192319.D	FRNC8A.M	dcm	1X	4/20/2023	1:32 pm
20	F804192320.D	FRNC8A.M	L1	use original	4/20/2023	2:58 pm
21	F804192321.D	FRNC8A.M	CQ804192301	WG1769611,FRBF84	4/20/2023	4:24 pm
22	F804192322.D	FRNC8A.M	DCM	1X	4/20/2023	5:49 pm
23	F804192323.D	FRNC8A.M	WG1769611-1,.0539	WG1769611,FRBF88	4/20/2023	7:15 pm
24	F804192324.D	FRNC8A.M	ANS804192302	1X	4/20/2023	8:41 pm

Analysis log File

Total Files Reported in Log : 17

Log Generated From Directory: O:\Forensics\Data\PAH12\2023\APR23\APR26\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F1204262301.D	FRNC12ALT.M	DCM		4/26/2023	1:13 pm
2	F1204262302.D	FRNC12ALT.M	DCM		4/26/2023	2:37 pm
3	F1204262303.D	FRNC12ALT.M	i1404262301	WG1773271,frbf67	4/26/2023	4:02 pm
4	F1204262304.D	FRNC12ALT.M	i1404262302	WG1773271,frbf68	4/26/2023	5:27 pm
5	F1204262305.D	FRNC12ALT.M	i1404262303	WG1773271,frbf69	4/26/2023	6:51 pm
6	F1204262306.D	FRNC12ALT.M	i1404262304	WG1773271,frbf80	4/26/2023	8:16 pm
7	F1204262307.D	FRNC12ALT.M	i1404262305	WG1773271,frbf71	4/26/2023	9:40 pm
8	F1204262308.D	FRNC12ALT.M	i1404262306	WG1773271,frbf72	4/26/2023	11:05 pm
9	F1204262309.D	FRNC12ALT.M	i1404262307	WG1773271,frbf73	4/27/2023	12:29 am
10	F1204262310.D	FRNC12ALT.M	dcm		4/27/2023	1:54 am
11	F1204262311.D	FRNC12ALT.M	cq1404262301	SEE RA	4/27/2023	3:18 am
12	F1204262312.D	FRNC12ALT.M	dcm		4/27/2023	4:42 am
13	F1204262313.D	FRNC12ALT.M	ans 5.39	frbf88 SEE RA	4/27/2023	6:06 am
14	F1204262314.D	FRNC12ALT.M	dcm		4/27/2023	7:31 am
15	F1204262315.D	FRNC12ALT.M	CQ1204262301	WG1773271,FRBF84	4/27/2023	8:55 am
16	F1204262316.D	FRNC12ALT.M	old icv	N/A	4/27/2023	10:20 am
17	F1204262317.D	FRNC12ALT.M	WG1773271-1,0.05390	WG1773271,frbf88 5.39	4/27/2023	12:01 pm

Analysis log File

Total Files Reported in Log : 52

Log Generated From Directory: O:\Forensics\Data\PAH8\2023\APR23\APR25\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F804252301.D	FRNC8A.M	pRIME		4/25/2023	6:46 am
2	F804252302.D	FRNC8A.M	WG1771474-1	WG1771474,FRBF80,ICAL19..	4/25/2023	8:12 am
3	F804252303.D	FRNC8A.M	ANS		4/25/2023	9:59 am
4	F804252304.D	FRNC8A.M	DCM		4/25/2023	11:25 am
5	F804252305.D	FRNC8A.M	DCM		4/25/2023	12:51 pm
6	F804252306.D	FRNC8A.M	wg1768477-1,32,,	WG1771474,WG1768477,ICA..	4/25/2023	2:17 pm
7	F804252307.D	FRNC8A.M	wg1768214-1,32,,	WG1771474,WG1768214,ICA..	4/25/2023	3:43 pm
8	F804252308.D	FRNC8A.M	wg1768477-2,32,,	WG1771474,WG1768477,ICA..	4/25/2023	5:08 pm
9	F804252309.D	FRNC8A.M	wg1768477-3,32,,	WG1771474,WG1768477,ICA..	4/25/2023	6:34 pm
10	F804252310.D	FRNC8A.M	12320077-01,32,,	WG1771474,WG1768477,ICA..	4/25/2023	8:00 pm
11	F804252311.D	FRNC8A.M	wg1768477-4,32,,	WG1771474,WG1768477,ICA..	4/25/2023	9:25 pm
12	F804252312.D	FRNC8A.M	12320077-02,32,,	WG1771474,WG1768477,ICA..	4/25/2023	10:50 pm
13	F804252313.D	FRNC8A.M	wg1768214-2,32,,	WG1771474,WG1768214,ICA..	4/26/2023	12:15 am
14	F804252314.D	FRNC8A.M	wg1768214-3,32,,	WG1771474,WG1768214,ICA..	4/26/2023	1:40 am
15	F804252315.D	FRNC8A.M	WG1771474-2	WG1771474,FRBF80,ICAL19..	4/26/2023	3:05 am
16	F804252316.D	FRNC8A.M	12319403-03D,32,2	SEE 10X	4/26/2023	4:29 am
17	F804252317.D	FRNC8A.M	12319403-03D,32,10	WG1771474,WG1768214,ICA..	4/26/2023	5:54 am
18	F804252318.D	FRNC8A.M	WG1771474-3	WG1771474,FRBF80,ICAL19..	4/26/2023	7:19 am
19	F804252319.D	FRNC8A.M	WG1771474-4	WG1771474,FRBF80,ICAL19..	4/26/2023	8:44 am
20	F804252320.D	FRNC8A.M	dcm		4/26/2023	10:10 am
21	F804252321.D	FRNC8A.M	dcm		4/26/2023	11:35 am
22	F804252322.D	FRNC8A.M	WG1769534-1,32,,	WG1771474,WG1769534,ICA..	4/26/2023	1:01 pm
23	F804252323.D	FRNC8A.M	WG1769736-1,32,,	WG1771474,WG1769736,ICA..	4/26/2023	2:27 pm
24	F804252324.D	FRNC8A.M	WG1769534-2,32,,	WG1771474,WG1769534,ICA..	4/26/2023	3:54 pm
25	F804252325.D	FRNC8A.M	WG1769534-3,32,,	WG1771474,WG1769534,ICA..	4/26/2023	5:20 pm
26	F804252326.D	FRNC8A.M	L2320537-01,32,,	WG1771474,WG1769534,ICA..	4/26/2023	6:46 pm
27	F804252327.D	FRNC8A.M	WG1769534-4,32,,	WG1771474,WG1769534,ICA..	4/26/2023	8:12 pm
28	F804252328.D	FRNC8A.M	WG1769736-2,32,,	WG1771474,WG1769736,ICA..	4/26/2023	9:38 pm
29	F804252329.D	FRNC8A.M	WG1769736-3,32,,	WG1771474,WG1769736,ICA..	4/26/2023	11:03 pm
30	F804252330.D	FRNC8A.M	L2320081-01,32,,	WG1771474,WG1769736,ICA..	4/27/2023	12:29 am
31	F804252352.D	FRNC8A.M	L2320081-01,32,,	WG1771474,WG1769736,ICA..	4/27/2023	12:29 am
32	F804252331.D	FRNC8A.M	WG1771474-5	WG1771474,FRBF80,ICAL19..	4/27/2023	1:54 am
33	F804252332.D	FRNC8A.M	WG1771474-6	WG1771474,FRBF80,ICAL19..	4/27/2023	3:20 am
34	F804252333.D	FRNC8A.M	L2317387-01	POST ONLY	4/27/2023	4:45 am
35	F804252334.D	FRNC8A.M	L2320081-01d,32,2	WG1771474,WG1769736,ICA..	4/27/2023	7:32 am
36	F804252335.D	FRBIO8A.M	dcm		4/27/2023	8:57 am
37	F804252336.D	FRBIO8A.M	dcm		4/27/2023	10:33 am
38	F804252337.D	FRBIO8A.M	wg1769938-1		4/27/2023	12:09 pm
39	F804252338.D	FRBIO8A.M	WG1771319-1,32,,		4/27/2023	1:45 pm
40	F804252339.D	FRBIO8A.M	WG1771319-2,32,,		4/27/2023	3:21 pm
41	F804252340.D	FRNC8A.M	WG1771474-7	WG1771474,FRBF80,ICAL19..	4/27/2023	4:58 pm
42	F804252341.D	FRNC8A.M	WG1771319-1,32,,	WG1771474,WG1771319,ICA..	4/27/2023	6:24 pm
43	F804252342.D	FRNC8A.M	WG1771319-2,32,,	WG1771474,WG1771319,ICA..	4/27/2023	7:49 pm
44	F804252343.D	FRNC8A.M	WG1771319-3,32,,	WG1771474,WG1771319,ICA..	4/27/2023	9:15 pm
45	F804252344.D	FRNC8A.M	L2321819-02,32,,R4C	WG1771474,WG1771319,ICA..	4/27/2023	10:41 pm
46	F804252345.D	FRNC8A.M	L2321819-03,32,,R4C	WG1771474,WG1771319,ICA..	4/28/2023	12:06 am
47	F804252346.D	FRNC8A.M	L2321819-04,32,,R4C	WG1771474,WG1771319,ICA..	4/28/2023	1:32 am
48	F804252347.D	FRNC8A.M	WG1771474-8	WG1771474,FRBF80,ICAL19..	4/28/2023	2:57 am
49	F804252348.D	FRNC8A.M	dcm		4/28/2023	9:52 am
50	F804252349.D	FRNC8A.M	wg1771319-1		4/28/2023	11:18 am
51	F804252350.D	FRNC8A.M	wg1769938-1		4/28/2023	12:44 pm
52	F804252351.D	FRNC8A.M	ccv		4/28/2023	2:11 pm

Printed: 05/01/23

Page: 1

Analysis log File

Total Files Reported in Log : 18

Log Generated From Directory: O:\Forensics\Data\PAH12\2023\MAY23\MAY01\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F1205012301.D	FRNC12ALT.M	prime		5/1/2023	6:03 am
2	F1205012302.D	FRNC12ALT.M	CCV	FRBF80	5/1/2023	7:28 am
3	F1205012303.D	FRNC12ALT.M	prime		5/1/2023	10:43 am
4	F1205012304.D	FRNC12ALT.M	WG1773800-7	WG1773800,FRBF80,ICAL19..	5/1/2023	12:07 pm
5	F1205012305.D	FRNC12ALT.M	ANS		5/1/2023	2:28 pm
6	F1205012306.D	FRNC12ALT.M	DCM		5/1/2023	3:53 pm
7	F1205012307.D	FRNC12ALT.M	DCM CHECK EG332-US	SERIAL#75037	5/1/2023	5:18 pm
8	F1205012308.D	FRNC12ALT.M	wg1770361-1,32,,	WG1773800,WG1770361,ICA..	5/1/2023	6:43 pm
9	F1205012309.D	FRNC12ALT.M	wg1770361-2,32,,	SEE RA	5/1/2023	8:08 pm
10	F1205012310.D	FRNC12ALT.M	wg1770361-3,32,,	WG1773800,WG1770361,ICA..	5/1/2023	9:33 pm
11	F1205012311.D	FRNC12ALT.M	12320537-02,32,,	WG1773800,WG1770361,ICA..	5/1/2023	10:58 pm
12	F1205012312.D	FRNC12ALT.M	LCS CHECK		5/2/2023	12:23 am
13	F1205012313.D	FRNC12ALT.M	WG1773800-8	WG1773800,FRBF80,ICAL19..	5/2/2023	1:47 am
14	F1205012314.D	FRNC12ALT.M	CCV		5/2/2023	3:12 am
15	F1205012315.D	FULLS12A.M	CCV		5/2/2023	4:35 am
16	F1205012316.D	FULLS12A.M	DCM		5/2/2023	5:58 am
17	F1205012317.D	FULLS12A.M	12320081-01,32,,		5/2/2023	7:21 am
18	F1205012318.D	FULLS12A.M	CCV		5/2/2023	8:45 am

Analysis log File

Total Files Reported in Log : 25

Log Generated From Directory: O:\Forensics\Data\PAH12\2023\MAY23\MAY02\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F1205022301.D	FRNC12ALT.M	prime		5/2/2023	11:47 am
2	F1205022302.D	FRNC12ALT.M	WG1773800-1	WG1773800,FRBF80,ICAL19..	5/2/2023	1:12 pm
3	F1205022303.D	FRNC12ALT.M	ANS	FRBF88	5/2/2023	2:37 pm
4	F1205022304.D	FRNC12ALT.M	DCM		5/2/2023	4:01 pm
5	F1205022305.D	FRNC12ALT.M	DCM		5/2/2023	5:26 pm
6	F1205022306.D	FRNC12ALT.M	wg1766951-1,32,,	WG1773800,WG1766951,ICA..	5/2/2023	6:51 pm
7	F1205022307.D	FRNC12ALT.M	wg1766951-2,32,,	WG1773800,WG1766951,ICA..	5/2/2023	8:16 pm
8	F1205022308.D	FRNC12ALT.M	wg1766951-3,32,,	WG1773800,WG1766951,ICA..	5/2/2023	9:40 pm
9	F1205022309.D	FRNC12ALT.M	12319166-01,32,,	WG1773800,WG1766951,ICA..	5/2/2023	11:05 pm
10	F1205022310.D	FRNC12ALT.M	12319166-02,32,,	WG1773800,WG1766951,ICA..	5/3/2023	12:30 am
11	F1205022311.D	FRNC12ALT.M	12319166-03,32,,	WG1773800,WG1766951,ICA..	5/3/2023	1:54 am
12	F1205022312.D	FRNC12ALT.M	12319166-04,32,,	WG1773800,WG1766951,ICA..	5/3/2023	3:18 am
13	F1205022313.D	FRNC12ALT.M	12319166-05,32,,	WG1773800,WG1766951,ICA..	5/3/2023	4:42 am
14	F1205022314.D	FRNC12ALT.M	12319166-06,32,,	WG1773800,WG1766951,ICA..	5/3/2023	6:07 am
15	F1205022315.D	FRNC12ALT.M	12319166-07,32,,	WG1773800,WG1766951,ICA..	5/3/2023	7:31 am
16	F1205022316.D	FRNC12ALT.M	WG1773800-2	WG1773800,FRBF80,ICAL19..	5/3/2023	8:56 am
17	F1205022317.D	FRNC12ALT.M	DCM		5/3/2023	10:20 am
18	F1205022318.D	FRNC12ALT.M	12319166-08,32,,	SEE RA	5/3/2023	11:45 am
19	F1205022319.D	FRNC12ALT.M	12319166-09,32,,	SEE RA	5/3/2023	1:09 pm
20	F1205022320.D	FRNC12ALT.M	WG1770361-2	SEE RA	5/3/2023	2:34 pm
21	F1205022321.D	FRNC12ALT.M	L2320537-02D,32,4	SEE RA	5/3/2023	3:59 pm
22	F1205022322.D	FRNC12ALT.M	L2320300-05D,32,10	SEE RA	5/3/2023	5:23 pm
23	F1205022323.D	FRNC12ALT.M	CCV CHECK	FRBF92	5/3/2023	6:48 pm
24	F1205022324.D	FRNC12ALT.M	CCV	FRBF80	5/3/2023	8:13 pm
25	F1205022325.D	FRNC12ALT.M	CCV	FRBF80	5/3/2023	9:38 pm

Printed: 05/05/23

Page: 1

Analysis log File

Total Files Reported in Log : 18

Log Generated From Directory: O:\Forensics\Data\PAH12\2023\MAY23\MAY03\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F1205032301.D	FRNC12ALT.M	prime		5/4/2023	6:03 am
2	F1205032302.D	FRNC12ALT.M	WG1773800-3	WG1773800,FRBF80,ICAL19..	5/4/2023	8:06 am
3	F1205032303.D	FRNC12ALT.M	ANS		5/4/2023	9:31 am
4	F1205032304.D	FRNC12ALT.M	L2320300-05D,32,10	WG1773800,WG1769029,ICA..	5/4/2023	10:55 am
5	F1205032305.D	FRNC12ALT.M	L2320300-05D,32,100	see DIL	5/4/2023	12:20 pm
6	F1205032306.D	FRNC12ALT.M	WG1773800-4	WG1773800,FRBF80,ICAL19..	5/4/2023	1:44 pm
7	F1205032307.D	FRNC12ALT.M	WG1773800-5	WG1773800,FRBF80,ICAL19..	5/4/2023	3:09 pm
8	F1205032308.D	FRNC12ALT.M	WG1770361-2	WG1773800,WG1770361,ICA..	5/4/2023	4:33 pm
9	F1205032309.D	FRNC12ALT.M	L2320537-02D,32,4	WG1773800,WG1770361,ICA..	5/4/2023	5:57 pm
10	F1205032310.D	FRNC12ALT.M	L2320537-02D,32,8	USE 4X	5/4/2023	7:21 pm
11	F1205032311.D	FRNC12ALT.M	L2319166-08,32	WG1773800,WG1766951,ICA..	5/4/2023	8:45 pm
12	F1205032312.D	FRNC12ALT.M	L2319166-09,32	WG1773800,WG1766951,ICA..	5/4/2023	10:09 pm
13	F1205032313.D	FRNC12ALT.M	WG1773800-6	WG1773800,FRBF80,ICAL19..	5/4/2023	11:33 pm
14	F1205032314.D	FRNC12ALT.M	CCV		5/5/2023	12:57 am
15	F1205032315.D	FRNC12ALT.M	DCM		5/5/2023	2:22 am
16	F1205032316.D	FRNC12ALT.M	DCM		5/5/2023	3:46 am
17	F1205032317.D	FRNC12ALT.M	wg1771486-1,32,,		5/5/2023	5:10 am
18	F1205032318.D	FRNC12ALT.M	wg1771486-2,32,,		5/5/2023	6:34 am

Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252319.D
 Acq On : 26 Apr 2023 8:44 am
 Operator : PAH8:CNC
 Sample : WG1771474-4
 Misc : WG1771474,FRBF80,ICAL19944
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 01 08:31:07 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Apr 21 13:24:01 2023
 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	159	0.00
2 A1	trans-Decalin	0.417	0.371	11.0	155	0.00
3 t	cis-Decalin	0.330	0.276	16.4	149	-0.02
8 s	Naphthalene-d8	2.204	1.932	12.3	146	0.00
9 A1	Naphthalene	2.417	2.221	8.1	145	0.00
14 t	2-Methylnaphthalene	1.596	1.495	6.3	148	0.00
15 t	1-Methylnaphthalene	1.458	1.333	8.6	147	0.00
16 A1	Benzo[thiophene]	2.129	1.973	7.3	144	0.00
21 t	Biphenyl	1.905	1.771	7.0	149	0.00
22 t	2,6-Dimethylnaphthalene	1.274	1.196	6.1	152	0.00
23 t	Dibenzofuran	1.867	1.756	5.9	150	0.00
24 t	Acenaphthylene	2.254	2.316	-2.8	161	0.00
25 t	Acenaphthene	1.448	1.427	1.5	154	0.00
26 t	2,3,5-Trimethylnaphthalene	1.054	1.023	2.9	159	0.00
27 A1	Fluorene	1.518	1.487	2.0	155	0.00
31 A1	Dibenzothiophene	2.158	2.156	0.1	155	0.00
40 s	Phenanthrene-d10	1.406	1.329	5.5	162	0.00
41 A1	Phenanthrene	2.095	2.063	1.5	156	0.00
52 t	Retene	0.453	0.427	5.7	170	0.00
53 t	Anthracene	1.836	2.018	-9.9	164	0.00
54 t	Carbazole	2.186	1.936	11.4	159	0.00
55 t	1-Methylphenanthrene	1.382	1.378	0.3	162	0.00
56 A1	Fluoranthene	2.104	2.177	-3.5	162	0.00
57 A1	Benzo(b)fluorene	1.133	1.150	-1.5	168	0.00
59 A1	Pyrene	2.105	2.149	-2.1	161	0.00
67 A1	Naphthobenzothiophene-2,1-D	2.057	2.046	0.5	160	0.00
74 i	Chrysene-d12	1.000	1.000	0.0	158	0.00
75 t	Benz[a]anthracene	1.461	1.512	-3.5	165	0.00
76 A1	Chrysene	1.486	1.537	-3.4	160	0.00
77 A2	Chrysene/Triphenylene	1.486	1.537	-3.4	160	0.00
83 s	Benzo[b]fluoranthene-d12	0.998	0.906	9.2	160	0.00
84 t	Benzo[b]fluoranthene	1.726	1.698	1.6	158	0.00
85 A1	Benzo[j]+[k]fluoranthene	1.740	1.708	1.8	155	0.00
87 t	Benzo[e]pyrene	1.670	1.617	3.2	156	0.00
88 s	Benzo[a]pyrene-d12	0.786	0.664	15.5	162	0.00
89 t	Benzo[a]pyrene	1.592	1.551	2.6	159	0.00
90 t	Perylene	1.606	1.582	1.5	160	0.00
91 t	Indeno[1,2,3-cd]pyrene	1.948	1.804	7.4	158	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252319.D
 Acq On : 26 Apr 2023 8:44 am
 Operator : PAH8:CNC
 Sample : WG1771474-4
 Misc : WG1771474,FRBF80,ICAL19944
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 01 08:31:07 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Apr 21 13:24:01 2023
 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)
92 t	Dibenz[ah]+[ac]anthracene	1.609	1.504	6.5	159	0.00
93 t	Benzo[g,h,i]perylene	1.942	1.754	9.7	153	0.00
94 A1	Hopane (T19)	0.309	0.286	7.4	166	-0.02
128 SA1	5B(H)Cholane - Surr	0.158	0.173	-9.5	167	0.00

* 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	0.92	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	0.92	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252319.D
 Acq On : 26 Apr 2023 8:44 am
 Operator : PAH8:CNC
 Sample : WG1771474-4
 Misc : WG1771474,FRBF80,ICAL19944
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 01 08:31:07 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Apr 21 13:24:01 2023
 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	27.488	164	27279	500.000	ng/mL	0.00
74) Chrysene-d12	43.981	240	29420	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.489	136	52708	438.368	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	43.84%#		
40) Phenanthrene-d10	33.373	188	36257	472.501	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	47.25%#		
83) Benzo[b]fluoranthene-d12	47.929	264	26651	453.866	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	45.39%#		
88) Benzo[a]pyrene-d12	49.200	264	19521	422.141	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	42.21%#		
128) 5B(H)Cholane - Surr	44.593	217	5085	546.427	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	54.64%		
Target Compounds						
						Qvalue
2) trans-Decalin	17.121	138	5058	222.403	ng/mL	100
3) cis-Decalin	18.344	138	3766	209.239	ng/mL	100
9) Naphthalene	20.562	128	60585	459.526	ng/mL	100
14) 2-Methylnaphthalene	23.272	142	40795	468.539	ng/mL	100
15) 1-Methylnaphthalene	23.701	142	36350	456.981	ng/mL	100
16) Benzothiophene	20.790	134	53819	463.380	ng/mL	100
21) Biphenyl	25.152	154	48313	464.764	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.772	156	32619	469.373	ng/mL	100
23) Dibenzofuran	28.263	168	47911	470.313	ng/mL	96
24) Acenaphthylene	26.877	152	63179M4	513.675	ng/mL	
25) Acenaphthene	27.616	153	38917	492.589	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	29.167	170	27900	484.969	ng/mL	97
27) Fluorene	29.641	166	40556	489.745	ng/mL	99
31) Dibenzothiophene	32.971	184	58821	499.686	ng/mL	99
41) Phenanthrene	33.464	178	56268	492.281	ng/mL	99
52) Retene	40.457	234	11657	471.481	ng/mL	98
53) Anthracene	33.646	178	55039M4	549.348	ng/mL	
54) Carbazole	34.313	167	52813	442.892	ng/mL	97
55) 1-Methylphenanthrene	35.974	192	37601	498.634	ng/mL	100
56) Fluoranthene	38.256	202	59388	517.418	ng/mL	99
57) Benzo(b)fluorene	40.767	216	31372	507.446	ng/mL	100
59) Pyrene	39.142	202	58618	510.405	ng/mL	100
67) Naphthobenzothiophene-2,1	42.995	234	55801	497.216	ng/mL	98
75) Benz[a]anthracene	43.917	228	44479	517.437	ng/mL	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252319.D
 Acq On : 26 Apr 2023 8:44 am
 Operator : PAH8:CNC
 Sample : WG1771474-4
 Misc : WG1771474,FRBF80,ICAL19944
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 01 08:31:07 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Fri Apr 21 13:24:01 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	44.081	228	45206	517.098	ng/mL	98
77) Chrysene/Triphenylene	44.081	228	45206	517.098	ng/mL	98
84) Benzo[b]fluoranthene	48.020	252	49959	491.816	ng/mL	94
85) Benzo[j]+[k]fluoranthene	48.112	252	50248	490.764	ng/mL	93
87) Benzo[e]pyrene	49.090	252	47559	483.986	ng/mL	93
89) Benzo[a]pyrene	49.292	252	45642	487.204	ng/mL	92
90) Perylene	49.630	252	46539	492.459	ng/mL	92
91) Indeno[1,2,3-cd]pyrene	54.504	276	53078M3	463.152	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.578	278	44262	467.658	ng/mL	97
93) Benzo[g,h,i]perylene	55.930	276	51617	451.770	ng/mL	99
94) Hopane (T19)	53.535	191	8415	463.317	ng/mL#	79

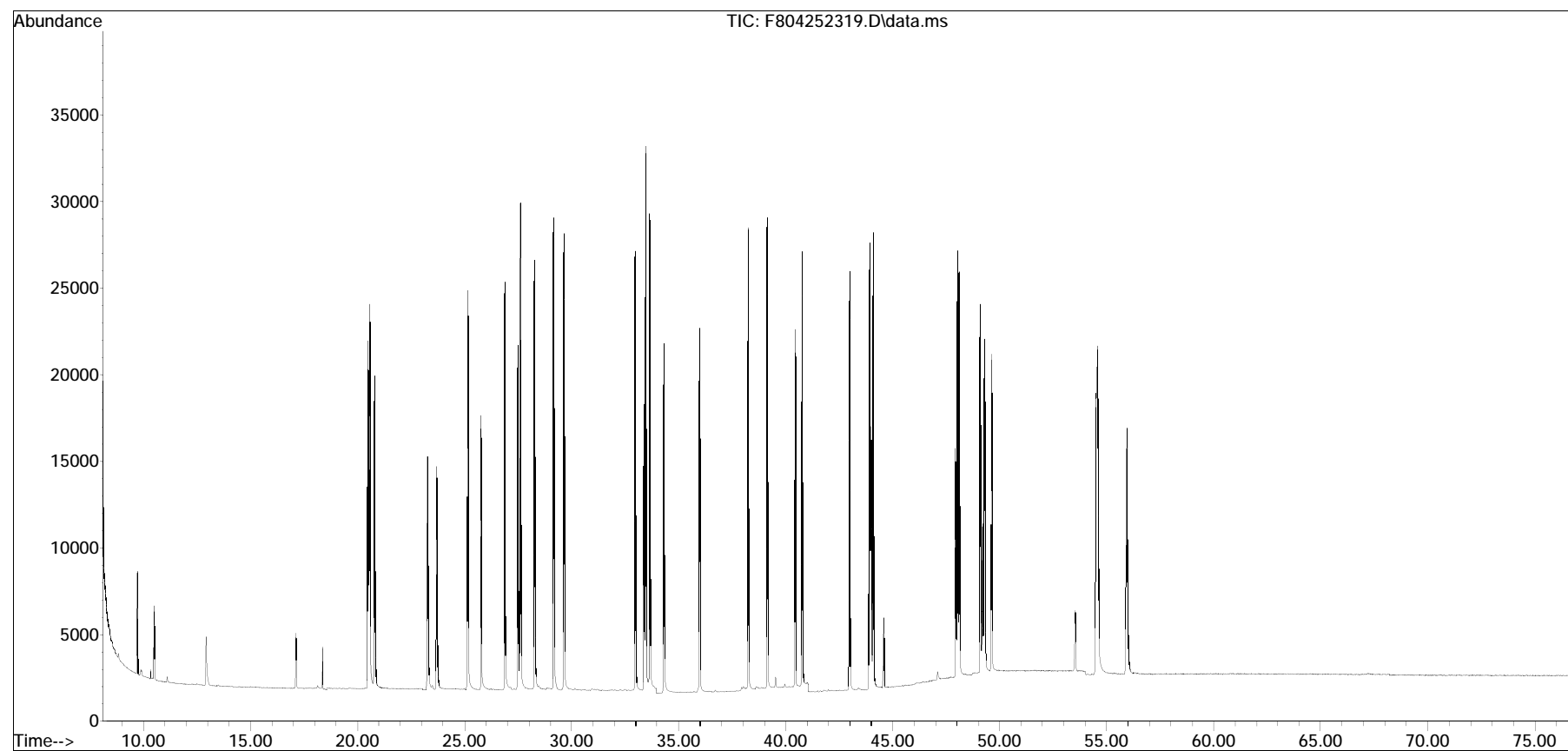
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
Data File : F804252319.D
Acq On : 26 Apr 2023 8:44 am
Operator : PAH8:CNC
Sample : WG1771474-4
Misc : WG1771474,FRBF80,ICAL19944
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 01 08:31:07 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Fri Apr 21 13:24:01 2023
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252331.D
 Acq On : 27 Apr 2023 1:54 am
 Operator : PAH8:CNC
 Sample : WG1771474-5
 Misc : WG1771474,FRBF80,ICAL19944
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 01 10:20:17 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 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	150	0.00
2 A1	trans-Decalin	0.417	0.360	13.7	142	0.00
3 t	cis-Decalin	0.330	0.272	17.6	138	-0.02
8 s	Naphthalene-d8	2.204	1.829	17.0	130	0.00
9 A1	Naphthalene	2.417	2.004	17.1	123	0.00
14 t	2-Methylnaphthalene	1.596	1.362	14.7	127	0.00
15 t	1-Methylnaphthalene	1.458	1.237	15.2	129	0.00
16 A1	Benzothiophene	2.129	1.733	18.6	119	0.00
21 t	Biphenyl	1.905	1.598	16.1	126	0.00
22 t	2,6-Dimethylnaphthalene	1.274	1.111	12.8	133	0.00
23 t	Dibenzofuran	1.867	1.582	15.3	127	0.00
24 t	Acenaphthylene	2.254	2.071	8.1	136	0.00
25 t	Acenaphthene	1.448	1.305	9.9	133	0.00
26 t	2,3,5-Trimethylnaphthalene	1.054	0.962	8.7	141	0.00
27 A1	Fluorene	1.518	1.353	10.9	132	0.00
31 A1	Dibenzothiophene	2.158	1.888	12.5	128	0.00
40 s	Phenanthrene-d10	1.406	1.315	6.5	151	0.00
41 A1	Phenanthrene	2.095	1.871	10.7	133	0.00
52 t	Retene	0.453	0.458	-1.1	172	-0.02
53 t	Anthracene	1.836	1.831	0.3	140	0.00
54 t	Carbazole	2.186	1.749	20.0	135	0.00
55 t	1-Methylphenanthrene	1.382	1.313	5.0	145	0.00
56 A1	Fluoranthene	2.104	2.030	3.5	142	0.00
57 A1	Benzo(b)fluorene	1.133	1.130	0.3	155	0.00
59 A1	Pyrene	2.105	2.026	3.8	143	0.00
67 A1	Naphthobenzothiophene-2,1-D	2.057	1.926	6.4	142	0.00
74 i	Chrysene-d12	1.000	1.000	0.0	159	0.00
75 t	Benz[a]anthracene	1.461	1.420	2.8	156	0.00
76 A1	Chrysene	1.486	1.423	4.2	150	0.00
77 A2	Chrysene/Triphenylene	1.486	1.423	4.2	150	0.00
83 s	Benzo[b]fluoranthene-d12	0.998	0.957	4.1	171	0.00
84 t	Benzo[b]fluoranthene	1.726	1.625	5.9	152	0.00
85 A1	Benzo[j]+[k]fluoranthene	1.740	1.630	6.3	149	0.00
87 t	Benzo[e]pyrene	1.670	1.547	7.4	151	0.00
88 s	Benzo[a]pyrene-d12	0.786	0.702	10.7	172	-0.02
89 t	Benzo[a]pyrene	1.592	1.471	7.6	151	0.00
90 t	Perylene	1.606	1.509	6.0	154	0.00
91 t	Indeno[1,2,3-cd]pyrene	1.948	1.697	12.9	150	-0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252331.D
 Acq On : 27 Apr 2023 1:54 am
 Operator : PAH8:CNC
 Sample : WG1771474-5
 Misc : WG1771474,FRBF80,ICAL19944
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 01 10:20:17 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 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)
92 t	Dibenz[ah]+[ac]anthracene	1.609	1.442	10.4	153	0.00
93 t	Benzo[g,h,i]perylene	1.942	1.686	13.2	148	0.00
94 A1	Hopane (T19)	0.309	0.295	4.5	172	-0.03
128 SA1	5B(H)Cholane - Surr	0.158	0.181	-14.6	176	0.00

* 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	0.97	0.70 - 1.30

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

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252331.D
 Acq On : 27 Apr 2023 1:54 am
 Operator : PAH8:CNC
 Sample : WG1771474-5
 Misc : WG1771474,FRBF80,ICAL19944
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 01 10:20:17 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 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	27.488	164	25652	500.000	ng/mL	0.00
74) Chrysene-d12	43.981	240	29625	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.489	136	46930	415.068	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	41.51%#		
40) Phenanthrene-d10	33.373	188	33738	467.560	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	46.76%#		
83) Benzo[b]fluoranthene-d12	47.929	264	28338	479.256	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	47.93%#		
88) Benzo[a]pyrene-d12	49.191	264	20801	446.708	ng/mL	-0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery =	44.67%#		
128) 5B(H)Cholane - Surr	44.593	217	5354	571.352	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	57.14%		
Target Compounds						
						Qvalue
2) trans-Decalin	17.121	138	4619	215.982	ng/mL	100
3) cis-Decalin	18.344	138	3491	206.262	ng/mL	100
9) Naphthalene	20.562	128	51418	414.732	ng/mL	100
14) 2-Methylnaphthalene	23.272	142	34933	426.660	ng/mL	100
15) 1-Methylnaphthalene	23.692	142	31719	424.054	ng/mL	100
16) Benzothiophene	20.781	134	44452	407.005	ng/mL	100
21) Biphenyl	25.152	154	40996	419.389	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.772	156	28506	436.206	ng/mL	100
23) Dibenzofuran	28.254	168	40577	423.583	ng/mL	97
24) Acenaphthylene	26.876	152	53132M4	459.387	ng/mL	
25) Acenaphthene	27.606	153	33485	450.715	ng/mL	100
26) 2,3,5-Trimethylnaphthalen	29.167	170	24671	456.041	ng/mL	96
27) Fluorene	29.641	166	34709	445.722	ng/mL	99
31) Dibenzothiophene	32.971	184	48419	437.409	ng/mL	99
41) Phenanthrene	33.464	178	47992	446.506	ng/mL	98
52) Retene	40.447	234	11736	504.782	ng/mL	93
53) Anthracene	33.646	178	46967M4	498.513	ng/mL	
54) Carbazole	34.313	167	44877	400.210	ng/mL	97
55) 1-Methylphenanthrene	35.974	192	33687	475.064	ng/mL	100
56) Fluoranthene	38.247	202	52083	482.554	ng/mL	98
57) Benzo(b)fluorene	40.767	216	28990	498.658	ng/mL	98
59) Pyrene	39.133	202	51959	481.119	ng/mL	99
67) Naphthobenzothiophene-2,1	42.995	234	49403	468.127	ng/mL	98
75) Benz[a]anthracene	43.917	228	42069	486.014	ng/mL	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252331.D
 Acq On : 27 Apr 2023 1:54 am
 Operator : PAH8:CNC
 Sample : WG1771474-5
 Misc : WG1771474,FRBF80,ICAL19944
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 01 10:20:17 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	44.081	228	42170	479.032	ng/mL	96
77) Chrysene/Triphenylene	44.081	228	42170	479.032	ng/mL	96
84) Benzo[b]fluoranthene	48.020	252	48150	470.728	ng/mL	93
85) Benzo[j]+[k]fluoranthene	48.102	252	48288	468.358	ng/mL	93
87) Benzo[e]pyrene	49.090	252	45834	463.204	ng/mL	93
89) Benzo[a]pyrene	49.291	252	43578	461.953	ng/mL	92
90) Perylene	49.630	252	44693	469.652	ng/mL	92
91) Indeno[1,2,3-cd]pyrene	54.495	276	50276M3	435.667	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.568	278	42706	448.096	ng/mL	95
93) Benzo[g,h,i]perylene	55.921	276	49951	434.164	ng/mL	99
94) Hopane (T19)	53.526	191	8748	478.318	ng/mL#	80

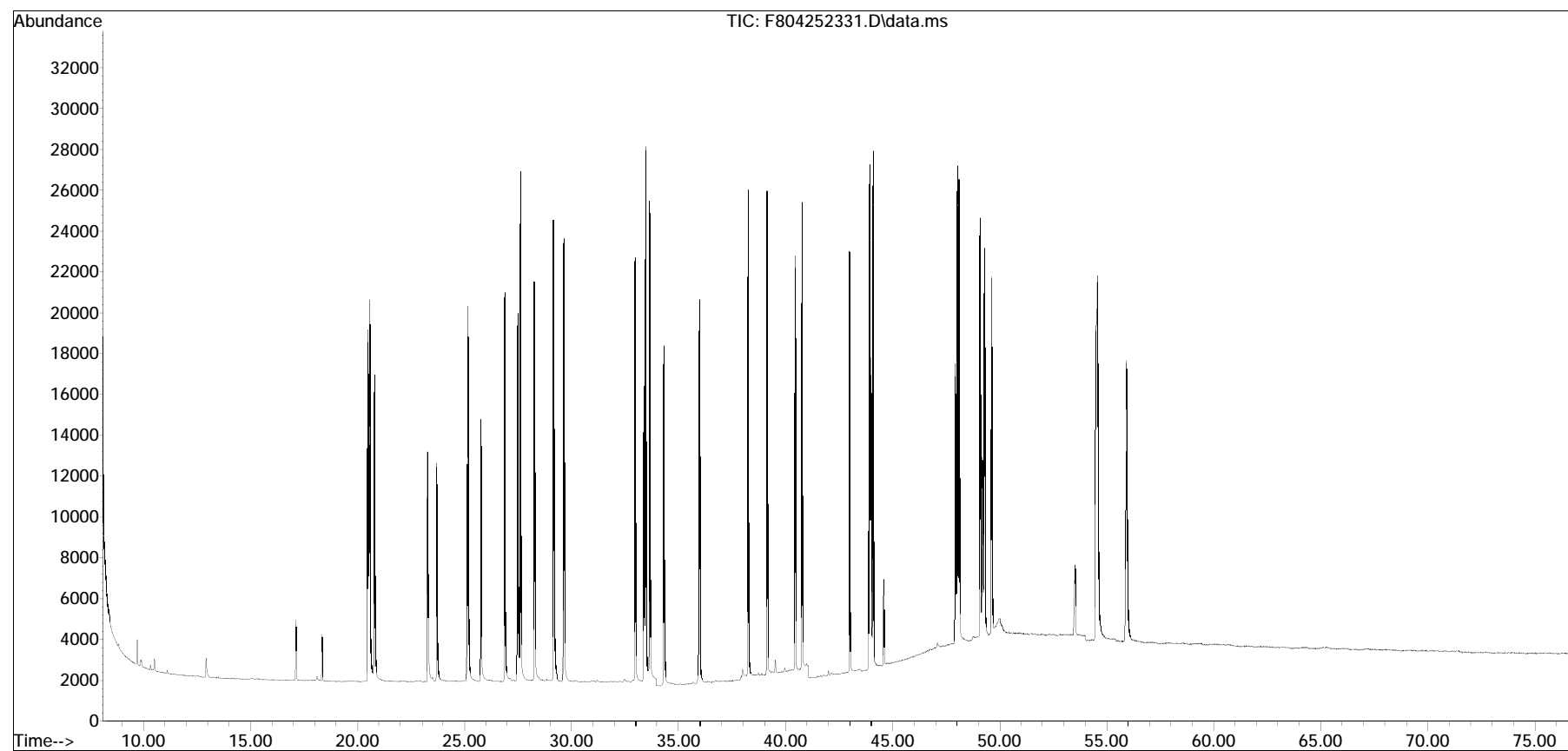
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
Data File : F804252331.D
Acq On : 27 Apr 2023 1:54 am
Operator : PAH8:CNC
Sample : WG1771474-5
Misc : WG1771474,FRBF80,ICAL19944
ALS Vial : 30 Sample Multiplier: 1

Quant Time: May 01 10:20:17 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Mon Apr 24 05:27:42 2023
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252326.D
 Acq On : 26 Apr 2023 6:46 pm
 Operator : PAH8:CNC
 Sample : L2320537-01,32,,
 Misc : WG1771474,WG1769534,ICAL19944
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: May 01 13:48:26 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	27.506	164	30458	500.000	ng/mL	0.00
74) Chrysene-d12	43.981	240	37305	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.498	136	28474	212.098	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	21.21%#		
40) Phenanthrene-d10	33.391	188	21869	255.251	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	25.53%#		
83) Benzo[b]fluoranthene-d12	47.929	264	18300	245.777	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	24.58%#		
88) Benzo[a]pyrene-d12	49.200	264	16145	275.340	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	27.53%#		
Target Compounds						
						Qvalue
2) trans-Decalin	17.130	138	63296	2492.673	ng/mL	100
3) cis-Decalin	18.353	138	5882M4	292.695	ng/mL	
4) C1-Decalins	19.083	152	265504M5	10455.870	ng/mL	
5) C2-Decalins	20.415	166	406757M5	16018.584	ng/mL	
6) C3-Decalins	22.907	180	252303M5	9935.998	ng/mL	
7) C4-Decalins	25.188	194	261127M5	10283.498	ng/mL	
9) Naphthalene	20.580	128	19981	135.734	ng/mL	100
10) C1-Naphthalenes	23.710	142	29378M5	199.569	ng/mL	
11) C2-Naphthalenes	25.800	156	2557688M5	17374.781	ng/mL	
12) C3-Naphthalenes	28.491	170	3131273M5	21271.235	ng/mL	
13) C4-Naphthalenes	31.247	184	1612220M5	10952.067	ng/mL	
14) 2-Methylnaphthalene	23.290	142	1173M3	12.066	ng/mL	
15) 1-Methylnaphthalene	23.710	142	21105M4	237.633	ng/mL	
16) Benzothiophene	20.790	134	2246	17.320	ng/mL	100
17) C1-Benzo(b)thiophenes	23.144	148	128628M5	991.891	ng/mL	
18) C2-Benzo(b)thiophenes	26.338	162	115670M5	891.968	ng/mL	
19) C3-Benzo(b)thiophenes	28.318	176	226196M5	1744.269	ng/mL	
21) Biphenyl	25.143	154	819M4	7.056	ng/mL	
22) 2,6-Dimethylnaphthalene	25.800	156	950134	12245.027	ng/mL	100
23) Dibenzofuran	28.272	168	21759	191.301	ng/mL#	46
24) Acenaphthylene	26.885	152	17688M4	128.802	ng/mL	
25) Acenaphthene	27.634	153	215613	2444.257	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	29.185	170	205669M3	3201.882	ng/mL	
27) Fluorene	29.650	166	193203	2089.566	ng/mL	89

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252326.D
 Acq On : 26 Apr 2023 6:46 pm
 Operator : PAH8:CNC
 Sample : L2320537-01,32,,
 Misc : WG1771474,WG1769534,ICAL19944
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: May 01 13:48:26 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) C1-Fluorenes	32.022	180	295994M5	3201.291	ng/mL	
29) C2-Fluorenes	34.066	194	362151M5	3916.805	ng/mL	
30) C3-Fluorenes	36.047	208	254758M5	2755.308	ng/mL	
31) Dibenzothiophene	32.980	184	8838	67.243	ng/mL#	76
36) C1-Dibenzothiophenes	34.760	198	171233M5	1302.805	ng/mL	
36) C1-Dibenzothiophenes BS	34.760	198	171233M5	1302.805	ng/mL	
37) C2-Dibenzothiophenes	36.804	212	203305M5	1546.820	ng/mL	
38) C3-Dibenzothiophenes	38.238	226	134778M5	1025.441	ng/mL	
39) C4-Dibenzothiophenes	39.927	240	65601M5	499.117	ng/mL	
41) Phenanthrene	33.482	178	5471M3	42.869	ng/mL	
47) C1-Phenanthrenes/Anthrace	35.435	192	296041M5	2319.693	ng/mL	
48) C2-Phenanthrenes/Anthrace	37.708	206	563875M5	4418.364	ng/mL	
48) C2-Phenanthrenes/Anthr BS	37.708	206	563875M5	4418.364	ng/mL	
50) C3-Phenanthrenes/Anthrace	39.543	220	342183M5	2681.248	ng/mL	
51) C4-Phenanthrenes/Anthrace	41.717	234	121548M5	952.415	ng/mL	
52) Retene	0.000		0	N.D.	d	
53) Anthracene	33.665	178	20253	181.048	ng/mL	94
54) Carbazole	34.313	167	5795	43.525	ng/mL#	66
55) 1-Methylphenanthrene	35.992	192	82504	979.905	ng/mL	92
56) Fluoranthene	38.256	202	20080M4	156.687	ng/mL	
57) Benzo(b)fluorene	40.776	216	6230	90.253	ng/mL	97
59) Pyrene	39.151	202	51247	399.650	ng/mL	97
63) C1-Fluoranthenes/Pyrenes	40.941	216	95352M5	743.603	ng/mL	
64) C2-Fluoranthenes/Pyrenes	42.995	230	93810M5	731.578	ng/mL	
65) C3-Fluoranthenes/Pyrenes	44.456	244	61186M5	477.159	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.697	258	29497M5	230.032	ng/mL	
70) C1-Naphthobenzothiophenes	44.392	248	16438M5	131.184	ng/ml	
71) C2-Naphthobenzothiophenes	45.889	262	14196M5	113.291	ng/ml	
72) C3-Naphthobenzothiophenes	48.038	276	8535M5	68.114	ng/ml	
73) C4-Naphthobenzothiophenes	49.191	290	5185M5	41.379	ng/mL	
75) Benz[a]anthracene	43.917	228	11532M4	105.799	ng/mL	
76) Chrysene	44.081	228	19167	172.905	ng/mL	93
78) C1-Chrysenes	45.551	242	38011M5	342.896	ng/mL	
79) C2-Chrysenes	47.270	256	40213M5	362.760	ng/mL	
79) C2-Chrysenes BS	47.270	256	39344M5	354.920	ng/mL	
81) C3-Chrysenes	48.953	270	27991M5	252.506	ng/mL	
82) C4-Chrysenes	50.544	284	12455M5	112.356	ng/mL	
84) Benzo[b]fluoranthene	48.020	252	3049	23.671	ng/mL	100
85) Benzo[j]+[k]fluoranthene	48.102	252	2523M1	19.433	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252326.D
 Acq On : 26 Apr 2023 6:46 pm
 Operator : PAH8:CNC
 Sample : L2320537-01,32,,
 Misc : WG1771474,WG1769534,ICAL19944
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: May 01 13:48:26 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) Benzo[a]fluoranthene	48.432	252	561M3	4.321	ng/mL	
87) Benzo[e]pyrene	49.090	252	5261	42.223	ng/mL	99
89) Benzo[a]pyrene	49.291	252	5767	48.548	ng/mL	96
90) Perylene	49.630	252	1866	15.572	ng/mL	93
91) Indeno[1,2,3-cd]pyrene	54.513	276	2186M3	15.043	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.577	278	961	8.007	ng/mL#	75
93) Benzo[g,h,i]perylene	55.930	276	4024	27.775	ng/mL	93

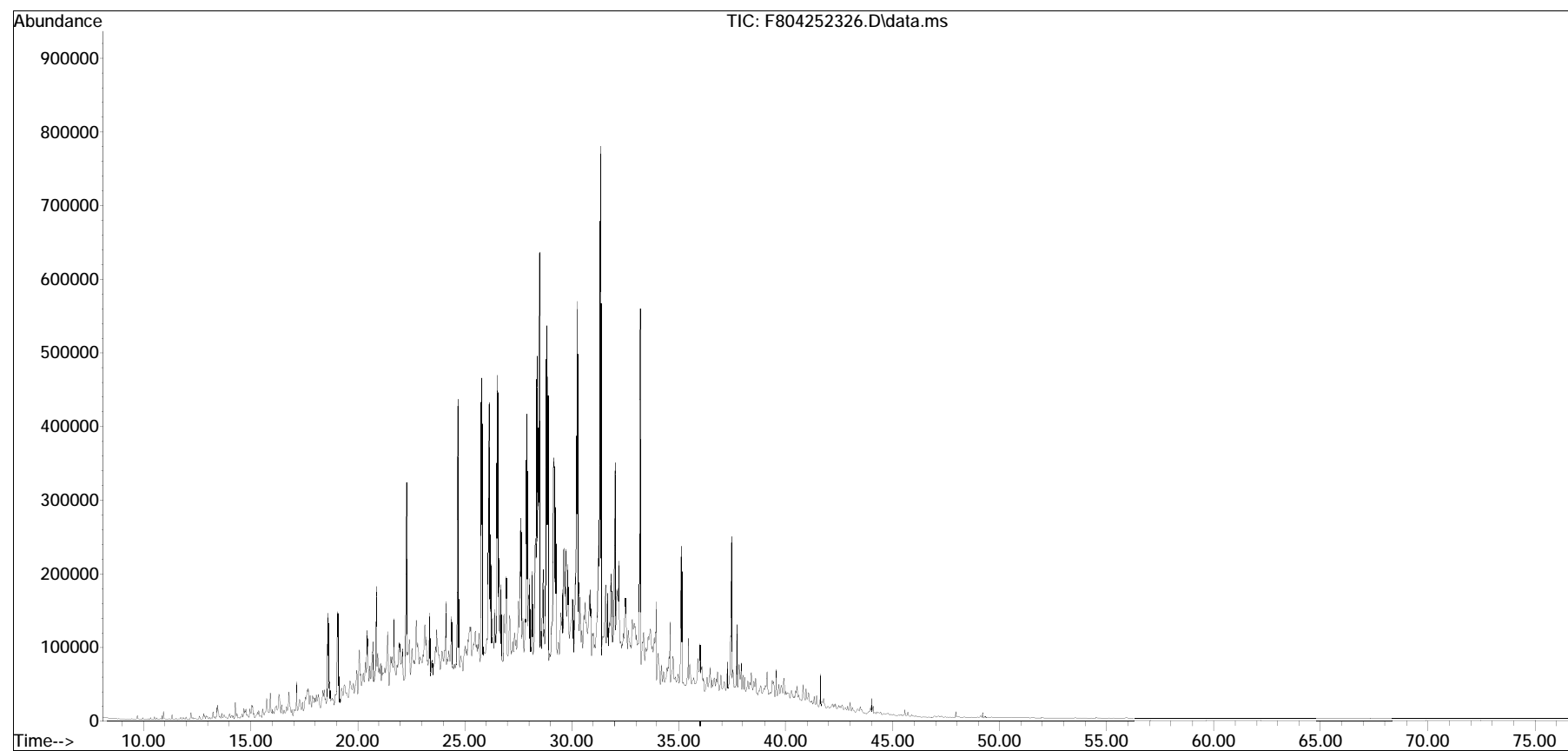
(#) = qualifier out of range (m) = manual integration (+) = signals summed

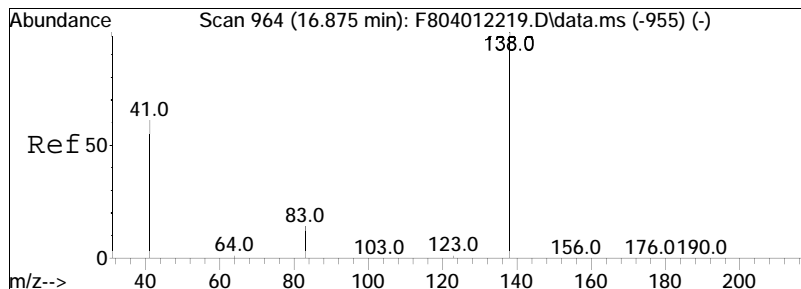
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
Data File : F804252326.D
Acq On : 26 Apr 2023 6:46 pm
Operator : PAH8:CNC
Sample : L2320537-01,32,,
Misc : WG1771474,WG1769534,ICAL19944
ALS Vial : 25 Sample Multiplier: 1

Quant Time: May 01 13:48:26 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Mon Apr 24 05:27:42 2023
Response via : Initial Calibration

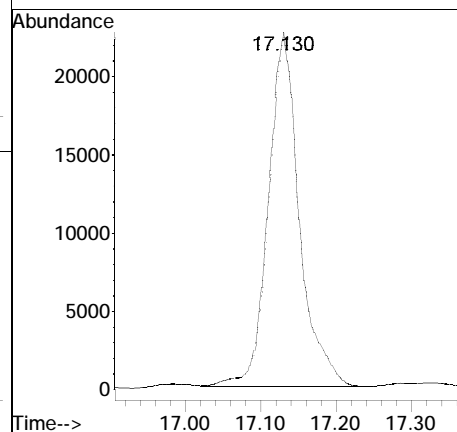
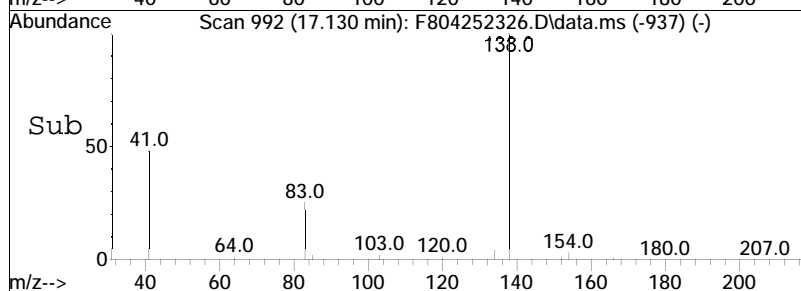
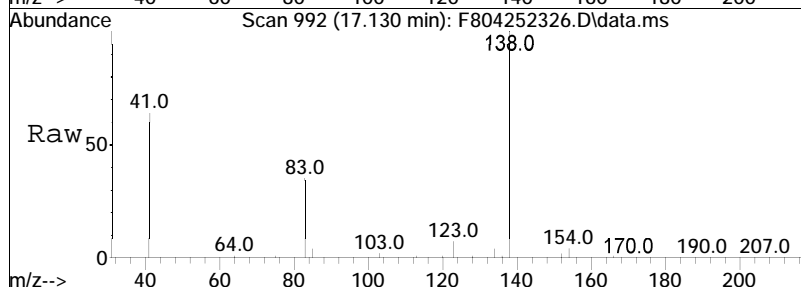
Sub List : ALKPAH - POI+MP+BcF

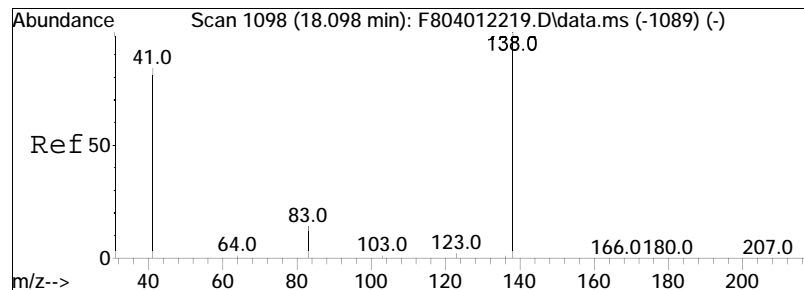




#2
trans-Decalin
Concen: 2492.67 ng/mL
RT: 17.130 min Scan# 992
Delta R.T. -0.000 min
Lab File: F804252326.D
Acq: 26 Apr 2023 6:46 pm

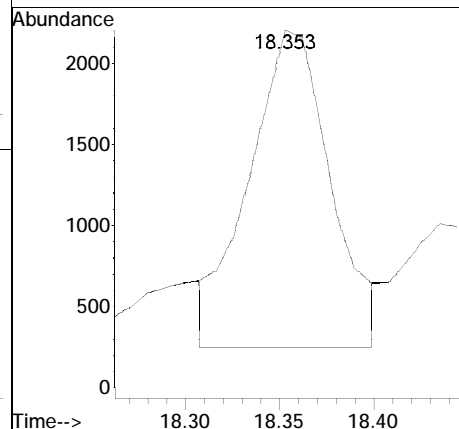
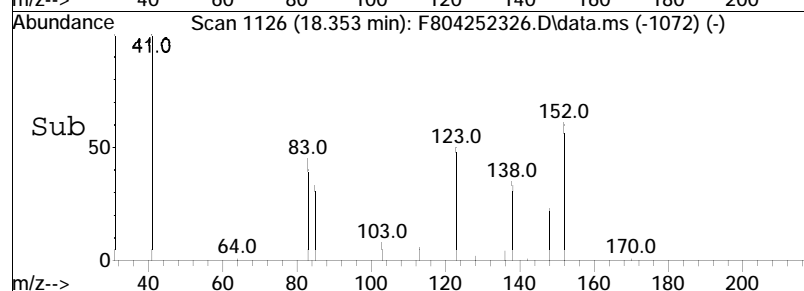
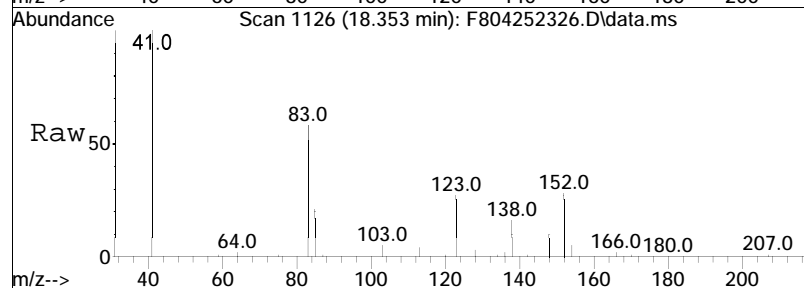
Tgt Ion:138 Resp: 63296

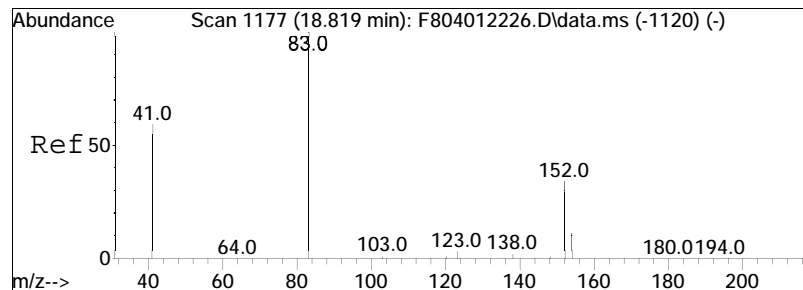




#3
 cis-Decalin
 Concen: 292.69 ng/mL M4
 RT: 18.353 min Scan# 1126
 Delta R.T. -0.009 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

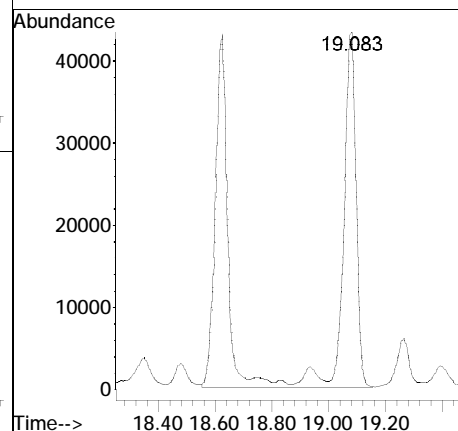
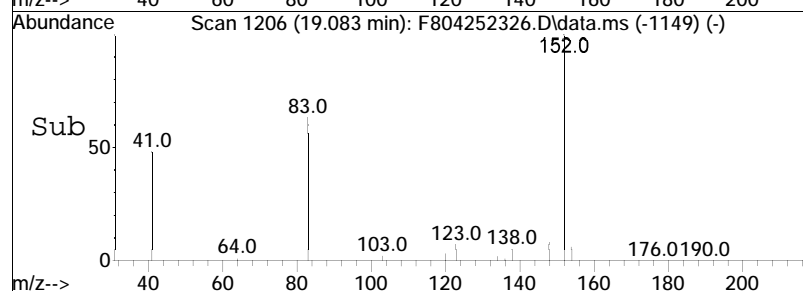
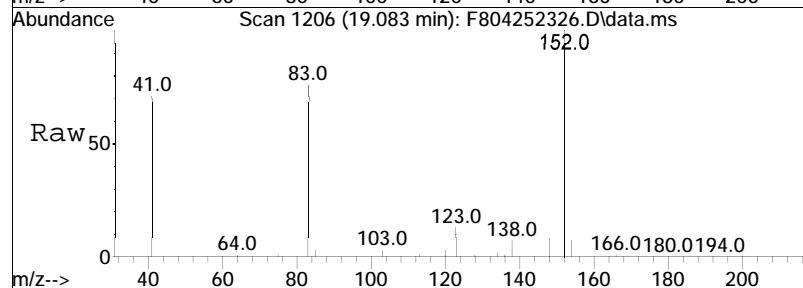
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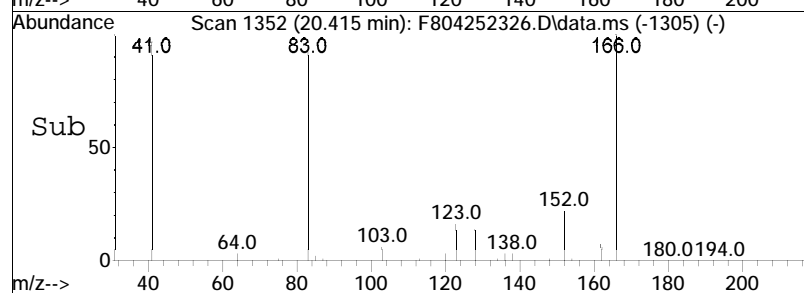
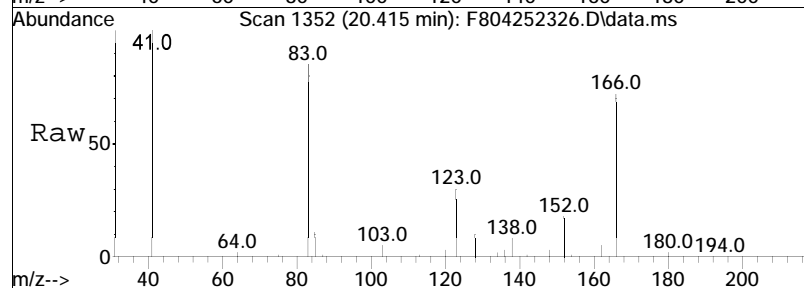
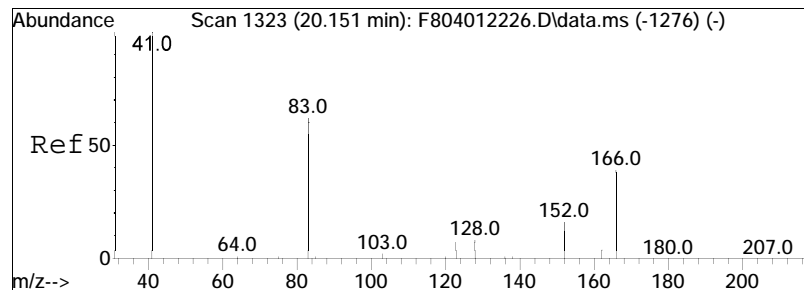




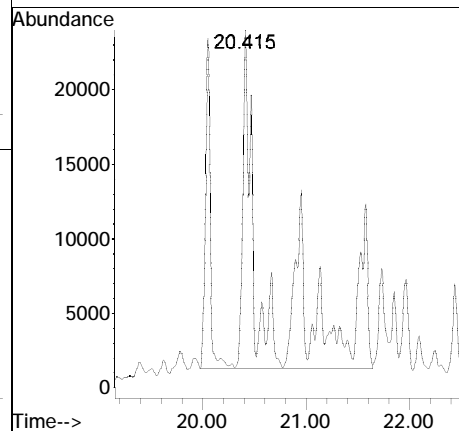
#4
 Cl-Decalins
 Concen: 10455.87 ng/mL M5
 RT: 19.083 min Scan# 1206
 Delta R.T. -0.001 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

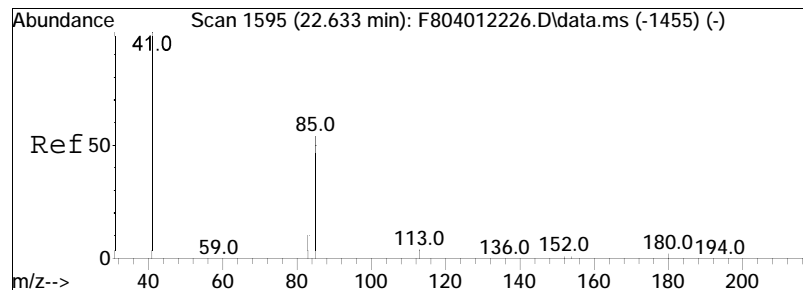
Tgt Ion:152 Resp: 265504





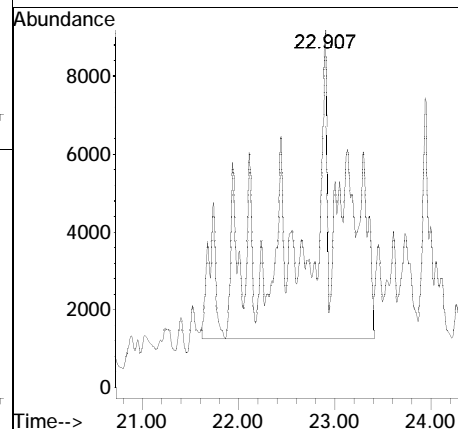
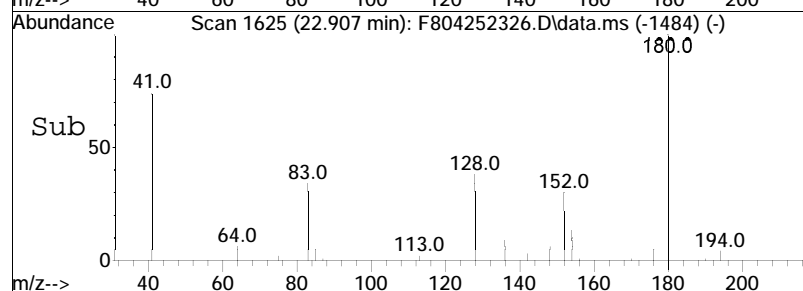
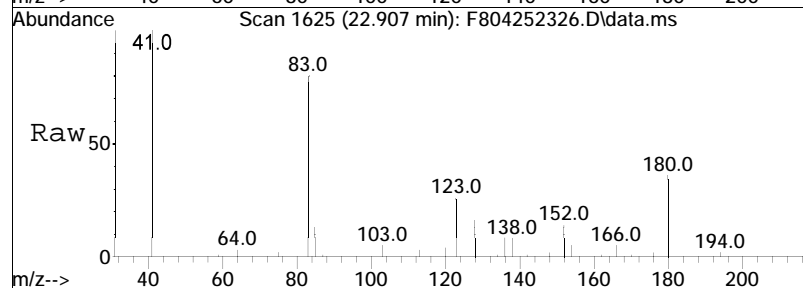
#5
 C2-Decalins
 Concen: 16018.58 ng/mL M5
 RT: 20.415 min Scan# 1352
 Delta R.T. -0.002 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm
 Tgt Ion:166 Resp: 406757

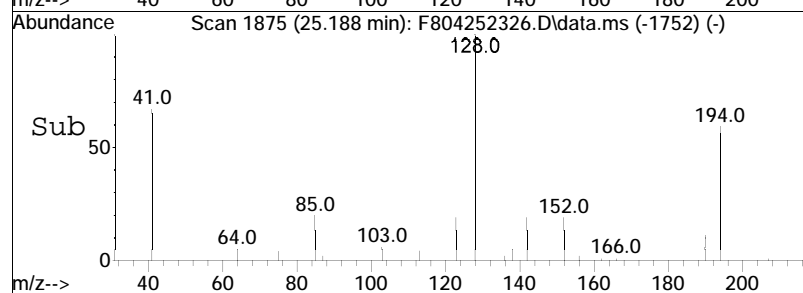
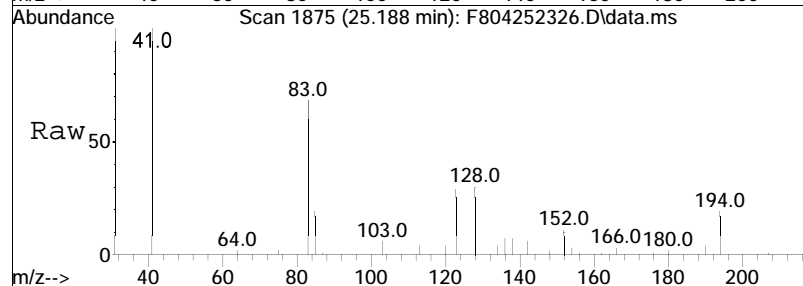
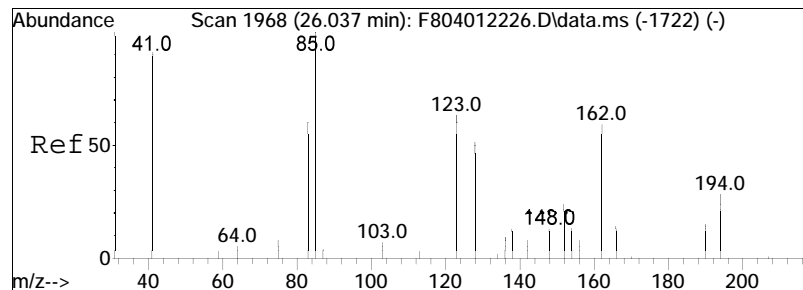




#6
C3-Decalins
Concen: 9936.00 ng/mL M5
RT: 22.907 min Scan# 1625
Delta R.T. 0.004 min
Lab File: F804252326.D
Acq: 26 Apr 2023 6:46 pm

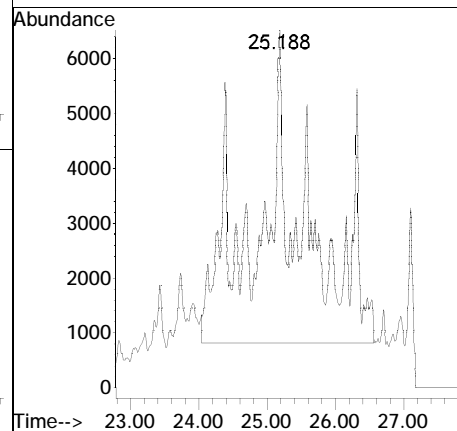
Tgt Ion:180 Resp: 252303

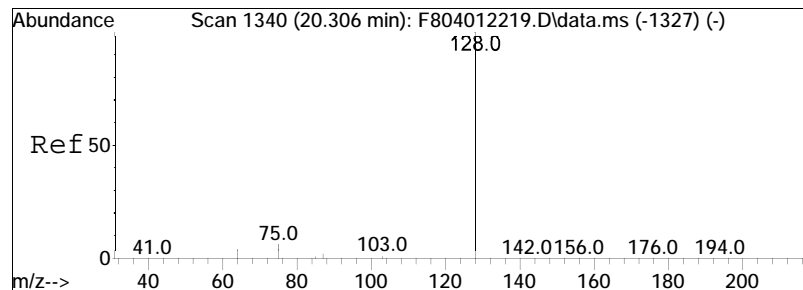




#7
C4-Decalins
Concen: 10283.50 ng/mL M5
RT: 25.188 min Scan# 1875
Delta R.T. -1.122 min
Lab File: F804252326.D
Acq: 26 Apr 2023 6:46 pm

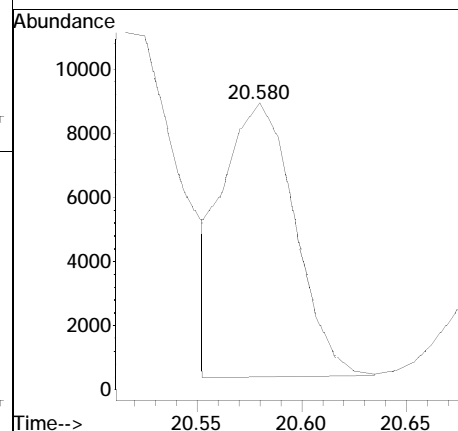
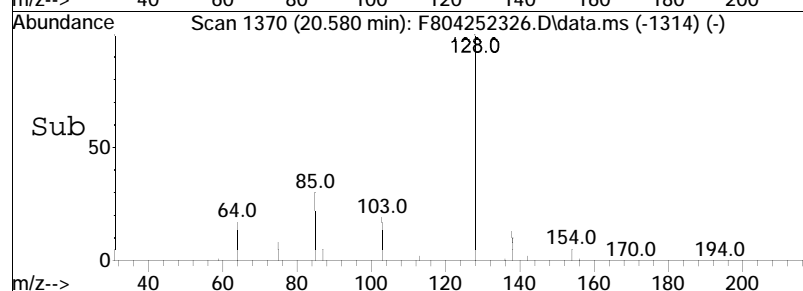
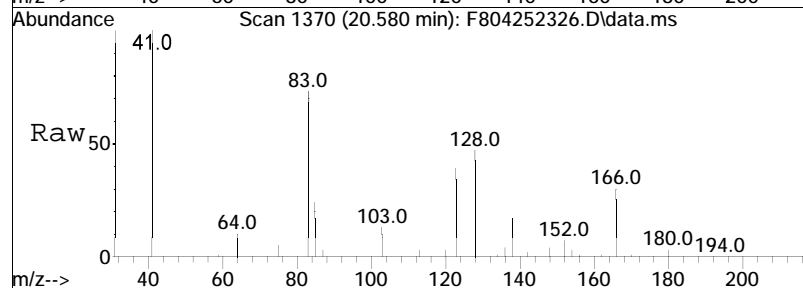
Tgt Ion:194 Resp: 261127

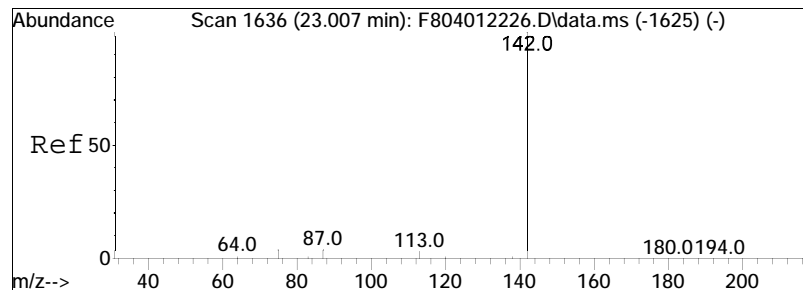




#9
 Naphthalene
 Concen: 135.73 ng/mL
 RT: 20.580 min Scan# 1370
 Delta R.T. 0.009 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

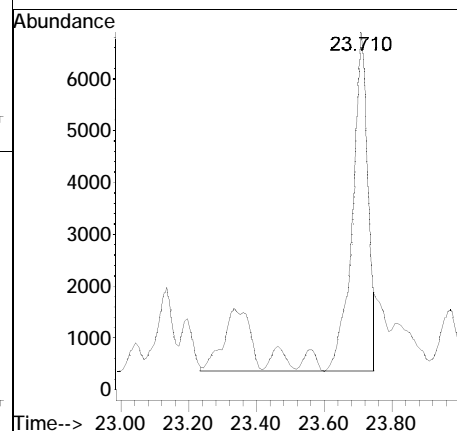
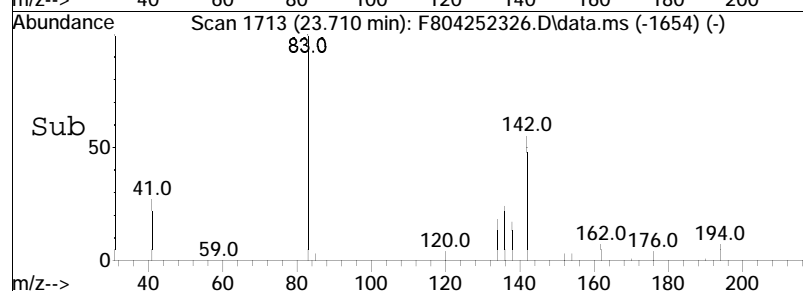
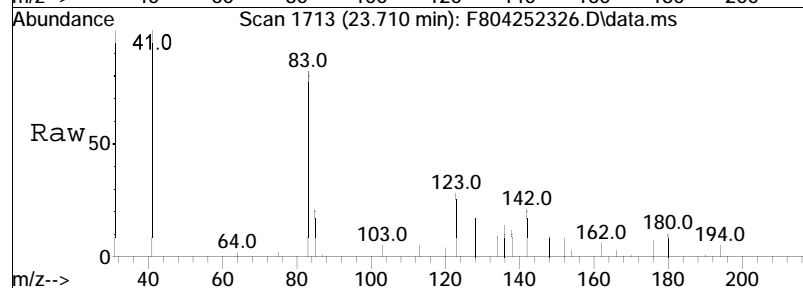
Tgt Ion:128 Resp: 19981

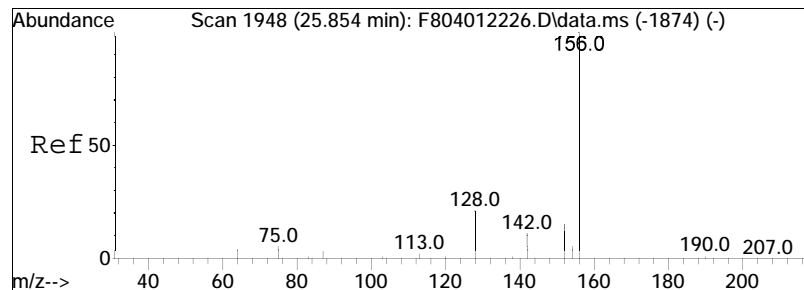




#10
 Cl-Naphthalenes
 Concen: 199.57 ng/mL M5
 RT: 23.710 min Scan# 1713
 Delta R.T. 0.432 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

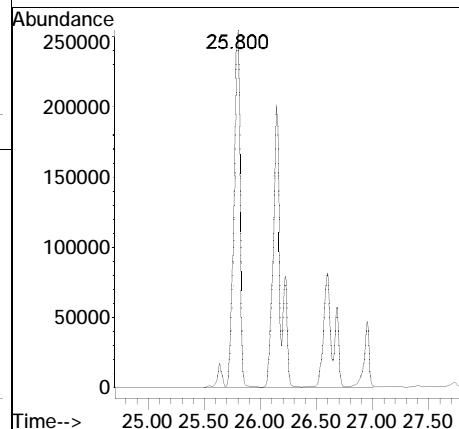
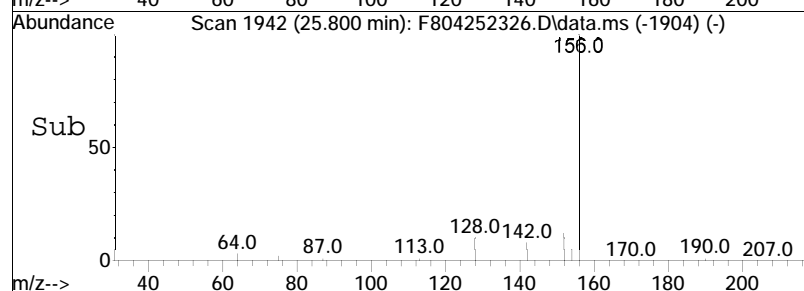
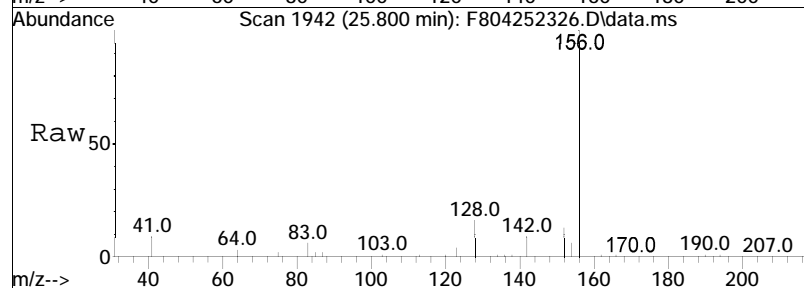
Tgt Ion:142 Resp: 29378

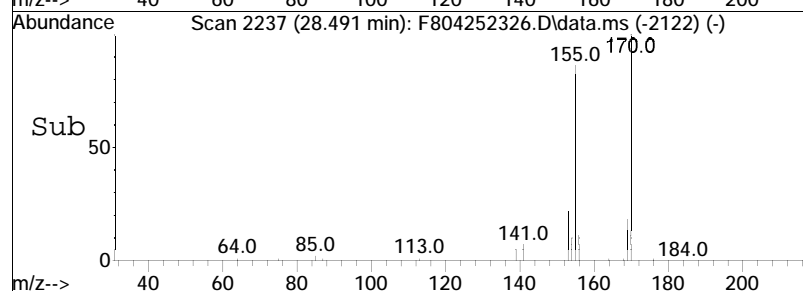
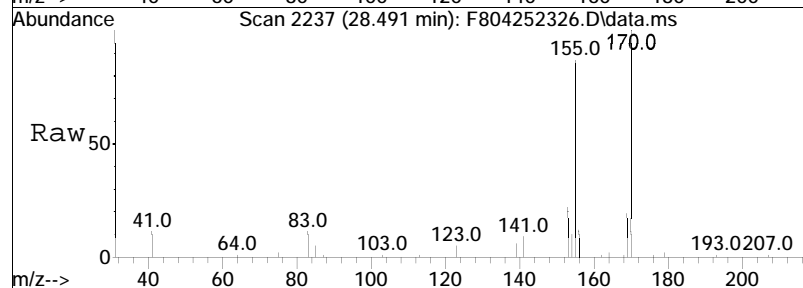
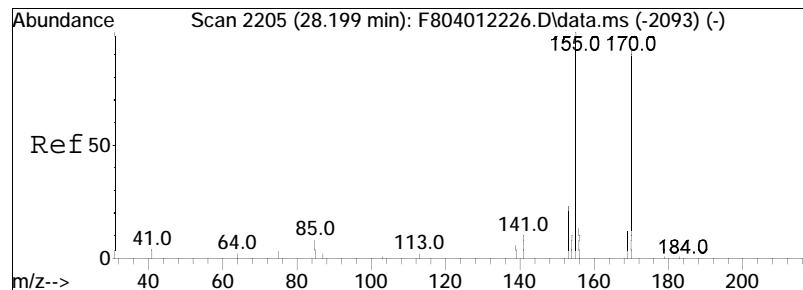




#11
 C2-Naphthalenes
 Concen: 17374.78 ng/mL M5
 RT: 25.800 min Scan# 1942
 Delta R.T. -0.337 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

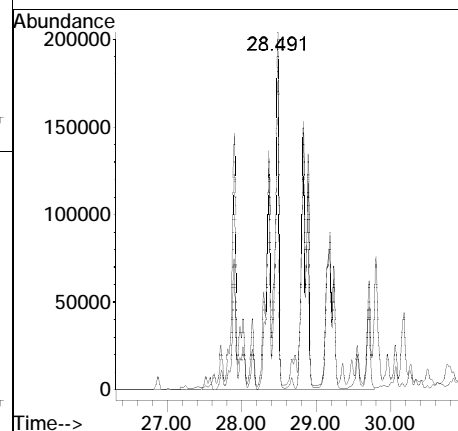
Tgt Ion:156 Resp: 2557688

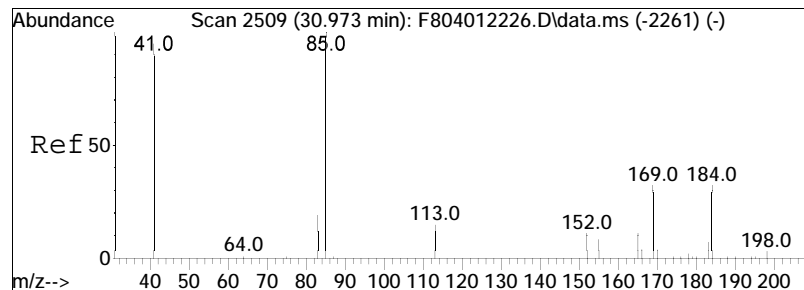




#12
 C3-Naphthalenes
 Concen: 21271.23 ng/mL M5
 RT: 28.491 min Scan# 2237
 Delta R.T. 0.007 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

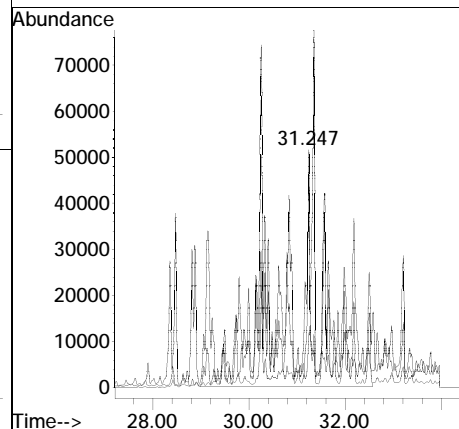
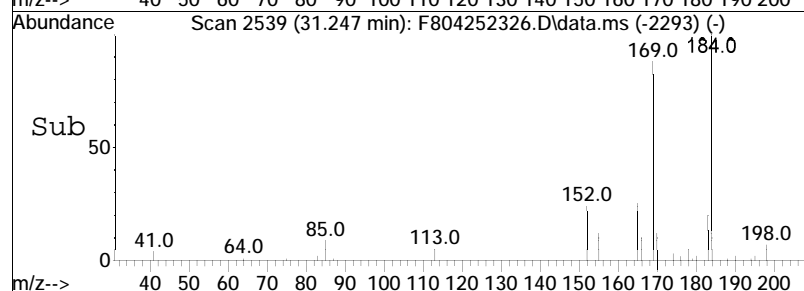
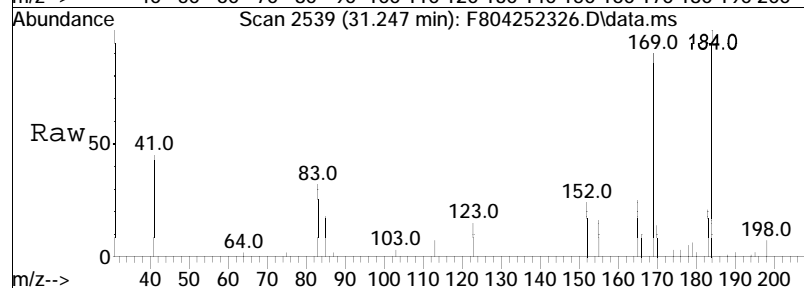
Tgt Ion:170 Resp: 3131273
 Ion Ratio Lower Upper
 170 100
 155 18.1 66.3 123.1#

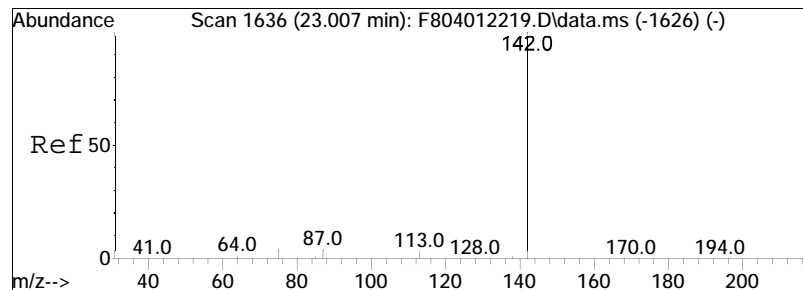




#13
 C4-Naphthalenes
 Concen: 10952.07 ng/mL M5
 RT: 31.247 min Scan# 2539
 Delta R.T. -0.004 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

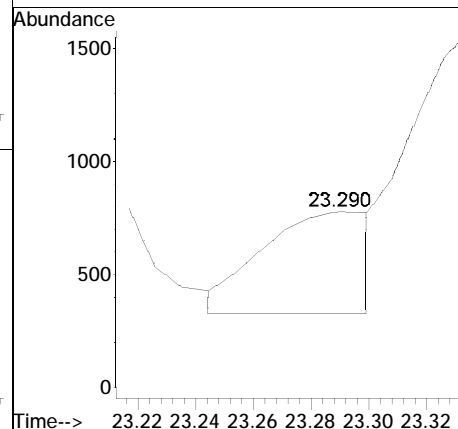
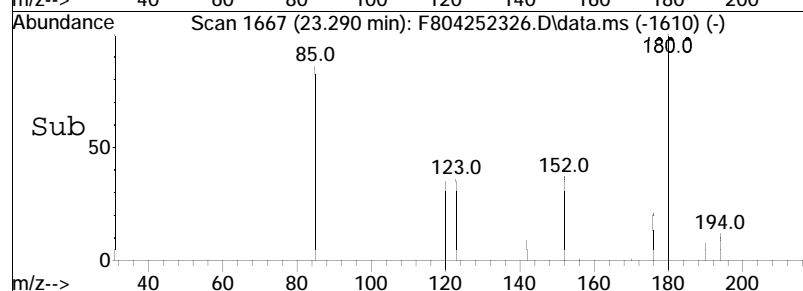
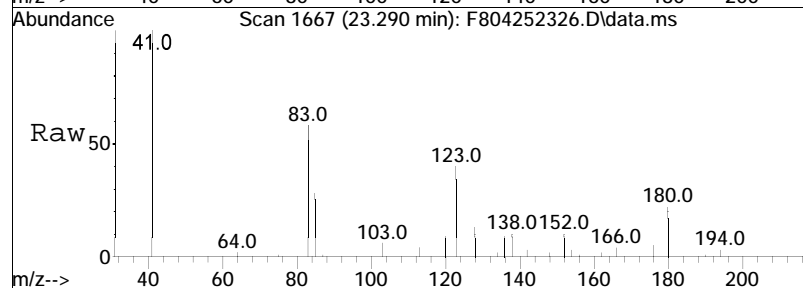
Tgt Ion	Ratio	Lower	Upper
184	100		
169	3.2	66.4	123.2#
183	0.9	16.0	29.8#

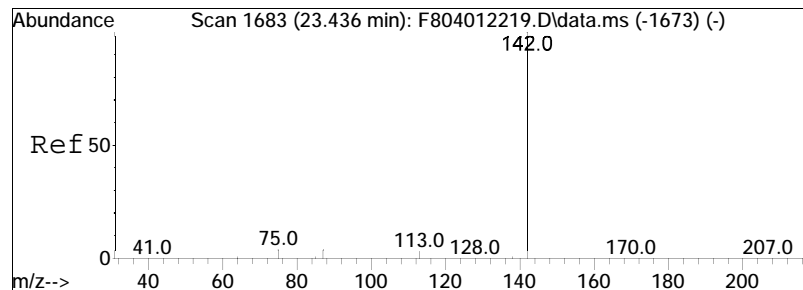




#14
 2-Methylnaphthalene
 Concen: 12.07 ng/mL M3
 RT: 23.290 min Scan# 1667
 Delta R.T. 0.018 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

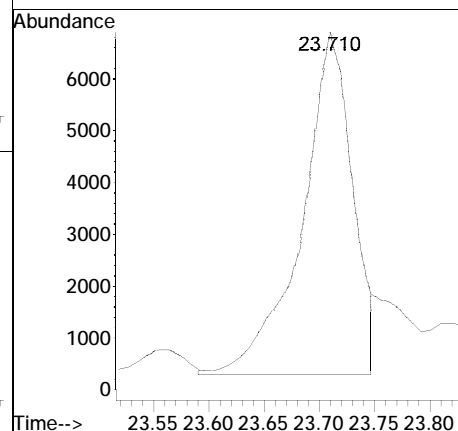
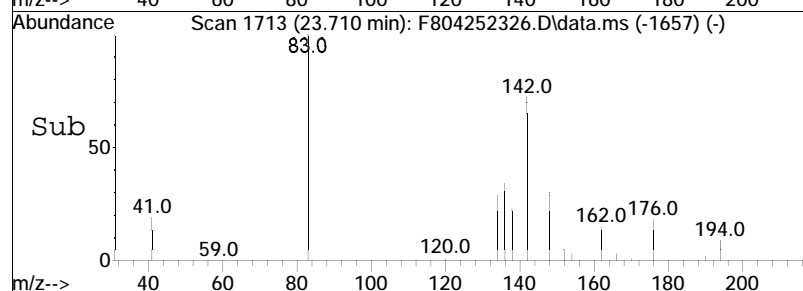
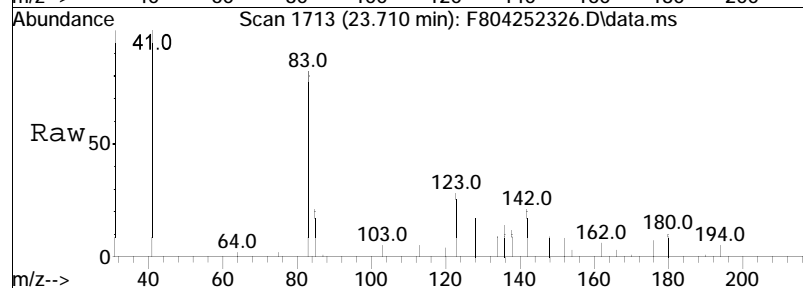
Tgt Ion:142 Resp: 1173

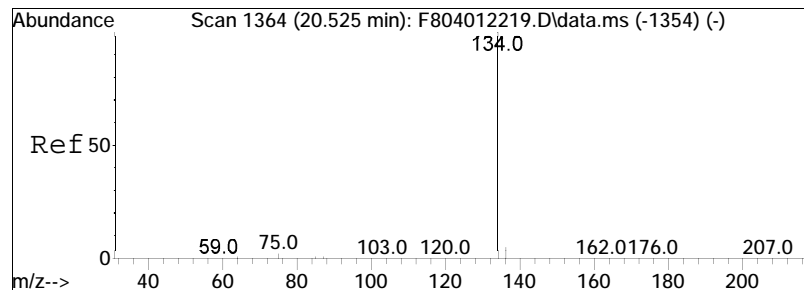




#15
 1-Methylnaphthalene
 Concen: 237.63 ng/mL M4
 RT: 23.710 min Scan# 1713
 Delta R.T. 0.009 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

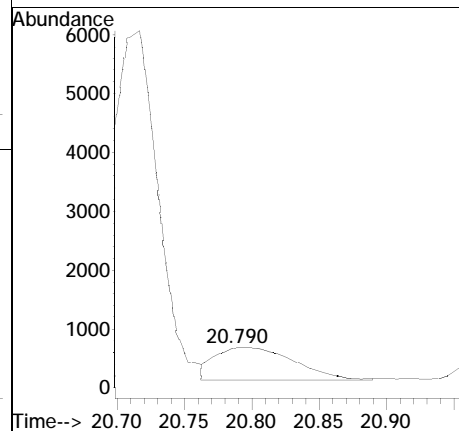
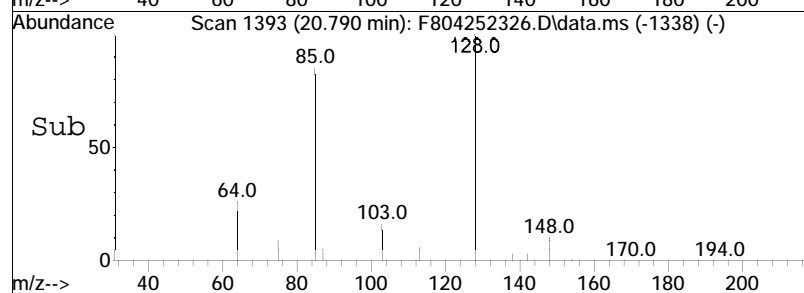
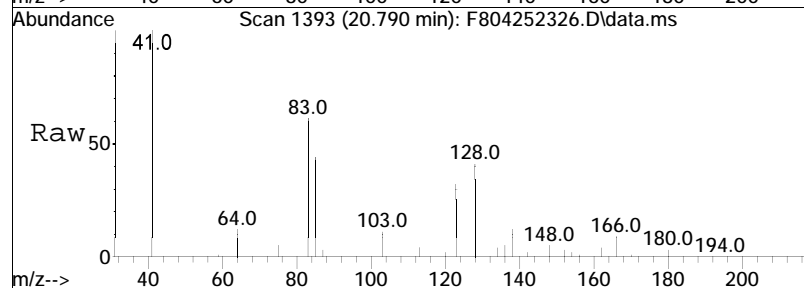
Tgt Ion:142 Resp: 21105

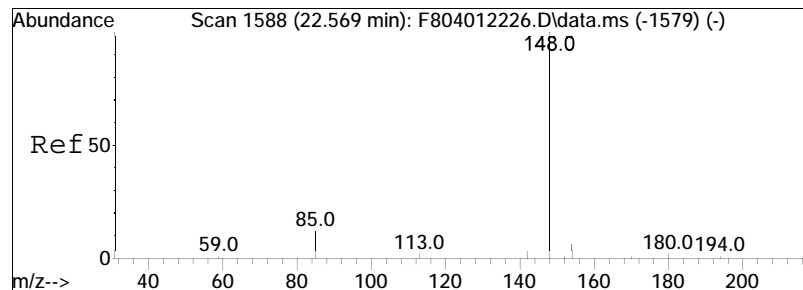




#16
 Benzo[thiophene]
 Concen: 17.32 ng/mL
 RT: 20.790 min Scan# 1393
 Delta R.T. -0.000 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

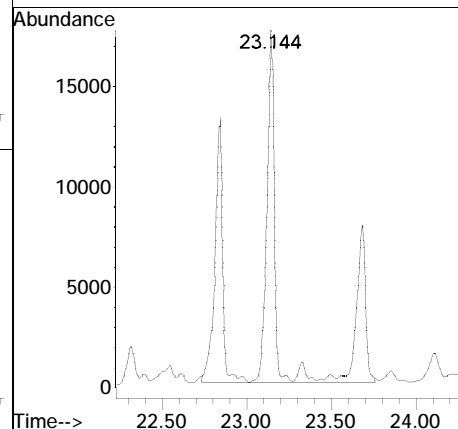
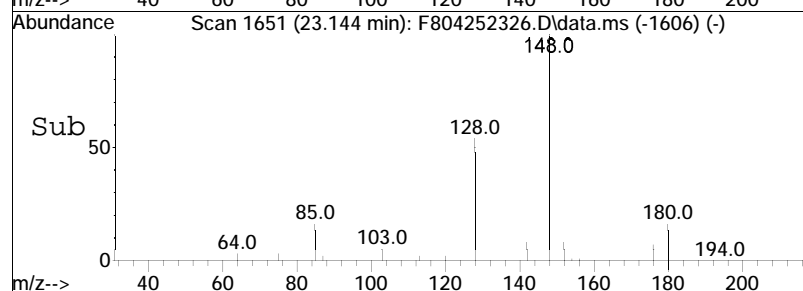
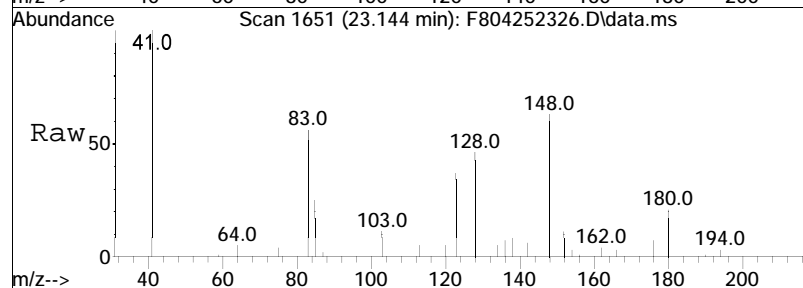
Tgt Ion:134 Resp: 2246

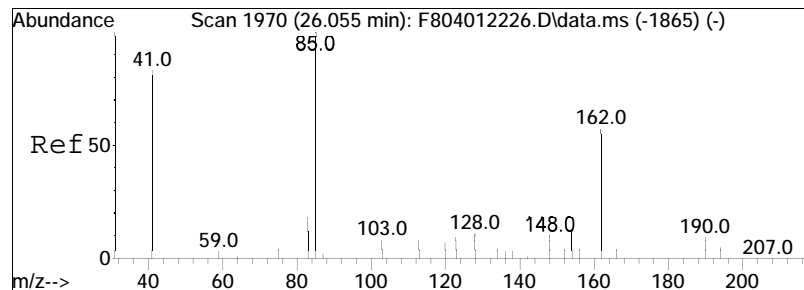




#17
 Cl-Benzo(b)thiophenes
 Concen: 991.89 ng/mL M5
 RT: 23.144 min Scan# 1651
 Delta R.T. 0.306 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

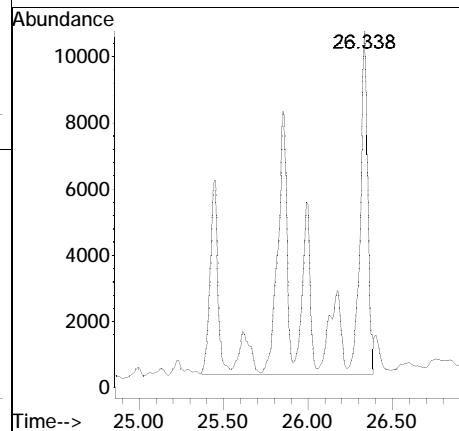
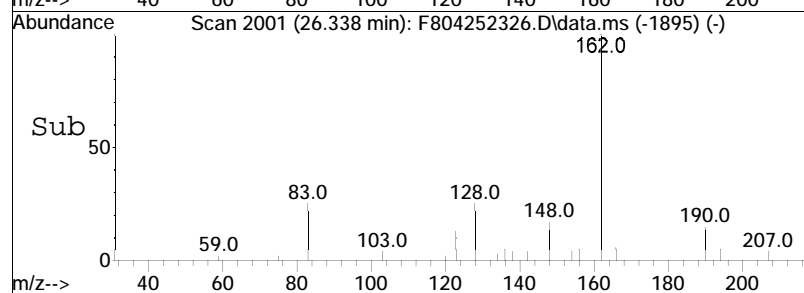
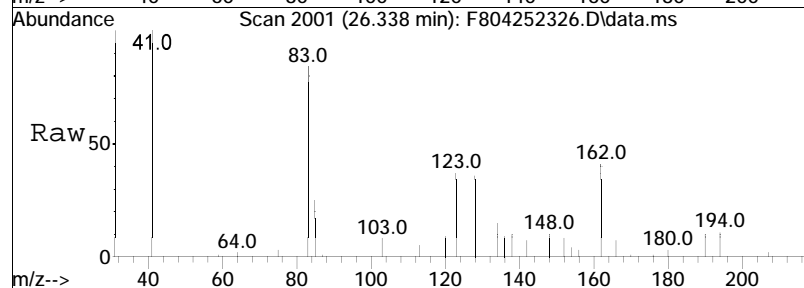
Tgt Ion:148 Resp: 128628

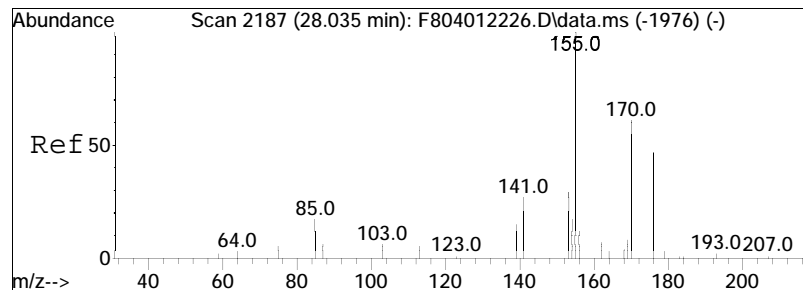




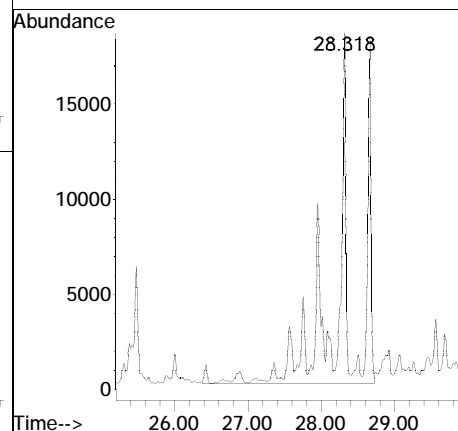
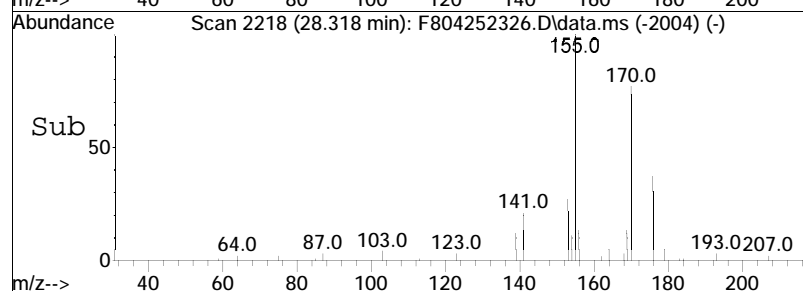
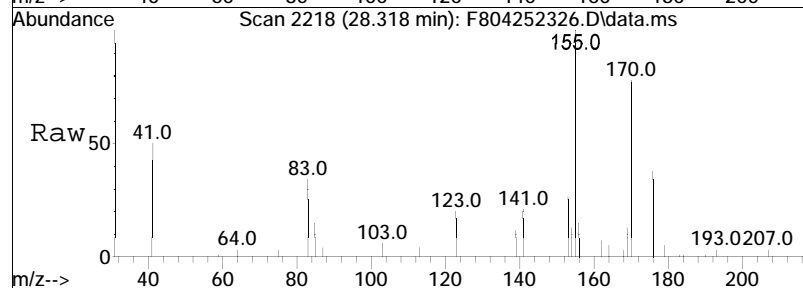
#18
 C2-Benzo(b)thiophenes
 Concen: 891.97 ng/mL M5
 RT: 26.338 min Scan# 2001
 Delta R.T. 0.010 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

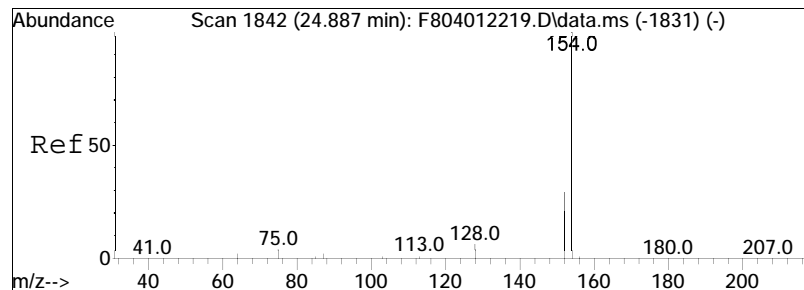
Tgt Ion:162 Resp: 115670





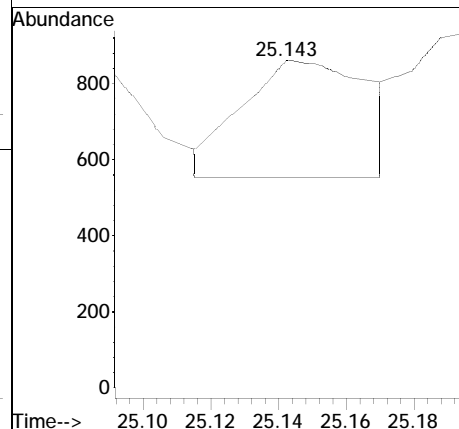
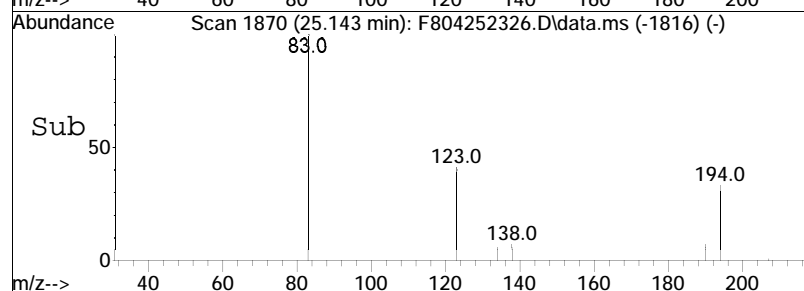
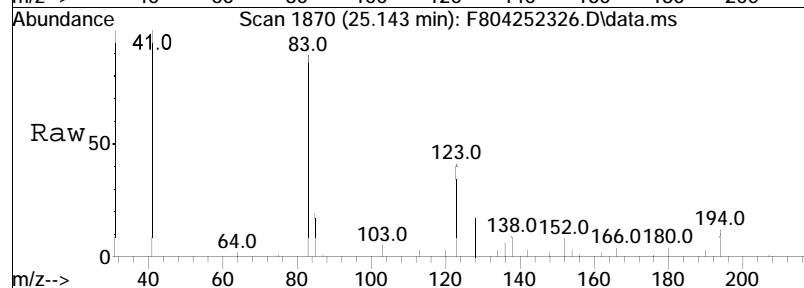
#19
 C3-Benzo(b)thiophenes
 Concen: 1744.27 ng/mL M5
 RT: 28.318 min Scan# 2218
 Delta R.T. -0.002 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm
 Tgt Ion:176 Resp: 226196

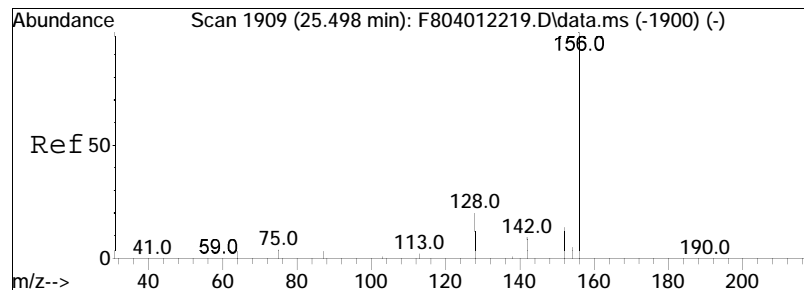




#21
 Biphenyl
 Concen: 7.06 ng/mL M4
 RT: 25.143 min Scan# 1870
 Delta R.T. -0.009 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

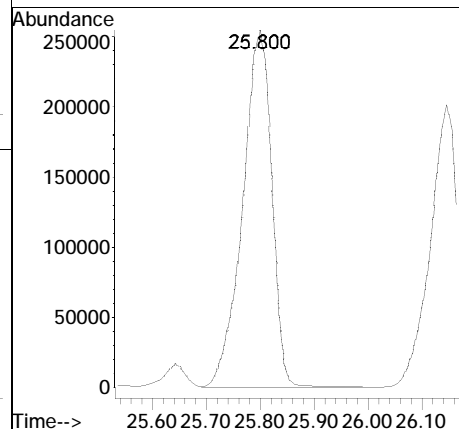
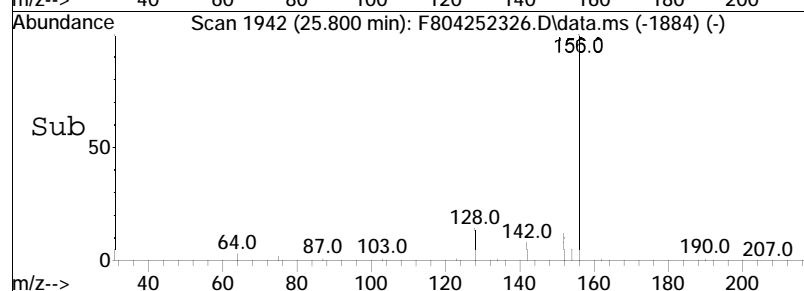
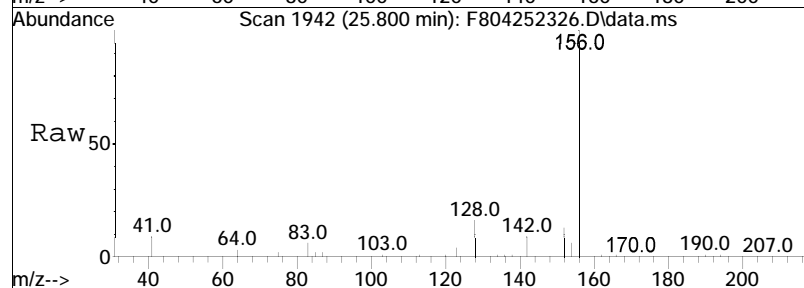
Tgt Ion:154 Resp: 819

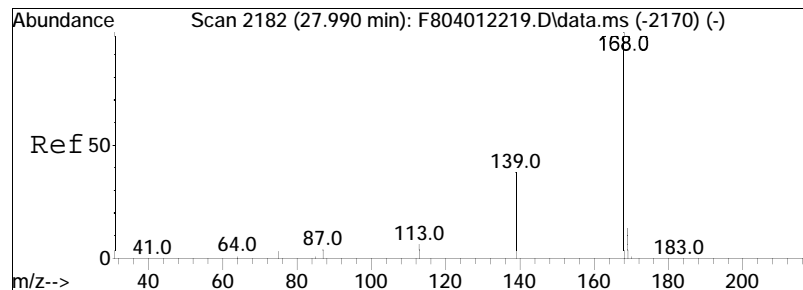




#22
 2,6-Dimethylnaphthalene
 Concen: 12245.03 ng/mL
 RT: 25.800 min Scan# 1942
 Delta R.T. 0.027 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

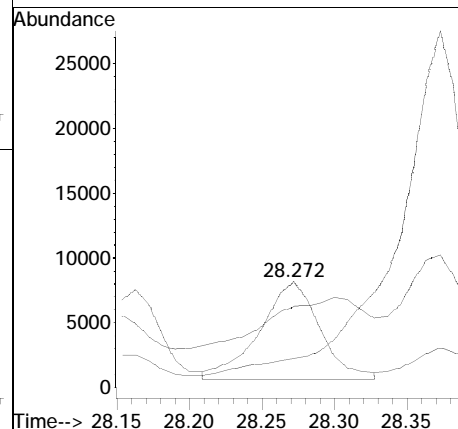
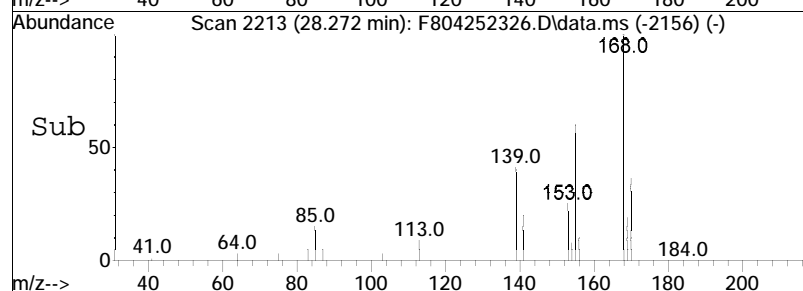
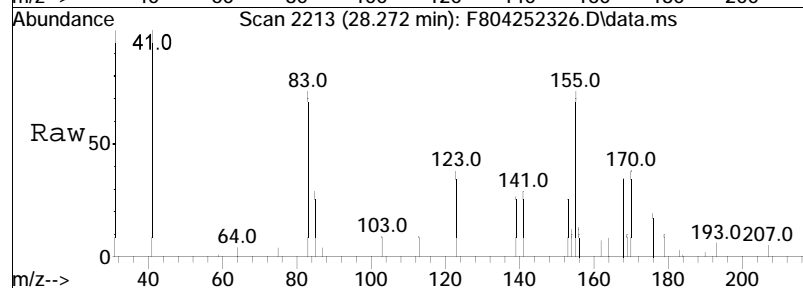
Tgt Ion:156 Resp: 950134

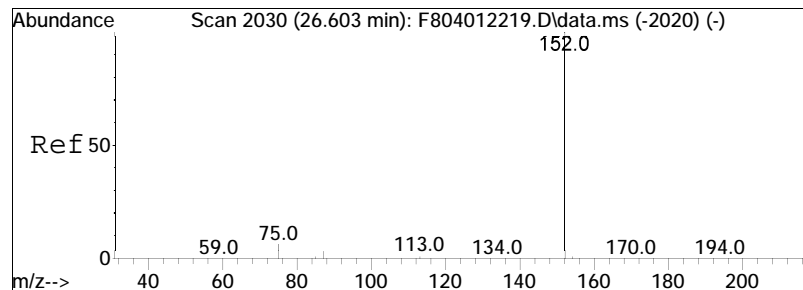




#23
 Dibenzofuran
 Concen: 191.30 ng/mL
 RT: 28.272 min Scan# 2213
 Delta R.T. 0.018 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

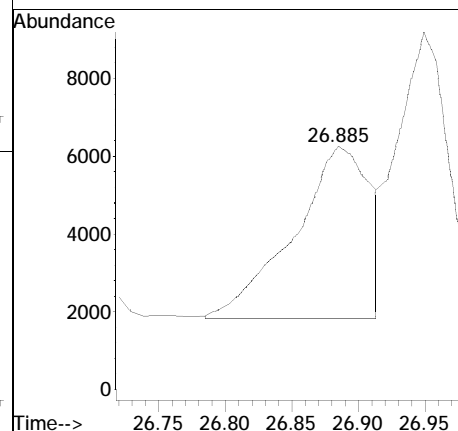
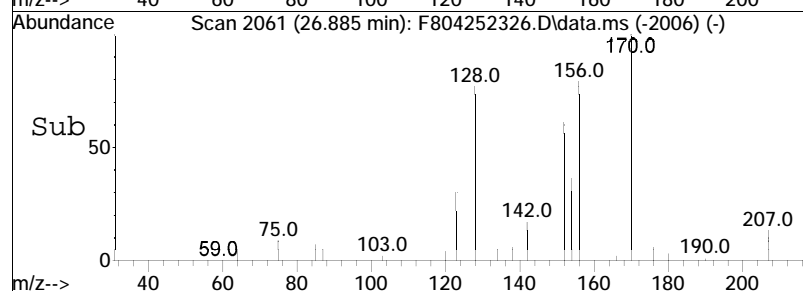
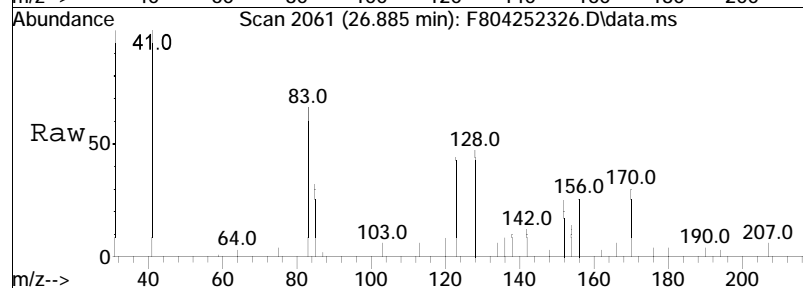
Tgt Ion	Ratio	Lower	Upper
168	100		
139	0.0	25.8	48.0#
169	0.0	9.4	17.6#

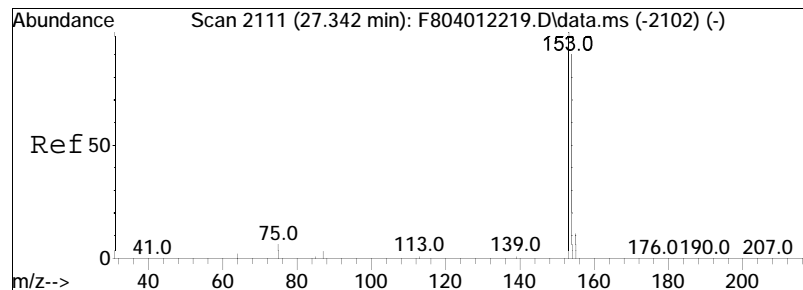




#24
 Acenaphthylene
 Concen: 128.80 ng/mL M4
 RT: 26.885 min Scan# 2061
 Delta R.T. -0.000 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

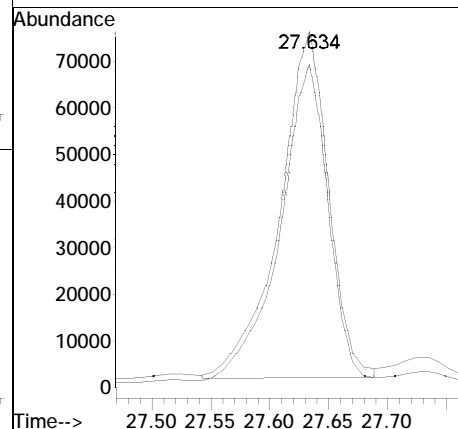
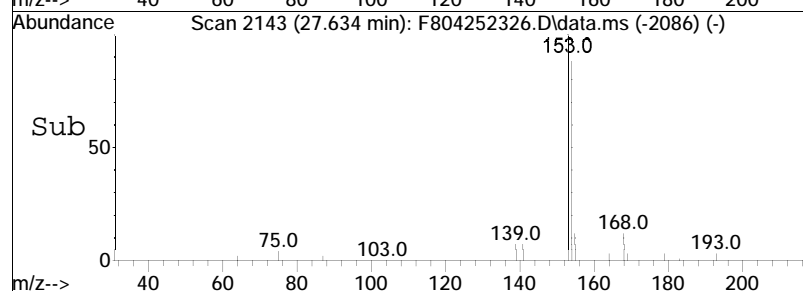
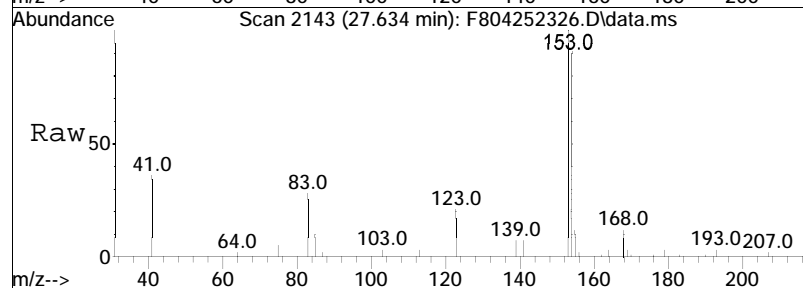
Tgt Ion:152 Resp: 17688

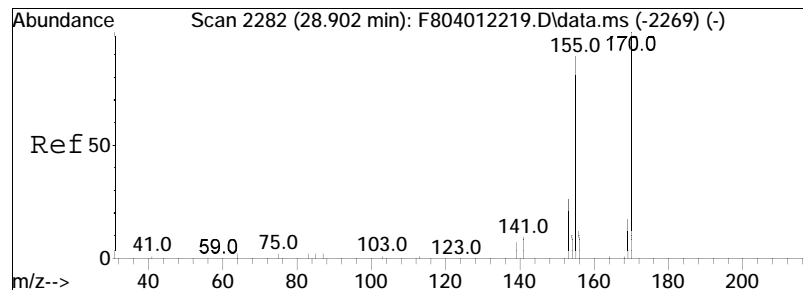




#25
 Acenaphthene
 Concen: 2444.26 ng/mL
 RT: 27.634 min Scan# 2143
 Delta R.T. 0.018 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

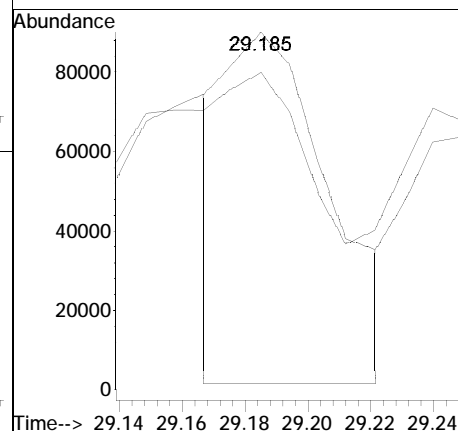
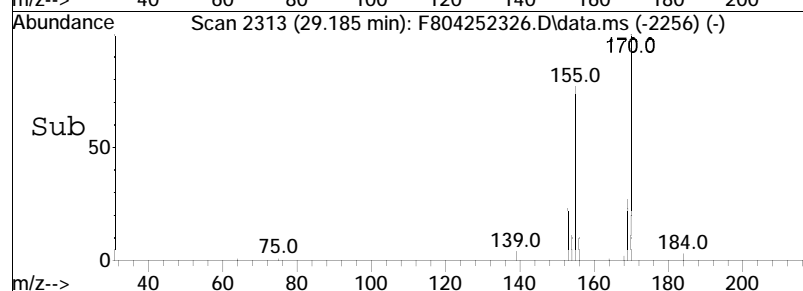
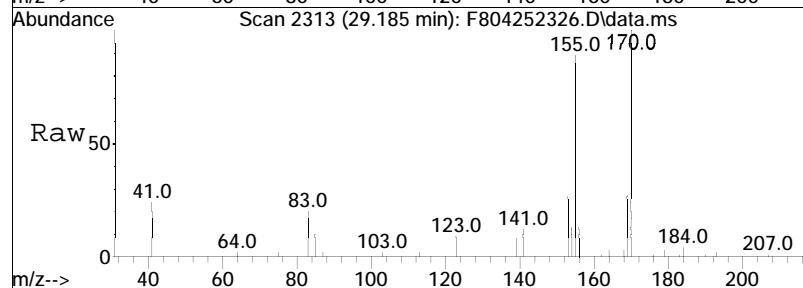
Tgt	Ion	Resp	Lower	Upper
153	100			
154	90.4	64.1	119.1	

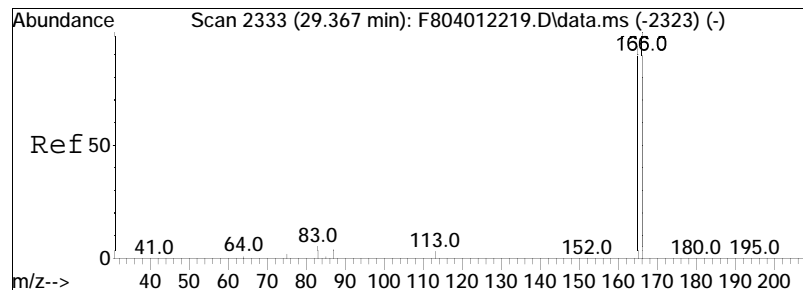




#26
 2,3,5-Trimethylnaphthalene
 Concen: 3201.88 ng/mL M3
 RT: 29.185 min Scan# 2313
 Delta R.T. 0.018 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

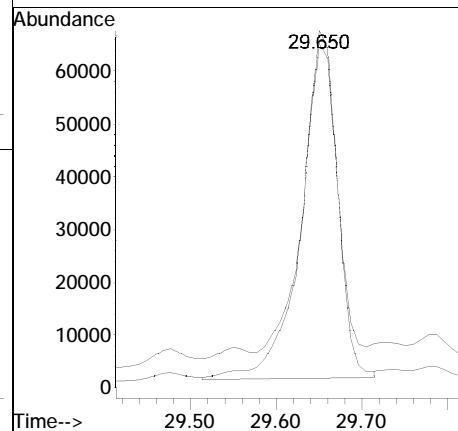
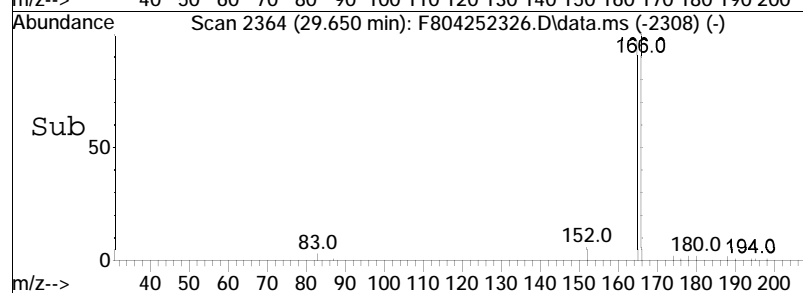
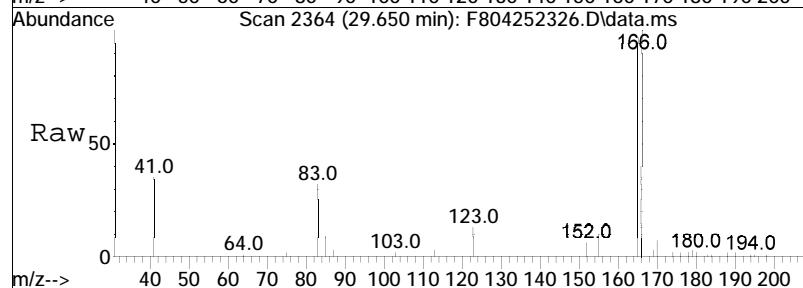
Tgt Ion:170 Resp: 205669
 Ion Ratio Lower Upper
 170 100
 155 176.4 68.0 126.4#

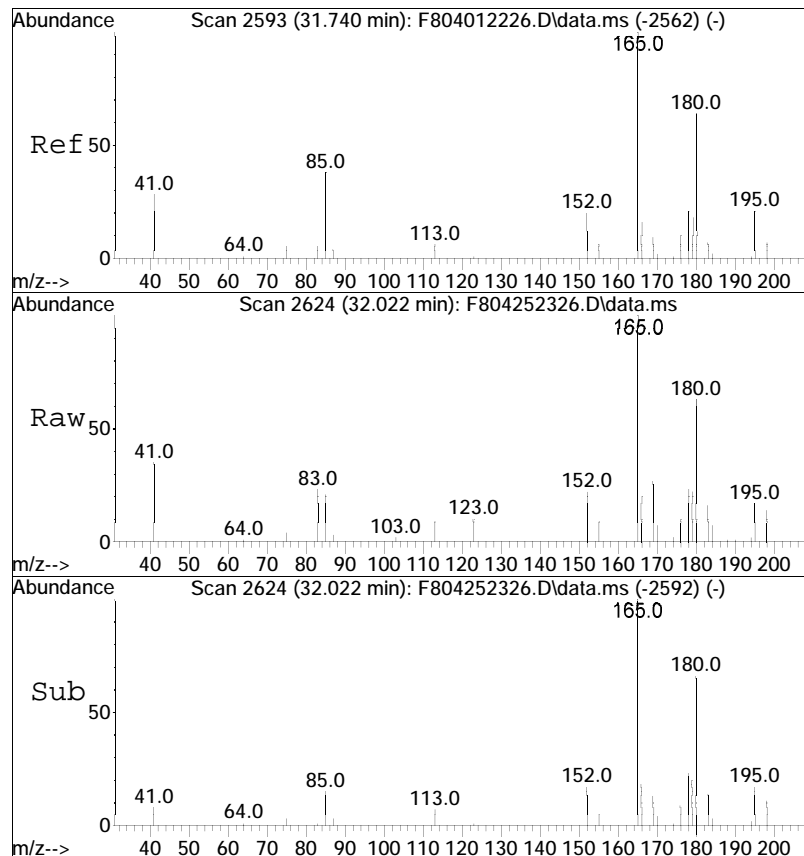




#27
 Fluorene
 Concen: 2089.57 ng/mL
 RT: 29.650 min Scan# 2364
 Delta R.T. 0.009 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

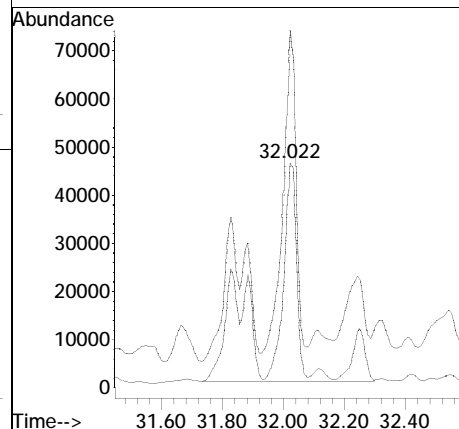
Tgt	Ion	Ratio	Lower	Upper
166	100			
165	84.5	66.8	124.0	

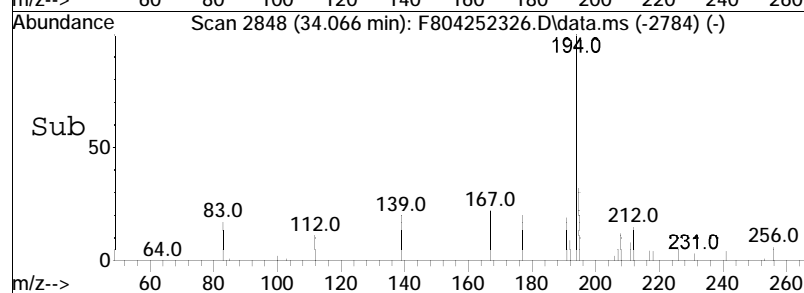
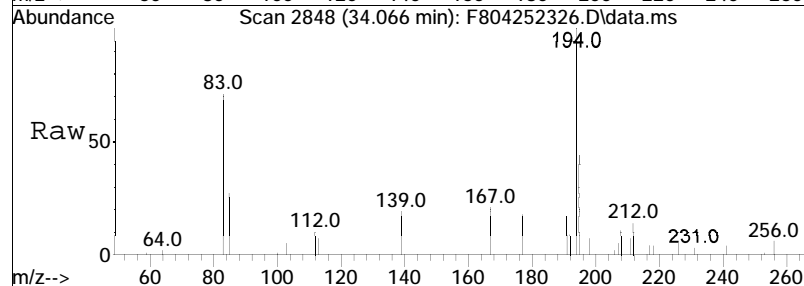
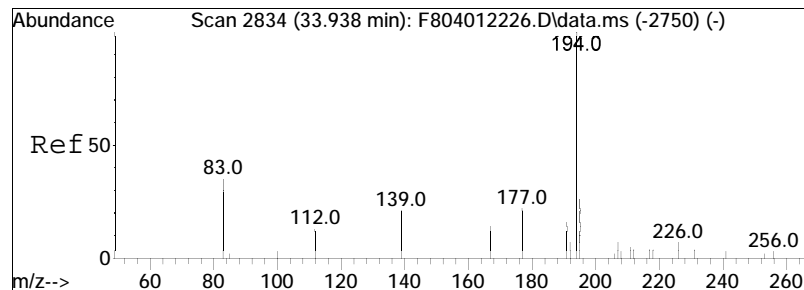




#28
 Cl-Fluorenes
 Concen: 3201.29 ng/mL M5
 RT: 32.022 min Scan# 2624
 Delta R.T. -0.005 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

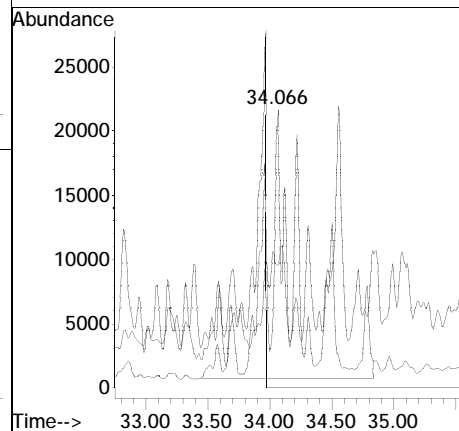
Tgt Ion	Ratio	Lower	Upper
180	100		
165	64.8	97.3	180.7#

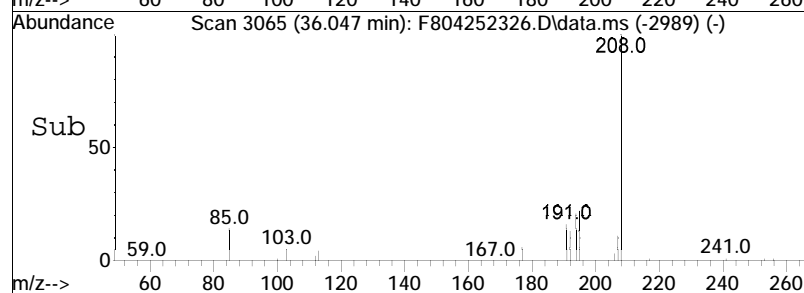
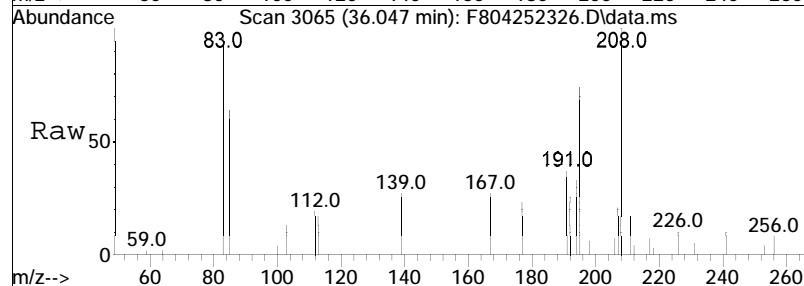
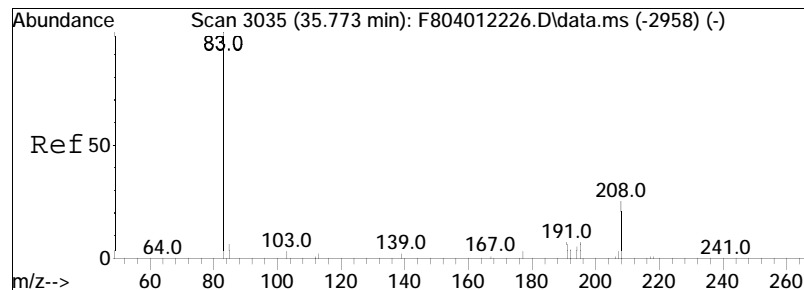




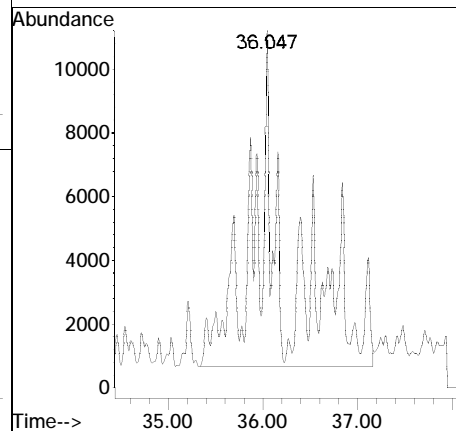
#29
 C2-Fluorenes
 Concen: 3916.81 ng/mL M5
 RT: 34.066 min Scan# 2848
 Delta R.T. -0.154 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

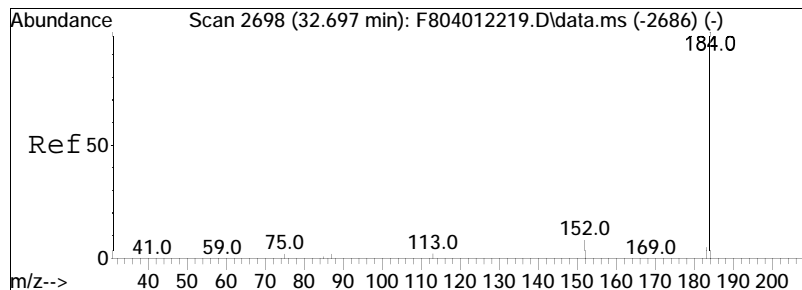
Tgt	Ion	Ratio	Lower	Upper
194	100			
179	0.0	0.0	0.0	
195	2.4	25.3	46.9	





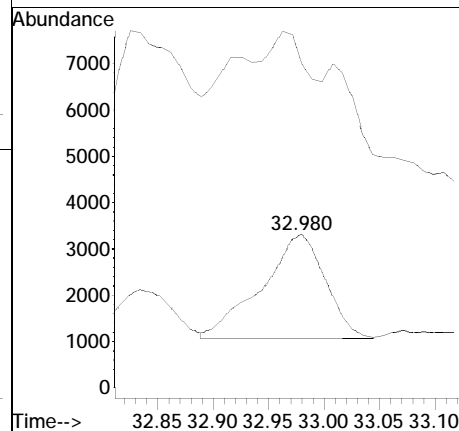
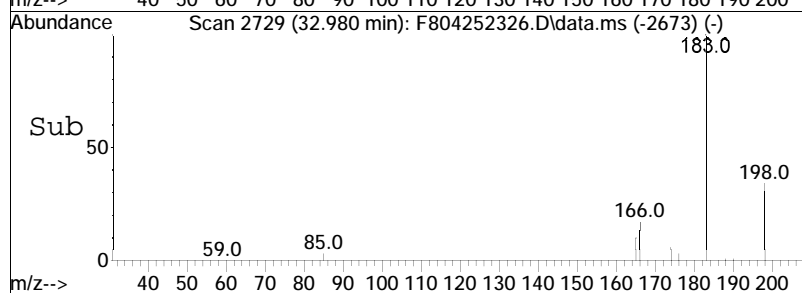
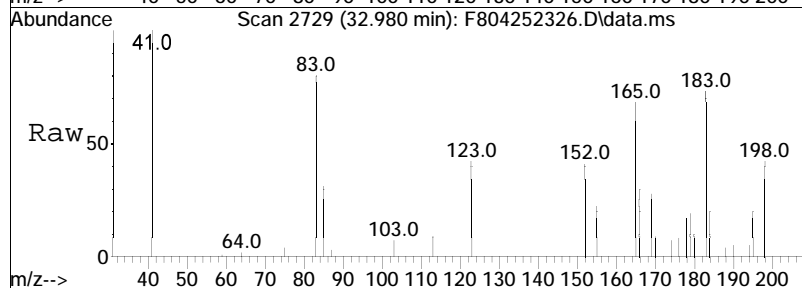
#30
C3-Fluorenes
Concen: 2755.31 ng/mL M5
RT: 36.047 min Scan# 3065
Delta R.T. -0.009 min
Lab File: F804252326.D
Acq: 26 Apr 2023 6:46 pm
Tgt Ion: 208 Resp: 254758

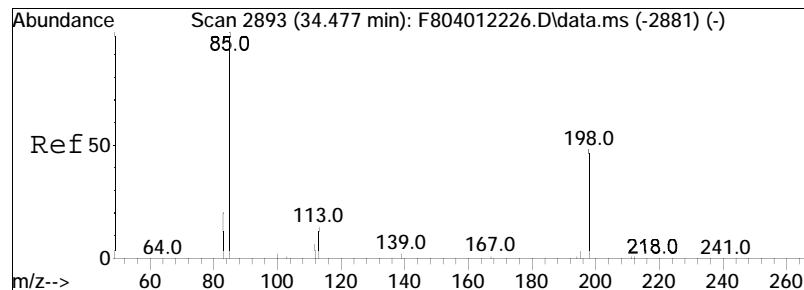




#31
 Dibenzothiophene
 Concen: 67.24 ng/mL
 RT: 32.980 min Scan# 2729
 Delta R.T. 0.009 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

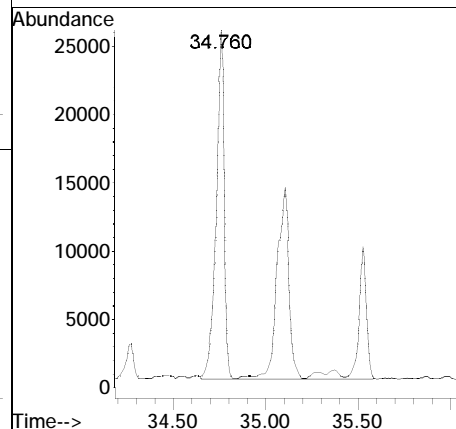
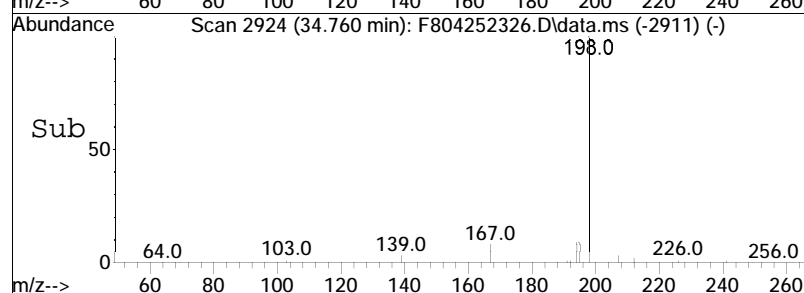
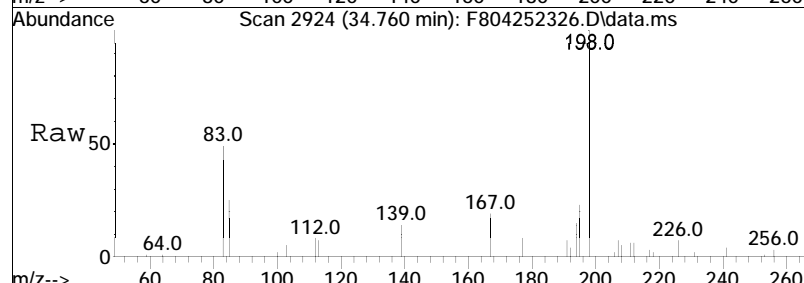
Tgt Ion	Ratio	Lower	Upper
184	100		
152	0.0	5.9	11.1#

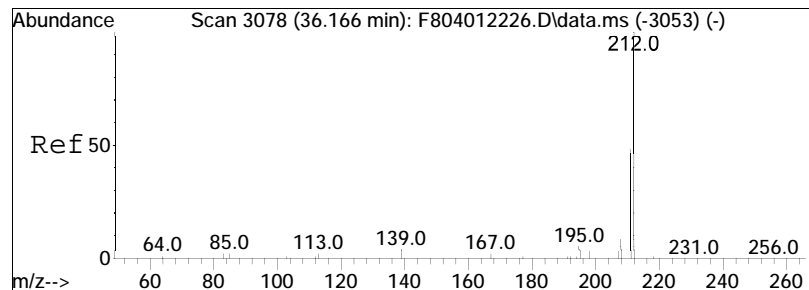




#36
 Cl-Dibenzothiophenes
 Concen: 1302.80 ng/mL M5
 RT: 34.760 min Scan# 2924
 Delta R.T. -0.008 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

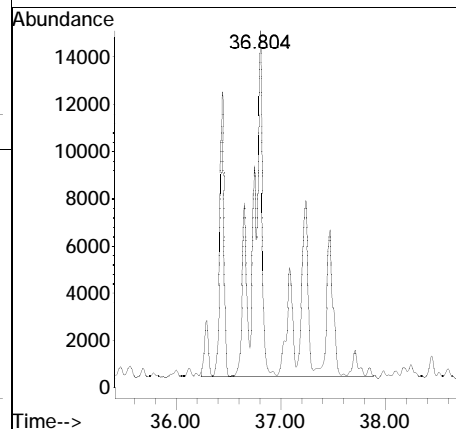
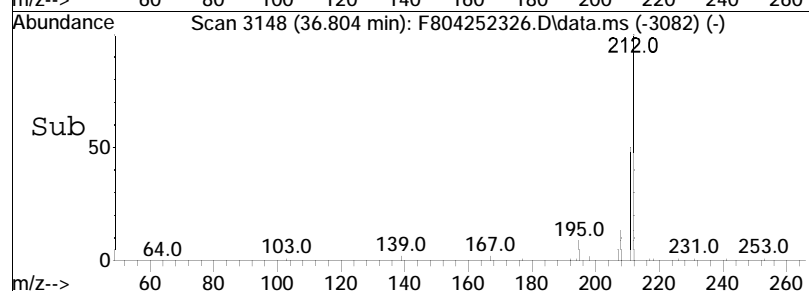
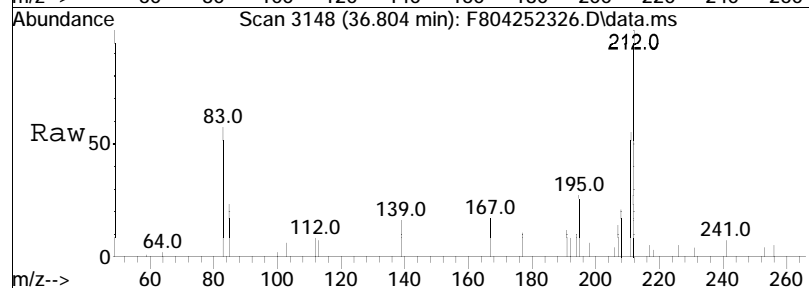
Tgt Ion:198 Resp: 171233

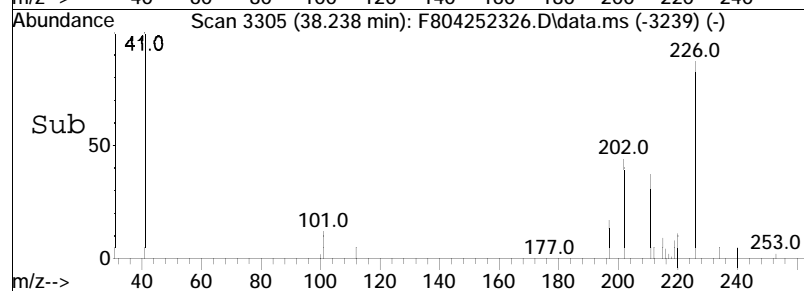
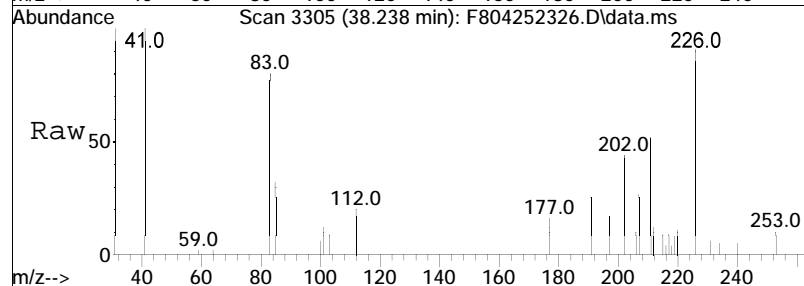
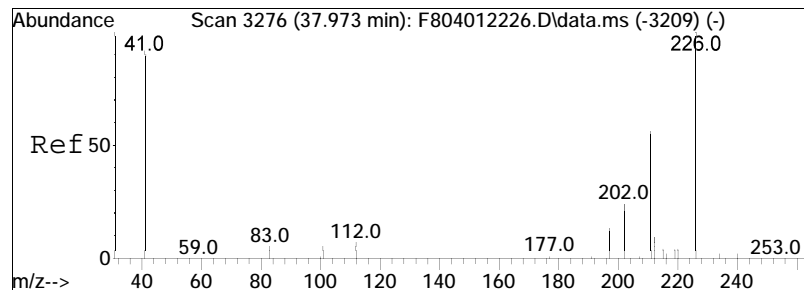




#37
 C2-Dibenzothiophenes
 Concen: 1546.82 ng/mL M5
 RT: 36.804 min Scan# 3148
 Delta R.T. -0.010 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

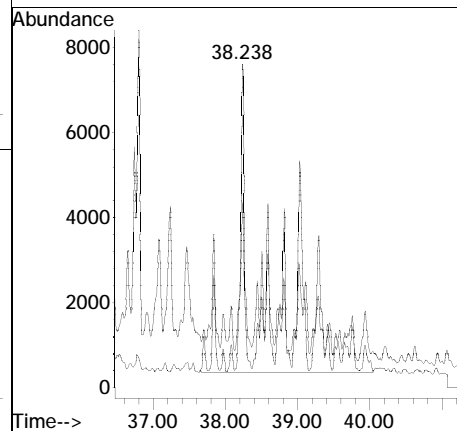
Tgt Ion:212 Resp: 203305

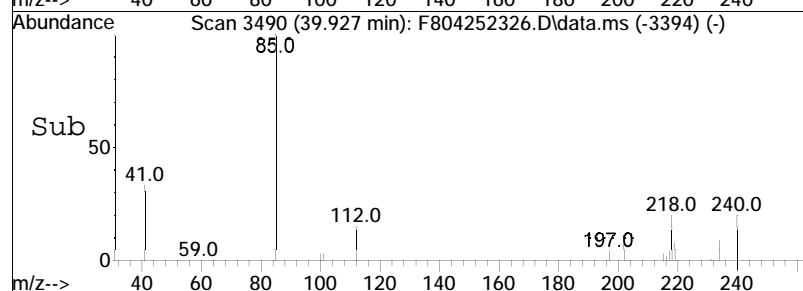
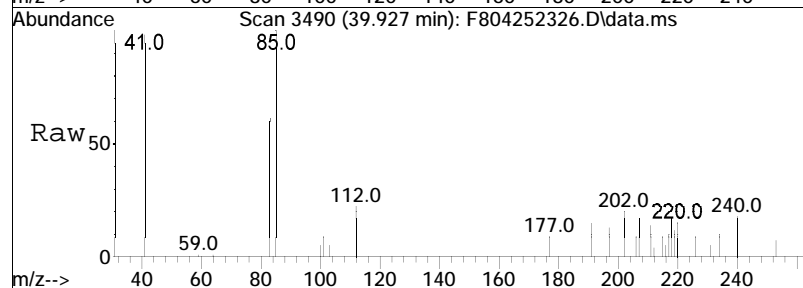
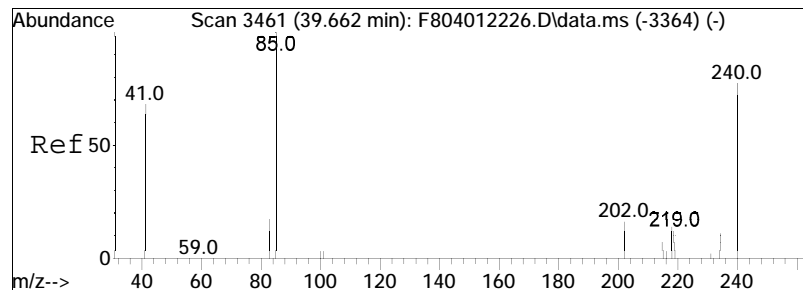




#38
 C3-Dibenzothiophenes
 Concen: 1025.44 ng/mL M5
 RT: 38.238 min Scan# 3305
 Delta R.T. -0.020 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

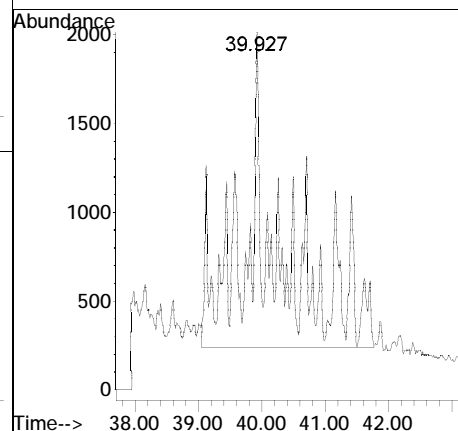
Tgt	Ion	Ratio	Lower	Upper
226	100			
211	11.2	38.5	71.5	

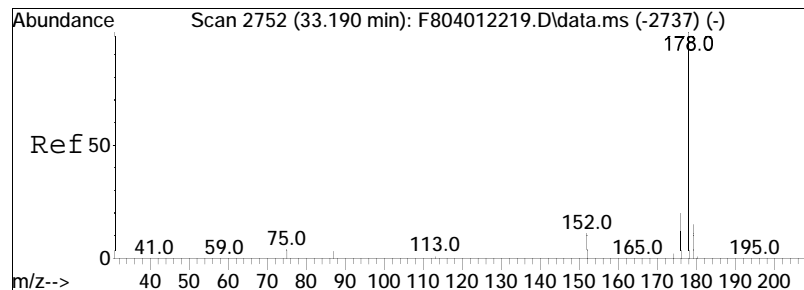




#39
 C4-Dibenzothiophenes
 Concen: 499.12 ng/mL M5
 RT: 39.927 min Scan# 3490
 Delta R.T. -0.014 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

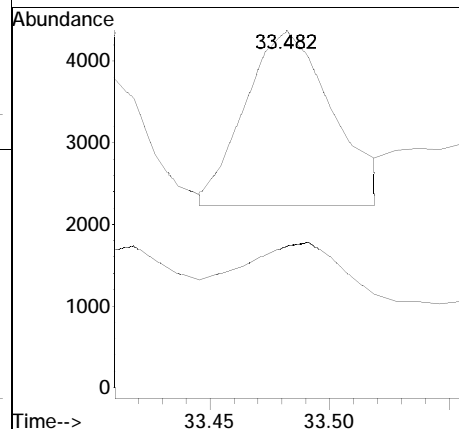
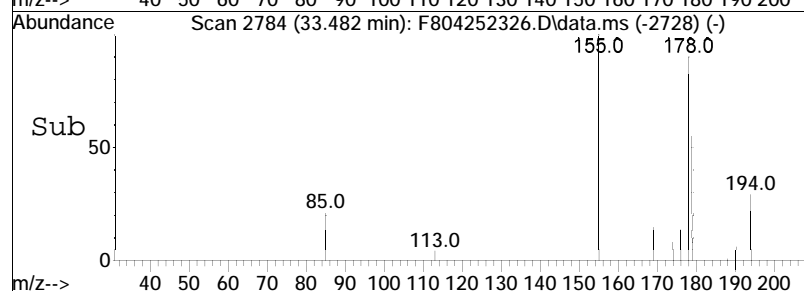
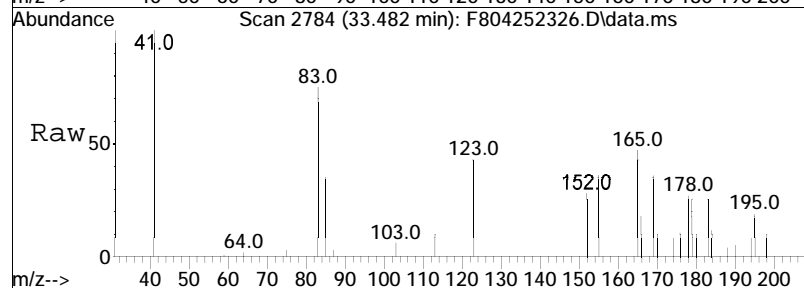
Tgt Ion: 240 Resp: 65601

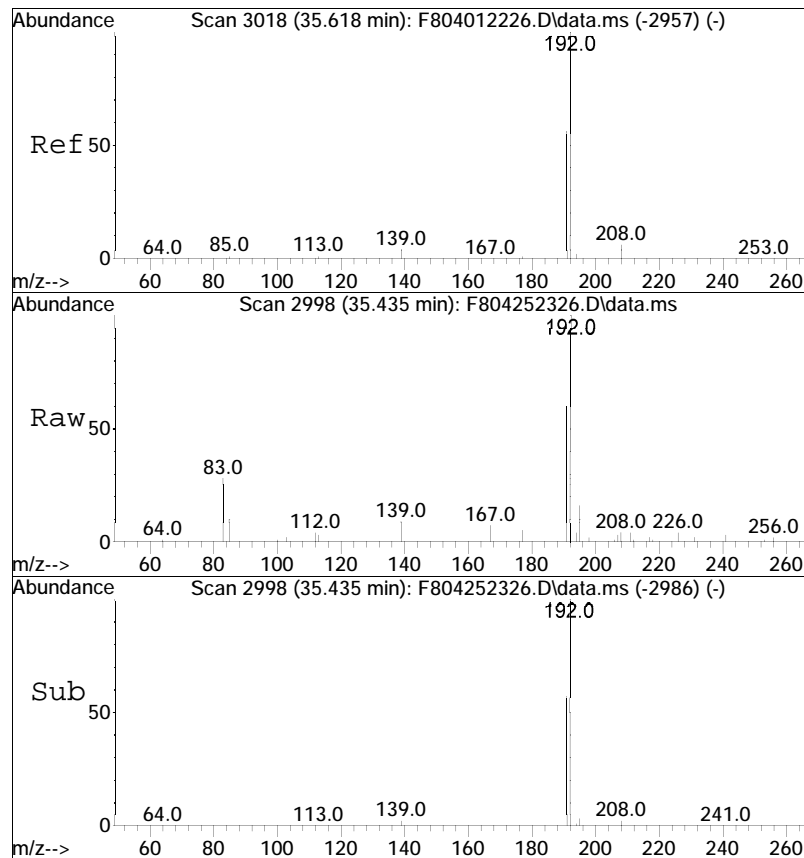




#41
 Phenanthrene
 Concen: 42.87 ng/mL M3
 RT: 33.482 min Scan# 2784
 Delta R.T. 0.009 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

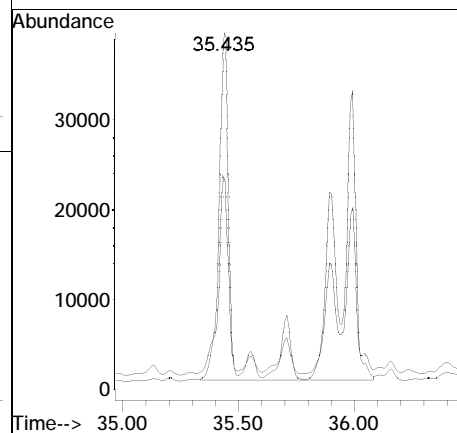
Tgt Ion: 178 Resp: 5471
 Ion Ratio Lower Upper
 178 100
 176 13.7 13.9 25.9#

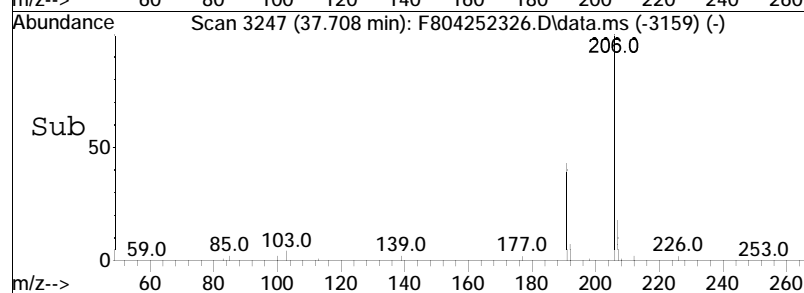
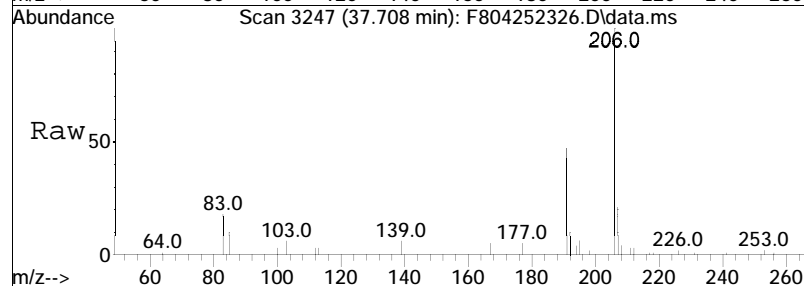
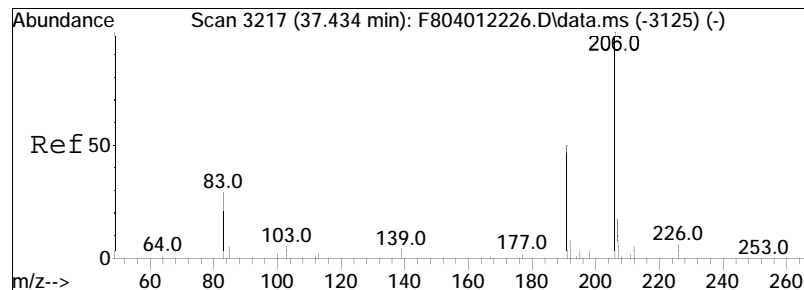




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 2319.69 ng/mL M5
 RT: 35.435 min Scan# 2998
 Delta R.T. -0.474 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

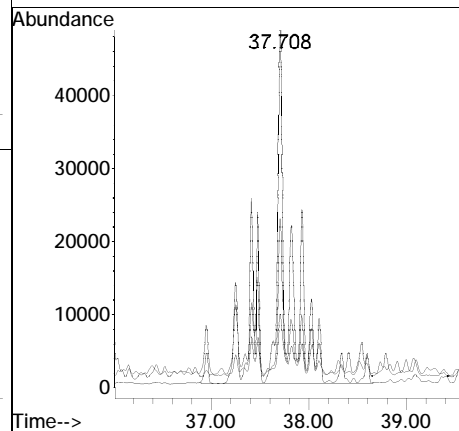
Tgt Ion	Ratio	Lower	Upper
192	100		
191	14.2	40.5	75.1#

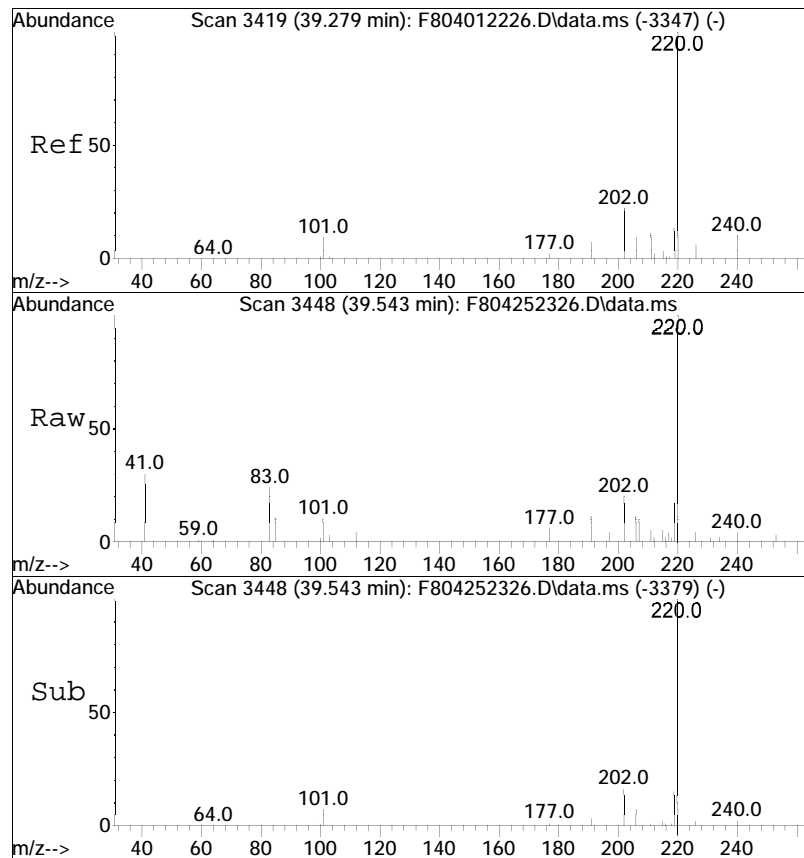




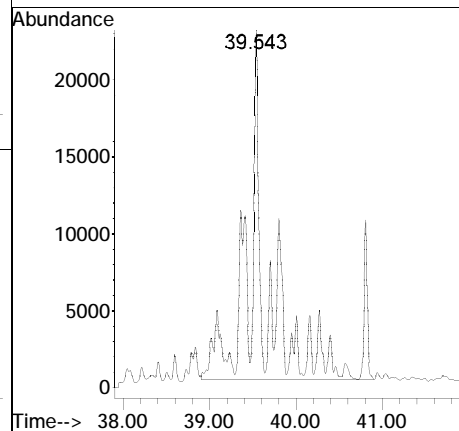
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 4418.36 ng/mL M5
 RT: 37.708 min Scan# 3247
 Delta R.T. -0.011 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

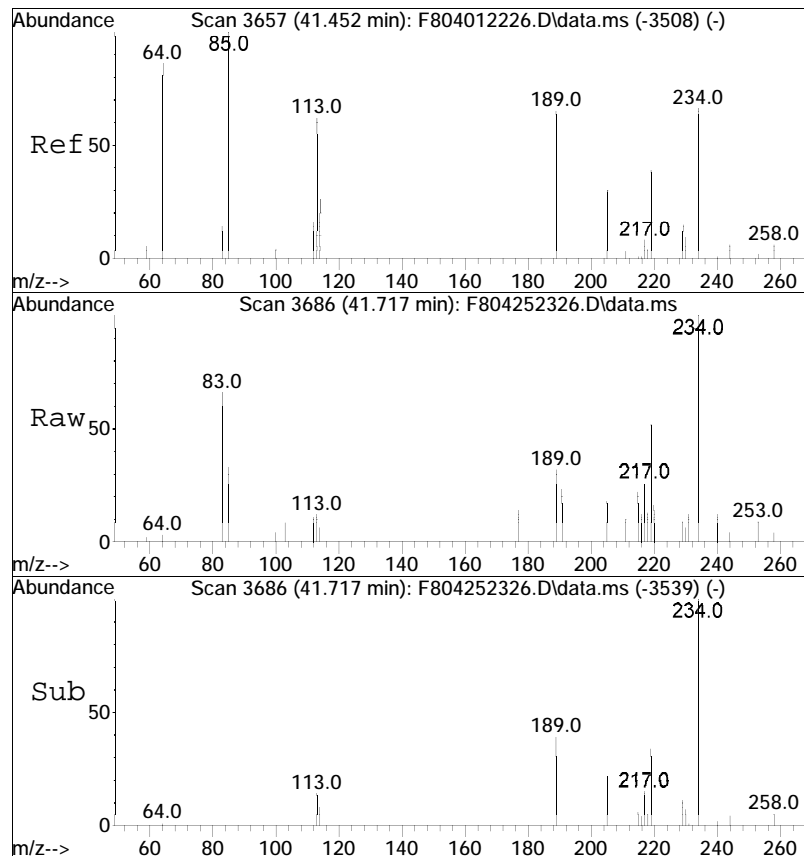
Tgt	Ion	Ratio	Lower	Upper
206	100			
191	13.1	34.6	64.2#	
207	5.8	14.3	26.5#	





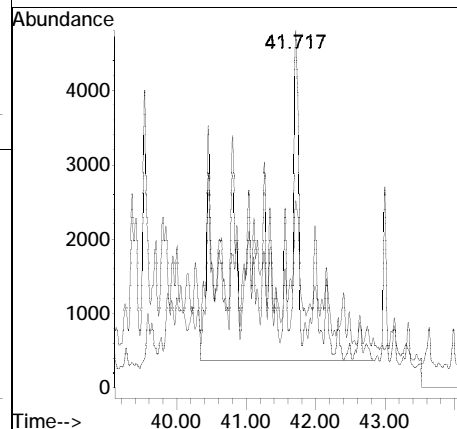
#50
C3-Phenanthrenes/Anthracenes
Concen: 2681.25 ng/mL M5
RT: 39.543 min Scan# 3448
Delta R.T. -0.022 min
Lab File: F804252326.D
Acq: 26 Apr 2023 6:46 pm
Tgt Ion:220 Resp: 342183

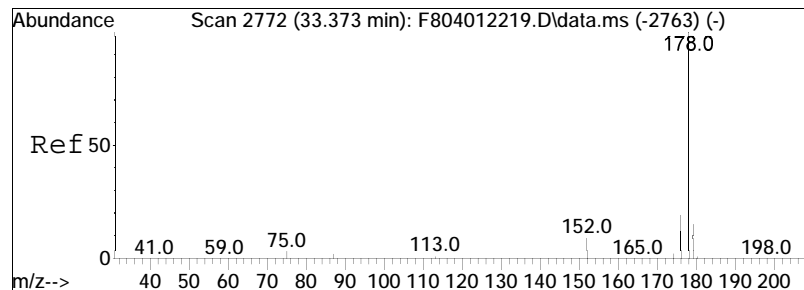




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 952.42 ng/mL M5
 RT: 41.717 min Scan# 3686
 Delta R.T. -0.024 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

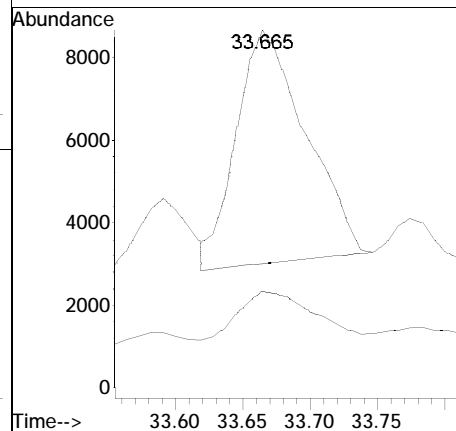
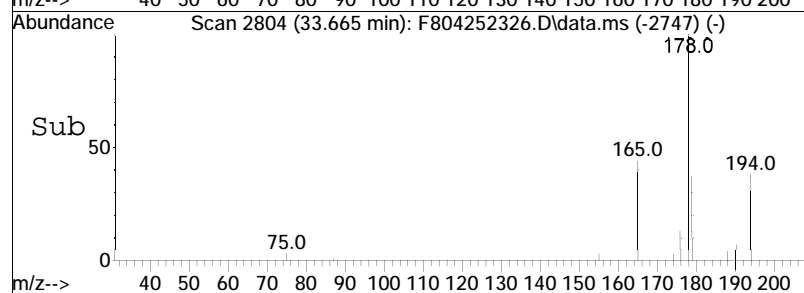
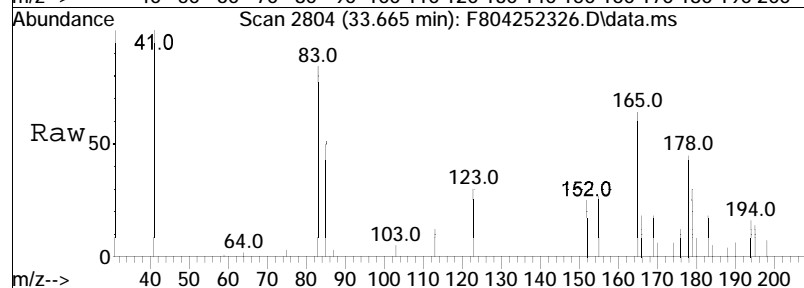
Tgt Ion	Ratio	Lower	Upper
234	100		
219	1.2	46.2	85.8#

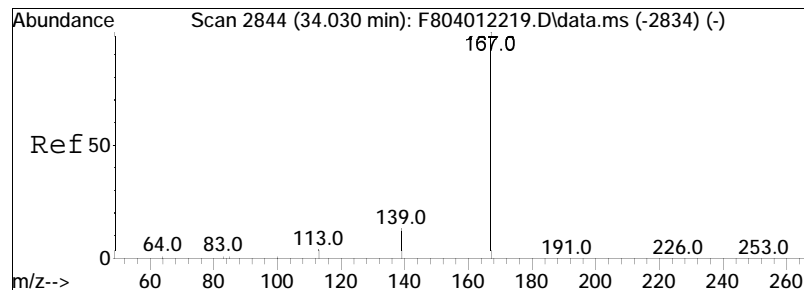




#53
 Anthracene
 Concen: 181.05 ng/mL
 RT: 33.665 min Scan# 2804
 Delta R.T. 0.018 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

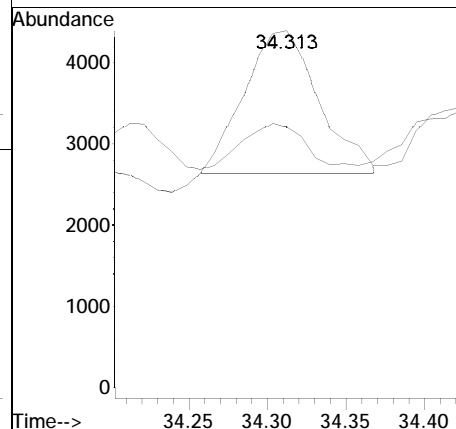
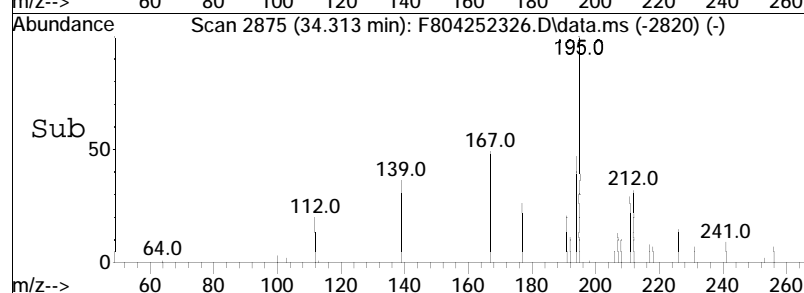
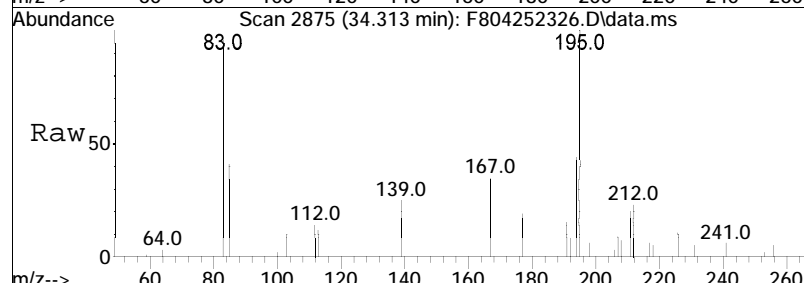
Tgt Ion: 178 Resp: 20253
 Ion Ratio Lower Upper
 178 100
 176 22.3 13.6 25.2

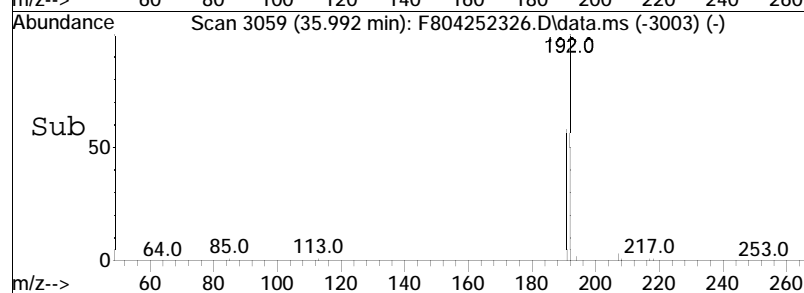
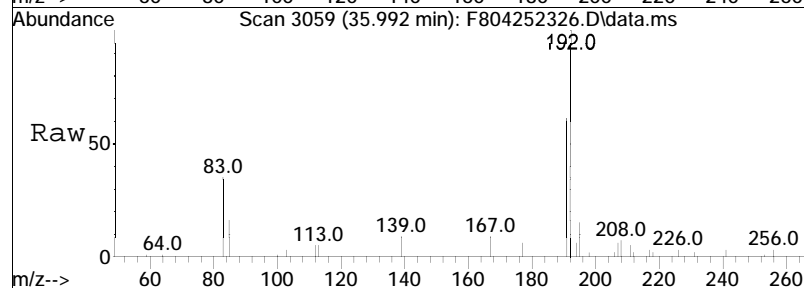
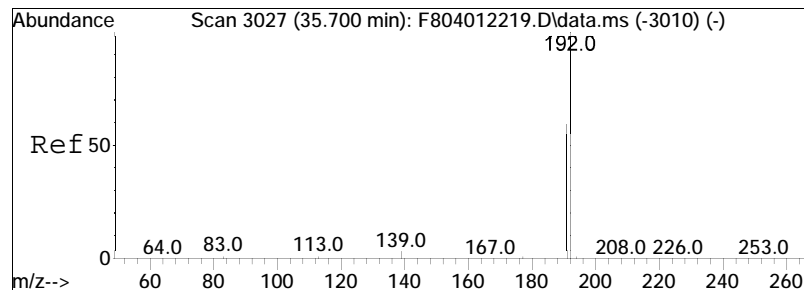




#54
 Carbazole
 Concen: 43.52 ng/mL
 RT: 34.313 min Scan# 2875
 Delta R.T. -0.000 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

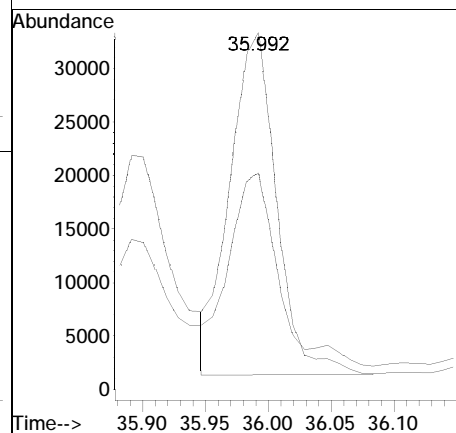
Tgt Ion	Ratio	Lower	Upper
167	100		
139	0.0	9.6	17.8#

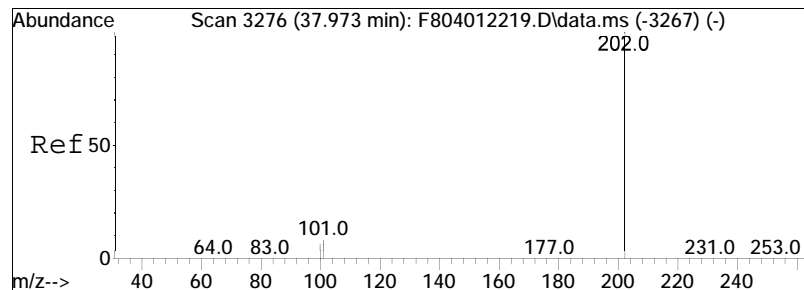




#55
 1-Methylphenanthrene
 Concen: 979.91 ng/mL
 RT: 35.992 min Scan# 3059
 Delta R.T. 0.009 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

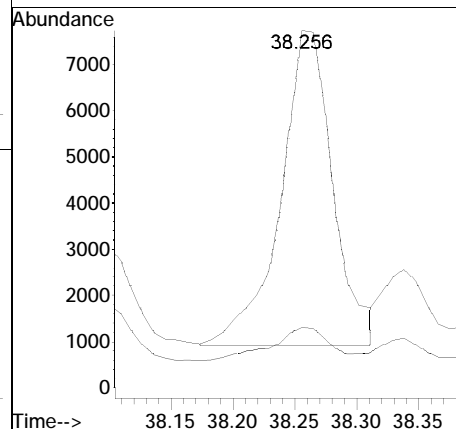
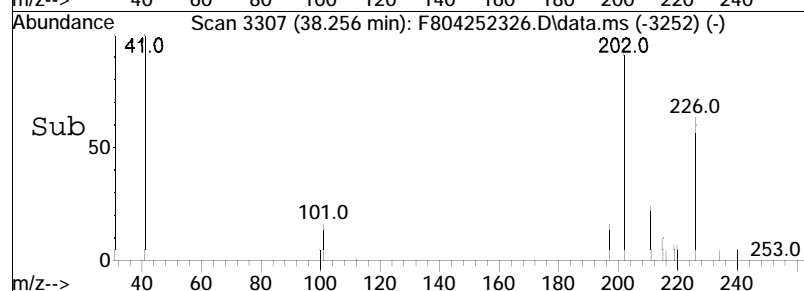
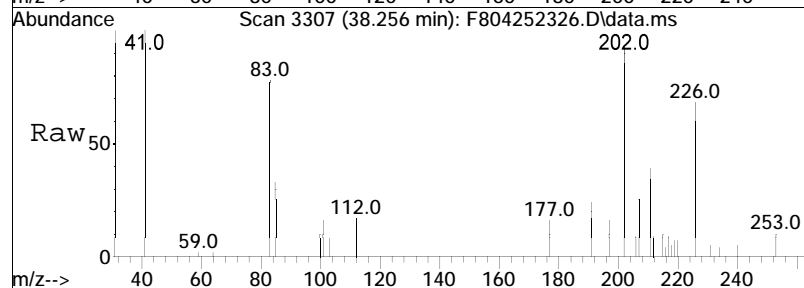
Tgt	Ion	Ratio	Lower	Upper
192	100			
191	64.3	40.7	75.5	

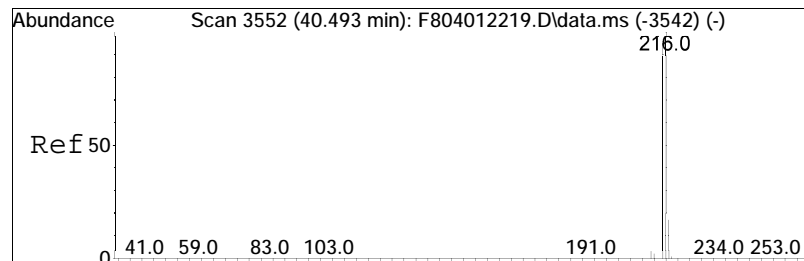




#56
 Fluoranthene
 Concen: 156.69 ng/mL M4
 RT: 38.256 min Scan# 3307
 Delta R.T. -0.000 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

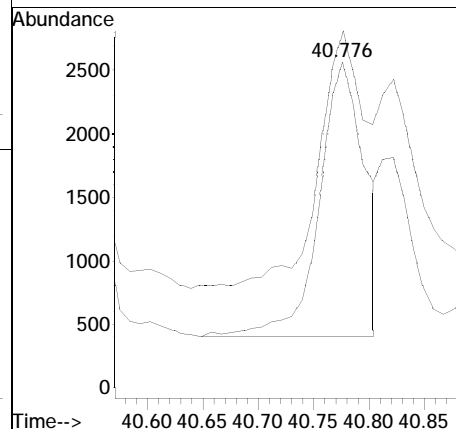
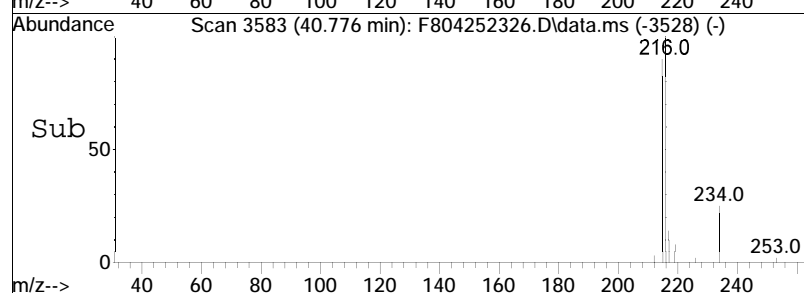
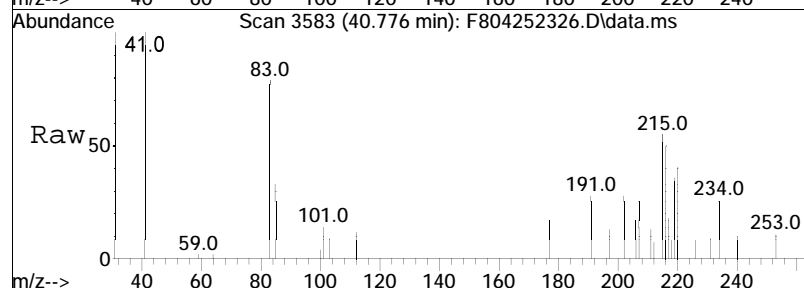
Tgt	Ion	Ratio	Lower	Upper
202	100			
101	15.0	9.0	16.6	

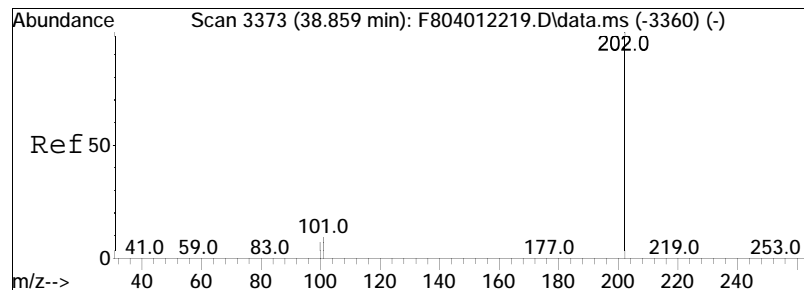




#57
 Benzo(b)fluorene
 Concen: 90.25 ng/mL
 RT: 40.776 min Scan# 3583
 Delta R.T. -0.000 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

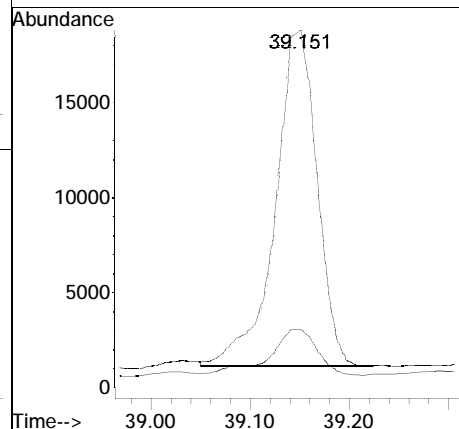
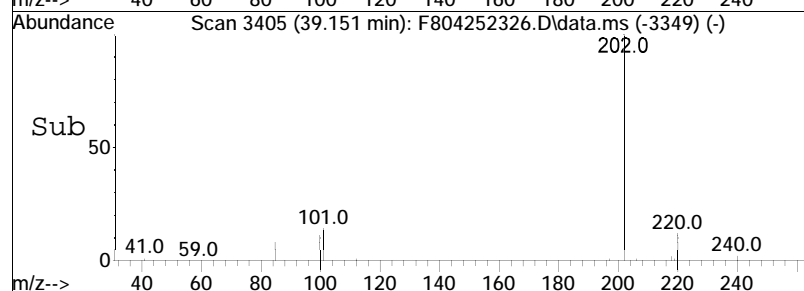
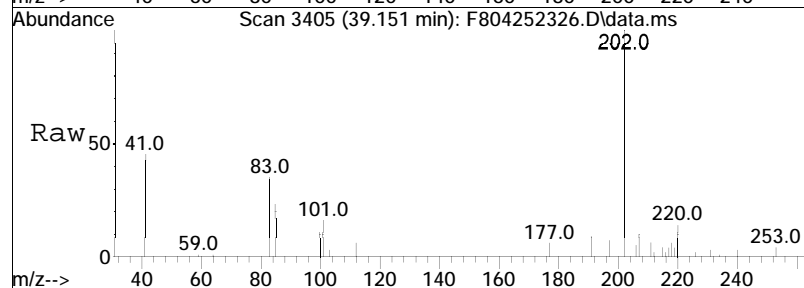
Tgt	Ion	Ratio	Lower	Upper
216	100			
215	97.4	66.1	122.7	

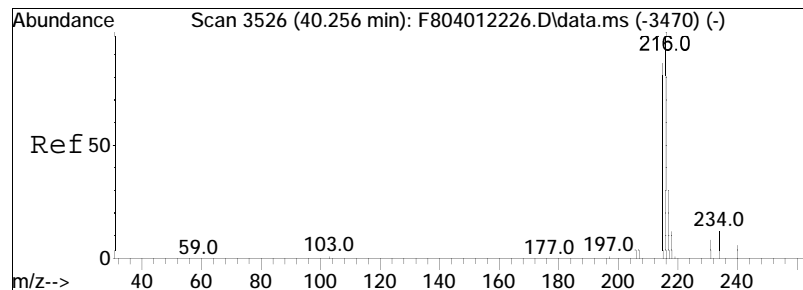




#59
 Pyrene
 Concen: 399.65 ng/mL
 RT: 39.151 min Scan# 3405
 Delta R.T. 0.009 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

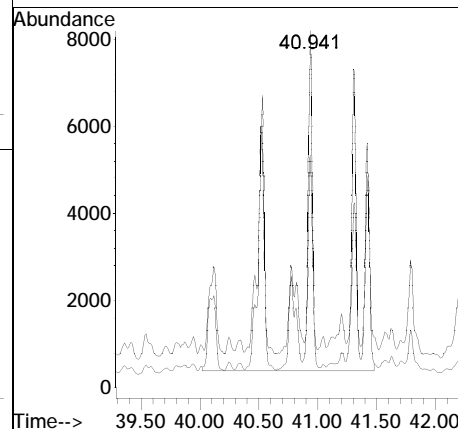
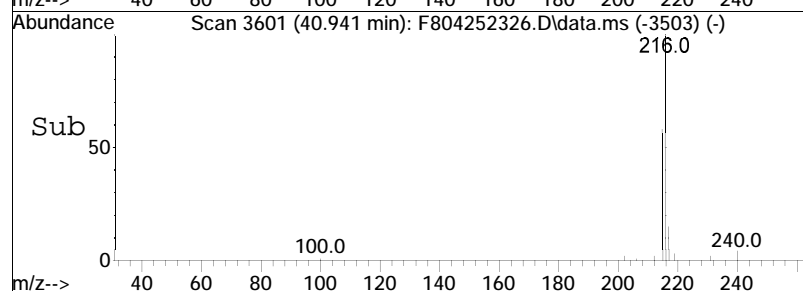
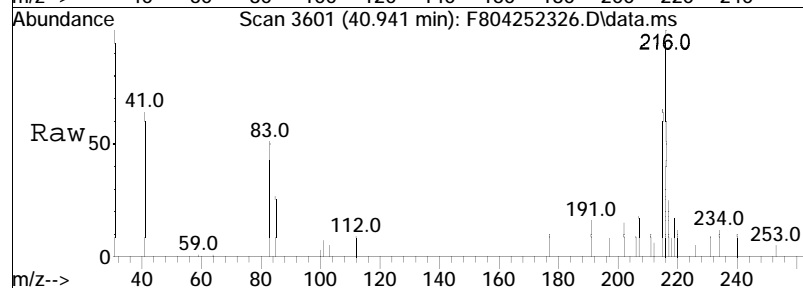
Tgt Ion	Ratio	Lower	Upper
202	100		
101	16.2	10.4	19.4

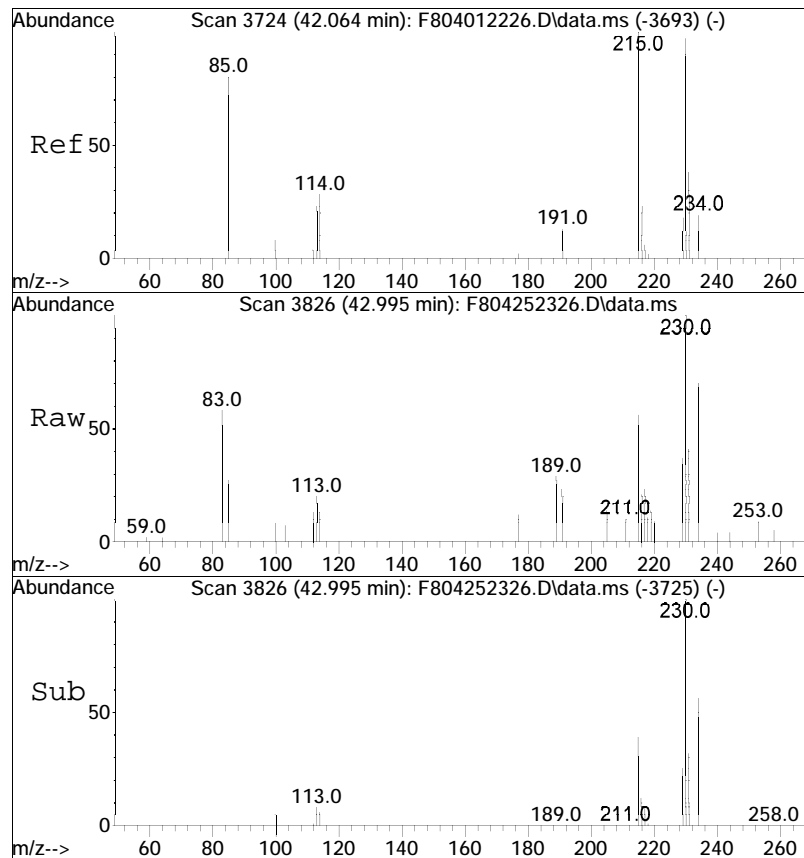




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 743.60 ng/mL M5
 RT: 40.941 min Scan# 3601
 Delta R.T. 0.388 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

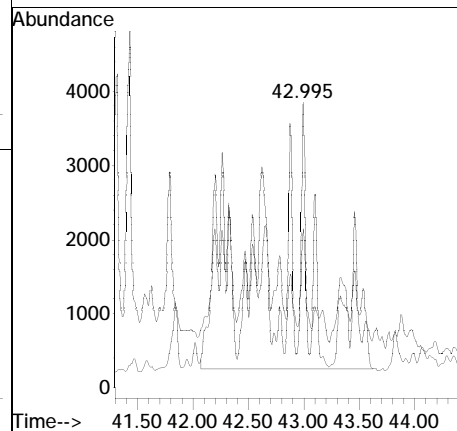
Tgt	Ion	Ratio	Lower	Upper
216	100			
215	15.7	64.8	120.3	

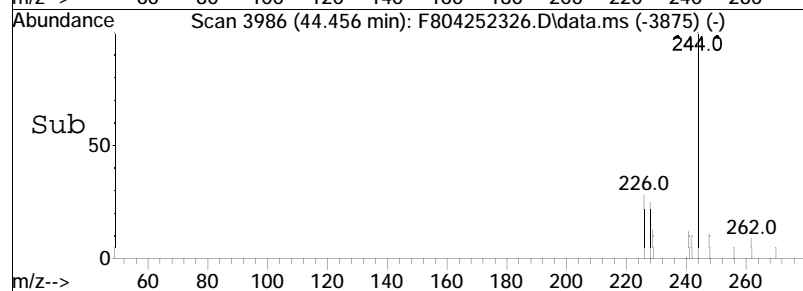
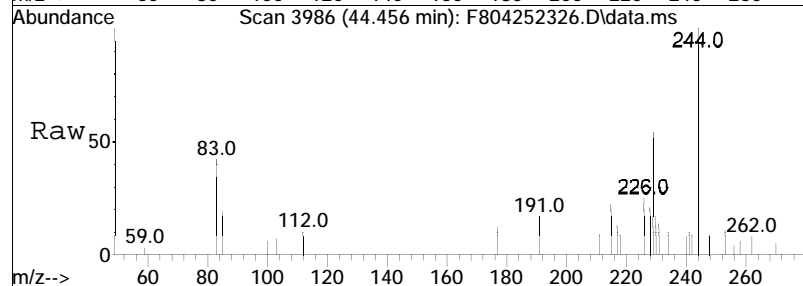
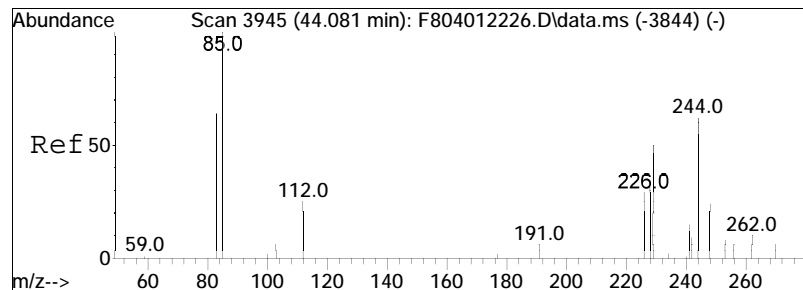




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 731.58 ng/mL M5
 RT: 42.995 min Scan# 3826
 Delta R.T. 0.322 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

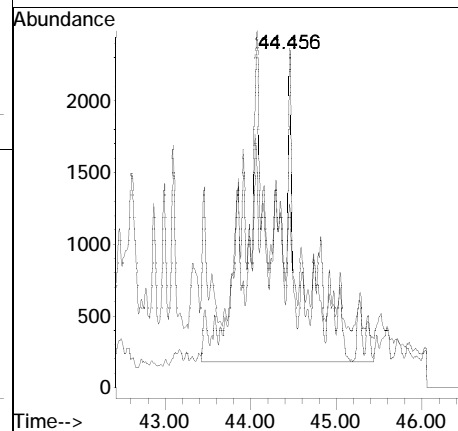
Tgt Ion	Ratio	Lower	Upper
230	100		
215	5.0	63.3	117.7#

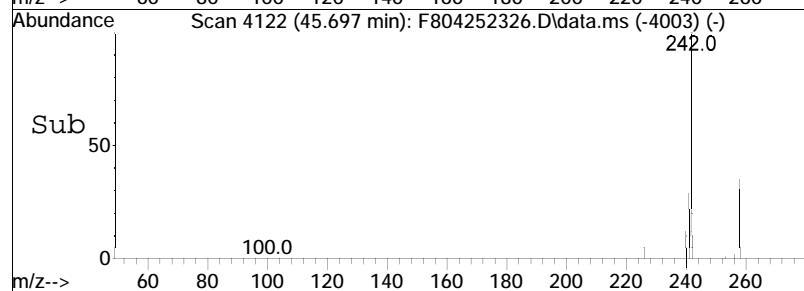
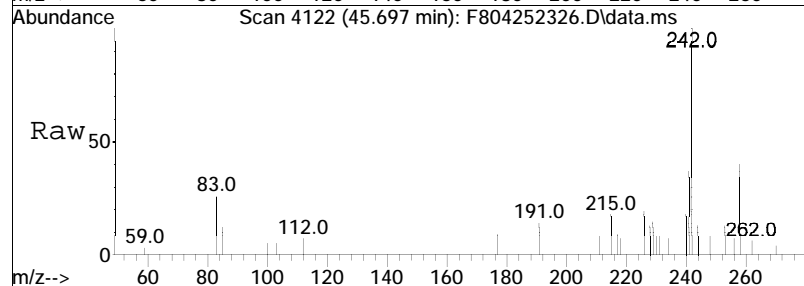
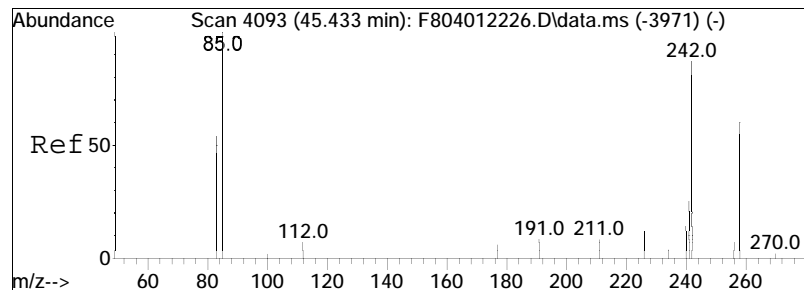




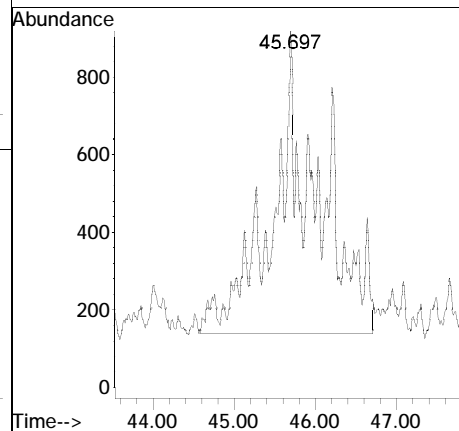
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 477.16 ng/mL M5
 RT: 44.456 min Scan# 3986
 Delta R.T. 0.082 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

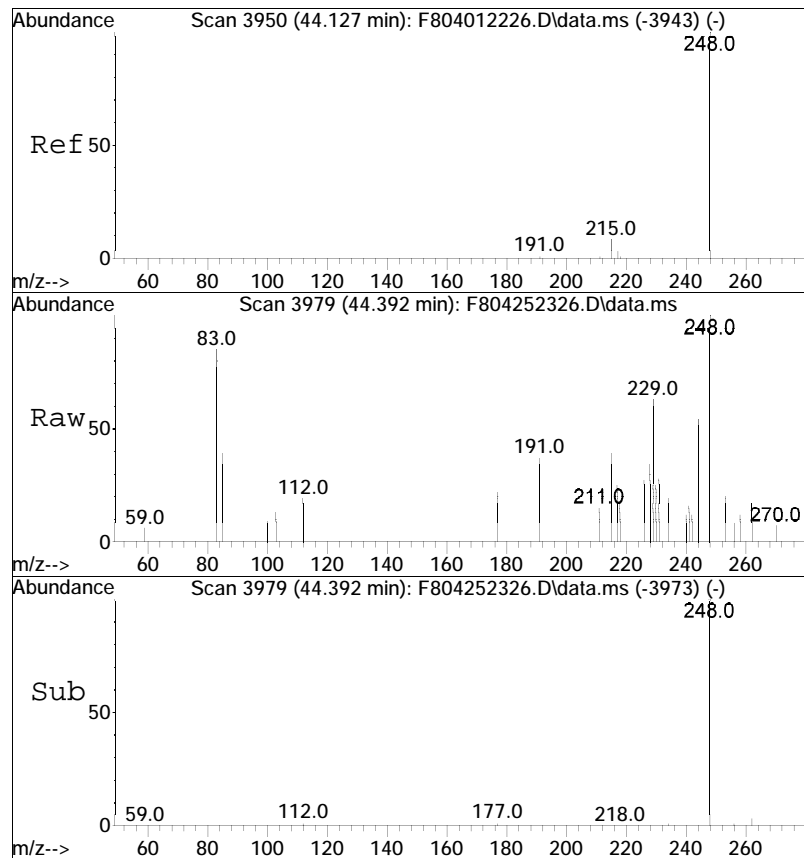
Tgt Ion: 244 Resp: 61186
 Ion Ratio Lower Upper
 244 100
 229 2.2 71.8 133.4#



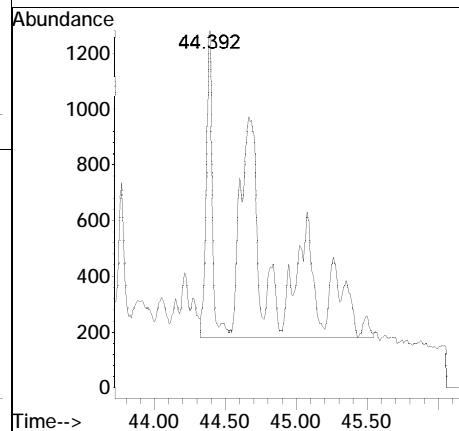


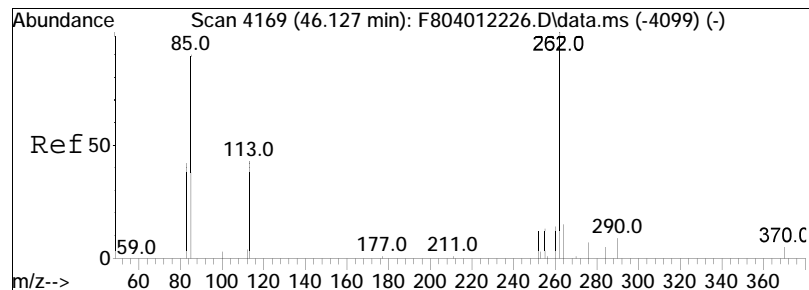
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 230.03 ng/mL M5
 RT: 45.697 min Scan# 4122
 Delta R.T. -0.028 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm
 Tgt Ion: 258 Resp: 29497





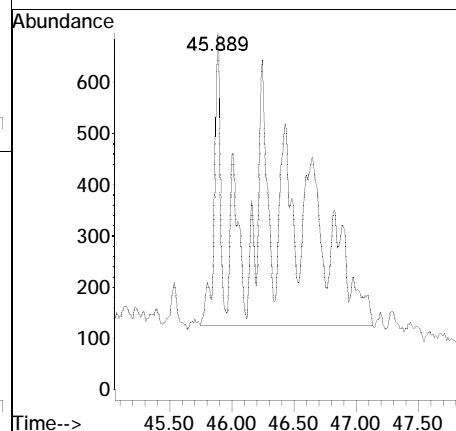
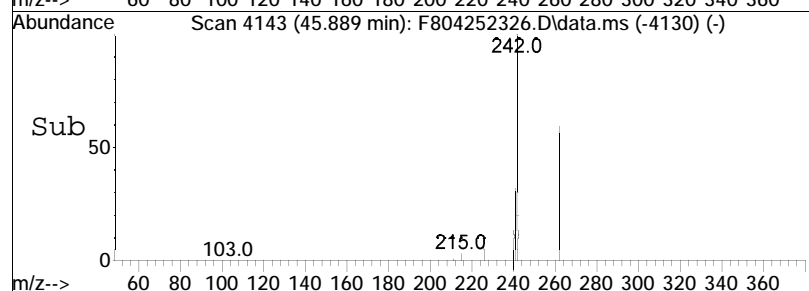
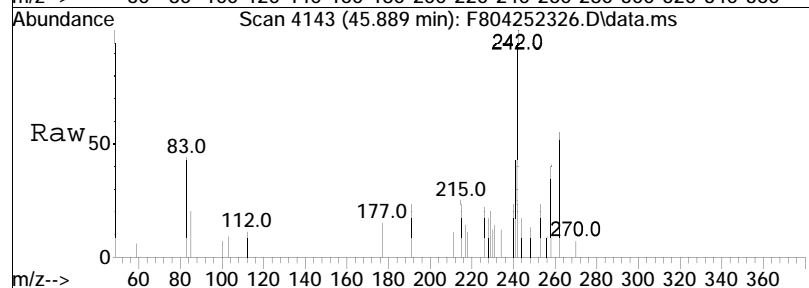
#70
 Cl-Naphthobenzothiophenes
 Concen: 131.18 ng/ml M5
 RT: 44.392 min Scan# 3979
 Delta R.T. -0.027 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm
 Tgt Ion:248 Resp: 16438

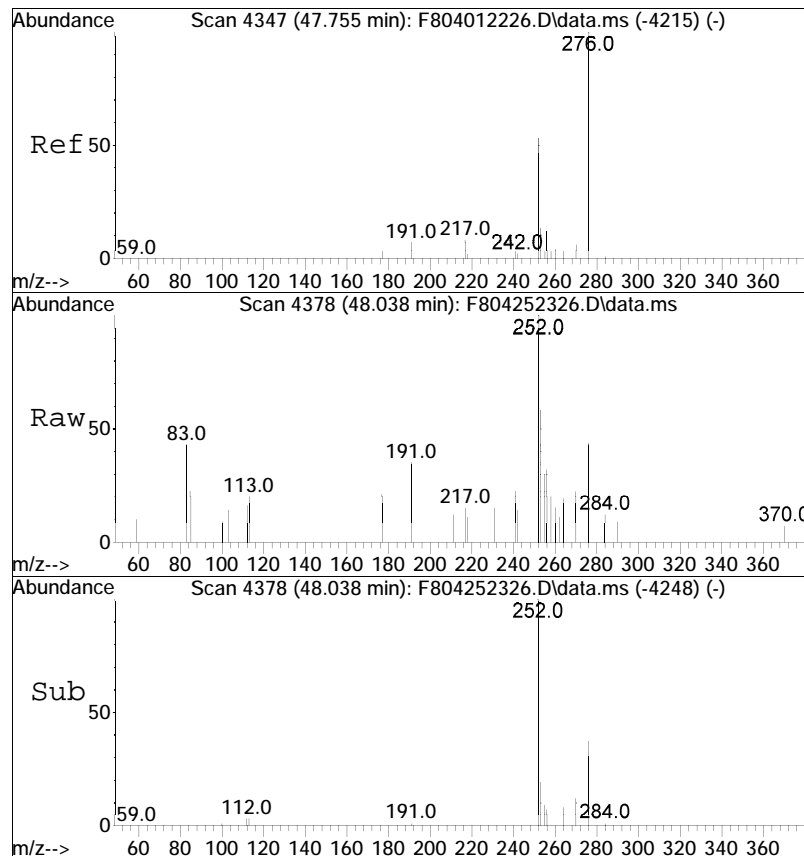




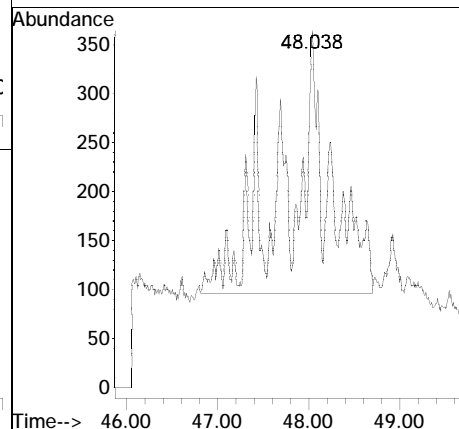
#71
 C2-Naphthobenzothiophenes
 Concen: 113.29 ng/ml M5
 RT: 45.889 min Scan# 4143
 Delta R.T. -0.541 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

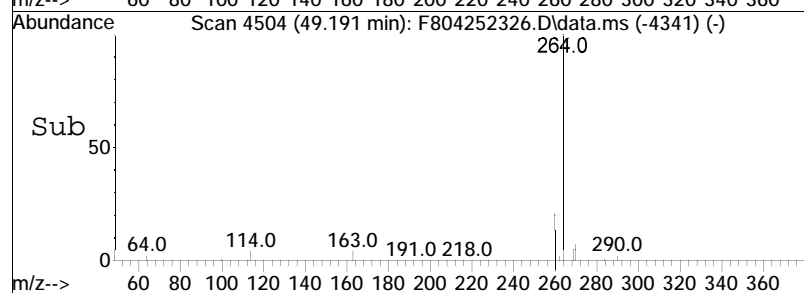
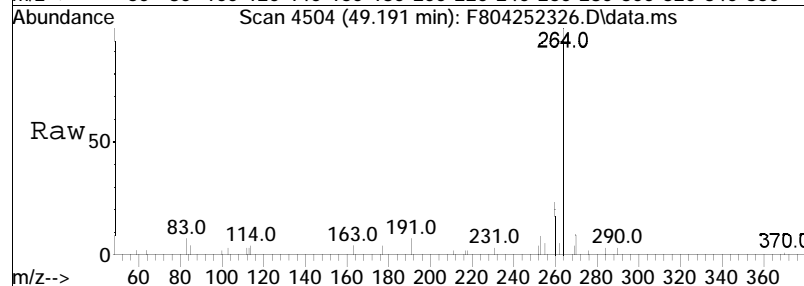
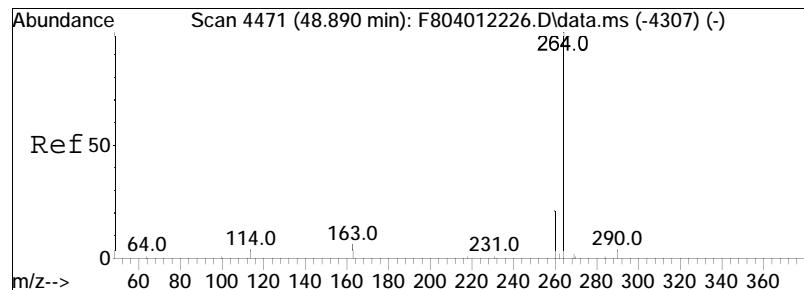
Tgt Ion: 262 Resp: 14196





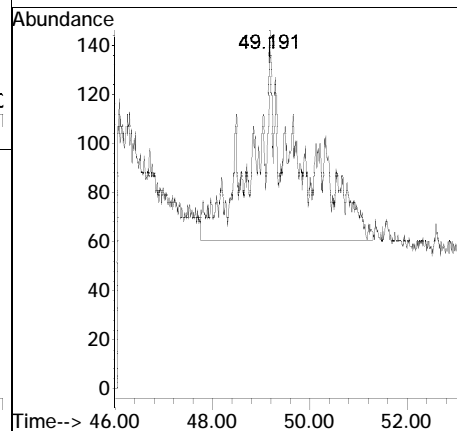
#72
 C3-Naphthobenzothiophenes
 Concen: 68.11 ng/ml M5
 RT: 48.038 min Scan# 4378
 Delta R.T. -0.040 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm
 Tgt Ion: 276 Resp: 8535

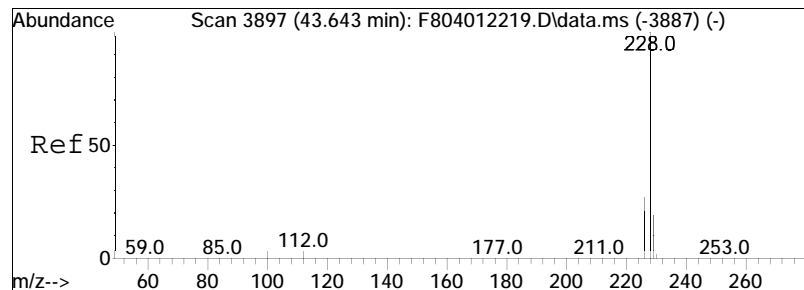




#73
 C4-Naphthobenzothiophenes
 Concen: 41.38 ng/mL M5
 RT: 49.191 min Scan# 4504
 Delta R.T. -0.032 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

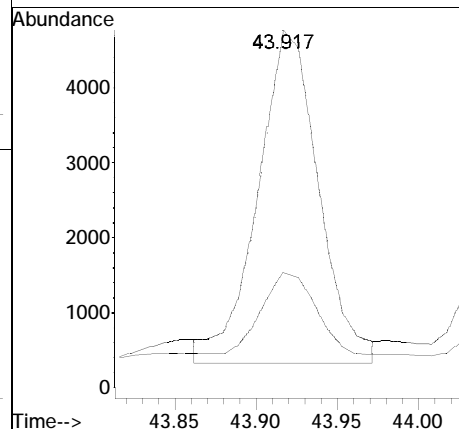
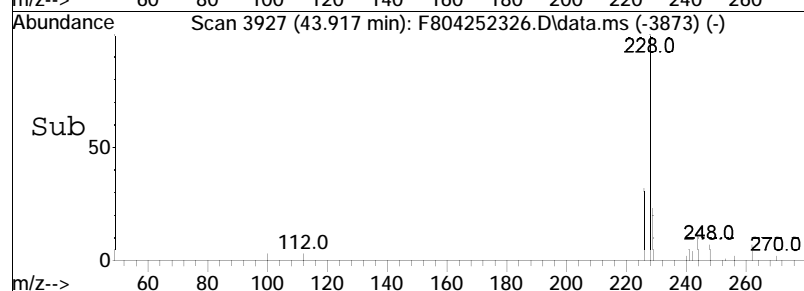
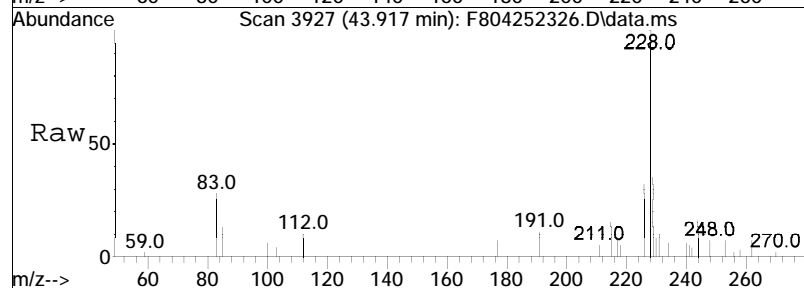
Tgt Ion: 290 Resp: 5185

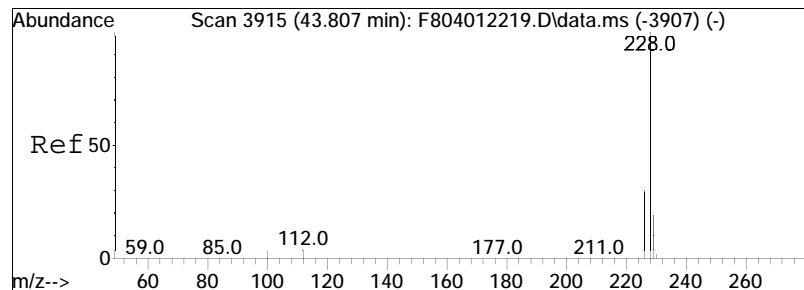




#75
Benz[a]anthracene
Concen: 105.80 ng/mL M4
RT: 43.917 min Scan# 3927
Delta R.T. -0.009 min
Lab File: F804252326.D
Acq: 26 Apr 2023 6:46 pm

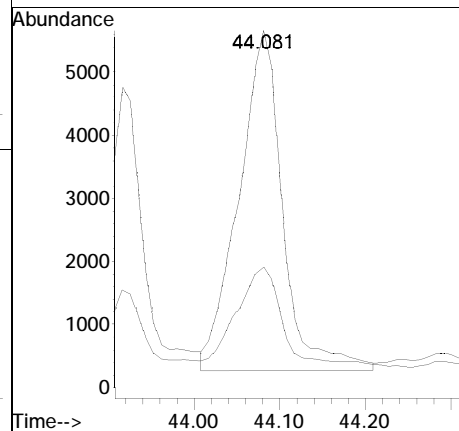
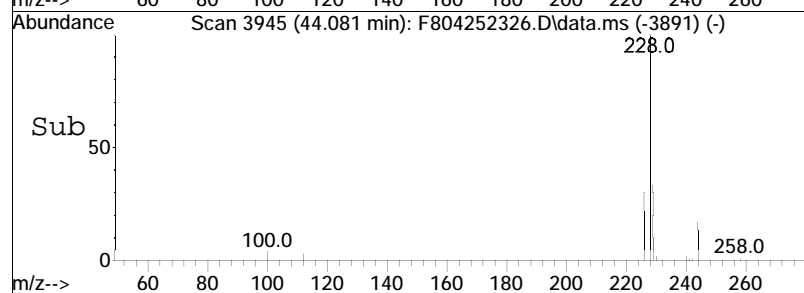
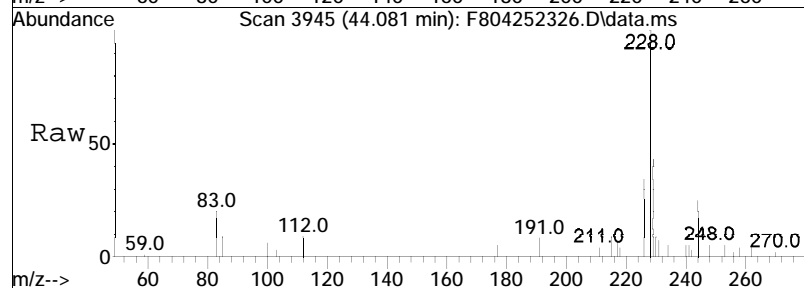
Tgt	Ion	Ratio	Lower	Upper
228	100			
226	29.6	20.4	38.0	

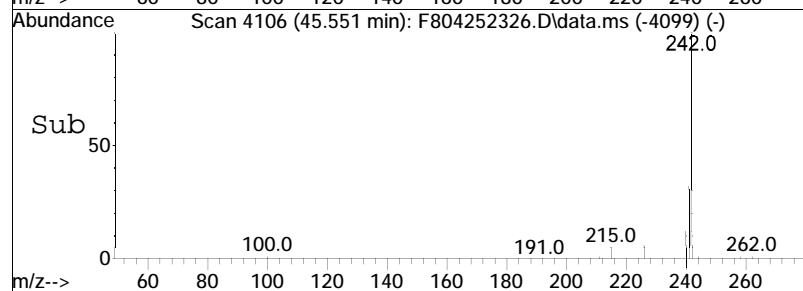
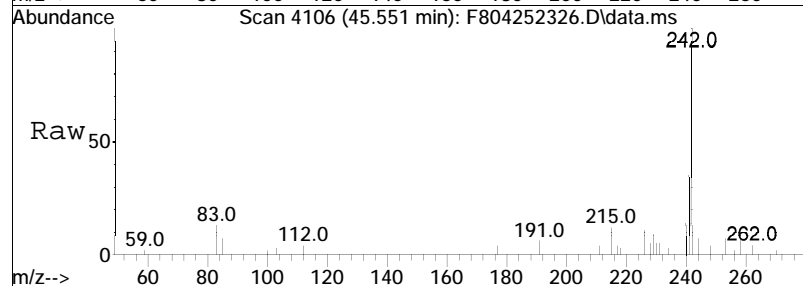
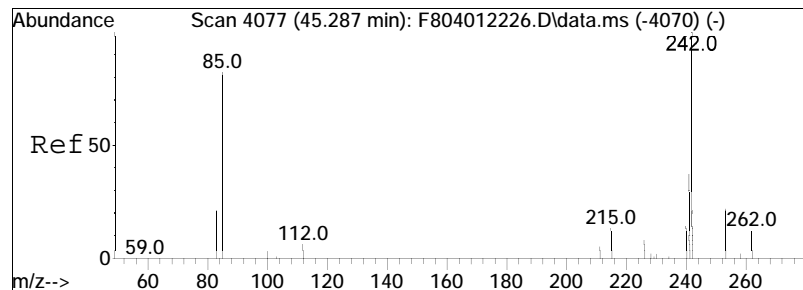




#76
 Chrysene
 Concen: 172.90 ng/mL
 RT: 44.081 min Scan# 3945
 Delta R.T. -0.009 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

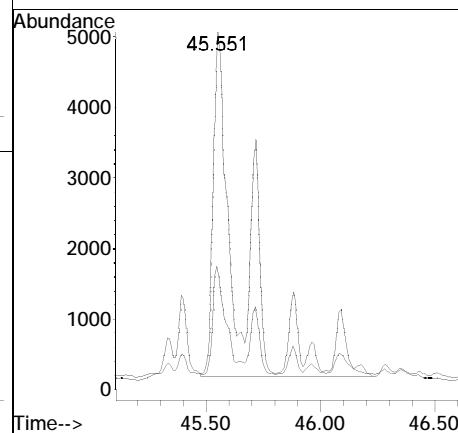
Tgt Ion	Ratio	Lower	Upper
228	100		
226	35.9	22.5	41.7

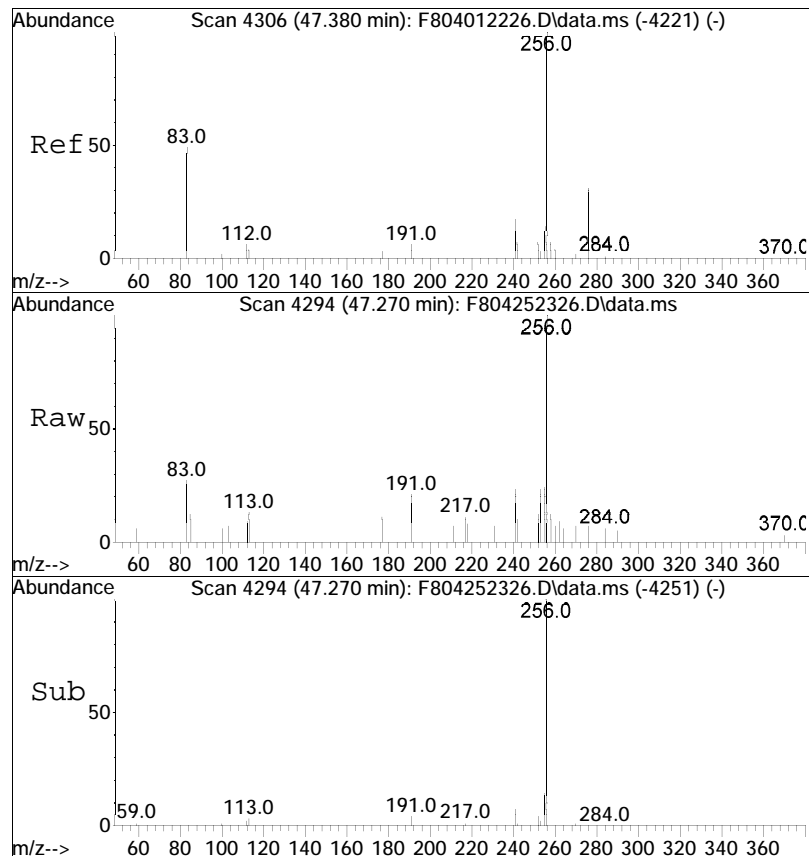




#78
 Cl-Chrysenes
 Concen: 342.90 ng/mL M5
 RT: 45.551 min Scan# 4106
 Delta R.T. -0.011 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

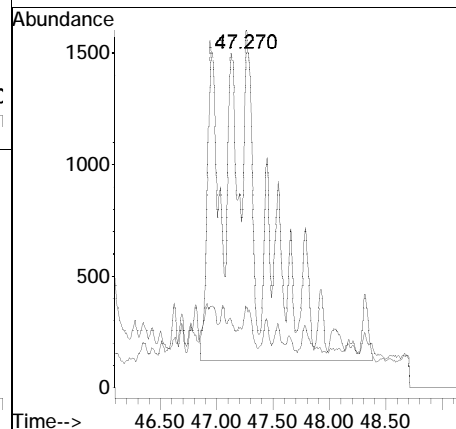
Tgt	Ion	Ratio	Lower	Upper
242	100			
241	2.8	30.8	57.2	

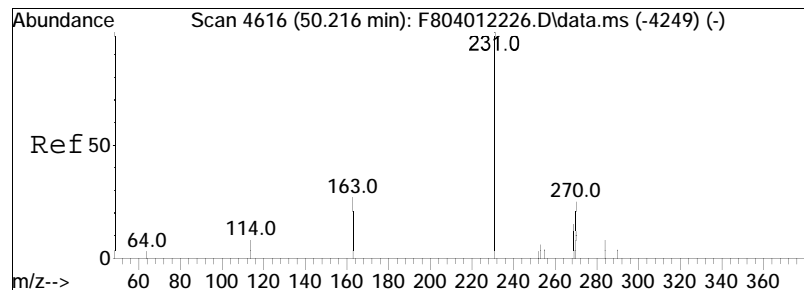




#79
 C2-Chrysenes
 Concen: 362.76 ng/mL M5
 RT: 47.270 min Scan# 4294
 Delta R.T. -0.405 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

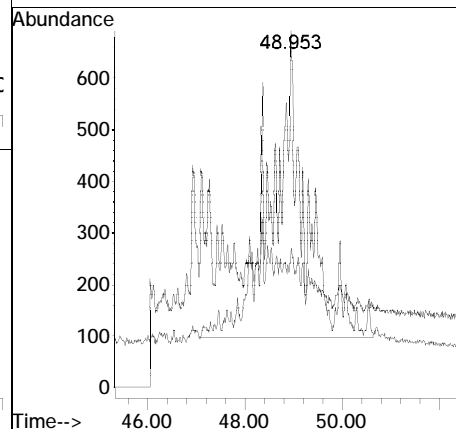
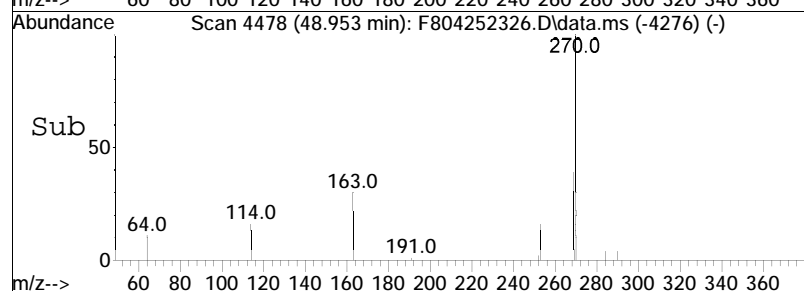
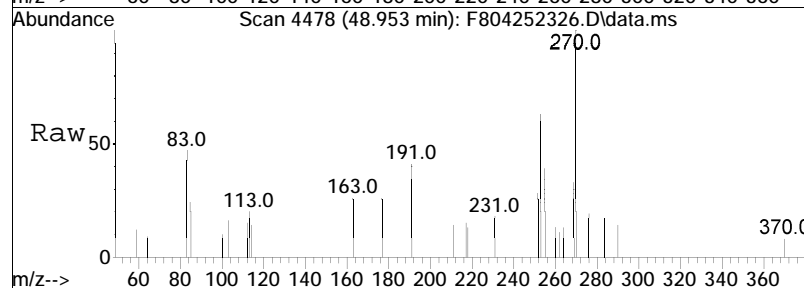
Tgt	Ion	Ratio	Lower	Upper
256	100			
241	0.7	28.3	52.7	

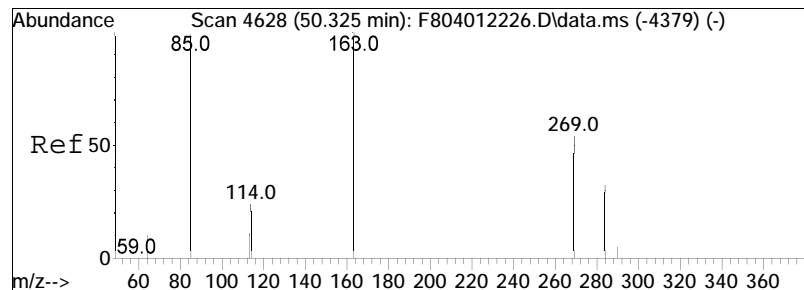




#81
 C3-Chrysenes
 Concen: 252.51 ng/mL M5
 RT: 48.953 min Scan# 4478
 Delta R.T. -1.605 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

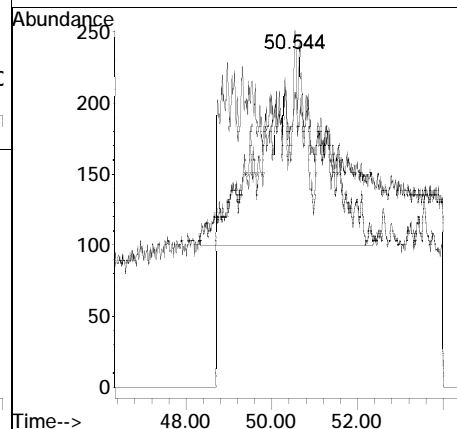
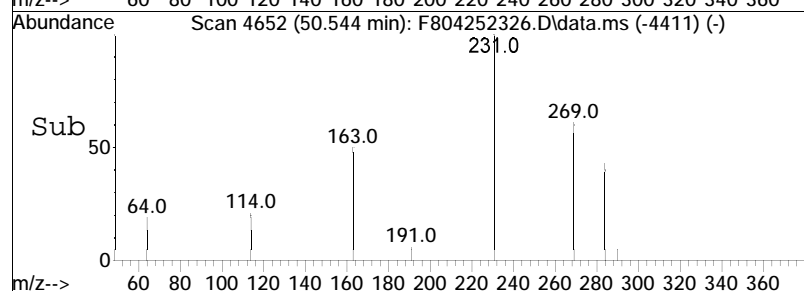
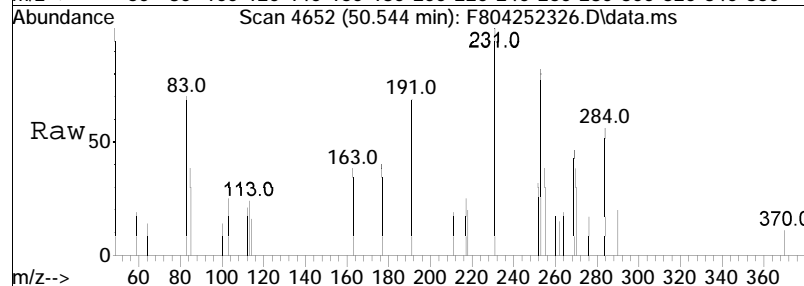
Tgt	Ion	Ratio	Lower	Upper
270	100			
255	1.2	40.9	76.0	

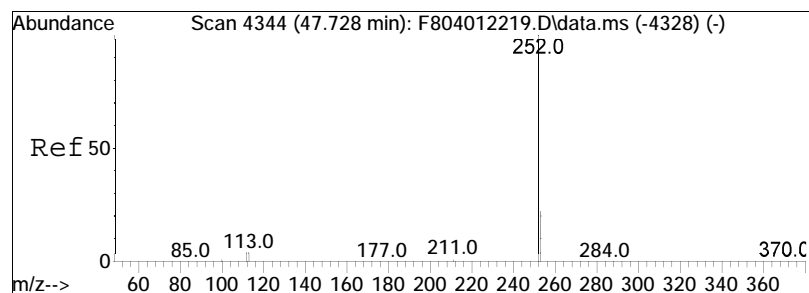




#82
 C4-Chrysenes
 Concen: 112.36 ng/mL M5
 RT: 50.544 min Scan# 4652
 Delta R.T. -0.005 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

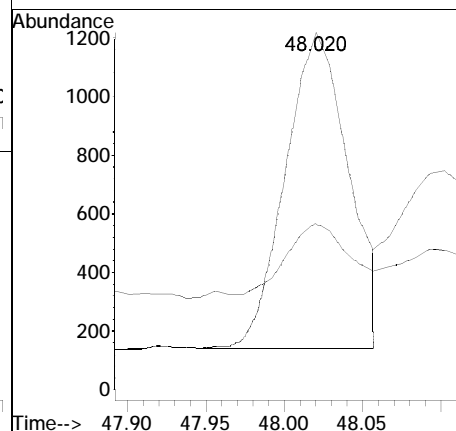
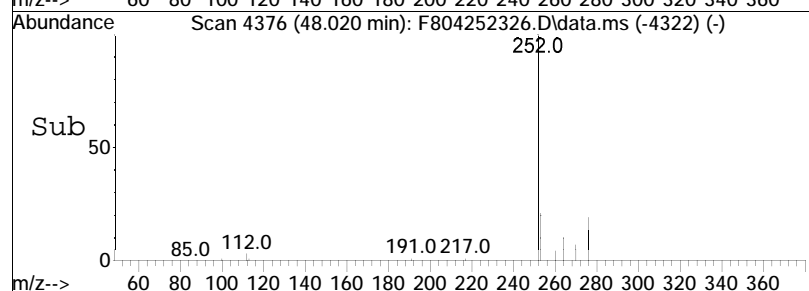
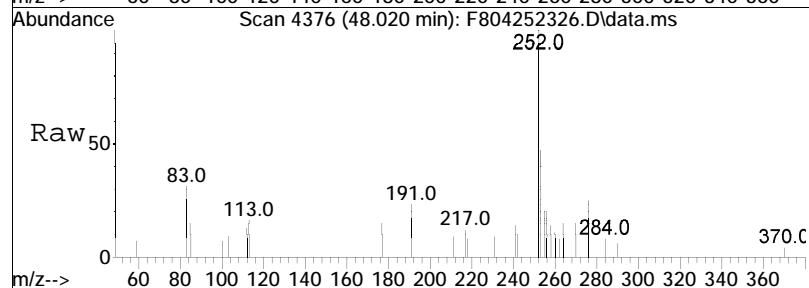
Tgt	Ion	Ratio	Lower	Upper
284	100			
269	0.0	72.7	134.9	

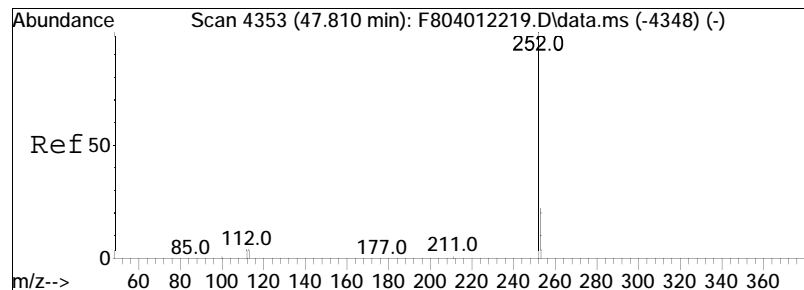




#84
 Benzo[b]fluoranthene
 Concen: 23.67 ng/mL
 RT: 48.020 min Scan# 4376
 Delta R.T. -0.009 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

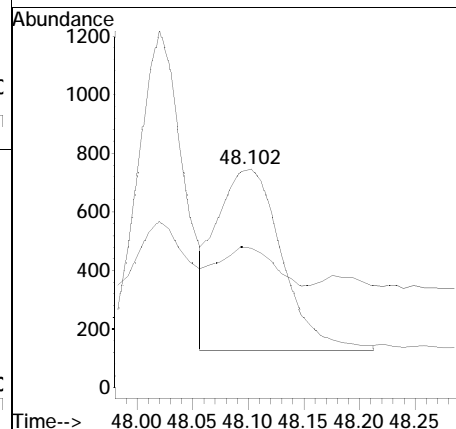
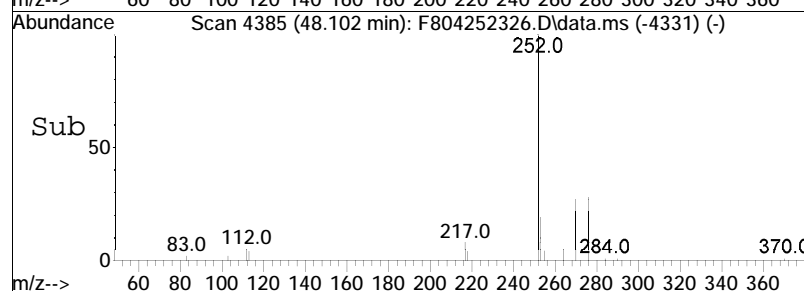
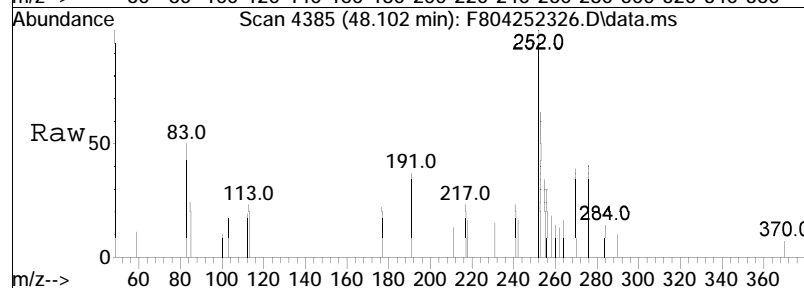
Tgt	Ion	Resp	Lower	Upper
252	100			
253	24.7	17.4	32.2	

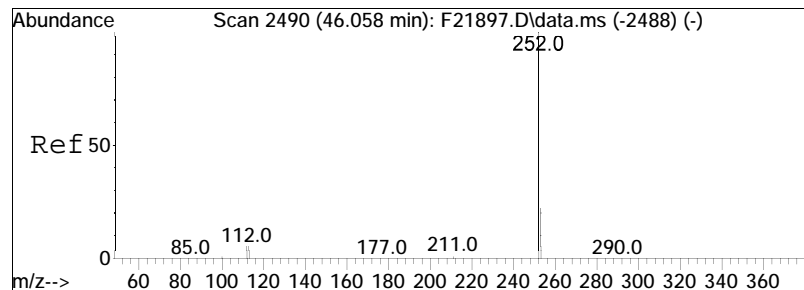




#85
 Benzo[j]+[k]fluoranthene
 Concen: 19.43 ng/mL M1
 RT: 48.102 min Scan# 4385
 Delta R.T. -0.009 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

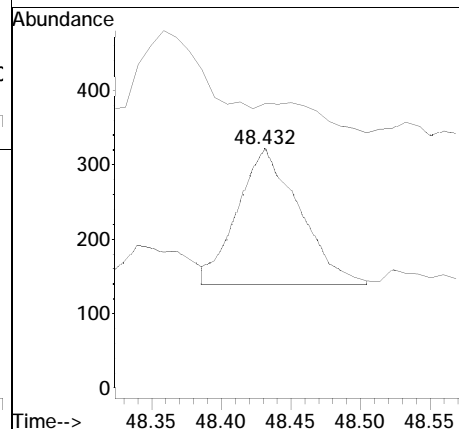
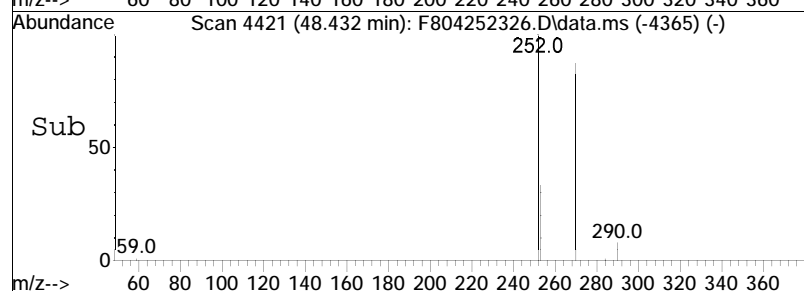
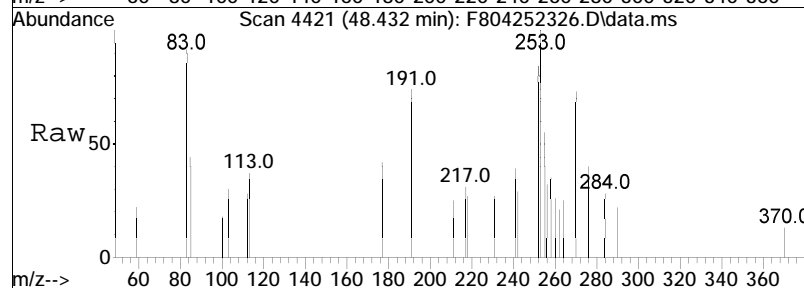
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	17.2	17.2	32.0	

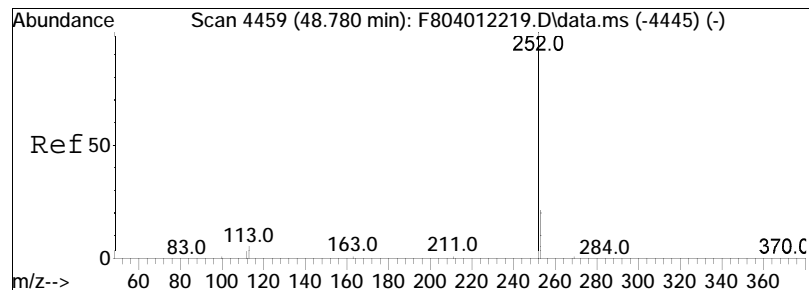




#86
Benzo[a]fluoranthene
Concen: 4.32 ng/mL M3
RT: 48.432 min Scan# 4421
Delta R.T. 0.009 min
Lab File: F804252326.D
Acq: 26 Apr 2023 6:46 pm

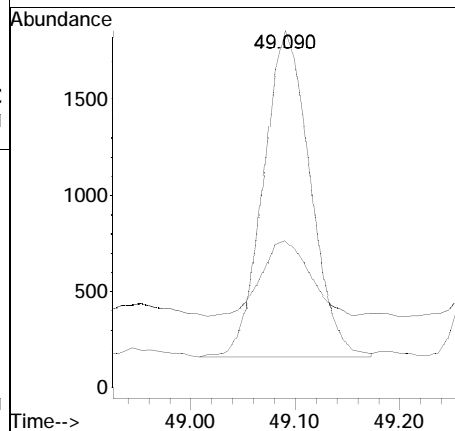
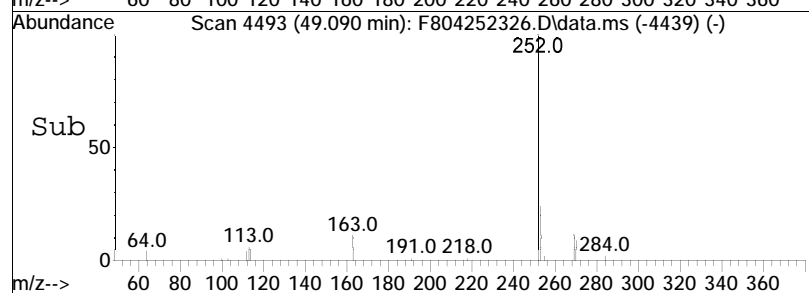
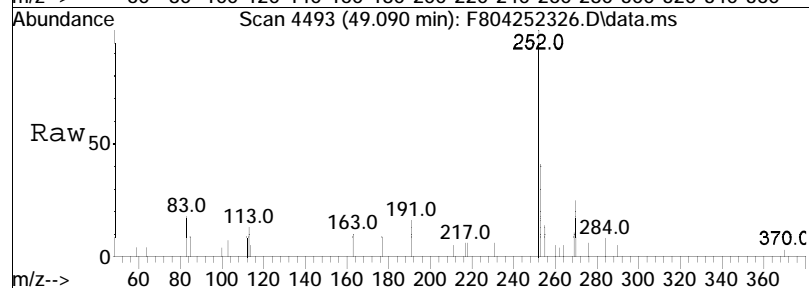
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	98.6	216.7	402.5#	

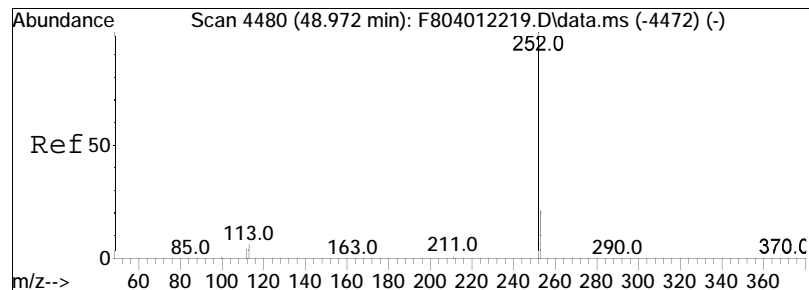




#87
 Benzo[e]pyrene
 Concen: 42.22 ng/mL
 RT: 49.090 min Scan# 4493
 Delta R.T. -0.009 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

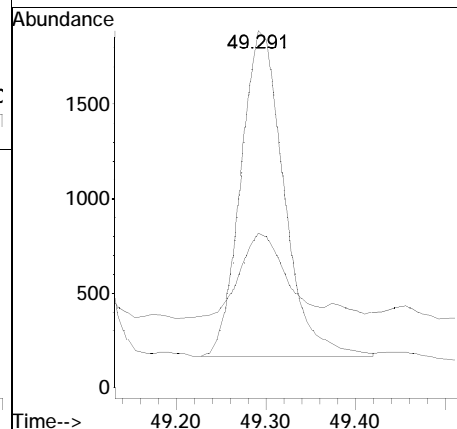
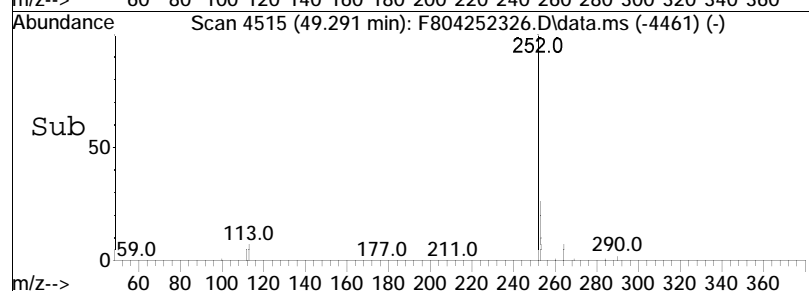
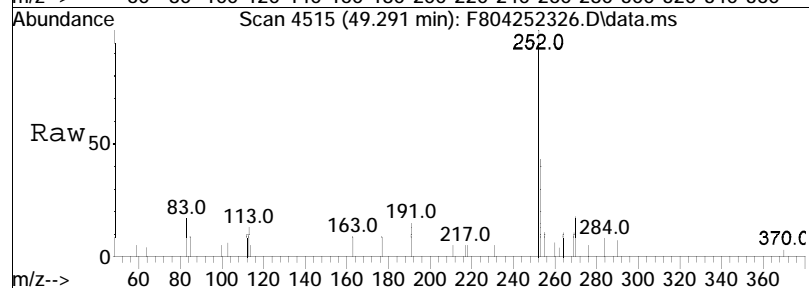
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	24.5	17.6	32.8	

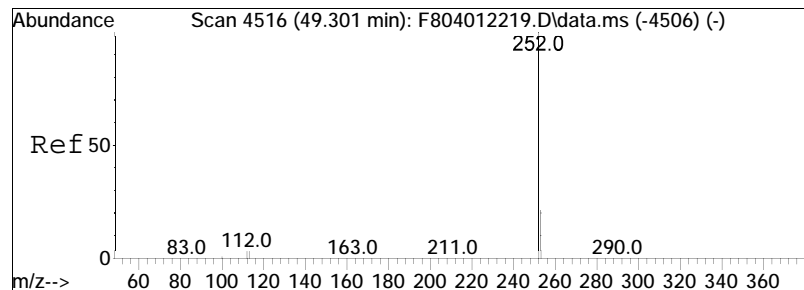




#89
Benzo[a]pyrene
Concen: 48.55 ng/mL
RT: 49.291 min Scan# 4515
Delta R.T. -0.009 min
Lab File: F804252326.D
Acq: 26 Apr 2023 6:46 pm

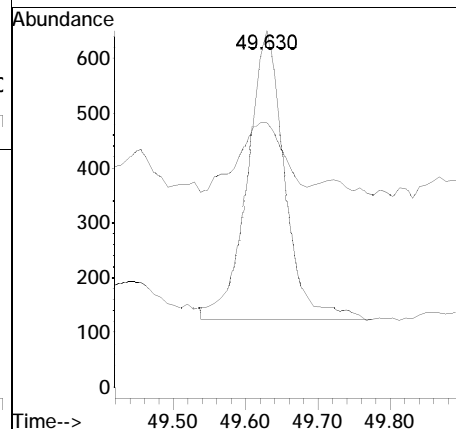
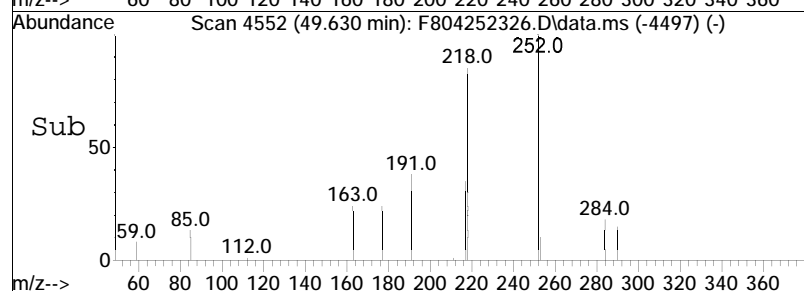
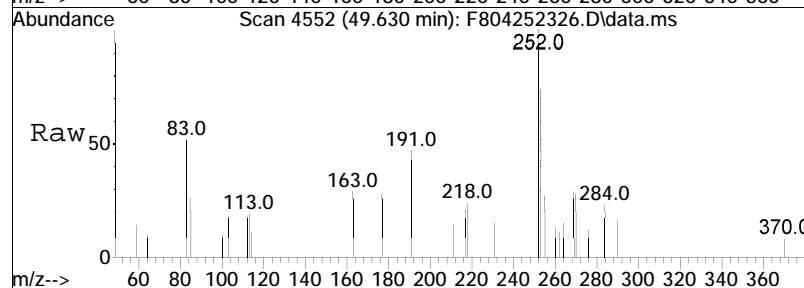
Tgt Ion: 252 Resp: 5767
Ion Ratio Lower Upper
252 100
253 27.3 17.8 33.0

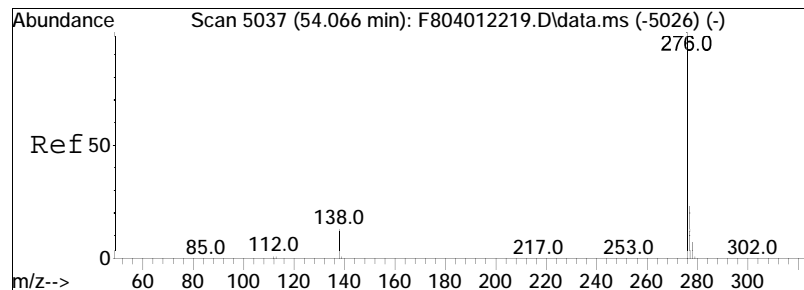




#90
Perylene
Concen: 15.57 ng/mL
RT: 49.630 min Scan# 4552
Delta R.T. -0.000 min
Lab File: F804252326.D
Acq: 26 Apr 2023 6:46 pm

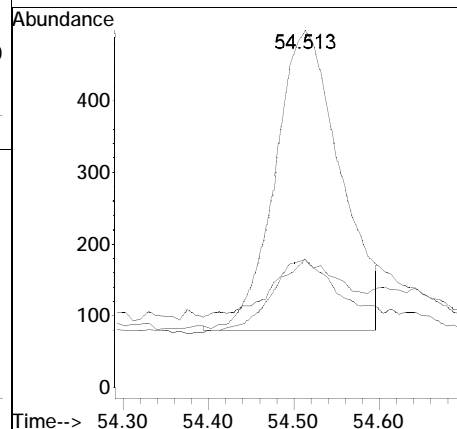
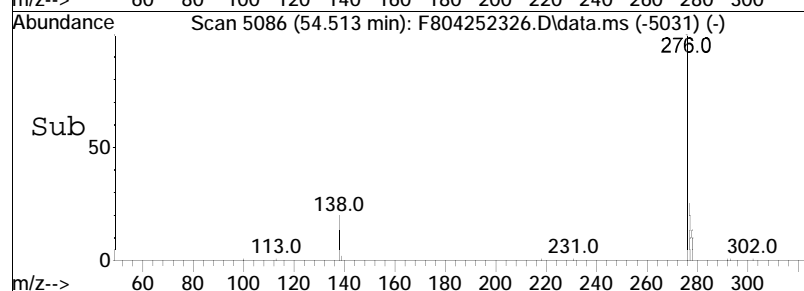
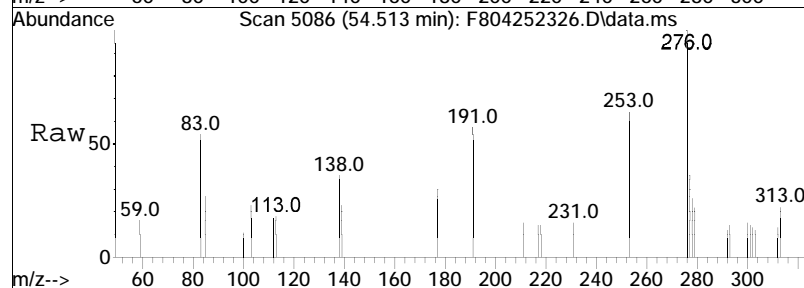
Tgt Ion	Ratio	Lower	Upper
252	100		
253	29.1	18.0	33.4

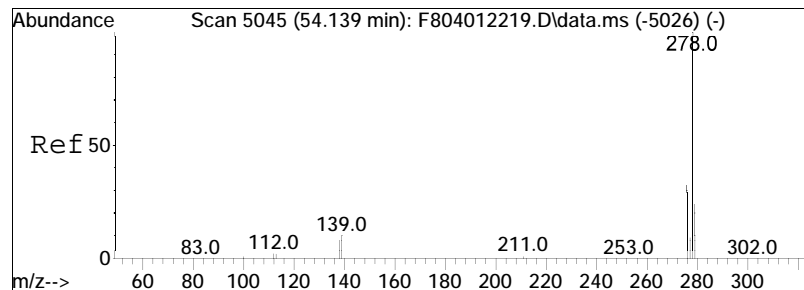




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 15.04 ng/mL M3
 RT: 54.513 min Scan# 5086
 Delta R.T. -0.000 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

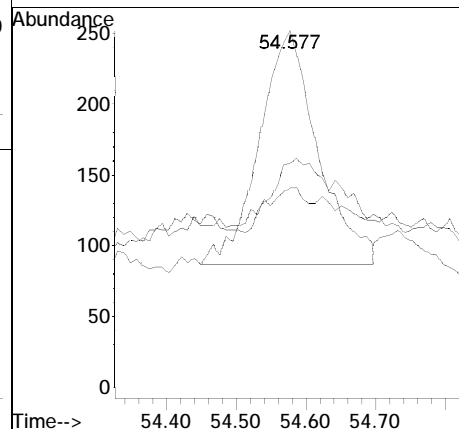
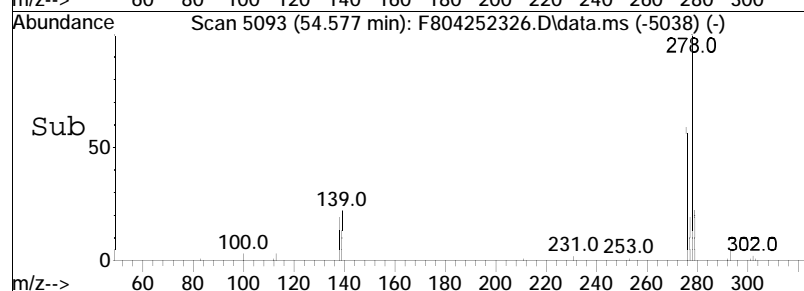
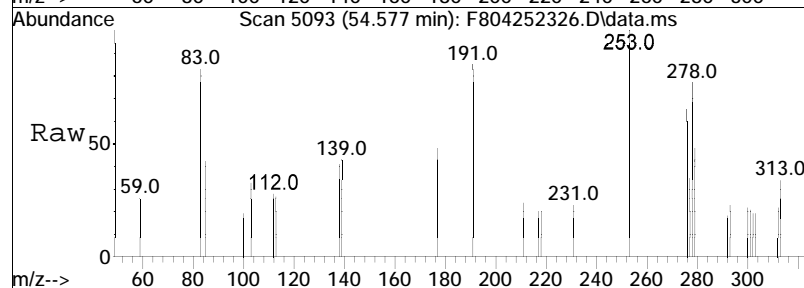
Tgt	Ion	Ratio	Lower	Upper
276	100			
138	11.6	15.8	29.3#	
277	30.5	16.2	30.2#	

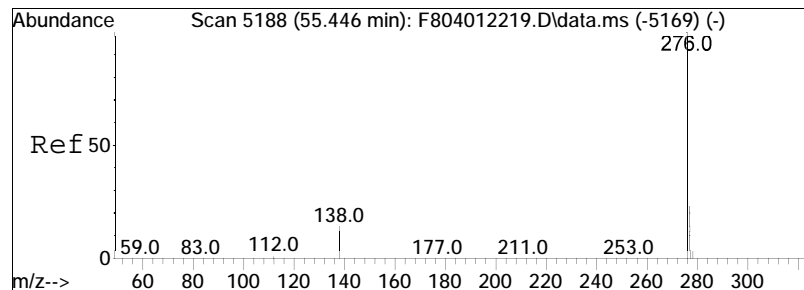




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 8.01 ng/mL
 RT: 54.577 min Scan# 5093
 Delta R.T. -0.000 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

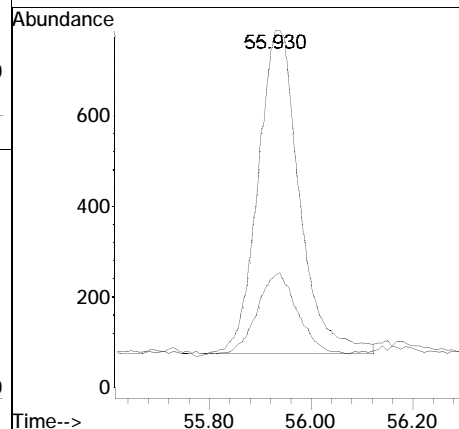
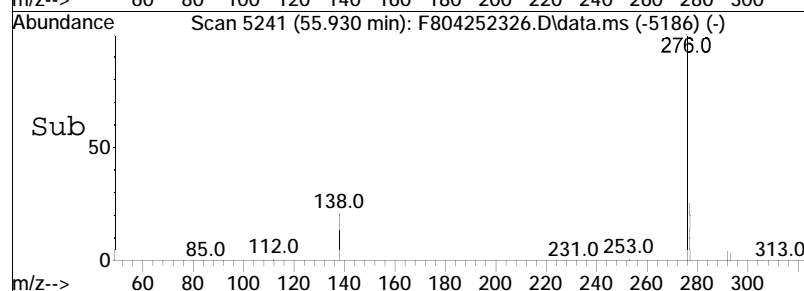
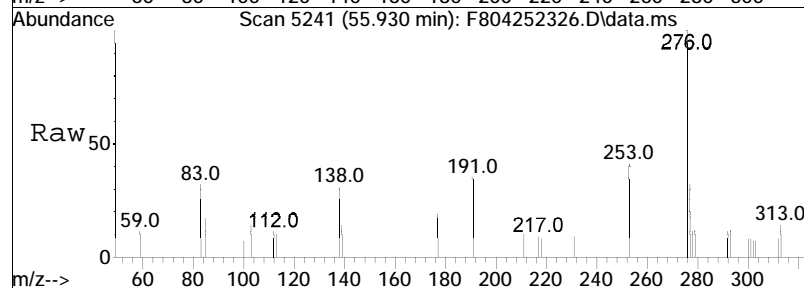
Tgt Ion	Ratio	Lower	Upper
278	100		
139	10.7	15.0	27.8#
279	36.9	16.7	31.1#





#93
 Benzo[g,h,i]perylene
 Concen: 27.78 ng/mL
 RT: 55.930 min Scan# 5241
 Delta R.T. -0.000 min
 Lab File: F804252326.D
 Acq: 26 Apr 2023 6:46 pm

Tgt Ion: 276 Resp: 4024
 Ion Ratio Lower Upper
 276 100
 277 26.9 16.4 30.4



Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012304.D
 Acq On : 1 May 2023 12:07 pm
 Operator : PAH12:MJS
 Sample : WG1773800-7
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 05 10:53:49 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 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	151	-0.05
2 A1	trans-Decalin	0.475	0.395	16.8	123	-0.05
3 t	cis-Decalin	0.380	0.307	19.2	122	-0.05
8 s	Naphthalene-d8	2.102	1.974	6.1	136	-0.05
9 A1	Naphthalene	2.315	2.282	1.4	141	-0.05
14 t	2-Methylnaphthalene	1.421	1.505	-5.9	155	-0.07
15 t	1-Methylnaphthalene	1.344	1.356	-0.9	147	-0.06
16 A1	Benzothiophene	1.864	1.834	1.6	144	-0.05
21 t	Biphenyl	1.767	1.754	0.7	145	-0.06
22 t	2,6-Dimethylnaphthalene	1.165	1.207	-3.6	157	-0.07
23 t	Dibenzofuran	1.665	1.712	-2.8	156	-0.07
24 t	Acenaphthylene	1.997	2.018	-1.1	156	-0.06
25 t	Acenaphthene	1.288	1.374	-6.7	161	-0.06
26 t	2,3,5-Trimethylnaphthalene	1.081	1.059	2.0	154	-0.07
27 A1	Fluorene	1.341	1.485	-10.7	169	-0.08
31 A1	Dibenzothiophene	1.936	1.996	-3.1	159	-0.06
40 s	Phenanthrene-d10	1.445	1.377	4.7	152	-0.06
41 A1	Phenanthrene	2.015	2.159	-7.1	162	-0.06
52 t	Retene	0.511	0.472	7.6	159	-0.05
53 t	Anthracene	1.881	1.957	-4.0	161	-0.07
54 t	Carbazole	1.608	1.901	-18.2	194	-0.07
55 t	1-Methylphenanthrene	1.422	1.428	-0.4	164	-0.06
56 A1	Fluoranthene	2.118	2.191	-3.4	162	-0.06
57 A1	Benzo(b)fluorene	1.010	1.234	-22.2	218#	-0.06
59 A1	Pyrene	2.134	2.168	-1.6	162	-0.06
67 A1	Naphthobenzothiophene-2,1-D	1.874	2.037	-8.7	176	-0.05
74 i	Chrysene-d12	1.000	1.000	0.0	176	-0.06
75 t	Benz[a]anthracene	1.351	1.426	-5.6	186	-0.06
76 A1	Chrysene	1.455	1.521	-4.5	176	-0.06
77 A2	Chrysene/Triphenylene	1.455	1.521	-4.5	176	-0.06
84 s	Benzo[b]fluoranthene-d12	1.018	0.985	3.2	180	-0.05
85 t	Benzo[b]fluoranthene	1.452	1.693	-16.6	193	-0.06
86 A1	Benzo[j]+[k]fluoranthene	1.617	1.777	-9.9	182	-0.05
88 t	Benzo[e]pyrene	1.553	1.626	-4.7	180	-0.06
89 s	Benzo[a]pyrene-d12	0.747	0.706	5.5	197	-0.06
90 t	Benzo[a]pyrene	1.318	1.535	-16.5	199	-0.07
91 t	Perylene	1.374	1.553	-13.0	192	-0.07
92 t	Indeno[1,2,3-cd]pyrene	1.332	1.589	-19.3	215#	-0.09

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012304.D
 Acq On : 1 May 2023 12:07 pm
 Operator : PAH12:MJS
 Sample : WG1773800-7
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 05 10:53:49 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 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	1.160	1.542	-32.9#	252#	-0.11
94 t	Benzo[g,h,i]perylene	1.496	1.728	-15.5	208#	-0.10
95 A1	Hopane (T19)	0.422	0.355	15.9	151	-0.06
129 SA1	5B(H)Cholane - Surr	0.201	0.185	8.0	143	-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	1.08	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.05	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012304.D
 Acq On : 1 May 2023 12:07 pm
 Operator : PAH12:MJS
 Sample : WG1773800-7
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 05 10:53:49 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 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	96475	500.000	ng/mL	-0.05
74) Chrysene-d12	43.588	240	126155M4	500.000	ng/mL	-0.06
System Monitoring Compounds						
8) Naphthalene-d8	20.178	136	190458	469.622	ng/mL	-0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery =	46.96%#		
40) Phenanthrene-d10	33.017	188	132821	476.378	ng/mL	-0.06
Spiked Amount 1000.000	Range 50 - 130		Recovery =	47.64%#		
84) Benzo[b]fluoranthene-d12	47.499	264	124231	483.874	ng/mL	-0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery =	48.39%#		
89) Benzo[a]pyrene-d12	48.716	264	89101	472.651	ng/mL	-0.06
Spiked Amount 1000.000	Range 50 - 130		Recovery =	47.27%#		
129) 5B(H)Cholane - Surr	44.227	217	23322	460.965	ng/ml	-0.04
Spiked Amount 1000.000	Range 50 - 130		Recovery =	46.10%#		
Target Compounds						
					Qvalue	
2) trans-Decalin	16.838	138	19073	207.937	ng/mL	100
3) cis-Decalin	18.052	138	14829	202.498	ng/mL	100
9) Naphthalene	20.251	128	220127	492.702	ng/mL	100
14) 2-Methylnaphthalene	22.943	142	145177	529.426	ng/mL	100
15) 1-Methylnaphthalene	23.372	142	130817	504.358	ng/mL	100
16) Benzothiophene	20.470	134	176935	492.079	ng/mL	100
21) Biphenyl	24.823	154	169239	496.389	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.435	156	116400	517.951	ng/mL	100
23) Dibenzofuran	27.907	168	165129	514.065	ng/mL	99
24) Acenaphthylene	26.539	152	194707	505.227	ng/mL	100
25) Acenaphthene	27.278	153	132589	533.387	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	28.820	170	102138	489.804	ng/mL	99
27) Fluorene	29.285	166	143225	553.490	ng/mL	98
31) Dibenzothiophene	32.606	184	192532	515.499	ng/mL	100
41) Phenanthrene	33.099	178	208248	535.689	ng/mL	99
52) Retene	40.092	234	45526	461.324	ng/mL	99
53) Anthracene	33.281	178	188777	520.088	ng/mL	100
54) Carbazole	33.938	167	183351	591.010	ng/mL	100
55) 1-Methylphenanthrene	35.609	192	137738	502.026	ng/mL	99
56) Fluoranthene	37.873	202	211411	517.259	ng/mL	99
57) Benzo(b)fluorene	40.393	216	119052	611.043	ng/mL	99
59) Pyrene	38.758	202	209120	507.921	ng/mL	100
67) Naphthobenzothiophene-2,1	42.602	234	196526	543.616	ng/mL	99
75) Benz[a]anthracene	43.524	228	179900	527.758	ng/mL	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012304.D
 Acq On : 1 May 2023 12:07 pm
 Operator : PAH12:MJS
 Sample : WG1773800-7
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 05 10:53:49 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.689	228	191920	522.685	ng/mL	100
77) Chrysene/Triphenylene	43.689	228	191920	522.685	ng/mL	100
85) Benzo[b]fluoranthene	47.582	252	213643	582.984	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.673	252	224191	549.535	ng/mL	94
88) Benzo[e]pyrene	48.615	252	205096	523.358	ng/mL	93
90) Benzo[a]pyrene	48.807	252	193646	582.357	ng/mL	92
91) Perylene	49.127	252	195888	565.087	ng/mL	91
92) Indeno[1,2,3-cd]pyrene	53.783	276	200469M3	596.414	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.847	278	194549M4	664.947	ng/mL	
94) Benzo[g,h,i]perylene	55.135	276	218014	577.585	ng/mL	99
95) Hopane (T19)	52.905	191	44771	420.679	ng/mL#	85

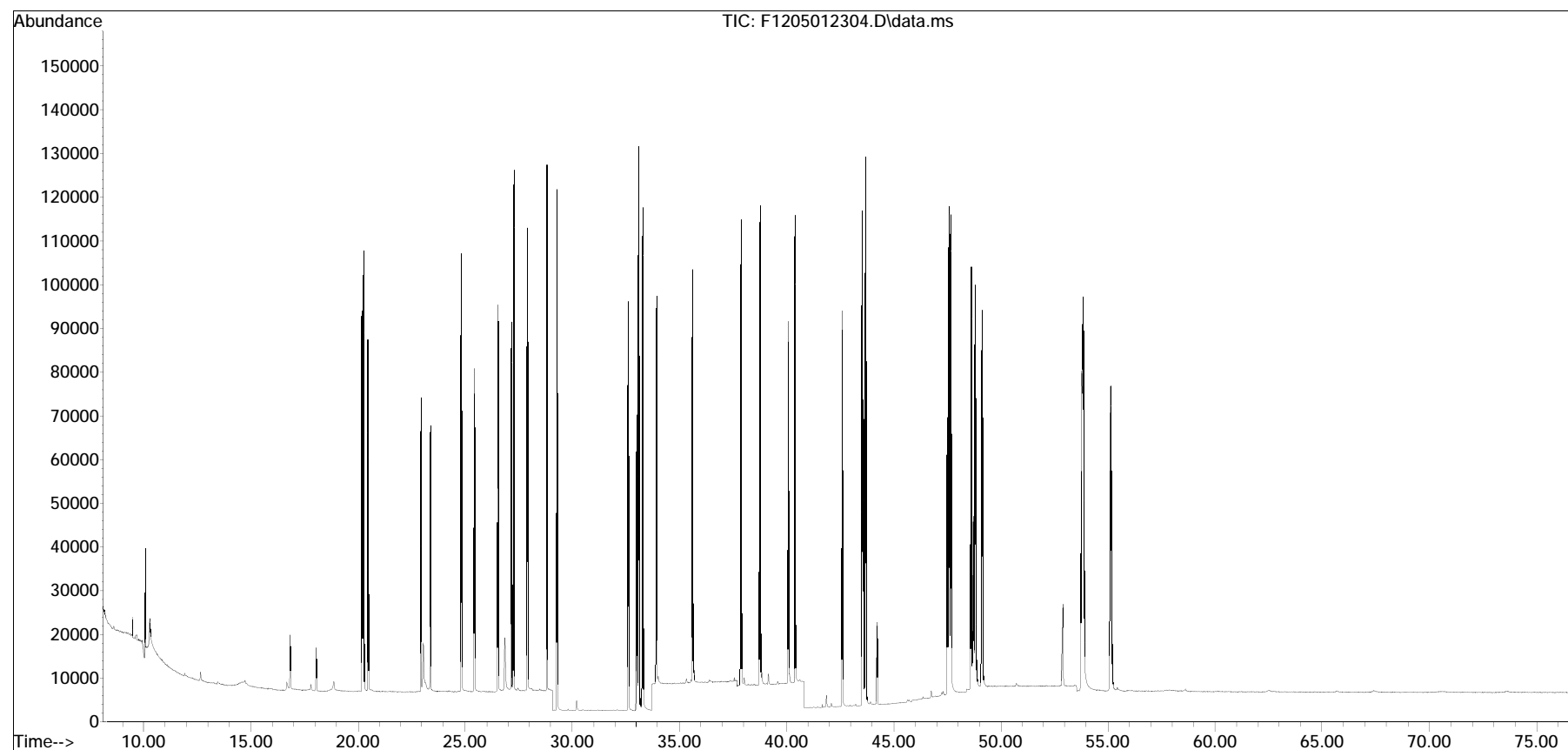
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
Data File : F1205012304.D
Acq On : 1 May 2023 12:07 pm
Operator : PAH12:MJS
Sample : WG1773800-7
Misc : WG1773800,FRBF80,ICAL19969
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 05 10:53:49 2023
Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 27 14:56:04 2023
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012313.D
 Acq On : 2 May 2023 1:47 am
 Operator : PAH12:MJS
 Sample : WG1773800-8
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 02 05:47:59 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 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	135	-0.05
2 A1	trans-Decalin	0.475	0.386	18.7	107	-0.05
3 t	cis-Decalin	0.380	0.302	20.5	107	-0.05
8 s	Naphthalene-d8	2.102	1.993	5.2	123	-0.05
9 A1	Naphthalene	2.315	2.390	-3.2	132	-0.05
14 t	2-Methylnaphthalene	1.421	1.579	-11.1	146	-0.07
15 t	1-Methylnaphthalene	1.344	1.417	-5.4	137	-0.06
16 A1	Benzo[thiophene]	1.864	2.022	-8.5	142	-0.05
21 t	Biphenyl	1.767	1.841	-4.2	136	-0.06
22 t	2,6-Dimethylnaphthalene	1.165	1.275	-9.4	149	-0.07
23 t	Dibenzofuran	1.665	1.847	-10.9	150	-0.07
24 t	Acenaphthylene	1.997	2.188	-9.6	151	-0.06
25 t	Acenaphthene	1.288	1.429	-10.9	150	-0.06
26 t	2,3,5-Trimethylnaphthalene	1.081	1.111	-2.8	145	-0.07
27 A1	Fluorene	1.341	1.571	-17.2	160	-0.08
31 A1	Dibenzothiophene	1.936	2.278	-17.7	162	-0.06
40 s	Phenanthrene-d10	1.445	1.393	3.6	138	-0.06
41 A1	Phenanthrene	2.015	2.318	-15.0	156	-0.06
52 t	Retene	0.511	0.499	2.3	150	-0.05
53 t	Anthracene	1.881	2.169	-15.3	159	-0.07
54 t	Carbazole	1.608	2.096	-30.3#	191	-0.07
55 t	1-Methylphenanthrene	1.422	1.522	-7.0	157	-0.06
56 A1	Fluoranthene	2.118	2.388	-12.7	157	-0.06
57 A1	Benzo(b)fluorene	1.010	1.318	-30.5#	208#	-0.07
59 A1	Pyrene	2.134	2.379	-11.5	159	-0.06
67 A1	Naphthobenzothiophene-2,1-D	1.874	2.276	-21.5	175	-0.05
74 i	Chrysene-d12	1.000	1.000	0.0	159	-0.06
75 t	Benz[a]anthracene	1.351	1.509	-11.7	179	-0.06
76 A1	Chrysene	1.455	1.588	-9.1	167	-0.06
77 A2	Chrysene/Triphenylene	1.455	1.588	-9.1	167	-0.06
84 s	Benzo[b]fluoranthene-d12	1.018	0.958	5.9	159	-0.05
85 t	Benzo[b]fluoranthene	1.452	1.749	-20.5	181	-0.06
86 A1	Benzo[j]+[k]fluoranthene	1.617	1.799	-11.3	167	-0.05
88 t	Benzo[e]pyrene	1.553	1.673	-7.7	168	-0.06
89 s	Benzo[a]pyrene-d12	0.747	0.699	6.4	177	-0.06
90 t	Benzo[a]pyrene	1.318	1.606	-21.9	189	-0.07
91 t	Perylene	1.374	1.619	-17.8	181	-0.07
92 t	Indeno[1,2,3-cd]pyrene	1.332	1.643	-23.3	202#	-0.09

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012313.D
 Acq On : 2 May 2023 1:47 am
 Operator : PAH12:MJS
 Sample : WG1773800-8
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 02 05:47:59 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 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	1.160	1.535	-32.3#	228#	-0.11
94 t	Benzo[g,h,i]perylene	1.496	1.782	-19.1	194	-0.11
95 A1	Hopane (T19)	0.422	0.361	14.5	139	-0.06
129 SA1	5B(H)Cholane - Surr	0.201	0.196	2.5	138	-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	1.04	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.02	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012313.D
 Acq On : 2 May 2023 1:47 am
 Operator : PAH12:MJS
 Sample : WG1773800-8
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 02 05:47:59 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 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	86258	500.000	ng/mL	-0.05
74) Chrysene-d12	43.588	240	114493	500.000	ng/mL	-0.06
System Monitoring Compounds						
8) Naphthalene-d8	20.169	136	171931	474.154	ng/mL	-0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery =	47.42%#		
40) Phenanthrene-d10	33.017	188	120180	482.095	ng/mL	-0.06
Spiked Amount 1000.000	Range 50 - 130		Recovery =	48.21%#		
84) Benzo[b]fluoranthene-d12	47.499	264	109726	470.909	ng/mL	-0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery =	47.09%#		
89) Benzo[a]pyrene-d12	48.716	264	80002	467.611	ng/mL	-0.06
Spiked Amount 1000.000	Range 50 - 130		Recovery =	46.76%#		
129) 5B(H)Cholane - Surr	44.227	217	22449	488.905	ng/ml	-0.04
Spiked Amount 1000.000	Range 50 - 130		Recovery =	48.89%#		
Target Compounds						
					Qvalue	
2) trans-Decalin	16.829	138	16651	203.034	ng/mL	100
3) cis-Decalin	18.052	138	13023	198.901	ng/mL	100
9) Naphthalene	20.251	128	206127	516.013	ng/mL	100
14) 2-Methylnaphthalene	22.943	142	136234	555.659	ng/mL	100
15) 1-Methylnaphthalene	23.372	142	122230	527.070	ng/mL	100
16) Benzothiophene	20.470	134	174449	542.631	ng/mL	100
21) Biphenyl	24.823	154	158765	520.825	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.435	156	109941	547.156	ng/mL	100
23) Dibenzofuran	27.907	168	159353	554.843	ng/mL	96
24) Acenaphthylene	26.539	152	188717	547.686	ng/mL	100
25) Acenaphthene	27.269	153	123297	554.757	ng/mL	98
26) 2,3,5-Trimethylnaphthalen	28.820	170	95865	514.175	ng/mL	100
27) Fluorene	29.285	166	135512	585.712	ng/mL	99
31) Dibenzothiophene	32.606	184	196528	588.525	ng/mL	99
41) Phenanthrene	33.099	178	199941	575.241	ng/mL	99
52) Retene	40.082	234	43030	487.679	ng/mL	98
53) Anthracene	33.281	178	187054	576.381	ng/mL	99
54) Carbazole	33.938	167	180832	651.932	ng/mL	98
55) 1-Methylphenanthrene	35.609	192	131283	535.176	ng/mL	98
56) Fluoranthene	37.873	202	205952	563.589	ng/mL	97
57) Benzo(b)fluorene	40.384	216	113672	652.535	ng/mL	98
59) Pyrene	38.758	202	205211	557.463	ng/mL	97
67) Naphthobenzothiophene-2,1	42.602	234	196339	607.427	ng/mL	98
75) Benz[a]anthracene	43.524	228	172724	558.319	ng/mL	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012313.D
 Acq On : 2 May 2023 1:47 am
 Operator : PAH12:MJS
 Sample : WG1773800-8
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 02 05:47:59 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.689	228	181812	545.592	ng/mL	100
77) Chrysene/Triphenylene	43.689	228	181812	545.592	ng/mL	100
85) Benzo[b]fluoranthene	47.582	252	200253	602.106	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.673	252	205985	556.338	ng/mL	94
88) Benzo[e]pyrene	48.615	252	191543	538.559	ng/mL	94
90) Benzo[a]pyrene	48.807	252	183875	609.297	ng/mL	91
91) Perylene	49.127	252	185377	589.235	ng/mL	92
92) Indeno[1,2,3-cd]pyrene	53.783	276	188139M3	616.744	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.846	278	175709M4	661.725	ng/mL	
94) Benzo[g,h,i]perylene	55.126	276	204020	595.566	ng/mL	98
95) Hopane (T19)	52.905	191	41380	428.421	ng/mL#	86

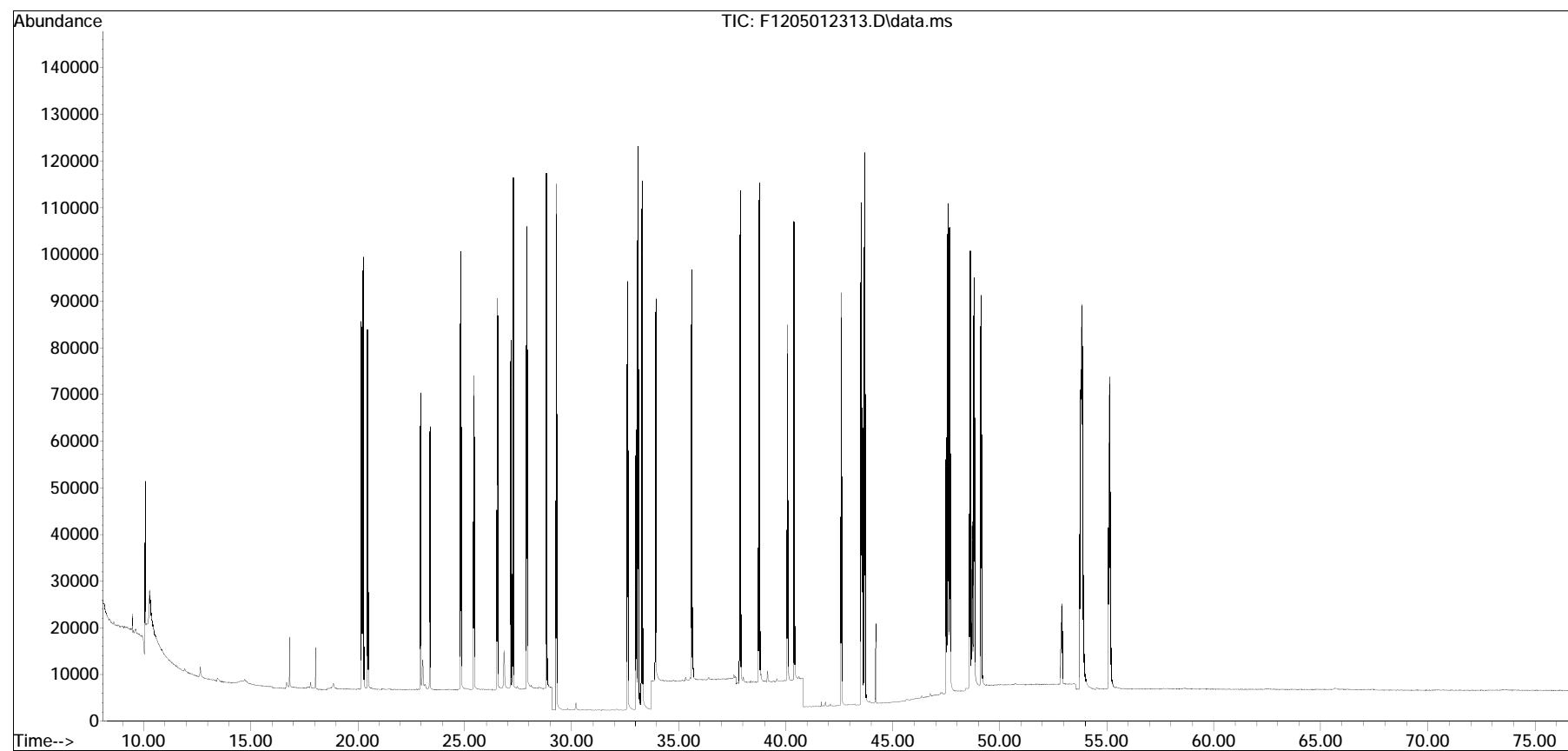
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
Data File : F1205012313.D
Acq On : 2 May 2023 1:47 am
Operator : PAH12:MJS
Sample : WG1773800-8
Misc : WG1773800,FRBF80,ICAL19969
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 02 05:47:59 2023
Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 27 14:56:04 2023
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\2023\MAY23\MAY01\
 Data File : F1205012311.D
 Acq On : 1 May 2023 10:58 pm
 Operator : PAH12:MJS
 Sample : 12320537-02,32,,
 Misc : WG1773800,WG1770361,ICAL19969
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 05 12:01:59 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	0.000	164	0M4	500.000	ng/mL	-27.20
74) Chrysene-d12	43.616	240	129512	500.000	ng/mL	-0.04
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	47.508	264	13104	49.716	ng/mL	-0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery =	4.97%#		
89) Benzo[a]pyrene-d12	48.725	264	11268	58.224	ng/mL	-0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery =	5.82%#		
Target Compounds						Qvalue
2) trans-Decalin	0.000		0	N.D.	d	
3) cis-Decalin	0.000		0	N.D.	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	0.000		0	N.D.	d	
10) C1-Naphthalenes	0.000		0	N.D.	d	
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	0.000		0	N.D.	d	
15) 1-Methylnaphthalene	0.000		0	N.D.	d	
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.	d	
19) C3-Benzo(b)thiophenes	0.000		0	N.D.	d	
21) Biphenyl	0.000		0	N.D.	d	
22) 2,6-Dimethylnaphthalene	0.000		0	N.D.	d	
23) Dibenzofuran	0.000		0	N.D.	d	
24) Acenaphthylene	0.000		0	N.D.	d	
25) Acenaphthene	0.000		0	N.D.	d	
26) 2,3,5-Trimethylnaphthalen	0.000		0	N.D.	d	
27) Fluorene	0.000		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012311.D
 Acq On : 1 May 2023 10:58 pm
 Operator : PAH12:MJS
 Sample : 12320537-02,32,,
 Misc : WG1773800,WG1770361,ICAL19969
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 05 12:01:59 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

28) C1-Fluorenes	0.000		0	N.D.	d	
29) C2-Fluorenes	0.000		0	N.D.	d	
30) C3-Fluorenes	0.000		0	N.D.	d	
31) Dibenzo(1,2,3-cd)pyrene	0.000		0	N.D.	d	
36) C1-Dibenzothiophenes	0.000		0	N.D.	d	
36) C1-Dibenzothiophenes BS	0.000		0d	-1.000	ng/mL	
37) C2-Dibenzothiophenes	0.000		0	N.D.	d	
38) C3-Dibenzothiophenes	0.000		0	N.D.	d	
39) C4-Dibenzothiophenes	0.000		0	N.D.	d	
41) Phenanthrene	0.000		0	N.D.	d	
47) C1-Phenanthrenes/Anthracene	0.000		0	N.D.	d	
48) C2-Phenanthrenes/Anthracene	0.000		0	N.D.	d	
48) C2-Phenanthrenes/Anthr BS	0.000		0d	-1.000	ng/mL	
50) C3-Phenanthrenes/Anthracene	0.000		0	N.D.	d	
51) C4-Phenanthrenes/Anthracene	0.000		0	N.D.	d	
52) Retene	0.000		0	N.D.	d	
53) Anthracene	0.000		0	N.D.	d	
54) Carbazole	0.000		0	N.D.	d	
55) 1-Methylphenanthrene	0.000		0	N.D.	d	
56) Fluoranthene	0.000		0	N.D.	d	
57) Benzo(b)fluorene	0.000		0	N.D.	d	
59) Pyrene	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.	d	
65) C3-Fluoranthenes/Pyrenes	0.000		0	N.D.	d	
66) C4-Fluoranthenes/Pyrenes	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	43.552	228	139641M4	399.035	ng/mL	
76) Chrysene	43.716	228	224195	594.758	ng/mL	95
78) C1-Chrysenes	45.177	242	512789M5	1360.357	ng/mL	
79) C2-Chrysenes	46.868	256	604702M5	1604.189	ng/mL	
79) C2-Chrysenes BS	46.868	256	599462M5	1590.288	ng/mL	
81) C3-Chrysenes	48.496	270	412742M5	1094.947	ng/mL	
82) C4-Chrysenes	50.124	284	187479M5	497.355	ng/mL	
85) Benzo[b]fluoranthene	47.591	252	39562	105.158	ng/mL	99
86) Benzo[j]+[k]fluoranthene	47.664	252	29074	69.419	ng/mL	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012311.D
 Acq On : 1 May 2023 10:58 pm
 Operator : PAH12:MJS
 Sample : 12320537-02,32,,
 Misc : WG1773800,WG1770361,ICAL19969
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 05 12:01:59 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) Benzo[a]fluoranthene	47.984	252	7975M3	19.042	ng/mL	
88) Benzo[e]pyrene	48.624	252	78081	194.080	ng/mL	97
90) Benzo[a]pyrene	48.816	252	81536	238.850	ng/mL	97
91) Perylene	49.137	252	24831	69.774	ng/mL	87
92) Indeno[1,2,3-cd]pyrene	53.783	276	23808M3	68.995	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.837	278	8502M4	28.306	ng/mL	
94) Benzo[g,h,i]perylene	55.135	276	49171	126.892	ng/mL	95

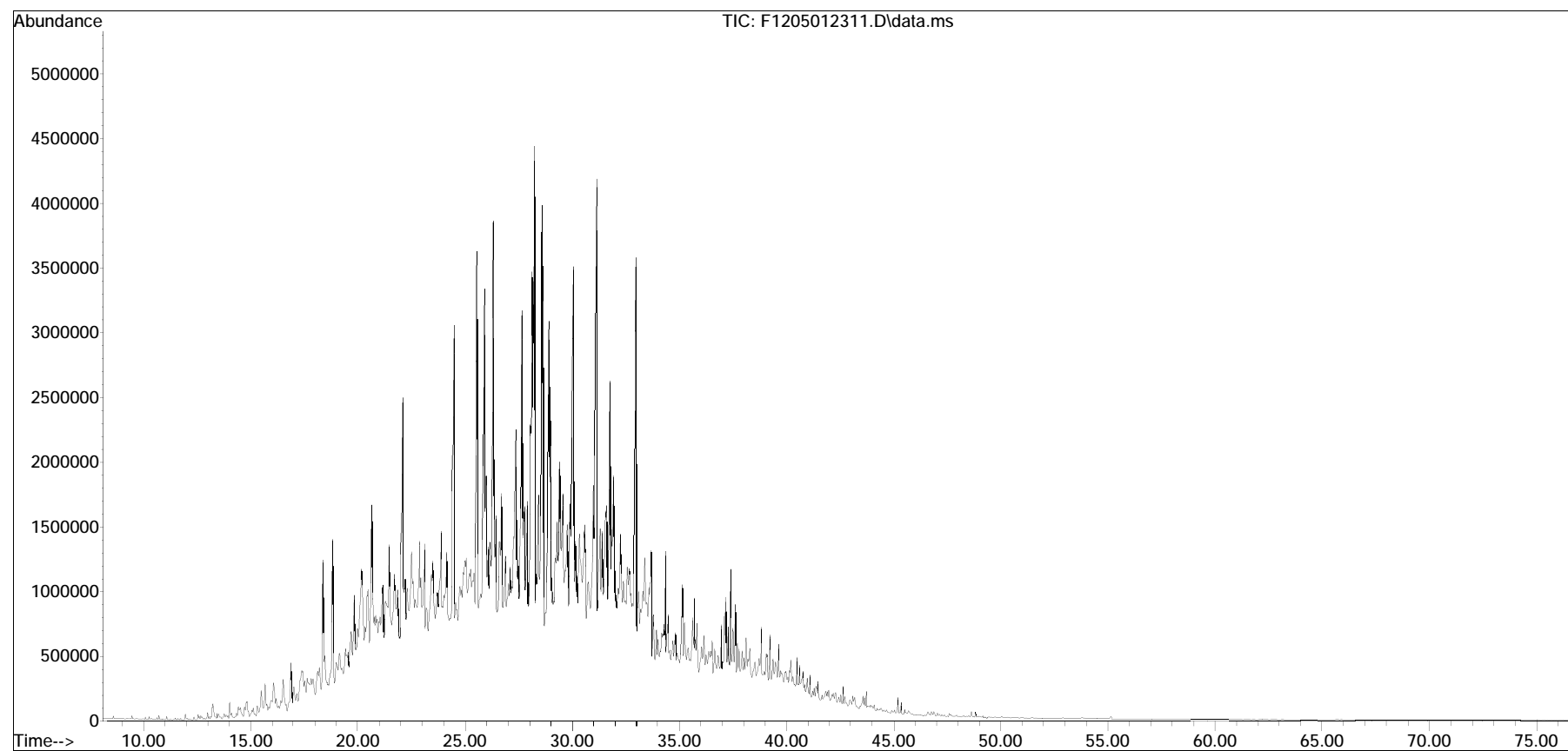
(#) = qualifier out of range (m) = manual integration (+) = signals summed

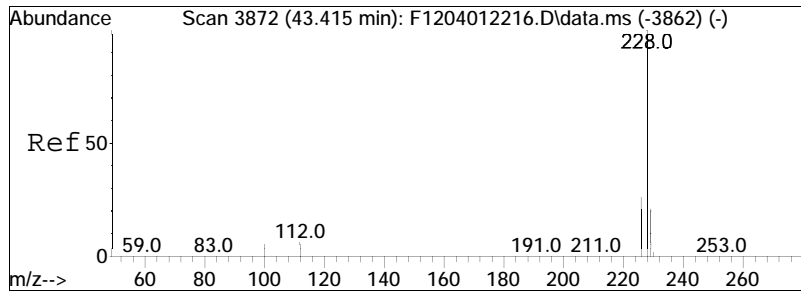
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
Data File : F1205012311.D
Acq On : 1 May 2023 10:58 pm
Operator : PAH12:MJS
Sample : 12320537-02,32,,
Misc : WG1773800,WG1770361,ICAL19969
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 05 12:01:59 2023
Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 27 14:56:04 2023
Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF





#75

Benz[a]anthracene

Concen: 399.04 ng/mL M4

RT: 43.552 min Scan# 3887

Delta R.T. -0.036 min

Lab File: F1205012311.D

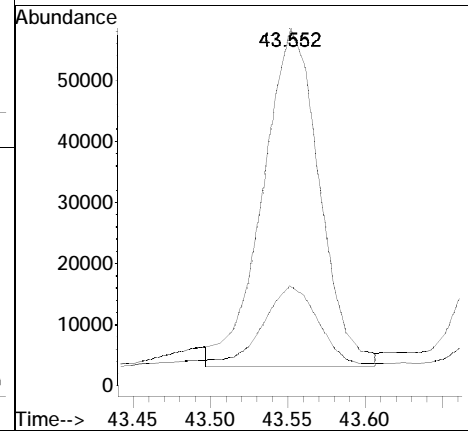
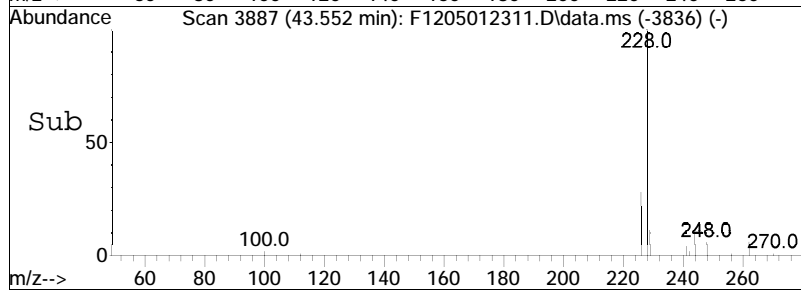
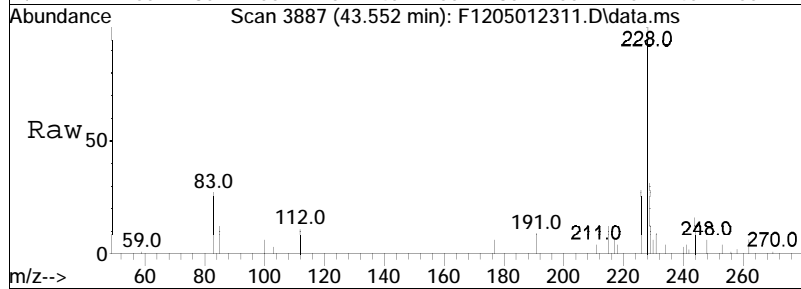
Acq: 1 May 2023 10:58 pm

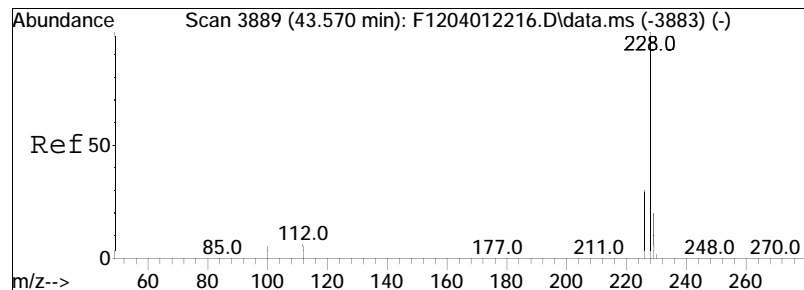
Tgt Ion: 228 Resp: 139641

Ion Ratio Lower Upper

228 100

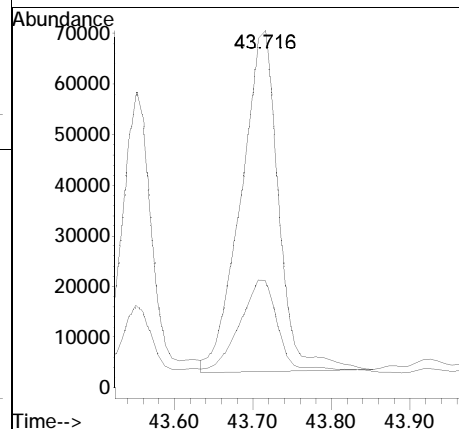
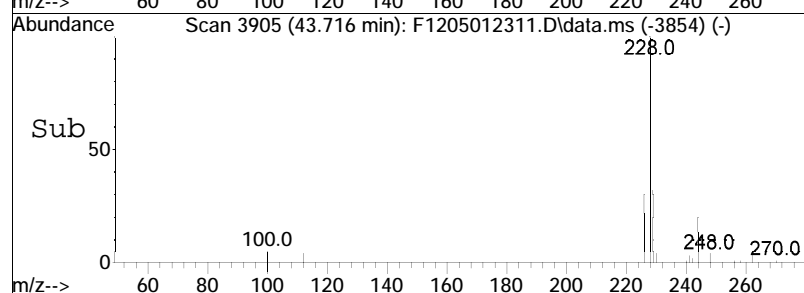
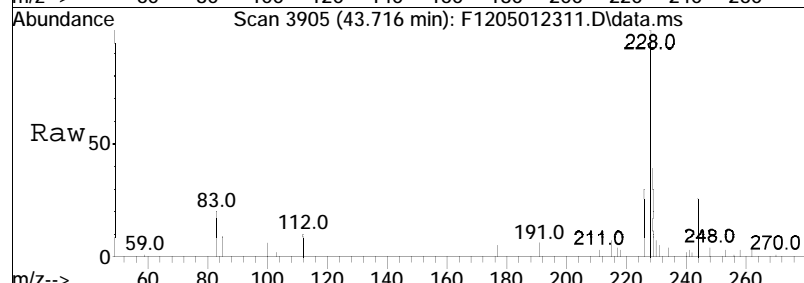
226 33.9 17.7 32.9#

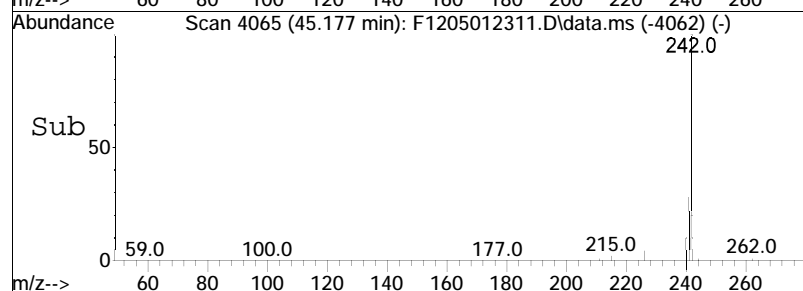
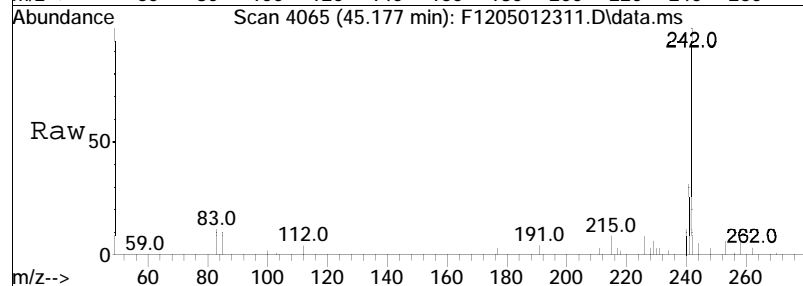
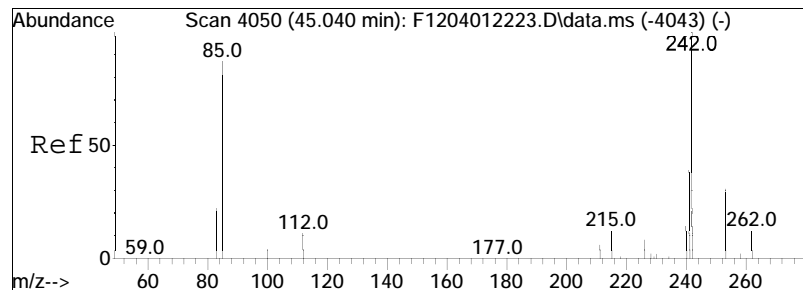




#76
 Chrysene
 Concen: 594.76 ng/mL
 RT: 43.716 min Scan# 3905
 Delta R.T. -0.037 min
 Lab File: F1205012311.D
 Acq: 1 May 2023 10:58 pm

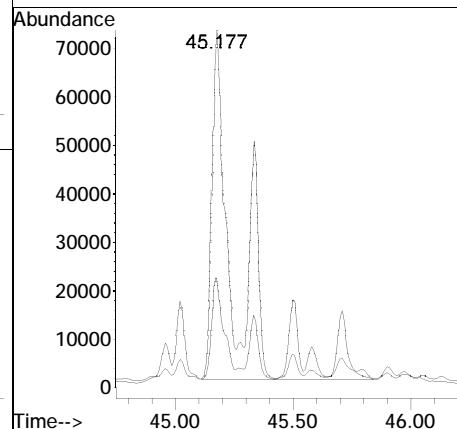
Tgt Ion: 228 Resp: 224195
 Ion Ratio Lower Upper
 228 100
 226 25.2 19.3 35.9

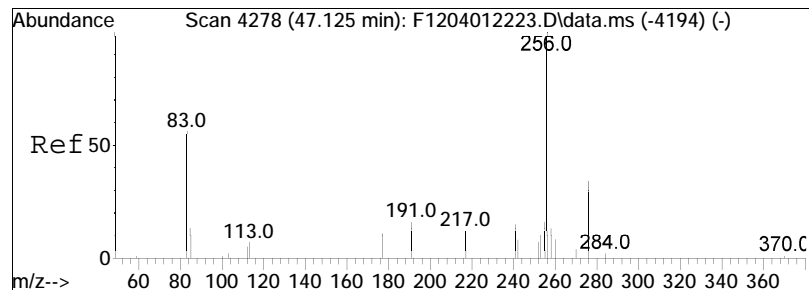




#78
 Cl-Chrysenes
 Concen: 1360.36 ng/mL M5
 RT: 45.177 min Scan# 4065
 Delta R.T. -0.046 min
 Lab File: F1205012311.D
 Acq: 1 May 2023 10:58 pm

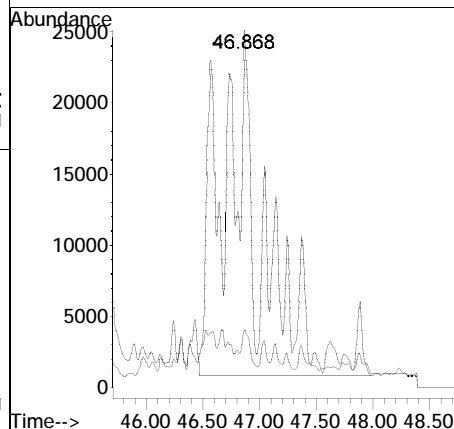
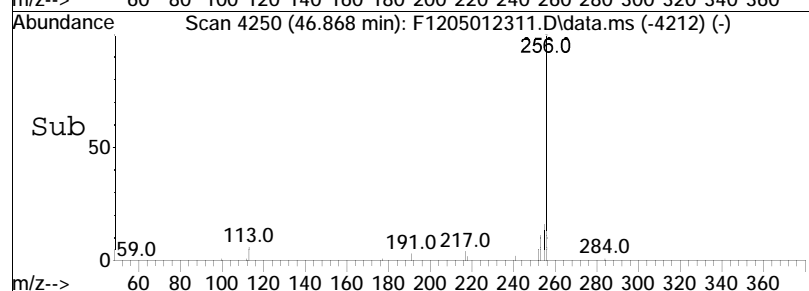
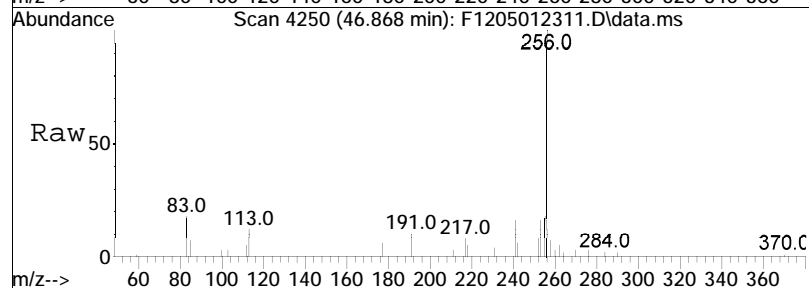
Tgt Ion	Ratio	Lower	Upper
242	100		
241	13.1	28.6	53.0#

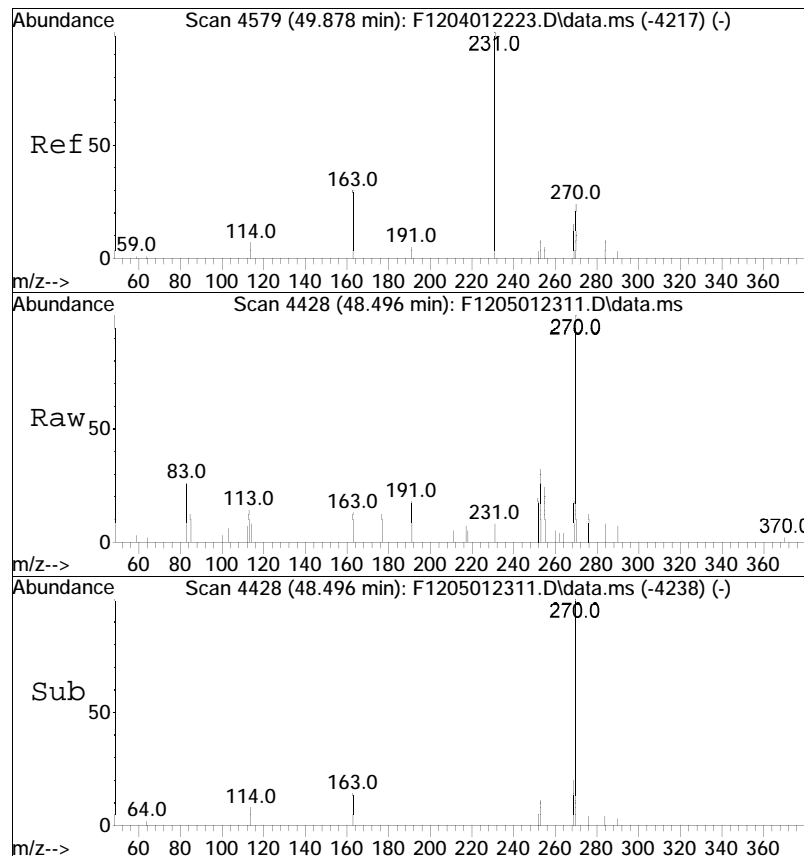




#79
 C2-Chrysenes
 Concen: 1604.19 ng/mL M5
 RT: 46.868 min Scan# 4250
 Delta R.T. -0.439 min
 Lab File: F1205012311.D
 Acq: 1 May 2023 10:58 pm

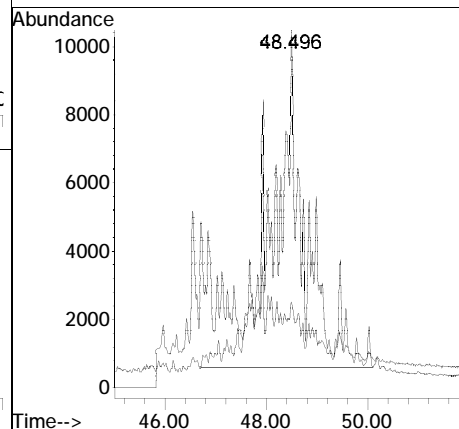
Tgt	Ion	Ratio	Lower	Upper
256	100			
241	0.2	21.3	39.5	

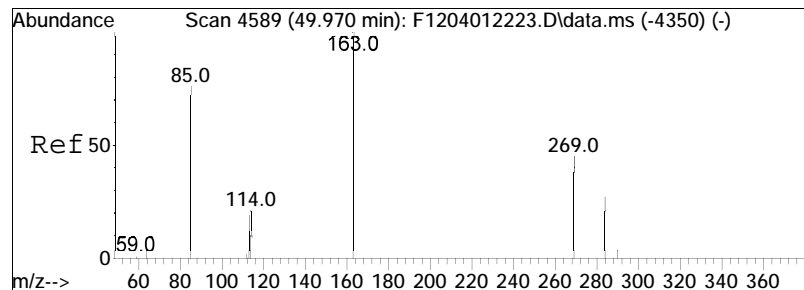




#81
 C3-Chrysenes
 Concen: 1094.95 ng/mL M5
 RT: 48.496 min Scan# 4428
 Delta R.T. -1.608 min
 Lab File: F1205012311.D
 Acq: 1 May 2023 10:58 pm

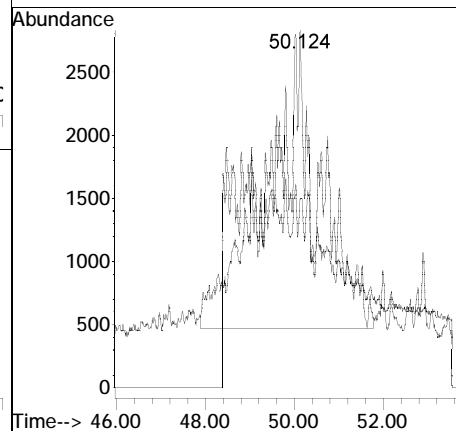
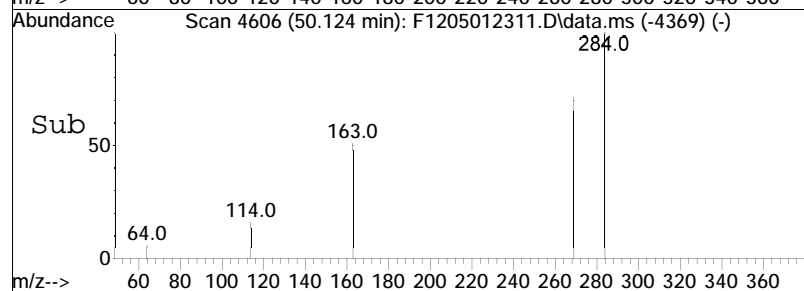
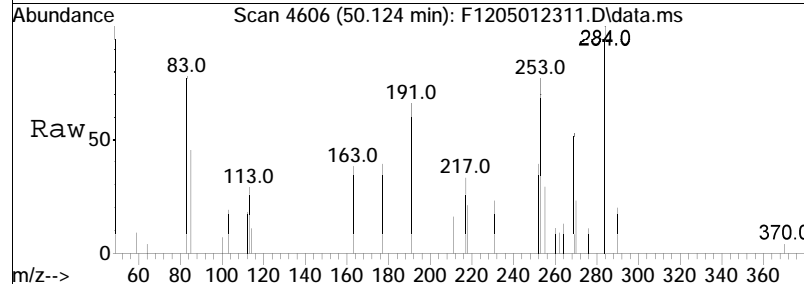
Tgt	Ion	Ratio	Lower	Upper
270	100			
255	0.3	29.3	54.3#	

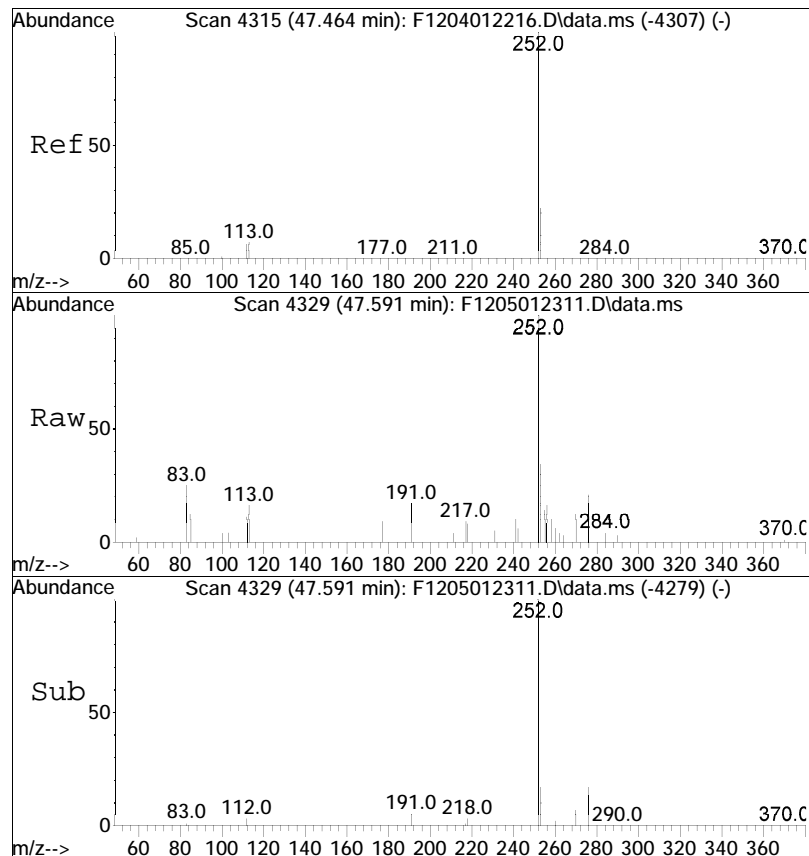




#82
 C4-Chrysenes
 Concen: 497.36 ng/mL M5
 RT: 50.124 min Scan# 4606
 Delta R.T. 0.011 min
 Lab File: F1205012311.D
 Acq: 1 May 2023 10:58 pm

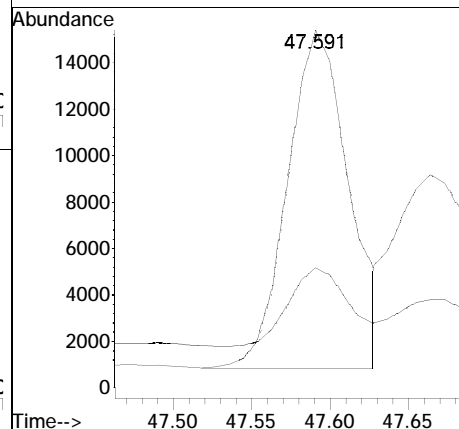
Tgt	Ion	Ratio	Lower	Upper
284	100			
269	0.0	57.5	106.7#	

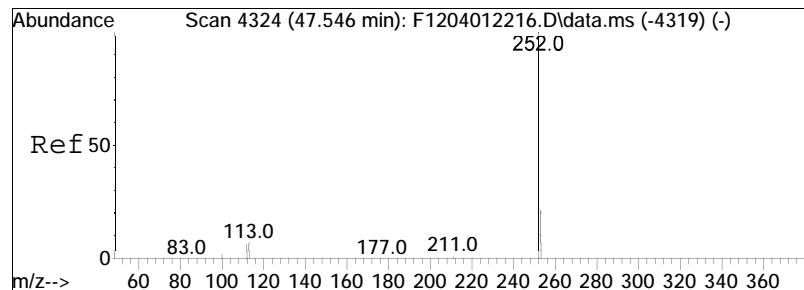




#85
 Benzo[b]fluoranthene
 Concen: 105.16 ng/mL
 RT: 47.591 min Scan# 4329
 Delta R.T. -0.046 min
 Lab File: F1205012311.D
 Acq: 1 May 2023 10:58 pm

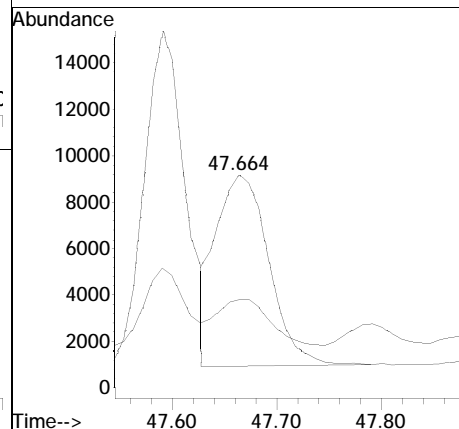
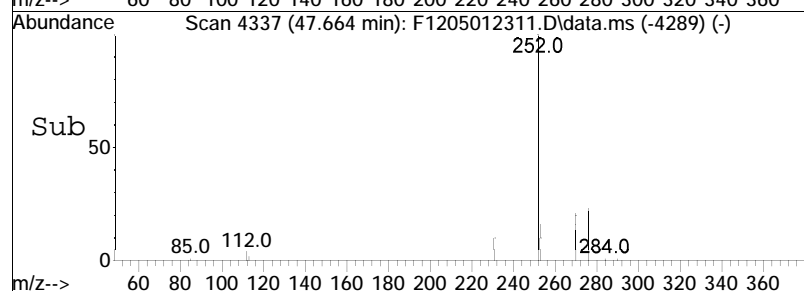
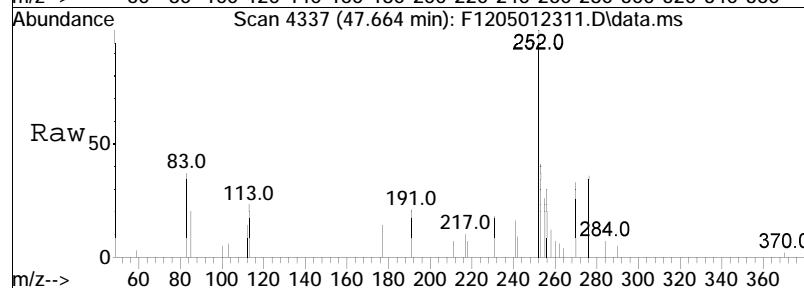
Tgt Ion	Ratio	Lower	Upper
252	100		
253	23.3	16.7	30.9

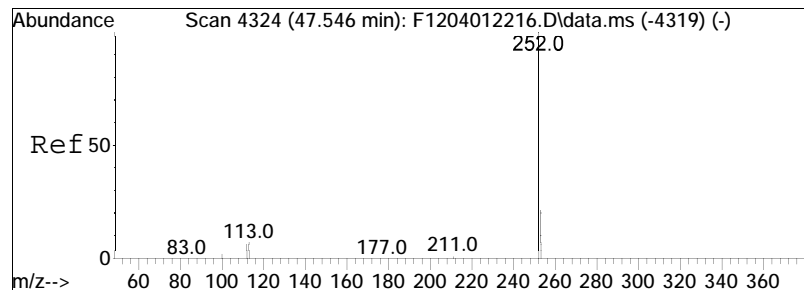




#86
 Benzo[j]+[k]fluoranthene
 Concen: 69.42 ng/mL
 RT: 47.664 min Scan# 4337
 Delta R.T. -0.064 min
 Lab File: F1205012311.D
 Acq: 1 May 2023 10:58 pm

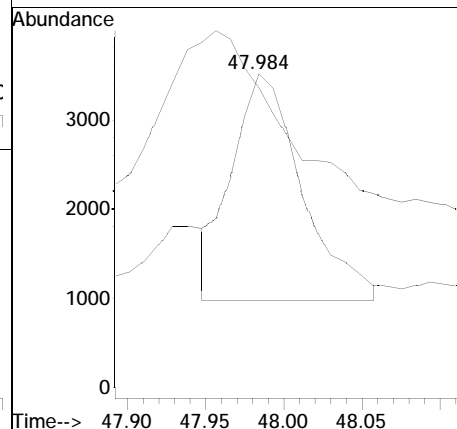
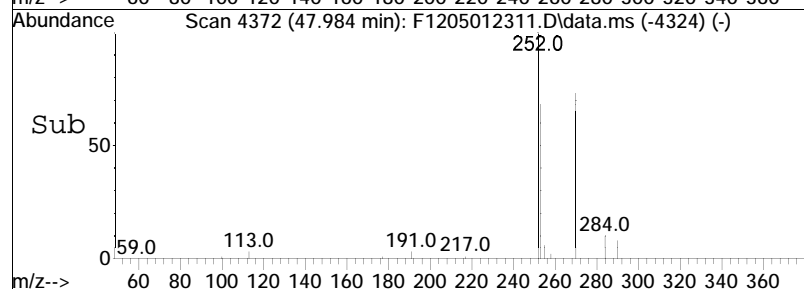
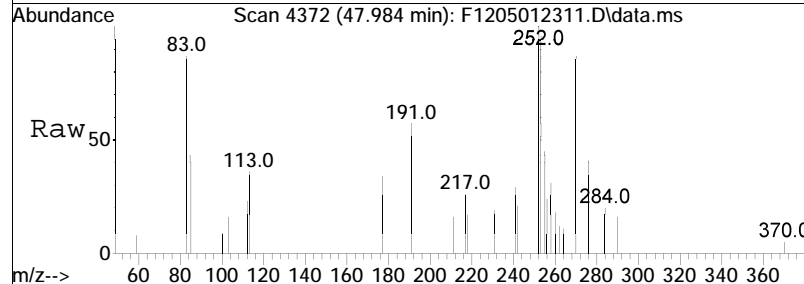
Tgt Ion	Ratio	Lower	Upper
252	100		
253	24.3	16.7	30.9

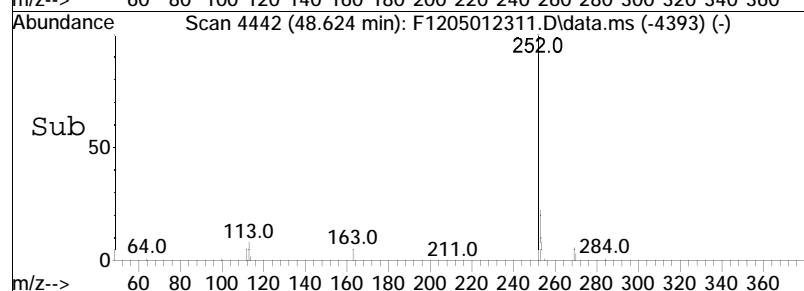
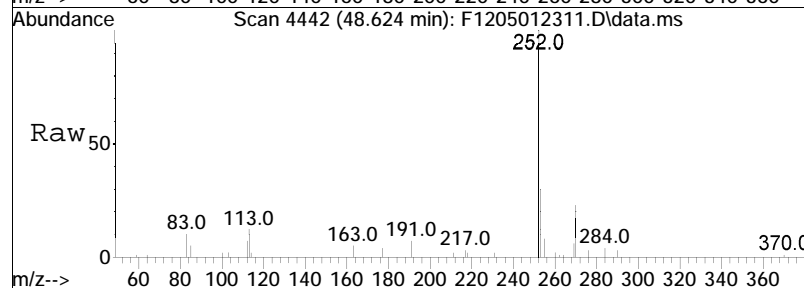
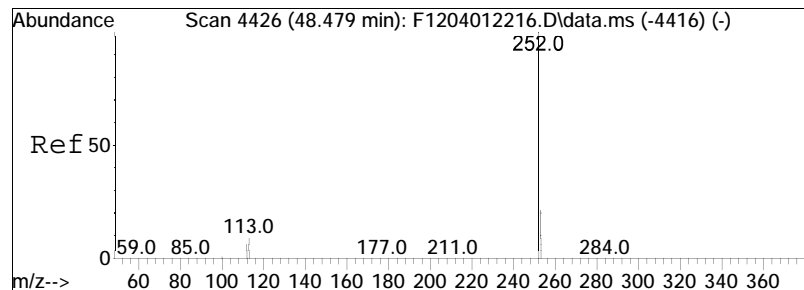




#87
 Benzo[a]fluoranthene
 Concen: 19.04 ng/mL M3
 RT: 47.984 min Scan# 4372
 Delta R.T. -0.063 min
 Lab File: F1205012311.D
 Acq: 1 May 2023 10:58 pm

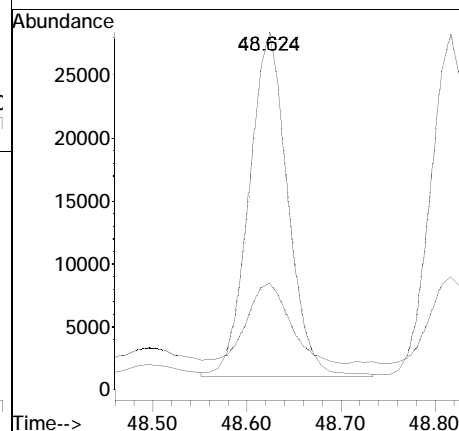
Tgt Ion	Ratio	Lower	Upper
252	100		
253	27.0	211.3	392.5#

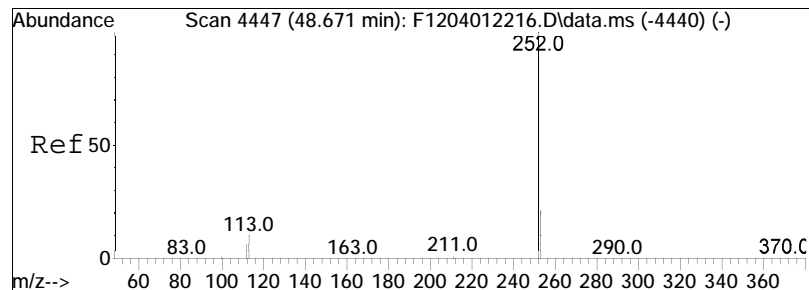




#88
 Benzo[e]pyrene
 Concen: 194.08 ng/mL
 RT: 48.624 min Scan# 4442
 Delta R.T. -0.055 min
 Lab File: F1205012311.D
 Acq: 1 May 2023 10:58 pm

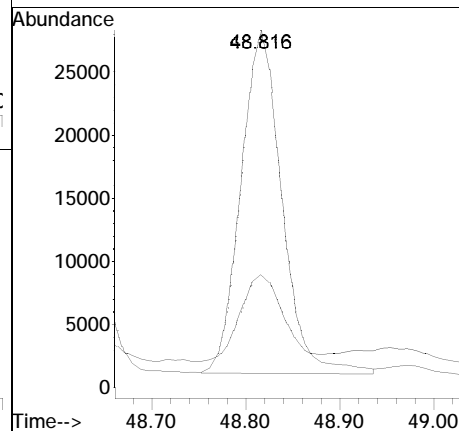
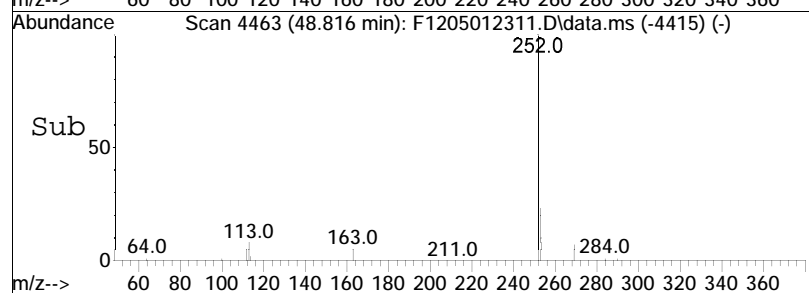
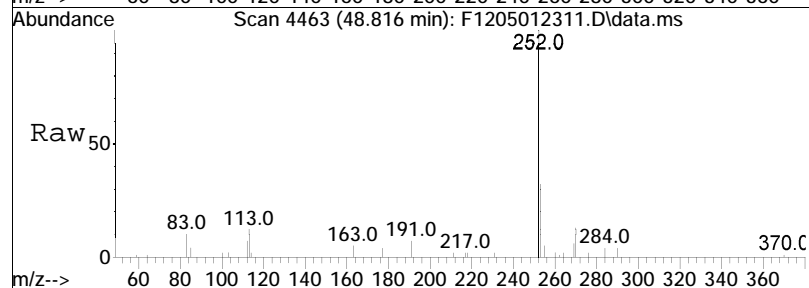
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	26.2	17.4	32.2	

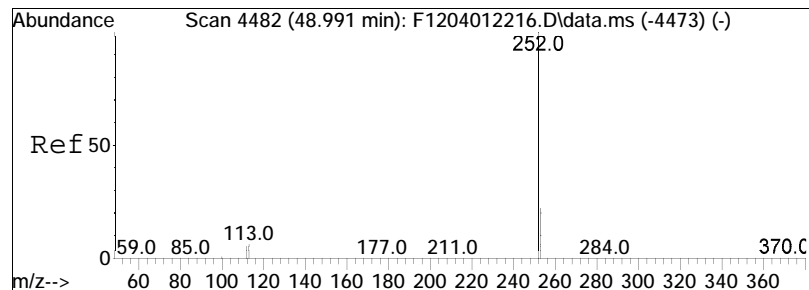




#90
 Benzo[a]pyrene
 Concen: 238.85 ng/mL
 RT: 48.816 min Scan# 4463
 Delta R.T. -0.065 min
 Lab File: F1205012311.D
 Acq: 1 May 2023 10:58 pm

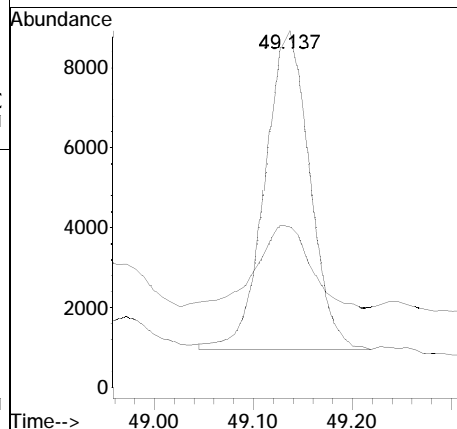
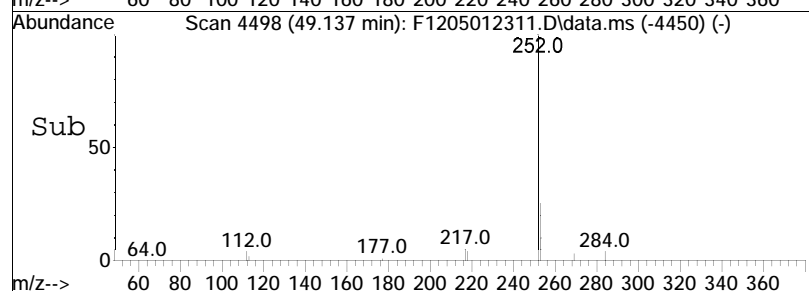
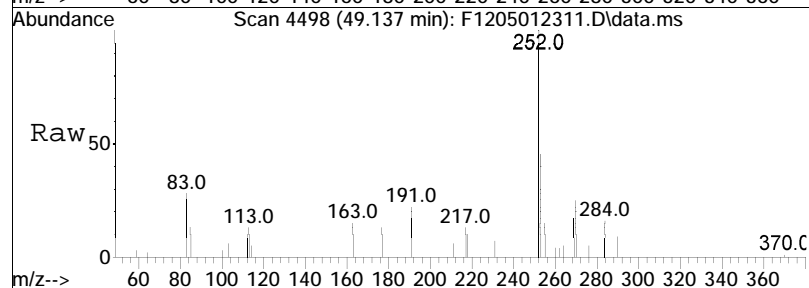
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	27.1	18.0	33.4	

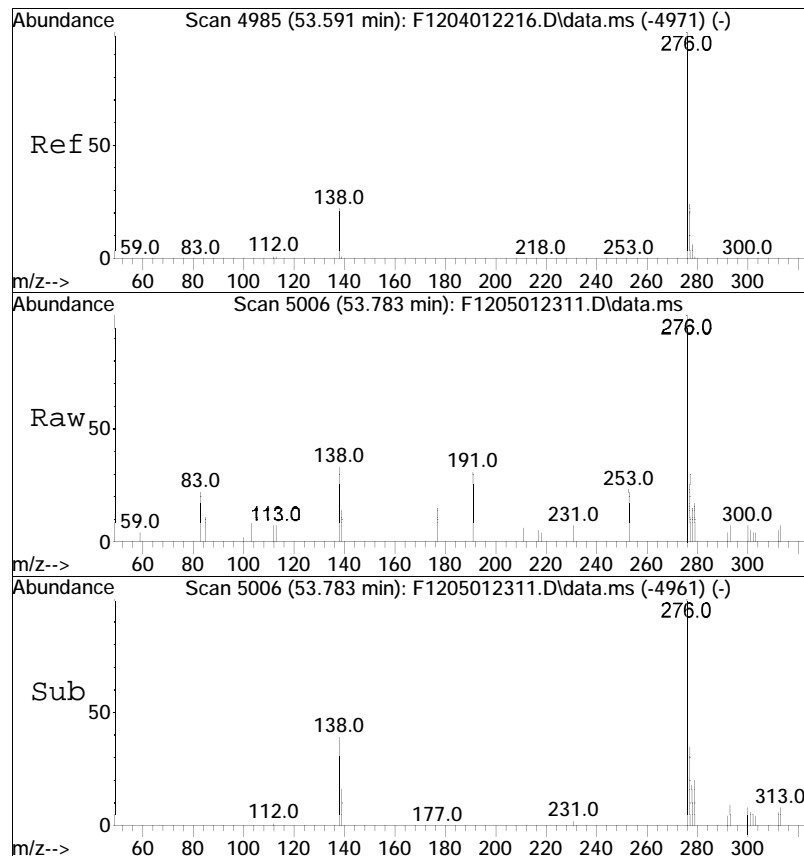




#91
Perylene
Concen: 69.77 ng/mL
RT: 49.137 min Scan# 4498
Delta R.T. -0.064 min
Lab File: F1205012311.D
Acq: 1 May 2023 10:58 pm

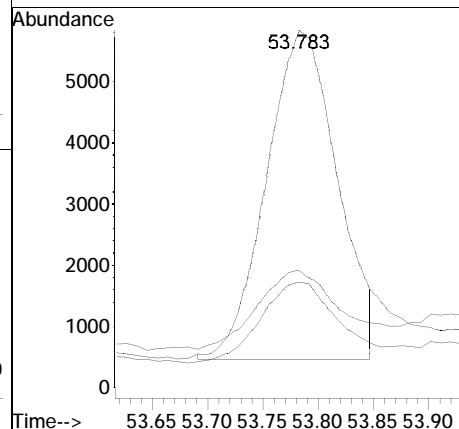
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	32.0	17.8	33.1	

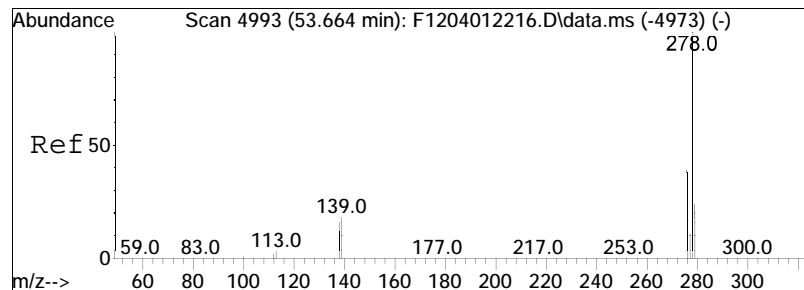




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 68.99 ng/mL M3
 RT: 53.783 min Scan# 5006
 Delta R.T. -0.091 min
 Lab File: F1205012311.D
 Acq: 1 May 2023 10:58 pm

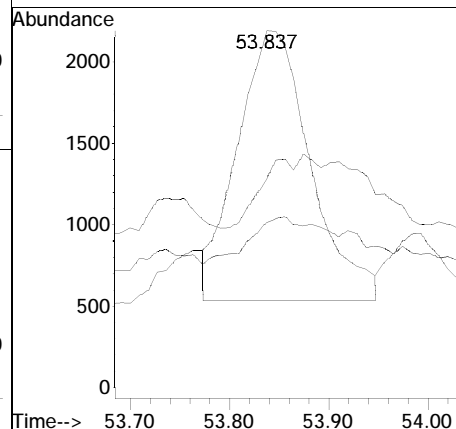
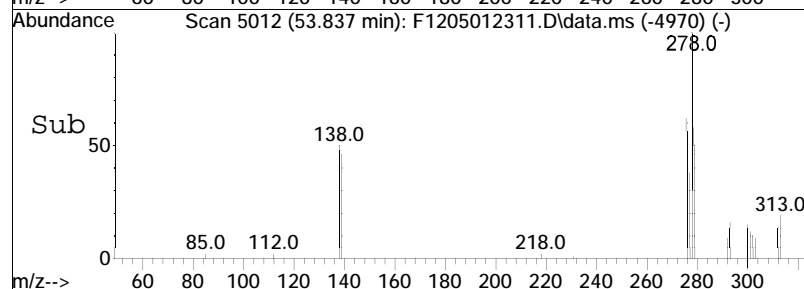
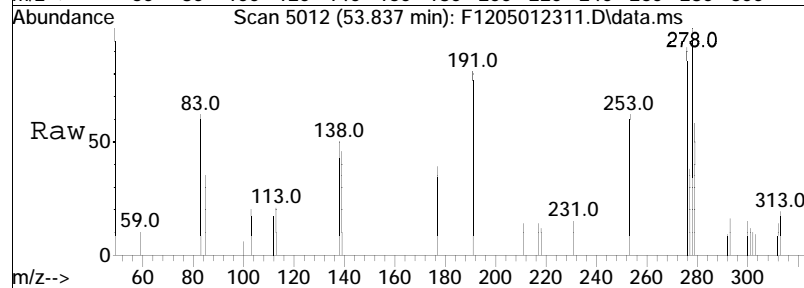
Tgt Ion:	276	Resp:	23808
Ion Ratio	Lower	Upper	
276	100		
138	25.7	16.2	30.0
277	27.8	16.9	31.3

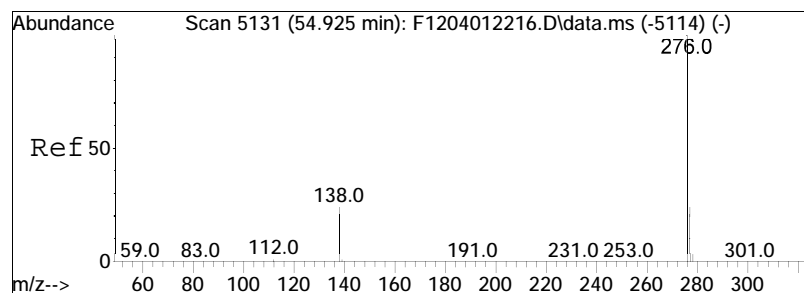




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 28.31 ng/mL M4
 RT: 53.837 min Scan# 5012
 Delta R.T. -0.119 min
 Lab File: F1205012311.D
 Acq: 1 May 2023 10:58 pm

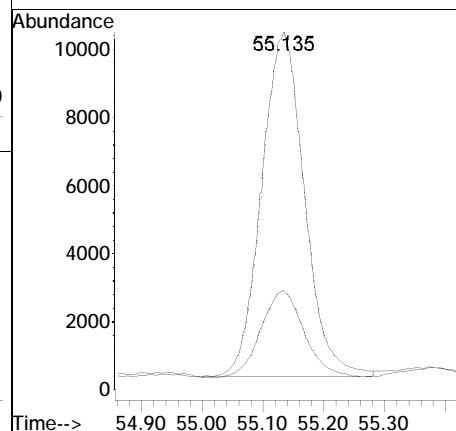
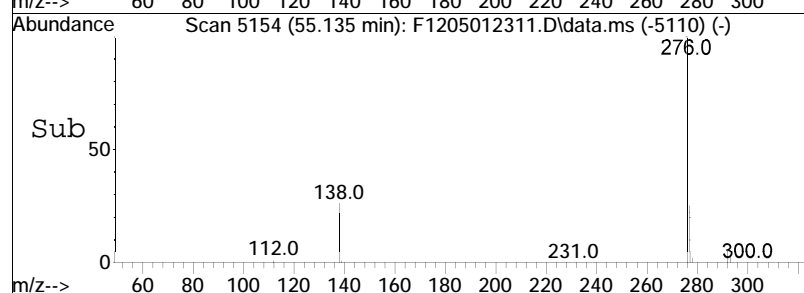
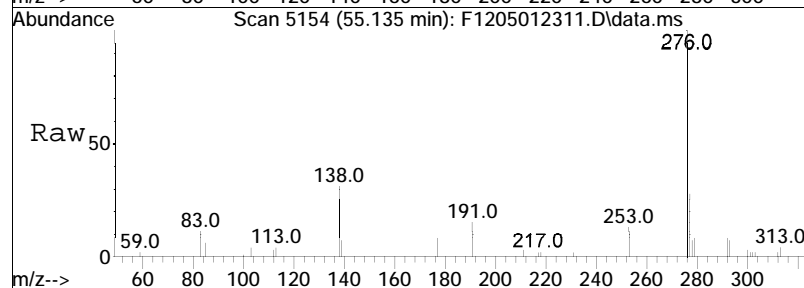
Tgt Ion	Ratio	Lower	Upper
278	100		
139	0.0	13.9	25.7#
279	0.0	17.1	31.7#





#94
 Benzo[g,h,i]perylene
 Concen: 126.89 ng/mL
 RT: 55.135 min Scan# 5154
 Delta R.T. -0.101 min
 Lab File: F1205012311.D
 Acq: 1 May 2023 10:58 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
277	25.9	16.6	30.8



Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
 Data File : F1205032307.D
 Acq On : 4 May 2023 3:09 pm
 Operator : PAH12:MJS
 Sample : WG1773800-5
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 05 09:49:07 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 04 21:55:39 2023
 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	126	0.00
2 A1	trans-Decalin	0.475	0.397	16.4	103	0.00
3 t	cis-Decalin	0.380	0.281	26.1#	93	0.00
8 s	Naphthalene-d8	2.102	1.826	13.1	106	0.00
9 A1	Naphthalene	2.315	2.083	10.0	108	0.00
14 t	2-Methylnaphthalene	1.421	1.542	-8.5	133	0.00
15 t	1-Methylnaphthalene	1.344	1.362	-1.3	124	0.00
16 A1	Benzothiophene	1.864	1.765	5.3	116	0.00
21 t	Biphenyl	1.767	1.700	3.8	117	0.00
22 t	2,6-Dimethylnaphthalene	1.165	1.279	-9.8	140	-0.02
23 t	Dibenzofuran	1.665	1.664	0.1	127	0.00
24 t	Acenaphthylene	1.997	1.991	0.3	129	0.00
25 t	Acenaphthene	1.288	1.260	2.2	124	0.00
26 t	2,3,5-Trimethylnaphthalene	1.081	1.181	-9.3	144	0.00
27 A1	Fluorene	1.341	1.555	-16.0	148	0.00
31 A1	Dibenzothiophene	1.936	2.034	-5.1	135	0.00
40 s	Phenanthrene-d10	1.445	1.409	2.5	130	0.00
41 A1	Phenanthrene	2.015	2.095	-4.0	132	0.00
52 t	Retene	0.511	0.544	-6.5	153	0.00
53 t	Anthracene	1.881	1.972	-4.8	135	0.00
54 t	Carbazole	1.608	1.810	-12.6	154	0.00
55 t	1-Methylphenanthrene	1.422	1.500	-5.5	144	0.00
56 A1	Fluoranthene	2.118	2.323	-9.7	143	0.00
57 A1	Benzo(b)fluorene	1.010	1.232	-22.0	182	0.00
59 A1	Pyrene	2.134	2.430	-13.9	151	0.00
67 A1	Naphthobenzothiophene-2,1-D	1.874	2.258	-20.5	163	0.00
74 i	Chrysene-d12	1.000	1.000	0.0	169	0.00
75 t	Benz[a]anthracene	1.351	1.411	-4.4	177	0.00
76 A1	Chrysene	1.455	1.420	2.4	158	0.02
77 A2	Chrysene/Triphenylene	1.455	1.420	2.4	158	0.02
84 s	Benzo[b]fluoranthene-d12	1.018	0.965	5.2	170	0.00
85 t	Benzo[b]fluoranthene	1.452	1.541	-6.1	169	0.00
86 A1	Benzo[j]+[k]fluoranthene	1.617	1.549	4.2	153	0.00
88 t	Benzo[e]pyrene	1.553	1.469	5.4	156	0.00
89 s	Benzo[a]pyrene-d12	0.747	0.679	9.1	182	0.00
90 t	Benzo[a]pyrene	1.318	1.258	4.6	157	0.00
91 t	Perylene	1.374	1.380	-0.4	164	0.00
92 t	Indeno[1,2,3-cd]pyrene	1.332	1.408	-5.7	184	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
 Data File : F1205032307.D
 Acq On : 4 May 2023 3:09 pm
 Operator : PAH12:MJS
 Sample : WG1773800-5
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 05 09:49:07 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 04 21:55:39 2023
 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	1.160	1.281	-10.4	202#	0.00
94 t	Benzo[g,h,i]perylene	1.496	1.388	7.2	160	0.00
95 A1	Hopane (T19)	0.422	0.309	26.8#	126	-0.02
129 SA1	5B(H)Cholane - Surr	0.201	0.181	10.0	135	0.00

* 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	0.89	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.00	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
 Data File : F1205032307.D
 Acq On : 4 May 2023 3:09 pm
 Operator : PAH12:MJS
 Sample : WG1773800-5
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 05 09:49:07 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 04 21:55:39 2023
 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	27.132	164	80662	500.000	ng/mL	0.00
74) Chrysene-d12	43.570	240	121458	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.151	136	147317	434.458	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	43.45%#		
40) Phenanthrene-d10	32.990	188	113637	487.473	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	48.75%#		
84) Benzo[b]fluoranthene-d12	47.472	264	117157	473.968	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	47.40%#		
89) Benzo[a]pyrene-d12	48.689	264	82443	454.245	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	45.42%#		
129) 5B(H)Cholane - Surr	44.200	217	21993	451.508	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	45.15%#		
Target Compounds						
					Qvalue	
2) trans-Decalin	16.820	138	16021	208.905	ng/mL	100
3) cis-Decalin	18.034	138	11314	184.787	ng/mL	100
9) Naphthalene	20.233	128	167985	449.704	ng/mL	100
14) 2-Methylnaphthalene	22.925	142	124351	542.379	ng/mL	100
15) 1-Methylnaphthalene	23.354	142	109839	506.498	ng/mL	100
16) Benzothiophene	20.452	134	142334	473.452	ng/mL	100
21) Biphenyl	24.805	154	137150	481.131	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.416	156	103159	549.021	ng/mL	100
23) Dibenzofuran	27.889	168	134195	499.662	ng/mL	92
24) Acenaphthylene	26.512	152	160597	498.412	ng/mL	100
25) Acenaphthene	27.251	153	101656	489.118	ng/mL#	62
26) 2,3,5-Trimethylnaphthalen	28.802	170	95227	546.187	ng/mL	94
27) Fluorene	29.267	166	125395	579.585	ng/mL	100
31) Dibenzothiophene	32.588	184	164091	525.479	ng/mL#	86
41) Phenanthrene	33.081	178	169016	520.003	ng/mL	98
52) Retene	40.064	234	43895	531.995	ng/mL	99
53) Anthracene	33.263	178	159051	524.095	ng/mL	99
54) Carbazole	33.911	167	145968	562.750	ng/mL	98
55) 1-Methylphenanthrene	35.582	192	121027	527.595	ng/mL	96
56) Fluoranthene	37.845	202	187400	548.398	ng/mL	97
57) Benzo(b)fluorene	40.366	216	99411	610.261	ng/mL	67
59) Pyrene	38.731	202	195980	569.322	ng/mL#	76
67) Naphthobenzothiophene-2,1	42.575	234	182168	602.685	ng/mL#	61
75) Benz[a]anthracene	43.506	228	171395	522.252	ng/mL#	55

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
 Data File : F1205032307.D
 Acq On : 4 May 2023 3:09 pm
 Operator : PAH12:MJS
 Sample : WG1773800-5
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 05 09:49:07 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 04 21:55:39 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.661	228	172520	488.020	ng/mL	89
77) Chrysene/Triphenylene	43.661	228	172520	488.020	ng/mL	89
85) Benzo[b]fluoranthene	47.554	252	187156	530.457	ng/mL	97
86) Benzo[j]+[k]fluoranthene	47.646	252	188169	479.075	ng/mL	97
88) Benzo[e]pyrene	48.588	252	178436	472.936	ng/mL	98
90) Benzo[a]pyrene	48.780	252	152765	477.181	ng/mL	95
91) Perylene	49.100	252	167658	502.354	ng/mL	94
92) Indeno[1,2,3-cd]pyrene	53.737	276	170994M3	528.396	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.801	278	155638	552.525	ng/mL	98
94) Benzo[g,h,i]perylene	55.080	276	168549	463.806	ng/mL	100
95) Hopane (T19)	52.859	191	37473	365.722	ng/mL#	86

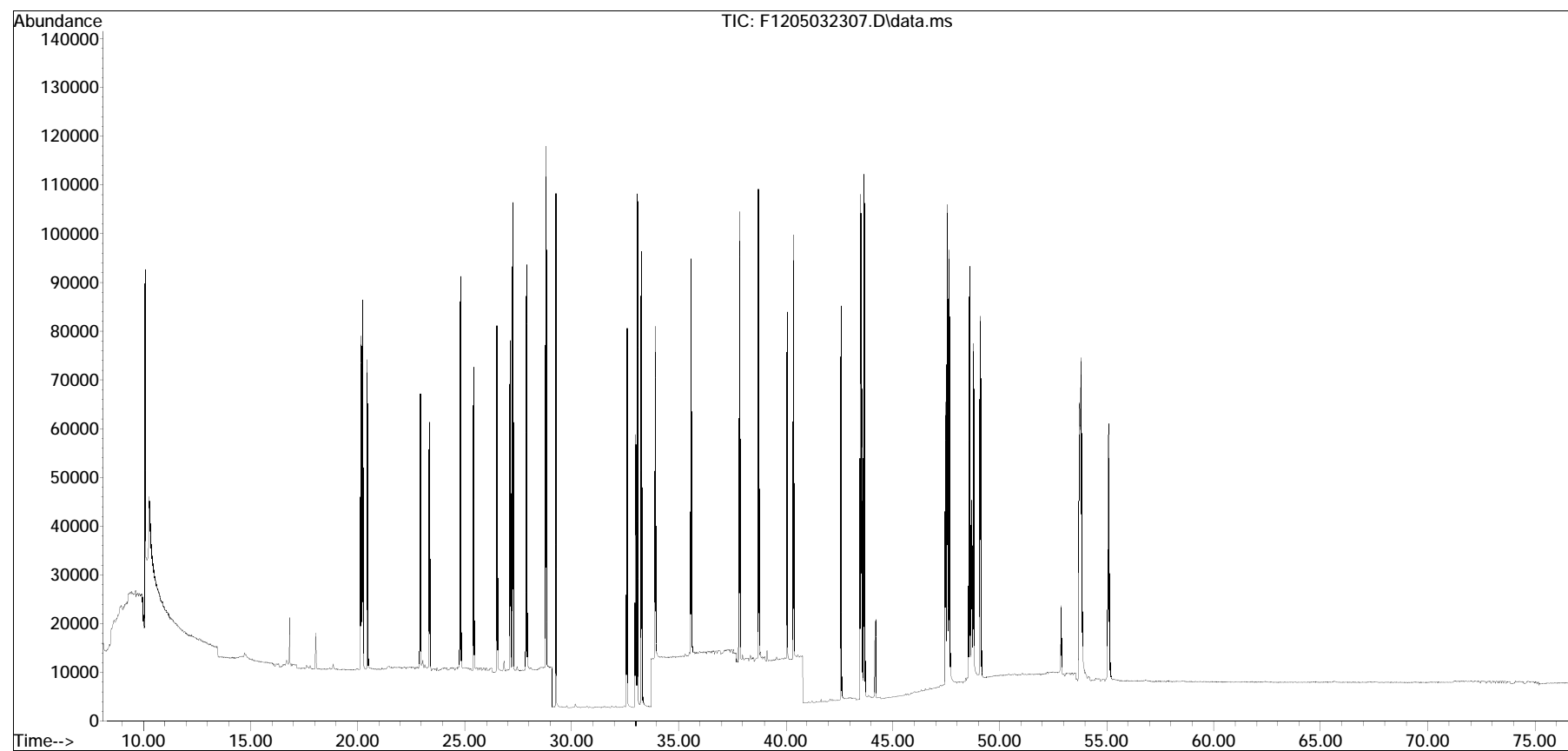
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
Data File : F1205032307.D
Acq On : 4 May 2023 3:09 pm
Operator : PAH12:MJS
Sample : WG1773800-5
Misc : WG1773800,FRBF80,ICAL19969
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 05 09:49:07 2023
Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu May 04 21:55:39 2023
Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
 Data File : F1205032313.D
 Acq On : 4 May 2023 11:33 pm
 Operator : PAH12:MJS
 Sample : WG1773800-6
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 05 09:50:46 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 04 21:55:39 2023
 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	125	0.00
2 A1	trans-Decalin	0.475	0.360	24.2	93	0.00
3 t	cis-Decalin	0.380	0.283	25.5#	93	0.00
8 s	Naphthalene-d8	2.102	1.805	14.1	104	0.00
9 A1	Naphthalene	2.315	2.140	7.6	110	0.00
14 t	2-Methylnaphthalene	1.421	1.465	-3.1	125	0.00
15 t	1-Methylnaphthalene	1.344	1.307	2.8	118	0.00
16 A1	Benzothiophene	1.864	1.863	0.1	122	0.00
21 t	Biphenyl	1.767	1.715	2.9	117	0.00
22 t	2,6-Dimethylnaphthalene	1.165	1.225	-5.2	133	-0.02
23 t	Dibenzofuran	1.665	1.722	-3.4	130	0.00
24 t	Acenaphthylene	1.997	2.108	-5.6	135	0.00
25 t	Acenaphthene	1.288	1.296	-0.6	126	0.00
26 t	2,3,5-Trimethylnaphthalene	1.081	1.116	-3.2	135	0.00
27 A1	Fluorene	1.341	1.490	-11.1	141	0.00
31 A1	Dibenzothiophene	1.936	2.160	-11.6	142	0.00
40 s	Phenanthrene-d10	1.445	1.441	0.3	132	0.00
41 A1	Phenanthrene	2.015	2.183	-8.3	136	0.00
52 t	Retene	0.511	0.533	-4.3	149	0.00
53 t	Anthracene	1.881	2.075	-10.3	141	0.00
54 t	Carbazole	1.608	1.901	-18.2	161	0.00
55 t	1-Methylphenanthrene	1.422	1.520	-6.9	145	0.00
56 A1	Fluoranthene	2.118	2.320	-9.5	142	0.00
57 A1	Benzo(b)fluorene	1.010	1.165	-15.3	171	0.00
59 A1	Pyrene	2.134	2.258	-5.8	140	0.00
67 A1	Naphthobenzothiophene-2,1-D	1.874	1.655	11.7	118	0.00
74 i	Chrysene-d12	1.000	1.000	0.0	117	0.00
75 t	Benz[a]anthracene	1.351	1.479	-9.5	129	0.00
76 A1	Chrysene	1.455	1.450	0.3	112	0.02
77 A2	Chrysene/Triphenylene	1.455	1.450	0.3	112	0.02
84 s	Benzo[b]fluoranthene-d12	1.018	1.032	-1.4	126	0.00
85 t	Benzo[b]fluoranthene	1.452	1.589	-9.4	121	0.00
86 A1	Benzo[j]+[k]fluoranthene	1.617	1.644	-1.7	112	0.00
88 t	Benzo[e]pyrene	1.553	1.552	0.1	114	0.00
89 s	Benzo[a]pyrene-d12	0.747	0.774	-3.6	144	0.00
90 t	Benzo[a]pyrene	1.318	1.468	-11.4	127	0.00
91 t	Perylene	1.374	1.522	-10.8	125	0.00
92 t	Indeno[1,2,3-cd]pyrene	1.332	1.537	-15.4	139	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
 Data File : F1205032313.D
 Acq On : 4 May 2023 11:33 pm
 Operator : PAH12:MJS
 Sample : WG1773800-6
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 05 09:50:46 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 04 21:55:39 2023
 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	1.160	1.412	-21.7	154	0.00
94 t	Benzo[g,h,i]perylene	1.496	1.668	-11.5	133	0.00
95 A1	Hopane (T19)	0.422	0.348	17.5	98	-0.02
129 SA1	5B(H)Cholane - Surr	0.201	0.198	1.5	102	0.00

* 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	1.03	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	0.80	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
 Data File : F1205032313.D
 Acq On : 4 May 2023 11:33 pm
 Operator : PAH12:MJS
 Sample : WG1773800-6
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 05 09:50:46 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 04 21:55:39 2023
 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	27.132	164	80066	500.000	ng/mL	0.00
74) Chrysene-d12	43.570	240	84046	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.160	136	144501	429.326	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	42.93%#		
40) Phenanthrene-d10	32.989	188	115341	498.465	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	49.85%#		
84) Benzo[b]fluoranthene-d12	47.472	264	86746	507.153	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	50.72%		
89) Benzo[a]pyrene-d12	48.688	264	65041	517.884	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	51.79%		
129) 5B(H)Cholane - Surr	44.200	217	16670	494.567	ng/ml	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	49.46%#		
Target Compounds						
					Qvalue	
2) trans-Decalin	16.820	138	14398	189.139	ng/mL	100
3) cis-Decalin	18.034	138	11322	186.294	ng/mL	100
9) Naphthalene	20.233	128	171315	462.033	ng/mL	100
14) 2-Methylnaphthalene	22.925	142	117334	515.583	ng/mL	100
15) 1-Methylnaphthalene	23.354	142	104609	485.971	ng/mL	100
16) Benzothiophene	20.452	134	149176	499.904	ng/mL	100
21) Biphenyl	24.805	154	137300	485.243	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.416	156	98044	525.683	ng/mL	100
23) Dibenzofuran	27.889	168	137835	517.036	ng/mL	91
24) Acenaphthylene	26.520	152	168810	527.801	ng/mL	100
25) Acenaphthene	27.251	153	103778	503.045	ng/mL#	61
26) 2,3,5-Trimethylnaphthalen	28.802	170	89357	516.334	ng/mL	95
27) Fluorene	29.267	166	119319	555.606	ng/mL	95
31) Dibenzothiophene	32.588	184	172962	558.011	ng/mL#	85
41) Phenanthrene	33.081	178	174790	541.771	ng/mL	97
52) Retene	40.064	234	42638	520.607	ng/mL	98
53) Anthracene	33.263	178	166104	551.409	ng/mL	98
54) Carbazole	33.911	167	152187	591.093	ng/mL	98
55) 1-Methylphenanthrene	35.581	192	121696	534.460	ng/mL	95
56) Fluoranthene	37.854	202	185783	547.714	ng/mL	98
57) Benzo(b)fluorene	40.365	216	93253	576.720	ng/mL#	66
59) Pyrene	38.740	202	180790	529.104	ng/mL#	76
67) Naphthobenzothiophene-2,1	42.575	234	132481	441.563	ng/mL#	61
75) Benz[a]anthracene	43.506	228	124331M3	547.483	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
 Data File : F1205032313.D
 Acq On : 4 May 2023 11:33 pm
 Operator : PAH12:MJS
 Sample : WG1773800-6
 Misc : WG1773800,FRBF80,ICAL19969
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 05 09:50:46 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 04 21:55:39 2023
 Response via : Initial Calibration

Sub List : ALKPAH_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.661	228	121876	498.225	ng/mL	87
77) Chrysene/Triphenylene	43.661	228	121876	498.225	ng/mL	87
85) Benzo[b]fluoranthene	47.554	252	133545	546.995	ng/mL	98
86) Benzo[j]+[k]fluoranthene	47.646	252	138188	508.435	ng/mL	97
88) Benzo[e]pyrene	48.588	252	130462	499.704	ng/mL	97
90) Benzo[a]pyrene	48.780	252	123413	557.095	ng/mL	95
91) Perylene	49.100	252	127880	553.729	ng/mL	95
92) Indeno[1,2,3-cd]pyrene	53.737	276	129215M3	577.033	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.810	278	118666M4	608.796	ng/mL	
94) Benzo[g,h,i]perylene	55.080	276	140224	557.624	ng/mL	100
95) Hopane (T19)	52.859	191	29215	412.048	ng/mL#	86

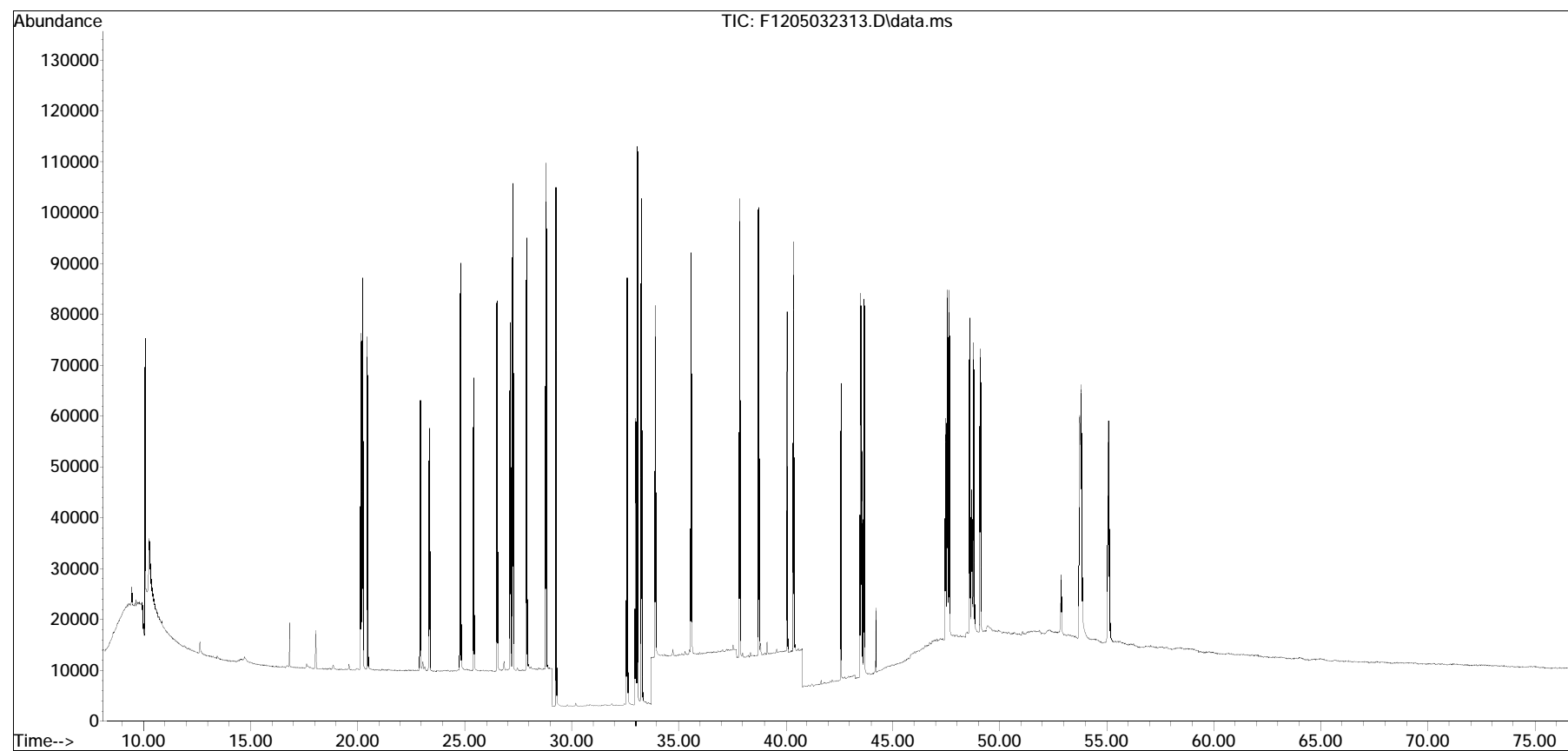
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
Data File : F1205032313.D
Acq On : 4 May 2023 11:33 pm
Operator : PAH12:MJS
Sample : WG1773800-6
Misc : WG1773800,FRBF80,ICAL19969
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 05 09:50:46 2023
Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu May 04 21:55:39 2023
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\2023\MAY23\MAY03\
 Data File : F1205032309.D
 Acq On : 4 May 2023 5:57 pm
 Operator : PAH12:MJS
 Sample : L2320537-02D,32,4
 Misc : WG1773800,WG1770361,ICAL19969
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 05 11:54:52 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 04 21:55:39 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	27.150	164	50662	500.000	ng/mL	0.02
74) Chrysene-d12	0.000	240	0m	500.000	ng/mL	-43.58
System Monitoring Compounds						
8) Naphthalene-d8	20.160	136	2270M3	10.659	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	1.07%#		
40) Phenanthrene-d10	33.017	188	1966M4	13.428	ng/mL	0.02
Spiked Amount 1000.000	Range 50 - 130		Recovery =	1.34%#		
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%#		
Target Compounds						
						Qvalue
2) trans-Decalin	16.820	138	179391	3724.311	ng/mL	100
3) cis-Decalin	18.043	138	12196M3	317.146	ng/mL	
4) C1-Decalins	18.764	152	551558M5	11450.819	ng/mL	
5) C2-Decalins	19.731	166	922558M5	19153.098	ng/mL	
6) C3-Decalins	22.569	180	615461M5	12777.500	ng/mL	
7) C4-Decalins	24.851	194	642888M5	13346.908	ng/mL	
9) Naphthalene	20.251	128	39455M6	168.169	ng/mL	
10) C1-Naphthalenes	23.363	142	49177M5	209.607	ng/mL	
11) C2-Naphthalenes	25.453	156	4129976M5	17603.164	ng/mL	
12) C3-Naphthalenes	28.136	170	4975214M5	21205.816	ng/mL	
13) C4-Naphthalenes	30.891	184	2578279M5	10989.378	ng/mL	
14) 2-Methylnaphthalene	22.943	142	1613	11.201	ng/mL	100
15) 1-Methylnaphthalene	23.363	142	36127M4	265.240	ng/mL	
16) Benzothiophene	20.461	134	2591M3	13.722	ng/mL	
17) C1-Benzo(b)thiophenes	22.806	148	234553M5	1242.209	ng/mL	
18) C2-Benzo(b)thiophenes	25.982	162	179524M5	950.771	ng/mL	
19) C3-Benzo(b)thiophenes	27.962	176	346787M5	1836.608	ng/mL	
21) Biphenyl	24.814	154	2202M4	12.299	ng/mL	
22) 2,6-Dimethylnaphthalene	25.453	156	1579675	13385.552	ng/mL	100
23) Dibenzofuran	27.908	168	32816	194.542	ng/mL#	54
24) Acenaphthylene	26.530	152	21352	105.506	ng/mL	100
25) Acenaphthene	27.278	153	323552M3	2478.628	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
 Data File : F1205032309.D
 Acq On : 4 May 2023 5:57 pm
 Operator : PAH12:MJS
 Sample : L2320537-02D,32,4
 Misc : WG1773800,WG1770361,ICAL19969
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 05 11:54:52 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 04 21:55:39 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 2,3,5-Trimethylnaphthalen	28.829	170	372697M3	3403.482	ng/mL	
27) Fluorene	29.285	166	276727	2036.455	ng/mL	96
28) C1-Fluorenes	31.657	180	443703M5	3265.244	ng/mL	
29) C2-Fluorenes	33.692	194	586604M5	4316.863	ng/mL	
30) C3-Fluorenes	35.664	208	441623M5	3249.937	ng/mL	
31) Dibenzothiophene	32.606	184	14330	73.064	ng/mL#	67
36) C1-Dibenzothiophenes	34.377	198	246051M5	1254.535	ng/mL	
36) C1-Dibenzothiophenes BS	34.377	198	243315M5	1240.585	ng/mL	
37) C2-Dibenzothiophenes	36.421	212	312552M5	1593.602	ng/mL	
38) C3-Dibenzothiophenes	37.854	226	222574M5	1134.833	ng/mL	
39) C4-Dibenzothiophenes	39.535	240	107319M5	547.185	ng/mL	
41) Phenanthrene	33.108	178	9243M3	45.277	ng/mL	
47) C1-Phenanthrenes/Anthrace	35.061	192	464470M5	2275.215	ng/mL	
48) C2-Phenanthrenes/Anthrace	37.325	206	906155M5	4438.816	ng/mL	
48) C2-Phenanthrenes/Anthr BS	37.325	206	906155M5	4438.816	ng/mL	
50) C3-Phenanthrenes/Anthrace	39.151	220	608993M5	2983.163	ng/mL	
51) C4-Phenanthrenes/Anthrace	41.315	234	241740M5	1184.168	ng/mL	
52) Retene	0.000		0	N.D.	d	
53) Anthracene	33.281	178	25230M3	132.366	ng/mL	
54) Carbazole	33.938	167	10200M4	62.610	ng/mL	
55) 1-Methylphenanthrene	35.600	192	140998	978.628	ng/mL	88
56) Fluoranthene	37.864	202	28572M4	133.123	ng/mL	
57) Benzo(b)fluorene	40.375	216	9582M3	93.653	ng/mL	
59) Pyrene	38.749	202	79489	367.654	ng/mL#	80
63) C1-Fluoranthenes/Pyrenes	40.539	216	164242M5	759.656	ng/mL	
64) C2-Fluoranthenes/Pyrenes	42.584	230	170645M5	789.271	ng/mL	
65) C3-Fluoranthenes/Pyrenes	44.045	244	131048M5	606.126	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.296	258	67215M5	310.884	ng/mL	
70) C1-Naphthobenzothiophenes	43.981	248	29201M5	153.816	ng/ml	
71) C2-Naphthobenzothiophenes	45.479	262	31028M5	163.440	ng/ml	
72) C3-Naphthobenzothiophenes	47.591	276	21978M5	115.769	ng/ml	
73) C4-Naphthobenzothiophenes	48.698	290	14830M5	78.117	ng/mL	
75) Benz[a]anthracene	0.000		0	N.D.	d	
76) Chrysene	0.000		0	N.D.	d	
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	-1.000	ng/mL	
81) C3-Chrysenes	0.000		0	N.D.	d	
82) C4-Chrysenes	0.000		0	N.D.	d	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
 Data File : F1205032309.D
 Acq On : 4 May 2023 5:57 pm
 Operator : PAH12:MJS
 Sample : L2320537-02D,32,4
 Misc : WG1773800,WG1770361,ICAL19969
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 05 11:54:52 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 04 21:55:39 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
85) Benzo[b]fluoranthene	0.000		0	N.D.	d	
86) Benzo[j]+[k]fluoranthene	0.000		0	N.D.	d	
87) Benzo[a]fluoranthene	0.000		0	N.D.	d	
88) Benzo[e]pyrene	0.000		0	N.D.	d	
90) Benzo[a]pyrene	0.000		0	N.D.	d	
91) Perylene	0.000		0	N.D.	d	
92) Indeno[1,2,3-cd]pyrene	0.000		0	N.D.	d	
93) Dibenz[ah]+[ac]anthracene	0.000		0	N.D.	d	
94) Benzo[g,h,i]perylene	0.000		0	N.D.	d	

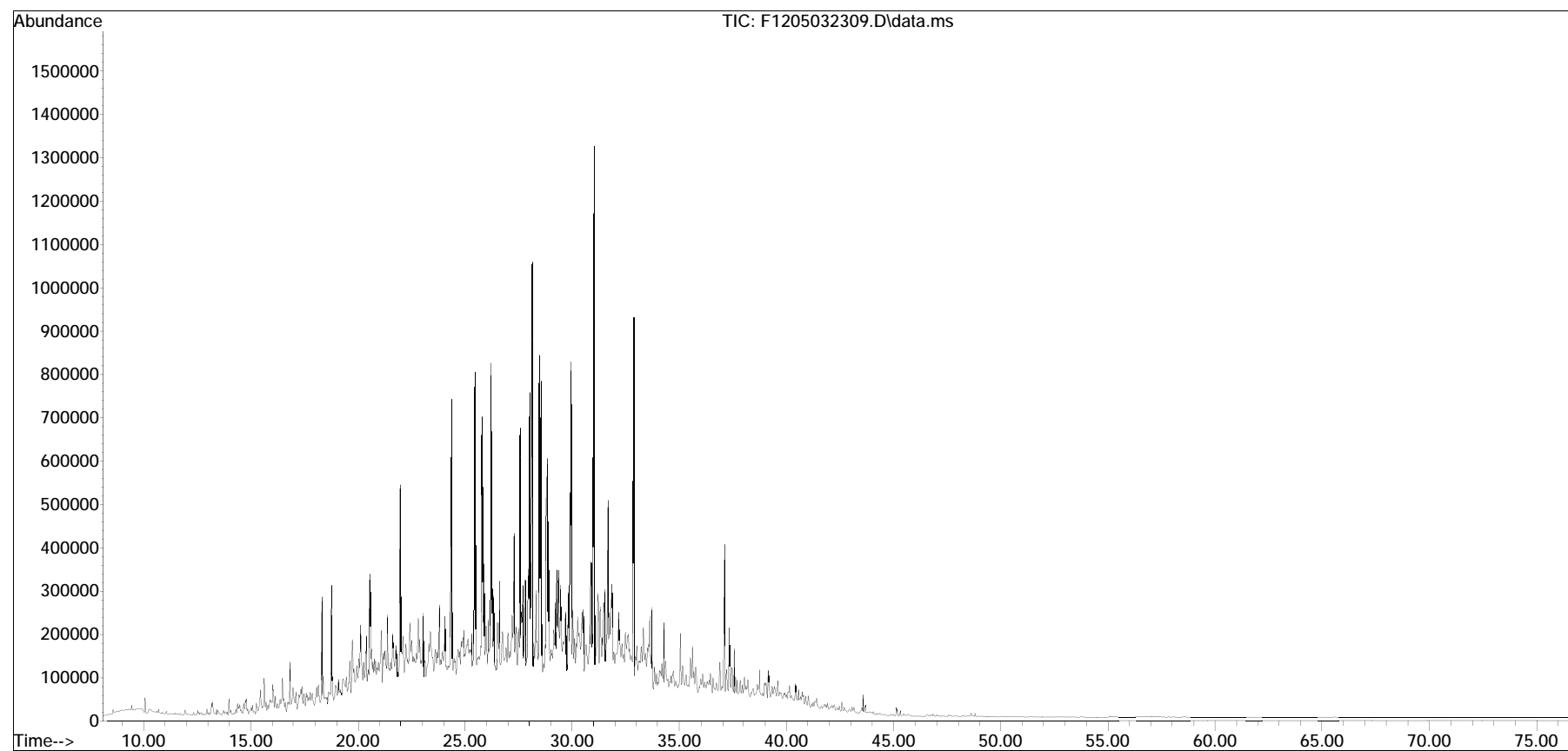
(#) = qualifier out of range (m) = manual integration (+) = signals summed

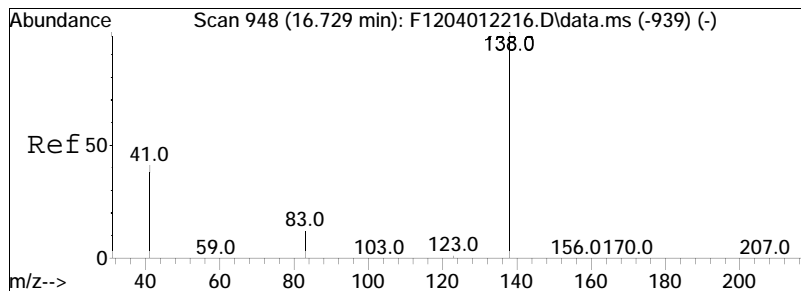
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
Data File : F1205032309.D
Acq On : 4 May 2023 5:57 pm
Operator : PAH12:MJS
Sample : L2320537-02D,32,4
Misc : WG1773800,WG1770361,ICAL19969
ALS Vial : 7 Sample Multiplier: 1

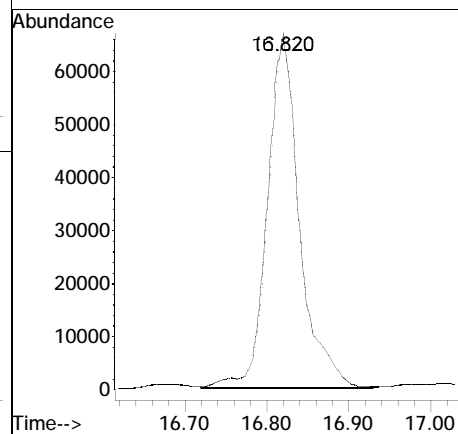
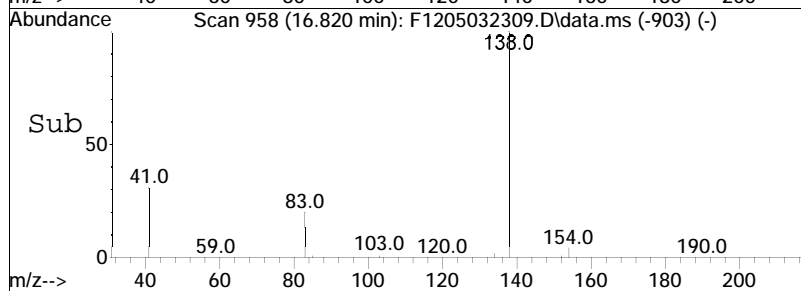
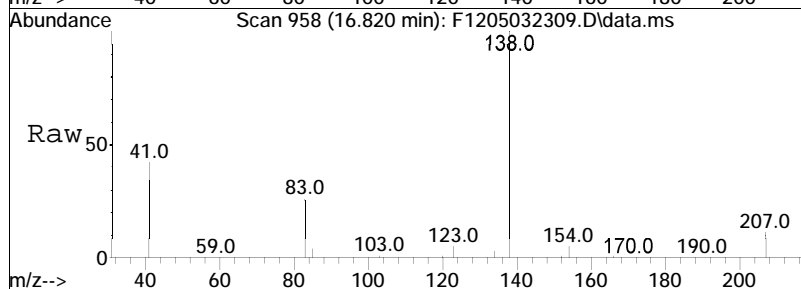
Quant Time: May 05 11:54:52 2023
Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu May 04 21:55:39 2023
Response via : Initial Calibration

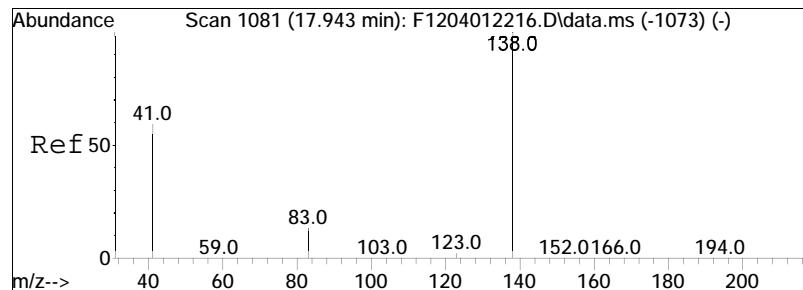
Sub List : ALKPAH - POI+MP+BcF





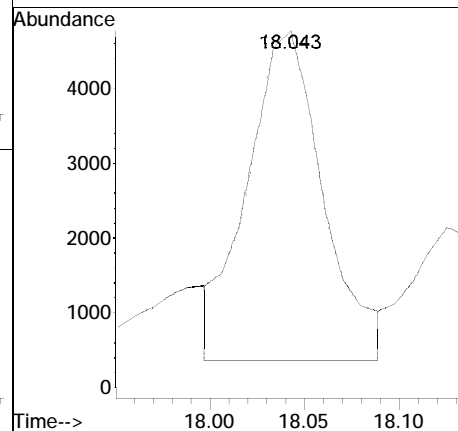
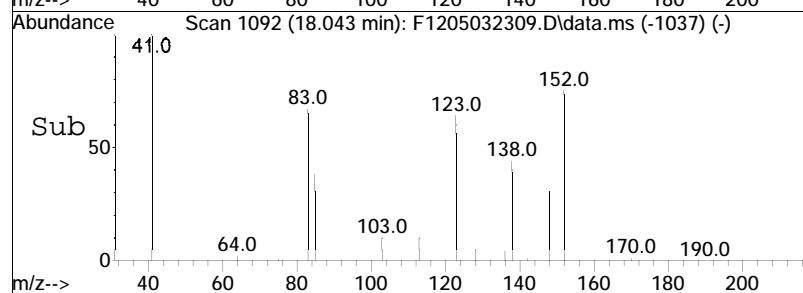
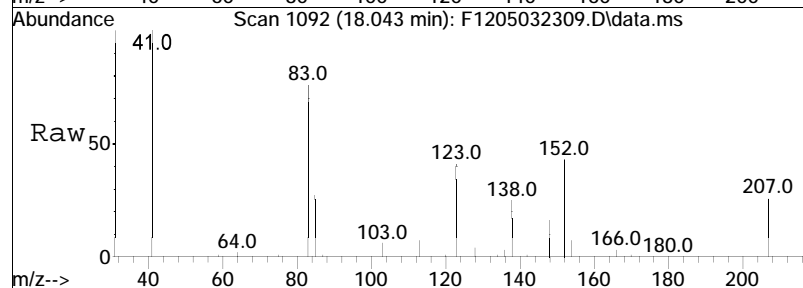
#2
trans-Decalin
Concen: 3724.31 ng/mL
RT: 16.820 min Scan# 958
Delta R.T. 0.000 min
Lab File: F1205032309.D
Acq: 4 May 2023 5:57 pm
Tgt Ion:138 Resp: 179391

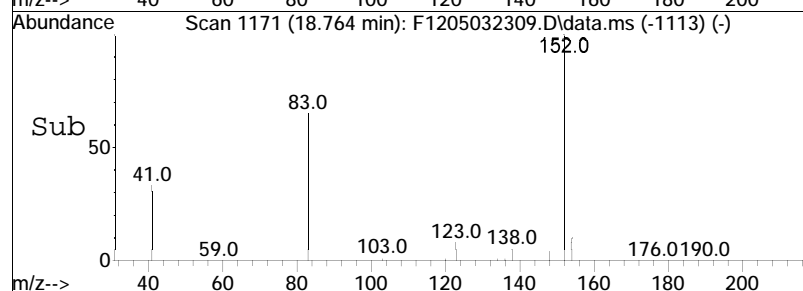
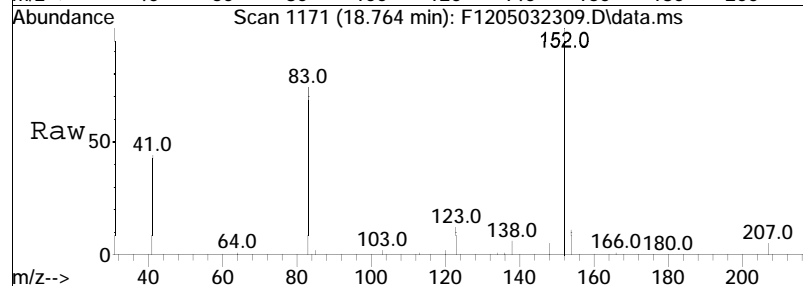
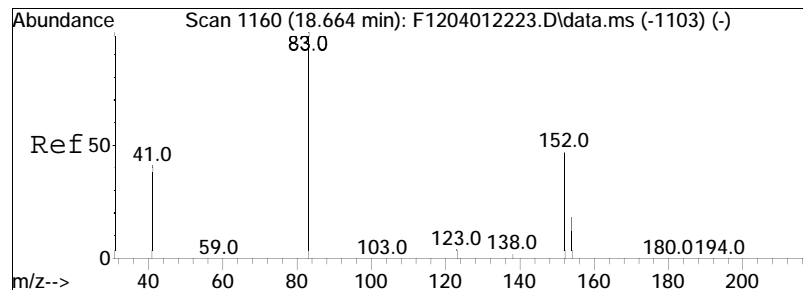




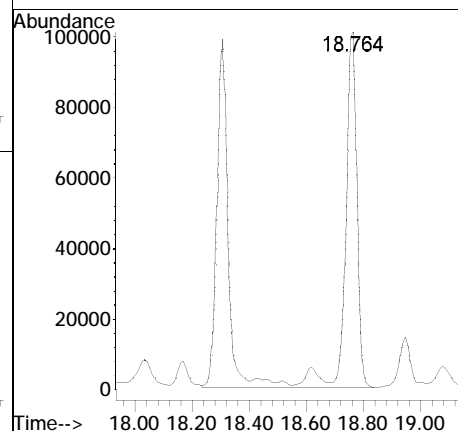
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 cis-Decalin
 Concen: 317.15 ng/mL M3
 RT: 18.043 min Scan# 1092
 Delta R.T. 0.000 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

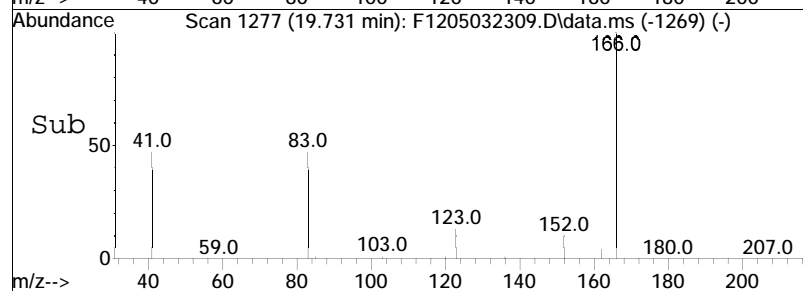
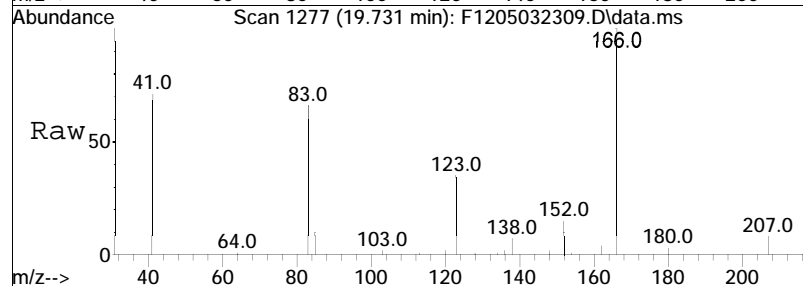
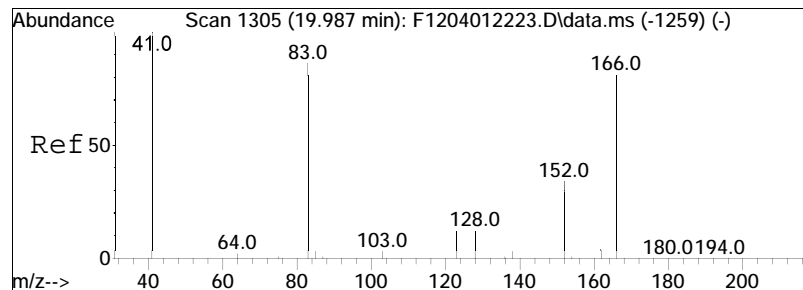
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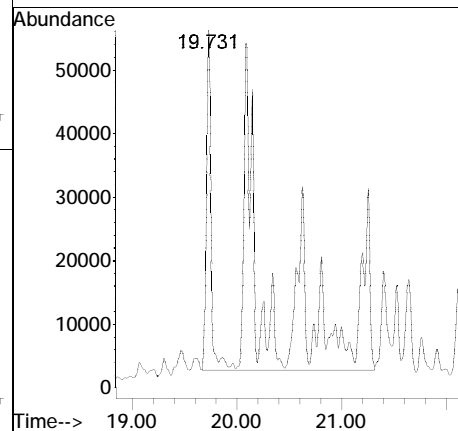
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Cl-Decalins
Concen: 11450.82 ng/mL M5
RT: 18.764 min Scan# 1171
Delta R.T. 0.009 min
Lab File: F1205032309.D
Acq: 4 May 2023 5:57 pm
Tgt Ion:152 Resp: 551558

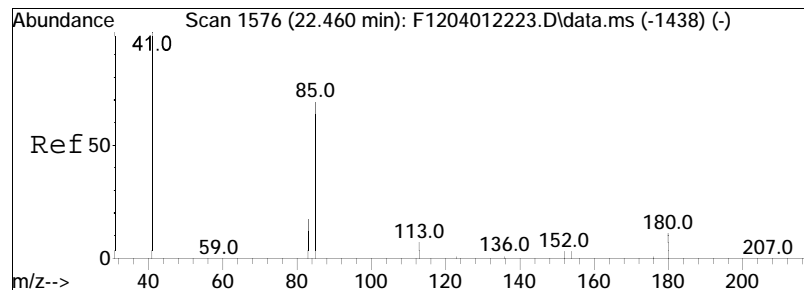




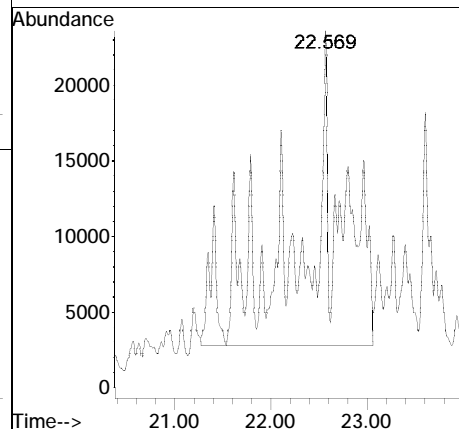
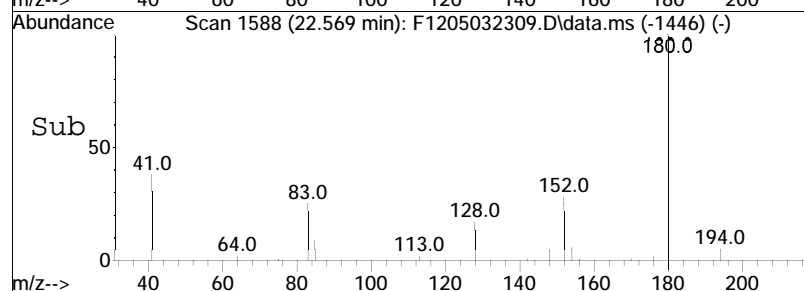
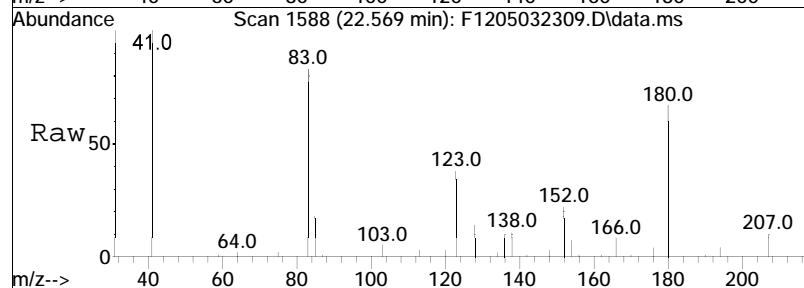
#5
 C2-Decalins
 Concen: 19153.10 ng/mL M5
 RT: 19.731 min Scan# 1277
 Delta R.T. -0.356 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

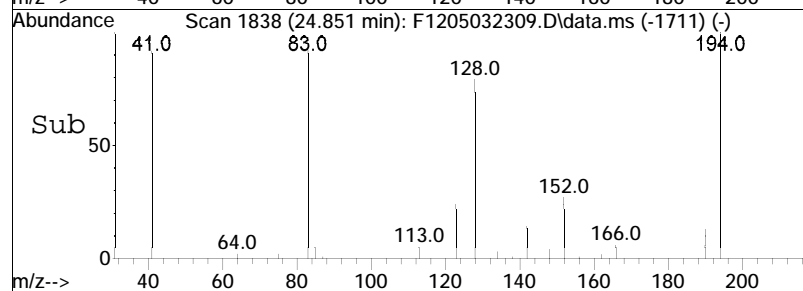
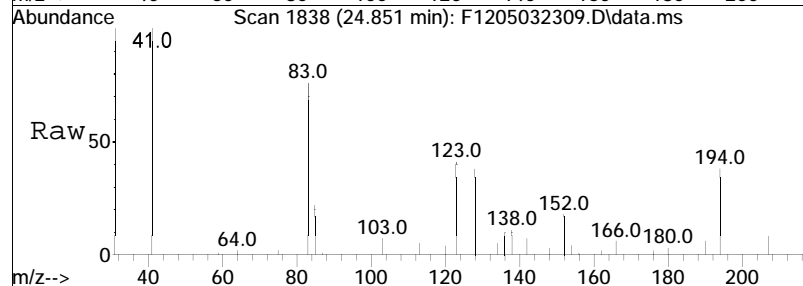
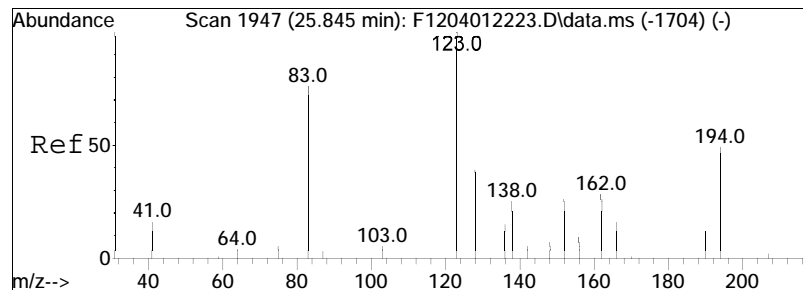
Tgt Ion:166 Resp: 922558



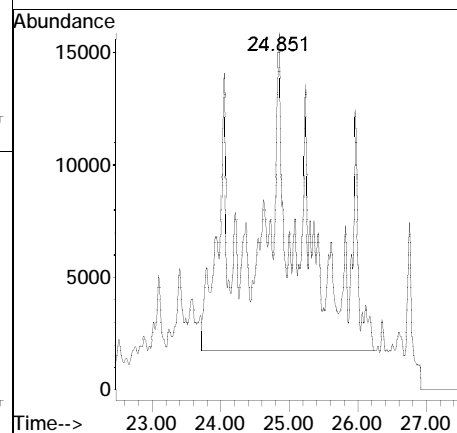


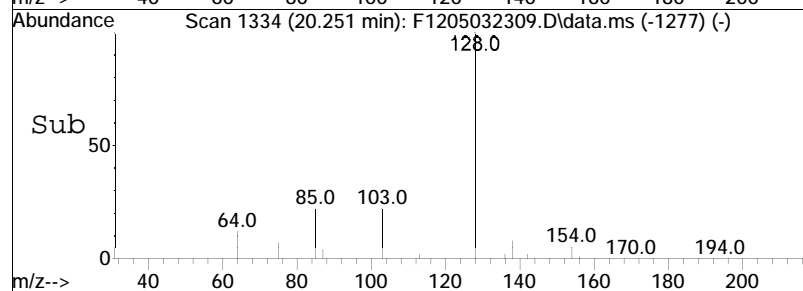
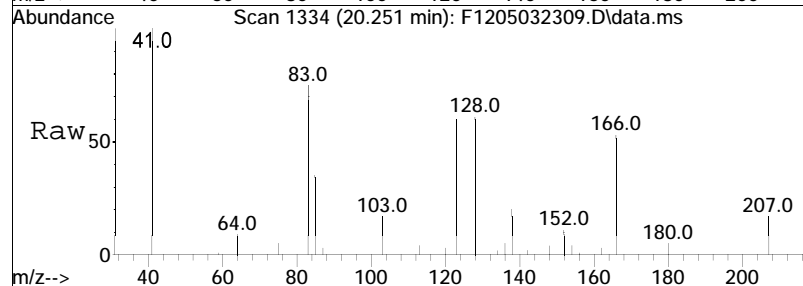
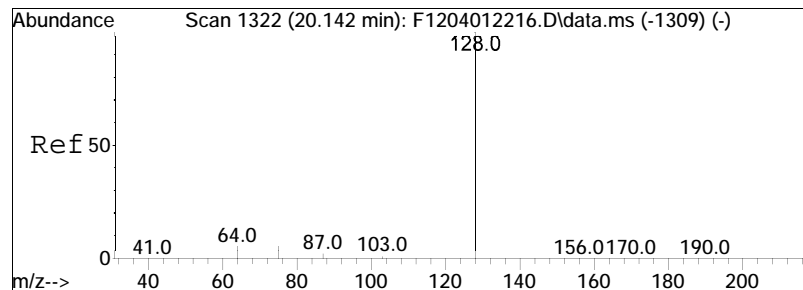
#6
 C3-Decalins
 Concen: 12777.50 ng/mL M5
 RT: 22.569 min Scan# 1588
 Delta R.T. 0.009 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm
 Tgt Ion:180 Resp: 615461



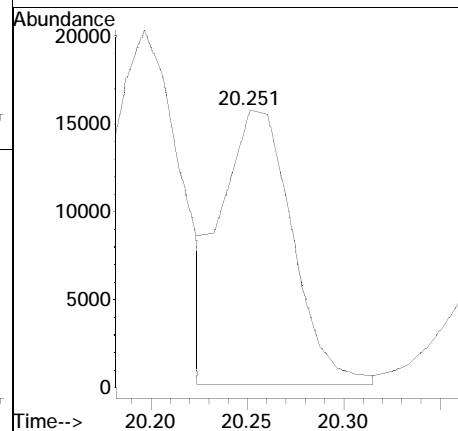


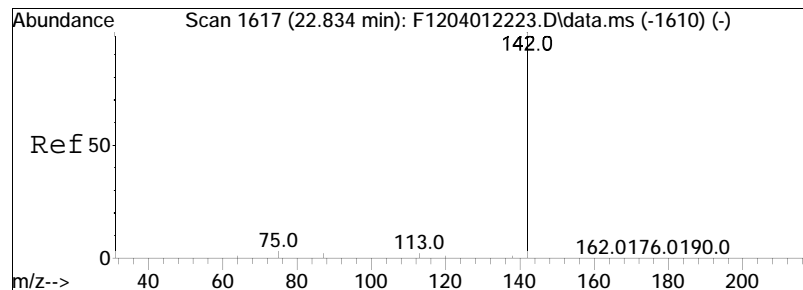
#7
 C4-Decalins
 Concen: 13346.91 ng/mL M5
 RT: 24.851 min Scan# 1838
 Delta R.T. 0.018 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm
 Tgt Ion:194 Resp: 642888





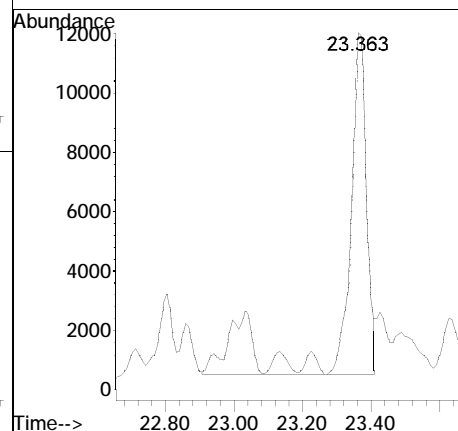
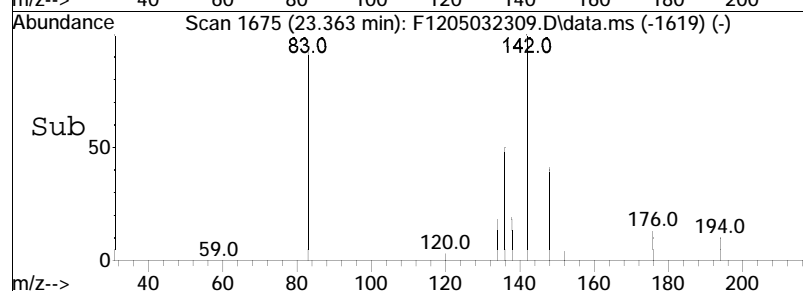
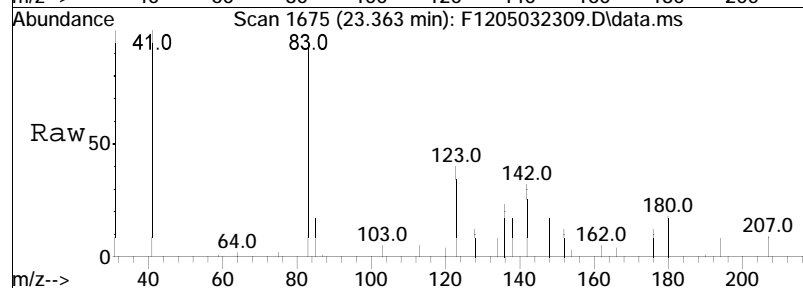
#9
Naphthalene
Concen: 168.17 ng/mL M6
RT: 20.251 min Scan# 1334
Delta R.T. 0.018 min
Lab File: F1205032309.D
Acq: 4 May 2023 5:57 pm
Tgt Ion:128 Resp: 39455

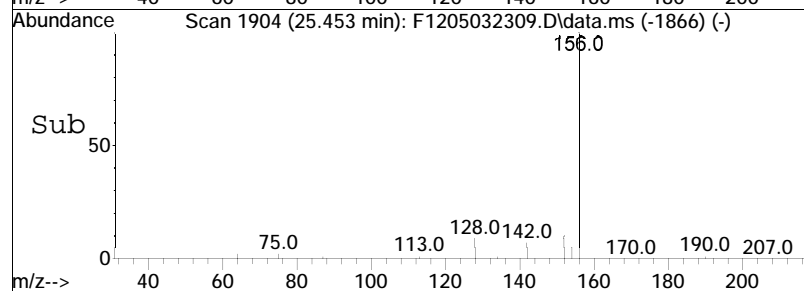
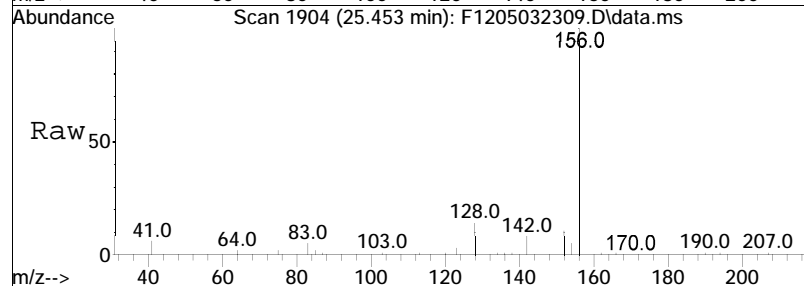
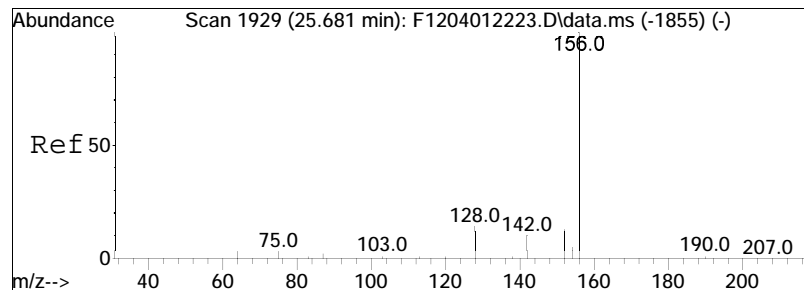




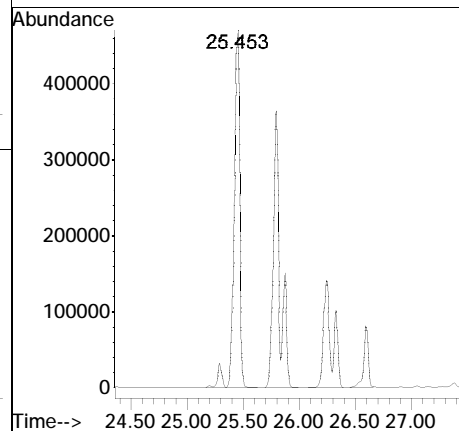
#10
 Cl-Naphthalenes
 Concen: 209.61 ng/mL M5
 RT: 23.363 min Scan# 1675
 Delta R.T. 0.427 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

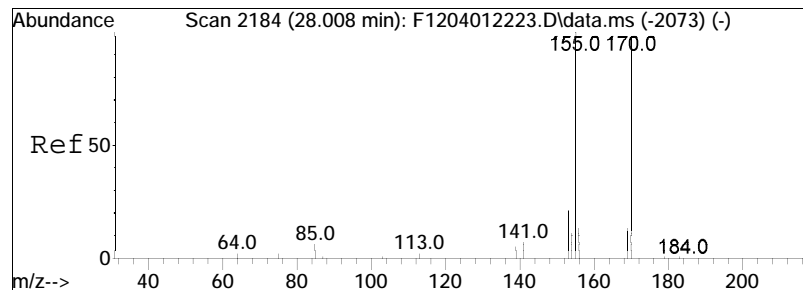
Tgt Ion:142 Resp: 49177





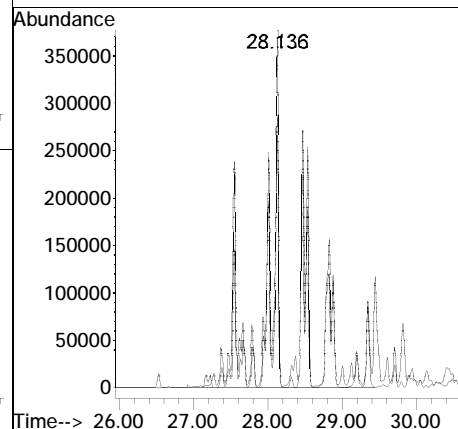
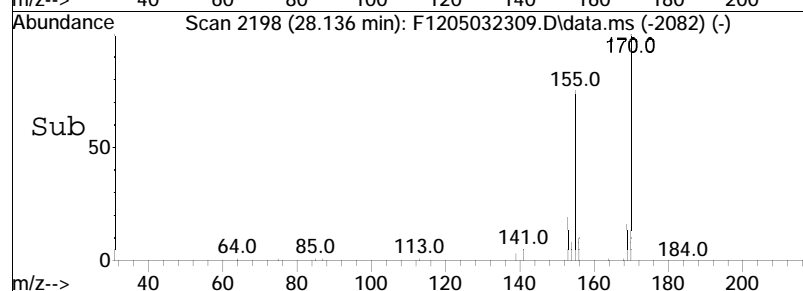
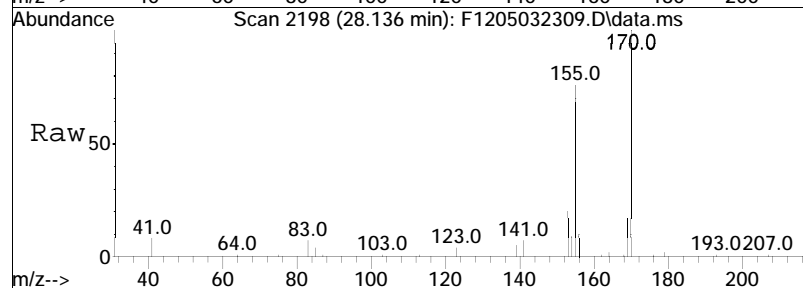
#11
 C2-Naphthalenes
 Concen: 17603.16 ng/mL M5
 RT: 25.453 min Scan# 1904
 Delta R.T. -0.314 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm
 Tgt Ion:156 Resp: 4129976

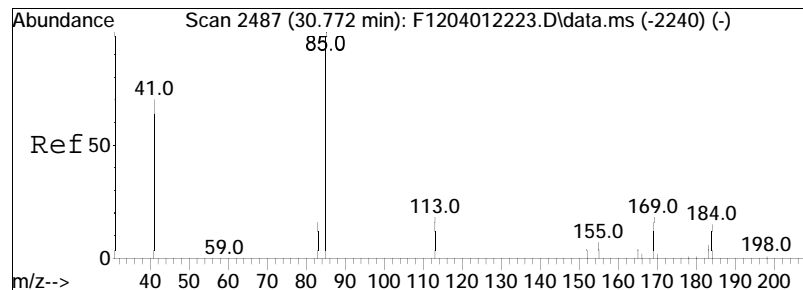




#12
 C3-Naphthalenes
 Concen: 21205.82 ng/mL M5
 RT: 28.136 min Scan# 2198
 Delta R.T. 0.030 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

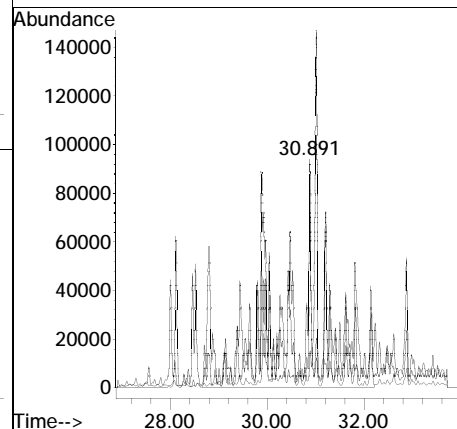
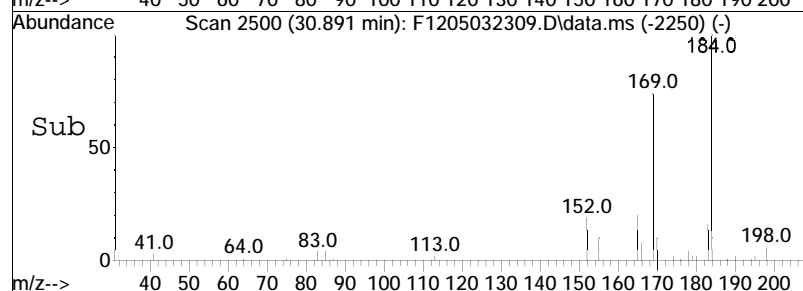
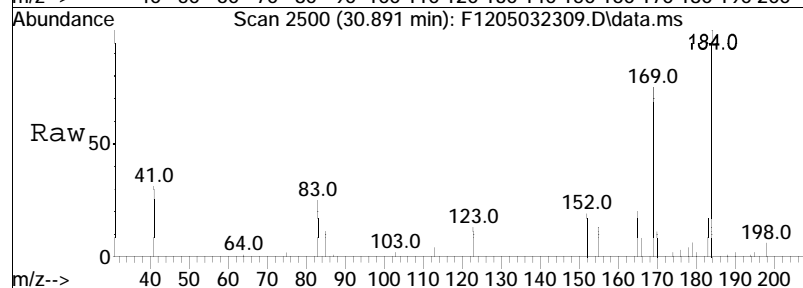
Tgt Ion:170 Resp: 4975214
 Ion Ratio Lower Upper
 170 100
 155 16.4 59.6 110.6#

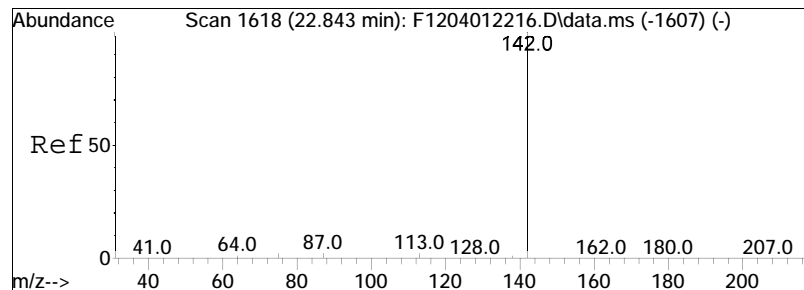




#13
 C4-Naphthalenes
 Concen: 10989.38 ng/mL M5
 RT: 30.891 min Scan# 2500
 Delta R.T. 0.030 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

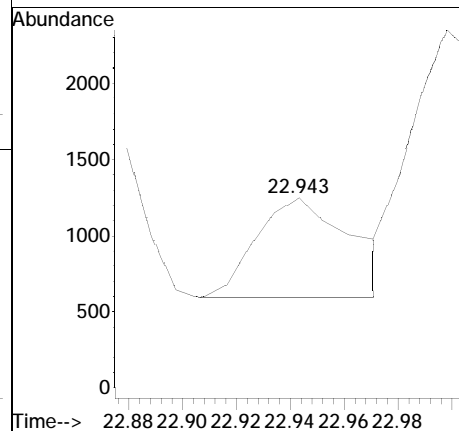
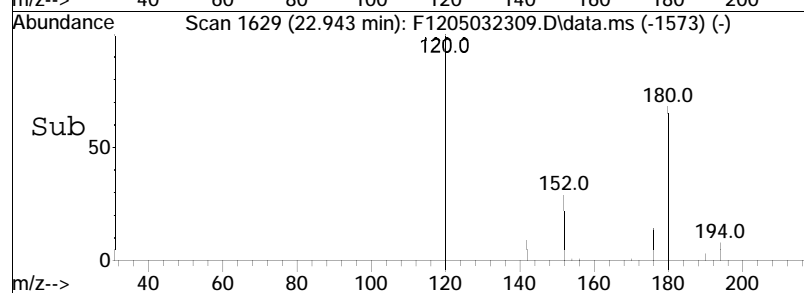
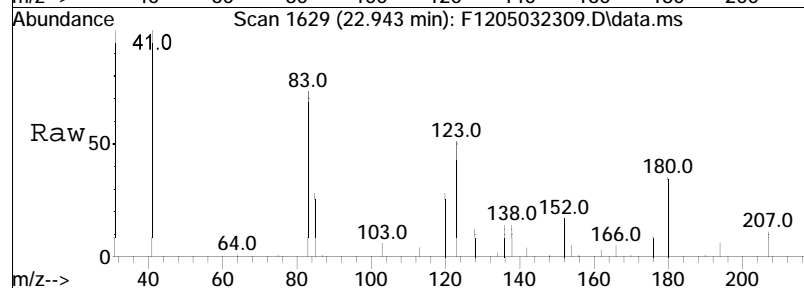
Tgt Ion	Ratio	Lower	Upper
184	100		
169	2.3	64.8	120.4#
183	0.5	20.2	37.6#

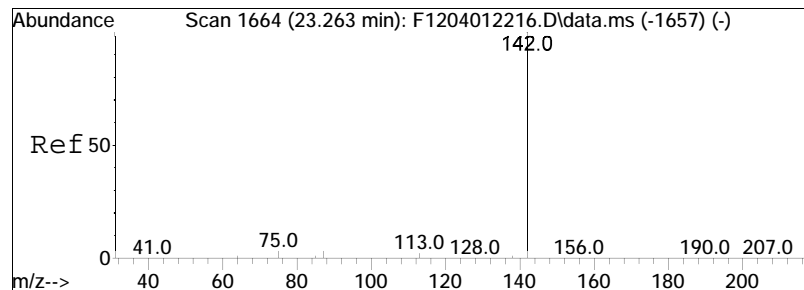




#14
 2-Methylnaphthalene
 Concen: 11.20 ng/mL
 RT: 22.943 min Scan# 1629
 Delta R.T. 0.009 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

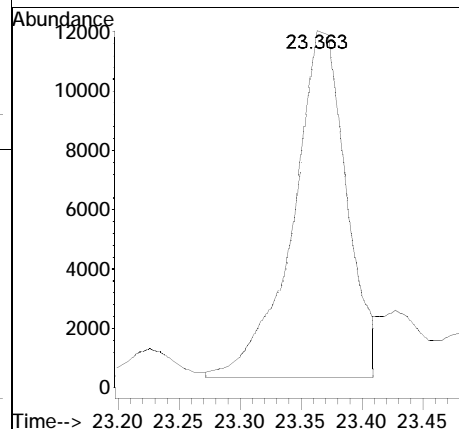
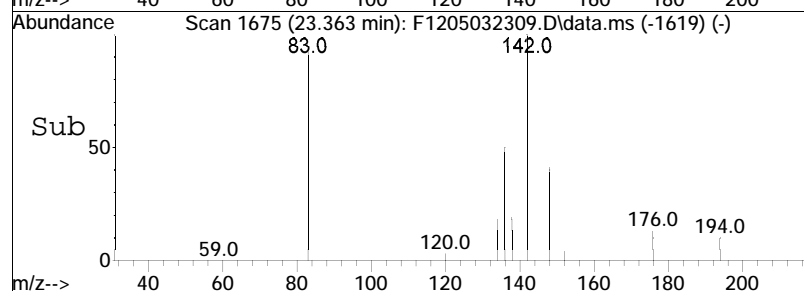
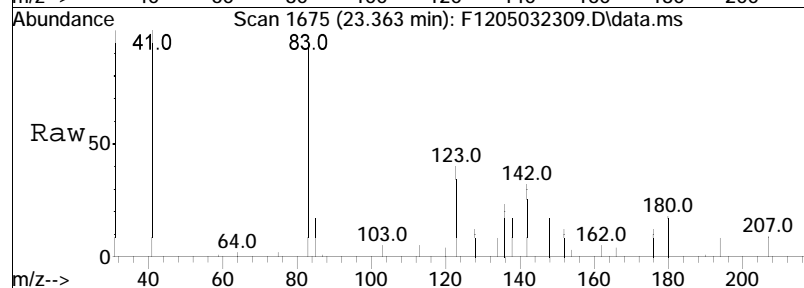
Tgt Ion:142 Resp: 1613

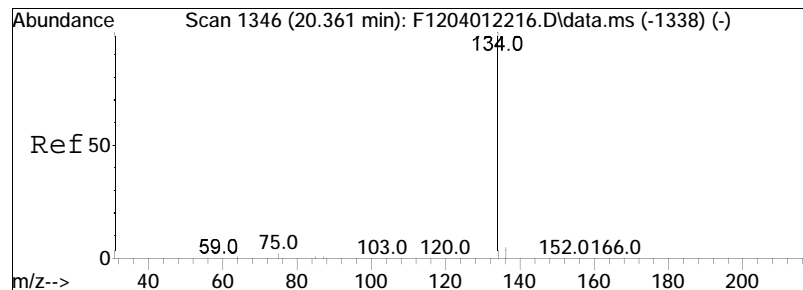




#15
 1-Methylnaphthalene
 Concen: 265.24 ng/mL M4
 RT: 23.363 min Scan# 1675
 Delta R.T. 0.009 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

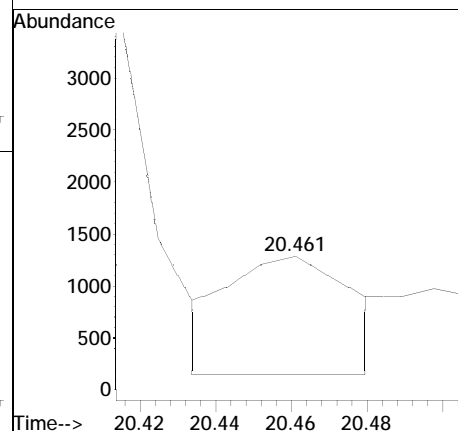
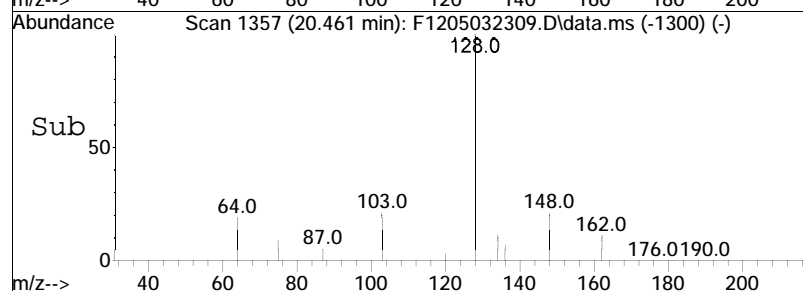
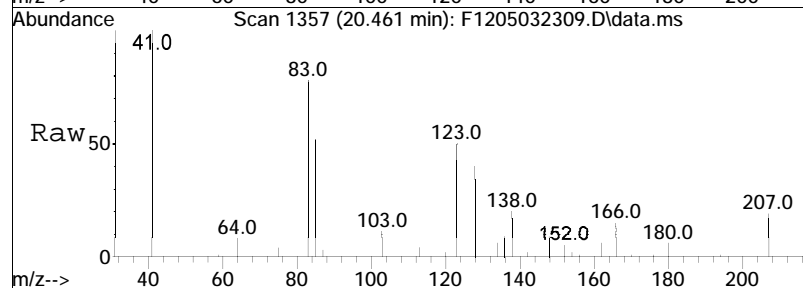
Tgt Ion:142 Resp: 36127

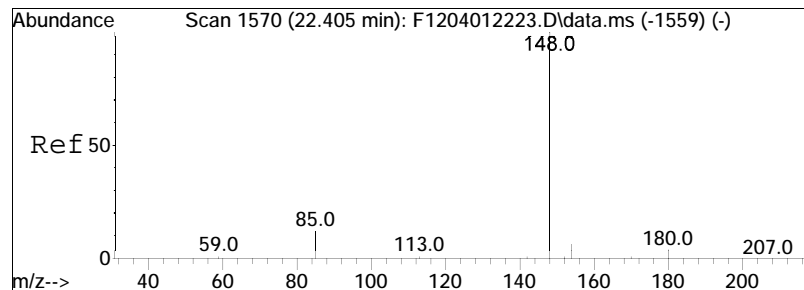




#16
 Benzothiophene
 Concen: 13.72 ng/mL M3
 RT: 20.461 min Scan# 1357
 Delta R.T. 0.018 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

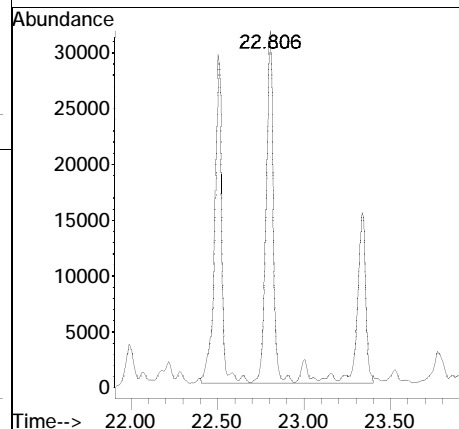
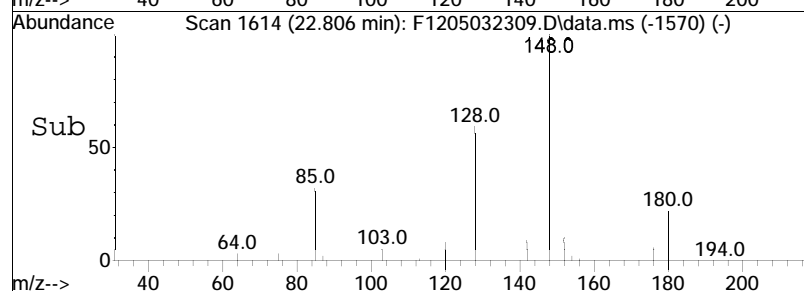
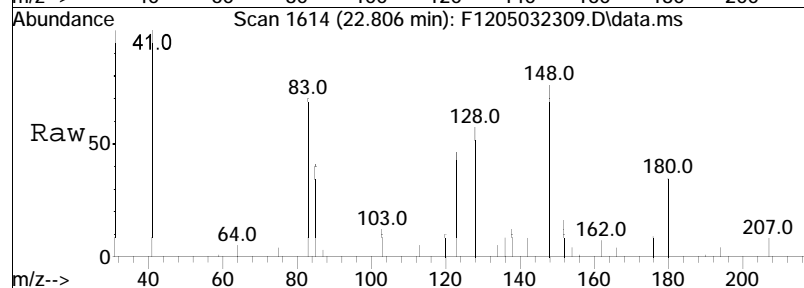
Tgt Ion:134 Resp: 2591

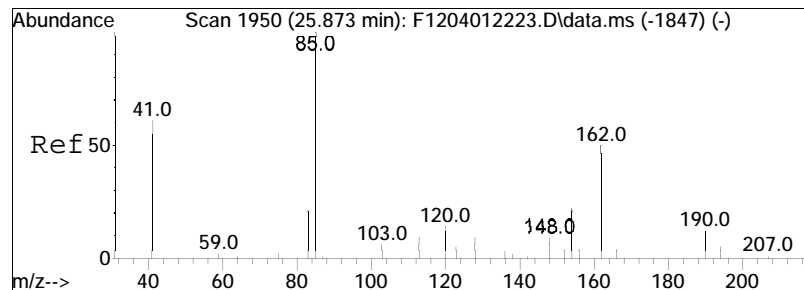




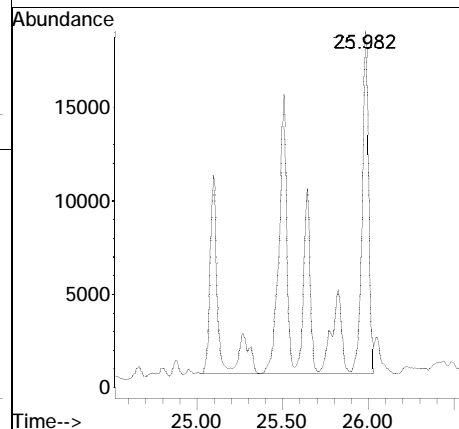
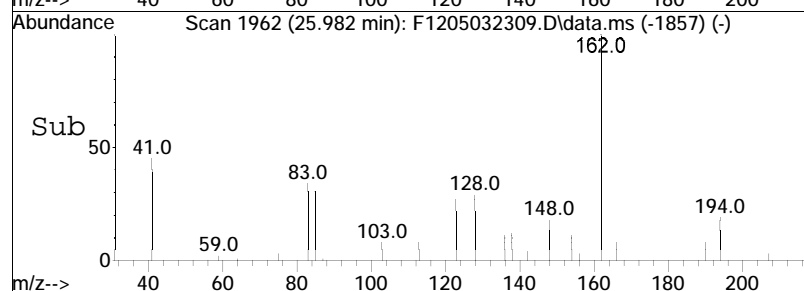
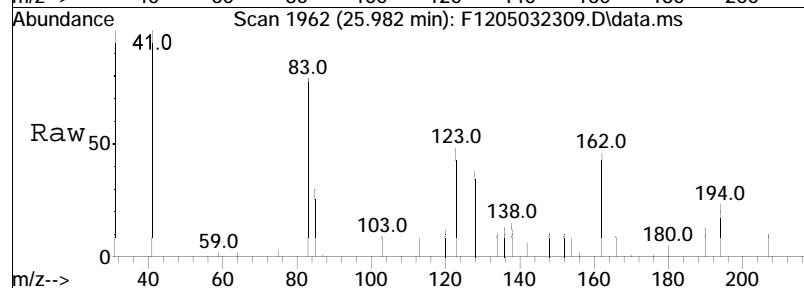
#17
 Cl-Benzo(b)thiophenes
 Concen: 1242.21 ng/mL M5
 RT: 22.806 min Scan# 1614
 Delta R.T. 0.307 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

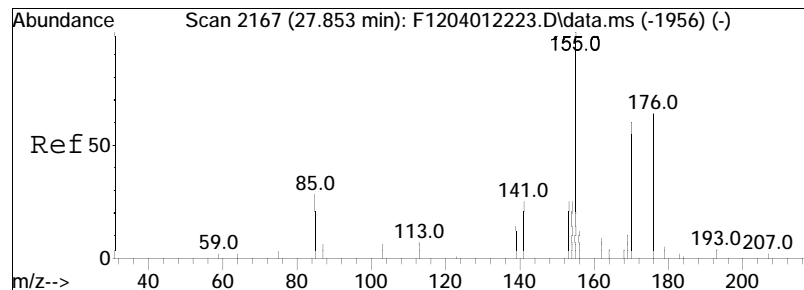
Tgt Ion:148 Resp: 234553



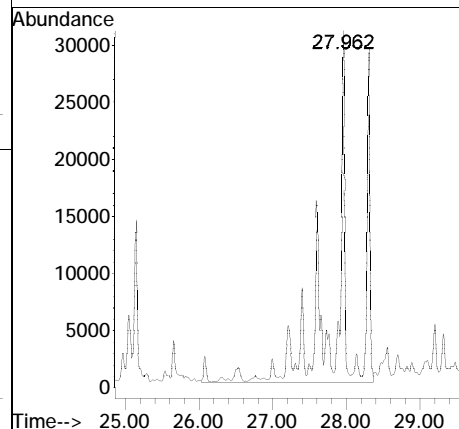
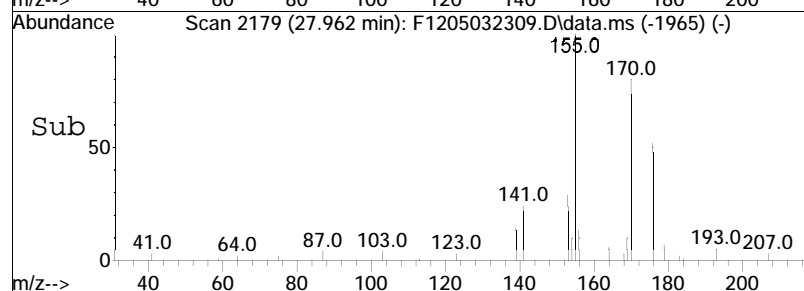
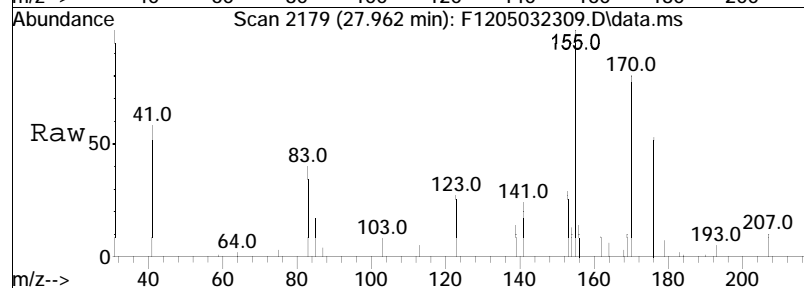


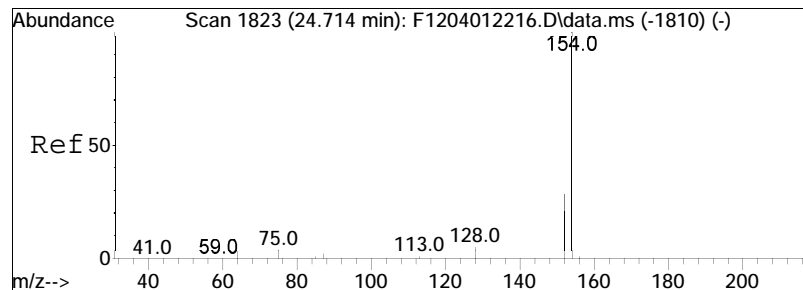
#18
 C2-Benzo(b)thiophenes
 Concen: 950.77 ng/mL M5
 RT: 25.982 min Scan# 1962
 Delta R.T. 0.015 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm
 Tgt Ion:162 Resp: 179524





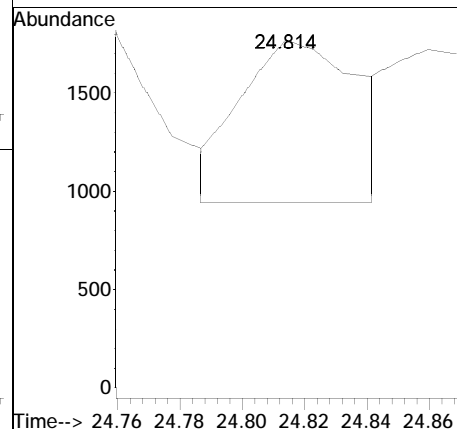
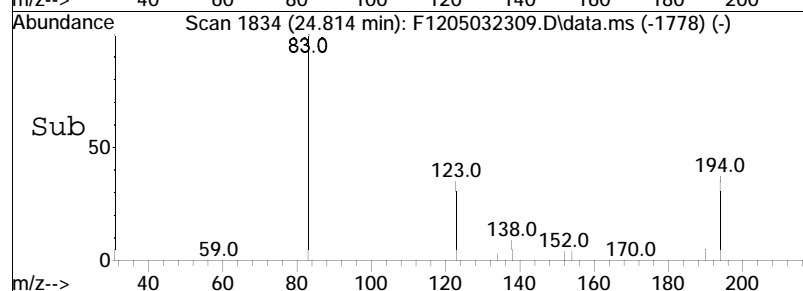
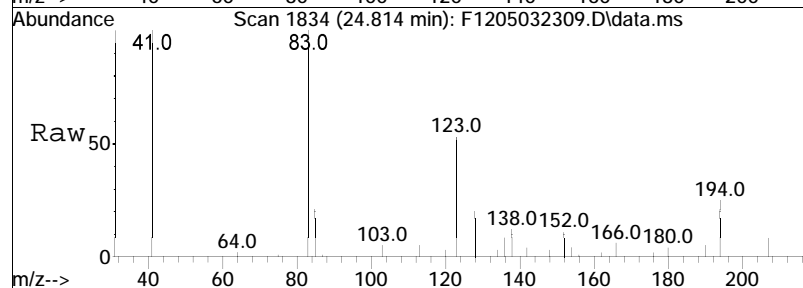
#19
 C3-Benzo(b)thiophenes
 Concen: 1836.61 ng/mL M5
 RT: 27.962 min Scan# 2179
 Delta R.T. 0.029 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm
 Tgt Ion:176 Resp: 346787

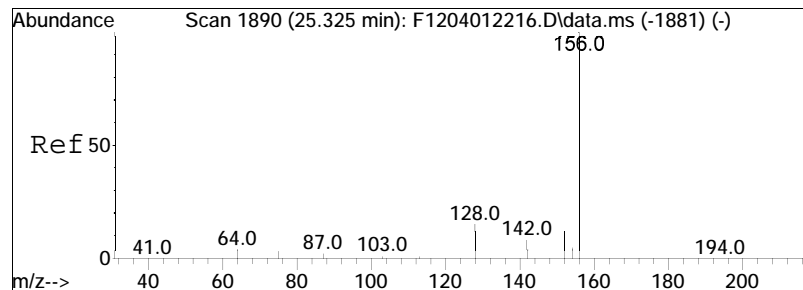




#21
 Biphenyl
 Concen: 12.30 ng/mL M4
 RT: 24.814 min Scan# 1834
 Delta R.T. 0.009 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

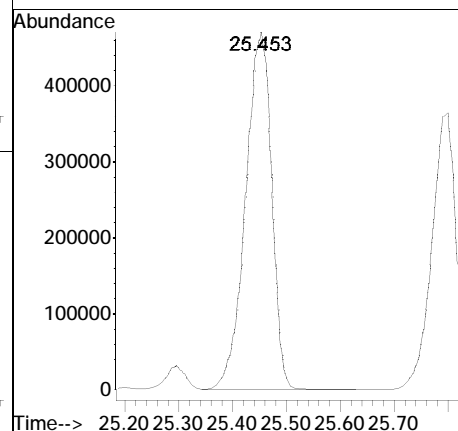
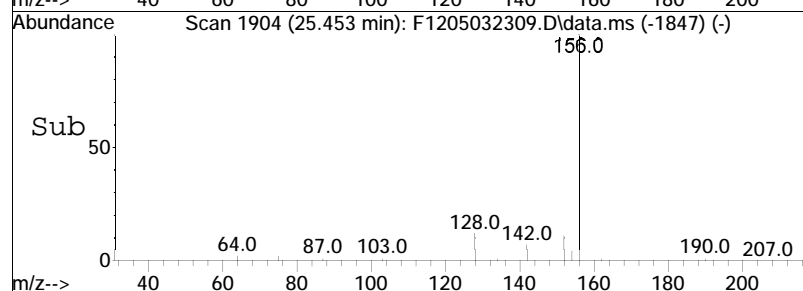
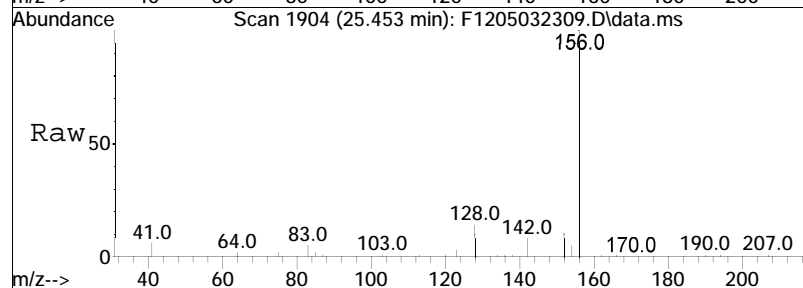
Tgt Ion:154 Resp: 2202

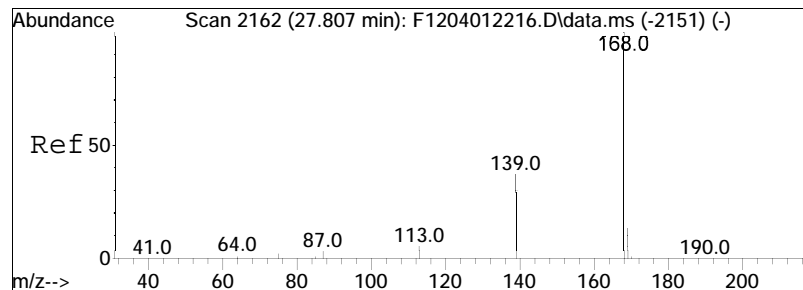




#22
 2,6-Dimethylnaphthalene
 Concen: 13385.55 ng/mL
 RT: 25.453 min Scan# 1904
 Delta R.T. 0.018 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

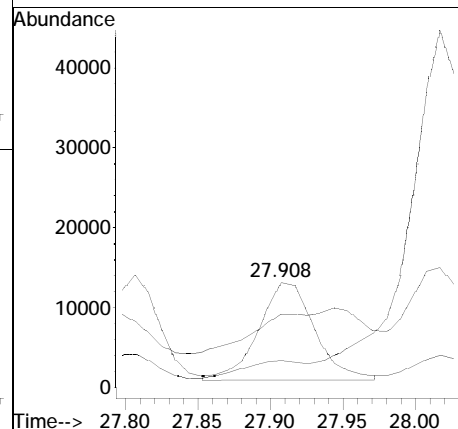
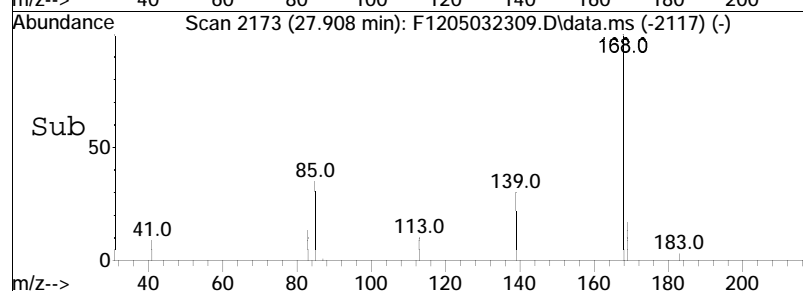
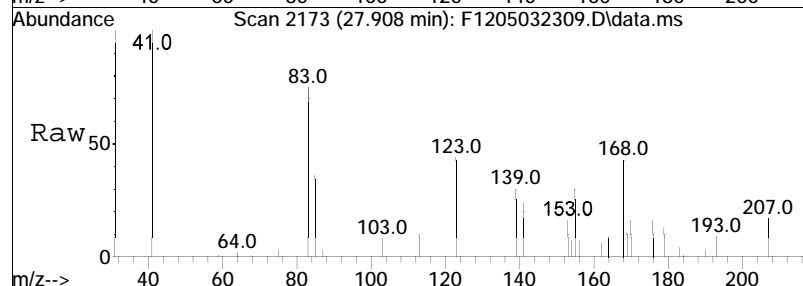
Tgt Ion:156 Resp: 1579675

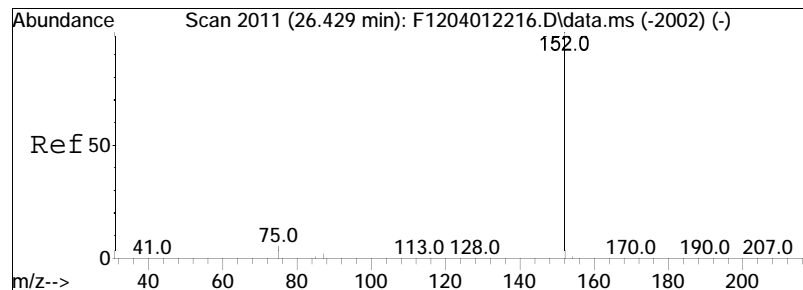




#23
 Dibenzofuran
 Concen: 194.54 ng/mL
 RT: 27.908 min Scan# 2173
 Delta R.T. 0.009 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

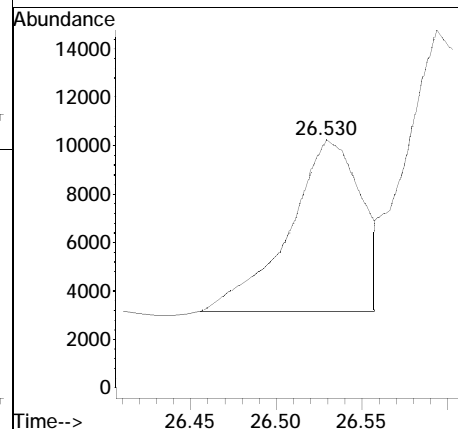
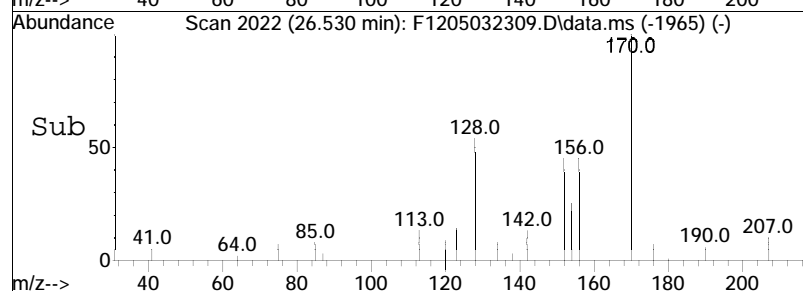
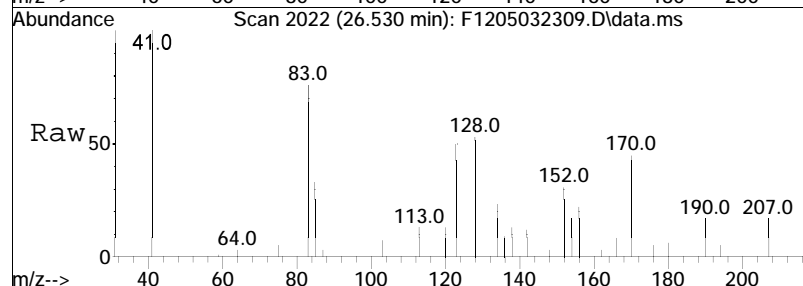
Tgt Ion	Ratio	Lower	Upper
168	100		
139	0.0	24.6	45.8#
169	19.6	10.3	19.1#

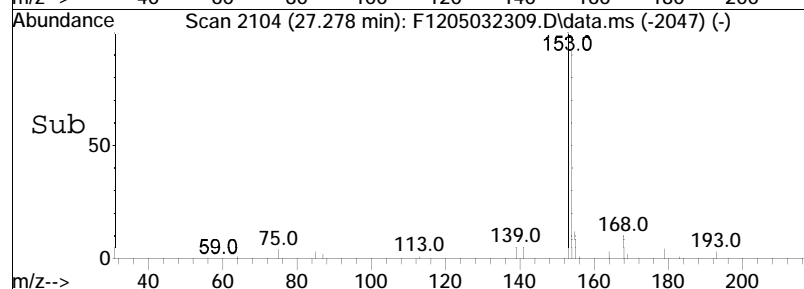
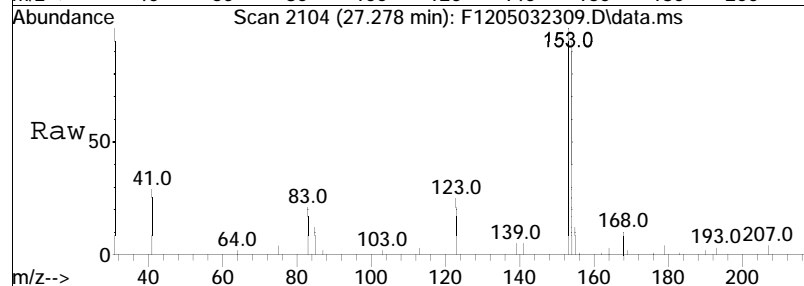
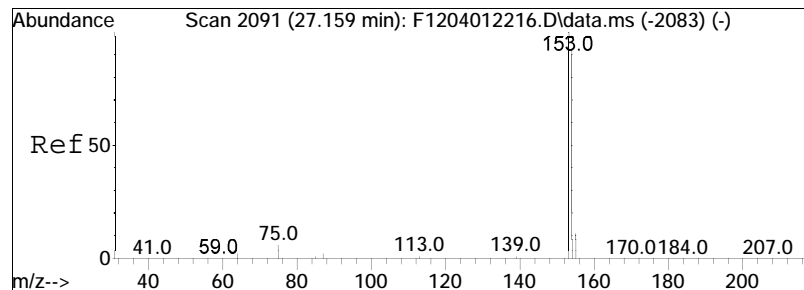




#24
 Acenaphthylene
 Concen: 105.51 ng/mL
 RT: 26.530 min Scan# 2022
 Delta R.T. 0.018 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

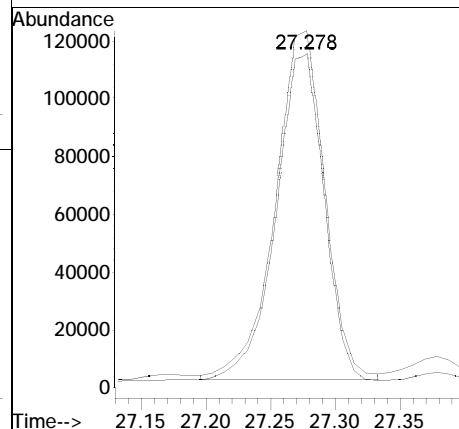
Tgt Ion:152 Resp: 21352

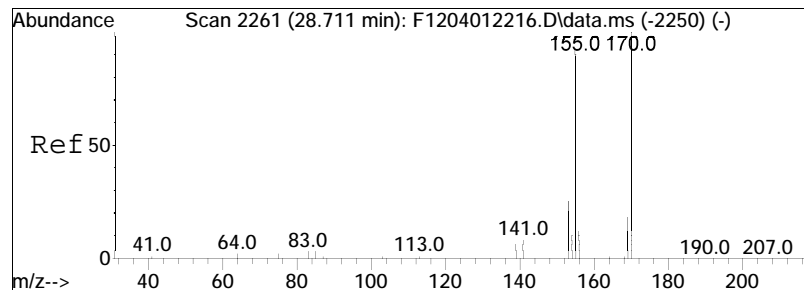




#25
 Acenaphthene
 Concen: 2478.63 ng/mL M3
 RT: 27.278 min Scan# 2104
 Delta R.T. 0.018 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

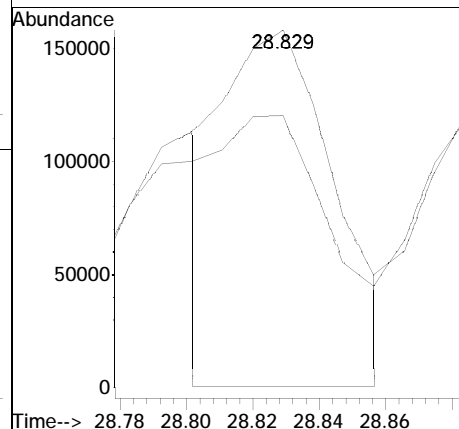
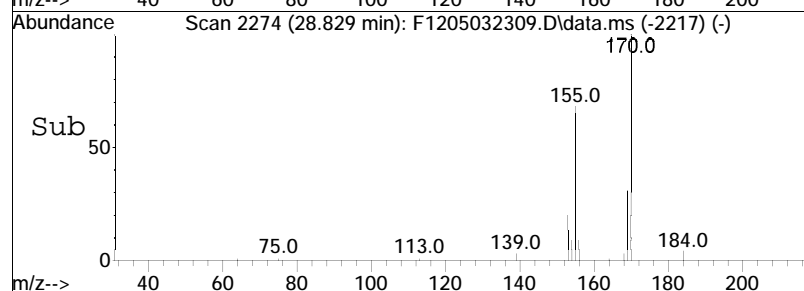
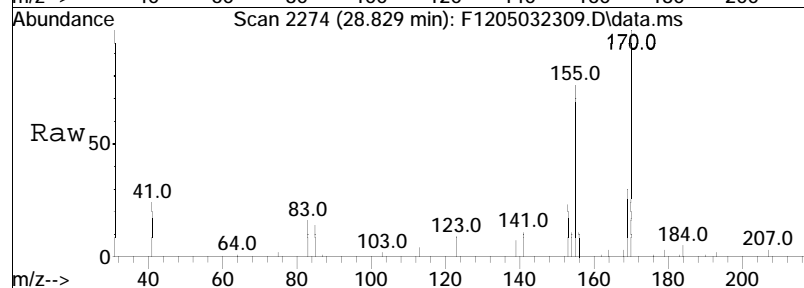
Tgt	Ion	Ratio	Lower	Upper
153	100			
154	16.8	47.5	88.3	

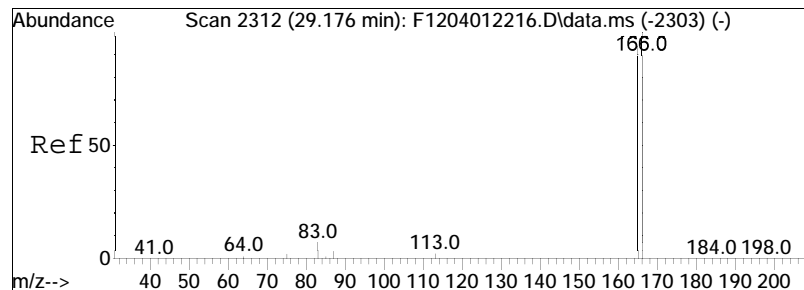




#26
 2,3,5-Trimethylnaphthalene
 Concen: 3403.48 ng/mL M3
 RT: 28.829 min Scan# 2274
 Delta R.T. 0.018 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

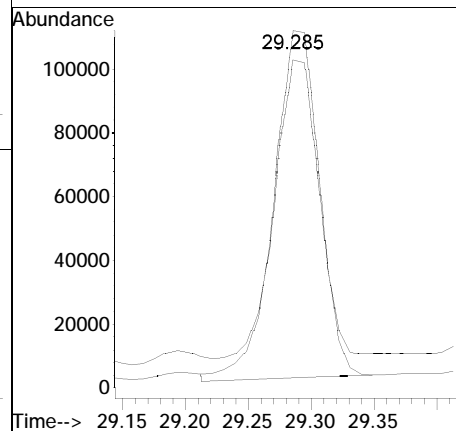
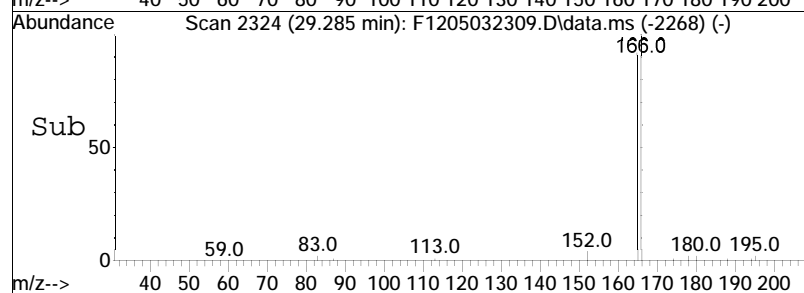
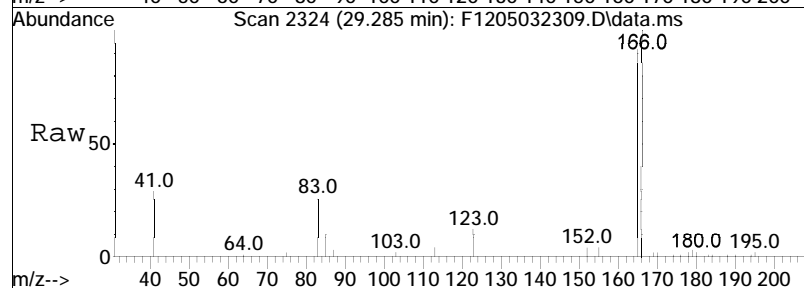
Tgt Ion	Ratio	Lower	Upper
170	100		
155	132.3	52.7	97.9#

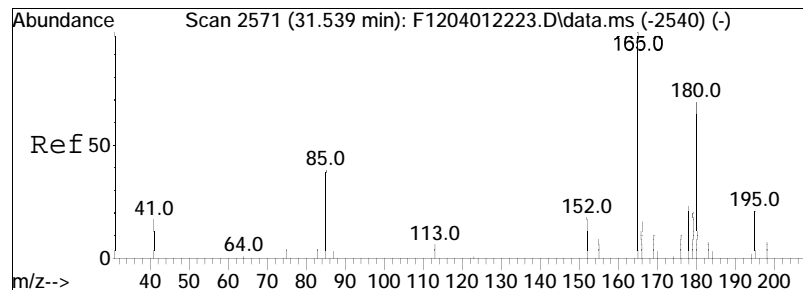




#27
 Fluorene
 Concen: 2036.45 ng/mL
 RT: 29.285 min Scan# 2324
 Delta R.T. 0.009 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

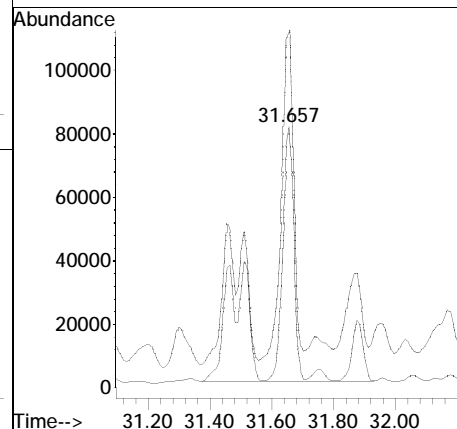
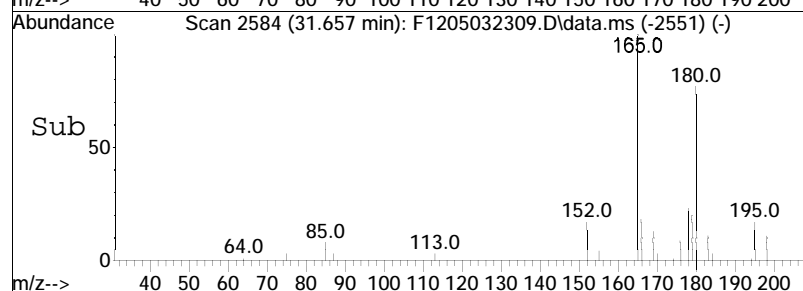
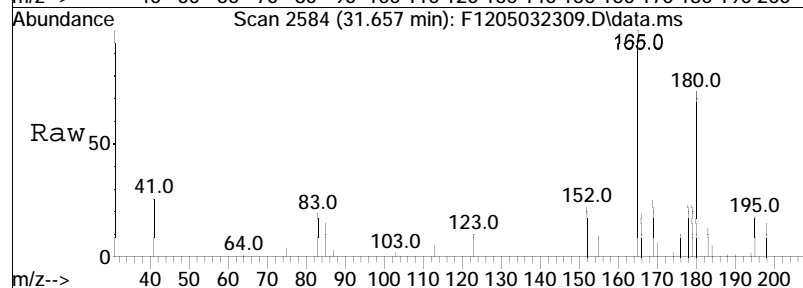
Tgt	Ion	Ratio	Lower	Upper
166	100			
165	87.6	64.2	119.2	

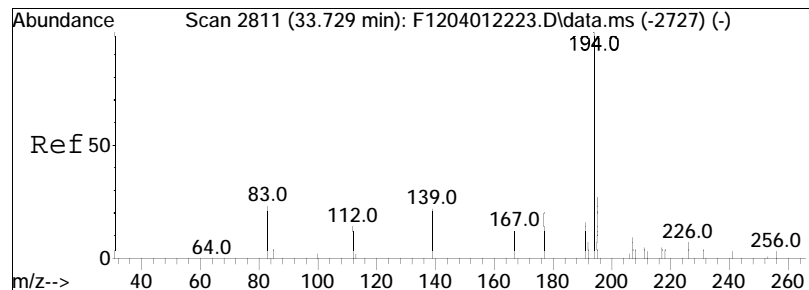




#28
 Cl-Fluorenes
 Concen: 3265.24 ng/mL M5
 RT: 31.657 min Scan# 2584
 Delta R.T. 0.018 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

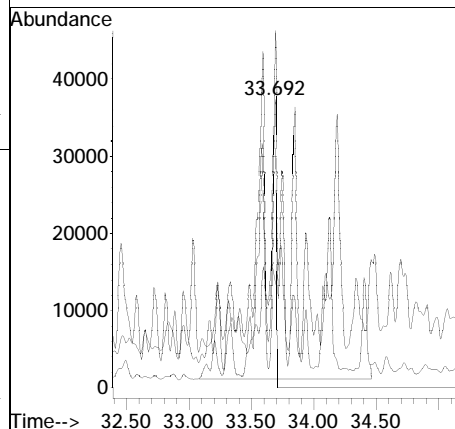
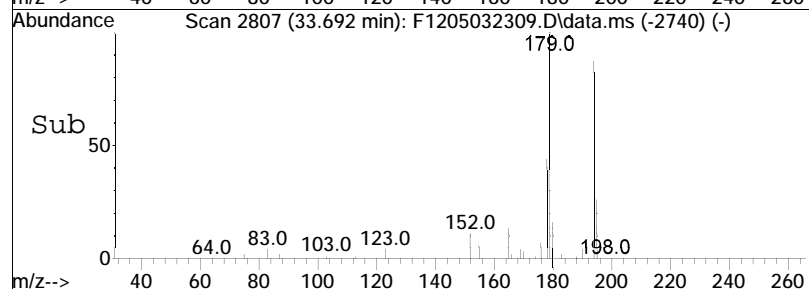
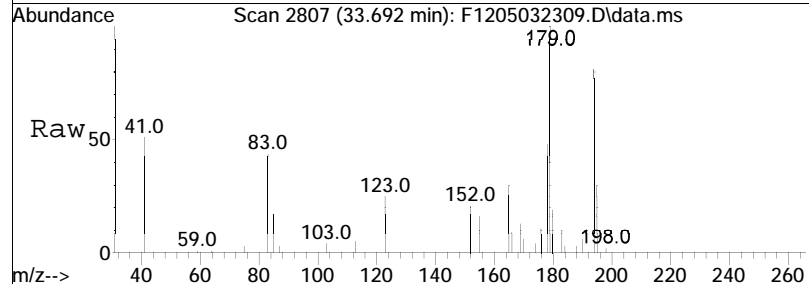
Tgt	Ion	Ratio	Lower	Upper
180	100			
165	62.2	87.3	162.1#	

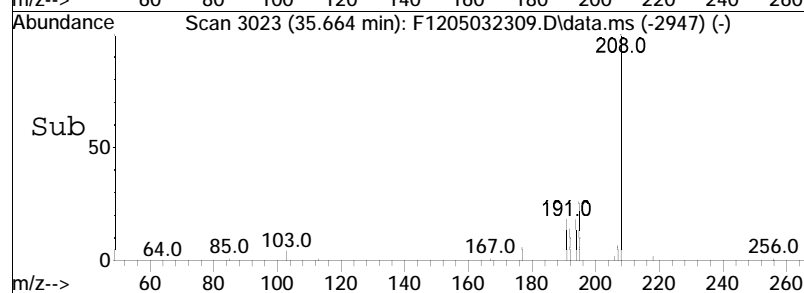
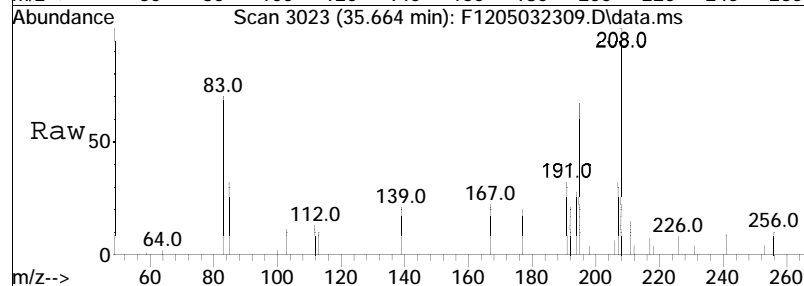
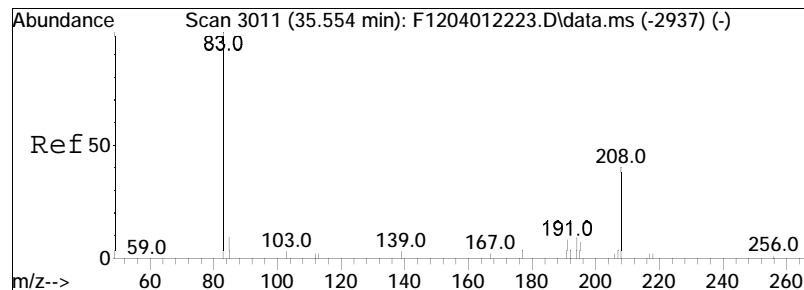




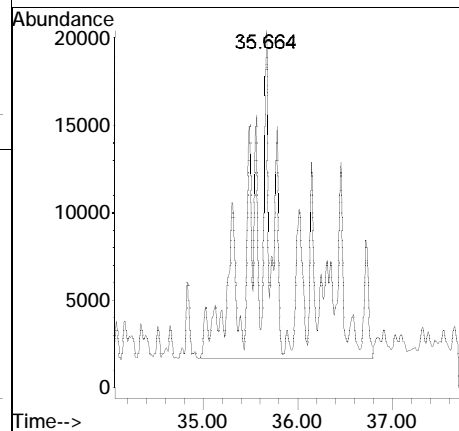
#29
 C2-Fluorenes
 Concen: 4316.86 ng/mL M5
 RT: 33.692 min Scan# 2807
 Delta R.T. -0.137 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

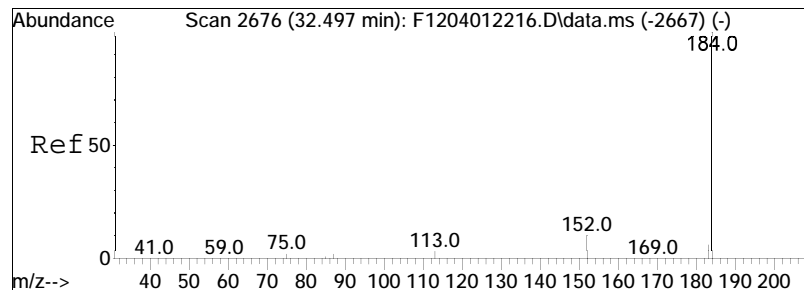
Tgt	Ion:194	Resp:	586604
Ion	Ratio	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	3.8	23.0	42.6#





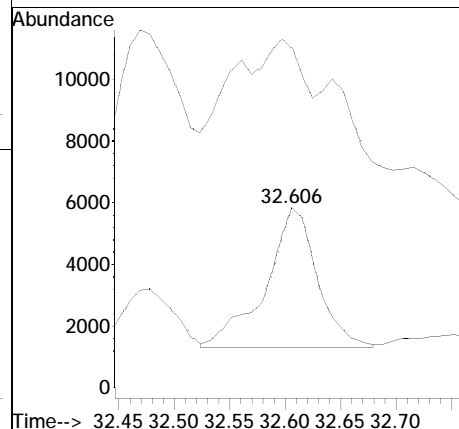
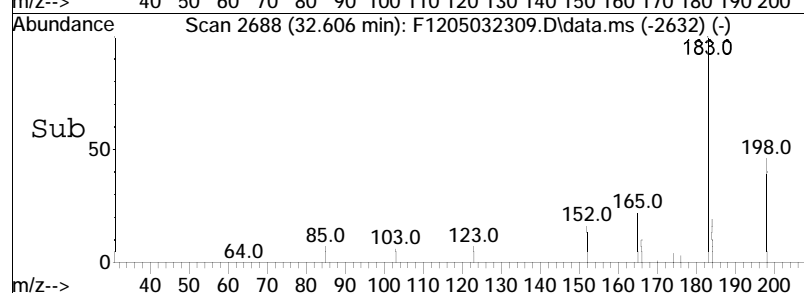
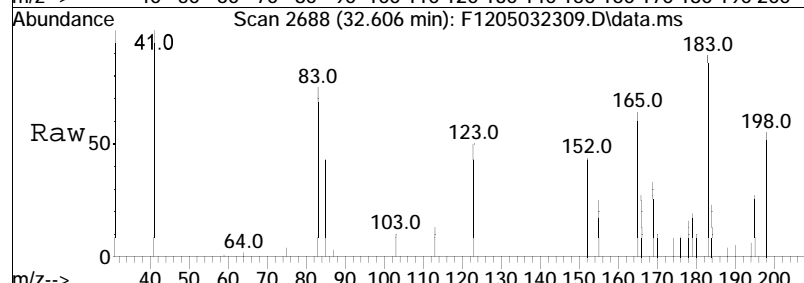
#30
C3-Fluorenes
Concen: 3249.94 ng/mL M5
RT: 35.664 min Scan# 3023
Delta R.T. 0.009 min
Lab File: F1205032309.D
Acq: 4 May 2023 5:57 pm
Tgt Ion:208 Resp: 441623

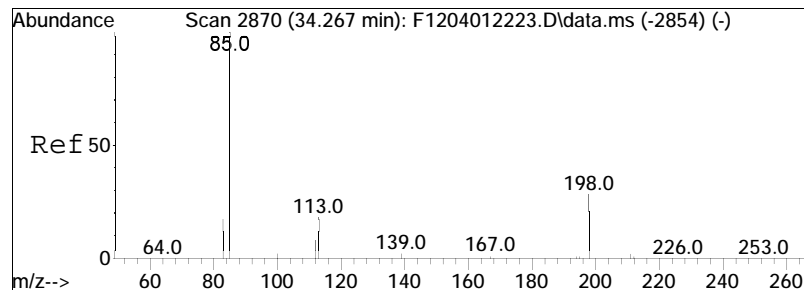




#31
 Dibenzothiophene
 Concen: 73.06 ng/mL
 RT: 32.606 min Scan# 2688
 Delta R.T. 0.009 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

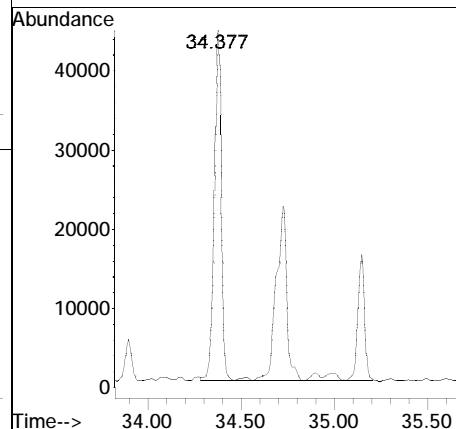
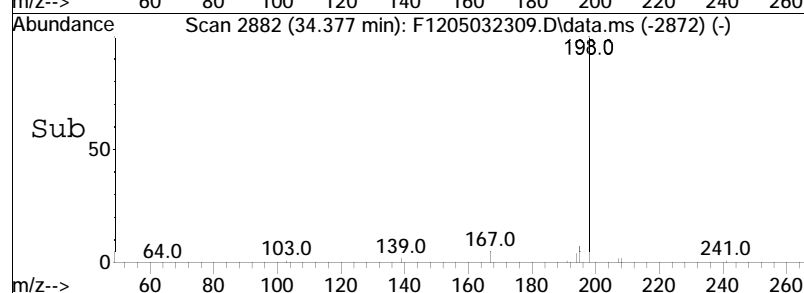
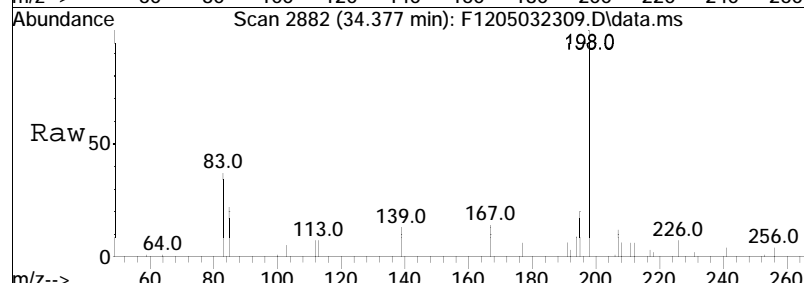
Tgt Ion:184 Resp: 14330
 Ion Ratio Lower Upper
 184 100
 152 0.0 9.2 17.2#

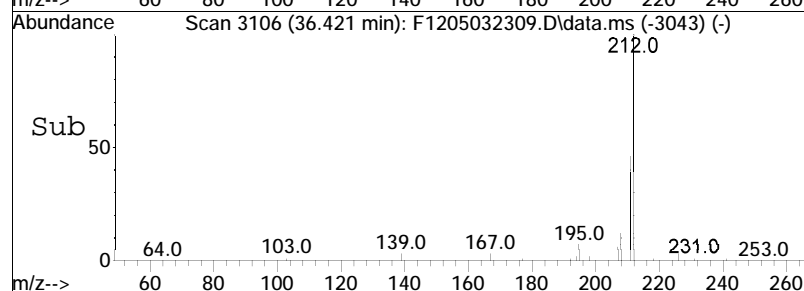
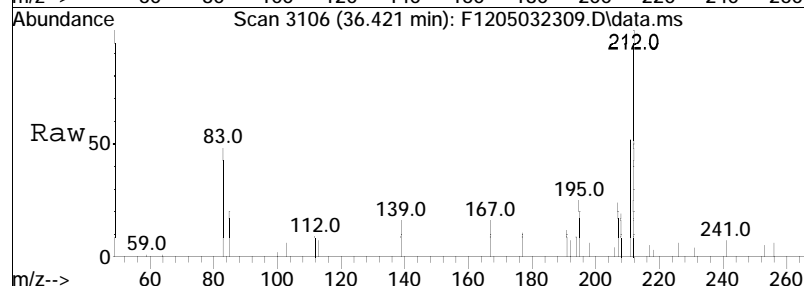
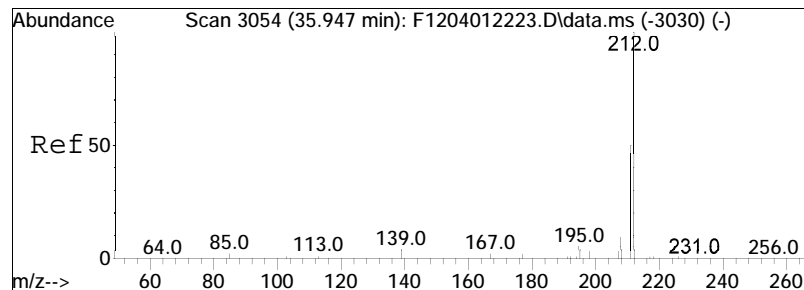




#36
 Cl-Dibenzothiophenes
 Concen: 1254.53 ng/mL M5
 RT: 34.377 min Scan# 2882
 Delta R.T. 0.009 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

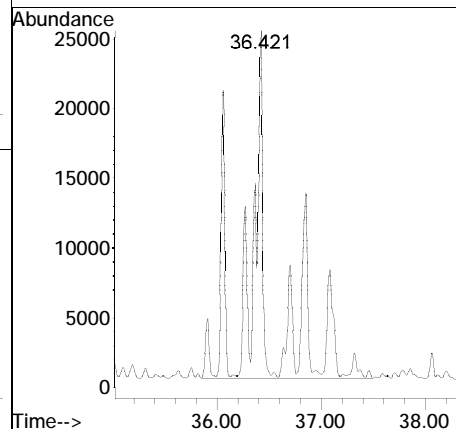
Tgt Ion:198 Resp: 246051

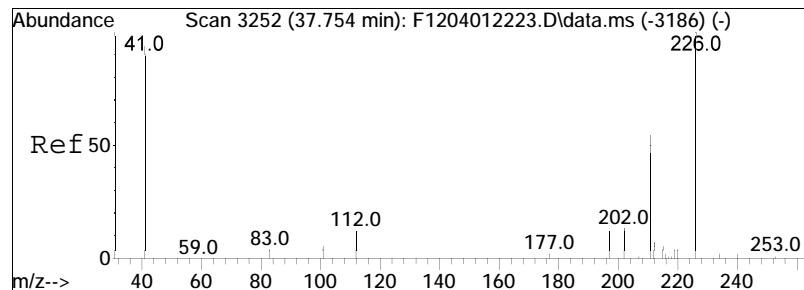




#37
 C2-Dibenzothiophenes
 Concen: 1593.60 ng/mL M5
 RT: 36.421 min Scan# 3106
 Delta R.T. 0.374 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

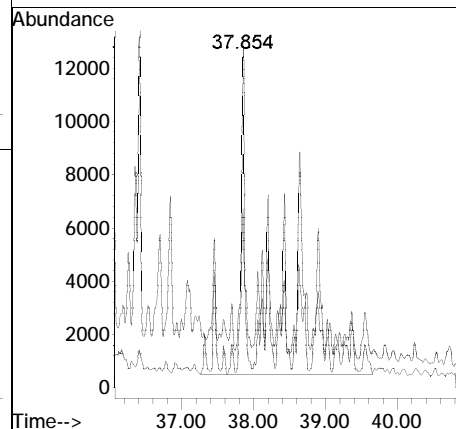
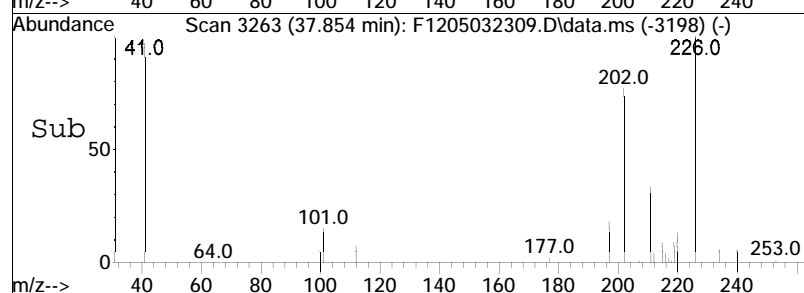
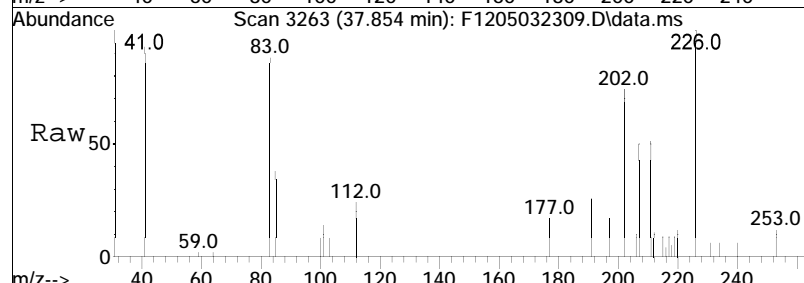
Tgt Ion:212 Resp: 312552

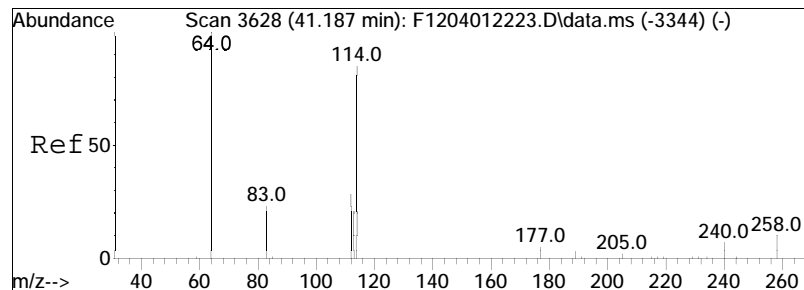




#38
 C3-Dibenzothiophenes
 Concen: 1134.83 ng/mL M5
 RT: 37.854 min Scan# 3263
 Delta R.T. 0.009 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

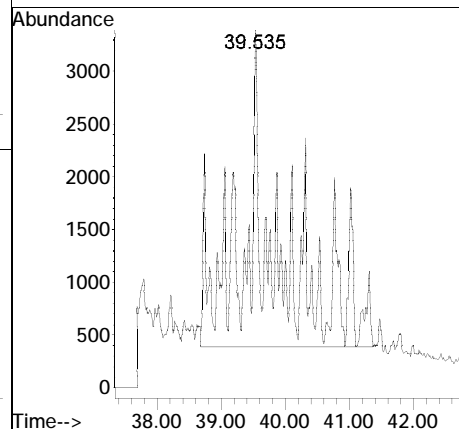
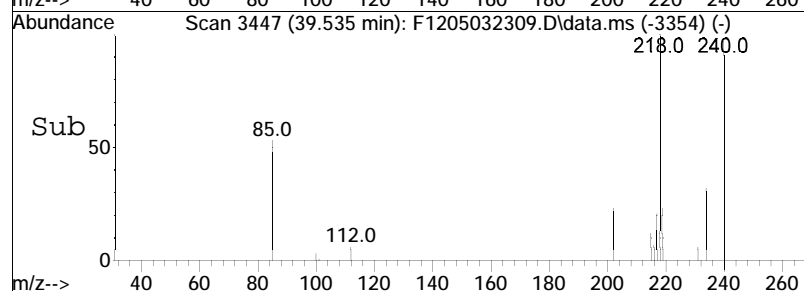
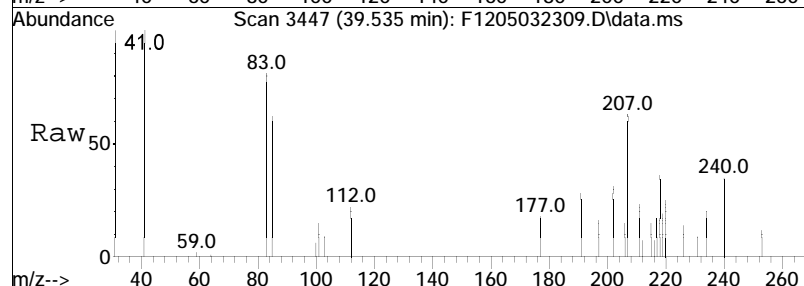
Tgt Ion	Ratio	Lower	Upper
226	100		
211	10.0	35.1	65.3#

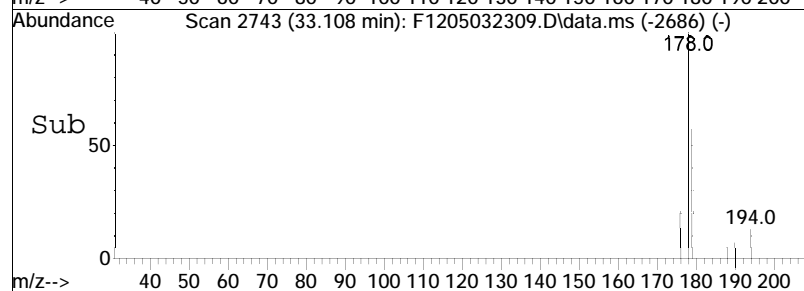
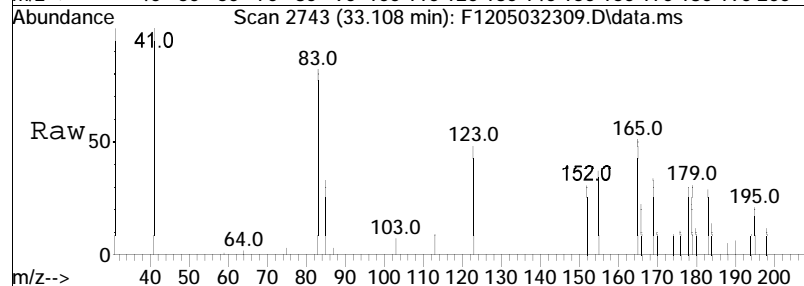
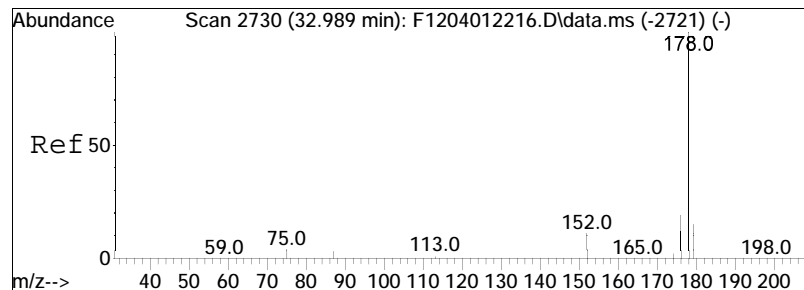




#39
 C4-Dibenzothiophenes
 Concen: 547.19 ng/mL M5
 RT: 39.535 min Scan# 3447
 Delta R.T. 0.794 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

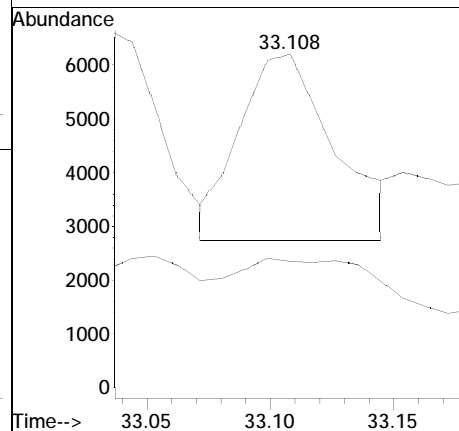
Tgt Ion: 240 Resp: 107319

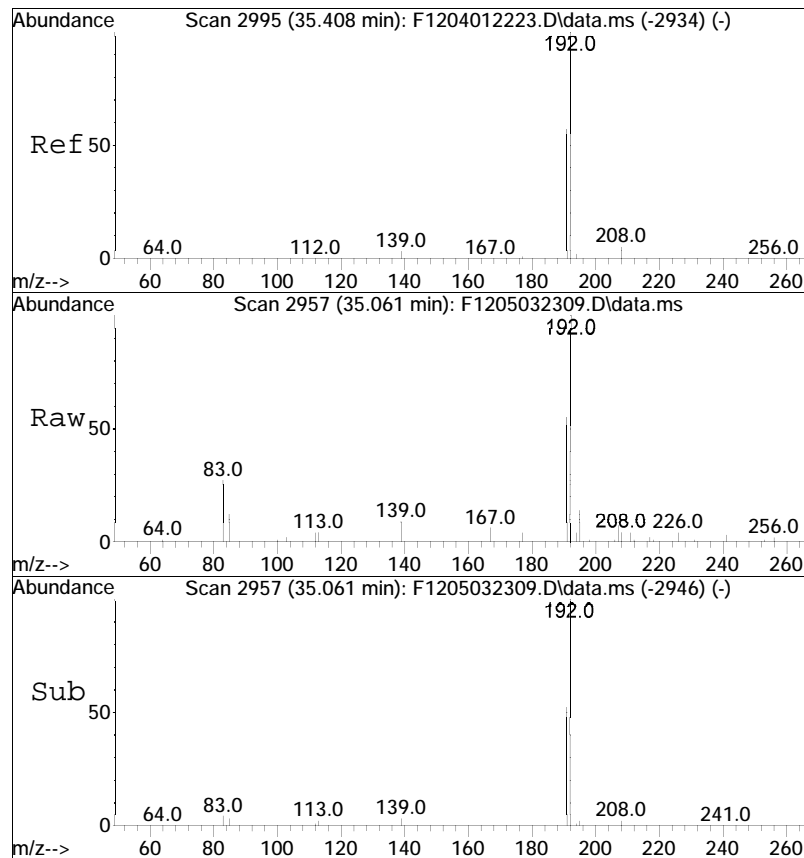




#41
 Phenanthrene
 Concen: 45.28 ng/mL M3
 RT: 33.108 min Scan# 2743
 Delta R.T. 0.018 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

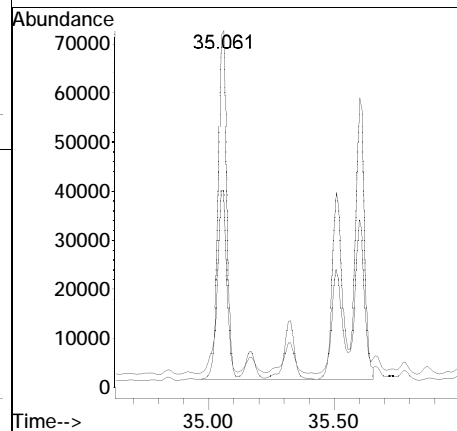
Tgt Ion: 178 Resp: 9243
 Ion Ratio Lower Upper
 178 100
 176 14.2 12.7 23.7

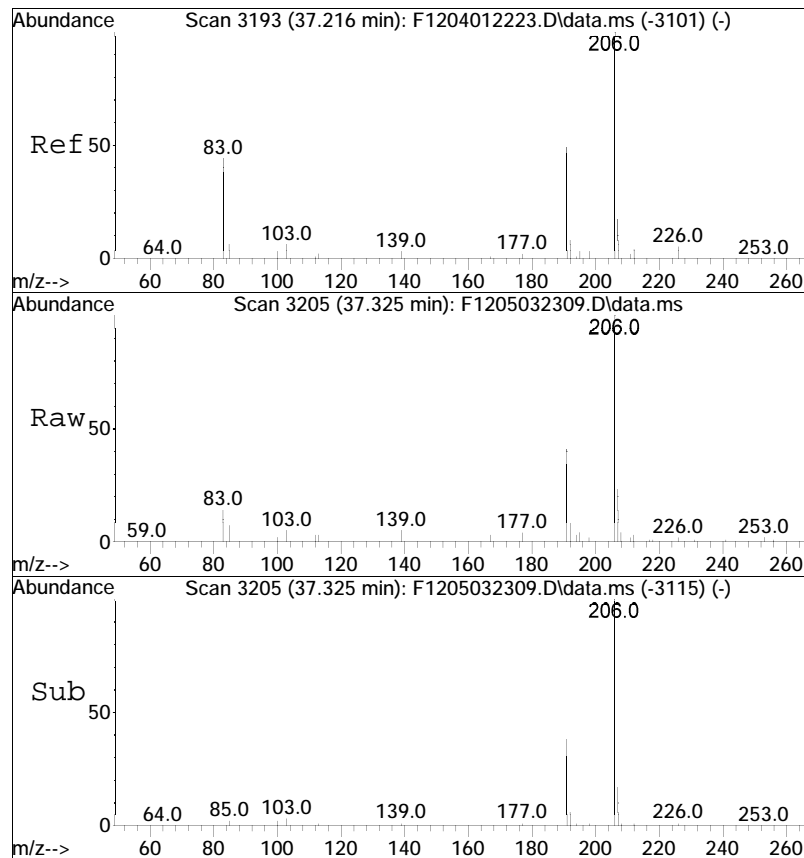




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 2275.21 ng/mL M5
 RT: 35.061 min Scan# 2957
 Delta R.T. -0.447 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

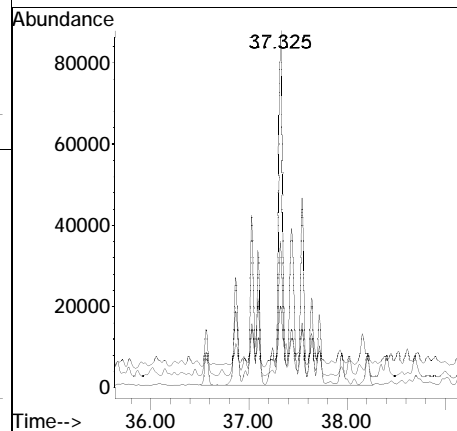
Tgt Ion	Ratio	Lower	Upper
192	100		
191	12.8	38.4	71.2#

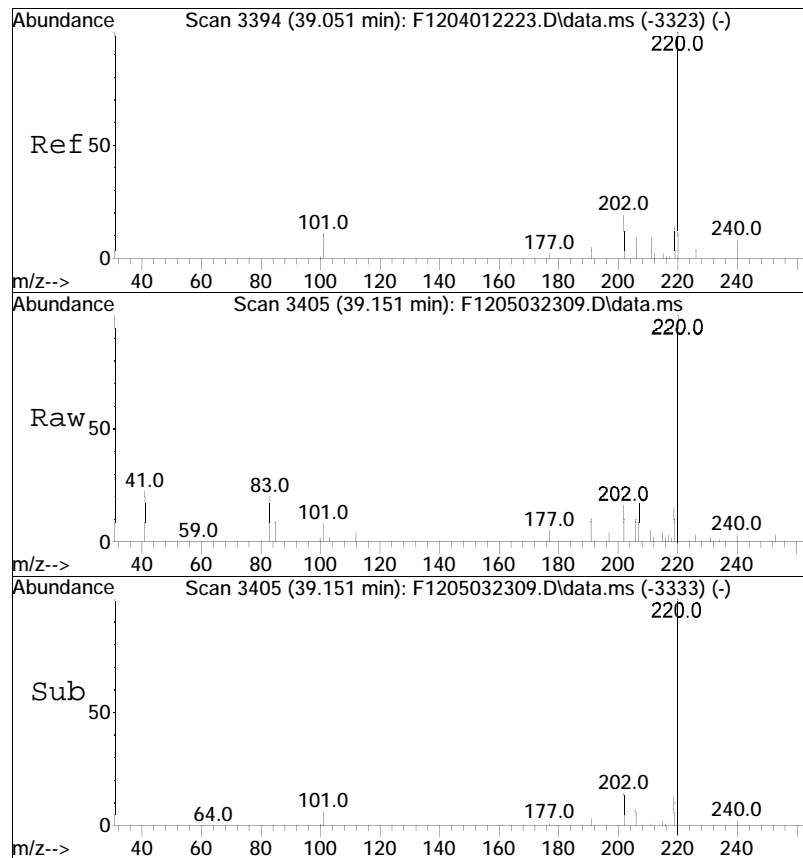




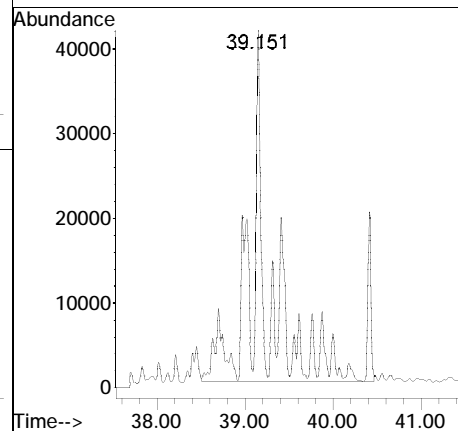
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 4438.82 ng/mL M5
 RT: 37.325 min Scan# 3205
 Delta R.T. 0.009 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

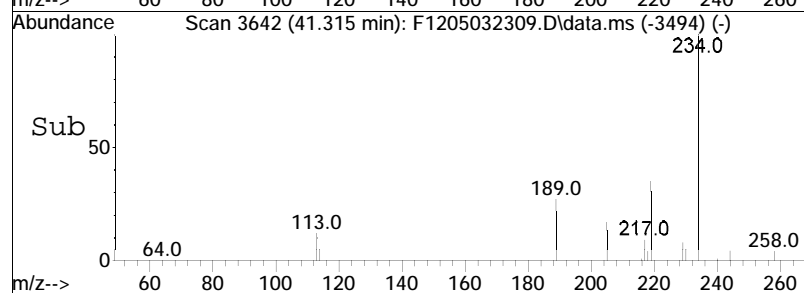
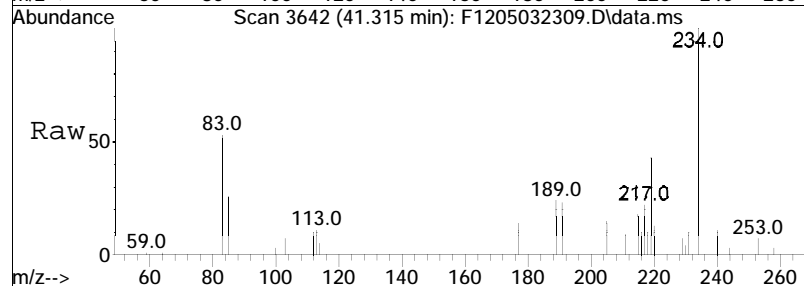
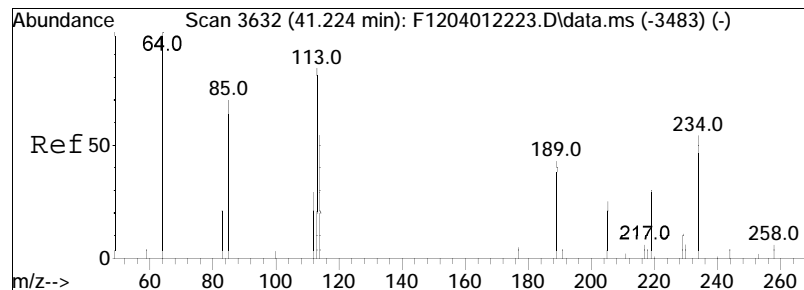
Tgt	Ion:206	Resp:	906155
Ion	Ratio	Lower	Upper
206	100		
191	3.5	28.8	53.6#
207	2.4	16.2	30.0#





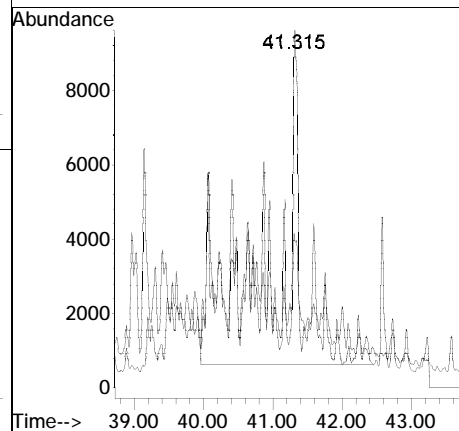
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 2983.16 ng/mL M5
 RT: 39.151 min Scan# 3405
 Delta R.T. 0.000 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm
 Tgt Ion:220 Resp: 608993

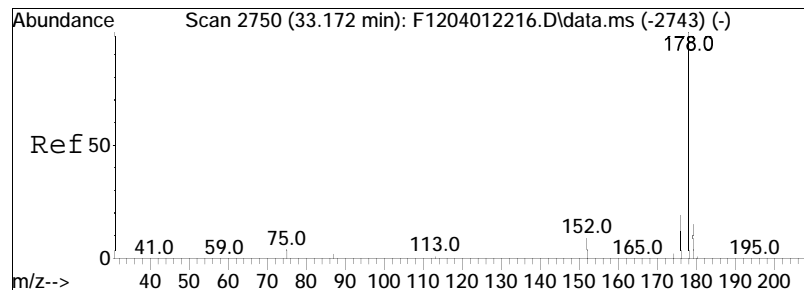




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 1184.17 ng/mL M5
 RT: 41.315 min Scan# 3642
 Delta R.T. 0.000 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

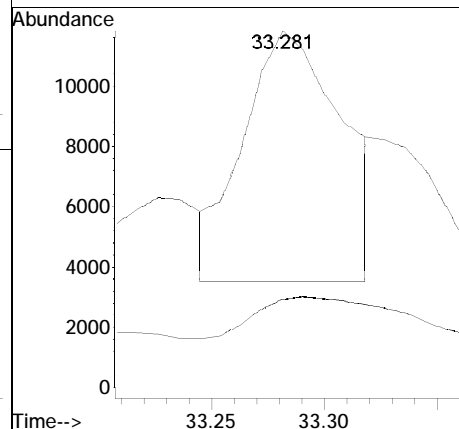
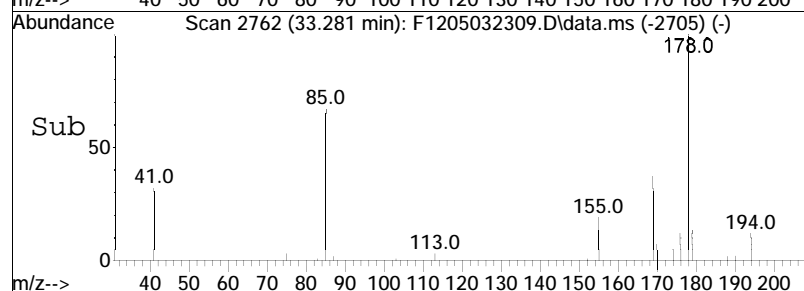
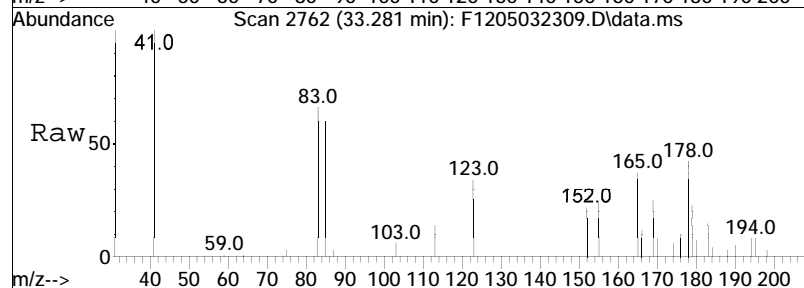
Tgt	Ion	Ratio	Lower	Upper
234	100			
219	6.8	34.9	64.9#	

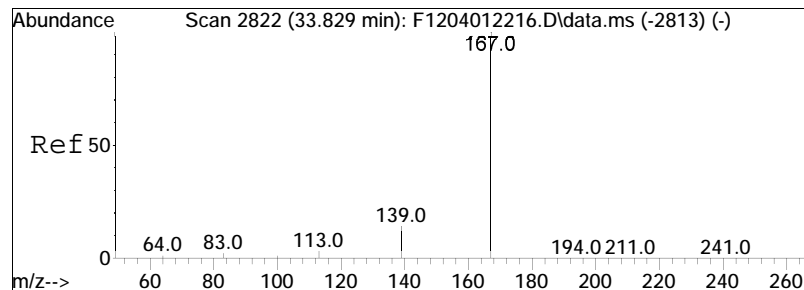




#53
 Anthracene
 Concen: 132.37 ng/mL M3
 RT: 33.281 min Scan# 2762
 Delta R.T. 0.018 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

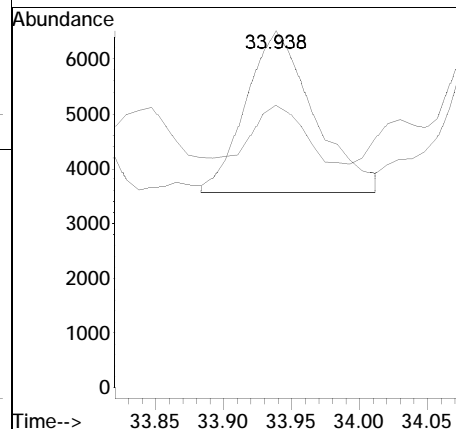
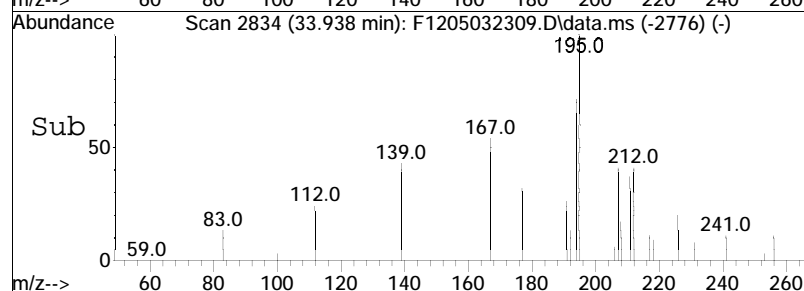
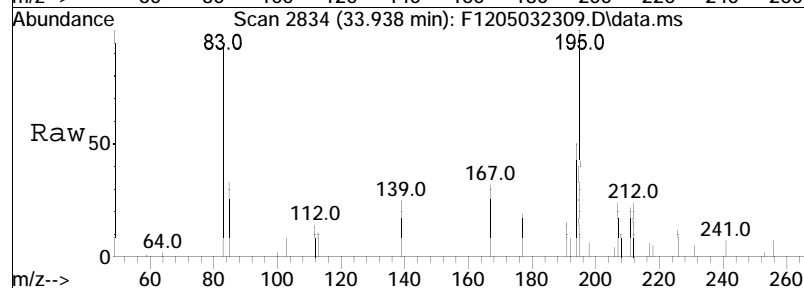
Tgt Ion	Ratio	Lower	Upper
178	100		
176	12.2	11.9	22.1

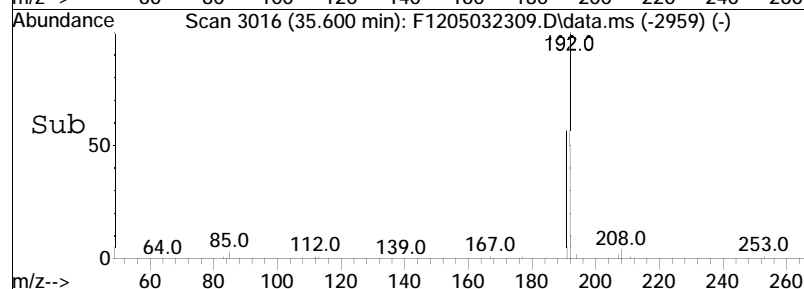
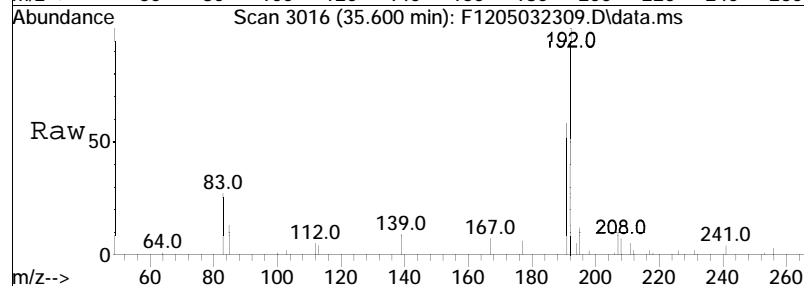
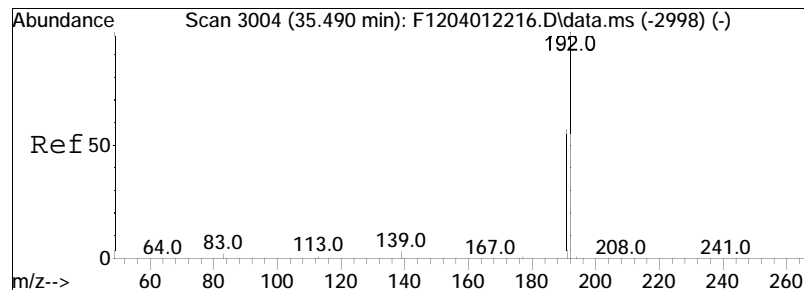




#54
 Carbazole
 Concen: 62.61 ng/mL M4
 RT: 33.938 min Scan# 2834
 Delta R.T. 0.027 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

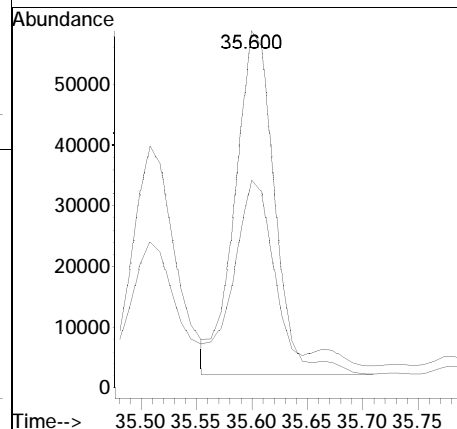
Tgt Ion: 167 Resp: 10200
 Ion Ratio Lower Upper
 167 100
 139 0.0 8.0 14.8#

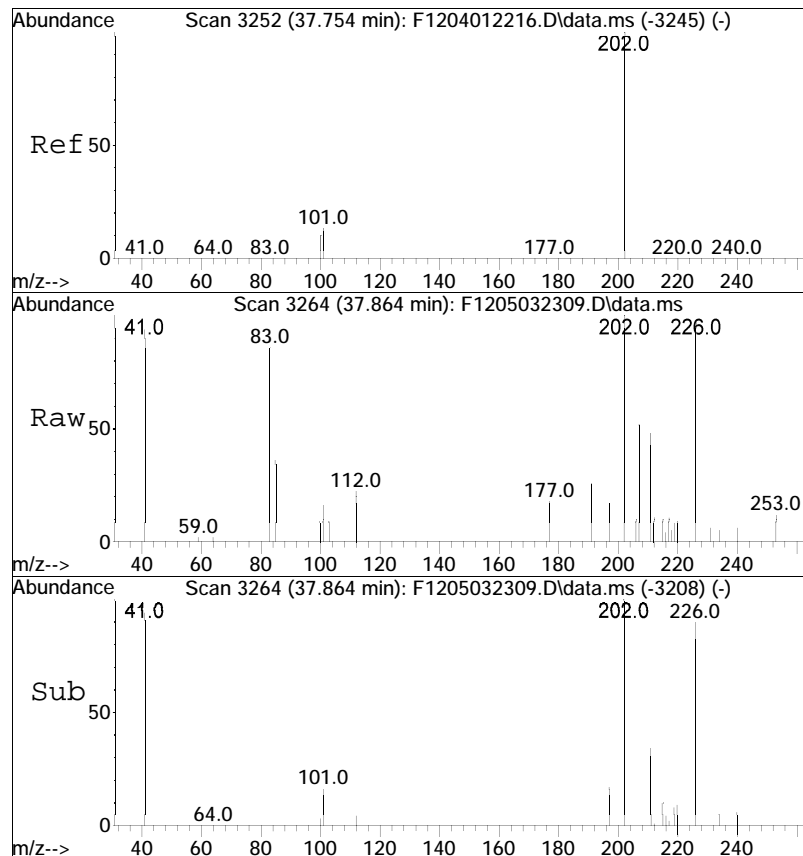




#55
 1-Methylphenanthrene
 Concen: 978.63 ng/mL
 RT: 35.600 min Scan# 3016
 Delta R.T. 0.018 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

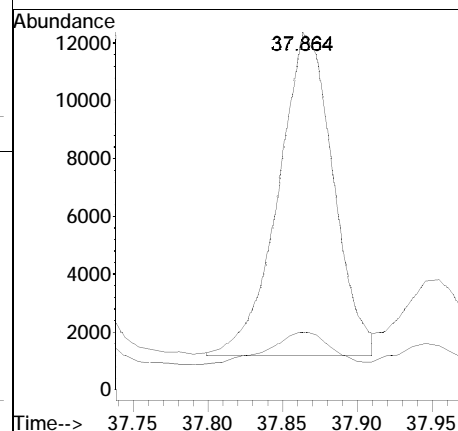
Tgt	Ion	Ratio	Lower	Upper
192	100			
191	47.2	39.1	72.5	

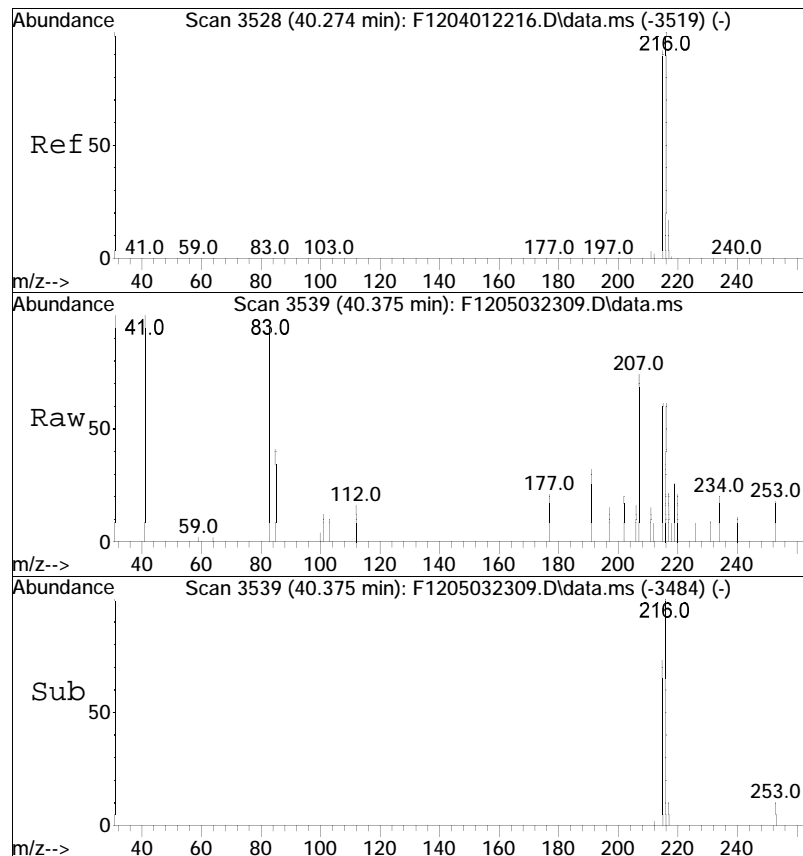




#56
 Fluoranthene
 Concen: 133.12 ng/mL M4
 RT: 37.864 min Scan# 3264
 Delta R.T. 0.009 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

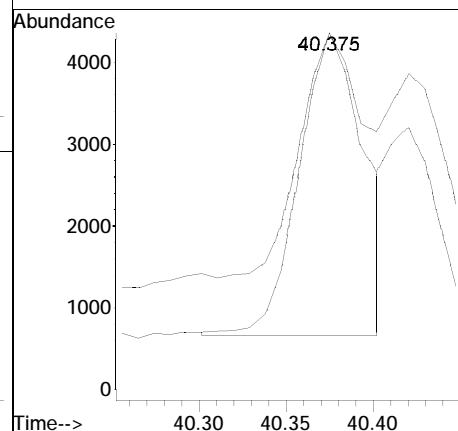
Tgt Ion: 202 Resp: 28572
 Ion Ratio Lower Upper
 202 100
 101 19.1 7.1 13.1#

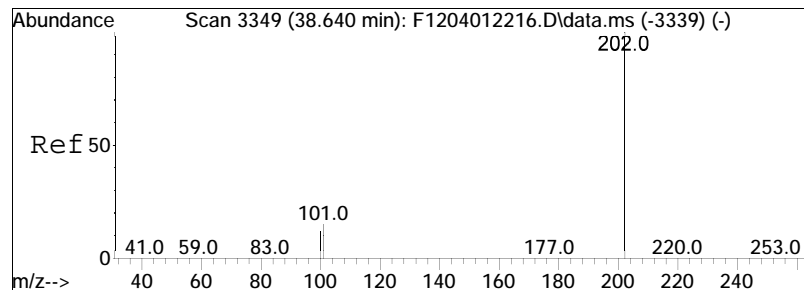




#57
 Benzo(b)fluorene
 Concen: 93.65 ng/mL M3
 RT: 40.375 min Scan# 3539
 Delta R.T. 0.000 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

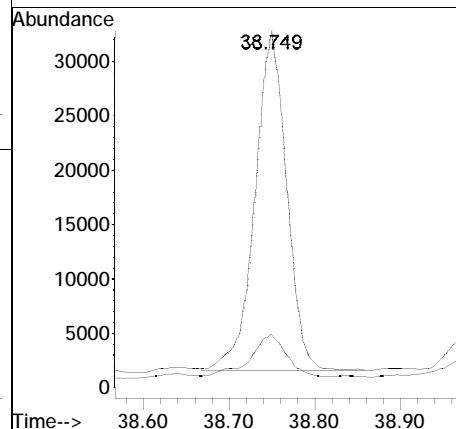
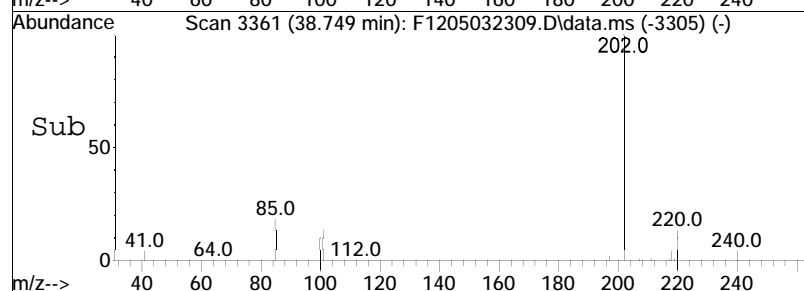
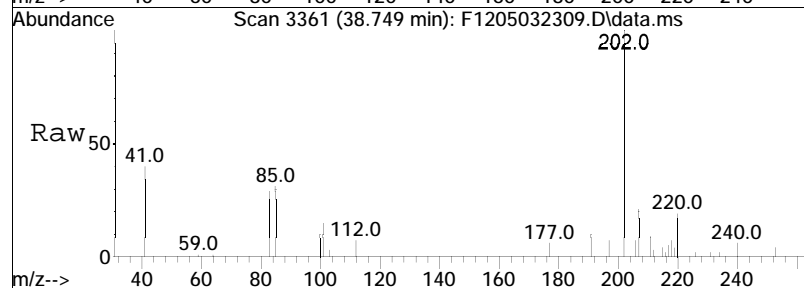
Tgt	Ion	Ratio	Lower	Upper
216	100			
215	6.8	88.1	163.5#	

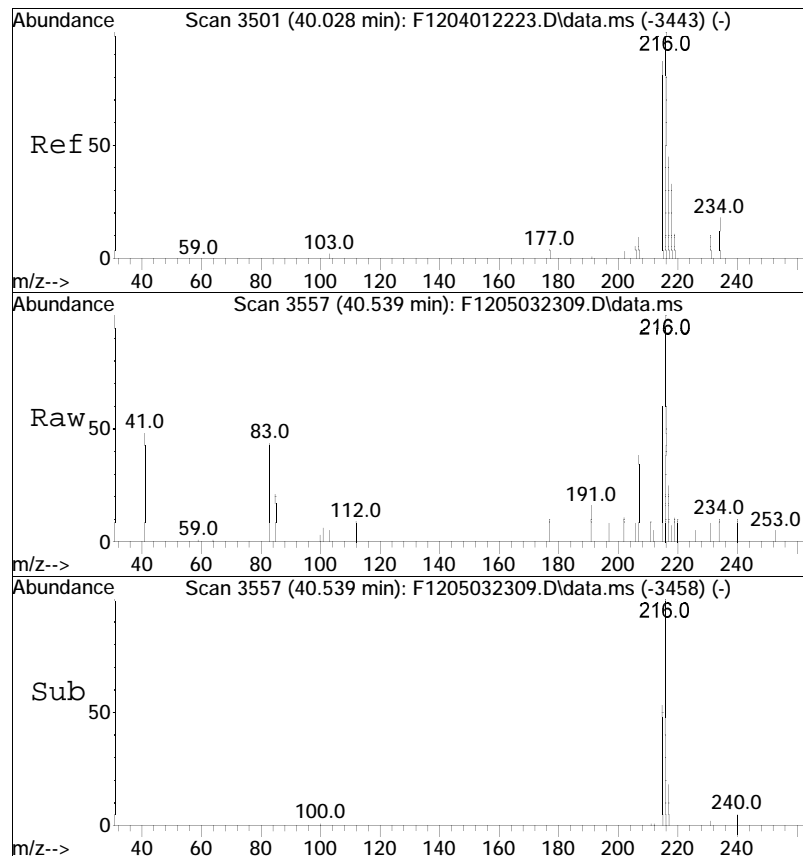




#59
 Pyrene
 Concen: 367.65 ng/mL
 RT: 38.749 min Scan# 3361
 Delta R.T. 0.009 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

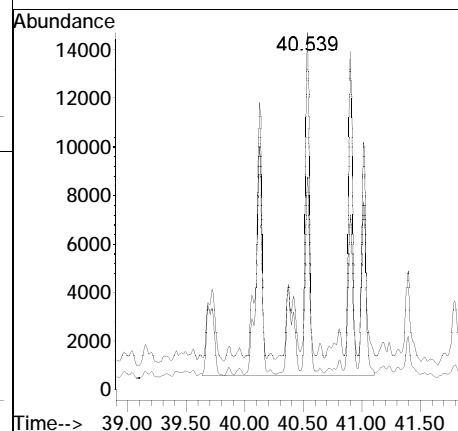
Tgt Ion	Ratio	Lower	Upper
202	100		
101	14.3	16.9	31.3#

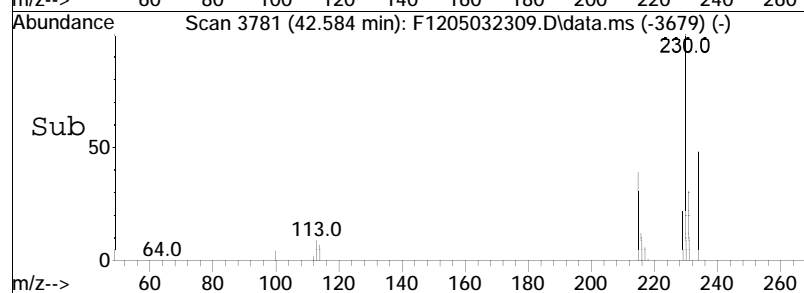
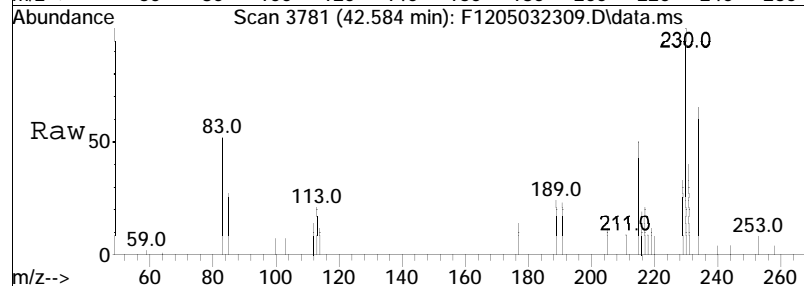
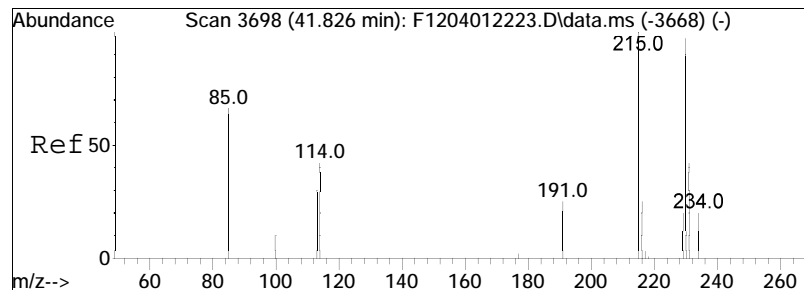




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 759.66 ng/mL M5
 RT: 40.539 min Scan# 3557
 Delta R.T. 0.411 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

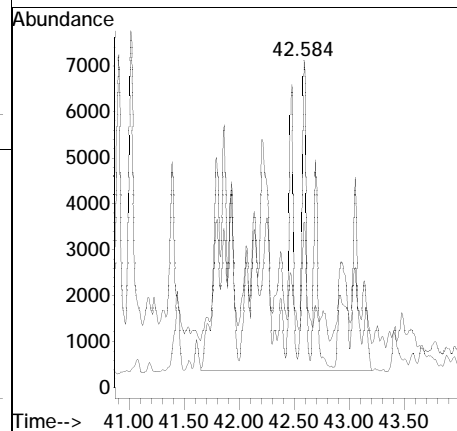
Tgt	Ion	Ratio	Lower	Upper
216	100			
215	14.5	64.2	119.2#	

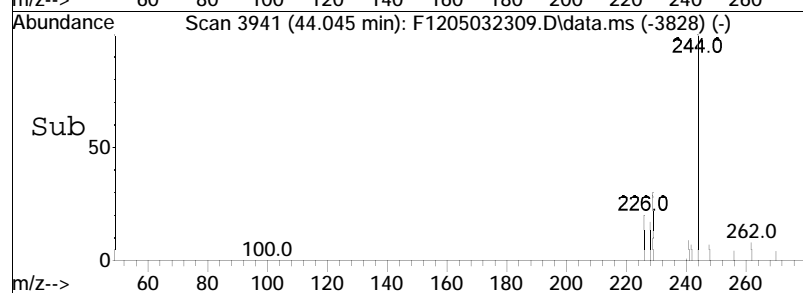
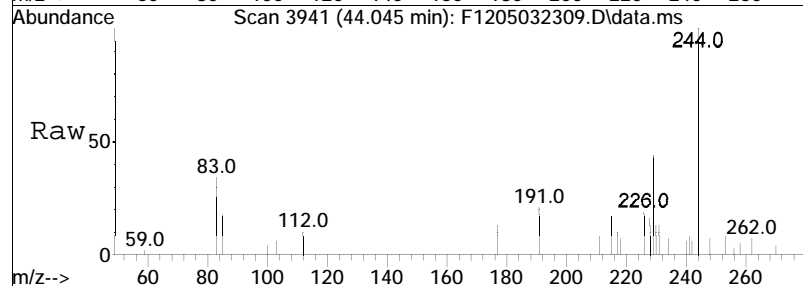
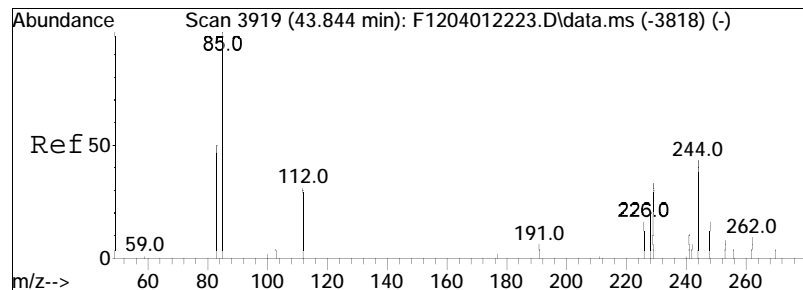




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 789.27 ng/mL M5
 RT: 42.584 min Scan# 3781
 Delta R.T. 0.657 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

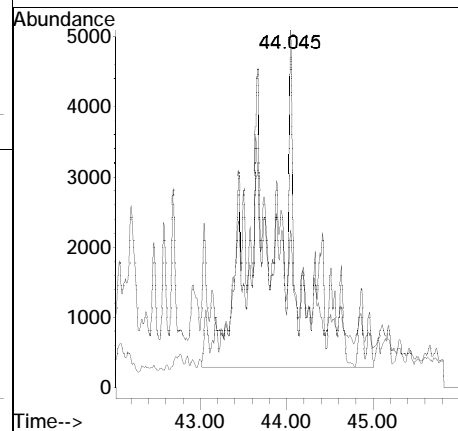
Tgt	Ion	Ratio	Lower	Upper
230	100			
215	4.6	70.8	131.6	

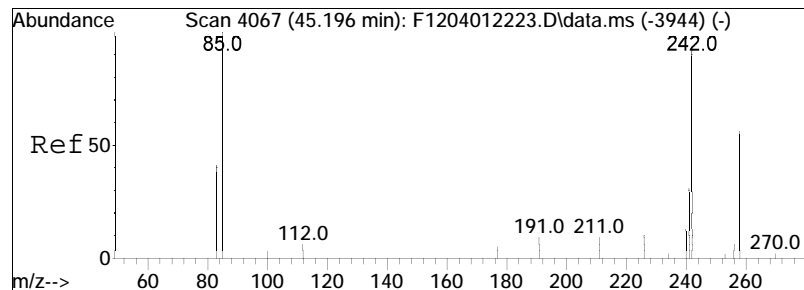




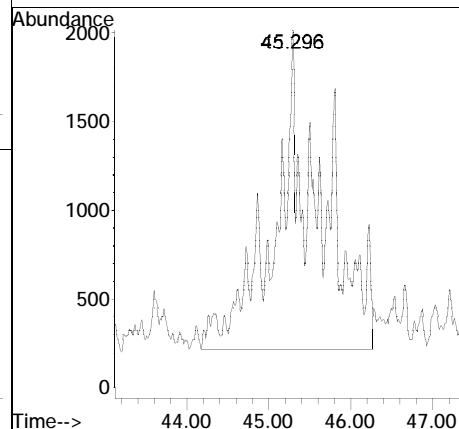
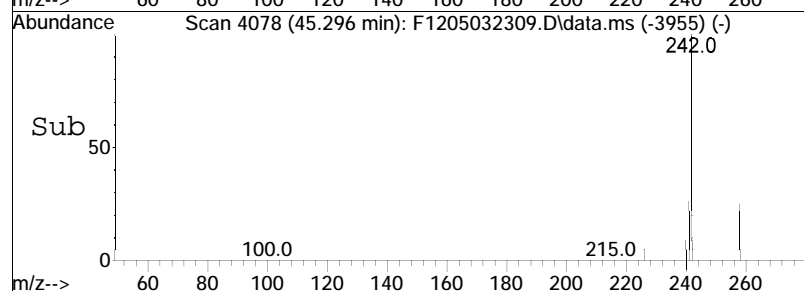
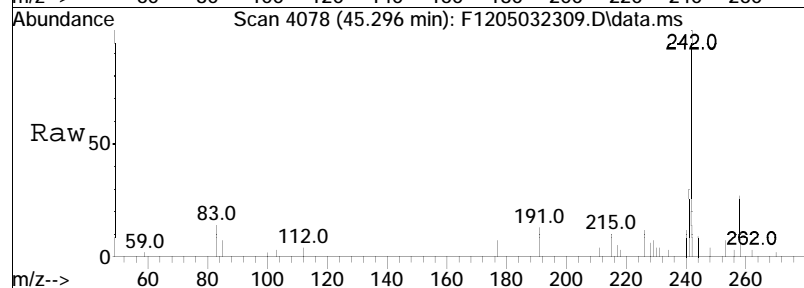
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 606.13 ng/mL M5
 RT: 44.045 min Scan# 3941
 Delta R.T. 0.100 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

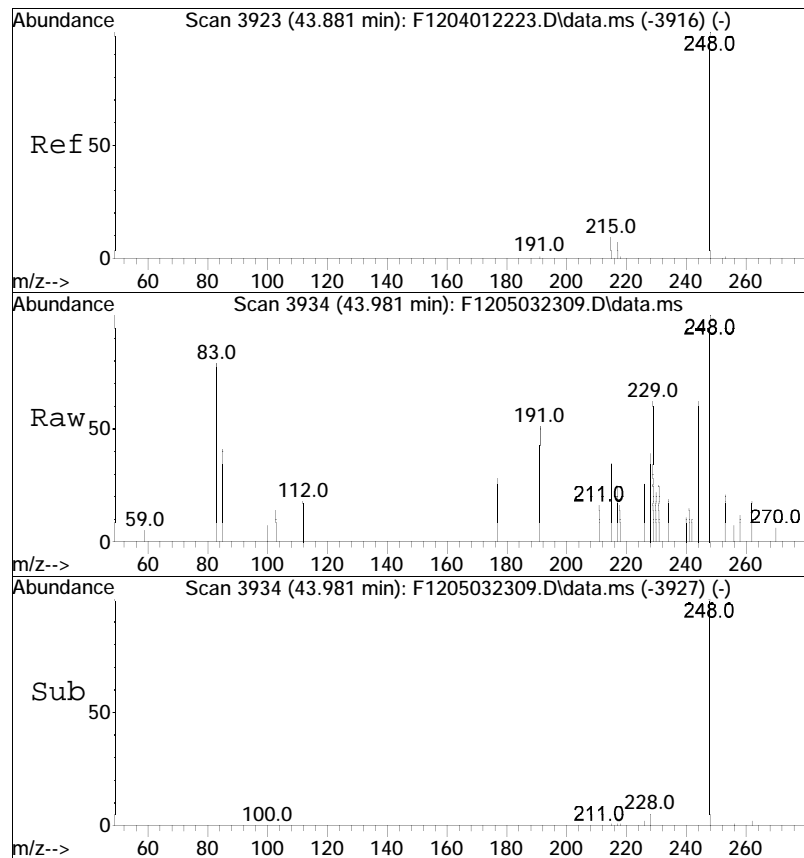
Tgt Ion	Ratio	Lower	Upper
244	100		
229	1.5	55.0	102.2#



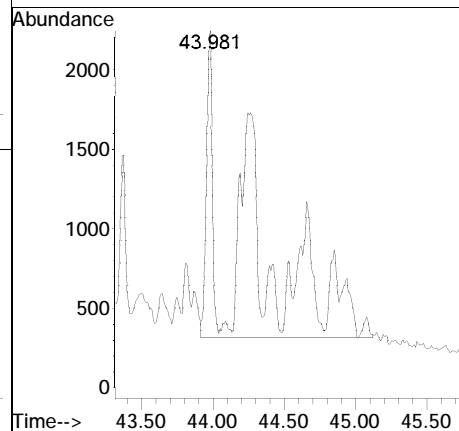


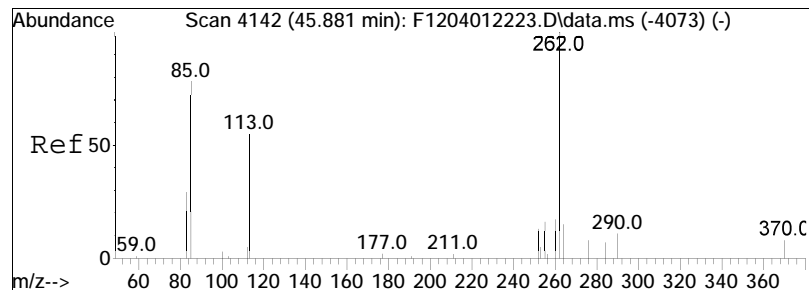
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 310.88 ng/mL M5
 RT: 45.296 min Scan# 4078
 Delta R.T. 0.000 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm
 Tgt Ion: 258 Resp: 67215





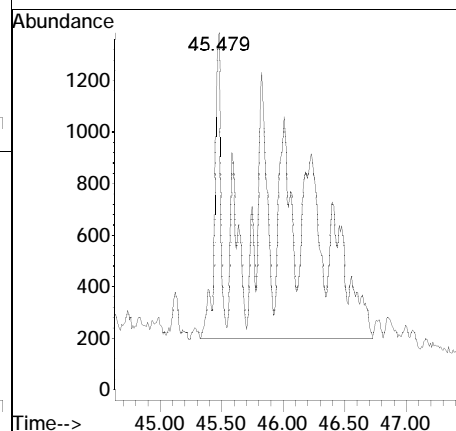
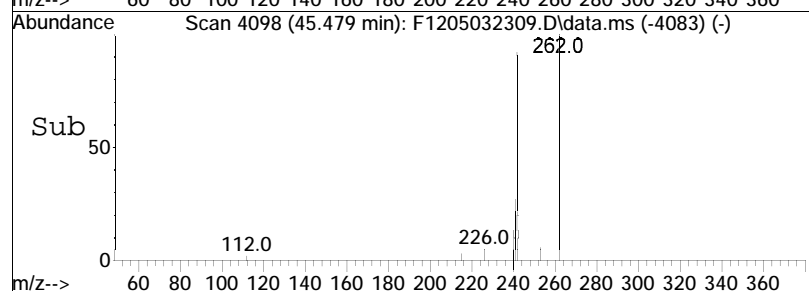
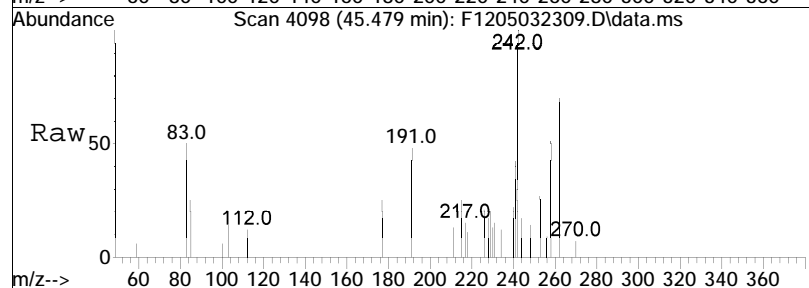
#70
 Cl-Naphthobenzothiophenes
 Concen: 153.82 ng/ml M5
 RT: 43.981 min Scan# 3934
 Delta R.T. 0.000 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm
 Tgt Ion:248 Resp: 29201

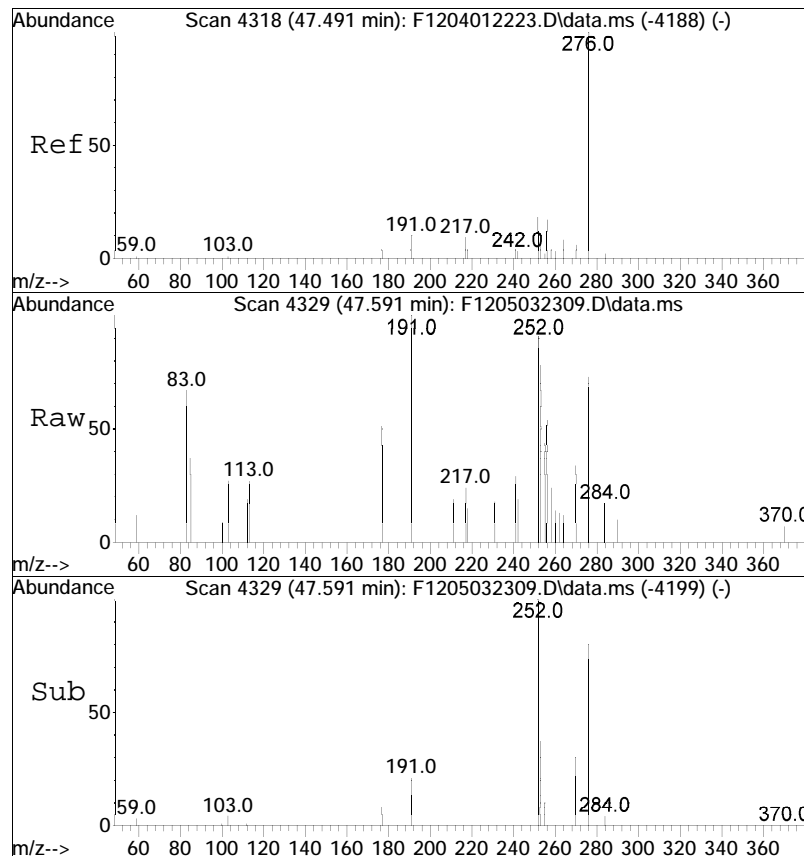




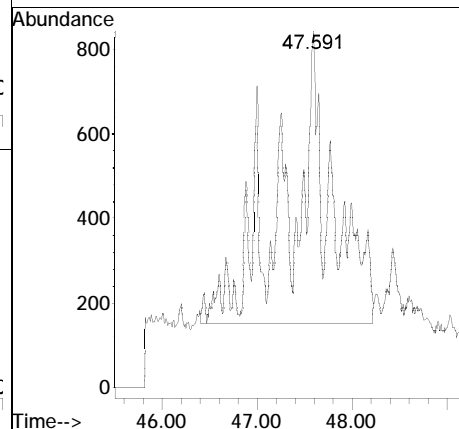
#71
 C2-Naphthobenzothiophenes
 Concen: 163.44 ng/ml M5
 RT: 45.479 min Scan# 4098
 Delta R.T. -0.502 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

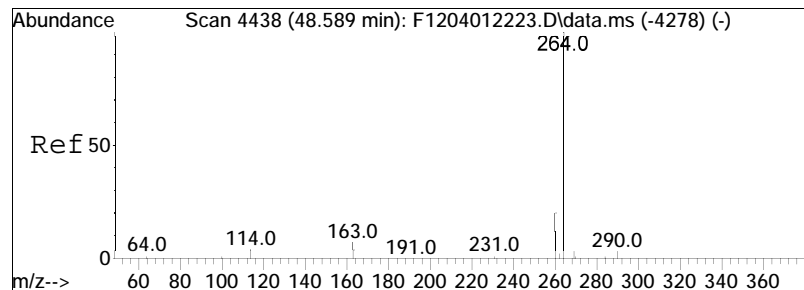
Tgt Ion: 262 Resp: 31028





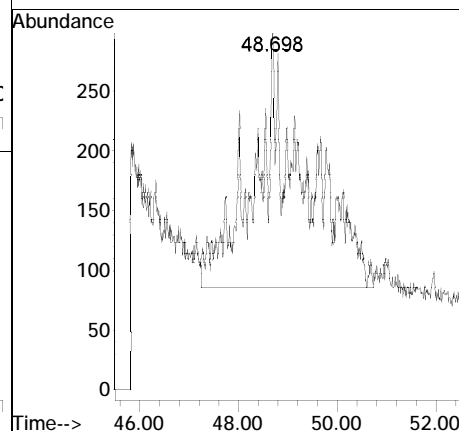
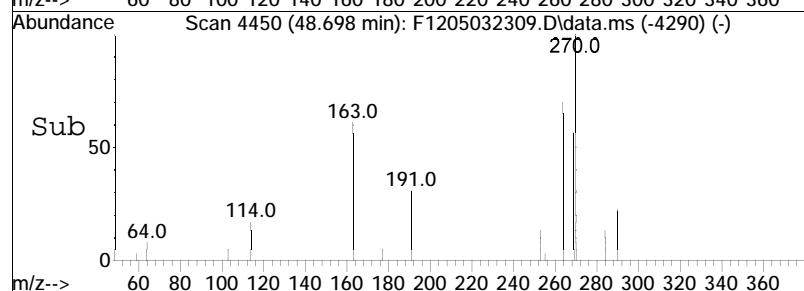
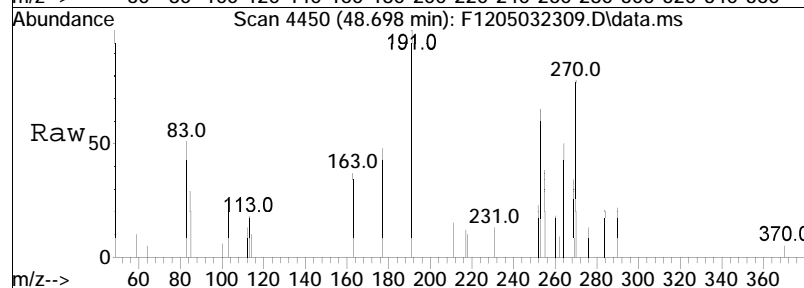
#72
 C3-Naphthobenzothiophenes
 Concen: 115.77 ng/ml M5
 RT: 47.591 min Scan# 4329
 Delta R.T. 0.000 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm
 Tgt Ion: 276 Resp: 21978





#73
 C4-Naphthobenzothiophenes
 Concen: 78.12 ng/mL M5
 RT: 48.698 min Scan# 4450
 Delta R.T. 0.000 min
 Lab File: F1205032309.D
 Acq: 4 May 2023 5:57 pm

Tgt Ion: 290 Resp: 14830



Batch Quality Control

Method Blank Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252322.D
 Acq On : 26 Apr 2023 1:01 pm
 Operator : PAH8:CNC
 Sample : WG1769534-1,32,,
 Misc : WG1771474,WG1769534,ICAL19944
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 01 13:41:23 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	27.488	164	23109	500.000	ng/mL	0.00
74) Chrysene-d12	43.990	240	23668	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.498	136	22395	219.867	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	21.99%#		
40) Phenanthrene-d10	33.382	188	15172	233.400	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	23.34%#		
83) Benzo[b]fluoranthene-d12	47.938	264	10247	216.916	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	21.69%#		
88) Benzo[a]pyrene-d12	49.218	264	8683	233.403	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	23.34%#		
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	0.000		0		N.D. d	
10) C1-Naphthalenes	23.308	142	205M5	1.835	ng/mL	
11) C2-Naphthalenes	0.000		0		N.D.	
12) C3-Naphthalenes	0.000		0		N.D.	
13) C4-Naphthalenes	0.000		0		N.D.	
14) 2-Methylnaphthalene	23.308	142	83M2	1.125	ng/mL	
15) 1-Methylnaphthalene	0.000		0		N.D. d	
16) Benzothiophene	0.000		0		N.D. d	
17) C1-Benzo(b)thiophenes	0.000		0		N.D.	
18) C2-Benzo(b)thiophenes	0.000		0		N.D.	
19) C3-Benzo(b)thiophenes	0.000		0		N.D.	
21) Biphenyl	25.179	154	70M2	0.795	ng/mL	
22) 2,6-Dimethylnaphthalene	0.000		0		N.D.	
23) Dibenzofuran	0.000		0		N.D.	
24) Acenaphthylene	26.886	152	419	4.021	ng/mL	100
25) Acenaphthene	0.000		0		N.D. d	
26) 2,3,5-Trimethylnaphthalen	0.000		0		N.D.	
27) Fluorene	0.000		0		N.D. d	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252322.D
 Acq On : 26 Apr 2023 1:01 pm
 Operator : PAH8:CNC
 Sample : WG1769534-1,32,,
 Misc : WG1771474,WG1769534,ICAL19944
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 01 13:41:23 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) C1-Fluorenes	0.000		0	N.D.		
29) C2-Fluorenes	0.000		0	N.D.		
30) C3-Fluorenes	0.000		0	N.D.		
31) Dibenzothiophene	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	33.473	178	101	1.043	ng/mL#	57
47) C1-Phenanthrenes/Anthrace	0.000		0	N.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	0.000		0	N.D.		
53) Anthracene	0.000		0	N.D.		
54) Carbazole	0.000		0	N.D.	d	
55) 1-Methylphenanthrene	0.000		0	N.D.		
56) Fluoranthene	0.000		0	N.D.	d	
57) Benzo(b)fluorene	0.000		0	N.D.		
59) Pyrene	39.169	202	46M2	0.473	ng/mL	
63) C1-Fluoranthenes/Pyrenes	0.000		0	N.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.		
70) C1-Naphthobenzothiophenes	0.000		0	N.D.		
71) C2-Naphthobenzothiophenes	0.000		0	N.D.		
72) C3-Naphthobenzothiophenes	0.000		0	N.D.		
73) C4-Naphthobenzothiophenes	0.000		0	N.D.		
75) Benz[a]anthracene	0.000		0	N.D.	d	
76) Chrysene	44.072	228	43M3	0.611	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.		
84) Benzo[b]fluoranthene	0.000		0	N.D.		
85) Benzo[j]+[k]fluoranthene	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252322.D
 Acq On : 26 Apr 2023 1:01 pm
 Operator : PAH8:CNC
 Sample : WG1769534-1,32,,
 Misc : WG1771474,WG1769534,ICAL19944
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 01 13:41:23 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) Benzo[a]fluoranthene	0.000		0		N.D.	
87) Benzo[e]pyrene	0.000		0		N.D.	
89) Benzo[a]pyrene	0.000		0		N.D.	
90) Perylene	0.000		0		N.D.	
91) Indeno[1,2,3-cd]pyrene	0.000		0		N.D.	
92) Dibenz[ah]+[ac]anthracene	0.000		0		N.D.	
93) Benzo[g,h,i]perylene	56.003	276	86M2	0.936	ng/mL	

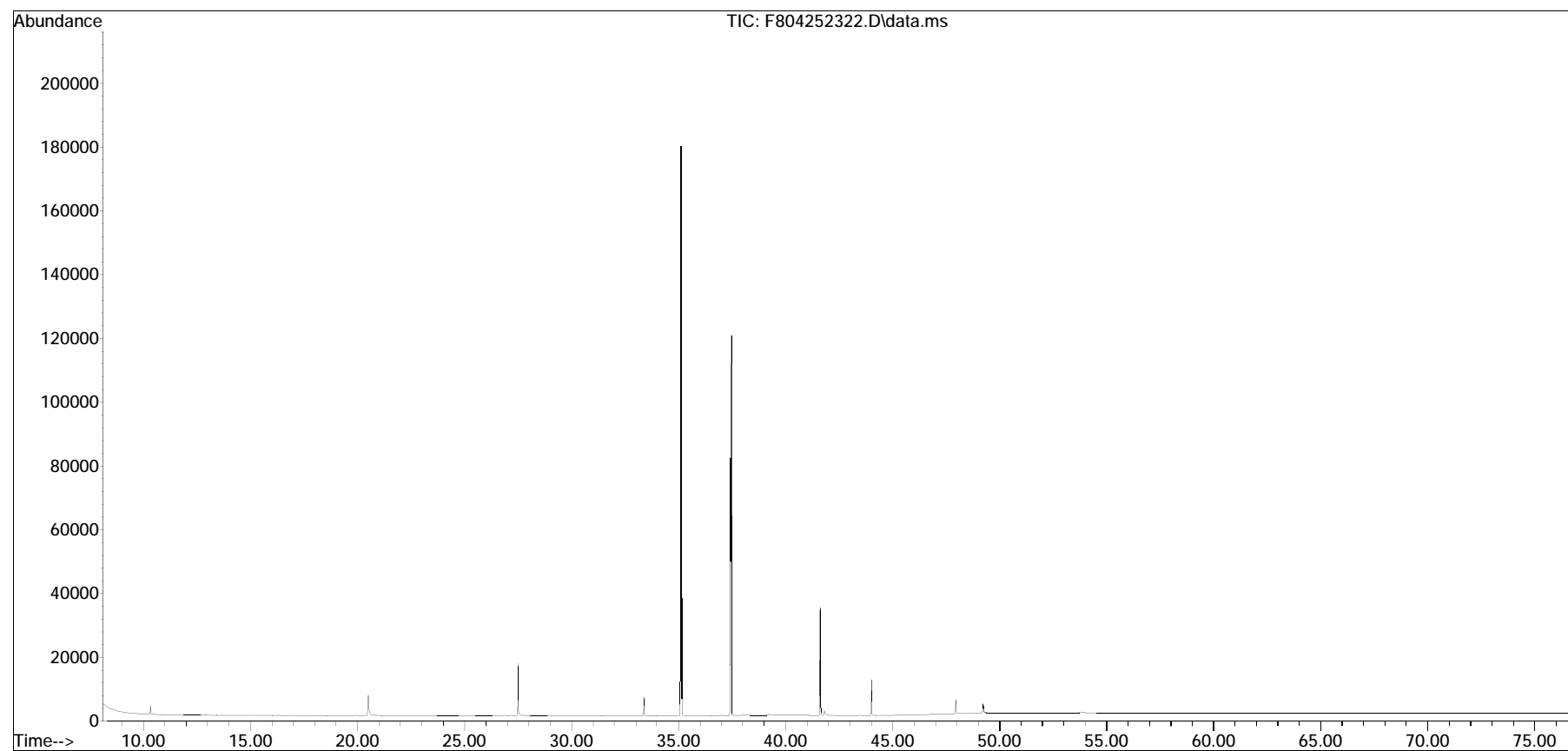
(#) = qualifier out of range (m) = manual integration (+) = signals summed

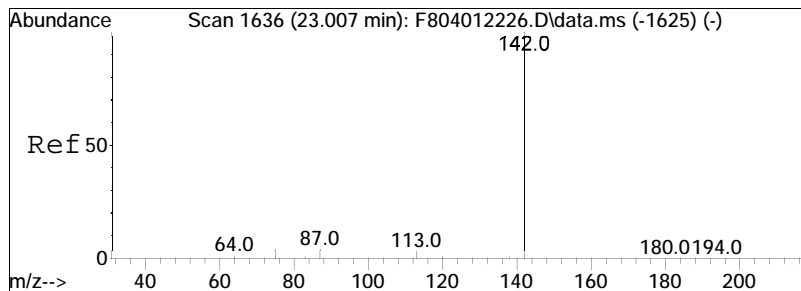
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
Data File : F804252322.D
Acq On : 26 Apr 2023 1:01 pm
Operator : PAH8:CNC
Sample : WG1769534-1,32,,
Misc : WG1771474,WG1769534,ICAL19944
ALS Vial : 21 Sample Multiplier: 1

Quant Time: May 01 13:41:23 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Mon Apr 24 05:27:42 2023
Response via : Initial Calibration

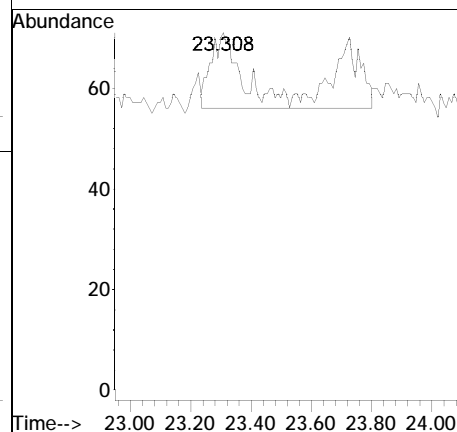
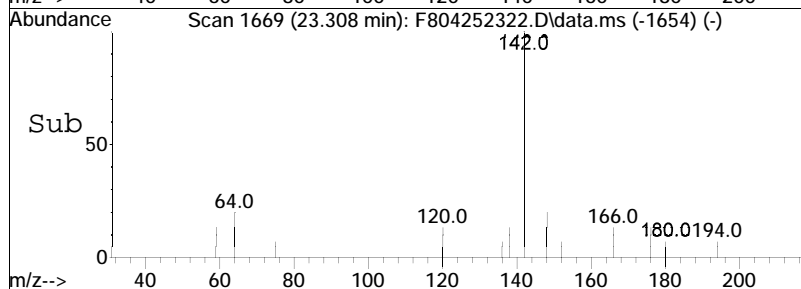
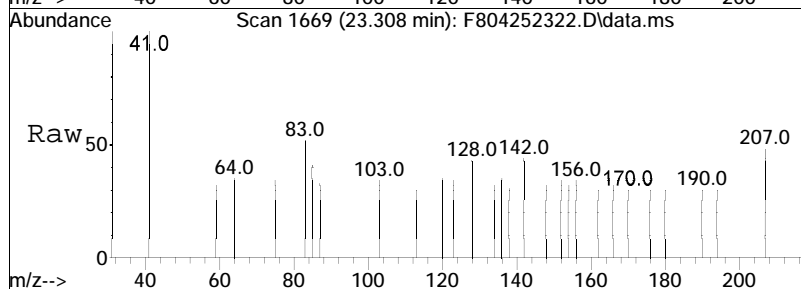
Sub List : ALKPAH - POI+MP+BcF

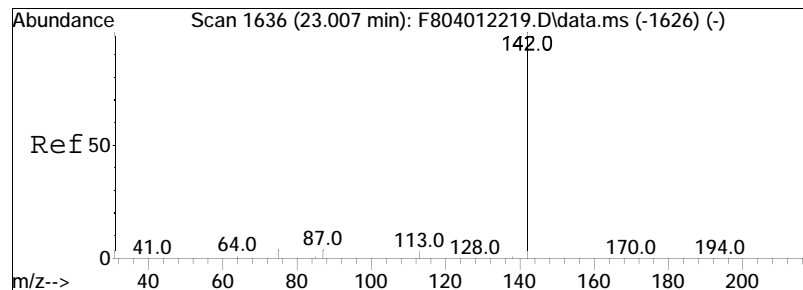




#10
 C1-Naphthalenes
 Concen: 1.84 ng/mL M5
 RT: 23.308 min Scan# 1669
 Delta R.T. 0.031 min
 Lab File: F804252322.D
 Acq: 26 Apr 2023 1:01 pm

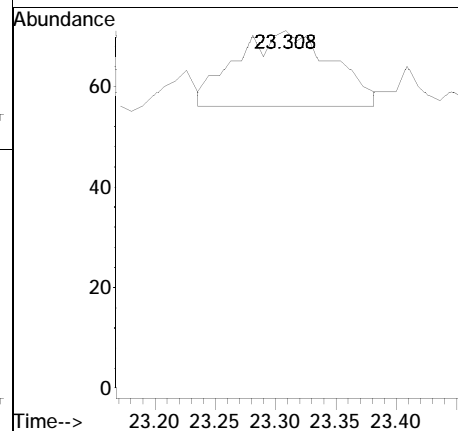
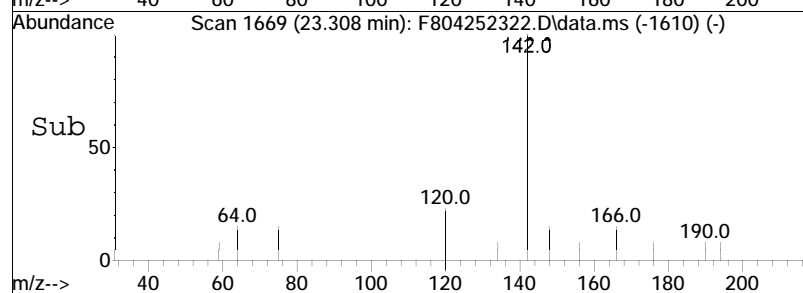
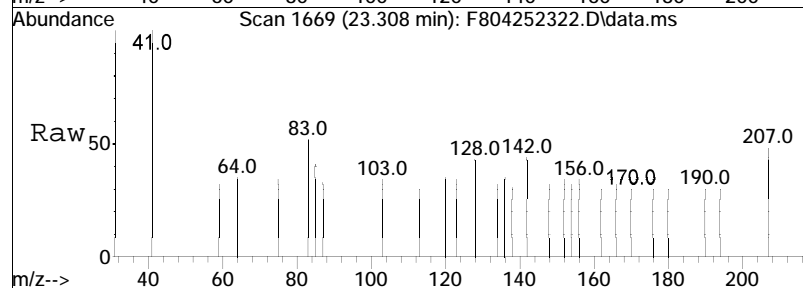
Tgt Ion: 142 Resp: 205

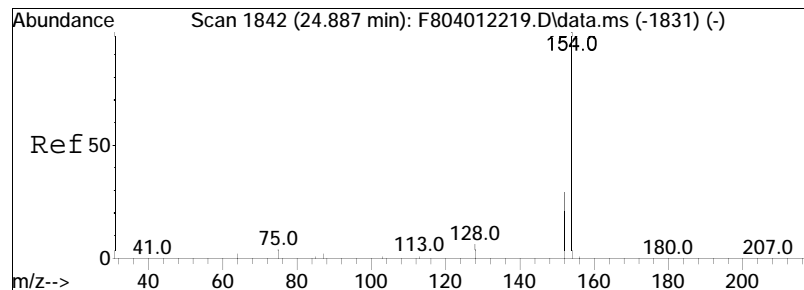




#14
 2-Methylnaphthalene
 Concen: 1.13 ng/mL M2
 RT: 23.308 min Scan# 1669
 Delta R.T. 0.036 min
 Lab File: F804252322.D
 Acq: 26 Apr 2023 1:01 pm

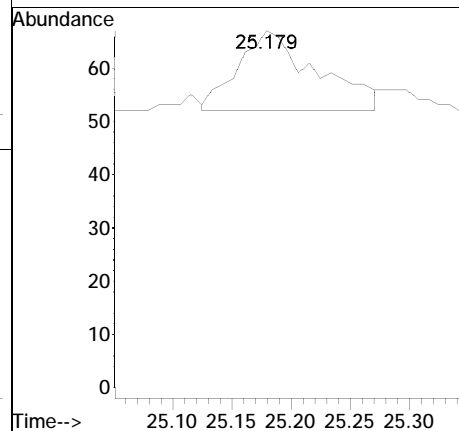
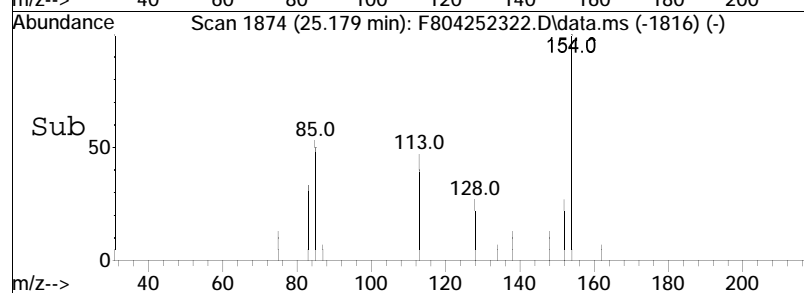
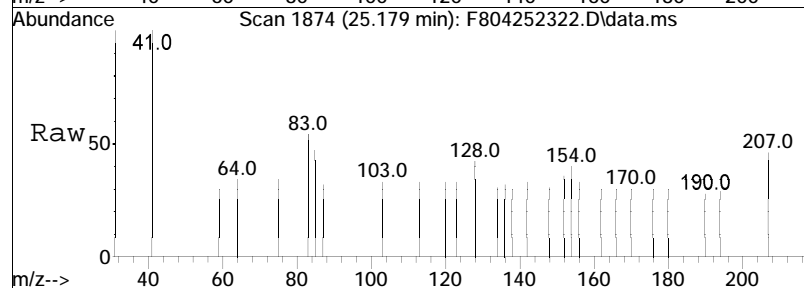
Tgt Ion:142 Resp: 83

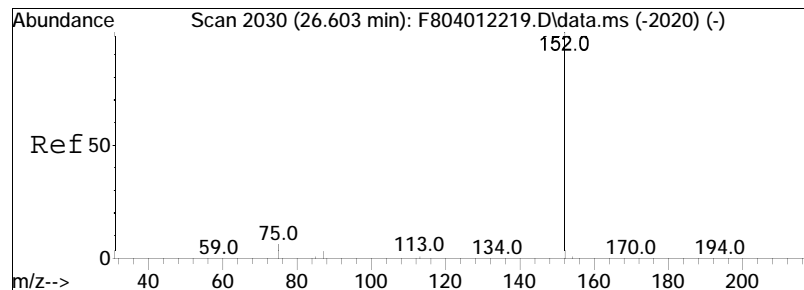




#21
 Biphenyl
 Concen: 0.79 ng/mL M2
 RT: 25.179 min Scan# 1874
 Delta R.T. 0.027 min
 Lab File: F804252322.D
 Acq: 26 Apr 2023 1:01 pm

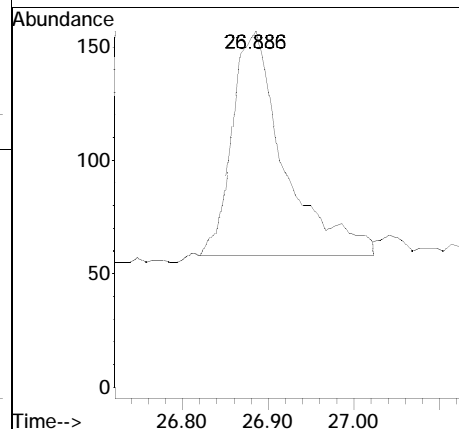
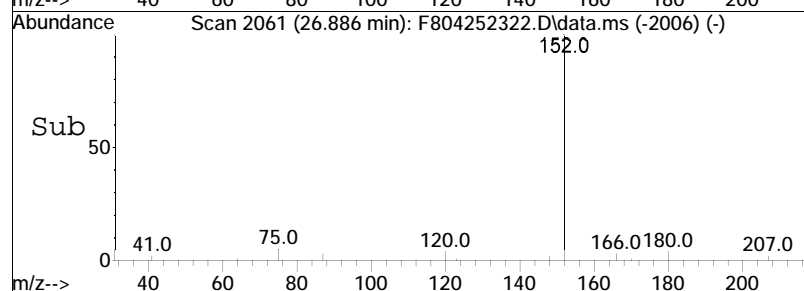
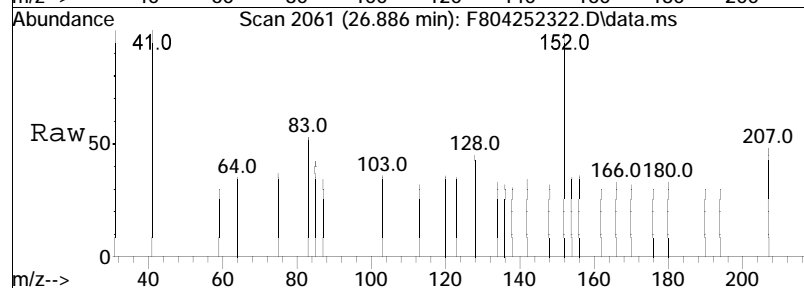
Tgt Ion:154 Resp: 70

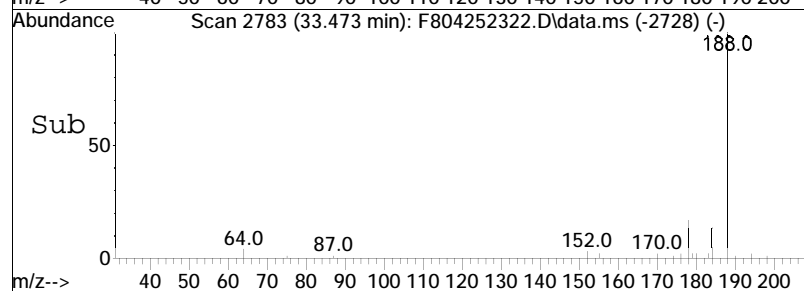
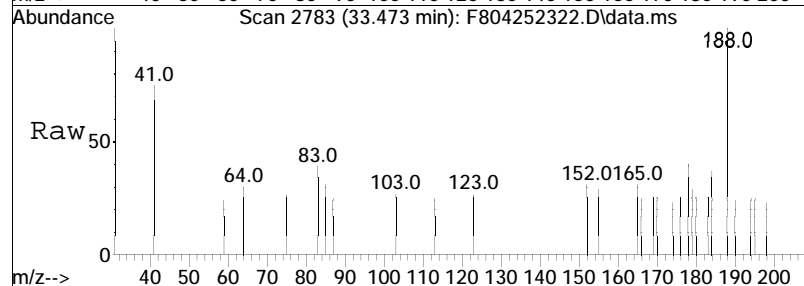
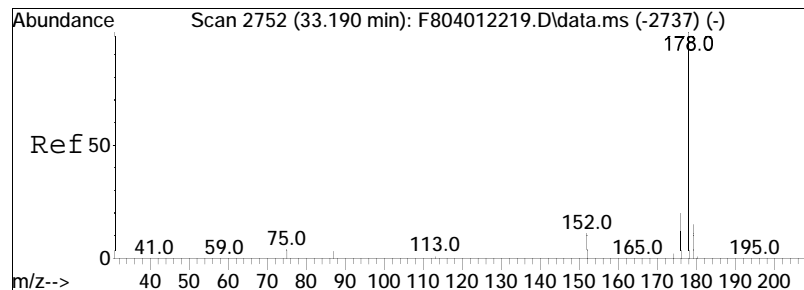




#24
Acenaphthylene
Concen: 4.02 ng/mL
RT: 26.886 min Scan# 2061
Delta R.T. -0.000 min
Lab File: F804252322.D
Acq: 26 Apr 2023 1:01 pm

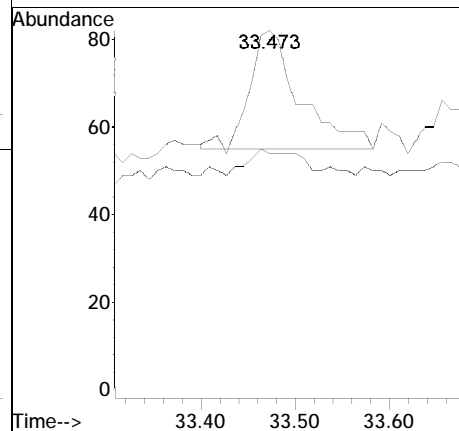
Tgt Ion:152 Resp: 419

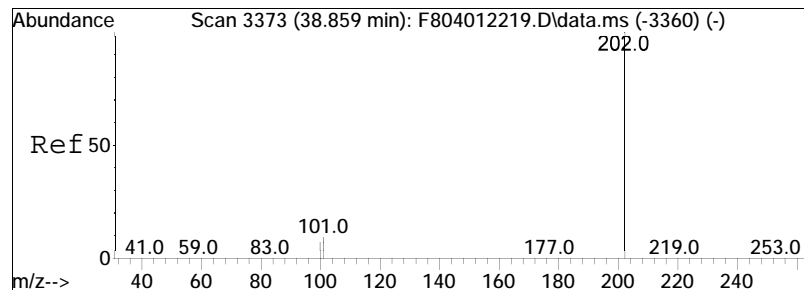




#41
 Phenanthrene
 Concen: 1.04 ng/mL
 RT: 33.473 min Scan# 2783
 Delta R.T. -0.000 min
 Lab File: F804252322.D
 Acq: 26 Apr 2023 1:01 pm

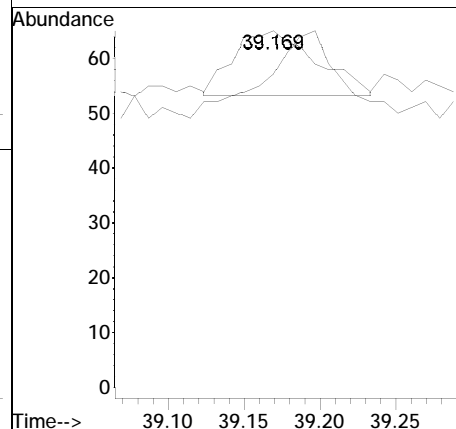
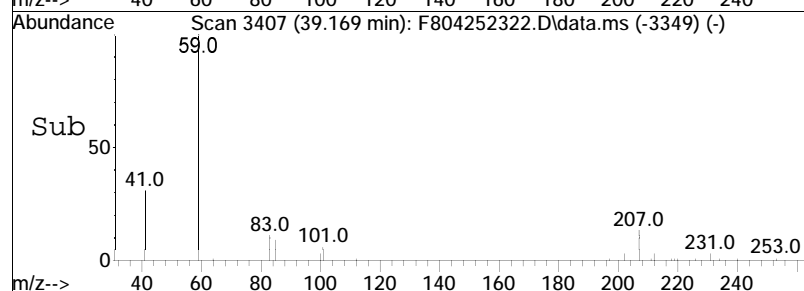
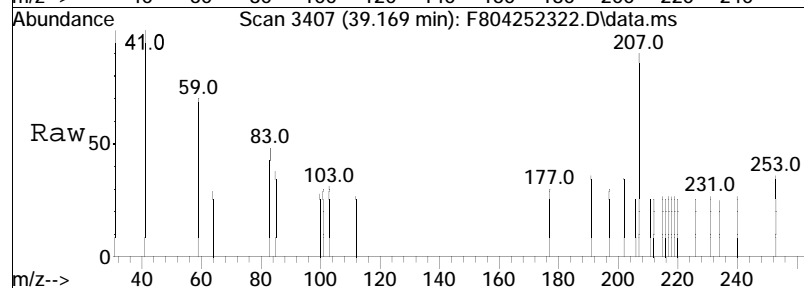
Tgt Ion	Ratio	Lower	Upper
178	100		
176	0.0	13.9	25.9#

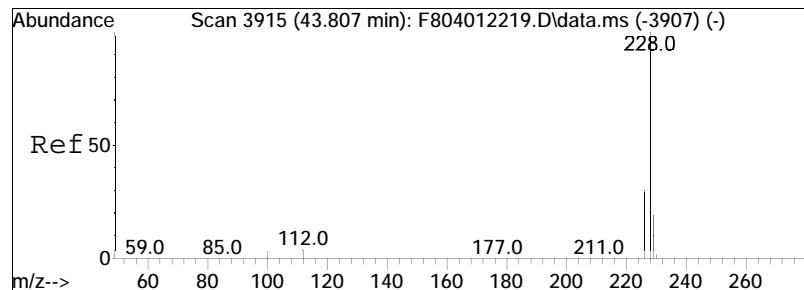




#59
 Pyrene
 Concen: 0.47 ng/mL M2
 RT: 39.169 min Scan# 3407
 Delta R.T. 0.027 min
 Lab File: F804252322.D
 Acq: 26 Apr 2023 1:01 pm

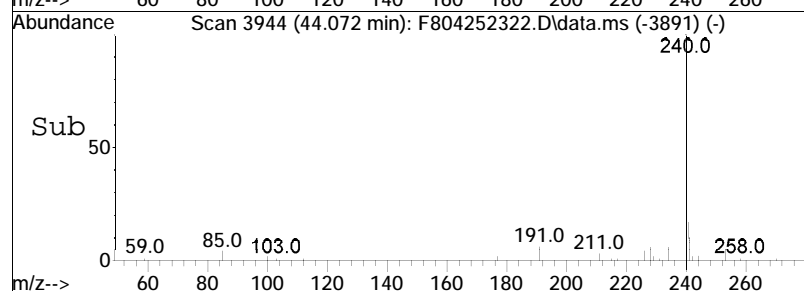
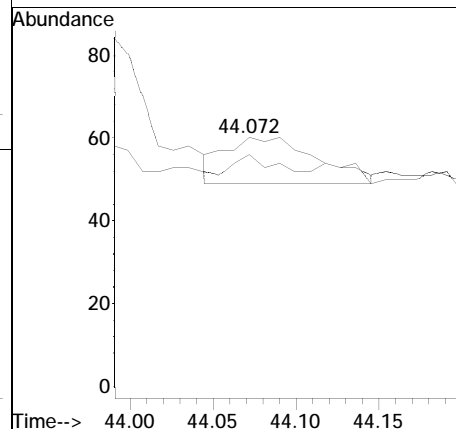
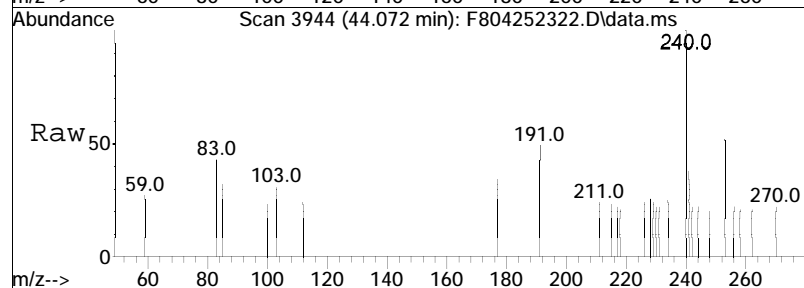
Tgt Ion	Ratio	Lower	Upper
202	100		
101	0.0	10.4	19.4#

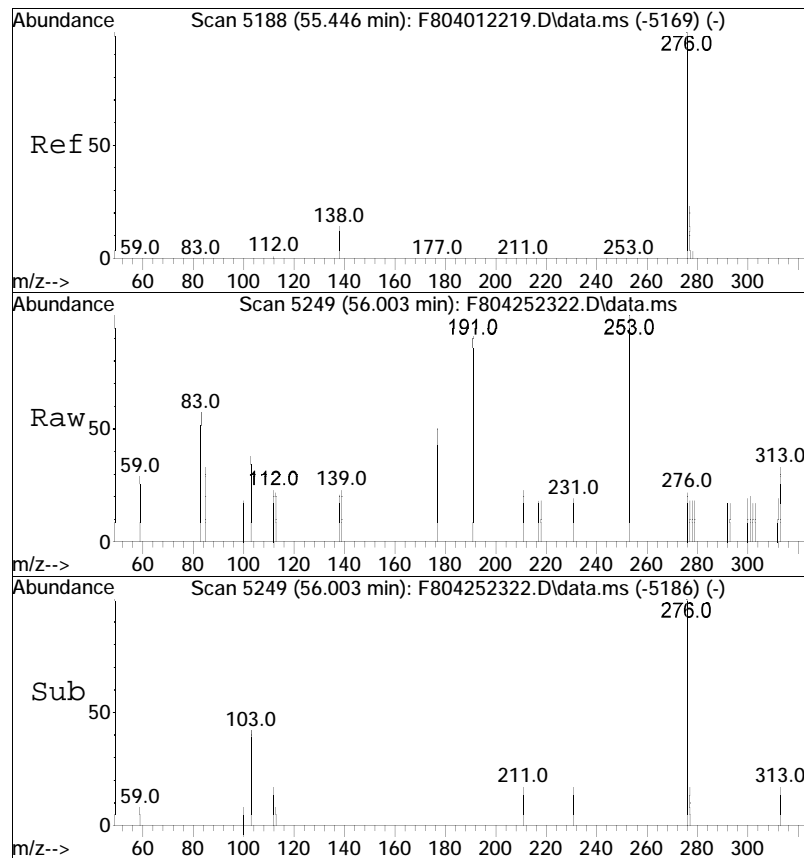




#76
 Chrysene
 Concen: 0.61 ng/mL M3
 RT: 44.072 min Scan# 3944
 Delta R.T. -0.018 min
 Lab File: F804252322.D
 Acq: 26 Apr 2023 1:01 pm

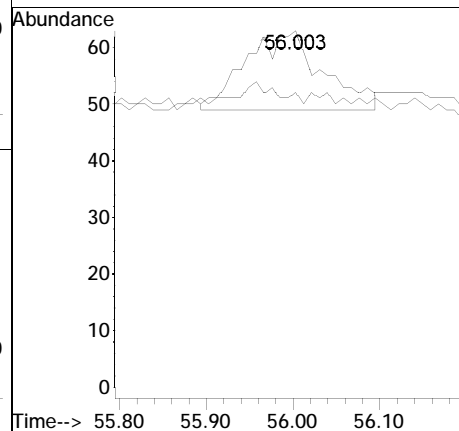
Tgt Ion	Ratio	Lower	Upper
228	100		
226	0.0	22.5	41.7#





#93
 Benzo[g,h,i]perylene
 Concen: 0.94 ng/mL M2
 RT: 56.003 min Scan# 5249
 Delta R.T. 0.073 min
 Lab File: F804252322.D
 Acq: 26 Apr 2023 1:01 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
277	0.0	16.4	30.4



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012308.D
 Acq On : 1 May 2023 6:43 pm
 Operator : PAH12:MJS
 Sample : wgl770361-1,32,,
 Misc : WG1773800,WG1770361,ICAL19969
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 05 10:55:50 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	27.150	164	105189	500.000	ng/mL	-0.05
74) Chrysene-d12	43.598	240	148246	500.000	ng/mL	-0.05
System Monitoring Compounds						
8) Naphthalene-d8	20.178	136	185135	418.680	ng/mL	-0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery =	41.87%#		
40) Phenanthrene-d10	33.017	188	138993	457.217	ng/mL	-0.06
Spiked Amount 1000.000	Range 50 - 130		Recovery =	45.72%#		
84) Benzo[b]fluoranthene-d12	47.499	264	139174	461.298	ng/mL	-0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery =	46.13%#		
89) Benzo[a]pyrene-d12	48.716	264	116254	524.793	ng/mL	-0.06
Spiked Amount 1000.000	Range 50 - 130		Recovery =	52.48%		
Target Compounds						
						Qvalue
2) trans-Decalin	0.000		0		N.D.	
3) cis-Decalin	0.000		0		N.D.	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	20.251	128	502	1.031	ng/mL	100
10) C1-Naphthalenes	22.953	142	528M5	1.084	ng/mL	
11) C2-Naphthalenes	25.435	156	1384M5	2.841	ng/mL	
12) C3-Naphthalenes	28.127	170	1086M5	2.229	ng/mL	
13) C4-Naphthalenes	0.000		0		N.D.	
14) 2-Methylnaphthalene	22.953	142	114M3	0.381	ng/mL	
15) 1-Methylnaphthalene	23.363	142	146	0.516	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.	d
19) C3-Benzo(b)thiophenes	0.000		0		N.D.	d
21) Biphenyl	24.842	154	321	0.864	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.435	156	263	1.073	ng/mL	100
23) Dibenzofuran	27.917	168	88M2	0.251	ng/mL	
24) Acenaphthylene	26.539	152	246	0.585	ng/mL	100
25) Acenaphthene	0.000		0		N.D.	d
26) 2,3,5-Trimethylnaphthalen	28.829	170	76M3	0.334	ng/mL	
27) Fluorene	29.295	166	110M4	0.390	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012308.D
 Acq On : 1 May 2023 6:43 pm
 Operator : PAH12:MJS
 Sample : wgl770361-1,32,,
 Misc : WG1773800,WG1770361,ICAL19969
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 05 10:55:50 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) C1-Fluorenes	0.000		0	N.D.	d	
29) C2-Fluorenes	0.000		0	N.D.	d	
30) C3-Fluorenes	0.000		0	N.D.	d	
31) Dibenzothiophene	32.606	184	164	0.403	ng/mL#	76
36) C1-Dibenzothiophenes	34.787	198	20918M5	51.368	ng/mL	
36) C1-Dibenzothiophenes BS	34.787	198	375M5	0.921	ng/mL	
37) C2-Dibenzothiophenes	37.106	212	709M5	1.741	ng/mL	
38) C3-Dibenzothiophenes	0.000		0	N.D.		
39) C4-Dibenzothiophenes	0.000		0	N.D.		
41) Phenanthrene	33.099	178	382	0.901	ng/mL#	59
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	0.000		0	N.D.		
53) Anthracene	33.281	178	358	0.905	ng/mL#	60
54) Carbazole	33.938	167	245	0.724	ng/mL#	69
55) 1-Methylphenanthrene	0.000		0	N.D.	d	
56) Fluoranthene	37.882	202	215	0.482	ng/mL#	70
57) Benzo(b)fluorene	40.384	216	106	0.499	ng/mL#	4
59) Pyrene	38.759	202	243	0.541	ng/mL#	67
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.		
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	43.534	228	244	0.609	ng/mL#	32
76) Chrysene	43.689	228	279	0.647	ng/mL#	47
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	47.582	252	459	1.066	ng/mL#	67
86) Benzo[j]+[k]fluoranthene	47.673	252	444	0.926	ng/mL#	52

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012308.D
 Acq On : 1 May 2023 6:43 pm
 Operator : PAH12:MJS
 Sample : wgl770361-1,32,,
 Misc : WGL773800,WGL770361,ICAL19969
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 05 10:55:50 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) Benzo[a]fluoranthene	0.000		0	N.D.	d	
88) Benzo[e]pyrene	48.615	252	526	1.142	ng/mL#	77
90) Benzo[a]pyrene	48.807	252	286	0.732	ng/mL#	49
91) Perylene	49.128	252	324	0.795	ng/mL#	50
92) Indeno[1,2,3-cd]pyrene	53.783	276	929M3	2.352	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.838	278	544	1.582	ng/mL#	54
94) Benzo[g,h,i]perylene	55.135	276	1128	2.543	ng/mL	98

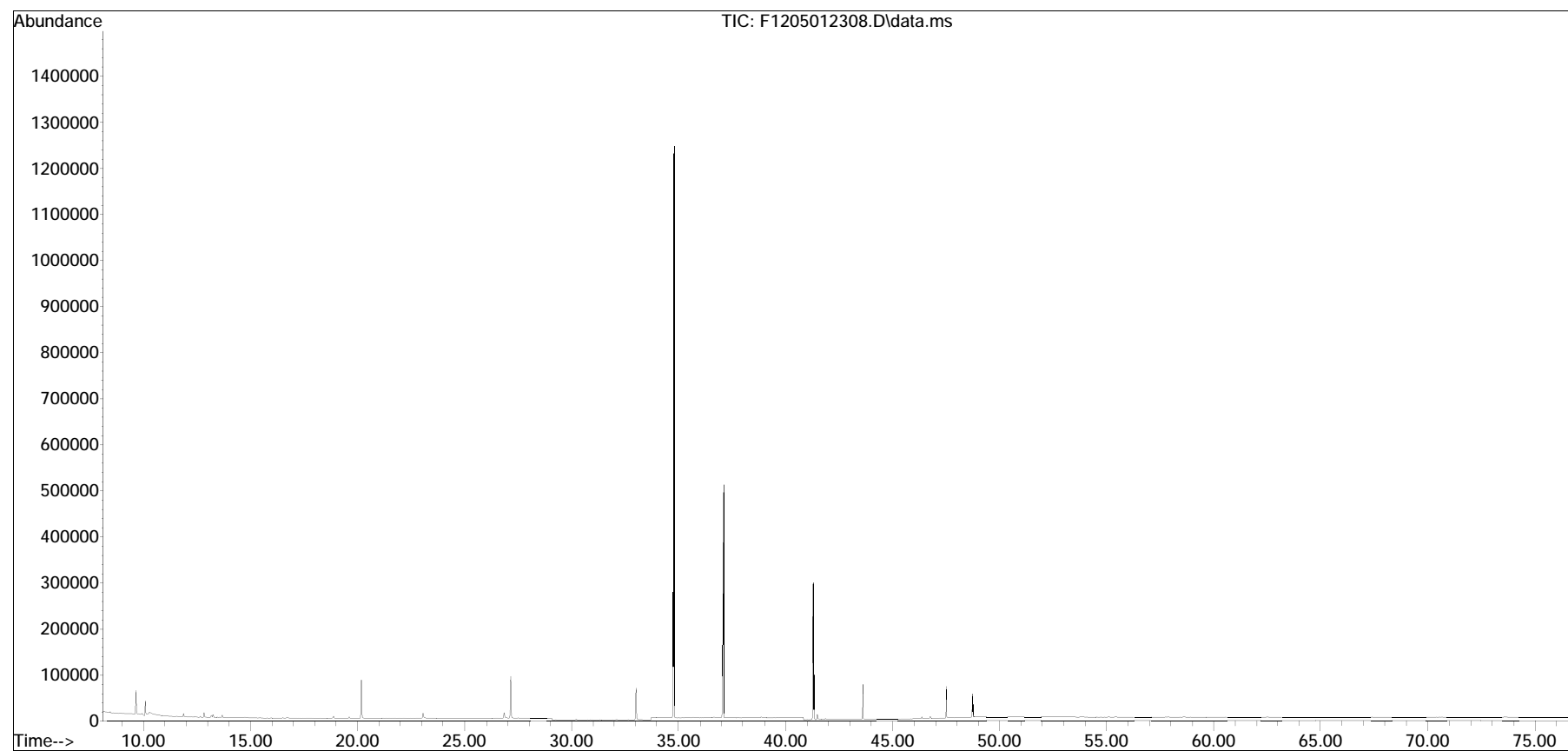
(#) = qualifier out of range (m) = manual integration (+) = signals summed

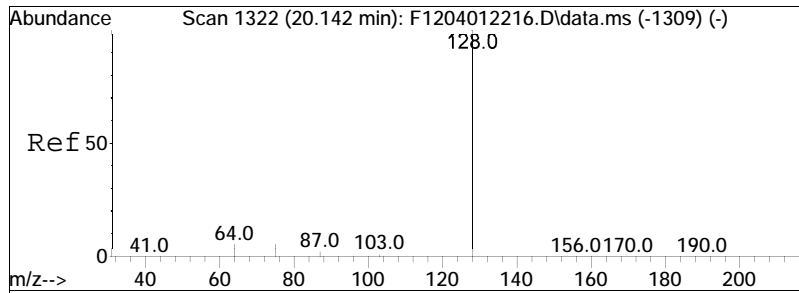
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012308.D
 Acq On : 1 May 2023 6:43 pm
 Operator : PAH12:MJS
 Sample : wg1770361-1,32,,
 Misc : WG1773800,WG1770361,ICAL19969
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 05 10:55:50 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 Response via : Initial Calibration

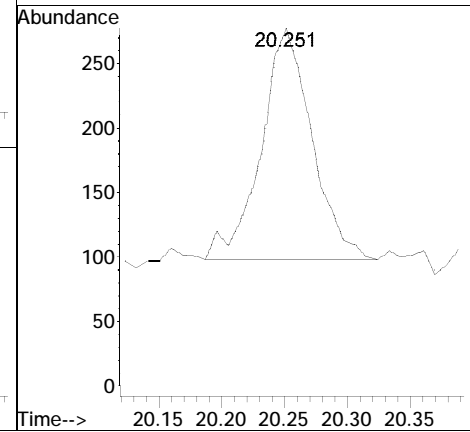
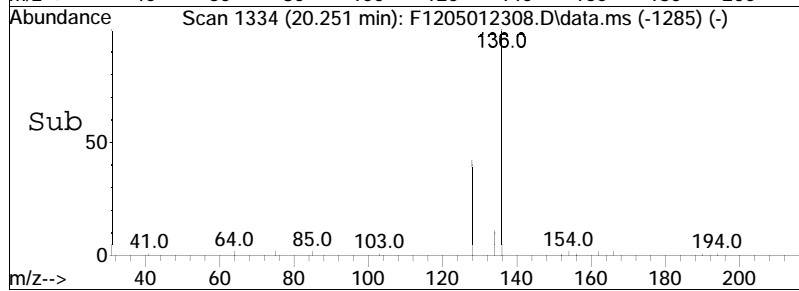
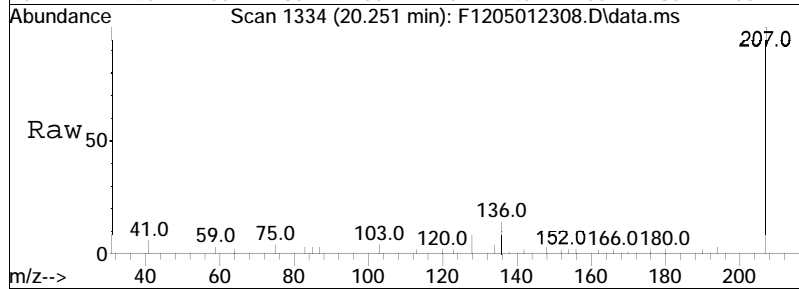
Sub List : ALKPAH - POI+MP+BcF

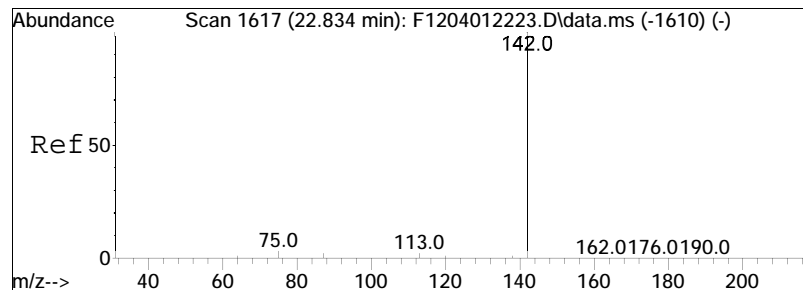




#9
Naphthalene
Concen: 1.03 ng/mL
RT: 20.251 min Scan# 1334
Delta R.T. -0.055 min
Lab File: F1205012308.D
Acq: 1 May 2023 6:43 pm

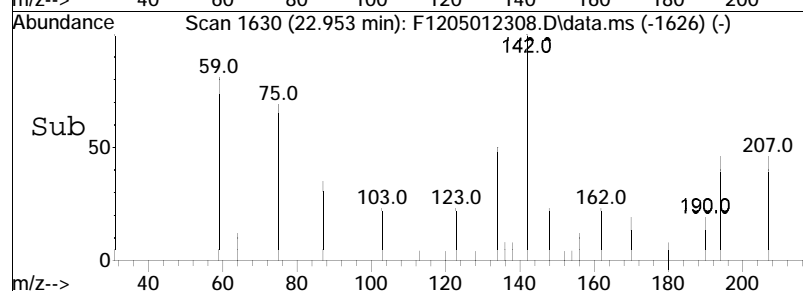
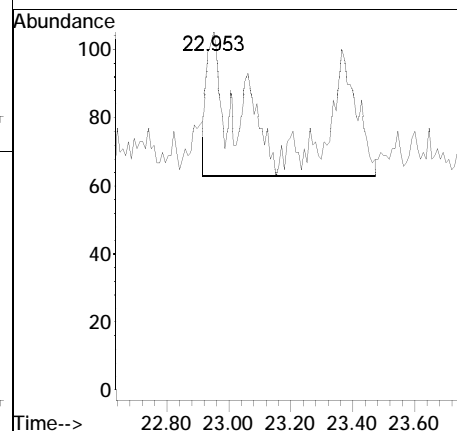
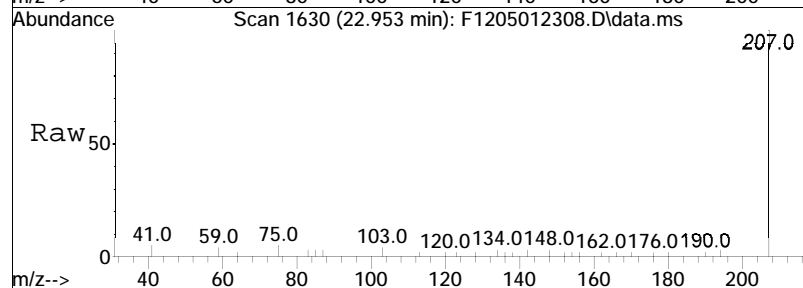
Tgt Ion:128 Resp: 502

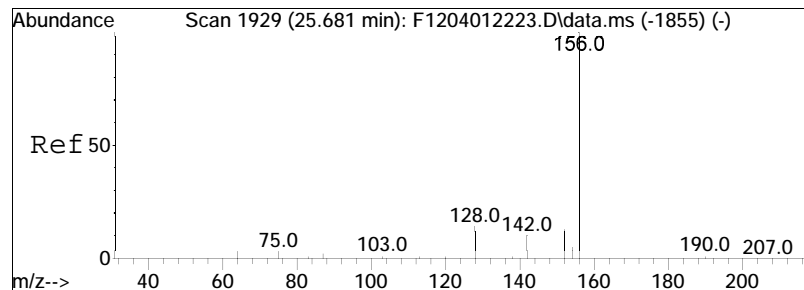




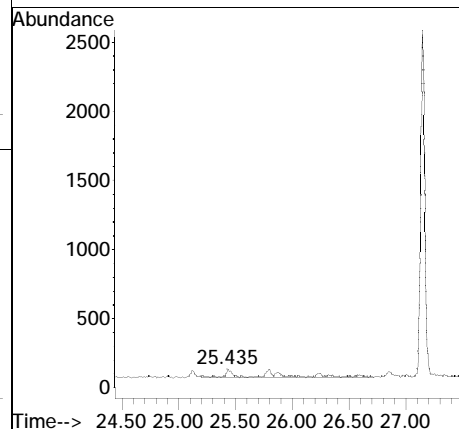
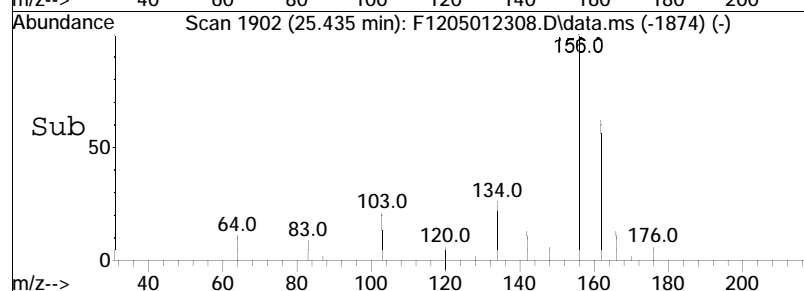
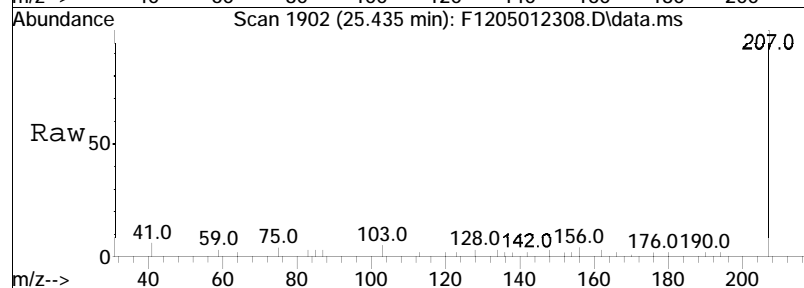
#10
 Cl-Naphthalenes
 Concen: 1.08 ng/mL M5
 RT: 22.953 min Scan# 1630
 Delta R.T. -0.045 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

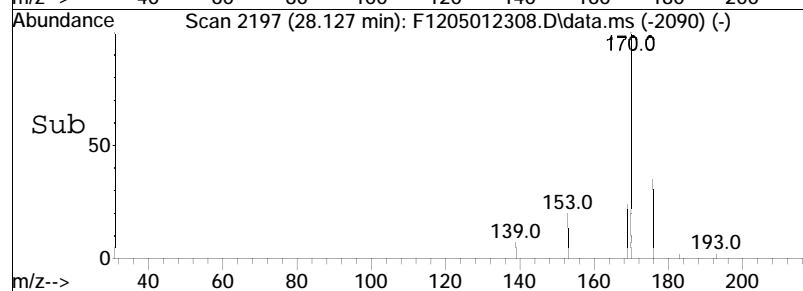
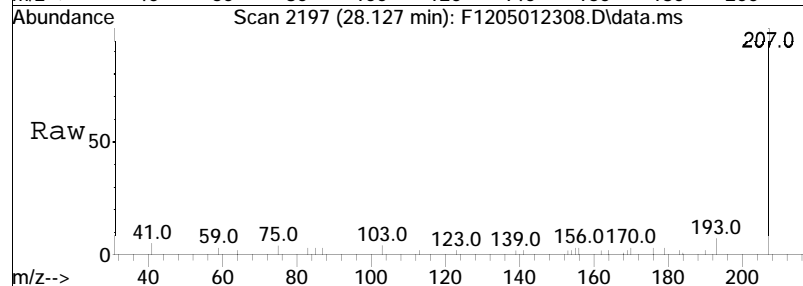
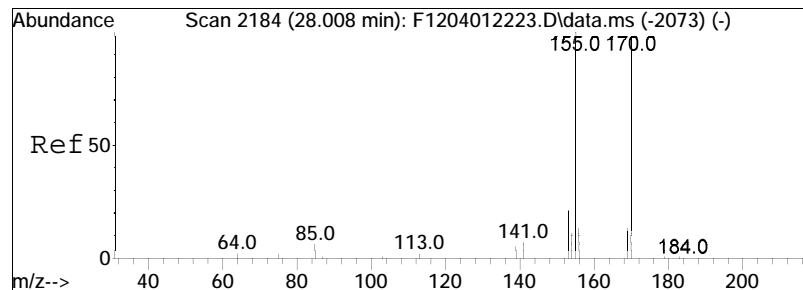
Tgt Ion:142 Resp: 528





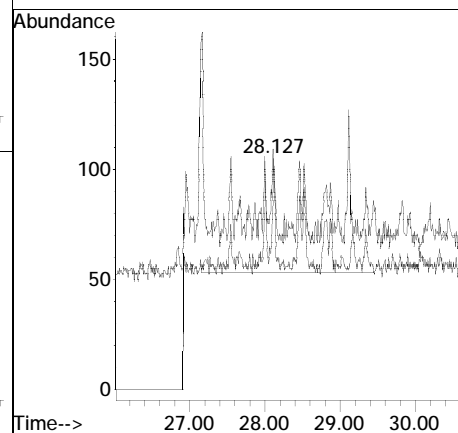
#11
 C2-Naphthalenes
 Concen: 2.84 ng/mL M5
 RT: 25.435 min Scan# 1902
 Delta R.T. -0.401 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm
 Tgt Ion:156 Resp: 1384

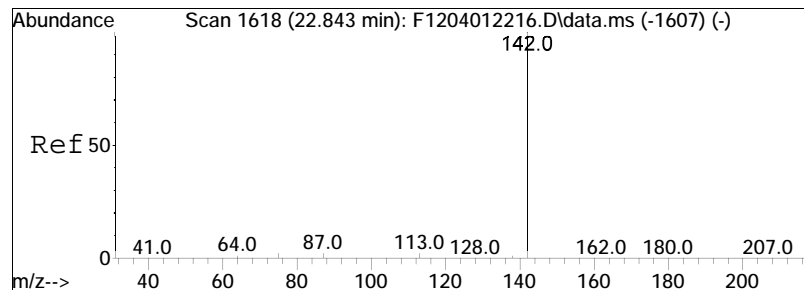




#12
 C3-Naphthalenes
 Concen: 2.23 ng/mL M5
 RT: 28.127 min Scan# 2197
 Delta R.T. -0.054 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

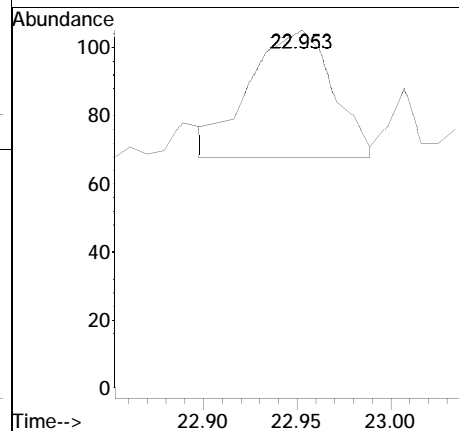
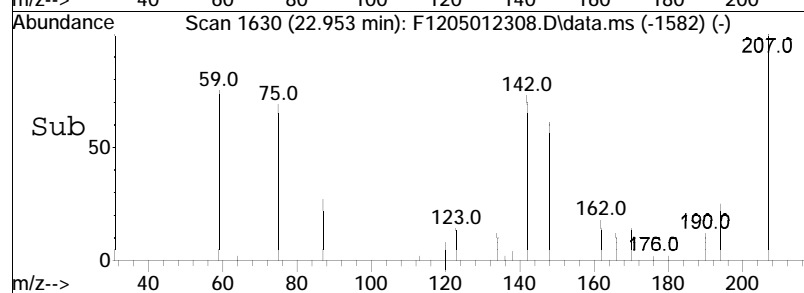
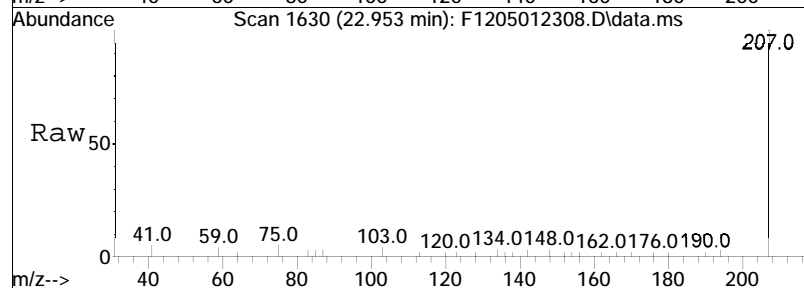
Tgt Ion: 170 Resp: 1086
 Ion Ratio Lower Upper
 170 100
 155 12.6 59.6 110.6#

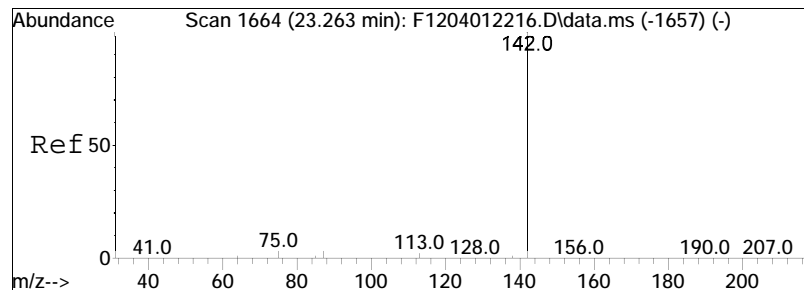




#14
 2-Methylnaphthalene
 Concen: 0.38 ng/mL M3
 RT: 22.953 min Scan# 1630
 Delta R.T. -0.063 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

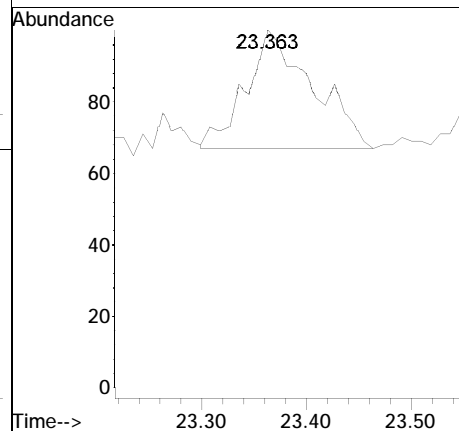
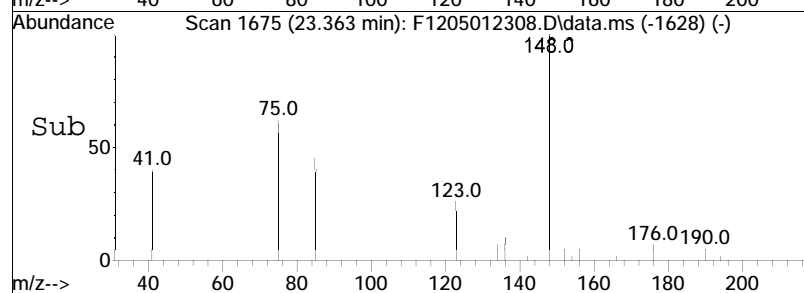
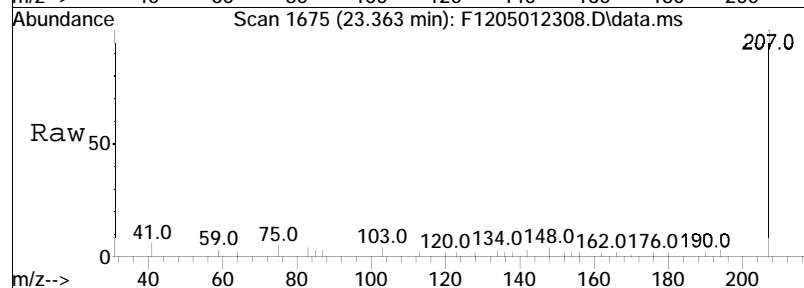
Tgt Ion:142 Resp: 114

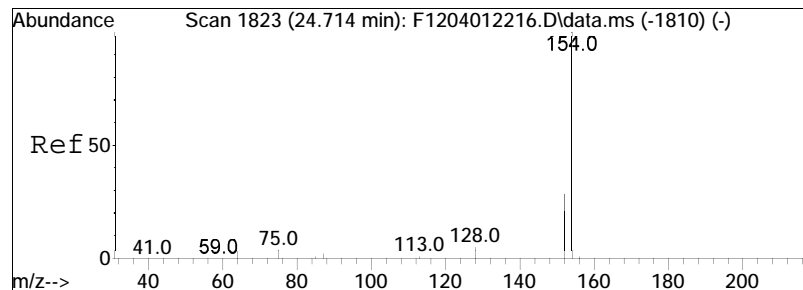




#15
 1-Methylnaphthalene
 Concen: 0.52 ng/mL
 RT: 23.363 min Scan# 1675
 Delta R.T. -0.073 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

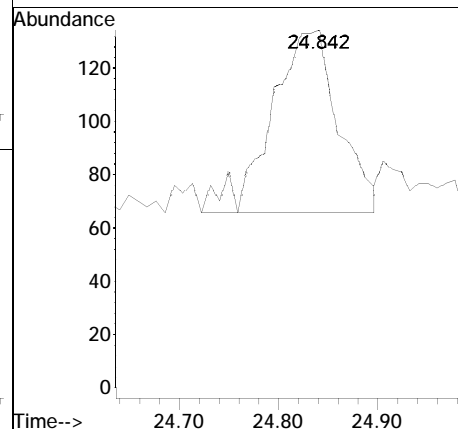
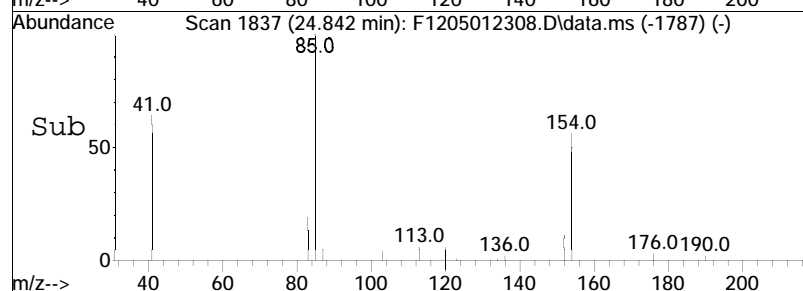
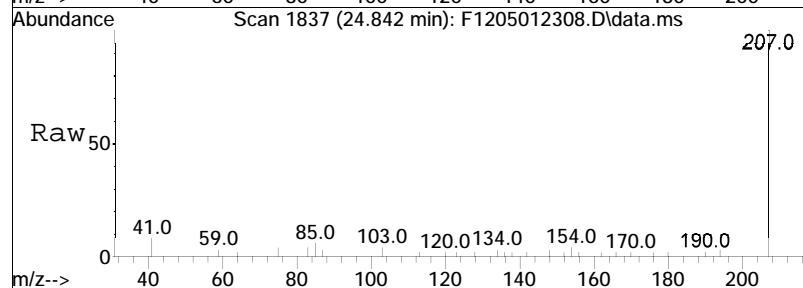
Tgt Ion:142 Resp: 146

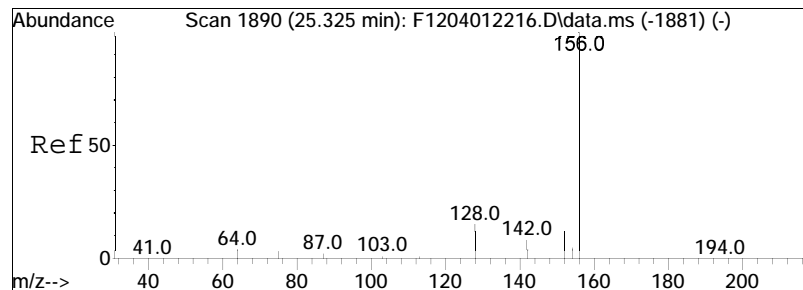




#21
 Biphenyl
 Concen: 0.86 ng/mL
 RT: 24.842 min Scan# 1837
 Delta R.T. -0.045 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

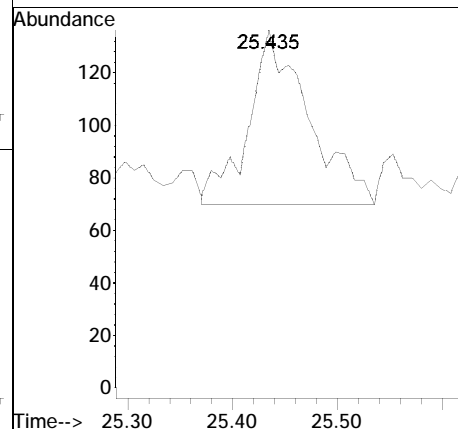
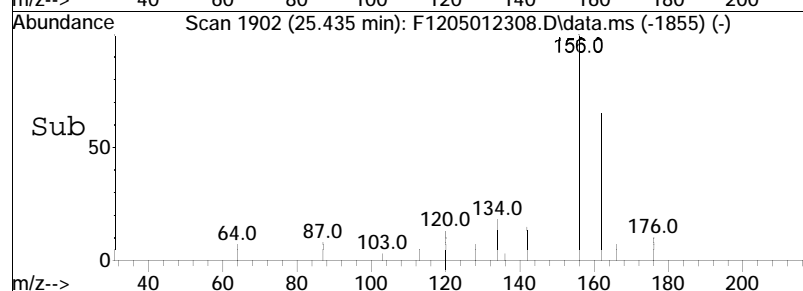
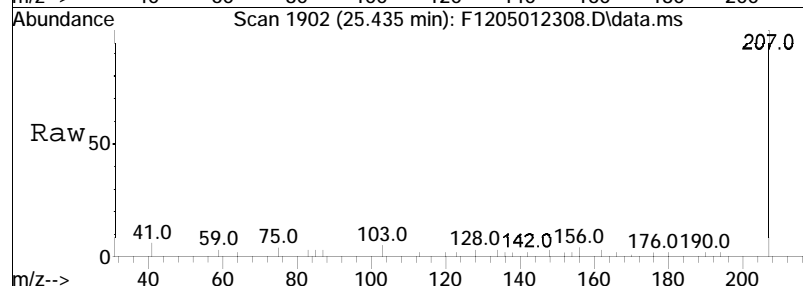
Tgt Ion:154 Resp: 321

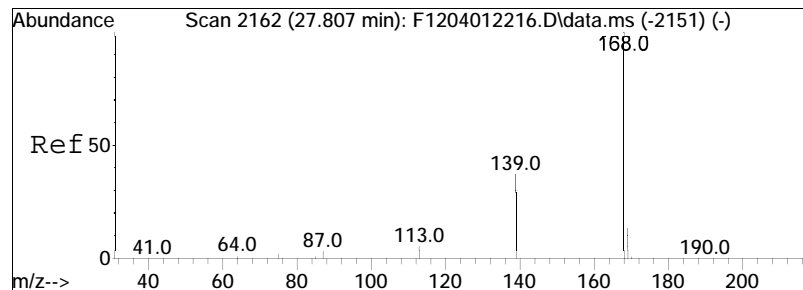




#22
 2,6-Dimethylnaphthalene
 Concen: 1.07 ng/mL
 RT: 25.435 min Scan# 1902
 Delta R.T. -0.073 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

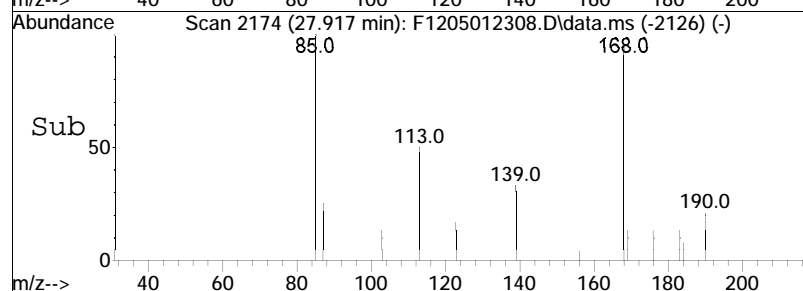
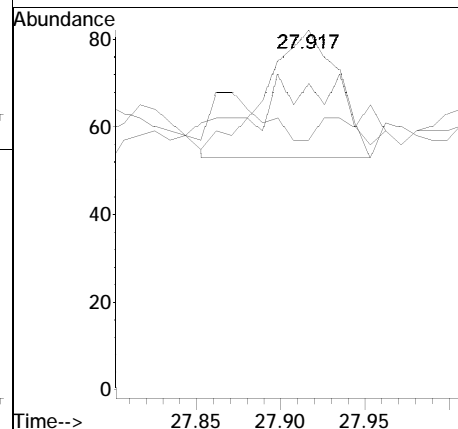
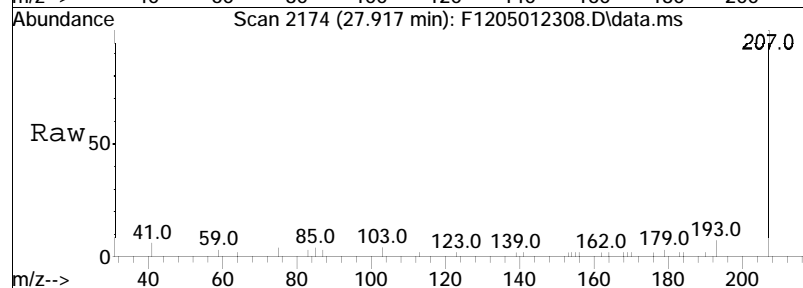
Tgt Ion:156 Resp: 263

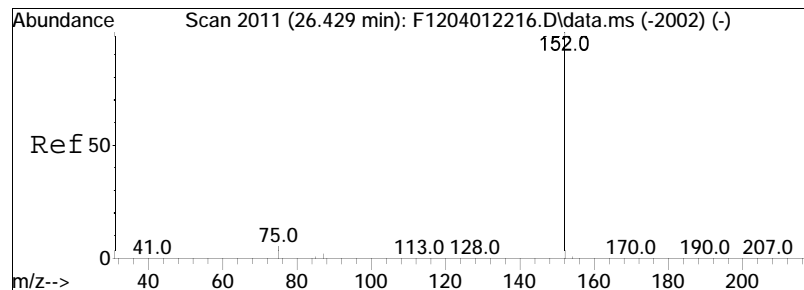




#23
 Dibenzofuran
 Concen: 0.25 ng/mL M2
 RT: 27.917 min Scan# 2174
 Delta R.T. -0.064 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

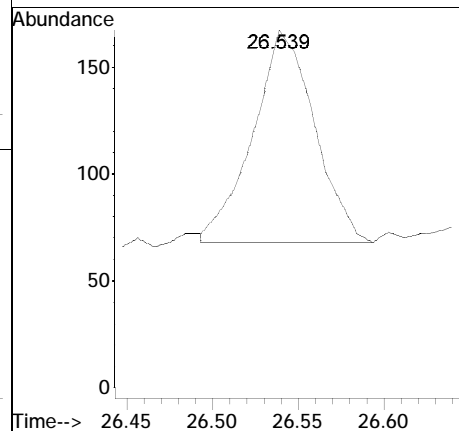
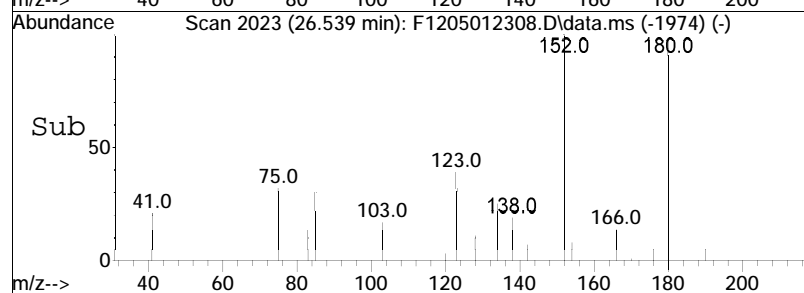
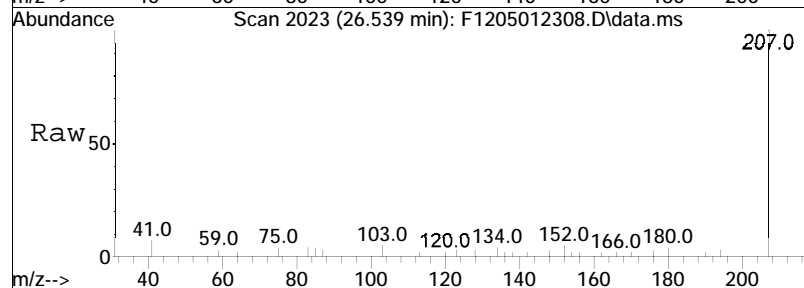
Tgt Ion	Ratio	Lower	Upper
168	100		
139	0.0	24.2	45.0#
169	0.0	9.4	17.4#

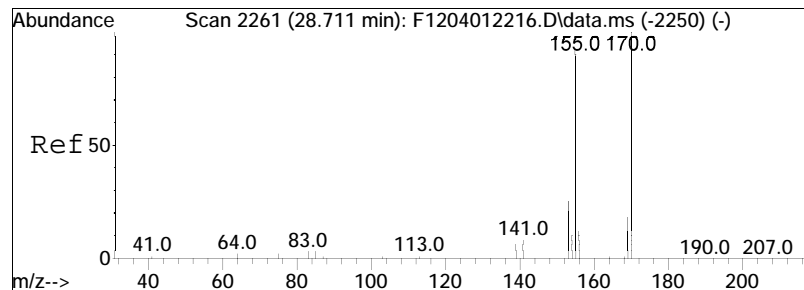




#24
 Acenaphthylene
 Concen: 0.59 ng/mL
 RT: 26.539 min Scan# 2023
 Delta R.T. -0.055 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

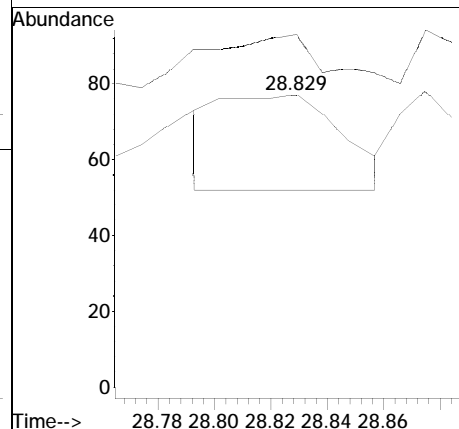
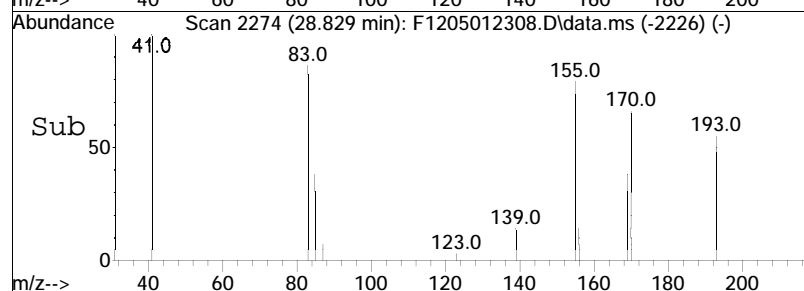
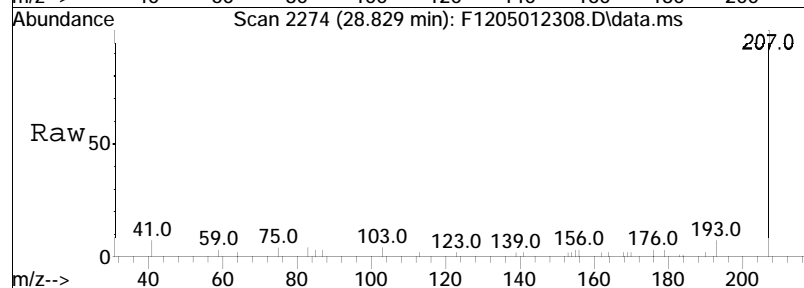
Tgt Ion:152 Resp: 246

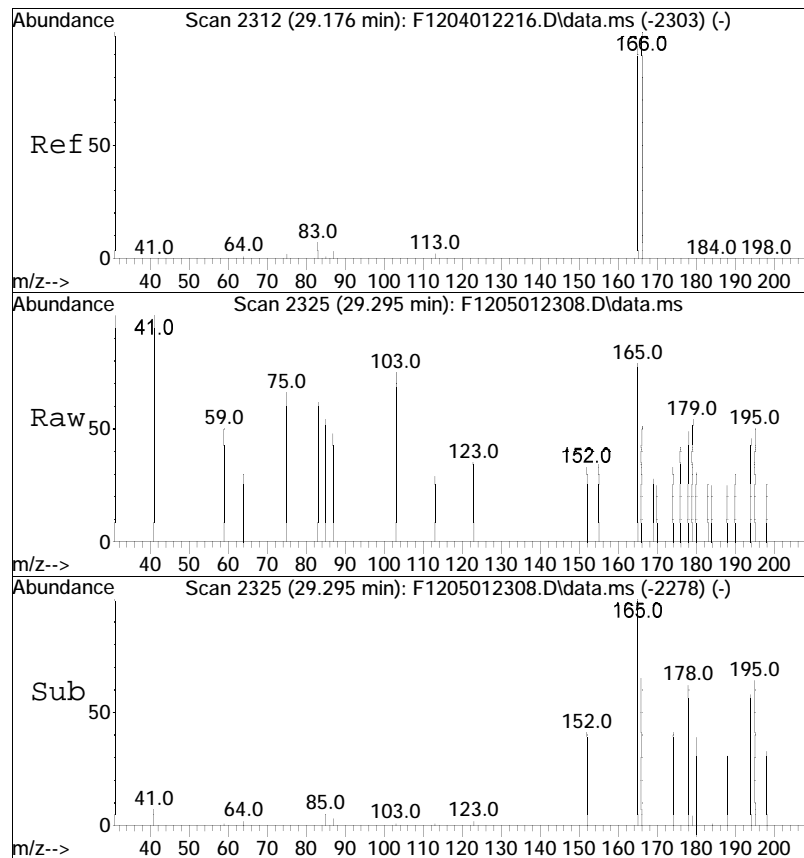




#26
 2,3,5-Trimethylnaphthalene
 Concen: 0.33 ng/mL M3
 RT: 28.829 min Scan# 2274
 Delta R.T. -0.064 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

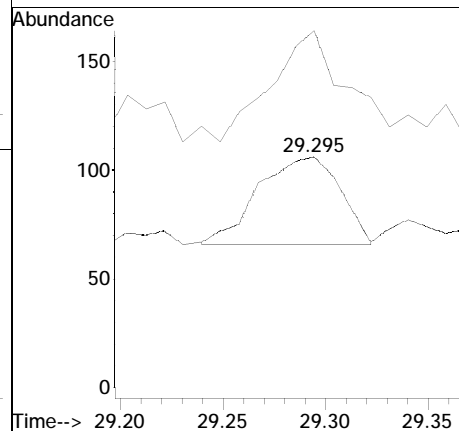
Tgt Ion:170 Resp: 76
 Ion Ratio Lower Upper
 170 100
 155 157.9 61.0 113.2#

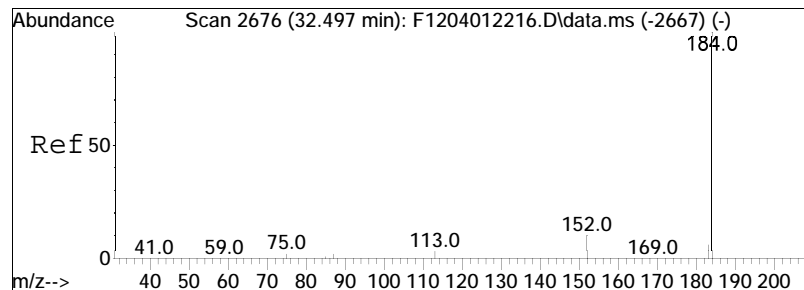




#27
 Fluorene
 Concen: 0.39 ng/mL M4
 RT: 29.295 min Scan# 2325
 Delta R.T. -0.073 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

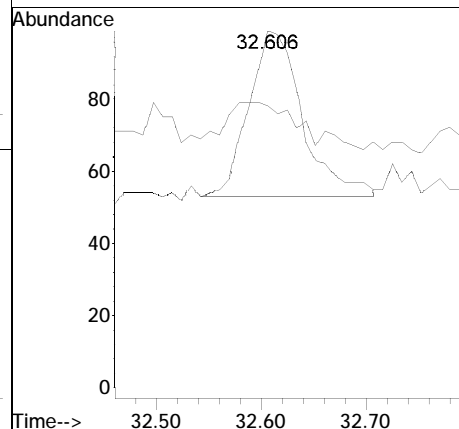
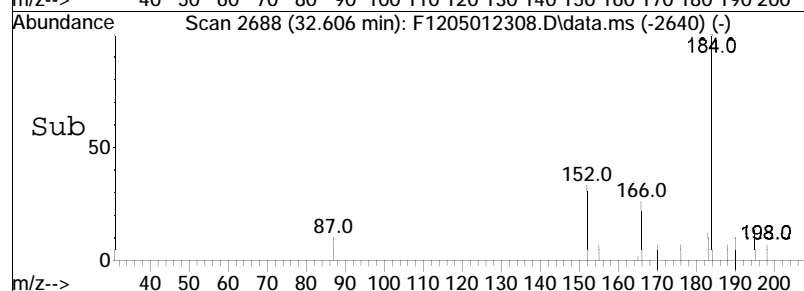
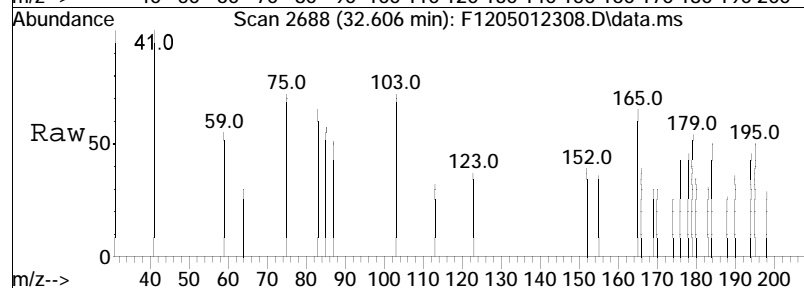
Tgt Ion	Ratio	Lower	Upper
166	100		
165	0.0	64.6	120.0#

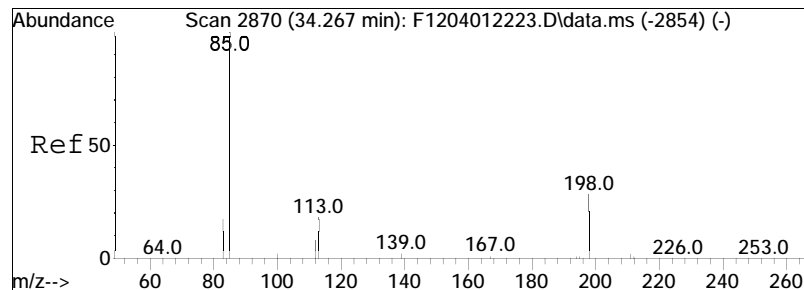




#31
 Dibenzothiophene
 Concen: 0.40 ng/mL
 RT: 32.606 min Scan# 2688
 Delta R.T. -0.064 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

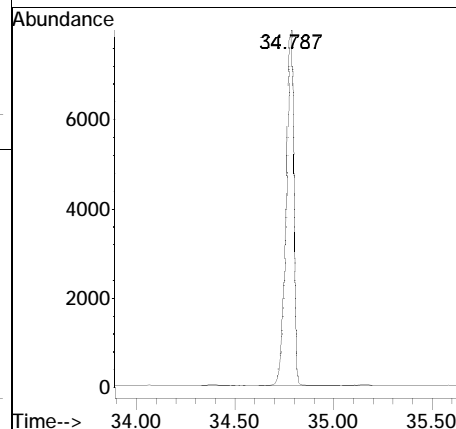
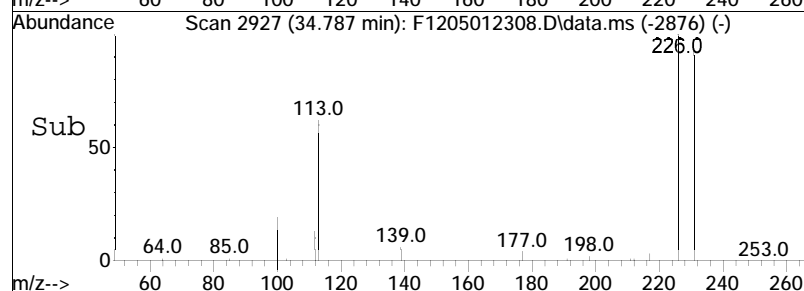
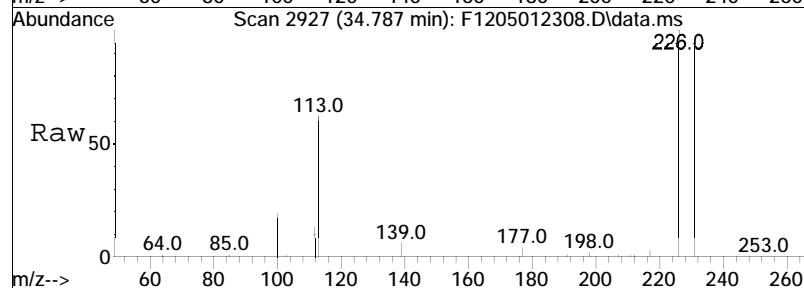
Tgt Ion: 184 Resp: 164
 Ion Ratio Lower Upper
 184 100
 152 0.0 5.9 11.1#

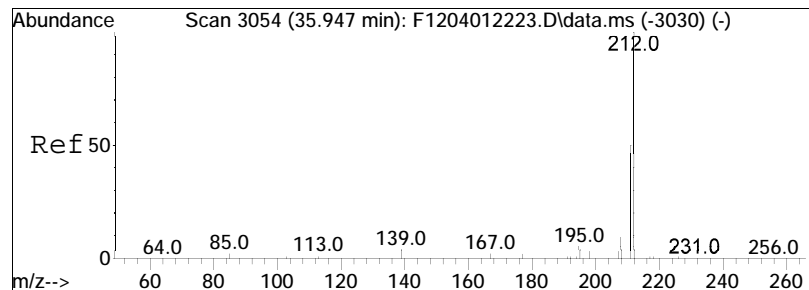




#36
 Cl-Dibenzothiophenes
 Concen: 51.37 ng/mL M5
 RT: 34.787 min Scan# 2927
 Delta R.T. 0.351 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

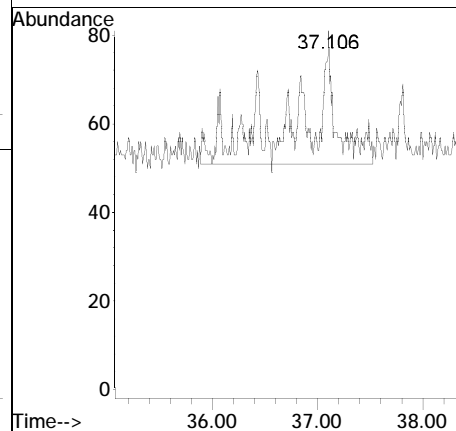
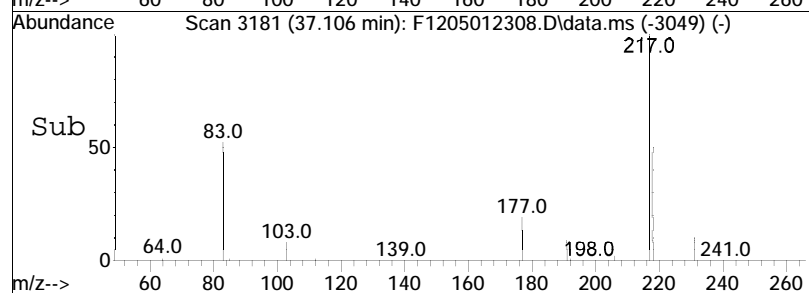
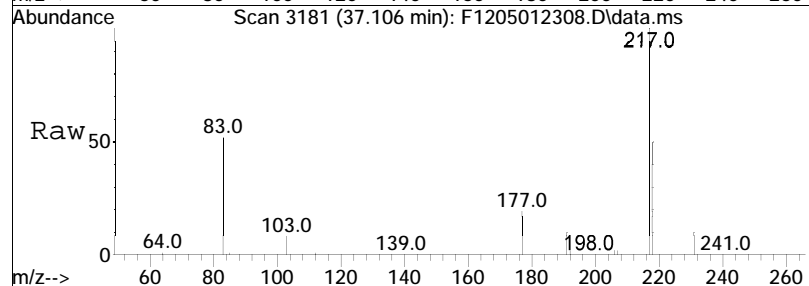
Tgt Ion:198 Resp: 20918

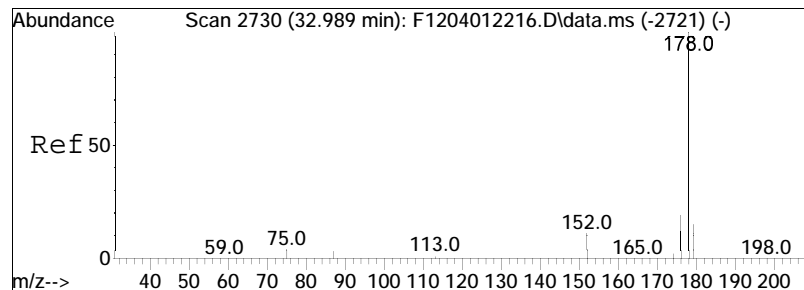




#37
 C2-Dibenzothiophenes
 Concen: 1.74 ng/mL M5
 RT: 37.106 min Scan# 3181
 Delta R.T. 0.995 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

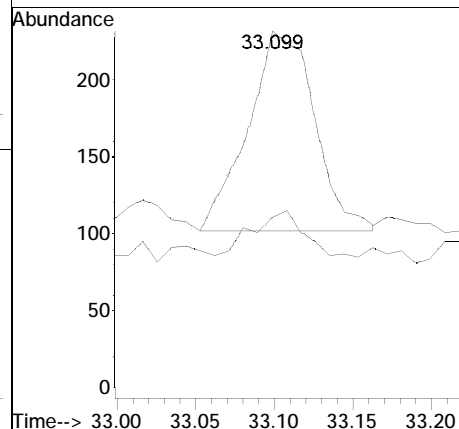
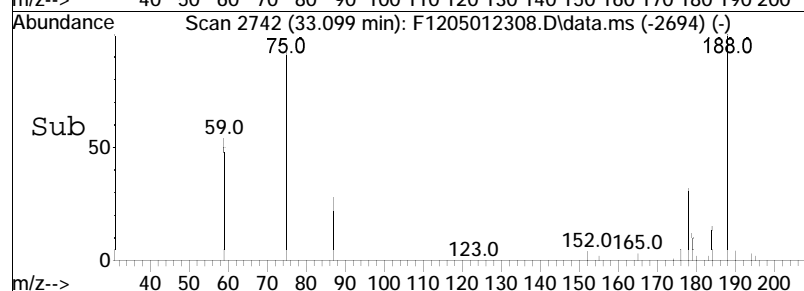
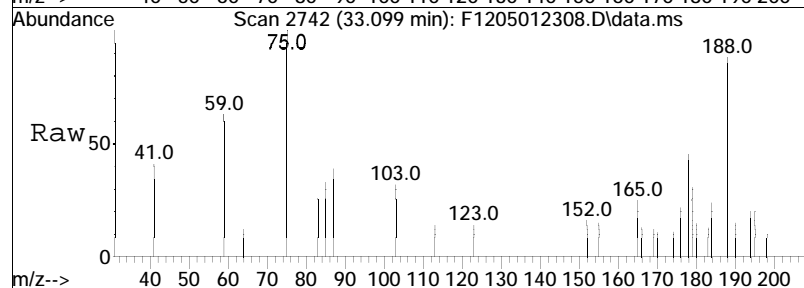
Tgt Ion: 212 Resp: 709

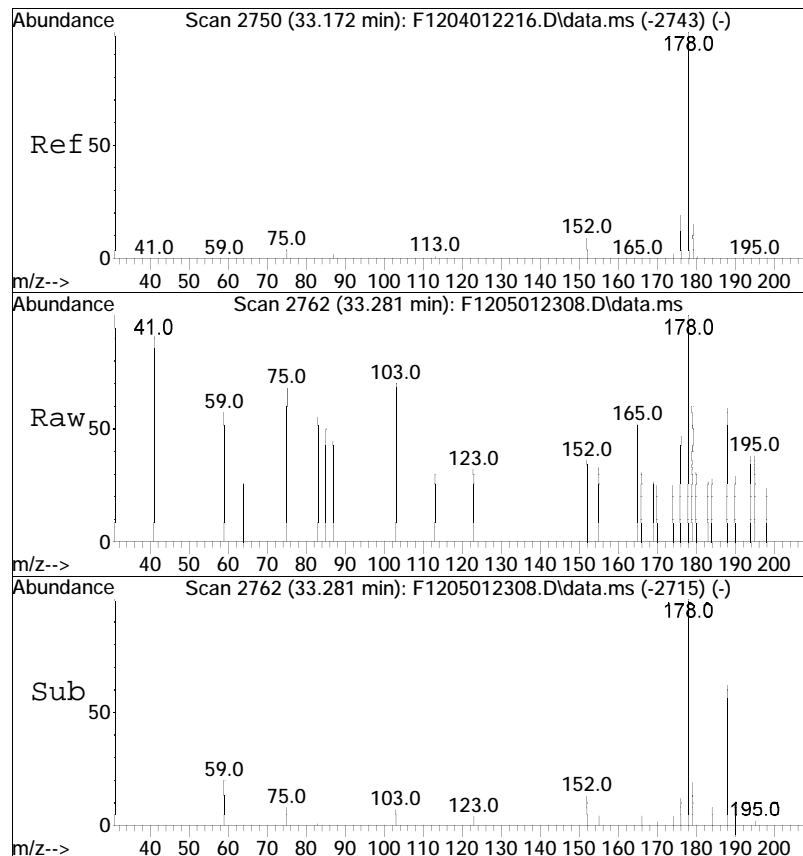




#41
 Phenanthrene
 Concen: 0.90 ng/mL
 RT: 33.099 min Scan# 2742
 Delta R.T. -0.064 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

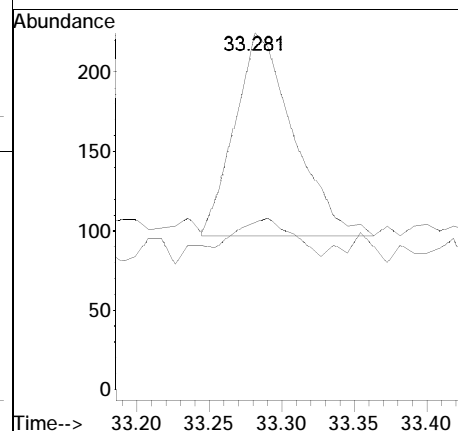
Tgt Ion: 178 Resp: 382
 Ion Ratio Lower Upper
 178 100
 176 0.0 12.9 23.9#

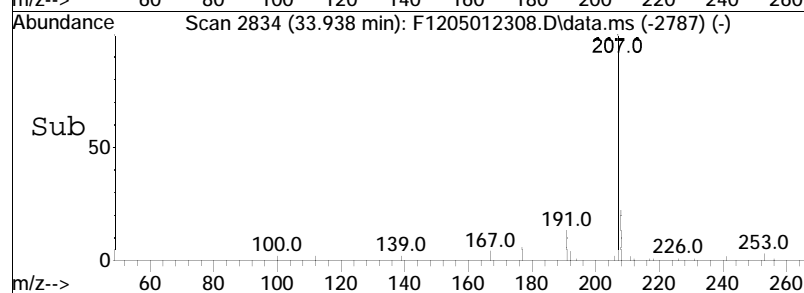
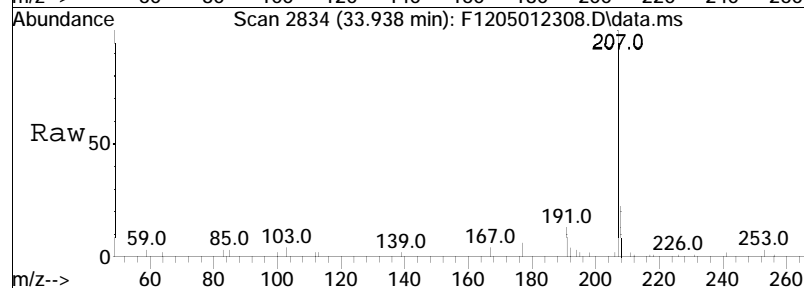
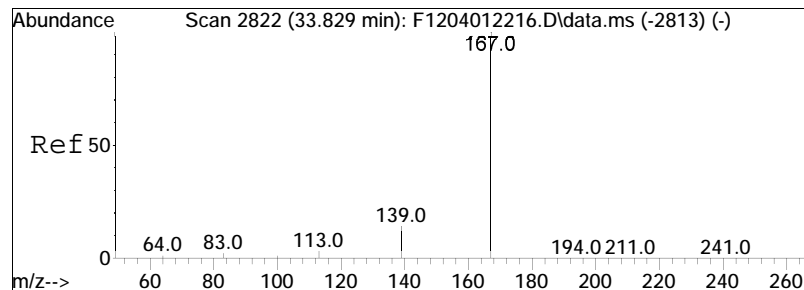




#53
 Anthracene
 Concen: 0.90 ng/mL
 RT: 33.281 min Scan# 2762
 Delta R.T. -0.074 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

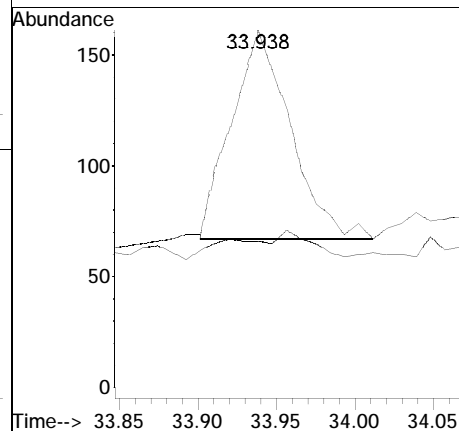
Tgt Ion:178 Resp: 358
 Ion Ratio Lower Upper
 178 100
 176 0.0 12.2 22.7#

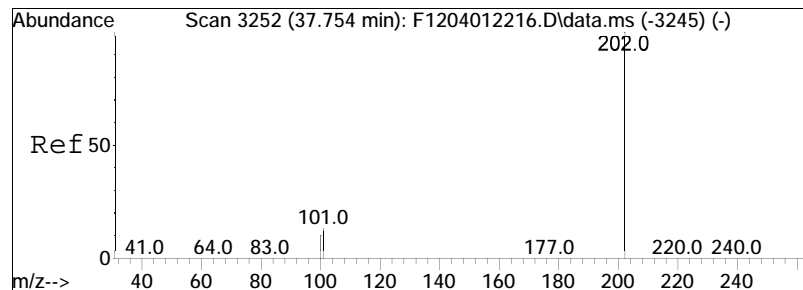




#54
 Carbazole
 Concen: 0.72 ng/mL
 RT: 33.938 min Scan# 2834
 Delta R.T. -0.073 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

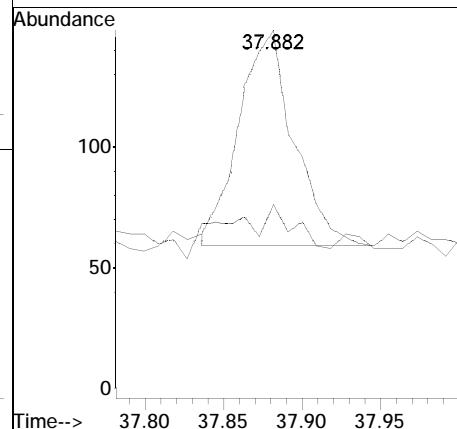
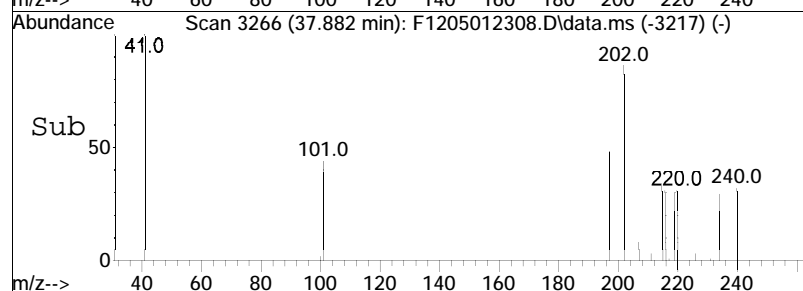
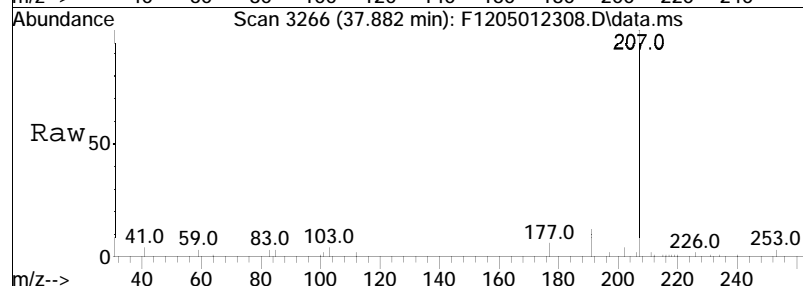
Tgt Ion: 167 Resp: 245
 Ion Ratio Lower Upper
 167 100
 139 0.0 8.6 16.0#

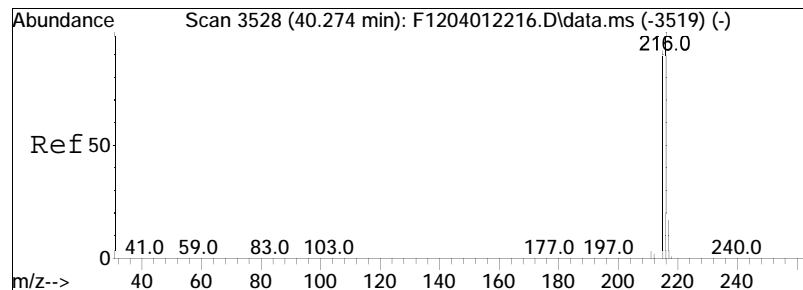




#56
 Fluoranthene
 Concen: 0.48 ng/mL
 RT: 37.882 min Scan# 3266
 Delta R.T. -0.055 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

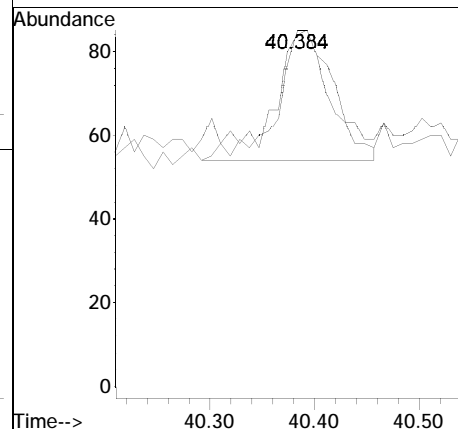
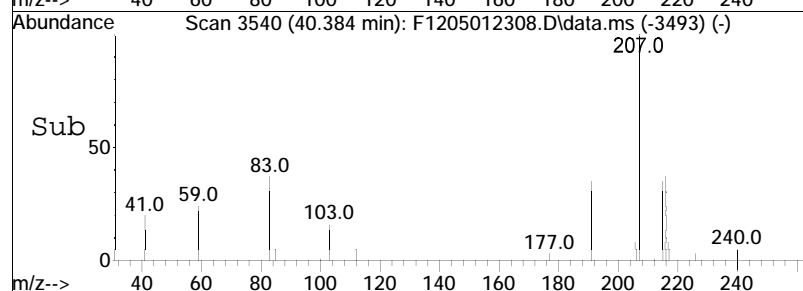
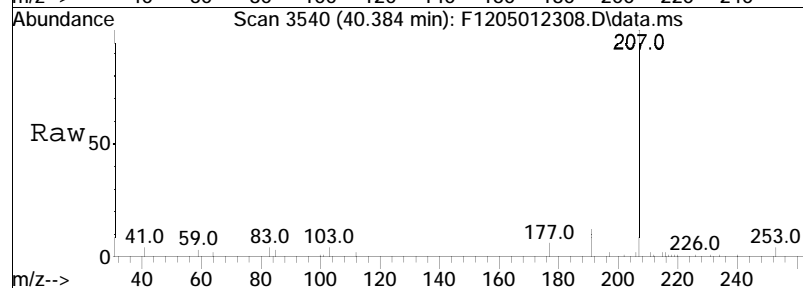
Tgt Ion	Ratio	Lower	Upper
202	100		
101	0.0	8.1	15.1#

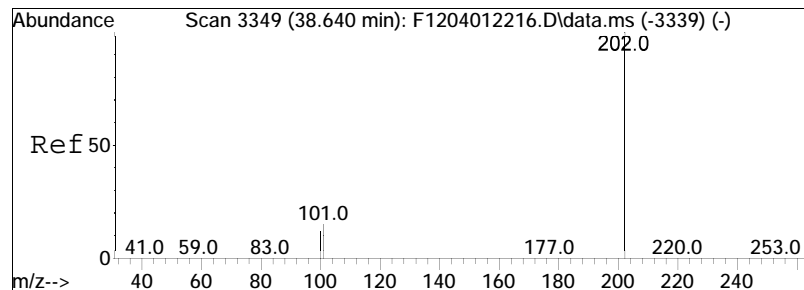




#57
 Benzo(b)fluorene
 Concen: 0.50 ng/mL
 RT: 40.384 min Scan# 3540
 Delta R.T. -0.073 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

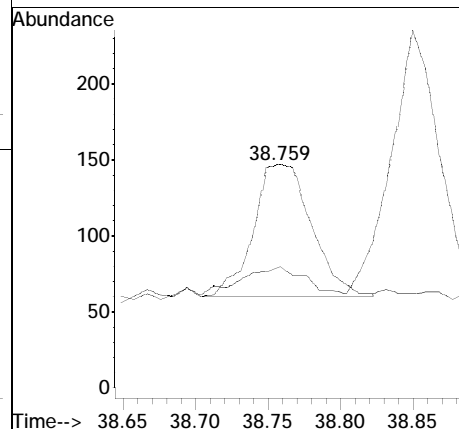
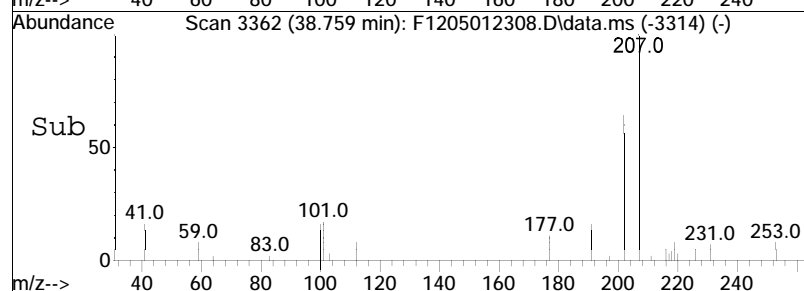
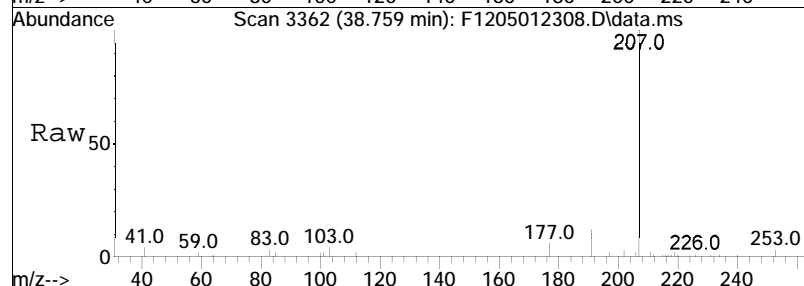
Tgt Ion	Ratio	Lower	Upper
216	100		
215	0.0	64.3	119.3#

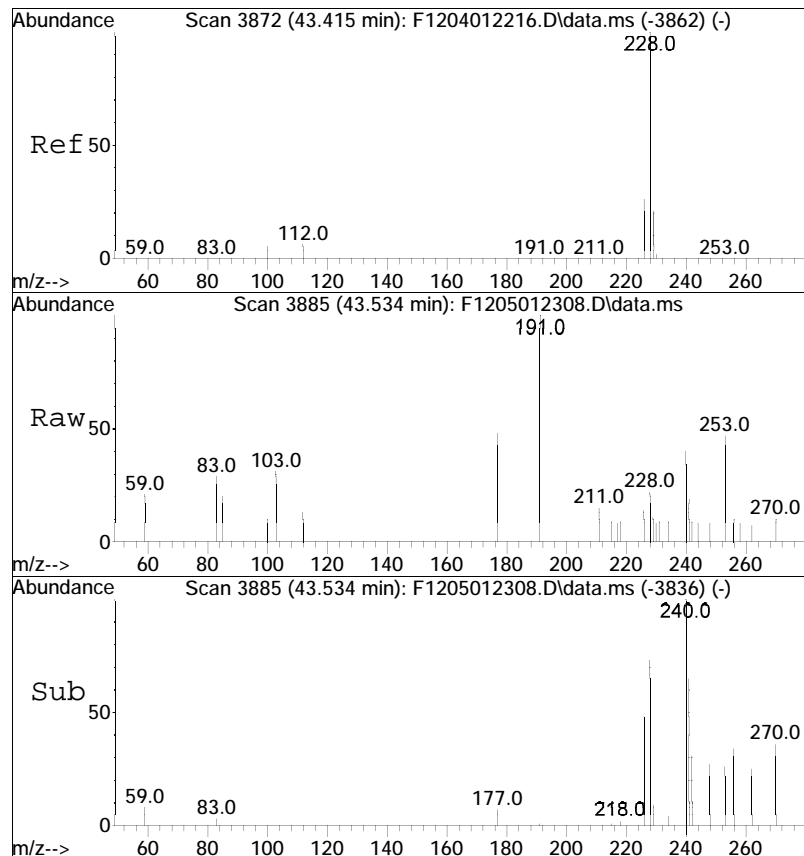




#59
 Pyrene
 Concen: 0.54 ng/mL
 RT: 38.759 min Scan# 3362
 Delta R.T. -0.063 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

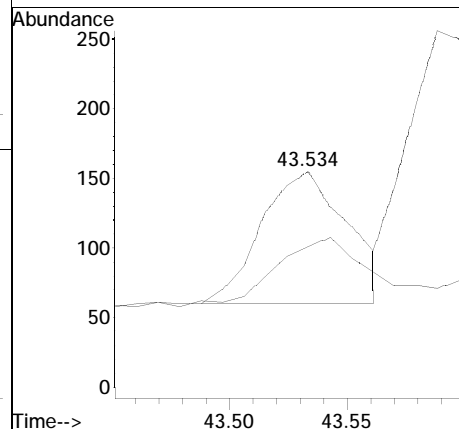
Tgt	Ion	Ratio	Lower	Upper
202	100			
101	0.0	9.4	17.4	#

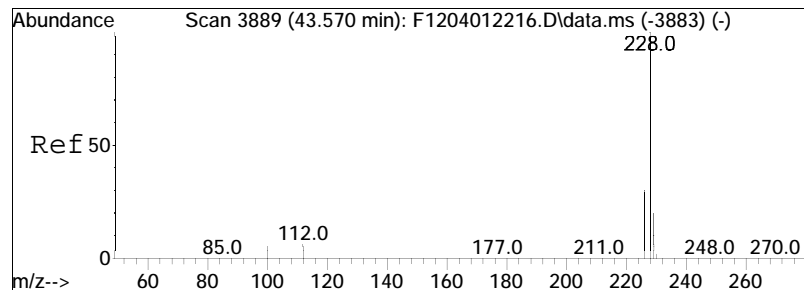




#75
Benz[a]anthracene
Concen: 0.61 ng/mL
RT: 43.534 min Scan# 3885
Delta R.T. -0.054 min
Lab File: F1205012308.D
Acq: 1 May 2023 6:43 pm

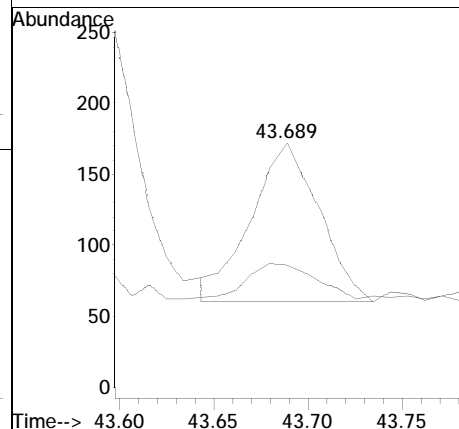
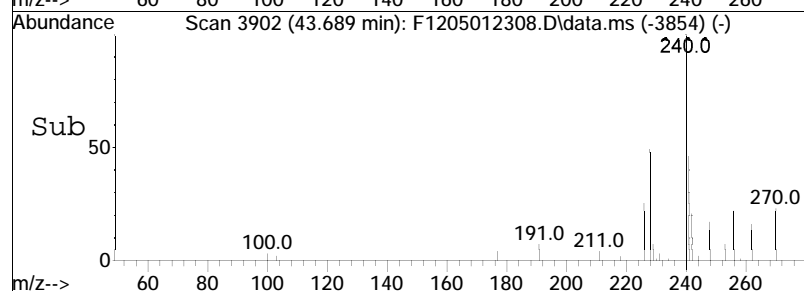
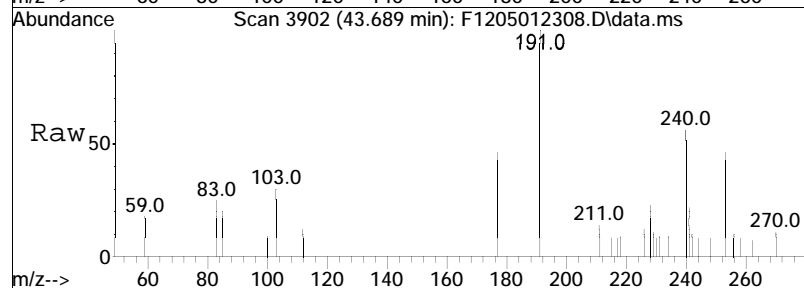
Tgt Ion: 228 Resp: 244
Ion Ratio Lower Upper
228 100
226 59.4 17.7 32.9#

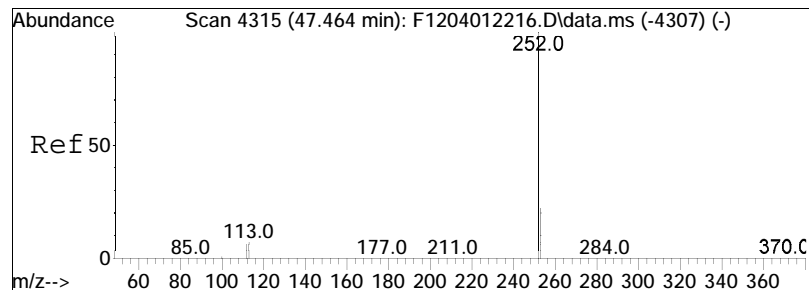




#76
 Chrysene
 Concen: 0.65 ng/mL
 RT: 43.689 min Scan# 3902
 Delta R.T. -0.064 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

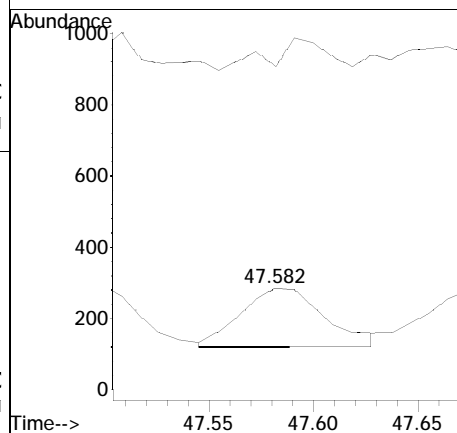
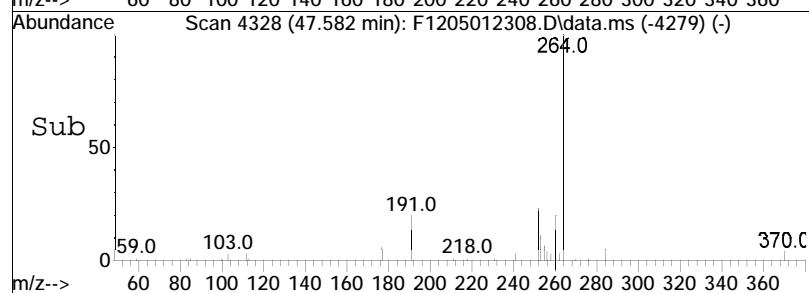
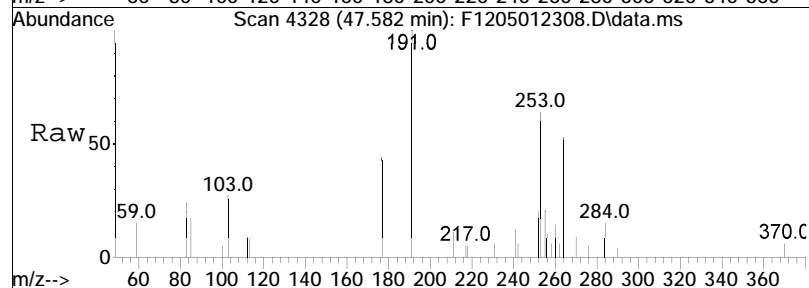
Tgt Ion: 228 Resp: 279
 Ion Ratio Lower Upper
 228 100
 226 0.0 19.3 35.9#

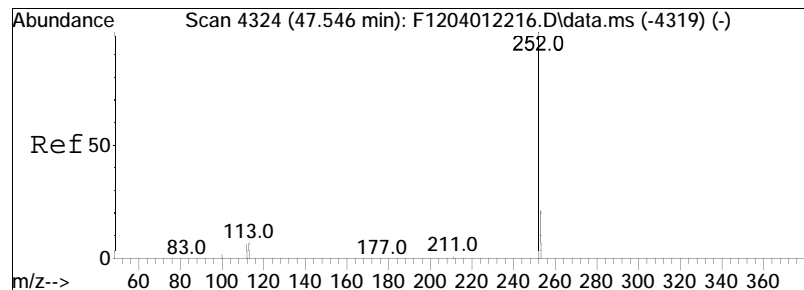




#85
 Benzo[b]fluoranthene
 Concen: 1.07 ng/mL
 RT: 47.582 min Scan# 4328
 Delta R.T. -0.055 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

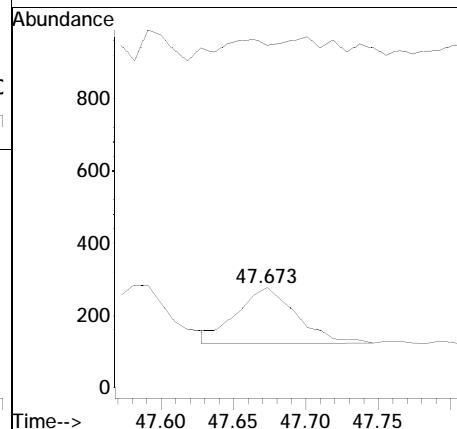
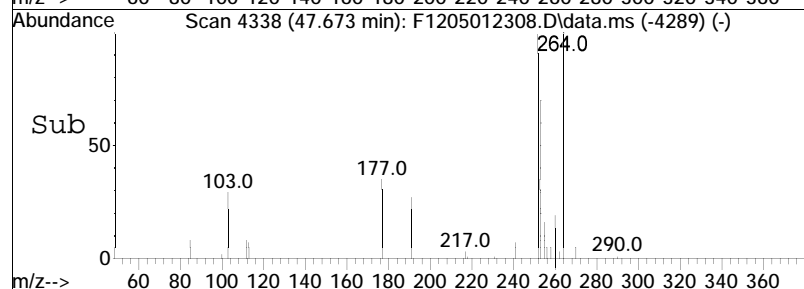
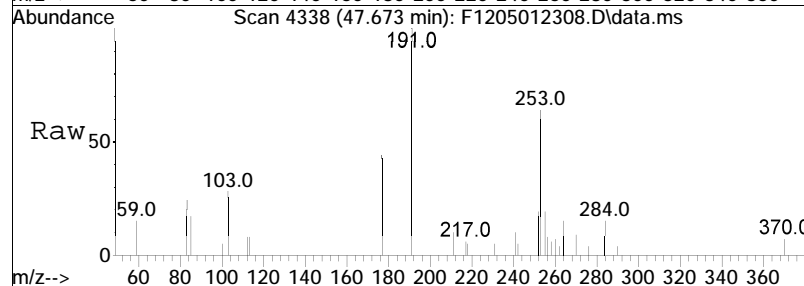
Tgt Ion	Ratio	Lower	Upper
252	100		
253	39.9	16.7	30.9#

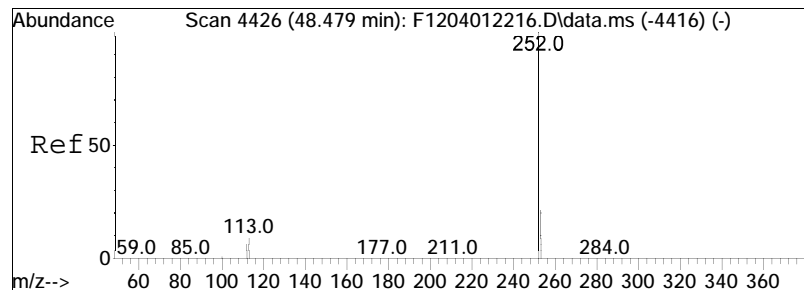




#86
 Benzo[j]+[k]fluoranthene
 Concen: 0.93 ng/mL
 RT: 47.673 min Scan# 4338
 Delta R.T. -0.055 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

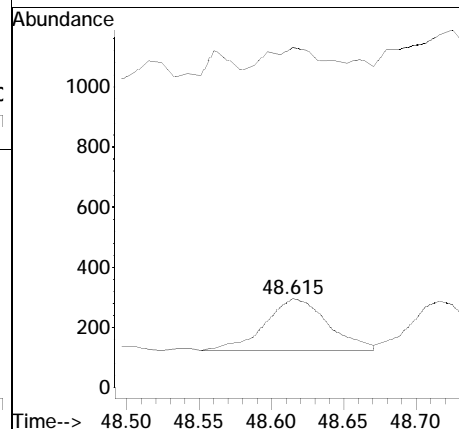
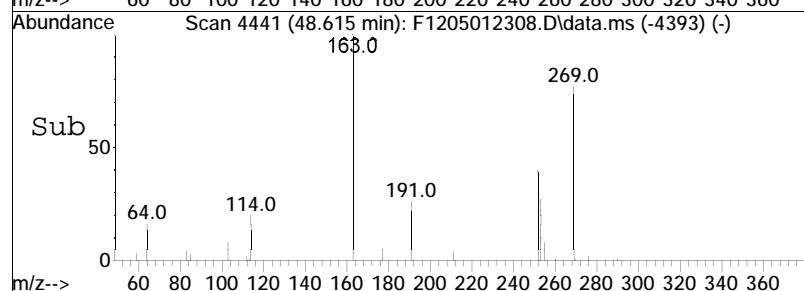
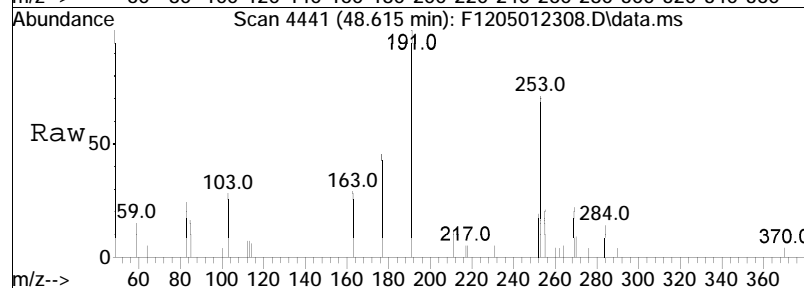
Tgt Ion: 252 Resp: 444
 Ion Ratio Lower Upper
 252 100
 253 0.0 16.7 30.9#

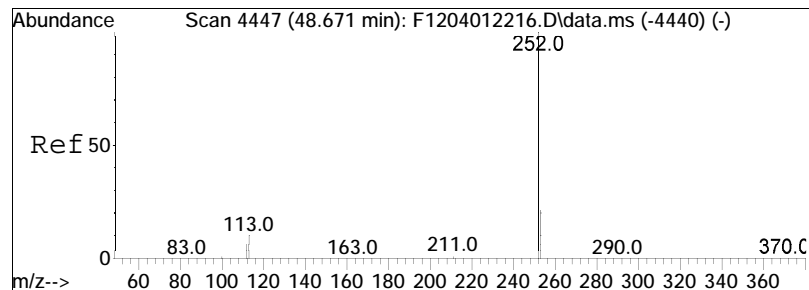




#88
 Benzo[e]pyrene
 Concen: 1.14 ng/mL
 RT: 48.615 min Scan# 4441
 Delta R.T. -0.064 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

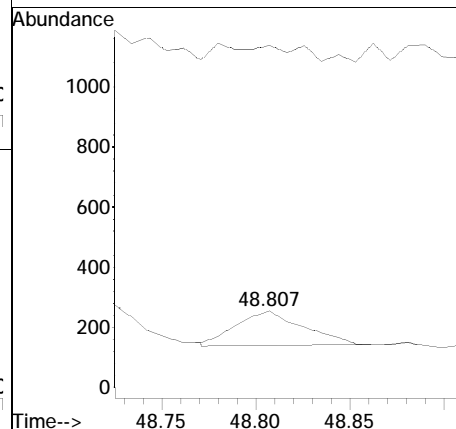
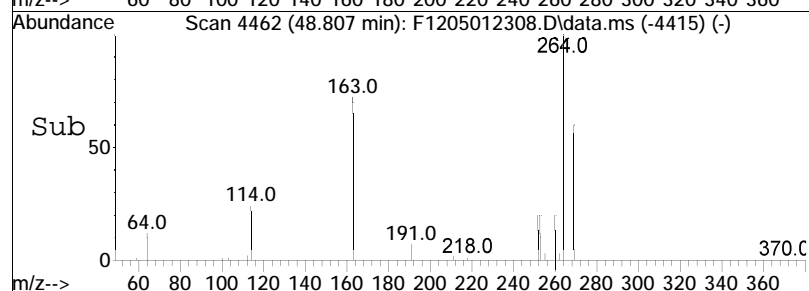
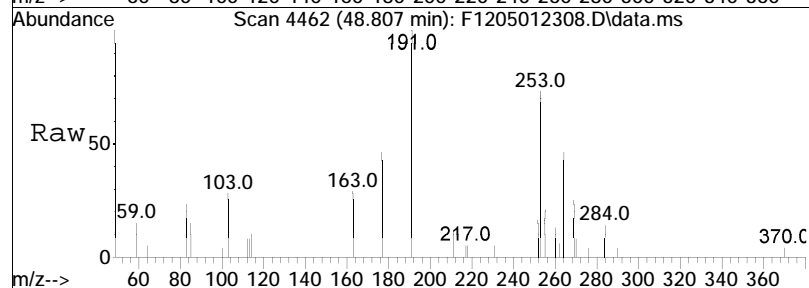
Tgt Ion: 252 Resp: 526
 Ion Ratio Lower Upper
 252 100
 253 36.5 17.4 32.2#

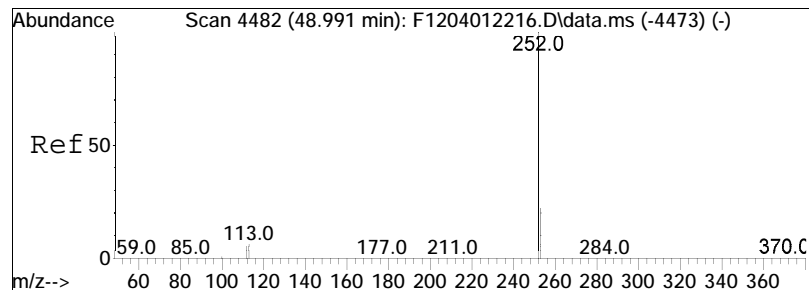




#90
 Benzo[a]pyrene
 Concen: 0.73 ng/mL
 RT: 48.807 min Scan# 4462
 Delta R.T. -0.074 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

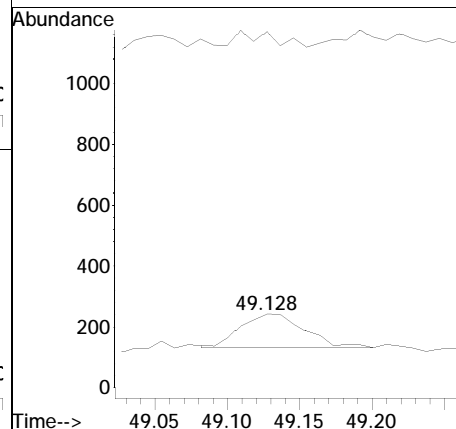
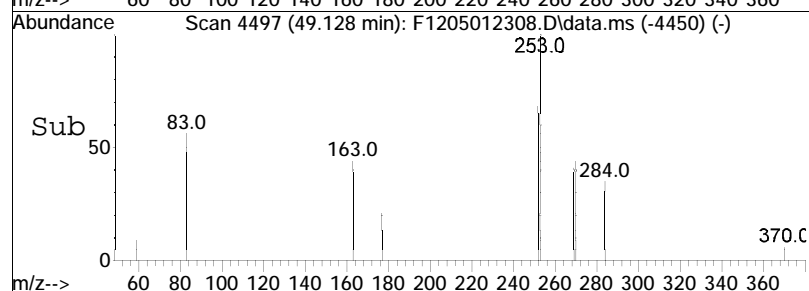
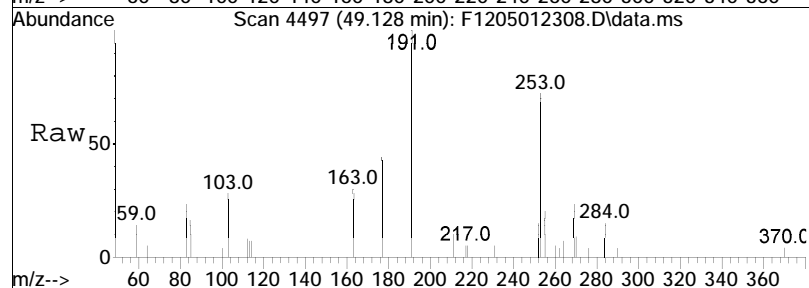
Tgt Ion	Ratio	Lower	Upper
252	100		
253	0.0	18.0	33.4#

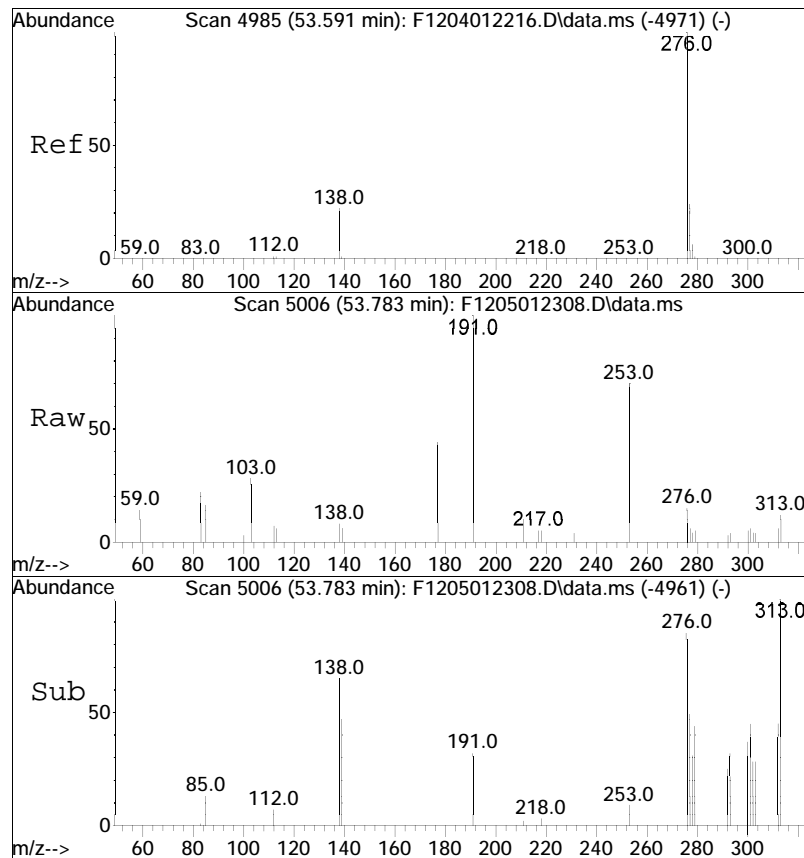




#91
Perylene
Concen: 0.80 ng/mL
RT: 49.128 min Scan# 4497
Delta R.T. -0.073 min
Lab File: F1205012308.D
Acq: 1 May 2023 6:43 pm

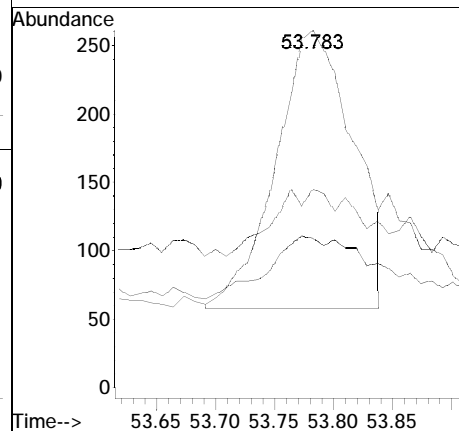
Tgt Ion	Ratio	Lower	Upper
252	100		
253	0.0	17.8	33.1#

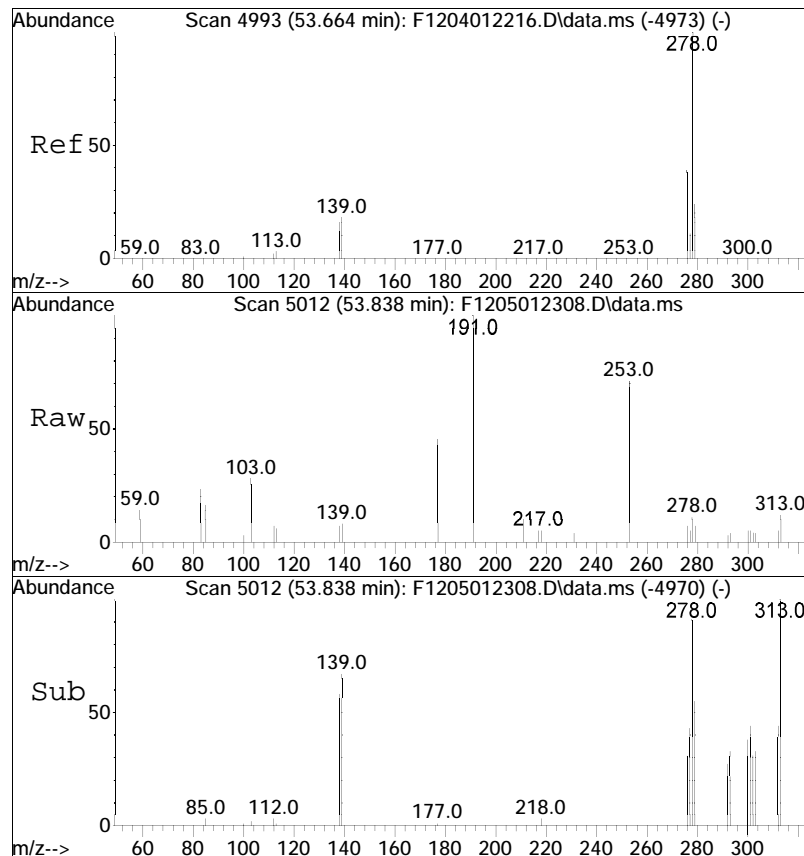




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 2.35 ng/mL M3
 RT: 53.783 min Scan# 5006
 Delta R.T. -0.091 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

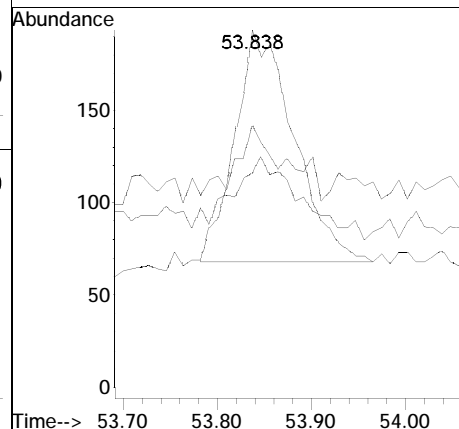
Tgt Ion	Ratio	Lower	Upper
276	100		
138	0.0	16.2	30.0#
277	21.6	16.9	31.3

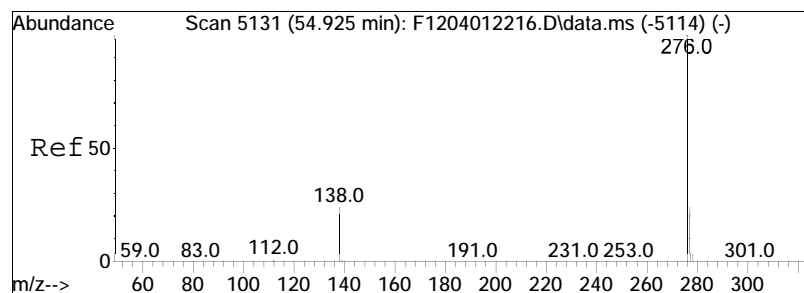




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 1.58 ng/mL
 RT: 53.838 min Scan# 5012
 Delta R.T. -0.118 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

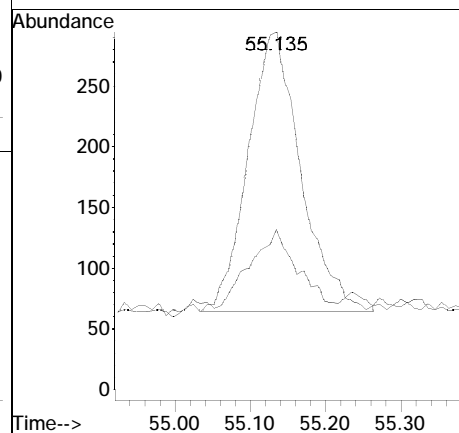
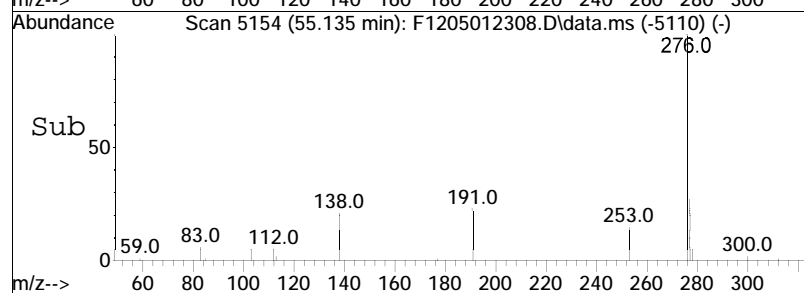
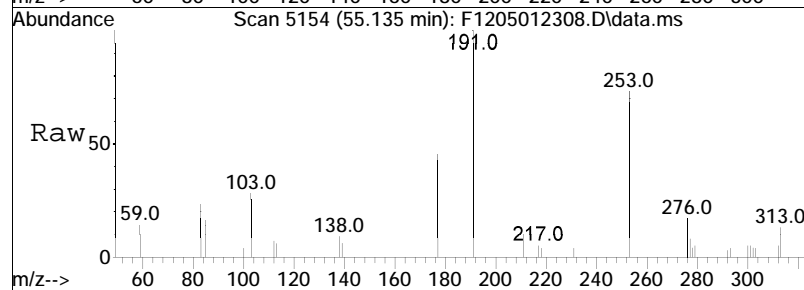
Tgt Ion	Ratio	Lower	Upper
278	100		
139	0.0	13.9	25.7#
279	0.0	17.1	31.7#





#94
 Benzo[g,h,i]perylene
 Concen: 2.54 ng/mL
 RT: 55.135 min Scan# 5154
 Delta R.T. -0.101 min
 Lab File: F1205012308.D
 Acq: 1 May 2023 6:43 pm

Tgt Ion: 276 Resp: 1128
 Ion Ratio Lower Upper
 276 100
 277 24.8 16.6 30.8



LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252324.D
 Acq On : 26 Apr 2023 3:54 pm
 Operator : PAH8:CNC
 Sample : WG1769534-2,32,,
 Misc : WG1771474,WG1769534,ICAL19944
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: May 01 10:28:35 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 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	27.488	164	25018	500.000	ng/mL	0.00
74) Chrysene-d12	43.981	240	26165	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.489	136	25608	232.227	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	23.22%#		
40) Phenanthrene-d10	33.373	188	16416	233.267	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	23.33%#		
83) Benzo[b]fluoranthene-d12	47.938	264	11489	219.998	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	22.00%#		
88) Benzo[a]pyrene-d12	49.209	264	9669	235.103	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	23.51%#		
128) 5B(H)Cholane - Surr	0.000	217	0	0.000	ng/ml	
Spiked Amount 1000.000	Range 50 - 130		Recovery =	0.00%#		
Target Compounds						
						Qvalue
9) Naphthalene	20.562	128	30078	248.754	ng/mL	100
14) 2-Methylnaphthalene	23.272	142	18664	233.733	ng/mL	100
24) Acenaphthylene	26.877	152	27118	240.408	ng/mL	100
25) Acenaphthene	27.607	153	17622	243.207	ng/mL	100
27) Fluorene	29.632	166	18650	245.567	ng/mL	99
41) Phenanthrene	33.464	178	25586	244.079	ng/mL	99
53) Anthracene	33.646	178	24245M4	263.861	ng/mL	
56) Fluoranthene	38.256	202	24803	235.626	ng/mL	98
59) Pyrene	39.142	202	24892	236.331	ng/mL	98
75) Benz[a]anthracene	43.917	228	19352	253.134	ng/mL	98
76) Chrysene	44.081	228	19571	251.717	ng/mL	97
84) Benzo[b]fluoranthene	48.020	252	20855	230.845	ng/mL	94
85) Benzo[j]+[k]fluoranthene	48.112	252	22510	247.202	ng/mL	94
89) Benzo[a]pyrene	49.301	252	18158	217.939	ng/mL	91
91) Indeno[1,2,3-cd]pyrene	54.523	276	20636M3	202.468	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.587	278	17305	205.585	ng/mL	96
93) Benzo[g,h,i]perylene	55.939	276	21251	209.135	ng/mL	98

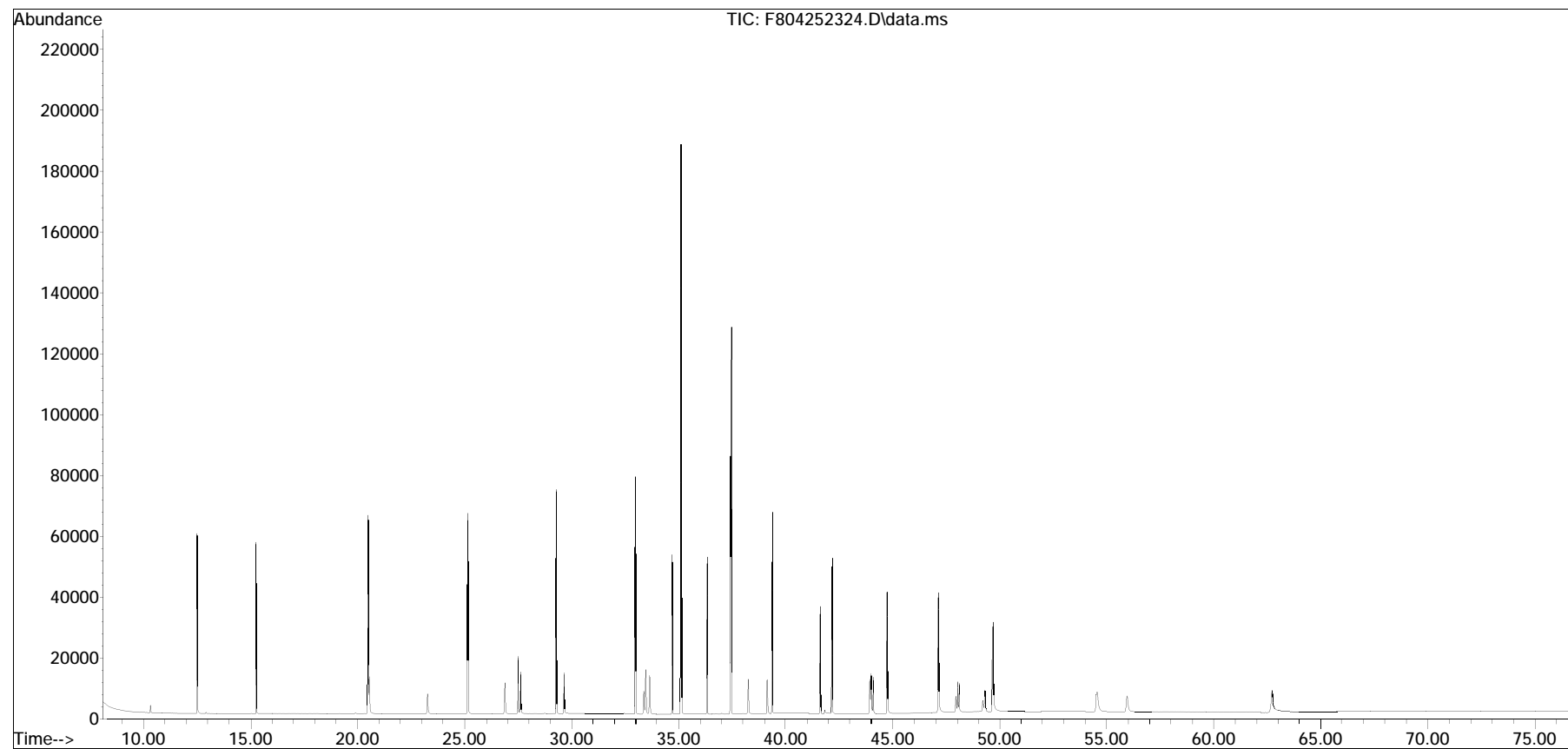
(#) = qualifier out of range (m) = manual integration (+) = signals summed

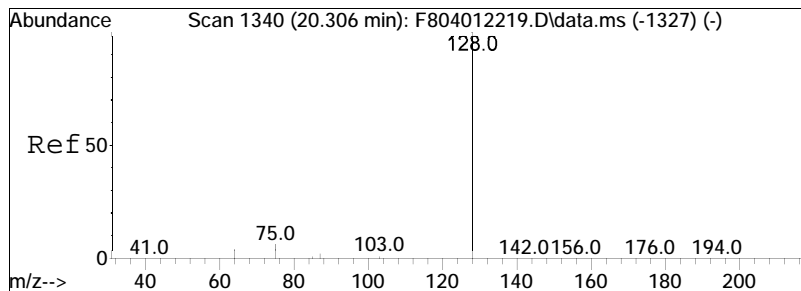
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
Data File : F804252324.D
Acq On : 26 Apr 2023 3:54 pm
Operator : PAH8:CNC
Sample : WG1769534-2,32,,
Misc : WG1771474,WG1769534,ICAL19944
ALS Vial : 23 Sample Multiplier: 1

Quant Time: May 01 10:28:35 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Mon Apr 24 05:27:42 2023
Response via : Initial Calibration

Sub List : ALKPAH_LCS_QC - LCS_spike compounds





#9

Naphthalene

Concen: 248.75 ng/mL

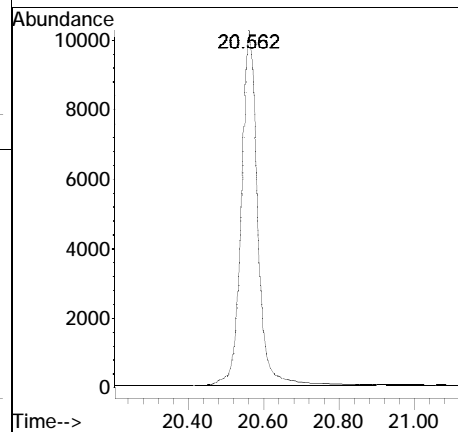
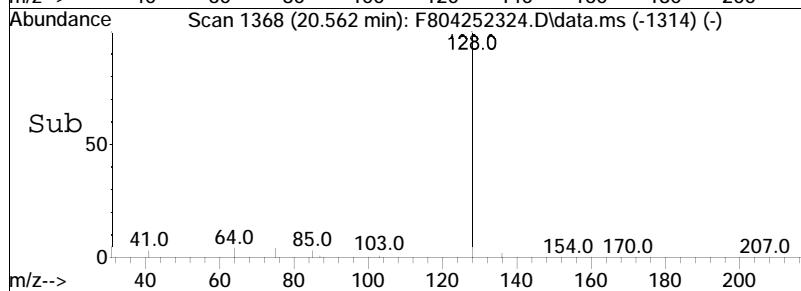
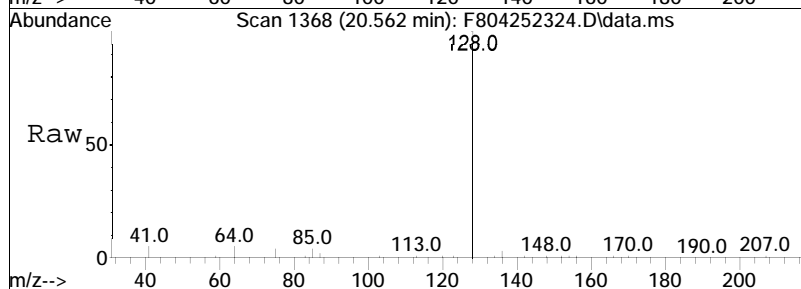
RT: 20.562 min Scan# 1368

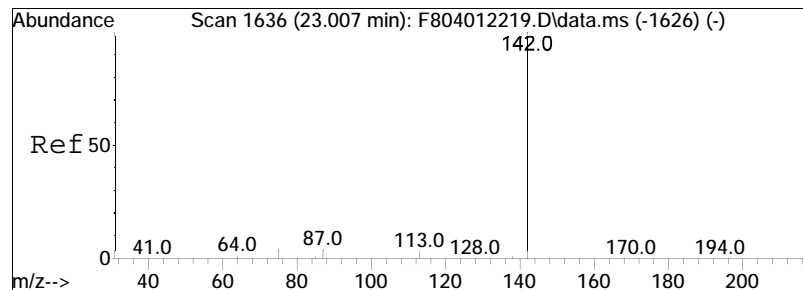
Delta R.T. -0.009 min

Lab File: F804252324.D

Acq: 26 Apr 2023 3:54 pm

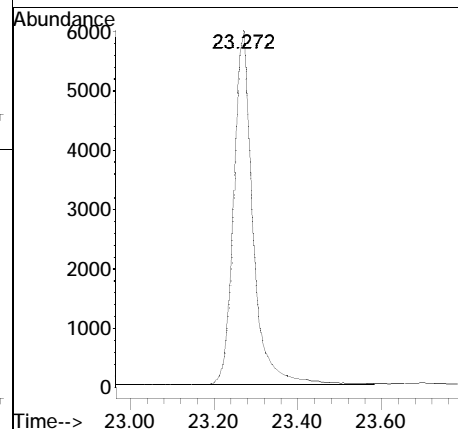
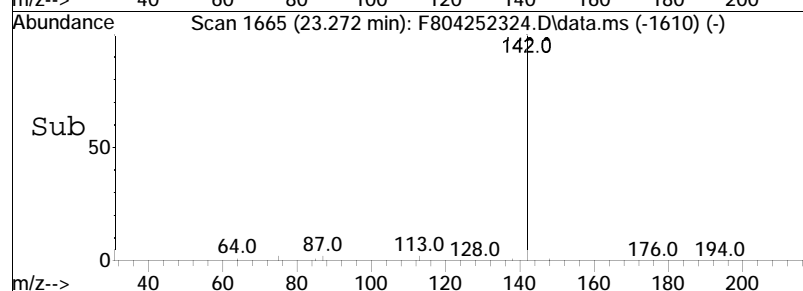
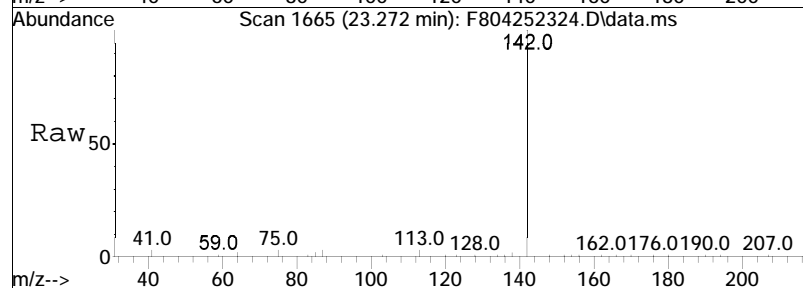
Tgt Ion:128 Resp: 30078

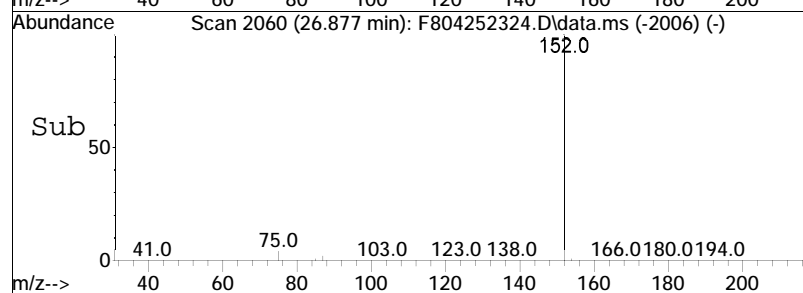
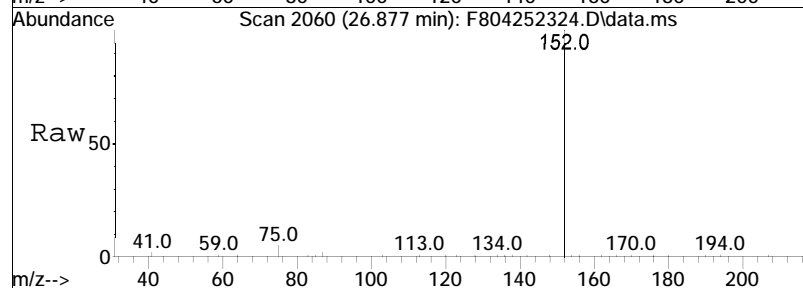
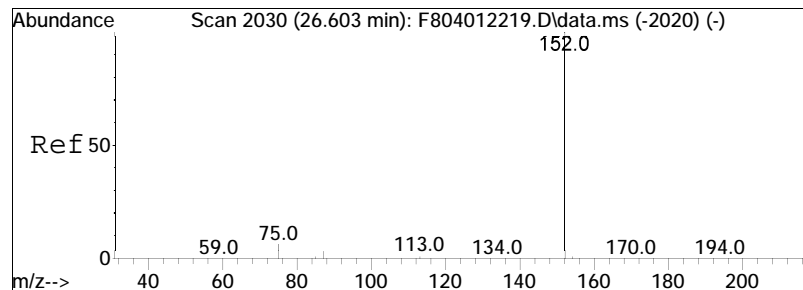




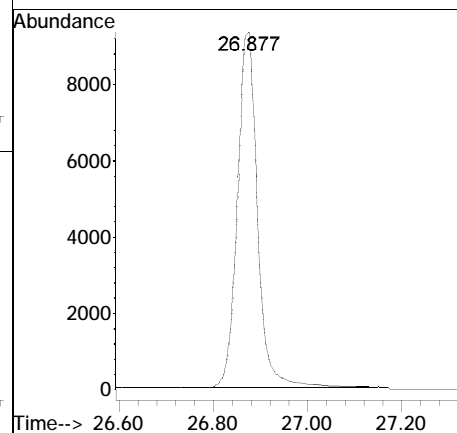
#14
 2-Methylnaphthalene
 Concen: 233.73 ng/mL
 RT: 23.272 min Scan# 1665
 Delta R.T. 0.000 min
 Lab File: F804252324.D
 Acq: 26 Apr 2023 3:54 pm

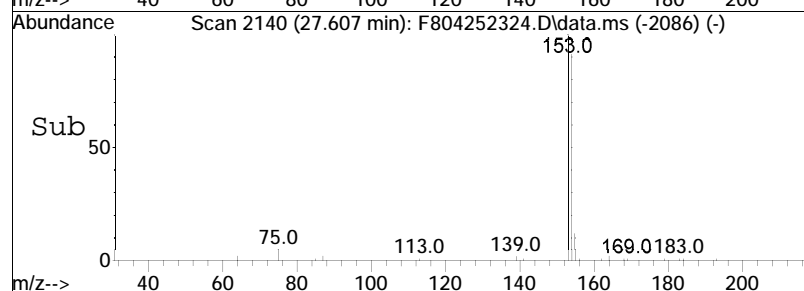
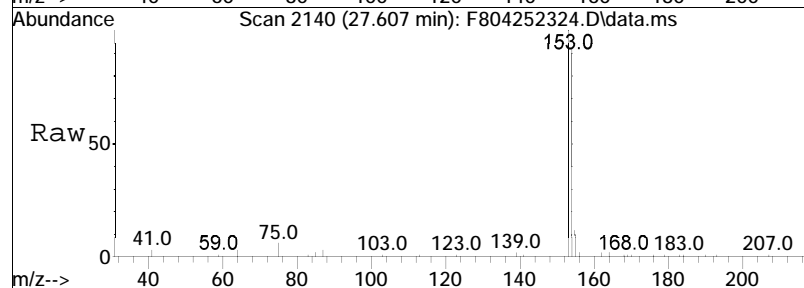
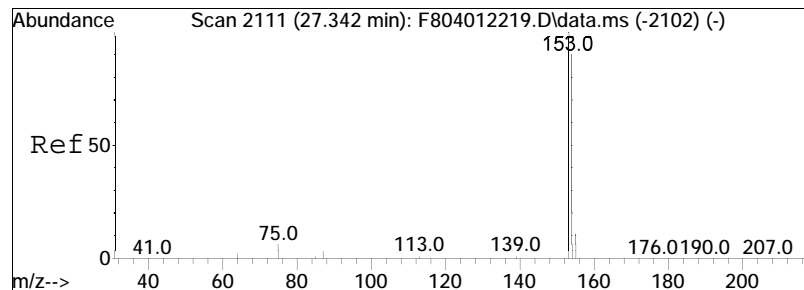
Tgt Ion:142 Resp: 18664





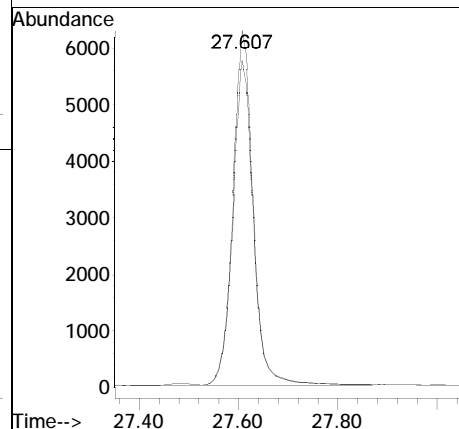
#24
 Acenaphthylene
 Concen: 240.41 ng/mL
 RT: 26.877 min Scan# 2060
 Delta R.T. -0.009 min
 Lab File: F804252324.D
 Acq: 26 Apr 2023 3:54 pm
 Tgt Ion:152 Resp: 27118

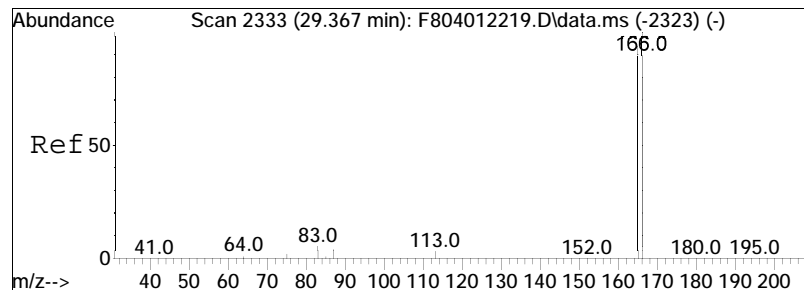




#25
 Acenaphthene
 Concen: 243.21 ng/mL
 RT: 27.607 min Scan# 2140
 Delta R.T. -0.009 min
 Lab File: F804252324.D
 Acq: 26 Apr 2023 3:54 pm

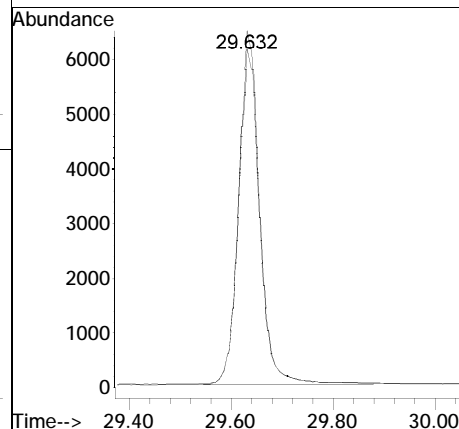
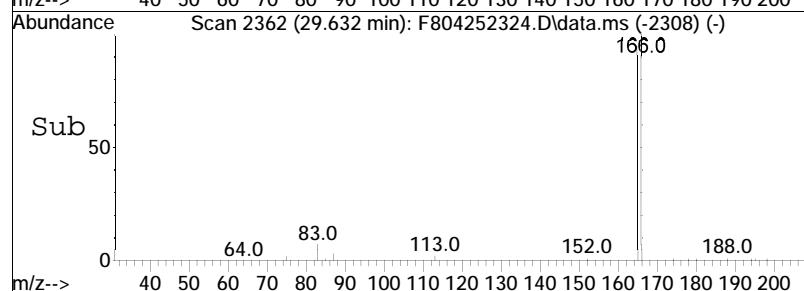
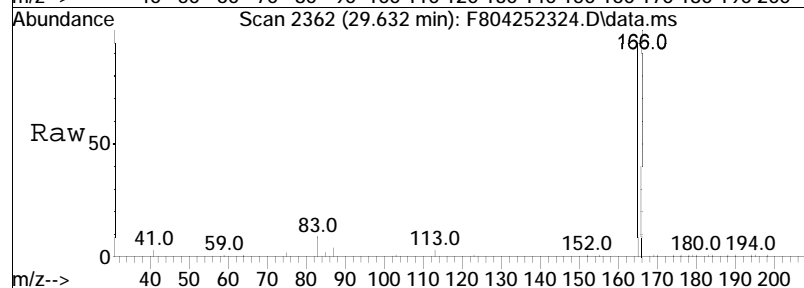
Tgt	Ion	Resp	Lower	Upper
153	100	17622		
154	92.0	64.1	119.1	

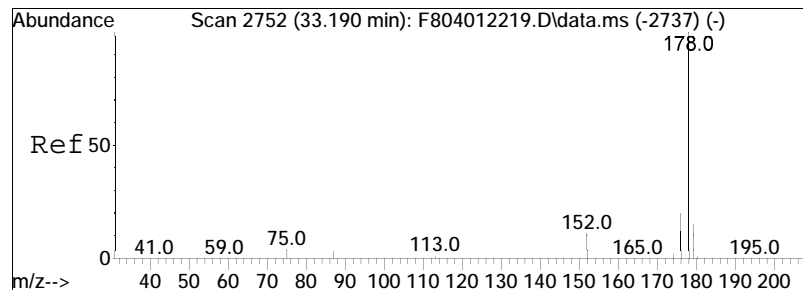




#27
 Fluorene
 Concen: 245.57 ng/mL
 RT: 29.632 min Scan# 2362
 Delta R.T. -0.009 min
 Lab File: F804252324.D
 Acq: 26 Apr 2023 3:54 pm

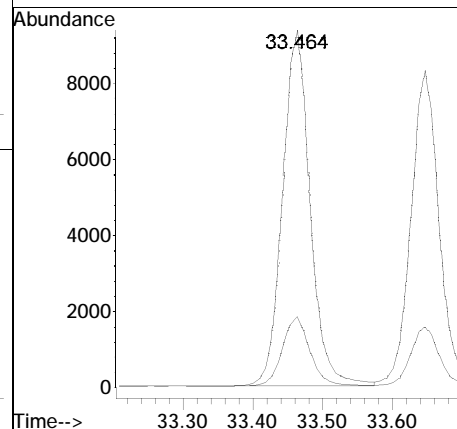
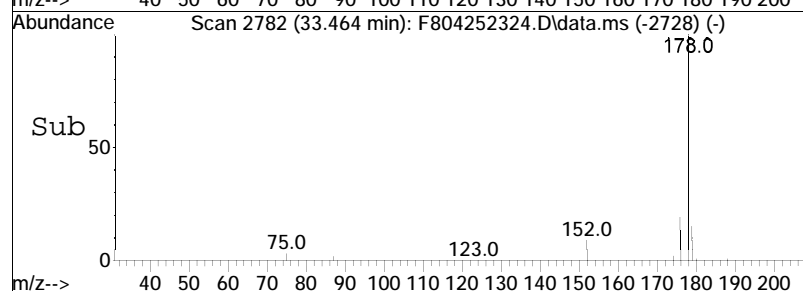
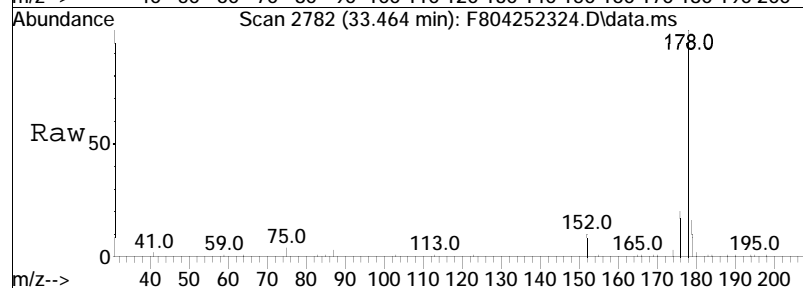
Tgt	Ion	Ratio	Lower	Upper
166	100			
165	94.1	66.8	124.0	

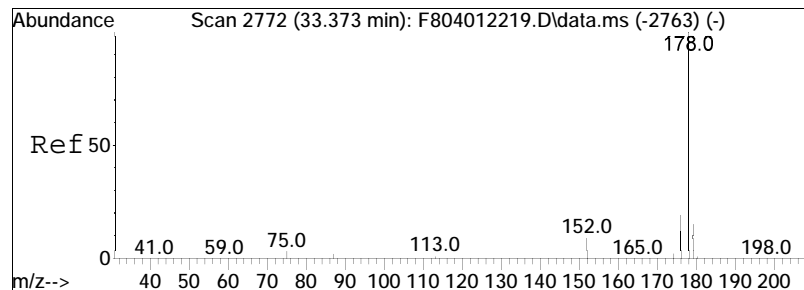




#41
 Phenanthrene
 Concen: 244.08 ng/mL
 RT: 33.464 min Scan# 2782
 Delta R.T. -0.009 min
 Lab File: F804252324.D
 Acq: 26 Apr 2023 3:54 pm

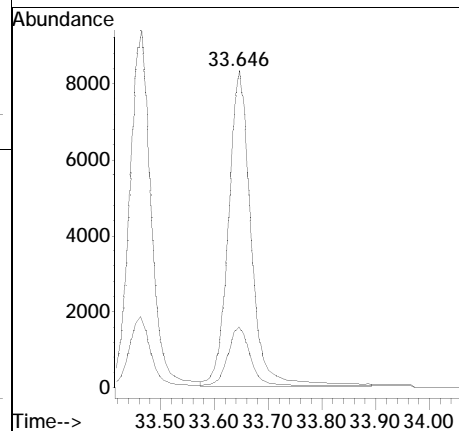
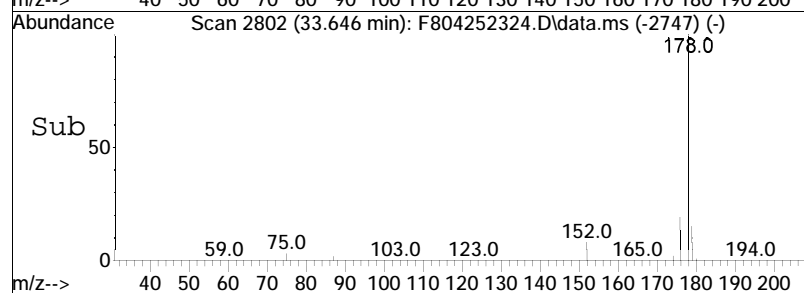
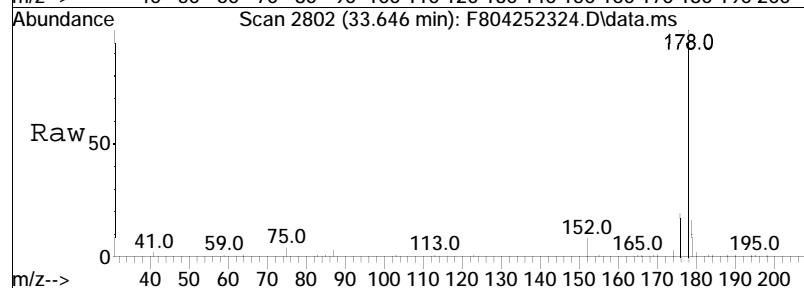
Tgt	Ion	Ratio	Lower	Upper
178	100			
176	19.5	13.9	25.9	

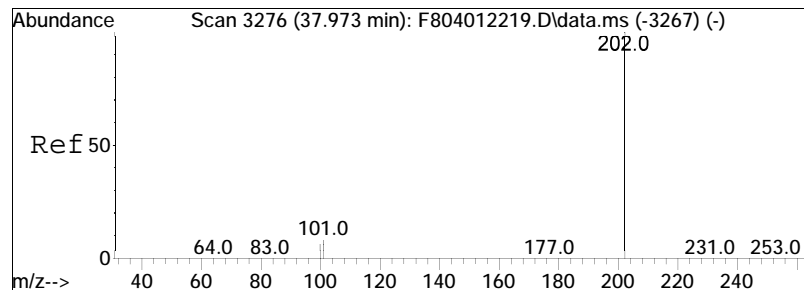




#53
 Anthracene
 Concen: 263.86 ng/mL M4
 RT: 33.646 min Scan# 2802
 Delta R.T. 0.000 min
 Lab File: F804252324.D
 Acq: 26 Apr 2023 3:54 pm

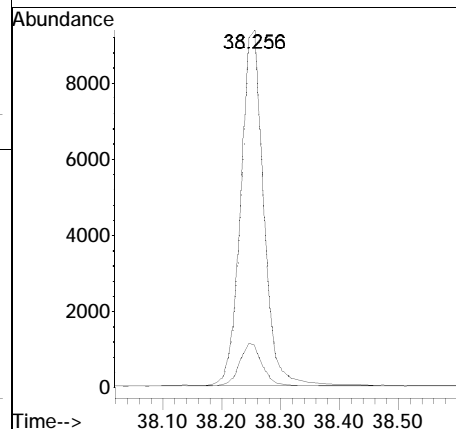
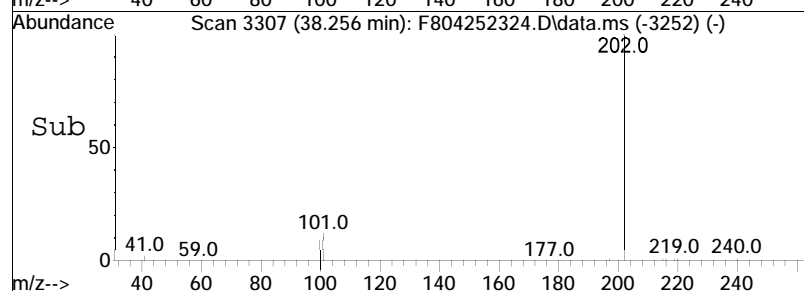
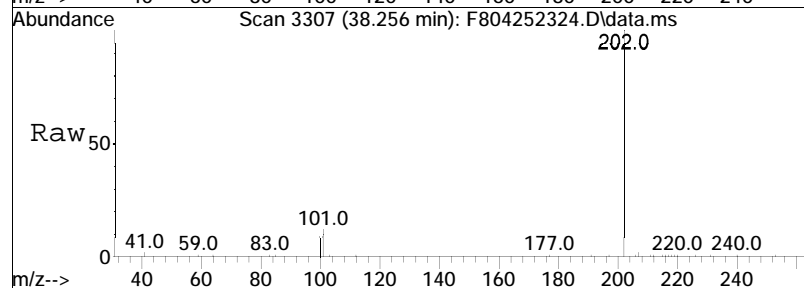
Tgt Ion	Ratio	Lower	Upper
178	100		
176	18.2	13.6	25.2

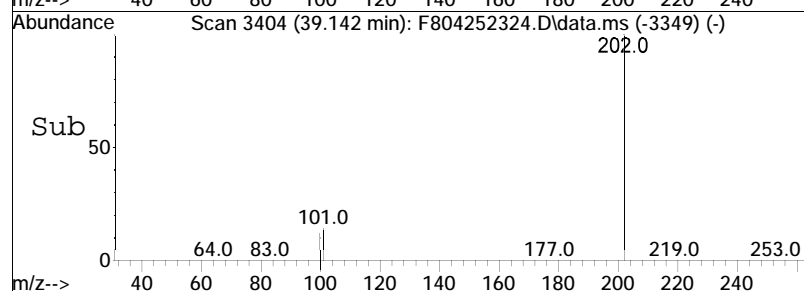
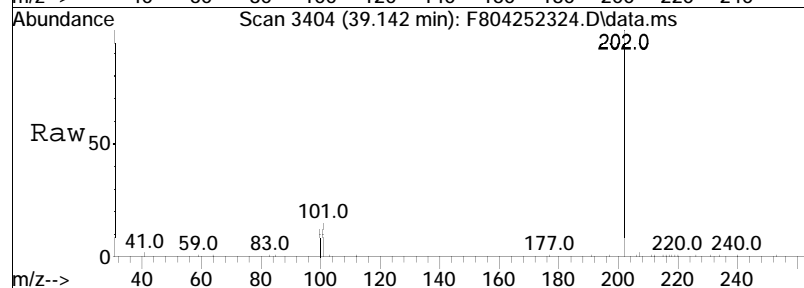
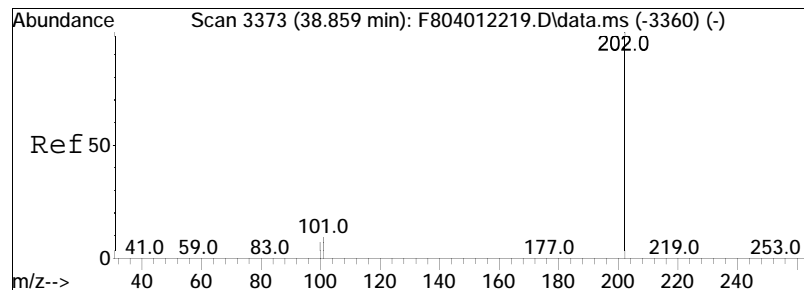




#56
 Fluoranthene
 Concen: 235.63 ng/mL
 RT: 38.256 min Scan# 3307
 Delta R.T. 0.000 min
 Lab File: F804252324.D
 Acq: 26 Apr 2023 3:54 pm

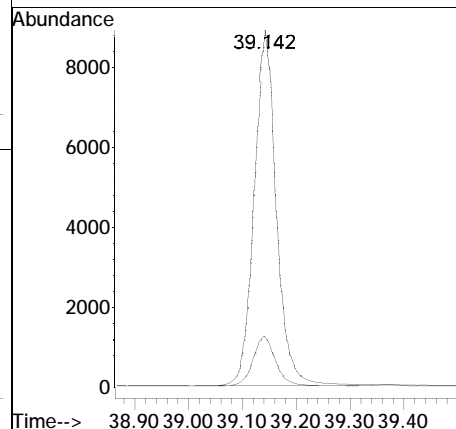
Tgt	Ion	Ratio	Lower	Upper
202	100			
101	11.9	9.0	16.6	

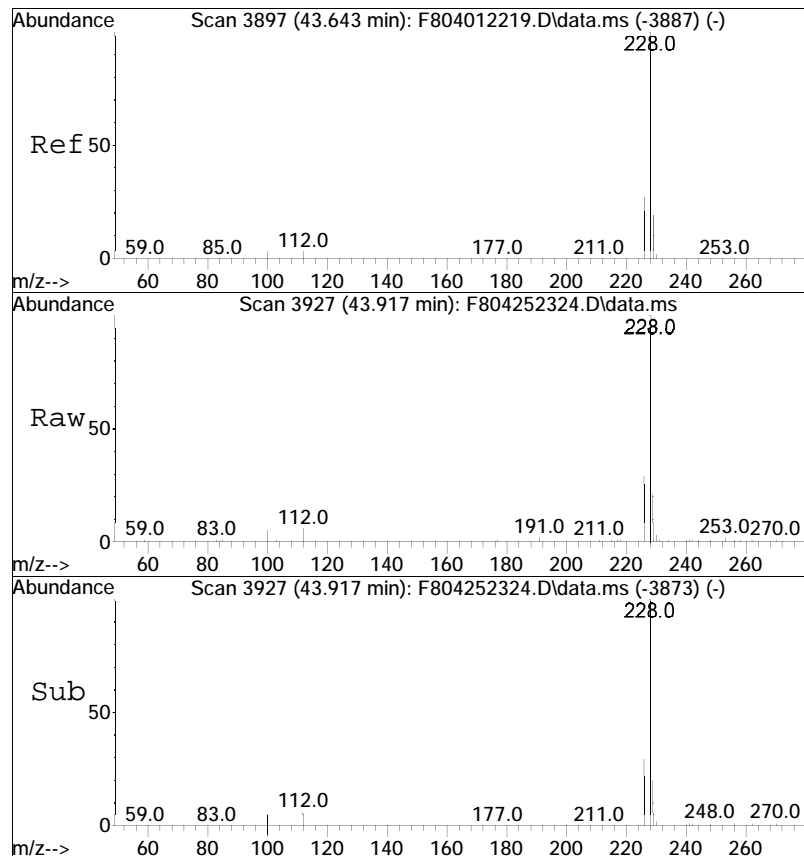




#59
 Pyrene
 Concen: 236.33 ng/mL
 RT: 39.142 min Scan# 3404
 Delta R.T. 0.000 min
 Lab File: F804252324.D
 Acq: 26 Apr 2023 3:54 pm

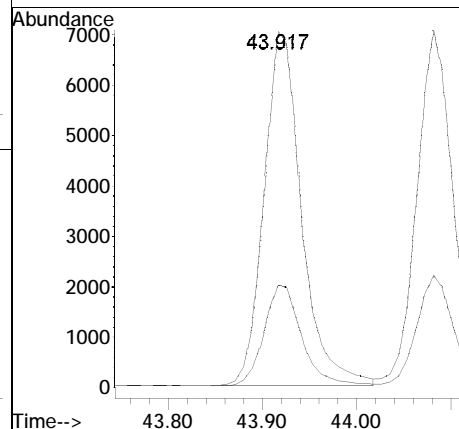
Tgt	Ion	Ratio	Lower	Upper
202	100			
101	14.3	10.4	19.4	

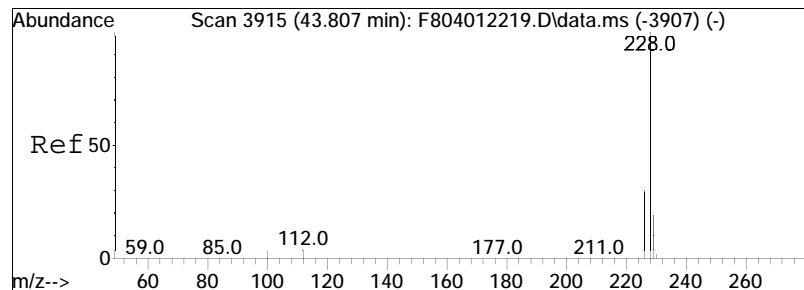




#75
Benz[a]anthracene
Concen: 253.13 ng/mL
RT: 43.917 min Scan# 3927
Delta R.T. -0.009 min
Lab File: F804252324.D
Acq: 26 Apr 2023 3:54 pm

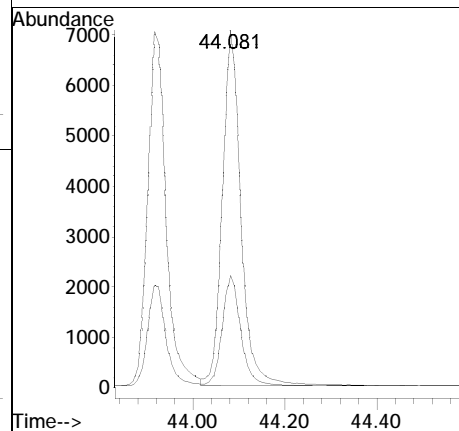
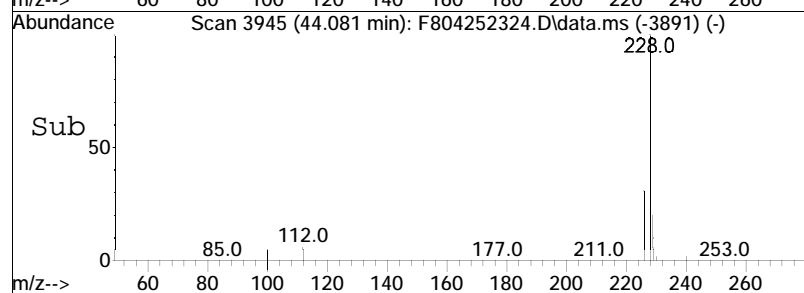
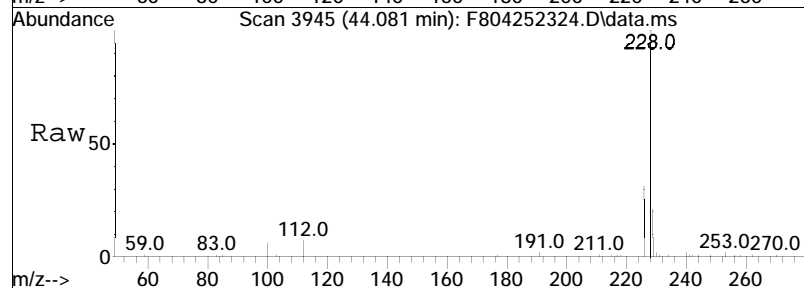
Tgt Ion	Ratio	Lower	Upper
228	100		
226	28.3	20.4	38.0

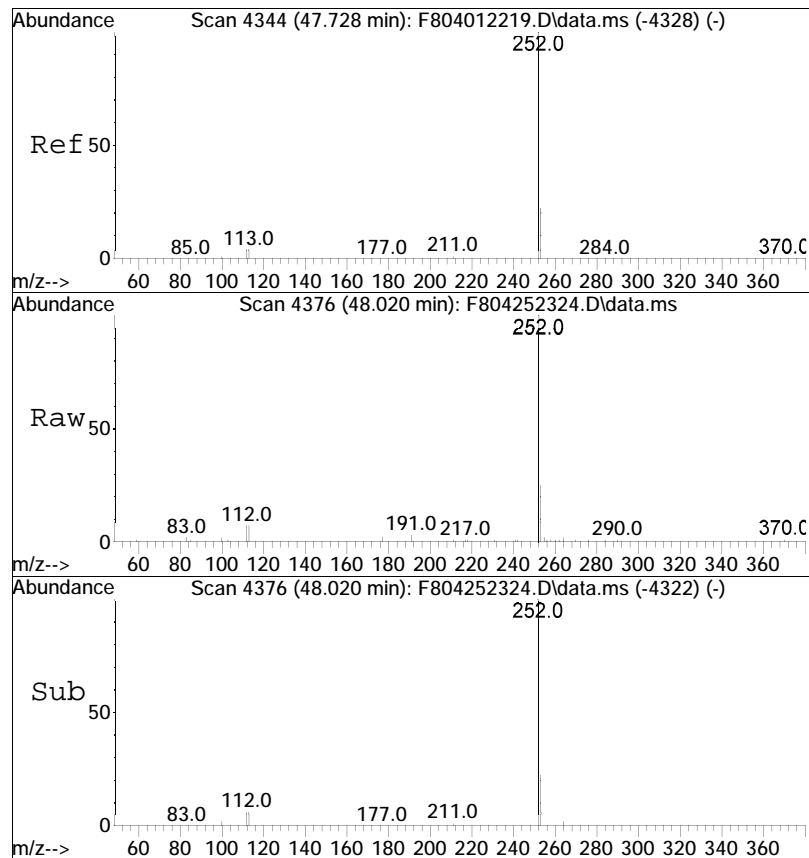




#76
 Chrysene
 Concen: 251.72 ng/mL
 RT: 44.081 min Scan# 3945
 Delta R.T. -0.009 min
 Lab File: F804252324.D
 Acq: 26 Apr 2023 3:54 pm

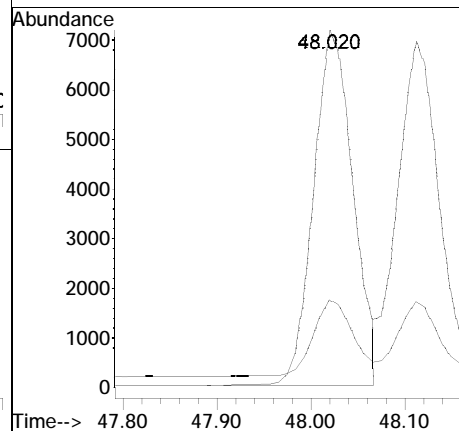
Tgt Ion: 228 Resp: 19571
 Ion Ratio Lower Upper
 228 100
 226 30.6 22.5 41.7

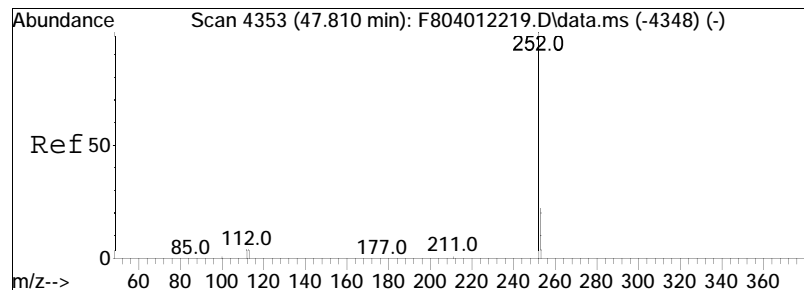




#84
Benzo[b]fluoranthene
Concen: 230.85 ng/mL
RT: 48.020 min Scan# 4376
Delta R.T. -0.009 min
Lab File: F804252324.D
Acq: 26 Apr 2023 3:54 pm

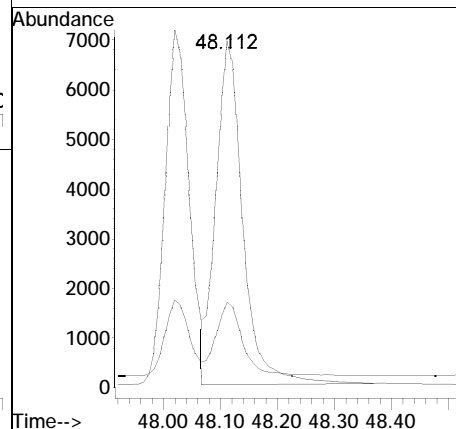
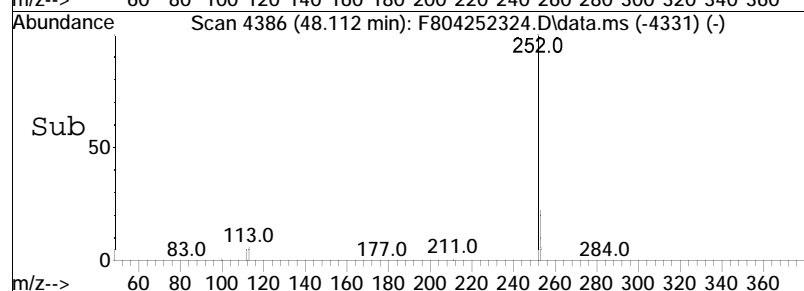
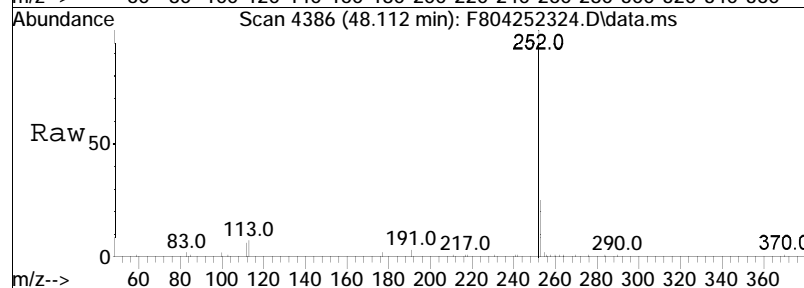
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	22.0	17.4	32.2	

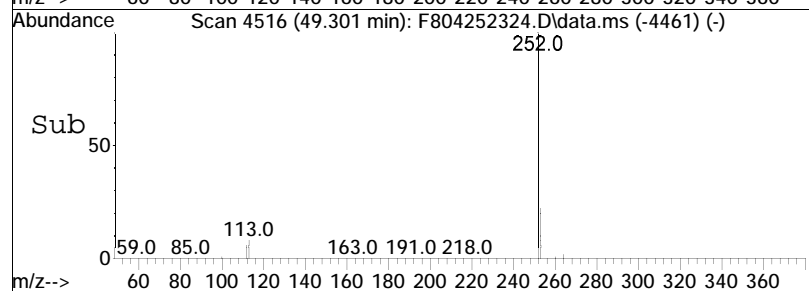
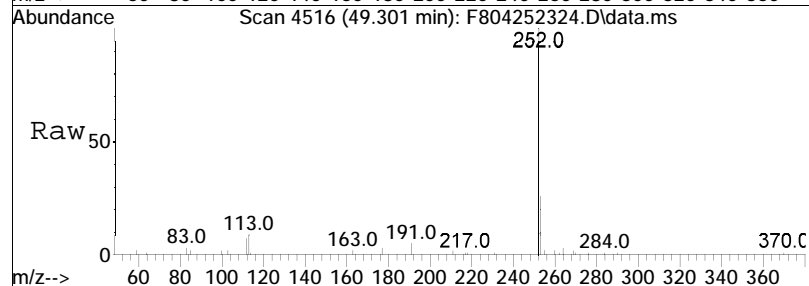
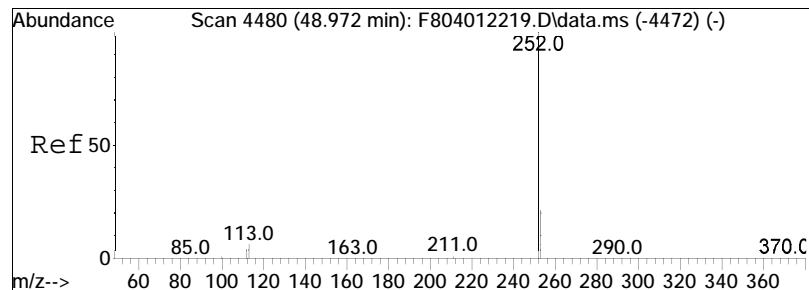




#85
 Benzo[j]+[k]fluoranthene
 Concen: 247.20 ng/mL
 RT: 48.112 min Scan# 4386
 Delta R.T. 0.000 min
 Lab File: F804252324.D
 Acq: 26 Apr 2023 3:54 pm

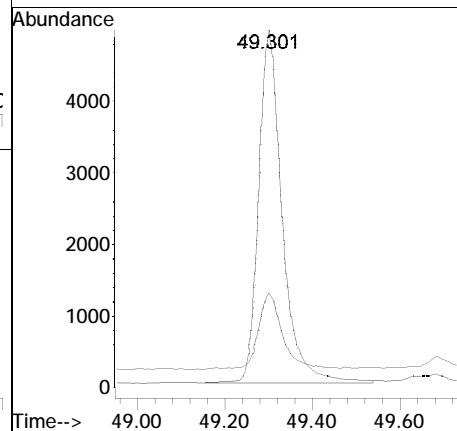
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.5	17.2	32.0	

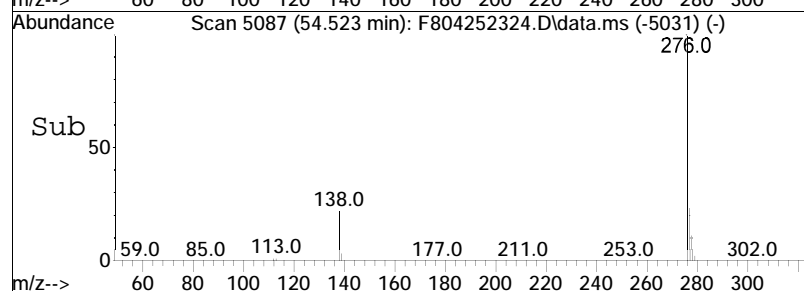
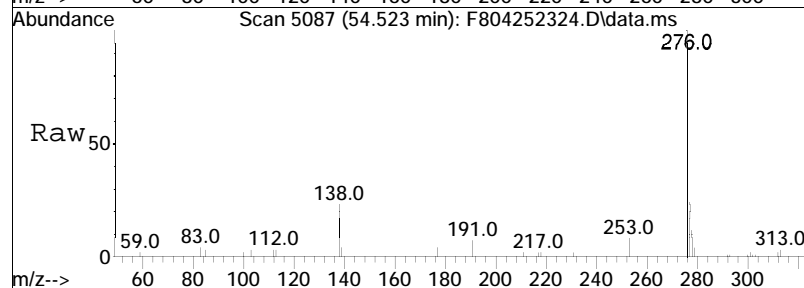
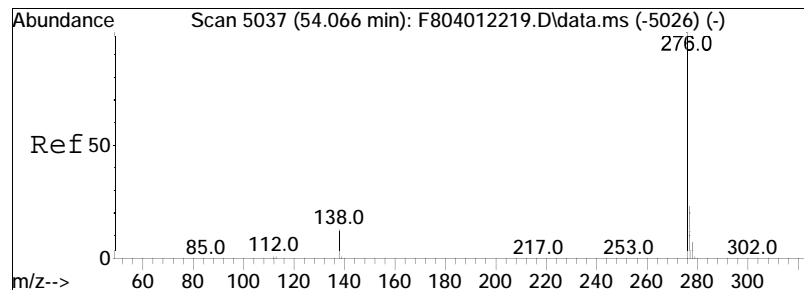




#89
Benzo[a]pyrene
Concen: 217.94 ng/mL
RT: 49.301 min Scan# 4516
Delta R.T. 0.000 min
Lab File: F804252324.D
Acq: 26 Apr 2023 3:54 pm

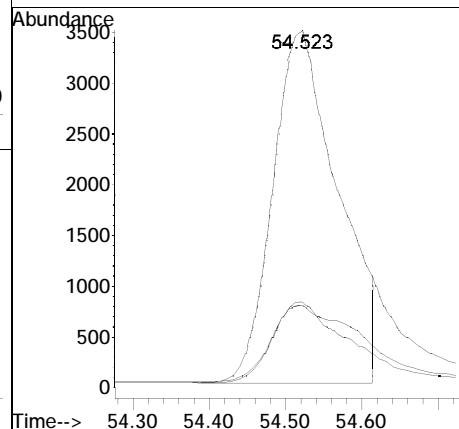
Tgt	Ion	Resp	Lower	Upper
252	100			
253	21.1		17.8	33.0

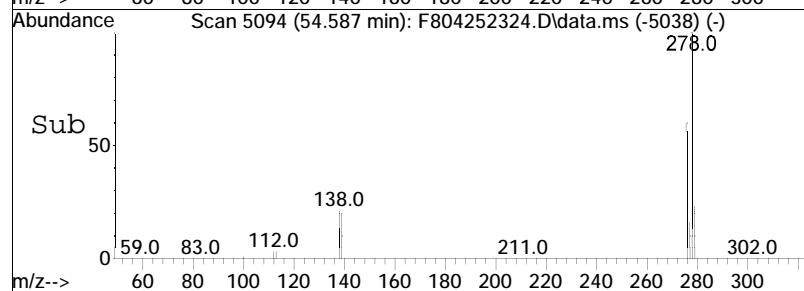
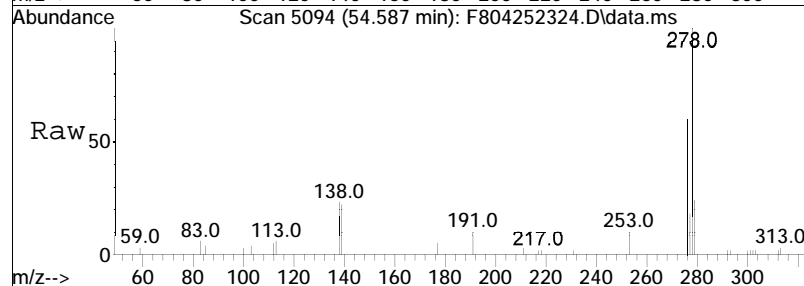
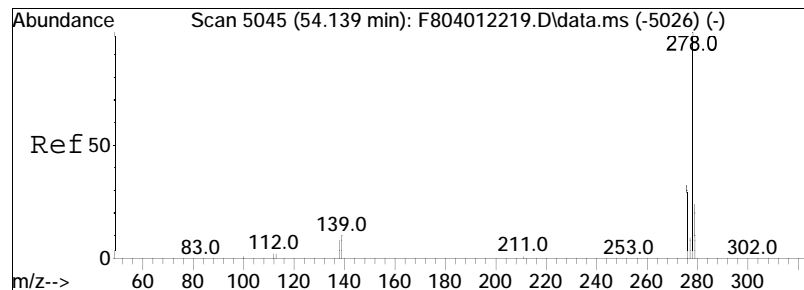




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 202.47 ng/mL M3
 RT: 54.523 min Scan# 5087
 Delta R.T. 0.009 min
 Lab File: F804252324.D
 Acq: 26 Apr 2023 3:54 pm

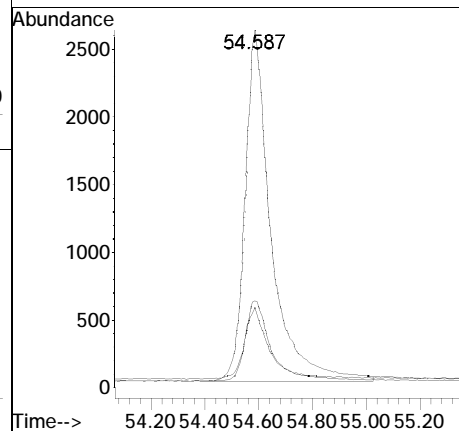
Tgt Ion	Ratio	Lower	Upper
276	100		
138	31.3	15.8	29.3#
277	28.5	16.2	30.2

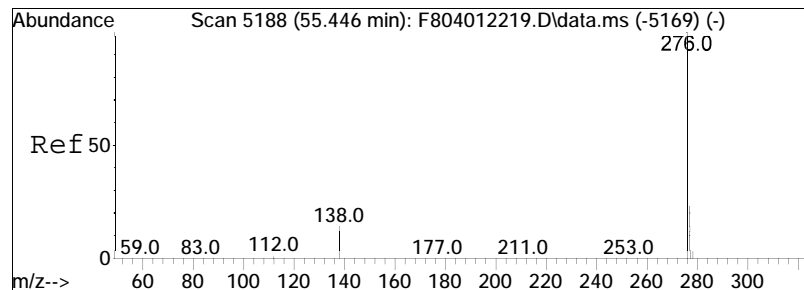




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 205.58 ng/mL
 RT: 54.587 min Scan# 5094
 Delta R.T. 0.009 min
 Lab File: F804252324.D
 Acq: 26 Apr 2023 3:54 pm

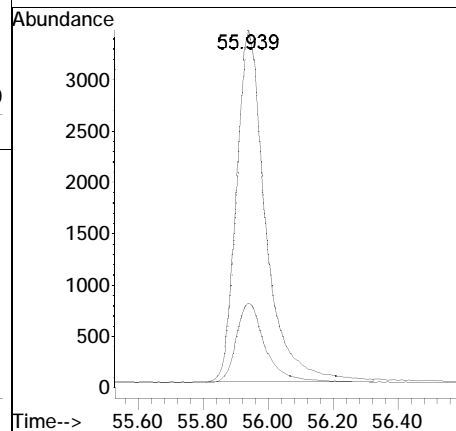
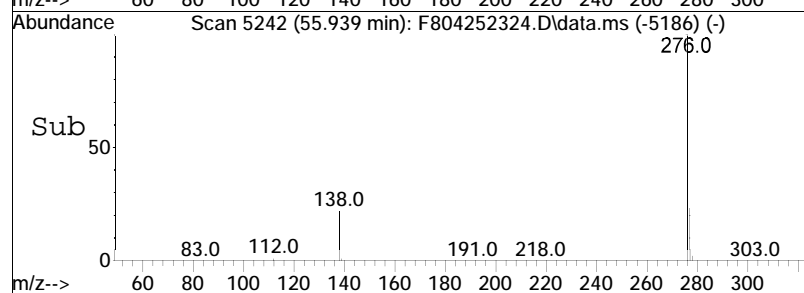
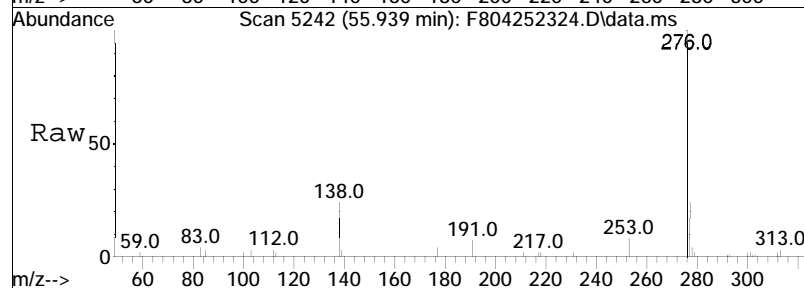
Tgt	Ion	Ratio	Lower	Upper
278	100			
139	18.9	15.0	27.8	
279	22.8	16.7	31.1	





#93
 Benzo[g,h,i]perylene
 Concen: 209.13 ng/mL
 RT: 55.939 min Scan# 5242
 Delta R.T. 0.009 min
 Lab File: F804252324.D
 Acq: 26 Apr 2023 3:54 pm

Tgt Ion: 276 Resp: 21251
 Ion Ratio Lower Upper
 276 100
 277 22.3 16.4 30.4



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
 Data File : F1205032308.D
 Acq On : 4 May 2023 4:33 pm
 Operator : PAH12:MJS
 Sample : WG1770361-2
 Misc : WG1773800,WG1770361,ICAL19969
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 05 11:24:19 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu May 04 21:55:39 2023
 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	27.132	164	70271	500.000	ng/mL	0.00
74) Chrysene-d12	43.570	240	101303	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.151	136	154304	522.355	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	52.24%		
40) Phenanthrene-d10	32.989	188	95002	467.796	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	46.78%#		
84) Benzo[b]fluoranthene-d12	47.472	264	89448	433.865	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	43.39%#		
89) Benzo[a]pyrene-d12	48.688	264	78007	515.316	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	51.53%		
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						
						Qvalue
9) Naphthalene	20.233	128	180960	556.073	ng/mL	100
14) 2-Methylnaphthalene	22.925	142	120529	603.445	ng/mL	100
24) Acenaphthylene	26.511	152	128501	457.773	ng/mL	100
25) Acenaphthene	27.250	153	84894	468.868	ng/mL#	61
27) Fluorene	29.267	166	100057	530.856	ng/mL	96
41) Phenanthrene	33.081	178	147197	519.840	ng/mL	98
53) Anthracene	33.263	178	135161	511.231	ng/mL	99
56) Fluoranthene	37.854	202	150641	506.014	ng/mL	99
59) Pyrene	38.731	202	160777	536.121	ng/mL#	76
75) Benz[a]anthracene	43.506	228	140889	514.711	ng/mL#	54
76) Chrysene	43.661	228	138803	470.761	ng/mL	87
85) Benzo[b]fluoranthene	47.554	252	152332	517.656	ng/mL	97
86) Benzo[j]+[k]fluoranthene	47.646	252	157739	481.503	ng/mL	96
90) Benzo[a]pyrene	48.780	252	129149	483.675	ng/mL	95
92) Indeno[1,2,3-cd]pyrene	53.737	276	145638M3	539.582	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.801	278	132357	563.361	ng/mL	98
94) Benzo[g,h,i]perylene	55.080	276	154561	509.933	ng/mL	100

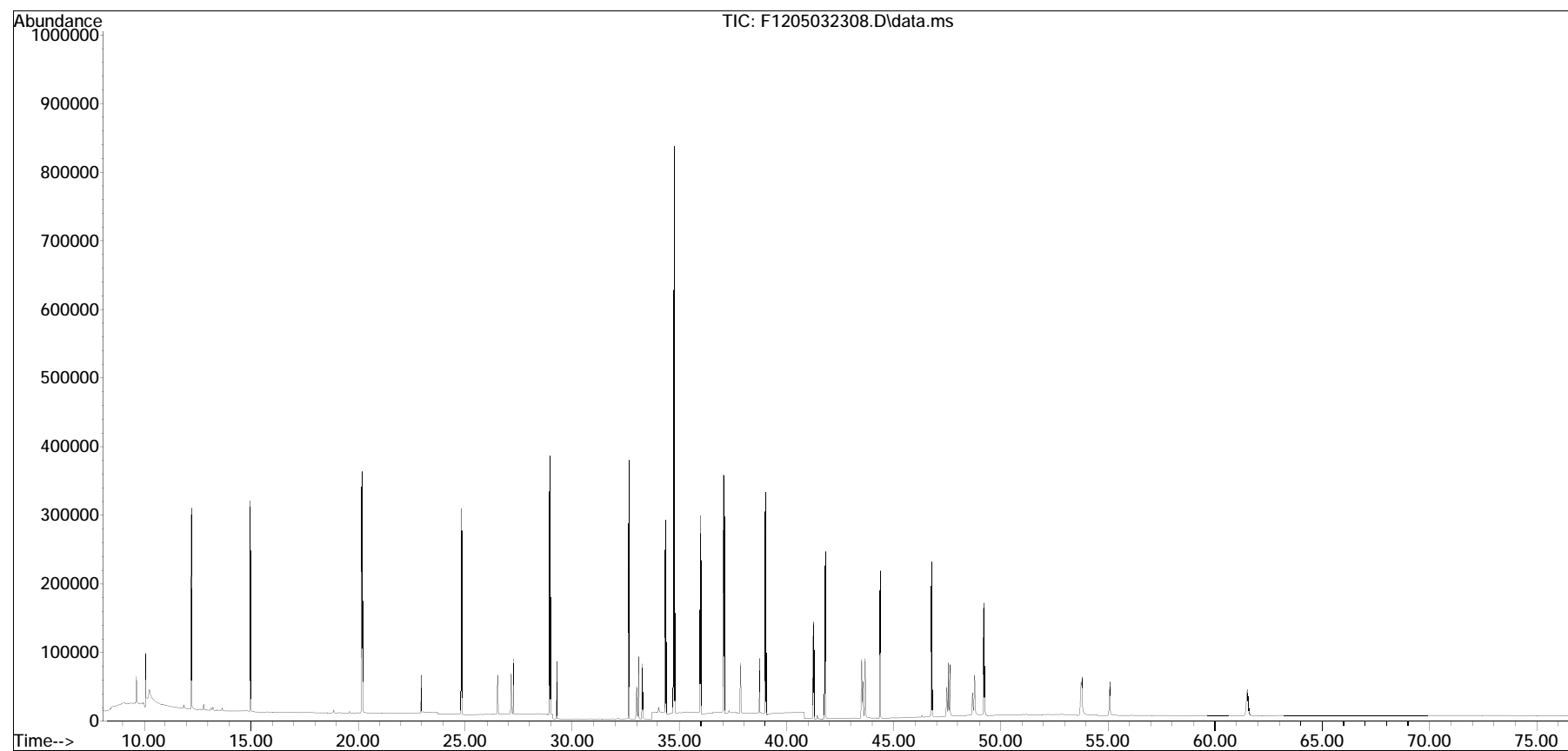
(#) = qualifier out of range (m) = manual integration (+) = signals summed

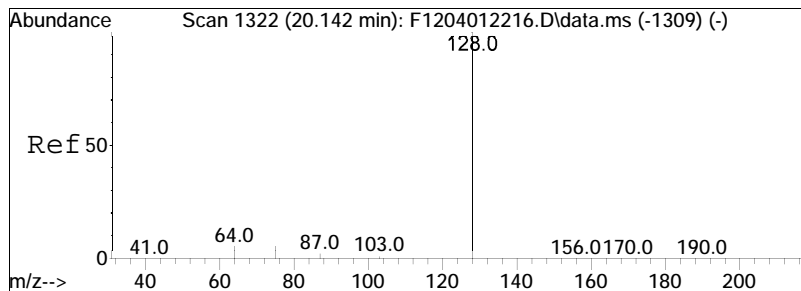
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\
Data File : F1205032308.D
Acq On : 4 May 2023 4:33 pm
Operator : PAH12:MJS
Sample : WG1770361-2
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ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 05 11:24:19 2023
Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY03\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu May 04 21:55:39 2023
Response via : Initial Calibration

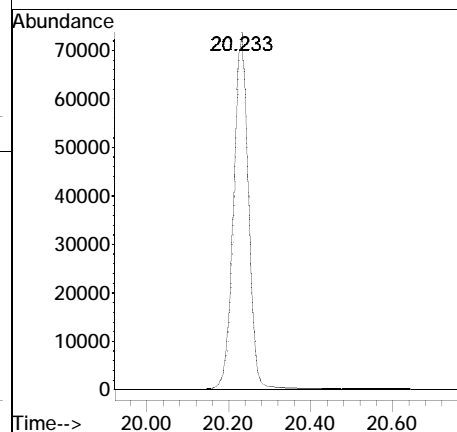
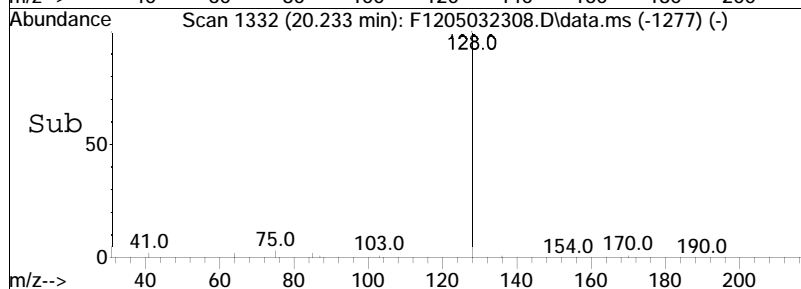
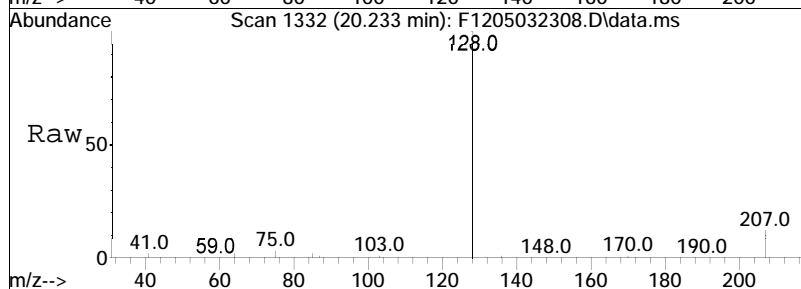
Sub List : ALKPAH_LCS_QC - LCS_spike compounds

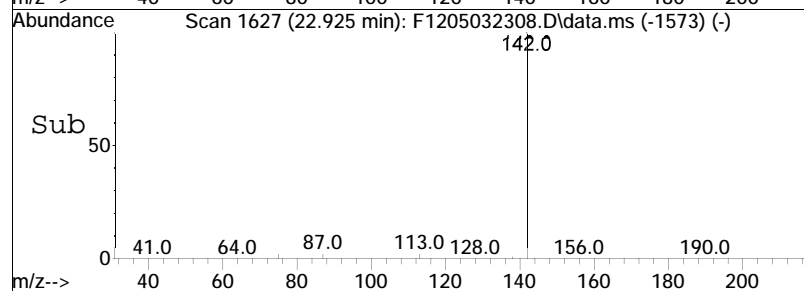
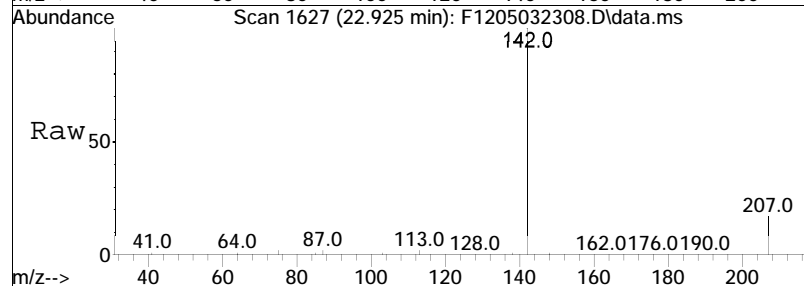
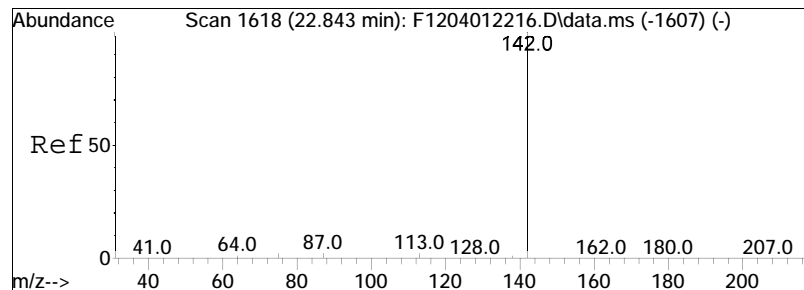




#9
 Naphthalene
 Concen: 556.07 ng/mL
 RT: 20.233 min Scan# 1332
 Delta R.T. -0.000 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

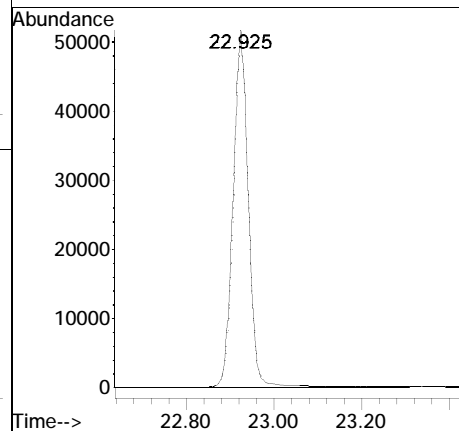
Tgt Ion:128 Resp: 180960

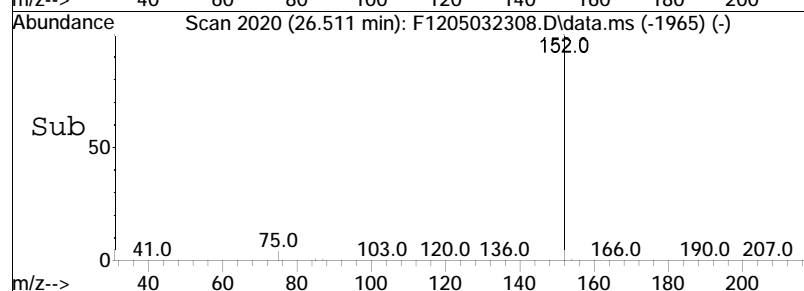
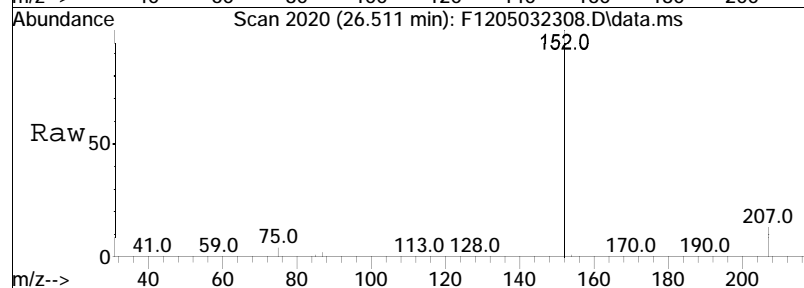
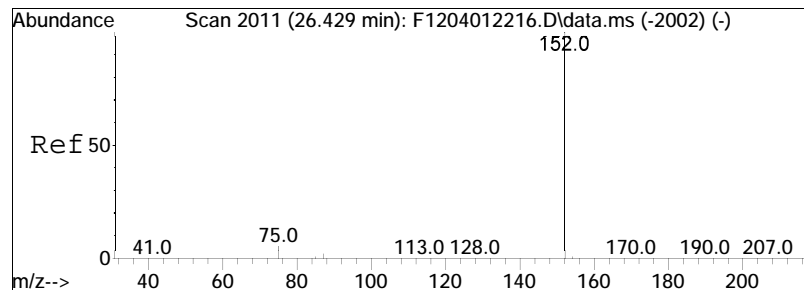




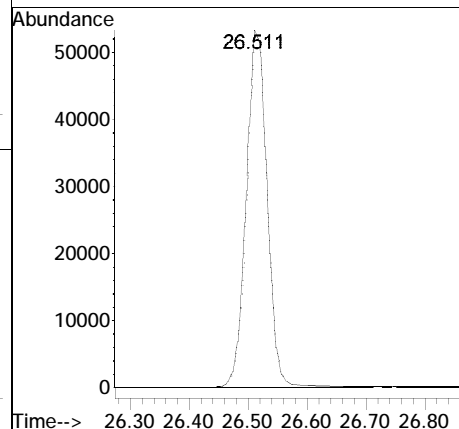
#14
 2-Methylnaphthalene
 Concen: 603.45 ng/mL
 RT: 22.925 min Scan# 1627
 Delta R.T. -0.009 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

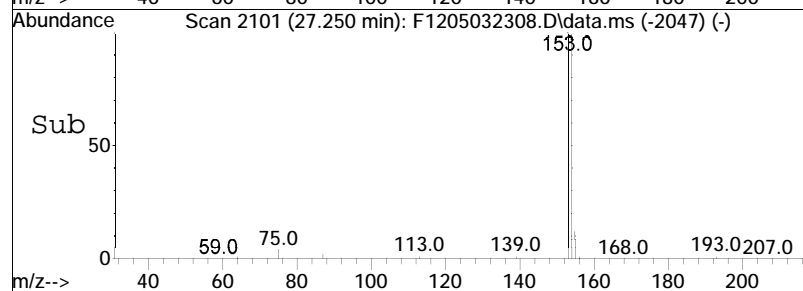
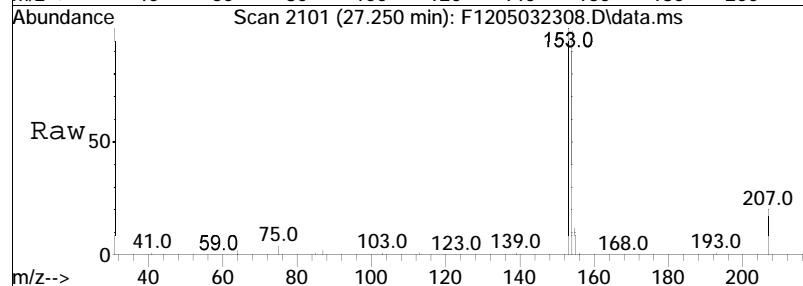
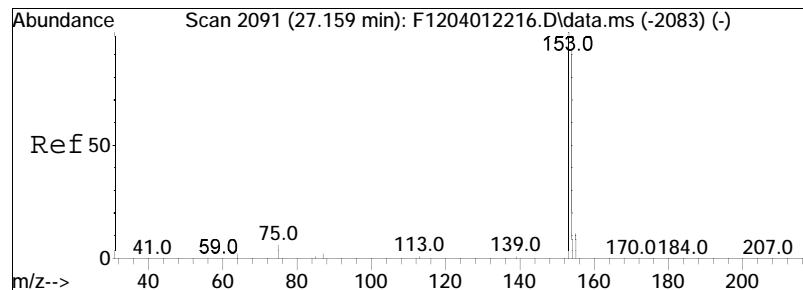
Tgt Ion:142 Resp: 120529





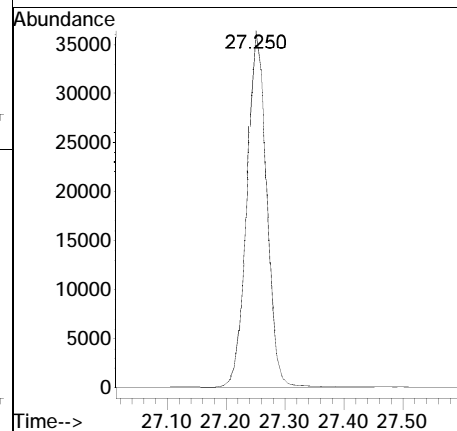
#24
 Acenaphthylene
 Concen: 457.77 ng/mL
 RT: 26.511 min Scan# 2020
 Delta R.T. -0.000 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm
 Tgt Ion:152 Resp: 128501

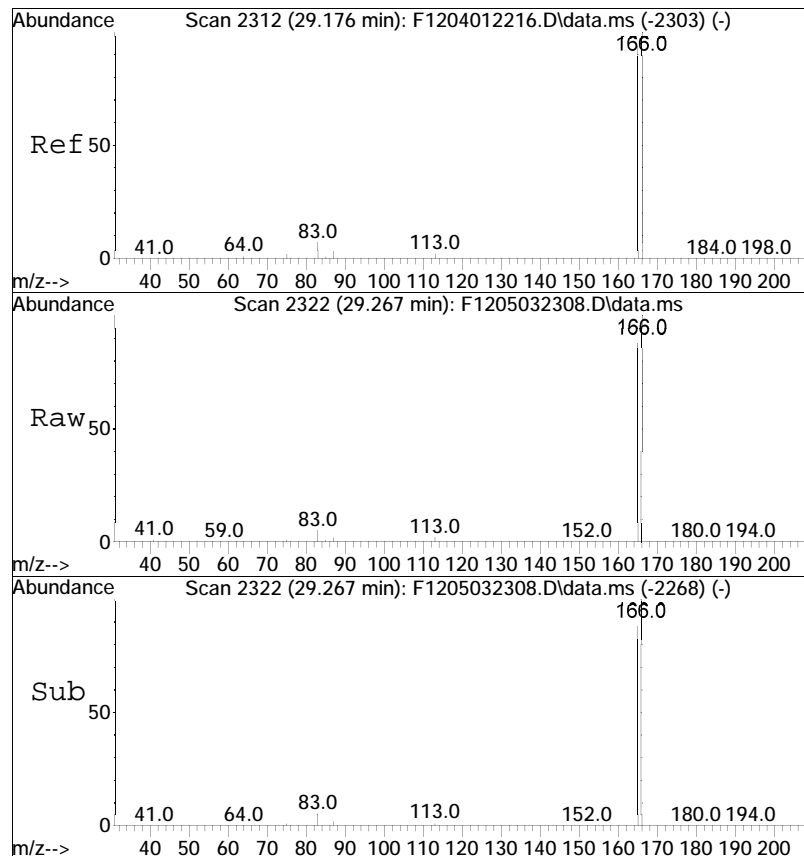




#25
 Acenaphthene
 Concen: 468.87 ng/mL
 RT: 27.250 min Scan# 2101
 Delta R.T. -0.009 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

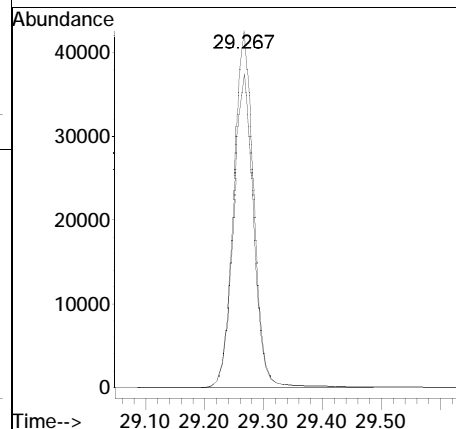
Tgt	Ion	Resp	Lower	Upper
153	100			
154	99.3	47.5	88.3	

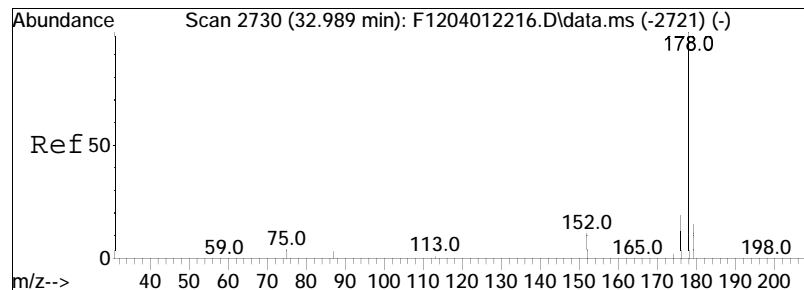




#27
 Fluorene
 Concen: 530.86 ng/mL
 RT: 29.267 min Scan# 2322
 Delta R.T. -0.009 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

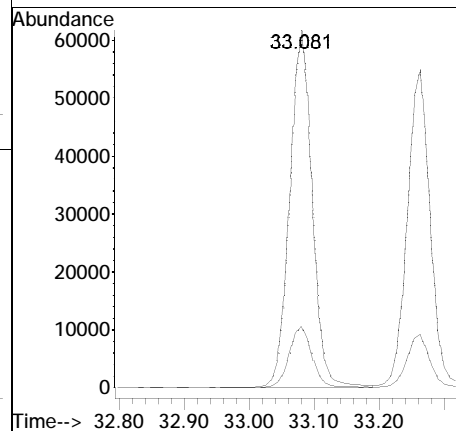
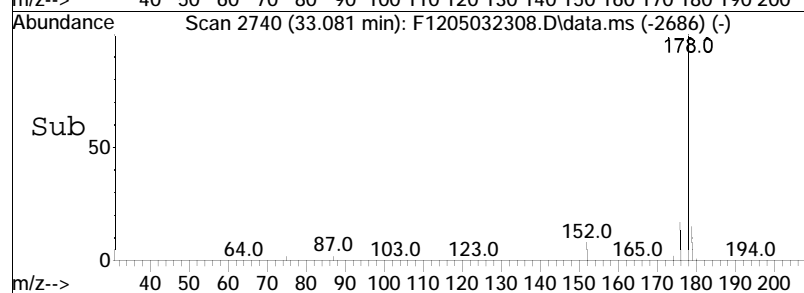
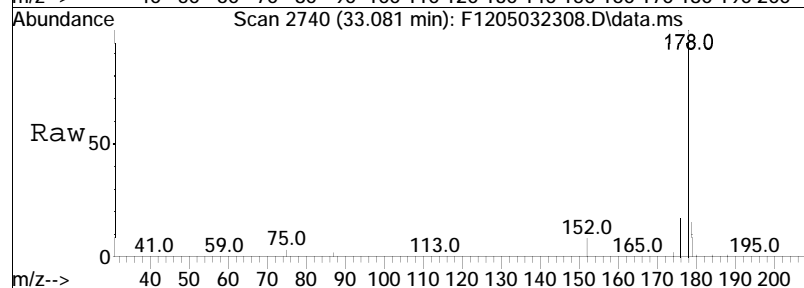
Tgt	Ion	Ratio	Lower	Upper
166	100			
165	87.5	64.2	119.2	

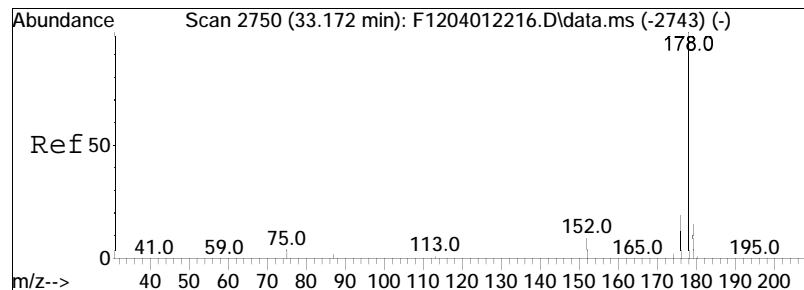




#41
 Phenanthrene
 Concen: 519.84 ng/mL
 RT: 33.081 min Scan# 2740
 Delta R.T. -0.009 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

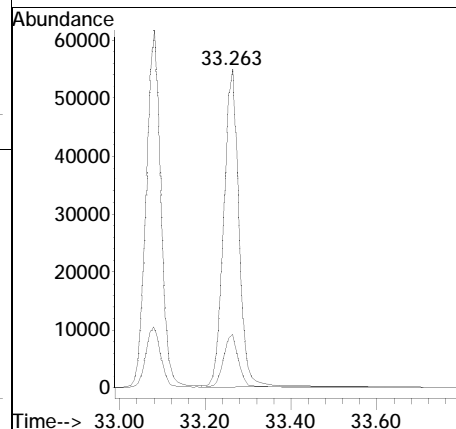
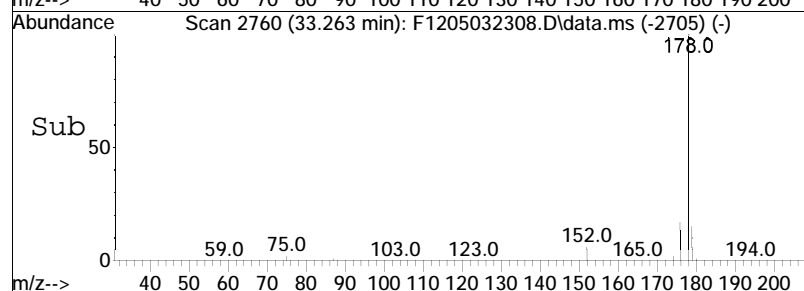
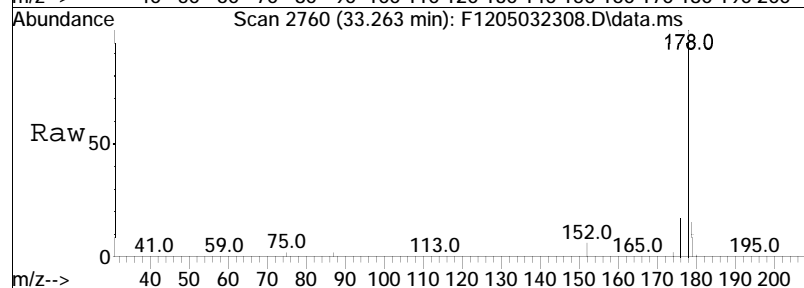
Tgt Ion	Ratio	Lower	Upper
178	100		
176	17.2	12.7	23.7

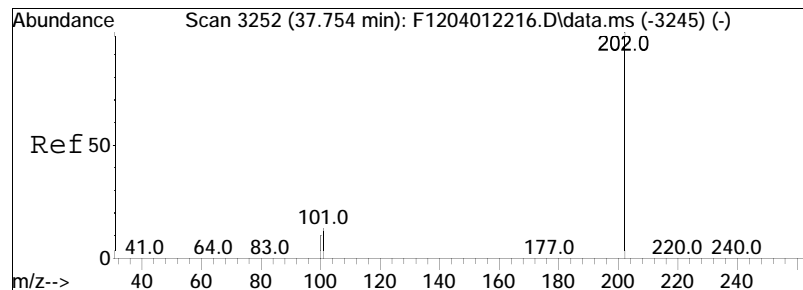




#53
 Anthracene
 Concen: 511.23 ng/mL
 RT: 33.263 min Scan# 2760
 Delta R.T. -0.000 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

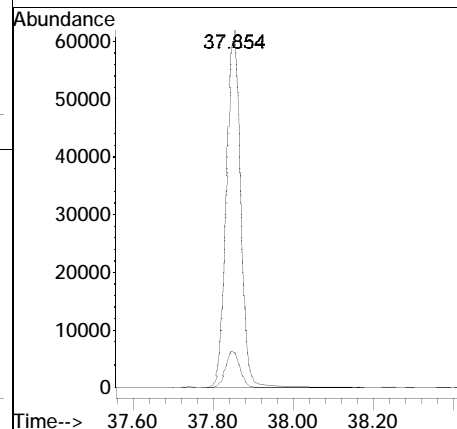
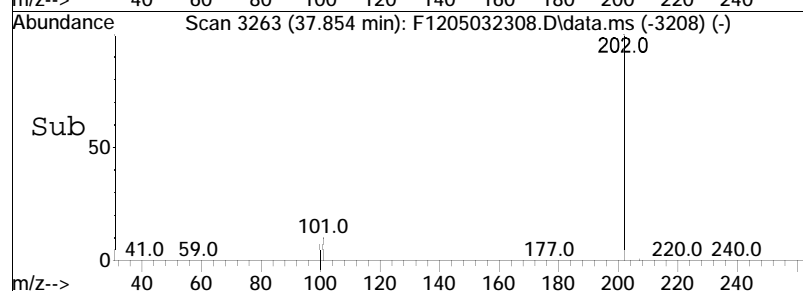
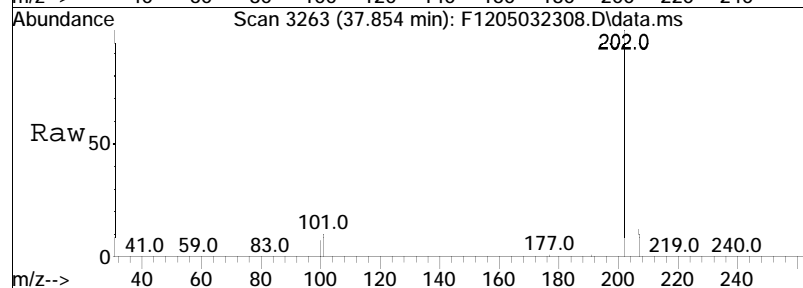
Tgt	Ion	Ratio	Lower	Upper
178	100			
176	16.4	11.9	22.1	

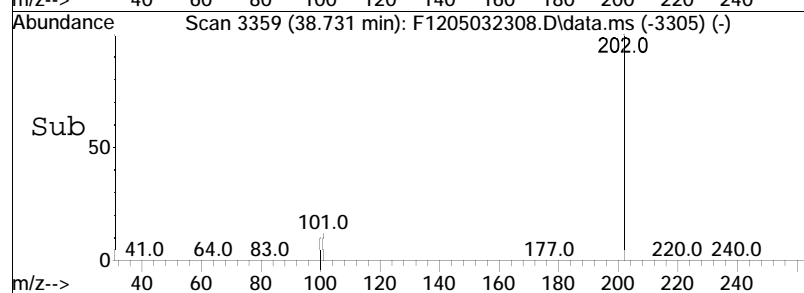
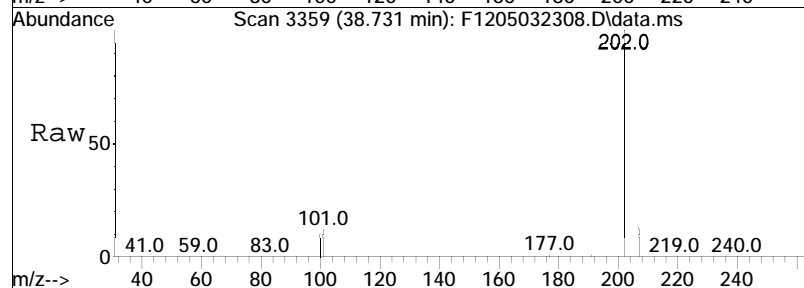
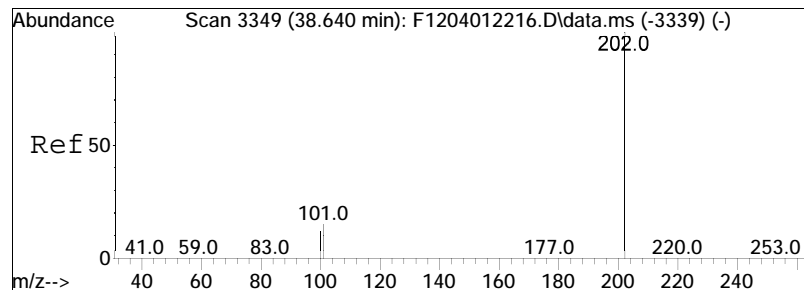




#56
 Fluoranthene
 Concen: 506.01 ng/mL
 RT: 37.854 min Scan# 3263
 Delta R.T. -0.000 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

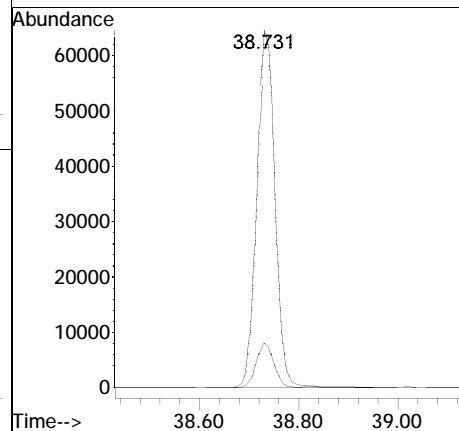
Tgt Ion	Ratio	Lower	Upper
202	100		
101	10.5	7.1	13.1

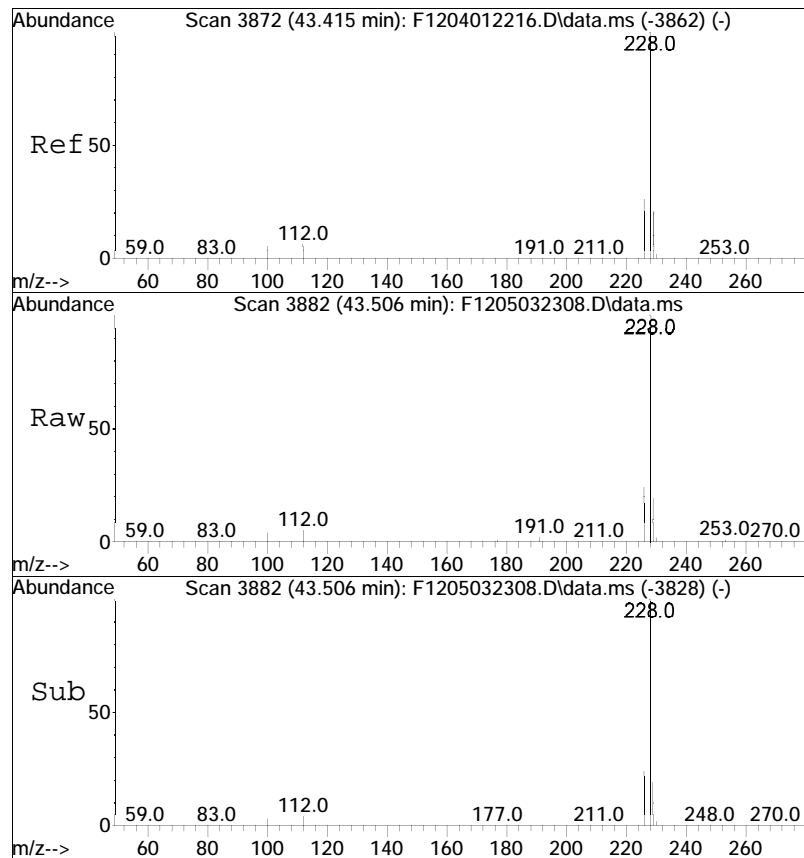




#59
 Pyrene
 Concen: 536.12 ng/mL
 RT: 38.731 min Scan# 3359
 Delta R.T. -0.009 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

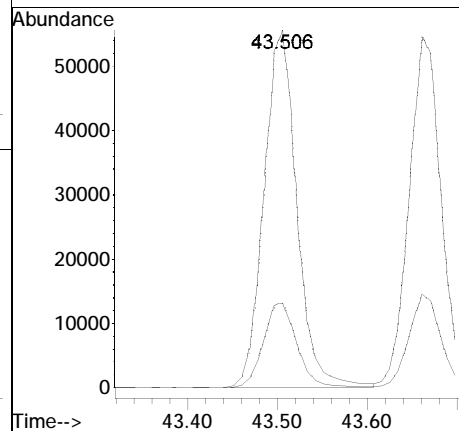
Tgt Ion	Ratio	Lower	Upper
202	100		
101	12.2	16.9	31.3#

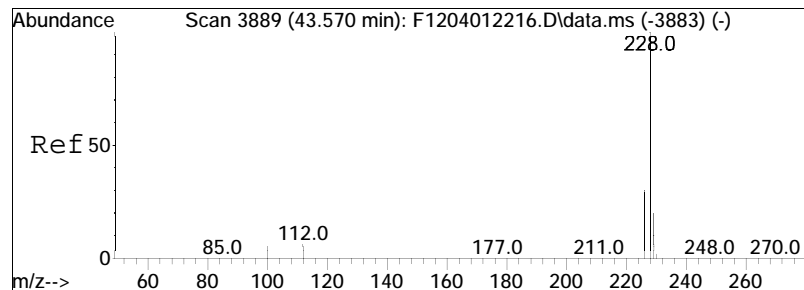




#75
Benz[a]anthracene
Concen: 514.71 ng/mL
RT: 43.506 min Scan# 3882
Delta R.T. -0.009 min
Lab File: F1205032308.D
Acq: 4 May 2023 4:33 pm

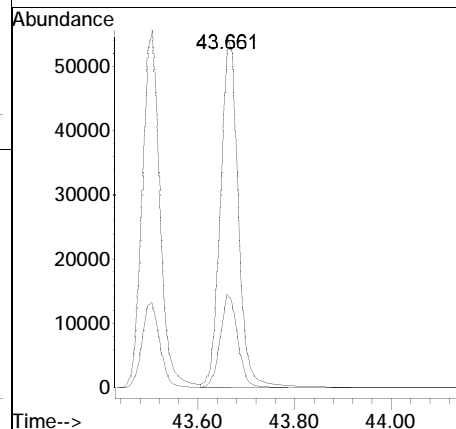
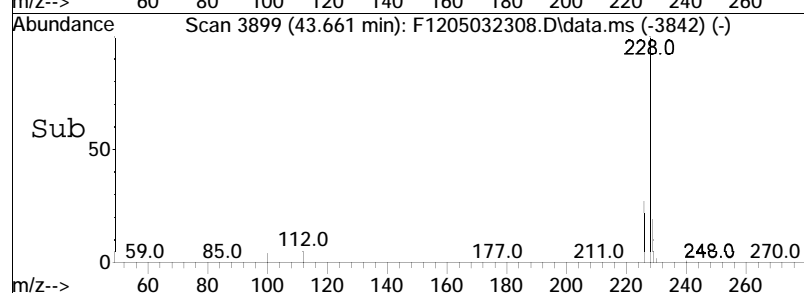
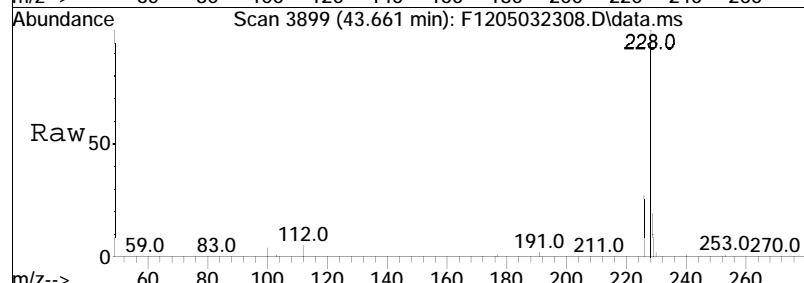
Tgt	Ion	Ratio	Lower	Upper
228	100			
226	24.0	40.6	75.4#	

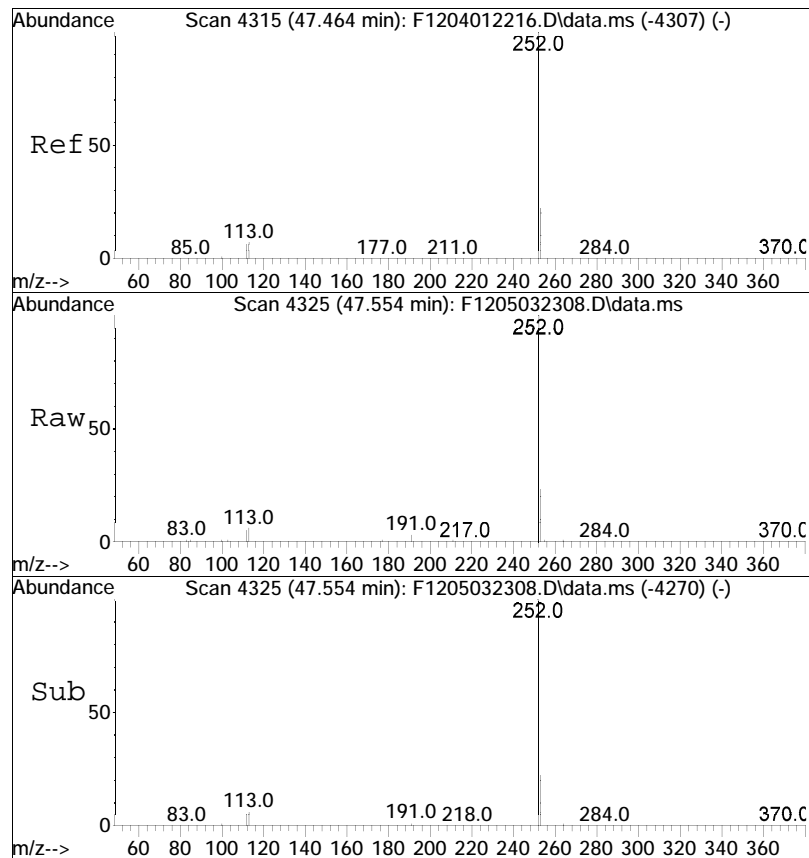




#76
 Chrysene
 Concen: 470.76 ng/mL
 RT: 43.661 min Scan# 3899
 Delta R.T. 0.018 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

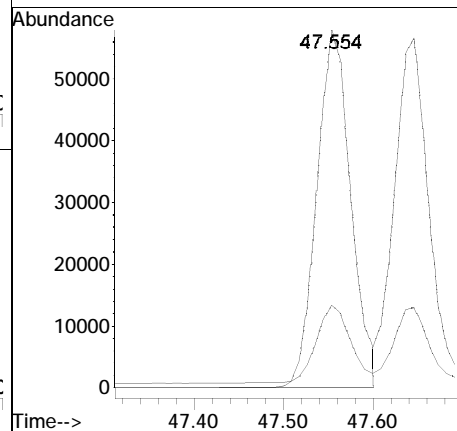
Tgt	Ion	Ratio	Lower	Upper
228	228	100		
226	226	26.3	23.4	43.6

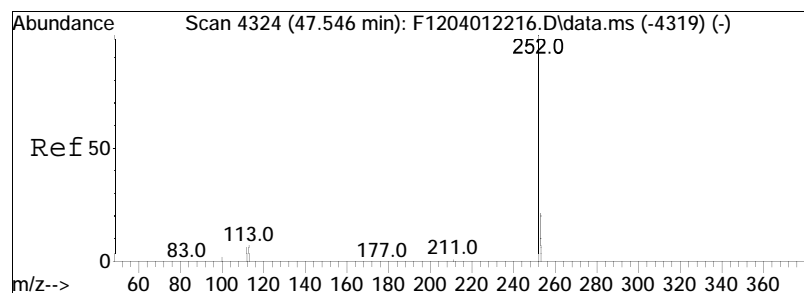




#85
 Benzo[b]fluoranthene
 Concen: 517.66 ng/mL
 RT: 47.554 min Scan# 4325
 Delta R.T. -0.000 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.8	16.1	29.9	





#86

Benzo[j]+[k]fluoranthene

Concen: 481.50 ng/mL

RT: 47.646 min Scan# 4335

Delta R.T. -0.000 min

Lab File: F1205032308.D

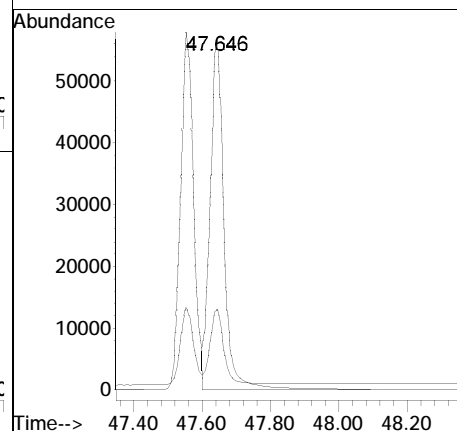
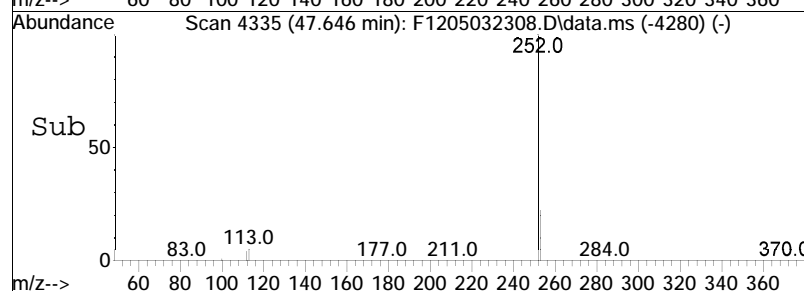
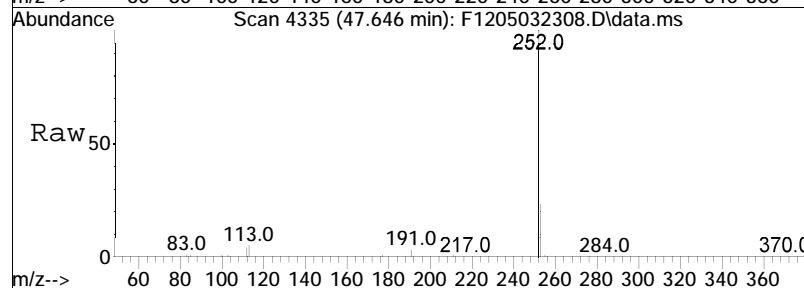
Acq: 4 May 2023 4:33 pm

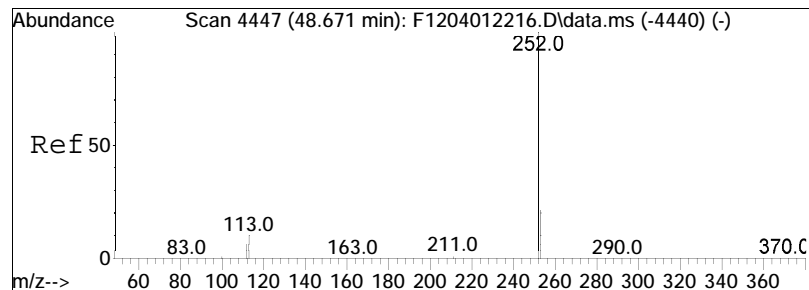
Tgt Ion: 252 Resp: 157739

Ion Ratio Lower Upper

252 100

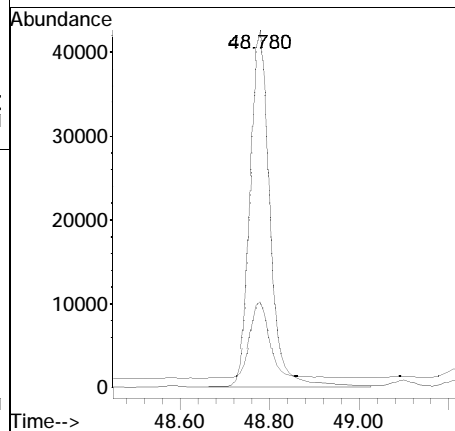
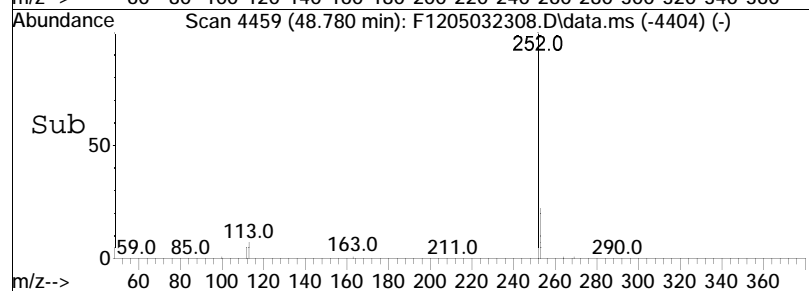
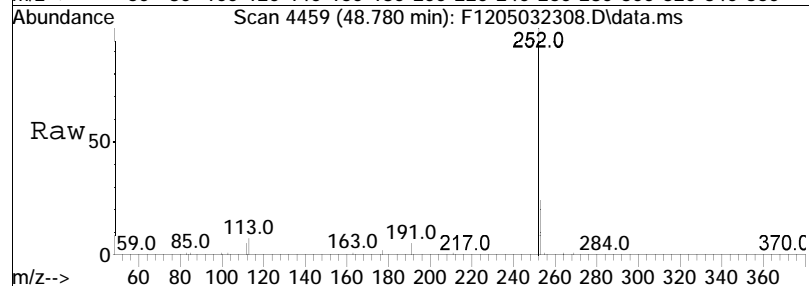
253 21.0 16.1 29.9

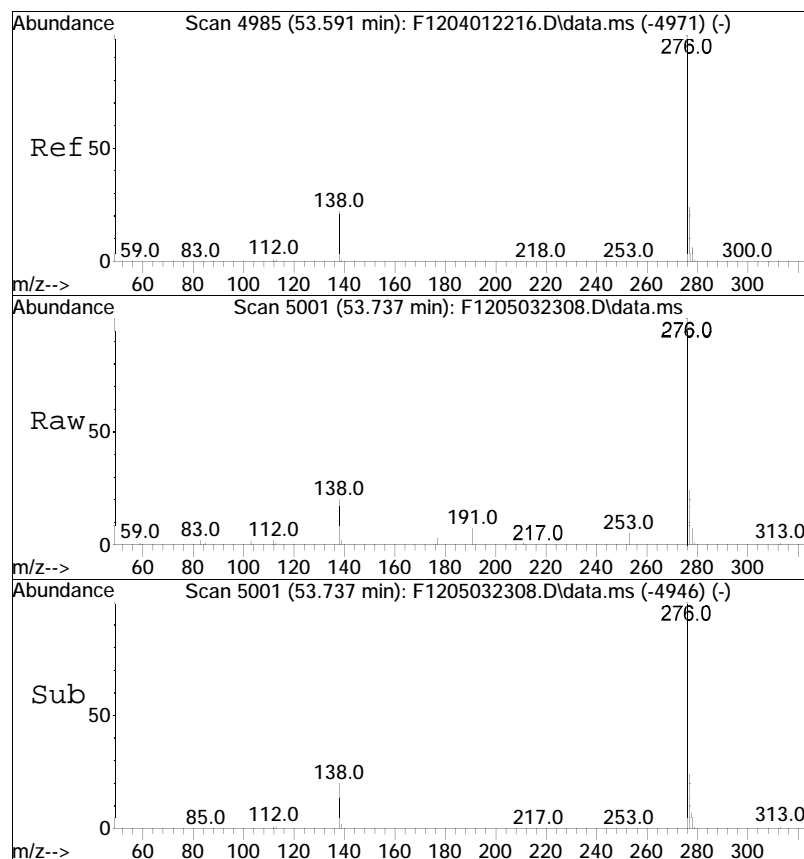




#90
 Benzo[a]pyrene
 Concen: 483.68 ng/mL
 RT: 48.780 min Scan# 4459
 Delta R.T. -0.000 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

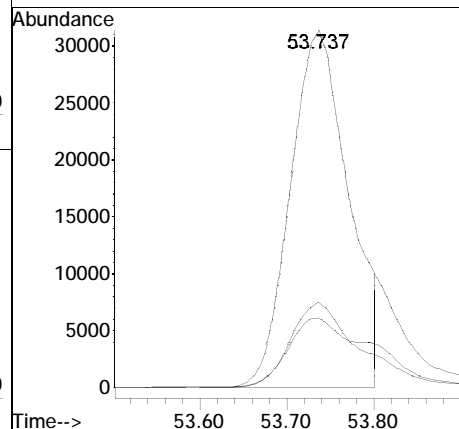
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.5	16.8	31.2	

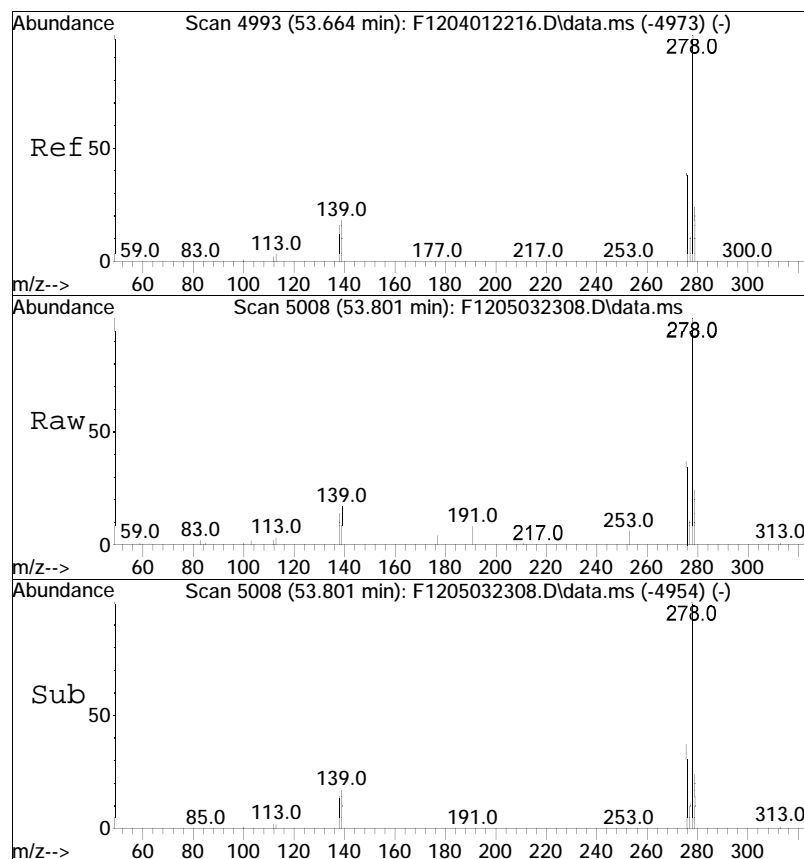




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 539.58 ng/mL M3
 RT: 53.737 min Scan# 5001
 Delta R.T. -0.000 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

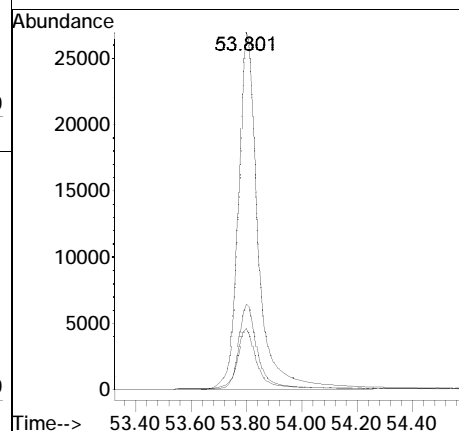
Tgt Ion:	276	Resp:	145638
Ion Ratio	Lower	Upper	
276	100		
138	29.9	13.2	24.4#
277	29.8	16.7	31.1

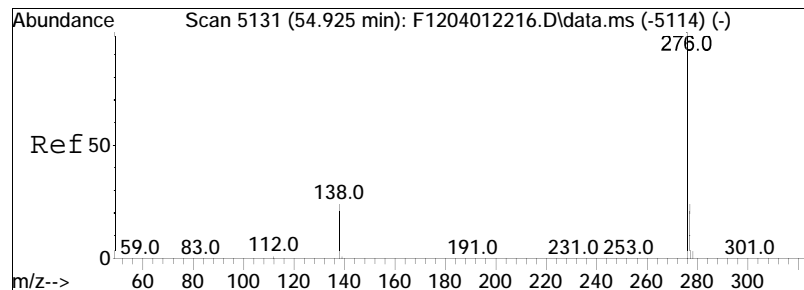




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 563.36 ng/mL
 RT: 53.801 min Scan# 5008
 Delta R.T. -0.009 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

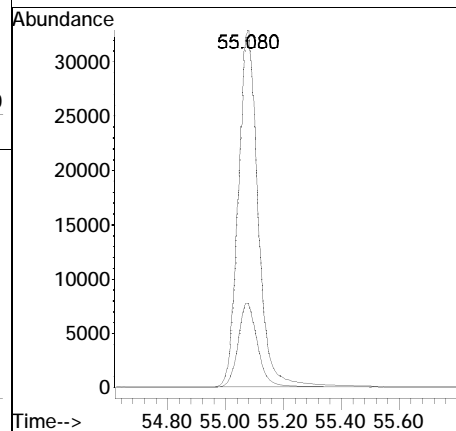
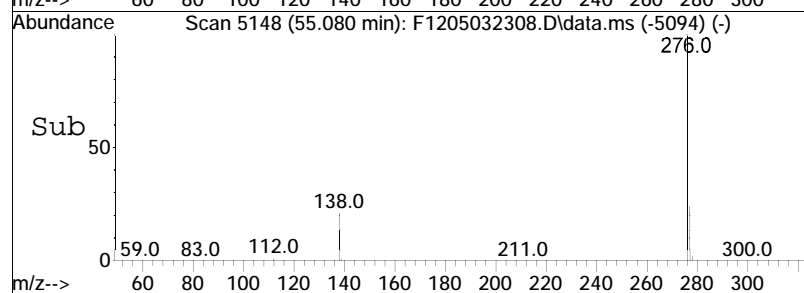
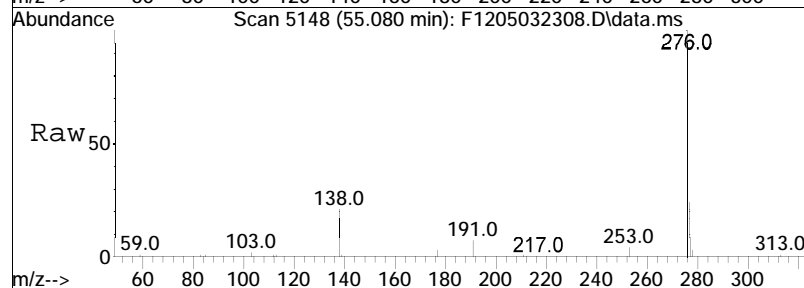
Tgt Ion:	278	Resp:	132357
Ion Ratio	Lower	Upper	
278	100		
139	15.9	11.3	21.1
279	22.9	16.9	31.3





#94
 Benzo[g,h,i]perylene
 Concen: 509.93 ng/mL
 RT: 55.080 min Scan# 5148
 Delta R.T. -0.009 min
 Lab File: F1205032308.D
 Acq: 4 May 2023 4:33 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
277	23.4	16.4	30.4



LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252325.D
 Acq On : 26 Apr 2023 5:20 pm
 Operator : PAH8:CNC
 Sample : WG1769534-3,32,,
 Misc : WG1771474,WG1769534,ICAL19944
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 01 10:33:38 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 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	27.488	164	24150	500.000	ng/mL	0.00
74) Chrysene-d12	43.981	240	25360	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.488	136	25057	235.398	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	23.54%#		
40) Phenanthrene-d10	33.373	188	16072	236.588	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	23.66%#		
83) Benzo[b]fluoranthene-d12	47.938	264	11074	218.782	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	21.88%#		
88) Benzo[a]pyrene-d12	49.209	264	9293	233.133	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	23.31%#		
128) 5B(H)Cholane - Surr	0.000	217	0	0.000	ng/ml	
Spiked Amount 1000.000	Range 50 - 130		Recovery =	0.00%#		
Target Compounds						
						Qvalue
9) Naphthalene	20.561	128	29696	254.422	ng/mL	100
14) 2-Methylnaphthalene	23.272	142	18207	236.205	ng/mL	100
24) Acenaphthylene	26.876	152	26771M4	245.862	ng/mL	
25) Acenaphthene	27.606	153	17332	247.802	ng/mL	99
27) Fluorene	29.632	166	18586	253.520	ng/mL	99
41) Phenanthrene	33.464	178	25373	250.746	ng/mL	99
53) Anthracene	33.646	178	23896M4	269.410	ng/mL	
56) Fluoranthene	38.256	202	24388	240.011	ng/mL	98
59) Pyrene	39.142	202	24647	242.415	ng/mL	99
75) Benz[a]anthracene	43.917	228	19401	261.830	ng/mL	98
76) Chrysene	44.081	228	19384	257.225	ng/mL	98
84) Benzo[b]fluoranthene	48.029	252	21258	242.776	ng/mL	93
85) Benzo[j]+[k]fluoranthene	48.112	252	21802	247.027	ng/mL	93
89) Benzo[a]pyrene	49.310	252	17857	221.130	ng/mL	91
91) Indeno[1,2,3-cd]pyrene	54.513	276	20924M3	211.810	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.587	278	16907	207.232	ng/mL	97
93) Benzo[g,h,i]perylene	55.948	276	20817	211.367	ng/mL	99

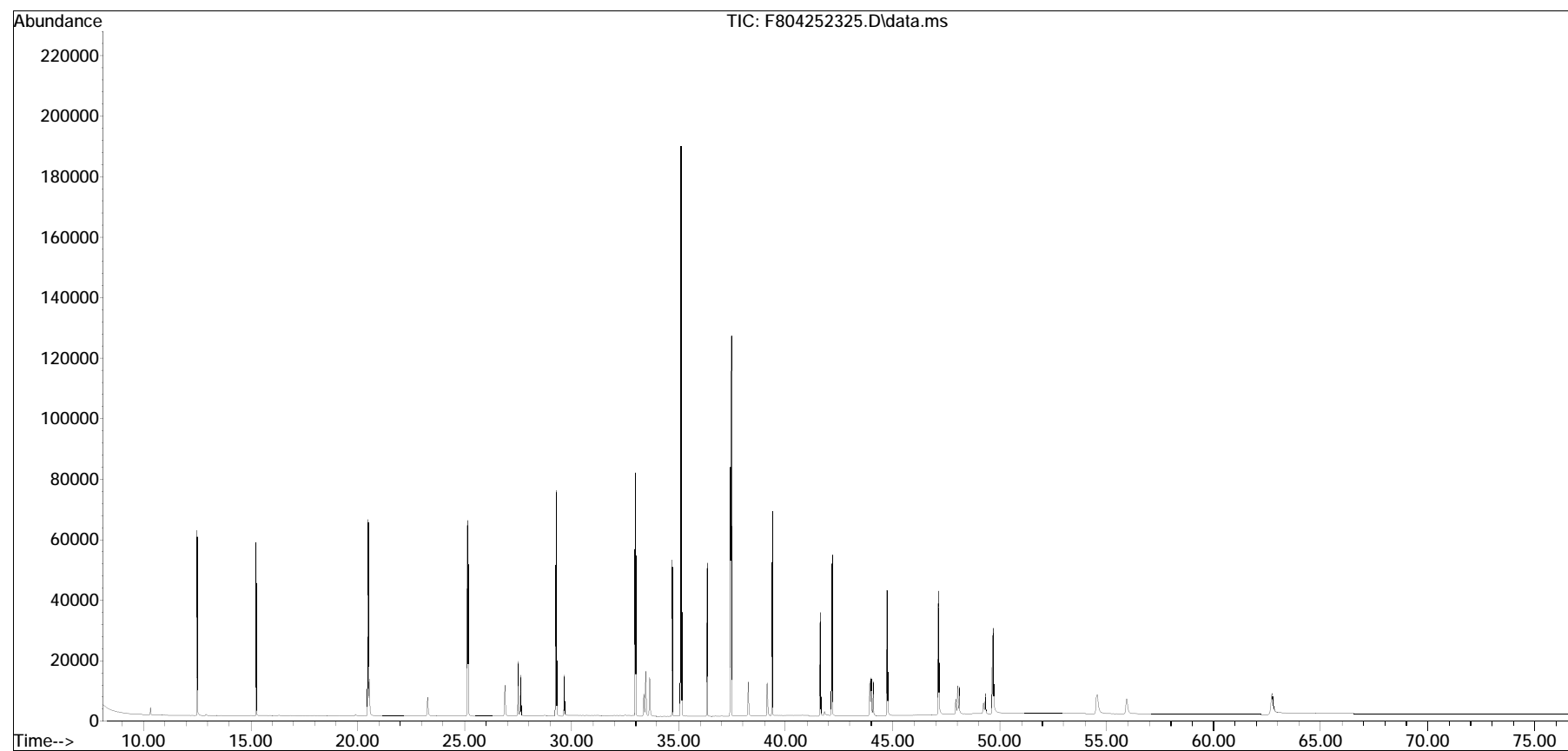
(#) = qualifier out of range (m) = manual integration (+) = signals summed

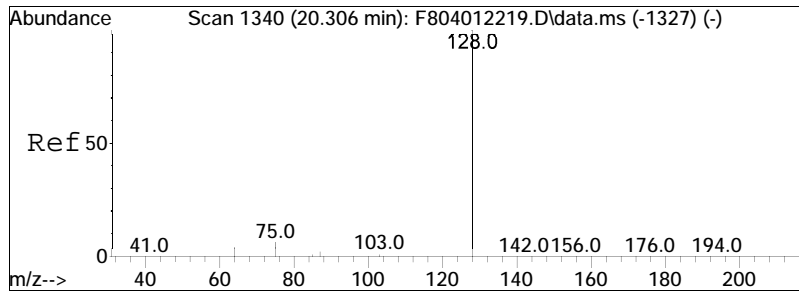
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
Data File : F804252325.D
Acq On : 26 Apr 2023 5:20 pm
Operator : PAH8:CNC
Sample : WG1769534-3,32,,
Misc : WG1771474,WG1769534,ICAL19944
ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 01 10:33:38 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Mon Apr 24 05:27:42 2023
Response via : Initial Calibration

Sub List : ALKPAH_LCS_QC - LCS_spike compounds





#9

Naphthalene

Concen: 254.42 ng/mL

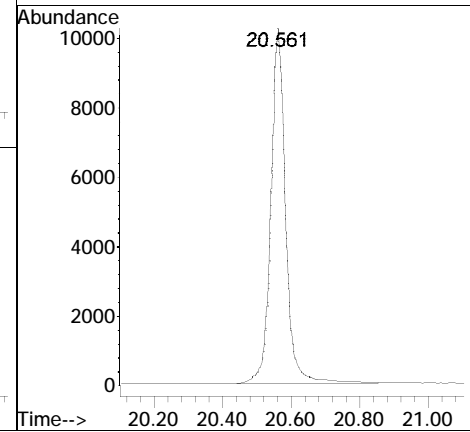
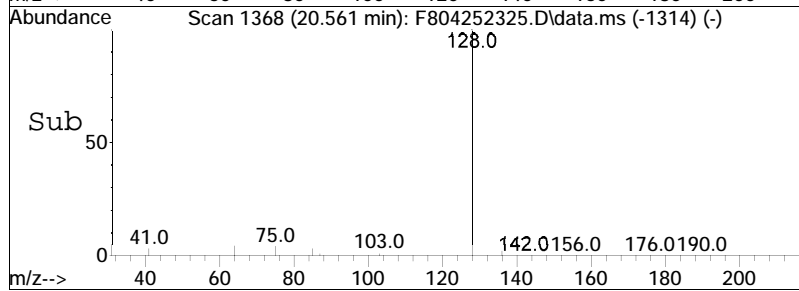
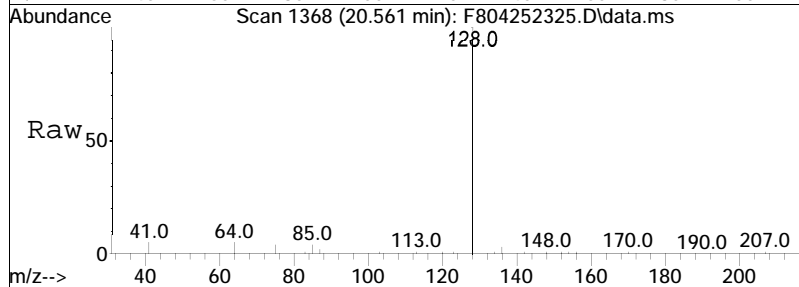
RT: 20.561 min Scan# 1368

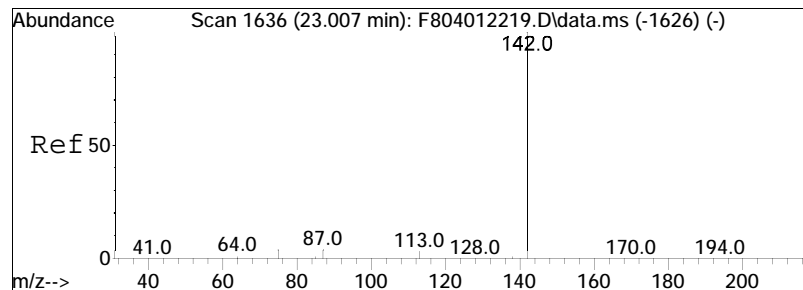
Delta R.T. -0.009 min

Lab File: F804252325.D

Acq: 26 Apr 2023 5:20 pm

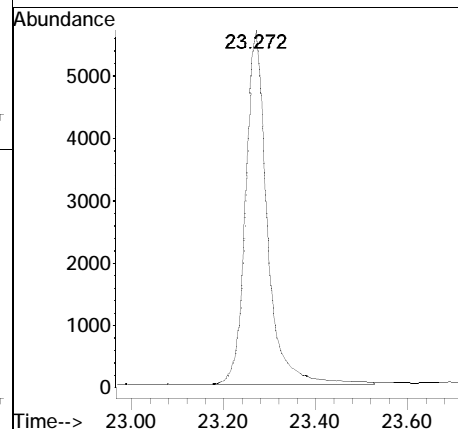
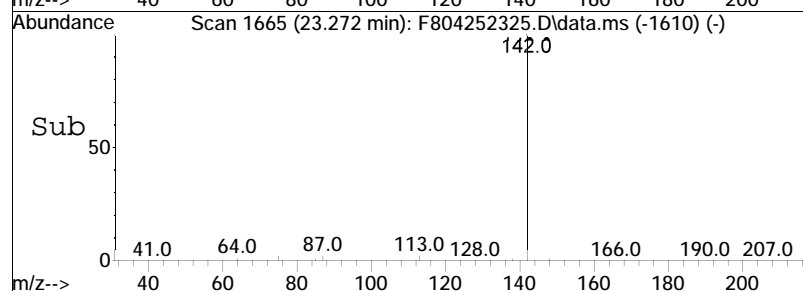
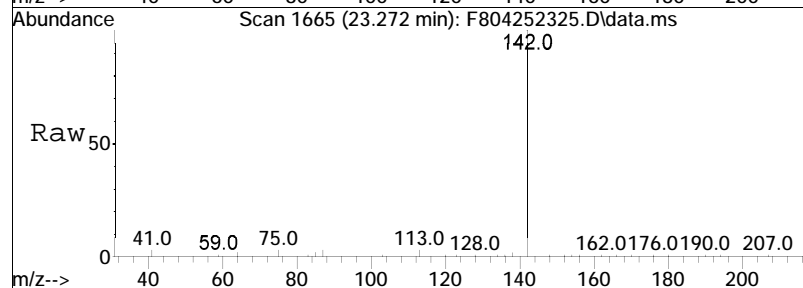
Tgt Ion:128 Resp: 29696

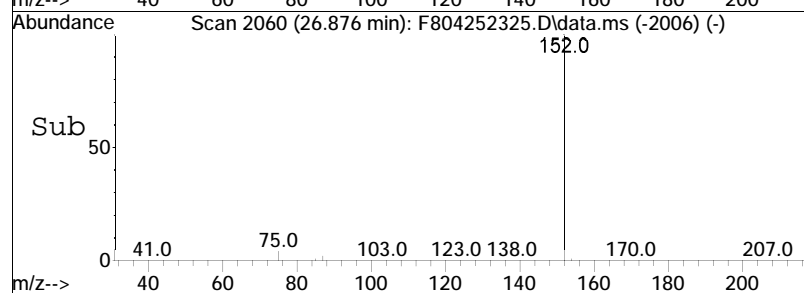
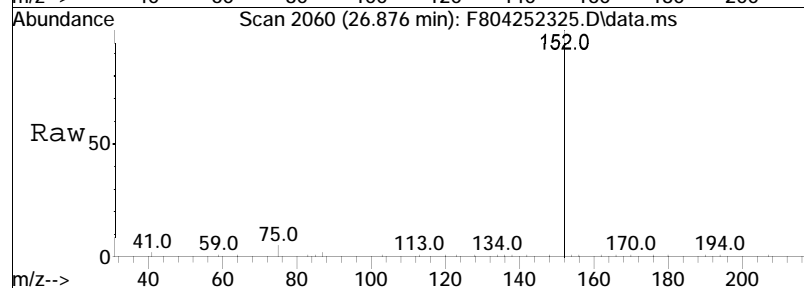
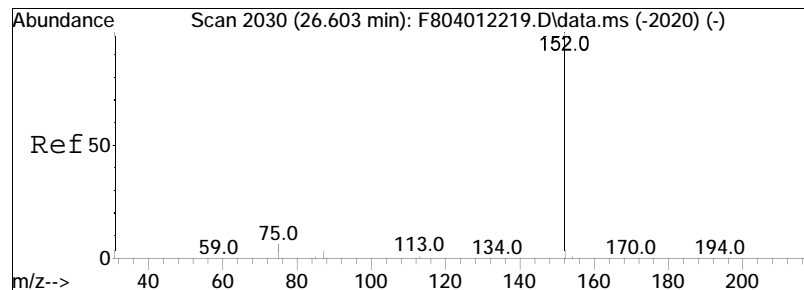




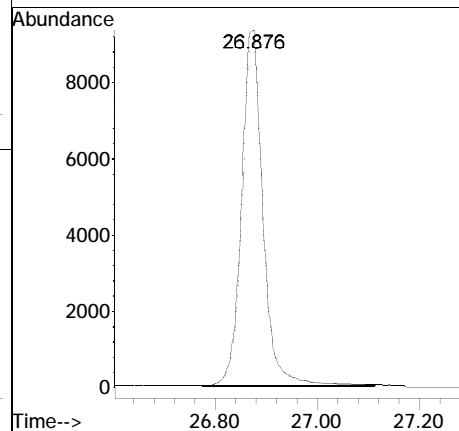
#14
 2-Methylnaphthalene
 Concen: 236.20 ng/mL
 RT: 23.272 min Scan# 1665
 Delta R.T. -0.000 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

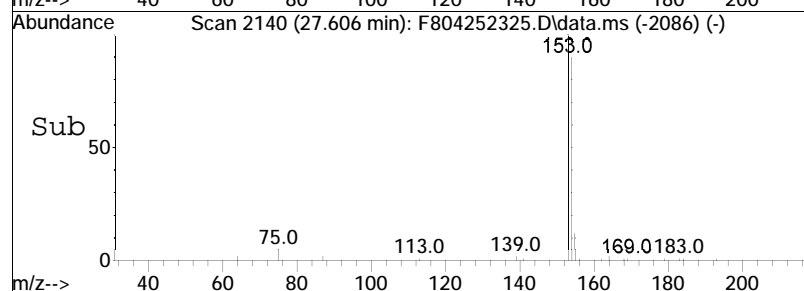
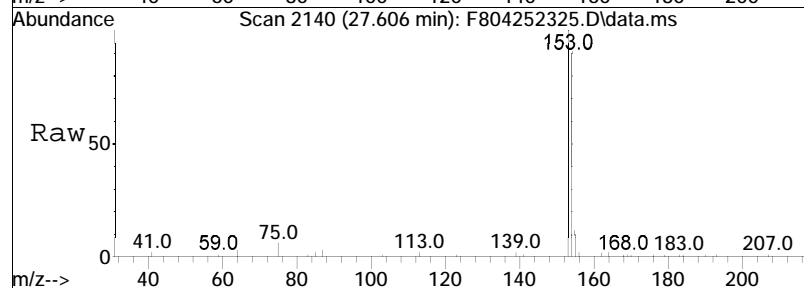
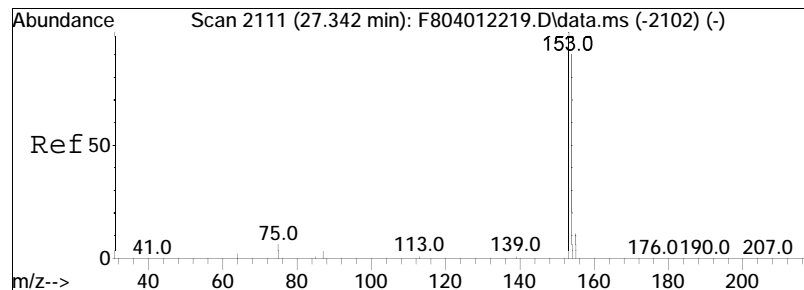
Tgt Ion:142 Resp: 18207





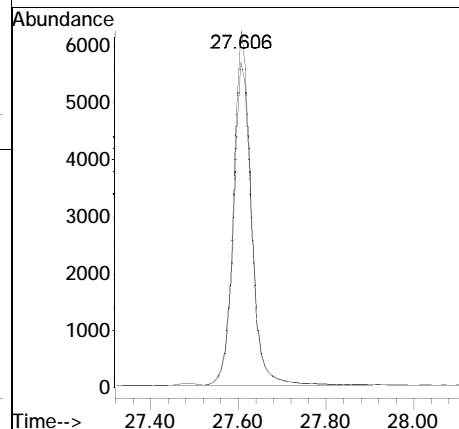
#24
Acenaphthylene
Concen: 245.86 ng/mL M4
RT: 26.876 min Scan# 2060
Delta R.T. -0.009 min
Lab File: F804252325.D
Acq: 26 Apr 2023 5:20 pm
Tgt Ion:152 Resp: 26771

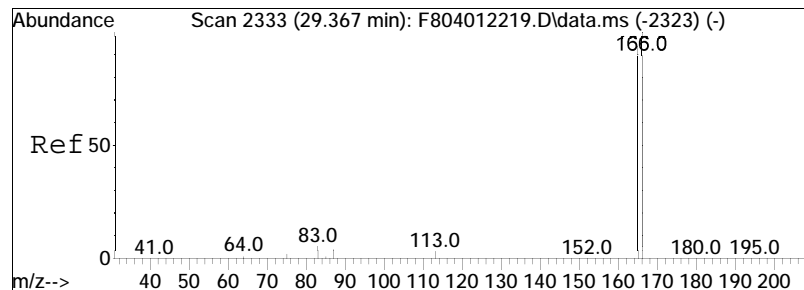




#25
 Acenaphthene
 Concen: 247.80 ng/mL
 RT: 27.606 min Scan# 2140
 Delta R.T. -0.009 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

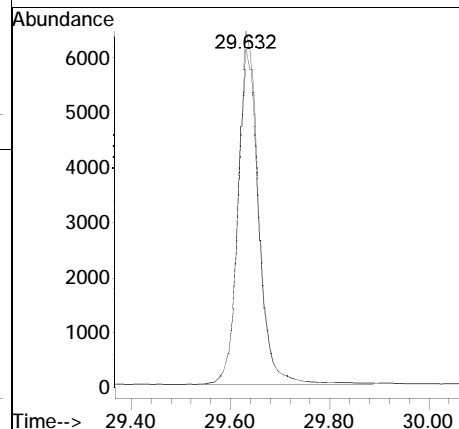
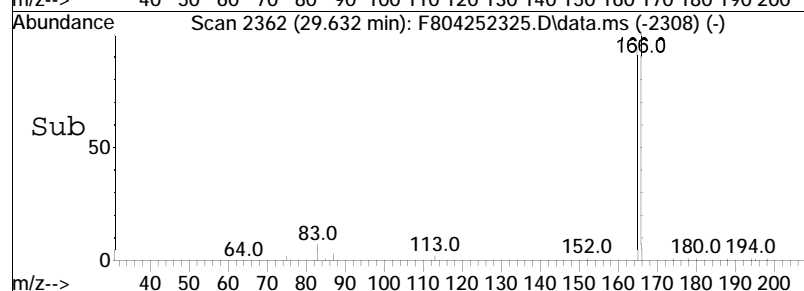
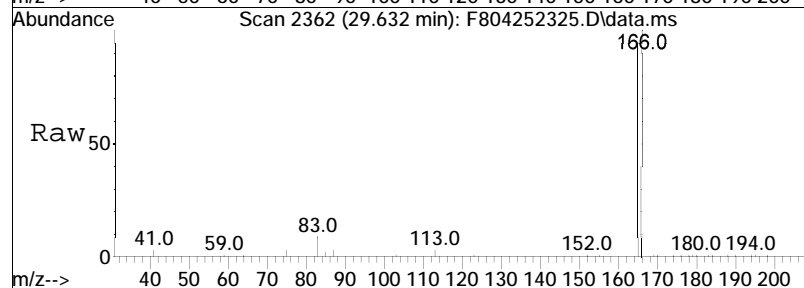
Tgt	Ion	Ratio	Lower	Upper
153	100			
154	92.3	64.1	119.1	

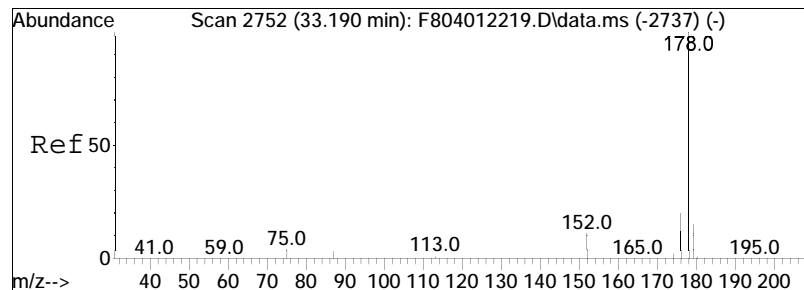




#27
 Fluorene
 Concen: 253.52 ng/mL
 RT: 29.632 min Scan# 2362
 Delta R.T. -0.009 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

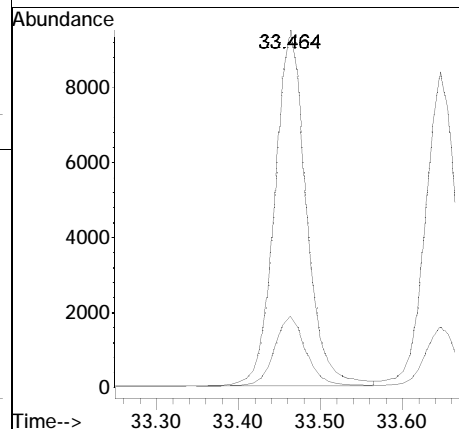
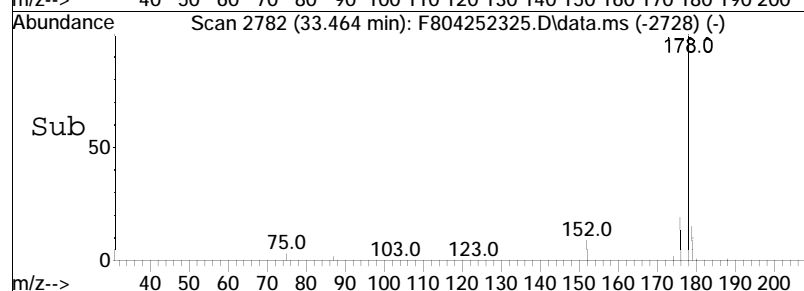
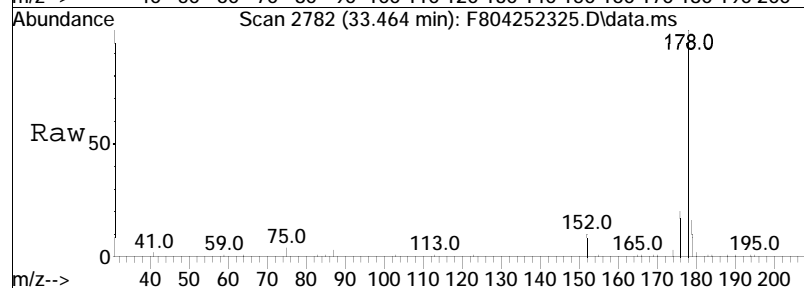
Tgt	Ion	Ratio	Lower	Upper
166	100			
165	94.9	66.8	124.0	

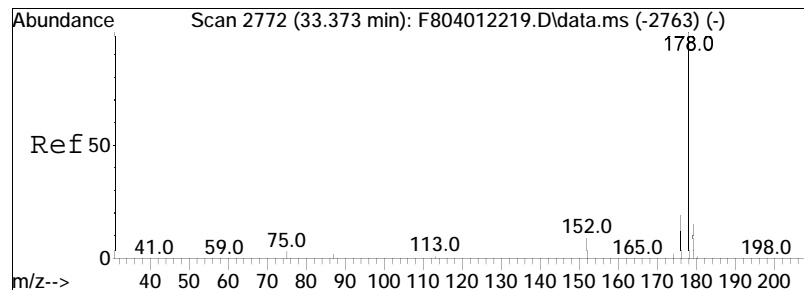




#41
 Phenanthrene
 Concen: 250.75 ng/mL
 RT: 33.464 min Scan# 2782
 Delta R.T. -0.009 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

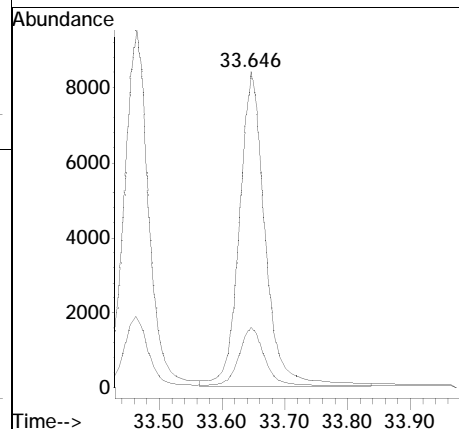
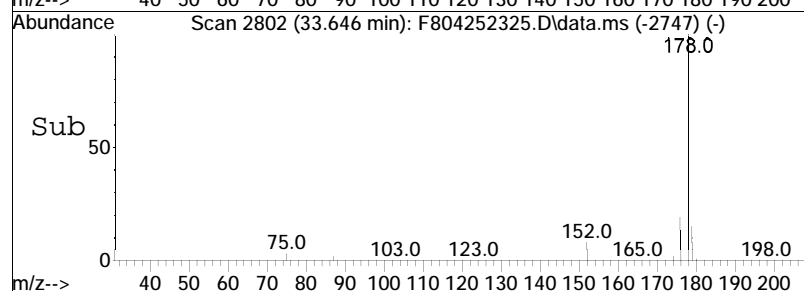
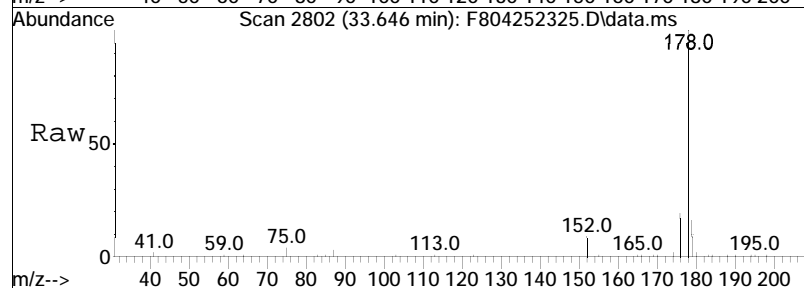
Tgt Ion	Ratio	Lower	Upper
178	100		
176	19.5	13.9	25.9

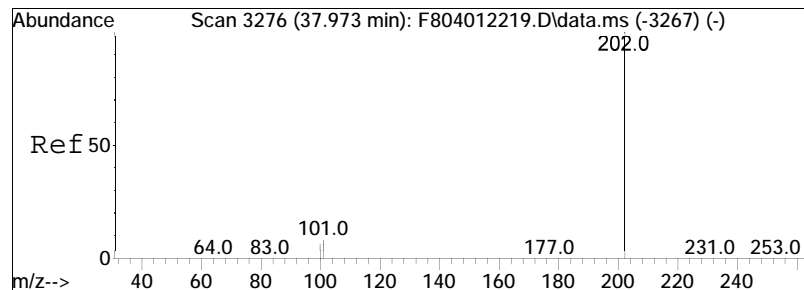




#53
 Anthracene
 Concen: 269.41 ng/mL M4
 RT: 33.646 min Scan# 2802
 Delta R.T. -0.000 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

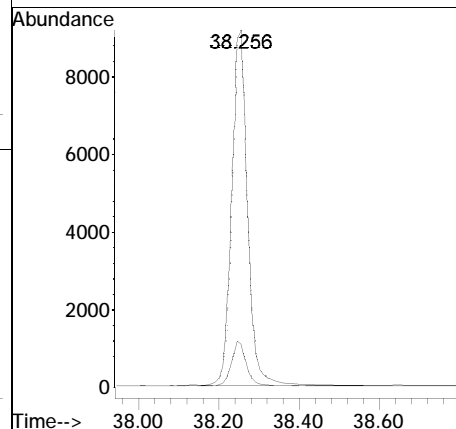
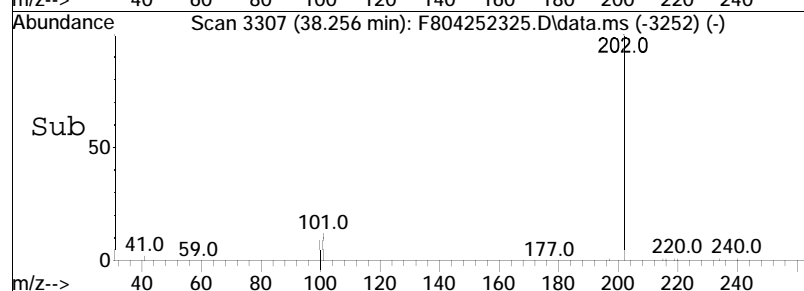
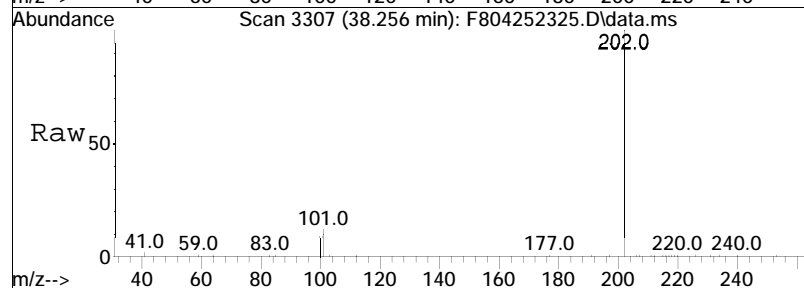
Tgt Ion	Ratio	Lower	Upper
178	100		
176	18.1	13.6	25.2

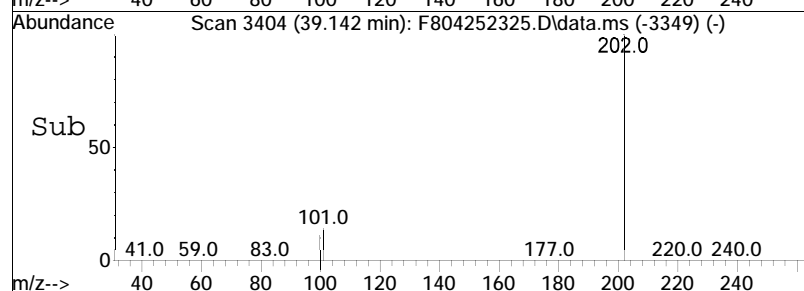
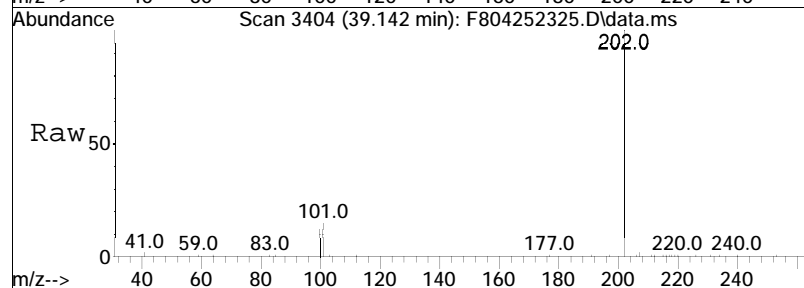
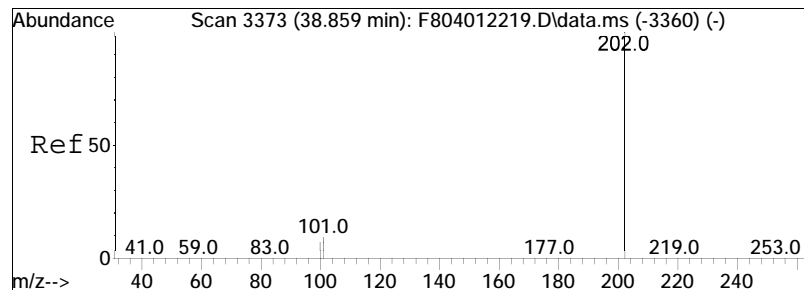




#56
 Fluoranthene
 Concen: 240.01 ng/mL
 RT: 38.256 min Scan# 3307
 Delta R.T. -0.000 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

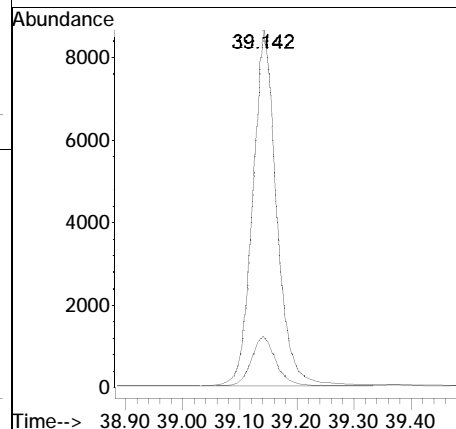
Tgt	Ion	Ratio	Lower	Upper
202	100			
101	11.9	9.0	16.6	

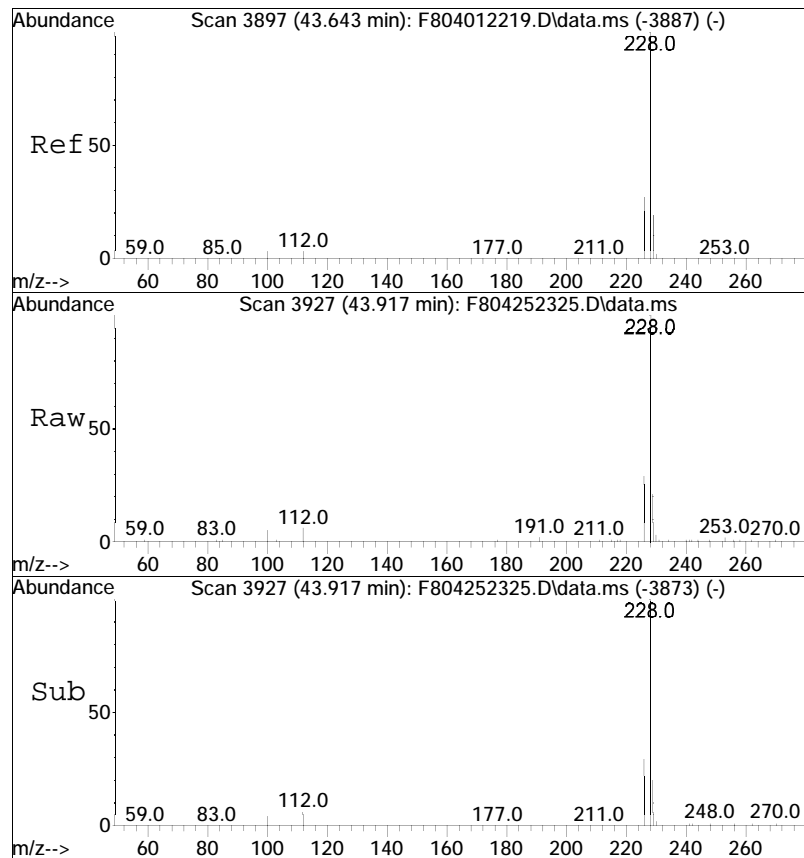




#59
 Pyrene
 Concen: 242.42 ng/mL
 RT: 39.142 min Scan# 3404
 Delta R.T. -0.000 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

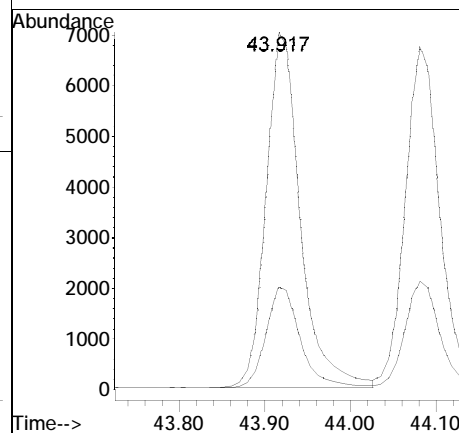
Tgt	Ion	Ratio	Lower	Upper
202	100			
101	14.4	10.4	19.4	

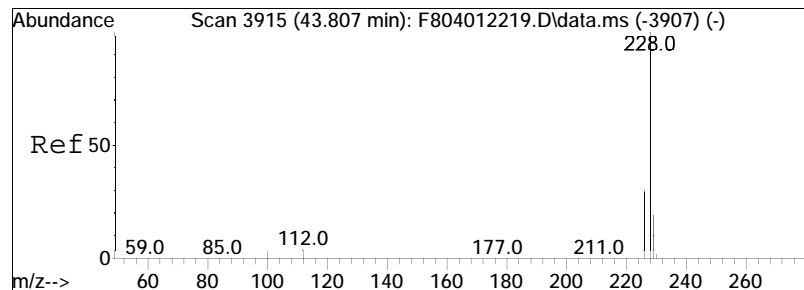




#75
Benz[a]anthracene
Concen: 261.83 ng/mL
RT: 43.917 min Scan# 3927
Delta R.T. -0.009 min
Lab File: F804252325.D
Acq: 26 Apr 2023 5:20 pm

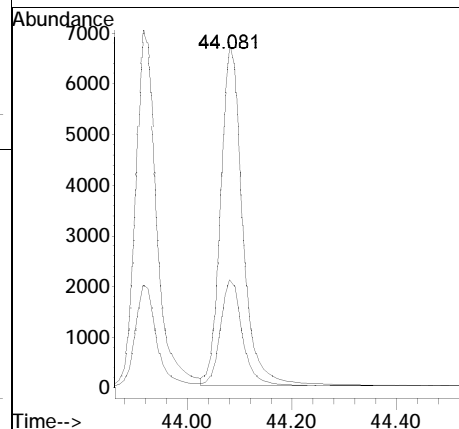
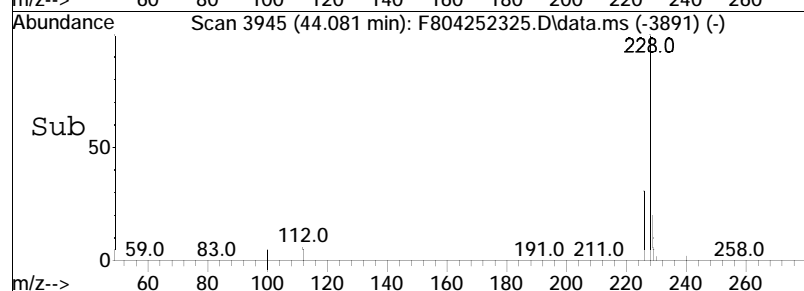
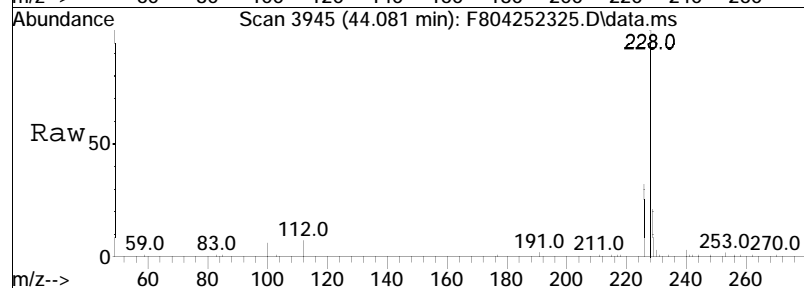
Tgt Ion: 228 Resp: 19401
Ion Ratio Lower Upper
228 100
226 28.2 20.4 38.0

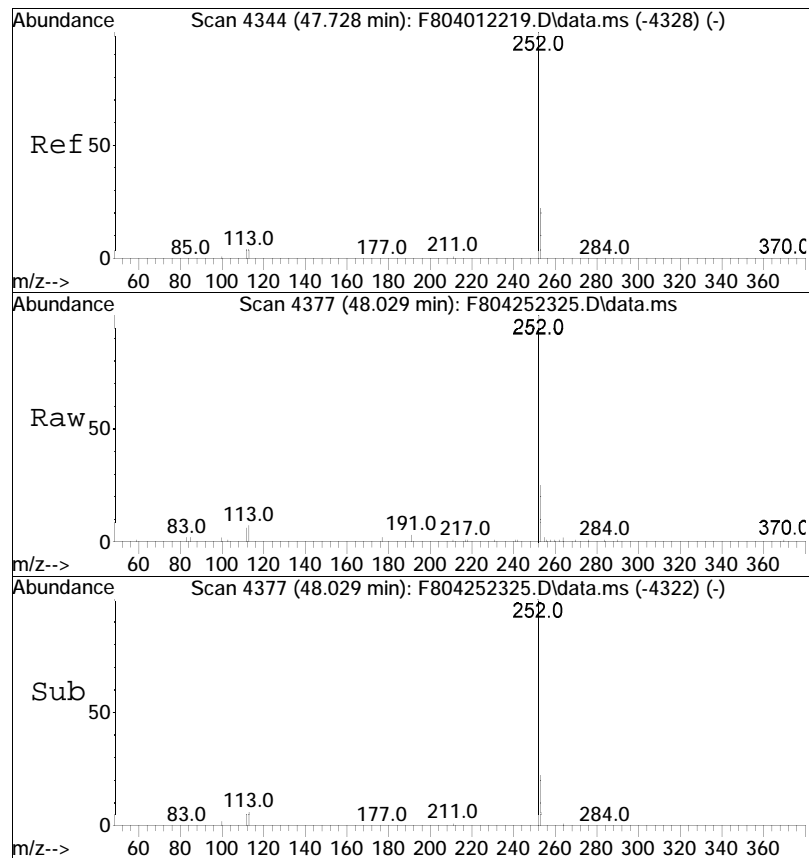




#76
 Chrysene
 Concen: 257.23 ng/mL
 RT: 44.081 min Scan# 3945
 Delta R.T. -0.009 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

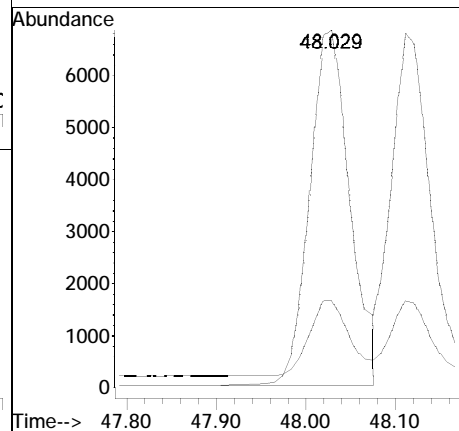
Tgt Ion: 228 Resp: 19384
 Ion Ratio Lower Upper
 228 100
 226 30.7 22.5 41.7

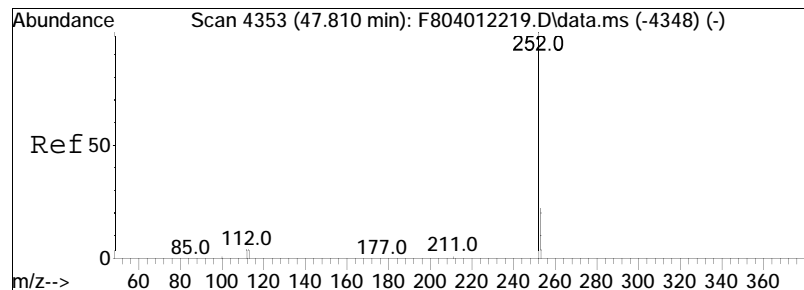




#84
 Benzo[b]fluoranthene
 Concen: 242.78 ng/mL
 RT: 48.029 min Scan# 4377
 Delta R.T. -0.000 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

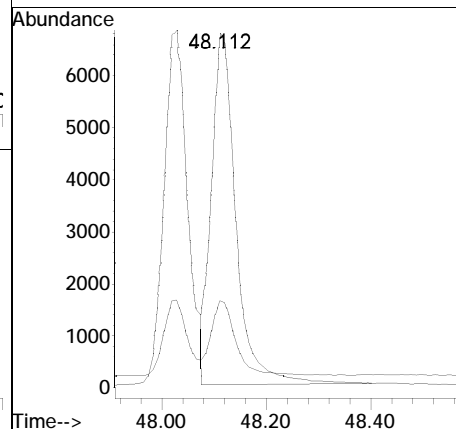
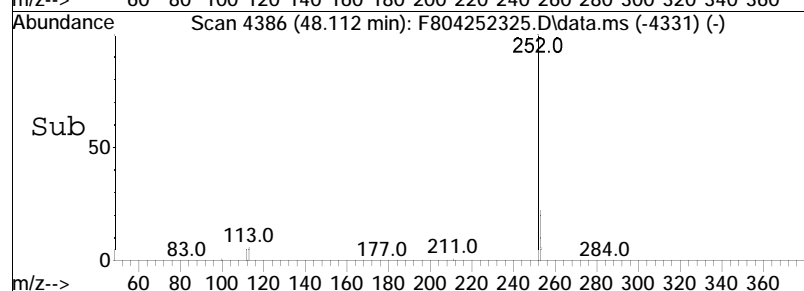
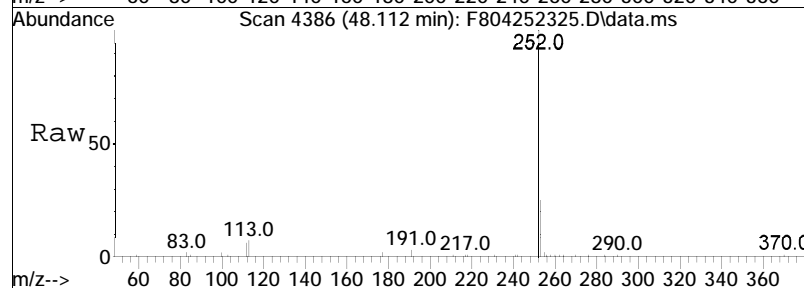
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.3	17.4	32.2	

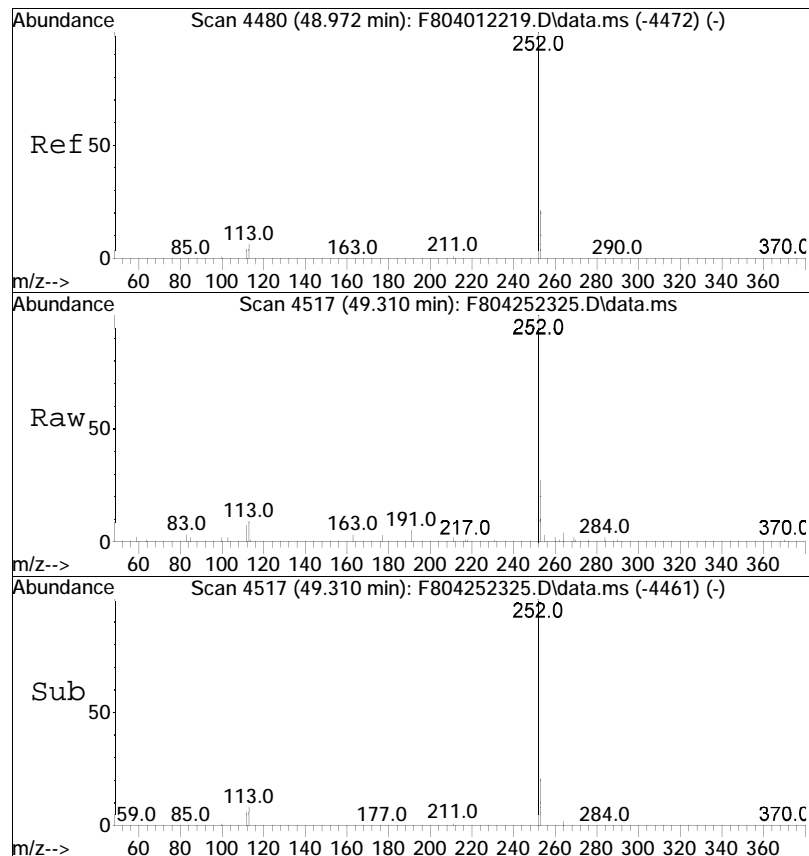




#85
 Benzo[j]+[k]fluoranthene
 Concen: 247.03 ng/mL
 RT: 48.112 min Scan# 4386
 Delta R.T. -0.000 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

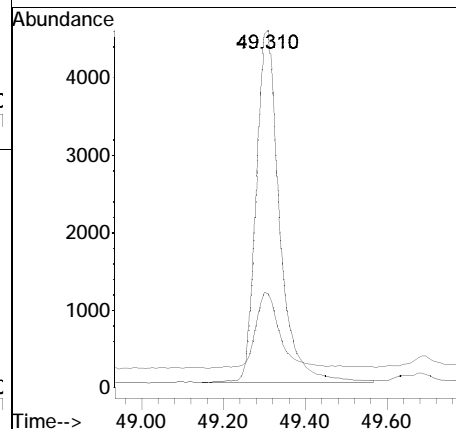
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.1	17.2	32.0	

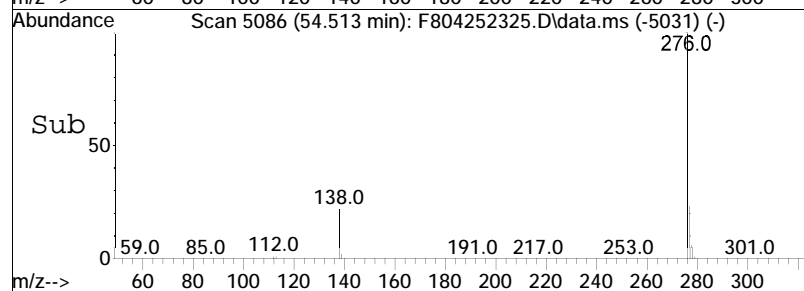
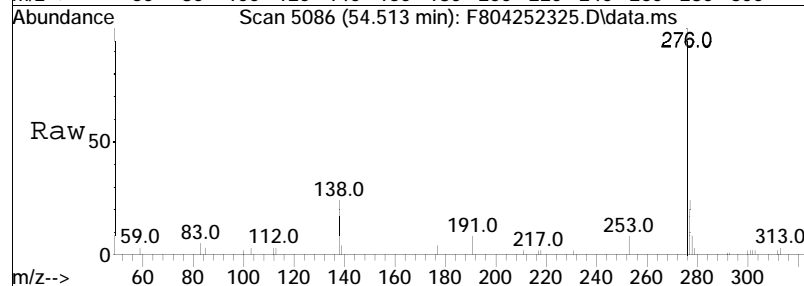
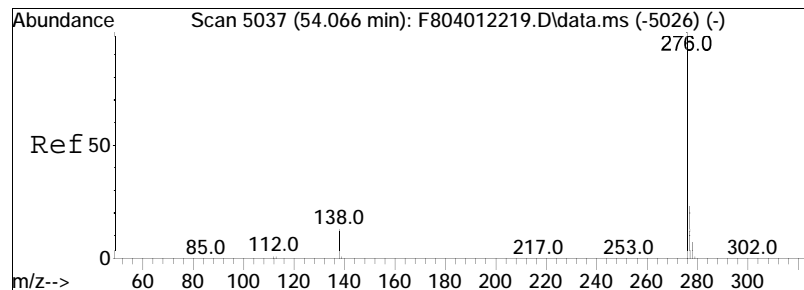




#89
 Benzo[a]pyrene
 Concen: 221.13 ng/mL
 RT: 49.310 min Scan# 4517
 Delta R.T. 0.009 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

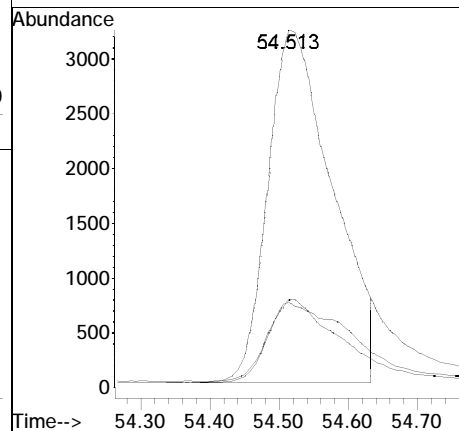
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.1	17.8	33.0	

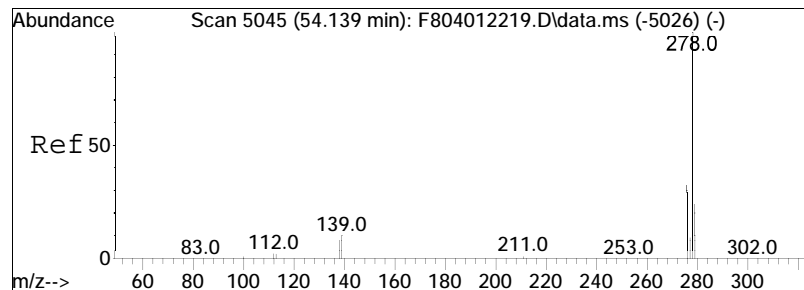




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 211.81 ng/mL M3
 RT: 54.513 min Scan# 5086
 Delta R.T. -0.000 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

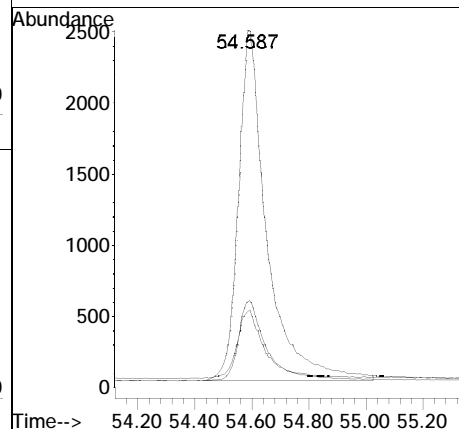
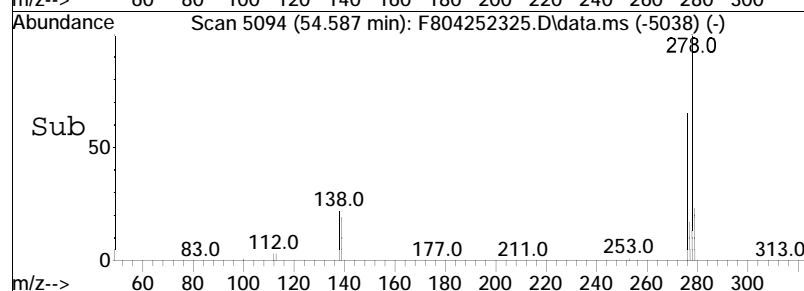
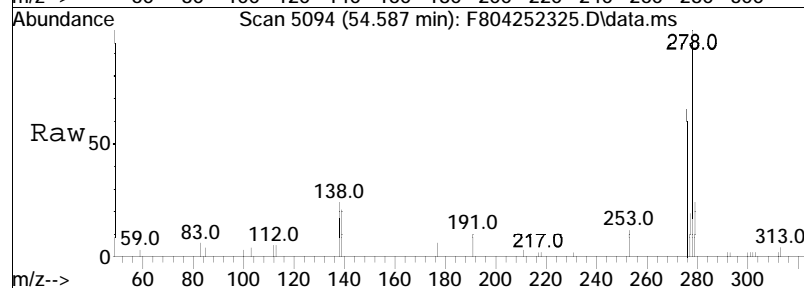
Tgt	Ion	Ratio	Lower	Upper
276	100			
138	30.0	15.8	29.3#	
277	28.5	16.2	30.2	

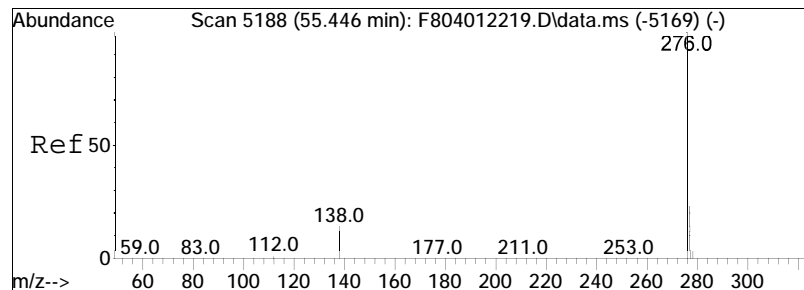




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 207.23 ng/mL
 RT: 54.587 min Scan# 5094
 Delta R.T. 0.009 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

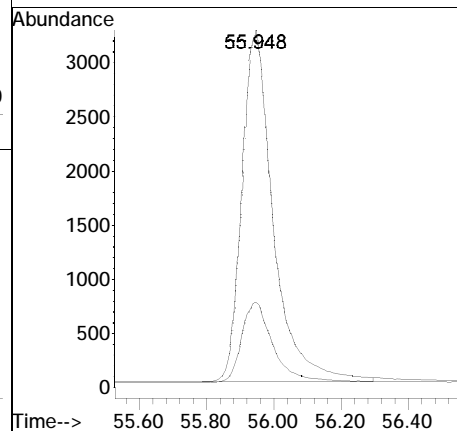
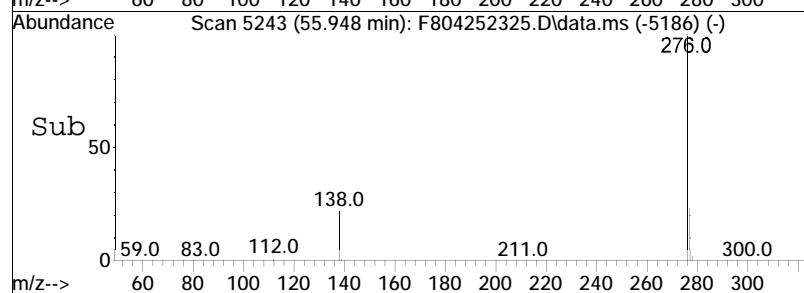
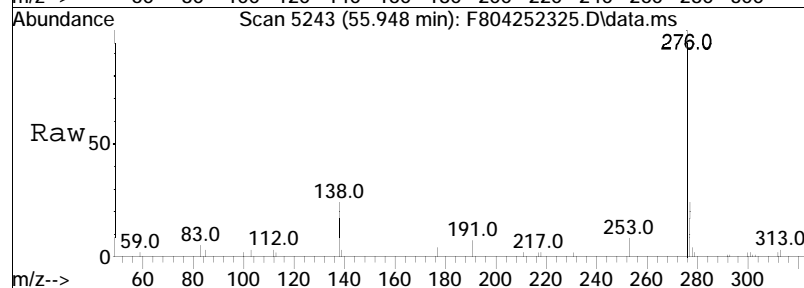
Tgt Ion	Ratio	Lower	Upper
278	100		
139	19.5	15.0	27.8
279	22.6	16.7	31.1





#93
 Benzo[g,h,i]perylene
 Concen: 211.37 ng/mL
 RT: 55.948 min Scan# 5243
 Delta R.T. 0.018 min
 Lab File: F804252325.D
 Acq: 26 Apr 2023 5:20 pm

Tgt Ion: 276 Resp: 20817
 Ion Ratio Lower Upper
 276 100
 277 23.1 16.4 30.4



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
 Data File : F1205012310.D
 Acq On : 1 May 2023 9:33 pm
 Operator : PAH12:MJS
 Sample : wgl770361-3,32,,
 Misc : WG1773800,WG1770361,ICAL19969
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 05 10:57:02 2023
 Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Thu Apr 27 14:56:04 2023
 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	27.150	164	98800	500.000	ng/mL	-0.05
74) Chrysene-d12	43.588	240	161147	500.000	ng/mL	-0.06
System Monitoring Compounds						
8) Naphthalene-d8	20.169	136	163000	392.460	ng/mL	-0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery =	39.25%#		
40) Phenanthrene-d10	33.017	188	147027	514.920	ng/mL	-0.06
Spiked Amount 1000.000	Range 50 - 130		Recovery =	51.49%		
84) Benzo[b]fluoranthene-d12	47.499	264	149025	454.405	ng/mL	-0.05
Spiked Amount 1000.000	Range 50 - 130		Recovery =	45.44%#		
89) Benzo[a]pyrene-d12	48.716	264	126906	527.015	ng/mL	-0.06
Spiked Amount 1000.000	Range 50 - 130		Recovery =	52.70%		
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						
						Qvalue
9) Naphthalene	20.251	128	213634	466.916	ng/mL	100
14) 2-Methylnaphthalene	22.943	142	136897	487.483	ng/mL	100
24) Acenaphthylene	26.539	152	184169	466.638	ng/mL	100
25) Acenaphthene	27.278	153	133654	525.018	ng/mL	100
27) Fluorene	29.285	166	157348	593.759	ng/mL	98
41) Phenanthrene	33.099	178	225130	565.488	ng/mL	99
53) Anthracene	33.281	178	204301	549.611	ng/mL	99
56) Fluoranthene	37.873	202	206935M4	494.393	ng/mL	
59) Pyrene	38.758	202	222028	526.582	ng/mL	100
75) Benz[a]anthracene	43.533	228	210799	484.122	ng/mL	98
76) Chrysene	43.689	228	212737	453.571	ng/mL	99
85) Benzo[b]fluoranthene	47.582	252	244158	521.580	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.673	252	251798	483.183	ng/mL	94
90) Benzo[a]pyrene	48.807	252	203441	478.962	ng/mL	92
92) Indeno[1,2,3-cd]pyrene	53.782	276	236477M3	550.771	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.846	278	231406	619.177	ng/mL	97
94) Benzo[g,h,i]perylene	55.126	276	244675	507.462	ng/mL	100

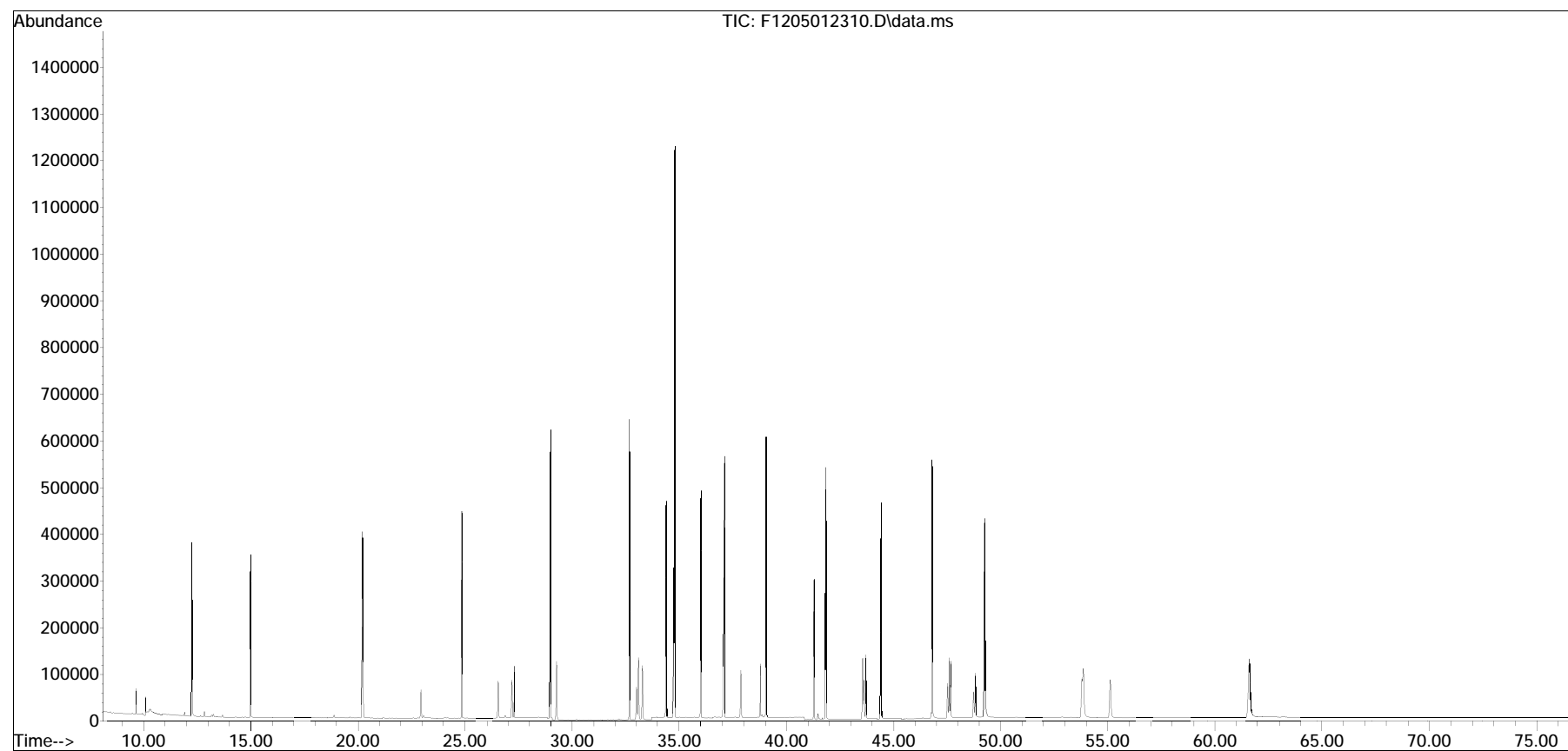
(#) = qualifier out of range (m) = manual integration (+) = signals summed

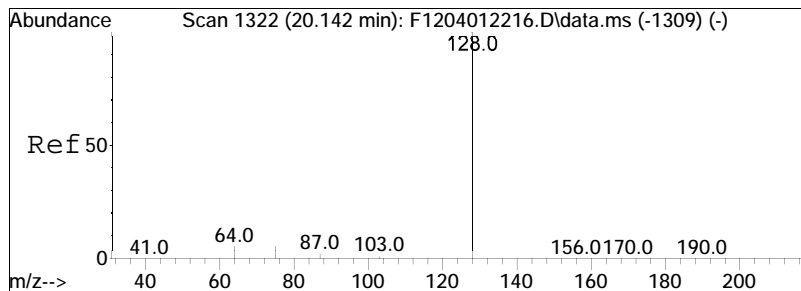
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\
Data File : F1205012310.D
Acq On : 1 May 2023 9:33 pm
Operator : PAH12:MJS
Sample : wg1770361-3,32,,
Misc : WG1773800,WG1770361,ICAL19969
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 05 10:57:02 2023
Quant Method : O:\Forensics\Data\PAH12\2023\MAY23\MAY01\PAH12042623.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Thu Apr 27 14:56:04 2023
Response via : Initial Calibration

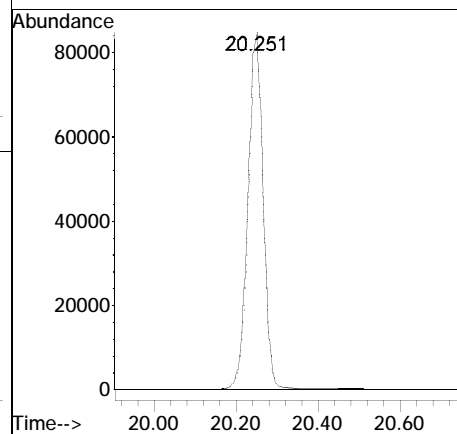
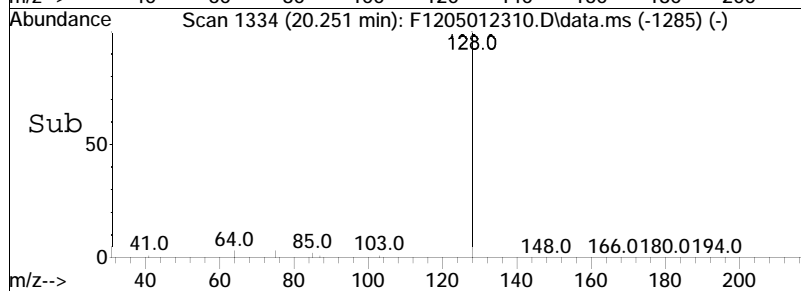
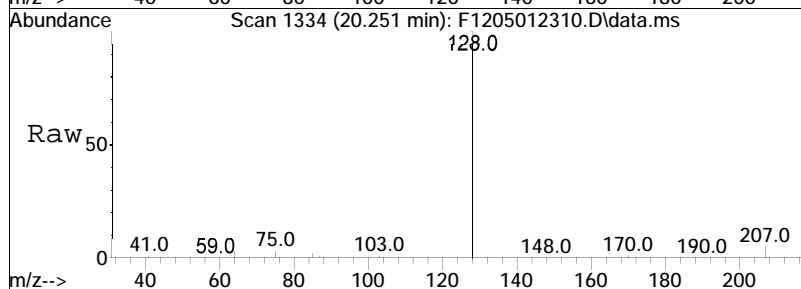
Sub List : ALKPAH_LCS_QC - LCS_spike compounds

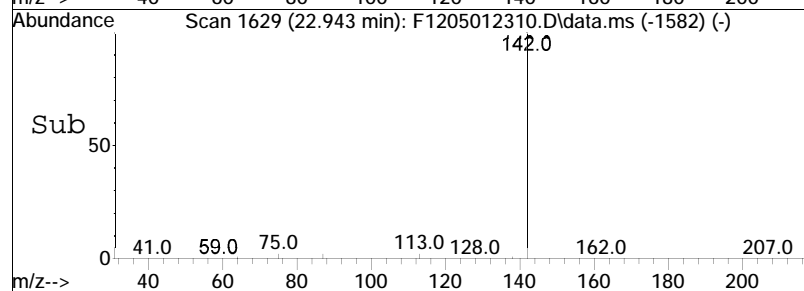
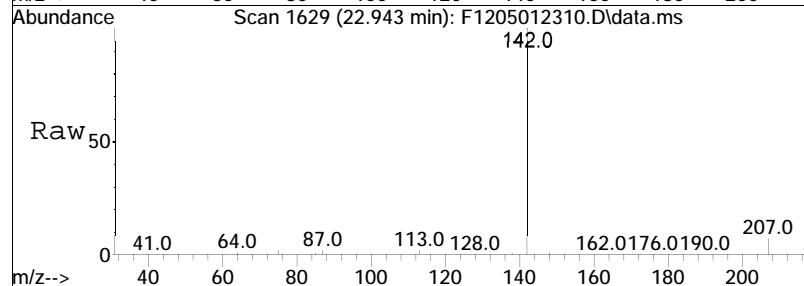
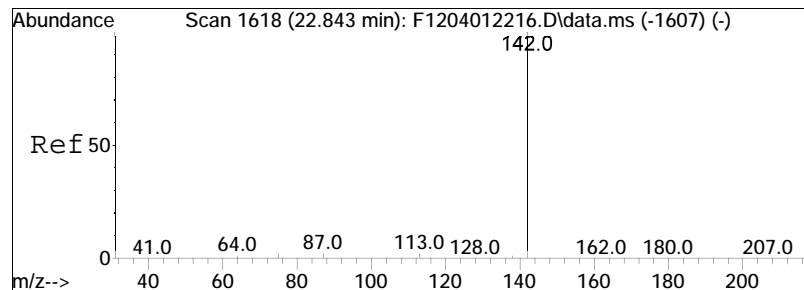




#9
Naphthalene
Concen: 466.92 ng/mL
RT: 20.251 min Scan# 1334
Delta R.T. -0.055 min
Lab File: F1205012310.D
Acq: 1 May 2023 9:33 pm

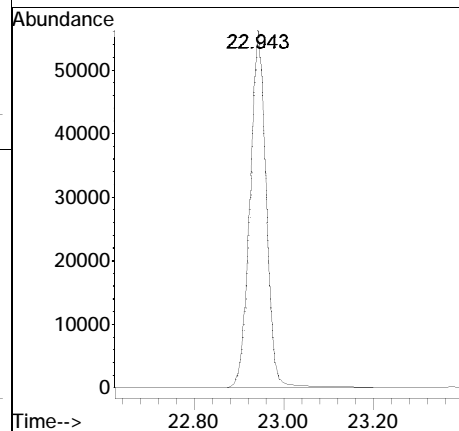
Tgt Ion:128 Resp: 213634

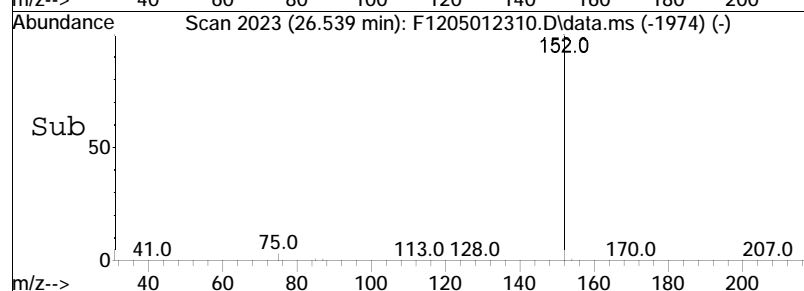
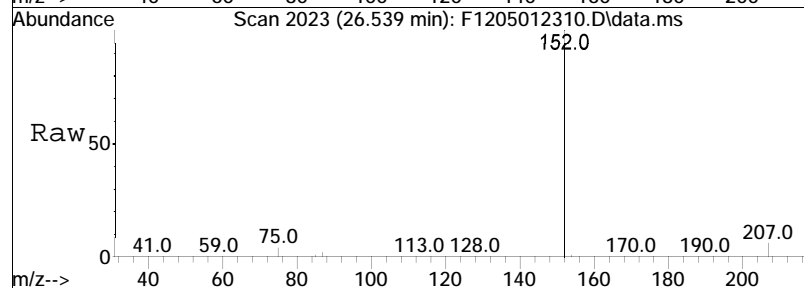
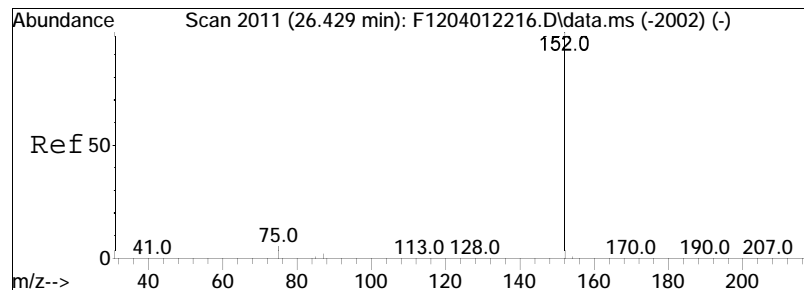




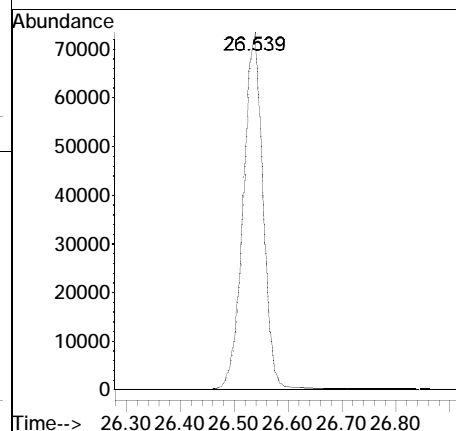
#14
 2-Methylnaphthalene
 Concen: 487.48 ng/mL
 RT: 22.943 min Scan# 1629
 Delta R.T. -0.073 min
 Lab File: F1205012310.D
 Acq: 1 May 2023 9:33 pm

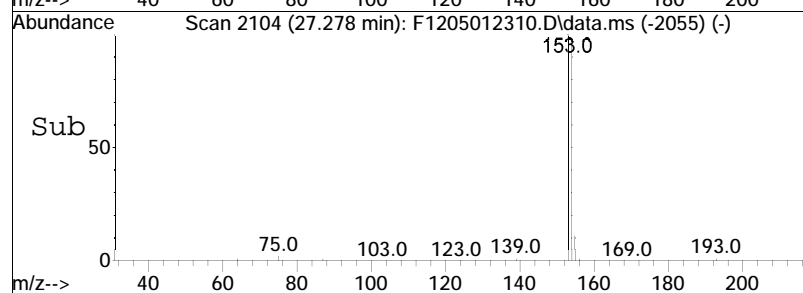
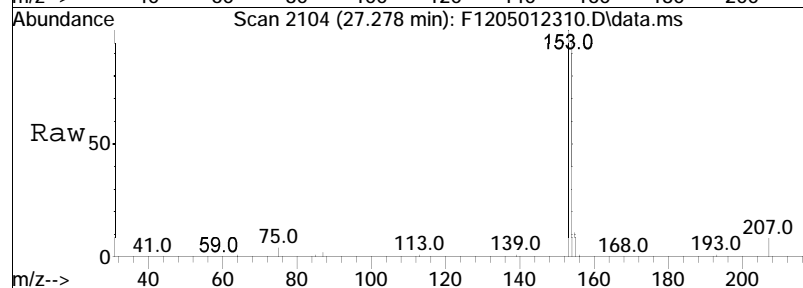
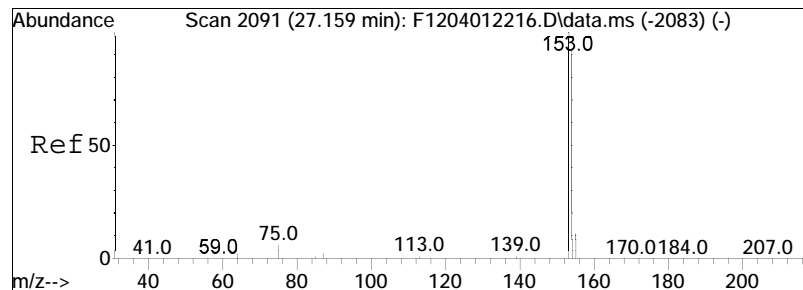
Tgt Ion:142 Resp: 136897





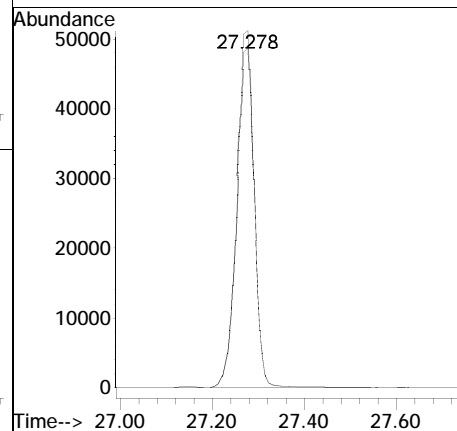
#24
Acenaphthylene
Concen: 466.64 ng/mL
RT: 26.539 min Scan# 2023
Delta R.T. -0.055 min
Lab File: F1205012310.D
Acq: 1 May 2023 9:33 pm
Tgt Ion:152 Resp: 184169

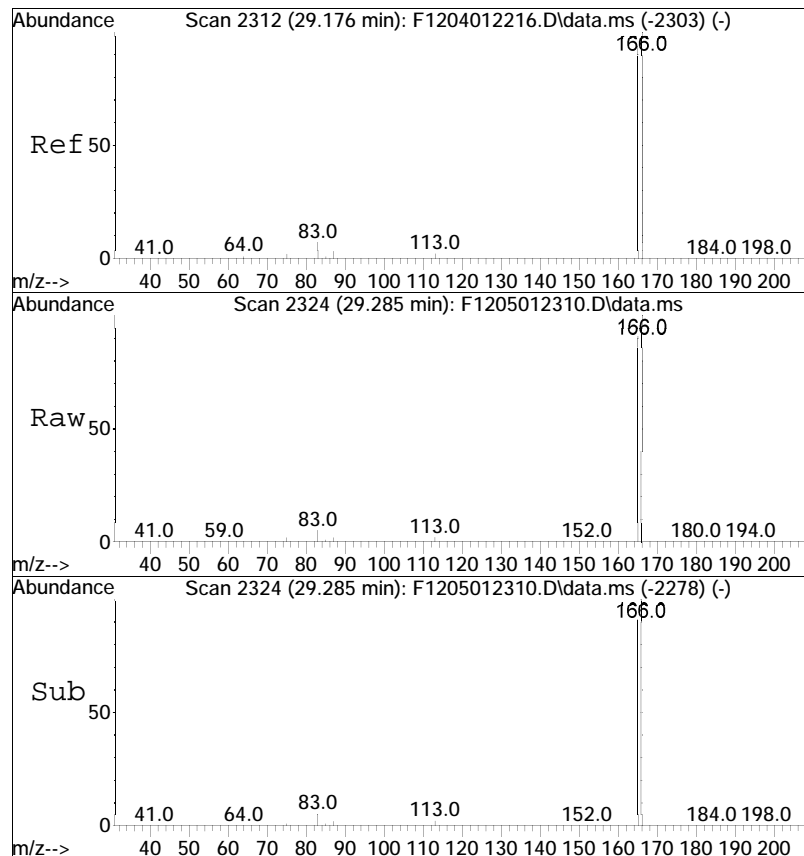




#25
 Acenaphthene
 Concen: 525.02 ng/mL
 RT: 27.278 min Scan# 2104
 Delta R.T. -0.055 min
 Lab File: F1205012310.D
 Acq: 1 May 2023 9:33 pm

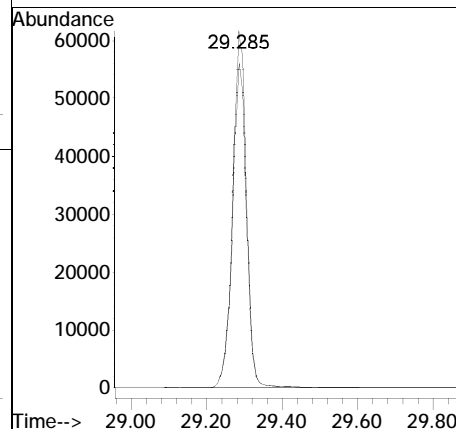
Tgt	Ion	Ratio	Lower	Upper
153	100			
154	94.6	66.2	123.0	

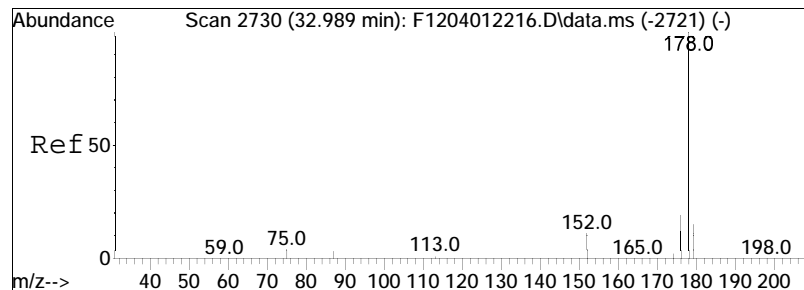




#27
 Fluorene
 Concen: 593.76 ng/mL
 RT: 29.285 min Scan# 2324
 Delta R.T. -0.083 min
 Lab File: F1205012310.D
 Acq: 1 May 2023 9:33 pm

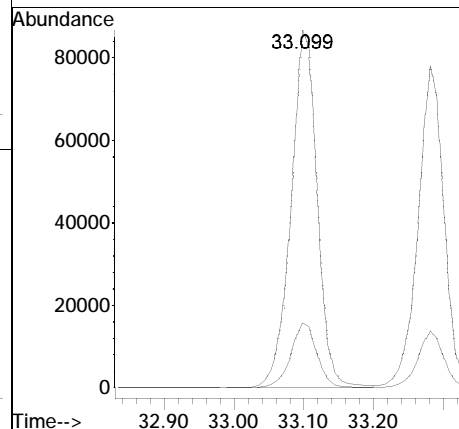
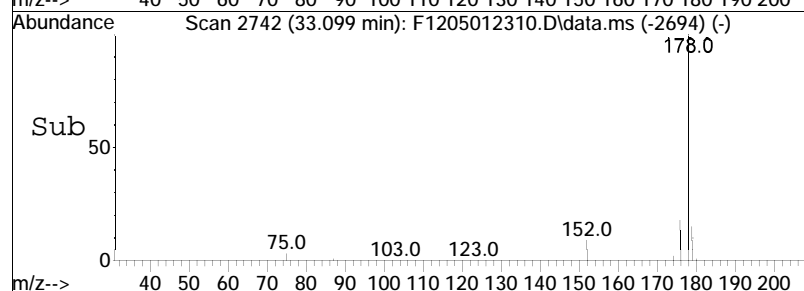
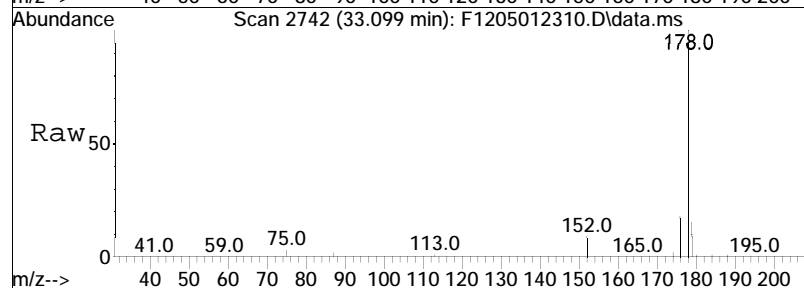
Tgt	Ion	Ratio	Lower	Upper
166	100			
165	90.9	64.6	120.0	

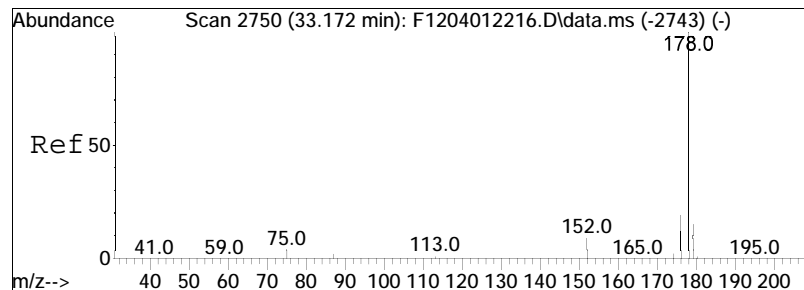




#41
 Phenanthrene
 Concen: 565.49 ng/mL
 RT: 33.099 min Scan# 2742
 Delta R.T. -0.064 min
 Lab File: F1205012310.D
 Acq: 1 May 2023 9:33 pm

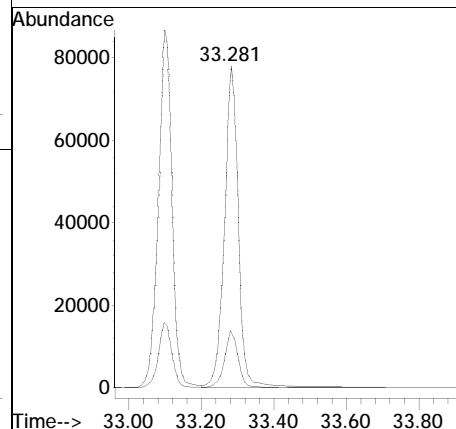
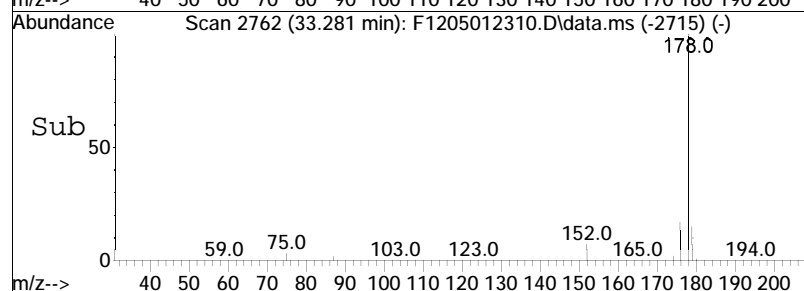
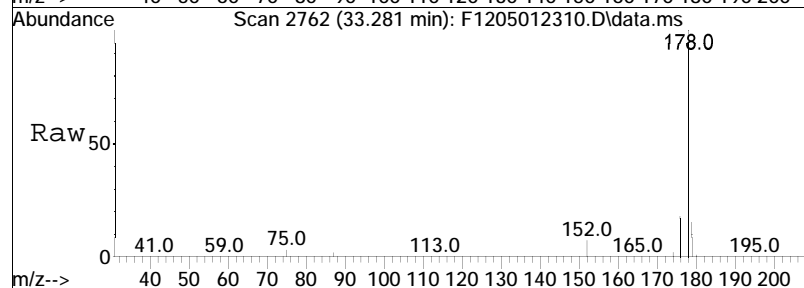
Tgt	Ion	Resp	Lower	Upper
178	100	225130		
176	17.9	12.9	23.9	

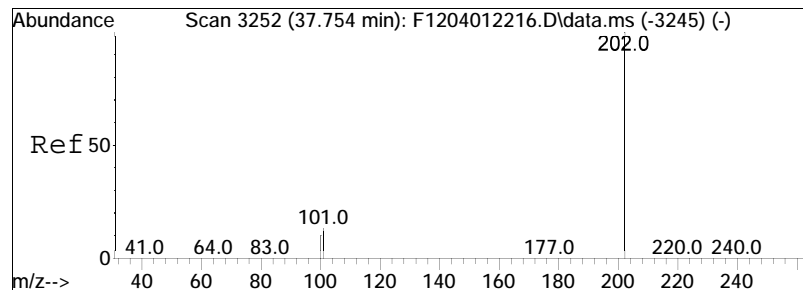




#53
 Anthracene
 Concen: 549.61 ng/mL
 RT: 33.281 min Scan# 2762
 Delta R.T. -0.074 min
 Lab File: F1205012310.D
 Acq: 1 May 2023 9:33 pm

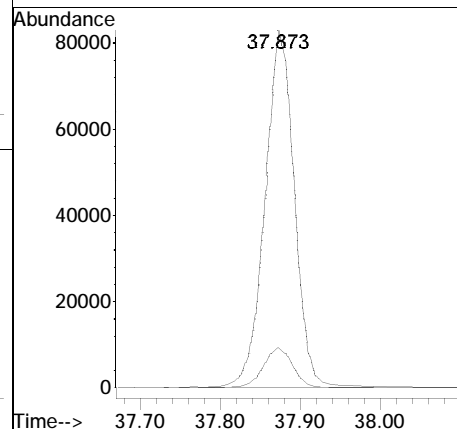
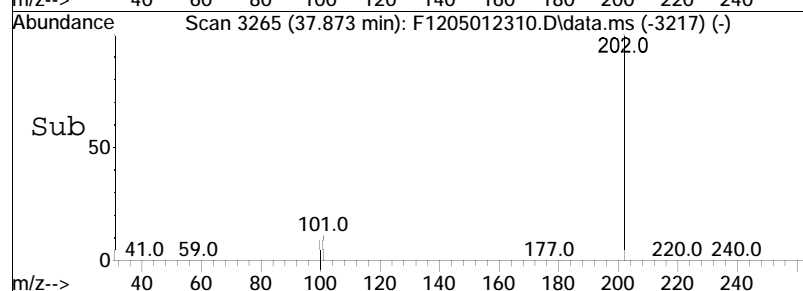
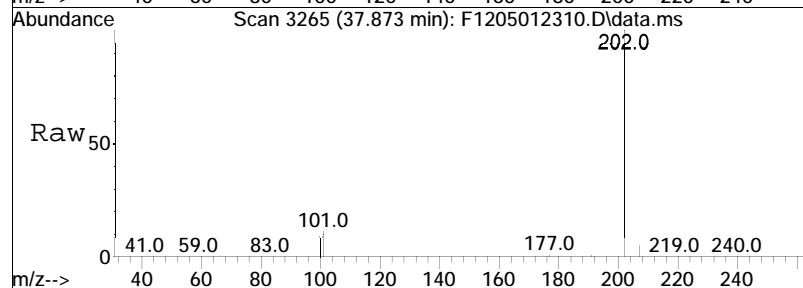
Tgt	Ion	Ratio	Lower	Upper
178	100			
176	17.3	12.2	22.7	

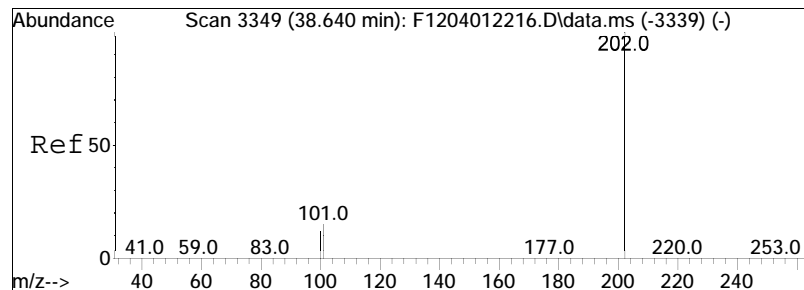




#56
 Fluoranthene
 Concen: 494.39 ng/mL M4
 RT: 37.873 min Scan# 3265
 Delta R.T. -0.064 min
 Lab File: F1205012310.D
 Acq: 1 May 2023 9:33 pm

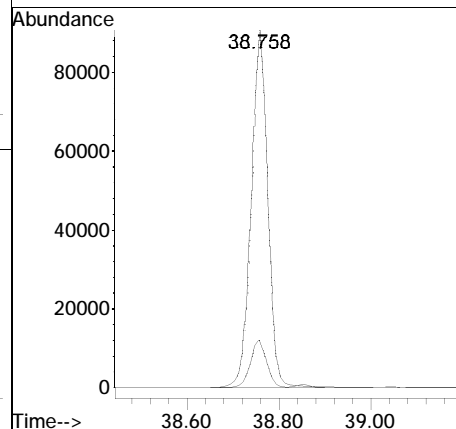
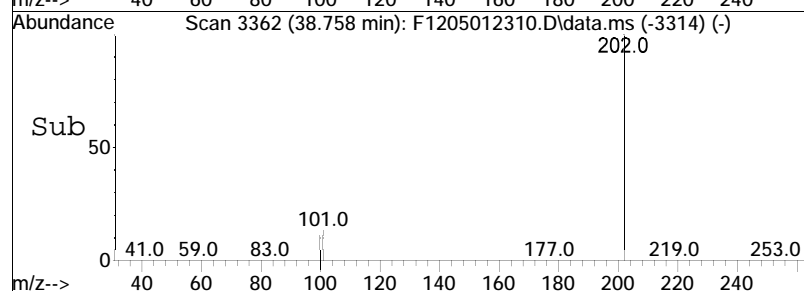
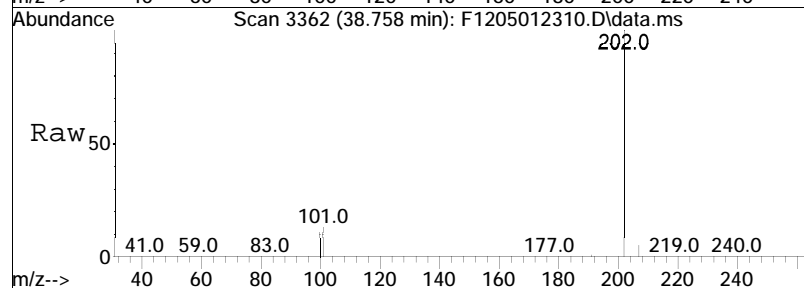
Tgt	Ion	Ratio	Lower	Upper
202	100			
101	11.4	8.1	15.1	

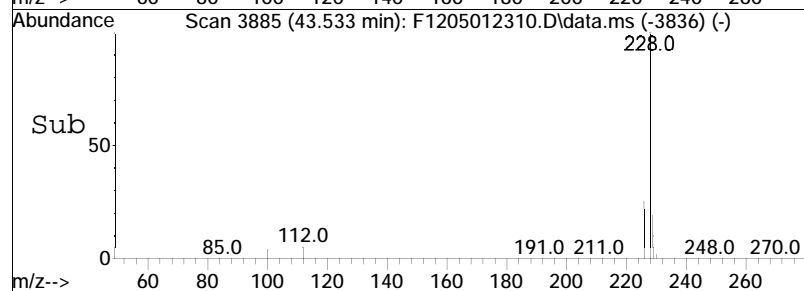
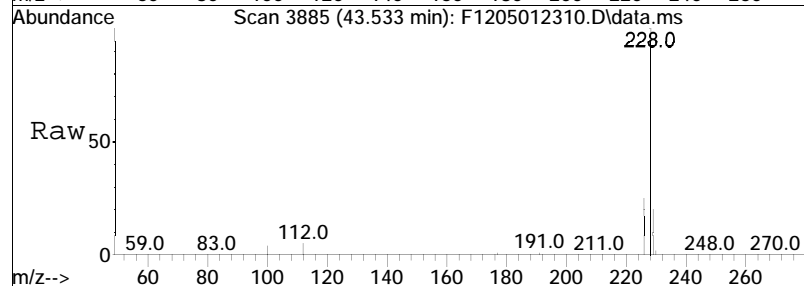
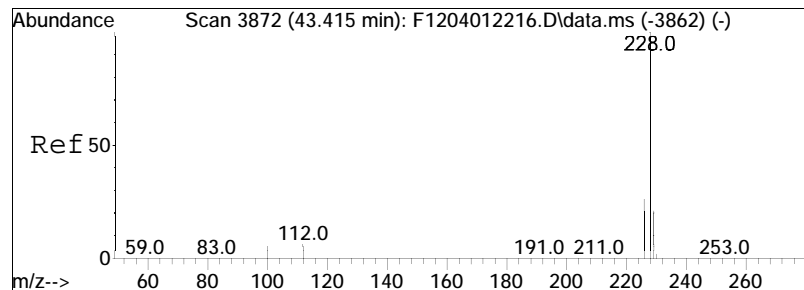




#59
 Pyrene
 Concen: 526.58 ng/mL
 RT: 38.758 min Scan# 3362
 Delta R.T. -0.064 min
 Lab File: F1205012310.D
 Acq: 1 May 2023 9:33 pm

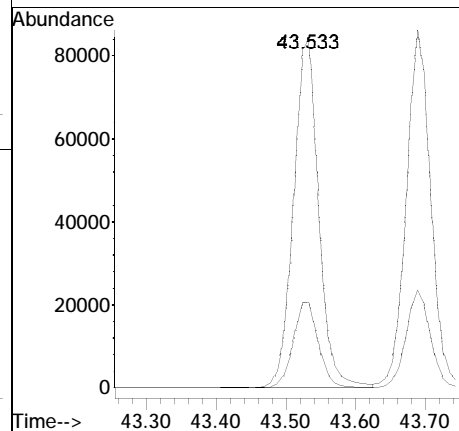
Tgt	Ion	Ratio	Lower	Upper
202	100			
101	13.2	9.4	17.4	

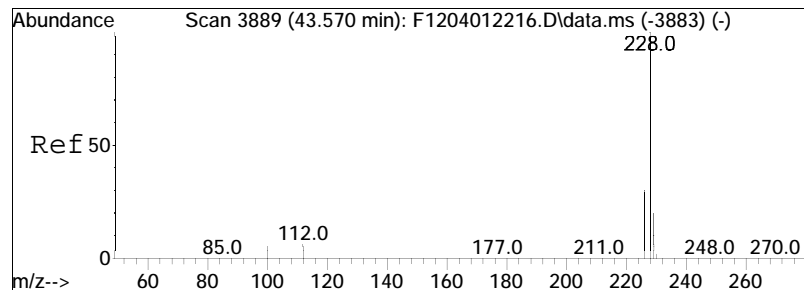




#75
Benz[a]anthracene
Concen: 484.12 ng/mL
RT: 43.533 min Scan# 3885
Delta R.T. -0.055 min
Lab File: F1205012310.D
Acq: 1 May 2023 9:33 pm

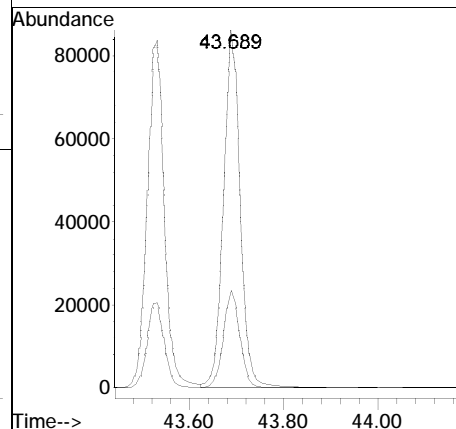
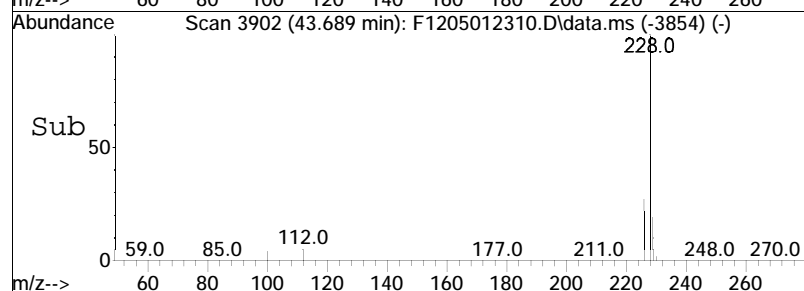
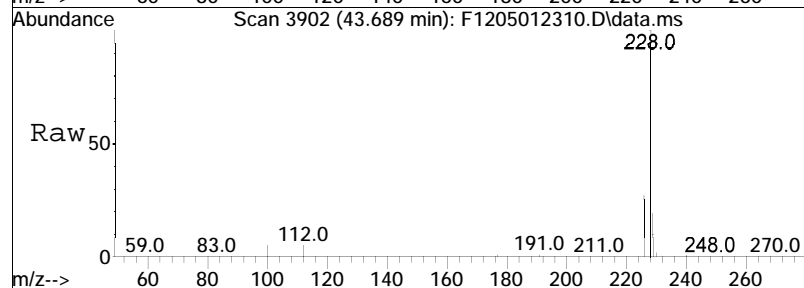
Tgt	Ion	Ratio	Lower	Upper
228	228	100		
226	226	24.5	17.7	32.9

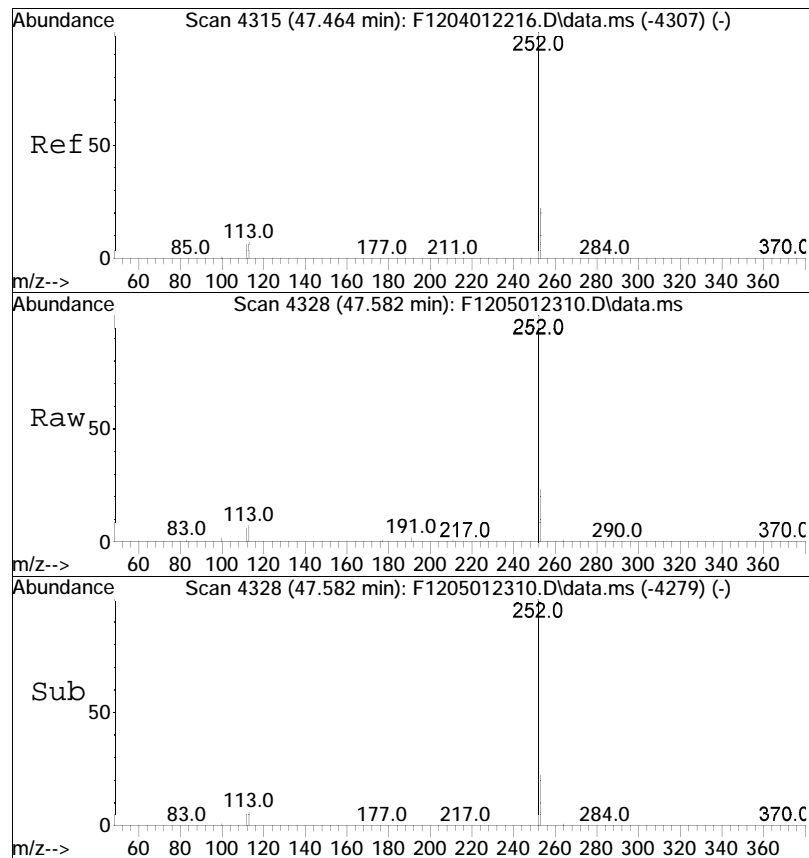




#76
 Chrysene
 Concen: 453.57 ng/mL
 RT: 43.689 min Scan# 3902
 Delta R.T. -0.064 min
 Lab File: F1205012310.D
 Acq: 1 May 2023 9:33 pm

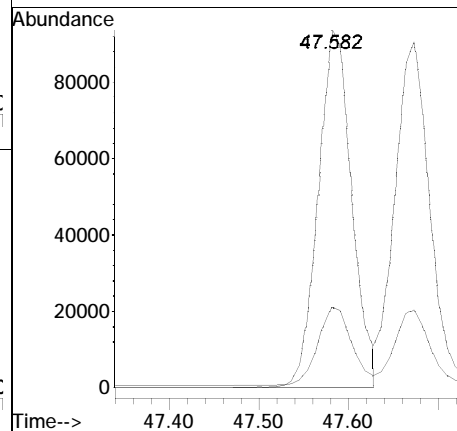
Tgt Ion	Ratio	Lower	Upper
228	100		
226	26.8	19.3	35.9

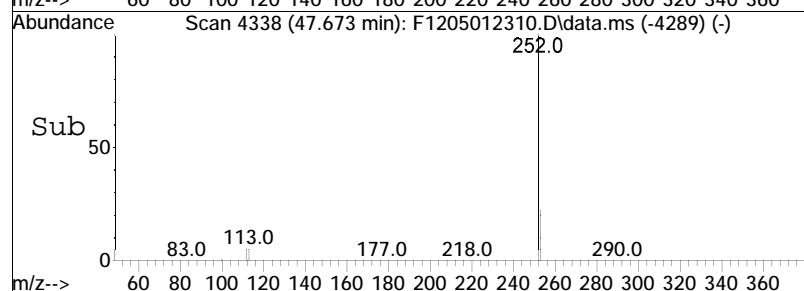
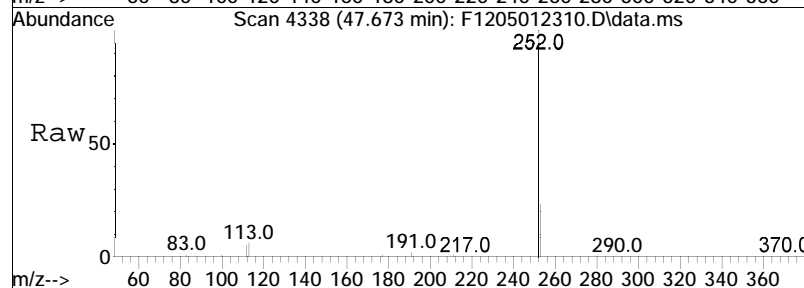
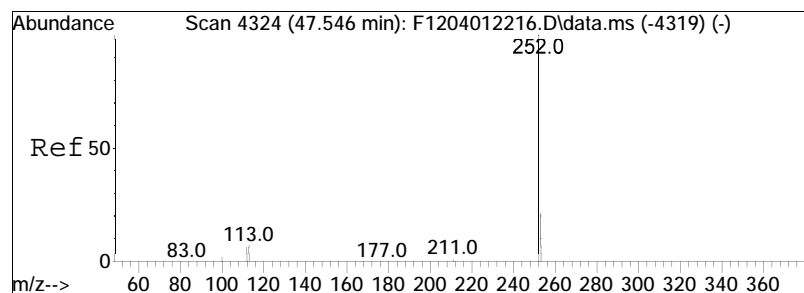




#85
Benzo[b]fluoranthene
Concen: 521.58 ng/mL
RT: 47.582 min Scan# 4328
Delta R.T. -0.055 min
Lab File: F1205012310.D
Acq: 1 May 2023 9:33 pm

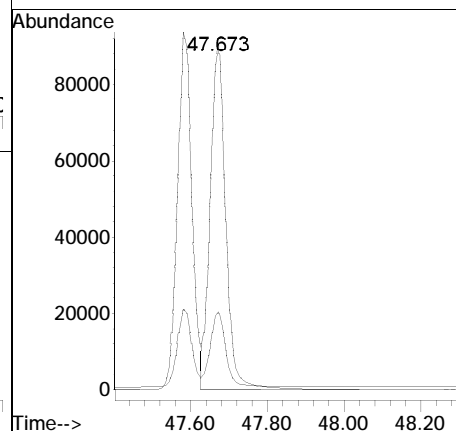
Tgt	Ion	Resp	Lower	Upper
252	100	244158		
253	22.0	16.7	30.9	

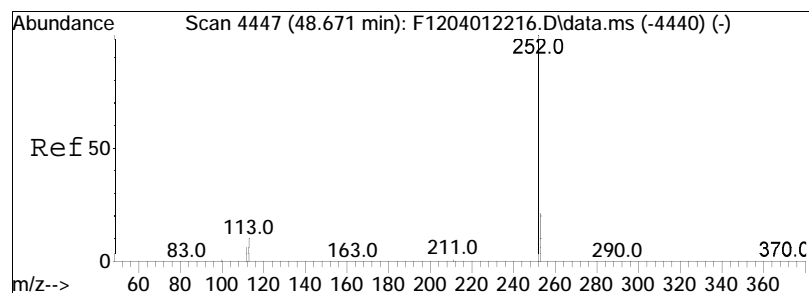




#86
 Benzo[j]+[k]fluoranthene
 Concen: 483.18 ng/mL
 RT: 47.673 min Scan# 4338
 Delta R.T. -0.055 min
 Lab File: F1205012310.D
 Acq: 1 May 2023 9:33 pm

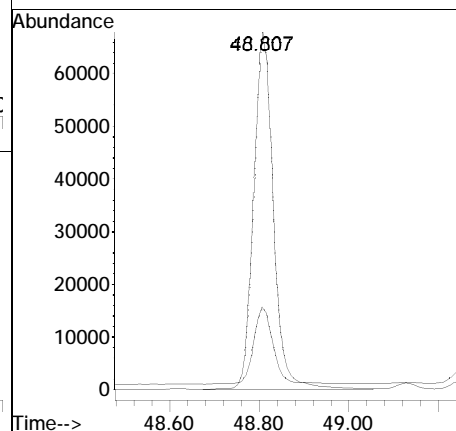
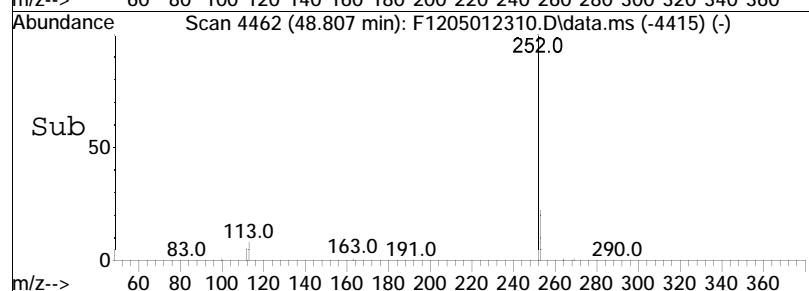
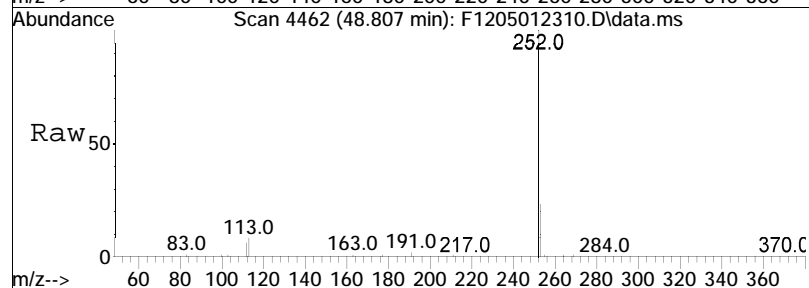
Tgt	Ion	Resp	Lower	Upper
252	100	251798		
253	21.0	16.7	30.9	

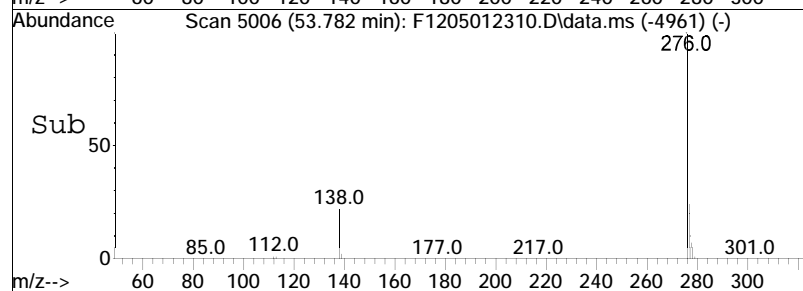
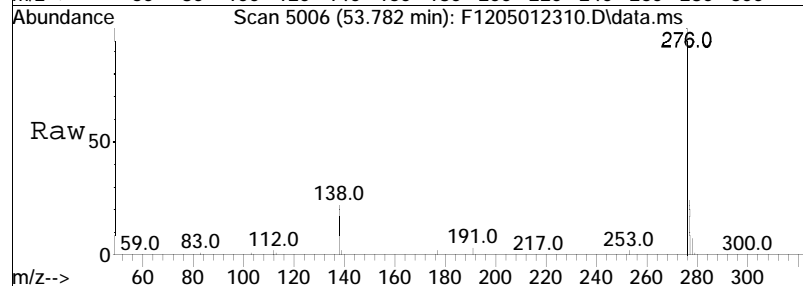
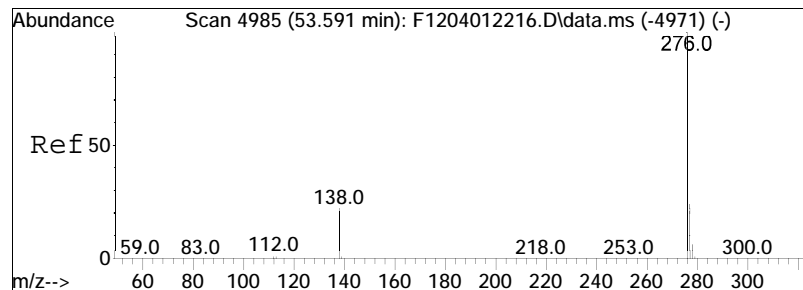




#90
 Benzo[a]pyrene
 Concen: 478.96 ng/mL
 RT: 48.807 min Scan# 4462
 Delta R.T. -0.074 min
 Lab File: F1205012310.D
 Acq: 1 May 2023 9:33 pm

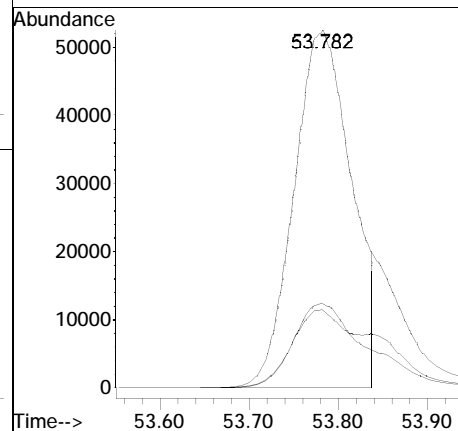
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	21.8	18.0	33.4	

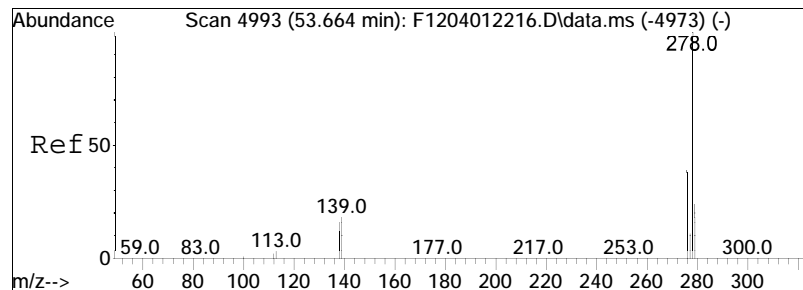




#92
 Indeno[1,2,3-cd]pyrene
 Concen: 550.77 ng/mL M3
 RT: 53.782 min Scan# 5006
 Delta R.T. -0.092 min
 Lab File: F1205012310.D
 Acq: 1 May 2023 9:33 pm

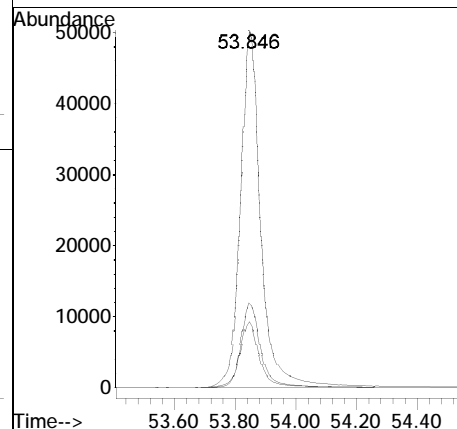
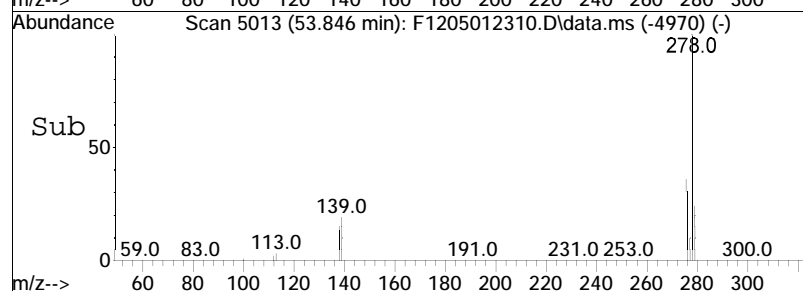
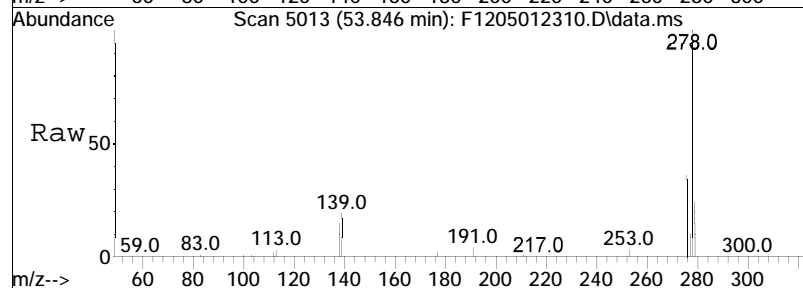
Tgt	Ion	Ratio	Lower	Upper
276	100			
138	33.2	16.2	30.0	#
277	31.0	16.9	31.3	

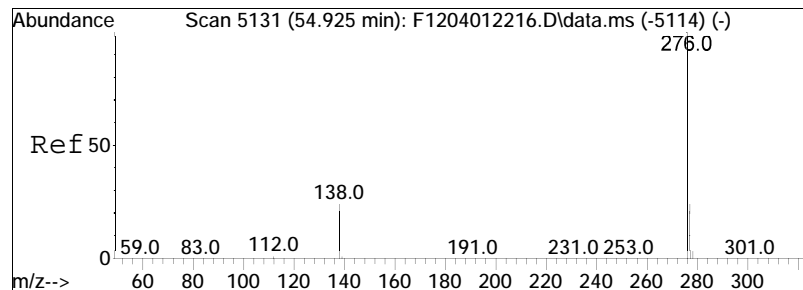




#93
 Dibenz[ah]+[ac]anthracene
 Concen: 619.18 ng/mL
 RT: 53.846 min Scan# 5013
 Delta R.T. -0.110 min
 Lab File: F1205012310.D
 Acq: 1 May 2023 9:33 pm

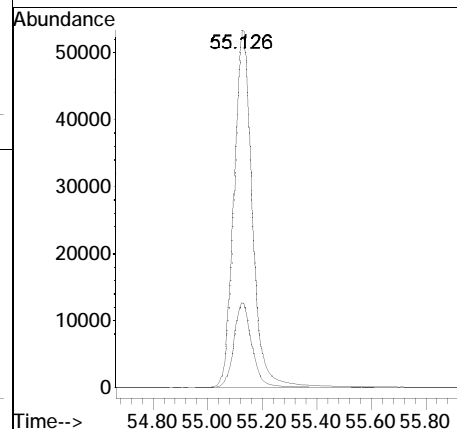
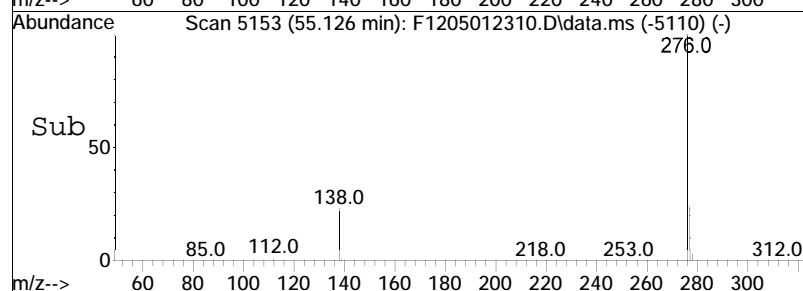
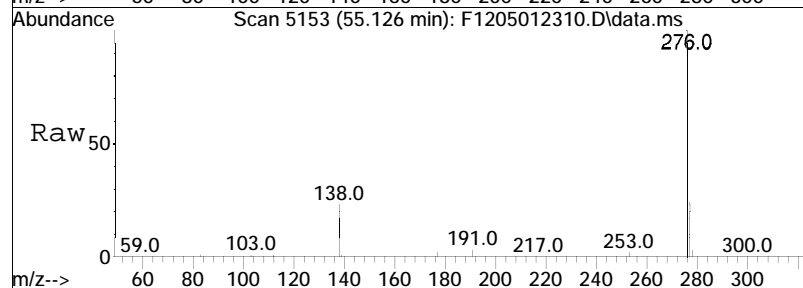
Tgt Ion	Ratio	Lower	Upper
278	100		
139	17.8	13.9	25.7
279	23.1	17.1	31.7





#94
 Benzo[g,h,i]perylene
 Concen: 507.46 ng/mL
 RT: 55.126 min Scan# 5153
 Delta R.T. -0.110 min
 Lab File: F1205012310.D
 Acq: 1 May 2023 9:33 pm

Tgt Ion: 276 Resp: 244675
 Ion Ratio Lower Upper
 276 100
 277 23.6 16.6 30.8



Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252327.D
 Acq On : 26 Apr 2023 8:12 pm
 Operator : PAH8:CNC
 Sample : WG1769534-4,32,,
 Misc : WG1771474,WG1769534,ICAL19944
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 01 14:37:28 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

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

Internal Standards						
1) Acenaphthene-d10	27.506	164	30515	500.000	ng/mL	0.00
74) Chrysene-d12	43.981	240	38385	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.498	136	29197	217.078	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	21.71%#		
40) Phenanthrene-d10	33.391	188	21287	247.993	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	24.80%#		
83) Benzo[b]fluoranthene-d12	47.929	264	18295	238.796	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	23.88%#		
88) Benzo[a]pyrene-d12	49.200	264	16701	276.808	ng/mL	0.00
Spiked Amount 1000.000	Range 50 - 130		Recovery =	27.68%#		
Target Compounds						
						Qvalue
2) trans-Decalin	17.130	138	68066	2675.515	ng/mL	100
3) cis-Decalin	18.353	138	6040M4	299.995	ng/mL	
4) C1-Decalins	19.074	152	288557M5	11342.498	ng/mL	
5) C2-Decalins	20.416	166	435940M5	17135.778	ng/mL	
6) C3-Decalins	22.898	180	264970M5	10415.348	ng/mL	
7) C4-Decalins	25.188	194	264719M5	10405.482	ng/mL	
9) Naphthalene	20.580	128	19384	131.433	ng/mL	100
10) C1-Naphthalenes	23.710	142	30681M5	208.032	ng/mL	
11) C2-Naphthalenes	25.800	156	2480592M5	16819.579	ng/mL	
12) C3-Naphthalenes	28.491	170	2955014M5	20036.383	ng/mL	
13) C4-Naphthalenes	31.247	184	1518176M5	10293.946	ng/mL	
14) 2-Methylnaphthalene	23.290	142	837M3	8.594	ng/mL	
15) 1-Methylnaphthalene	23.710	142	20800M4	233.761	ng/mL	
16) Benzothiophene	20.799	134	2238	17.226	ng/mL	100
17) C1-Benzo(b)thiophenes	23.144	148	126824M5	976.153	ng/mL	
18) C2-Benzo(b)thiophenes	26.338	162	111812M5	860.607	ng/mL	
19) C3-Benzo(b)thiophenes	28.318	176	216378M5	1665.443	ng/mL	
21) Biphenyl	25.143	154	709M4	6.097	ng/mL	
22) 2,6-Dimethylnaphthalene	25.800	156	925267	11902.275	ng/mL	100
23) Dibenzofuran	28.273	168	20769	182.256	ng/mL#	46
24) Acenaphthylene	26.886	152	16739M4	121.663	ng/mL	
25) Acenaphthene	27.634	153	204928	2318.789	ng/mL	98
26) 2,3,5-Trimethylnaphthalen	29.185	170	192073M3	2984.632	ng/mL	
27) Fluorene	29.650	166	182493	1970.047	ng/mL	89

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252327.D
 Acq On : 26 Apr 2023 8:12 pm
 Operator : PAH8:CNC
 Sample : WG1769534-4,32,,
 Misc : WG1771474,WG1769534,ICAL19944
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 01 14:37:28 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) C1-Fluorenes	32.022	180	281326M5	3036.968	ng/mL	
29) C2-Fluorenes	34.066	194	348769M5	3765.028	ng/mL	
30) C3-Fluorenes	36.047	208	246233M5	2658.132	ng/mL	
31) Dibenzothiophene	32.980	184	8685	65.955	ng/mL#	1
36) C1-Dibenzothiophenes	34.760	198	163910M5	1244.759	ng/mL	
36) C1-Dibenzothiophenes BS	34.760	198	163910M5	1244.759	ng/mL	
37) C2-Dibenzothiophenes	36.805	212	194941M5	1480.413	ng/mL	
38) C3-Dibenzothiophenes	38.238	226	131536M5	998.906	ng/mL	
39) C4-Dibenzothiophenes	39.918	240	61595M5	467.762	ng/mL	
41) Phenanthrene	33.482	178	5096M3	39.856	ng/mL	
47) C1-Phenanthrenes/Anthrace	35.435	192	282319M5	2208.039	ng/mL	
48) C2-Phenanthrenes/Anthrace	37.708	206	539808M5	4221.881	ng/mL	
48) C2-Phenanthrenes/Anthr BS	37.708	206	539808M5	4221.881	ng/mL	
50) C3-Phenanthrenes/Anthrace	39.544	220	331009M5	2588.847	ng/mL	
51) C4-Phenanthrenes/Anthrace	41.717	234	120140M5	939.624	ng/mL	
52) Retene	0.000		0	N.D.	d	
53) Anthracene	33.665	178	20668M4	184.412	ng/mL	
54) Carbazole	34.303	167	7024	52.657	ng/mL#	66
55) 1-Methylphenanthrene	35.983	192	78545	931.142	ng/mL	91
56) Fluoranthene	38.256	202	18280M4	142.375	ng/mL	
57) Benzo(b)fluorene	40.776	216	5958	86.152	ng/mL	90
59) Pyrene	39.151	202	49868	388.169	ng/mL	98
63) C1-Fluoranthenes/Pyrenes	40.941	216	91847M5	714.931	ng/mL	
64) C2-Fluoranthenes/Pyrenes	42.995	230	90864M5	707.280	ng/mL	
65) C3-Fluoranthenes/Pyrenes	44.456	244	59964M5	466.756	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.697	258	29659M5	230.864	ng/mL	
70) C1-Naphthobenzothiophenes	44.383	248	15754M5	125.490	ng/ml	
71) C2-Naphthobenzothiophenes	45.889	262	14436M5	114.991	ng/ml	
72) C3-Naphthobenzothiophenes	48.029	276	8614M5	68.616	ng/ml	
73) C4-Naphthobenzothiophenes	49.173	290	5636M5	44.894	ng/mL	
75) Benz[a]anthracene	43.917	228	10664M4	95.083	ng/mL	
76) Chrysene	44.081	228	18771	164.568	ng/mL	95
78) C1-Chrysenes	45.551	242	37752M5	330.977	ng/mL	
79) C2-Chrysenes	47.261	256	40718M5	356.980	ng/mL	
79) C2-Chrysenes BS	47.261	256	39804M5	348.967	ng/mL	
81) C3-Chrysenes	48.953	270	29122M5	255.317	ng/mL	
82) C4-Chrysenes	50.535	284	13001M5	113.982	ng/mL	
84) Benzo[b]fluoranthene	48.020	252	2719	20.515	ng/mL	96
85) Benzo[j]+[k]fluoranthene	48.093	252	1949	14.590	ng/mL	90

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
 Data File : F804252327.D
 Acq On : 26 Apr 2023 8:12 pm
 Operator : PAH8:CNC
 Sample : WG1769534-4,32,,
 Misc : WG1771474,WG1769534,ICAL19944
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 01 14:37:28 2023
 Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
 Quant Title : Decalins & Alkylated PAH's
 QLast Update : Mon Apr 24 05:27:42 2023
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) Benzo[a]fluoranthene	48.423	252	564M3	4.222	ng/mL	
87) Benzo[e]pyrene	49.090	252	5399	42.111	ng/mL	99
89) Benzo[a]pyrene	49.291	252	5585	45.693	ng/mL	93
90) Perylene	49.630	252	1692	13.723	ng/mL	90
91) Indeno[1,2,3-cd]pyrene	54.495	276	1740M3	11.637	ng/mL	
92) Dibenz[ah]+[ac]anthracene	54.550	278	585M4	4.737	ng/mL	
93) Benzo[g,h,i]perylene	55.921	276	3469	23.271	ng/mL	95

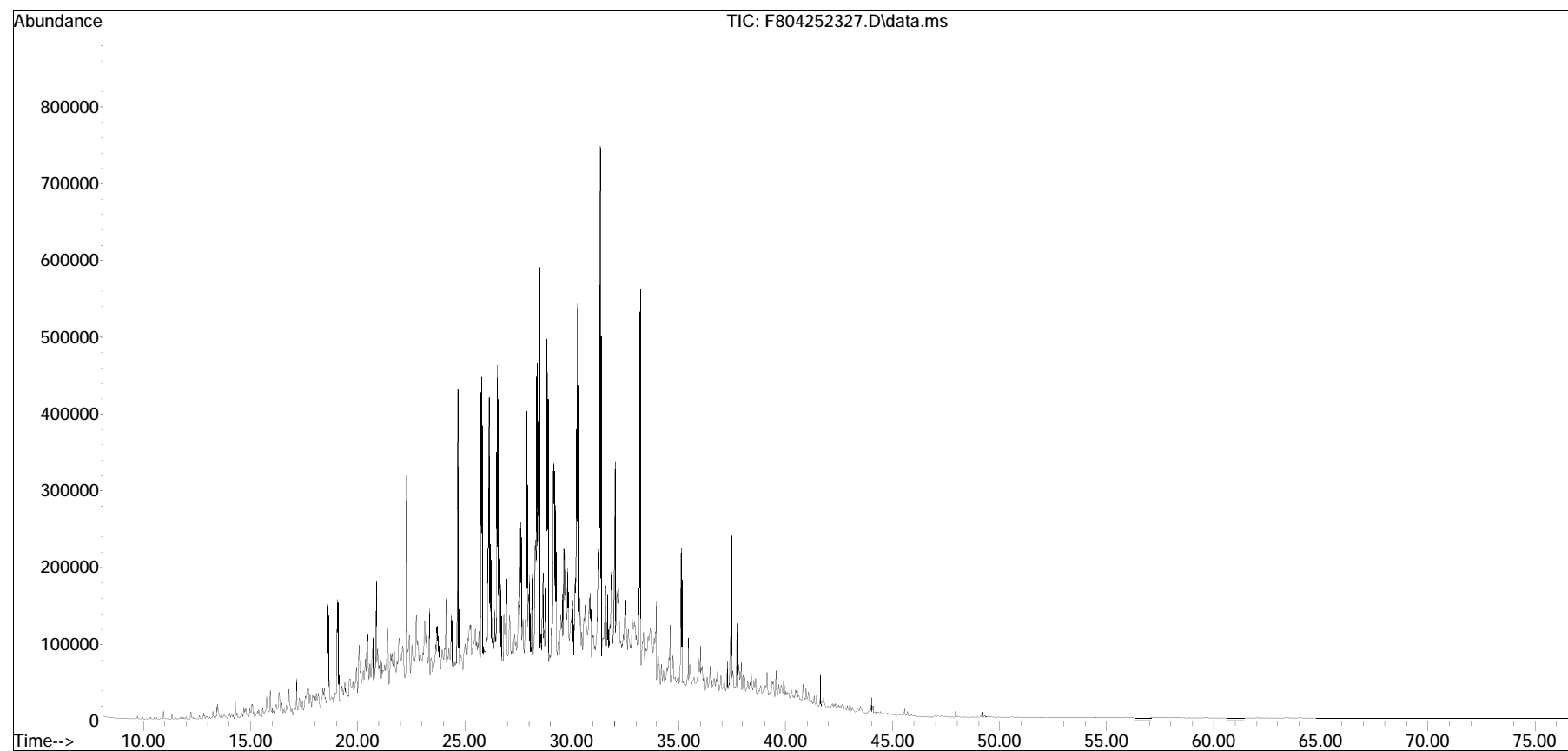
(#) = qualifier out of range (m) = manual integration (+) = signals summed

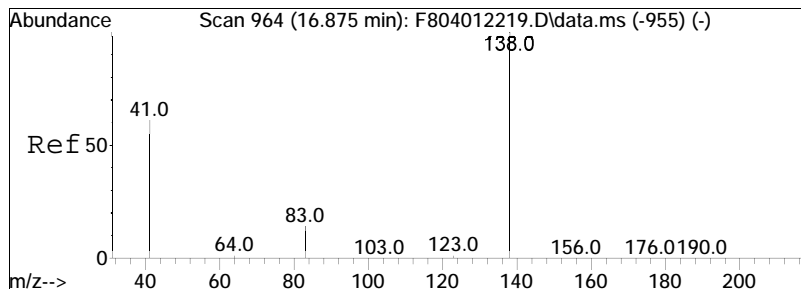
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH8\2023\APR23\APR25\
Data File : F804252327.D
Acq On : 26 Apr 2023 8:12 pm
Operator : PAH8:CNC
Sample : WG1769534-4,32,,
Misc : WG1771474,WG1769534,ICAL19944
ALS Vial : 26 Sample Multiplier: 1

Quant Time: May 01 14:37:28 2023
Quant Method : O:\Forensics\Data\PAH8\2023\APR23\APR25\PAH8041923.M
Quant Title : Decalins & Alkylated PAH's
QLast Update : Mon Apr 24 05:27:42 2023
Response via : Initial Calibration

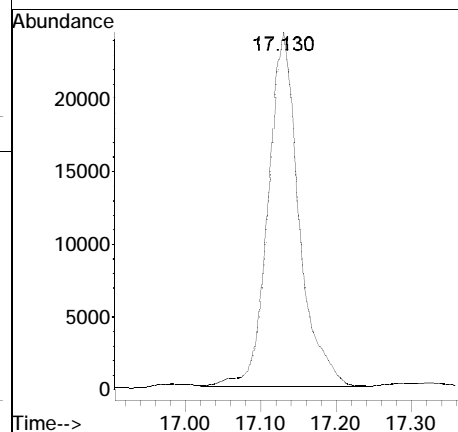
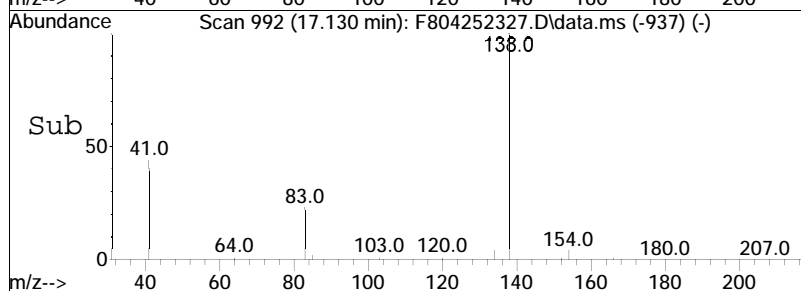
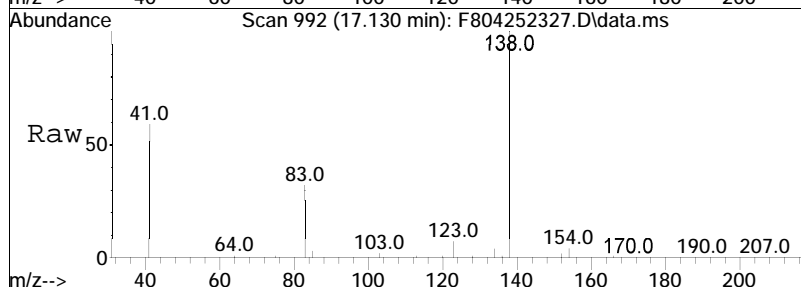
Sub List : ALKPAH - POI+MP+BcF

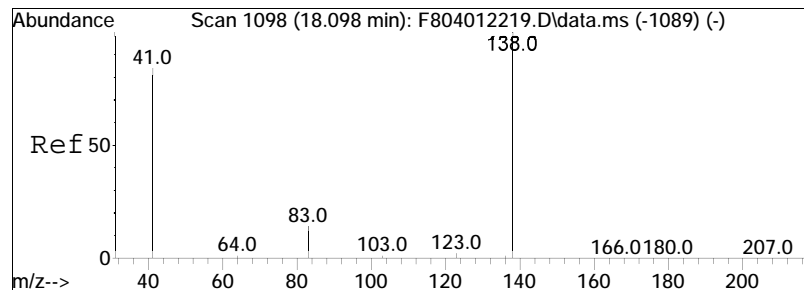




#2
 trans-Decalin
 Concen: 2675.51 ng/mL
 RT: 17.130 min Scan# 992
 Delta R.T. -0.000 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

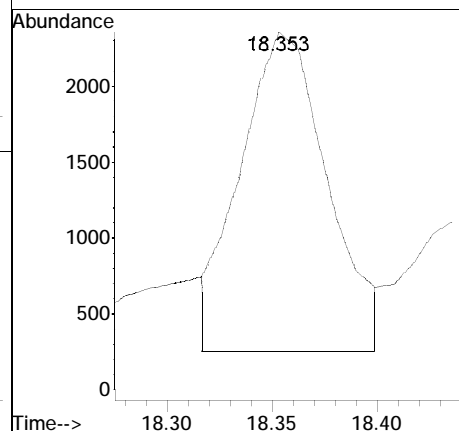
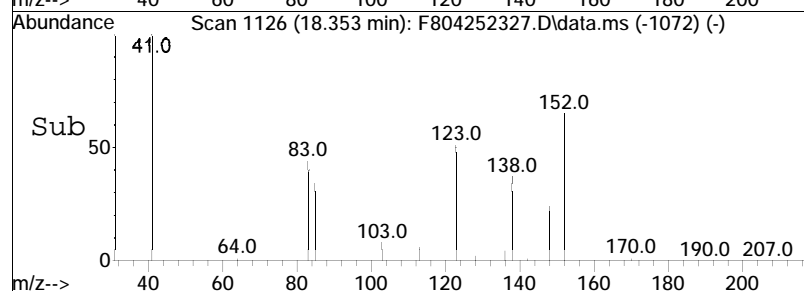
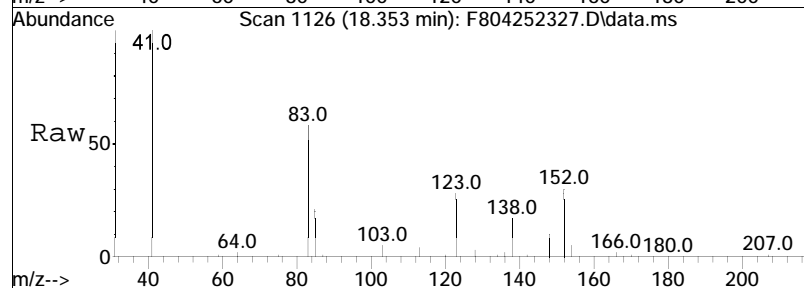
Tgt Ion:138 Resp: 68066

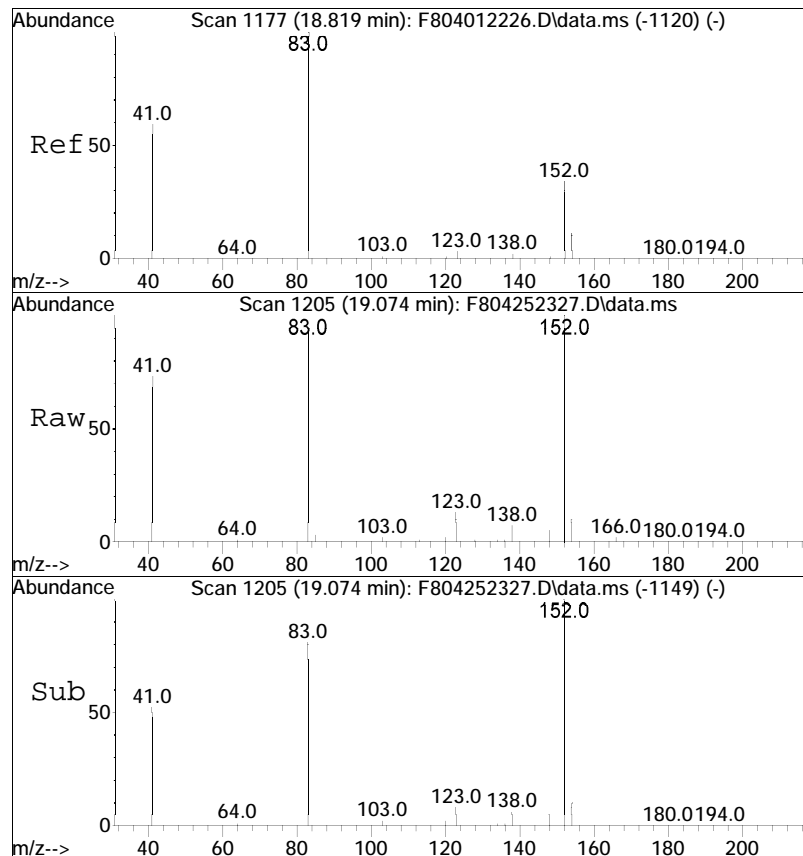




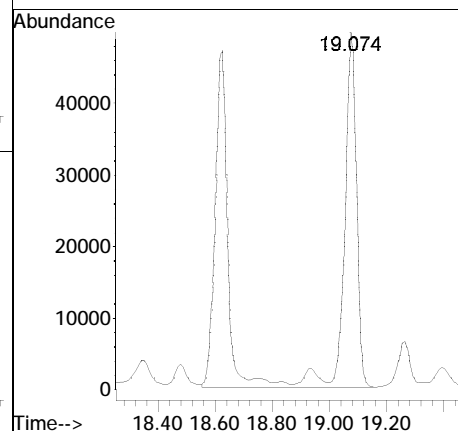
#3
 cis-Decalin
 Concen: 300.00 ng/mL M4
 RT: 18.353 min Scan# 1126
 Delta R.T. -0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

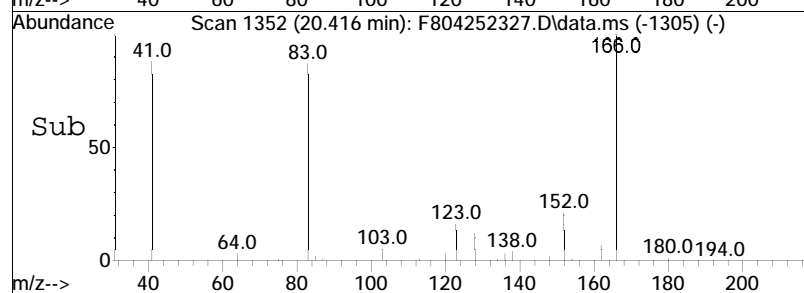
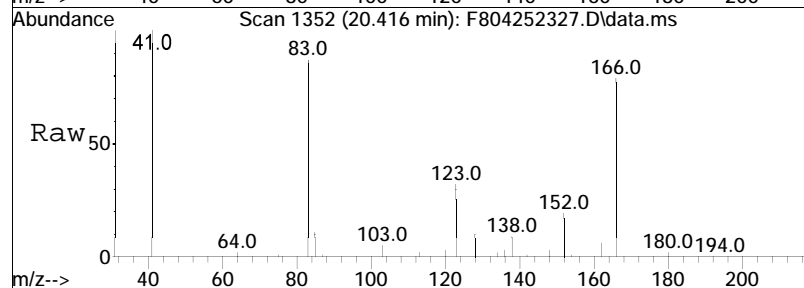
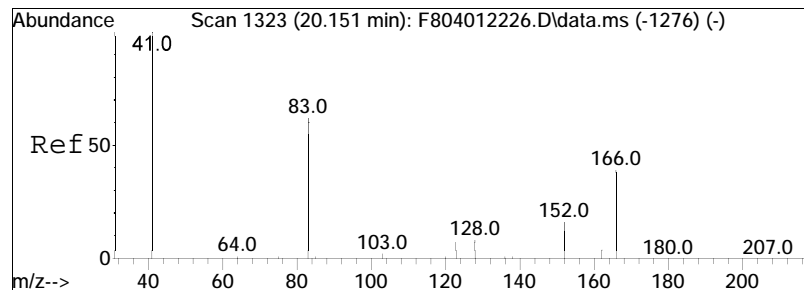
Tgt Ion:138 Resp: 6040



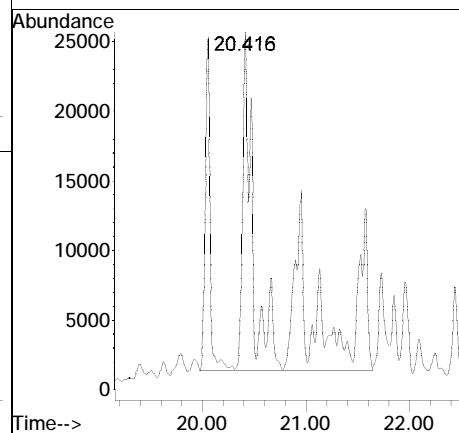


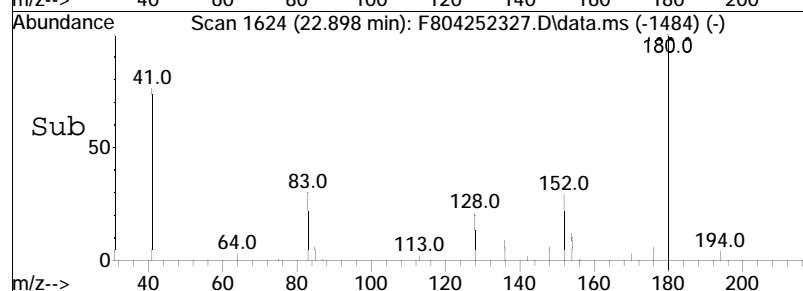
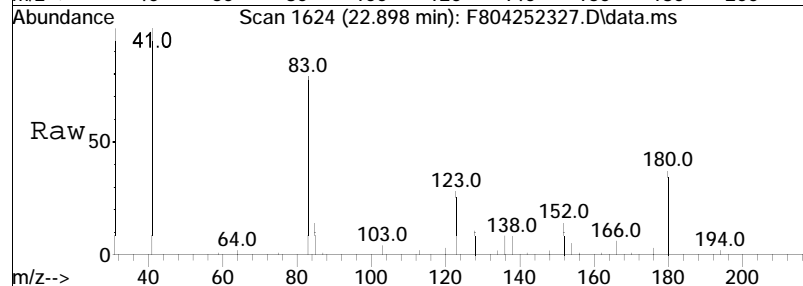
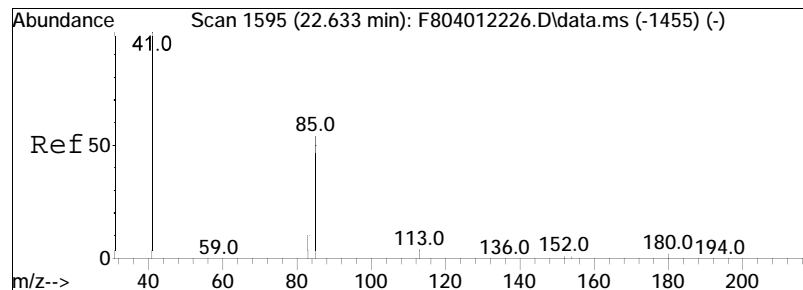
#4
 Cl-Decalins
 Concen: 11342.50 ng/mL M5
 RT: 19.074 min Scan# 1205
 Delta R.T. -0.010 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm
 Tgt Ion:152 Resp: 288557





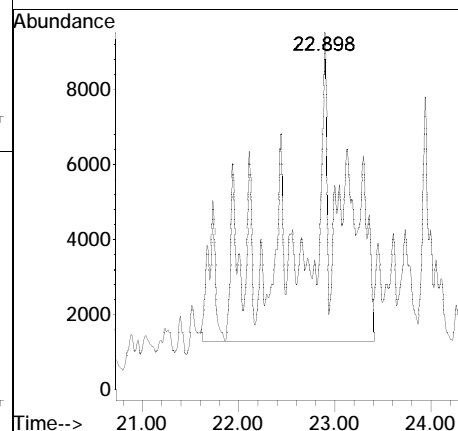
#5
 C2-Decalins
 Concen: 17135.78 ng/mL M5
 RT: 20.416 min Scan# 1352
 Delta R.T. -0.002 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm
 Tgt Ion:166 Resp: 435940

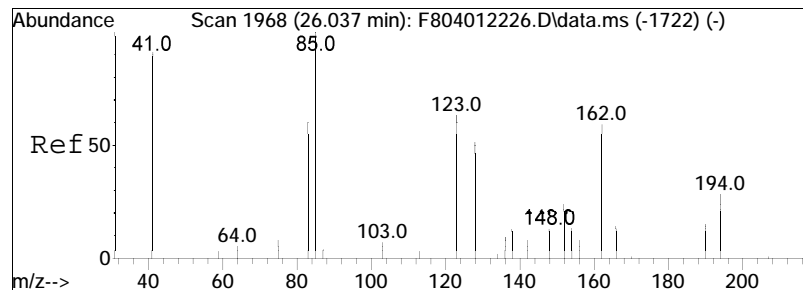




#6
C3-Decalins
Concen: 10415.35 ng/mL M5
RT: 22.898 min Scan# 1624
Delta R.T. -0.005 min
Lab File: F804252327.D
Acq: 26 Apr 2023 8:12 pm

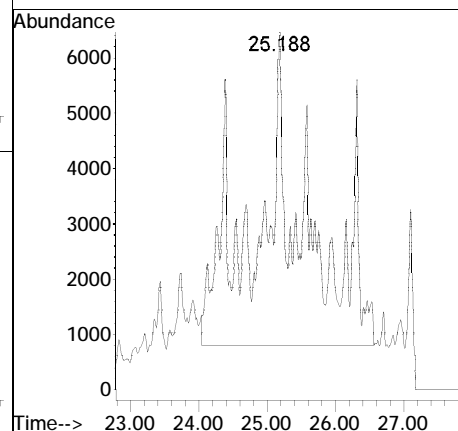
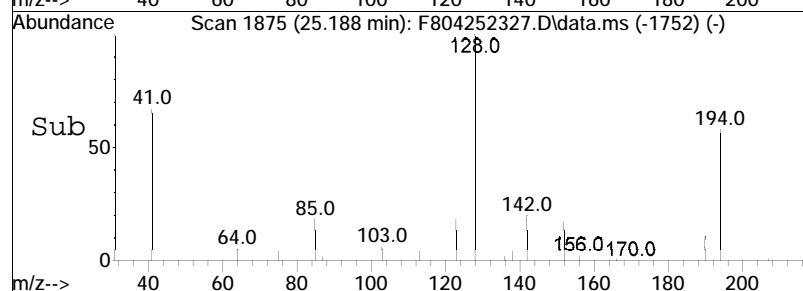
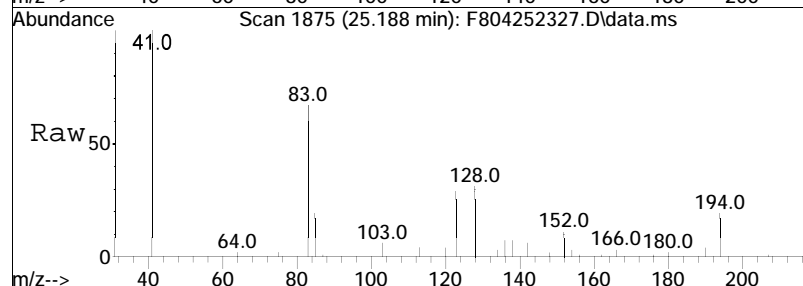
Tgt Ion:180 Resp: 264970

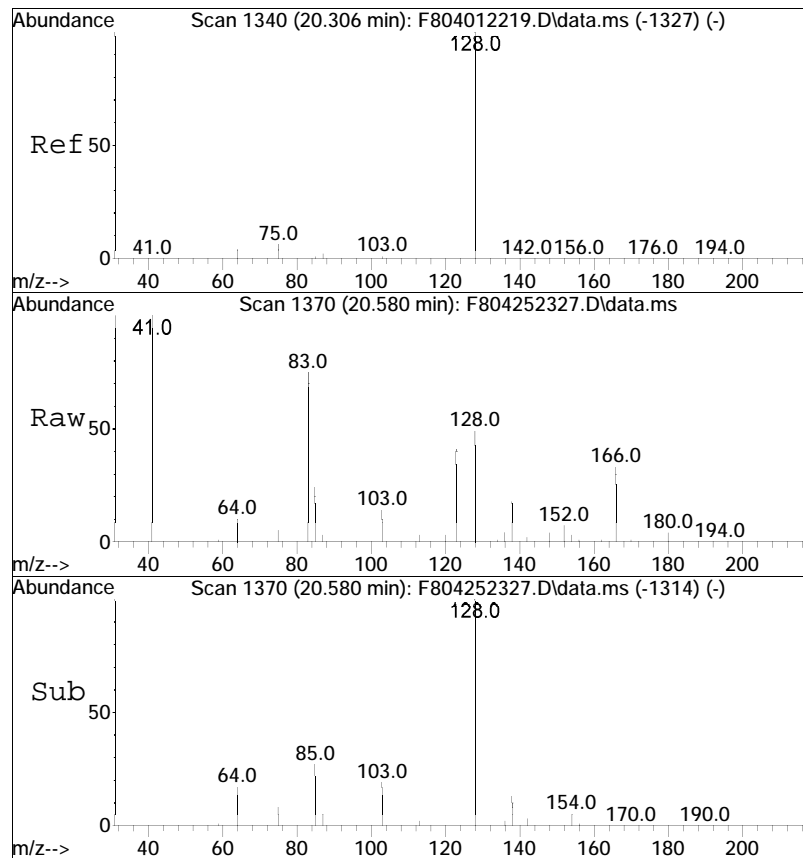




#7
 C4-Decalins
 Concen: 10405.48 ng/mL M5
 RT: 25.188 min Scan# 1875
 Delta R.T. -1.122 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

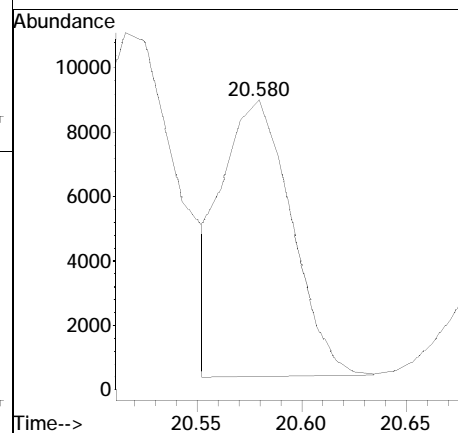
Tgt Ion:194 Resp: 264719

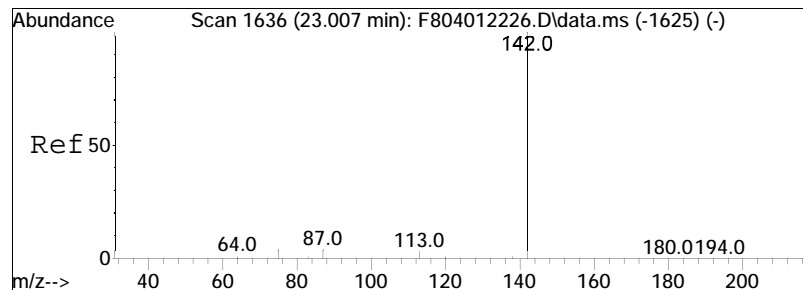




#9
 Naphthalene
 Concen: 131.43 ng/mL
 RT: 20.580 min Scan# 1370
 Delta R.T. 0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

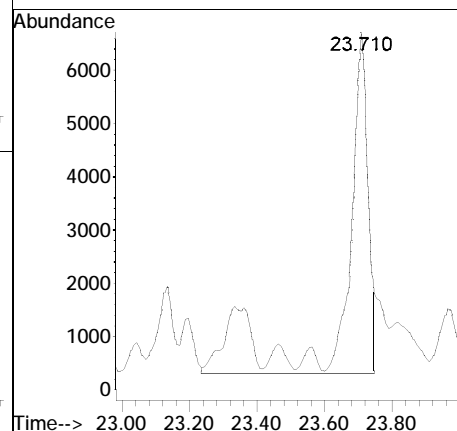
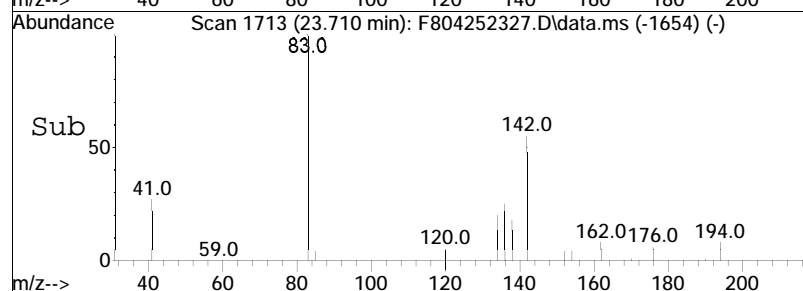
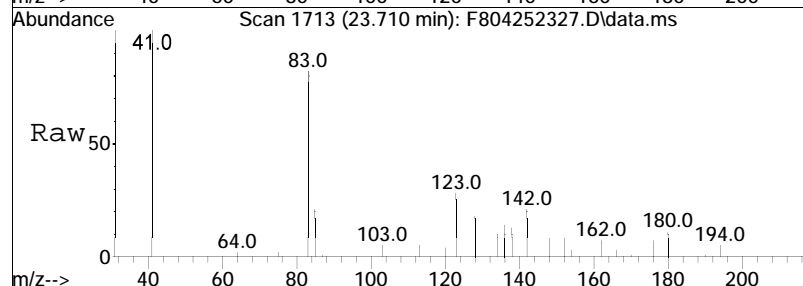
Tgt Ion:128 Resp: 19384

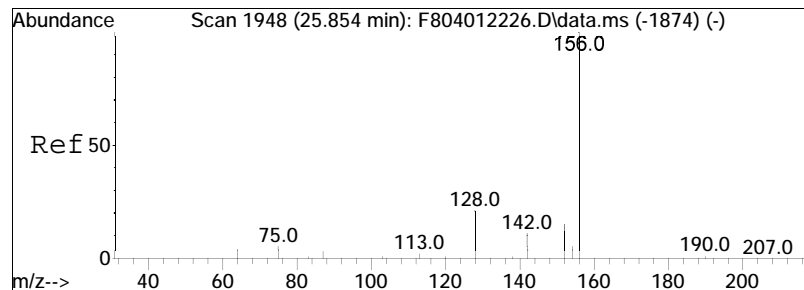




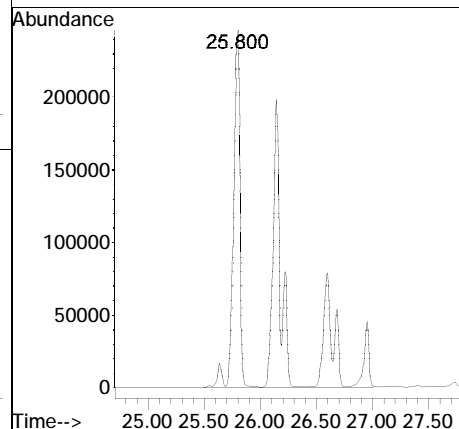
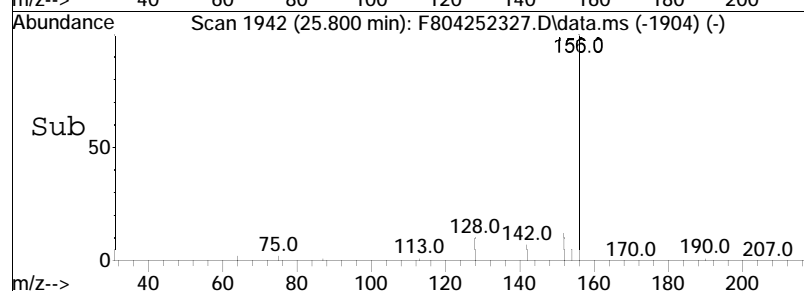
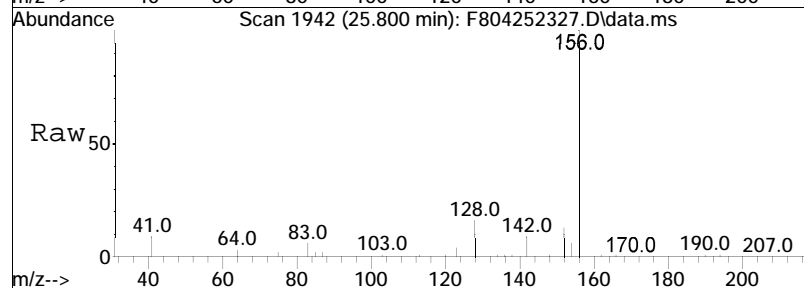
#10
 Cl-Naphthalenes
 Concen: 208.03 ng/mL M5
 RT: 23.710 min Scan# 1713
 Delta R.T. 0.432 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

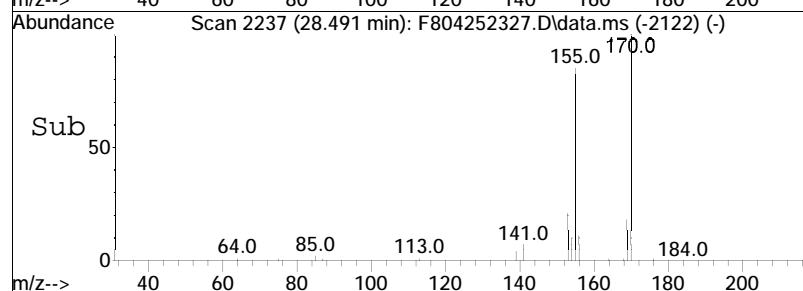
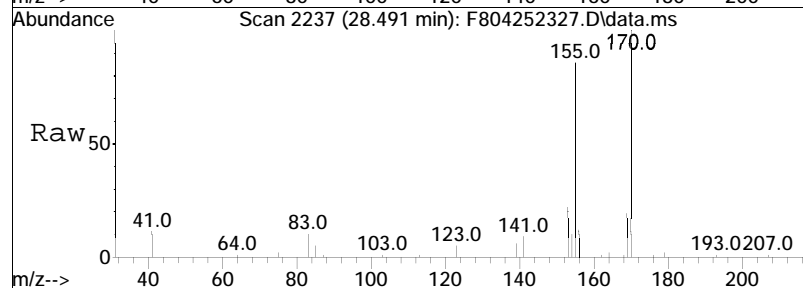
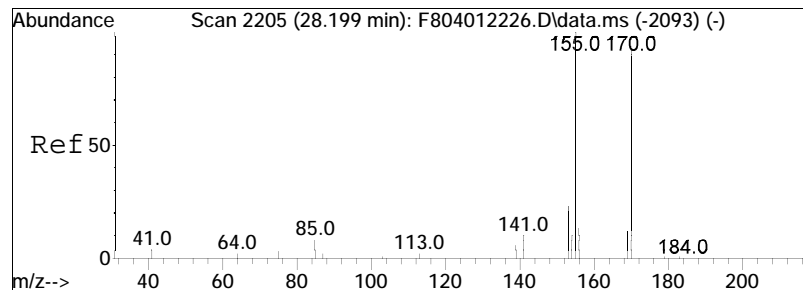
Tgt Ion:142 Resp: 30681





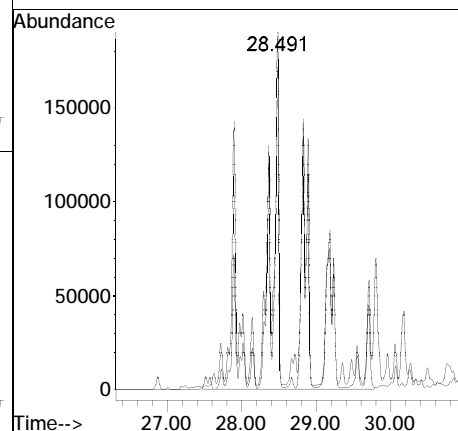
#11
 C2-Naphthalenes
 Concen: 16819.58 ng/mL M5
 RT: 25.800 min Scan# 1942
 Delta R.T. -0.337 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm
 Tgt Ion:156 Resp: 2480592

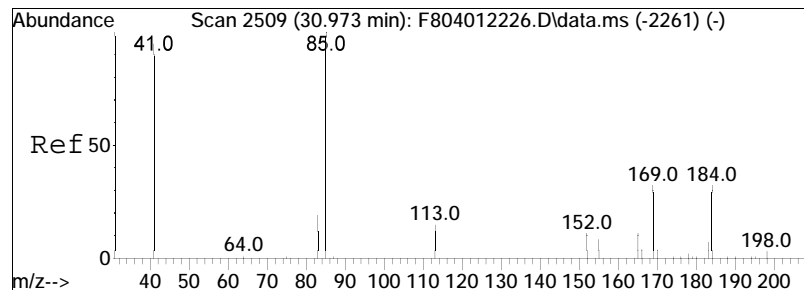




#12
 C3-Naphthalenes
 Concen: 20036.38 ng/mL M5
 RT: 28.491 min Scan# 2237
 Delta R.T. 0.007 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

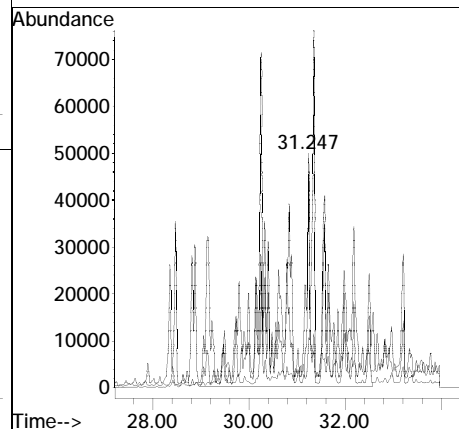
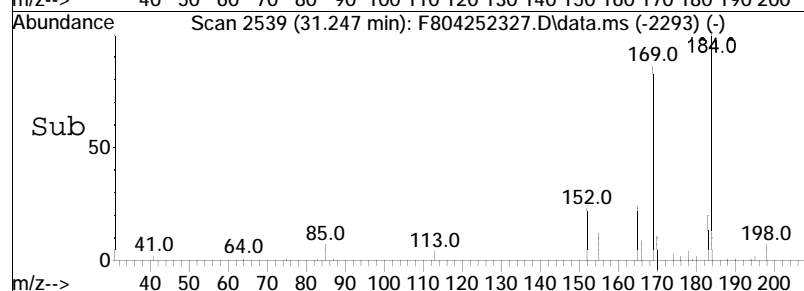
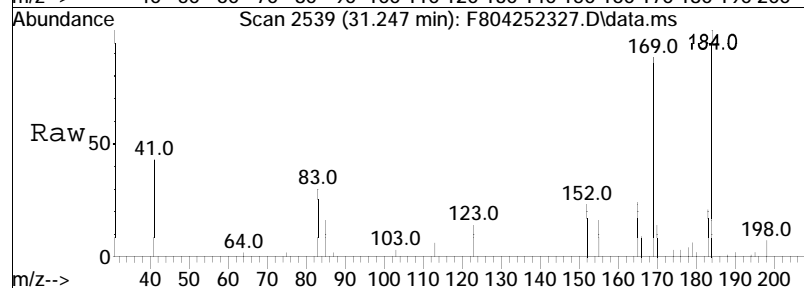
Tgt Ion:170 Resp: 2955014
 Ion Ratio Lower Upper
 170 100
 155 18.1 66.3 123.1#

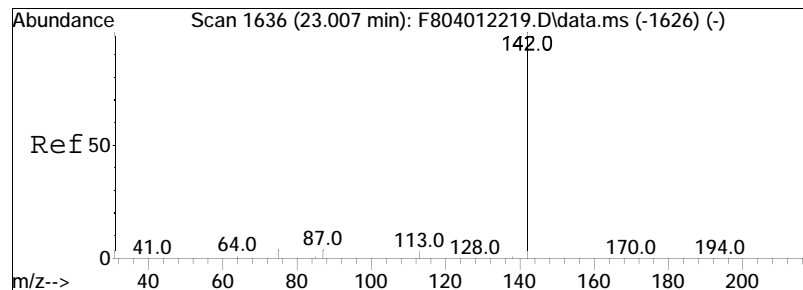




#13
 C4-Naphthalenes
 Concen: 10293.95 ng/mL M5
 RT: 31.247 min Scan# 2539
 Delta R.T. -0.004 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

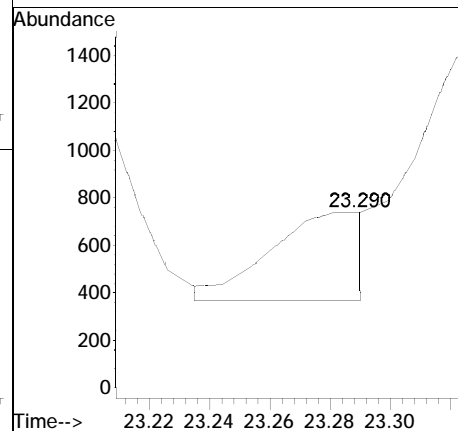
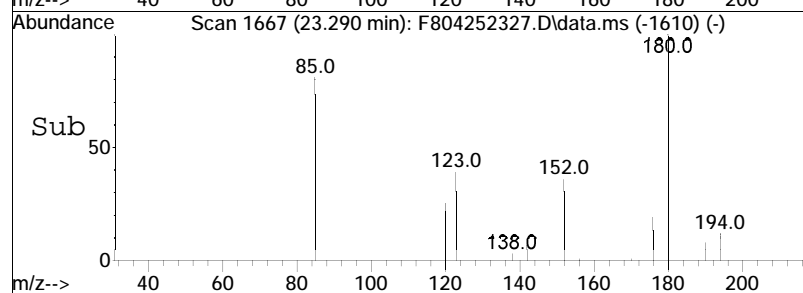
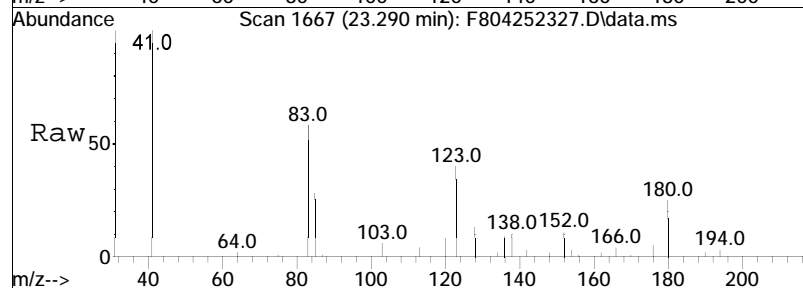
Tgt Ion	Ratio	Lower	Upper
184	100		
169	3.3	66.4	123.2#
183	1.0	16.0	29.8#

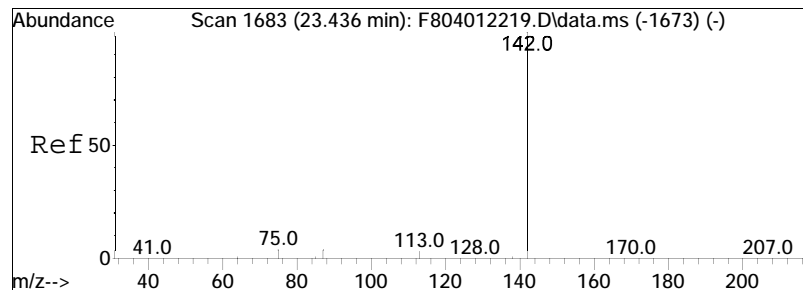




#14
 2-Methylnaphthalene
 Concen: 8.59 ng/mL M3
 RT: 23.290 min Scan# 1667
 Delta R.T. 0.018 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

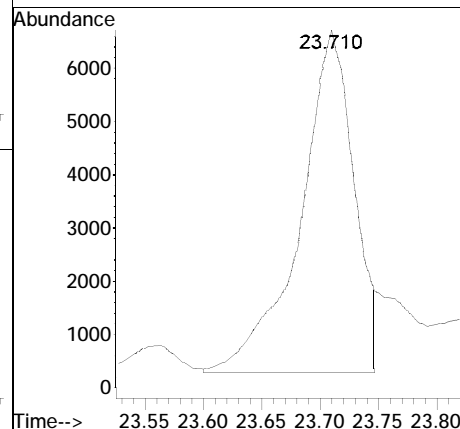
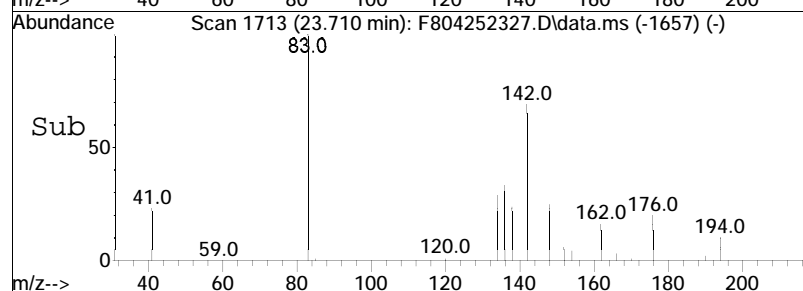
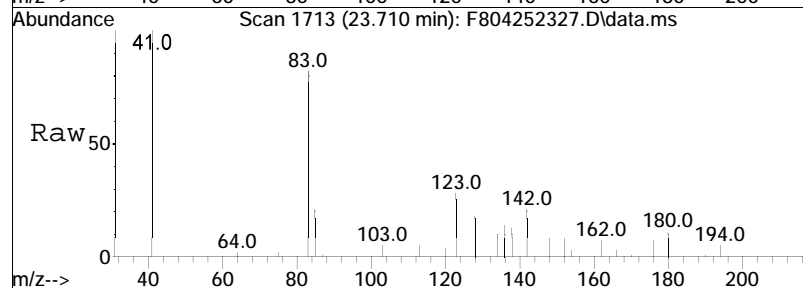
Tgt Ion:142 Resp: 837

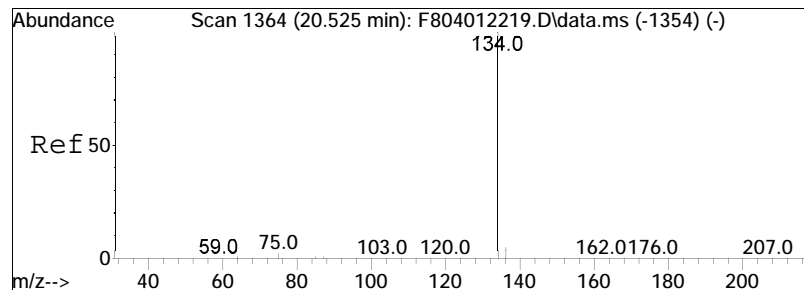




#15
 1-Methylnaphthalene
 Concen: 233.76 ng/mL M4
 RT: 23.710 min Scan# 1713
 Delta R.T. 0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

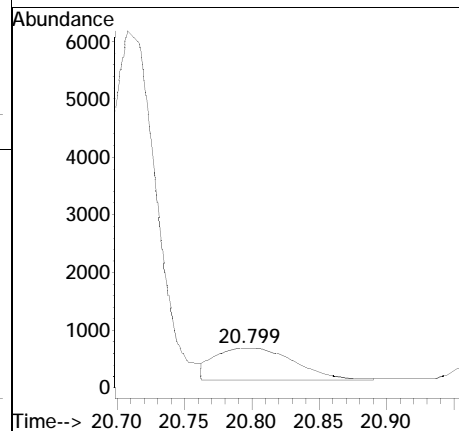
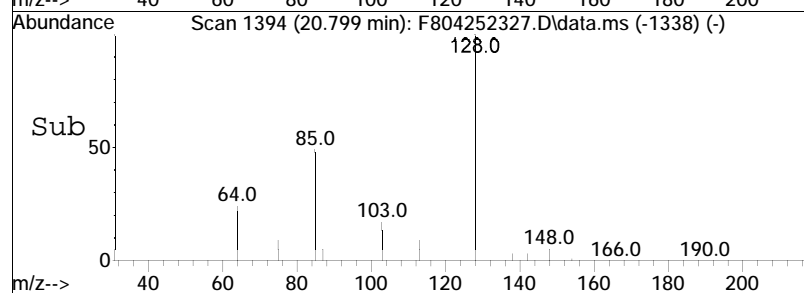
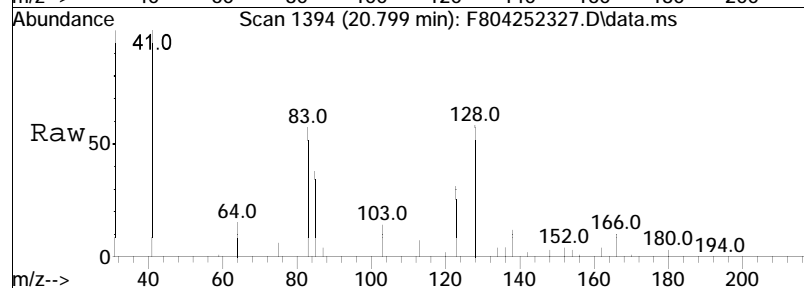
Tgt Ion:142 Resp: 20800

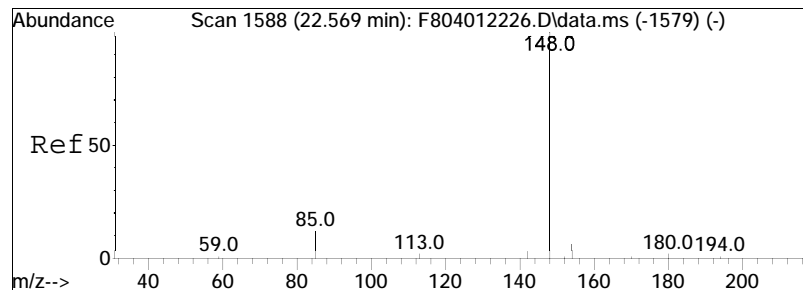




#16
 Benzothiophene
 Concen: 17.23 ng/mL
 RT: 20.799 min Scan# 1394
 Delta R.T. 0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

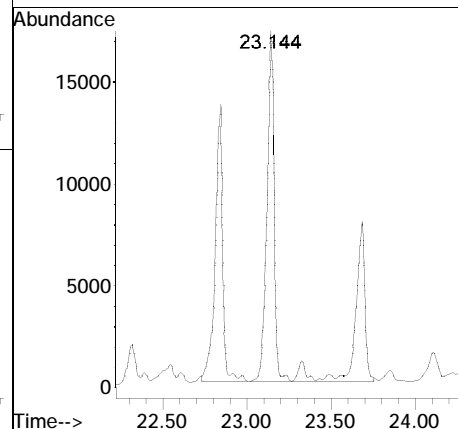
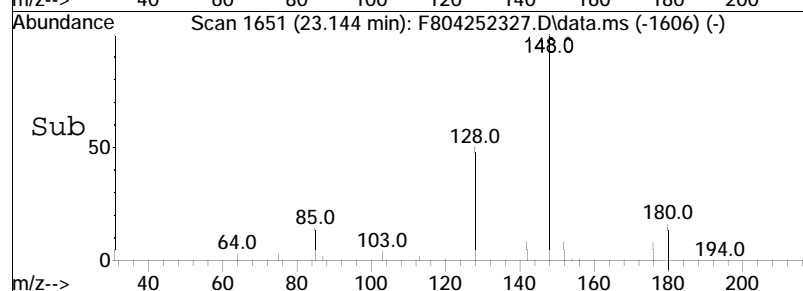
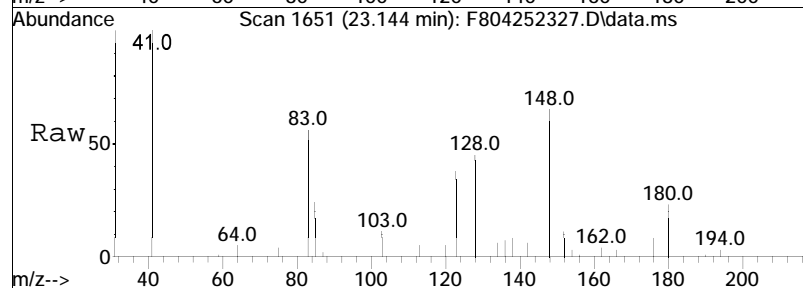
Tgt Ion:134 Resp: 2238

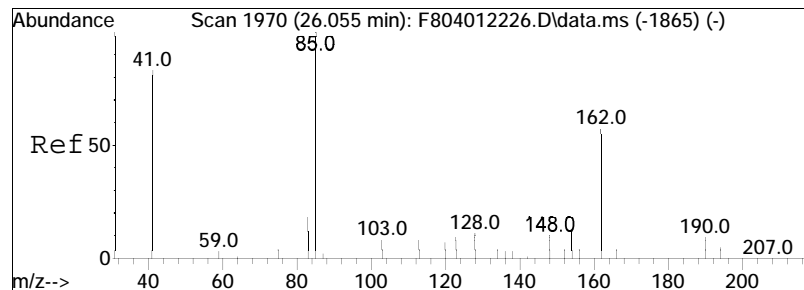




#17
Cl-Benzo(b)thiophenes
Concen: 976.15 ng/mL M5
RT: 23.144 min Scan# 1651
Delta R.T. 0.306 min
Lab File: F804252327.D
Acq: 26 Apr 2023 8:12 pm

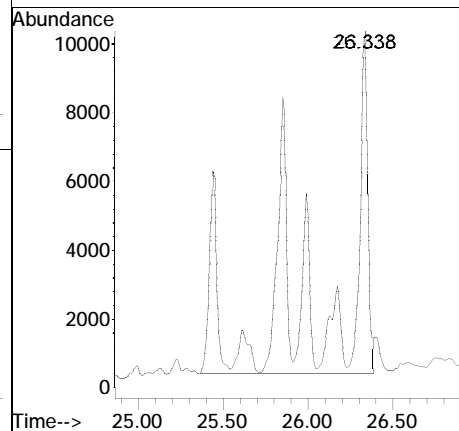
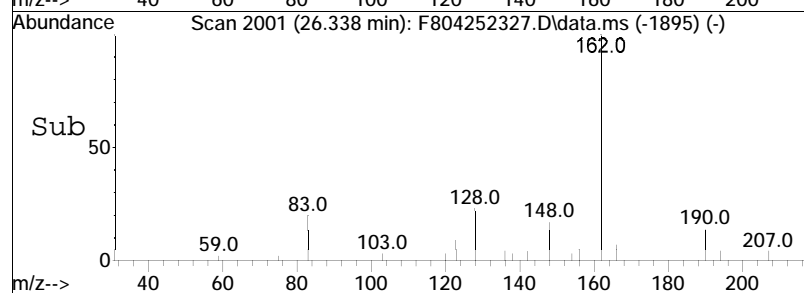
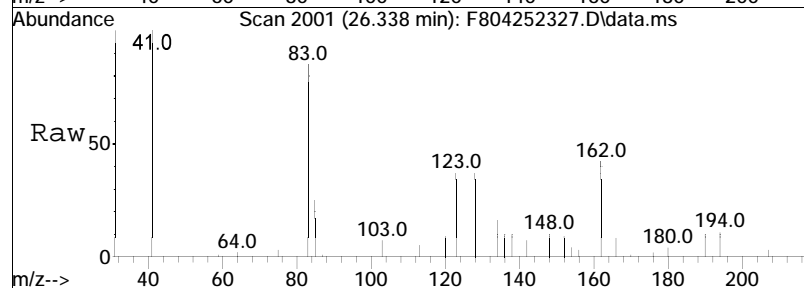
Tgt Ion:148 Resp: 126824

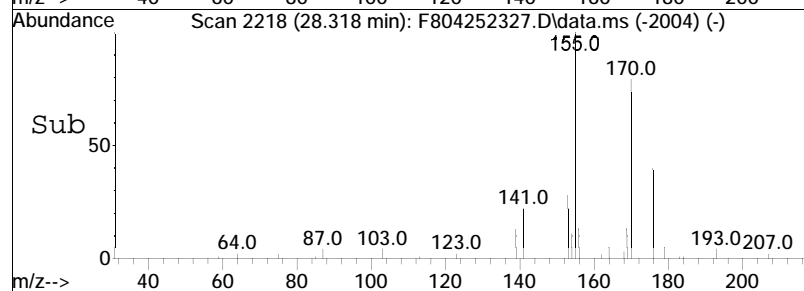
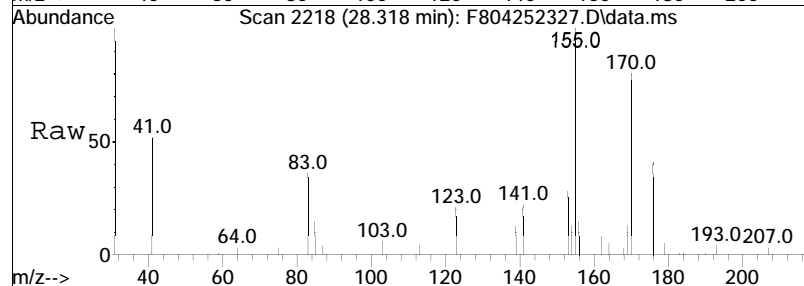
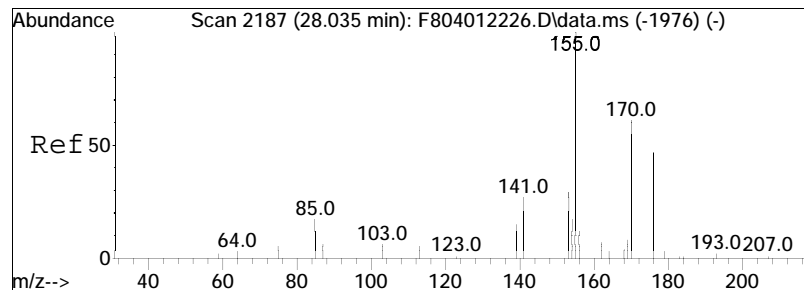




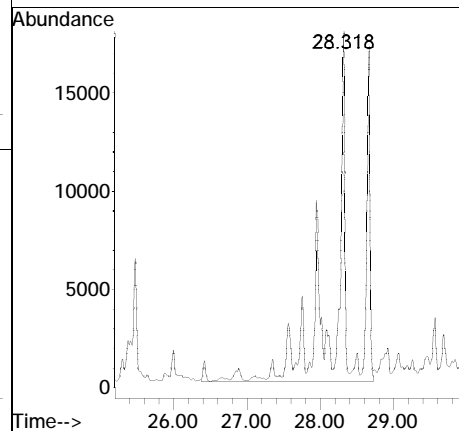
#18
 C2-Benzo(b)thiophenes
 Concen: 860.61 ng/mL M5
 RT: 26.338 min Scan# 2001
 Delta R.T. 0.010 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

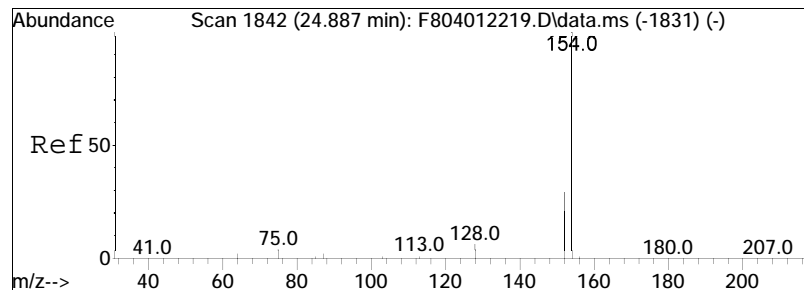
Tgt Ion:162 Resp: 111812





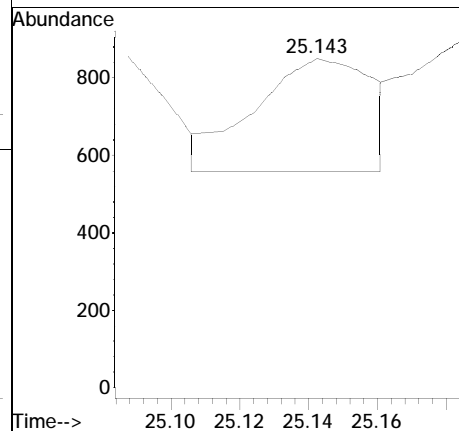
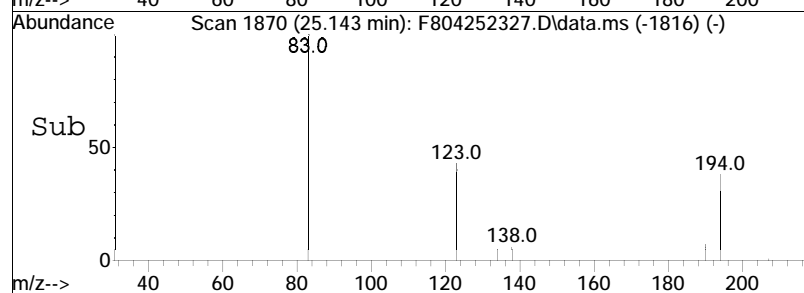
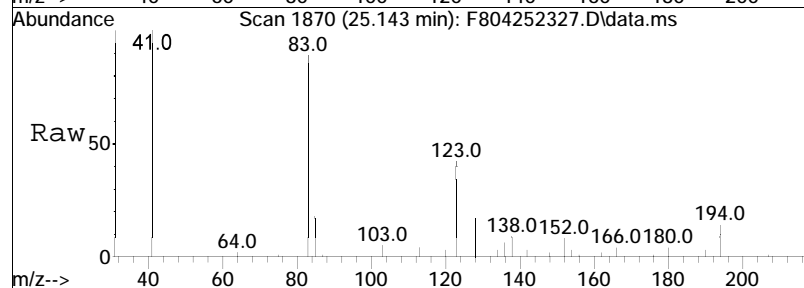
#19
 C3-Benzo(b)thiophenes
 Concen: 1665.44 ng/mL M5
 RT: 28.318 min Scan# 2218
 Delta R.T. -0.002 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm
 Tgt Ion:176 Resp: 216378

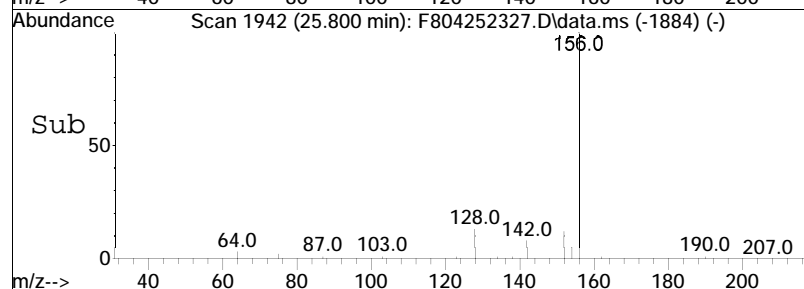
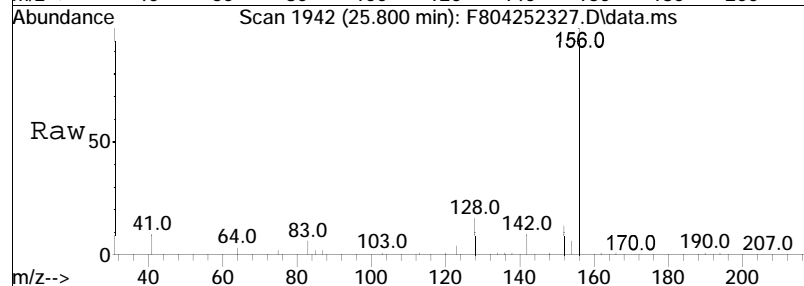
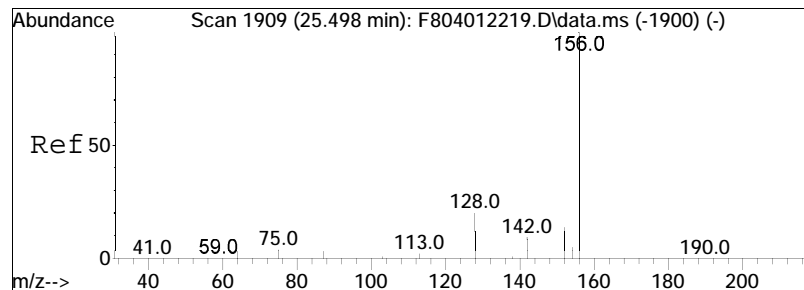




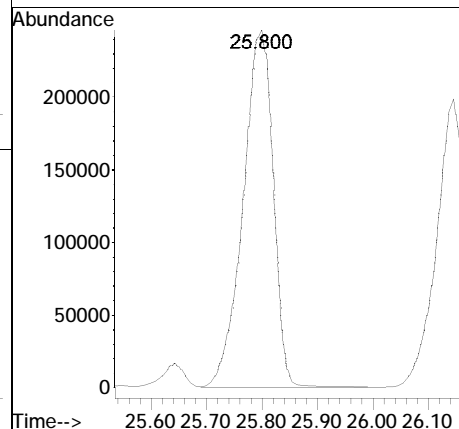
#21
 Biphenyl
 Concen: 6.10 ng/mL M4
 RT: 25.143 min Scan# 1870
 Delta R.T. -0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

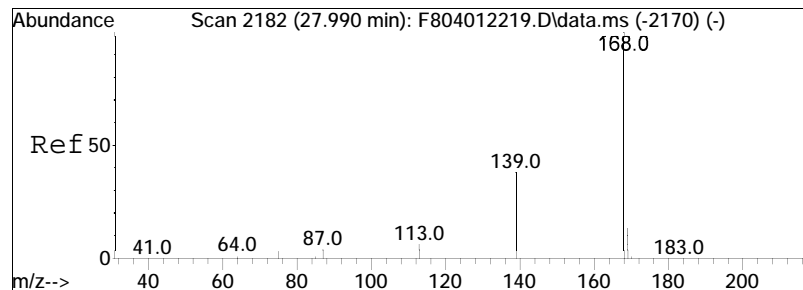
Tgt Ion:154 Resp: 709





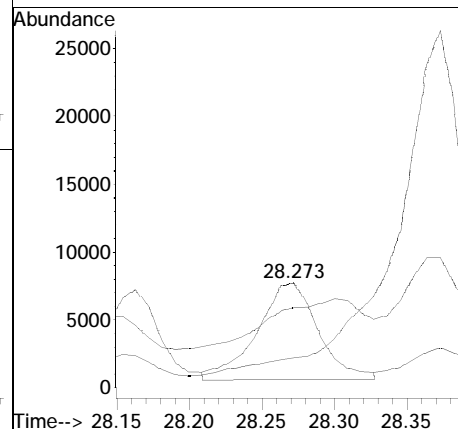
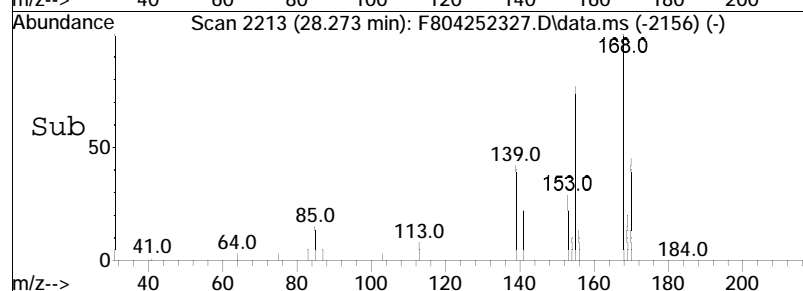
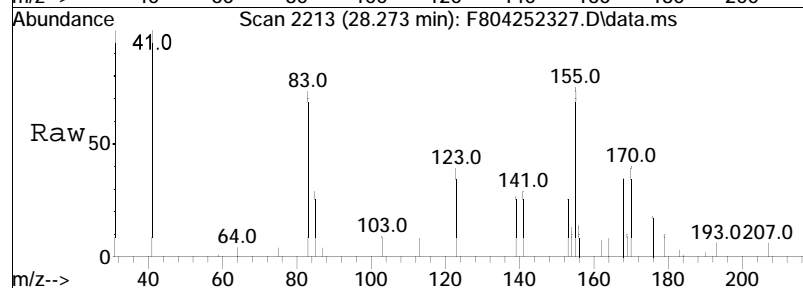
#22
2,6-Dimethylnaphthalene
Concen: 11902.28 ng/mL
RT: 25.800 min Scan# 1942
Delta R.T. 0.027 min
Lab File: F804252327.D
Acq: 26 Apr 2023 8:12 pm
Tgt Ion:156 Resp: 925267

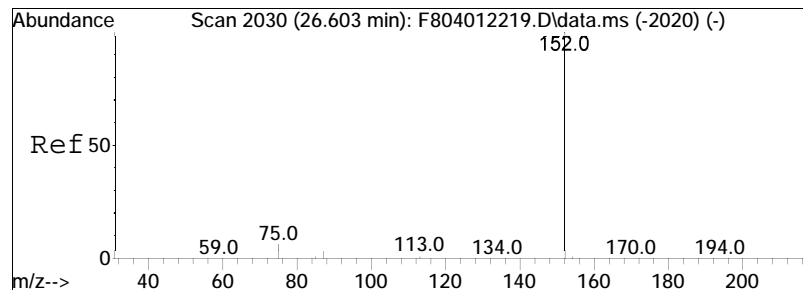




#23
 Dibenzofuran
 Concen: 182.26 ng/mL
 RT: 28.273 min Scan# 2213
 Delta R.T. 0.018 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

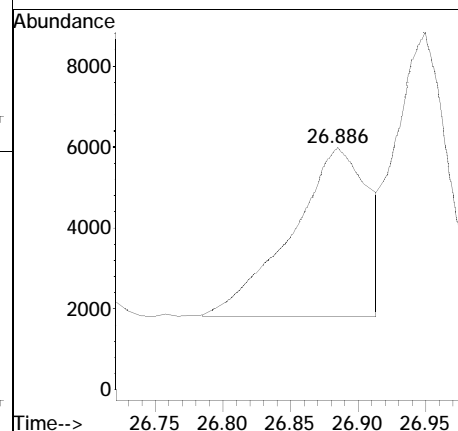
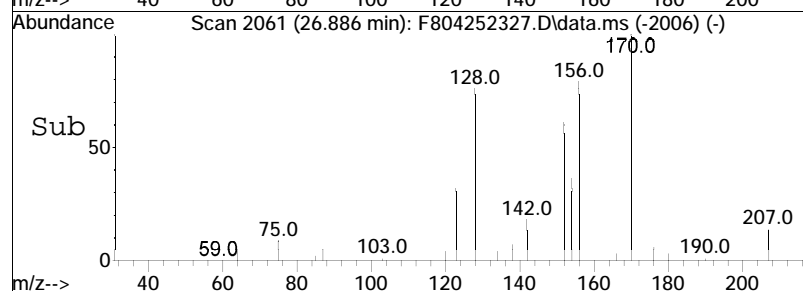
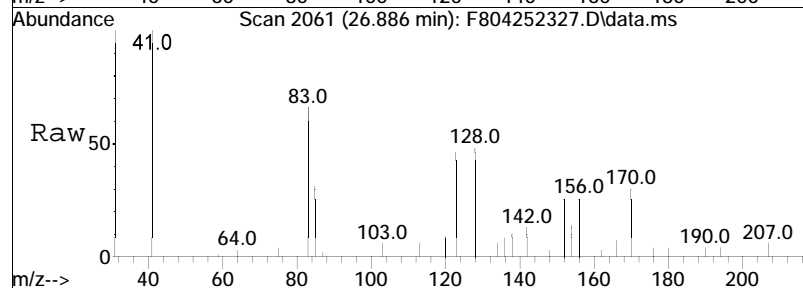
Tgt Ion	Ratio	Lower	Upper
168	100		
139	0.0	25.8	48.0#
169	0.0	9.4	17.6#

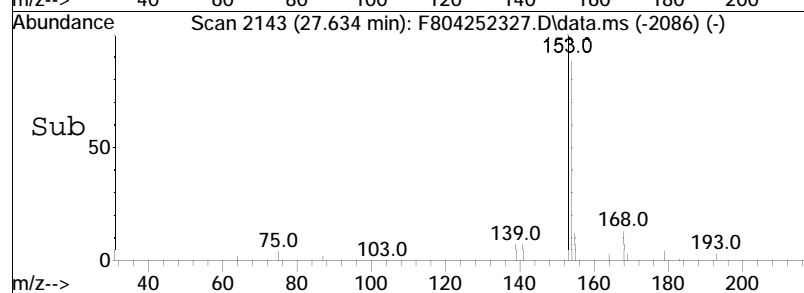
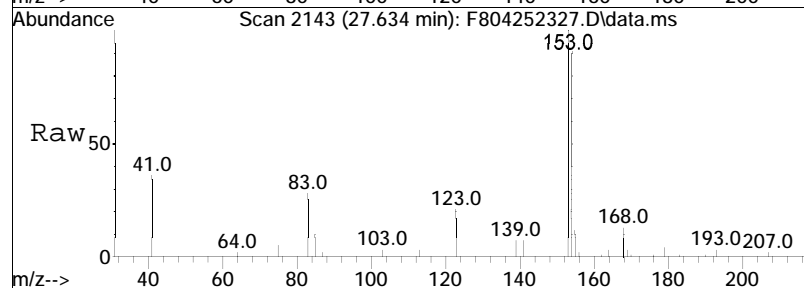
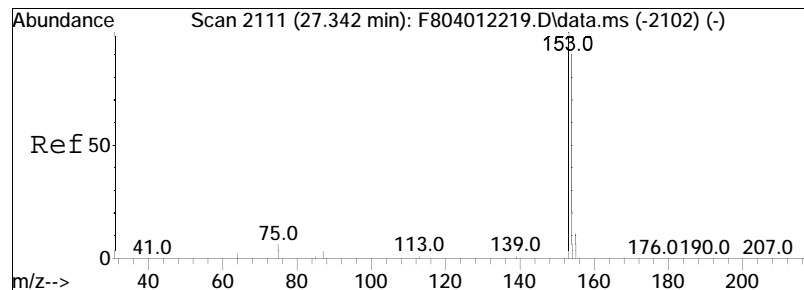




#24
 Acenaphthylene
 Concen: 121.66 ng/mL M4
 RT: 26.886 min Scan# 2061
 Delta R.T. -0.000 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

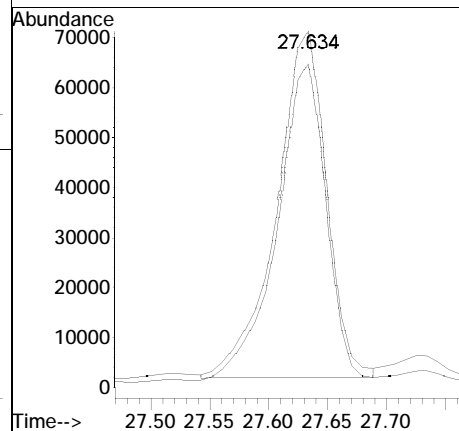
Tgt Ion:152 Resp: 16739

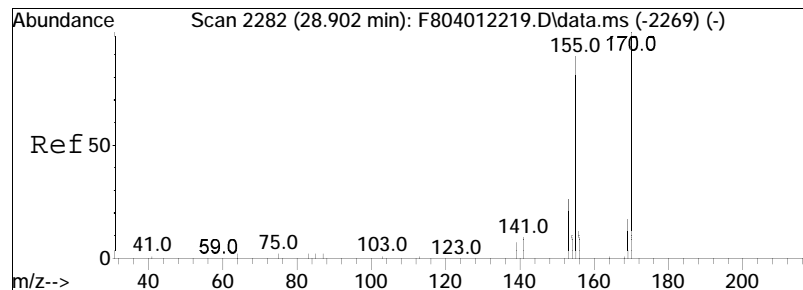




#25
 Acenaphthene
 Concen: 2318.79 ng/mL
 RT: 27.634 min Scan# 2143
 Delta R.T. 0.018 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

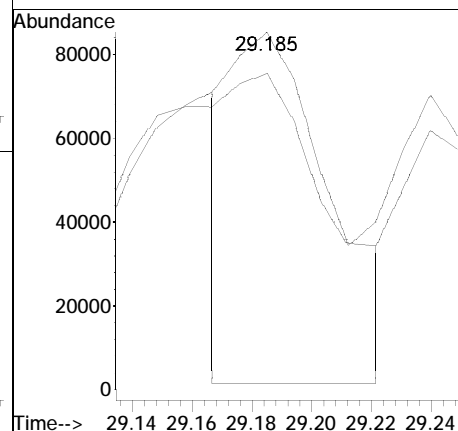
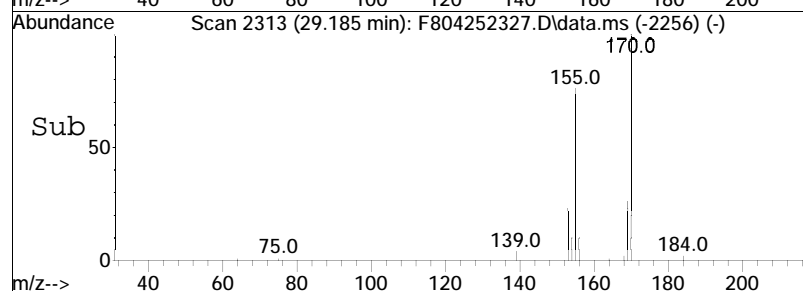
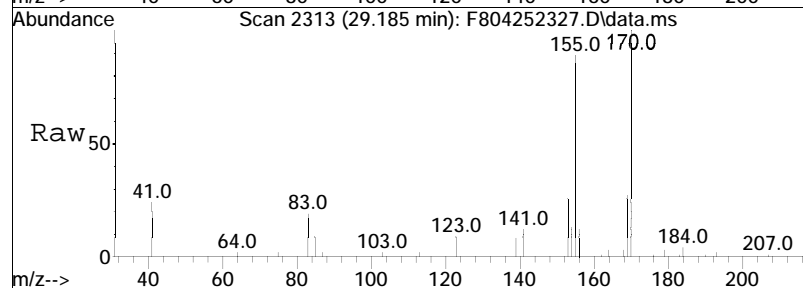
Tgt	Ion	Ratio	Lower	Upper
153	100			
154	90.1	64.1	119.1	

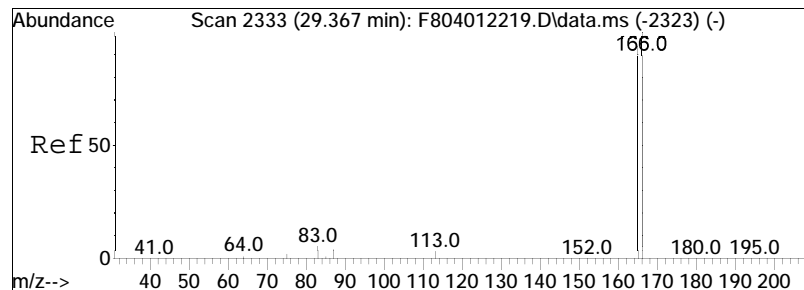




#26
 2,3,5-Trimethylnaphthalene
 Concen: 2984.63 ng/mL M3
 RT: 29.185 min Scan# 2313
 Delta R.T. 0.018 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

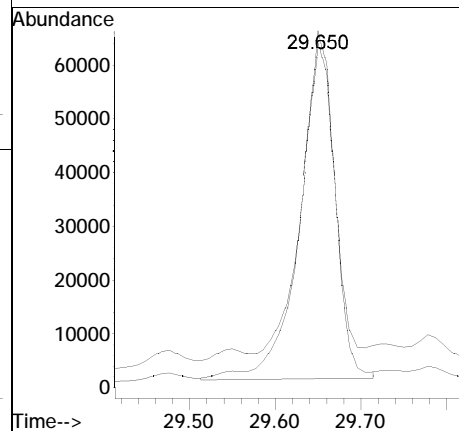
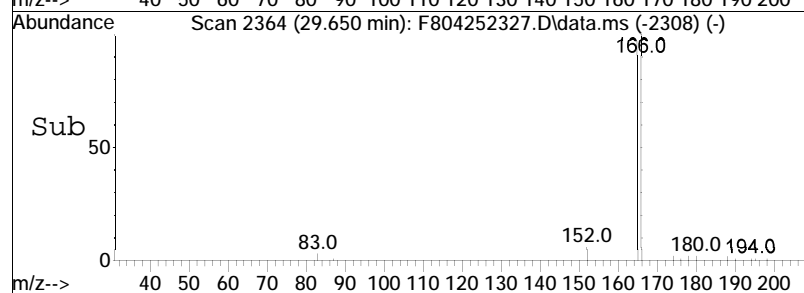
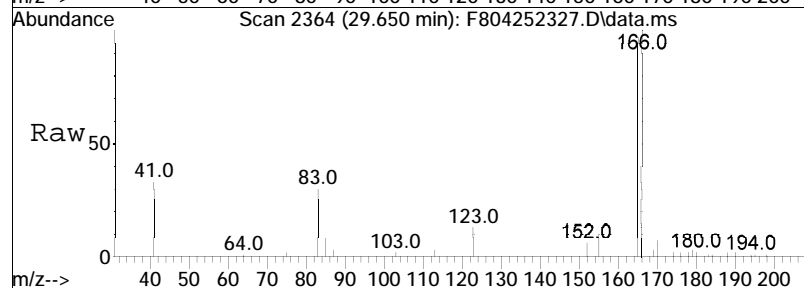
Tgt Ion	Ratio	Lower	Upper
170	100		
155	178.7	68.0	126.4#

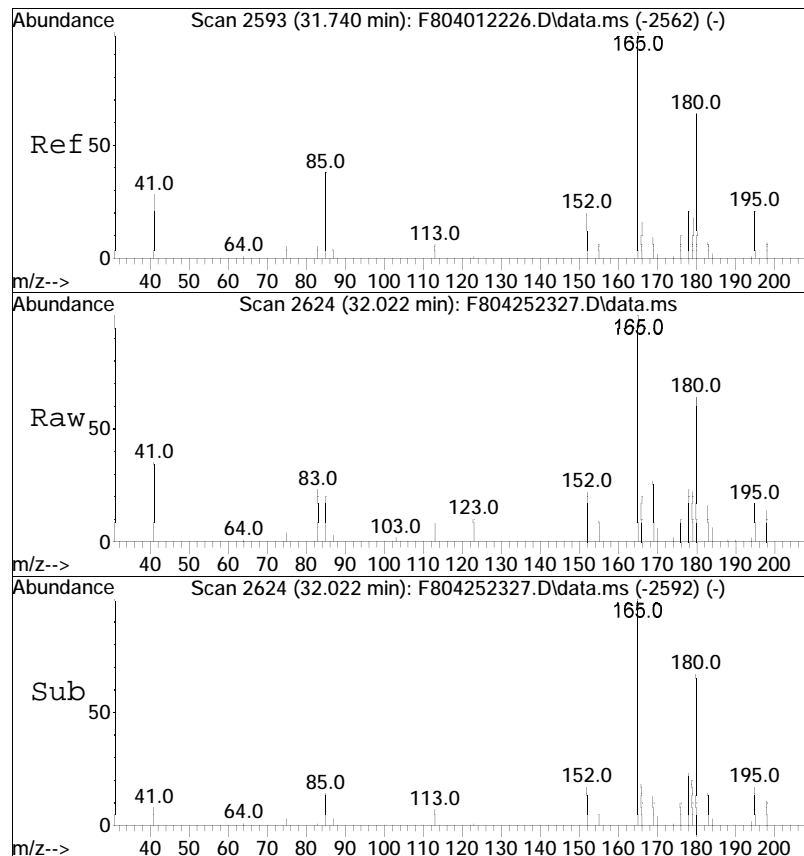




#27
 Fluorene
 Concen: 1970.05 ng/mL
 RT: 29.650 min Scan# 2364
 Delta R.T. 0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

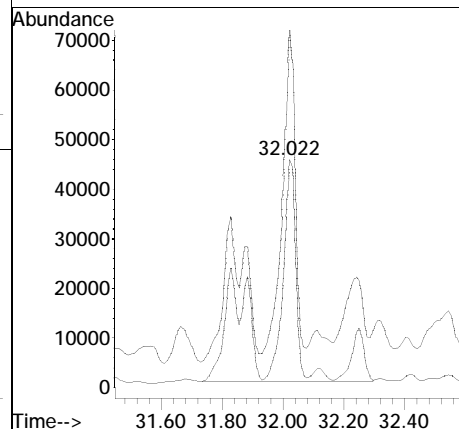
Tgt	Ion	Ratio	Lower	Upper
166	100			
165	84.6	66.8	124.0	

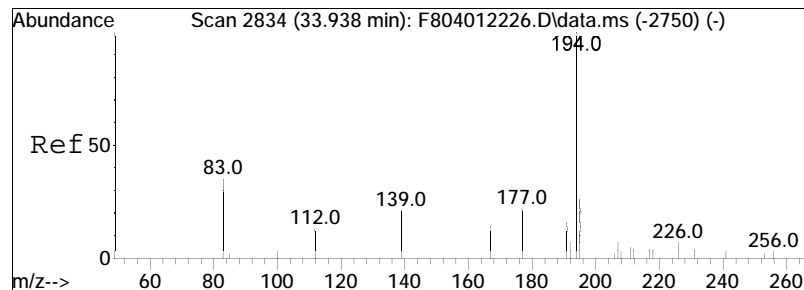




#28
 Cl-Fluorenes
 Concen: 3036.97 ng/mL M5
 RT: 32.022 min Scan# 2624
 Delta R.T. -0.005 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

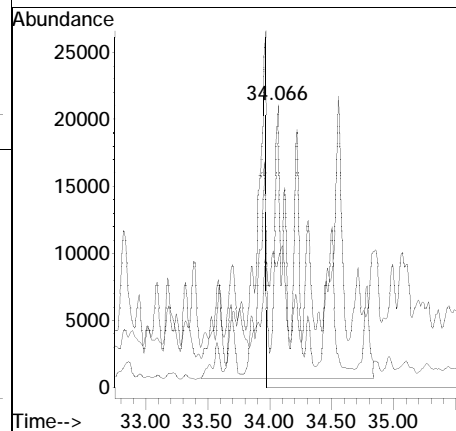
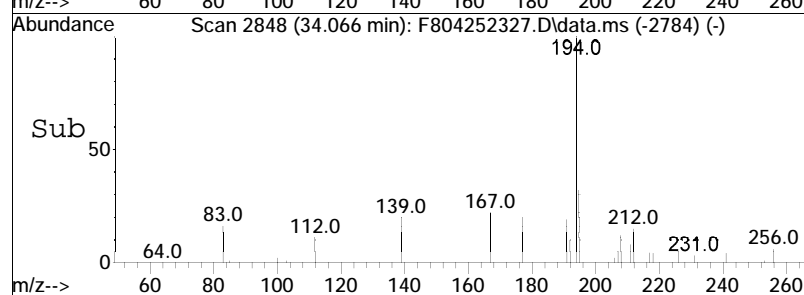
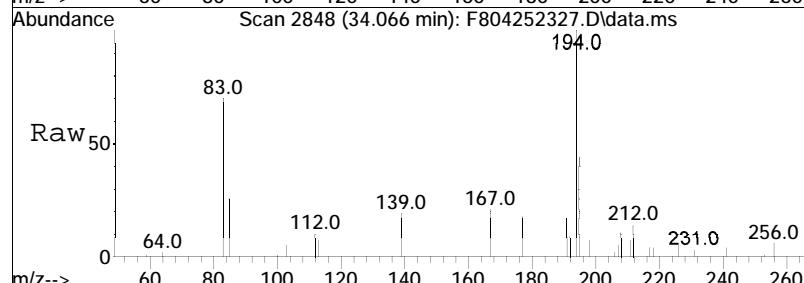
Tgt Ion	Ratio	Lower	Upper
180	100		
165	65.5	97.3	180.7#

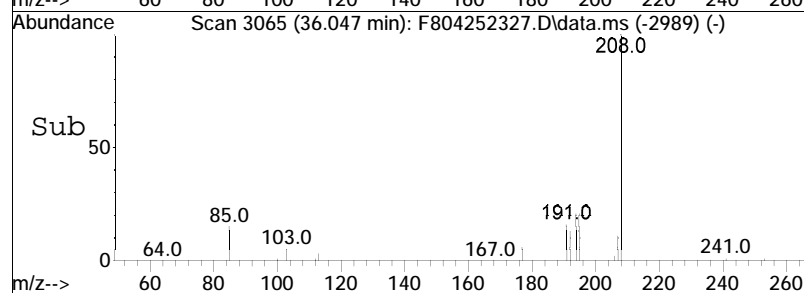
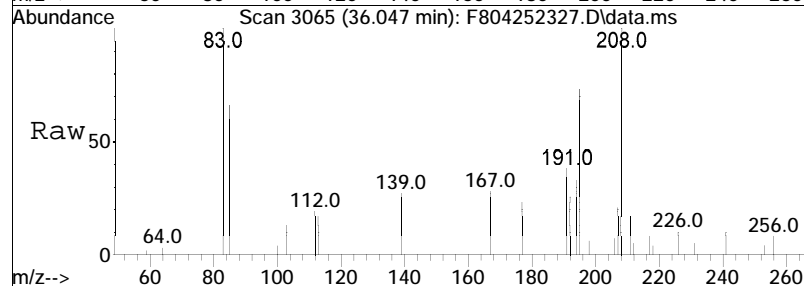
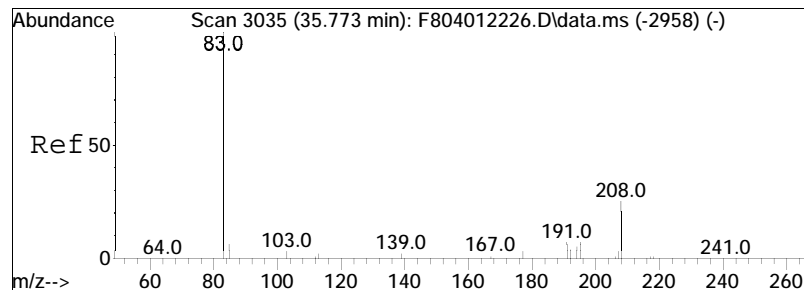




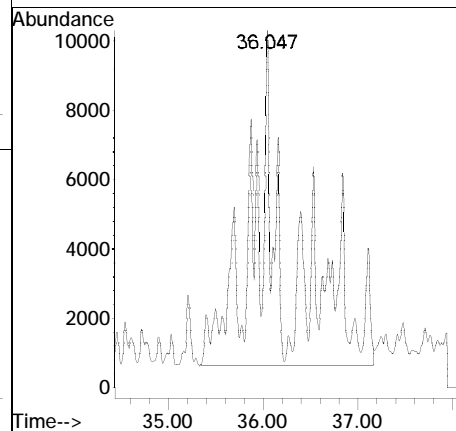
#29
 C2-Fluorenes
 Concen: 3765.03 ng/mL M5
 RT: 34.066 min Scan# 2848
 Delta R.T. -0.154 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

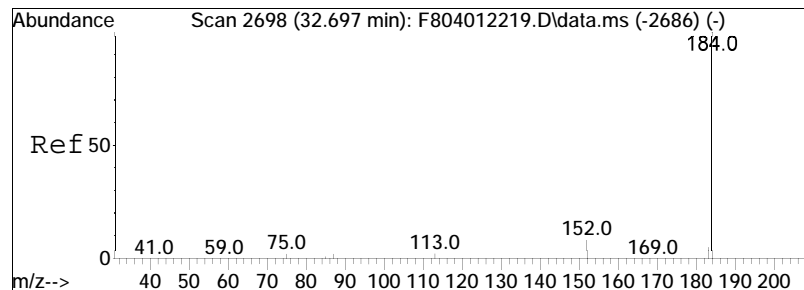
Tgt	Ion	Ratio	Lower	Upper
194	100			
179	0.0	0.0	0.0	
195	2.6	25.3	46.9	





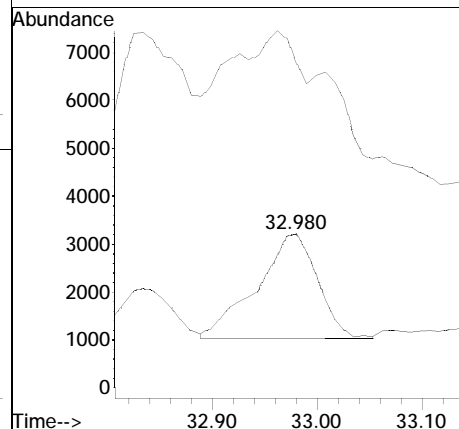
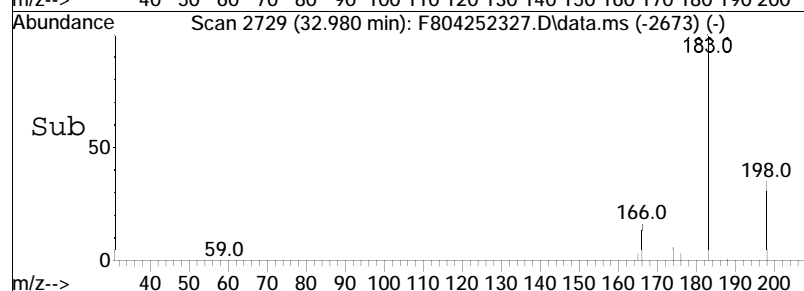
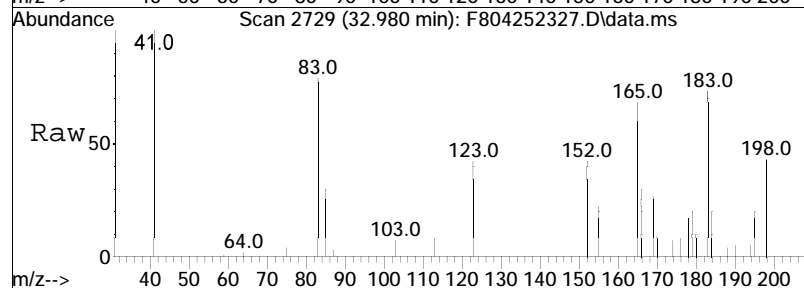
#30
C3-Fluorenes
Concen: 2658.13 ng/mL M5
RT: 36.047 min Scan# 3065
Delta R.T. -0.009 min
Lab File: F804252327.D
Acq: 26 Apr 2023 8:12 pm
Tgt Ion:208 Resp: 246233

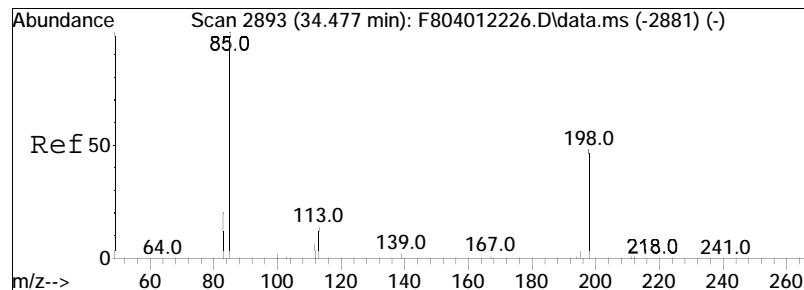




#31
 Dibenzothiophene
 Concen: 65.96 ng/mL
 RT: 32.980 min Scan# 2729
 Delta R.T. 0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

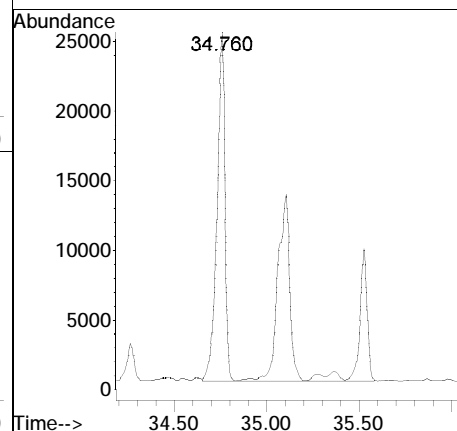
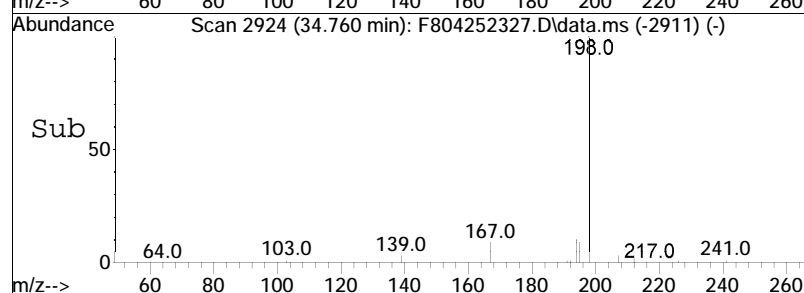
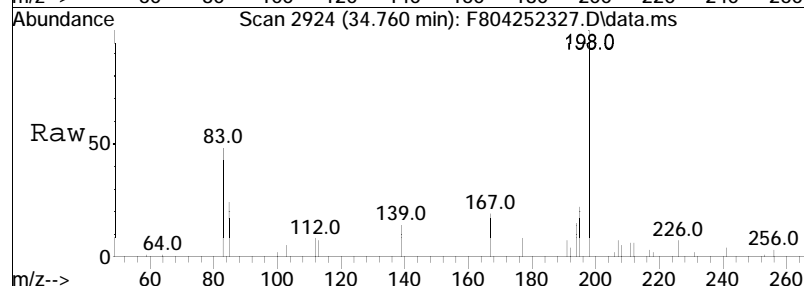
Tgt Ion:184 Resp: 8685
 Ion Ratio Lower Upper
 184 100
 152 269.2 5.9 11.1#

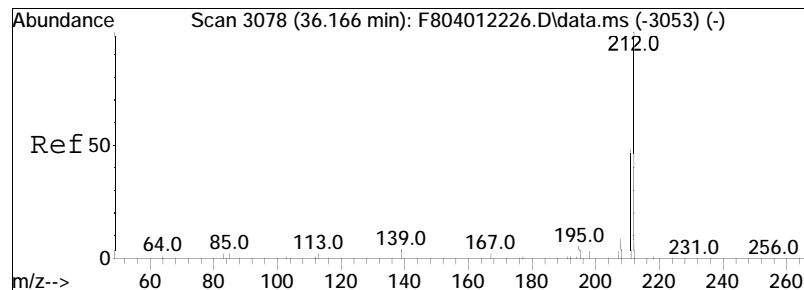




#36
 Cl-Dibenzothiophenes
 Concen: 1244.76 ng/mL M5
 RT: 34.760 min Scan# 2924
 Delta R.T. -0.008 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

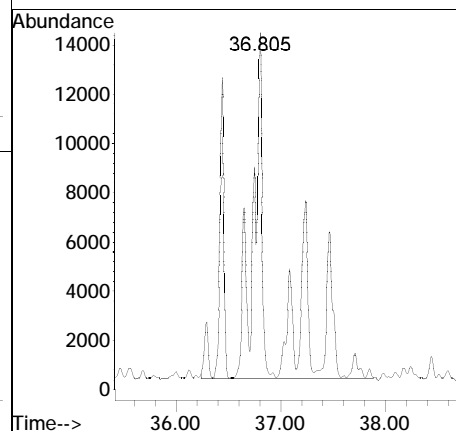
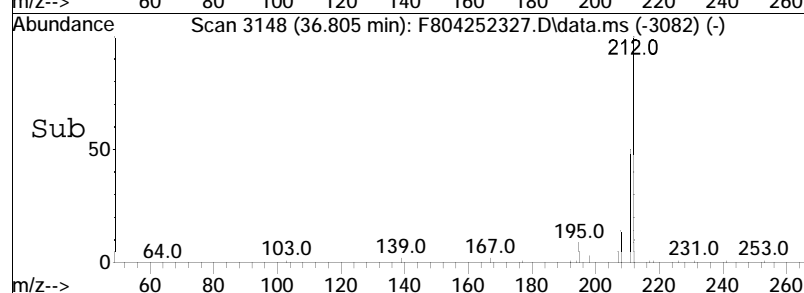
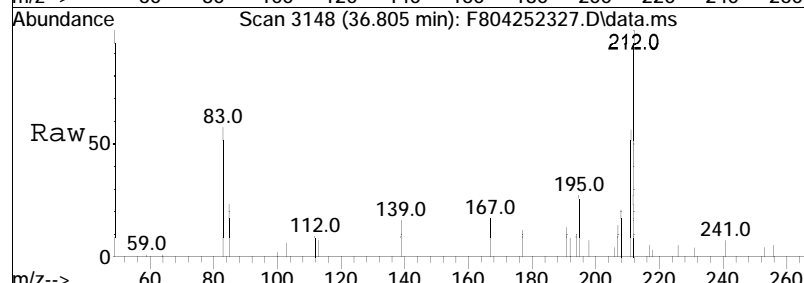
Tgt Ion:198 Resp: 163910

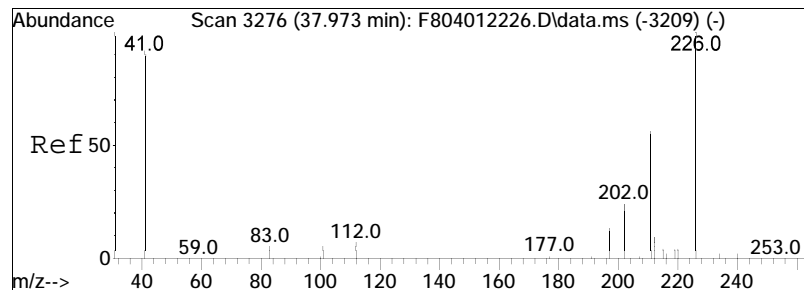




#37
 C2-Dibenzothiophenes
 Concen: 1480.41 ng/mL M5
 RT: 36.805 min Scan# 3148
 Delta R.T. -0.010 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

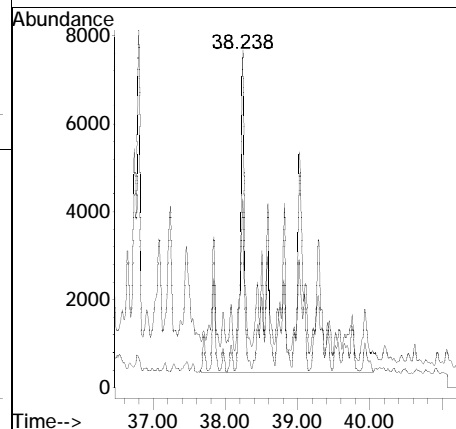
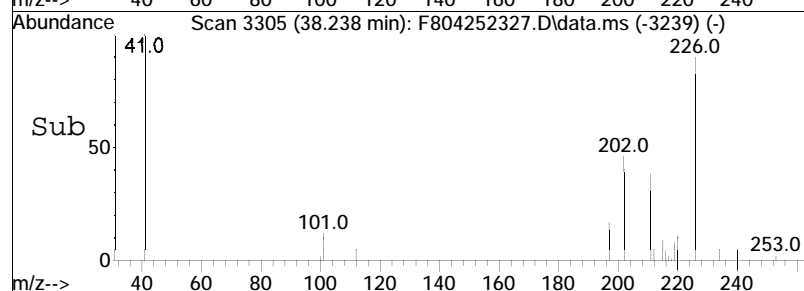
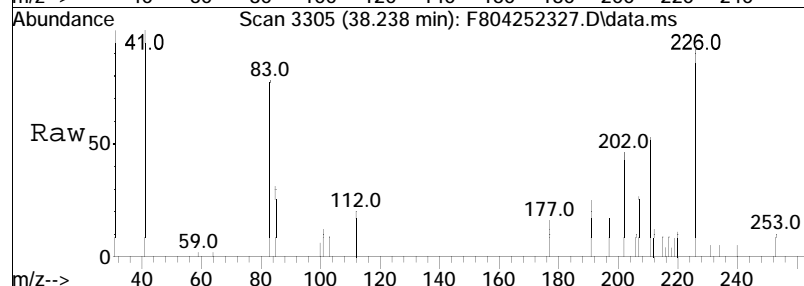
Tgt Ion:212 Resp: 194941

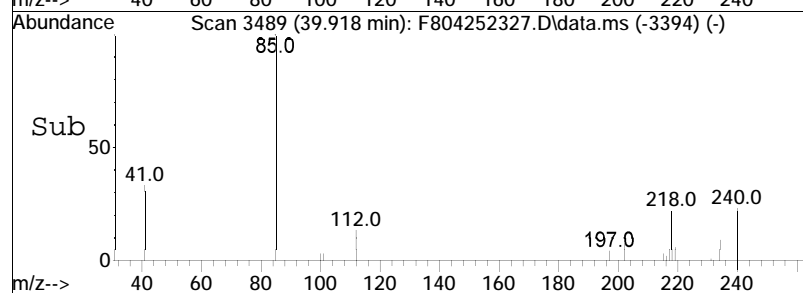
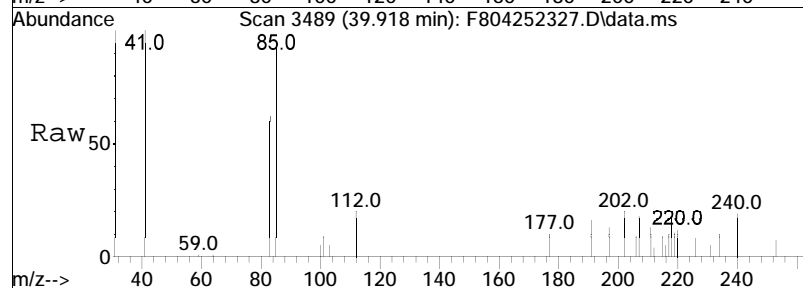
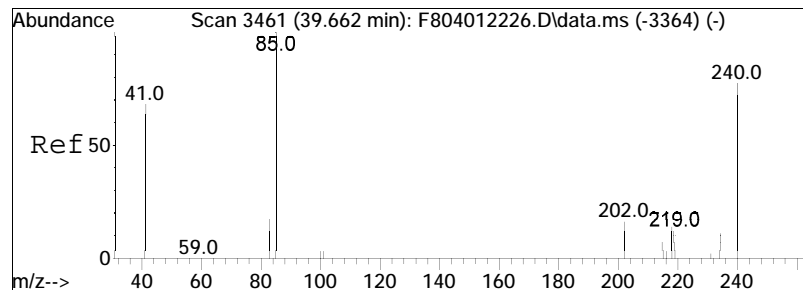




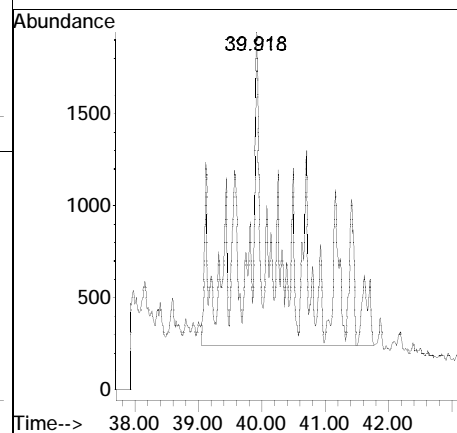
#38
 C3-Dibenzothiophenes
 Concen: 998.91 ng/mL M5
 RT: 38.238 min Scan# 3305
 Delta R.T. -0.020 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

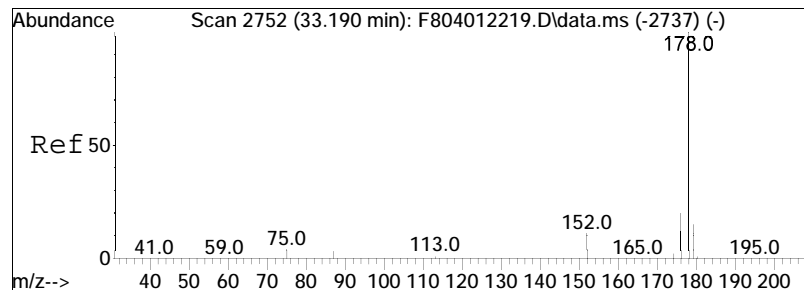
Tgt Ion	Ratio	Lower	Upper
226	100		
211	11.5	38.5	71.5#





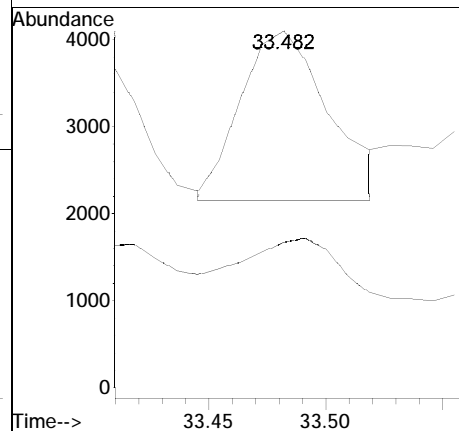
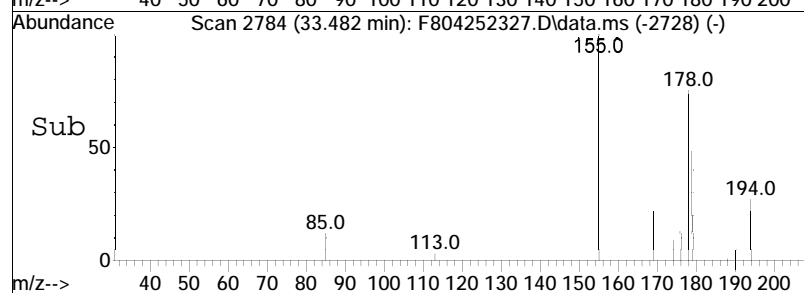
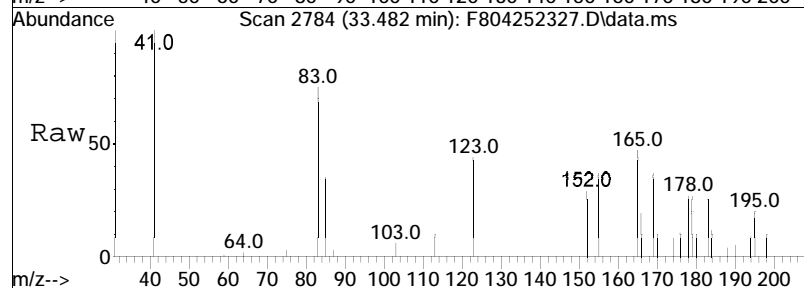
#39
C4-Dibenzothiophenes
Concen: 467.76 ng/mL M5
RT: 39.918 min Scan# 3489
Delta R.T. -0.023 min
Lab File: F804252327.D
Acq: 26 Apr 2023 8:12 pm
Tgt Ion: 240 Resp: 61595

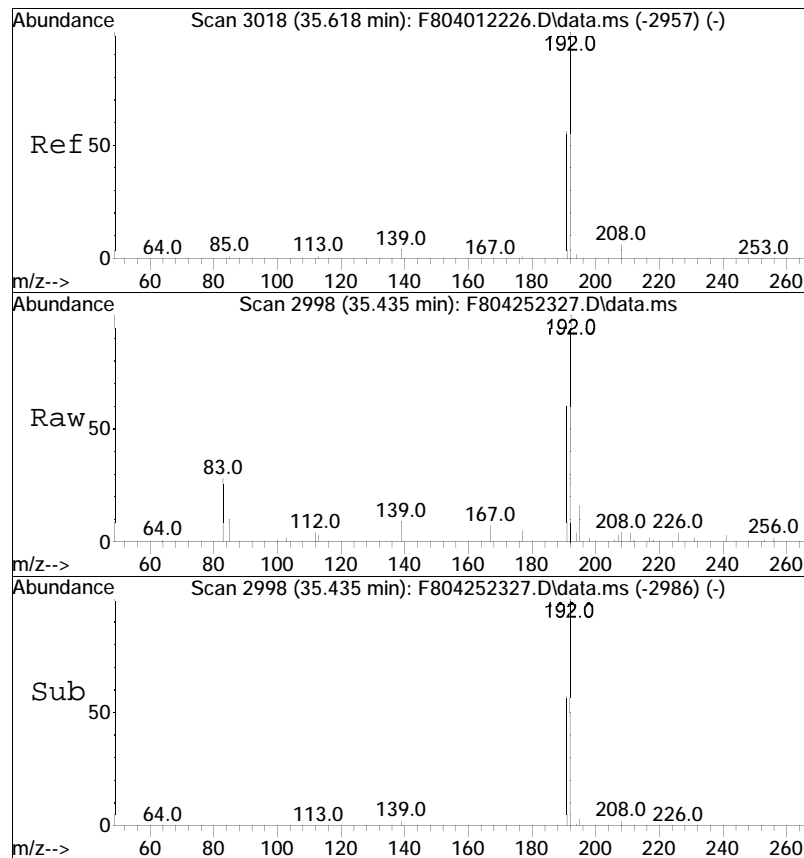




#41
 Phenanthrene
 Concen: 39.86 ng/mL M3
 RT: 33.482 min Scan# 2784
 Delta R.T. 0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

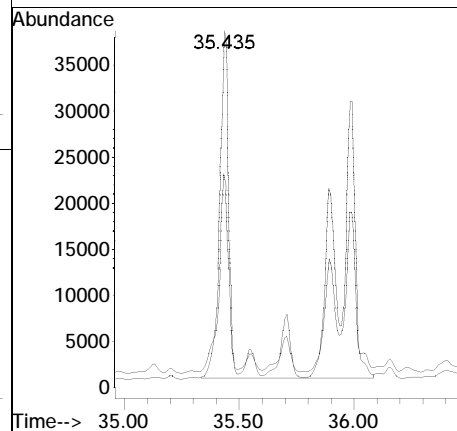
Tgt Ion: 178 Resp: 5096
 Ion Ratio Lower Upper
 178 100
 176 22.8 13.9 25.9

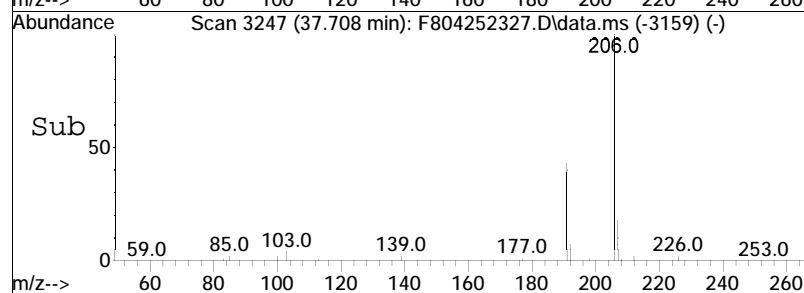
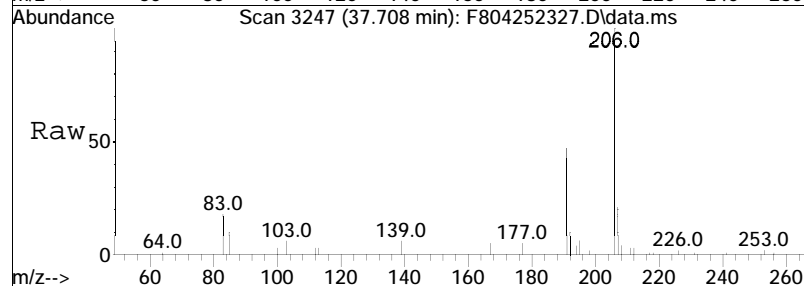
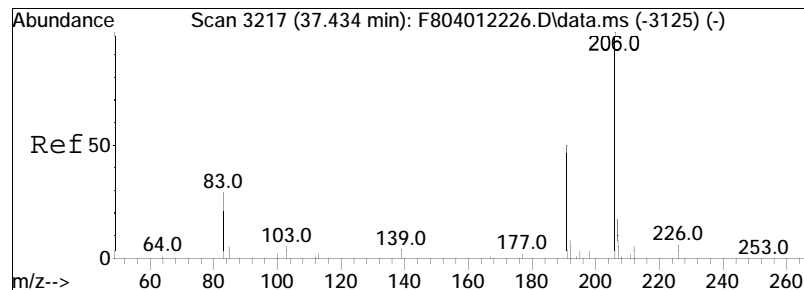




#47
 Cl-Phenanthrenes/Anthracenes
 Concen: 2208.04 ng/mL M5
 RT: 35.435 min Scan# 2998
 Delta R.T. -0.474 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

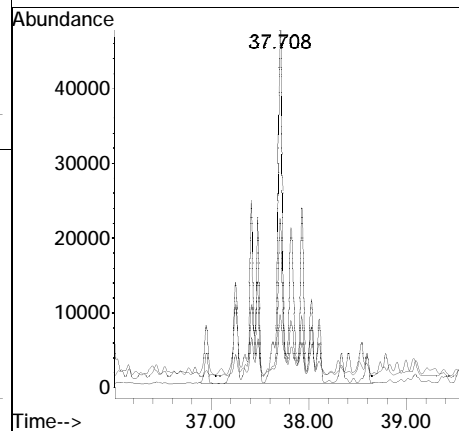
Tgt	Ion	Ratio	Lower	Upper
192	100			
191	14.3	40.5	75.1	#

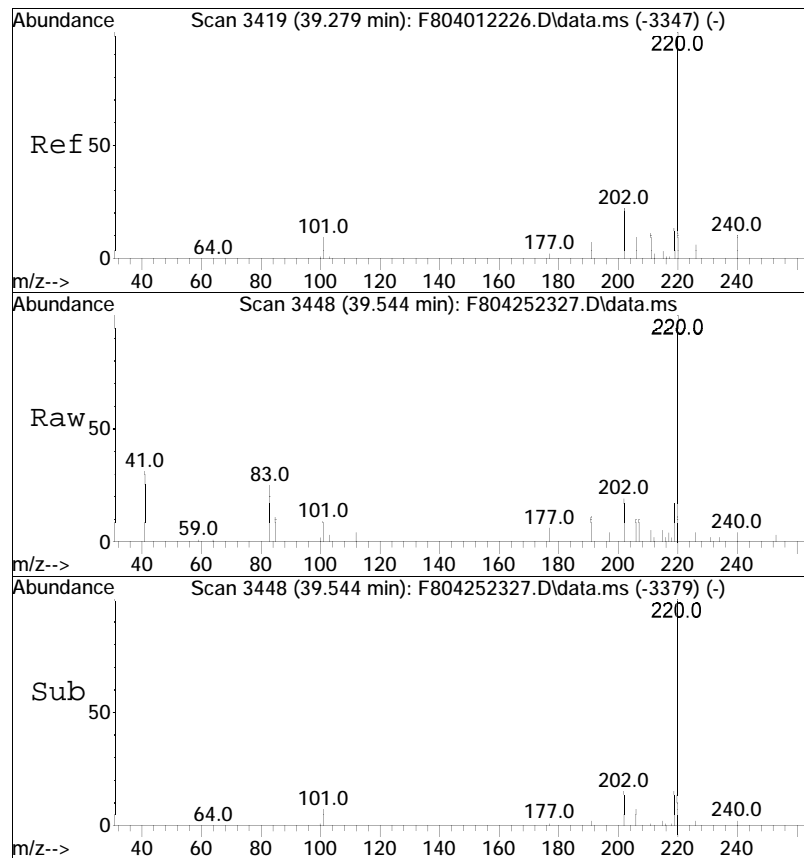




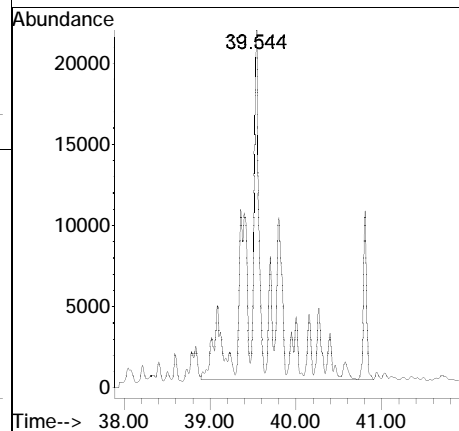
#48
 C2-Phenanthrenes/Anthracenes
 Concen: 4221.88 ng/mL M5
 RT: 37.708 min Scan# 3247
 Delta R.T. -0.011 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

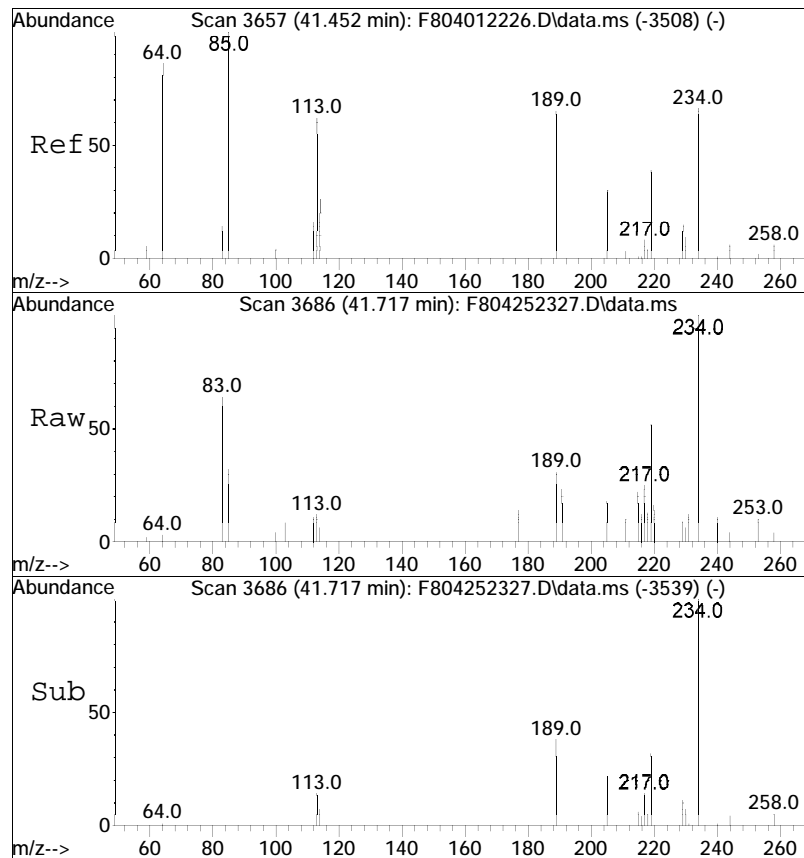
Tgt	Ion	Ratio	Lower	Upper
206	100			
191	13.1	34.6	64.2#	
207	4.8	14.3	26.5#	





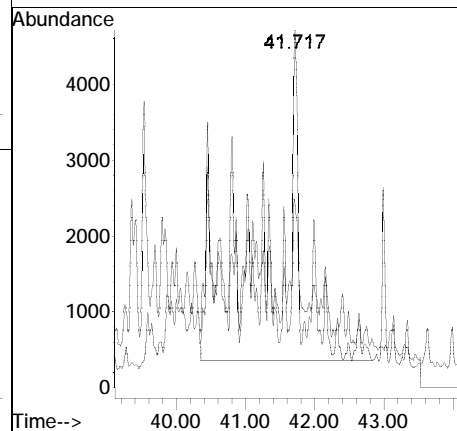
#50
 C3-Phenanthrenes/Anthracenes
 Concen: 2588.85 ng/mL M5
 RT: 39.544 min Scan# 3448
 Delta R.T. -0.022 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm
 Tgt Ion:220 Resp: 331009

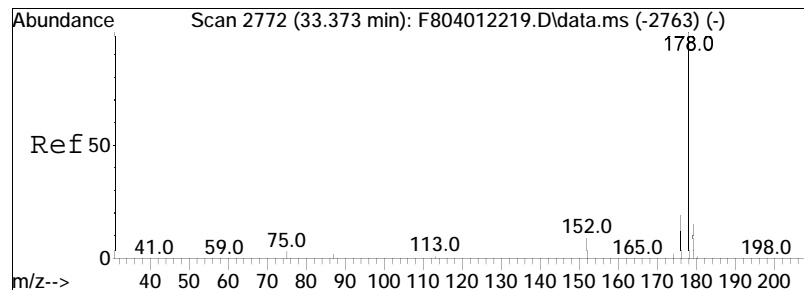




#51
 C4-Phenanthrenes/Anthracenes
 Concen: 939.62 ng/mL M5
 RT: 41.717 min Scan# 3686
 Delta R.T. -0.024 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

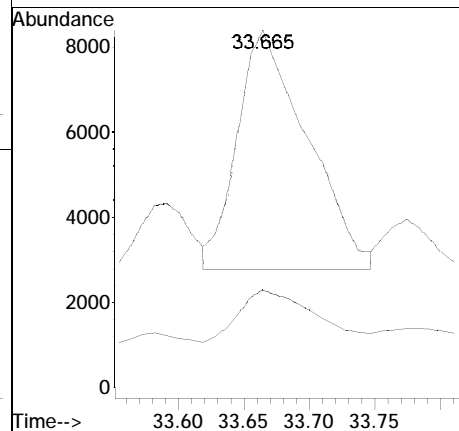
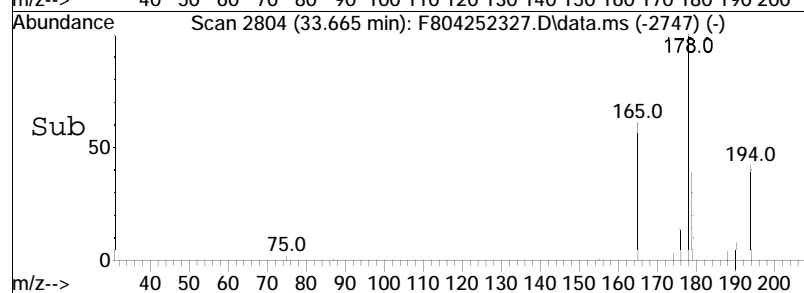
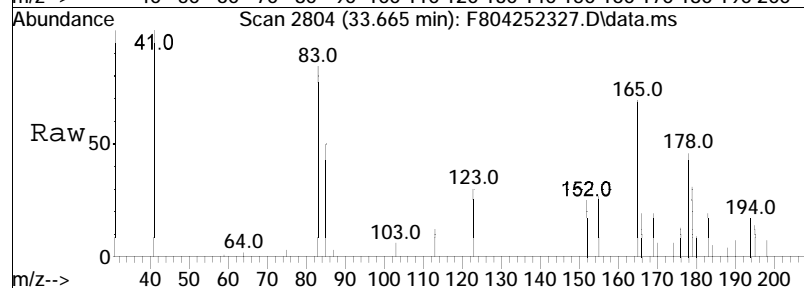
Tgt Ion	Ratio	Lower	Upper
234	100		
219	1.2	46.2	85.8#

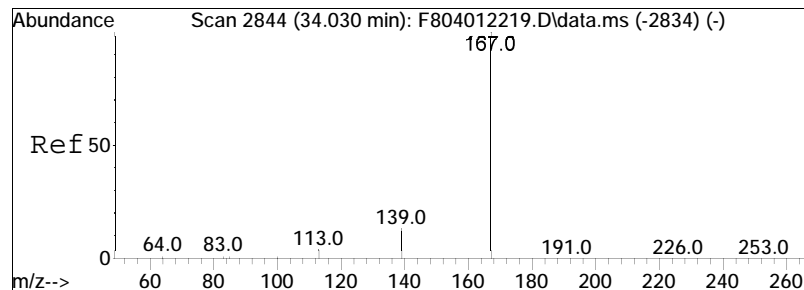




#53
 Anthracene
 Concen: 184.41 ng/mL M4
 RT: 33.665 min Scan# 2804
 Delta R.T. 0.018 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

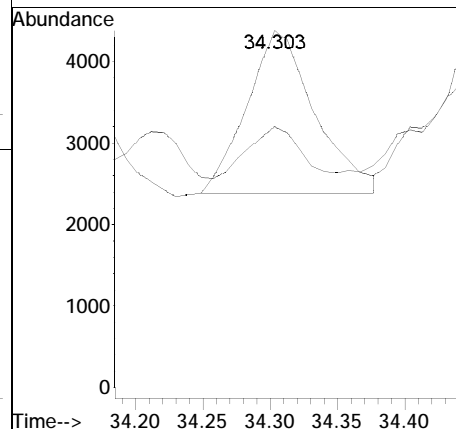
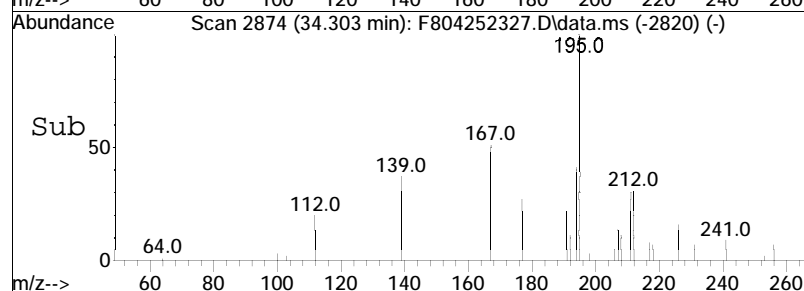
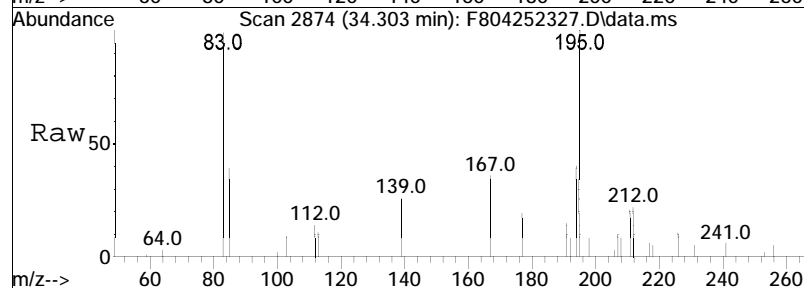
Tgt Ion: 178 Resp: 20668
 Ion Ratio Lower Upper
 178 100
 176 0.0 13.6 25.2#

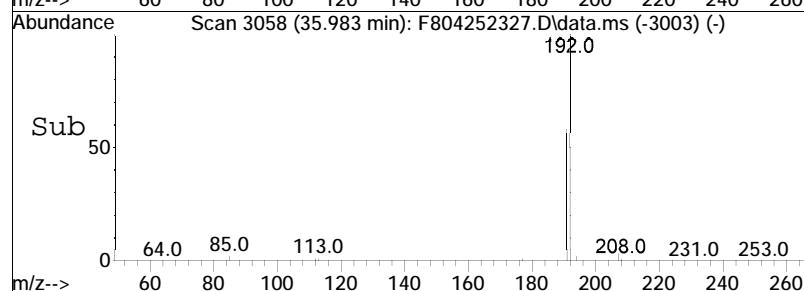
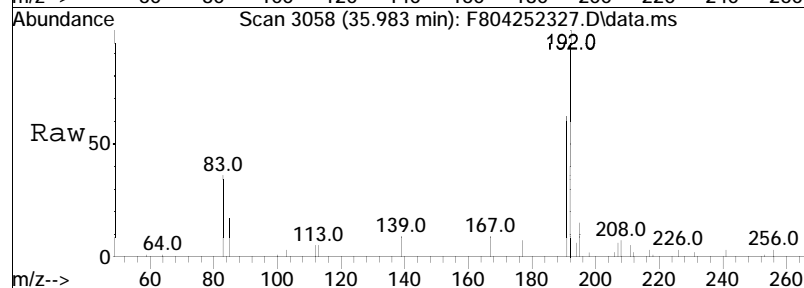
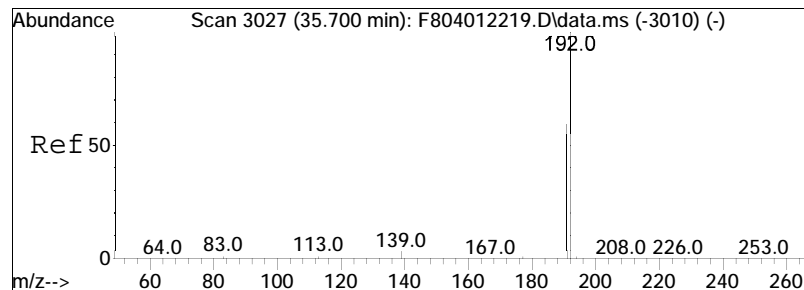




#54
 Carbazole
 Concen: 52.66 ng/mL
 RT: 34.303 min Scan# 2874
 Delta R.T. -0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

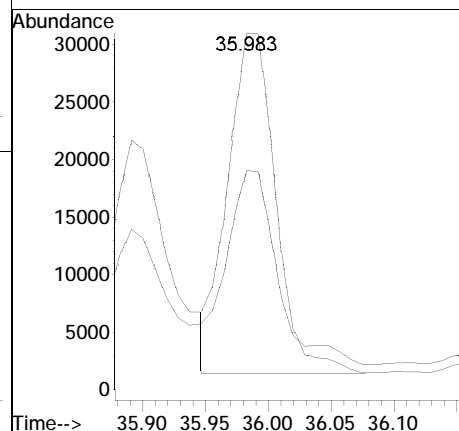
Tgt Ion: 167 Resp: 7024
 Ion Ratio Lower Upper
 167 100
 139 0.0 9.6 17.8#

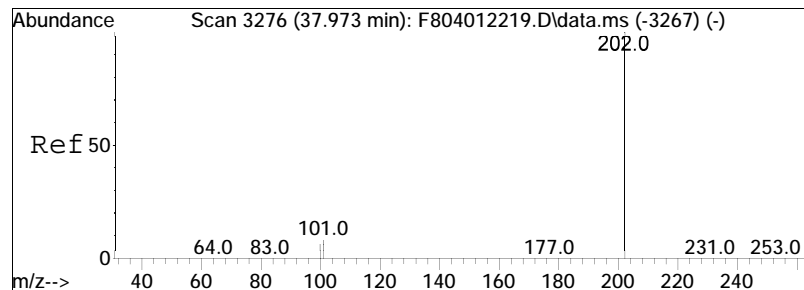




#55
 1-Methylphenanthrene
 Concen: 931.14 ng/mL
 RT: 35.983 min Scan# 3058
 Delta R.T. -0.000 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

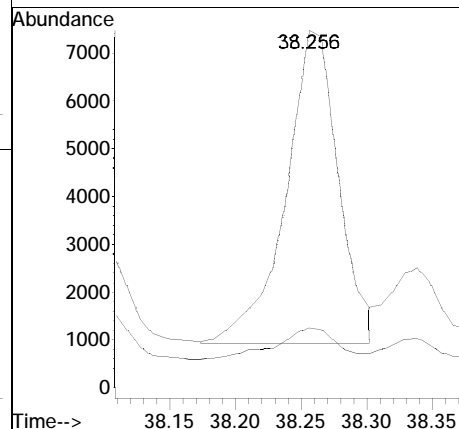
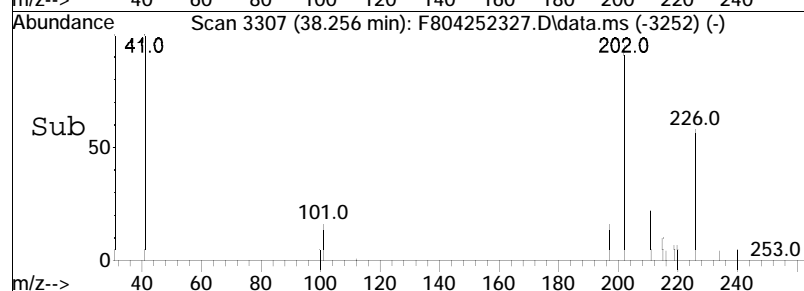
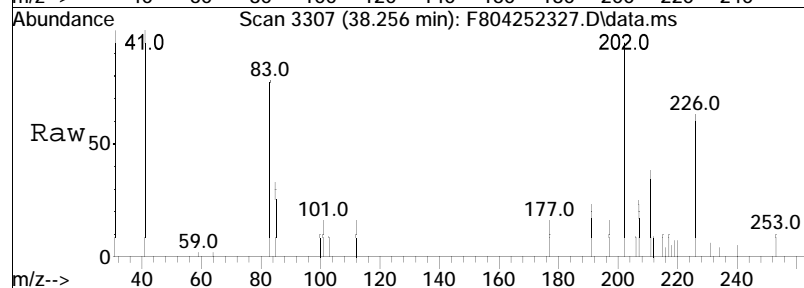
Tgt	Ion	Ratio	Lower	Upper
192	100			
191	65.0	40.7	75.5	

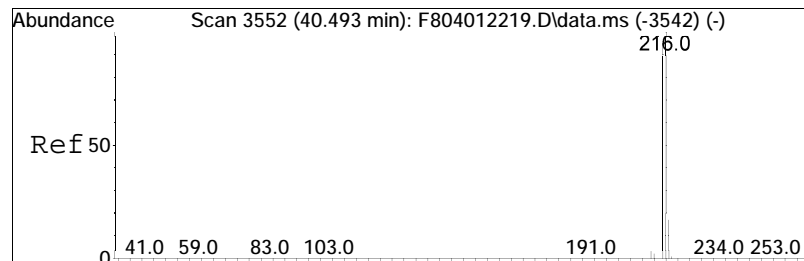




#56
 Fluoranthene
 Concen: 142.38 ng/mL M4
 RT: 38.256 min Scan# 3307
 Delta R.T. -0.000 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

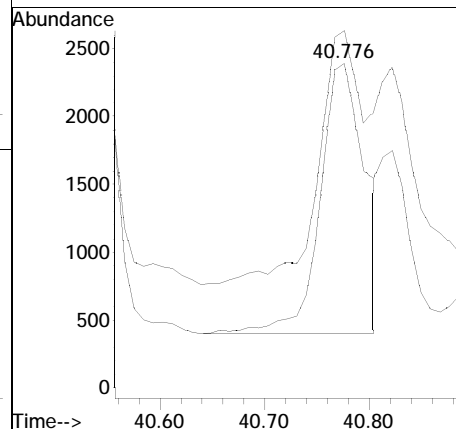
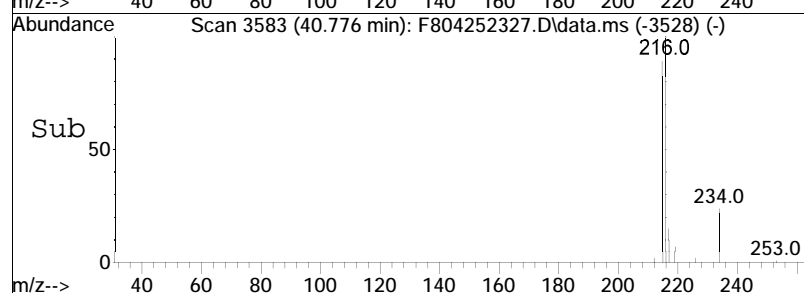
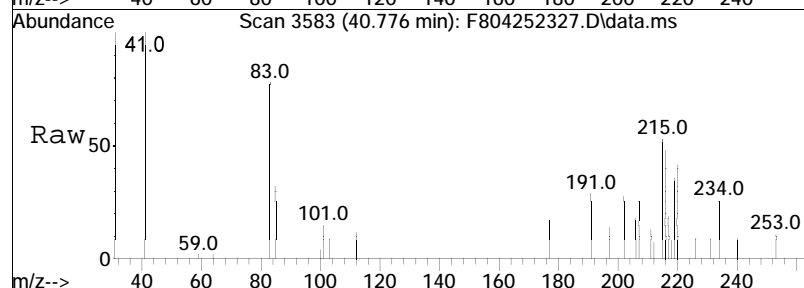
Tgt Ion	Ratio	Lower	Upper
202	100		
101	16.2	9.0	16.6

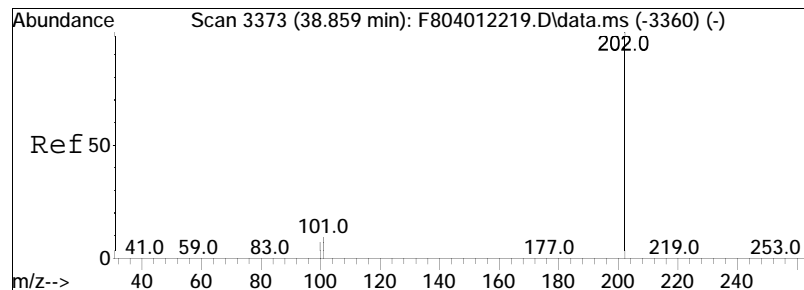




#57
 Benzo(b)fluorene
 Concen: 86.15 ng/mL
 RT: 40.776 min Scan# 3583
 Delta R.T. -0.000 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

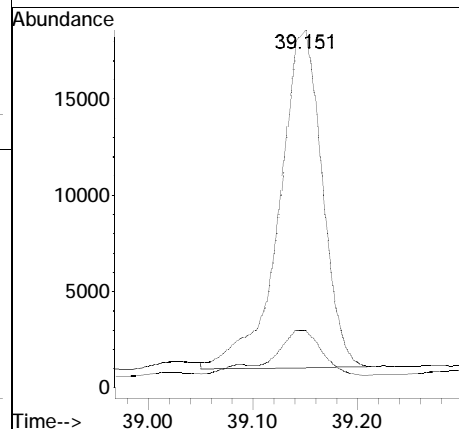
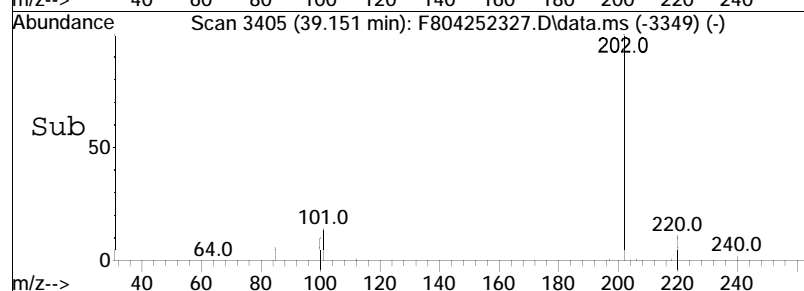
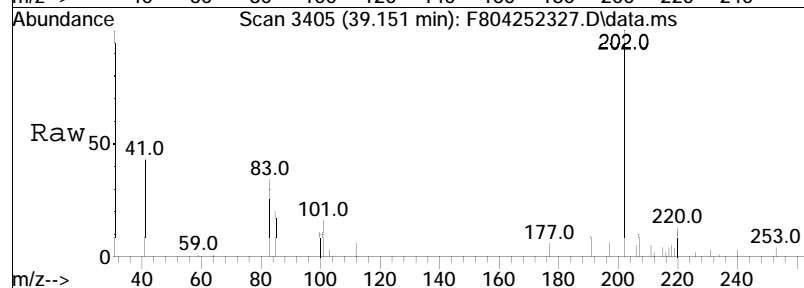
Tgt Ion: 216 Resp: 5958
 Ion Ratio Lower Upper
 216 100
 215 85.1 66.1 122.7

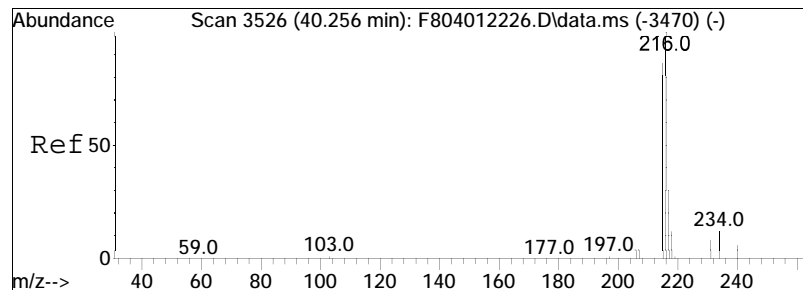




#59
 Pyrene
 Concen: 388.17 ng/mL
 RT: 39.151 min Scan# 3405
 Delta R.T. 0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

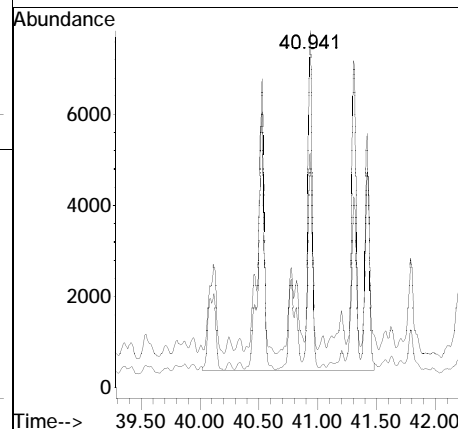
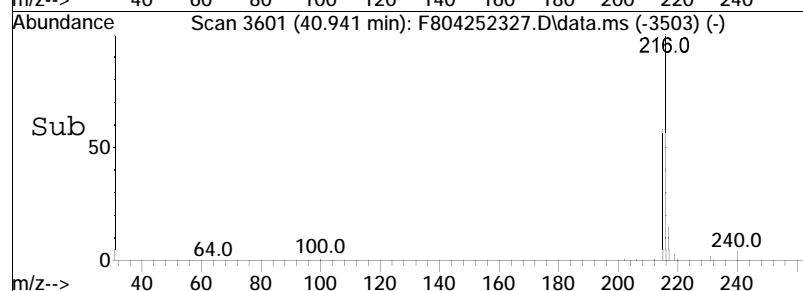
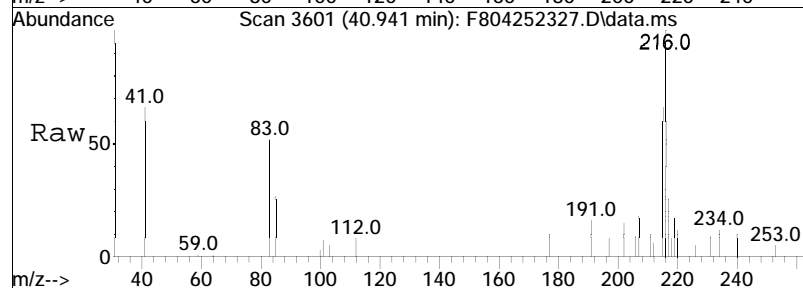
Tgt Ion	Ratio	Lower	Upper
202	100		
101	15.9	10.4	19.4

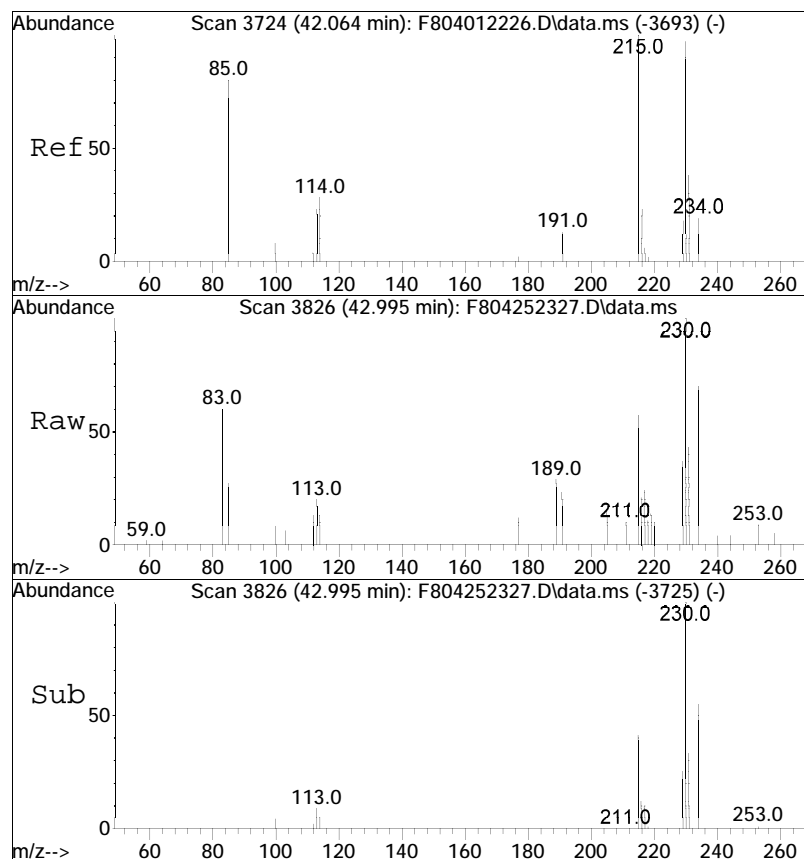




#63
 Cl-Fluoranthenes/Pyrenes
 Concen: 714.93 ng/mL M5
 RT: 40.941 min Scan# 3601
 Delta R.T. 0.388 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

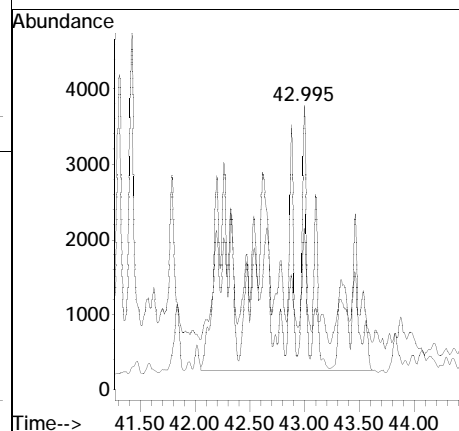
Tgt Ion	Ratio	Lower	Upper
216	100		
215	15.8	64.8	120.3#

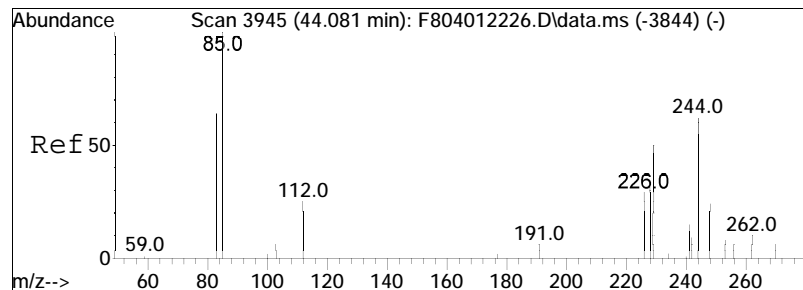




#64
 C2-Fluoranthenes/Pyrenes
 Concen: 707.28 ng/mL M5
 RT: 42.995 min Scan# 3826
 Delta R.T. 0.322 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

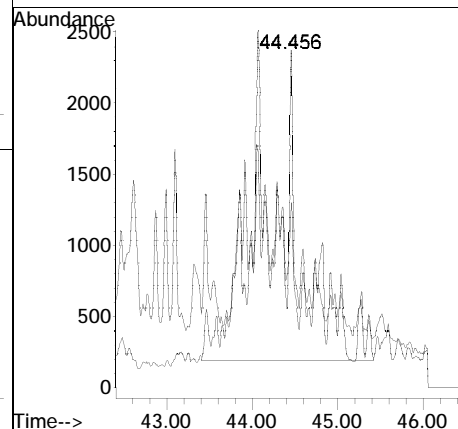
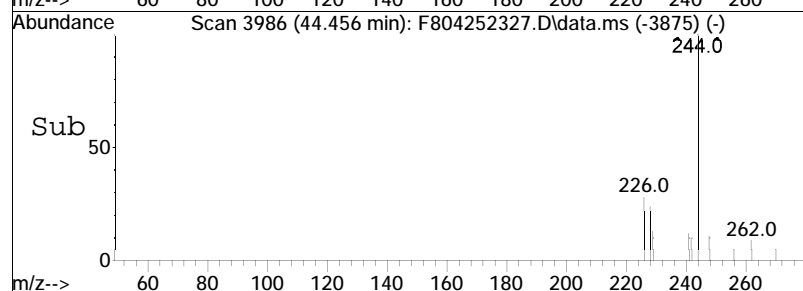
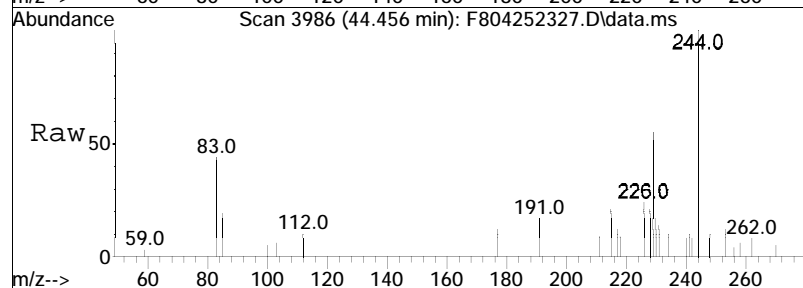
Tgt Ion	Ratio	Lower	Upper
230	100		
215	5.0	63.3	117.7#

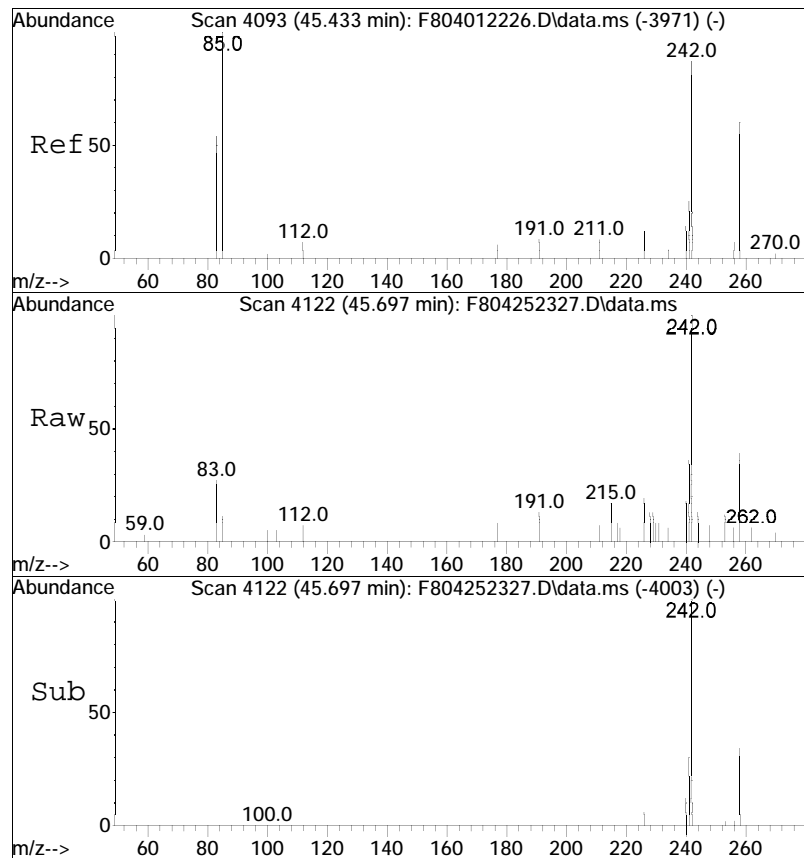




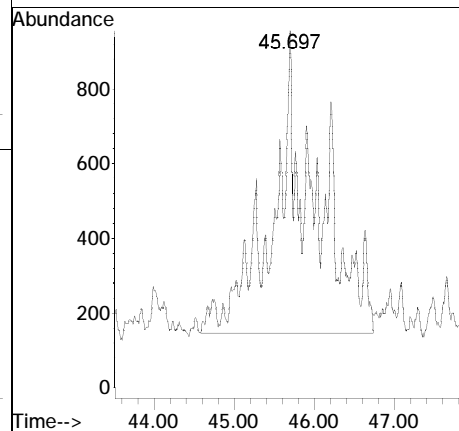
#65
 C3-Fluoranthenes/Pyrenes
 Concen: 466.76 ng/mL M5
 RT: 44.456 min Scan# 3986
 Delta R.T. 0.082 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

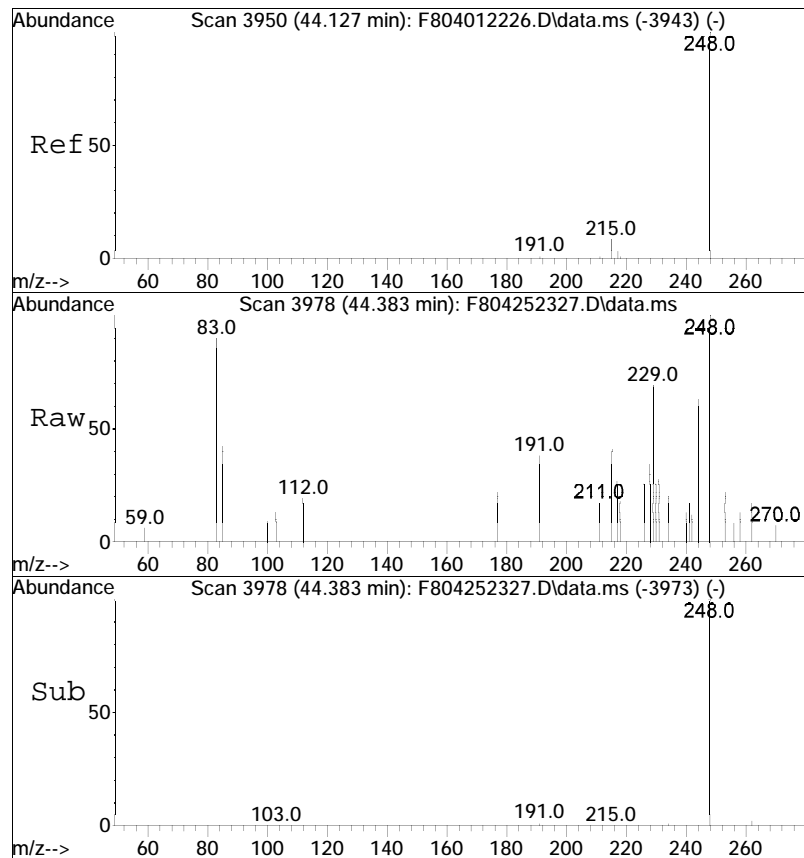
Tgt Ion: 244 Resp: 59964
 Ion Ratio Lower Upper
 244 100
 229 2.3 71.8 133.4#



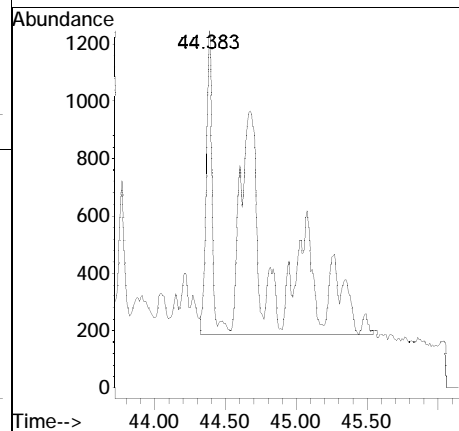


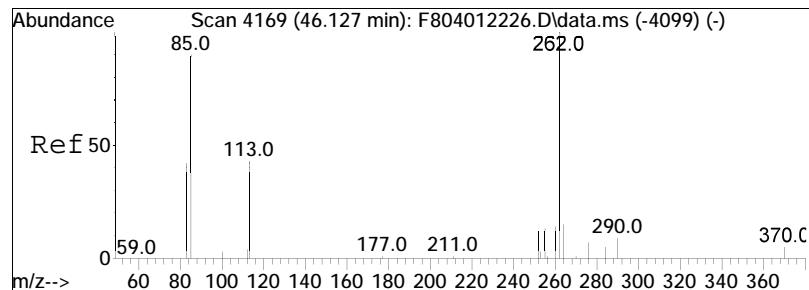
#66
 C4-Fluoranthenes/Pyrenes
 Concen: 230.86 ng/mL M5
 RT: 45.697 min Scan# 4122
 Delta R.T. -0.028 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm
 Tgt Ion: 258 Resp: 29659





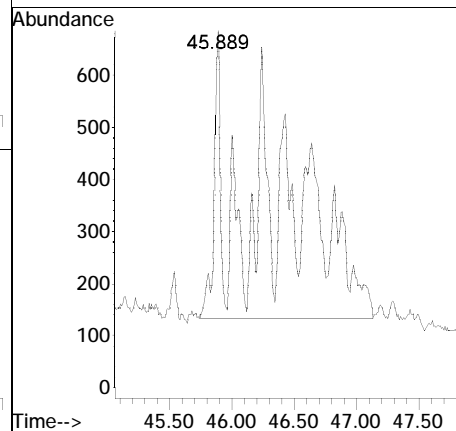
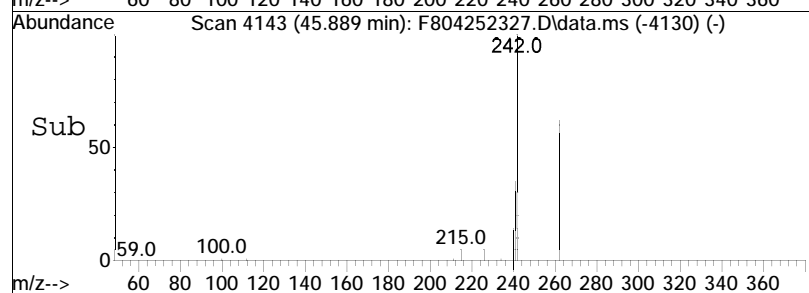
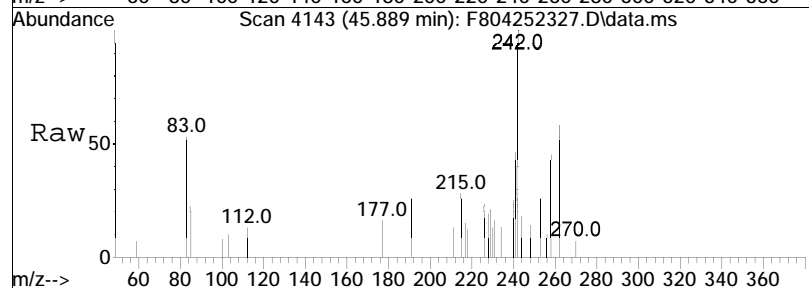
#70
 Cl-Naphthobenzothiophenes
 Concen: 125.49 ng/ml M5
 RT: 44.383 min Scan# 3978
 Delta R.T. -0.036 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm
 Tgt Ion:248 Resp: 15754

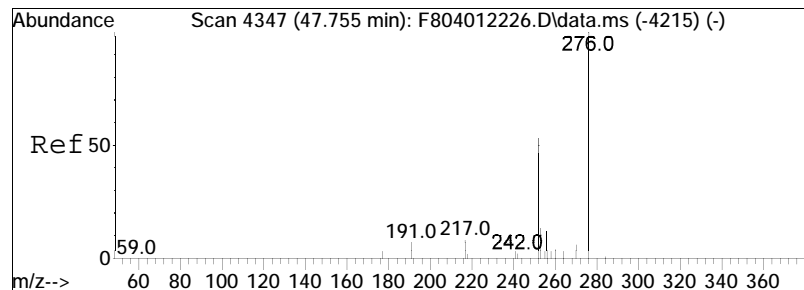




#71
 C2-Naphthobenzothiophenes
 Concen: 114.99 ng/ml M5
 RT: 45.889 min Scan# 4143
 Delta R.T. -0.541 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

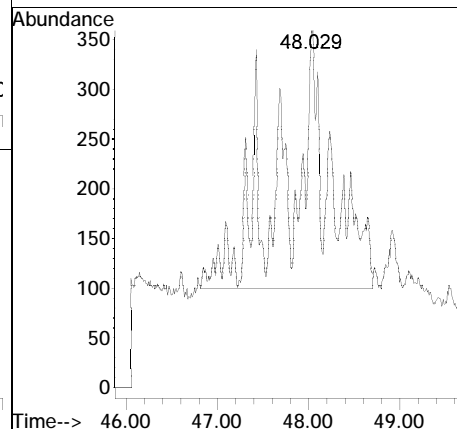
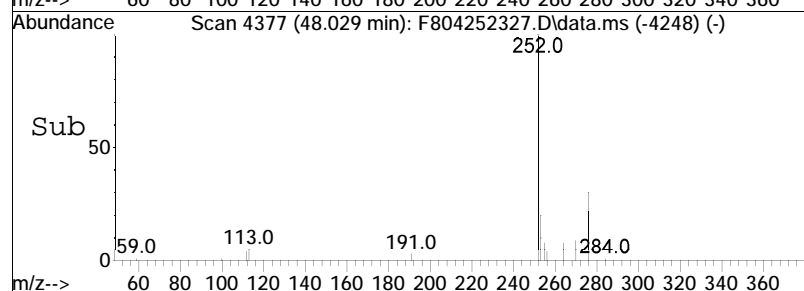
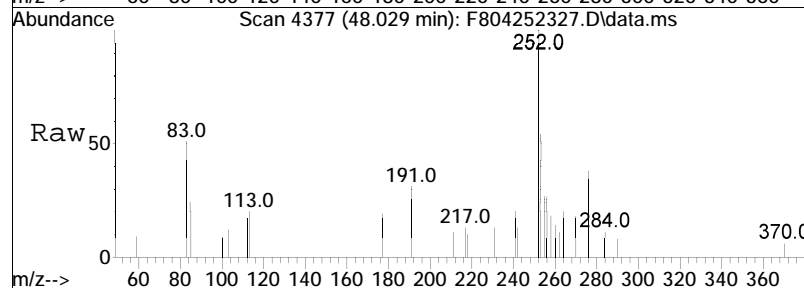
Tgt Ion: 262 Resp: 14436

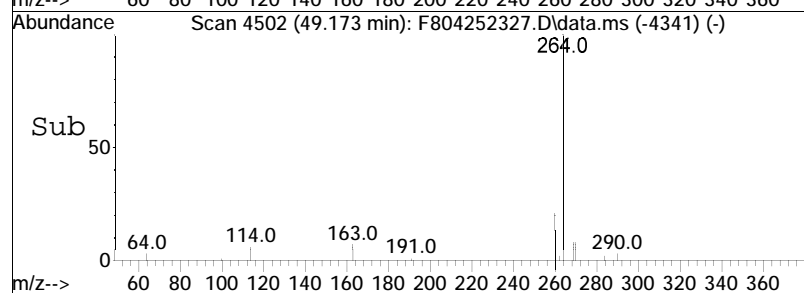
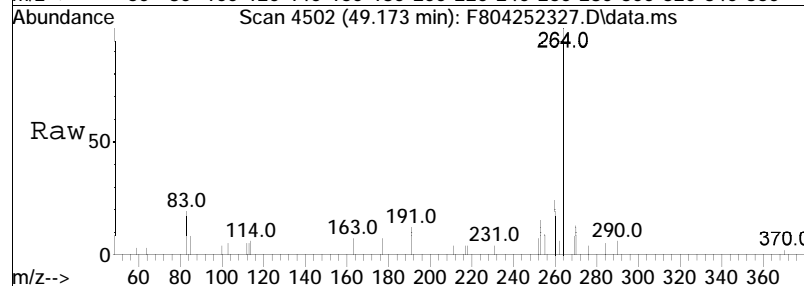
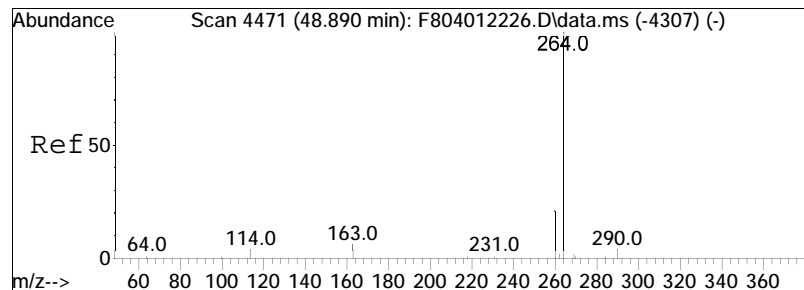




#72
 C3-Naphthobenzothiophenes
 Concen: 68.62 ng/ml M5
 RT: 48.029 min Scan# 4377
 Delta R.T. -0.049 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

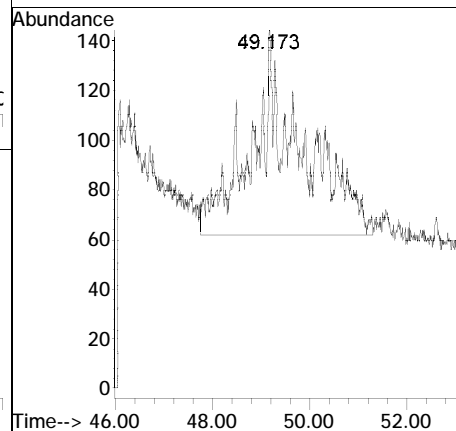
Tgt Ion: 276 Resp: 8614

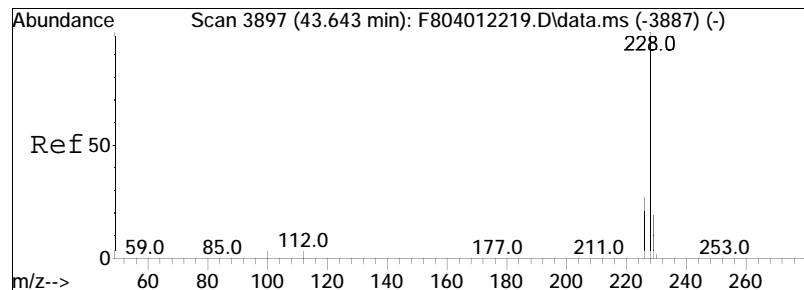




#73
 C4-Naphthobenzothiophenes
 Concen: 44.89 ng/mL M5
 RT: 49.173 min Scan# 4502
 Delta R.T. -0.051 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

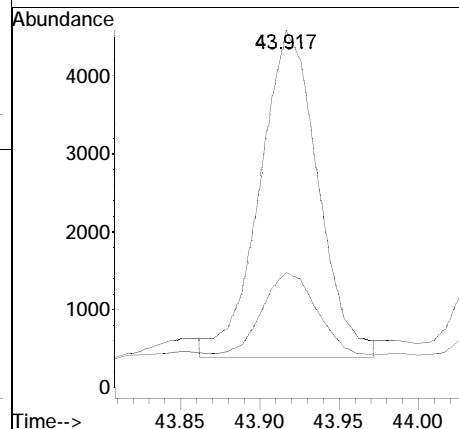
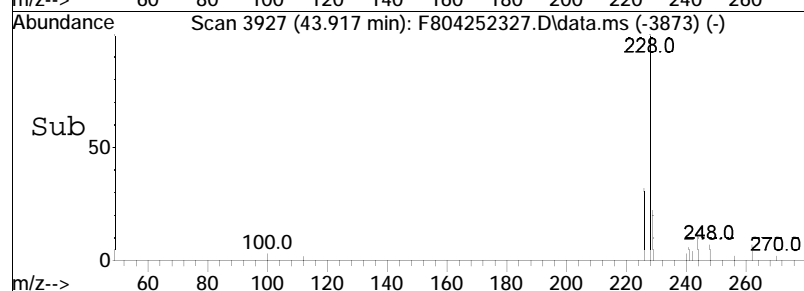
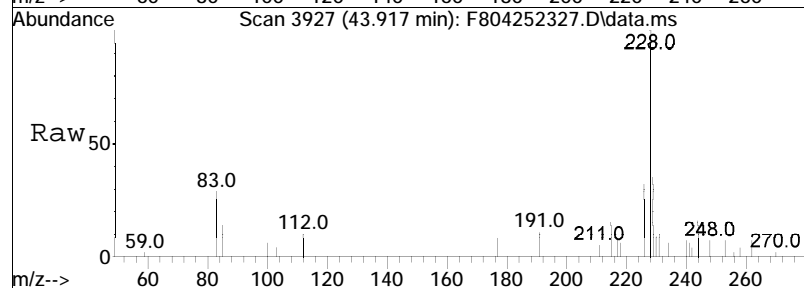
Tgt Ion: 290 Resp: 5636

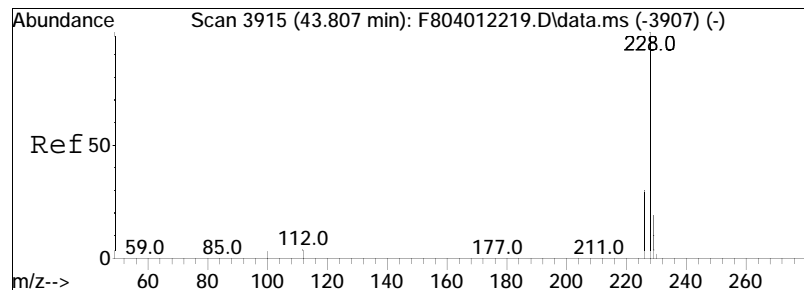




#75
Benz[a]anthracene
Concen: 95.08 ng/mL M4
RT: 43.917 min Scan# 3927
Delta R.T. -0.009 min
Lab File: F804252327.D
Acq: 26 Apr 2023 8:12 pm

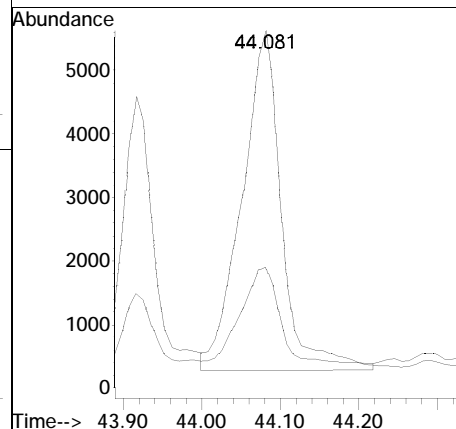
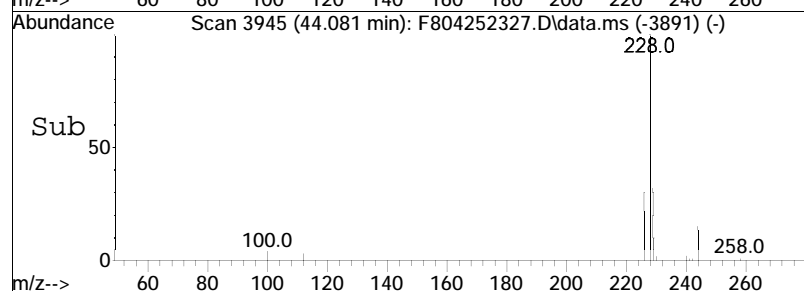
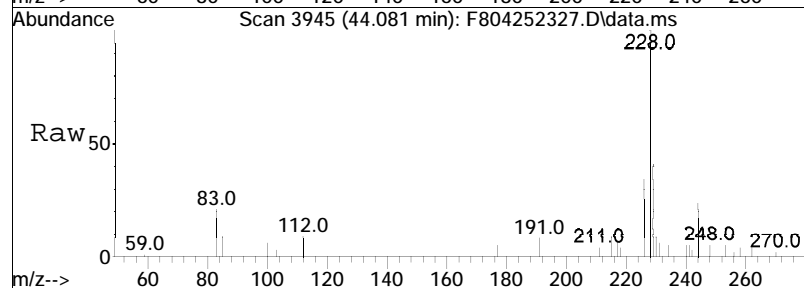
Tgt Ion	Ratio	Lower	Upper
228	100		
226	28.0	20.4	38.0

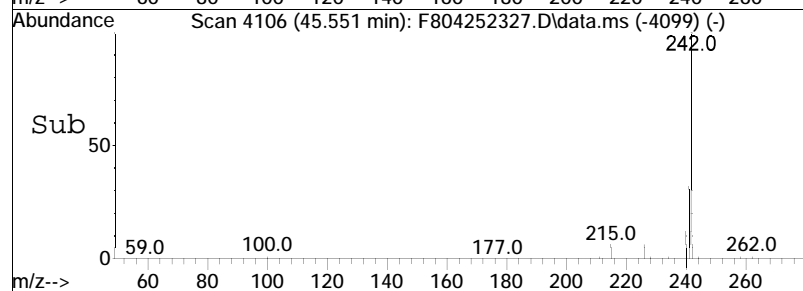
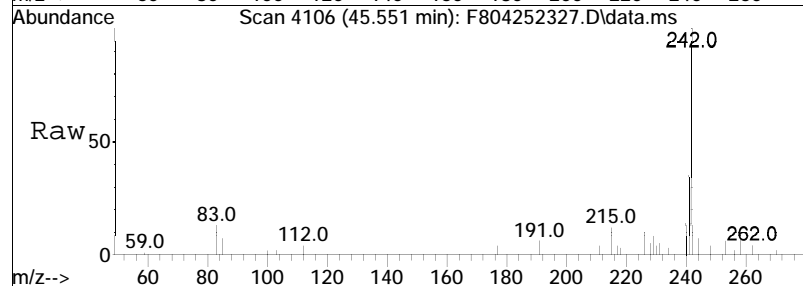
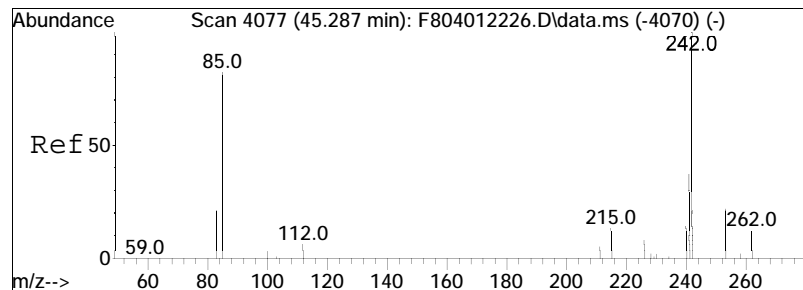




#76
 Chrysene
 Concen: 164.57 ng/mL
 RT: 44.081 min Scan# 3945
 Delta R.T. -0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

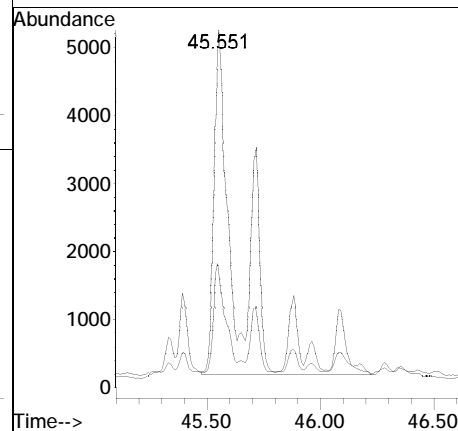
Tgt Ion: 228 Resp: 18771
 Ion Ratio Lower Upper
 228 100
 226 35.1 22.5 41.7

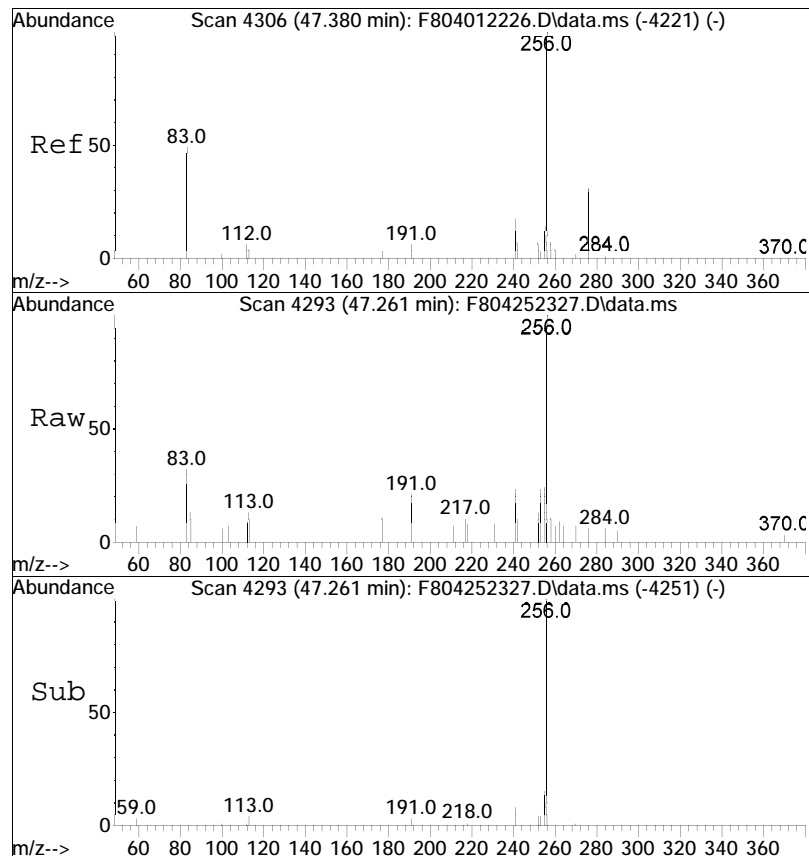




#78
 Cl-Chrysenes
 Concen: 330.98 ng/mL M5
 RT: 45.551 min Scan# 4106
 Delta R.T. -0.011 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

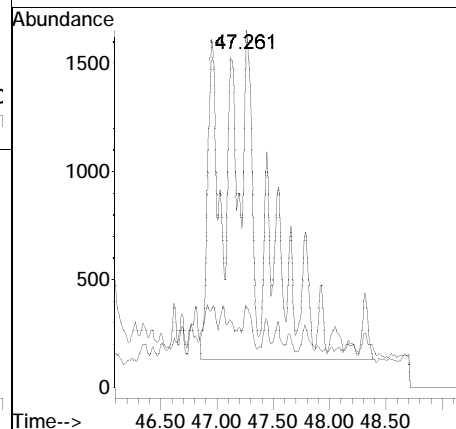
Tgt Ion	Ratio	Lower	Upper
242	100		
241	15.0	30.8	57.2#

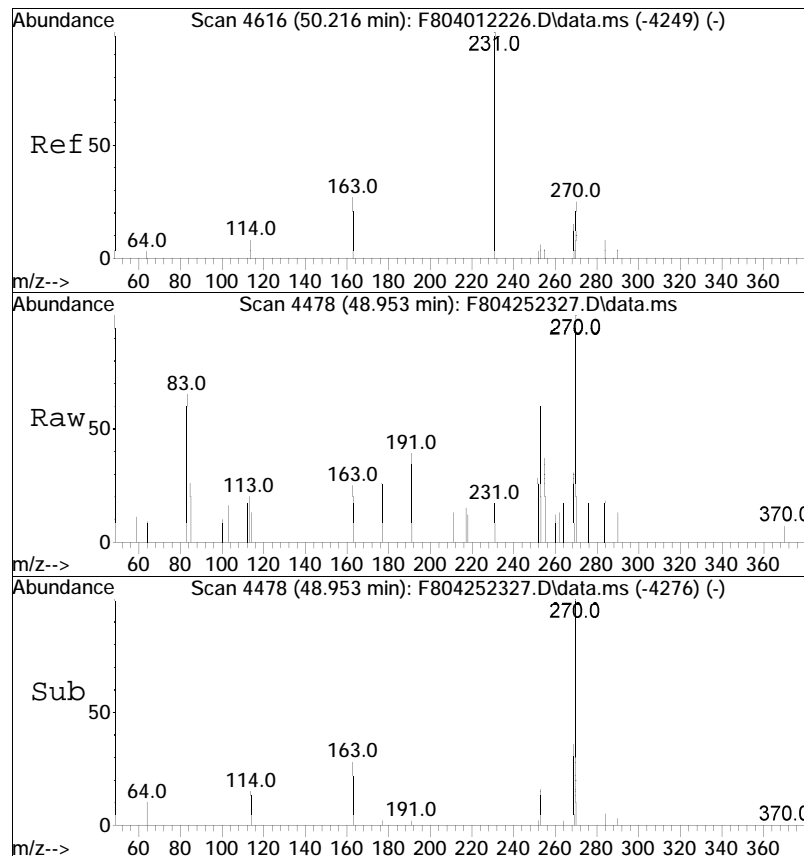




#79
 C2-Chrysenes
 Concen: 356.98 ng/mL M5
 RT: 47.261 min Scan# 4293
 Delta R.T. -0.414 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

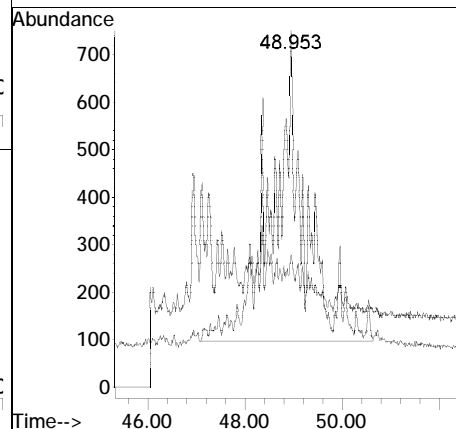
Tgt	Ion	Resp	Lower	Upper
256	100			
241	0.3		28.3	52.7#

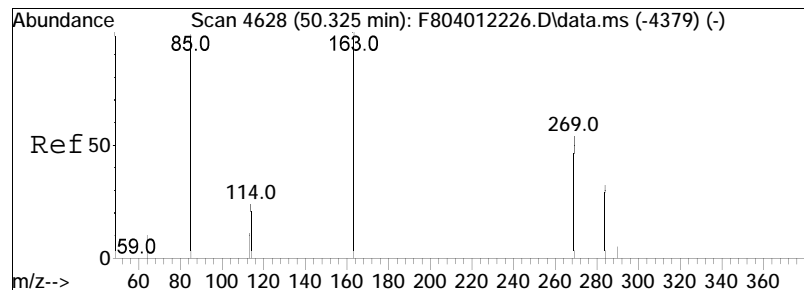




#81
 C3-Chrysenes
 Concen: 255.32 ng/mL M5
 RT: 48.953 min Scan# 4478
 Delta R.T. -1.605 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

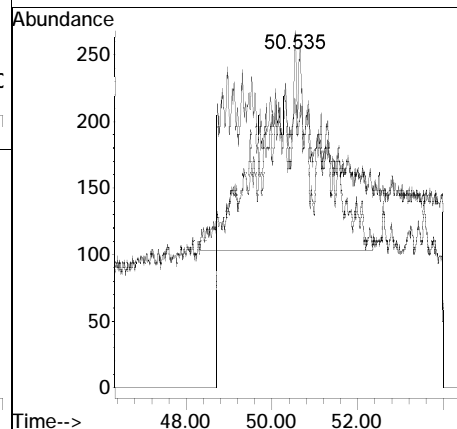
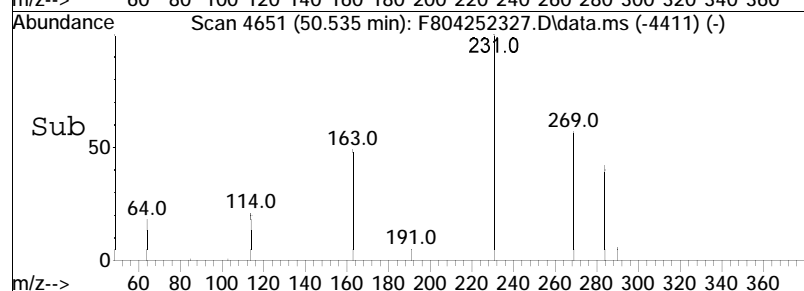
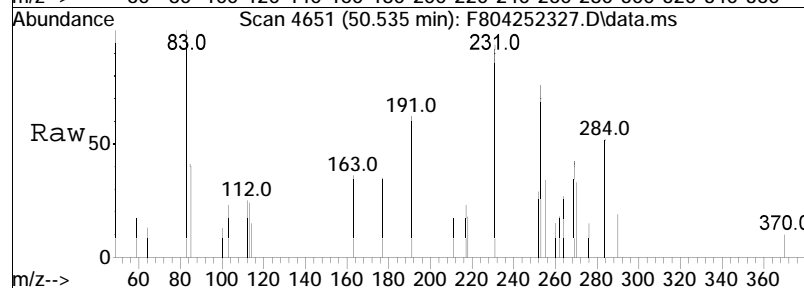
Tgt	Ion	Resp	Lower	Upper
270	100	29122		
255	0.4	40.9	76.0#	

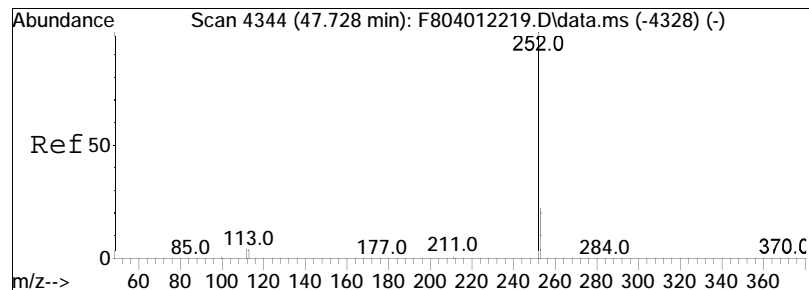




#82
 C4-Chrysenes
 Concen: 113.98 ng/mL M5
 RT: 50.535 min Scan# 4651
 Delta R.T. -0.014 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

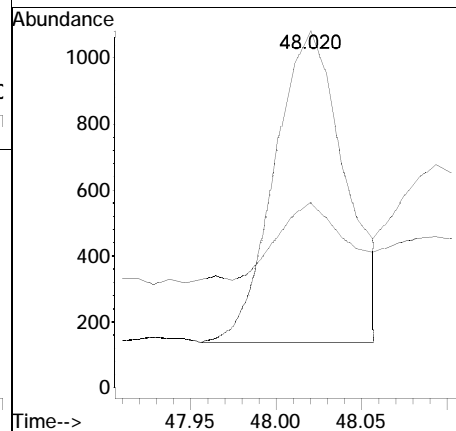
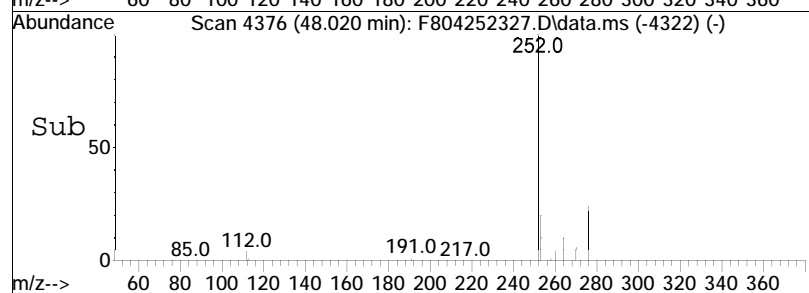
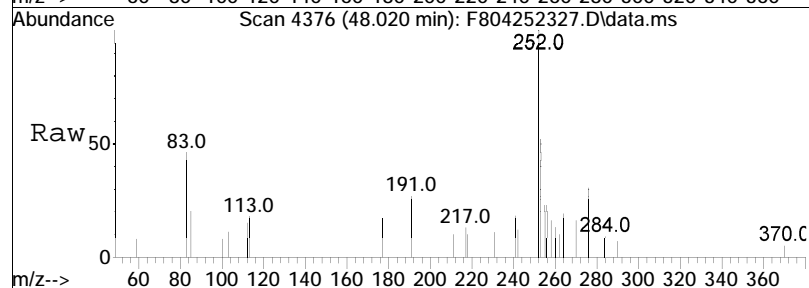
Tgt Ion: 284 Resp: 13001
 Ion Ratio Lower Upper
 284 100
 269 0.0 72.7 134.9#

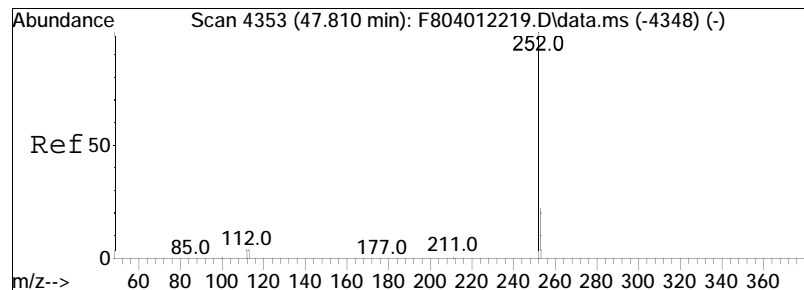




#84
 Benzo[b]fluoranthene
 Concen: 20.52 ng/mL
 RT: 48.020 min Scan# 4376
 Delta R.T. -0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

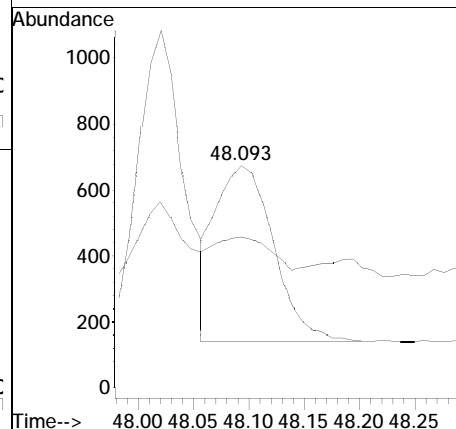
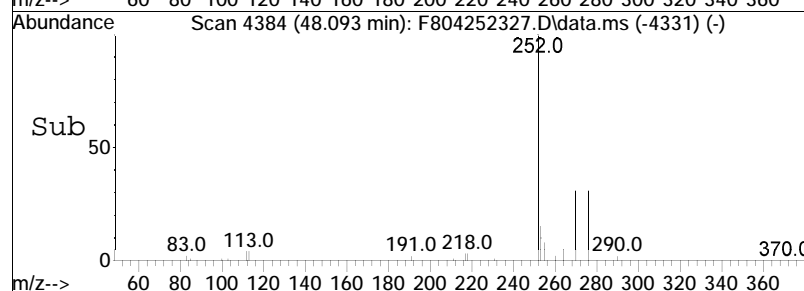
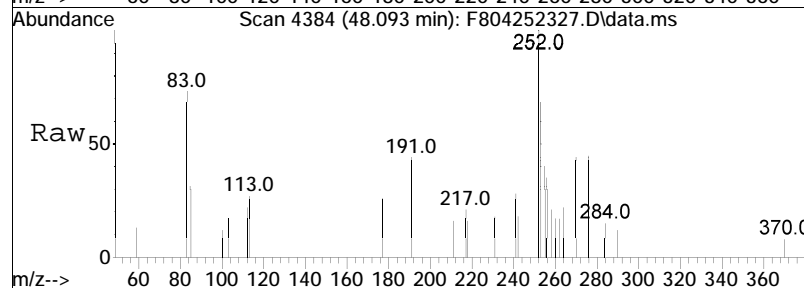
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	27.0	17.4	32.2	

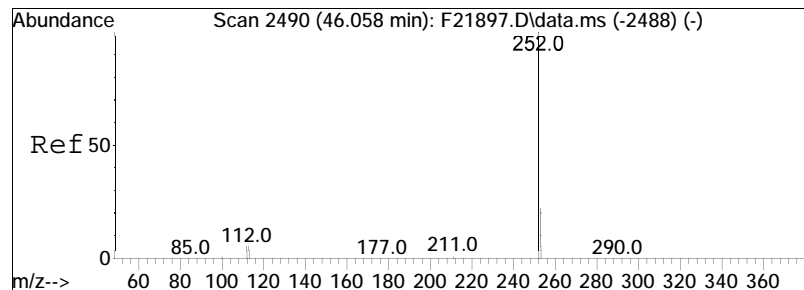




#85
 Benzo[j]+[k]fluoranthene
 Concen: 14.59 ng/mL
 RT: 48.093 min Scan# 4384
 Delta R.T. -0.018 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

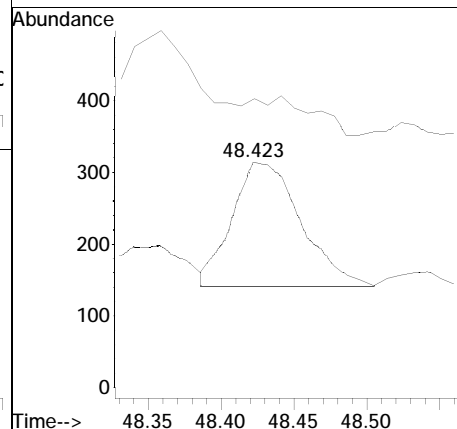
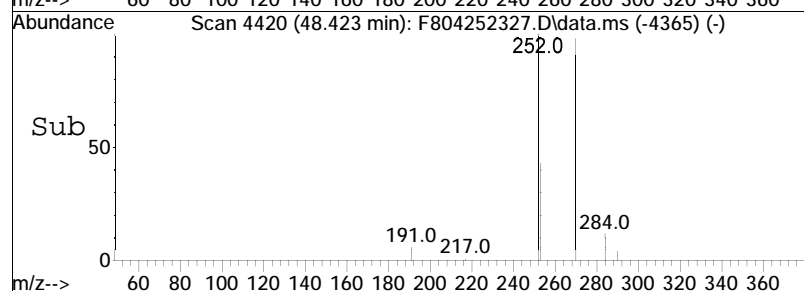
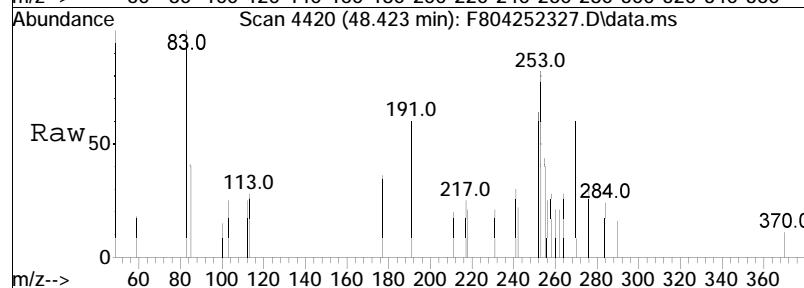
Tgt Ion	Ratio	Lower	Upper
252	100		
253	19.4	17.2	32.0

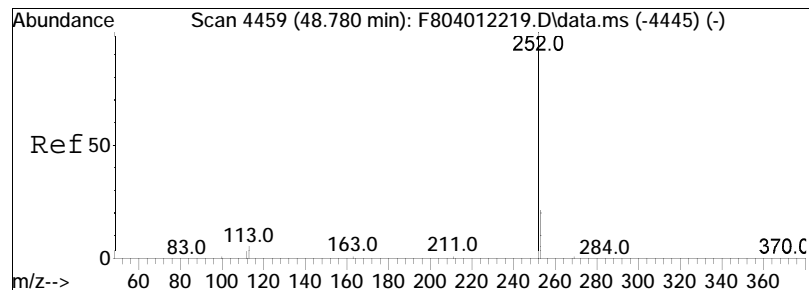




#86
 Benzo[a]fluoranthene
 Concen: 4.22 ng/mL M3
 RT: 48.423 min Scan# 4420
 Delta R.T. -0.000 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

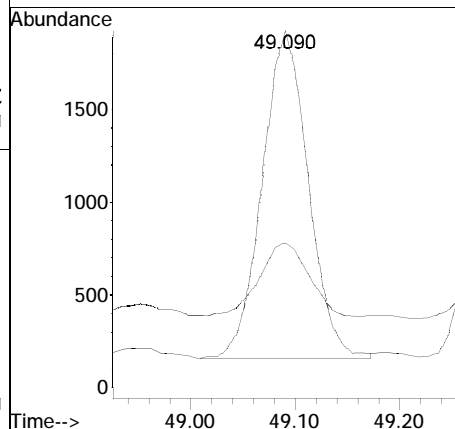
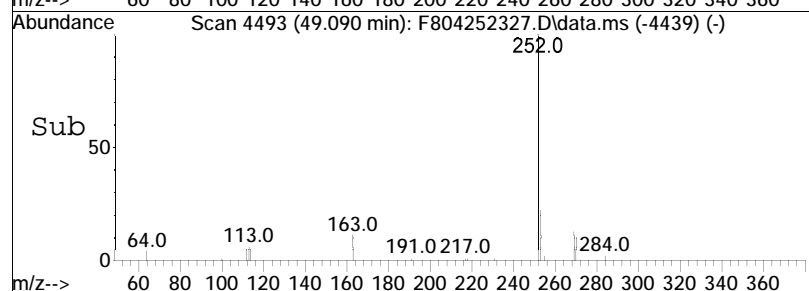
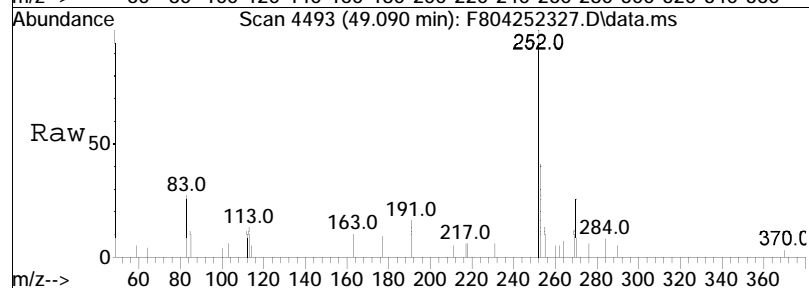
Tgt	Ion	Ratio	Lower	Upper
252	100			
253	116.5	216.7	402.5#	

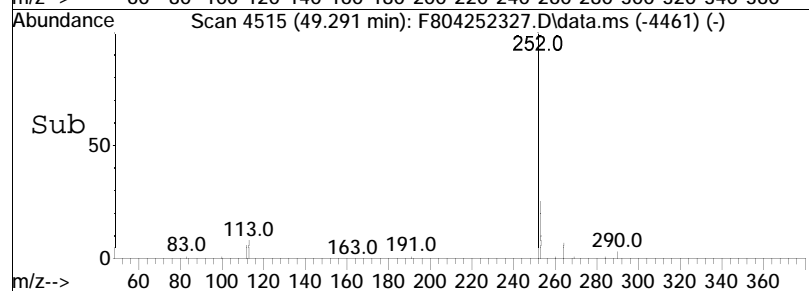
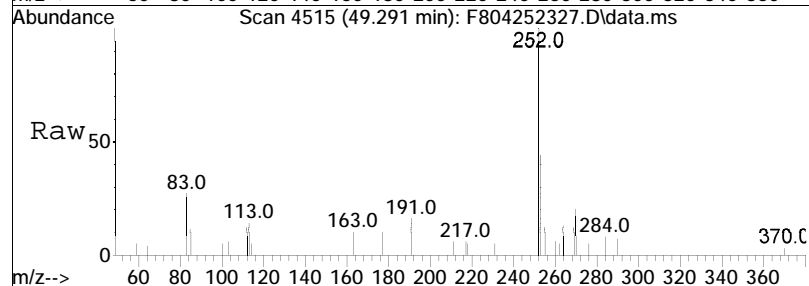
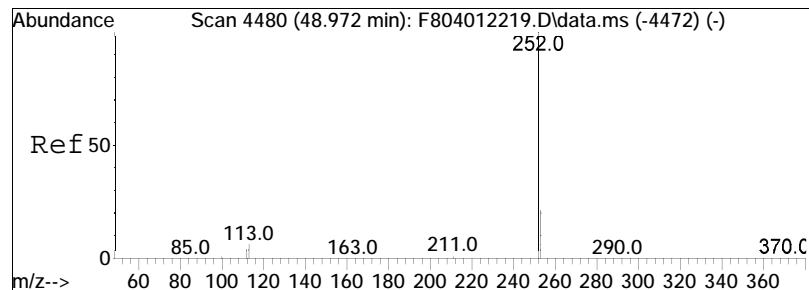




#87
 Benzo[e]pyrene
 Concen: 42.11 ng/mL
 RT: 49.090 min Scan# 4493
 Delta R.T. -0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

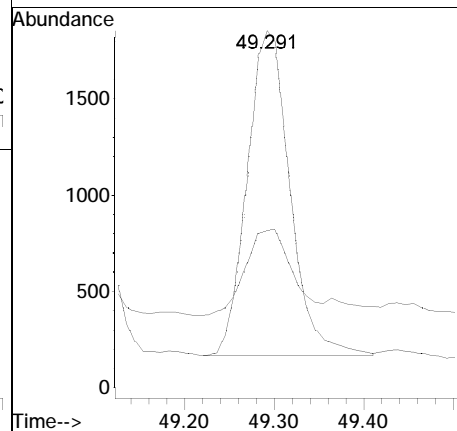
Tgt	Ion	Resp	Lower	Upper
252	100	5399		
253	24.6	17.6	32.8	

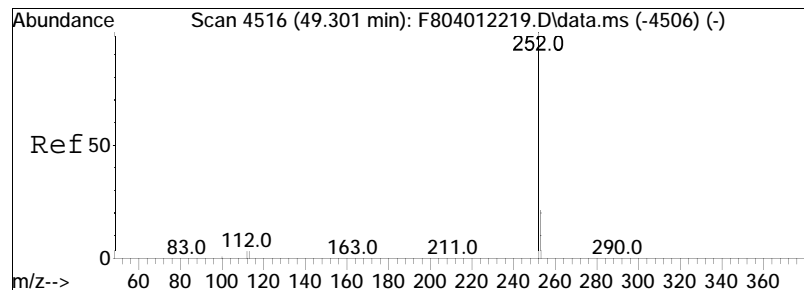




#89
Benzo[a]pyrene
Concen: 45.69 ng/mL
RT: 49.291 min Scan# 4515
Delta R.T. -0.009 min
Lab File: F804252327.D
Acq: 26 Apr 2023 8:12 pm

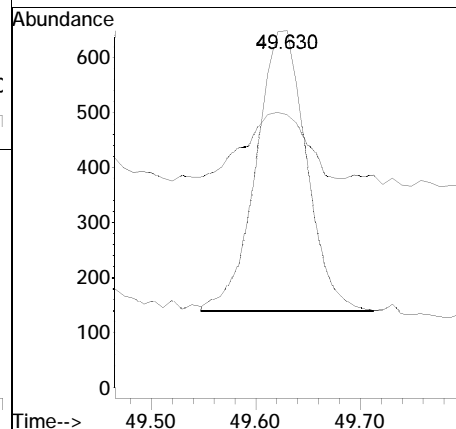
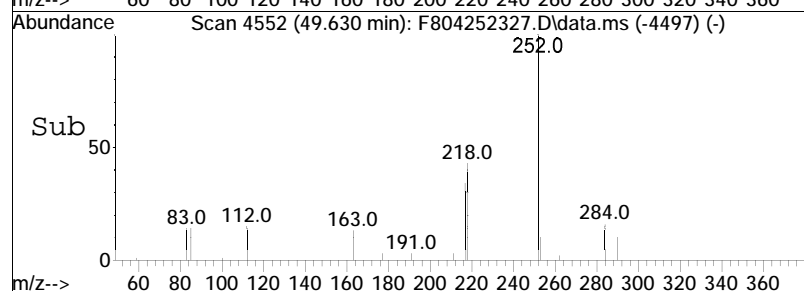
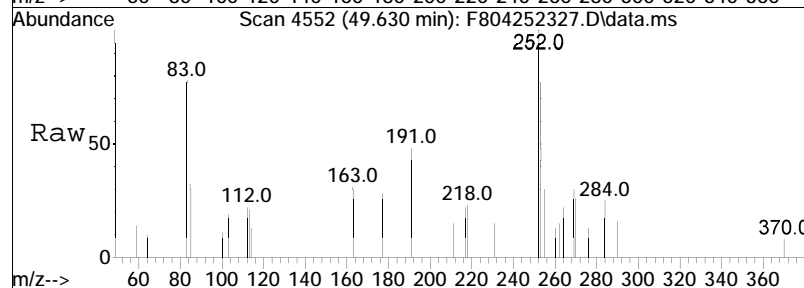
Tgt	Ion	Resp	Lower	Upper
252	100			
253	29.1		17.8	33.0

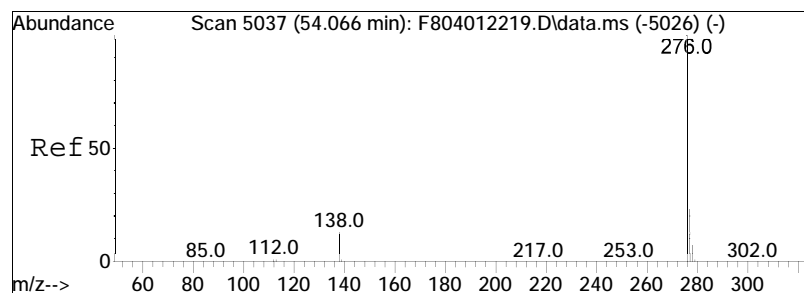




#90
Perylene
Concen: 13.72 ng/mL
RT: 49.630 min Scan# 4552
Delta R.T. -0.000 min
Lab File: F804252327.D
Acq: 26 Apr 2023 8:12 pm

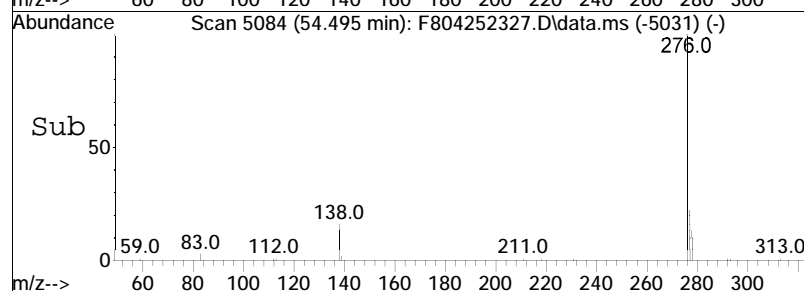
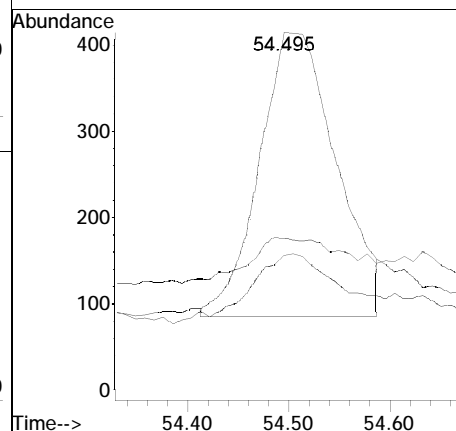
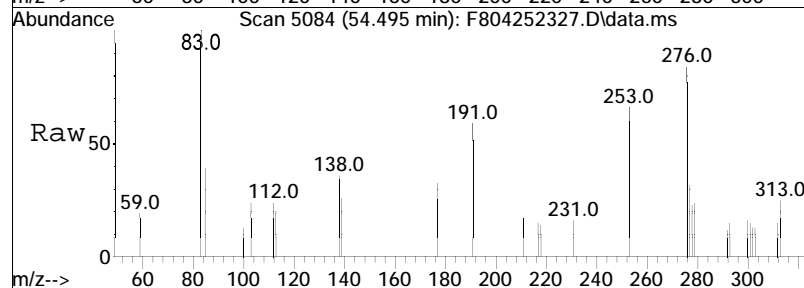
Tgt Ion	Ratio	Lower	Upper
252	100		
253	30.7	18.0	33.4

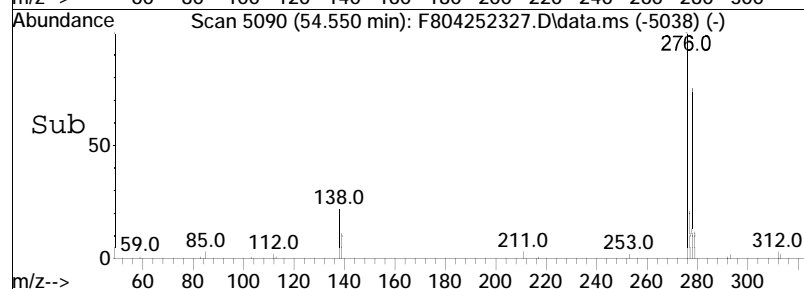
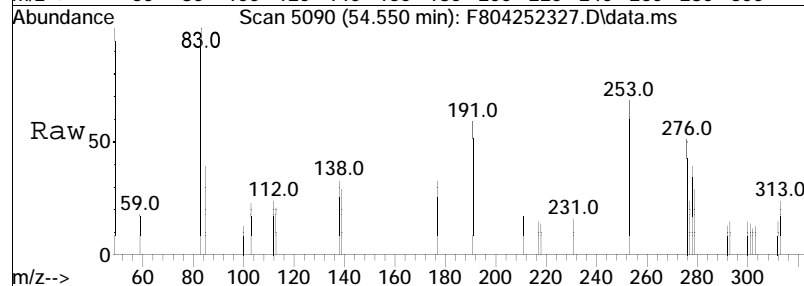
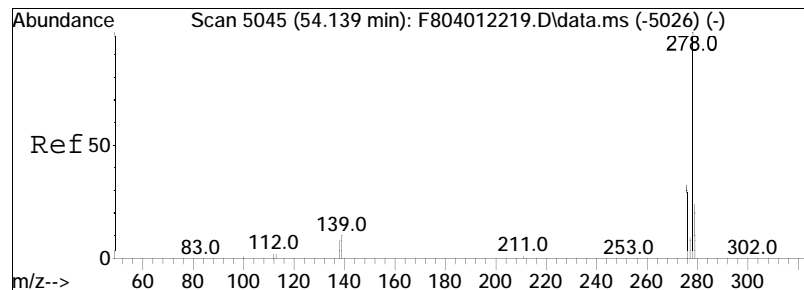




#91
 Indeno[1,2,3-cd]pyrene
 Concen: 11.64 ng/mL M3
 RT: 54.495 min Scan# 5084
 Delta R.T. -0.018 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

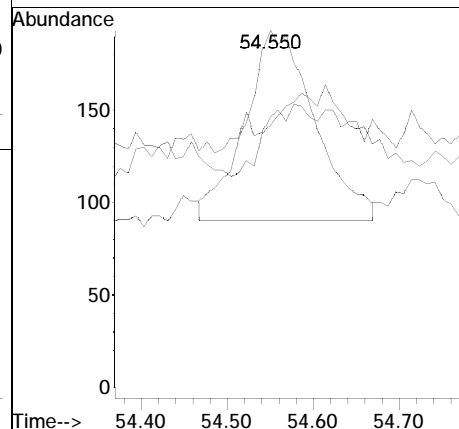
Tgt	Ion	Ratio	Lower	Upper
276	100			
138	0.0	15.8	29.3#	
277	14.7	16.2	30.2#	

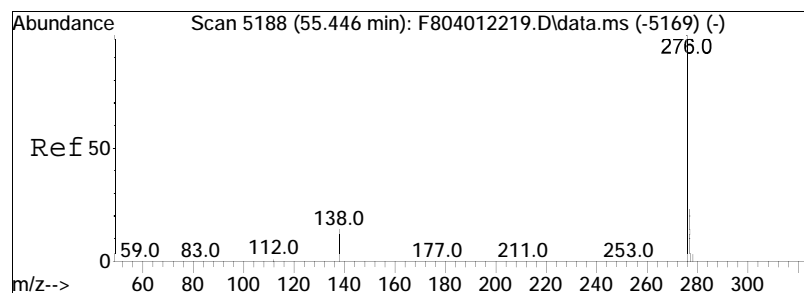




#92
 Dibenz[ah]+[ac]anthracene
 Concen: 4.74 ng/mL M4
 RT: 54.550 min Scan# 5090
 Delta R.T. -0.028 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

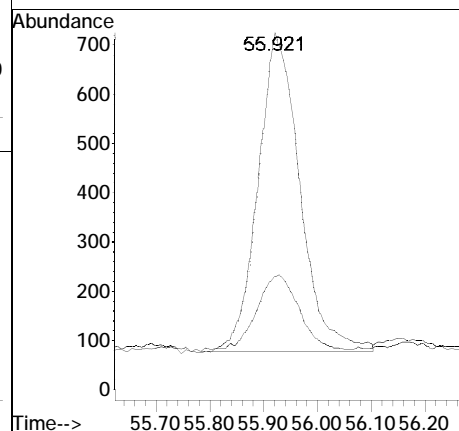
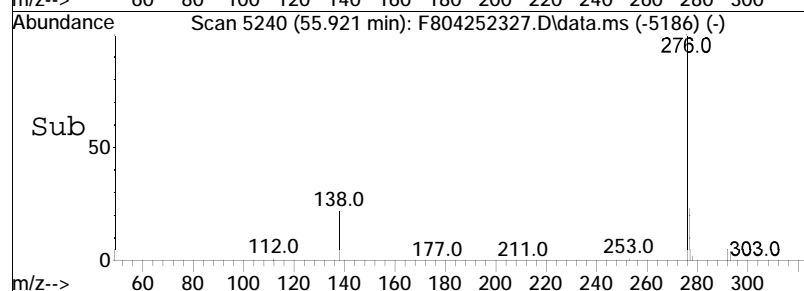
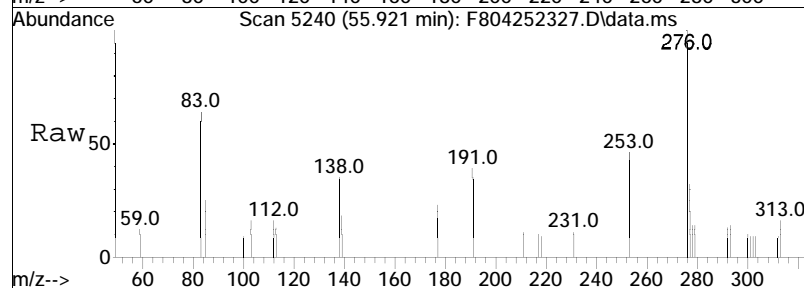
Tgt	Ion	Ratio	Lower	Upper
278	100			
139	0.0	15.0	27.8#	
279	0.0	16.7	31.1#	





#93
 Benzo[g,h,i]perylene
 Concen: 23.27 ng/mL
 RT: 55.921 min Scan# 5240
 Delta R.T. -0.009 min
 Lab File: F804252327.D
 Acq: 26 Apr 2023 8:12 pm

Tgt Ion: 276 Resp: 3469
 Ion Ratio Lower Upper
 276 100
 277 25.7 16.4 30.4



Sample Preparation



ORGANIC ELN REPORT

Workgroup: WG1770361

<div>Prep Method: ALPHA OP-013</div> <div>Solvent Type: DCM</div> <div>Surrogate Type: A2-PAH/SHC</div> <div>Spike Type: A2-PAH/SHC</div> <div>Spike Verify by: NA</div> <div>Lims Spikelot: A2-PAH/SHC</div> <div>Additional Reagents/Std</div> <table><tr><td>Na2SO4</td><td>23A1161006</td></tr><tr><td></td><td></td></tr></table>	Na2SO4	23A1161006			<div>Conc.Method: S-EVAP/N-EVAP</div> <div>Solvent Type: DCM</div> <div>Lot #: EG212-US</div> <div>Additional Reagents/Std</div> <table><tr><td>Glass Wool</td><td>16022999</td></tr><tr><td>Na2SO4</td><td>23A1161006</td></tr><tr><td>Granulated Copper</td><td>OWR042523A</td></tr></table>	Glass Wool	16022999	Na2SO4	23A1161006	Granulated Copper	OWR042523A	<div>Cleanup 1</div> <div>Cleanup Method 1:</div> <div>Cleanup Method 2:</div> <div>Solvent Type:</div> <div>Lot #:</div> <div>Additional Reagents/Std</div>
Na2SO4	23A1161006											
Glass Wool	16022999											
Na2SO4	23A1161006											
Granulated Copper	OWR042523A											

Extraction

Concentration

Sample/ Type	Extract Date	Analyst	Sample Weight g	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
L2320537-02 WIPE	04/24/23 13:11	Brittany Robinson	1	0.5		04/25/23 20:00	Gregory Fernberg	100	SEVAP 1/NEV AP2
BOTH NETS FROM SAMPLE CONTAINER A AND B WERE COMBINED TO CREATE ONE SAMPLE. 4/24/23 BLR									
WG1770361- 1 BLANK	04/24/23 13:11	Brittany Robinson	1	0.1		04/25/23 20:00	Gregory Fernberg	2	SEVAP 1/NEV AP2
WG1770361- 2 LCS	04/24/23 13:11	Brittany Robinson	1	0.1	0.1	04/25/23 20:00	Gregory Fernberg	2	SEVAP 1/NEV AP2
WG1770361- 3 LCSD	04/24/23 13:11	Brittany Robinson	1	0.1	0.1	04/25/23 20:00	Gregory Fernberg	2	SEVAP 1/NEV AP2



ORGANIC ELN REPORT

Workgroup: WG1769534

Prep Method: EPA 3580A Solvent Type: DCM Surrogate Type: A2-PAH/SHC Spike Type: A2-PAH/SHC Spike Verify by: NAG Lims Spikelot: A2-PAH/SHC Additional Reagents/Std <div>RISFRBF63</div>	Conc.Method: Solvent Type: Lot #: Additional Reagents/Std	Cleanup 1 Cleanup Method 1: Cleanup Method 2: Solvent Type: Lot #: Additional Reagents/Std
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Sample/ Type	Extraction										Concentration	
	Extract Date	Analyst	Sample Weight g	Balanc e Id	Extract Vol ml	Split Vol ml	Surr Amt ml	Spike Amt ml	Is Amt ml	Final Vol ml		
L2320537-01 OIL	04/21/23 13:40	Natasha Gambaro v	.1038	BAL-23	10	10	0.5		0.1	20		
WG1769534-1 BLANK	04/21/23 13:40	Natasha Gambaro v	0.1	BAL-23	10	10	0.5		0.1	20		
WG1769534-2 LCS	04/21/23 13:40	Natasha Gambaro v	0.1	BAL-23	10	10	0.5	0.5	0.1	20		
WG1769534-3 LCSD	04/21/23 13:40	Natasha Gambaro v	0.1	BAL-23	10	10	0.5	0.5	0.1	20		
WG1769534-4 DUP	04/21/23 13:40	Natasha Gambaro v	.1033	BAL-23	10	10	0.5		0.1	20		

Supporting Documentation

☐ Pre-Alumina

☐ Post-Alumina

☐ Pre-Silica

☐ Oily Material Prep.

☒ Other

[illegible]

Pre-Qualtrax Document ID: 102-31

Summary Forms

Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : L2320537-01
 Client ID : MW2112-041723-NAPL
 Sample Location : OR
 Sample Matrix : OIL
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F804252326
 Sample Amount : 0.1038 g
 Extraction Method : EPA 3580A
 Extract Volume : 20000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : 04/17/23 09:30
 Date Received : 04/18/23
 Date Analyzed : 04/26/23 18:46
 Date Extracted : 04/21/23
 Dilution Factor : 1
 Analyst : CNC
 Instrument ID : PAH8
 GC Column : ZB-5
 %Solids : 100
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	536	1.44	0.287	
DECALINSC1	C1-Decalins	2010	1.44	0.287	
DECALINSC2	C2-Decalins	3090	1.44	0.287	
DECALINSC3	C3-Decalins	1910	1.44	0.287	
DECALINSC4	C4-Decalins	1980	1.44	0.287	
91-20-3	Naphthalene	26.2	2.89	0.831	
91-20-3C1	C1-Naphthalenes	38.4	2.89	0.831	
91-20-3C2	C2-Naphthalenes	3350	2.89	0.831	
91-20-3C3	C3-Naphthalenes	4100	2.89	0.831	
91-20-3C4	C4-Naphthalenes	2110	2.89	0.831	
91-57-6	2-Methylnaphthalene	2.32	2.89	0.745	J
90-12-0	1-Methylnaphthalene	45.8	2.89	0.910	
95-15-8	Benzo(b)thiophene	3.34	2.89	0.905	
95-15-8C1	C1-Benzo(b)thiophenes	191	2.89	0.905	
95-15-8C2	C2-Benzo(b)thiophenes	172	2.89	0.905	
95-15-8C3	C3-Benzo(b)thiophenes	336	2.89	0.905	
92-52-4	Biphenyl	1.36	2.89	0.893	J
581-42-0	2,6-Dimethylnaphthalene	2360	2.89	0.687	
132-64-9	Dibenzofuran	36.8	2.89	0.910	
208-96-8	Acenaphthylene	24.8	2.89	0.551	
83-32-9	Acenaphthene	471	2.89	0.509	
2245-38-7	2,3,5-Trimethylnaphthalene	617	2.89	0.473	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : L2320537-01
 Client ID : MW2112-041723-NAPL
 Sample Location : OR
 Sample Matrix : OIL
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F804252326
 Sample Amount : 0.1038 g
 Extraction Method : EPA 3580A
 Extract Volume : 20000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : 04/17/23 09:30
 Date Received : 04/18/23
 Date Analyzed : 04/26/23 18:46
 Date Extracted : 04/21/23
 Dilution Factor : 1
 Analyst : CNC
 Instrument ID : PAH8
 GC Column : ZB-5
 %Solids : 100
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	403	2.89	0.771	
86-73-7C1	C1-Fluorenes	617	2.89	0.771	
86-73-7C2	C2-Fluorenes	755	2.89	0.771	
86-73-7C3	C3-Fluorenes	531	2.89	0.771	
132-65-0	Dibenzothiophene	13.0	2.89	0.797	
132-65-0C1	C1-Dibenzothiophenes BS	251	2.89	0.797	
132-65-0C2	C2-Dibenzothiophenes	298	2.89	0.797	
132-65-0C3	C3-Dibenzothiophenes	198	2.89	0.797	
132-65-0C4	C4-Dibenzothiophenes	96.2	2.89	0.797	
85-01-8	Phenanthrene	8.26	2.89	0.958	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	447	2.89	0.958	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	851	2.89	0.958	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	517	2.89	0.958	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	184	2.89	0.958	
483-65-8	Retene	ND	2.89	0.709	U
120-12-7	Anthracene	34.9	2.89	0.596	
86-74-8	Carbazole	8.39	2.89	0.945	
832-69-9	1-Methylphenanthrene	189	2.89	0.763	
206-44-0	Fluoranthene	30.2	2.89	0.918	
243-17-4	Benzo(b)fluorene	17.4	2.89	0.837	
129-00-0	Pyrene	77.0	2.89	0.760	
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	143	2.89	0.760	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : L2320537-01
 Client ID : MW2112-041723-NAPL
 Sample Location : OR
 Sample Matrix : OIL
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F804252326
 Sample Amount : 0.1038 g
 Extraction Method : EPA 3580A
 Extract Volume : 20000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : 04/17/23 09:30
 Date Received : 04/18/23
 Date Analyzed : 04/26/23 18:46
 Date Extracted : 04/21/23
 Dilution Factor : 1
 Analyst : CNC
 Instrument ID : PAH8
 GC Column : ZB-5
 %Solids : 100
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	141	2.89	0.760	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	91.9	2.89	0.760	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	44.3	2.89	0.760	
61523-34-0	Naphthobenzothiophenes	15.1	2.89	0.809	J
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	25.3	2.89	0.809	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	21.8	2.89	0.809	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	13.1	2.89	0.809	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	7.97	2.89	0.809	
56-55-3	Benz(a)anthracene	20.4	2.89	0.589	
218-01-9	Chrysene	33.3	2.89	0.584	
218-01-9C1	C1-Chrysenes	66.1	2.89	0.584	
218-01-9C2	C2-Chrysenes BS	68.4	2.89	0.584	
218-01-9C3	C3-Chrysenes	48.6	2.89	0.584	
218-01-9C4	C4-Chrysenes	21.6	2.89	0.584	
205-99-2	Benzo(b)fluoranthene	4.56	2.89	0.752	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	3.74	2.89	0.574	
203-33-8	Benzo(a)fluoranthene	0.832	2.89	0.574	J
192-97-2	Benzo(e)pyrene	8.14	2.89	0.596	
50-32-8	Benzo(a)pyrene	9.35	2.89	0.825	
198-55-0	Perylene	3.00	2.89	0.558	
193-39-5	Indeno(1,2,3-cd)pyrene	2.90	2.89	0.784	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	1.54	2.89	0.781	J



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATIO
 Lab ID : L2320537-01
 Client ID : MW2112-041723-NAPL
 Sample Location : OR
 Sample Matrix : OIL
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F804252326
 Sample Amount : 0.1038 g
 Extraction Method : EPA 3580A
 Extract Volume : 20000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : 04/17/23 09:30
 Date Received : 04/18/23
 Date Analyzed : 04/26/23 18:46
 Date Extracted : 04/21/23
 Dilution Factor : 1
 Analyst : CNC
 Instrument ID : PAH8
 GC Column : ZB-5
 %Solids : 100
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
191-24-2	Benzo(g,h,i)perylene	5.35	2.89	0.768	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : L2320537-02
 Client ID : MW2112-041723-NET
 Sample Location : OR
 Sample Matrix : Sheen Net
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F1205012311
 Sample Amount :
 Extraction Method : ALPHA OP-013
 Extract Volume : 100000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : 04/17/23 09:30
 Date Received : 04/18/23
 Date Analyzed : 05/01/23 22:58
 Date Extracted : 04/24/23
 Dilution Factor : 1
 Analyst : MJS
 Instrument ID : PAH12
 GC Column : ZB-5
 %Solids : 100
 Injection Volume : 1 uL

CAS NO.	Parameter	ng Abs			Qualifier
		Results	RL	MDL	
56-55-3	Benz(a)anthracene	39900	1000	130.	
218-01-9	Chrysene	59500	1000	127.	
218-01-9C1	C1-Chrysenes	136000	1000	127.	
218-01-9C2	C2-Chrysenes BS	159000	1000	127.	
218-01-9C3	C3-Chrysenes	109000	1000	127.	
218-01-9C4	C4-Chrysenes	49700	1000	127.	
205-99-2	Benzo(b)fluoranthene	10500	1000	123.	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	6940	1000	141.	
203-33-8	Benzo(a)fluoranthene	1900	1000	141.	
192-97-2	Benzo(e)pyrene	19400	1000	162.	
50-32-8	Benzo(a)pyrene	23900	1000	162.	
198-55-0	Perylene	6980	1000	251.	
193-39-5	Indeno(1,2,3-cd)pyrene	6900	1000	206.	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	2830	1000	136.	
191-24-2	Benzo(g,h,i)perylene	12700	1000	164.	

Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : L2320537-02D
 Client ID : MW2112-041723-NET
 Sample Location : OR
 Sample Matrix : Sheen Net
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F1205032309
 Sample Amount :
 Extraction Method : ALPHA OP-013
 Extract Volume : 100000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : 04/17/23 09:30
 Date Received : 04/18/23
 Date Analyzed : 05/04/23 17:57
 Date Extracted : 04/24/23
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH12
 GC Column : ZB-5
 %Solids : 100
 Injection Volume : 1 uL

CAS NO.	Parameter	ng Abs			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	1620000	2000	332.	
DECALINSC1	C1-Decalins	4580000	2000	332.	
DECALINSC2	C2-Decalins	7660000	2000	332.	
DECALINSC3	C3-Decalins	5110000	2000	332.	
DECALINSC4	C4-Decalins	5340000	2000	332.	
91-20-3	Naphthalene	67300	4000	1180	
91-20-3C1	C1-Naphthalenes	83800	4000	1180	
91-20-3C2	C2-Naphthalenes	7040000	4000	1180	
91-20-3C3	C3-Naphthalenes	8480000	4000	1180	
91-20-3C4	C4-Naphthalenes	4400000	4000	1180	
91-57-6	2-Methylnaphthalene	4480	4000	1130	
90-12-0	1-Methylnaphthalene	106000	4000	608.	
95-15-8	Benzo(b)thiophene	5490	4000	880.	
95-15-8C1	C1-Benzo(b)thiophenes	497000	4000	880.	
95-15-8C2	C2-Benzo(b)thiophenes	380000	4000	880.	
95-15-8C3	C3-Benzo(b)thiophenes	735000	4000	880.	
92-52-4	Biphenyl	4920	4000	808.	
581-42-0	2,6-Dimethylnaphthalene	5350000	4000	852.	
132-64-9	Dibenzofuran	77800	4000	984.	
208-96-8	Acenaphthylene	42200	4000	776.	
83-32-9	Acenaphthene	991000	4000	1100	
2245-38-7	2,3,5-Trimethylnaphthalene	1360000	4000	680.	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : L2320537-02D
 Client ID : MW2112-041723-NET
 Sample Location : OR
 Sample Matrix : Sheen Net
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F1205032309
 Sample Amount :
 Extraction Method : ALPHA OP-013
 Extract Volume : 100000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : 04/17/23 09:30
 Date Received : 04/18/23
 Date Analyzed : 05/04/23 17:57
 Date Extracted : 04/24/23
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH12
 GC Column : ZB-5
 %Solids : 100
 Injection Volume : 1 uL

CAS NO.	Parameter	ng Abs			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	814000	4000	1260	
86-73-7C1	C1-Fluorenes	1310000	4000	1260	
86-73-7C2	C2-Fluorenes	1730000	4000	1260	
86-73-7C3	C3-Fluorenes	1300000	4000	1260	
132-65-0	Dibenzothiophene	29200	4000	548.	
132-65-0C1	C1-Dibenzothiophenes BS	496000	4000	548.	
132-65-0C2	C2-Dibenzothiophenes	637000	4000	548.	
132-65-0C3	C3-Dibenzothiophenes	454000	4000	548.	
132-65-0C4	C4-Dibenzothiophenes	219000	4000	548.	
85-01-8	Phenanthrene	18100	4000	1030	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	910000	4000	1030	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	1780000	4000	1030	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	1190000	4000	1030	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	474000	4000	1030	
483-65-8	Retene	ND	4000	1030	U
120-12-7	Anthracene	52900	4000	664.	
86-74-8	Carbazole	25000	4000	1040	
832-69-9	1-Methylphenanthrene	391000	4000	844.	
206-44-0	Fluoranthene	53200	4000	440.	
243-17-4	Benzo(b)fluorene	37500	4000	632.	
129-00-0	Pyrene	147000	4000	600.	
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	304000	4000	600.	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : L2320537-02D
 Client ID : MW2112-041723-NET
 Sample Location : OR
 Sample Matrix : Sheen Net
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F1205032309
 Sample Amount :
 Extraction Method : ALPHA OP-013
 Extract Volume : 100000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : 04/17/23 09:30
 Date Received : 04/18/23
 Date Analyzed : 05/04/23 17:57
 Date Extracted : 04/24/23
 Dilution Factor : 4
 Analyst : MJS
 Instrument ID : PAH12
 GC Column : ZB-5
 %Solids : 100
 Injection Volume : 1 uL

CAS NO.	Parameter	ng Abs			Qualifier
		Results	RL	MDL	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	316000	4000	600.	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	242000	4000	600.	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	124000	4000	600.	
61523-34-0	Naphthobenzothiophenes	35700	4000	656.	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	61500	4000	656.	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	65400	4000	656.	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	46300	4000	656.	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	31200	4000	656.	

Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : WG1769534-1
 Client ID : WG1769534-1BLANK
 Sample Location :
 Sample Matrix : OIL
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F804252322
 Sample Amount : 0.1 g
 Extraction Method : EPA 3580A
 Extract Volume : 20000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 04/26/23 13:01
 Date Extracted : 04/21/23
 Dilution Factor : 1
 Analyst : CNC
 Instrument ID : PAH8
 GC Column : ZB-5
 %Solids : NA
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	ND	1.50	0.298	U
DECALINSC1	C1-Decalins	ND	1.50	0.298	U
DECALINSC2	C2-Decalins	ND	1.50	0.298	U
DECALINSC3	C3-Decalins	ND	1.50	0.298	U
DECALINSC4	C4-Decalins	ND	1.50	0.298	U
91-20-3	Naphthalene	ND	3.00	0.862	U
91-20-3C1	C1-Naphthalenes	ND	3.00	0.862	U
91-20-3C2	C2-Naphthalenes	ND	3.00	0.862	U
91-20-3C3	C3-Naphthalenes	ND	3.00	0.862	U
91-20-3C4	C4-Naphthalenes	ND	3.00	0.862	U
91-57-6	2-Methylnaphthalene	ND	3.00	0.774	U
90-12-0	1-Methylnaphthalene	ND	3.00	0.945	U
95-15-8	Benzo(b)thiophene	ND	3.00	0.940	U
95-15-8C1	C1-Benzo(b)thiophenes	ND	3.00	0.940	U
95-15-8C2	C2-Benzo(b)thiophenes	ND	3.00	0.940	U
95-15-8C3	C3-Benzo(b)thiophenes	ND	3.00	0.940	U
92-52-4	Biphenyl	ND	3.00	0.927	U
581-42-0	2,6-Dimethylnaphthalene	ND	3.00	0.713	U
132-64-9	Dibenzofuran	ND	3.00	0.945	U
208-96-8	Acenaphthylene	0.804	3.00	0.572	J
83-32-9	Acenaphthene	ND	3.00	0.529	U
2245-38-7	2,3,5-Trimethylnaphthalene	ND	3.00	0.491	U



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : WG1769534-1
 Client ID : WG1769534-1BLANK
 Sample Location :
 Sample Matrix : OIL
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F804252322
 Sample Amount : 0.1 g
 Extraction Method : EPA 3580A
 Extract Volume : 20000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 04/26/23 13:01
 Date Extracted : 04/21/23
 Dilution Factor : 1
 Analyst : CNC
 Instrument ID : PAH8
 GC Column : ZB-5
 %Solids : NA
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	ND	3.00	0.800	U
86-73-7C1	C1-Fluorenes	ND	3.00	0.800	U
86-73-7C2	C2-Fluorenes	ND	3.00	0.800	U
86-73-7C3	C3-Fluorenes	ND	3.00	0.800	U
132-65-0	Dibenzothiophene	ND	3.00	0.827	U
132-65-0C1	C1-Dibenzothiophenes BS	ND	3.00	0.827	U
132-65-0C2	C2-Dibenzothiophenes	ND	3.00	0.827	U
132-65-0C3	C3-Dibenzothiophenes	ND	3.00	0.827	U
132-65-0C4	C4-Dibenzothiophenes	ND	3.00	0.827	U
85-01-8	Phenanthrene	ND	3.00	0.994	U
PHENANTHC1	C1-Phenanthrenes/Anthracenes	ND	3.00	0.994	U
PHENANTHC2	C2-Phenanthrenes/Anthr BS	ND	3.00	0.994	U
PHENANTHC3	C3-Phenanthrenes/Anthracenes	ND	3.00	0.994	U
PHENANTHC4	C4-Phenanthrenes/Anthracenes	ND	3.00	0.994	U
483-65-8	Retene	ND	3.00	0.736	U
120-12-7	Anthracene	ND	3.00	0.618	U
86-74-8	Carbazole	ND	3.00	0.981	U
832-69-9	1-Methylphenanthrene	ND	3.00	0.792	U
206-44-0	Fluoranthene	ND	3.00	0.953	U
243-17-4	Benzo(b)fluorene	ND	3.00	0.869	U
129-00-0	Pyrene	ND	3.00	0.789	U
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	ND	3.00	0.789	U



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : WG1769534-1
 Client ID : WG1769534-1BLANK
 Sample Location :
 Sample Matrix : OIL
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F804252322
 Sample Amount : 0.1 g
 Extraction Method : EPA 3580A
 Extract Volume : 20000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 04/26/23 13:01
 Date Extracted : 04/21/23
 Dilution Factor : 1
 Analyst : CNC
 Instrument ID : PAH8
 GC Column : ZB-5
 %Solids : NA
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	ND	3.00	0.789	U
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	ND	3.00	0.789	U
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	ND	3.00	0.789	U
61523-34-0	Naphthobenzothiophenes	ND	3.00	0.839	U
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	ND	3.00	0.839	U
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	ND	3.00	0.839	U
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	ND	3.00	0.839	U
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	ND	3.00	0.839	U
56-55-3	Benz(a)anthracene	ND	3.00	0.612	U
218-01-9	Chrysene	ND	3.00	0.606	U
218-01-9C1	C1-Chrysenes	ND	3.00	0.606	U
218-01-9C2	C2-Chrysenes BS	ND	3.00	0.606	U
218-01-9C3	C3-Chrysenes	ND	3.00	0.606	U
218-01-9C4	C4-Chrysenes	ND	3.00	0.606	U
205-99-2	Benzo(b)fluoranthene	ND	3.00	0.780	U
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	ND	3.00	0.595	U
203-33-8	Benzo(a)fluoranthene	ND	3.00	0.595	U
192-97-2	Benzo(e)pyrene	ND	3.00	0.619	U
50-32-8	Benzo(a)pyrene	ND	3.00	0.856	U
198-55-0	Perylene	ND	3.00	0.579	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	3.00	0.814	U
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	ND	3.00	0.810	U



Results Summary

Form 1

PAHs

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATIO	Project Number	: 000029-02.78 T12A
Lab ID	: WG1769534-1	Date Collected	: NA
Client ID	: WG1769534-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 04/26/23 13:01
Sample Matrix	: OIL	Date Extracted	: 04/21/23
Analytical Method	: 1,8270E-SIM(M)	Dilution Factor	: 1
Lab File ID	: F804252322	Analyst	: CNC
Sample Amount	: 0.1 g	Instrument ID	: PAH8
Extraction Method	: EPA 3580A	GC Column	: ZB-5
Extract Volume	: 20000 uL	%Solids	: NA
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
191-24-2	Benzo(g,h,i)perylene	ND	3.00	0.797	U



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : WG1769534-4
 Client ID : MW2112-041723-NAPLDUP
 Sample Location :
 Sample Matrix : OIL
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F804252327
 Sample Amount : 0.1033 g
 Extraction Method : EPA 3580A
 Extract Volume : 20000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : 04/17/23 09:30
 Date Received : 04/18/23
 Date Analyzed : 04/26/23 20:12
 Date Extracted : 04/21/23
 Dilution Factor : 1
 Analyst : CNC
 Instrument ID : PAH8
 GC Column : ZB-5
 %Solids : 100
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	576	1.45	0.289	
DECALINSC1	C1-Decalins	2200	1.45	0.289	
DECALINSC2	C2-Decalins	3320	1.45	0.289	
DECALINSC3	C3-Decalins	2020	1.45	0.289	
DECALINSC4	C4-Decalins	2010	1.45	0.289	
91-20-3	Naphthalene	25.4	2.90	0.835	
91-20-3C1	C1-Naphthalenes	40.3	2.90	0.835	
91-20-3C2	C2-Naphthalenes	3260	2.90	0.835	
91-20-3C3	C3-Naphthalenes	3880	2.90	0.835	
91-20-3C4	C4-Naphthalenes	1990	2.90	0.835	
91-57-6	2-Methylnaphthalene	1.66	2.90	0.749	J
90-12-0	1-Methylnaphthalene	45.2	2.90	0.915	
95-15-8	Benzo(b)thiophene	3.34	2.90	0.910	
95-15-8C1	C1-Benzo(b)thiophenes	189	2.90	0.910	
95-15-8C2	C2-Benzo(b)thiophenes	167	2.90	0.910	
95-15-8C3	C3-Benzo(b)thiophenes	322	2.90	0.910	
92-52-4	Biphenyl	1.18	2.90	0.897	J
581-42-0	2,6-Dimethylnaphthalene	2300	2.90	0.690	
132-64-9	Dibenzofuran	35.3	2.90	0.915	
208-96-8	Acenaphthylene	23.6	2.90	0.554	
83-32-9	Acenaphthene	449	2.90	0.512	
2245-38-7	2,3,5-Trimethylnaphthalene	578	2.90	0.475	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : WG1769534-4
 Client ID : MW2112-041723-NAPLDUP
 Sample Location :
 Sample Matrix : OIL
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F804252327
 Sample Amount : 0.1033 g
 Extraction Method : EPA 3580A
 Extract Volume : 20000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : 04/17/23 09:30
 Date Received : 04/18/23
 Date Analyzed : 04/26/23 20:12
 Date Extracted : 04/21/23
 Dilution Factor : 1
 Analyst : CNC
 Instrument ID : PAH8
 GC Column : ZB-5
 %Solids : 100
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	381	2.90	0.775	
86-73-7C1	C1-Fluorenes	588	2.90	0.775	
86-73-7C2	C2-Fluorenes	729	2.90	0.775	
86-73-7C3	C3-Fluorenes	515	2.90	0.775	
132-65-0	Dibenzothiophene	12.8	2.90	0.801	
132-65-0C1	C1-Dibenzothiophenes BS	241	2.90	0.801	
132-65-0C2	C2-Dibenzothiophenes	287	2.90	0.801	
132-65-0C3	C3-Dibenzothiophenes	193	2.90	0.801	
132-65-0C4	C4-Dibenzothiophenes	90.6	2.90	0.801	
85-01-8	Phenanthrene	7.72	2.90	0.962	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	428	2.90	0.962	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	817	2.90	0.962	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	501	2.90	0.962	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	182	2.90	0.962	
483-65-8	Retene	ND	2.90	0.712	U
120-12-7	Anthracene	35.7	2.90	0.599	
86-74-8	Carbazole	10.2	2.90	0.950	
832-69-9	1-Methylphenanthrene	180	2.90	0.767	
206-44-0	Fluoranthene	27.6	2.90	0.923	
243-17-4	Benzo(b)fluorene	16.7	2.90	0.841	
129-00-0	Pyrene	75.2	2.90	0.764	
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	138	2.90	0.764	



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : WG1769534-4
 Client ID : MW2112-041723-NAPLDUP
 Sample Location :
 Sample Matrix : OIL
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F804252327
 Sample Amount : 0.1033 g
 Extraction Method : EPA 3580A
 Extract Volume : 20000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : 04/17/23 09:30
 Date Received : 04/18/23
 Date Analyzed : 04/26/23 20:12
 Date Extracted : 04/21/23
 Dilution Factor : 1
 Analyst : CNC
 Instrument ID : PAH8
 GC Column : ZB-5
 %Solids : 100
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	137	2.90	0.764	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	90.4	2.90	0.764	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	44.7	2.90	0.764	
61523-34-0	Naphthobenzothiophenes	14.7	2.90	0.812	J
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	24.3	2.90	0.812	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	22.3	2.90	0.812	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	13.3	2.90	0.812	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	8.69	2.90	0.812	
56-55-3	Benz(a)anthracene	18.4	2.90	0.592	
218-01-9	Chrysene	31.9	2.90	0.587	
218-01-9C1	C1-Chrysenes	64.1	2.90	0.587	
218-01-9C2	C2-Chrysenes BS	67.6	2.90	0.587	
218-01-9C3	C3-Chrysenes	49.4	2.90	0.587	
218-01-9C4	C4-Chrysenes	22.1	2.90	0.587	
205-99-2	Benzo(b)fluoranthene	3.97	2.90	0.755	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	2.82	2.90	0.576	J
203-33-8	Benzo(a)fluoranthene	0.817	2.90	0.576	J
192-97-2	Benzo(e)pyrene	8.15	2.90	0.599	
50-32-8	Benzo(a)pyrene	8.85	2.90	0.829	
198-55-0	Perylene	2.66	2.90	0.560	J
193-39-5	Indeno(1,2,3-cd)pyrene	2.25	2.90	0.788	J
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	0.917	2.90	0.784	J



Results Summary

Form 1

PAHs

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATIO	Project Number	: 000029-02.78 T12A
Lab ID	: WG1769534-4	Date Collected	: 04/17/23 09:30
Client ID	: MW2112-041723-NAPLDUP	Date Received	: 04/18/23
Sample Location	:	Date Analyzed	: 04/26/23 20:12
Sample Matrix	: OIL	Date Extracted	: 04/21/23
Analytical Method	: 1,8270E-SIM(M)	Dilution Factor	: 1
Lab File ID	: F804252327	Analyst	: CNC
Sample Amount	: 0.1033 g	Instrument ID	: PAH8
Extraction Method	: EPA 3580A	GC Column	: ZB-5
Extract Volume	: 20000 uL	%Solids	: 100
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
191-24-2	Benzo(g,h,i)perylene	4.50	2.90	0.772	

Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : WG1770361-1
 Client ID : WG1770361-1BLANK
 Sample Location :
 Sample Matrix : WIPE
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F1205012308
 Sample Amount :
 Extraction Method : ALPHA OP-013
 Extract Volume : 2000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 05/01/23 18:43
 Date Extracted : 04/24/23
 Dilution Factor : 1
 Analyst : MJS
 Instrument ID : PAH12
 GC Column : ZB-5
 %Solids : NA
 Injection Volume : 1 uL

CAS NO.	Parameter	ng Abs			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	ND	10.0	1.66	U
DECALINSC1	C1-Decalins	ND	10.0	1.66	U
DECALINSC2	C2-Decalins	ND	10.0	1.66	U
DECALINSC3	C3-Decalins	ND	10.0	1.66	U
DECALINSC4	C4-Decalins	ND	10.0	1.66	U
91-20-3	Naphthalene	ND	20.0	5.92	U
91-20-3C1	C1-Naphthalenes	ND	20.0	5.92	U
91-20-3C2	C2-Naphthalenes	ND	20.0	5.92	U
91-20-3C3	C3-Naphthalenes	ND	20.0	5.92	U
91-20-3C4	C4-Naphthalenes	ND	20.0	5.92	U
91-57-6	2-Methylnaphthalene	ND	20.0	5.64	U
90-12-0	1-Methylnaphthalene	ND	20.0	3.04	U
95-15-8	Benzo(b)thiophene	ND	20.0	4.40	U
95-15-8C1	C1-Benzo(b)thiophenes	ND	20.0	4.40	U
95-15-8C2	C2-Benzo(b)thiophenes	ND	20.0	4.40	U
95-15-8C3	C3-Benzo(b)thiophenes	ND	20.0	4.40	U
92-52-4	Biphenyl	ND	20.0	4.04	U
581-42-0	2,6-Dimethylnaphthalene	ND	20.0	4.26	U
132-64-9	Dibenzofuran	ND	20.0	4.92	U
208-96-8	Acenaphthylene	ND	20.0	3.88	U
83-32-9	Acenaphthene	ND	20.0	5.48	U
2245-38-7	2,3,5-Trimethylnaphthalene	ND	20.0	3.40	U



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : WG1770361-1
 Client ID : WG1770361-1BLANK
 Sample Location :
 Sample Matrix : WIPE
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F1205012308
 Sample Amount :
 Extraction Method : ALPHA OP-013
 Extract Volume : 2000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 05/01/23 18:43
 Date Extracted : 04/24/23
 Dilution Factor : 1
 Analyst : MJS
 Instrument ID : PAH12
 GC Column : ZB-5
 %Solids : NA
 Injection Volume : 1 uL

CAS NO.	Parameter	ng Abs			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	ND	20.0	6.32	U
86-73-7C1	C1-Fluorenes	ND	20.0	6.32	U
86-73-7C2	C2-Fluorenes	ND	20.0	6.32	U
86-73-7C3	C3-Fluorenes	ND	20.0	6.32	U
132-65-0	Dibenzothiophene	ND	20.0	2.74	U
132-65-0C1	C1-Dibenzothiophenes BS	ND	20.0	2.74	U
132-65-0C2	C2-Dibenzothiophenes	3.48	20.0	2.74	J
132-65-0C3	C3-Dibenzothiophenes	ND	20.0	2.74	U
132-65-0C4	C4-Dibenzothiophenes	ND	20.0	2.74	U
85-01-8	Phenanthrene	ND	20.0	5.16	U
PHENANTHC1	C1-Phenanthrenes/Anthracenes	ND	20.0	5.16	U
PHENANTHC2	C2-Phenanthrenes/Anthr BS	ND	20.0	5.16	U
PHENANTHC3	C3-Phenanthrenes/Anthracenes	ND	20.0	5.16	U
PHENANTHC4	C4-Phenanthrenes/Anthracenes	ND	20.0	5.16	U
483-65-8	Retene	ND	20.0	5.16	U
120-12-7	Anthracene	ND	20.0	3.32	U
86-74-8	Carbazole	ND	20.0	5.18	U
832-69-9	1-Methylphenanthrene	ND	20.0	4.22	U
206-44-0	Fluoranthene	ND	20.0	2.20	U
243-17-4	Benzo(b)fluorene	ND	20.0	3.16	U
129-00-0	Pyrene	ND	20.0	3.00	U
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	ND	20.0	3.00	U



Results Summary

Form 1

PAHs

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : WG1770361-1
 Client ID : WG1770361-1BLANK
 Sample Location :
 Sample Matrix : WIPE
 Analytical Method : 1,8270E-SIM(M)
 Lab File ID : F1205012308
 Sample Amount :
 Extraction Method : ALPHA OP-013
 Extract Volume : 2000 uL
 GPC Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 05/01/23 18:43
 Date Extracted : 04/24/23
 Dilution Factor : 1
 Analyst : MJS
 Instrument ID : PAH12
 GC Column : ZB-5
 %Solids : NA
 Injection Volume : 1 uL

CAS NO.	Parameter	ng Abs			Qualifier
		Results	RL	MDL	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	ND	20.0	3.00	U
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	ND	20.0	3.00	U
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	ND	20.0	3.00	U
61523-34-0	Naphthobenzothiophenes	ND	20.0	3.28	U
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	ND	20.0	3.28	U
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	ND	20.0	3.28	U
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	ND	20.0	3.28	U
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	ND	20.0	3.28	U
56-55-3	Benz(a)anthracene	ND	20.0	2.60	U
218-01-9	Chrysene	ND	20.0	2.54	U
218-01-9C1	C1-Chrysenes	ND	20.0	2.54	U
218-01-9C2	C2-Chrysenes BS	ND	20.0	2.54	U
218-01-9C3	C3-Chrysenes	ND	20.0	2.54	U
218-01-9C4	C4-Chrysenes	ND	20.0	2.54	U
205-99-2	Benzo(b)fluoranthene	ND	20.0	2.46	U
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	ND	20.0	2.82	U
203-33-8	Benzo(a)fluoranthene	ND	20.0	2.82	U
192-97-2	Benzo(e)pyrene	ND	20.0	3.24	U
50-32-8	Benzo(a)pyrene	ND	20.0	3.24	U
198-55-0	Perylene	ND	20.0	5.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.70	20.0	4.12	J
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	3.16	20.0	2.72	J



Results Summary

Form 1

PAHs

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATIO	Project Number	: 000029-02.78 T12A
Lab ID	: WG1770361-1	Date Collected	: NA
Client ID	: WG1770361-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 05/01/23 18:43
Sample Matrix	: WIPE	Date Extracted	: 04/24/23
Analytical Method	: 1,8270E-SIM(M)	Dilution Factor	: 1
Lab File ID	: F1205012308	Analyst	: MJS
Sample Amount	:	Instrument ID	: PAH12
Extraction Method	: ALPHA OP-013	GC Column	: ZB-5
Extract Volume	: 2000 uL	%Solids	: NA
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng Abs			Qualifier
		Results	RL	MDL	
191-24-2	Benzo(g,h,i)perylene	5.09	20.0	3.28	J

Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Anchor QEA, LLC
Project Name: GASCO HYDROCARBON INVESTIGATIO

Lab Number: L2320537
Project Number: 000029-02.78 T12A
Matrix: Oil

CLIENT ID (LAB SAMPLE NO.)	S1 (ND8)	S2 (PHE)	S3 (BAP)	S4 ()	S5 ()	S6 ()	TOT OUT
MW2112-041723-NAPL (L2320537-01)	85	102	110	--	--	--	0
WG1769534-1BLANK	88	93	93	--	--	--	0
WG1769534-2LCS	93	93	94	--	--	--	0
WG1769534-3LCSD	94	95	93	--	--	--	0
MW2112-041723-NAPLDUP	87	99	111	--	--	--	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



Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Anchor QEA, LLC
Project Name: GASCO HYDROCARBON INVESTIGATION

Lab Number: L2320537
Project Number: 000029-02.78 T12A
Matrix: Sheen Net

CLIENT ID (LAB SAMPLE NO.)	S1 (ND8)	S2 (PHE)	S3 (BAP)	S4 ()	S5 ()	S6 ()	TOT OUT
MW2112-041723-NET (L2320537-02D)	85	107	NA	--	--	--	0
MW2112-041723-NET (L2320537-02)	NA	NA	116	--	--	--	0
WG1770361-1BLANK	84	91	105	--	--	--	0
WG1770361-2LCS	104	94	103	--	--	--	0
WG1770361-3LCSD	78	103	105	--	--	--	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



Lab Duplicate Sample Summary

Form 3

Semivolatiles

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Client Sample ID	: MW2112-041723-NAPL	Matrix (Level)	: OIL (LOW)
Lab Sample ID	: L2320537-01	Analysis Date	: 04/26/23 18:46
Lab File ID	: F804252326	DUP File ID	: F804252327
Dup Sample ID	: WG1769534-4	DUP Analysis Date	: 04/26/23 20:12

Parameter	Sample Concentration (mg/kg)	Duplicate Concentration (mg/kg)	RPD	RPD Limit
cis/trans-Decalin	536	576	7.1	30
C1-Decalins	2010	2200	9	30
C2-Decalins	3090	3320	7	30
C3-Decalins	1910	2020	6	30
C4-Decalins	1980	2010	2	30
Naphthalene	26.2	25.4	3	30
C1-Naphthalenes	38.4	40.3	5	30
C2-Naphthalenes	3350	3260	3	30
C3-Naphthalenes	4100	3880	6	30
C4-Naphthalenes	2110	1990	6	30
2-Methylnaphthalene	2.32J	1.66J	NC	30
1-Methylnaphthalene	45.8	45.2	1	30
Benzo thiophene	3.34	3.34	0	30
C1-Benzo(b)thiophenes	191	189	1	30
C2-Benzo(b)thiophenes	172	167	3	30
C3-Benzo(b)thiophenes	336	322	4	30
Biphenyl	1.36J	1.18J	NC	30
2,6-Dimethylnaphthalene	2360	2300	3	30
Dibenzofuran	36.8	35.3	4	30
Acenaphthylene	24.8	23.6	5	30
Acenaphthene	471	449	5	30
2,3,5-Trimethylnaphthalene	617	578	7	30
Fluorene	403	381	6	30
C1-Fluorenes	617	588	5	30
C2-Fluorenes	755	729	4	30

Lab Duplicate Sample Summary

Form 3

Semivolatiles

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Client Sample ID	: MW2112-041723-NAPL	Matrix (Level)	: OIL (LOW)
Lab Sample ID	: L2320537-01	Analysis Date	: 04/26/23 18:46
Lab File ID	: F804252326	DUP File ID	: F804252327
Dup Sample ID	: WG1769534-4	DUP Analysis Date	: 04/26/23 20:12

Parameter	Sample Concentration (mg/kg)	Duplicate Concentration (mg/kg)	RPD	RPD Limit
C3-Fluorenes	531	515	3	30
Dibenzothiophene	13.0	12.8	2	30
C1-Dibenzothiophenes BS	251	241	4	30
C2-Dibenzothiophenes	298	287	4	30
C3-Dibenzothiophenes	198	193	3	30
C4-Dibenzothiophenes	96.2	90.6	6	30
Phenanthrene	8.26	7.72	7	30
C1-Phenanthrenes/Anthracenes	447	428	4	30
C2-Phenanthrenes/Anthr BS	851	817	4	30
C3-Phenanthrenes/Anthracenes	517	501	3	30
C4-Phenanthrenes/Anthracenes	184	182	1	30
Retene	ND	ND	NC	30
Anthracene	34.9	35.7	2	30
Carbazole	8.39	10.2	19	30
1-Methylphenanthrene	189	180	5	30
Fluoranthene	30.2	27.6	9	30
Benzo(b)fluorene	17.4	16.7	4	30
Pyrene	77.0	75.2	2	30
C1-Fluoranthenes/Pyrenes	143	138	4	30
C2-Fluoranthenes/Pyrenes	141	137	3	30
C3-Fluoranthenes/Pyrenes	91.9	90.4	2	30
C4-Fluoranthenes/Pyrenes	44.3	44.7	1	30
Naphthobenzothiophenes	15.1J	14.7J	NC	30
C1-Naphthobenzothiophenes	25.3	24.3	4	30
C2-Naphthobenzothiophenes	21.8	22.3	2	30

Lab Duplicate Sample Summary

Form 3

Semivolatiles

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Client Sample ID	: MW2112-041723-NAPL	Matrix (Level)	: OIL (LOW)
Lab Sample ID	: L2320537-01	Analysis Date	: 04/26/23 18:46
Lab File ID	: F804252326	DUP File ID	: F804252327
Dup Sample ID	: WG1769534-4	DUP Analysis Date	: 04/26/23 20:12

Parameter	Sample Concentration (mg/kg)	Duplicate Concentration (mg/kg)	RPD	RPD Limit
C3-Naphthobenzothiophenes	13.1	13.3	2	30
C4-Naphthobenzothiophenes	7.97	8.69	9	30
Benz(a)anthracene	20.4	18.4	10	30
Chrysene	33.3	31.9	4	30
C1-Chrysenes	66.1	64.1	3	30
C2-Chrysenes BS	68.4	67.6	1	30
C3-Chrysenes	48.6	49.4	2	30
C4-Chrysenes	21.6	22.1	2	30
Benzo(b)fluoranthene	4.56	3.97	14	30
Benzo(j)+(k)fluoranthene	3.74	2.82J	NC	30
Benzo(a)fluoranthene	0.832J	0.817J	NC	30
Benzo(e)pyrene	8.14	8.15	0	30
Benzo(a)pyrene	9.35	8.85	5	30
Perylene	3.00	2.66J	NC	30
Indeno(1,2,3-cd)pyrene	2.90	2.25J	NC	30
Dibenz(a,h)+(a,c)anthracene	1.54J	0.917J	NC	30
Benzo(g,h,i)perylene	5.35	4.50	17	30

Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Anchor QEA, LLC Lab Number : L2320537
 Project Name : GASCO HYDROCARBON INVESTIGATION Project Number : 000029-02.78 T12A
 Matrix (Level) : OIL (LOW)
 LCS Sample ID : WG1769534-2 Analysis Date : 04/26/23 15:54 File ID : F804252324
 LCSD Sample ID : WG1769534-3 Analysis Date : 04/26/23 17:20 File ID : F804252325

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (mg/kg)	Found (mg/kg)	%R	True (mg/kg)	Found (mg/kg)	%R			
Naphthalene	50	49.8	100	50	50.9	102	2	50-130	30
2-Methylnaphthalene	50	46.7	93	50	47.2	94	1	50-130	30
Acenaphthylene	50	48.1	96	50	49.2	98	2	50-130	30
Acenaphthene	50	48.6	97	50	49.6	99	2	50-130	30
Fluorene	50	49.1	98	50	50.7	101	3	50-130	30
Phenanthrene	50	48.8	98	50	50.1	100	2	50-130	30
Anthracene	50	52.8	106	50	53.9	108	2	50-130	30
Fluoranthene	50	47.1	94	50	48.0	96	2	50-130	30
Pyrene	50	47.3	94	50	48.5	97	3	50-130	30
Benz(a)anthracene	50	50.6	101	50	52.4	105	4	50-130	30
Chrysene	50	50.3	101	50	51.4	103	2	50-130	30
Benzo(b)fluoranthene	50	46.2	92	50	48.6	97	5	50-130	30
Benzo(j)+(k)fluoranthene	50	49.4	99	50	49.4	99	0	50-130	30
Benzo(a)pyrene	50	43.6	87	50	44.2	88	1	50-130	30
Indeno(1,2,3-cd)pyrene	50	40.5	81	50	42.4	85	5	50-130	30
Dibenz(a,h)+(a,c)anthracene	50	41.1	82	50	41.4	83	1	50-130	30
Benzo(g,h,i)perylene	50	41.8	84	50	42.3	84	0	50-130	30



Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Anchor QEA, LLC Lab Number : L2320537
 Project Name : GASCO HYDROCARBON INVESTIGATION Project Number : 000029-02.78 T12A
 Matrix (Level) : WIPE (LOW)
 LCS Sample ID : WG1770361-2 Analysis Date : 05/04/23 16:33 File ID : F1205032308
 LCSD Sample ID : WG1770361-3 Analysis Date : 05/01/23 21:33 File ID : F1205012310

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ng Abs)	Found (ng Abs)	%R	True (ng Abs)	Found (ng Abs)	%R			
Naphthalene	1000	1110	111	1000	934	93	18	50-130	30
2-Methylnaphthalene	1000	1210	121	1000	975	97	22	50-130	30
Acenaphthylene	1000	916	92	1000	933	93	1	50-130	30
Acenaphthene	1000	938	94	1000	1050	105	11	50-130	30
Fluorene	1000	1060	106	1000	1190	119	12	50-130	30
Phenanthrene	1000	1040	104	1000	1130	113	8	50-130	30
Anthracene	1000	1020	102	1000	1100	110	8	50-130	30
Fluoranthene	1000	1010	101	1000	989	99	2	50-130	30
Pyrene	1000	1070	107	1000	1050	105	2	50-130	30
Benz(a)anthracene	1000	1030	103	1000	968	97	6	50-130	30
Chrysene	1000	942	94	1000	907	91	3	50-130	30
Benzo(b)fluoranthene	1000	1040	104	1000	1040	104	0	50-130	30
Benzo(j)+(k)fluoranthene	1000	963	96	1000	966	97	1	50-130	30
Benzo(a)pyrene	1000	967	97	1000	958	96	1	50-130	30
Indeno(1,2,3-cd)pyrene	1000	1080	108	1000	1100	110	2	50-130	30
Dibenz(a,h)+(a,c)anthracene	1000	1130	113	1000	1240	124	9	50-130	30
Benzo(g,h,i)perylene	1000	1020	102	1000	1010	101	1	50-130	30



**Method Blank Summary
Form 4
Semivolatiles**

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATIO	Project Number	: 000029-02.78 T12A
Lab Sample ID	: WG1769534-1	Lab File ID	: F804252322
Instrument ID	: PAH8	Extraction Date	: 04/21/23
Matrix	: OIL	Analysis Date	: 04/26/23 13:01
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG1769534-2LCS	WG1769534-2	04/26/23 15:54
WG1769534-3LCSD	WG1769534-3	04/26/23 17:20
MW2112-041723-NAPL	L2320537-01	04/26/23 18:46
MW2112-041723-NAPLDUP	WG1769534-4	04/26/23 20:12

Method Blank Summary
Form 4
Semivolatiles

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATIO	Project Number	: 000029-02.78 T12A
Lab Sample ID	: WG1770361-1	Lab File ID	: F1205012308
Instrument ID	: PAH12	Extraction Date	: 04/24/23
Matrix	: WIPE	Analysis Date	: 05/01/23 18:43
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG1770361-3LCSD	WG1770361-3	05/01/23 21:33
MW2112-041723-NET	L2320537-02	05/01/23 22:58
WG1770361-2LCS	WG1770361-2	05/04/23 16:33
MW2112-041723-NET	L2320537-02D	05/04/23 17:57



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : PAH8
Calibration dates : 04/20/23 03:34 04/20/23 12:06
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19944

Calibration Files

10 =F804192312.D 25 =F804192313.D 100 =F804192314.D 500 =F804192315.D 5000=F804192316.D
 1e4 =F804192317.D 2e4 =F804192318.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
1) i Acenaphthene-d10	-----ISTD-----								
2) A1 trans-Decalin	0.438	0.420	0.385	0.381	0.382	0.439	0.474	0.417	8.58
3) t cis-Decalin	0.389	0.319	0.312	0.294	0.290	0.340	0.365	0.330	11.20
4) A2 C1-Decalins	0.438	0.420	0.385	0.381	0.382	0.439	0.474	0.417	8.58
5) A2 C2-Decalins	0.438	0.420	0.385	0.381	0.382	0.439	0.474	0.417	8.58
6) A2 C3-Decalins	0.438	0.420	0.385	0.381	0.382	0.439	0.474	0.417	8.58
7) A2 C4-Decalins	0.438	0.420	0.385	0.381	0.382	0.439	0.474	0.417	8.58
8) s Naphthalene-d8	2.307	2.172	2.237	2.108	2.072	2.161	2.370	2.204	4.85
9) A1 Naphthalene	2.477	2.412	2.460	2.446	2.333	2.279	2.509	2.417	3.42
10) A2 C1-Naphthalenes	2.477	2.412	2.460	2.446	2.333	2.279	2.509	2.417	3.42
11) A2 C2-Naphthalenes	2.477	2.412	2.460	2.446	2.333	2.279	2.509	2.417	3.42
12) A2 C3-Naphthalenes	2.477	2.412	2.460	2.446	2.333	2.279	2.509	2.417	3.42
13) A2 C4-Naphthalenes	2.477	2.412	2.460	2.446	2.333	2.279	2.509	2.417	3.42
14) t 2-Methylnaphthalene	1.591	1.545	1.565	1.606	1.602	1.551	1.711	1.596	3.52
15) t 1-Methylnaphthalene	1.483	1.417	1.403	1.438	1.412	1.454	1.599	1.458	4.66
16) A1 Benzothiophene	2.206	2.162	2.172	2.184	2.046	1.981	2.151	2.129	3.89
17) A2 C1-Benzo(b)thi	2.206	2.162	2.172	2.184	2.046	1.981	2.151	2.129	3.89
18) A2 C2-Benzo(b)thi	2.206	2.162	2.172	2.184	2.046	1.981	2.151	2.129	3.89
19) A2 C3-Benzo(b)thi	2.206	2.162	2.172	2.184	2.046	1.981	2.151	2.129	3.89
20) A2 C4-Benzo(b)thi	2.206	2.162	2.172	2.184	2.046	1.981	2.151	2.129	3.89
21) t Biphenyl	1.956	1.896	1.864	1.895	1.845	1.848	2.034	1.905	3.58
22) t 2,6-Dimethylnaphthalene	1.264	1.182	1.190	1.249	1.252	1.318	1.461	1.274	7.43
23) t Dibenzofuran	1.782	1.739	1.807	1.867	1.767	1.978	2.131	1.867	7.55
24) t Acenaphthylene	2.133	2.100	2.141	2.283	2.296	2.326	2.502	2.254	6.29
25) t Acenaphthene	1.438	1.346	1.409	1.472	1.441	1.450	1.581	1.448	4.91
26) t 2,3,5-Trimethylnaphthalen	1.014	0.951	0.969	1.022	1.040	1.137	1.248	1.054	9.89
27) A1 Fluorene	1.462	1.391	1.435	1.530	1.515	1.567	1.724	1.518	7.16
28) A2 C1-Fluorenes	1.462	1.391	1.435	1.530	1.515	1.567	1.724	1.518	7.16
29) A2 C2-Fluorenes	1.462	1.391	1.435	1.530	1.515	1.567	1.724	1.518	7.16
30) A2 C3-Fluorenes	1.462	1.391	1.435	1.530	1.515	1.567	1.724	1.518	7.16
31) A1 Dibenzothiophene	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
32) A2 4-Methyldibenz	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
33) A2 2/3-Methyldibe	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
34) A2 1-Methyldibenz	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
35) A2 OTP	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
36) A2 C1-Dibenzothio	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : PAH8
Calibration dates : 04/20/23 03:34 04/20/23 12:06
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19944

Calibration Files

10 =F804192312.D 25 =F804192313.D 100 =F804192314.D 500 =F804192315.D 5000=F804192316.D
 1e4 =F804192317.D 2e4 =F804192318.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
37) A2 C2-Dibenzothio	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
38) A2 C3-Dibenzothio	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
39) A2 C4-Dibenzothio	2.140	2.058	2.076	2.213	2.141	2.142	2.333	2.158	4.29
40) s Phenanthrene-d10	1.348	1.270	1.302	1.306	1.321	1.614	1.686	1.406	12.01
41) A1 Phenanthrene	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
42) A2 3-Methylphenan	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
43) A2 2-Methylphenan	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
44) A2 2-Methylanthra	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
45) A2 9/4-Methylphen	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
46) A2 1-Methylphenan	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
47) A2 C1-Phenanthren	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
48) A2 C2-Phenanthren	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
49) A2 5AA IS BKGD	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
50) A2 C3-Phenanthren	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
51) A2 C4-Phenanthren	2.060	1.967	1.987	2.108	2.042	2.155	2.347	2.095	6.14
52) t Retene	0.361	0.352	0.353	0.399	0.445	0.596	0.666	0.453	28.10
53) t Anthracene	1.806	1.696	1.752	1.955	1.899	1.867	1.880	1.836	4.90
54) t Carbazole	3.349	2.047	1.842	1.944	1.948	2.004	2.167	2.186	23.91
56) A1 Fluoranthene	1.990	1.863	1.923	2.137	2.193	2.188	2.431	2.104	9.24
57) A1 Benzo(b)fluorene	0.997	0.883	0.946	1.092	1.193	1.325	1.495	1.133	19.39
58) A2 7H-Benzo(c)flu	0.997	0.883	0.946	1.092	1.193	1.325	1.495	1.133	19.39
59) A1 Pyrene	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
60) A2 2-Methylpyrene	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
61) A2 4-Methylpyrene	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
62) A2 1-Methylpyrene	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
63) A2 C1-Fluoranthen	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
64) A2 C2-Fluoranthen	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
65) A2 C3-Fluoranthen	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
66) A2 C4-Fluoranthen	2.004	1.856	1.887	2.121	2.135	2.232	2.501	2.105	10.51
67) A1 Naphthobenzothiophene-2,1	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27
68) A2 Naphthobenzoth	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27
69) A2 Naphthobenzoth	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27
70) A2 C1-Naphthobenz	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27
71) A2 C2-Naphthobenz	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27
72) A2 C3-Naphthobenz	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27
73) A2 C4-Naphthobenz	2.039	1.792	1.853	2.032	2.081	2.167	2.435	2.057	10.27



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : PAH8
Calibration dates : 04/20/23 03:34 04/20/23 12:06
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19944

Calibration Files

10 =F804192312.D 25 =F804192313.D 100 =F804192314.D 500 =F804192315.D 5000=F804192316.D
 1e4 =F804192317.D 2e4 =F804192318.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
74) i Chrysene-d12	-----ISTD-----								
75) t Benz[a]anthracene	1.432	1.329	1.384	1.443	1.516	1.410	1.712	1.461	8.52
77) A2 Chrysene/Triphenylene	1.471	1.417	1.462	1.508	1.503	1.363	1.676	1.486	6.60
78) A2 C1-Chrysenes	1.471	1.417	1.462	1.508	1.503	1.363	1.676	1.486	6.60
79) A2 C2-Chrysenes	1.471	1.417	1.462	1.508	1.503	1.363	1.676	1.486	6.60
80) A2 BBF-D12 Surr BKGD	1.471	1.417	1.462	1.508	1.503	1.363	1.676	1.486	6.60
81) A2 C3-Chrysenes	1.471	1.417	1.462	1.508	1.503	1.363	1.676	1.486	6.60
82) A2 C4-Chrysenes	1.471	1.417	1.462	1.508	1.503	1.363	1.676	1.486	6.60
83) s Benzo[b]fluoranthene-d12	1.129	0.939	0.925	0.890	0.936	0.972	1.195	0.998	11.64
84) t Benzo[b]fluoranthene	1.797	1.664	1.605	1.692	1.741	1.592	1.994	1.726	8.01
85) A1 Benzo[j]+[k]fluoranthene	1.781	1.639	1.624	1.731	1.772	1.616	2.017	1.740	8.08
86) A2 Benzo[a]fluora	1.781	1.639	1.624	1.731	1.772	1.616	2.017	1.740	8.08
87) t Benzo[e]pyrene	1.804	1.619	1.587	1.629	1.642	1.540	1.870	1.670	7.21
88) s Benzo[a]pyrene-d12	0.806	0.670	0.674	0.646	0.704	0.895	1.107	0.786	21.28
89) t Benzo[a]pyrene	1.729	1.526	1.471	1.541	1.600	1.469	1.811	1.592	8.26
90) t Perylene	1.735	1.492	1.466	1.557	1.624	1.520	1.849	1.606	8.75
91) t Indeno[1,2,3-cd]pyrene	2.166	1.735	1.700	1.795	1.984	1.880	2.374	1.948	12.66
92) t Dibenz[ah]+[ac]anthracene	1.719	1.496	1.421	1.494	1.596	1.587	1.947	1.609	11.03
93) t Benzo[g,h,i]perylene	2.717	1.921	1.801	1.809	1.828	1.612	1.904	1.942	18.36
128) SA1 5B(H)Cholane - Surr	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
146) A2 C20 Pregnane	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
147) A2 C21 20-Methylp	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
148) A2 C22 20-Ethylpr	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
149) A2 C22 20-Ethylpr	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
150) A2 C26,20S TAS	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
151) A2 C26,20R+C27,20	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
152) A2 C28,20S TAS	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
153) A2 C27,20R TAS	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
154) A2 C28,20R TAS	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
155) A2 C29,20S TAS	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66
156) A2 C29,20R TAS	0.160	0.144	0.130	0.163	0.150	0.160	0.200	0.158	13.66



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : PAH12
Calibration dates : 04/26/23 16:02 04/27/23 00:29
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19969

Calibration Files

10 =F1204262303.D 25 =F1204262304.D 100 =F1204262305.D 500 =F1204262306.D 5000=F1204262307.D
 1e4 =F1204262308.D 2e4 =F1204262309.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
1) i Acenaphthene-d10	-----ISTD-----								
2) A1 trans-Decalin	0.460	0.485	0.482	0.486	0.431	0.499	0.484	0.475	4.78
3) t cis-Decalin	0.421	0.369	0.376	0.380	0.339	0.393	0.379	0.380	6.55
4) A2 C1-Decalins	0.460	0.485	0.482	0.486	0.431	0.499	0.484	0.475	4.78
5) A2 C2-Decalins	0.460	0.485	0.482	0.486	0.431	0.499	0.484	0.475	4.78
6) A2 C3-Decalins	0.460	0.485	0.482	0.486	0.431	0.499	0.484	0.475	4.78
7) A2 C4-Decalins	0.460	0.485	0.482	0.486	0.431	0.499	0.484	0.475	4.78
8) s Naphthalene-d8	1.977	1.909	2.154	2.187	2.022	2.284	2.180	2.102	6.39
9) A1 Naphthalene	2.129	2.083	2.283	2.442	2.252	2.569	2.451	2.315	7.74
10) A2 C1-Naphthalenes	2.129	2.083	2.283	2.442	2.252	2.569	2.451	2.315	7.74
11) A2 C2-Naphthalenes	2.129	2.083	2.283	2.442	2.252	2.569	2.451	2.315	7.74
12) A2 C3-Naphthalenes	2.129	2.083	2.283	2.442	2.252	2.569	2.451	2.315	7.74
13) A2 C4-Naphthalenes	2.129	2.083	2.283	2.442	2.252	2.569	2.451	2.315	7.74
14) t 2-Methylnaphthalene	1.254	1.179	1.283	1.467	1.491	1.664	1.610	1.421	13.09
15) t 1-Methylnaphthalene	1.242	1.131	1.170	1.393	1.350	1.592	1.531	1.344	13.07
16) A1 Benzothiophene	1.717	1.803	1.766	1.923	1.794	2.058	1.983	1.864	6.77
17) A2 C1-Benzo(b)thi	1.717	1.803	1.766	1.923	1.794	2.058	1.983	1.864	6.77
18) A2 C2-Benzo(b)thi	1.717	1.803	1.766	1.923	1.794	2.058	1.983	1.864	6.77
19) A2 C3-Benzo(b)thi	1.717	1.803	1.766	1.923	1.794	2.058	1.983	1.864	6.77
20) A2 C4-Benzo(b)thi	1.717	1.803	1.766	1.923	1.794	2.058	1.983	1.864	6.77
21) t Biphenyl	1.556	1.633	1.658	1.833	1.761	2.012	1.916	1.767	9.27
22) t 2,6-Dimethylnaphthalene	1.055	0.994	1.035	1.158	1.182	1.393	1.336	1.165	13.10
23) t Dibenzofuran	1.347	1.428	1.517	1.660	1.637	2.105	1.960	1.665	16.63
24) t Acenaphthylene	1.768	1.773	1.810	1.952	2.047	2.381	2.250	1.997	12.15
25) t Acenaphthene	1.224	1.214	1.230	1.289	1.253	1.463	1.345	1.288	6.95
26) t 2,3,5-Trimethylnaphthalen	1.028	0.997	0.997	1.038	1.072	1.260	1.174	1.081	9.23
27) A1 Fluorene	1.207	1.117	1.240	1.325	1.368	1.640	1.490	1.341	13.29
28) A2 C1-Fluorenes	1.207	1.117	1.240	1.325	1.368	1.640	1.490	1.341	13.29
29) A2 C2-Fluorenes	1.207	1.117	1.240	1.325	1.368	1.640	1.490	1.341	13.29
30) A2 C3-Fluorenes	1.207	1.117	1.240	1.325	1.368	1.640	1.490	1.341	13.29
31) A1 Dibenzothiophene	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
32) A2 4-Methyldibenz	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
33) A2 2/3-Methyldibe	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
34) A2 1-Methyldibenz	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
35) A2 OTP	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
36) A2 C1-Dibenzothio	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : PAH12
Calibration dates : 04/26/23 16:02 04/27/23 00:29
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19969

Calibration Files

10 =F1204262303.D 25 =F1204262304.D 100 =F1204262305.D 500 =F1204262306.D 5000=F1204262307.D
 1e4 =F1204262308.D 2e4 =F1204262309.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
37) A2 C2-Dibenzothio	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
38) A2 C3-Dibenzothio	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
39) A2 C4-Dibenzothio	1.921	1.777	1.795	1.903	1.904	2.206	2.043	1.936	7.66
40) s Phenanthrene-d10	1.308	1.405	1.376	1.369	1.400	1.673	1.585	1.445	9.13
41) A1 Phenanthrene	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
42) A2 3-Methylphenan	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
43) A2 2-Methylphenan	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
44) A2 2-Methylanthra	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
45) A2 9/4-Methylphen	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
46) A2 1-Methylphenan	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
47) A2 C1-Phenanthren	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
48) A2 C2-Phenanthren	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
49) A2 5AA IS BKGD	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
50) A2 C3-Phenanthren	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
51) A2 C4-Phenanthren	1.983	1.734	1.832	2.013	2.019	2.388	2.135	2.015	10.47
52) t Retene	0.463	0.422	0.424	0.449	0.522	0.674	0.625	0.511	19.76
53) t Anthracene	1.765	1.698	1.726	1.841	1.921	2.263	1.954	1.881	10.30
54) t Carbazole	1.420	1.348	1.315	1.485	1.721	2.086	1.879	1.608	18.29
55) t 1-Methylphenanthrene	1.362	1.350	1.245	1.313	1.425	1.701	1.556	1.422	11.04
56) A1 Fluoranthene	2.000	1.917	1.962	2.049	2.181	2.470	2.249	2.118	9.21
57) A1 Benzo(b)fluorene	0.904	0.753	0.786	0.854	1.114	1.390	1.267	1.010	24.68
58) A2 7H-Benzo(c)flu	0.904	0.753	0.786	0.854	1.114	1.390	1.267	1.010	24.68
59) A1 Pyrene	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
60) A2 2-Methylpyrene	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
61) A2 4-Methylpyrene	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
62) A2 1-Methylpyrene	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
63) A2 C1-Fluoranthen	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
64) A2 C2-Fluoranthen	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
65) A2 C3-Fluoranthen	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
66) A2 C4-Fluoranthen	2.075	1.940	1.942	2.028	2.136	2.526	2.290	2.134	9.89
67) A1 Naphthobenzothiophene-2,1	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93
68) A2 Naphthobenzoth	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93
69) A2 Naphthobenzoth	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93
70) A2 C1-Naphthobenz	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93
71) A2 C2-Naphthobenz	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93
72) A2 C3-Naphthobenz	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : PAH12
Calibration dates : 04/26/23 16:02 04/27/23 00:29
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19969

Calibration Files

10 =F1204262303.D 25 =F1204262304.D 100 =F1204262305.D 500 =F1204262306.D 5000=F1204262307.D
 1e4 =F1204262308.D 2e4 =F1204262309.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
73) A2 C4-Naphthobenz	1.761	1.664	1.646	1.754	1.911	2.308	2.071	1.874	12.93
74) i Chrysene-d12	-----ISTD-----								
75) t Benz[a]anthracene	1.290	1.325	1.254	1.347	1.361	1.391	1.490	1.351	5.64
76) A1 Chrysene	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
77) A2 Chrysene/Triphenylene	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
78) A2 C1-Chrysenes	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
79) A2 C2-Chrysenes	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
80) A2 BBF-D12 Surr BKGD	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
81) A2 C3-Chrysenes	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
82) A2 C4-Chrysenes	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
83) A2 DAT-16 (t)	1.523	1.526	1.470	1.517	1.376	1.355	1.419	1.455	4.96
84) s Benzo[b]fluoranthene	1.198	0.962	0.978	0.959	0.952	0.982	1.093	1.018	9.13
85) t Benzo[b]fluoranthene	1.384	1.269	1.378	1.542	1.539	1.492	1.563	1.452	7.60
86) A1 Benzo[j]+[k]fluoranthene	1.621	1.579	1.642	1.717	1.588	1.550	1.621	1.617	3.32
87) A2 Benzo[a]fluora	1.621	1.579	1.642	1.717	1.588	1.550	1.621	1.617	3.32
88) t Benzo[e]pyrene	1.666	1.536	1.552	1.590	1.490	1.482	1.556	1.553	4.03
89) s Benzo[a]pyrene	0.722	0.629	0.634	0.631	0.696	0.899	1.019	0.747	20.49
90) t Benzo[a]pyrene	1.303	1.231	1.277	1.356	1.378	1.332	1.348	1.318	3.85
91) t Perylene	1.365	1.235	1.342	1.424	1.428	1.400	1.422	1.374	5.05
92) t Indeno[1,2,3-cd]pyrene	1.253	1.113	1.107	1.296	1.381	1.500	1.676	1.332	15.48
93) t Dibenz[ah]+[ac]anthracene	1.041	0.855	0.974	1.074	1.295	1.358	1.520	1.160	20.39
94) t Benzo[g,h,i]perylene	1.663	1.522	1.431	1.463	1.473	1.397	1.524	1.496	5.80
95) A1 Hopane (T19)	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
96) A2 C23 Tricyclic	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
97) A2 C24 Tricyclic	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
98) A2 C25 Tricyclic	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
99) A2 C24 Tetracycli	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
100) A2 C26 Tricyclic	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
101) A2 C26 Tricyclic	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
102) A2 C28 Tricyclic	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
103) A2 C28 Tricyclic	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
104) A2 C29 Tricyclic	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
105) A2 C29 Tricyclic	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
106) A2 18a-22,29,30-T	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
107) A2 C30 Tricyclic	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
108) A2 C30 Tricyclic	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : PAH12
Calibration dates : 04/26/23 16:02 04/27/23 00:29
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19969

Calibration Files

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 1e4 =F1204262308.D 2e4 =F1204262309.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
109) A2 17a(H)-22,29,3	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
110) A2 17a/b,21b/a 28	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
111) A2 17a(H),21b(H)-	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
112) A2 30-Norhopane (	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
113) A2 18a(H)-30-Norn	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
114) A2 17a(H)-Diahopa	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
115) A2 30-Normoretane	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
116) A2 18a(H)&18b(H)-	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
117) A2 Moretane (T20)	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
118) A2 30-Homohopane-	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
119) A2 30-Homohopane-	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
120) A2 Gammacerane/C3	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
121) A2 30,31-Bishomoh	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
122) A2 30,31-Bishomoh	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
123) A2 30,31-Trishomo	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
124) A2 30,31-Trishomo	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
125) A2 Tetrakishomoho	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
126) A2 Tetrakishomoho	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
127) A2 Pentakishomoho	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
128) A2 Pentakishomoho	0.503	0.456	0.386	0.414	0.370	0.401		0.422	11.72
129) SA1 5B(H)Cholane - Surr	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
130) A2 13b(H),17a(H)-	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
131) A2 13b(H),17a(H)-	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
132) A2 13b,17a-20S-Me	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
133) A2 14a,17a-20S-Ch	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
134) A2 14a,17a-20R-Ch	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
135) A2 Unknown Steran	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
136) A2 13a,17b-20S-Et	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
137) A2 14a,17a-20S-Me	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
138) A2 14a,17a-20R-Me	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
139) A2 14a(H),17a(H)-	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
140) A2 14a(H),17a(H)-	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
141) A2 14b(H),17b(H)-	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
142) A2 14b(H),17b(H)-	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
143) A2 14b,17b-20R-Me	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
144) A2 14b,17b-20S-Me	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07



Initial Calibration Summary

Form 6

Semivolatiles

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : PAH12
Calibration dates : 04/26/23 16:02 04/27/23 00:29
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19969

Calibration Files

10 =F1204262303.D 25 =F1204262304.D 100 =F1204262305.D 500 =F1204262306.D 5000=F1204262307.D
 1e4 =F1204262308.D 2e4 =F1204262309.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
145) A2 14b(H),17b(H)-	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
146) A2 14b(H),17b(H)-	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
147) A2 C20 Pregnane	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
148) A2 C21 20-Methylp	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
149) A2 C22 20-Ethylpr	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
150) A2 C22 20-Ethylpr	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
151) A2 C26,20S TAS	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
152) A2 C26,20R+C27,20	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
153) A2 C28,20S TAS	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
154) A2 C27,20R TAS	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
155) A2 C28,20R TAS	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
156) A2 C29,20S TAS	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
157) A2 C29,20R TAS	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
158) A2 5b(H)-C27 (20S	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
159) A2 5b(H)-C27 (20R	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
160) A2 5a(H)-C27 (20S	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
161) A2 5b(H)-C28 (20S	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
162) A2 5a(H)-C27 (20R	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
163) A2 5a(H)-C28 (20S	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
164) A2 5b(H)-C28 (20R	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
165) A2 5b(H)-C29 (20S	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
166) A2 5a(H)-C29 (20S	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
167) A2 5a(H)-C28 (20R	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
168) A2 5b(H)-C29 (20R	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07
169) A2 5a(H)-C29 (20R	0.200	0.211	0.190	0.227	0.181	0.186	0.208	0.201	8.07

Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Instrument ID : PAH8	Calibration Date : 04/26/23 08:44
Lab File ID : F804252319	Init. Calib. Date(s) : 04/20/23 04/20/23
Sample No : WG1771474-4	Init. Calib. Times : 03:34 12:06
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	159	0
trans-Decalin	0.417	0.371	.05	11	25	155	0
cis-Decalin	0.33	0.276	.05	16.4	25	149	-.02
Naphthalene-d8	2.204	1.932	.05	12.3	25	146	0
Naphthalene	2.417	2.221	.05	8.1	25	145	0
2-Methylnaphthalene	1.596	1.495	.05	6.3	25	148	0
1-Methylnaphthalene	1.458	1.333	.05	8.6	25	147	0
Benzothiophene	2.129	1.973	.05	7.3	25	144	0
Biphenyl	1.905	1.771	.05	7	25	149	0
2,6-Dimethylnaphthalene	1.274	1.196	.05	6.1	25	152	0
Dibenzofuran	1.867	1.756	.05	5.9	25	150	0
Acenaphthylene	2.254	2.316	.05	-2.8	25	161	0
Acenaphthene	1.448	1.427	.05	1.5	25	154	0
2,3,5-Trimethylnaphthalene	1.054	1.023	.05	2.9	25	159	0
Fluorene	1.518	1.487	.05	2	25	155	0
Dibenzothiophene	2.158	2.156	.05	0.1	25	155	0
Phenanthrene-d10	1.406	1.329	.05	5.5	25	162	0
Phenanthrene	2.095	2.063	.05	1.5	25	156	0
Retene	0.453	0.427	.05	5.7	25	170	0
Anthracene	1.836	2.018	.05	-9.9	25	164	0
Carbazole	2.186	1.936	.05	11.4	25	159	0
1-Methylphenanthrene	1.382	1.378	.05	0.3	25	162	0
Fluoranthene	2.104	2.177	.05	-3.5	25	162	0
Benzo(b)fluorene	1.133	1.15	.05	-1.5	25	168	0
Pyrene	2.105	2.149	.05	-2.1	25	161	0
Naphthobenzothiophene-2,1-	2.057	2.046	.05	0.5	25	160	0
Chrysene-d12	1	1	.05	0	25	158	0
Benz[a]anthracene	1.461	1.512	.05	-3.5	25	165	0
Chrysene	1.486	1.537	.05	-3.4	25	160	0
Chrysene/Triphenylene	1.486	1.537	.05	-3.4	25	160	0
Benzo[b]fluoranthene-d12	0.998	0.906	.05	9.2	25	160	0
Benzo[b]fluoranthene	1.726	1.698	.05	1.6	25	158	0
Benzo[j]+[k]fluoranthene	1.74	1.708	.05	1.8	25	155	0
Benzo[e]pyrene	1.67	1.617	.05	3.2	25	156	0
Benzo[a]pyrene-d12	0.786	0.664	.05	15.5	25	162	0
Benzo[a]pyrene	1.592	1.551	.05	2.6	25	159	0
Perylene	1.606	1.582	.05	1.5	25	160	0
Indeno[1,2,3-cd]pyrene	1.948	1.804	.05	7.4	25	158	0
Dibenz[ah]+[ac]anthracene	1.609	1.504	.05	6.5	25	159	0
Benzo[g,h,i]perylene	1.942	1.754	.05	9.7	25	153	0
Hopane (T19)	0.309	0.286	.05	7.4	25	166	-.02
5B(H)Cholane - Surr	0.158	0.173	.05	-9.5	25	167	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Instrument ID : PAH8	Calibration Date : 04/27/23 01:54
Lab File ID : F804252331	Init. Calib. Date(s) : 04/20/23 04/20/23
Sample No : WG1771474-5	Init. Calib. Times : 03:34 12:06
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	150	0
trans-Decalin	0.417	0.36	.05	13.7	25	142	0
cis-Decalin	0.33	0.272	.05	17.6	25	138	-.02
Naphthalene-d8	2.204	1.829	.05	17	25	130	0
Naphthalene	2.417	2.004	.05	17.1	25	123	0
2-Methylnaphthalene	1.596	1.362	.05	14.7	25	127	0
1-Methylnaphthalene	1.458	1.237	.05	15.2	25	129	0
Benzothiophene	2.129	1.733	.05	18.6	25	119	0
Biphenyl	1.905	1.598	.05	16.1	25	126	0
2,6-Dimethylnaphthalene	1.274	1.111	.05	12.8	25	133	0
Dibenzofuran	1.867	1.582	.05	15.3	25	127	0
Acenaphthylene	2.254	2.071	.05	8.1	25	136	0
Acenaphthene	1.448	1.305	.05	9.9	25	133	0
2,3,5-Trimethylnaphthalene	1.054	0.962	.05	8.7	25	141	0
Fluorene	1.518	1.353	.05	10.9	25	132	0
Dibenzothiophene	2.158	1.888	.05	12.5	25	128	0
Phenanthrene-d10	1.406	1.315	.05	6.5	25	151	0
Phenanthrene	2.095	1.871	.05	10.7	25	133	0
Retene	0.453	0.458	.05	-1.1	25	172	-.02
Anthracene	1.836	1.831	.05	0.3	25	140	0
Carbazole	2.186	1.749	.05	20	25	135	0
1-Methylphenanthrene	1.382	1.313	.05	5	25	145	0
Fluoranthene	2.104	2.03	.05	3.5	25	142	0
Benzo(b)fluorene	1.133	1.13	.05	0.3	25	155	0
Pyrene	2.105	2.026	.05	3.8	25	143	0
Naphthobenzothiophene-2,1-	2.057	1.926	.05	6.4	25	142	0
Chrysene-d12	1	1	.05	0	25	159	0
Benz[a]anthracene	1.461	1.42	.05	2.8	25	156	0
Chrysene	1.486	1.423	.05	4.2	25	150	0
Chrysene/Triphenylene	1.486	1.423	.05	4.2	25	150	0
Benzo[b]fluoranthene-d12	0.998	0.957	.05	4.1	25	171	0
Benzo[b]fluoranthene	1.726	1.625	.05	5.9	25	152	0
Benzo[j]+[k]fluoranthene	1.74	1.63	.05	6.3	25	149	0
Benzo[e]pyrene	1.67	1.547	.05	7.4	25	151	0
Benzo[a]pyrene-d12	0.786	0.702	.05	10.7	25	172	-.02
Benzo[a]pyrene	1.592	1.471	.05	7.6	25	151	0
Perylene	1.606	1.509	.05	6	25	154	0
Indeno[1,2,3-cd]pyrene	1.948	1.697	.05	12.9	25	150	-.02
Dibenz[ah]+[ac]anthracene	1.609	1.442	.05	10.4	25	153	0
Benzo[g,h,i]perylene	1.942	1.686	.05	13.2	25	148	0
Hopane (T19)	0.309	0.295	.05	4.5	25	172	-.03
5B(H)Cholane - Surr	0.158	0.181	.05	-14.6	25	176	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Instrument ID : PAH12	Calibration Date : 05/01/23 12:07
Lab File ID : F1205012304	Init. Calib. Date(s) : 04/26/23 04/27/23
Sample No : WG1773800-7	Init. Calib. Times : 16:02 00:29
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	151	-.05
trans-Decalin	0.475	0.395	.05	16.8	25	123	-.05
cis-Decalin	0.38	0.307	.05	19.2	25	122	-.05
Naphthalene-d8	2.102	1.974	.05	6.1	25	136	-.05
Naphthalene	2.315	2.282	.05	1.4	25	141	-.05
2-Methylnaphthalene	1.421	1.505	.05	-5.9	25	155	-.07
1-Methylnaphthalene	1.344	1.356	.05	-0.9	25	147	-.06
Benzothiophene	1.864	1.834	.05	1.6	25	144	-.05
Biphenyl	1.767	1.754	.05	0.7	25	145	-.06
2,6-Dimethylnaphthalene	1.165	1.207	.05	-3.6	25	157	-.07
Dibenzofuran	1.665	1.712	.05	-2.8	25	156	-.07
Acenaphthylene	1.997	2.018	.05	-1.1	25	156	-.06
Acenaphthene	1.288	1.374	.05	-6.7	25	161	-.06
2,3,5-Trimethylnaphthalene	1.081	1.059	.05	2	25	154	-.07
Fluorene	1.341	1.485	.05	-10.7	25	169	-.08
Dibenzothiophene	1.936	1.996	.05	-3.1	25	159	-.06
Phenanthrene-d10	1.445	1.377	.05	4.7	25	152	-.06
Phenanthrene	2.015	2.159	.05	-7.1	25	162	-.06
Retene	0.511	0.472	.05	7.6	25	159	-.05
Anthracene	1.881	1.957	.05	-4	25	161	-.07
Carbazole	1.608	1.901	.05	-18.2	25	194	-.07
1-Methylphenanthrene	1.422	1.428	.05	-0.4	25	164	-.06
Fluoranthene	2.118	2.191	.05	-3.4	25	162	-.06
Benzo(b)fluorene	1.01	1.234	.05	-22.2	25	218	-.06
Pyrene	2.134	2.168	.05	-1.6	25	162	-.06
Naphthobenzothiophene-2,1-	1.874	2.037	.05	-8.7	25	176	-.05
Chrysene-d12	1	1	.05	0	25	176	-.06
Benz[a]anthracene	1.351	1.426	.05	-5.6	25	186	-.06
Chrysene	1.455	1.521	.05	-4.5	25	176	-.06
Chrysene/Triphenylene	1.455	1.521	.05	-4.5	25	176	-.06
Benzo[b]fluoranthene-d12	1.018	0.985	.05	3.2	25	180	-.05
Benzo[b]fluoranthene	1.452	1.693	.05	-16.6	25	193	-.06
Benzo[j]+[k]fluoranthene	1.617	1.777	.05	-9.9	25	182	-.05
Benzo[e]pyrene	1.553	1.626	.05	-4.7	25	180	-.06
Benzo[a]pyrene-d12	0.747	0.706	.05	5.5	25	197	-.06
Benzo[a]pyrene	1.318	1.535	.05	-16.5	25	199	-.07
Perylene	1.374	1.553	.05	-13	25	192	-.07
Indeno[1,2,3-cd]pyrene	1.332	1.589	.05	-19.3	25	215	-.09
Dibenz[ah]+[ac]anthracene	1.16	1.542	.05	-32.9*	25	252	-.11
Benzo[g,h,i]perylene	1.496	1.728	.05	-15.5	25	208	-.1
Hopane (T19)	0.422	0.355	.05	15.9	25	151	-.06
5B(H)Cholane - Surr	0.201	0.185	.05	8	25	143	-.04

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Instrument ID : PAH12	Calibration Date : 05/02/23 01:47
Lab File ID : F1205012313	Init. Calib. Date(s) : 04/26/23 04/27/23
Sample No : WG1773800-8	Init. Calib. Times : 16:02 00:29
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	135	-.05
trans-Decalin	0.475	0.386	.05	18.7	25	107	-.05
cis-Decalin	0.38	0.302	.05	20.5	25	107	-.05
Naphthalene-d8	2.102	1.993	.05	5.2	25	123	-.05
Naphthalene	2.315	2.39	.05	-3.2	25	132	-.05
2-Methylnaphthalene	1.421	1.579	.05	-11.1	25	146	-.07
1-Methylnaphthalene	1.344	1.417	.05	-5.4	25	137	-.06
Benzothiophene	1.864	2.022	.05	-8.5	25	142	-.05
Biphenyl	1.767	1.841	.05	-4.2	25	136	-.06
2,6-Dimethylnaphthalene	1.165	1.275	.05	-9.4	25	149	-.07
Dibenzofuran	1.665	1.847	.05	-10.9	25	150	-.07
Acenaphthylene	1.997	2.188	.05	-9.6	25	151	-.06
Acenaphthene	1.288	1.429	.05	-10.9	25	150	-.06
2,3,5-Trimethylnaphthalene	1.081	1.111	.05	-2.8	25	145	-.07
Fluorene	1.341	1.571	.05	-17.2	25	160	-.08
Dibenzothiophene	1.936	2.278	.05	-17.7	25	162	-.06
Phenanthrene-d10	1.445	1.393	.05	3.6	25	138	-.06
Phenanthrene	2.015	2.318	.05	-15	25	156	-.06
Retene	0.511	0.499	.05	2.3	25	150	-.05
Anthracene	1.881	2.169	.05	-15.3	25	159	-.07
Carbazole	1.608	2.096	.05	-30.3*	25	191	-.07
1-Methylphenanthrene	1.422	1.522	.05	-7	25	157	-.06
Fluoranthene	2.118	2.388	.05	-12.7	25	157	-.06
Benzo(b)fluorene	1.01	1.318	.05	-30.5*	25	208	-.07
Pyrene	2.134	2.379	.05	-11.5	25	159	-.06
Naphthobenzothiophene-2,1-	1.874	2.276	.05	-21.5	25	175	-.05
Chrysene-d12	1	1	.05	0	25	159	-.06
Benz[a]anthracene	1.351	1.509	.05	-11.7	25	179	-.06
Chrysene	1.455	1.588	.05	-9.1	25	167	-.06
Chrysene/Triphenylene	1.455	1.588	.05	-9.1	25	167	-.06
Benzo[b]fluoranthene-d12	1.018	0.958	.05	5.9	25	159	-.05
Benzo[b]fluoranthene	1.452	1.749	.05	-20.5	25	181	-.06
Benzo[j]+[k]fluoranthene	1.617	1.799	.05	-11.3	25	167	-.05
Benzo[e]pyrene	1.553	1.673	.05	-7.7	25	168	-.06
Benzo[a]pyrene-d12	0.747	0.699	.05	6.4	25	177	-.06
Benzo[a]pyrene	1.318	1.606	.05	-21.9	25	189	-.07
Perylene	1.374	1.619	.05	-17.8	25	181	-.07
Indeno[1,2,3-cd]pyrene	1.332	1.643	.05	-23.3	25	202	-.09
Dibenz[ah]+[ac]anthracene	1.16	1.535	.05	-32.3*	25	228	-.11
Benzo[g,h,i]perylene	1.496	1.782	.05	-19.1	25	194	-.11
Hopane (T19)	0.422	0.361	.05	14.5	25	139	-.06
5B(H)Cholane - Surr	0.201	0.196	.05	2.5	25	138	-.04

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Instrument ID : PAH12	Calibration Date : 05/04/23 15:09
Lab File ID : F1205032307	Init. Calib. Date(s) : 04/26/23 04/27/23
Sample No : WG1773800-5	Init. Calib. Times : 16:02 00:29
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	126	0
trans-Decalin	0.475	0.397	.05	16.4	25	103	0
cis-Decalin	0.38	0.281	.05	26.1*	25	93	0
Naphthalene-d8	2.102	1.826	.05	13.1	25	106	0
Naphthalene	2.315	2.083	.05	10	25	108	0
2-Methylnaphthalene	1.421	1.542	.05	-8.5	25	133	0
1-Methylnaphthalene	1.344	1.362	.05	-1.3	25	124	0
Benzothiophene	1.864	1.765	.05	5.3	25	116	0
Biphenyl	1.767	1.7	.05	3.8	25	117	0
2,6-Dimethylnaphthalene	1.165	1.279	.05	-9.8	25	140	-.02
Dibenzofuran	1.665	1.664	.05	0.1	25	127	0
Acenaphthylene	1.997	1.991	.05	0.3	25	129	0
Acenaphthene	1.288	1.26	.05	2.2	25	124	0
2,3,5-Trimethylnaphthalene	1.081	1.181	.05	-9.3	25	144	0
Fluorene	1.341	1.555	.05	-16	25	148	0
Dibenzothiophene	1.936	2.034	.05	-5.1	25	135	0
Phenanthrene-d10	1.445	1.409	.05	2.5	25	130	0
Phenanthrene	2.015	2.095	.05	-4	25	132	0
Retene	0.511	0.544	.05	-6.5	25	153	0
Anthracene	1.881	1.972	.05	-4.8	25	135	0
Carbazole	1.608	1.81	.05	-12.6	25	154	0
1-Methylphenanthrene	1.422	1.5	.05	-5.5	25	144	0
Fluoranthene	2.118	2.323	.05	-9.7	25	143	0
Benzo(b)fluorene	1.01	1.232	.05	-22	25	182	0
Pyrene	2.134	2.43	.05	-13.9	25	151	0
Naphthobenzothiophene-2,1-	1.874	2.258	.05	-20.5	25	163	0
Chrysene-d12	1	1	.05	0	25	169	0
Benz[a]anthracene	1.351	1.411	.05	-4.4	25	177	0
Chrysene	1.455	1.42	.05	2.4	25	158	.02
Chrysene/Triphenylene	1.455	1.42	.05	2.4	25	158	.02
Benzo[b]fluoranthene-d12	1.018	0.965	.05	5.2	25	170	0
Benzo[b]fluoranthene	1.452	1.541	.05	-6.1	25	169	0
Benzo[j]+[k]fluoranthene	1.617	1.549	.05	4.2	25	153	0
Benzo[e]pyrene	1.553	1.469	.05	5.4	25	156	0
Benzo[a]pyrene-d12	0.747	0.679	.05	9.1	25	182	0
Benzo[a]pyrene	1.318	1.258	.05	4.6	25	157	0
Perylene	1.374	1.38	.05	-0.4	25	164	0
Indeno[1,2,3-cd]pyrene	1.332	1.408	.05	-5.7	25	184	0
Dibenz[ah]+[ac]anthracene	1.16	1.281	.05	-10.4	25	202	0
Benzo[g,h,i]perylene	1.496	1.388	.05	7.2	25	160	0
Hopane (T19)	0.422	0.309	.05	26.8*	25	126	-.02
5B(H)Cholane - Surr	0.201	0.181	.05	10	25	135	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Instrument ID : PAH12	Calibration Date : 05/04/23 23:33
Lab File ID : F1205032313	Init. Calib. Date(s) : 04/26/23 04/27/23
Sample No : WG1773800-6	Init. Calib. Times : 16:02 00:29
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	125	0
trans-Decalin	0.475	0.36	.05	24.2	25	93	0
cis-Decalin	0.38	0.283	.05	25.5*	25	93	0
Naphthalene-d8	2.102	1.805	.05	14.1	25	104	0
Naphthalene	2.315	2.14	.05	7.6	25	110	0
2-Methylnaphthalene	1.421	1.465	.05	-3.1	25	125	0
1-Methylnaphthalene	1.344	1.307	.05	2.8	25	118	0
Benzothiophene	1.864	1.863	.05	0.1	25	122	0
Biphenyl	1.767	1.715	.05	2.9	25	117	0
2,6-Dimethylnaphthalene	1.165	1.225	.05	-5.2	25	133	-.02
Dibenzofuran	1.665	1.722	.05	-3.4	25	130	0
Acenaphthylene	1.997	2.108	.05	-5.6	25	135	0
Acenaphthene	1.288	1.296	.05	-0.6	25	126	0
2,3,5-Trimethylnaphthalene	1.081	1.116	.05	-3.2	25	135	0
Fluorene	1.341	1.49	.05	-11.1	25	141	0
Dibenzothiophene	1.936	2.16	.05	-11.6	25	142	0
Phenanthrene-d10	1.445	1.441	.05	0.3	25	132	0
Phenanthrene	2.015	2.183	.05	-8.3	25	136	0
Retene	0.511	0.533	.05	-4.3	25	149	0
Anthracene	1.881	2.075	.05	-10.3	25	141	0
Carbazole	1.608	1.901	.05	-18.2	25	161	0
1-Methylphenanthrene	1.422	1.52	.05	-6.9	25	145	0
Fluoranthene	2.118	2.32	.05	-9.5	25	142	0
Benzo(b)fluorene	1.01	1.165	.05	-15.3	25	171	0
Pyrene	2.134	2.258	.05	-5.8	25	140	0
Naphthobenzothiophene-2,1-	1.874	1.655	.05	11.7	25	118	0
Chrysene-d12	1	1	.05	0	25	117	0
Benz[a]anthracene	1.351	1.479	.05	-9.5	25	129	0
Chrysene	1.455	1.45	.05	0.3	25	112	.02
Chrysene/Triphenylene	1.455	1.45	.05	0.3	25	112	.02
Benzo[b]fluoranthene-d12	1.018	1.032	.05	-1.4	25	126	0
Benzo[b]fluoranthene	1.452	1.589	.05	-9.4	25	121	0
Benzo[j]+[k]fluoranthene	1.617	1.644	.05	-1.7	25	112	0
Benzo[e]pyrene	1.553	1.552	.05	0.1	25	114	0
Benzo[a]pyrene-d12	0.747	0.774	.05	-3.6	25	144	0
Benzo[a]pyrene	1.318	1.468	.05	-11.4	25	127	0
Perylene	1.374	1.522	.05	-10.8	25	125	0
Indeno[1,2,3-cd]pyrene	1.332	1.537	.05	-15.4	25	139	0
Dibenz[ah]+[ac]anthracene	1.16	1.412	.05	-21.7	25	154	0
Benzo[g,h,i]perylene	1.496	1.668	.05	-11.5	25	133	0
Hopane (T19)	0.422	0.348	.05	17.5	25	98	-.02
5B(H)Cholane - Surr	0.201	0.198	.05	1.5	25	102	0

* Value outside of QC limits.



Internal Standard Area and RT Summary

Form 8a

Semivolatiles

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Instrument ID	: PAH8	Analysis Date	: 04/26/23 08:44:00
Sample No	: WG1771474-4	Lab File ID	: F804252319

	Acenaphthene-d10		Chrysene-d12		Area	RT
	Area	RT	Area	RT		
WG1771474-4	27279	27.49	29420	43.98		
Upper Limit	54558	27.99	58840	44.48		
Lower Limit	13640	26.99	14710	43.48		
Sample ID						
WG1769534-1 BLANK	23109	27.49	23668	43.99		
WG1769534-2 LCS	25018	27.49	26165	43.98		
WG1769534-3 LCSD	24150	27.49	25360	43.98		
MW2112-041723-NAPL	30458	27.51	37305	43.98		
MW2112-041723-NAPL DUP	30515	27.51	38385	43.98		
WG1771474-5 CCAL	25652	27.49	29625	43.98		

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	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Instrument ID	: PAH12	Analysis Date	: 05/01/23 12:07:00
Sample No	: WG1773800-7	Lab File ID	: F1205012304

	Acenaphthene-d10		Chrysene-d12		Area	RT
	Area	RT	Area	RT		
WG1773800-7	96475	27.15	126155	43.59		
Upper Limit	192950	27.65	252310	44.09		
Lower Limit	48238	26.65	63078	43.09		
Sample ID						
WG1770361-1 BLANK	105189	27.15	148246	43.60		
WG1770361-3 LCSD	98800	27.15	161147	43.59		
MW2112-041723-NET	0*	0.00*	129512	43.62		
WG1773800-8 CCAL	86258	27.15	114493	43.59		

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	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATIO	Project Number	: 000029-02.78 T12A
Instrument ID	: PAH12	Analysis Date	: 05/04/23 15:09:00
Sample No	: WG1773800-5	Lab File ID	: F1205032307

	Acenaphthene-d10		Chrysene-d12		Area	RT
	Area	RT	Area	RT		
WG1773800-5	80662	27.13	121458	43.57		
Upper Limit	161324	27.63	242916	44.07		
Lower Limit	40331	26.63	60729	43.07		
Sample ID						
WG1770361-2 LCS	70271	27.13	101303	43.57		
MW2112-041723-NET	50662	27.15	0*	0.00*		
WG1773800-6 CCAL	80066	27.13	84046	43.57		

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



Saturated Hydrocarbon Analysis

Initial Calibration

Response Factor Report FID17

Method Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Method File : HC17010323F_DRO.M
 Title : FID Forensics
 Last Update : Wed Jan 18 15:08:02 2023
 Response Via : Initial Calibration

Calibration Files

1 =F1701032212.D 10 =F1701032214.D 50 =F1701032216.D 100 =F1701032218.D 200 =F1701032220.D
 500 =F1701032222.D

Compound		1	10	50	100	200	500	Avg	%RSD

1) I	5-alpha-androstane	-----ISTD-----							
2) t	n-Octane (C8)	0.850	0.835	0.867	0.778	0.758		0.817	5.77
3) t	n-Nonane (C9)	0.872	0.867	0.898	0.817	0.796		0.850	4.95
4) t	n-Decane (C10)	0.900	0.902	0.930	0.859	0.836		0.885	4.25
5) t	n-Undecane (C11)	0.891	0.901	0.944	0.860	0.838		0.887	4.60
6) t	n-Dodecane (C12)	0.898	0.912	0.945	0.871	0.848		0.895	4.17
7) t	n-Tridecane (...)	0.902	0.915	0.954	0.875	0.850		0.899	4.39
8) t	1380	0.932	0.942	0.972	0.899	0.872		0.923	4.20
9) t	n-Tetradecane...	0.932	0.942	0.972	0.899	0.872		0.923	4.20
10) t	1470	0.942	0.948	0.965	0.906	0.877		0.927	3.86
11) t	n-Pentadecane...	0.942	0.948	0.965	0.906	0.877		0.927	3.86
12) t	n-Hexadecane ...	0.931	0.941	0.980	0.899	0.869		0.924	4.56
13) t	1650	0.940	0.953	0.987	0.913	0.892		0.937	3.91
14) t	n-Heptadecane...	0.940	0.953	0.987	0.913	0.892		0.937	3.91
15) t	Pristane	0.959	0.970	1.002	0.923	0.881		0.947	4.93
16) t	n-Octadecane ...	0.949	0.963	0.994	0.922	0.891		0.944	4.17
17) t	Phytane	0.883	0.895	0.932	0.858	0.834		0.880	4.21
18) t	n-Nonadecane ...	0.954	0.968	0.985	0.923	0.891		0.944	3.99
19) s	ortho-terphenyl	1.076	1.048	1.162	1.025	0.991	1.066	1.061	5.46
20) t	n-Eicosane (C20)	0.960	0.974	1.004	0.925	0.895		0.951	4.47
21) t	n-Heneicosane...	0.962	0.978	0.995	0.929	0.897		0.952	4.13
22) t	n-Docosane (C22)	0.963	0.978	1.010	0.925	0.895		0.954	4.73
23) t	n-Tricosane (...)	0.970	0.978	1.008	0.926	0.893		0.955	4.74
24) s	d50-Tetracosane	0.844	0.819	0.913	0.797	0.769	0.836	0.830	5.93
25) t	n-Tetracosane...	0.960	0.974	0.956	0.920	0.887		0.939	3.77
26) t	n-Pentacosane...	0.949	0.956	0.988	0.903	0.870		0.933	4.99
27) t	n-Hexacosane ...	0.965	0.982	1.017	0.925	0.891		0.956	5.14
28) t	n-Heptacosane...	0.969	0.981	0.980	0.922	0.887		0.948	4.39
29) t	n-Octacosane ...	0.986	1.001	1.020	0.939	0.903		0.970	4.94
30) t	n-Nonacosane ...	0.977	0.995	1.012	0.932	0.895		0.962	4.97
31) t	n-Triacontane...	0.979	0.997	1.014	0.933	0.894		0.963	5.10

Response Factor Report FID17

Method Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
Method File : HC17010323F_DRO.M
Title : FID Forensics
Last Update : Wed Jan 18 15:08:02 2023
Response Via : Initial Calibration

Calibration Files

1 =F1701032212.D 10 =F1701032214.D 50 =F1701032216.D 100 =F1701032218.D 200 =F1701032220.D
500 =F1701032222.D

	Compound	1	10	50	100	200	500	Avg	%RSD
32) t	n-Hentriacont...	0.946	0.960	0.982	0.896	0.860		0.929	5.37
33) t	n-Dotriaconta...	0.988	1.005	1.028	0.937	0.901		0.972	5.32
34) t	n-Tritriacont...	0.955	0.974	0.988	0.908	0.874		0.940	5.08
35) t	n-tetratriaco...	0.948	0.966	0.982	0.900	0.872		0.933	4.94
36) t	n-Pentatriaco...	0.887	0.903	0.989	0.838	0.818		0.887	7.50
37) t	n-Hexatriacon...	1.052	1.084	1.060	1.008	0.993		1.039	3.65
38) t	n-Heptatriaco...	0.985	0.982	0.974	0.916	0.909		0.953	3.90
39) t	n-Octatriacon...	0.983	0.995	1.004	0.926	0.925		0.967	3.98
40) t	n-Nonatriacon...	0.955	0.979	1.006	0.913	0.916		0.954	4.21
41) t	n-Tetracontan...	0.955	0.979	1.006	0.913	0.916		0.954	4.21
42) h	C9-C44 Total ...	0.948	0.961	0.985	0.907	0.880		0.936	4.50
43) h	C9-C40 Total ...	0.948	0.961	0.985	0.907	0.880		0.936	4.50
44) h	C10-C28 DRO	0.943	0.955	0.981	0.907	0.878		0.933	4.34
45) h	C28-C40 ORO	0.970	0.987	1.005	0.920	0.898		0.956	4.75
46) h	Total Resolve...	0.948	0.961	0.985	0.907	0.880		0.936	4.50

(#) = Out of Range

rfupdate

RSF Update Summary Report

Method Path.....: O:\Forensics\Data\FID17\2023\JAN\JAN03\
Method File.....: HC17010323F_DRO.M
Method Title.....: FID Forensics
Last Update.....: Tue Jan 17 09:49:02 2023

Generating Average Response Factor For: C9-C44 Total Petroleum Hydroca

No	Compound	Level	Conc	Response
1	n-Nonane (C9)	1	1.00000	1032465.911
2	n-Decane (C10)	1	1.00000	1066078.138
3	n-Undecane (C11)	1	1.00000	1055003.992
4	n-Dodecane (C12)	1	1.00000	1062595.556
5	n-Tridecane (C13)	1	1.00000	1067447.811
6	n-Tetradecane (C14)	1	1.00000	1103397.730
7	n-Pentadecane (C15)	1	1.00000	1115097.857
8	n-Hexadecane (C16)	1	1.00000	1101629.596
9	n-Heptadecane (C17)	1	1.00000	1113362.639
10	Pristane	1	1.00000	1135705.386
11	n-Octadecane (C18)	1	1.00000	1123871.663
12	Phytane	1	1.00000	1045855.584
13	n-Nonadecane (C19)	1	1.00000	1129281.341
14	n-Eicosane (C20)	1	1.00000	1136242.570
15	n-Heneicosane (C21)	1	1.00000	1139103.086
16	n-Docosane (C22)	1	1.00000	1140211.866
17	n-Tricosane (C23)	1	1.00000	1148486.138
18	n-Tetracosane (C24)	1	1.00000	1136820.747
19	n-Pentacosane (C25)	1	1.00000	1123069.551
20	n-Hexacosane (C26)	1	1.00000	1142903.280
21	n-Heptacosane (C27)	1	1.00000	1147736.993
22	n-Octacosane (C28)	1	1.00000	1167522.179
23	n-Nonacosane (C29)	1	1.00000	1156083.140
24	n-Triacontane (C30)	1	1.00000	1158865.575
25	n-Hentriacontane (C31)	1	1.00000	1119546.490
26	n-Dotriacontane (C32)	1	1.00000	1169351.783
27	n-Tritriacontane (C33)	1	1.00000	1130635.790
28	n-tetratriacontane (C34)	1	1.00000	1121866.920
29	n-Pentatriacontane (C35)	1	1.00000	1049786.208
30	n-Hexatriacontane (C36)	1	1.00000	1245082.036
31	n-Heptatriacontane (C37)	1	1.00000	1165691.051
32	n-Octatriacontane (C38)	1	1.00000	1164156.418
33	n-Tetracontane (C40)	1	1.00000	1130264.427
Avg RSF For: C9-C44 Total Petroleum			1.00000	1122582.408

1	n-Nonane (C9)	2	10.00000	10610051.016
2	n-Decane (C10)	2	10.00000	11040758.975
3	n-Undecane (C11)	2	10.00000	11030805.612
4	n-Dodecane (C12)	2	10.00000	11158722.447
5	n-Tridecane (C13)	2	10.00000	11198870.540
6	n-Tetradecane (C14)	2	10.00000	11522180.187
7	n-Pentadecane (C15)	2	10.00000	11605742.848
8	n-Hexadecane (C16)	2	10.00000	11513456.239
9	n-Heptadecane (C17)	2	10.00000	11664684.234
10	Pristane	2	10.00000	11875482.839
11	n-Octadecane (C18)	2	10.00000	11785247.140

Page 1

		rftupdate		
12	Phytane	2	10.00000	10951461.109
13	n-Nonadecane (C19)	2	10.00000	11846472.650
14	n-Eicosane (C20)	2	10.00000	11917049.485
15	n-Heneicosane (C21)	2	10.00000	11971468.802
16	n-Docosane (C22)	2	10.00000	11967331.114
17	n-Tricosane (C23)	2	10.00000	11972307.874
18	n-Tetracosane (C24)	2	10.00000	11917056.308
19	n-Pentacosane (C25)	2	10.00000	11702639.278
20	n-Hexacosane (C26)	2	10.00000	12011807.311
21	n-Heptacosane (C27)	2	10.00000	12009877.812
22	n-Octacosane (C28)	2	10.00000	12248876.282
23	n-Nonacosane (C29)	2	10.00000	12174097.148
24	n-Triacontane (C30)	2	10.00000	12199019.905
25	n-Hentriacontane (C31)	2	10.00000	11748519.339
26	n-Dotriacontane (C32)	2	10.00000	12298773.346
27	n-Tritriacontane (C33)	2	10.00000	11923420.641
28	n-tetratriacontane (C34)	2	10.00000	11816198.119
29	n-Pentatriacontane (C35)	2	10.00000	11046315.971
30	n-Hexatriacontane (C36)	2	10.00000	13265994.686
31	n-Heptatriacontane (C37)	2	10.00000	12017616.980
32	n-Octatriacontane (C38)	2	10.00000	12180128.531
33	n-Tetracontane (C40)	2	10.00000	11977565.079

Avg RSF For: C9-C44 Total Petroleum			10.00000	11762727.268

1	n-Nonane (C9)	3	50.00000	50190585.762
2	n-Decane (C10)	3	50.00000	51947510.620
3	n-Undecane (C11)	3	50.00000	52730427.500
4	n-Dodecane (C12)	3	50.00000	52798799.452
5	n-Tridecane (C13)	3	50.00000	53283094.933
6	n-Tetradecane (C14)	3	50.00000	54295832.166
7	n-Pentadecane (C15)	3	50.00000	53912091.540
8	n-Hexadecane (C16)	3	50.00000	54745809.248
9	n-Heptadecane (C17)	3	50.00000	55160952.382
10	Pristane	3	50.00000	55982383.930
11	n-Octadecane (C18)	3	50.00000	55545867.061
12	Phytane	3	50.00000	52057216.524
13	n-Nonadecane (C19)	3	50.00000	55057602.618
14	n-Eicosane (C20)	3	50.00000	56089574.740
15	n-Heneicosane (C21)	3	50.00000	55609521.118
16	n-Docosane (C22)	3	50.00000	56425966.903
17	n-Tricosane (C23)	3	50.00000	56311207.929
18	n-Tetracosane (C24)	3	50.00000	53405293.228
19	n-Pentacosane (C25)	3	50.00000	55197493.817
20	n-Hexacosane (C26)	3	50.00000	56827943.980
21	n-Heptacosane (C27)	3	50.00000	54738034.560
22	n-Octacosane (C28)	3	50.00000	56989875.417
23	n-Nonacosane (C29)	3	50.00000	56558566.214
24	n-Triacontane (C30)	3	50.00000	56671556.382
25	n-Hentriacontane (C31)	3	50.00000	54879529.988
26	n-Dotriacontane (C32)	3	50.00000	57404923.920
27	n-Tritriacontane (C33)	3	50.00000	55219696.972
28	n-tetratriacontane (C34)	3	50.00000	54882100.388
29	n-Pentatriacontane (C35)	3	50.00000	55228049.803
30	n-Hexatriacontane (C36)	3	50.00000	59239485.130
31	n-Heptatriacontane (C37)	3	50.00000	54395128.344
32	n-Octatriacontane (C38)	3	50.00000	56105189.658
33	n-Tetracontane (C40)	3	50.00000	56186228.072

Avg RSF For: C9-C44 Total Petroleum			50.00000	55032531.524

		rfupdate	
1	n-Nonane (C9)	4	100.00000
2	n-Decane (C10)	4	100.00000
3	n-Undecane (C11)	4	100.00000
4	n-Dodecane (C12)	4	100.00000
5	n-Tridecane (C13)	4	100.00000
6	n-Tetradecane (C14)	4	100.00000
7	n-Pentadecane (C15)	4	100.00000
8	n-Hexadecane (C16)	4	100.00000
9	n-Heptadecane (C17)	4	100.00000
10	Pristane	4	100.00000
11	n-Octadecane (C18)	4	100.00000
12	Phytane	4	100.00000
13	n-Nonadecane (C19)	4	100.00000
14	n-Eicosane (C20)	4	100.00000
15	n-Heneicosane (C21)	4	100.00000
16	n-Docosane (C22)	4	100.00000
17	n-Tricosane (C23)	4	100.00000
18	n-Tetracosane (C24)	4	100.00000
19	n-Pentacosane (C25)	4	100.00000
20	n-Hexacosane (C26)	4	100.00000
21	n-Heptacosane (C27)	4	100.00000
22	n-Octacosane (C28)	4	100.00000
23	n-Nonacosane (C29)	4	100.00000
24	n-Triacontane (C30)	4	100.00000
25	n-Hentriacontane (C31)	4	100.00000
26	n-Dotriacontane (C32)	4	100.00000
27	n-Tritriacontane (C33)	4	100.00000
28	n-tetratriacontane (C34)	4	100.00000
29	n-Pentatriacontane (C35)	4	100.00000
30	n-Hexatriacontane (C36)	4	100.00000
31	n-Heptatriacontane (C37)	4	100.00000
32	n-Octatriacontane (C38)	4	100.00000
33	n-Tetracontane (C40)	4	100.00000

Avg RSF For: C9-C44 Total Petroleum		100.00000	118981000.362
1	n-Nonane (C9)	5	200.00000
2	n-Decane (C10)	5	200.00000
3	n-Undecane (C11)	5	200.00000
4	n-Dodecane (C12)	5	200.00000
5	n-Tridecane (C13)	5	200.00000
6	n-Tetradecane (C14)	5	200.00000
7	n-Pentadecane (C15)	5	200.00000
8	n-Hexadecane (C16)	5	200.00000
9	n-Heptadecane (C17)	5	200.00000
10	Pristane	5	200.00000
11	n-Octadecane (C18)	5	200.00000
12	Phytane	5	200.00000
13	n-Nonadecane (C19)	5	200.00000
14	n-Eicosane (C20)	5	200.00000
15	n-Heneicosane (C21)	5	200.00000
16	n-Docosane (C22)	5	200.00000
17	n-Tricosane (C23)	5	200.00000
18	n-Tetracosane (C24)	5	200.00000
19	n-Pentacosane (C25)	5	200.00000
20	n-Hexacosane (C26)	5	200.00000
21	n-Heptacosane (C27)	5	200.00000
22	n-Octacosane (C28)	5	200.00000
23	n-Nonacosane (C29)	5	200.00000
24	n-Triacontane (C30)	5	200.00000
25	n-Hentriacontane (C31)	5	200.00000
26	n-Dotriacontane (C32)	5	200.00000

		rfupdate	
27	n-Tritriacontane (C33)	5	200.00000
28	n-tetratriacontane (C34)	5	200.00000
29	n-Pentatriacontane (C35)	5	200.00000
30	n-Hexatriacontane (C36)	5	200.00000
31	n-Heptatriacontane (C37)	5	200.00000
32	n-Octatriacontane (C38)	5	200.00000
33	n-Tetracontane (C40)	5	200.00000

Avg RSF For: C9-C44 Total Petroleum		200.00000	239515788.699

Generating Average Response Factor For: C10-C28 DRO

No	Compound	Level	Conc	Response
1	n-Decane (C10)	1	1.00000	1066078.138
2	n-Undecane (C11)	1	1.00000	1055003.992
3	n-Dodecane (C12)	1	1.00000	1062595.556
4	n-Tridecane (C13)	1	1.00000	1067447.811
5	n-Tetradecane (C14)	1	1.00000	1103397.730
6	n-Pentadecane (C15)	1	1.00000	1115097.857
7	n-Hexadecane (C16)	1	1.00000	1101629.596
8	n-Heptadecane (C17)	1	1.00000	1113362.639
9	n-Octadecane (C18)	1	1.00000	1123871.663
10	n-Nonadecane (C19)	1	1.00000	1129281.341
11	n-Eicosane (C20)	1	1.00000	1136242.570
12	n-Heneicosane (C21)	1	1.00000	1139103.086
13	n-Docosane (C22)	1	1.00000	1140211.866
14	n-Tricosane (C23)	1	1.00000	1148486.138
15	n-Tetracosane (C24)	1	1.00000	1136820.747
16	n-Pentacosane (C25)	1	1.00000	1123069.551
17	n-Hexacosane (C26)	1	1.00000	1142903.280
18	n-Heptacosane (C27)	1	1.00000	1147736.993
19	n-Octacosane (C28)	1	1.00000	1167522.179
Avg RSF For: C10-C28 DRO			1.00000	1116834.881

1	n-Decane (C10)	2	10.00000	11040758.975
2	n-Undecane (C11)	2	10.00000	11030805.612
3	n-Dodecane (C12)	2	10.00000	11158722.447
4	n-Tridecane (C13)	2	10.00000	11198870.540
5	n-Tetradecane (C14)	2	10.00000	11522180.187
6	n-Pentadecane (C15)	2	10.00000	11605742.848
7	n-Hexadecane (C16)	2	10.00000	11513456.239
8	n-Heptadecane (C17)	2	10.00000	11664684.234
9	n-Octadecane (C18)	2	10.00000	11785247.140
10	n-Nonadecane (C19)	2	10.00000	11846472.650
11	n-Eicosane (C20)	2	10.00000	11917049.485
12	n-Heneicosane (C21)	2	10.00000	11971468.802
13	n-Docosane (C22)	2	10.00000	11967331.114
14	n-Tricosane (C23)	2	10.00000	11972307.874
15	n-Tetracosane (C24)	2	10.00000	11917056.308
16	n-Pentacosane (C25)	2	10.00000	11702639.278
17	n-Hexacosane (C26)	2	10.00000	12011807.311
18	n-Heptacosane (C27)	2	10.00000	12009877.812
19	n-Octacosane (C28)	2	10.00000	12248876.282

Avg RSF For: C10-C28 DRO			10.00000	11688702.902

1	n-Decane (C10)	3	50.00000	51947510.620
2	n-Undecane (C11)	3	50.00000	52730427.500

		rupdate	
3	n-Dodecane (C12)	3	50.00000
4	n-Tridecane (C13)	3	50.00000
5	n-Tetradecane (C14)	3	50.00000
6	n-Pentadecane (C15)	3	50.00000
7	n-Hexadecane (C16)	3	50.00000
8	n-Heptadecane (C17)	3	50.00000
9	n-Octadecane (C18)	3	50.00000
10	n-Nonadecane (C19)	3	50.00000
11	n-Eicosane (C20)	3	50.00000
12	n-Heneicosane (C21)	3	50.00000
13	n-Docosane (C22)	3	50.00000
14	n-Tricosane (C23)	3	50.00000
15	n-Tetracosane (C24)	3	50.00000
16	n-Pentacosane (C25)	3	50.00000
17	n-Hexacosane (C26)	3	50.00000
18	n-Heptacosane (C27)	3	50.00000
19	n-Octacosane (C28)	3	50.00000

Avg RSF For: C10-C28 DRO		50.00000	54793310.485
1	n-Decane (C10)	4	100.00000
2	n-Undecane (C11)	4	100.00000
3	n-Dodecane (C12)	4	100.00000
4	n-Tridecane (C13)	4	100.00000
5	n-Tetradecane (C14)	4	100.00000
6	n-Pentadecane (C15)	4	100.00000
7	n-Hexadecane (C16)	4	100.00000
8	n-Heptadecane (C17)	4	100.00000
9	n-Octadecane (C18)	4	100.00000
10	n-Nonadecane (C19)	4	100.00000
11	n-Eicosane (C20)	4	100.00000
12	n-Heneicosane (C21)	4	100.00000
13	n-Docosane (C22)	4	100.00000
14	n-Tricosane (C23)	4	100.00000
15	n-Tetracosane (C24)	4	100.00000
16	n-Pentacosane (C25)	4	100.00000
17	n-Hexacosane (C26)	4	100.00000
18	n-Heptacosane (C27)	4	100.00000
19	n-Octacosane (C28)	4	100.00000

Avg RSF For: C10-C28 DRO		100.00000	118977174.199
1	n-Decane (C10)	5	200.00000
2	n-Undecane (C11)	5	200.00000
3	n-Dodecane (C12)	5	200.00000
4	n-Tridecane (C13)	5	200.00000
5	n-Tetradecane (C14)	5	200.00000
6	n-Pentadecane (C15)	5	200.00000
7	n-Hexadecane (C16)	5	200.00000
8	n-Heptadecane (C17)	5	200.00000
9	n-Octadecane (C18)	5	200.00000
10	n-Nonadecane (C19)	5	200.00000
11	n-Eicosane (C20)	5	200.00000
12	n-Heneicosane (C21)	5	200.00000
13	n-Docosane (C22)	5	200.00000
14	n-Tricosane (C23)	5	200.00000
15	n-Tetracosane (C24)	5	200.00000
16	n-Pentacosane (C25)	5	200.00000
17	n-Hexacosane (C26)	5	200.00000
18	n-Heptacosane (C27)	5	200.00000
19	n-Octacosane (C28)	5	200.00000

rfupdate

Avg RSF For: C10-C28 DRO 200.00000 238877872.694

Generating Average Response Factor For: C28-C40 ORO

No	Compound	Level	Conc	Response
1	n-Octacosane (C28)	1	1.00000	1167522.179
2	n-Nonacosane (C29)	1	1.00000	1156083.140
3	n-Triacontane (C30)	1	1.00000	1158865.575
4	n-Hentriacontane (C31)	1	1.00000	1119546.490
5	n-Dotriacontane (C32)	1	1.00000	1169351.783
6	n-Tritriacontane (C33)	1	1.00000	1130635.790
7	n-tetratriacontane (C34)	1	1.00000	1121866.920
8	n-Pentatriacontane (C35)	1	1.00000	1049786.208
9	n-Hexatriacontane (C36)	1	1.00000	1245082.036
10	n-Heptatriacontane (C37)	1	1.00000	1165691.051
11	n-Octatriacontane (C38)	1	1.00000	1164156.418
12	n-Tetracontane (C40)	1	1.00000	1130264.427

Avg RSF For: C28-C40 ORO			1.00000	1148237.668

1	n-Octacosane (C28)	2	10.00000	12248876.282
2	n-Nonacosane (C29)	2	10.00000	12174097.148
3	n-Triacontane (C30)	2	10.00000	12199019.905
4	n-Hentriacontane (C31)	2	10.00000	11748519.339
5	n-Dotriacontane (C32)	2	10.00000	12298773.346
6	n-Tritriacontane (C33)	2	10.00000	11923420.641
7	n-tetratriacontane (C34)	2	10.00000	11816198.119
8	n-Pentatriacontane (C35)	2	10.00000	11046315.971
9	n-Hexatriacontane (C36)	2	10.00000	13265994.686
10	n-Heptatriacontane (C37)	2	10.00000	12017616.980
11	n-Octatriacontane (C38)	2	10.00000	12180128.531
12	n-Tetracontane (C40)	2	10.00000	11977565.079

Avg RSF For: C28-C40 ORO			10.00000	12074710.502

1	n-Octacosane (C28)	3	50.00000	56989875.417
2	n-Nonacosane (C29)	3	50.00000	56558566.214
3	n-Triacontane (C30)	3	50.00000	56671556.382
4	n-Hentriacontane (C31)	3	50.00000	54879529.988
5	n-Dotriacontane (C32)	3	50.00000	57404923.920
6	n-Tritriacontane (C33)	3	50.00000	55219696.972
7	n-tetratriacontane (C34)	3	50.00000	54882100.388
8	n-Pentatriacontane (C35)	3	50.00000	55228049.803
9	n-Hexatriacontane (C36)	3	50.00000	59239485.130
10	n-Heptatriacontane (C37)	3	50.00000	54395128.344
11	n-Octatriacontane (C38)	3	50.00000	56105189.658
12	n-Tetracontane (C40)	3	50.00000	56186228.072

Avg RSF For: C28-C40 ORO			50.00000	56146694.191

1	n-Octacosane (C28)	4	100.00000	123060976.168
2	n-Nonacosane (C29)	4	100.00000	122232806.006
3	n-Triacontane (C30)	4	100.00000	122324101.922
4	n-Hentriacontane (C31)	4	100.00000	117529950.156
5	n-Dotriacontane (C32)	4	100.00000	122894749.534
6	n-Tritriacontane (C33)	4	100.00000	118994944.924
7	n-tetratriacontane (C34)	4	100.00000	117948832.474

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			rfupdate	
8	n-Pentatriacontane (C35)	4	100.00000	109845615.872
9	n-Hexatriacontane (C36)	4	100.00000	132129313.147
10	n-Heptatriacontane (C37)	4	100.00000	120126256.440
11	n-Octatriacontane (C38)	4	100.00000	121448961.623
12	n-Nonatriacontane (C39)	4	100.00000	120028258.501
13	n-Tetracontane (C40)	4	100.00000	119682204.382

Avg RSF For: C28-C40 ORO			100.00000	120634382.396
1	n-Octacosane (C28)	5	200.00000	245736930.127
2	n-Nonacosane (C29)	5	200.00000	243592342.474
3	n-Triacontane (C30)	5	200.00000	243298467.852
4	n-Hentriacontane (C31)	5	200.00000	233886758.637
5	n-Dotriacontane (C32)	5	200.00000	245090994.539
6	n-Tritriacontane (C33)	5	200.00000	237873906.715
7	n-tettriacontane (C34)	5	200.00000	237348441.884
8	n-Pentatriacontane (C35)	5	200.00000	222677500.836
9	n-Hexatriacontane (C36)	5	200.00000	270155309.498
10	n-Heptatriacontane (C37)	5	200.00000	247403933.698
11	n-Octatriacontane (C38)	5	200.00000	251559986.966
12	n-Nonatriacontane (C39)	5	200.00000	247124147.125
13	n-Tetracontane (C40)	5	200.00000	249179444.324

Avg RSF For: C28-C40 ORO			200.00000	244225243.437

Generating Reference Response Factors

No	Compound	No	Refrence Compound

8	1380	9	n-Tetradecane (C14)
10	1470	11	n-Pentadecane (C15)
13	1650	14	n-Heptadecane (C17)
40	n-Nonatriacontane (C39)	41	n-Tetracontane (C40)
43	C9-C40 Total Petroleum Hydrocarbons	42	C9-C44 Total Petroleum Hydr
46	Total Resolved Hydrocarbons	42	C9-C44 Total Petroleum Hydr

Abacus Response Factor Update Macro Ver. 1.0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032212.D
 Signal(s) : FID1A.CH
 Acq On : 03 Jan 2023 5:12 pm
 Operator : FID17:WR
 Sample : I1701032301F
 Misc : WG1734833,FRBF55,1ug/ml
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 17 08:39:39 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Jan 17 08:32:07 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.396	59193987	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.350	1274166	0.926 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	1.85%#
24) s d50-Tetracosane	36.003	998826	0.924 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	1.85%#
Target Compounds			
2) t n-Octane (C8)	5.672	1006278	0.981 ug/mL M4
3) t n-Nonane (C9)	7.894	1032466	0.971 ug/mL M4
4) t n-Decane (C10)	10.391	1066078	0.968 ug/mL M4
5) t n-Undecane (C11)	12.910	1055004	0.944 ug/mL M4
6) t n-Dodecane (C12)	15.339	1062596	0.950 ug/mL M4
7) t n-Tridecane (C13)	17.646	1067448	0.945 ug/mL M4
9) t n-Tetradecane (C14)	19.830	1103398	0.959 ug/mL M4
11) t n-Pentadecane (C15)	21.896	1115098	0.976 ug/mL M4
12) t n-Hexadecane (C16)	23.853	1101630	0.950 ug/mL M4
14) t n-Heptadecane (C17)	25.710	1113363	0.952 ug/mL M4
15) t Pristane	25.821	1135705	0.957 ug/mL M4
16) t n-Octadecane (C18)	27.478	1123872	0.955 ug/mL M4
17) t Phytane	27.638	1045856	0.948 ug/mL M4
18) t n-Nonadecane (C19)	29.164	1129281	0.968 ug/mL M4
20) t n-Eicosane (C20)	30.771	1136243	0.956 ug/mL M4
21) t n-Heneicosane (C21)	32.306	1139103	0.967 ug/mL M4
22) t n-Docosane (C22)	33.779	1140212	0.954 ug/mL M4
23) t n-Tricosane (C23)	35.193	1148486	0.962 ug/mL M4
25) t n-Tetracosane (C24)	36.550	1136821	1.005 ug/mL M4
26) t n-Pentacosane (C25)	37.857	1123070	0.960 ug/mL M4
27) t n-Hexacosane (C26)	39.112	1142903	0.949 ug/mL M4
28) t n-Heptacosane (C27)	40.327	1147737	0.989 ug/mL M4
29) t n-Octacosane (C28)	41.496	1167522	0.967 ug/mL M4
30) t n-Nonacosane (C29)	42.629	1156083	0.965 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032212.D
 Signal(s) : FID1A.CH
 Acq On : 03 Jan 2023 5:12 pm
 Operator : FID17:WR
 Sample : I1701032301F
 Misc : WG1734833,FRBF55,1ug/ml
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 17 08:39:39 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Jan 17 08:32:07 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	43.724	1158866	0.965 ug/mL M4
32) t	n-Hentriacontane (C31)	44.785	1119546	0.963 ug/mL M4
33) t	n-Dotriacontane (C32)	45.812	1169352	0.961 ug/mL M4
34) t	n-Tritriacontane (C33)	46.810	1130636	0.966 ug/mL M4
35) t	n-tetratriacontane (C34)	47.777	1121867	0.965 ug/mL M4
36) t	n-Pentatriacontane (C35)	48.720	1049786	0.897 ug/mL M4
37) t	n-Hexatriacontane (C36)	49.719	1245082	0.992 ug/mL M4
38) t	n-Heptatriacontane (C37)	50.841	1165691	1.011 ug/mL M4
39) t	n-Octatriacontane (C38)	52.118	1164156	0.979 ug/mL M4
41) t	n-Tetracontane (C40)	55.281	1130264	0.949 ug/mL M4

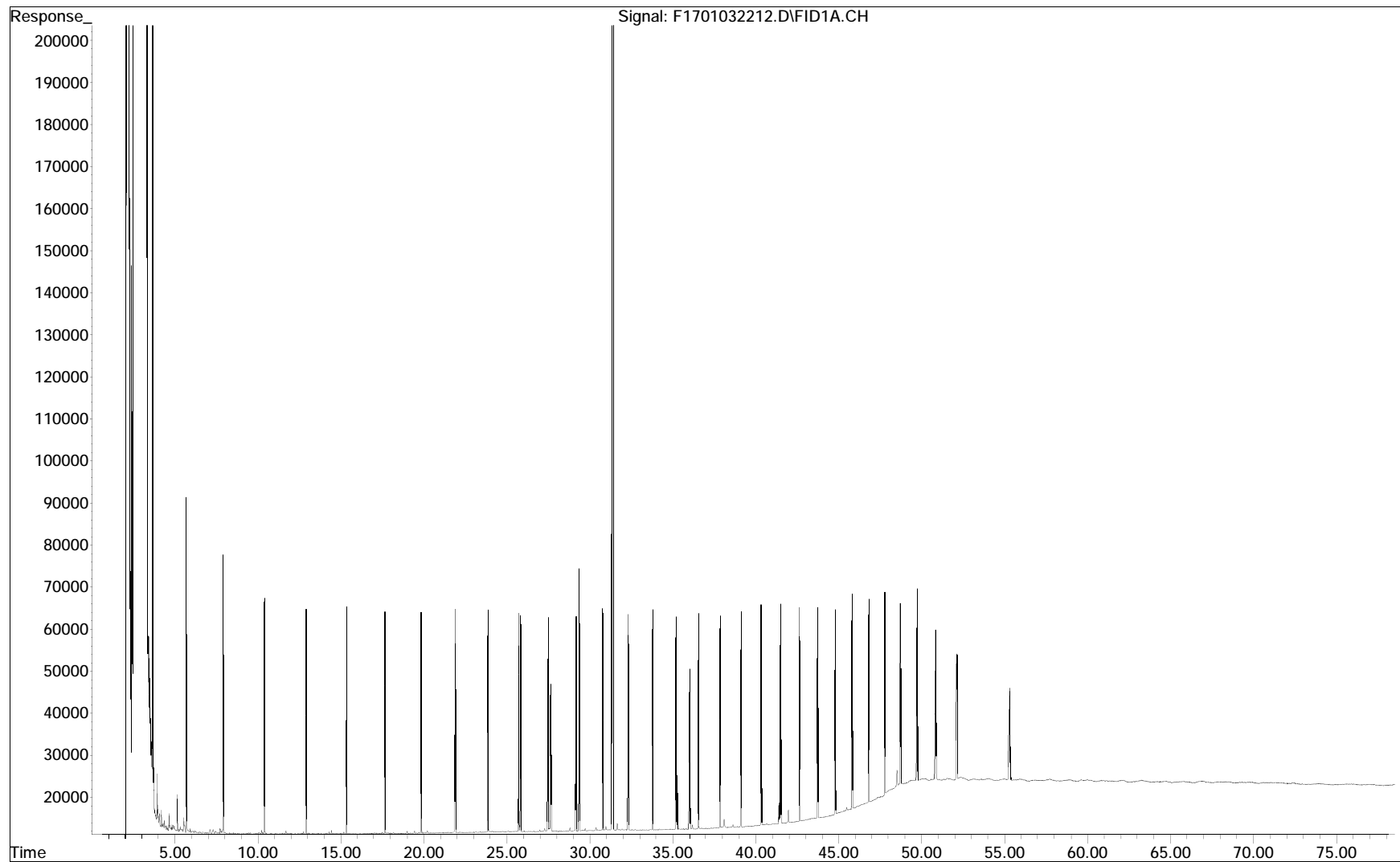
SemiQuant Compounds - Not Calibrated on this Instrument

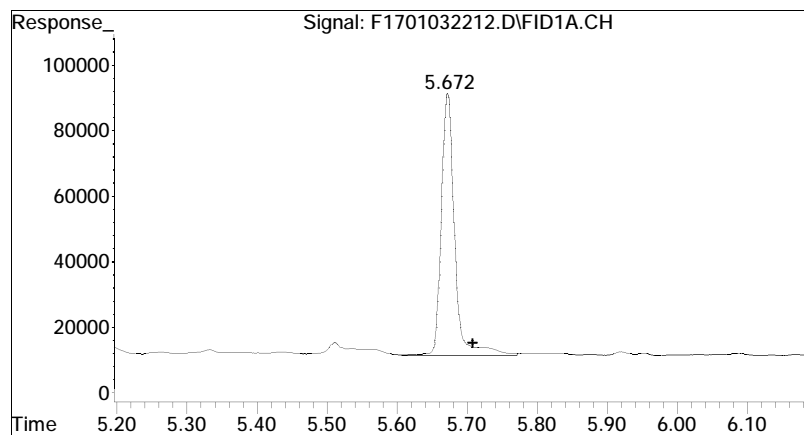
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

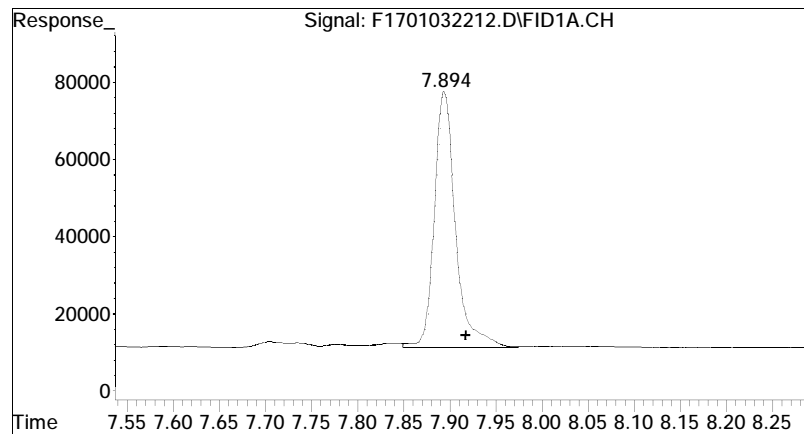
File : O:\Forensics\Data\FID17\2023\JAN\JAN03\F1701032212.D
Operator : FID17:WR
Acquired : 03 Jan 2023 5:12 pm using AcqMethod FID17A.M
Sample Name: I1701032301F
Instrument: FID17
Misc Info : WG1734833,FRBF55,1ug/ml
Vial Number: 6
CurrentMeth: O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M





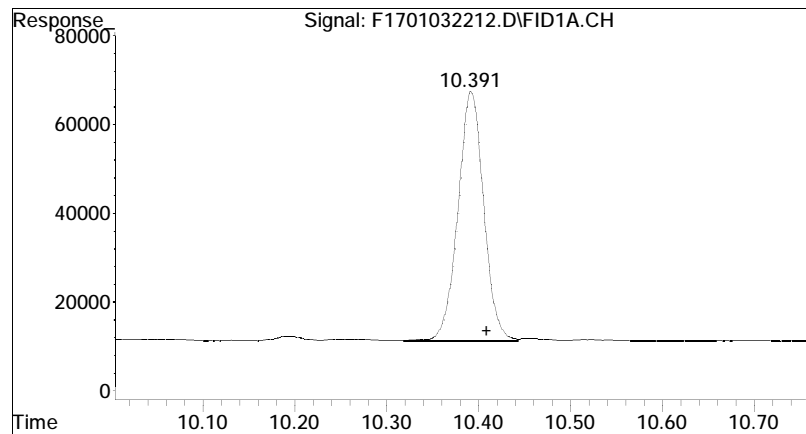
#2 n-Octane (C8)

R.T.: 5.672 min
Delta R.T.: -0.036 min
Response: 1006278
Conc: 0.98 ug/mL M4



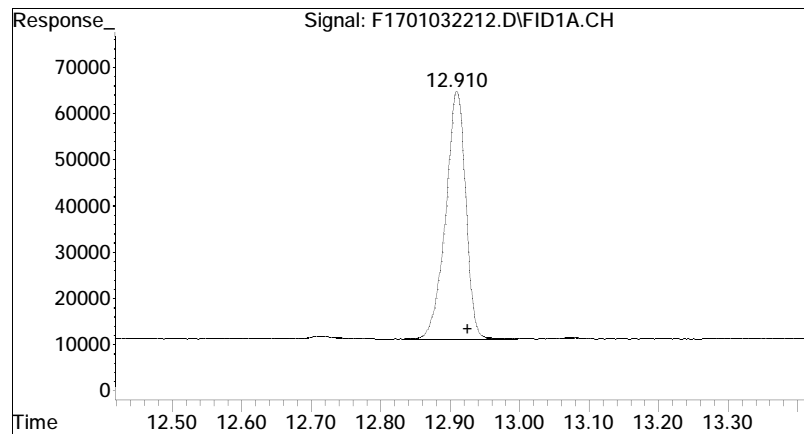
#3 n-Nonane (C9)

R.T.: 7.894 min
Delta R.T.: -0.024 min
Response: 1032466
Conc: 0.97 ug/mL M4



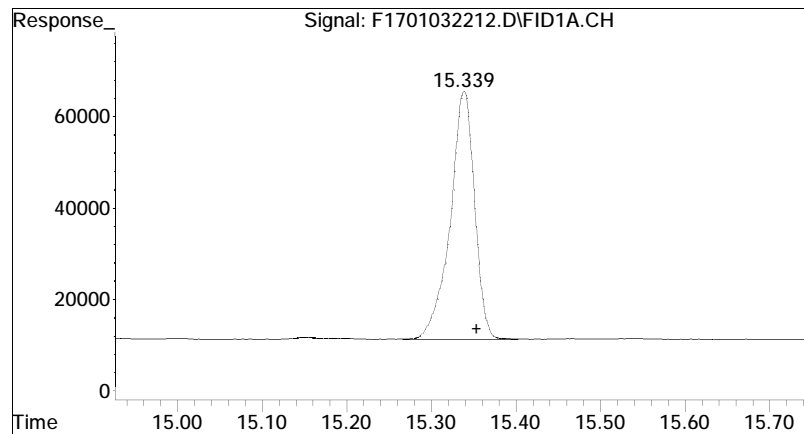
#4 n-Decane (C10)

R.T.: 10.391 min
Delta R.T.: -0.018 min
Response: 1066078
Conc: 0.97 ug/mL M4



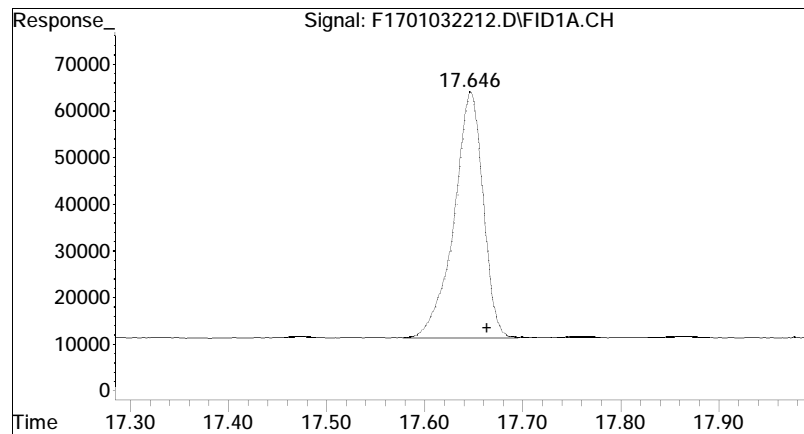
#5 n-Undecane (C11)

R.T.: 12.910 min
Delta R.T.: -0.015 min
Response: 1055004
Conc: 0.94 ug/mL M4



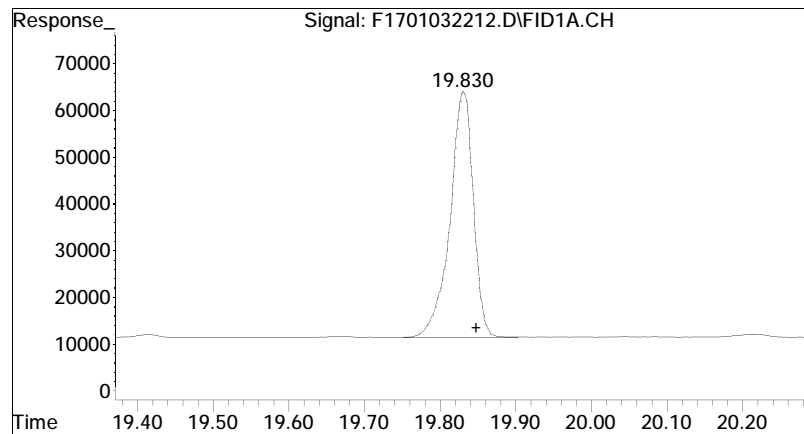
#6 n-Dodecane (C12)

R.T.: 15.339 min
Delta R.T.: -0.015 min
Response: 1062596
Conc: 0.95 ug/mL M4



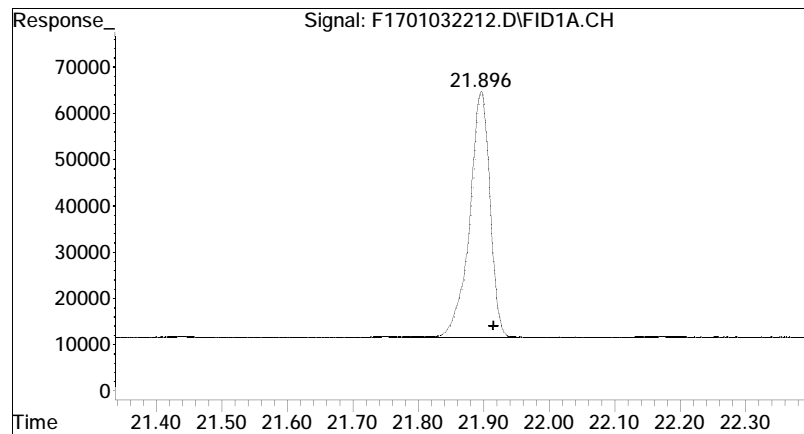
#7 n-Tridecane (C13)

R.T.: 17.646 min
Delta R.T.: -0.017 min
Response: 1067448
Conc: 0.95 ug/mL M4



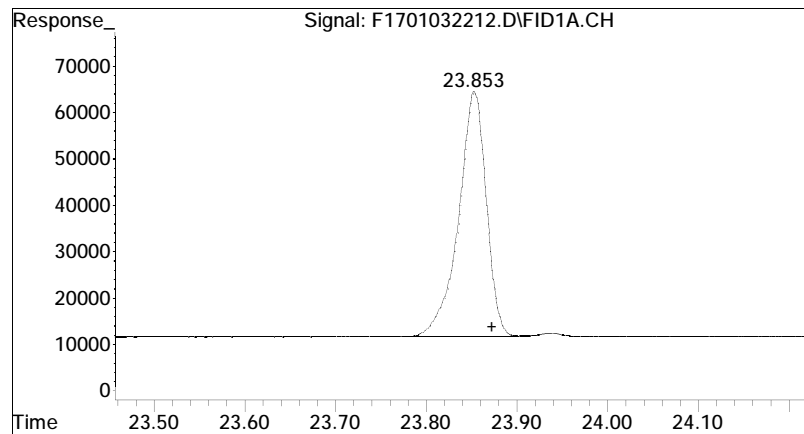
#9 n-Tetradecane (C14)

R.T.: 19.830 min
Delta R.T.: -0.018 min
Response: 1103398
Conc: 0.96 ug/mL M4



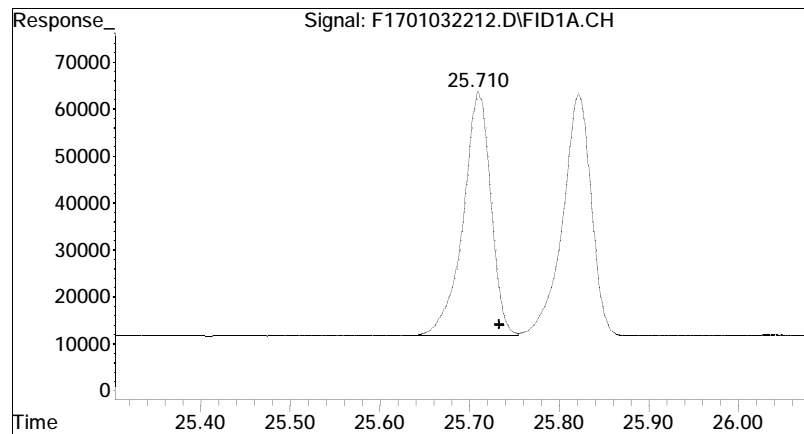
#11 n-Pentadecane (C15)

R.T.: 21.896 min
Delta R.T.: -0.019 min
Response: 1115098
Conc: 0.98 ug/mL M4



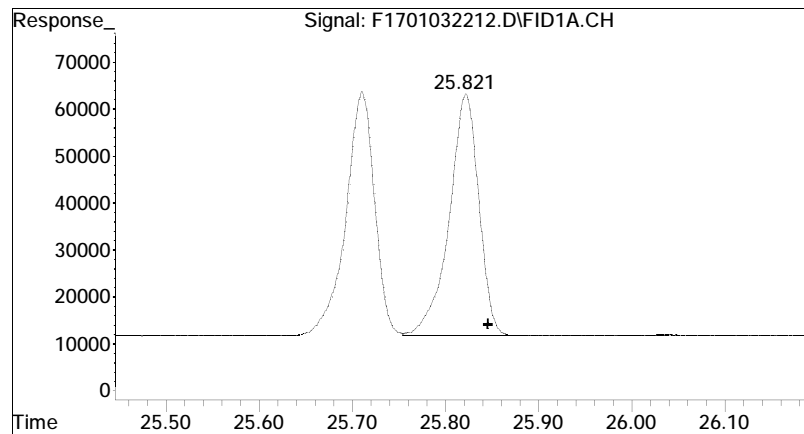
#12 n-Hexadecane (C16)

R.T.: 23.853 min
Delta R.T.: -0.020 min
Response: 1101630
Conc: 0.95 ug/mL M4



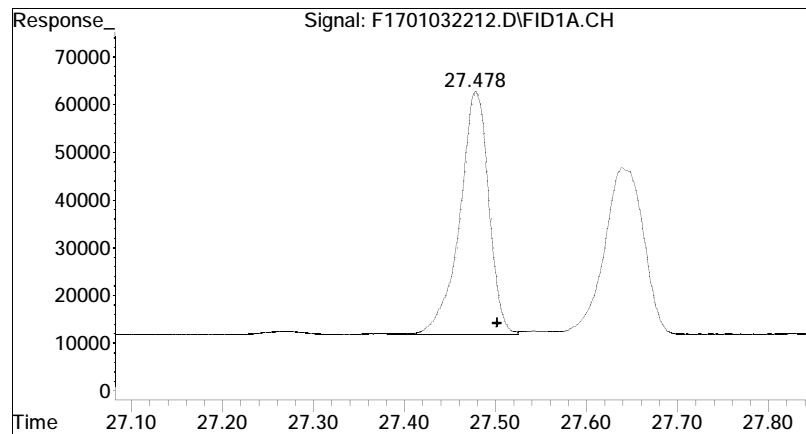
#14 n-Heptadecane (C17)

R.T.: 25.710 min
Delta R.T.: -0.023 min
Response: 1113363
Conc: 0.95 ug/mL M4



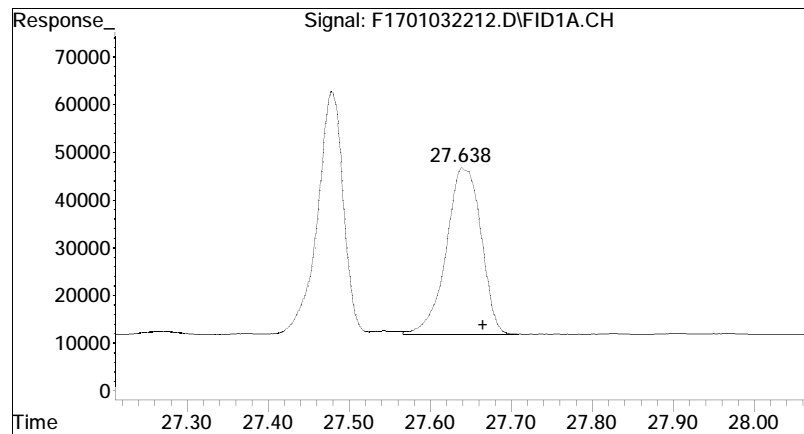
#15 Pristane

R.T.: 25.821 min
Delta R.T.: -0.024 min
Response: 1135705
Conc: 0.96 ug/mL M4



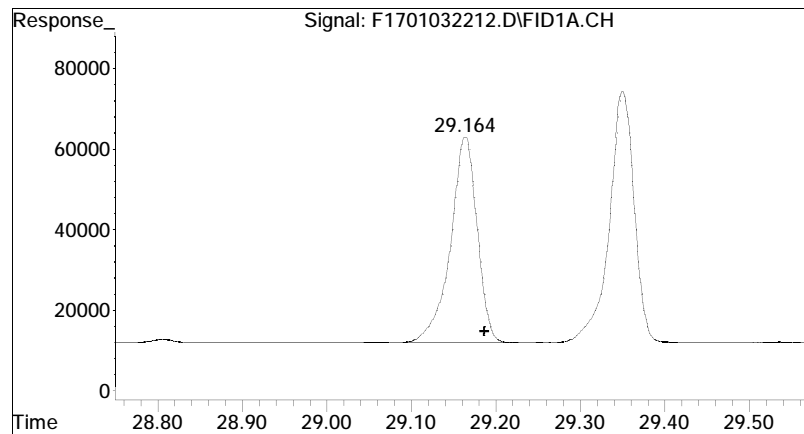
#16 n-Octadecane (C18)

R.T.: 27.478 min
Delta R.T.: -0.024 min
Response: 1123872
Conc: 0.95 ug/mL M4



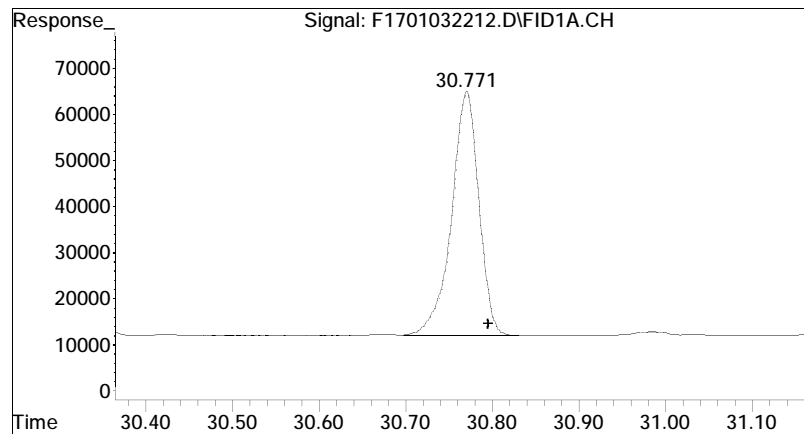
#17 Phytane

R.T.: 27.638 min
Delta R.T.: -0.027 min
Response: 1045856
Conc: 0.95 ug/mL M4



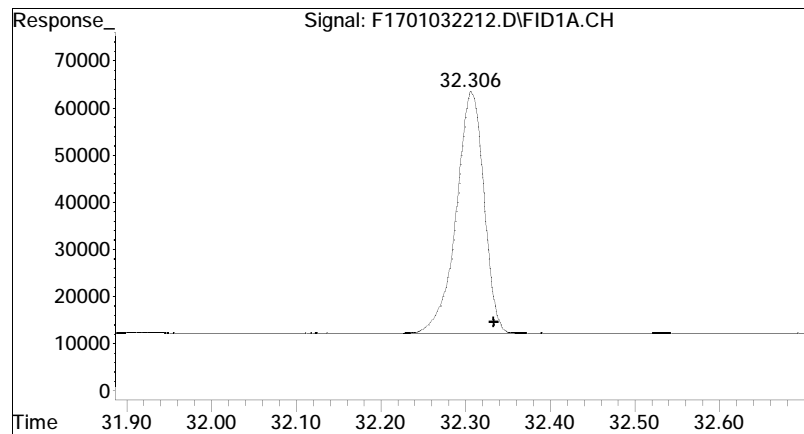
#18 n-Nonadecane (C19)

R.T.: 29.164 min
Delta R.T.: -0.023 min
Response: 1129281
Conc: 0.97 ug/mL M4



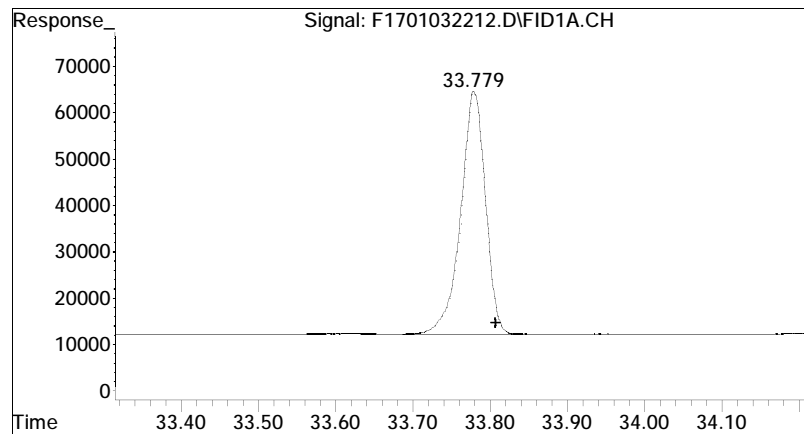
#20 n-Eicosane (C20)

R.T.: 30.771 min
Delta R.T.: -0.025 min
Response: 1136243
Conc: 0.96 ug/mL M4



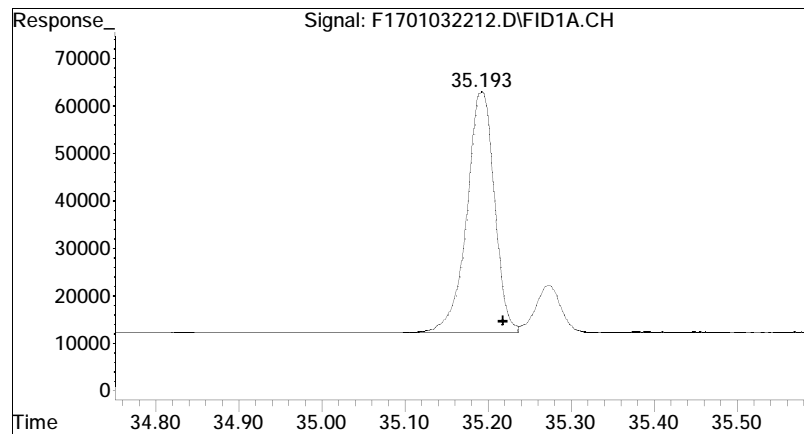
#21 n-Heneicosane (C21)

R.T.: 32.306 min
Delta R.T.: -0.027 min
Response: 1139103
Conc: 0.97 ug/mL M4



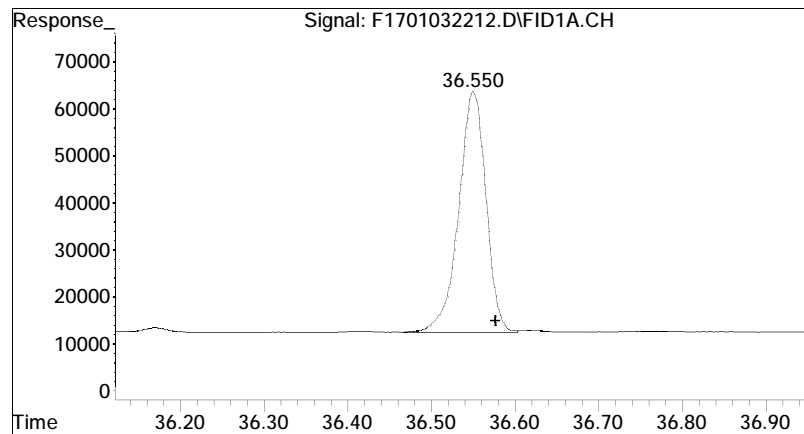
#22 n-Docosane (C22)

R.T.: 33.779 min
Delta R.T.: -0.028 min
Response: 1140212
Conc: 0.95 ug/mL M4



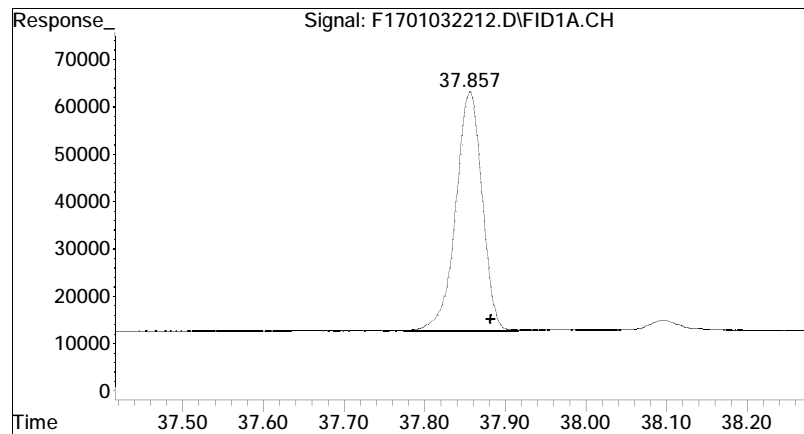
#23 n-Tricosane (C23)

R.T.: 35.193 min
Delta R.T.: -0.026 min
Response: 1148486
Conc: 0.96 ug/mL M4



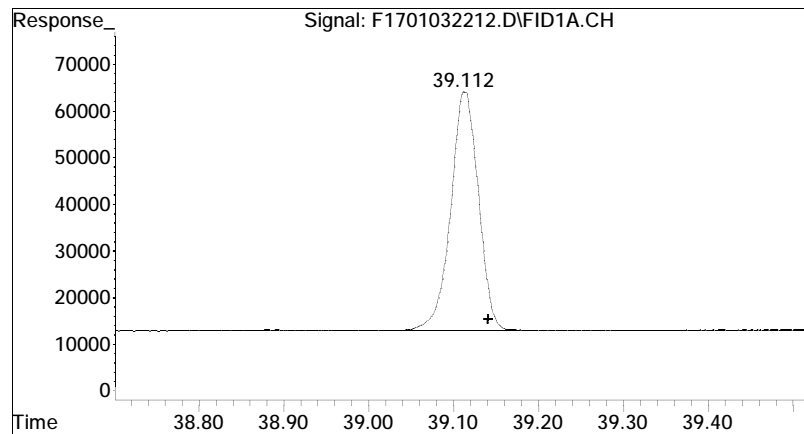
#25 n-Tetracosane (C24)

R.T.: 36.550 min
Delta R.T.: -0.026 min
Response: 1136821
Conc: 1.00 ug/mL M4



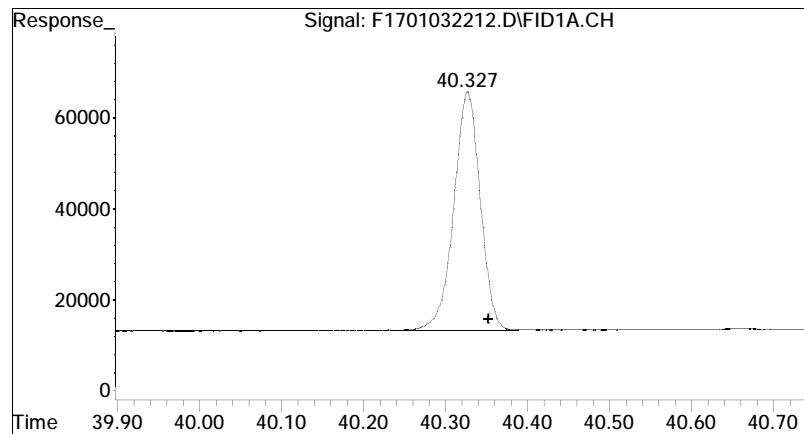
#26 n-Pentacosane (C25)

R.T.: 37.857 min
Delta R.T.: -0.025 min
Response: 1123070
Conc: 0.96 ug/mL M4



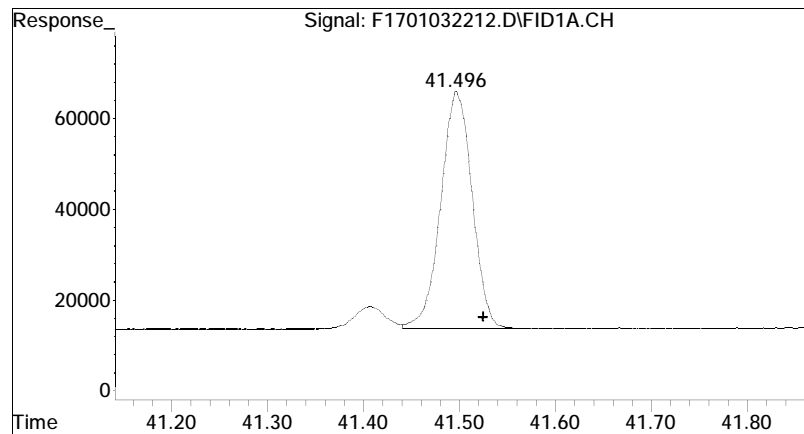
#27 n-Hexacosane (C26)

R.T.: 39.112 min
Delta R.T.: -0.029 min
Response: 1142903
Conc: 0.95 ug/mL M4



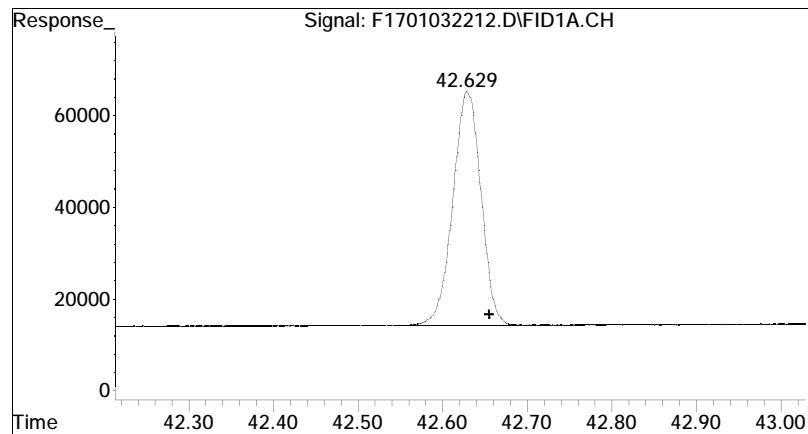
#28 n-Heptacosane (C27)

R.T.: 40.327 min
Delta R.T.: -0.025 min
Response: 1147737
Conc: 0.99 ug/mL M4



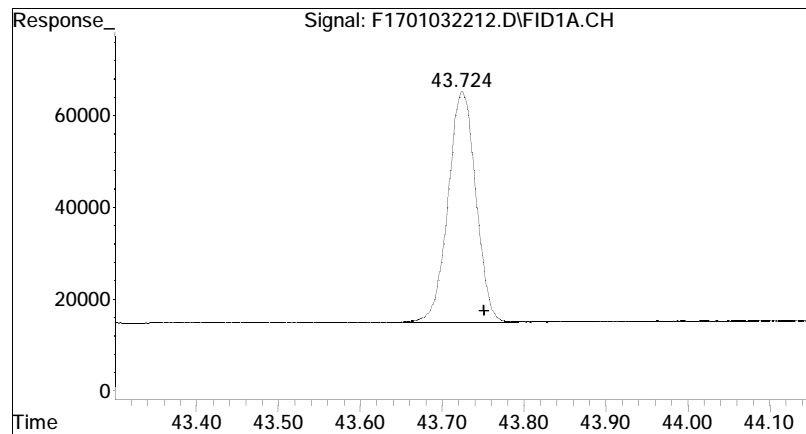
#29 n-Octacosane (C28)

R.T.: 41.496 min
Delta R.T.: -0.028 min
Response: 1167522
Conc: 0.97 ug/mL M4



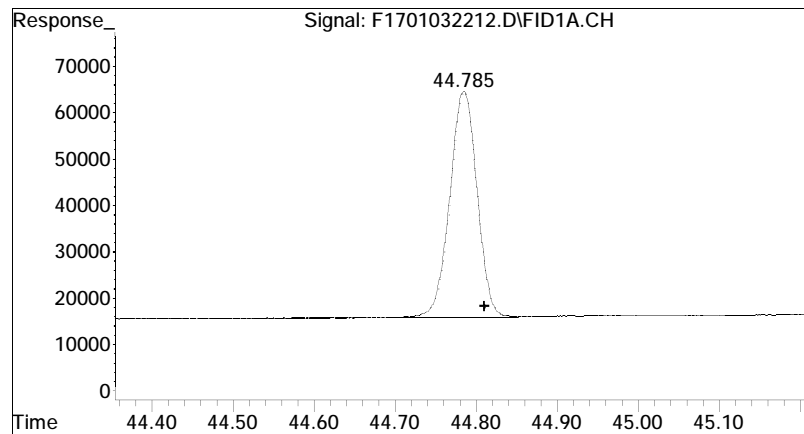
#30 n-Nonacosane (C29)

R.T.: 42.629 min
Delta R.T.: -0.026 min
Response: 1156083
Conc: 0.96 ug/mL M4



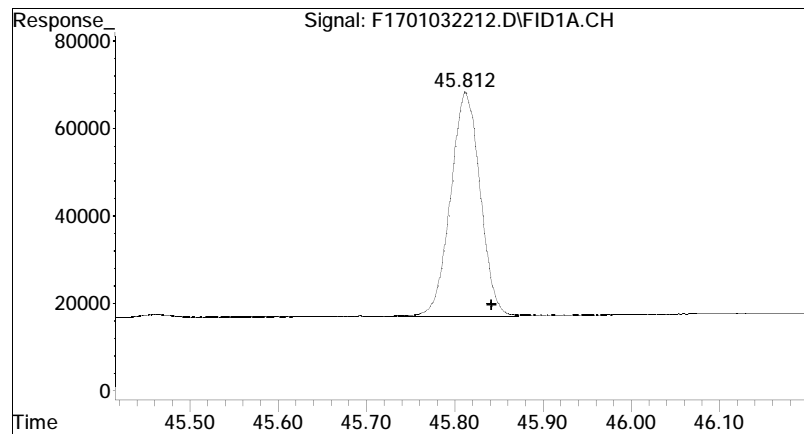
#31 n-Triacontane (C30)

R.T.: 43.724 min
Delta R.T.: -0.027 min
Response: 1158866
Conc: 0.96 ug/mL M4



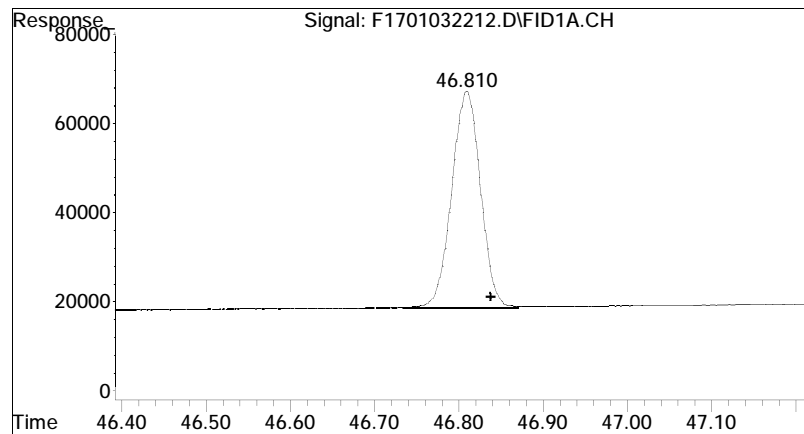
#32 n-Hentriacontane (C31)

R.T.: 44.785 min
Delta R.T.: -0.025 min
Response: 1119546
Conc: 0.96 ug/mL M4



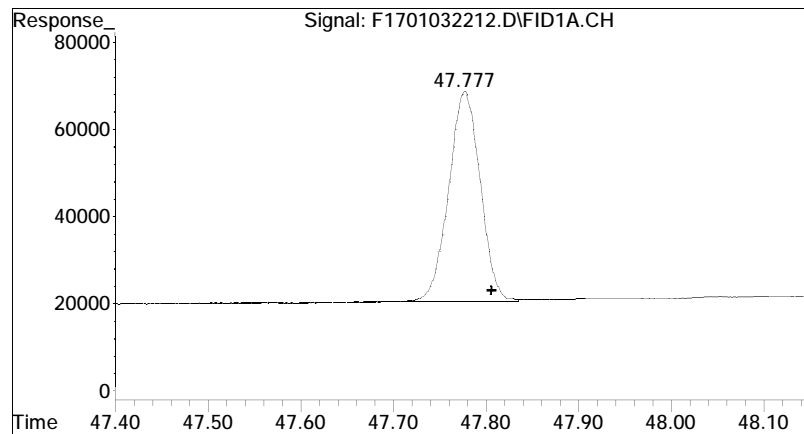
#33 n-Dotriacontane (C32)

R.T.: 45.812 min
Delta R.T.: -0.030 min
Response: 1169352
Conc: 0.96 ug/mL M4



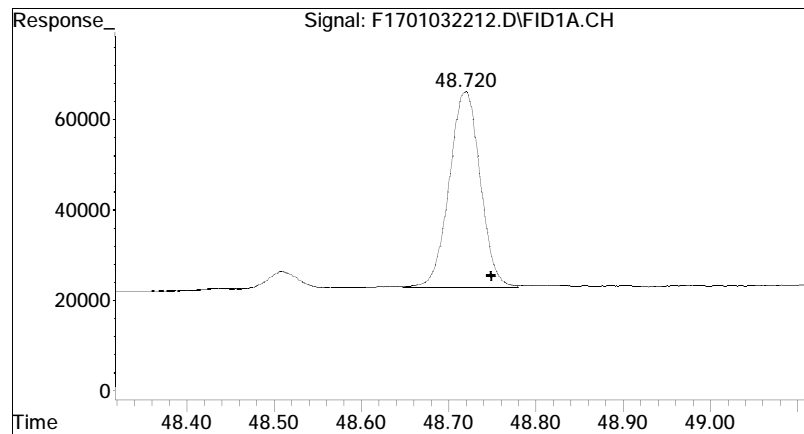
#34 n-Tritriacontane (C33)

R.T.: 46.810 min
Delta R.T.: -0.028 min
Response: 1130636
Conc: 0.97 ug/mL M4



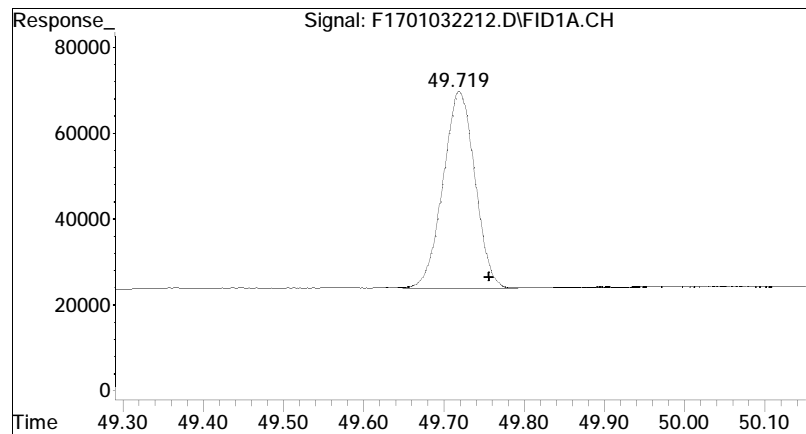
#35 n-tetratriacontane (C34)

R.T.: 47.777 min
Delta R.T.: -0.029 min
Response: 1121867
Conc: 0.96 ug/mL M4



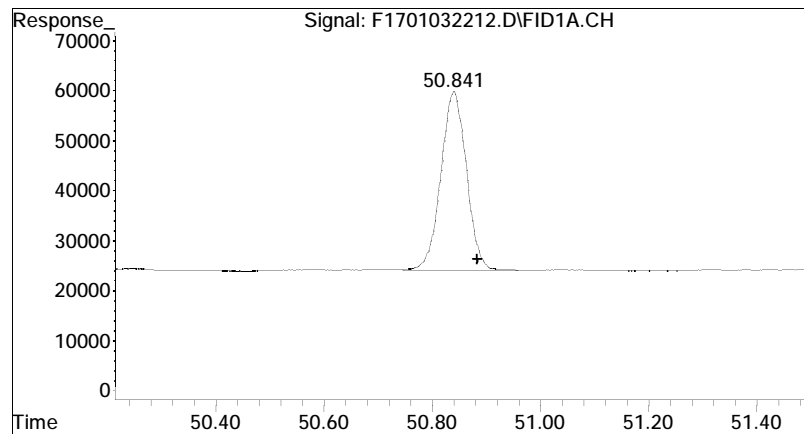
#36 n-Pentatriacontane (C35)

R.T.: 48.720 min
Delta R.T.: -0.029 min
Response: 1049786
Conc: 0.90 ug/mL M4



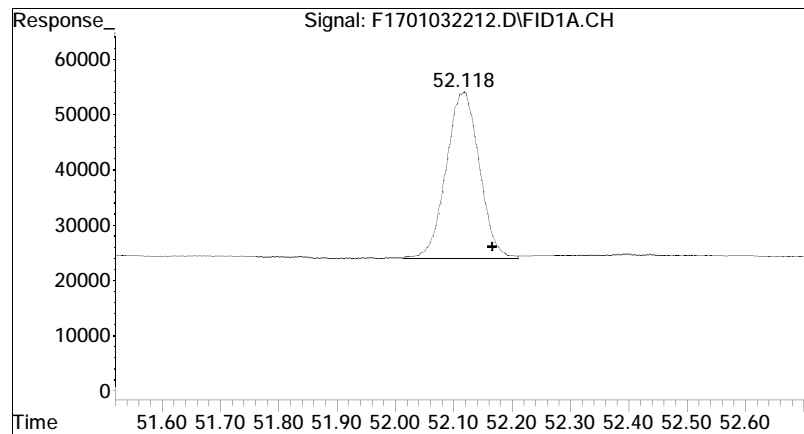
#37 n-Hexatriacontane (C36)

R.T.: 49.719 min
Delta R.T.: -0.037 min
Response: 1245082
Conc: 0.99 ug/mL M4



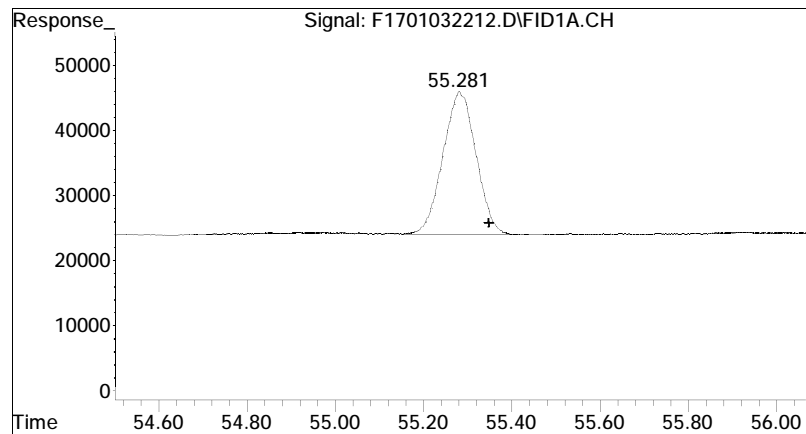
#38 n-Heptatriacontane (C37)

R.T.: 50.841 min
Delta R.T.: -0.042 min
Response: 1165691
Conc: 1.01 ug/mL M4



#39 n-Octatriacontane (C38)

R.T.: 52.118 min
Delta R.T.: -0.049 min
Response: 1164156
Conc: 0.98 ug/mL M4



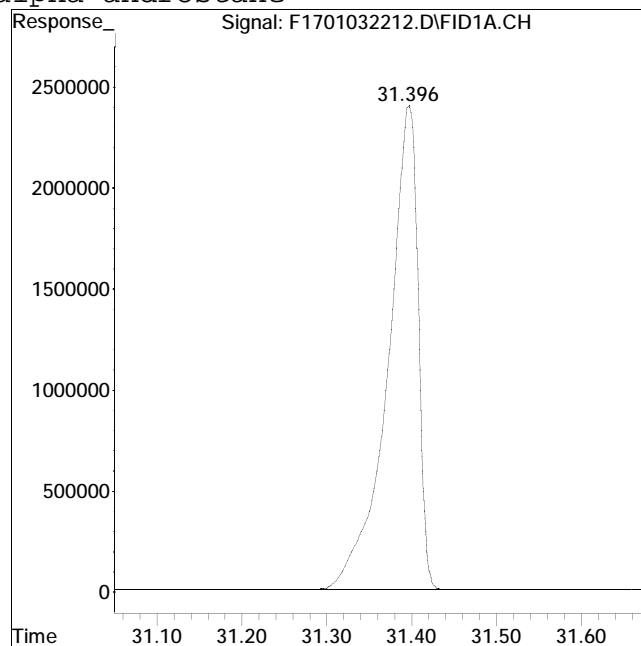
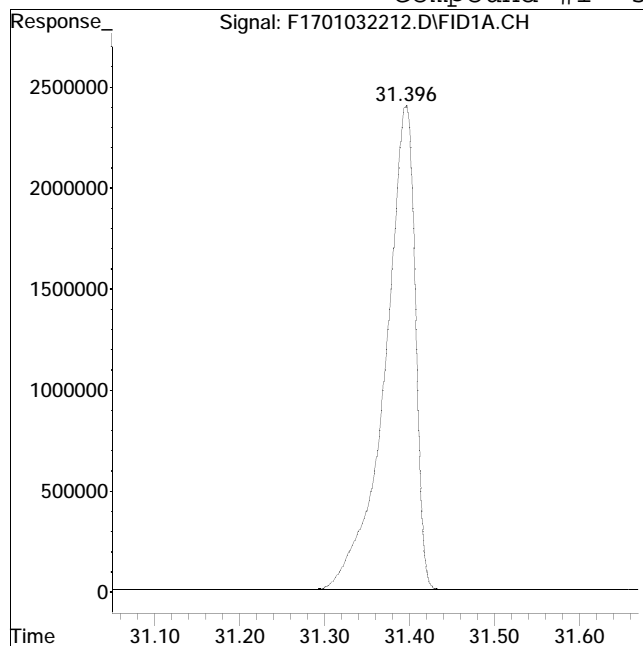
#41 n-Tetracontane (C40)

R.T.: 55.281 min
Delta R.T.: -0.068 min
Response: 1130264
Conc: 0.95 ug/mL M4

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #1: 5-alpha-androstane



Original Peak Response = 59190745

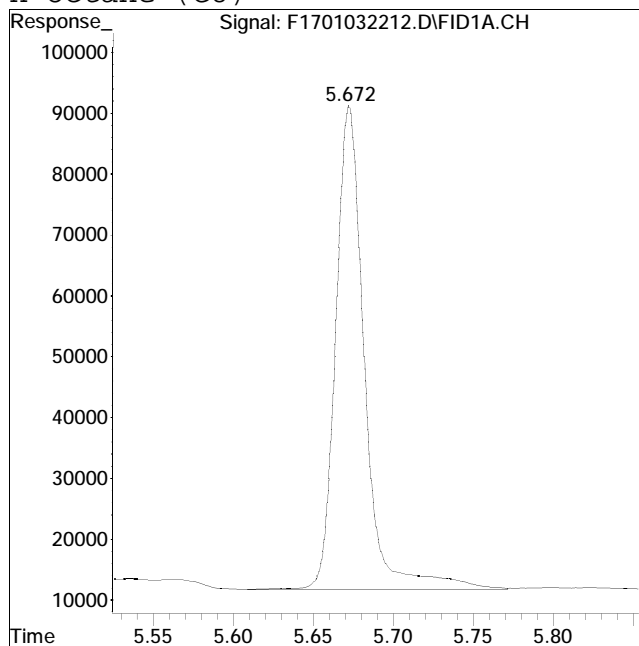
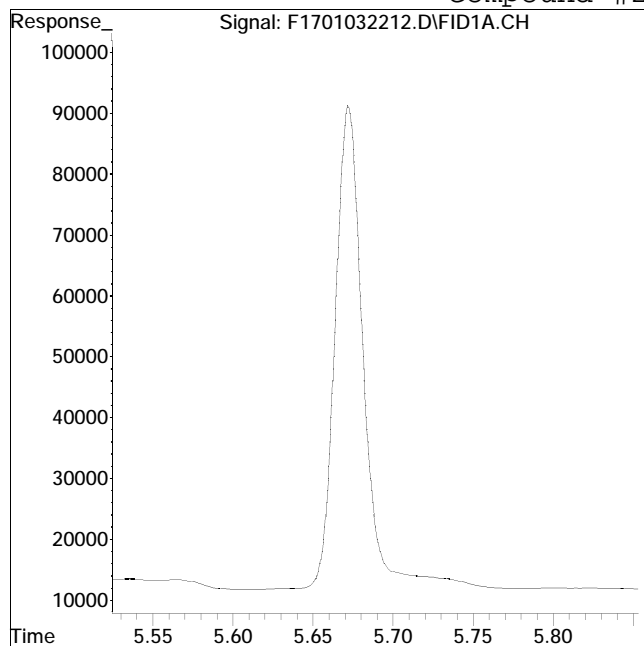
Manual Peak Response = 59193987 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #2: n-Octane (C8)



Original Peak Response = 0

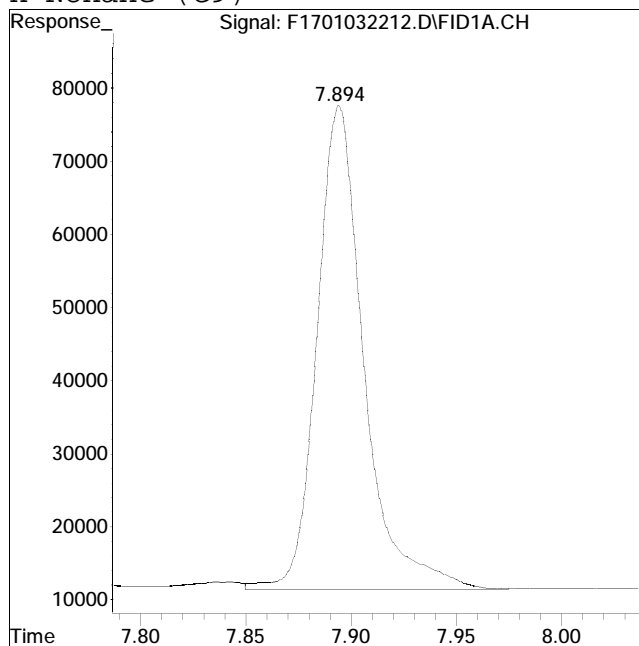
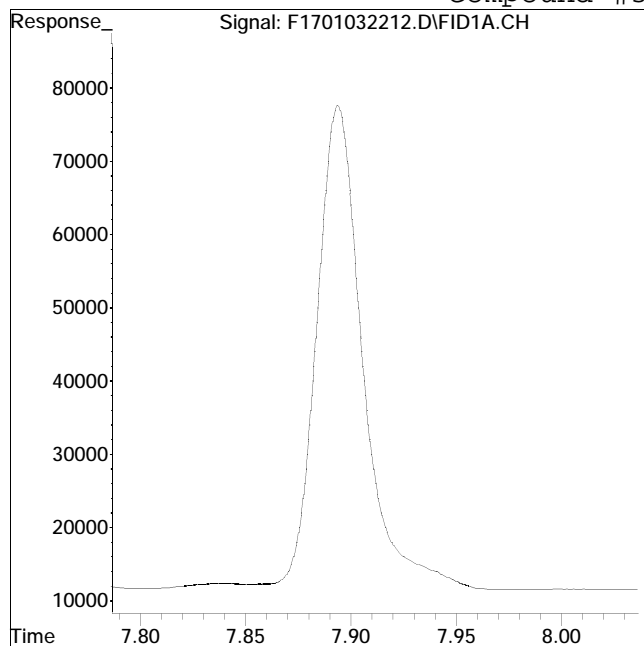
Manual Peak Response = 1006278 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #3: n-Nonane (C9)



Original Peak Response = 0

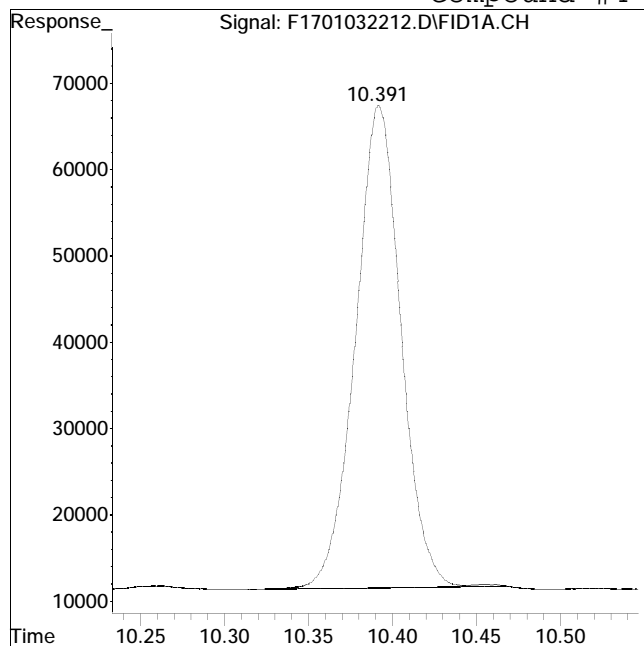
Manual Peak Response = 1032466 M4

M4 = Poor automated baseline construction.

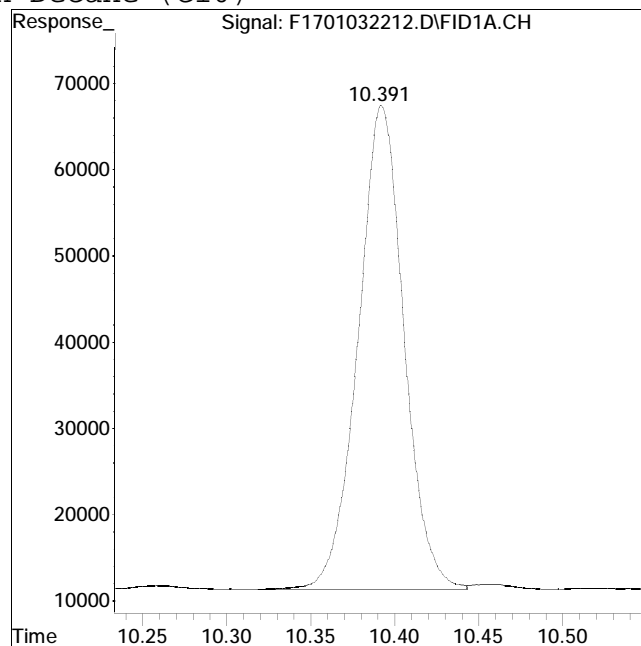
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #4: n-Decane (C10)



Original Peak Response = 1051684



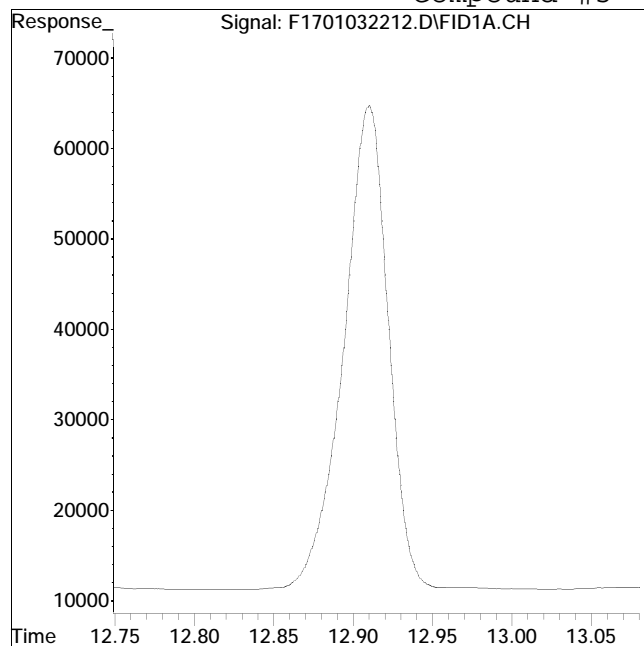
Manual Peak Response = 1066078 M4

M4 = Poor automated baseline construction.

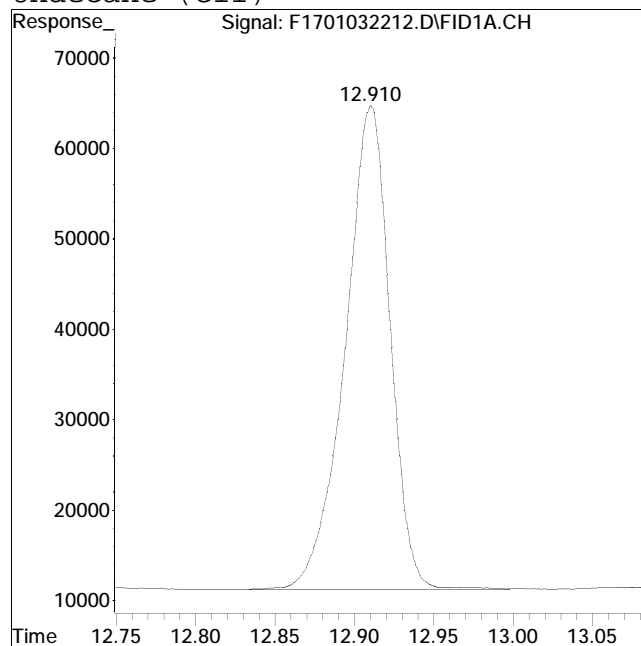
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #5: n-Undecane (C11)



Original Peak Response = 0



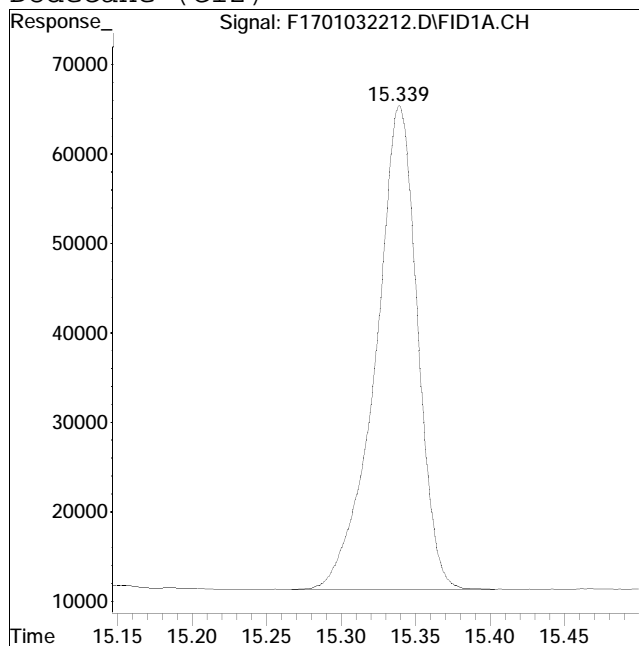
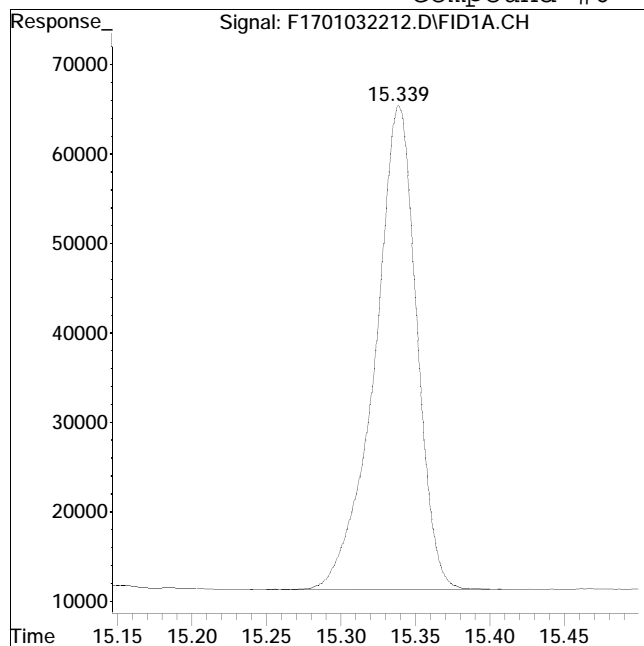
Manual Peak Response = 1055004 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #6: n-Dodecane (C12)



Original Peak Response = 1059596

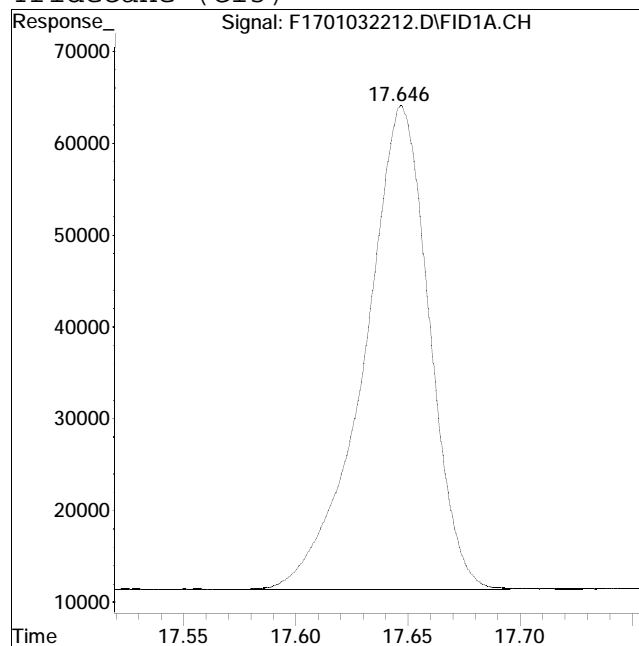
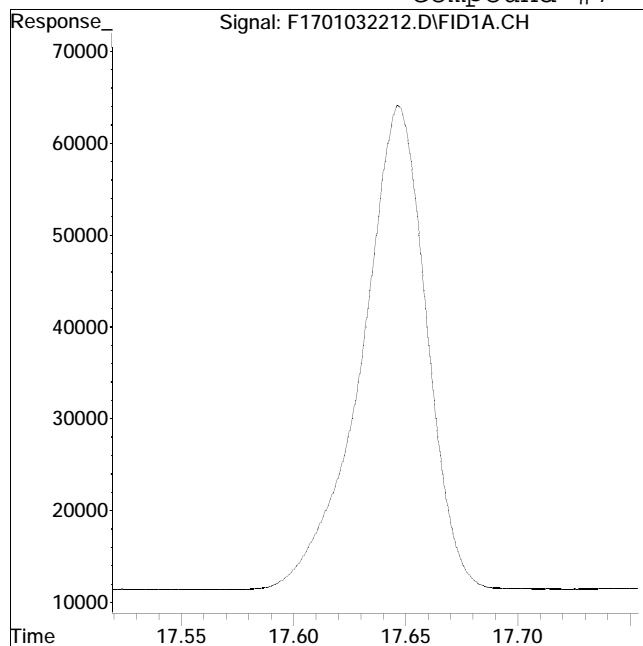
Manual Peak Response = 1062596 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #7: n-Tridecane (C13)



Original Peak Response = 0

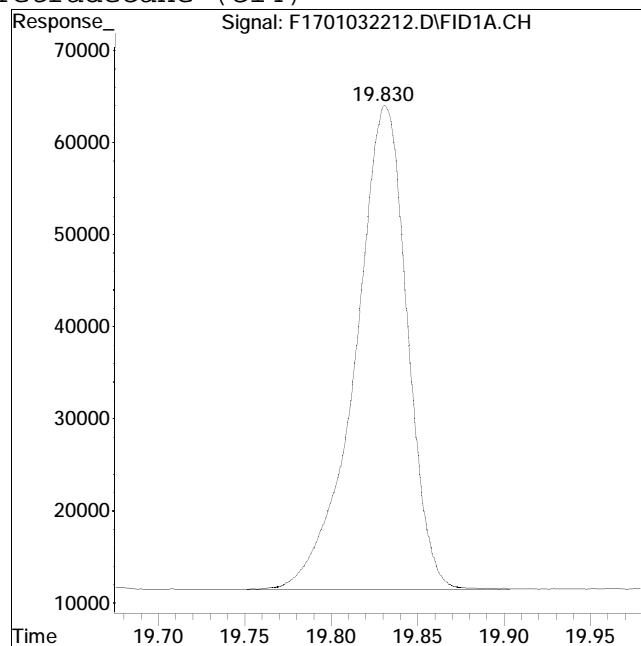
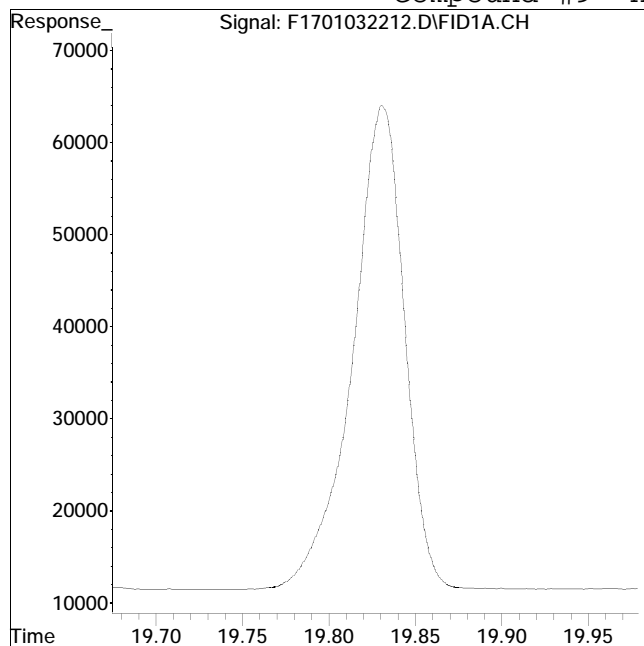
Manual Peak Response = 1067448 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #9: n-Tetradecane (C14)



Original Peak Response = 0

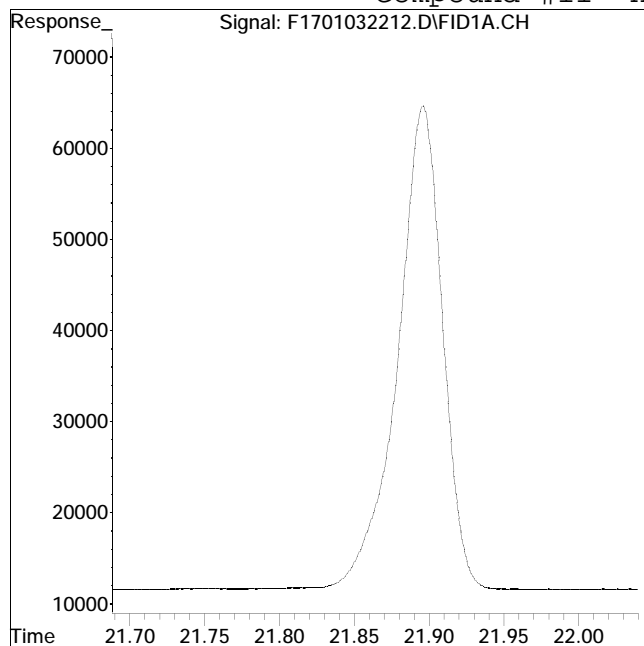
Manual Peak Response = 1103398 M4

M4 = Poor automated baseline construction.

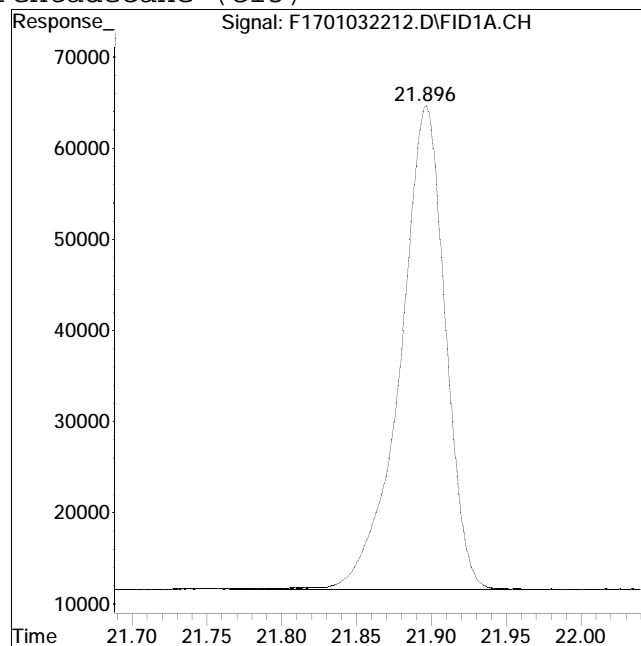
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #11: n-Pentadecane (C15)



Original Peak Response = 0



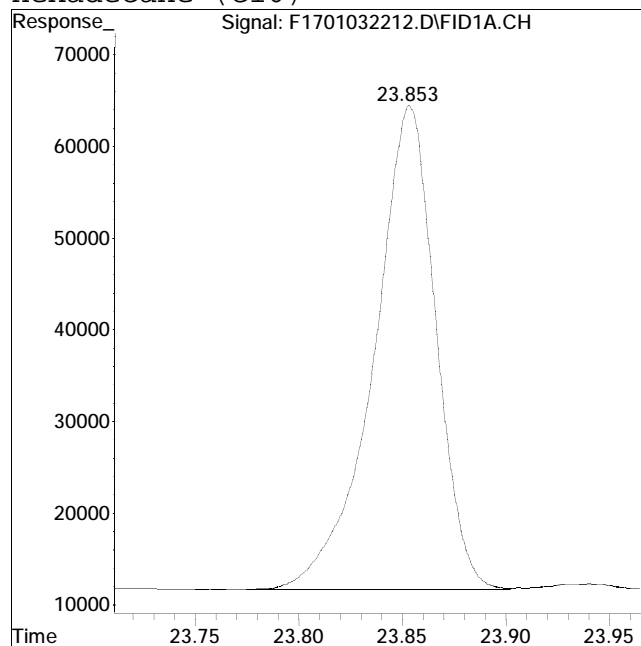
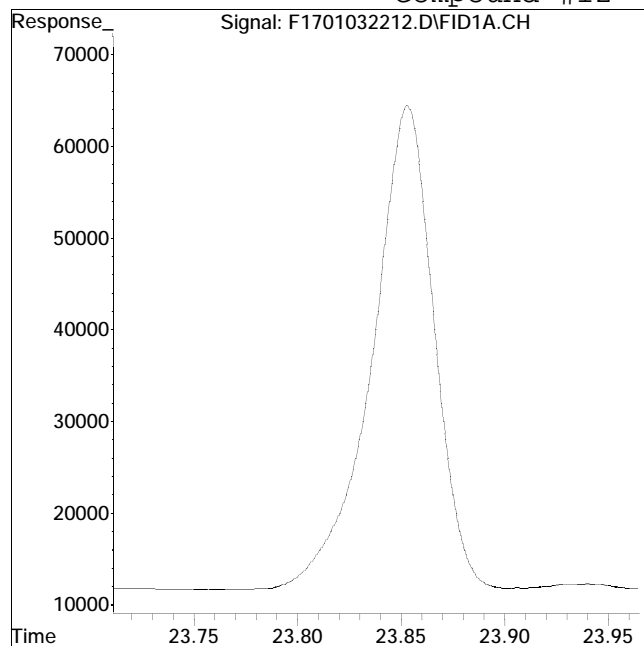
Manual Peak Response = 1115098 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #12: n-Hexadecane (C16)



Original Peak Response = 0

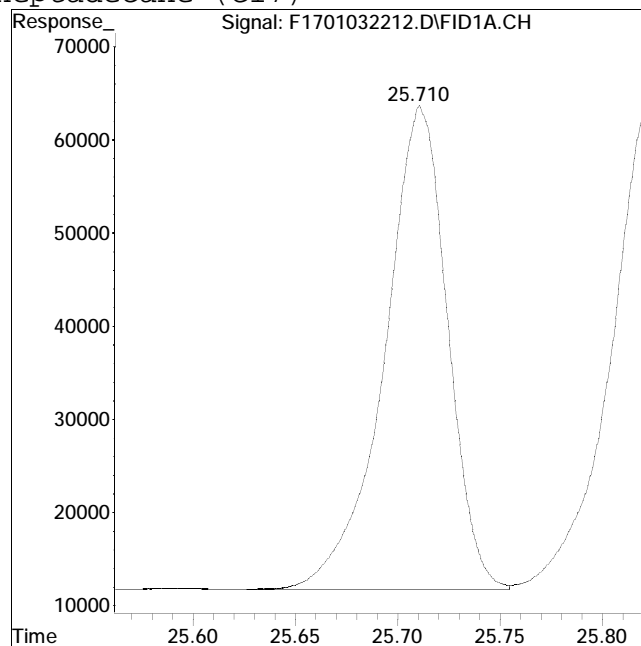
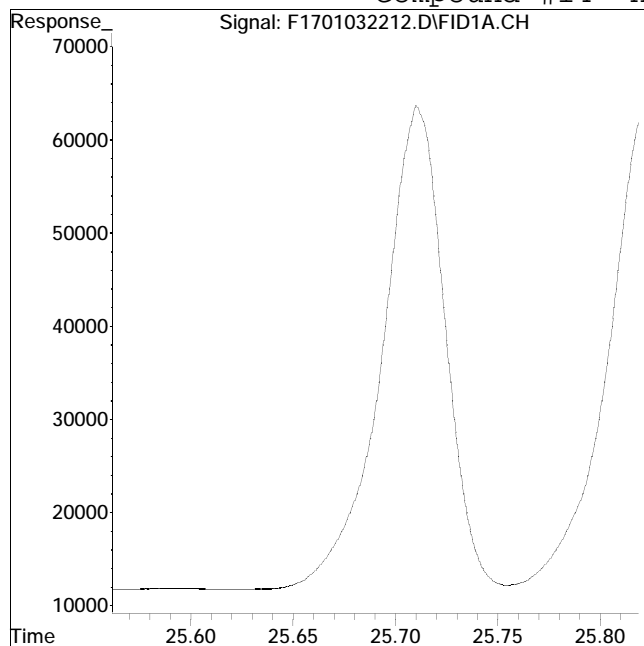
Manual Peak Response = 1101630 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #14: n-Heptadecane (C17)



Original Peak Response = 0

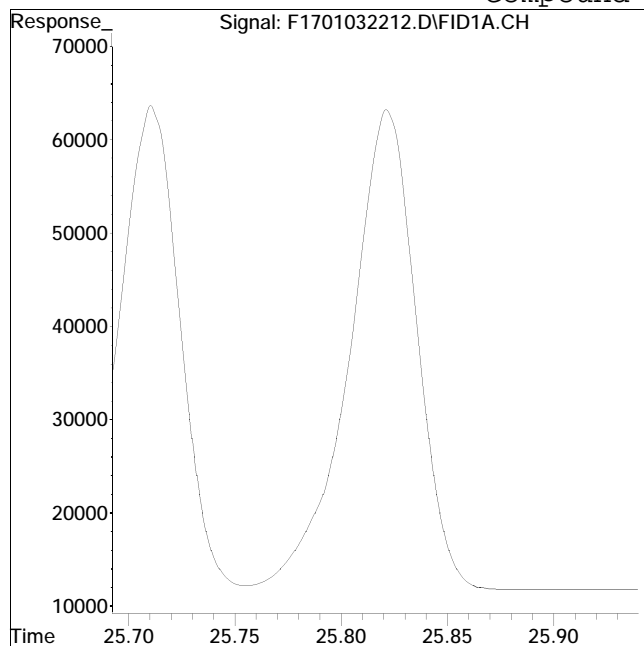
Manual Peak Response = 1113363 M4

M4 = Poor automated baseline construction.

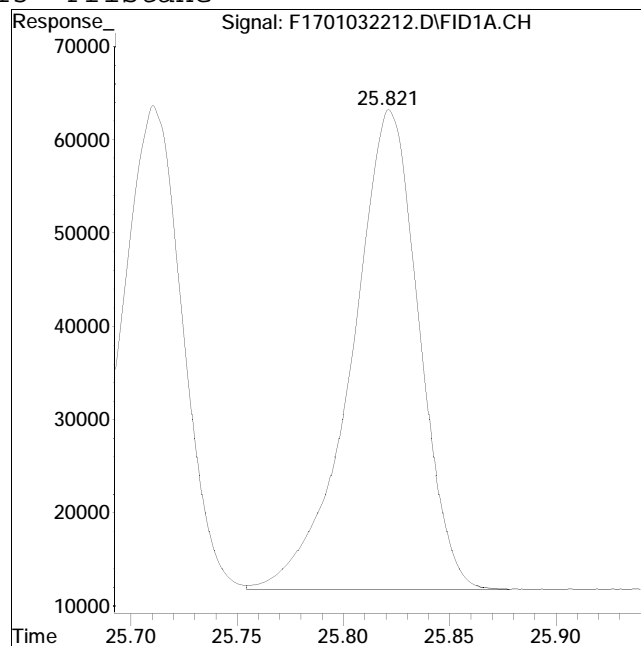
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #15: Pristane



Original Peak Response = 0



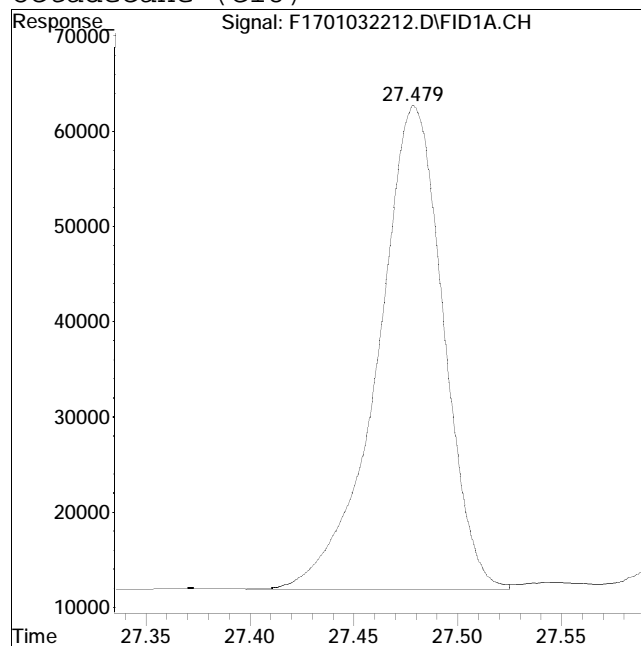
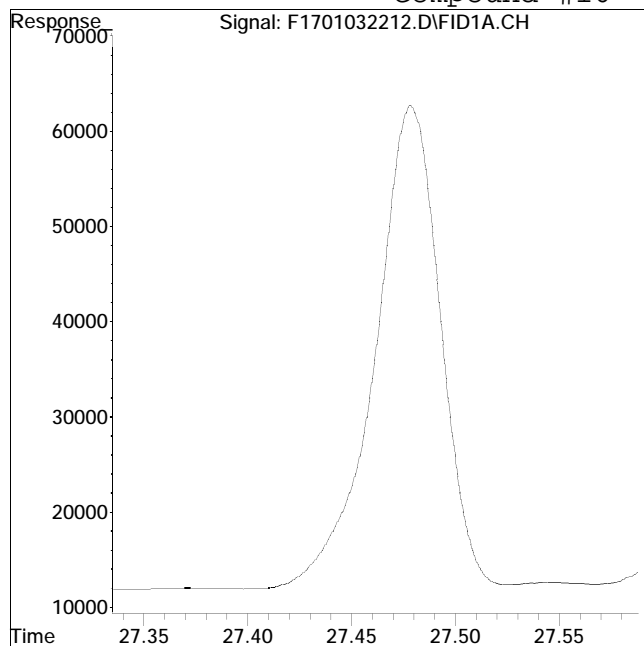
Manual Peak Response = 1135705 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2023QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #16: n-Octadecane (C18)



Original Peak Response = 0

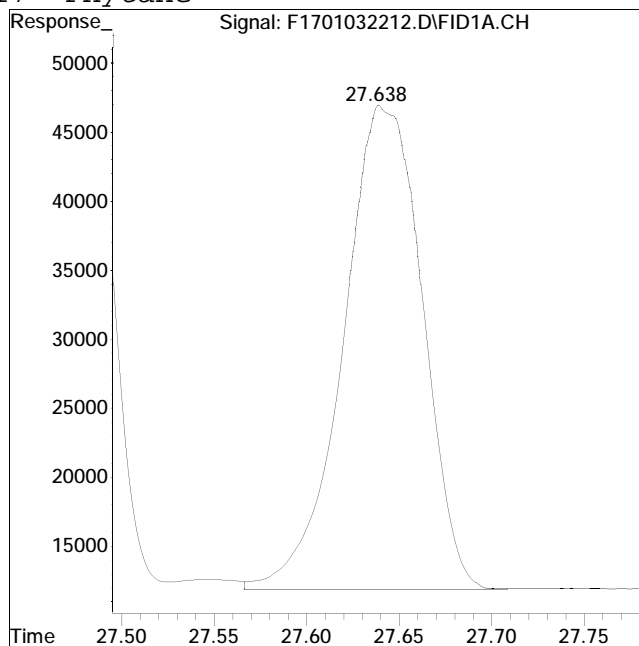
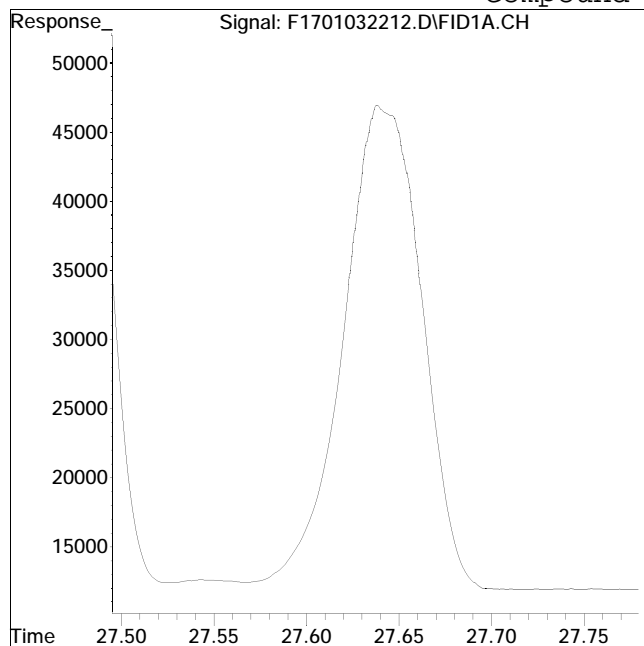
Manual Peak Response = 1123872 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #17: Phytane



Original Peak Response = 0

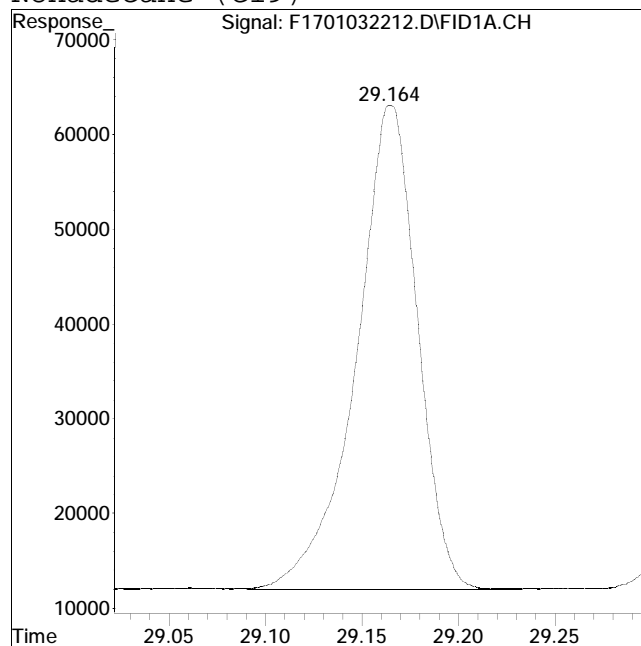
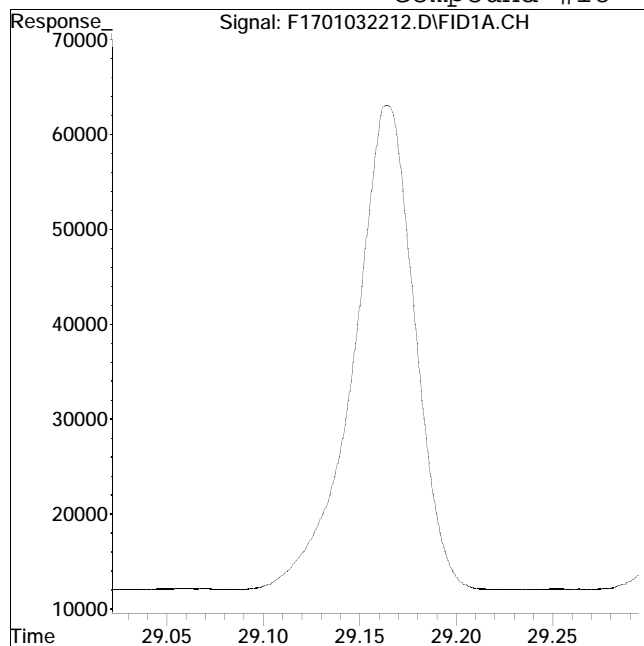
Manual Peak Response = 1045856 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #18: n-Nonadecane (C19)



Original Peak Response = 0

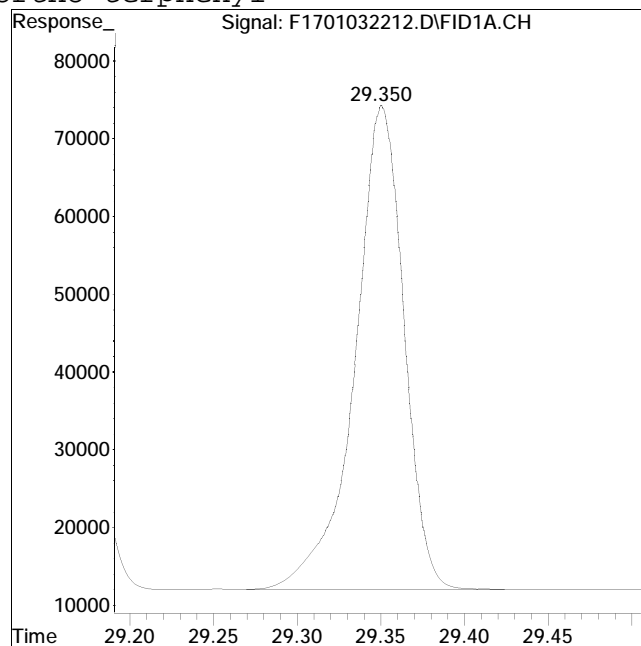
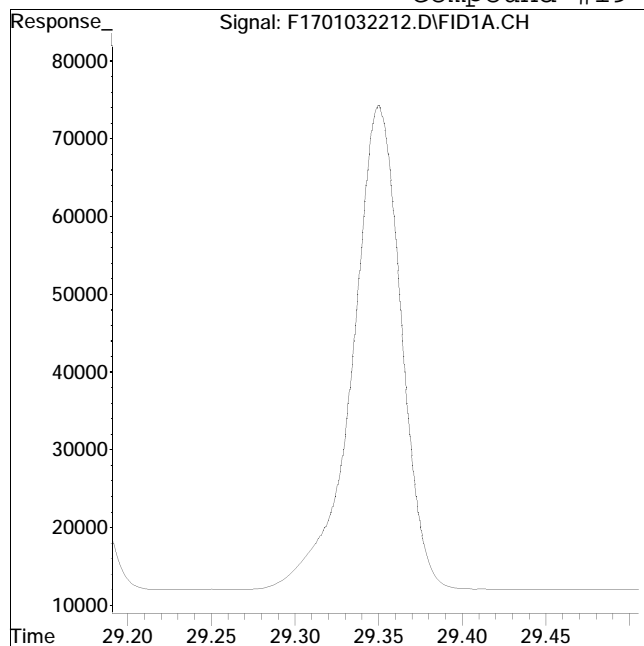
Manual Peak Response = 1129281 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #19: ortho-terphenyl



Original Peak Response = 0

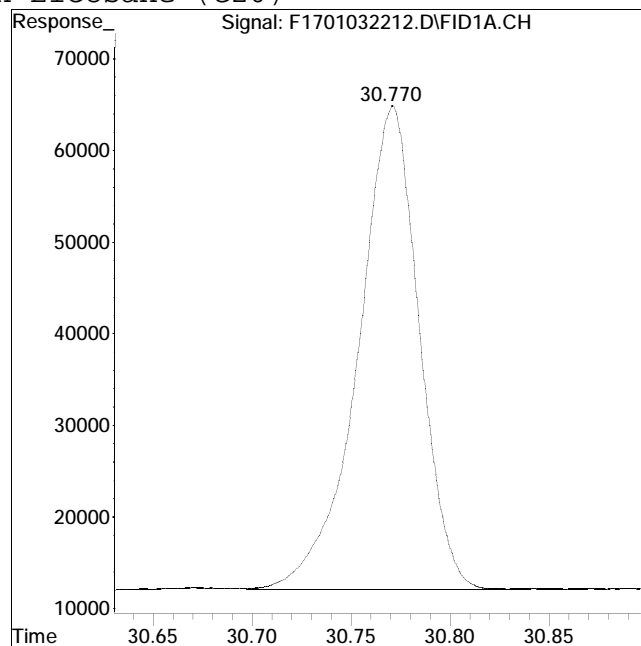
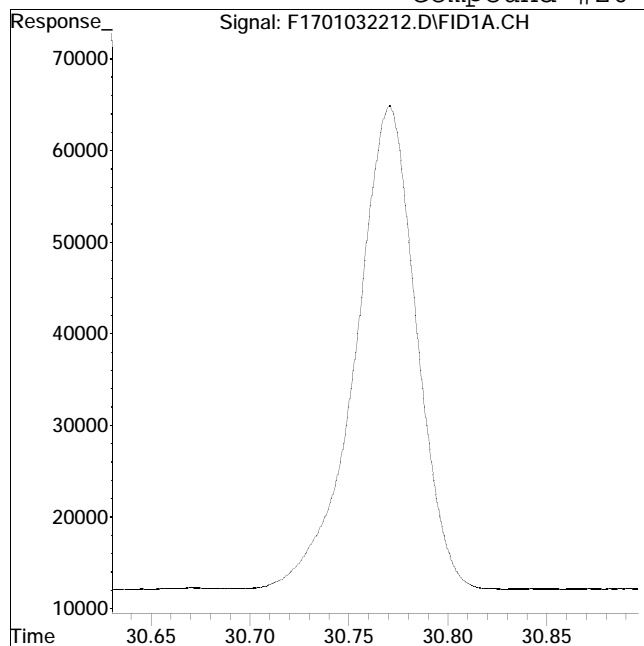
Manual Peak Response = 1274166 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #20: n-Eicosane (C20)



Original Peak Response = 0

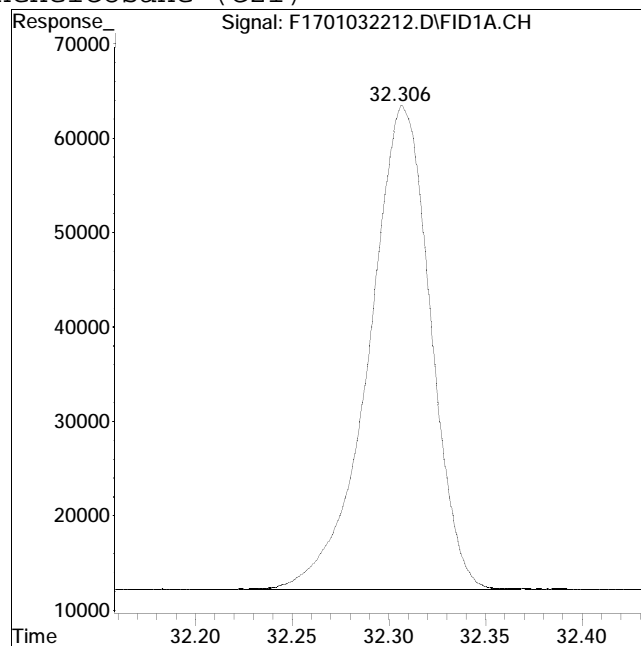
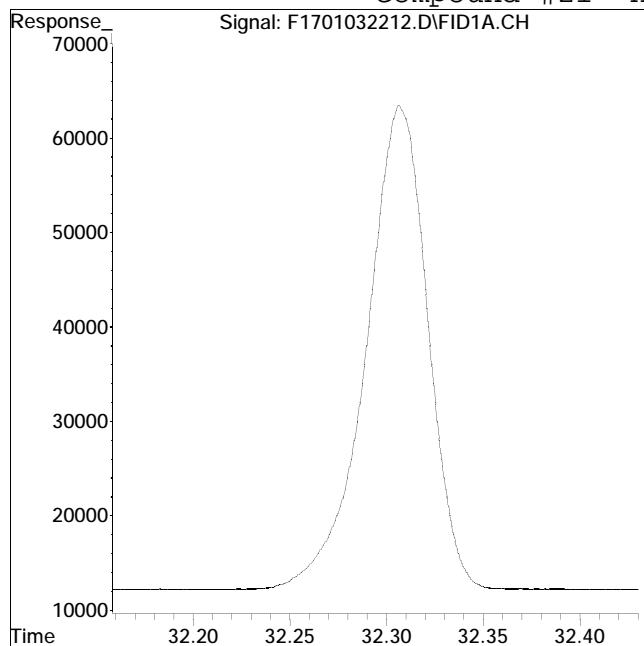
Manual Peak Response = 1136243 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #21: n-Heneicosane (C21)



Original Peak Response = 0

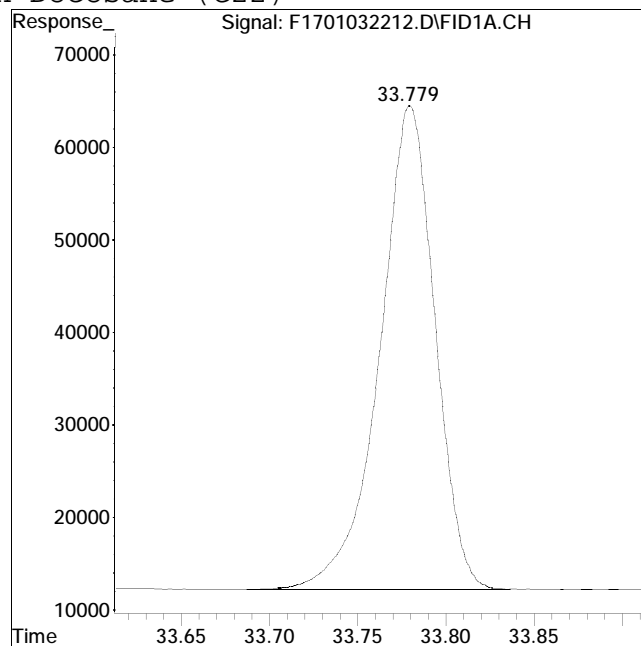
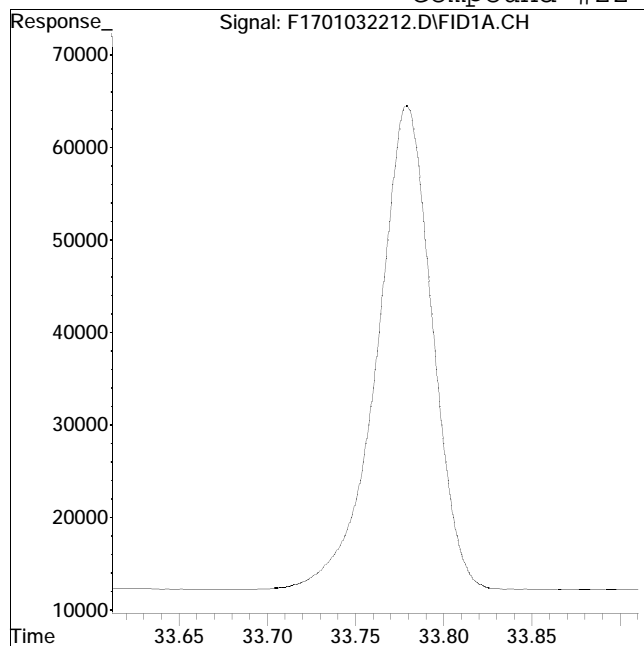
Manual Peak Response = 1139103 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #22: n-Docosane (C22)



Original Peak Response = 0

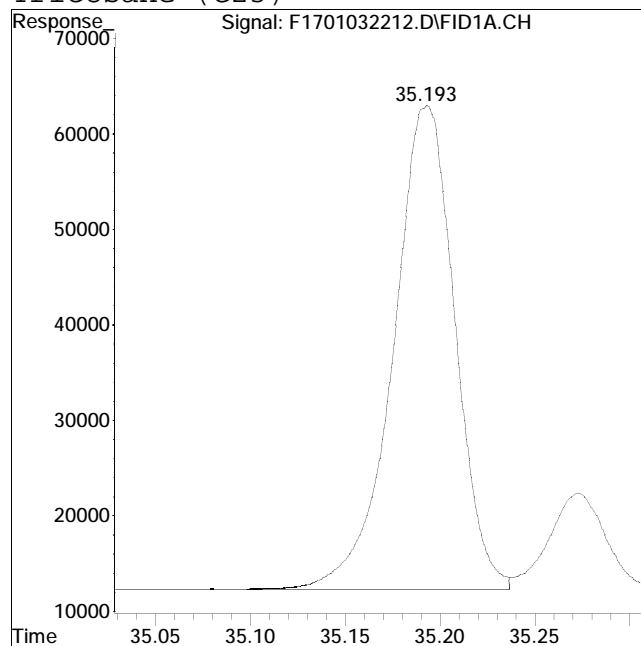
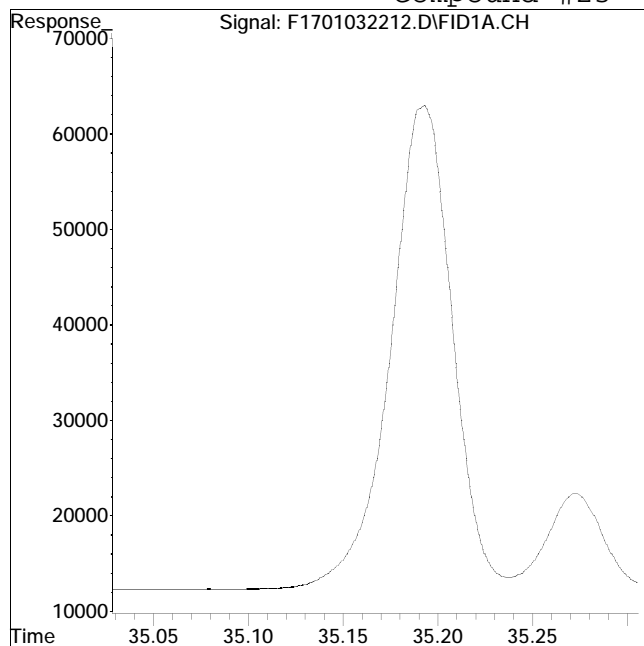
Manual Peak Response = 1140212 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #23: n-Tricosane (C23)



Original Peak Response = 0

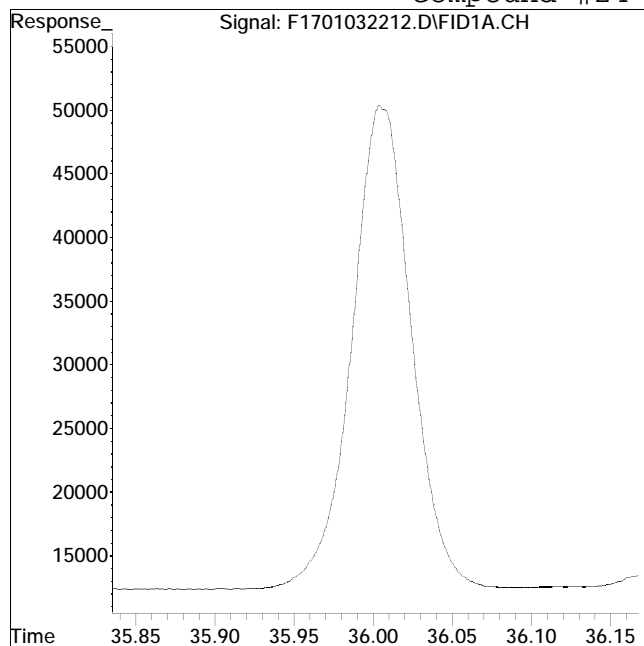
Manual Peak Response = 1148486 M4

M4 = Poor automated baseline construction.

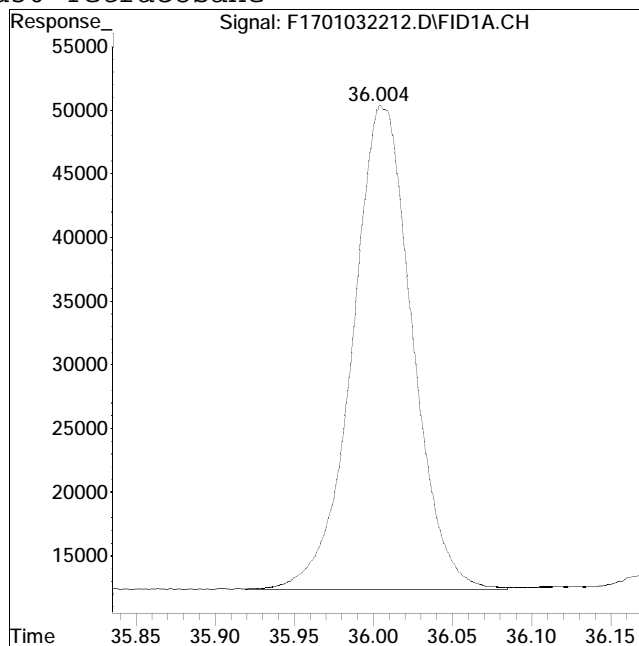
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #24: d50-Tetracosane



Original Peak Response = 0



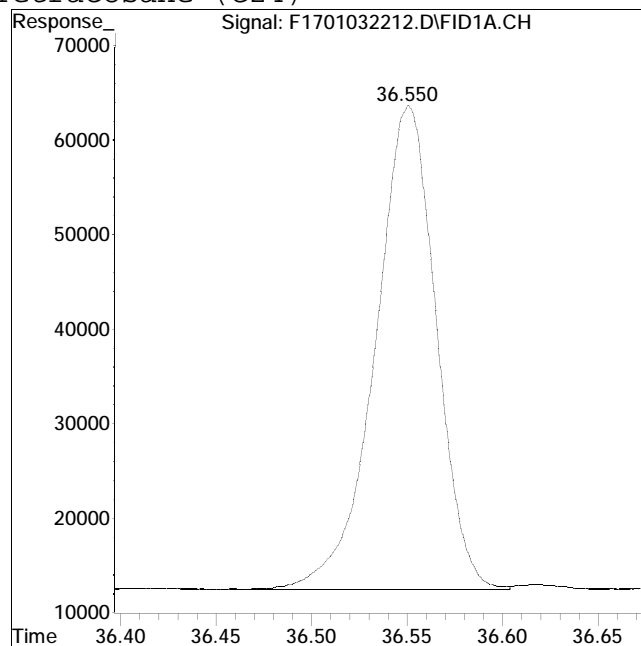
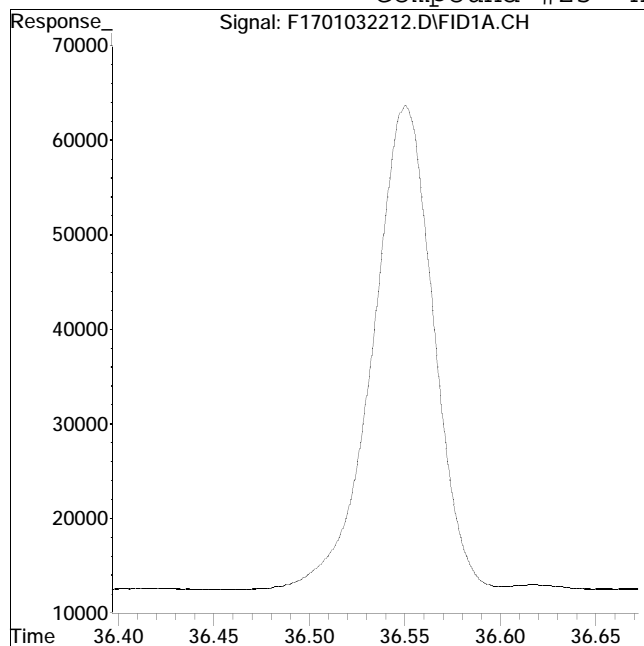
Manual Peak Response = 998826 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #25: n-Tetracosane (C24)



Original Peak Response = 0

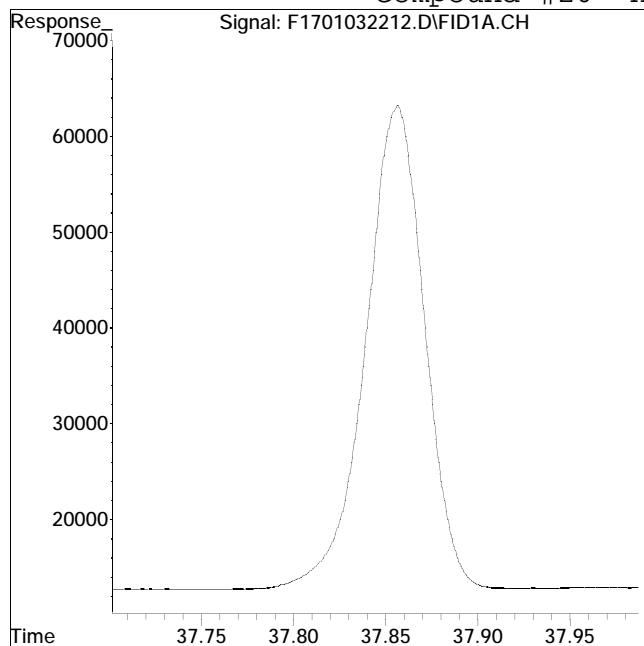
Manual Peak Response = 1136821 M4

M4 = Poor automated baseline construction.

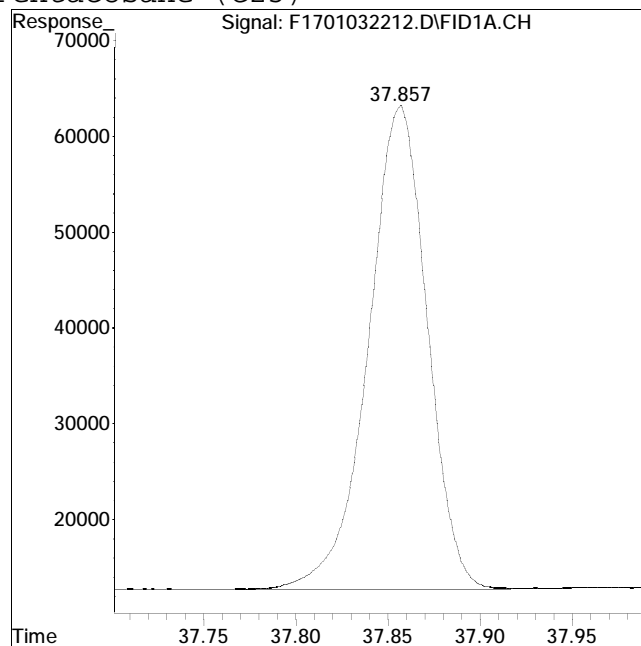
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #26: n-Pentacosane (C25)



Original Peak Response = 0



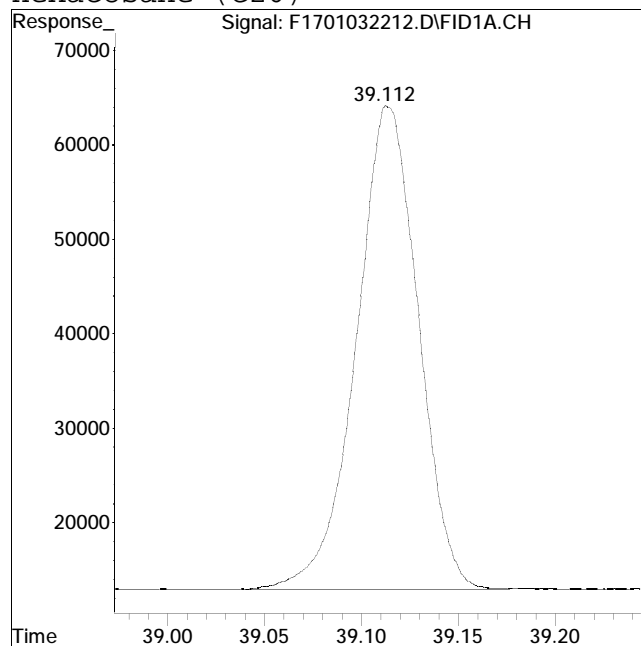
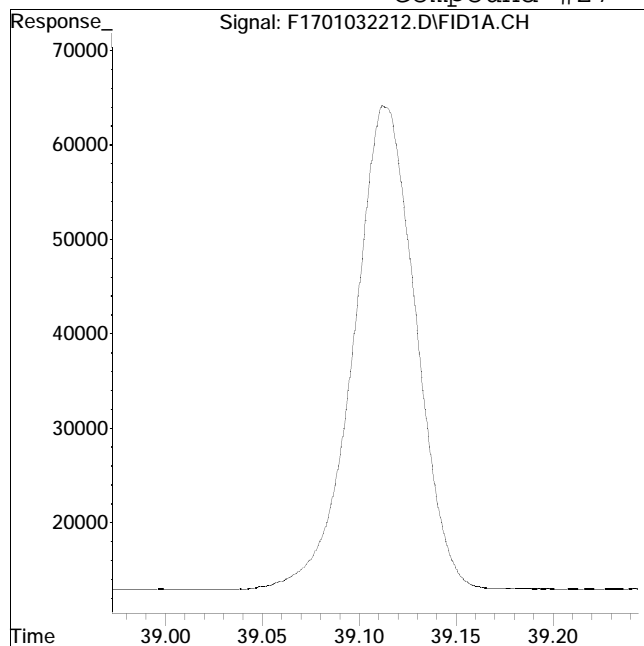
Manual Peak Response = 1123070 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #27: n-Hexacosane (C26)



Original Peak Response = 0

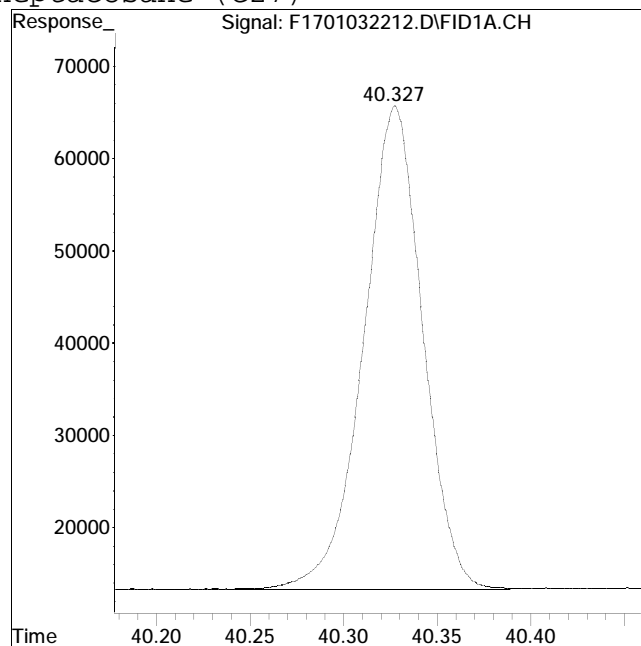
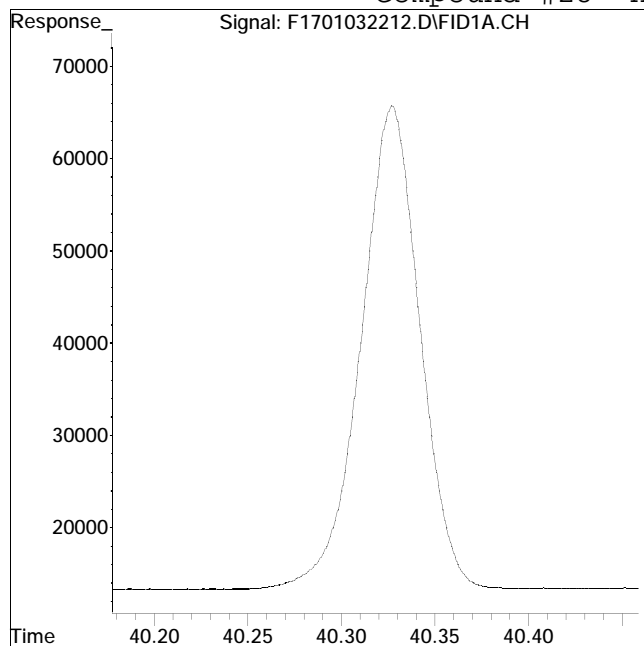
Manual Peak Response = 1142903 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #28: n-Heptacosane (C27)



Original Peak Response = 0

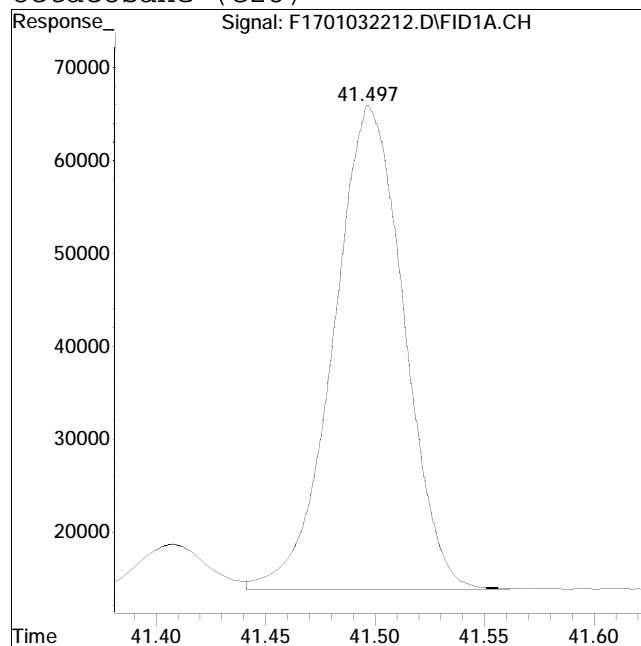
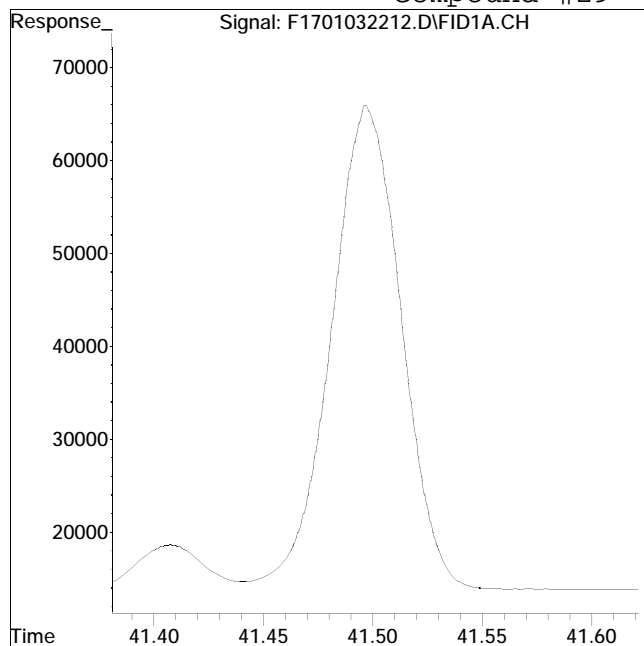
Manual Peak Response = 1147737 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #29: n-Octacosane (C28)



Original Peak Response = 0

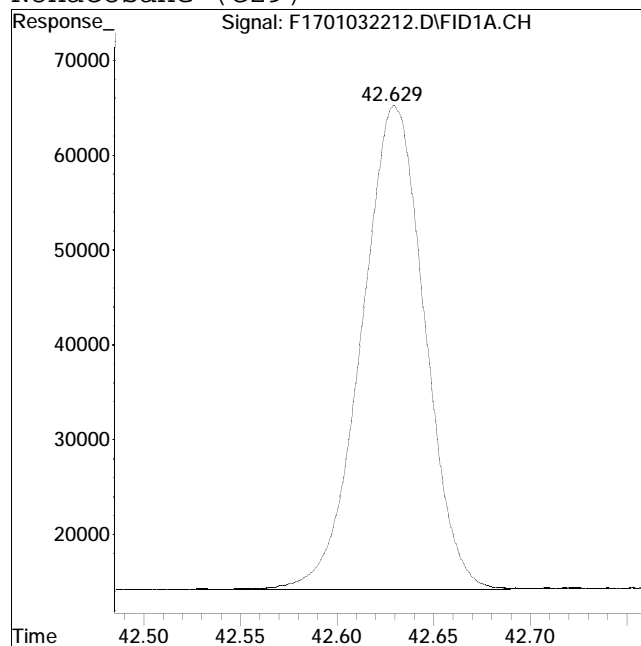
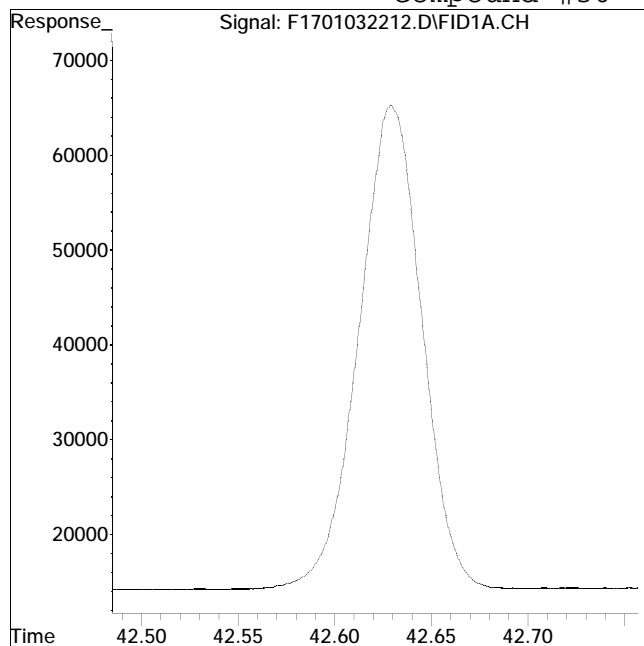
Manual Peak Response = 1167522 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #30: n-Nonacosane (C29)



Original Peak Response = 0

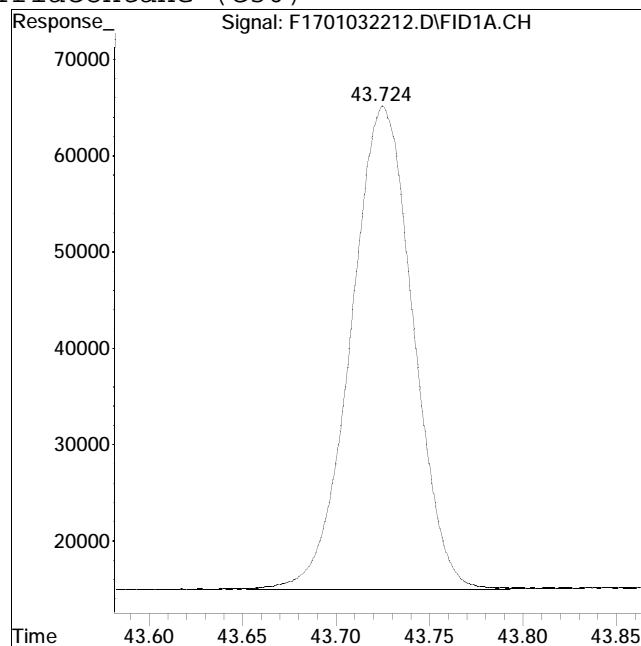
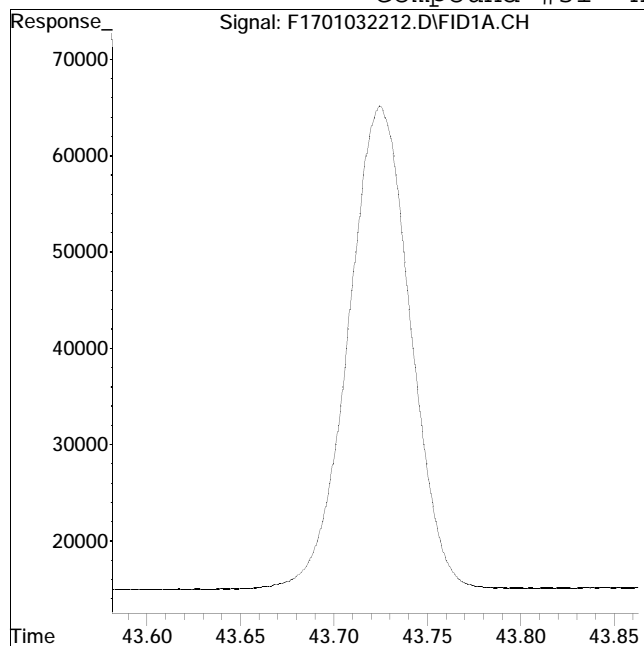
Manual Peak Response = 1156083 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #31: n-Triacontane (C30)



Original Peak Response = 0

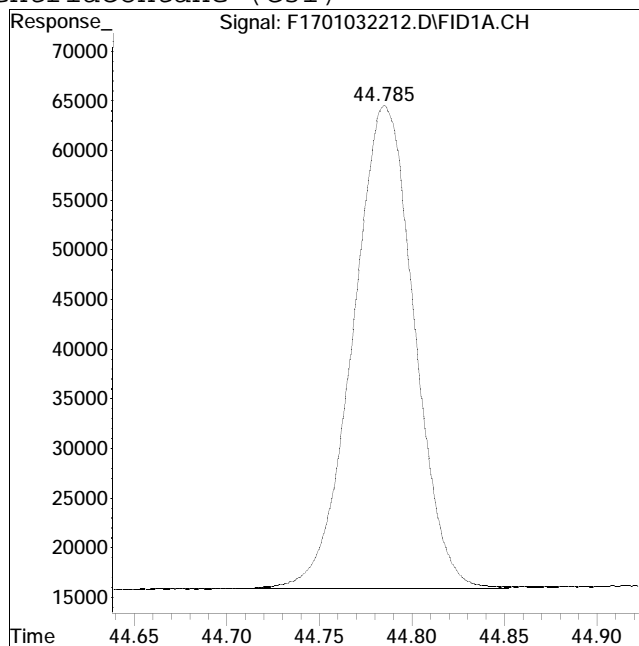
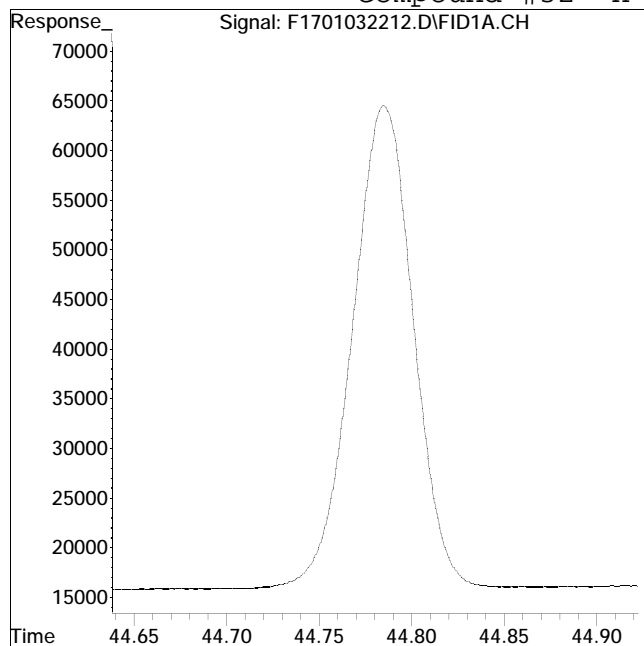
Manual Peak Response = 1158866 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 0

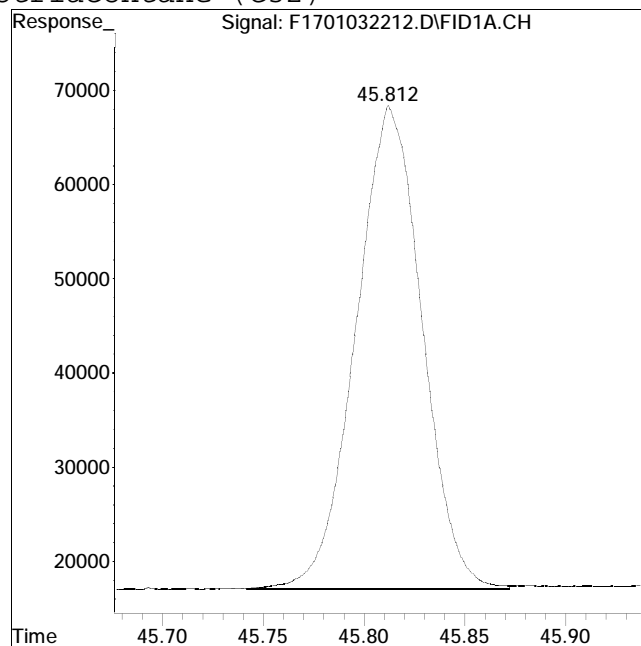
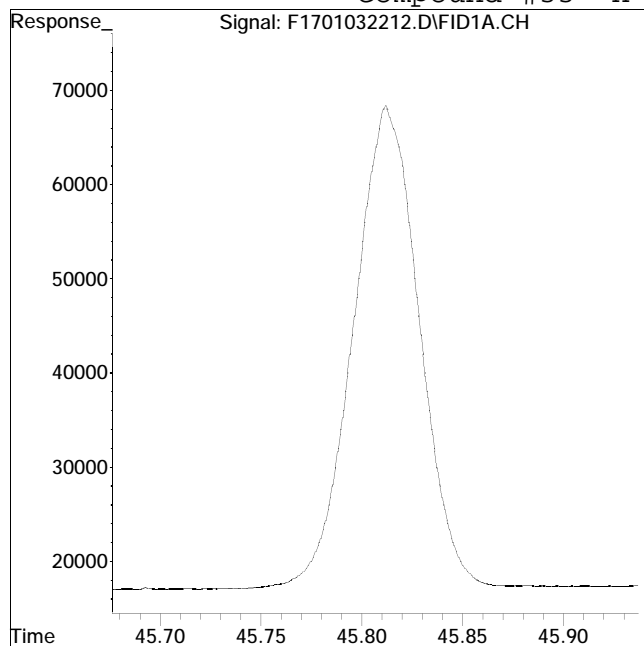
Manual Peak Response = 1119546 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 0

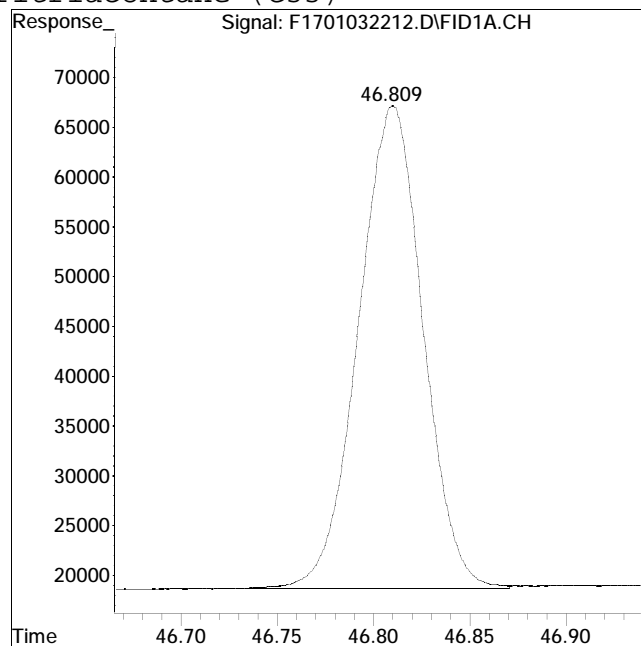
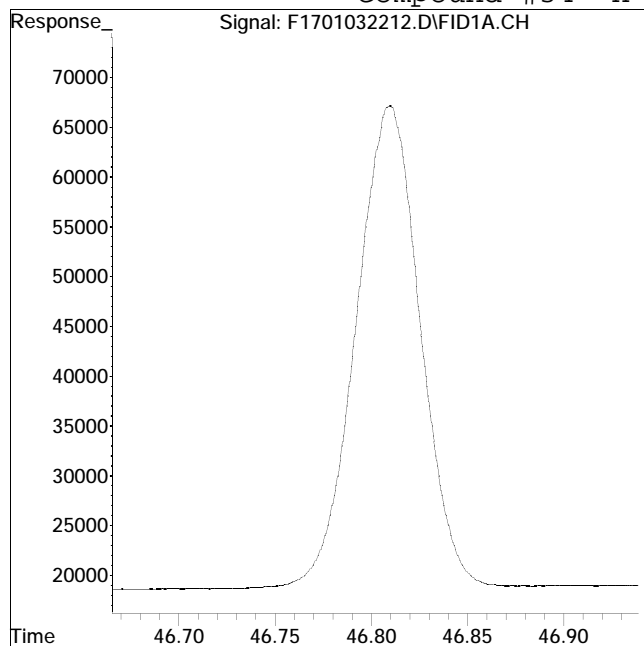
Manual Peak Response = 1169352 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 0

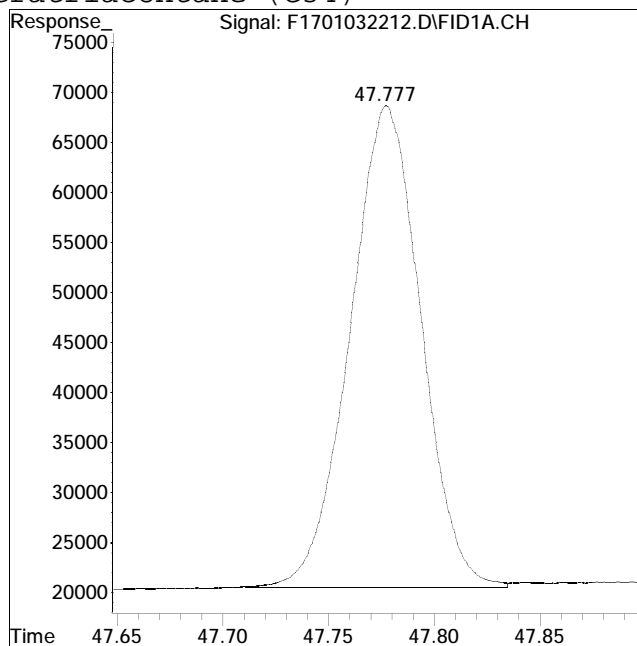
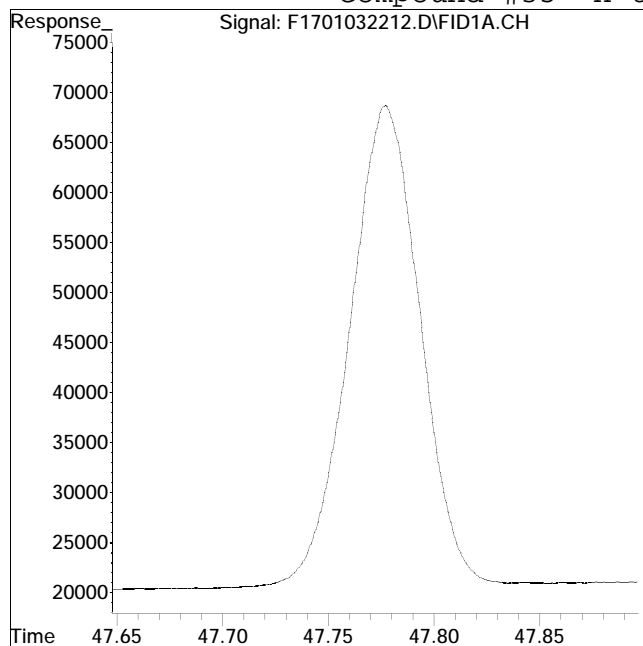
Manual Peak Response = 1130636 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 0

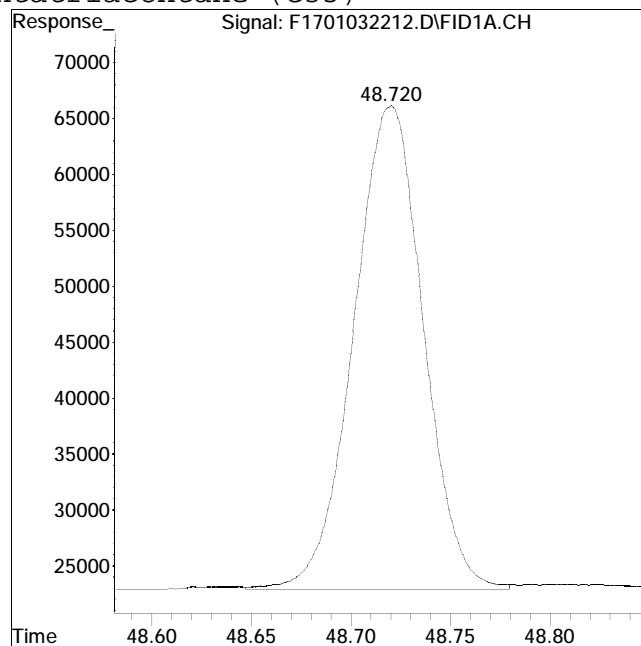
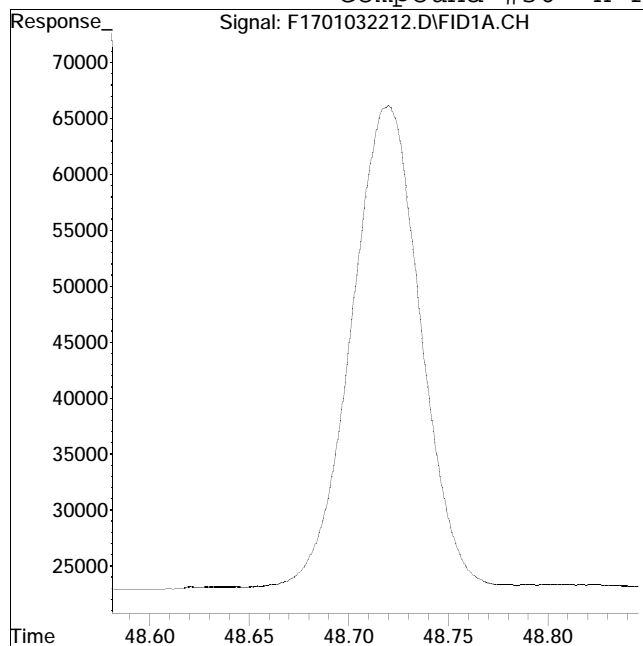
Manual Peak Response = 1121867 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 0

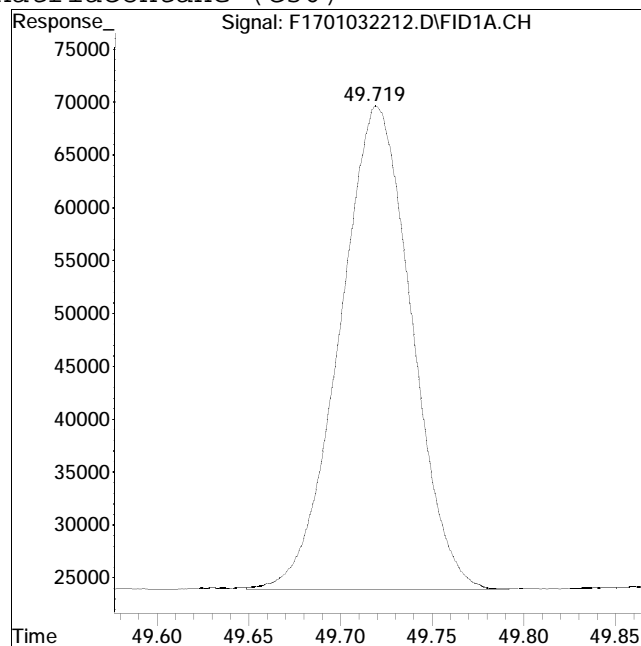
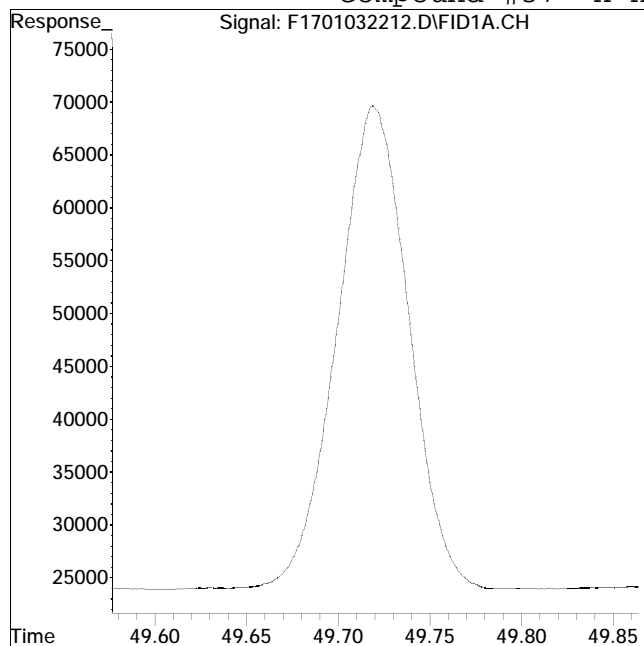
Manual Peak Response = 1049786 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 0

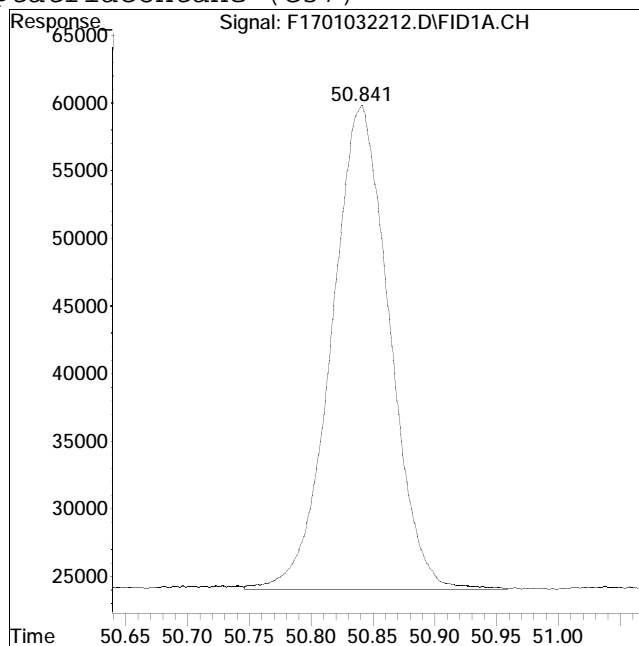
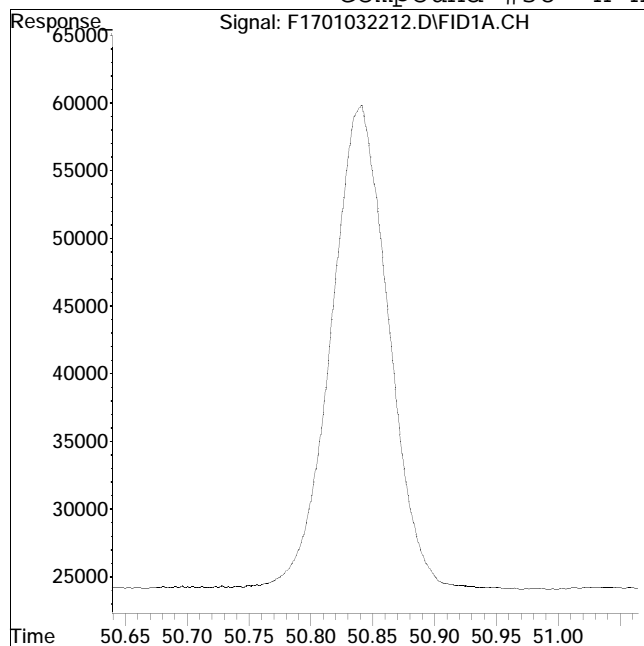
Manual Peak Response = 1245082 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2023QMethod : HC17010323F_DRO.M
 Data File : F1701032212.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
 Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 0

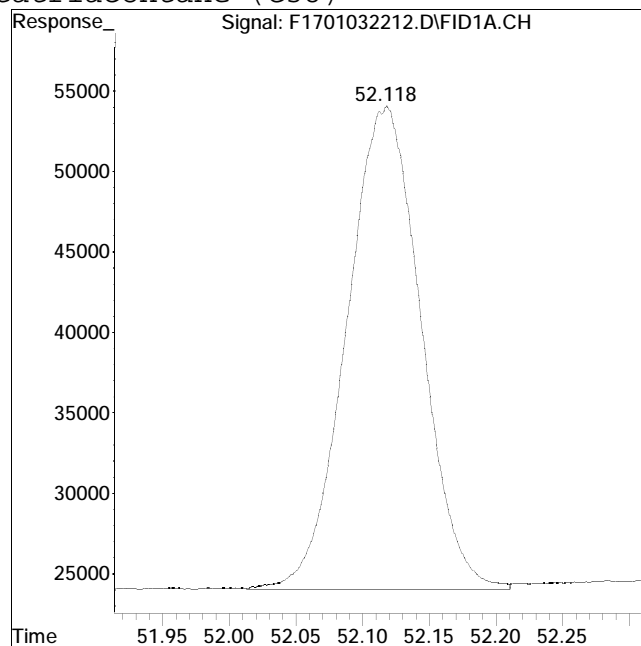
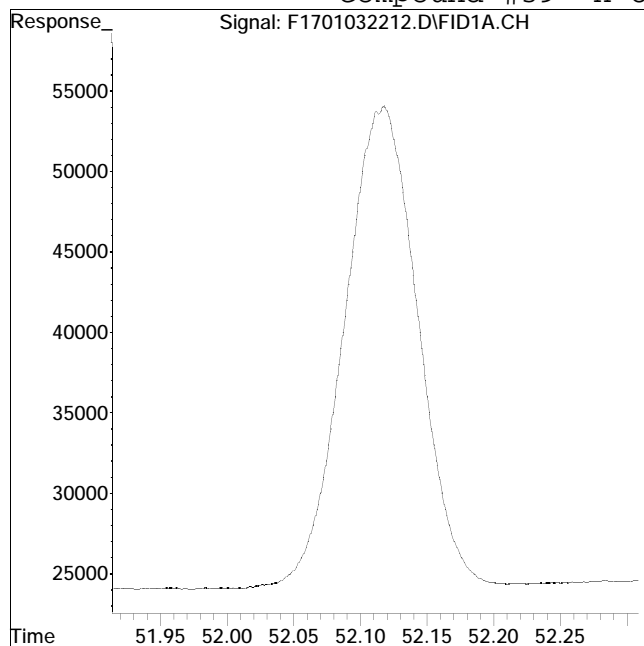
Manual Peak Response = 1165691 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 0

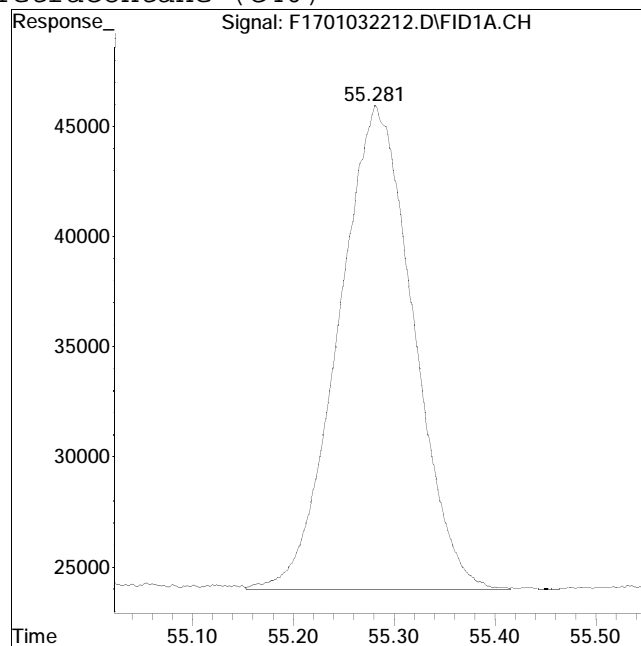
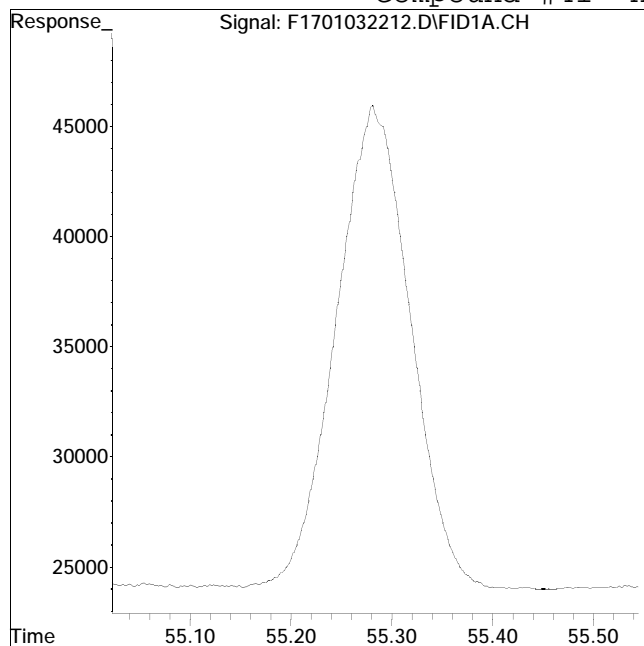
Manual Peak Response = 1164156 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032212.D Operator : FID17:WR
Date Inj'd : 1/3/2023 5:12 pm Instrument : FID17
Sample : I1701032301F Quant Date : 1/17/2023 8:32 am

Compound #41: n-Tetracontane (C40)



Original Peak Response = 0

Manual Peak Response = 1130264 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032214.D
 Signal(s) : FID1A.CH
 Acq On : 03 Jan 2023 6:42 pm
 Operator : FID17:WR
 Sample : I1701032302F
 Misc : WG1734833,FRBF56,10ug/ml
 ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 17 08:49:29 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Jan 17 08:39:34 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.398	61186276	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.355	12822490	9.363 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	18.73%#
24) s d50-Tetracosane	36.012	10027287	9.328 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	18.66%#
Target Compounds			
2) t n-Octane (C8)	5.677	10214254	9.724 ug/mL M4
3) t n-Nonane (C9)	7.897	10610051	9.794 ug/mL M4
4) t n-Decane (C10)	10.394	11040759	9.859 ug/mL M4
5) t n-Undecane (C11)	12.911	11030806	9.825 ug/mL M4
6) t n-Dodecane (C12)	15.341	11158722	9.897 ug/mL M4
7) t n-Tridecane (C13)	17.650	11198871	9.865 ug/mL M4
9) t n-Tetradecane (C14)	19.834	11522180	9.891 ug/mL M4
11) t n-Pentadecane (C15)	21.900	11605743	9.947 ug/mL M4
12) t n-Hexadecane (C16)	23.857	11513456	9.850 ug/mL M4
14) t n-Heptadecane (C17)	25.716	11664684	9.889 ug/mL M4
15) t Pristane	25.826	11875483	9.896 ug/mL M4
16) t n-Octadecane (C18)	27.483	11785247	9.910 ug/mL M4
17) t Phytane	27.644	10951461	9.860 ug/mL M4
18) t n-Nonadecane (C19)	29.169	11846473	9.983 ug/mL M4
20) t n-Eicosane (C20)	30.775	11917049	9.918 ug/mL M4
21) t n-Heneicosane (C21)	32.313	11971469	9.995 ug/mL M4
22) t n-Docosane (C22)	33.786	11967331	9.913 ug/mL M4
23) t n-Tricosane (C23)	35.199	11972308	9.892 ug/mL M4
25) t n-Tetracosane (C24)	36.557	11917056	10.164 ug/mL M4
26) t n-Pentacosane (C25)	37.863	11702639	9.876 ug/mL M4
27) t n-Hexacosane (C26)	39.121	12011807	9.902 ug/mL M4
28) t n-Heptacosane (C27)	40.334	12009878	10.070 ug/mL M4
29) t n-Octacosane (C28)	41.505	12248876	9.978 ug/mL M4
30) t n-Nonacosane (C29)	42.636	12174097	10.004 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032214.D
 Signal(s) : FID1A.CH
 Acq On : 03 Jan 2023 6:42 pm
 Operator : FID17:WR
 Sample : I1701032302F
 Misc : WG1734833,FRBF56,10ug/ml
 ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 17 08:49:29 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Jan 17 08:39:34 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	43.733	12199020	10.002 ug/mL M4
32) t	n-Hentriacontane (C31)	44.791	11748519	9.959 ug/mL M4
33) t	n-Dotriacontane (C32)	45.818	12298773	9.974 ug/mL M4
34) t	n-Tritriacontane (C33)	46.815	11923421	10.027 ug/mL M4
35) t	n-tetratriacontane (C34)	47.783	11816198	10.006 ug/mL M4
36) t	n-Pentatriacontane (C35)	48.726	11046316	9.627 ug/mL M4
37) t	n-Hexatriacontane (C36)	49.729	13265995	10.266 ug/mL M4
38) t	n-Heptatriacontane (C37)	50.850	12017617	10.030 ug/mL M4
39) t	n-Octatriacontane (C38)	52.128	12180129	10.015 ug/mL M4
41) t	n-Tetracontane (C40)	55.297	11977565	9.985 ug/mL M4

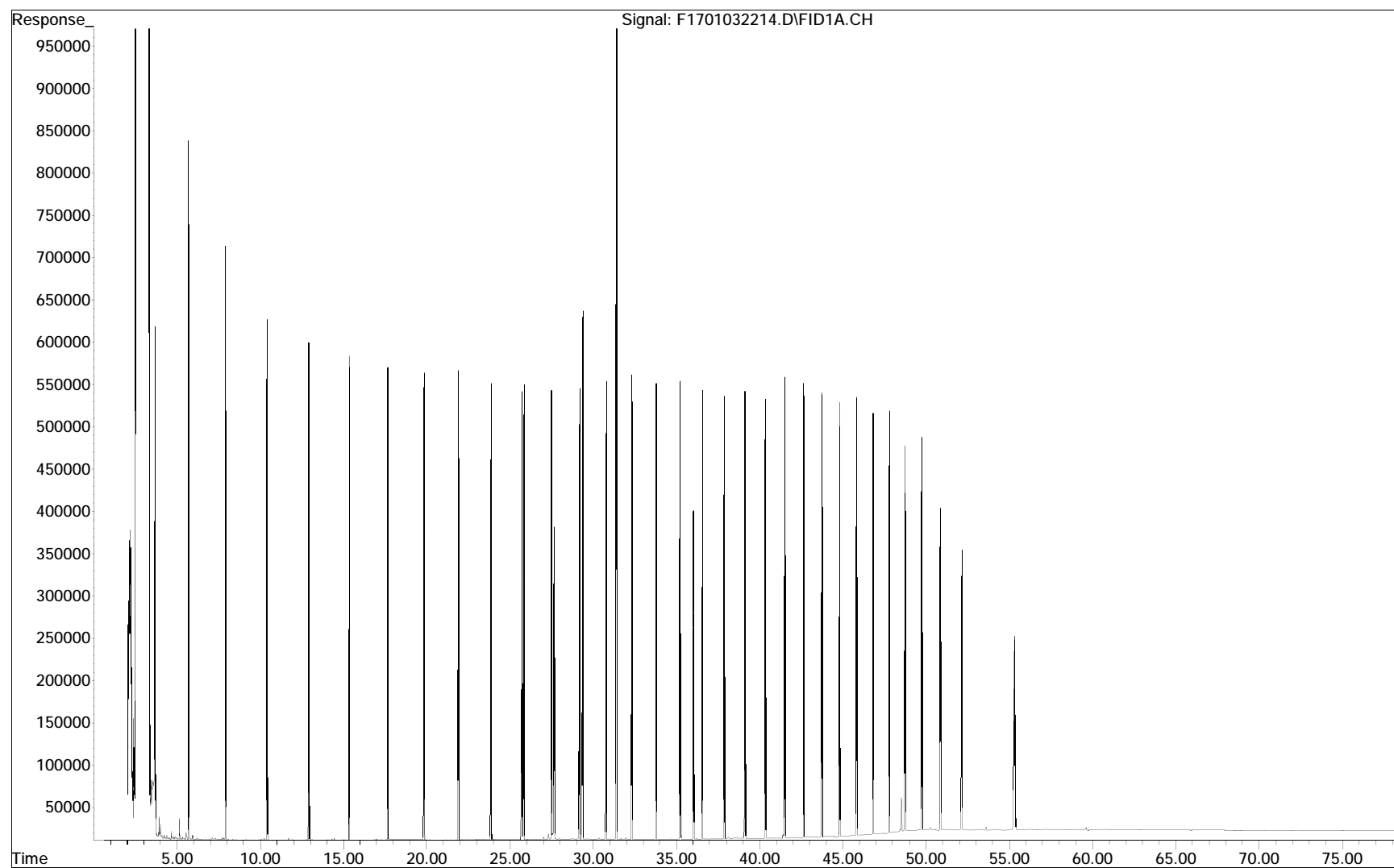
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

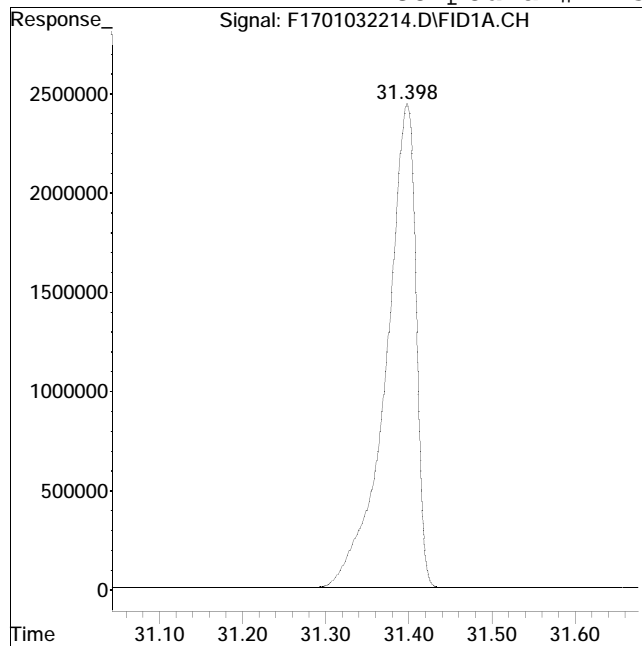
File : O:\Forensics\Data\FID17\2023\JAN\JAN03\F1701032214.D
Operator : FID17:WR
Acquired : 03 Jan 2023 6:42 pm using AcqMethod FID17A.M
Sample Name: I1701032302F
Instrument: FID17
Misc Info : WG1734833,FRBF56,10ug/ml
Vial Number: 7
CurrentMeth: O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M



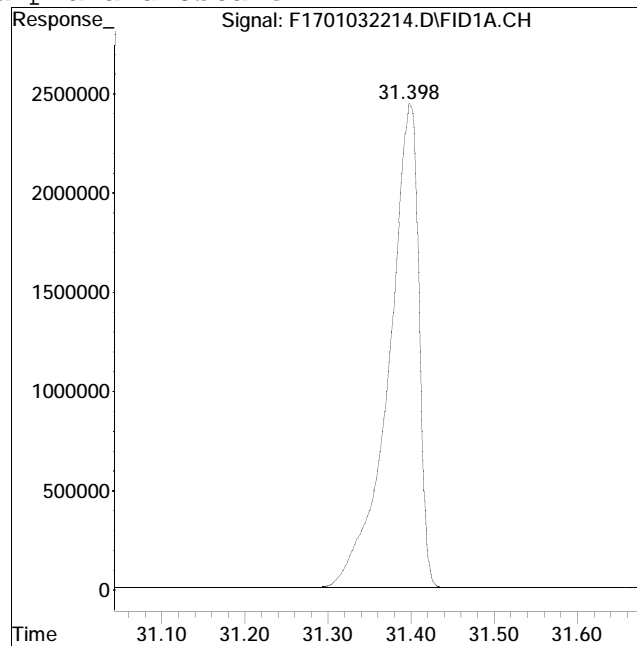
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032214.D Operator : FID17:WR
Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #1: 5-alpha-androstane



Original Peak Response = 61185428



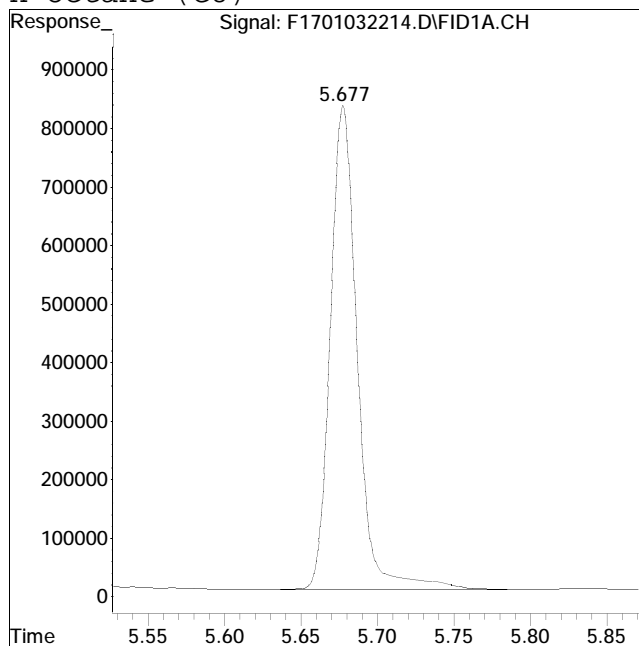
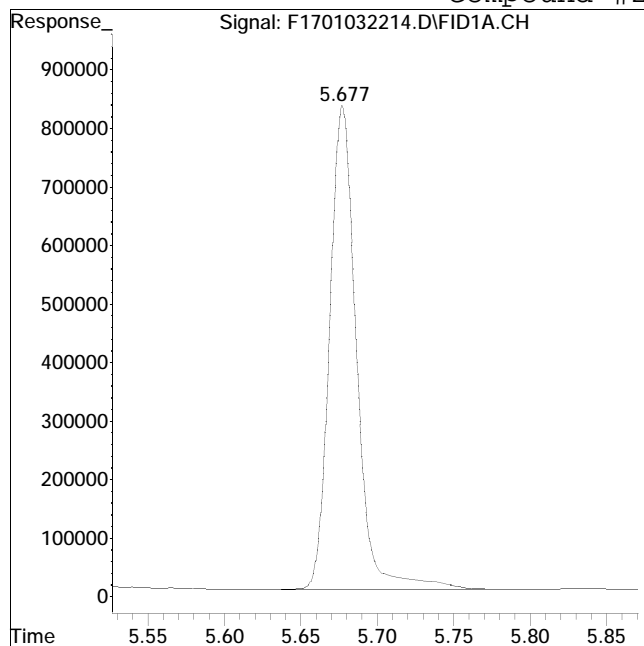
Manual Peak Response = 61186276 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #2: n-Octane (C8)



Original Peak Response = 10181377

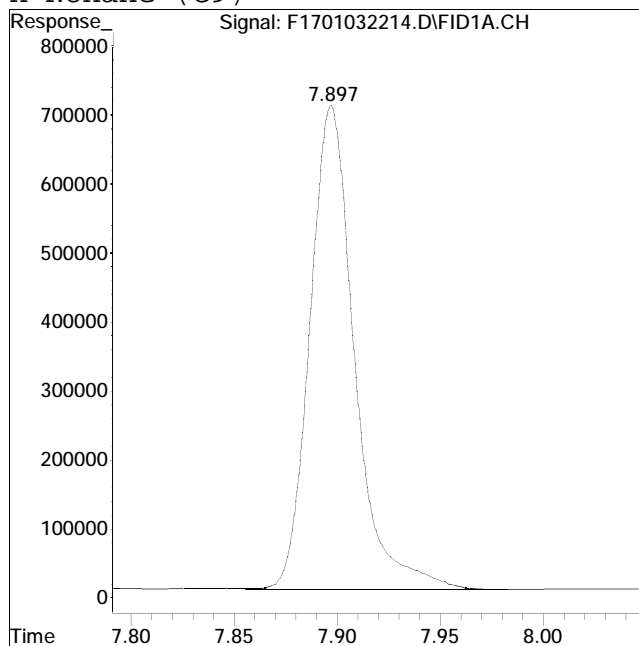
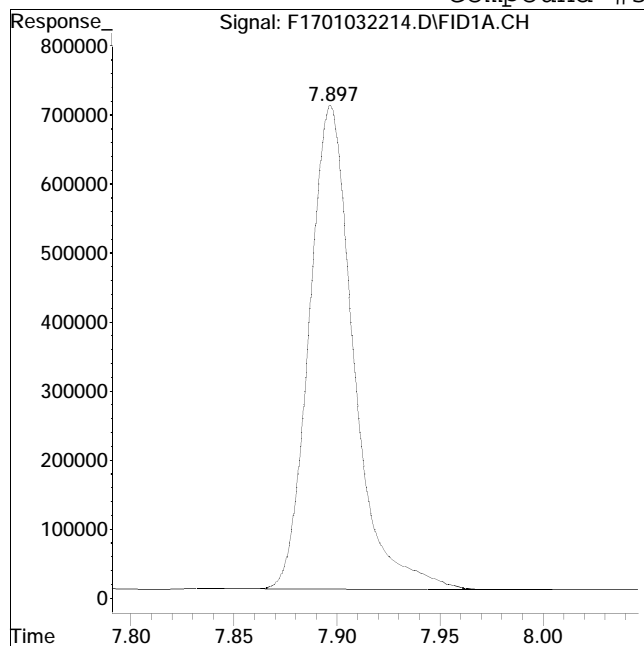
Manual Peak Response = 10214254 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #3: n-Nonane (C9)



Original Peak Response = 10517526

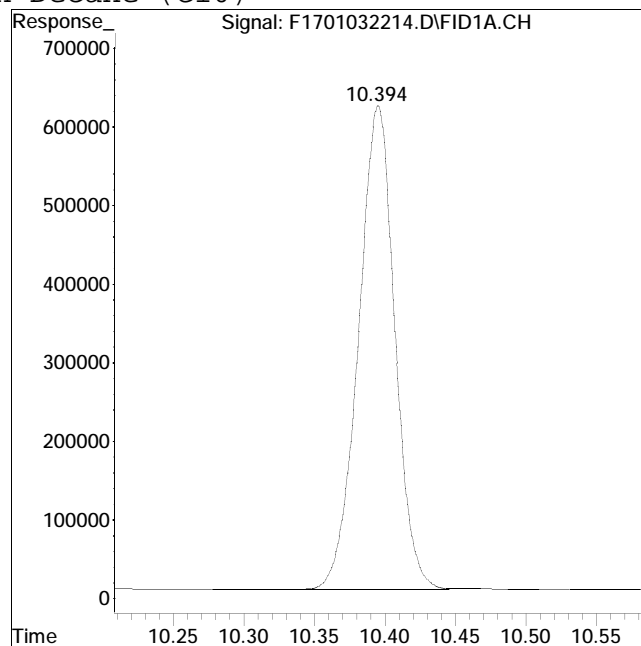
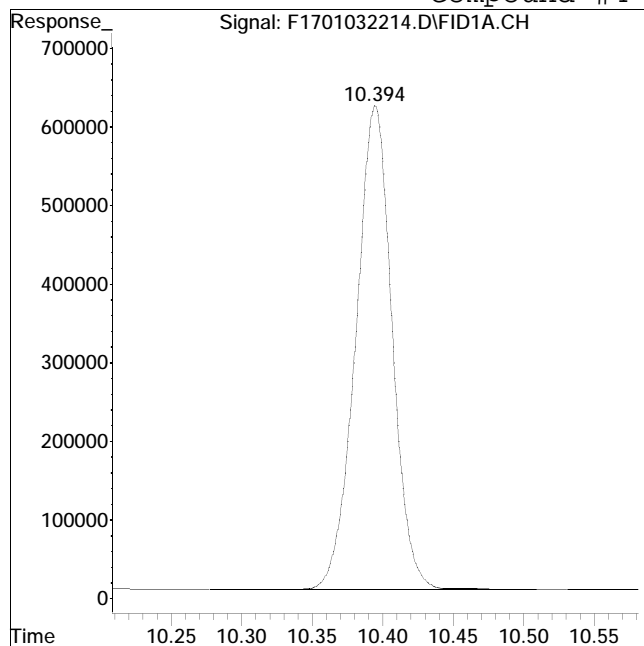
Manual Peak Response = 10610051 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #4: n-Decane (C10)



Original Peak Response = 11060990

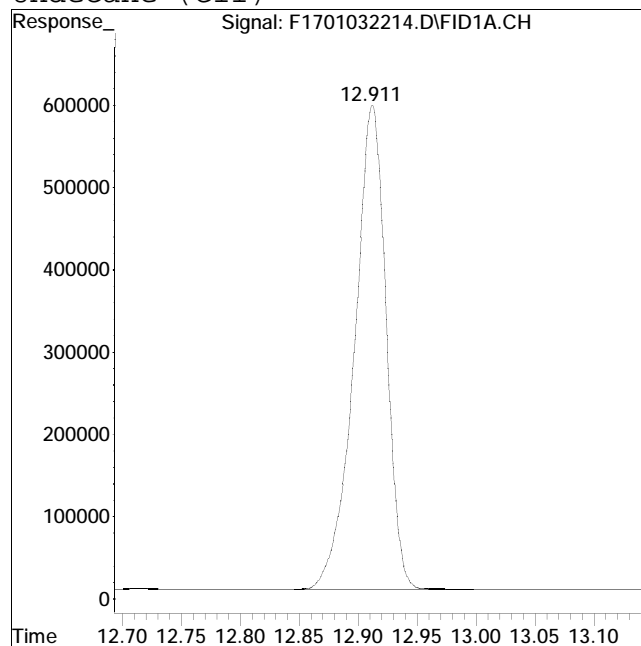
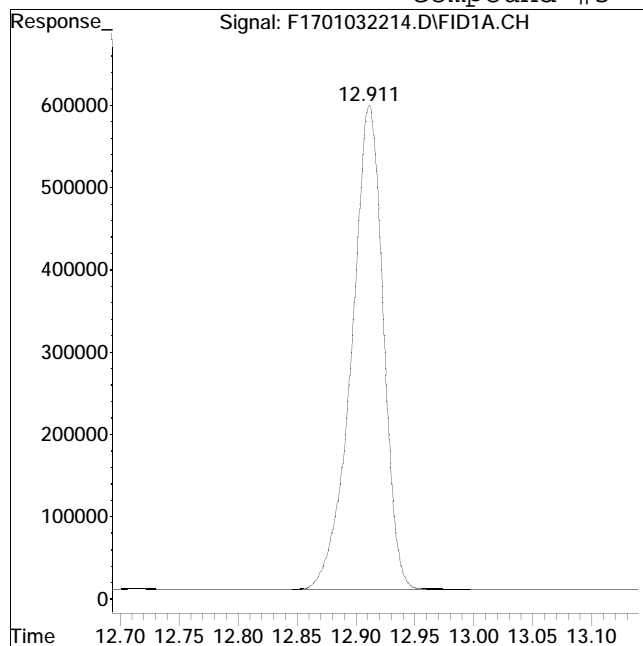
Manual Peak Response = 11040759 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #5: n-Undecane (C11)



Original Peak Response = 11020120

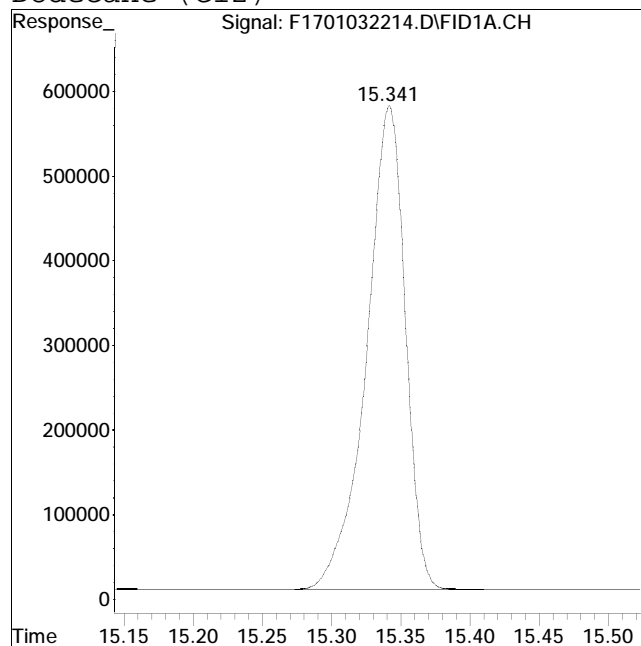
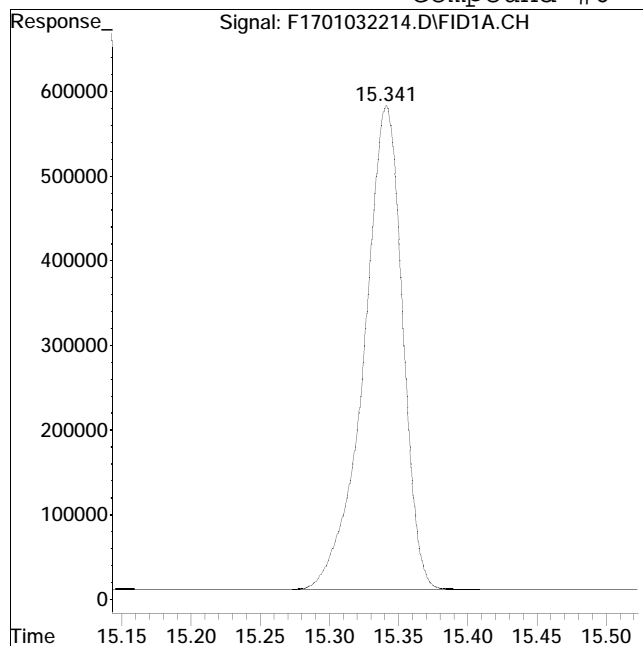
Manual Peak Response = 11030806 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #6: n-Dodecane (C12)



Original Peak Response = 11147004

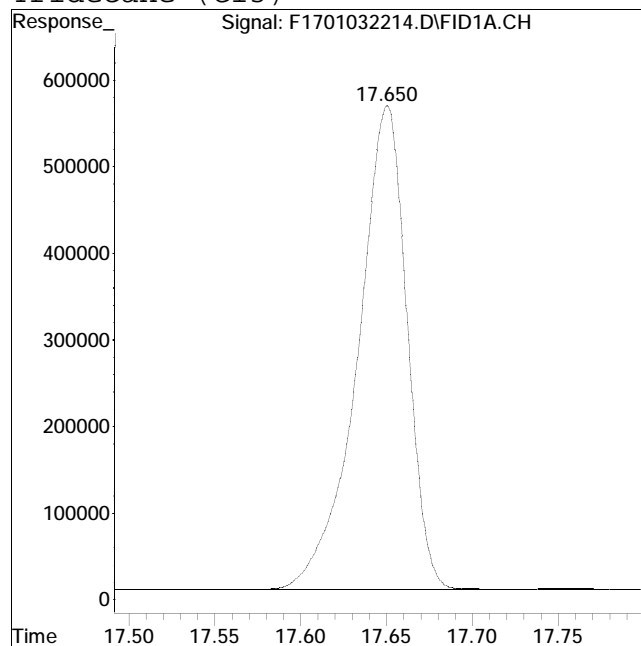
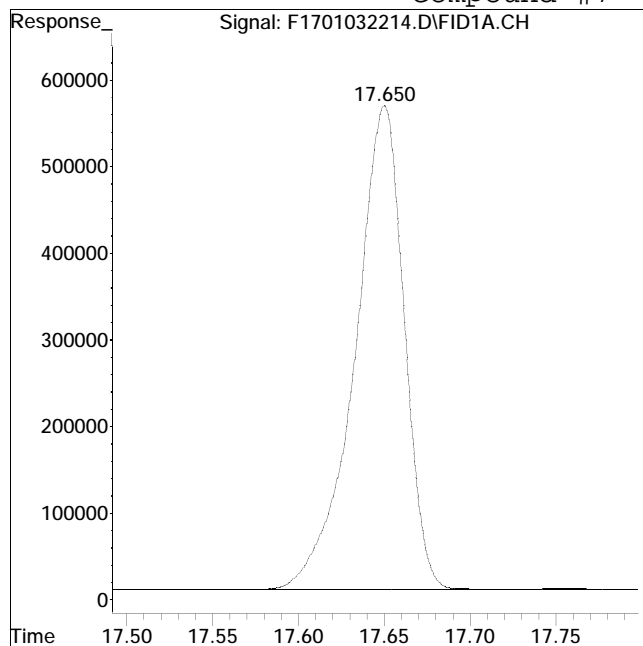
Manual Peak Response = 11158722 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #7: n-Tridecane (C13)



Original Peak Response = 11167098

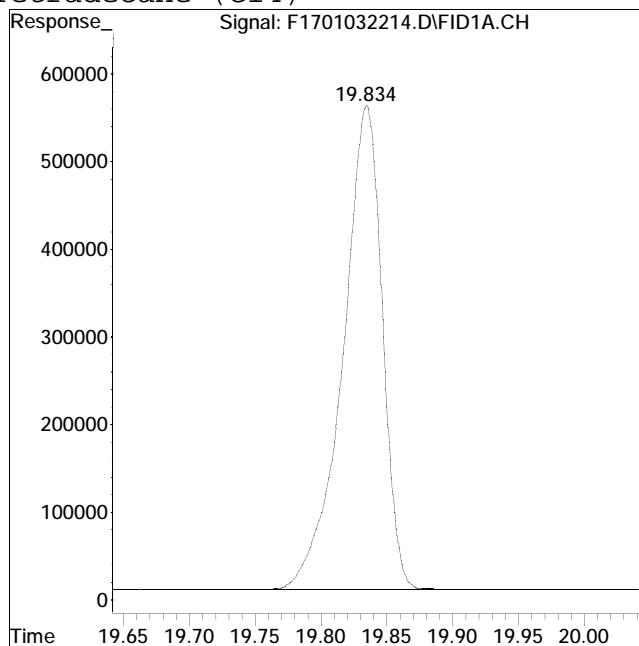
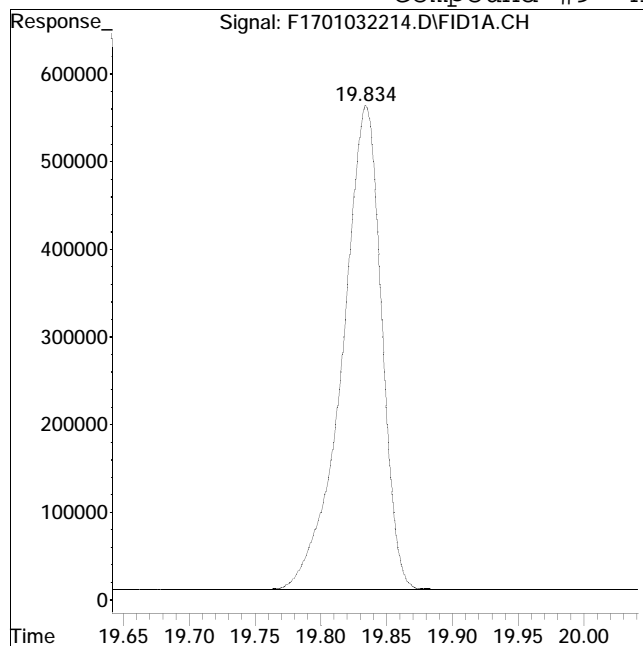
Manual Peak Response = 11198871 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #9: n-Tetradecane (C14)



Original Peak Response = 11510583

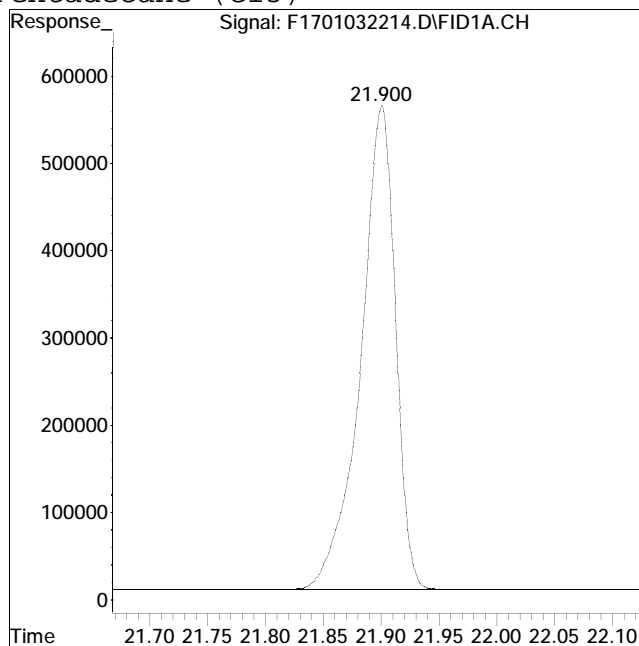
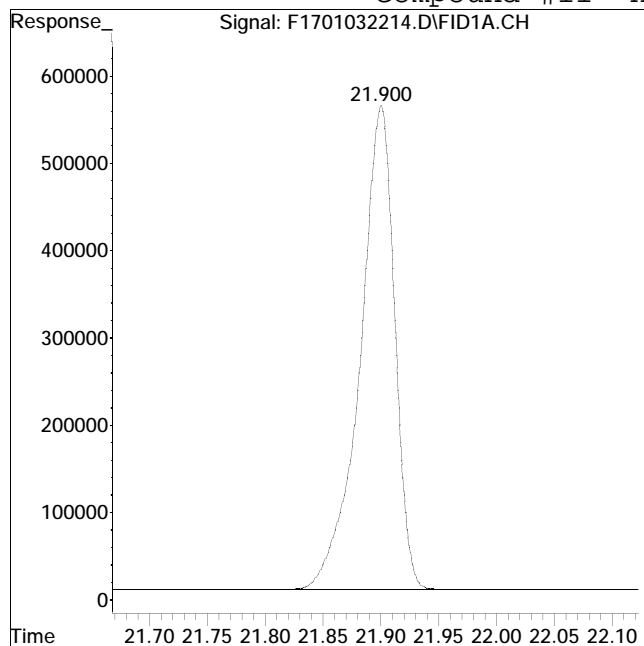
Manual Peak Response = 11522180 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #11: n-Pentadecane (C15)



Original Peak Response = 11594546

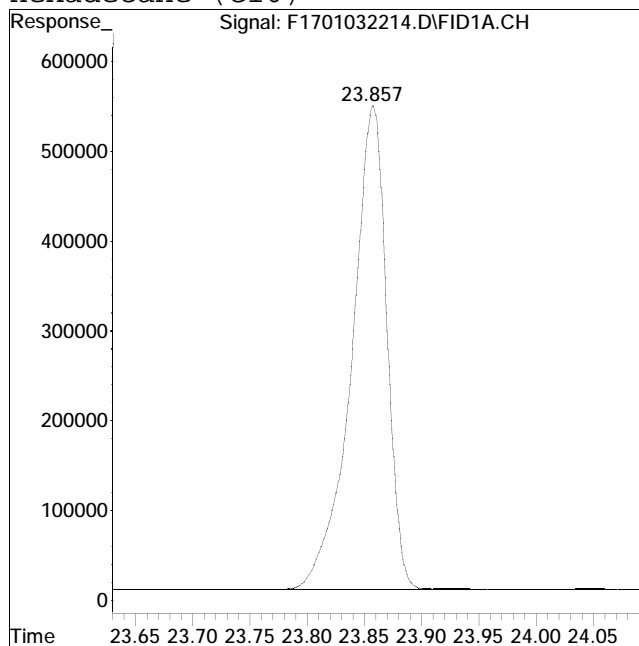
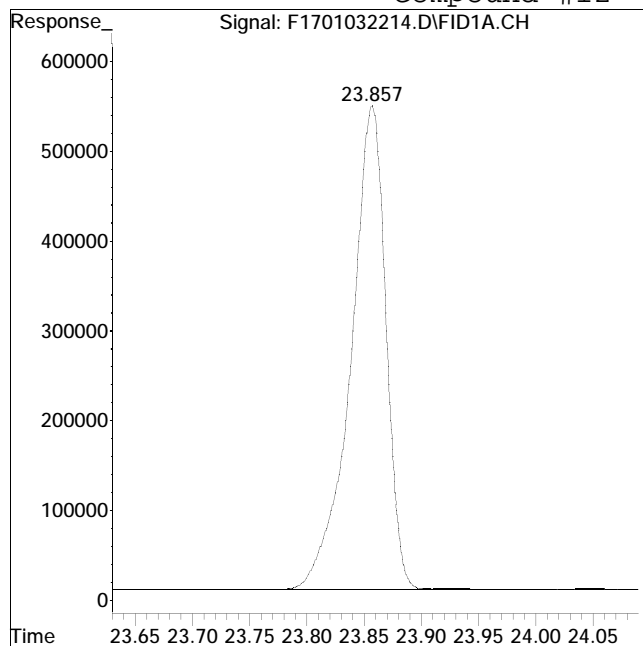
Manual Peak Response = 11605743 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #12: n-Hexadecane (C16)



Original Peak Response = 11518919

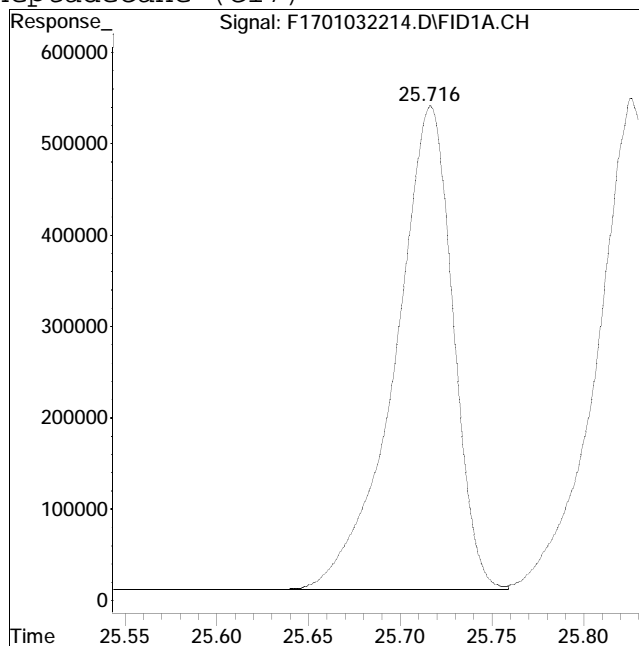
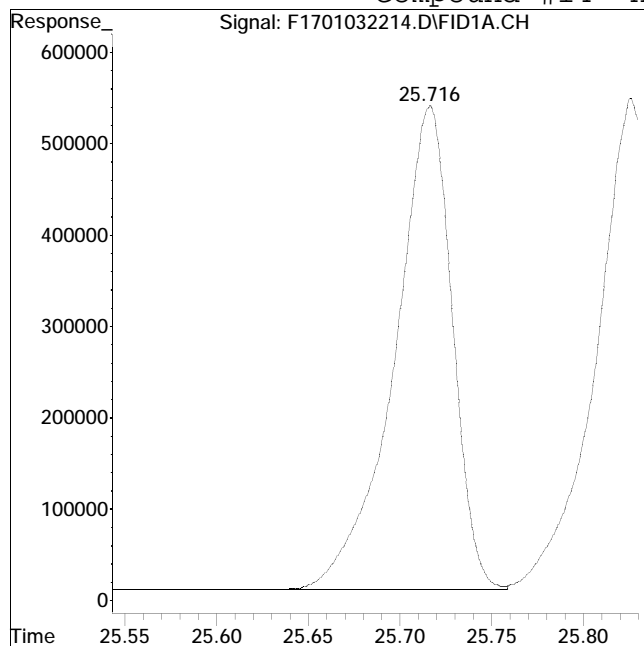
Manual Peak Response = 11513456 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032214.D Operator : FID17:WR
Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #14: n-Heptadecane (C17)



Original Peak Response = 11659073

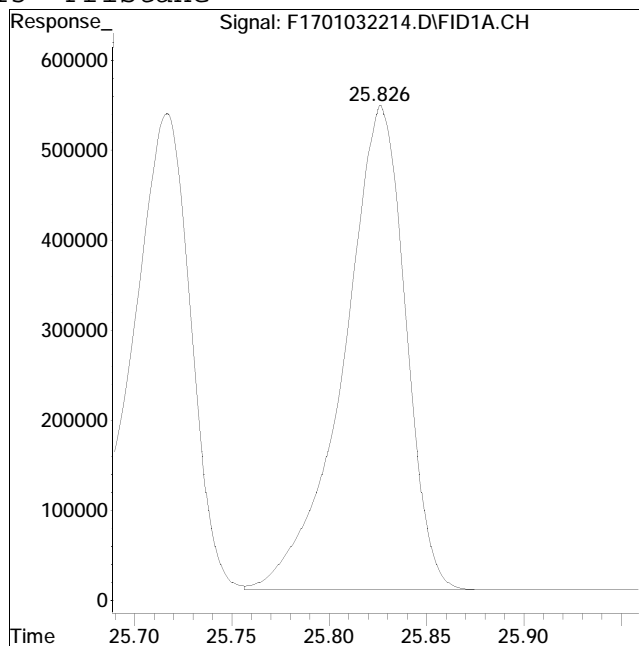
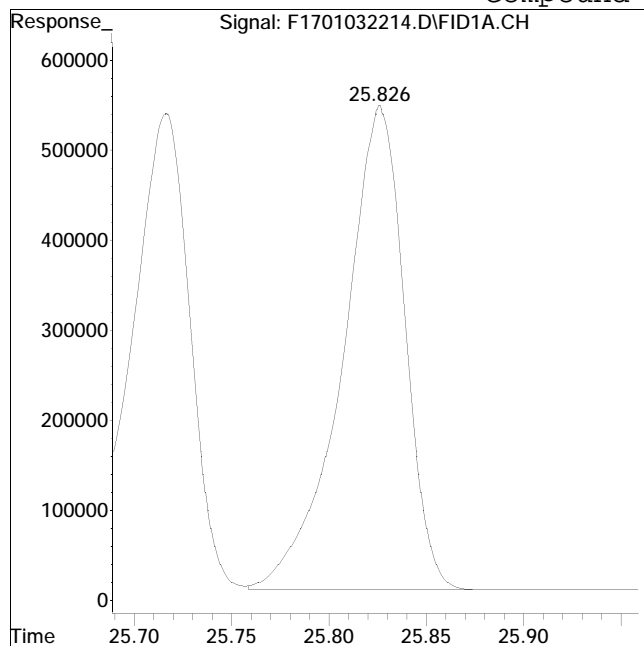
Manual Peak Response = 11664684 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #15: Pristane



Original Peak Response = 11865057

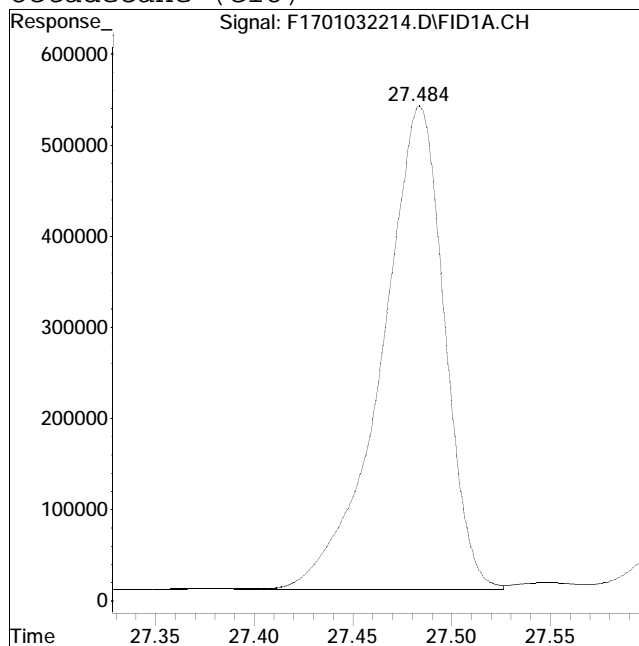
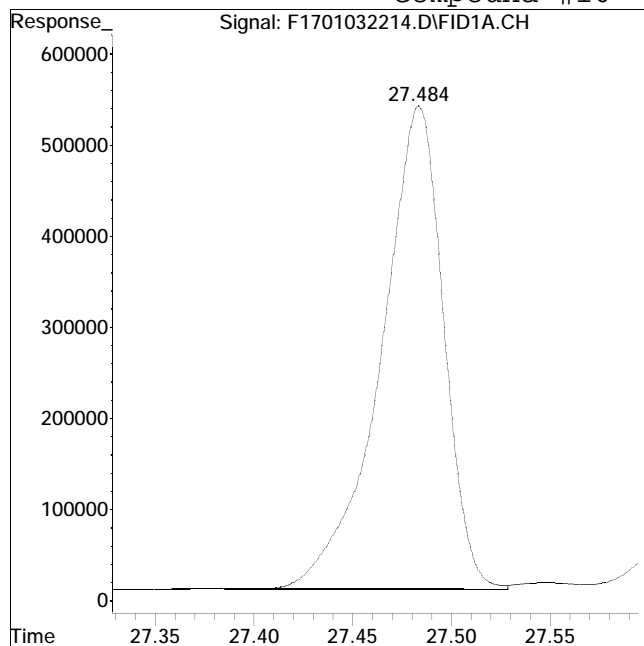
Manual Peak Response = 11875483 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #16: n-Octadecane (C18)



Original Peak Response = 11728025

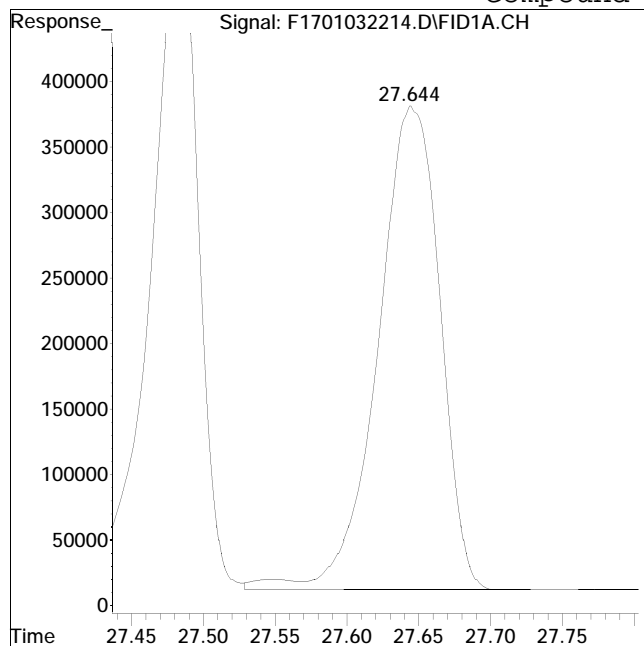
Manual Peak Response = 11785247 M4

M4 = Poor automated baseline construction.

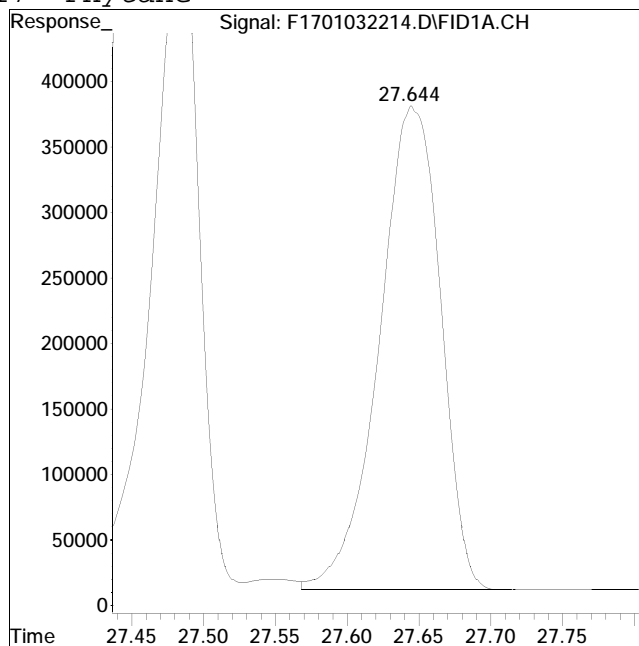
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #17: Phytane



Original Peak Response = 11050082



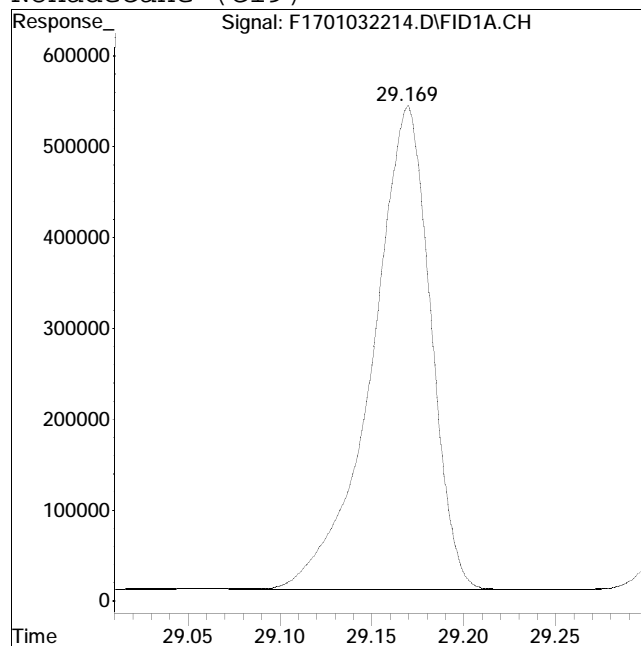
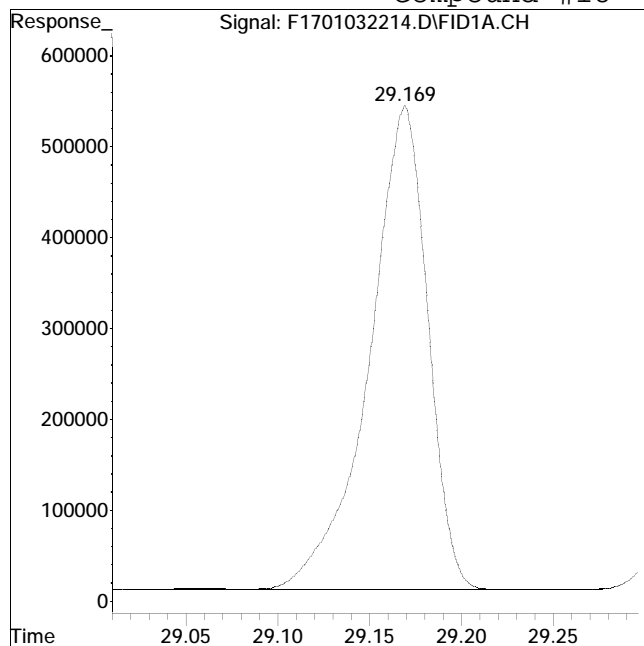
Manual Peak Response = 10951461 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #18: n-Nonadecane (C19)



Original Peak Response = 11801822

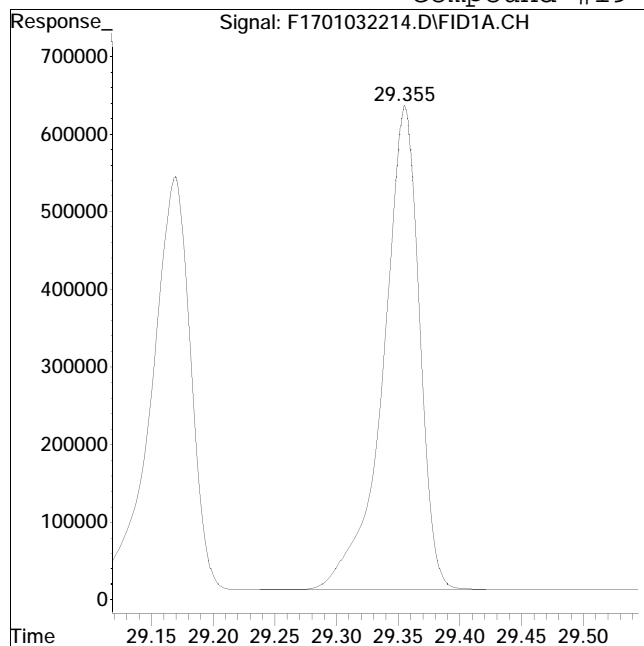
Manual Peak Response = 11846473 M4

M4 = Poor automated baseline construction.

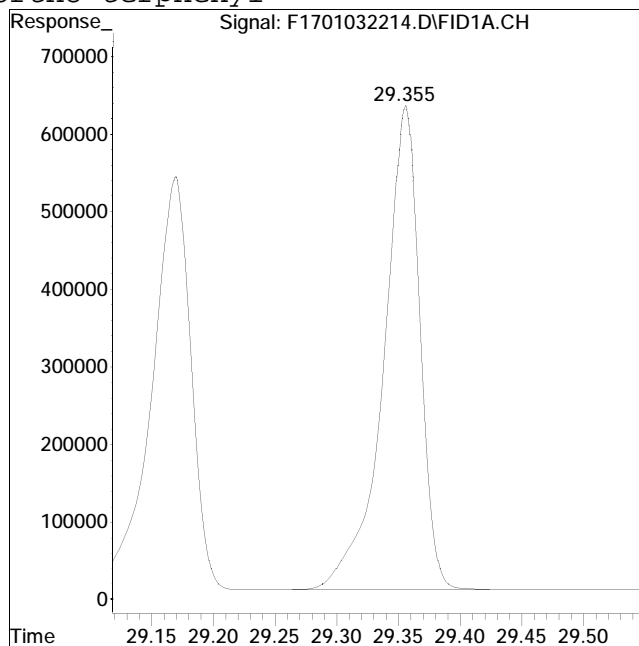
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #19: ortho-terphenyl



Original Peak Response = 12800887



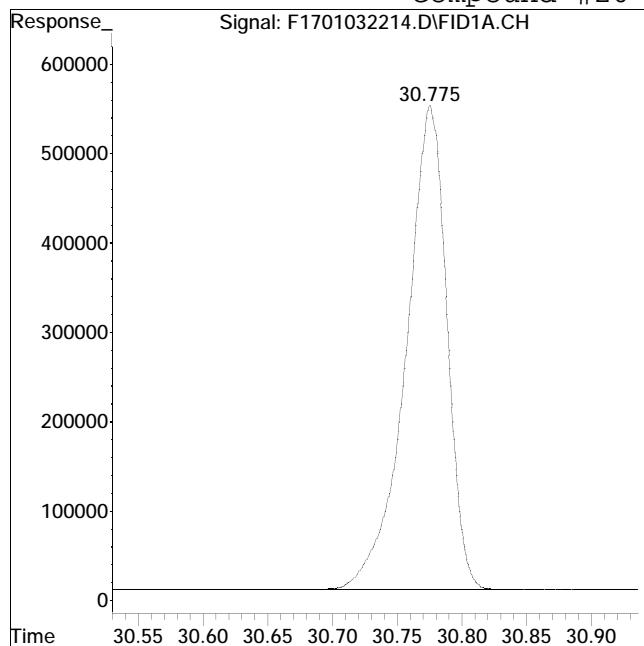
Manual Peak Response = 12822490 M4

M4 = Poor automated baseline construction.

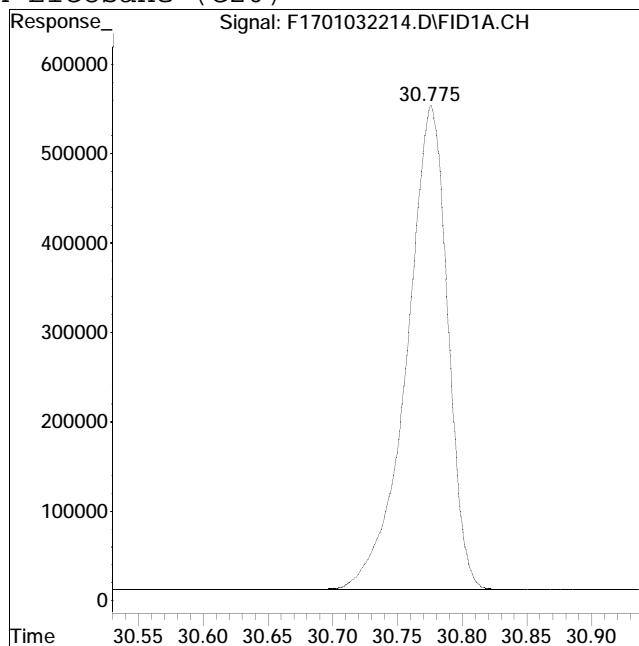
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #20: n-Eicosane (C20)



Original Peak Response = 11905160



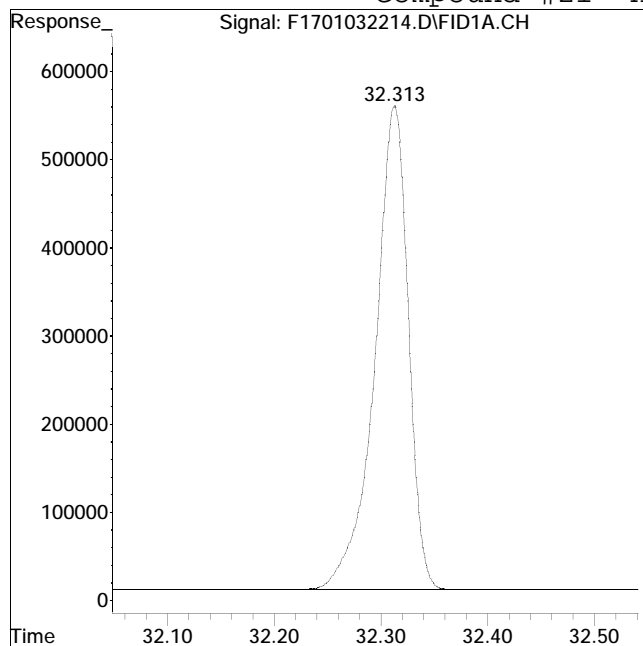
Manual Peak Response = 11917049 M4

M4 = Poor automated baseline construction.

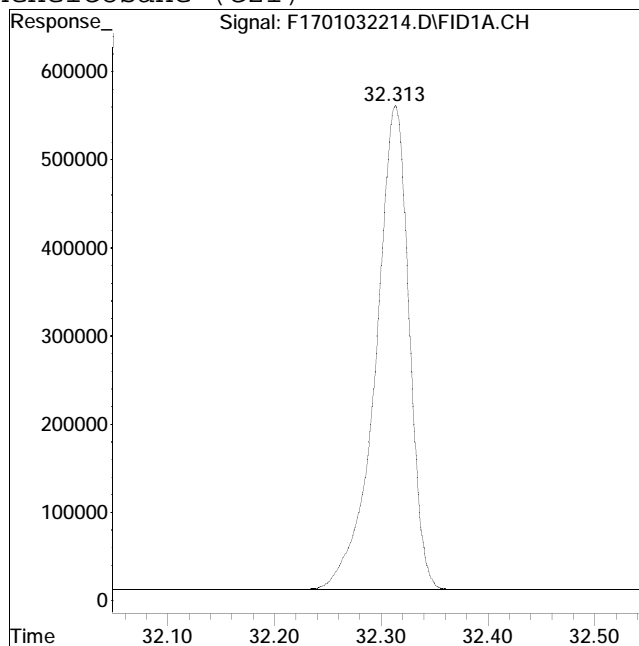
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #21: n-Heneicosane (C21)



Original Peak Response = 11966686



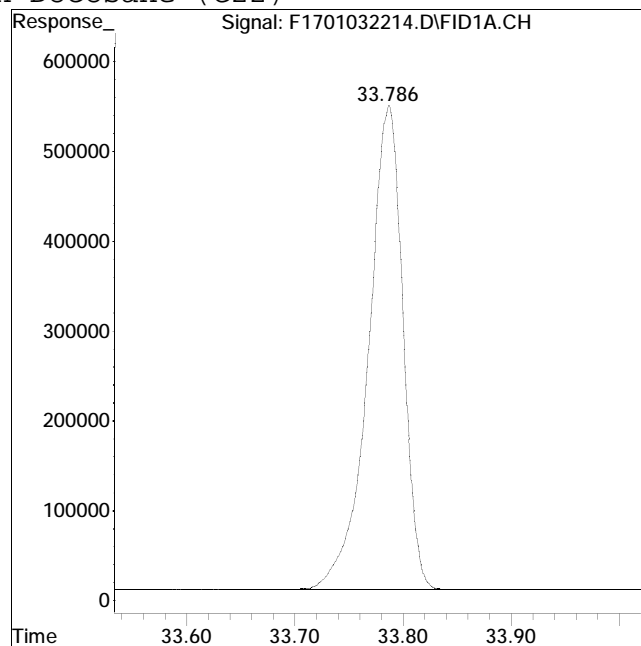
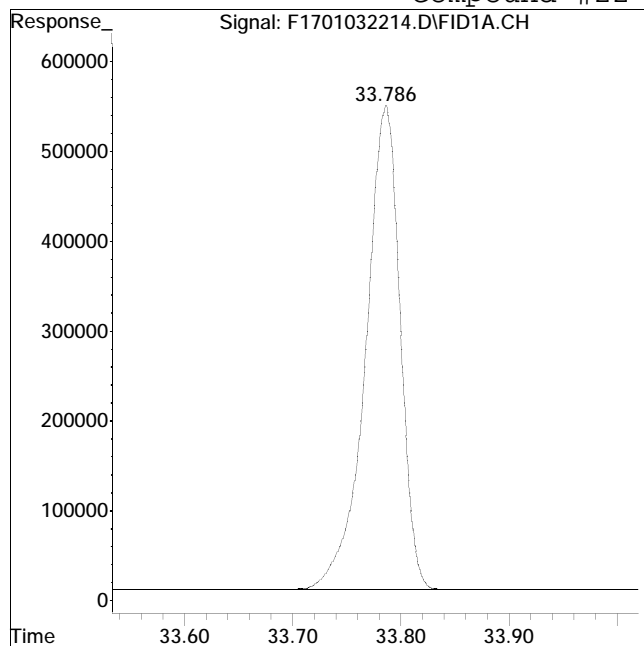
Manual Peak Response = 11971469 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #22: n-Docosane (C22)



Original Peak Response = 11954480

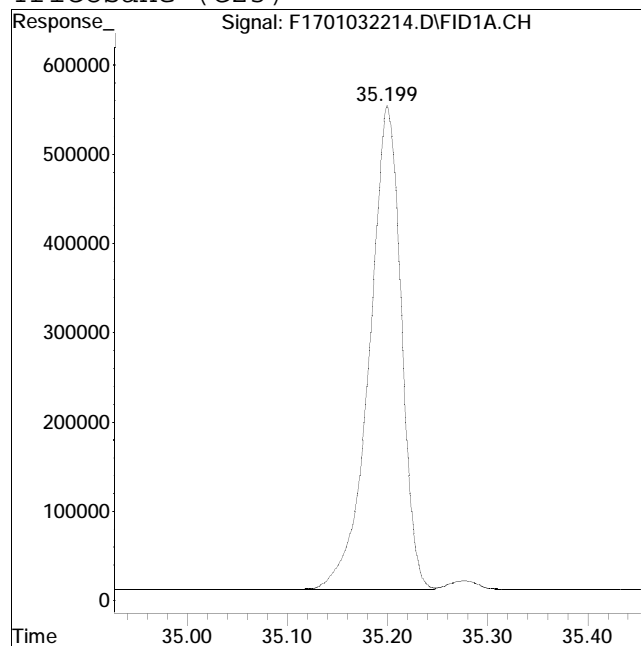
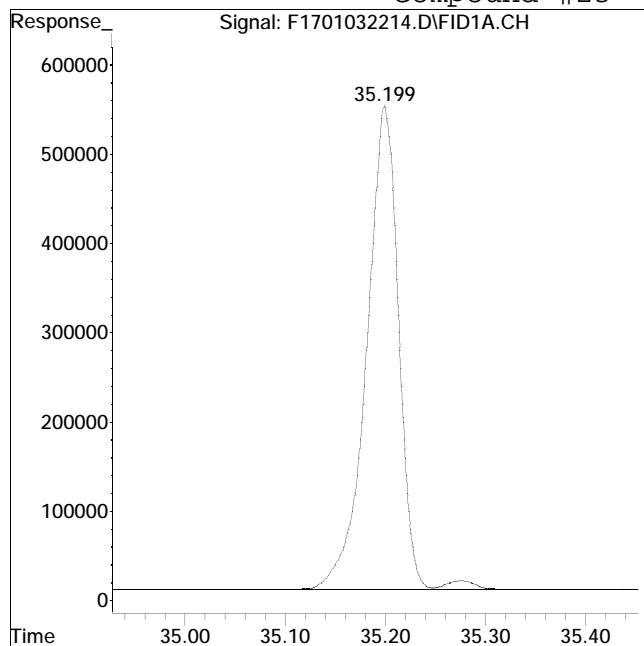
Manual Peak Response = 11967331 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #23: n-Tricosane (C23)



Original Peak Response = 12160580

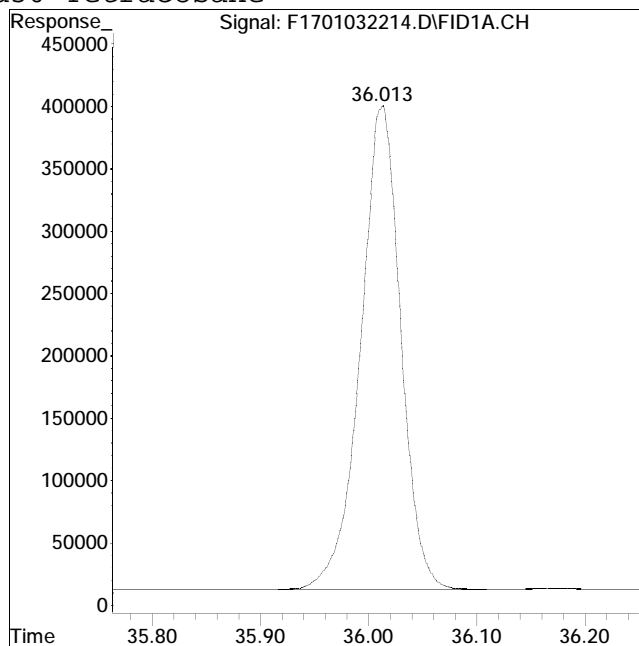
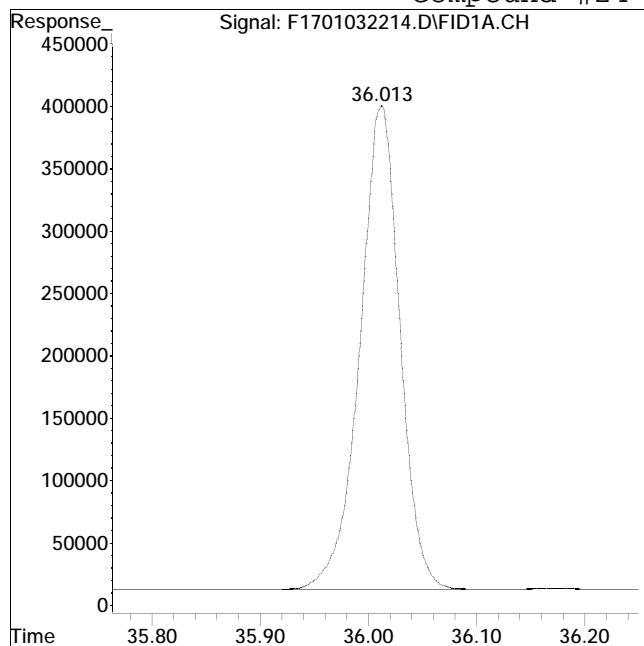
Manual Peak Response = 11972308 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032214.D Operator : FID17:WR
Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #24: d50-Tetracosane



Original Peak Response = 10003617

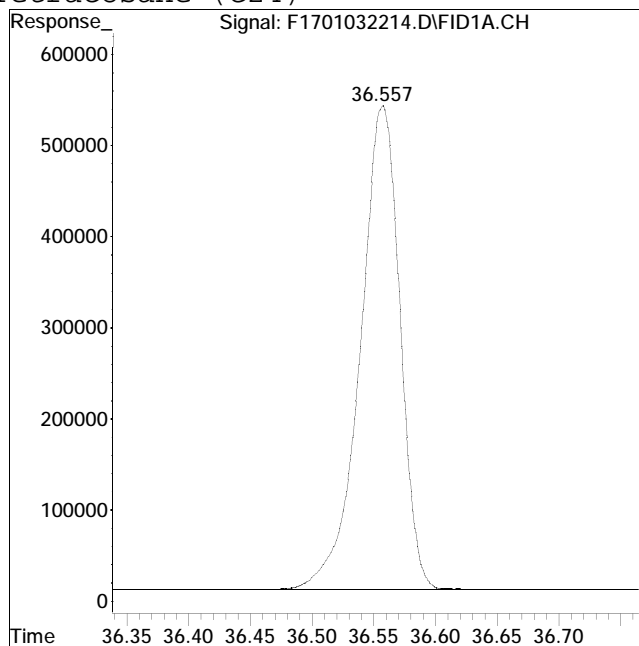
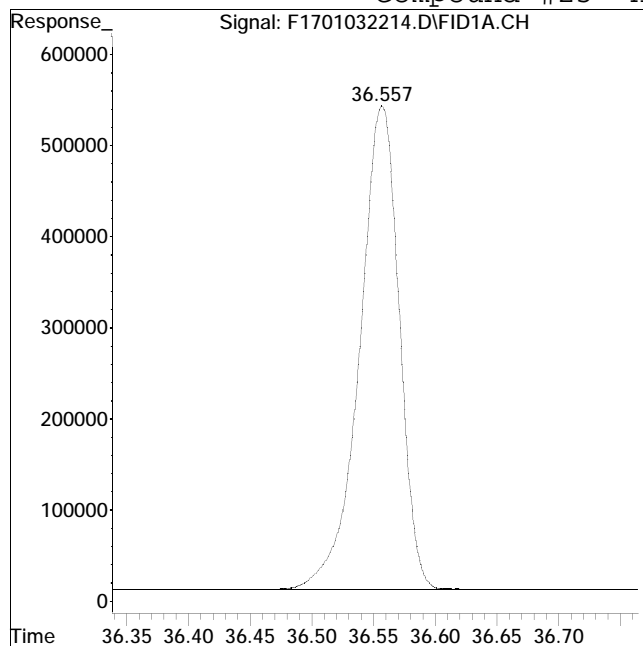
Manual Peak Response = 10027287 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032214.D Operator : FID17:WR
Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #25: n-Tetracosane (C24)



Original Peak Response = 11903548

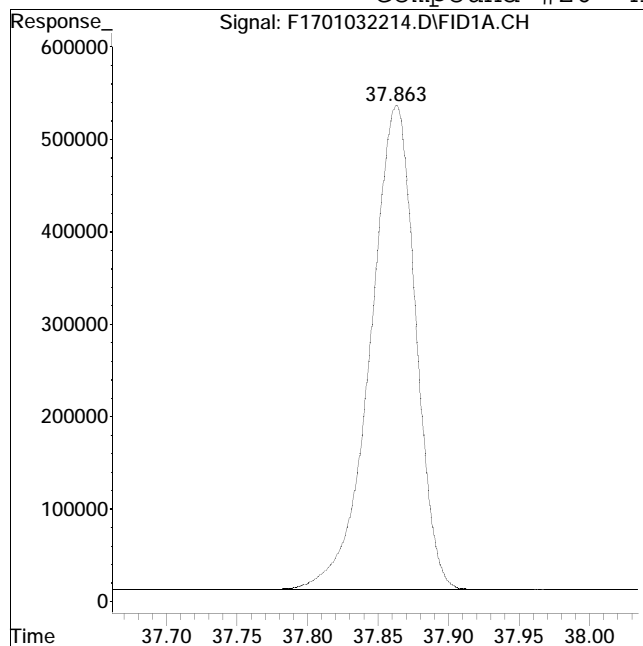
Manual Peak Response = 11917056 M4

M4 = Poor automated baseline construction.

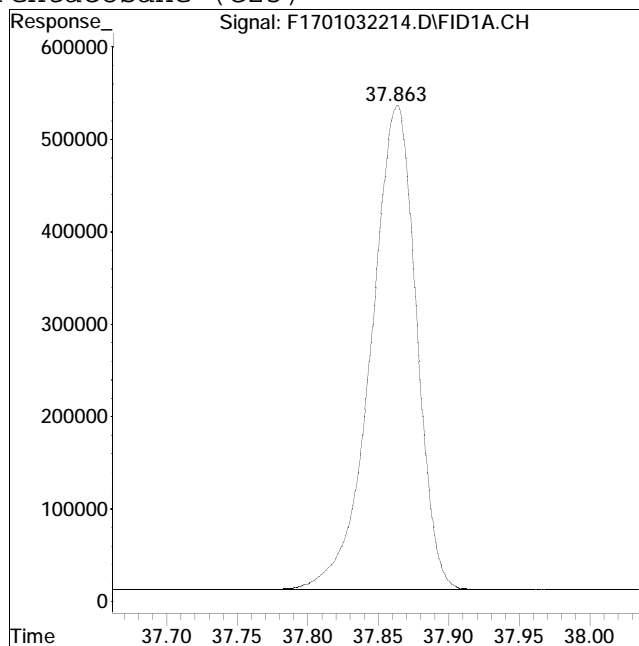
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #26: n-Pentacosane (C25)



Original Peak Response = 11691185



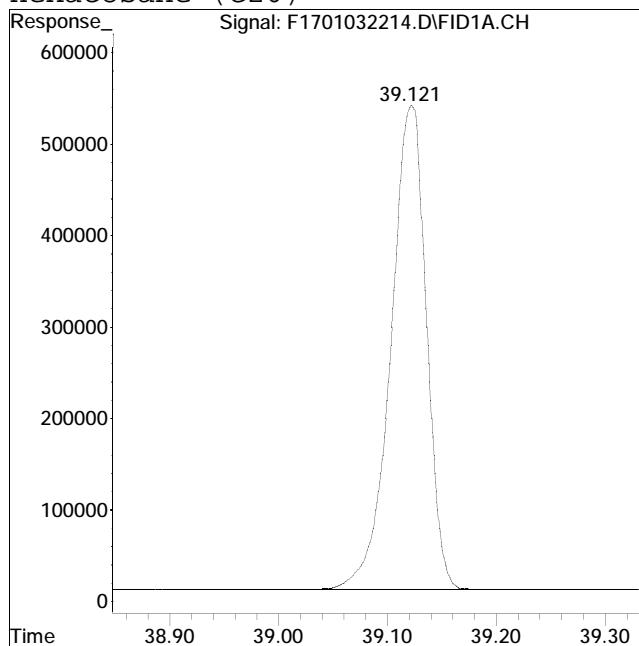
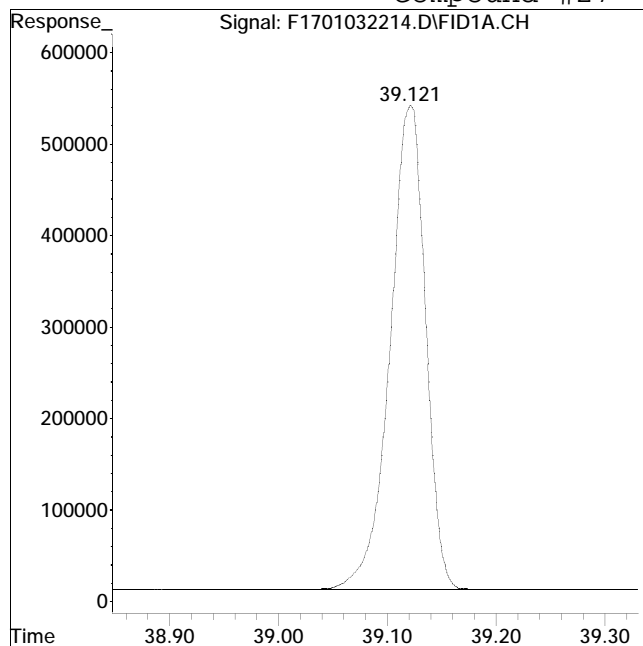
Manual Peak Response = 11702639 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #27: n-Hexacosane (C26)



Original Peak Response = 12002215

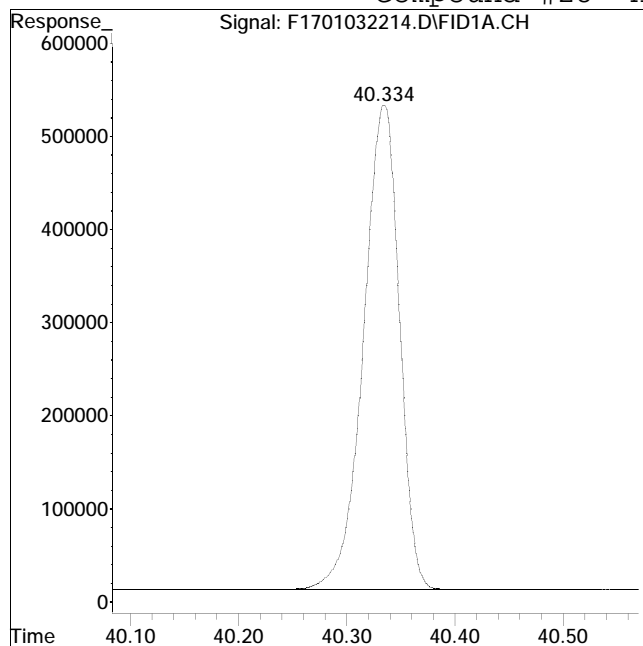
Manual Peak Response = 12011807 M4

M4 = Poor automated baseline construction.

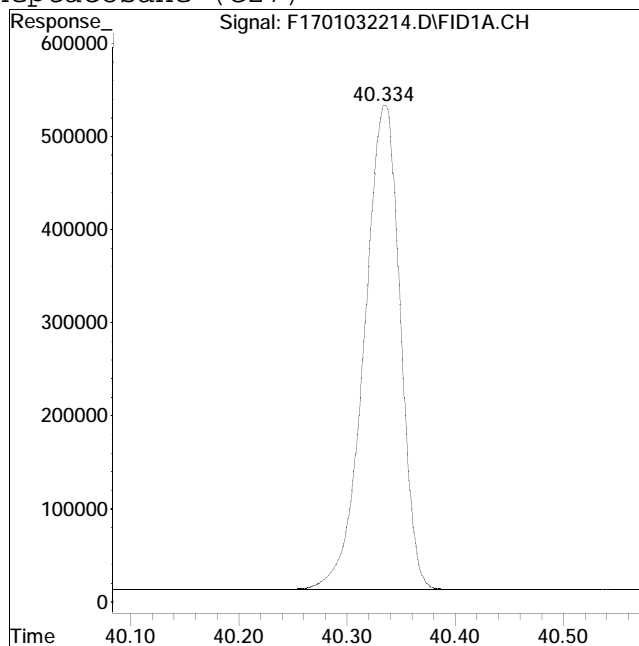
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #28: n-Heptacosane (C27)



Original Peak Response = 11999844



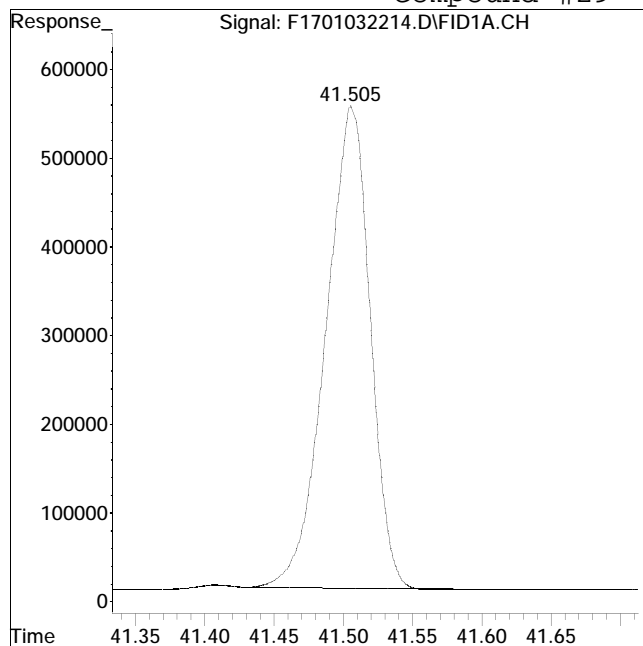
Manual Peak Response = 12009878 M4

M4 = Poor automated baseline construction.

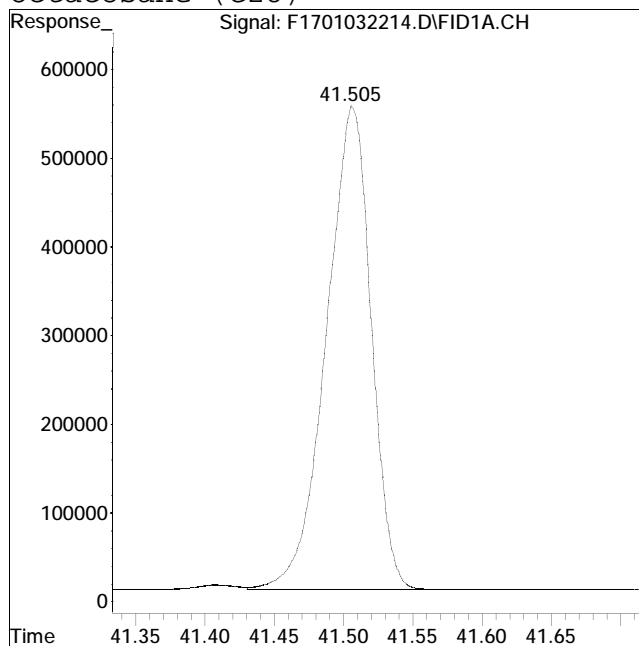
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #29: n-Octacosane (C28)



Original Peak Response = 12090668



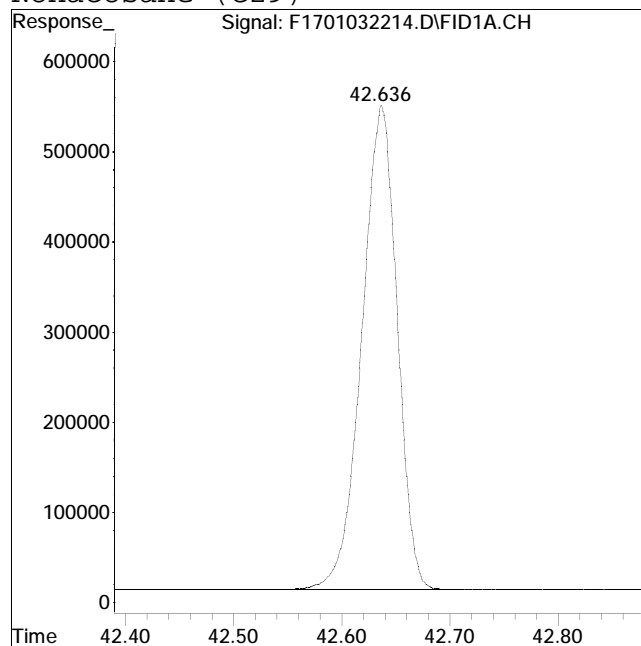
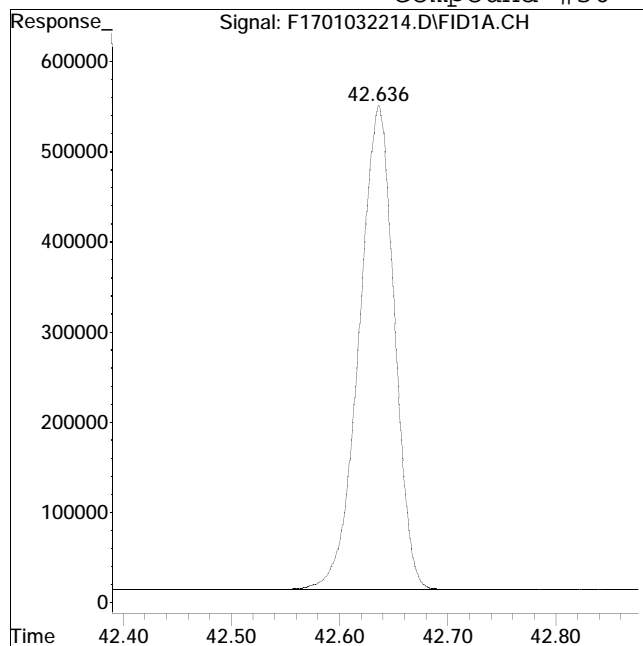
Manual Peak Response = 12248876 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #30: n-Nonacosane (C29)



Original Peak Response = 12165161

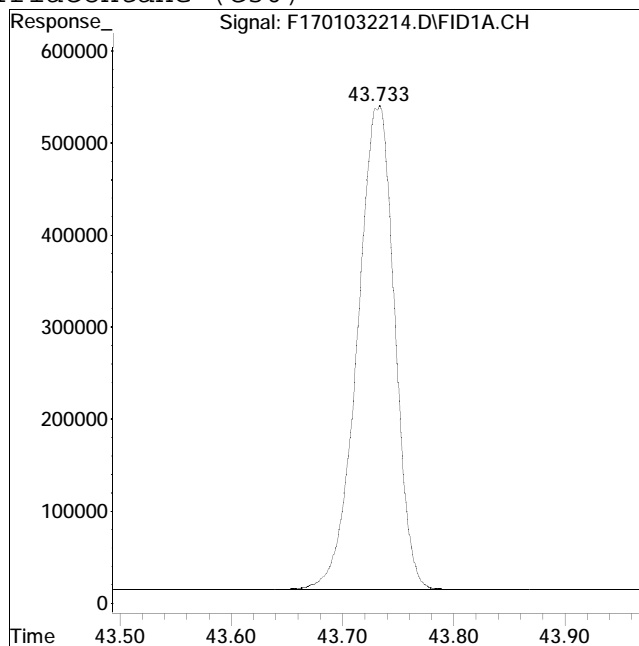
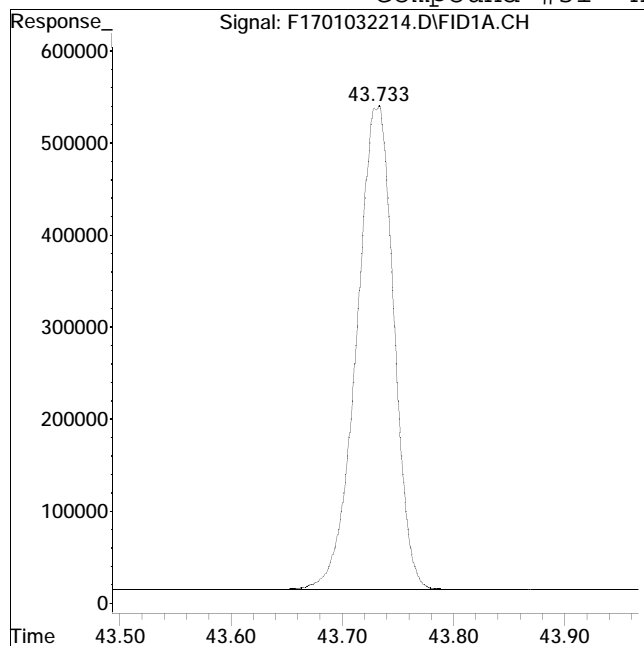
Manual Peak Response = 12174097 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032214.D Operator : FID17:WR
Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #31: n-Triacontane (C30)



Original Peak Response = 12187863

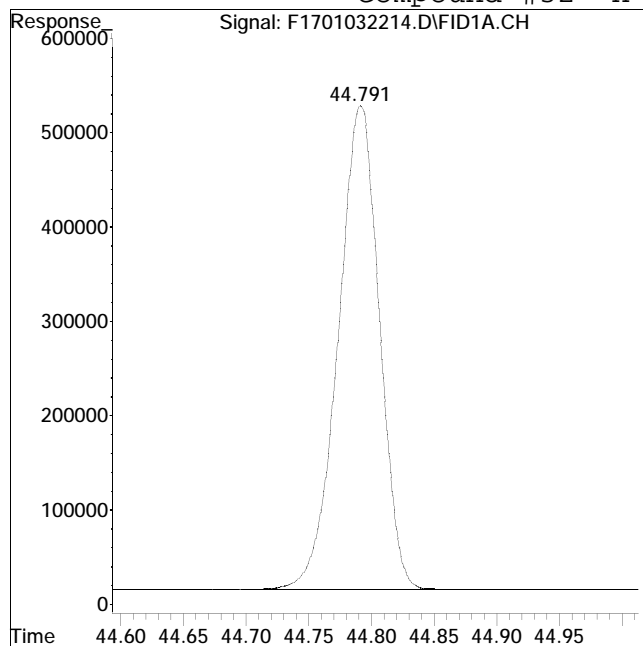
Manual Peak Response = 12199020 M4

M4 = Poor automated baseline construction.

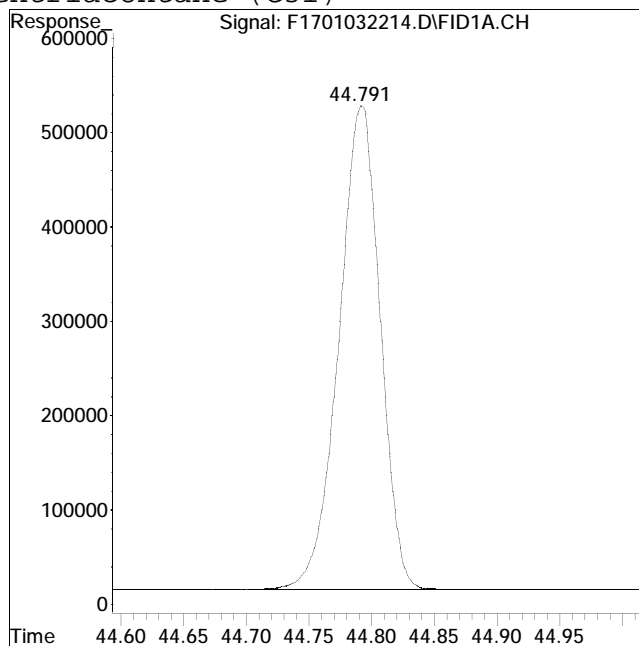
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 11726160



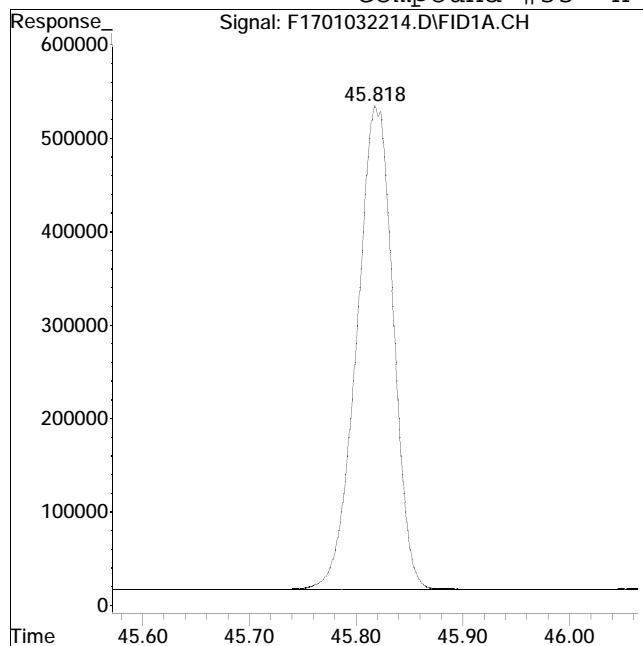
Manual Peak Response = 11748519 M4

M4 = Poor automated baseline construction.

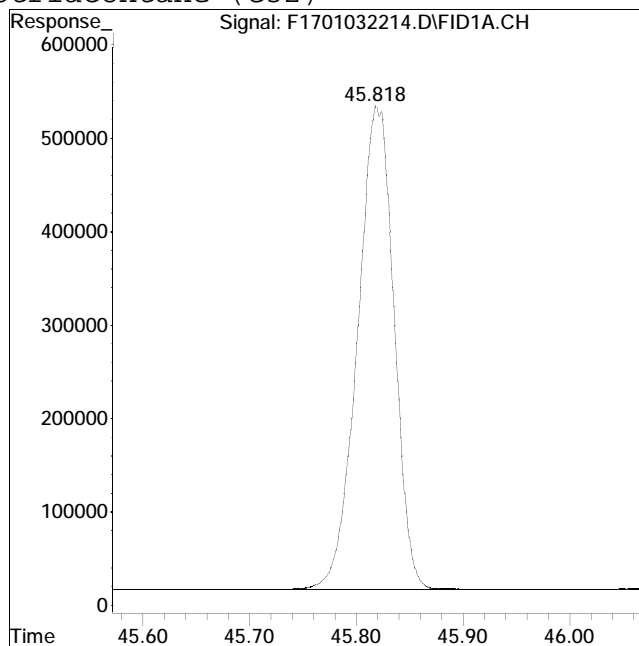
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 12283954



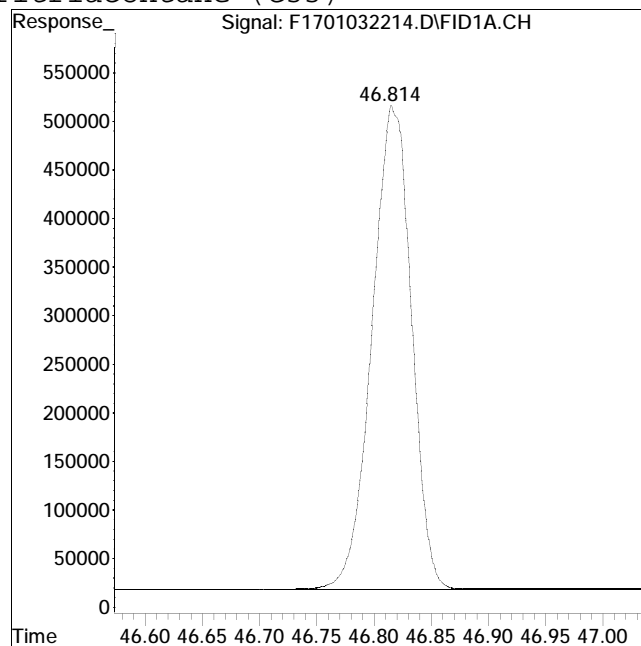
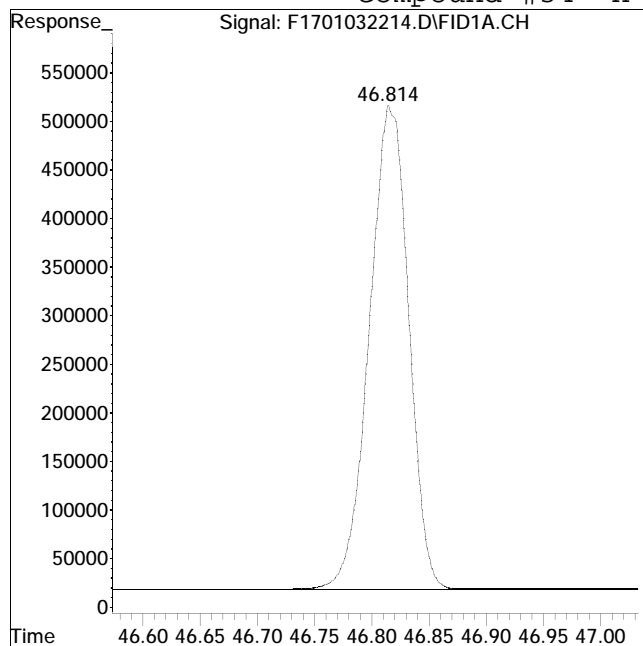
Manual Peak Response = 12298773 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 11895618

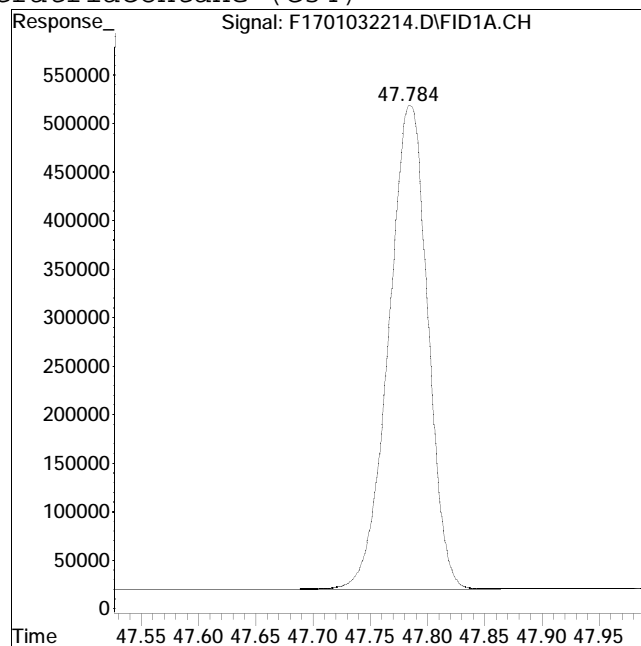
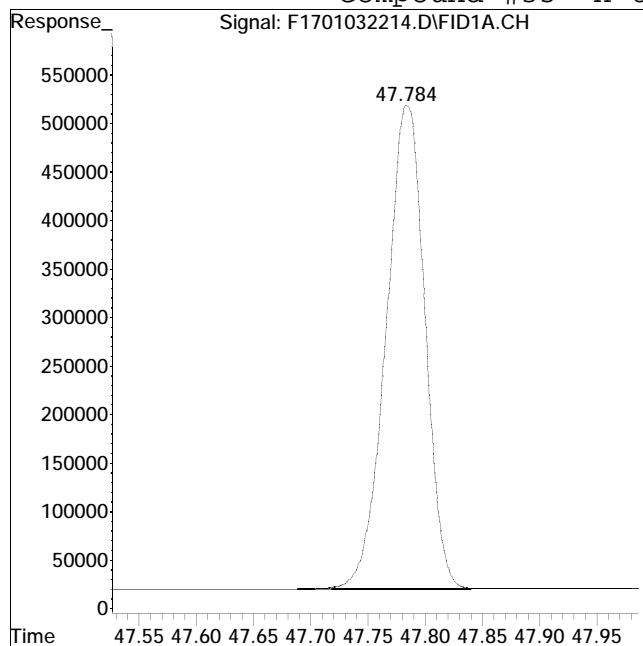
Manual Peak Response = 11923421 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 11797698

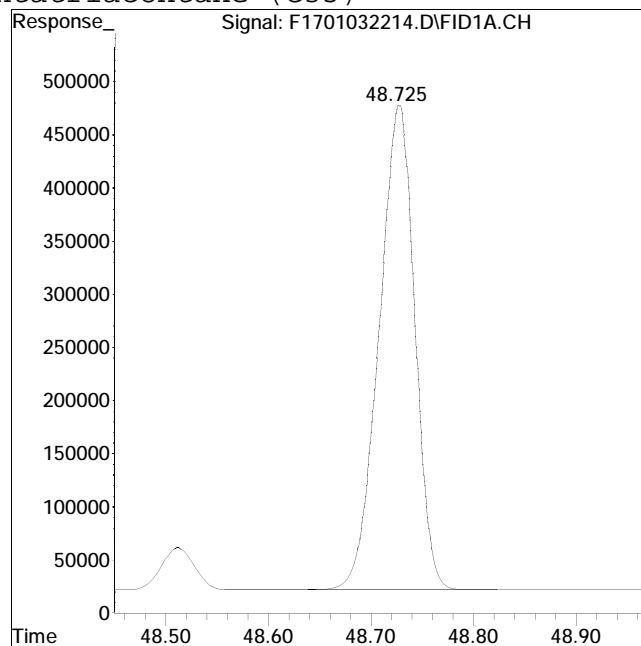
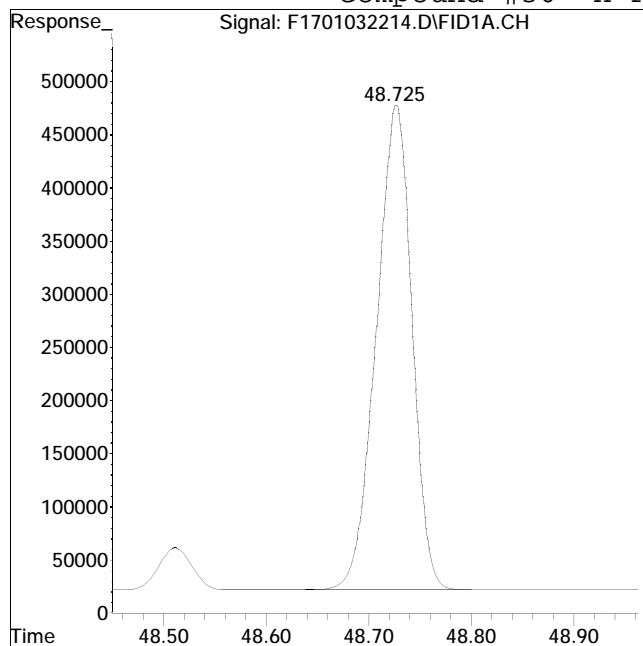
Manual Peak Response = 11816198 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 11007473

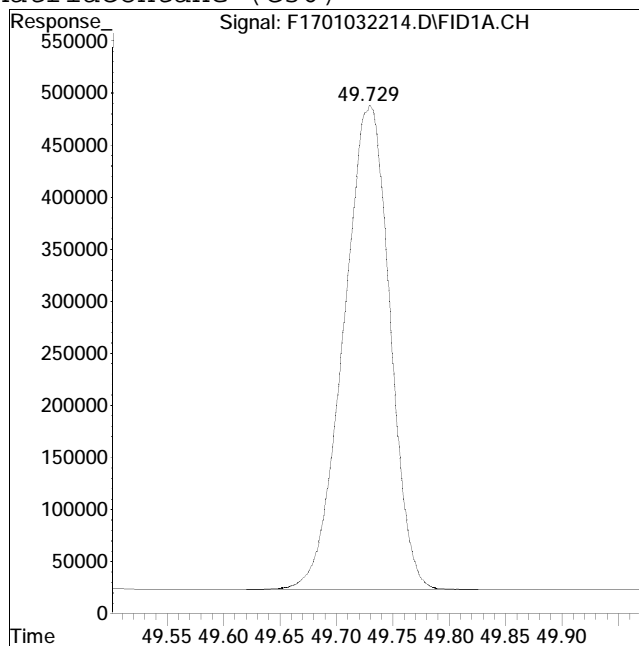
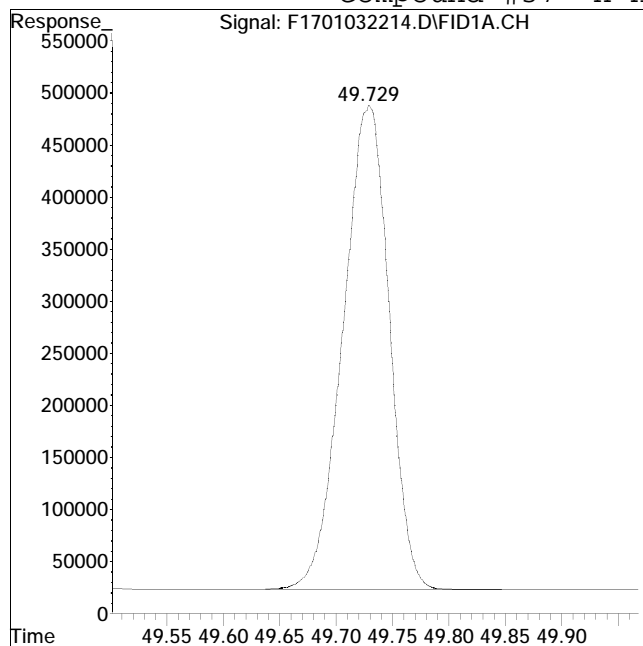
Manual Peak Response = 11046316 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032214.D Operator : FID17:WR
Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 13224669

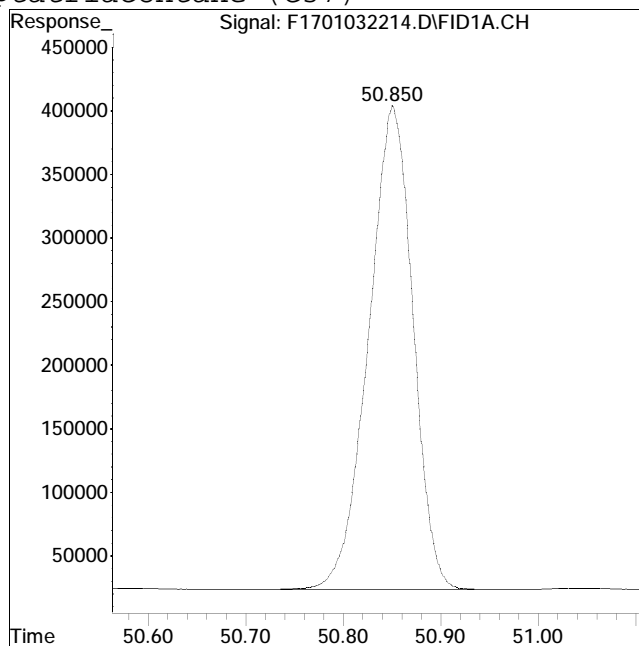
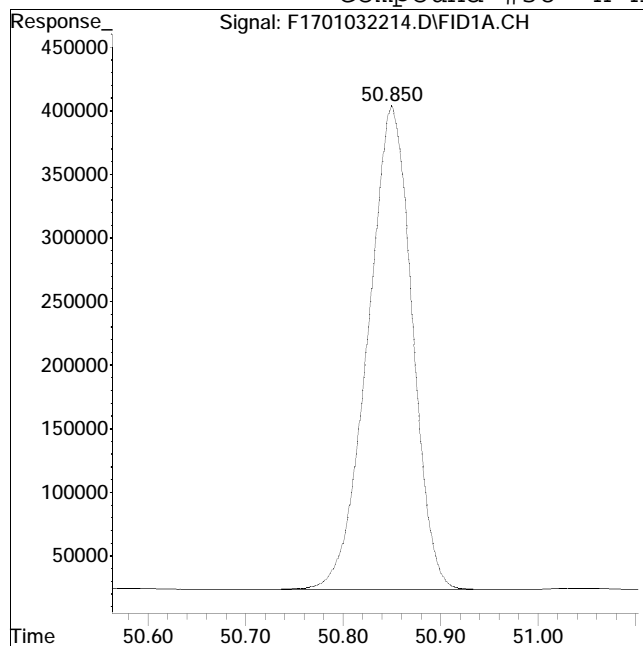
Manual Peak Response = 13265995 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032214.D Operator : FID17:WR
Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 12006826

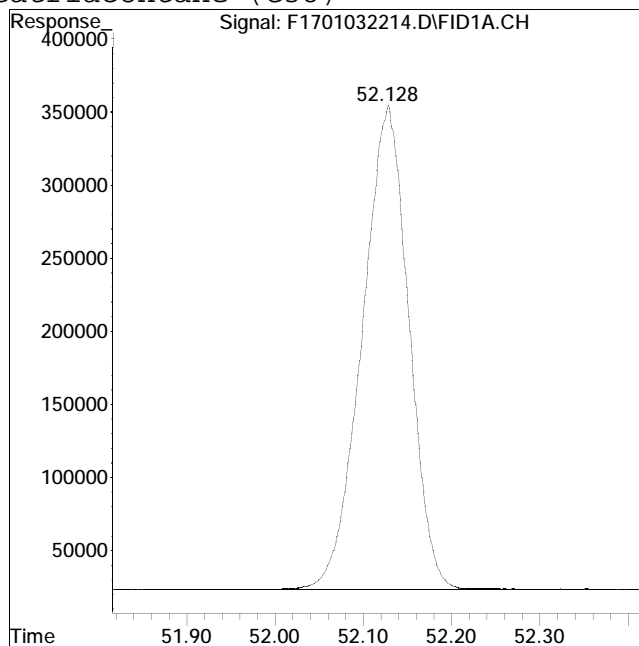
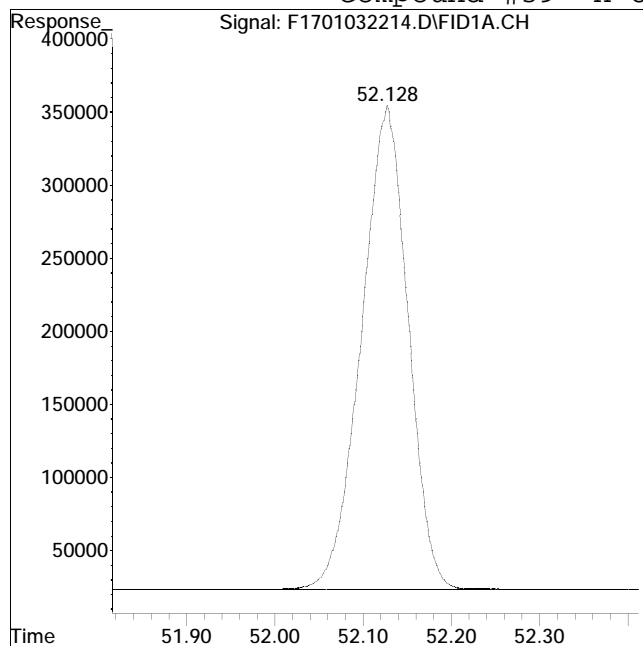
Manual Peak Response = 12017617 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032214.D Operator : FID17:WR
Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 12127138

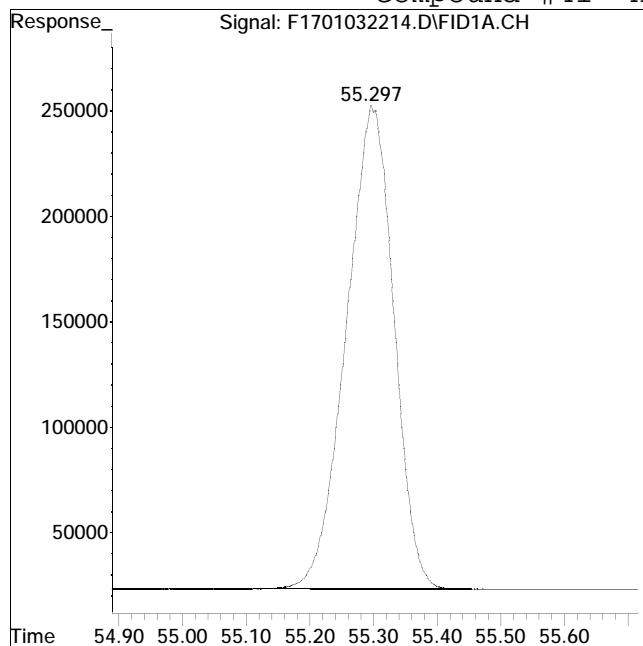
Manual Peak Response = 12180129 M4

M4 = Poor automated baseline construction.

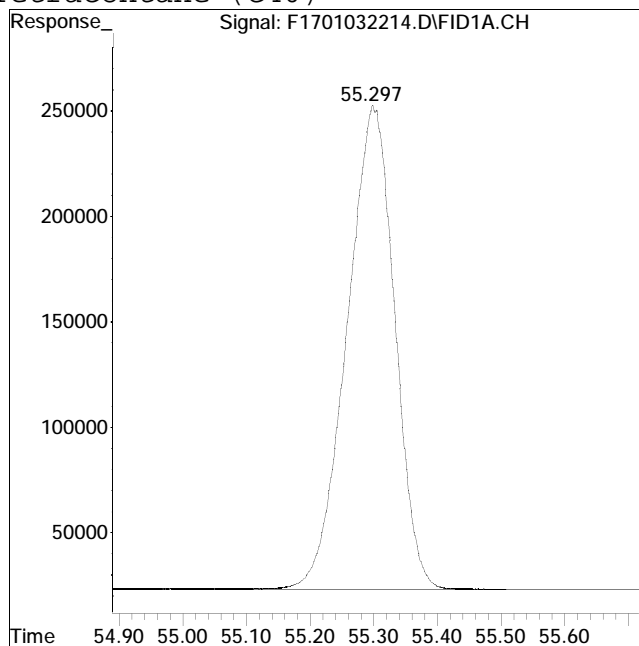
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032214.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 6:42 pm Instrument : FID17
 Sample : I1701032302F Quant Date : 1/17/2023 8:39 am

Compound #41: n-Tetracontane (C40)



Original Peak Response = 11891306



Manual Peak Response = 11977565 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032216.D
 Signal(s) : FID1A.CH
 Acq On : 03 Jan 2023 8:12 pm
 Operator : FID17:WR
 Sample : I1701032303F
 Misc : WGI734833,FRBF60,50ug/ml
 ALS Vial : 8 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 18 14:11:39 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Jan 17 09:49:03 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.399	55867696	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.378	64915158	54.734 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	109.47%
24) s d50-Tetracosane	36.030	51014130	55.034 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	110.07%
Target Compounds			
2) t n-Octane (C8)	5.708	48424212	53.016 ug/mL M4
3) t n-Nonane (C9)	7.917	50190586	52.837 ug/mL M4
4) t n-Decane (C10)	10.409	51947511	52.509 ug/mL M4
5) t n-Undecane (C11)	12.926	52730428	53.220 ug/mL M4
6) t n-Dodecane (C12)	15.354	52798799	52.810 ug/mL M4
7) t n-Tridecane (C13)	17.664	53283095	53.037 ug/mL M4
9) t n-Tetradecane (C14)	19.848	54295832	52.631 ug/mL M4
11) t n-Pentadecane (C15)	21.915	53912092	52.023 ug/mL M4
12) t n-Hexadecane (C16)	23.873	54745809	53.033 ug/mL M4
14) t n-Heptadecane (C17)	25.733	55160952	52.672 ug/mL M4
15) t Pristane	25.845	55982384	52.899 ug/mL M4
16) t n-Octadecane (C18)	27.502	55545867	52.666 ug/mL M4
17) t Phytane	27.666	52057217	52.915 ug/mL M4
18) t n-Nonadecane (C19)	29.187	55057603	52.188 ug/mL M4
20) t n-Eicosane (C20)	30.795	56089575	52.760 ug/mL M4
21) t n-Heneicosane (C21)	32.333	55609521	52.253 ug/mL M4
22) t n-Docosane (C22)	33.807	56425967	52.927 ug/mL M4
23) t n-Tricosane (C23)	35.219	56311208	52.758 ug/mL M4
25) t n-Tetracosane (C24)	36.577	53405293	50.881 ug/mL M4
26) t n-Pentacosane (C25)	37.882	55197494	52.936 ug/mL M4
27) t n-Hexacosane (C26)	39.141	56827944	53.196 ug/mL M4
28) t n-Heptacosane (C27)	40.352	54738035	51.674 ug/mL M4
29) t n-Octacosane (C28)	41.525	56989875	52.593 ug/mL M4
30) t n-Nonacosane (C29)	42.655	56558566	52.604 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
Data File : F1701032216.D
Signal(s) : FID1A.CH
Acq On : 03 Jan 2023 8:12 pm
Operator : FID17:WR
Sample : I1701032303F
Misc : WG1734833,FRBF60,50ug/ml
ALS Vial : 8 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Jan 18 14:11:39 2023
Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
Quant Title : FID Forensics
QLast Update : Tue Jan 17 09:49:03 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	43.751	56671556	52.643 ug/mL M4
32) t	n-Hentriacontane (C31)	44.810	54879530	52.881 ug/mL M4
33) t	n-Dotriacontane (C32)	45.842	57404924	52.874 ug/mL M4
34) t	n-Tritriacontane (C33)	46.838	55219697	52.579 ug/mL M4
35) t	n-tetratriacontane (C34)	47.806	54882100	52.617 ug/mL M4
36) t	n-Pentatriacontane (C35)	48.749	55228050	55.735 ug/mL M4
37) t	n-Hexatriacontane (C36)	49.756	59239485	51.011 ug/mL M4
38) t	n-Heptatriacontane (C37)	50.883	54395128	51.075 ug/mL M4
39) t	n-Octatriacontane (C38)	52.166	56105190	51.940 ug/mL M4
41) t	n-Tetracontane (C40)	55.348	56186228	52.734 ug/mL M4

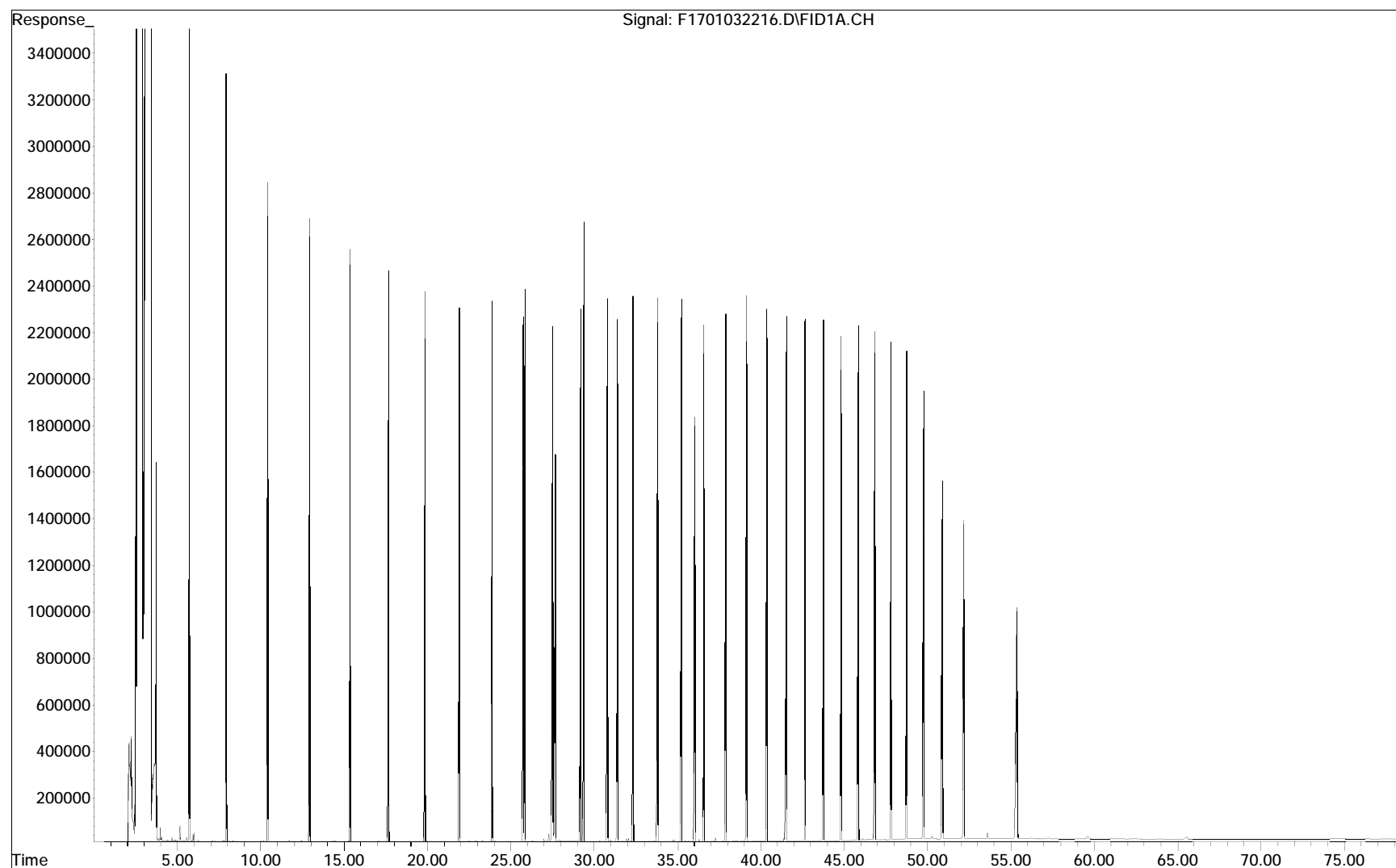
SemiQuant Compounds - Not Calibrated on this Instrument

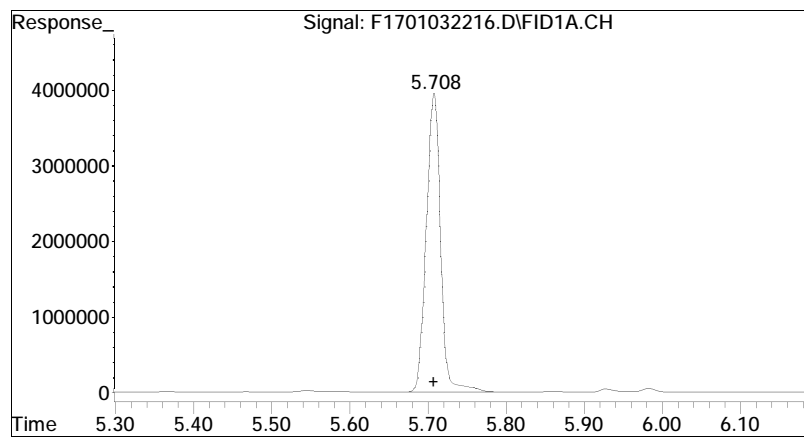
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

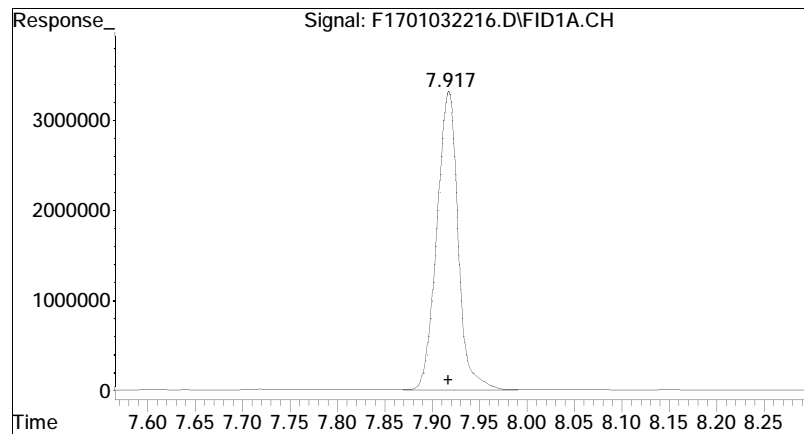
File : O:\Forensics\Data\FID17\2023\JAN\JAN03\F1701032216.D
 Operator : FID17:WR
 Acquired : 03 Jan 2023 8:12 pm using AcqMethod FID17A.M
 Sample Name: I1701032303F
 Instrument: FID17
 Misc Info : WG1734833,FRBF60,50ug/ml
 Vial Number: 8
 CurrentMeth: O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M





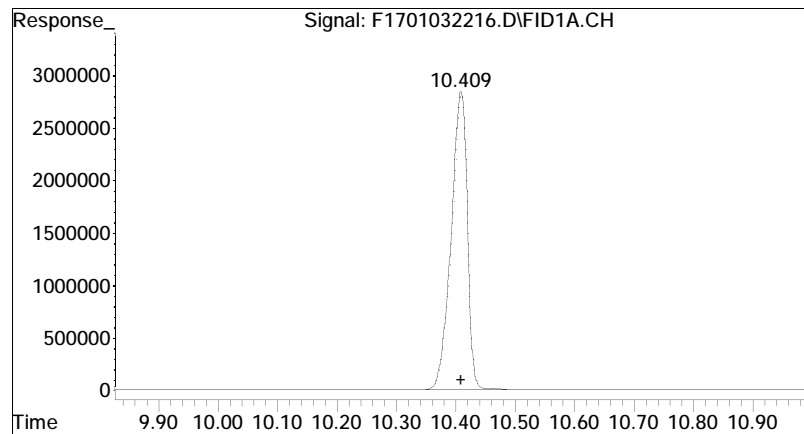
#2 n-Octane (C8)

R.T.: 5.708 min
Delta R.T.: 0.000 min
Response: 48424212
Conc: 53.02 ug/mL M4



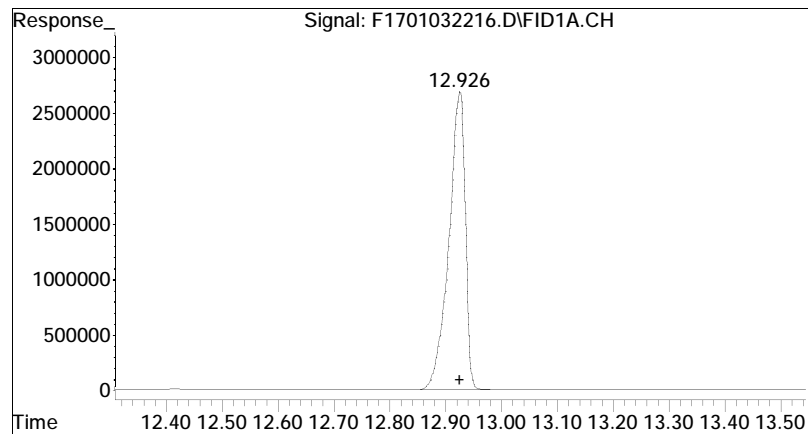
#3 n-Nonane (C9)

R.T.: 7.917 min
Delta R.T.: 0.000 min
Response: 50190586
Conc: 52.84 ug/mL M4



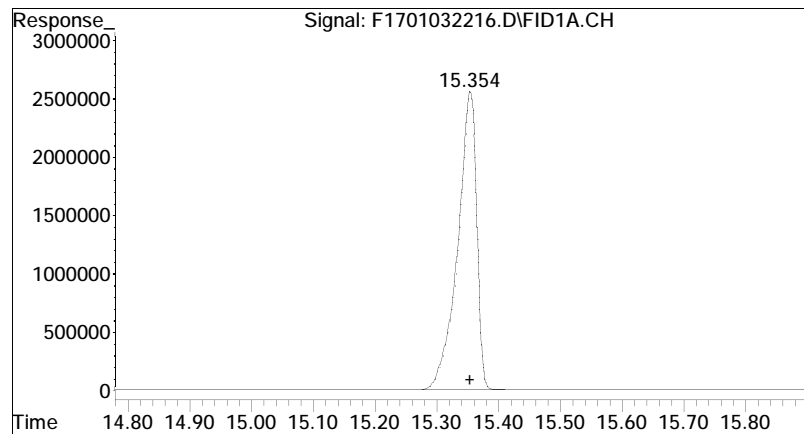
#4 n-Decane (C10)

R.T.: 10.409 min
Delta R.T.: 0.000 min
Response: 51947511
Conc: 52.51 ug/mL M4



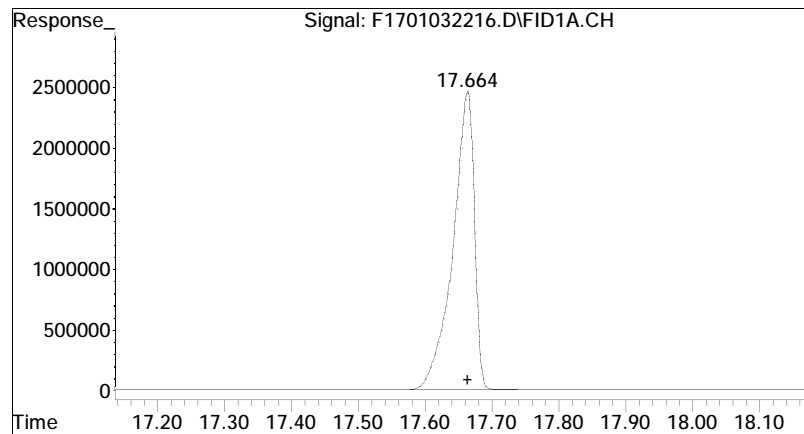
#5 n-Undecane (C11)

R.T.: 12.926 min
Delta R.T.: 0.000 min
Response: 52730428
Conc: 53.22 ug/mL M4



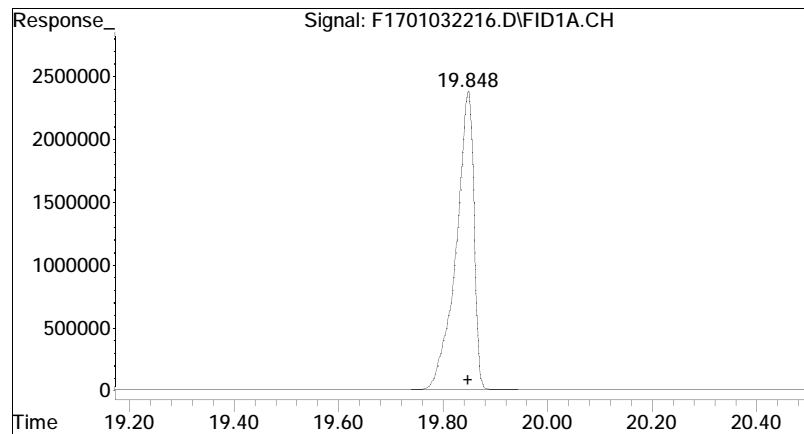
#6 n-Dodecane (C12)

R.T.: 15.354 min
Delta R.T.: 0.000 min
Response: 52798799
Conc: 52.81 ug/mL M4



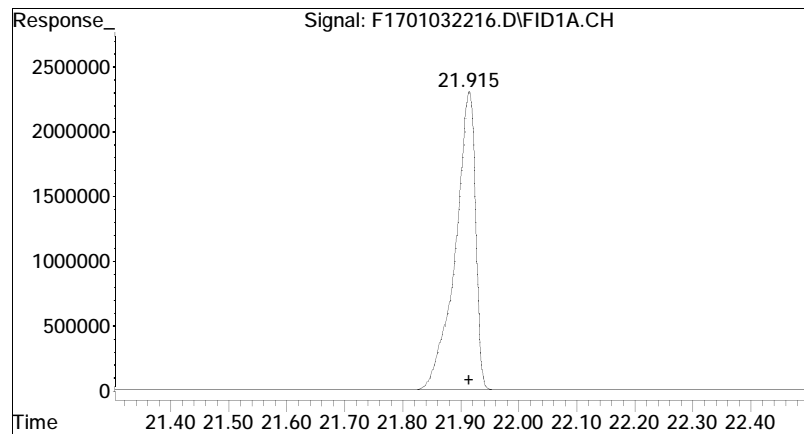
#7 n-Tridecane (C13)

R.T.: 17.664 min
Delta R.T.: 0.000 min
Response: 53283095
Conc: 53.04 ug/mL M4



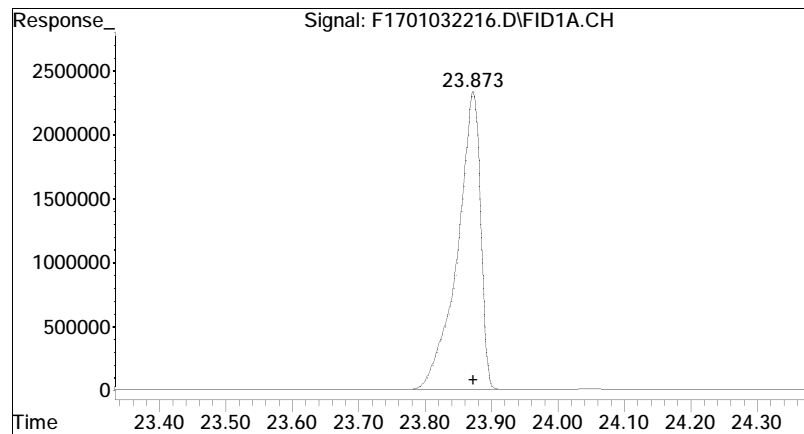
#9 n-Tetradecane (C14)

R.T.: 19.848 min
Delta R.T.: 0.000 min
Response: 54295832
Conc: 52.63 ug/mL M4



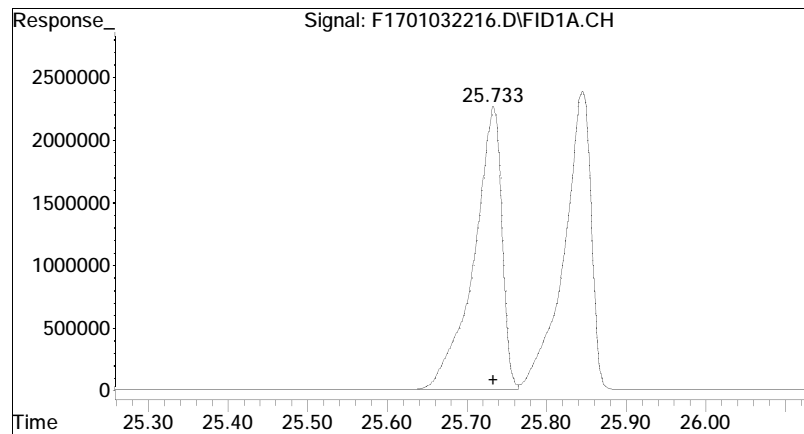
#11 n-Pentadecane (C15)

R.T.: 21.915 min
Delta R.T.: 0.000 min
Response: 53912092
Conc: 52.02 ug/mL M4



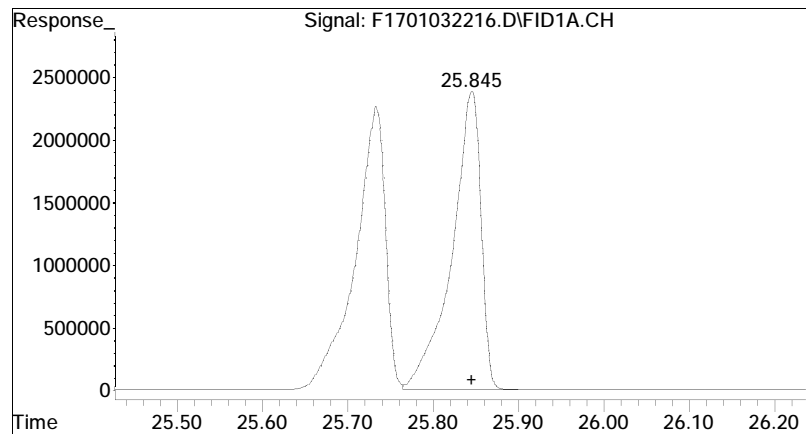
#12 n-Hexadecane (C16)

R.T.: 23.873 min
Delta R.T.: 0.000 min
Response: 54745809
Conc: 53.03 ug/mL M4



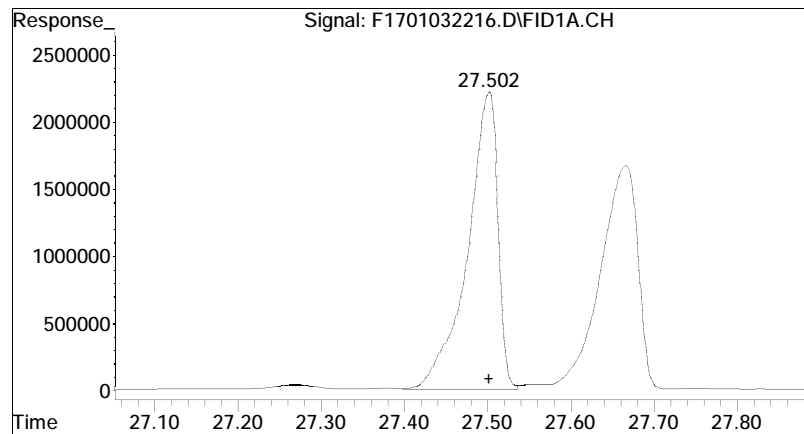
#14 n-Heptadecane (C17)

R.T.: 25.733 min
Delta R.T.: 0.000 min
Response: 55160952
Conc: 52.67 ug/mL M4



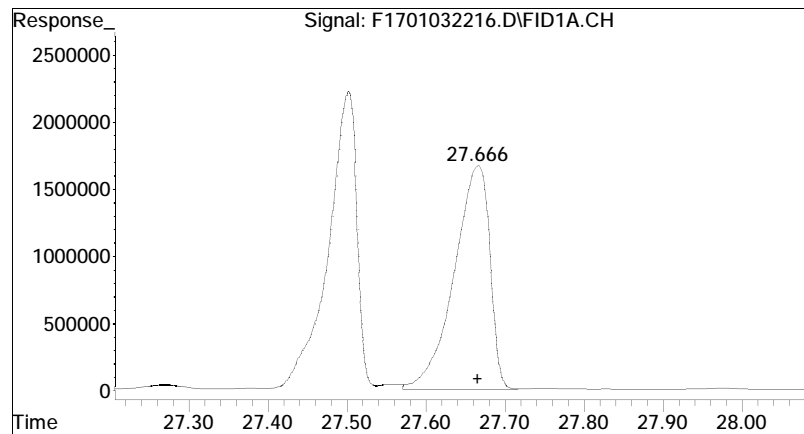
#15 Pristane

R.T.: 25.845 min
Delta R.T.: 0.000 min
Response: 55982384
Conc: 52.90 ug/mL M4



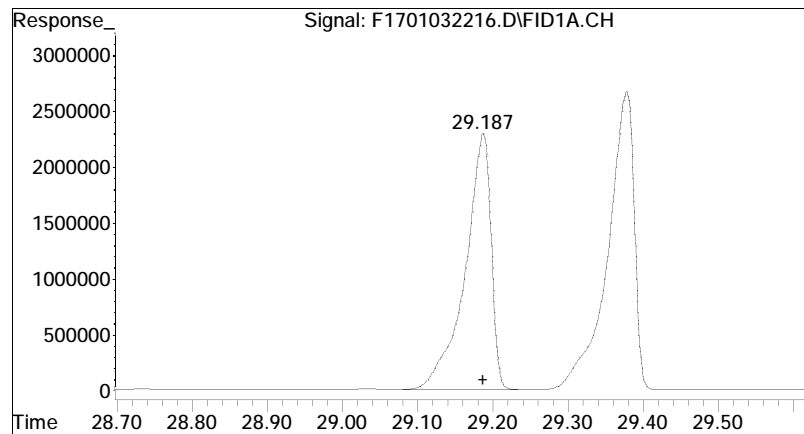
#16 n-Octadecane (C18)

R.T.: 27.502 min
Delta R.T.: 0.000 min
Response: 55545867
Conc: 52.67 ug/mL M4



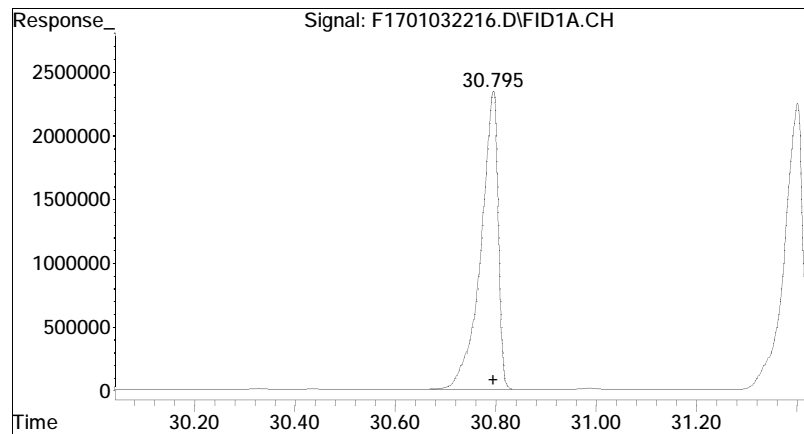
#17 Phytane

R.T.: 27.666 min
Delta R.T.: 0.000 min
Response: 52057217
Conc: 52.92 ug/mL M4



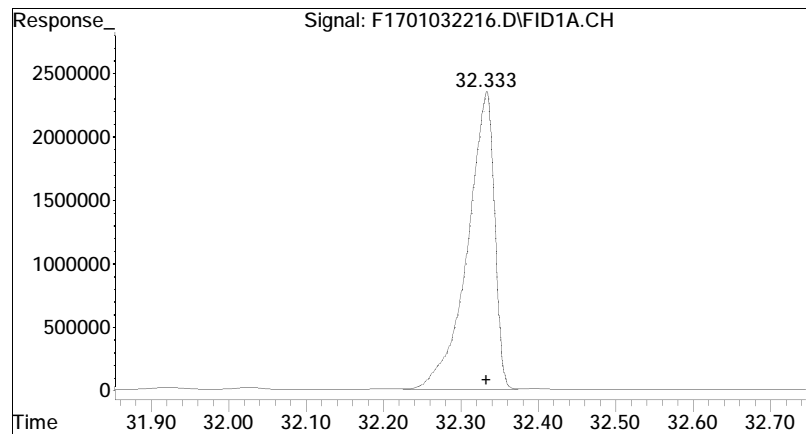
#18 n-Nonadecane (C19)

R.T.: 29.187 min
Delta R.T.: 0.000 min
Response: 55057603
Conc: 52.19 ug/mL M4



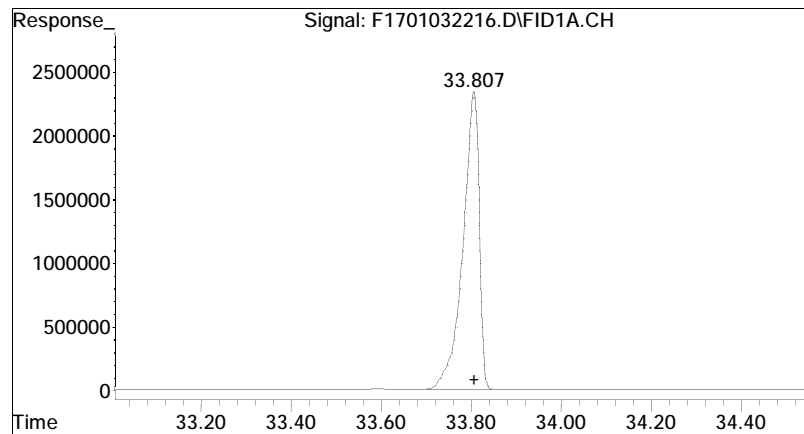
#20 n-Eicosane (C20)

R.T.: 30.795 min
Delta R.T.: 0.000 min
Response: 56089575
Conc: 52.76 ug/mL M4



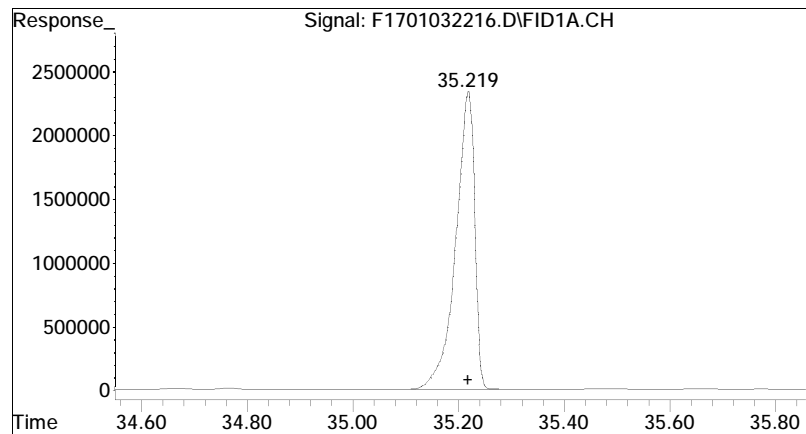
#21 n-Heneicosane (C21)

R.T.: 32.333 min
Delta R.T.: 0.000 min
Response: 55609521
Conc: 52.25 ug/mL M4



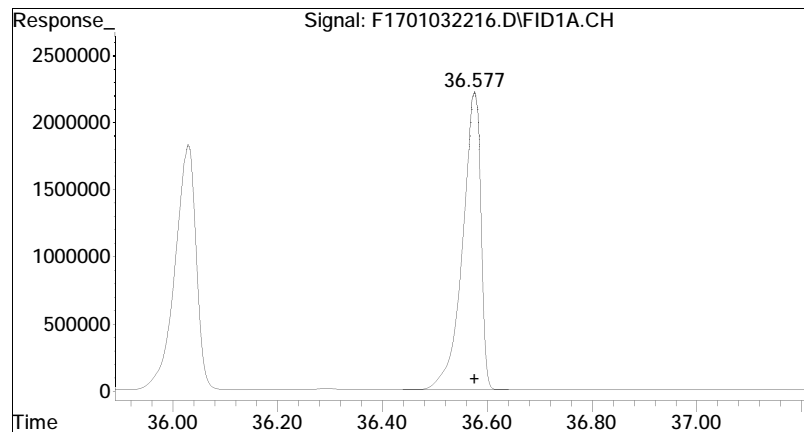
#22 n-Docosane (C22)

R.T.: 33.807 min
Delta R.T.: 0.000 min
Response: 56425967
Conc: 52.93 ug/mL M4



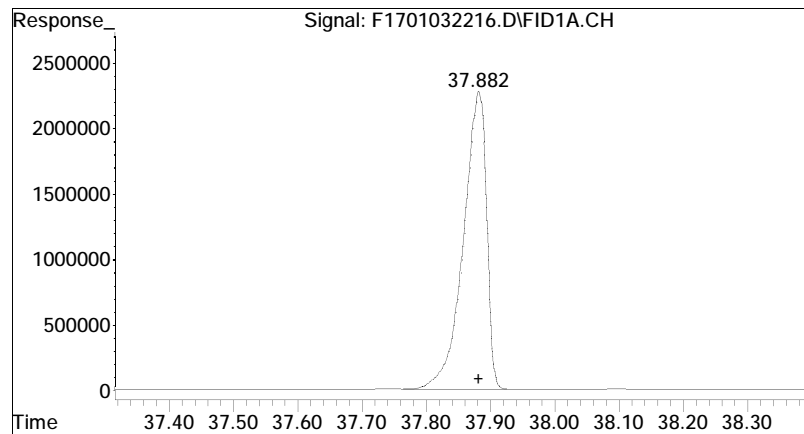
#23 n-Tricosane (C23)

R.T.: 35.219 min
Delta R.T.: 0.000 min
Response: 56311208
Conc: 52.76 ug/mL M4



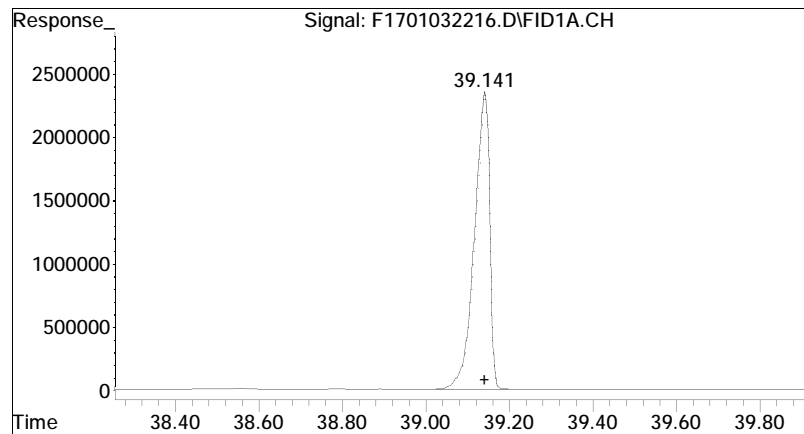
#25 n-Tetracosane (C24)

R.T.: 36.577 min
Delta R.T.: 0.000 min
Response: 53405293
Conc: 50.88 ug/mL M4



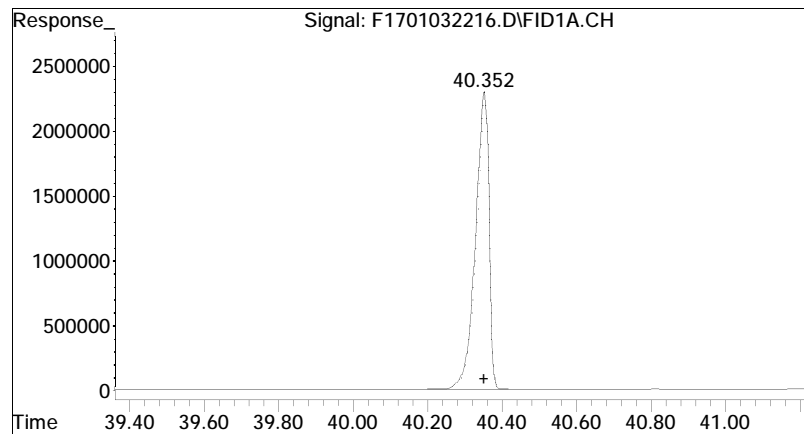
#26 n-Pentacosane (C25)

R.T.: 37.882 min
Delta R.T.: 0.000 min
Response: 55197494
Conc: 52.94 ug/mL M4



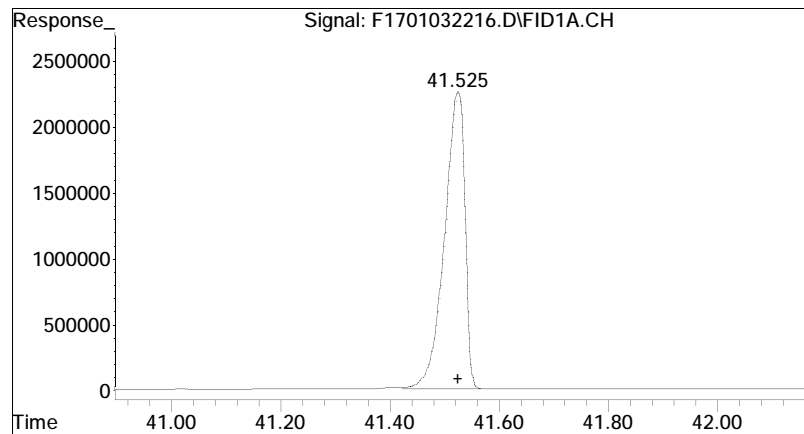
#27 n-Hexacosane (C26)

R.T.: 39.141 min
Delta R.T.: 0.000 min
Response: 56827944
Conc: 53.20 ug/mL M4



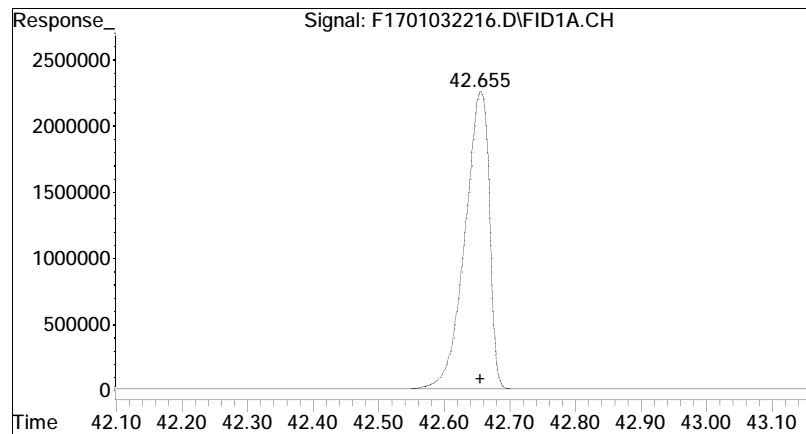
#28 n-Heptacosane (C27)

R.T.: 40.352 min
Delta R.T.: 0.000 min
Response: 54738035
Conc: 51.67 ug/mL M4



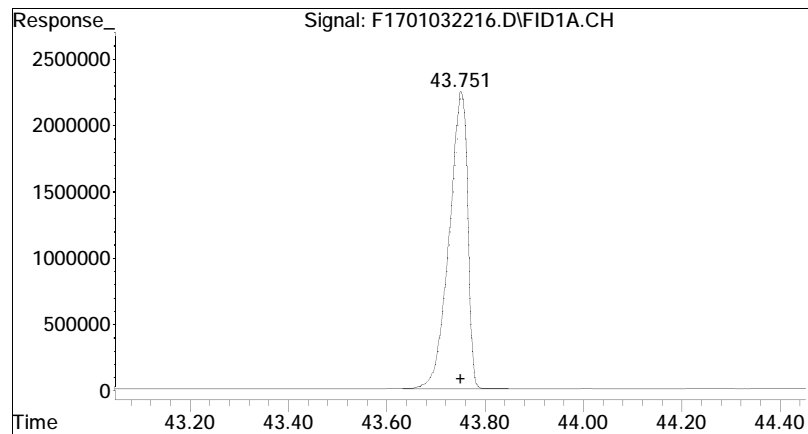
#29 n-Octacosane (C28)

R.T.: 41.525 min
Delta R.T.: 0.000 min
Response: 56989875
Conc: 52.59 ug/mL M4



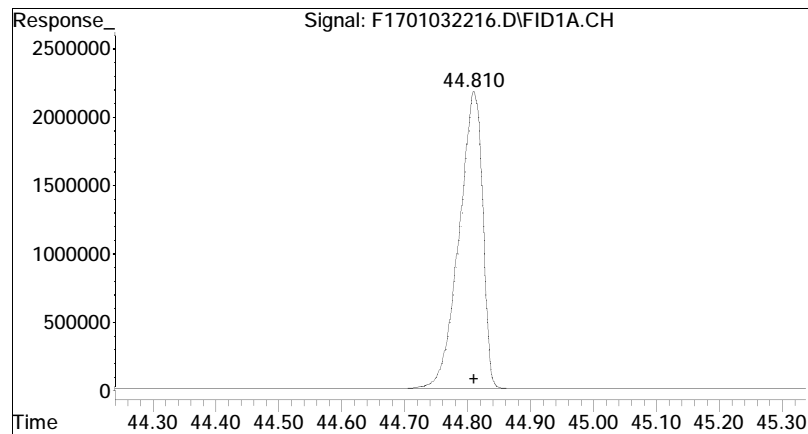
#30 n-Nonacosane (C29)

R.T.: 42.655 min
Delta R.T.: 0.000 min
Response: 56558566
Conc: 52.60 ug/mL M4



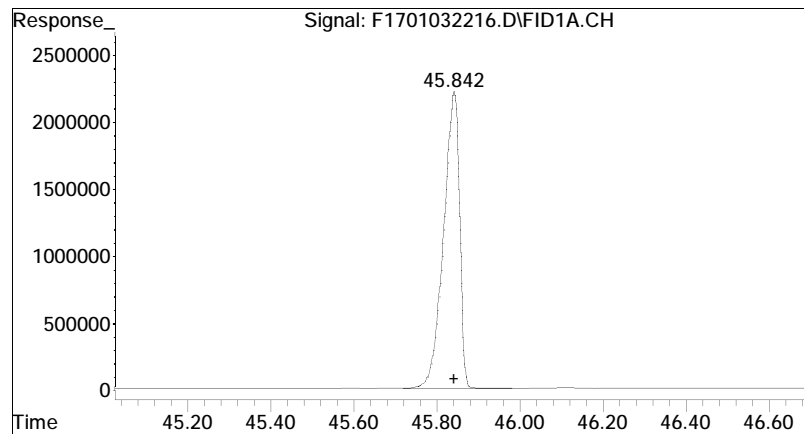
#31 n-Triacontane (C30)

R.T.: 43.751 min
Delta R.T.: 0.000 min
Response: 56671556
Conc: 52.64 ug/mL M4



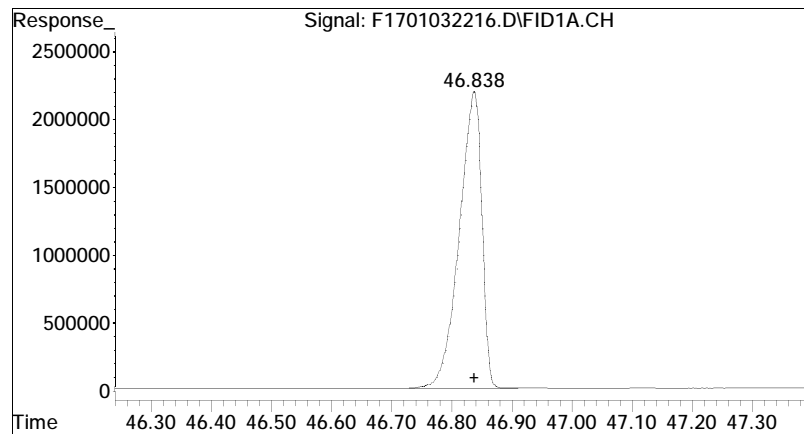
#32 n-Hentriacontane (C31)

R.T.: 44.810 min
Delta R.T.: 0.000 min
Response: 54879530
Conc: 52.88 ug/mL M4



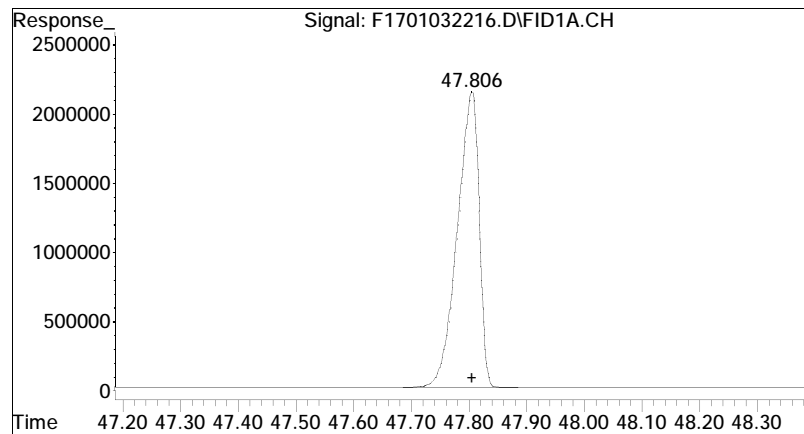
#33 n-Dotriacontane (C32)

R.T.: 45.842 min
Delta R.T.: 0.000 min
Response: 57404924
Conc: 52.87 ug/mL M4



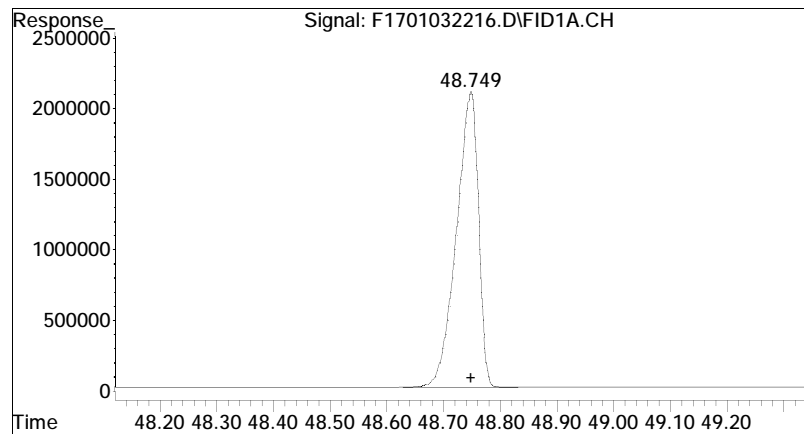
#34 n-Tritriacontane (C33)

R.T.: 46.838 min
Delta R.T.: 0.000 min
Response: 55219697
Conc: 52.58 ug/mL M4



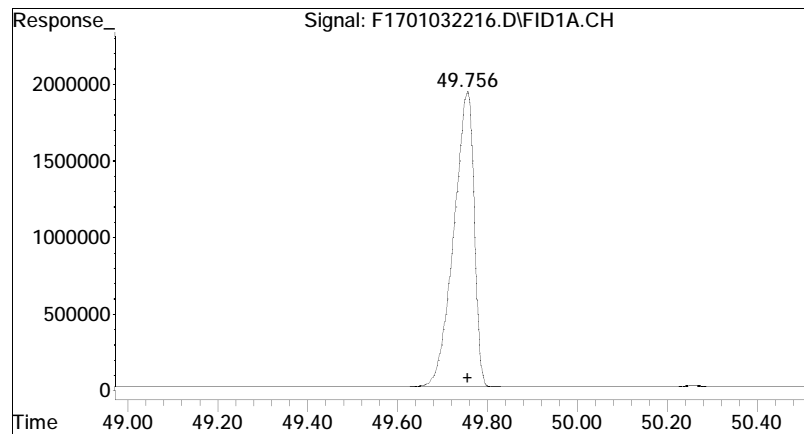
#35 n-tetratriacontane (C34)

R.T.: 47.806 min
Delta R.T.: 0.000 min
Response: 54882100
Conc: 52.62 ug/mL M4



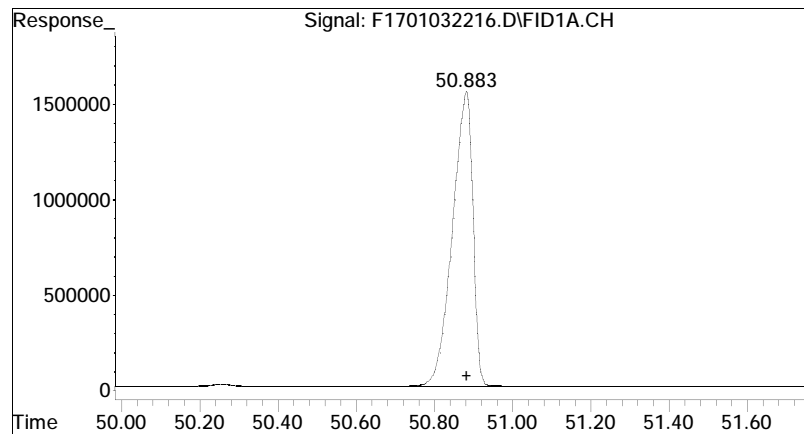
#36 n-Pentatriacontane (C35)

R.T.: 48.749 min
Delta R.T.: 0.000 min
Response: 55228050
Conc: 55.74 ug/mL M4



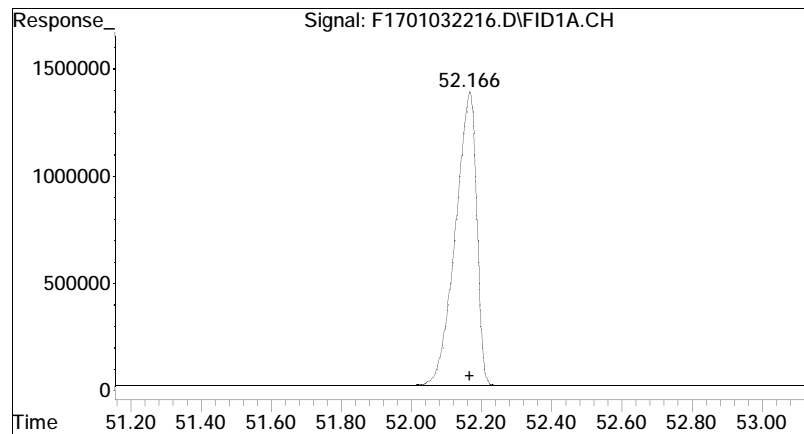
#37 n-Hexatriacontane (C36)

R.T.: 49.756 min
Delta R.T.: 0.000 min
Response: 59239485
Conc: 51.01 ug/mL M4



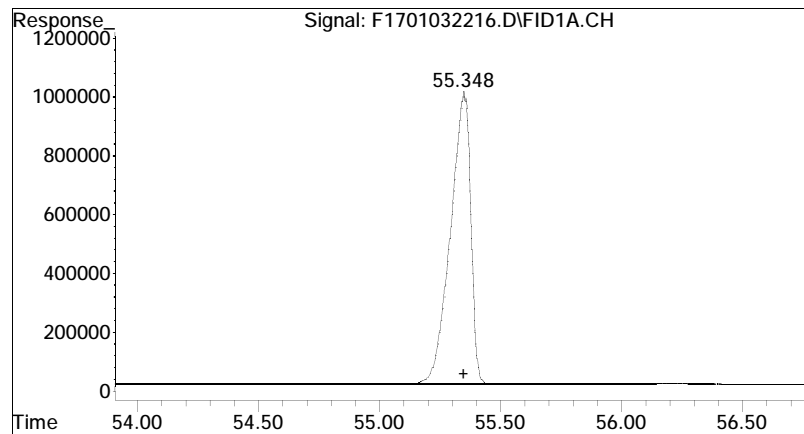
#38 n-Heptatriacontane (C37)

R.T.: 50.883 min
Delta R.T.: 0.000 min
Response: 54395128
Conc: 51.07 ug/mL M4



#39 n-Octatriacontane (C38)

R.T.: 52.166 min
Delta R.T.: 0.000 min
Response: 56105190
Conc: 51.94 ug/mL M4



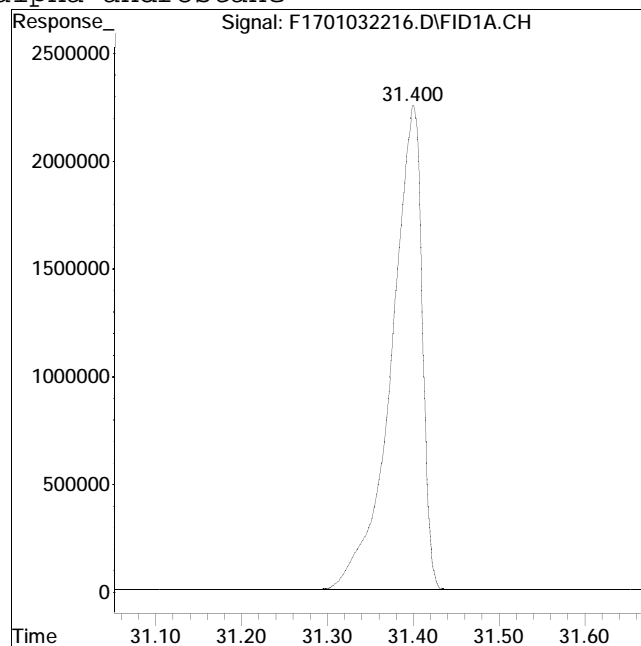
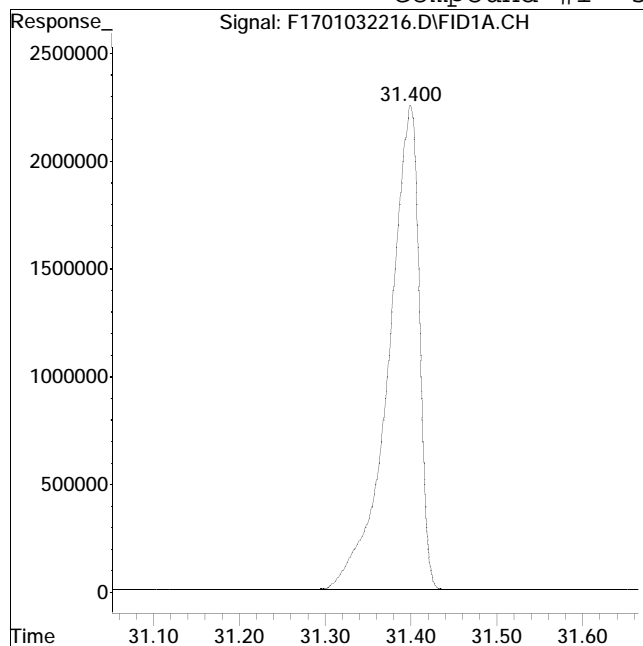
#41 n-Tetracontane (C40)

R.T.: 55.348 min
Delta R.T.: 0.000 min
Response: 56186228
Conc: 52.73 ug/mL M4

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 55866208

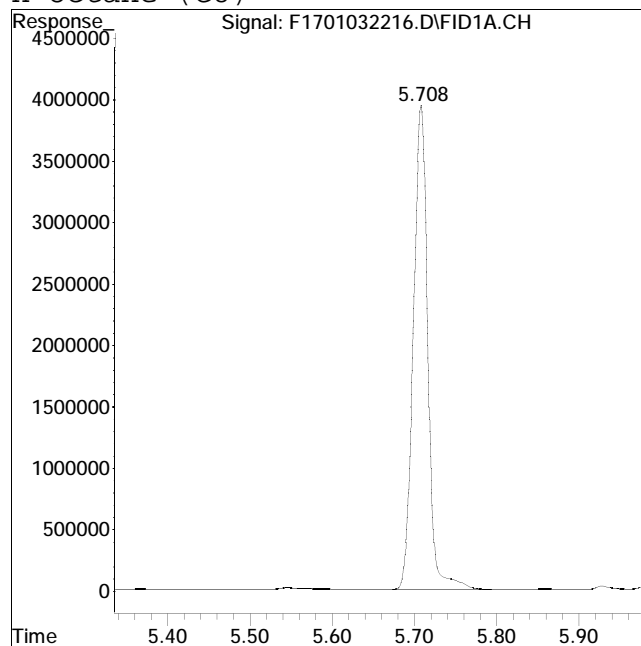
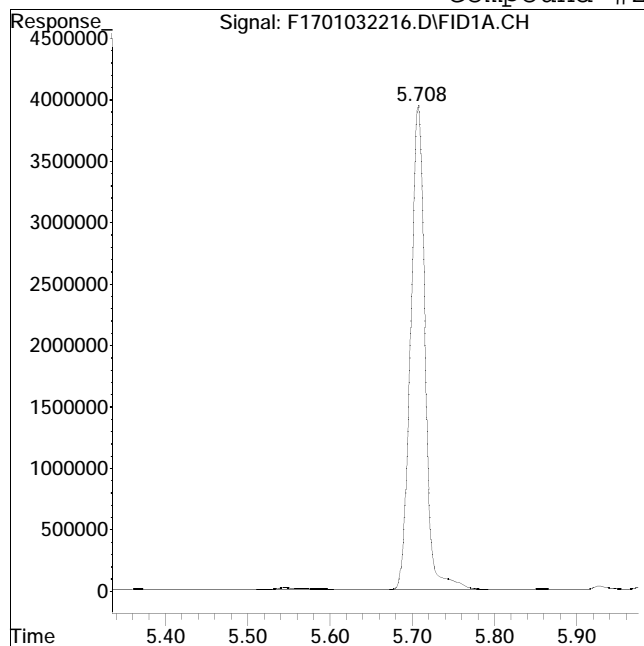
Manual Peak Response = 55867696 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #2: n-Octane (C8)



Original Peak Response = 48712273

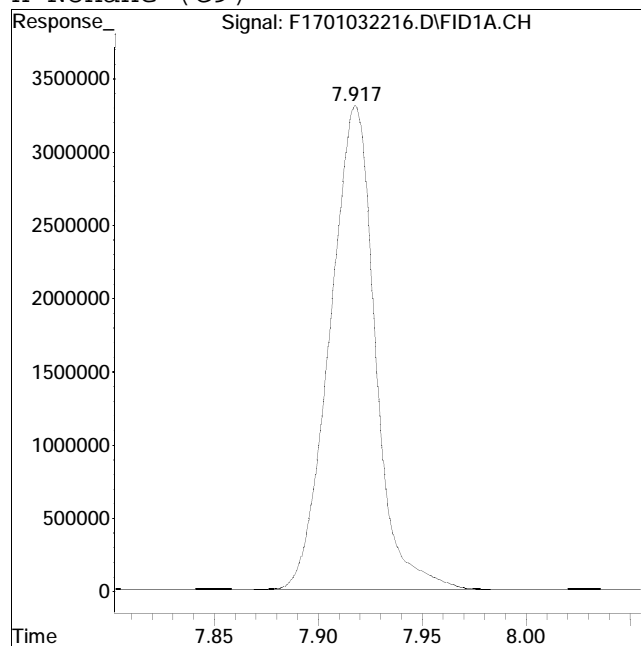
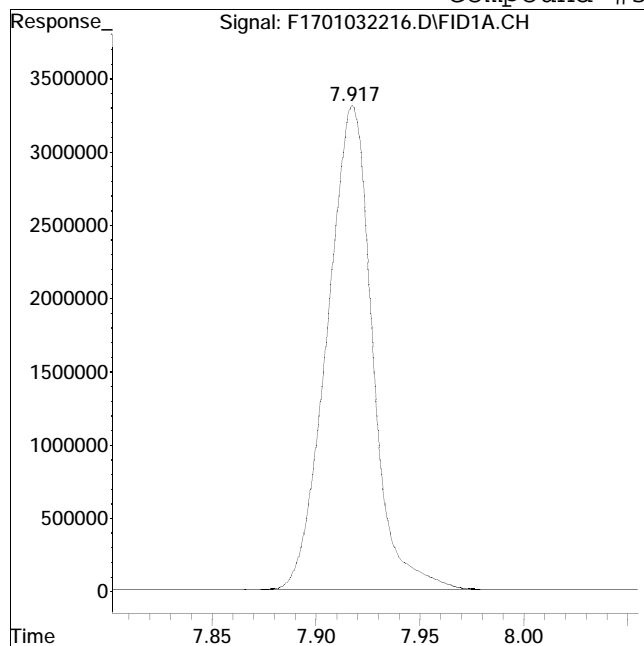
Manual Peak Response = 48424212 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 50028790

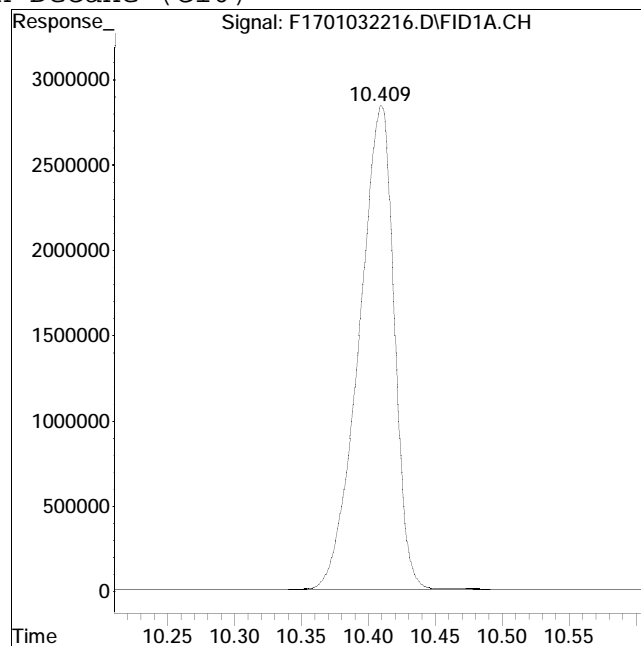
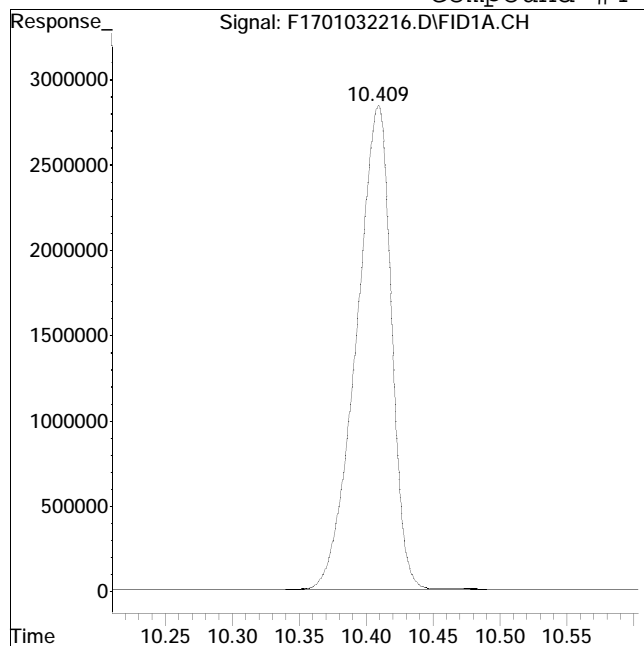
Manual Peak Response = 50190586 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #4: n-Decane (C10)



Original Peak Response = 51896426

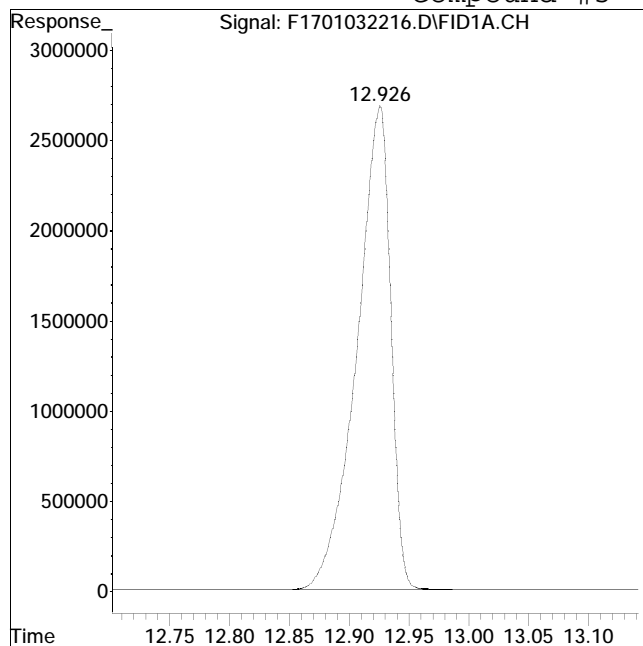
Manual Peak Response = 51947511 M4

M4 = Poor automated baseline construction.

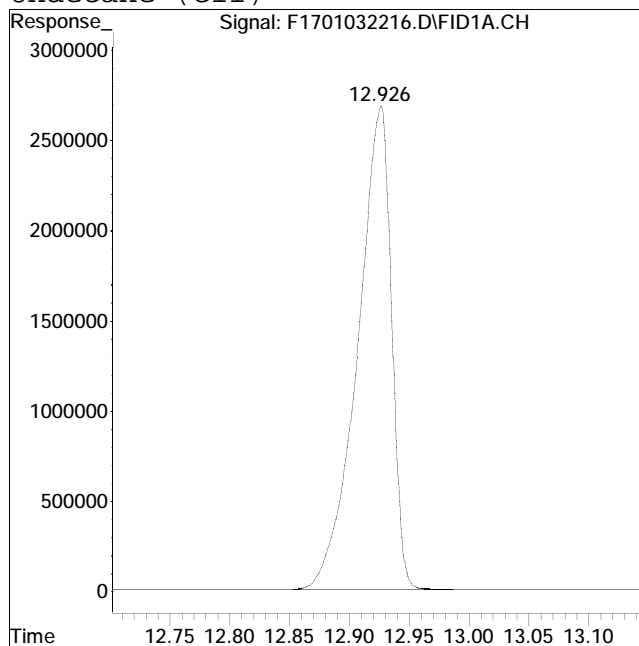
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 52696676



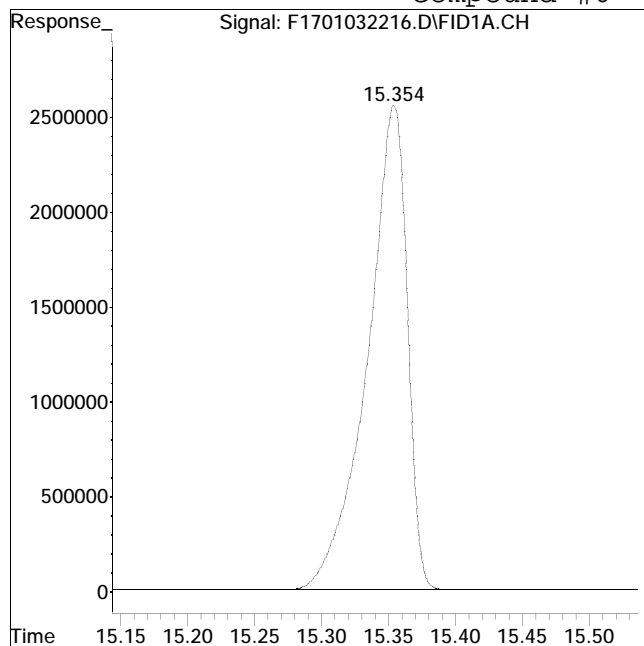
Manual Peak Response = 52730428 M4

M4 = Poor automated baseline construction.

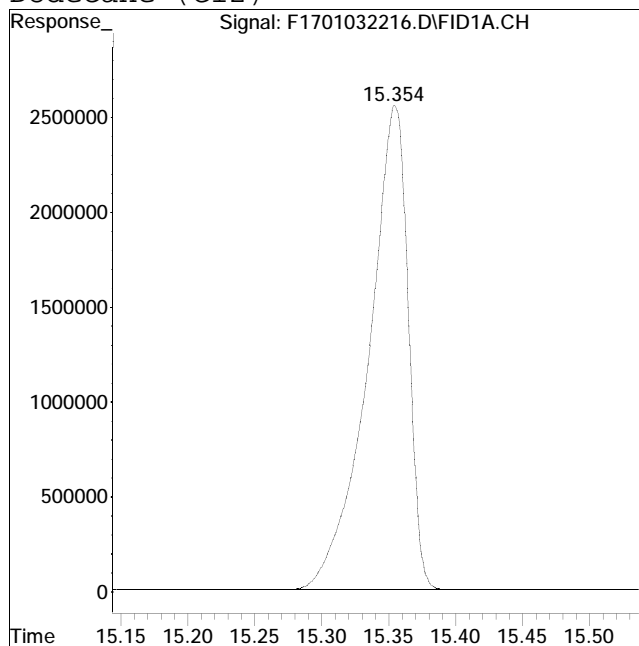
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 52757379



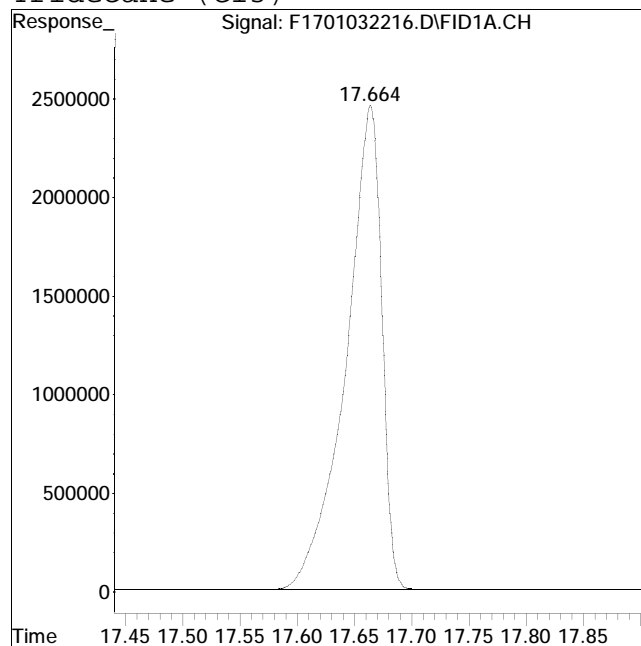
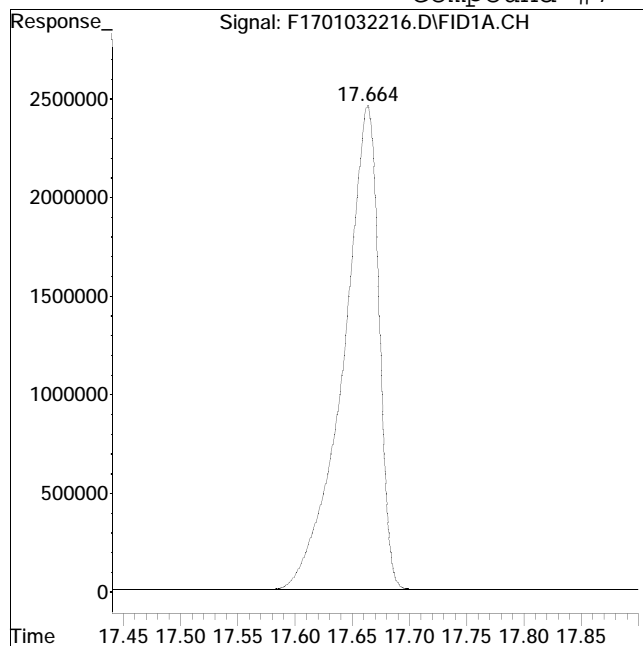
Manual Peak Response = 52798799 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 53263895

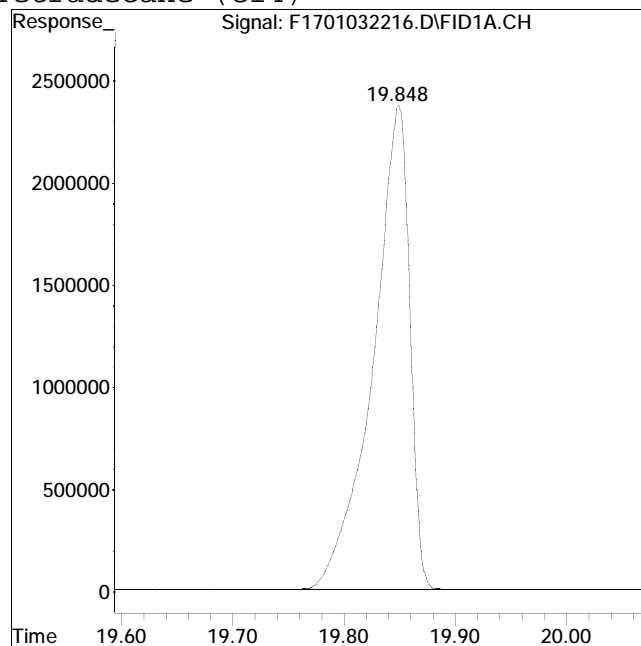
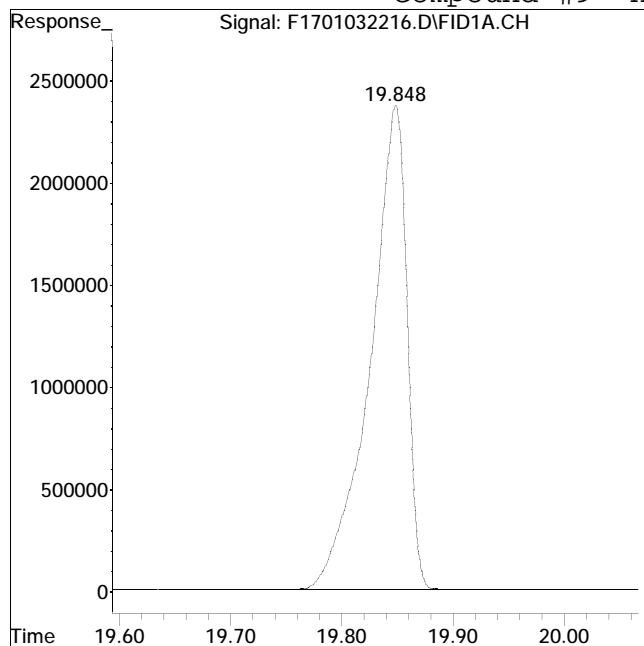
Manual Peak Response = 53283095 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 54256438

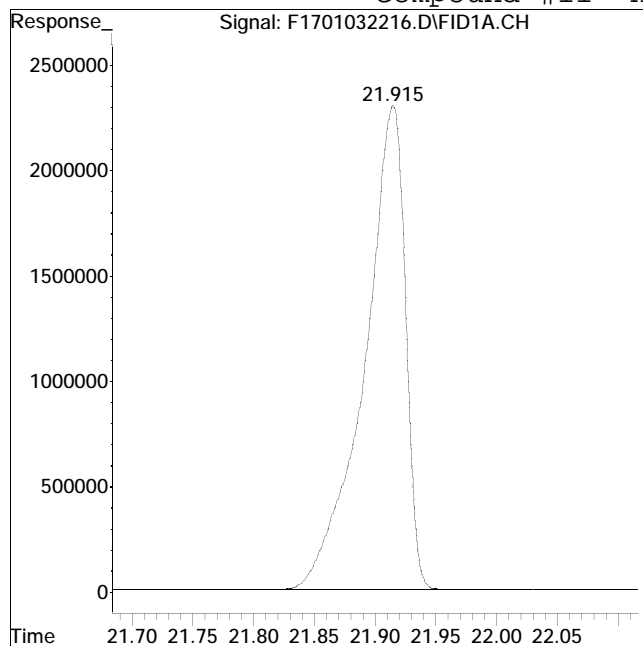
Manual Peak Response = 54295832 M4

M4 = Poor automated baseline construction.

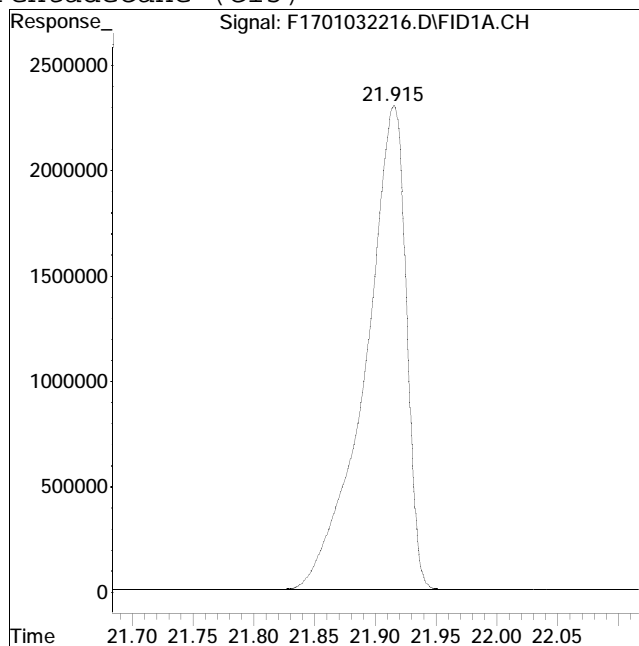
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 53873256



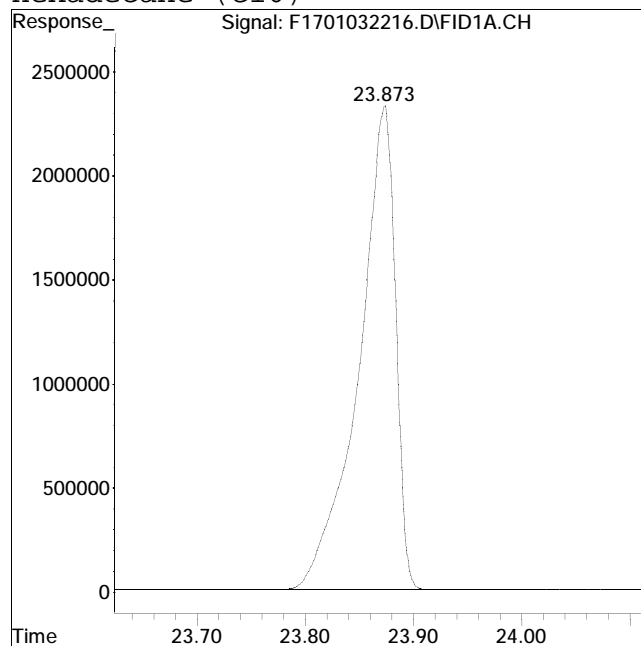
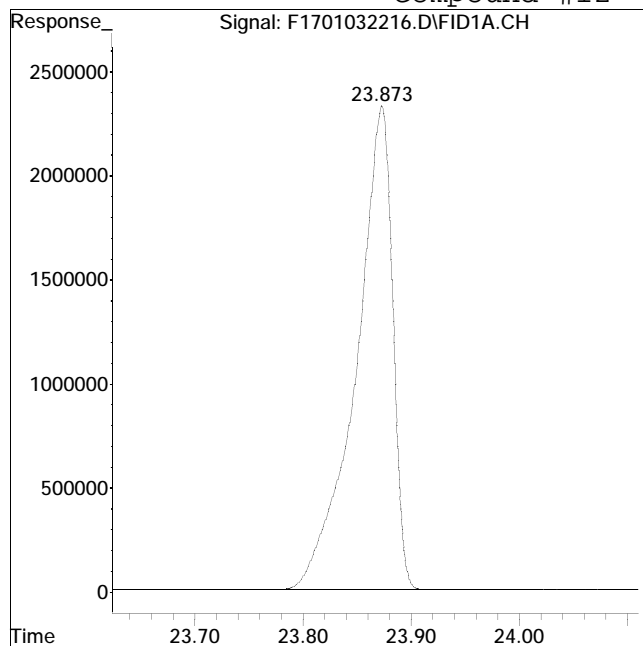
Manual Peak Response = 53912092 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 54719838

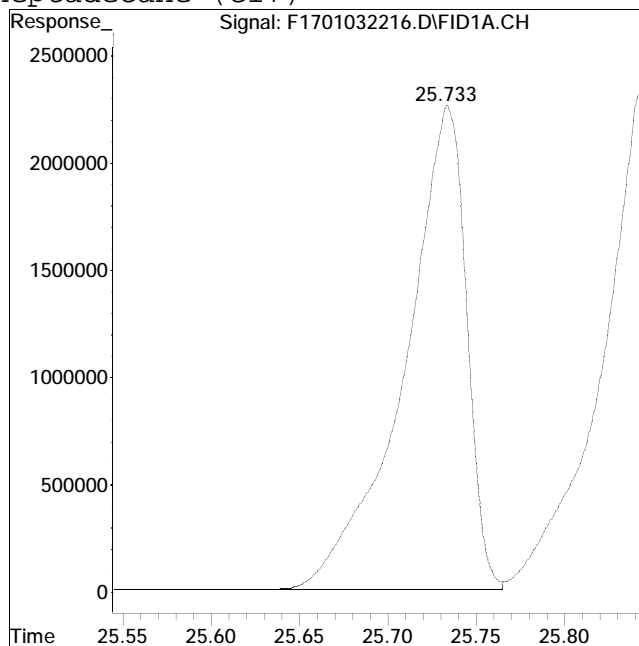
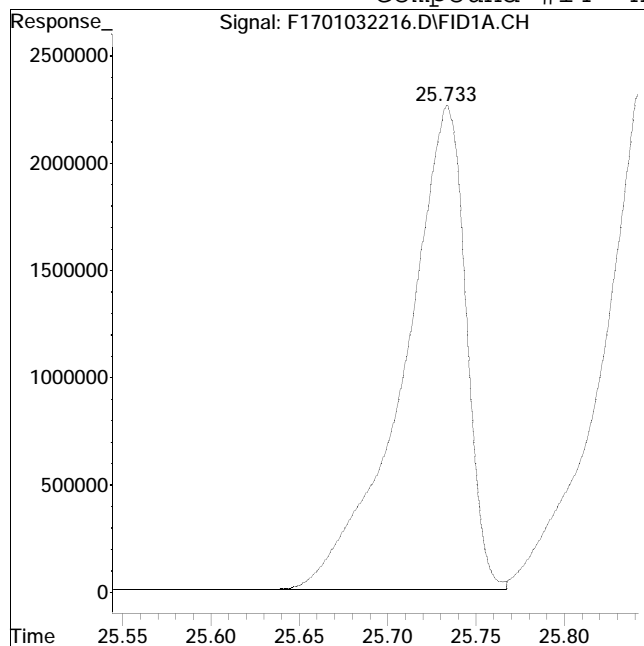
Manual Peak Response = 54745809 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 55195336

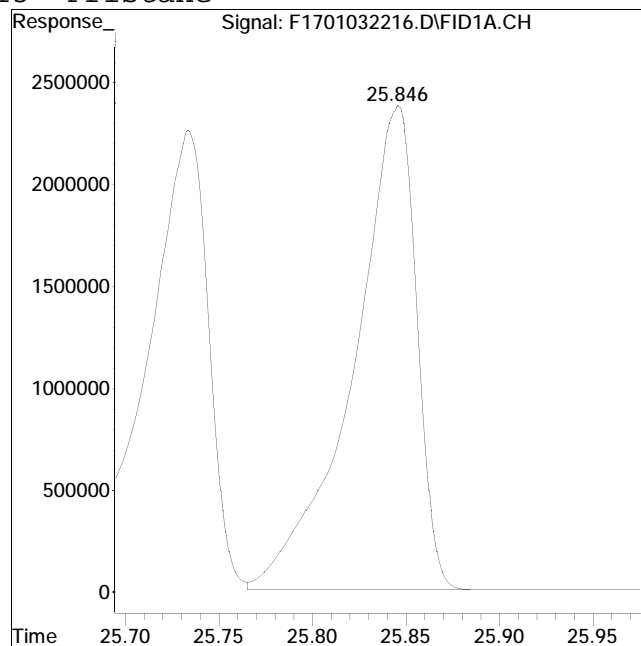
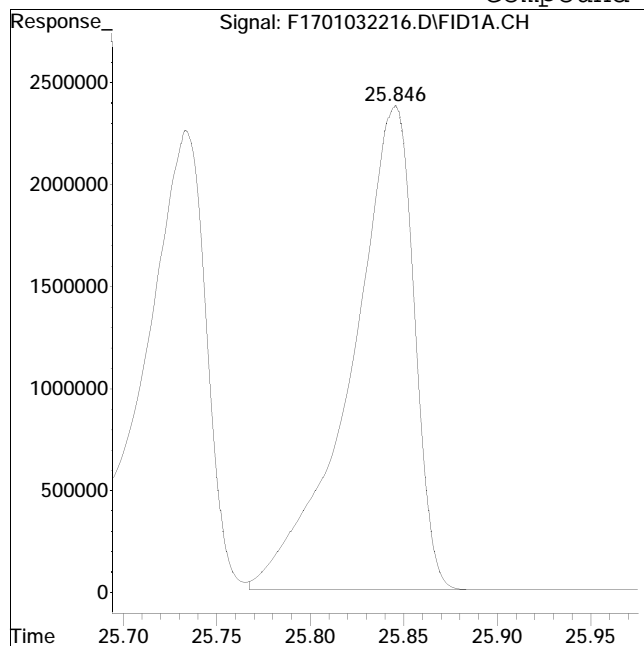
Manual Peak Response = 55160952 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #15: Pristane



Original Peak Response = 55882650

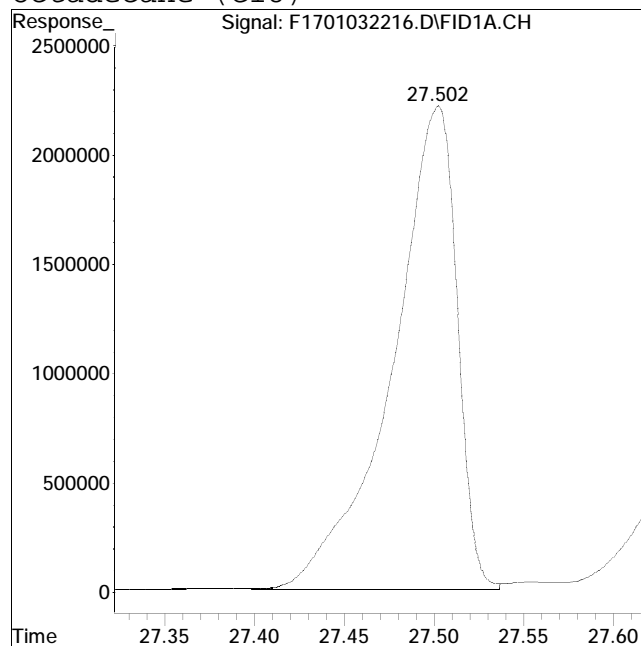
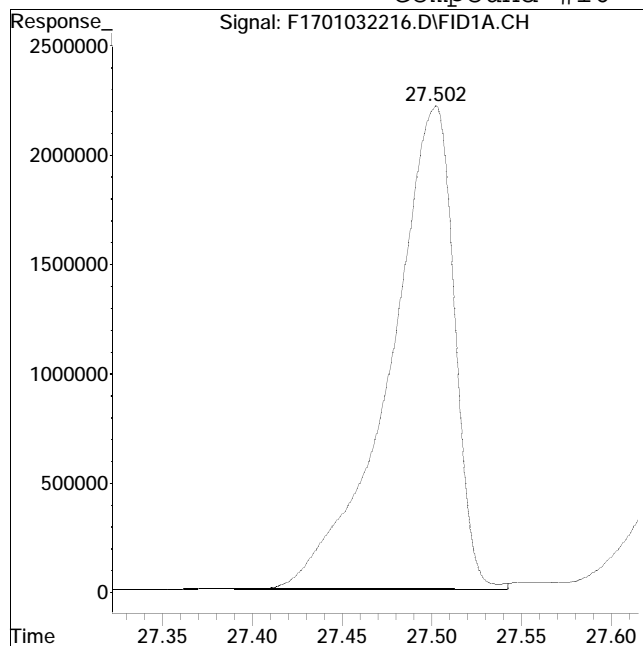
Manual Peak Response = 55982384 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 55258631

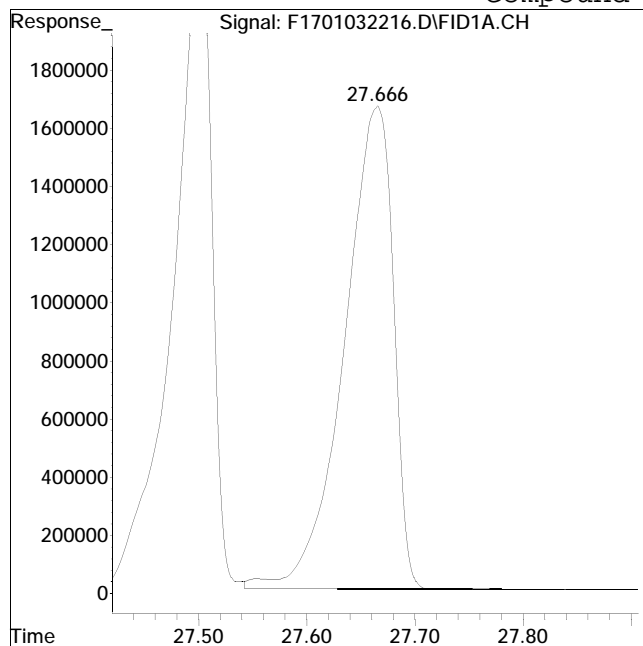
Manual Peak Response = 55545867 M4

M4 = Poor automated baseline construction.

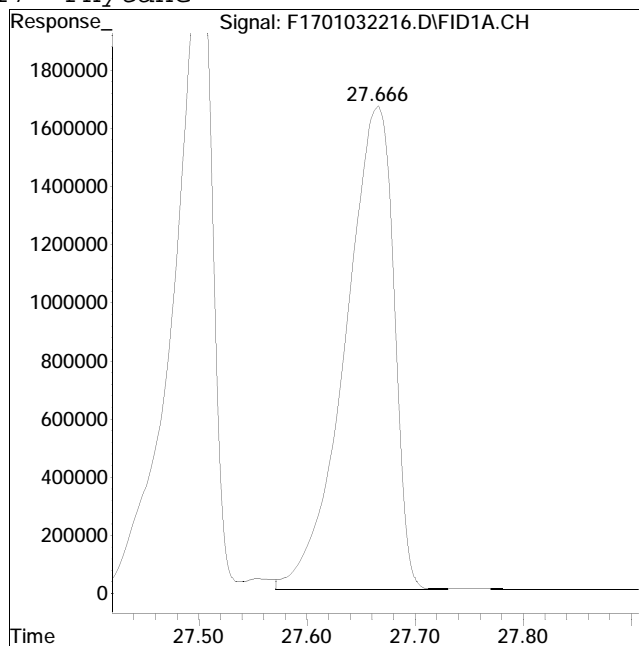
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #17: Phytane



Original Peak Response = 52396722



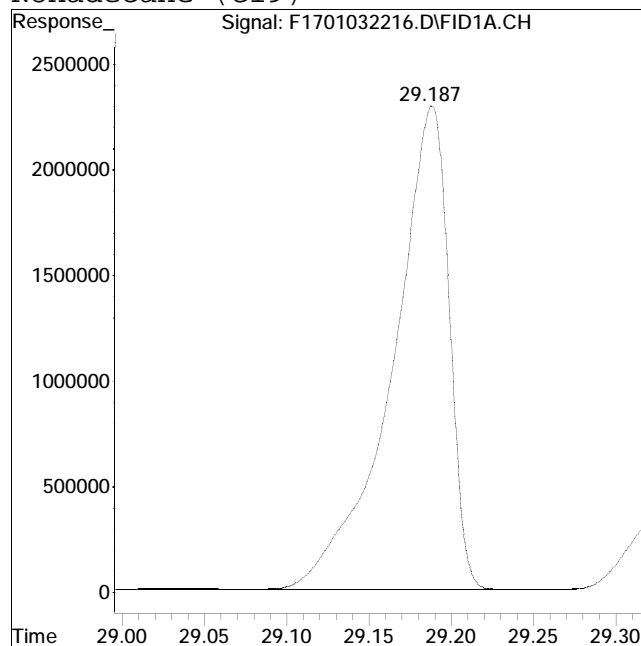
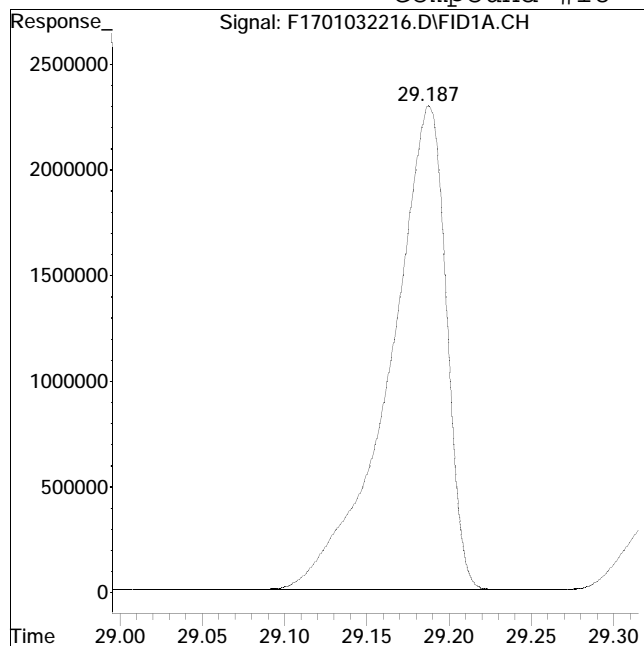
Manual Peak Response = 52057217 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 54912706

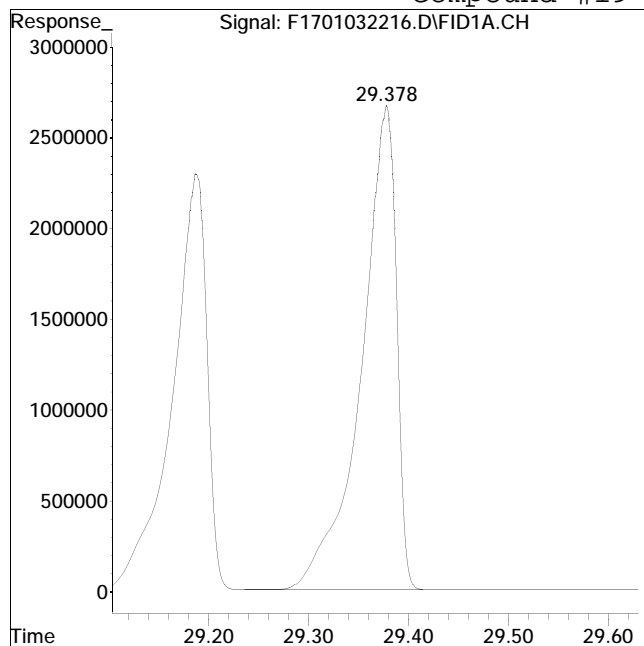
Manual Peak Response = 55057603 M4

M4 = Poor automated baseline construction.

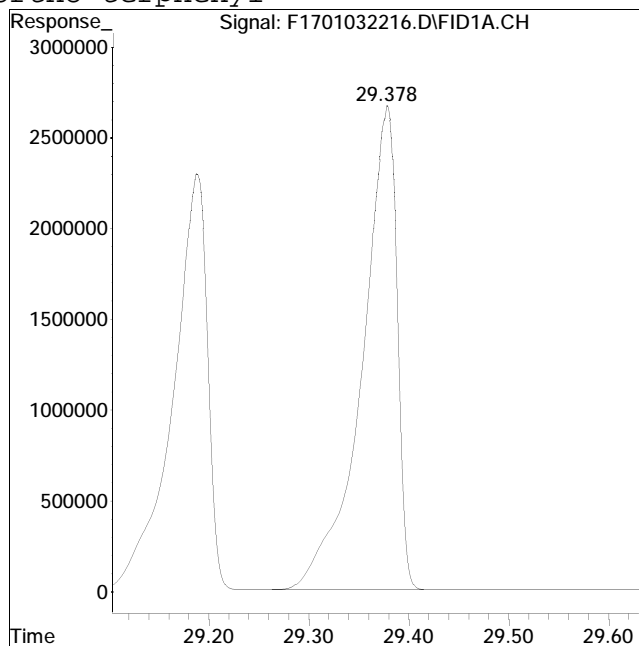
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #19: ortho-terphenyl



Original Peak Response = 64834210



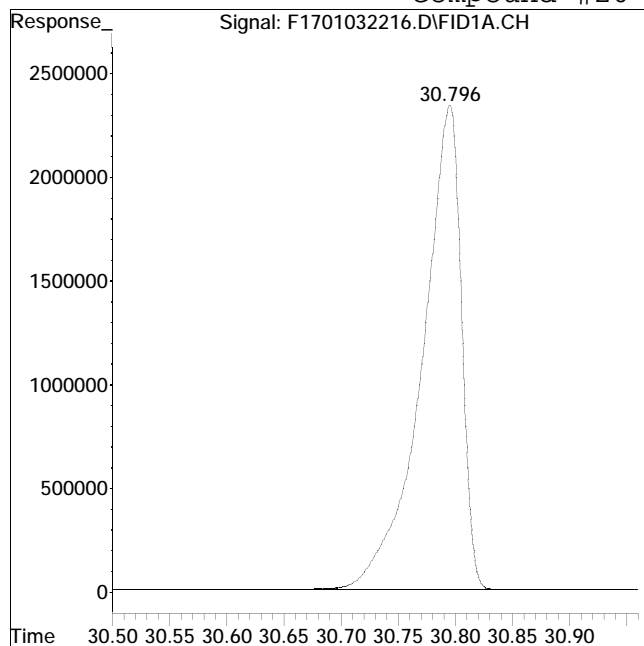
Manual Peak Response = 64915158 M4

M4 = Poor automated baseline construction.

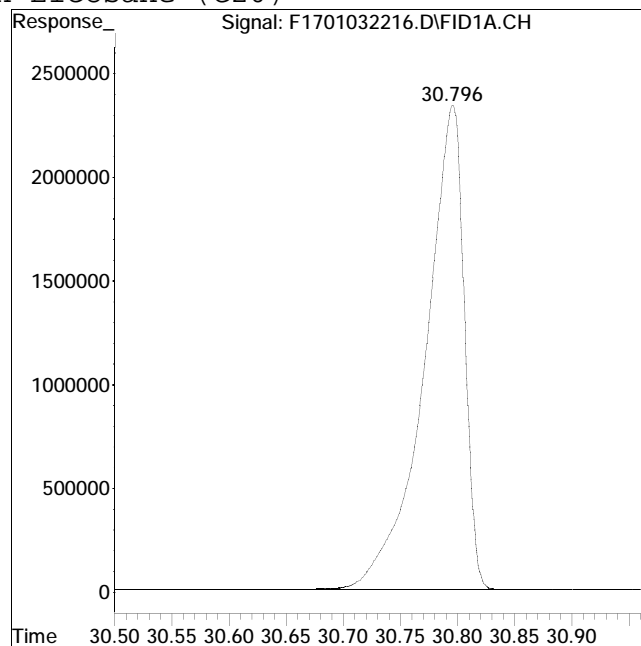
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 56008296



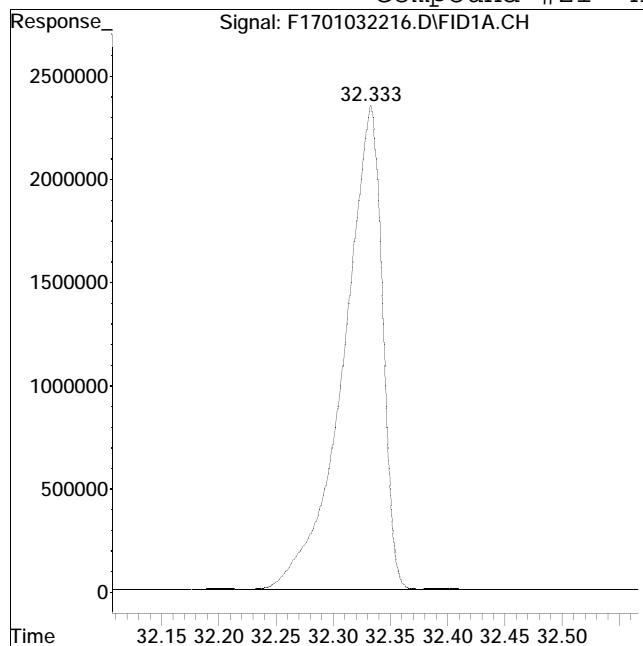
Manual Peak Response = 56089575 M4

M4 = Poor automated baseline construction.

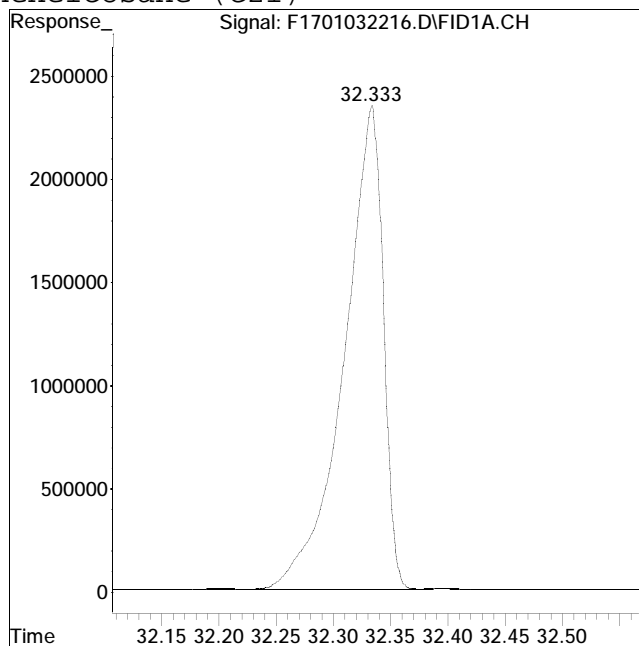
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 55556380



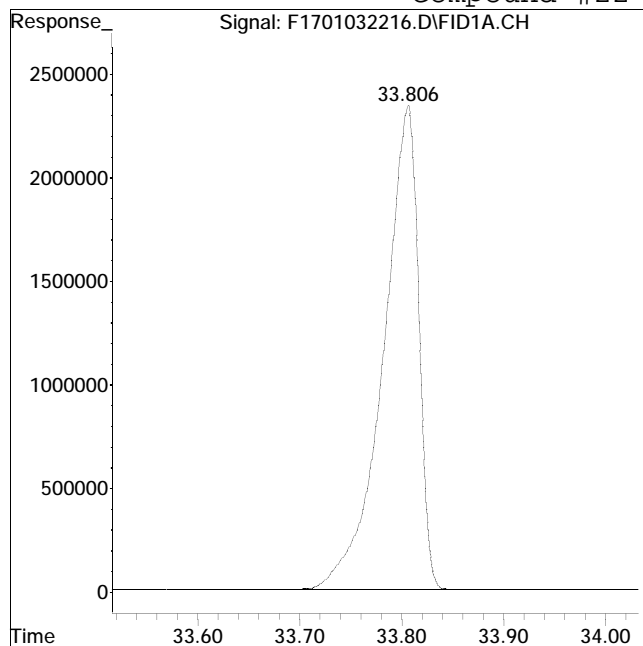
Manual Peak Response = 55609521 M4

M4 = Poor automated baseline construction.

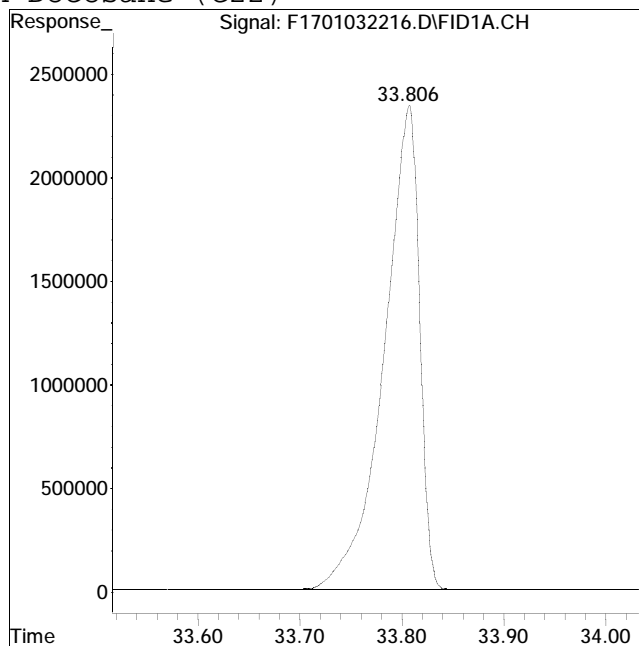
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 56365973



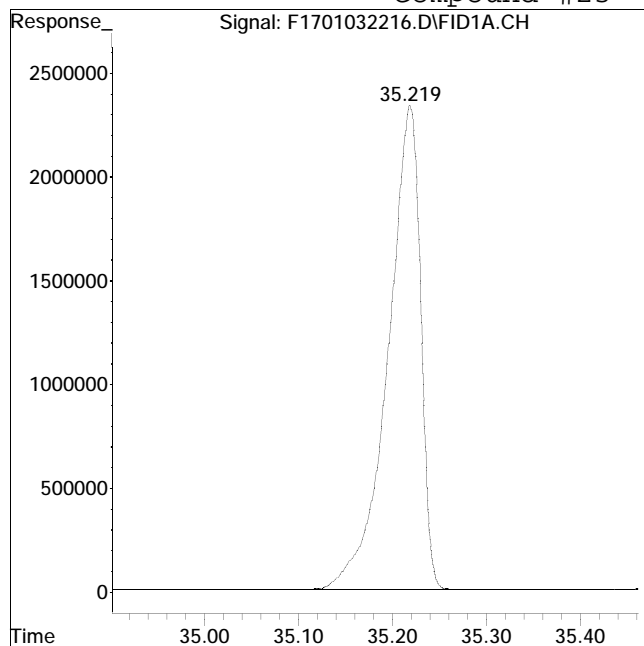
Manual Peak Response = 56425967 M4

M4 = Poor automated baseline construction.

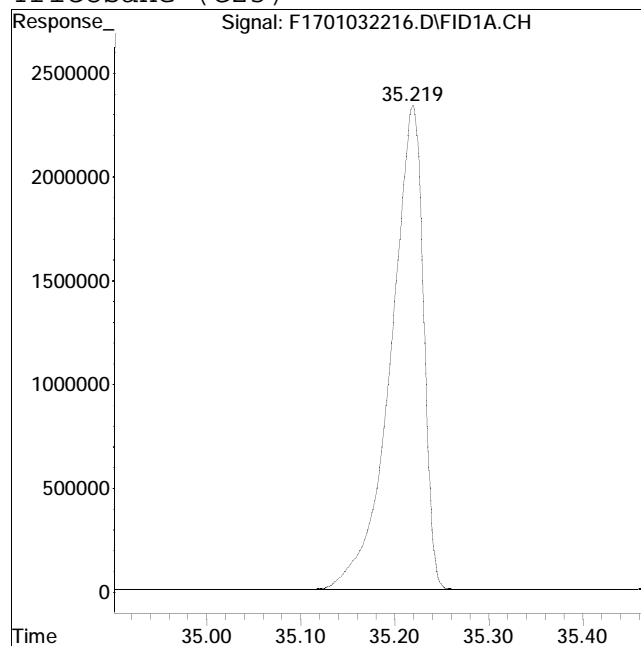
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 56292255



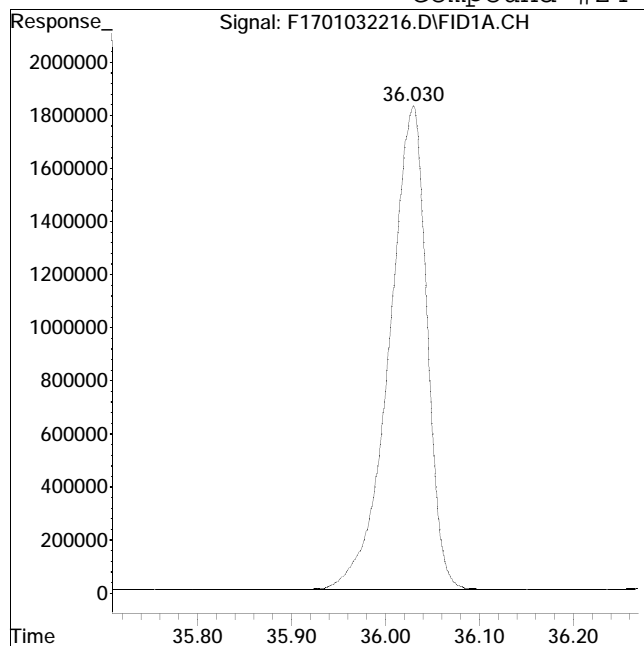
Manual Peak Response = 56311208 M4

M4 = Poor automated baseline construction.

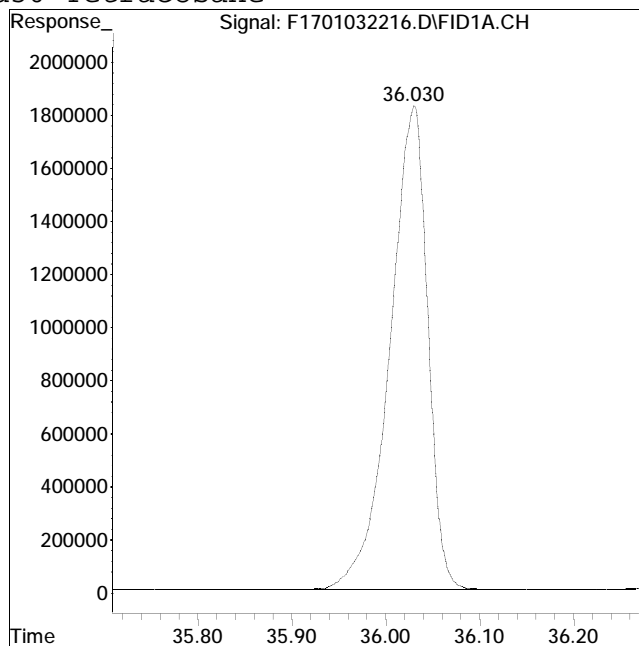
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #24: d50-Tetracosane



Original Peak Response = 50922039



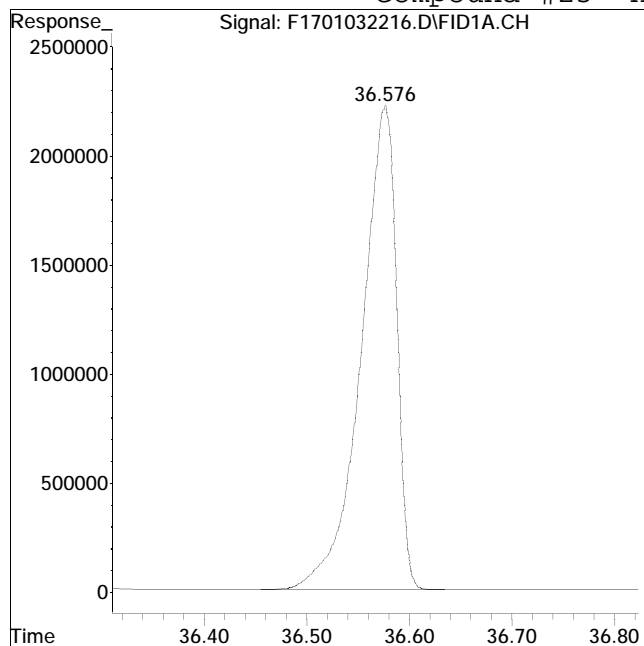
Manual Peak Response = 51014130 M4

M4 = Poor automated baseline construction.

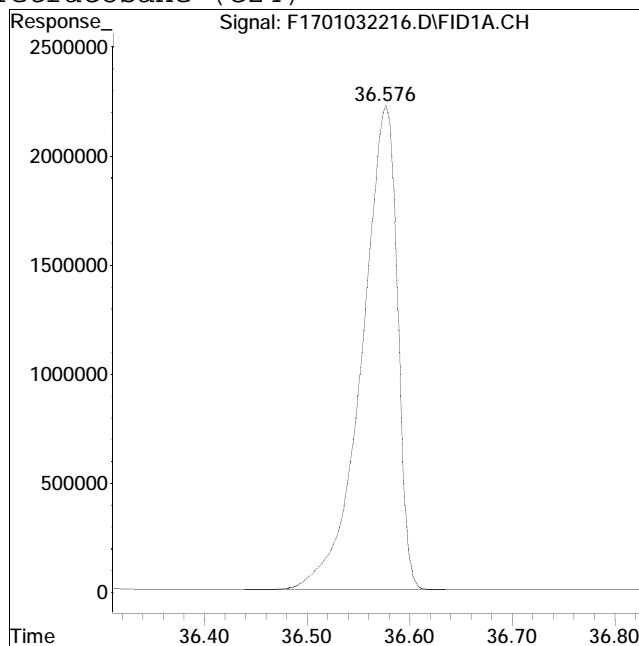
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 53293949



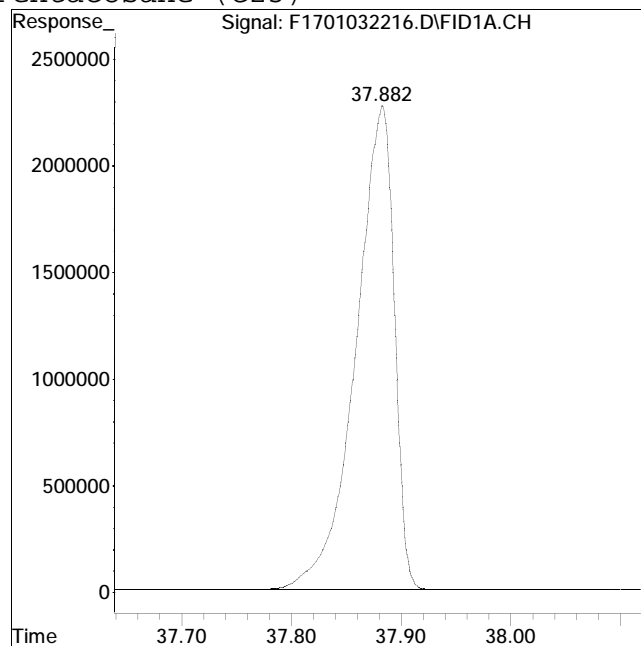
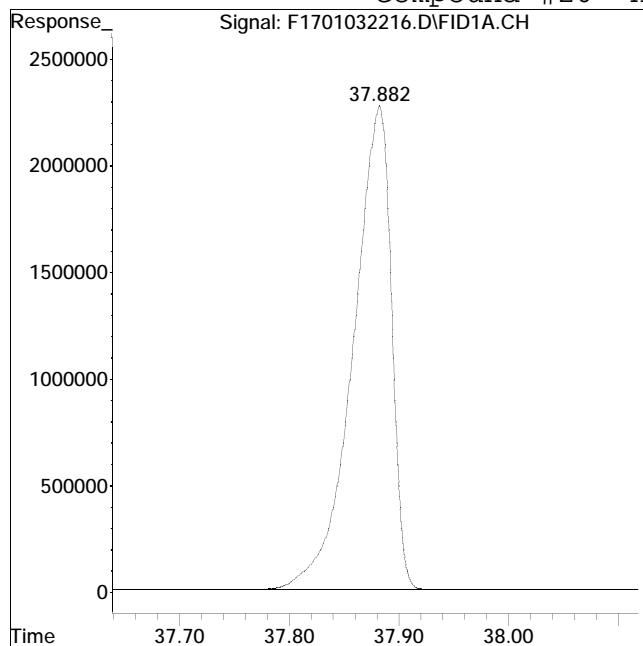
Manual Peak Response = 53405293 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 55131265

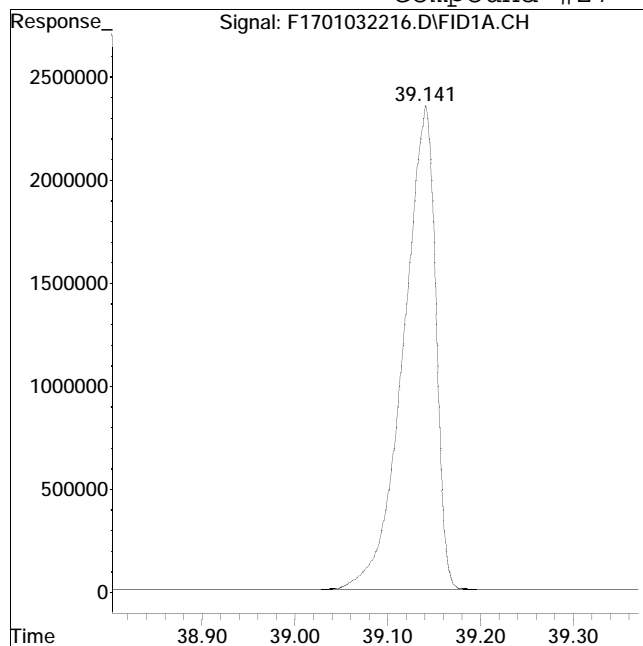
Manual Peak Response = 55197494 M4

M4 = Poor automated baseline construction.

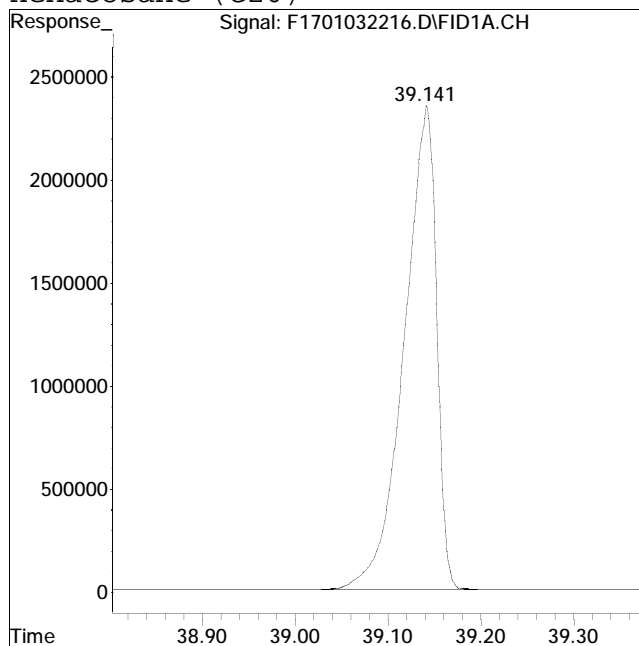
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 56746668



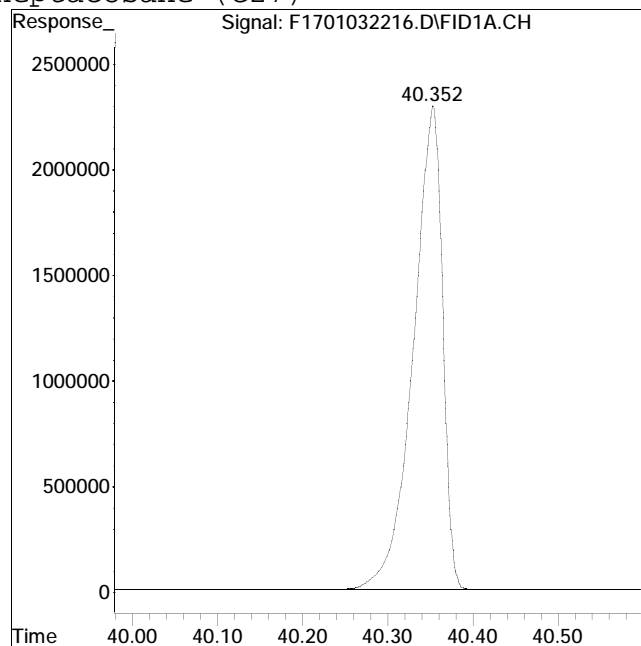
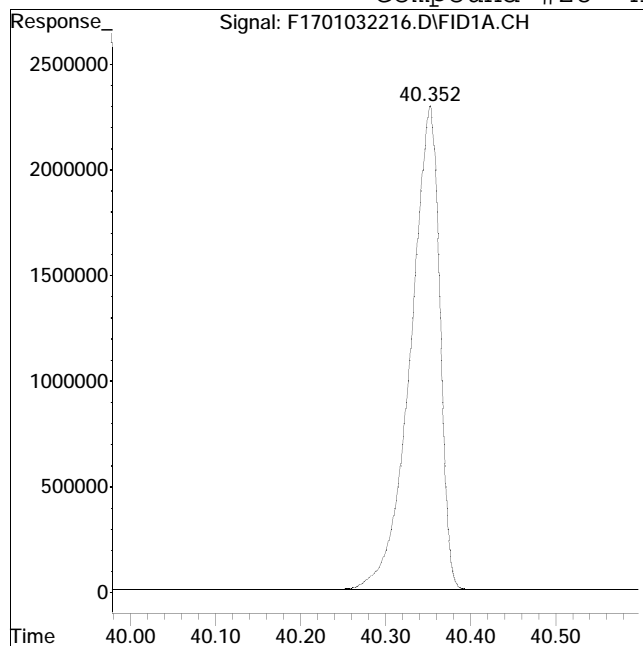
Manual Peak Response = 56827944 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 54673022

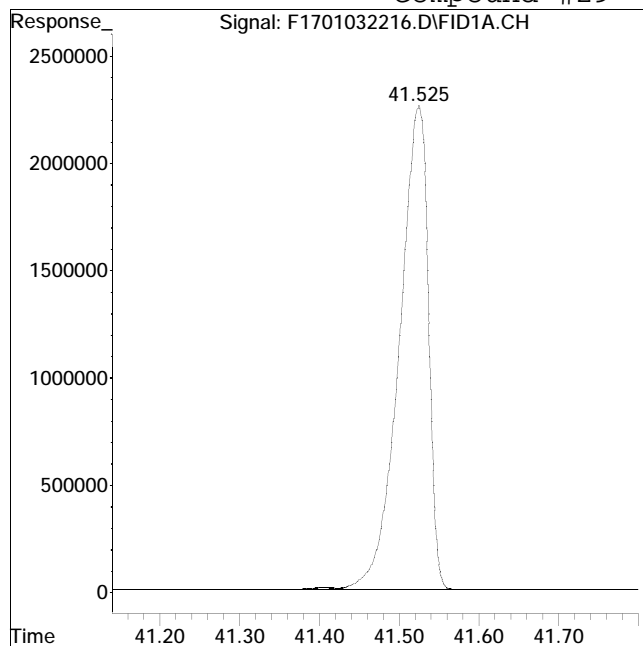
Manual Peak Response = 54738035 M4

M4 = Poor automated baseline construction.

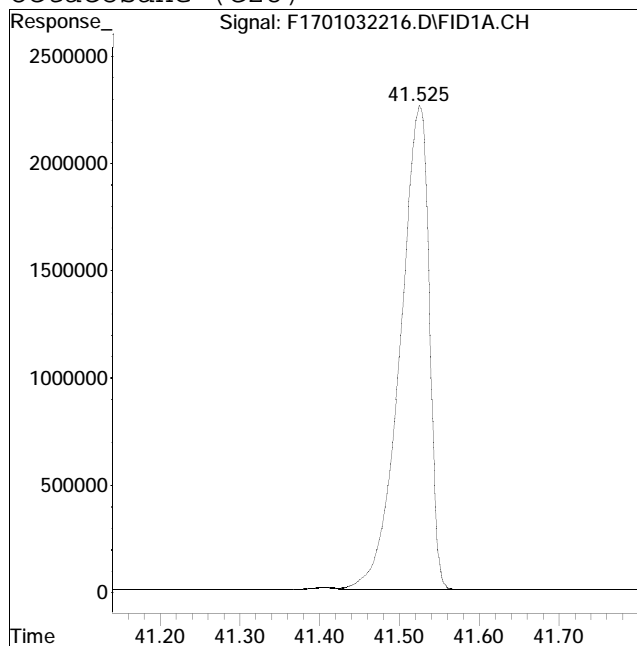
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 57202247



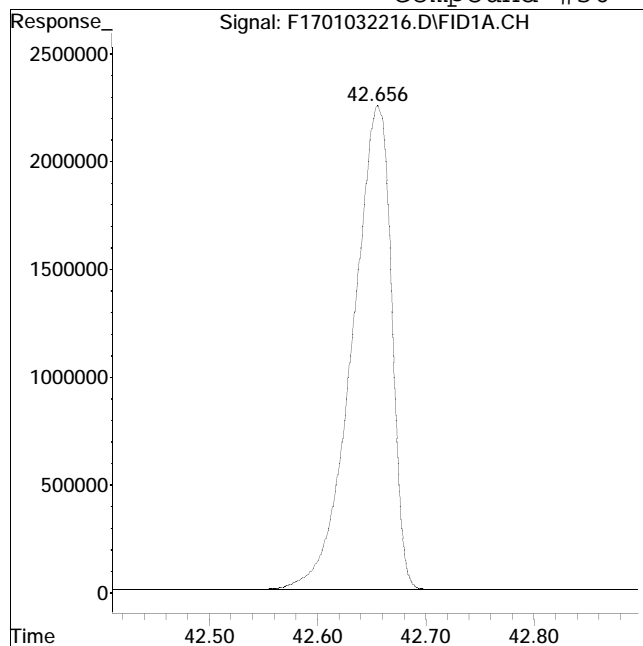
Manual Peak Response = 56989875 M4

M4 = Poor automated baseline construction.

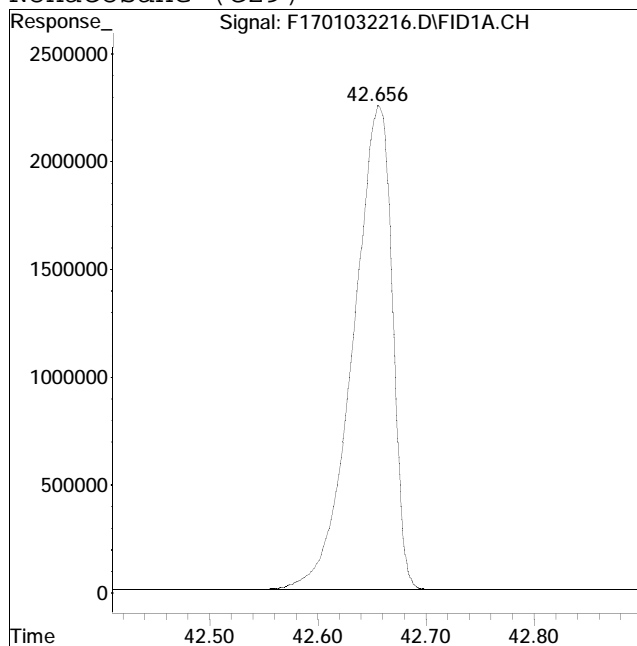
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 56505715



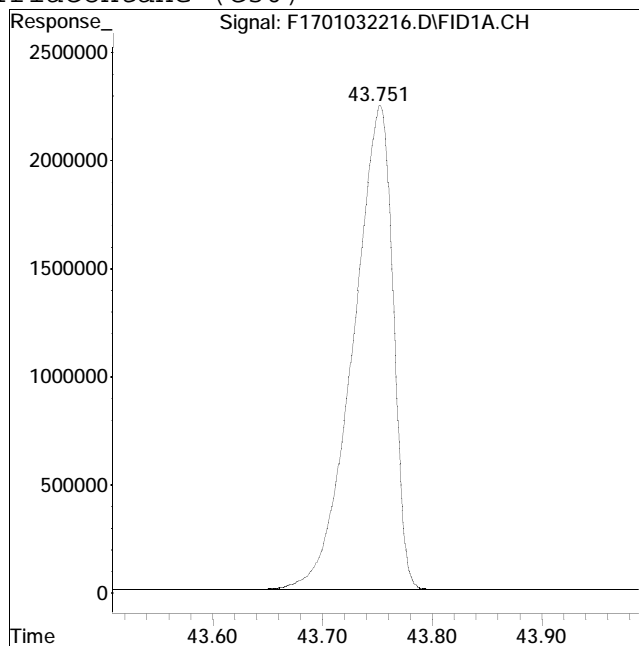
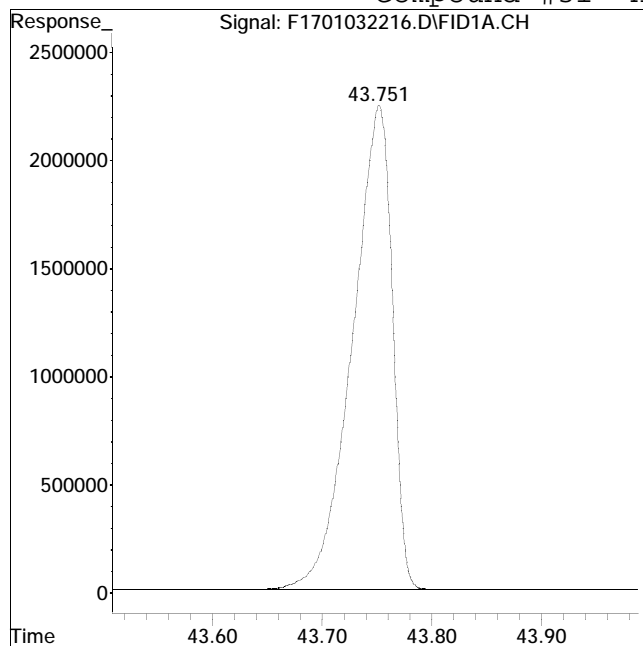
Manual Peak Response = 56558566 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 56598076

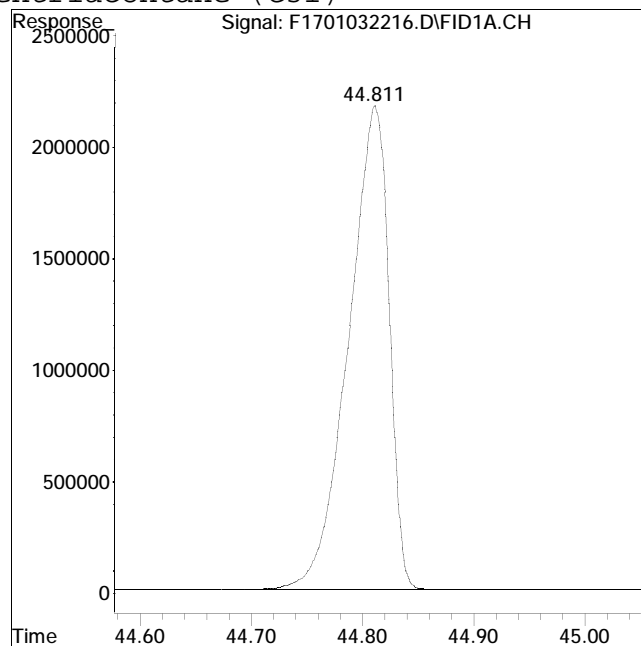
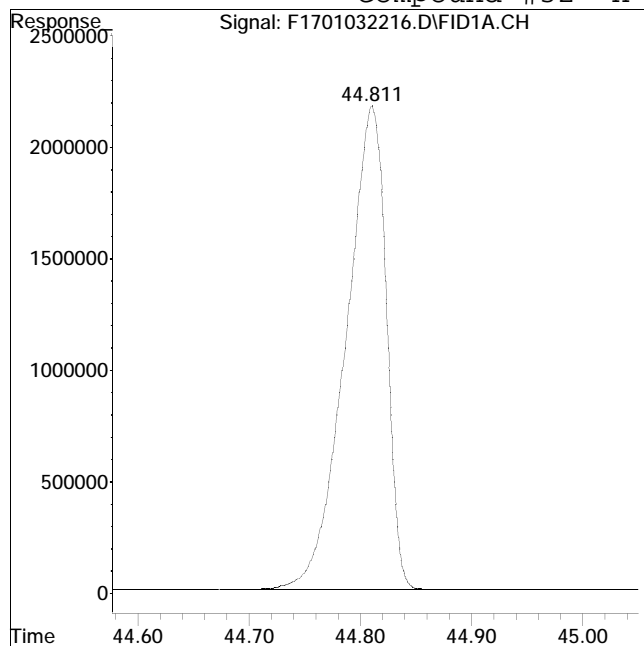
Manual Peak Response = 56671556 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2023QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 54786910

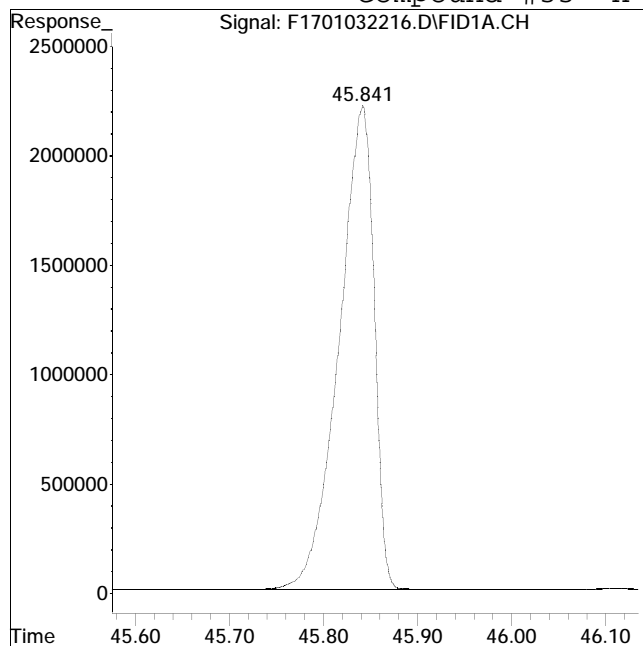
Manual Peak Response = 54879530 M4

M4 = Poor automated baseline construction.

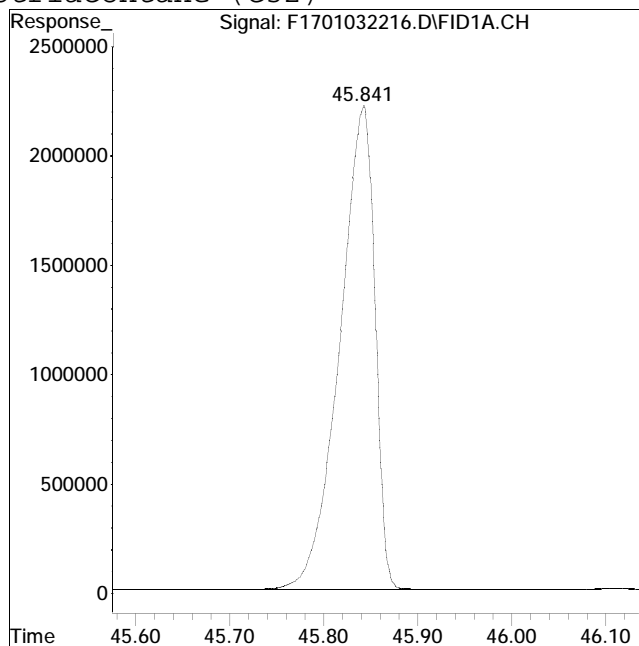
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 57271670



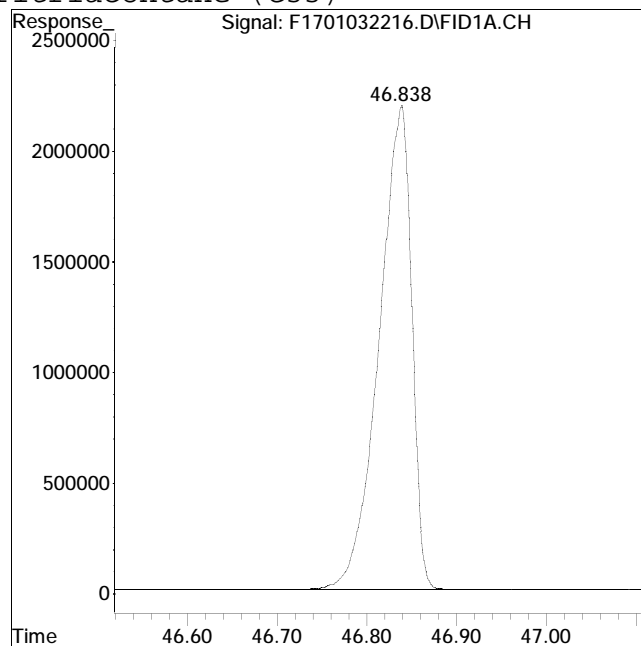
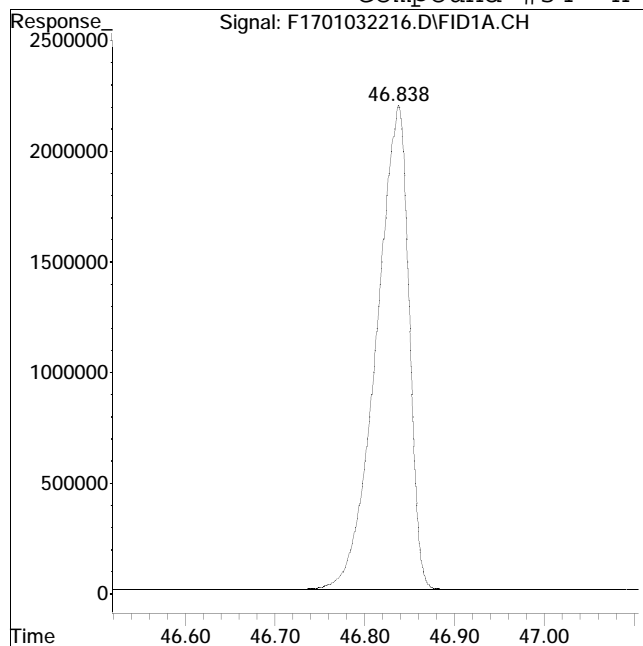
Manual Peak Response = 57404924 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 55180956

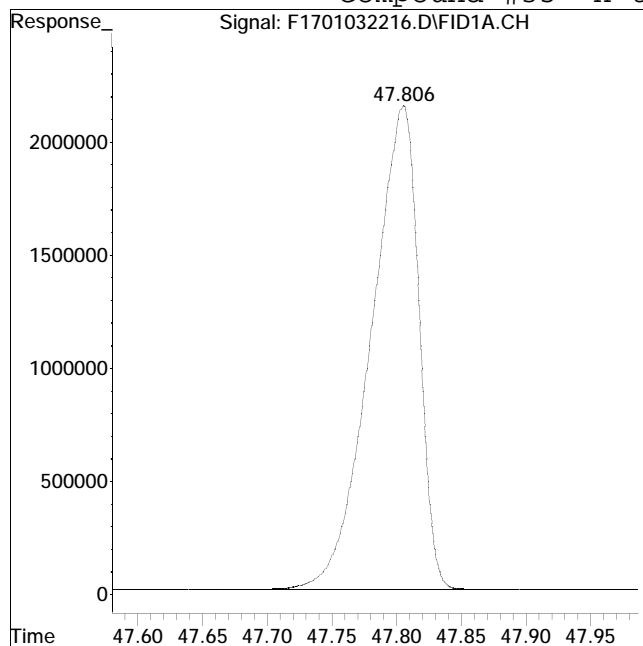
Manual Peak Response = 55219697 M4

M4 = Poor automated baseline construction.

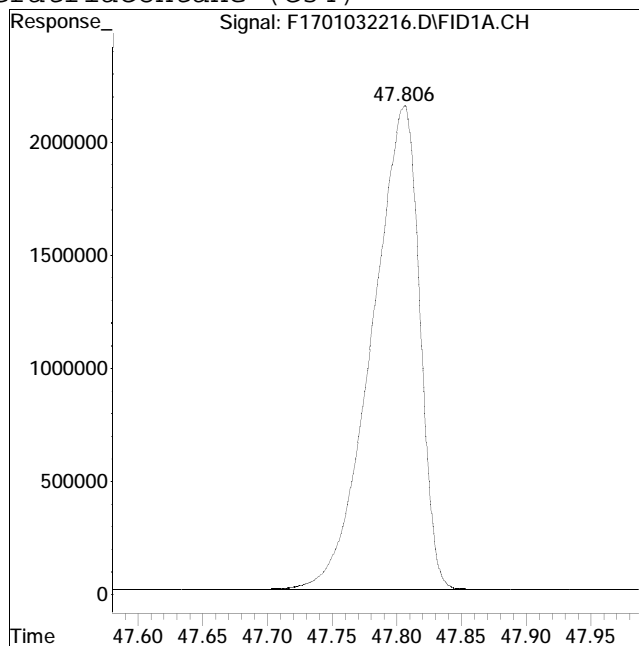
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 54741546



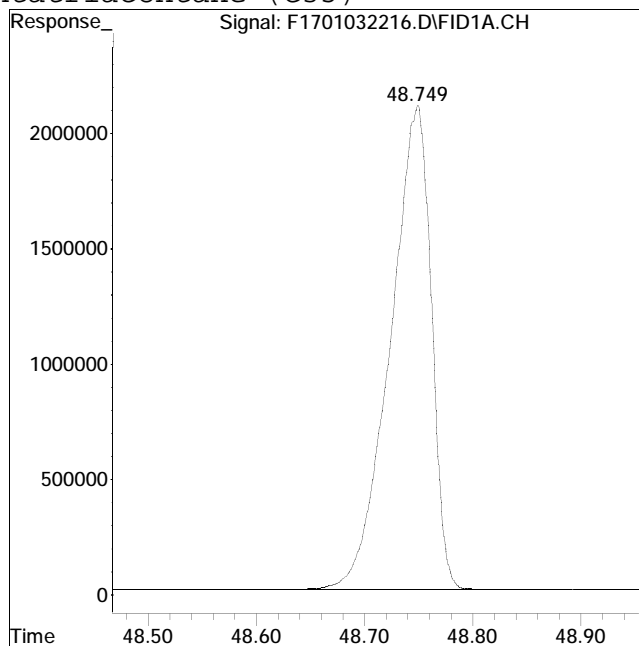
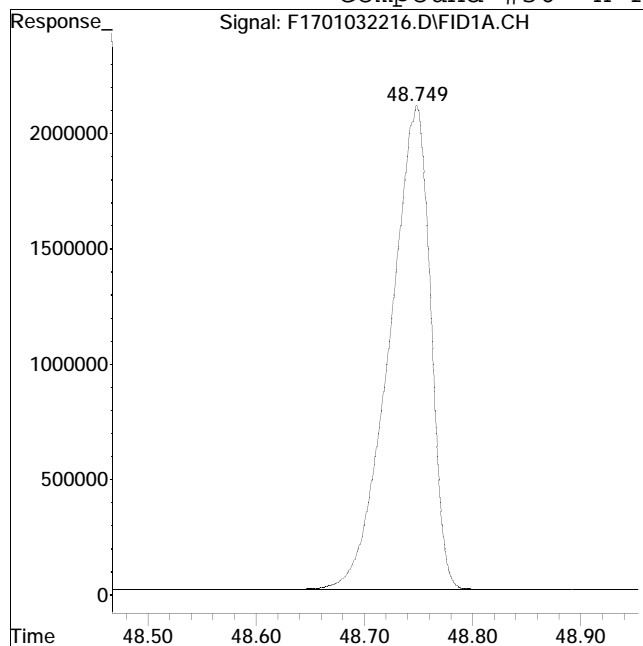
Manual Peak Response = 54882100 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032216.D Operator : FID17:WR
Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 55170929

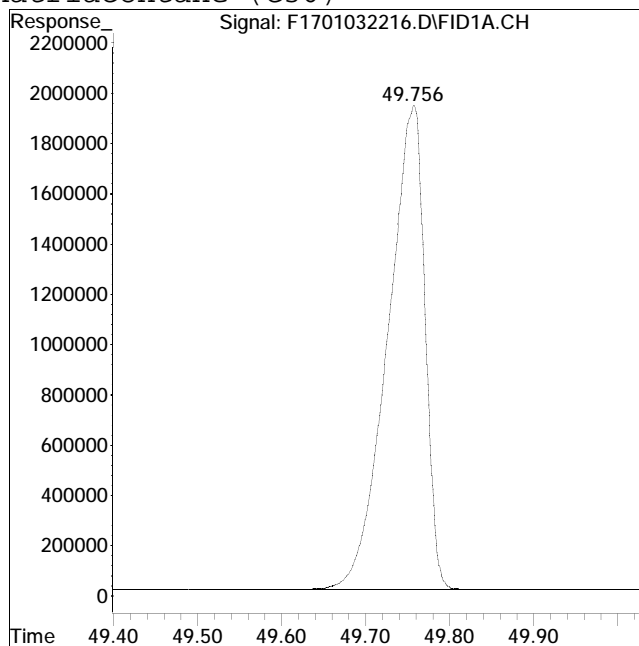
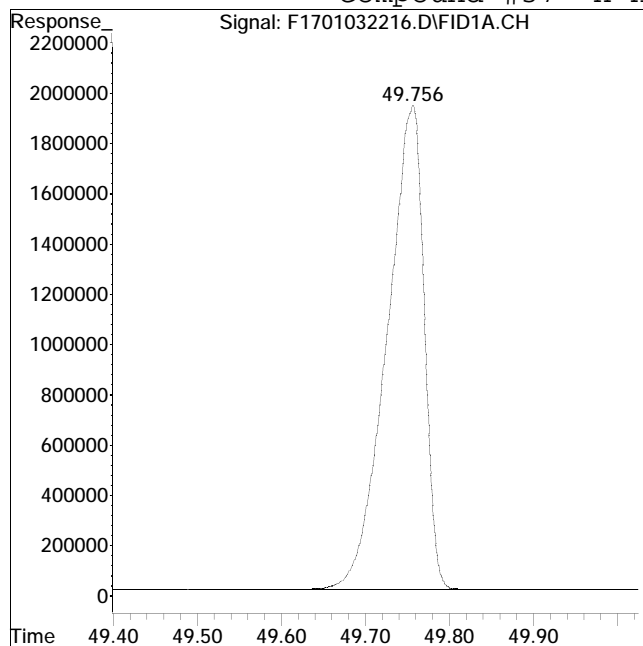
Manual Peak Response = 55228050 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 59170769

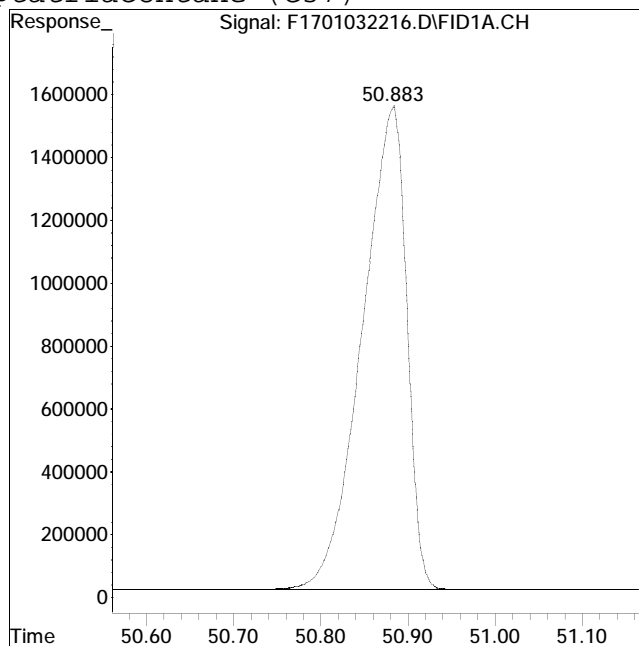
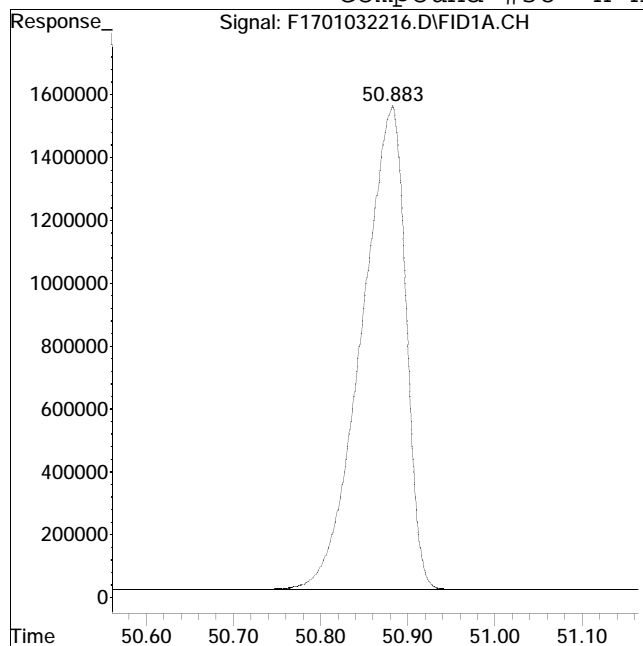
Manual Peak Response = 59239485 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 54373745

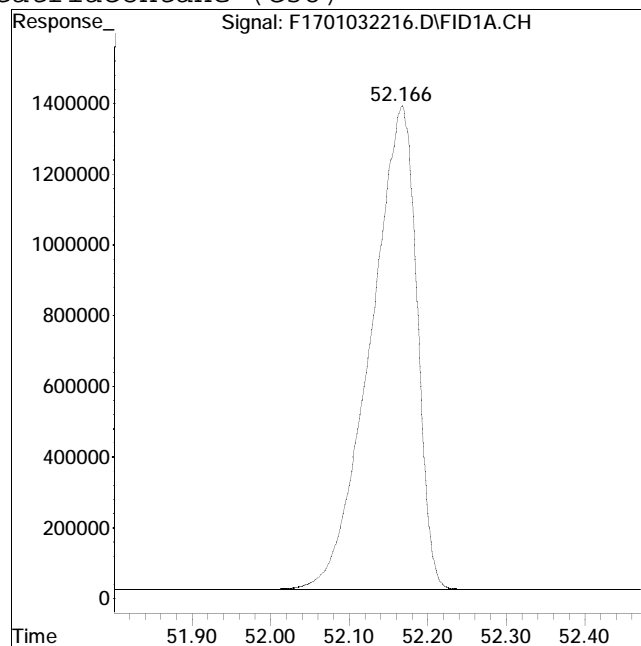
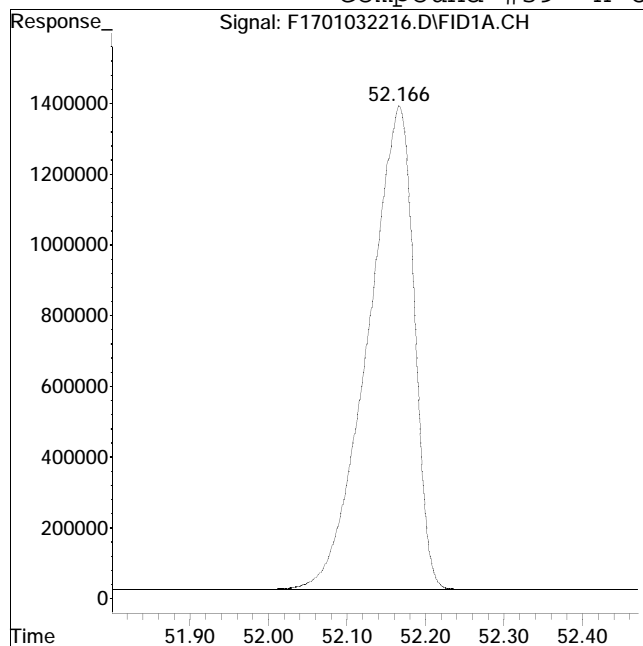
Manual Peak Response = 54395128 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 56052652

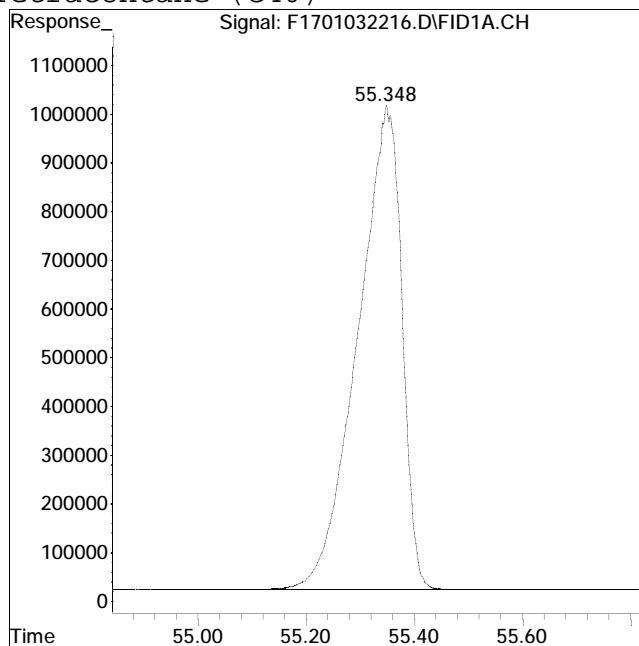
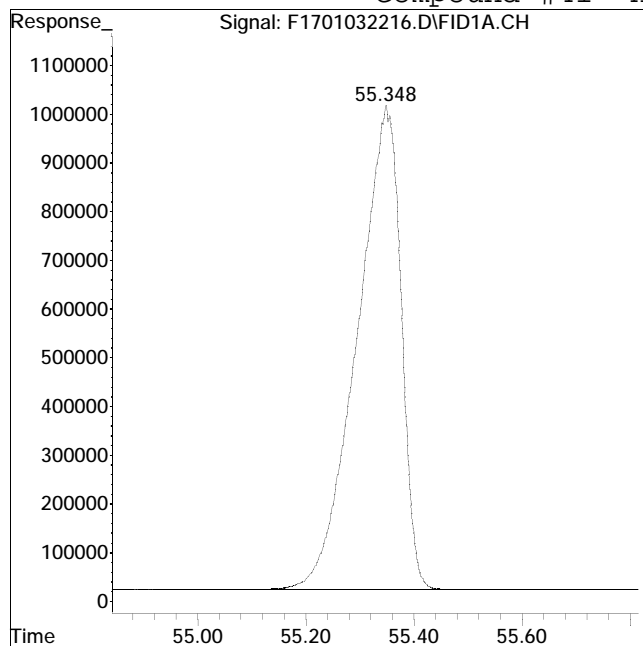
Manual Peak Response = 56105190 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032216.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 8:12 pm Instrument : FID17
 Sample : I1701032303F Quant Date : 1/18/2023 2:10 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 56125391

Manual Peak Response = 56186228 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032218.D
 Signal(s) : FID1A.CH
 Acq On : 03 Jan 2023 9:42 pm
 Operator : FID17:WR
 Sample : I1701032304F
 Misc : WG1734833,FRBF57,100ug/ml
 ALS Vial : 9 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 17 08:59:04 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Jan 17 08:49:09 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.406	65560233	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.400	134442604	93.609 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	187.22%#
24) s d50-Tetracosane	36.051	104438186	92.753 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	185.51%#
Target Compounds			
2) t n-Octane (C8)	5.739	101980659	91.450 ug/mL M4
3) t n-Nonane (C9)	7.943	107092012	92.899 ug/mL M4
4) t n-Decane (C10)	10.429	112573038	94.258 ug/mL M4
5) t n-Undecane (C11)	12.942	112734858	94.261 ug/mL M4
6) t n-Dodecane (C12)	15.371	114268192	94.915 ug/mL M4
7) t n-Tridecane (C13)	17.679	114747140	94.761 ug/mL M4
9) t n-Tetradecane (C14)	19.864	117917407	94.815 ug/mL M4
11) t n-Pentadecane (C15)	21.930	118732209	95.141 ug/mL M4
12) t n-Hexadecane (C16)	23.891	117867765	94.581 ug/mL M4
14) t n-Heptadecane (C17)	25.754	119693339	95.056 ug/mL M4
15) t Pristane	25.865	121071489	94.484 ug/mL M4
16) t n-Octadecane (C18)	27.522	120875003	95.148 ug/mL M4
17) t Phytane	27.688	112485464	94.963 ug/mL M4
18) t n-Nonadecane (C19)	29.208	120979805	95.203 ug/mL M4
20) t n-Eicosane (C20)	30.816	121257148	94.443 ug/mL M4
21) t n-Heneicosane (C21)	32.353	121841721	94.954 ug/mL M4
22) t n-Docosane (C22)	33.828	121305110	94.049 ug/mL M4
23) t n-Tricosane (C23)	35.241	121466342	94.004 ug/mL M4
25) t n-Tetracosane (C24)	36.602	120617127	95.491 ug/mL M4
26) t n-Pentacosane (C25)	37.905	118413203	93.650 ug/mL M4
27) t n-Hexacosane (C26)	39.167	121304515	93.633 ug/mL M4
28) t n-Heptacosane (C27)	40.380	120911412	94.395 ug/mL M4
29) t n-Octacosane (C28)	41.554	123060976	93.628 ug/mL M4
30) t n-Nonacosane (C29)	42.686	122232806	93.730 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
Data File : F1701032218.D
Signal(s) : FID1A.CH
Acq On : 03 Jan 2023 9:42 pm
Operator : FID17:WR
Sample : I1701032304F
Misc : WG1734833,FRBF57,100ug/ml
ALS Vial : 9 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Jan 17 08:59:04 2023
Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
Quant Title : FID Forensics
QLast Update : Tue Jan 17 08:49:09 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	43.781	122324102	93.599 ug/mL M4
32) t	n-Hentriacontane (C31)	44.841	117529950	93.110 ug/mL M4
33) t	n-Dotriacontane (C32)	45.869	122894750	93.098 ug/mL M4
34) t	n-Tritriacontane (C33)	46.867	118994945	93.310 ug/mL M4
35) t	n-tetratriacontane (C34)	47.835	117948832	93.199 ug/mL M4
36) t	n-Pentatriacontane (C35)	48.776	109845616	90.470 ug/mL M4
37) t	n-Hexatriacontane (C36)	49.794	132129313	94.586 ug/mL M4
38) t	n-Heptatriacontane (C37)	50.924	120126256	93.474 ug/mL M4
39) t	n-Octatriacontane (C38)	52.214	121448962	93.154 ug/mL M4
41) t	n-Tetracontane (C40)	55.415	119682204	93.165 ug/mL M4

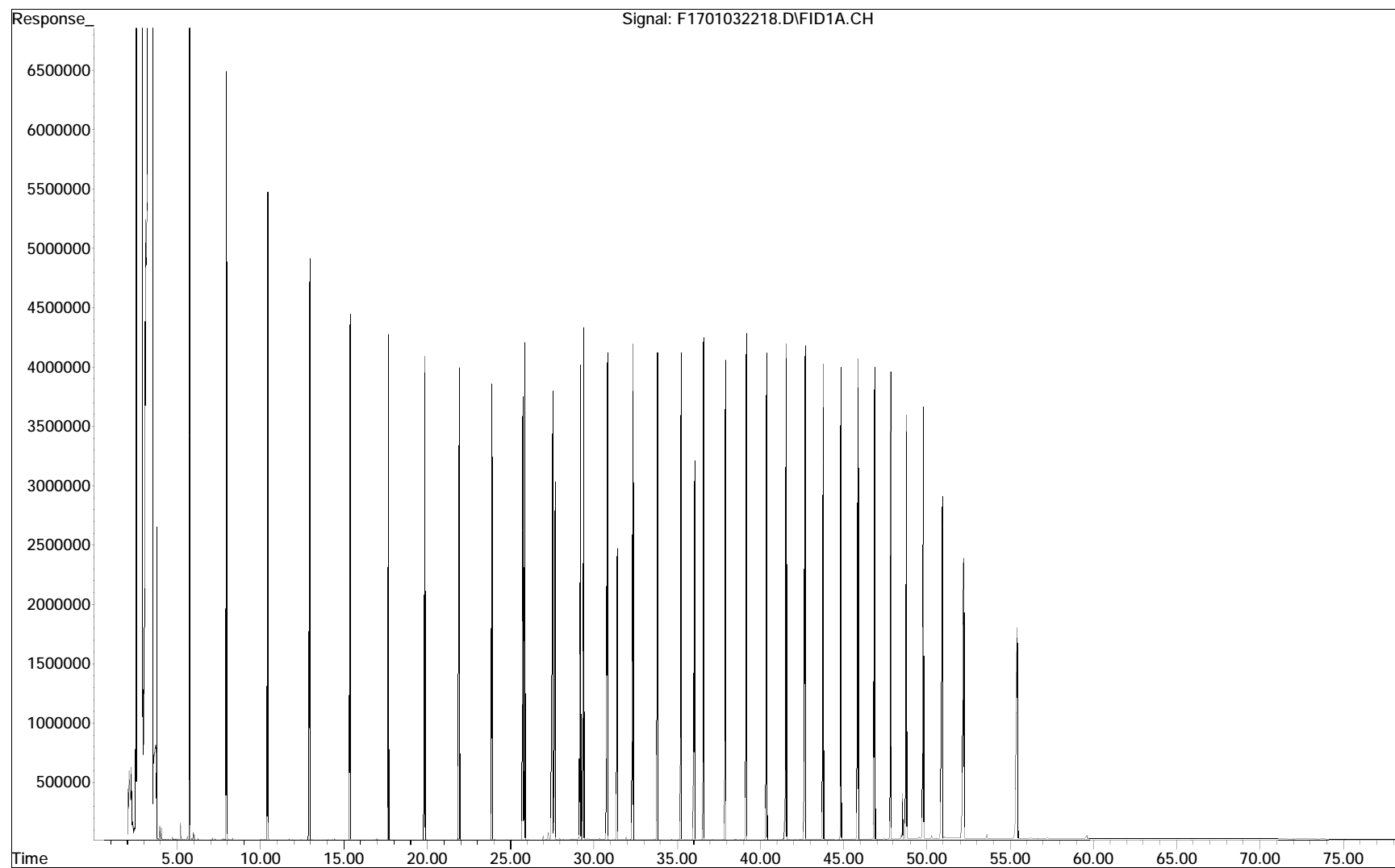
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

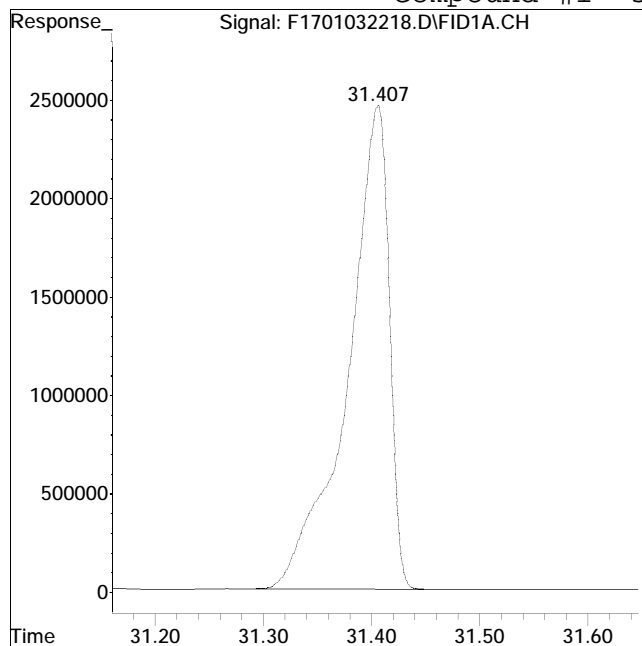
File : O:\Forensics\Data\FID17\2023\JAN\JAN03\F1701032218.D
Operator : FID17:WR
Acquired : 03 Jan 2023 9:42 pm using AcqMethod FID17A.M
Sample Name: I1701032304F
Instrument: FID17
Misc Info : WG1734833,FRBF57,100ug/ml
Vial Number: 9
CurrentMeth: O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M



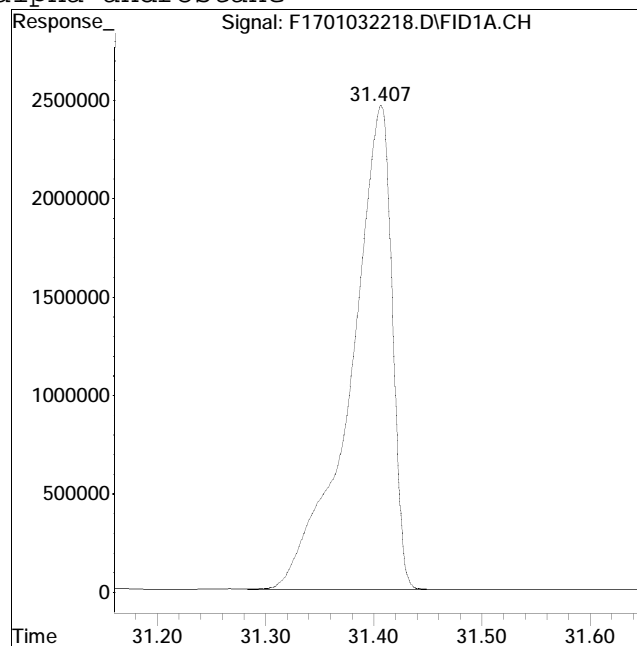
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032218.D Operator : FID17:WR
Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #1: 5-alpha-androstane



Original Peak Response = 65385825



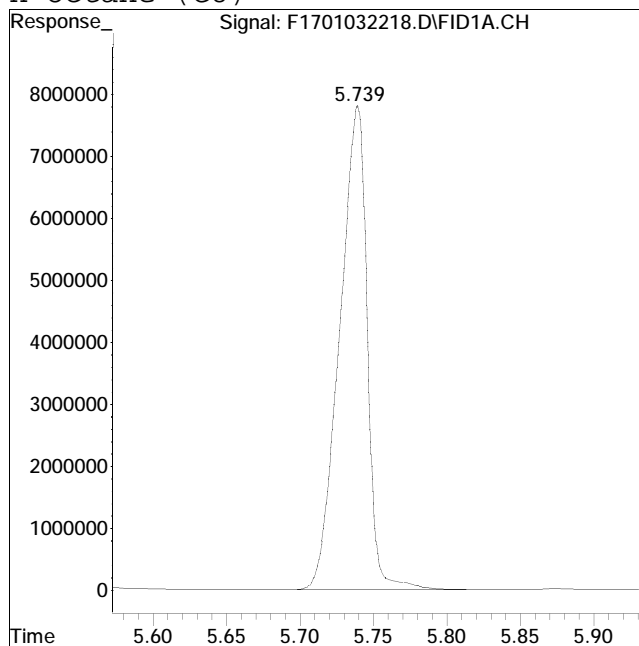
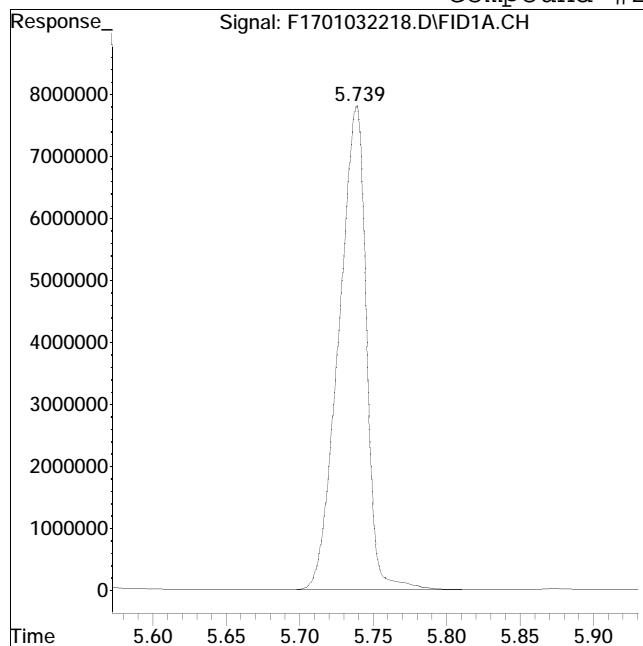
Manual Peak Response = 65560233 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #2: n-Octane (C8)



Original Peak Response = 101878789

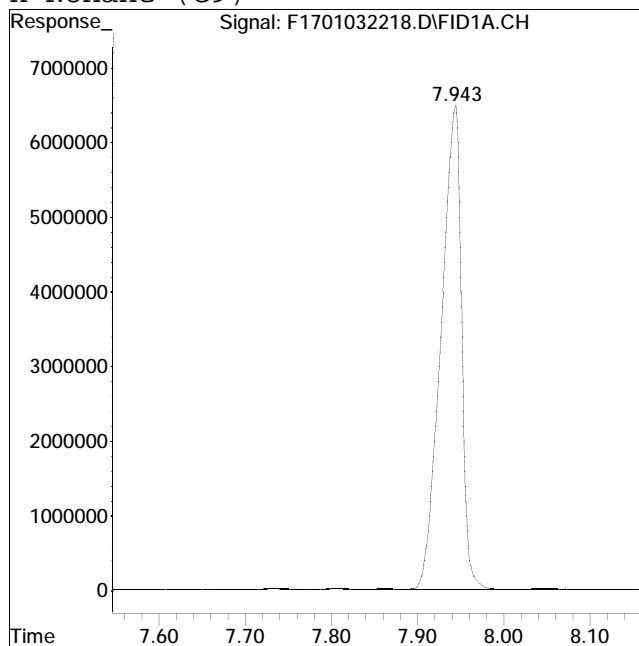
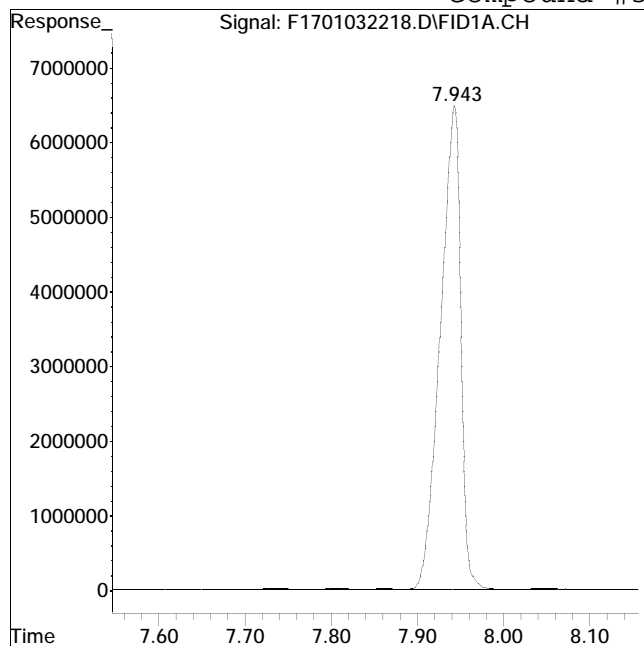
Manual Peak Response = 101980659 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #3: n-Nonane (C9)



Original Peak Response = 107443888

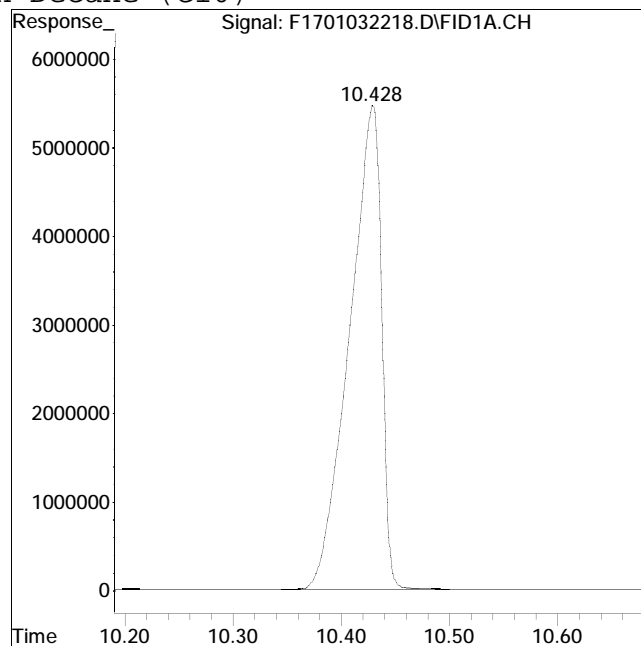
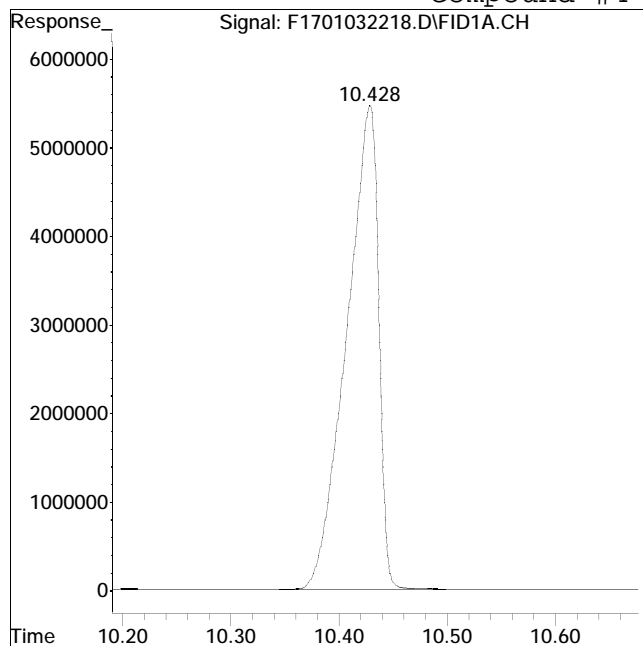
Manual Peak Response = 107092012 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #4: n-Decane (C10)



Original Peak Response = 112506021

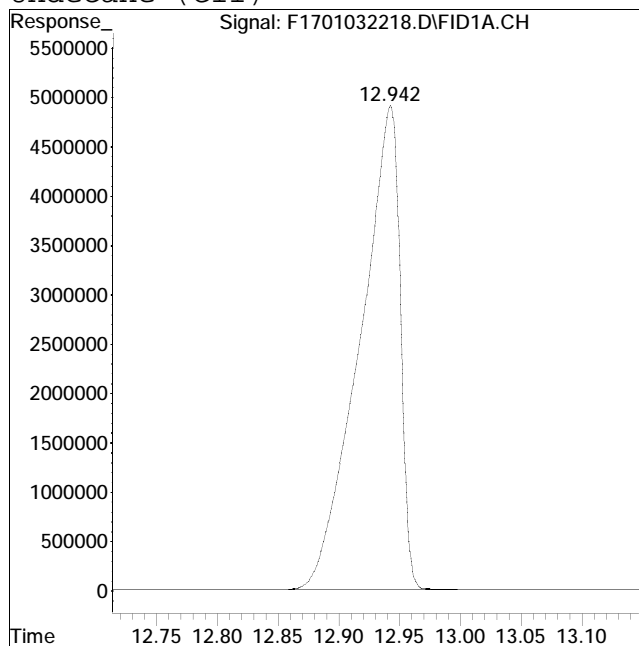
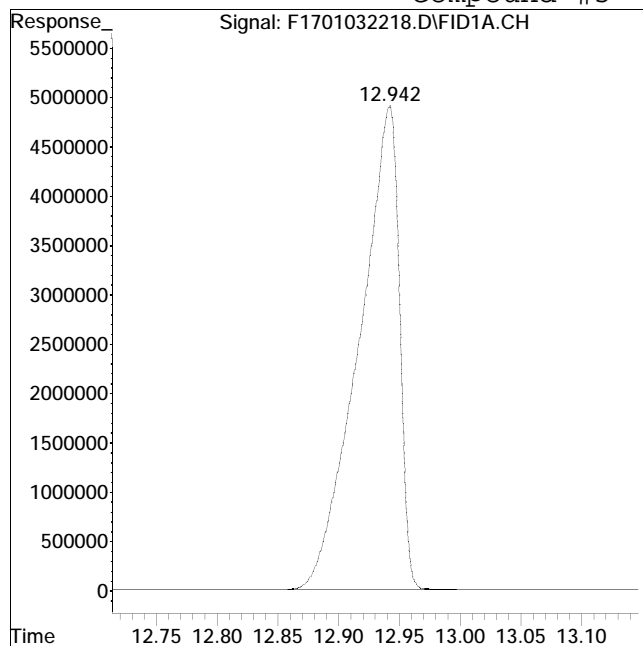
Manual Peak Response = 112573038 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #5: n-Undecane (C11)



Original Peak Response = 112665558

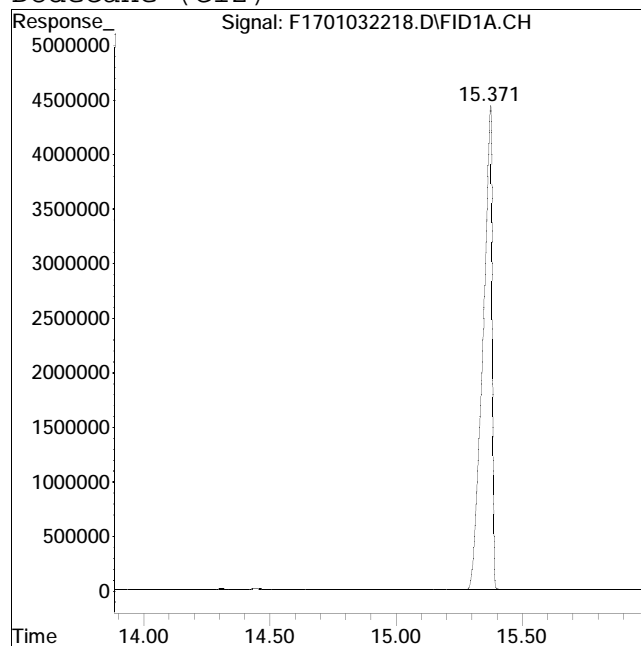
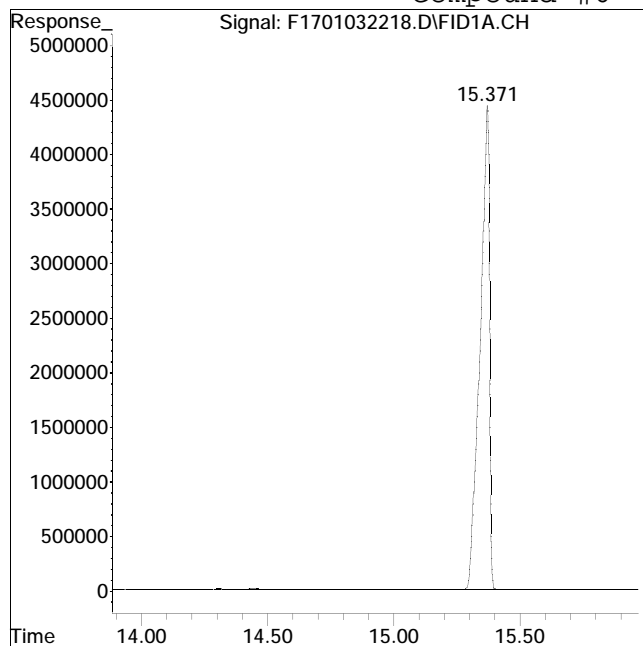
Manual Peak Response = 112734858 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #6: n-Dodecane (C12)



Original Peak Response = 114260086

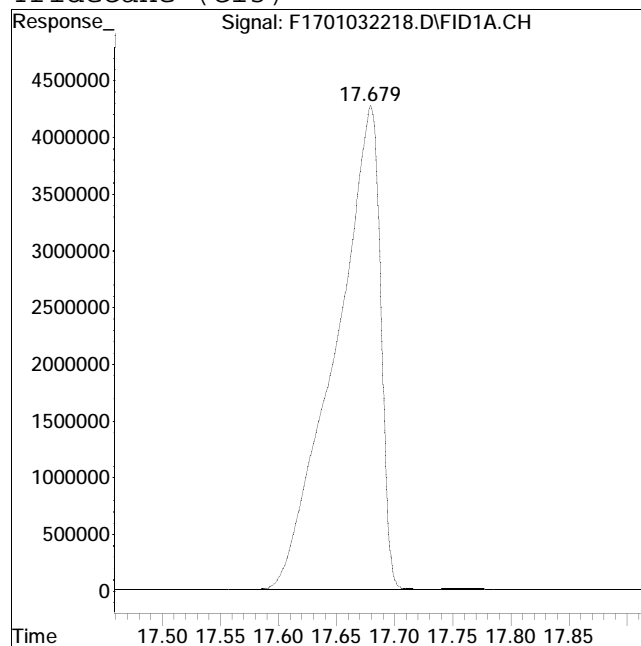
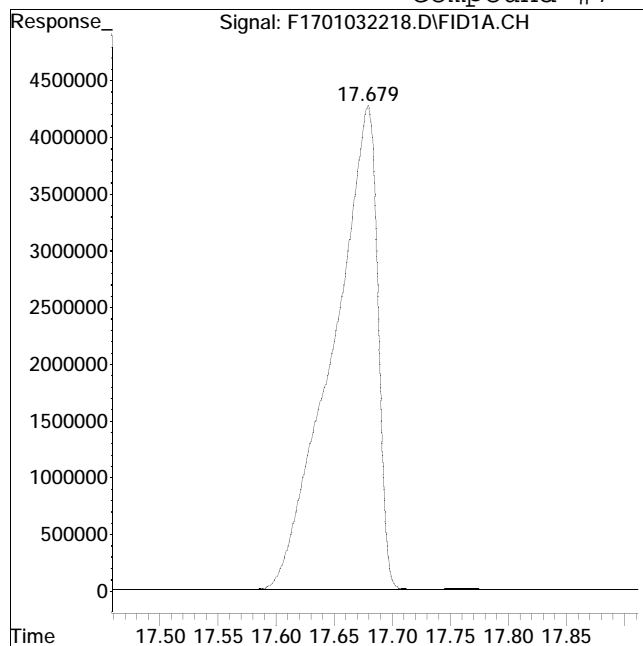
Manual Peak Response = 114268192 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #7: n-Tridecane (C13)



Original Peak Response = 114769010

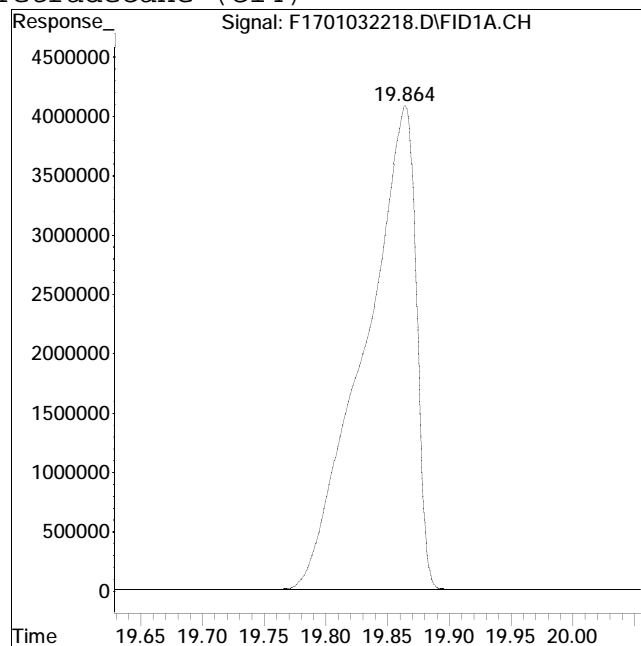
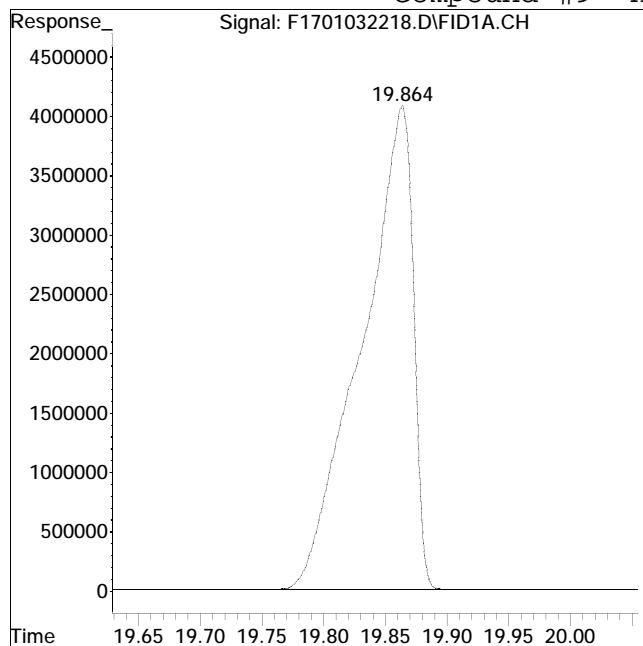
Manual Peak Response = 114747140 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #9: n-Tetradecane (C14)



Original Peak Response = 117842019

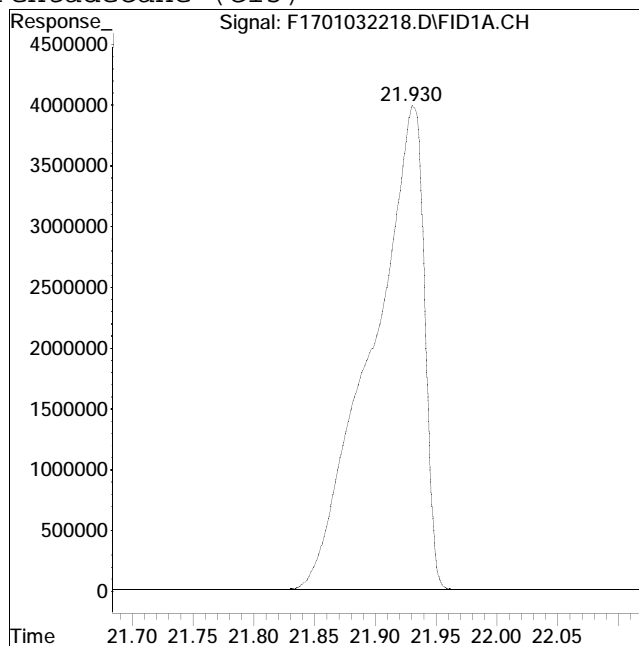
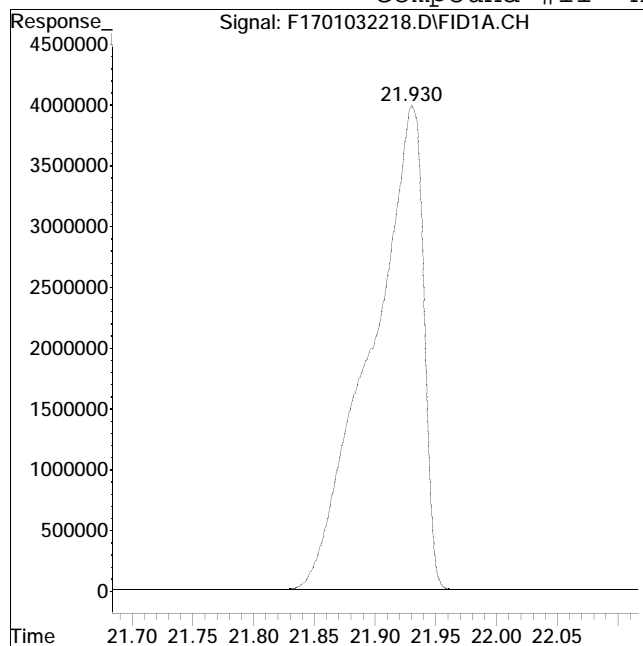
Manual Peak Response = 117917407 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #11: n-Pentadecane (C15)



Original Peak Response = 118693157

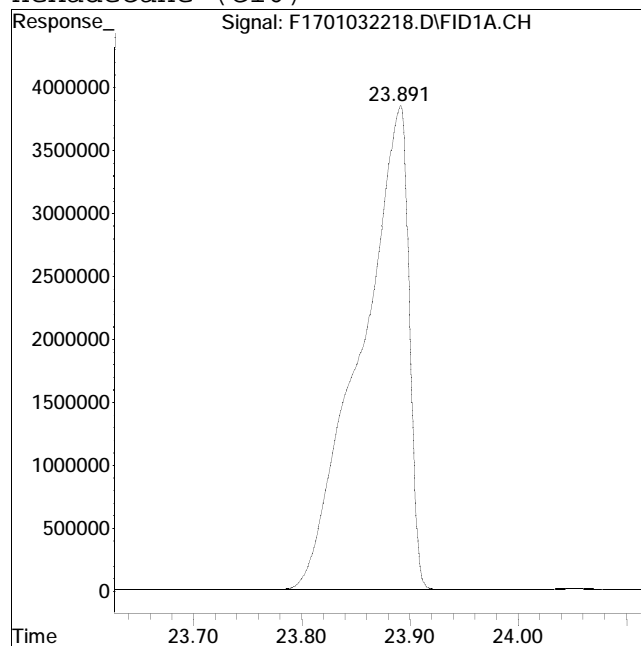
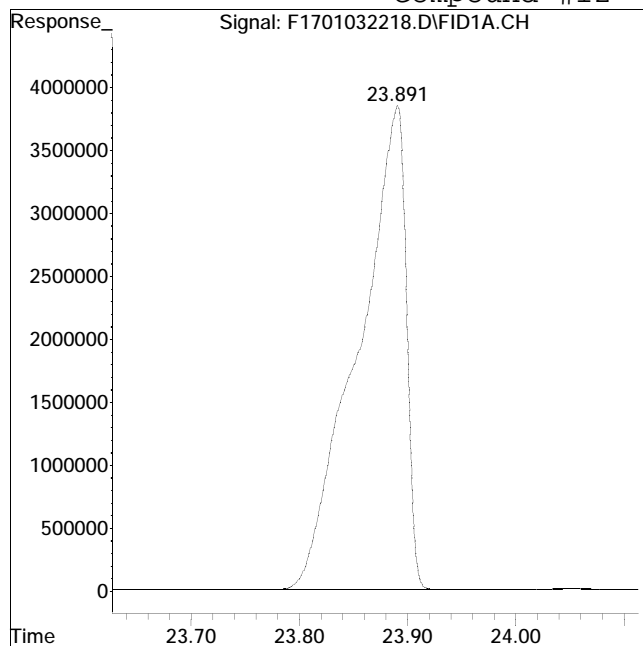
Manual Peak Response = 118732209 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #12: n-Hexadecane (C16)



Original Peak Response = 117804086

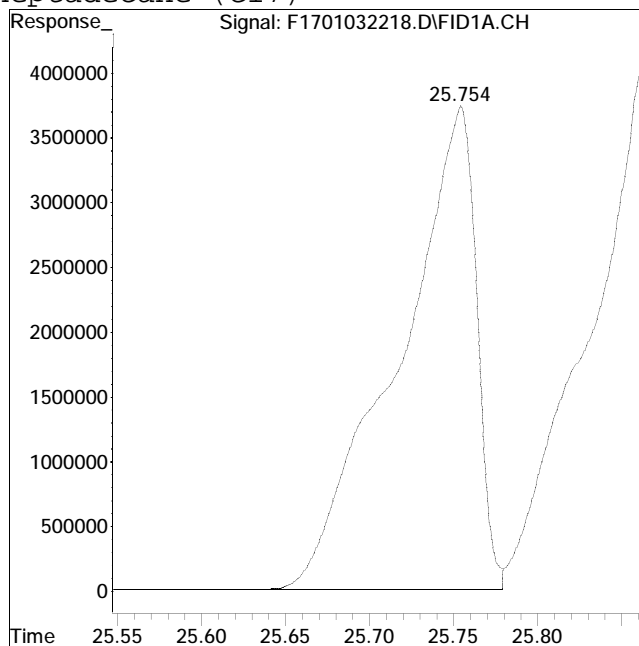
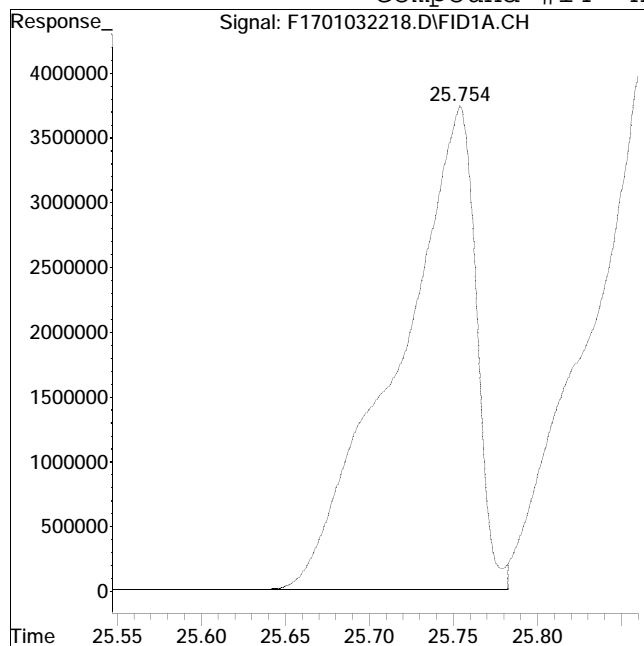
Manual Peak Response = 117867765 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #14: n-Heptadecane (C17)



Original Peak Response = 119925371

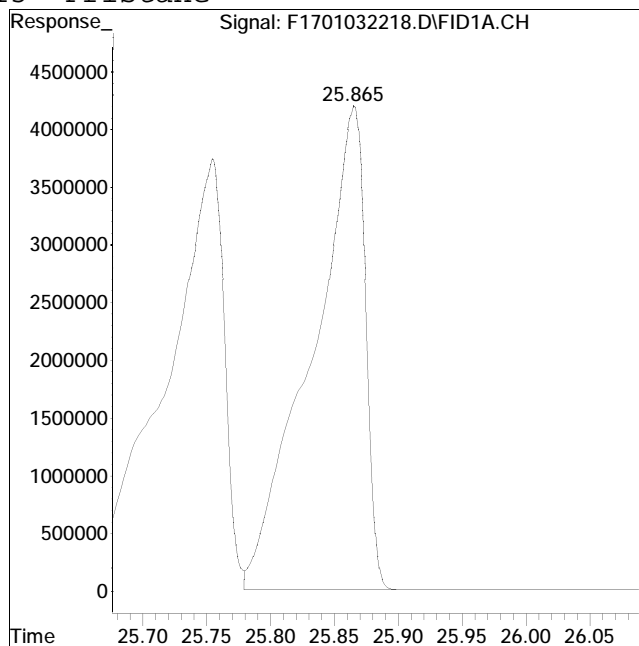
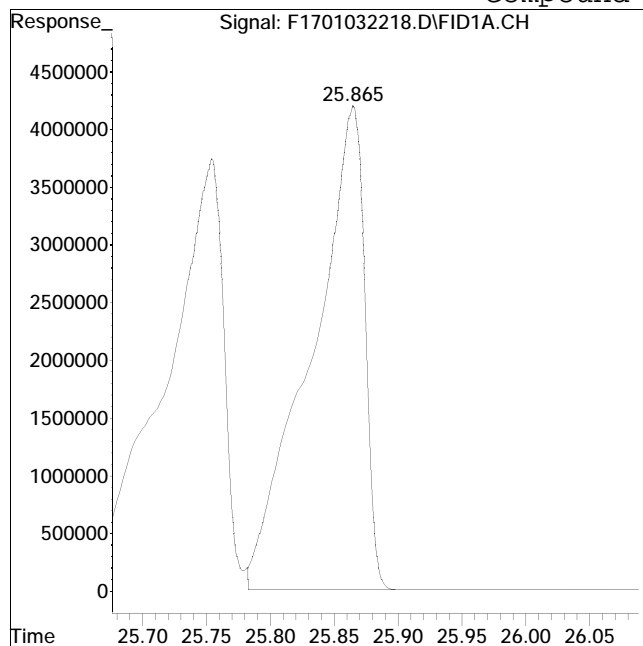
Manual Peak Response = 119693339 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #15: Pristane



Original Peak Response = 120758705

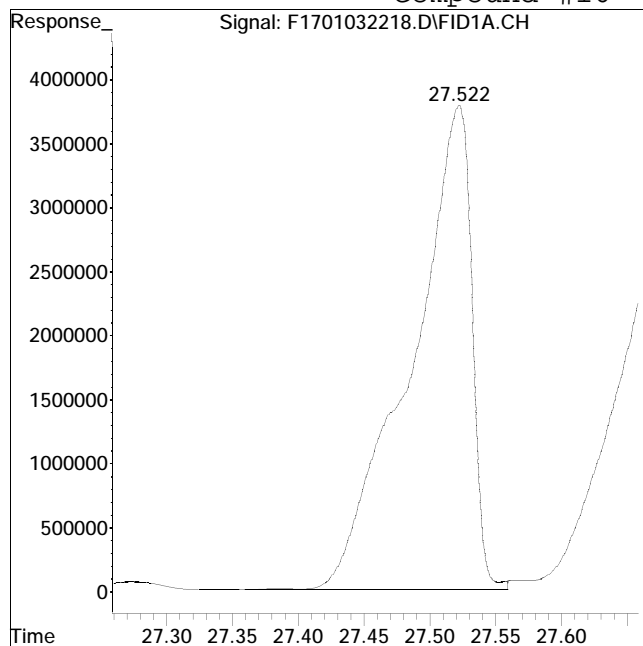
Manual Peak Response = 121071489 M4

M4 = Poor automated baseline construction.

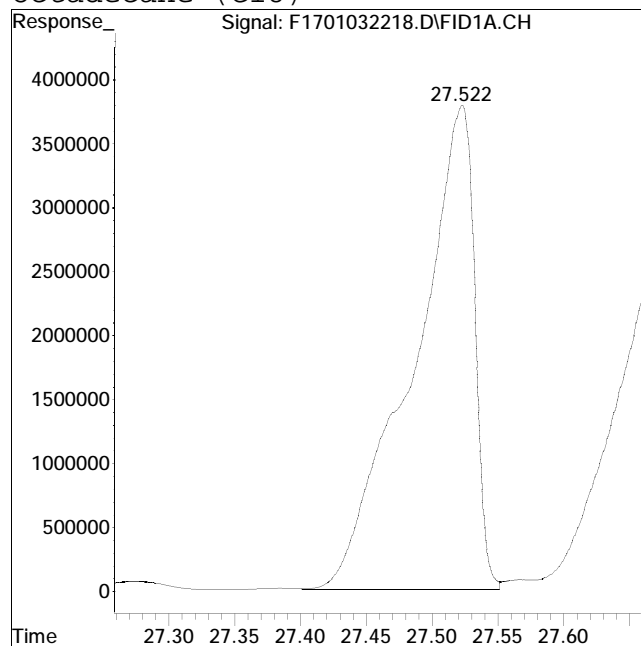
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #16: n-Octadecane (C18)



Original Peak Response = 121045119



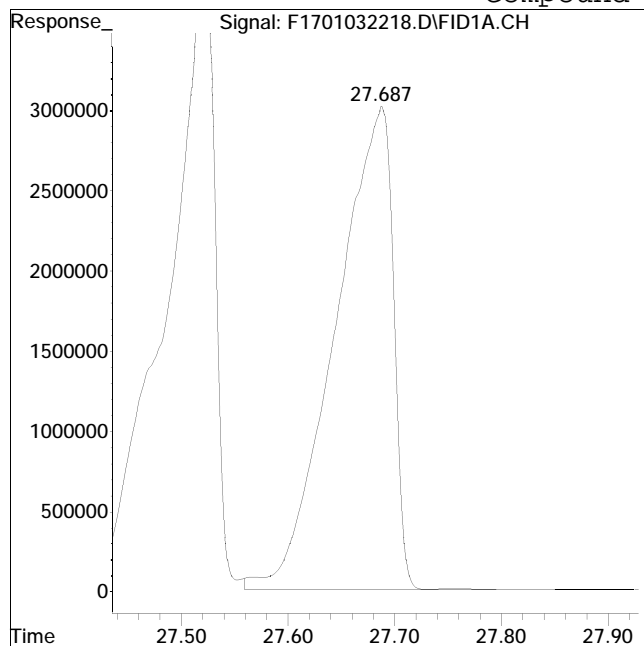
Manual Peak Response = 120875003 M4

M4 = Poor automated baseline construction.

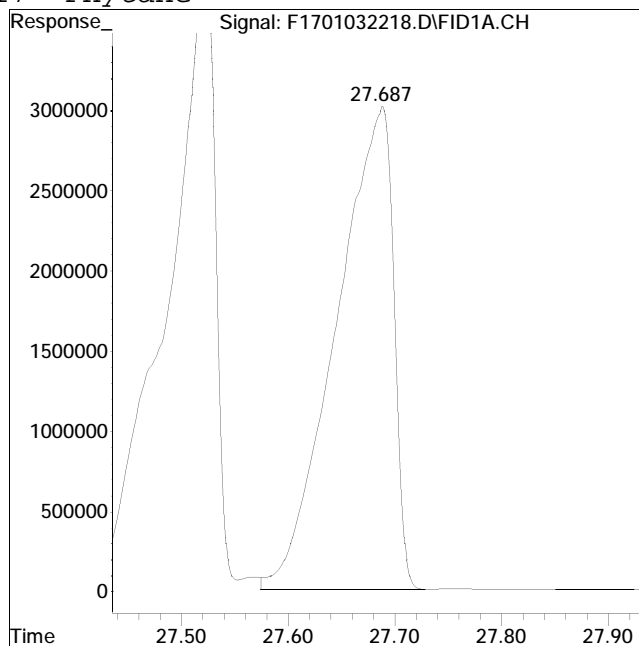
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #17: Phytane



Original Peak Response = 113063909



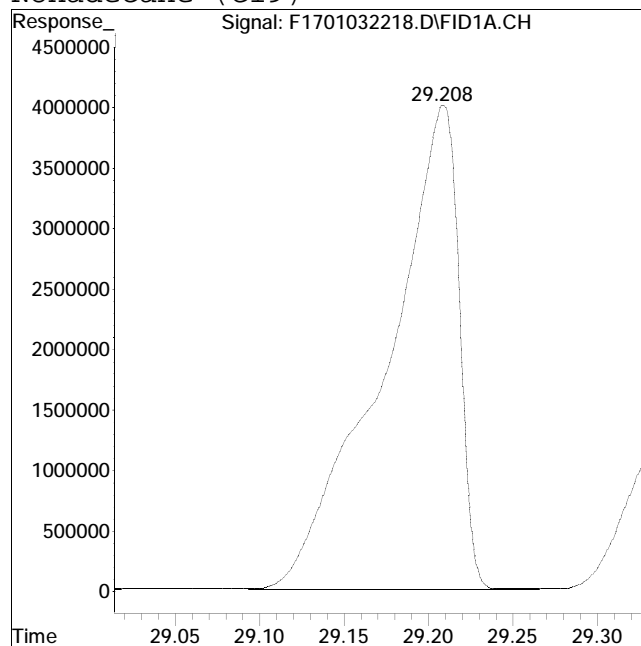
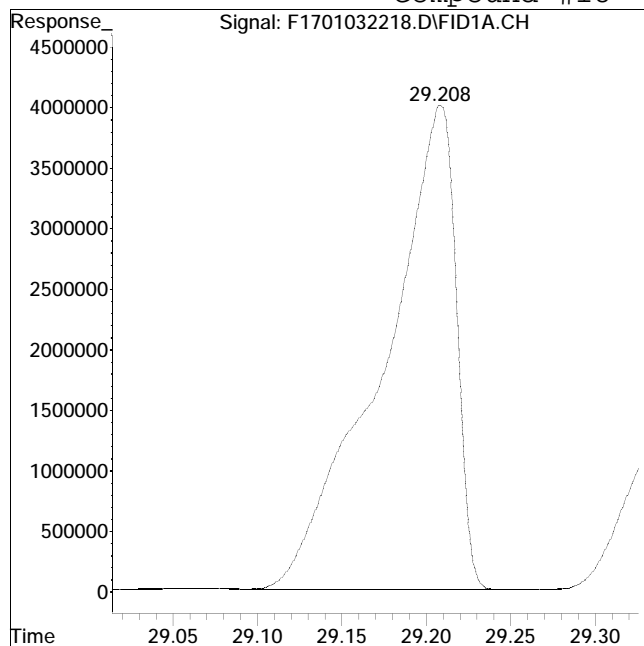
Manual Peak Response = 112485464 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #18: n-Nonadecane (C19)



Original Peak Response = 120319169

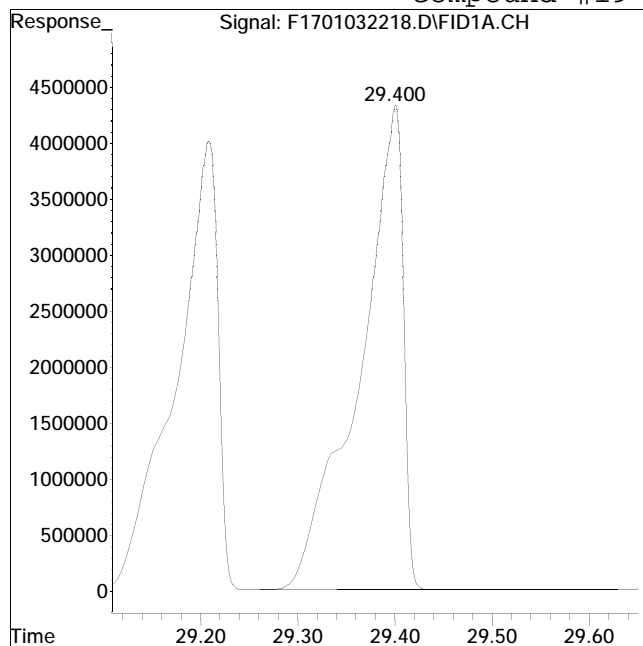
Manual Peak Response = 120979805 M4

M4 = Poor automated baseline construction.

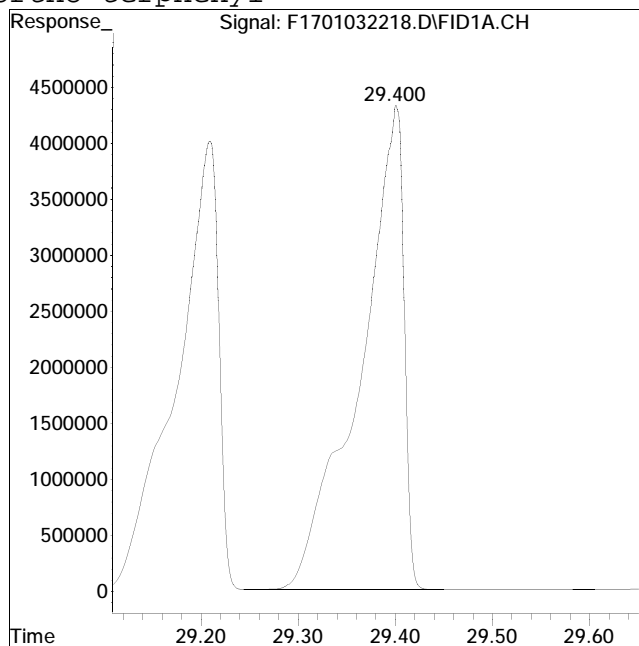
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032218.D Operator : FID17:WR
Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #19: ortho-terphenyl



Original Peak Response = 133934943



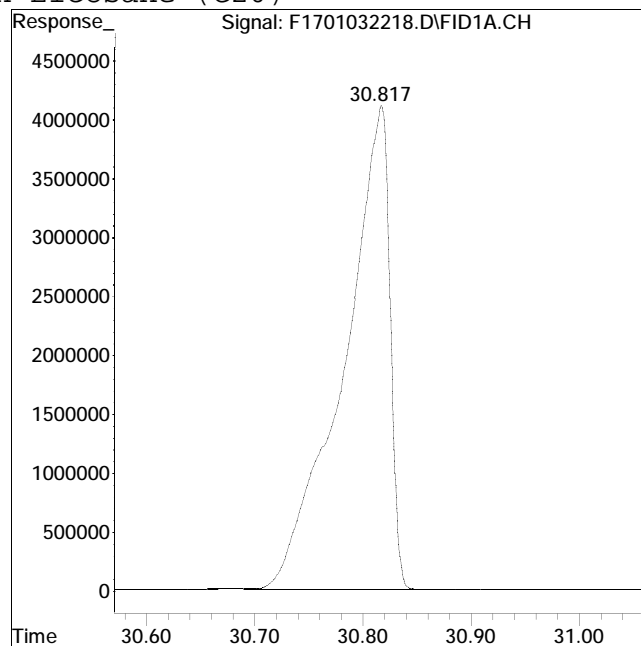
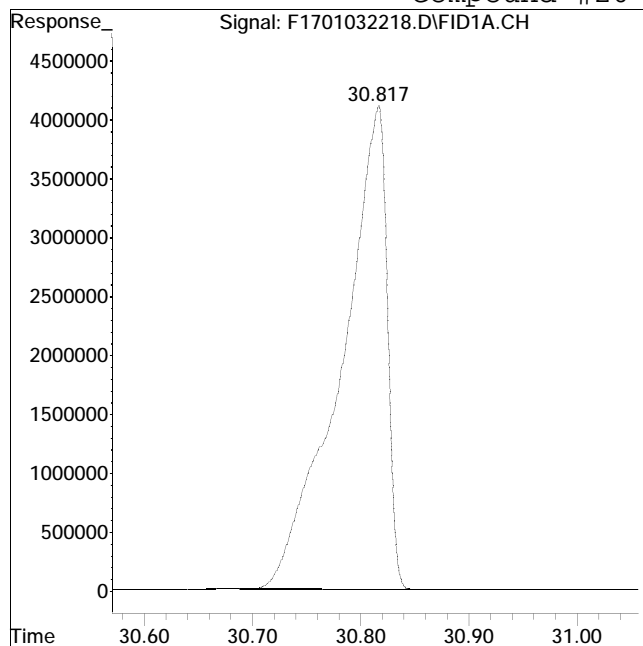
Manual Peak Response = 134442604 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #20: n-Eicosane (C20)



Original Peak Response = 120759655

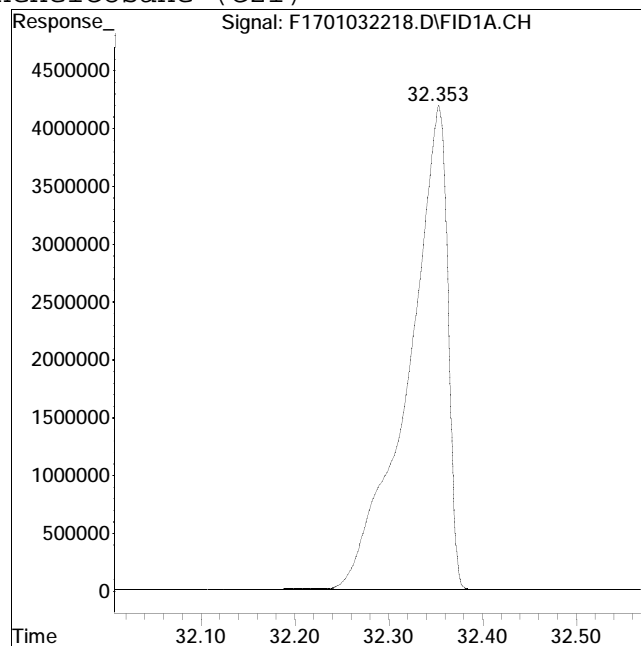
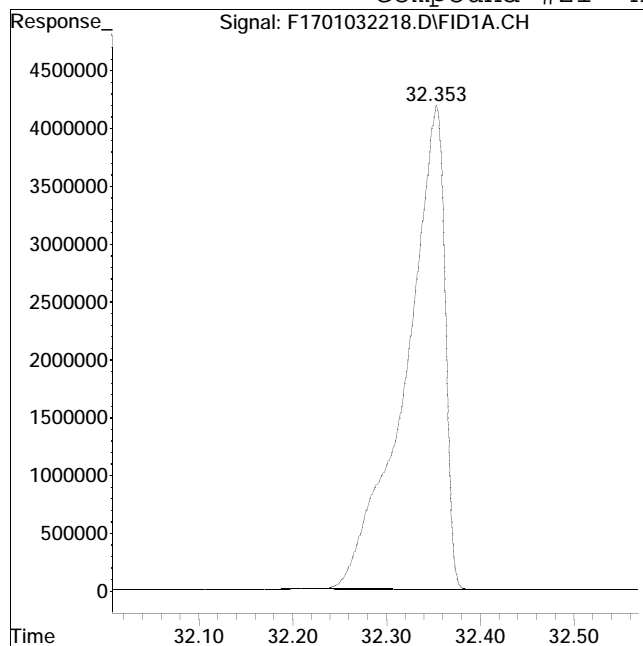
Manual Peak Response = 121257148 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #21: n-Heneicosane (C21)



Original Peak Response = 121039794

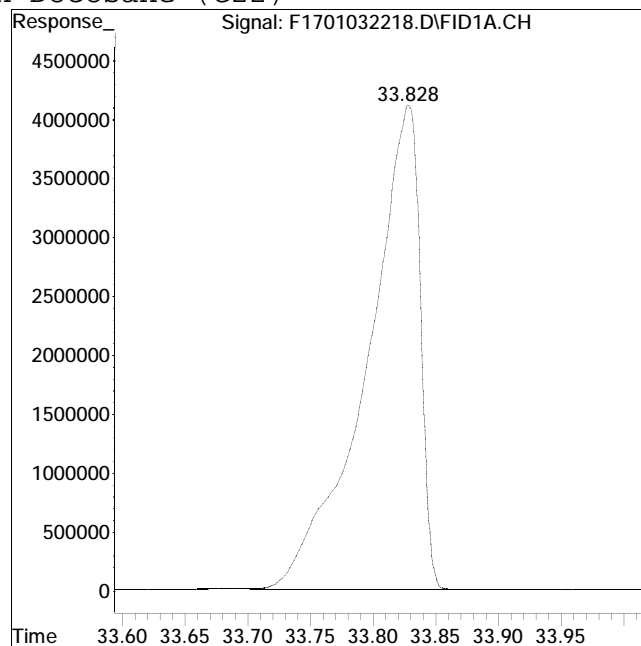
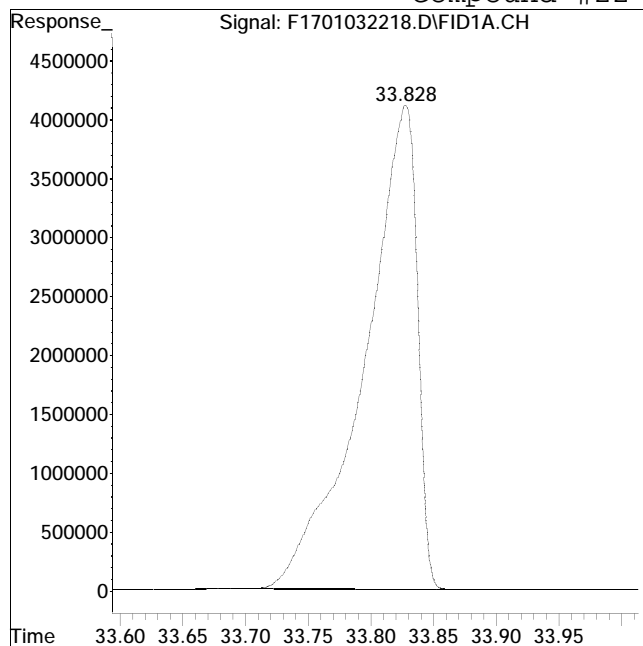
Manual Peak Response = 121841721 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #22: n-Docosane (C22)



Original Peak Response = 120746743

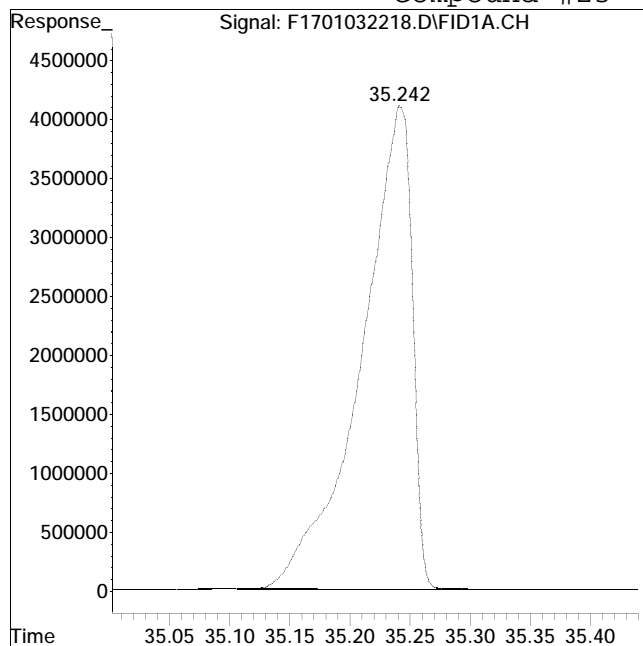
Manual Peak Response = 121305110 M4

M4 = Poor automated baseline construction.

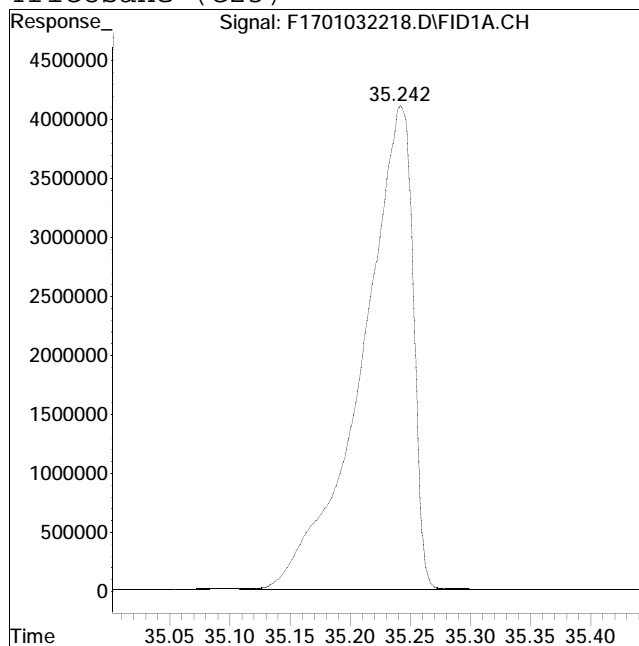
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032218.D Operator : FID17:WR
Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #23: n-Tricosane (C23)



Original Peak Response = 120985748



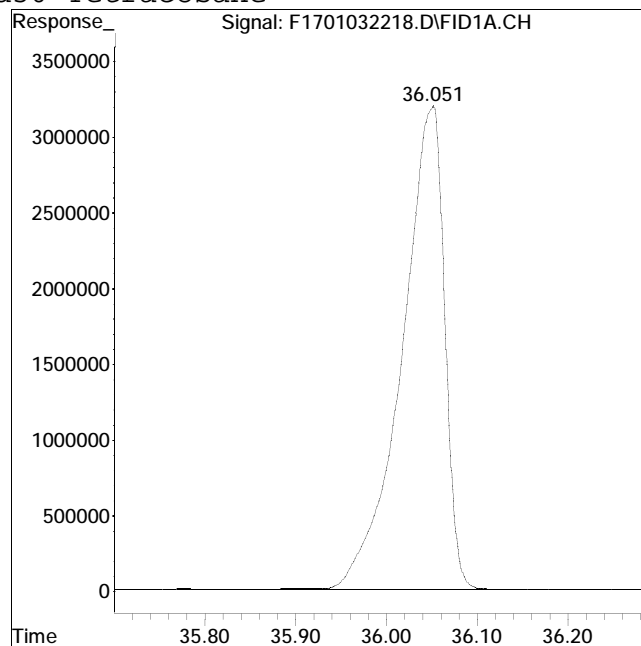
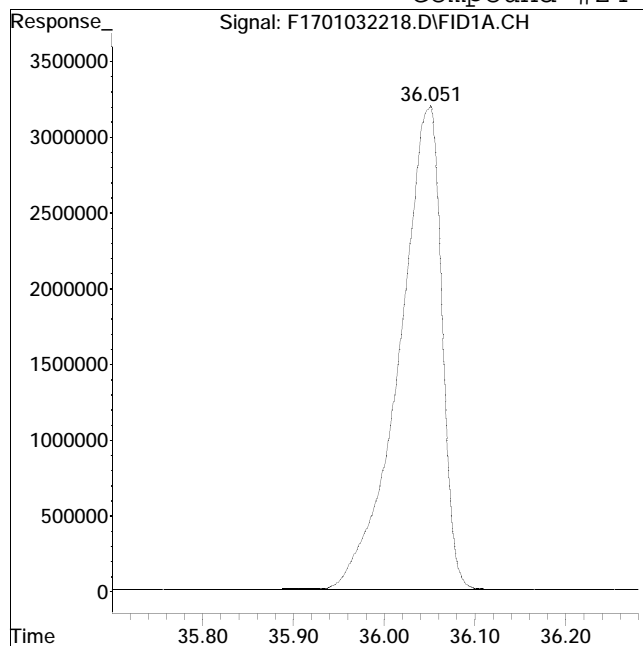
Manual Peak Response = 121466342 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #24: d50-Tetracosane



Original Peak Response = 104181473

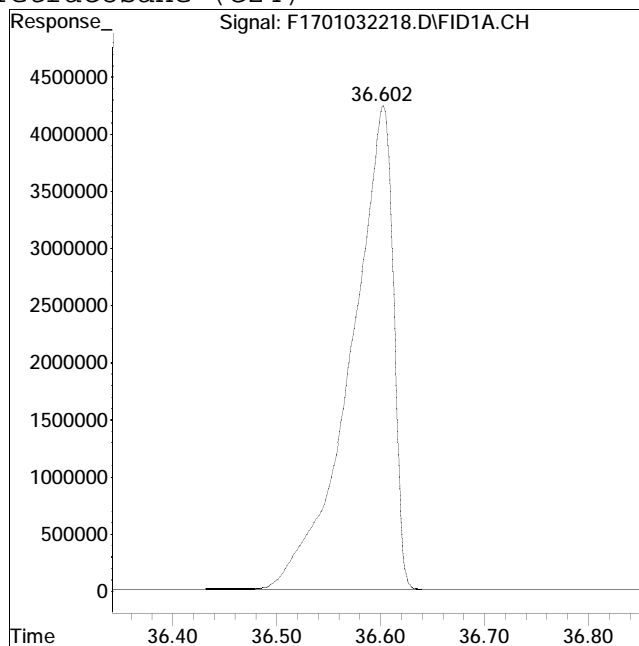
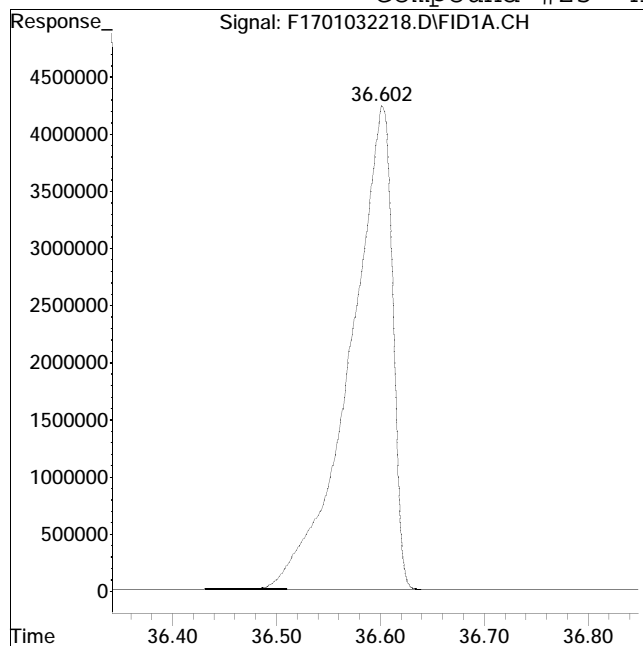
Manual Peak Response = 104438186 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032218.D Operator : FID17:WR
Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #25: n-Tetracosane (C24)



Original Peak Response = 120164846

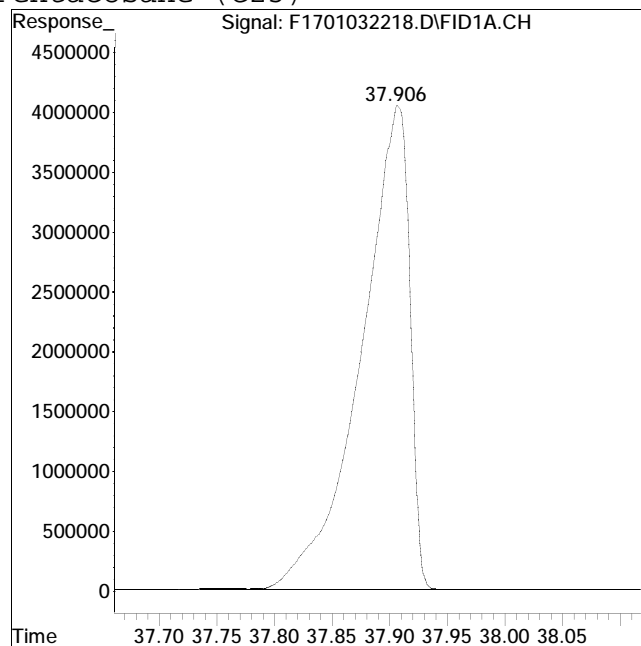
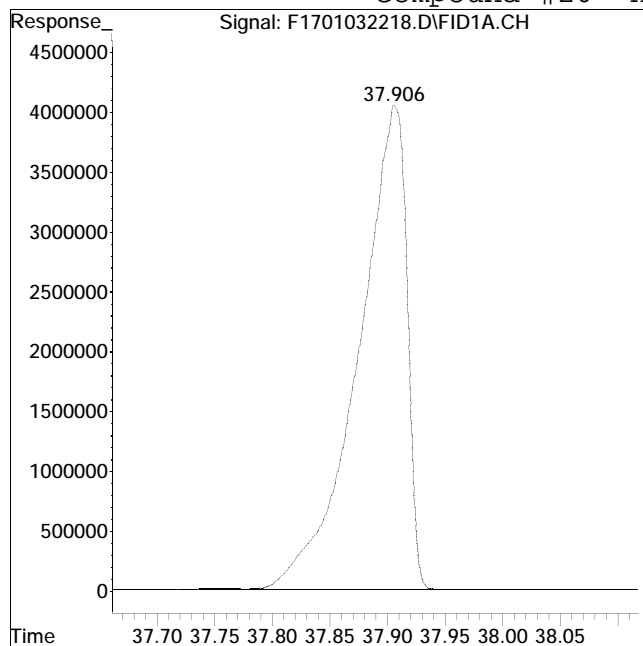
Manual Peak Response = 120617127 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #26: n-Pentacosane (C25)



Original Peak Response = 118075734

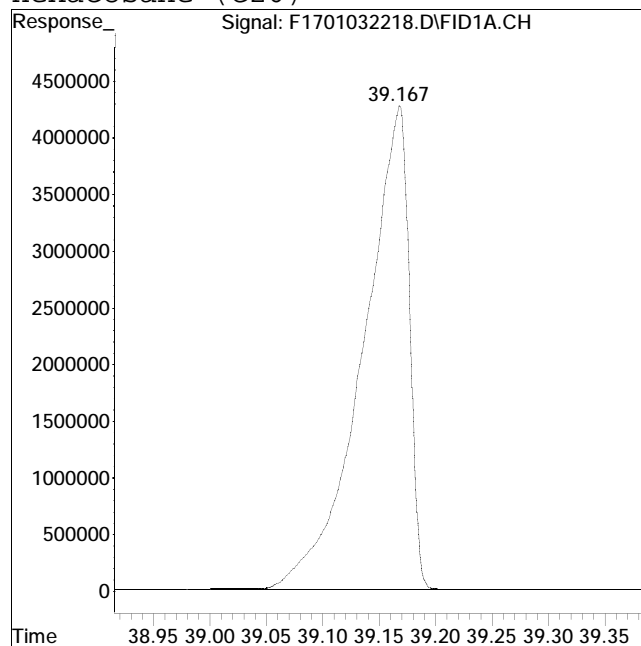
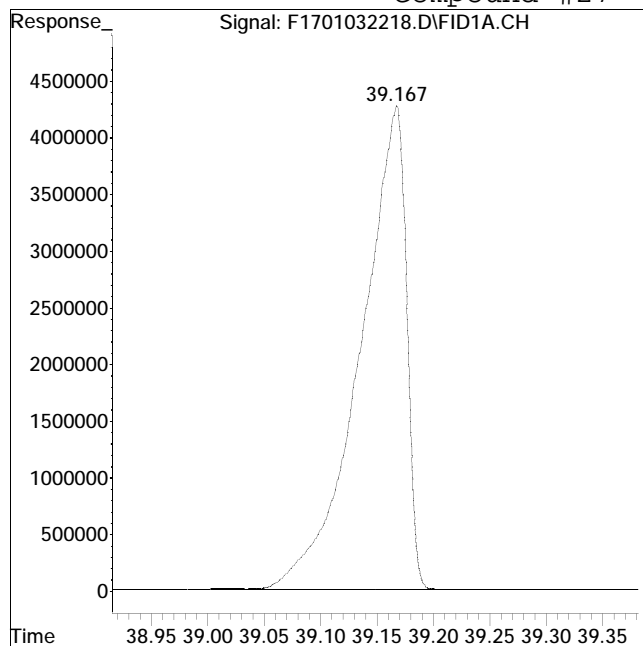
Manual Peak Response = 118413203 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #27: n-Hexacosane (C26)



Original Peak Response = 120909908

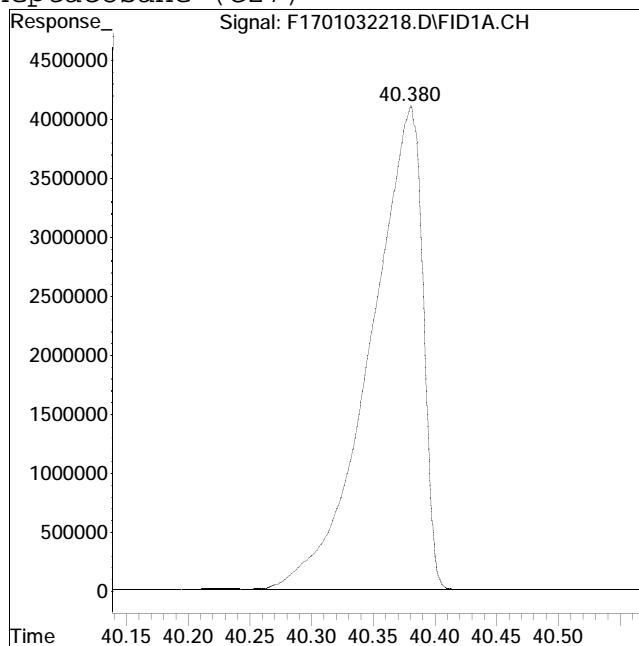
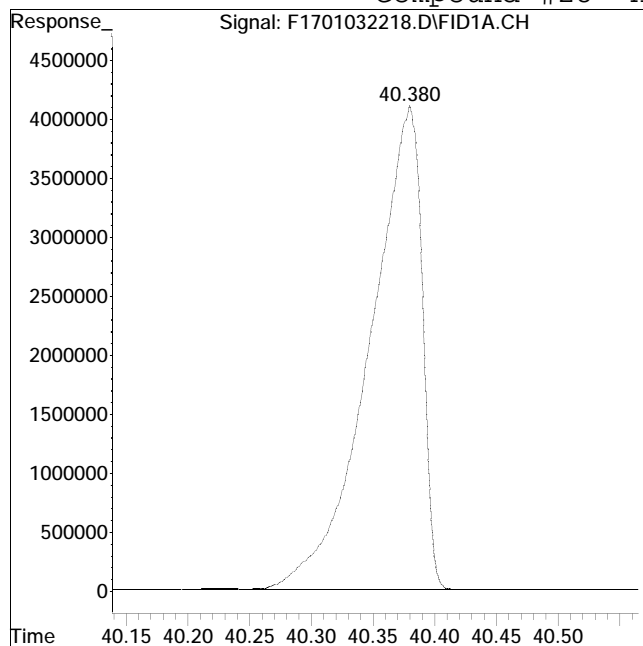
Manual Peak Response = 121304515 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #28: n-Heptacosane (C27)



Original Peak Response = 120620721

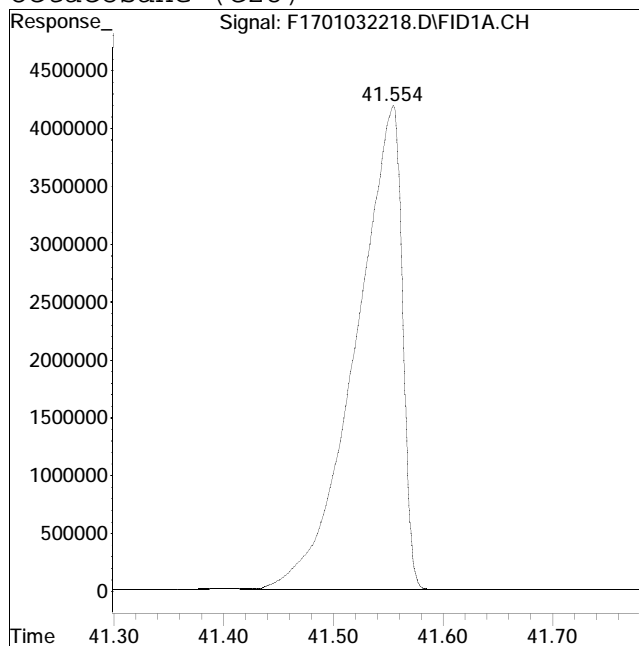
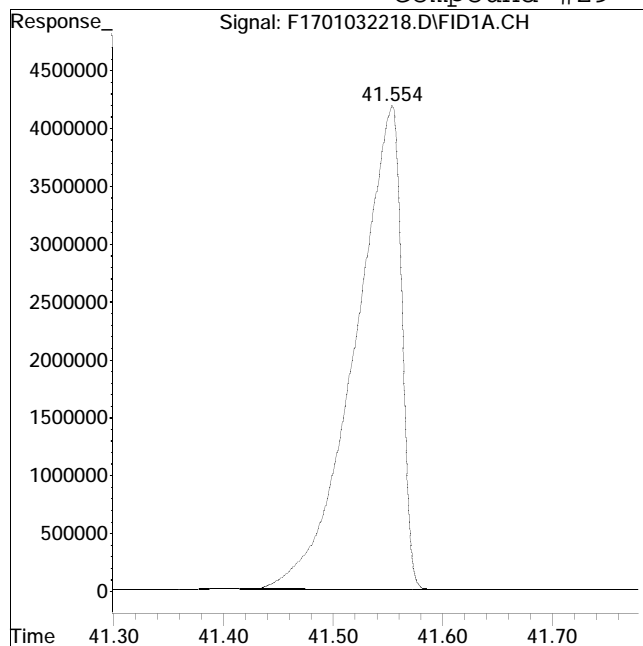
Manual Peak Response = 120911412 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #29: n-Octacosane (C28)



Original Peak Response = 122552981

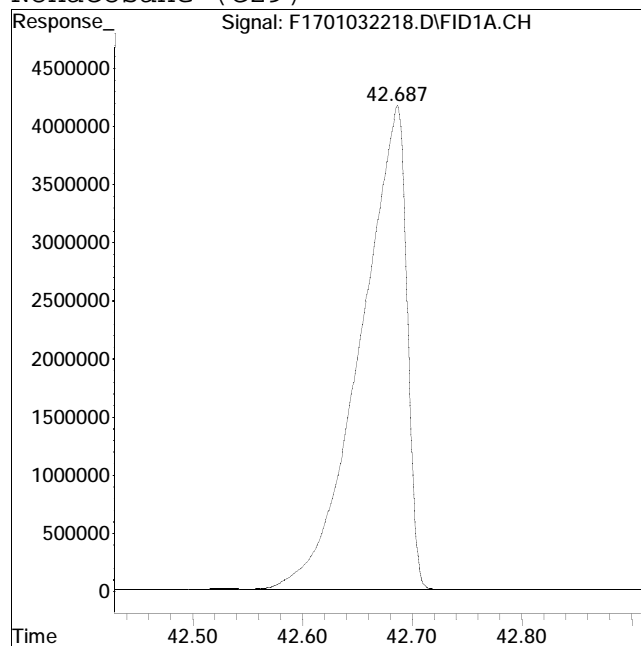
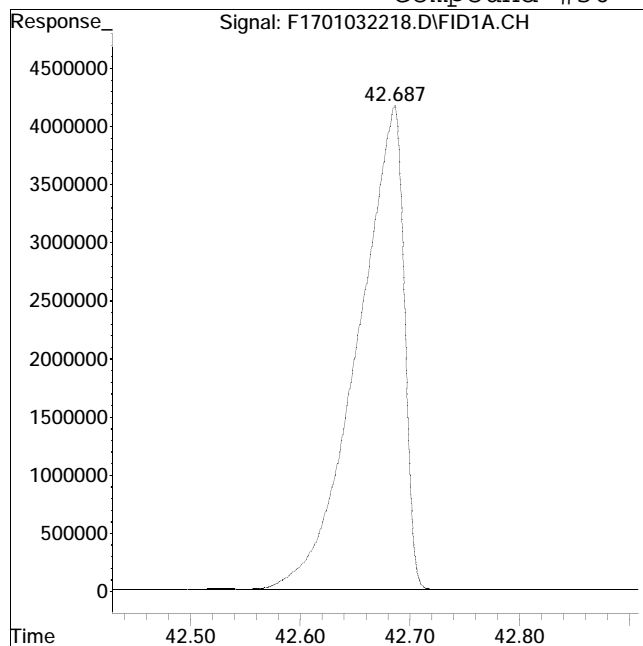
Manual Peak Response = 123060976 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #30: n-Nonacosane (C29)



Original Peak Response = 121906956

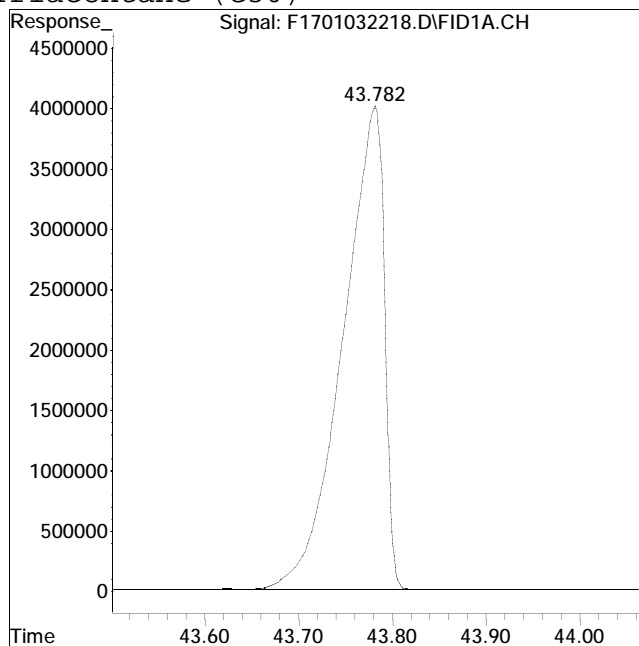
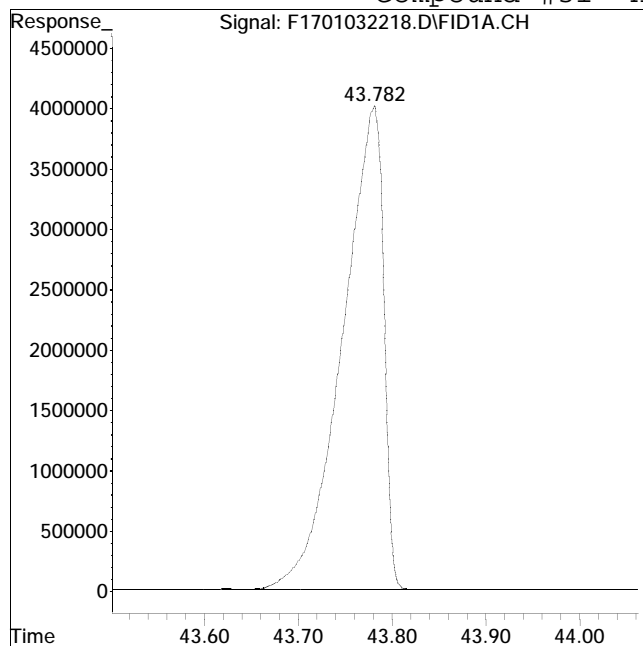
Manual Peak Response = 122232806 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032218.D Operator : FID17:WR
Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #31: n-Triacontane (C30)



Original Peak Response = 122043721

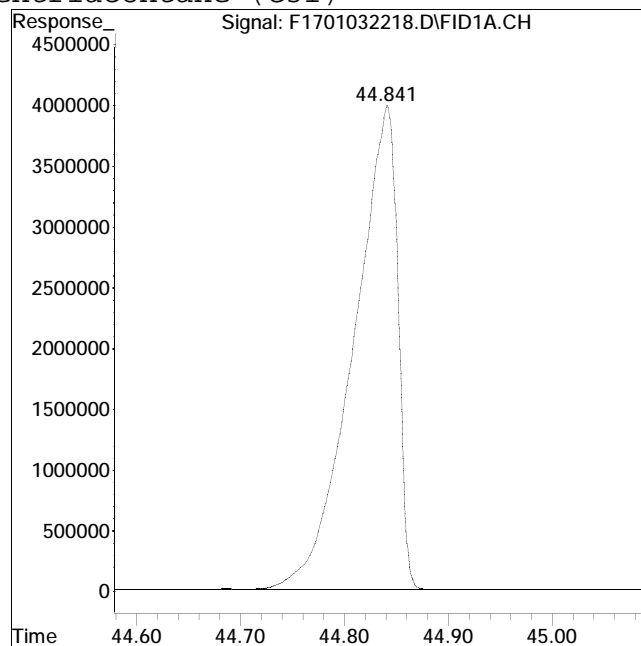
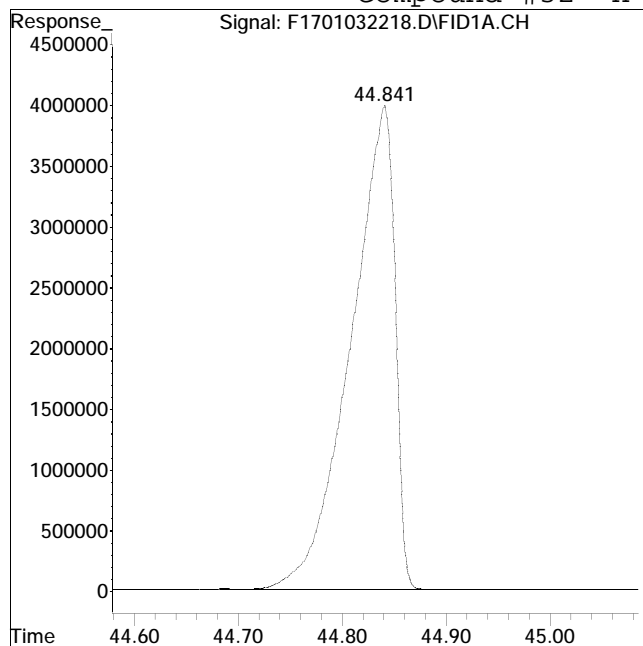
Manual Peak Response = 122324102 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 117313378

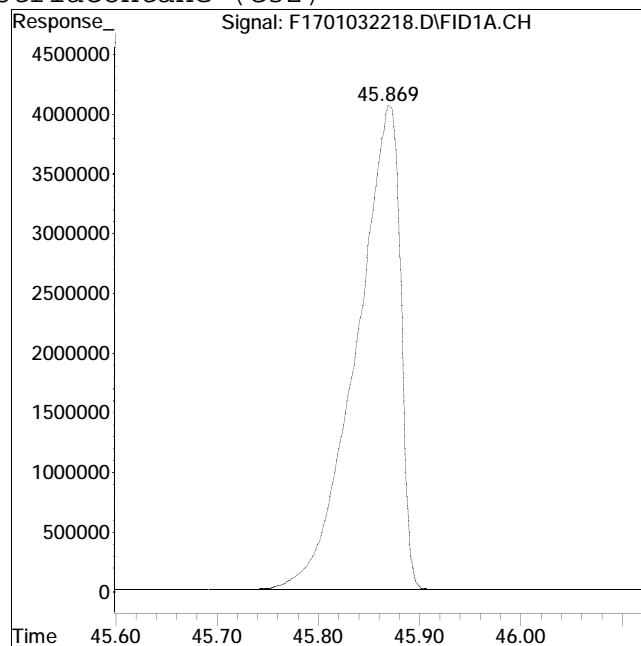
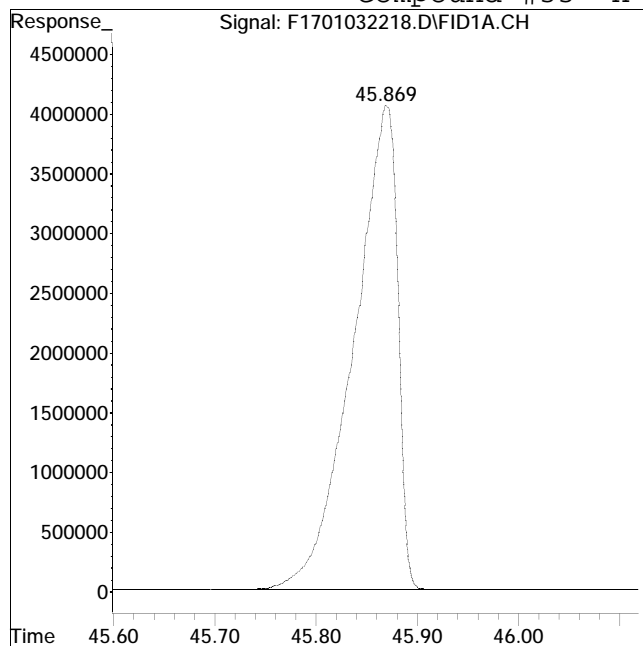
Manual Peak Response = 117529950 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 122626018

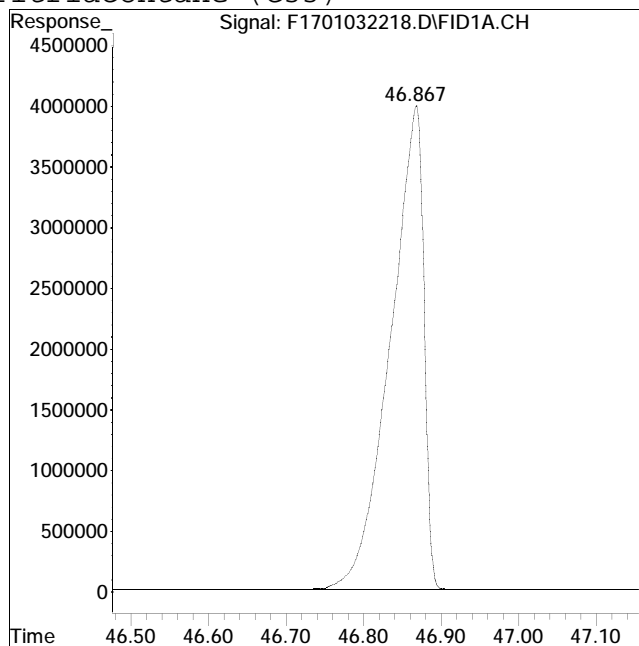
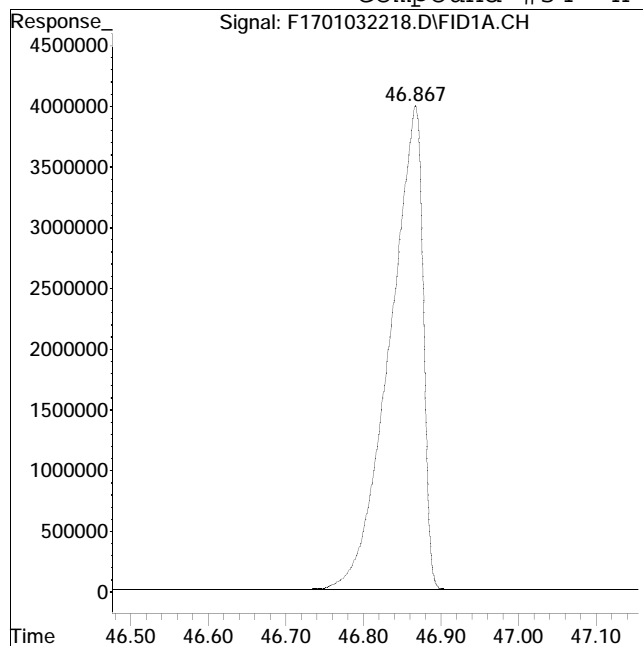
Manual Peak Response = 122894750 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032218.D Operator : FID17:WR
Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 118803347

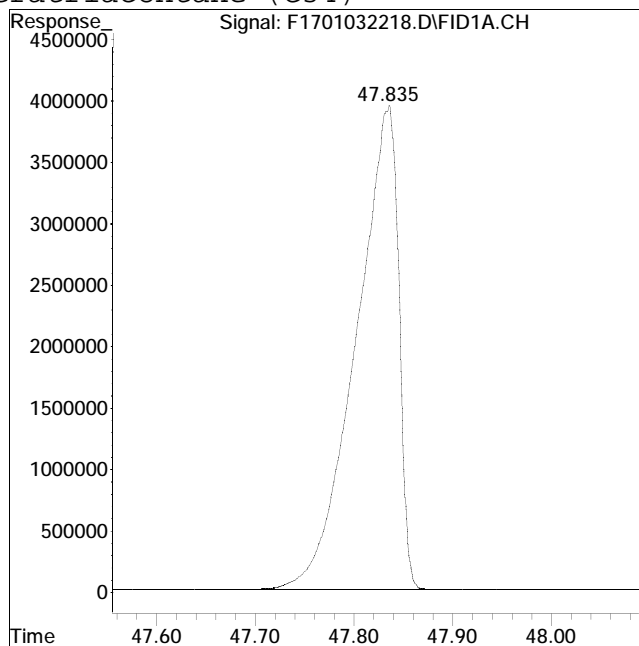
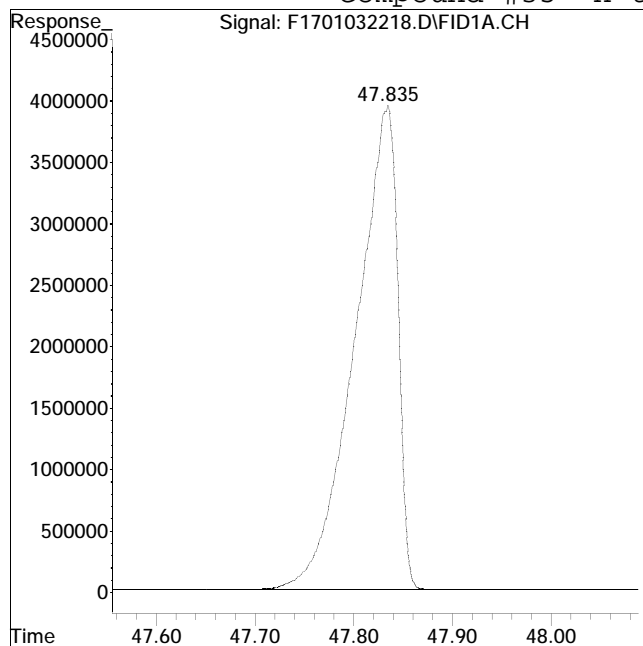
Manual Peak Response = 118994945 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032218.D Operator : FID17:WR
Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 117677545

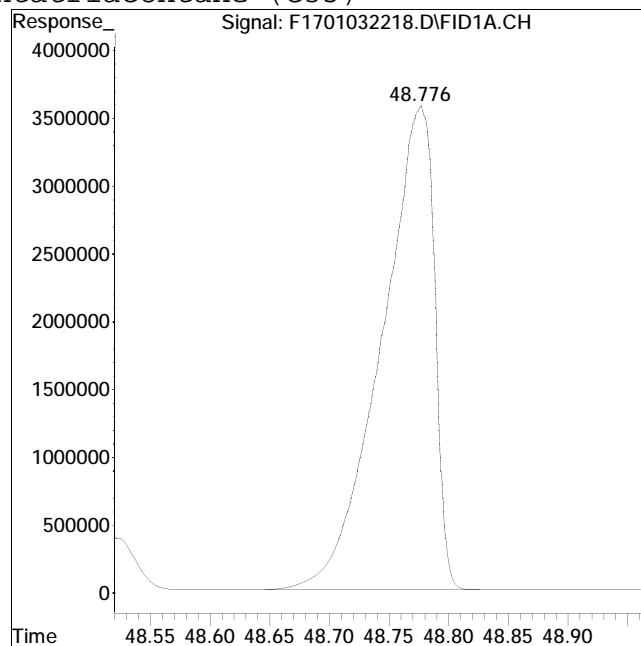
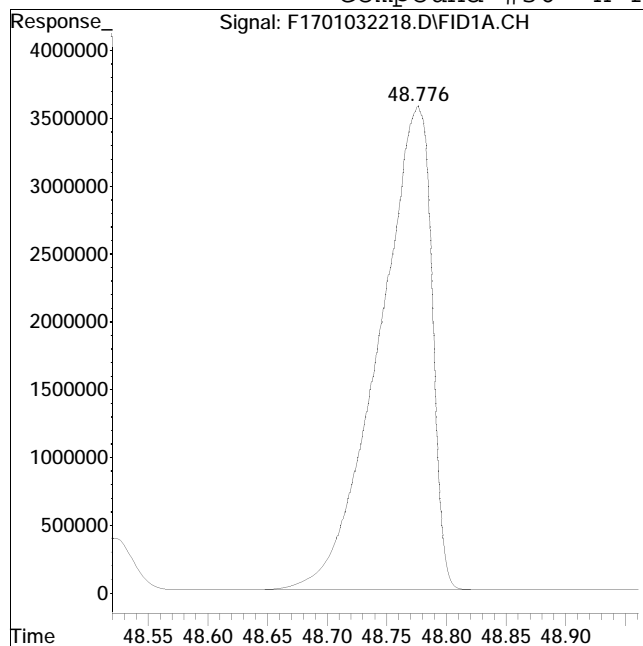
Manual Peak Response = 117948832 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032218.D Operator : FID17:WR
Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 109704601

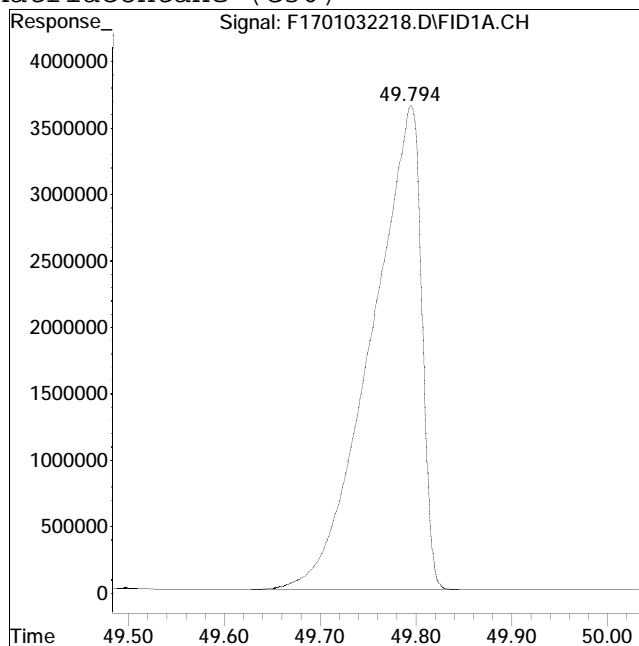
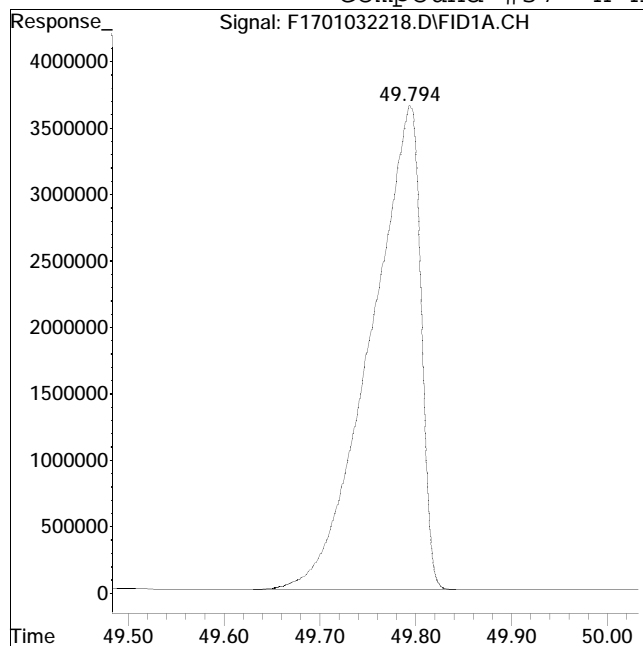
Manual Peak Response = 109845616 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 131914871

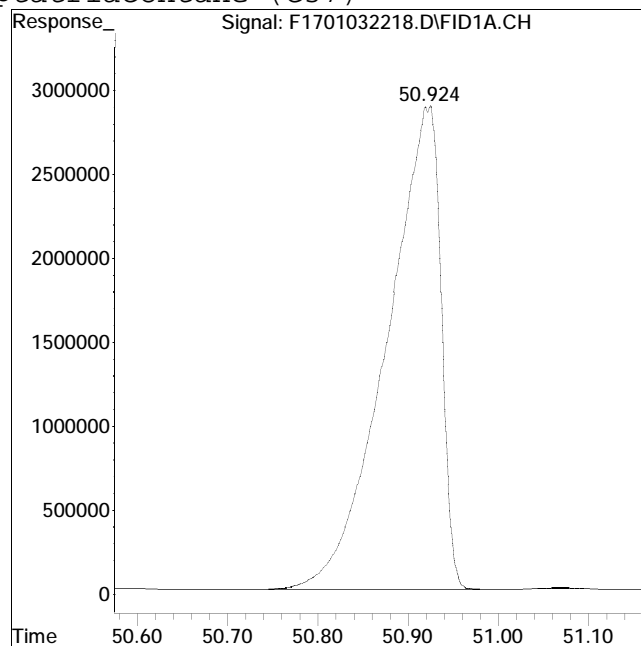
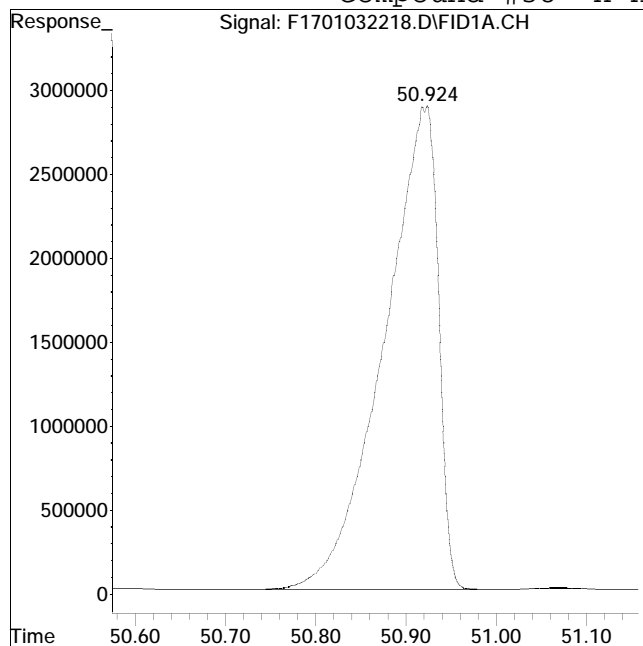
Manual Peak Response = 132129313 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032218.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
 Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 120028259

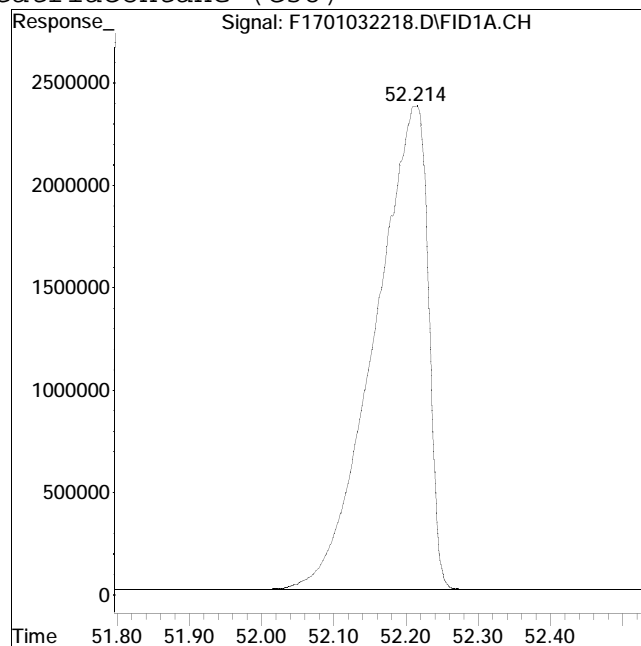
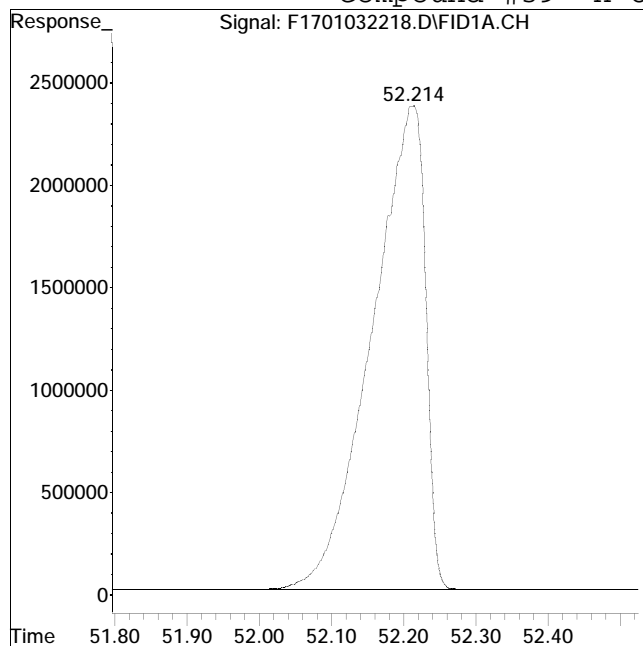
Manual Peak Response = 120126256 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032218.D Operator : FID17:WR
Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 121378932

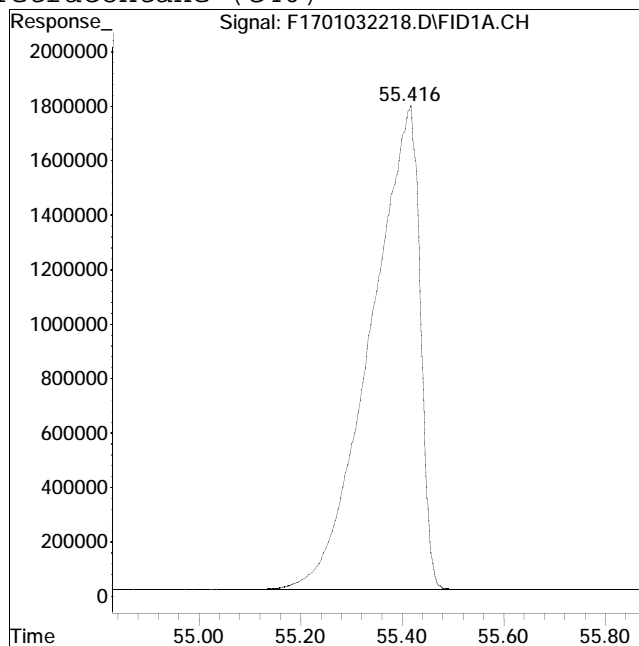
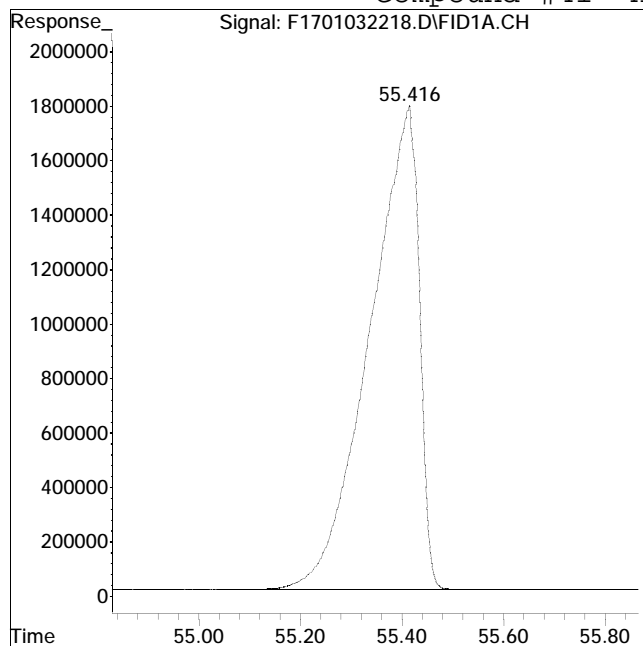
Manual Peak Response = 121448962 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032218.D Operator : FID17:WR
Date Inj'd : 1/3/2023 9:42 pm Instrument : FID17
Sample : I1701032304F Quant Date : 1/17/2023 8:49 am

Compound #41: n-Tetracontane (C40)



Original Peak Response = 119470049

Manual Peak Response = 119682204 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032220.D
 Signal(s) : FID1A.CH
 Acq On : 03 Jan 2023 11:12 pm
 Operator : FID17:WR
 Sample : I1701032305F
 Misc : WG1734833,FRBF58,200ug/ml
 ALS Vial : 10 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 17 09:07:22 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Jan 17 08:58:41 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.411	68019791	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.428	269597266	183.863 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery = 367.73%#	
24) s d50-Tetracosane	36.078	209229286	182.405 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery = 364.81%#	
Target Compounds			
2) t n-Octane (C8)	5.807	206250394	182.159 ug/mL M4
3) t n-Nonane (C9)	7.990	216701021	184.459 ug/mL M4
4) t n-Decane (C10)	10.459	227433774	186.218 ug/mL M4
5) t n-Undecane (C11)	12.965	227867520	186.310 ug/mL M4
6) t n-Dodecane (C12)	15.391	230702340	187.078 ug/mL M4
7) t n-Tridecane (C13)	17.699	231245561	186.505 ug/mL M4
9) t n-Tetradecane (C14)	19.885	237150749	186.207 ug/mL M4
11) t n-Pentadecane (C15)	21.952	238485494	186.455 ug/mL M4
12) t n-Hexadecane (C16)	23.911	236474577	185.405 ug/mL M4
14) t n-Heptadecane (C17)	25.780	242813637	188.186 ug/mL M4
15) t Pristane	25.892	239583550	182.730 ug/mL M4
16) t n-Octadecane (C18)	27.548	242435996	186.194 ug/mL M4
17) t Phytane	27.714	226989787	187.057 ug/mL M4
18) t n-Nonadecane (C19)	29.235	242374014	186.067 ug/mL M4
20) t n-Eicosane (C20)	30.839	243480403	185.356 ug/mL M4
21) t n-Heneicosane (C21)	32.380	244108668	185.704 ug/mL M4
22) t n-Docosane (C22)	33.853	243378199	184.617 ug/mL M4
23) t n-Tricosane (C23)	35.269	243088922	184.085 ug/mL M4
25) t n-Tetracosane (C24)	36.635	241330482	186.249 ug/mL M4
26) t n-Pentacosane (C25)	37.937	236709137	183.349 ug/mL M4
27) t n-Hexacosane (C26)	39.196	242434149	183.281 ug/mL M4
28) t n-Heptacosane (C27)	40.411	241429027	184.250 ug/mL M4
29) t n-Octacosane (C28)	41.584	245736930	183.120 ug/mL M4
30) t n-Nonacosane (C29)	42.719	243592342	182.903 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032220.D
 Signal(s) : FID1A.CH
 Acq On : 03 Jan 2023 11:12 pm
 Operator : FID17:WR
 Sample : I1701032305F
 Misc : WG1734833,FRBF58,200ug/ml
 ALS Vial : 10 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 17 09:07:22 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Jan 17 08:58:41 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	43.813	243298468	182.352 ug/mL M4
32) t	n-Hentriacontane (C31)	44.871	233886759	181.721 ug/mL M4
33) t	n-Dotriacontane (C32)	45.905	245090995	182.095 ug/mL M4
34) t	n-Tritriacontane (C33)	46.902	237873907	182.842 ug/mL M4
35) t	n-tetratriacontane (C34)	47.870	237348442	183.889 ug/mL M4
36) t	n-Pentatriacontane (C35)	48.813	222677501	181.083 ug/mL M4
37) t	n-Hexatriacontane (C36)	49.841	270155309	188.958 ug/mL M4
38) t	n-Heptatriacontane (C37)	50.975	247403934	188.630 ug/mL M4
39) t	n-Octatriacontane (C38)	52.277	251559987	189.214 ug/mL M4
41) t	n-Tetracontane (C40)	55.492	249179444	190.207 ug/mL M4

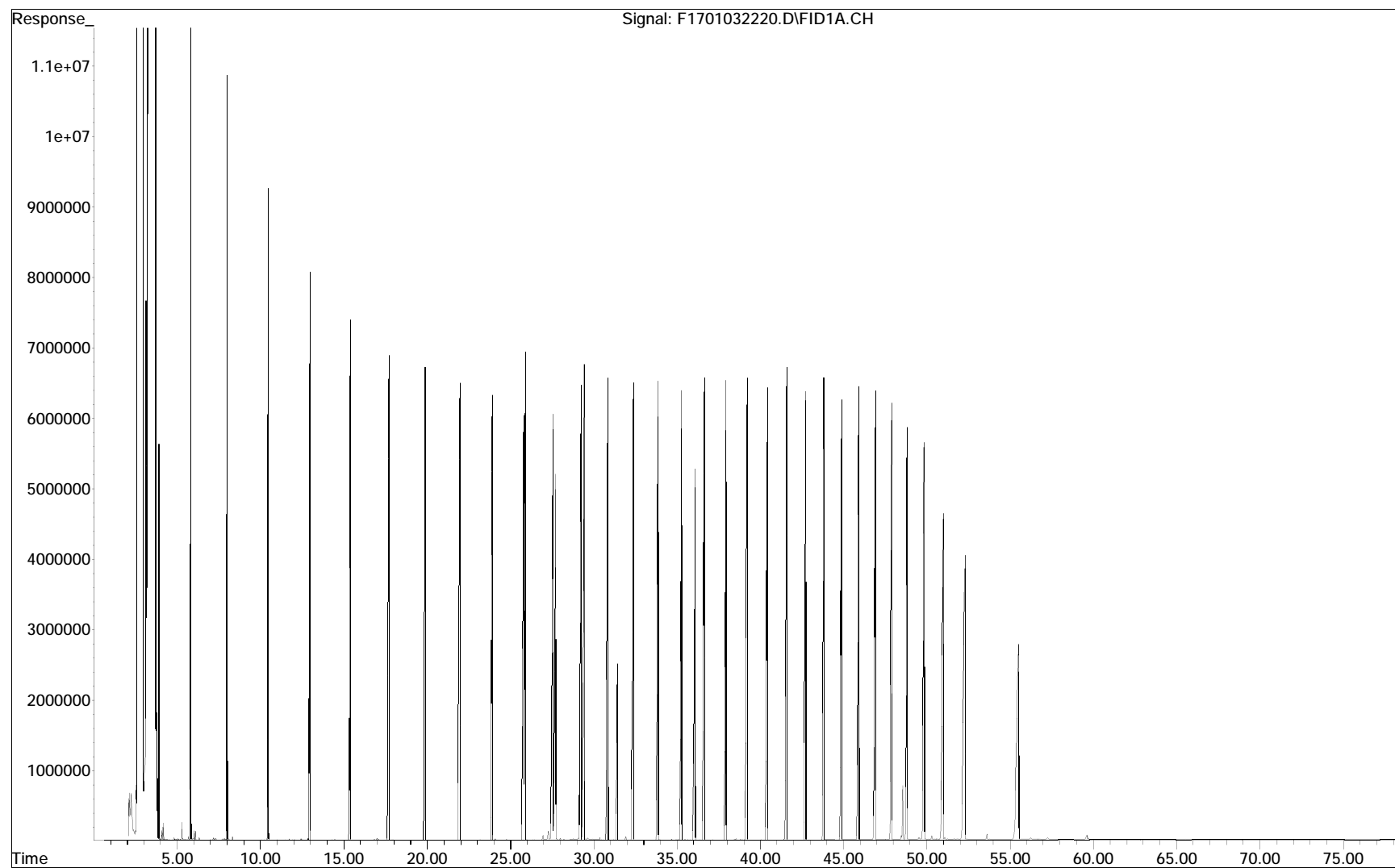
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

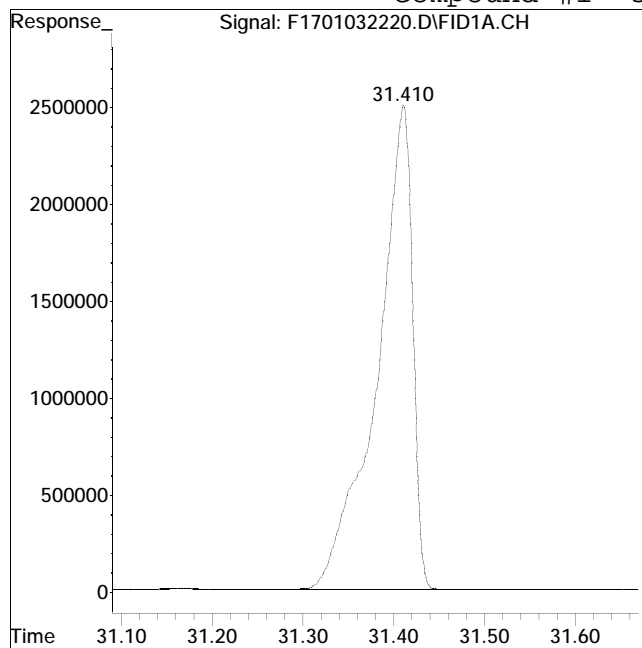
File : O:\Forensics\Data\FID17\2023\JAN\JAN03\F1701032220.D
Operator : FID17:WR
Acquired : 03 Jan 2023 11:12 pm using AcqMethod FID17A.M
Sample Name: I1701032305F
Instrument: FID17
Misc Info : WG1734833,FRBF58,200ug/ml
Vial Number: 10
CurrentMeth: O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M



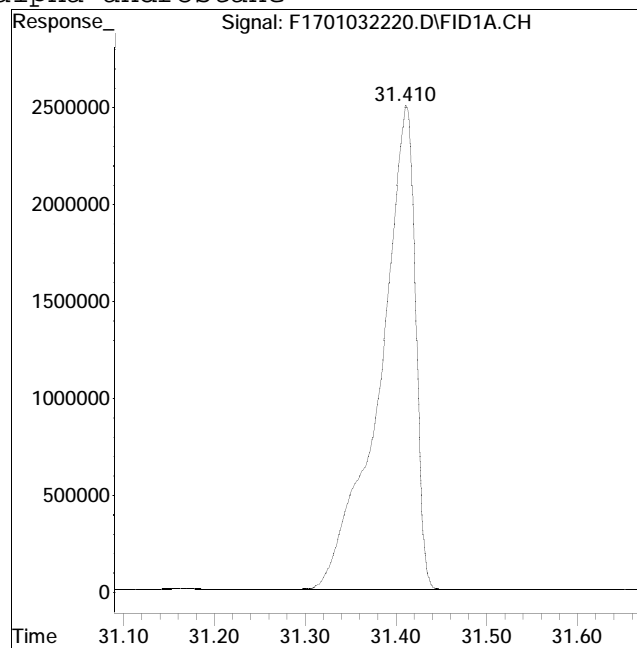
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032220.D Operator : FID17:WR
Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #1: 5-alpha-androstane



Original Peak Response = 67937732



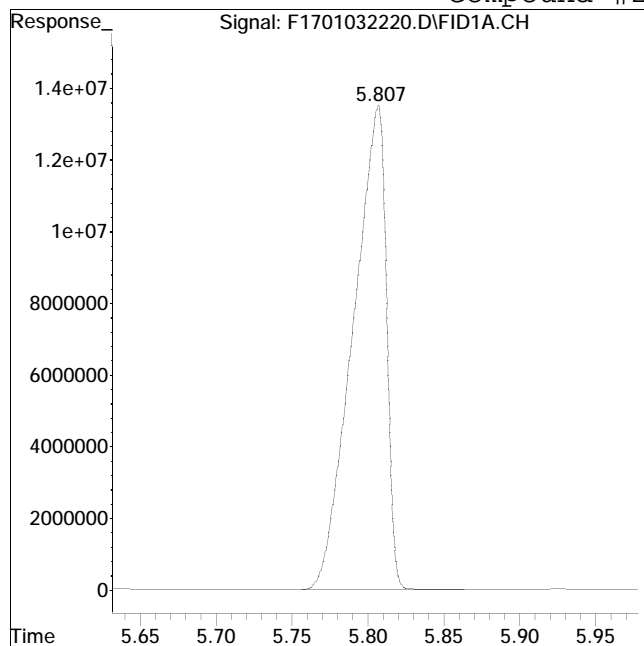
Manual Peak Response = 68019791 M4

M4 = Poor automated baseline construction.

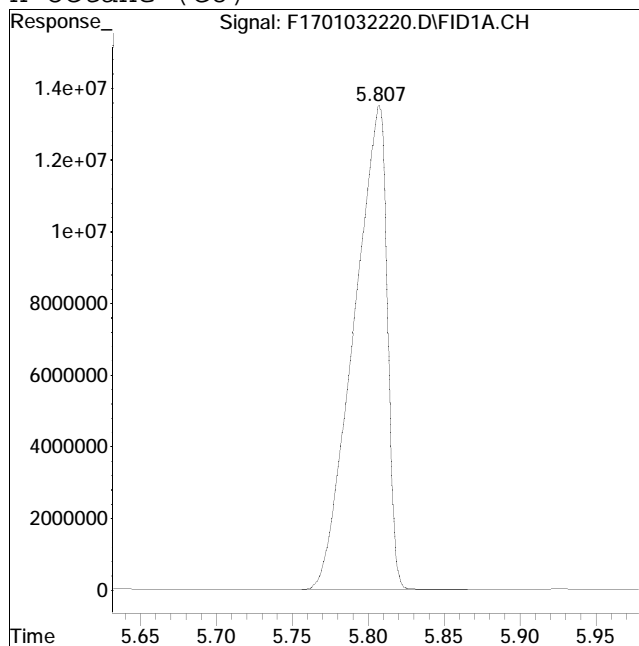
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #2: n-Octane (C8)



Original Peak Response = 206237370



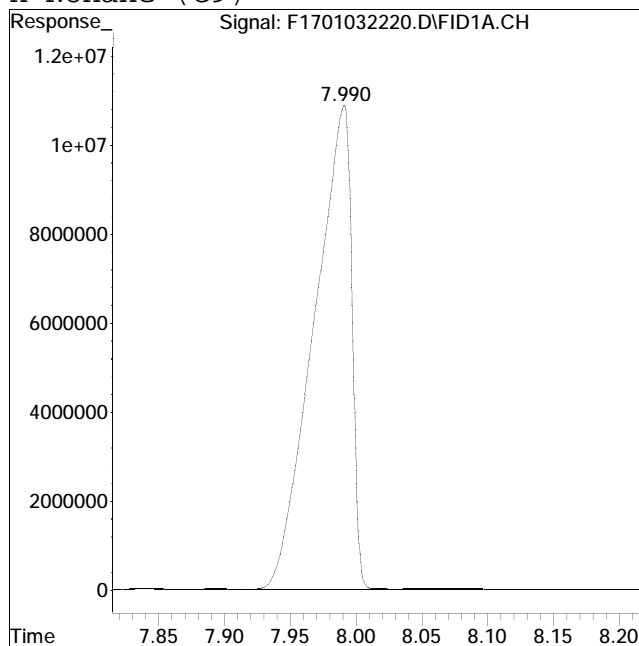
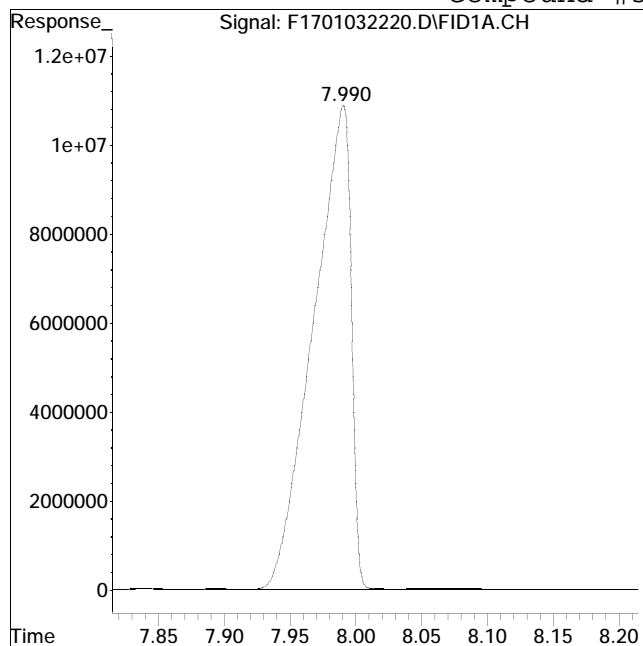
Manual Peak Response = 206250394 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #3: n-Nonane (C9)



Original Peak Response = 216729475

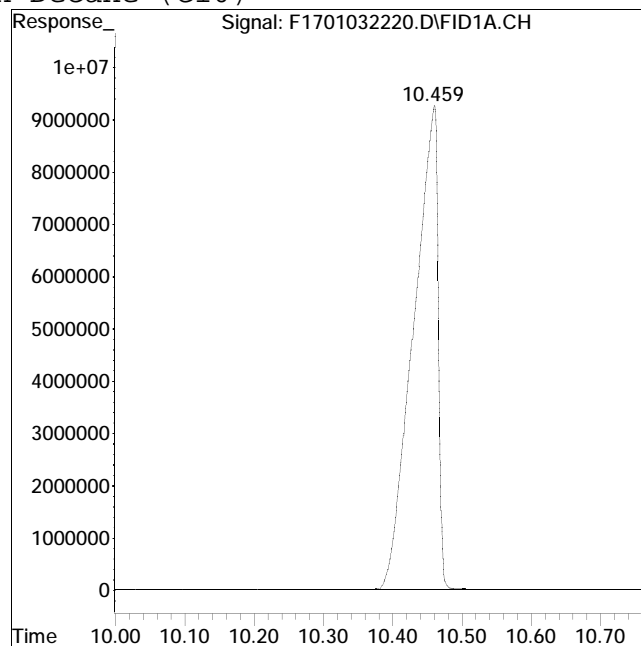
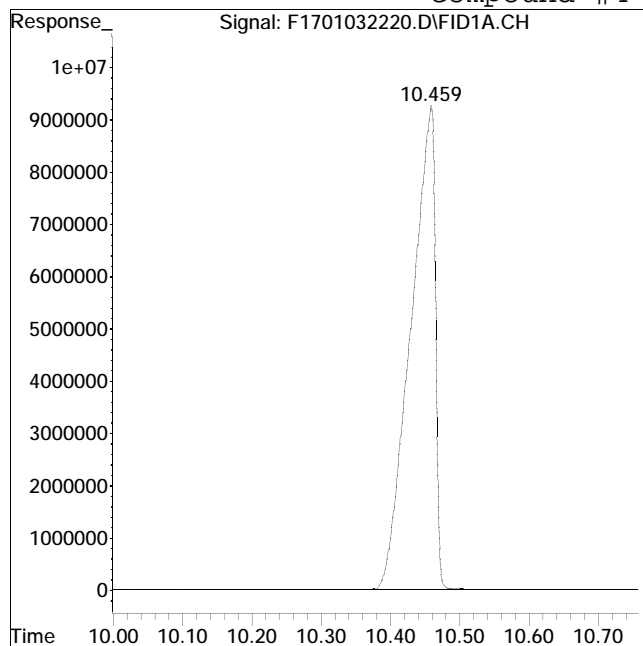
Manual Peak Response = 216701021 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #4: n-Decane (C10)



Original Peak Response = 227498372

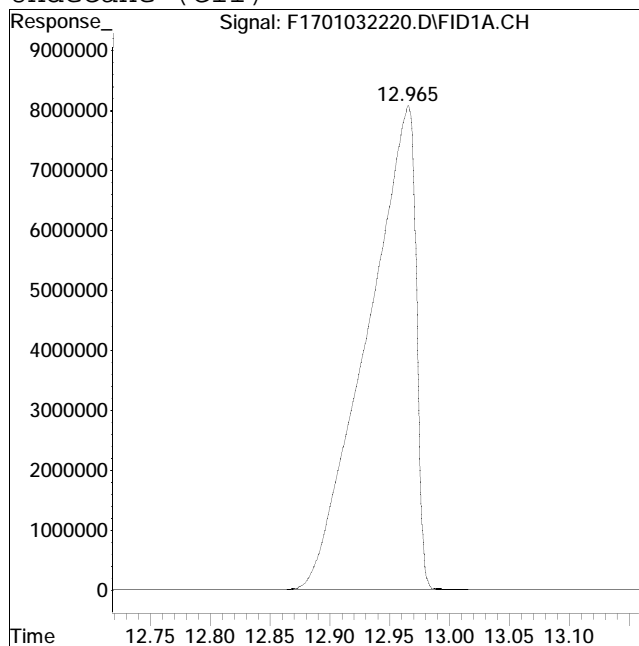
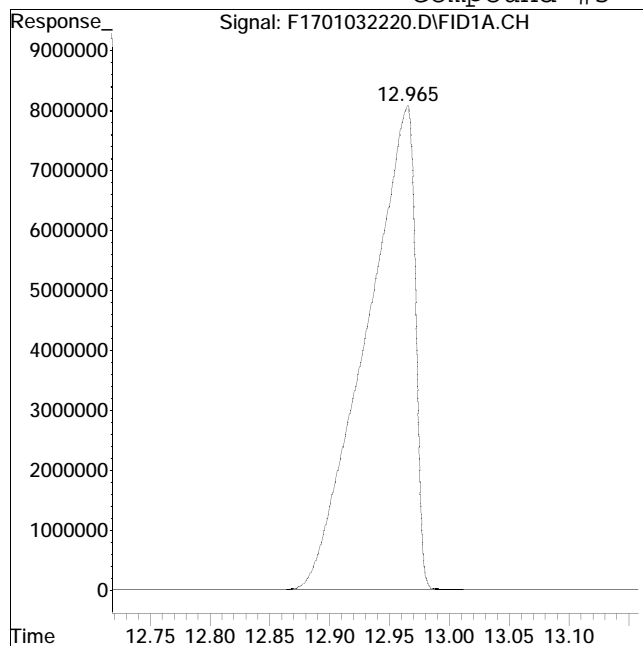
Manual Peak Response = 227433774 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #5: n-Undecane (C11)



Original Peak Response = 227701434

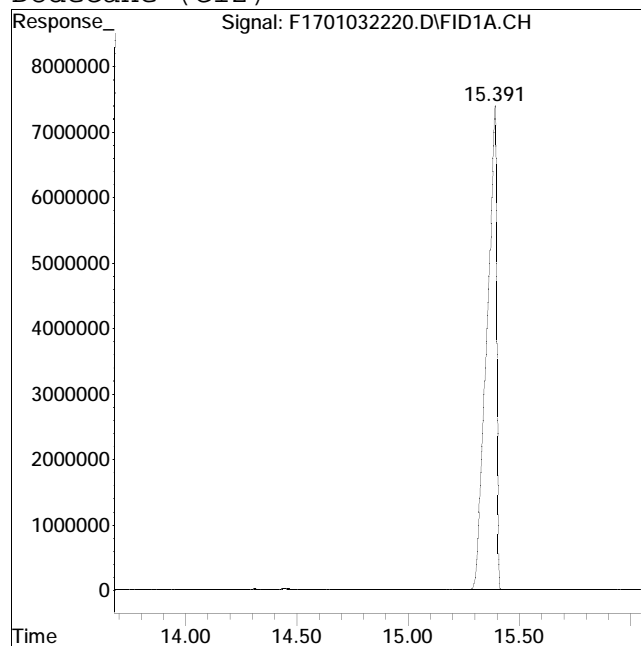
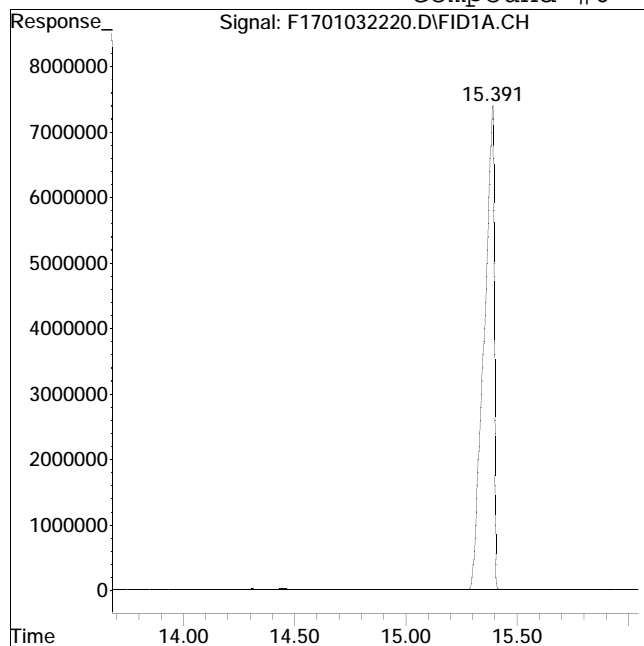
Manual Peak Response = 227867520 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #6: n-Dodecane (C12)



Original Peak Response = 231490360

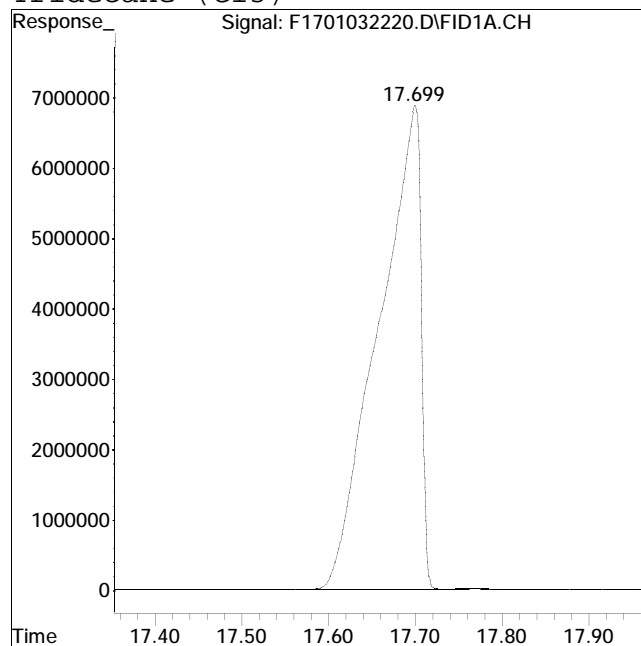
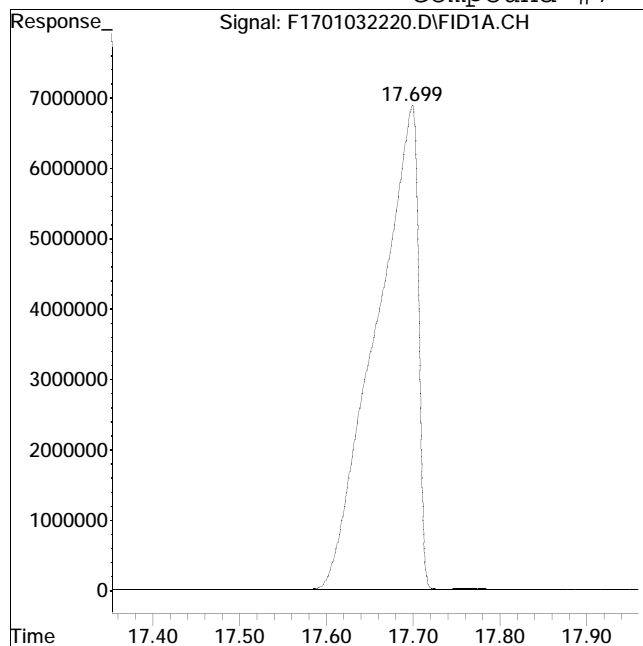
Manual Peak Response = 230702340 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #7: n-Tridecane (C13)



Original Peak Response = 231526393

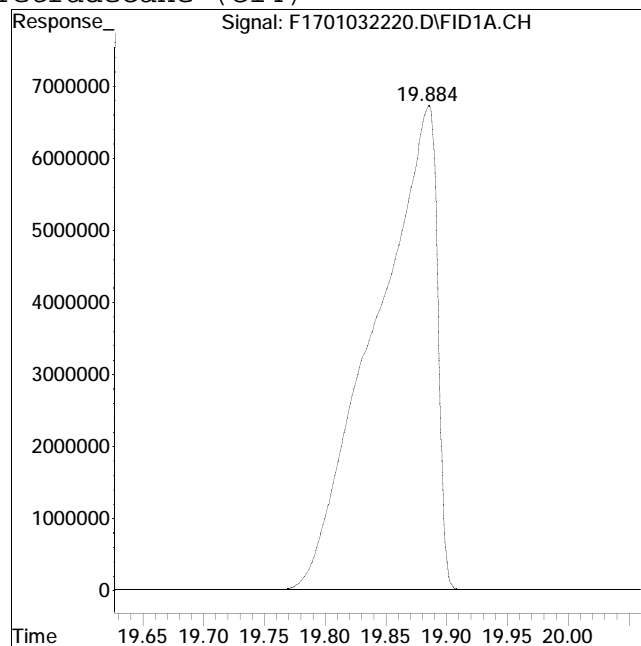
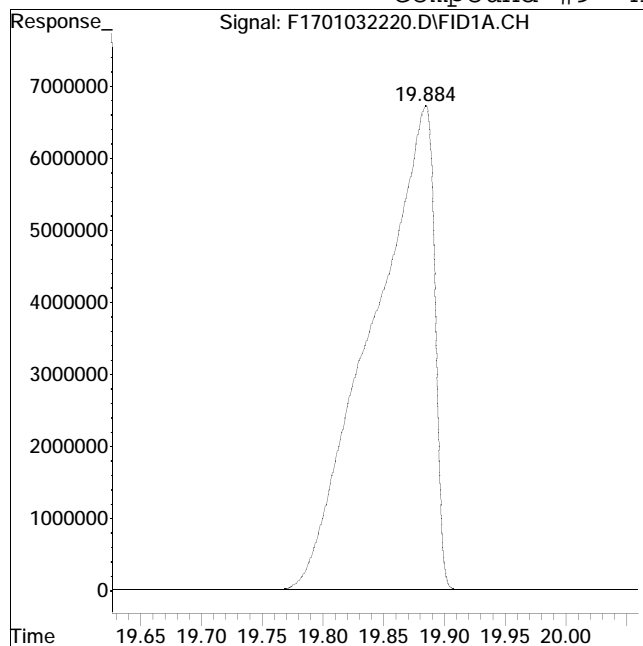
Manual Peak Response = 231245561 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #9: n-Tetradecane (C14)



Original Peak Response = 237047646

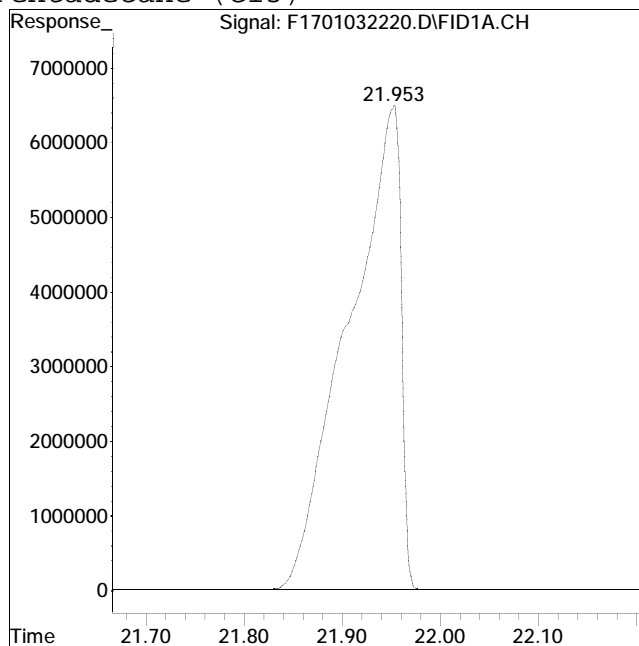
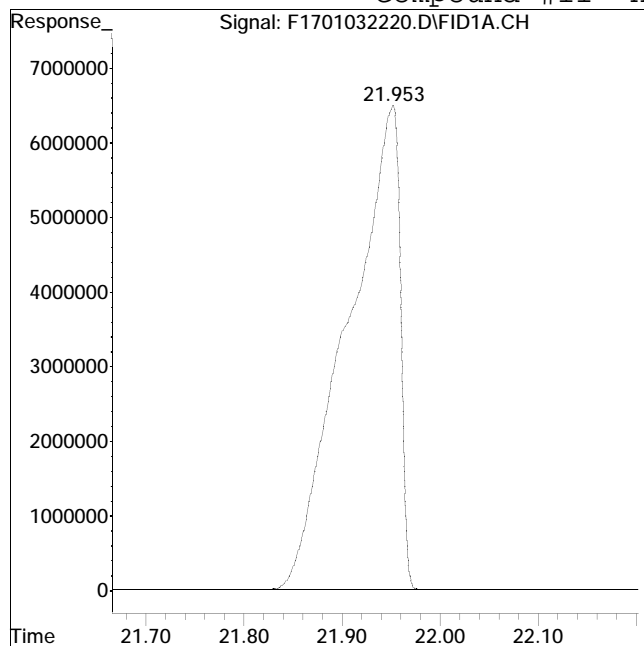
Manual Peak Response = 237150749 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #11: n-Pentadecane (C15)



Original Peak Response = 238418275

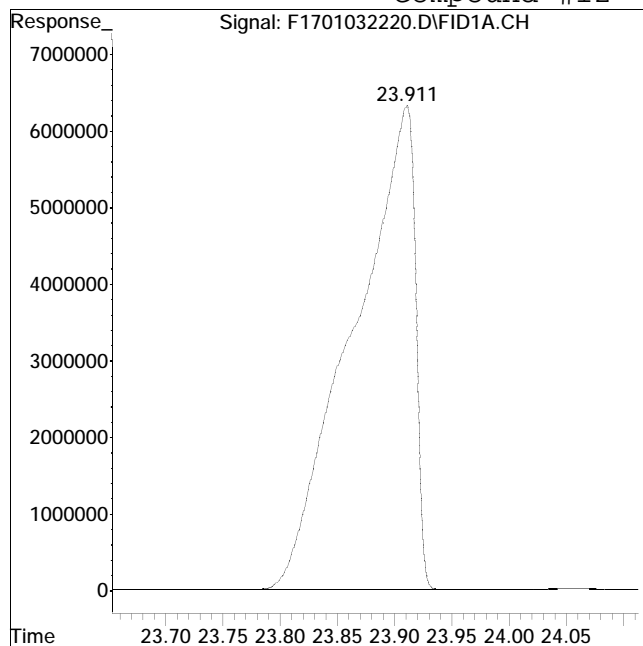
Manual Peak Response = 238485494 M4

M4 = Poor automated baseline construction.

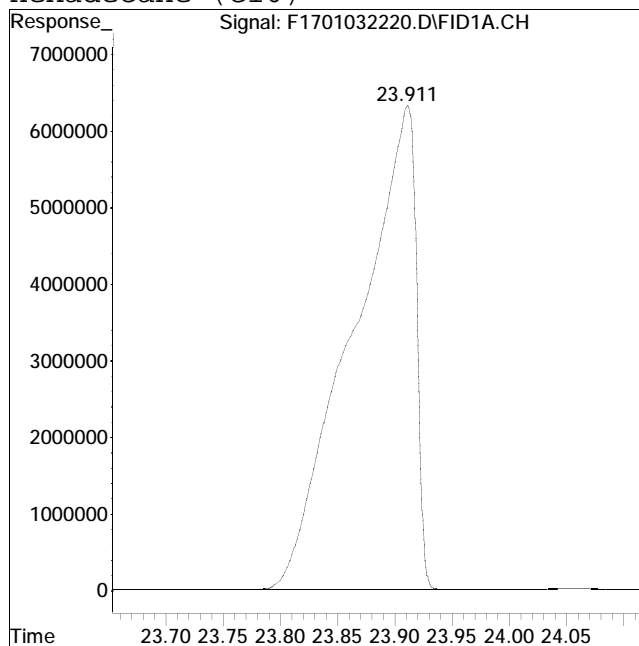
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #12: n-Hexadecane (C16)



Original Peak Response = 236319826



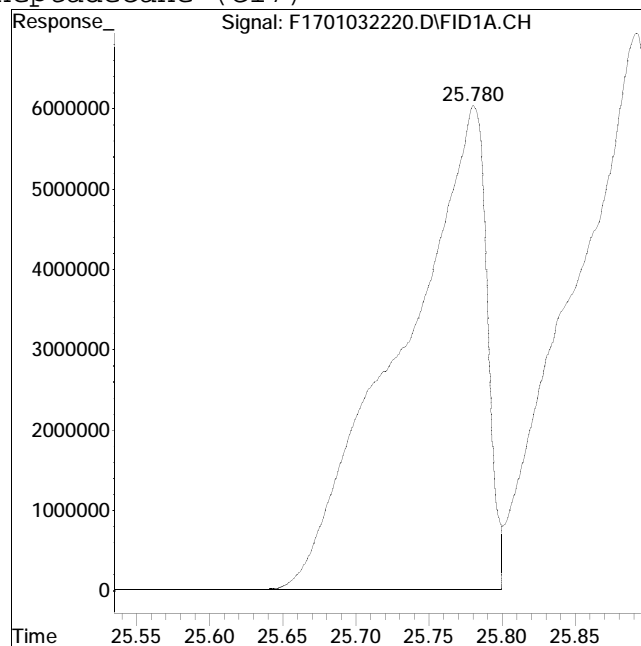
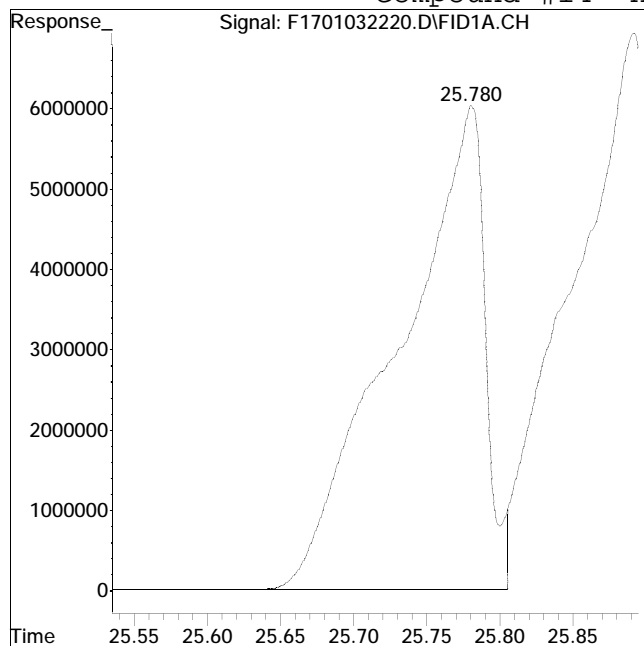
Manual Peak Response = 236474577 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #14: n-Heptadecane (C17)



Original Peak Response = 245025321

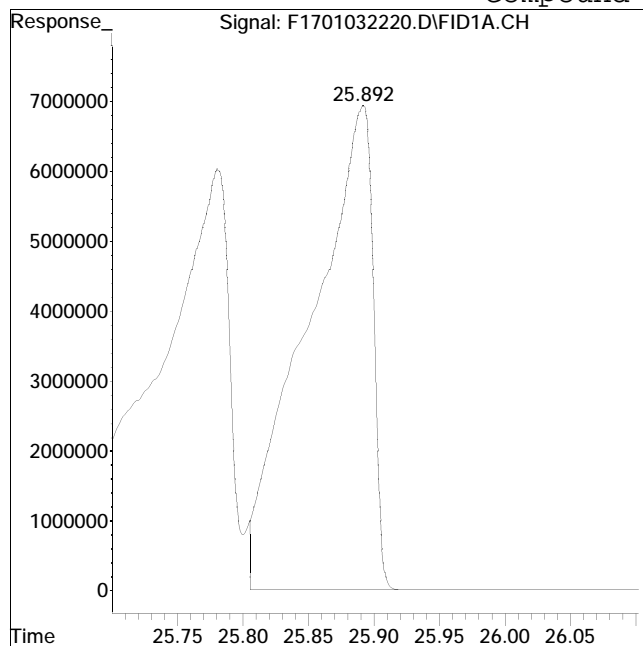
Manual Peak Response = 242813637 M4

M4 = Poor automated baseline construction.

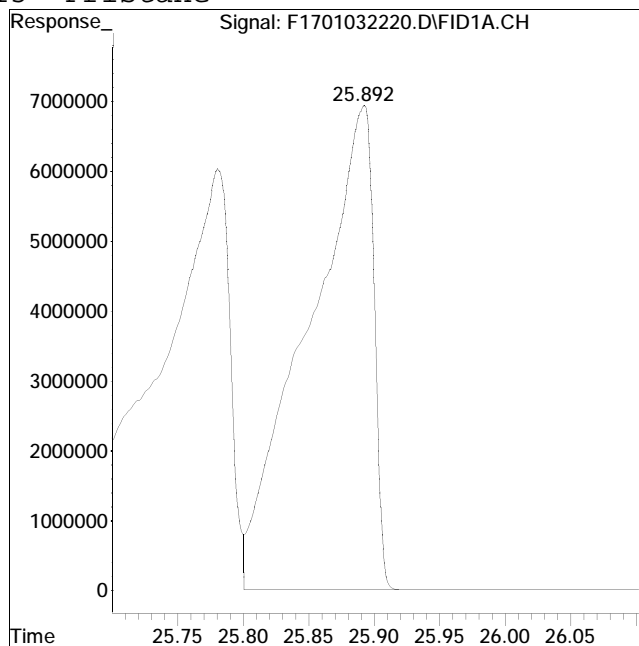
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032220.D Operator : FID17:WR
Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #15: Pristane



Original Peak Response = 237433312



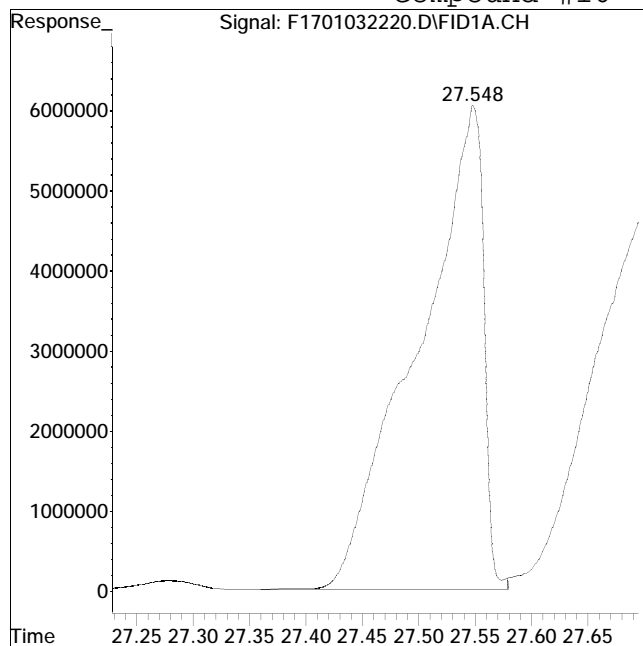
Manual Peak Response = 239583550 M4

M4 = Poor automated baseline construction.

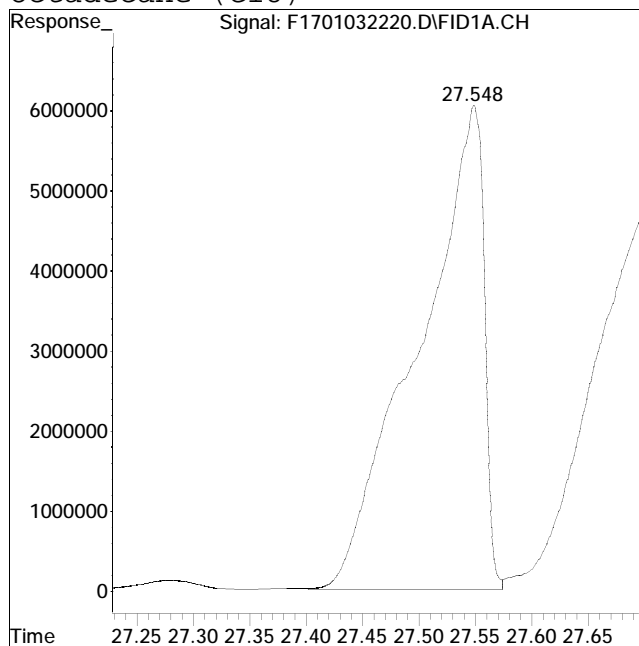
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #16: n-Octadecane (C18)



Original Peak Response = 242587011



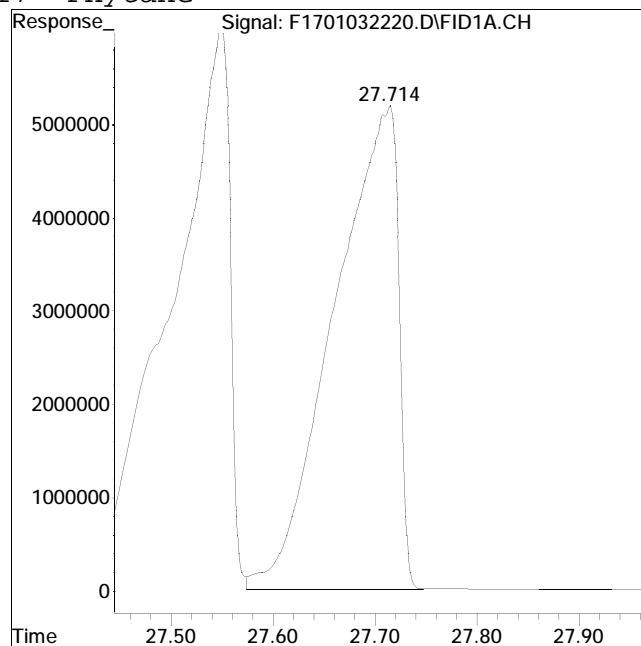
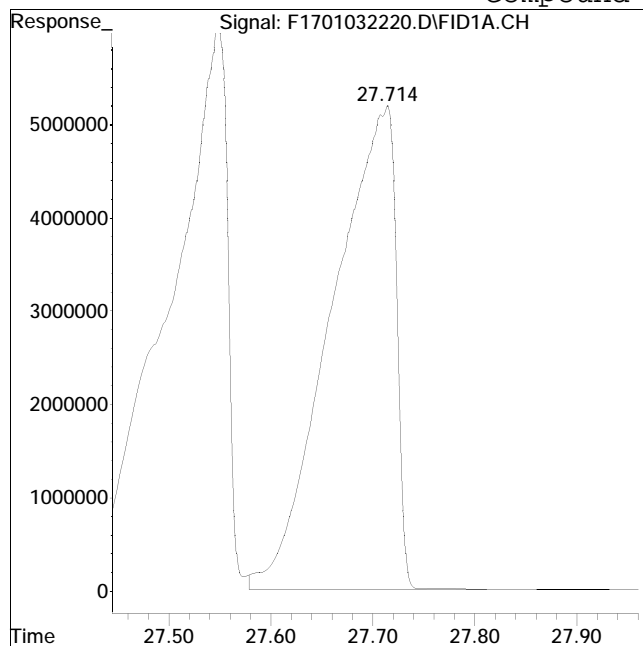
Manual Peak Response = 242435996 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #17: Phytane



Original Peak Response = 226476427

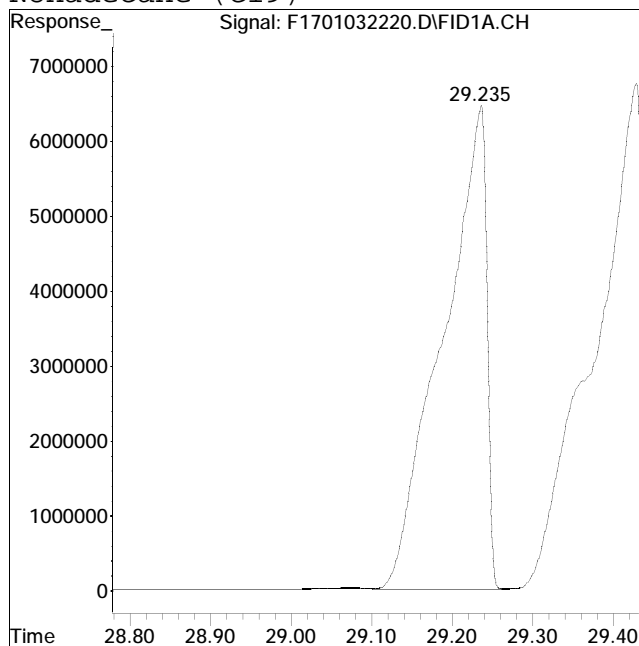
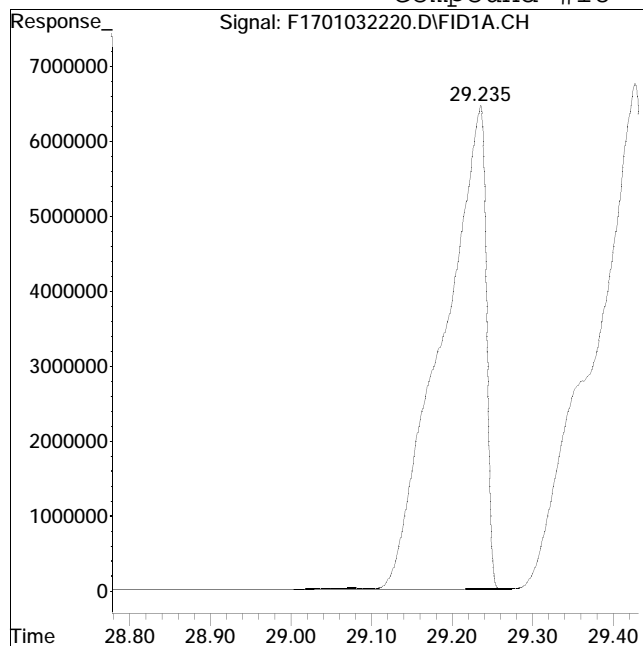
Manual Peak Response = 226989787 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #18: n-Nonadecane (C19)



Original Peak Response = 242269912

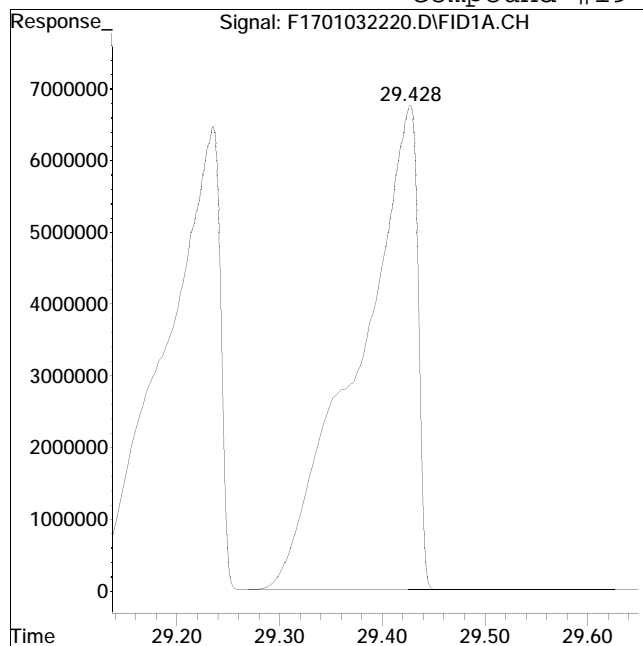
Manual Peak Response = 242374014 M4

M4 = Poor automated baseline construction.

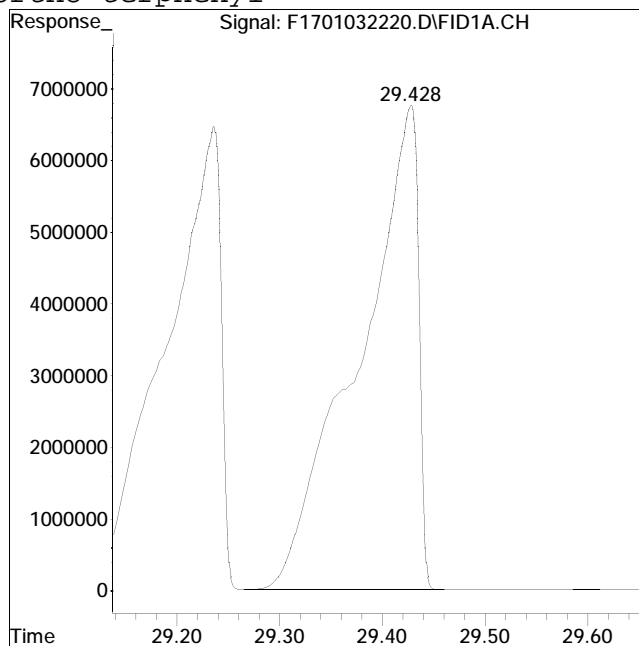
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #19: ortho-terphenyl



Original Peak Response = 268785910



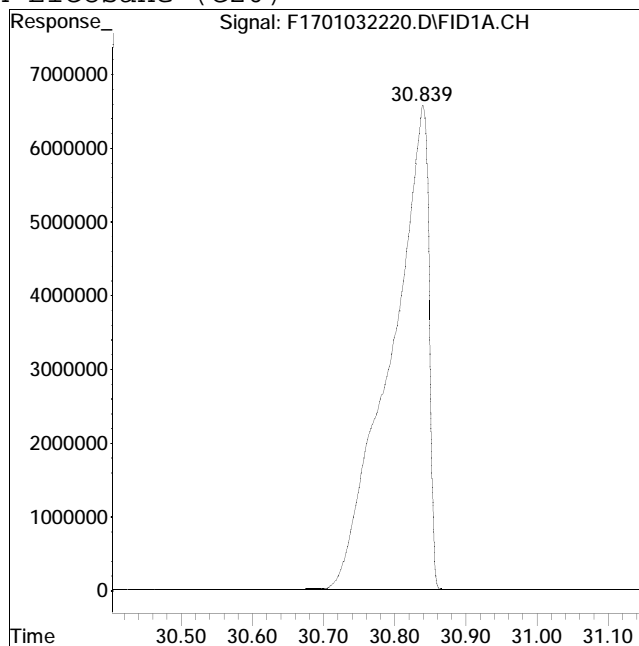
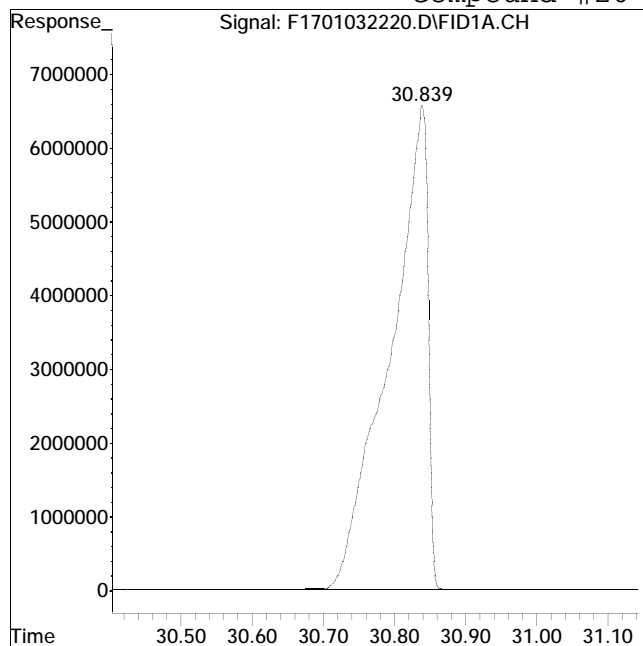
Manual Peak Response = 269597266 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #20: n-Eicosane (C20)



Original Peak Response = 243220881

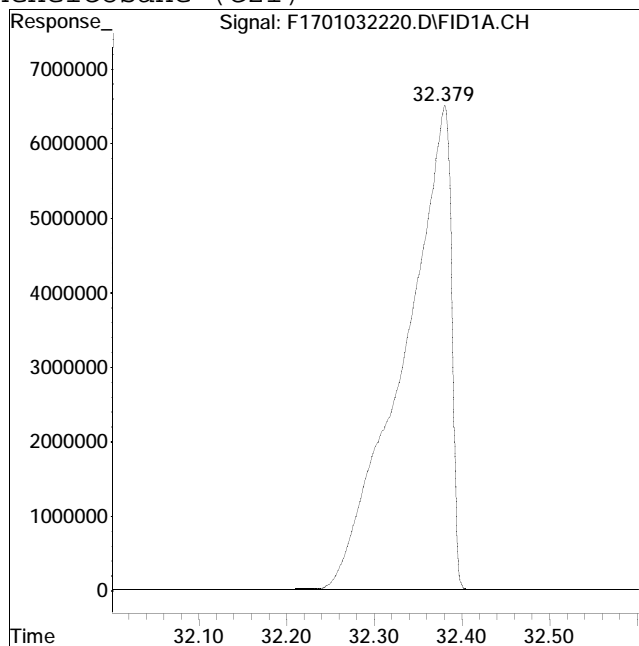
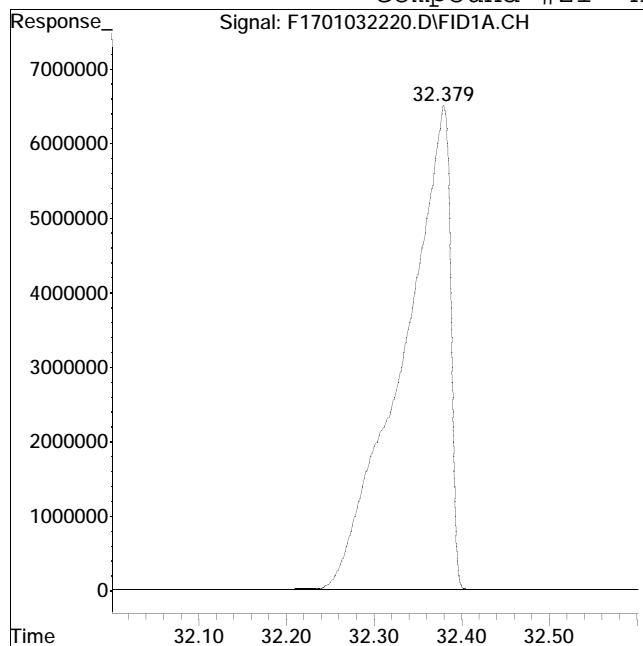
Manual Peak Response = 243480403 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #21: n-Heneicosane (C21)



Original Peak Response = 243868703

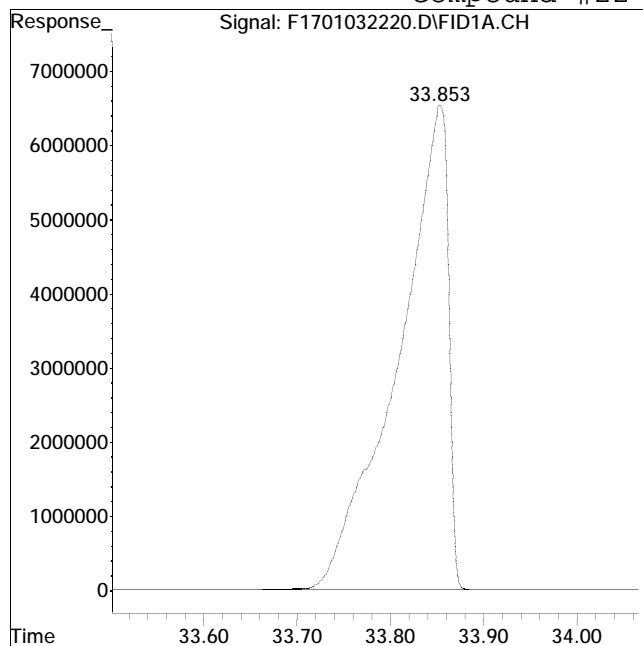
Manual Peak Response = 244108668 M4

M4 = Poor automated baseline construction.

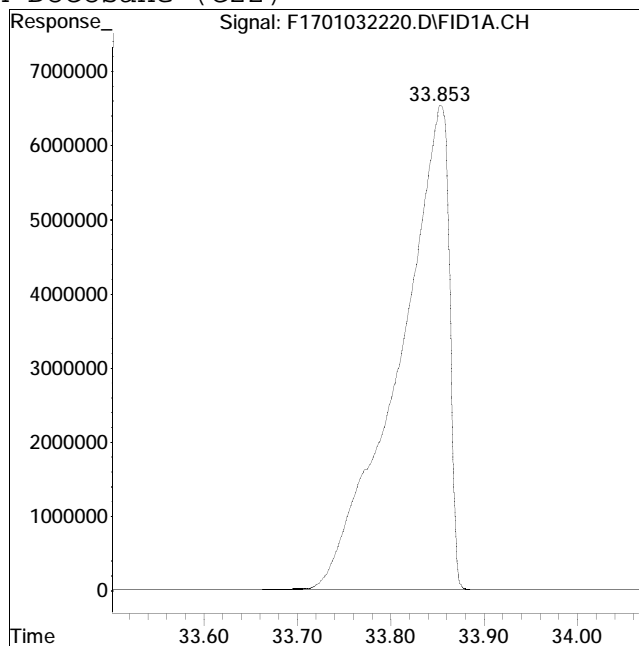
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #22: n-Docosane (C22)



Original Peak Response = 243036313



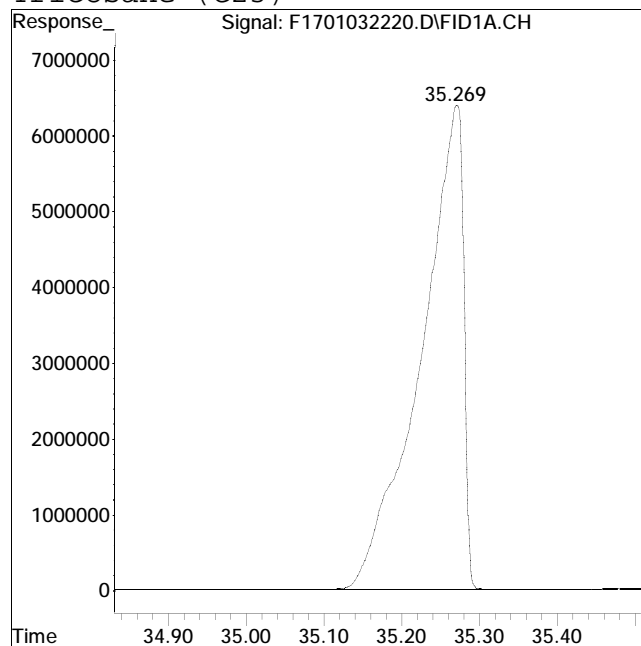
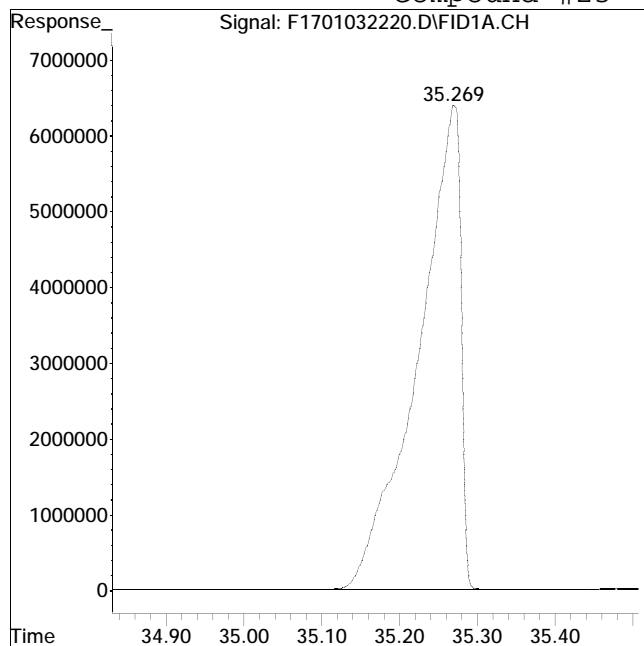
Manual Peak Response = 243378199 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #23: n-Tricosane (C23)



Original Peak Response = 242938986

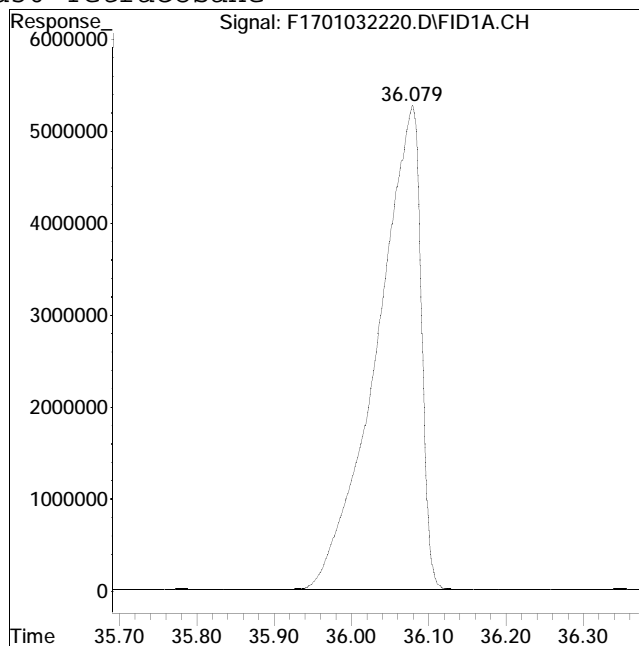
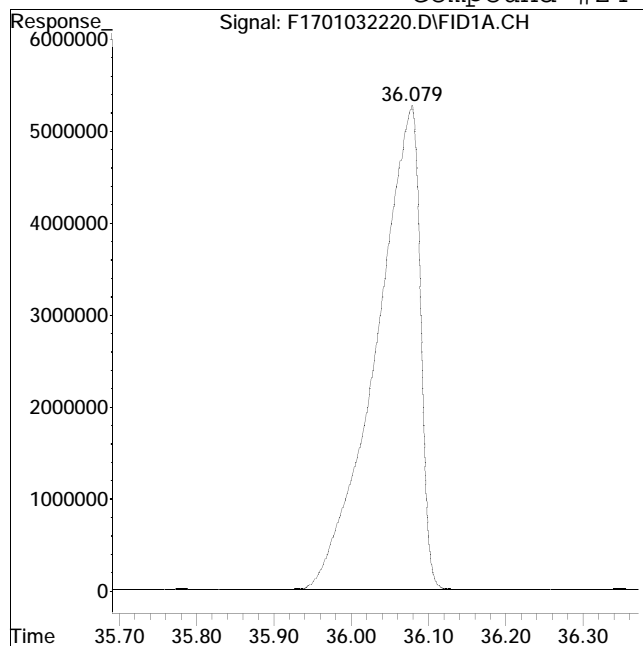
Manual Peak Response = 243088922 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032220.D Operator : FID17:WR
Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #24: d50-Tetracosane



Original Peak Response = 208860105

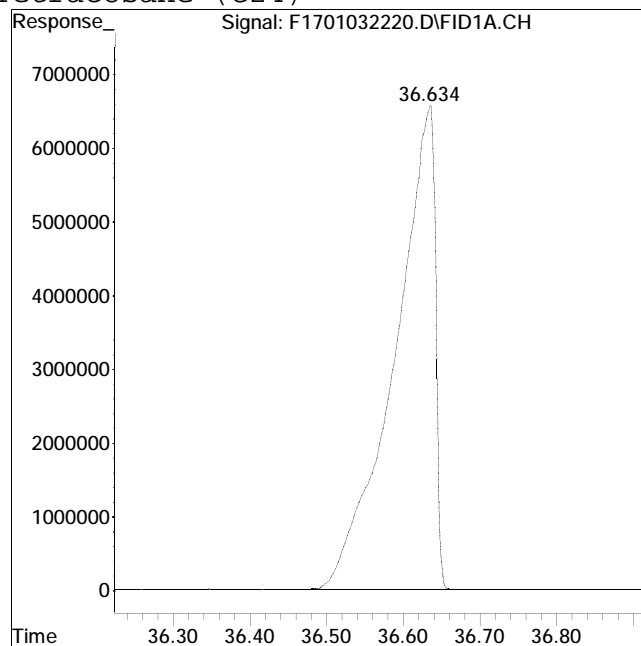
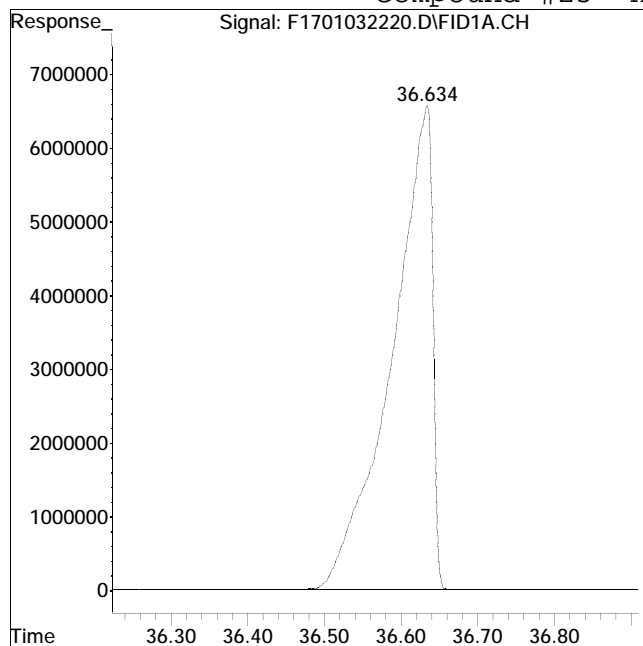
Manual Peak Response = 209229286 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #25: n-Tetracosane (C24)



Original Peak Response = 241087232

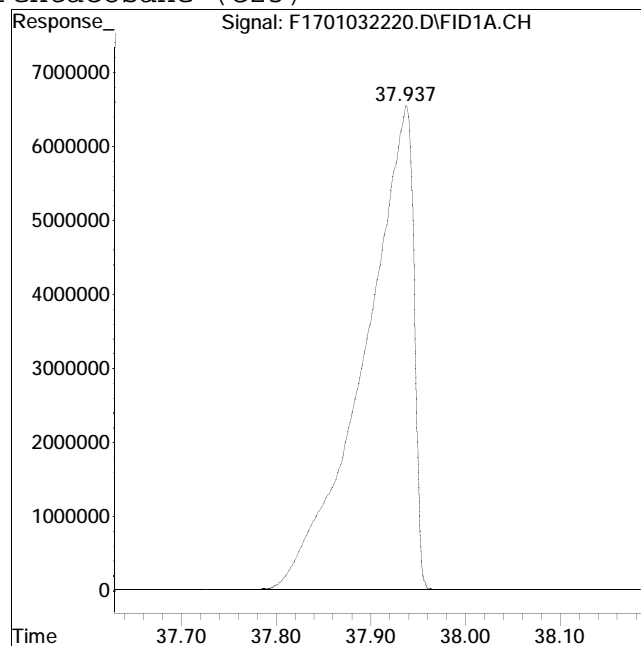
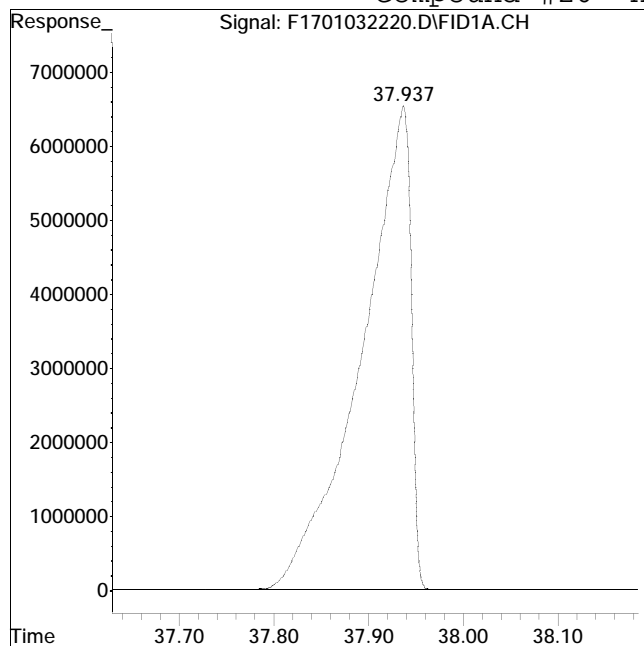
Manual Peak Response = 241330482 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #26: n-Pentacosane (C25)



Original Peak Response = 236327128

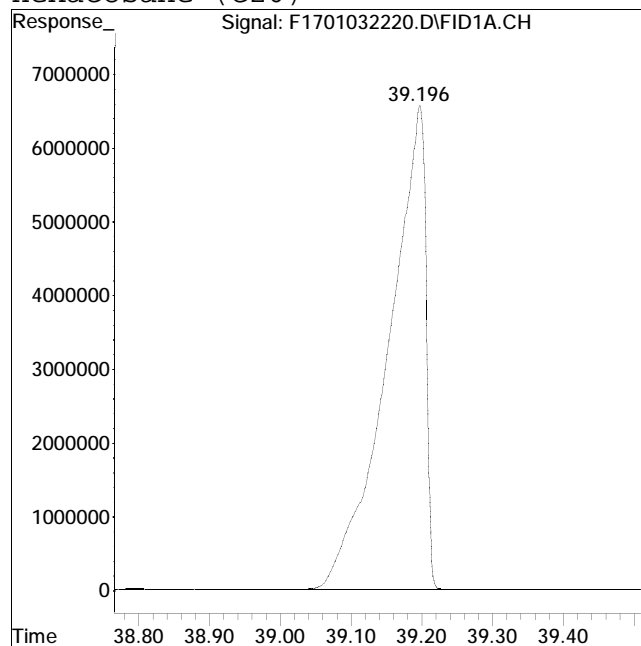
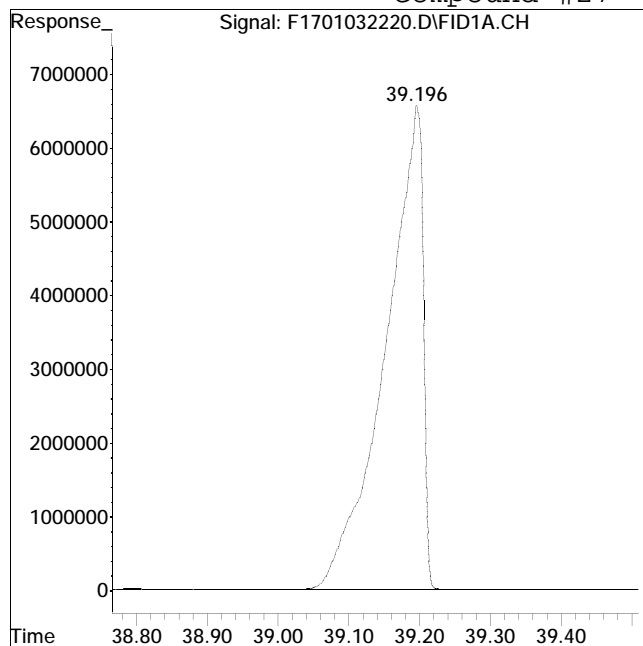
Manual Peak Response = 236709137 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #27: n-Hexacosane (C26)



Original Peak Response = 242166908

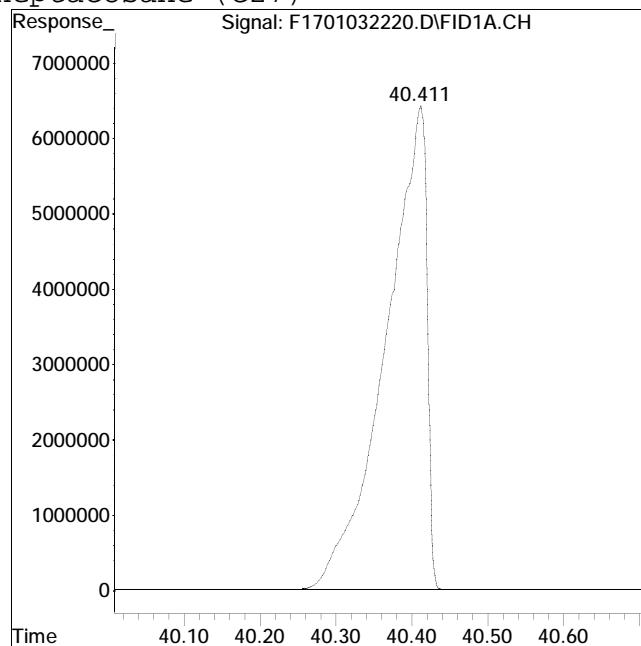
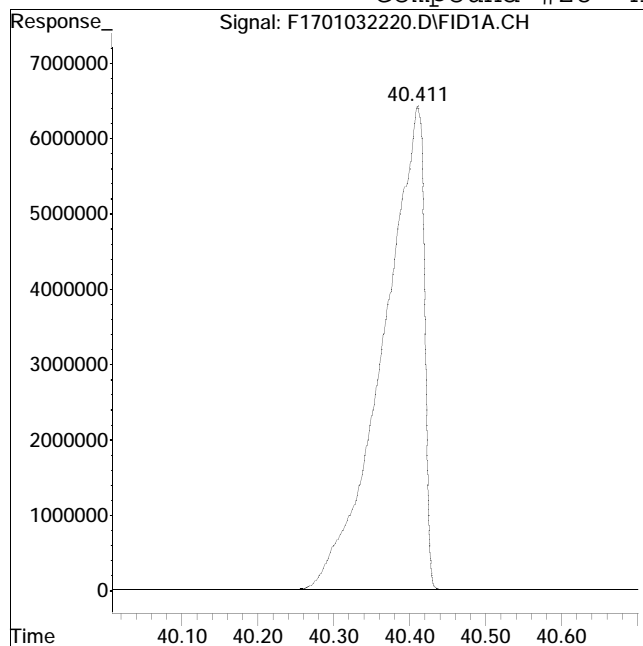
Manual Peak Response = 242434149 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #28: n-Heptacosane (C27)



Original Peak Response = 241274764

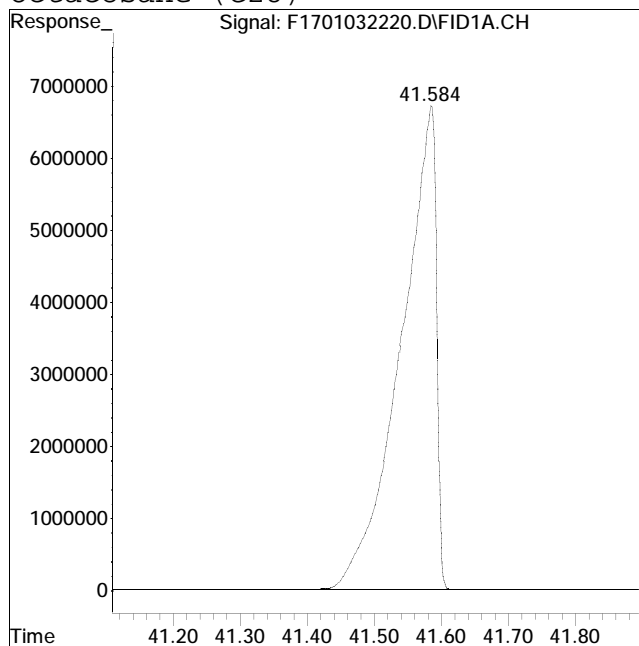
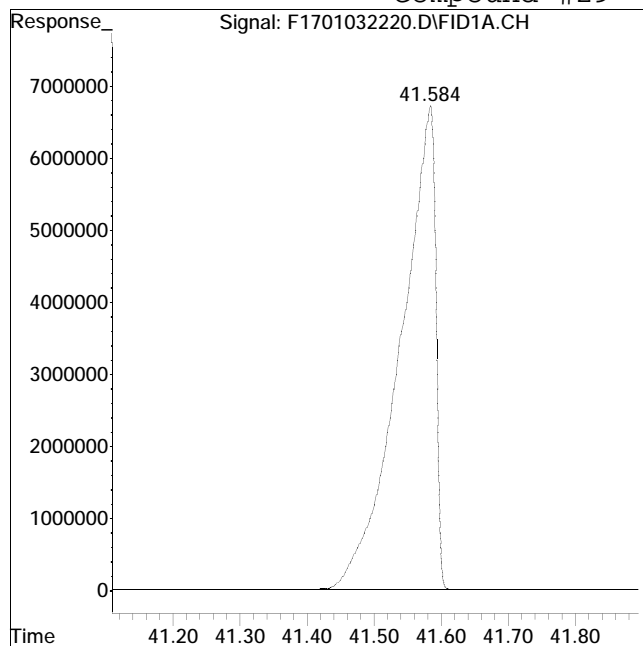
Manual Peak Response = 241429027 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032220.D Operator : FID17:WR
Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #29: n-Octacosane (C28)



Original Peak Response = 245498004

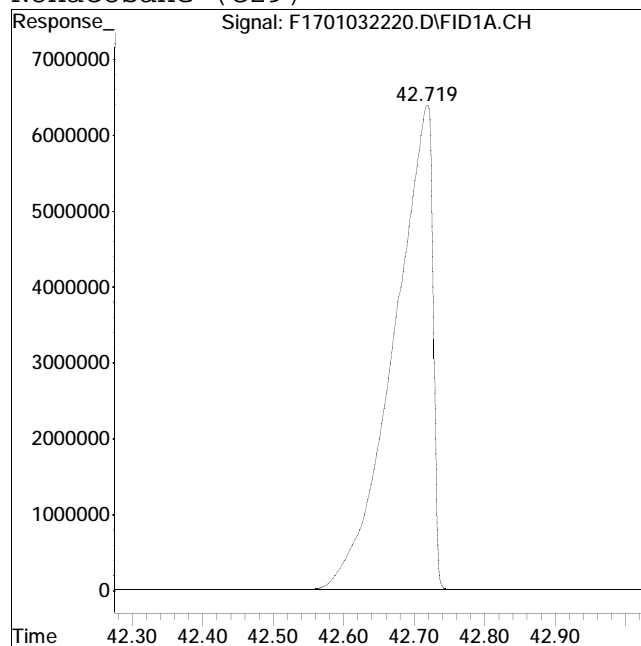
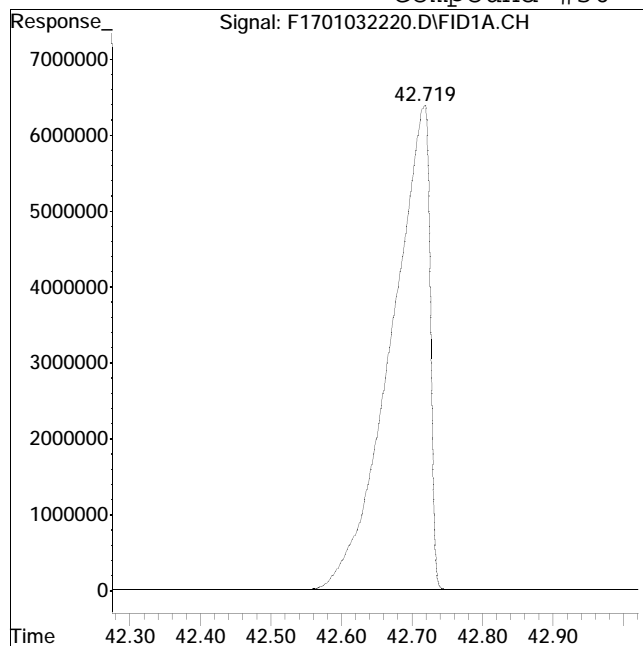
Manual Peak Response = 245736930 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #30: n-Nonacosane (C29)



Original Peak Response = 243470095

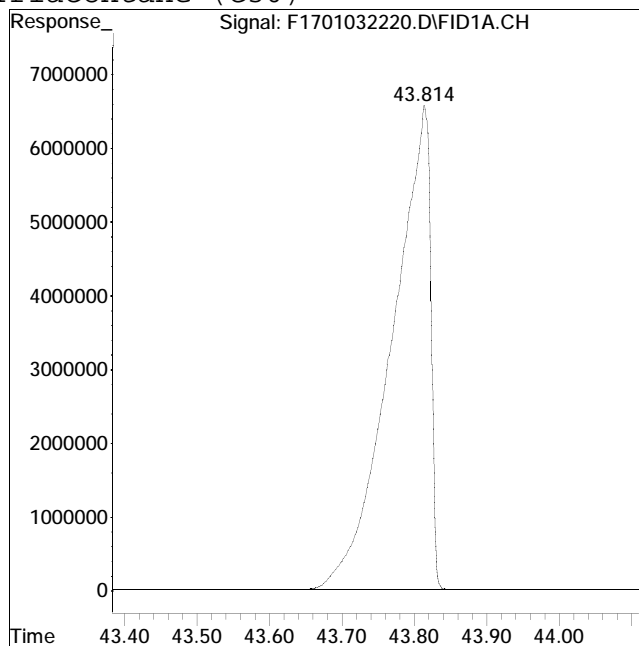
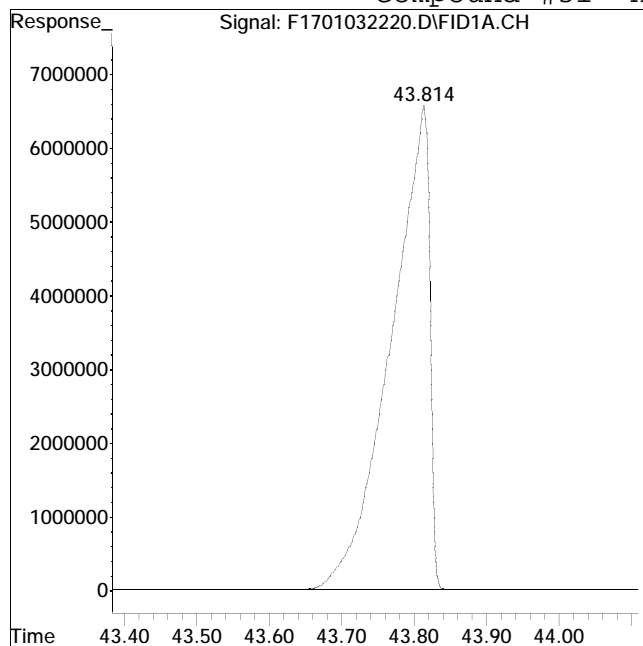
Manual Peak Response = 243592342 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #31: n-Triacontane (C30)



Original Peak Response = 243337780

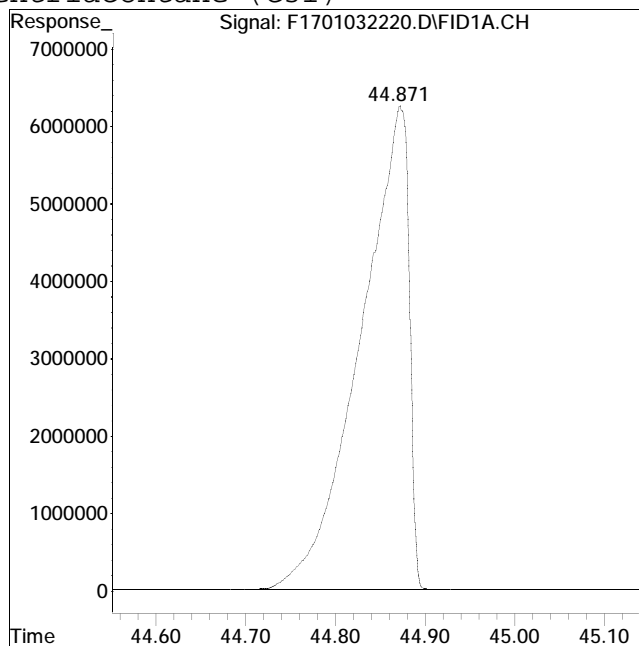
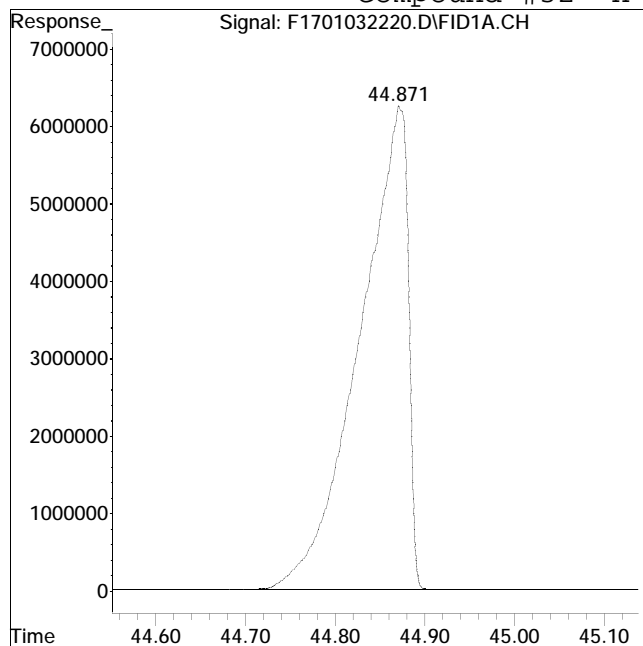
Manual Peak Response = 243298468 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 233603606

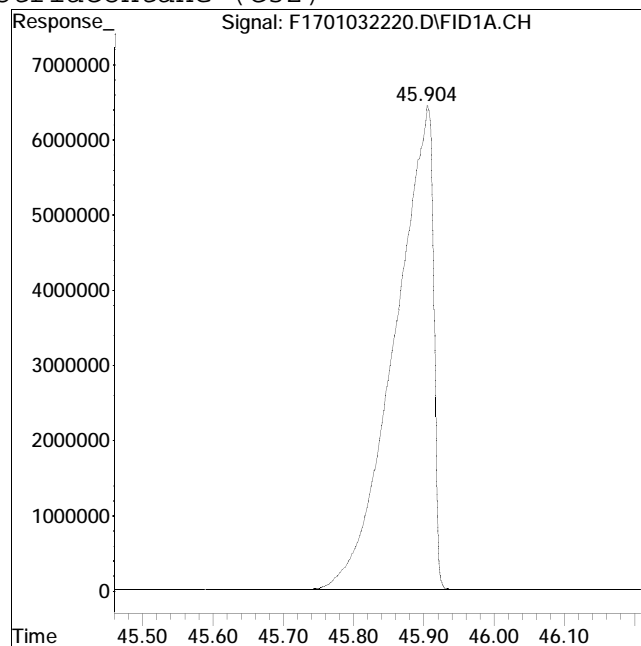
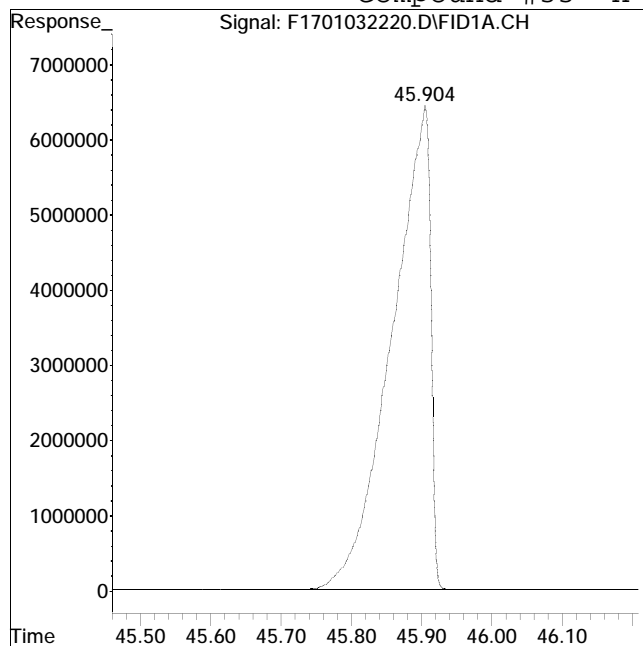
Manual Peak Response = 233886759 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 244858783

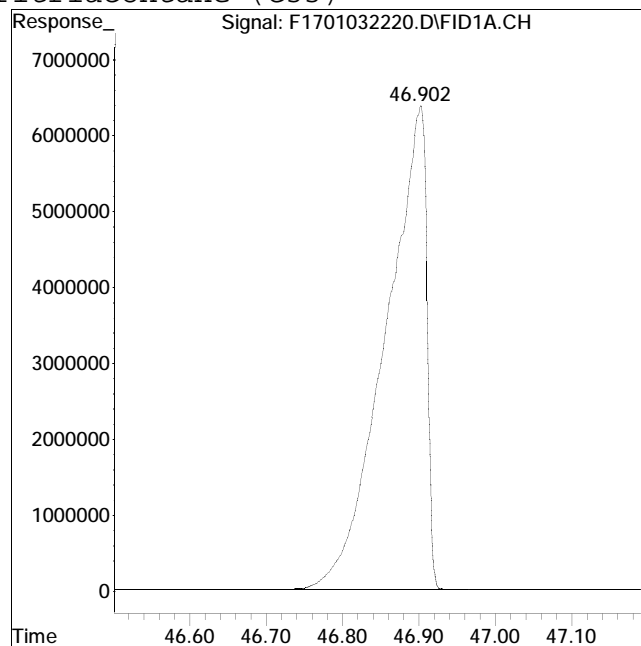
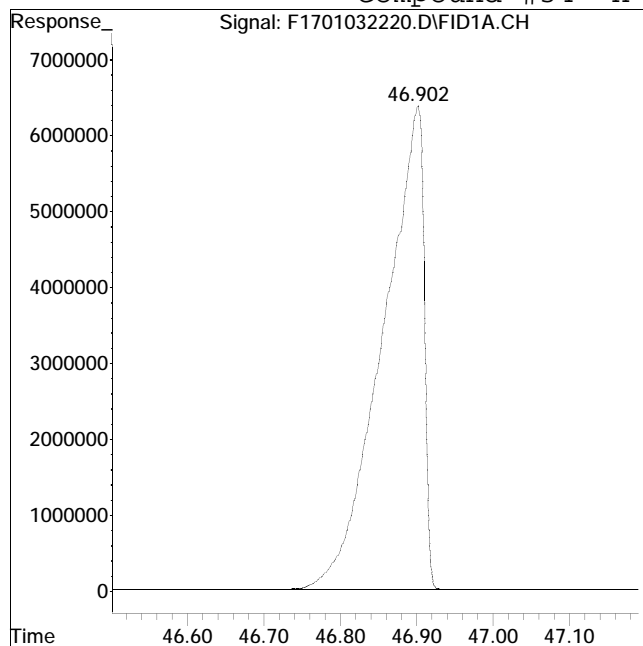
Manual Peak Response = 245090995 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 237785476

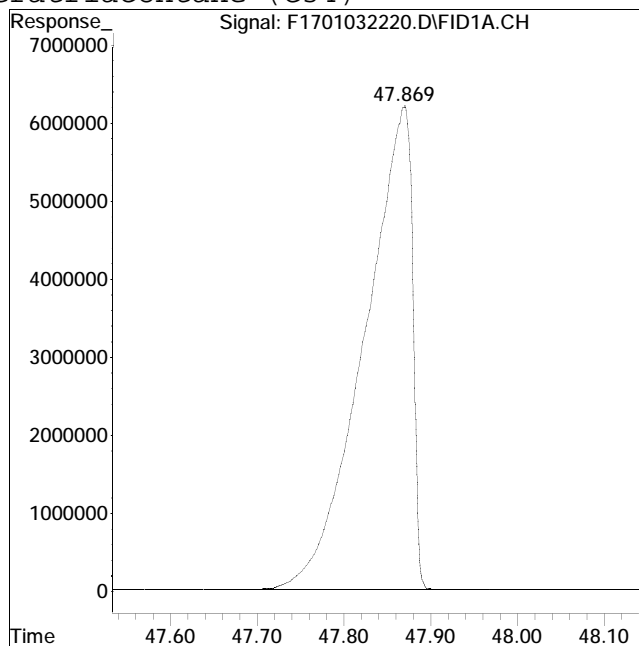
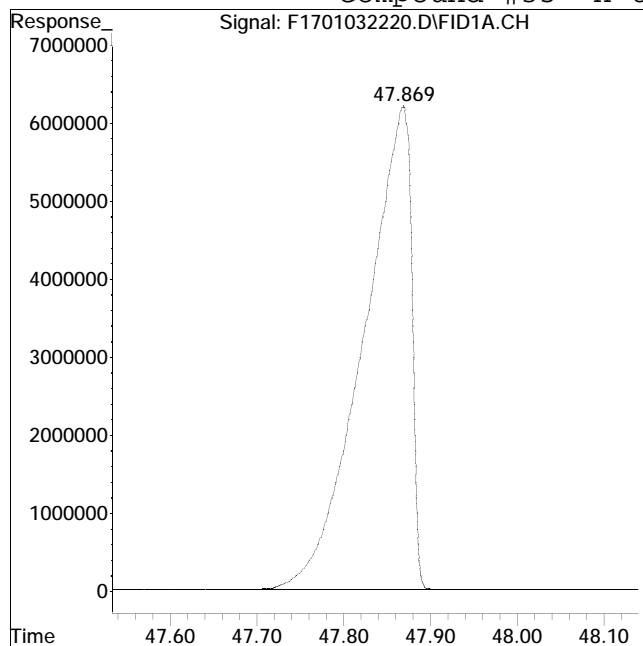
Manual Peak Response = 237873907 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032220.D Operator : FID17:WR
Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 236994419

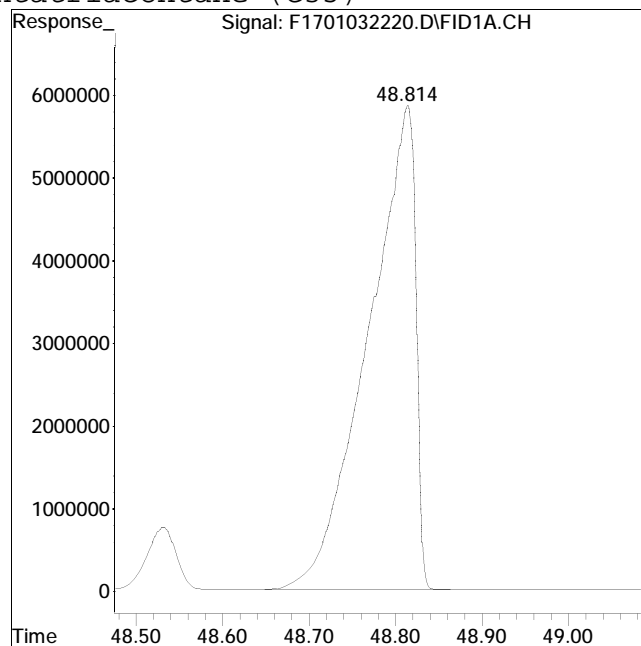
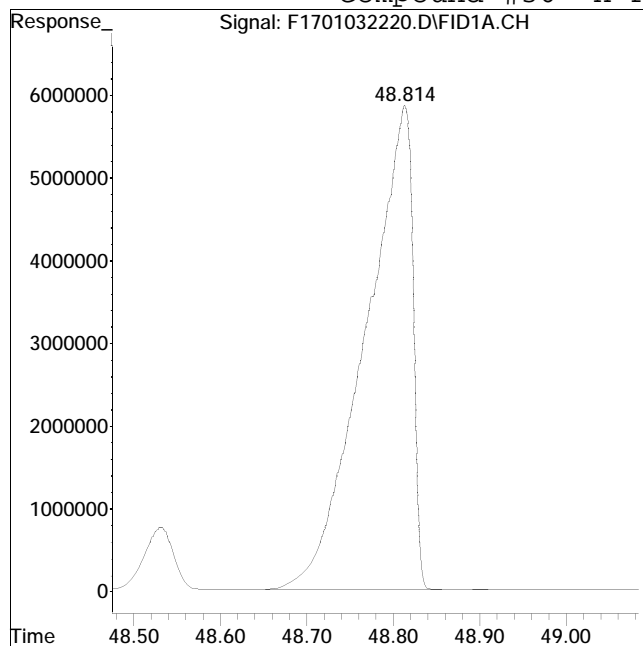
Manual Peak Response = 237348442 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 222505468

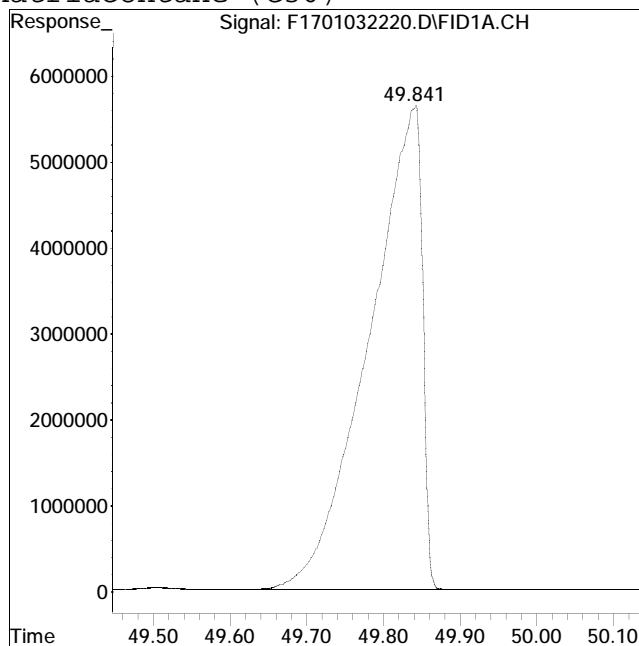
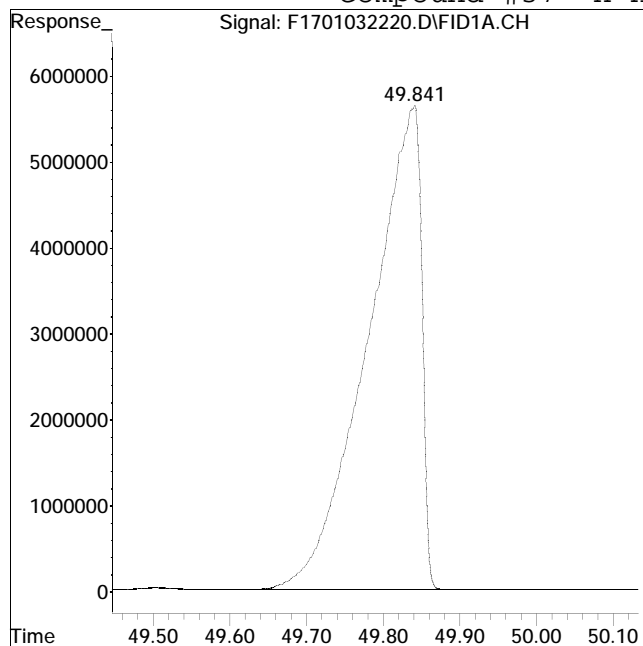
Manual Peak Response = 222677501 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 269650496

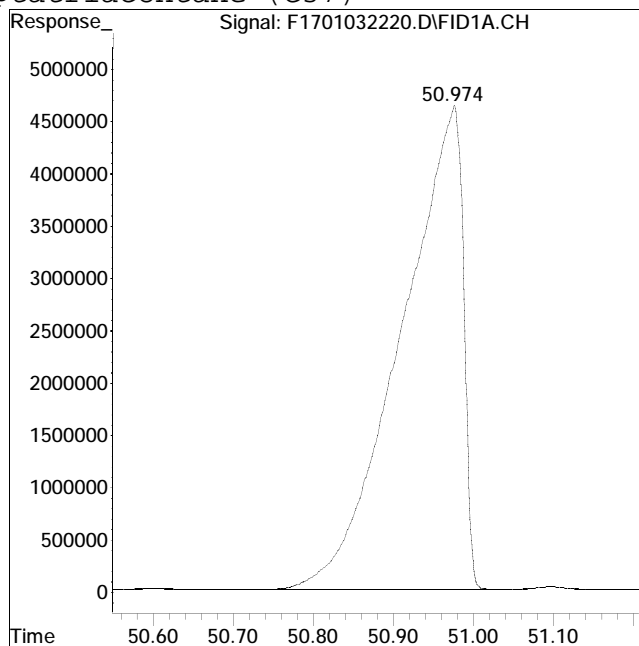
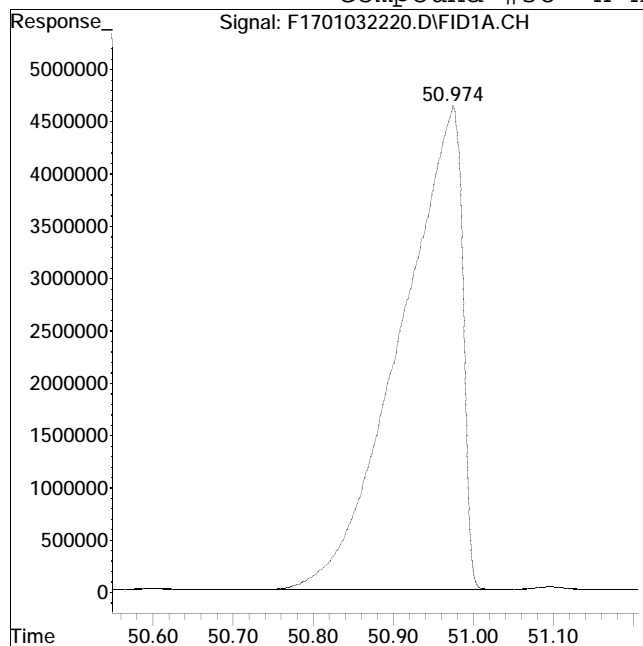
Manual Peak Response = 270155309 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 247124147

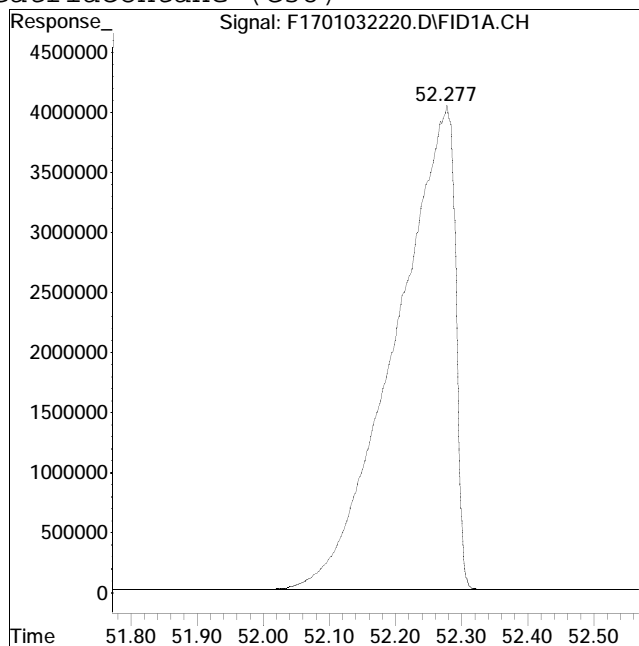
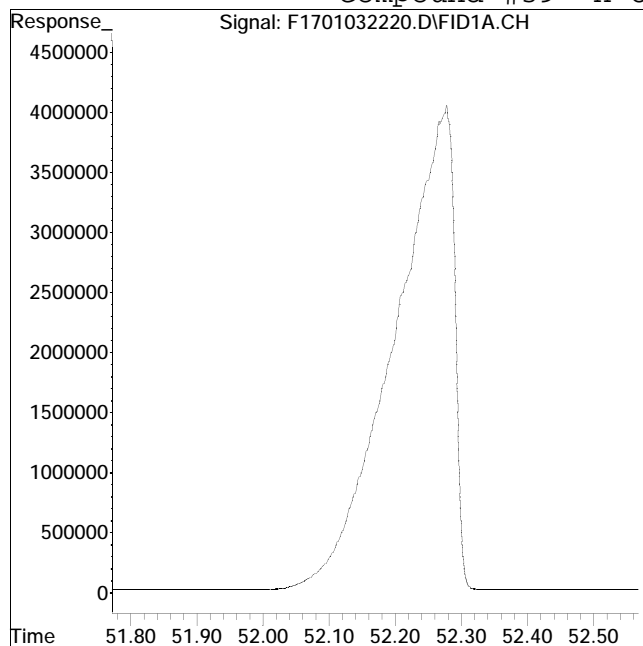
Manual Peak Response = 247403934 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032220.D Operator : FID17:WR
 Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
 Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 0

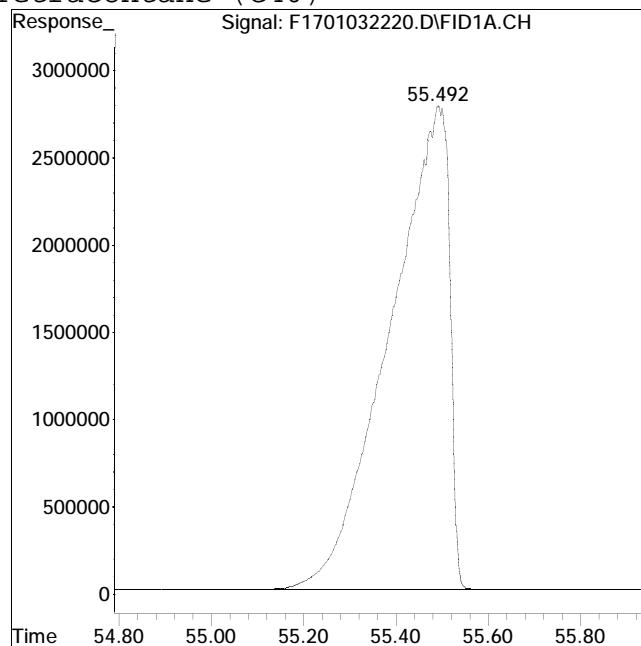
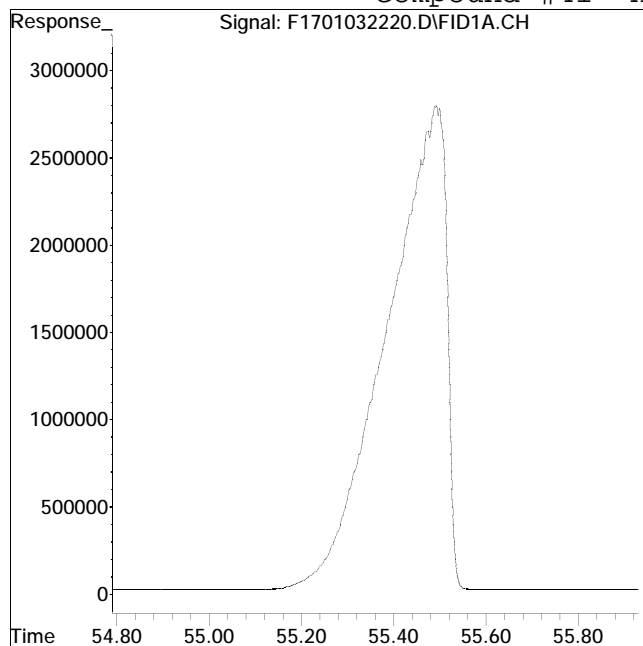
Manual Peak Response = 251559987 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032220.D Operator : FID17:WR
Date Inj'd : 1/3/2023 11:12 pm Instrument : FID17
Sample : I1701032305F Quant Date : 1/17/2023 8:58 am

Compound #41: n-Tetracontane (C40)



Original Peak Response = 0

Manual Peak Response = 249179444 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F170103222.D
 Signal(s) : FID1A.CH
 Acq On : 04 Jan 2023 12:42 am
 Operator : FID17:WR
 Sample : I1701032306F
 Misc : WG1734833,FRBF59,500ug/ml
 ALS Vial : 11 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 17 09:10:20 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Jan 17 09:06:56 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.404	61899666	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.476	660127572	502.828 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery = 1005.66%#	
24) s d50-Tetracosane	36.121	517400141	504.541 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery = 1009.08%#	
Target Compounds			
2) t n-Octane (C8)	0.000	0	N.D. ug/mL
3) t n-Nonane (C9)	0.000	0	N.D. ug/mL
4) t n-Decane (C10)	0.000	0	N.D. ug/mL
5) t n-Undecane (C11)	0.000	0	N.D. ug/mL
6) t n-Dodecane (C12)	0.000	0	N.D. ug/mL
7) t n-Tridecane (C13)	0.000	0	N.D. ug/mL
9) t n-Tetradecane (C14)	0.000	0	N.D. ug/mL
11) t n-Pentadecane (C15)	0.000	0	N.D. ug/mL
12) t n-Hexadecane (C16)	0.000	0	N.D. ug/mL
14) t n-Heptadecane (C17)	0.000	0	N.D. ug/mL
15) t Pristane	0.000	0	N.D. ug/mL
16) t n-Octadecane (C18)	0.000	0	N.D. ug/mL
17) t Phytane	0.000	0	N.D. ug/mL
18) t n-Nonadecane (C19)	0.000	0	N.D. ug/mL
20) t n-Eicosane (C20)	0.000	0	N.D. ug/mL
21) t n-Heneicosane (C21)	0.000	0	N.D. ug/mL
22) t n-Docosane (C22)	0.000	0	N.D. ug/mL
23) t n-Tricosane (C23)	0.000	0	N.D. ug/mL
25) t n-Tetracosane (C24)	0.000	0	N.D. ug/mL
26) t n-Pentacosane (C25)	0.000	0	N.D. ug/mL
27) t n-Hexacosane (C26)	0.000	0	N.D. ug/mL
28) t n-Heptacosane (C27)	0.000	0	N.D. ug/mL
29) t n-Octacosane (C28)	0.000	0	N.D. ug/mL
30) t n-Nonacosane (C29)	0.000	0	N.D. ug/mL

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F170103222.D
 Signal(s) : FID1A.CH
 Acq On : 04 Jan 2023 12:42 am
 Operator : FID17:WR
 Sample : I1701032306F
 Misc : WG1734833,FRBF59,500ug/ml
 ALS Vial : 11 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 17 09:10:20 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Jan 17 09:06:56 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc	Units
31) t	n-Triacontane (C30)	0.000	0	N.D.	ug/mL
32) t	n-Hentriacontane (C31)	0.000	0	N.D.	ug/mL
33) t	n-Dotriacontane (C32)	0.000	0	N.D.	ug/mL
34) t	n-Tritriacontane (C33)	0.000	0	N.D.	ug/mL
35) t	n-tetratriacontane (C34)	0.000	0	N.D.	ug/mL
36) t	n-Pentatriacontane (C35)	0.000	0	N.D.	ug/mL
37) t	n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL
38) t	n-Heptatriacontane (C37)	0.000	0	N.D.	ug/mL
39) t	n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL
41) t	n-Tetracontane (C40)	0.000	0	N.D.	ug/mL

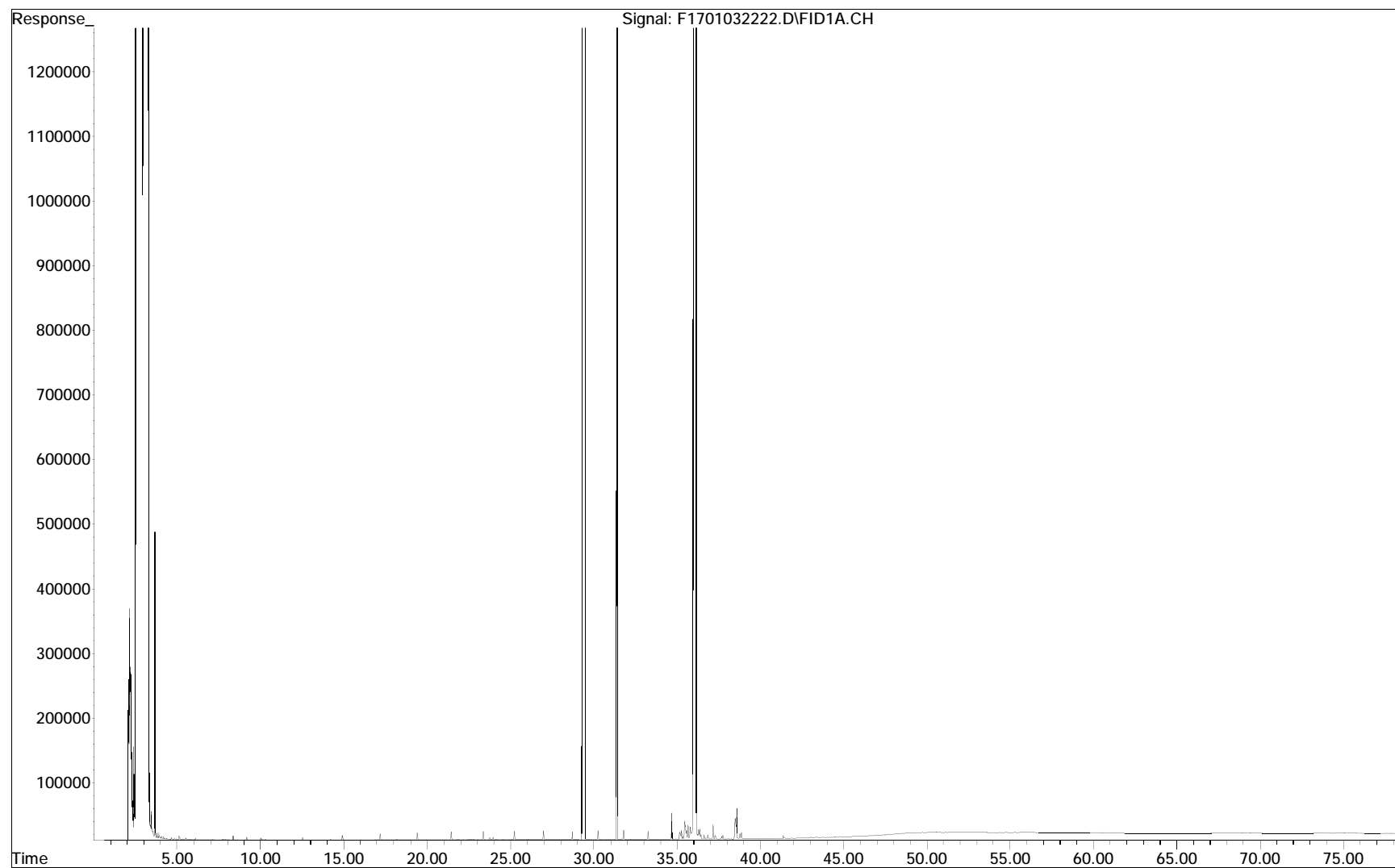
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

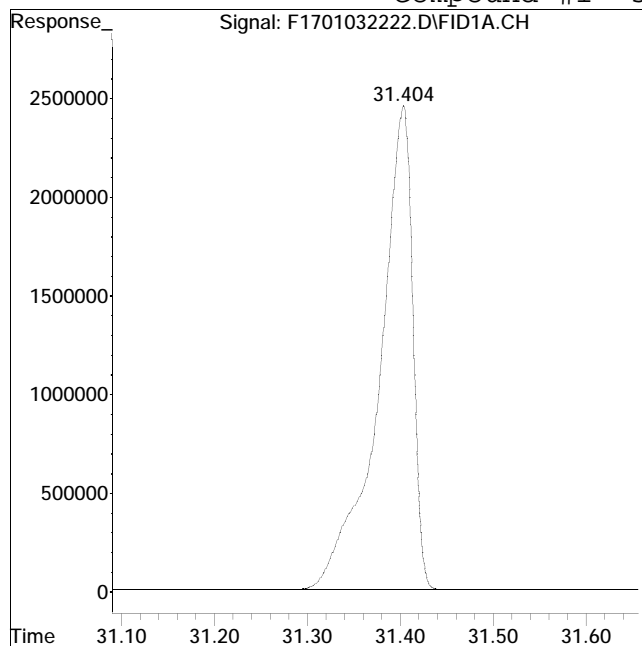
File : O:\Forensics\Data\FID17\2023\JAN\JAN03\F1701032222.D
Operator : FID17:WR
Acquired : 04 Jan 2023 12:42 am using AcqMethod FID17A.M
Sample Name: I1701032306F
Instrument: FID17
Misc Info : WG1734833,FRBF59,500ug/ml
Vial Number: 11
CurrentMeth: O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M



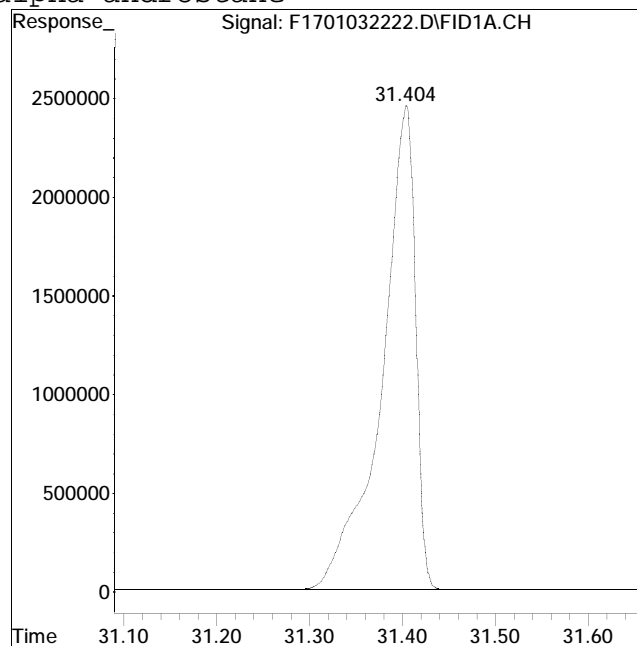
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032222.D Operator : FID17:WR
Date Inj'd : 1/4/2023 12:42 am Instrument : FID17
Sample : I1701032306F Quant Date : 1/17/2023 9:07 am

Compound #1: 5-alpha-androstane



Original Peak Response = 61890630



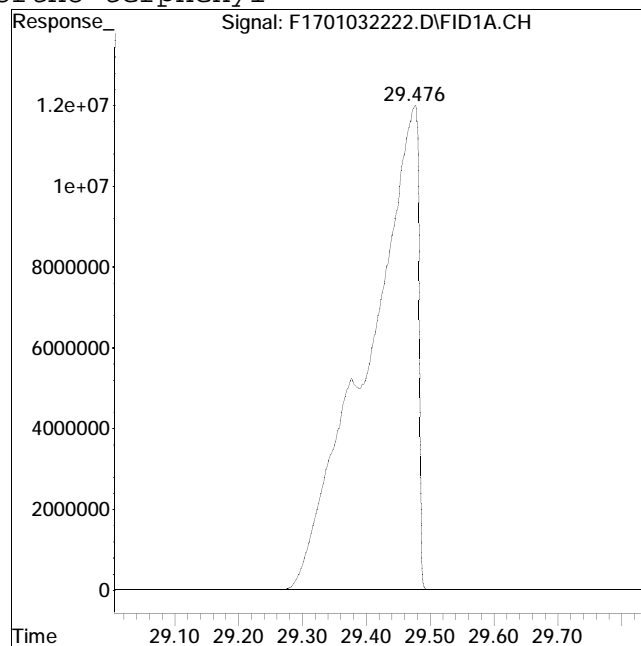
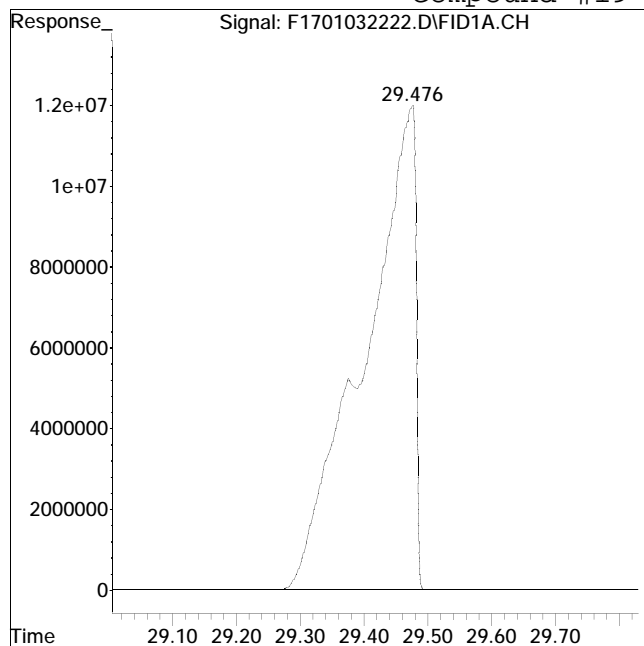
Manual Peak Response = 61899666 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032222.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 12:42 am Instrument : FID17
 Sample : I1701032306F Quant Date : 1/17/2023 9:07 am

Compound #19: ortho-terphenyl



Original Peak Response = 660077164

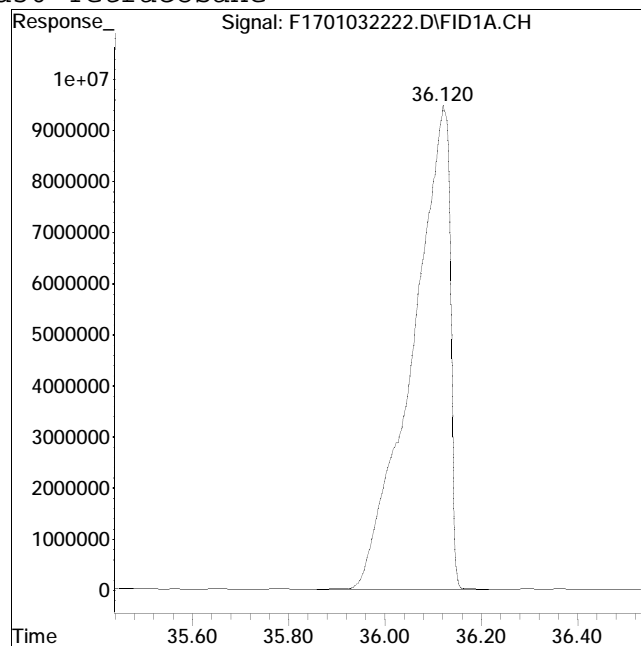
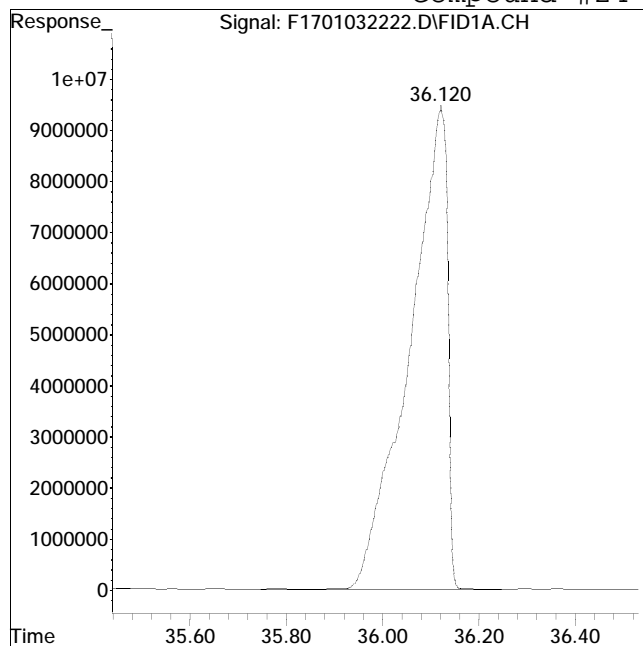
Manual Peak Response = 660127572 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032222.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 12:42 am Instrument : FID17
 Sample : I1701032306F Quant Date : 1/17/2023 9:07 am

Compound #24: d50-Tetracosane



Original Peak Response = 517432507

Manual Peak Response = 517400141 M4

M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032226.D
 Signal(s) : FID1A.CH
 Acq On : 04 Jan 2023 3:42 am
 Operator : FID17:WR
 Sample : CQ1701032301F
 Misc : WG1734833,FRBF61,50ug/ml
 ALS Vial : 13 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 18 15:14:57 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jan 18 15:05:06 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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	5-alpha-androstane	^	1.000	1.000	0.0	99	0.00
2 t	n-Octane (C8)		0.817	0.820	-0.4	104	0.00
3 t	n-Nonane (C9)		0.850	0.876	-3.1	107	0.00
4 t	n-Decane (C10)		0.885	0.920	-4.0	108	0.00
5 t	n-Undecane (C11)		0.887	0.925	-4.3	107	0.00
6 t	n-Dodecane (C12)		0.895	0.946	-5.7	110	0.00
7 t	n-Tridecane (C13)		0.899	0.935	-4.0	107	0.00
9 t	n-Tetradecane (C14)		0.923	0.956	-3.6	108	0.00
11 t	n-Pentadecane (C15)		0.927	0.963	-3.9	109	0.00
12 t	n-Hexadecane (C16)		0.924	0.978	-5.8	109	0.00
14 t	n-Heptadecane (C17)		0.937	0.951	-1.5	106	0.00
15 t	Pristane		0.947	0.972	-2.6	106	0.00
16 t	n-Octadecane (C18)		0.944	0.965	-2.2	106	0.00
17 t	Phytane		0.880	0.881	-0.1	104	0.00
18 t	n-Nonadecane (C19)		0.944	0.983	-4.1	109	0.00
19 s	ortho-terphenyl		1.061	1.096	-3.3	103	0.00
20 t	n-Eicosane (C20)		0.951	0.990	-4.1	108	0.00
21 t	n-Heneicosane (C21)		0.952	0.991	-4.1	109	0.00
22 t	n-Docosane (C22)		0.954	1.021	-7.0	111	0.00
23 t	n-Tricosane (C23)		0.955	0.970	-1.6	105	0.00
24 s	d50-Tetracosane		0.830	0.821	1.1	99	0.00
25 t	n-Tetracosane (C24)		0.939	0.994	-5.9	114	0.00
26 t	n-Pentacosane (C25)		0.933	0.984	-5.5	109	0.00
27 t	n-Hexacosane (C26)		0.956	1.010	-5.6	109	0.00
28 t	n-Heptacosane (C27)		0.948	0.972	-2.5	109	0.00
29 t	n-Octacosane (C28)		0.970	1.004	-3.5	108	0.00
30 t	n-Nonacosane (C29)		0.962	0.995	-3.4	108	0.00
31 t	n-Triacontane (C30)		0.963	0.999	-3.7	108	0.00
32 t	n-Hentriacontane (C31)		0.929	0.980	-5.5	109	0.00
33 t	n-Dotriacontane (C32)		0.972	0.981	-0.9	105	0.00
34 t	n-Tritriacontane (C33)		0.940	0.978	-4.0	108	0.00
35 t	n-tetratriacontane (C34)		0.933	0.993	-6.4	111	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032226.D
 Signal(s) : FID1A.CH
 Acq On : 04 Jan 2023 3:42 am
 Operator : FID17:WR
 Sample : CQ1701032301F
 Misc : WG1734833,FRBF61,50ug/ml
 ALS Vial : 13 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 18 15:14:57 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jan 18 15:05:06 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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)
36 t	n-Pentatriacontane (C35)	0.887	0.961	-8.3	107	0.00
37 t	n-Hexatriacontane (C36)	1.039	1.019	1.9	105	0.00
38 t	n-Heptatriacontane (C37)	0.953	0.968	-1.6	109	0.00
39 t	n-Octatriacontane (C38)	0.967	1.002	-3.6	109	0.00
41 t	n-Tetracontane (C40)	0.954	0.909	4.7	99	0.00

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 (^) = ISTD area calculated using ICAL average

Mass Discrimination (Response)	Ratio	Range Limits
n-Hexatriacontane (C36) to n-Eicosane (C20)	1.03	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032226.D
 Signal(s) : FID1A.CH
 Acq On : 04 Jan 2023 3:42 am
 Operator : FID17:WR
 Sample : CQ1701032301F
 Misc : WG1734833,FRBF61,50ug/ml
 ALS Vial : 13 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 18 15:14:57 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jan 18 15:05:06 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.404	61214945	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.380	67109620	51.641 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	103.28%
24) s d50-Tetracosane	36.029	50274697	49.499 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	99.00%
Target Compounds			
2) t n-Octane (C8)	5.707	50220293	50.180 ug/mL M4
3) t n-Nonane (C9)	7.920	53640184	51.536 ug/mL M4
4) t n-Decane (C10)	10.412	56341986	51.976 ug/mL M4
5) t n-Undecane (C11)	12.928	56607010	52.142 ug/mL M4
6) t n-Dodecane (C12)	15.357	57931181	52.882 ug/mL M4
7) t n-Tridecane (C13)	17.666	57225913	51.986 ug/mL M4
9) t n-Tetradecane (C14)	19.850	58538349	51.787 ug/mL M4
11) t n-Pentadecane (C15)	21.917	58933381	51.901 ug/mL M4
12) t n-Hexadecane (C16)	23.875	59897193	52.955 ug/mL M4
14) t n-Heptadecane (C17)	25.735	58201445	50.721 ug/mL M4
15) t Pristane	25.846	59506730	51.317 ug/mL M4
16) t n-Octadecane (C18)	27.504	59075753	51.120 ug/mL M4
17) t Phytane	27.669	53957629	50.056 ug/mL M4
18) t n-Nonadecane (C19)	29.190	60147096	52.032 ug/mL M4
20) t n-Eicosane (C20)	30.797	60614153	52.036 ug/mL M4
21) t n-Heneicosane (C21)	32.336	60671761	52.030 ug/mL M4
22) t n-Docosane (C22)	33.810	62526492	53.526 ug/mL M4
23) t n-Tricosane (C23)	35.222	59373802	50.768 ug/mL M4
25) t n-Tetracosane (C24)	36.582	60825572	52.888 ug/mL M4
26) t n-Pentacosane (C25)	37.887	60252165	52.736 ug/mL M4
27) t n-Hexacosane (C26)	39.147	61852256	52.842 ug/mL M4
28) t n-Heptacosane (C27)	40.359	59524338	51.284 ug/mL M4
29) t n-Octacosane (C28)	41.530	61486323	51.786 ug/mL M4
30) t n-Nonacosane (C29)	42.662	60891774	51.687 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032226.D
 Signal(s) : FID1A.CH
 Acq On : 04 Jan 2023 3:42 am
 Operator : FID17:WR
 Sample : CQ1701032301F
 Misc : WG1734833,FRBF61,50ug/ml
 ALS Vial : 13 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 18 15:14:57 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jan 18 15:05:06 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	43.760	61139814	51.833 ug/mL M4
32) t	n-Hentriacontane (C31)	44.818	60017575	52.780 ug/mL M4
33) t	n-Dotriacontane (C32)	45.845	60060874	50.488 ug/mL M4
34) t	n-Tritriacontane (C33)	46.842	59872715	52.030 ug/mL M4
35) t	n-tetratriacontane (C34)	47.810	60764723	53.168 ug/mL M4
36) t	n-Pentatriacontane (C35)	48.753	58856763	54.209 ug/mL M4
37) t	n-Hexatriacontane (C36)	49.761	62407376	49.044 ug/mL M4
38) t	n-Heptatriacontane (C37)	50.888	59284575	50.803 ug/mL M4
39) t	n-Octatriacontane (C38)	52.174	61362274	51.844 ug/mL M4
41) t	n-Tetracontane (C40)	55.357	55651763	47.670 ug/mL M4

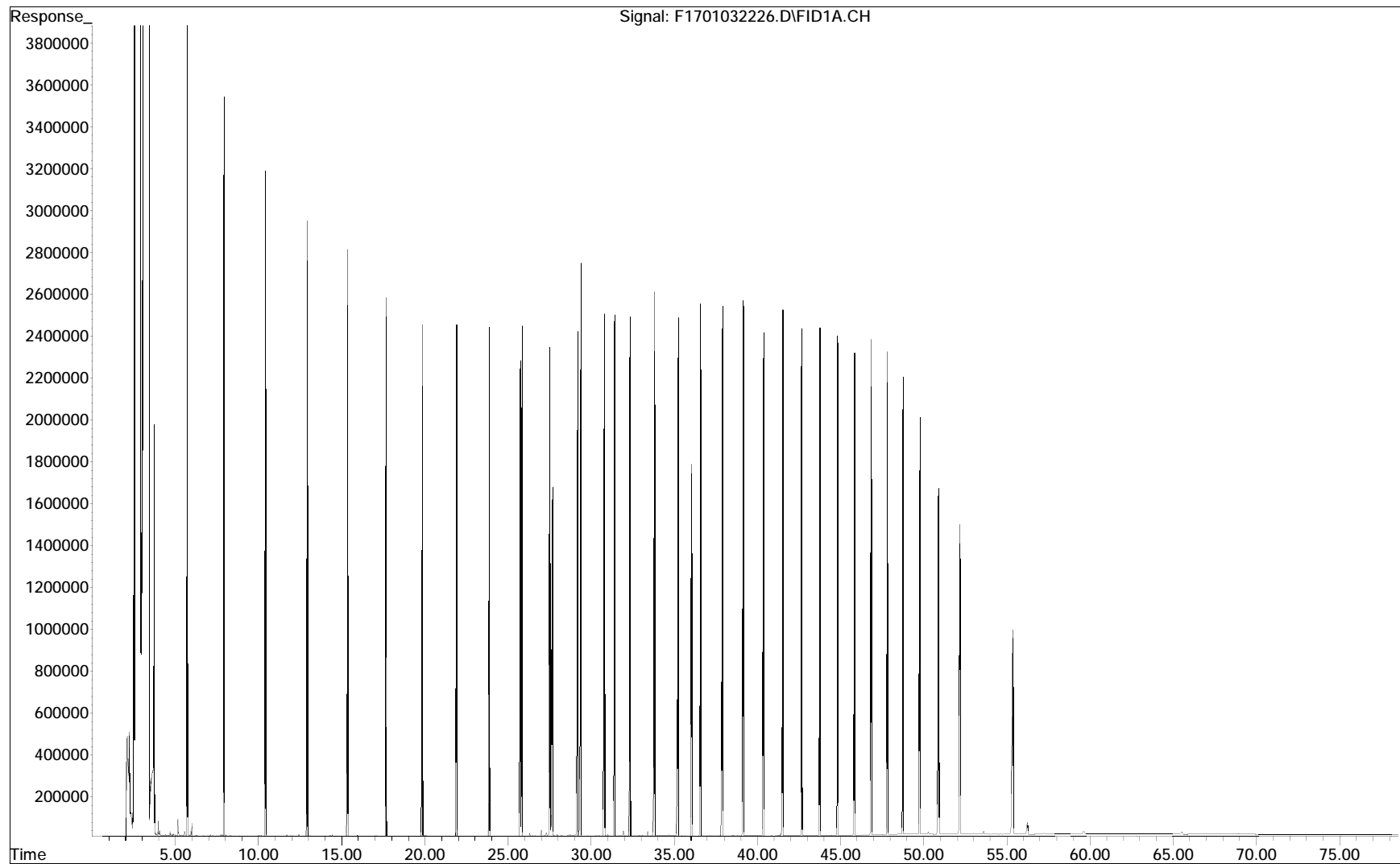
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

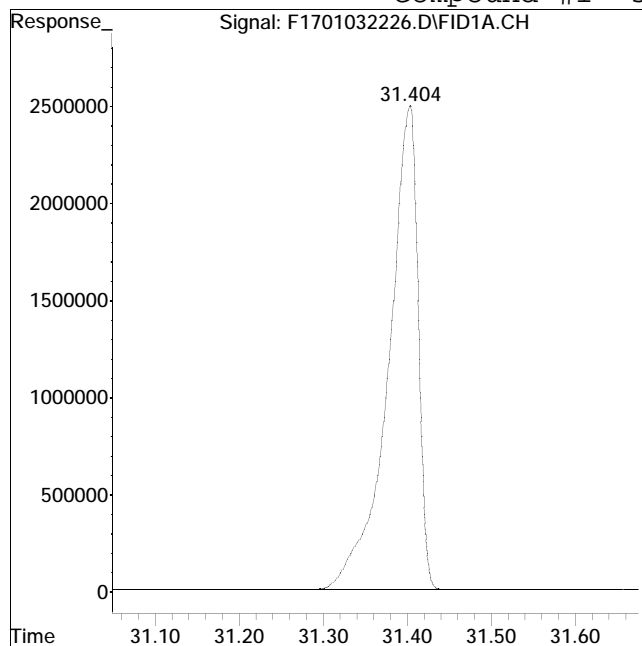
File :O:\Forensics\Data\FID17\2023\JAN\JAN03\F1701032226.D
Operator : FID17:WR
Acquired : 04 Jan 2023 3:42 am using AcqMethod FID17A.M
Sample Name: CQ1701032301F
Instrument: FID17
Misc Info : WG1734833,FRBF61,50ug/ml
Vial Number: 13
CurrentMeth: O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M



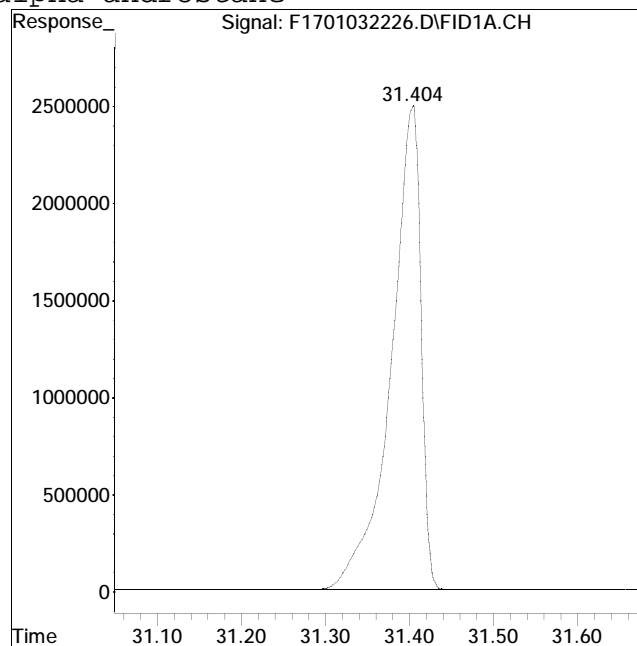
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032226.D Operator : FID17:WR
Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 61195267



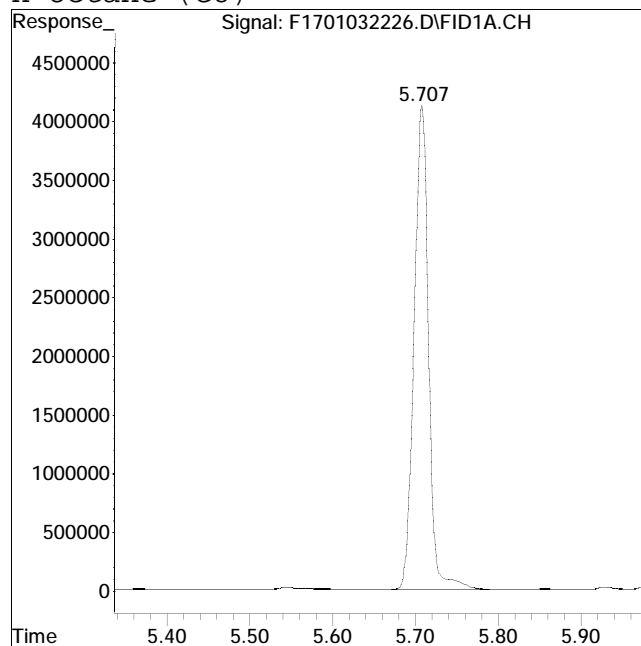
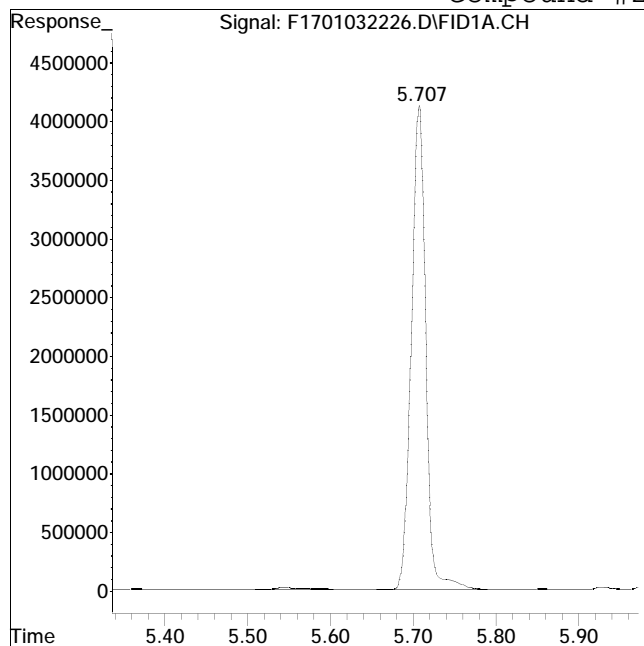
Manual Peak Response = 61214945 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #2: n-Octane (C8)



Original Peak Response = 50566034

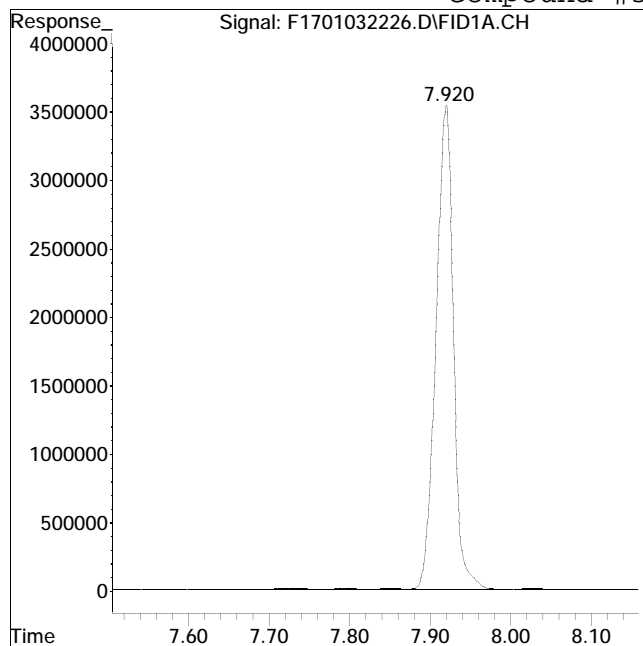
Manual Peak Response = 50220293 M4

M4 = Poor automated baseline construction.

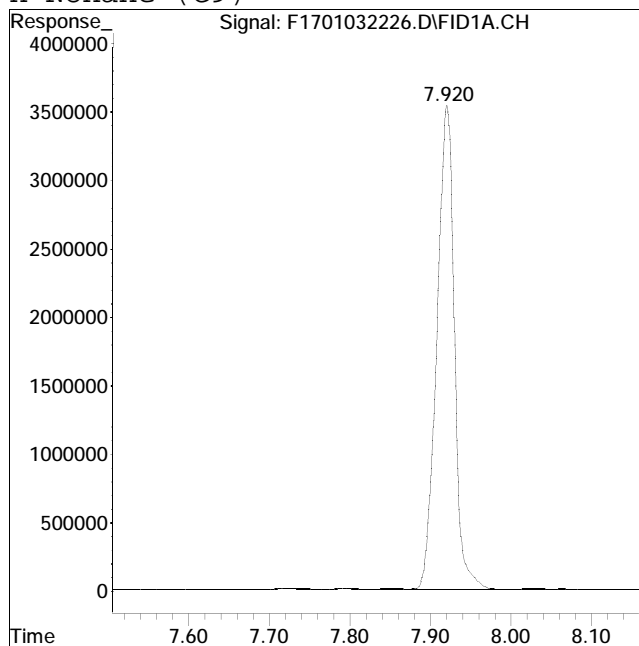
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032226.D Operator : FID17:WR
Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 53951491



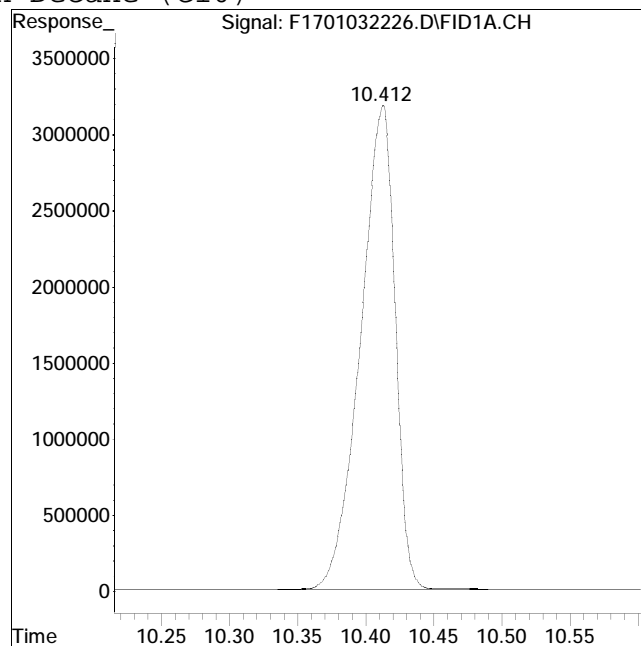
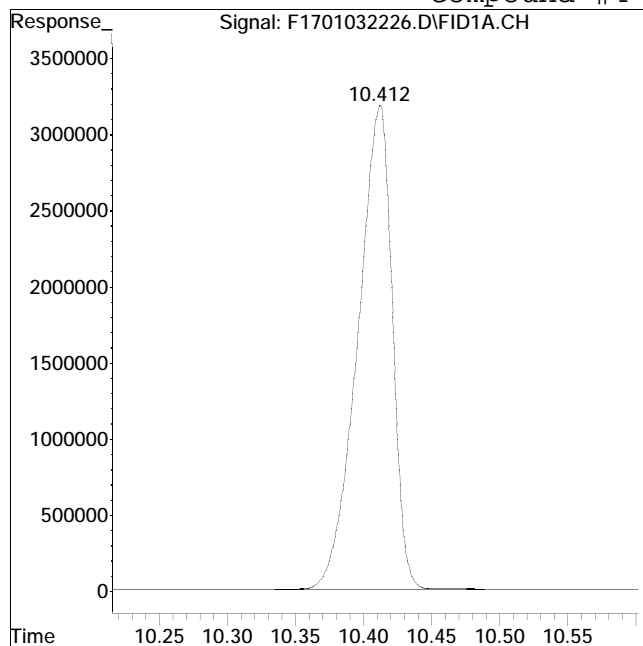
Manual Peak Response = 53640184 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #4: n-Decane (C10)



Original Peak Response = 56266381

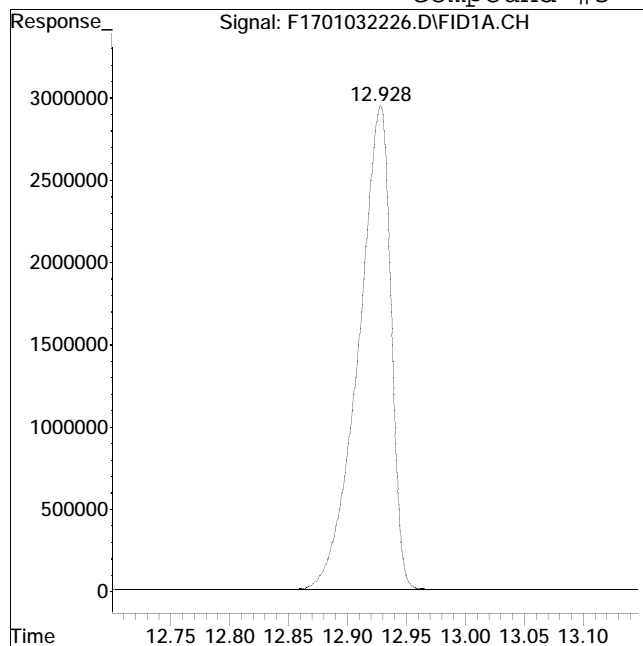
Manual Peak Response = 56341986 M4

M4 = Poor automated baseline construction.

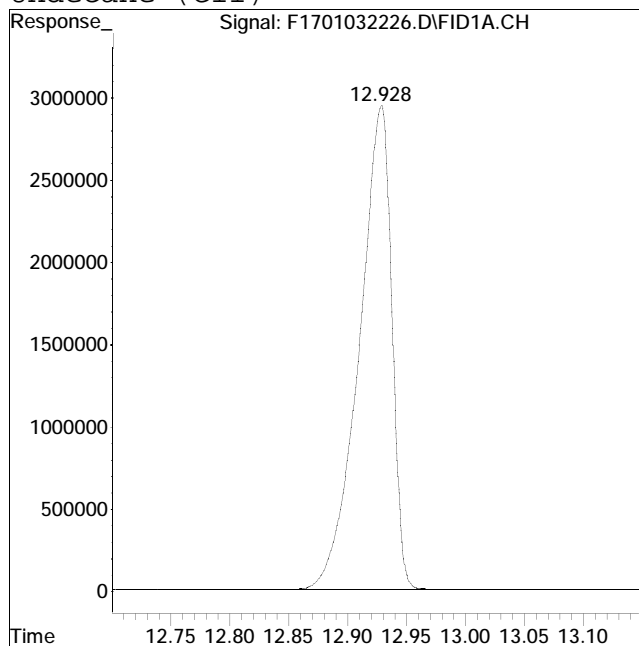
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 56559005



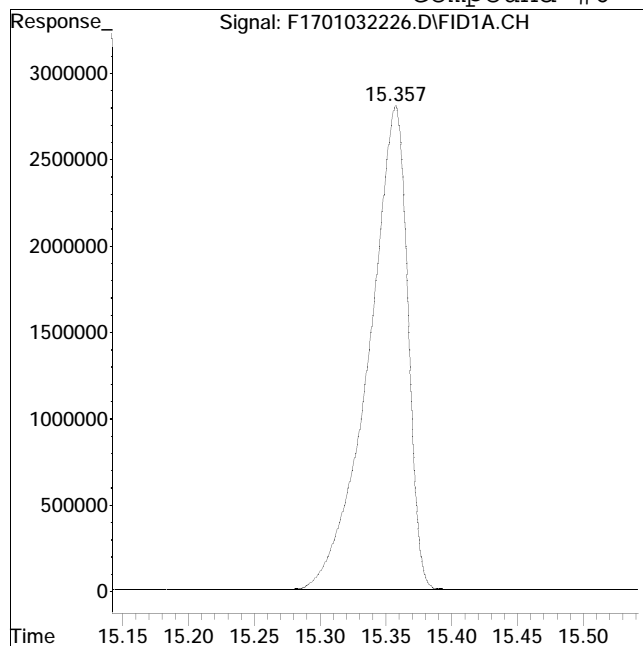
Manual Peak Response = 56607010 M4

M4 = Poor automated baseline construction.

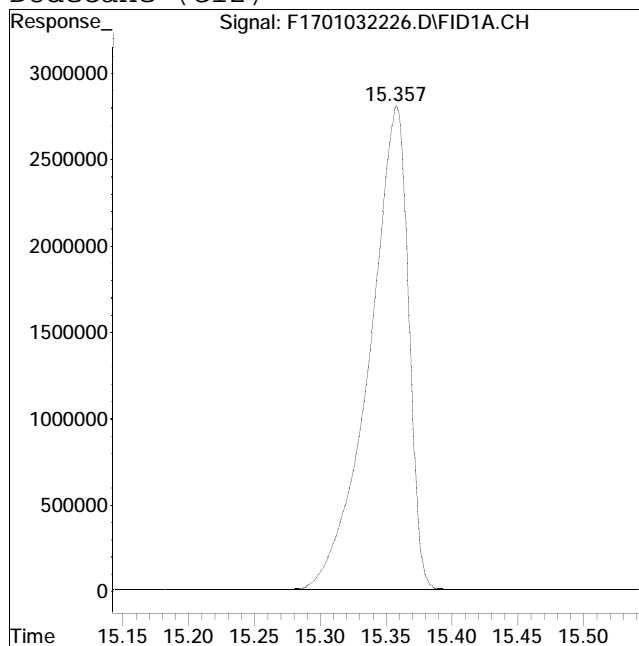
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 57864856



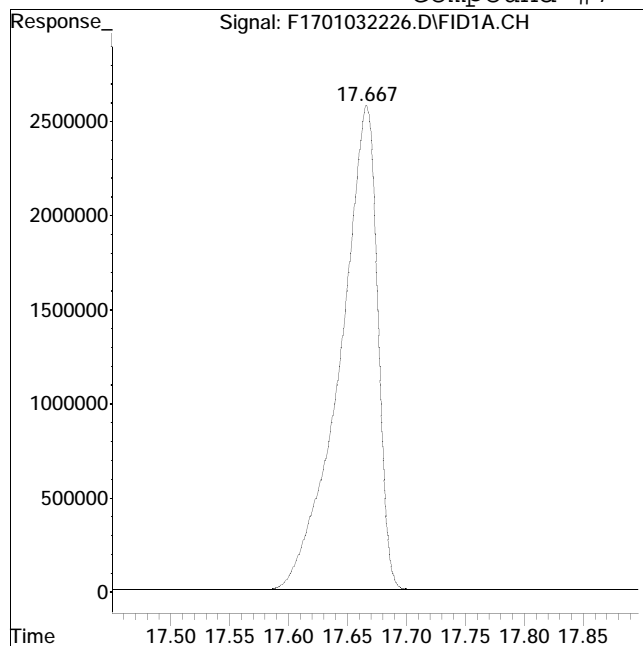
Manual Peak Response = 57931181 M4

M4 = Poor automated baseline construction.

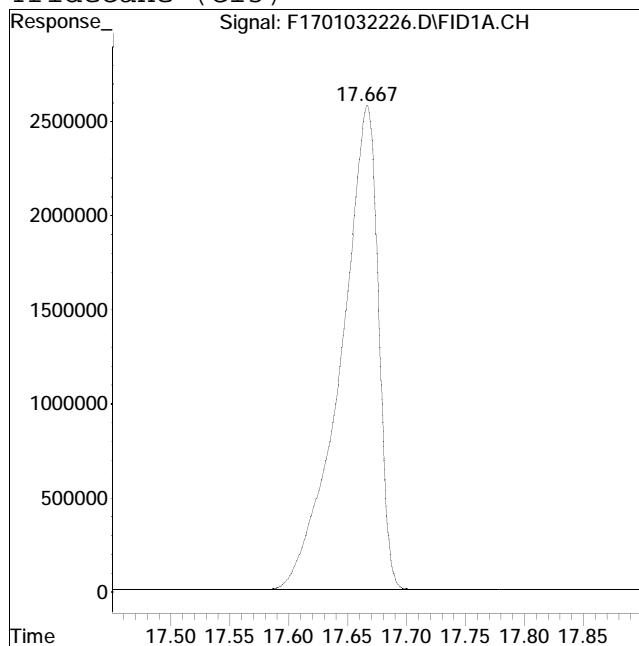
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 57194159



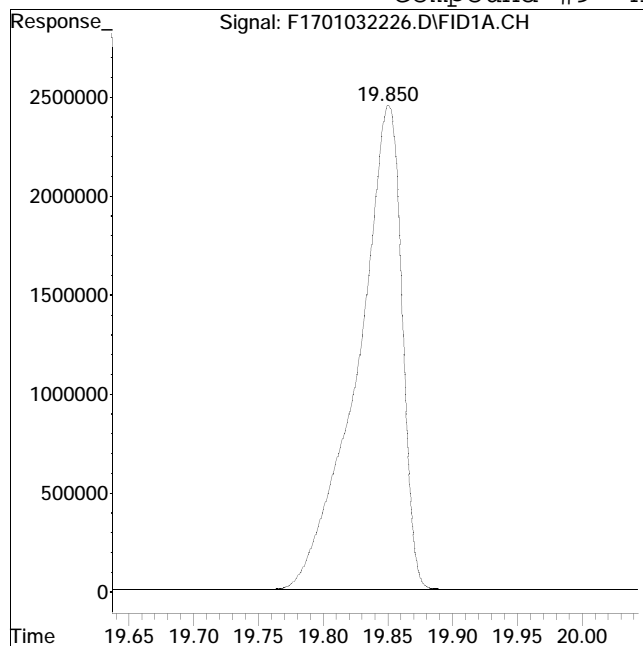
Manual Peak Response = 57225913 M4

M4 = Poor automated baseline construction.

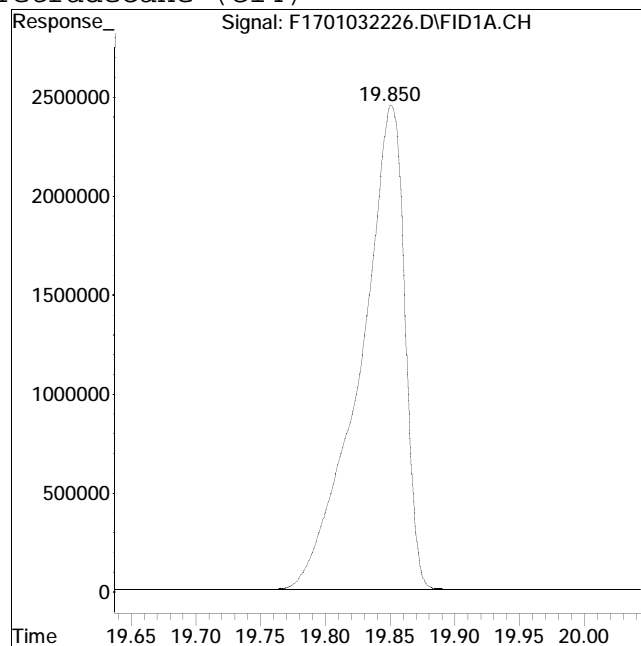
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 58495267



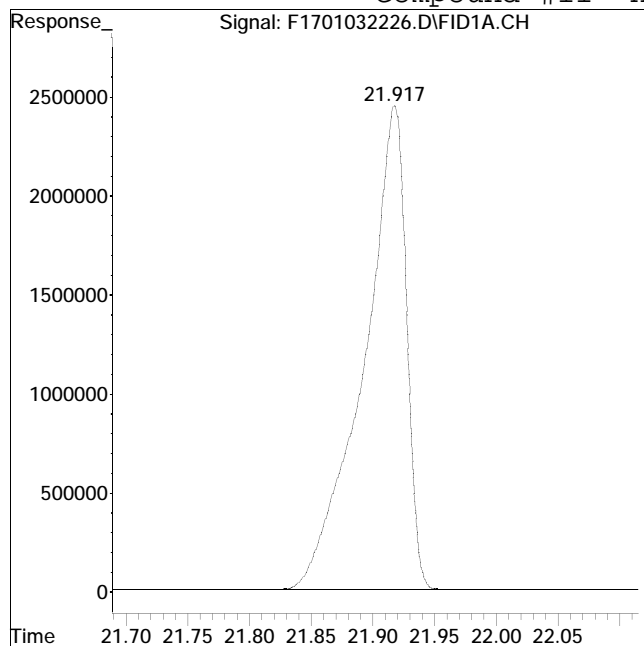
Manual Peak Response = 58538349 M4

M4 = Poor automated baseline construction.

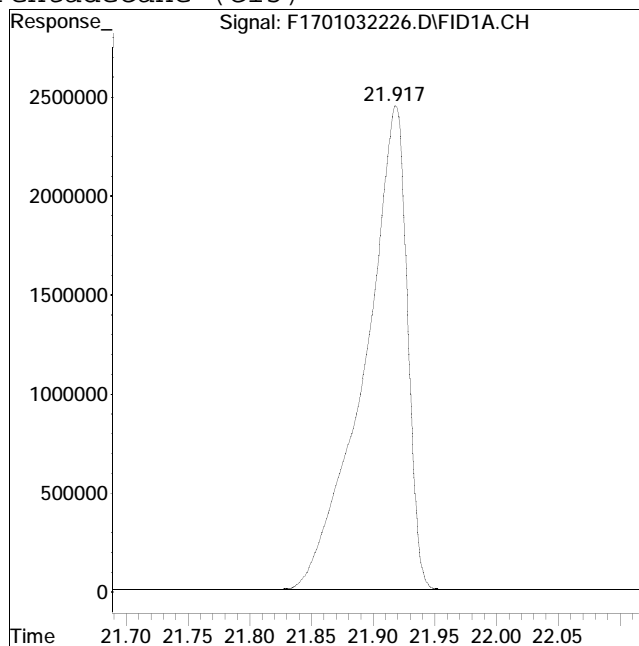
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 58904744



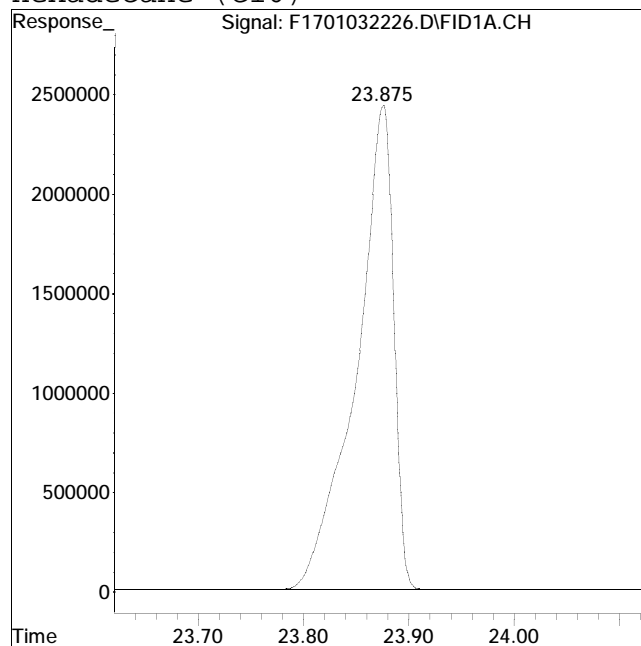
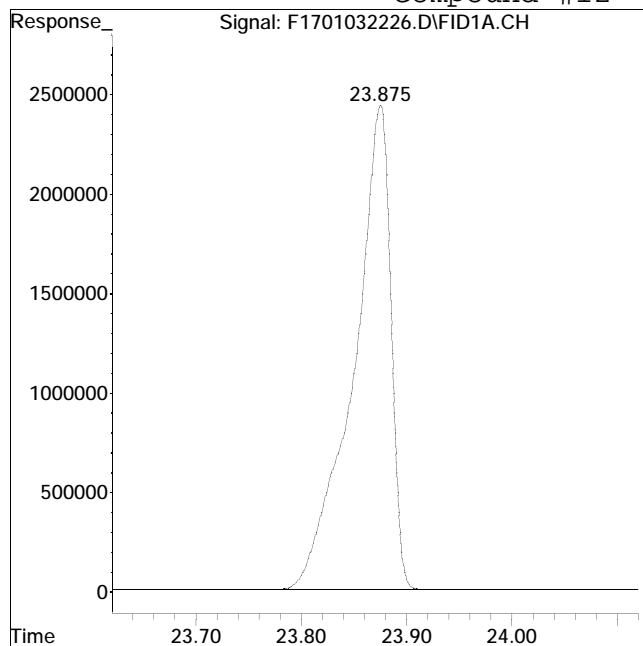
Manual Peak Response = 58933381 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 59884058

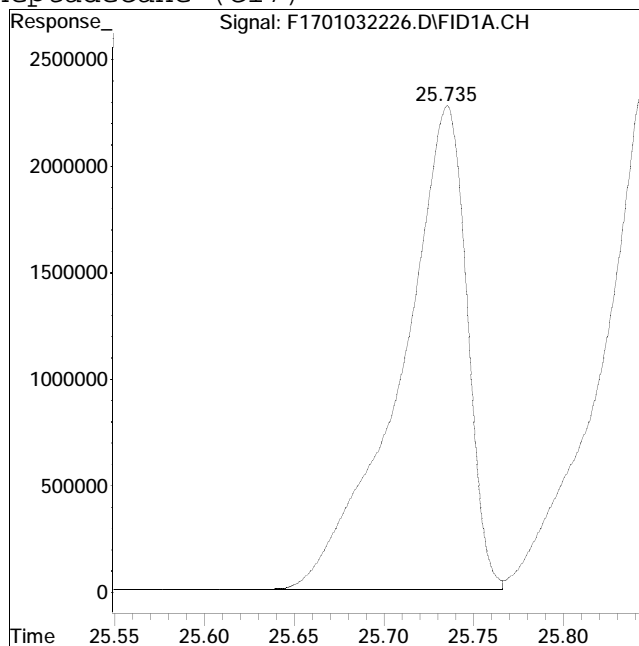
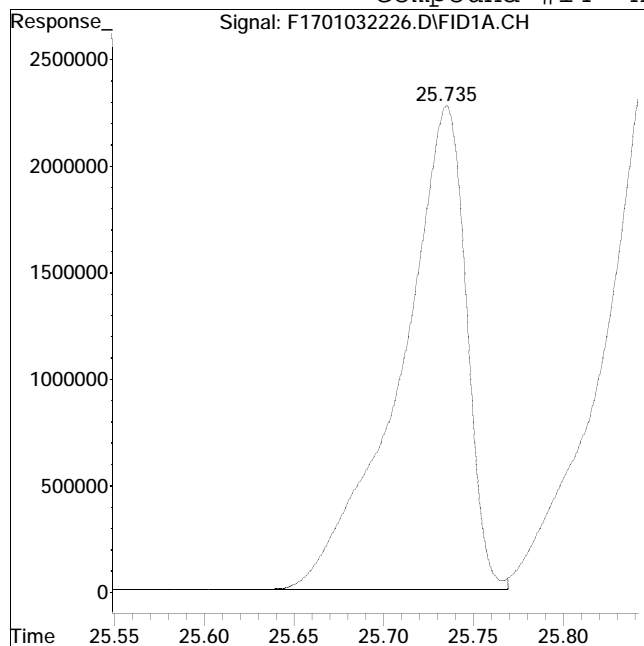
Manual Peak Response = 59897193 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032226.D Operator : FID17:WR
Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 58248416

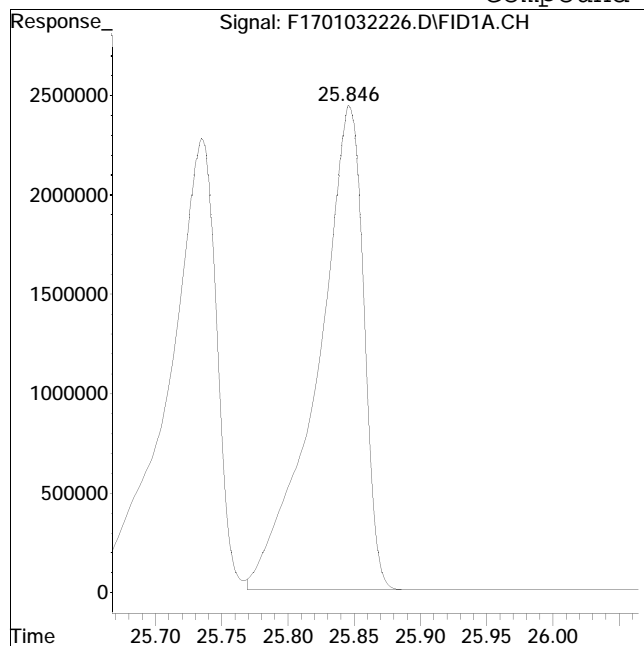
Manual Peak Response = 58201445 M4

M4 = Poor automated baseline construction.

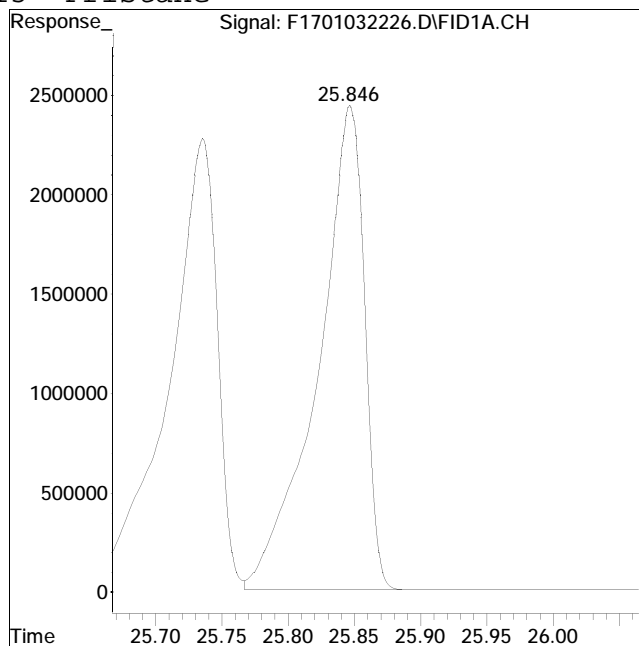
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #15: Pristane



Original Peak Response = 59438054



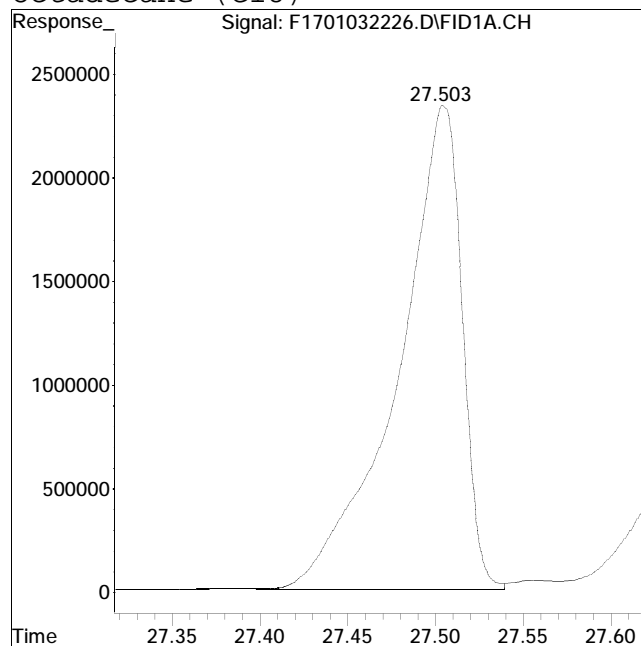
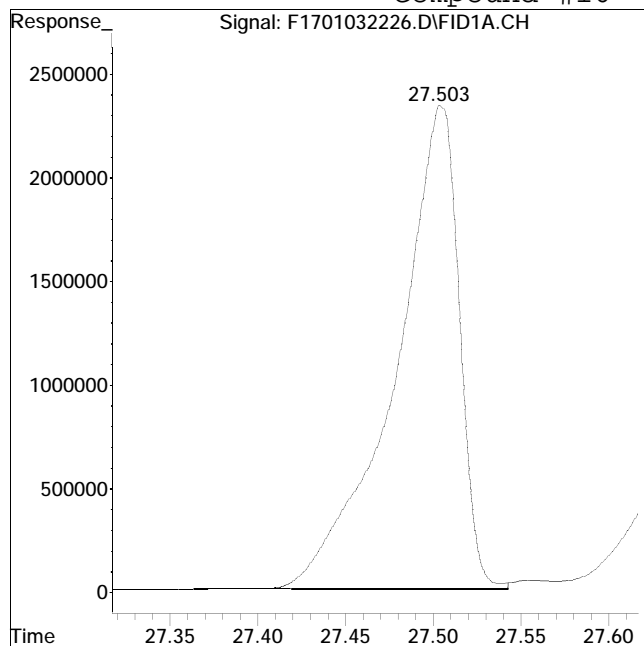
Manual Peak Response = 59506730 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 58796784

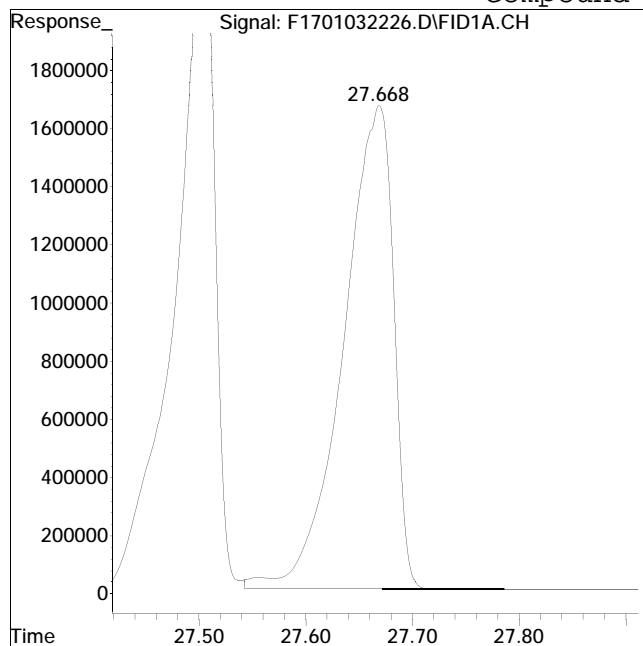
Manual Peak Response = 59075753 M4

M4 = Poor automated baseline construction.

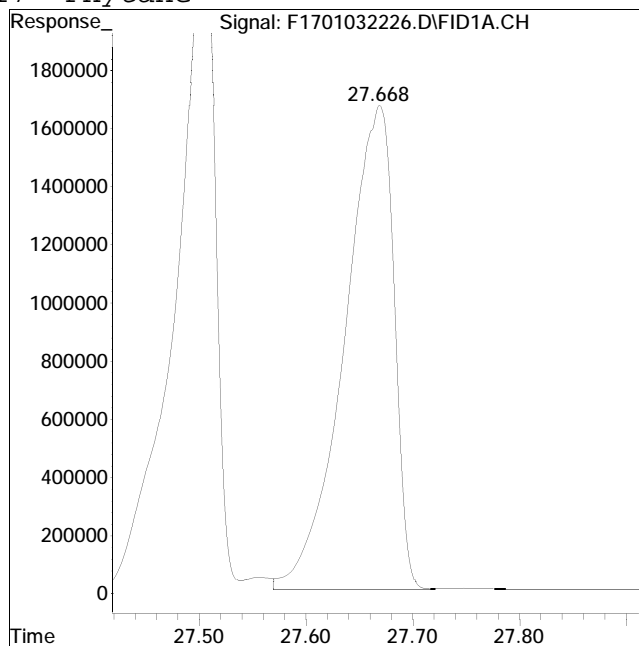
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032226.D Operator : FID17:WR
Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #17: Phytane



Original Peak Response = 54343236



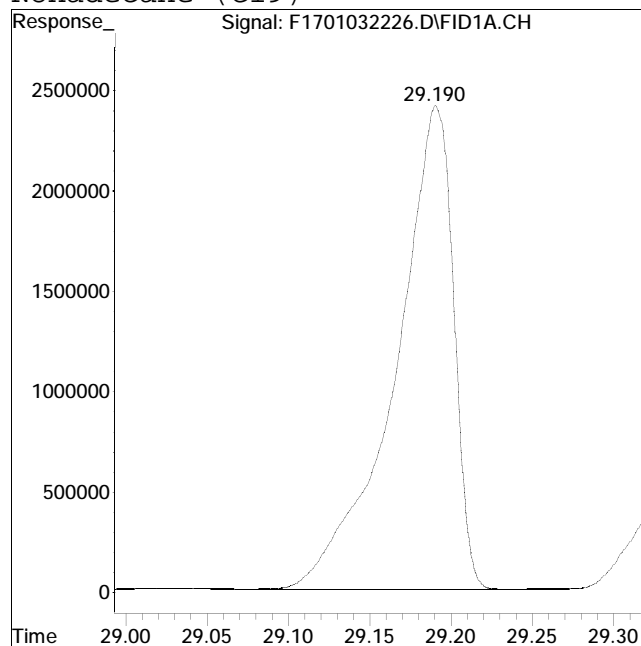
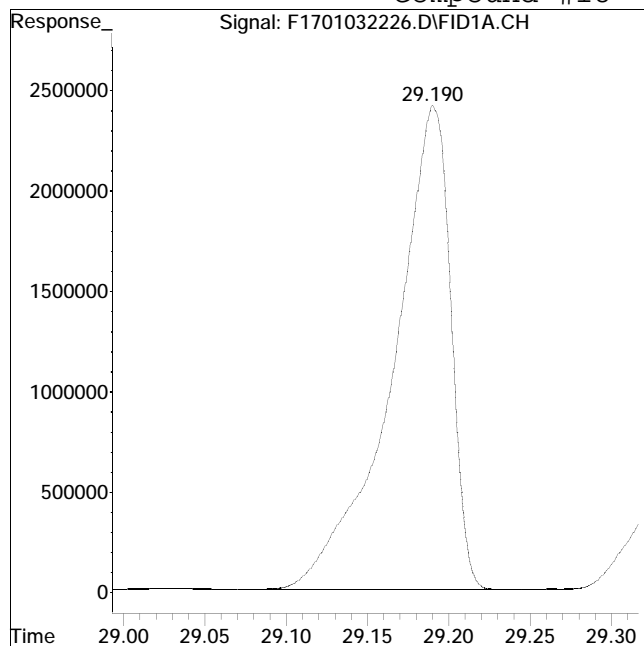
Manual Peak Response = 53957629 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 59956776

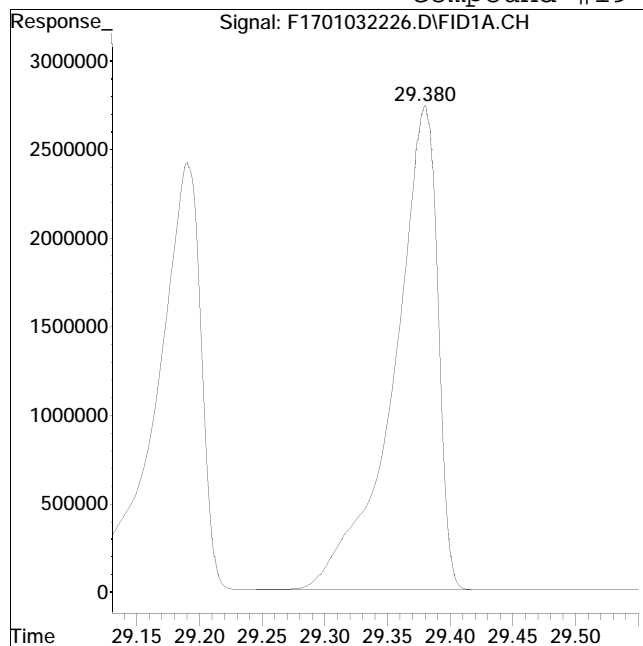
Manual Peak Response = 60147096 M4

M4 = Poor automated baseline construction.

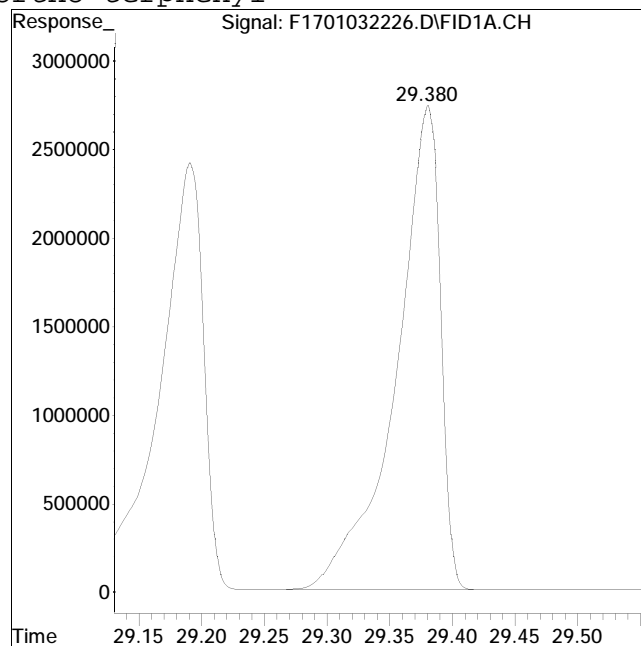
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #19: ortho-terphenyl



Original Peak Response = 67055104



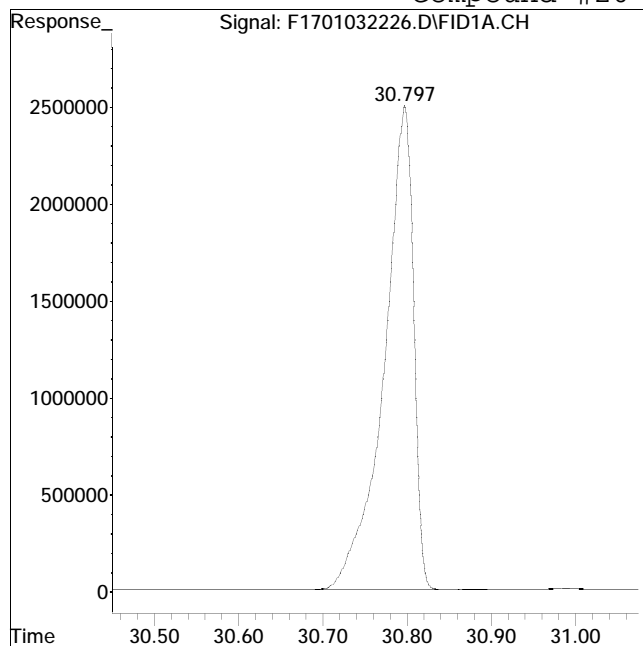
Manual Peak Response = 67109620 M4

M4 = Poor automated baseline construction.

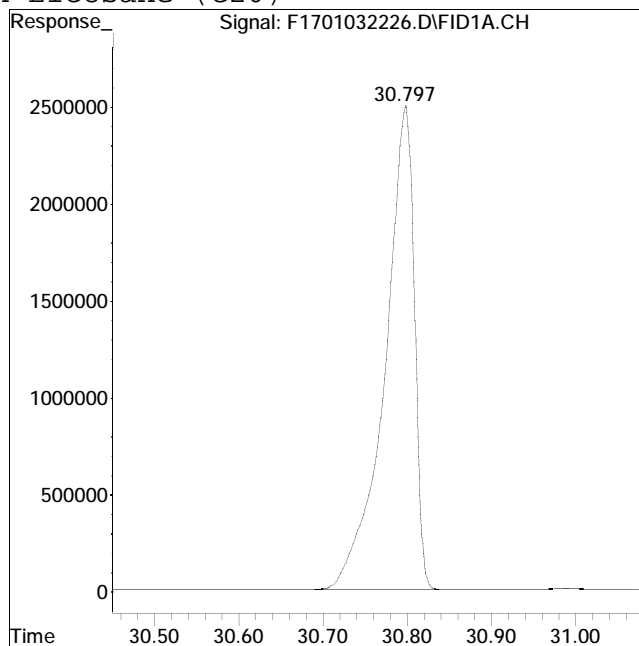
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 60565837



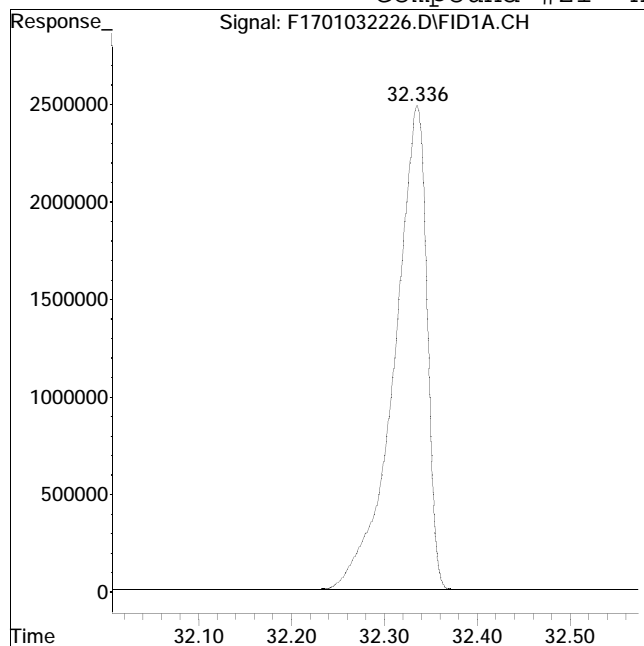
Manual Peak Response = 60614153 M4

M4 = Poor automated baseline construction.

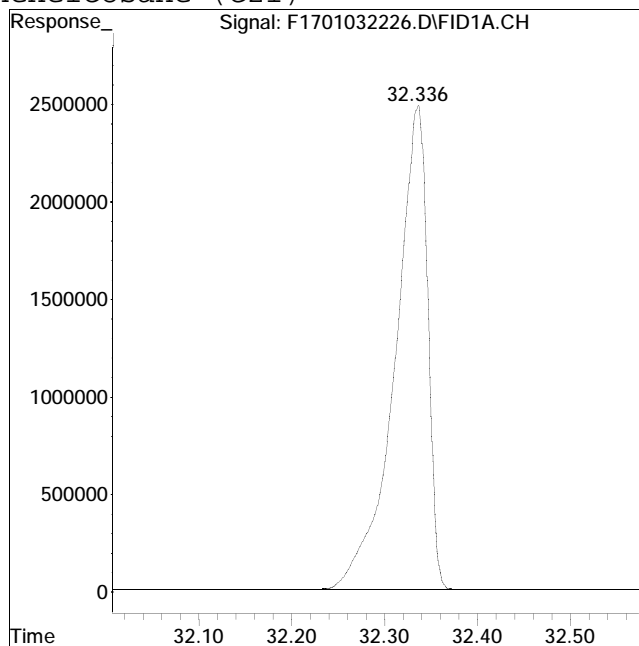
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 60633770



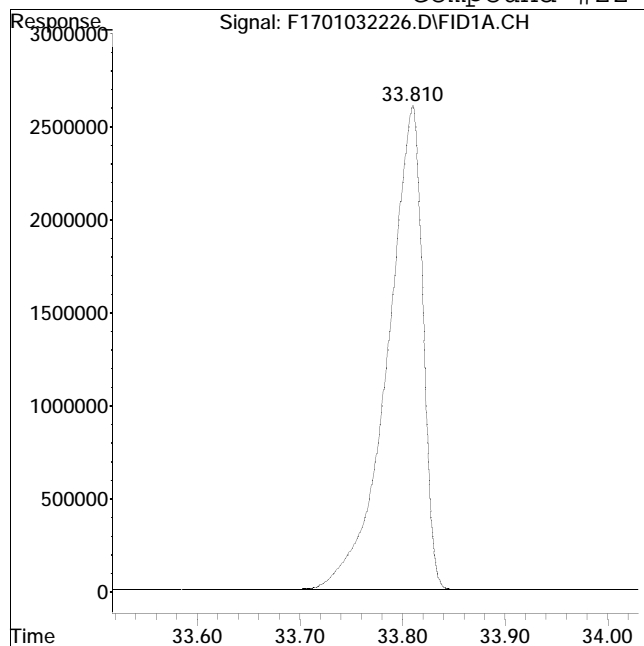
Manual Peak Response = 60671761 M4

M4 = Poor automated baseline construction.

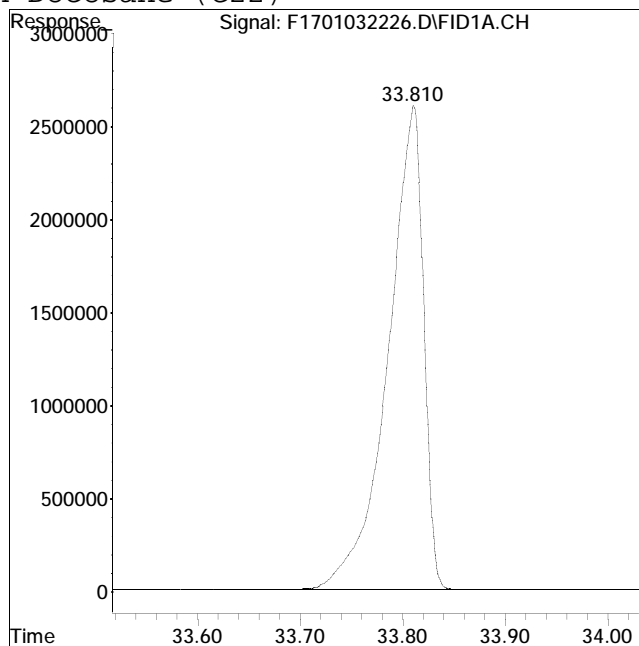
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032226.D Operator : FID17:WR
Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 62457209



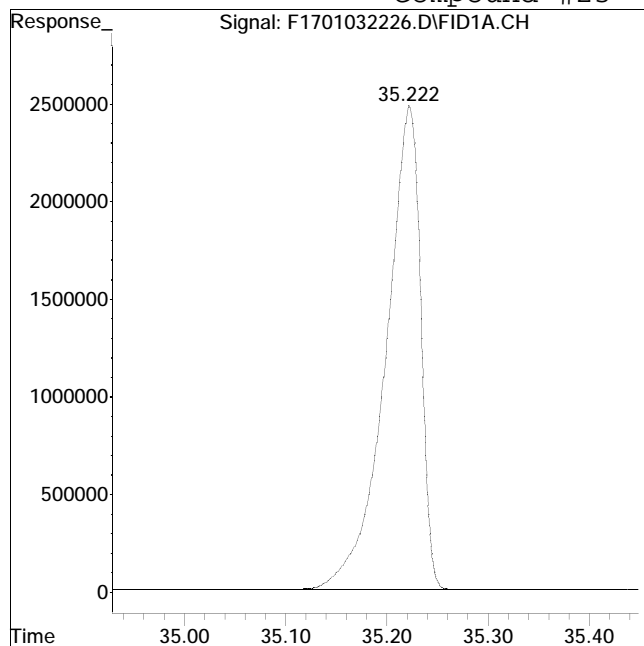
Manual Peak Response = 62526492 M4

M4 = Poor automated baseline construction.

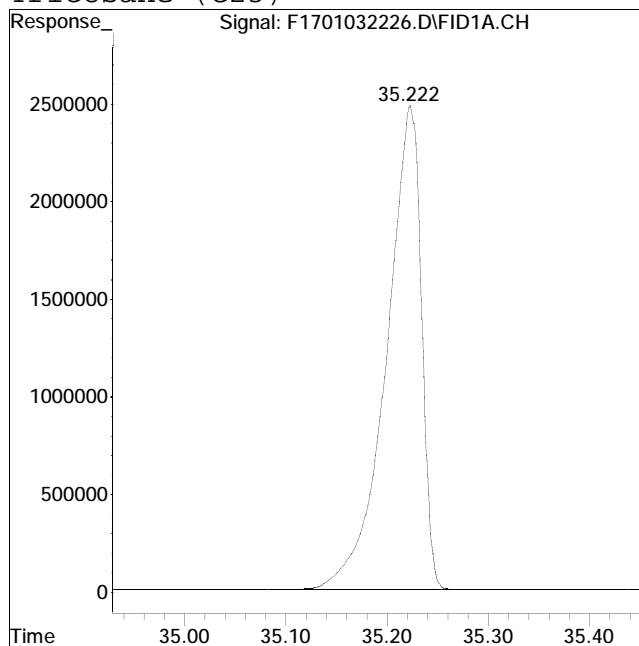
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 59358026



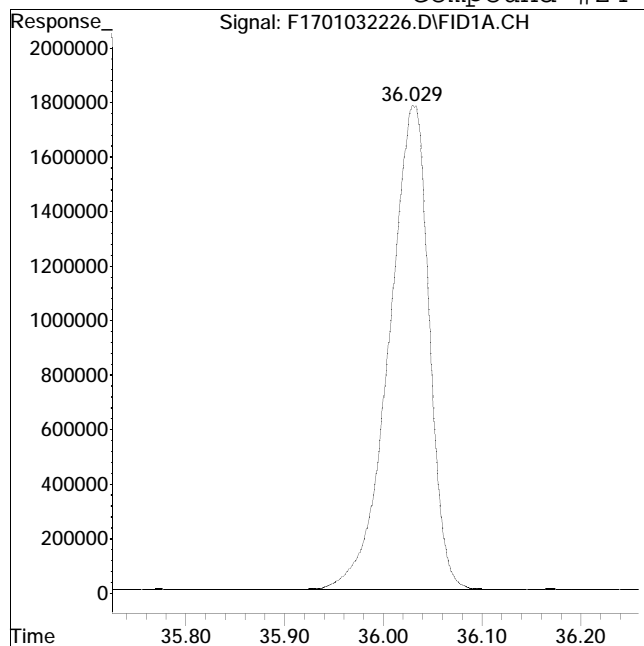
Manual Peak Response = 59373802 M4

M4 = Poor automated baseline construction.

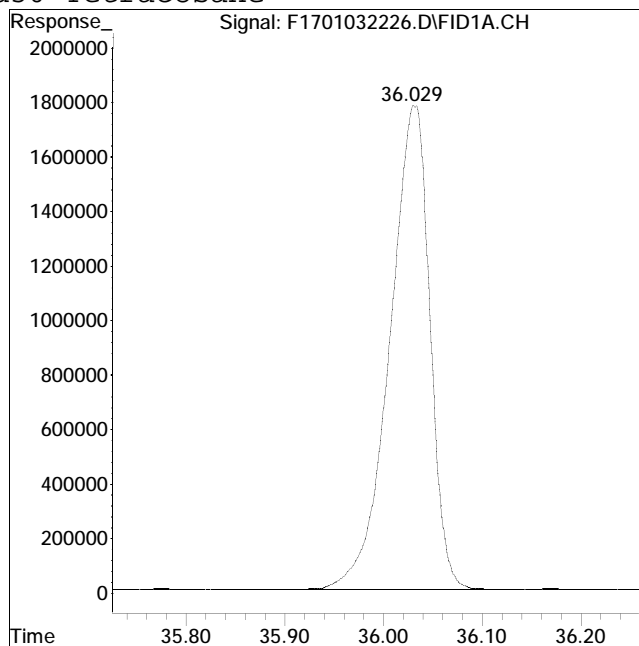
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032226.D Operator : FID17:WR
Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #24: d50-Tetracosane



Original Peak Response = 50149632



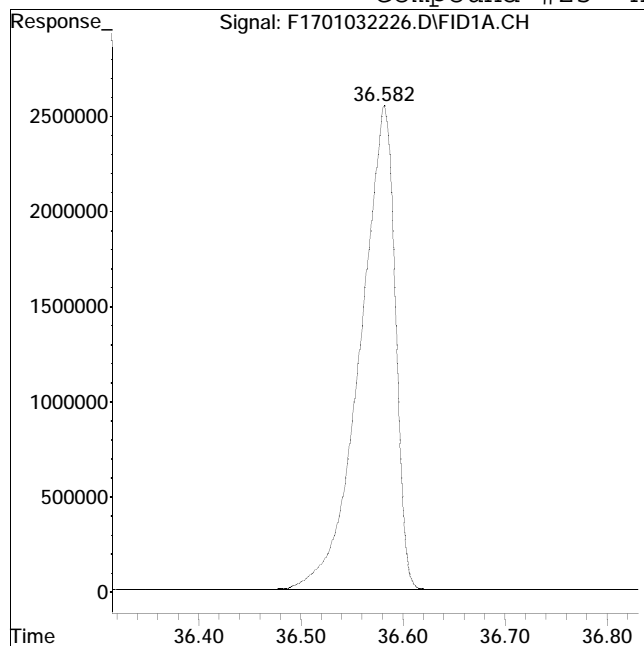
Manual Peak Response = 50274697 M4

M4 = Poor automated baseline construction.

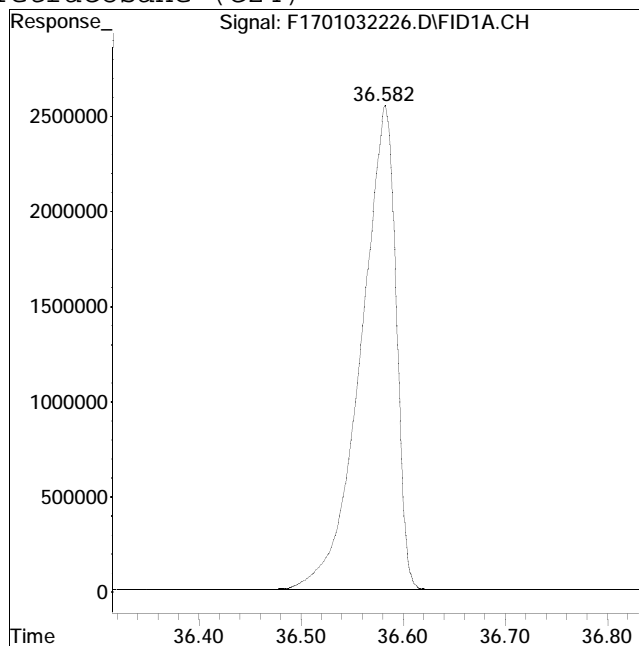
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 60741366



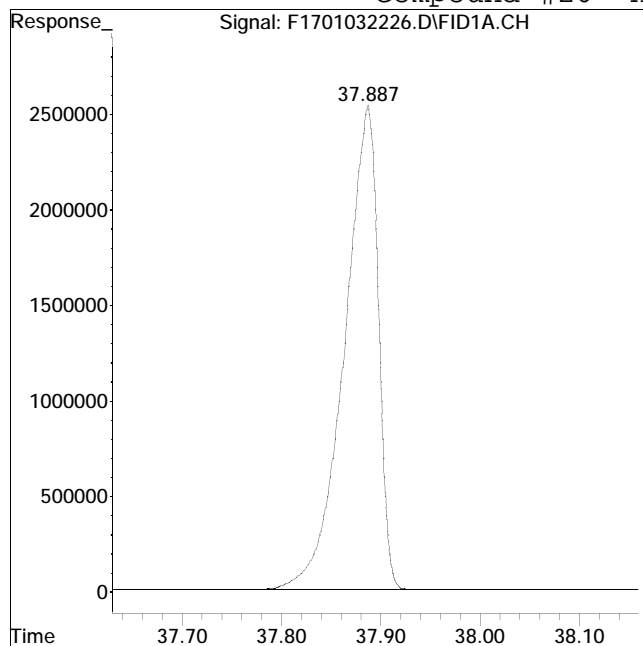
Manual Peak Response = 60825572 M4

M4 = Poor automated baseline construction.

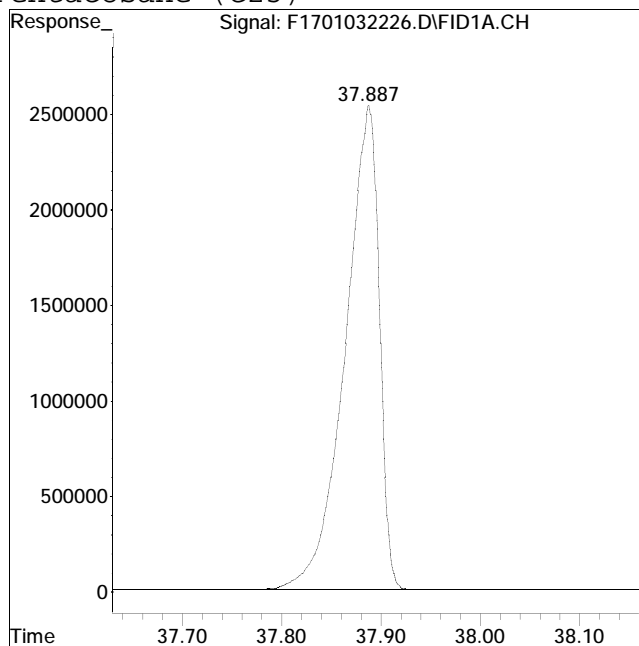
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 60175544



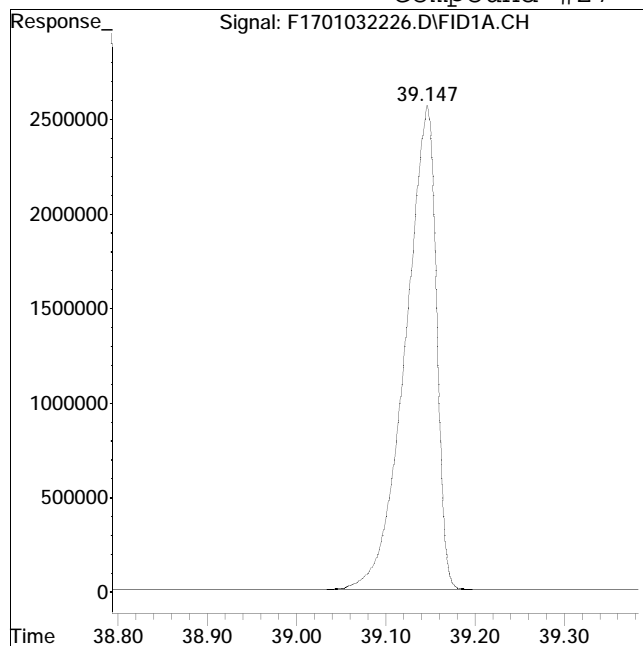
Manual Peak Response = 60252165 M4

M4 = Poor automated baseline construction.

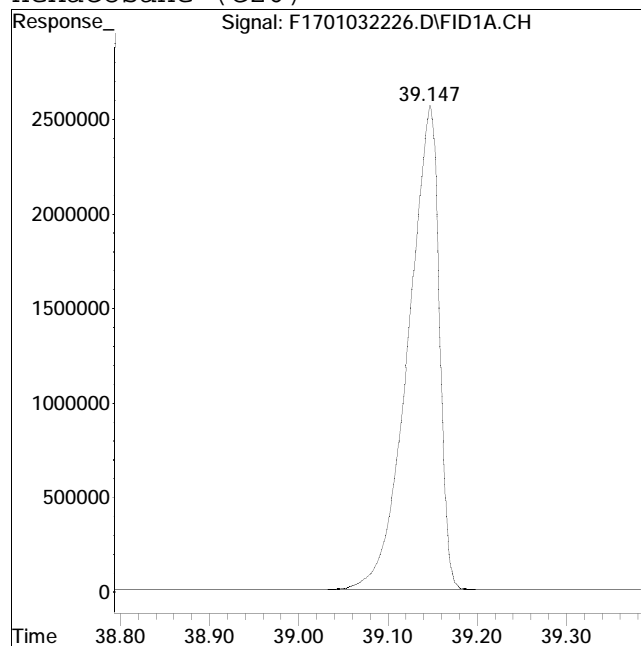
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 61778038



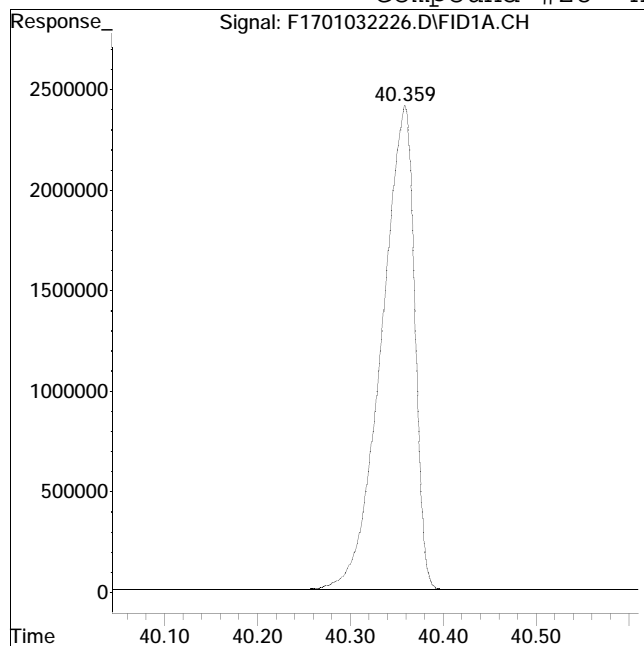
Manual Peak Response = 61852256 M4

M4 = Poor automated baseline construction.

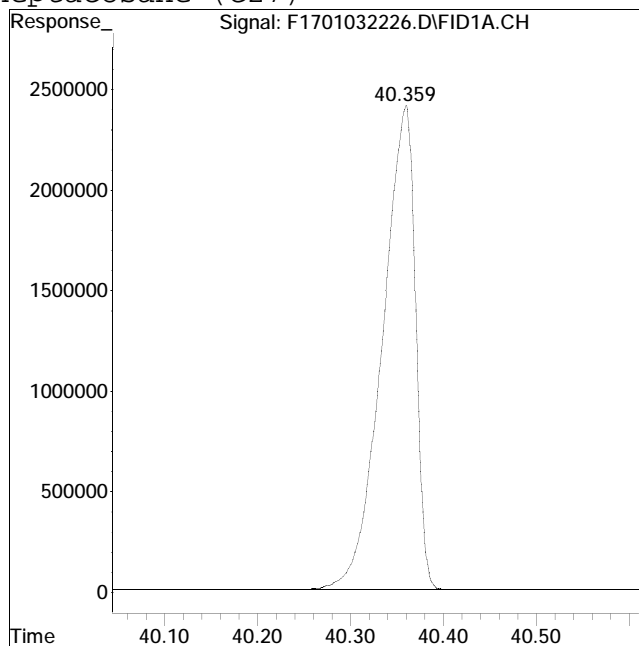
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 59499050



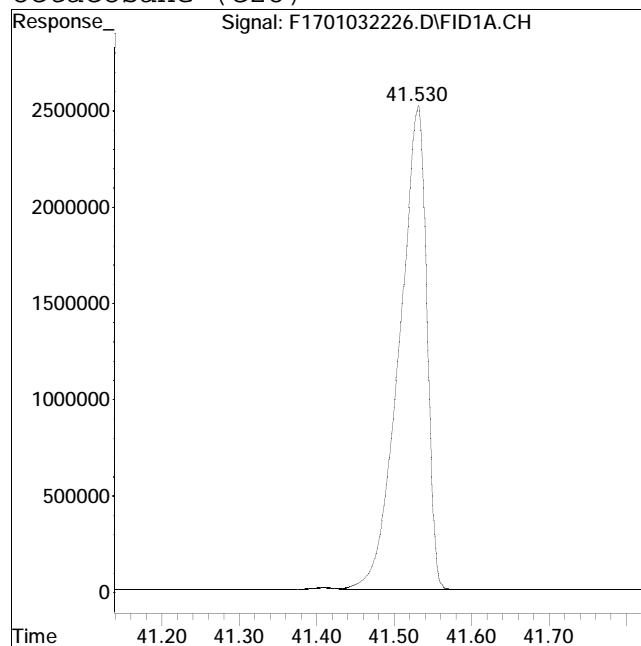
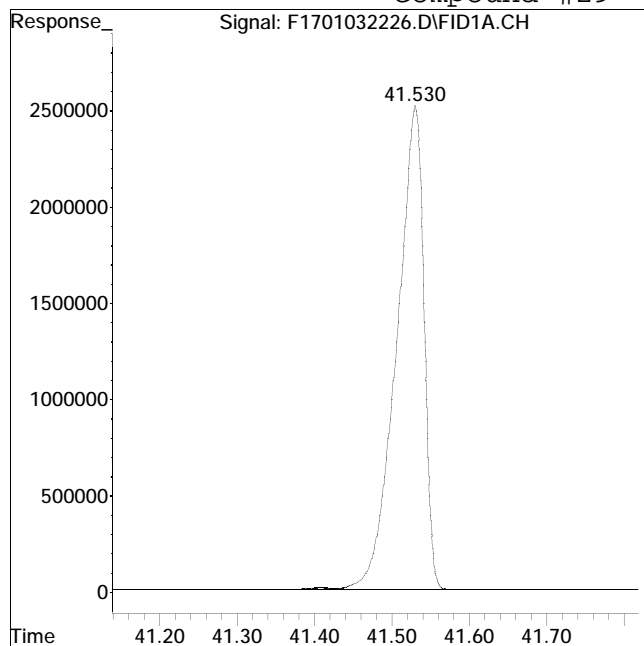
Manual Peak Response = 59524338 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 61715367

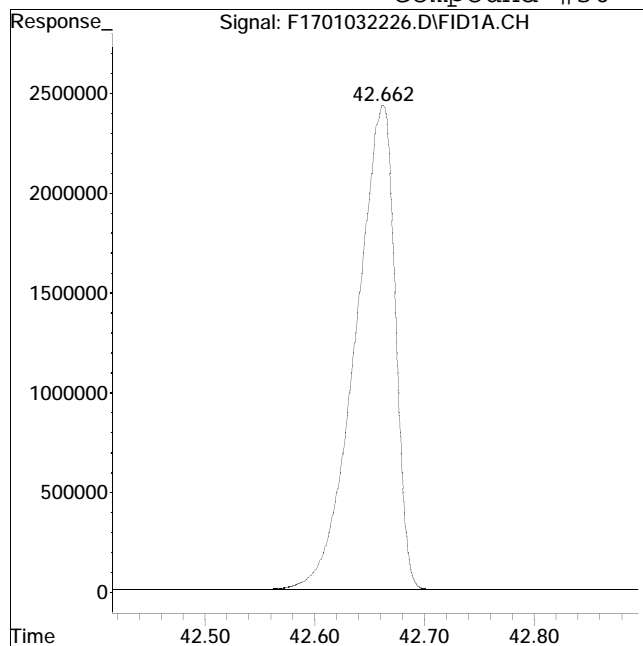
Manual Peak Response = 61486323 M4

M4 = Poor automated baseline construction.

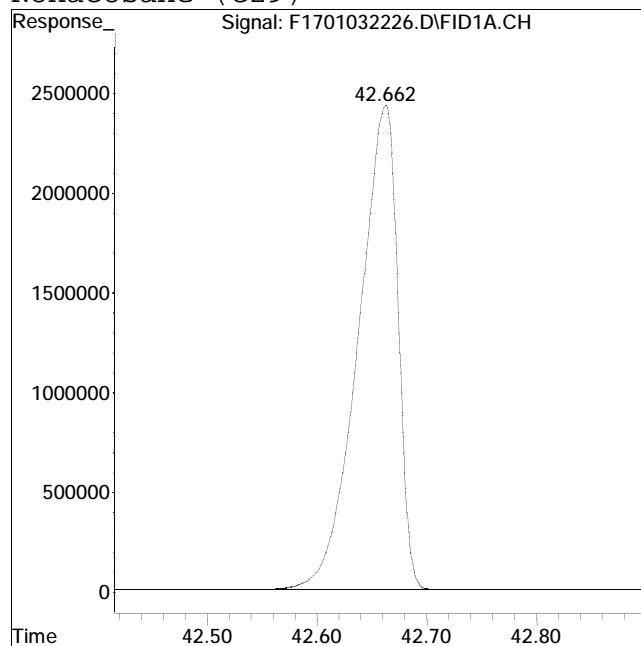
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 60850093



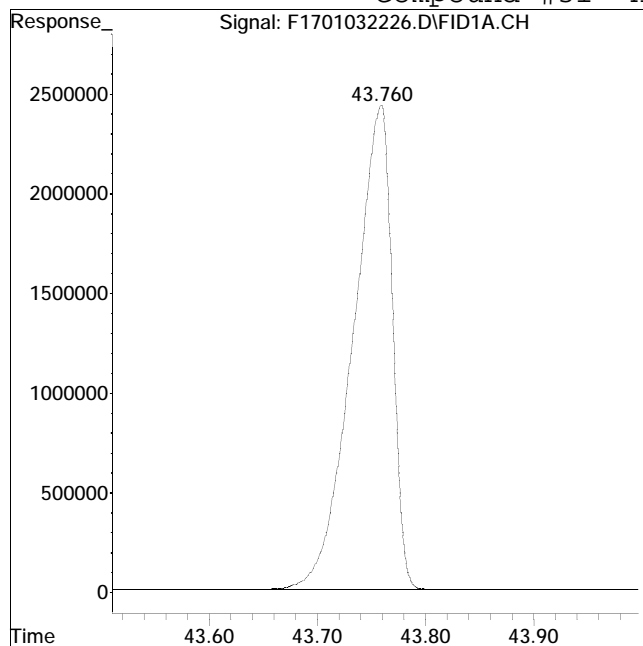
Manual Peak Response = 60891774 M4

M4 = Poor automated baseline construction.

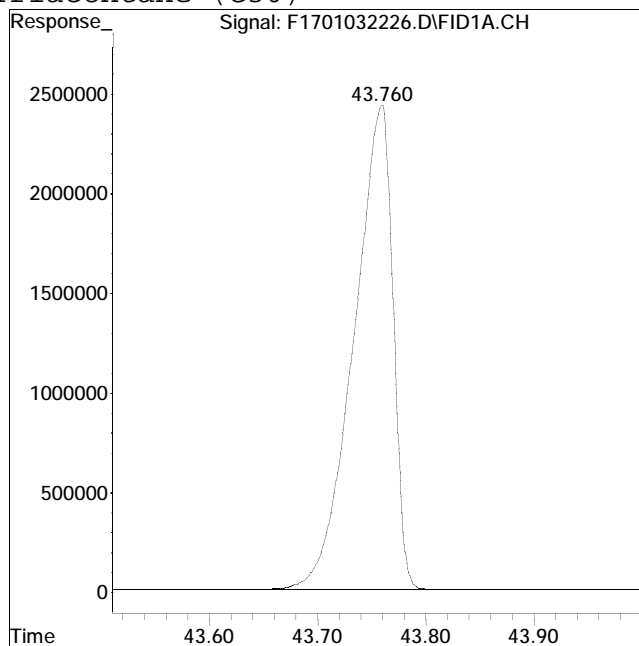
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 61096023



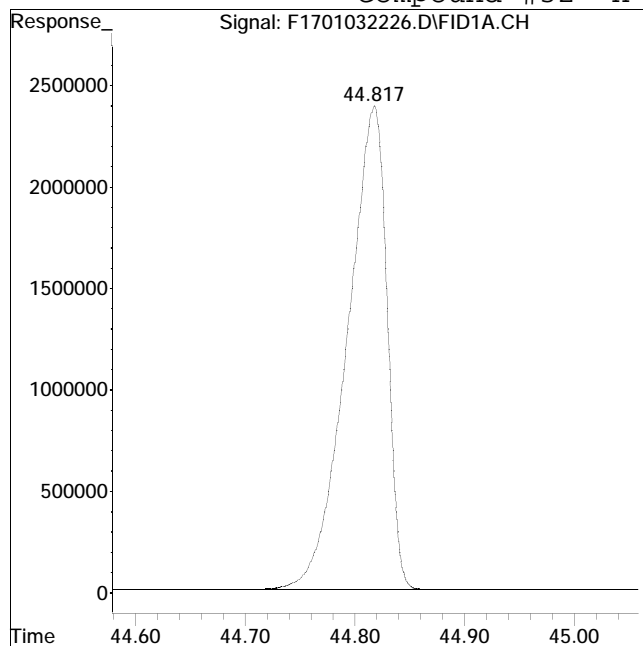
Manual Peak Response = 61139814 M4

M4 = Poor automated baseline construction.

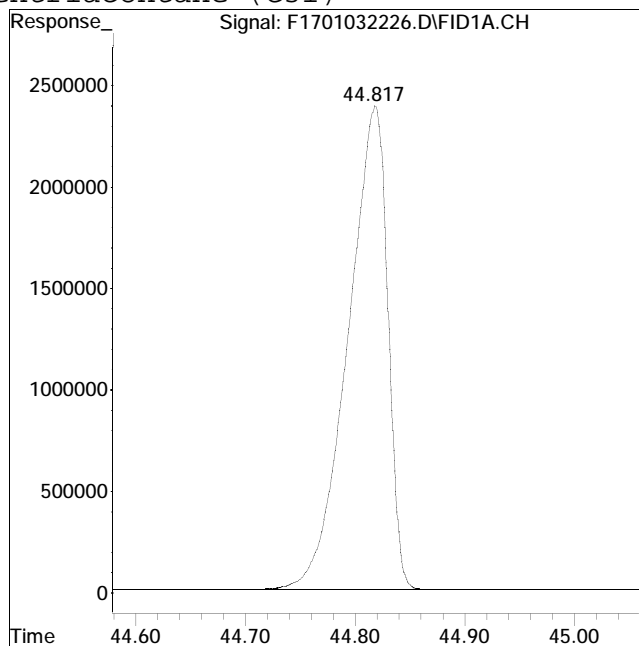
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032226.D Operator : FID17:WR
Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 59948190



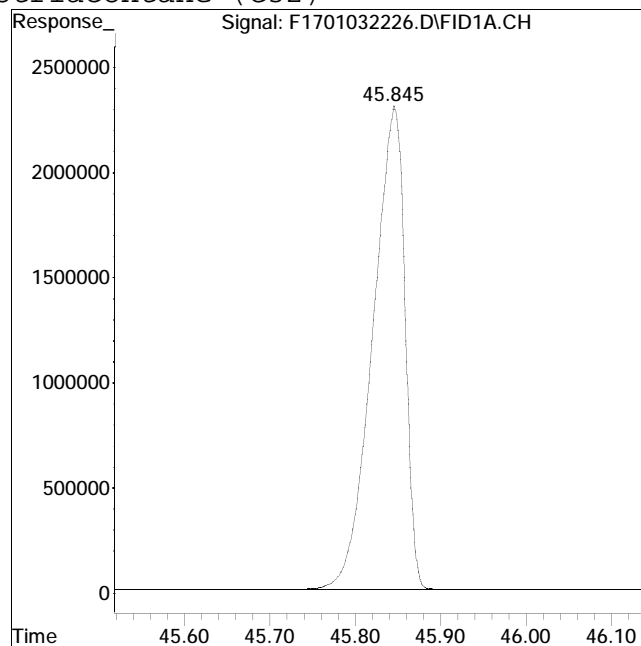
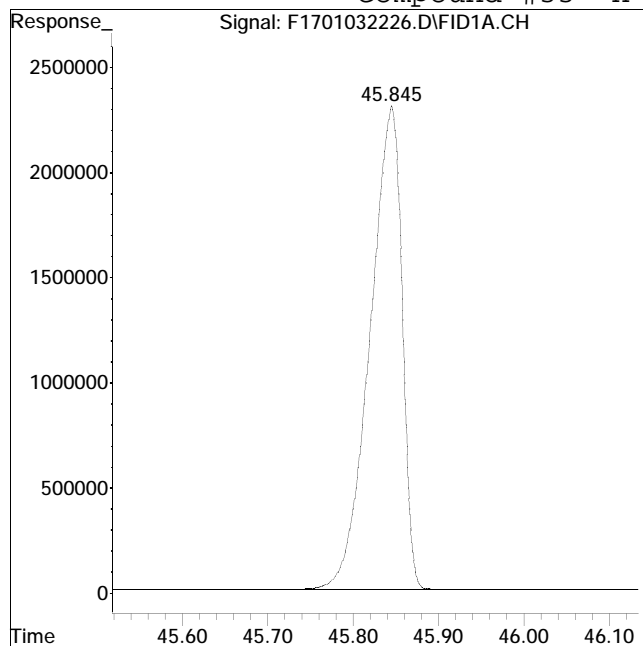
Manual Peak Response = 60017575 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 60006093

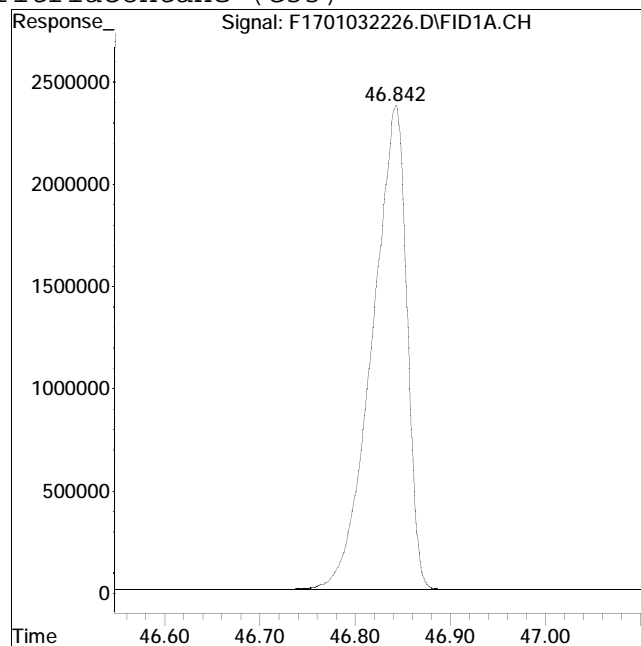
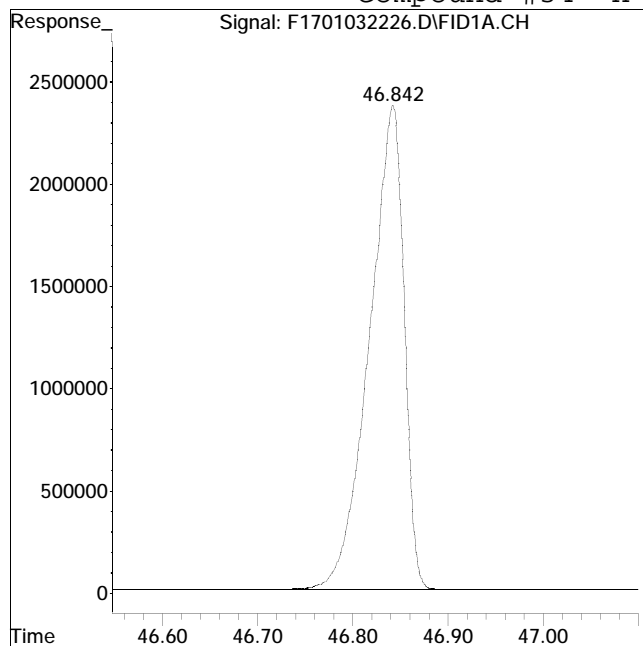
Manual Peak Response = 60060874 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032226.D Operator : FID17:WR
Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 59815676

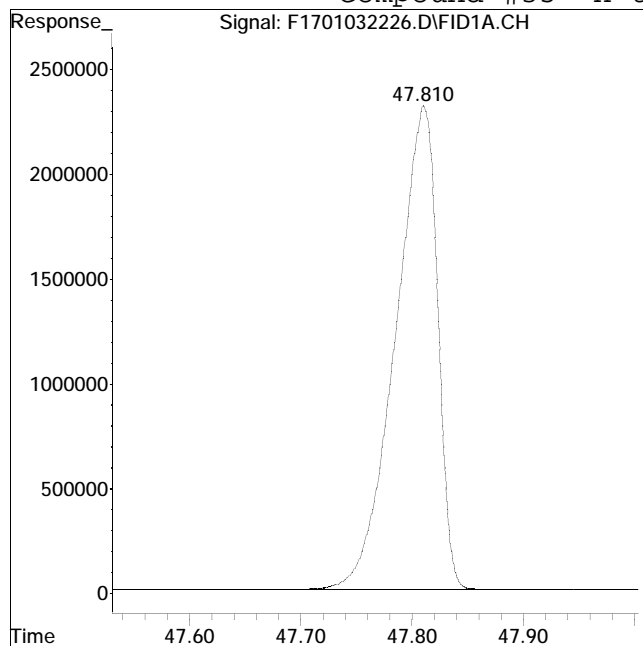
Manual Peak Response = 59872715 M4

M4 = Poor automated baseline construction.

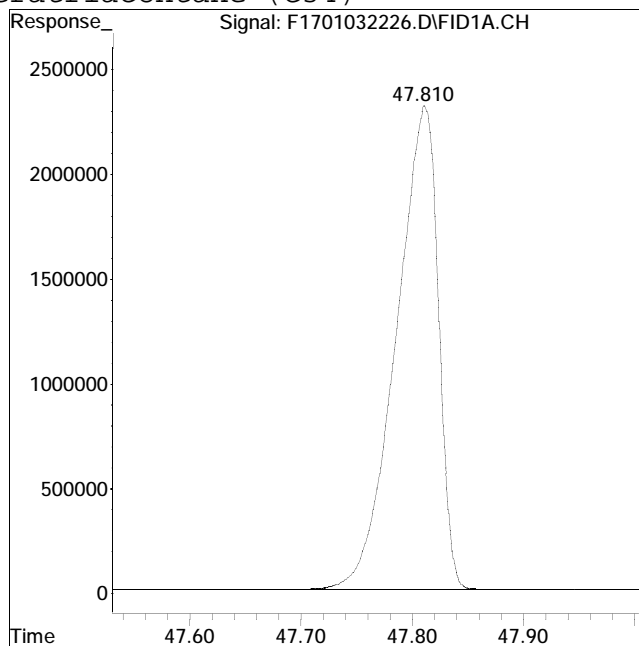
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032226.D Operator : FID17:WR
Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 60687428



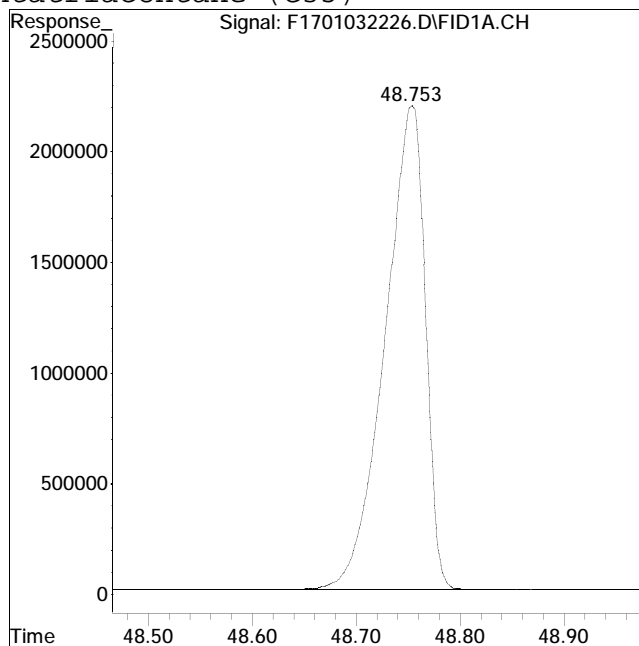
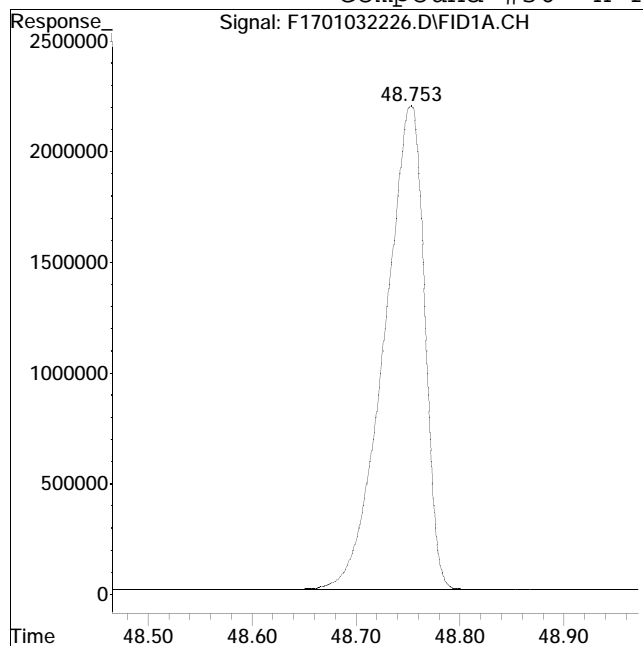
Manual Peak Response = 60764723 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032226.D Operator : FID17:WR
Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 58790695

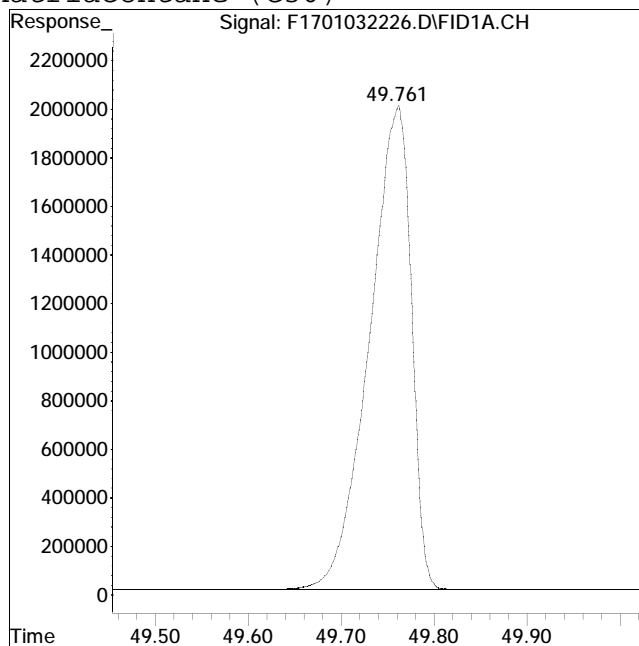
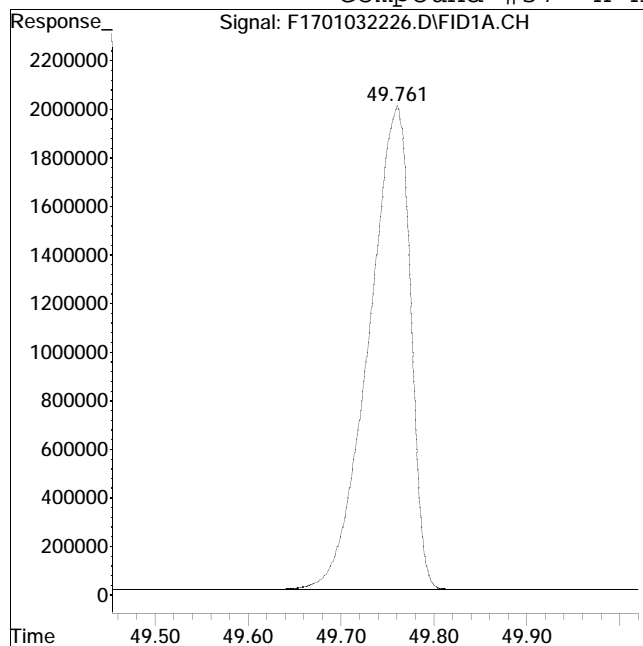
Manual Peak Response = 58856763 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 62361372

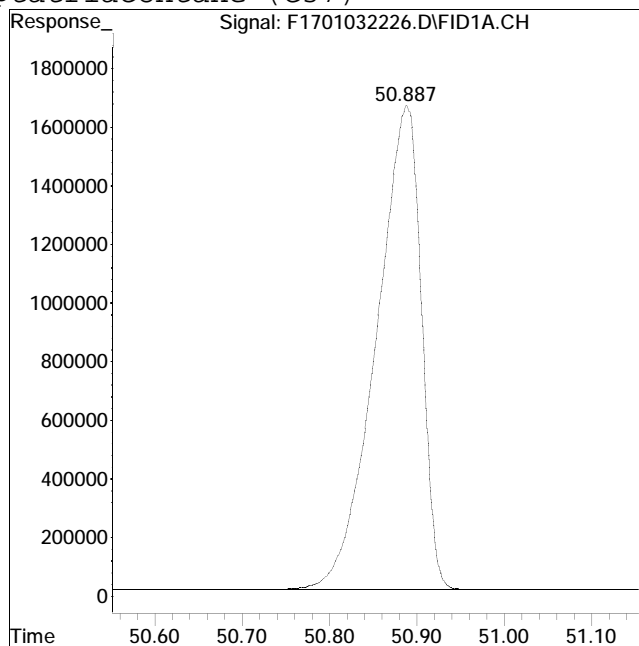
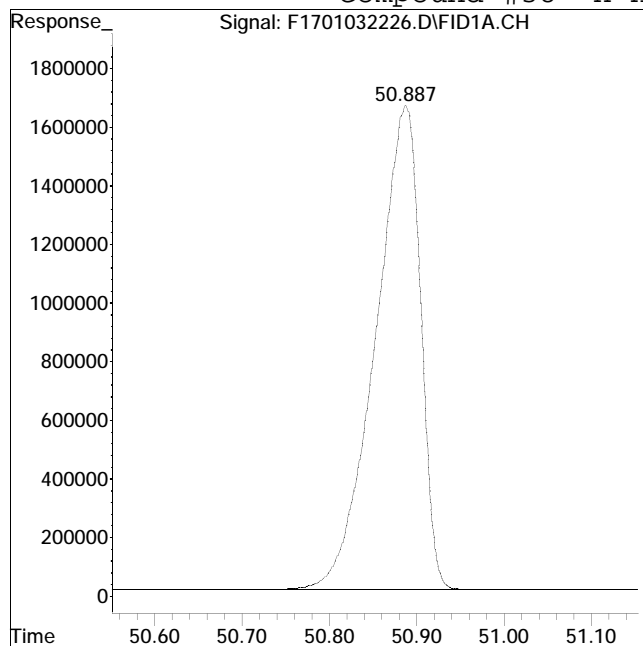
Manual Peak Response = 62407376 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 59248393

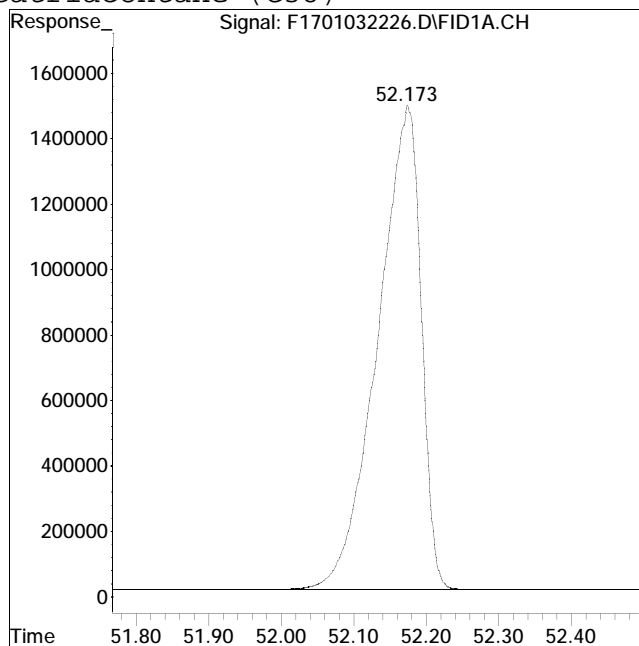
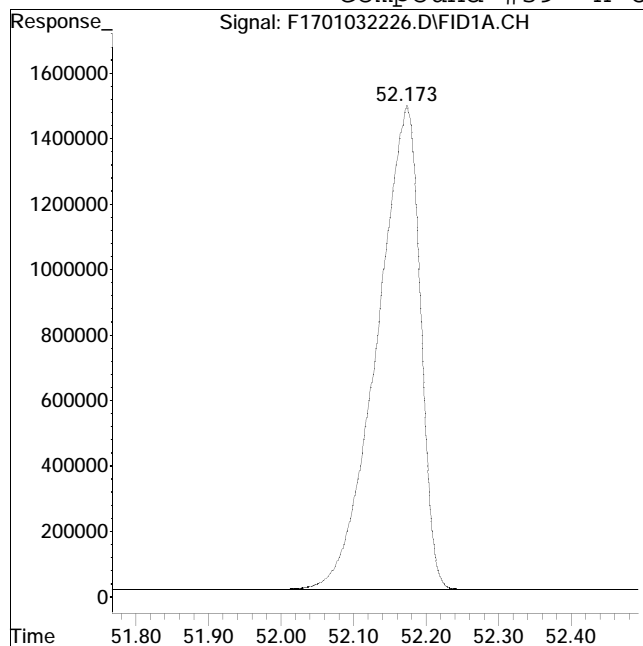
Manual Peak Response = 59284575 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 61323836

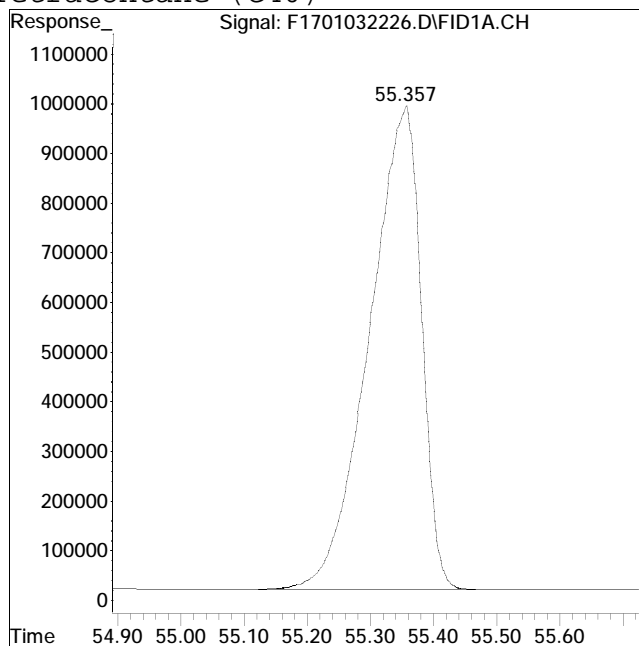
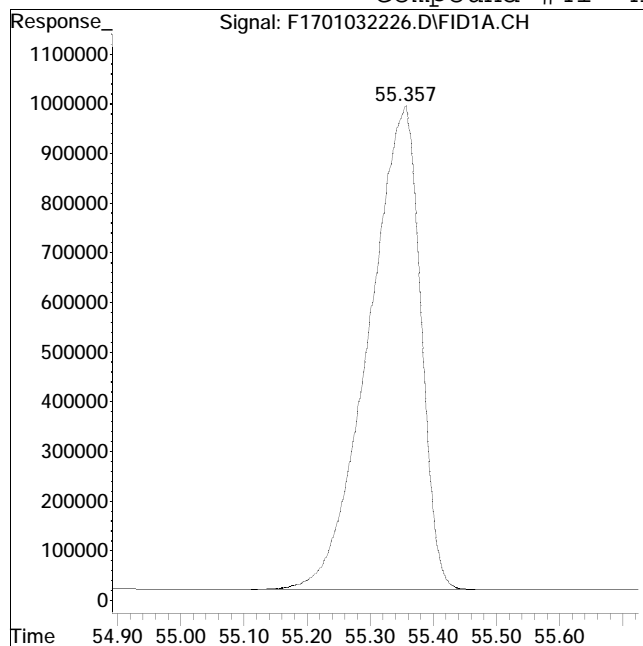
Manual Peak Response = 61362274 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032226.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 3:42 am Instrument : FID17
 Sample : CQ1701032301F Quant Date : 1/18/2023 3:08 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 55545722

Manual Peak Response = 55651763 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032230.D
 Signal(s) : FID1A.CH
 Acq On : 04 Jan 2023 6:42 am
 Operator : FID17:WR
 Sample : WG1734833-1,0.10296
 Misc : WG1734833,FRBF22
 ALS Vial : 15 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 18 15:43:35 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jan 18 15:05:06 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB1701032301F
 Blank File : F1701032228.D

Sub List : SHC - SHC

Compound			R.T.	Response	Conc	Units

Internal Standards						
1) I	5-alpha-androstane		31.411	72958882	50.000	ug/mL M4
System Monitoring Compounds						
19) s	ortho-terphenyl		29.386	74808647	48.300	ug/mL M4
Spiked Amount 50.000			Range 50 - 130	Recovery =	96.60%	
24) s	d50-Tetracosane		36.038	55007907	45.441	ug/mL M4
Spiked Amount 50.000			Range 50 - 130	Recovery =	90.88%	
Target Compounds						
2) t	n-Octane (C8)		5.675	101126766	84.781	ug/mL M4
3) t	n-Nonane (C9)		7.907	79543000	64.121	ug/mL M4
4) t	n-Decane (C10)		10.406	67786226	52.468	ug/mL M4
5) t	n-Undecane (C11)		12.927	62838868	48.565	ug/mL M4
6) t	n-Dodecane (C12)		15.357	58672037	44.937	ug/mL M4
7) t	n-Tridecane (C13)		17.667	54312671	41.398	ug/mL M4
8) t	1380		19.345	12765584	9.475	ug/mL M4
9) t	n-Tetradecane (C14)		19.853	50963622	37.829	ug/mL M4
10) t	1470		21.138	19440591	14.365	ug/mL M4
11) t	n-Pentadecane (C15)		21.919	58621625	43.316	ug/mL M4
12) t	n-Hexadecane (C16)		23.875	47295223	35.083	ug/mL M4
13) t	1650		24.778	17425790	12.742	ug/mL M4
14) t	n-Heptadecane (C17)		25.736	40649220	29.723	ug/mL M4
15) t	Pristane		25.829	33258313	24.064	ug/mL M4
16) t	n-Octadecane (C18)		27.502	35626979	25.867	ug/mL M4
17) t	Phytane		27.657	18268493	14.220	ug/mL M4
18) t	n-Nonadecane (C19)		29.188	35516586	25.779	ug/mL M4
20) t	n-Eicosane (C20)		30.795	37410424	26.946	ug/mL M4
21) t	n-Heneicosane (C21)		32.331	30805221	22.165	ug/mL M4
22) t	n-Docosane (C22)		33.804	28708573	20.620	ug/mL M4
23) t	n-Tricosane (C23)		35.217	26050374	18.689	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032230.D
 Signal(s) : FID1A.CH
 Acq On : 04 Jan 2023 6:42 am
 Operator : FID17:WR
 Sample : WG1734833-1,0.10296
 Misc : WG1734833,FRBF22
 ALS Vial : 15 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 18 15:43:35 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jan 18 15:05:06 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB1701032301F
 Blank File : F1701032228.D

Sub List : SHC - SHC

	Compound	R.T.	Response	Conc	Units
25) t	n-Tetracosane (C24)	36.574	24861072	18.137	ug/mL M4
26) t	n-Pentacosane (C25)	37.879	26244319	19.273	ug/mL M4
27) t	n-Hexacosane (C26)	39.135	20328209	14.571	ug/mL M4
28) t	n-Heptacosane (C27)	40.347	15325939	11.079	ug/mL M4
29) t	n-Octacosane (C28)	41.516	11352814	8.023	ug/mL M4
30) t	n-Nonacosane (C29)	42.648	11806666	8.409	ug/mL M4
31) t	n-Triacontane (C30)	43.741	9095114	6.469	ug/mL M4
32) t	n-Hentriacontane (C31)	44.803	7146491	5.273	ug/mL M4
33) t	n-Dotriacontane (C32)	45.829	8489277	5.987	ug/mL M4
34) t	n-Tritriacontane (C33)	46.824	4500954	3.282	ug/mL M4
35) t	n-tetratriacontane (C34)	47.790	4414395	3.241	ug/mL M4
36) t	n-Pentatriacontane (C35)	48.733	3935490	3.041	ug/mL M4
37) t	n-Hexatriacontane (C36)	49.736	2534403	1.671	ug/mL M4
38) t	n-Heptatriacontane (C37)	50.858	2869494	2.063	ug/mL M4
39) t	n-Octatriacontane (C38)	52.132	1868644	1.325	ug/mL M4
40) t	n-Nonatriacontane (C39)	53.605	1275854	0.917	ug/mL M4
41) t	n-Tetracontane (C40)	55.292	1145963	0.824	ug/mL M4
42) h	C9-C44 Total Petroleu...	33.210	7959192427	5824.760	ug/mL m
42) h	C9-C44 Total Petroleu BS	33.210	7801246732	5709.170	ug/mLm
46) h	Total Resolved Hydroc...	40.681	2550018011	1866.174	ug/mL m

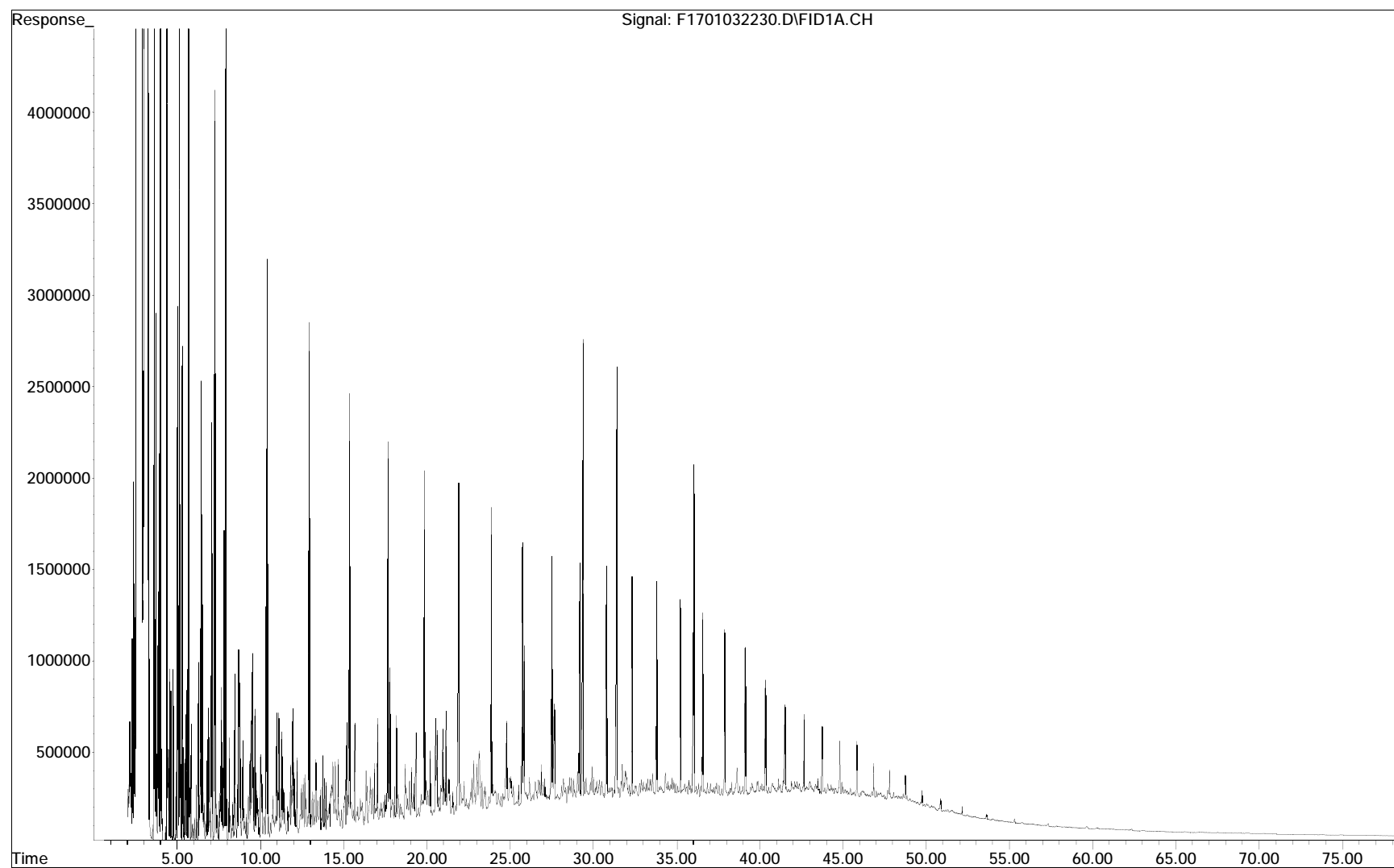
SemiQuant Compounds - Not Calibrated on this Instrument

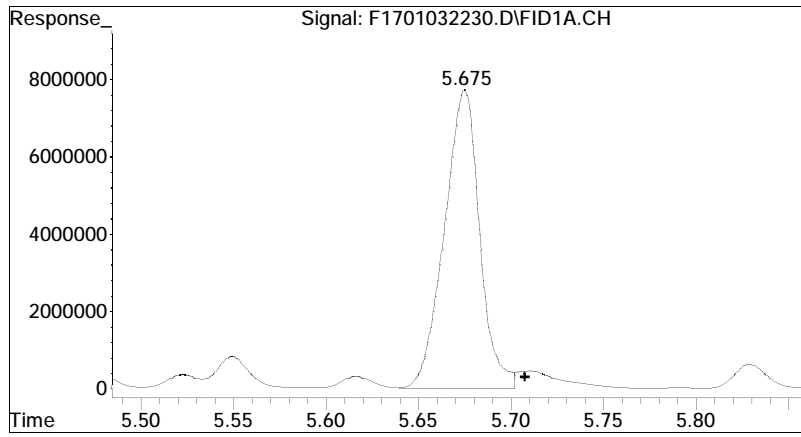
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

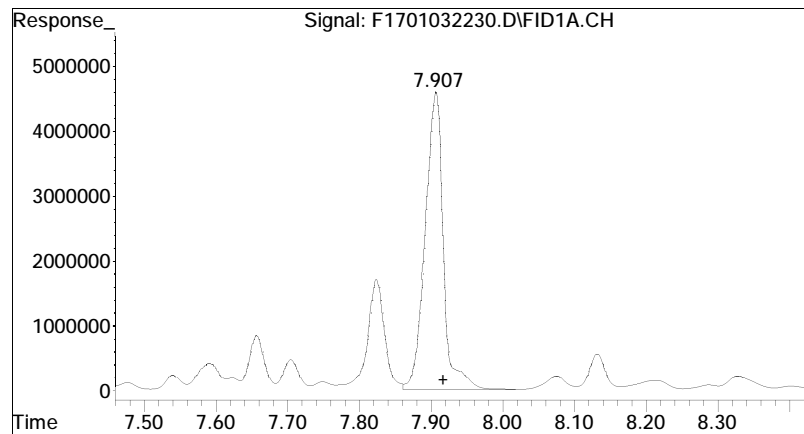
File : O:\Forensics\Data\FID17\2023\JAN\JAN03\F1701032230.D
Operator : FID17:WR
Acquired : 04 Jan 2023 6:42 am using AcqMethod FID17A.M
Sample Name: WG1734833-1,0.10296
Instrument: FID17
Misc Info : WG1734833,FRBF22
Vial Number: 15
CurrentMeth: O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M





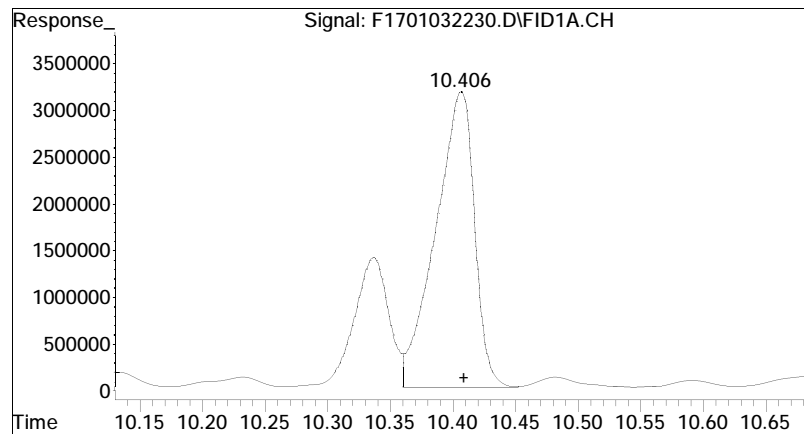
#2 n-Octane (C8)

R.T.: 5.675 min
Delta R.T.: -0.033 min
Response: 101126766
Conc: 84.78 ug/mL M4



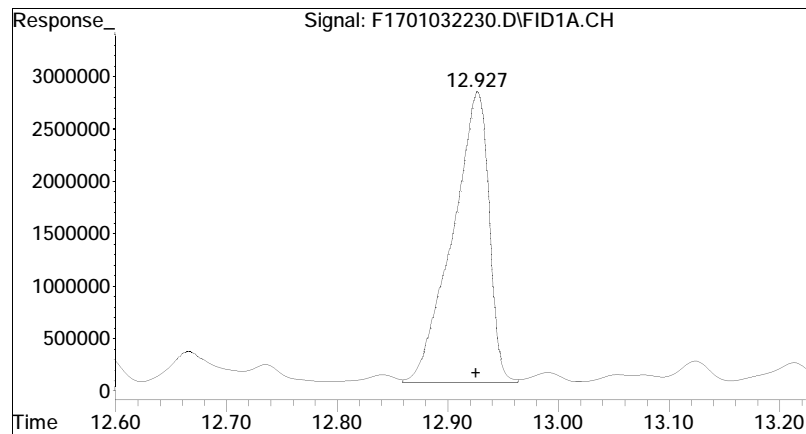
#3 n-Nonane (C9)

R.T.: 7.907 min
Delta R.T.: -0.010 min
Response: 79543000
Conc: 64.12 ug/mL M4



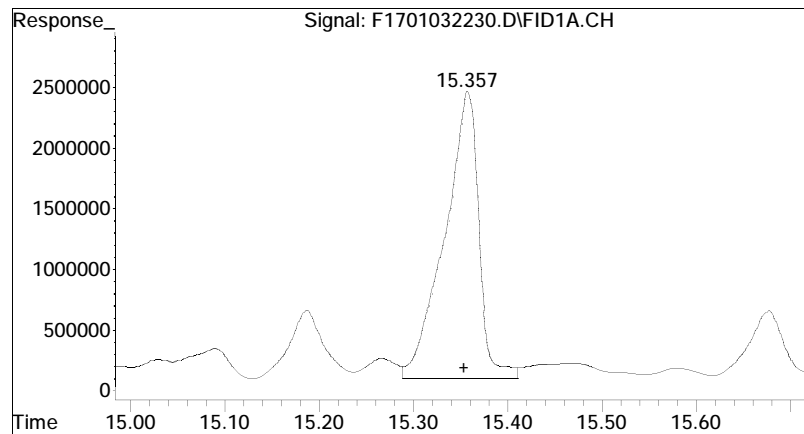
#4 n-Decane (C10)

R.T.: 10.406 min
Delta R.T.: -0.003 min
Response: 67786226
Conc: 52.47 ug/mL M4



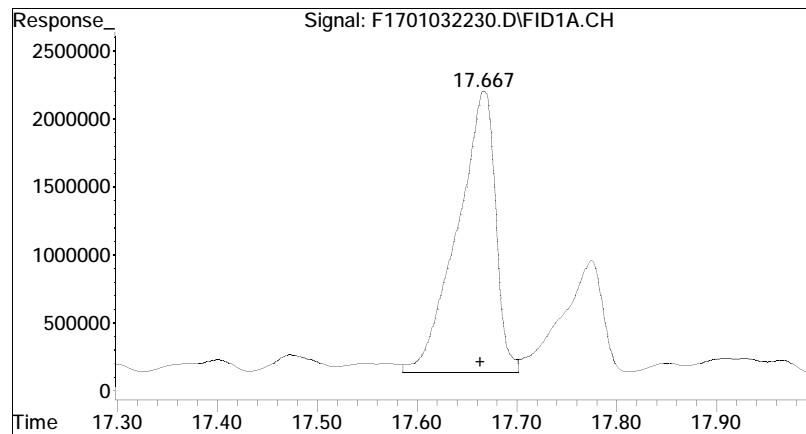
#5 n-Undecane (C11)

R.T.: 12.927 min
Delta R.T.: 0.001 min
Response: 62838868
Conc: 48.57 ug/mL M4



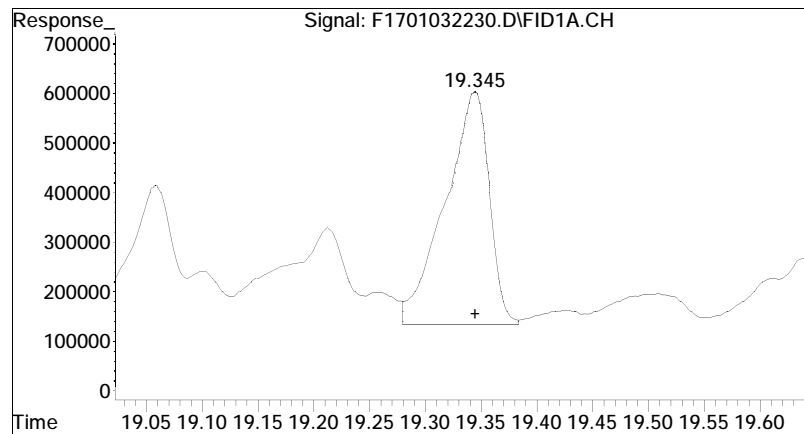
#6 n-Dodecane (C12)

R.T.: 15.357 min
Delta R.T.: 0.003 min
Response: 58672037
Conc: 44.94 ug/mL M4



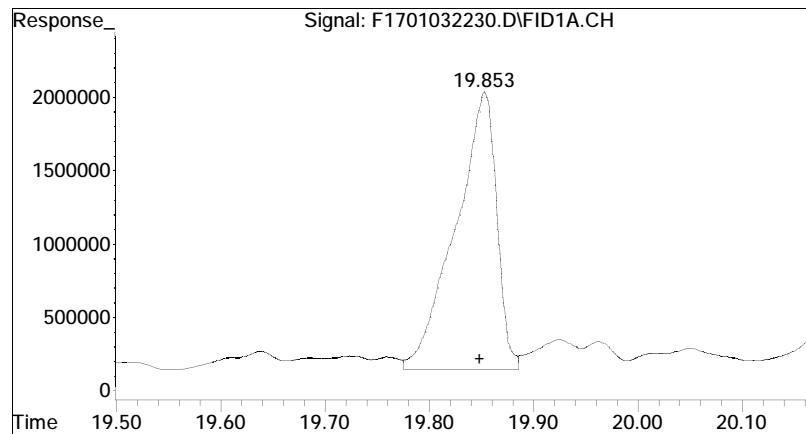
#7 n-Tridecane (C13)

R.T.: 17.667 min
Delta R.T.: 0.004 min
Response: 54312671
Conc: 41.40 ug/mL M4



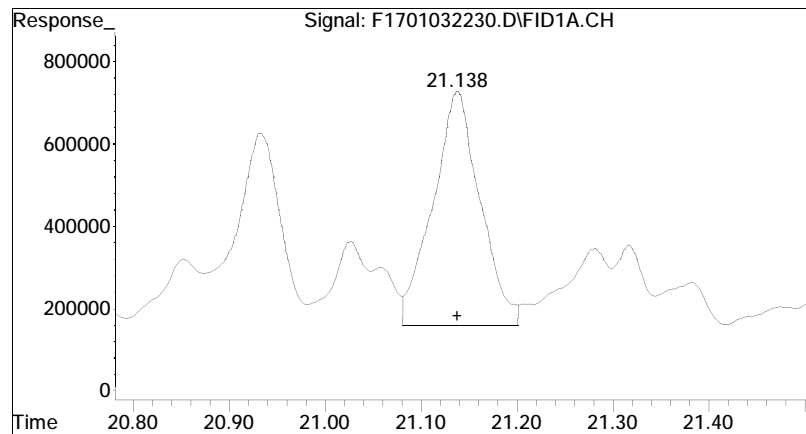
#8 1380

R.T.: 19.345 min
Delta R.T.: 0.000 min
Response: 12765584
Conc: 9.48 ug/mL M4



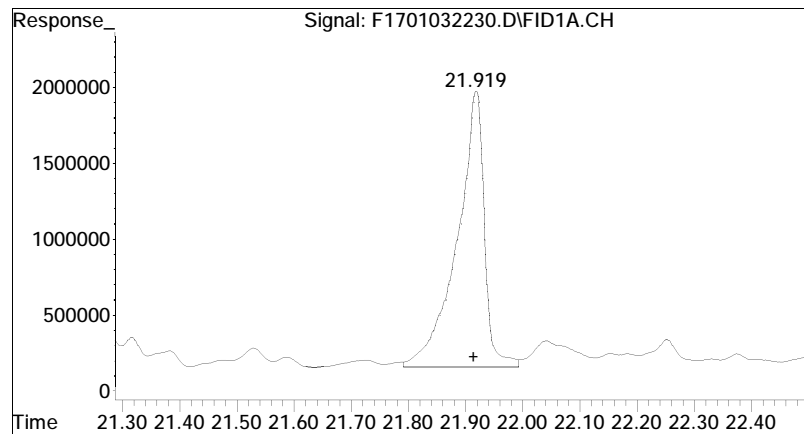
#9 n-Tetradecane (C14)

R.T.: 19.853 min
Delta R.T.: 0.004 min
Response: 50963622
Conc: 37.83 ug/mL M4



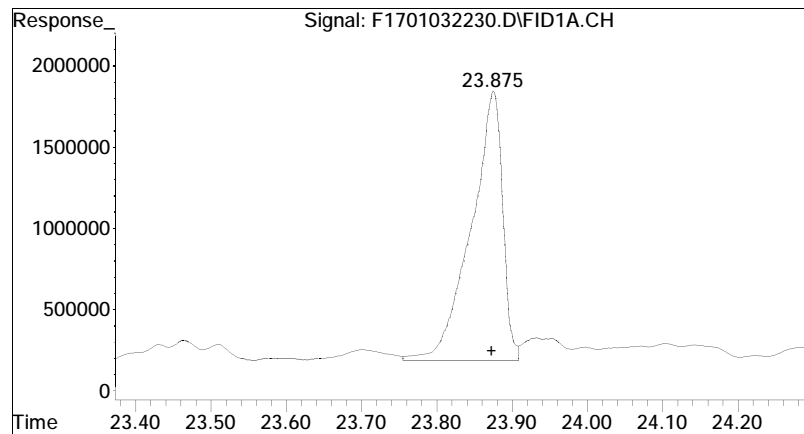
#10 1470

R.T.: 21.138 min
Delta R.T.: 0.000 min
Response: 19440591
Conc: 14.36 ug/mL M4



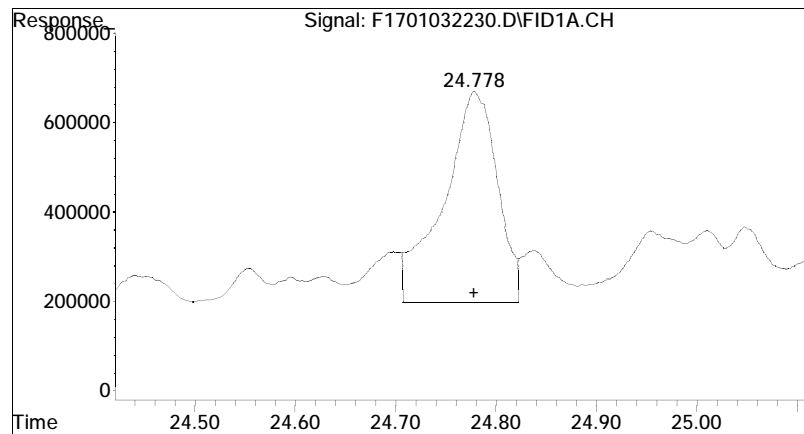
#11 n-Pentadecane (C15)

R.T.: 21.919 min
Delta R.T.: 0.004 min
Response: 58621625
Conc: 43.32 ug/mL M4



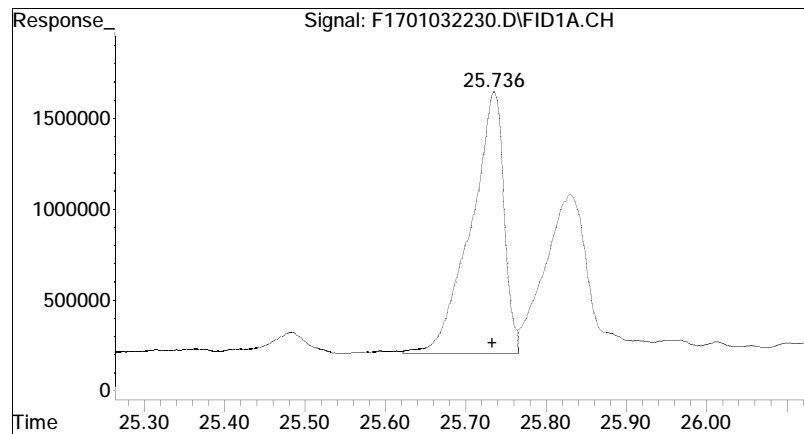
#12 n-Hexadecane (C16)

R.T.: 23.875 min
Delta R.T.: 0.002 min
Response: 47295223
Conc: 35.08 ug/mL M4



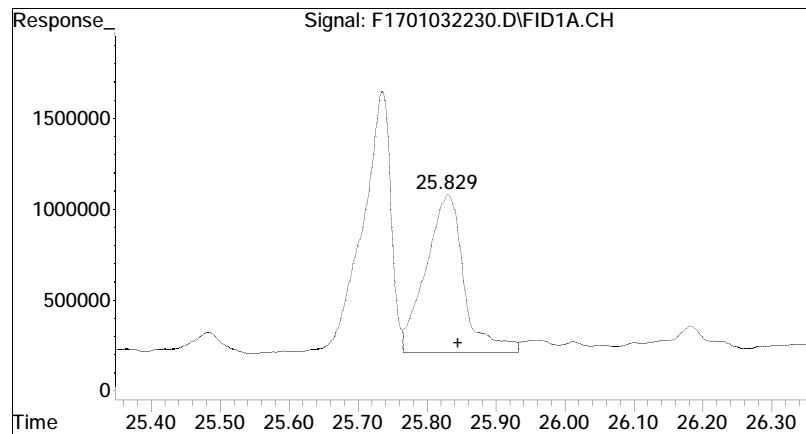
#13 1650

R.T.: 24.778 min
Delta R.T.: 0.000 min
Response: 17425790
Conc: 12.74 ug/mL M4



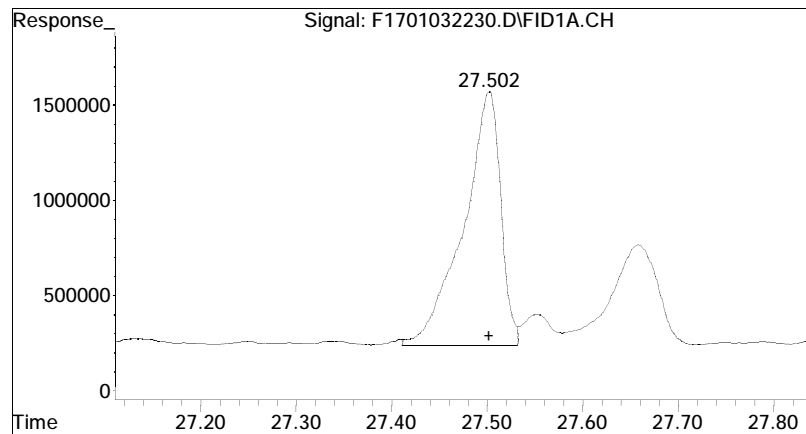
#14 n-Heptadecane (C17)

R.T.: 25.736 min
Delta R.T.: 0.002 min
Response: 40649220
Conc: 29.72 ug/mL M4



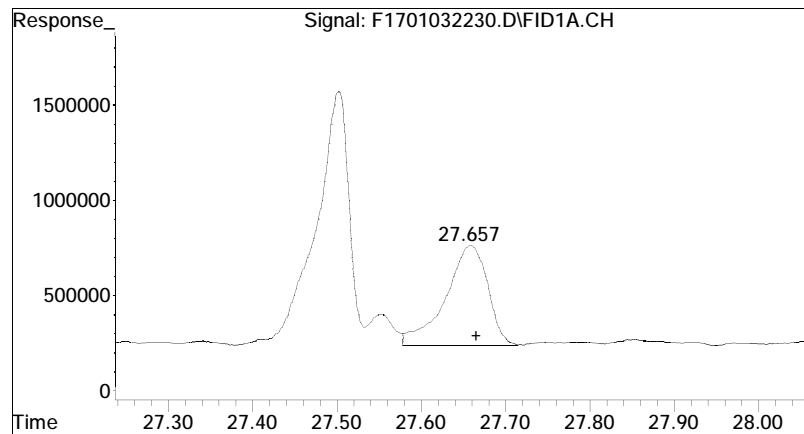
#15 Pristane

R.T.: 25.829 min
Delta R.T.: -0.016 min
Response: 33258313
Conc: 24.06 ug/mL M4



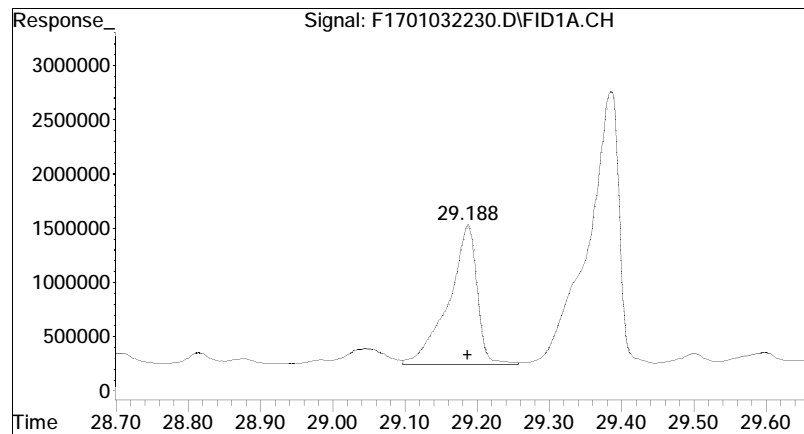
#16 n-Octadecane (C18)

R.T.: 27.502 min
Delta R.T.: 0.000 min
Response: 35626979
Conc: 25.87 ug/mL M4



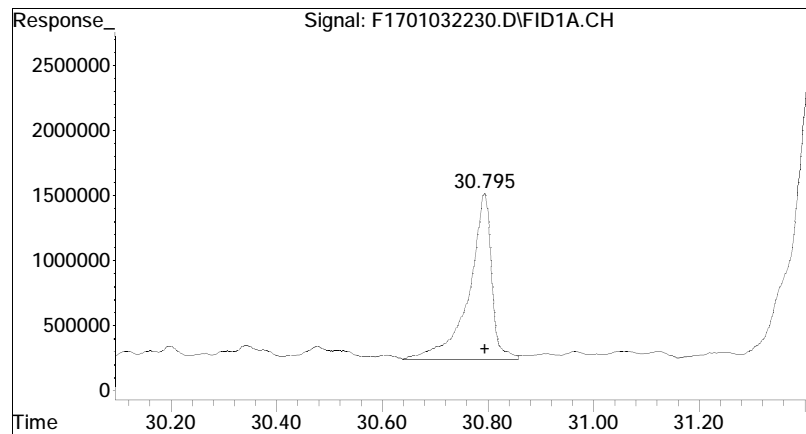
#17 Phytane

R.T.: 27.657 min
Delta R.T.: -0.008 min
Response: 18268493
Conc: 14.22 ug/mL M4



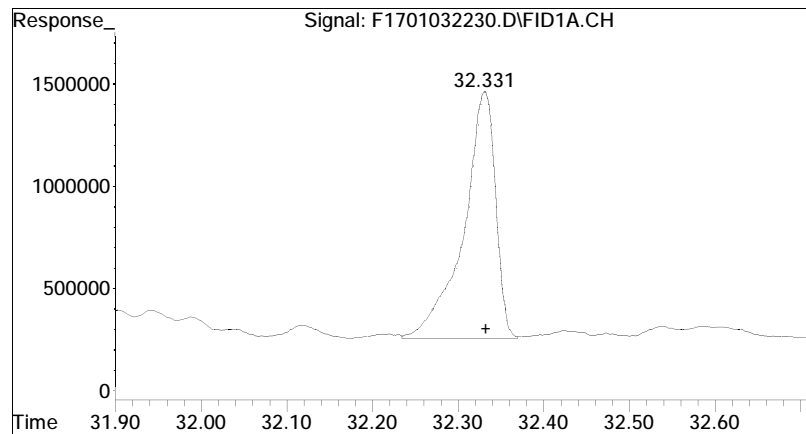
#18 n-Nonadecane (C19)

R.T.: 29.188 min
Delta R.T.: 0.000 min
Response: 35516586
Conc: 25.78 ug/mL M4



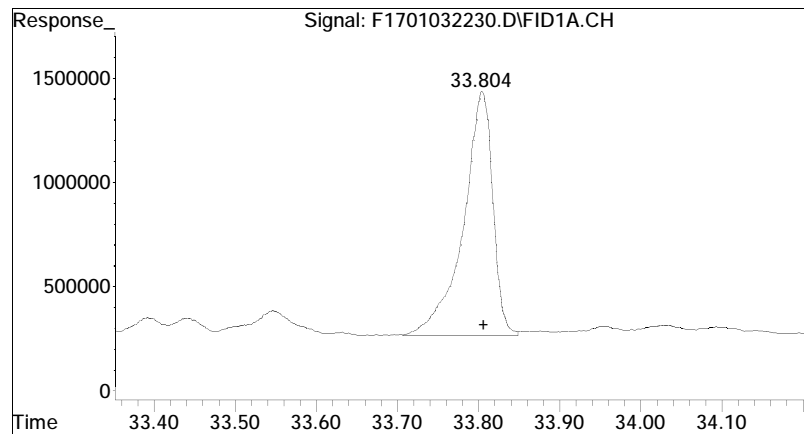
#20 n-Eicosane (C20)

R.T.: 30.795 min
Delta R.T.: 0.000 min
Response: 37410424
Conc: 26.95 ug/mL M4



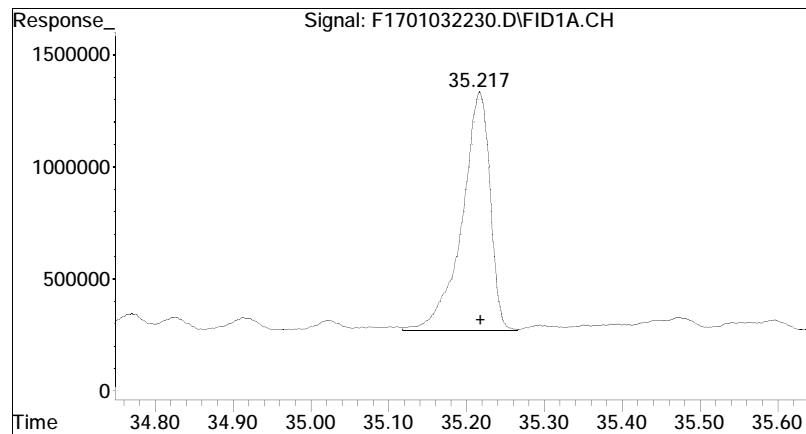
#21 n-Heneicosane (C21)

R.T.: 32.331 min
Delta R.T.: -0.002 min
Response: 30805221
Conc: 22.17 ug/mL M4



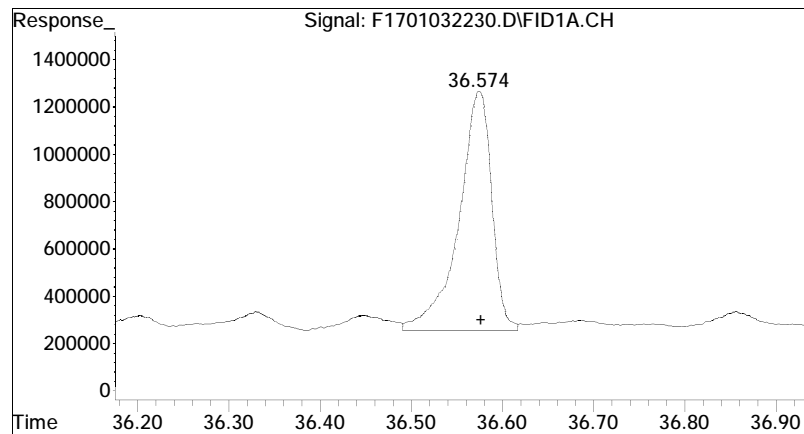
#22 n-Docosane (C22)

R.T.: 33.804 min
Delta R.T.: -0.003 min
Response: 28708573
Conc: 20.62 ug/mL M4



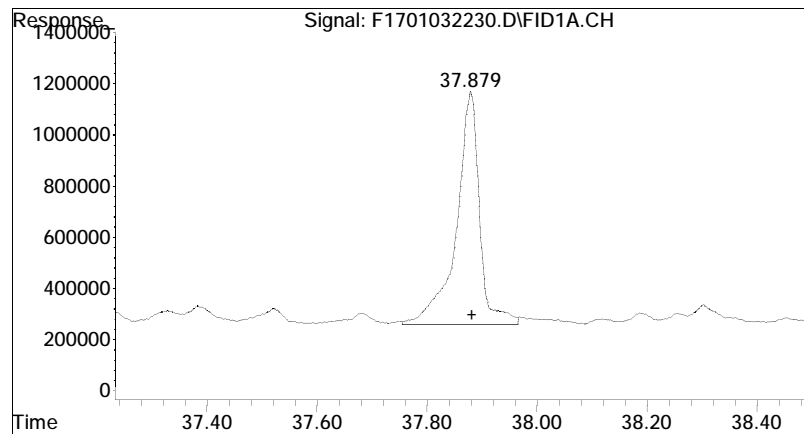
#23 n-Tricosane (C23)

R.T.: 35.217 min
Delta R.T.: -0.002 min
Response: 26050374
Conc: 18.69 ug/mL M4



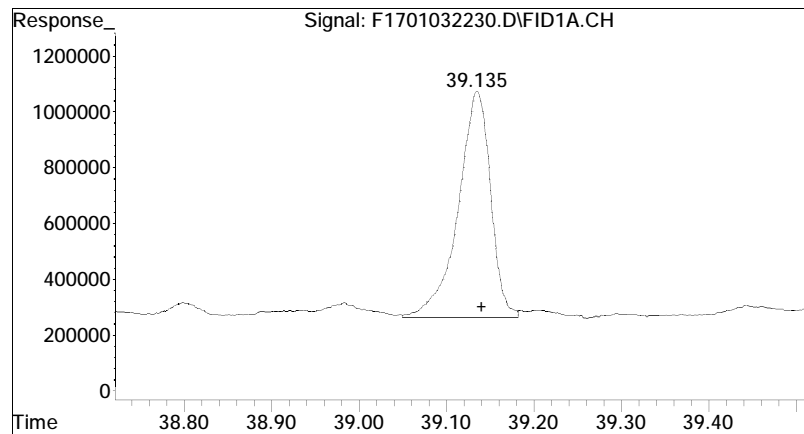
#25 n-Tetracosane (C24)

R.T.: 36.574 min
Delta R.T.: -0.002 min
Response: 24861072
Conc: 18.14 ug/mL M4



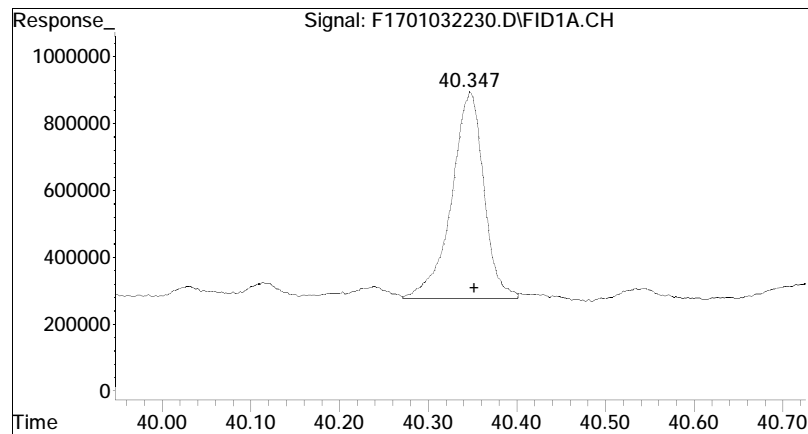
#26 n-Pentacosane (C25)

R.T.: 37.879 min
Delta R.T.: -0.003 min
Response: 26244319
Conc: 19.27 ug/mL M4



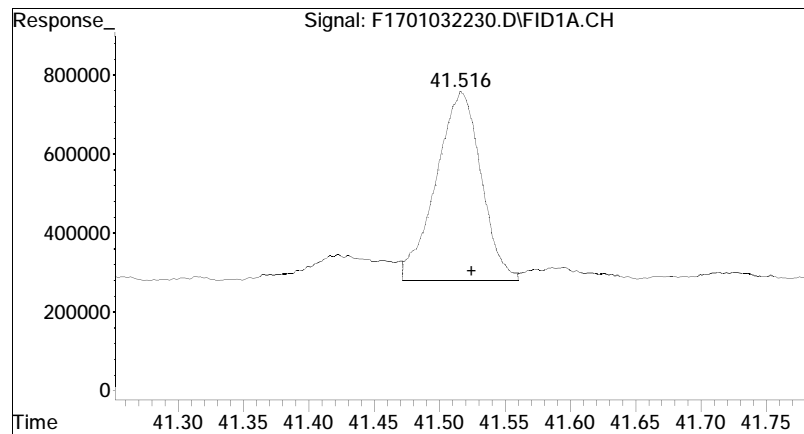
#27 n-Hexacosane (C26)

R.T.: 39.135 min
Delta R.T.: -0.006 min
Response: 20328209
Conc: 14.57 ug/mL M4



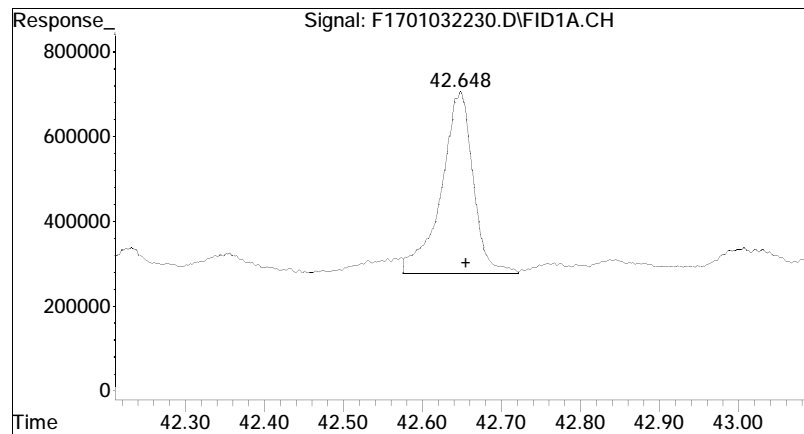
#28 n-Heptacosane (C27)

R.T.: 40.347 min
Delta R.T.: -0.005 min
Response: 15325939
Conc: 11.08 ug/mL M4



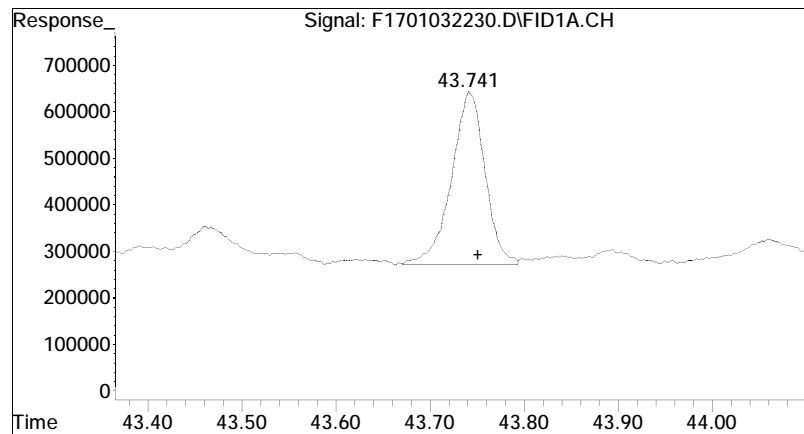
#29 n-Octacosane (C28)

R.T.: 41.516 min
Delta R.T.: -0.008 min
Response: 11352814
Conc: 8.02 ug/mL M4



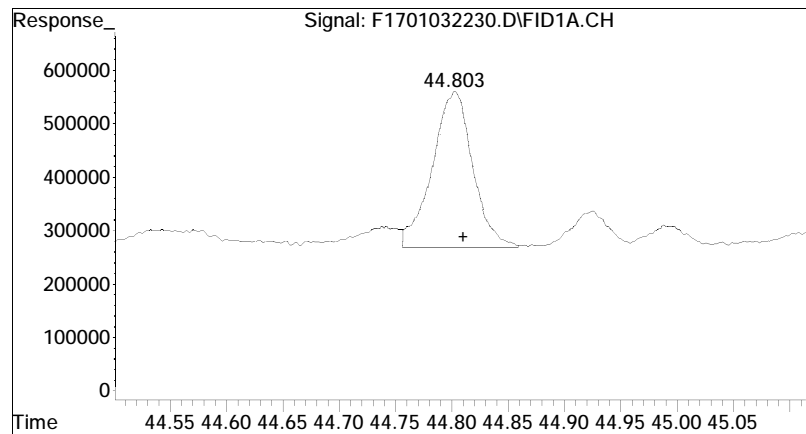
#30 n-Nonacosane (C29)

R.T.: 42.648 min
Delta R.T.: -0.007 min
Response: 11806666
Conc: 8.41 ug/mL M4



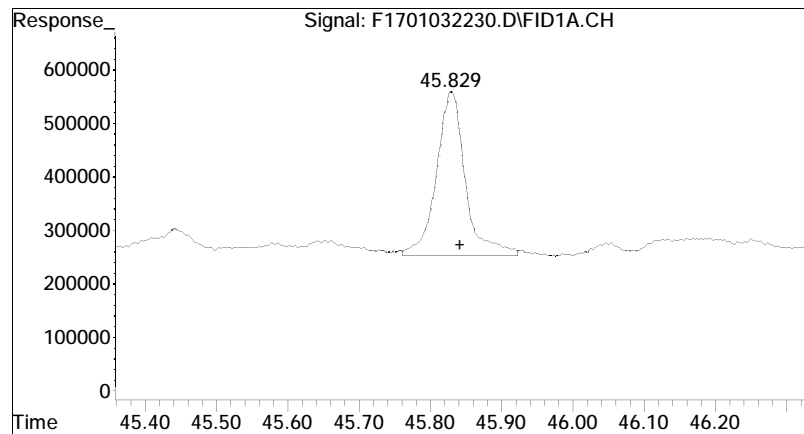
#31 n-Triacontane (C30)

R.T.: 43.741 min
Delta R.T.: -0.010 min
Response: 9095114
Conc: 6.47 ug/mL M4



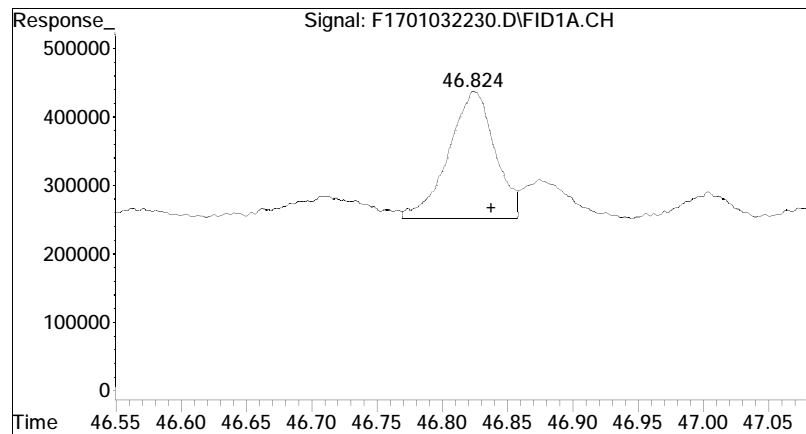
#32 n-Hentriacontane (C31)

R.T.: 44.803 min
Delta R.T.: -0.008 min
Response: 7146491
Conc: 5.27 ug/mL M4



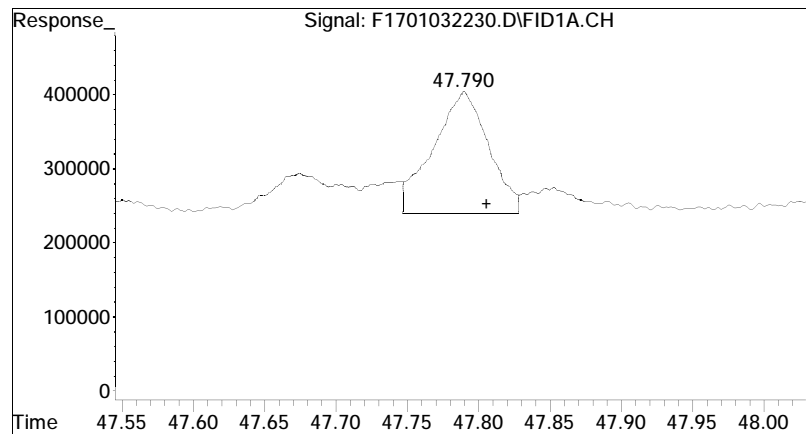
#33 n-Dotriacontane (C32)

R.T.: 45.829 min
Delta R.T.: -0.013 min
Response: 8489277
Conc: 5.99 ug/mL M4



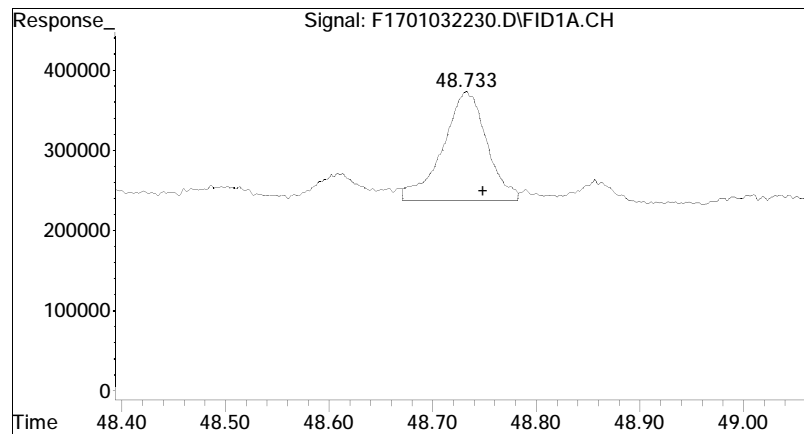
#34 n-Tritriacontane (C33)

R.T.: 46.824 min
Delta R.T.: -0.014 min
Response: 4500954
Conc: 3.28 ug/mL M4



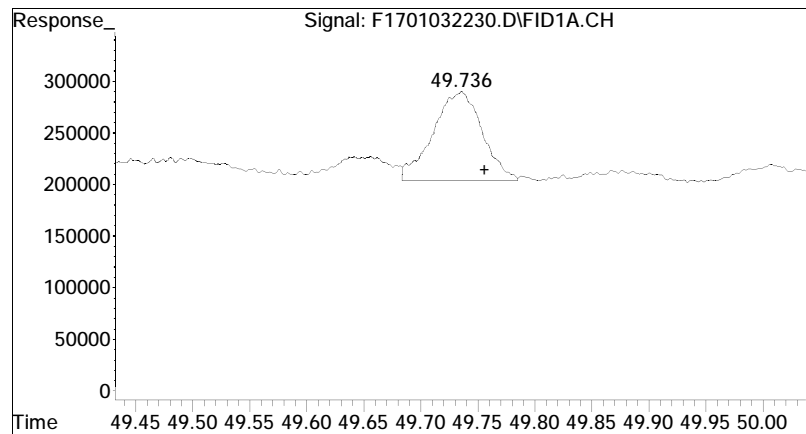
#35 n-tetratriacontane (C34)

R.T.: 47.790 min
Delta R.T.: -0.016 min
Response: 4414395
Conc: 3.24 ug/mL M4



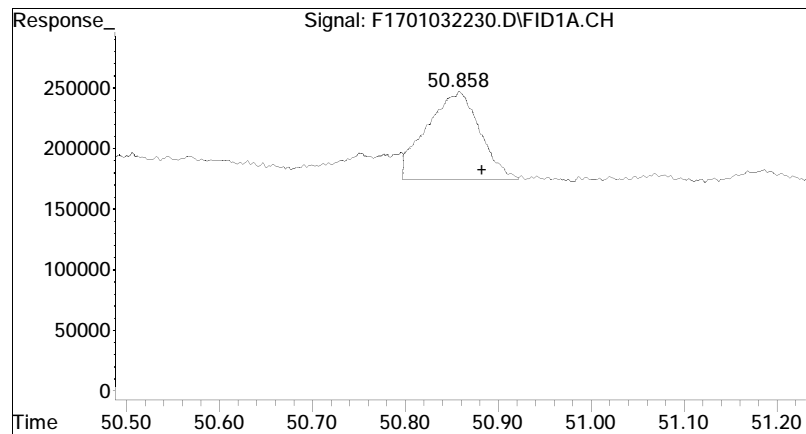
#36 n-Pentatriacontane (C35)

R.T.: 48.733 min
Delta R.T.: -0.016 min
Response: 3935490
Conc: 3.04 ug/mL M4



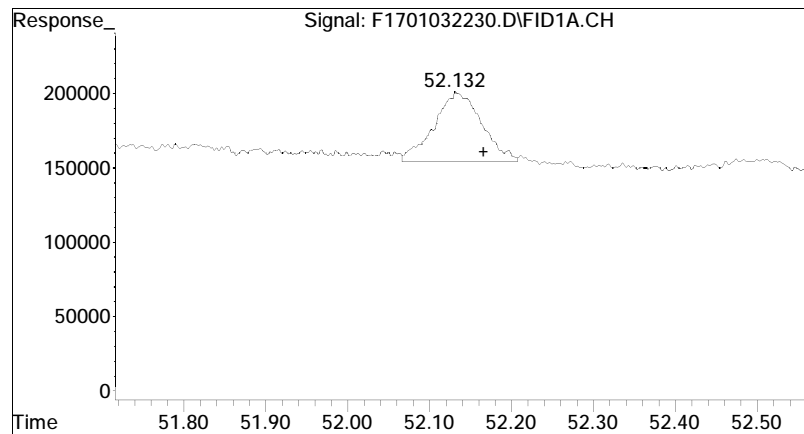
#37 n-Hexatriacontane (C36)

R.T.: 49.736 min
Delta R.T.: -0.020 min
Response: 2534403
Conc: 1.67 ug/mL M4



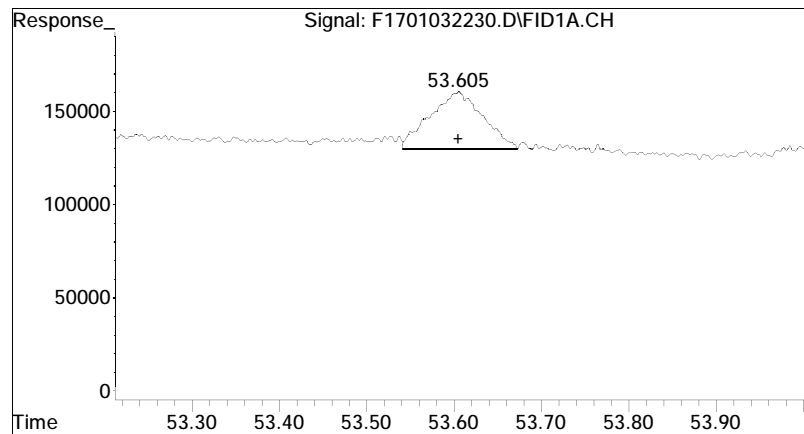
#38 n-Heptatriacontane (C37)

R.T.: 50.858 min
Delta R.T.: -0.025 min
Response: 2869494
Conc: 2.06 ug/mL M4



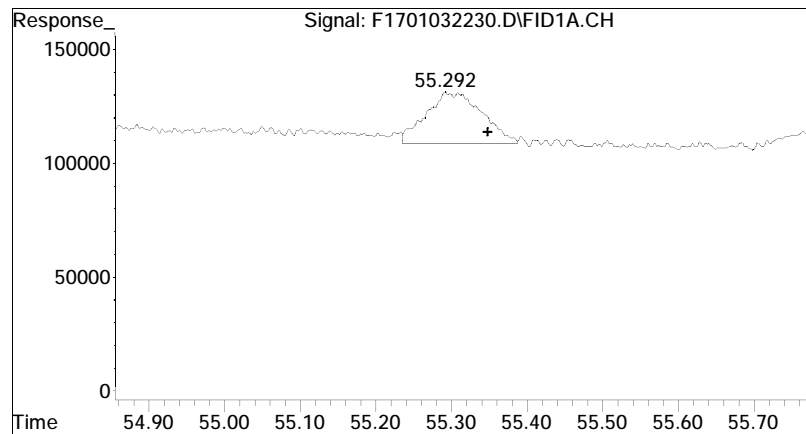
#39 n-Octatriacontane (C38)

R.T.: 52.132 min
Delta R.T.: -0.035 min
Response: 1868644
Conc: 1.32 ug/mL M4



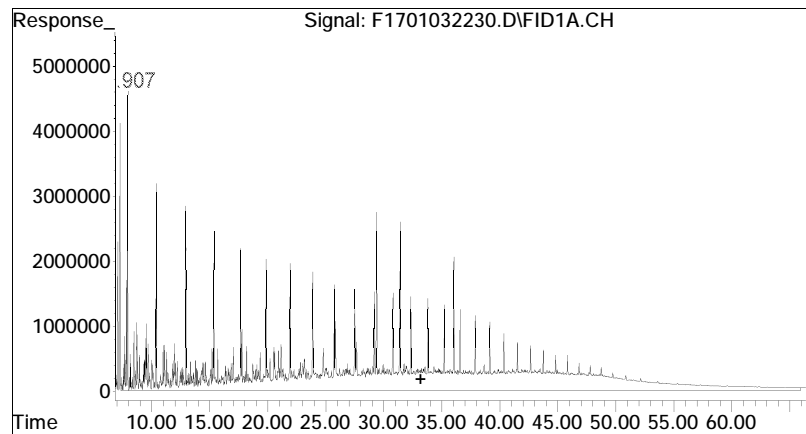
#40 n-Nonatriacontane (C39)

R.T.: 53.605 min
Delta R.T.: 0.000 min
Response: 1275854
Conc: 0.92 ug/mL M4



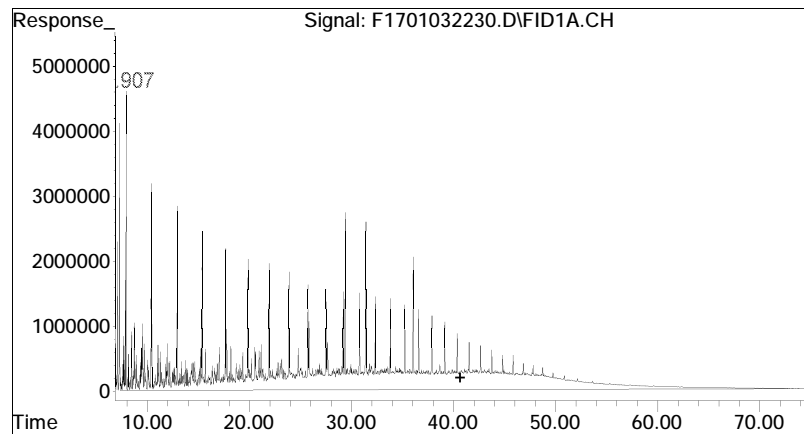
#41 n-Tetracontane (C40)

R.T.: 55.292 min
Delta R.T.: -0.056 min
Response: 1145963
Conc: 0.82 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 33.210 min
Delta R.T.: 0.000 min
Response: 7959192427
Conc: 5824.76 ug/mL m



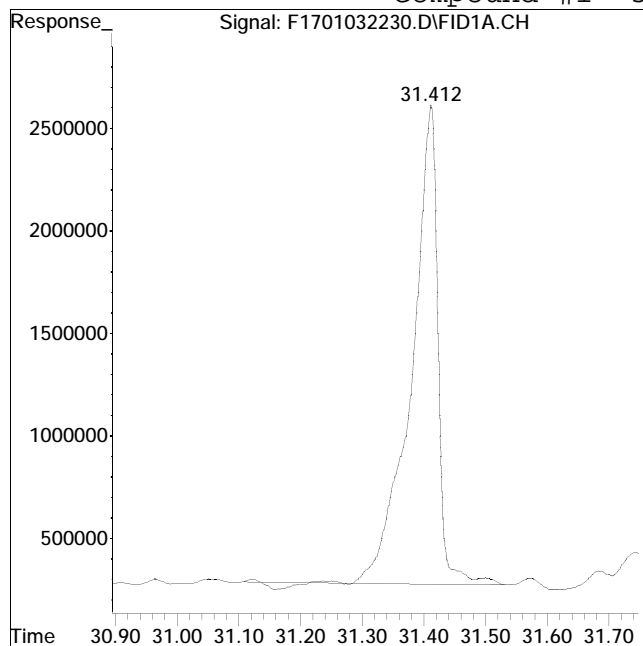
#46 Total Resolved Hydrocarbo

R.T.: 40.681 min
Delta R.T.: 0.000 min
Response: 2550018011
Conc: 1866.17 ug/mL m

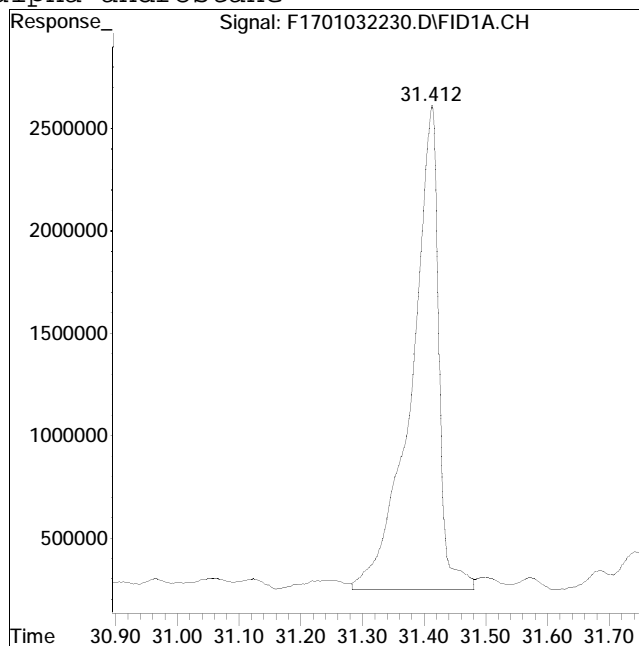
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032230.D Operator : FID17:WR
Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 69101531



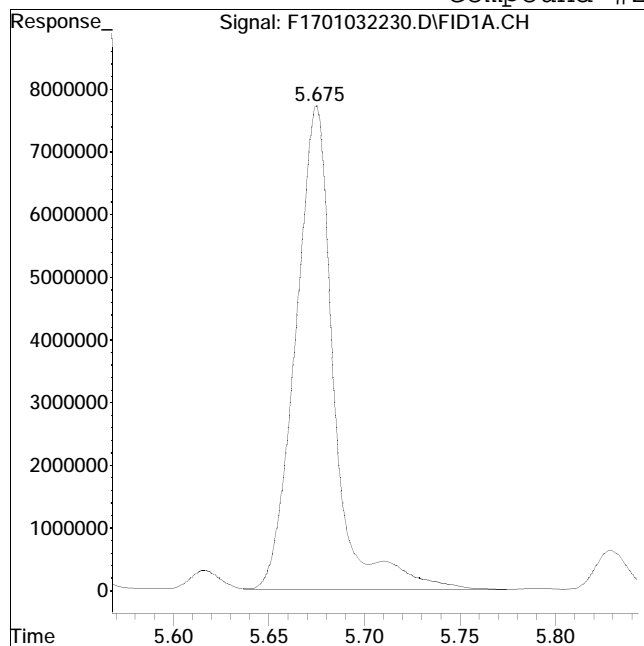
Manual Peak Response = 72958882 M4

M4 = Poor automated baseline construction.

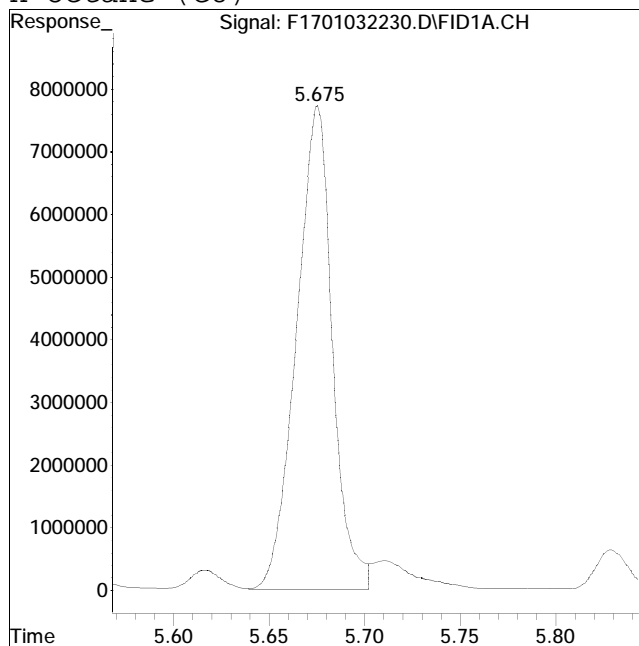
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #2: n-Octane (C8)



Original Peak Response = 108430070



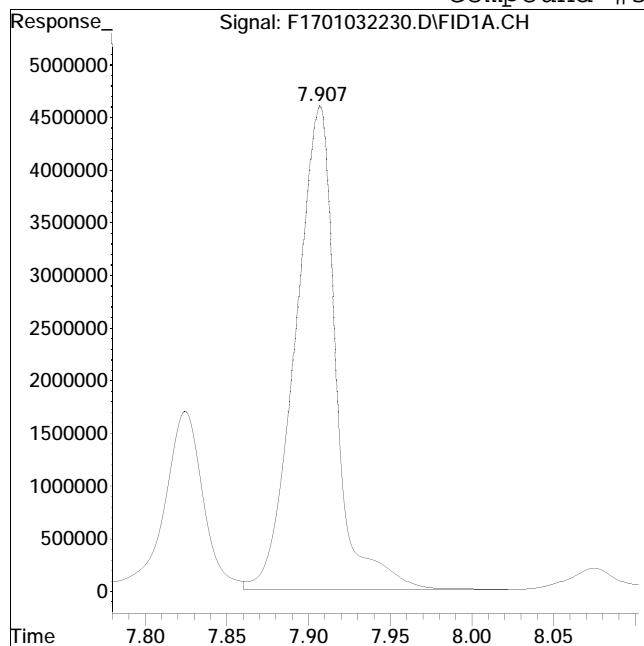
Manual Peak Response = 101126766 M4

M4 = Poor automated baseline construction.

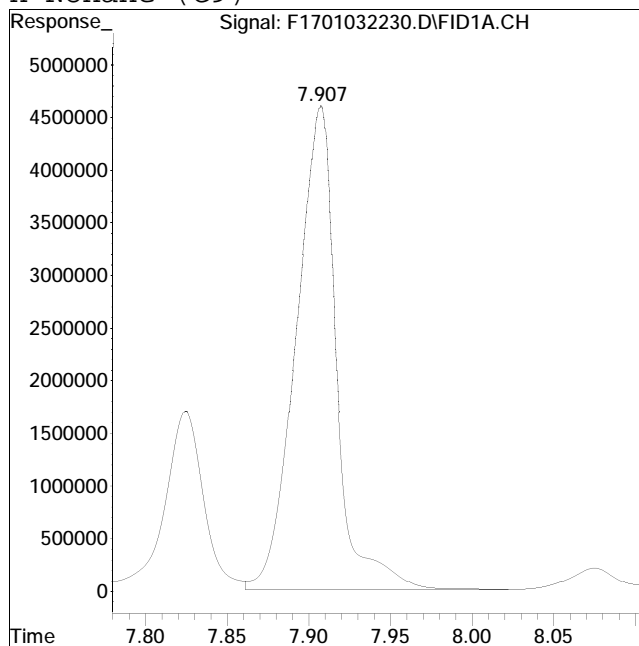
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 79506572



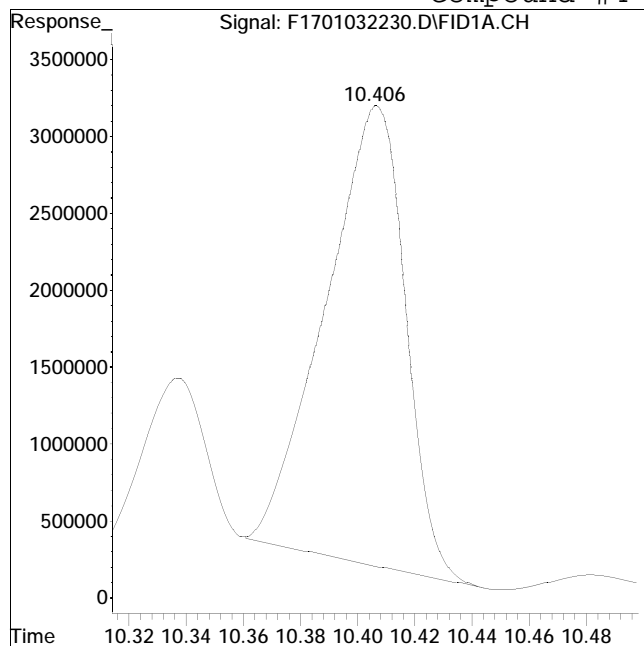
Manual Peak Response = 79543000 M4

M4 = Poor automated baseline construction.

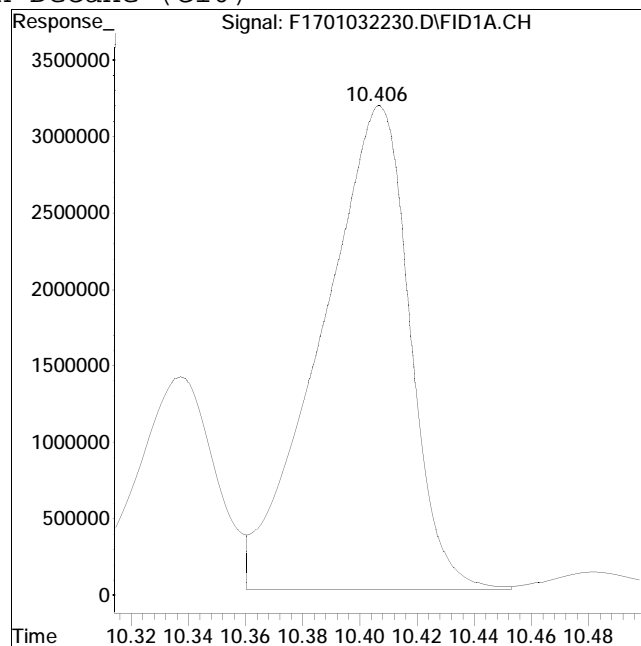
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #4: n-Decane (C10)



Original Peak Response = 58273579



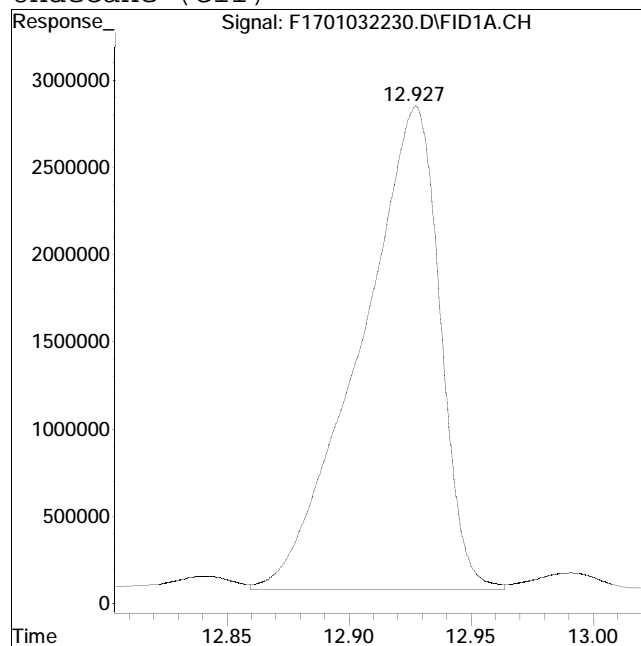
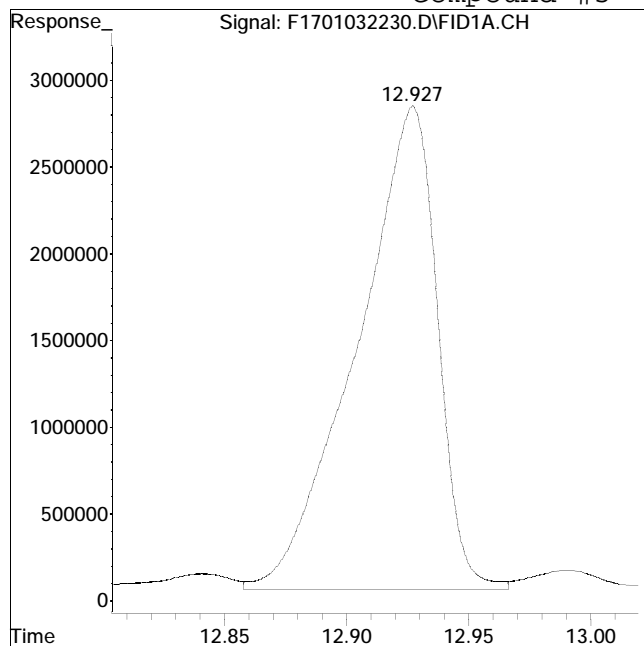
Manual Peak Response = 67786226 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 63853252

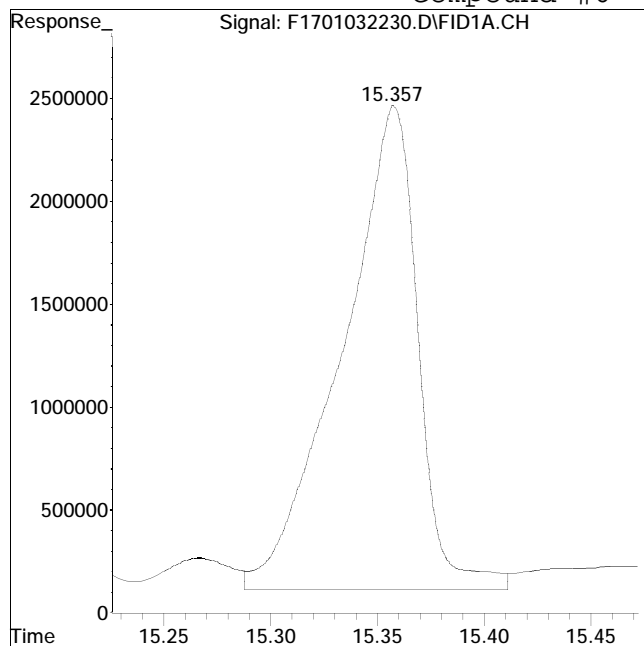
Manual Peak Response = 62838868 M4

M4 = Poor automated baseline construction.

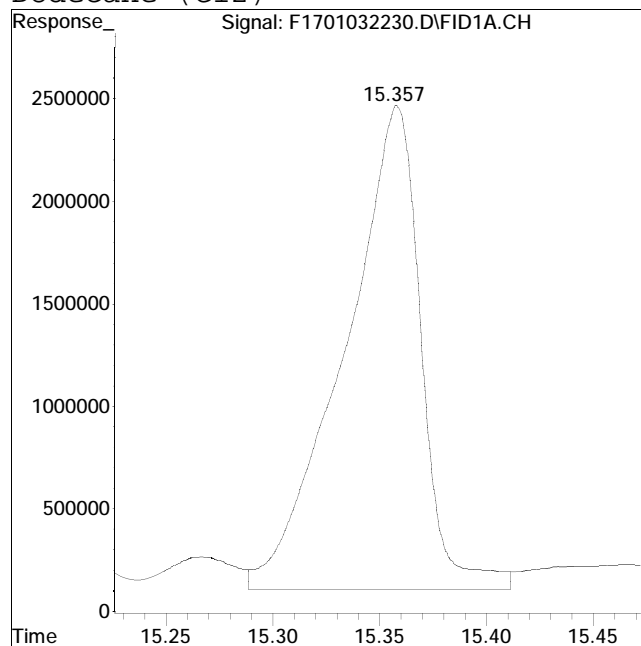
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 58154923



Manual Peak Response = 58672037 M4

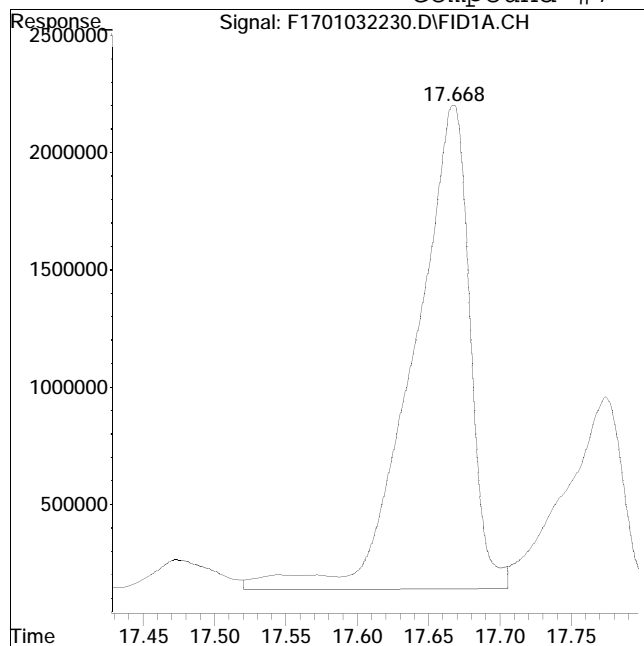
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

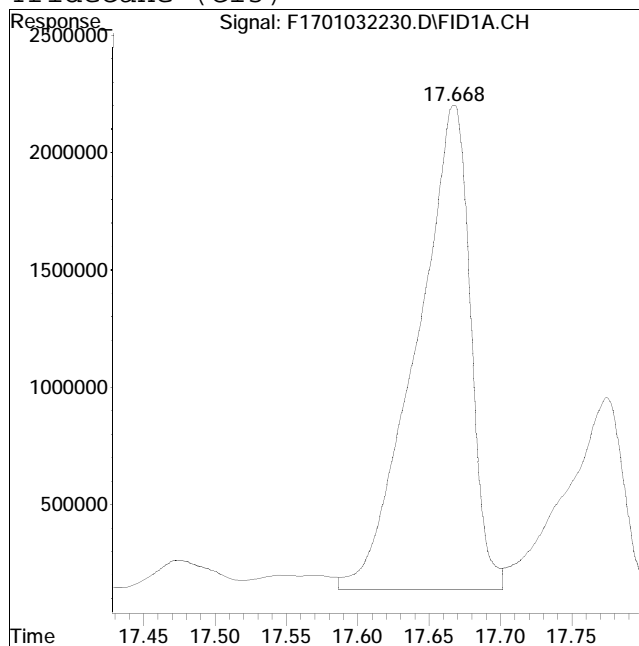
Data Path : O:\Forensics\Data\FID17\20230118
Data File : F1701032230.D
Date Inj'd : 1/4/2023 6:42 am
Sample : WG1734833-1,0.10296

Method : HC17010323F_DRO.M
Operator : FID17:WR
Instrument : FID17
Quant Date : 1/18/2023 3:32 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 56591973



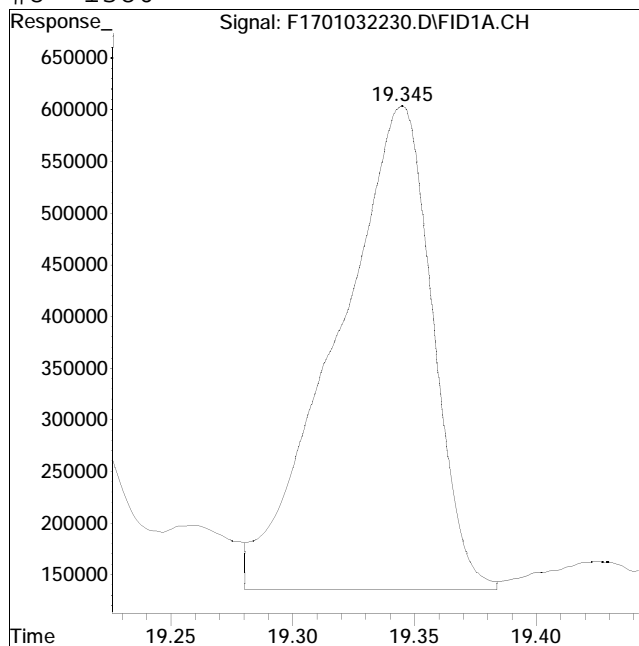
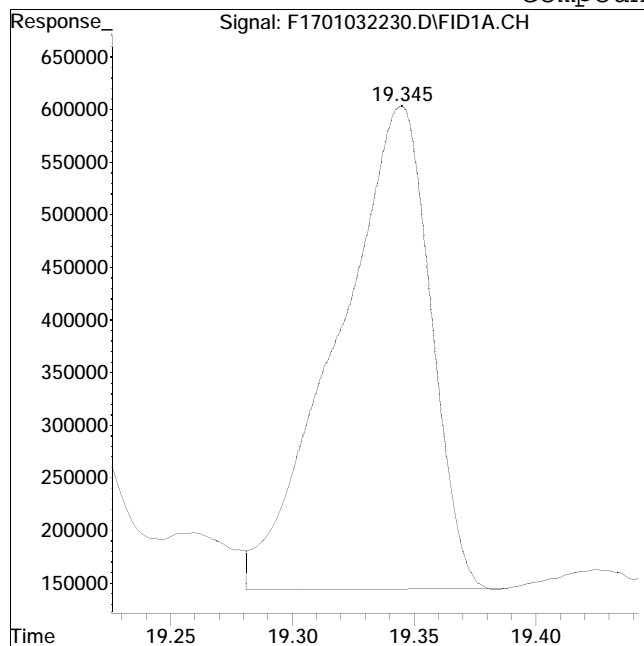
Manual Peak Response = 54312671 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #8: 1380



Original Peak Response = 12196406

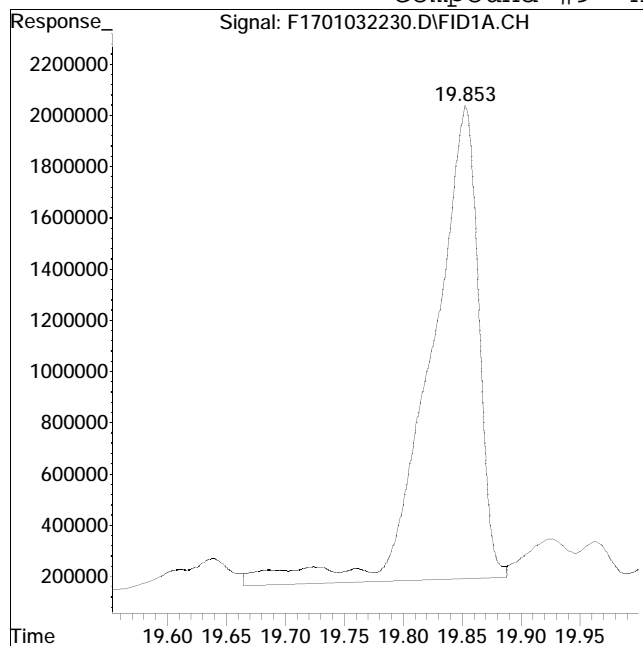
Manual Peak Response = 12765584 M4

M4 = Poor automated baseline construction.

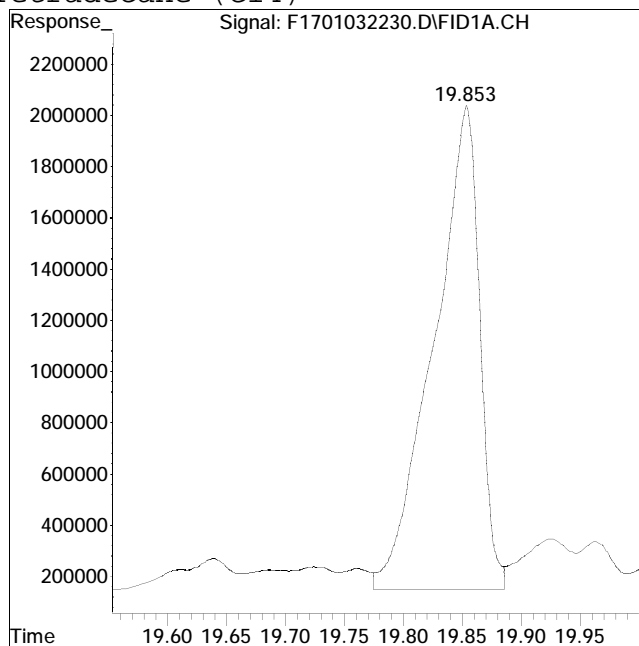
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 51883421



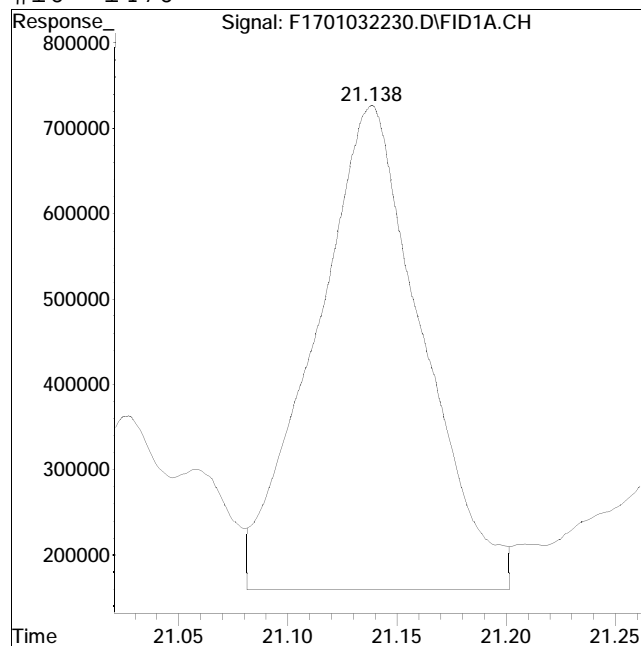
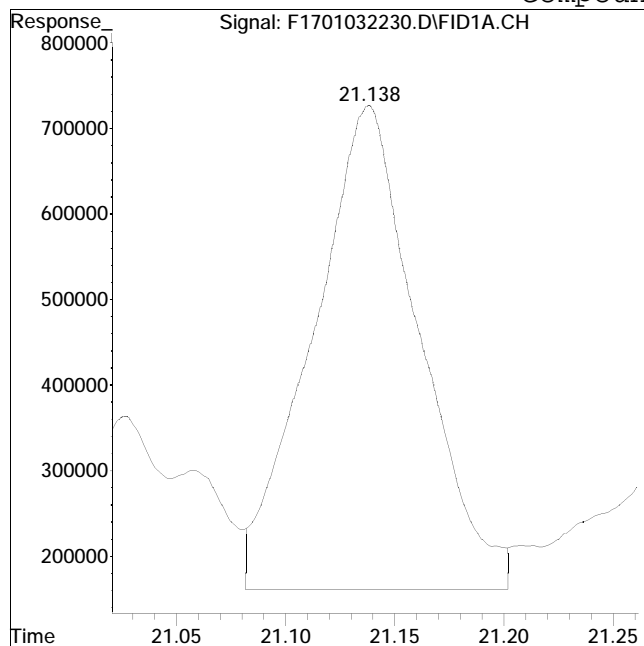
Manual Peak Response = 50963622 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #10: 1470



Original Peak Response = 19269267

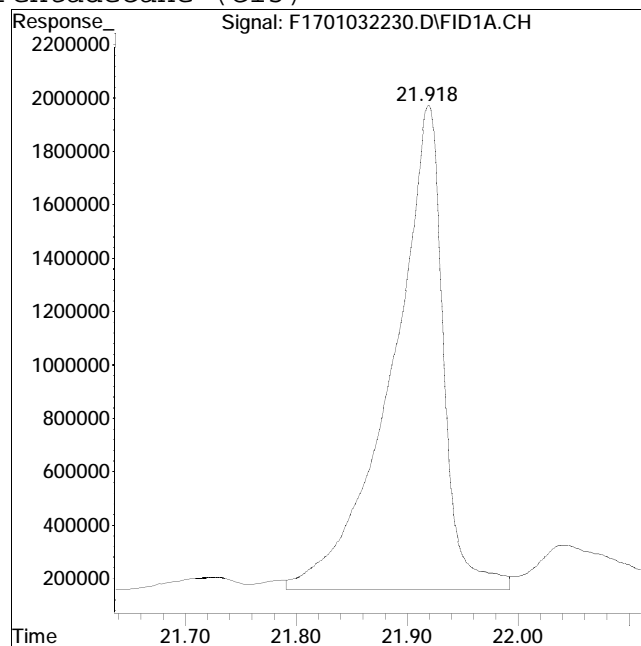
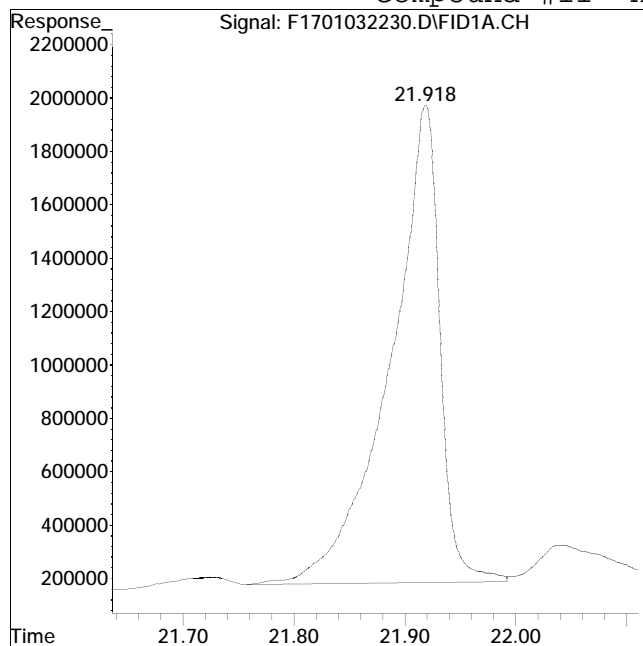
Manual Peak Response = 19440591 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032230.D Operator : FID17:WR
Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 55953931

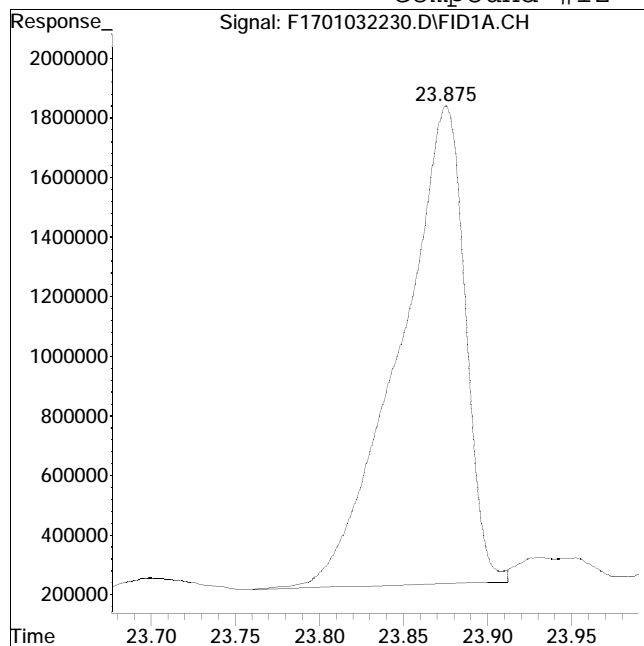
Manual Peak Response = 58621625 M4

M4 = Poor automated baseline construction.

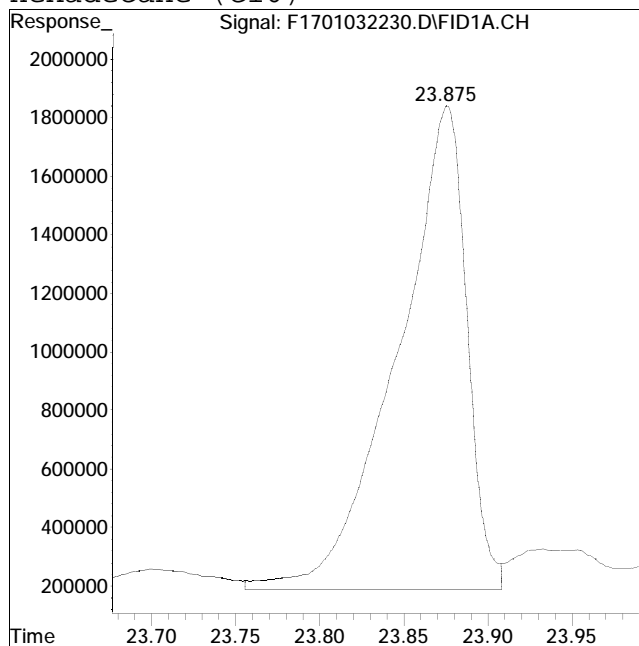
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 43471064



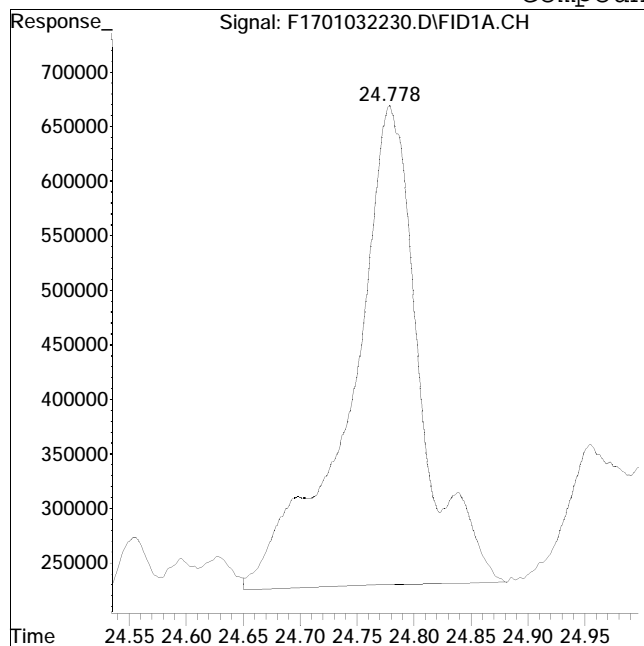
Manual Peak Response = 47295223 M4

M4 = Poor automated baseline construction.

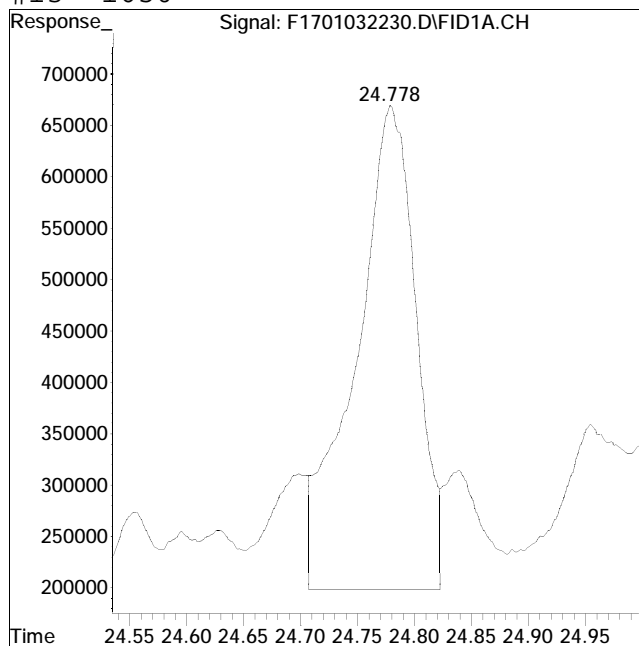
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #13: 1650



Original Peak Response = 18644383



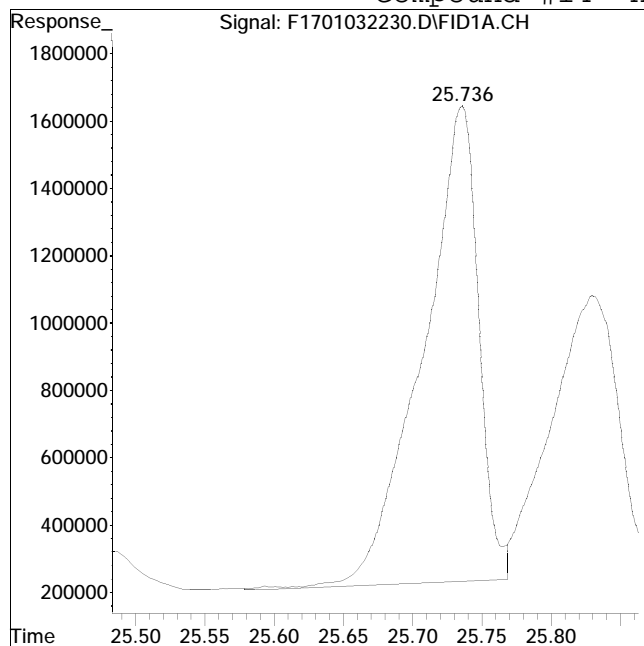
Manual Peak Response = 17425790 M4

M4 = Poor automated baseline construction.

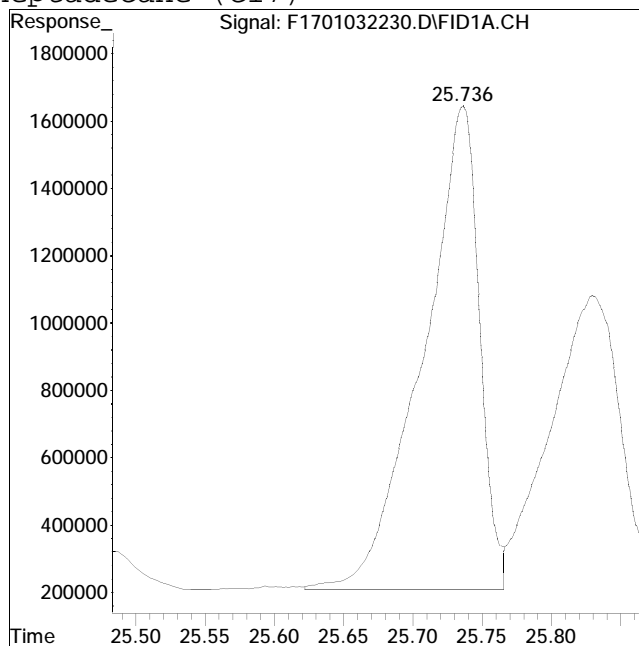
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 39288948



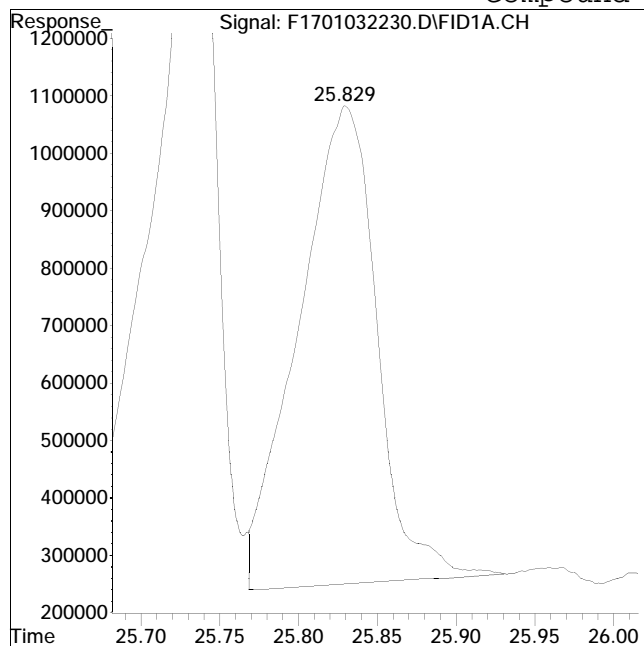
Manual Peak Response = 40649220 M4

M4 = Poor automated baseline construction.

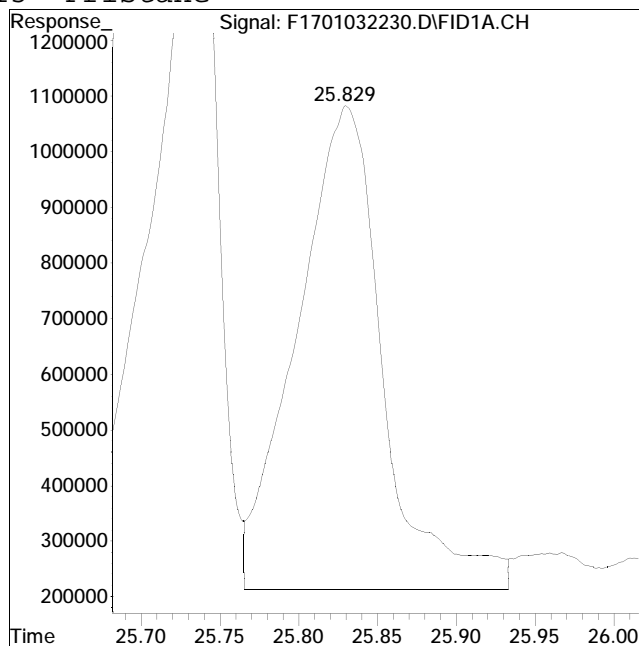
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032230.D Operator : FID17:WR
Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #15: Pristane



Original Peak Response = 28965846



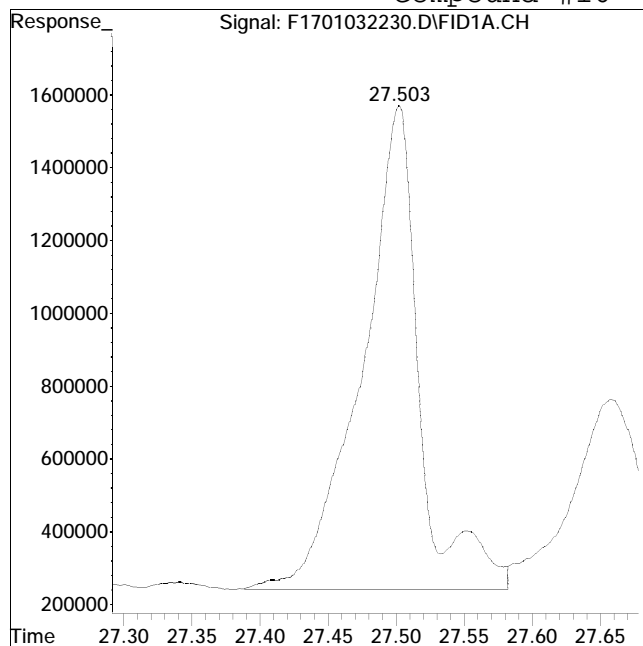
Manual Peak Response = 33258313 M4

M4 = Poor automated baseline construction.

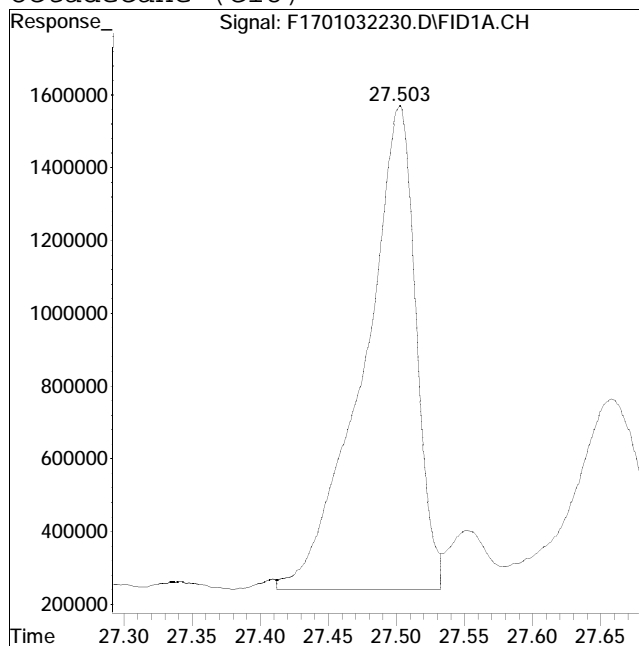
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 39078484



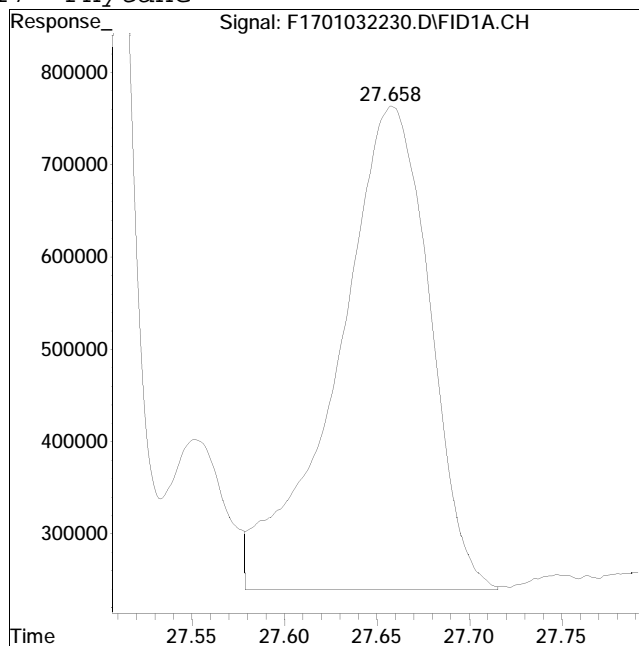
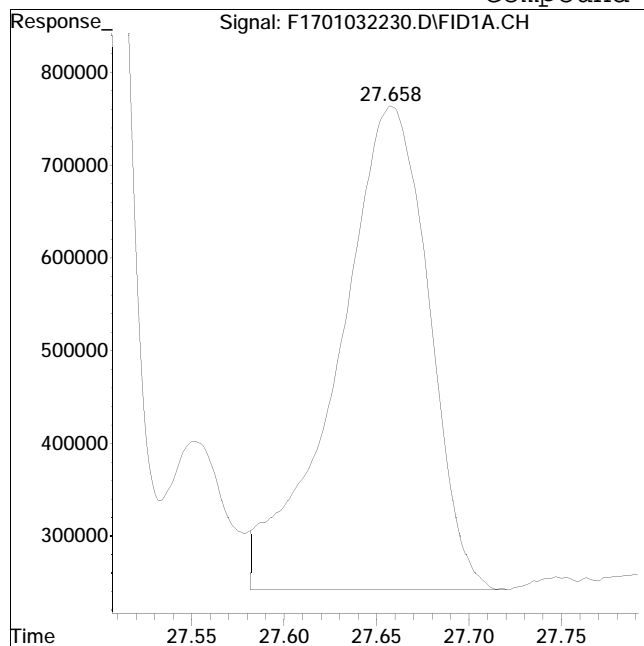
Manual Peak Response = 35626979 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #17: Phytane



Original Peak Response = 17943943

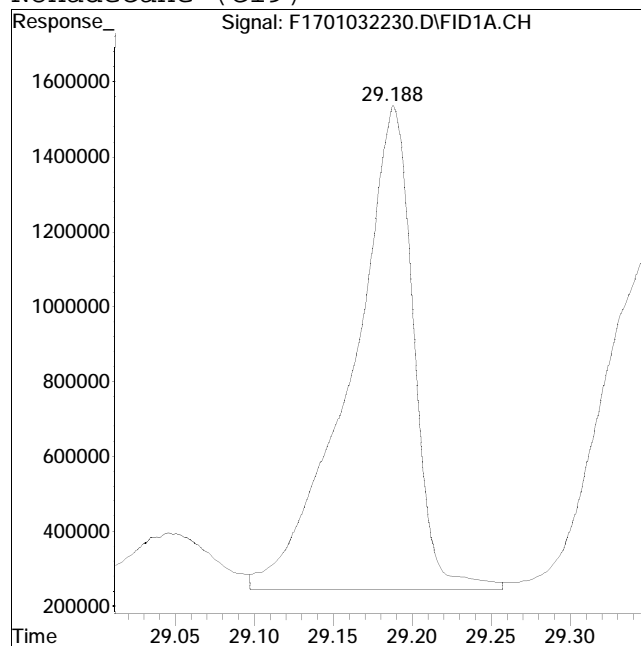
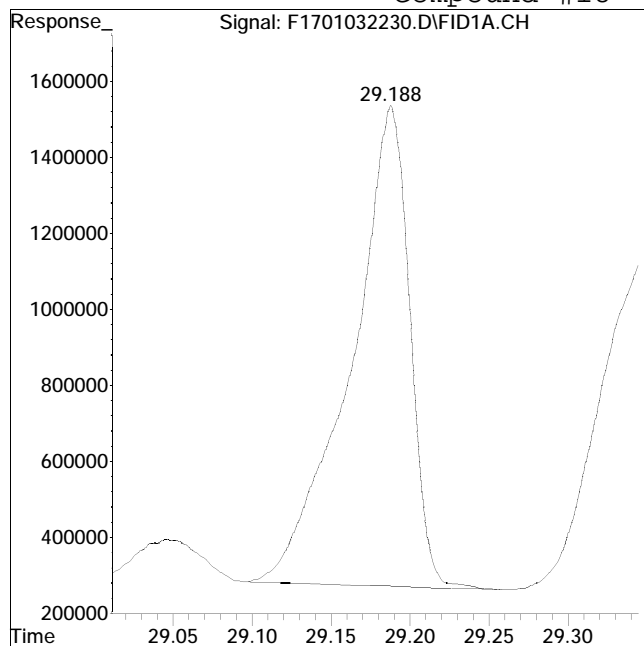
Manual Peak Response = 18268493 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 32673857

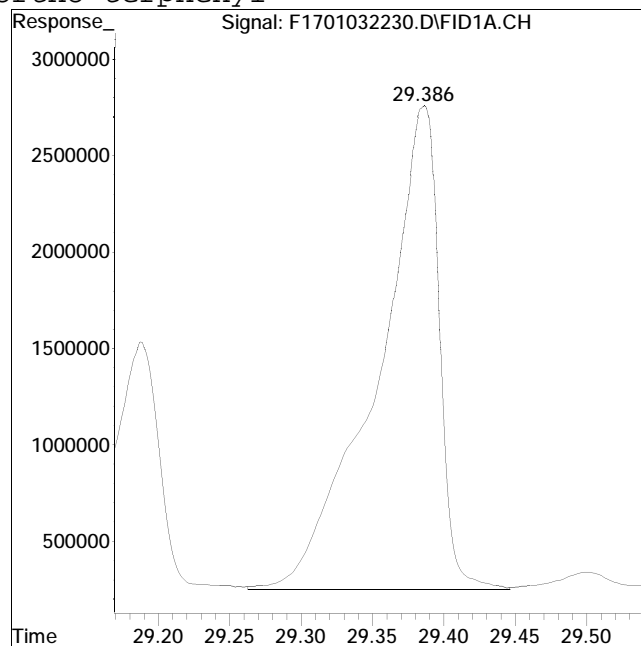
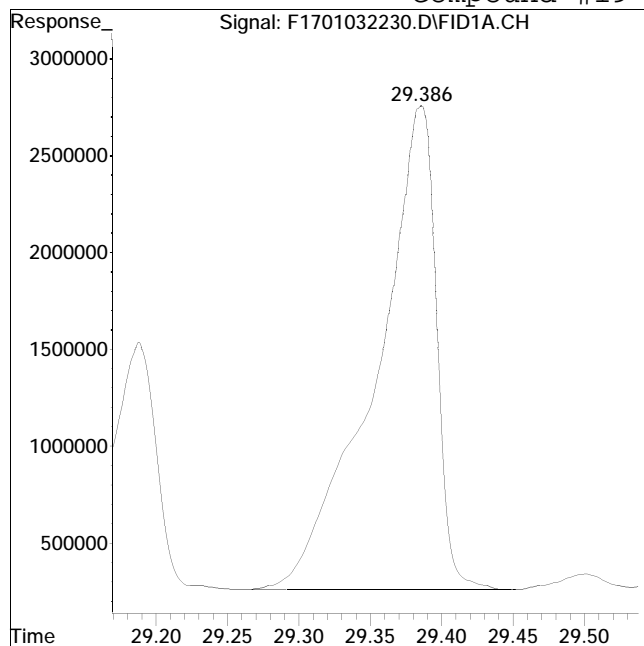
Manual Peak Response = 35516586 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #19: ortho-terphenyl



Original Peak Response = 73434246

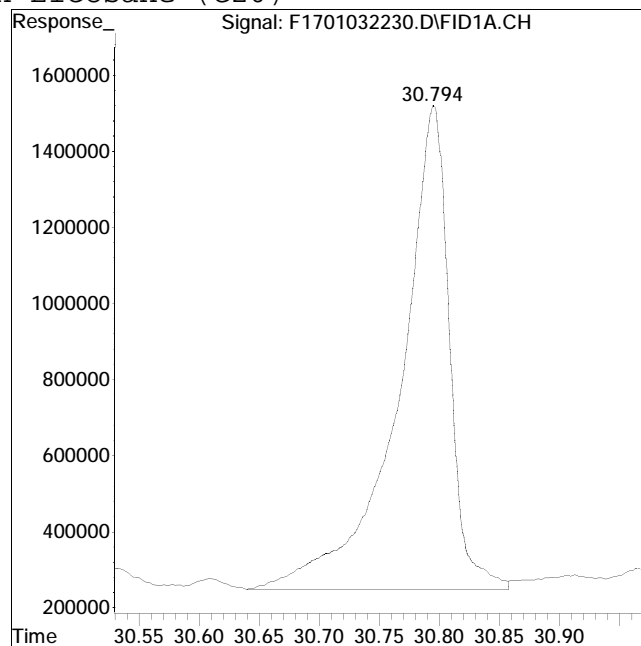
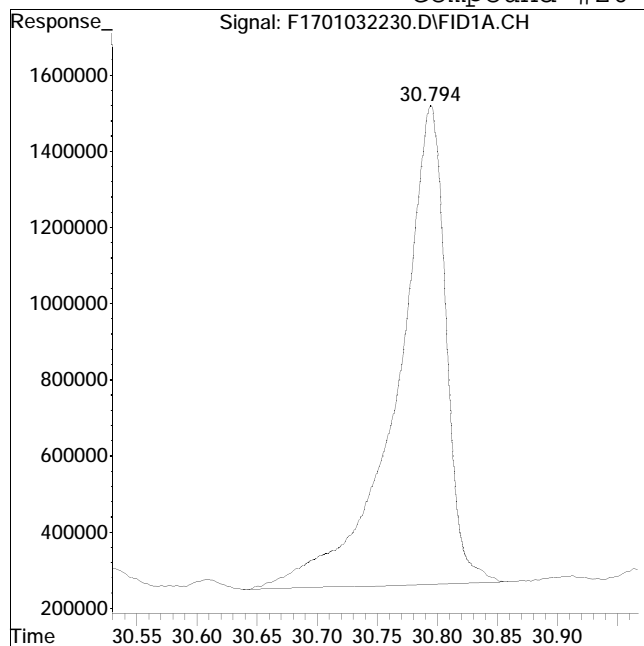
Manual Peak Response = 74808647 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 35701782

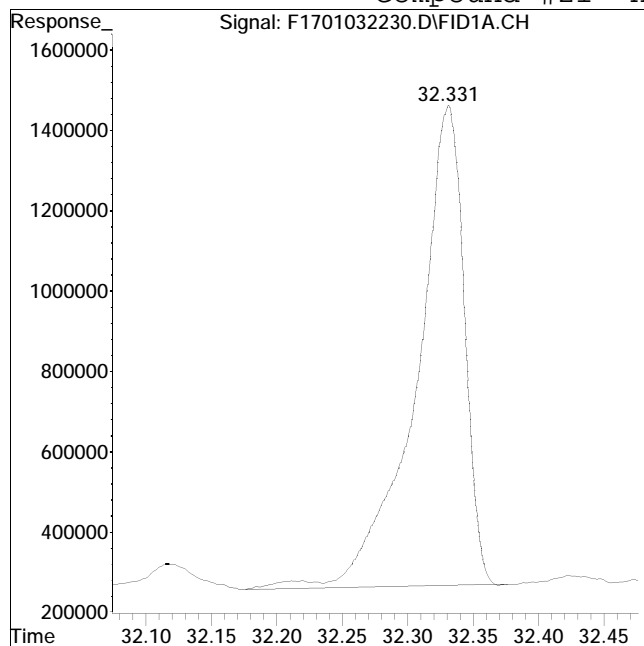
Manual Peak Response = 37410424 M4

M4 = Poor automated baseline construction.

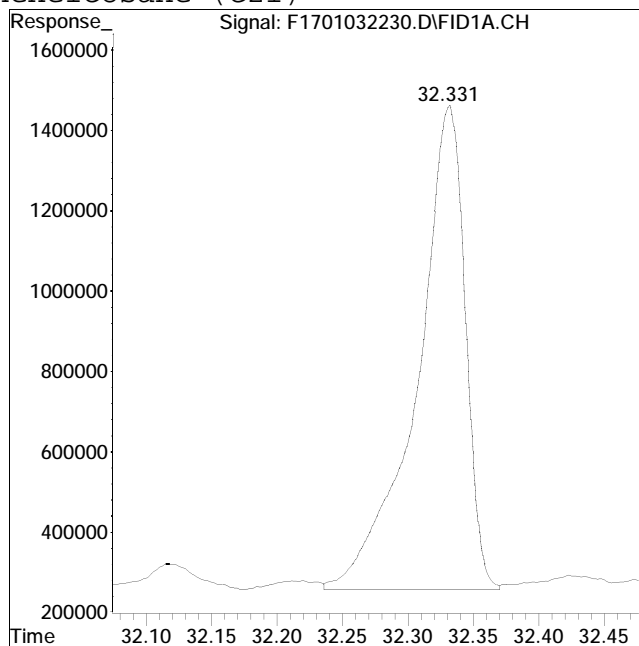
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 30586289



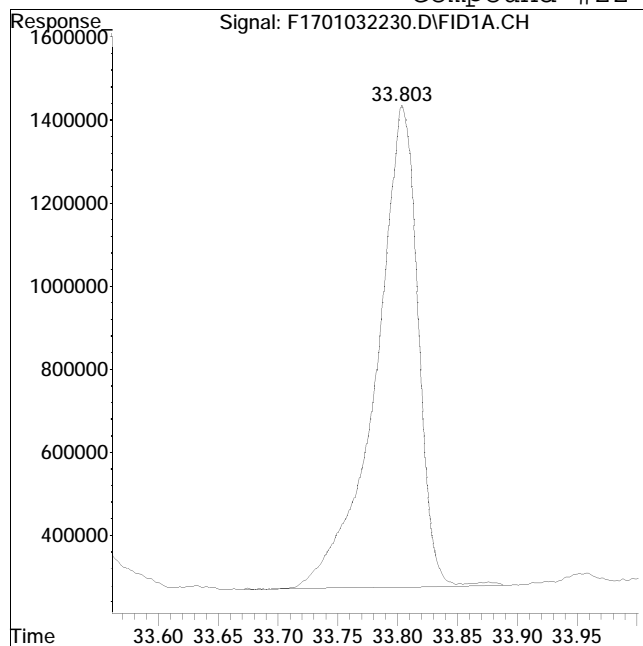
Manual Peak Response = 30805221 M4

M4 = Poor automated baseline construction.

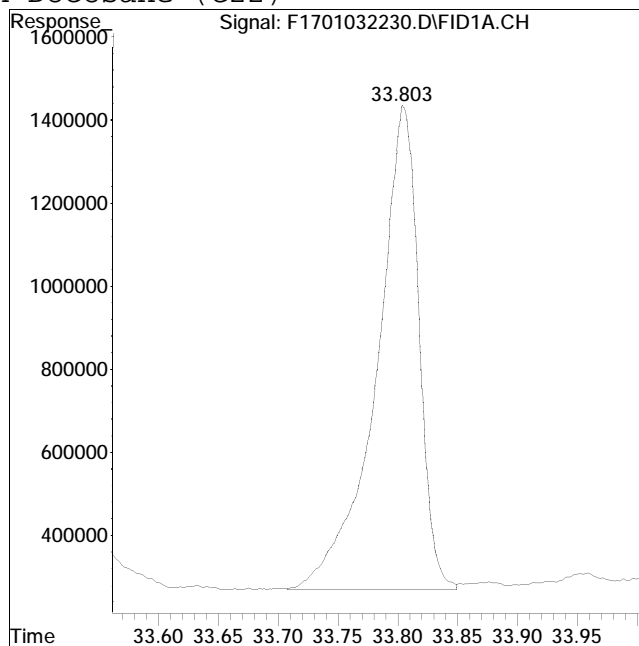
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032230.D Operator : FID17:WR
Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 28345243



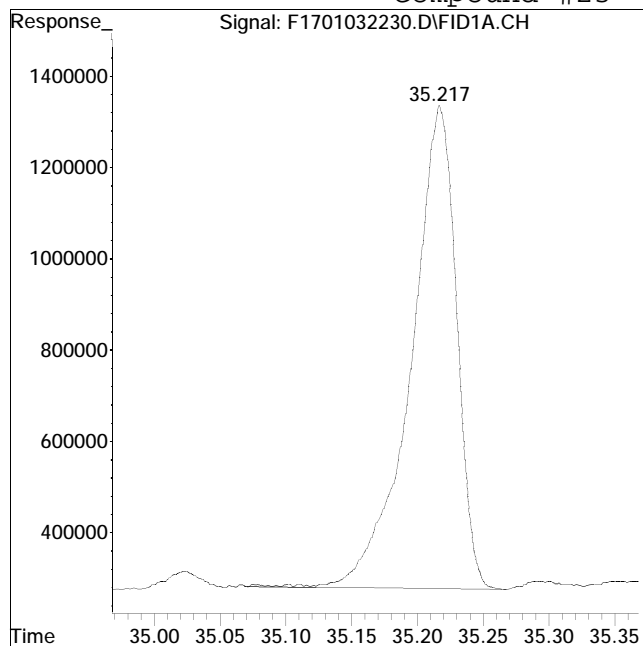
Manual Peak Response = 28708573 M4

M4 = Poor automated baseline construction.

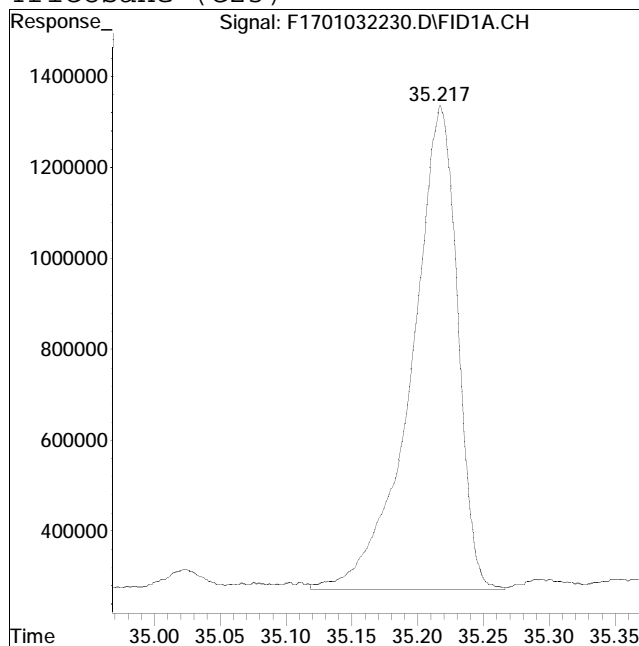
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032230.D Operator : FID17:WR
Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 25423256



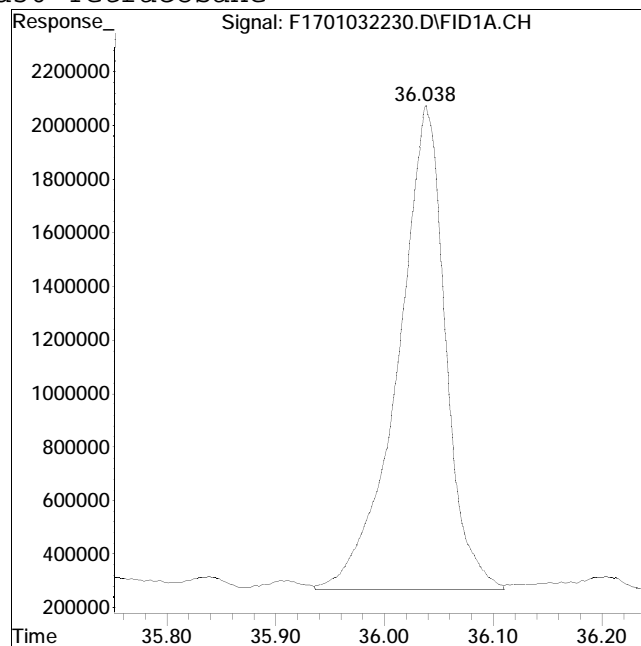
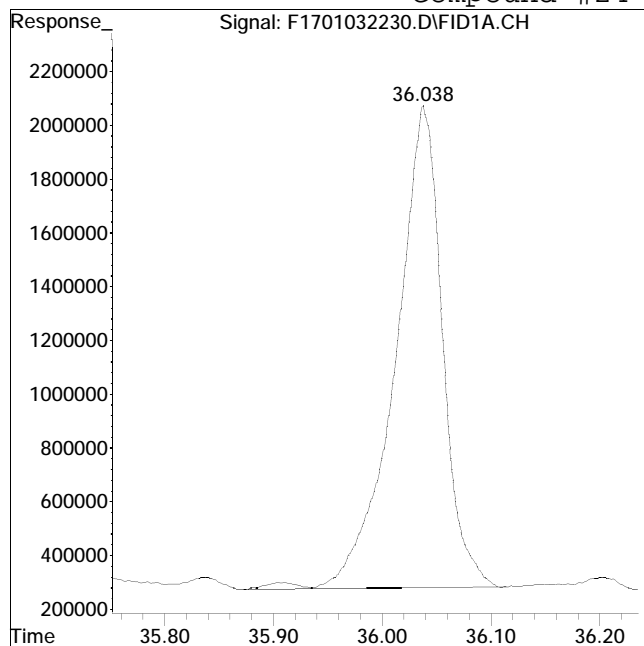
Manual Peak Response = 26050374 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #24: d50-Tetracosane



Original Peak Response = 54016254

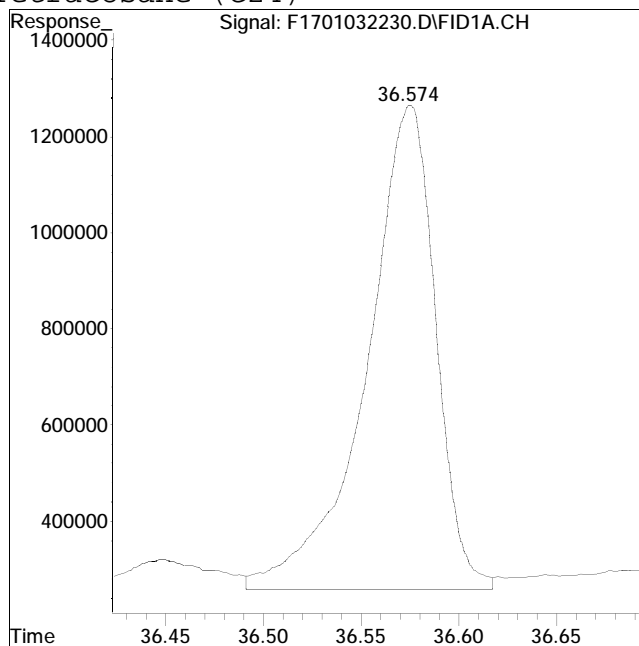
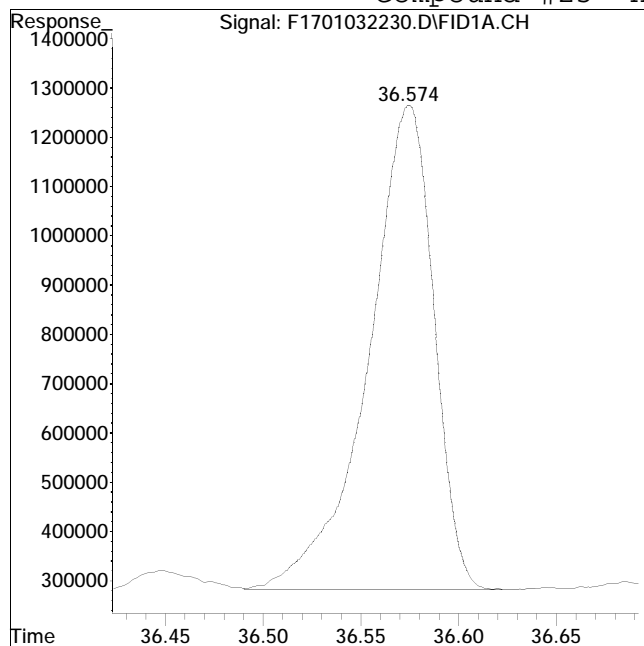
Manual Peak Response = 55007907 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 22976027

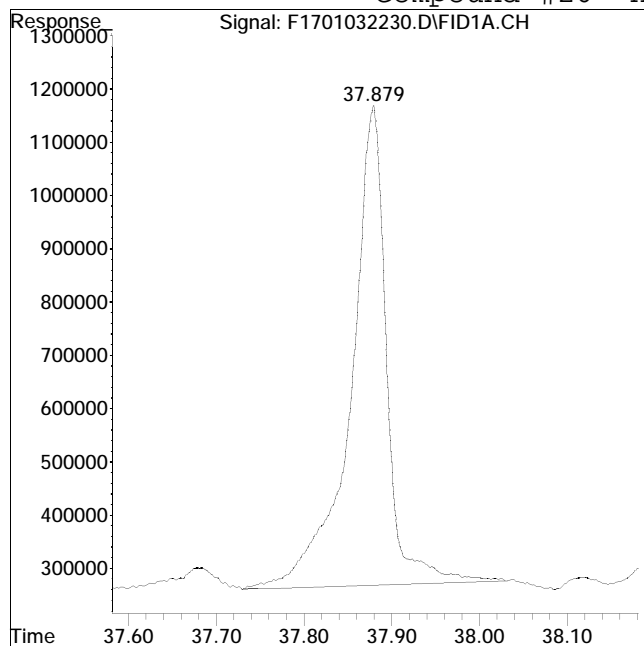
Manual Peak Response = 24861072 M4

M4 = Poor automated baseline construction.

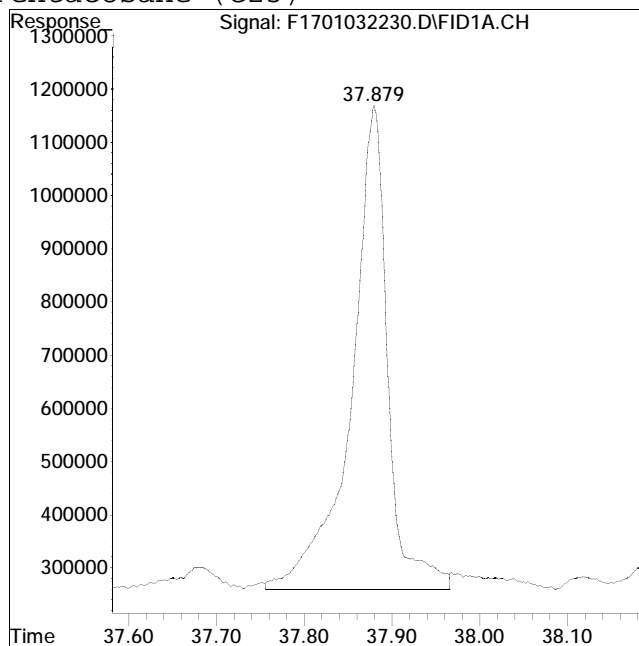
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 25524586



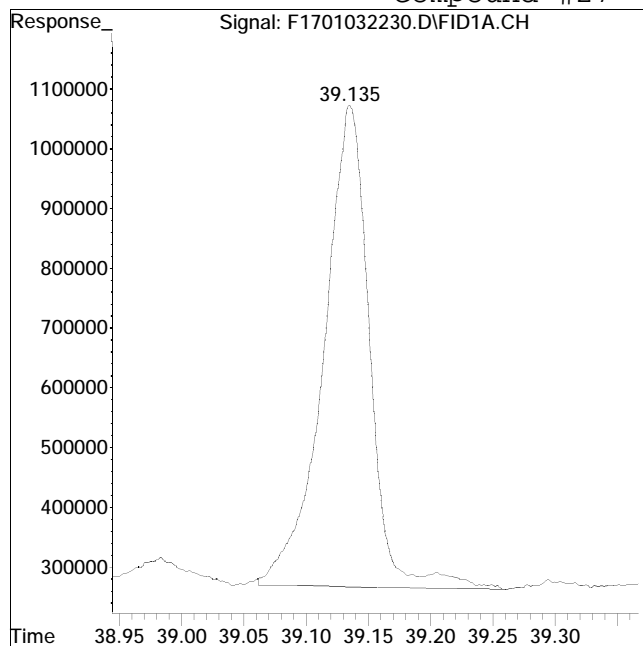
Manual Peak Response = 26244319 M4

M4 = Poor automated baseline construction.

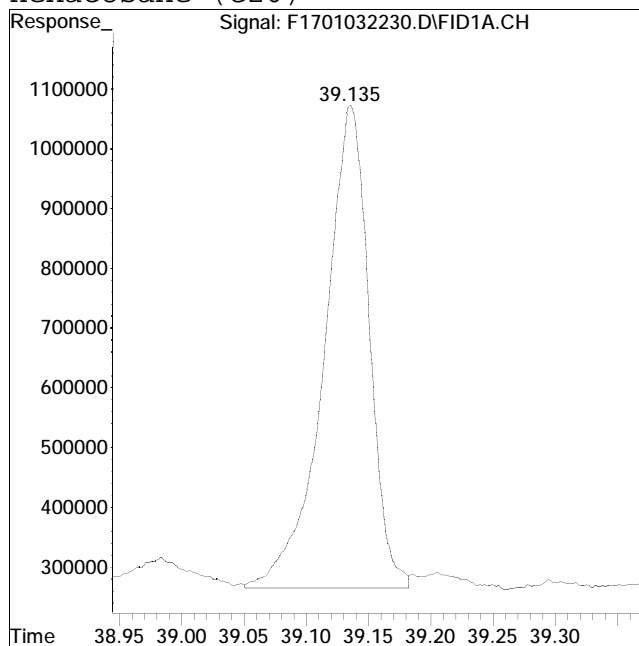
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 20763158



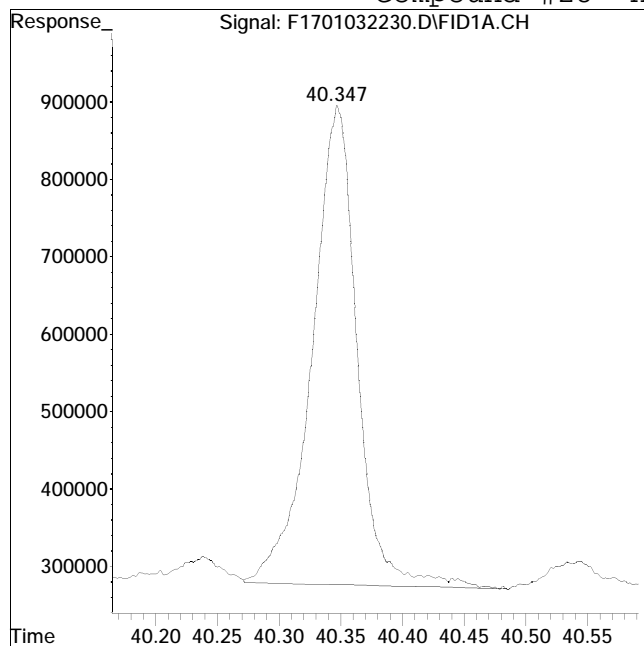
Manual Peak Response = 20328209 M4

M4 = Poor automated baseline construction.

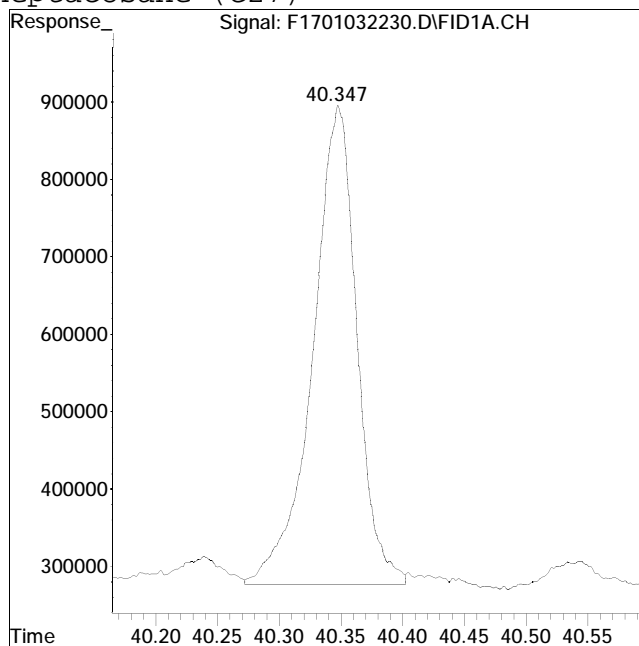
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 15785166



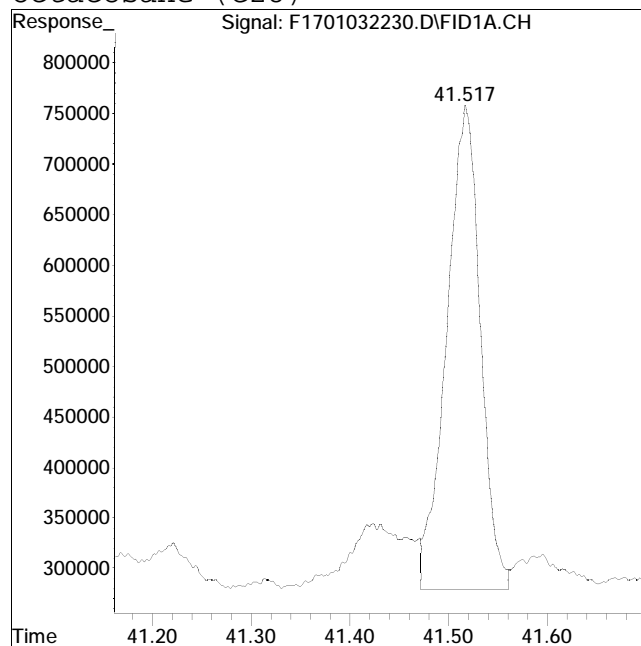
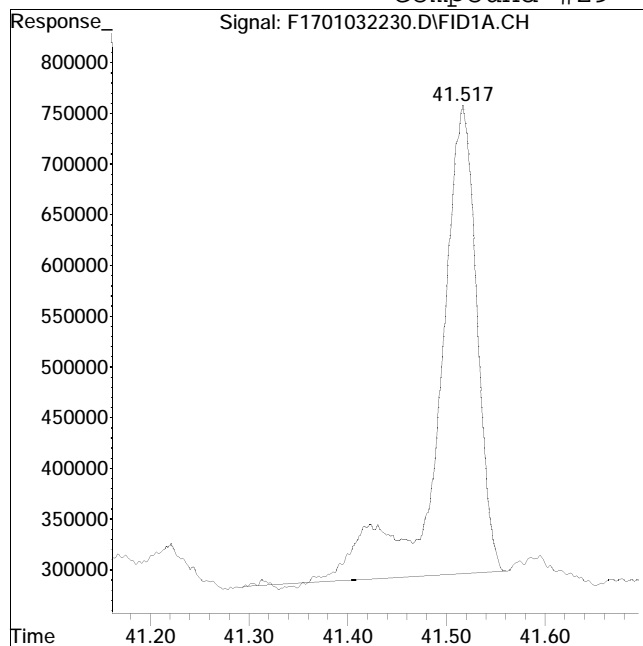
Manual Peak Response = 15325939 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 12361139

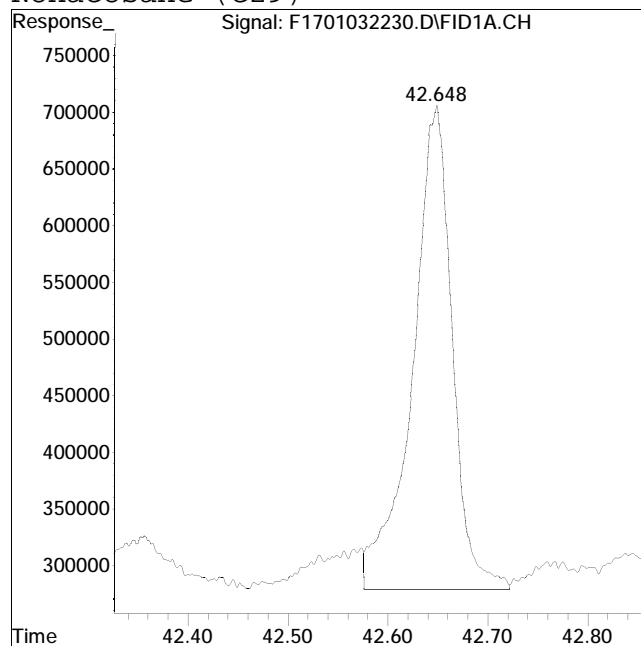
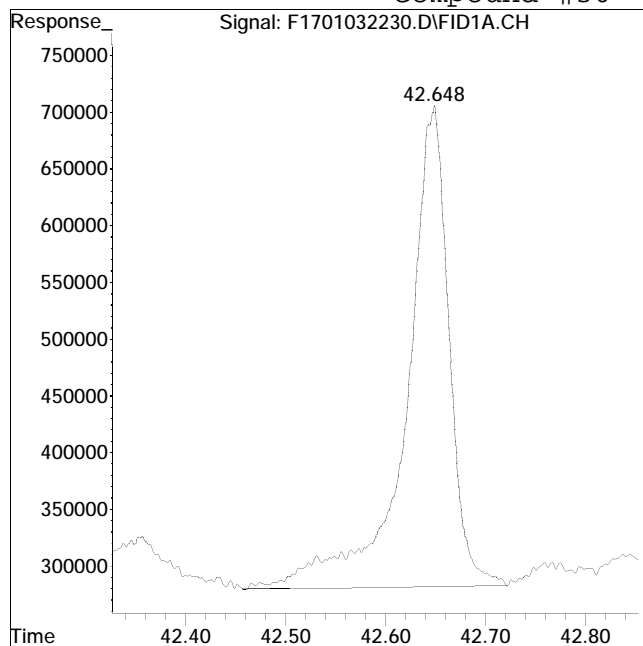
Manual Peak Response = 11352814 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032230.D Operator : FID17:WR
Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 12665034

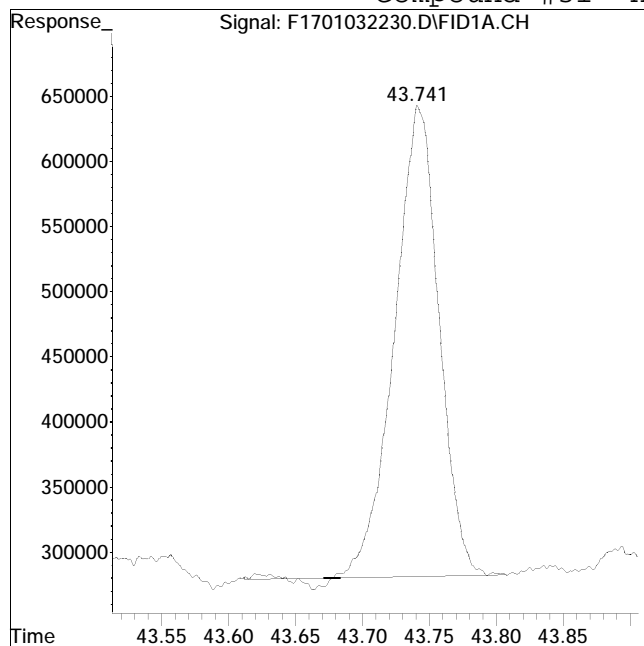
Manual Peak Response = 11806666 M4

M4 = Poor automated baseline construction.

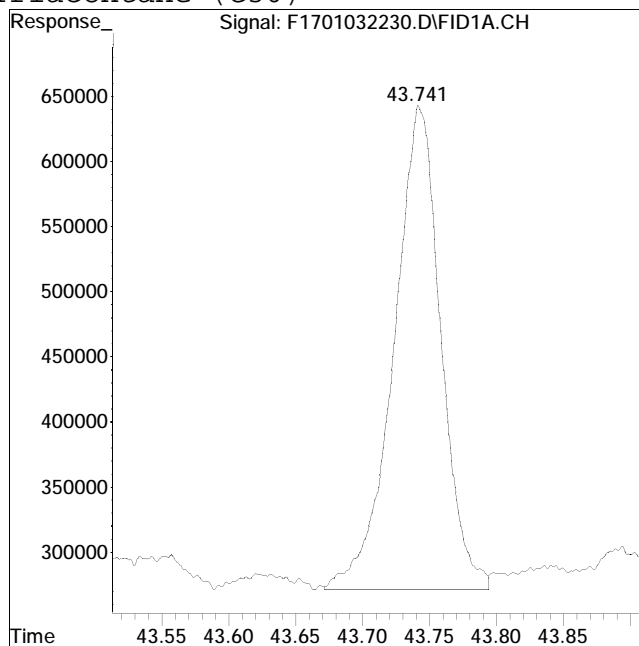
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 8313829



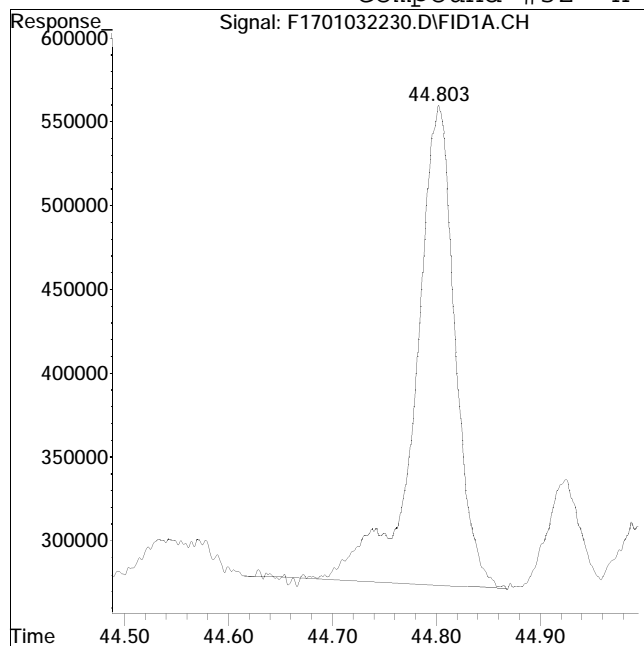
Manual Peak Response = 9095114 M4

M4 = Poor automated baseline construction.

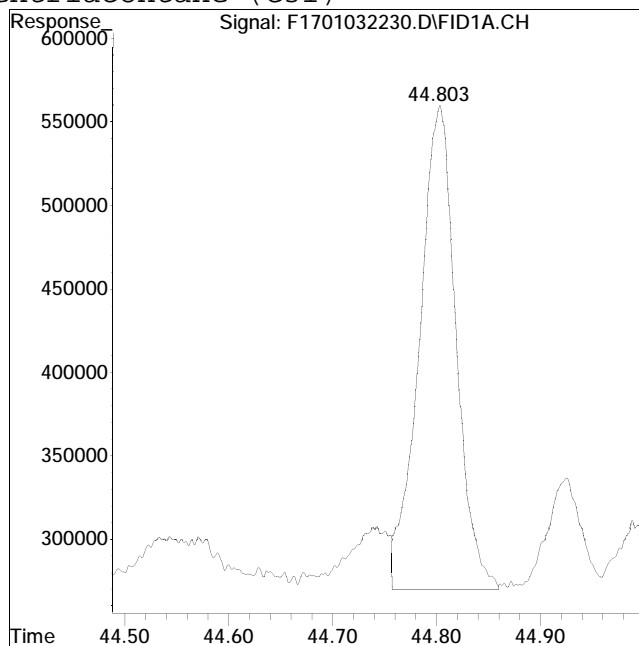
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032230.D Operator : FID17:WR
Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 7667823



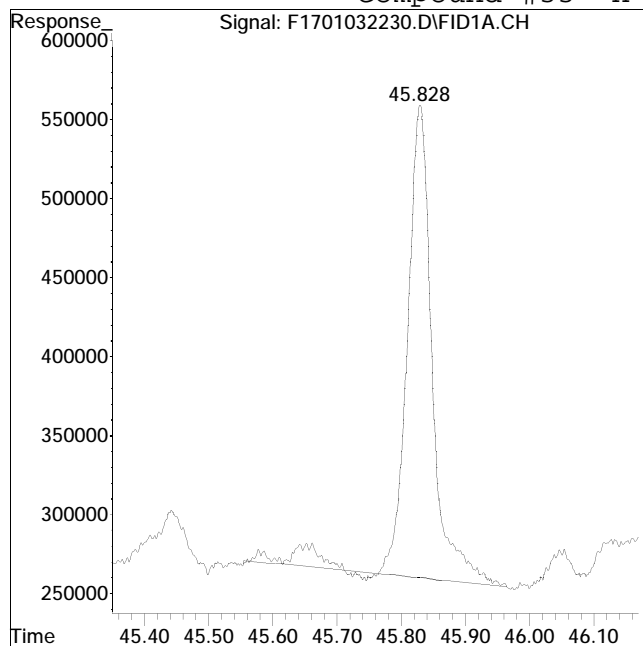
Manual Peak Response = 7146491 M4

M4 = Poor automated baseline construction.

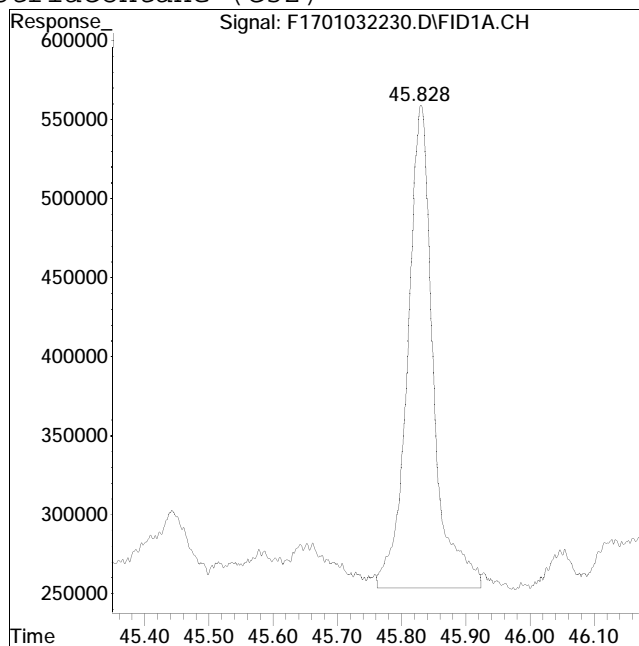
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032230.D Operator : FID17:WR
Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 8398083



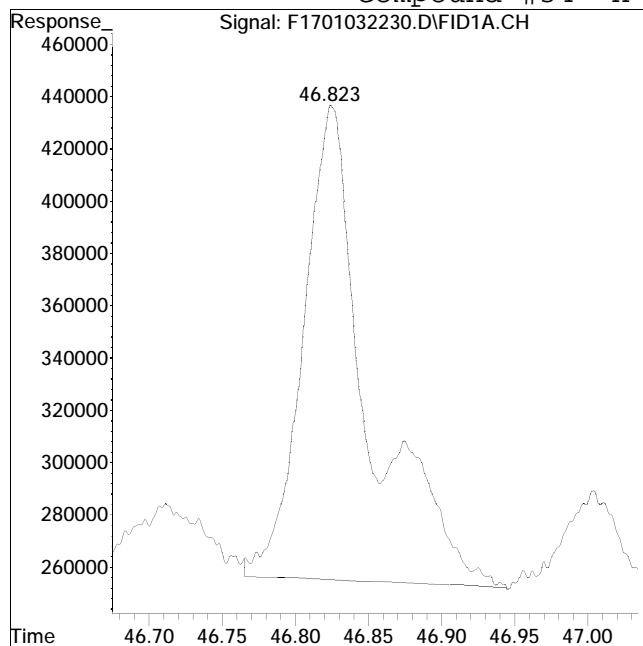
Manual Peak Response = 8489277 M4

M4 = Poor automated baseline construction.

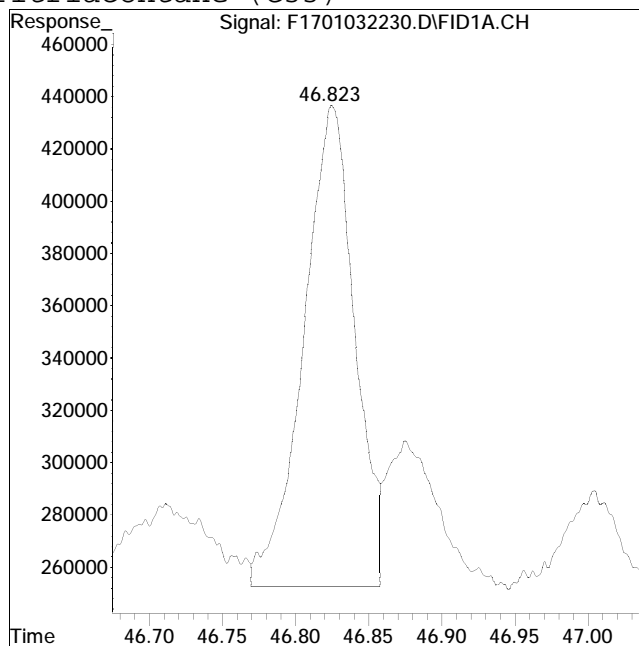
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032230.D Operator : FID17:WR
Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 5675198



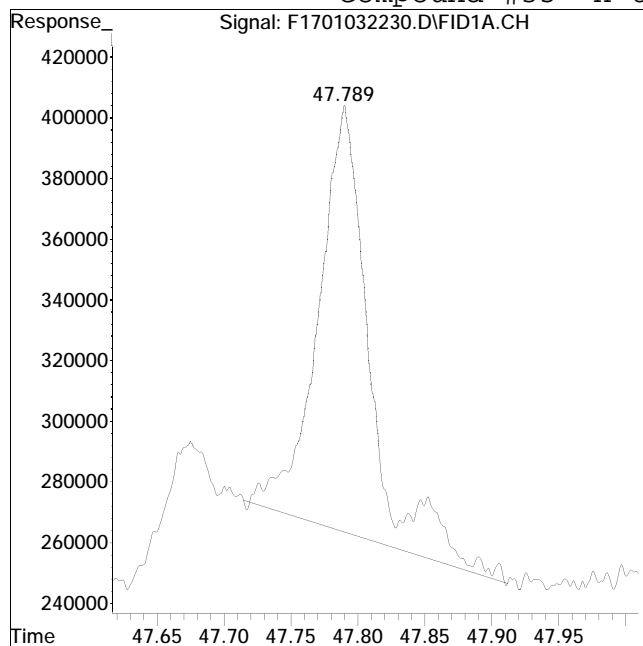
Manual Peak Response = 4500954 M4

M4 = Poor automated baseline construction.

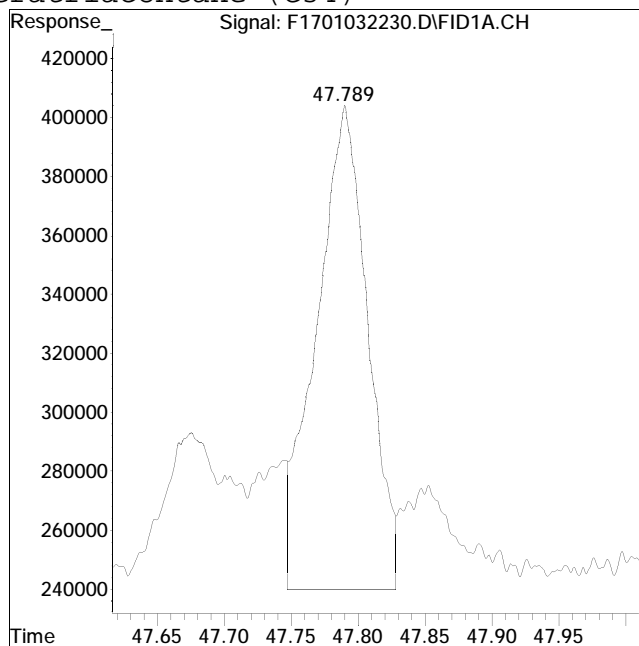
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 3793159



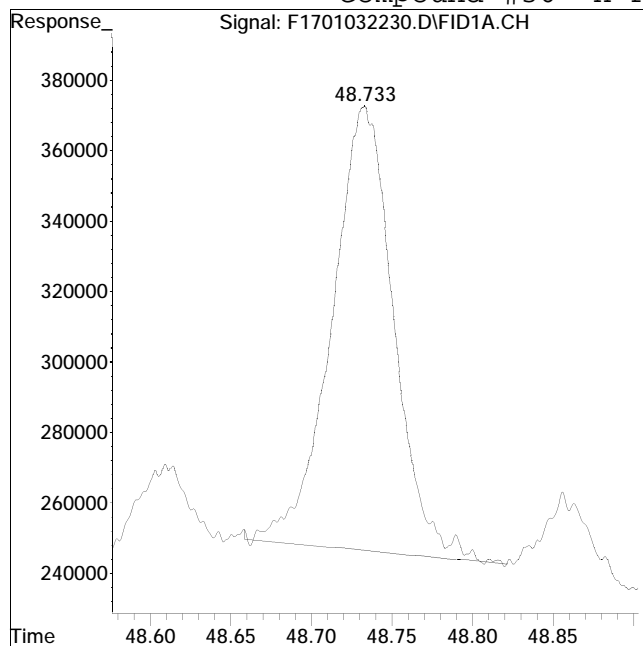
Manual Peak Response = 4414395 M4

M4 = Poor automated baseline construction.

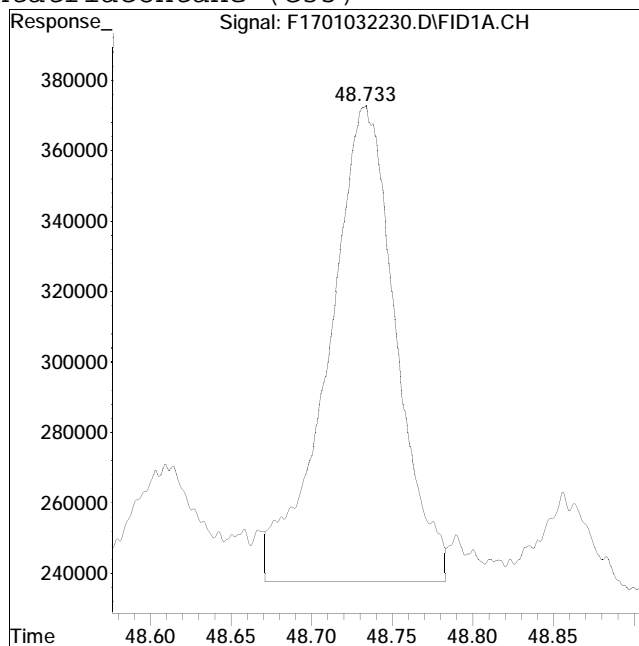
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032230.D Operator : FID17:WR
Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 3385822



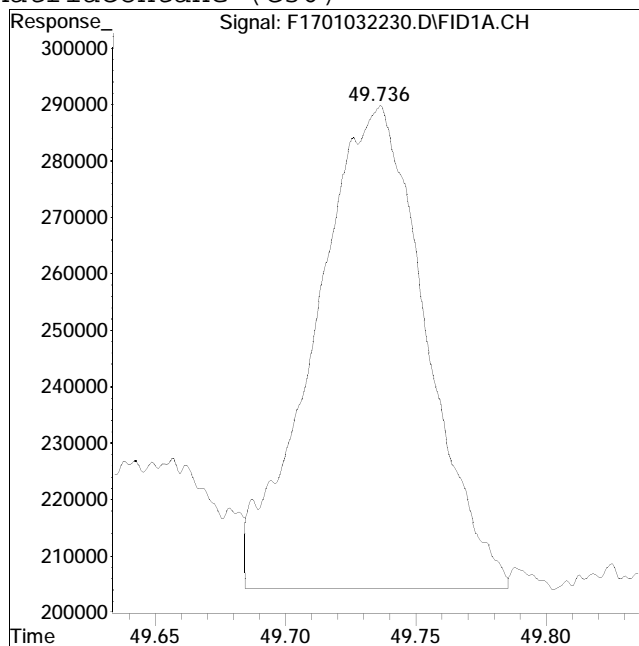
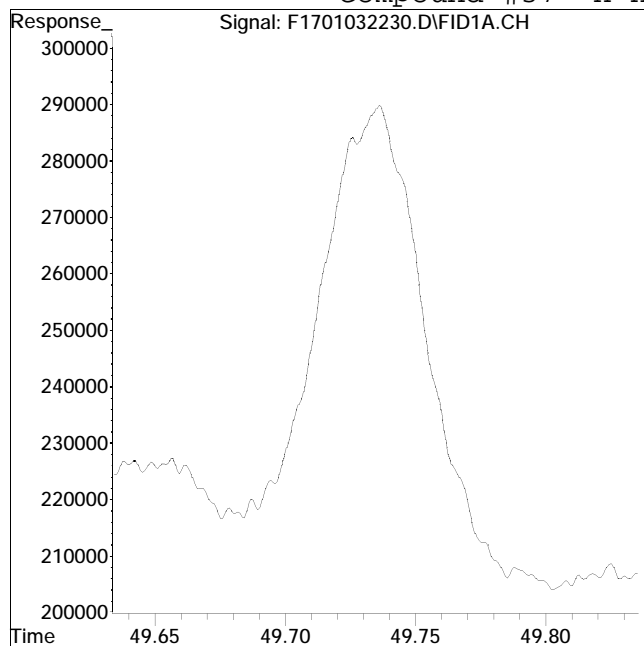
Manual Peak Response = 3935490 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 0

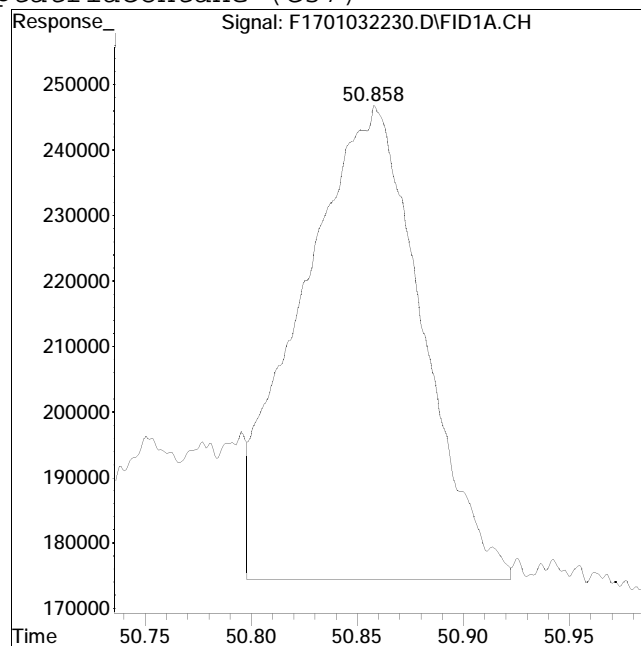
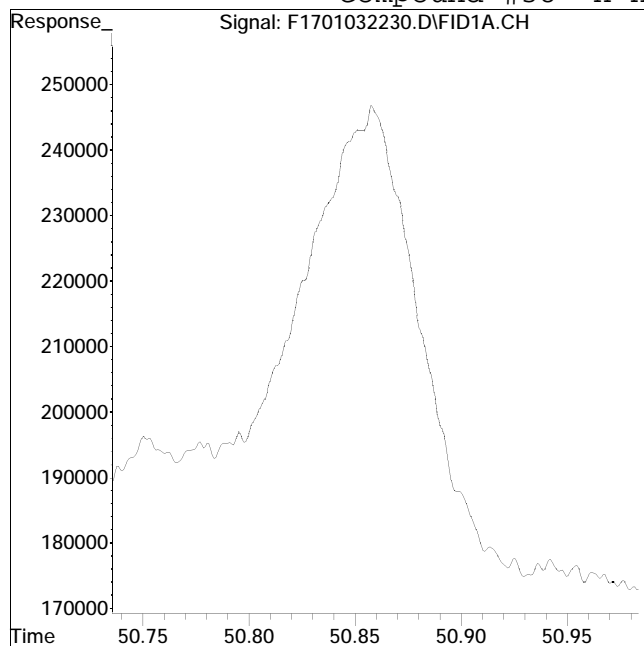
Manual Peak Response = 2534403 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032230.D Operator : FID17:WR
Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 0

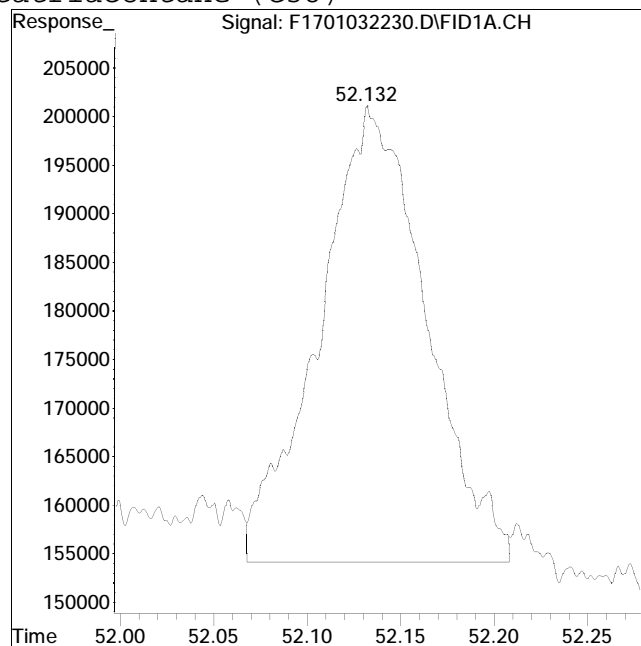
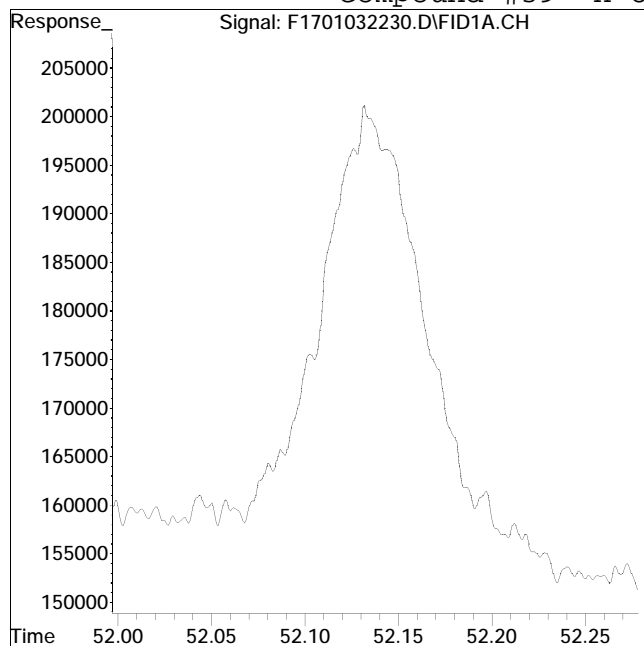
Manual Peak Response = 2869494 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 0

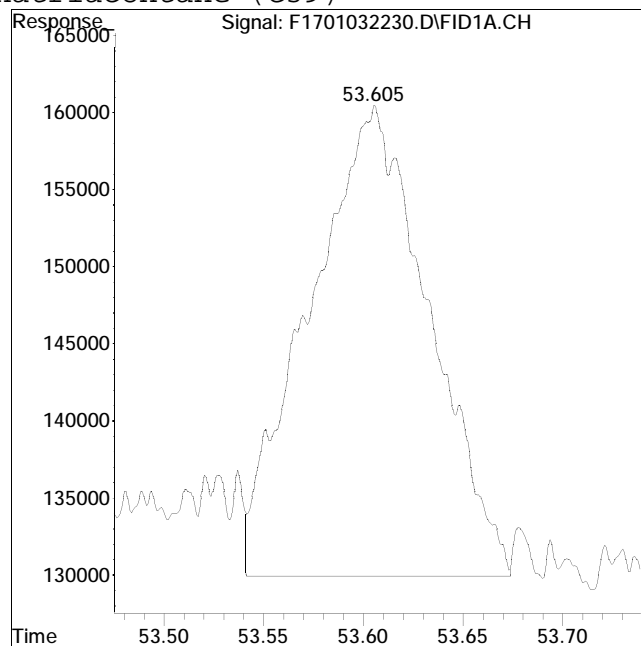
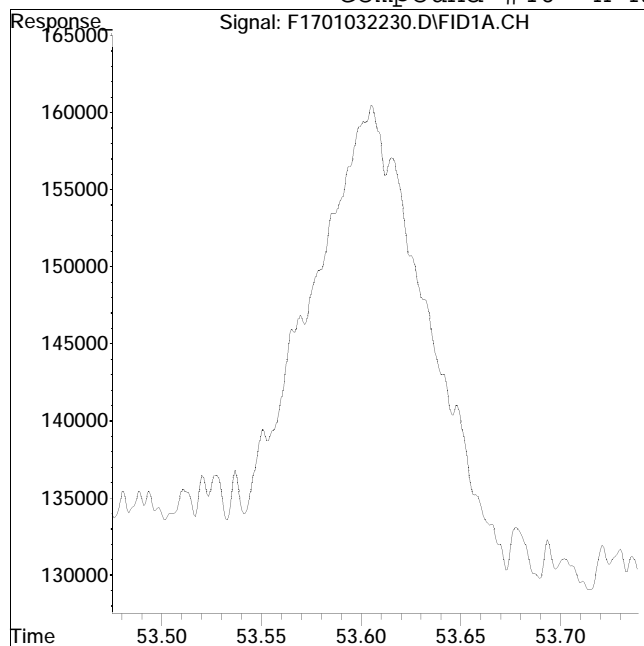
Manual Peak Response = 1868644 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\2023QMethod : HC17010323F_DRO.M
Data File : F1701032230.D Operator : FID17:WR
Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #40: n-Nonatriacontane (C39)



Original Peak Response = 0

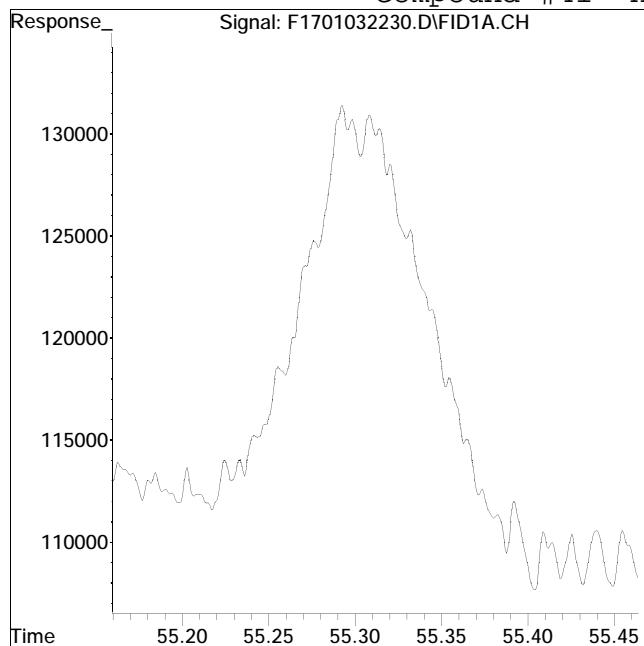
Manual Peak Response = 1275854 M4

M4 = Poor automated baseline construction.

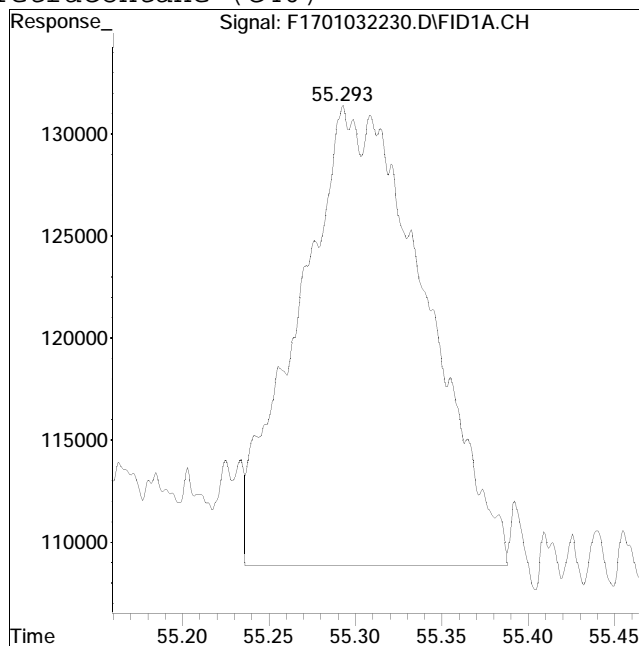
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
Data File : F1701032230.D Operator : FID17:WR
Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 0



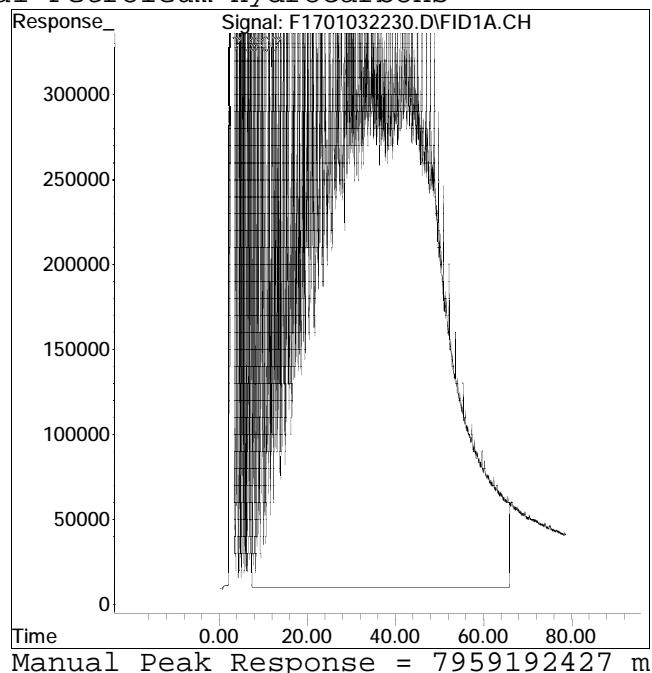
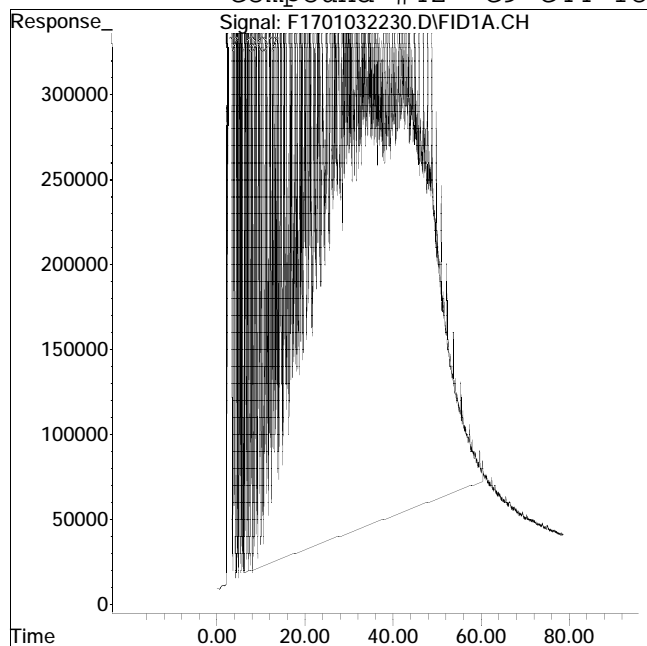
Manual Peak Response = 114596.3 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

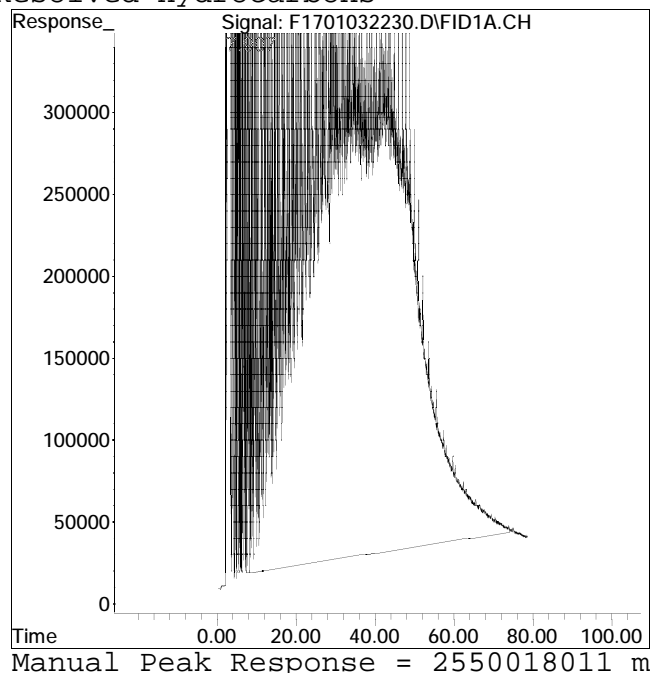
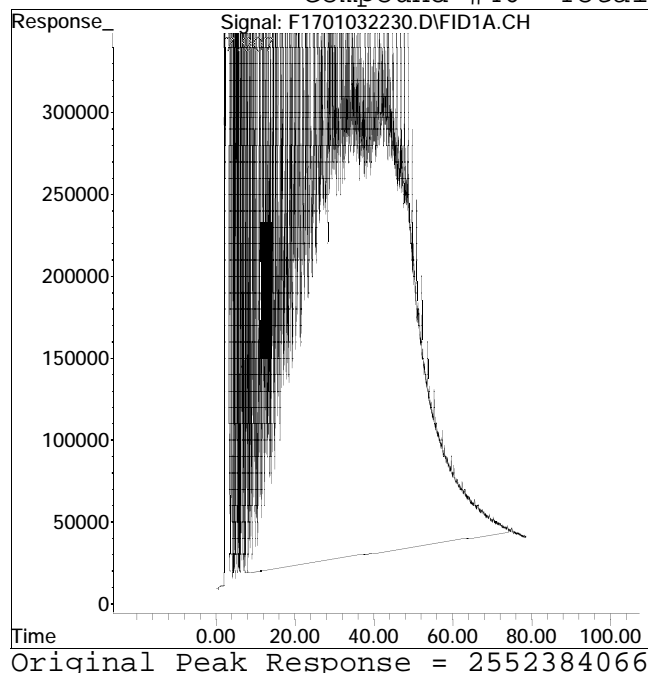
Compound #42: C9-C44 Total Petroleum Hydrocarbons



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID17\202QMethod : HC17010323F_DRO.M
 Data File : F1701032230.D Operator : FID17:WR
 Date Inj'd : 1/4/2023 6:42 am Instrument : FID17
 Sample : WG1734833-1,0.10296 Quant Date : 1/18/2023 3:32 pm

Compound #46: Total Resolved Hydrocarbons



Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03\
 Data File : F1701032228.D
 Signal(s) : FID1A.CH
 Acq On : 04 Jan 2023 5:12 am
 Operator : FID17:WR
 Sample : IB1701032301F
 Misc :
 ALS Vial : 14 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Jan 18 15:40:38 2023
 Quant Method : O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Jan 18 15:05:06 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : TPH - TPH

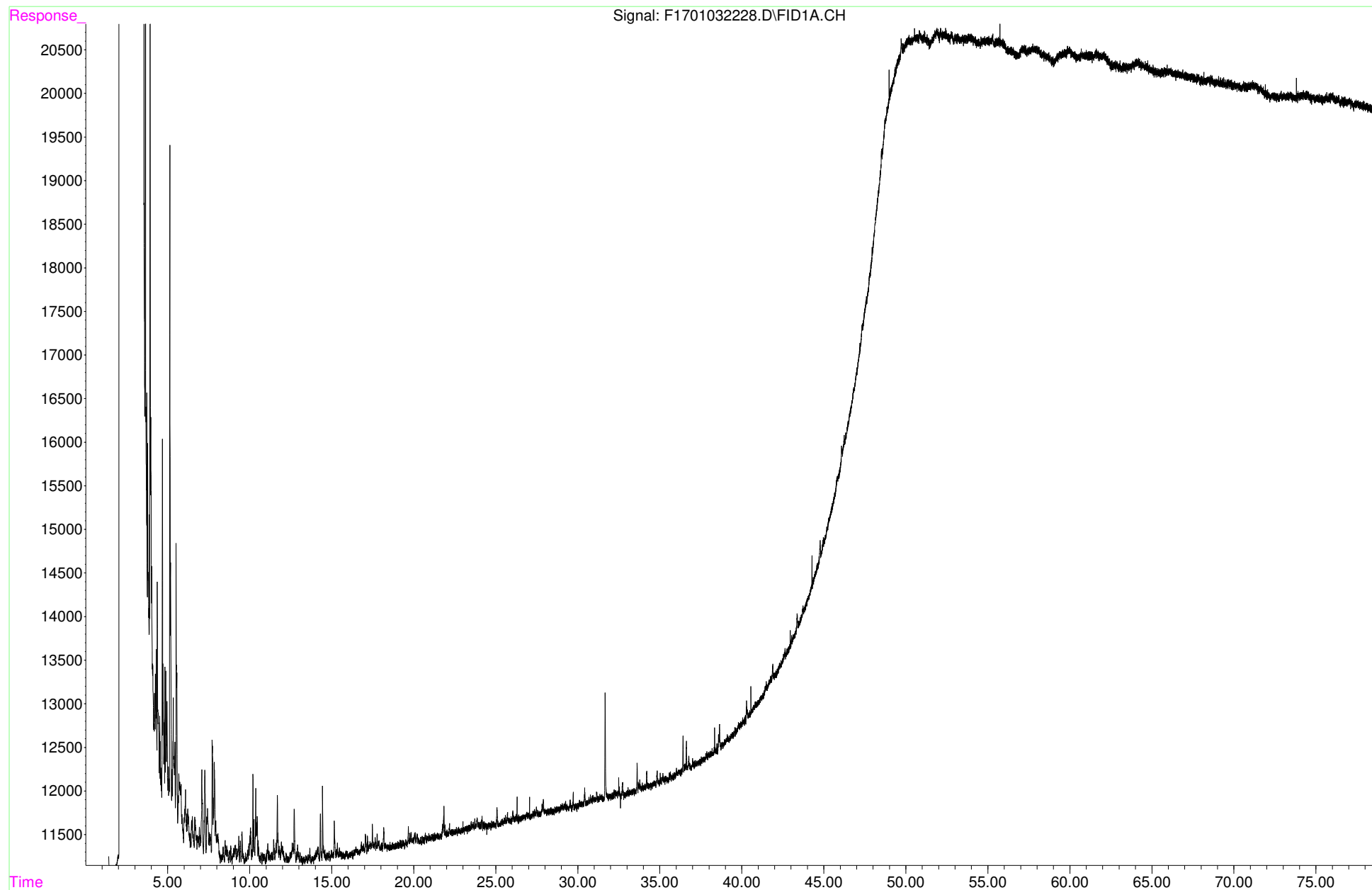
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I 5-alpha-androstane	31.426	1309	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
24) s d50-Tetracosane	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
Target Compounds			
42) h C9-C44 Total Petroleu...	36.700	157945695	6440505.707 ug/mL M5
46) h Total Resolved Hydroc...	40.681	968350	39486.137 ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

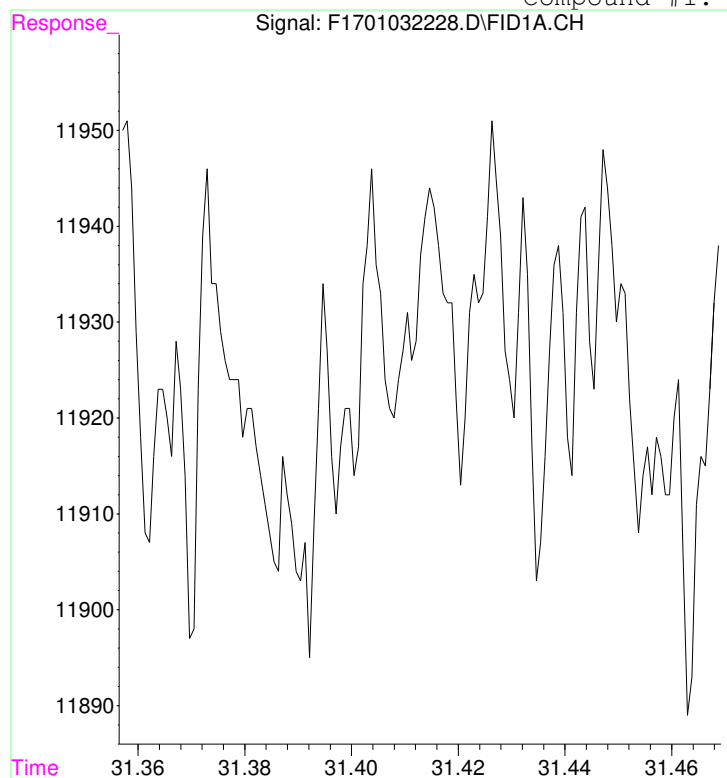
(m)=manual int.

File :O:\Forensics\Data\FID17\2023\JAN\JAN03\F1701032228.D
Operator : FID17:WR
Acquired : 04 Jan 2023 5:12 am using AcqMethod FID17A.M
Sample Name: IB1701032301F
Instrument: FID17
Misc Info :
Vial Number: 14
CurrentMeth: O:\Forensics\Data\FID17\2023\JAN\JAN03\HC17010323F_DRO.M



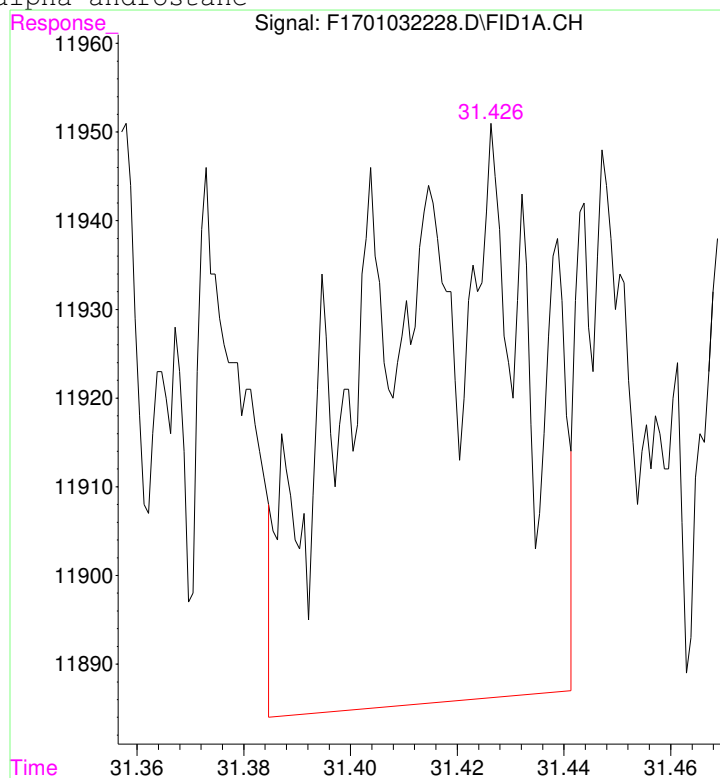
Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03QMethod : HC17010323F_DRO.M
Data File : F1701032228.D Operator : FID17:WR
Date Inj'd : 1/4/2023 5:12 am Instrument : FID17
Sample : IB1701032301F Quant Date : 1/18/2023 3:39 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 0

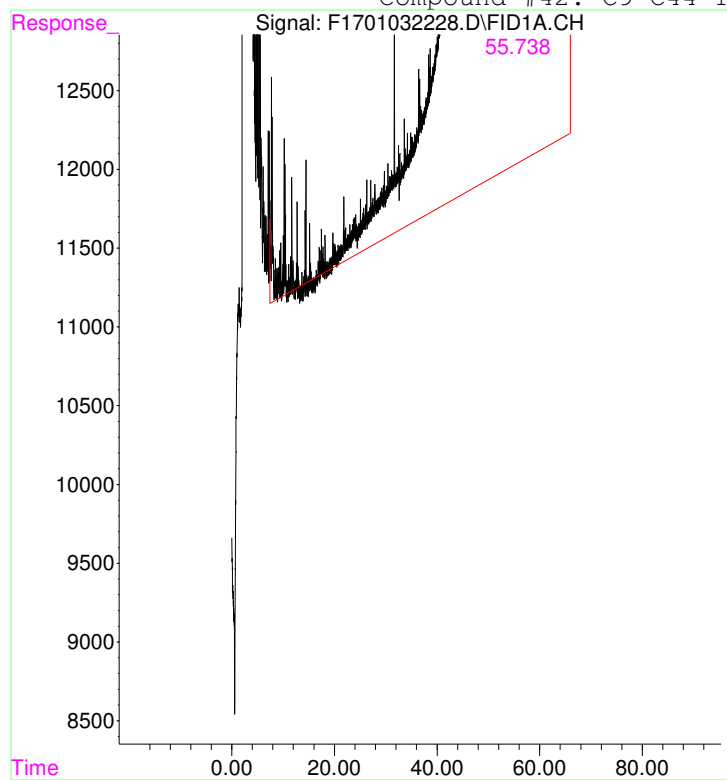
M4 = Poor automated baseline construction.



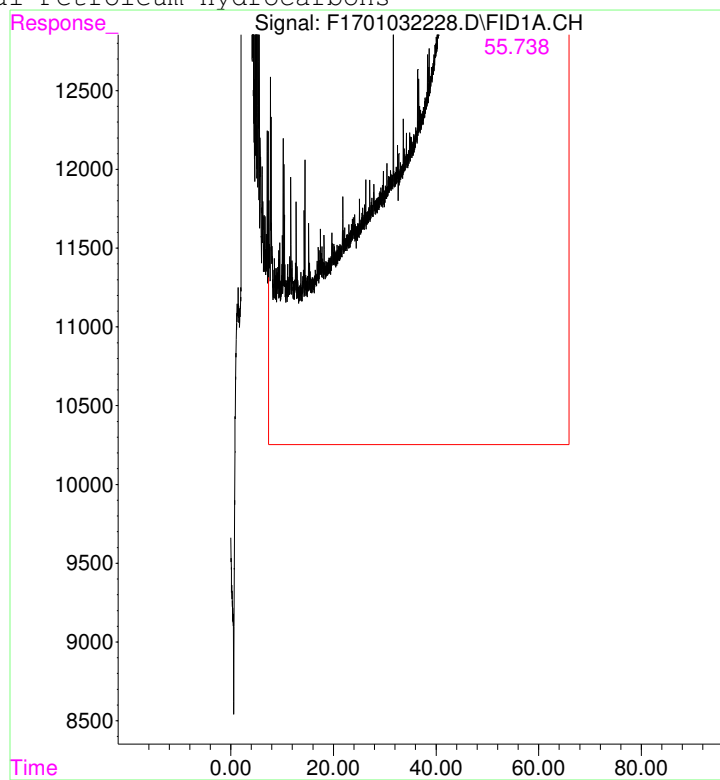
Manual Peak Response = 1309 M4

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03QMethod : HC17010323F_DRO.M
Data File : F1701032228.D Operator : FID17:WR
Date Inj'd : 1/4/2023 5:12 am Instrument : FID17
Sample : IB1701032301F Quant Date : 1/18/2023 3:39 pm

Compound #42: C9-C44 Total Petroleum Hydrocarbons



Original Peak Response = 108154319

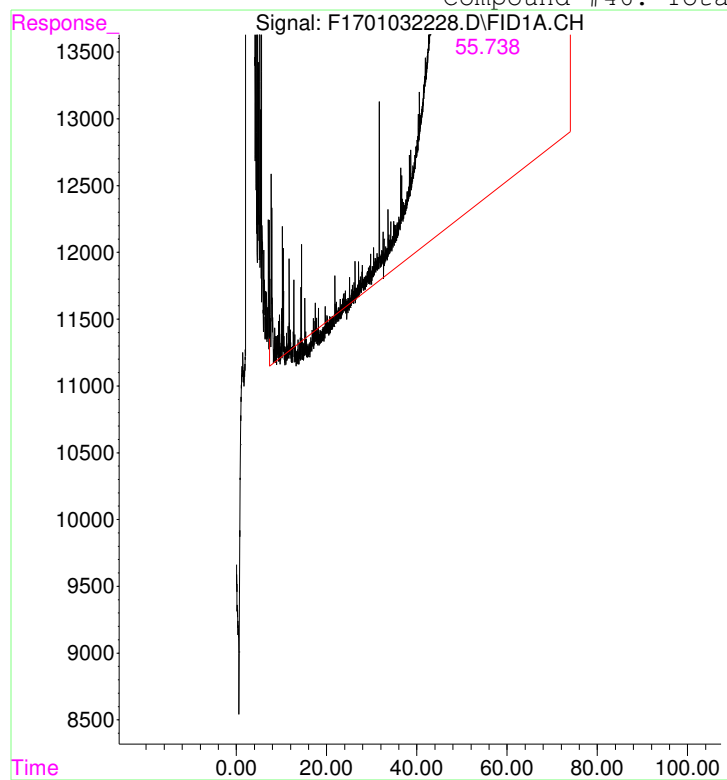


Manual Peak Response = 157945695 M5

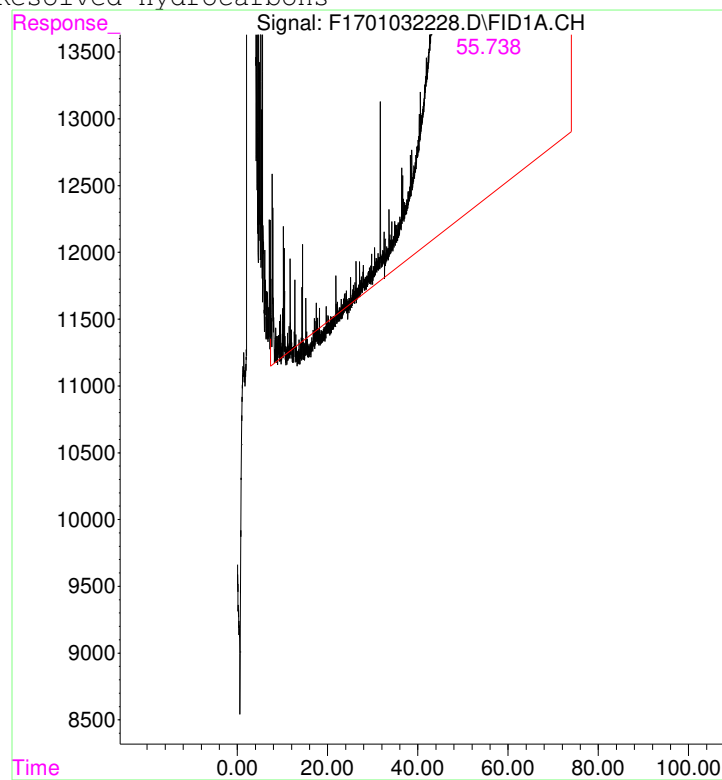
M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Data Path : O:\Forensics\Data\FID17\2023\JAN\JAN03QMethod : HC17010323F_DRO.M
Data File : F1701032228.D Operator : FID17:WR
Date Inj'd : 1/4/2023 5:12 am Instrument : FID17
Sample : IB1701032301F Quant Date : 1/18/2023 3:39 pm

Compound #46: Total Resolved Hydrocarbons



Original Peak Response = 968350



Manual Peak Response = 968350 m

Response Factor Report FID6

Method Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Method File : HC6012023R_DRO.M
 Title : FID Forensics
 Last Update : Wed Mar 08 11:43:27 2023
 Response Via : Initial Calibration

Calibration Files

1 =F601202311.D 10 =F601202313.D 50 =F601202315.D 100 =F601202317.D 200 =F601202319.D
 500 =F601202321.D

Compound		1	10	50	100	200	500	Avg	%RSD
-----		-----							
1) I	5-alpha-androstane	-----ISTD-----							
2) t	n-Octane (C8)	0.822	0.859	0.890	0.837	0.801		0.842	4.10
3) t	n-Nonane (C9)	0.834	0.869	0.907	0.850	0.812		0.854	4.21
4) t	n-Decane (C10)	0.856	0.890	0.920	0.877	0.844		0.877	3.37
5) t	n-Undecane (C11)	0.855	0.889	0.929	0.874	0.843		0.878	3.83
6) t	n-Dodecane (C12)	0.878	0.901	0.928	0.882	0.850		0.888	3.26
7) t	n-Tridecane (...)	0.884	0.907	0.936	0.882	0.850		0.892	3.60
8) t	1380	0.915	0.936	0.955	0.904	0.870		0.916	3.54
9) t	n-Tetradecane...	0.915	0.936	0.955	0.904	0.870		0.916	3.54
10) t	1470	0.928	0.944	0.950	0.909	0.874		0.921	3.35
11) t	n-Pentadecane...	0.928	0.944	0.950	0.909	0.874		0.921	3.35
12) t	n-Hexadecane ...	0.927	0.940	0.969	0.902	0.867		0.921	4.21
13) t	1650	0.941	0.955	0.980	0.915	0.880		0.934	4.13
14) t	n-Heptadecane...	0.941	0.955	0.980	0.915	0.880		0.934	4.13
15) t	Pristane	0.962	0.975	0.996	0.930	0.892		0.951	4.30
16) t	n-Octadecane ...	0.955	0.969	0.990	0.925	0.890		0.946	4.13
17) t	Phytane	0.889	0.902	0.927	0.857	0.826		0.880	4.46
18) t	n-Nonadecane ...	0.963	0.979	0.987	0.928	0.896		0.951	4.01
19) s	ortho-terphenyl	1.066	1.034	1.145	1.015	0.982	1.061	1.050	5.29
20) t	n-Eicosane (C20)	0.974	0.986	1.009	0.935	0.903		0.961	4.40
21) t	n-Heneicosane...	0.978	0.994	1.004	0.940	0.907		0.965	4.17
22) t	n-Docosane (C22)	0.986	0.997	1.023	0.940	0.906		0.971	4.82
23) t	n-Tricosane (...)	0.984	0.999	1.024	0.941	0.906		0.971	4.84
24) s	d50-Tetracosane	0.876	0.849	0.938	0.819	0.789	0.860	0.855	5.99
25) t	n-Tetracosane...	0.981	0.998	0.974	0.939	0.902		0.959	3.98
26) t	n-Pentacosane...	0.970	0.984	1.010	0.925	0.888		0.955	5.12
27) t	n-Hexacosane ...	0.991	1.013	1.040	0.949	0.910		0.981	5.26
28) t	n-Heptacosane...	0.994	1.014	1.003	0.948	0.909		0.974	4.52
29) t	n-Octacosane ...	1.020	1.036	1.049	0.968	0.928		1.000	5.04
30) t	n-Nonacosane ...	1.008	1.030	1.037	0.957	0.923		0.991	4.96
31) t	n-Triacontane...	1.010	1.032	1.038	0.957	0.927		0.993	4.91

Response Factor Report FID6

Method Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Method File : HC6012023R_DRO.M
 Title : FID Forensics
 Last Update : Wed Mar 08 11:43:27 2023
 Response Via : Initial Calibration

Calibration Files

1 =F601202311.D 10 =F601202313.D 50 =F601202315.D 100 =F601202317.D 200 =F601202319.D
 500 =F601202321.D

	Compound	1	10	50	100	200	500	Avg	%RSD
32) t	n-Hentriacont...	0.972	0.993	1.003	0.919	0.895		0.957	4.94
33) t	n-Dotriaconta...	1.019	1.041	1.050	0.960	0.943		1.003	4.82
34) t	n-Tritriacont...	0.983	1.008	1.011	0.931	0.919		0.970	4.45
35) t	n-tetratriaco...	0.988	1.001	1.007	0.925	0.917		0.967	4.45
36) t	n-Pentatriaco...	0.910	0.935	1.017	0.865	0.856		0.917	7.05
37) t	n-Hexatriacon...	1.112	1.124	1.097	1.045	1.025		1.081	3.99
38) t	n-Heptatriaco...	1.002	1.022	1.014	0.954	0.920		0.982	4.44
39) t	n-Octatriacon...	1.042	1.034	1.051	0.970	0.917		1.003	5.74
40) t	n-Nonatriacon...	0.989	1.019	1.062	0.962	0.873		0.981	7.20
41) t	n-Tetracontan...	0.989	1.019	1.062	0.962	0.873		0.981	7.20
42) h	C9-C44 Total ...	0.961	0.979	0.997	0.926	0.893		0.951	4.39
43) h	C10-C25 DRO	0.961	0.979	0.997	0.926	0.893		0.951	4.39
44) h	C25-C44 ORO	0.961	0.979	0.997	0.926	0.893		0.951	4.39
45) h	C9-C40 Total ...	0.961	0.979	0.997	0.926	0.893		0.951	4.39
46) h	C10-C28 DRO	0.946	0.965	0.983	0.920	0.885		0.940	4.08
47) h	C8-C40 Total ...	0.961	0.979	0.997	0.926	0.893		0.951	4.39
48) h	C28-C40 ORO	1.005	1.023	1.036	0.951	0.920		0.987	5.00
49) h	Total Resolve...	0.961	0.979	0.997	0.926	0.893		0.951	4.39

 (#) = Out of Range

RFupdate_HC6012023R_DRO

RSF Update Summary Report

Method Path.....: O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Method File.....: HC6012023R_DRO.M
 Method Title.....: FID Forensics
 Last Update.....: Tue Mar 07 17:10:29 2023

Generating Average Response Factor For: C9-C44 Total Petroleum Hydroca

No	Compound	Level	Conc	Response
1	n-Nonane (C9)	1	1.00000	789436.284
2	n-Decane (C10)	1	1.00000	810287.491
3	n-Undecane (C11)	1	1.00000	809687.811
4	n-Dodecane (C12)	1	1.00000	831271.025
5	n-Tridecane (C13)	1	1.00000	836447.350
6	n-Tetradecane (C14)	1	1.00000	866348.406
7	n-Pentadecane (C15)	1	1.00000	878395.581
8	n-Hexadecane (C16)	1	1.00000	877562.521
9	n-Heptadecane (C17)	1	1.00000	891032.306
10	Pristane	1	1.00000	910812.976
11	n-Octadecane (C18)	1	1.00000	904262.924
12	Phytane	1	1.00000	841377.150
13	n-Nonadecane (C19)	1	1.00000	911788.773
14	n-Eicosane (C20)	1	1.00000	921996.961
15	n-Heneicosane (C21)	1	1.00000	925821.319
16	n-Docosane (C22)	1	1.00000	933769.507
17	n-Tricosane (C23)	1	1.00000	931358.751
18	n-Tetracosane (C24)	1	1.00000	928454.749
19	n-Pentacosane (C25)	1	1.00000	918099.159
20	n-Hexacosane (C26)	1	1.00000	938342.785
21	n-Heptacosane (C27)	1	1.00000	940655.442
22	n-Octacosane (C28)	1	1.00000	965579.595
23	n-Nonacosane (C29)	1	1.00000	954501.817
24	n-Triacontane (C30)	1	1.00000	956278.467
25	n-Hentriacontane (C31)	1	1.00000	920041.883
26	n-Dotriacontane (C32)	1	1.00000	964437.823
27	n-Tritriacontane (C33)	1	1.00000	930249.330
28	n-tetratriacontane (C34)	1	1.00000	935061.014
29	n-Pentatriacontane (C35)	1	1.00000	861837.374
30	n-Hexatriacontane (C36)	1	1.00000	1052292.908
31	n-Heptatriacontane (C37)	1	1.00000	947987.267
32	n-Octatriacontane (C38)	1	1.00000	985977.740
33	n-Tetracontane (C40)	1	1.00000	935857.488
Avg RSF For: C9-C44 Total Petroleum			1.00000	909312.484

1	n-Nonane (C9)	2	10.00000	7805006.595
2	n-Decane (C10)	2	10.00000	7996903.793
3	n-Undecane (C11)	2	10.00000	7984833.761
4	n-Dodecane (C12)	2	10.00000	8094873.519
5	n-Tridecane (C13)	2	10.00000	8149648.693
6	n-Tetradecane (C14)	2	10.00000	8403608.824
7	n-Pentadecane (C15)	2	10.00000	8482151.949
8	n-Hexadecane (C16)	2	10.00000	8442888.224
9	n-Heptadecane (C17)	2	10.00000	8580438.865
10	Pristane	2	10.00000	8761810.401
11	n-Octadecane (C18)	2	10.00000	8700477.434

RFupdate_HC6012023R_DRO				
12	Phytane	2	10.00000	8097839.838
13	n-Nonadecane (C19)	2	10.00000	8792972.722
14	n-Eicosane (C20)	2	10.00000	8859419.638
15	n-Heneicosane (C21)	2	10.00000	8930567.437
16	n-Docosane (C22)	2	10.00000	8953314.610
17	n-Tricosane (C23)	2	10.00000	8976817.849
18	n-Tetracosane (C24)	2	10.00000	8967477.236
19	n-Pentacosane (C25)	2	10.00000	8842791.837
20	n-Hexacosane (C26)	2	10.00000	9094786.094
21	n-Heptacosane (C27)	2	10.00000	9110369.831
22	n-Octacosane (C28)	2	10.00000	9301649.609
23	n-Nonacosane (C29)	2	10.00000	9248577.726
24	n-Triacontane (C30)	2	10.00000	9267199.949
25	n-Hentriacontane (C31)	2	10.00000	8921245.111
26	n-Dotriacontane (C32)	2	10.00000	9353256.228
27	n-Tritriacontane (C33)	2	10.00000	9057478.405
28	n-tetratriacontane (C34)	2	10.00000	8988838.072
29	n-Pentatriacontane (C35)	2	10.00000	8400592.250
30	n-Hexatriacontane (C36)	2	10.00000	10095138.264
31	n-Heptatriacontane (C37)	2	10.00000	9176554.086
32	n-Octatriacontane (C38)	2	10.00000	9283655.594
33	n-Tetracontane (C40)	2	10.00000	9154738.065

Avg RSF For: C9-C44 Total Petroleum			10.00000	8796300.682
1	n-Nonane (C9)	3	50.00000	39691300.694
2	n-Decane (C10)	3	50.00000	40247390.396
3	n-Undecane (C11)	3	50.00000	40663765.299
4	n-Dodecane (C12)	3	50.00000	40630745.249
5	n-Tridecane (C13)	3	50.00000	40971392.179
6	n-Tetradecane (C14)	3	50.00000	41794329.640
7	n-Pentadecane (C15)	3	50.00000	41569655.919
8	n-Hexadecane (C16)	3	50.00000	42398043.761
9	n-Heptadecane (C17)	3	50.00000	42905852.082
10	Pristane	3	50.00000	43603643.676
11	n-Octadecane (C18)	3	50.00000	43324769.346
12	Phytane	3	50.00000	40551984.632
13	n-Nonadecane (C19)	3	50.00000	43187616.528
14	n-Eicosane (C20)	3	50.00000	44149927.261
15	n-Heneicosane (C21)	3	50.00000	43914797.575
16	n-Docosane (C22)	3	50.00000	44763802.702
17	n-Tricosane (C23)	3	50.00000	44808665.949
18	n-Tetracosane (C24)	3	50.00000	42624375.429
19	n-Pentacosane (C25)	3	50.00000	44185751.124
20	n-Hexacosane (C26)	3	50.00000	45525033.665
21	n-Heptacosane (C27)	3	50.00000	43894265.892
22	n-Octacosane (C28)	3	50.00000	45885948.470
23	n-Nonacosane (C29)	3	50.00000	45397856.494
24	n-Triacontane (C30)	3	50.00000	45424434.514
25	n-Hentriacontane (C31)	3	50.00000	43902975.215
26	n-Dotriacontane (C32)	3	50.00000	45929671.540
27	n-Tritriacontane (C33)	3	50.00000	44248157.048
28	n-tetratriacontane (C34)	3	50.00000	44051182.368
29	n-Pentatriacontane (C35)	3	50.00000	44498913.630
30	n-Hexatriacontane (C36)	3	50.00000	48003355.666
31	n-Heptatriacontane (C37)	3	50.00000	44362561.335
32	n-Octatriacontane (C38)	3	50.00000	46005056.848
33	n-Tetracontane (C40)	3	50.00000	46459233.405

Avg RSF For: C9-C44 Total Petroleum			50.00000	43623528.955

RFupdate_HC6012023R_DRO			
1	n-Nonane (C9)	4	100.00000
2	n-Decane (C10)	4	100.00000
3	n-Undecane (C11)	4	100.00000
4	n-Dodecane (C12)	4	100.00000
5	n-Tridecane (C13)	4	100.00000
6	n-Tetradecane (C14)	4	100.00000
7	n-Pentadecane (C15)	4	100.00000
8	n-Hexadecane (C16)	4	100.00000
9	n-Heptadecane (C17)	4	100.00000
10	Pristane	4	100.00000
11	n-Octadecane (C18)	4	100.00000
12	Phytane	4	100.00000
13	n-Nonadecane (C19)	4	100.00000
14	n-Eicosane (C20)	4	100.00000
15	n-Heneicosane (C21)	4	100.00000
16	n-Docosane (C22)	4	100.00000
17	n-Tricosane (C23)	4	100.00000
18	n-Tetracosane (C24)	4	100.00000
19	n-Pentacosane (C25)	4	100.00000
20	n-Hexacosane (C26)	4	100.00000
21	n-Heptacosane (C27)	4	100.00000
22	n-Octacosane (C28)	4	100.00000
23	n-Nonacosane (C29)	4	100.00000
24	n-Triacontane (C30)	4	100.00000
25	n-Hentriacontane (C31)	4	100.00000
26	n-Dotriacontane (C32)	4	100.00000
27	n-Tritriacontane (C33)	4	100.00000
28	n-tetratriacontane (C34)	4	100.00000
29	n-Pentatriacontane (C35)	4	100.00000
30	n-Hexatriacontane (C36)	4	100.00000
31	n-Heptatriacontane (C37)	4	100.00000
32	n-Octatriacontane (C38)	4	100.00000
33	n-Tetracontane (C40)	4	100.00000

Avg RSF For: C9-C44 Total Petroleum		100.00000	76721120.531
1	n-Nonane (C9)	5	200.00000
2	n-Decane (C10)	5	200.00000
3	n-Undecane (C11)	5	200.00000
4	n-Dodecane (C12)	5	200.00000
5	n-Tridecane (C13)	5	200.00000
6	n-Tetradecane (C14)	5	200.00000
7	n-Pentadecane (C15)	5	200.00000
8	n-Hexadecane (C16)	5	200.00000
9	n-Heptadecane (C17)	5	200.00000
10	Pristane	5	200.00000
11	n-Octadecane (C18)	5	200.00000
12	Phytane	5	200.00000
13	n-Nonadecane (C19)	5	200.00000
14	n-Eicosane (C20)	5	200.00000
15	n-Heneicosane (C21)	5	200.00000
16	n-Docosane (C22)	5	200.00000
17	n-Tricosane (C23)	5	200.00000
18	n-Tetracosane (C24)	5	200.00000
19	n-Pentacosane (C25)	5	200.00000
20	n-Hexacosane (C26)	5	200.00000
21	n-Heptacosane (C27)	5	200.00000
22	n-Octacosane (C28)	5	200.00000
23	n-Nonacosane (C29)	5	200.00000
24	n-Triacontane (C30)	5	200.00000
25	n-Hentriacontane (C31)	5	200.00000
26	n-Dotriacontane (C32)	5	200.00000

RFupdate_HC6012023R_DRO				
27	n-Tritriacontane (C33)	5	200.00000	174597216.740
28	n-tetratriacontane (C34)	5	200.00000	174160475.420
29	n-Pentatriacontane (C35)	5	200.00000	162662164.224
30	n-Hexatriacontane (C36)	5	200.00000	194766128.849
31	n-Heptatriacontane (C37)	5	200.00000	174818027.093
32	n-Octatriacontane (C38)	5	200.00000	174188951.158
33	n-Tetracontane (C40)	5	200.00000	165938007.432

Avg RSF For: C9-C44 Total Petroleum			200.00000	169671285.692

Generating Average Response Factor For: C10-C28 DRO

No	Compound	Level	Conc	Response
1	n-Decane (C10)	1	1.00000	810287.491
2	n-Undecane (C11)	1	1.00000	809687.811
3	n-Dodecane (C12)	1	1.00000	831271.025
4	n-Tridecane (C13)	1	1.00000	836447.350
5	n-Tetradecane (C14)	1	1.00000	866348.406
6	n-Pentadecane (C15)	1	1.00000	878395.581
7	n-Hexadecane (C16)	1	1.00000	877562.521
8	n-Heptadecane (C17)	1	1.00000	891032.306
9	n-Octadecane (C18)	1	1.00000	904262.924
10	n-Nonadecane (C19)	1	1.00000	911788.773
11	n-Eicosane (C20)	1	1.00000	921996.961
12	n-Heneicosane (C21)	1	1.00000	925821.319
13	n-Docosane (C22)	1	1.00000	933769.507
14	n-Tricosane (C23)	1	1.00000	931358.751
15	n-Tetracosane (C24)	1	1.00000	928454.749
16	n-Pentacosane (C25)	1	1.00000	918099.159
17	n-Hexacosane (C26)	1	1.00000	938342.785
18	n-Heptacosane (C27)	1	1.00000	940655.442
19	n-Octacosane (C28)	1	1.00000	965579.595
Avg RSF For: C10-C28 DRO			1.00000	895850.656

1	n-Decane (C10)	2	10.00000	7996903.793
2	n-Undecane (C11)	2	10.00000	7984833.761
3	n-Dodecane (C12)	2	10.00000	8094873.519
4	n-Tridecane (C13)	2	10.00000	8149648.693
5	n-Tetradecane (C14)	2	10.00000	8403608.824
6	n-Pentadecane (C15)	2	10.00000	8482151.949
7	n-Hexadecane (C16)	2	10.00000	8442888.224
8	n-Heptadecane (C17)	2	10.00000	8580438.865
9	n-Octadecane (C18)	2	10.00000	8700477.434
10	n-Nonadecane (C19)	2	10.00000	8792972.722
11	n-Eicosane (C20)	2	10.00000	8859419.638
12	n-Heneicosane (C21)	2	10.00000	8930567.437
13	n-Docosane (C22)	2	10.00000	8953314.610
14	n-Tricosane (C23)	2	10.00000	8976817.849
15	n-Tetracosane (C24)	2	10.00000	8967477.236
16	n-Pentacosane (C25)	2	10.00000	8842791.837
17	n-Hexacosane (C26)	2	10.00000	9094786.094
18	n-Heptacosane (C27)	2	10.00000	9110369.831
19	n-Octacosane (C28)	2	10.00000	9301649.609

Avg RSF For: C10-C28 DRO			10.00000	8666631.154

1	n-Decane (C10)	3	50.00000	40247390.396
2	n-Undecane (C11)	3	50.00000	40663765.299

RFupdate_HC6012023R_DRO				
3	n-Dodecane (C12)	3	50.00000	40630745.249
4	n-Tridecane (C13)	3	50.00000	40971392.179
5	n-Tetradecane (C14)	3	50.00000	41794329.640
6	n-Pentadecane (C15)	3	50.00000	41569655.919
7	n-Hexadecane (C16)	3	50.00000	42398043.761
8	n-Heptadecane (C17)	3	50.00000	42905852.082
9	n-Octadecane (C18)	3	50.00000	43324769.346
10	n-Nonadecane (C19)	3	50.00000	43187616.528
11	n-Eicosane (C20)	3	50.00000	44149927.261
12	n-Heneicosane (C21)	3	50.00000	43914797.575
13	n-Docosane (C22)	3	50.00000	44763802.702
14	n-Tricosane (C23)	3	50.00000	44808665.949
15	n-Tetracosane (C24)	3	50.00000	42624375.429
16	n-Pentacosane (C25)	3	50.00000	44185751.124
17	n-Hexacosane (C26)	3	50.00000	45525033.665
18	n-Heptacosane (C27)	3	50.00000	43894265.892
19	n-Octacosane (C28)	3	50.00000	45885948.470

Avg RSF For: C10-C28 DRO			50.00000	43023480.446
1	n-Decane (C10)	4	100.00000	72638138.129
2	n-Undecane (C11)	4	100.00000	72387235.321
3	n-Dodecane (C12)	4	100.00000	73079672.906
4	n-Tridecane (C13)	4	100.00000	73093546.319
5	n-Tetradecane (C14)	4	100.00000	74885638.188
6	n-Pentadecane (C15)	4	100.00000	75275350.141
7	n-Hexadecane (C16)	4	100.00000	74675436.844
8	n-Heptadecane (C17)	4	100.00000	75773177.046
9	n-Octadecane (C18)	4	100.00000	76585482.340
10	n-Nonadecane (C19)	4	100.00000	76856254.498
11	n-Eicosane (C20)	4	100.00000	77413704.283
12	n-Heneicosane (C21)	4	100.00000	77875413.499
13	n-Docosane (C22)	4	100.00000	77889939.250
14	n-Tricosane (C23)	4	100.00000	77971303.168
15	n-Tetracosane (C24)	4	100.00000	77796866.276
16	n-Pentacosane (C25)	4	100.00000	76593148.990
17	n-Hexacosane (C26)	4	100.00000	78619178.839
18	n-Heptacosane (C27)	4	100.00000	78506958.345
19	n-Octacosane (C28)	4	100.00000	80185592.019

Avg RSF For: C10-C28 DRO			100.00000	76215896.653
1	n-Decane (C10)	5	200.00000	160430054.502
2	n-Undecane (C11)	5	200.00000	160098534.032
3	n-Dodecane (C12)	5	200.00000	161549256.088
4	n-Tridecane (C13)	5	200.00000	161478562.848
5	n-Tetradecane (C14)	5	200.00000	165218587.060
6	n-Pentadecane (C15)	5	200.00000	166005478.571
7	n-Hexadecane (C16)	5	200.00000	164652210.863
8	n-Heptadecane (C17)	5	200.00000	167184622.728
9	n-Octadecane (C18)	5	200.00000	169165122.790
10	n-Nonadecane (C19)	5	200.00000	170157973.366
11	n-Eicosane (C20)	5	200.00000	171583340.769
12	n-Heneicosane (C21)	5	200.00000	172371767.704
13	n-Docosane (C22)	5	200.00000	172160764.617
14	n-Tricosane (C23)	5	200.00000	172180972.823
15	n-Tetracosane (C24)	5	200.00000	171464628.489
16	n-Pentacosane (C25)	5	200.00000	168630228.648
17	n-Hexacosane (C26)	5	200.00000	172957489.764
18	n-Heptacosane (C27)	5	200.00000	172742673.126
19	n-Octacosane (C28)	5	200.00000	176404828.893

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Avg RSF For: C10-C28 DRO 200.00000 168233531.457

Generating Average Response Factor For: C28-C40 ORO

No	Compound	Level	Conc	Response
1	n-Octacosane (C28)	1	1.00000	965579.595
2	n-Nonacosane (C29)	1	1.00000	954501.817
3	n-Triacontane (C30)	1	1.00000	956278.467
4	n-Hentriacontane (C31)	1	1.00000	920041.883
5	n-Dotriacontane (C32)	1	1.00000	964437.823
6	n-Tritriacontane (C33)	1	1.00000	930249.330
7	n-tetratriacontane (C34)	1	1.00000	935061.014
8	n-Pentatriacontane (C35)	1	1.00000	861837.374
9	n-Hexatriacontane (C36)	1	1.00000	1052292.908
10	n-Heptatriacontane (C37)	1	1.00000	947987.267
11	n-Octatriacontane (C38)	1	1.00000	985977.740
12	n-Tetracontane (C40)	1	1.00000	935857.488

Avg RSF For: C28-C40 ORO 1.00000 950841.892

1	n-Octacosane (C28)	2	10.00000	9301649.609
2	n-Nonacosane (C29)	2	10.00000	9248577.726
3	n-Triacontane (C30)	2	10.00000	9267199.949
4	n-Hentriacontane (C31)	2	10.00000	8921245.111
5	n-Dotriacontane (C32)	2	10.00000	9353256.228
6	n-Tritriacontane (C33)	2	10.00000	9057478.405
7	n-tetratriacontane (C34)	2	10.00000	8988838.072
8	n-Pentatriacontane (C35)	2	10.00000	8400592.250
9	n-Hexatriacontane (C36)	2	10.00000	10095138.264
10	n-Heptatriacontane (C37)	2	10.00000	9176554.086
11	n-Octatriacontane (C38)	2	10.00000	9283655.594
12	n-Tetracontane (C40)	2	10.00000	9154738.065

Avg RSF For: C28-C40 ORO 10.00000 9187410.280

1	n-Octacosane (C28)	3	50.00000	45885948.470
2	n-Nonacosane (C29)	3	50.00000	45397856.494
3	n-Triacontane (C30)	3	50.00000	45424434.514
4	n-Hentriacontane (C31)	3	50.00000	43902975.215
5	n-Dotriacontane (C32)	3	50.00000	45929671.540
6	n-Tritriacontane (C33)	3	50.00000	44248157.048
7	n-tetratriacontane (C34)	3	50.00000	44051182.368
8	n-Pentatriacontane (C35)	3	50.00000	44498913.630
9	n-Hexatriacontane (C36)	3	50.00000	48003355.666
10	n-Heptatriacontane (C37)	3	50.00000	44362561.335
11	n-Octatriacontane (C38)	3	50.00000	46005056.848
12	n-Tetracontane (C40)	3	50.00000	46459233.405

Avg RSF For: C28-C40 ORO 50.00000 45347445.544

1	n-Octacosane (C28)	4	100.00000	80185592.019
2	n-Nonacosane (C29)	4	100.00000	79304053.695
3	n-Triacontane (C30)	4	100.00000	79264009.670
4	n-Hentriacontane (C31)	4	100.00000	76106622.856
5	n-Dotriacontane (C32)	4	100.00000	79549396.448
6	n-Tritriacontane (C33)	4	100.00000	77106595.566
7	n-tetratriacontane (C34)	4	100.00000	76648642.007

RFupdate_HC6012023R_DRO				
8	n-Pentatriacontane (C35)	4	100.00000	71669846.971
9	n-Hexatriacontane (C36)	4	100.00000	86592031.877
10	n-Heptatriacontane (C37)	4	100.00000	78995127.361
11	n-Octatriacontane (C38)	4	100.00000	80379473.283
12	n-Tetracontane (C40)	4	100.00000	79720004.364

Avg RSF For: C28-C40 ORO			100.00000	78793449.676
1	n-Octacosane (C28)	5	200.00000	176404828.893
2	n-Nonacosane (C29)	5	200.00000	175405356.693
3	n-Triacontane (C30)	5	200.00000	176117931.090
4	n-Hentriacontane (C31)	5	200.00000	170136896.379
5	n-Dotriacontane (C32)	5	200.00000	179087082.811
6	n-Tritriacontane (C33)	5	200.00000	174597216.740
7	n-tetratriacontane (C34)	5	200.00000	174160475.420
8	n-Pentatriacontane (C35)	5	200.00000	162662164.224
9	n-Hexatriacontane (C36)	5	200.00000	194766128.849
10	n-Heptatriacontane (C37)	5	200.00000	174818027.093
11	n-Octatriacontane (C38)	5	200.00000	174188951.158
12	n-Tetracontane (C40)	5	200.00000	165938007.432

Avg RSF For: C28-C40 ORO			200.00000	174856922.232

Generating Reference Response Factors

No	Compound	No	Reference Compound

8	1380	9	n-Tetradecane (C14)
10	1470	11	n-Pentadecane (C15)
13	1650	14	n-Heptadecane (C17)
40	n-Nonatriacontane (C39)	41	n-Tetracontane (C40)
43	C10-C25 DRO	42	C9-C44 Total Petroleum Hydr
44	C25-C44 ORO	42	C9-C44 Total Petroleum Hydr
45	C9-C40 Total Petroleum Hydrocarbons	42	C9-C44 Total Petroleum Hydr
47	C8-C40 Total Petroleum Hydrocarbons	42	C9-C44 Total Petroleum Hydr
49	Total Resolved Hydrocarbons	42	C9-C44 Total Petroleum Hydr

Abacus Response Factor Update Macro Ver. 1.0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202311.D
 Signal(s) : FID2B.CH
 Acq On : 20 Jan 2023 6:43 pm
 Operator : FID6:WR
 Sample : I601202301R
 Misc : WG1752810,FRBF55,1ug/ml
 ALS Vial : 56 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 07 16:35:49 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Mar 07 16:29:33 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound		R.T.	Response	Conc	Units

Internal Standards					
1) I	5-alpha-androstane	31.771	47327731	50.000	ug/mL M4
System Monitoring Compounds					
19) s	ortho-terphenyl	29.715	1009221	0.932	ug/mL M4
Spiked Amount 50.000		Range 50 - 130	Recovery =	1.86%#	
24) s	d50-Tetracosane	36.322	829033	0.933	ug/mL M4
Spiked Amount 50.000		Range 50 - 130	Recovery =	1.87%#	
Target Compounds					
2) t	n-Octane (C8)	5.988	777974	0.923	ug/mL M4
3) t	n-Nonane (C9)	8.257	789436	0.920	ug/mL M4
4) t	n-Decane (C10)	10.768	810287	0.931	ug/mL M4
5) t	n-Undecane (C11)	13.284	809688	0.921	ug/mL M4
6) t	n-Dodecane (C12)	15.709	831271	0.946	ug/mL M4
7) t	n-Tridecane (C13)	18.010	836447	0.944	ug/mL M4
9) t	n-Tetradecane (C14)	20.186	866348	0.958	ug/mL M4
11) t	n-Pentadecane (C15)	22.247	878396	0.977	ug/mL M4
12) t	n-Hexadecane (C16)	24.199	877563	0.957	ug/mL M4
14) t	n-Heptadecane (C17)	26.051	891032	0.960	ug/mL M4
15) t	Pristane	26.160	910813	0.966	ug/mL M4
16) t	n-Octadecane (C18)	27.815	904263	0.965	ug/mL M4
17) t	Phytane	27.979	841377	0.959	ug/mL M4
18) t	n-Nonadecane (C19)	29.497	911789	0.976	ug/mL M4
20) t	n-Eicosane (C20)	31.099	921997	0.965	ug/mL M4
21) t	n-Heneicosane (C21)	32.632	925821	0.975	ug/mL M4
22) t	n-Docosane (C22)	34.102	933770	0.964	ug/mL M4
23) t	n-Tricosane (C23)	35.512	931359	0.961	ug/mL M4
25) t	n-Tetracosane (C24)	36.867	928455	1.007	ug/mL M4
26) t	n-Pentacosane (C25)	38.169	918099	0.961	ug/mL M4
27) t	n-Hexacosane (C26)	39.423	938343	0.953	ug/mL M4
28) t	n-Heptacosane (C27)	40.633	940655	0.991	ug/mL M4
29) t	n-Octacosane (C28)	41.803	965580	0.973	ug/mL M4
30) t	n-Nonacosane (C29)	42.933	954502	0.972	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202311.D
 Signal(s) : FID2B.CH
 Acq On : 20 Jan 2023 6:43 pm
 Operator : FID6:WR
 Sample : I601202301R
 Misc : WG1752810,FRBF55,1ug/ml
 ALS Vial : 56 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 07 16:35:49 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Mar 07 16:29:33 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	44.025	956278	0.973 ug/mL M4
32) t	n-Hentriacontane (C31)	45.083	920042	0.969 ug/mL M4
33) t	n-Dotriacontane (C32)	46.107	964438	0.971 ug/mL M4
34) t	n-Tritriacontane (C33)	47.105	930249	0.972 ug/mL M4
35) t	n-tetratriacontane (C34)	48.180	935061	0.981 ug/mL M4
36) t	n-Pentatriacontane (C35)	49.396	861837	0.895 ug/mL M4
37) t	n-Hexatriacontane (C36)	50.788	1052293	1.013 ug/mL M4
38) t	n-Heptatriacontane (C37)	52.407	947987	0.988 ug/mL M4
39) t	n-Octatriacontane (C38)	54.297	985978	0.991 ug/mL M4
41) t	n-Tetracontane (C40)	59.173	935857	0.931 ug/mL M4

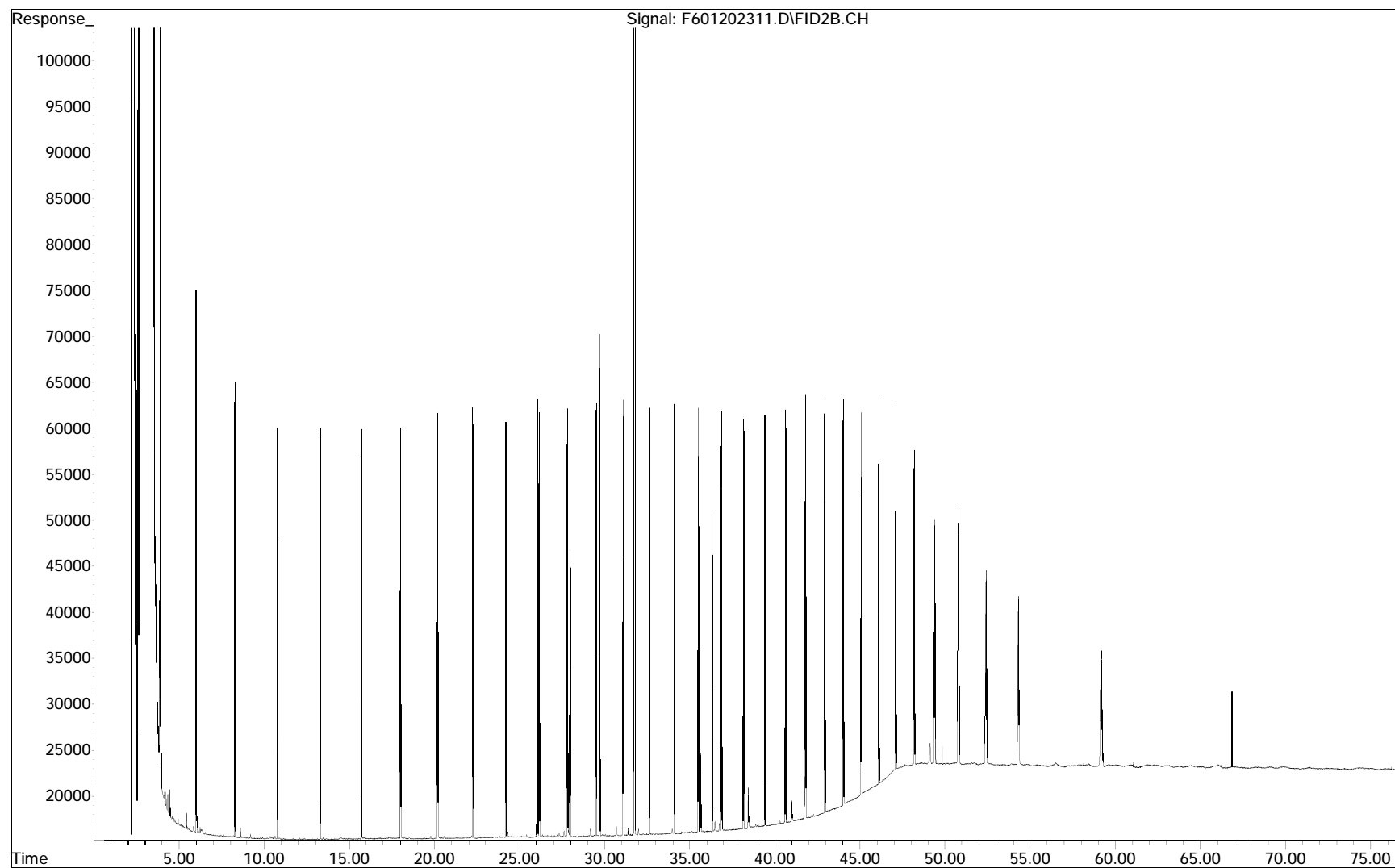
SemiQuant Compounds - Not Calibrated on this Instrument

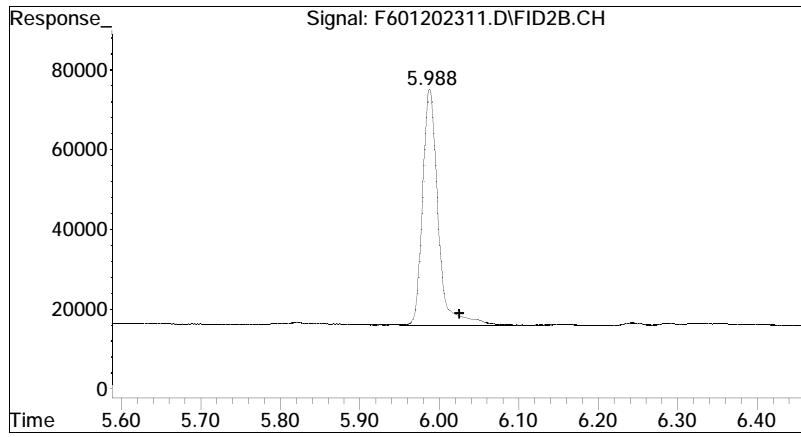
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

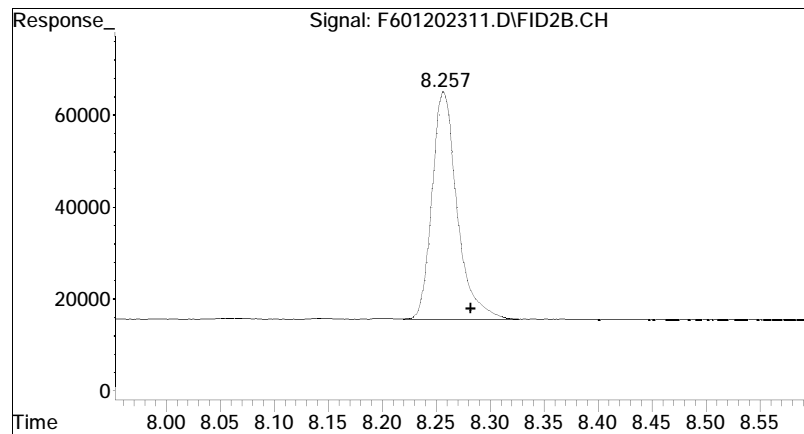
File : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\F601202311.D
 Operator : FID6:WR
 Acquired : 20 Jan 2023 6:43 pm using AcqMethod FID6A.M
 Sample Name: I601202301R
 Instrument: FID6
 Misc Info : WG1752810,FRBF55,1ug/ml
 Vial Number: 56
 CurrentMeth: O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M





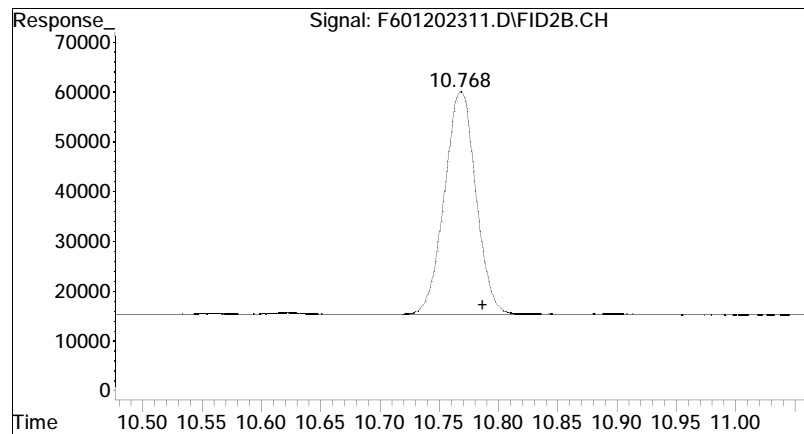
#2 n-Octane (C8)

R.T.: 5.988 min
Delta R.T.: -0.037 min
Response: 777974
Conc: 0.92 ug/mL M4



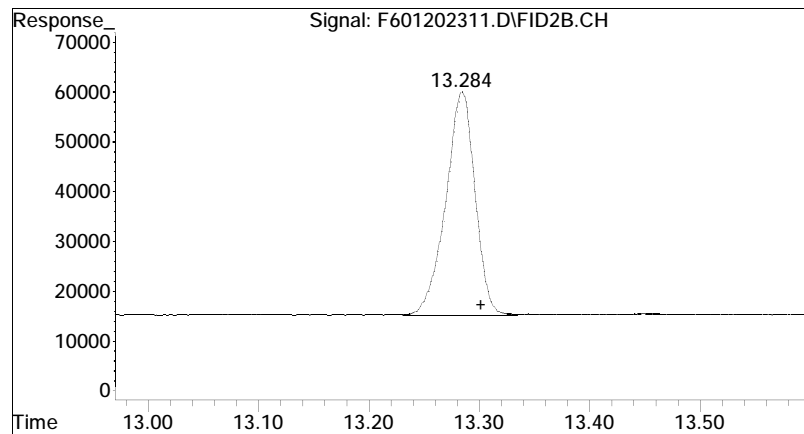
#3 n-Nonane (C9)

R.T.: 8.257 min
Delta R.T.: -0.025 min
Response: 789436
Conc: 0.92 ug/mL M4



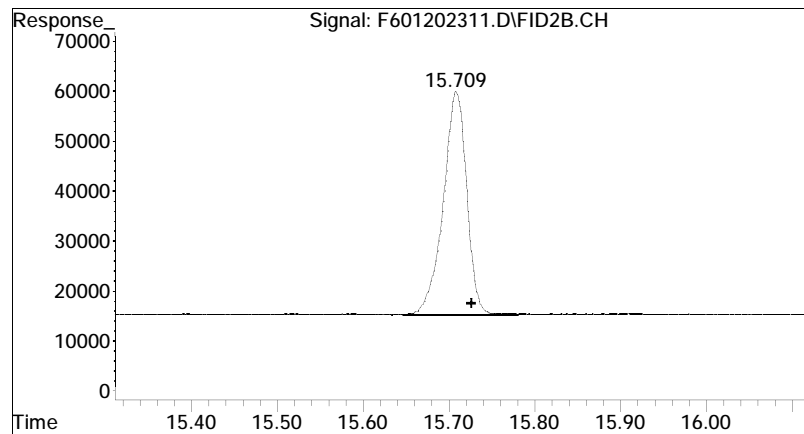
#4 n-Decane (C10)

R.T.: 10.768 min
Delta R.T.: -0.019 min
Response: 810287
Conc: 0.93 ug/mL M4



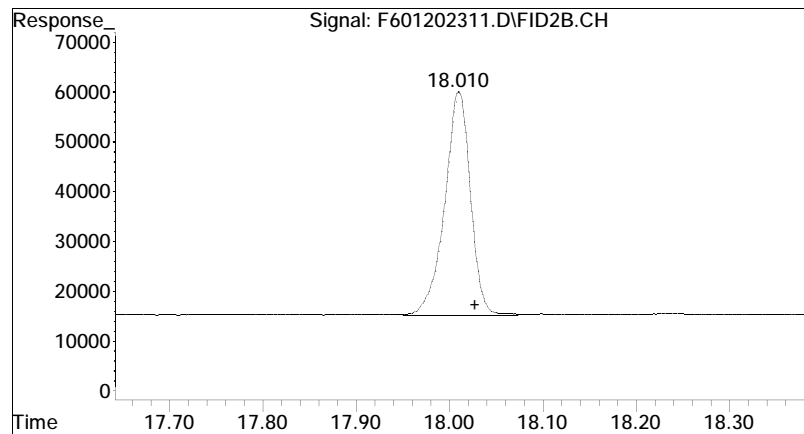
#5 n-Undecane (C11)

R.T.: 13.284 min
Delta R.T.: -0.017 min
Response: 809688
Conc: 0.92 ug/mL M4



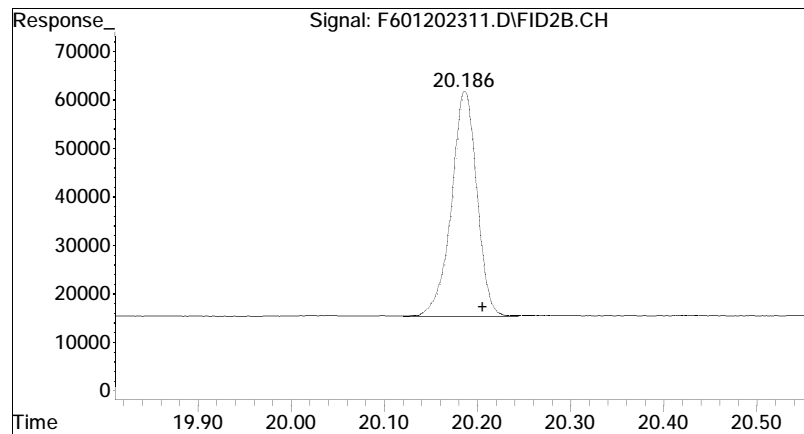
#6 n-Dodecane (C12)

R.T.: 15.709 min
Delta R.T.: -0.017 min
Response: 831271
Conc: 0.95 ug/mL M4



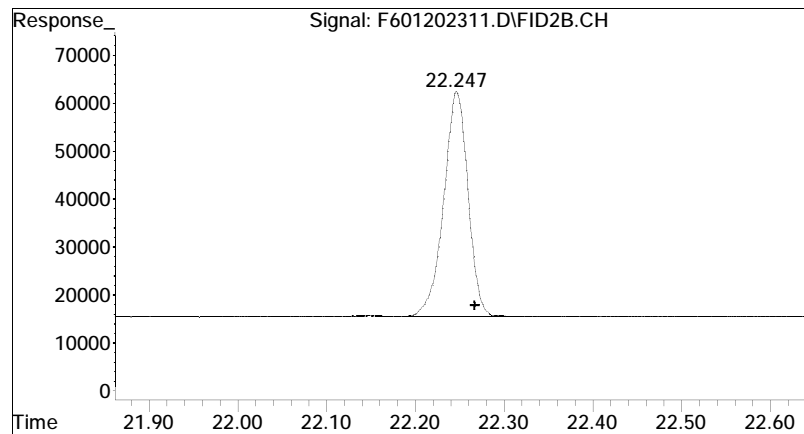
#7 n-Tridecane (C13)

R.T.: 18.010 min
Delta R.T.: -0.018 min
Response: 836447
Conc: 0.94 ug/mL M4



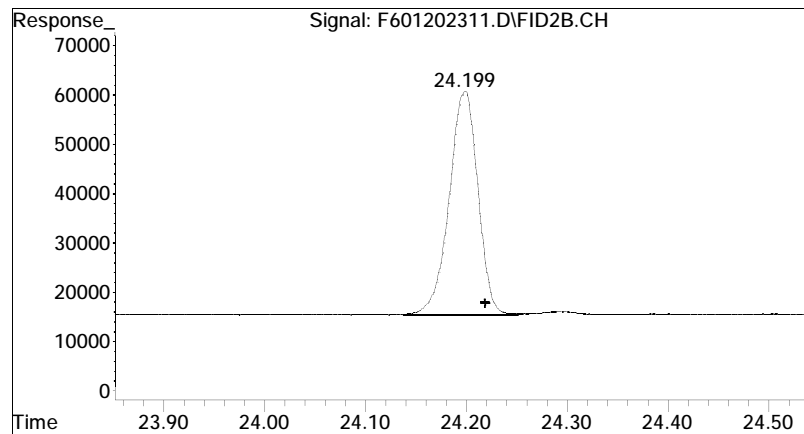
#9 n-Tetradecane (C14)

R.T.: 20.186 min
Delta R.T.: -0.020 min
Response: 866348
Conc: 0.96 ug/mL M4



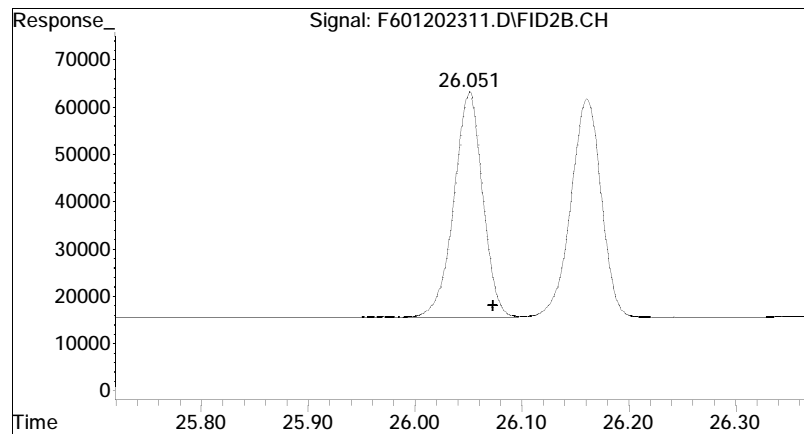
#11 n-Pentadecane (C15)

R.T.: 22.247 min
Delta R.T.: -0.020 min
Response: 878396
Conc: 0.98 ug/mL M4



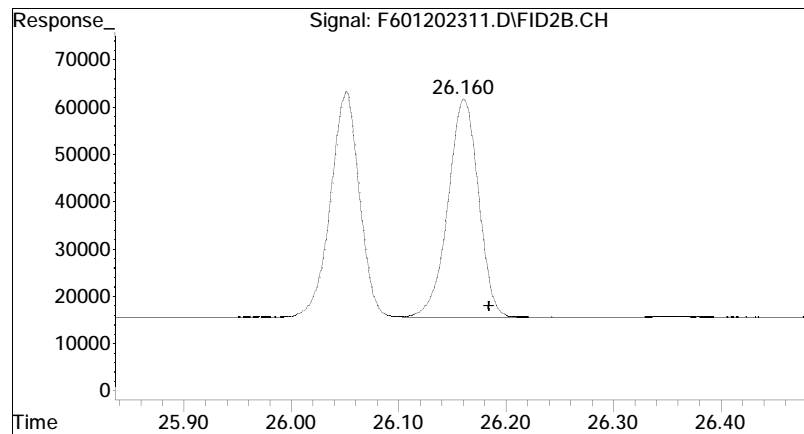
#12 n-Hexadecane (C16)

R.T.: 24.199 min
Delta R.T.: -0.020 min
Response: 877563
Conc: 0.96 ug/mL M4



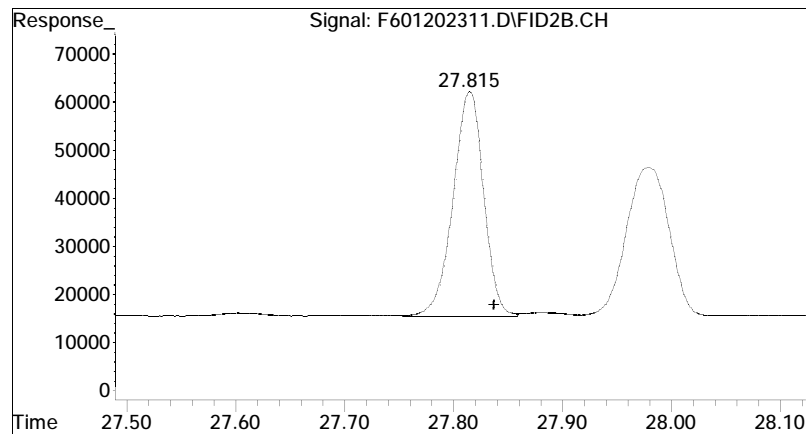
#14 n-Heptadecane (C17)

R.T.: 26.051 min
Delta R.T.: -0.022 min
Response: 891032
Conc: 0.96 ug/mL M4



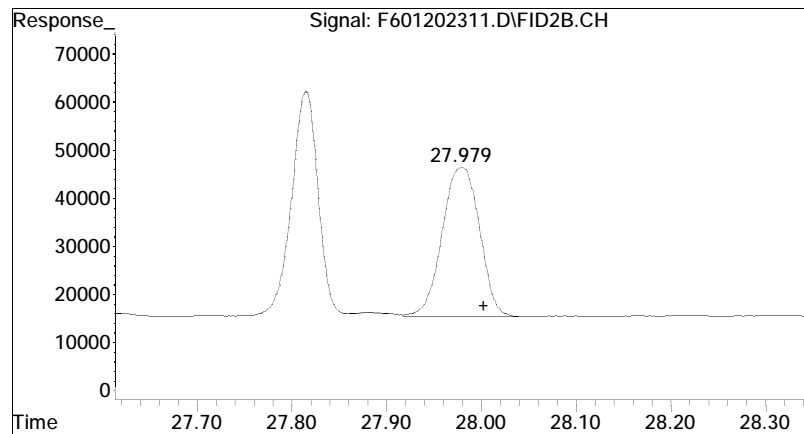
#15 Pristane

R.T.: 26.160 min
Delta R.T.: -0.024 min
Response: 910813
Conc: 0.97 ug/mL M4



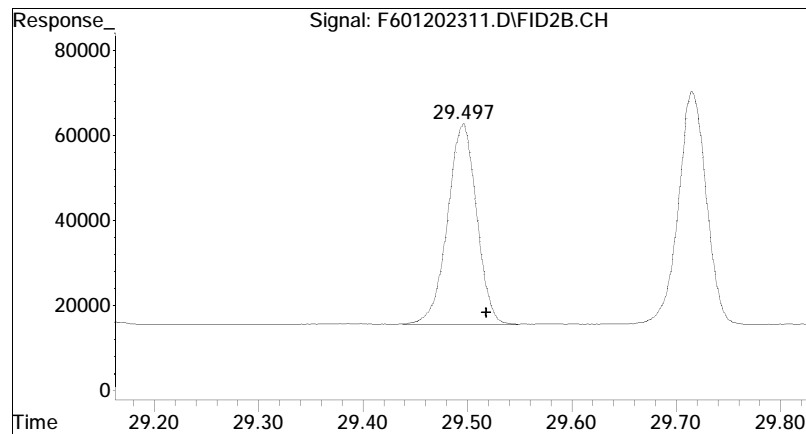
#16 n-Octadecane (C18)

R.T.: 27.815 min
Delta R.T.: -0.023 min
Response: 904263
Conc: 0.96 ug/mL M4



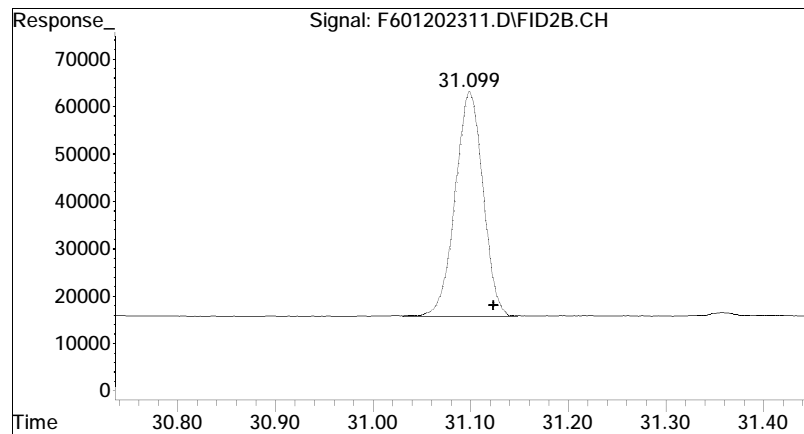
#17 Phytane

R.T.: 27.979 min
Delta R.T.: -0.024 min
Response: 841377
Conc: 0.96 ug/mL M4



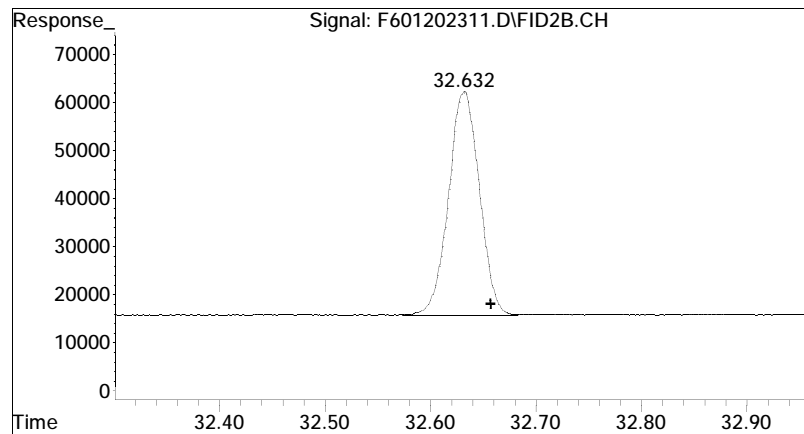
#18 n-Nonadecane (C19)

R.T.: 29.497 min
Delta R.T.: -0.022 min
Response: 911789
Conc: 0.98 ug/mL M4



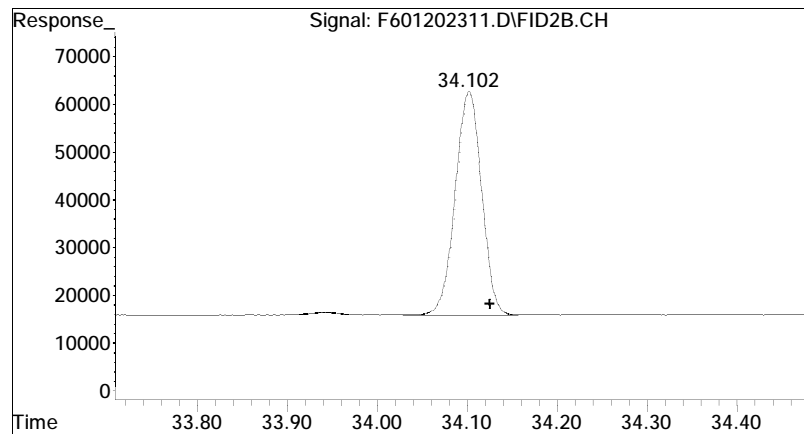
#20 n-Eicosane (C20)

R.T.: 31.099 min
Delta R.T.: -0.024 min
Response: 921997
Conc: 0.97 ug/mL M4



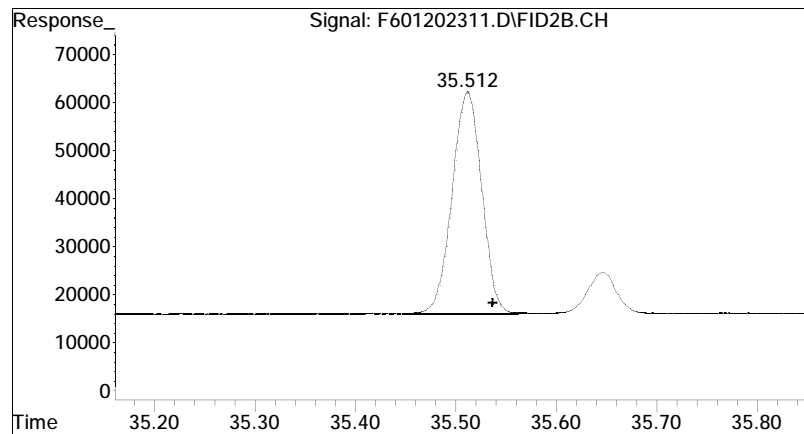
#21 n-Heneicosane (C21)

R.T.: 32.632 min
Delta R.T.: -0.025 min
Response: 925821
Conc: 0.97 ug/mL M4



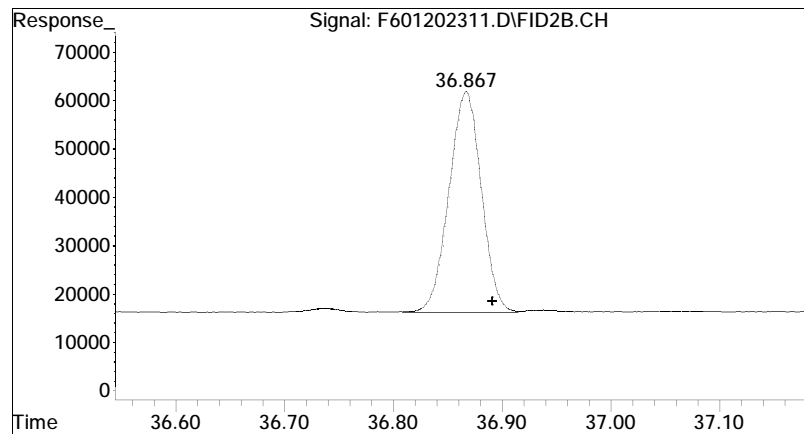
#22 n-Docosane (C22)

R.T.: 34.102 min
Delta R.T.: -0.023 min
Response: 933770
Conc: 0.96 ug/mL M4



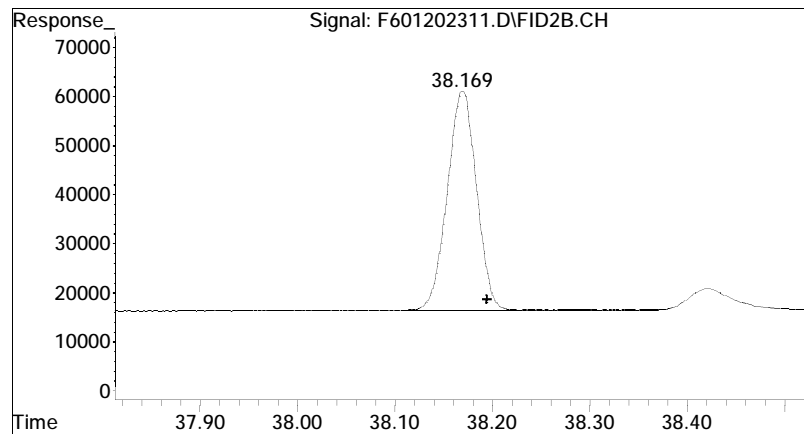
#23 n-Tricosane (C23)

R.T.: 35.512 min
Delta R.T.: -0.025 min
Response: 931359
Conc: 0.96 ug/mL M4



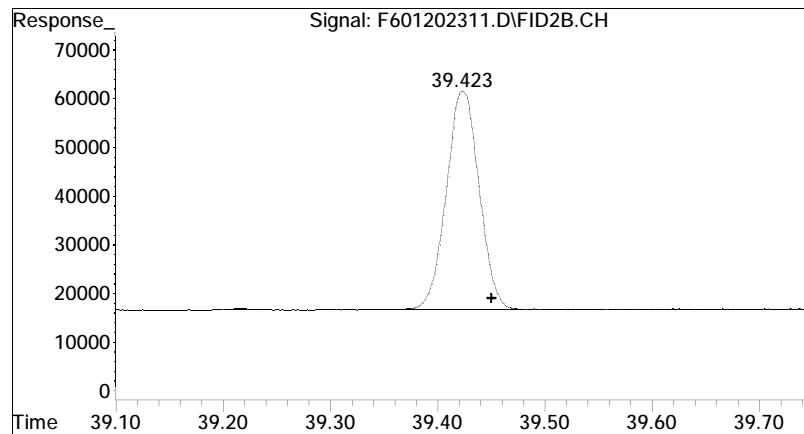
#25 n-Tetracosane (C24)

R.T.: 36.867 min
Delta R.T.: -0.024 min
Response: 928455
Conc: 1.01 ug/mL M4



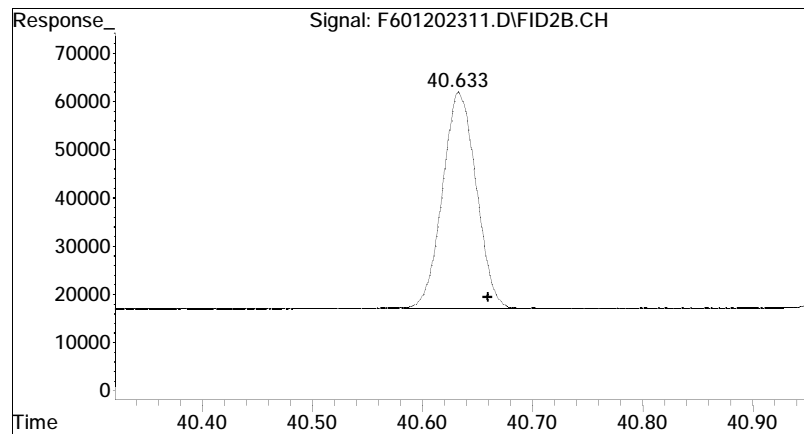
#26 n-Pentacosane (C25)

R.T.: 38.169 min
Delta R.T.: -0.026 min
Response: 918099
Conc: 0.96 ug/mL M4



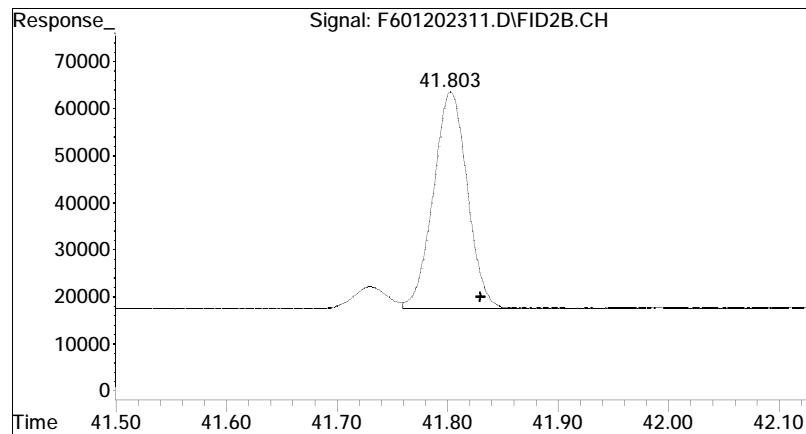
#27 n-Hexacosane (C26)

R.T.: 39.423 min
Delta R.T.: -0.027 min
Response: 938343
Conc: 0.95 ug/mL M4



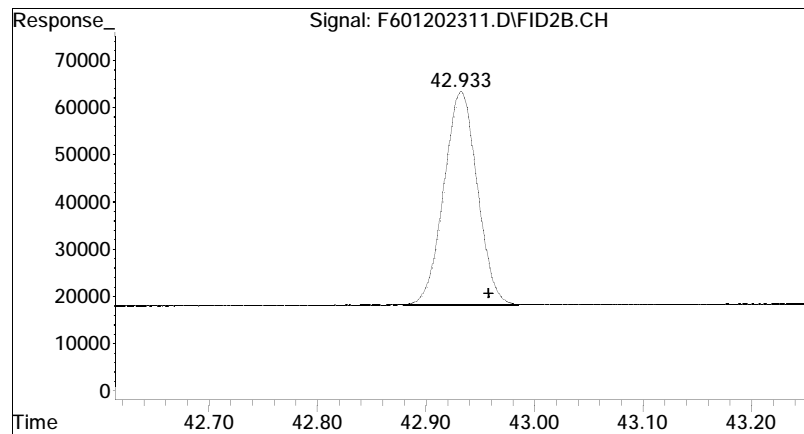
#28 n-Heptacosane (C27)

R.T.: 40.633 min
Delta R.T.: -0.027 min
Response: 940655
Conc: 0.99 ug/mL M4



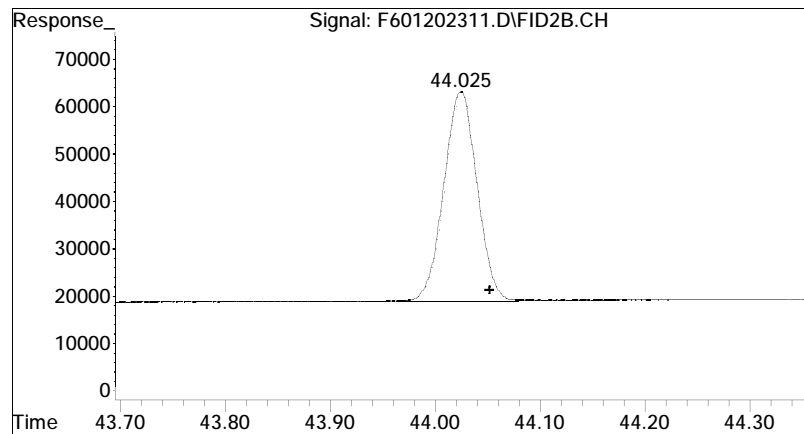
#29 n-Octacosane (C28)

R.T.: 41.803 min
Delta R.T.: -0.027 min
Response: 965580
Conc: 0.97 ug/mL M4



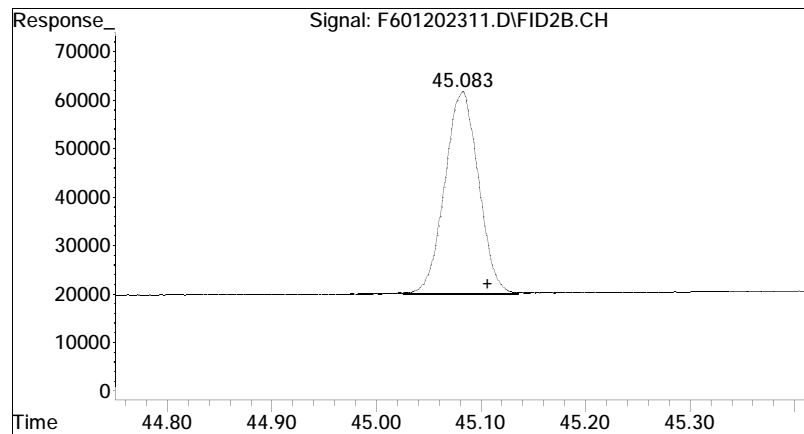
#30 n-Nonacosane (C29)

R.T.: 42.933 min
Delta R.T.: -0.025 min
Response: 954502
Conc: 0.97 ug/mL M4



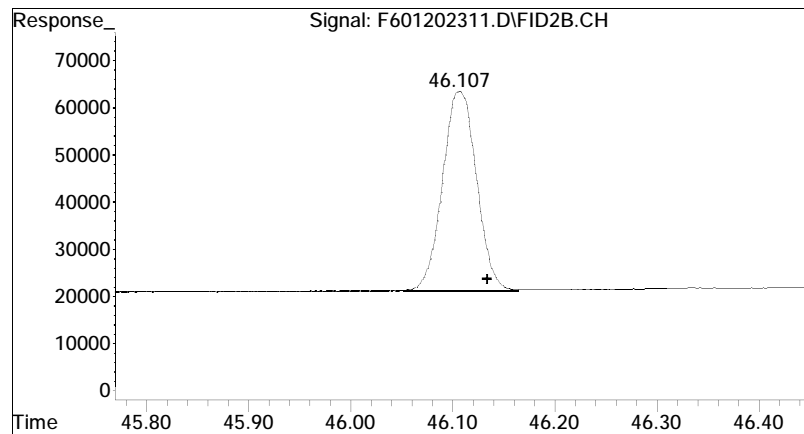
#31 n-Triacontane (C30)

R.T.: 44.025 min
Delta R.T.: -0.027 min
Response: 956278
Conc: 0.97 ug/mL M4



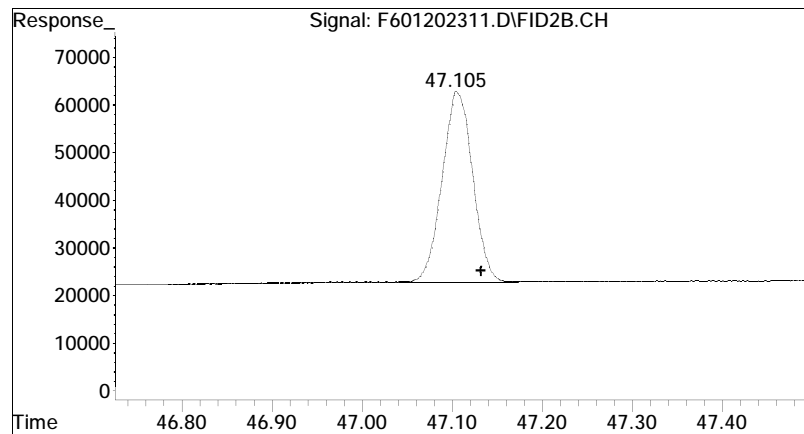
#32 n-Hentriacontane (C31)

R.T.: 45.083 min
Delta R.T.: -0.024 min
Response: 920042
Conc: 0.97 ug/mL M4



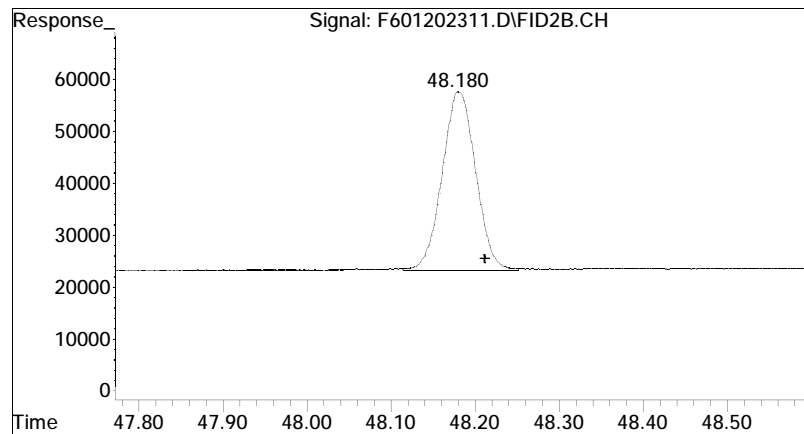
#33 n-Dotriacontane (C32)

R.T.: 46.107 min
Delta R.T.: -0.027 min
Response: 964438
Conc: 0.97 ug/mL M4



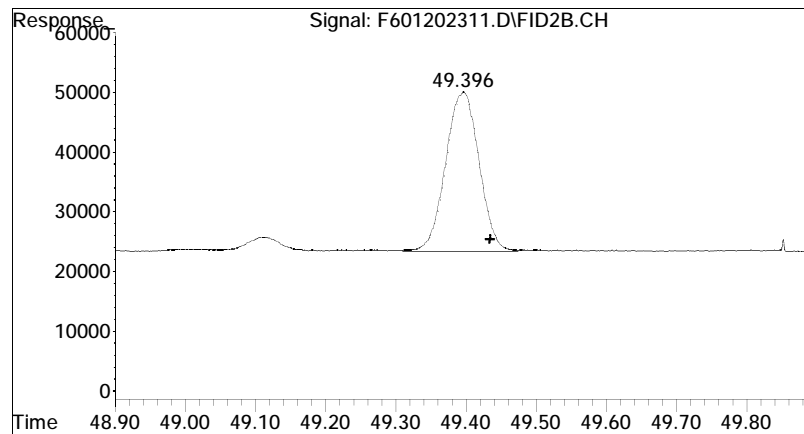
#34 n-Tritriacontane (C33)

R.T.: 47.105 min
Delta R.T.: -0.028 min
Response: 930249
Conc: 0.97 ug/mL M4



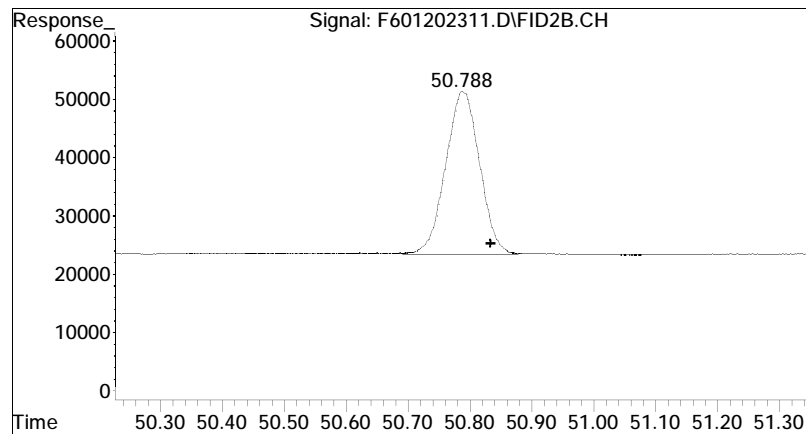
#35 n-tetratriacontane (C34)

R.T.: 48.180 min
Delta R.T.: -0.032 min
Response: 935061
Conc: 0.98 ug/mL M4



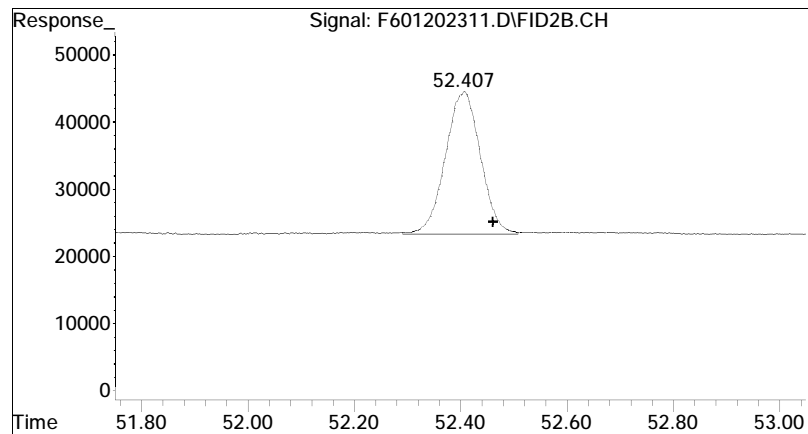
#36 n-Pentatriacontane (C35)

R.T.: 49.396 min
Delta R.T.: -0.038 min
Response: 861837
Conc: 0.90 ug/mL M4



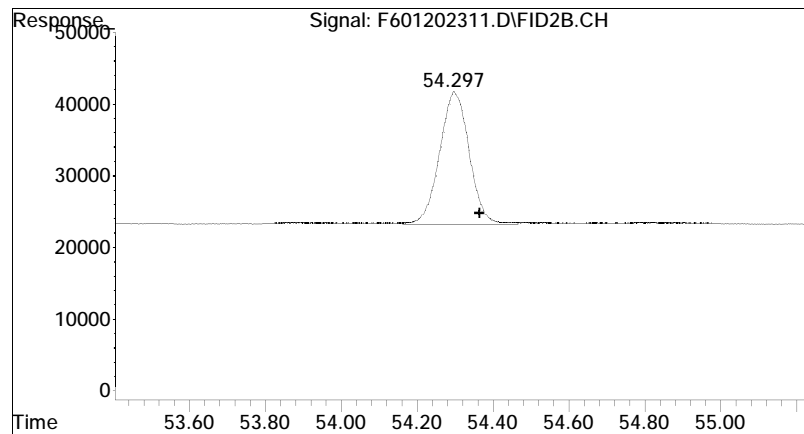
#37 n-Hexatriacontane (C36)

R.T.: 50.788 min
Delta R.T.: -0.046 min
Response: 1052293
Conc: 1.01 ug/mL M4



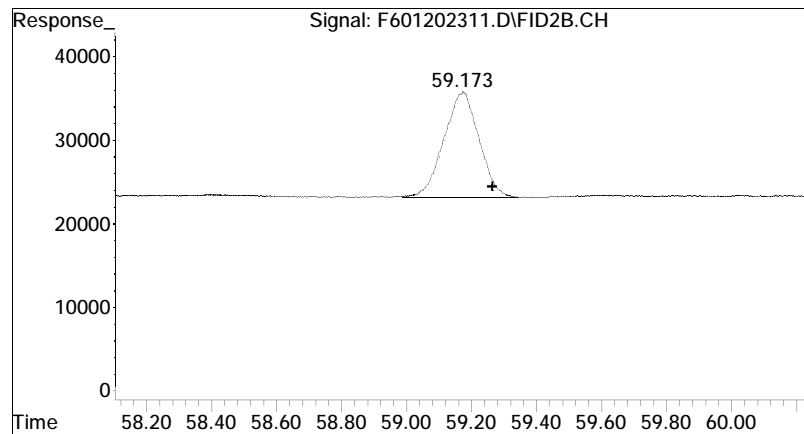
#38 n-Heptatriacontane (C37)

R.T.: 52.407 min
Delta R.T.: -0.054 min
Response: 947987
Conc: 0.99 ug/mL M4



#39 n-Octatriacontane (C38)

R.T.: 54.297 min
Delta R.T.: -0.066 min
Response: 985978
Conc: 0.99 ug/mL M4



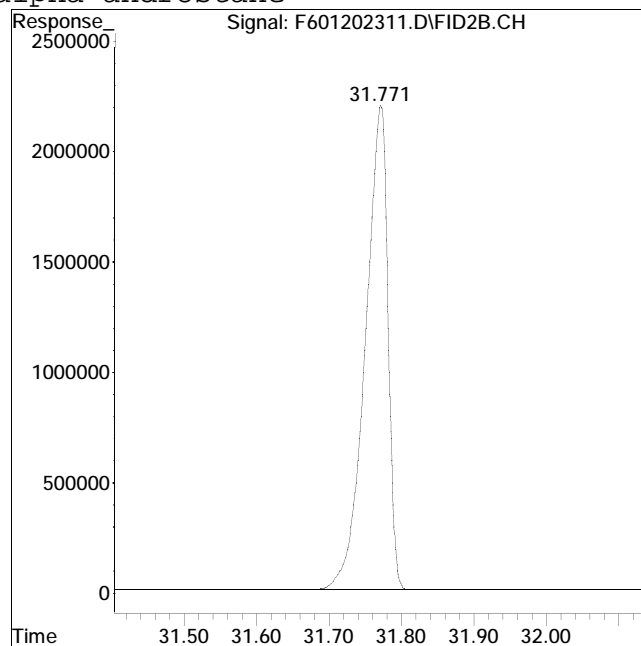
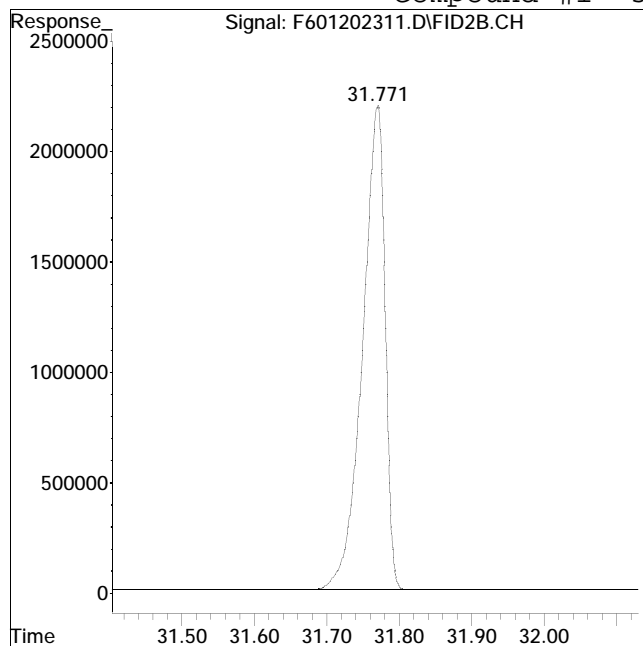
#41 n-Tetracontane (C40)

R.T.: 59.173 min
Delta R.T.: -0.090 min
Response: 935857
Conc: 0.93 ug/mL M4

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202311.D Operator : FID6:WR
Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 47330039

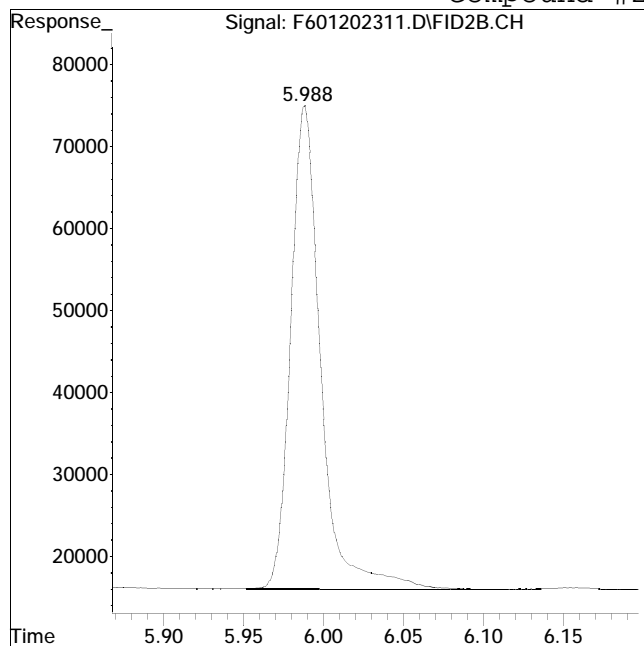
Manual Peak Response = 47327731 M4

M4 = Poor automated baseline construction.

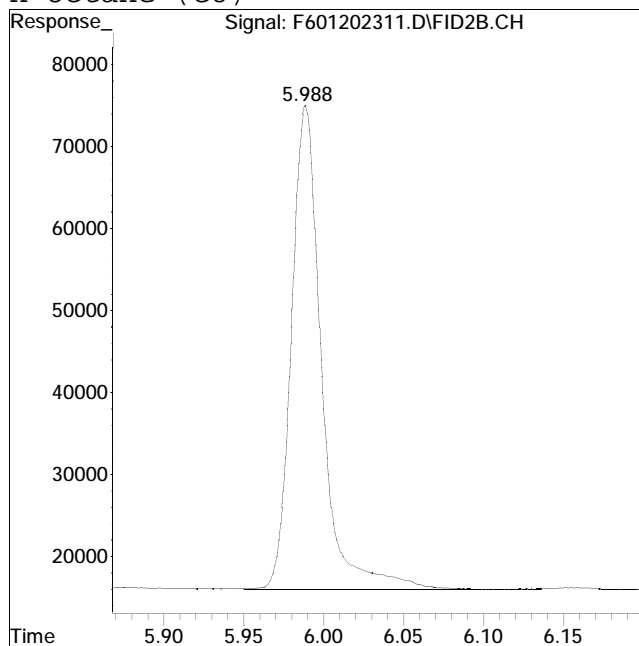
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202311.D Operator : FID6:WR
Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #2: n-Octane (C8)



Original Peak Response = 773973



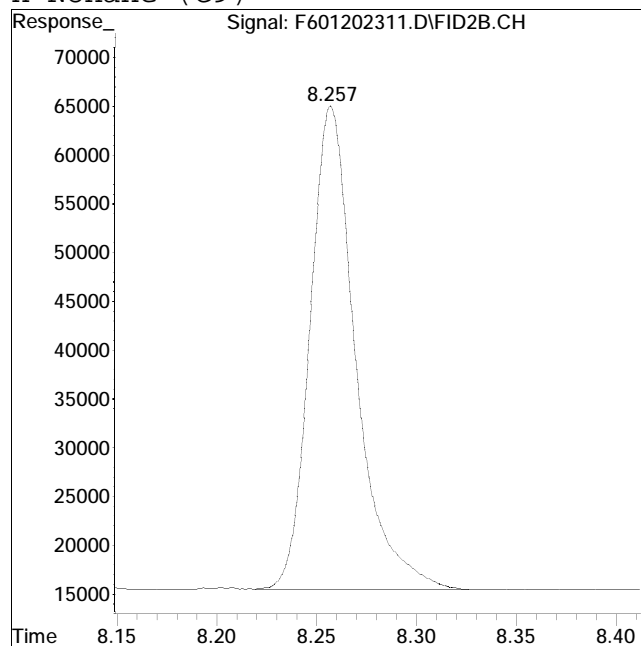
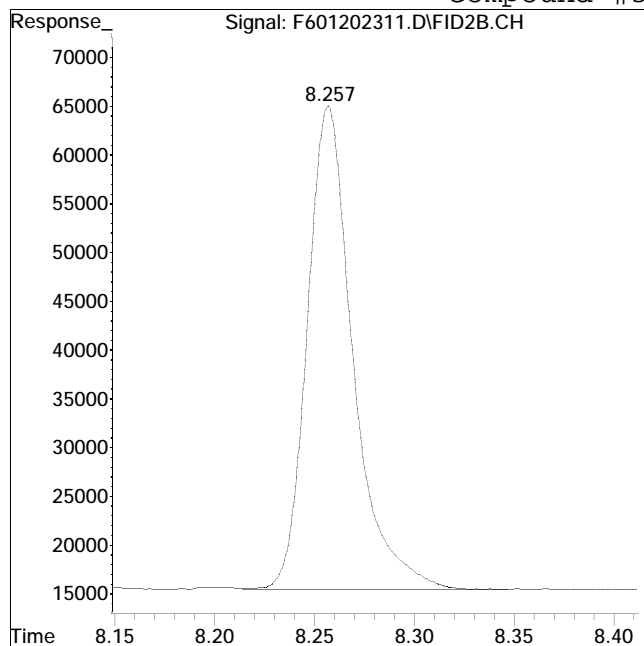
Manual Peak Response = 777974 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 793161

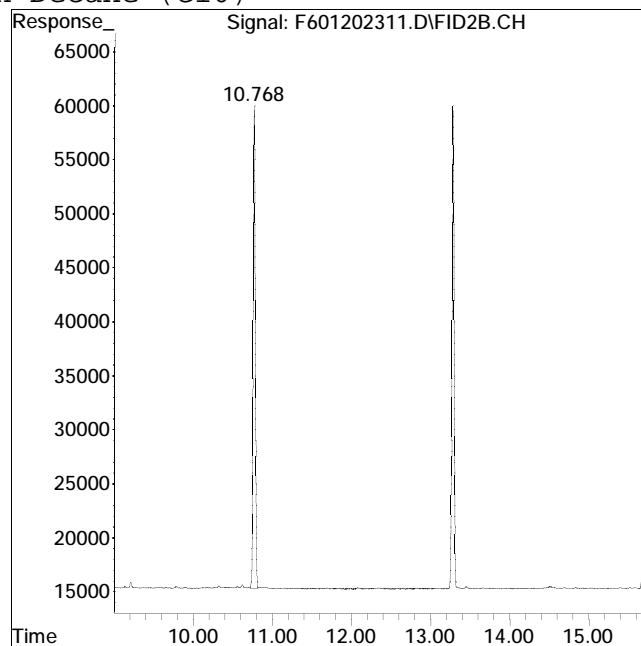
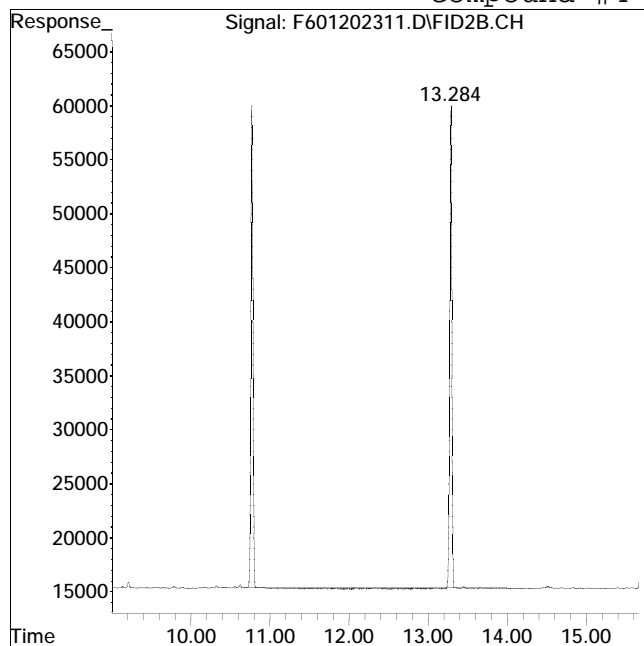
Manual Peak Response = 789436 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #4: n-Decane (C10)



Original Peak Response = 464109

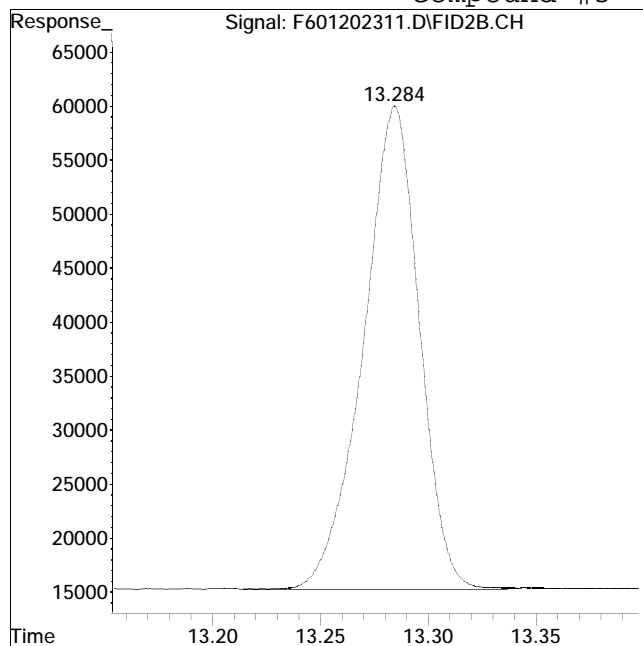
Manual Peak Response = 810287 M4

M4 = Poor automated baseline construction.

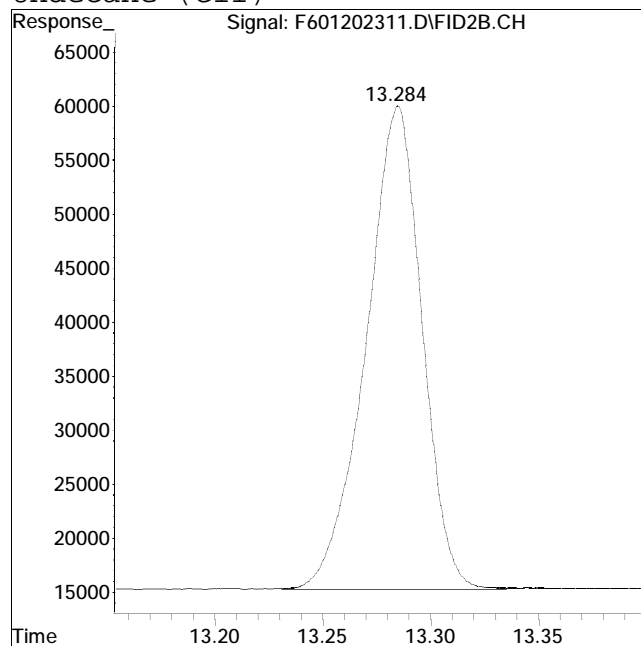
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202311.D Operator : FID6:WR
Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 810834



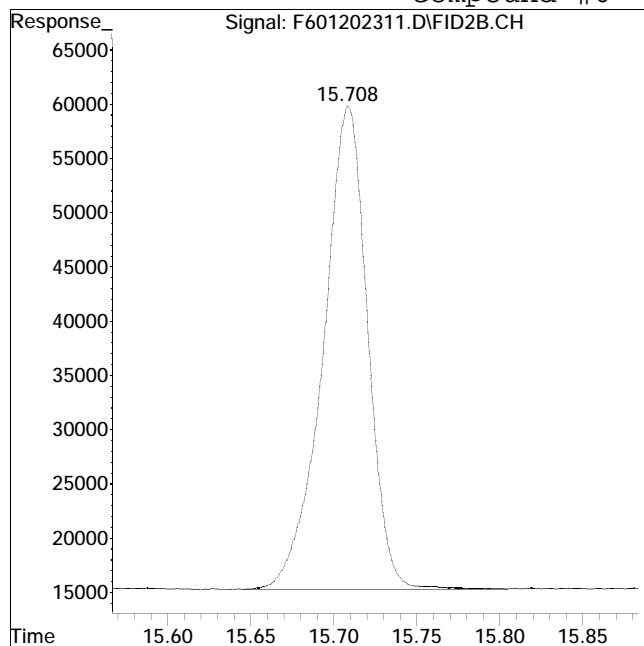
Manual Peak Response = 809688 M4

M4 = Poor automated baseline construction.

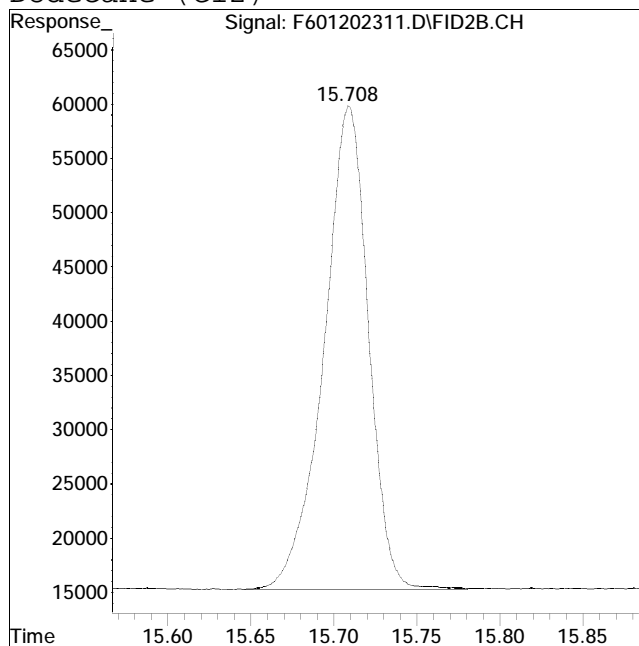
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 832804



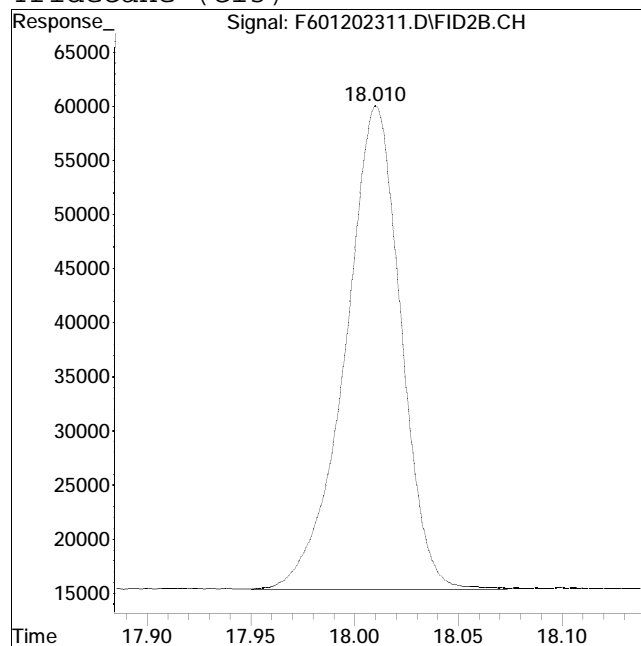
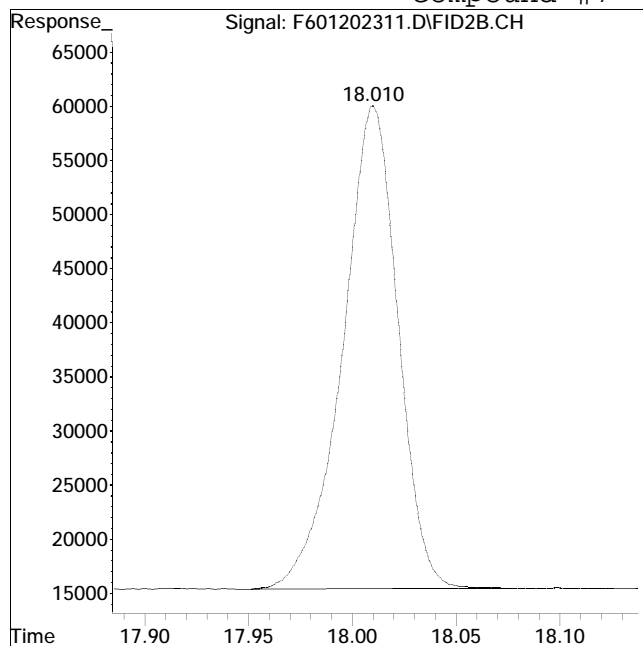
Manual Peak Response = 831271 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 829402

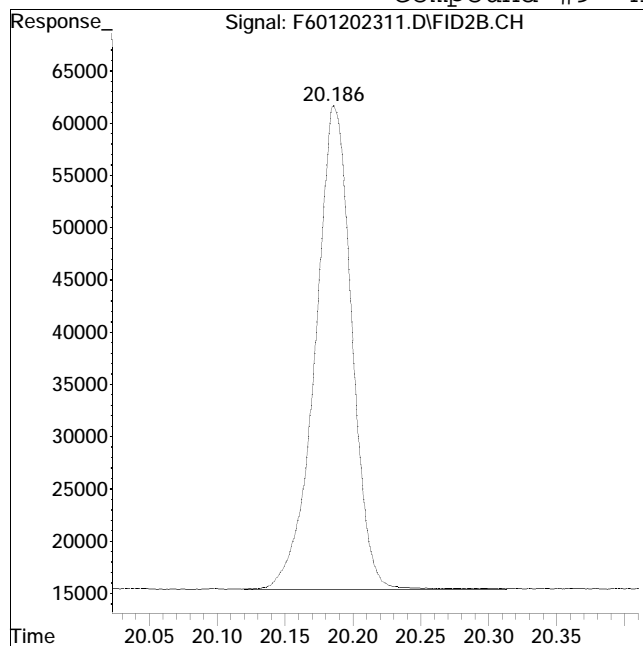
Manual Peak Response = 836447 M4

M4 = Poor automated baseline construction.

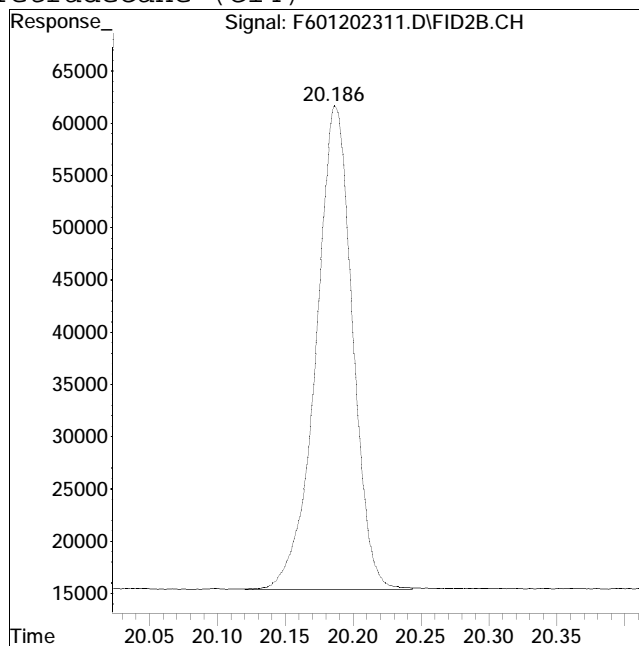
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 869512



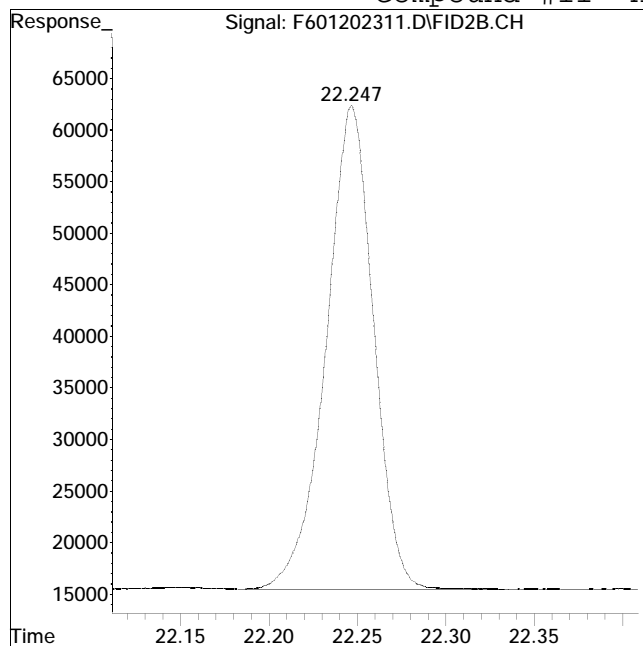
Manual Peak Response = 866348 M4

M4 = Poor automated baseline construction.

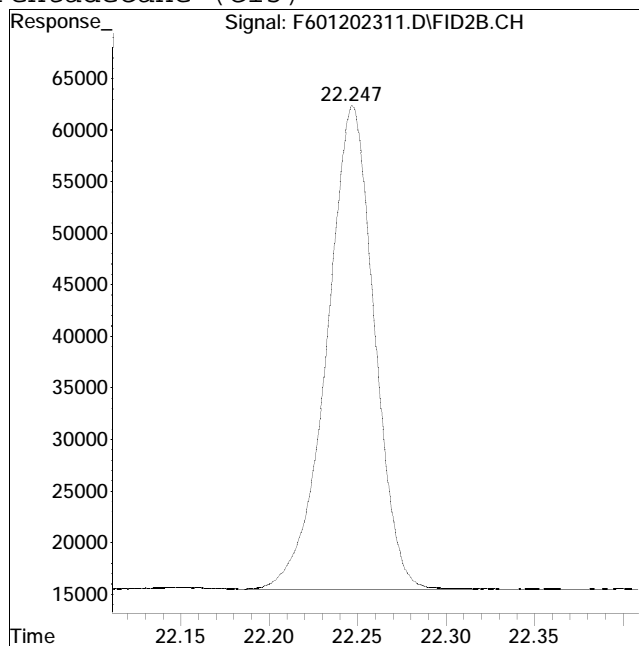
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 878758



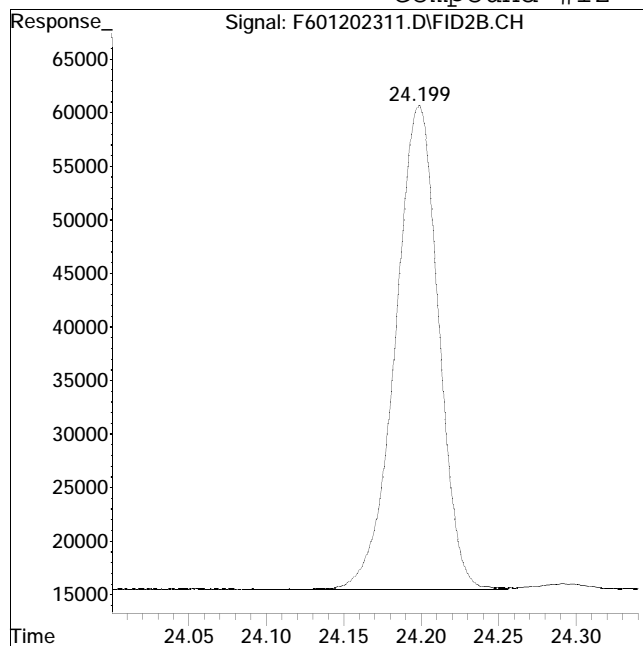
Manual Peak Response = 878396 M4

M4 = Poor automated baseline construction.

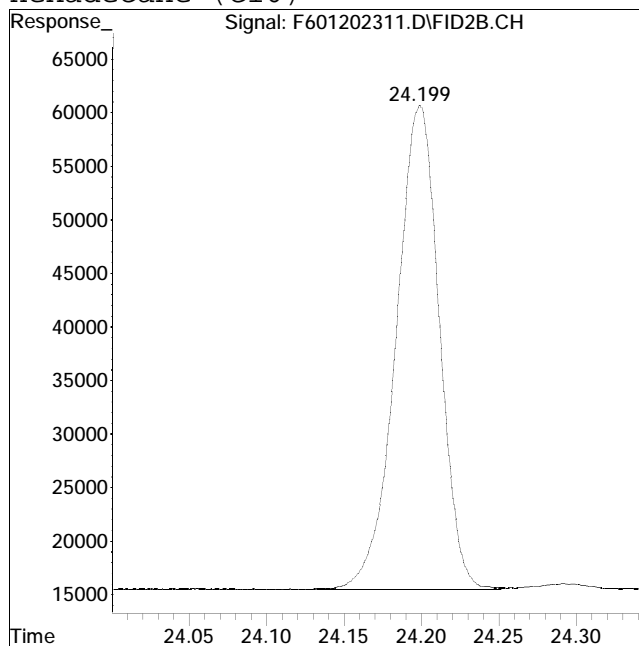
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 877697



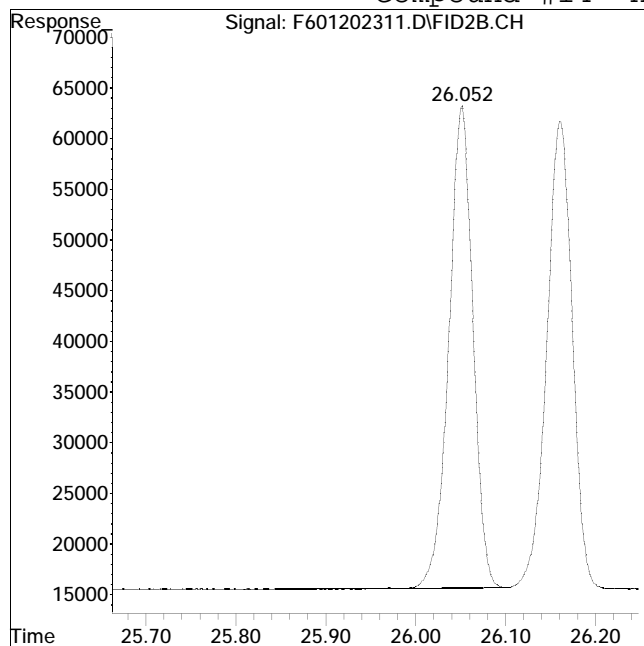
Manual Peak Response = 877563 M4

M4 = Poor automated baseline construction.

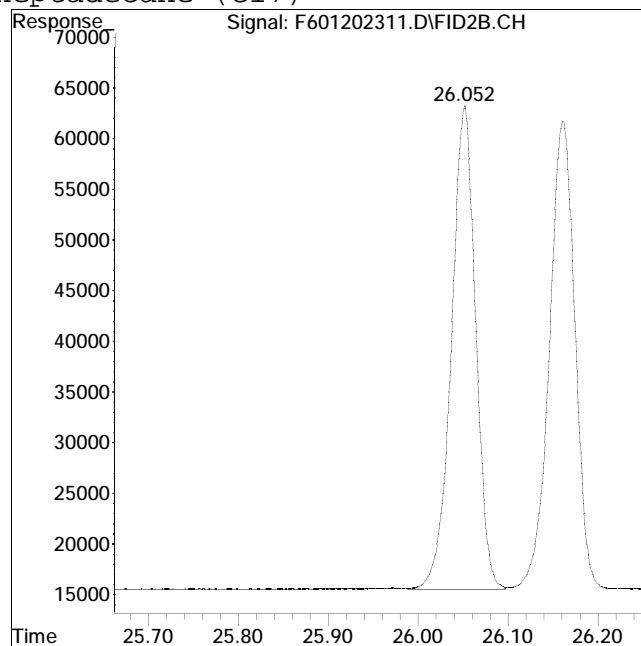
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 880752



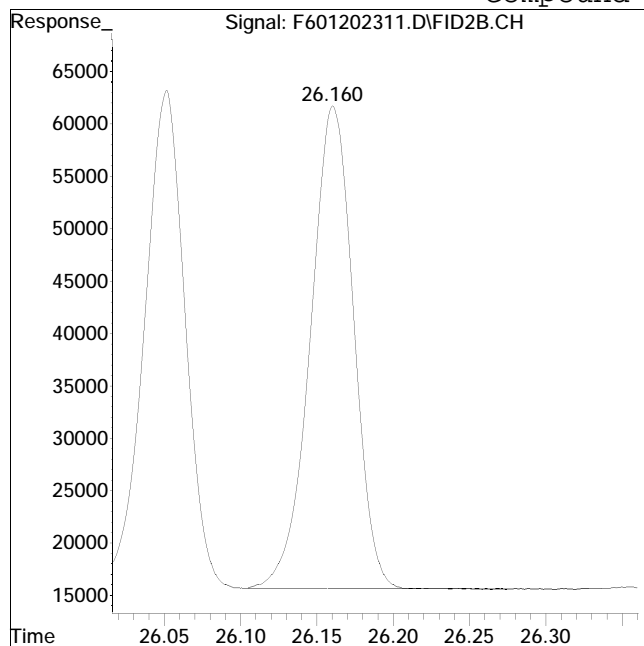
Manual Peak Response = 891032 M4

M4 = Poor automated baseline construction.

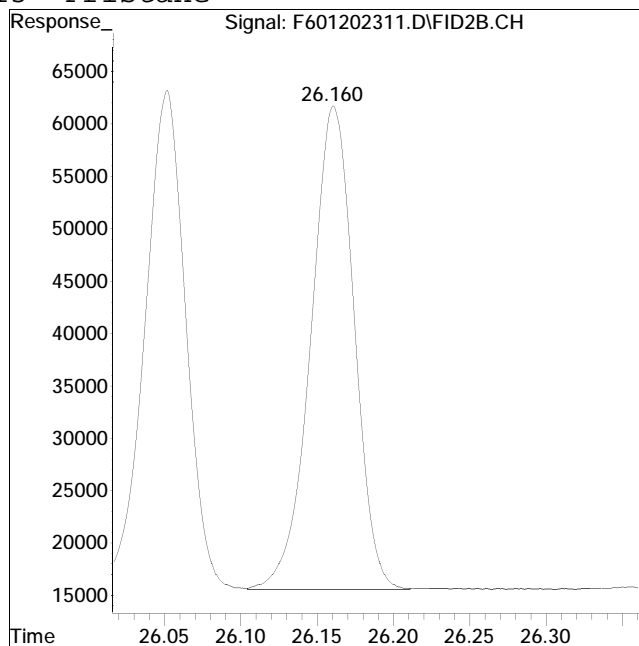
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #15: Pristane



Original Peak Response = 902782



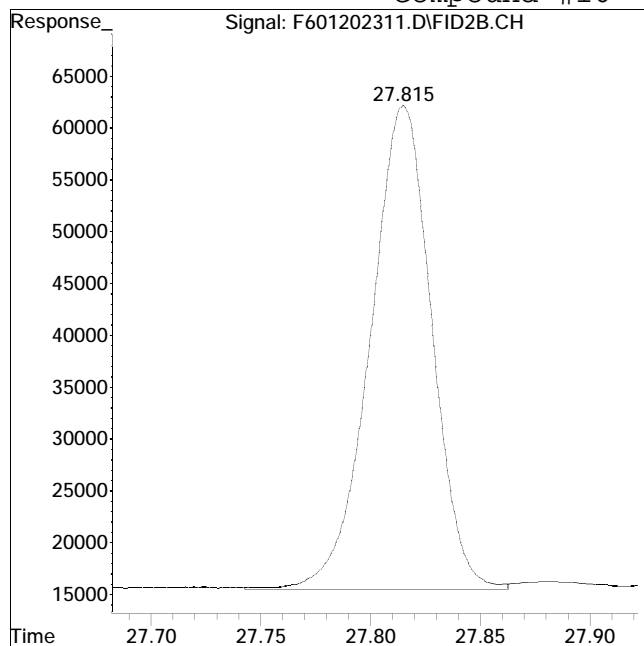
Manual Peak Response = 910813 M4

M4 = Poor automated baseline construction.

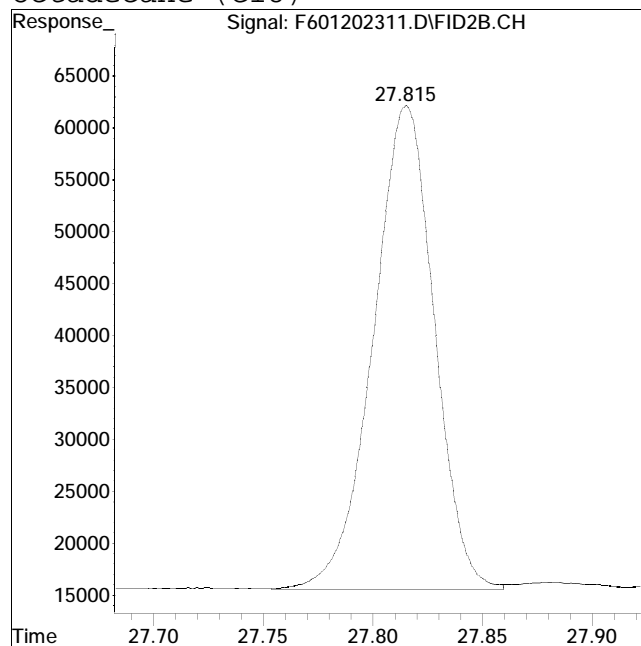
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 911812



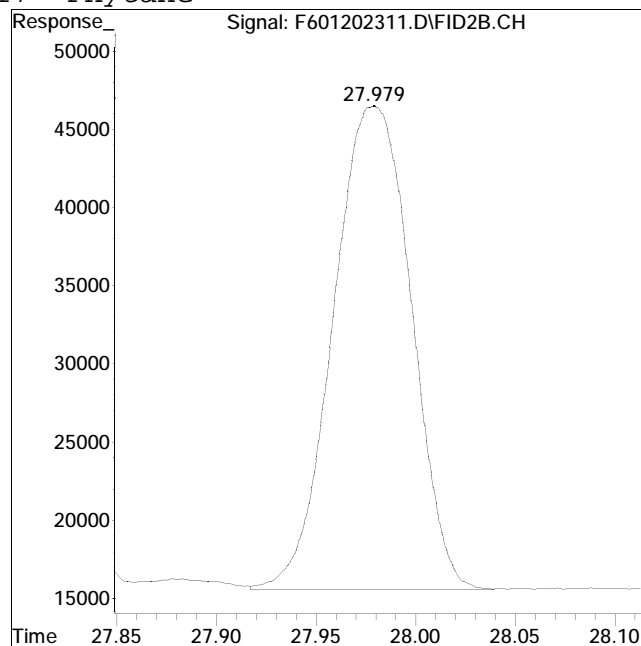
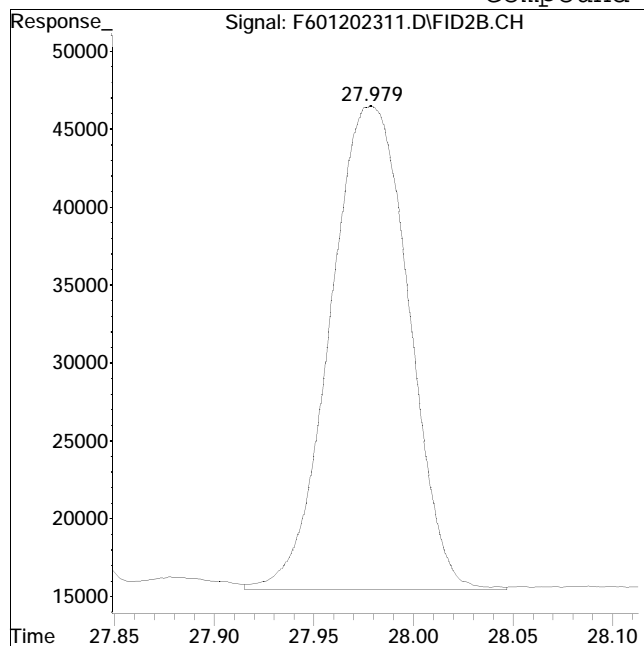
Manual Peak Response = 904263 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #17: Phytane



Original Peak Response = 850531

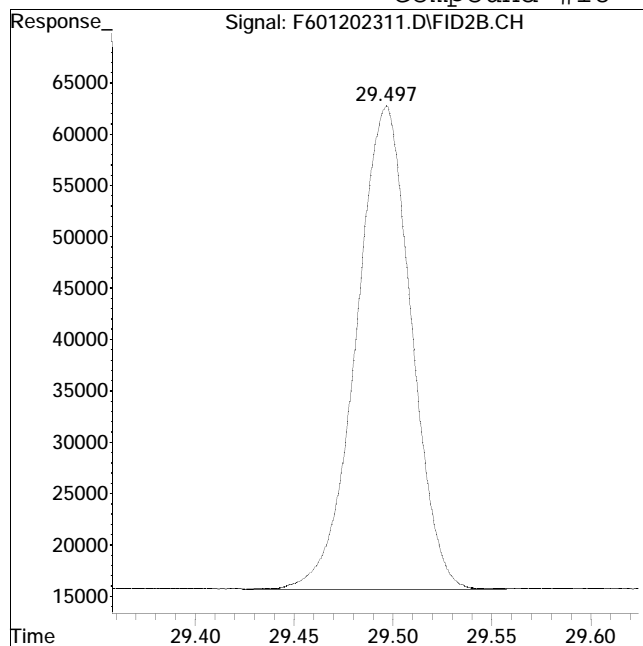
Manual Peak Response = 841377 M4

M4 = Poor automated baseline construction.

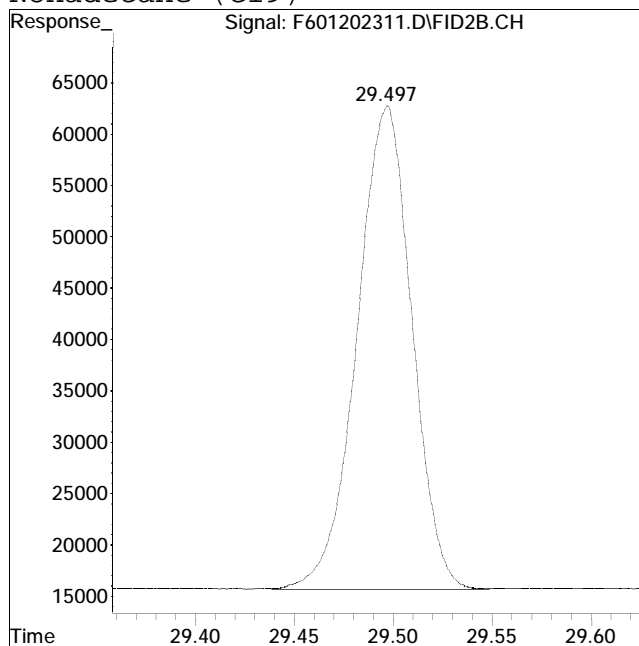
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 912752



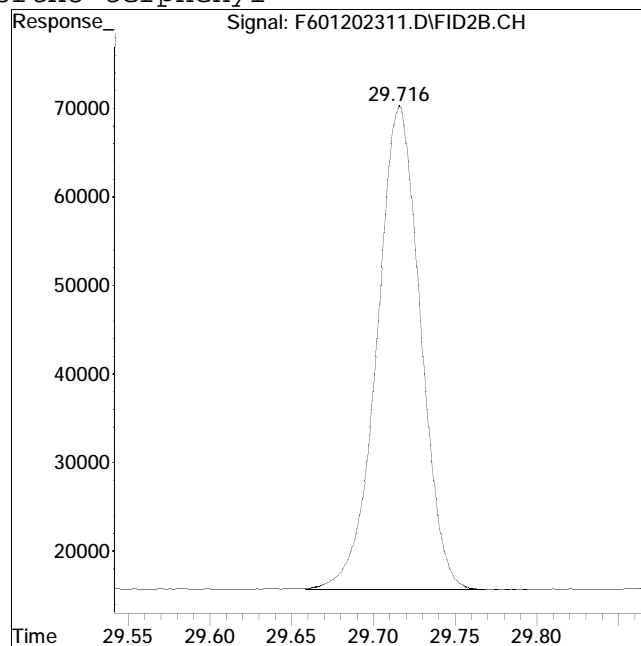
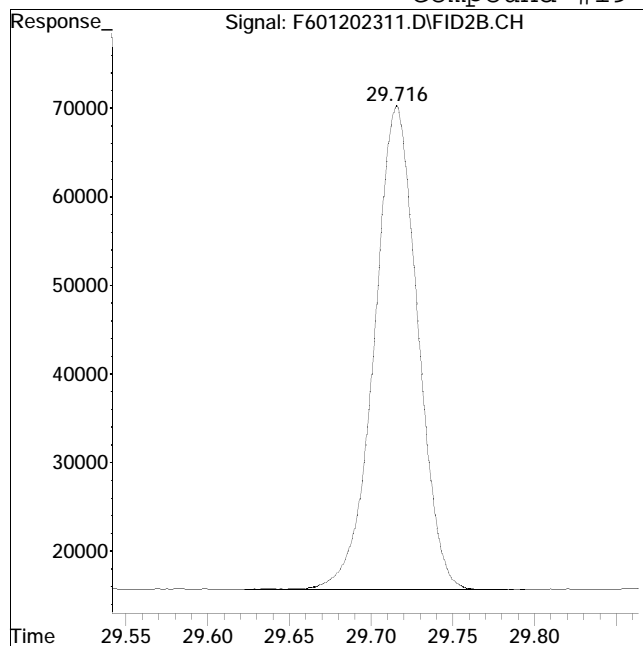
Manual Peak Response = 911789 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #19: ortho-terphenyl



Original Peak Response = 1011049

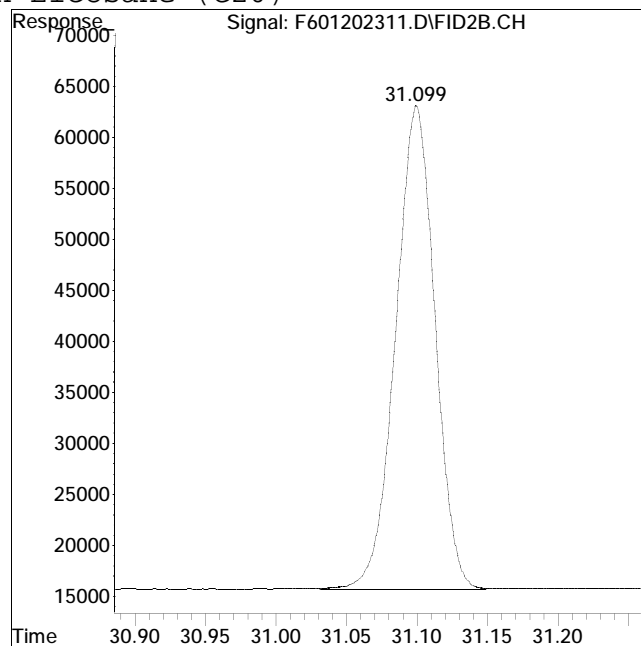
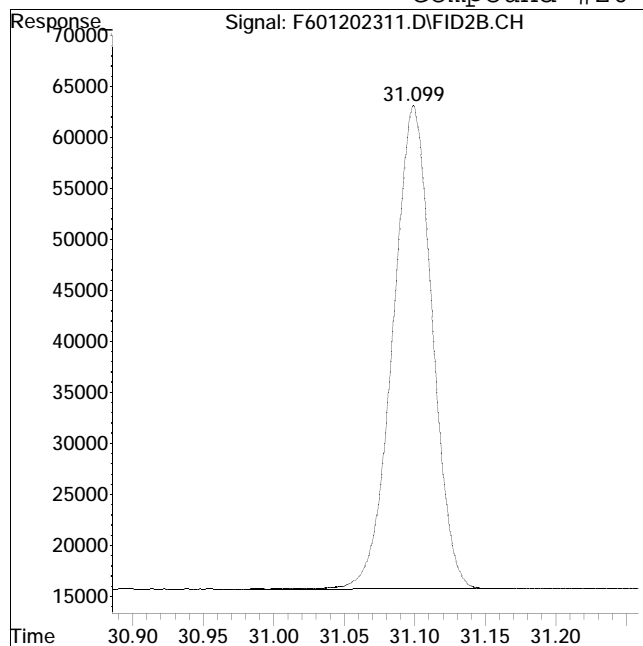
Manual Peak Response = 1009221 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 920243

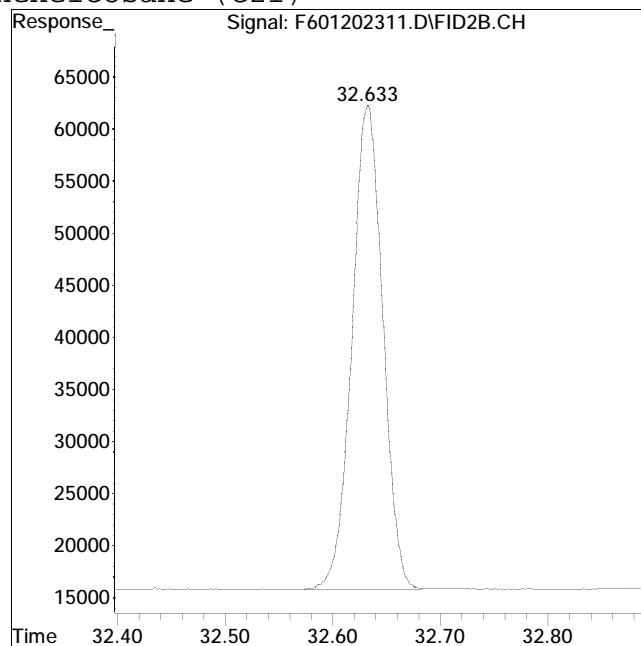
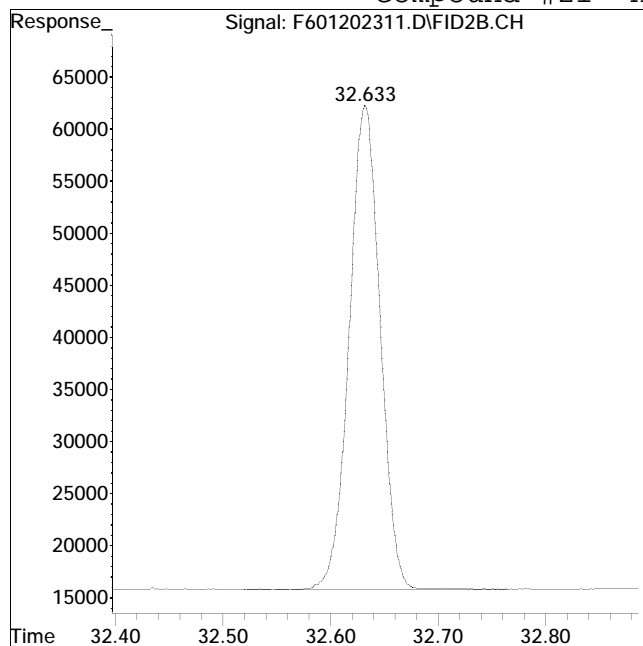
Manual Peak Response = 921997 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 930714

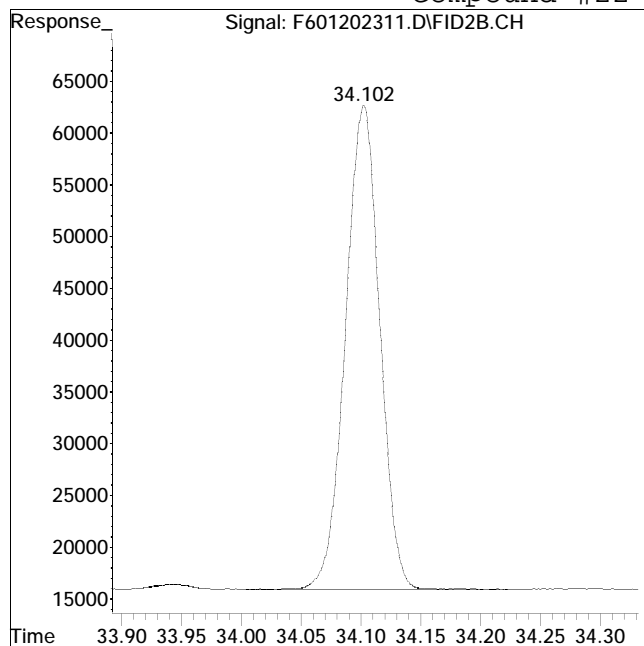
Manual Peak Response = 925821 M4

M4 = Poor automated baseline construction.

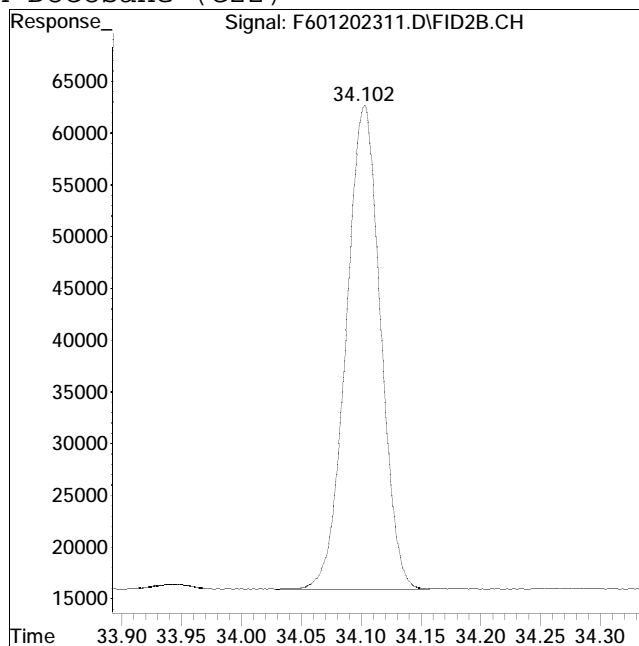
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 931523



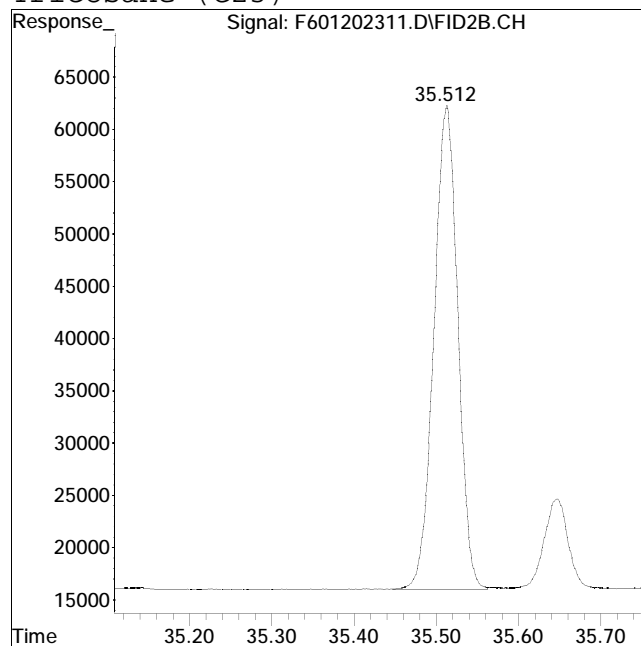
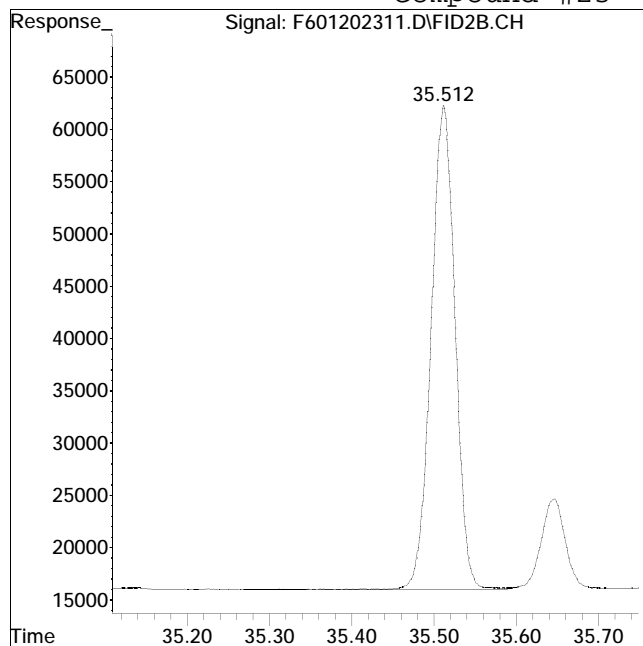
Manual Peak Response = 933770 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 937813

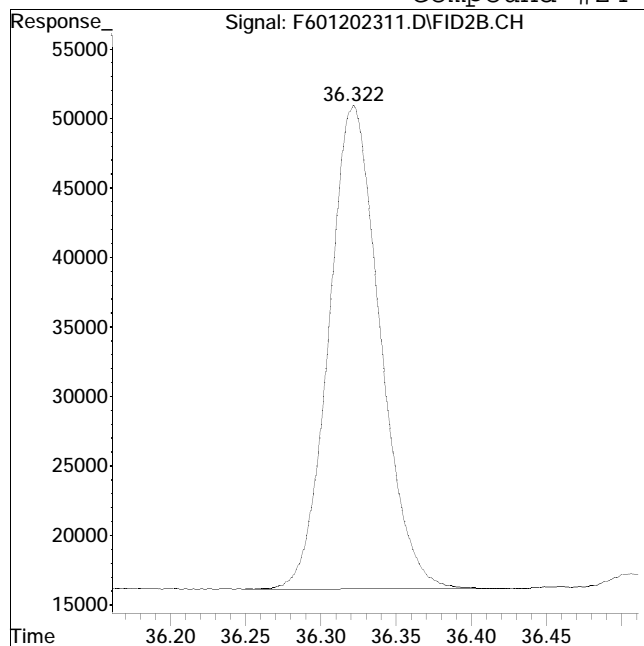
Manual Peak Response = 931359 M4

M4 = Poor automated baseline construction.

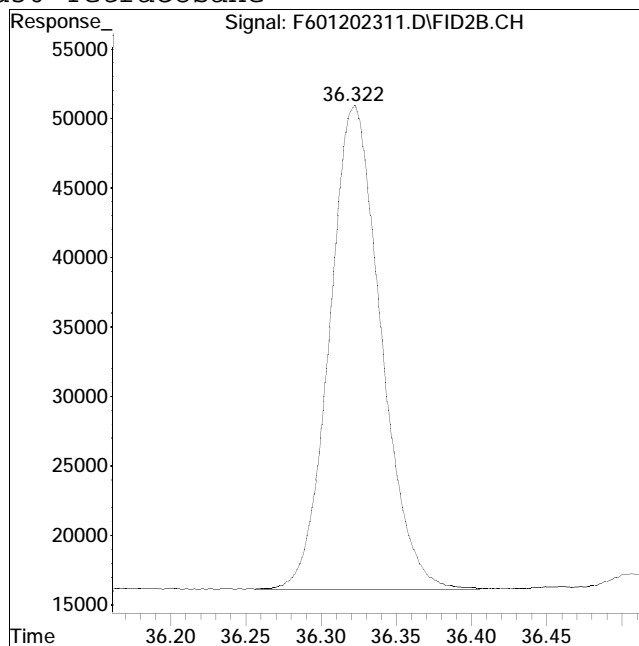
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #24: d50-Tetracosane



Original Peak Response = 825600



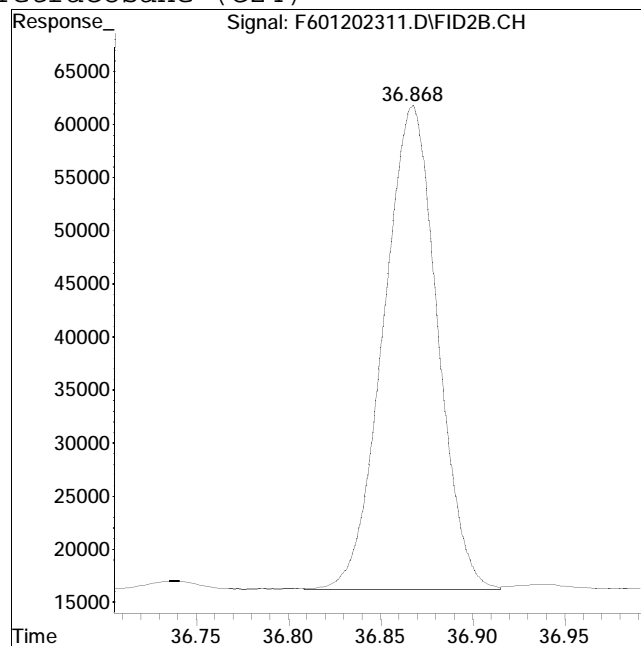
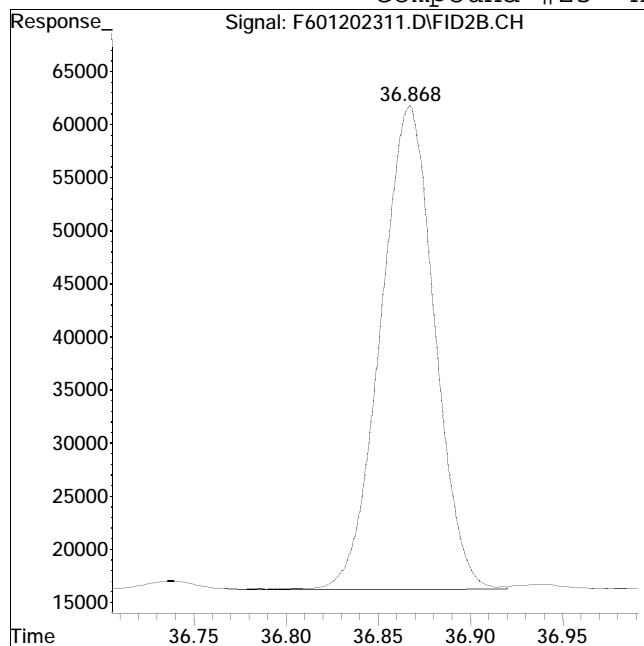
Manual Peak Response = 829033 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 927715

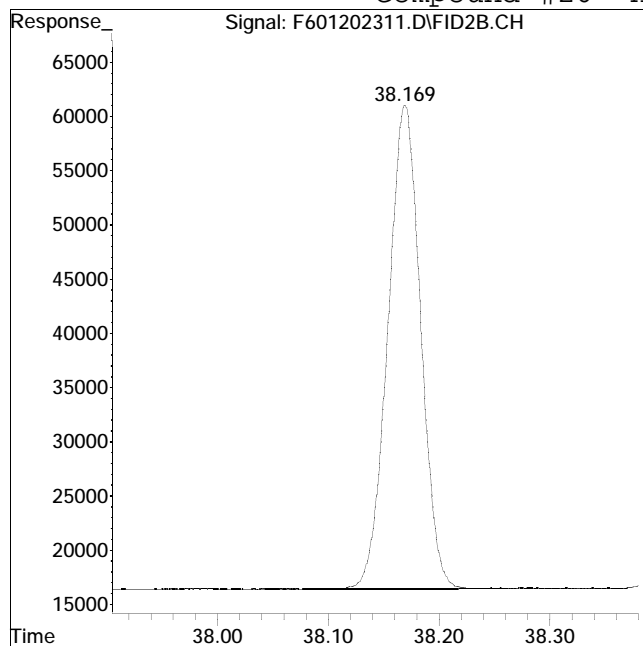
Manual Peak Response = 928455 M4

M4 = Poor automated baseline construction.

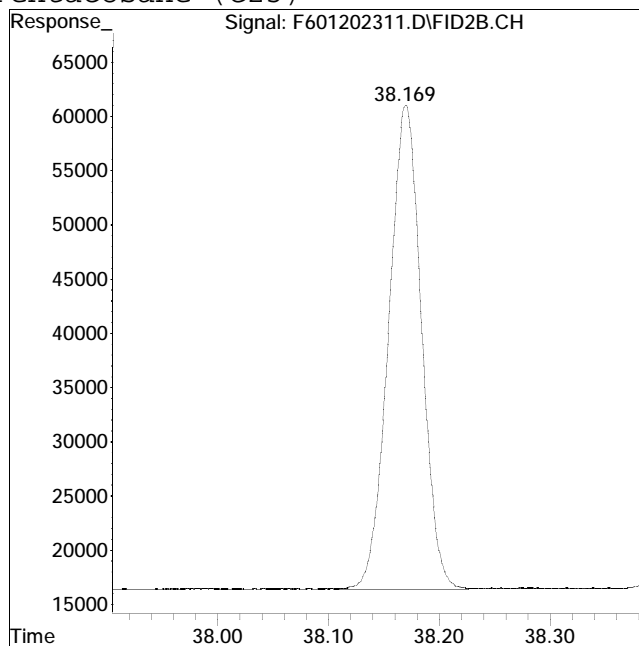
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202311.D Operator : FID6:WR
Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 917328



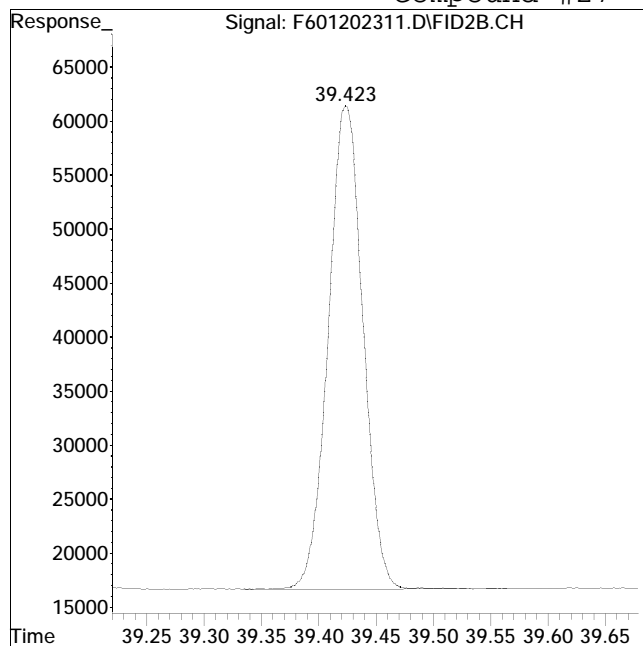
Manual Peak Response = 918099 M4

M4 = Poor automated baseline construction.

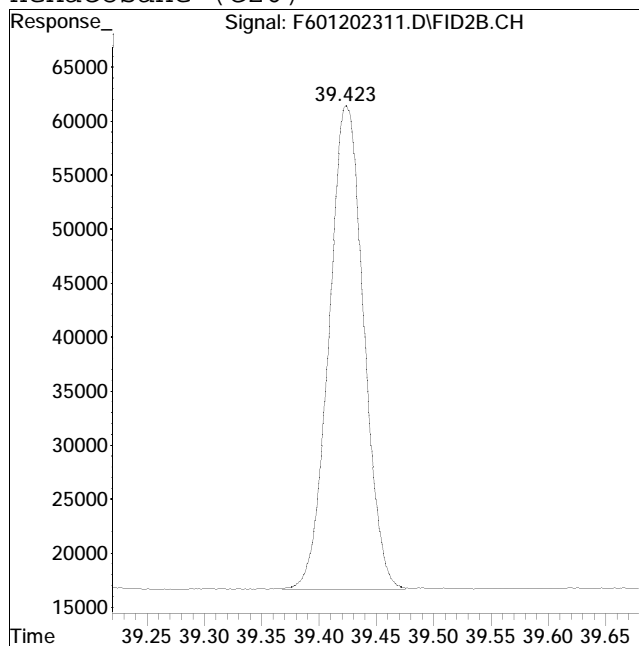
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 940195



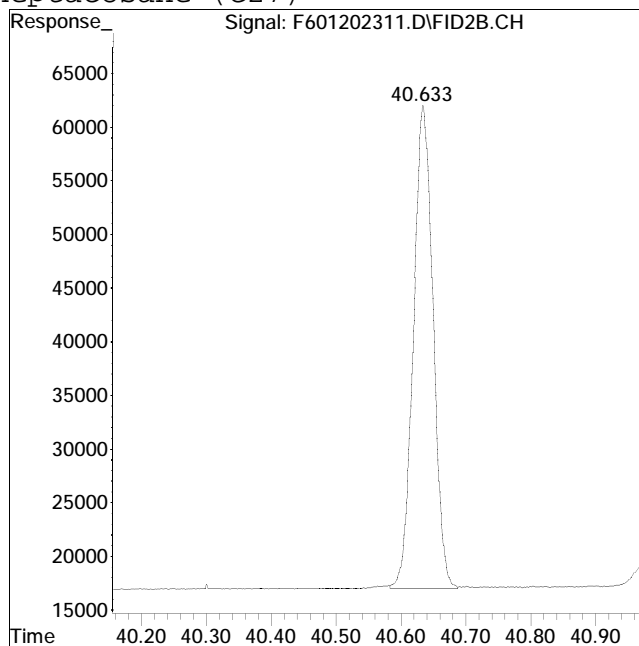
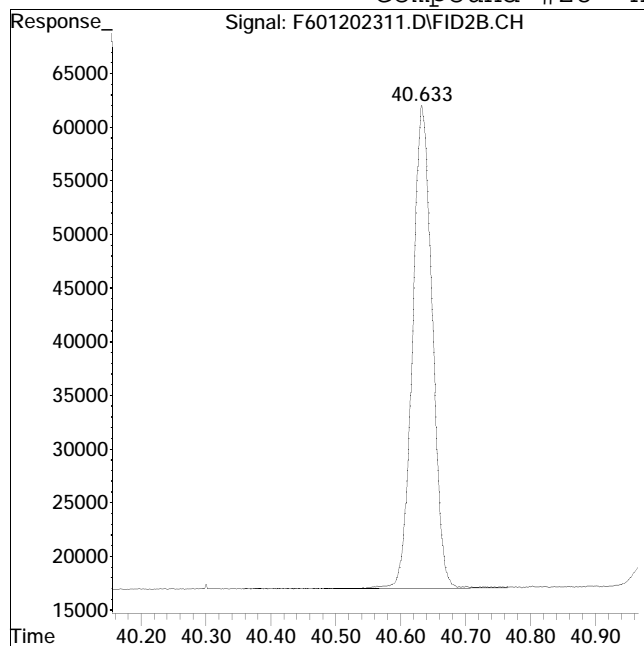
Manual Peak Response = 938343 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 946750

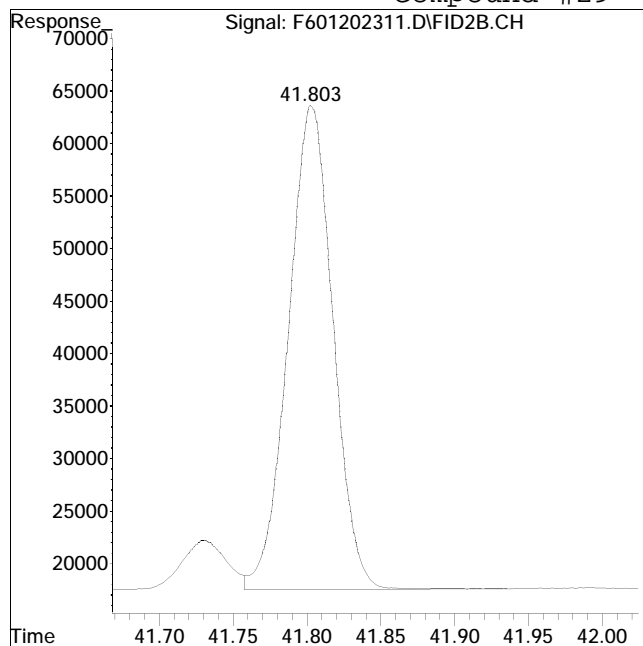
Manual Peak Response = 940655 M4

M4 = Poor automated baseline construction.

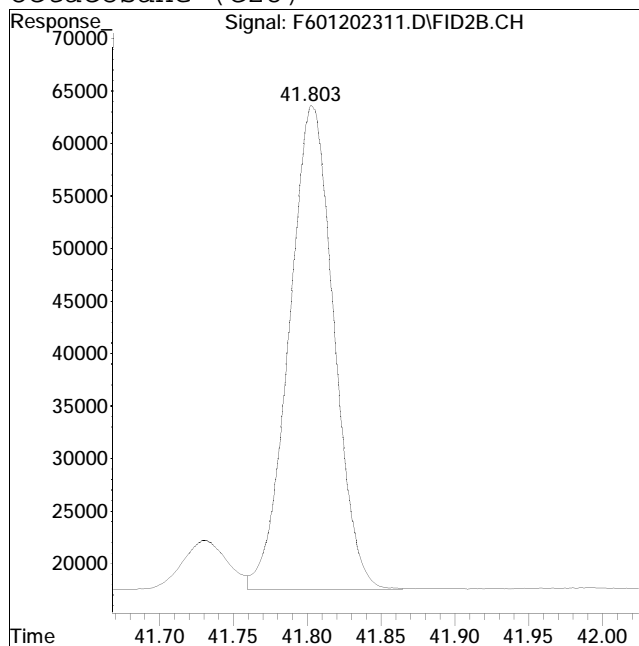
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 969698



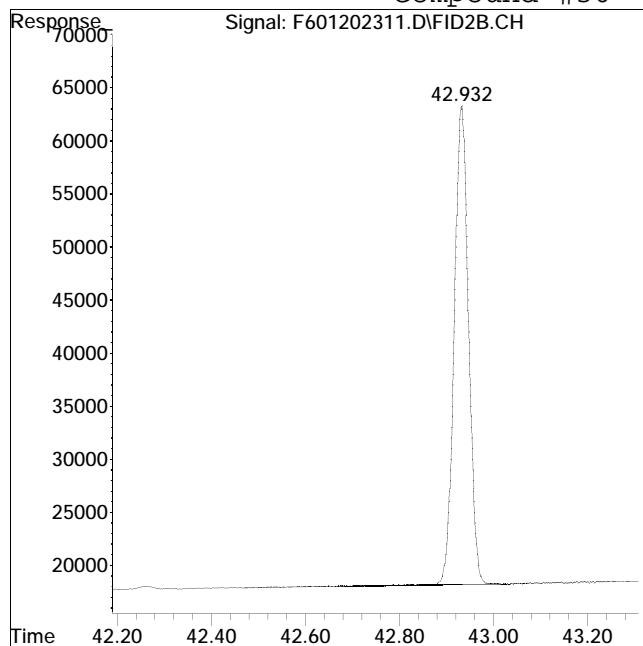
Manual Peak Response = 965580 M4

M4 = Poor automated baseline construction.

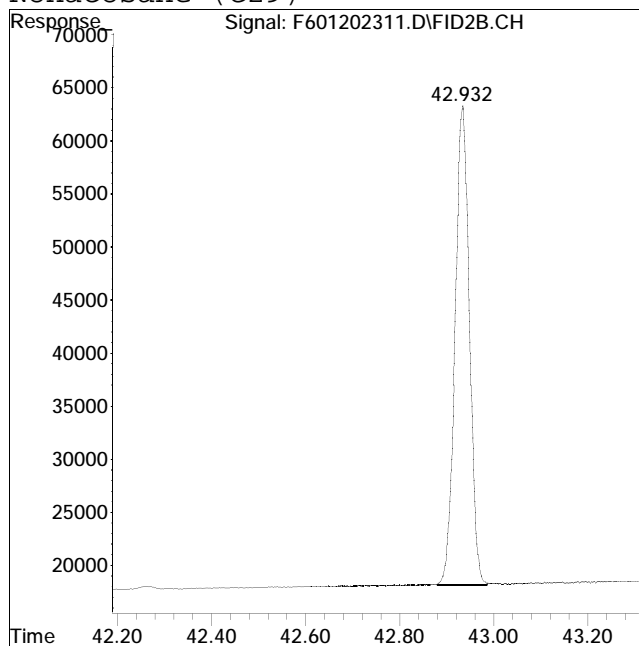
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 958440



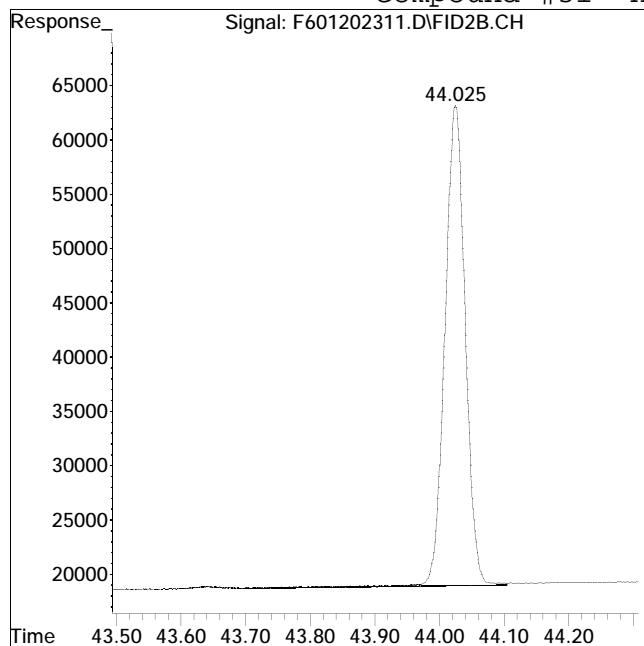
Manual Peak Response = 954502 M4

M4 = Poor automated baseline construction.

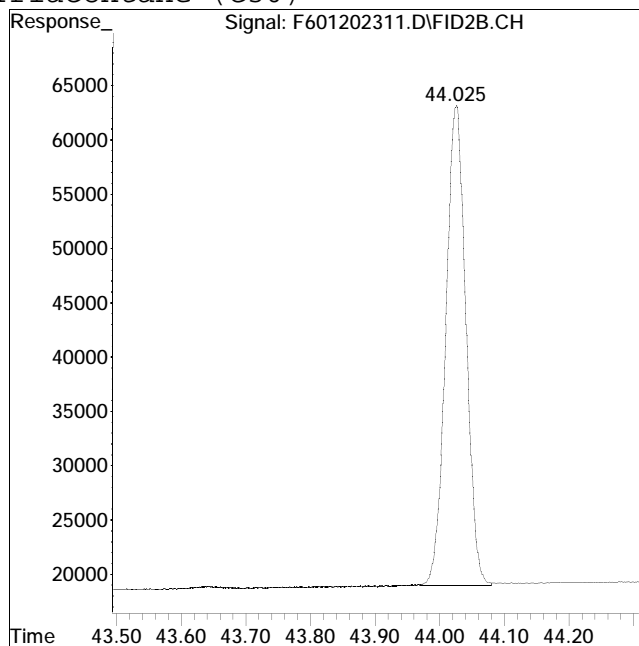
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 967528



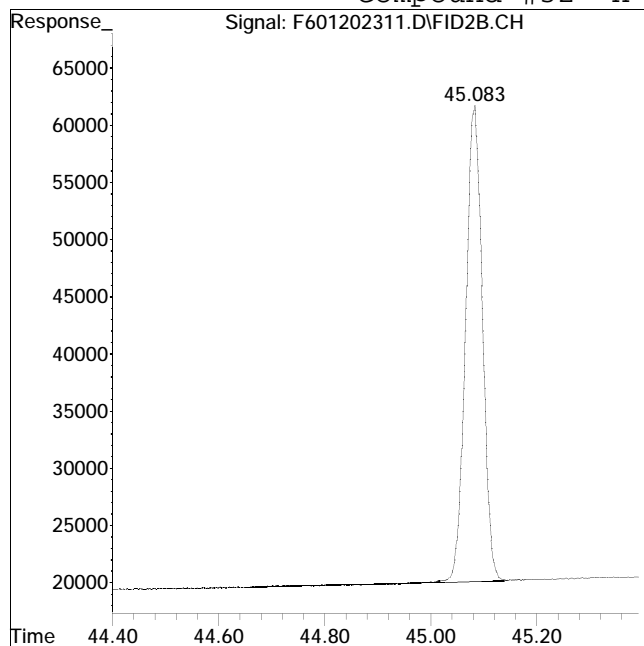
Manual Peak Response = 956278 M4

M4 = Poor automated baseline construction.

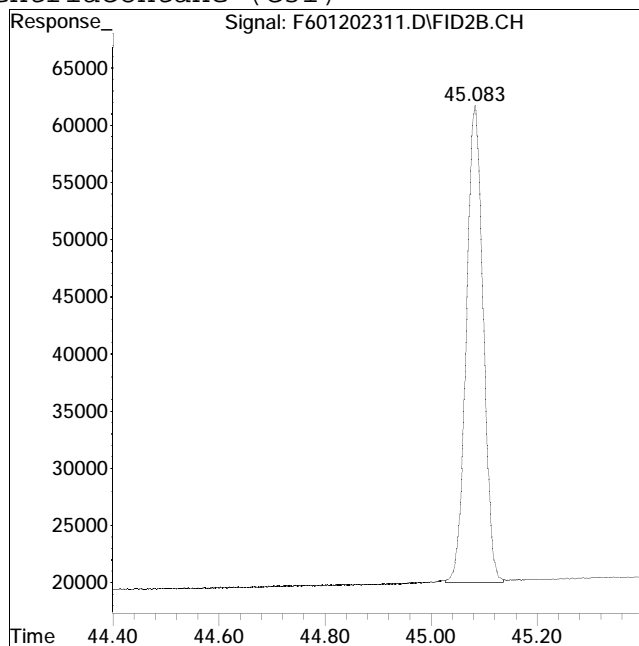
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 917790



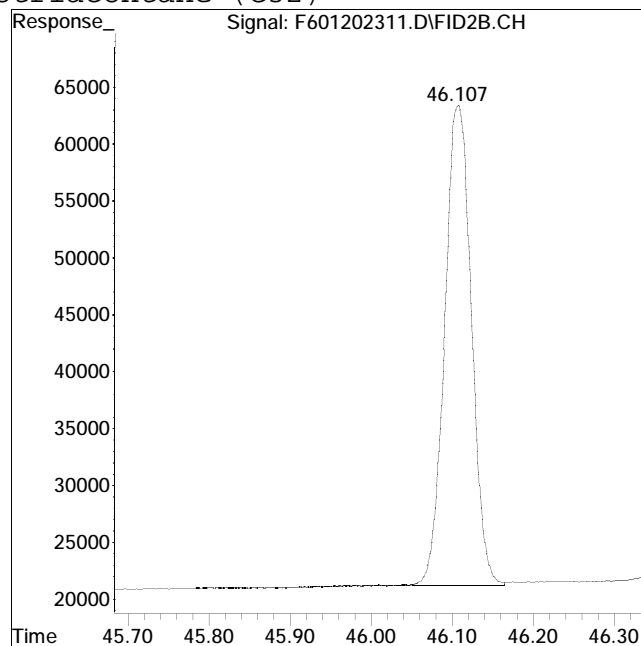
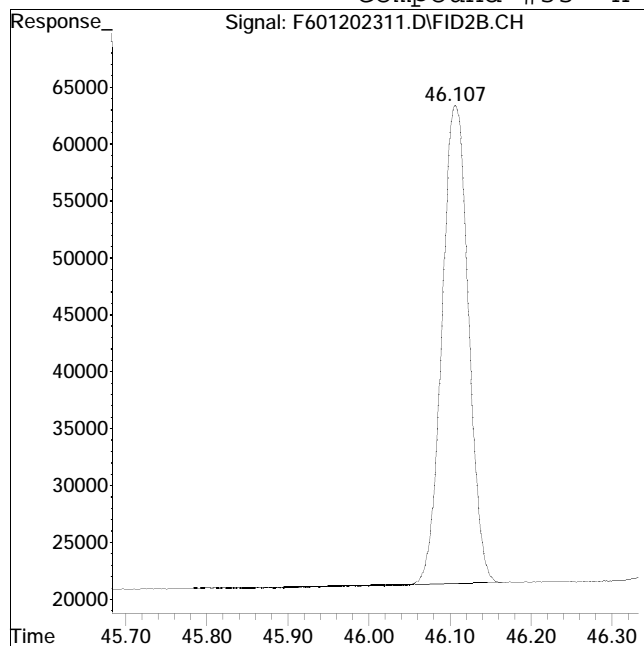
Manual Peak Response = 920042 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 948274

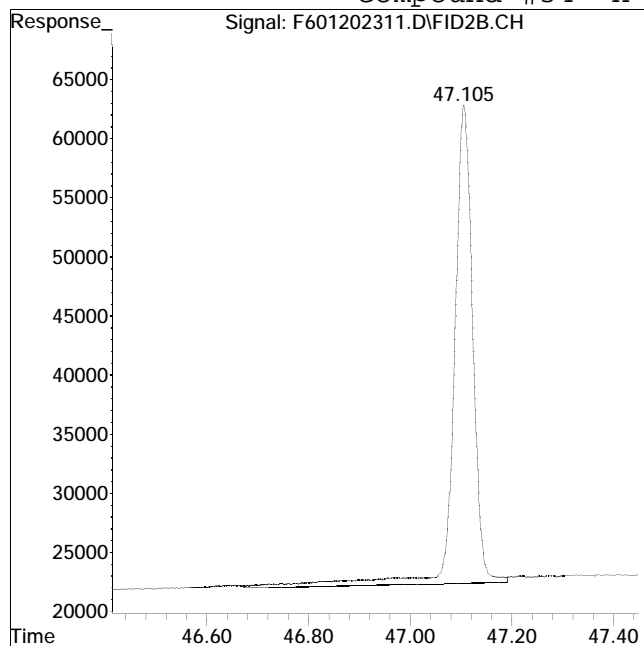
Manual Peak Response = 964438 M4

M4 = Poor automated baseline construction.

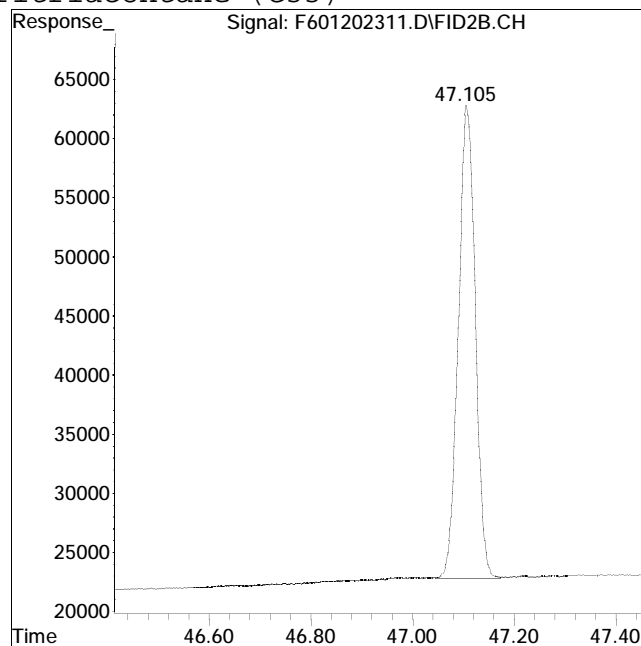
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 1055724



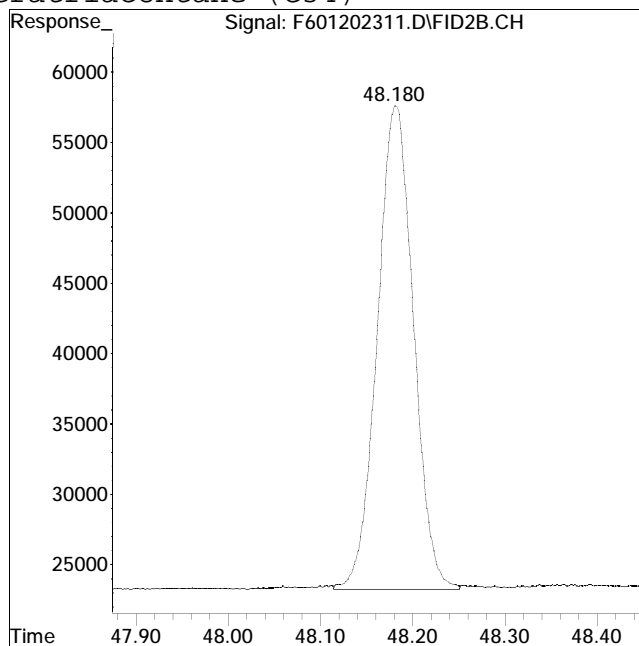
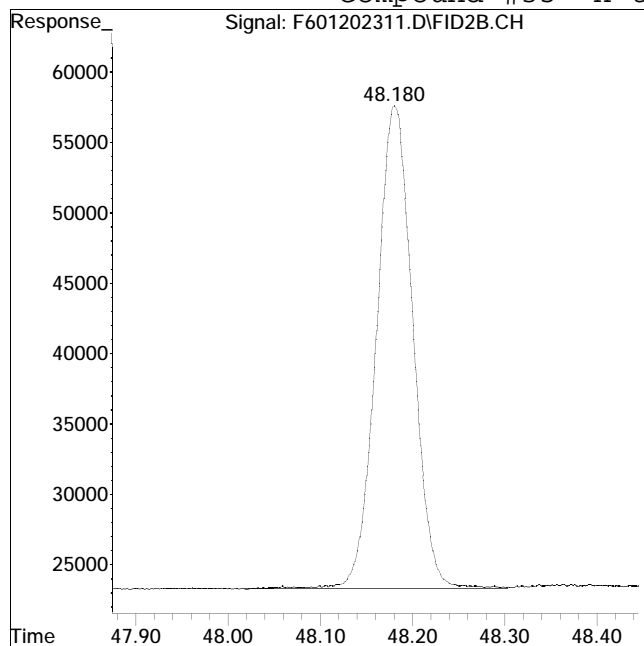
Manual Peak Response = 930249 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 945032

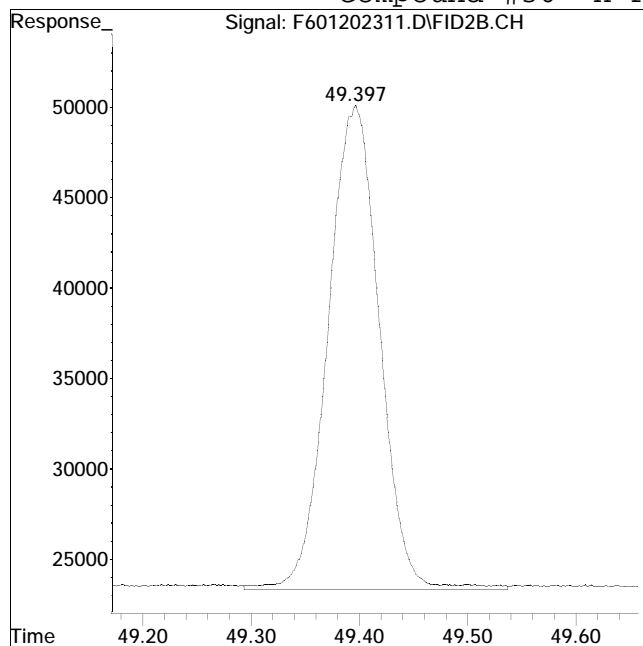
Manual Peak Response = 935061 M4

M4 = Poor automated baseline construction.

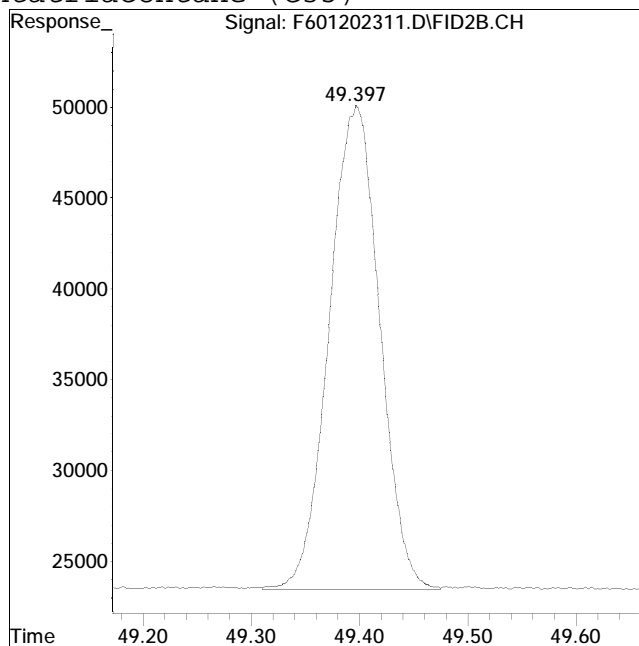
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202311.D Operator : FID6:WR
Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 885235



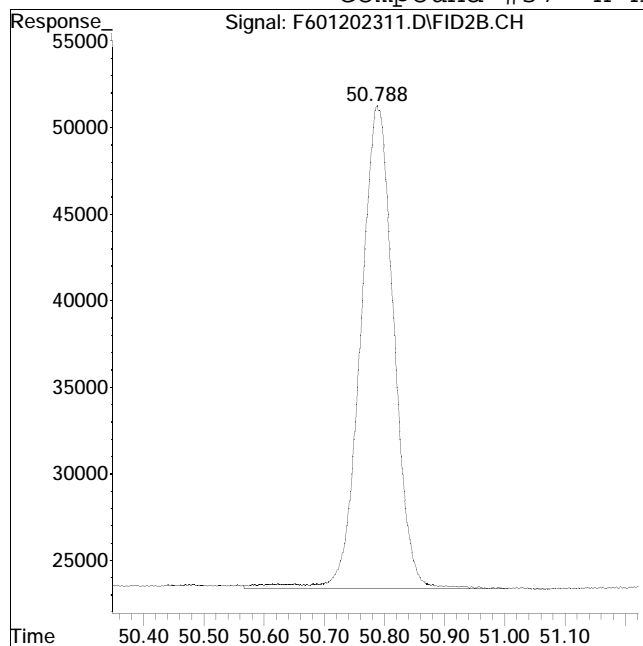
Manual Peak Response = 861837 M4

M4 = Poor automated baseline construction.

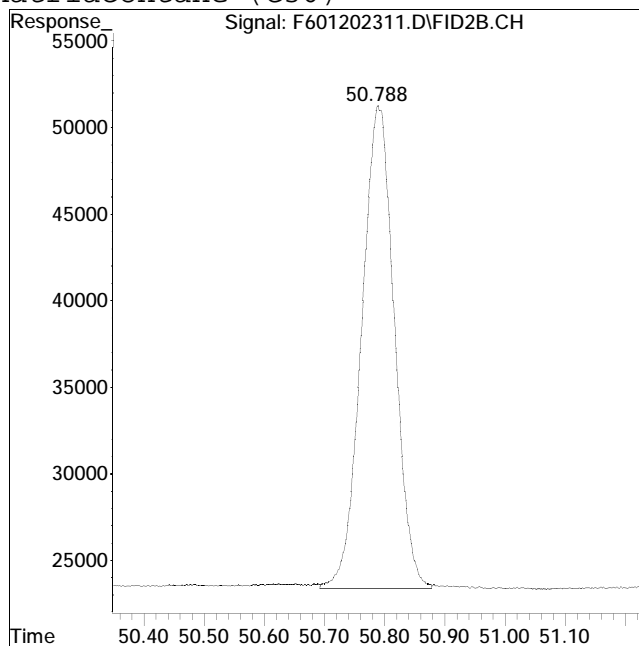
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202311.D Operator : FID6:WR
Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 1074779



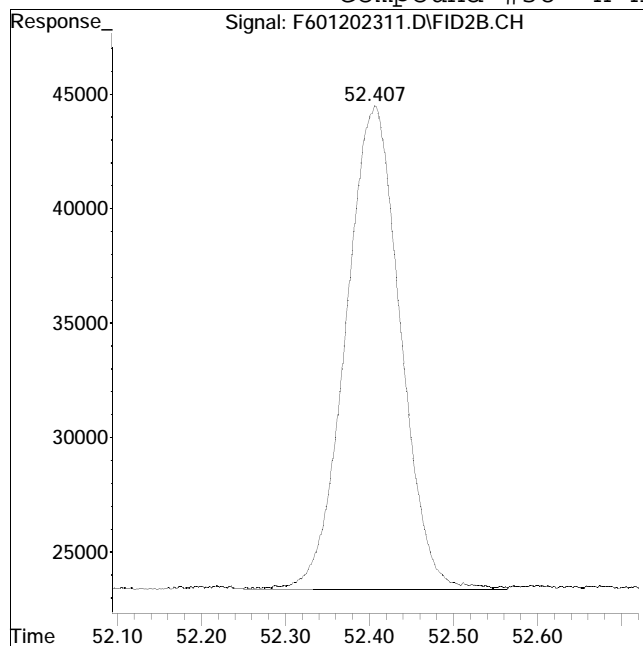
Manual Peak Response = 1052293 M4

M4 = Poor automated baseline construction.

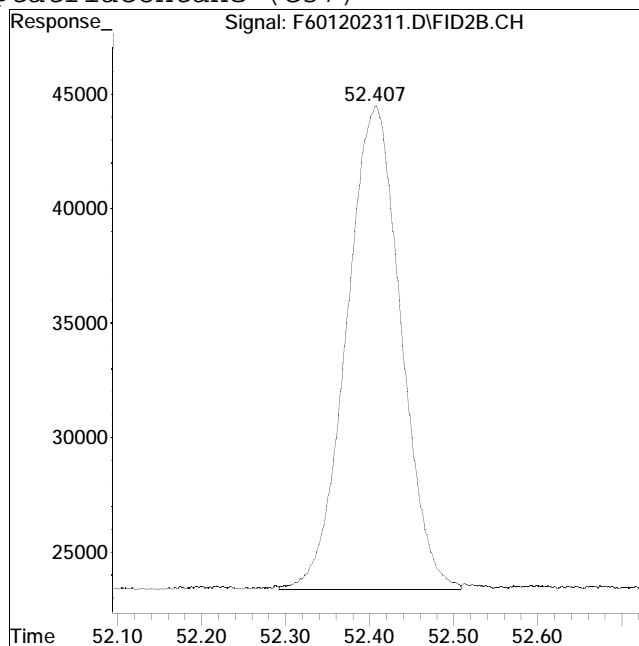
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202311.D Operator : FID6:WR
Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 955280



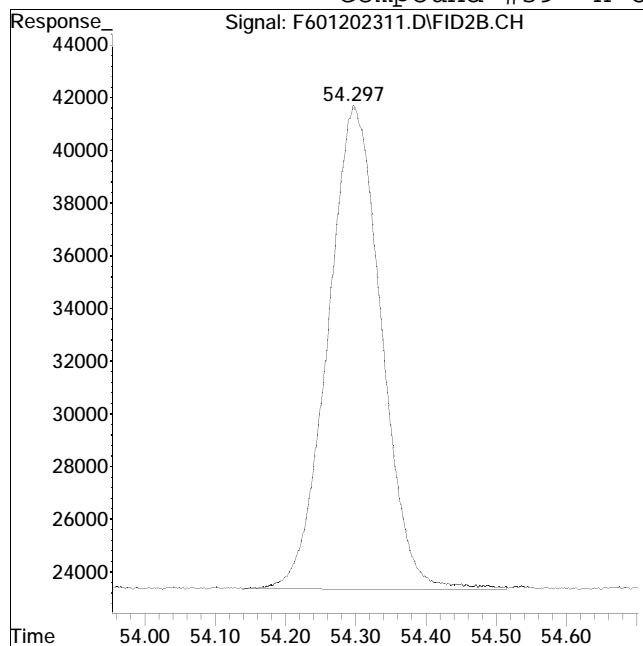
Manual Peak Response = 947987 M4

M4 = Poor automated baseline construction.

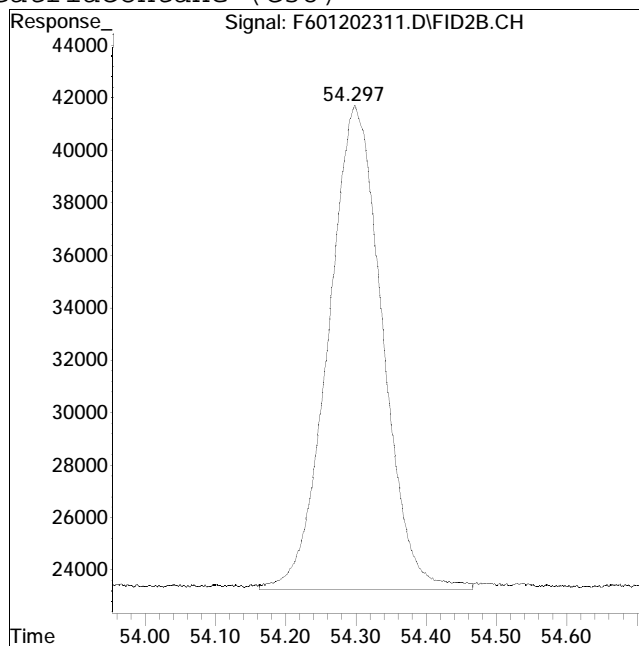
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 968736



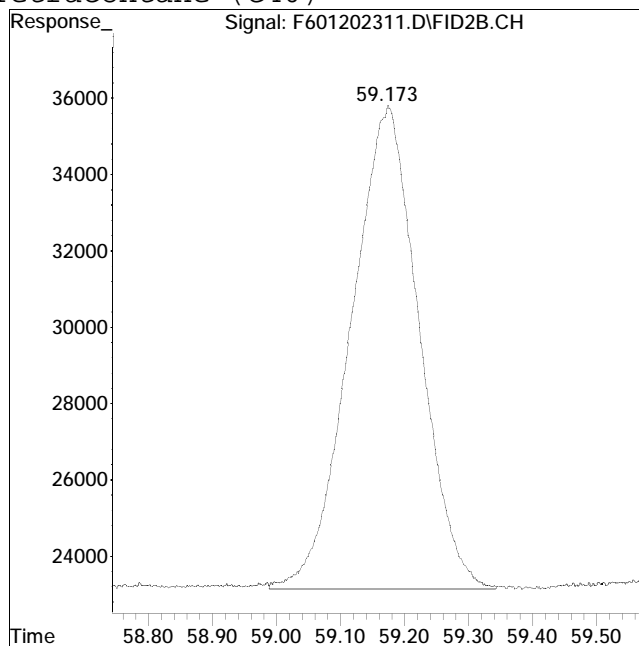
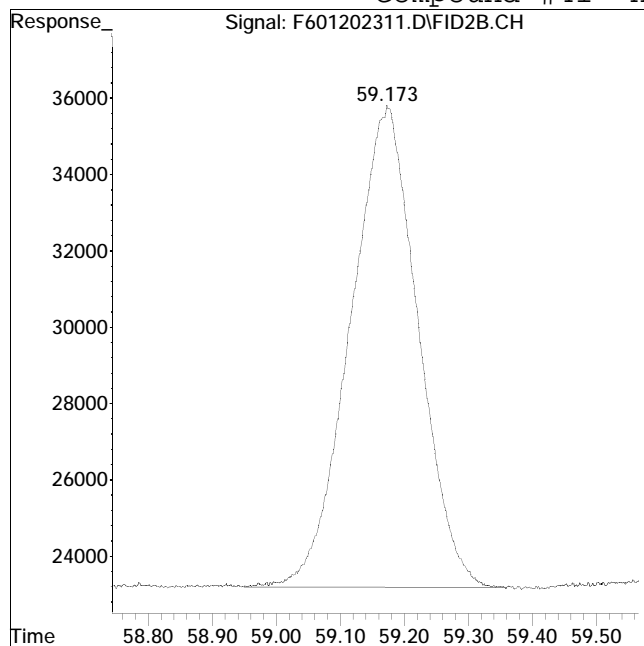
Manual Peak Response = 985978 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202311.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 6:43 pm Instrument : FID6
 Sample : I601202301R Quant Date : 3/7/2023 4:29 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 928620

Manual Peak Response = 935857 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202313.D
 Signal(s) : FID2B.CH
 Acq On : 20 Jan 2023 8:11 pm
 Operator : FID6:WR
 Sample : I601202302R
 Misc : WG1752810,FRBF56,10ug/ml
 ALS Vial : 57 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 07 16:49:09 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Mar 07 16:36:43 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.772	44911423	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.723	9287202	9.354 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	18.71%#
24) s d50-Tetracosane	36.327	7628213	9.362 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	18.72%#
Target Compounds			
2) t n-Octane (C8)	5.996	7712930	10.030 ug/mL M4
3) t n-Nonane (C9)	8.262	7805007	9.982 ug/mL M4
4) t n-Decane (C10)	10.773	7996904	10.027 ug/mL M4
5) t n-Undecane (C11)	13.289	7984834	9.962 ug/mL M4
6) t n-Dodecane (C12)	15.713	8094874	9.976 ug/mL M4
7) t n-Tridecane (C13)	18.015	8149649	9.971 ug/mL M4
9) t n-Tetradecane (C14)	20.192	8403609	10.004 ug/mL M4
11) t n-Pentadecane (C15)	22.252	8482152	10.057 ug/mL M4
12) t n-Hexadecane (C16)	24.203	8442888	9.915 ug/mL M4
14) t n-Heptadecane (C17)	26.057	8580439	9.941 ug/mL M4
15) t Pristane	26.167	8761810	9.961 ug/mL M4
16) t n-Octadecane (C18)	27.820	8700477	9.958 ug/mL M4
17) t Phytane	27.984	8097840	9.931 ug/mL M4
18) t n-Nonadecane (C19)	29.502	8792973	10.039 ug/mL M4
20) t n-Eicosane (C20)	31.105	8859420	9.948 ug/mL M4
21) t n-Heneicosane (C21)	32.639	8930567	10.035 ug/mL M4
22) t n-Docosane (C22)	34.107	8953315	9.921 ug/mL M4
23) t n-Tricosane (C23)	35.519	8976818	9.955 ug/mL M4
25) t n-Tetracosane (C24)	36.874	8967477	10.214 ug/mL M4
26) t n-Pentacosane (C25)	38.178	8842792	9.946 ug/mL M4
27) t n-Hexacosane (C26)	39.432	9094786	9.968 ug/mL M4
28) t n-Heptacosane (C27)	40.641	9110370	10.159 ug/mL M4
29) t n-Octacosane (C28)	41.810	9301650	10.012 ug/mL M4
30) t n-Nonacosane (C29)	42.940	9248578	10.066 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202313.D
 Signal(s) : FID2B.CH
 Acq On : 20 Jan 2023 8:11 pm
 Operator : FID6:WR
 Sample : I601202302R
 Misc : WG1752810,FRBF56,10ug/ml
 ALS Vial : 57 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 07 16:49:09 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Mar 07 16:36:43 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	44.029	9267200	10.074 ug/mL M4
32) t	n-Hentriacontane (C31)	45.090	8921245	10.057 ug/mL M4
33) t	n-Dotriacontane (C32)	46.115	9353256	10.068 ug/mL M4
34) t	n-Tritriacontane (C33)	47.113	9057478	10.115 ug/mL M4
35) t	n-tetratriacontane (C34)	48.189	8988838	10.035 ug/mL M4
36) t	n-Pentatriacontane (C35)	49.403	8400592	9.705 ug/mL M4
37) t	n-Hexatriacontane (C36)	50.799	10095138	10.177 ug/mL M4
38) t	n-Heptatriacontane (C37)	52.423	9176554	10.139 ug/mL M4
39) t	n-Octatriacontane (C38)	54.313	9283656	9.877 ug/mL M4
41) t	n-Tetracontane (C40)	59.191	9154738	9.942 ug/mL M4

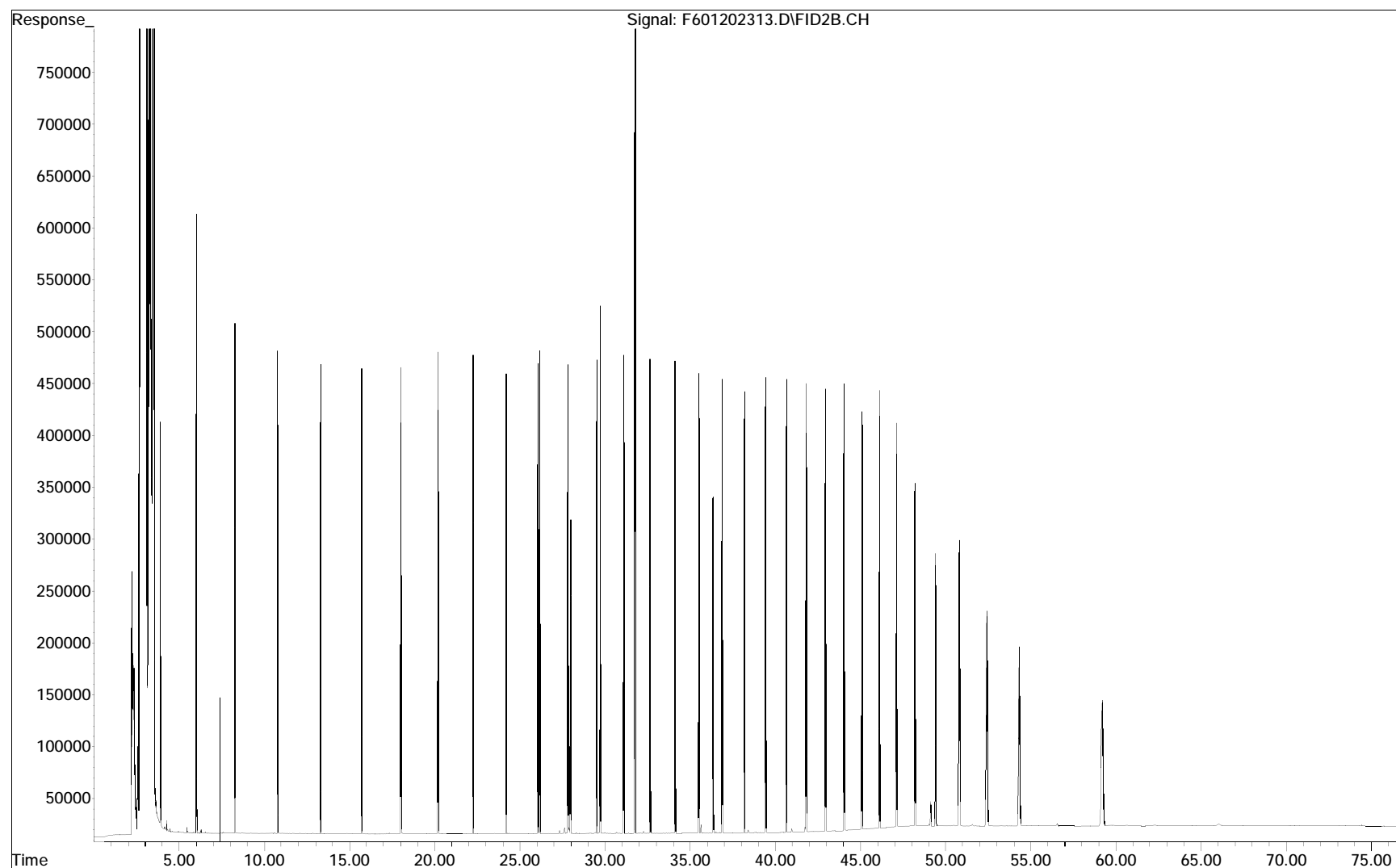
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

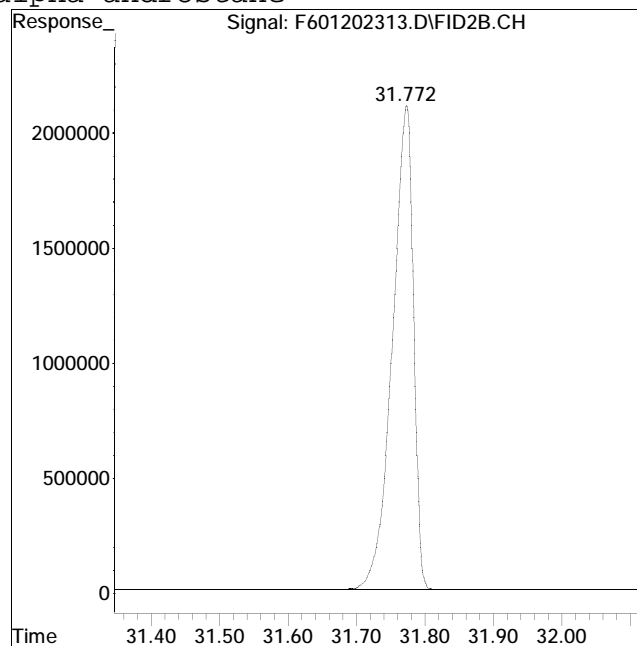
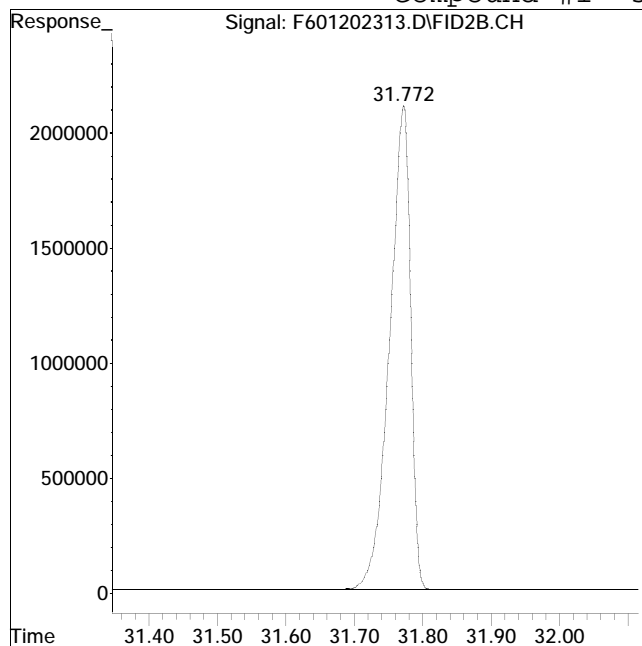
File : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\F601202313.D
 Operator : FID6:WR
 Acquired : 20 Jan 2023 8:11 pm using AcqMethod FID6A.M
 Sample Name: I601202302R
 Instrument: FID6
 Misc Info : WG1752810,FRBF56,10ug/ml
 Vial Number: 57
 CurrentMeth: O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202313.D Operator : FID6:WR
Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 44914547

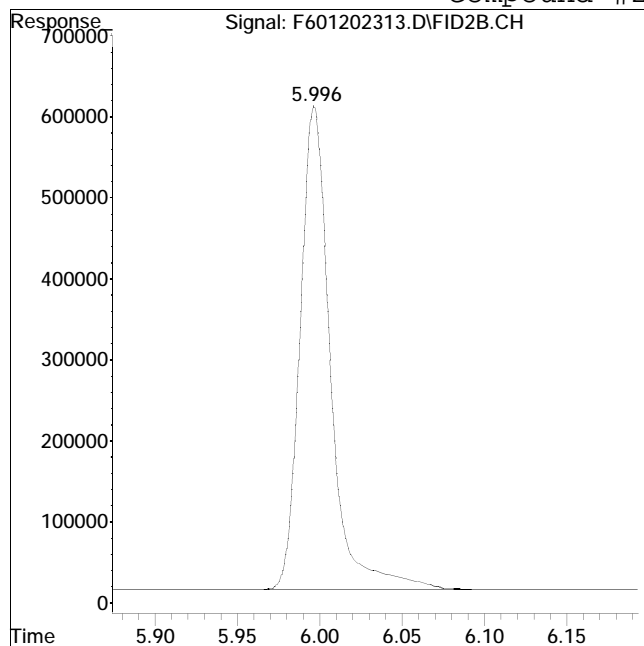
Manual Peak Response = 44911423 M4

M4 = Poor automated baseline construction.

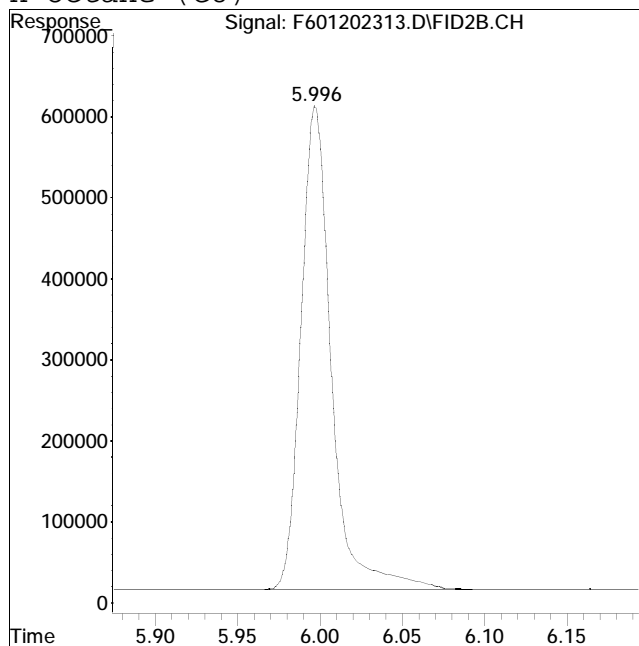
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #2: n-Octane (C8)



Original Peak Response = 7708617



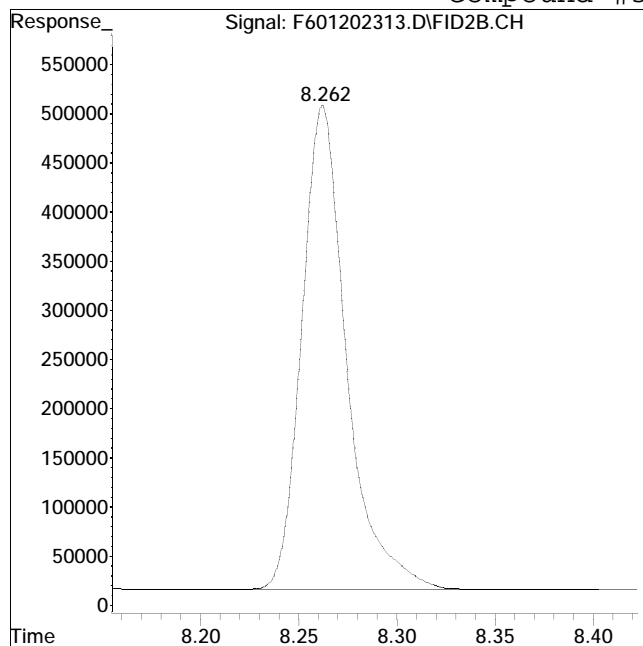
Manual Peak Response = 7712930 M4

M4 = Poor automated baseline construction.

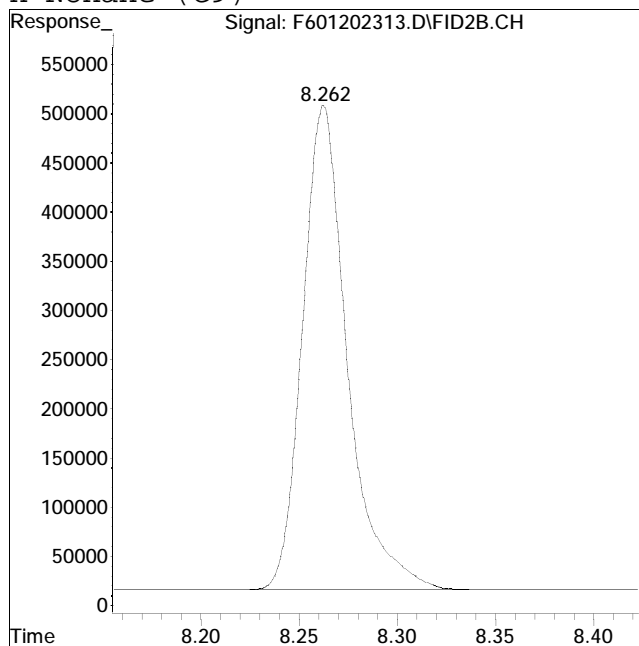
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 7844913



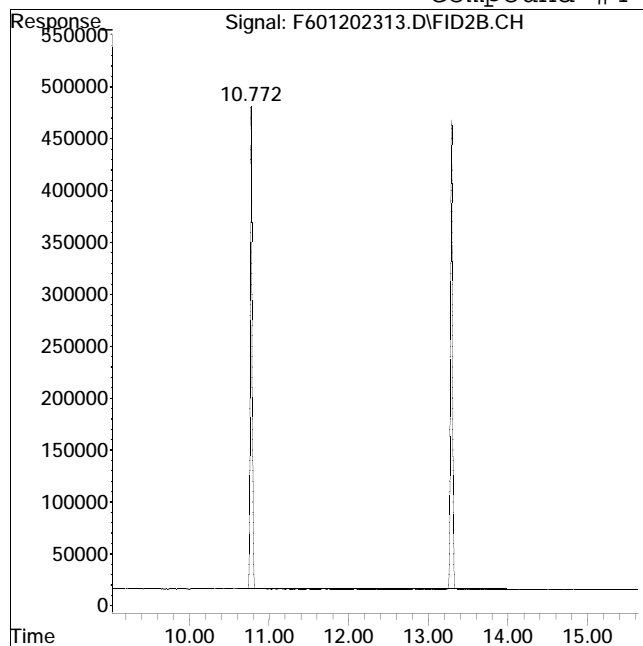
Manual Peak Response = 7805007 M4

M4 = Poor automated baseline construction.

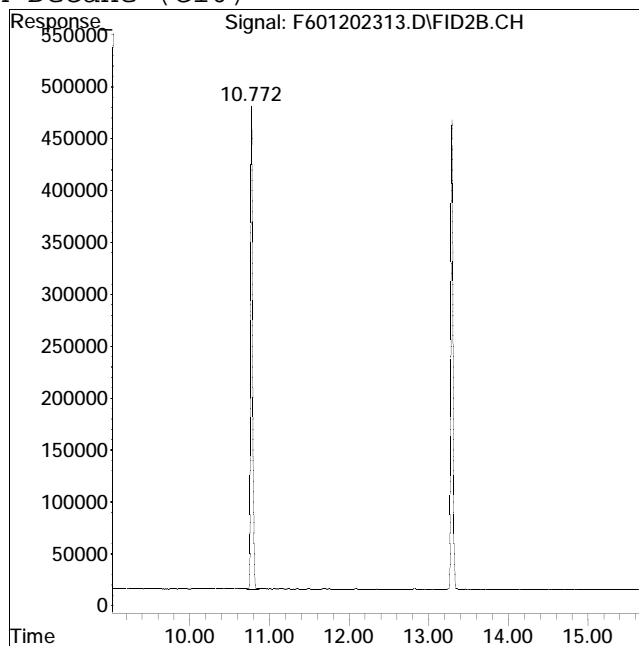
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #4: n-Decane (C10)



Original Peak Response = 7539488



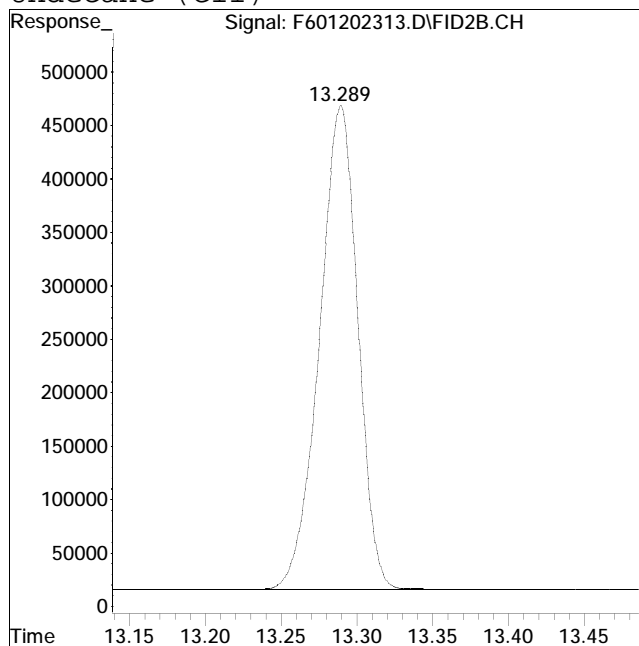
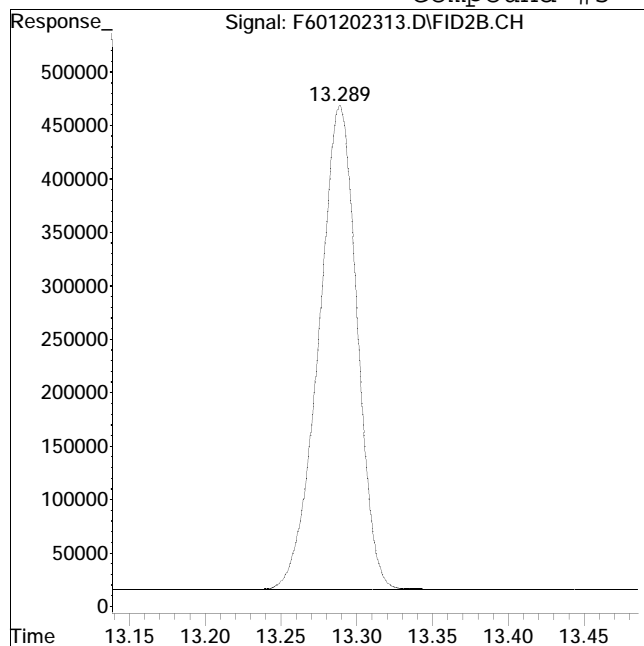
Manual Peak Response = 7996904 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 7958691

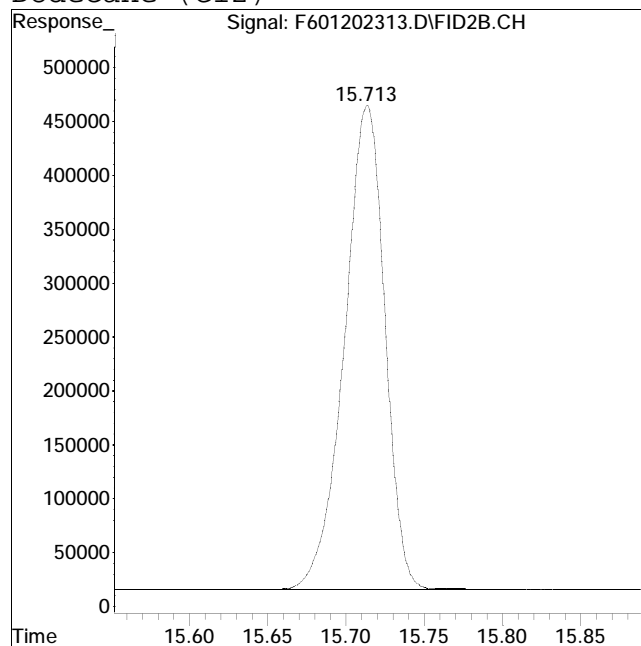
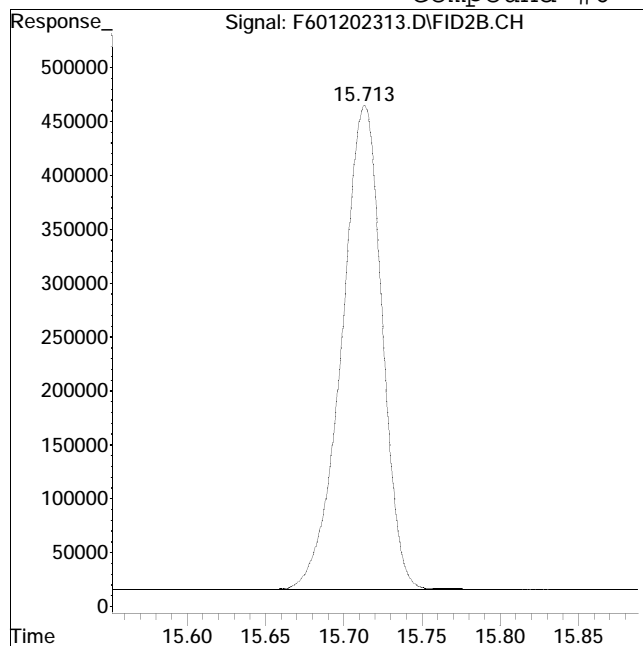
Manual Peak Response = 7984834 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 8094701

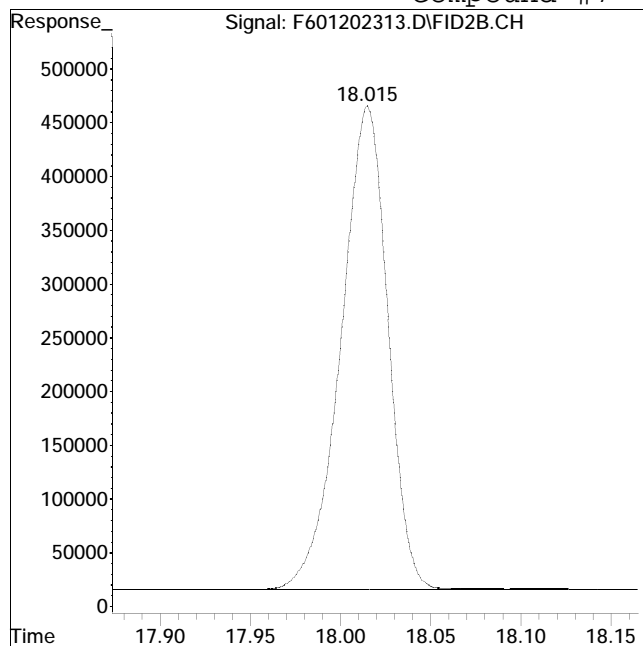
Manual Peak Response = 8094874 M4

M4 = Poor automated baseline construction.

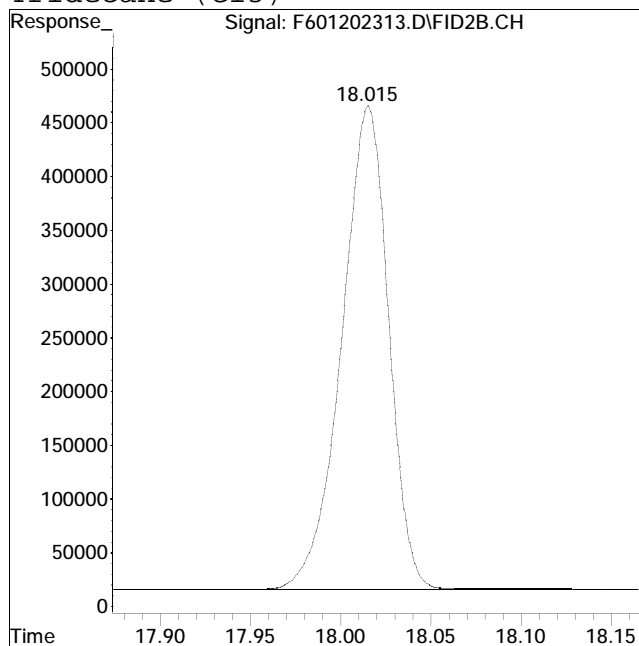
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 8122290



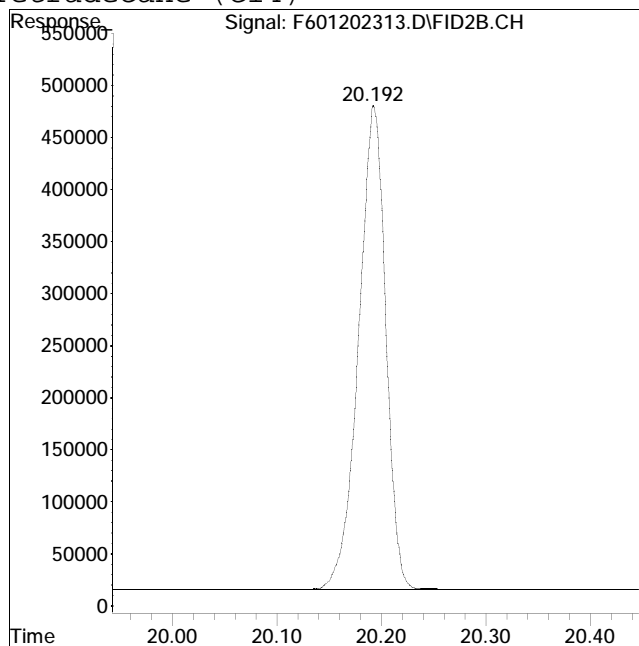
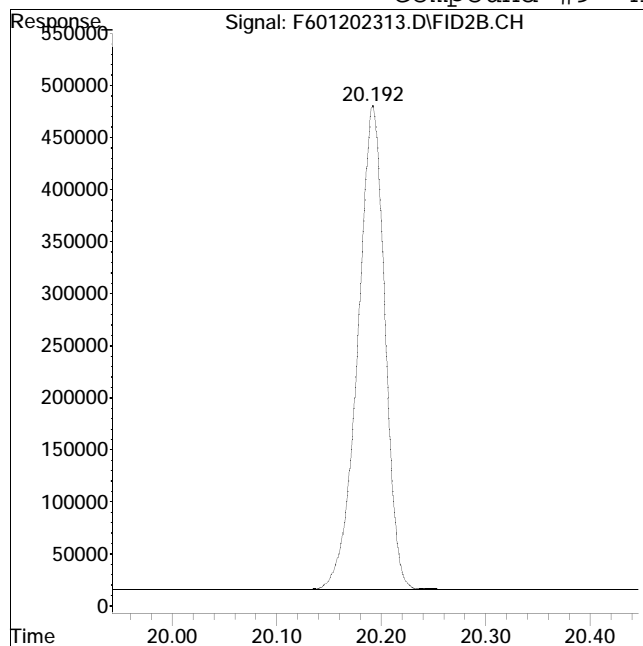
Manual Peak Response = 8149649 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 8398485

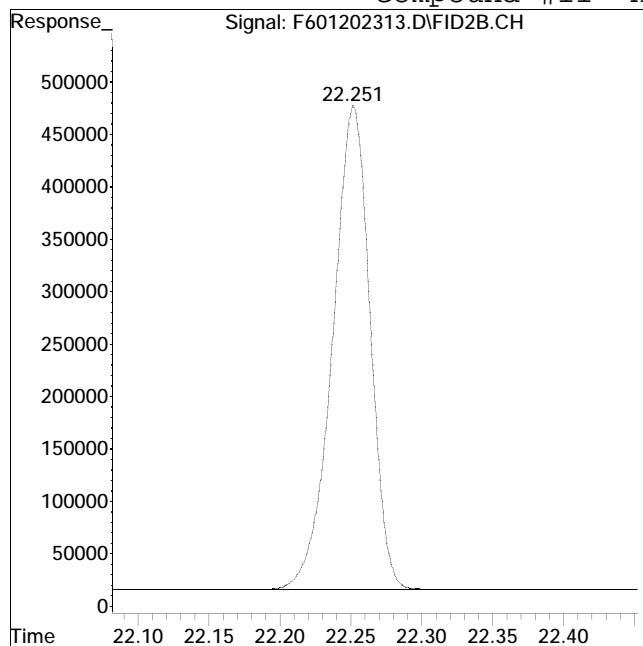
Manual Peak Response = 8403609 M4

M4 = Poor automated baseline construction.

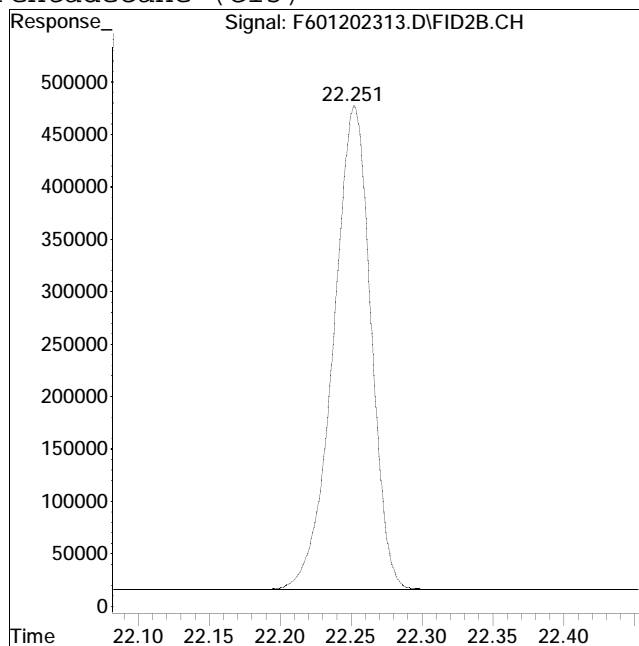
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 8486018



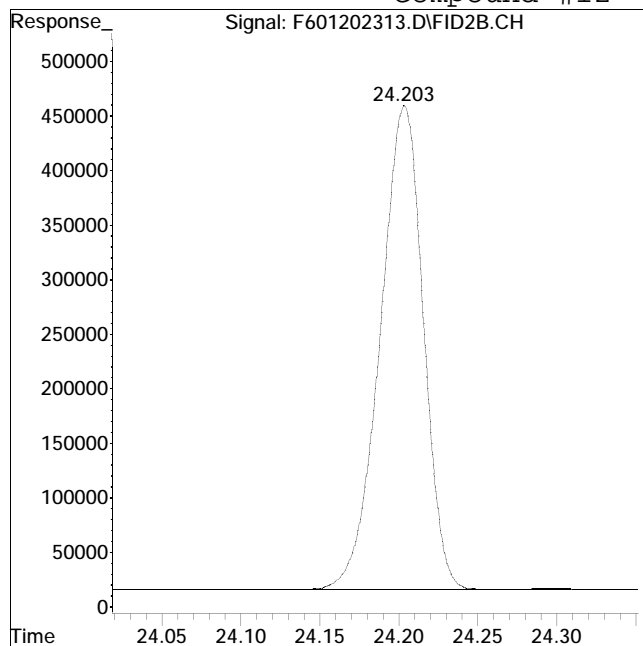
Manual Peak Response = 8482152 M4

M4 = Poor automated baseline construction.

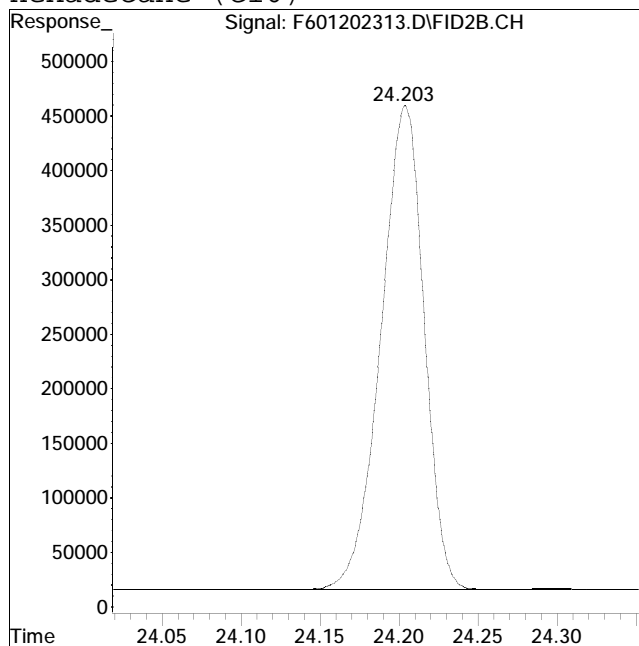
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 8443720



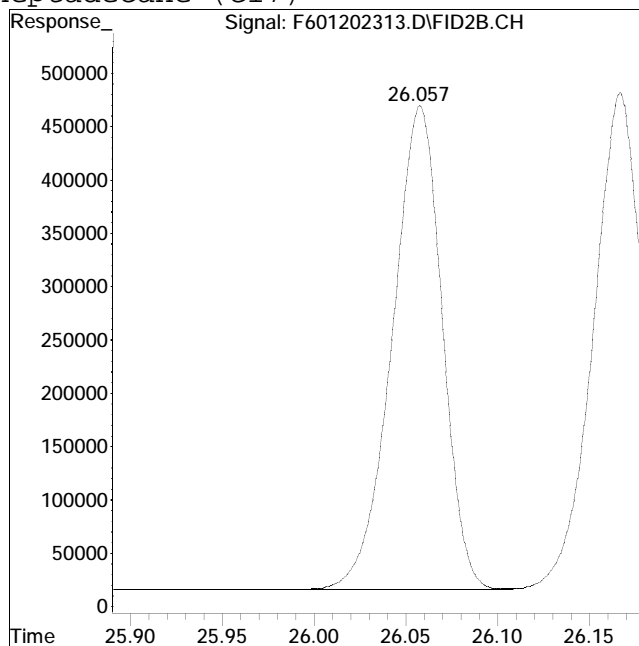
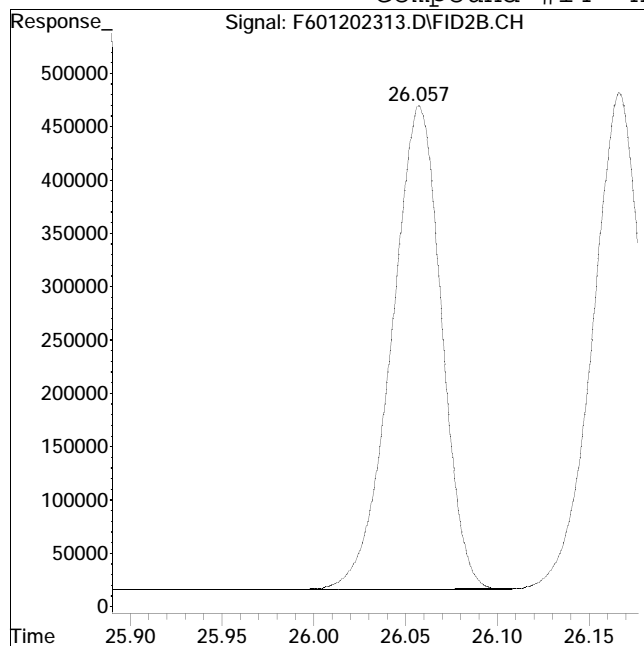
Manual Peak Response = 8442888 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 8550748

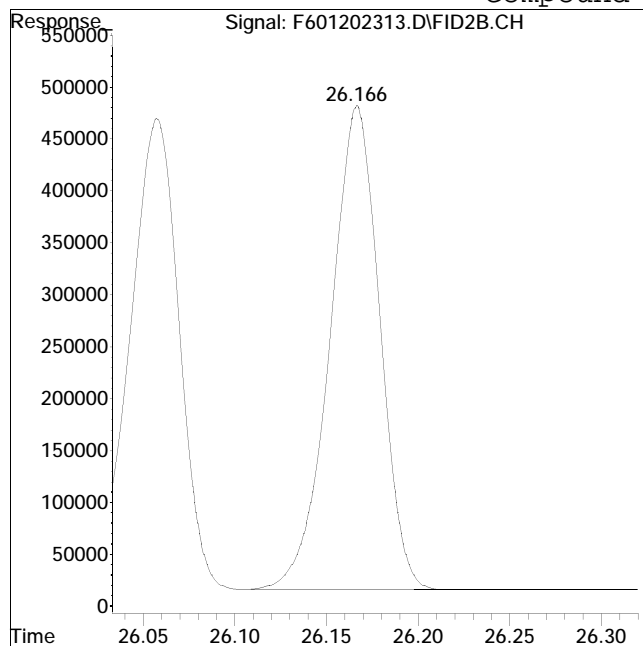
Manual Peak Response = 8580439 M4

M4 = Poor automated baseline construction.

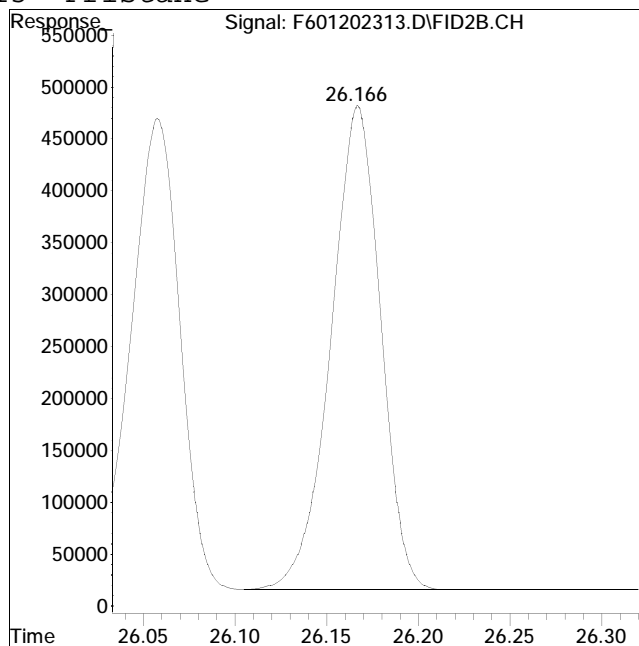
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #15: Pristane



Original Peak Response = 8731627



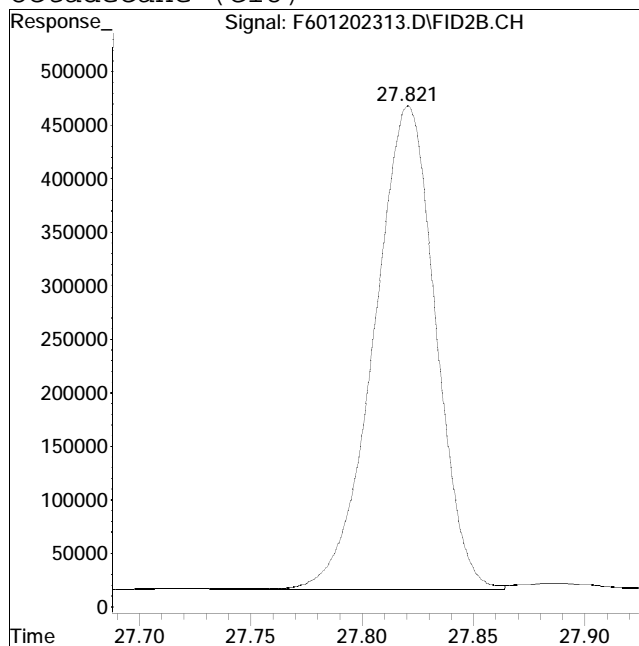
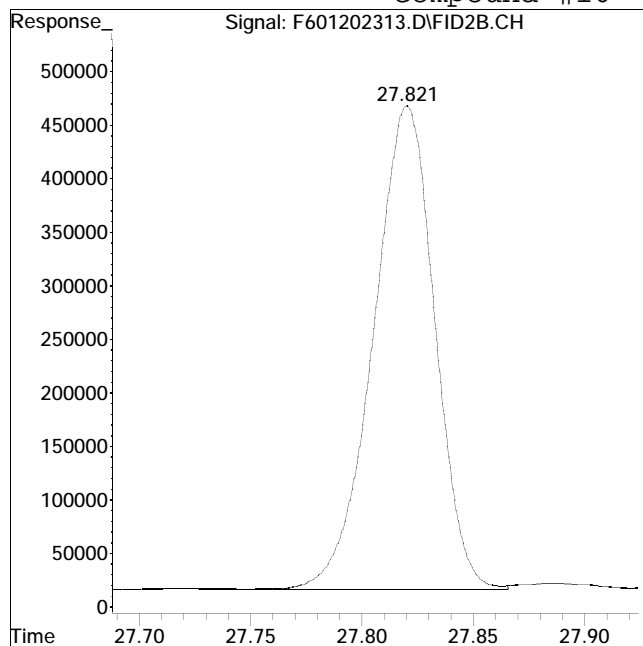
Manual Peak Response = 8761810 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 8694702

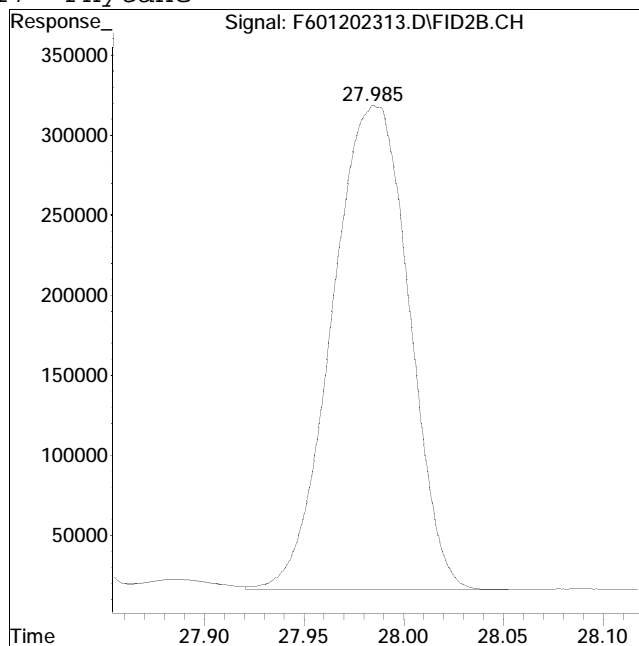
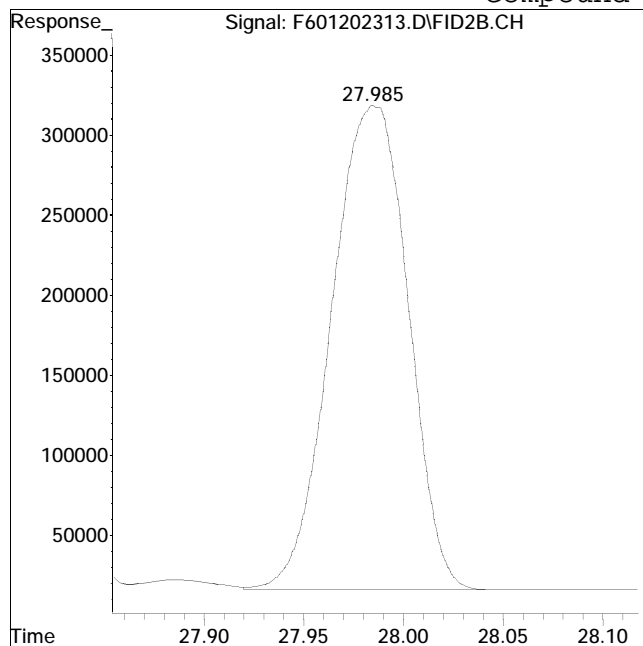
Manual Peak Response = 8700477 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202313.D Operator : FID6:WR
Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #17: Phytane



Original Peak Response = 8080764

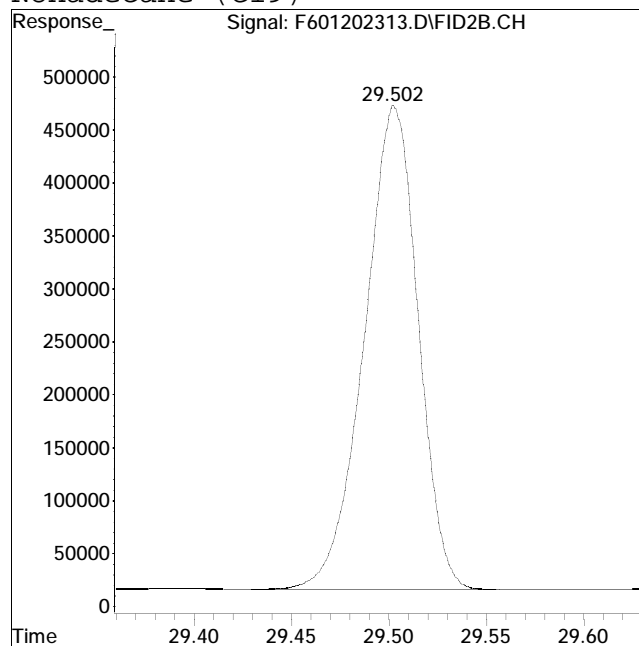
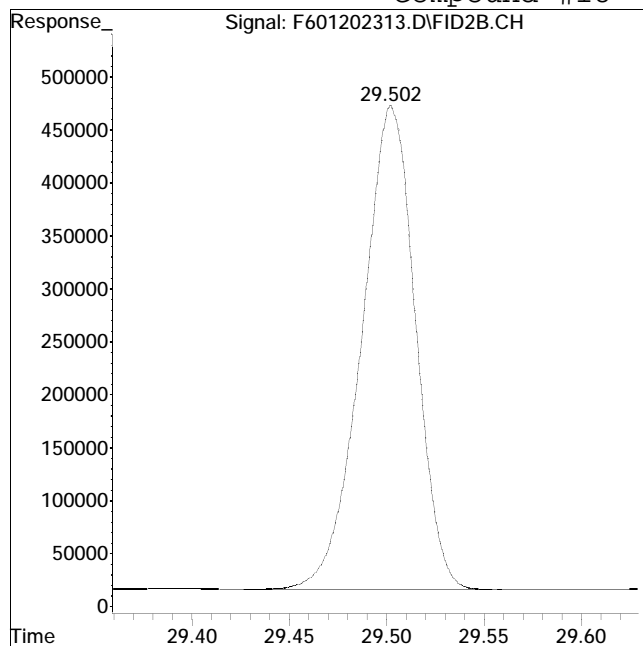
Manual Peak Response = 8097840 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202313.D Operator : FID6:WR
Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 8792828

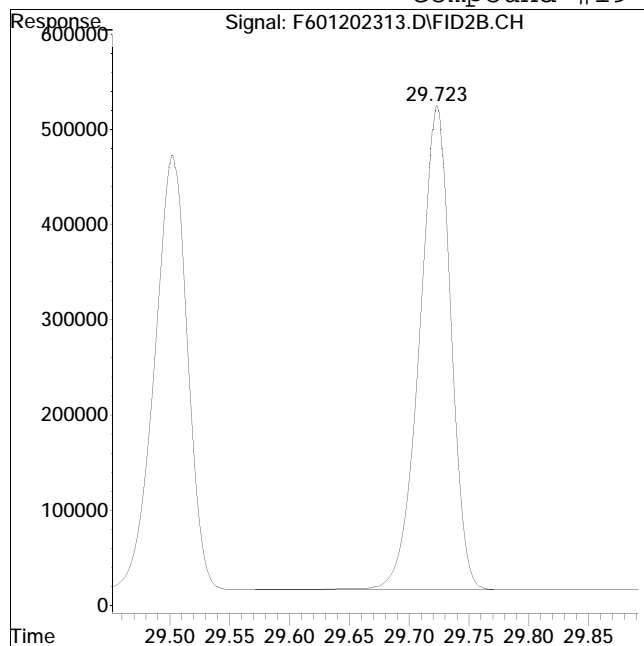
Manual Peak Response = 8792973 M4

M4 = Poor automated baseline construction.

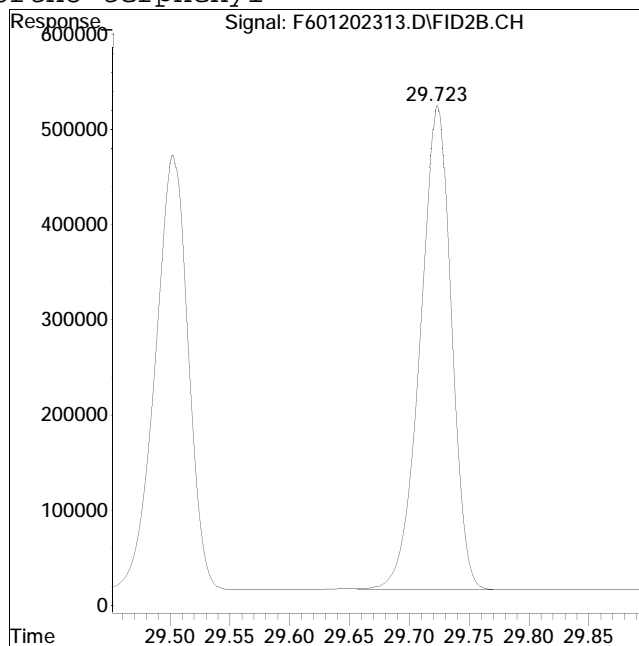
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #19: ortho-terphenyl



Original Peak Response = 9316652



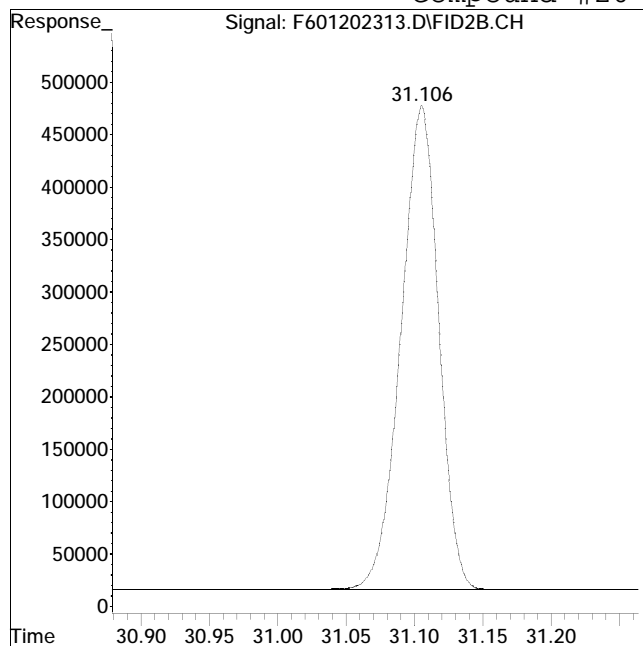
Manual Peak Response = 9287202 M4

M4 = Poor automated baseline construction.

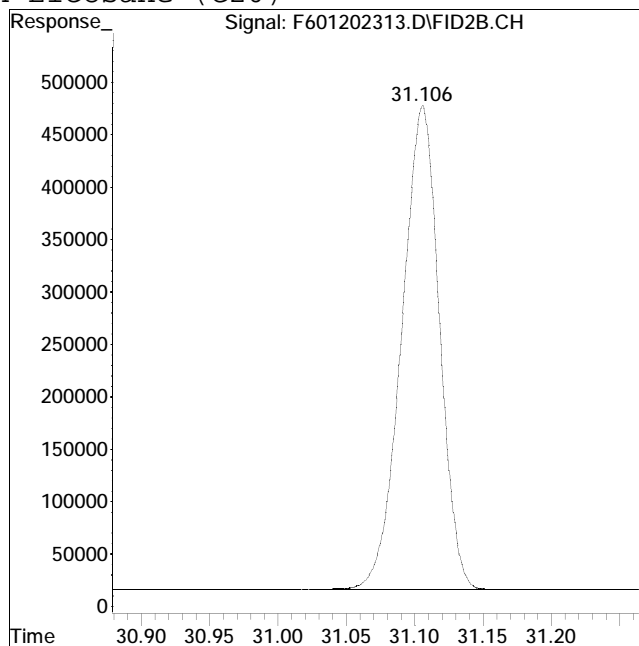
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202313.D Operator : FID6:WR
Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 8855365



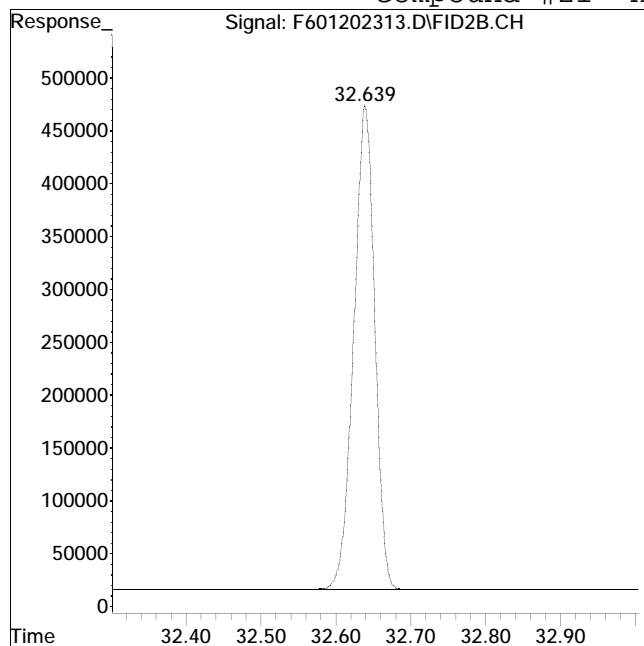
Manual Peak Response = 8859420 M4

M4 = Poor automated baseline construction.

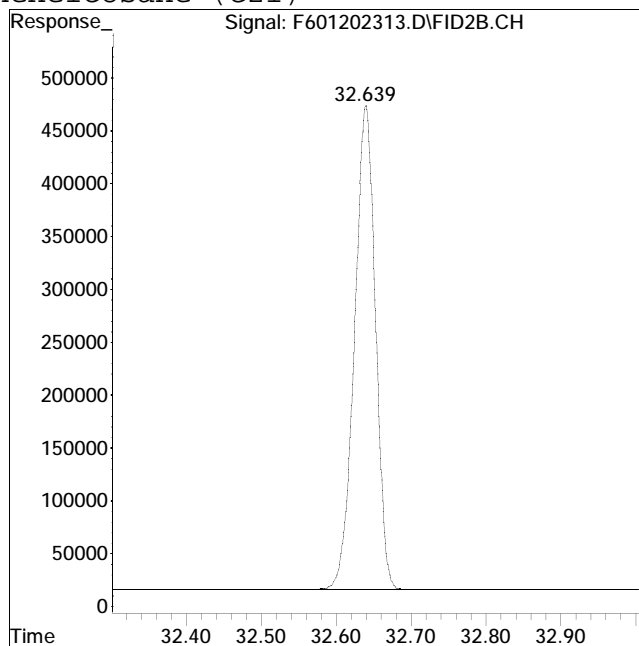
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 8949779



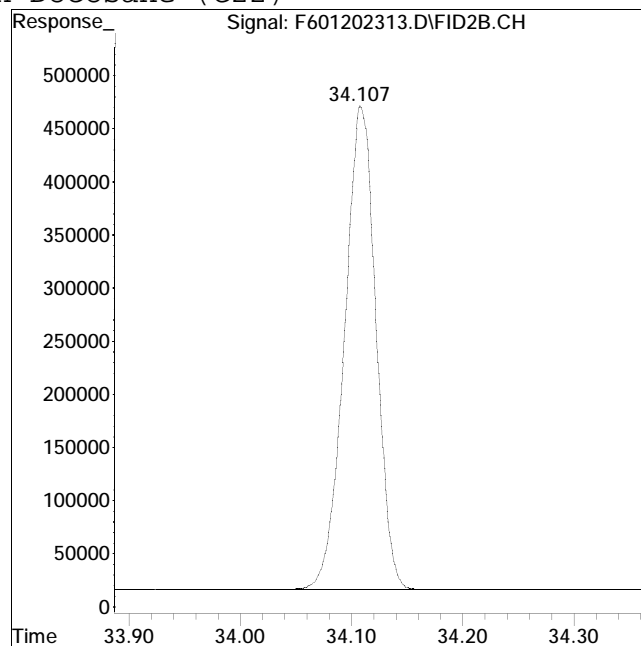
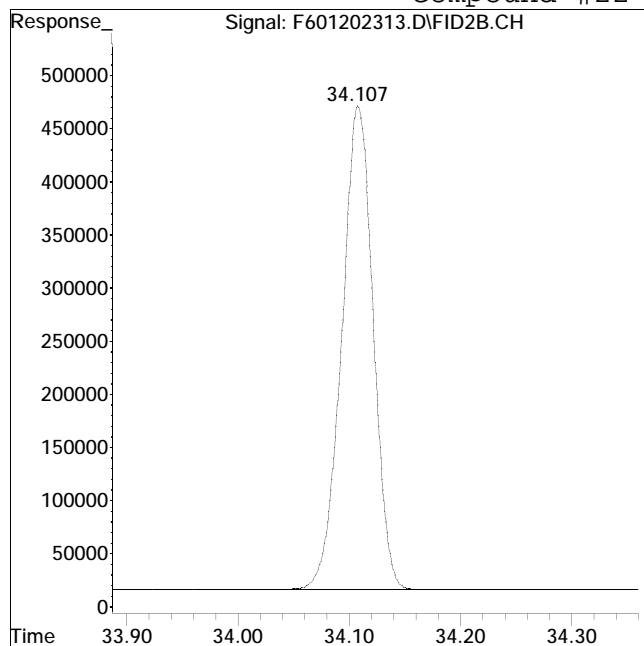
Manual Peak Response = 8930567 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 8955818

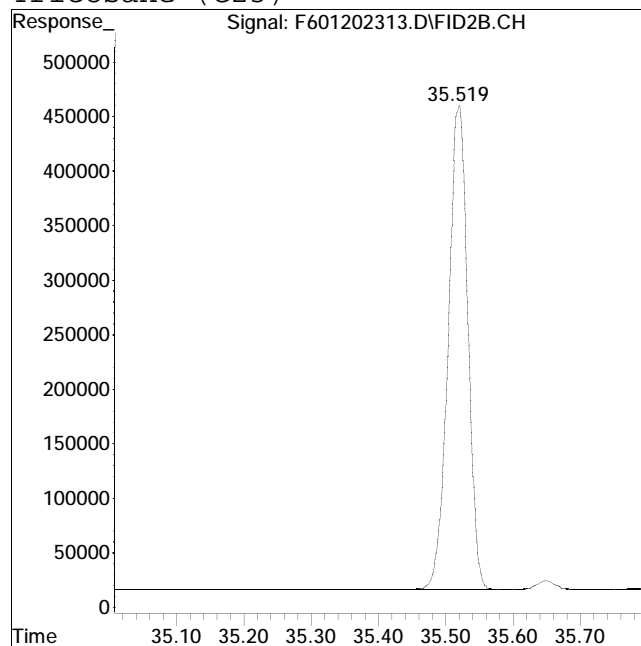
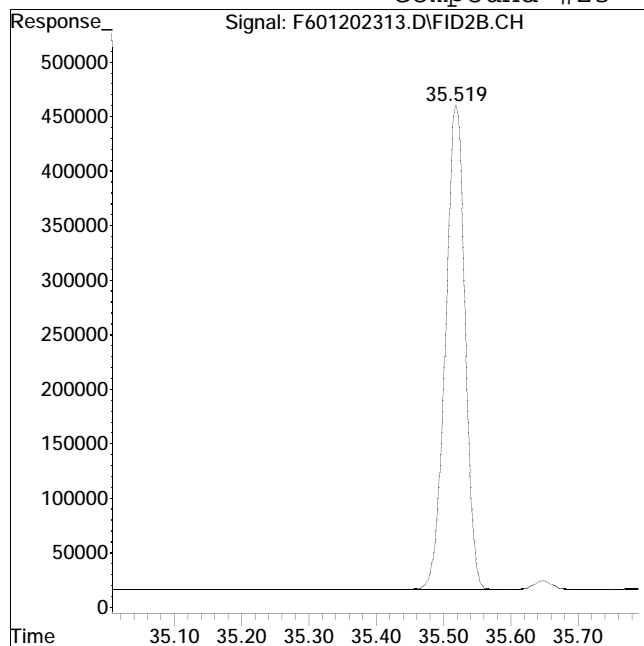
Manual Peak Response = 8953315 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 8986196

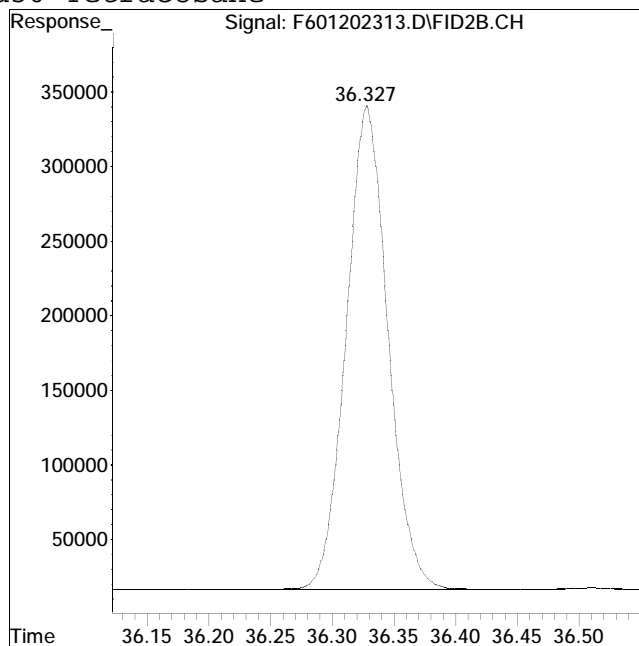
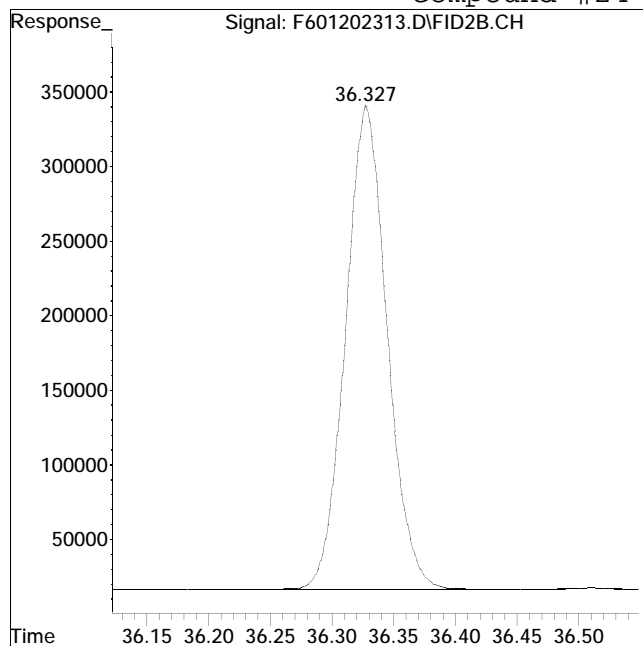
Manual Peak Response = 8976818 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #24: d50-Tetracosane



Original Peak Response = 7625813

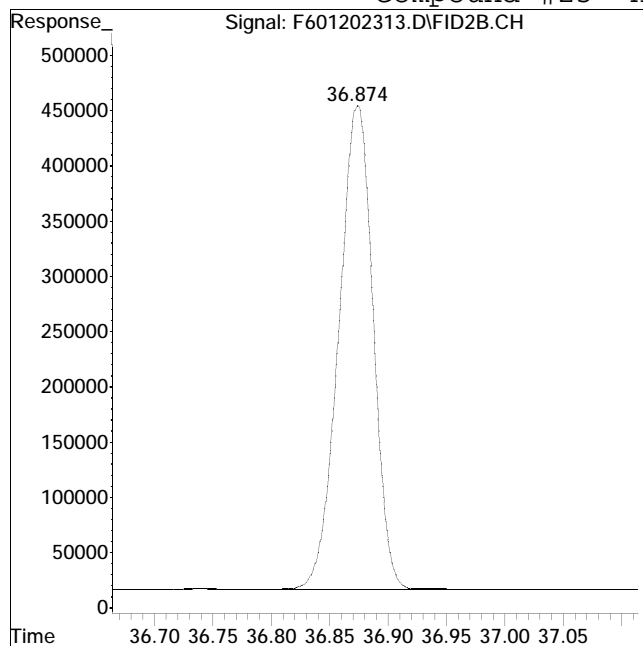
Manual Peak Response = 7628213 M4

M4 = Poor automated baseline construction.

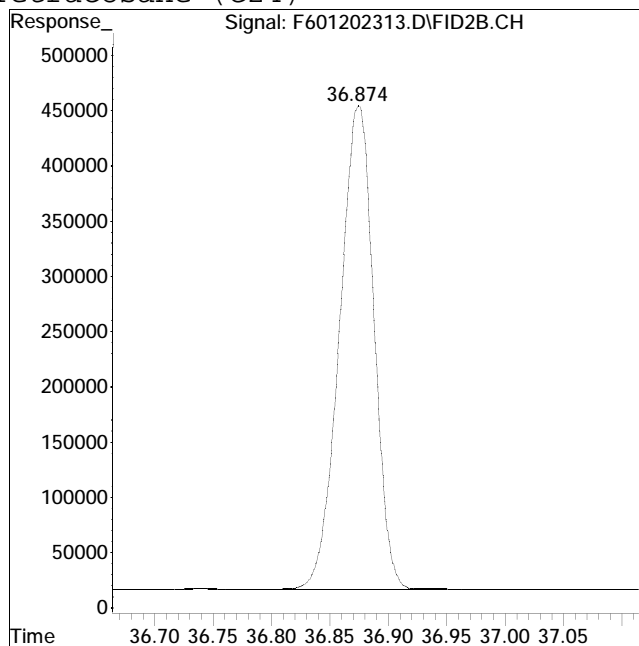
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 8976940



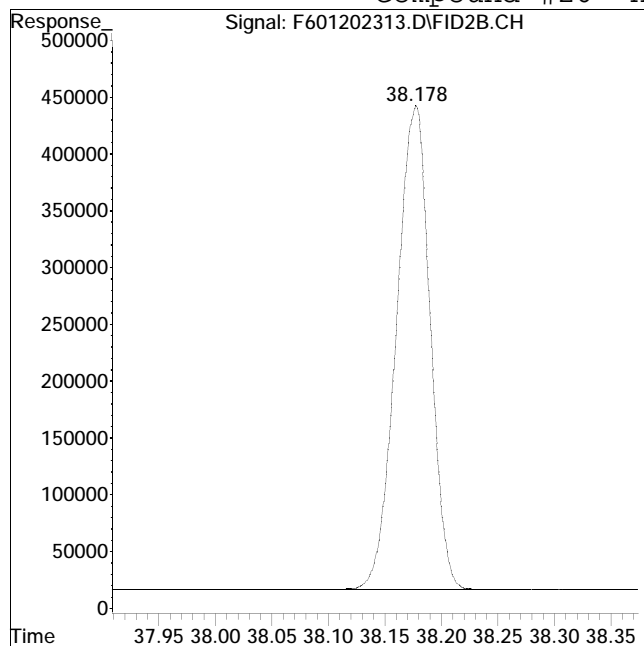
Manual Peak Response = 8967477 M4

M4 = Poor automated baseline construction.

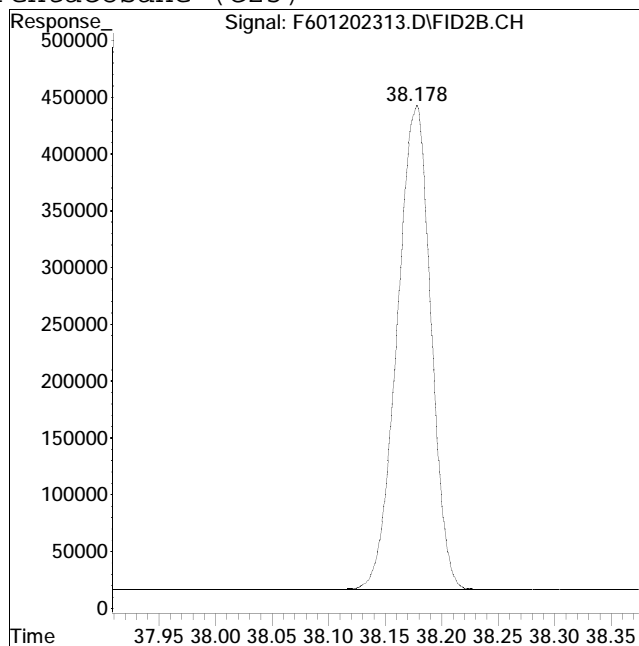
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 8842554



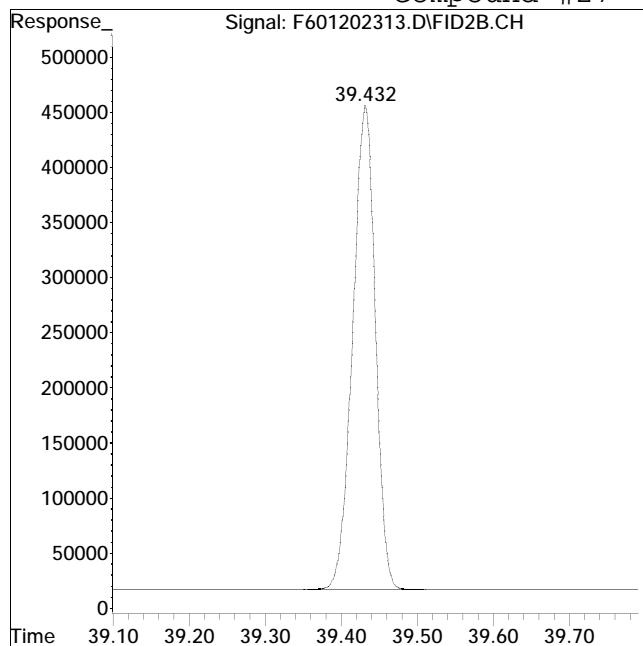
Manual Peak Response = 8842792 M4

M4 = Poor automated baseline construction.

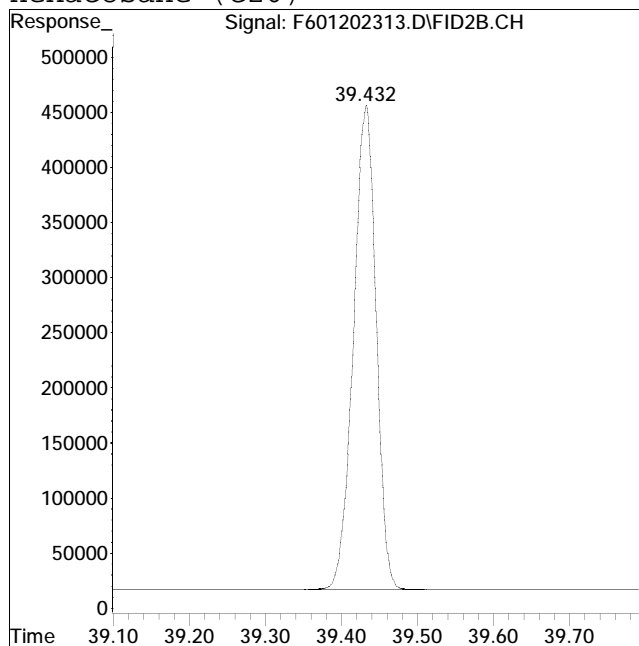
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 9103227



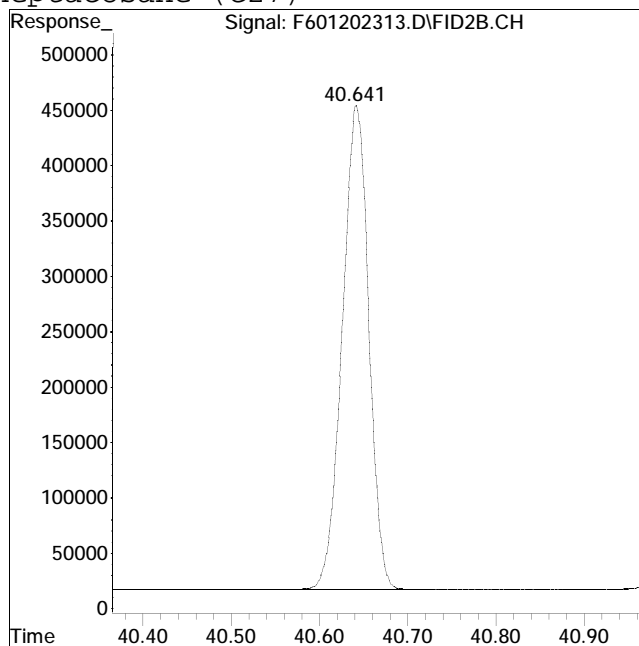
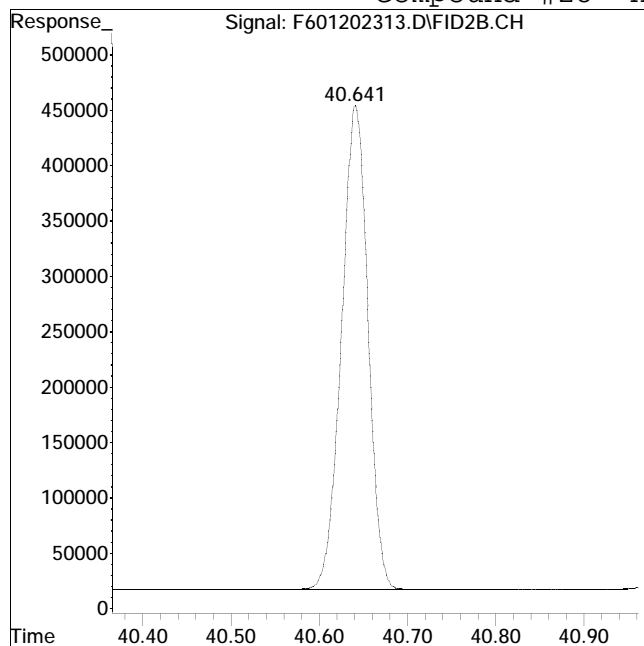
Manual Peak Response = 9094786 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 9115138

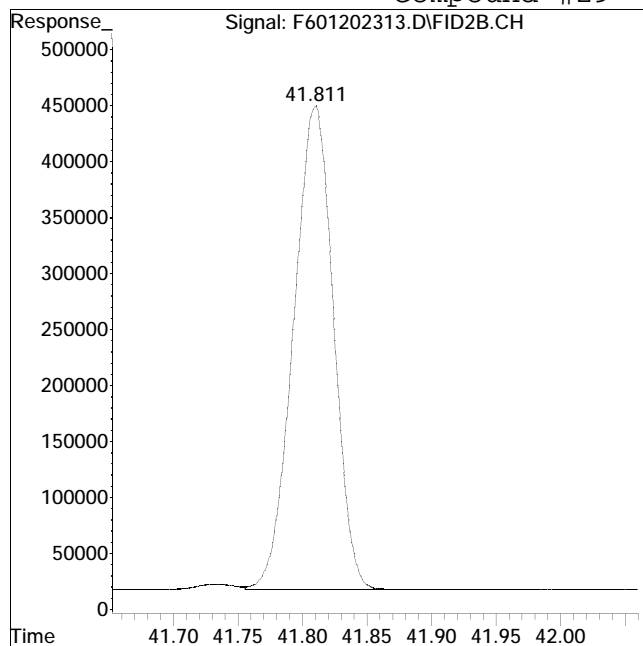
Manual Peak Response = 9110370 M4

M4 = Poor automated baseline construction.

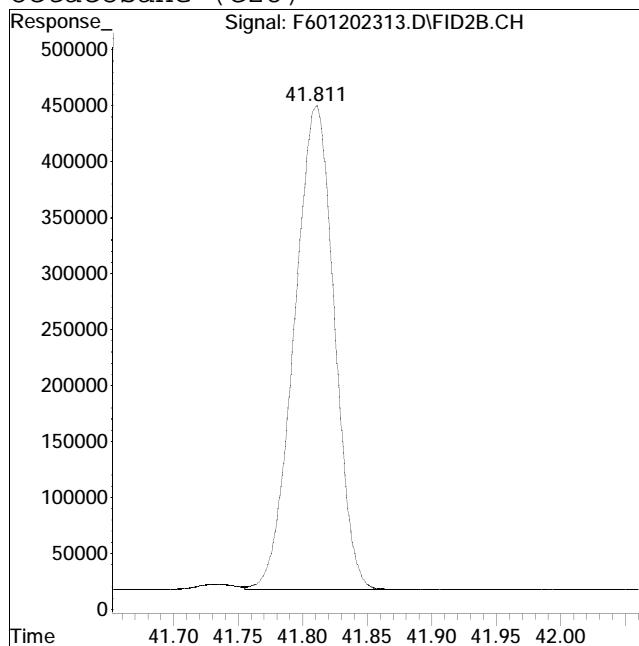
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 9304490



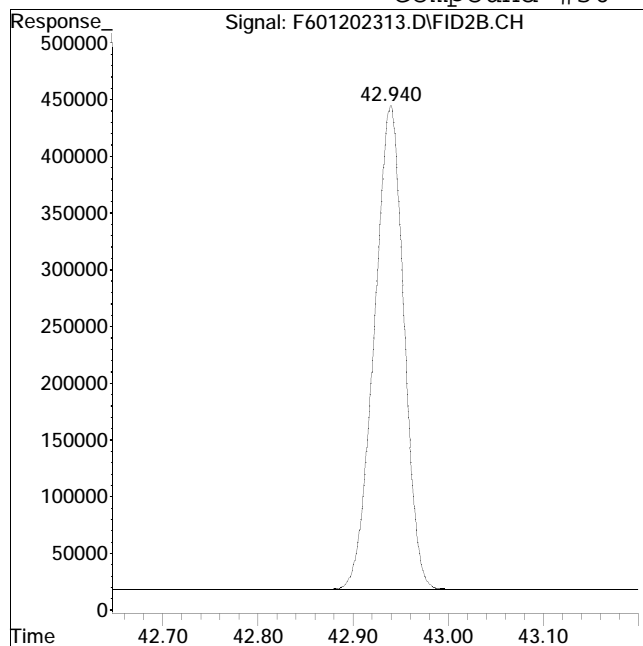
Manual Peak Response = 9301650 M4

M4 = Poor automated baseline construction.

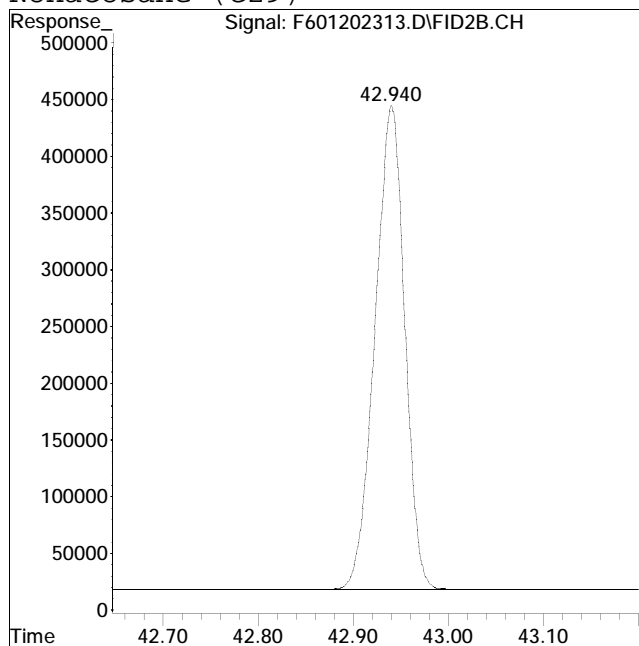
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202313.D Operator : FID6:WR
Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 9248875



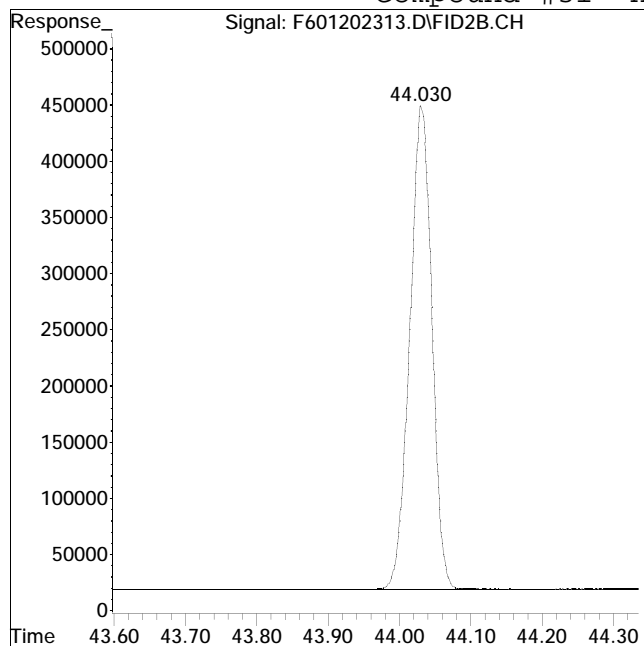
Manual Peak Response = 9248578 M4

M4 = Poor automated baseline construction.

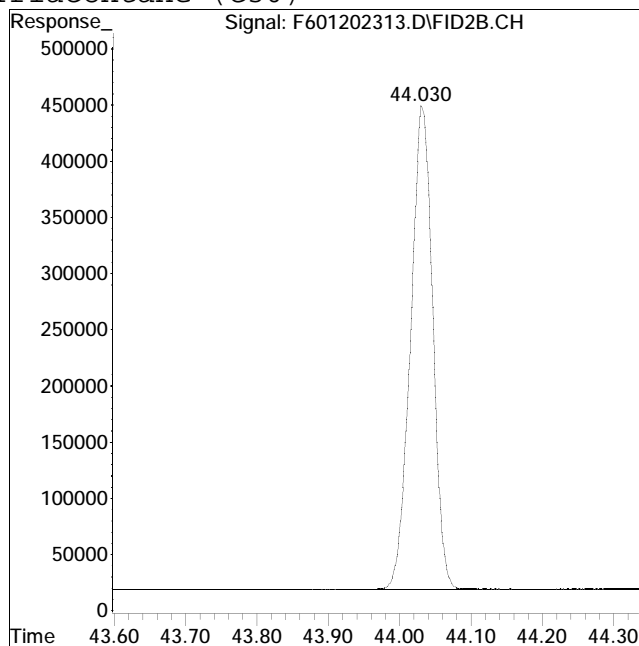
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 9260973



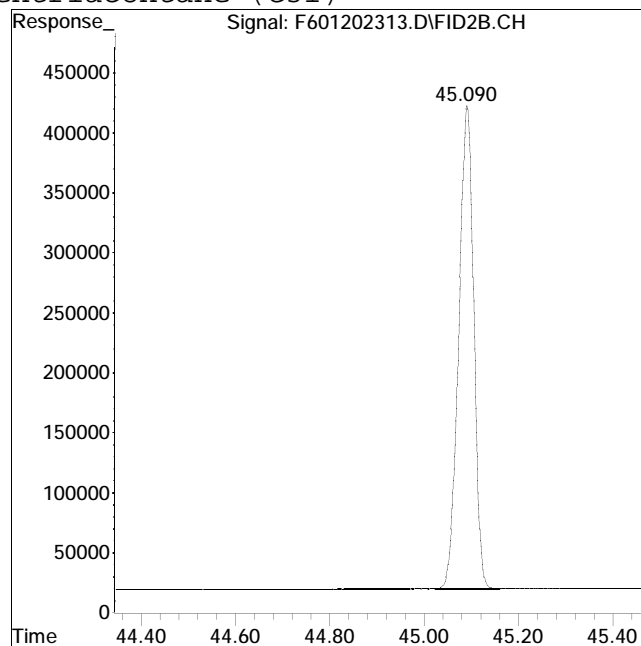
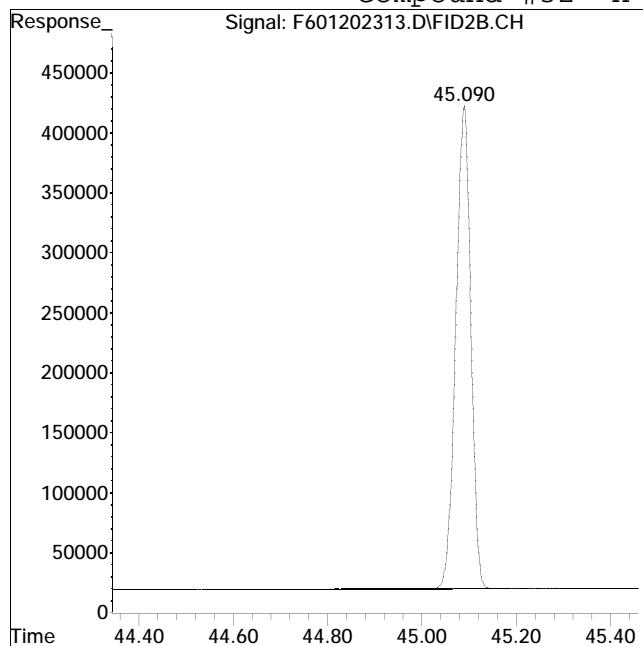
Manual Peak Response = 9267200 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 8921801

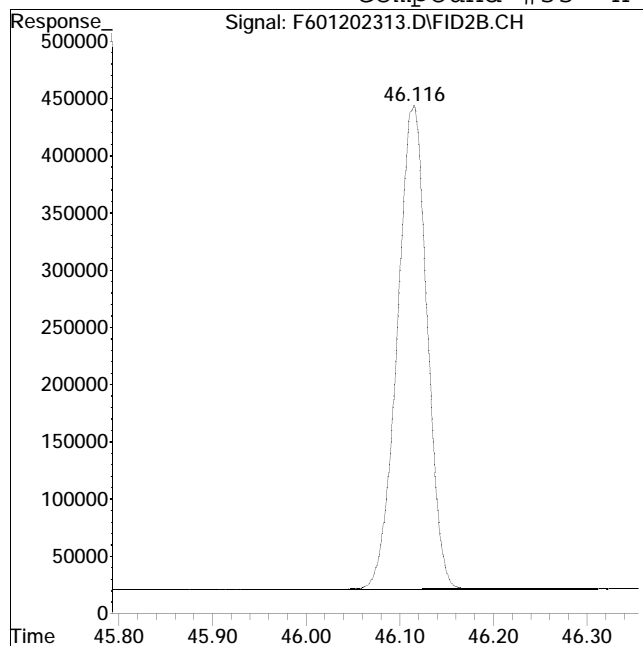
Manual Peak Response = 8921245 M4

M4 = Poor automated baseline construction.

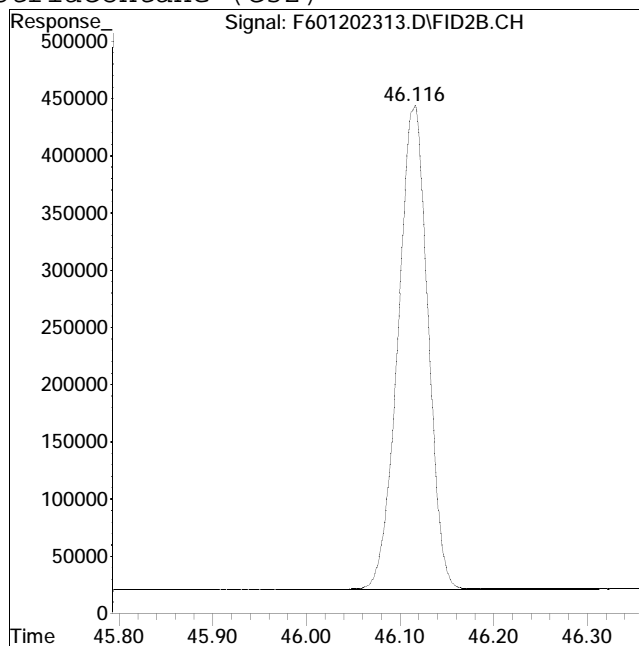
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 9343934



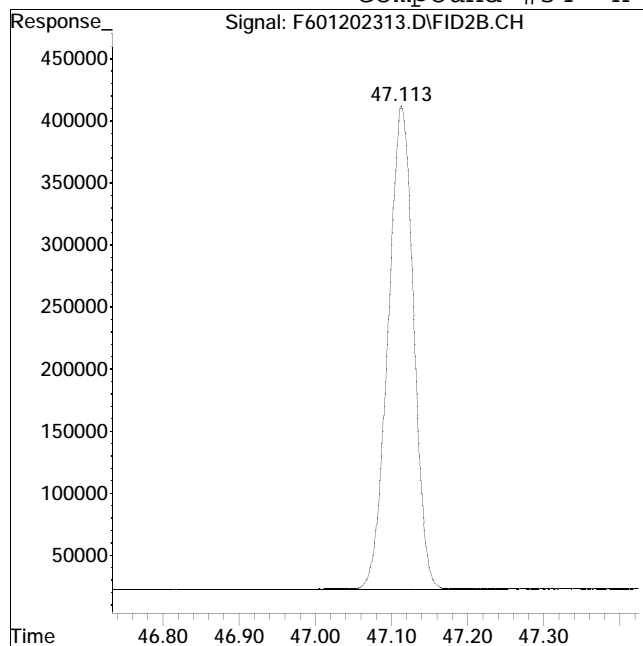
Manual Peak Response = 9353256 M4

M4 = Poor automated baseline construction.

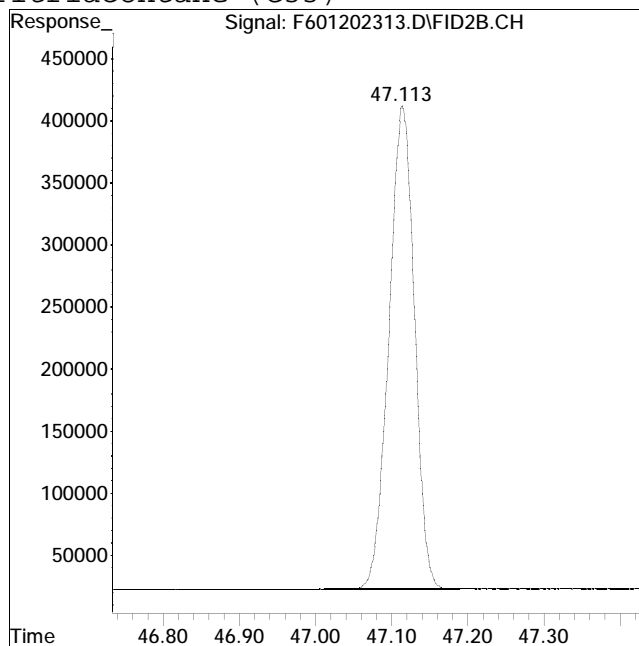
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202313.D Operator : FID6:WR
Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 9123254



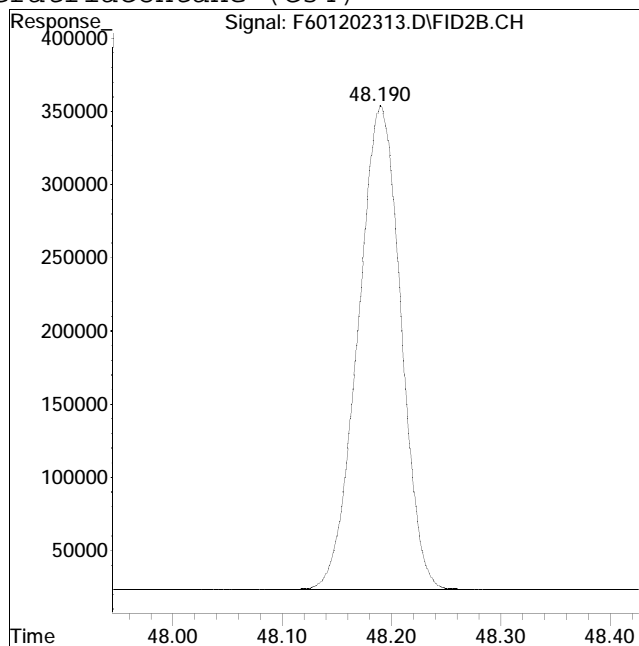
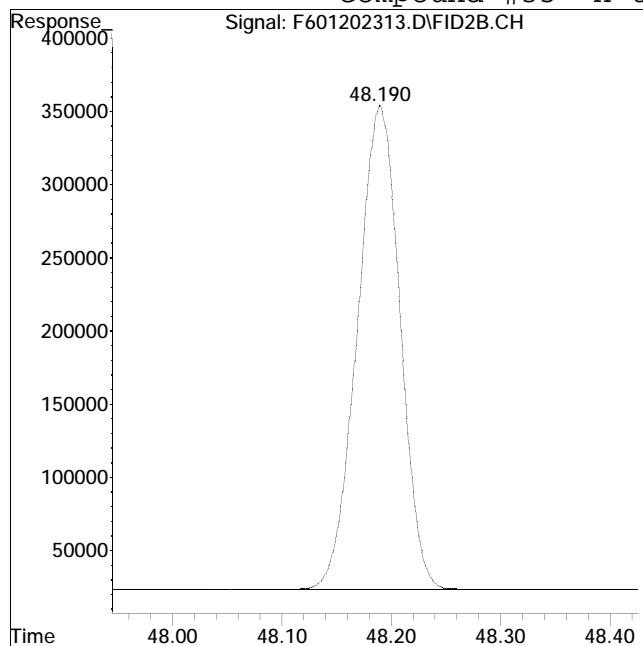
Manual Peak Response = 9057478 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 8982028

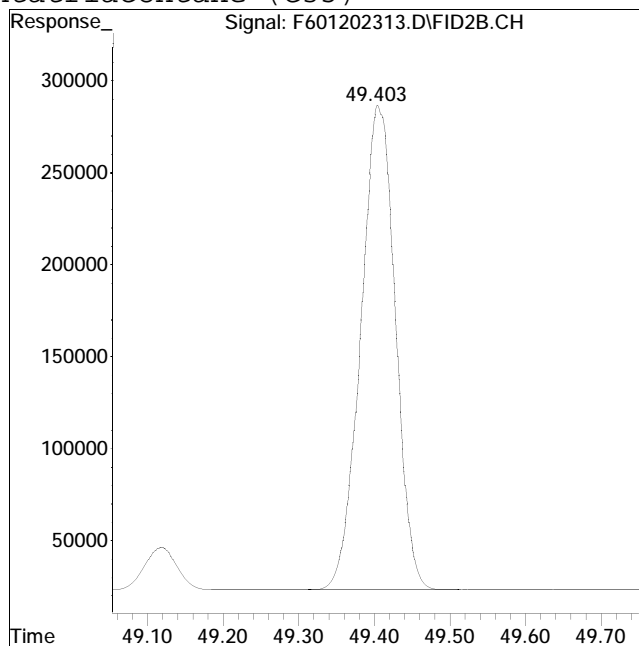
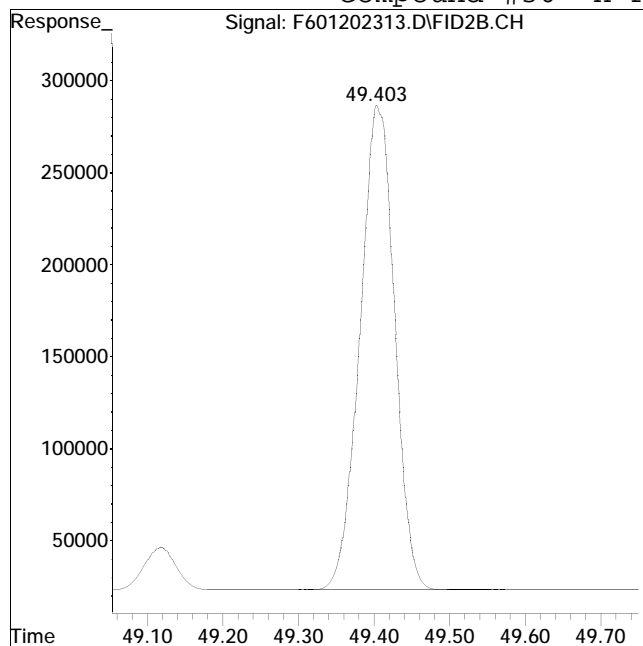
Manual Peak Response = 8988838 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 8394532

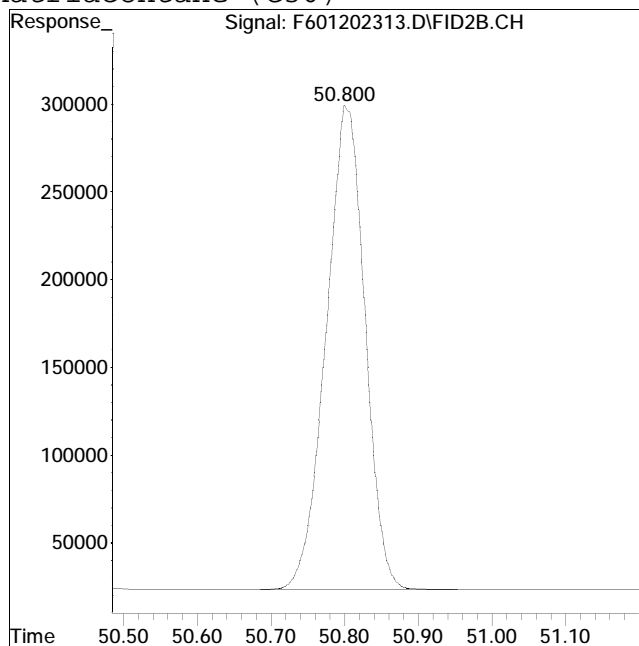
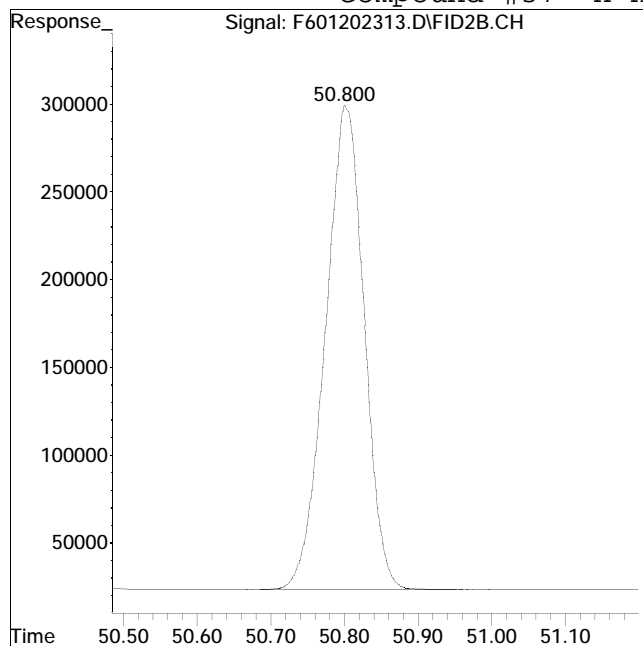
Manual Peak Response = 8400592 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 10087661

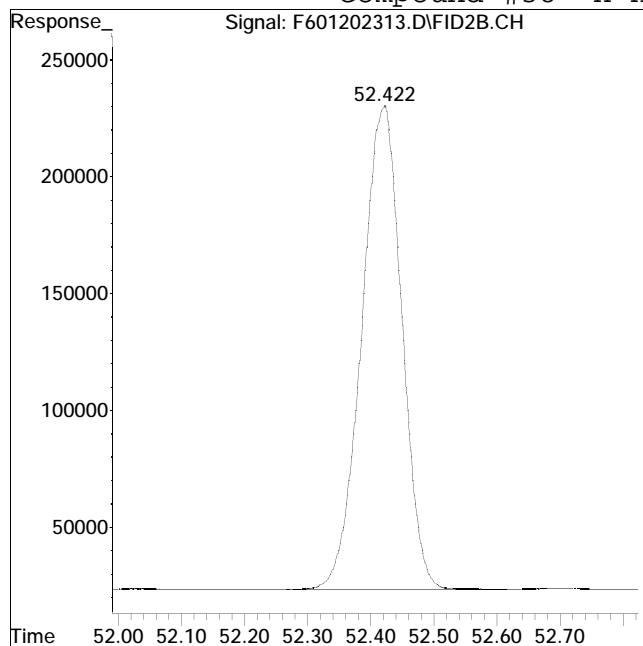
Manual Peak Response = 10095138 M4

M4 = Poor automated baseline construction.

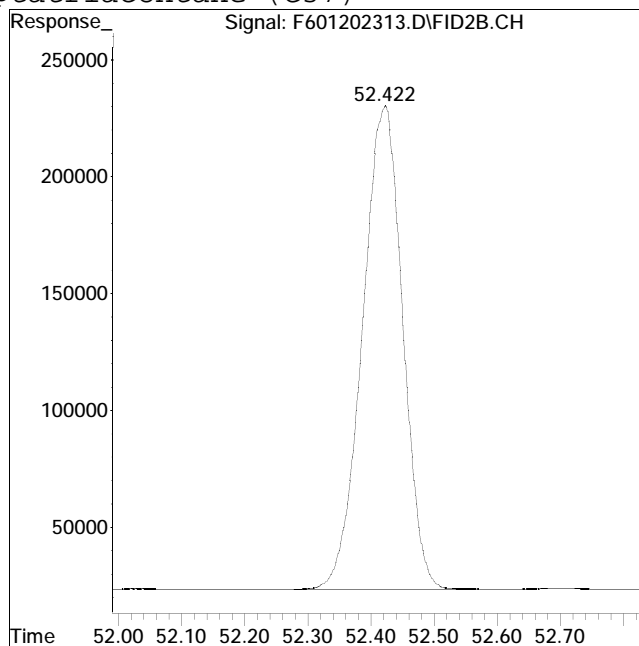
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202313.D Operator : FID6:WR
Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 9190754



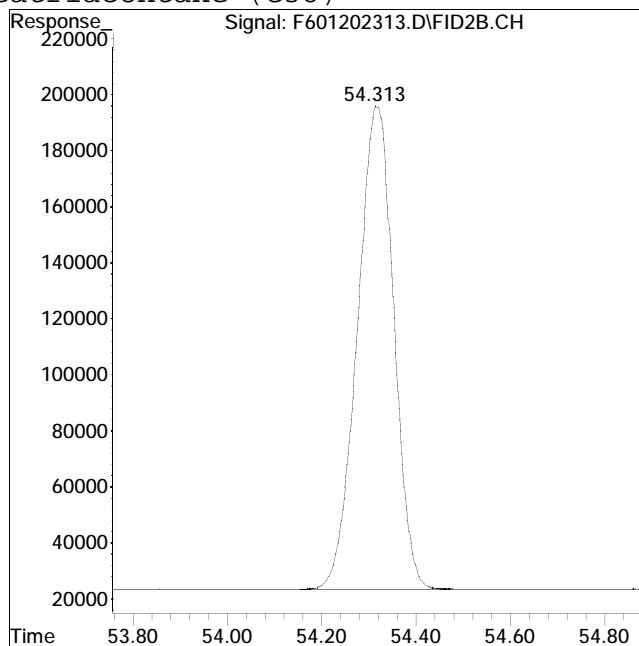
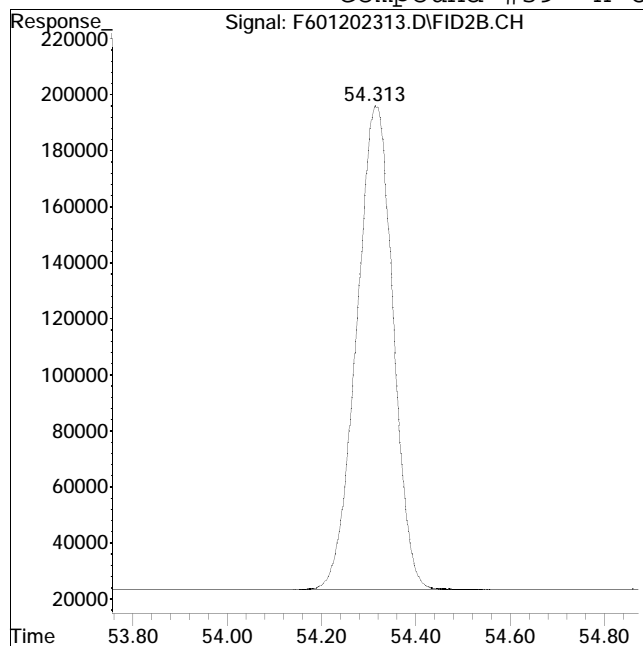
Manual Peak Response = 9176554 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202313.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
 Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 9283878

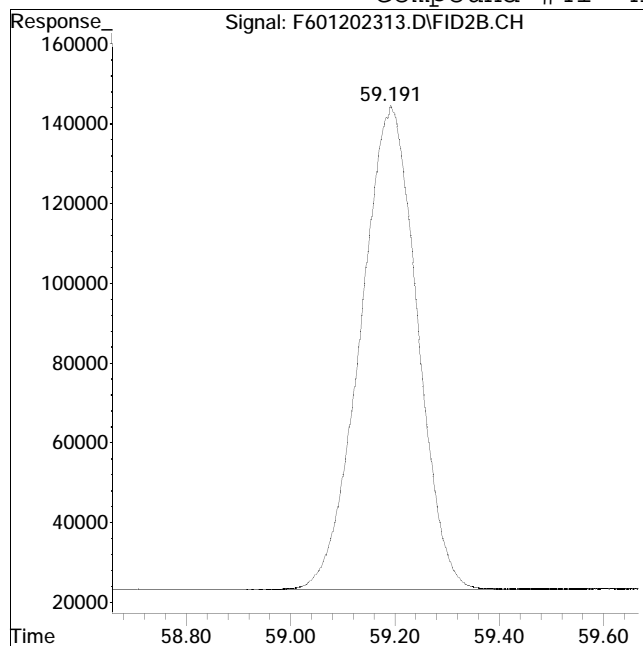
Manual Peak Response = 9283656 M4

M4 = Poor automated baseline construction.

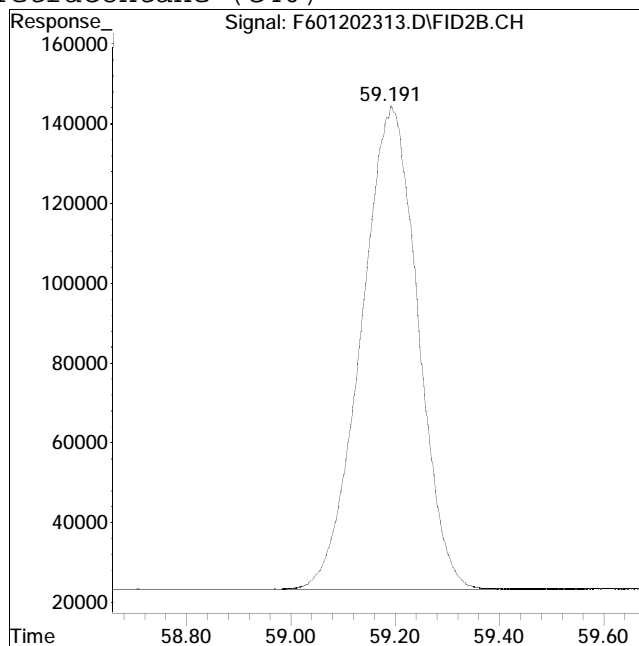
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202313.D Operator : FID6:WR
Date Inj'd : 1/20/2023 8:11 pm Instrument : FID6
Sample : I601202302R Quant Date : 3/7/2023 4:36 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 9131169



Manual Peak Response = 9154738 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202315.D
 Signal(s) : FID2B.CH
 Acq On : 20 Jan 2023 9:38 pm
 Operator : FID6:WR
 Sample : I601202303R
 Misc : WG1752810,FRBF79,50ug/ml
 ALS Vial : 58 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 07 17:10:33 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Mar 07 17:10:29 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.773	43761002	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.744	50089085	54.483 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	108.97%
24) s d50-Tetracosane	36.345	41069630	54.863 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	109.73%
Target Compounds			
2) t n-Octane (C8)	6.025	38959858	52.887 ug/mL M4
3) t n-Nonane (C9)	8.282	39691301	53.076 ug/mL M4
4) t n-Decane (C10)	10.787	40247390	52.407 ug/mL M4
5) t n-Undecane (C11)	13.302	40663765	52.916 ug/mL M4
6) t n-Dodecane (C12)	15.726	40630745	52.274 ug/mL M4
7) t n-Tridecane (C13)	18.028	40971392	52.486 ug/mL M4
9) t n-Tetradecane (C14)	20.206	41794330	52.137 ug/mL M4
11) t n-Pentadecane (C15)	22.267	41569656	51.573 ug/mL M4
12) t n-Hexadecane (C16)	24.219	42398044	52.609 ug/mL M4
14) t n-Heptadecane (C17)	26.073	42905852	52.467 ug/mL M4
15) t Pristane	26.184	43603644	52.376 ug/mL M4
16) t n-Octadecane (C18)	27.838	43324769	52.339 ug/mL M4
17) t Phytane	28.003	40551985	52.653 ug/mL M4
18) t n-Nonadecane (C19)	29.519	43187617	51.914 ug/mL M4
20) t n-Eicosane (C20)	31.123	44149927	52.470 ug/mL M4
21) t n-Heneicosane (C21)	32.657	43914798	52.014 ug/mL M4
22) t n-Docosane (C22)	34.125	44763803	52.699 ug/mL M4
23) t n-Tricosane (C23)	35.537	44808666	52.728 ug/mL M4
25) t n-Tetracosane (C24)	36.891	42624375	50.784 ug/mL M4
26) t n-Pentacosane (C25)	38.195	44185751	52.849 ug/mL M4
27) t n-Hexacosane (C26)	39.450	45525034	53.038 ug/mL M4
28) t n-Heptacosane (C27)	40.660	43894266	51.512 ug/mL M4
29) t n-Octacosane (C28)	41.830	45885948	52.420 ug/mL M4
30) t n-Nonacosane (C29)	42.958	45397856	52.330 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202315.D
 Signal(s) : FID2B.CH
 Acq On : 20 Jan 2023 9:38 pm
 Operator : FID6:WR
 Sample : I601202303R
 Misc : WG1752810,FRBF79,50ug/ml
 ALS Vial : 58 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 07 17:10:33 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Mar 07 17:10:29 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	44.052	45424435	52.278 ug/mL M4
32) t	n-Hentriacontane (C31)	45.107	43902975	52.441 ug/mL M4
33) t	n-Dotriacontane (C32)	46.134	45929672	52.345 ug/mL M4
34) t	n-Tritriacontane (C33)	47.132	44248157	52.098 ug/mL M4
35) t	n-tetratriacontane (C34)	48.212	44051182	52.025 ug/mL M4
36) t	n-Pentatriacontane (C35)	49.435	44498914	55.457 ug/mL M4
37) t	n-Hexatriacontane (C36)	50.833	48003356	50.756 ug/mL M4
38) t	n-Heptatriacontane (C37)	52.461	44362561	51.609 ug/mL M4
39) t	n-Octatriacontane (C38)	54.364	46005057	52.421 ug/mL M4
41) t	n-Tetracontane (C40)	59.263	46459233	54.107 ug/mL M4

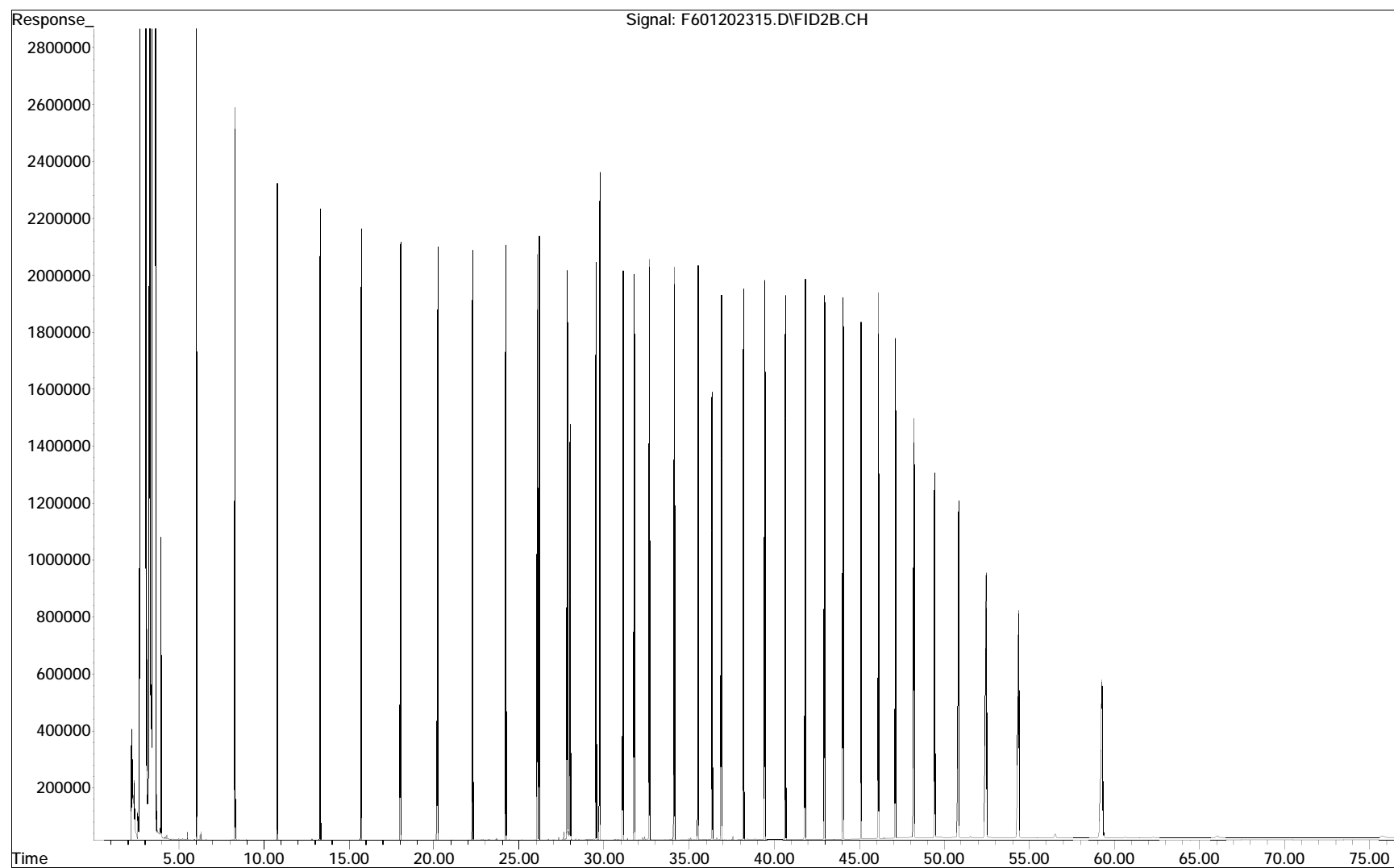
SemiQuant Compounds - Not Calibrated on this Instrument

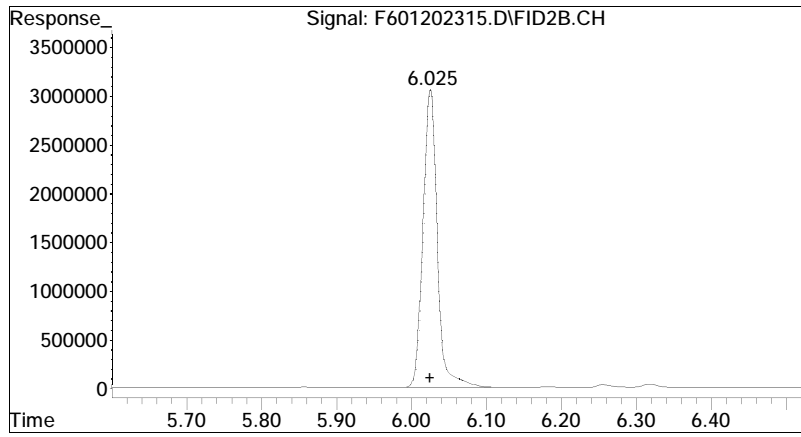
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

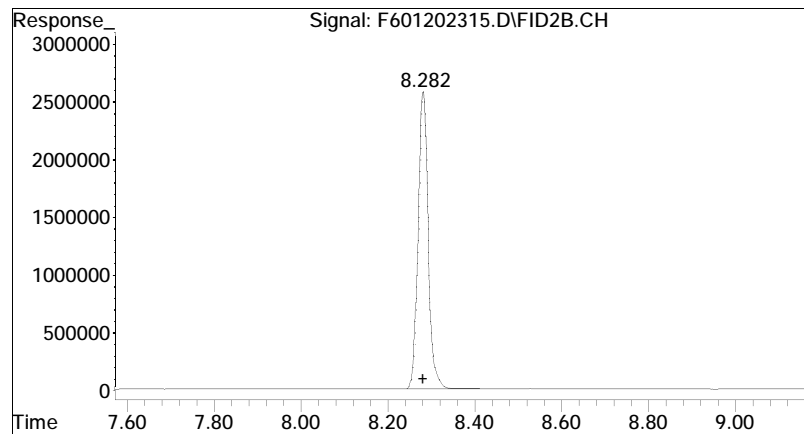
File : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\F601202315.D
 Operator : FID6:WR
 Acquired : 20 Jan 2023 9:38 pm using AcqMethod FID6A.M
 Sample Name: I601202303R
 Instrument: FID6
 Misc Info : WG1752810,FRBF79,50ug/ml
 Vial Number: 58
 CurrentMeth: O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M





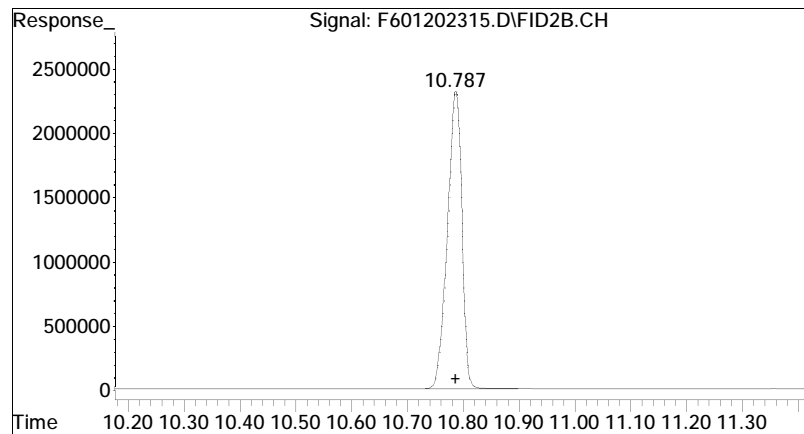
#2 n-Octane (C8)

R.T.: 6.025 min
Delta R.T.: 0.000 min
Response: 38959858
Conc: 52.89 ug/mL M4



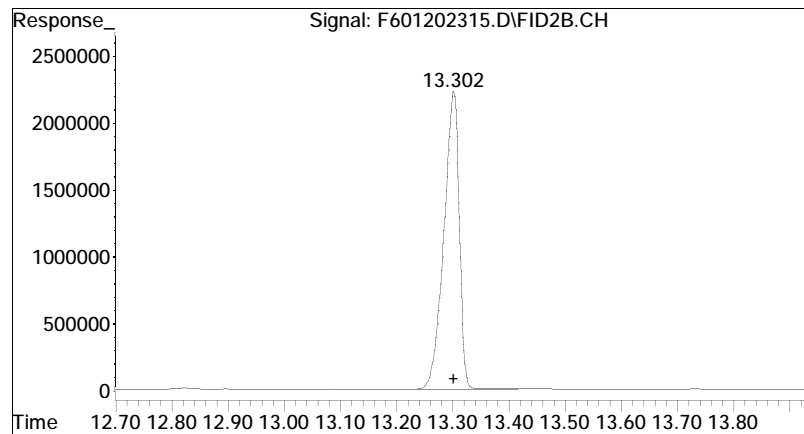
#3 n-Nonane (C9)

R.T.: 8.282 min
Delta R.T.: 0.000 min
Response: 39691301
Conc: 53.08 ug/mL M4



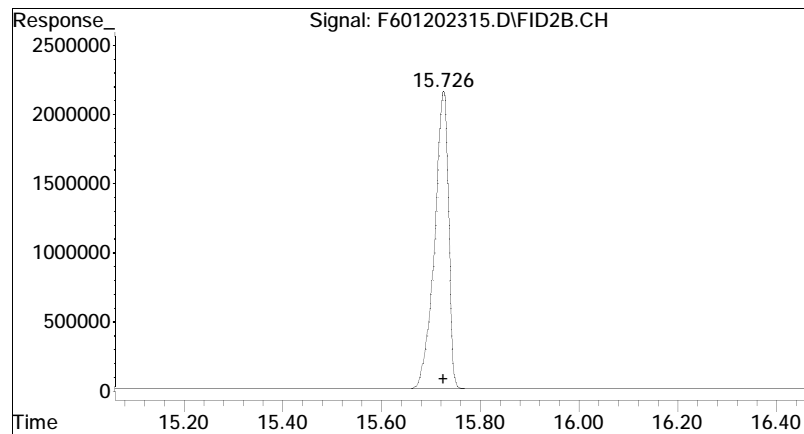
#4 n-Decane (C10)

R.T.: 10.787 min
Delta R.T.: 0.000 min
Response: 40247390
Conc: 52.41 ug/mL M4



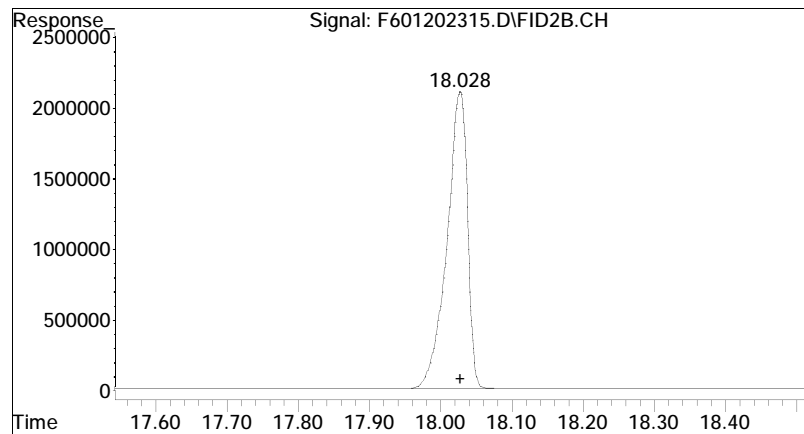
#5 n-Undecane (C11)

R.T.: 13.302 min
Delta R.T.: 0.000 min
Response: 40663765
Conc: 52.92 ug/mL M4



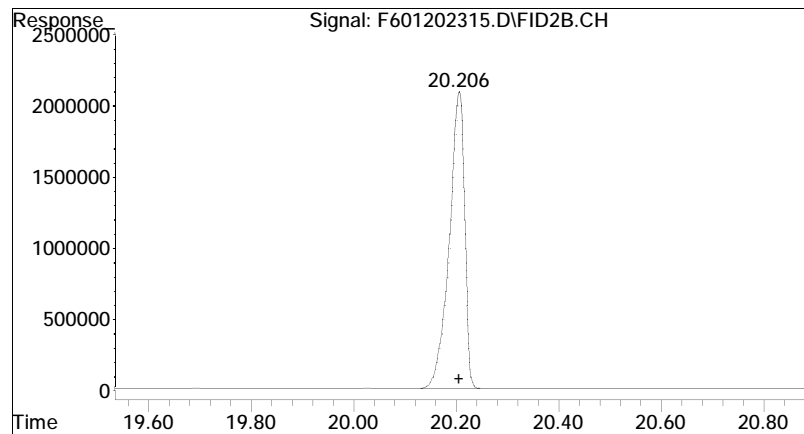
#6 n-Dodecane (C12)

R.T.: 15.726 min
Delta R.T.: 0.000 min
Response: 40630745
Conc: 52.27 ug/mL M4



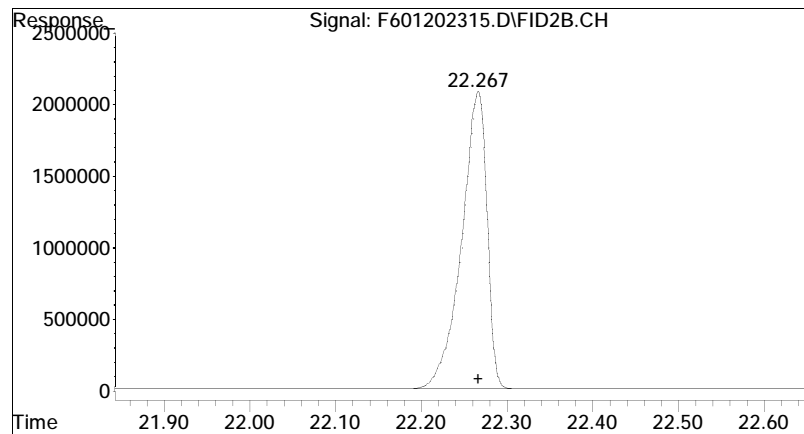
#7 n-Tridecane (C13)

R.T.: 18.028 min
Delta R.T.: 0.000 min
Response: 40971392
Conc: 52.49 ug/mL M4



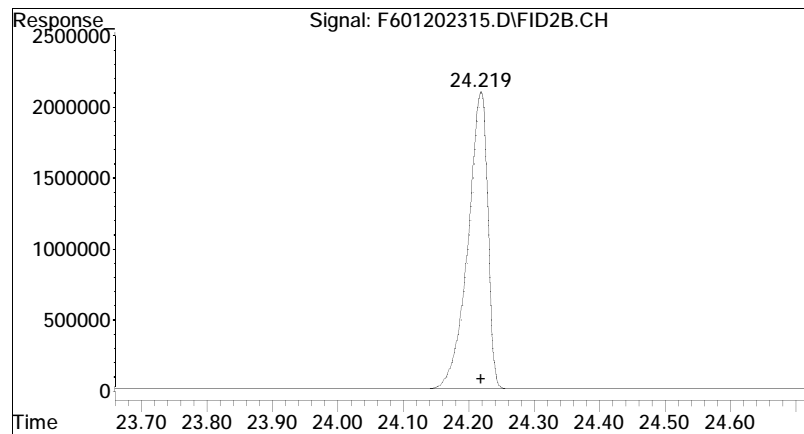
#9 n-Tetradecane (C14)

R.T.: 20.206 min
Delta R.T.: 0.000 min
Response: 41794330
Conc: 52.14 ug/mL M4



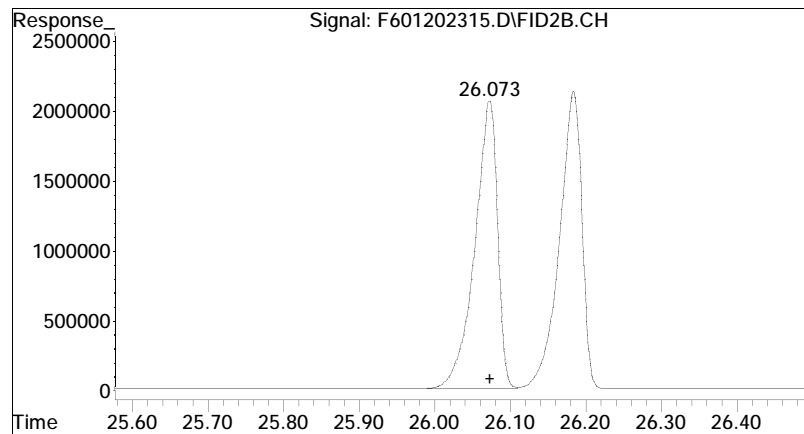
#11 n-Pentadecane (C15)

R.T.: 22.267 min
Delta R.T.: 0.000 min
Response: 41569656
Conc: 51.57 ug/mL M4



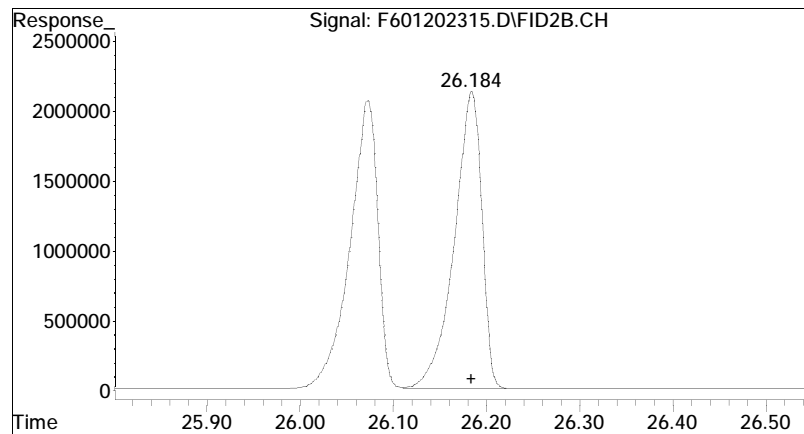
#12 n-Hexadecane (C16)

R.T.: 24.219 min
Delta R.T.: 0.000 min
Response: 42398044
Conc: 52.61 ug/mL M4



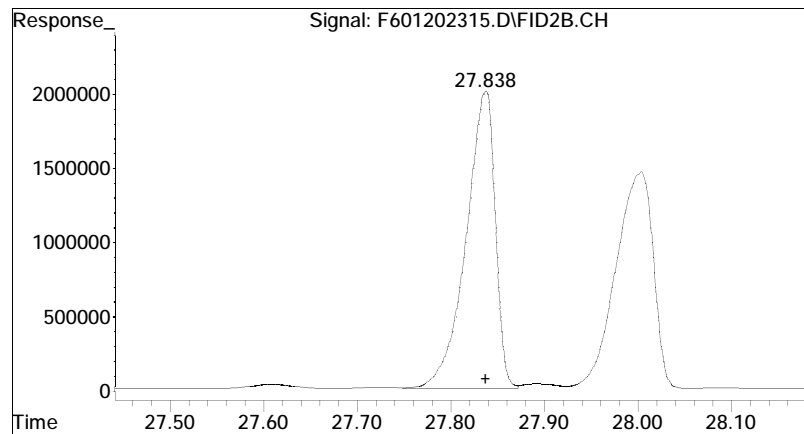
#14 n-Heptadecane (C17)

R.T.: 26.073 min
Delta R.T.: 0.000 min
Response: 42905852
Conc: 52.47 ug/mL M4



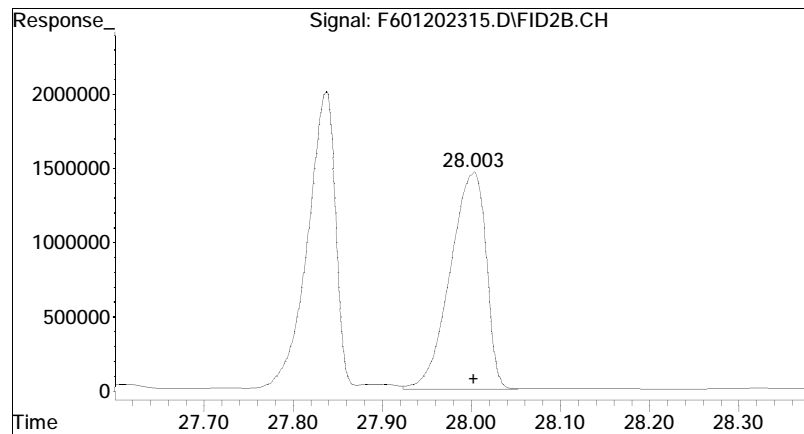
#15 Pristane

R.T.: 26.184 min
Delta R.T.: 0.000 min
Response: 43603644
Conc: 52.38 ug/mL M4



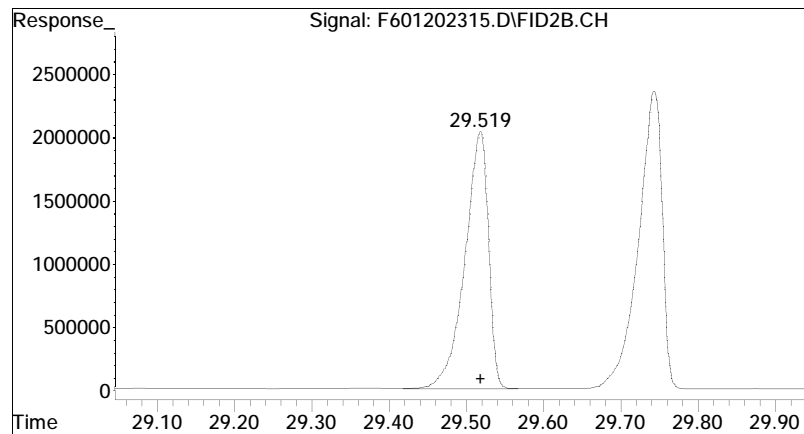
#16 n-Octadecane (C18)

R.T.: 27.838 min
Delta R.T.: 0.000 min
Response: 43324769
Conc: 52.34 ug/mL M4



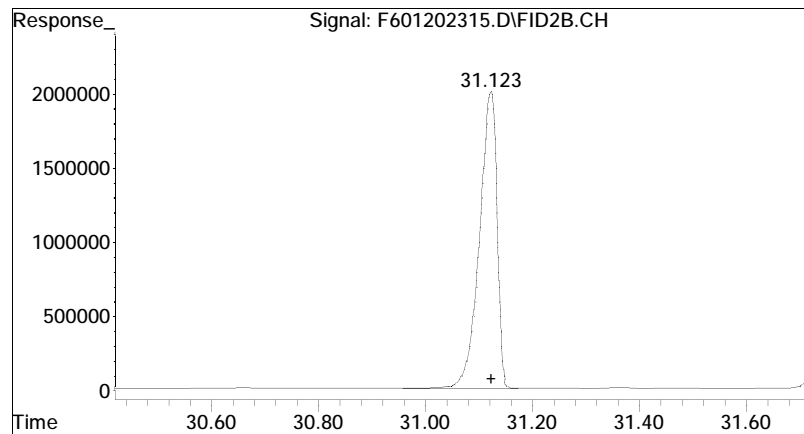
#17 Phytane

R.T.: 28.003 min
Delta R.T.: 0.000 min
Response: 40551985
Conc: 52.65 ug/mL M4



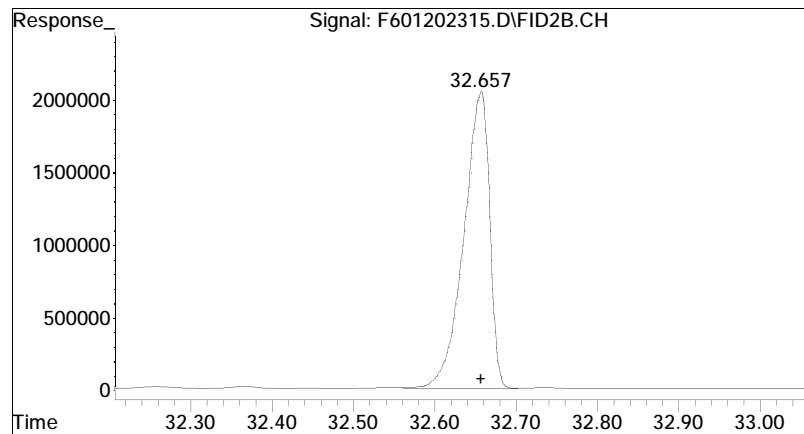
#18 n-Nonadecane (C19)

R.T.: 29.519 min
Delta R.T.: 0.000 min
Response: 43187617
Conc: 51.91 ug/mL M4



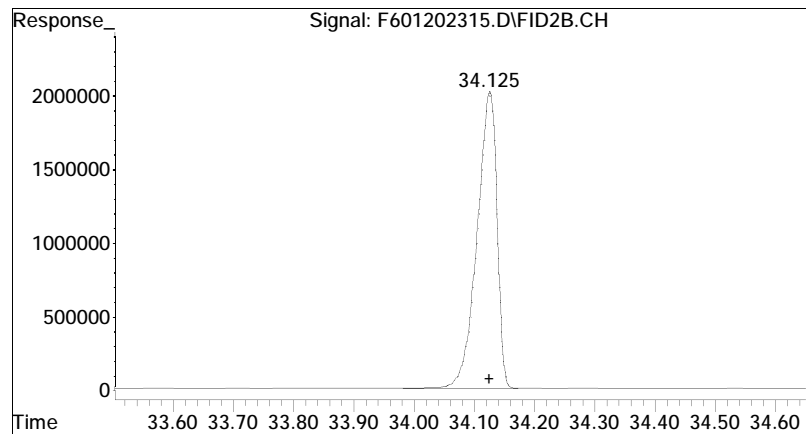
#20 n-Eicosane (C20)

R.T.: 31.123 min
Delta R.T.: 0.000 min
Response: 44149927
Conc: 52.47 ug/mL M4



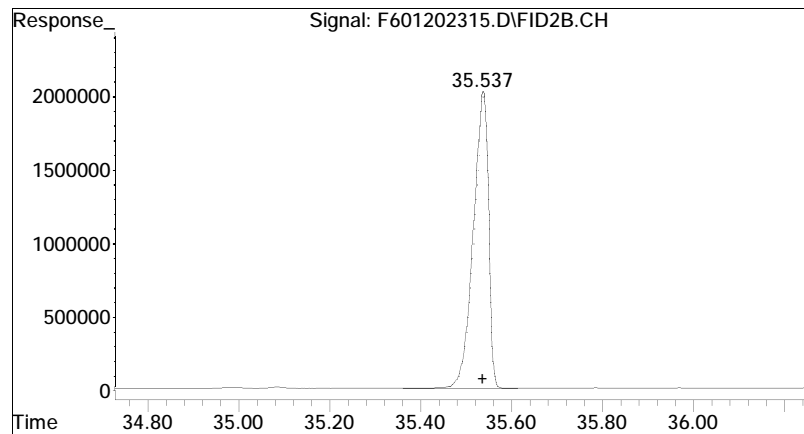
#21 n-Heneicosane (C21)

R.T.: 32.657 min
Delta R.T.: 0.000 min
Response: 43914798
Conc: 52.01 ug/mL M4



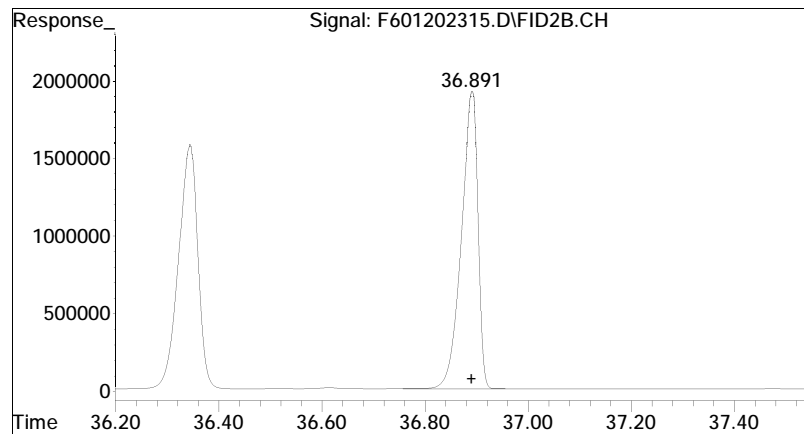
#22 n-Docosane (C22)

R.T.: 34.125 min
Delta R.T.: 0.000 min
Response: 44763803
Conc: 52.70 ug/mL M4



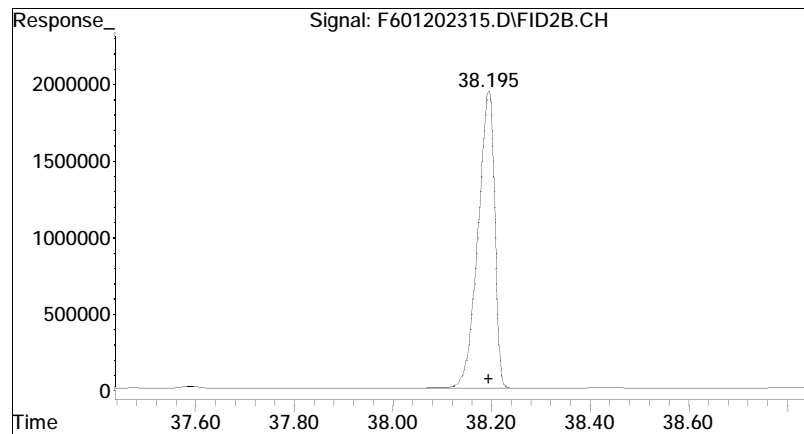
#23 n-Tricosane (C23)

R.T.: 35.537 min
Delta R.T.: 0.000 min
Response: 44808666
Conc: 52.73 ug/mL M4



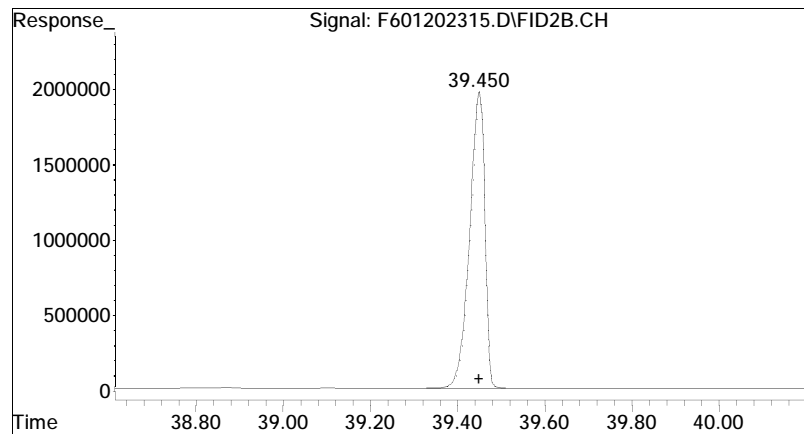
#25 n-Tetracosane (C24)

R.T.: 36.891 min
Delta R.T.: 0.000 min
Response: 42624375
Conc: 50.78 ug/mL M4



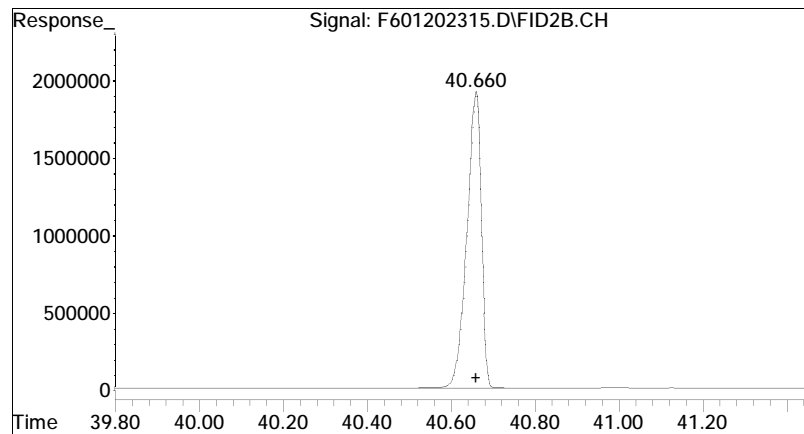
#26 n-Pentacosane (C25)

R.T.: 38.195 min
Delta R.T.: 0.000 min
Response: 44185751
Conc: 52.85 ug/mL M4



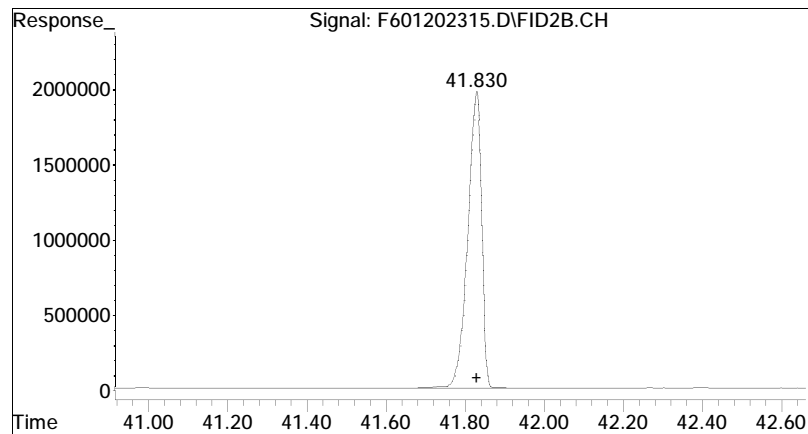
#27 n-Hexacosane (C26)

R.T.: 39.450 min
Delta R.T.: 0.000 min
Response: 45525034
Conc: 53.04 ug/mL M4



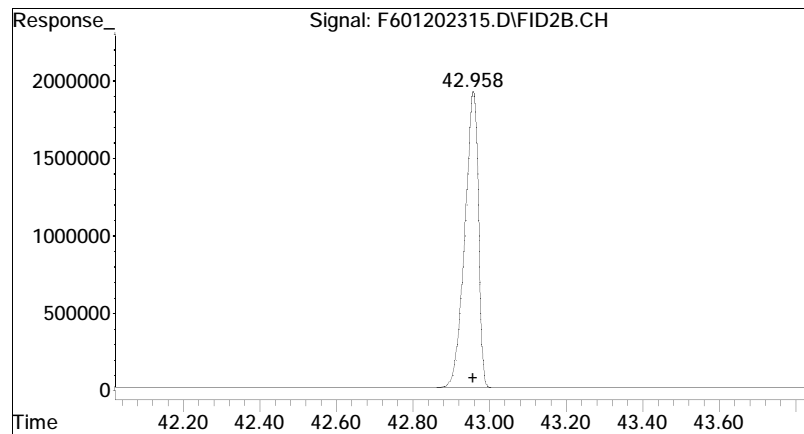
#28 n-Heptacosane (C27)

R.T.: 40.660 min
Delta R.T.: 0.000 min
Response: 43894266
Conc: 51.51 ug/mL M4



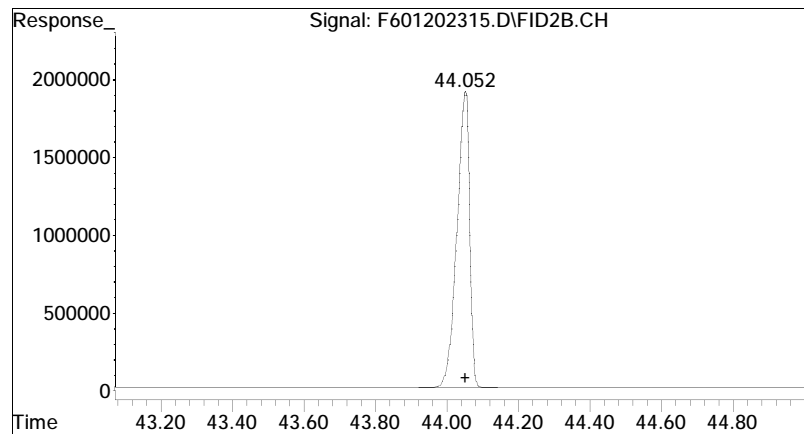
#29 n-Octacosane (C28)

R.T.: 41.830 min
Delta R.T.: 0.000 min
Response: 45885948
Conc: 52.42 ug/mL M4



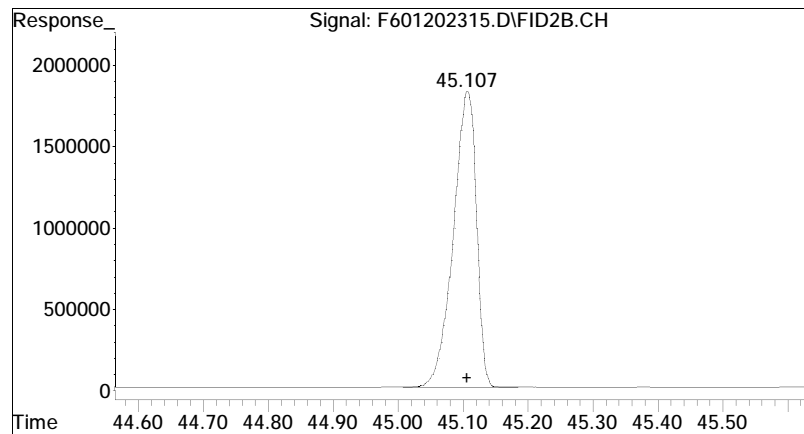
#30 n-Nonacosane (C29)

R.T.: 42.958 min
Delta R.T.: 0.000 min
Response: 45397856
Conc: 52.33 ug/mL M4



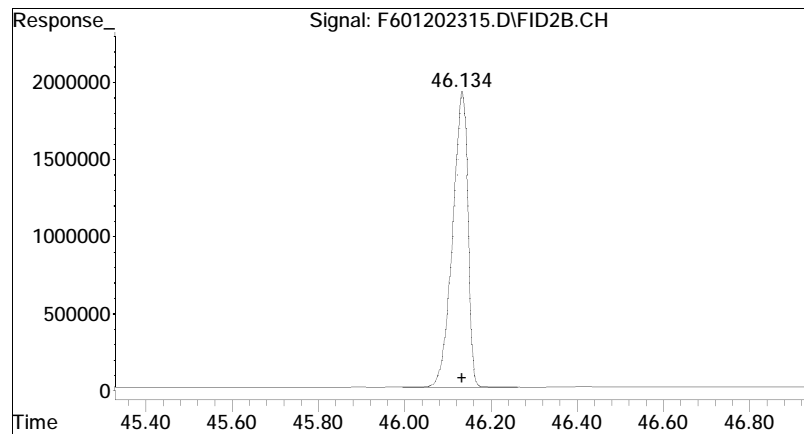
#31 n-Triacontane (C30)

R.T.: 44.052 min
Delta R.T.: 0.000 min
Response: 45424435
Conc: 52.28 ug/mL M4



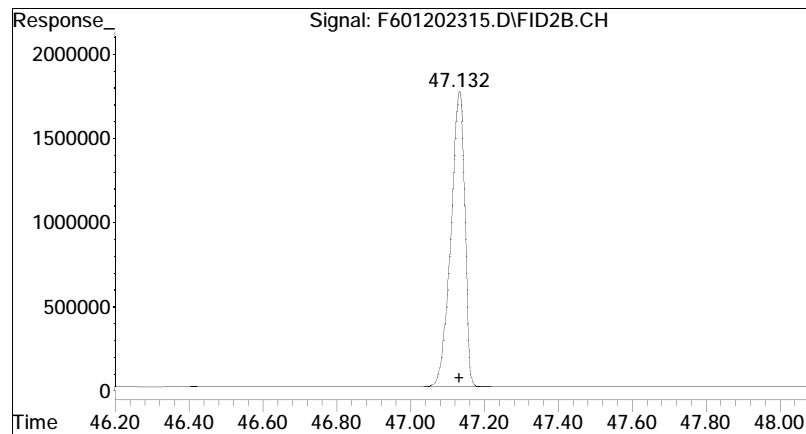
#32 n-Hentriacontane (C31)

R.T.: 45.107 min
Delta R.T.: 0.000 min
Response: 43902975
Conc: 52.44 ug/mL M4



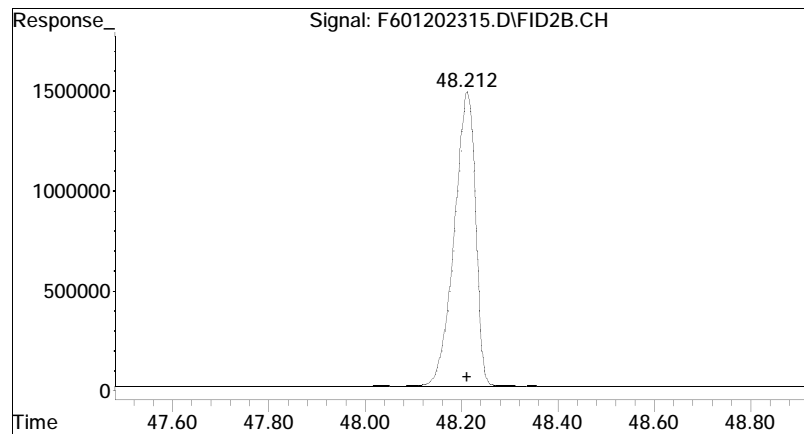
#33 n-Dotriacontane (C32)

R.T.: 46.134 min
Delta R.T.: 0.000 min
Response: 45929672
Conc: 52.34 ug/mL M4



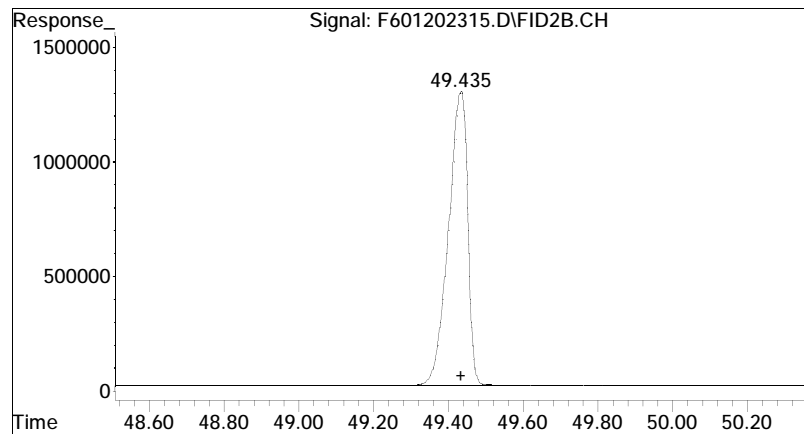
#34 n-Tritriacontane (C33)

R.T.: 47.132 min
Delta R.T.: 0.000 min
Response: 44248157
Conc: 52.10 ug/mL M4



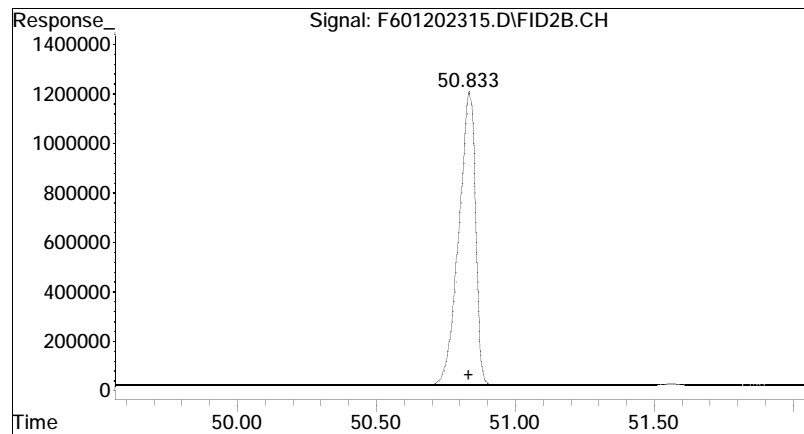
#35 n-tetratriacontane (C34)

R.T.: 48.212 min
Delta R.T.: 0.000 min
Response: 44051182
Conc: 52.03 ug/mL M4



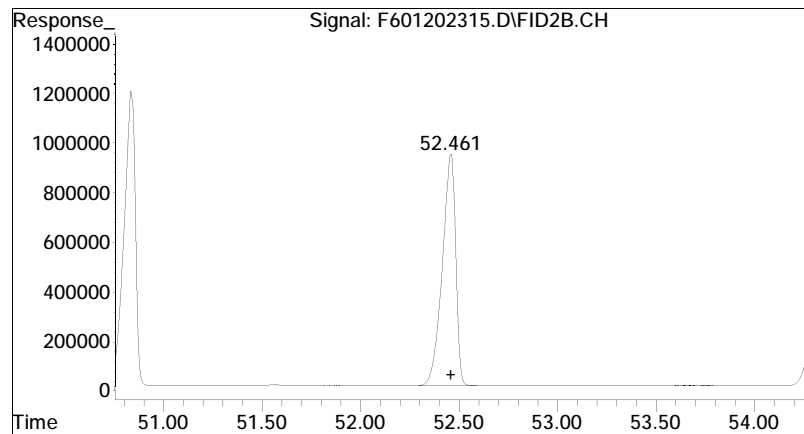
#36 n-Pentatriacontane (C35)

R.T.: 49.435 min
Delta R.T.: 0.000 min
Response: 44498914
Conc: 55.46 ug/mL M4



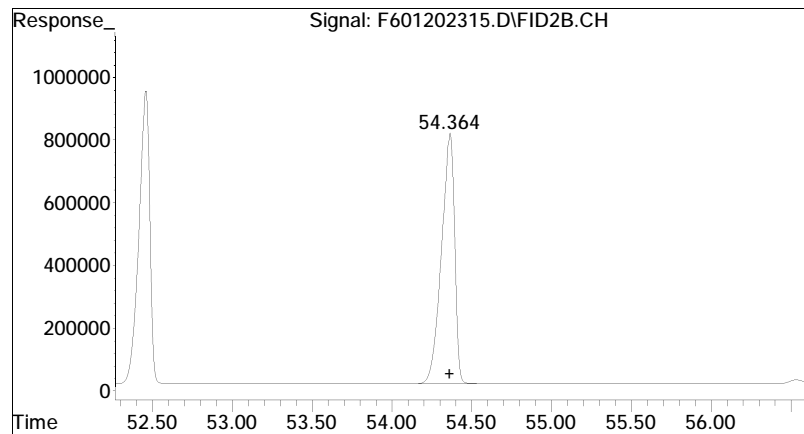
#37 n-Hexatriacontane (C36)

R.T.: 50.833 min
Delta R.T.: 0.000 min
Response: 48003356
Conc: 50.76 ug/mL M4



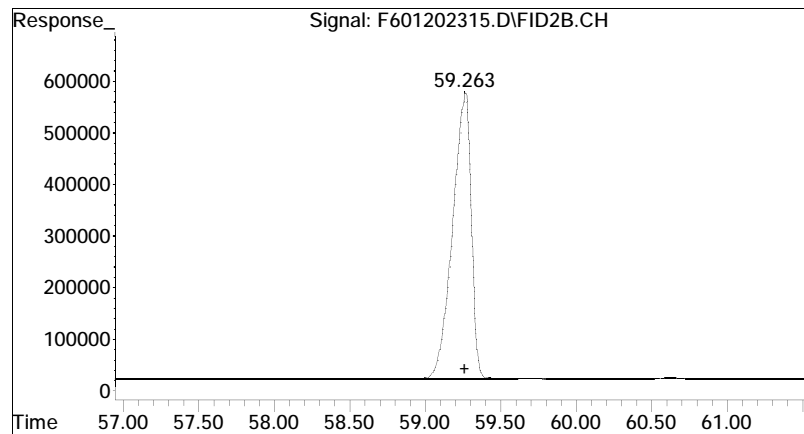
#38 n-Heptatriacontane (C37)

R.T.: 52.461 min
Delta R.T.: 0.000 min
Response: 44362561
Conc: 51.61 ug/mL M4



#39 n-Octatriacontane (C38)

R.T.: 54.364 min
Delta R.T.: 0.000 min
Response: 46005057
Conc: 52.42 ug/mL M4



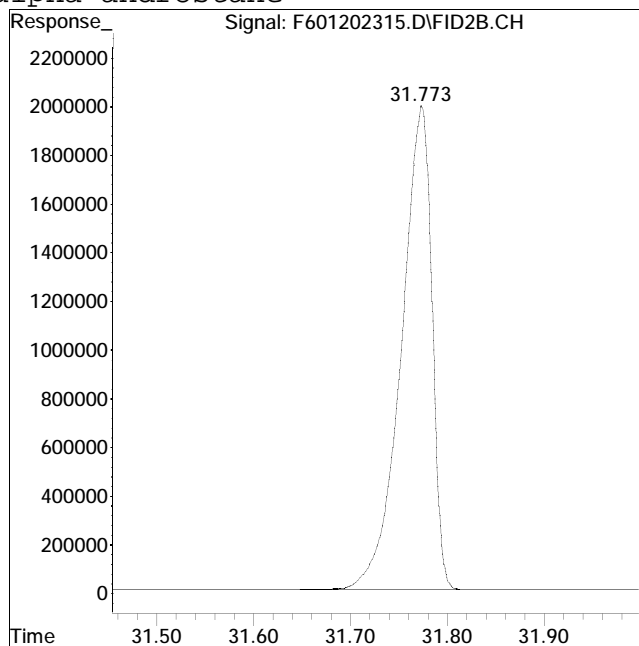
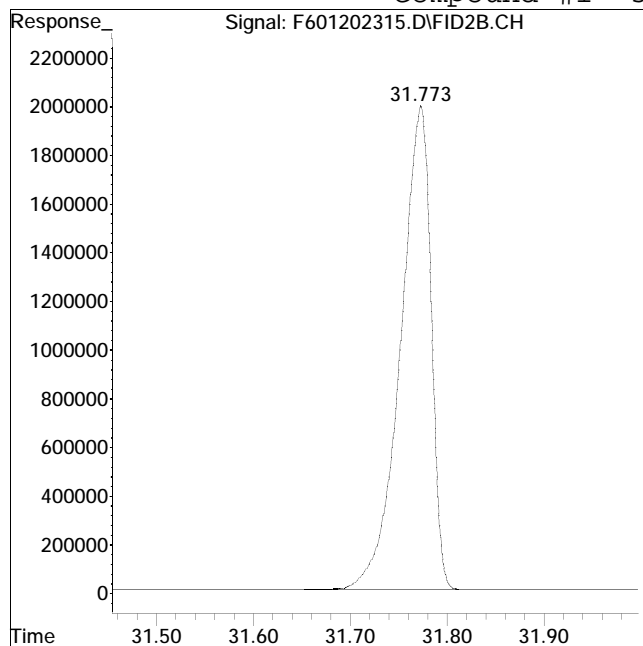
#41 n-Tetracontane (C40)

R.T.: 59.263 min
Delta R.T.: 0.000 min
Response: 46459233
Conc: 54.11 ug/mL M4

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 43732387

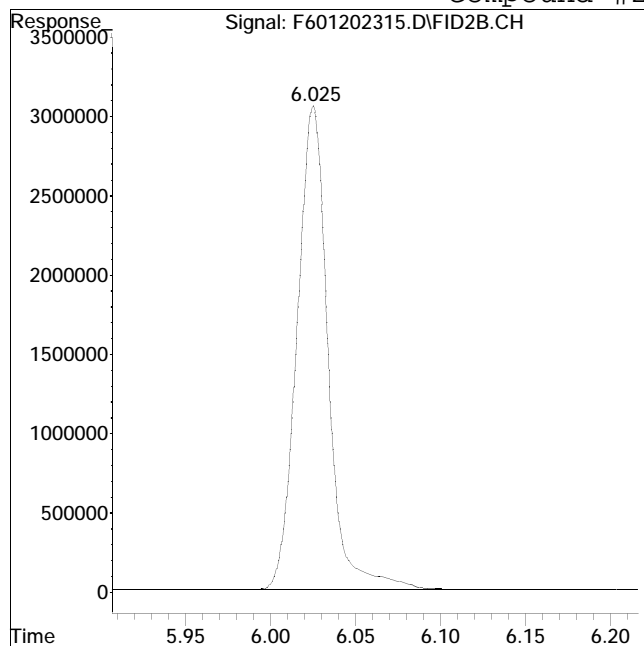
Manual Peak Response = 43761002 M4

M4 = Poor automated baseline construction.

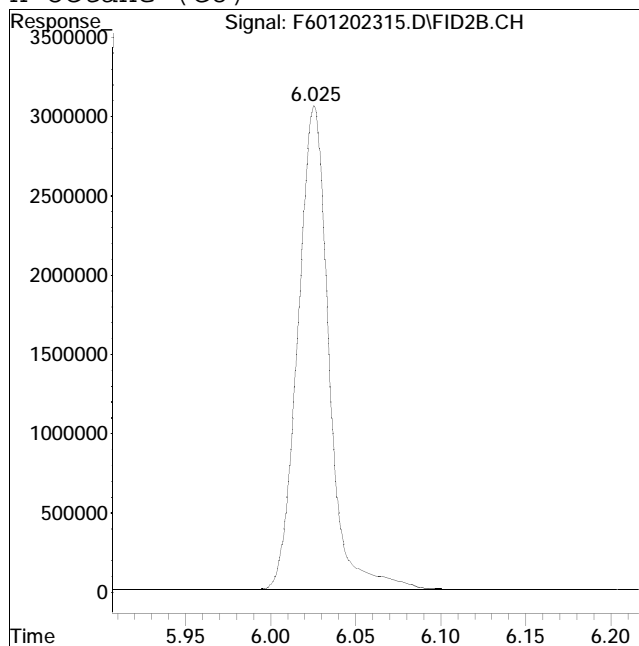
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #2: n-Octane (C8)



Original Peak Response = 38961907



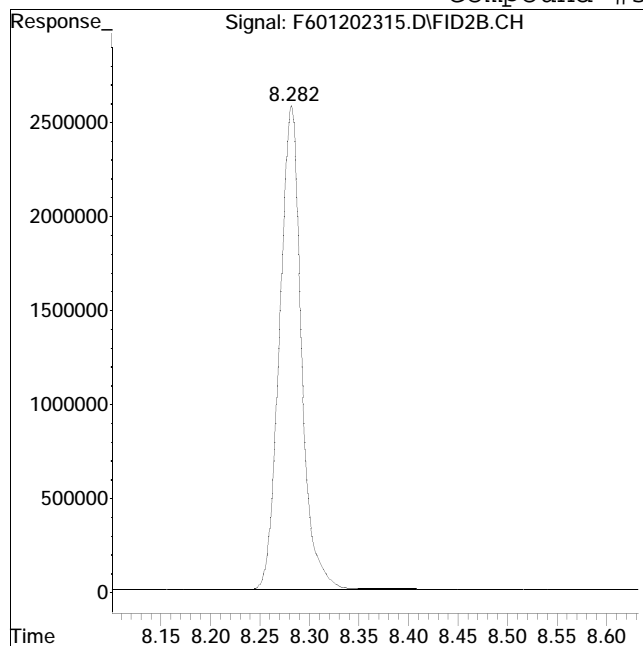
Manual Peak Response = 38959858 M4

M4 = Poor automated baseline construction.

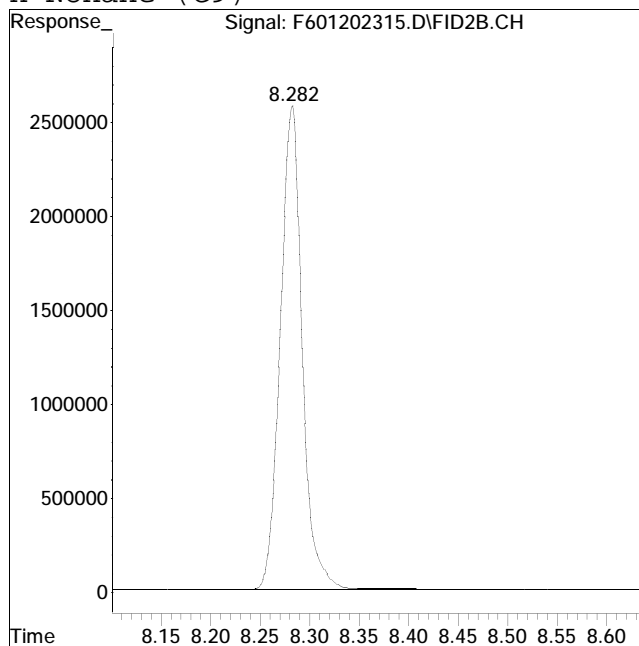
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 39584829



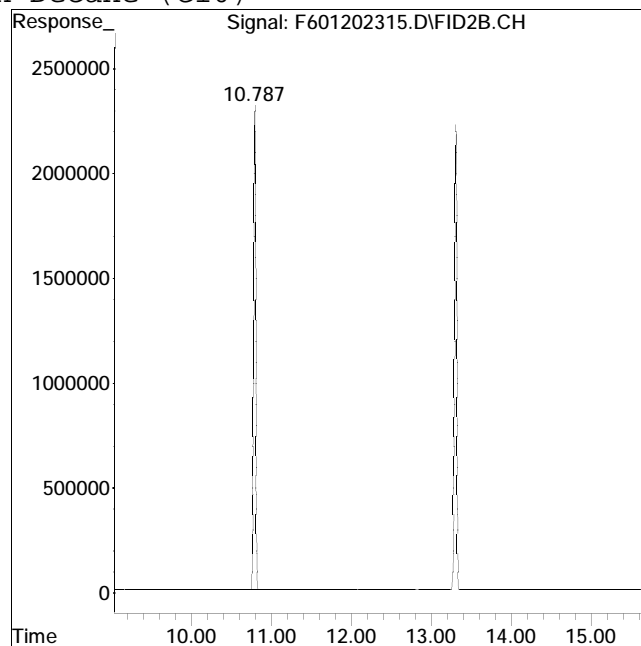
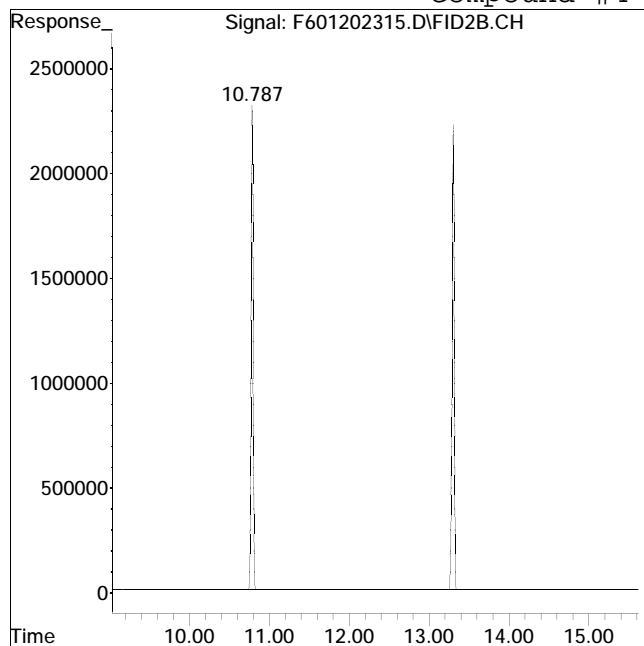
Manual Peak Response = 39691301 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #4: n-Decane (C10)



Original Peak Response = 39791064

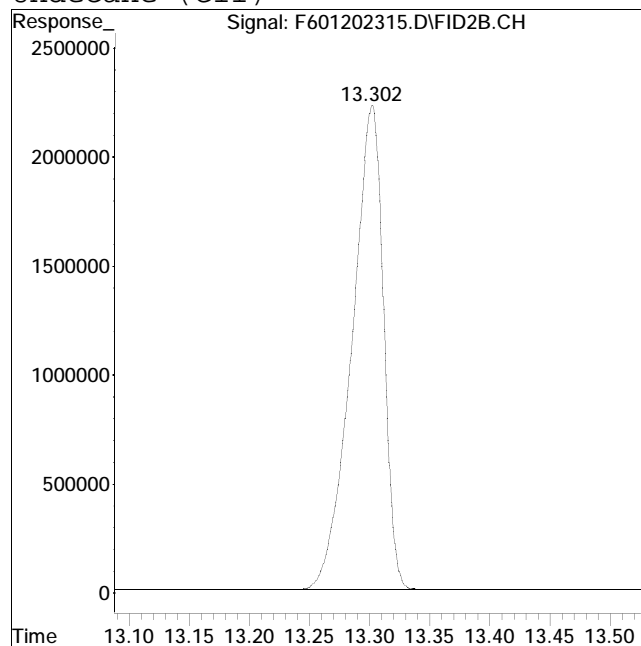
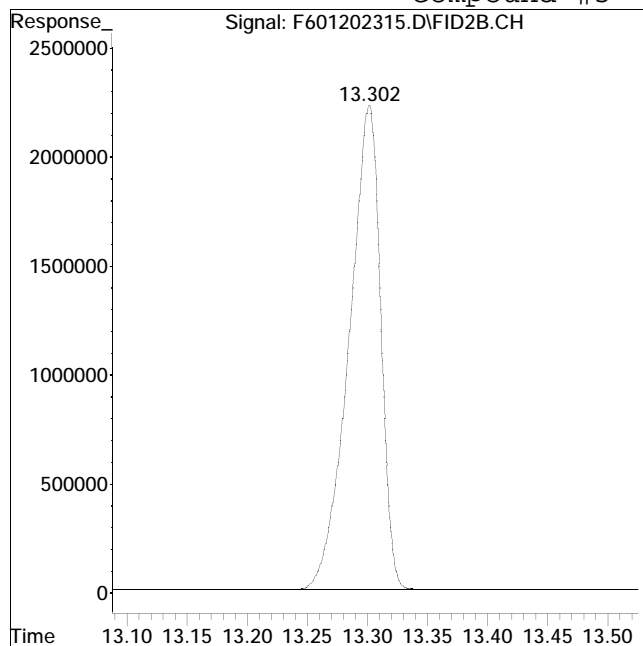
Manual Peak Response = 40247390 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 40649915

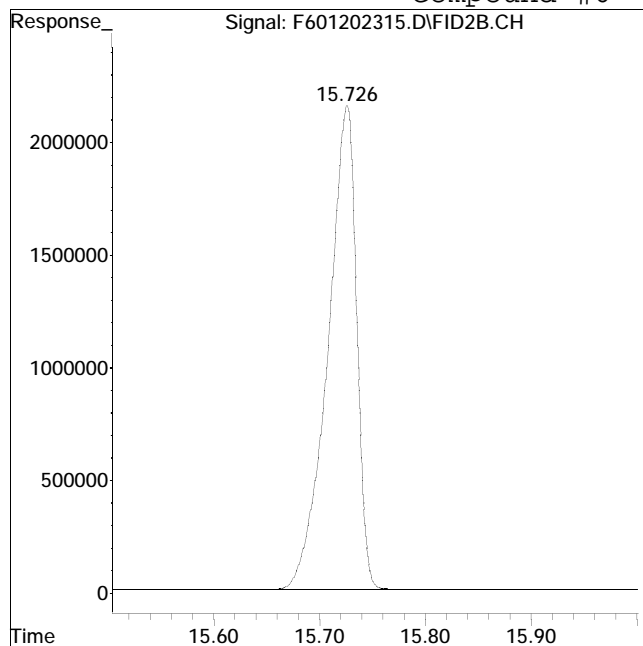
Manual Peak Response = 40663765 M4

M4 = Poor automated baseline construction.

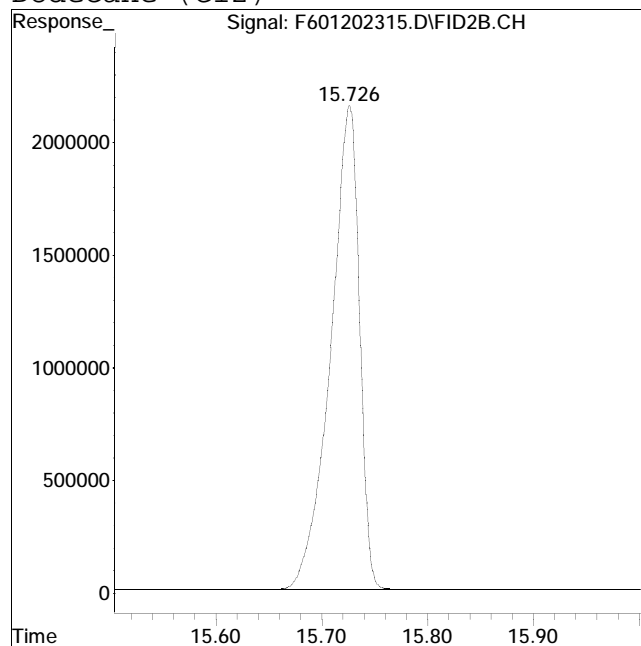
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 40637912



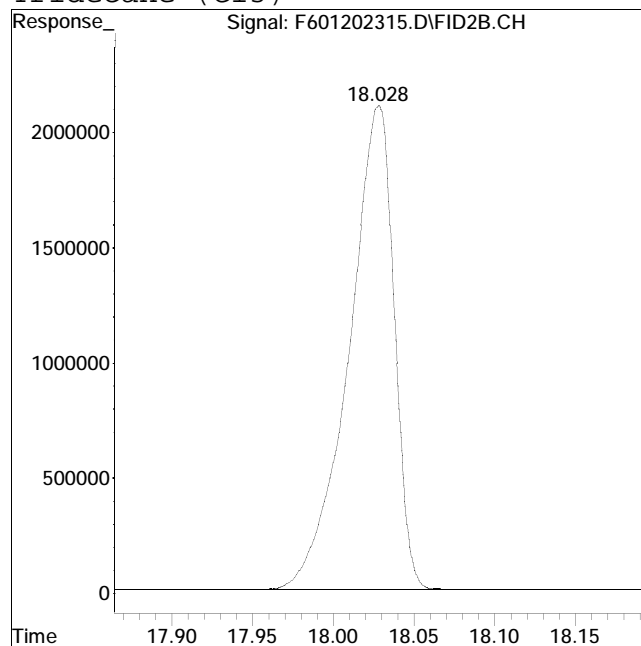
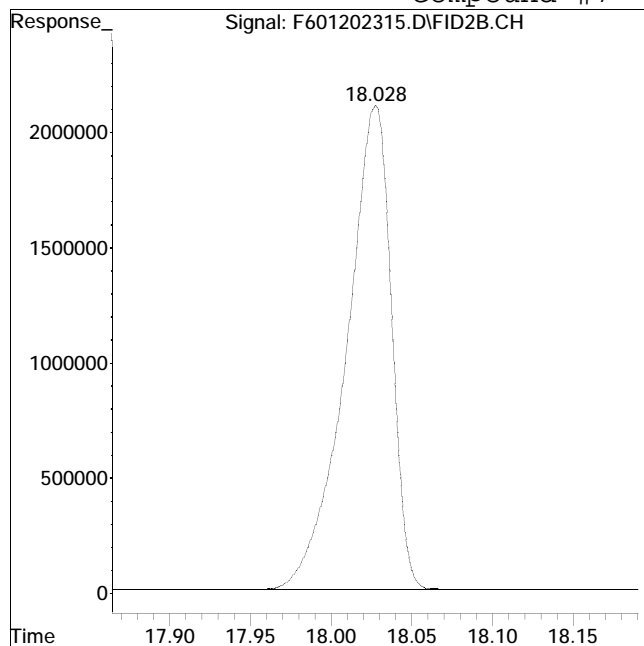
Manual Peak Response = 40630745 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 40933295

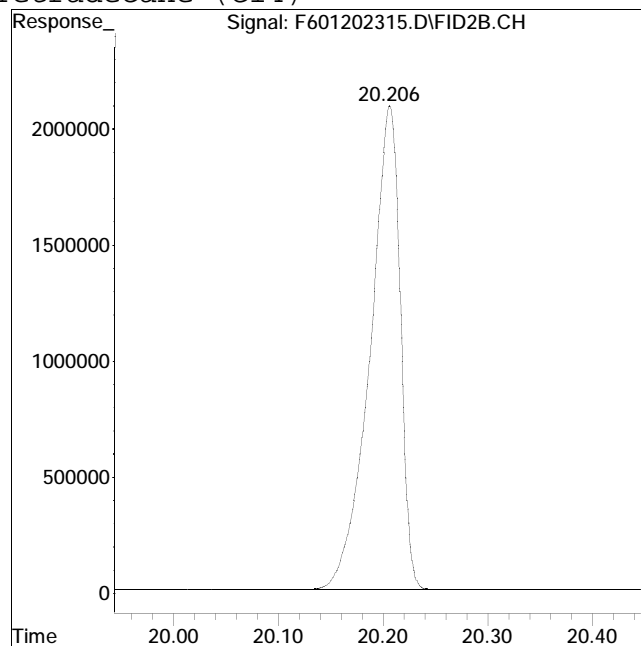
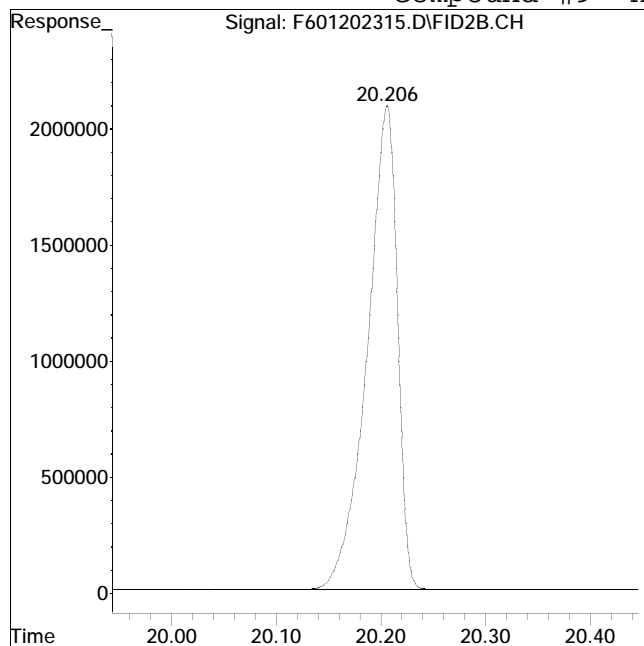
Manual Peak Response = 40971392 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 41783560

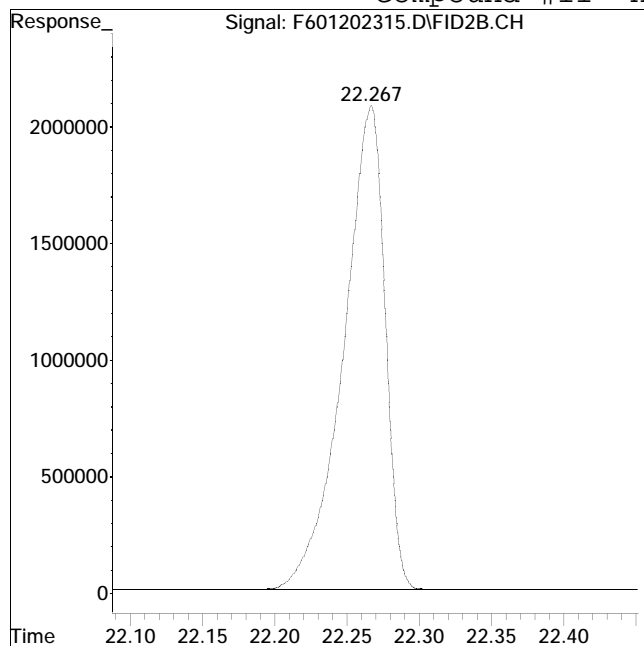
Manual Peak Response = 41794330 M4

M4 = Poor automated baseline construction.

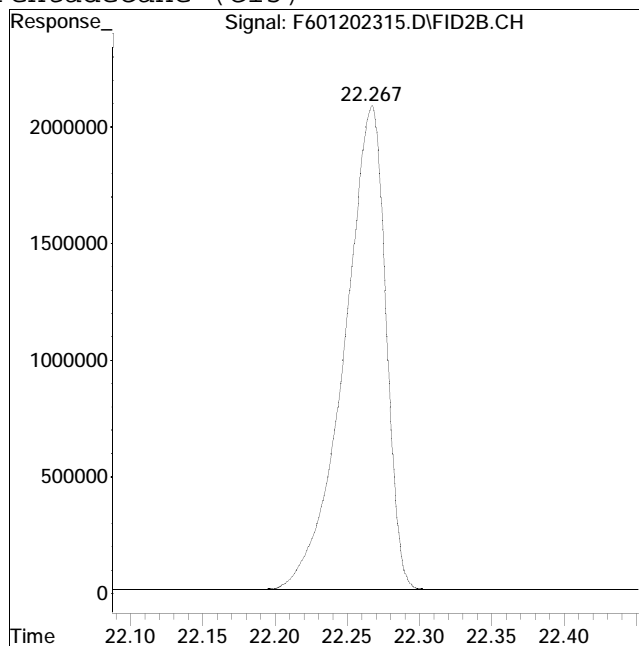
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 41584031



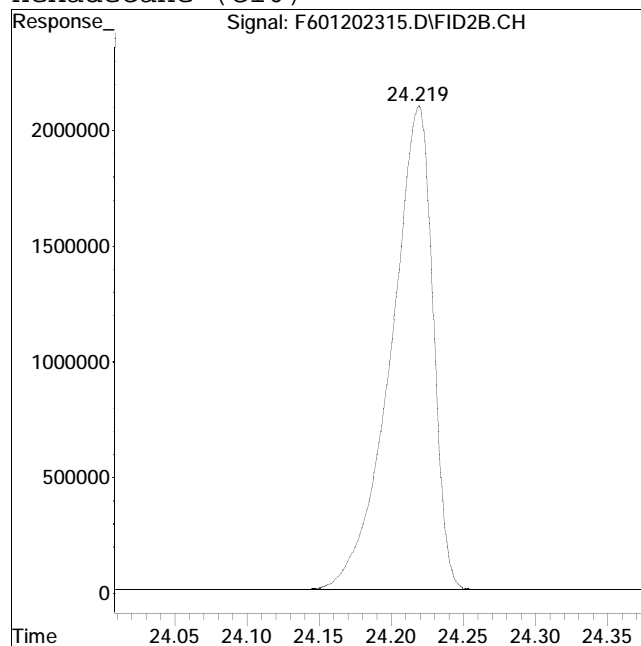
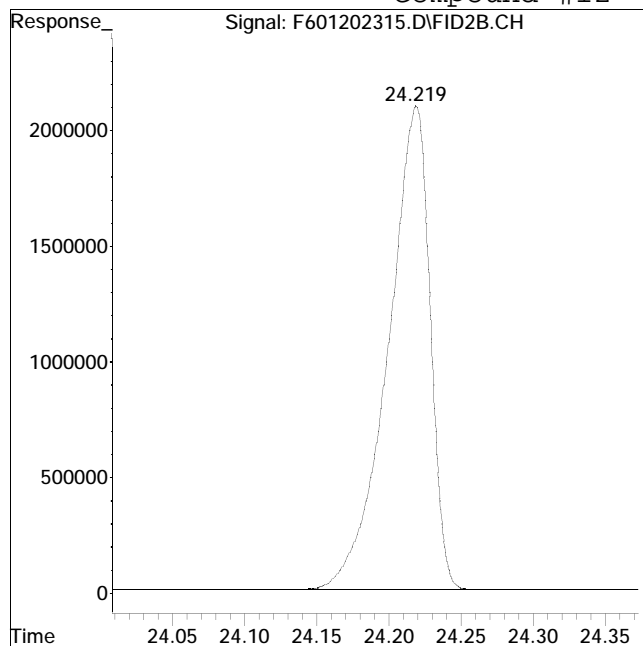
Manual Peak Response = 41569656 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 42400829

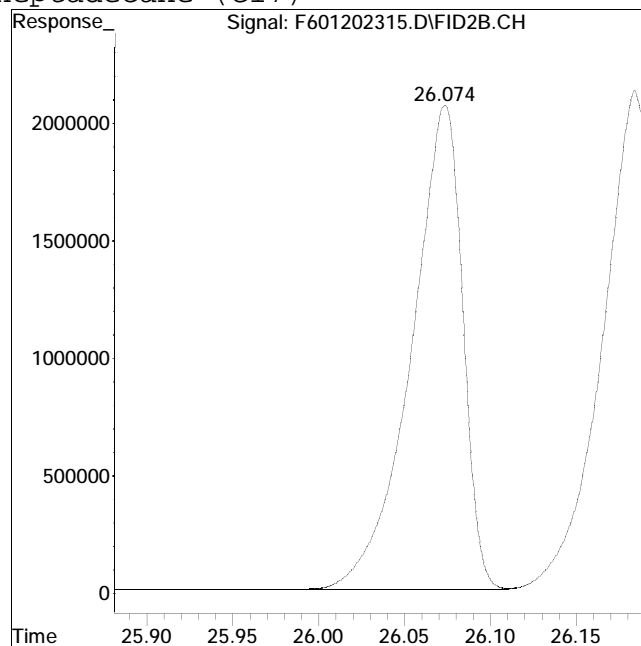
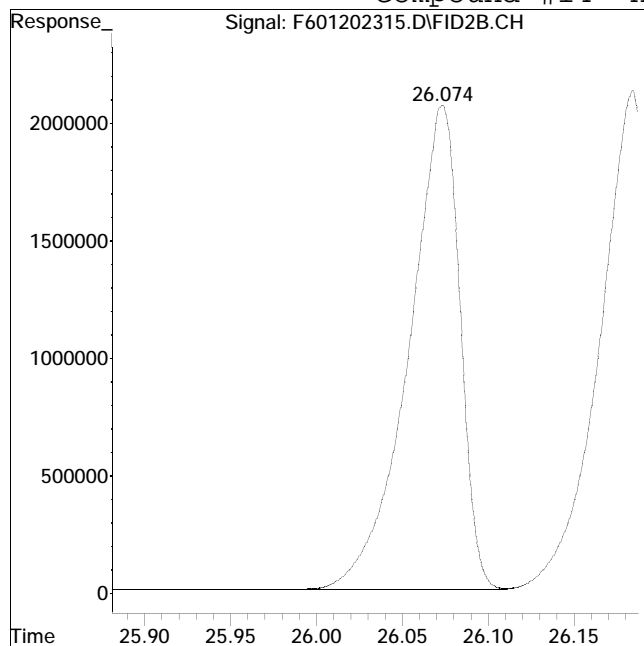
Manual Peak Response = 42398044 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 42824626

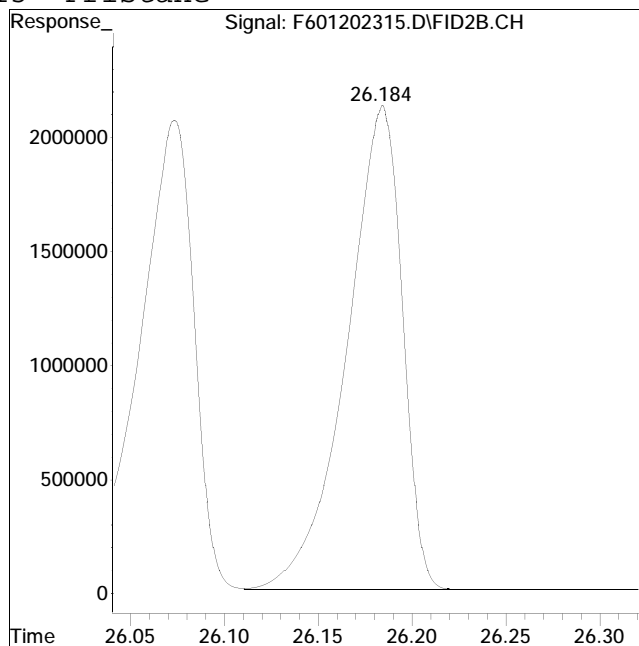
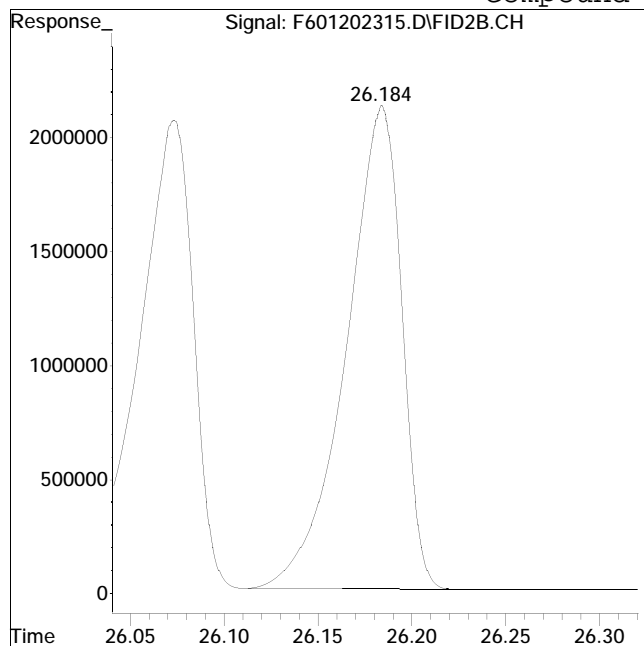
Manual Peak Response = 42905852 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #15: Pristane



Original Peak Response = 43340131

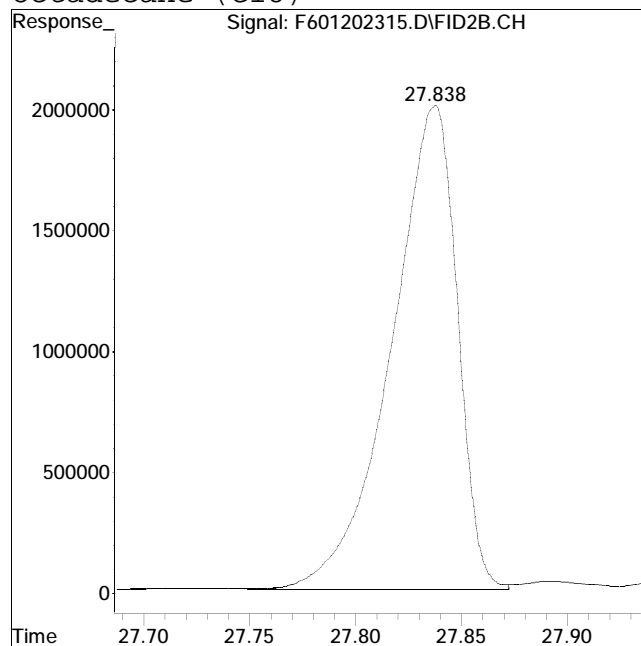
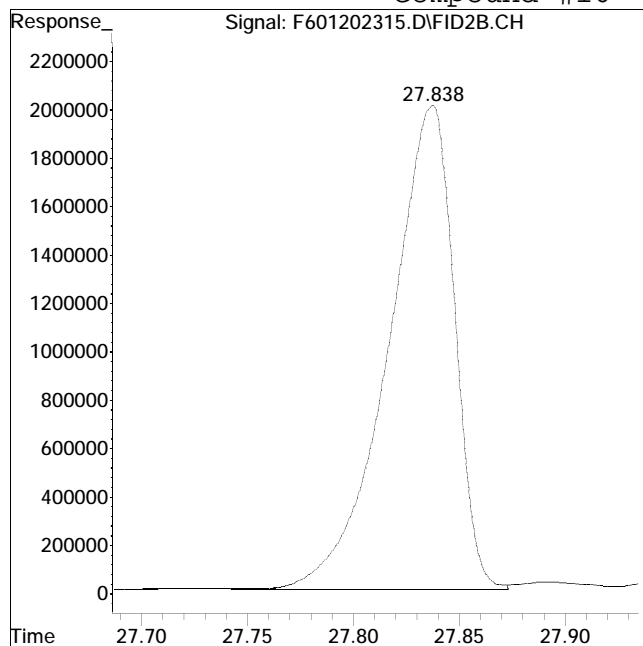
Manual Peak Response = 43603644 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202315.D Operator : FID6:WR
Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 43246012

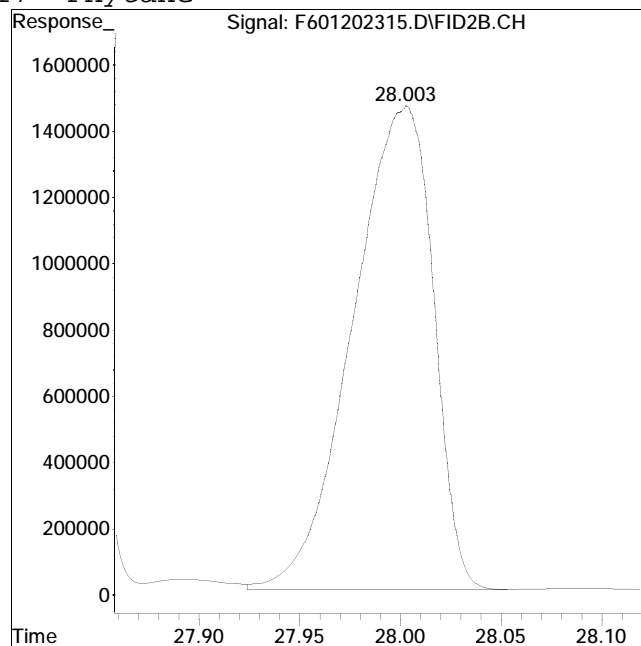
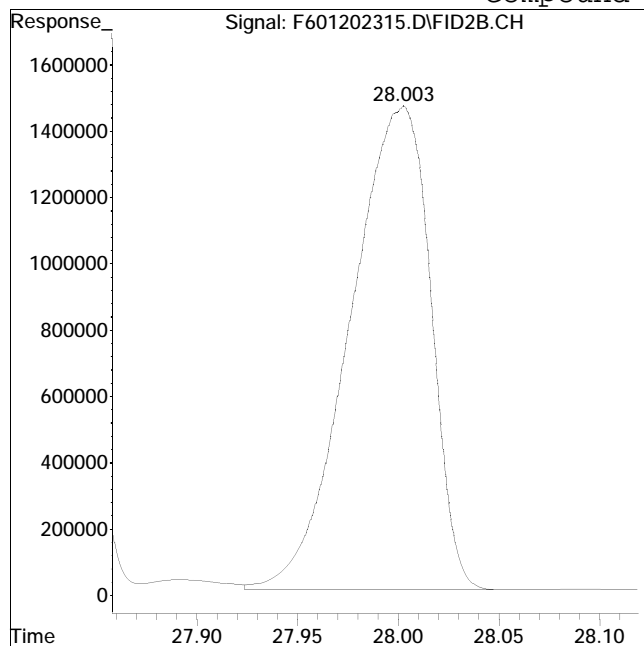
Manual Peak Response = 43324769 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #17: Phytane



Original Peak Response = 40445145

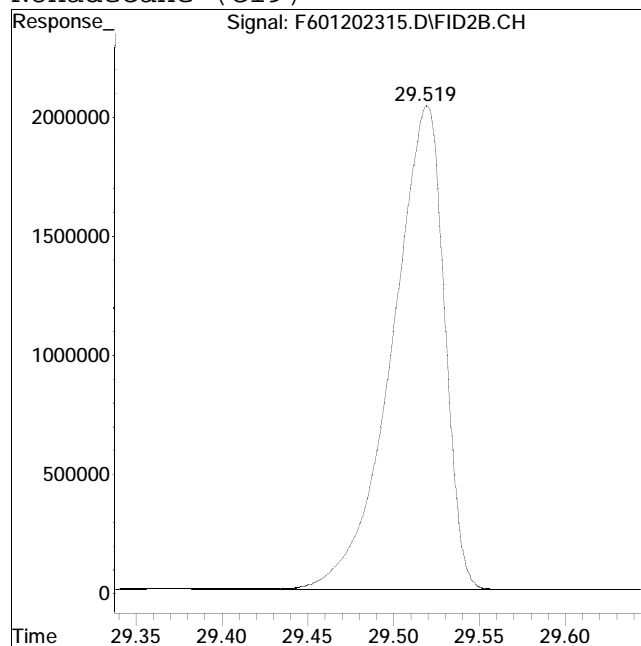
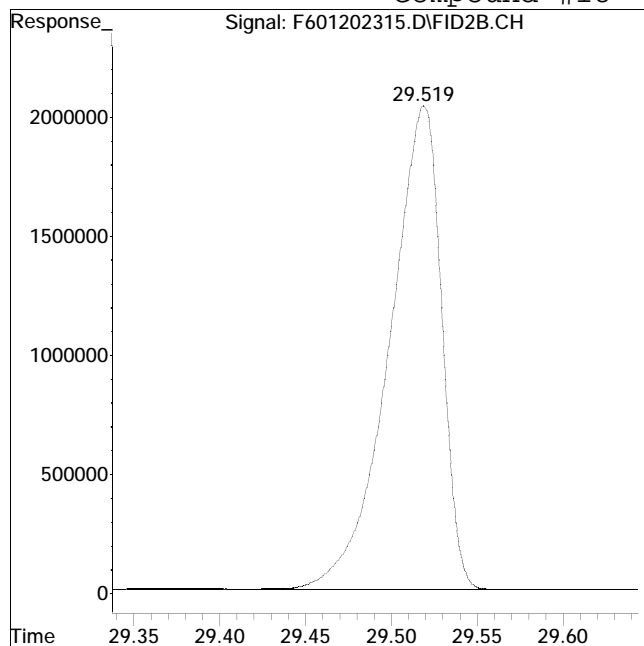
Manual Peak Response = 40551985 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 43145973

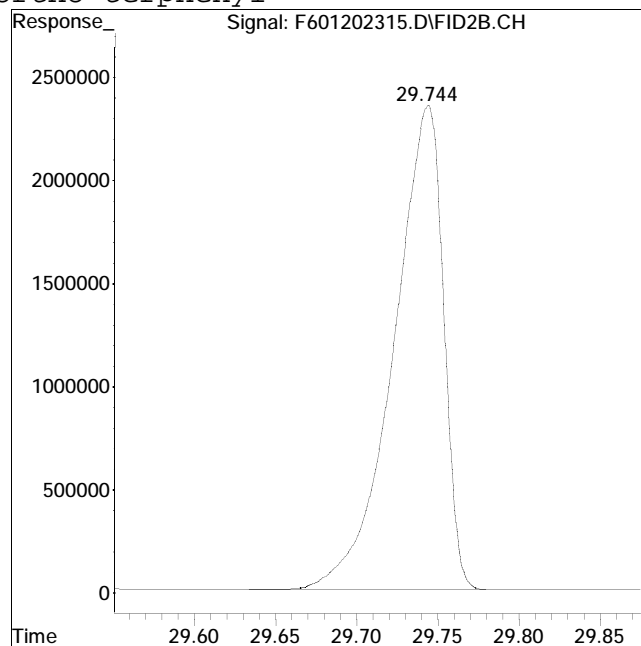
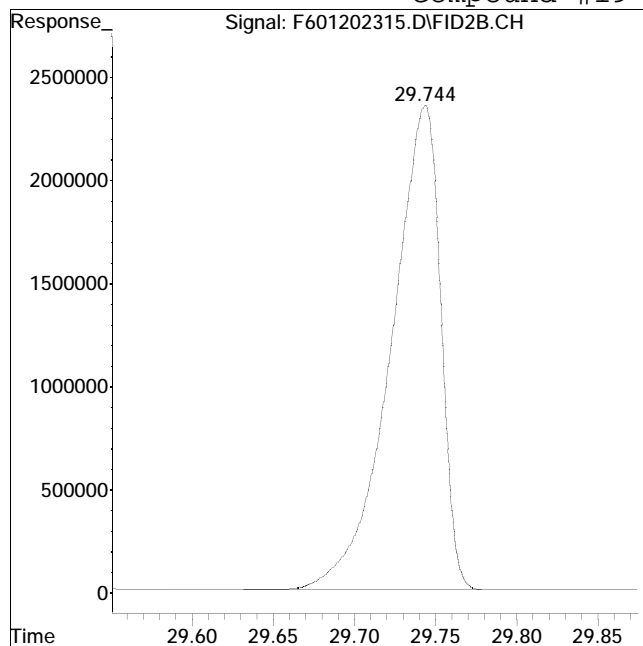
Manual Peak Response = 43187617 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #19: ortho-terphenyl



Original Peak Response = 50051980

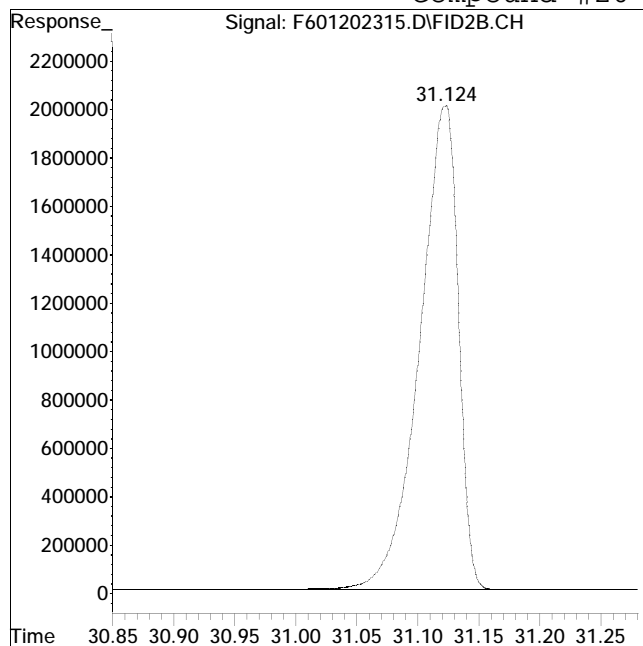
Manual Peak Response = 50089085 M4

M4 = Poor automated baseline construction.

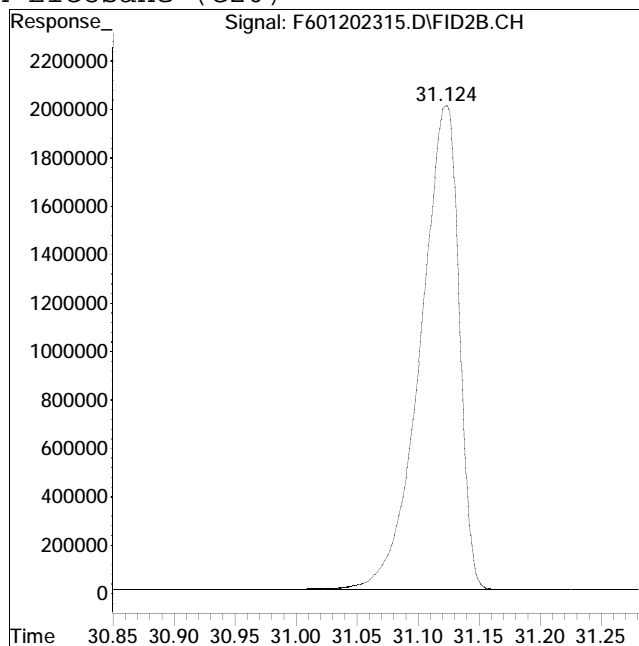
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 44132359



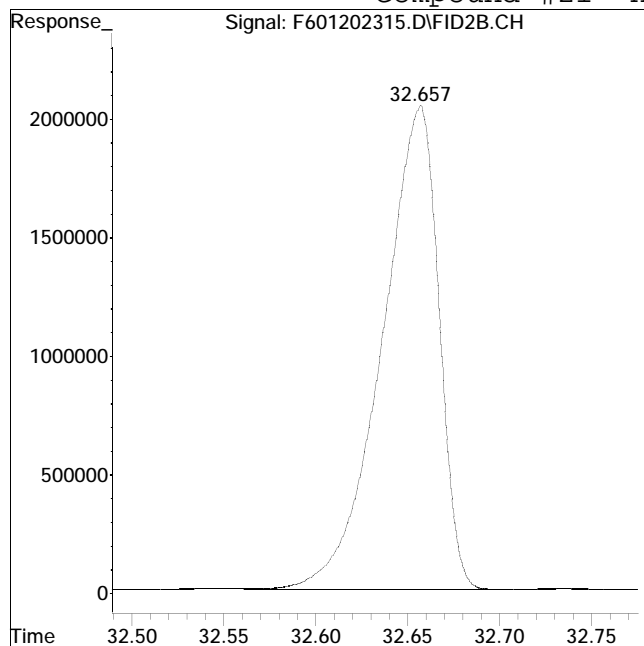
Manual Peak Response = 44149927 M4

M4 = Poor automated baseline construction.

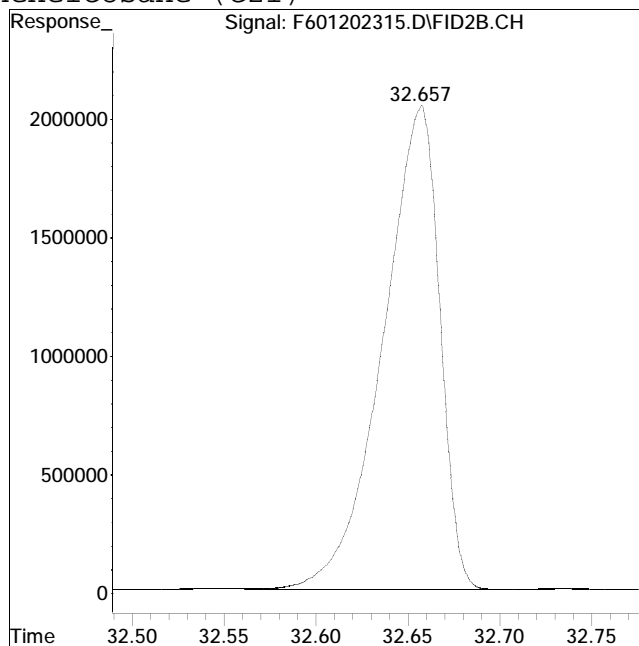
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 43914318



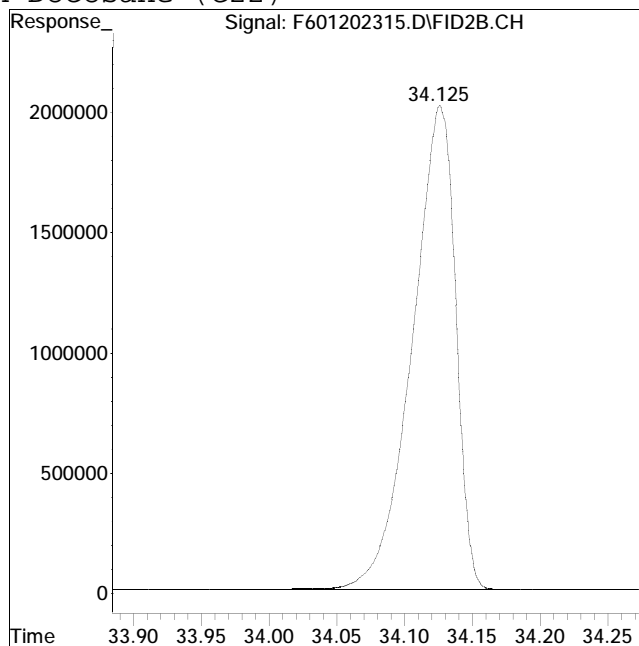
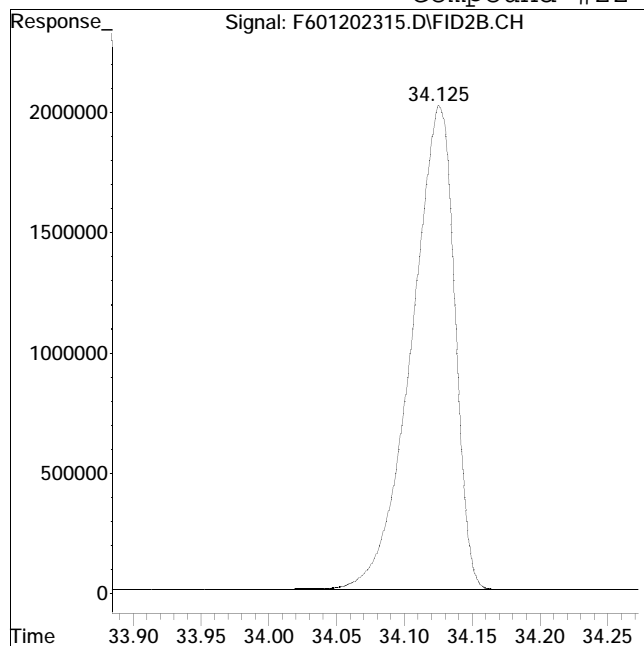
Manual Peak Response = 43914798 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 44670523

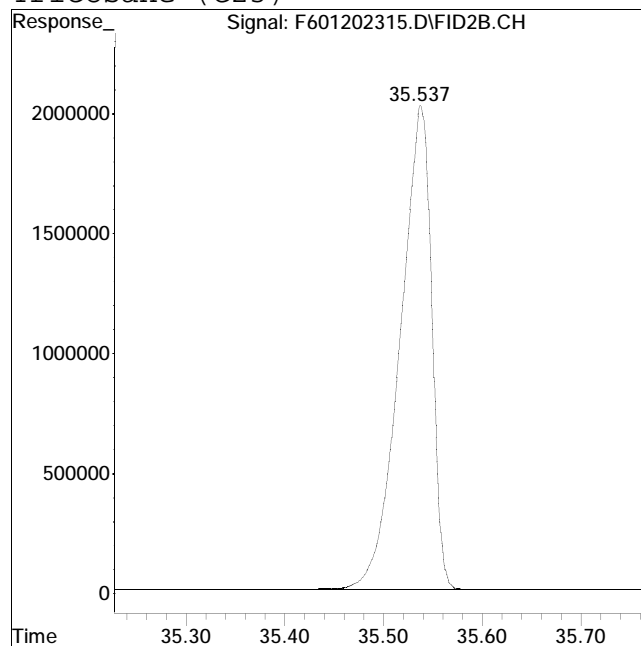
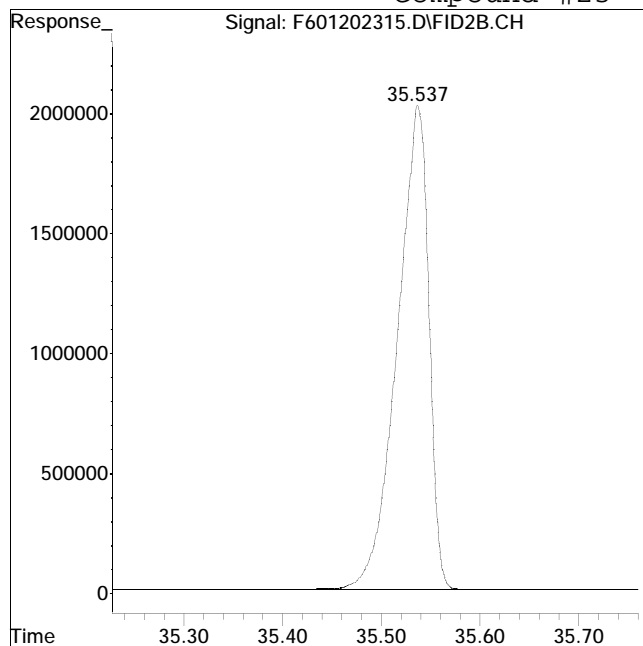
Manual Peak Response = 44763803 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 44796592

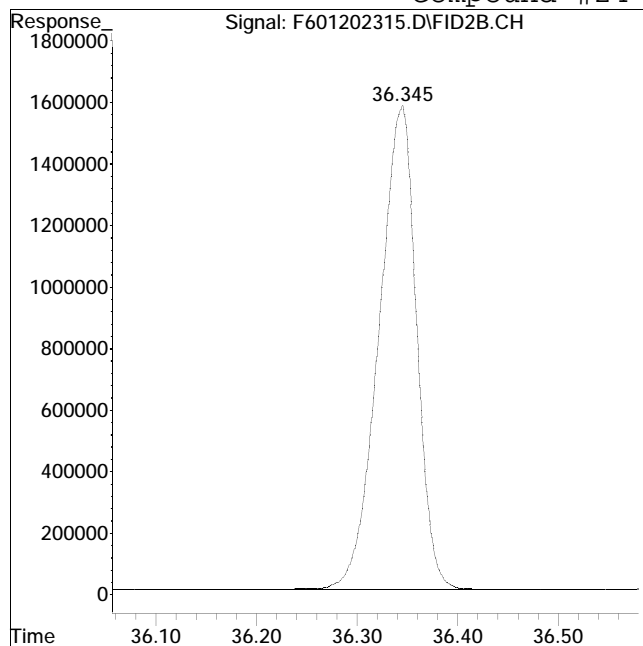
Manual Peak Response = 44808666 M4

M4 = Poor automated baseline construction.

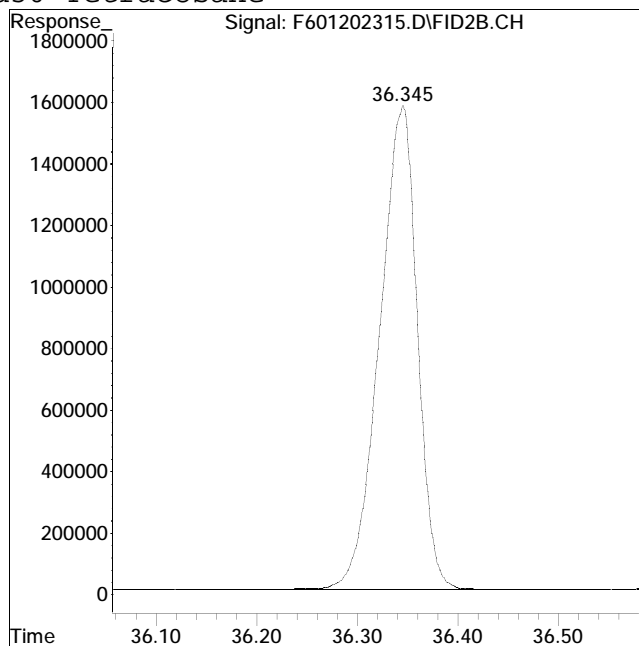
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202315.D Operator : FID6:WR
Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #24: d50-Tetracosane



Original Peak Response = 41049749



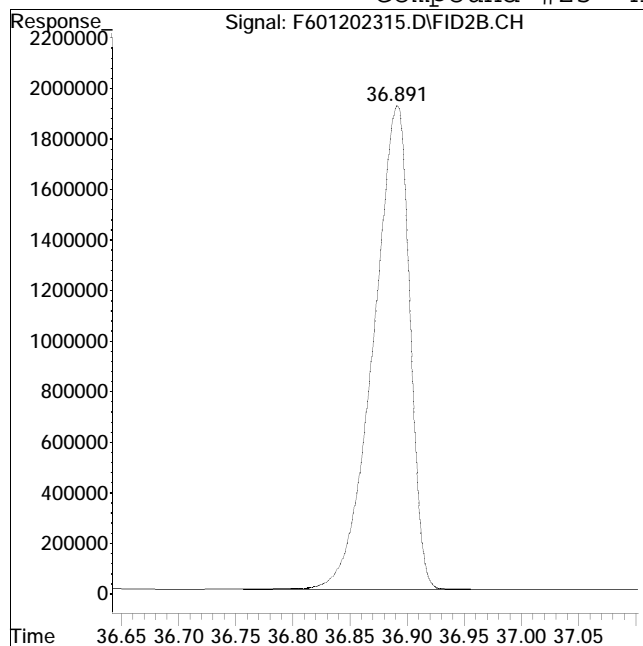
Manual Peak Response = 41069630 M4

M4 = Poor automated baseline construction.

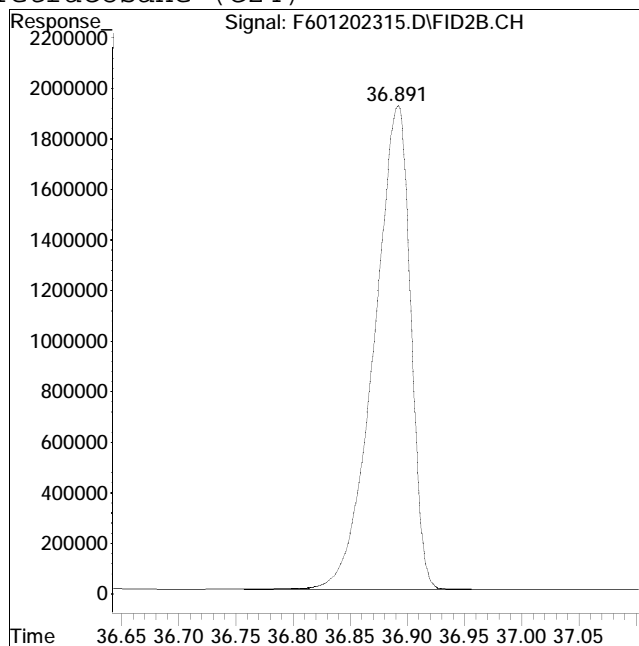
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 42616504



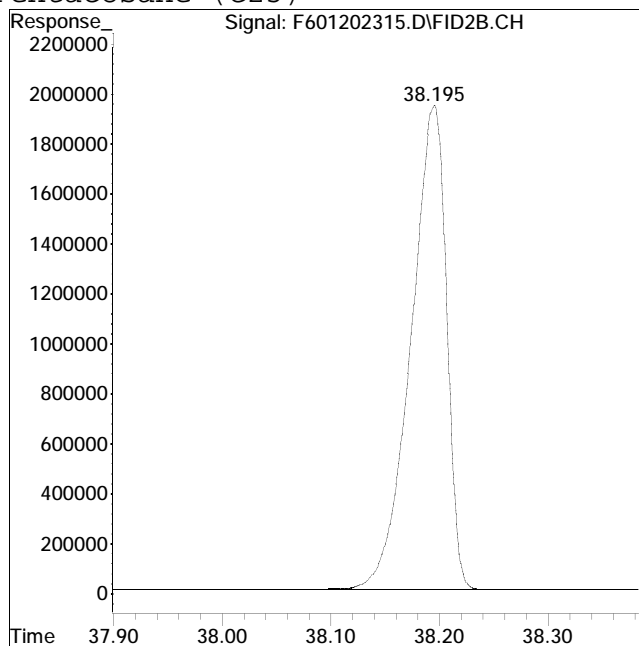
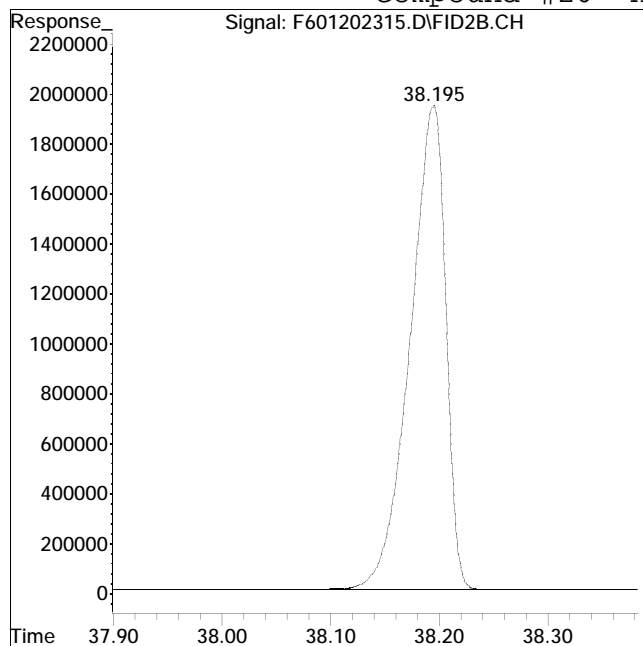
Manual Peak Response = 42624375 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 44156381

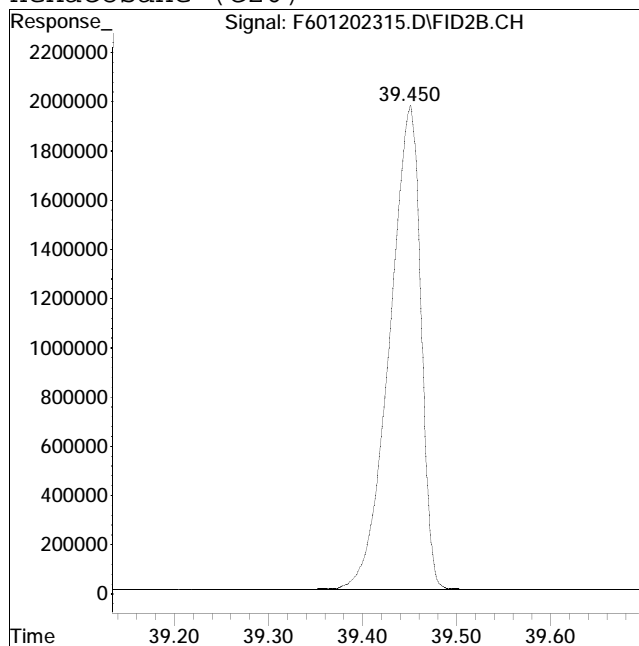
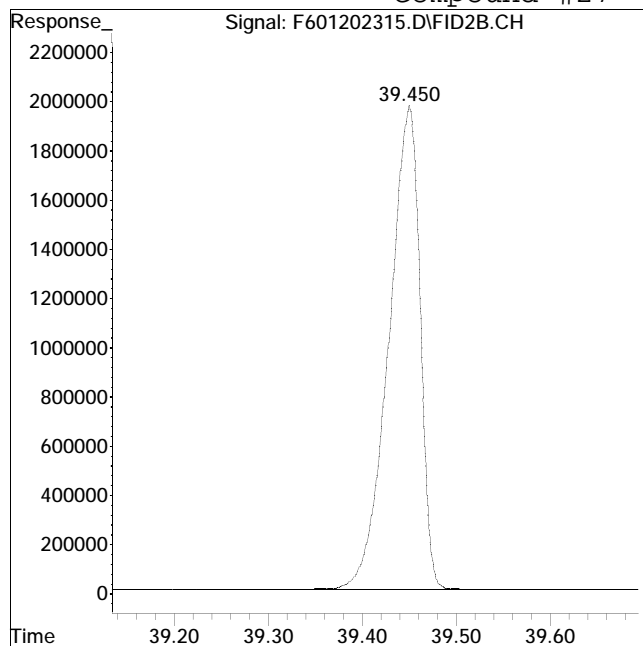
Manual Peak Response = 44185751 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 45549603

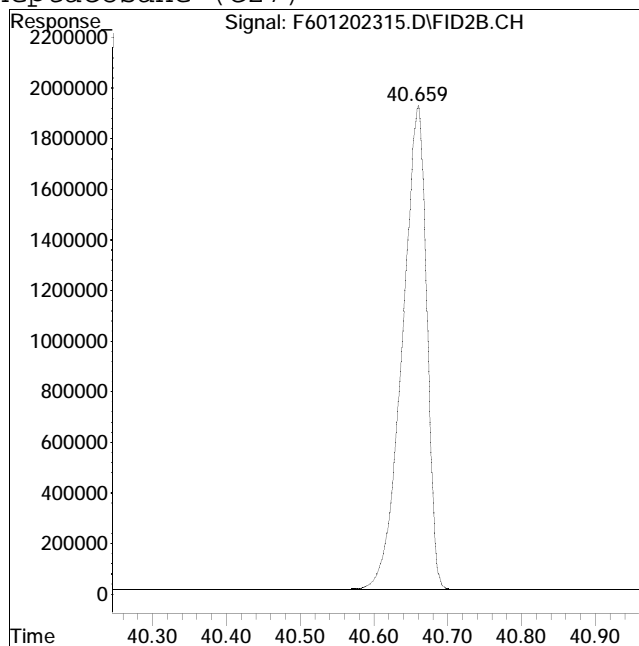
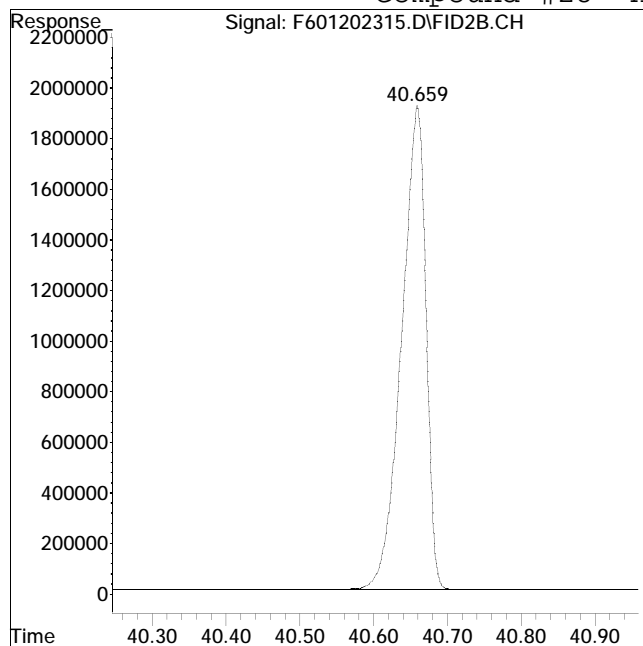
Manual Peak Response = 45525034 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 43900733

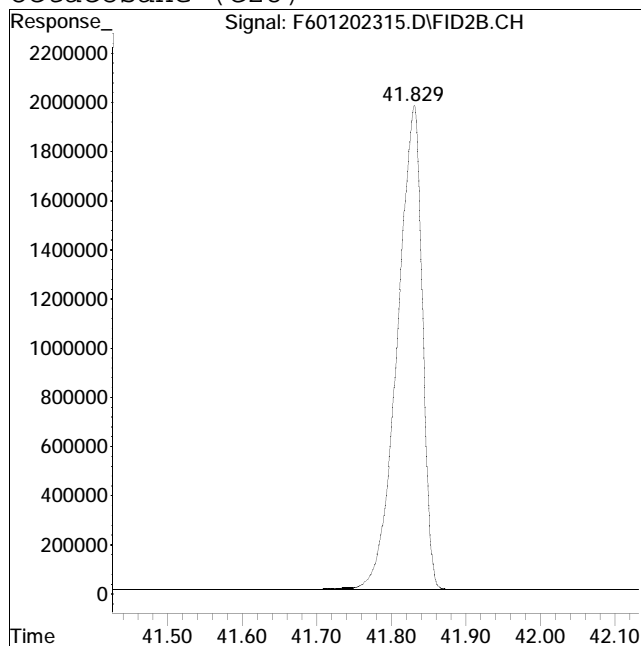
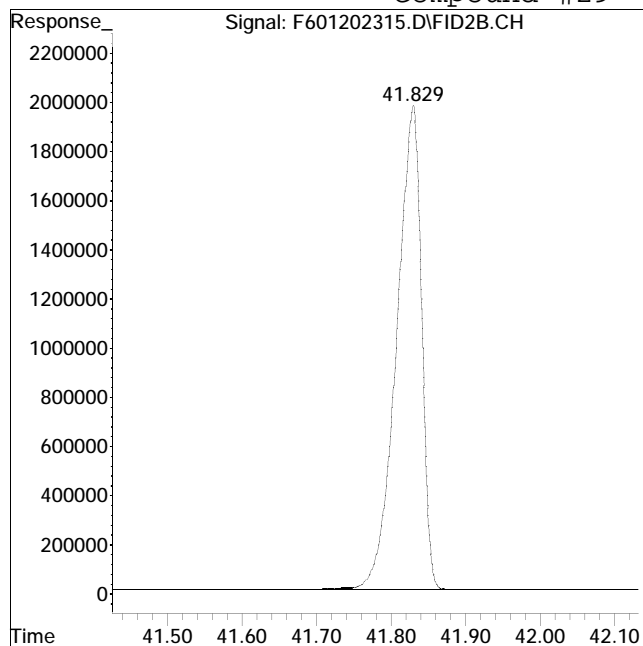
Manual Peak Response = 43894266 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 45877783

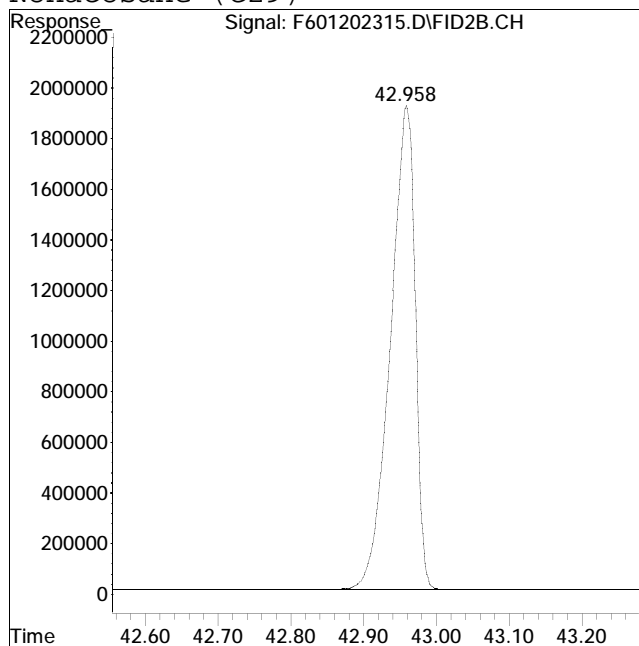
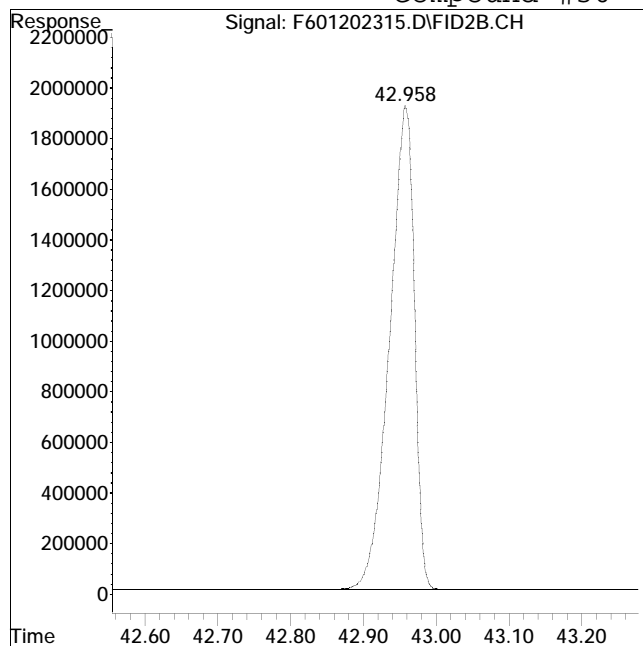
Manual Peak Response = 45885948 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 45408533

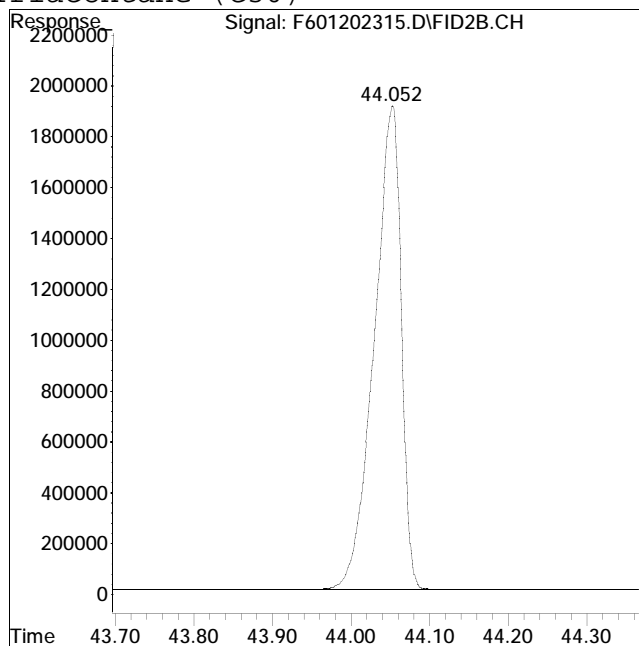
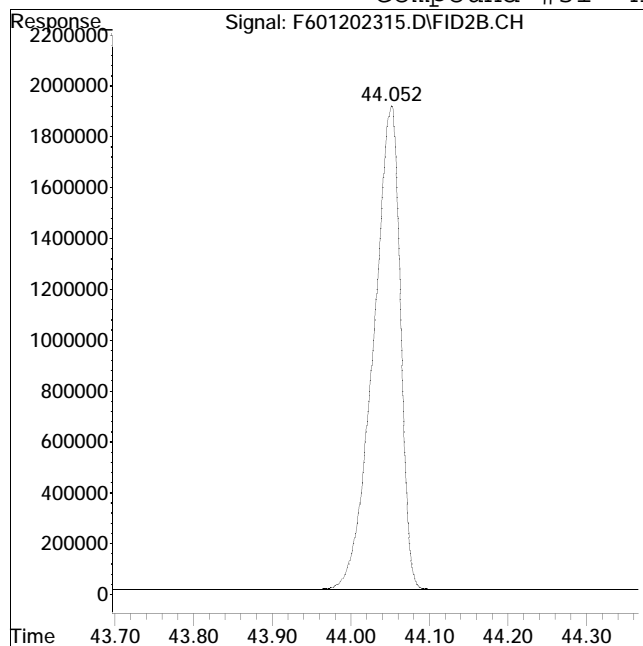
Manual Peak Response = 45397856 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023Q
 Data File : F601202315.D
 Date Inj'd : 1/20/2023 9:38 pm
 Sample : I601202303R
 Method : HC6012023R_DRO.M
 Operator : FID6:WR
 Instrument : FID6
 Quant Date : 3/7/2023 5:10 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 45383473

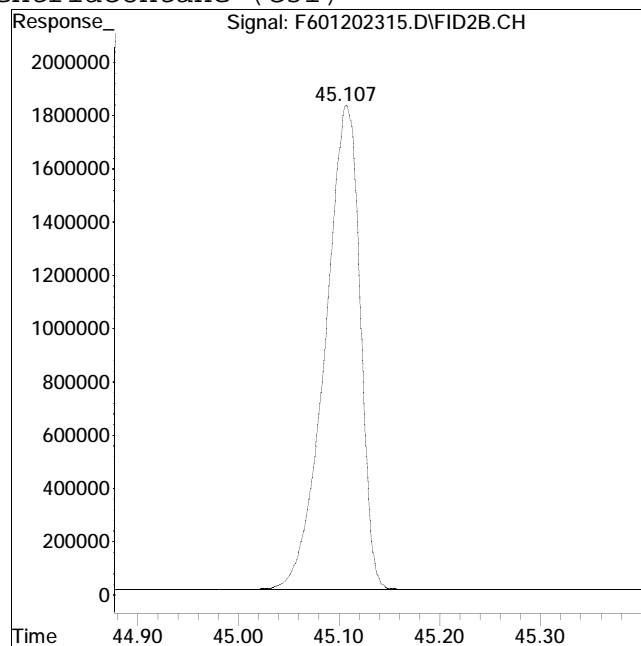
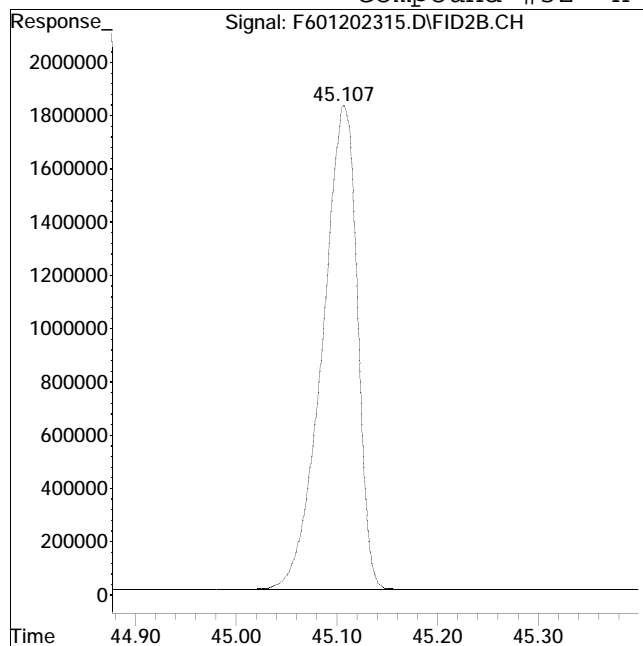
Manual Peak Response = 45424435 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 43913071

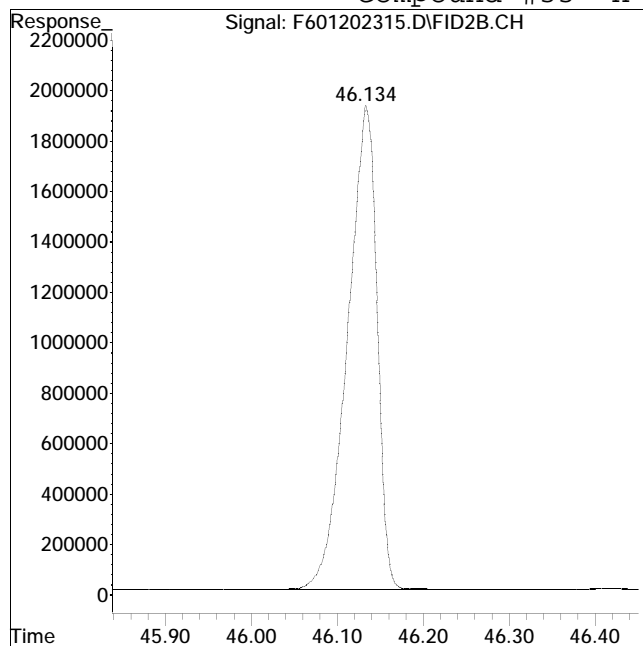
Manual Peak Response = 43902975 M4

M4 = Poor automated baseline construction.

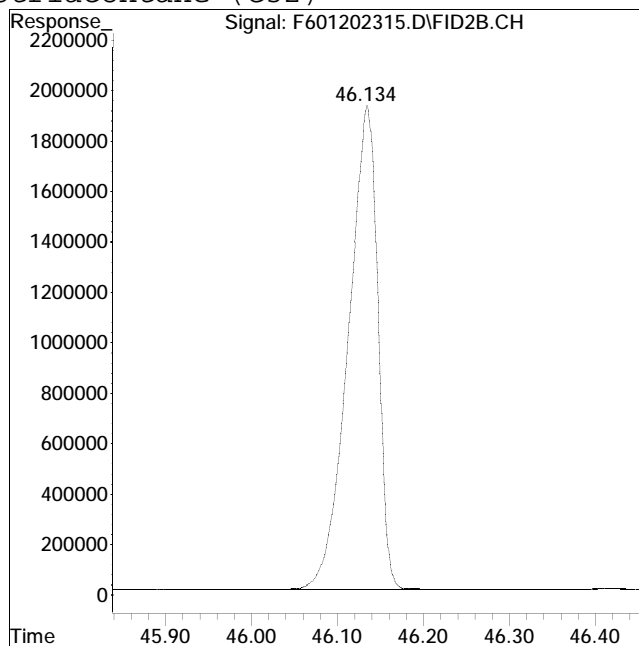
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 45966559



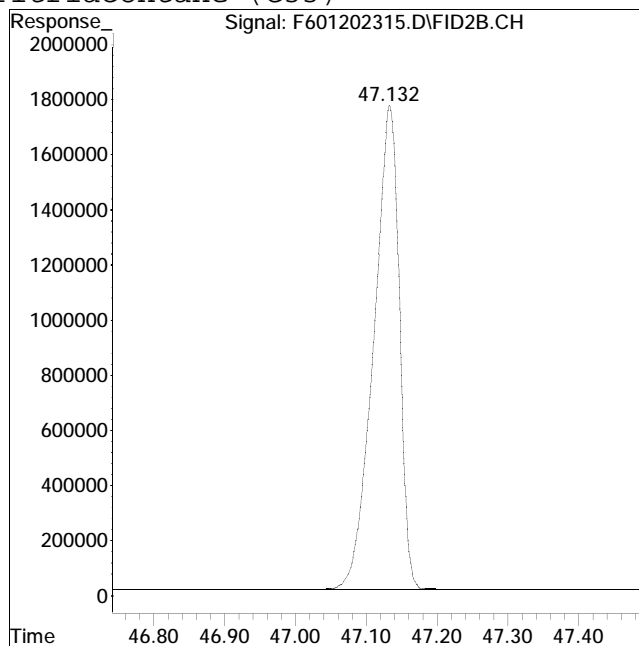
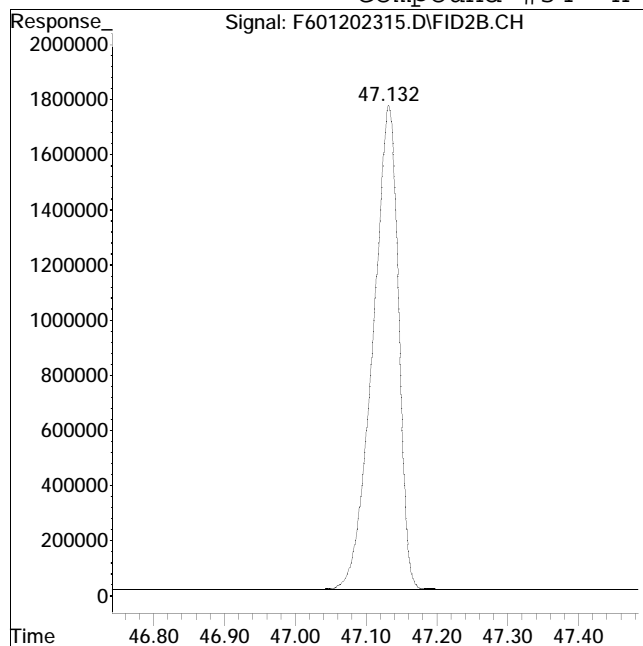
Manual Peak Response = 45929672 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 44274370

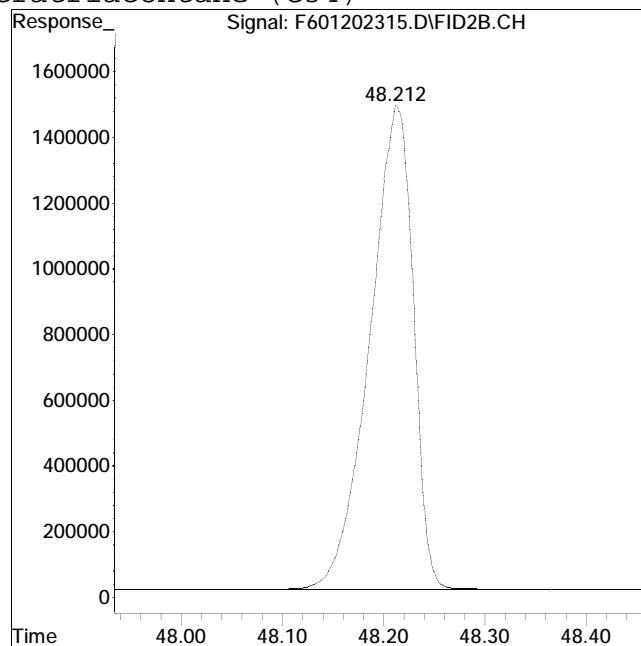
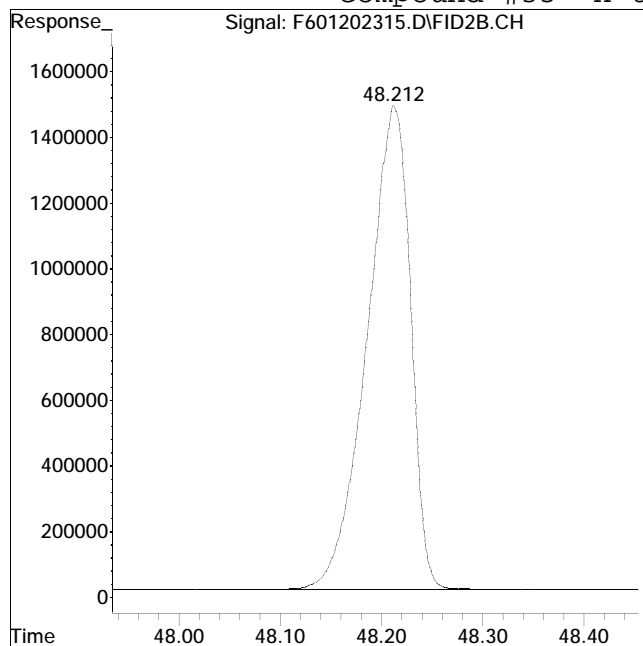
Manual Peak Response = 44248157 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 43944539

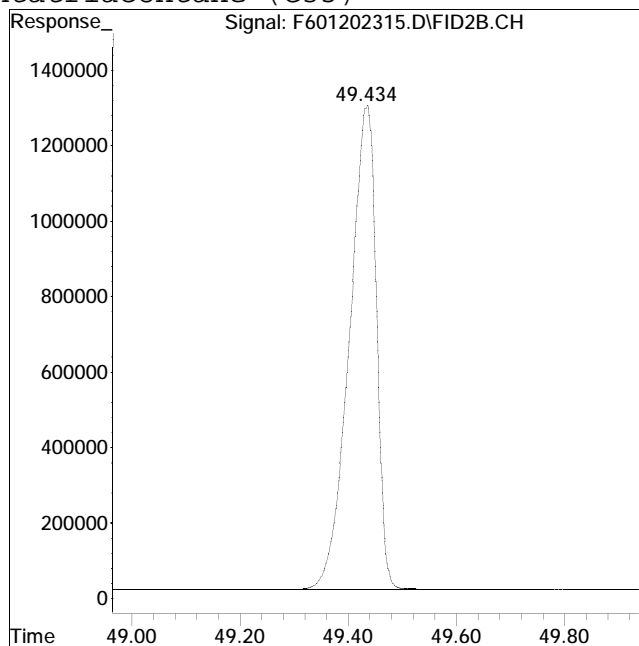
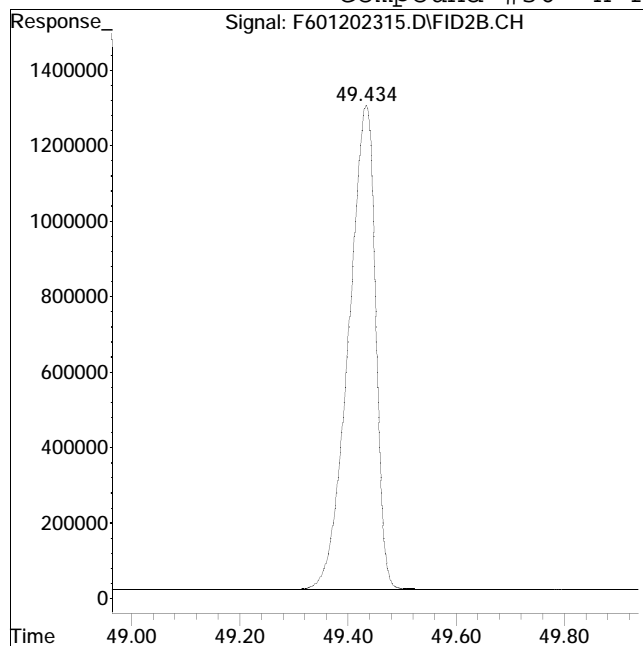
Manual Peak Response = 44051182 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 44535270

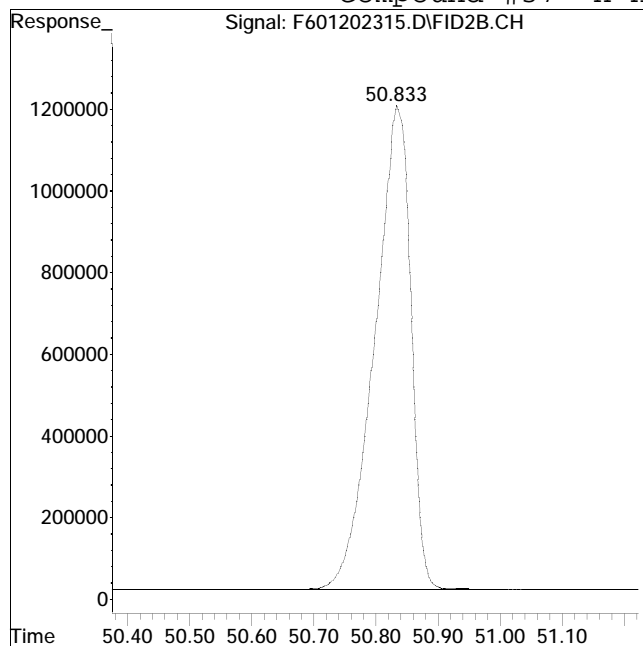
Manual Peak Response = 44498914 M4

M4 = Poor automated baseline construction.

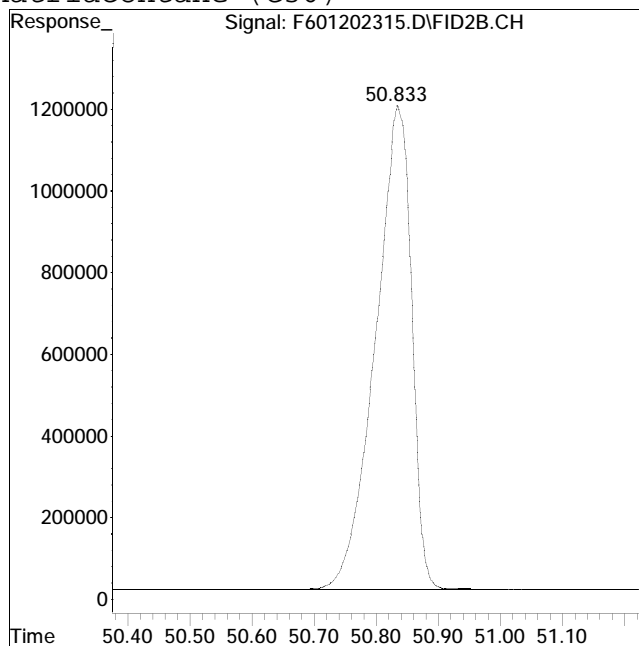
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 47897163



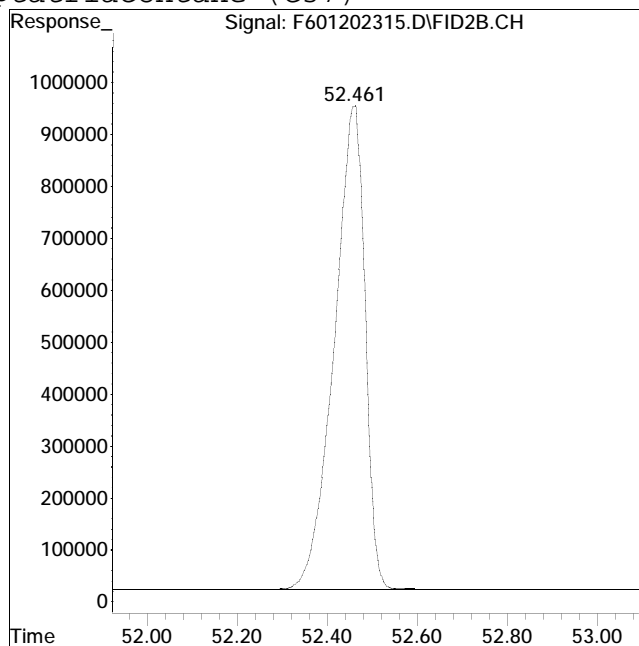
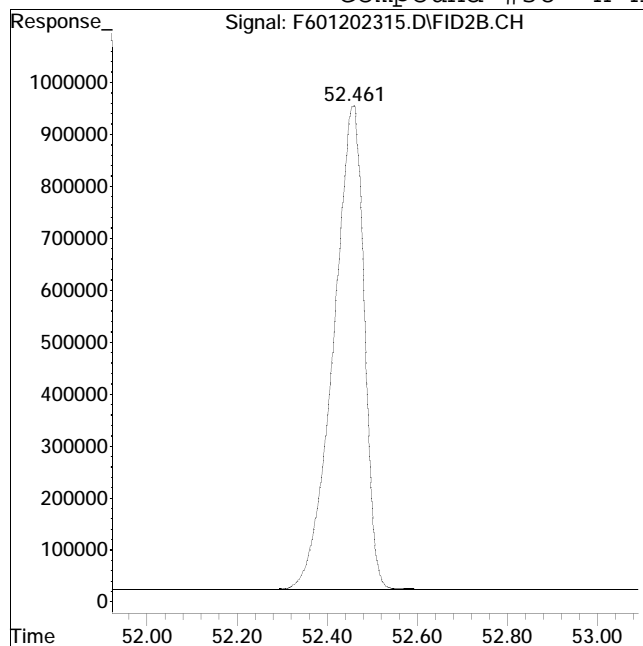
Manual Peak Response = 48003356 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 44347783

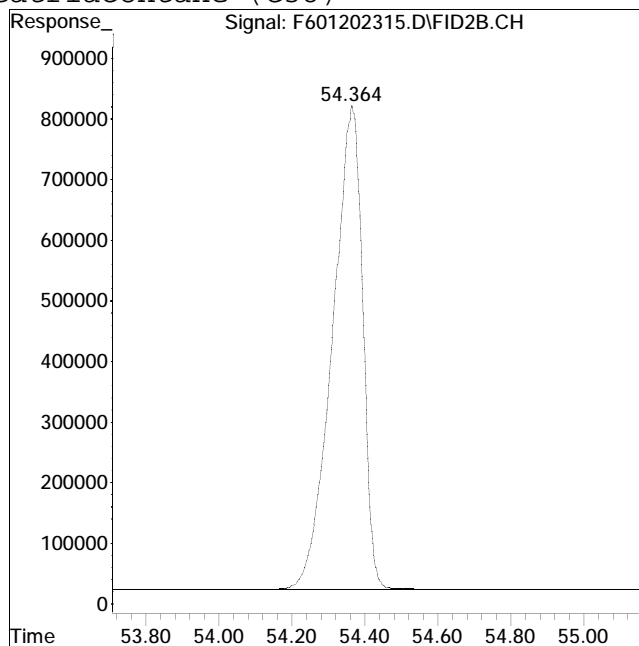
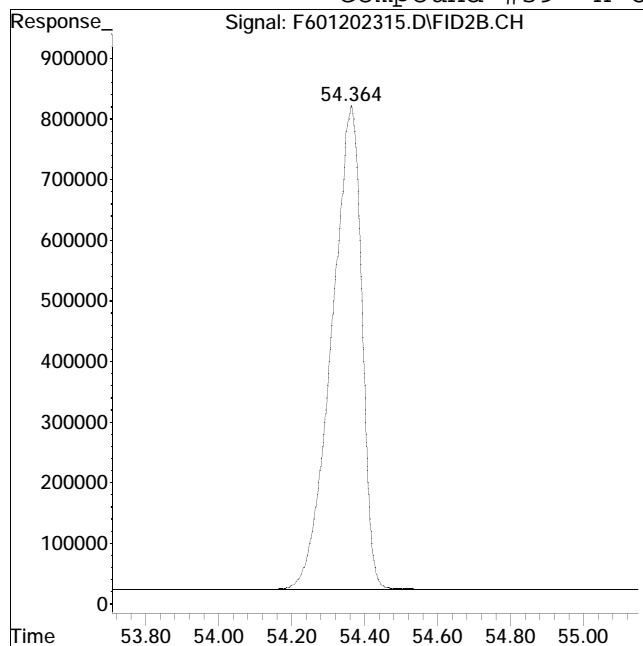
Manual Peak Response = 44362561 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 45977672

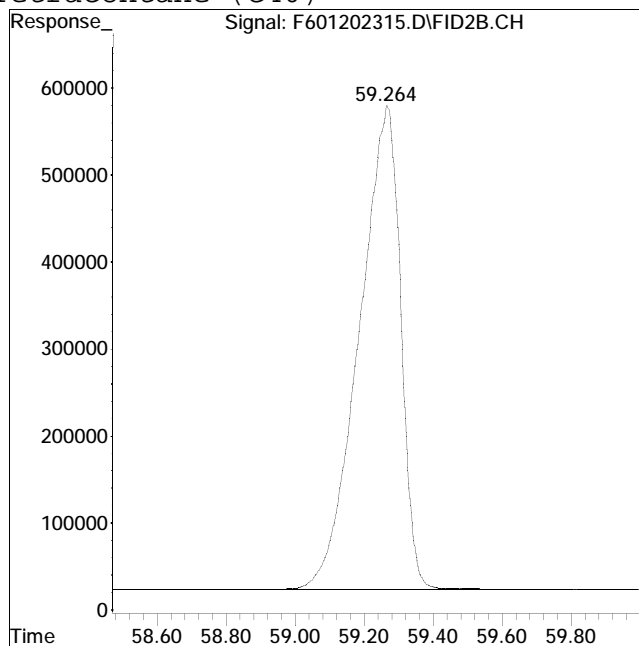
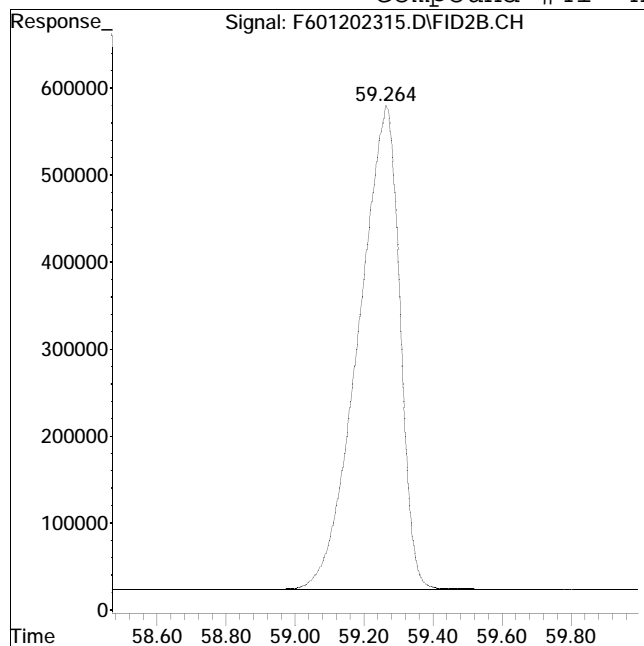
Manual Peak Response = 46005057 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202315.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 9:38 pm Instrument : FID6
 Sample : I601202303R Quant Date : 3/7/2023 5:10 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 46356520

Manual Peak Response = 46459233 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202317.D
 Signal(s) : FID2B.CH
 Acq On : 20 Jan 2023 11:05 pm
 Operator : FID6:WR
 Sample : I601202304R
 Misc : WG1752810,FRBF57,100ug/ml
 ALS Vial : 59 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 07 16:58:26 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Mar 07 16:50:29 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.773	41416686	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.756	84064982	93.832 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	187.66%#
24) s d50-Tetracosane	36.355	67814648	92.209 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	184.42%#
Target Compounds			
2) t n-Octane (C8)	6.044	69339206	97.682 ug/mL M4
3) t n-Nonane (C9)	8.297	70396047	97.686 ug/mL M4
4) t n-Decane (C10)	10.798	72638138	98.676 ug/mL M4
5) t n-Undecane (C11)	13.312	72387235	98.058 ug/mL M4
6) t n-Dodecane (C12)	15.736	73079673	97.742 ug/mL M4
7) t n-Tridecane (C13)	18.039	73093546	97.067 ug/mL M4
9) t n-Tetradecane (C14)	20.217	74885638	96.659 ug/mL M4
11) t n-Pentadecane (C15)	22.278	75275350	96.600 ug/mL M4
12) t n-Hexadecane (C16)	24.230	74675437	95.367 ug/mL M4
14) t n-Heptadecane (C17)	26.086	75773177	95.385 ug/mL M4
15) t Pristane	26.197	77013444	95.062 ug/mL M4
16) t n-Octadecane (C18)	27.850	76585482	95.187 ug/mL M4
17) t Phytane	28.016	70949646	94.572 ug/mL M4
18) t n-Nonadecane (C19)	29.532	76856254	95.030 ug/mL M4
20) t n-Eicosane (C20)	31.135	77413704	94.425 ug/mL M4
21) t n-Heneicosane (C21)	32.669	77875413	94.777 ug/mL M4
22) t n-Docosane (C22)	34.140	77889939	93.839 ug/mL M4
23) t n-Tricosane (C23)	35.551	77971303	93.902 ug/mL M4
25) t n-Tetracosane (C24)	36.907	77796866	95.406 ug/mL M4
26) t n-Pentacosane (C25)	38.208	76593149	93.586 ug/mL M4
27) t n-Hexacosane (C26)	39.464	78619179	93.536 ug/mL M4
28) t n-Heptacosane (C27)	40.675	78506958	94.428 ug/mL M4
29) t n-Octacosane (C28)	41.844	80185592	93.554 ug/mL M4
30) t n-Nonacosane (C29)	42.974	79304054	93.391 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202317.D
 Signal(s) : FID2B.CH
 Acq On : 20 Jan 2023 11:05 pm
 Operator : FID6:WR
 Sample : I601202304R
 Misc : WG1752810,FRBF57,100ug/ml
 ALS Vial : 59 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 07 16:58:26 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Mar 07 16:50:29 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	44.067	79264010	93.205 ug/mL M4
32) t	n-Hentriacontane (C31)	45.123	76106623	92.856 ug/mL M4
33) t	n-Dotriacontane (C32)	46.150	79549396	92.646 ug/mL M4
34) t	n-Tritriacontane (C33)	47.149	77106596	93.016 ug/mL M4
35) t	n-tetratriacontane (C34)	48.233	76648642	92.681 ug/mL M4
36) t	n-Pentatriacontane (C35)	49.452	71669847	90.676 ug/mL M4
37) t	n-Hexatriacontane (C36)	50.866	86592032	94.106 ug/mL M4
38) t	n-Heptatriacontane (C37)	52.493	78995127	94.208 ug/mL M4
39) t	n-Octatriacontane (C38)	54.406	80379473	93.112 ug/mL M4
41) t	n-Tetracontane (C40)	59.308	79720004	94.061 ug/mL M4

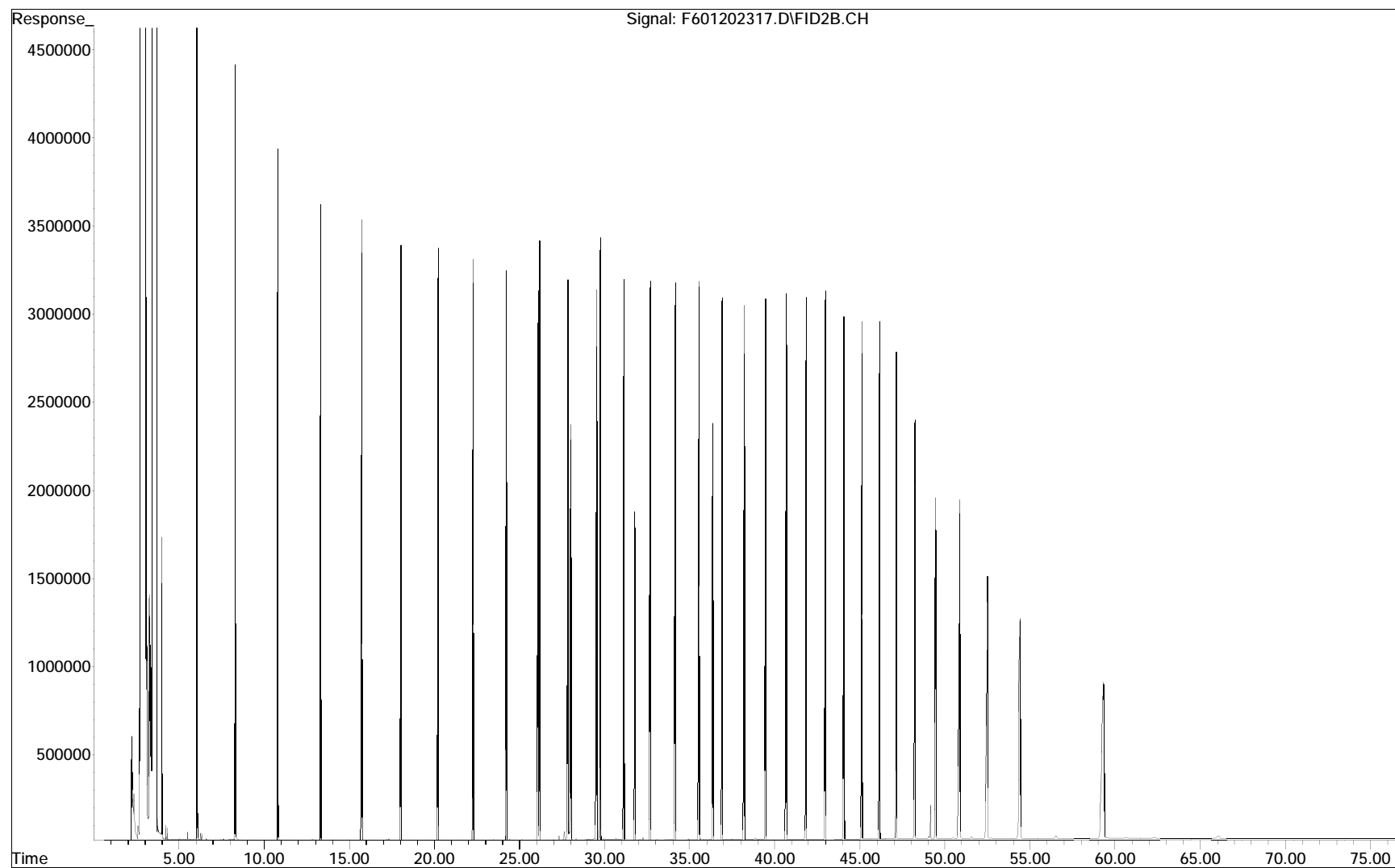
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

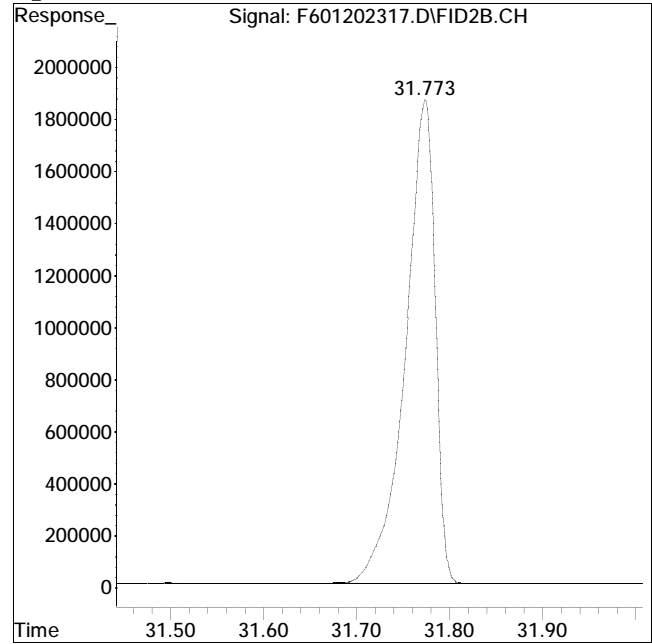
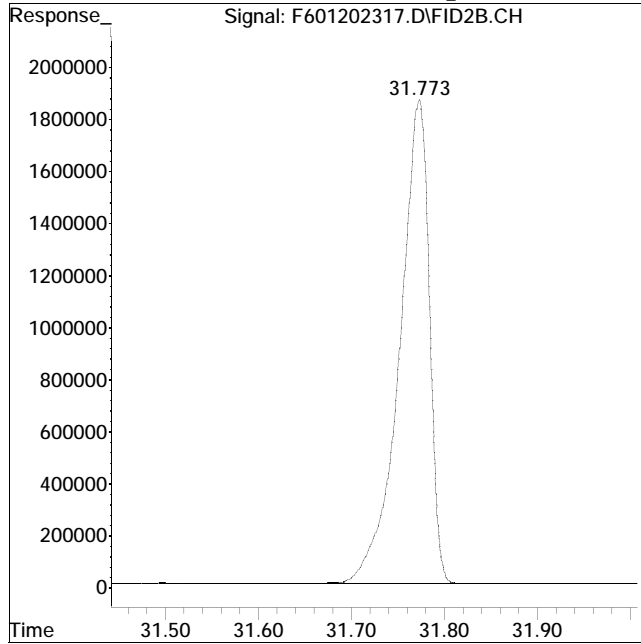
File :O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\F601202317.D
 Operator : FID6:WR
 Acquired : 20 Jan 2023 11:05 pm using AcqMethod FID6A.M
 Sample Name: I601202304R
 Instrument: FID6
 Misc Info : WG1752810,FRBF57,100ug/ml
 Vial Number: 59
 CurrentMeth: O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202317.D Operator : FID6:WR
Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 41406894

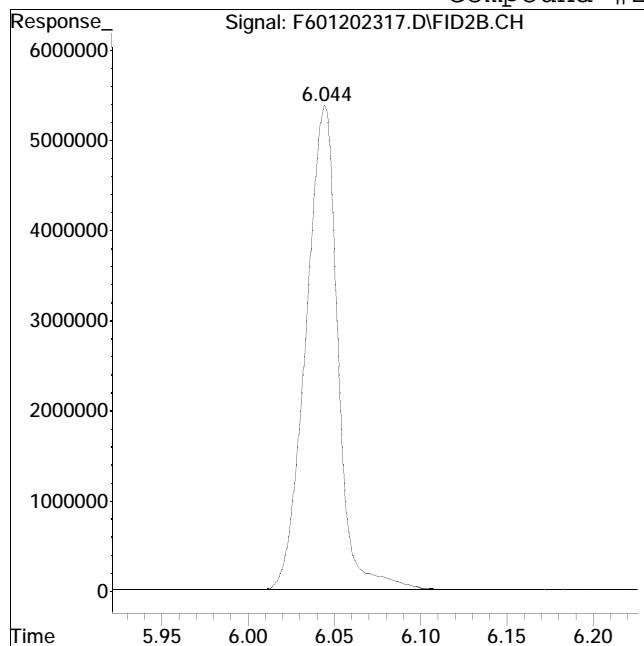
Manual Peak Response = 41416686 M4

M4 = Poor automated baseline construction.

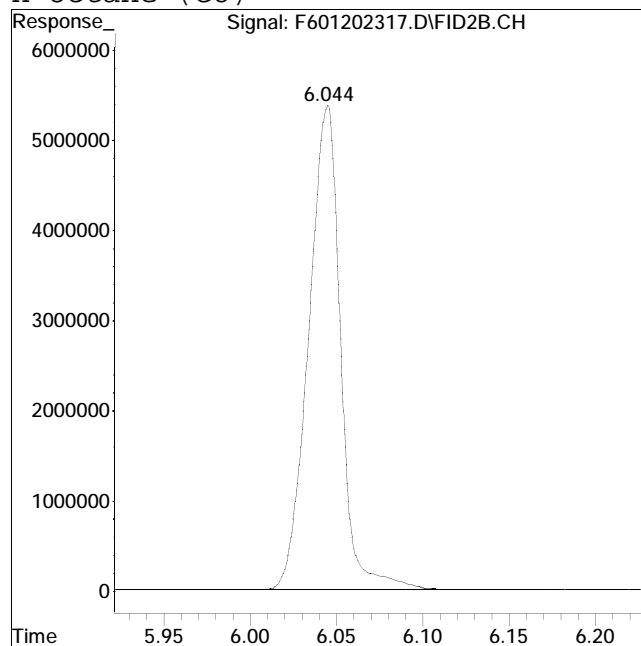
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #2: n-Octane (C8)



Original Peak Response = 69333955



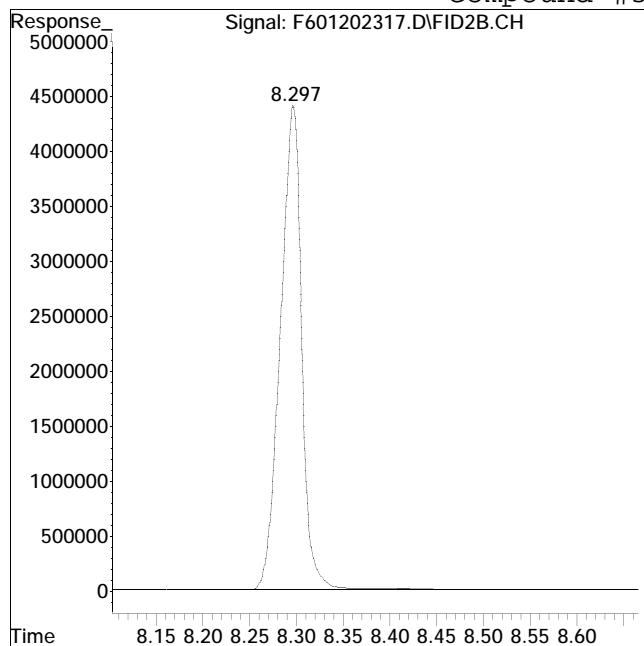
Manual Peak Response = 69339206 M4

M4 = Poor automated baseline construction.

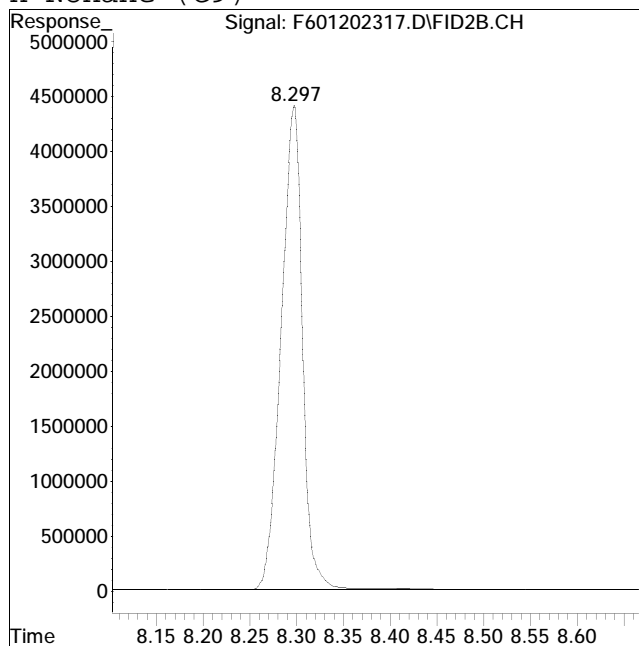
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 70394777



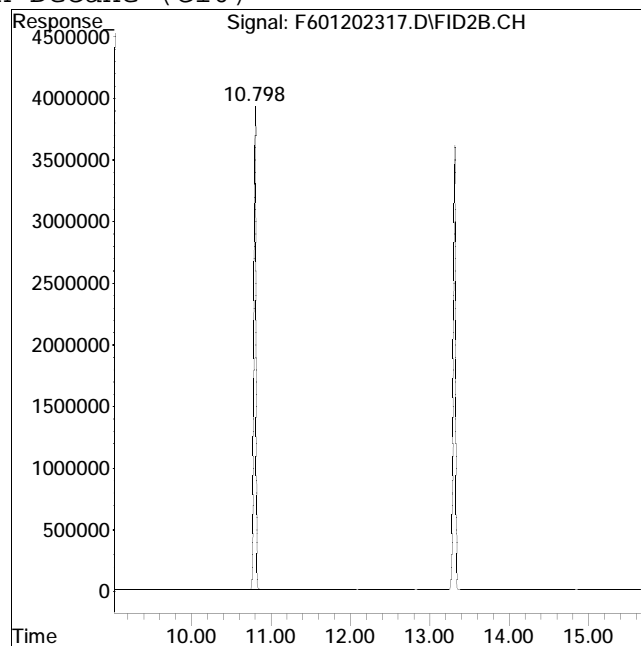
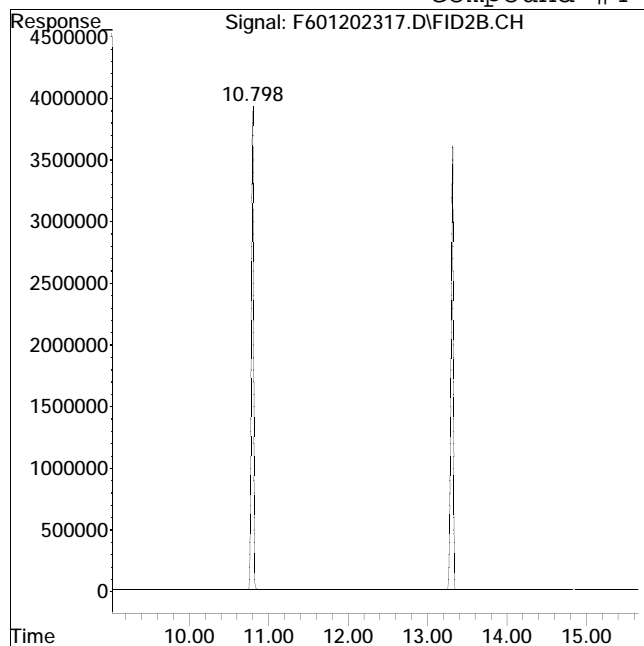
Manual Peak Response = 70396047 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #4: n-Decane (C10)



Original Peak Response = 72010920

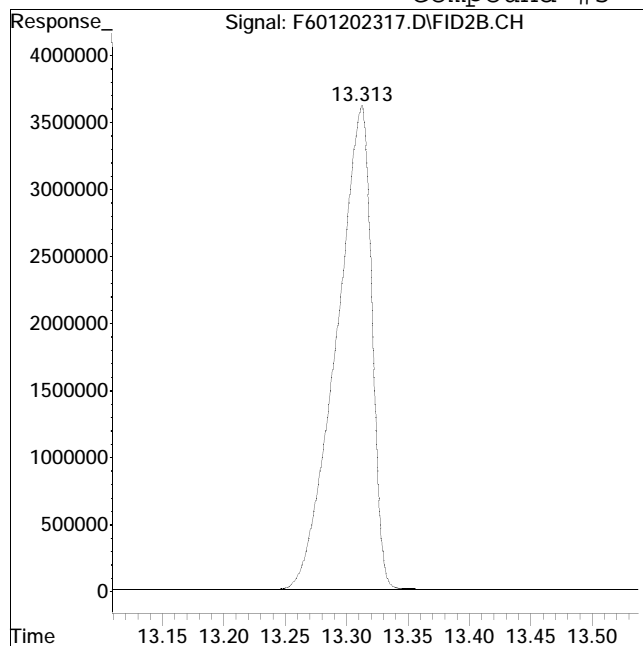
Manual Peak Response = 72638138 M4

M4 = Poor automated baseline construction.

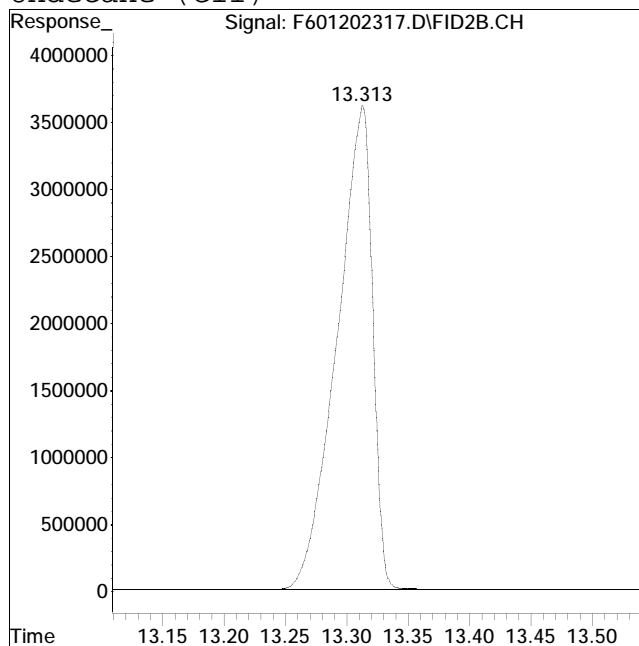
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 72383987



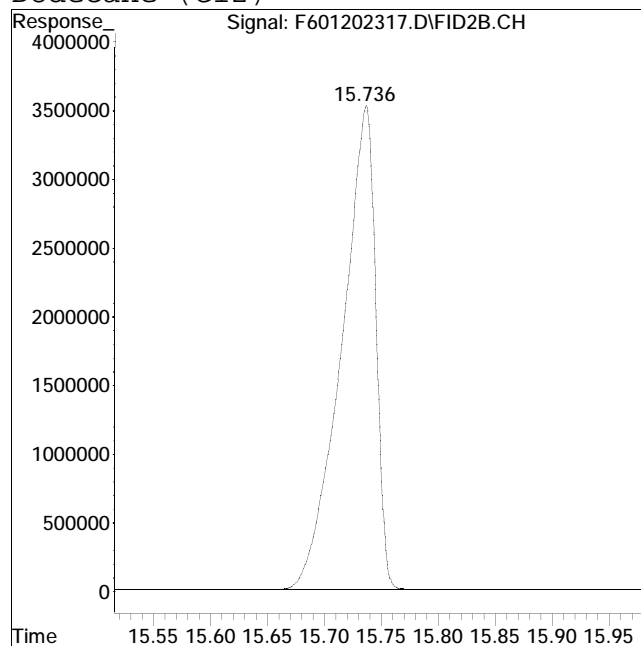
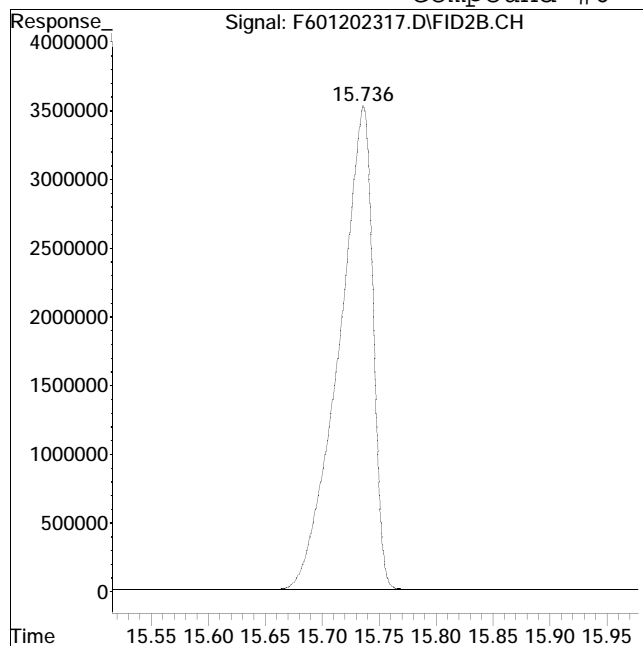
Manual Peak Response = 72387235 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 73083897

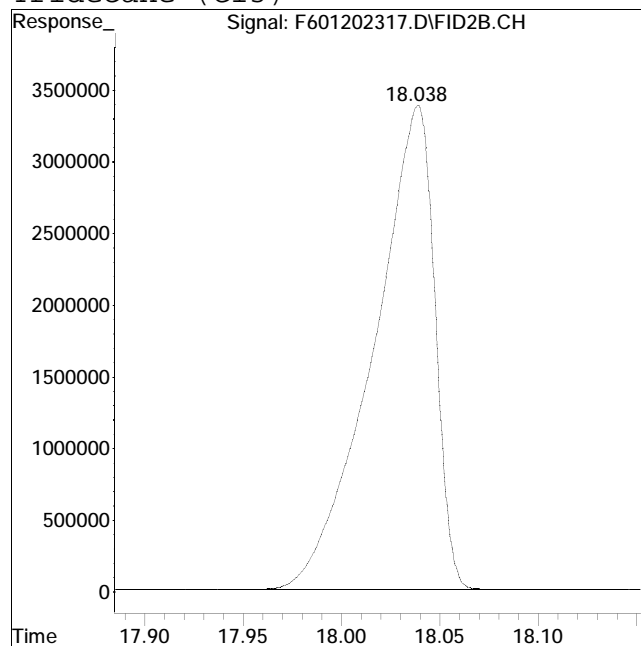
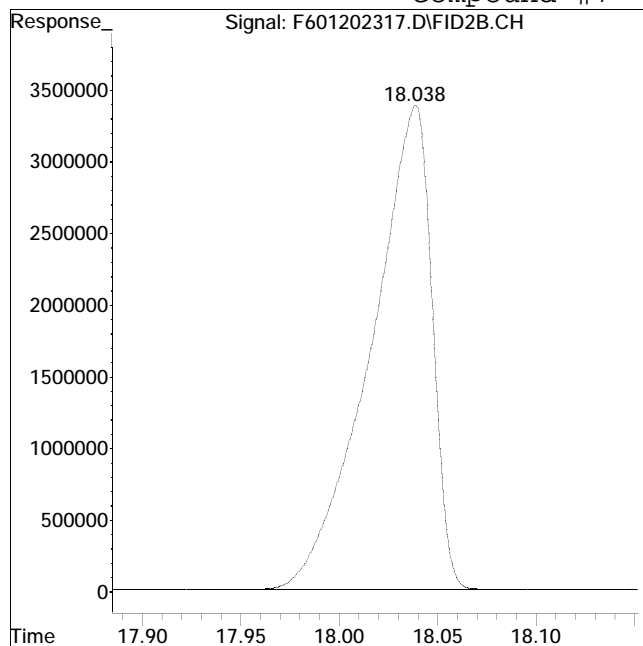
Manual Peak Response = 73079673 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 73084623

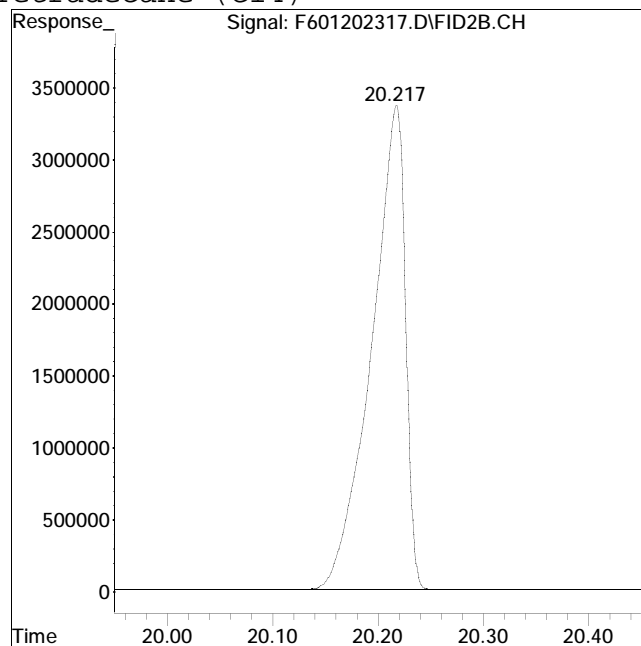
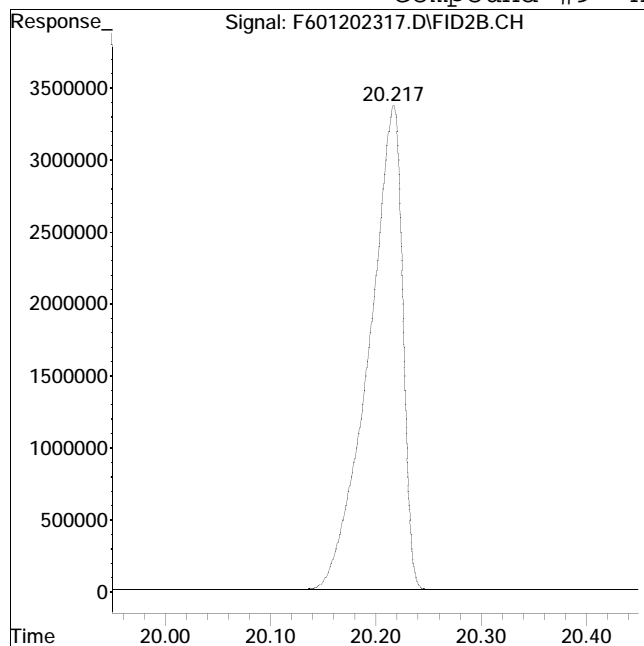
Manual Peak Response = 73093546 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 74889636

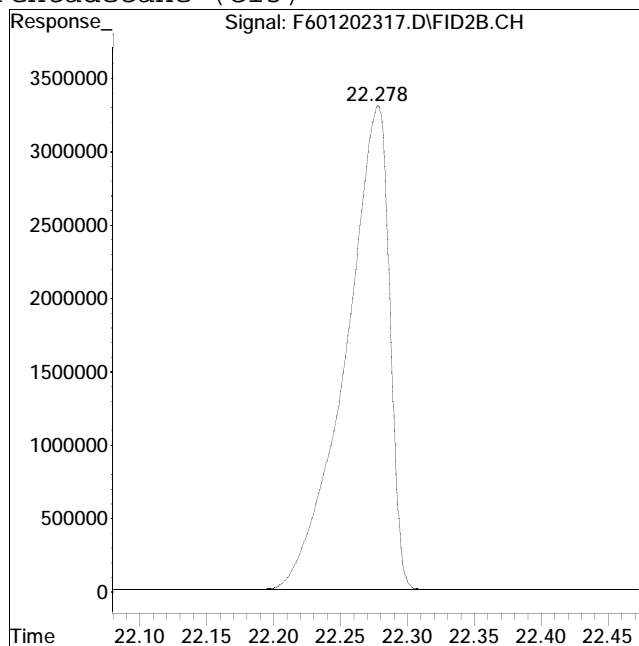
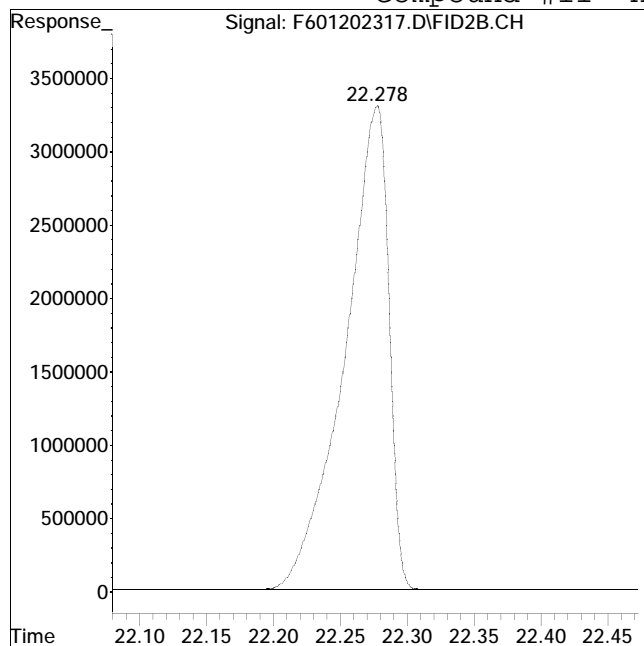
Manual Peak Response = 74885638 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 75270686

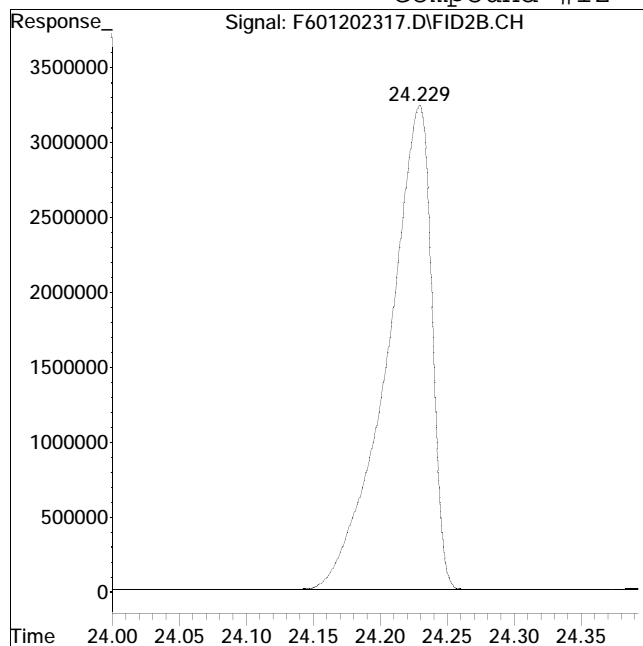
Manual Peak Response = 75275350 M4

M4 = Poor automated baseline construction.

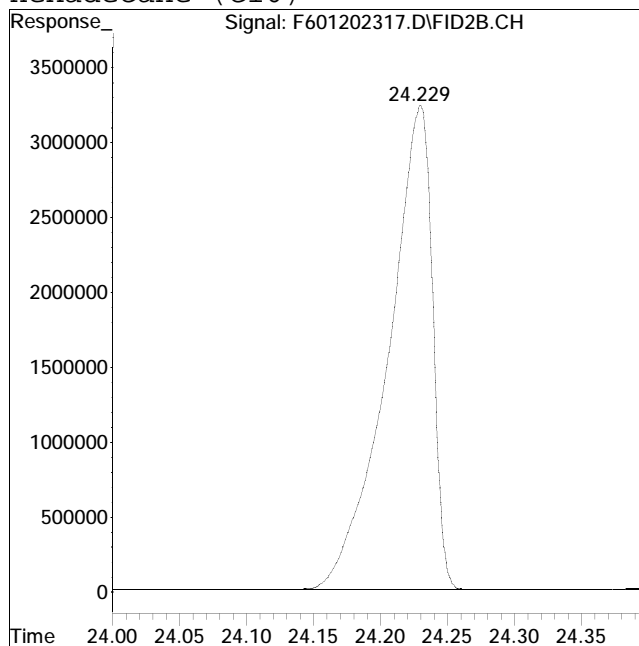
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 74674366



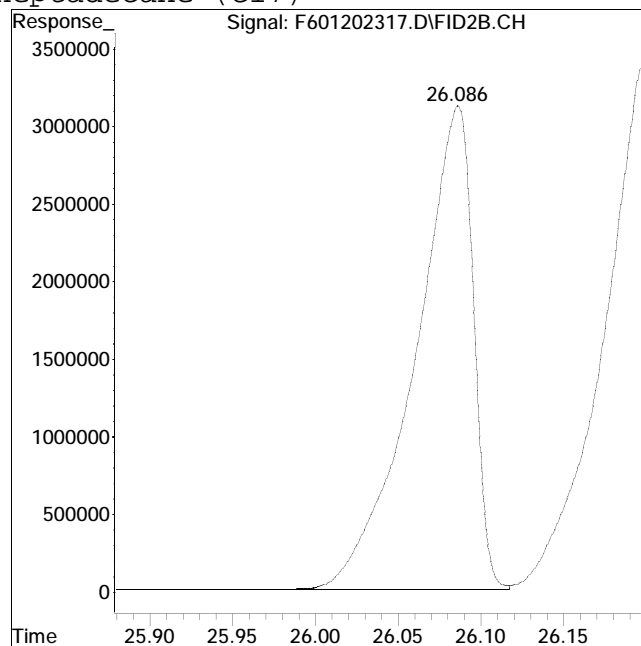
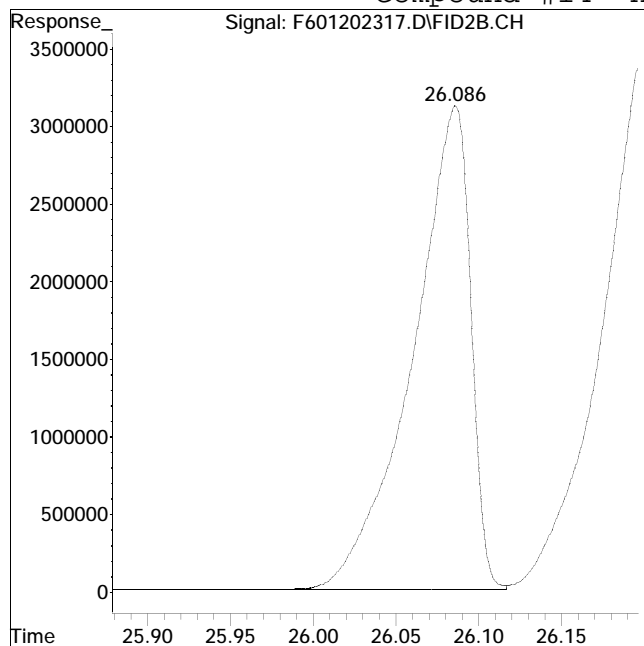
Manual Peak Response = 74675437 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 75617796

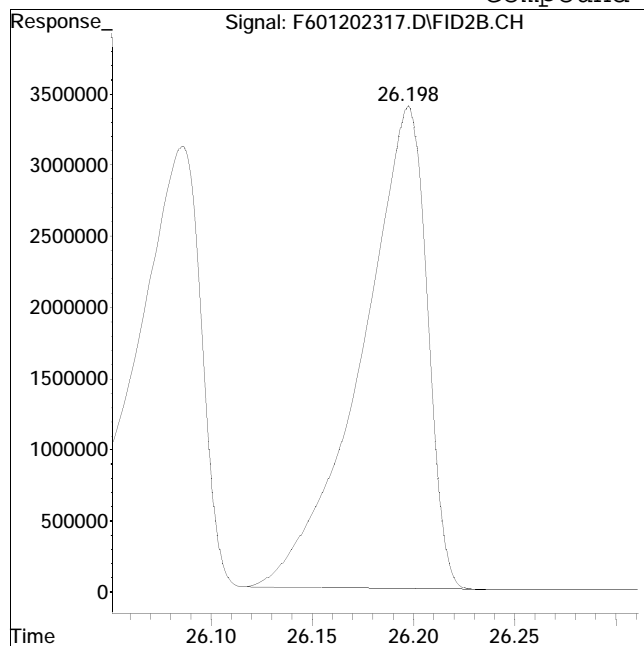
Manual Peak Response = 75773177 M4

M4 = Poor automated baseline construction.

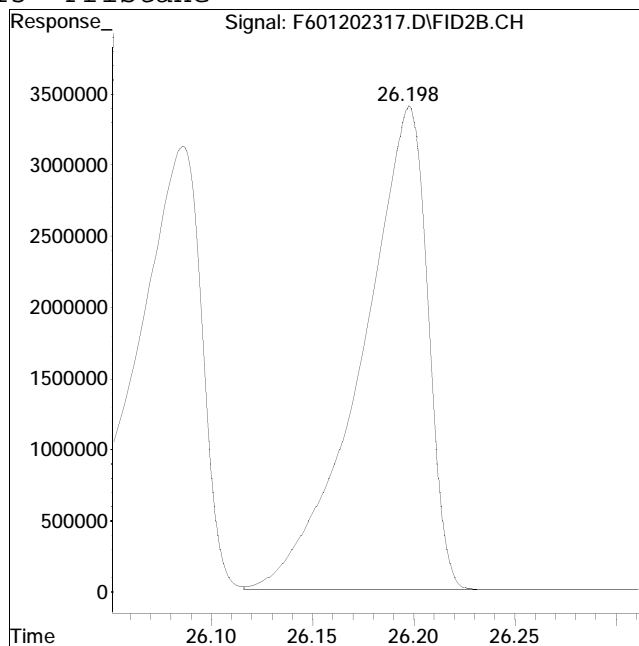
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #15: Pristane



Original Peak Response = 76064804



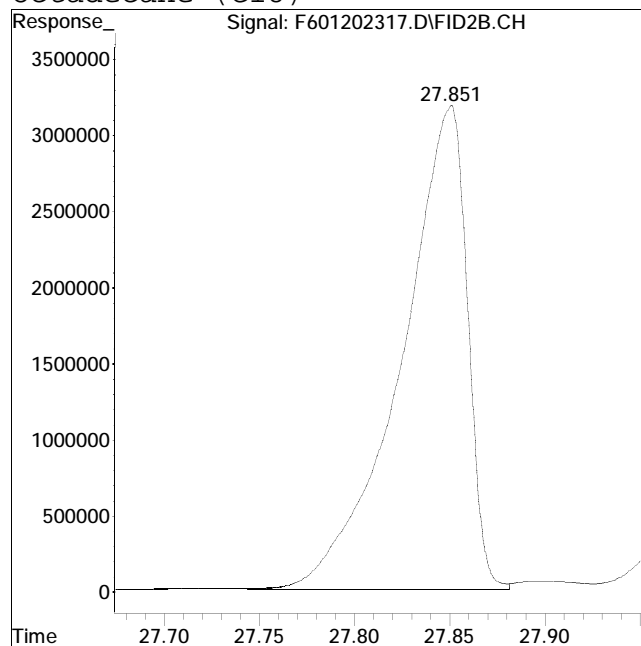
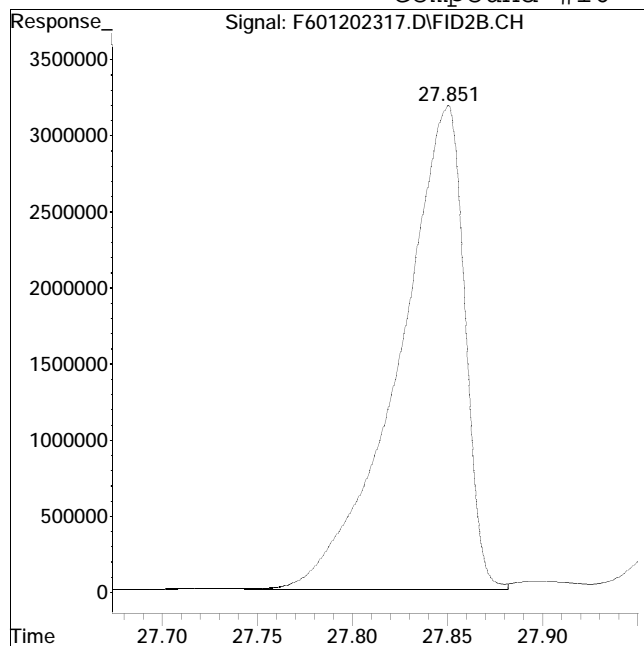
Manual Peak Response = 77013444 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 76376154

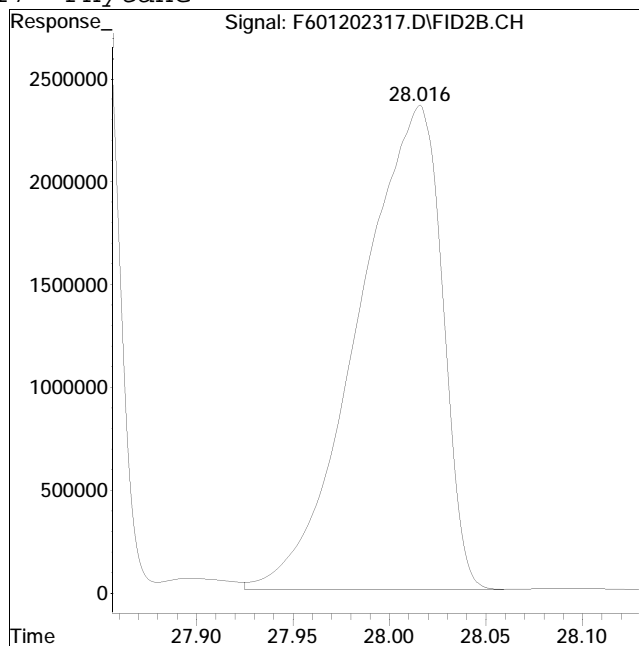
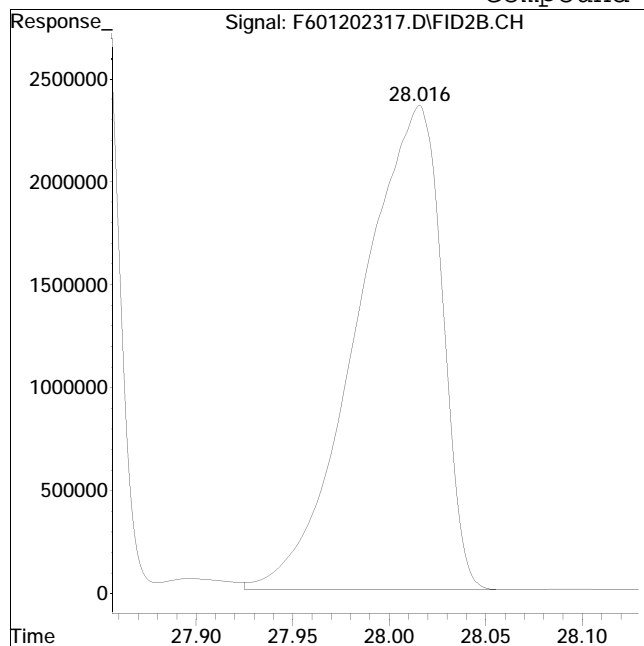
Manual Peak Response = 76585482 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #17: Phytane



Original Peak Response = 70756488

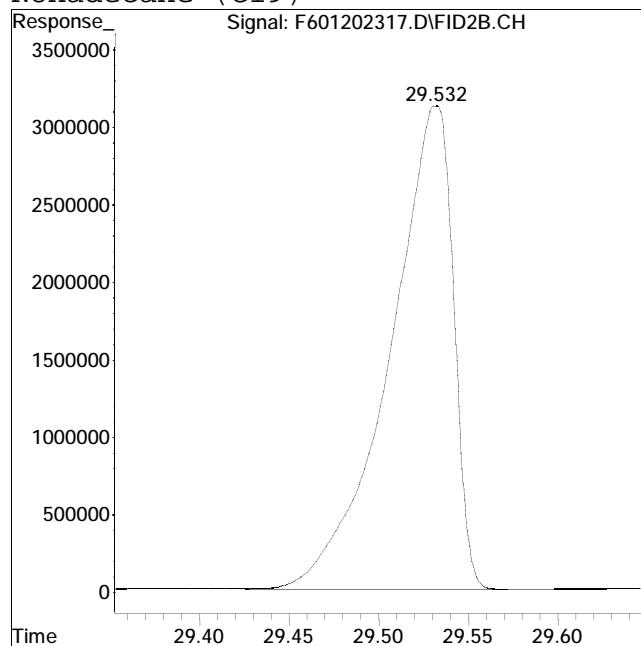
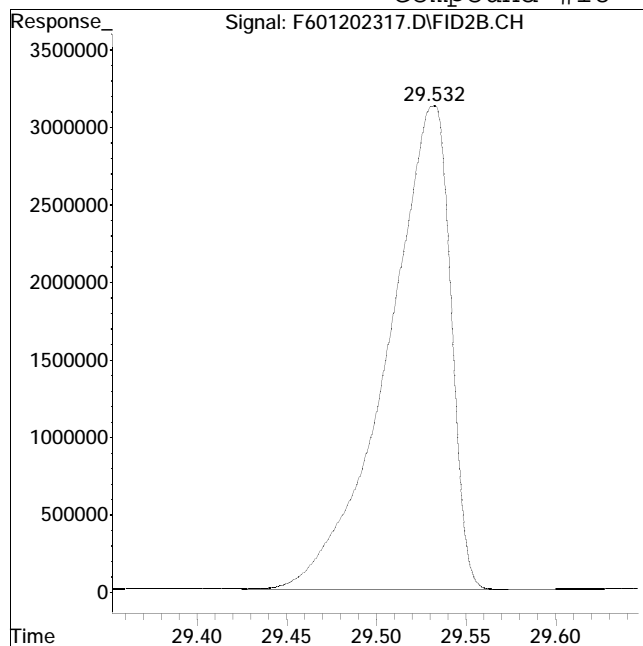
Manual Peak Response = 70949646 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 76841835

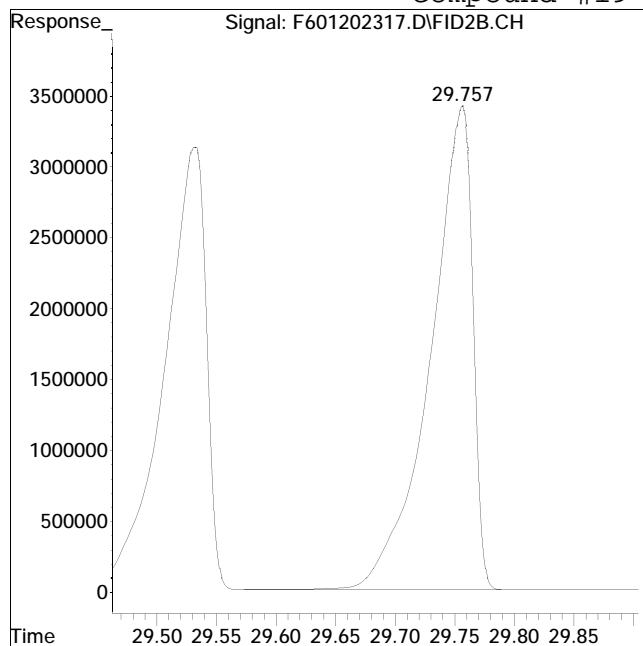
Manual Peak Response = 76856254 M4

M4 = Poor automated baseline construction.

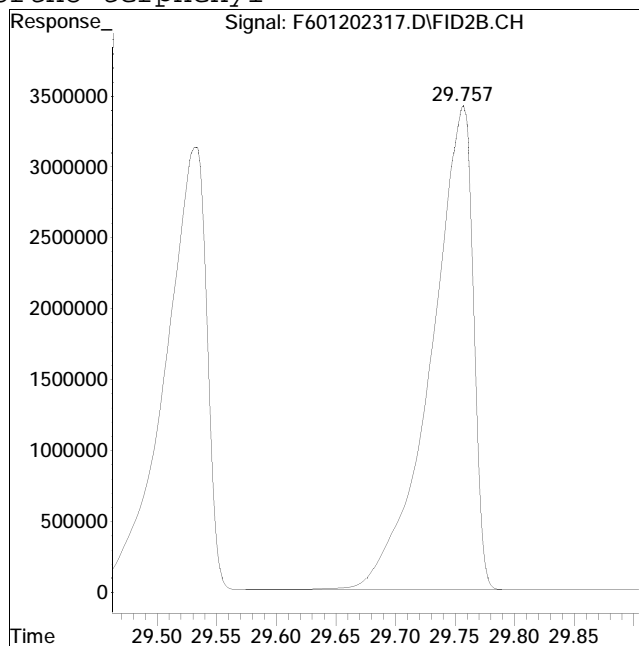
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #19: ortho-terphenyl



Original Peak Response = 84027852



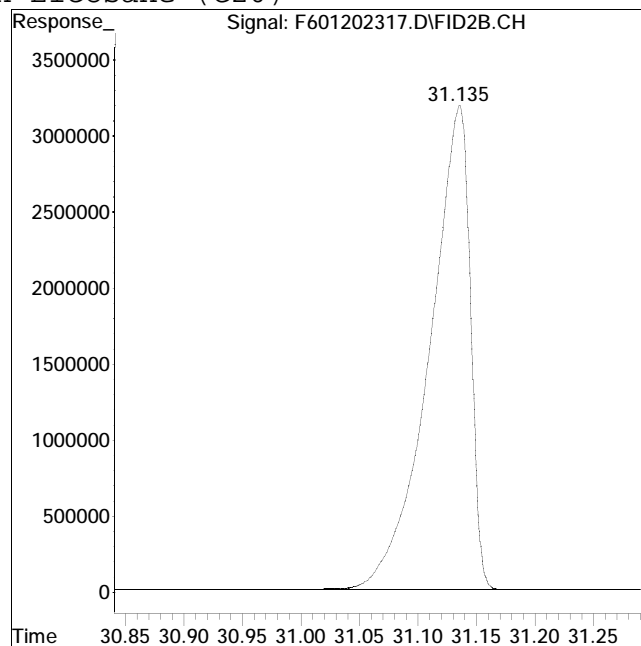
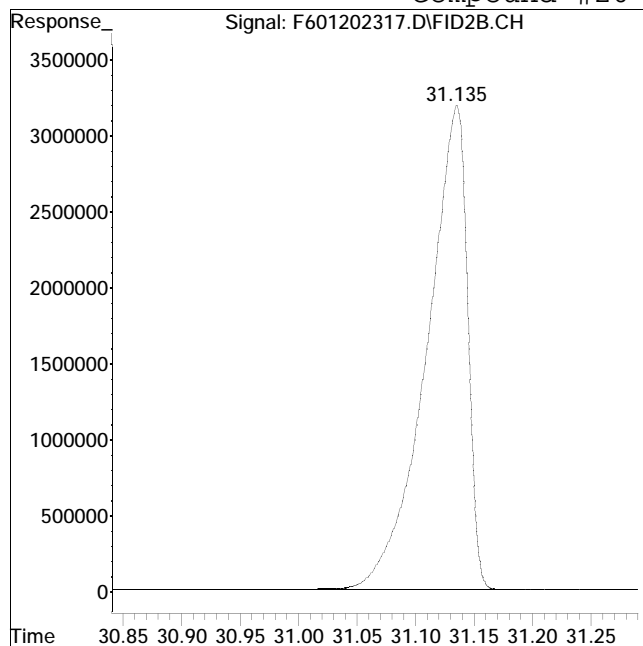
Manual Peak Response = 84064982 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 77463402

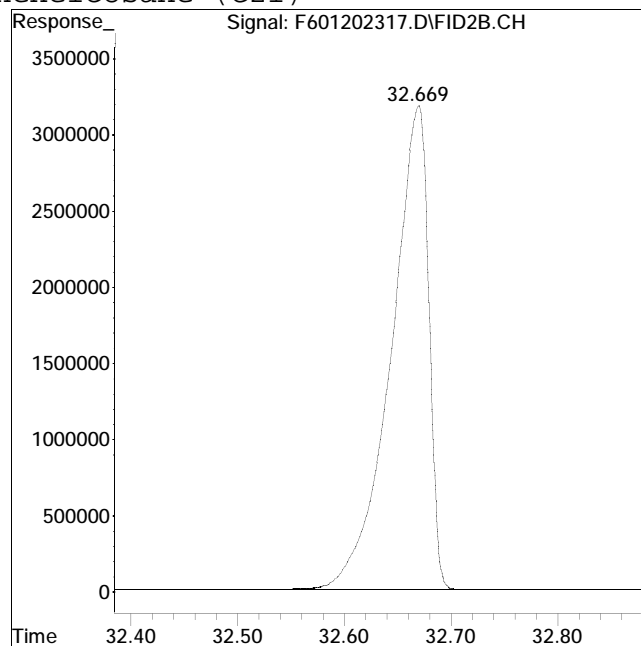
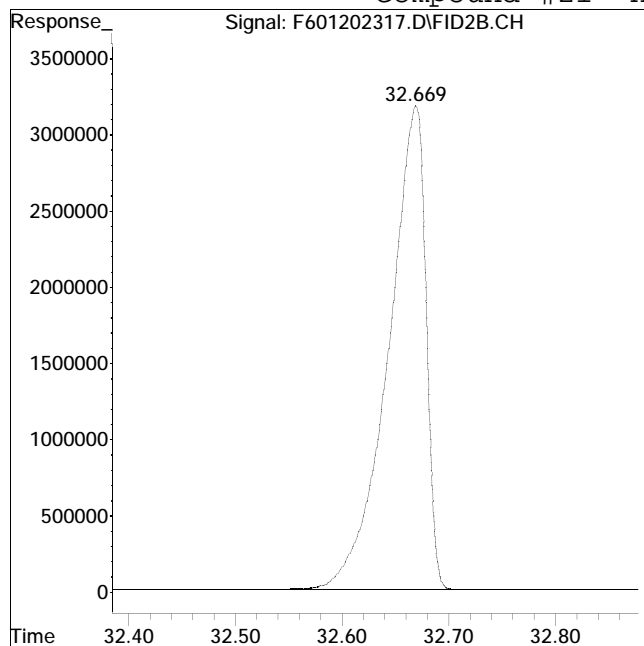
Manual Peak Response = 77413704 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 77869477

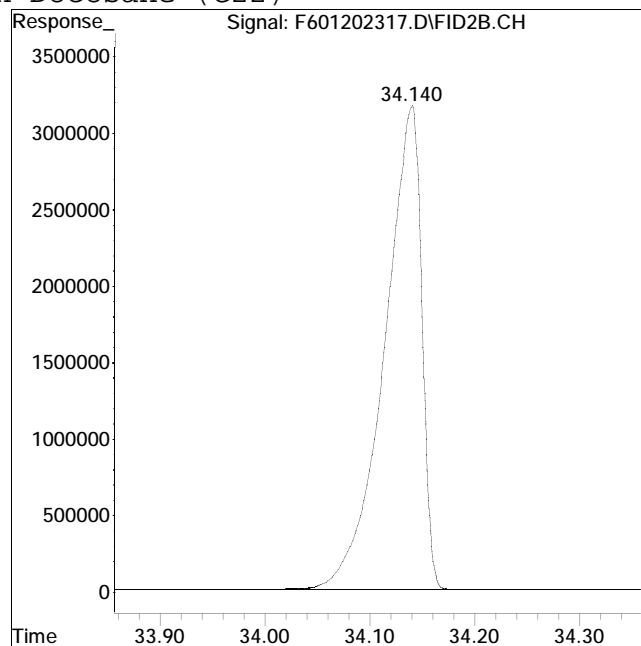
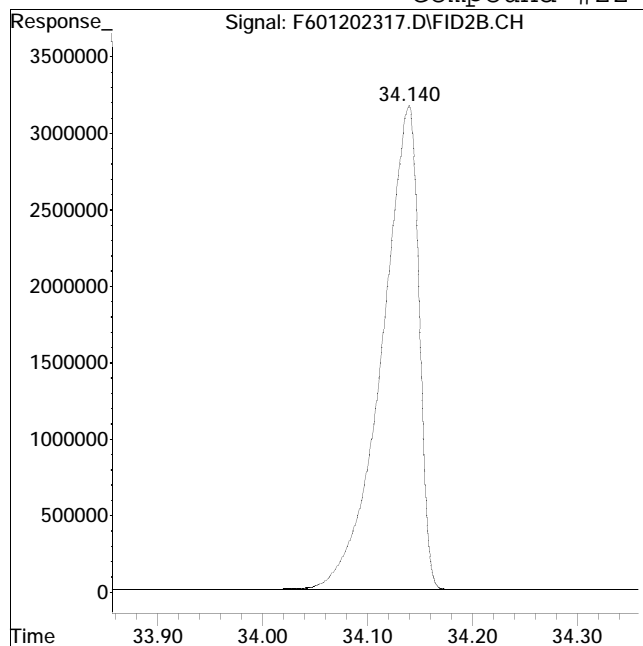
Manual Peak Response = 77875413 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 77860737

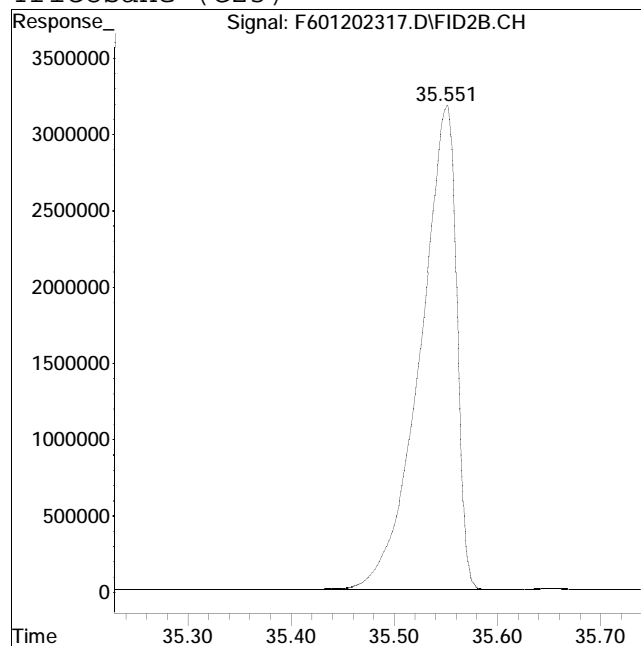
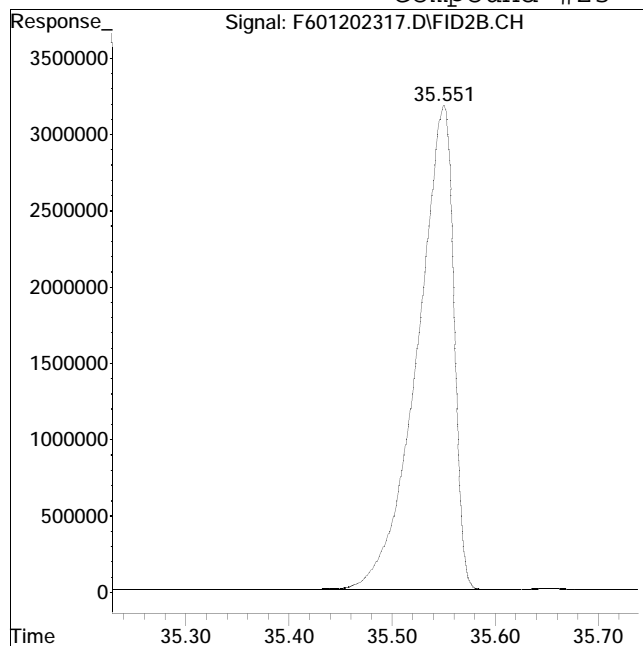
Manual Peak Response = 77889939 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 77988864

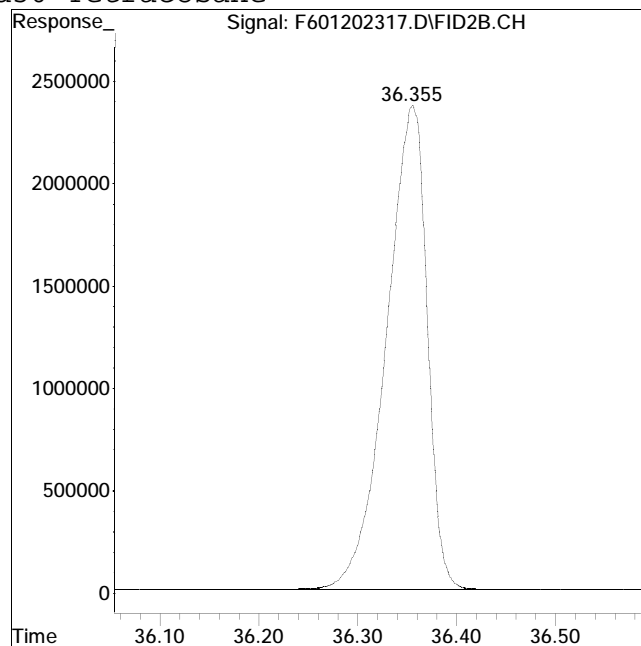
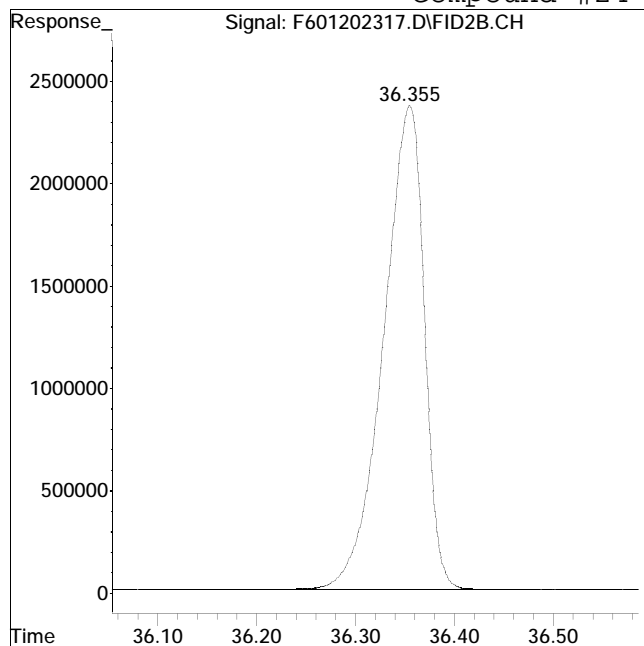
Manual Peak Response = 77971303 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #24: d50-Tetracosane



Original Peak Response = 67803472

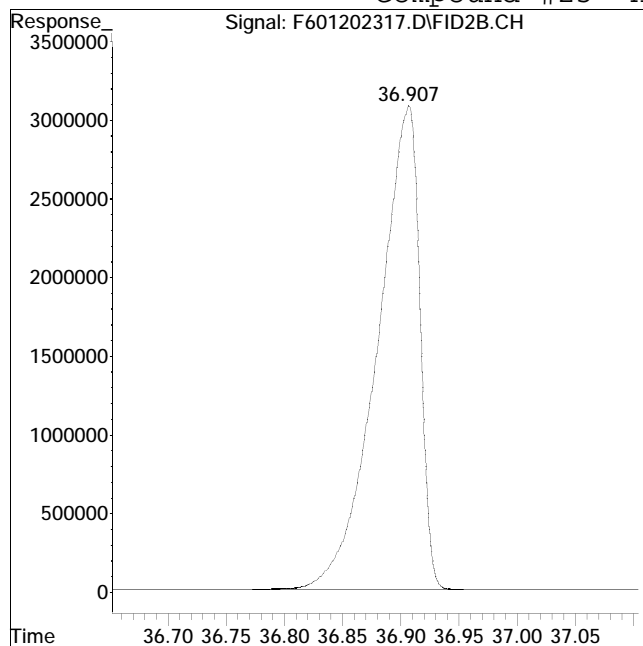
Manual Peak Response = 67814648 M4

M4 = Poor automated baseline construction.

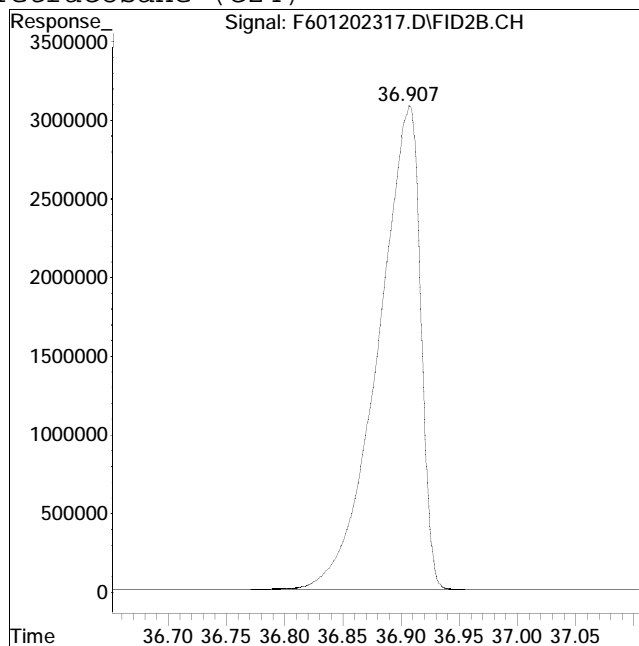
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 77779972



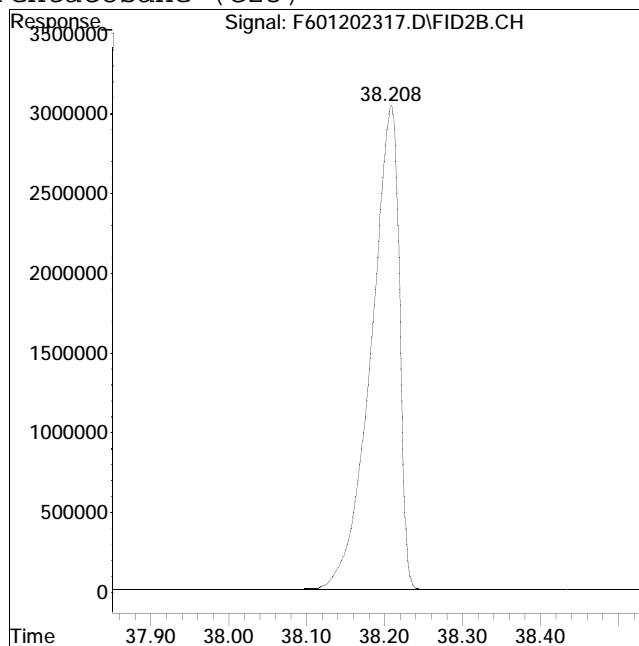
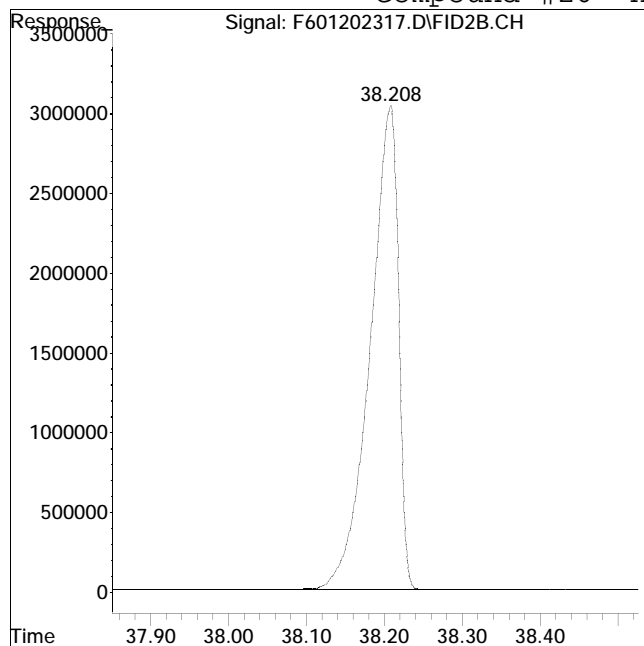
Manual Peak Response = 77796866 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 76540478

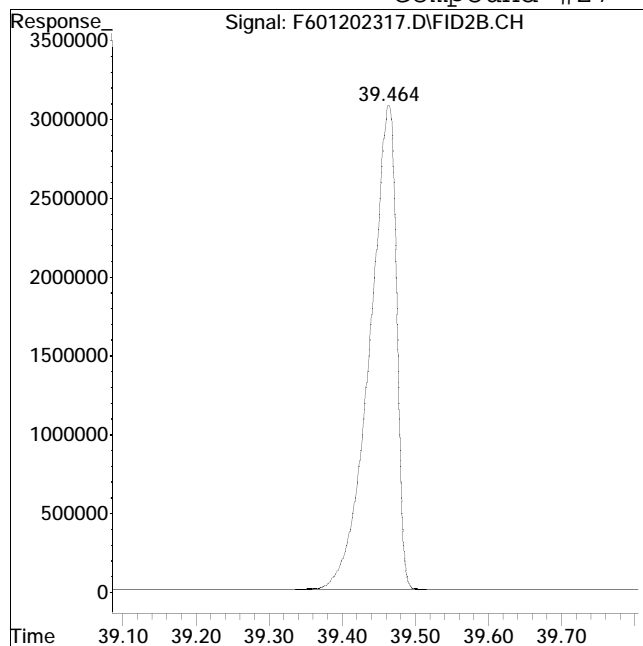
Manual Peak Response = 76593149 M4

M4 = Poor automated baseline construction.

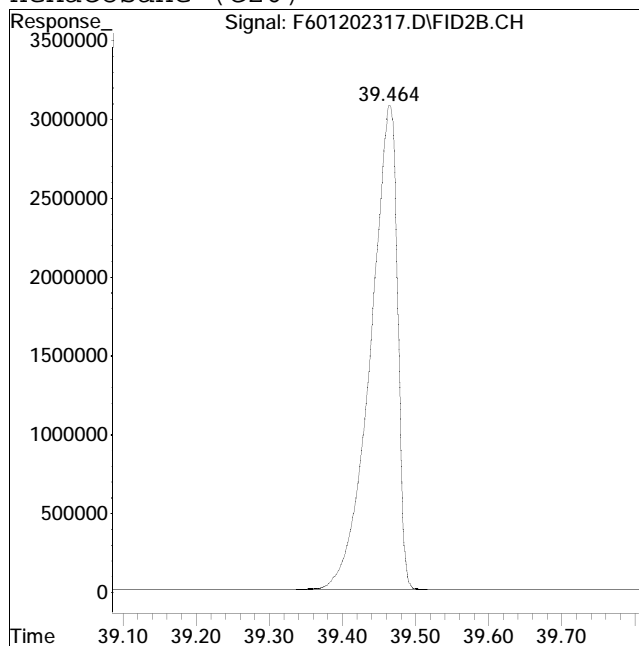
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202317.D Operator : FID6:WR
Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 78627864



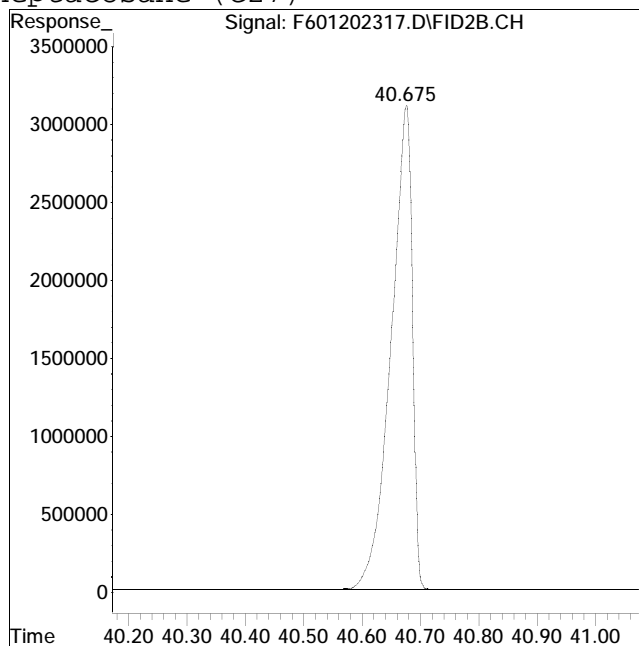
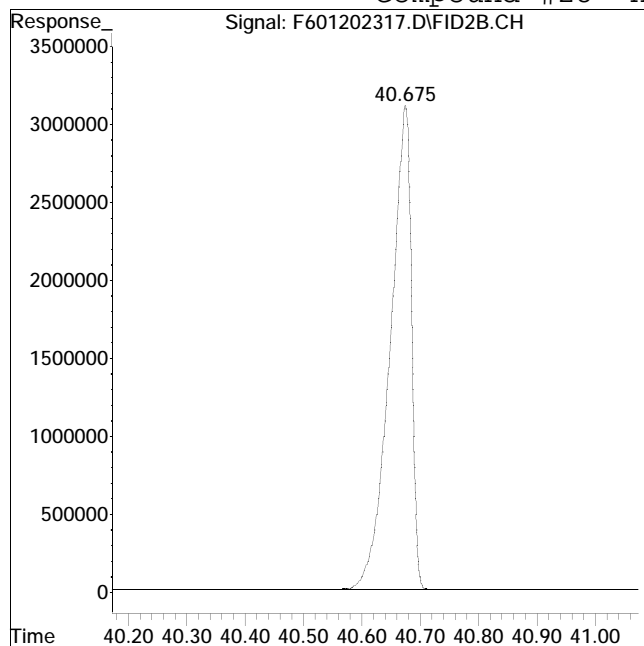
Manual Peak Response = 78619179 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 78529774

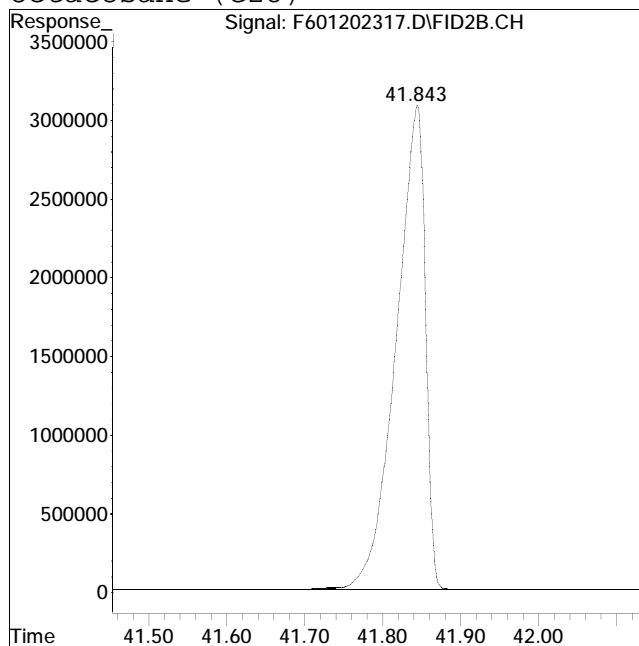
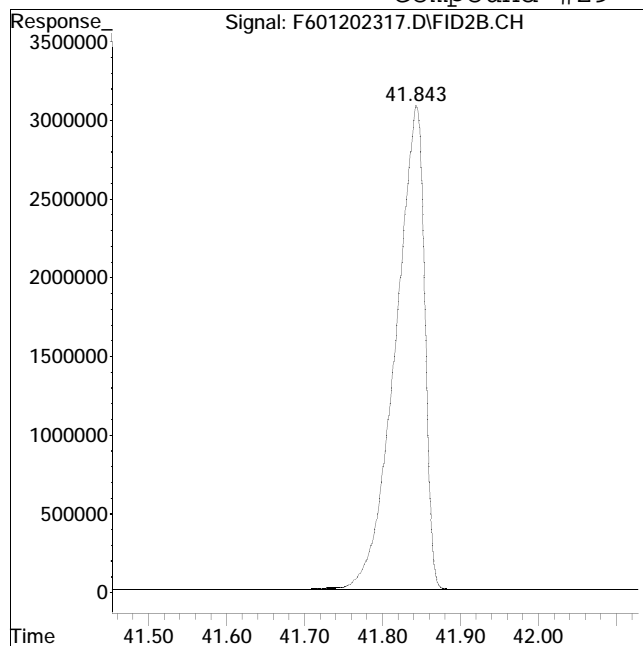
Manual Peak Response = 78506958 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 80177370

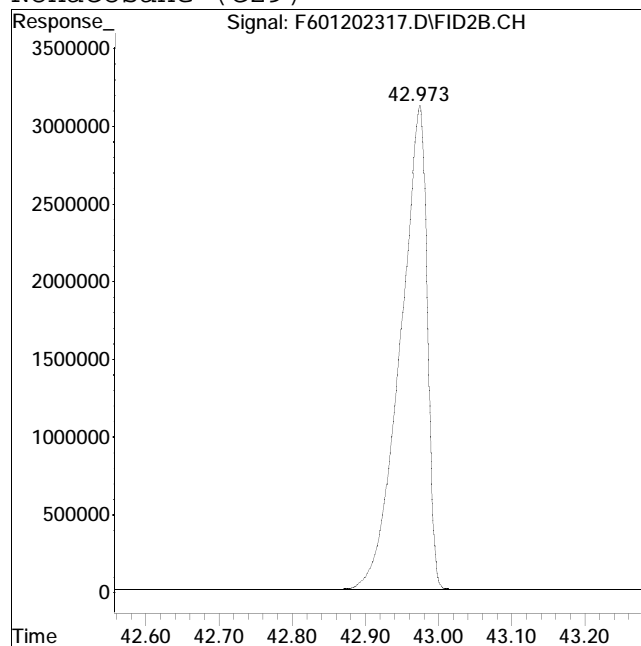
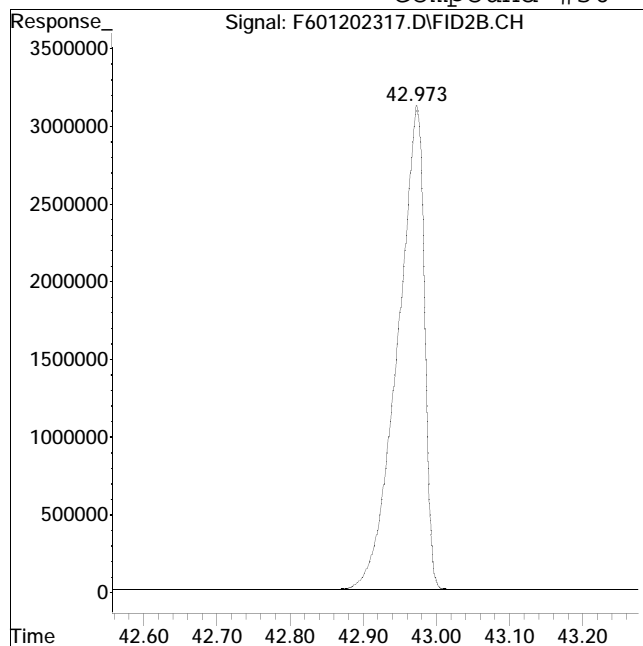
Manual Peak Response = 80185592 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 79310304

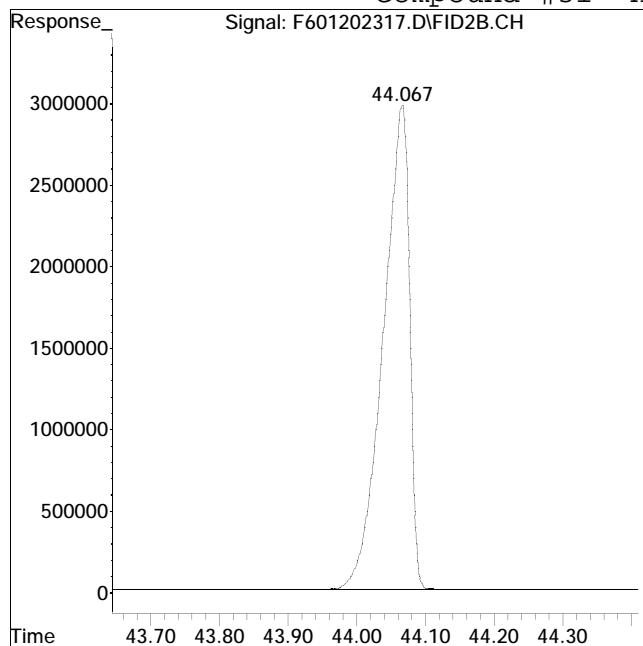
Manual Peak Response = 79304054 M4

M4 = Poor automated baseline construction.

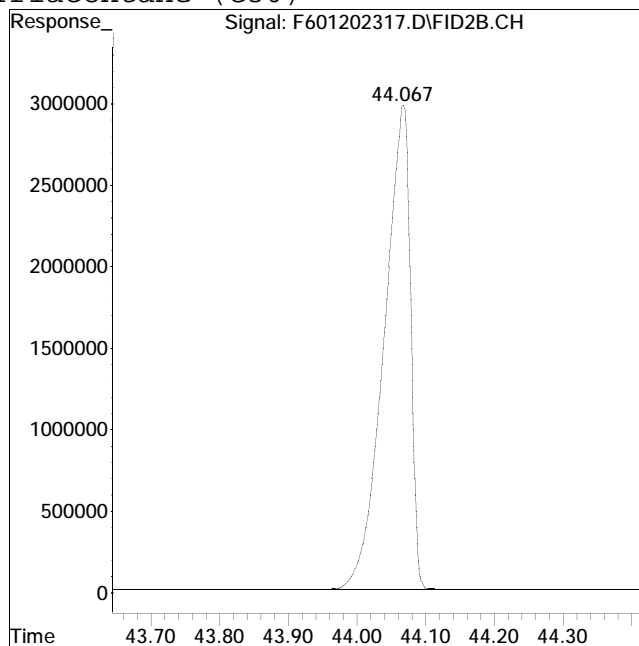
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202317.D Operator : FID6:WR
Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 79209931



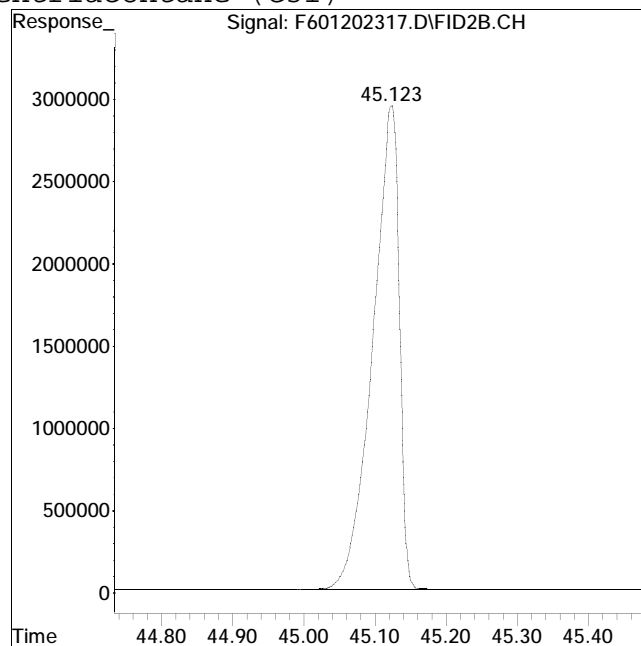
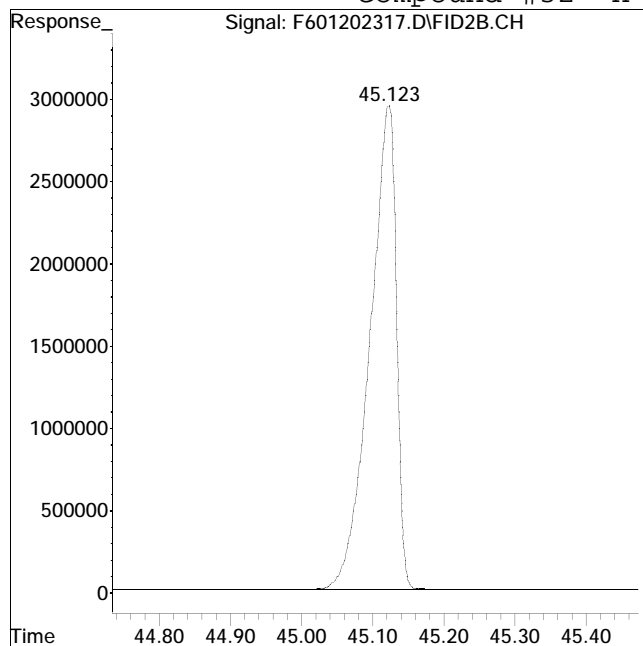
Manual Peak Response = 79264010 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 76120551

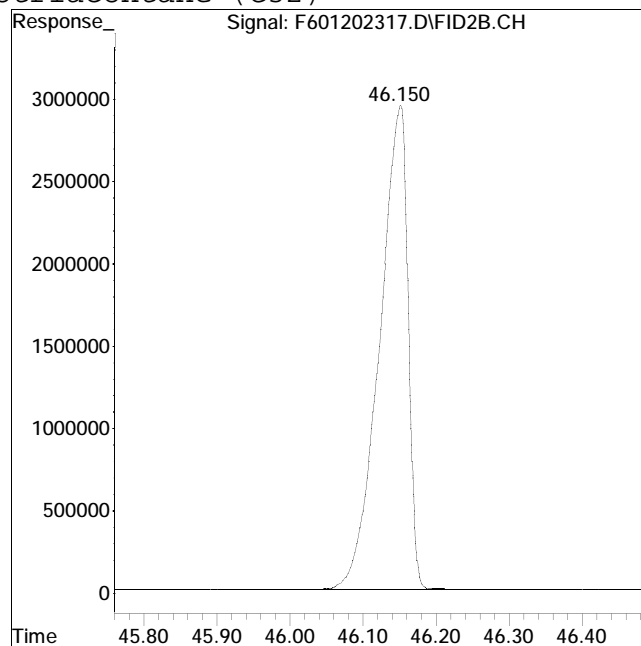
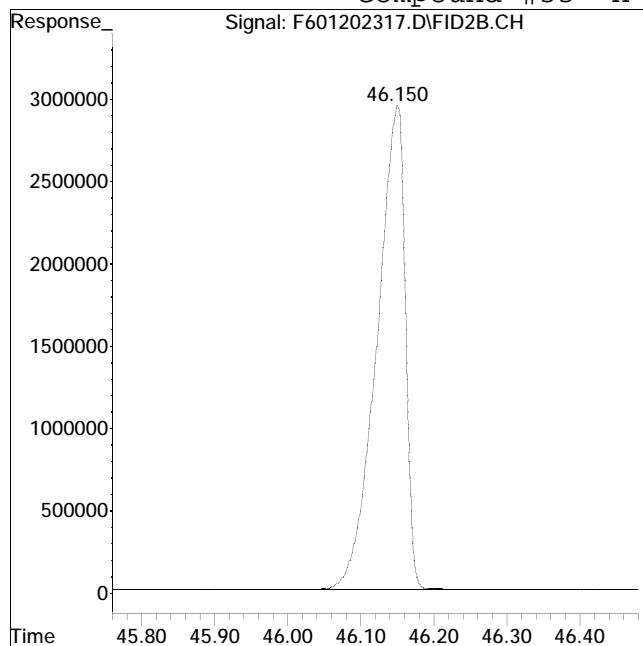
Manual Peak Response = 76106623 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202317.D Operator : FID6:WR
Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 79594023

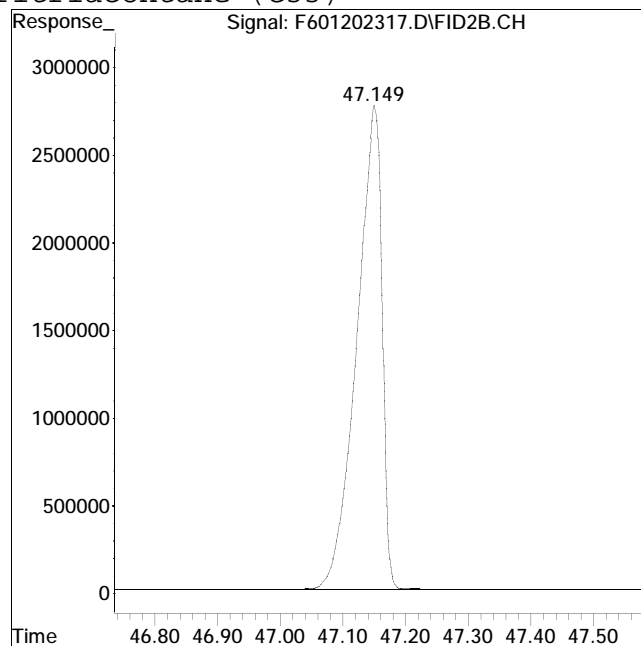
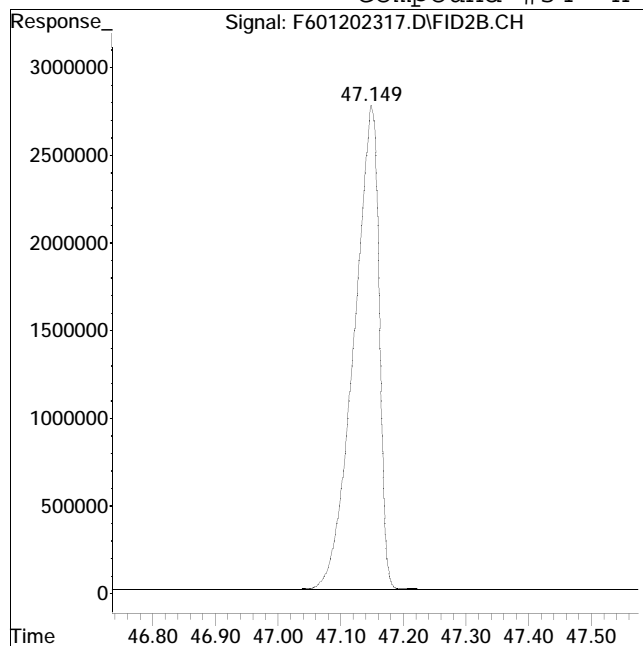
Manual Peak Response = 79549396 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 77112197

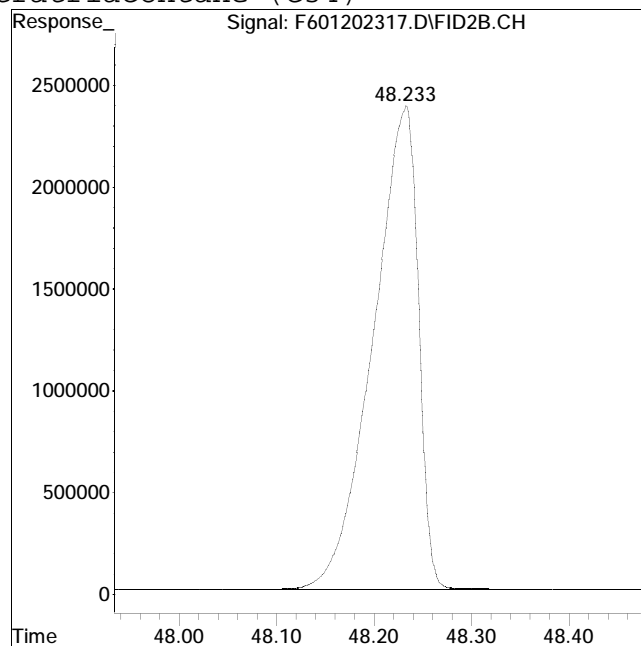
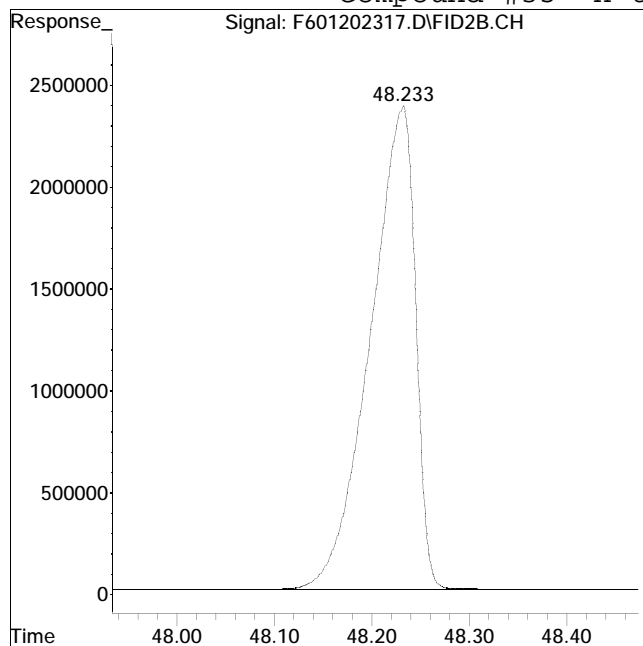
Manual Peak Response = 77106596 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 76489127

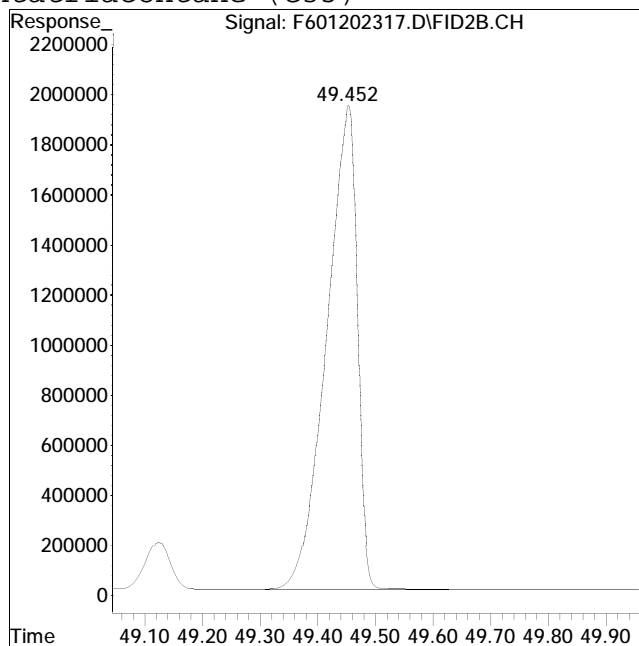
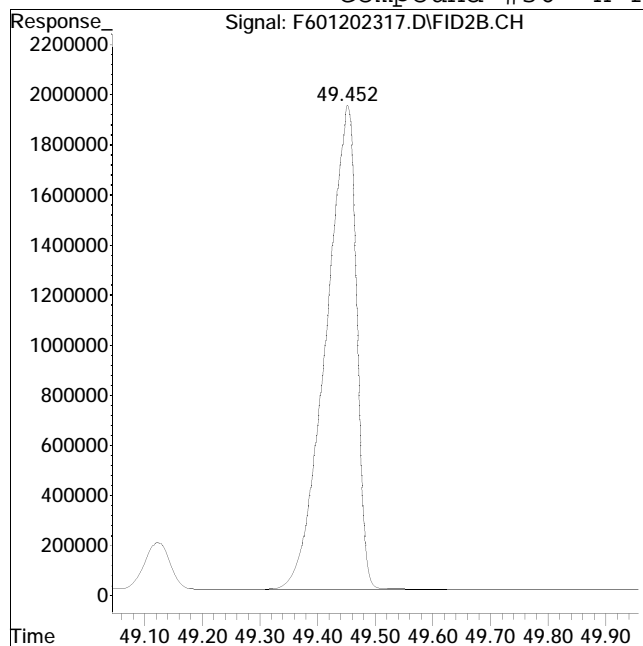
Manual Peak Response = 76648642 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 71661293

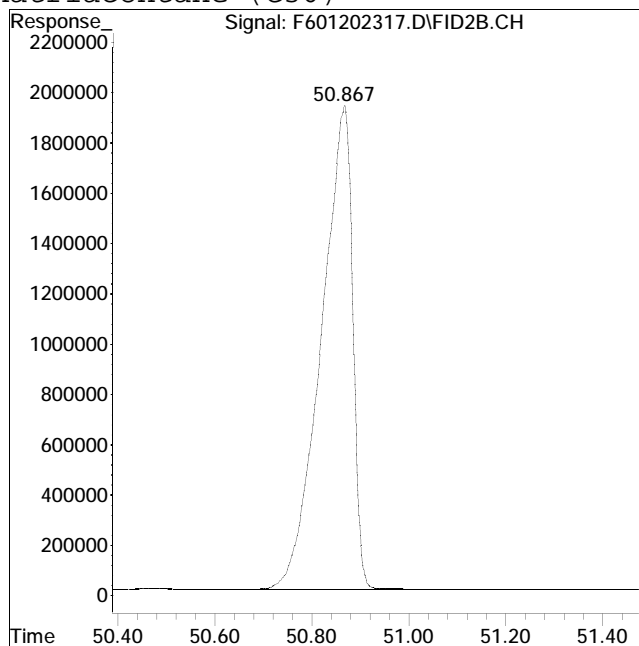
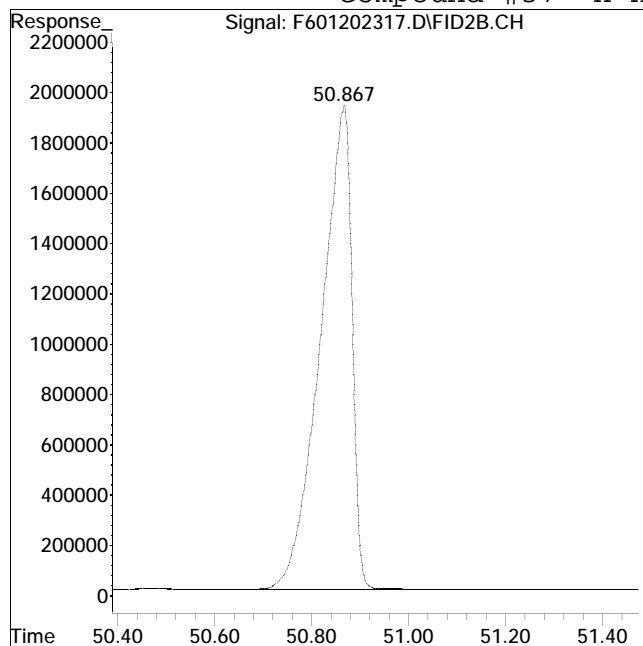
Manual Peak Response = 71669847 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 86507864

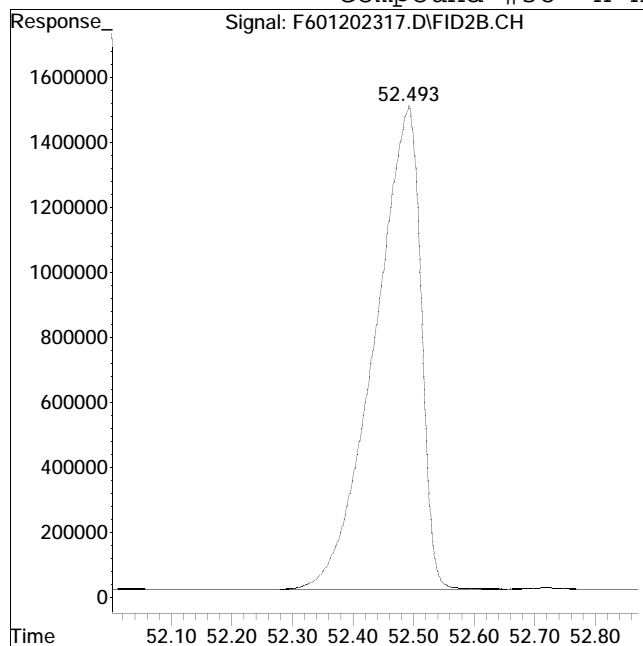
Manual Peak Response = 86592032 M4

M4 = Poor automated baseline construction.

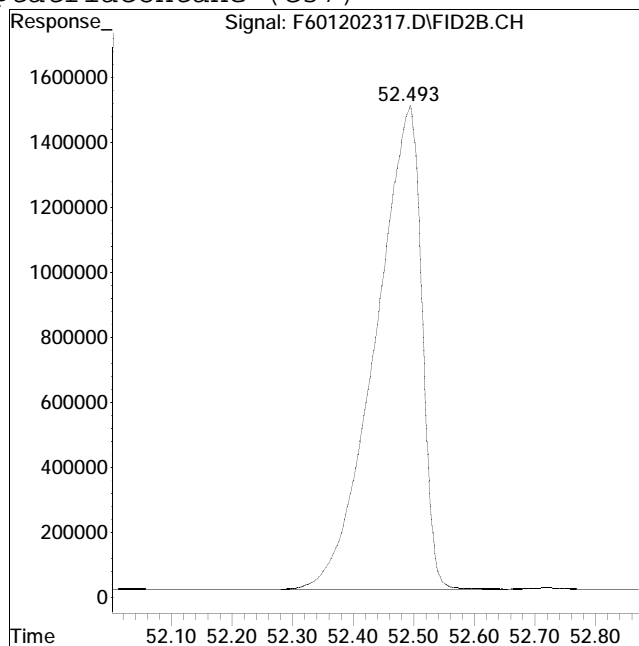
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 78987698



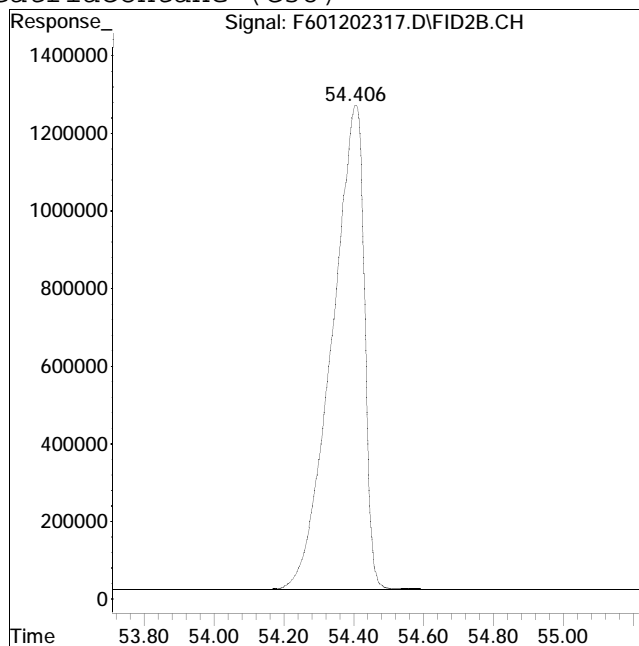
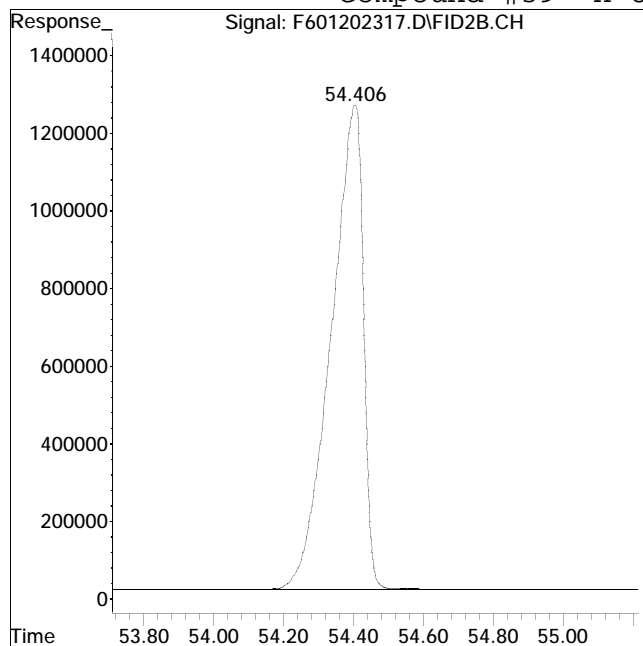
Manual Peak Response = 78995127 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 80323616

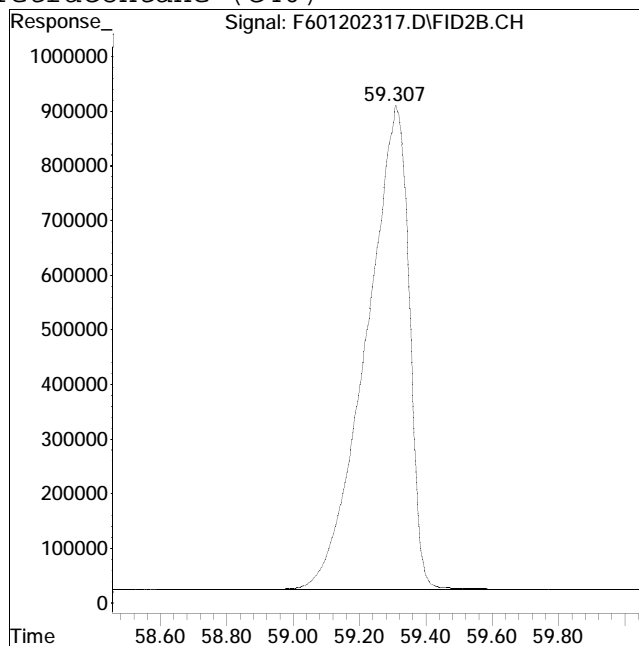
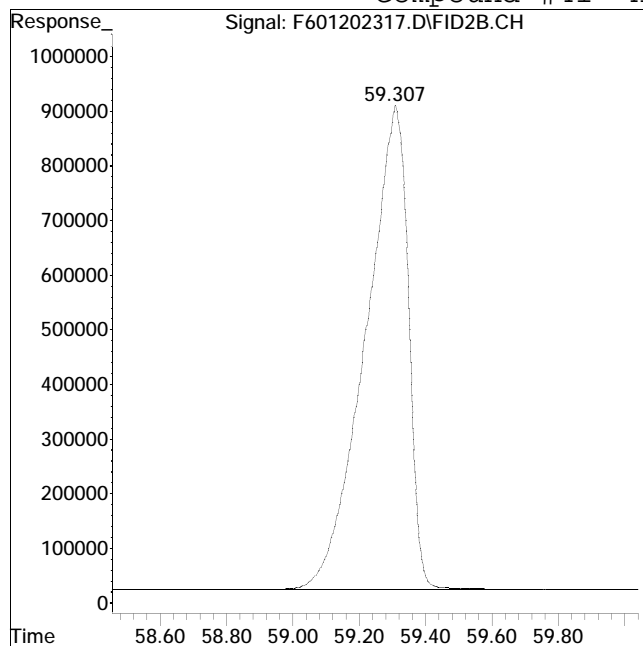
Manual Peak Response = 80379473 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202317.D Operator : FID6:WR
 Date Inj'd : 1/20/2023 11:05 pm Instrument : FID6
 Sample : I601202304R Quant Date : 3/7/2023 4:50 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 79526481

Manual Peak Response = 79720004 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202319.D
 Signal(s) : FID2B.CH
 Acq On : 21 Jan 2023 12:33 am
 Operator : FID6:WR
 Sample : I601202305R
 Misc : WG1752810,FRBF58,200ug/ml
 ALS Vial : 60 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 07 17:08:01 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Mar 07 16:59:54 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound			R.T.	Response	Conc	Units

Internal Standards						
1) I	5-alpha-androstane		31.781	47498253	50.000	ug/mL M4
System Monitoring Compounds						
19) s	ortho-terphenyl		29.786	186550994	184.407	ug/mL M4
Spiked Amount		50.000	Range 50 - 130	Recovery	= 368.81%#	
24) s	d50-Tetracosane		36.383	149956323	181.323	ug/mL M4
Spiked Amount		50.000	Range 50 - 130	Recovery	= 362.65%#	
Target Compounds						
2) t	n-Octane (C8)		6.107	152090873	187.915	ug/mL M4
3) t	n-Nonane (C9)		8.343	154343069	187.840	ug/mL M4
4) t	n-Decane (C10)		10.827	160430055	190.665	ug/mL M4
5) t	n-Undecane (C11)		13.334	160098534	190.029	ug/mL M4
6) t	n-Dodecane (C12)		15.756	161549256	189.473	ug/mL M4
7) t	n-Tridecane (C13)		18.058	161478563	188.366	ug/mL M4
9) t	n-Tetradecane (C14)		20.237	165218587	187.518	ug/mL M4
11) t	n-Pentadecane (C15)		22.298	166005479	187.349	ug/mL M4
12) t	n-Hexadecane (C16)		24.252	164652211	185.501	ug/mL M4
14) t	n-Heptadecane (C17)		26.110	167184623	185.652	ug/mL M4
15) t	Pristane		26.224	169513686	184.730	ug/mL M4
16) t	n-Octadecane (C18)		27.875	169165123	185.565	ug/mL M4
17) t	Phytane		28.043	156980338	184.965	ug/mL M4
18) t	n-Nonadecane (C19)		29.559	170157973	185.764	ug/mL M4
20) t	n-Eicosane (C20)		31.162	171583341	185.070	ug/mL M4
21) t	n-Heneicosane (C21)		32.697	172371768	185.343	ug/mL M4
22) t	n-Docosane (C22)		34.168	172160765	183.685	ug/mL M4
23) t	n-Tricosane (C23)		35.578	172180973	183.610	ug/mL M4
25) t	n-Tetracosane (C24)		36.934	171464628	185.483	ug/mL M4
26) t	n-Pentacosane (C25)		38.237	168630229	182.589	ug/mL M4
27) t	n-Hexacosane (C26)		39.494	172957490	182.373	ug/mL M4
28) t	n-Heptacosane (C27)		40.706	172742673	183.732	ug/mL M4
29) t	n-Octacosane (C28)		41.875	176404829	182.402	ug/mL M4
30) t	n-Nonacosane (C29)		43.006	175405357	183.140	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202319.D
 Signal(s) : FID2B.CH
 Acq On : 21 Jan 2023 12:33 am
 Operator : FID6:WR
 Sample : I601202305R
 Misc : WG1752810,FRBF58,200ug/ml
 ALS Vial : 60 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 07 17:08:01 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Mar 07 16:59:54 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	44.098	176117931	183.699 ug/mL M4
32) t	n-Hentriacontane (C31)	45.154	170136896	184.294 ug/mL M4
33) t	n-Dotriacontane (C32)	46.184	179087083	185.273 ug/mL M4
34) t	n-Tritriacontane (C33)	47.186	174597217	186.918 ug/mL M4
35) t	n-tetratriacontane (C34)	48.274	174160475	187.049 ug/mL M4
36) t	n-Pentatriacontane (C35)	49.500	162662164	183.731 ug/mL M4
37) t	n-Hexatriacontane (C36)	50.925	194766129	187.326 ug/mL M4
38) t	n-Heptatriacontane (C37)	52.558	174818027	184.461 ug/mL M4
39) t	n-Octatriacontane (C38)	54.473	174188951	179.029 ug/mL M4
41) t	n-Tetracontane (C40)	59.415	165938007	173.293 ug/mL M4

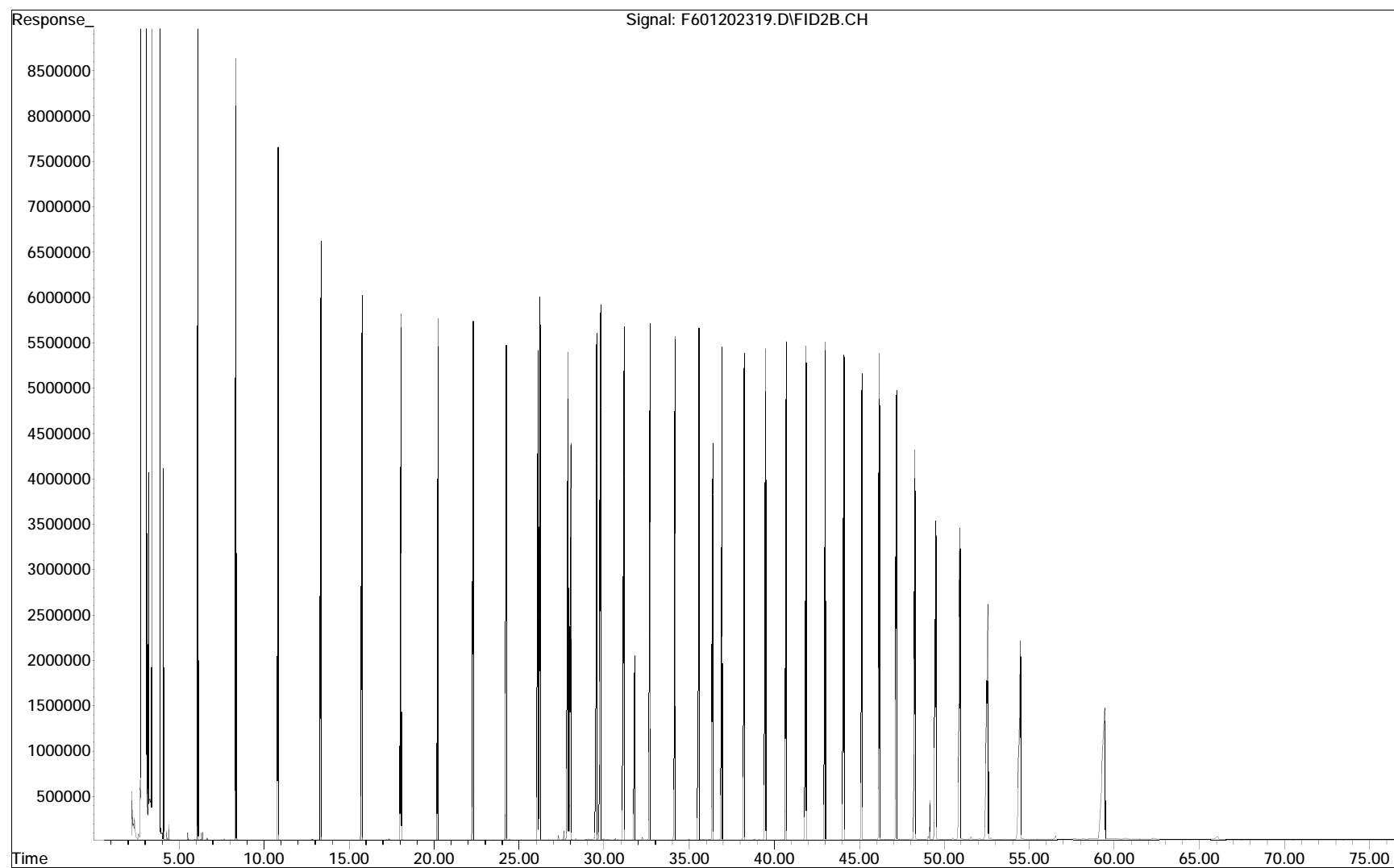
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

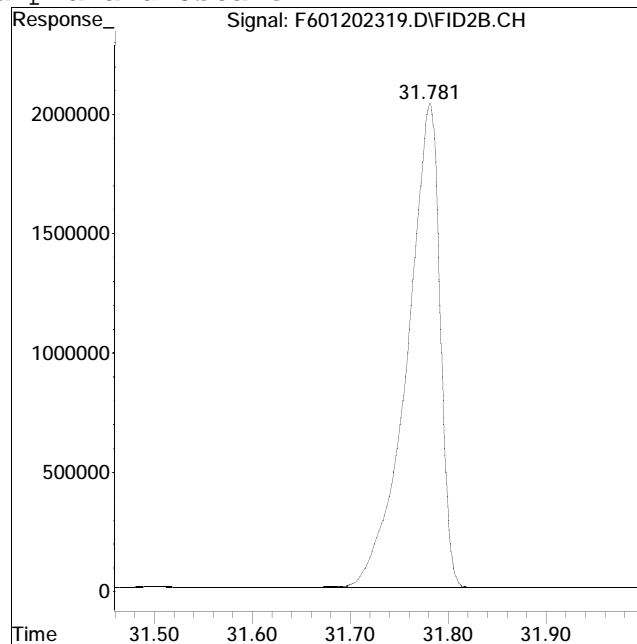
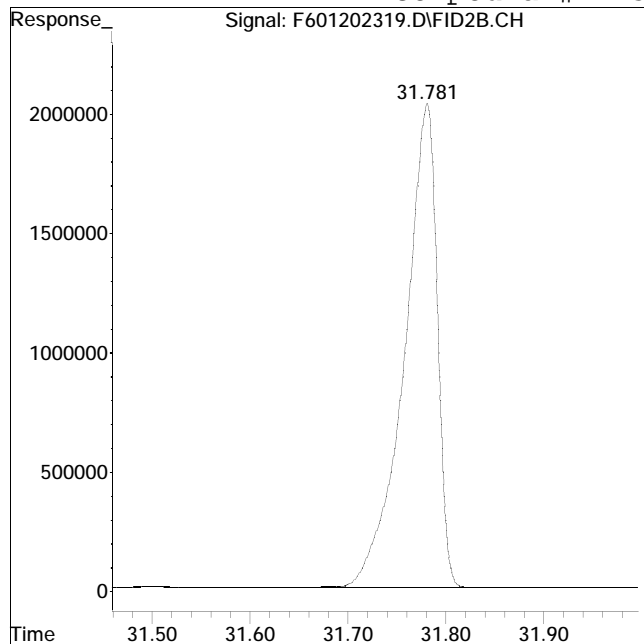
File : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\F601202319.D
 Operator : FID6:WR
 Acquired : 21 Jan 2023 12:33 am using AcqMethod FID6A.M
 Sample Name: I601202305R
 Instrument: FID6
 Misc Info : WG1752810,FRBF58,200ug/ml
 Vial Number: 60
 CurrentMeth: O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 47468490

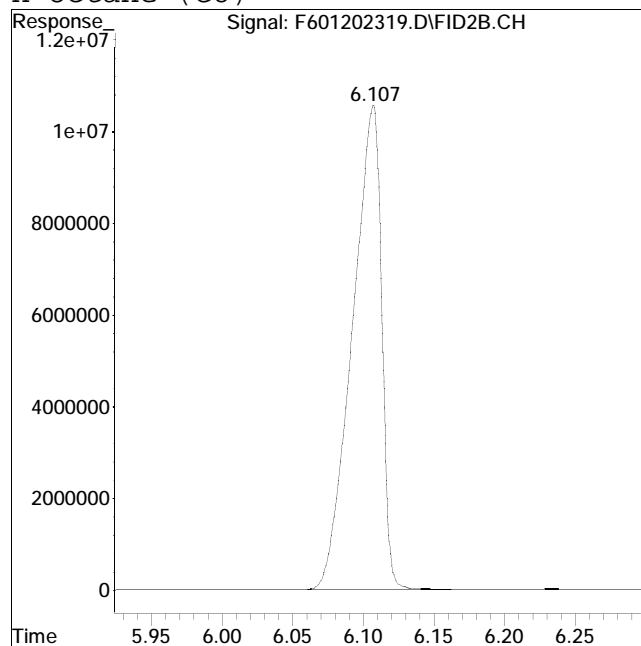
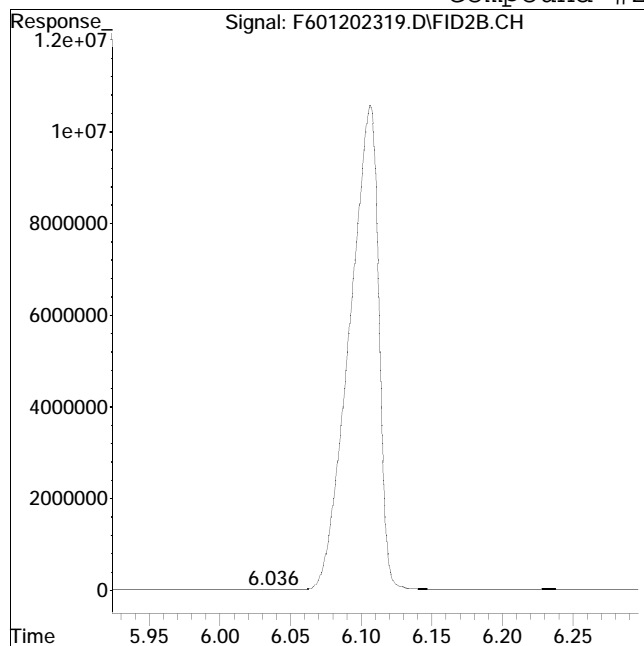
Manual Peak Response = 47498253 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #2: n-Octane (C8)



Original Peak Response = 19840

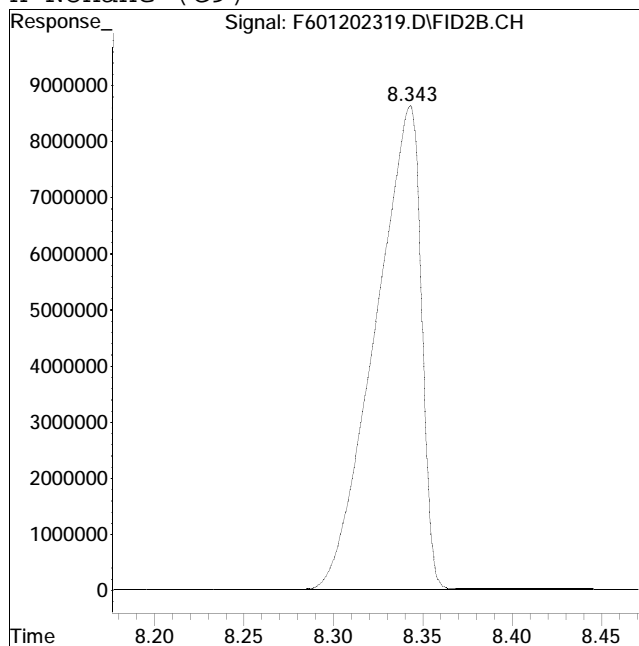
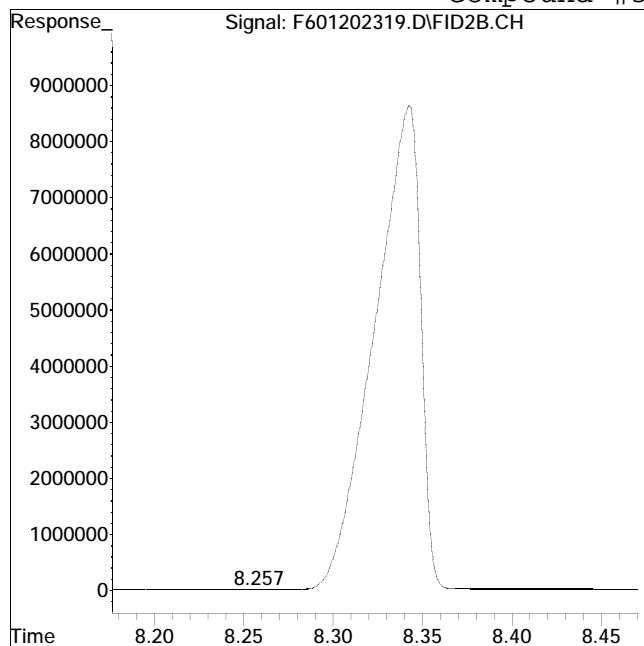
Manual Peak Response = 152090873 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #3: n-Nonane (C9)



Original Peak Response = 26798

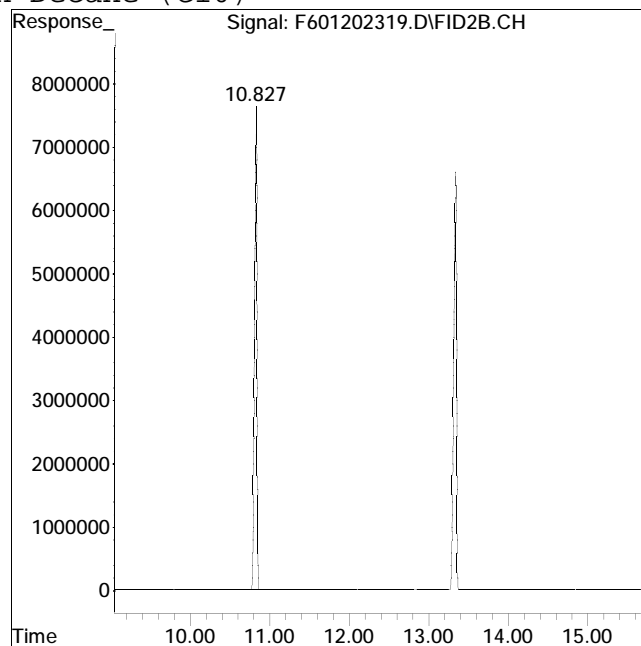
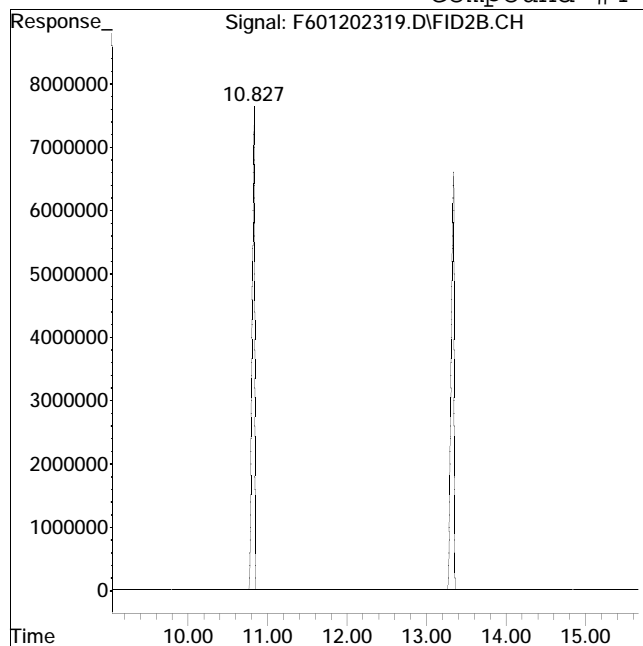
Manual Peak Response = 154343069 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #4: n-Decane (C10)



Original Peak Response = 159825343

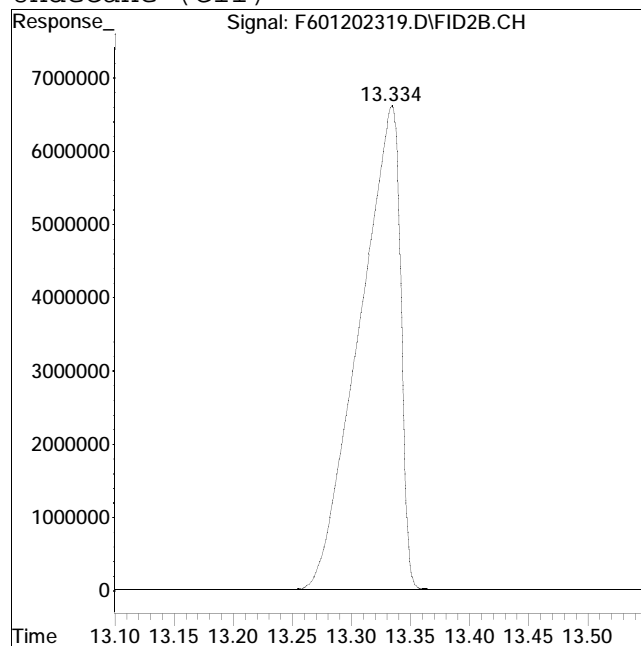
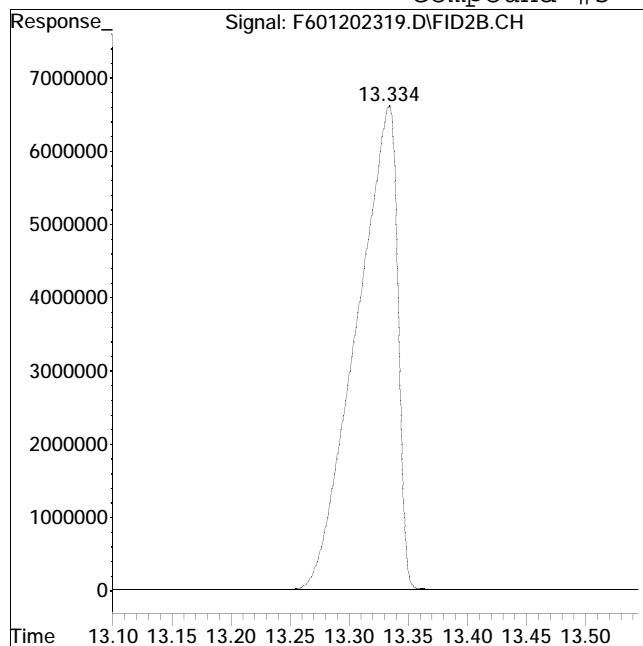
Manual Peak Response = 160430055 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #5: n-Undecane (C11)



Original Peak Response = 160043188

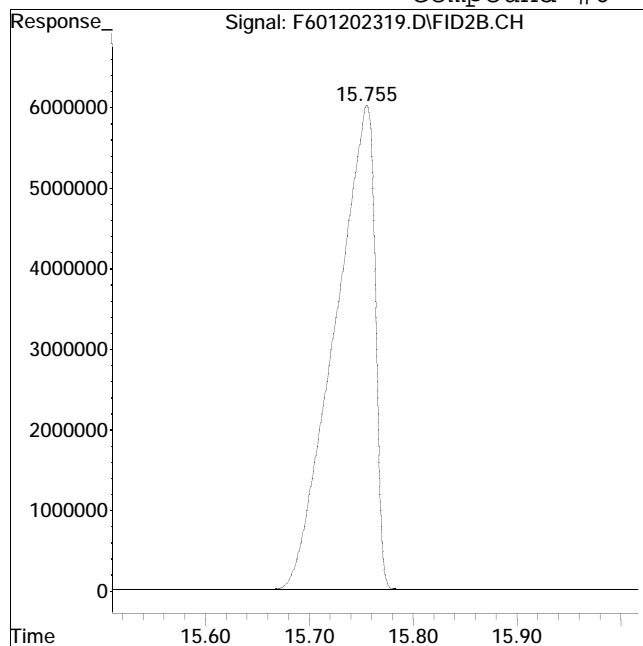
Manual Peak Response = 160098534 M4

M4 = Poor automated baseline construction.

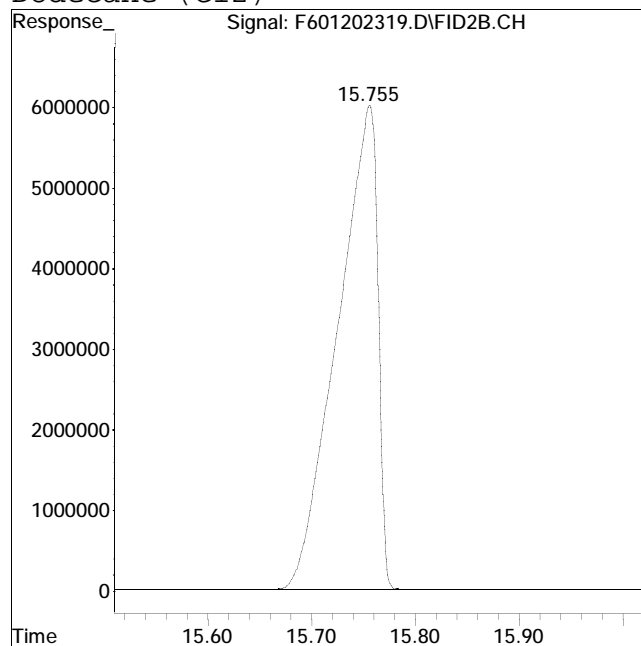
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202319.D Operator : FID6:WR
Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #6: n-Dodecane (C12)



Original Peak Response = 161565369



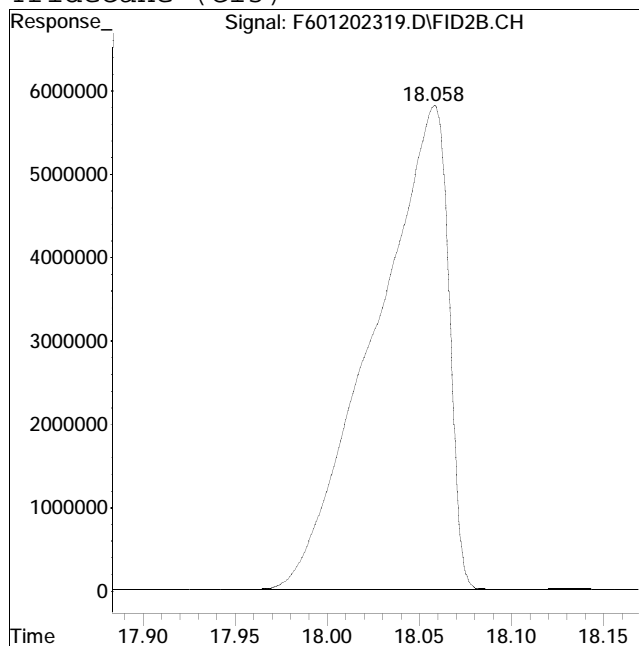
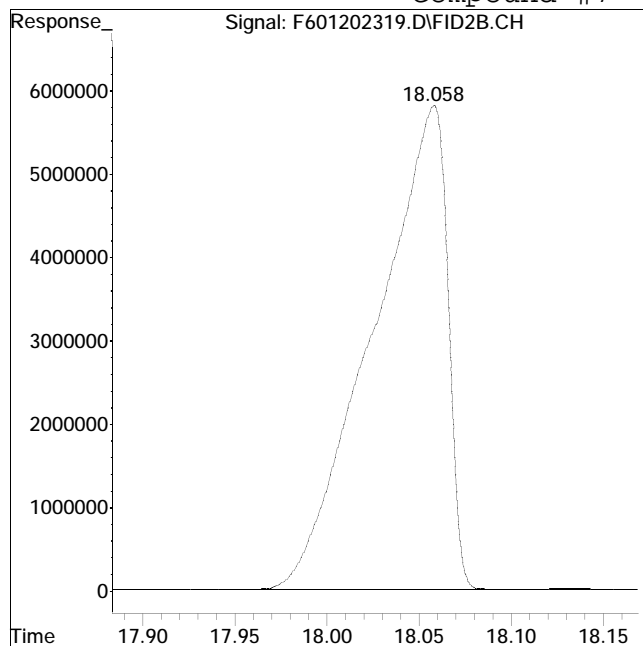
Manual Peak Response = 161549256 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #7: n-Tridecane (C13)



Original Peak Response = 161465440

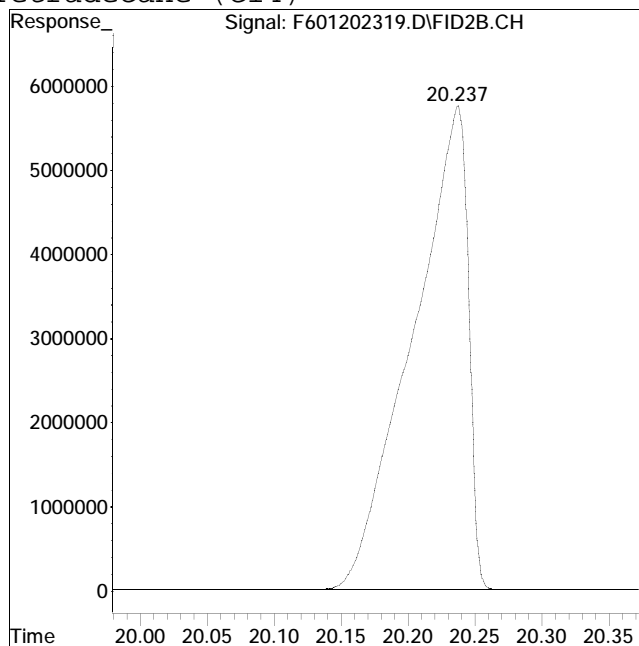
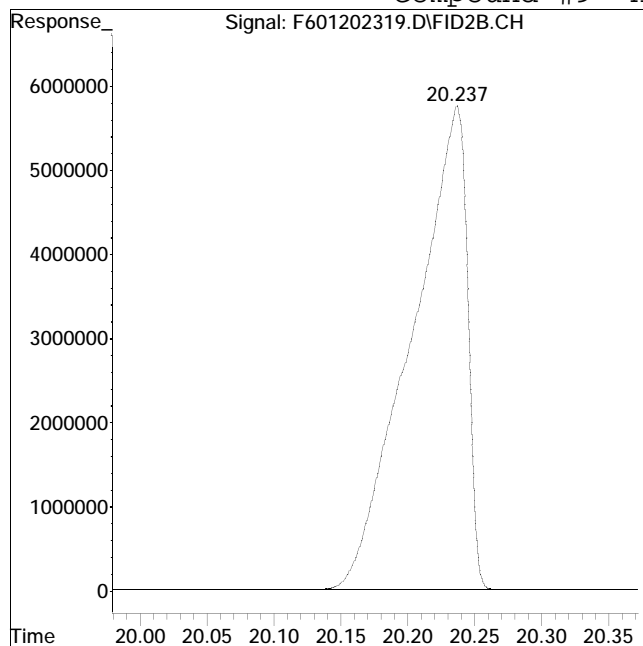
Manual Peak Response = 161478563 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #9: n-Tetradecane (C14)



Original Peak Response = 165191059

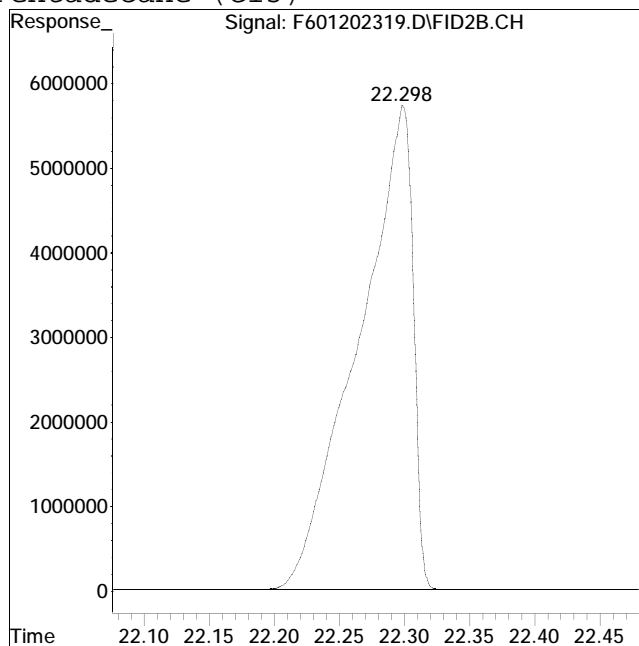
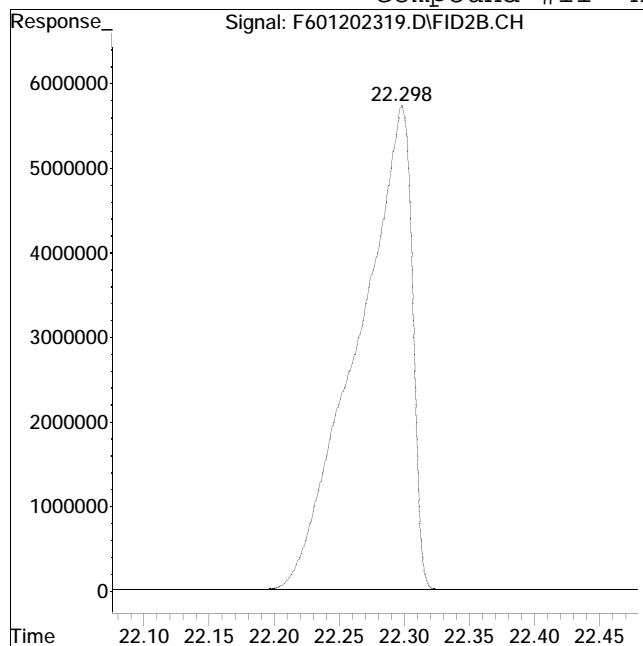
Manual Peak Response = 165218587 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #11: n-Pentadecane (C15)



Original Peak Response = 166002864

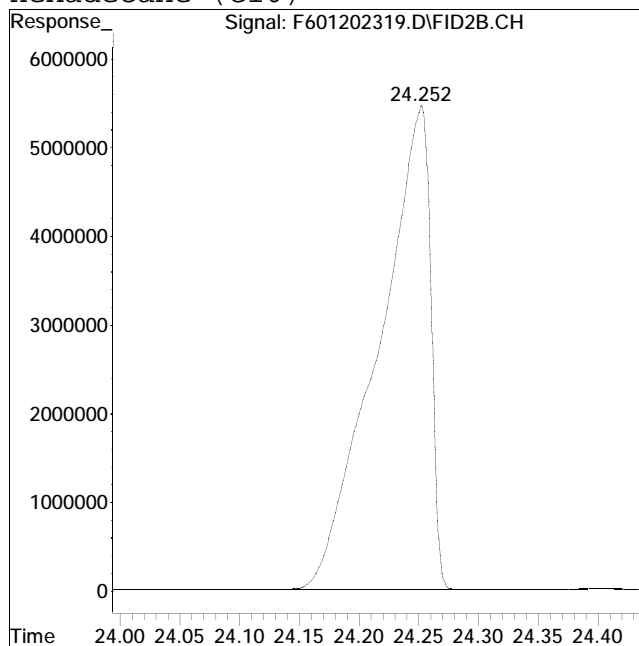
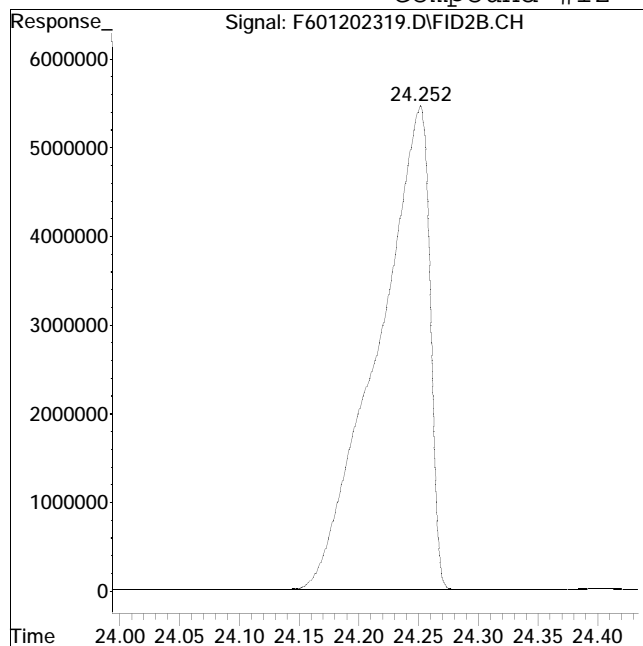
Manual Peak Response = 166005479 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #12: n-Hexadecane (C16)



Original Peak Response = 164665522

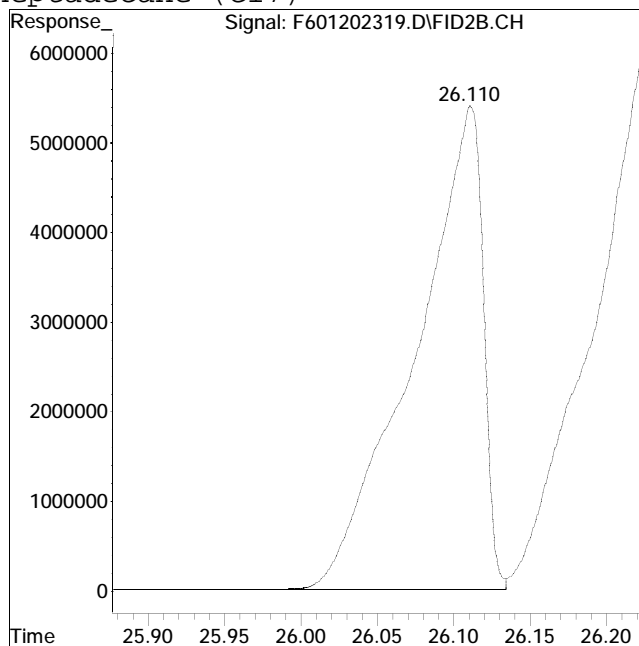
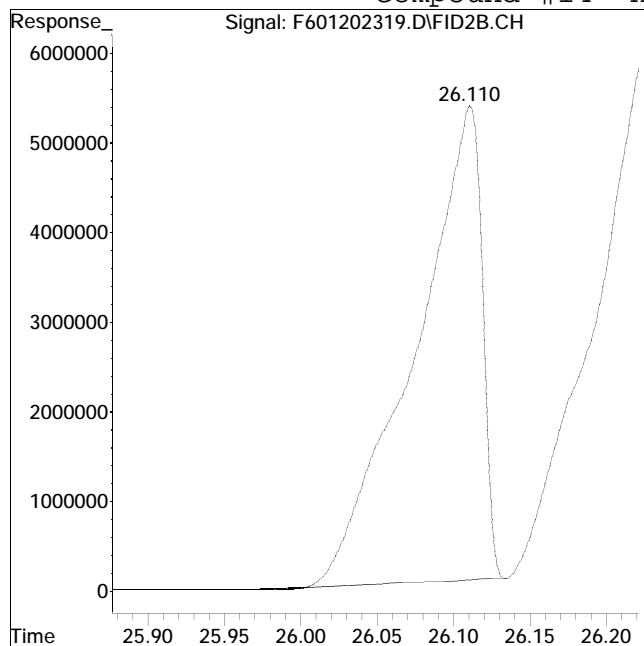
Manual Peak Response = 164652211 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #14: n-Heptadecane (C17)



Original Peak Response = 160599522

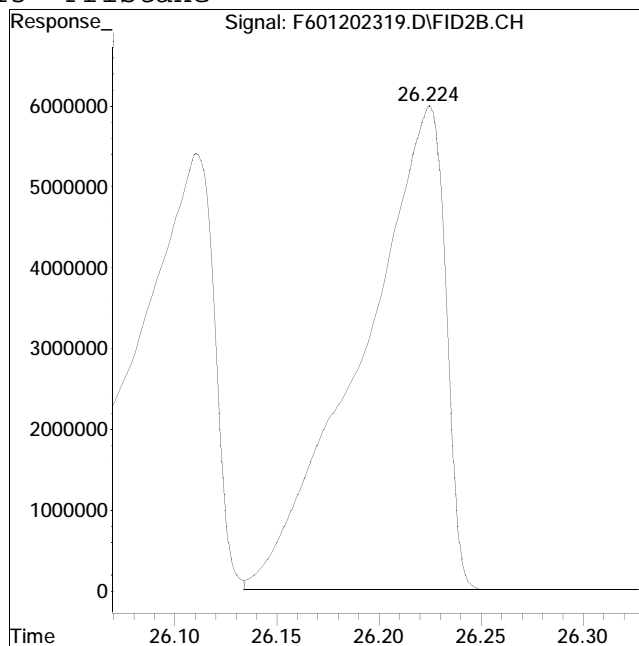
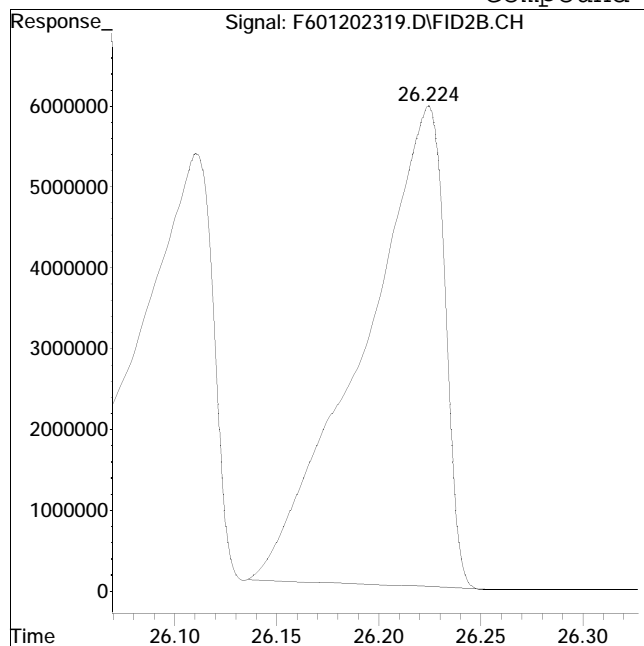
Manual Peak Response = 167184623 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #15: Pristane



Original Peak Response = 164404682

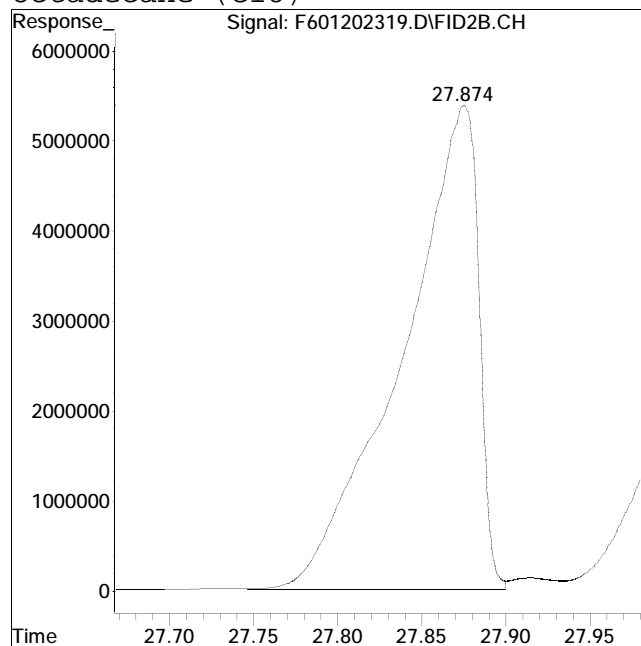
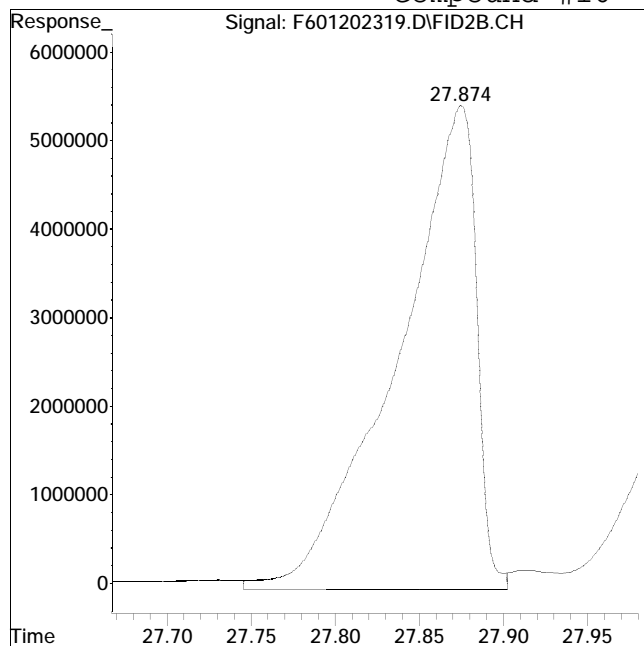
Manual Peak Response = 169513686 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #16: n-Octadecane (C18)



Original Peak Response = 177196834

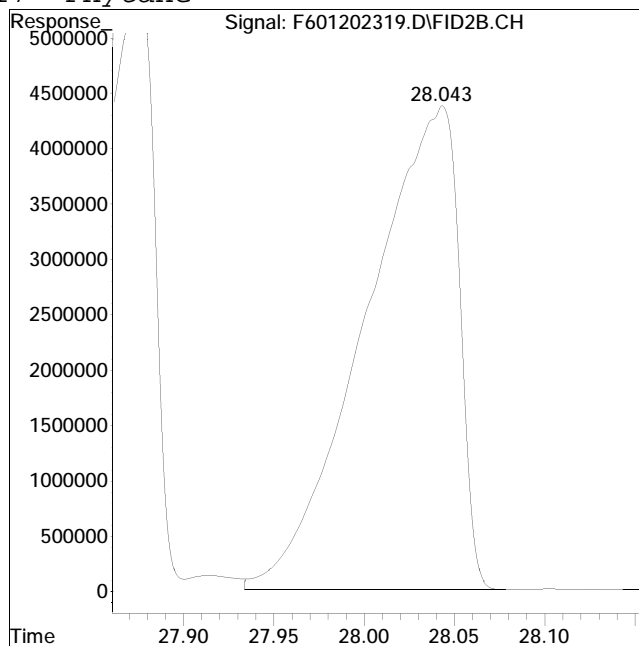
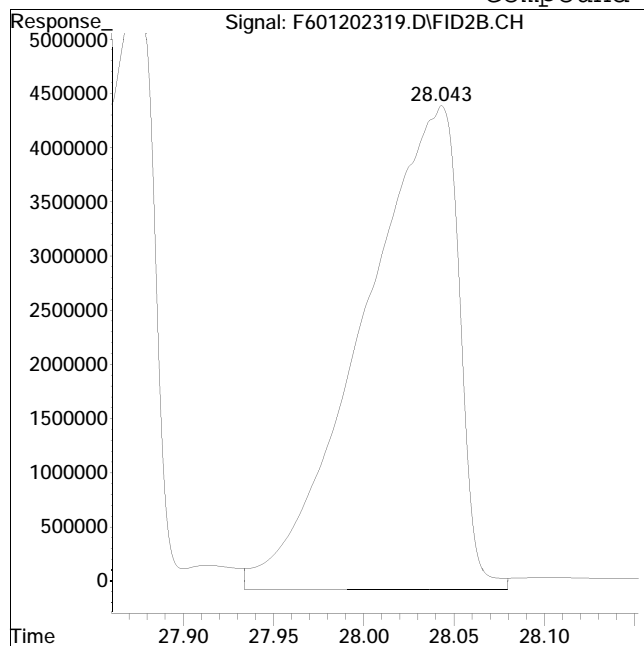
Manual Peak Response = 169165123 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #17: Phytane



Original Peak Response = 165342576

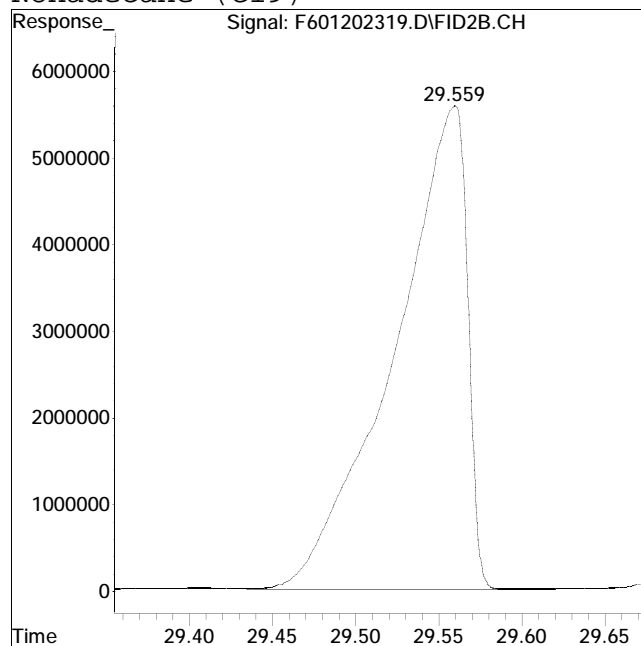
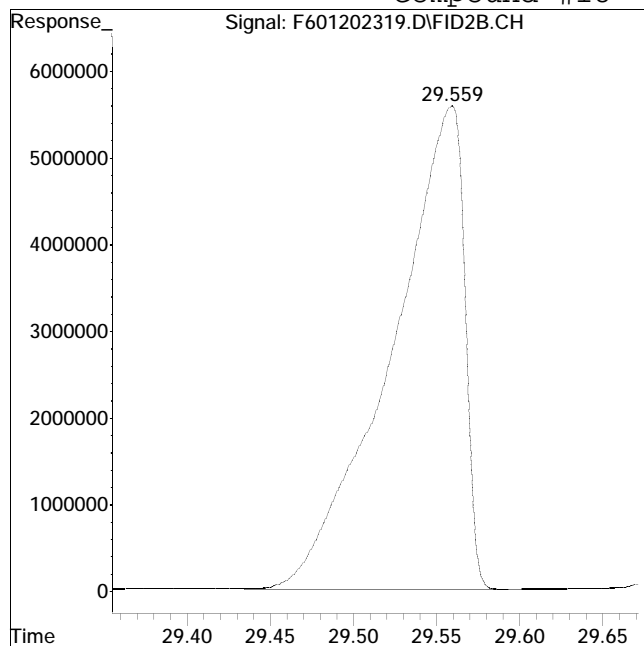
Manual Peak Response = 156980338 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #18: n-Nonadecane (C19)



Original Peak Response = 169983706

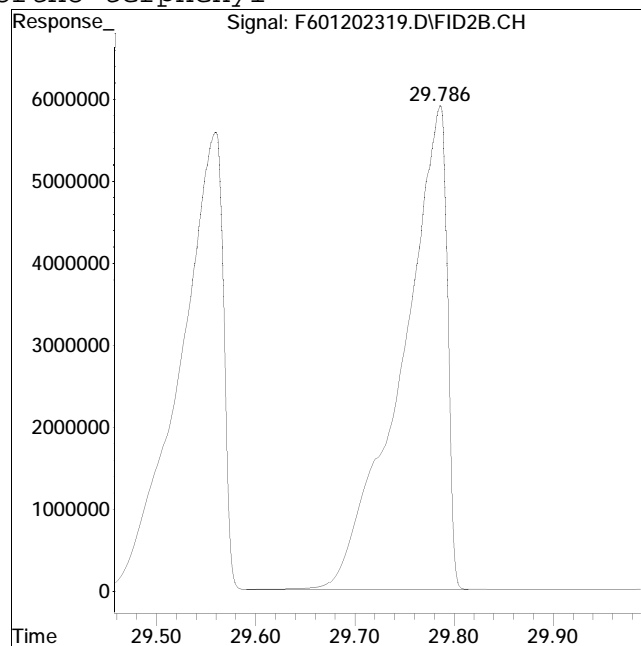
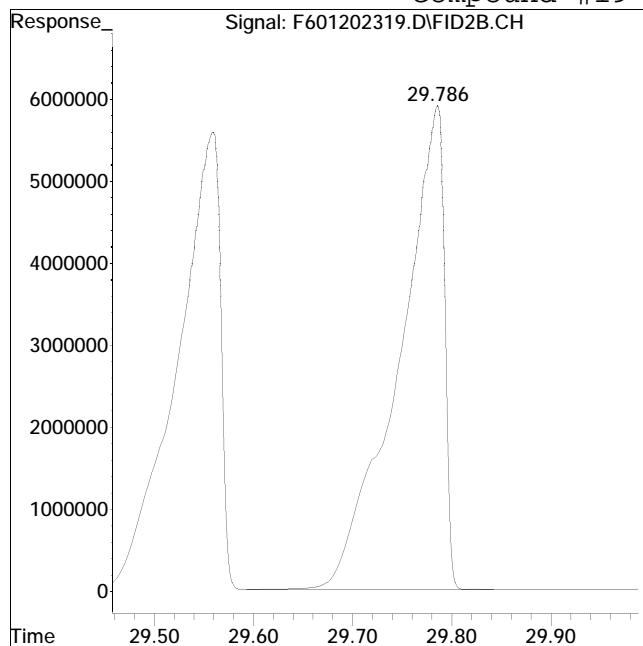
Manual Peak Response = 170157973 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #19: ortho-terphenyl



Original Peak Response = 186511267

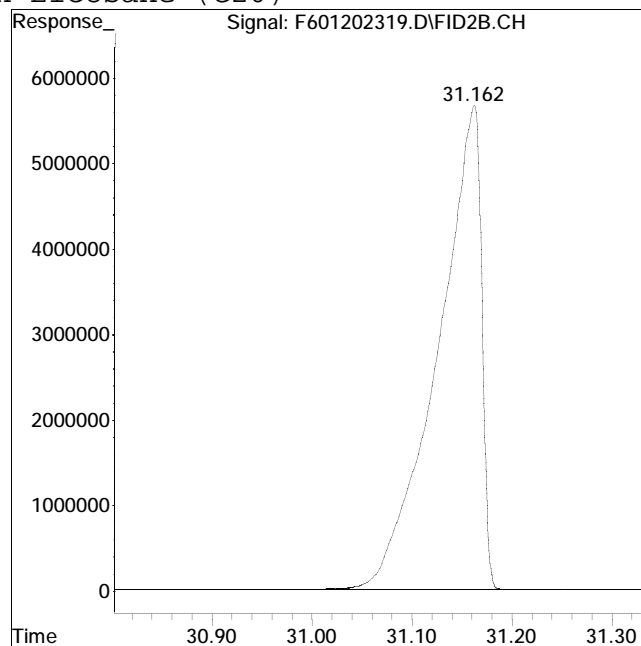
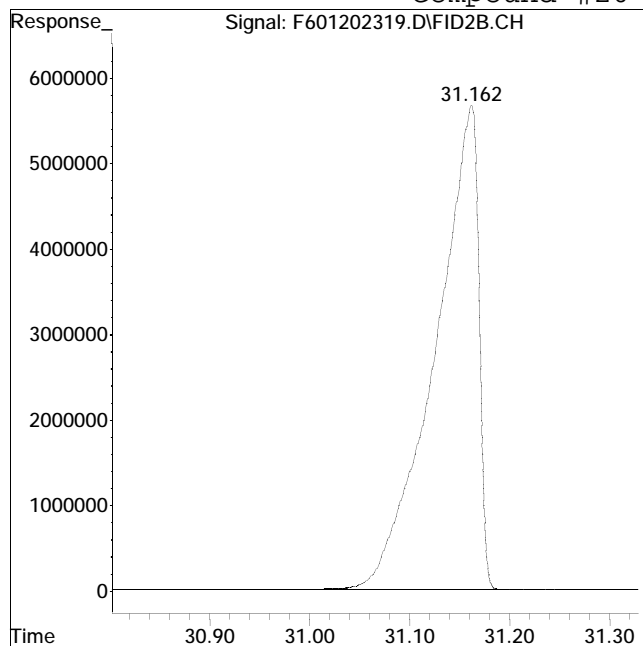
Manual Peak Response = 186550994 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #20: n-Eicosane (C20)



Original Peak Response = 171250707

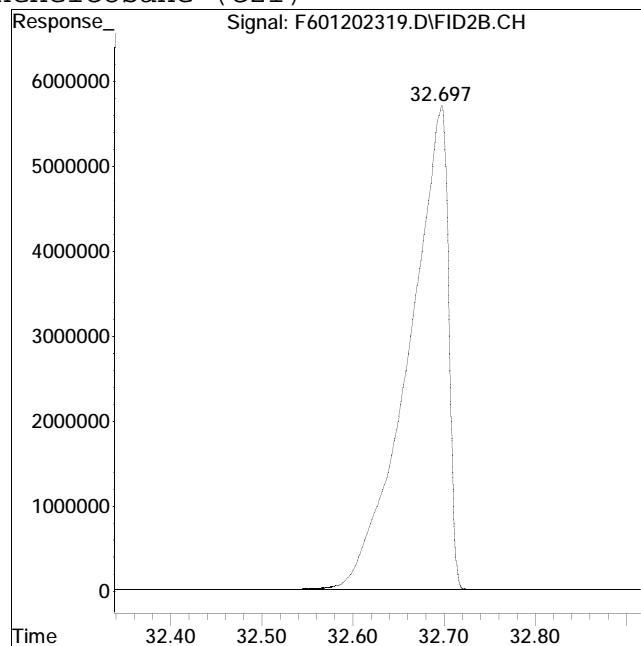
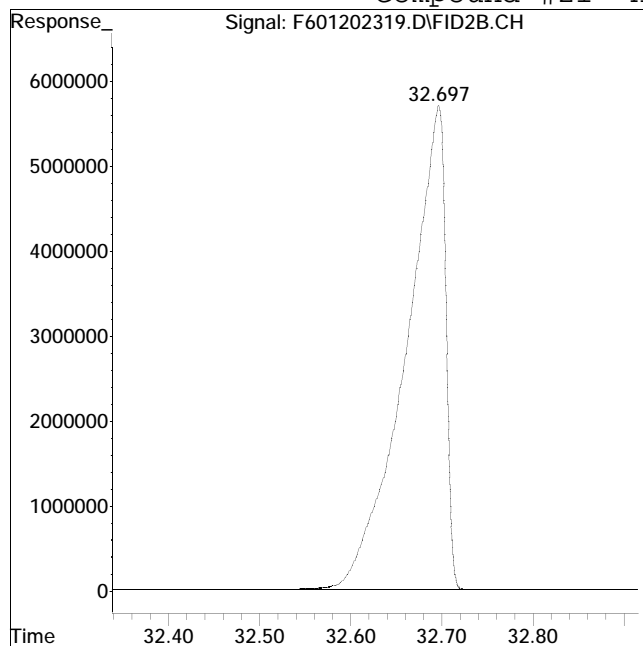
Manual Peak Response = 171583341 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #21: n-Heneicosane (C21)



Original Peak Response = 172380136

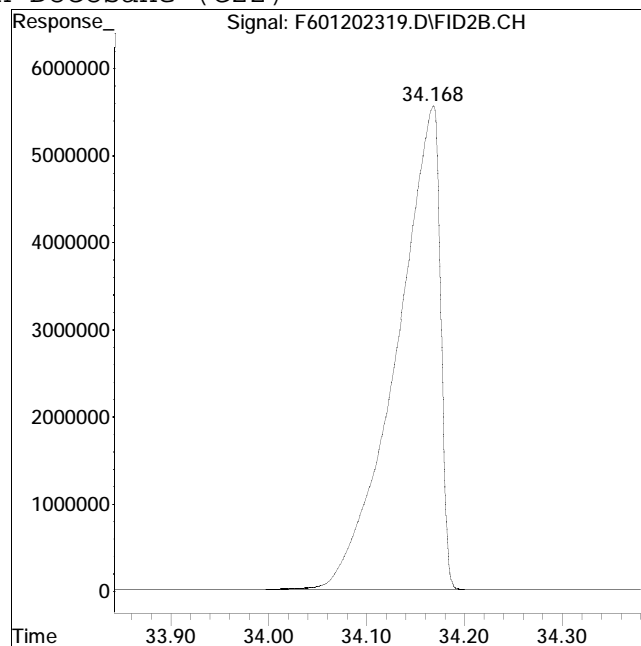
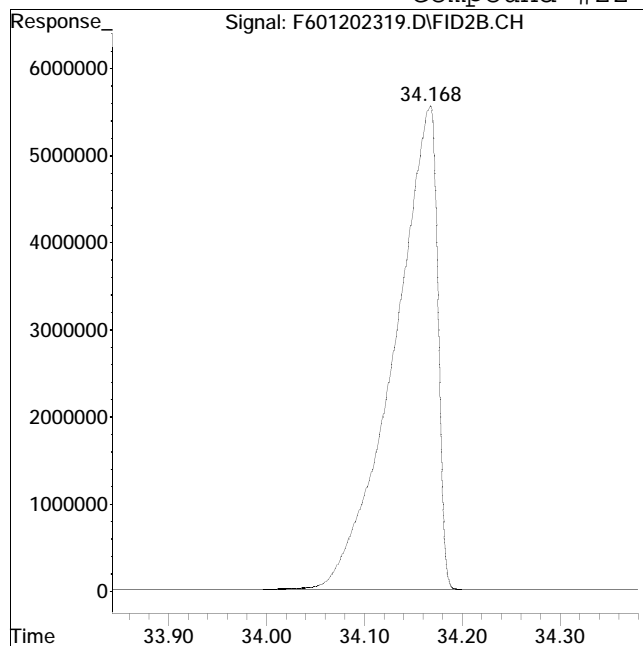
Manual Peak Response = 172371768 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #22: n-Docosane (C22)



Original Peak Response = 172131188

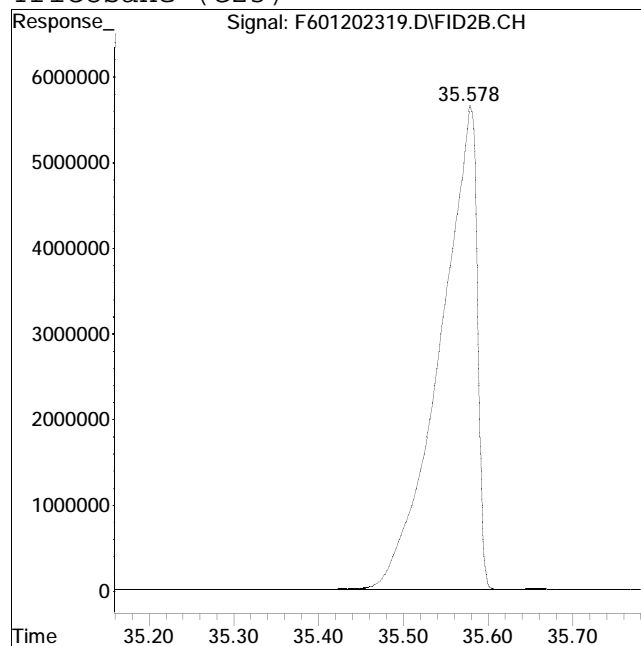
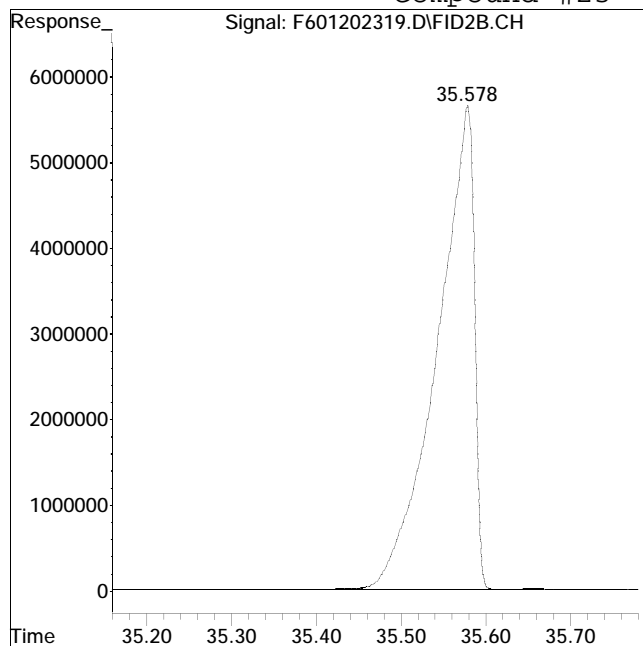
Manual Peak Response = 172160765 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #23: n-Tricosane (C23)



Original Peak Response = 172185111

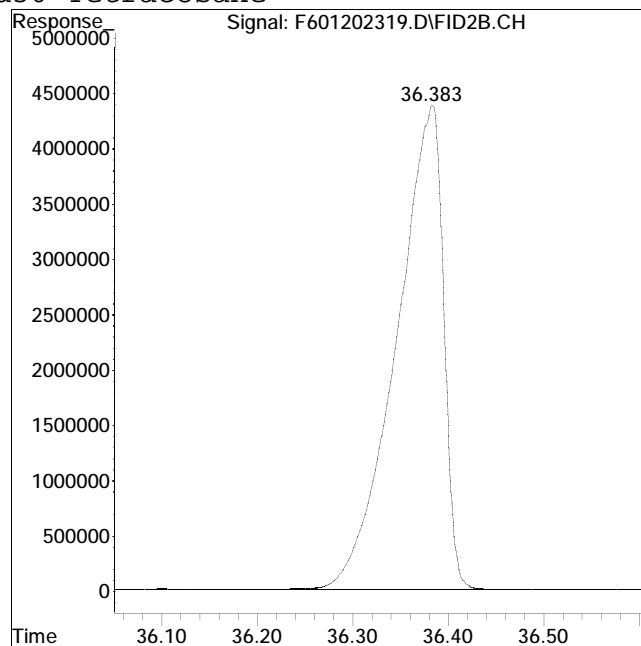
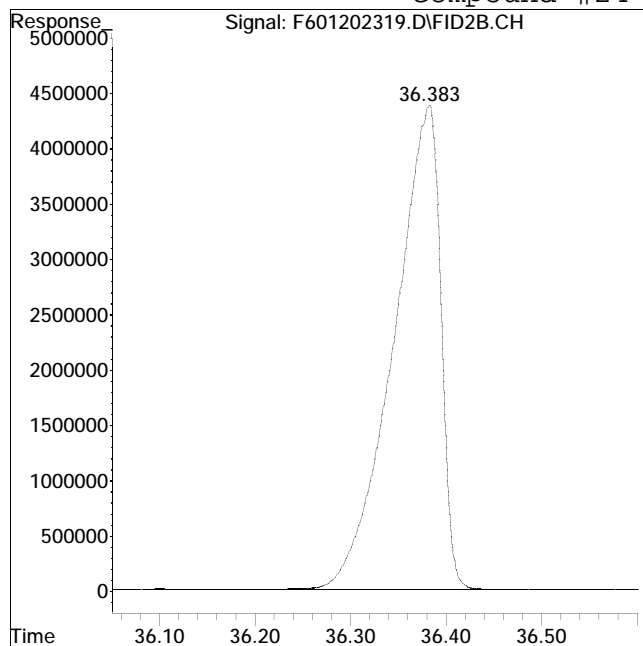
Manual Peak Response = 172180973 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #24: d50-Tetracosane



Original Peak Response = 149936283

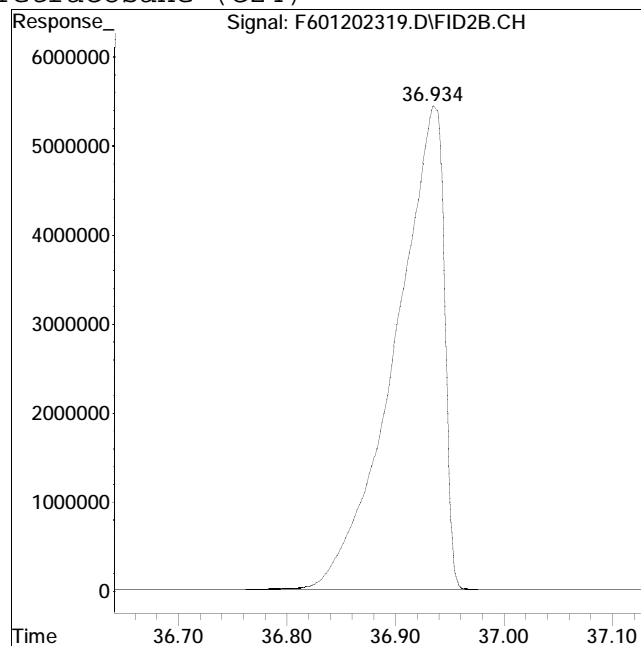
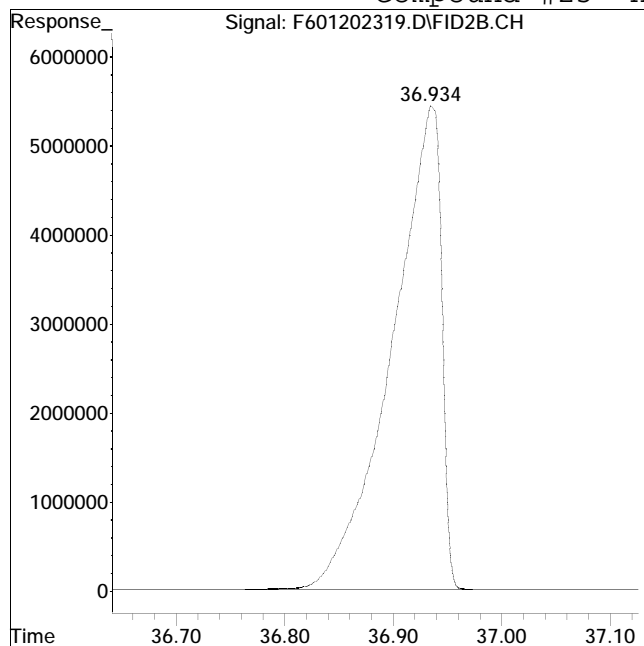
Manual Peak Response = 149956323 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #25: n-Tetracosane (C24)



Original Peak Response = 171300627

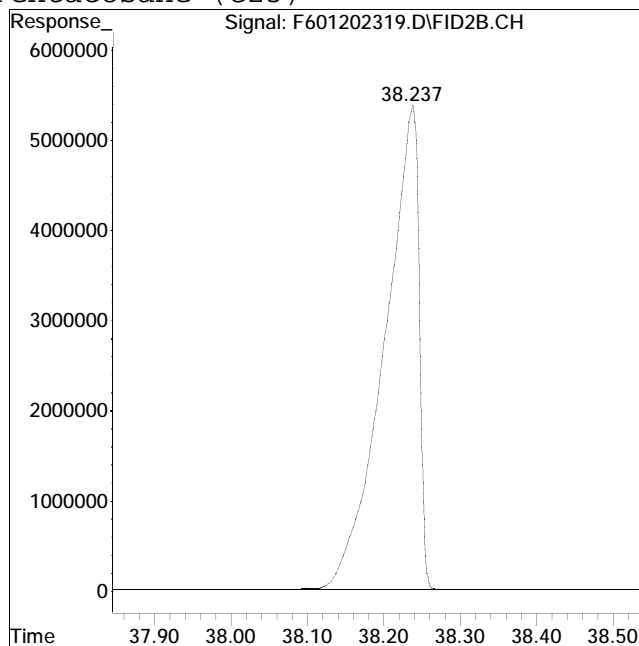
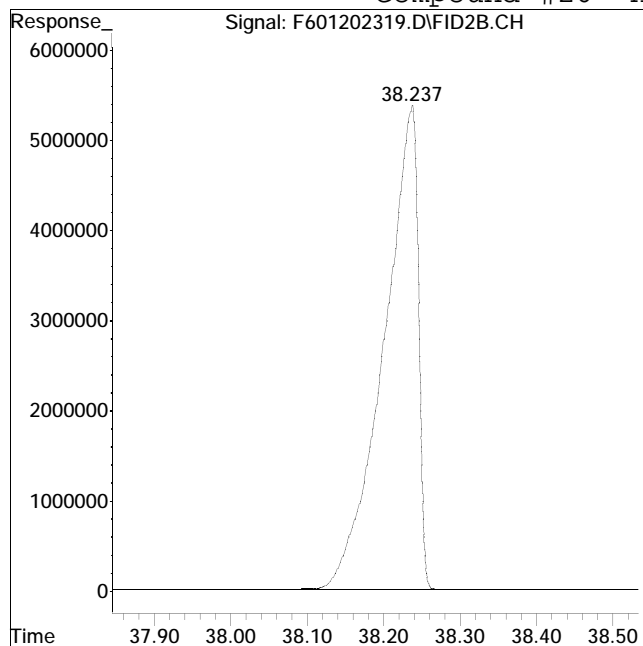
Manual Peak Response = 171464628 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #26: n-Pentacosane (C25)



Original Peak Response = 168473325

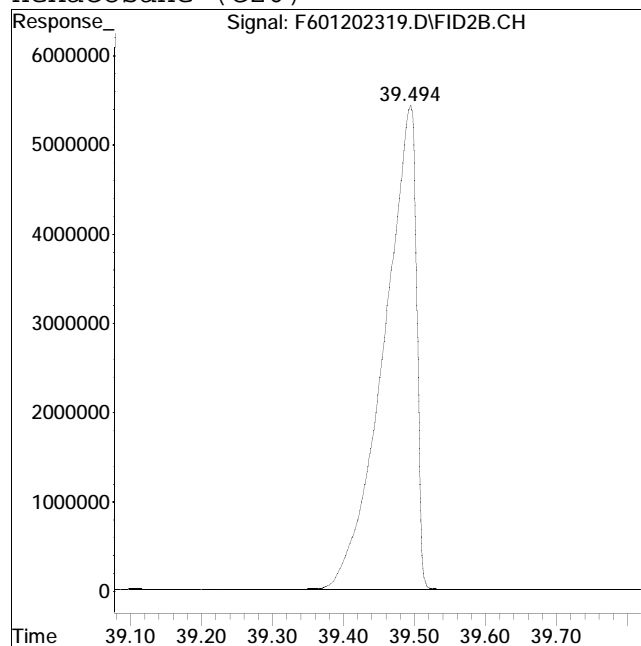
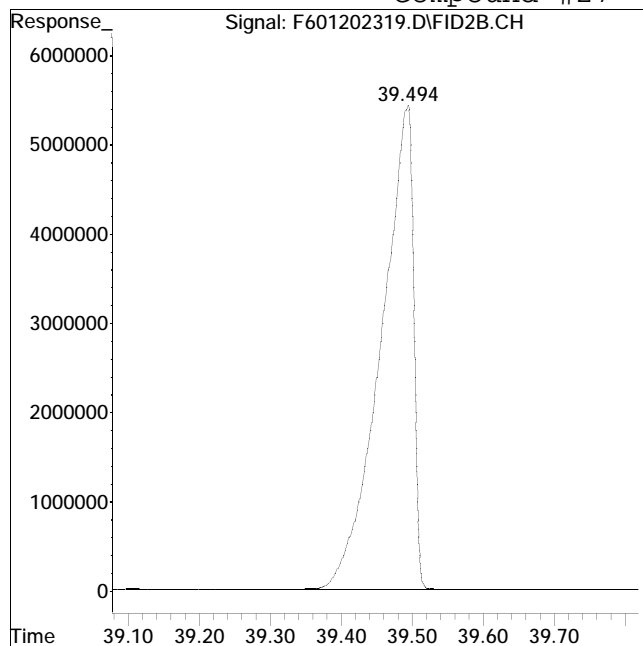
Manual Peak Response = 168630229 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #27: n-Hexacosane (C26)



Original Peak Response = 172973777

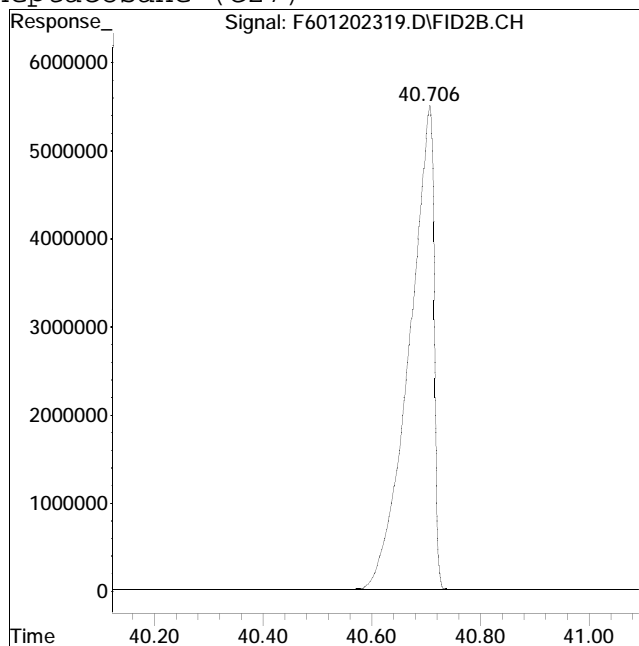
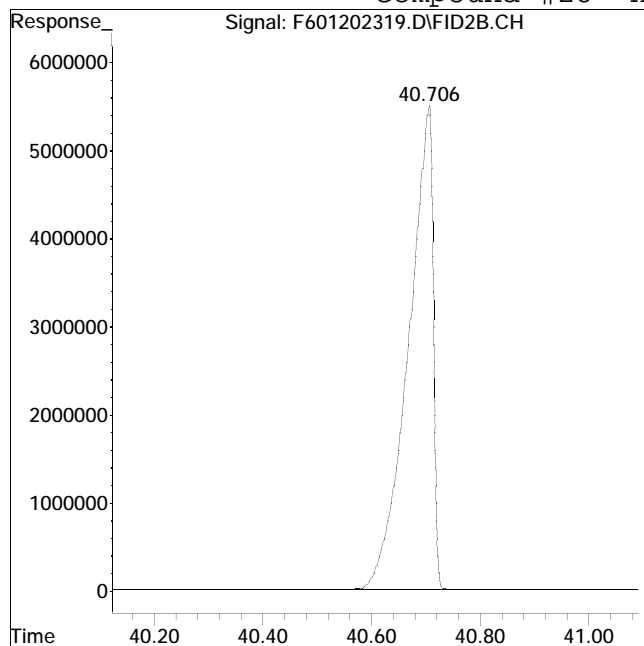
Manual Peak Response = 172957490 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #28: n-Heptacosane (C27)



Original Peak Response = 172778460

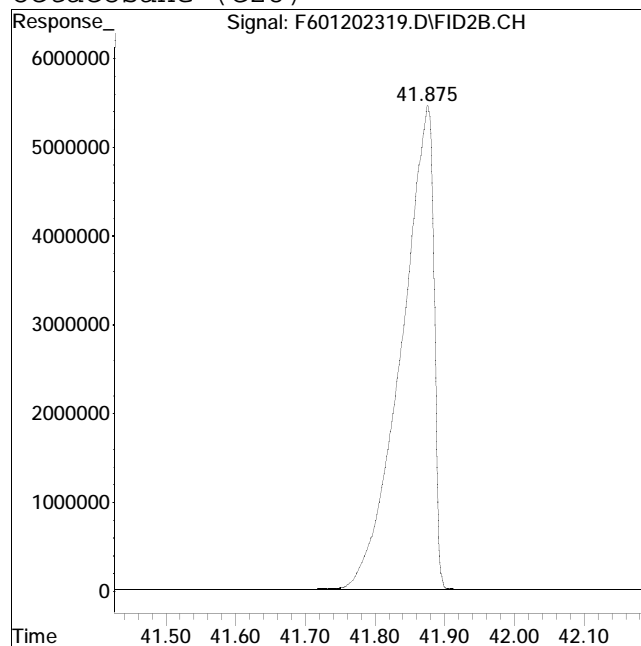
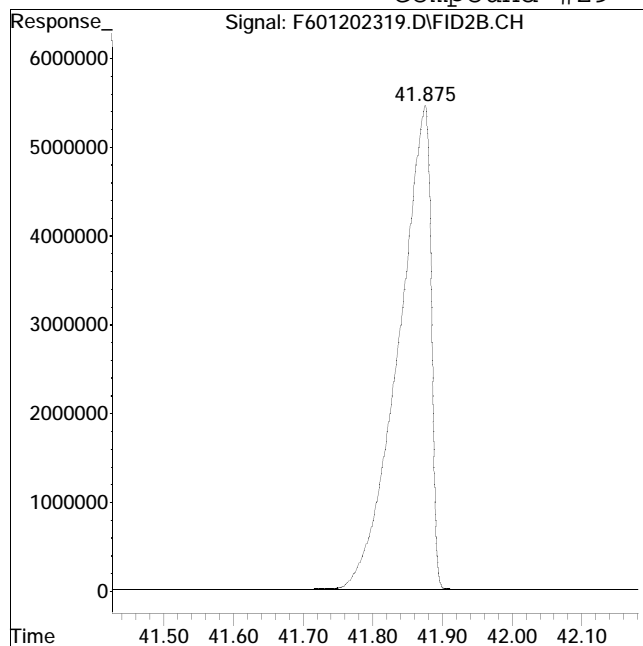
Manual Peak Response = 172742673 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #29: n-Octacosane (C28)



Original Peak Response = 176395266

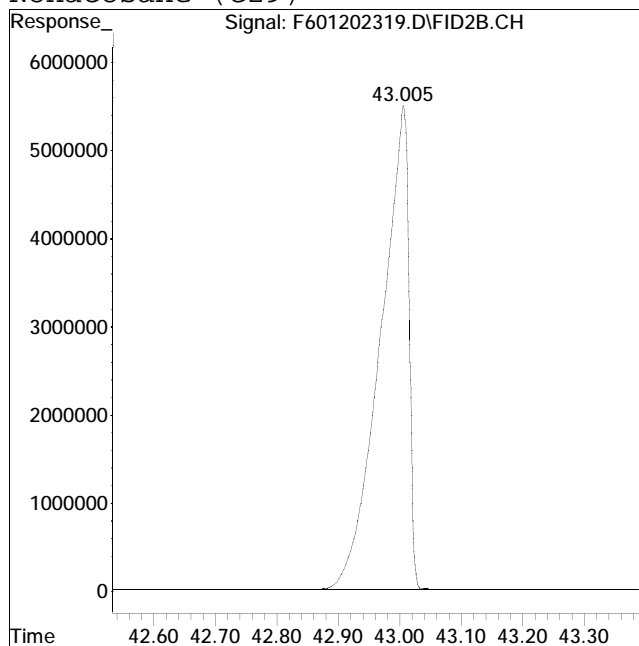
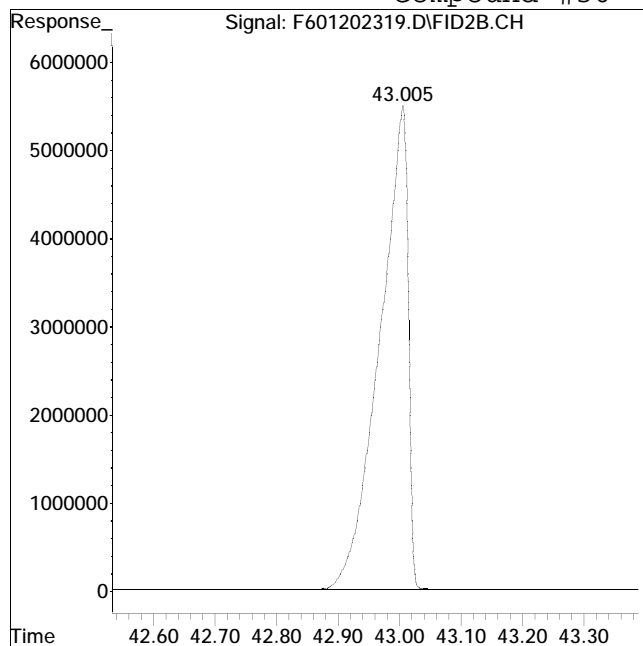
Manual Peak Response = 176404829 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #30: n-Nonacosane (C29)



Original Peak Response = 175419404

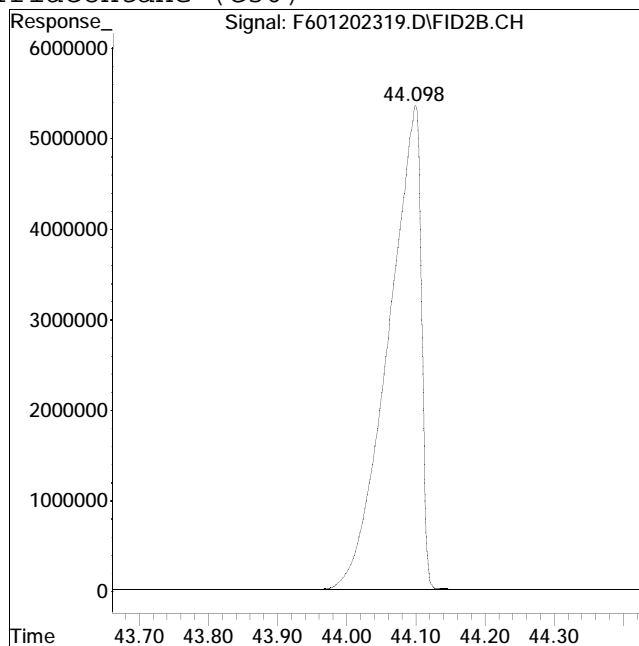
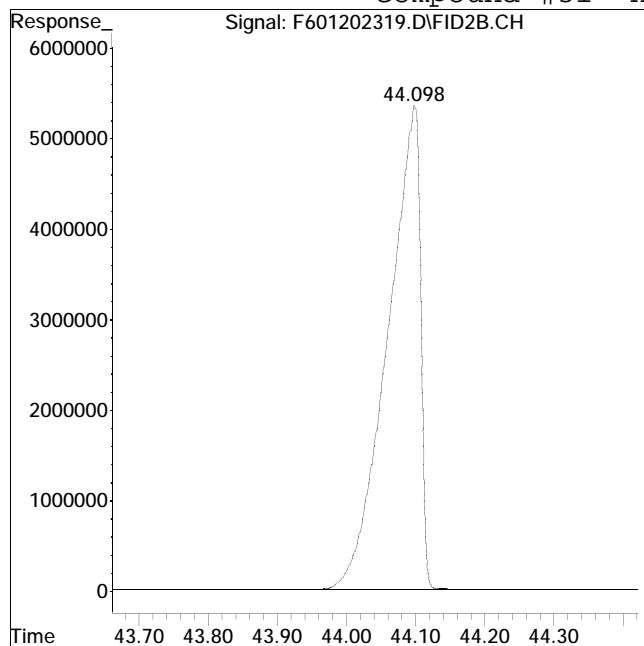
Manual Peak Response = 175405357 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #31: n-Triacontane (C30)



Original Peak Response = 176095028

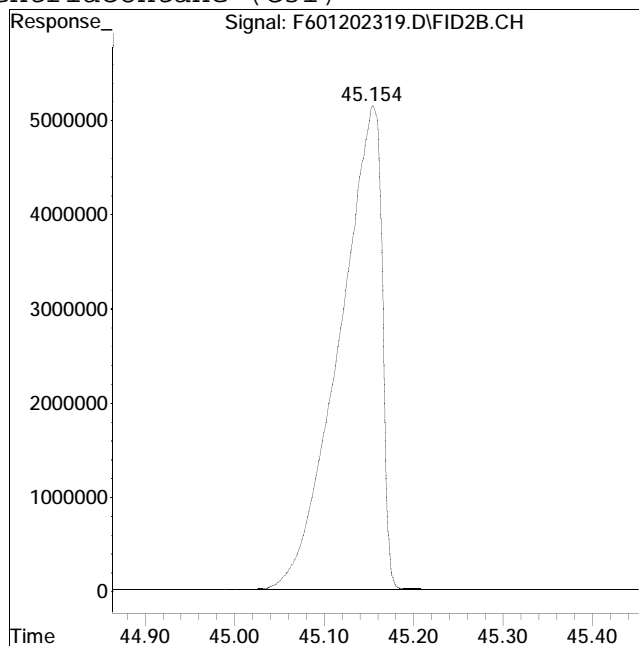
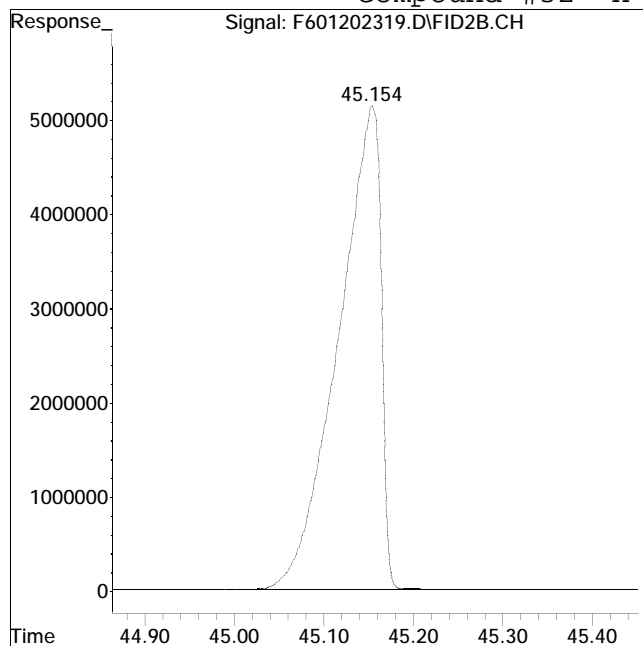
Manual Peak Response = 176117931 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 170107375

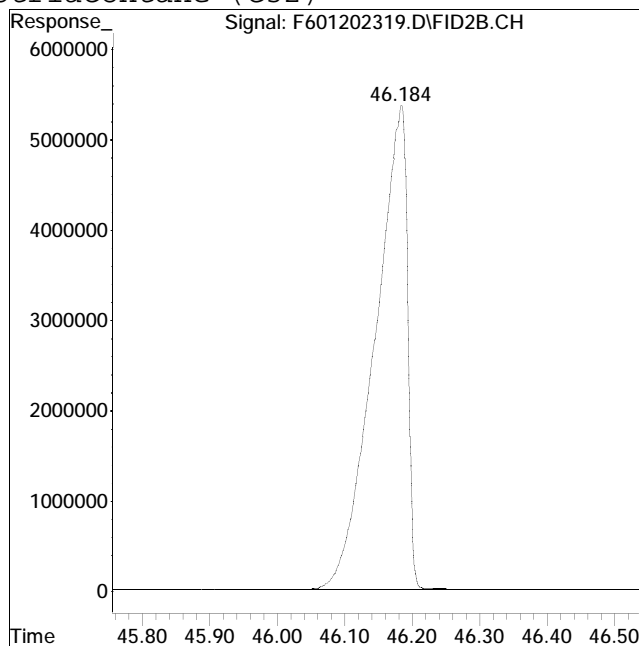
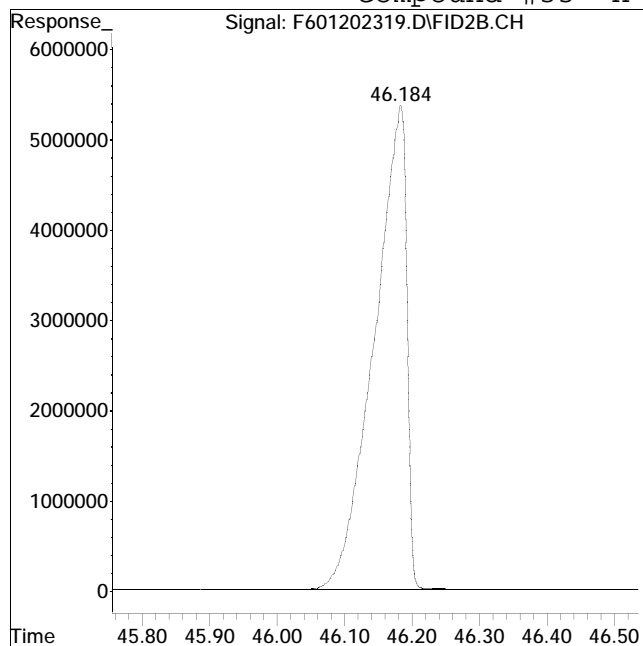
Manual Peak Response = 170136896 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 178978753

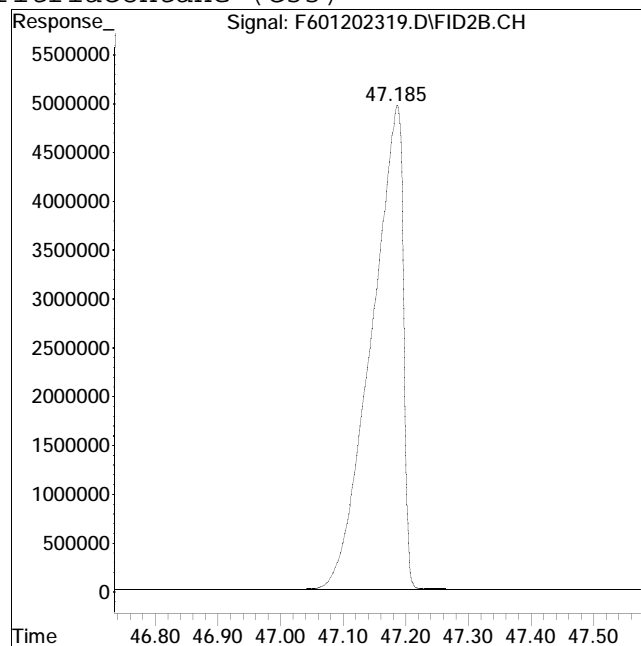
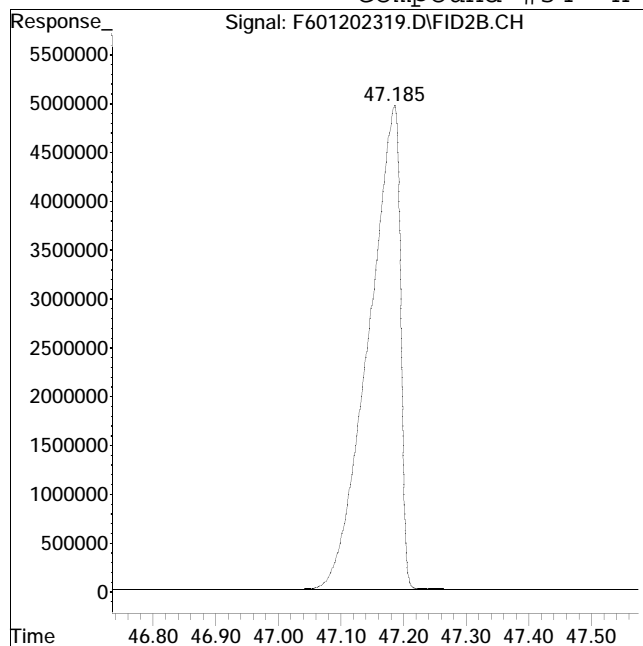
Manual Peak Response = 179087083 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 174554917

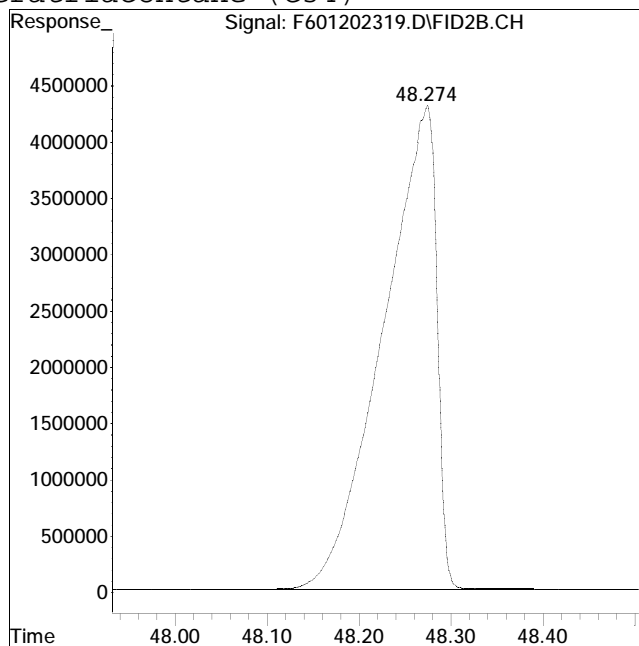
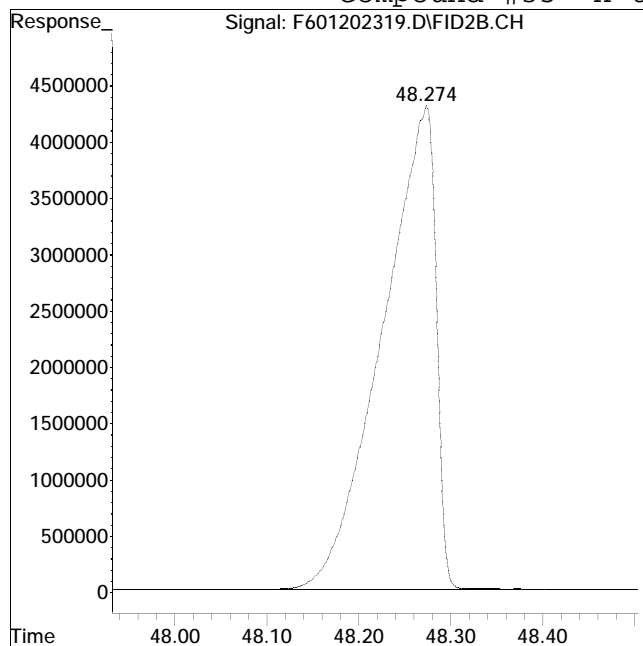
Manual Peak Response = 174597217 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 173813662

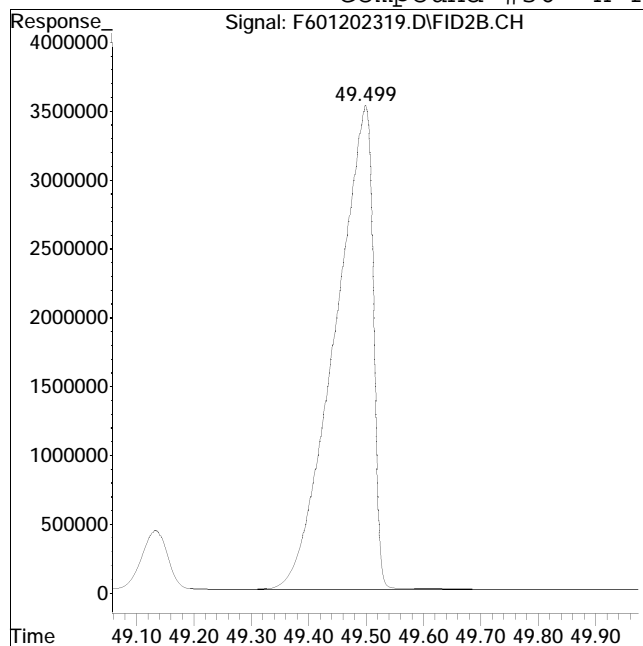
Manual Peak Response = 174160475 M4

M4 = Poor automated baseline construction.

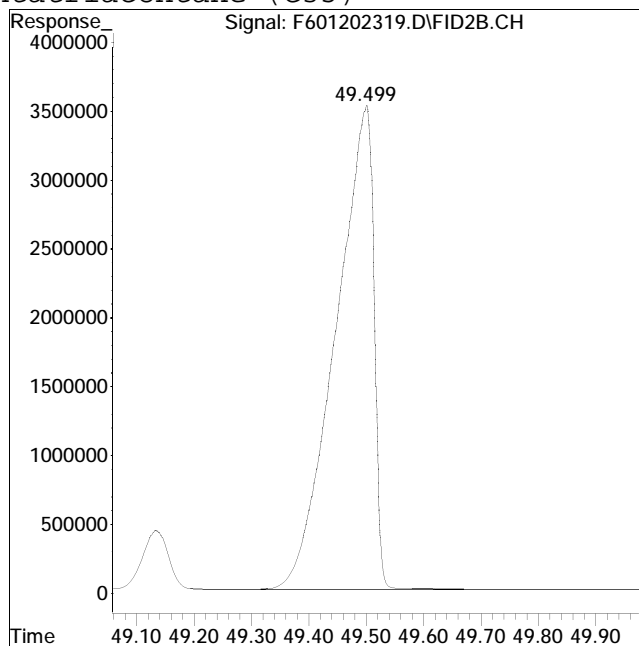
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 162751731



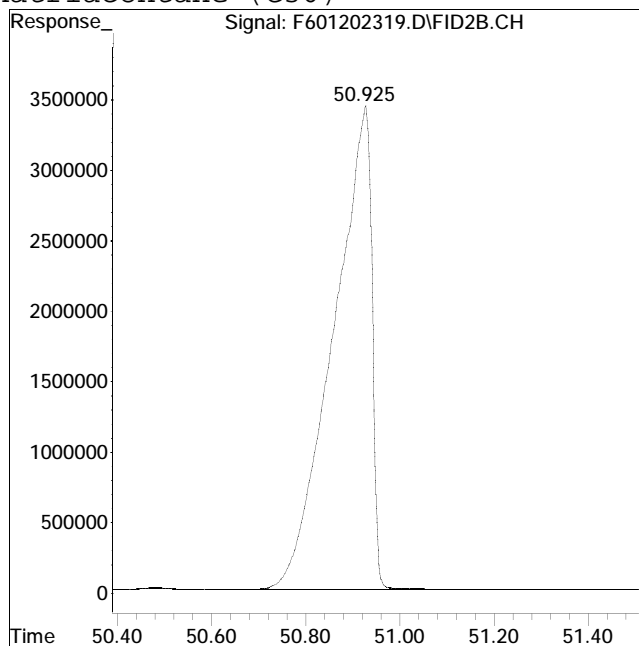
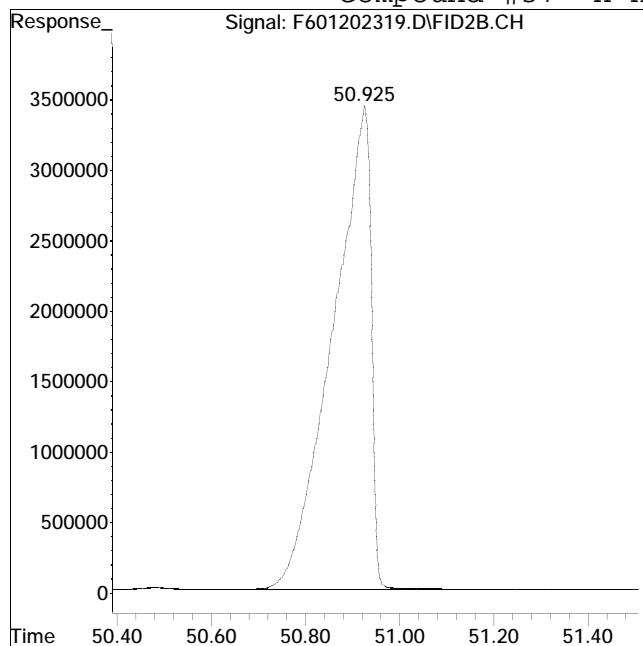
Manual Peak Response = 162662164 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202319.D Operator : FID6:WR
Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 195123744

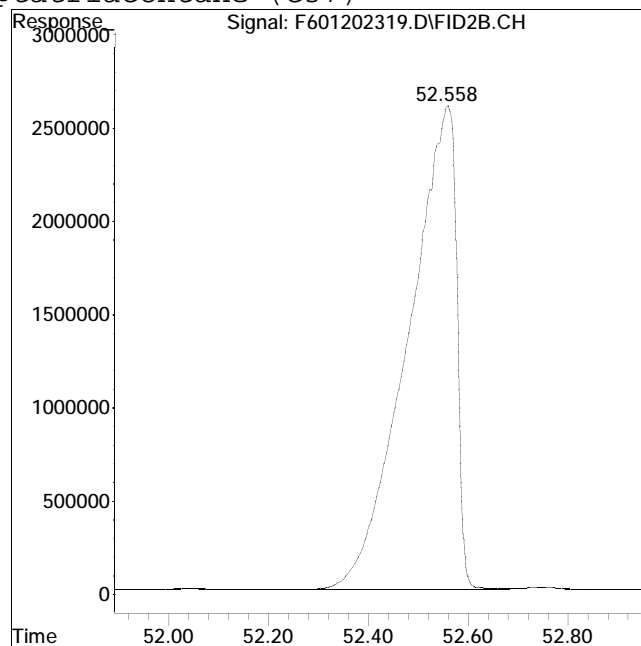
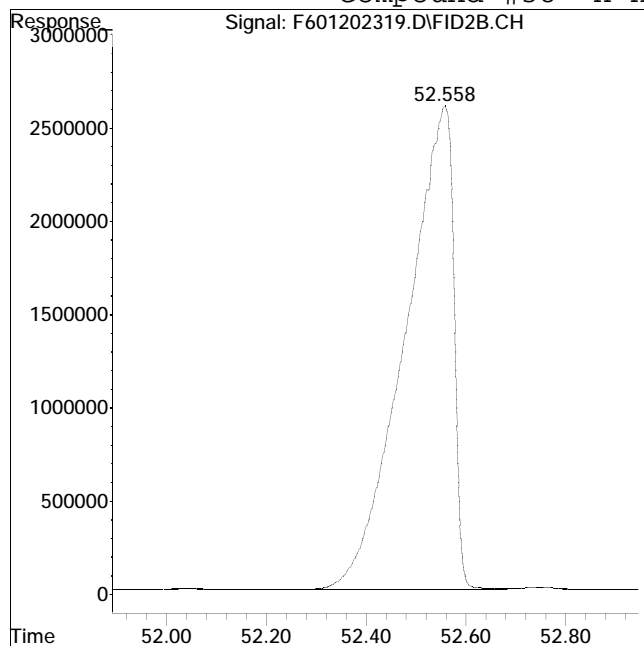
Manual Peak Response = 194766129 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 174727266

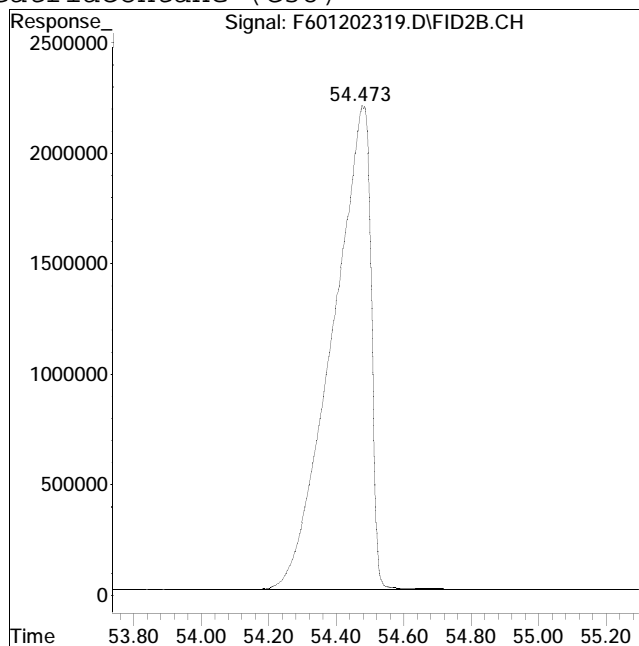
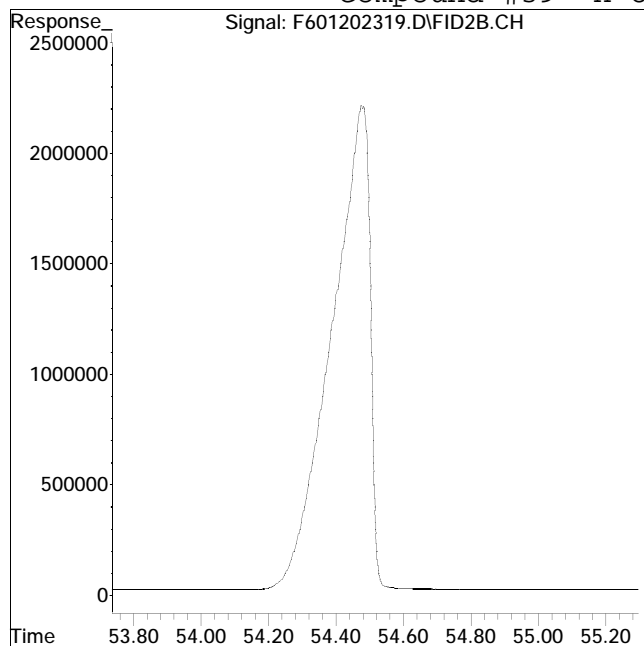
Manual Peak Response = 174818027 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 0

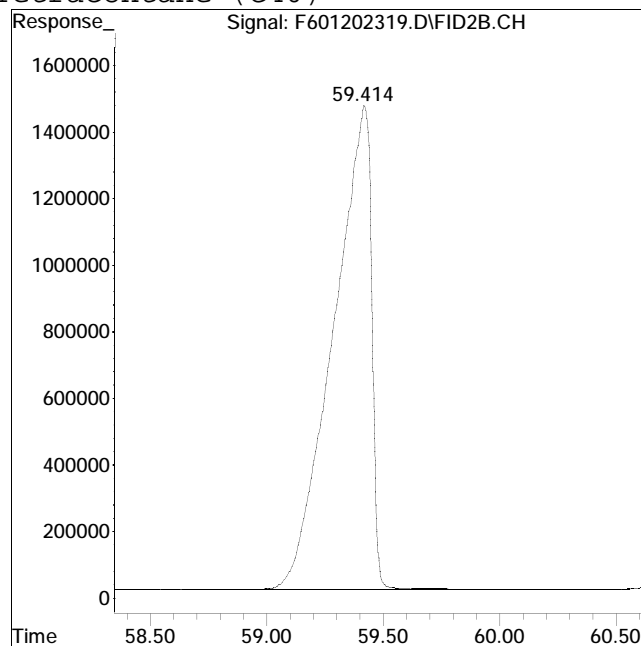
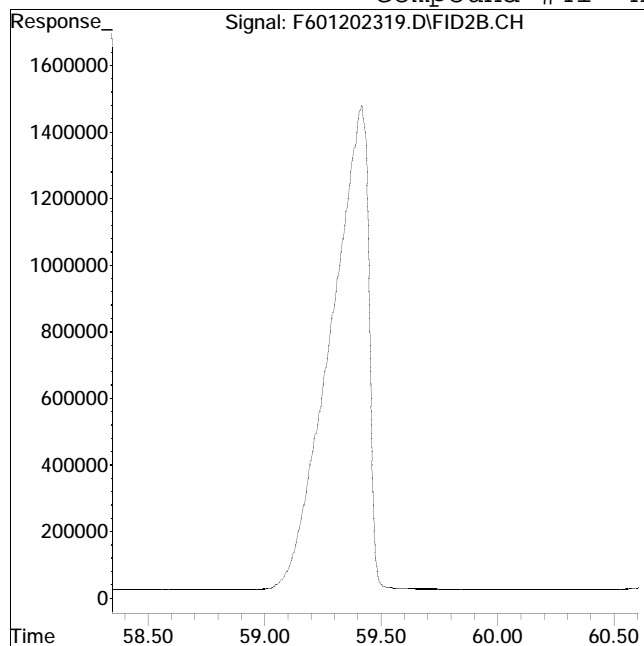
Manual Peak Response = 174188951 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202319.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 12:33 am Instrument : FID6
 Sample : I601202305R Quant Date : 3/7/2023 5:00 pm

Compound #41: n-Tetracontane (C40)



Original Peak Response = 0

Manual Peak Response = 165938007 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202321.D
 Signal(s) : FID2B.CH
 Acq On : 21 Jan 2023 2:00 am
 Operator : FID6:WR
 Sample : I601202306R
 Misc : WG1752810,FRBF59,500ug/ml
 ALS Vial : 61 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 07 17:09:40 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Mar 07 17:08:57 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound			R.T.	Response	Conc Units	

Internal Standards						
1) I	5-alpha-androstane		31.777	47289243	50.000 ug/mL	M4
System Monitoring Compounds						
19) s	ortho-terphenyl		29.834	501738964	506.057 ug/mL	M4
Spiked Amount 50.000			Range 50 - 130	Recovery = 1012.11%#		
24) s	d50-Tetracosane		36.430	406818908	503.492 ug/mL	M4
Spiked Amount 50.000			Range 50 - 130	Recovery = 1006.98%#		
Target Compounds						
2) t	n-Octane (C8)		0.000	0	N.D. ug/mL	d
3) t	n-Nonane (C9)		0.000	0	N.D. ug/mL	d
4) t	n-Decane (C10)		0.000	0	N.D. ug/mL	d
5) t	n-Undecane (C11)		0.000	0	N.D. ug/mL	d
6) t	n-Dodecane (C12)		0.000	0	N.D. ug/mL	d
7) t	n-Tridecane (C13)		0.000	0	N.D. ug/mL	d
9) t	n-Tetradecane (C14)		0.000	0	N.D. ug/mL	d
11) t	n-Pentadecane (C15)		0.000	0	N.D. ug/mL	d
12) t	n-Hexadecane (C16)		0.000	0	N.D. ug/mL	d
14) t	n-Heptadecane (C17)		0.000	0	N.D. ug/mL	d
15) t	Pristane		0.000	0	N.D. ug/mL	d
16) t	n-Octadecane (C18)		0.000	0	N.D. ug/mL	d
17) t	Phytane		0.000	0	N.D. ug/mL	d
18) t	n-Nonadecane (C19)		0.000	0	N.D. ug/mL	d
20) t	n-Eicosane (C20)		0.000	0	N.D. ug/mL	d
21) t	n-Heneicosane (C21)		0.000	0	N.D. ug/mL	d
22) t	n-Docosane (C22)		0.000	0	N.D. ug/mL	d
23) t	n-Tricosane (C23)		0.000	0	N.D. ug/mL	d
25) t	n-Tetracosane (C24)		0.000	0	N.D. ug/mL	d
26) t	n-Pentacosane (C25)		0.000	0	N.D. ug/mL	d
27) t	n-Hexacosane (C26)		0.000	0	N.D. ug/mL	d
28) t	n-Heptacosane (C27)		0.000	0	N.D. ug/mL	d
29) t	n-Octacosane (C28)		0.000	0	N.D. ug/mL	d
30) t	n-Nonacosane (C29)		0.000	0	N.D. ug/mL	d

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202321.D
 Signal(s) : FID2B.CH
 Acq On : 21 Jan 2023 2:00 am
 Operator : FID6:WR
 Sample : I601202306R
 Misc : WG1752810,FRBF59,500ug/ml
 ALS Vial : 61 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 07 17:09:40 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Tue Mar 07 17:08:57 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc	Units
31) t	n-Triacontane (C30)	0.000	0	N.D.	ug/mL d
32) t	n-Hentriacontane (C31)	0.000	0	N.D.	ug/mL d
33) t	n-Dotriacontane (C32)	0.000	0	N.D.	ug/mL d
34) t	n-Tritriacontane (C33)	0.000	0	N.D.	ug/mL d
35) t	n-tetratriacontane (C34)	0.000	0	N.D.	ug/mL d
36) t	n-Pentatriacontane (C35)	0.000	0	N.D.	ug/mL d
37) t	n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL d
38) t	n-Heptatriacontane (C37)	0.000	0	N.D.	ug/mL d
39) t	n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL d
41) t	n-Tetracontane (C40)	0.000	0	N.D.	ug/mL d

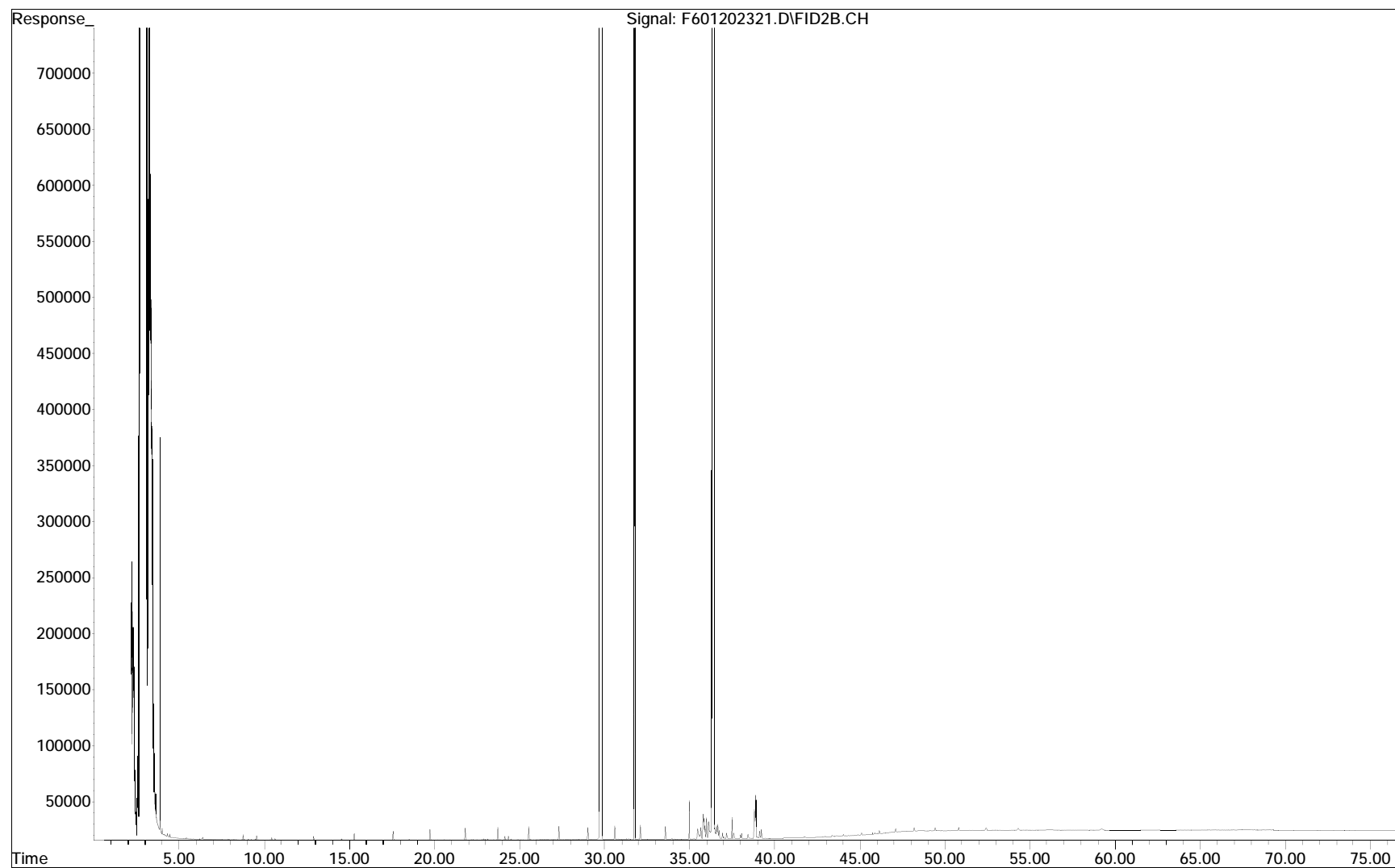
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

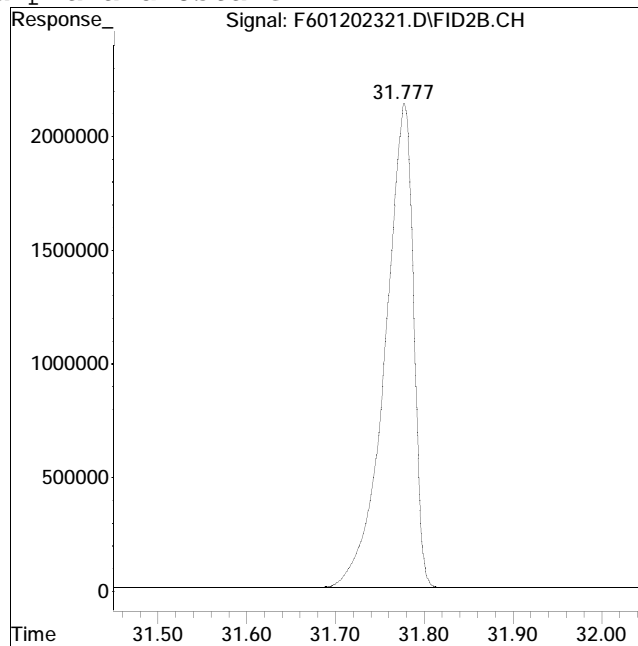
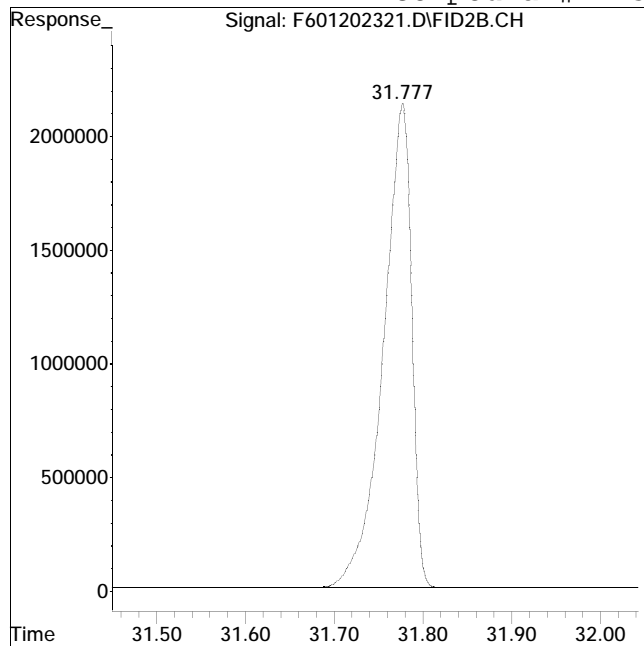
File : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\F601202321.D
Operator : FID6:WR
Acquired : 21 Jan 2023 2:00 am using AcqMethod FID6A.M
Sample Name: I601202306R
Instrument: FID6
Misc Info : WG1752810,FRBF59,500ug/ml
Vial Number: 61
CurrentMeth: O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202321.D Operator : FID6:WR
Date Inj'd : 1/21/2023 2:00 am Instrument : FID6
Sample : I601202306R Quant Date : 3/7/2023 5:09 pm

Compound #1: 5-alpha-androstane



Original Peak Response = 47287475

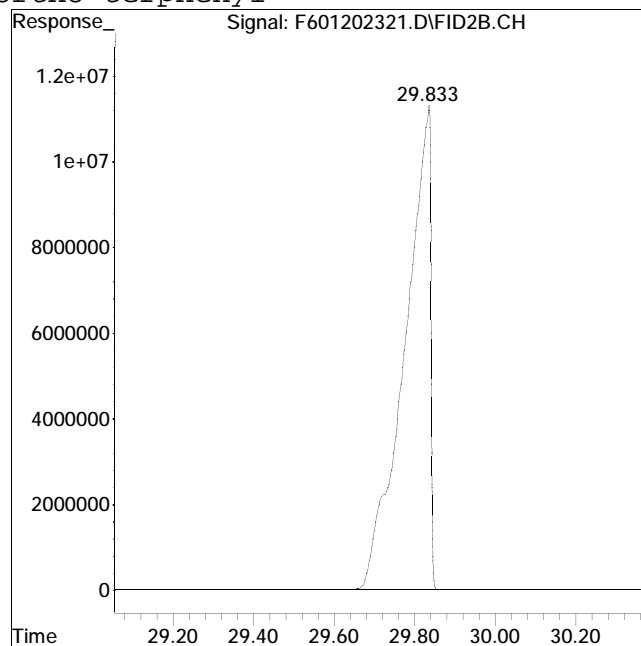
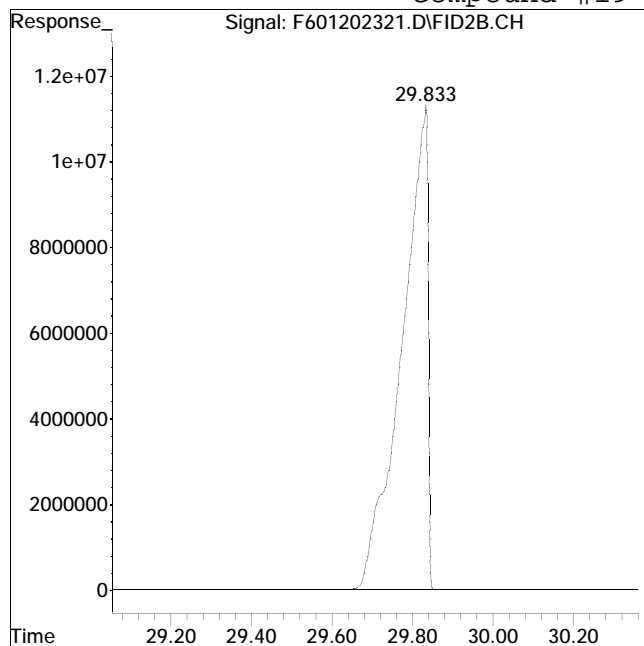
Manual Peak Response = 47289243 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202321.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 2:00 am Instrument : FID6
 Sample : I601202306R Quant Date : 3/7/2023 5:09 pm

Compound #19: ortho-terphenyl



Original Peak Response = 501713026

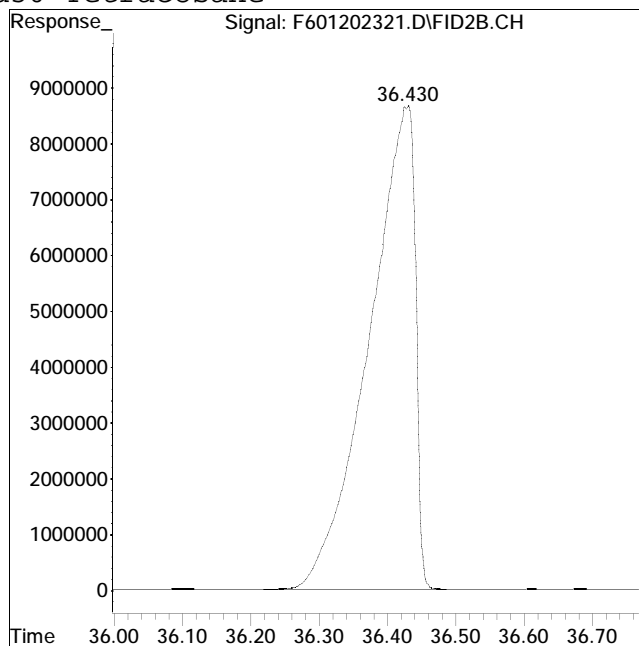
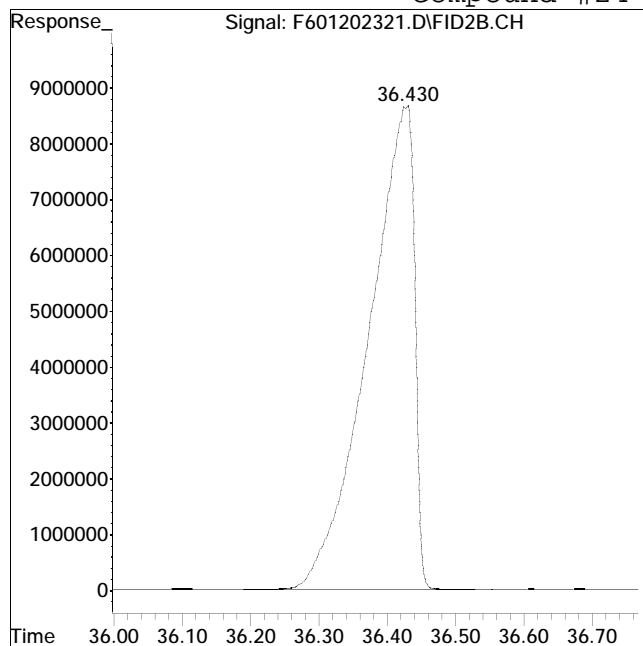
Manual Peak Response = 501738964 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202321.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 2:00 am Instrument : FID6
 Sample : I601202306R Quant Date : 3/7/2023 5:09 pm

Compound #24: d50-Tetracosane



Original Peak Response = 407116664

Manual Peak Response = 406818908 M4

M4 = Poor automated baseline construction.

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202325.D
 Signal(s) : FID2B.CH
 Acq On : 21 Jan 2023 4:54 am
 Operator : FID6:WR
 Sample : CQ601202301R
 Misc : WG1752810,FRBF61,50ug/ml
 ALS Vial : 63 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 08 11:54:42 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Mar 08 11:41:41 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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	5-alpha-androstane	^	1.000	1.000	0.0	92	0.00
2 t	n-Octane (C8)		0.842	0.841	0.1	90	0.00
3 t	n-Nonane (C9)		0.854	0.876	-2.6	92	0.00
4 t	n-Decane (C10)		0.877	0.915	-4.3	95	0.00
5 t	n-Undecane (C11)		0.878	0.926	-5.5	95	0.00
6 t	n-Dodecane (C12)		0.888	0.954	-7.4	98	0.00
7 t	n-Tridecane (C13)		0.892	0.946	-6.1	97	0.00
9 t	n-Tetradecane (C14)		0.916	0.970	-5.9	97	0.00
11 t	n-Pentadecane (C15)		0.921	0.977	-6.1	98	0.00
12 t	n-Hexadecane (C16)		0.921	0.994	-7.9	98	0.00
14 t	n-Heptadecane (C17)		0.934	0.964	-3.2	94	0.00
15 t	Pristane		0.951	0.990	-4.1	95	0.00
16 t	n-Octadecane (C18)		0.946	0.978	-3.4	94	0.00
17 t	Phytane		0.880	0.890	-1.1	92	0.00
18 t	n-Nonadecane (C19)		0.951	0.997	-4.8	97	0.00
19 s	ortho-terphenyl		1.050	1.091	-3.9	91	0.00
20 t	n-Eicosane (C20)		0.961	1.004	-4.5	95	0.00
21 t	n-Heneicosane (C21)		0.965	1.005	-4.1	96	0.00
22 t	n-Docosane (C22)		0.971	1.037	-6.8	97	0.00
23 t	n-Tricosane (C23)		0.971	0.986	-1.5	92	0.00
24 s	d50-Tetracosane		0.855	0.841	1.6	86	0.00
25 t	n-Tetracosane (C24)		0.959	1.008	-5.1	99	0.00
26 t	n-Pentacosane (C25)		0.955	0.998	-4.5	94	0.00
27 t	n-Hexacosane (C26)		0.981	1.023	-4.3	94	0.00
28 t	n-Heptacosane (C27)		0.974	0.984	-1.0	94	0.00
29 t	n-Octacosane (C28)		1.000	1.015	-1.5	92	0.00
30 t	n-Nonacosane (C29)		0.991	1.002	-1.1	92	0.00
31 t	n-Triacontane (C30)		0.993	1.003	-1.0	92	0.00
32 t	n-Hentriacontane (C31)		0.957	0.981	-2.5	93	0.00
33 t	n-Dotriacontane (C32)		1.003	0.977	2.6	89	0.00
34 t	n-Tritriacontane (C33)		0.970	0.972	-0.2	92	0.00
35 t	n-tetratriacontane (C34)		0.967	0.983	-1.7	93	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202325.D
 Signal(s) : FID2B.CH
 Acq On : 21 Jan 2023 4:54 am
 Operator : FID6:WR
 Sample : CQ601202301R
 Misc : WG1752810,FRBF61,50ug/ml
 ALS Vial : 63 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 08 11:54:42 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Mar 08 11:41:41 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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)
36 t	n-Pentatriacontane (C35)	0.917	0.952	-3.8	89	0.00
37 t	n-Hexatriacontane (C36)	1.081	1.010	6.6	88	0.00
38 t	n-Heptatriacontane (C37)	0.982	0.961	2.1	91	-0.01
39 t	n-Octatriacontane (C38)	1.003	0.997	0.6	91	0.00
41 t	n-Tetracontane (C40)	0.981	0.911	7.1	82	-0.02

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 (^) = ISTD area calculated using ICAL average

Mass Discrimination (Response)	Ratio	Range Limits
n-Hexatriacontane (C36) to n-Eicosane (C20)	1.01	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202325.D
 Signal(s) : FID2B.CH
 Acq On : 21 Jan 2023 4:54 am
 Operator : FID6:WR
 Sample : CQ601202301R
 Misc : WG1752810,FRBF61,50ug/ml
 ALS Vial : 63 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 08 11:54:42 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Mar 08 11:41:41 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.772	41810550	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.741	45610856	51.927 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	103.85%
24) s d50-Tetracosane	36.339	35180381	49.189 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	98.38%
Target Compounds			
2) t n-Octane (C8)	6.018	35144173	49.932 ug/mL M4
3) t n-Nonane (C9)	8.278	36621102	51.255 ug/mL M4
4) t n-Decane (C10)	10.786	38237549	52.112 ug/mL M4
5) t n-Undecane (C11)	13.301	38706762	52.719 ug/mL M4
6) t n-Dodecane (C12)	15.726	39873307	53.692 ug/mL M4
7) t n-Tridecane (C13)	18.028	39562001	53.044 ug/mL M4
9) t n-Tetradecane (C14)	20.207	40550922	52.946 ug/mL M4
11) t n-Pentadecane (C15)	22.267	40828217	53.016 ug/mL M4
12) t n-Hexadecane (C16)	24.219	41544396	53.954 ug/mL M4
14) t n-Heptadecane (C17)	26.074	40325584	51.612 ug/mL M4
15) t Pristane	26.184	41373277	52.015 ug/mL M4
16) t n-Octadecane (C18)	27.837	40883648	51.694 ug/mL M4
17) t Phytane	28.002	37216850	50.577 ug/mL M4
18) t n-Nonadecane (C19)	29.519	41698565	52.463 ug/mL M4
20) t n-Eicosane (C20)	31.121	41989962	52.231 ug/mL M4
21) t n-Heneicosane (C21)	32.656	42019366	52.091 ug/mL M4
22) t n-Docosane (C22)	34.125	43367125	53.436 ug/mL M4
23) t n-Tricosane (C23)	35.535	41210320	50.756 ug/mL M4
25) t n-Tetracosane (C24)	36.891	42159913	52.574 ug/mL M4
26) t n-Pentacosane (C25)	38.192	41725501	52.235 ug/mL M4
27) t n-Hexacosane (C26)	39.448	42788171	52.175 ug/mL M4
28) t n-Heptacosane (C27)	40.658	41144657	50.537 ug/mL M4
29) t n-Octacosane (C28)	41.826	42438159	50.743 ug/mL M4
30) t n-Nonacosane (C29)	42.956	41894159	50.544 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202325.D
 Signal(s) : FID2B.CH
 Acq On : 21 Jan 2023 4:54 am
 Operator : FID6:WR
 Sample : CQ601202301R
 Misc : WG1752810,FRBF61,50ug/ml
 ALS Vial : 63 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 08 11:54:42 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Mar 08 11:41:41 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	44.046	41938121	50.517 ug/mL M4
32) t	n-Hentriacontane (C31)	45.105	41010627	51.271 ug/mL M4
33) t	n-Dotriacontane (C32)	46.130	40854376	48.733 ug/mL M4
34) t	n-Tritriacontane (C33)	47.132	40626742	50.065 ug/mL M4
35) t	n-tetratriacontane (C34)	48.211	41111790	50.819 ug/mL M4
36) t	n-Pentatriacontane (C35)	49.429	39794618	51.908 ug/mL M4
37) t	n-Hexatriacontane (C36)	50.829	42216686	46.720 ug/mL M4
38) t	n-Heptatriacontane (C37)	52.451	40200692	48.949 ug/mL M4
39) t	n-Octatriacontane (C38)	54.358	41703915	49.736 ug/mL M4
41) t	n-Tetracontane (C40)	59.247	38072834	46.409 ug/mL M4

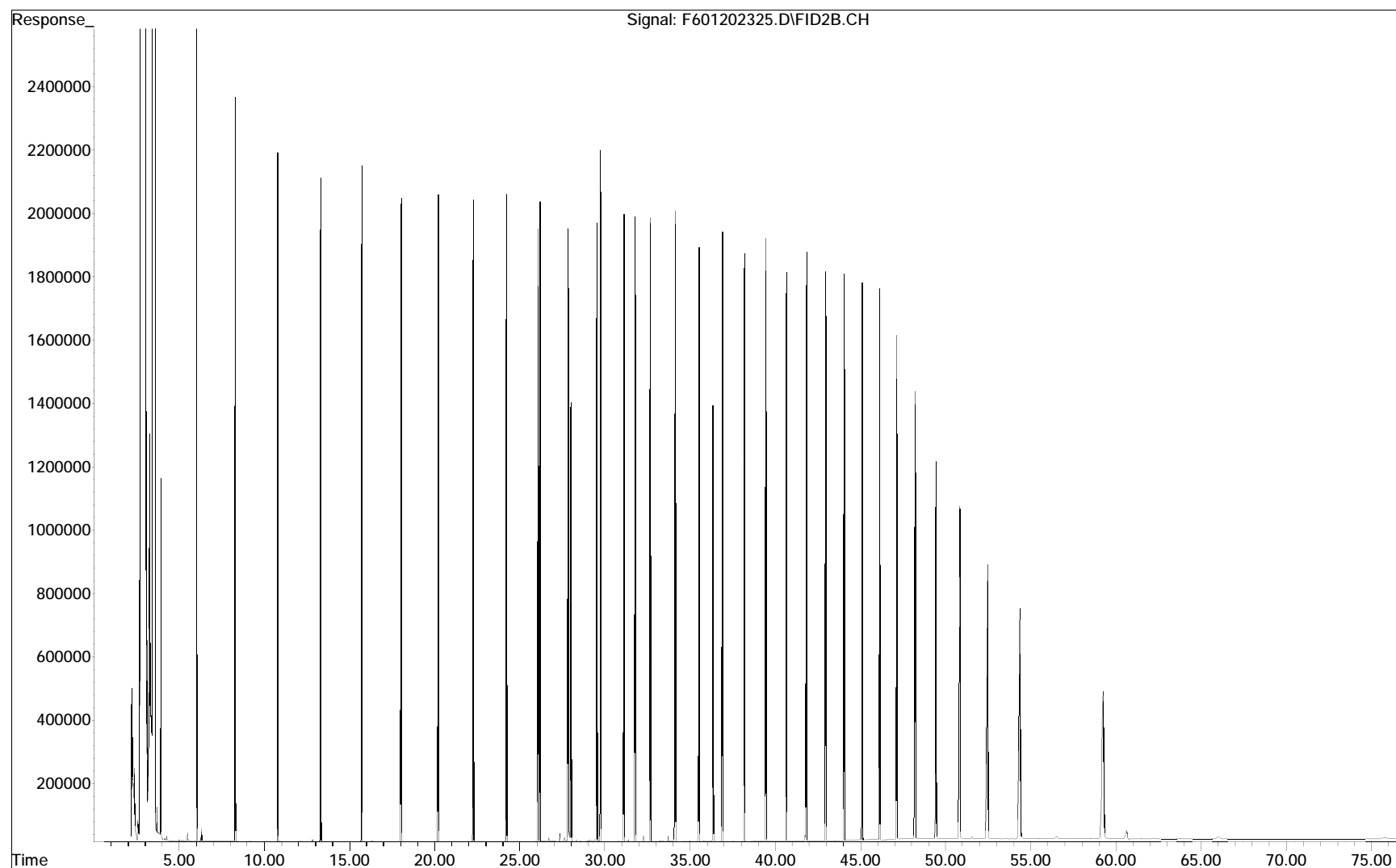
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

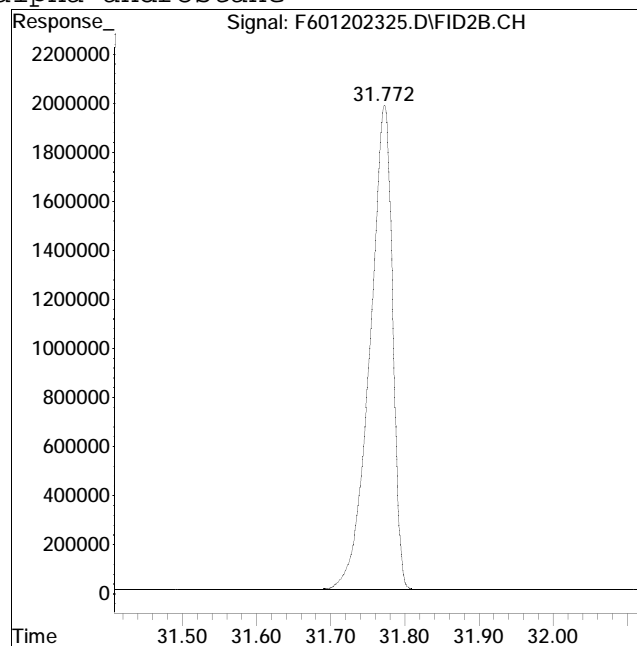
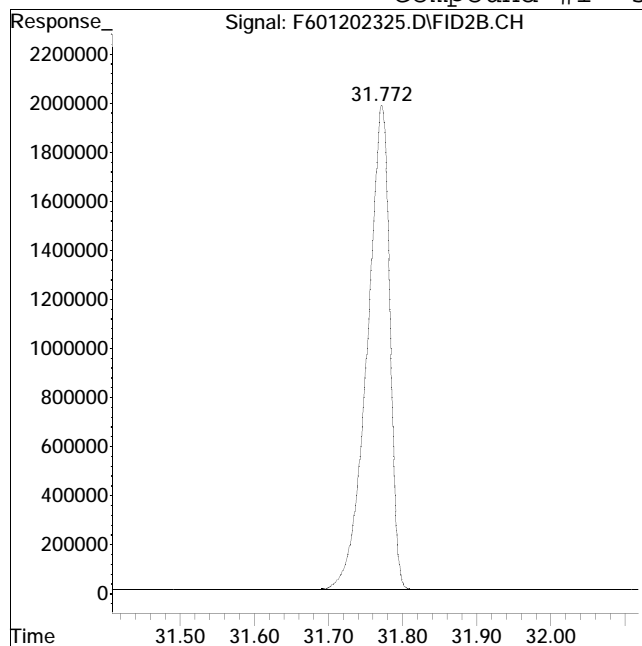
File : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\F601202325.D
 Operator : FID6:WR
 Acquired : 21 Jan 2023 4:54 am using AcqMethod FID6A.M
 Sample Name: CQ601202301R
 Instrument: FID6
 Misc Info : WG1752810,FRBF61,50ug/ml
 Vial Number: 63
 CurrentMeth: O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202325.D Operator : FID6:WR
Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #1: 5-alpha-androstane



Original Peak Response = 41820214

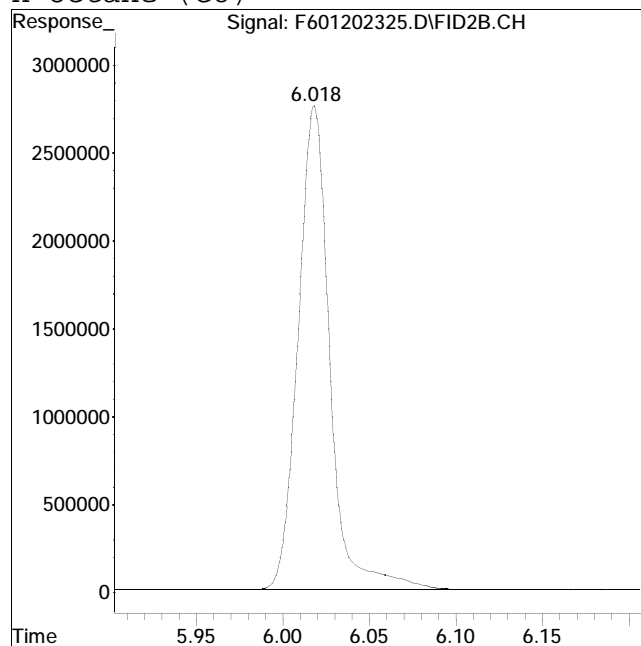
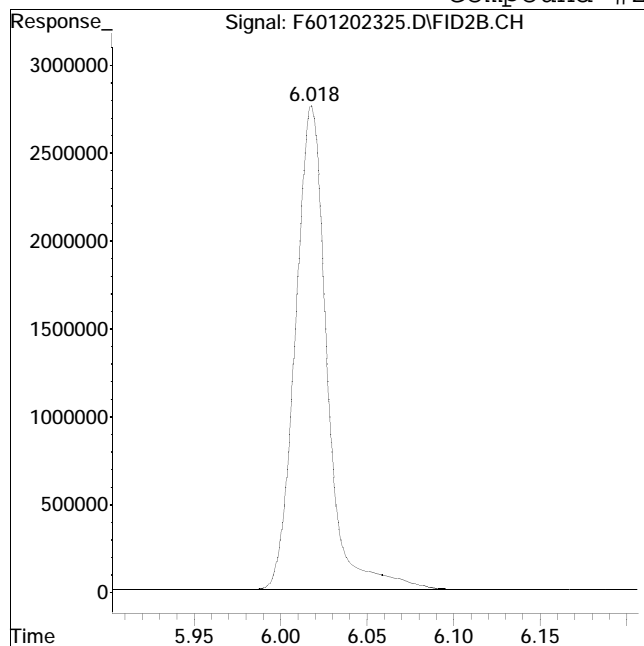
Manual Peak Response = 41810550 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #2: n-Octane (C8)



Original Peak Response = 35147459

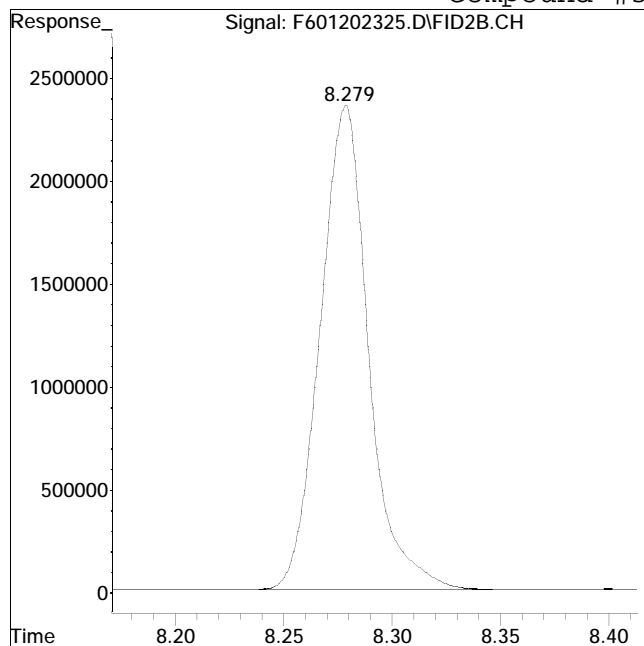
Manual Peak Response = 35144173 M4

M4 = Poor automated baseline construction.

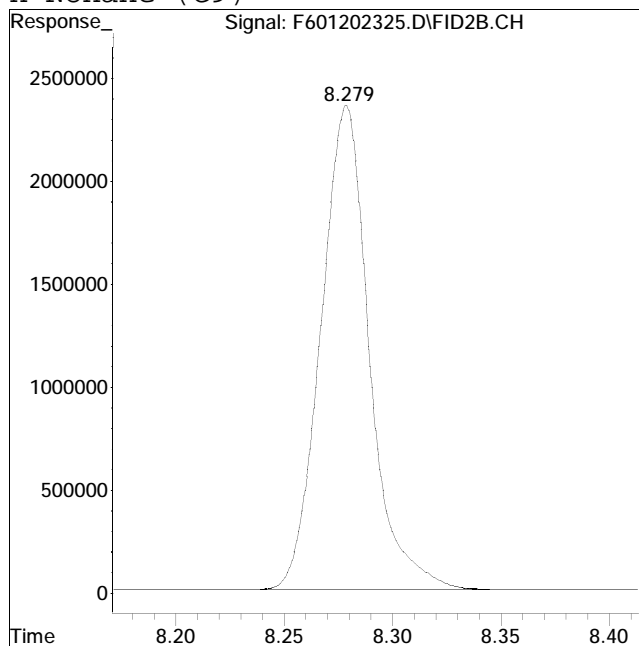
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #3: n-Nonane (C9)



Original Peak Response = 36632165



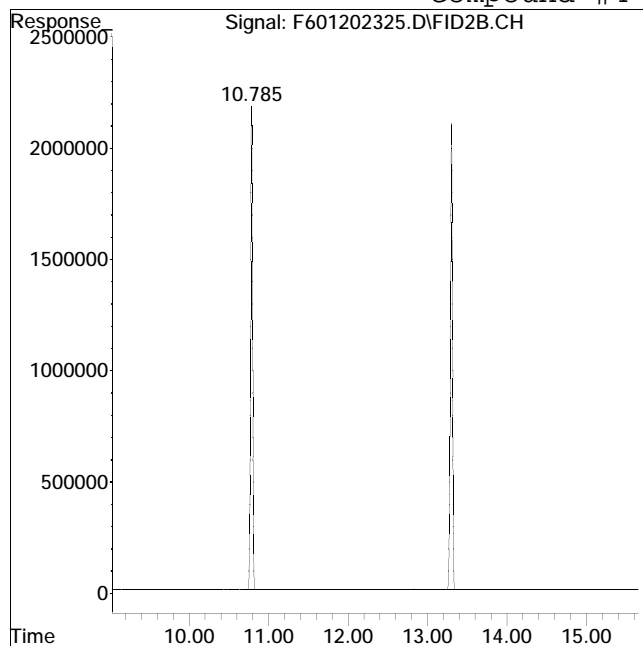
Manual Peak Response = 36621102 M4

M4 = Poor automated baseline construction.

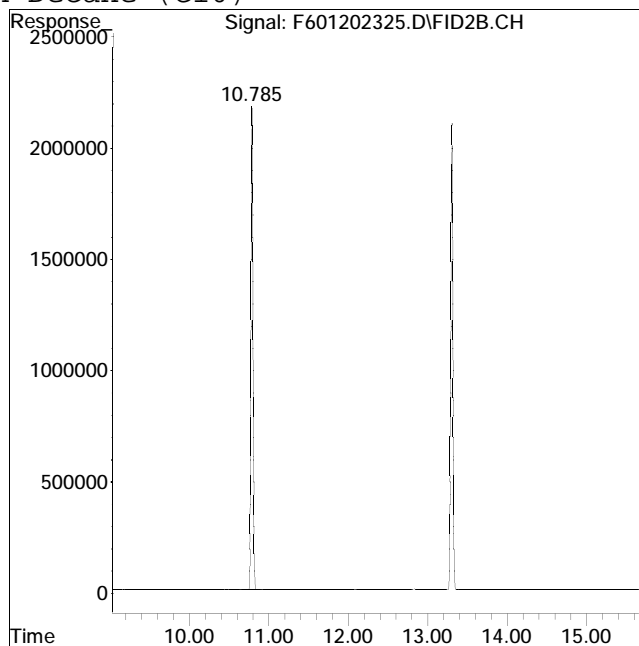
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #4: n-Decane (C10)



Original Peak Response = 37846250



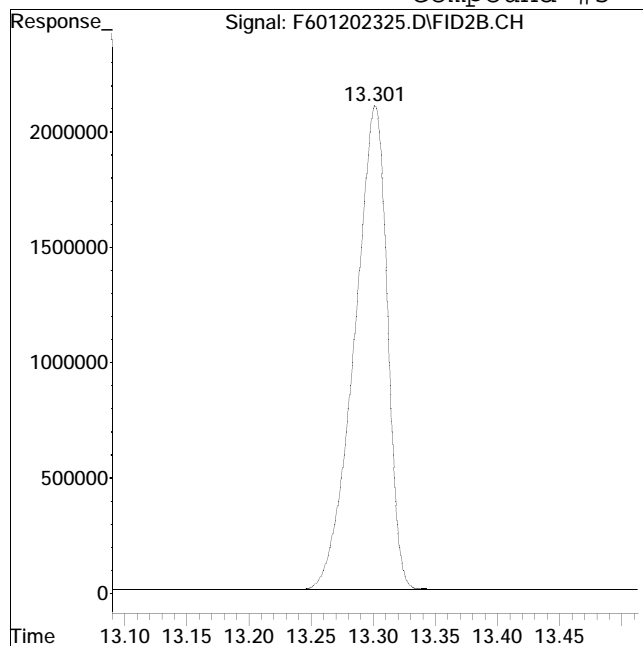
Manual Peak Response = 38237549 M4

M4 = Poor automated baseline construction.

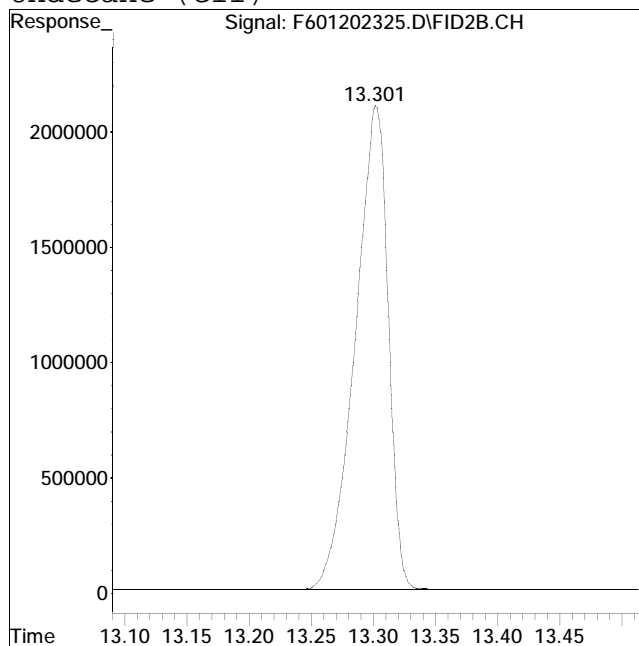
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #5: n-Undecane (C11)



Original Peak Response = 38692916



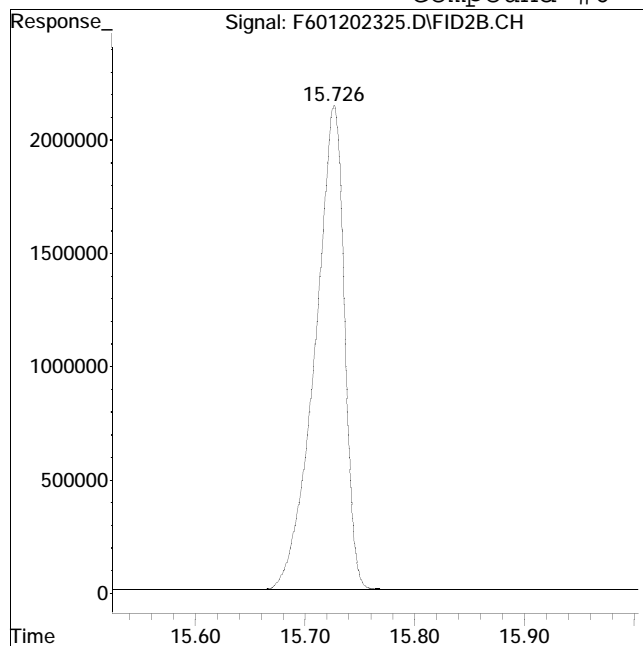
Manual Peak Response = 38706762 M4

M4 = Poor automated baseline construction.

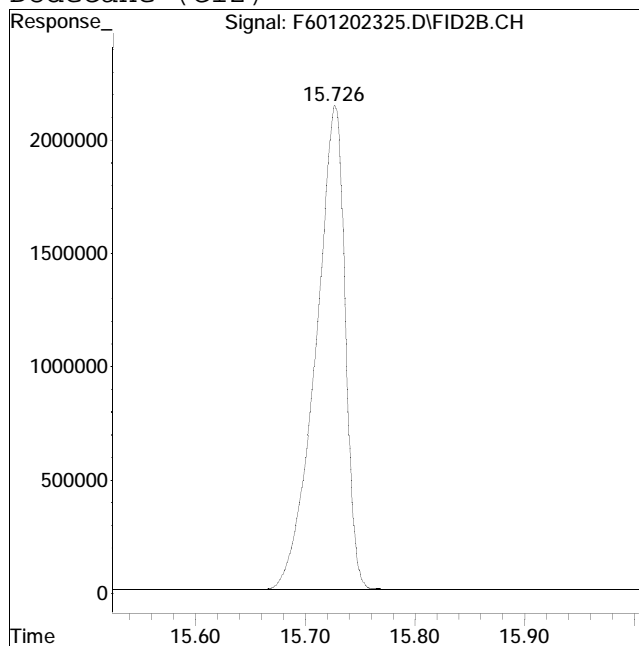
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #6: n-Dodecane (C12)



Original Peak Response = 39880344



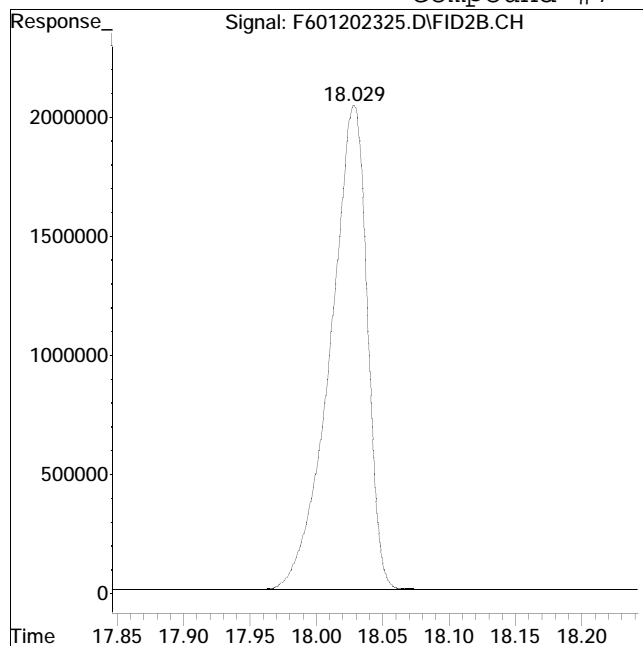
Manual Peak Response = 39873307 M4

M4 = Poor automated baseline construction.

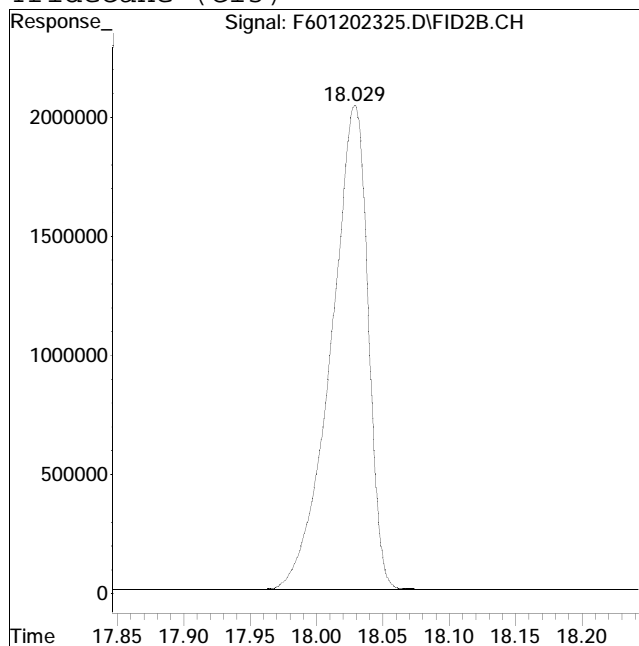
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #7: n-Tridecane (C13)



Original Peak Response = 39511501



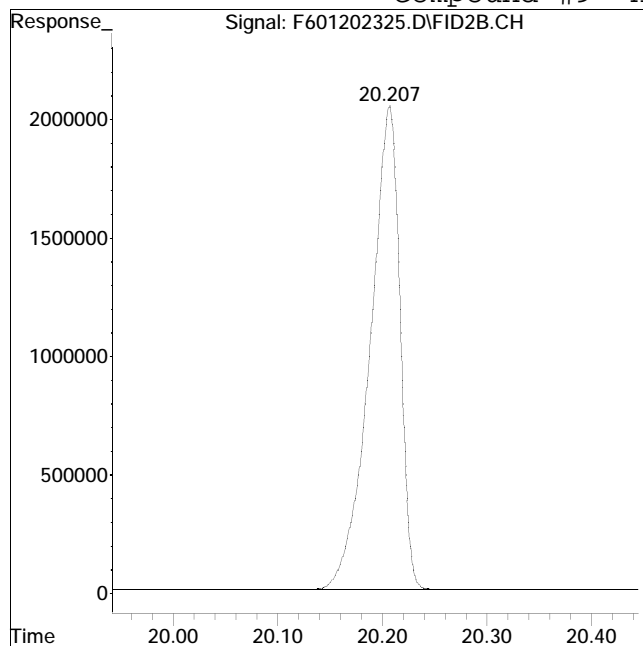
Manual Peak Response = 39562001 M4

M4 = Poor automated baseline construction.

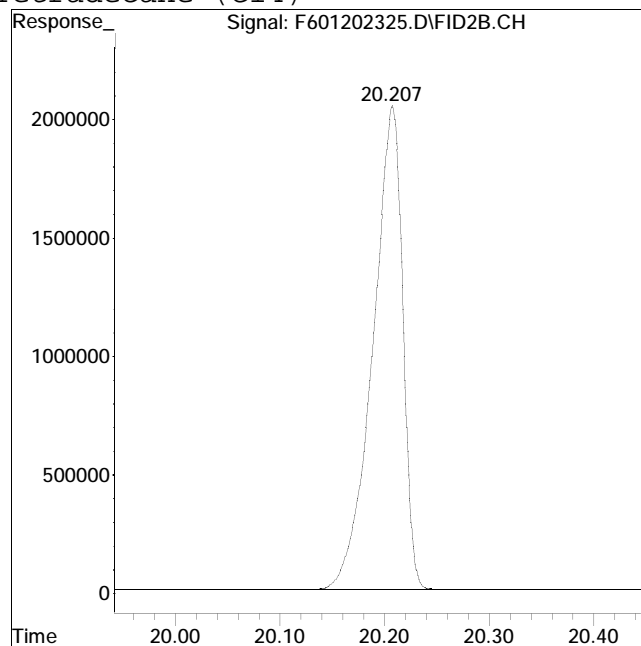
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #9: n-Tetradecane (C14)



Original Peak Response = 40541689



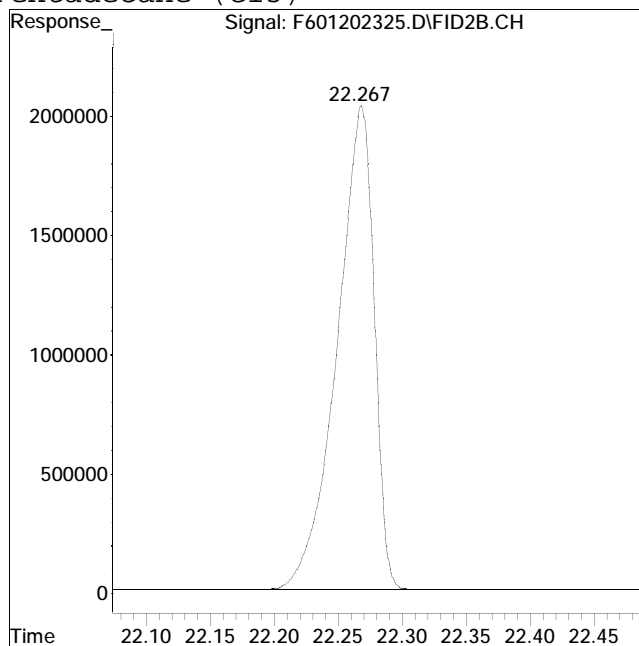
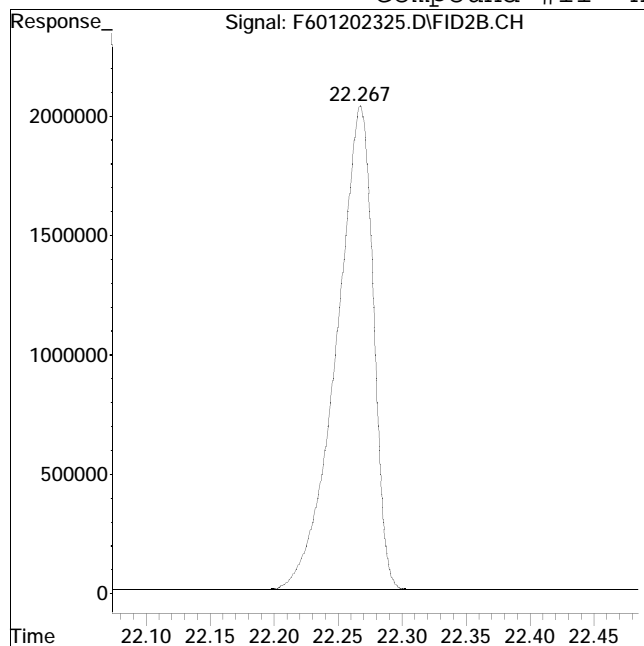
Manual Peak Response = 40550922 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #11: n-Pentadecane (C15)



Original Peak Response = 40828212

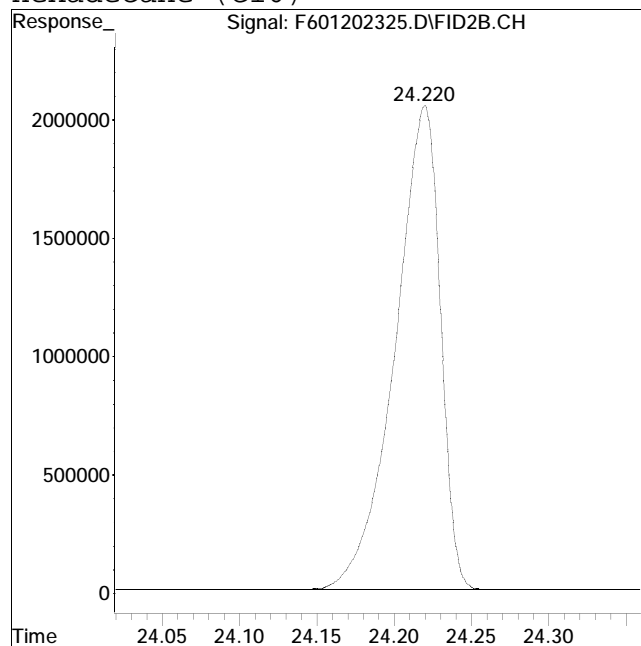
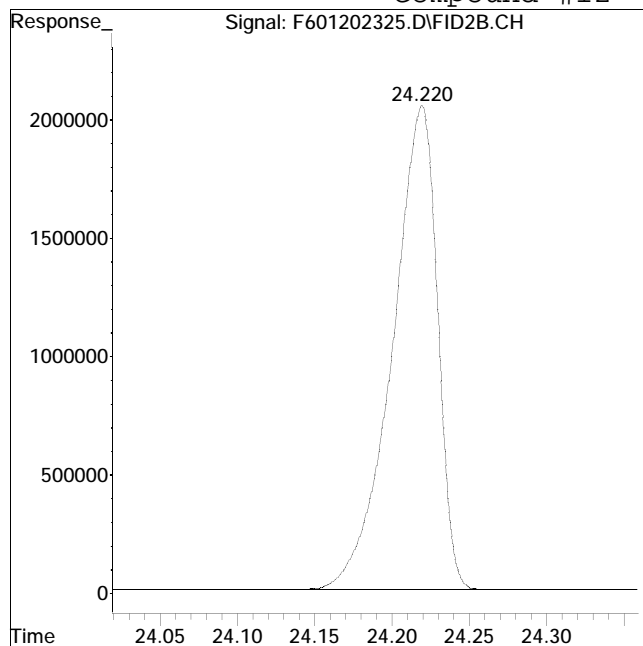
Manual Peak Response = 40828217 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #12: n-Hexadecane (C16)



Original Peak Response = 41543803

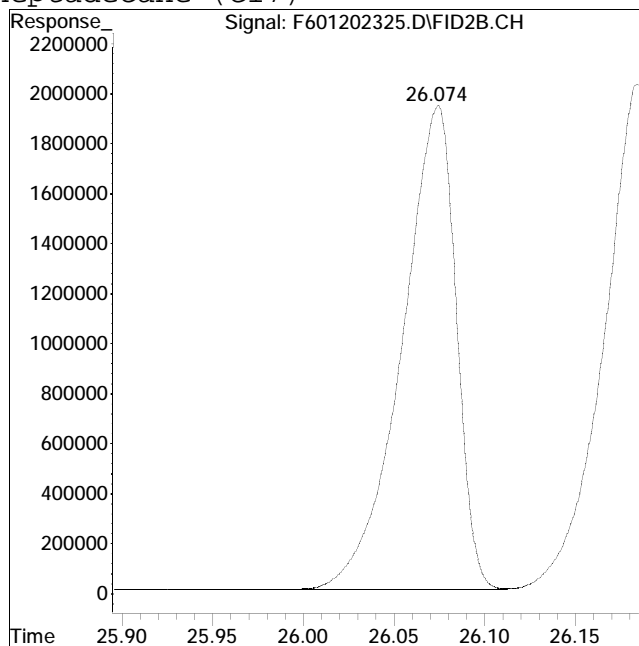
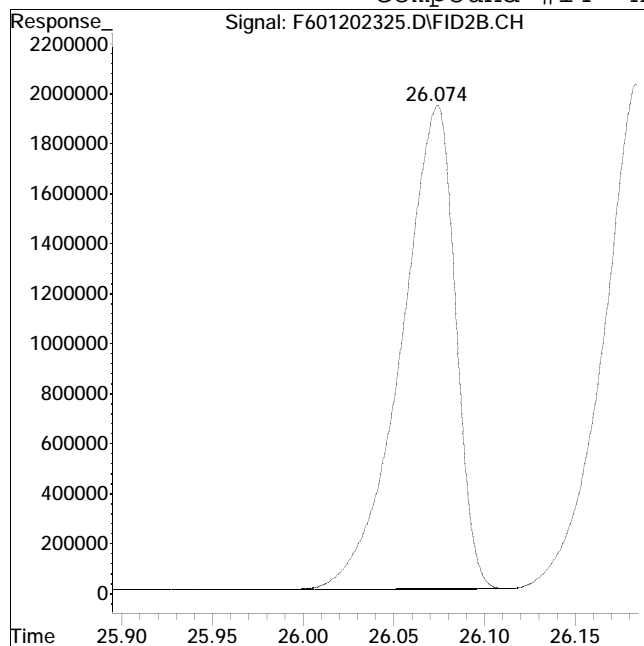
Manual Peak Response = 41544396 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202325.D Operator : FID6:WR
Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #14: n-Heptadecane (C17)



Original Peak Response = 40135012

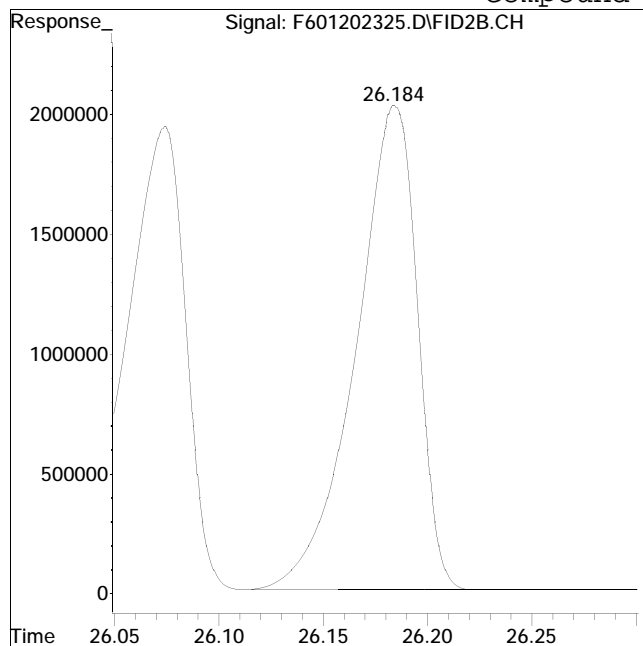
Manual Peak Response = 40325584 M4

M4 = Poor automated baseline construction.

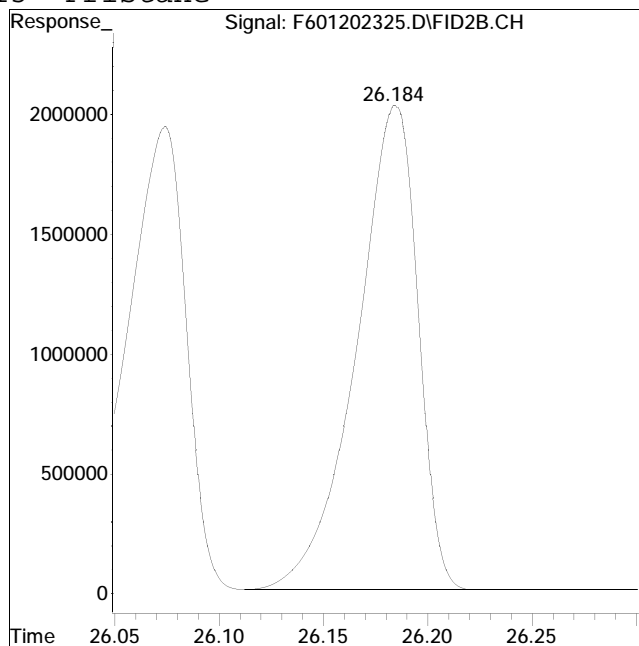
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202325.D Operator : FID6:WR
Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #15: Pristane



Original Peak Response = 41212104



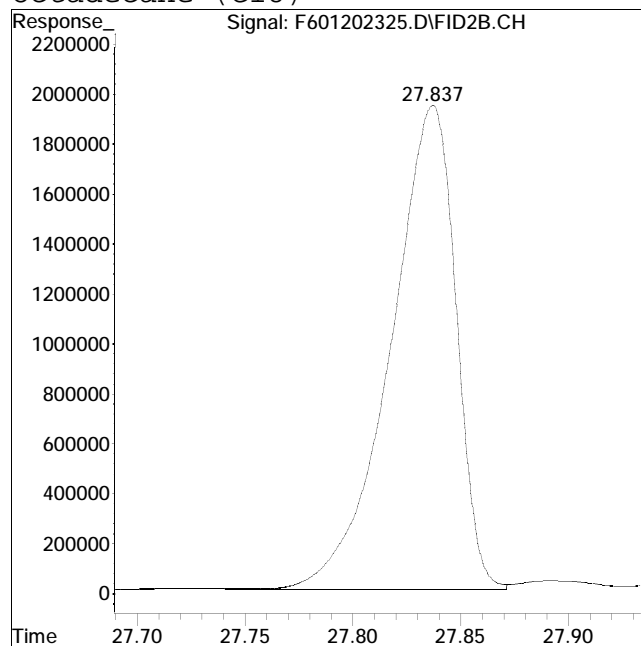
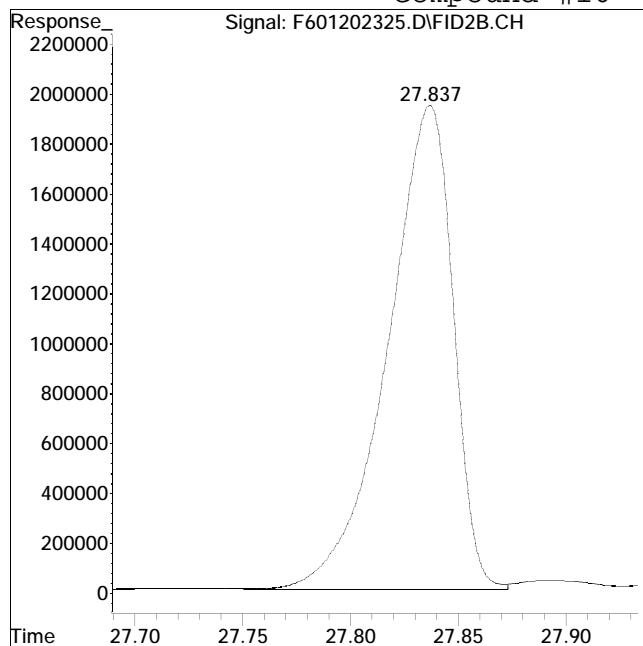
Manual Peak Response = 41373277 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #16: n-Octadecane (C18)



Original Peak Response = 40985112

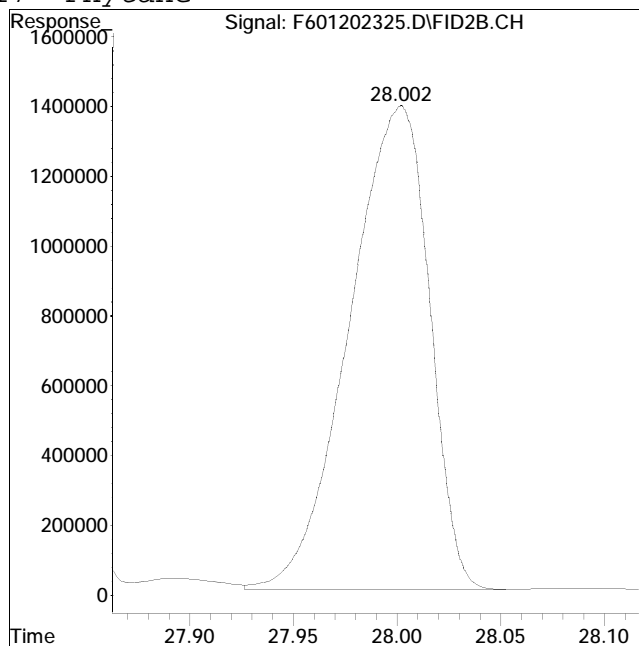
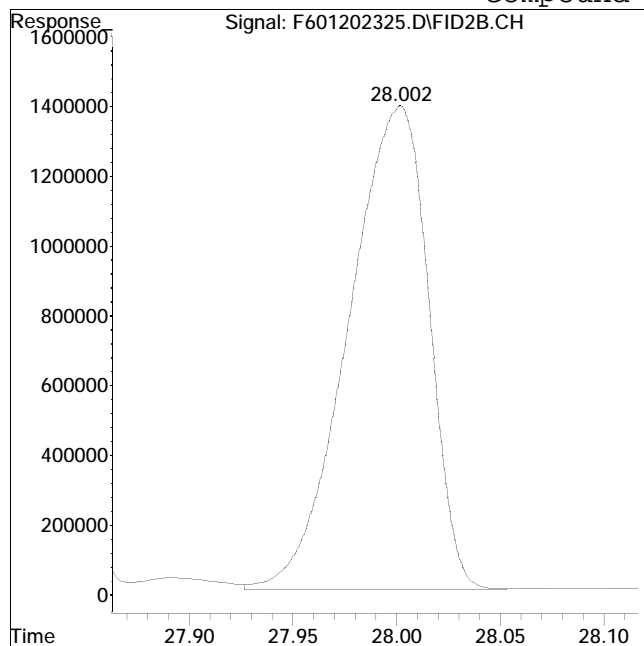
Manual Peak Response = 40883648 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #17: Phytane



Original Peak Response = 37299312

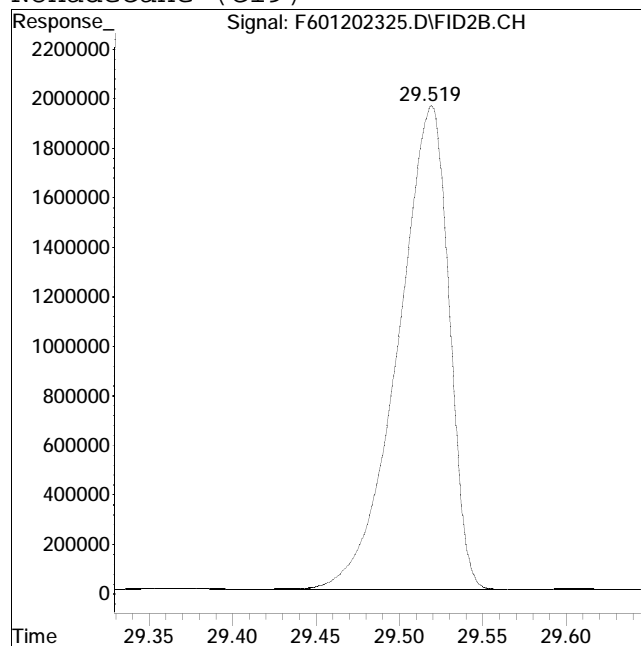
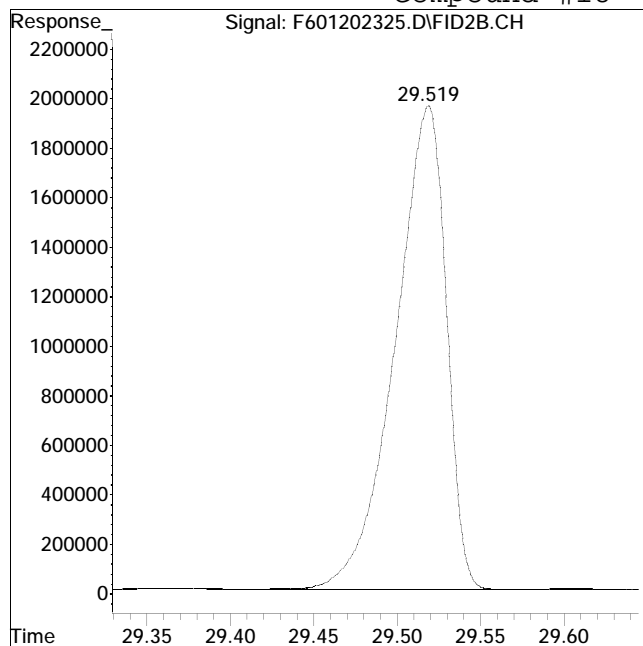
Manual Peak Response = 37216850 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #18: n-Nonadecane (C19)



Original Peak Response = 41696411

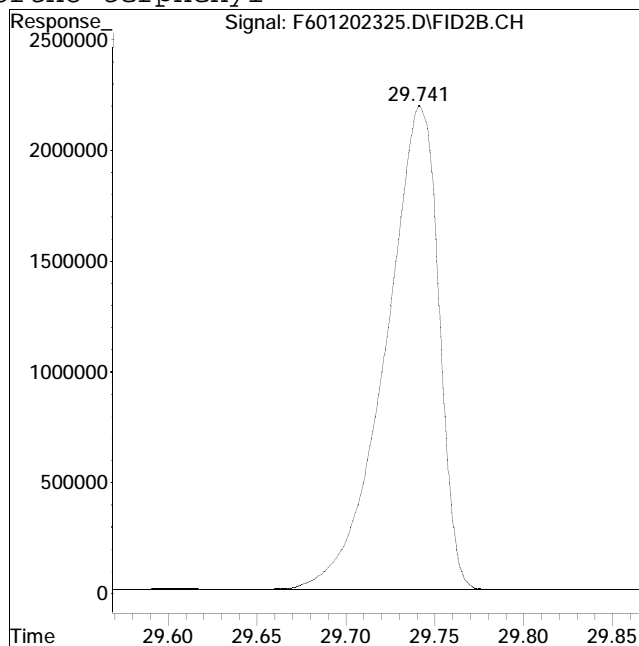
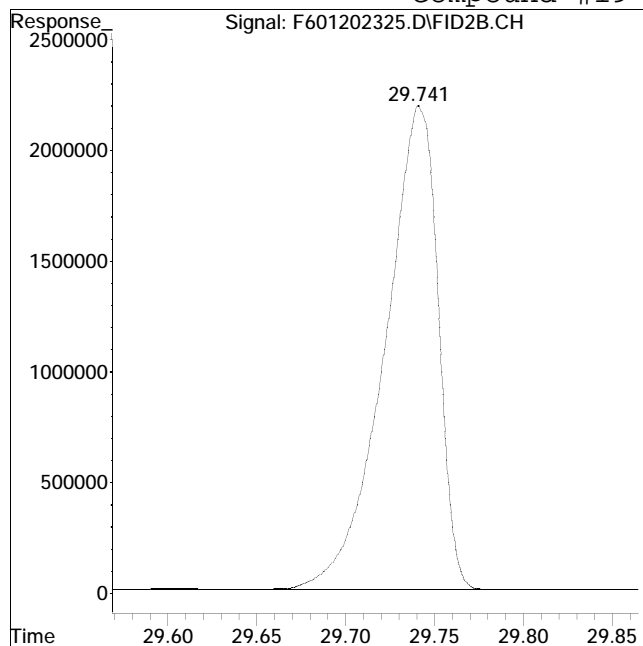
Manual Peak Response = 41698565 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #19: ortho-terphenyl



Original Peak Response = 45609376

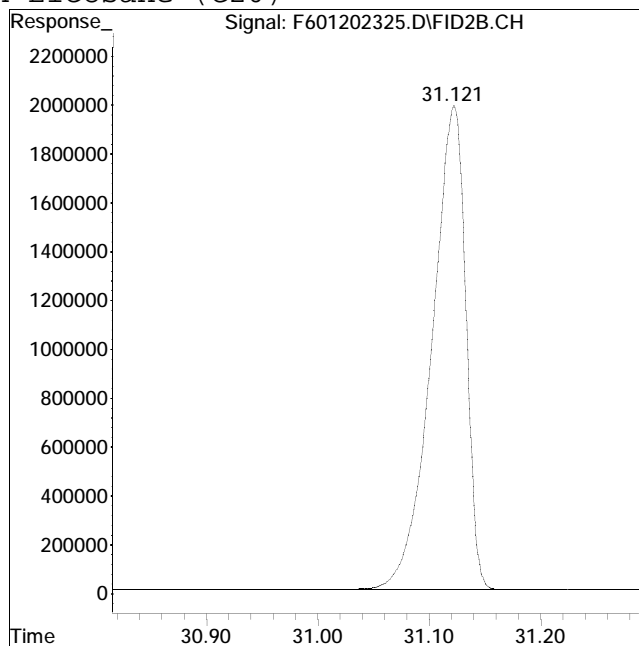
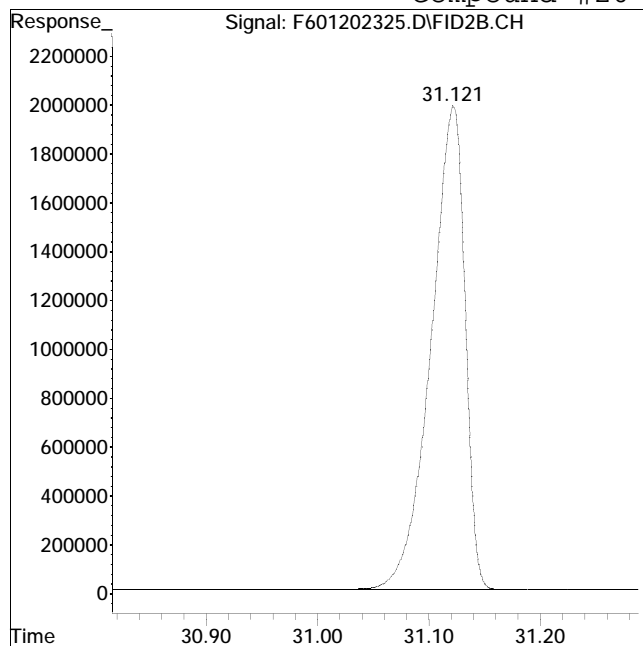
Manual Peak Response = 45610856 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #20: n-Eicosane (C20)



Original Peak Response = 41952051

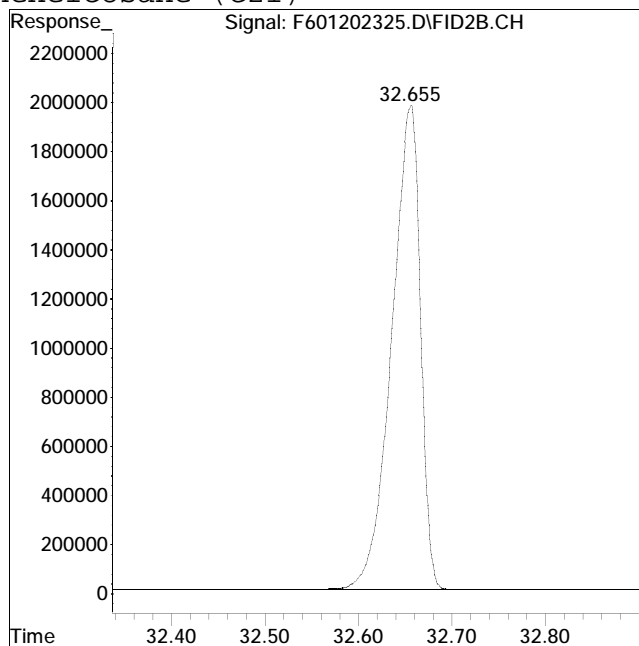
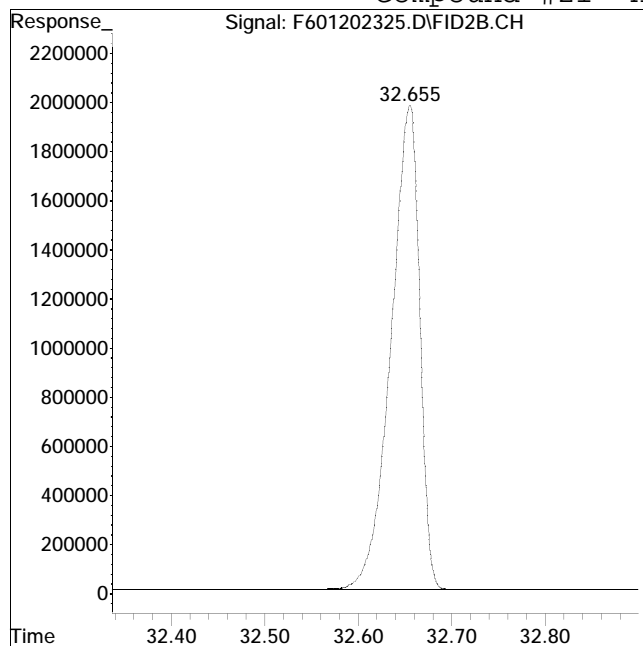
Manual Peak Response = 41989962 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #21: n-Heneicosane (C21)



Original Peak Response = 42050869

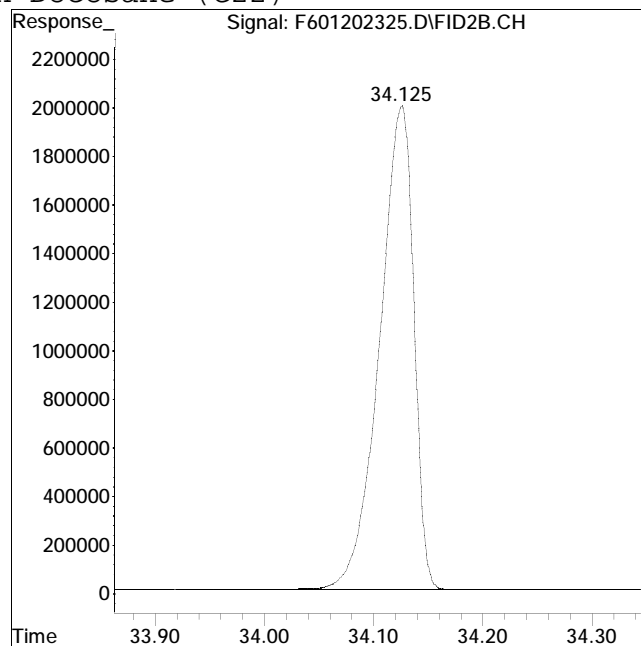
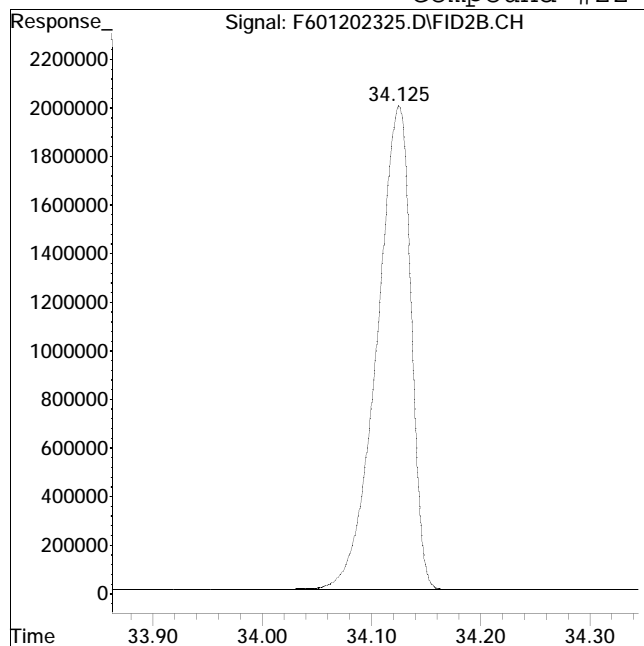
Manual Peak Response = 42019366 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #22: n-Docosane (C22)



Original Peak Response = 43364597

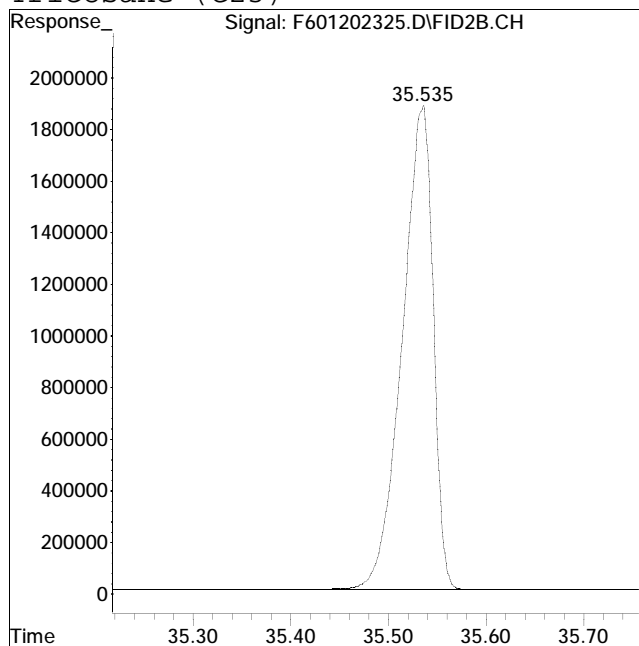
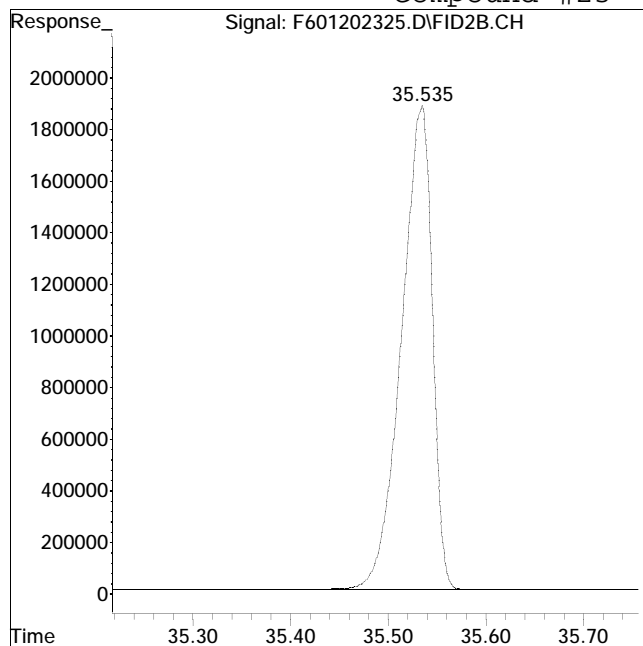
Manual Peak Response = 43367125 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #23: n-Tricosane (C23)



Original Peak Response = 41211697

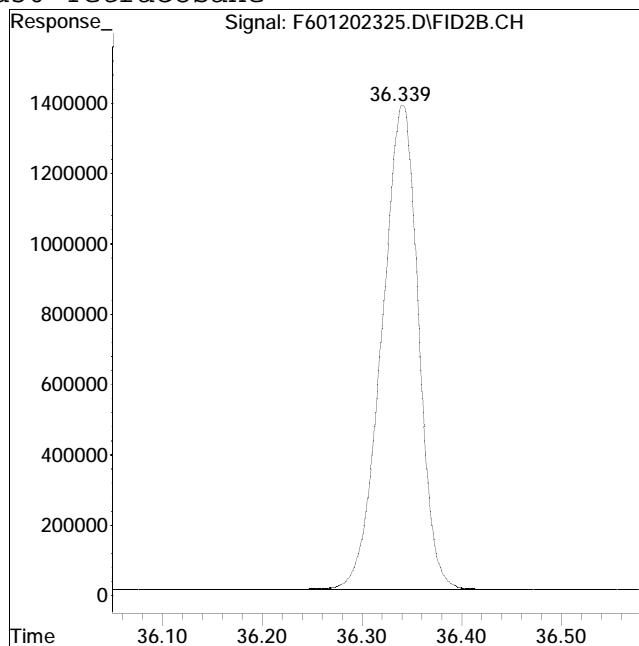
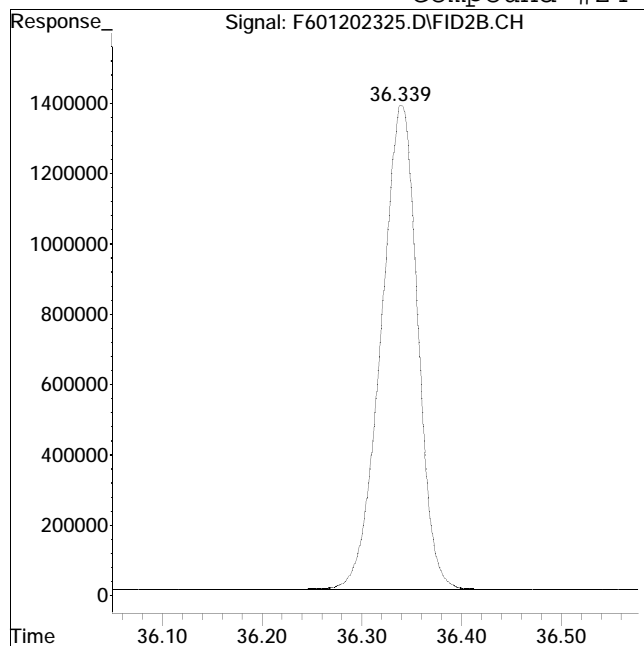
Manual Peak Response = 41210320 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #24: d50-Tetracosane



Original Peak Response = 35188452

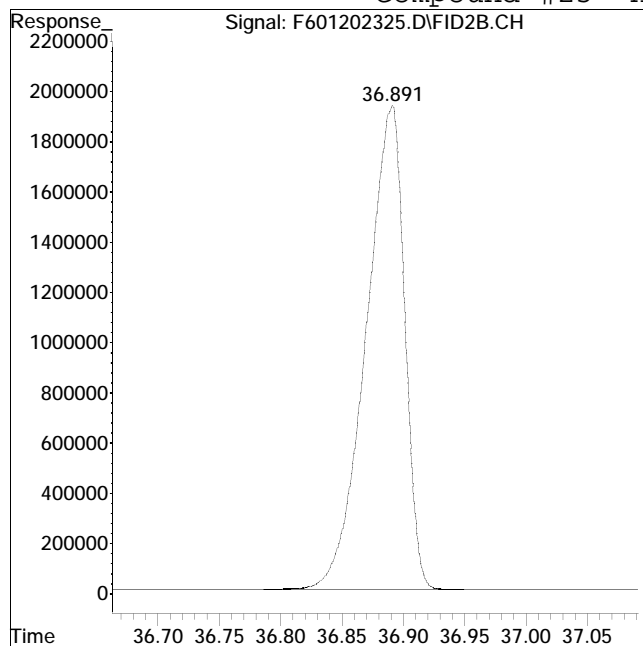
Manual Peak Response = 35180381 M4

M4 = Poor automated baseline construction.

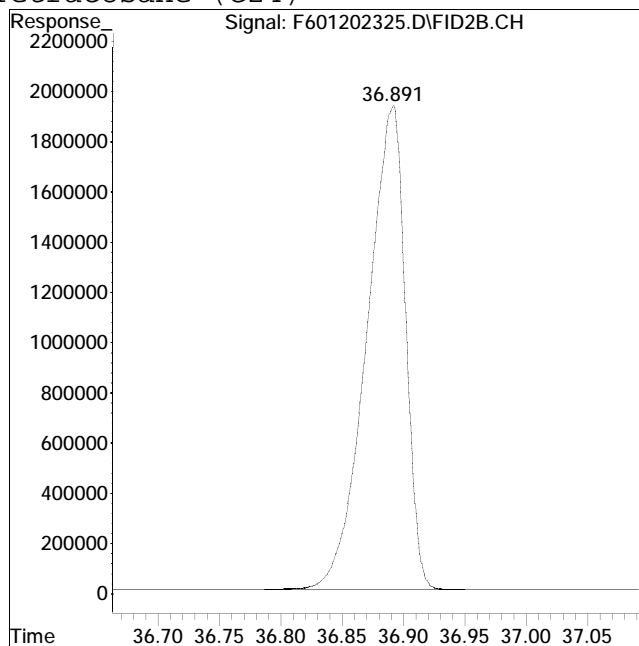
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #25: n-Tetracosane (C24)



Original Peak Response = 42161672



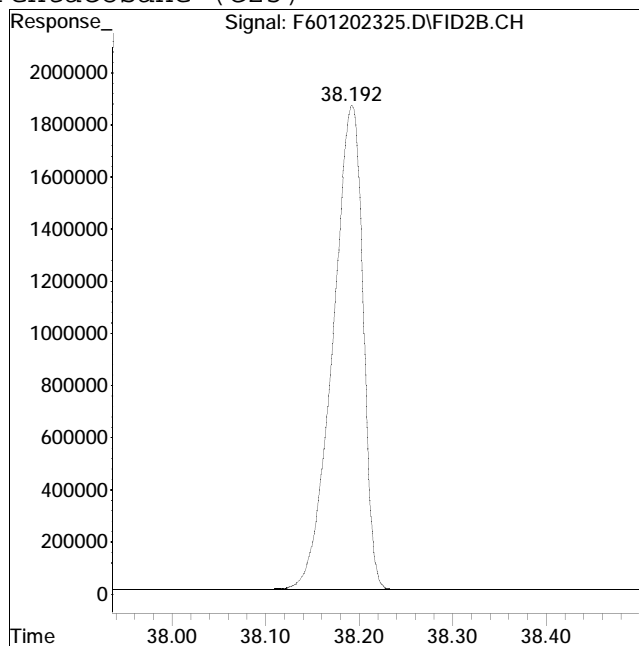
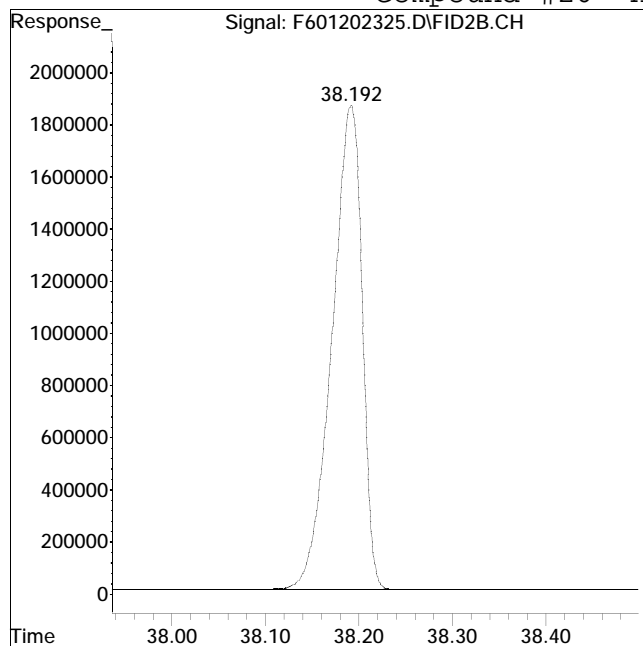
Manual Peak Response = 42159913 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #26: n-Pentacosane (C25)



Original Peak Response = 41724386

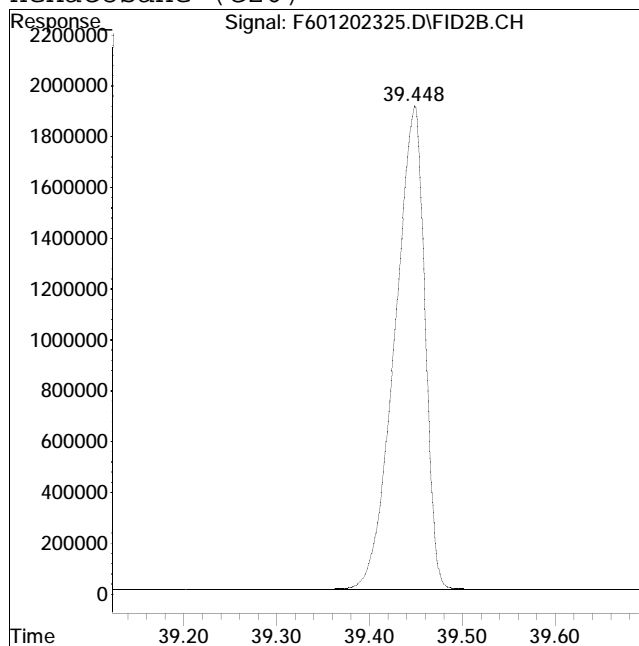
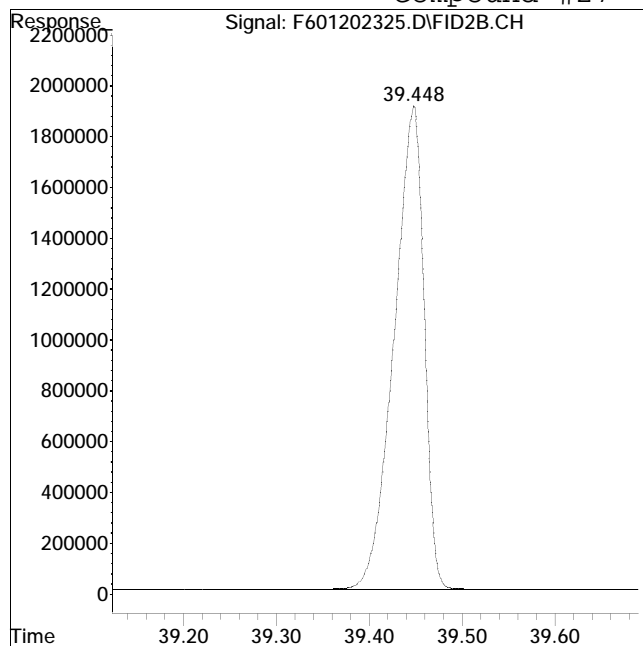
Manual Peak Response = 41725501 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #27: n-Hexacosane (C26)



Original Peak Response = 42819762

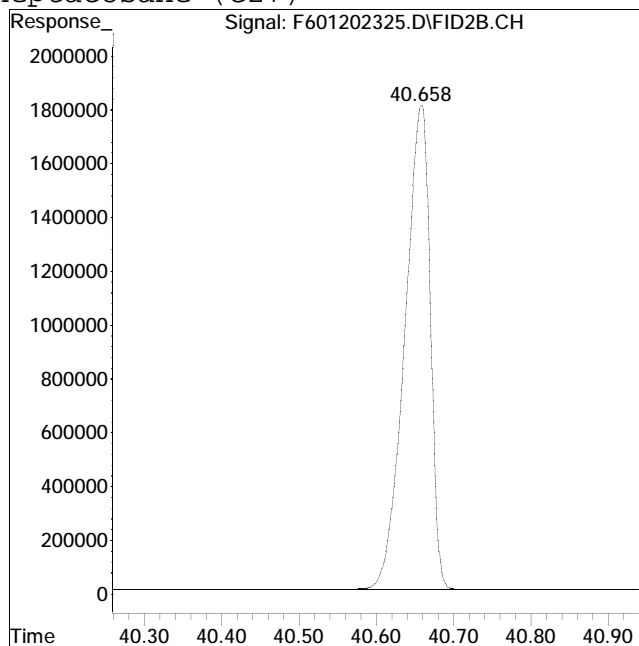
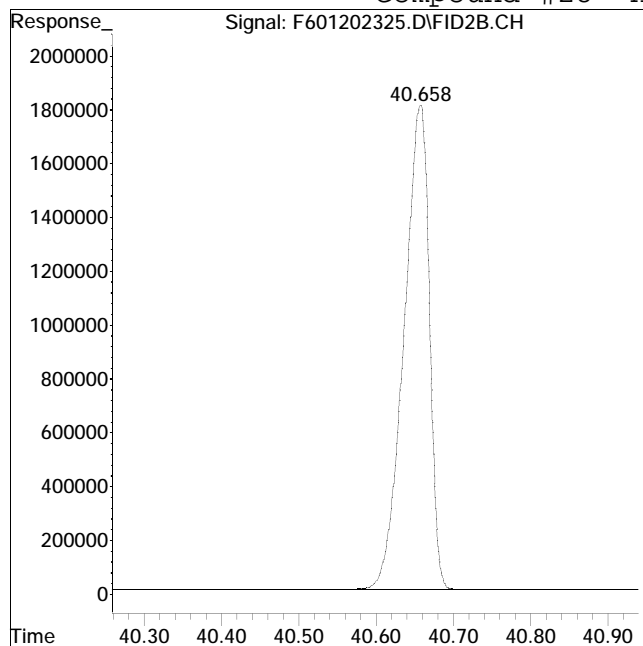
Manual Peak Response = 42788171 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #28: n-Heptacosane (C27)



Original Peak Response = 41147491

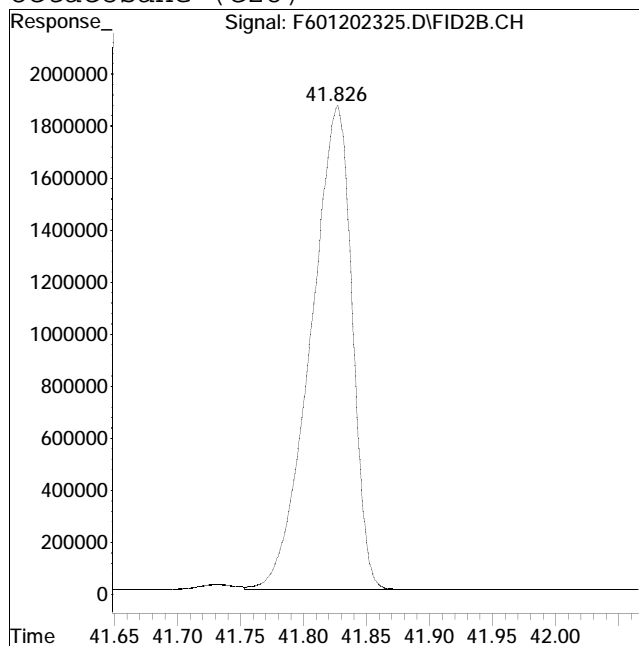
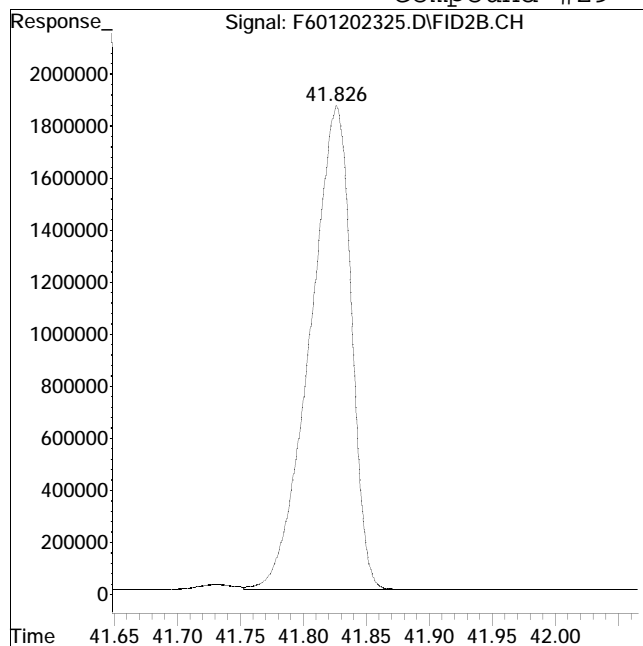
Manual Peak Response = 41144657 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #29: n-Octacosane (C28)



Original Peak Response = 42426324

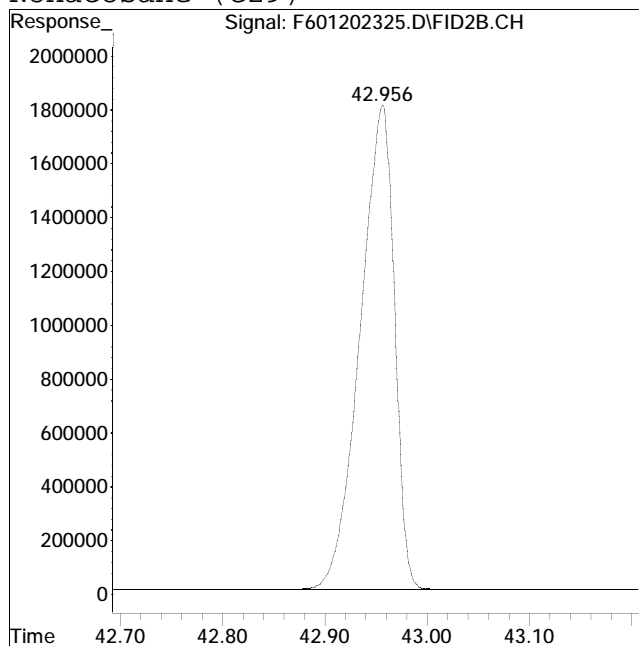
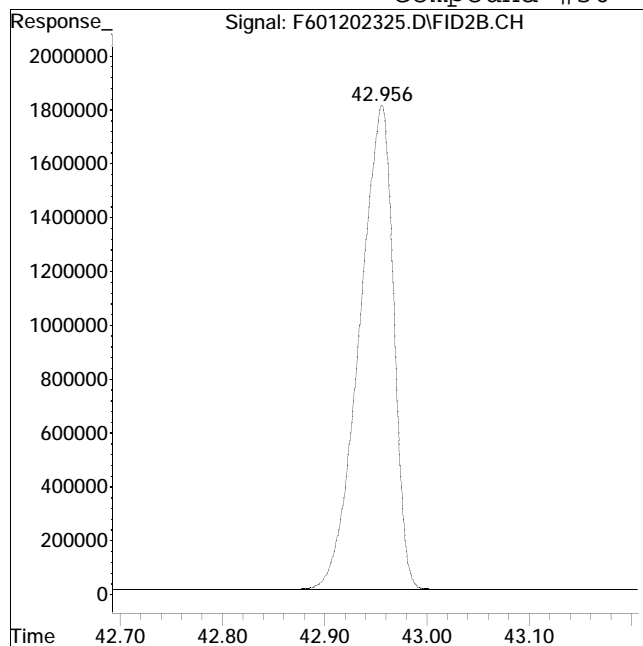
Manual Peak Response = 42438159 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #30: n-Nonacosane (C29)



Original Peak Response = 41887851

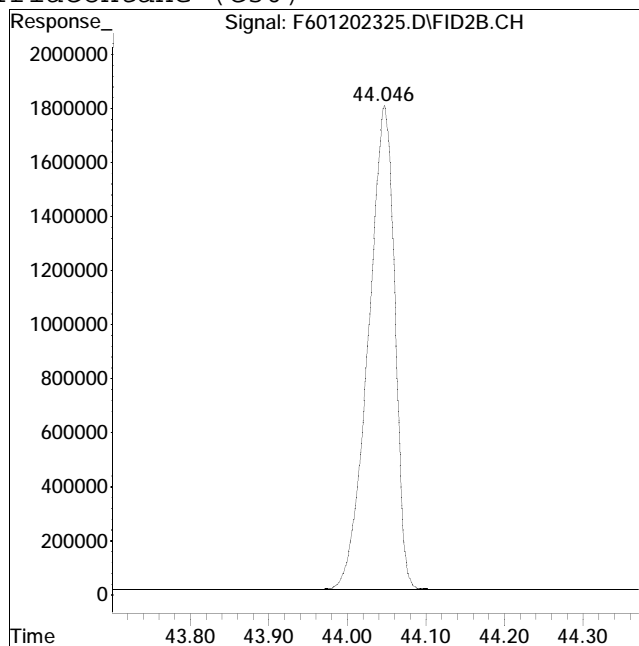
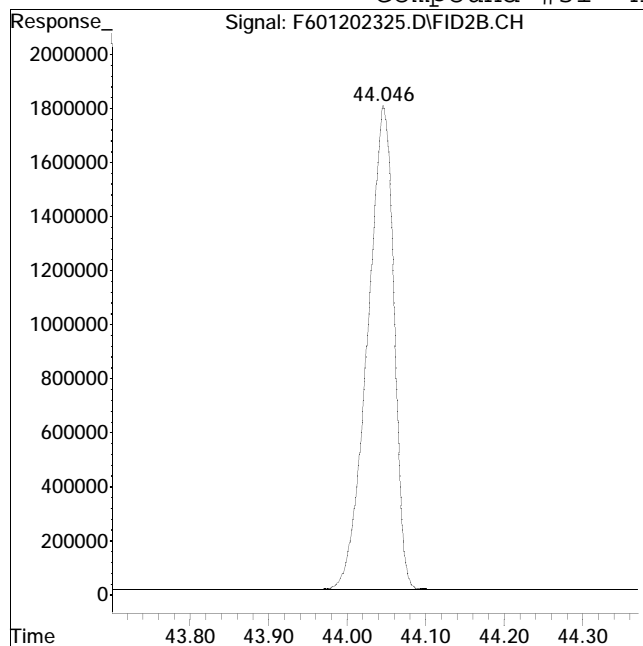
Manual Peak Response = 41894159 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202325.D Operator : FID6:WR
Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #31: n-Triacontane (C30)



Original Peak Response = 41919642

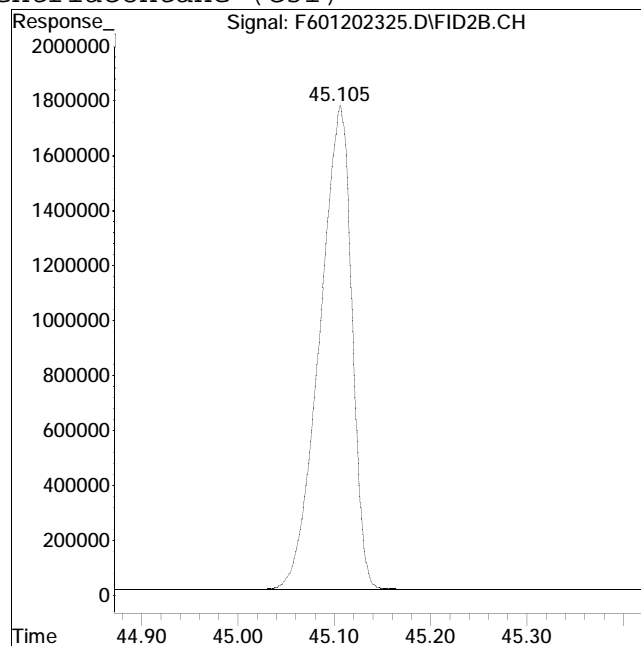
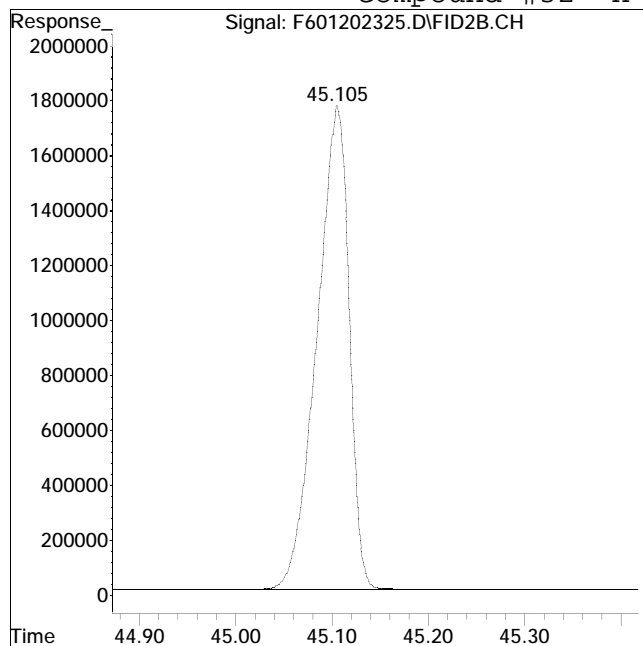
Manual Peak Response = 41938121 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #32: n-Hentriacontane (C31)



Original Peak Response = 41003719

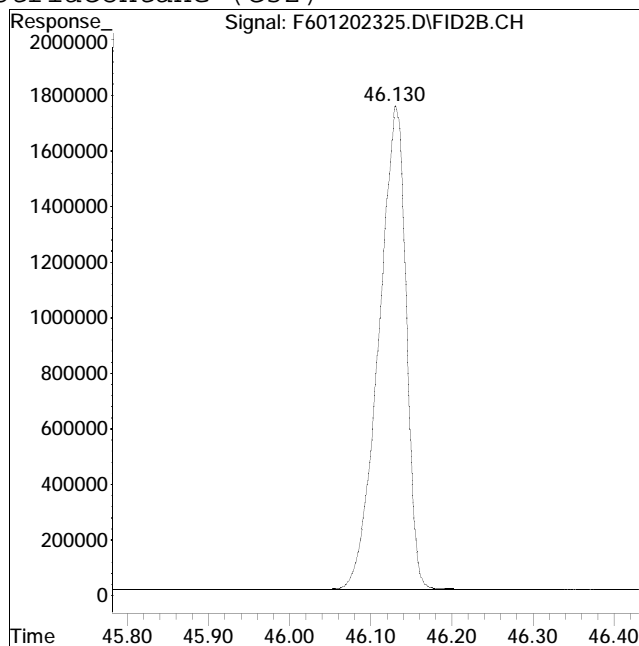
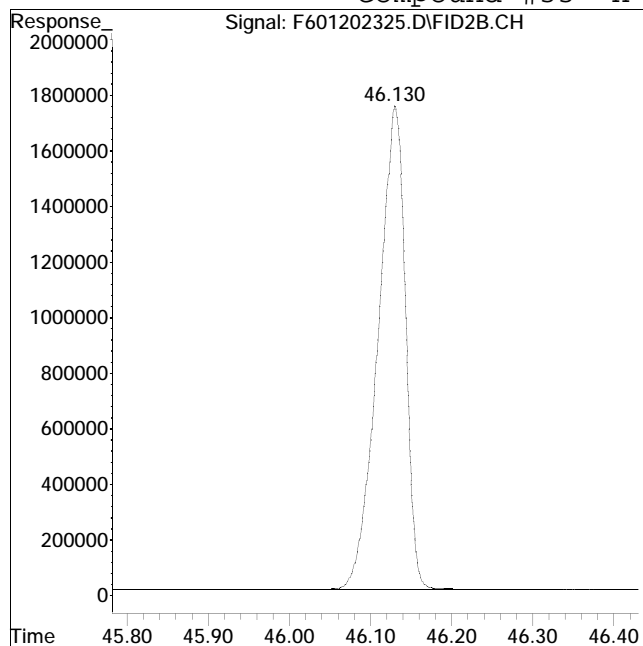
Manual Peak Response = 41010627 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #33: n-Dotriacontane (C32)



Original Peak Response = 40833430

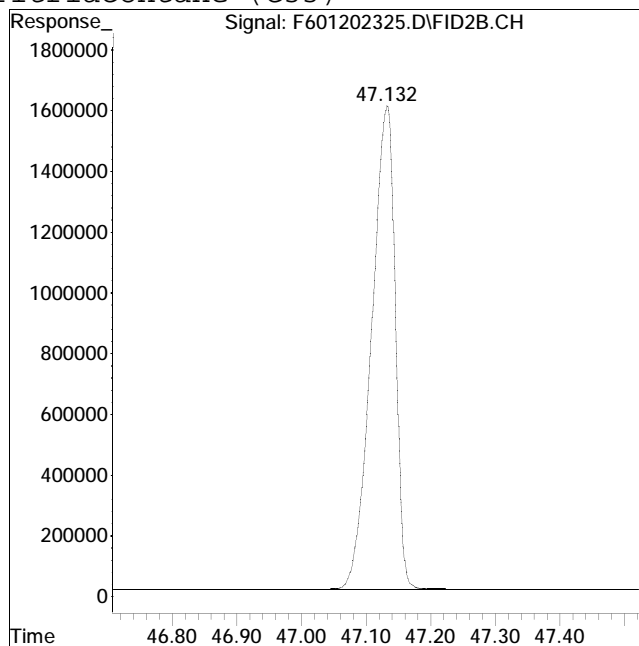
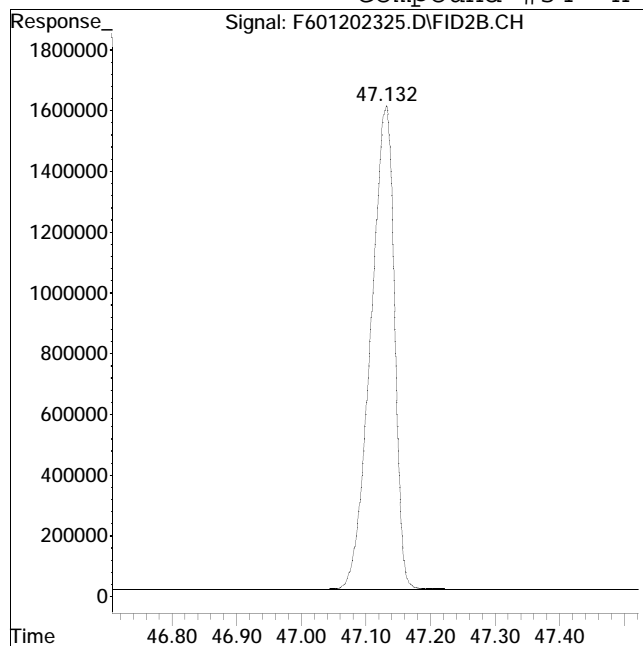
Manual Peak Response = 40854376 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #34: n-Tritriacontane (C33)



Original Peak Response = 40654612

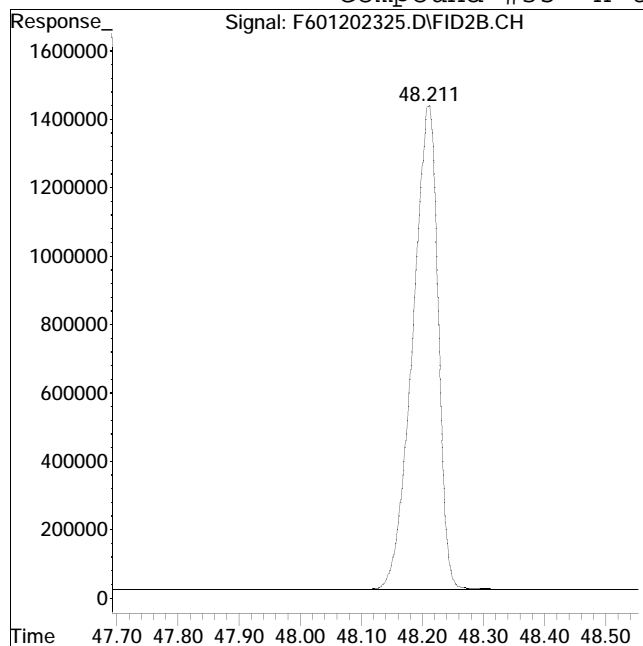
Manual Peak Response = 40626742 M4

M4 = Poor automated baseline construction.

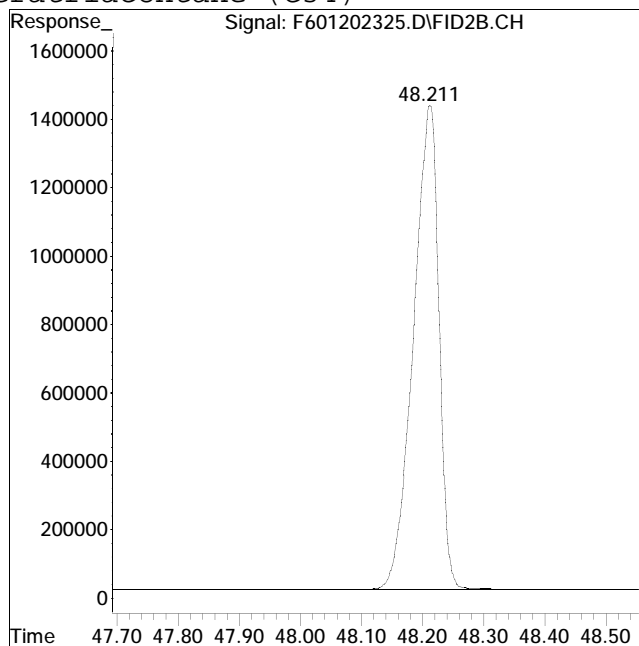
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #35: n-tetratriacontane (C34)



Original Peak Response = 40984965



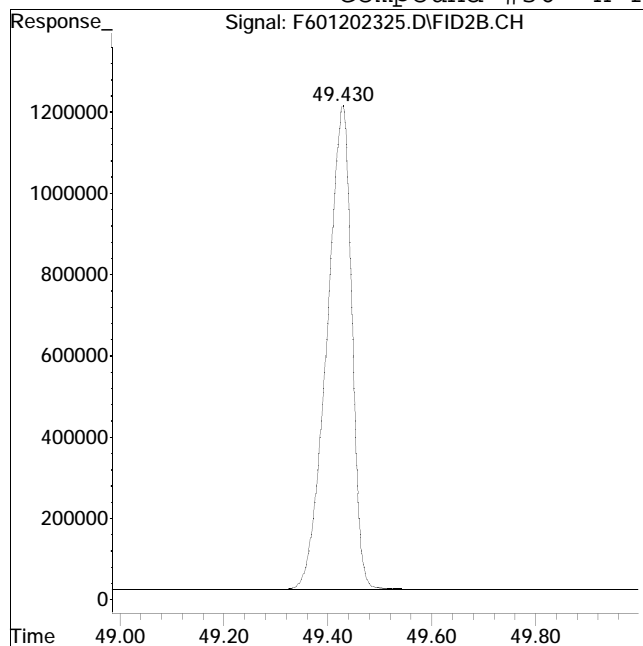
Manual Peak Response = 41111790 M4

M4 = Poor automated baseline construction.

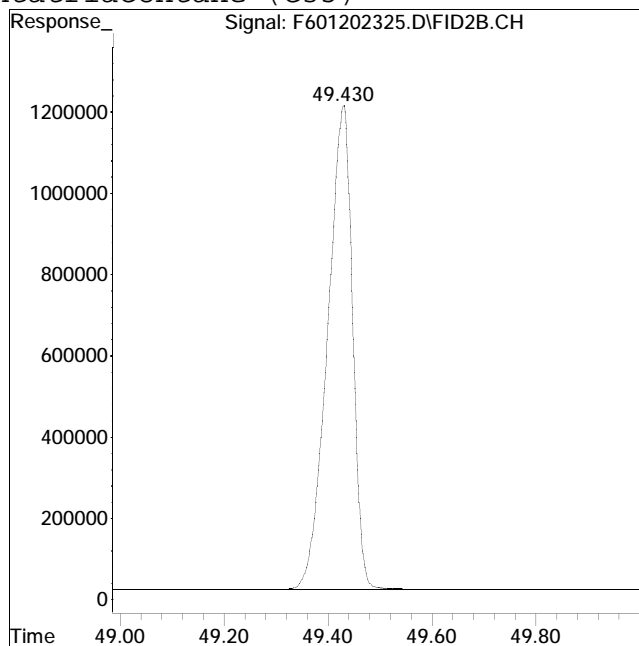
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
Data File : F601202325.D Operator : FID6:WR
Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #36: n-Pentatriacontane (C35)



Original Peak Response = 39819215



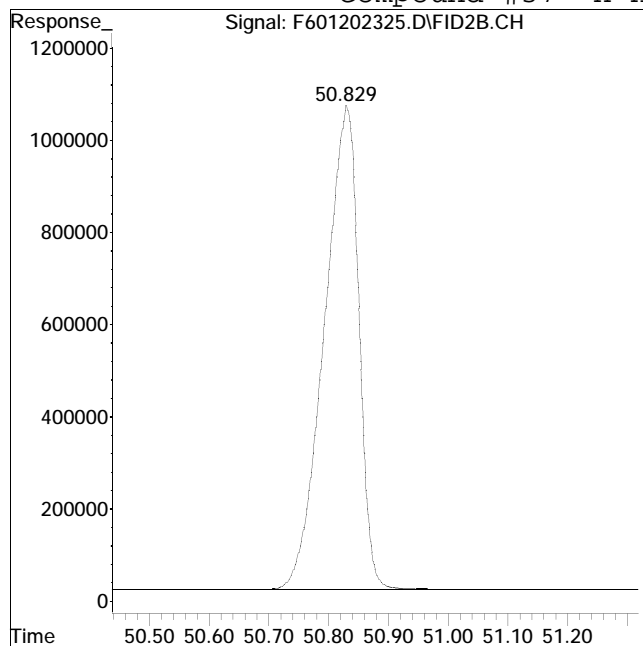
Manual Peak Response = 39794618 M4

M4 = Poor automated baseline construction.

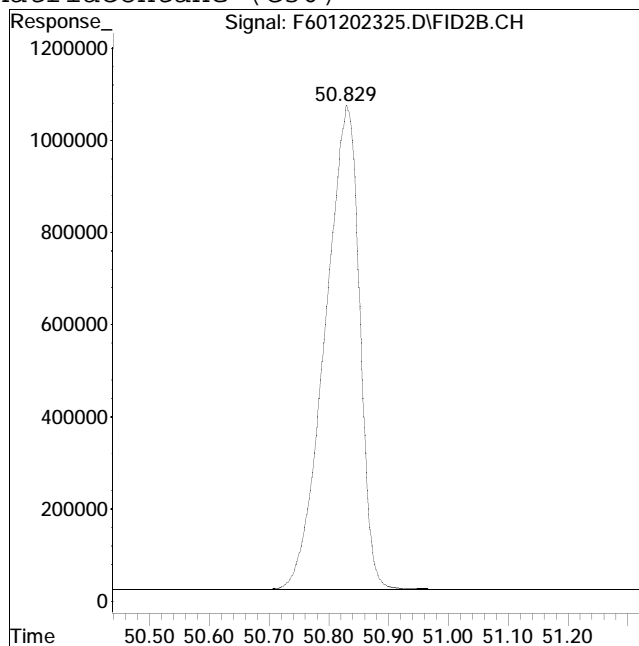
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #37: n-Hexatriacontane (C36)



Original Peak Response = 42192958



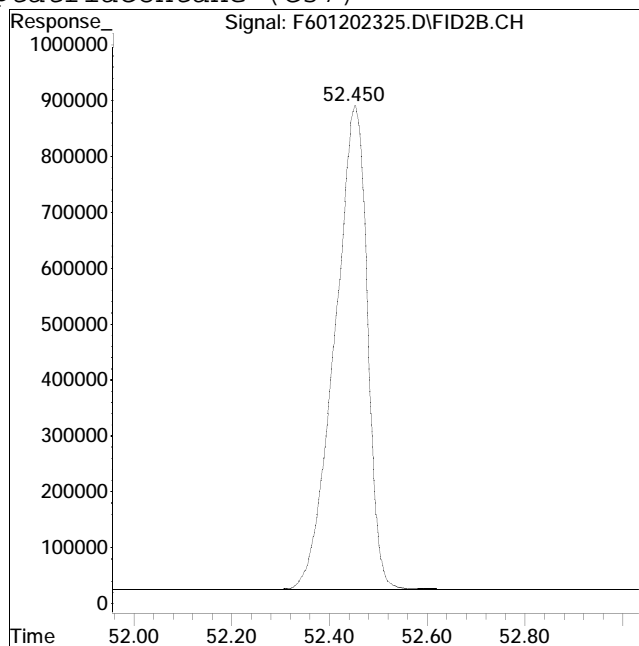
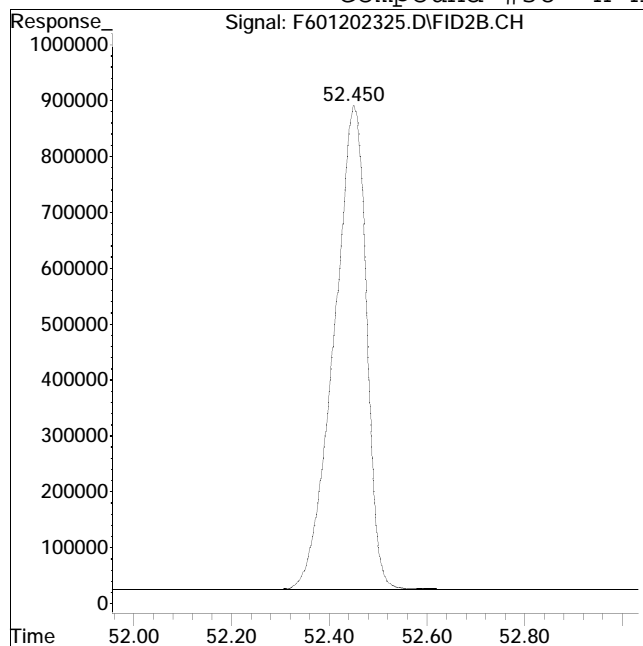
Manual Peak Response = 42216686 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #38: n-Heptatriacontane (C37)



Original Peak Response = 40177953

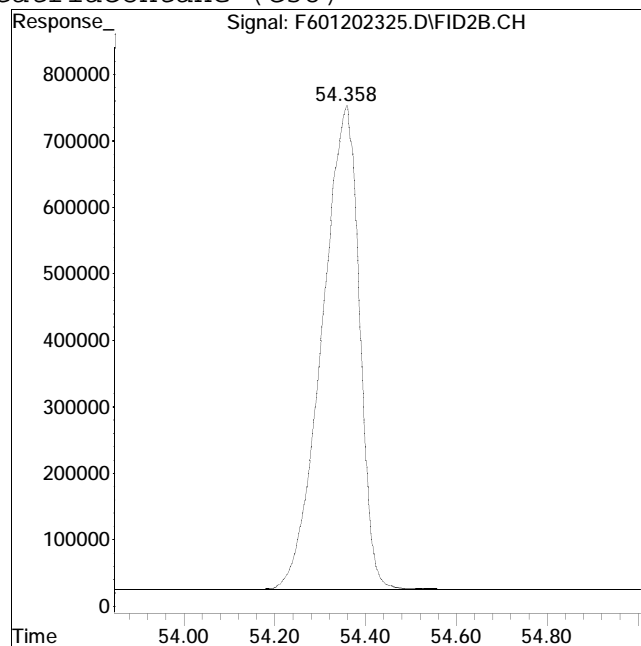
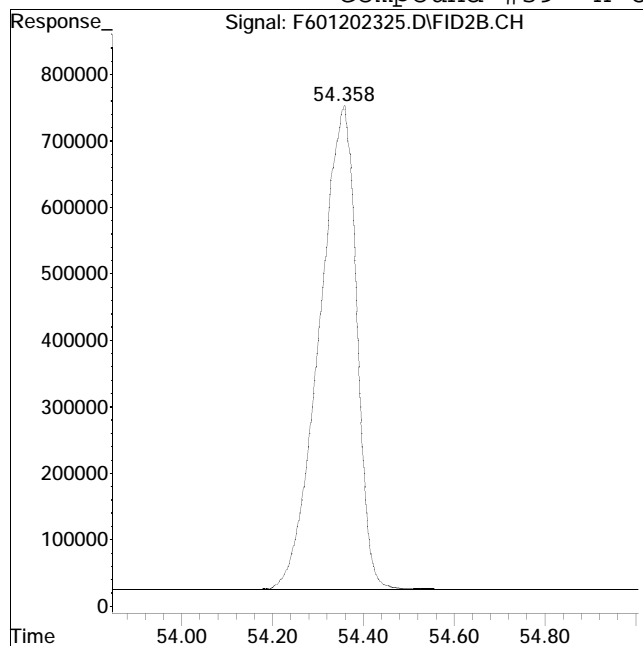
Manual Peak Response = 40200692 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #39: n-Octatriacontane (C38)



Original Peak Response = 41679860

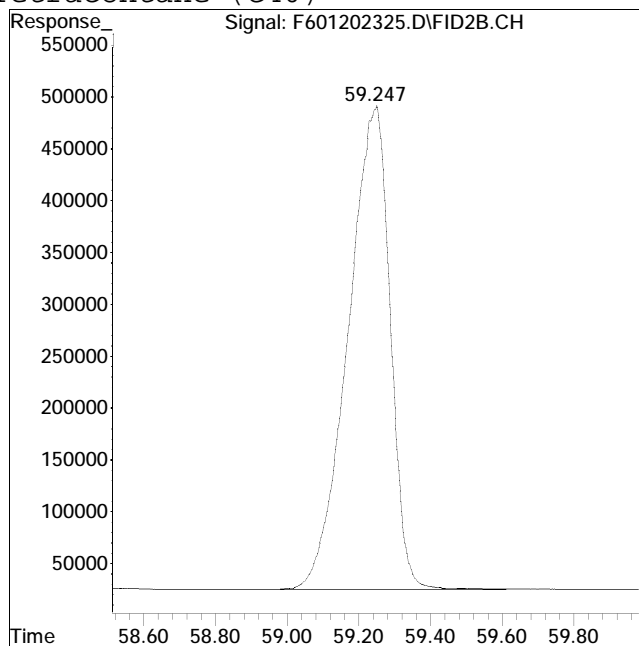
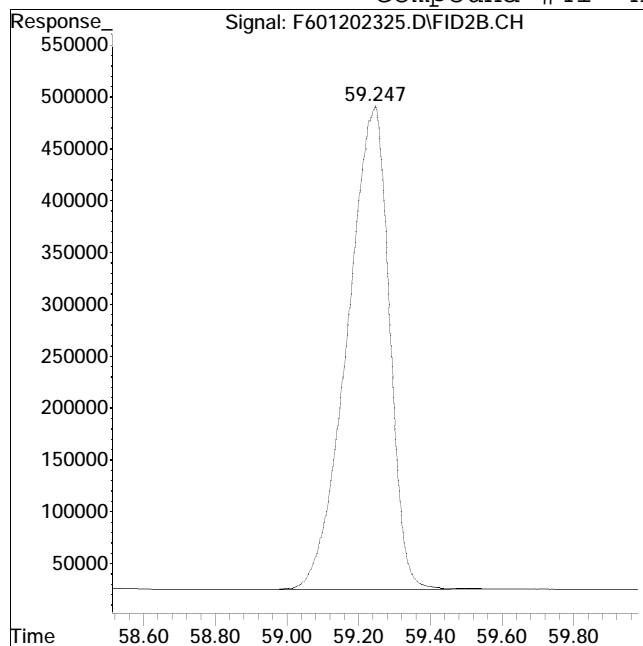
Manual Peak Response = 41703915 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\FID6\2023QMethod : HC6012023R_DRO.M
 Data File : F601202325.D Operator : FID6:WR
 Date Inj'd : 1/21/2023 4:54 am Instrument : FID6
 Sample : CQ601202301R Quant Date : 3/8/2023 11:44 am

Compound #41: n-Tetracontane (C40)



Original Peak Response = 37993964

Manual Peak Response = 38072834 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202329.D
 Signal(s) : FID2B.CH
 Acq On : 21 Jan 2023 7:48 am
 Operator : FID6:WR
 Sample : WG1752810-1,0.10296
 Misc : WG1752810,FRBF22,10.296ug/ml
 ALS Vial : 65 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 08 15:38:30 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Mar 08 11:41:41 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB601202301R
 Blank File : F601202327.D

Sub List : SHC - SHC

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I 5-alpha-androstane	31.782	51436251	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.749	54507827	50.443 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	100.89%
24) s d50-Tetracosane	36.352	41820115	47.530 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	95.06%
Target Compounds			
2) t n-Octane (C8)	6.007	86412661	99.798 ug/mL M4
3) t n-Nonane (C9)	8.278	61066517	69.475 ug/mL M4
4) t n-Decane (C10)	10.790	51277982	56.806 ug/mL M4
5) t n-Undecane (C11)	13.307	46909032	51.934 ug/mL M4
6) t n-Dodecane (C12)	15.732	43239344	47.329 ug/mL M4
7) t n-Tridecane (C13)	18.034	39223647	42.749 ug/mL M4
8) t 1380	19.706	9524633	10.109 ug/mL M4
9) t n-Tetradecane (C14)	20.211	36900149	39.163 ug/mL M4
10) t 1470	21.492	13437900	14.184 ug/mL M4
11) t n-Pentadecane (C15)	22.272	39515735	41.710 ug/mL M4
12) t n-Hexadecane (C16)	24.223	33017538	34.856 ug/mL M4
13) t 1650	25.126	11424558	11.886 ug/mL M4
14) t n-Heptadecane (C17)	26.075	29714546	30.914 ug/mL M4
15) t Pristane	26.171	23417963	23.932 ug/mL M4
16) t n-Octadecane (C18)	27.836	25798316	26.515 ug/mL M4
17) t Phytane	27.993	12418985	13.719 ug/mL M4
18) t n-Nonadecane (C19)	29.519	26126526	26.719 ug/mL M4
20) t n-Eicosane (C20)	31.121	26389200	26.683 ug/mL M4
21) t n-Heneicosane (C21)	32.655	22780829	22.956 ug/mL M4
22) t n-Docosane (C22)	34.126	21009682	21.043 ug/mL M4
23) t n-Tricosane (C23)	35.533	19768892	19.792 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202329.D
 Signal(s) : FID2B.CH
 Acq On : 21 Jan 2023 7:48 am
 Operator : FID6:WR
 Sample : WG1752810-1,0.10296
 Misc : WG1752810,FRBF22,10.296ug/ml
 ALS Vial : 65 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 08 15:38:30 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Mar 08 11:41:41 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB601202301R
 Blank File : F601202327.D

Sub List : SHC - SHC

	Compound	R.T.	Response	Conc Units
25) t	n-Tetracosane (C24)	36.888	18517257	18.770 ug/mL M4
26) t	n-Pentacosane (C25)	38.189	18379441	18.703 ug/mL M4
27) t	n-Hexacosane (C26)	39.444	15499824	15.363 ug/mL M4
28) t	n-Heptacosane (C27)	40.653	12514173	12.494 ug/mL M4
29) t	n-Octacosane (C28)	41.819	9296317	9.035 ug/mL M4
30) t	n-Nonacosane (C29)	42.948	9207342	9.030 ug/mL M4
31) t	n-Triacontane (C30)	44.039	6590464	6.453 ug/mL M4
32) t	n-Hentriacontane (C31)	45.096	6550705	6.657 ug/mL M4
33) t	n-Dotriacontane (C32)	46.118	4216884	4.089 ug/mL M4
34) t	n-Tritriacontane (C33)	47.121	3741028	3.747 ug/mL M4
35) t	n-tetratriacontane (C34)	48.196	3255288	3.271 ug/mL M4
36) t	n-Pentatriacontane (C35)	49.415	3243438	3.439 ug/mL M4
37) t	n-Hexatriacontane (C36)	50.805	2006403	1.805 ug/mL M4
38) t	n-Heptatriacontane (C37)	52.423	1888440	1.869 ug/mL M4
39) t	n-Octatriacontane (C38)	54.317	1606429	1.557 ug/mL M4
40) t	n-Nonatriacontane (C39)	56.558	914711	0.906 ug/mL M4
41) t	n-Tetracontane (C40)	59.212	1061691	1.052 ug/mL M4
42) h	C9-C44 Total Petroleu...	42.079	6213358208	6349.653 ug/mL m
42) h	C9-C44 Total Petroleu BS	42.079	6012777453	6144.672 ug/mLm
49) h	Total Resolved Hydroc...	36.878	421673508	430.923 ug/L m

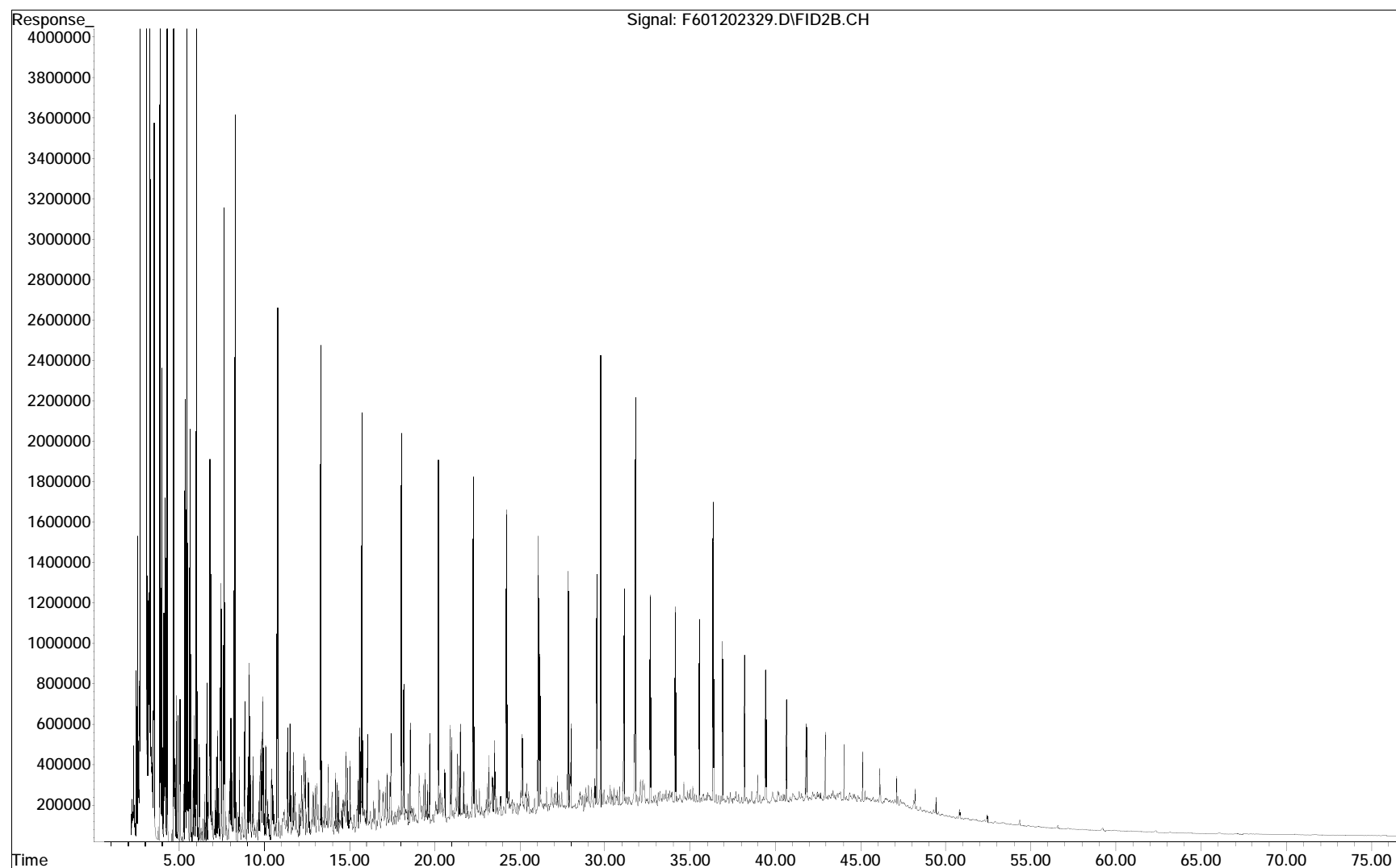
SemiQuant Compounds - Not Calibrated on this Instrument

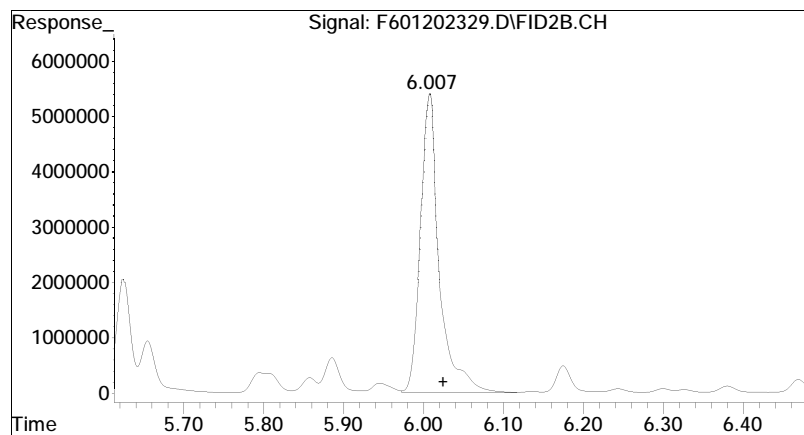
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

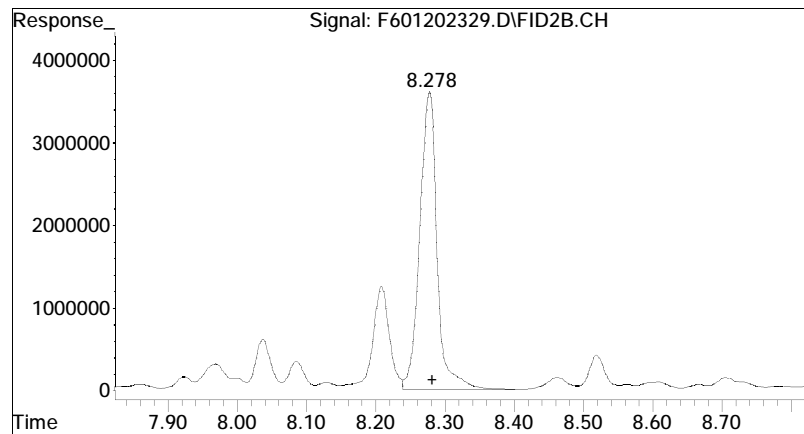
File : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\F601202329.D
 Operator : FID6:WR
 Acquired : 21 Jan 2023 7:48 am using AcqMethod FID6A.M
 Sample Name: WG1752810-1,0.10296
 Instrument: FID6
 Misc Info : WG1752810,FRBF22,10.296ug/ml
 Vial Number: 65
 CurrentMeth: O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M





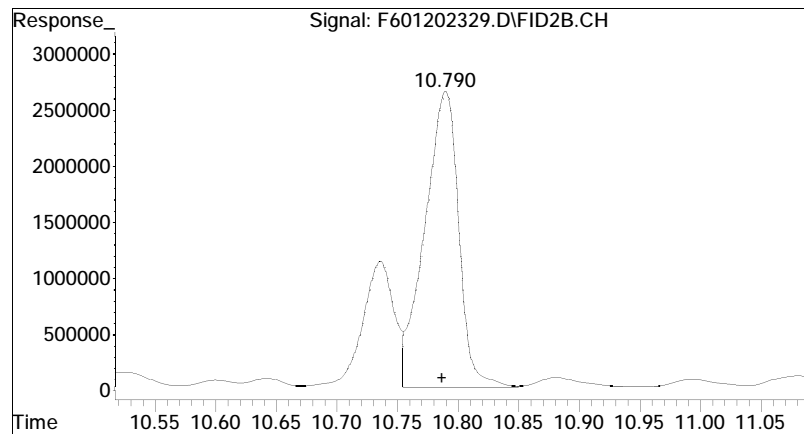
#2 n-Octane (C8)

R.T.: 6.007 min
Delta R.T.: -0.018 min
Response: 86412661
Conc: 99.80 ug/mL M4



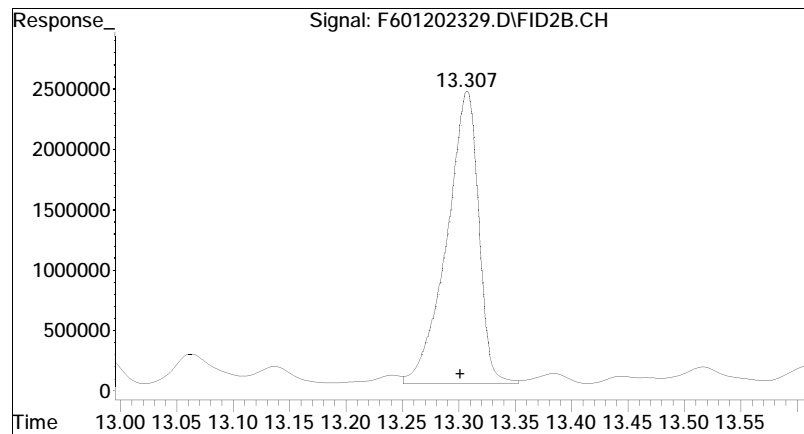
#3 n-Nonane (C9)

R.T.: 8.278 min
Delta R.T.: -0.004 min
Response: 61066517
Conc: 69.47 ug/mL M4



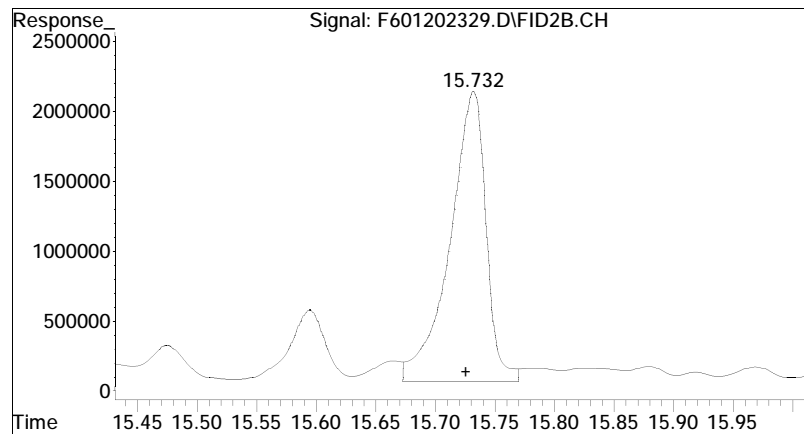
#4 n-Decane (C10)

R.T.: 10.790 min
Delta R.T.: 0.003 min
Response: 51277982
Conc: 56.81 ug/mL M4



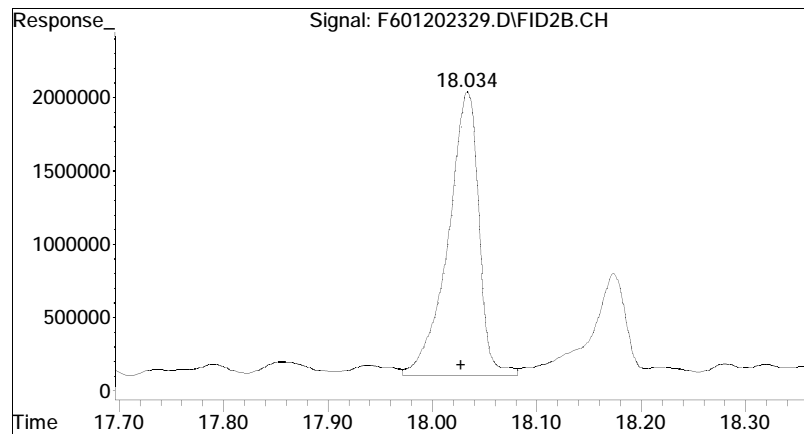
#5 n-Undecane (C11)

R.T.: 13.307 min
Delta R.T.: 0.006 min
Response: 46909032
Conc: 51.93 ug/mL M4



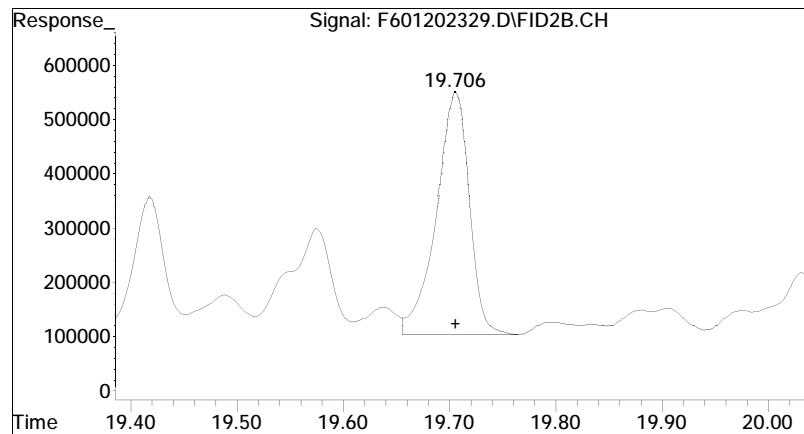
#6 n-Dodecane (C12)

R.T.: 15.732 min
Delta R.T.: 0.006 min
Response: 43239344
Conc: 47.33 ug/mL M4



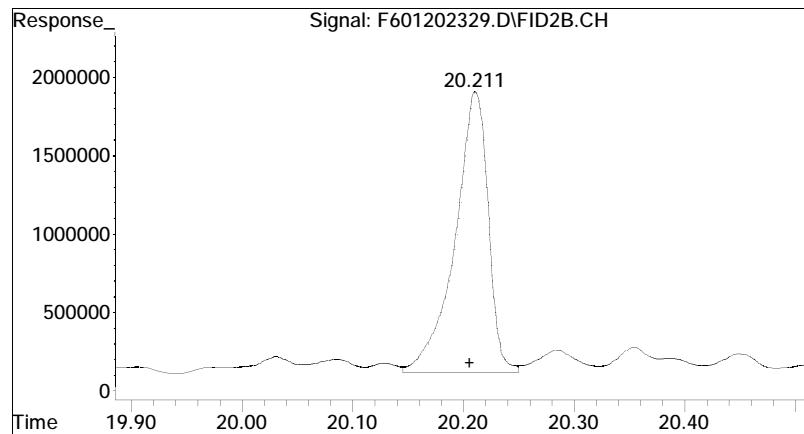
#7 n-Tridecane (C13)

R.T.: 18.034 min
Delta R.T.: 0.006 min
Response: 39223647
Conc: 42.75 ug/mL M4



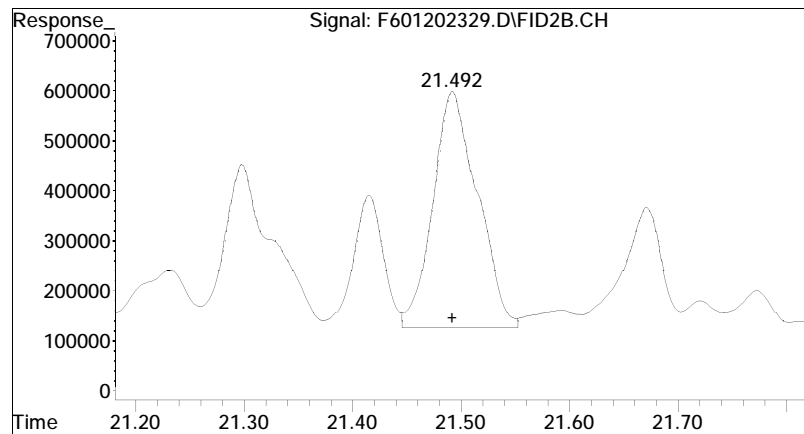
#8 1380

R.T.: 19.706 min
Delta R.T.: 0.000 min
Response: 9524633
Conc: 10.11 ug/mL M4



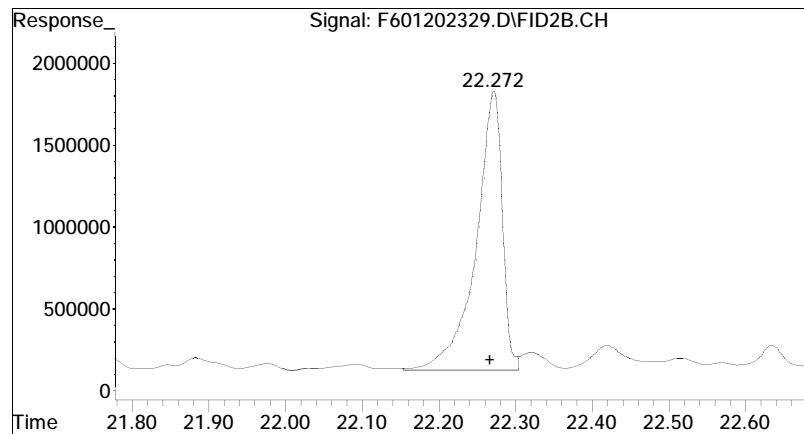
#9 n-Tetradecane (C14)

R.T.: 20.211 min
Delta R.T.: 0.005 min
Response: 36900149
Conc: 39.16 ug/mL M4



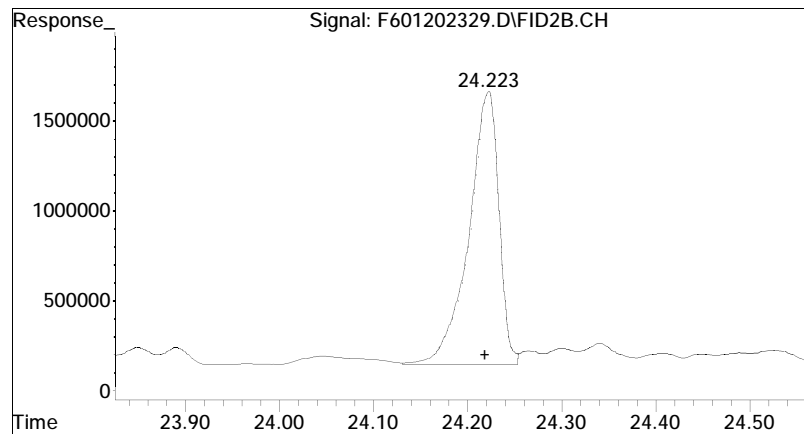
#10 1470

R.T.: 21.492 min
Delta R.T.: 0.000 min
Response: 13437900
Conc: 14.18 ug/mL M4



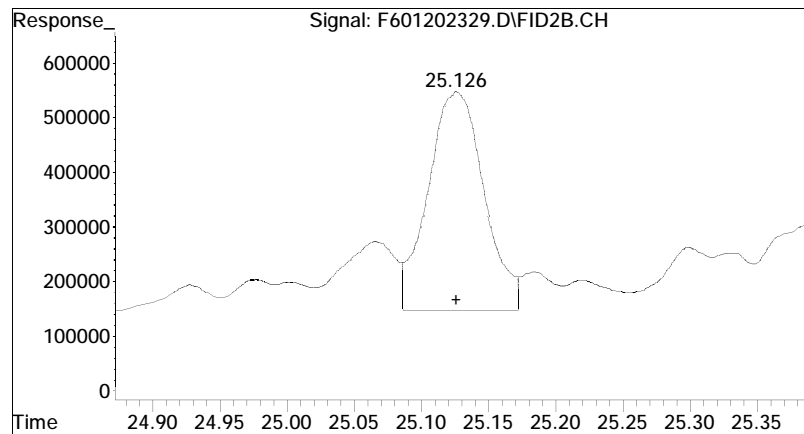
#11 n-Pentadecane (C15)

R.T.: 22.272 min
Delta R.T.: 0.005 min
Response: 39515735
Conc: 41.71 ug/mL M4



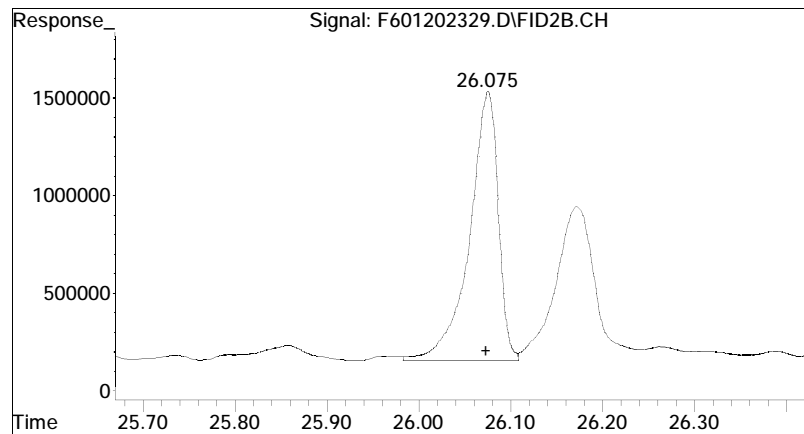
#12 n-Hexadecane (C16)

R.T.: 24.223 min
Delta R.T.: 0.004 min
Response: 33017538
Conc: 34.86 ug/mL M4



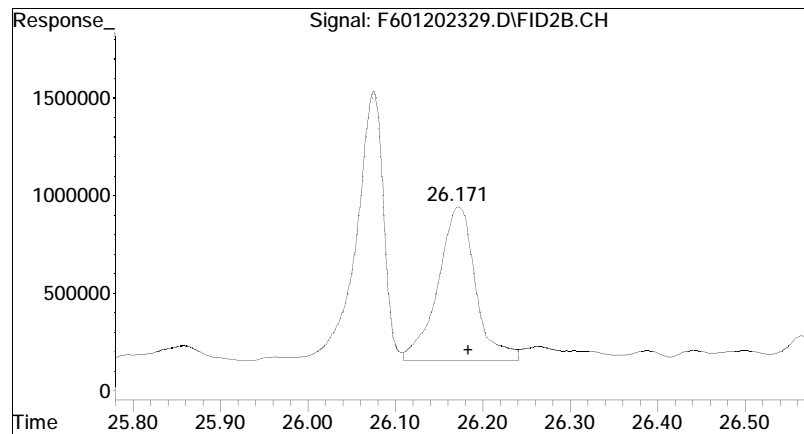
#13 1650

R.T.: 25.126 min
Delta R.T.: 0.000 min
Response: 11424558
Conc: 11.89 ug/mL M4



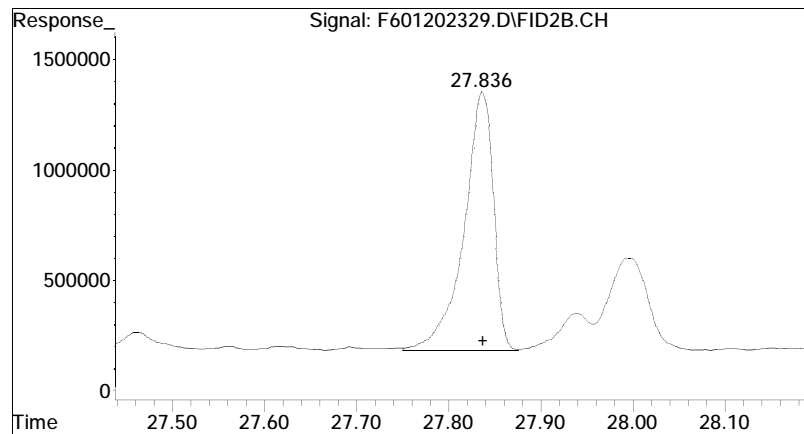
#14 n-Heptadecane (C17)

R.T.: 26.075 min
Delta R.T.: 0.002 min
Response: 29714546
Conc: 30.91 ug/mL M4



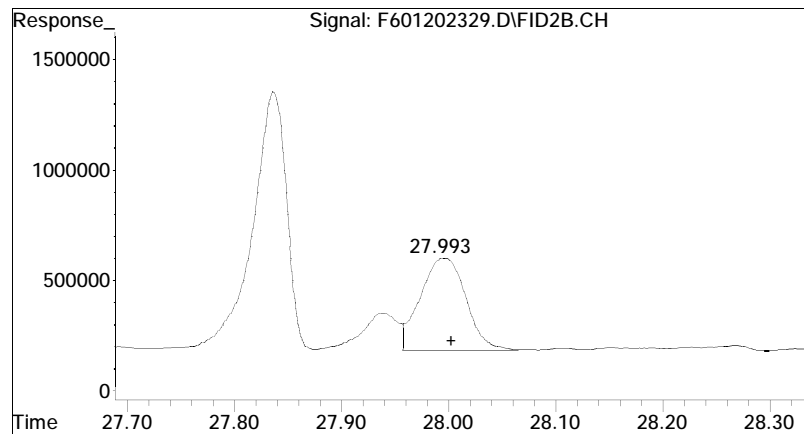
#15 Pristane

R.T.: 26.171 min
Delta R.T.: -0.012 min
Response: 23417963
Conc: 23.93 ug/mL M4



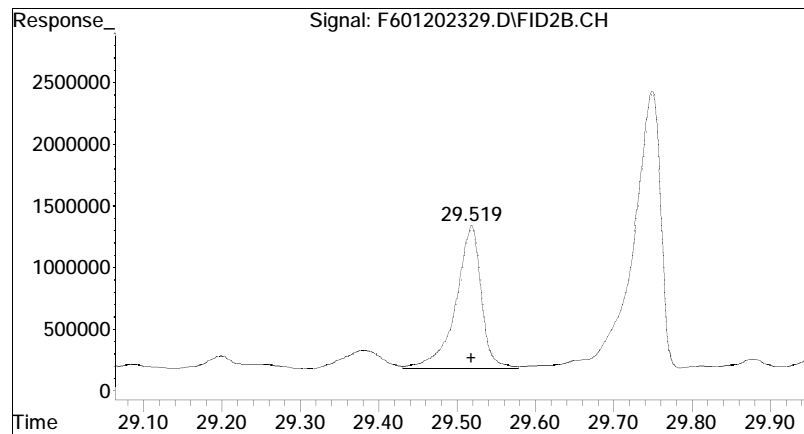
#16 n-Octadecane (C18)

R.T.: 27.836 min
Delta R.T.: -0.002 min
Response: 25798316
Conc: 26.52 ug/mL M4



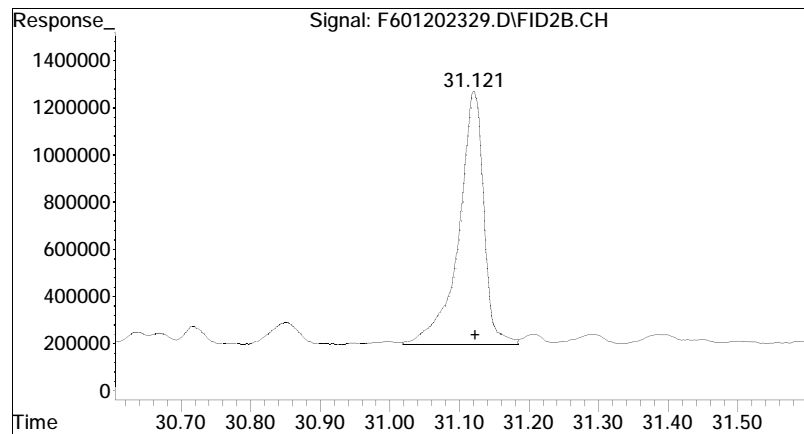
#17 Phytane

R.T.: 27.993 min
Delta R.T.: -0.010 min
Response: 12418985
Conc: 13.72 ug/mL M4



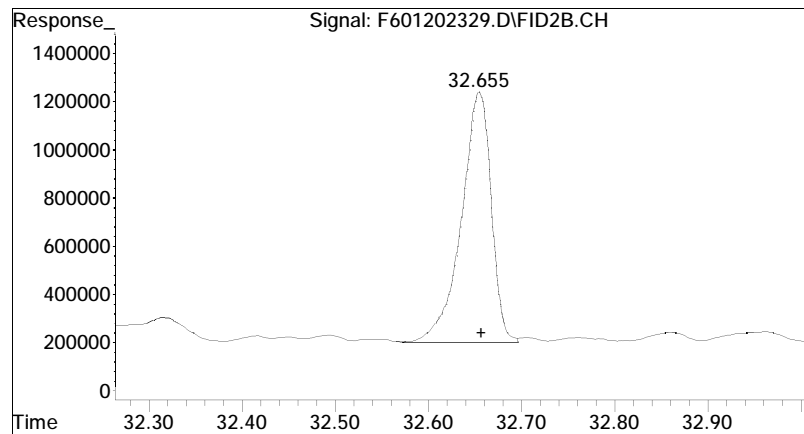
#18 n-Nonadecane (C19)

R.T.: 29.519 min
Delta R.T.: 0.000 min
Response: 26126526
Conc: 26.72 ug/mL M4



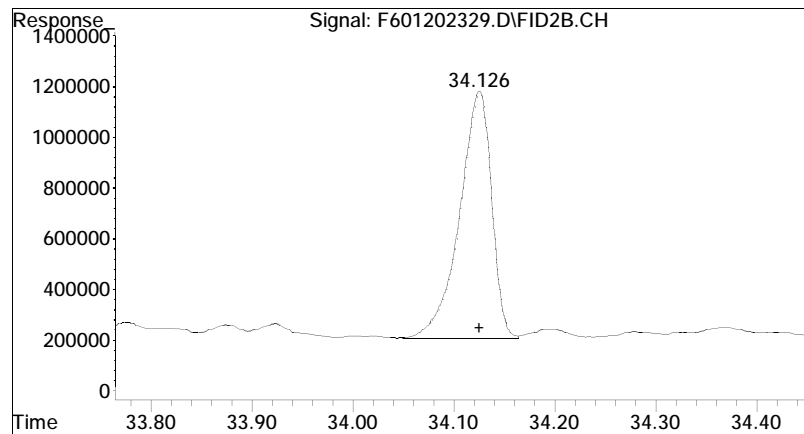
#20 n-Eicosane (C20)

R.T.: 31.121 min
Delta R.T.: -0.002 min
Response: 26389200
Conc: 26.68 ug/mL M4



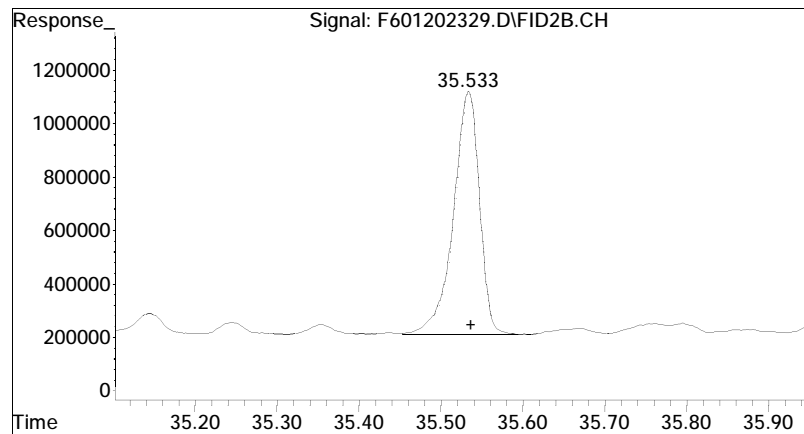
#21 n-Heneicosane (C21)

R.T.: 32.655 min
Delta R.T.: -0.003 min
Response: 22780829
Conc: 22.96 ug/mL M4



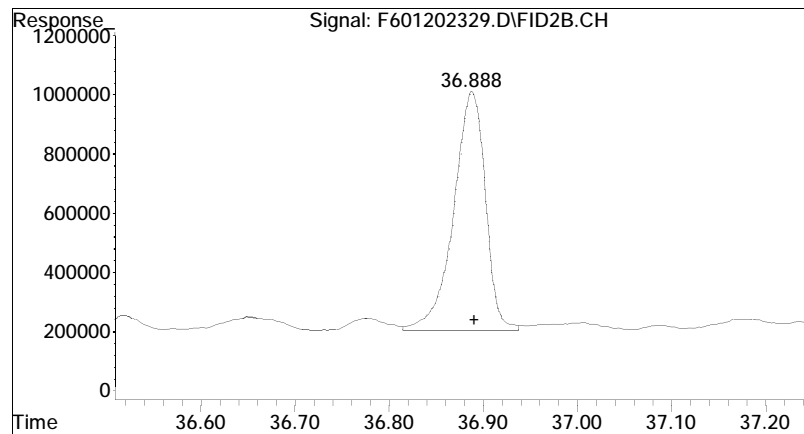
#22 n-Docosane (C22)

R.T.: 34.126 min
Delta R.T.: 0.000 min
Response: 21009682
Conc: 21.04 ug/mL M4



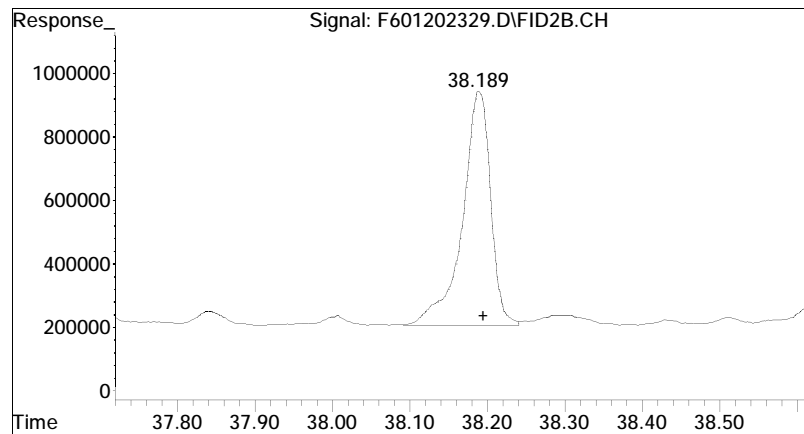
#23 n-Tricosane (C23)

R.T.: 35.533 min
Delta R.T.: -0.004 min
Response: 19768892
Conc: 19.79 ug/mL M4



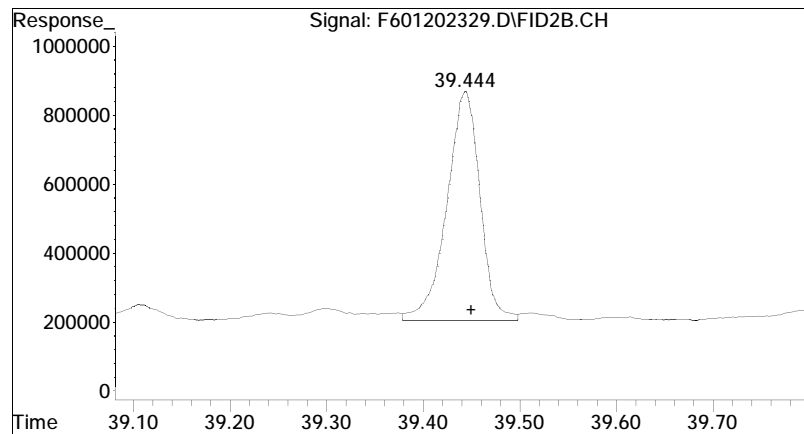
#25 n-Tetracosane (C24)

R.T.: 36.888 min
Delta R.T.: -0.003 min
Response: 18517257
Conc: 18.77 ug/mL M4



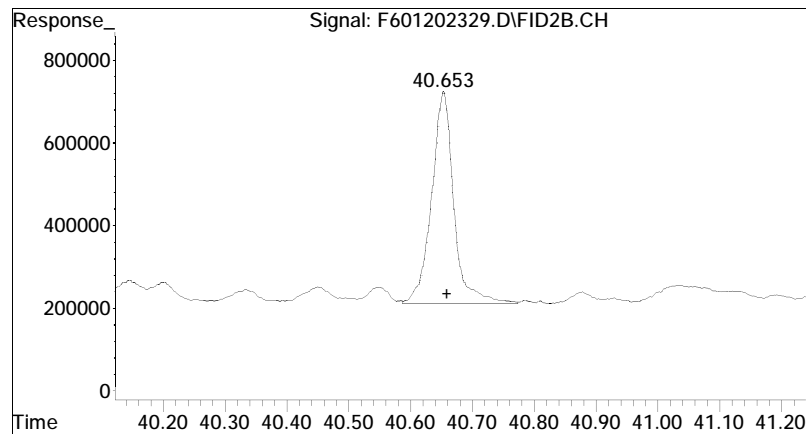
#26 n-Pentacosane (C25)

R.T.: 38.189 min
Delta R.T.: -0.006 min
Response: 18379441
Conc: 18.70 ug/mL M4



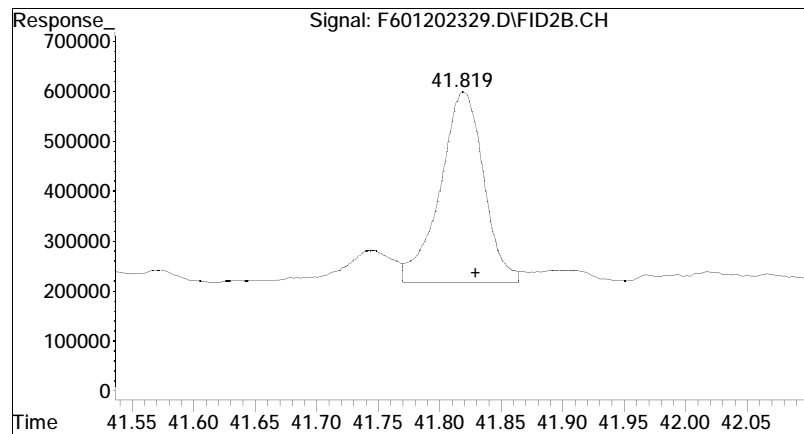
#27 n-Hexacosane (C26)

R.T.: 39.444 min
Delta R.T.: -0.006 min
Response: 15499824
Conc: 15.36 ug/mL M4



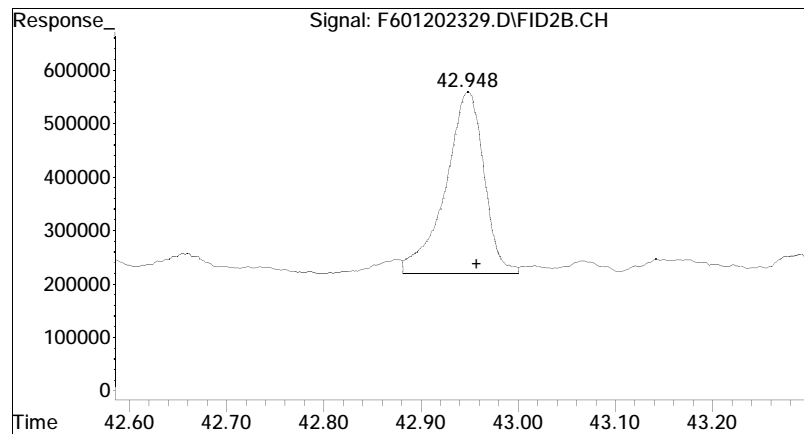
#28 n-Heptacosane (C27)

R.T.: 40.653 min
Delta R.T.: -0.006 min
Response: 12514173
Conc: 12.49 ug/mL M4



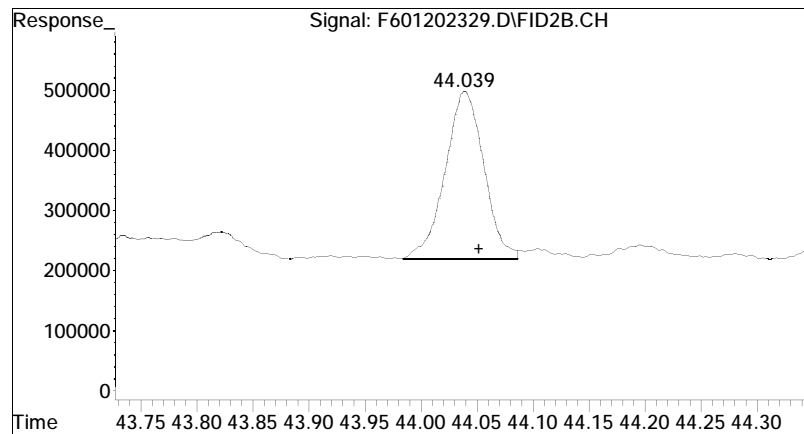
#29 n-Octacosane (C28)

R.T.: 41.819 min
Delta R.T.: -0.011 min
Response: 9296317
Conc: 9.04 ug/mL M4



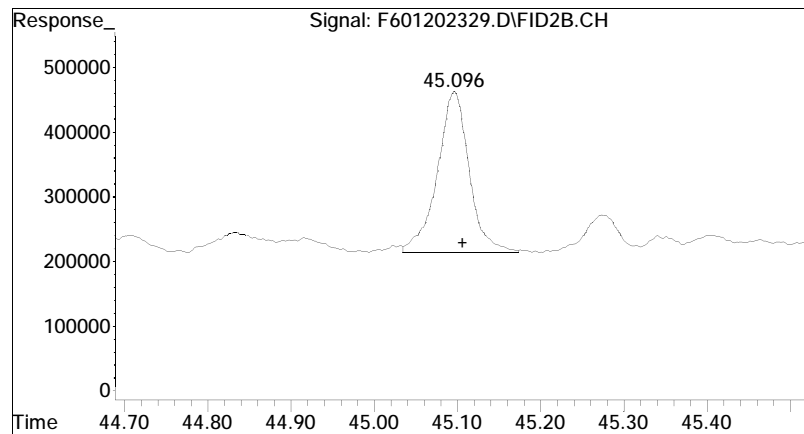
#30 n-Nonacosane (C29)

R.T.: 42.948 min
Delta R.T.: -0.009 min
Response: 9207342
Conc: 9.03 ug/mL M4



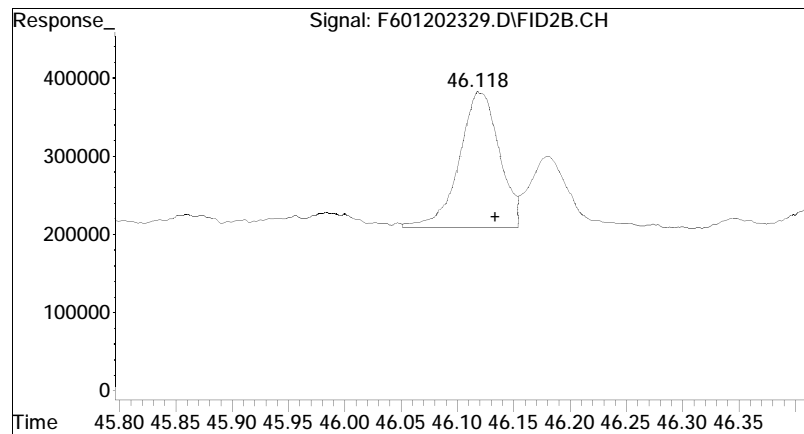
#31 n-Triacontane (C30)

R.T.: 44.039 min
Delta R.T.: -0.013 min
Response: 6590464
Conc: 6.45 ug/mL M4



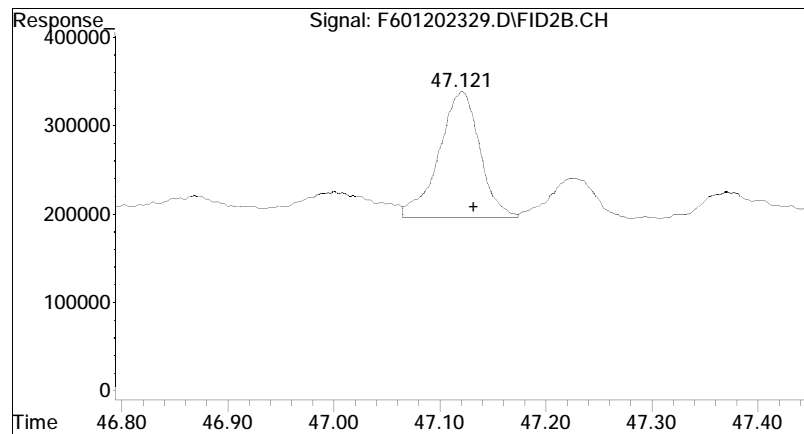
#32 n-Hentriacontane (C31)

R.T.: 45.096 min
Delta R.T.: -0.010 min
Response: 6550705
Conc: 6.66 ug/mL M4



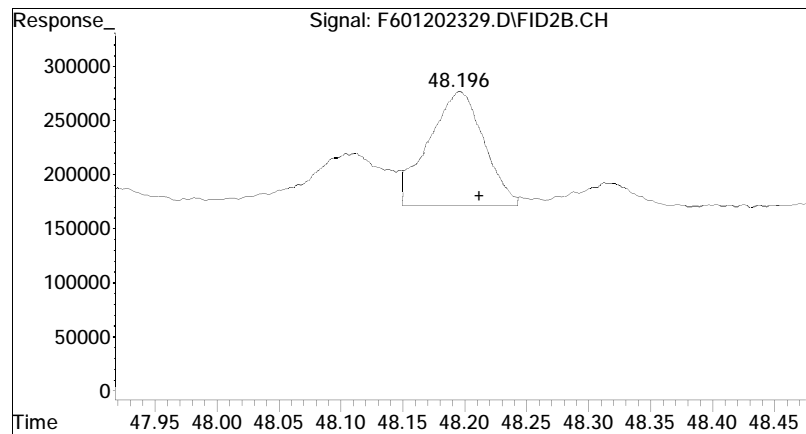
#33 n-Dotriacontane (C32)

R.T.: 46.118 min
Delta R.T.: -0.015 min
Response: 4216884
Conc: 4.09 ug/mL M4



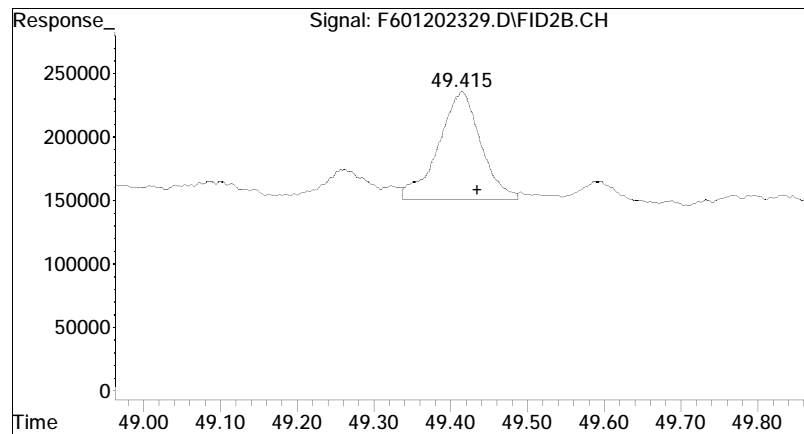
#34 n-Tritriacontane (C33)

R.T.: 47.121 min
Delta R.T.: -0.011 min
Response: 3741028
Conc: 3.75 ug/mL M4



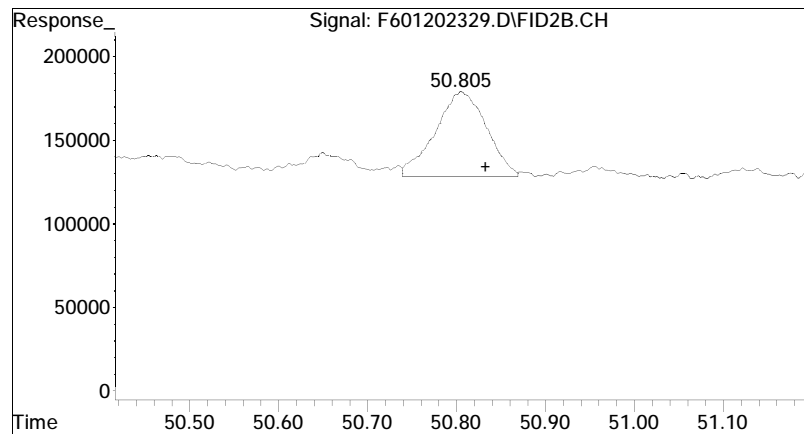
#35 n-tetratriacontane (C34)

R.T.: 48.196 min
Delta R.T.: -0.016 min
Response: 3255288
Conc: 3.27 ug/mL M4



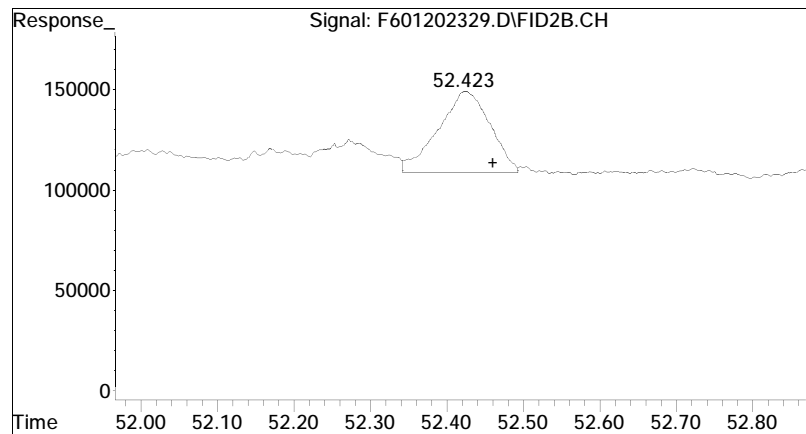
#36 n-Pentatriacontane (C35)

R.T.: 49.415 min
Delta R.T.: -0.020 min
Response: 3243438
Conc: 3.44 ug/mL M4



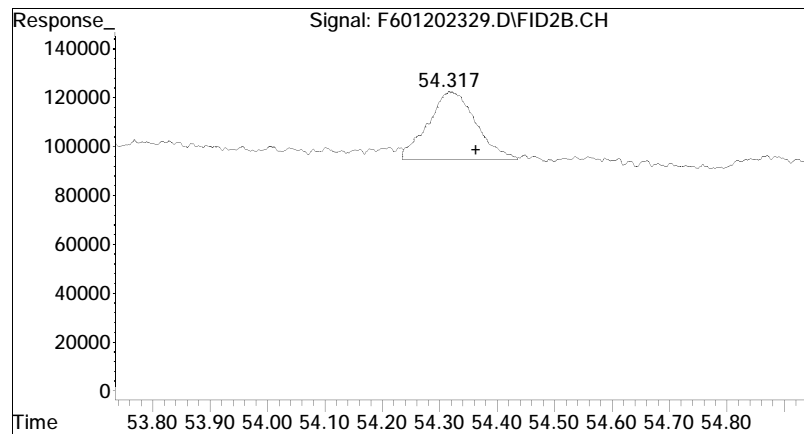
#37 n-Hexatriacontane (C36)

R.T.: 50.805 min
Delta R.T.: -0.028 min
Response: 2006403
Conc: 1.80 ug/mL M4



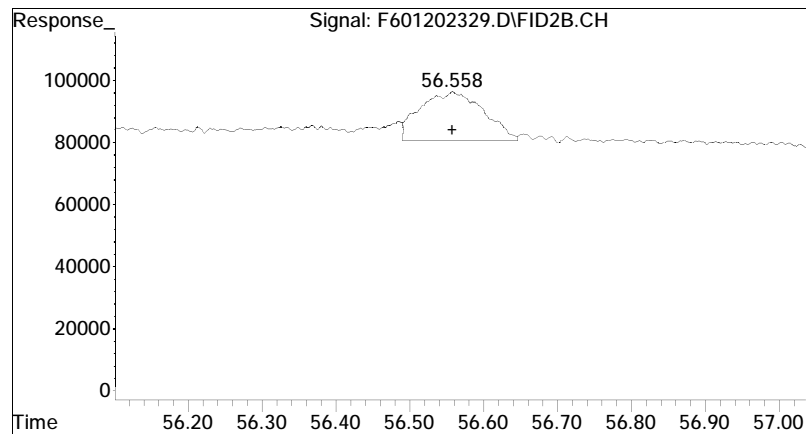
#38 n-Heptatriacontane (C37)

R.T.: 52.423 min
Delta R.T.: -0.038 min
Response: 1888440
Conc: 1.87 ug/mL M4



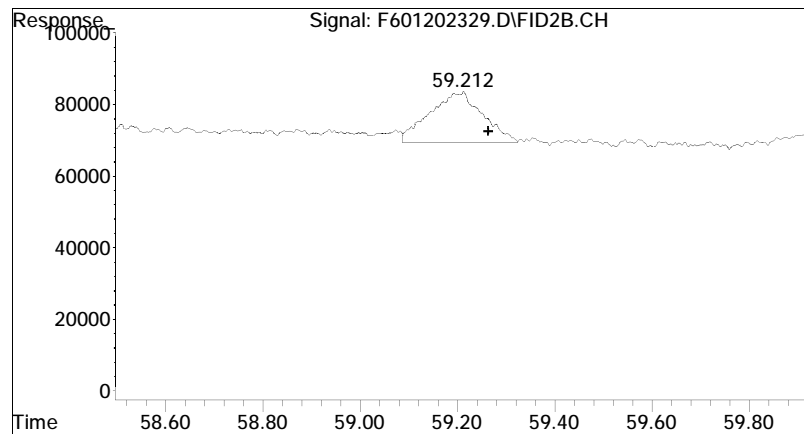
#39 n-Octatriacontane (C38)

R.T.: 54.317 min
Delta R.T.: -0.047 min
Response: 1606429
Conc: 1.56 ug/mL M4



#40 n-Nonatriacontane (C39)

R.T.: 56.558 min
Delta R.T.: 0.000 min
Response: 914711
Conc: 0.91 ug/mL M4



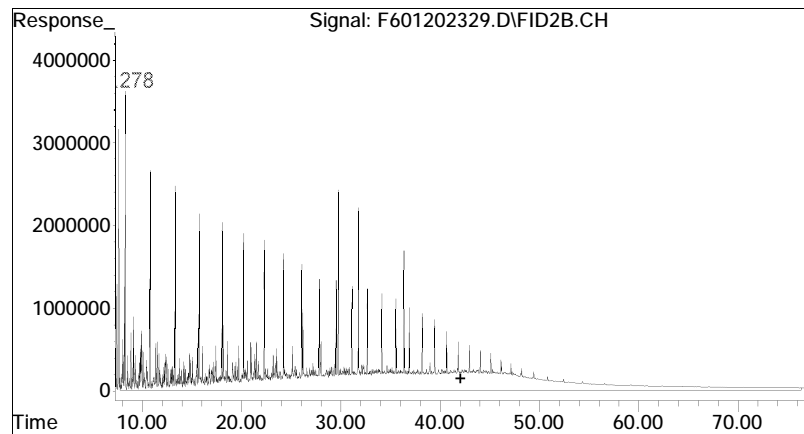
#41 n-Tetracontane (C40)

R.T.: 59.212 min

Delta R.T.: -0.051 min

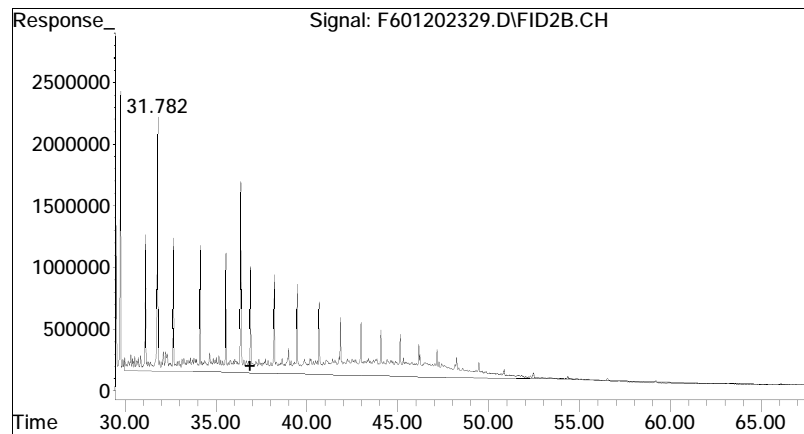
Response: 1061691

Conc: 1.05 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 42.079 min
Delta R.T.: 0.000 min
Response: 6213358208
Conc: 6349.65 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 36.878 min
Delta R.T.: 0.000 min
Response: 421673508
Conc: 430.92 ug/L m

Data Path : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\
 Data File : F601202327.D
 Signal(s) : FID2B.CH
 Acq On : 21 Jan 2023 6:21 am
 Operator : FID6:WR
 Sample : IB601202301R
 Misc :
 ALS Vial : 64 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Mar 08 15:37:56 2023
 Quant Method : O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Wed Mar 08 11:41:41 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : TPH - TPH

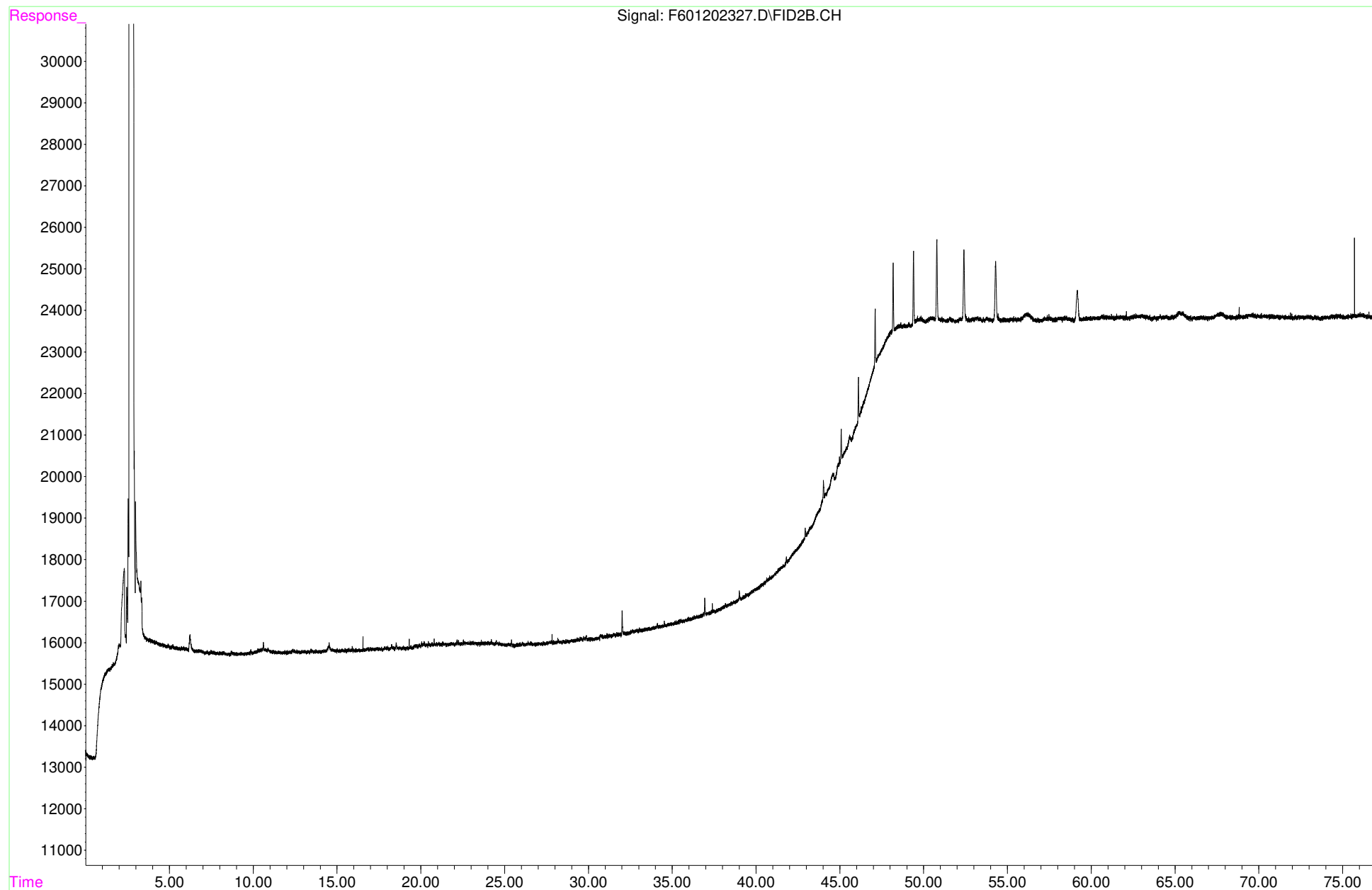
Compound	R.T.	Response	Conc Units
Internal Standards			
1) I 5-alpha-androstane	31.722	3451	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
24) s d50-Tetracosane	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
Target Compounds			
42) h C9-C44 Total Petroleu...	42.079	200580755	3054775.447 ug/mL M5
49) h Total Resolved Hydroc...	36.878	1070646	16305.565 ug/L m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

File :O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\F601202327.D
Operator : FID6:WR
Acquired : 21 Jan 2023 6:21 am using AcqMethod FID6A.M
Sample Name: IB601202301R
Instrument: FID6
Misc Info :
Vial Number: 64
CurrentMeth: O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\HC6012023R_DRO.M



Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

May 05 2023, 02:16 pm

Work Group: WG1769534 for Department: 2 Organic Preparation

Created: 21-APR-23 Due: Operator: NAG

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2320537-01	MW2112-041723-NAPL	S A2-ALKPAH	OIL	DONE	U	0416	0509	S0	Glass-A.06
L2320537-01	MW2112-041723-NAPL	S A2-SHC	OIL	DONE	U	0416	0509	S0	Glass-A.06
WG1769534-1	Laboratory Method Bl	S A2-SHC	OIL	DONE	U				
WG1769534-1	Laboratory Method Bl	S A2-ALKPAH	OIL	DONE	U				
WG1769534-2	Laboratory Control S	S A2-SHC	OIL	DONE	U				
WG1769534-2	Laboratory Control S	S A2-ALKPAH	OIL	DONE	U				
WG1769534-3	LCS Duplicate	S A2-SHC	OIL	DONE	U				
WG1769534-3	LCS Duplicate	S A2-ALKPAH	OIL	DONE	U				
WG1769534-4	Duplicate Sample	S A2-ALKPAH	OIL	DONE	U				
WG1769534-4	Duplicate Sample	S A2-SHC	OIL	DONE	U				
Comments:									
WG1769534-3	WG1769534-2								
WG1769534-4	L2320537-01								

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

May 05 2023, 02:16 pm

Work Group: WG1770361 for Department: 2 Organic Preparation

Created: 24-APR-23 Due: Operator: BLR

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2320537-02	MW2112-041723-NET	S A2-ALKPAH	WIPE	DONE	U	0501	0509	S0	Glass-AH.120
L2320537-02	MW2112-041723-NET	S A2-SHC	WIPE	DONE	U	0501	0509	S0	Glass-AH.120
WG1770361-1	Laboratory Method Bl	S A2-ALKPAH	WIPE	DONE	U				
WG1770361-1	Laboratory Method Bl	S A2-SHC	WIPE	DONE	U				
WG1770361-2	Laboratory Control S	S A2-ALKPAH	WIPE	DONE	U				
WG1770361-2	Laboratory Control S	S A2-SHC	WIPE	DONE	U				
WG1770361-3	LCS Duplicate	S A2-SHC	WIPE	DONE	U				
WG1770361-3	LCS Duplicate	S A2-ALKPAH	WIPE	DONE	U				
Comments:									
WG1770361-3	WG1770361-2								

Sequence Logs

Analysis log File

Total Files Reported in Log : 17

Log Generated From Directory: O:\Forensics\Data\FID17\2023\JAN\JAN03\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F1701032202.D	FID17A.M	LL		1/3/2023	9:41 am
2	F1701032204.D	FID17A.M	ANS		1/3/2023	11:11 am
3	F1701032206.D	FID17A.M	CCV		1/3/2023	12:42 pm
4	F1701032208.D	FID17A.M	DCM		1/3/2023	2:12 pm
5	F1701032210.D	FID17A.M	DCM		1/3/2023	3:42 pm
6	F1701032212.D	FID17A.M	I1701032301F	W..	1/3/2023	5:12 pm
7	F1701032214.D	FID17A.M	I1701032302F	W..	1/3/2023	6:42 pm
8	F1701032216.D	FID17A.M	I1701032303F	W..	1/3/2023	8:12 pm
9	F1701032218.D	FID17A.M	I1701032304F	W..	1/3/2023	9:42 pm
10	F1701032220.D	FID17A.M	I1701032305F	W..	1/3/2023	11:12 pm
11	F1701032222.D	FID17A.M	I1701032306F	W..	1/4/2023	12:42 am
12	F1701032224.D	FID17A.M	DCM		1/4/2023	2:12 am
13	F1701032226.D	FID17A.M	CQ1701032301F	W..	1/4/2023	3:42 am
14	F1701032228.D	FID17A.M	IB1701032301F		1/4/2023	5:12 am
15	F1701032230.D	FID17A.M	WG1734833-1,0.10296	W..	1/4/2023	6:42 am
16	F1701032232.D	FID17A.M	DCM		1/4/2023	8:12 am
17	F1701032234.D	FID17A.M	DCM EF679-US	2..	1/4/2023	4:10 pm

Printed: 01/19/23

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Analysis log File

Total Files Reported in Log : 17

Log Generated From Directory: O:\Forensics\Data\FID6\2023\JAN\JAN20.SEC\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F601202301.D	FID6A.M	LL		1/20/2023	10:05 am
2	F601202303.D	FID6A.M	ANS		1/20/2023	11:32 am
3	F601202305.D	FID6A.M	CCV		1/20/2023	2:21 pm
4	F601202307.D	FID6A.M	DCM		1/20/2023	3:49 pm
5	F601202309.D	FID6A.M	DCM		1/20/2023	5:16 pm
6	F601202311.D	FID6A.M	I601202301R	WG1752810,FRBF55,1ug/ml	1/20/2023	6:43 pm
7	F601202313.D	FID6A.M	I601202302R	WG1752810,FRBF56,10ug/m..	1/20/2023	8:11 pm
8	F601202315.D	FID6A.M	I601202303R	WG1752810,FRBF79,50ug/m..	1/20/2023	9:38 pm
9	F601202317.D	FID6A.M	I601202304R	WG1752810,FRBF57,100ug/..	1/20/2023	11:05 pm
10	F601202319.D	FID6A.M	I601202305R	WG1752810,FRBF58,200ug/..	1/21/2023	12:33 am
11	F601202321.D	FID6A.M	I601202306R	WG1752810,FRBF59,500ug/..	1/21/2023	2:00 am
12	F601202323.D	FID6A.M	DCM		1/21/2023	3:27 am
13	F601202325.D	FID6A.M	CQ01202301R	WG1752810,FRBF61,50ug/m..	1/21/2023	4:54 am
14	F601202327.D	FID6A.M	IB601202301R		1/21/2023	6:21 am
15	F601202329.D	FID6A.M	WG1752810-1,0.10296	WG1752810,FRBF22,10.296..	1/21/2023	7:48 am
16	F601202331.D	FID6A.M	DCM		1/21/2023	9:15 am
17	F601202333.D	FID6A.M	DCM		1/21/2023	10:43 am

Analysis log File

Total Files Reported in Log : 26

Log Generated From Directory: O:\Forensics\Data\FID6\2023\APR\APR24.SEC\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F604242301.D	FID6A.M	LL		4/24/2023	10:04 am
2	F604242303.D	FID6A.M	ANS		4/24/2023	11:31 am
3	F604242305.D	FID6A.M	WG1770521-1	WG1770521,FRBF79,ICAL19..	4/24/2023	12:58 pm
4	F604242307.D	FID6A.M	DCM		4/24/2023	2:25 pm
5	F604242309.D	FID6A.M	IB604242301R		4/24/2023	3:53 pm
6	F604242311.D	FID6A.M	WG1769534-1	WG1770521, WG1769534, ICA..	4/24/2023	5:20 pm
7	F604242313.D	FID6A.M	WG1769029-1	WG1770521, WG1769029, ICA..	4/24/2023	6:47 pm
8	F604242315.D	FID6A.M	WG1769534-2	WG1770521, WG1769534, ICA..	4/24/2023	8:14 pm
9	F604242317.D	FID6A.M	WG1769534-3	WG1770521, WG1769534, ICA..	4/24/2023	9:42 pm
10	F604242319.D	FID6A.M	WG1769029-2	WG1770521, WG1769029, ICA..	4/24/2023	11:09 pm
11	F604242321.D	FID6A.M	WG1769029-3	WG1770521, WG1769029, ICA..	4/25/2023	12:36 am
12	F604242323.D	FID6A.M	DCM		4/25/2023	2:03 am
13	F604242325.D	FID6A.M	L2320537-01	WG1770521, WG1769534, ICA..	4/25/2023	3:30 am
14	F604242327.D	FID6A.M	WG1769534-4	WG1770521, WG1769534, ICA..	4/25/2023	4:57 am
15	F604242329.D	FID6A.M	L2320300-01	WG1770521, WG1769029, ICA..	4/25/2023	6:24 am
16	F604242331.D	FID6A.M	L2320300-02	WG1770521, WG1769029, ICA..	4/25/2023	7:51 am
17	F604242333.D	FID6A.M	L2320300-03	WG1770521, WG1769029, ICA..	4/25/2023	9:18 am
18	F604242335.D	FID6A.M	WG1770521-2	WG1770521, FRBF79, ICA..	4/25/2023	10:46 am
19	F604242337.D	FID6A.M	IB604242302R		4/25/2023	12:13 pm
20	F604242339.D	FID6A.M	DCM		4/25/2023	1:41 pm
21	F604242341.D	FID6A.M	L2320300-04	WG1770521, WG1769029, ICA..	4/25/2023	3:08 pm
22	F604242343.D	FID6A.M	L2320300-05	RR 10X, 20X	4/25/2023	4:36 pm
23	F604242345.D	FID6A.M	WG1769420-5 LOQ	WG1770521, WG1769420, ICA..	4/25/2023	6:03 pm
24	F604242347.D	FID6A.M	WG1770521-3	WG1770521, FRBF79, ICA..	4/25/2023	7:30 pm
25	F604242349.D	FID6A.M	DCM		4/25/2023	8:58 pm
26	F604242351.D	FID6A.M	SURR CHECK		4/25/2023	10:25 pm

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Analysis log File

Total Files Reported in Log : 14

Log Generated From Directory: O:\Forensics\Data\FID6\2023\APR\APR27.SEC\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F604272301.D	FID6A.M	LL		4/27/2023	9:29 am
2	F604272303.D	FID6A.M	ANS		4/27/2023	10:56 am
3	F604272305.D	FID6A.M	WG1772076-1	W..	4/27/2023	12:23 pm
4	F604272307.D	FID6A.M	DCM		4/27/2023	1:50 pm
5	F604272309.D	FID6A.M	IB604272301R		4/27/2023	3:17 pm
6	F604272311.D	FID6A.M	WG1770361-1	W..	4/27/2023	4:44 pm
7	F604272313.D	FID6A.M	WG1770361-2	W..	4/27/2023	6:11 pm
8	F604272315.D	FID6A.M	WG1770361-3	W..	4/27/2023	7:38 pm
9	F604272317.D	FID6A.M	DCM		4/27/2023	9:05 pm
10	F604272319.D	FID6A.M	L2320537-02	W..	4/27/2023	10:33 pm
11	F604272321.D	FID6A.M	WG1769060-4	W..	4/28/2023	12:00 am
12	F604272323.D	FID6A.M	WG1772076-2	W..	4/28/2023	1:27 am
13	F604272325.D	FID6A.M	DCM		4/28/2023	2:54 am
14	F604272327.D	FID6A.M	IS CHECK		4/28/2023	4:21 am

Printed: 05/05/23

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Analysis log File

Total Files Reported in Log : 10

Log Generated From Directory: O:\Forensics\Data\FID17\2023\MAY\MAY04\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F1705042302.D	FID17A.M	LL		5/4/2023	9:29 am
2	F1705042304.D	FID17A.M	ANS		5/4/2023	10:56 am
3	F1705042306.D	FID17A.M	WG1772076-3	W..	5/4/2023	12:23 pm
4	F1705042308.D	FID17A.M	DCM		5/4/2023	1:51 pm
5	F1705042310.D	FID17A.M	IB1705042301F		5/4/2023	3:18 pm
6	F1705042312.D	FID17A.M	L2320537-02D,42,10	W..	5/4/2023	4:45 pm
7	F1705042314.D	FID17A.M	WG1772076-4	W..	5/4/2023	6:13 pm
8	F1705042316.D	FID17A.M	DCM		5/4/2023	7:40 pm
9	F1705042318.D	FID17A.M	IB		5/4/2023	9:07 pm
10	F1705042320.D	FID17A.M	SILICA BCCH7150		5/4/2023	10:34 pm

Printed: 05/05/23

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Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID17\2023\MAY\MAY04\
 Data File : F1705042306.D
 Signal(s) : FID1A.CH
 Acq On : 04 May 2023 12:23 pm
 Operator : FID17:WR
 Sample : WG1772076-3
 Misc : WG1772076,FRBF94,ICAL19667
 ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 05 09:50:51 2023
 Quant Method : O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri May 05 09:44:09 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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	5-alpha-androstane	^	1.000	1.000	0.0	91	0.00
2 t	n-Octane (C8)		0.817	0.797	2.4	93	0.00
3 t	n-Nonane (C9)		0.850	0.833	2.0	94	0.00
4 t	n-Decane (C10)		0.885	0.889	-0.5	97	0.00
5 t	n-Undecane (C11)		0.887	0.902	-1.7	97	0.00
6 t	n-Dodecane (C12)		0.895	0.910	-1.7	97	0.00
7 t	n-Tridecane (C13)		0.899	0.922	-2.6	98	0.00
9 t	n-Tetradecane (C14)		0.923	0.943	-2.2	98	0.00
11 t	n-Pentadecane (C15)		0.927	0.940	-1.4	98	0.00
12 t	n-Hexadecane (C16)		0.924	0.960	-3.9	99	0.00
14 t	n-Heptadecane (C17)		0.937	0.971	-3.6	99	0.00
15 t	Pristane		0.947	0.988	-4.3	100	0.00
16 t	n-Octadecane (C18)		0.944	0.982	-4.0	100	0.00
17 t	Phytane		0.880	0.919	-4.4	100	0.00
18 t	n-Nonadecane (C19)		0.944	0.980	-3.8	100	0.00
19 s	ortho-terphenyl		1.061	1.093	-3.0	95	0.00
20 t	n-Eicosane (C20)		0.951	0.999	-5.0	101	0.00
21 t	n-Heneicosane (C21)		0.952	0.995	-4.5	101	0.00
22 t	n-Docosane (C22)		0.954	1.011	-6.0	101	0.00
23 t	n-Tricosane (C23)		0.955	1.011	-5.9	101	0.00
24 s	d50-Tetracosane		0.830	0.874	-5.3	97	0.00
25 t	n-Tetracosane (C24)		0.939	0.961	-2.3	102	0.00
26 t	n-Pentacosane (C25)		0.933	0.998	-7.0	102	0.00
27 t	n-Hexacosane (C26)		0.956	1.028	-7.5	102	0.00
28 t	n-Heptacosane (C27)		0.948	0.990	-4.4	102	0.00
29 t	n-Octacosane (C28)		0.970	1.030	-6.2	102	0.00
30 t	n-Nonacosane (C29)		0.962	1.025	-6.5	102	0.00
31 t	n-Triacontane (C30)		0.963	1.026	-6.5	102	0.00
32 t	n-Hentriacontane (C31)		0.929	0.992	-6.8	102	0.00
33 t	n-Dotriacontane (C32)		0.972	1.039	-6.9	102	0.00
34 t	n-Tritriacontane (C33)		0.940	0.997	-6.1	102	0.00
35 t	n-tetratriacontane (C34)		0.933	0.992	-6.3	102	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID17\2023\MAY\MAY04\
 Data File : F1705042306.D
 Signal(s) : FID1A.CH
 Acq On : 04 May 2023 12:23 pm
 Operator : FID17:WR
 Sample : WG1772076-3
 Misc : WG1772076,FRBF94,ICAL19667
 ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 05 09:50:51 2023
 Quant Method : O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri May 05 09:44:09 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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)
36 t	n-Pentatriacontane (C35)	0.887	0.998	-12.5	102	0.00
37 t	n-Hexatriacontane (C36)	1.039	1.072	-3.2	102	0.00
38 t	n-Heptatriacontane (C37)	0.953	0.984	-3.3	102	0.00
39 t	n-Octatriacontane (C38)	0.967	1.015	-5.0	102	0.00
41 t	n-Tetracontane (C40)	0.954	1.018	-6.7	102	0.00

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 (^) = ISTD area calculated using ICAL average

Mass Discrimination (Response)	Ratio	Range Limits
n-Hexatriacontane (C36) to n-Eicosane (C20)	1.07	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\MAY\MAY04\
 Data File : F1705042306.D
 Signal(s) : FID1A.CH
 Acq On : 04 May 2023 12:23 pm
 Operator : FID17:WR
 Sample : WG1772076-3
 Misc : WG1772076,FRBF94,ICAL19667
 ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 05 09:50:51 2023
 Quant Method : O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri May 05 09:44:09 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc	Units

Internal Standards				
1) I 5-alpha-androstane	30.727	56446528	50.000	ug/mL M4
System Monitoring Compounds				
19) s ortho-terphenyl	28.730	61690095	51.481	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	102.96%	
24) s d50-Tetracosane	35.436	49312098	52.652	ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	105.30%	
Target Compounds				
2) t n-Octane (C8)	5.233	44986460	48.748	ug/mL M4
3) t n-Nonane (C9)	7.385	47037458	49.010	ug/mL M4
4) t n-Decane (C10)	9.842	50162415	50.185	ug/mL M4
5) t n-Undecane (C11)	12.344	50924713	50.871	ug/mL M4
6) t n-Dodecane (C12)	14.768	51381688	50.866	ug/mL M4
7) t n-Tridecane (C13)	17.074	52070306	51.299	ug/mL M4
9) t n-Tetradecane (C14)	19.257	53221603	51.061	ug/mL M4
11) t n-Pentadecane (C15)	21.324	53086970	50.702	ug/mL M4
12) t n-Hexadecane (C16)	23.280	54191389	51.958	ug/mL M4
14) t n-Heptadecane (C17)	25.141	54805026	51.796	ug/mL M4
15) t Pristane	25.251	55794437	52.180	ug/mL M4
16) t n-Octadecane (C18)	26.908	55456399	52.042	ug/mL M4
17) t Phytane	27.067	51863944	52.178	ug/mL M4
18) t n-Nonadecane (C19)	28.595	55324279	51.903	ug/mL M4
20) t n-Eicosane (C20)	30.201	56403681	52.512	ug/mL M4
21) t n-Heneicosane (C21)	31.737	56139221	52.210	ug/mL M4
22) t n-Docosane (C22)	33.211	57040591	52.955	ug/mL M4
23) t n-Tricosane (C23)	34.625	57043778	52.897	ug/mL M4
25) t n-Tetracosane (C24)	35.983	54236200	51.142	ug/mL M4
26) t n-Pentacosane (C25)	37.289	56307067	53.446	ug/mL M4
27) t n-Hexacosane (C26)	38.547	58020578	53.756	ug/mL M4
28) t n-Heptacosane (C27)	39.760	55889586	52.220	ug/mL M4
29) t n-Octacosane (C28)	40.931	58152675	53.116	ug/mL M4
30) t n-Nonacosane (C29)	42.063	57846462	53.250	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\MAY\MAY04\
Data File : F1705042306.D
Signal(s) : FID1A.CH
Acq On : 04 May 2023 12:23 pm
Operator : FID17:WR
Sample : WG1772076-3
Misc : WG1772076,FRBF94,ICAL19667
ALS Vial : 3 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: May 05 09:50:51 2023
Quant Method : O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M
Quant Title : FID Forensics
QLast Update : Fri May 05 09:44:09 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	43.156	57936774	53.267 ug/mL M4
32) t	n-Hentriacontane (C31)	44.216	55979288	53.387 ug/mL M4
33) t	n-Dotriacontane (C32)	45.246	58667286	53.482 ug/mL M4
34) t	n-Tritriacontane (C33)	46.236	56291297	53.050 ug/mL M4
35) t	n-tetratriacontane (C34)	47.217	55982163	53.122 ug/mL M4
36) t	n-Pentatriacontane (C35)	48.275	56353618	56.288 ug/mL M4
37) t	n-Hexatriacontane (C36)	49.491	60482734	51.547 ug/mL M4
38) t	n-Heptatriacontane (C37)	50.885	55542992	51.618 ug/mL M4
39) t	n-Octatriacontane (C38)	52.512	57305831	52.507 ug/mL M4
41) t	n-Tetracontane (C40)	56.655	57481316	53.396 ug/mL M4

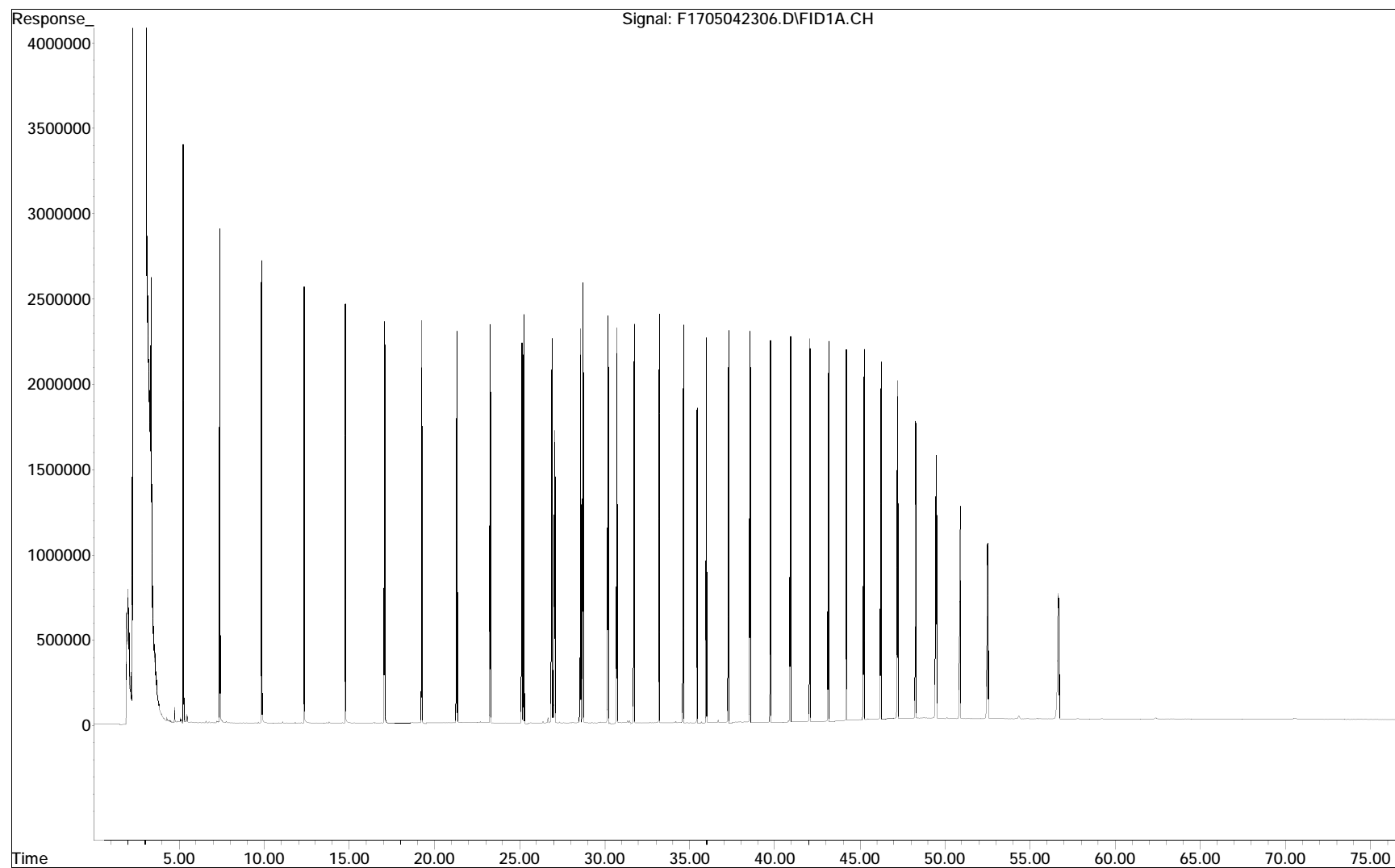
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID17\2023\MAY\MAY04\F1705042306.D
 Operator : FID17:WR
 Acquired : 04 May 2023 12:23 pm using AcqMethod FID17A.M
 Sample Name: WG1772076-3
 Instrument: FID17
 Misc Info : WG1772076,FRBF94,ICAL19667
 Vial Number: 3
 CurrentMeth: O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID17\2023\MAY\MAY04\
 Data File : F1705042314.D
 Signal(s) : FID1A.CH
 Acq On : 04 May 2023 6:13 pm
 Operator : FID17:WR
 Sample : WG1772076-4
 Misc : WG1772076,FRBF94,ICAL19667
 ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 05 10:54:13 2023
 Quant Method : O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri May 05 09:44:09 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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	5-alpha-androstane	^	1.000	1.000	0.0	89	0.00
2 t	n-Octane (C8)		0.817	0.779	4.7	89	0.00
3 t	n-Nonane (C9)		0.850	0.812	4.5	90	0.00
4 t	n-Decane (C10)		0.885	0.876	1.0	93	0.00
5 t	n-Undecane (C11)		0.887	0.894	-0.8	94	0.00
6 t	n-Dodecane (C12)		0.895	0.904	-1.0	95	0.00
7 t	n-Tridecane (C13)		0.899	0.918	-2.1	95	0.00
9 t	n-Tetradecane (C14)		0.923	0.940	-1.8	96	0.00
11 t	n-Pentadecane (C15)		0.927	0.941	-1.5	97	0.00
12 t	n-Hexadecane (C16)		0.924	0.960	-3.9	97	0.00
14 t	n-Heptadecane (C17)		0.937	0.969	-3.4	97	0.00
15 t	Pristane		0.947	0.989	-4.4	98	0.00
16 t	n-Octadecane (C18)		0.944	0.981	-3.9	98	0.00
17 t	Phytane		0.880	0.919	-4.4	98	0.00
18 t	n-Nonadecane (C19)		0.944	0.977	-3.5	98	0.00
19 s	ortho-terphenyl		1.061	1.094	-3.1	93	0.00
20 t	n-Eicosane (C20)		0.951	0.994	-4.5	98	0.00
21 t	n-Heneicosane (C21)		0.952	0.994	-4.4	99	0.00
22 t	n-Docosane (C22)		0.954	1.009	-5.8	99	0.00
23 t	n-Tricosane (C23)		0.955	1.006	-5.3	99	0.00
24 s	d50-Tetracosane		0.830	0.868	-4.6	94	0.00
25 t	n-Tetracosane (C24)		0.939	0.954	-1.6	99	0.00
26 t	n-Pentacosane (C25)		0.933	0.988	-5.9	99	0.00
27 t	n-Hexacosane (C26)		0.956	1.016	-6.3	99	0.00
28 t	n-Heptacosane (C27)		0.948	0.978	-3.2	99	0.00
29 t	n-Octacosane (C28)		0.970	1.018	-4.9	99	0.00
30 t	n-Nonacosane (C29)		0.962	1.011	-5.1	99	0.00
31 t	n-Triacontane (C30)		0.963	1.011	-5.0	99	0.00
32 t	n-Hentriacontane (C31)		0.929	0.978	-5.3	99	0.00
33 t	n-Dotriacontane (C32)		0.972	1.023	-5.2	99	0.00
34 t	n-Tritriacontane (C33)		0.940	0.983	-4.6	99	0.00
35 t	n-tetratriacontane (C34)		0.933	0.974	-4.4	98	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID17\2023\MAY\MAY04\
 Data File : F1705042314.D
 Signal(s) : FID1A.CH
 Acq On : 04 May 2023 6:13 pm
 Operator : FID17:WR
 Sample : WG1772076-4
 Misc : WG1772076,FRBF94,ICAL19667
 ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 05 10:54:13 2023
 Quant Method : O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri May 05 09:44:09 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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)
36 t	n-Pentatriacontane (C35)	0.887	0.982	-10.7	98	0.00
37 t	n-Hexatriacontane (C36)	1.039	1.052	-1.3	98	0.00
38 t	n-Heptatriacontane (C37)	0.953	0.966	-1.4	98	-0.01
39 t	n-Octatriacontane (C38)	0.967	0.997	-3.1	98	-0.03
41 t	n-Tetracontane (C40)	0.954	0.996	-4.4	98	-0.01

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 (^) = ISTD area calculated using ICAL average

Mass Discrimination (Response)	Ratio	Range Limits
n-Hexatriacontane (C36) to n-Eicosane (C20)	1.06	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\MAY\MAY04\
 Data File : F1705042314.D
 Signal(s) : FID1A.CH
 Acq On : 04 May 2023 6:13 pm
 Operator : FID17:WR
 Sample : WG1772076-4
 Misc : WG1772076,FRBF94,ICAL19667
 ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 05 10:54:13 2023
 Quant Method : O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri May 05 09:44:09 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	30.722	55405672	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	28.725	60597313	51.519 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	103.04%
24) s d50-Tetracosane	35.430	48111626	52.336 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	104.67%
Target Compounds			
2) t n-Octane (C8)	5.231	43170152	47.658 ug/mL M4
3) t n-Nonane (C9)	7.382	44998576	47.766 ug/mL M4
4) t n-Decane (C10)	9.840	48561875	49.496 ug/mL M4
5) t n-Undecane (C11)	12.341	49536765	50.414 ug/mL M4
6) t n-Dodecane (C12)	14.764	50059441	50.488 ug/mL M4
7) t n-Tridecane (C13)	17.070	50875700	51.063 ug/mL M4
9) t n-Tetradecane (C14)	19.253	52107821	50.932 ug/mL M4
11) t n-Pentadecane (C15)	21.318	52114601	50.708 ug/mL M4
12) t n-Hexadecane (C16)	23.275	53162514	51.929 ug/mL M4
14) t n-Heptadecane (C17)	25.136	53684484	51.690 ug/mL M4
15) t Pristane	25.246	54783007	52.197 ug/mL M4
16) t n-Octadecane (C18)	26.903	54365439	51.977 ug/mL M4
17) t Phytane	27.067	50904273	52.175 ug/mL M4
18) t n-Nonadecane (C19)	28.589	54136805	51.743 ug/mL M4
20) t n-Eicosane (C20)	30.195	55086595	52.249 ug/mL M4
21) t n-Heneicosane (C21)	31.735	55064293	52.173 ug/mL M4
22) t n-Docosane (C22)	33.207	55878486	52.850 ug/mL M4
23) t n-Tricosane (C23)	34.620	55731238	52.650 ug/mL M4
25) t n-Tetracosane (C24)	35.979	52854622	50.776 ug/mL M4
26) t n-Pentacosane (C25)	37.285	54735398	52.930 ug/mL M4
27) t n-Hexacosane (C26)	38.543	56293440	53.136 ug/mL M4
28) t n-Heptacosane (C27)	39.754	54207910	51.601 ug/mL M4
29) t n-Octacosane (C28)	40.925	56430081	52.511 ug/mL M4
30) t n-Nonacosane (C29)	42.055	56014987	52.533 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\MAY\MAY04\
 Data File : F1705042314.D
 Signal(s) : FID1A.CH
 Acq On : 04 May 2023 6:13 pm
 Operator : FID17:WR
 Sample : WG1772076-4
 Misc : WG1772076,FRBF94,ICAL19667
 ALS Vial : 7 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 05 10:54:13 2023
 Quant Method : O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri May 05 09:44:09 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	43.152	55987684	52.442 ug/mL M4
32) t	n-Hentriacontane (C31)	44.210	54171524	52.634 ug/mL M4
33) t	n-Dotriacontane (C32)	45.239	56694760	52.655 ug/mL M4
34) t	n-Tritriacontane (C33)	46.234	54438672	52.268 ug/mL M4
35) t	n-tetratriacontane (C34)	47.207	53989067	52.193 ug/mL M4
36) t	n-Pentatriacontane (C35)	48.269	54392860	55.350 ug/mL M4
37) t	n-Hexatriacontane (C36)	49.483	58265378	50.590 ug/mL M4
38) t	n-Heptatriacontane (C37)	50.871	53543698	50.694 ug/mL M4
39) t	n-Octatriacontane (C38)	52.487	55257700	51.582 ug/mL M4
41) t	n-Tetracontane (C40)	56.644	55172450	52.214 ug/mL M4

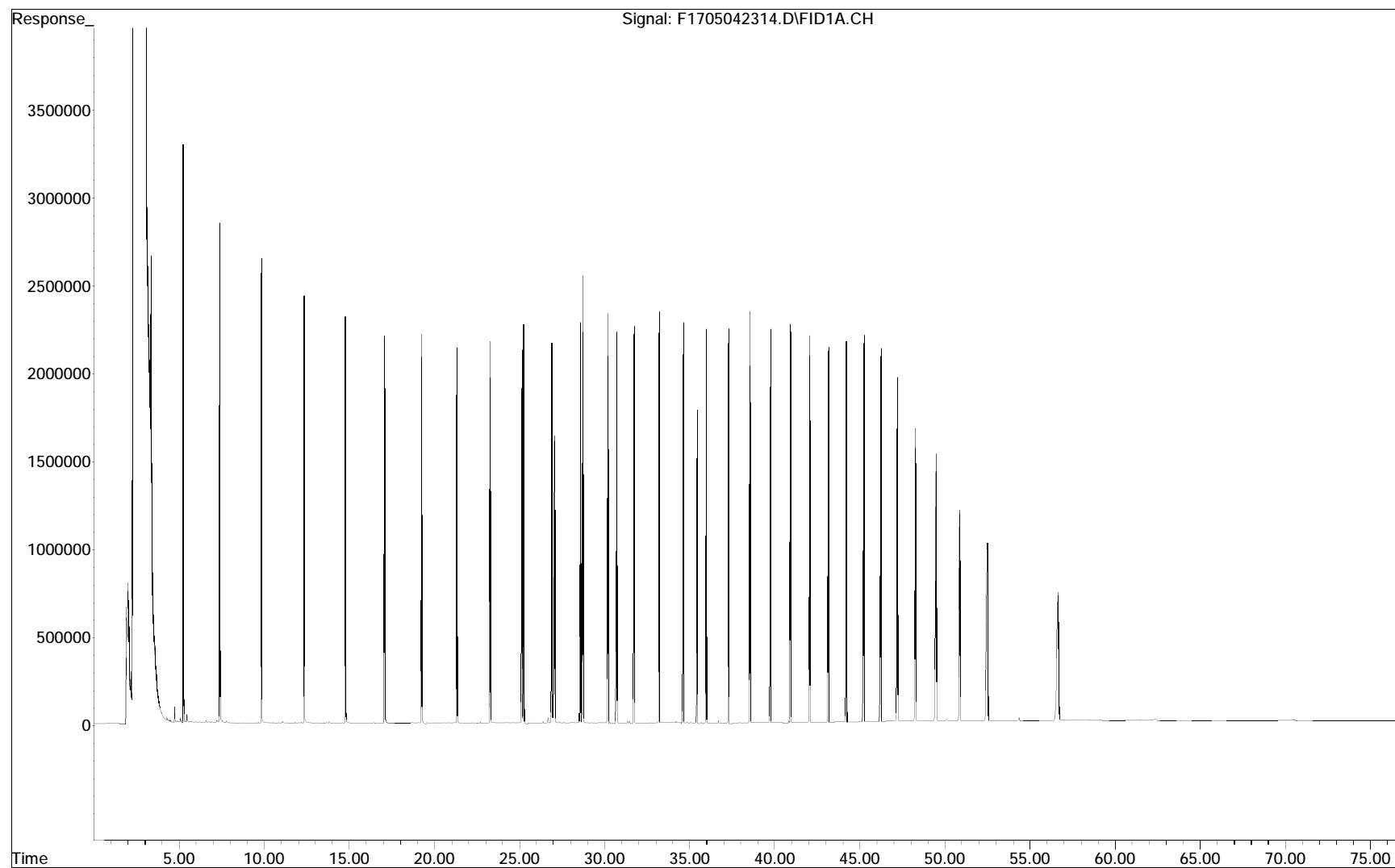
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID17\2023\MAY\MAY04\F1705042314.D
Operator : FID17:WR
Acquired : 04 May 2023 6:13 pm using AcqMethod FID17A.M
Sample Name: WG1772076-4
Instrument: FID17
Misc Info : WG1772076,FRBF94,ICAL19667
Vial Number: 7
CurrentMeth: O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\MAY\MAY04\
 Data File : F1705042312.D
 Signal(s) : FID1A.CH
 Acq On : 04 May 2023 4:45 pm
 Operator : FID17:WR
 Sample : L2320537-02D,42,10
 Misc : WG1772076,WG1770361,ICAL19667
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 05 11:45:34 2023
 Quant Method : O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri May 05 09:44:09 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB1705042301F
 Blank File : F1705042310.D

Sub List : SHC - SHC

Compound			R.T.	Response	Conc	Units

Internal Standards						
1) I	5-alpha-androstane		30.725	57829674	50.000	ug/mL M4
System Monitoring Compounds						
19) s	ortho-terphenyl		0.000	0	N.D.	ug/mL d
Spiked Amount 50.000		Range	50 - 130	Recovery =	0.00%#	
24) s	d50-Tetracosane		35.414	308682	0.322	ug/mL M4
Spiked Amount 50.000		Range	50 - 130	Recovery =	0.64%#	
Target Compounds						
2) t	n-Octane (C8)		0.000	0	N.D.	ug/mL
3) t	n-Nonane (C9)		0.000	0	N.D.	ug/mL
4) t	n-Decane (C10)		0.000	0	N.D.	ug/mL
5) t	n-Undecane (C11)		0.000	0	N.D.	ug/mL
6) t	n-Dodecane (C12)		0.000	0	N.D.	ug/mL d
7) t	n-Tridecane (C13)		0.000	0	N.D.	ug/mL d
8) t	1380		0.000	0	N.D.	ug/mL d
9) t	n-Tetradecane (C14)		0.000	0	N.D.	ug/mL
10) t	1470		0.000	0	N.D.	ug/mL d
11) t	n-Pentadecane (C15)		0.000	0	N.D.	ug/mL
12) t	n-Hexadecane (C16)		0.000	0	N.D.	ug/mL
13) t	1650		0.000	0	N.D.	ug/mL d
14) t	n-Heptadecane (C17)		0.000	0	N.D.	ug/mL d
15) t	Pristane		25.228	31619981	28.865	ug/mL M4
16) t	n-Octadecane (C18)		0.000	0	N.D.	ug/mL
17) t	Phytane		0.000	0	N.D.	ug/mL d
18) t	n-Nonadecane (C19)		0.000	0	N.D.	ug/mL
20) t	n-Eicosane (C20)		0.000	0	N.D.	ug/mL
21) t	n-Heneicosane (C21)		0.000	0	N.D.	ug/mL
22) t	n-Docosane (C22)		0.000	0	N.D.	ug/mL
23) t	n-Tricosane (C23)		0.000	0	N.D.	ug/mL

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID17\2023\MAY\MAY04\
 Data File : F1705042312.D
 Signal(s) : FID1A.CH
 Acq On : 04 May 2023 4:45 pm
 Operator : FID17:WR
 Sample : L2320537-02D,42,10
 Misc : WG1772076,WG1770361,ICAL19667
 ALS Vial : 6 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 05 11:45:34 2023
 Quant Method : O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri May 05 09:44:09 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB1705042301F
 Blank File : F1705042310.D

Sub List : SHC - SHC

	Compound	R.T.	Response	Conc	Units

25) t	n-Tetracosane (C24)	0.000	0	N.D.	ug/mL
26) t	n-Pentacosane (C25)	0.000	0	N.D.	ug/mL
27) t	n-Hexacosane (C26)	0.000	0	N.D.	ug/mL
28) t	n-Heptacosane (C27)	0.000	0	N.D.	ug/mL
29) t	n-Octacosane (C28)	0.000	0	N.D.	ug/mL
30) t	n-Nonacosane (C29)	0.000	0	N.D.	ug/mL
31) t	n-Triacontane (C30)	0.000	0	N.D.	ug/mL
32) t	n-Hentriacontane (C31)	0.000	0	N.D.	ug/mL
33) t	n-Dotriacontane (C32)	0.000	0	N.D.	ug/mL
34) t	n-Tritriacontane (C33)	0.000	0	N.D.	ug/mL
35) t	n-tetratriacontane (C34)	0.000	0	N.D.	ug/mL
36) t	n-Pentatriacontane (C35)	0.000	0	N.D.	ug/mL
37) t	n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL
38) t	n-Heptatriacontane (C37)	0.000	0	N.D.	ug/mL
39) t	n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL
40) t	n-Nonatriacontane (C39)	0.000	0	N.D.	ug/mL
41) t	n-Tetracontane (C40)	0.000	0	N.D.	ug/mL
42) h	C9-C44 Total Petroleu...	38.995	2400007586	2215.894	ug/mL m
42) h	C9-C44 Total Petroleu BS	38.995	2030385785	1874.628	ug/mLm
46) h	Total Resolved Hydroc...	40.681	599097286	553.138	ug/mL m

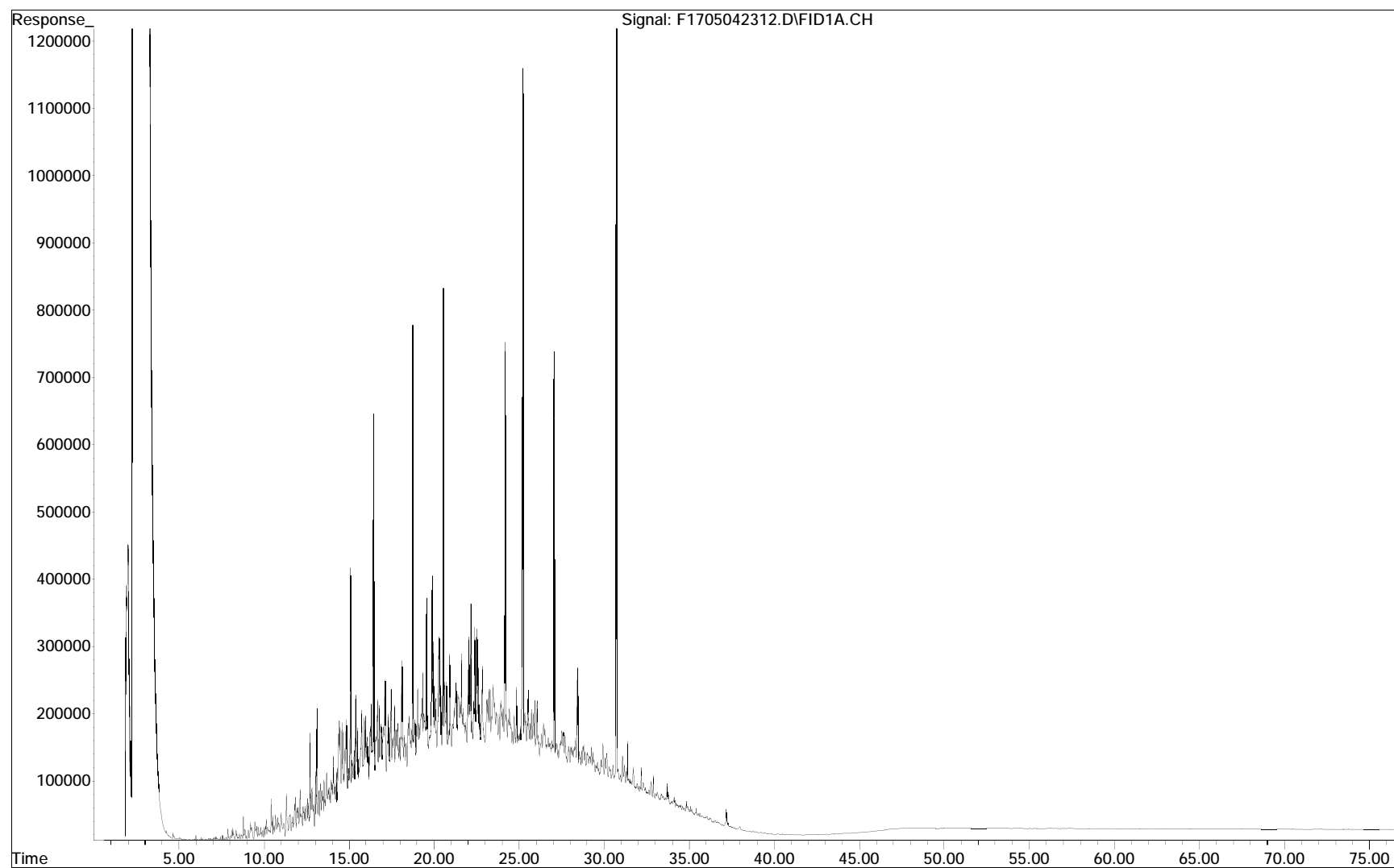
SemiQuant Compounds - Not Calibrated on this Instrument

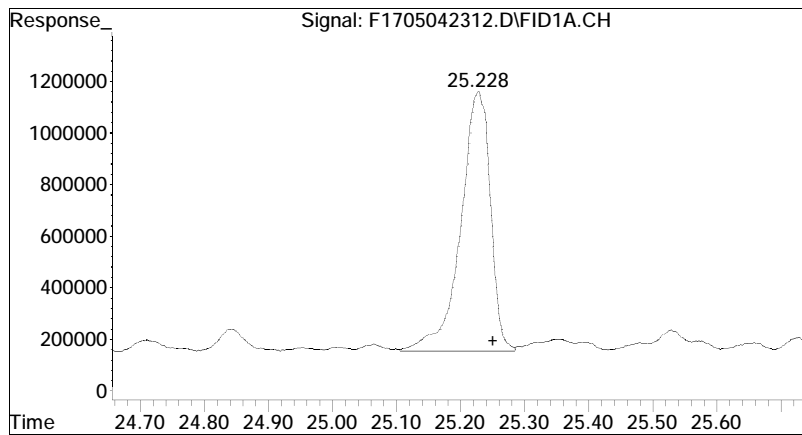
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

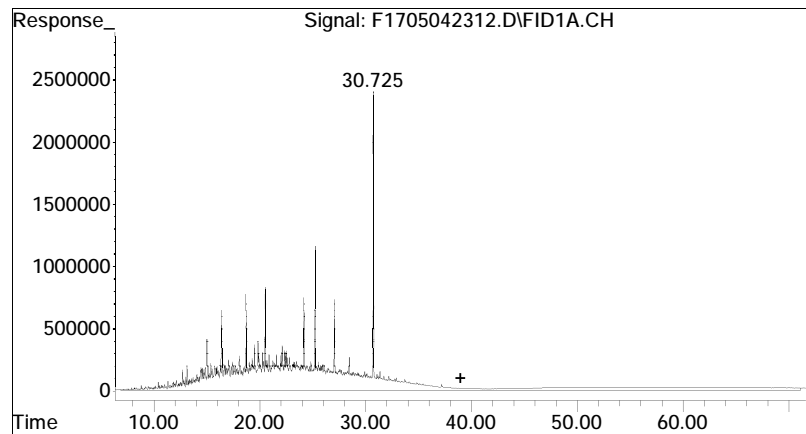
File : O:\Forensics\Data\FID17\2023\MAY\MAY04\F1705042312.D
Operator : FID17:WR
Acquired : 04 May 2023 4:45 pm using AcqMethod FID17A.M
Sample Name: L2320537-02D,42,10
Instrument: FID17
Misc Info : WG1772076,WG1770361,ICAL19667
Vial Number: 6
CurrentMeth: O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M





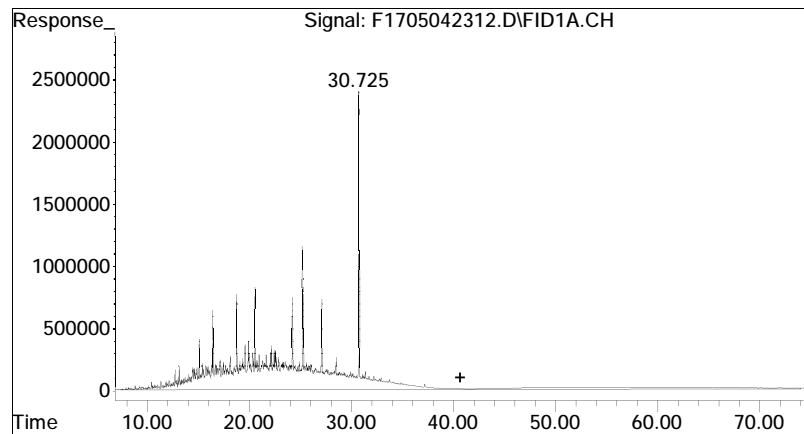
#15 Pristane

R.T.: 25.228 min
Delta R.T.: -0.024 min
Response: 31619981
Conc: 28.86 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 38.995 min
Delta R.T.: 0.000 min
Response: 2400007586
Conc: 2215.89 ug/mL m



#46 Total Resolved Hydrocarbo

R.T.: 40.681 min
Delta R.T.: 0.000 min
Response: 599097286
Conc: 553.14 ug/mL m

Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242305.D
 Signal(s) : FID2B.CH
 Acq On : 24 Apr 2023 12:58 pm
 Operator : FID6:AMV
 Sample : WG1770521-1
 Misc : WG1770521,FRBF79,ICAL19796
 ALS Vial : 53 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 28 16:07:03 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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	5-alpha-androstane	^	1.000	1.000	0.0	143	0.00
2 t	n-Octane (C8)		0.842	0.820	2.6	136	0.00
3 t	n-Nonane (C9)		0.854	0.858	-0.5	140	0.00
4 t	n-Decane (C10)		0.877	0.902	-2.9	145	0.00
5 t	n-Undecane (C11)		0.878	0.918	-4.6	146	0.00
6 t	n-Dodecane (C12)		0.888	0.922	-3.8	147	0.00
7 t	n-Tridecane (C13)		0.892	0.932	-4.5	147	0.00
9 t	n-Tetradecane (C14)		0.916	0.955	-4.3	148	0.00
11 t	n-Pentadecane (C15)		0.921	0.952	-3.4	148	0.00
12 t	n-Hexadecane (C16)		0.921	0.970	-5.3	148	0.00
14 t	n-Heptadecane (C17)		0.934	0.974	-4.3	147	0.00
15 t	Pristane		0.951	0.996	-4.7	148	0.00
16 t	n-Octadecane (C18)		0.946	0.983	-3.9	147	0.00
17 t	Phytane		0.880	0.925	-5.1	148	0.00
18 t	n-Nonadecane (C19)		0.951	0.977	-2.7	147	0.00
19 s	ortho-terphenyl		1.050	1.111	-5.8	144	0.00
20 t	n-Eicosane (C20)		0.961	0.993	-3.3	146	0.00
21 t	n-Heneicosane (C21)		0.965	0.983	-1.9	145	0.00
22 t	n-Docosane (C22)		0.971	0.996	-2.6	144	0.00
23 t	n-Tricosane (C23)		0.971	0.992	-2.2	143	0.00
24 s	d50-Tetracosane		0.855	0.823	3.7	130	0.00
25 t	n-Tetracosane (C24)		0.959	0.937	2.3	142	0.00
26 t	n-Pentacosane (C25)		0.955	0.967	-1.3	142	0.00
27 t	n-Hexacosane (C26)		0.981	0.993	-1.2	141	0.00
28 t	n-Heptacosane (C27)		0.974	0.956	1.8	141	0.00
29 t	n-Octacosane (C28)		1.000	0.994	0.6	140	0.00
30 t	n-Nonacosane (C29)		0.991	0.985	0.6	141	0.00
31 t	n-Triacontane (C30)		0.993	0.985	0.8	140	0.00
32 t	n-Hentriacontane (C31)		0.957	0.955	0.2	141	0.00
33 t	n-Dotriacontane (C32)		1.003	0.998	0.5	141	0.00
34 t	n-Tritriacontane (C33)		0.970	0.961	0.9	141	0.00
35 t	n-tetratriacontane (C34)		0.967	0.954	1.3	140	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242305.D
 Signal(s) : FID2B.CH
 Acq On : 24 Apr 2023 12:58 pm
 Operator : FID6:AMV
 Sample : WG1770521-1
 Misc : WG1770521,FRBF79,ICAL19796
 ALS Vial : 53 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 28 16:07:03 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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)
36 t	n-Pentatriacontane (C35)	0.917	0.963	-5.0	140	0.00
37 t	n-Hexatriacontane (C36)	1.081	1.034	4.3	140	0.00
38 t	n-Heptatriacontane (C37)	0.982	0.948	3.5	138	0.00
39 t	n-Octatriacontane (C38)	1.003	0.980	2.3	138	0.00
41 t	n-Tetracontane (C40)	0.981	0.982	-0.1	137	0.00

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 (^) = ISTD area calculated using ICAL average

Mass Discrimination (Response)	Ratio	Range Limits
n-Hexatriacontane (C36) to n-Eicosane (C20)	1.04	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242305.D
 Signal(s) : FID2B.CH
 Acq On : 24 Apr 2023 12:58 pm
 Operator : FID6:AMV
 Sample : WG1770521-1
 Misc : WG1770521,FRBF79,ICAL19796
 ALS Vial : 53 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: Apr 28 16:07:03 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.409	64801209	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.395	71968360	52.865 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	105.73%
24) s d50-Tetracosane	36.007	53349775	48.128 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	96.26%
Target Compounds			
2) t n-Octane (C8)	5.853	53163981	48.736 ug/mL M4
3) t n-Nonane (C9)	8.058	55571783	50.184 ug/mL M4
4) t n-Decane (C10)	10.534	58469706	51.414 ug/mL M4
5) t n-Undecane (C11)	13.031	59474068	52.265 ug/mL M4
6) t n-Dodecane (C12)	15.442	59718894	51.885 ug/mL M4
7) t n-Tridecane (C13)	17.734	60423852	52.272 ug/mL M4
9) t n-Tetradecane (C14)	19.904	61859638	52.112 ug/mL M4
11) t n-Pentadecane (C15)	21.959	61671388	51.670 ug/mL M4
12) t n-Hexadecane (C16)	23.906	62855982	52.670 ug/mL M4
14) t n-Heptadecane (C17)	25.758	63130666	52.133 ug/mL M4
15) t Pristane	25.866	64556063	52.366 ug/mL M4
16) t n-Octadecane (C18)	27.517	63668104	51.942 ug/mL M4
17) t Phytane	27.679	59922410	52.542 ug/mL M4
18) t n-Nonadecane (C19)	29.194	63341851	51.419 ug/mL M4
20) t n-Eicosane (C20)	30.794	64331106	51.631 ug/mL M4
21) t n-Heneicosane (C21)	32.325	63729993	50.975 ug/mL M4
22) t n-Docosane (C22)	33.793	64557090	51.324 ug/mL M4
23) t n-Tricosane (C23)	35.201	64292171	51.091 ug/mL M4
25) t n-Tetracosane (C24)	36.555	60717379	48.853 ug/mL M4
26) t n-Pentacosane (C25)	37.854	62669894	50.620 ug/mL M4
27) t n-Hexacosane (C26)	39.109	64355422	50.632 ug/mL M4
28) t n-Heptacosane (C27)	40.318	61924308	49.075 ug/mL M4
29) t n-Octacosane (C28)	41.487	64399731	49.683 ug/mL M4
30) t n-Nonacosane (C29)	42.614	63797370	49.662 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
Data File : F604242305.D
Signal(s) : FID2B.CH
Acq On : 24 Apr 2023 12:58 pm
Operator : FID6:AMV
Sample : WG1770521-1
Misc : WG1770521,FRBF79,ICAL19796
ALS Vial : 53 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Apr 28 16:07:03 2023
Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
Quant Title : FID Forensics
QLast Update : Fri Apr 28 16:00:05 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	43.703	63815557	49.598 ug/mL M4
32) t	n-Hentriacontane (C31)	44.758	61881922	49.917 ug/mL M4
33) t	n-Dotriacontane (C32)	45.788	64659347	49.764 ug/mL M4
34) t	n-Tritriacontane (C33)	46.776	62251983	49.497 ug/mL M4
35) t	n-tetratriacontane (C34)	47.804	61831992	49.314 ug/mL M4
36) t	n-Pentatriacontane (C35)	48.958	62373200	52.494 ug/mL M4
37) t	n-Hexatriacontane (C36)	50.284	67024019	47.857 ug/mL M4
38) t	n-Heptatriacontane (C37)	51.812	61436025	48.266 ug/mL M4
39) t	n-Octatriacontane (C38)	53.601	63532488	48.887 ug/mL M4
41) t	n-Tetracontane (C40)	58.196	63609287	50.027 ug/mL M4

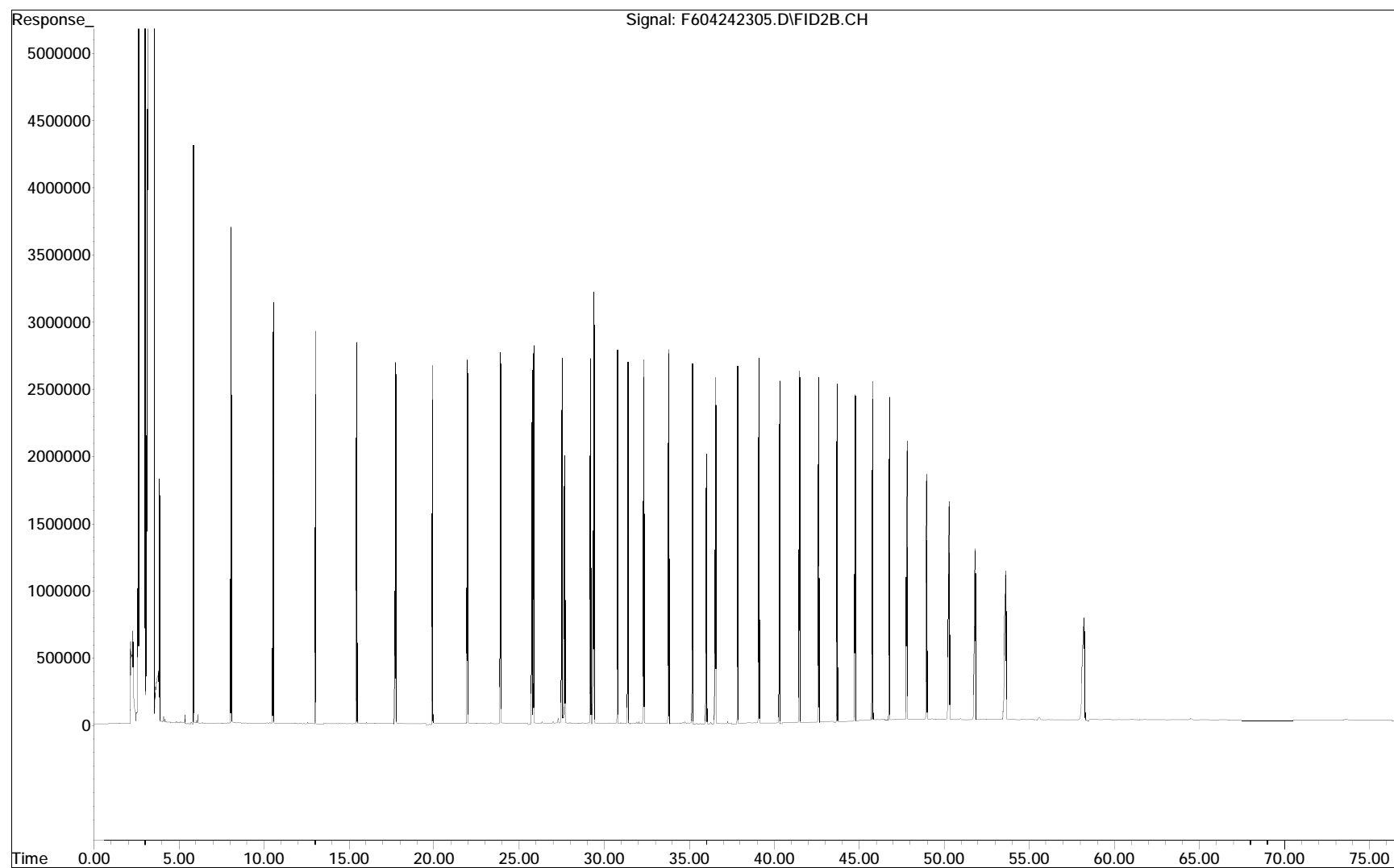
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\F604242305.D
Operator : FID6:AMV
Acquired : 24 Apr 2023 12:58 pm using AcqMethod FID6A.M
Sample Name: WG1770521-1
Instrument: FID6
Misc Info : WG1770521,FRBF79,ICAL19796
Vial Number: 53
CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242335.D
 Signal(s) : FID2B.CH
 Acq On : 25 Apr 2023 10:46 am
 Operator : FID6:AMV
 Sample : WG1770521-2
 Misc : WG1770521,FRBF79,ICAL19796
 ALS Vial : 68 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 03 13:31:46 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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	5-alpha-androstane	^	1.000	1.000	0.0	155	0.00
2 t	n-Octane (C8)		0.842	0.779	7.5	141	0.00
3 t	n-Nonane (C9)		0.854	0.832	2.6	148	0.00
4 t	n-Decane (C10)		0.877	0.891	-1.6	156	0.00
5 t	n-Undecane (C11)		0.878	0.915	-4.2	158	0.00
6 t	n-Dodecane (C12)		0.888	0.924	-4.1	160	0.00
7 t	n-Tridecane (C13)		0.892	0.938	-5.2	161	0.00
9 t	n-Tetradecane (C14)		0.916	0.962	-5.0	162	0.00
11 t	n-Pentadecane (C15)		0.921	0.959	-4.1	162	0.00
12 t	n-Hexadecane (C16)		0.921	0.982	-6.6	163	0.00
14 t	n-Heptadecane (C17)		0.934	0.987	-5.7	162	0.00
15 t	Pristane		0.951	1.011	-6.3	163	0.00
16 t	n-Octadecane (C18)		0.946	0.995	-5.2	162	0.00
17 t	Phytane		0.880	0.935	-6.3	162	0.00
18 t	n-Nonadecane (C19)		0.951	0.988	-3.9	161	0.00
19 s	ortho-terphenyl		1.050	1.122	-6.9	158	0.00
20 t	n-Eicosane (C20)		0.961	0.999	-4.0	159	0.00
21 t	n-Heneicosane (C21)		0.965	0.983	-1.9	157	0.00
22 t	n-Docosane (C22)		0.971	0.997	-2.7	157	0.00
23 t	n-Tricosane (C23)		0.971	0.993	-2.3	156	0.00
24 s	d50-Tetracosane		0.855	0.823	3.7	141	0.00
25 t	n-Tetracosane (C24)		0.959	0.938	2.2	155	0.00
26 t	n-Pentacosane (C25)		0.955	0.963	-0.8	153	0.00
27 t	n-Hexacosane (C26)		0.981	0.984	-0.3	152	0.00
28 t	n-Heptacosane (C27)		0.974	0.945	3.0	152	0.00
29 t	n-Octacosane (C28)		1.000	0.982	1.8	151	0.00
30 t	n-Nonacosane (C29)		0.991	0.971	2.0	150	0.00
31 t	n-Triacontane (C30)		0.993	0.971	2.2	150	0.00
32 t	n-Hentriacontane (C31)		0.957	0.944	1.4	151	0.00
33 t	n-Dotriacontane (C32)		1.003	0.989	1.4	151	0.00
34 t	n-Tritriacontane (C33)		0.970	0.954	1.6	152	0.00
35 t	n-tetratriacontane (C34)		0.967	0.946	2.2	151	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242335.D
 Signal(s) : FID2B.CH
 Acq On : 25 Apr 2023 10:46 am
 Operator : FID6:AMV
 Sample : WG1770521-2
 Misc : WG1770521,FRBF79,ICAL19796
 ALS Vial : 68 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 03 13:31:46 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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)
36 t	n-Pentatriacontane (C35)	0.917	0.957	-4.4	151	0.00
37 t	n-Hexatriacontane (C36)	1.081	1.021	5.6	150	0.00
38 t	n-Heptatriacontane (C37)	0.982	0.939	4.4	149	0.00
39 t	n-Octatriacontane (C38)	1.003	0.963	4.0	147	0.00
41 t	n-Tetracontane (C40)	0.981	0.963	1.8	146	-0.01

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 (^) = ISTD area calculated using ICAL average

Mass Discrimination (Response)	Ratio	Range Limits
n-Hexatriacontane (C36) to n-Eicosane (C20)	1.02	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242335.D
 Signal(s) : FID2B.CH
 Acq On : 25 Apr 2023 10:46 am
 Operator : FID6:AMV
 Sample : WG1770521-2
 Misc : WG1770521,FRBF79,ICAL19796
 ALS Vial : 68 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 03 13:31:46 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.408	70334454	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.392	78925900	53.415 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	106.83%
24) s d50-Tetracosane	36.002	57874609	48.103 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	96.21%
Target Compounds			
2) t n-Octane (C8)	5.852	54794948	46.279 ug/mL M4
3) t n-Nonane (C9)	8.061	58545235	48.710 ug/mL M4
4) t n-Decane (C10)	10.536	62640203	50.748 ug/mL M4
5) t n-Undecane (C11)	13.033	64372925	52.119 ug/mL M4
6) t n-Dodecane (C12)	15.443	65008586	52.038 ug/mL M4
7) t n-Tridecane (C13)	17.736	65960502	52.573 ug/mL M4
9) t n-Tetradecane (C14)	19.905	67646999	52.505 ug/mL M4
11) t n-Pentadecane (C15)	21.958	67460882	52.074 ug/mL M4
12) t n-Hexadecane (C16)	23.906	69056089	53.313 ug/mL M4
14) t n-Heptadecane (C17)	25.758	69413461	52.812 ug/mL M4
15) t Pristane	25.866	71123013	53.154 ug/mL M4
16) t n-Octadecane (C18)	27.517	69975256	52.596 ug/mL M4
17) t Phytane	27.679	65757457	53.122 ug/mL M4
18) t n-Nonadecane (C19)	29.195	69495651	51.976 ug/mL M4
20) t n-Eicosane (C20)	30.795	70266139	51.958 ug/mL M4
21) t n-Heneicosane (C21)	32.324	69149307	50.959 ug/mL M4
22) t n-Docosane (C22)	33.793	70125827	51.365 ug/mL M4
23) t n-Tricosane (C23)	35.201	69858478	51.147 ug/mL M4
25) t n-Tetracosane (C24)	36.552	65940943	48.882 ug/mL M4
26) t n-Pentacosane (C25)	37.855	67712675	50.390 ug/mL M4
27) t n-Hexacosane (C26)	39.108	69214538	50.171 ug/mL M4
28) t n-Heptacosane (C27)	40.316	66500404	48.556 ug/mL M4
29) t n-Octacosane (C28)	41.484	69070974	49.095 ug/mL M4
30) t n-Nonacosane (C29)	42.612	68291445	48.978 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
Data File : F604242335.D
Signal(s) : FID2B.CH
Acq On : 25 Apr 2023 10:46 am
Operator : FID6:AMV
Sample : WG1770521-2
Misc : WG1770521,FRBF79,ICAL19796
ALS Vial : 68 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: May 03 13:31:46 2023
Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
Quant Title : FID Forensics
QLast Update : Fri Apr 28 16:00:05 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	43.703	68326021	48.926 ug/mL M4
32) t	n-Hentriacontane (C31)	44.757	66419652	49.362 ug/mL M4
33) t	n-Dotriacontane (C32)	45.787	69551064	49.318 ug/mL M4
34) t	n-Tritriacontane (C33)	46.776	67067866	49.131 ug/mL M4
35) t	n-tetratriacontane (C34)	47.803	66558819	48.908 ug/mL M4
36) t	n-Pentatriacontane (C35)	48.957	67298633	52.184 ug/mL M4
37) t	n-Hexatriacontane (C36)	50.282	71819882	47.247 ug/mL M4
38) t	n-Heptatriacontane (C37)	51.809	66057618	47.814 ug/mL M4
39) t	n-Octatriacontane (C38)	53.600	67748763	48.031 ug/mL M4
41) t	n-Tetracontane (C40)	58.185	67756872	49.097 ug/mL M4

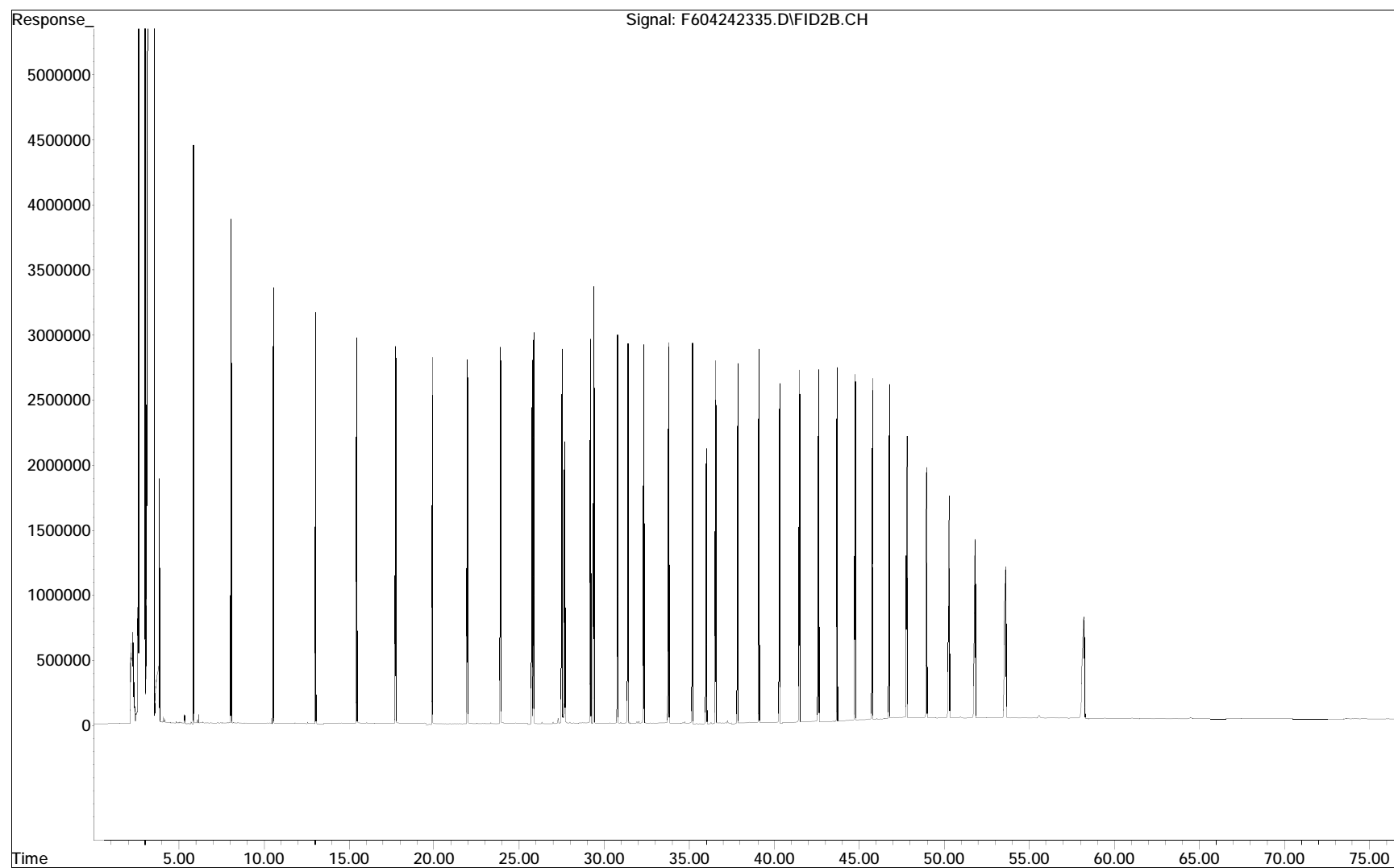
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\F604242335.D
Operator : FID6:AMV
Acquired : 25 Apr 2023 10:46 am using AcqMethod FID6A.M
Sample Name: WG1770521-2
Instrument: FID6
Misc Info : WG1770521,FRBF79,ICAL19796
Vial Number: 68
CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242325.D
 Signal(s) : FID2B.CH
 Acq On : 25 Apr 2023 3:30 am
 Operator : FID6:AMV
 Sample : L2320537-01
 Misc : WG1770521,WG1769534,ICAL19796
 ALS Vial : 63 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 03 16:59:41 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604242301R
 Blank File : F604242309.D

Sub List : SHC - SHC

Compound		R.T.	Response	Conc	Units

Internal Standards					
1) I	5-alpha-androstane	31.420	80551182	50.000	ug/mL M4
System Monitoring Compounds					
19) s	ortho-terphenyl	29.382	21743092	12.849	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery	= 25.70%#
24) s	d50-Tetracosane	35.988	16526308	11.994	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery	= 23.99%#
Target Compounds					
2) t	n-Octane (C8)	5.835	186944	0.138	ug/mL M4
3) t	n-Nonane (C9)	8.039	227905	0.166	ug/mL M4
4) t	n-Decane (C10)	10.503	1424694	1.008	ug/mL M4
5) t	n-Undecane (C11)	13.027	4369782	3.089	ug/mL M4
6) t	n-Dodecane (C12)	0.000	0	N.D.	ug/mL d
7) t	n-Tridecane (C13)	17.736	8956629	6.233	ug/mL M4
8) t	1380	19.418	52406478	35.516	ug/mL M4
9) t	n-Tetradecane (C14)	19.911	7033731	4.767	ug/mL M4
10) t	1470	21.201	55718837	37.555	ug/mL M4
11) t	n-Pentadecane (C15)	0.000	0	N.D.	ug/mL d
12) t	n-Hexadecane (C16)	0.000	0	N.D.	ug/mL d
13) t	1650	24.829	60348322	40.091	ug/mL M4
14) t	n-Heptadecane (C17)	25.744	2790200	1.854	ug/mL M4
15) t	Pristane	25.875	106138360	69.262	ug/mL M4
16) t	n-Octadecane (C18)	0.000	0	N.D.	ug/mL d
17) t	Phytane	27.689	62550250	44.122	ug/mL M4
18) t	n-Nonadecane (C19)	29.194	1053745	0.688	ug/mL M4
20) t	n-Eicosane (C20)	30.805	1921396	1.241	ug/mL M4
21) t	n-Heneicosane (C21)	32.300	4689830	3.018	ug/mL M4
22) t	n-Docosane (C22)	0.000	0	N.D.	ug/mL d
23) t	n-Tricosane (C23)	35.175	433626	0.277	ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242325.D
 Signal(s) : FID2B.CH
 Acq On : 25 Apr 2023 3:30 am
 Operator : FID6:AMV
 Sample : L2320537-01
 Misc : WG1770521,WG1769534,ICAL19796
 ALS Vial : 63 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 03 16:59:41 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604242301R
 Blank File : F604242309.D

Sub List : SHC - SHC

	Compound	R.T.	Response	Conc Units
25) t	n-Tetracosane (C24)	0.000	0	N.D. ug/mL d
26) t	n-Pentacosane (C25)	37.829	1418414C	0.922 ug/mL M4
27) t	n-Hexacosane (C26)	0.000	0	N.D. ug/mL d
28) t	n-Heptacosane (C27)	0.000	0	N.D. ug/mL d
29) t	n-Octacosane (C28)	0.000	0	N.D. ug/mL d
30) t	n-Nonacosane (C29)	0.000	0	N.D. ug/mL d
31) t	n-Triacontane (C30)	43.685	105655	0.066 ug/mL M4
32) t	n-Hentriacontane (C31)	0.000	0	N.D. ug/mL d
33) t	n-Dotriacontane (C32)	45.752	144015	0.089 ug/mL M4
34) t	n-Tritriacontane (C33)	0.000	0	N.D. ug/mL d
35) t	n-tetratriacontane (C34)	0.000	0	N.D. ug/mL d
36) t	n-Pentatriacontane (C35)	48.902	78965	0.053 ug/mL M4
37) t	n-Hexatriacontane (C36)	0.000	0	N.D. ug/mL d
38) t	n-Heptatriacontane (C37)	0.000	0	N.D. ug/mL d
39) t	n-Octatriacontane (C38)	0.000	0	N.D. ug/mL d
40) t	n-Nonatriacontane (C39)	0.000	0	N.D. ug/mL
41) t	n-Tetracontane (C40)	0.000	0	N.D. ug/mL
42) h	C9-C44 Total Petroleu...	40.848	7384976493	4819.146 ug/mL m
42) h	C9-C44 Total Petroleu BS	40.848	6991152337	4562.152 ug/mLm
49) h	Total Resolved Hydroc...	36.878	-202722942	N.D. ug/L m

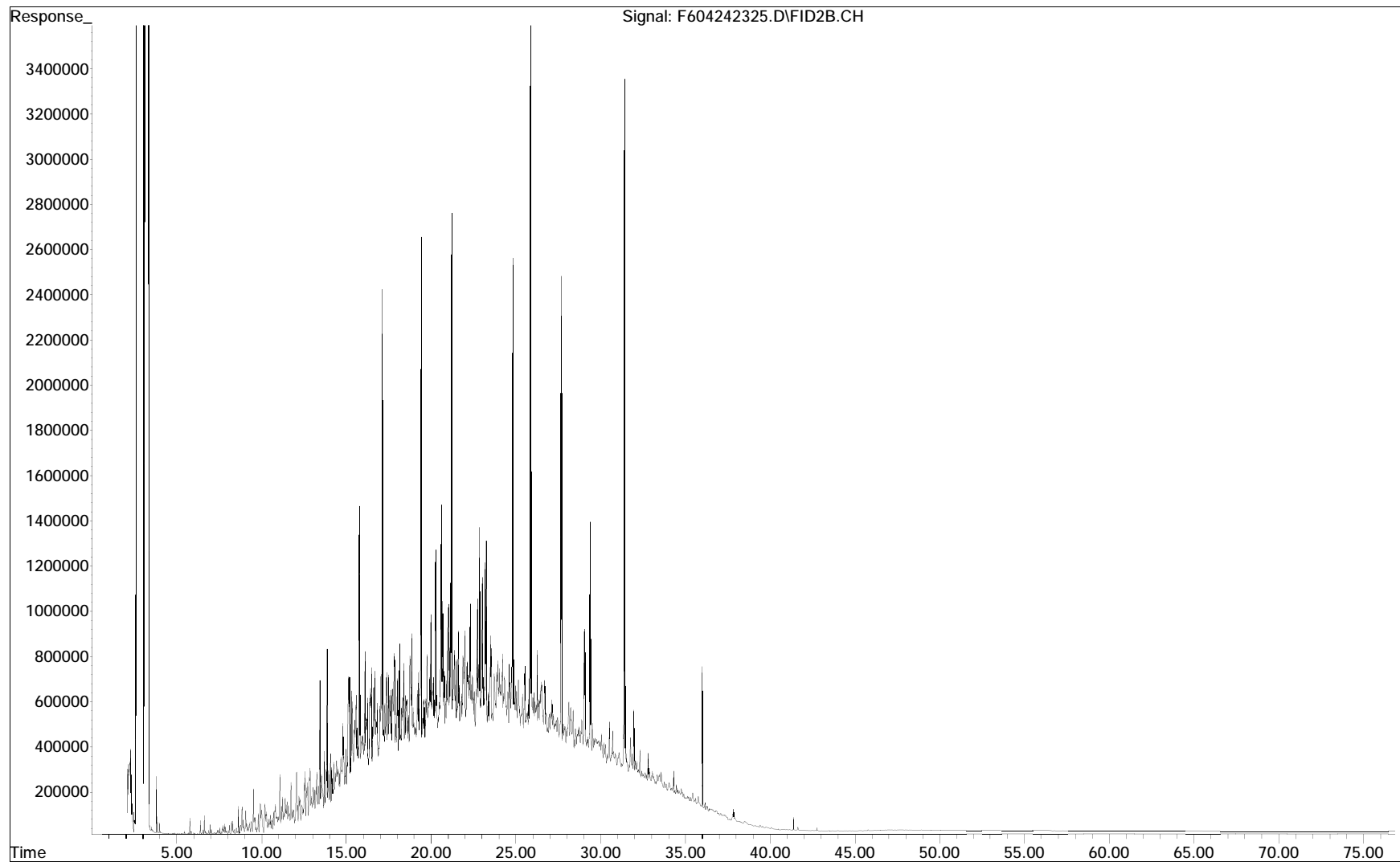
SemiQuant Compounds - Not Calibrated on this Instrument

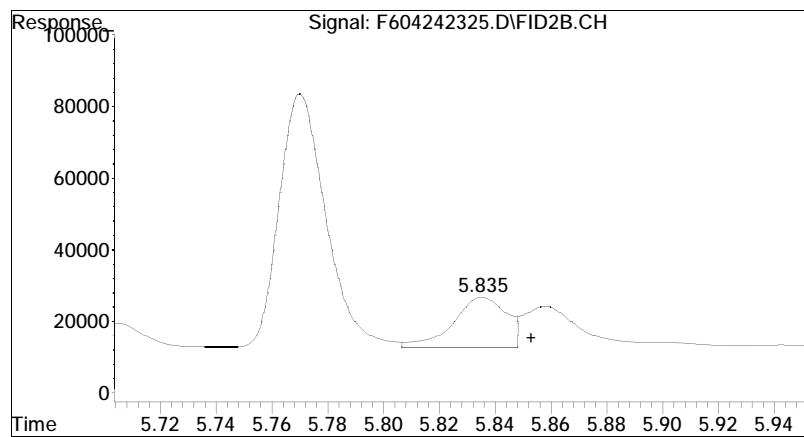
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

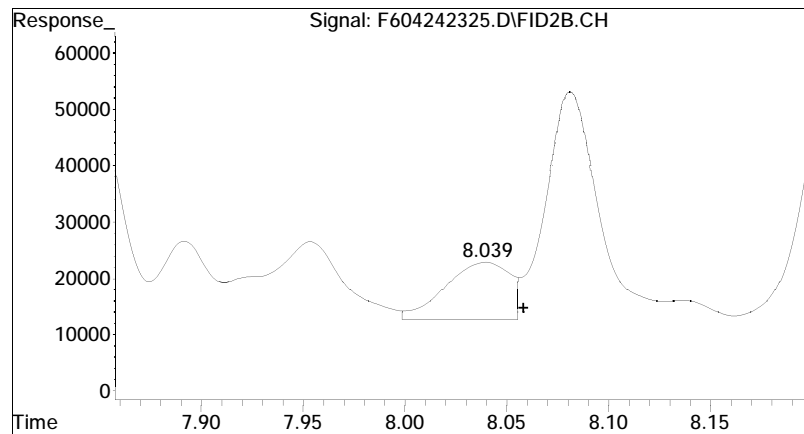
File : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\F604242325.D
Operator : FID6:AMV
Acquired : 25 Apr 2023 3:30 am using AcqMethod FID6A.M
Sample Name: L2320537-01
Instrument: FID6
Misc Info : WG1770521, WG1769534, ICAL19796
Vial Number: 63
CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M





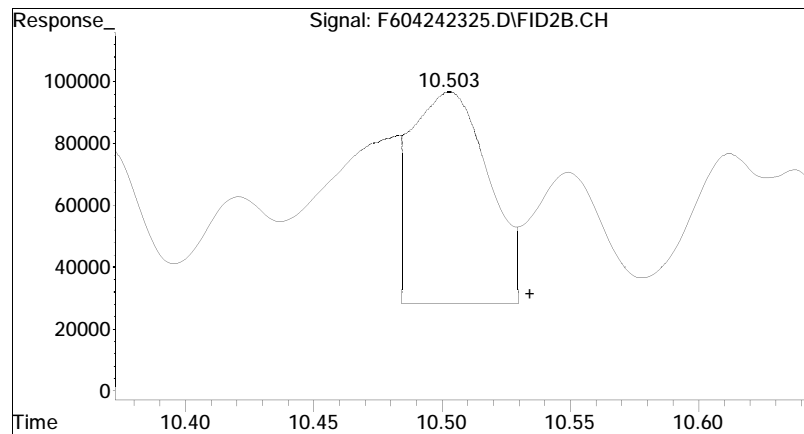
#2 n-Octane (C8)

R.T.: 5.835 min
Delta R.T.: -0.018 min
Response: 186944
Conc: 0.14 ug/mL M4



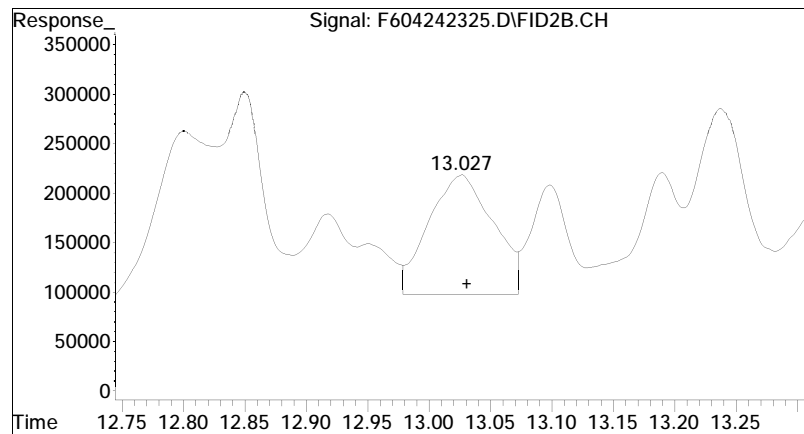
#3 n-Nonane (C9)

R.T.: 8.039 min
Delta R.T.: -0.019 min
Response: 227905
Conc: 0.17 ug/mL M4



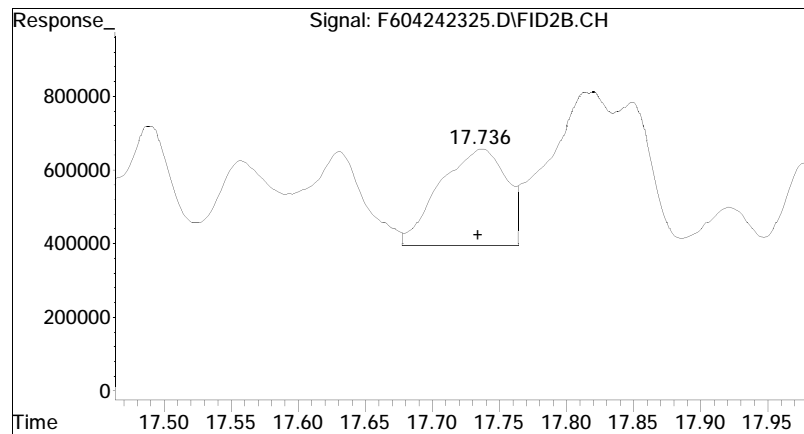
#4 n-Decane (C10)

R.T.: 10.503 min
Delta R.T.: -0.032 min
Response: 1424694
Conc: 1.01 ug/mL M4



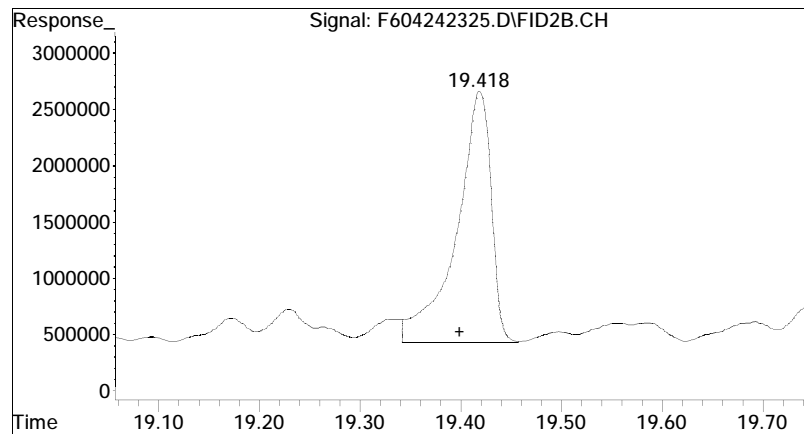
#5 n-Undecane (C11)

R.T.: 13.027 min
Delta R.T.: -0.004 min
Response: 4369782
Conc: 3.09 ug/mL M4



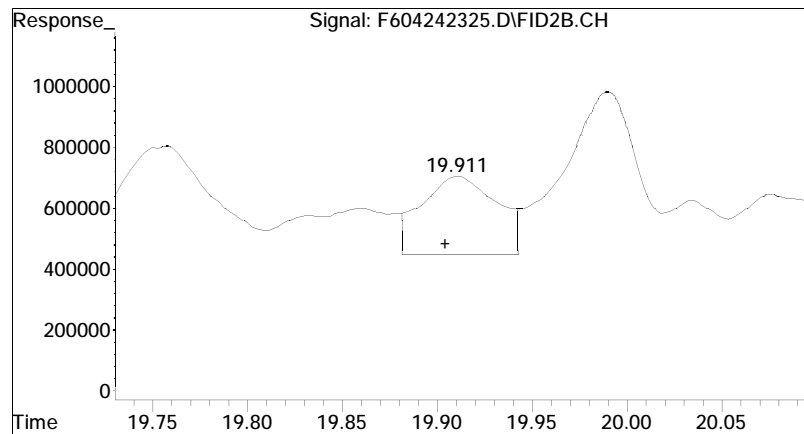
#7 n-Tridecane (C13)

R.T.: 17.736 min
Delta R.T.: 0.002 min
Response: 8956629
Conc: 6.23 ug/mL M4



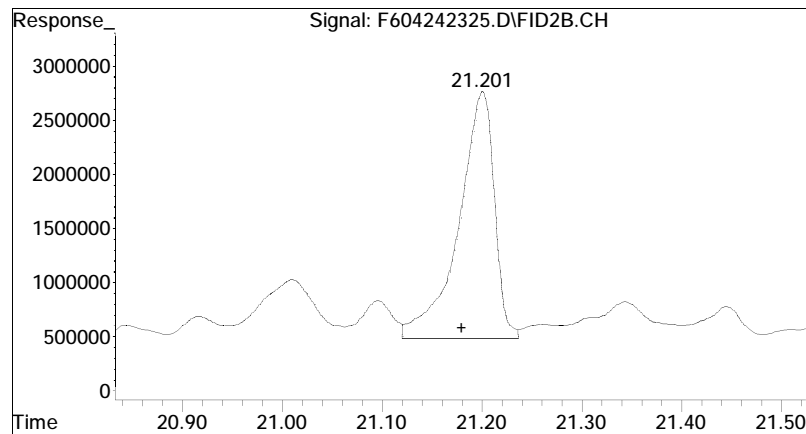
#8 1380

R.T.: 19.418 min
Delta R.T.: 0.019 min
Response: 52406478
Conc: 35.52 ug/mL M4



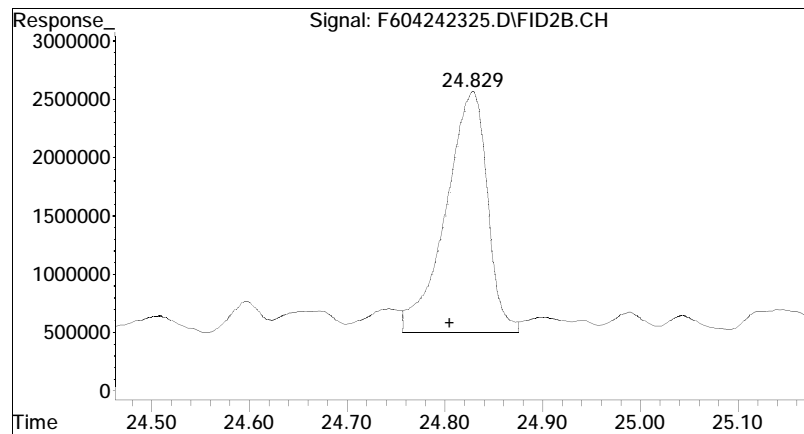
#9 n-Tetradecane (C14)

R.T.: 19.911 min
Delta R.T.: 0.006 min
Response: 7033731
Conc: 4.77 ug/mL M4



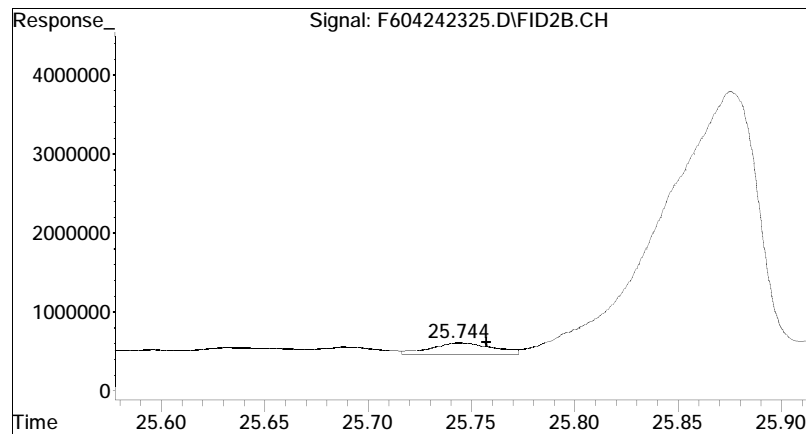
#10 1470

R.T.: 21.201 min
Delta R.T.: 0.021 min
Response: 55718837
Conc: 37.55 ug/mL M4



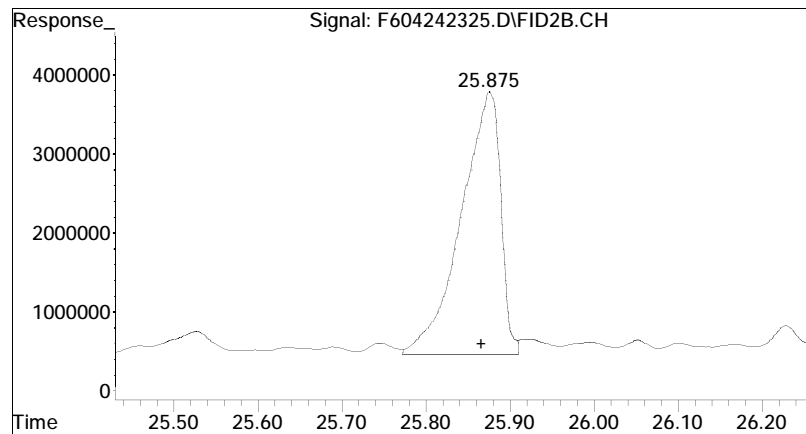
#13 1650

R.T.: 24.829 min
Delta R.T.: 0.024 min
Response: 60348322
Conc: 40.09 ug/mL M4



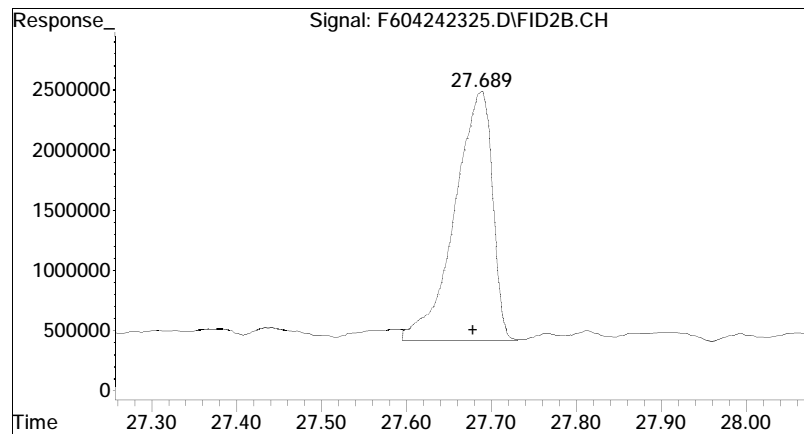
#14 n-Heptadecane (C17)

R.T.: 25.744 min
Delta R.T.: -0.013 min
Response: 2790200
Conc: 1.85 ug/mL M4



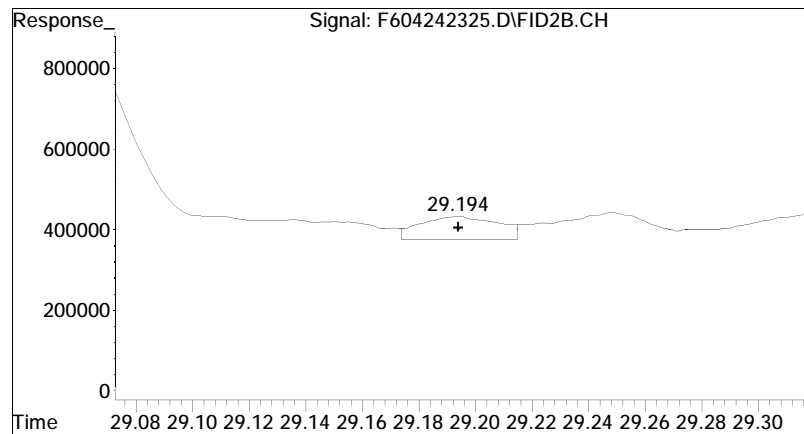
#15 Pristane

R.T.: 25.875 min
Delta R.T.: 0.009 min
Response: 106138360
Conc: 69.26 ug/mL M4



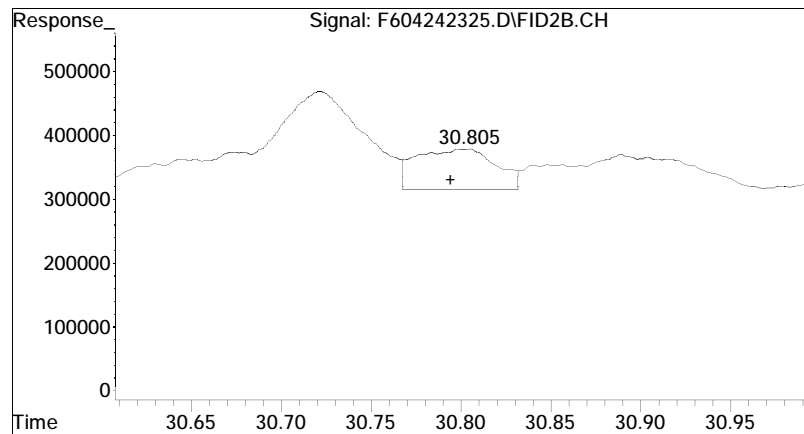
#17 Phytane

R.T.: 27.689 min
Delta R.T.: 0.010 min
Response: 62550250
Conc: 44.12 ug/mL M4



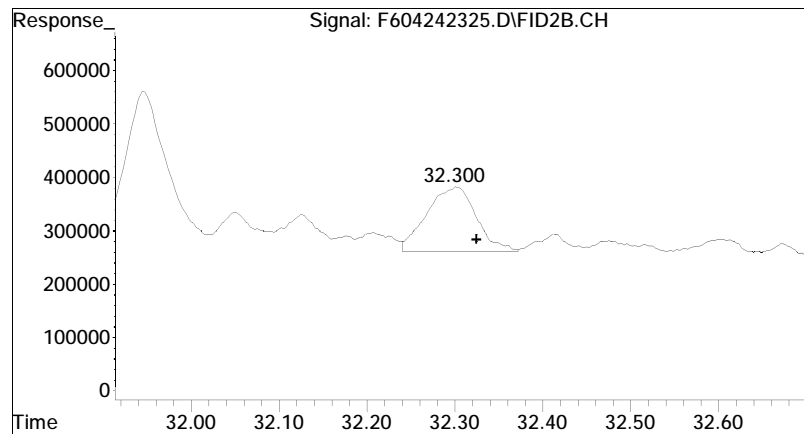
#18 n-Nonadecane (C19)

R.T.: 29.194 min
Delta R.T.: 0.000 min
Response: 1053745
Conc: 0.69 ug/mL M4



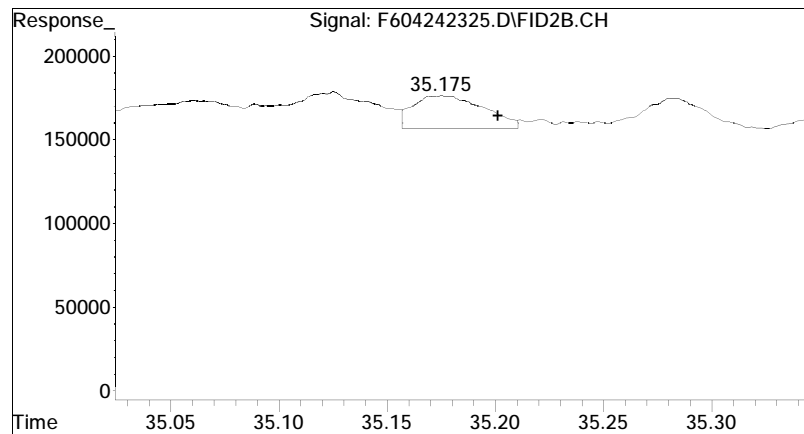
#20 n-Eicosane (C20)

R.T.: 30.805 min
Delta R.T.: 0.011 min
Response: 1921396
Conc: 1.24 ug/mL M4



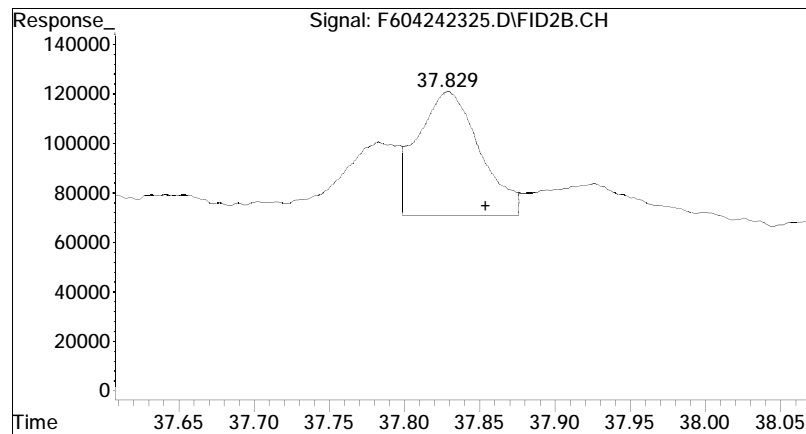
#21 n-Heneicosane (C21)

R.T.: 32.300 min
Delta R.T.: -0.025 min
Response: 4689830
Conc: 3.02 ug/mL M4



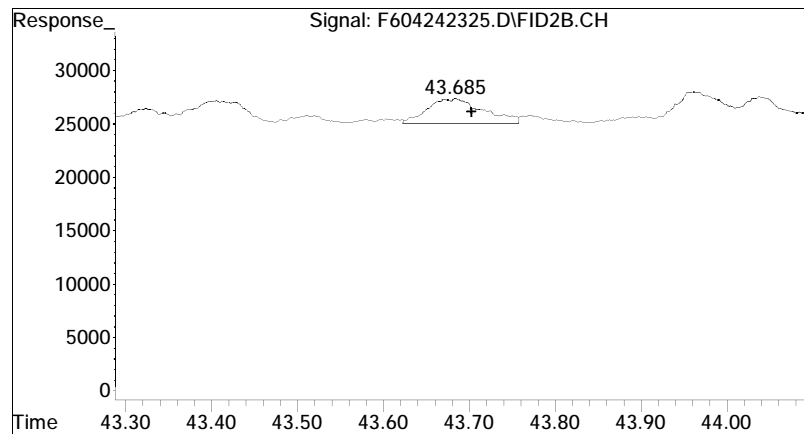
#23 n-Tricosane (C23)

R.T.: 35.175 min
Delta R.T.: -0.026 min
Response: 433626
Conc: 0.28 ug/mL M4



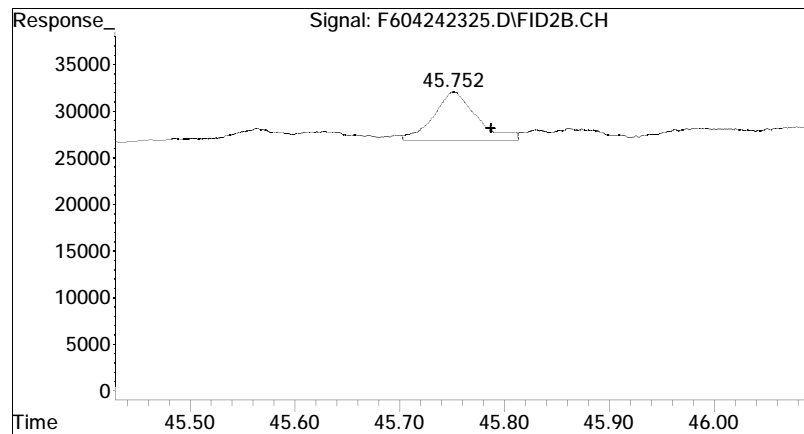
#26 n-Pentacosane (C25)

R.T.: 37.829 min
Delta R.T.: -0.025 min
Response: 1418414
Conc: 0.92 ug/mL M4



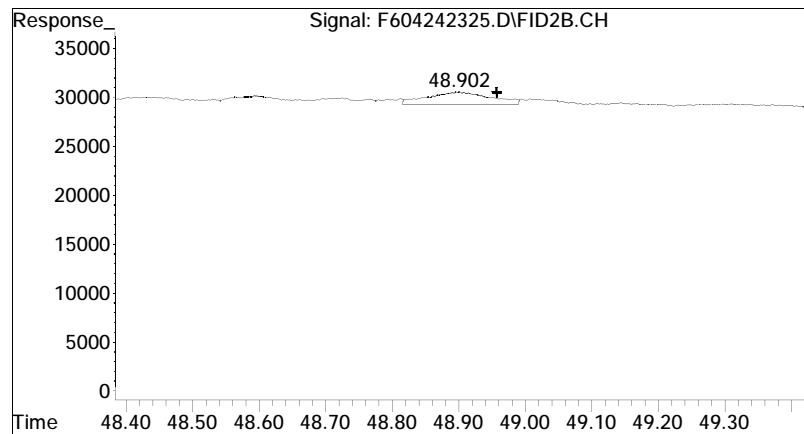
#31 n-Triacontane (C30)

R.T.: 43.685 min
Delta R.T.: -0.018 min
Response: 105655
Conc: 0.07 ug/mL M4



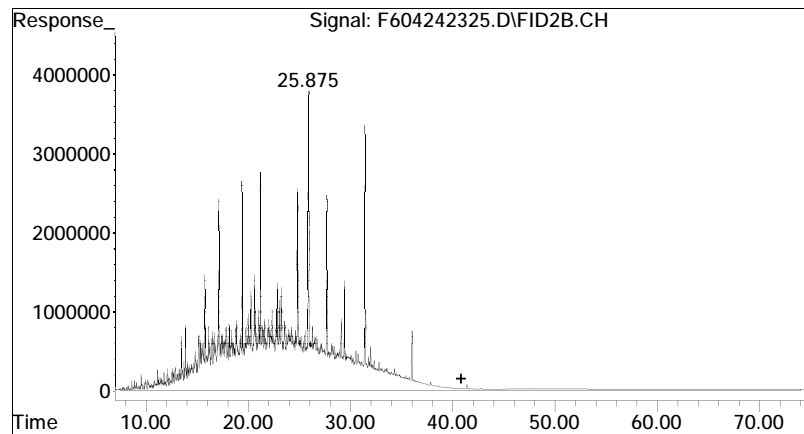
#33 n-Dotriacontane (C32)

R.T.: 45.752 min
Delta R.T.: -0.036 min
Response: 144015
Conc: 0.09 ug/mL M4



#36 n-Pentatriacontane (C35)

R.T.: 48.902 min
Delta R.T.: -0.056 min
Response: 78965
Conc: 0.05 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 40.848 min
Delta R.T.: 0.000 min
Response: 7384976493
Conc: 4819.15 ug/mL m

Analytical Event

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272305.D
 Signal(s) : FID2B.CH
 Acq On : 27 Apr 2023 12:23 pm
 Operator : FID6:WR
 Sample : WG1772076-1
 Misc : WG1772076,FRBF94,ICAL19796
 ALS Vial : 53 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 13:25:43 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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	5-alpha-androstane	^	1.000	1.000	0.0	154	0.00
2 t	n-Octane (C8)		0.842	0.795	5.6	142	0.00
3 t	n-Nonane (C9)		0.854	0.837	2.0	147	0.00
4 t	n-Decane (C10)		0.877	0.893	-1.8	155	0.00
5 t	n-Undecane (C11)		0.878	0.913	-4.0	157	0.00
6 t	n-Dodecane (C12)		0.888	0.923	-3.9	158	0.00
7 t	n-Tridecane (C13)		0.892	0.941	-5.5	160	0.00
9 t	n-Tetradecane (C14)		0.916	0.961	-4.9	160	0.00
11 t	n-Pentadecane (C15)		0.921	0.963	-4.6	162	0.00
12 t	n-Hexadecane (C16)		0.921	0.983	-6.7	162	0.00
14 t	n-Heptadecane (C17)		0.934	0.989	-5.9	161	0.00
15 t	Pristane		0.951	1.015	-6.7	162	0.00
16 t	n-Octadecane (C18)		0.946	0.996	-5.3	160	0.00
17 t	Phytane		0.880	0.940	-6.8	162	0.00
18 t	n-Nonadecane (C19)		0.951	0.993	-4.4	161	0.00
19 s	ortho-terphenyl		1.050	1.125	-7.1	157	0.00
20 t	n-Eicosane (C20)		0.961	1.009	-5.0	159	0.00
21 t	n-Heneicosane (C21)		0.965	0.996	-3.2	158	0.00
22 t	n-Docosane (C22)		0.971	1.005	-3.5	157	0.00
23 t	n-Tricosane (C23)		0.971	0.997	-2.7	155	0.00
24 s	d50-Tetracosane		0.855	0.825	3.5	140	0.00
25 t	n-Tetracosane (C24)		0.959	0.940	2.0	154	0.00
26 t	n-Pentacosane (C25)		0.955	0.965	-1.0	152	0.00
27 t	n-Hexacosane (C26)		0.981	0.986	-0.5	151	0.00
28 t	n-Heptacosane (C27)		0.974	0.946	2.9	150	0.00
29 t	n-Octacosane (C28)		1.000	0.982	1.8	149	0.00
30 t	n-Nonacosane (C29)		0.991	0.972	1.9	149	0.00
31 t	n-Triacontane (C30)		0.993	0.972	2.1	149	0.00
32 t	n-Hentriacontane (C31)		0.957	0.943	1.5	150	0.00
33 t	n-Dotriacontane (C32)		1.003	0.987	1.6	150	0.00
34 t	n-Tritriacontane (C33)		0.970	0.951	2.0	150	0.00
35 t	n-tetratriacontane (C34)		0.967	0.944	2.4	150	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272305.D
 Signal(s) : FID2B.CH
 Acq On : 27 Apr 2023 12:23 pm
 Operator : FID6:WR
 Sample : WG1772076-1
 Misc : WG1772076,FRBF94,ICAL19796
 ALS Vial : 53 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 13:25:43 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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)
36 t	n-Pentatriacontane (C35)	0.917	0.950	-3.6	149	0.00
37 t	n-Hexatriacontane (C36)	1.081	1.014	6.2	147	0.00
38 t	n-Heptatriacontane (C37)	0.982	0.931	5.2	147	0.00
39 t	n-Octatriacontane (C38)	1.003	0.957	4.6	145	0.00
41 t	n-Tetracontane (C40)	0.981	0.955	2.7	143	0.00

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 (^) = ISTD area calculated using ICAL average

Mass Discrimination (Response)	Ratio	Range Limits
n-Hexatriacontane (C36) to n-Eicosane (C20)	1.01	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272305.D
 Signal(s) : FID2B.CH
 Acq On : 27 Apr 2023 12:23 pm
 Operator : FID6:WR
 Sample : WG1772076-1
 Misc : WG1772076,FRBF94,ICAL19796
 ALS Vial : 53 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 13:25:43 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.406	69792146	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.391	78481273	53.526 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	107.05%
24) s d50-Tetracosane	36.000	57597182	48.244 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	96.49%
Target Compounds			
2) t n-Octane (C8)	5.850	55471969	47.215 ug/mL M4
3) t n-Nonane (C9)	8.058	58392835	48.960 ug/mL M4
4) t n-Decane (C10)	10.534	62317633	50.879 ug/mL M4
5) t n-Undecane (C11)	13.030	63717510	51.989 ug/mL M4
6) t n-Dodecane (C12)	15.441	64393761	51.946 ug/mL M4
7) t n-Tridecane (C13)	17.733	65655668	52.737 ug/mL M4
9) t n-Tetradecane (C14)	19.903	67075752	52.466 ug/mL M4
11) t n-Pentadecane (C15)	21.957	67237058	52.304 ug/mL M4
12) t n-Hexadecane (C16)	23.904	68629296	53.395 ug/mL M4
14) t n-Heptadecane (C17)	25.754	69025098	52.925 ug/mL M4
15) t Pristane	25.863	70814132	53.334 ug/mL M4
16) t n-Octadecane (C18)	27.514	69493219	52.640 ug/mL M4
17) t Phytane	27.676	65603219	53.410 ug/mL M4
18) t n-Nonadecane (C19)	29.193	69331161	52.256 ug/mL M4
20) t n-Eicosane (C20)	30.790	70385804	52.451 ug/mL M4
21) t n-Heneicosane (C21)	32.322	69489418	51.607 ug/mL M4
22) t n-Docosane (C22)	33.789	70115382	51.757 ug/mL M4
23) t n-Tricosane (C23)	35.196	69570742	51.332 ug/mL M4
25) t n-Tetracosane (C24)	36.546	65605526	49.011 ug/mL M4
26) t n-Pentacosane (C25)	37.849	67361699	50.519 ug/mL M4
27) t n-Hexacosane (C26)	39.103	68835539	50.284 ug/mL M4
28) t n-Heptacosane (C27)	40.312	66014478	48.576 ug/mL M4
29) t n-Octacosane (C28)	41.480	68548398	49.102 ug/mL M4
30) t n-Nonacosane (C29)	42.607	67821761	49.019 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
Data File : F604272305.D
Signal(s) : FID2B.CH
Acq On : 27 Apr 2023 12:23 pm
Operator : FID6:WR
Sample : WG1772076-1
Misc : WG1772076,FRBF94,ICAL19796
ALS Vial : 53 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: May 04 13:25:43 2023
Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
Quant Title : FID Forensics
QLast Update : Thu May 04 13:18:14 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	43.698	67859300	48.969 ug/mL M4
32) t	n-Hentriacontane (C31)	44.752	65830288	49.304 ug/mL M4
33) t	n-Dotriacontane (C32)	45.777	68911366	49.244 ug/mL M4
34) t	n-Tritriacontane (C33)	46.770	66399164	49.019 ug/mL M4
35) t	n-tetratriacontane (C34)	47.793	65906248	48.805 ug/mL M4
36) t	n-Pentatriacontane (C35)	48.945	66292094	51.803 ug/mL M4
37) t	n-Hexatriacontane (C36)	50.271	70793293	46.934 ug/mL M4
38) t	n-Heptatriacontane (C37)	51.797	65003355	47.416 ug/mL M4
39) t	n-Octatriacontane (C38)	53.581	66796257	47.723 ug/mL M4
41) t	n-Tetracontane (C40)	58.180	66652832	48.672 ug/mL M4

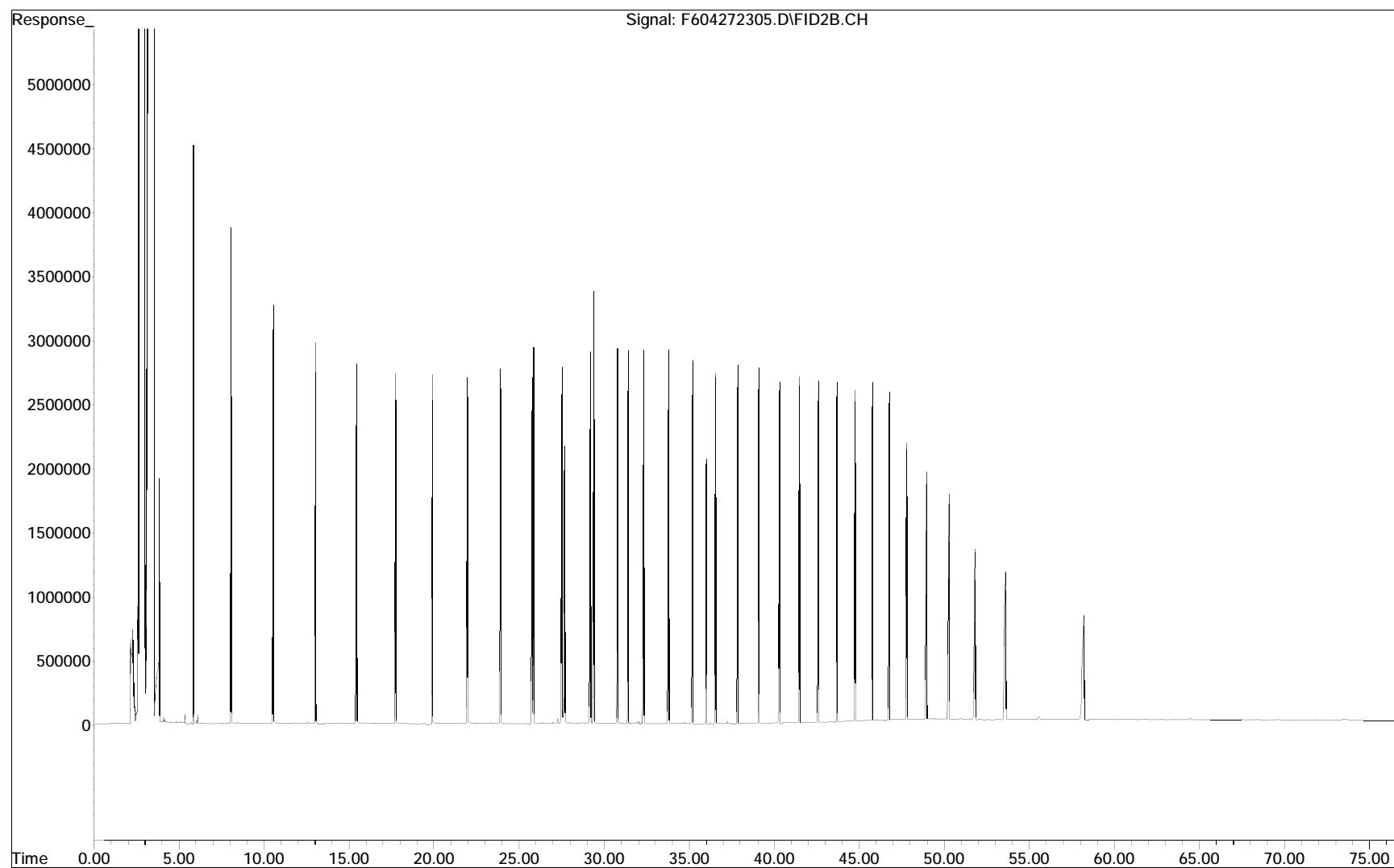
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\F604272305.D
Operator : FID6:WR
Acquired : 27 Apr 2023 12:23 pm using AcqMethod FID6A.M
Sample Name: WG1772076-1
Instrument: FID6
Misc Info : WG1772076,FRBF94,ICAL19796
Vial Number: 53
CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272323.D
 Signal(s) : FID2B.CH
 Acq On : 28 Apr 2023 1:27 am
 Operator : FID6:WR
 Sample : WG1772076-2
 Misc : WG1772076,FRBF94,ICAL19796
 ALS Vial : 62 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 14:13:47 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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	5-alpha-androstane	^	1.000	1.000	0.0	154	0.00
2 t	n-Octane (C8)		0.842	0.785	6.8	141	0.00
3 t	n-Nonane (C9)		0.854	0.838	1.9	148	0.00
4 t	n-Decane (C10)		0.877	0.899	-2.5	156	0.00
5 t	n-Undecane (C11)		0.878	0.919	-4.7	158	0.00
6 t	n-Dodecane (C12)		0.888	0.928	-4.5	160	0.00
7 t	n-Tridecane (C13)		0.892	0.945	-5.9	161	0.00
9 t	n-Tetradecane (C14)		0.916	0.966	-5.5	162	0.00
11 t	n-Pentadecane (C15)		0.921	0.964	-4.7	162	0.00
12 t	n-Hexadecane (C16)		0.921	0.984	-6.8	162	0.00
14 t	n-Heptadecane (C17)		0.934	0.987	-5.7	161	0.00
15 t	Pristane		0.951	1.018	-7.0	163	0.00
16 t	n-Octadecane (C18)		0.946	0.996	-5.3	161	0.00
17 t	Phytane		0.880	0.942	-7.0	162	0.00
18 t	n-Nonadecane (C19)		0.951	0.994	-4.5	161	0.00
19 s	ortho-terphenyl		1.050	1.125	-7.1	157	0.00
20 t	n-Eicosane (C20)		0.961	1.012	-5.3	160	0.00
21 t	n-Heneicosane (C21)		0.965	1.002	-3.8	159	0.00
22 t	n-Docosane (C22)		0.971	1.011	-4.1	158	0.00
23 t	n-Tricosane (C23)		0.971	1.005	-3.5	157	0.00
24 s	d50-Tetracosane		0.855	0.832	2.7	142	0.00
25 t	n-Tetracosane (C24)		0.959	0.947	1.3	155	0.00
26 t	n-Pentacosane (C25)		0.955	0.975	-2.1	154	0.00
27 t	n-Hexacosane (C26)		0.981	0.998	-1.7	153	0.00
28 t	n-Heptacosane (C27)		0.974	0.957	1.7	152	0.00
29 t	n-Octacosane (C28)		1.000	0.996	0.4	152	0.00
30 t	n-Nonacosane (C29)		0.991	0.984	0.7	151	0.00
31 t	n-Triacontane (C30)		0.993	0.984	0.9	151	0.00
32 t	n-Hentriacontane (C31)		0.957	0.953	0.4	152	0.00
33 t	n-Dotriacontane (C32)		1.003	0.998	0.5	152	0.00
34 t	n-Tritriacontane (C33)		0.970	0.961	0.9	152	0.00
35 t	n-tetratriacontane (C34)		0.967	0.955	1.2	152	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272323.D
 Signal(s) : FID2B.CH
 Acq On : 28 Apr 2023 1:27 am
 Operator : FID6:WR
 Sample : WG1772076-2
 Misc : WG1772076,FRBF94,ICAL19796
 ALS Vial : 62 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 14:13:47 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

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)
36 t	n-Pentatriacontane (C35)	0.917	0.960	-4.7	151	0.00
37 t	n-Hexatriacontane (C36)	1.081	1.027	5.0	150	0.00
38 t	n-Heptatriacontane (C37)	0.982	0.940	4.3	148	0.00
39 t	n-Octatriacontane (C38)	1.003	0.966	3.7	147	0.00
41 t	n-Tetracontane (C40)	0.981	0.956	2.5	144	-0.01

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 (^) = ISTD area calculated using ICAL average

Mass Discrimination (Response)	Ratio	Range Limits
n-Hexatriacontane (C36) to n-Eicosane (C20)	1.02	0.85 - 1.15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272323.D
 Signal(s) : FID2B.CH
 Acq On : 28 Apr 2023 1:27 am
 Operator : FID6:WR
 Sample : WG1772076-2
 Misc : WG1772076,FRBF94,ICAL19796
 ALS Vial : 62 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 14:13:47 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : CCAL - CCAL

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.402	69907587	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.388	78656104	53.557 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	107.11%
24) s d50-Tetracosane	35.998	58143547	48.621 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	97.24%
Target Compounds			
2) t n-Octane (C8)	5.848	54874661	46.630 ug/mL M4
3) t n-Nonane (C9)	8.057	58580767	49.037 ug/mL M4
4) t n-Decane (C10)	10.532	62872087	51.247 ug/mL M4
5) t n-Undecane (C11)	13.028	64279313	52.361 ug/mL M4
6) t n-Dodecane (C12)	15.440	64899220	52.267 ug/mL M4
7) t n-Tridecane (C13)	17.731	66067882	52.980 ug/mL M4
9) t n-Tetradecane (C14)	19.901	67508246	52.717 ug/mL M4
11) t n-Pentadecane (C15)	21.955	67365222	52.317 ug/mL M4
12) t n-Hexadecane (C16)	23.902	68765239	53.413 ug/mL M4
14) t n-Heptadecane (C17)	25.752	69010878	52.826 ug/mL M4
15) t Pristane	25.862	71133251	53.486 ug/mL M4
16) t n-Octadecane (C18)	27.511	69630140	52.656 ug/mL M4
17) t Phytane	27.674	65853287	53.525 ug/mL M4
18) t n-Nonadecane (C19)	29.190	69510487	52.305 ug/mL M4
20) t n-Eicosane (C20)	30.790	70716834	52.610 ug/mL M4
21) t n-Heneicosane (C21)	32.320	70022846	51.918 ug/mL M4
22) t n-Docosane (C22)	33.787	70677142	52.085 ug/mL M4
23) t n-Tricosane (C23)	35.194	70282957	51.772 ug/mL M4
25) t n-Tetracosane (C24)	36.547	66179352	49.358 ug/mL M4
26) t n-Pentacosane (C25)	37.849	68138695	51.017 ug/mL M4
27) t n-Hexacosane (C26)	39.101	69755687	50.872 ug/mL M4
28) t n-Heptacosane (C27)	40.308	66892075	49.140 ug/mL M4
29) t n-Octacosane (C28)	41.476	69640230	49.802 ug/mL M4
30) t n-Nonacosane (C29)	42.603	68764933	49.619 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
Data File : F604272323.D
Signal(s) : FID2B.CH
Acq On : 28 Apr 2023 1:27 am
Operator : FID6:WR
Sample : WG1772076-2
Misc : WG1772076,FRBF94,ICAL19796
ALS Vial : 62 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: May 04 14:13:47 2023
Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
Quant Title : FID Forensics
QLast Update : Thu May 04 13:18:14 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Sub List : CCAL - CCAL

	Compound	R.T.	Response	Conc Units
31) t	n-Triacontane (C30)	43.697	68798621	49.565 ug/mL M4
32) t	n-Hentriacontane (C31)	44.751	66651945	49.837 ug/mL M4
33) t	n-Dotriacontane (C32)	45.777	69742585	49.756 ug/mL M4
34) t	n-Tritriacontane (C33)	46.767	67175094	49.510 ug/mL M4
35) t	n-tetratriacontane (C34)	47.791	66758510	49.354 ug/mL M4
36) t	n-Pentatriacontane (C35)	48.944	67124862	52.367 ug/mL M4
37) t	n-Hexatriacontane (C36)	50.268	71810812	47.530 ug/mL M4
38) t	n-Heptatriacontane (C37)	51.787	65731773	47.868 ug/mL M4
39) t	n-Octatriacontane (C38)	53.577	67522938	48.163 ug/mL M4
41) t	n-Tetracontane (C40)	58.168	66828463	48.720 ug/mL M4

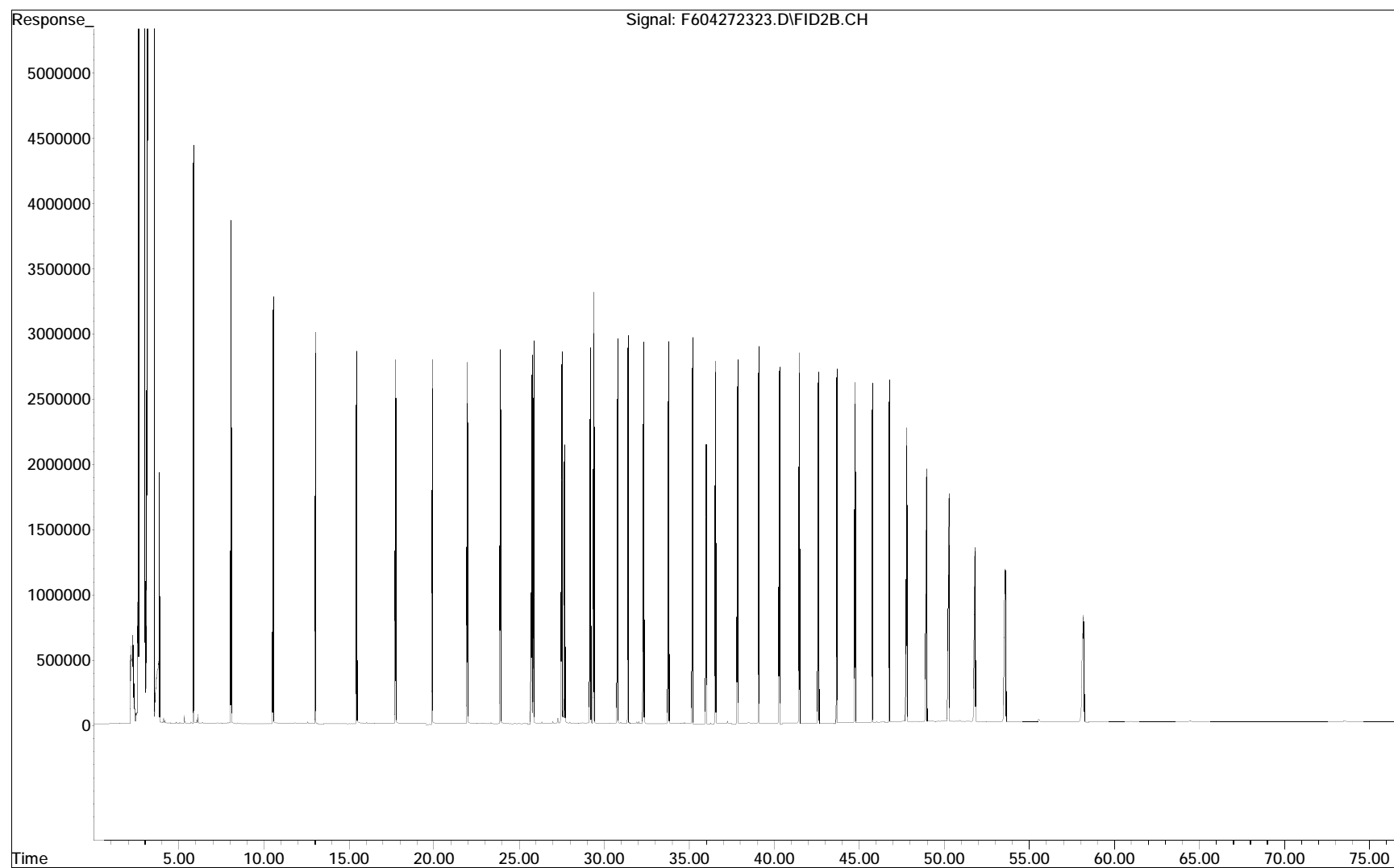
SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

File : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\F604272323.D
Operator : FID6:WR
Acquired : 28 Apr 2023 1:27 am using AcqMethod FID6A.M
Sample Name: WG1772076-2
Instrument: FID6
Misc Info : WG1772076,FRBF94,ICAL19796
Vial Number: 62
CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272319.D
 Signal(s) : FID2B.CH
 Acq On : 27 Apr 2023 10:33 pm
 Operator : FID6:WR
 Sample : L2320537-02
 Misc : WG1772076,WG1770361,ICAL19796
 ALS Vial : 60 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 15:51:23 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604272301R
 Blank File : F604272309.D

Sub List : SHC - SHC

Compound		R.T.	Response	Conc	Units

Internal Standards					
1) I	5-alpha-androstane	31.452	76713760	50.000	ug/mL M4
System Monitoring Compounds					
19) s	ortho-terphenyl	0.000	0	N.D.	ug/mL d
Spiked Amount	50.000	Range	50 - 130	Recovery	= 0.00%#
24) s	d50-Tetracosane	35.992	5718192	4.357	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery	= 8.71%#
Target Compounds					
2) t	n-Octane (C8)	5.829	113304	0.088	ug/mL M4
3) t	n-Nonane (C9)	8.040	363065	0.277	ug/mL M4
4) t	n-Decane (C10)	10.510	3384741	2.514	ug/mL M4
5) t	n-Undecane (C11)	13.038	11748225	8.721	ug/mL M4
6) t	n-Dodecane (C12)	0.000	0	N.D.	ug/mL d
7) t	n-Tridecane (C13)	0.000	0	N.D.	ug/mL d
8) t	1380	19.402	40936361	29.131	ug/mL M4
9) t	n-Tetradecane (C14)	19.882	10419833	7.415	ug/mL M4
10) t	1470	21.187	19195188	13.585	ug/mL M4
11) t	n-Pentadecane (C15)	21.948	28793969	20.378	ug/mL M4
12) t	n-Hexadecane (C16)	23.921	18553423	13.133	ug/mL M4
13) t	1650	24.793	23232970	16.206	ug/mL M4
14) t	n-Heptadecane (C17)	25.731	4170139	2.909	ug/mL M4
15) t	Pristane	25.957	371989379	254.889	ug/mL M4
16) t	n-Octadecane (C18)	27.482	12211454	8.415	ug/mL M4
17) t	Phytane	27.756	226394095	167.684	ug/mL M4
18) t	n-Nonadecane (C19)	0.000	0	N.D.	ug/mL d
20) t	n-Eicosane (C20)	30.756	16855915	11.427	ug/mL M4
21) t	n-Heneicosane (C21)	32.326	15793615	10.671	ug/mL M4
22) t	n-Docosane (C22)	33.746	3421694	2.298	ug/mL M4
23) t	n-Tricosane (C23)	0.000	0	N.D.	ug/mL d

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272319.D
 Signal(s) : FID2B.CH
 Acq On : 27 Apr 2023 10:33 pm
 Operator : FID6:WR
 Sample : L2320537-02
 Misc : WG1772076,WG1770361,ICAL19796
 ALS Vial : 60 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 15:51:23 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604272301R
 Blank File : F604272309.D

Sub List : SHC - SHC

	Compound	R.T.	Response	Conc Units
25) t	n-Tetracosane (C24)	0.000	0	N.D. ug/mL d
26) t	n-Pentacosane (C25)	37.831	1751644	1.195 ug/mL M4
27) t	n-Hexacosane (C26)	39.105	764336	0.508 ug/mL M4
28) t	n-Heptacosane (C27)	0.000	0	N.D. ug/mL d
29) t	n-Octacosane (C28)	0.000	0	N.D. ug/mL d
30) t	n-Nonacosane (C29)	0.000	0	N.D. ug/mL d
31) t	n-Triacontane (C30)	43.681	279866	0.184 ug/mL M4
32) t	n-Hentriacontane (C31)	0.000	0	N.D. ug/mL d
33) t	n-Dotriacontane (C32)	45.748	462582	0.301 ug/mL M4
34) t	n-Tritriacontane (C33)	46.729	130215	0.087 ug/mL M4
35) t	n-tetratriacontane (C34)	47.750	115755	0.078 ug/mL M4
36) t	n-Pentatriacontane (C35)	48.904	140929	0.100 ug/mL M4
37) t	n-Hexatriacontane (C36)	0.000	0	N.D. ug/mL d
38) t	n-Heptatriacontane (C37)	0.000	0	N.D. ug/mL d
39) t	n-Octatriacontane (C38)	0.000	0	N.D. ug/mL d
40) t	n-Nonatriacontane (C39)	0.000	0	N.D. ug/mL d
41) t	n-Tetracontane (C40)	0.000	0	N.D. ug/mL d
42) h	C9-C44 Total Petroleu...	40.853	25058106947	17169.904 ug/mL m
42) h	C9-C44 Total Petroleu BS	40.853	24579833514	16842.189 ug/mLm
49) h	Total Resolved Hydroc...	36.878	410967454	281.596 ug/L m

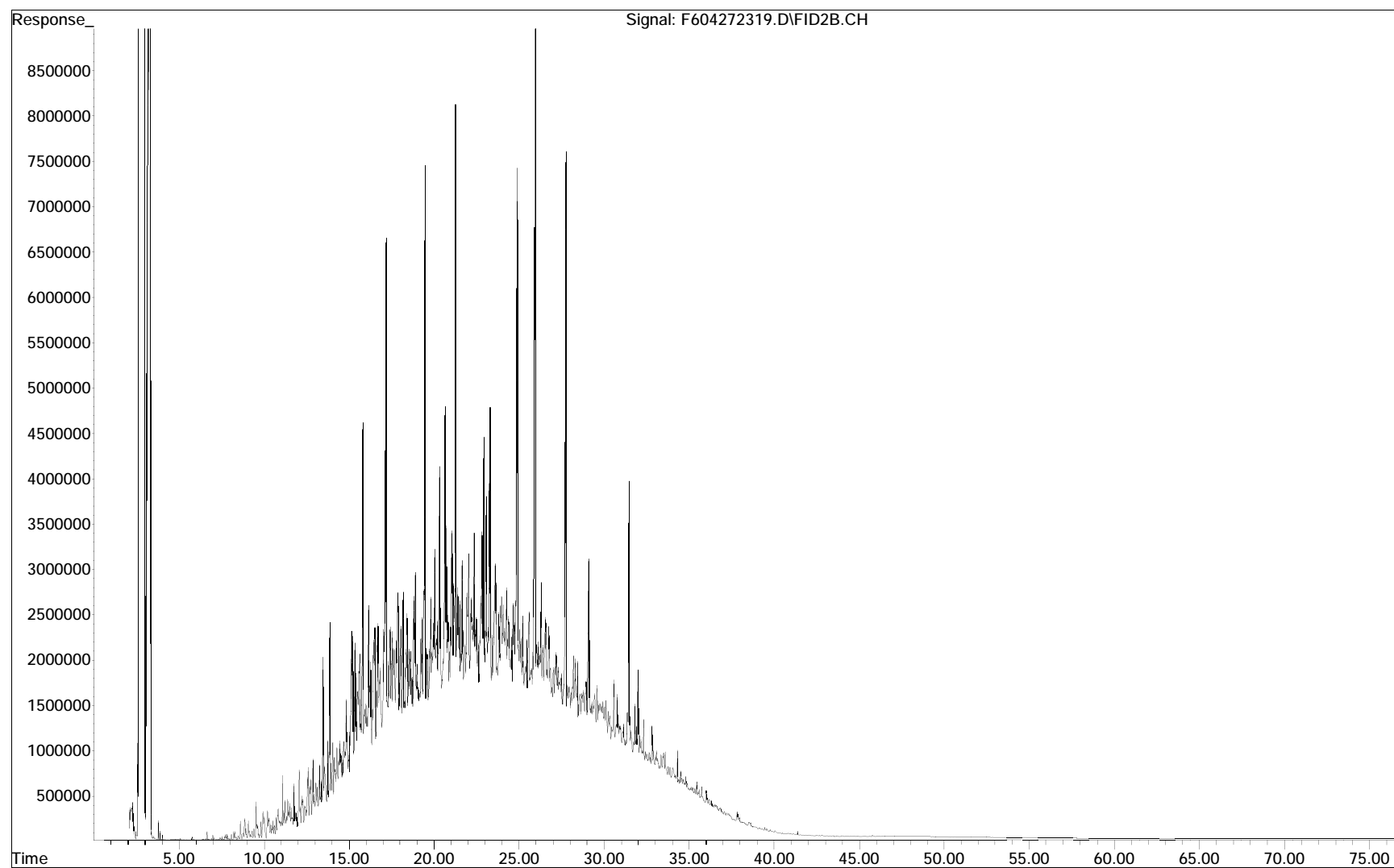
SemiQuant Compounds - Not Calibrated on this Instrument

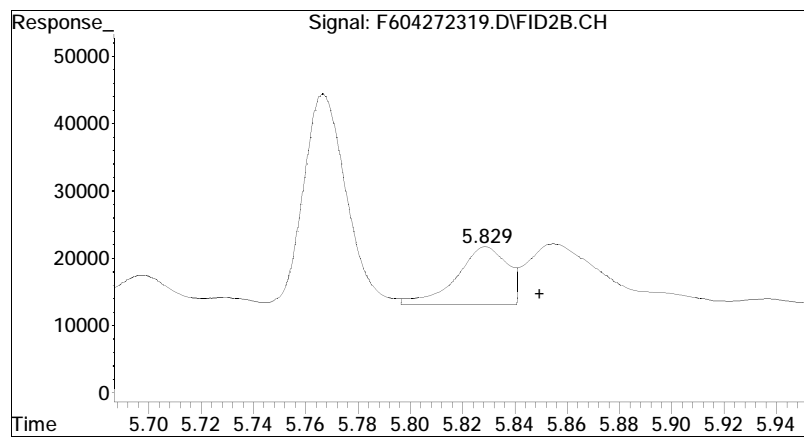
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

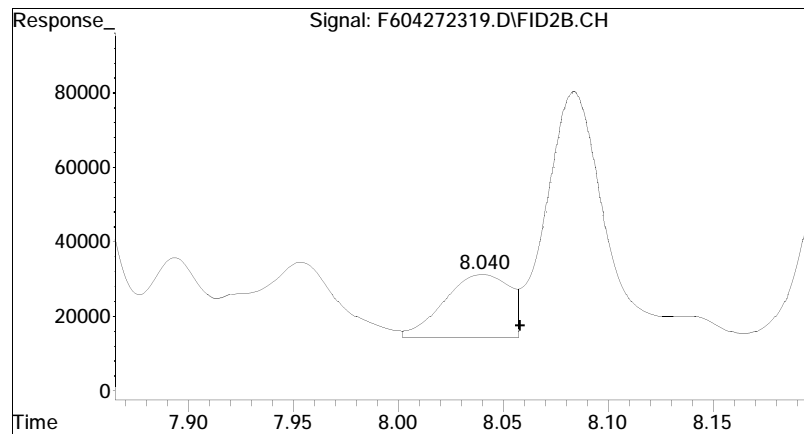
File : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\F604272319.D
Operator : FID6:WR
Acquired : 27 Apr 2023 10:33 pm using AcqMethod FID6A.M
Sample Name: L2320537-02
Instrument: FID6
Misc Info : WG1772076, WG1770361, ICAL19796
Vial Number: 60
CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M





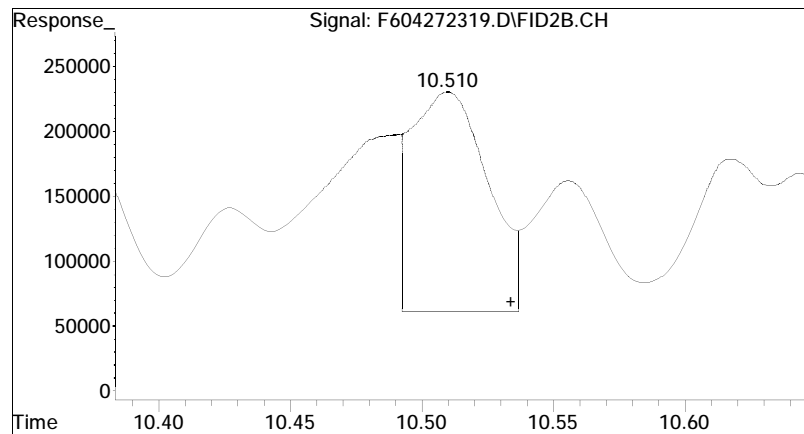
#2 n-Octane (C8)

R.T.: 5.829 min
Delta R.T.: -0.021 min
Response: 113304
Conc: 0.09 ug/mL M4



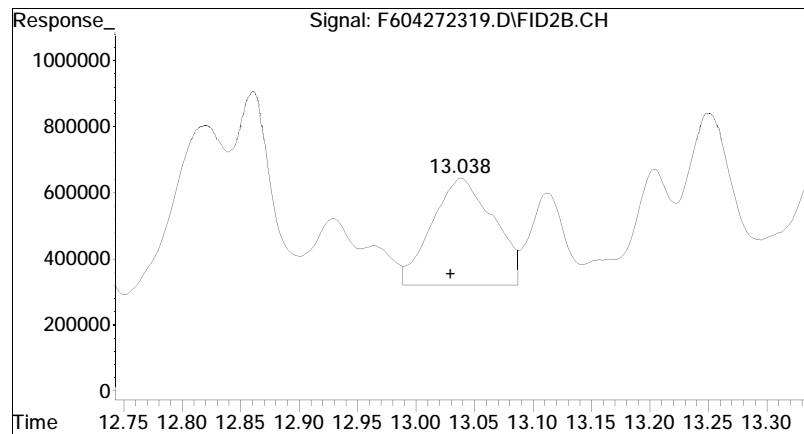
#3 n-Nonane (C9)

R.T.: 8.040 min
Delta R.T.: -0.018 min
Response: 363065
Conc: 0.28 ug/mL M4



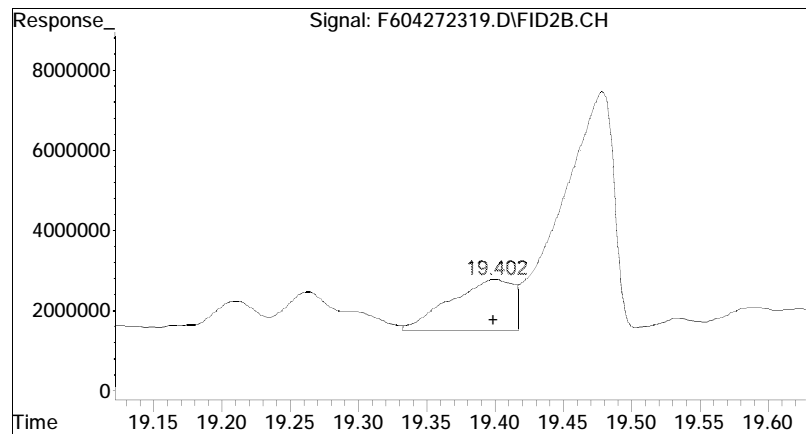
#4 n-Decane (C10)

R.T.: 10.510 min
Delta R.T.: -0.024 min
Response: 3384741
Conc: 2.51 ug/mL M4



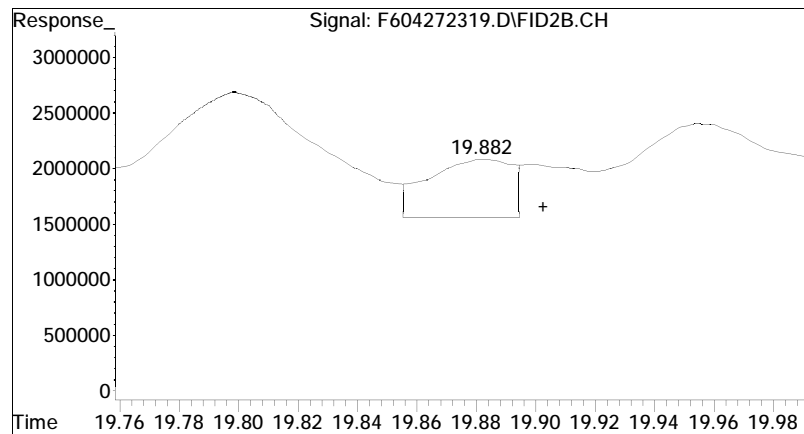
#5 n-Undecane (C11)

R.T.: 13.038 min
Delta R.T.: 0.008 min
Response: 11748225
Conc: 8.72 ug/mL M4



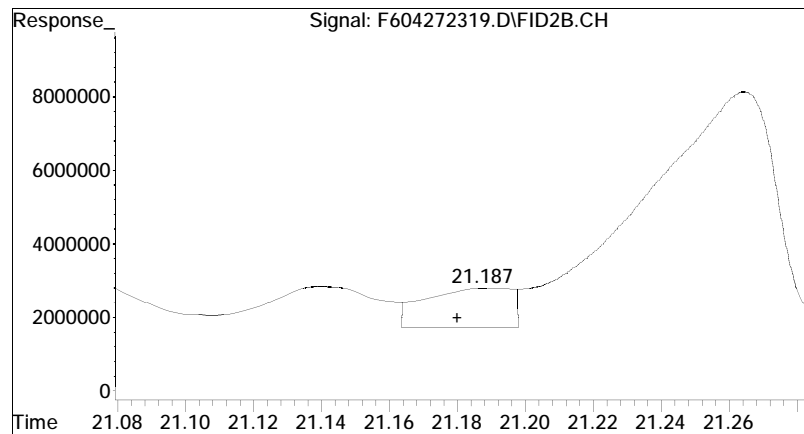
#8 1380

R.T.: 19.402 min
Delta R.T.: 0.003 min
Response: 40936361
Conc: 29.13 ug/mL M4



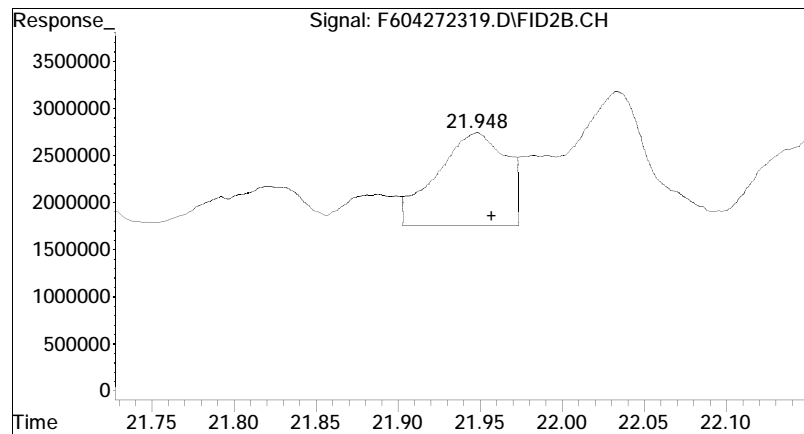
#9 n-Tetradecane (C14)

R.T.: 19.882 min
Delta R.T.: -0.021 min
Response: 10419833
Conc: 7.41 ug/mL M4



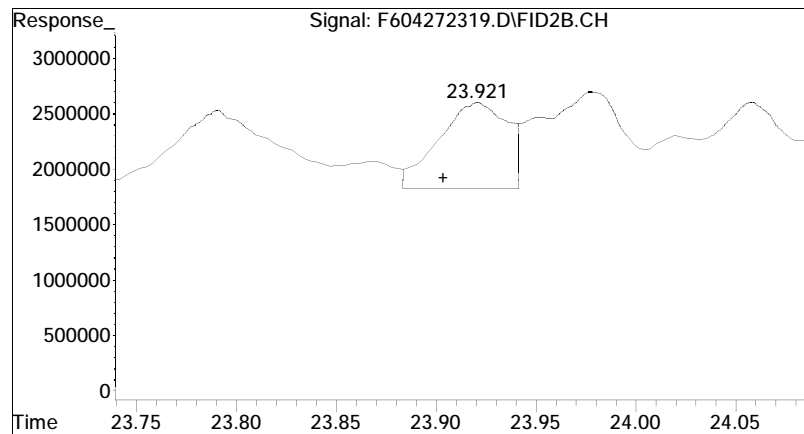
#10 1470

R.T.: 21.187 min
Delta R.T.: 0.007 min
Response: 19195188
Conc: 13.58 ug/mL M4



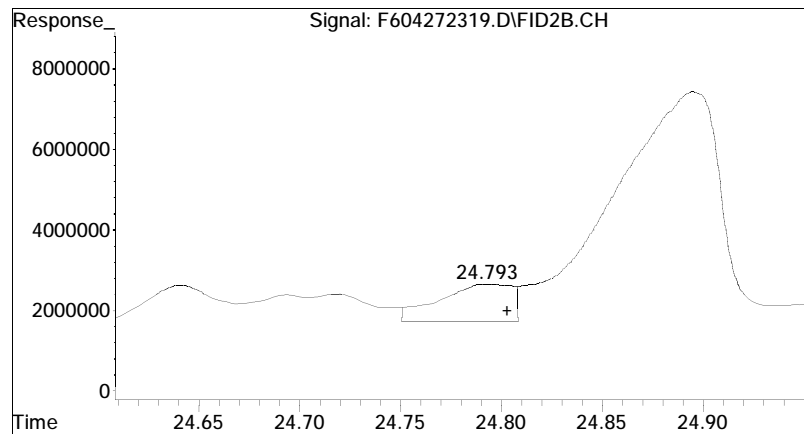
#11 n-Pentadecane (C15)

R.T.: 21.948 min
Delta R.T.: -0.009 min
Response: 28793969
Conc: 20.38 ug/mL M4



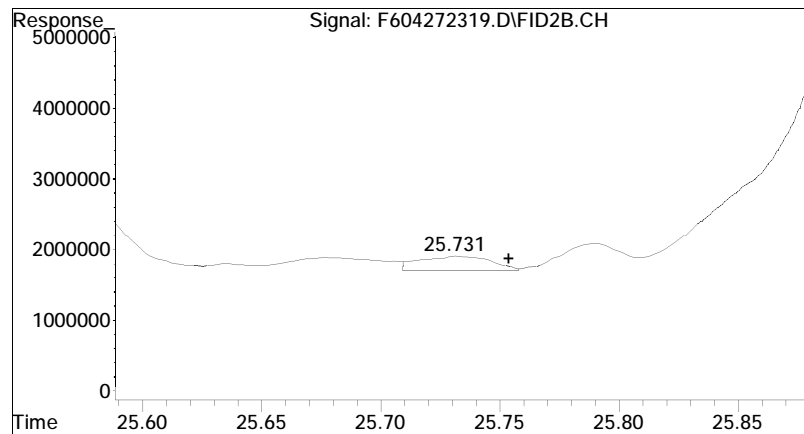
#12 n-Hexadecane (C16)

R.T.: 23.921 min
Delta R.T.: 0.017 min
Response: 18553423
Conc: 13.13 ug/mL M4



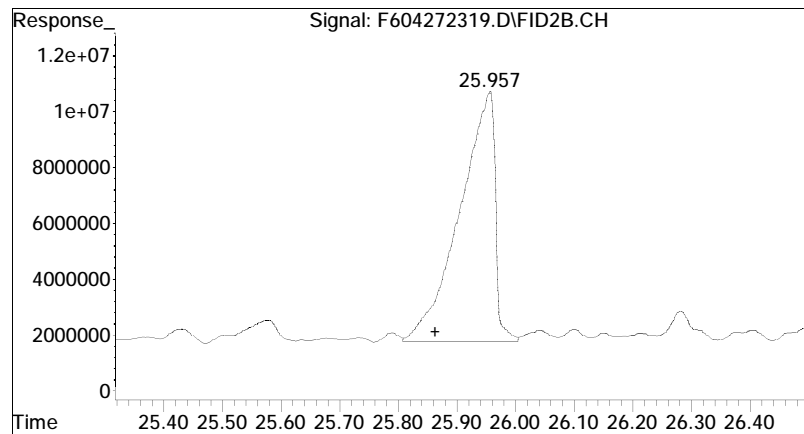
#13 1650

R.T.: 24.793 min
Delta R.T.: -0.010 min
Response: 23232970
Conc: 16.21 ug/mL M4



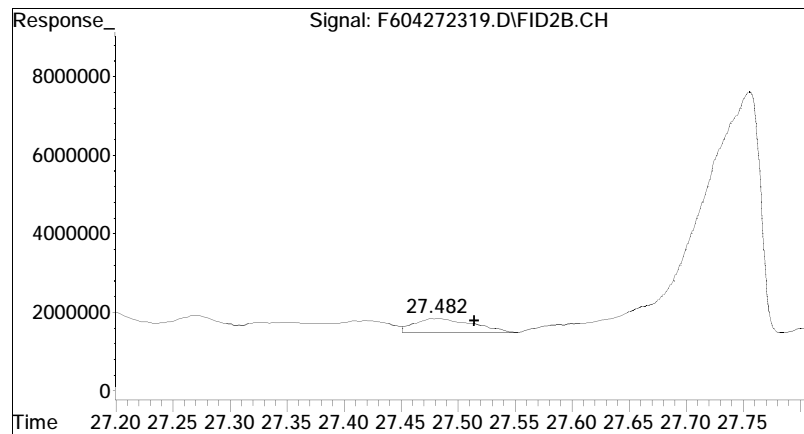
#14 n-Heptadecane (C17)

R.T.: 25.731 min
Delta R.T.: -0.023 min
Response: 4170139
Conc: 2.91 ug/mL M4



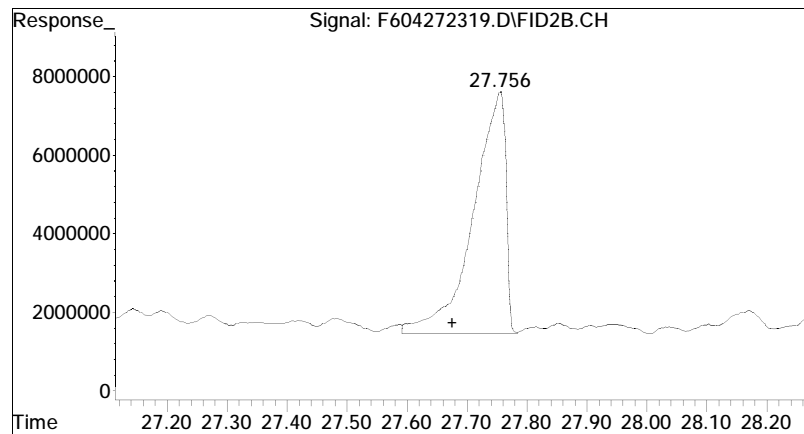
#15 Pristane

R.T.: 25.957 min
Delta R.T.: 0.093 min
Response: 371989379
Conc: 254.89 ug/mL M4



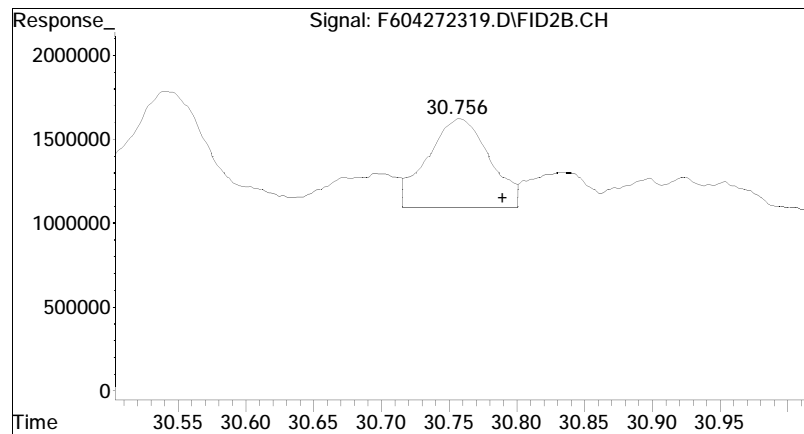
#16 n-Octadecane (C18)

R.T.: 27.482 min
Delta R.T.: -0.032 min
Response: 12211454
Conc: 8.42 ug/mL M4



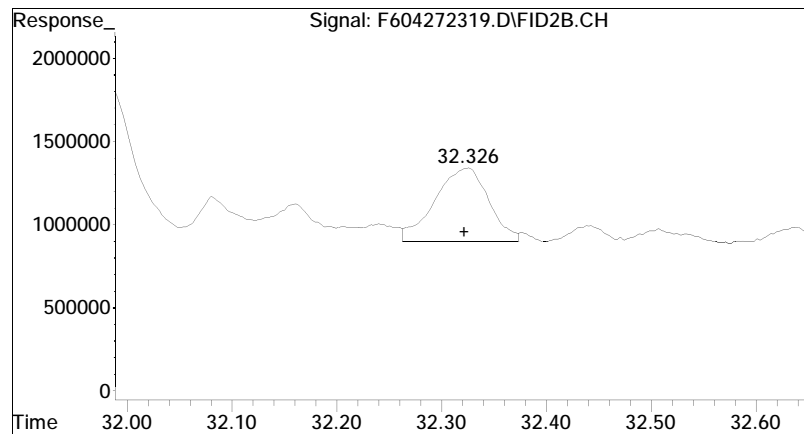
#17 Phytane

R.T.: 27.756 min
Delta R.T.: 0.080 min
Response: 226394095
Conc: 167.68 ug/mL M4



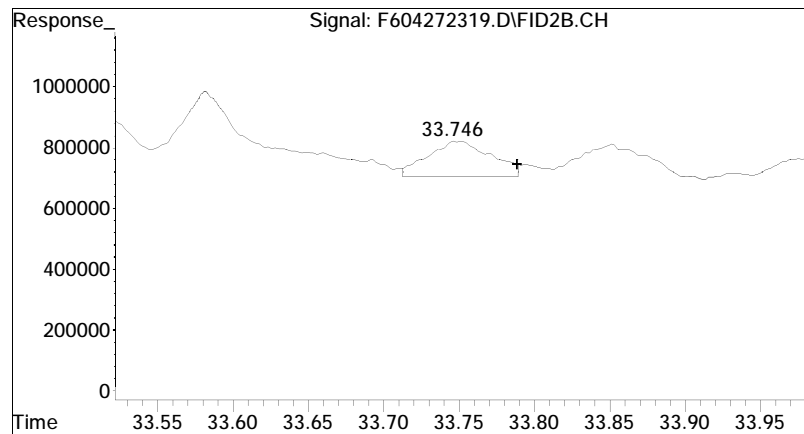
#20 n-Eicosane (C20)

R.T.: 30.756 min
Delta R.T.: -0.034 min
Response: 16855915
Conc: 11.43 ug/mL M4



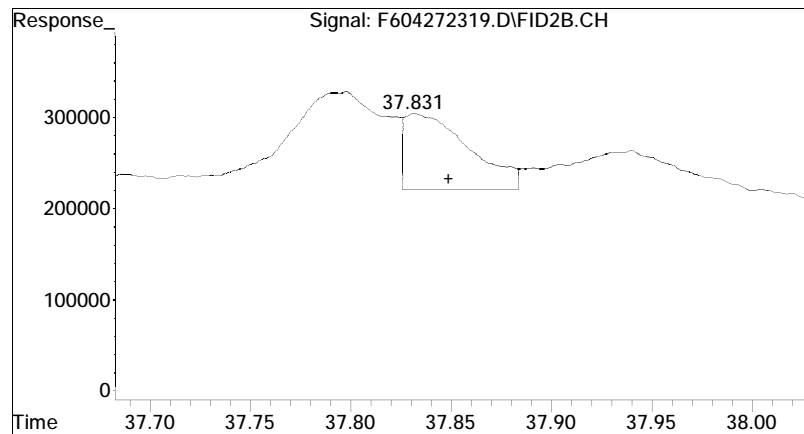
#21 n-Heneicosane (C21)

R.T.: 32.326 min
Delta R.T.: 0.004 min
Response: 15793615
Conc: 10.67 ug/mL M4



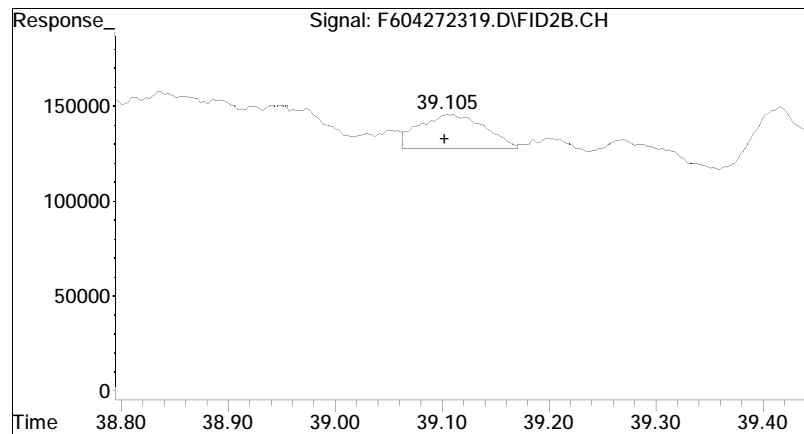
#22 n-Docosane (C22)

R.T.: 33.746 min
Delta R.T.: -0.043 min
Response: 3421694
Conc: 2.30 ug/mL M4



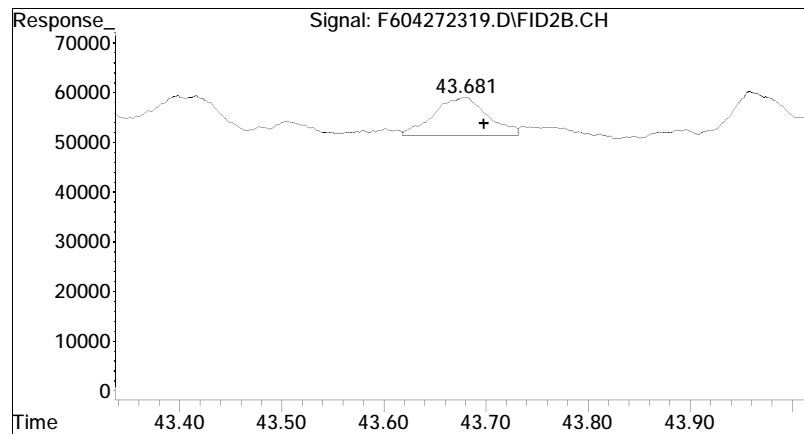
#26 n-Pentacosane (C25)

R.T.: 37.831 min
Delta R.T.: -0.018 min
Response: 1751644
Conc: 1.20 ug/mL M4



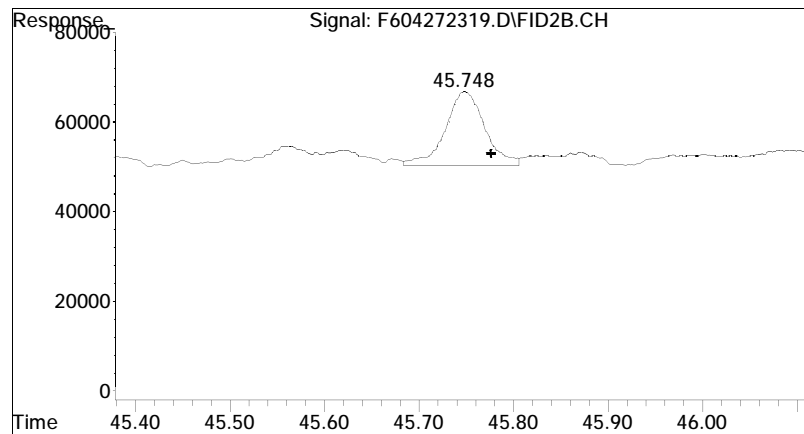
#27 n-Hexacosane (C26)

R.T.: 39.105 min
Delta R.T.: 0.003 min
Response: 764336
Conc: 0.51 ug/mL M4



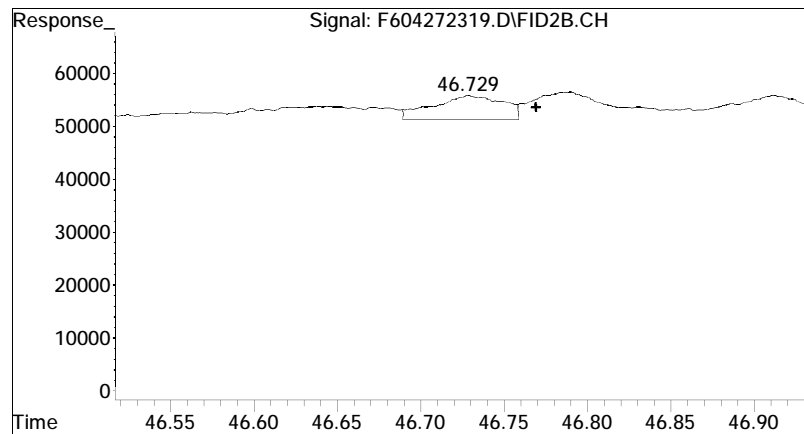
#31 n-Triacontane (C30)

R.T.: 43.681 min
Delta R.T.: -0.017 min
Response: 279866
Conc: 0.18 ug/mL M4



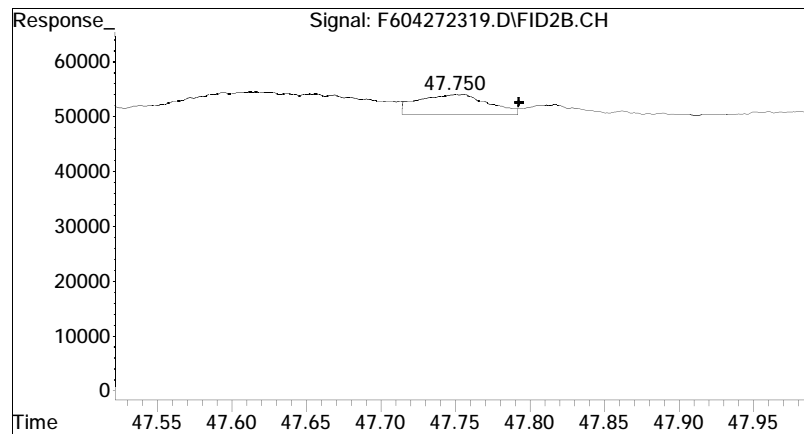
#33 n-Dotriacontane (C32)

R.T.: 45.748 min
Delta R.T.: -0.029 min
Response: 462582
Conc: 0.30 ug/mL M4



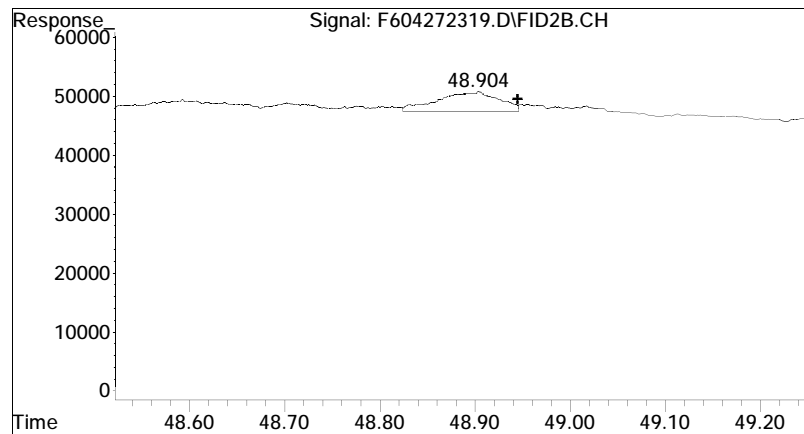
#34 n-Tritriacontane (C33)

R.T.: 46.729 min
Delta R.T.: -0.041 min
Response: 130215
Conc: 0.09 ug/mL M4



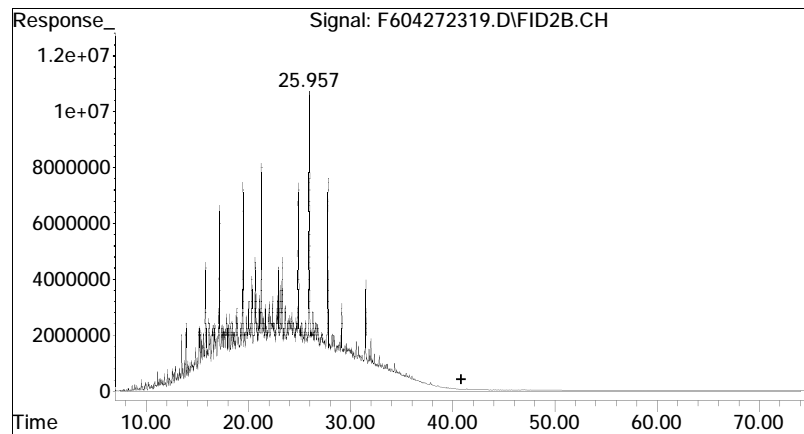
#35 n-tetratriacontane (C34)

R.T.: 47.750 min
Delta R.T.: -0.043 min
Response: 115755
Conc: 0.08 ug/mL M4



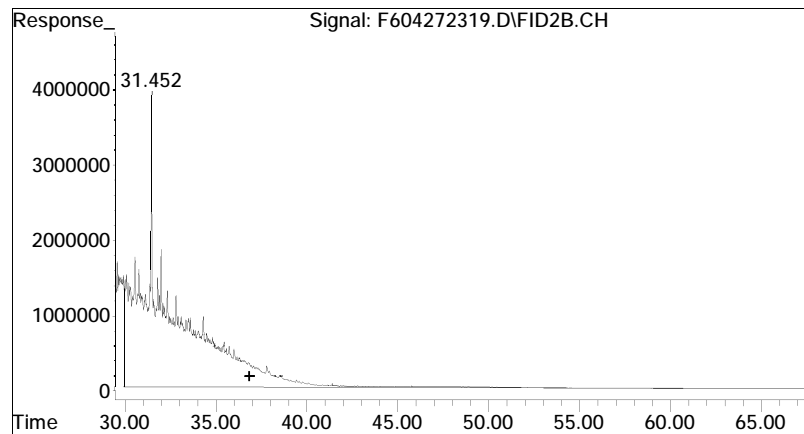
#36 n-Pentatriacontane (C35)

R.T.: 48.904 min
Delta R.T.: -0.040 min
Response: 140929
Conc: 0.10 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 40.853 min
Delta R.T.: 0.000 min
Response: 25058106947
Conc: 17169.90 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 36.878 min
Delta R.T.: 0.000 min
Response: 410967454
Conc: 281.60 ug/L m

Batch Quality Control

Method Blank Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242311.D
 Signal(s) : FID2B.CH
 Acq On : 24 Apr 2023 5:20 pm
 Operator : FID6:AMV
 Sample : WG1769534-1
 Misc : WG1770521,WG1769534,ICAL19796
 ALS Vial : 56 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 03 16:28:51 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604242301R
 Blank File : F604242309.D

Sub List : SHC - SHC

Compound		R.T.	Response	Conc	Units

Internal Standards					
1) I	5-alpha-androstane	31.405	65032156	50.000	ug/mL M4
System Monitoring Compounds					
19) s	ortho-terphenyl	29.368	17415182	12.747	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery	= 25.49%#
24) s	d50-Tetracosane	35.985	13809356	12.413	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery	= 24.83%#
Target Compounds					
2) t	n-Octane (C8)	0.000	0	N.D.	ug/mL d
3) t	n-Nonane (C9)	0.000	0	N.D.	ug/mL d
4) t	n-Decane (C10)	0.000	0	N.D.	ug/mL d
5) t	n-Undecane (C11)	0.000	0	N.D.	ug/mL d
6) t	n-Dodecane (C12)	0.000	0	N.D.	ug/mL d
7) t	n-Tridecane (C13)	0.000	0	N.D.	ug/mL d
8) t	1380	0.000	0	N.D.	ug/mL d
9) t	n-Tetradecane (C14)	0.000	0	N.D.	ug/mL d
10) t	1470	0.000	0	N.D.	ug/mL d
11) t	n-Pentadecane (C15)	0.000	0	N.D.	ug/mL d
12) t	n-Hexadecane (C16)	0.000	0	N.D.	ug/mL d
13) t	1650	0.000	0	N.D.	ug/mL d
14) t	n-Heptadecane (C17)	0.000	0	N.D.	ug/mL d
15) t	Pristane	0.000	0	N.D.	ug/mL d
16) t	n-Octadecane (C18)	27.491	327182	0.266	ug/mL M4
17) t	Phytane	0.000	0	N.D.	ug/mL d
18) t	n-Nonadecane (C19)	0.000	0	N.D.	ug/mL d
20) t	n-Eicosane (C20)	0.000	0	N.D.	ug/mL d
21) t	n-Heneicosane (C21)	0.000	0	N.D.	ug/mL d
22) t	n-Docosane (C22)	0.000	0	N.D.	ug/mL d
23) t	n-Tricosane (C23)	0.000	0	N.D.	ug/mL d

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242311.D
 Signal(s) : FID2B.CH
 Acq On : 24 Apr 2023 5:20 pm
 Operator : FID6:AMV
 Sample : WG1769534-1
 Misc : WG1770521,WG1769534,ICAL19796
 ALS Vial : 56 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 03 16:28:51 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604242301R
 Blank File : F604242309.D

Sub List : SHC - SHC

	Compound	R.T.	Response	Conc	Units
25) t	n-Tetracosane (C24)	0.000	0	N.D.	ug/mL d
26) t	n-Pentacosane (C25)	37.830	760810C	0.612	ug/mL M4
27) t	n-Hexacosane (C26)	0.000	0	N.D.	ug/mL d
28) t	n-Heptacosane (C27)	0.000	0	N.D.	ug/mL
29) t	n-Octacosane (C28)	0.000	0	N.D.	ug/mL
30) t	n-Nonacosane (C29)	0.000	0	N.D.	ug/mL d
31) t	n-Triacontane (C30)	0.000	0	N.D.	ug/mL
32) t	n-Hentriacontane (C31)	44.744	22052	0.018	ug/mL M4
33) t	n-Dotriacontane (C32)	0.000	0	N.D.	ug/mL
34) t	n-Tritriacontane (C33)	0.000	0	N.D.	ug/mL
35) t	n-tetratriacontane (C34)	0.000	0	N.D.	ug/mL
36) t	n-Pentatriacontane (C35)	0.000	0	N.D.	ug/mL d
37) t	n-Hexatriacontane (C36)	0.000	0	N.D.	ug/mL
38) t	n-Heptatriacontane (C37)	0.000	0	N.D.	ug/mL d
39) t	n-Octatriacontane (C38)	0.000	0	N.D.	ug/mL
40) t	n-Nonatriacontane (C39)	0.000	0	N.D.	ug/mL
41) t	n-Tetracontane (C40)	0.000	0	N.D.	ug/mL
42) h	C9-C44 Total Petroleu...	40.848	371271887	300.094	ug/mL m
42) h	C9-C44 Total Petroleu BS	40.848	-22552269	N.D.	ug/mLm
49) h	Total Resolved Hydroc...	36.878	4917641	3.975	ug/L m

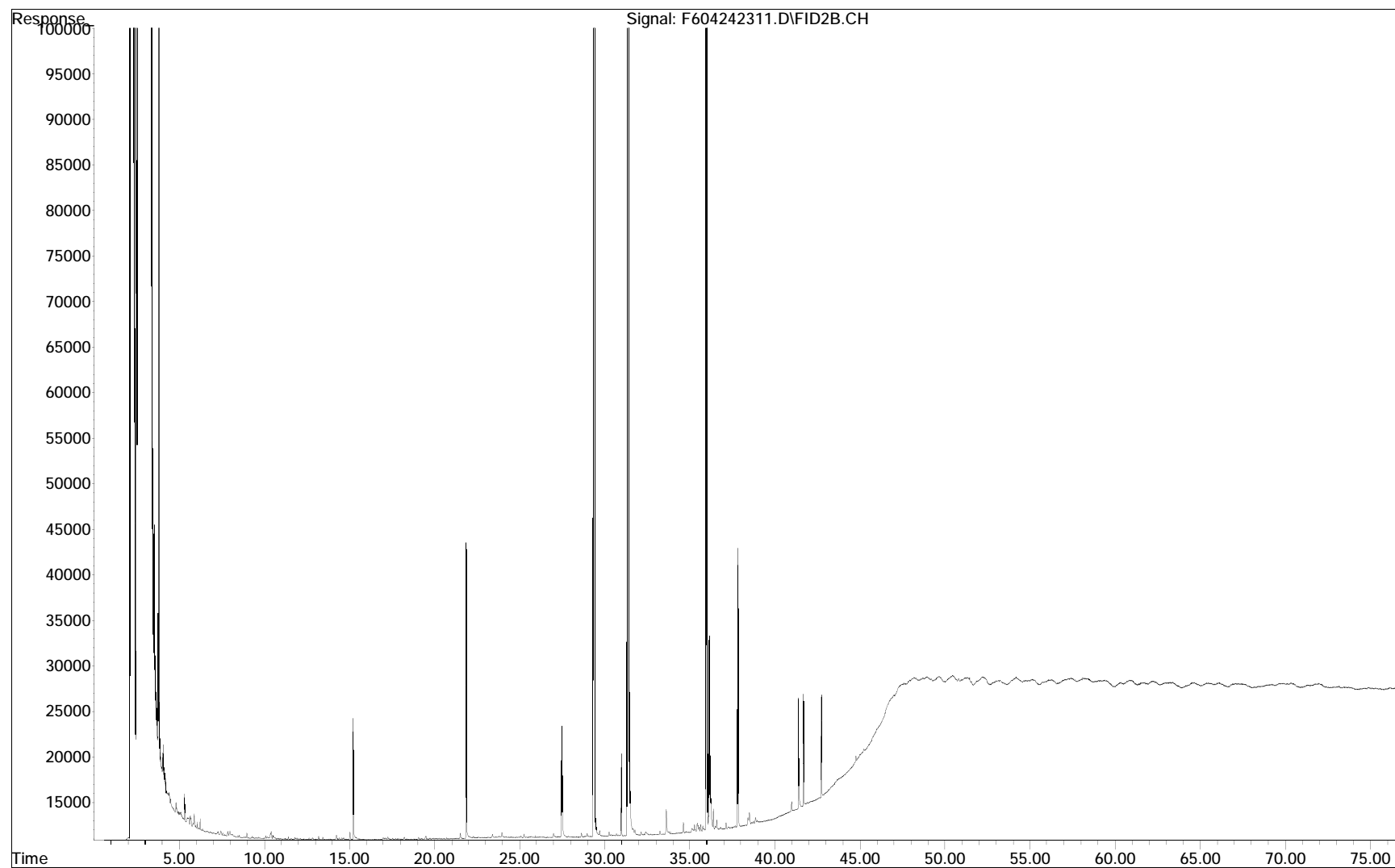
SemiQuant Compounds - Not Calibrated on this Instrument

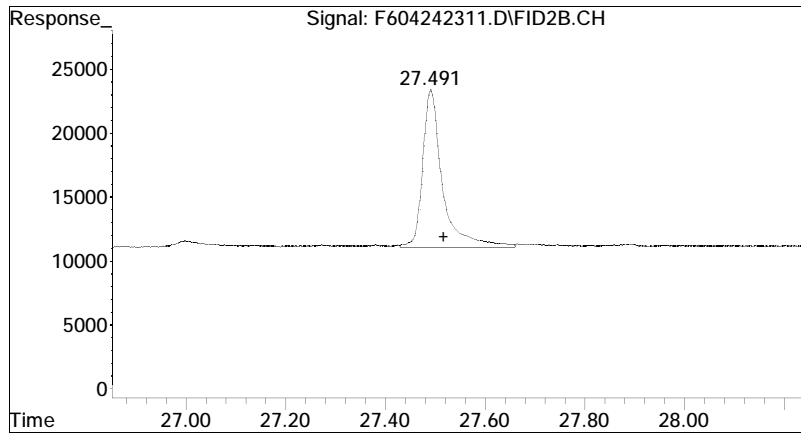
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

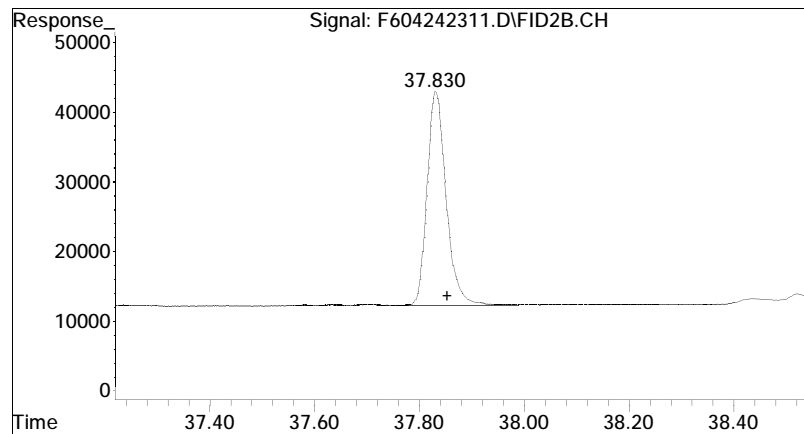
File : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\F604242311.D
Operator : FID6:AMV
Acquired : 24 Apr 2023 5:20 pm using AcqMethod FID6A.M
Sample Name: WG1769534-1
Instrument: FID6
Misc Info : WG1770521, WG1769534, ICAL19796
Vial Number: 56
CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M





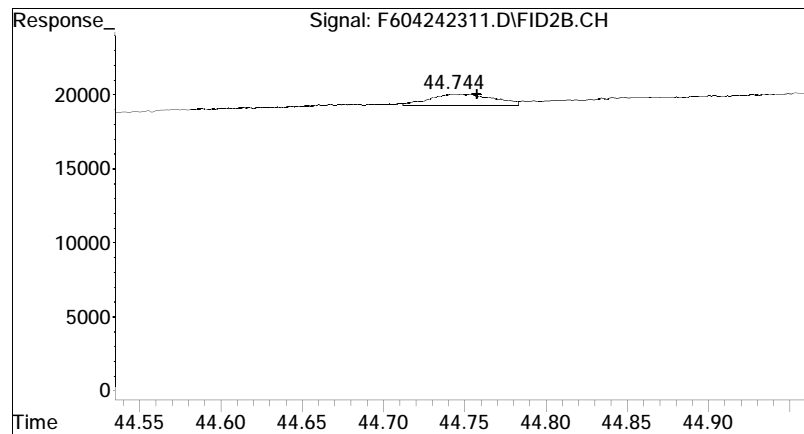
#16 n-Octadecane (C18)

R.T.: 27.491 min
Delta R.T.: -0.026 min
Response: 327182
Conc: 0.27 ug/mL M4



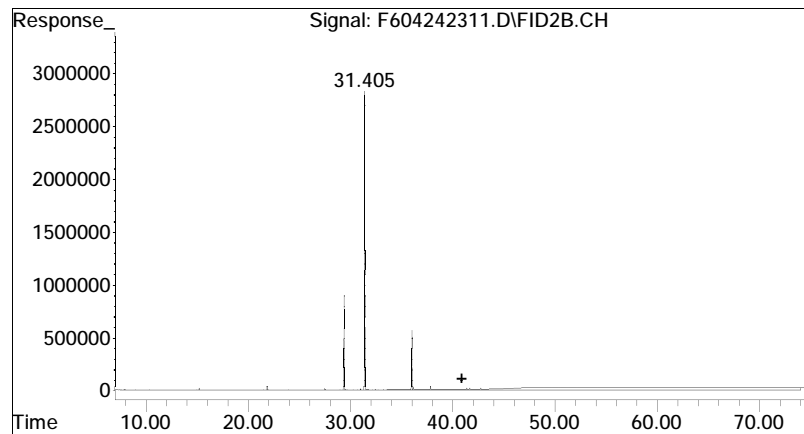
#26 n-Pentacosane (C25)

R.T.: 37.830 min
Delta R.T.: -0.024 min
Response: 760810
Conc: 0.61 ug/mL M4



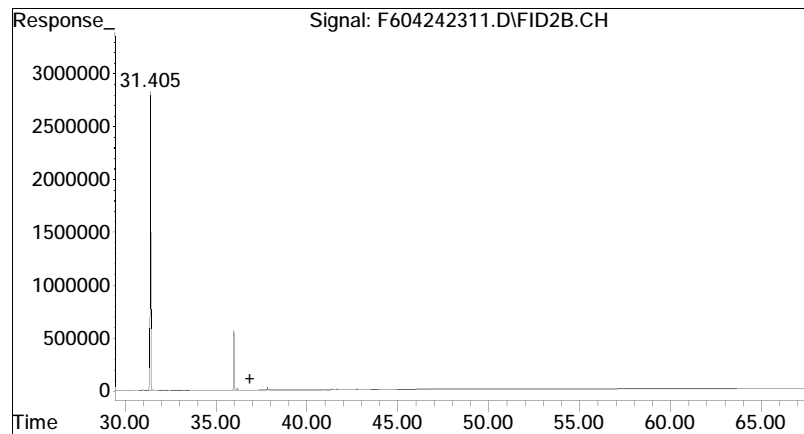
#32 n-Hentriacontane (C31)

R.T.: 44.744 min
Delta R.T.: -0.014 min
Response: 22052
Conc: 0.02 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 40.848 min
Delta R.T.: 0.000 min
Response: 371271887
Conc: 300.09 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 36.878 min
Delta R.T.: 0.000 min
Response: 4917641
Conc: 3.97 ug/L m

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272311.D
 Signal(s) : FID2B.CH
 Acq On : 27 Apr 2023 4:44 pm
 Operator : FID6:WR
 Sample : WG1770361-1
 Misc : WG1772076, WG1770361, ICAL19796
 ALS Vial : 56 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 13:41:00 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604272301R
 Blank File : F604272309.D

Sub List : SHC - SHC

Compound		R.T.	Response	Conc	Units

Internal Standards					
1) I	5-alpha-androstane	31.401	66502931	50.000	ug/mL M4
System Monitoring Compounds					
19) s	ortho-terphenyl	29.372	33822435	24.209	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery	= 48.42%#
24) s	d50-Tetracosane	35.987	26633506	23.412	ug/mL M4
Spiked Amount	50.000	Range	50 - 130	Recovery	= 46.82%#
Target Compounds					
2) t	n-Octane (C8)	0.000	0	N.D.	ug/mL d
3) t	n-Nonane (C9)	8.036	13289	0.012	ug/mL M4
4) t	n-Decane (C10)	0.000	0	N.D.	ug/mL d
5) t	n-Undecane (C11)	0.000	0	N.D.	ug/mL d
6) t	n-Dodecane (C12)	0.000	0	N.D.	ug/mL d
7) t	n-Tridecane (C13)	0.000	0	N.D.	ug/mL d
8) t	1380	0.000	0	N.D.	ug/mL d
9) t	n-Tetradecane (C14)	19.887	10059	0.008	ug/mL M4
10) t	1470	0.000	0	N.D.	ug/mL d
11) t	n-Pentadecane (C15)	0.000	0	N.D.	ug/mL d
12) t	n-Hexadecane (C16)	23.884	14080	0.011	ug/mL M4
13) t	1650	0.000	0	N.D.	ug/mL d
14) t	n-Heptadecane (C17)	25.727	12075	0.010	ug/mL M4
15) t	Pristane	0.000	0	N.D.	ug/mL d
16) t	n-Octadecane (C18)	27.490	626410C	0.498	ug/mL M4
17) t	Phytane	0.000	0	N.D.	ug/mL d
18) t	n-Nonadecane (C19)	29.167	7639	0.006	ug/mL M4
20) t	n-Eicosane (C20)	30.762	8876	0.007	ug/mL M4
21) t	n-Heneicosane (C21)	32.299	10576	0.008	ug/mL M4
22) t	n-Docosane (C22)	33.751	23867	0.018	ug/mL M4
23) t	n-Tricosane (C23)	0.000	0	N.D.	ug/mL d

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272311.D
 Signal(s) : FID2B.CH
 Acq On : 27 Apr 2023 4:44 pm
 Operator : FID6:WR
 Sample : WG1770361-1
 Misc : WG1772076,WG1770361,ICAL19796
 ALS Vial : 56 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 13:41:00 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604272301R
 Blank File : F604272309.D

Sub List : SHC - SHC

	Compound	R.T.	Response	Conc Units
25) t	n-Tetracosane (C24)	0.000	0	N.D. ug/mL d
26) t	n-Pentacosane (C25)	37.833	764307C	0.602 ug/mL M4
27) t	n-Hexacosane (C26)	39.073	11539	0.009 ug/mL M4
28) t	n-Heptacosane (C27)	40.286	12150	0.009 ug/mL M4
29) t	n-Octacosane (C28)	0.000	0	N.D. ug/mL
30) t	n-Nonacosane (C29)	42.576	12073	0.009 ug/mL M4
31) t	n-Triacontane (C30)	0.000	0	N.D. ug/mL d
32) t	n-Hentriacontane (C31)	44.746	16272	0.013 ug/mL M4
33) t	n-Dotriacontane (C32)	0.000	0	N.D. ug/mL
34) t	n-Tritriacontane (C33)	0.000	0	N.D. ug/mL
35) t	n-tetratriacontane (C34)	0.000	0	N.D. ug/mL d
36) t	n-Pentatriacontane (C35)	0.000	0	N.D. ug/mL d
37) t	n-Hexatriacontane (C36)	0.000	0	N.D. ug/mL d
38) t	n-Heptatriacontane (C37)	0.000	0	N.D. ug/mL
39) t	n-Octatriacontane (C38)	0.000	0	N.D. ug/mL
40) t	n-Nonatriacontane (C39)	0.000	0	N.D. ug/mL
41) t	n-Tetracontane (C40)	0.000	0	N.D. ug/mL d
42) h	C9-C44 Total Petroleu...	40.853	462822728	365.819 ug/mL m
42) h	C9-C44 Total Petroleu BS	40.853	-15450705	N.D. ug/mLm
49) h	Total Resolved Hydroc...	36.878	6674036	5.275 ug/L m

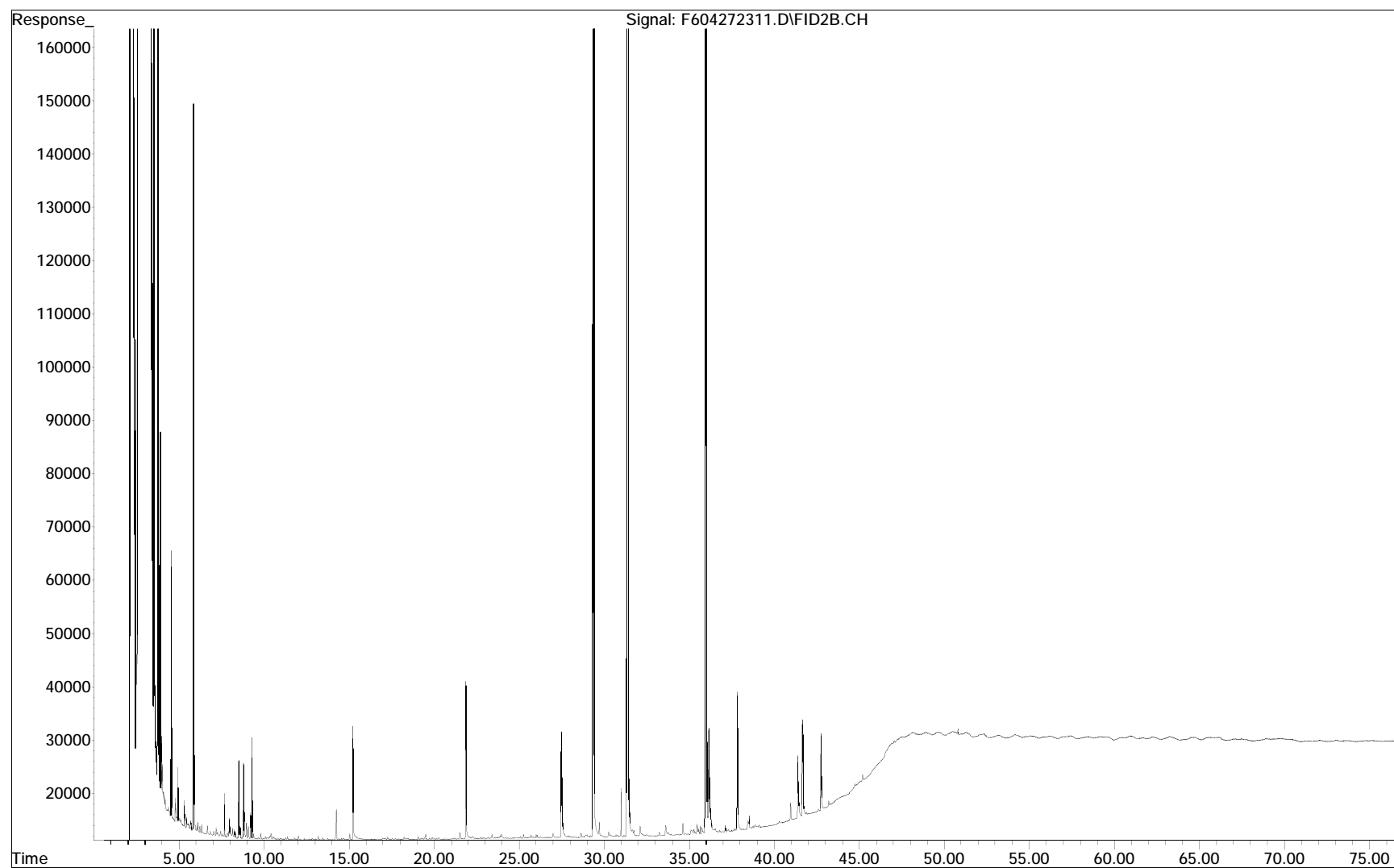
SemiQuant Compounds - Not Calibrated on this Instrument

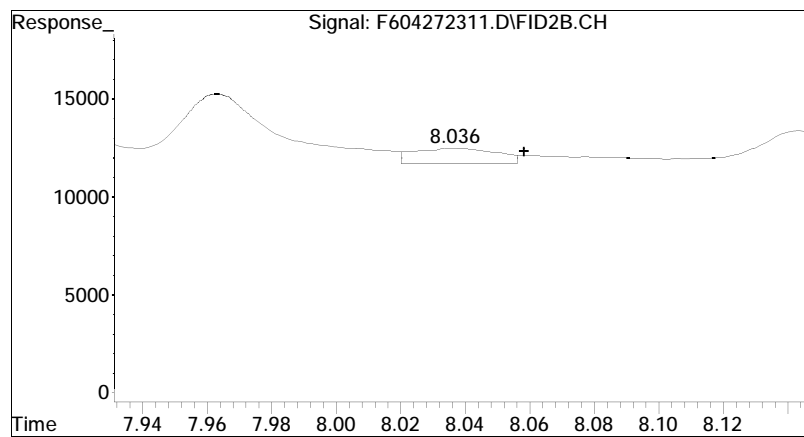
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

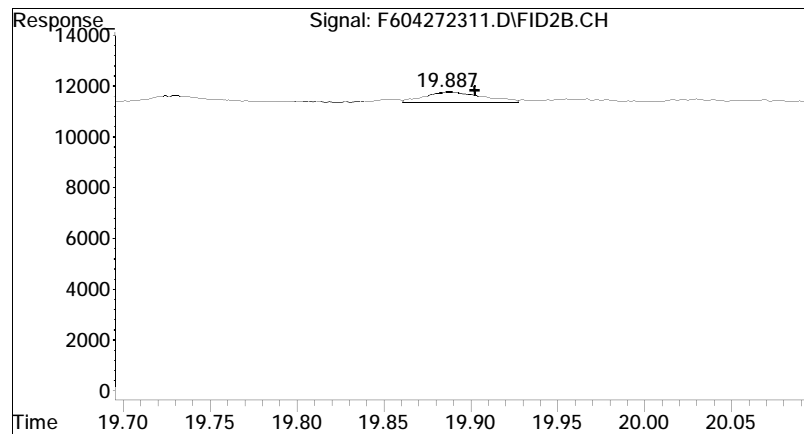
File : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\F604272311.D
 Operator : FID6:WR
 Acquired : 27 Apr 2023 4:44 pm using AcqMethod FID6A.M
 Sample Name: WG1770361-1
 Instrument: FID6
 Misc Info : WG1772076, WG1770361, ICAL19796
 Vial Number: 56
 CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M





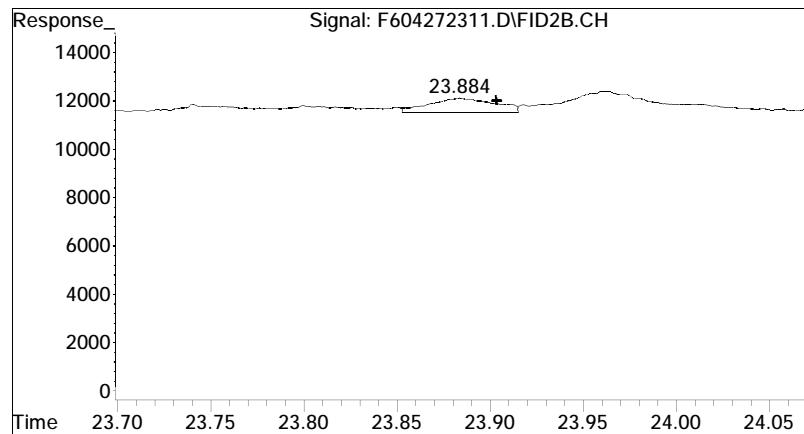
#3 n-Nonane (C9)

R.T.: 8.036 min
Delta R.T.: -0.022 min
Response: 13289
Conc: 0.01 ug/mL M4



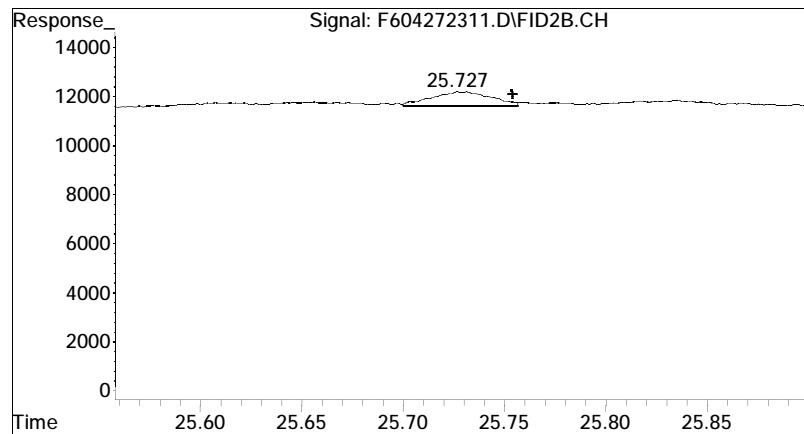
#9 n-Tetradecane (C14)

R.T.: 19.887 min
Delta R.T.: -0.016 min
Response: 10059
Conc: 0.01 ug/mL M4



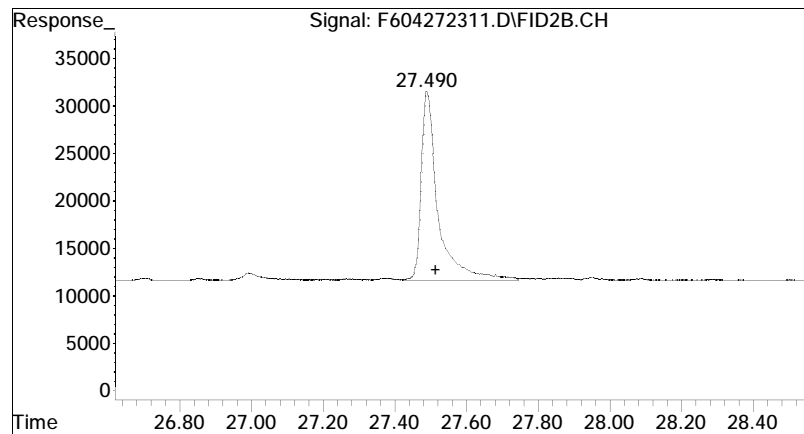
#12 n-Hexadecane (C16)

R.T.: 23.884 min
Delta R.T.: -0.020 min
Response: 14080
Conc: 0.01 ug/mL M4



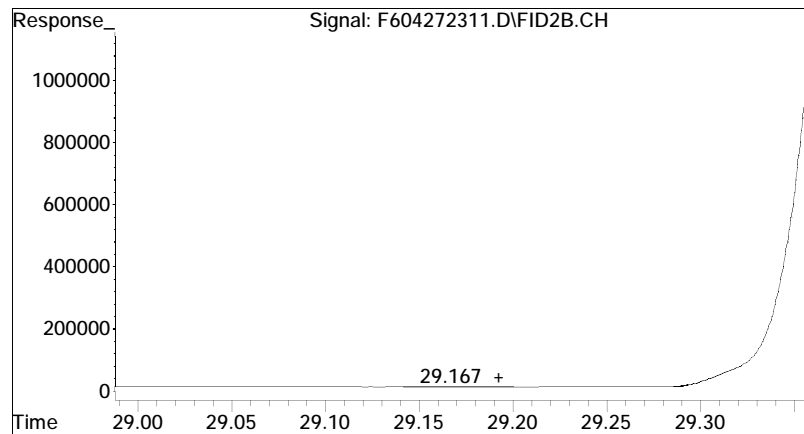
#14 n-Heptadecane (C17)

R.T.: 25.727 min
Delta R.T.: -0.027 min
Response: 12075
Conc: 0.01 ug/mL M4



#16 n-Octadecane (C18)

R.T.: 27.490 min
Delta R.T.: -0.025 min
Response: 626410
Conc: 0.50 ug/mL M4



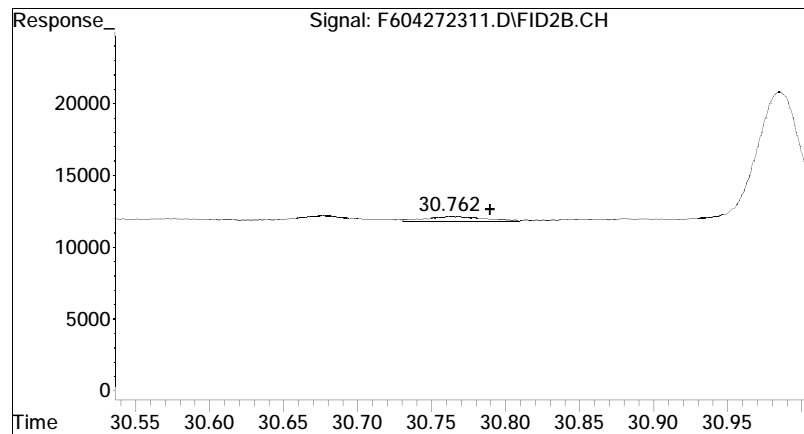
#18 n-Nonadecane (C19)

R.T.: 29.167 min

Delta R.T.: -0.026 min

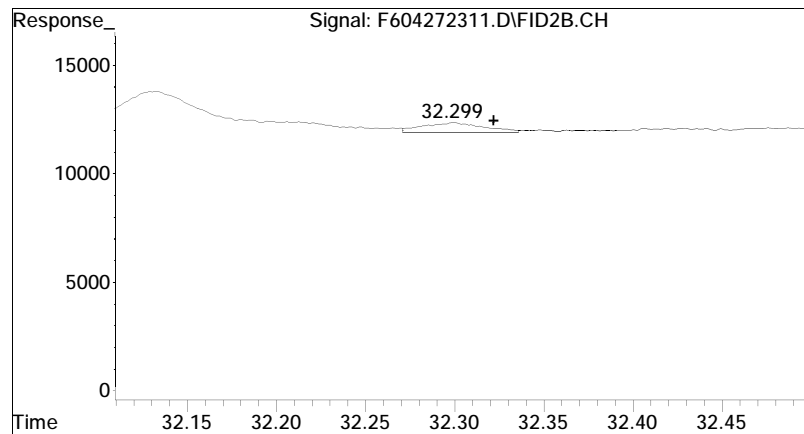
Response: 7639

Conc: 0.01 ug/mL M4



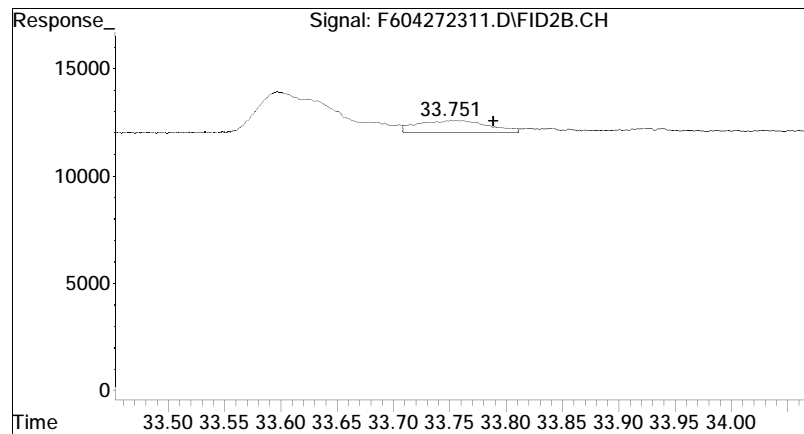
#20 n-Eicosane (C20)

R.T.: 30.762 min
Delta R.T.: -0.028 min
Response: 8876
Conc: 0.01 ug/mL M4



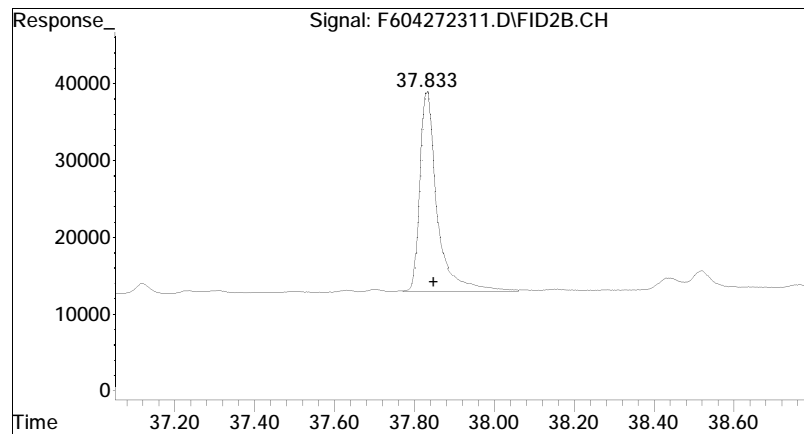
#21 n-Heneicosane (C21)

R.T.: 32.299 min
Delta R.T.: -0.023 min
Response: 10576
Conc: 0.01 ug/mL M4



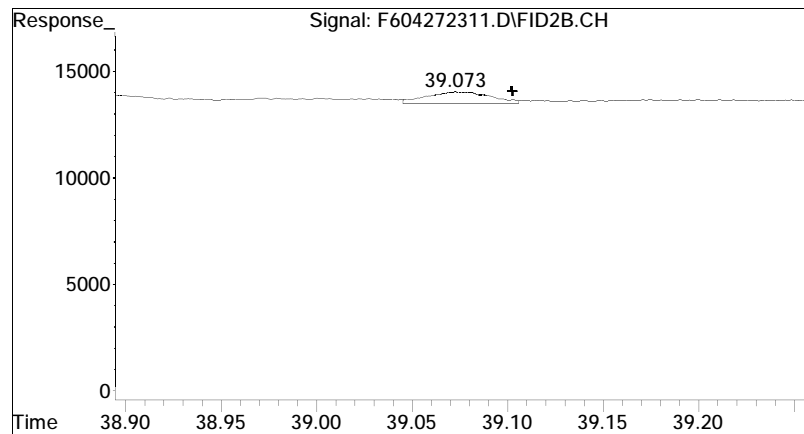
#22 n-Docosane (C22)

R.T.: 33.751 min
Delta R.T.: -0.038 min
Response: 23867
Conc: 0.02 ug/mL M4



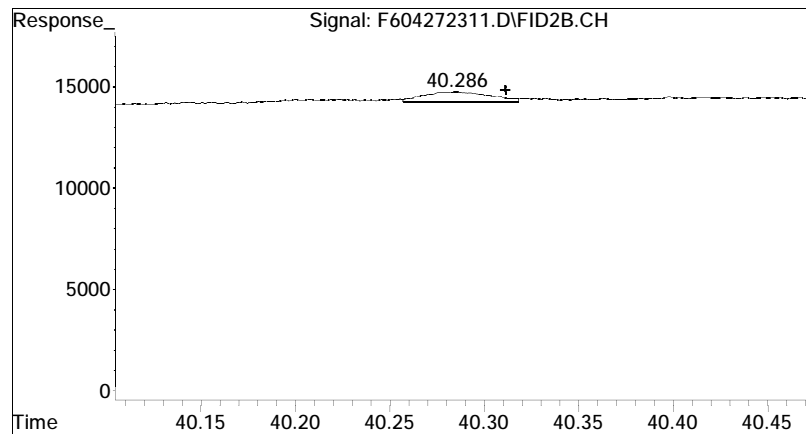
#26 n-Pentacosane (C25)

R.T.: 37.833 min
Delta R.T.: -0.016 min
Response: 764307
Conc: 0.60 ug/mL M4



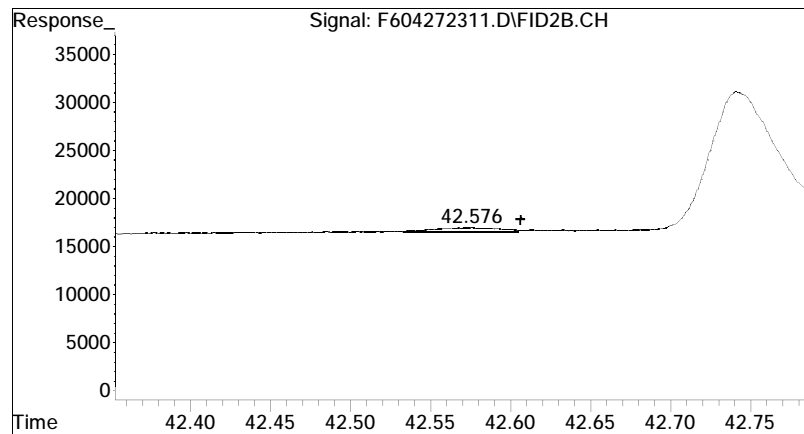
#27 n-Hexacosane (C26)

R.T.: 39.073 min
Delta R.T.: -0.030 min
Response: 11539
Conc: 0.01 ug/mL M4



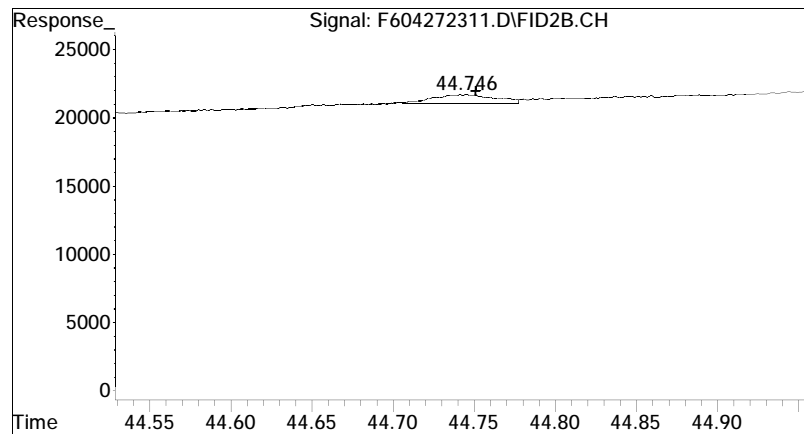
#28 n-Heptacosane (C27)

R.T.: 40.286 min
Delta R.T.: -0.026 min
Response: 12150
Conc: 0.01 ug/mL M4



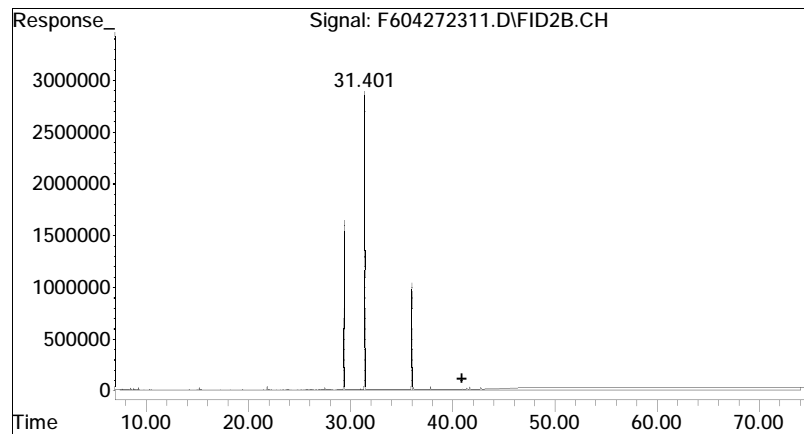
#30 n-Nonacosane (C29)

R.T.: 42.576 min
Delta R.T.: -0.031 min
Response: 12073
Conc: 0.01 ug/mL M4



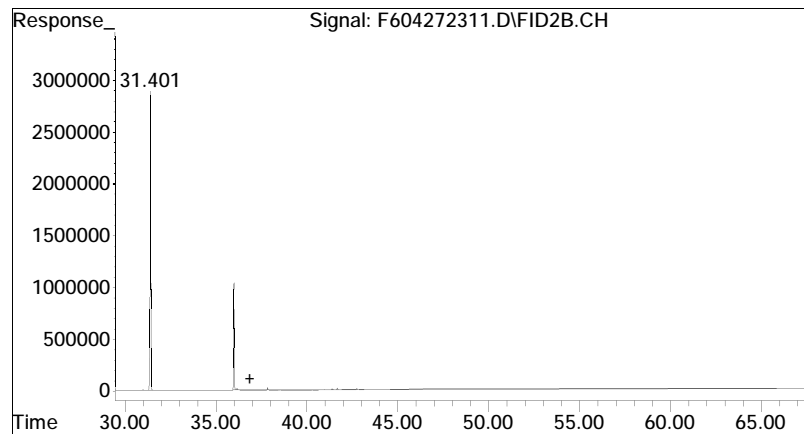
#32 n-Hentriacontane (C31)

R.T.: 44.746 min
Delta R.T.: -0.006 min
Response: 16272
Conc: 0.01 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 40.853 min
Delta R.T.: 0.000 min
Response: 462822728
Conc: 365.82 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 36.878 min
Delta R.T.: 0.000 min
Response: 6674036
Conc: 5.28 ug/L m

LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242315.D
 Signal(s) : FID2B.CH
 Acq On : 24 Apr 2023 8:14 pm
 Operator : FID6:AMV
 Sample : WG1769534-2
 Misc : WG1770521,WG1769534,ICAL19796
 ALS Vial : 58 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 02 13:27:14 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604242301R
 Blank File : F604242309.D

Sub List : SHC_QC_Samples - SHC_QC_Samples

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I 5-alpha-androstane	31.403	64314701	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.367	16999059	12.581 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	25.16%#
24) s d50-Tetracosane	35.982	13522792	12.292 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	24.58%#
Target Compounds			
3) t n-Nonane (C9)	8.035	5211633	4.742 ug/mL M4
4) t n-Decane (C10)	10.518	5436725	4.817 ug/mL M4
6) t n-Dodecane (C12)	15.425	5594850	4.898 ug/mL M4
9) t n-Tetradecane (C14)	19.885	5744975	4.876 ug/mL M4
12) t n-Hexadecane (C16)	23.883	6444630	5.441 ug/mL M4
16) t n-Octadecane (C18)	27.489	6479943	5.326 ug/mL M4
18) t n-Nonadecane (C19)	29.168	6167052	5.044 ug/mL M4
20) t n-Eicosane (C20)	30.767	6176178	4.994 ug/mL M4
22) t n-Docosane (C22)	33.763	6217917	4.981 ug/mL M4
25) t n-Tetracosane (C24)	36.523	6265654	5.079 ug/mL M4
27) t n-Hexacosane (C26)	39.077	6245420	4.951 ug/mL M4
29) t n-Octacosane (C28)	41.450	6318841	4.912 ug/mL M4
31) t n-Triacontane (C30)	43.670	6281418	4.919 ug/mL M4
37) t n-Hexatriacontane (C36)	50.222	6211507	4.469 ug/mL M4
42) h C9-C44 Total Petroleu...	40.848	424963982	347.324 ug/mL m
42) h C9-C44 Total Petroleu BS	40.848	31139826	25.451 ug/mLm
49) h Total Resolved Hydroc...	36.878	52273870	42.724 ug/L m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242315.D
 Signal(s) : FID2B.CH
 Acq On : 24 Apr 2023 8:14 pm
 Operator : FID6:AMV
 Sample : WG1769534-2
 Misc : WG1770521,WG1769534,ICAL19796
 ALS Vial : 58 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 02 13:27:14 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604242301R
 Blank File : F604242309.D

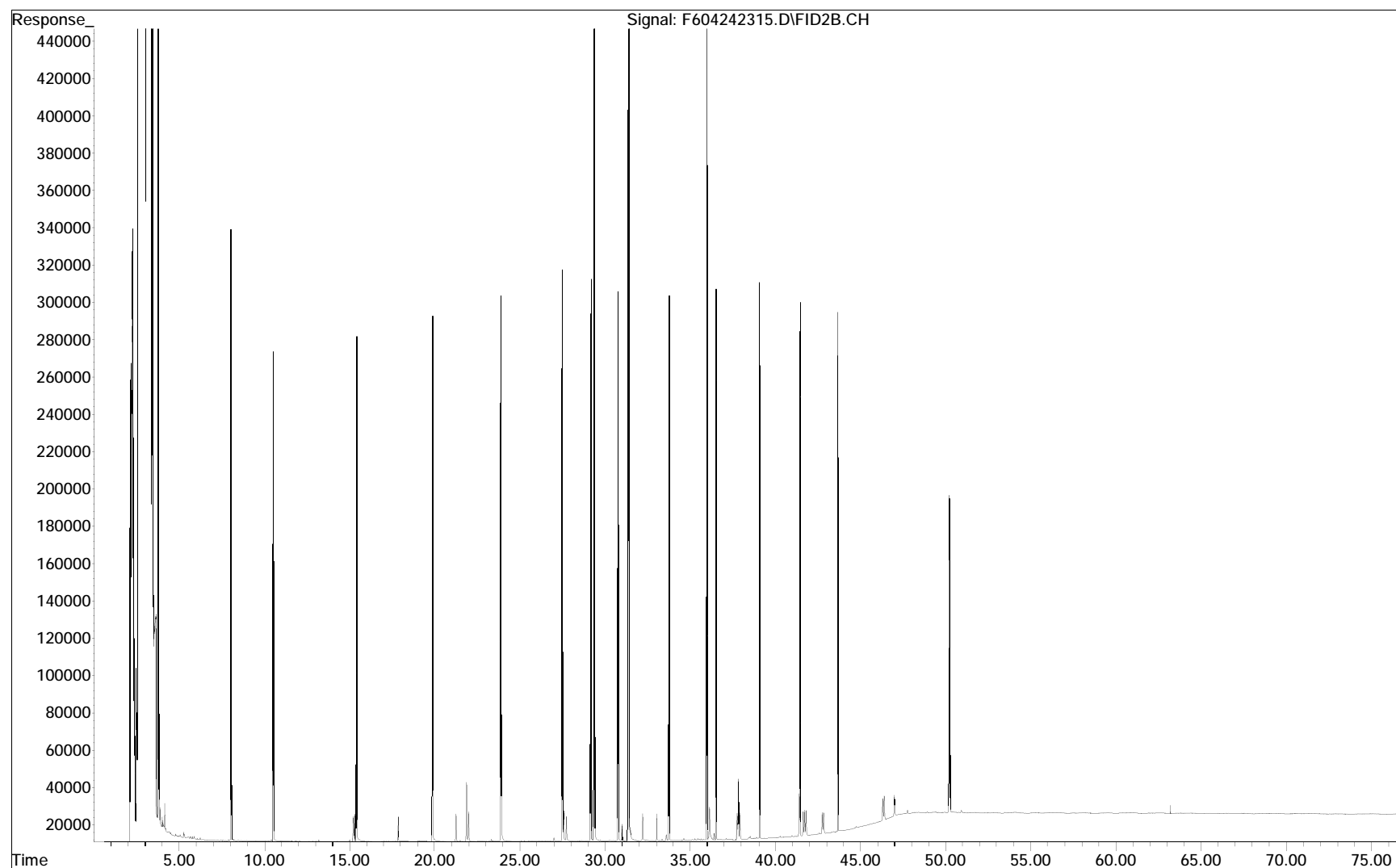
Sub List : SHC_QC_Samples - SHC_QC_Samples

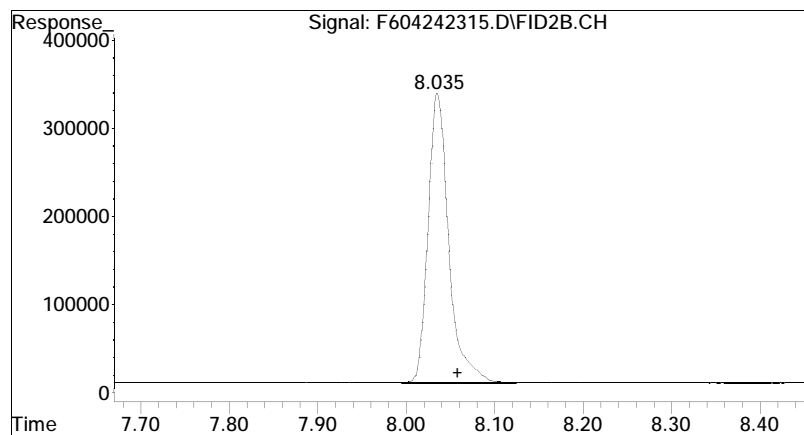
Compound	R.T.	Response	Conc Units

(f)=RT Delta > 1/2 Window			(m)=manual int.

Quantitation Report (QT Reviewed)

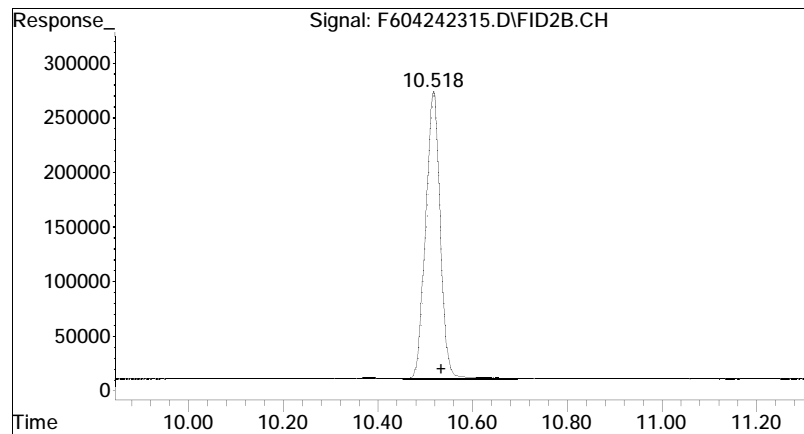
File : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\F604242315.D
 Operator : FID6:AMV
 Acquired : 24 Apr 2023 8:14 pm using AcqMethod FID6A.M
 Sample Name: WG1769534-2
 Instrument: FID6
 Misc Info : WG1770521, WG1769534, ICAL19796
 Vial Number: 58
 CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M





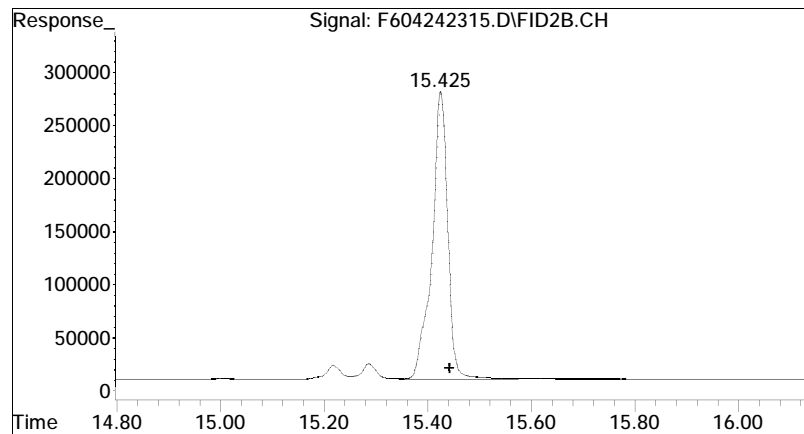
#3 n-Nonane (C9)

R.T.: 8.035 min
Delta R.T.: -0.023 min
Response: 5211633
Conc: 4.74 ug/mL M4



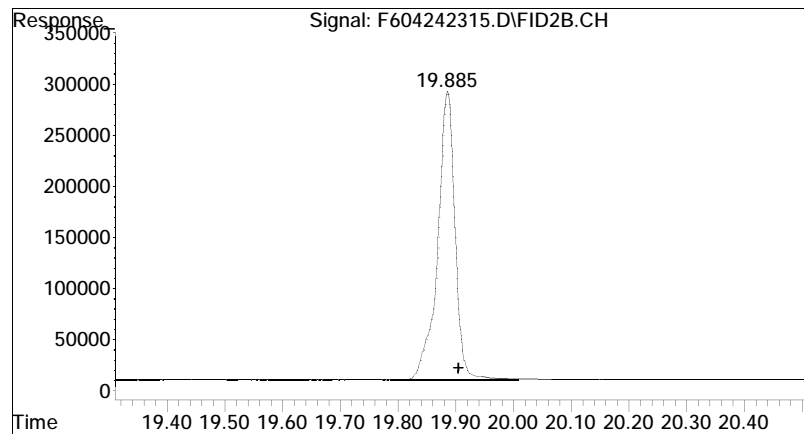
#4 n-Decane (C10)

R.T.: 10.518 min
Delta R.T.: -0.017 min
Response: 5436725
Conc: 4.82 ug/mL M4



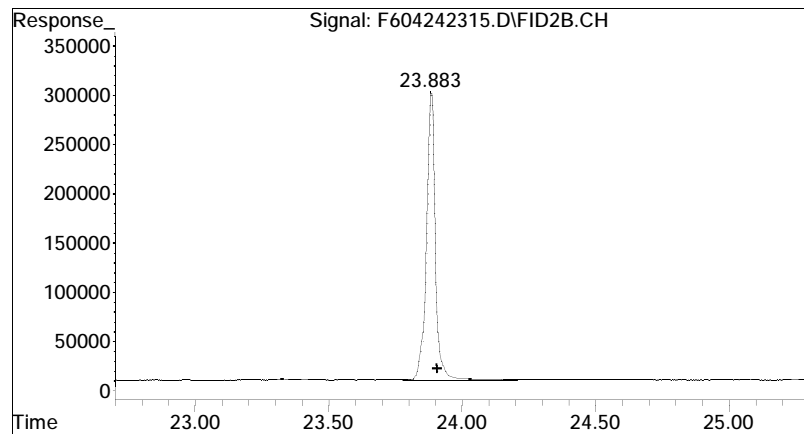
#6 n-Dodecane (C12)

R.T.: 15.425 min
Delta R.T.: -0.017 min
Response: 5594850
Conc: 4.90 ug/mL M4



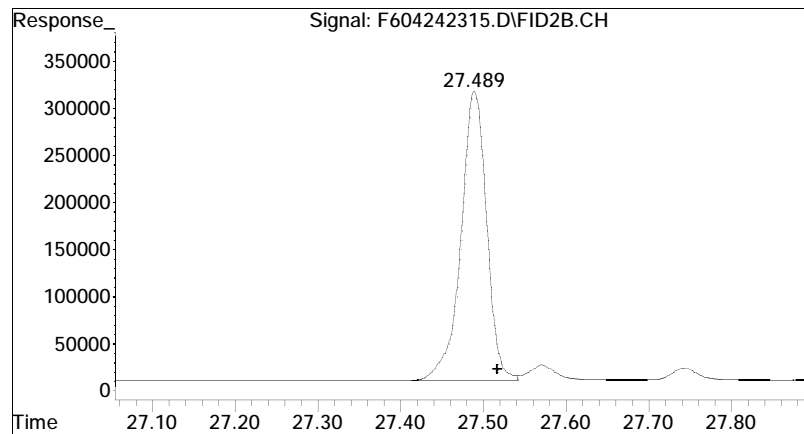
#9 n-Tetradecane (C14)

R.T.: 19.885 min
Delta R.T.: -0.019 min
Response: 5744975
Conc: 4.88 ug/mL M4



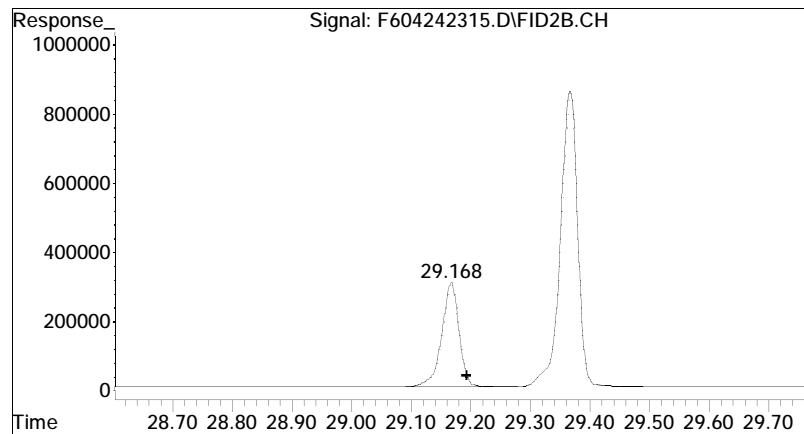
#12 n-Hexadecane (C16)

R.T.: 23.883 min
Delta R.T.: -0.023 min
Response: 6444630
Conc: 5.44 ug/mL M4



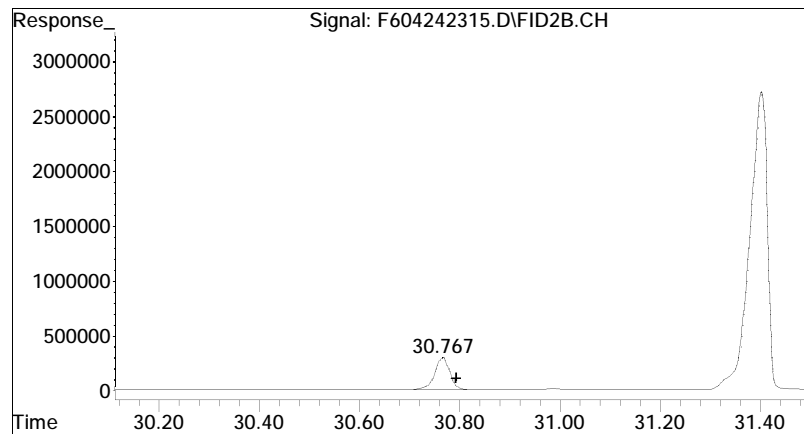
#16 n-Octadecane (C18)

R.T.: 27.489 min
Delta R.T.: -0.028 min
Response: 6479943
Conc: 5.33 ug/mL M4



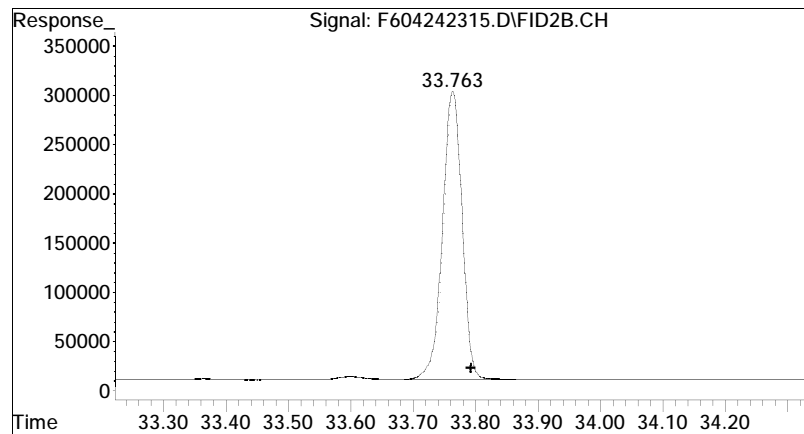
#18 n-Nonadecane (C19)

R.T.: 29.168 min
Delta R.T.: -0.026 min
Response: 6167052
Conc: 5.04 ug/mL M4



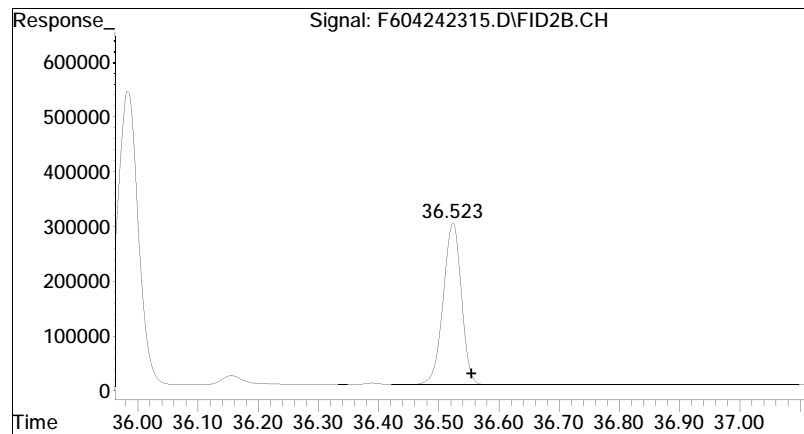
#20 n-Eicosane (C20)

R.T.: 30.767 min
Delta R.T.: -0.027 min
Response: 6176178
Conc: 4.99 ug/mL M4



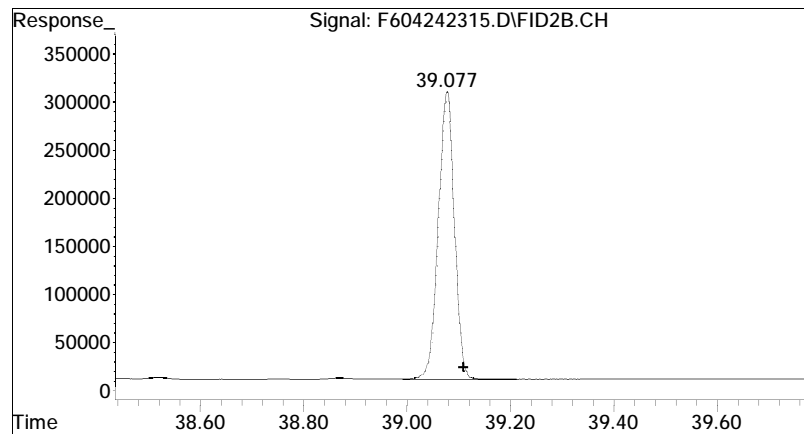
#22 n-Docosane (C22)

R.T.: 33.763 min
Delta R.T.: -0.029 min
Response: 6217917
Conc: 4.98 ug/mL M4



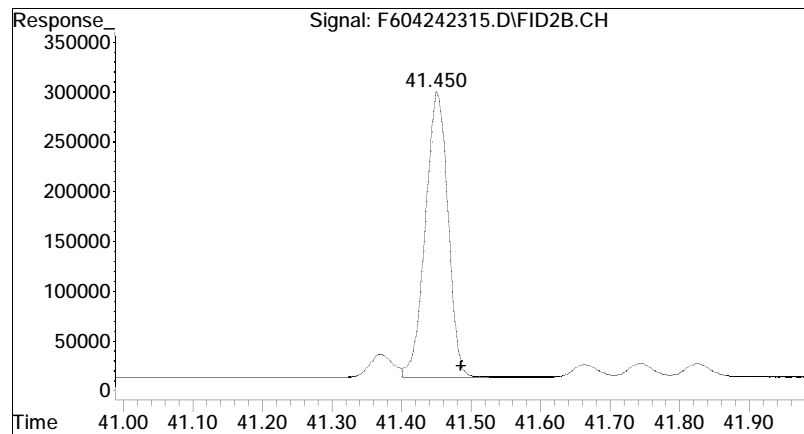
#25 n-Tetracosane (C24)

R.T.: 36.523 min
Delta R.T.: -0.031 min
Response: 6265654
Conc: 5.08 ug/mL M4



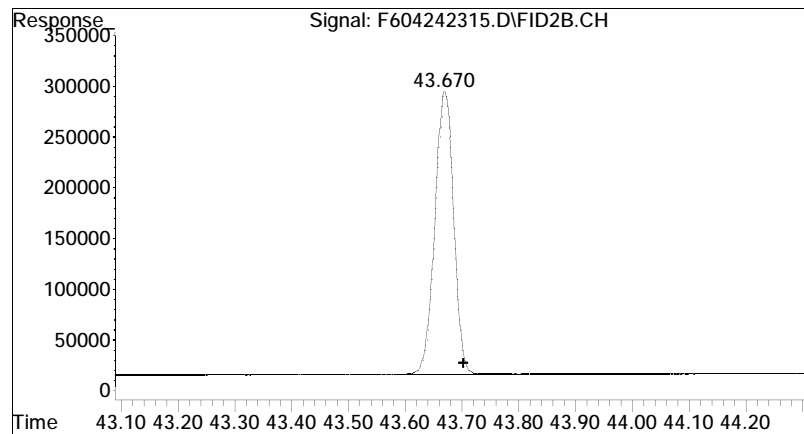
#27 n-Hexacosane (C26)

R.T.: 39.077 min
Delta R.T.: -0.031 min
Response: 6245420
Conc: 4.95 ug/mL M4



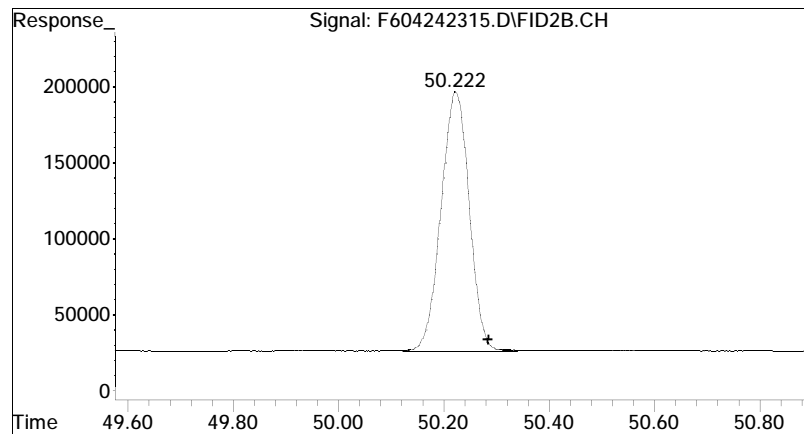
#29 n-Octacosane (C28)

R.T.: 41.450 min
Delta R.T.: -0.036 min
Response: 6318841
Conc: 4.91 ug/mL M4



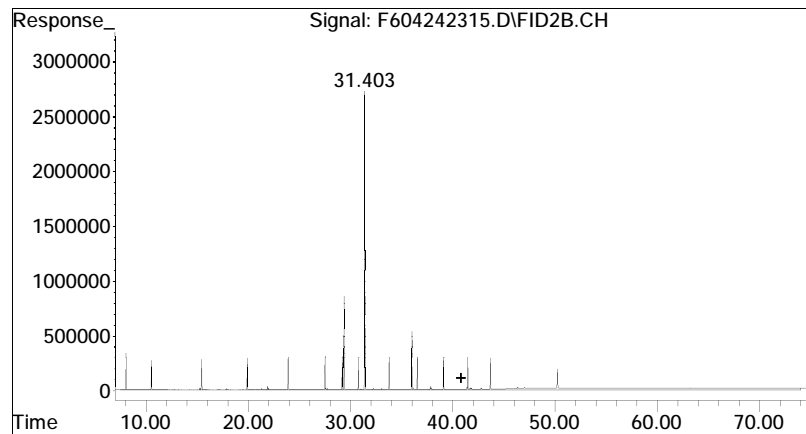
#31 n-Triacontane (C30)

R.T.: 43.670 min
Delta R.T.: -0.033 min
Response: 6281418
Conc: 4.92 ug/mL M4



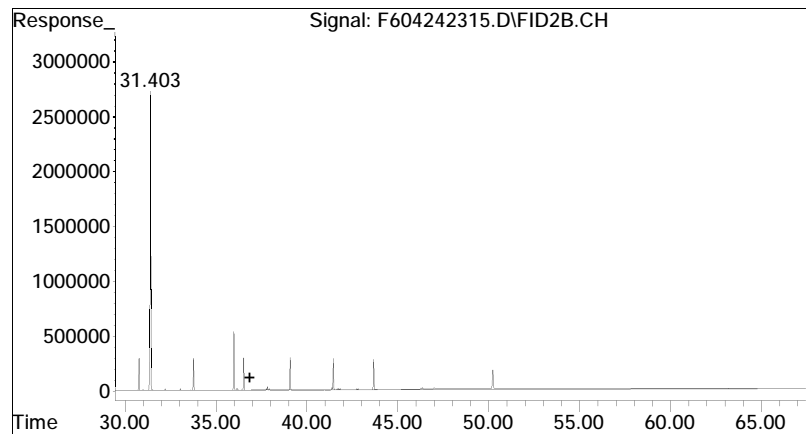
#37 n-Hexatriacontane (C36)

R.T.: 50.222 min
Delta R.T.: -0.062 min
Response: 6211507
Conc: 4.47 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 40.848 min
Delta R.T.: 0.000 min
Response: 424963982
Conc: 347.32 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 36.878 min
Delta R.T.: 0.000 min
Response: 52273870
Conc: 42.72 ug/L m

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272313.D
 Signal(s) : FID2B.CH
 Acq On : 27 Apr 2023 6:11 pm
 Operator : FID6:WR
 Sample : WG1770361-2
 Misc : WG1772076,WG1770361,ICAL19796
 ALS Vial : 57 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 13:46:22 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604272301R
 Blank File : F604272309.D

Sub List : SHC_QC_Samples - SHC_QC_Samples

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.401	68969283	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.371	34745224	23.980 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	47.96%#
24) s d50-Tetracosane	35.986	27374046	23.202 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	46.40%#
Target Compounds			
3) t n-Nonane (C9)	8.035	8601574	7.298 ug/mL M4
4) t n-Decane (C10)	10.517	10118654	8.360 ug/mL M4
6) t n-Dodecane (C12)	15.426	11137954	9.092 ug/mL M4
9) t n-Tetradecane (C14)	19.886	11618620	9.196 ug/mL M4
12) t n-Hexadecane (C16)	23.884	13319119	10.486 ug/mL M4
16) t n-Octadecane (C18)	27.489	13428926	10.293 ug/mL M4
18) t n-Nonadecane (C19)	29.168	12970194	9.892 ug/mL M4
20) t n-Eicosane (C20)	30.767	13025142	9.822 ug/mL M4
22) t n-Docosane (C22)	33.763	13098944	9.785 ug/mL M4
25) t n-Tetracosane (C24)	36.523	13121527	9.919 ug/mL M4
27) t n-Hexacosane (C26)	39.075	12915562	9.547 ug/mL M4
29) t n-Octacosane (C28)	41.450	12924988	9.369 ug/mL M4
31) t n-Triacontane (C30)	43.668	12682361	9.261 ug/mL M4
37) t n-Hexatriacontane (C36)	50.217	12330800	8.273 ug/mL M4
42) h C9-C44 Total Petroleu...	40.853	625541406	476.753 ug/mL m
42) h C9-C44 Total Petroleu BS	40.853	147267973	112.239 ug/mLm
49) h Total Resolved Hydroc...	36.878	103674635	79.015 ug/L m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272313.D
 Signal(s) : FID2B.CH
 Acq On : 27 Apr 2023 6:11 pm
 Operator : FID6:WR
 Sample : WG1770361-2
 Misc : WG1772076,WG1770361,ICAL19796
 ALS Vial : 57 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 13:46:22 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

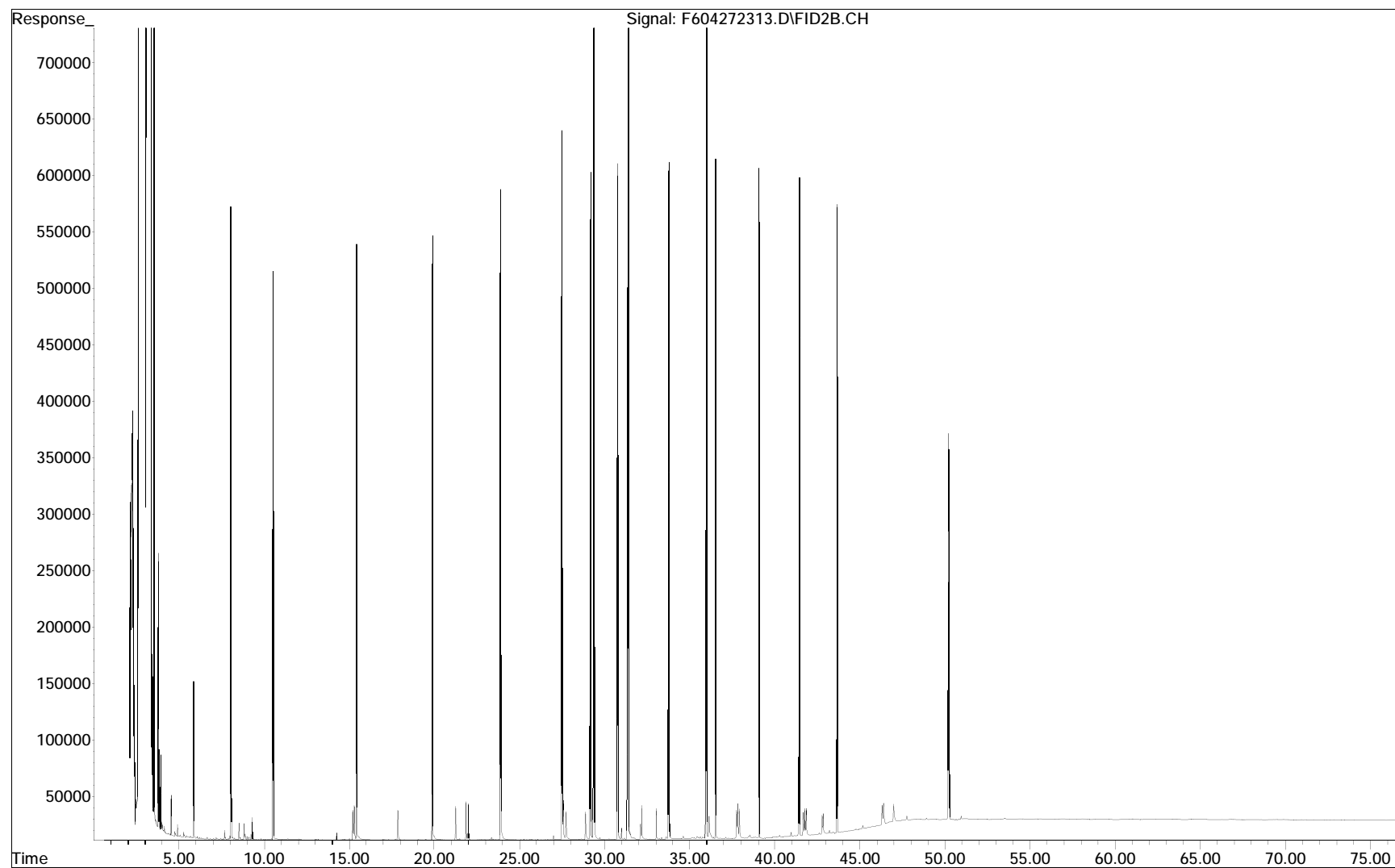
Blank Name : IB604272301R
 Blank File : F604272309.D

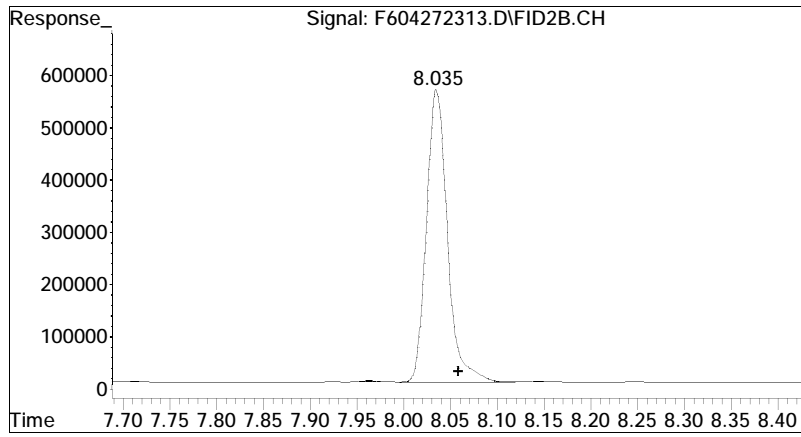
Sub List : SHC_QC_Samples - SHC_QC_Samples

Compound	R.T.	Response	Conc Units
<hr style="border-top: 1px dashed black;"/>			
(f)=RT Delta > 1/2 Window			(m)=manual int.

Quantitation Report (QT Reviewed)

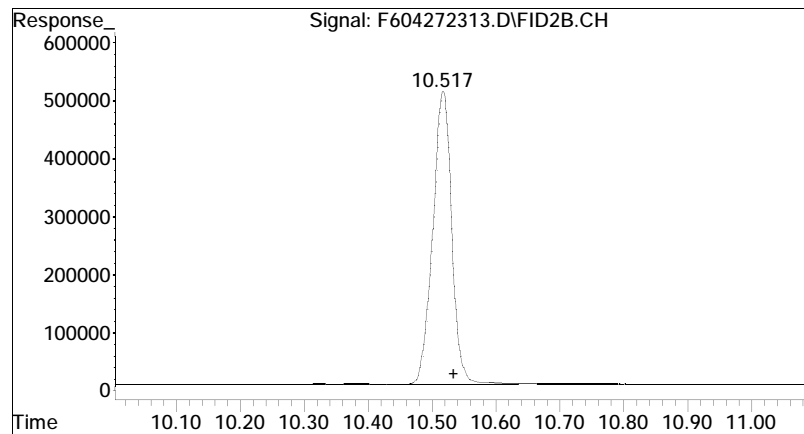
File : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\F604272313.D
 Operator : FID6:WR
 Acquired : 27 Apr 2023 6:11 pm using AcqMethod FID6A.M
 Sample Name: WG1770361-2
 Instrument: FID6
 Misc Info : WG1772076, WG1770361, ICAL19796
 Vial Number: 57
 CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M





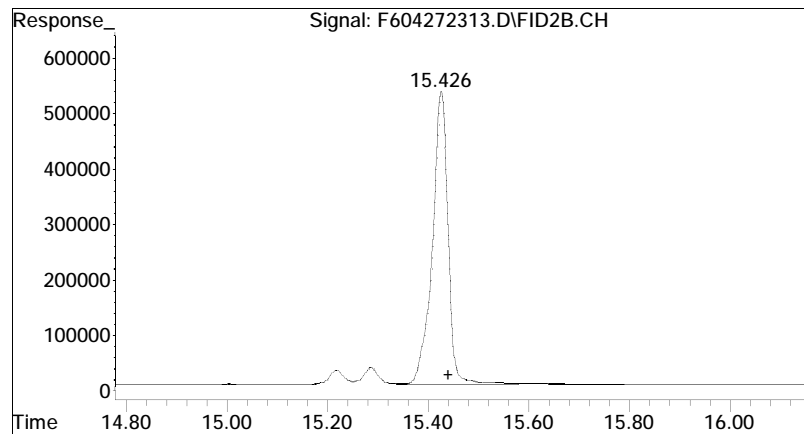
#3 n-Nonane (C9)

R.T.: 8.035 min
Delta R.T.: -0.024 min
Response: 8601574
Conc: 7.30 ug/mL M4



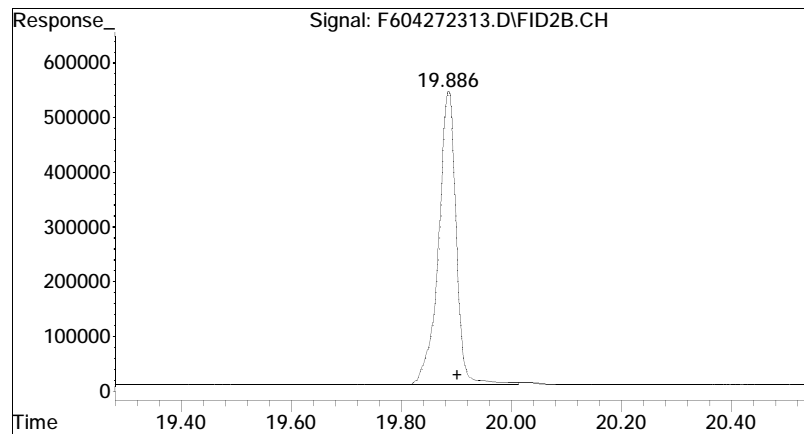
#4 n-Decane (C10)

R.T.: 10.517 min
Delta R.T.: -0.017 min
Response: 10118654
Conc: 8.36 ug/mL M4



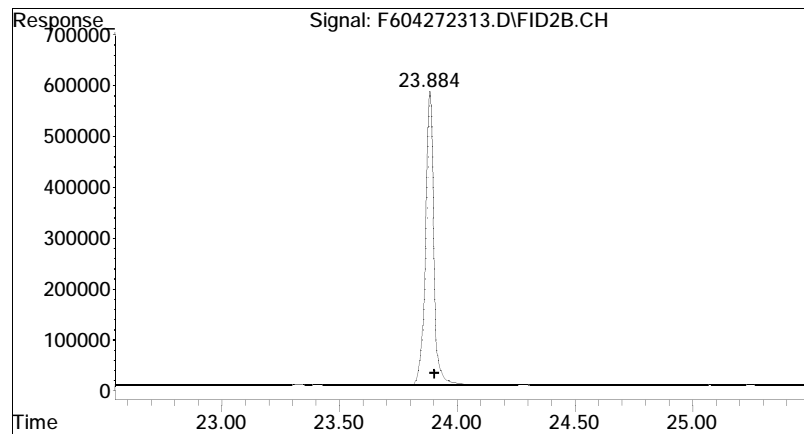
#6 n-Dodecane (C12)

R.T.: 15.426 min
Delta R.T.: -0.014 min
Response: 11137954
Conc: 9.09 ug/mL M4



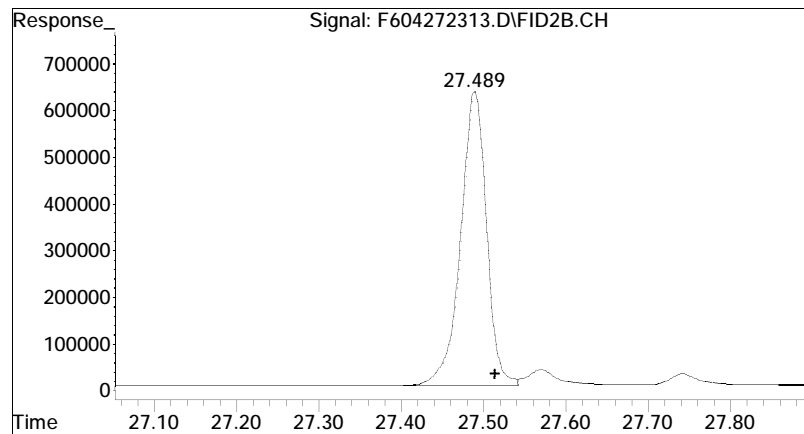
#9 n-Tetradecane (C14)

R.T.: 19.886 min
Delta R.T.: -0.017 min
Response: 11618620
Conc: 9.20 ug/mL M4



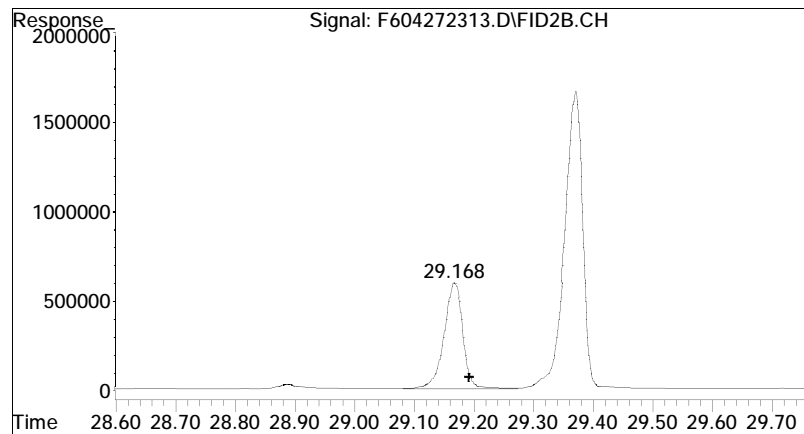
#12 n-Hexadecane (C16)

R.T.: 23.884 min
Delta R.T.: -0.020 min
Response: 13319119
Conc: 10.49 ug/mL M4



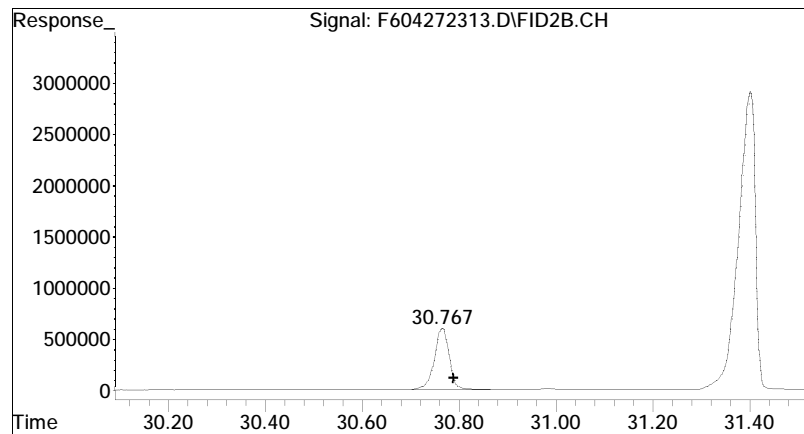
#16 n-Octadecane (C18)

R.T.: 27.489 min
Delta R.T.: -0.025 min
Response: 13428926
Conc: 10.29 ug/mL M4



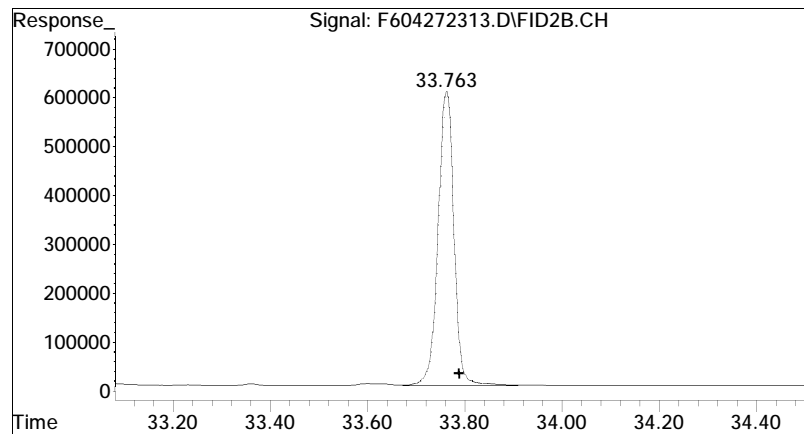
#18 n-Nonadecane (C19)

R.T.: 29.168 min
Delta R.T.: -0.025 min
Response: 12970194
Conc: 9.89 ug/mL M4



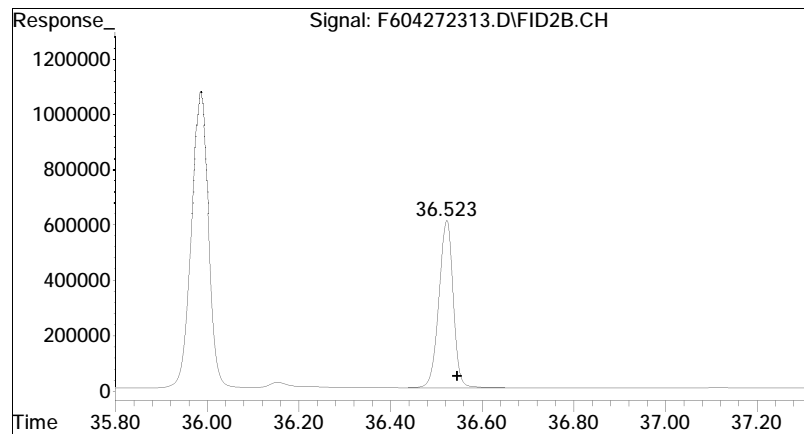
#20 n-Eicosane (C20)

R.T.: 30.767 min
Delta R.T.: -0.023 min
Response: 13025142
Conc: 9.82 ug/mL M4



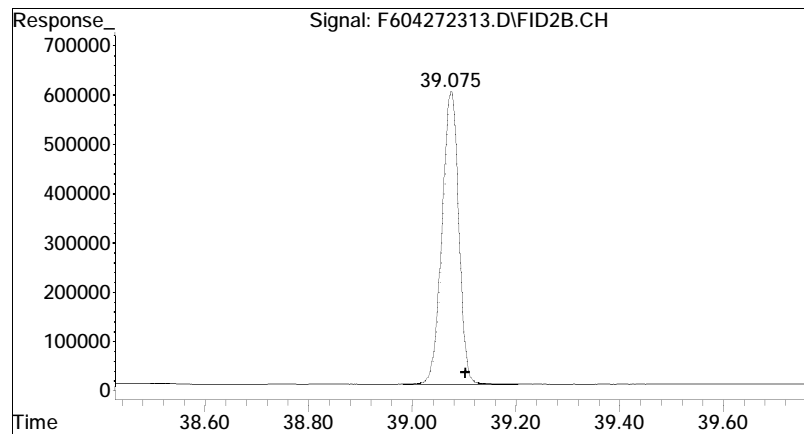
#22 n-Docosane (C22)

R.T.: 33.763 min
Delta R.T.: -0.026 min
Response: 13098944
Conc: 9.78 ug/mL M4



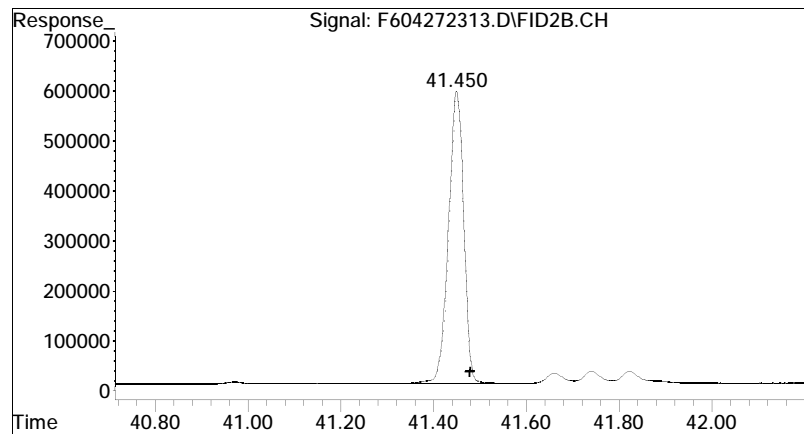
#25 n-Tetracosane (C24)

R.T.: 36.523 min
Delta R.T.: -0.023 min
Response: 13121527
Conc: 9.92 ug/mL M4



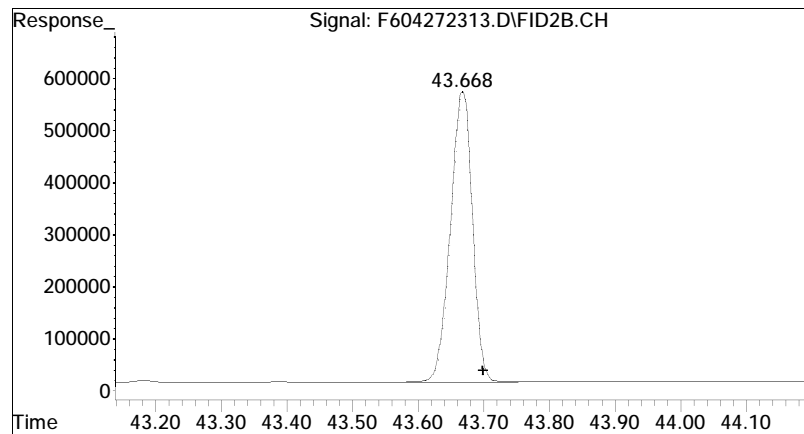
#27 n-Hexacosane (C26)

R.T.: 39.075 min
Delta R.T.: -0.028 min
Response: 12915562
Conc: 9.55 ug/mL M4



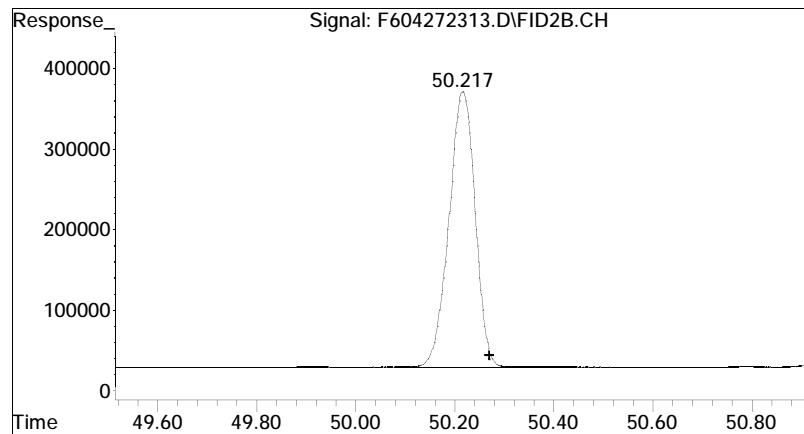
#29 n-Octacosane (C28)

R.T.: 41.450 min
Delta R.T.: -0.029 min
Response: 12924988
Conc: 9.37 ug/mL M4



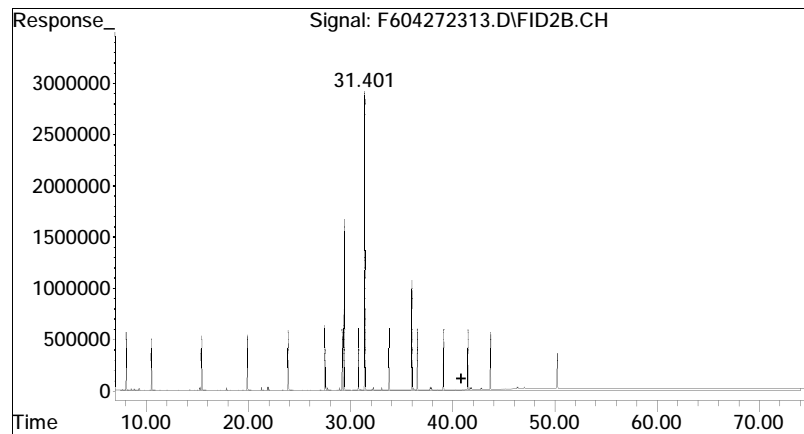
#31 n-Triacontane (C30)

R.T.: 43.668 min
Delta R.T.: -0.030 min
Response: 12682361
Conc: 9.26 ug/mL M4



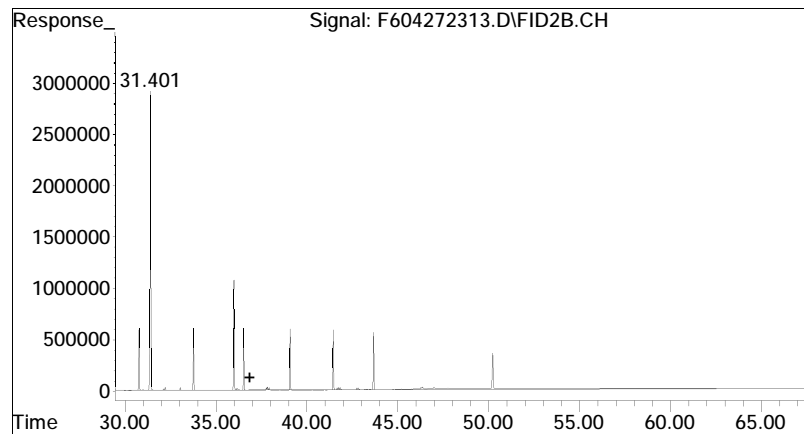
#37 n-Hexatriacontane (C36)

R.T.: 50.217 min
Delta R.T.: -0.054 min
Response: 12330800
Conc: 8.27 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 40.853 min
Delta R.T.: 0.000 min
Response: 625541406
Conc: 476.75 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 36.878 min
Delta R.T.: 0.000 min
Response: 103674635
Conc: 79.02 ug/L m

LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242317.D
 Signal(s) : FID2B.CH
 Acq On : 24 Apr 2023 9:42 pm
 Operator : FID6:AMV
 Sample : WG1769534-3
 Misc : WG1770521,WG1769534,ICAL19796
 ALS Vial : 59 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 02 16:10:31 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604242301R
 Blank File : F604242309.D

Sub List : SHC_QC_Samples - SHC_QC_Samples

Compound	R.T.	Response	Conc Units

Internal Standards			
1) I 5-alpha-androstane	31.402	65876514	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.366	17518993	12.659 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	25.32%#
24) s d50-Tetracosane	35.982	13930718	12.362 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	24.72%#
Target Compounds			
3) t n-Nonane (C9)	8.035	5357065	4.759 ug/mL M4
4) t n-Decane (C10)	10.519	5640887	4.879 ug/mL M4
6) t n-Dodecane (C12)	15.425	5848849	4.999 ug/mL M4
9) t n-Tetradecane (C14)	19.886	6007213	4.978 ug/mL M4
12) t n-Hexadecane (C16)	23.882	6654925	5.485 ug/mL M4
16) t n-Octadecane (C18)	27.489	6756326	5.422 ug/mL M4
18) t n-Nonadecane (C19)	29.167	6434696	5.138 ug/mL M4
20) t n-Eicosane (C20)	30.765	6453658	5.095 ug/mL M4
22) t n-Docosane (C22)	33.763	6497911	5.082 ug/mL M4
25) t n-Tetracosane (C24)	36.521	6540071	5.176 ug/mL M4
27) t n-Hexacosane (C26)	39.076	6512120	5.040 ug/mL M4
29) t n-Octacosane (C28)	41.451	6584034	4.997 ug/mL M4
31) t n-Triacontane (C30)	43.670	6515287	4.981 ug/mL M4
37) t n-Hexatriacontane (C36)	50.220	6423231	4.512 ug/mL M4
42) h C9-C44 Total Petroleu...	40.848	413451435	329.903 ug/mL m
42) h C9-C44 Total Petroleu BS	40.848	19627279	15.661 ug/mLm
49) h Total Resolved Hydroc...	36.878	53806276	42.933 ug/L m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242317.D
 Signal(s) : FID2B.CH
 Acq On : 24 Apr 2023 9:42 pm
 Operator : FID6:AMV
 Sample : WG1769534-3
 Misc : WG1770521,WG1769534,ICAL19796
 ALS Vial : 59 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 02 16:10:31 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604242301R
 Blank File : F604242309.D

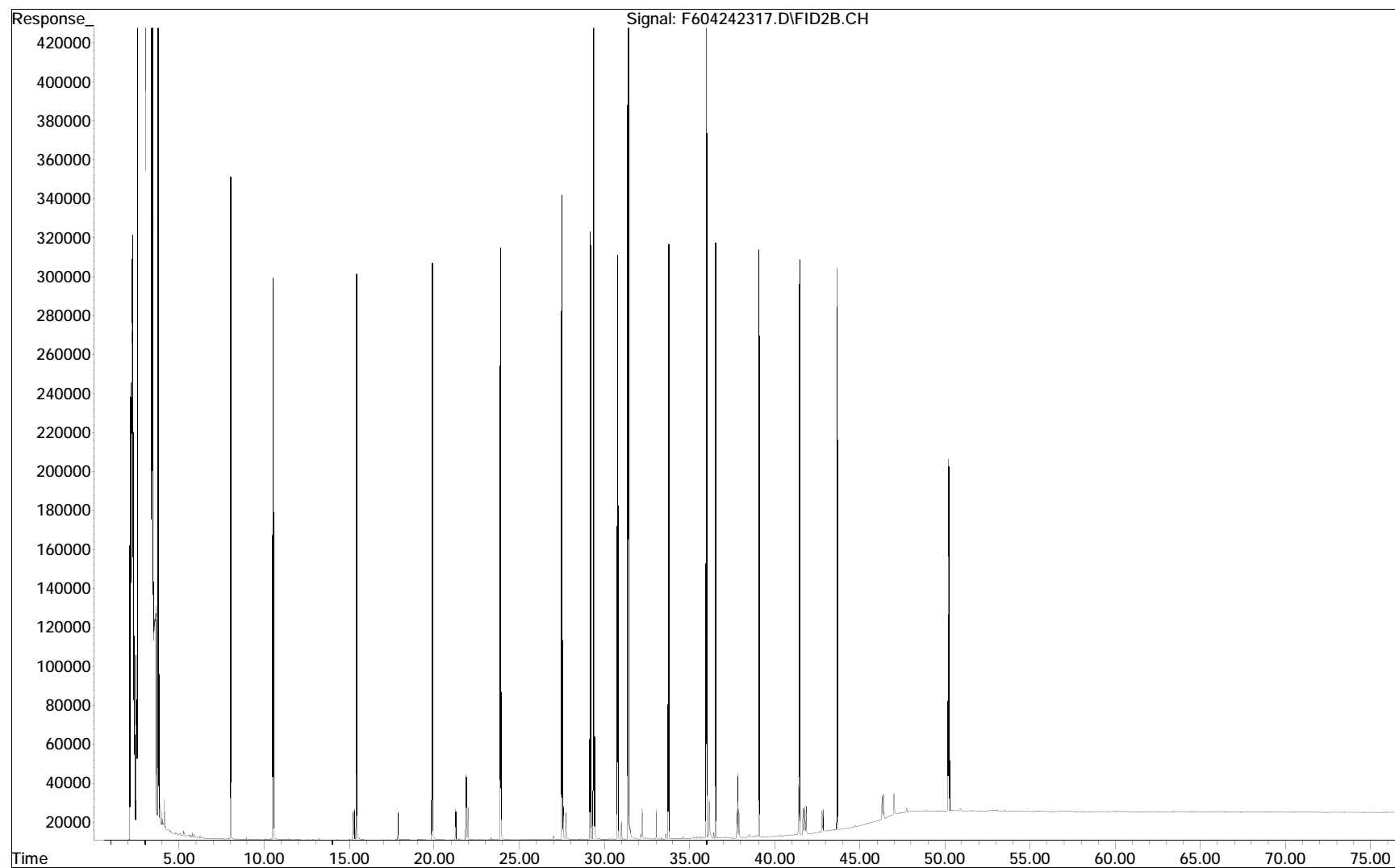
Sub List : SHC_QC_Samples - SHC_QC_Samples

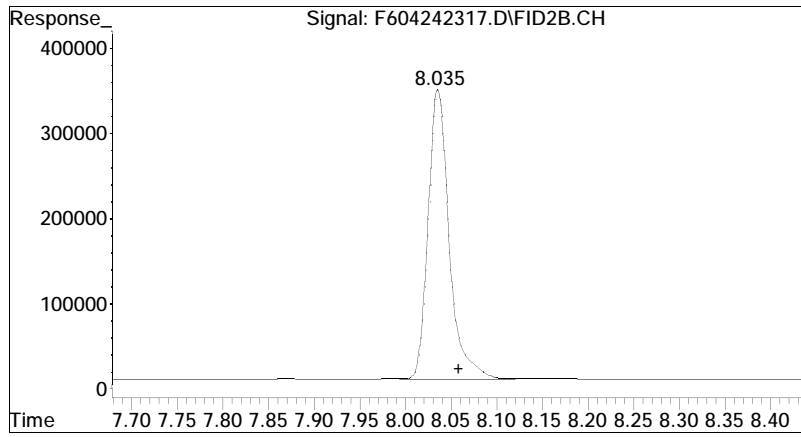
Compound	R.T.	Response	Conc Units

(f)=RT Delta > 1/2 Window			(m)=manual int.

Quantitation Report (QT Reviewed)

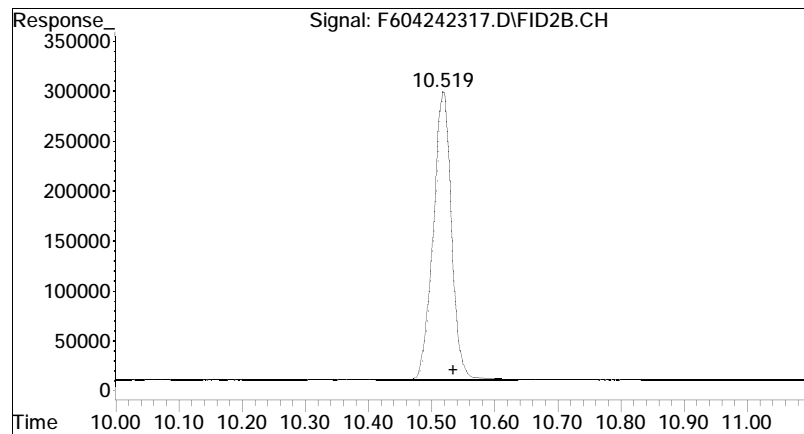
File : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\F604242317.D
 Operator : FID6:AMV
 Acquired : 24 Apr 2023 9:42 pm using AcqMethod FID6A.M
 Sample Name: WG1769534-3
 Instrument: FID6
 Misc Info : WG1770521, WG1769534, ICAL19796
 Vial Number: 59
 CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M





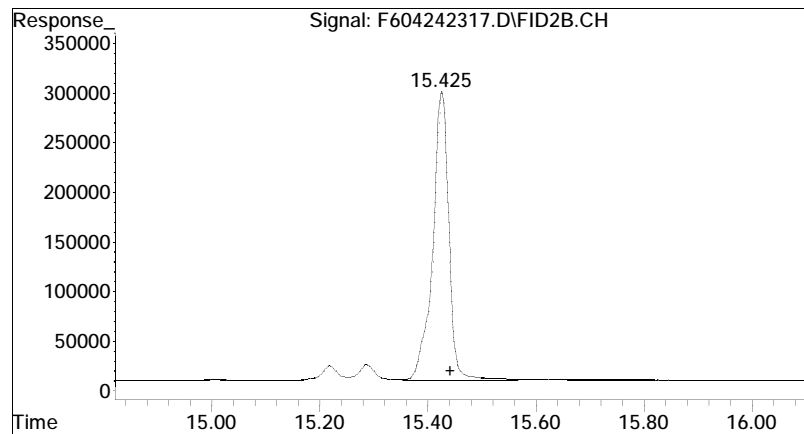
#3 n-Nonane (C9)

R.T.: 8.035 min
Delta R.T.: -0.023 min
Response: 5357065
Conc: 4.76 ug/mL M4



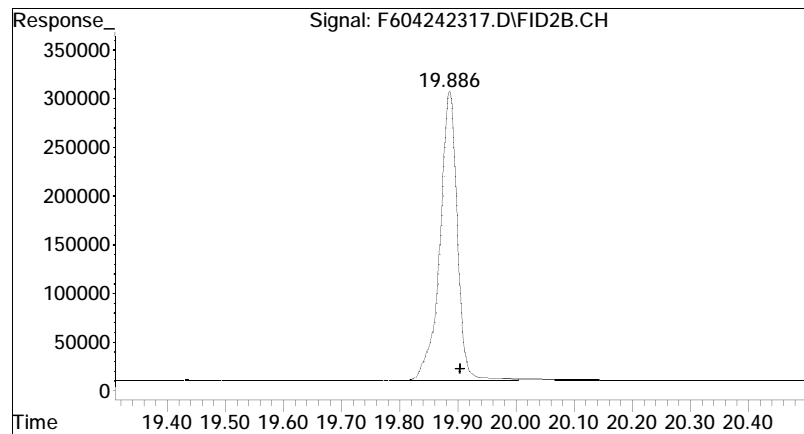
#4 n-Decane (C10)

R.T.: 10.519 min
Delta R.T.: -0.016 min
Response: 5640887
Conc: 4.88 ug/mL M4



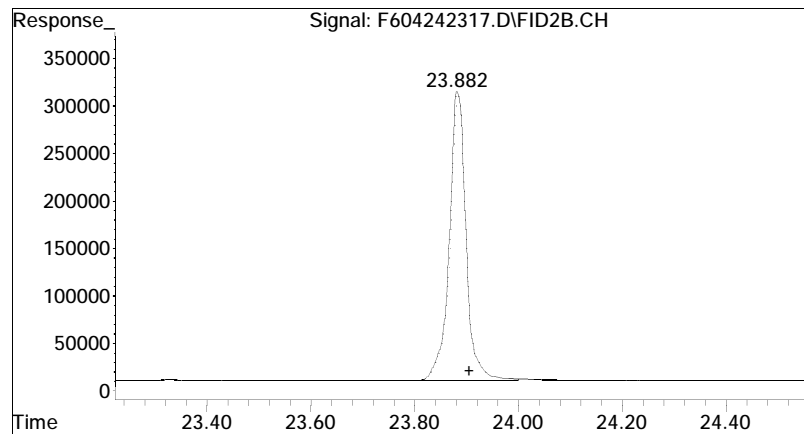
#6 n-Dodecane (C12)

R.T.: 15.425 min
Delta R.T.: -0.016 min
Response: 5848849
Conc: 5.00 ug/mL M4



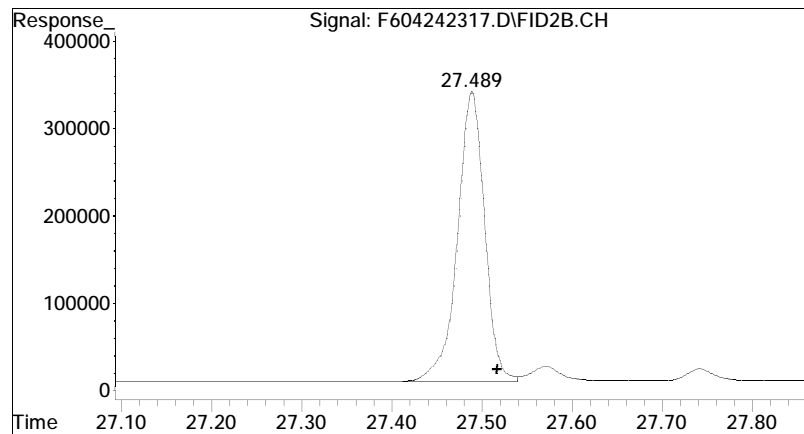
#9 n-Tetradecane (C14)

R.T.: 19.886 min
Delta R.T.: -0.018 min
Response: 6007213
Conc: 4.98 ug/mL M4



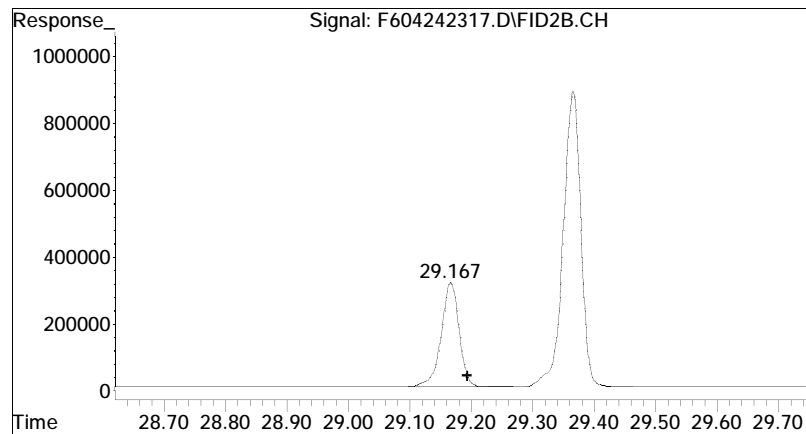
#12 n-Hexadecane (C16)

R.T.: 23.882 min
Delta R.T.: -0.024 min
Response: 6654925
Conc: 5.49 ug/mL M4



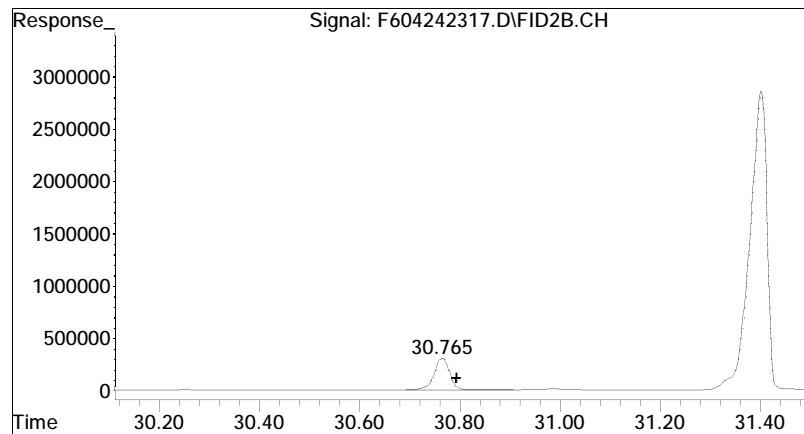
#16 n-Octadecane (C18)

R.T.: 27.489 min
Delta R.T.: -0.029 min
Response: 6756326
Conc: 5.42 ug/mL M4



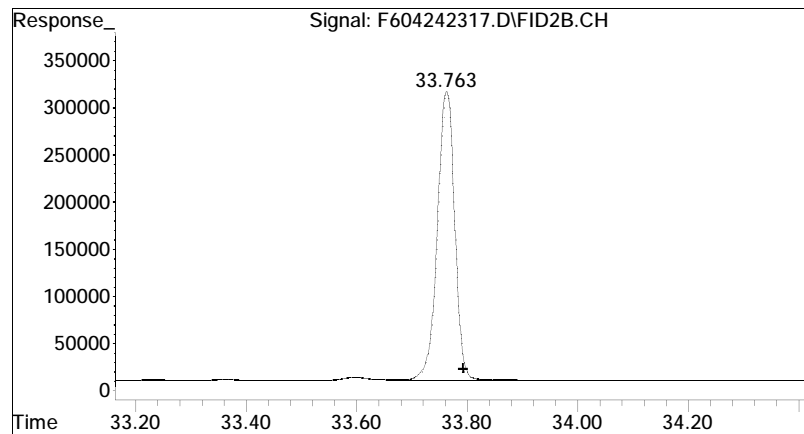
#18 n-Nonadecane (C19)

R.T.: 29.167 min
Delta R.T.: -0.027 min
Response: 6434696
Conc: 5.14 ug/mL M4



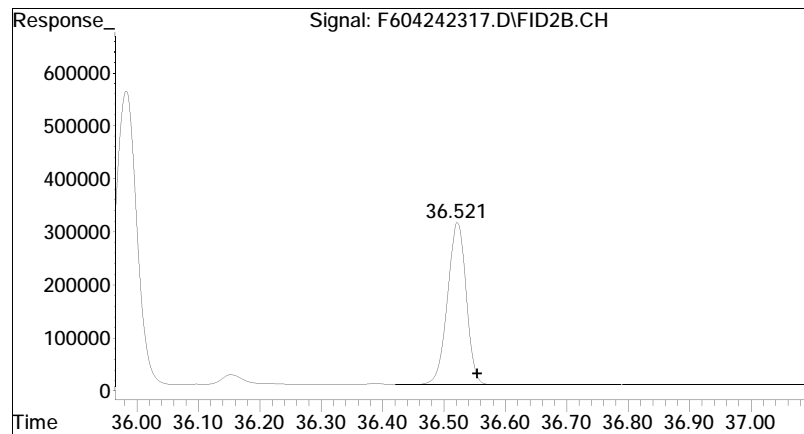
#20 n-Eicosane (C20)

R.T.: 30.765 min
Delta R.T.: -0.029 min
Response: 6453658
Conc: 5.10 ug/mL M4



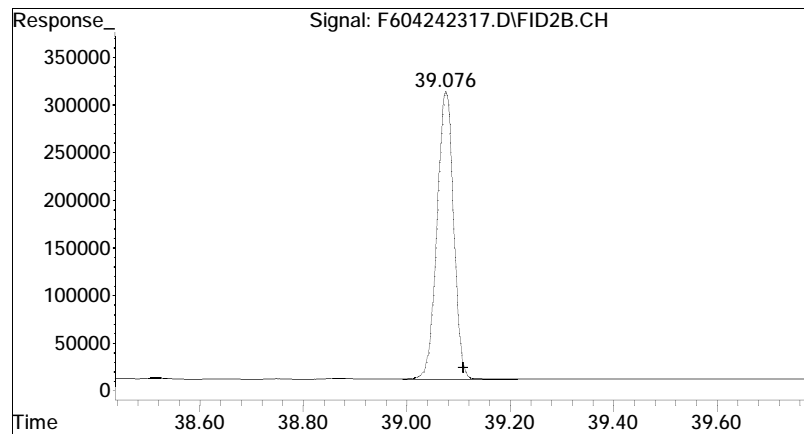
#22 n-Docosane (C22)

R.T.: 33.763 min
Delta R.T.: -0.030 min
Response: 6497911
Conc: 5.08 ug/mL M4



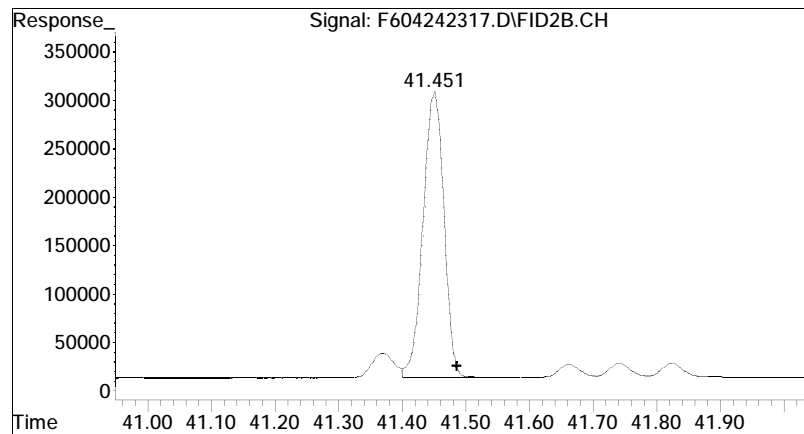
#25 n-Tetracosane (C24)

R.T.: 36.521 min
Delta R.T.: -0.034 min
Response: 6540071
Conc: 5.18 ug/mL M4



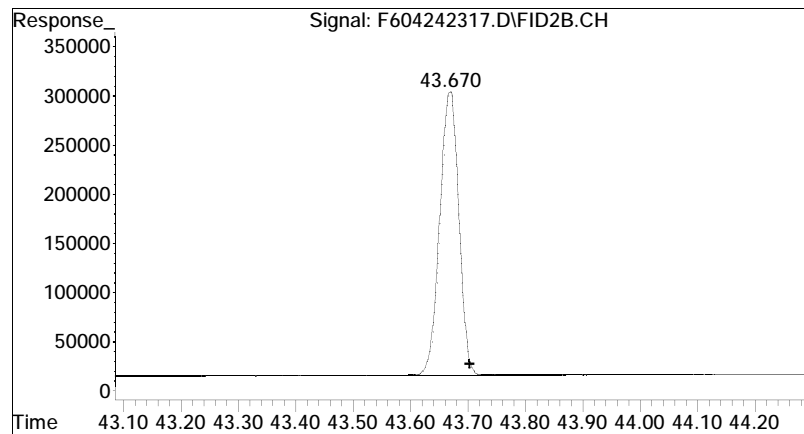
#27 n-Hexacosane (C26)

R.T.: 39.076 min
Delta R.T.: -0.033 min
Response: 6512120
Conc: 5.04 ug/mL M4



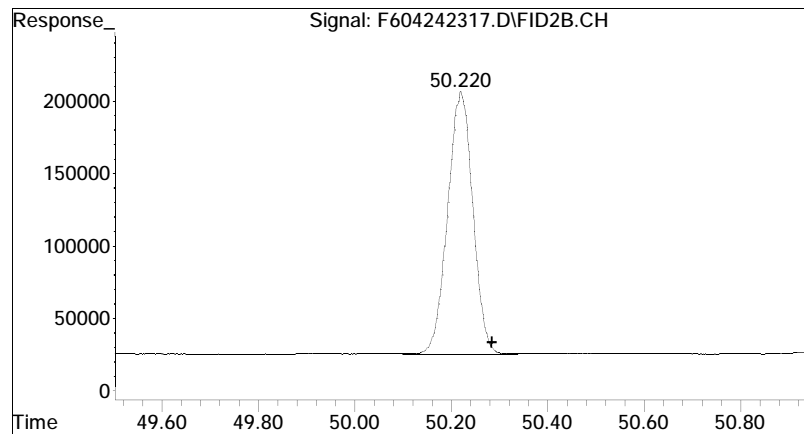
#29 n-Octacosane (C28)

R.T.: 41.451 min
Delta R.T.: -0.035 min
Response: 6584034
Conc: 5.00 ug/mL M4



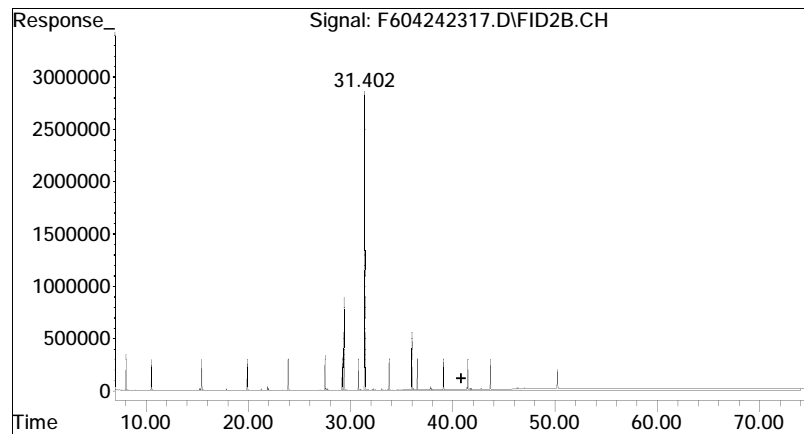
#31 n-Triacontane (C30)

R.T.: 43.670 min
Delta R.T.: -0.033 min
Response: 6515287
Conc: 4.98 ug/mL M4



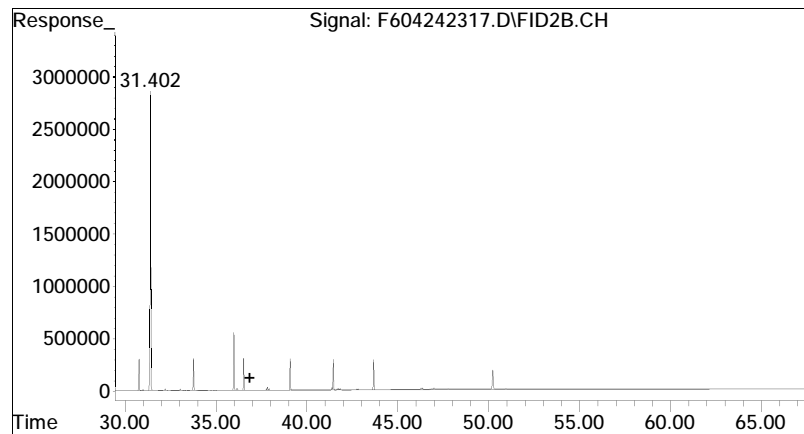
#37 n-Hexatriacontane (C36)

R.T.: 50.220 min
Delta R.T.: -0.063 min
Response: 6423231
Conc: 4.51 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 40.848 min
Delta R.T.: 0.000 min
Response: 413451435
Conc: 329.90 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 36.878 min
Delta R.T.: 0.000 min
Response: 53806276
Conc: 42.93 ug/L m

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272315.D
 Signal(s) : FID2B.CH
 Acq On : 27 Apr 2023 7:38 pm
 Operator : FID6:WR
 Sample : WG1770361-3
 Misc : WG1772076,WG1770361,ICAL19796
 ALS Vial : 58 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 13:49:28 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604272301R
 Blank File : F604272309.D

Sub List : SHC_QC_Samples - SHC_QC_Samples

Compound	R.T.	Response	Conc Units
Internal Standards			
1) I 5-alpha-androstane	31.401	69437155	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	29.371	35090414	24.055 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	48.11%#
24) s d50-Tetracosane	35.985	27501617	23.153 ug/mL M4
Spiked Amount 50.000	Range 50 - 130	Recovery =	46.31%#
Target Compounds			
3) t n-Nonane (C9)	8.034	8774819	7.395 ug/mL M4
4) t n-Decane (C10)	10.516	10293241	8.447 ug/mL M4
6) t n-Dodecane (C12)	15.426	11187527	9.071 ug/mL M4
9) t n-Tetradecane (C14)	19.886	11664711	9.171 ug/mL M4
12) t n-Hexadecane (C16)	23.884	13416856	10.492 ug/mL M4
16) t n-Octadecane (C18)	27.489	13448870	10.239 ug/mL M4
18) t n-Nonadecane (C19)	29.167	12920958	9.789 ug/mL M4
20) t n-Eicosane (C20)	30.766	12977489	9.720 ug/mL M4
22) t n-Docosane (C22)	33.763	13060482	9.690 ug/mL M4
25) t n-Tetracosane (C24)	36.522	13029511	9.783 ug/mL M4
27) t n-Hexacosane (C26)	39.074	12841924	9.429 ug/mL M4
29) t n-Octacosane (C28)	41.449	12890995	9.281 ug/mL M4
31) t n-Triacontane (C30)	43.668	12623092	9.156 ug/mL M4
37) t n-Hexatriacontane (C36)	50.216	12240018	8.156 ug/mL M4
42) h C9-C44 Total Petroleu...	40.853	608135150	460.364 ug/mL m
42) h C9-C44 Total Petroleu BS	40.853	129861717	98.306 ug/mLm
49) h Total Resolved Hydroc...	36.878	103000108	77.972 ug/L m

SemiQuant Compounds - Not Calibrated on this Instrument

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272315.D
 Signal(s) : FID2B.CH
 Acq On : 27 Apr 2023 7:38 pm
 Operator : FID6:WR
 Sample : WG1770361-3
 Misc : WG1772076,WG1770361,ICAL19796
 ALS Vial : 58 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 13:49:28 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604272301R
 Blank File : F604272309.D

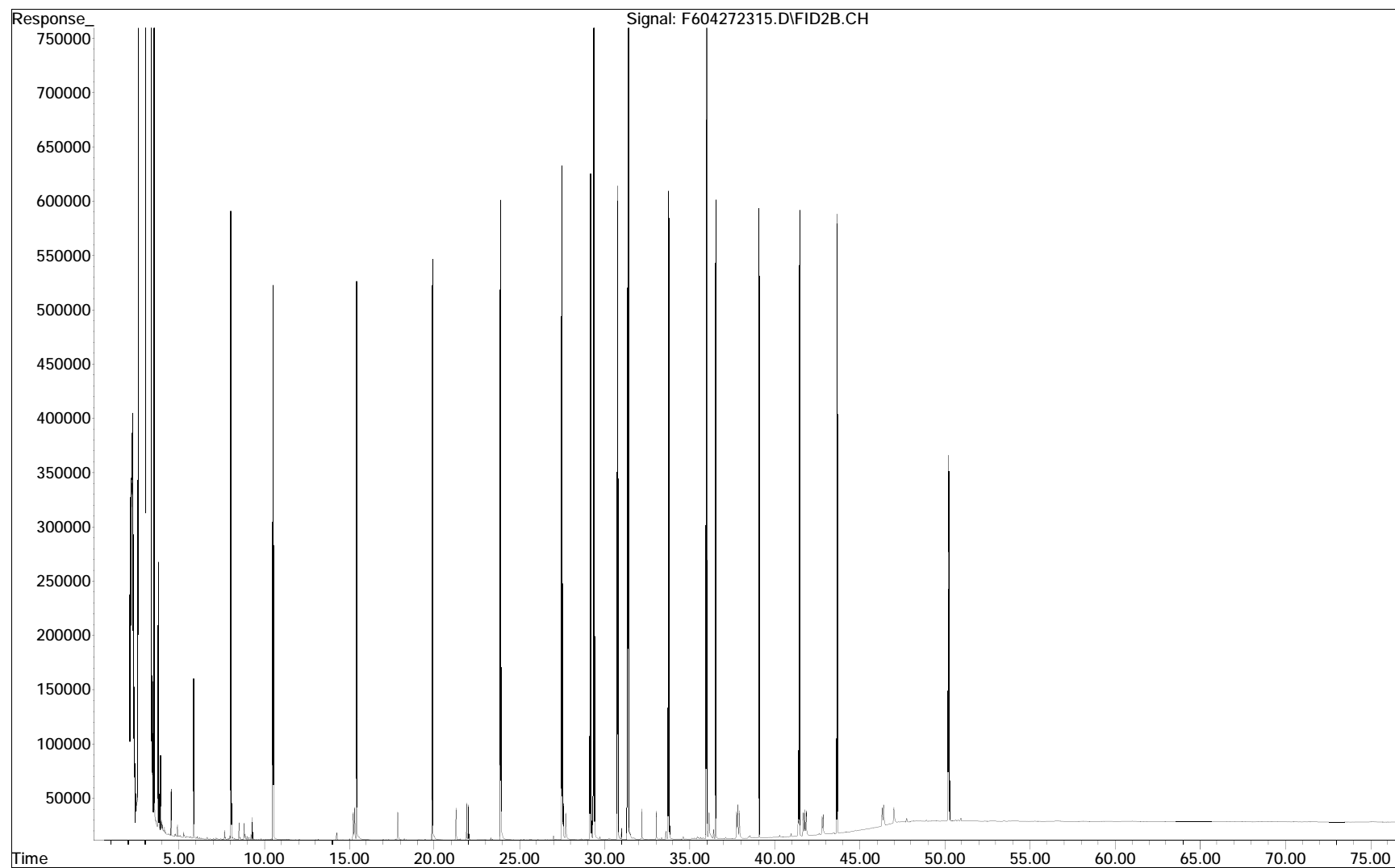
Sub List : SHC_QC_Samples - SHC_QC_Samples

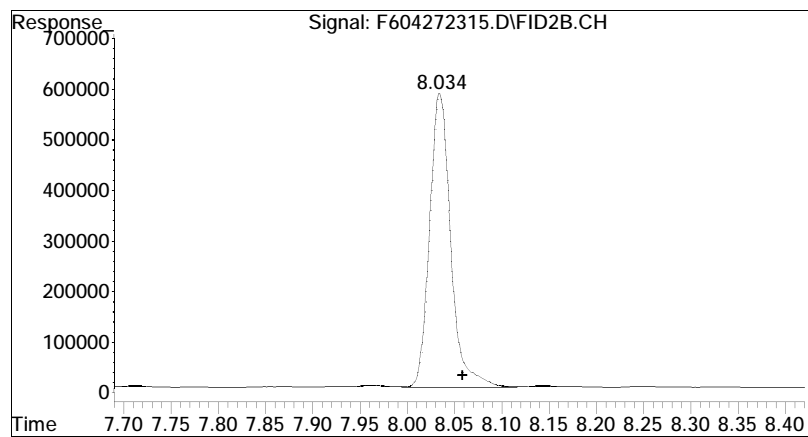
Compound	R.T.	Response	Conc Units

(f)=RT Delta > 1/2 Window			(m)=manual int.

Quantitation Report (QT Reviewed)

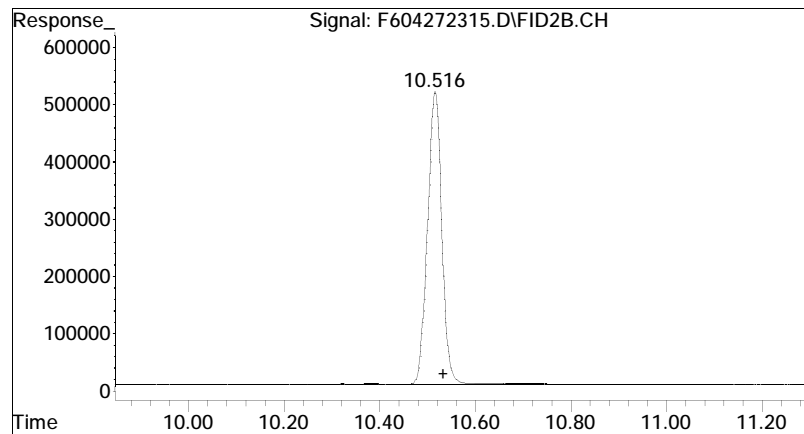
File : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\F604272315.D
 Operator : FID6:WR
 Acquired : 27 Apr 2023 7:38 pm using AcqMethod FID6A.M
 Sample Name: WG1770361-3
 Instrument: FID6
 Misc Info : WG1772076, WG1770361, ICAL19796
 Vial Number: 58
 CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M





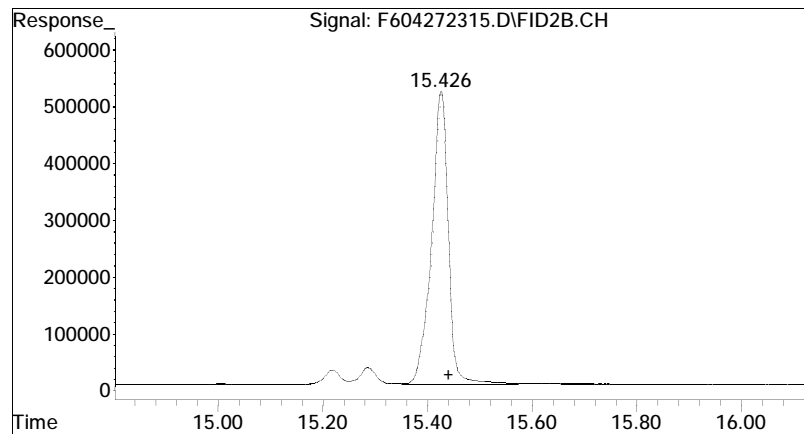
#3 n-Nonane (C9)

R.T.: 8.034 min
Delta R.T.: -0.024 min
Response: 8774819
Conc: 7.40 ug/mL M4



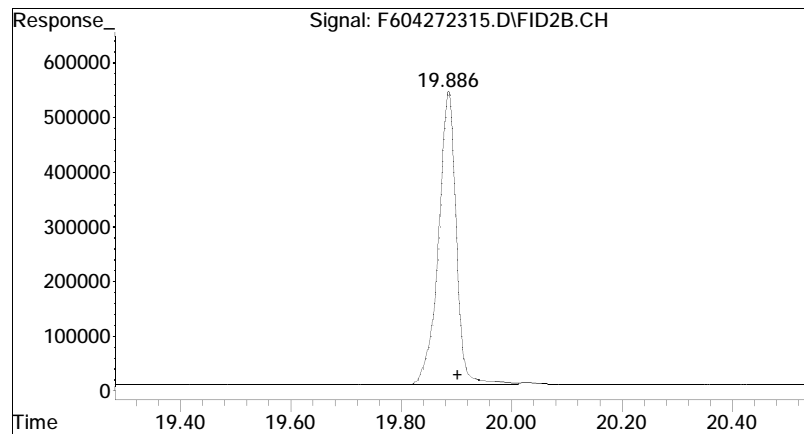
#4 n-Decane (C10)

R.T.: 10.516 min
Delta R.T.: -0.018 min
Response: 10293241
Conc: 8.45 ug/mL M4



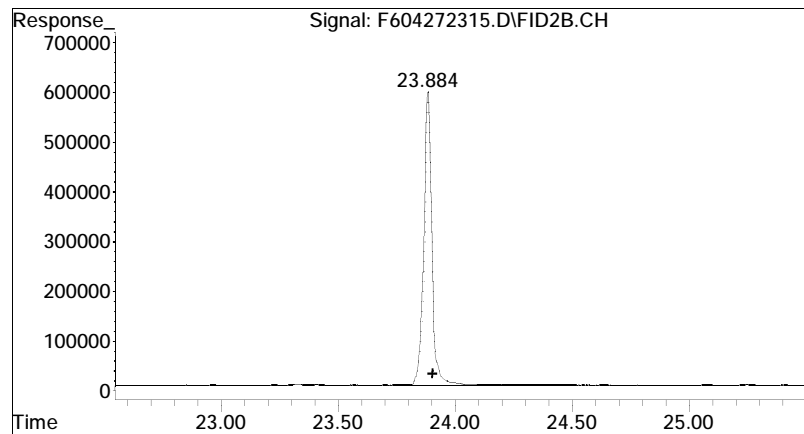
#6 n-Dodecane (C12)

R.T.: 15.426 min
Delta R.T.: -0.014 min
Response: 11187527
Conc: 9.07 ug/mL M4



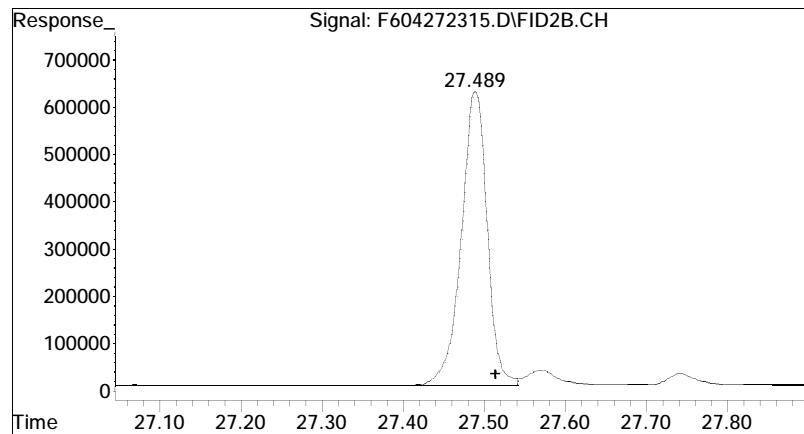
#9 n-Tetradecane (C14)

R.T.: 19.886 min
Delta R.T.: -0.017 min
Response: 11664711
Conc: 9.17 ug/mL M4



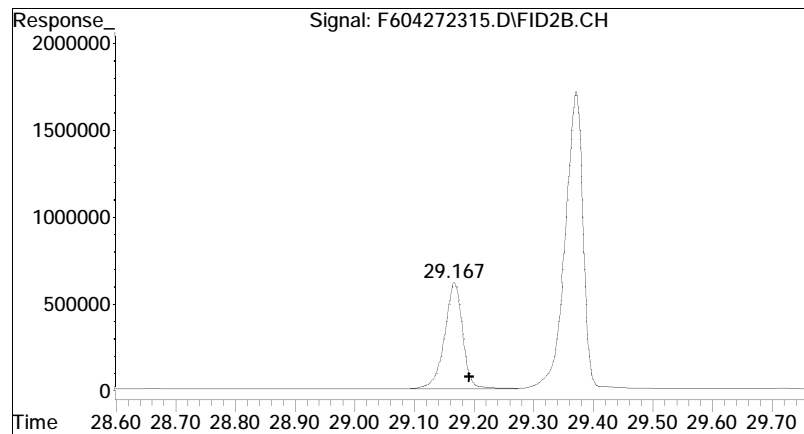
#12 n-Hexadecane (C16)

R.T.: 23.884 min
Delta R.T.: -0.020 min
Response: 13416856
Conc: 10.49 ug/mL M4



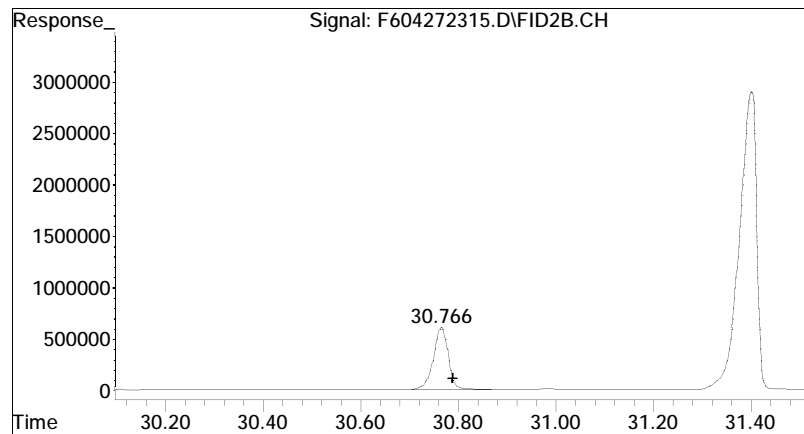
#16 n-Octadecane (C18)

R.T.: 27.489 min
Delta R.T.: -0.026 min
Response: 13448870
Conc: 10.24 ug/mL M4



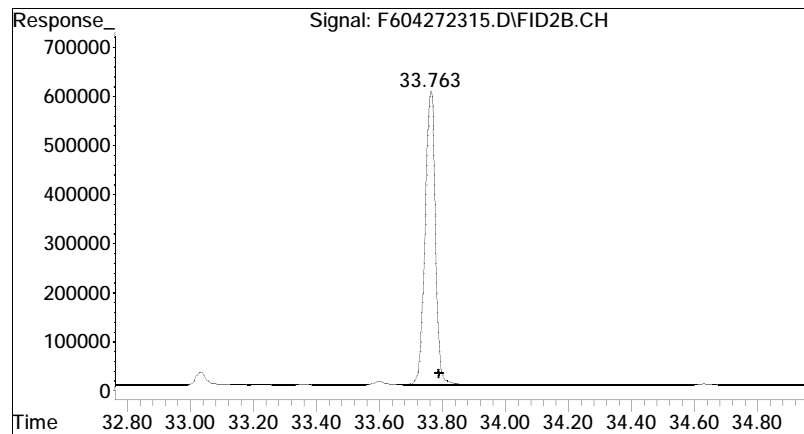
#18 n-Nonadecane (C19)

R.T.: 29.167 min
Delta R.T.: -0.025 min
Response: 12920958
Conc: 9.79 ug/mL M4



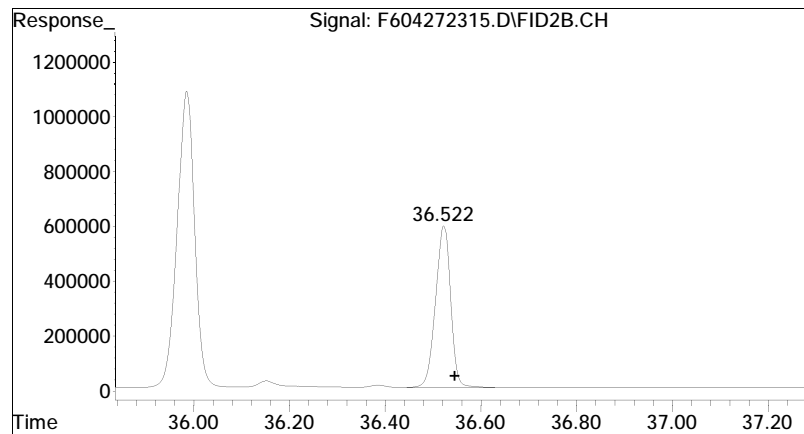
#20 n-Eicosane (C20)

R.T.: 30.766 min
Delta R.T.: -0.023 min
Response: 12977489
Conc: 9.72 ug/mL M4



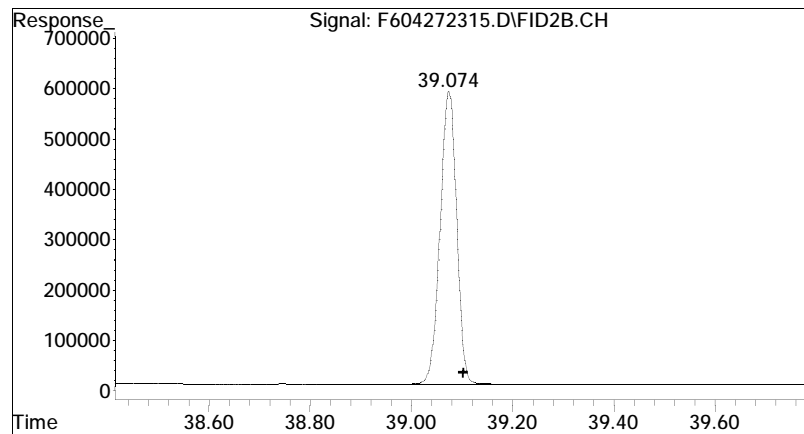
#22 n-Docosane (C22)

R.T.: 33.763 min
Delta R.T.: -0.026 min
Response: 13060482
Conc: 9.69 ug/mL M4



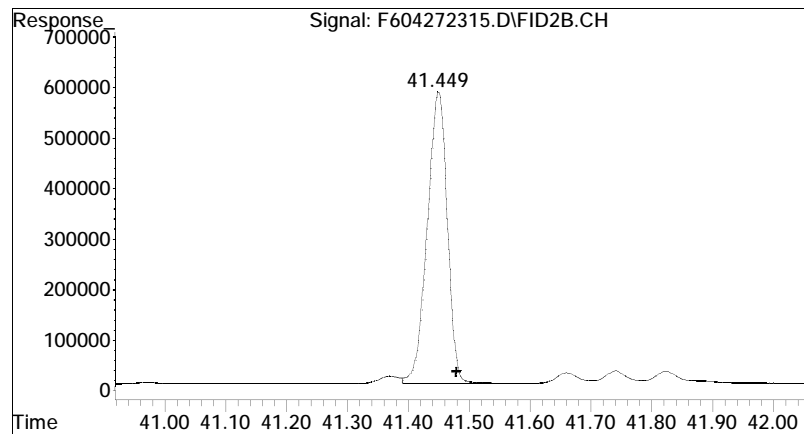
#25 n-Tetracosane (C24)

R.T.: 36.522 min
Delta R.T.: -0.024 min
Response: 13029511
Conc: 9.78 ug/mL M4



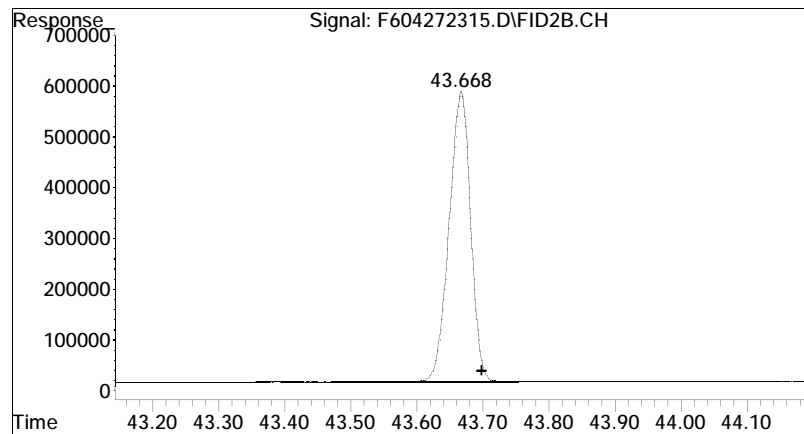
#27 n-Hexacosane (C26)

R.T.: 39.074 min
Delta R.T.: -0.028 min
Response: 12841924
Conc: 9.43 ug/mL M4



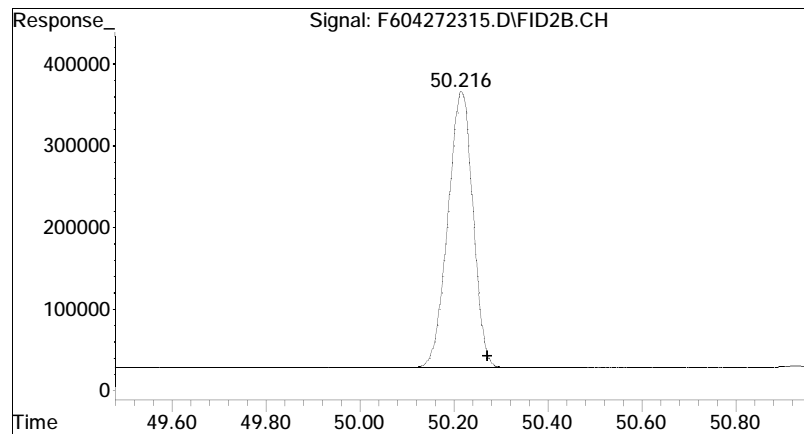
#29 n-Octacosane (C28)

R.T.: 41.449 min
Delta R.T.: -0.030 min
Response: 12890995
Conc: 9.28 ug/mL M4



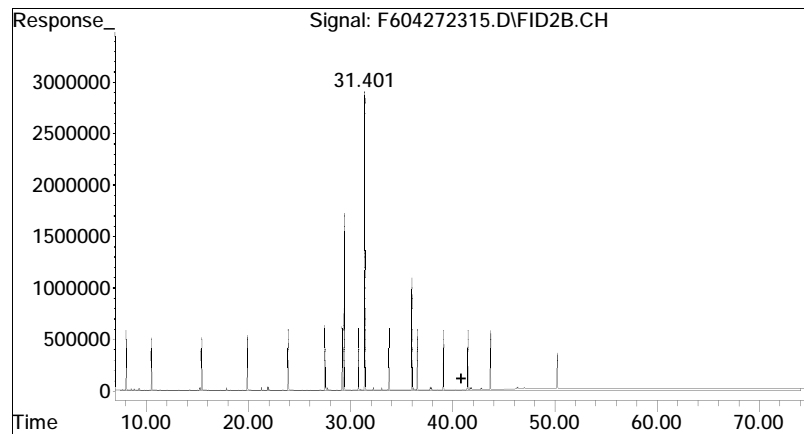
#31 n-Triacontane (C30)

R.T.: 43.668 min
Delta R.T.: -0.031 min
Response: 12623092
Conc: 9.16 ug/mL M4



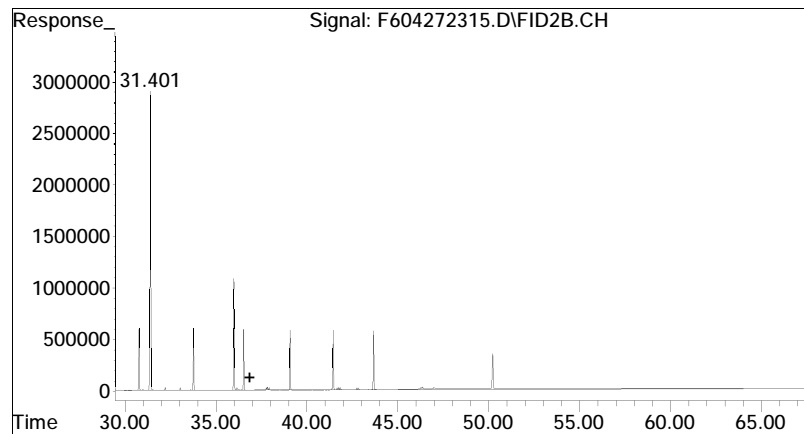
#37 n-Hexatriacontane (C36)

R.T.: 50.216 min
Delta R.T.: -0.055 min
Response: 12240018
Conc: 8.16 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 40.853 min
Delta R.T.: 0.000 min
Response: 608135150
Conc: 460.36 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 36.878 min
Delta R.T.: 0.000 min
Response: 103000108
Conc: 77.97 ug/L m

Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242327.D
 Signal(s) : FID2B.CH
 Acq On : 25 Apr 2023 4:57 am
 Operator : FID6:AMV
 Sample : WG1769534-4
 Misc : WG1770521,WG1769534,ICAL19796
 ALS Vial : 64 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 10:59:22 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604242301R
 Blank File : F604242309.D

Sub List : SHC - SHC

Compound		R.T.	Response	Conc Units

Internal Standards				
1) I	5-alpha-androstane	31.419	79999104	50.000 ug/mL M4
System Monitoring Compounds				
19) s	ortho-terphenyl	29.380	21216288	12.624 ug/mL M4
Spiked Amount 50.000		Range 50 - 130	Recovery =	25.25%#
24) s	d50-Tetracosane	35.985	16401421	11.985 ug/mL M4
Spiked Amount 50.000		Range 50 - 130	Recovery =	23.97%#
Target Compounds				
2) t	n-Octane (C8)	5.838	178913	0.133 ug/mL M4
3) t	n-Nonane (C9)	8.039	248331	0.182 ug/mL M4
4) t	n-Decane (C10)	10.503	1453989	1.036 ug/mL M4
5) t	n-Undecane (C11)	13.025	3273681	2.330 ug/mL M4
6) t	n-Dodecane (C12)	0.000	0	N.D. ug/mL d
7) t	n-Tridecane (C13)	17.736	9523960	6.674 ug/mL M4
8) t	1380	19.418	52618520	35.906 ug/mL M4
9) t	n-Tetradecane (C14)	19.909	6744197	4.602 ug/mL M4
10) t	1470	21.199	54707168	37.127 ug/mL M4
11) t	n-Pentadecane (C15)	0.000	0	N.D. ug/mL d
12) t	n-Hexadecane (C16)	0.000	0	N.D. ug/mL d
13) t	1650	24.828	60573302	40.519 ug/mL M4
14) t	n-Heptadecane (C17)	25.743	2575560	1.723 ug/mL M4
15) t	Pristane	25.876	105377600	69.240 ug/mL M4
16) t	n-Octadecane (C18)	0.000	0	N.D. ug/mL d
17) t	Phytane	27.687	63317509	44.972 ug/mL M4
18) t	n-Nonadecane (C19)	29.196	1069667	0.703 ug/mL M4
20) t	n-Eicosane (C20)	30.797	1395371	0.907 ug/mL M4
21) t	n-Heneicosane (C21)	32.298	4986508	3.231 ug/mL M4
22) t	n-Docosane (C22)	0.000	0	N.D. ug/mL d
23) t	n-Tricosane (C23)	35.176	501627	0.323 ug/mL M4

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
 Data File : F604242327.D
 Signal(s) : FID2B.CH
 Acq On : 25 Apr 2023 4:57 am
 Operator : FID6:AMV
 Sample : WG1769534-4
 Misc : WG1770521,WG1769534,ICAL19796
 ALS Vial : 64 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 10:59:22 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri Apr 28 16:00:05 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Blank Name : IB604242301R
 Blank File : F604242309.D

Sub List : SHC - SHC

	Compound	R.T.	Response	Conc Units
25) t	n-Tetracosane (C24)	0.000	0	N.D. ug/mL d
26) t	n-Pentacosane (C25)	37.828	1353671C	0.886 ug/mL M4
27) t	n-Hexacosane (C26)	0.000	0	N.D. ug/mL d
28) t	n-Heptacosane (C27)	0.000	0	N.D. ug/mL d
29) t	n-Octacosane (C28)	0.000	0	N.D. ug/mL d
30) t	n-Nonacosane (C29)	0.000	0	N.D. ug/mL d
31) t	n-Triacontane (C30)	43.679	96589	0.061 ug/mL M4
32) t	n-Hentriacontane (C31)	0.000	0	N.D. ug/mL d
33) t	n-Dotriacontane (C32)	45.749	138218	0.086 ug/mL M4
34) t	n-Tritriacontane (C33)	0.000	0	N.D. ug/mL d
35) t	n-tetratriacontane (C34)	0.000	0	N.D. ug/mL d
36) t	n-Pentatriacontane (C35)	48.902	77468	0.053 ug/mL M4
37) t	n-Hexatriacontane (C36)	0.000	0	N.D. ug/mL d
38) t	n-Heptatriacontane (C37)	0.000	0	N.D. ug/mL d
39) t	n-Octatriacontane (C38)	0.000	0	N.D. ug/mL d
40) t	n-Nonatriacontane (C39)	0.000	0	N.D. ug/mL
41) t	n-Tetracontane (C40)	0.000	0	N.D. ug/mL
42) h	C9-C44 Total Petroleu...	40.848	7344462909	4825.783 ug/mL m
42) h	C9-C44 Total Petroleu BS	40.848	6950638753	4567.015 ug/mLm
49) h	Total Resolved Hydroc...	36.878	110960373	72.908 ug/L m

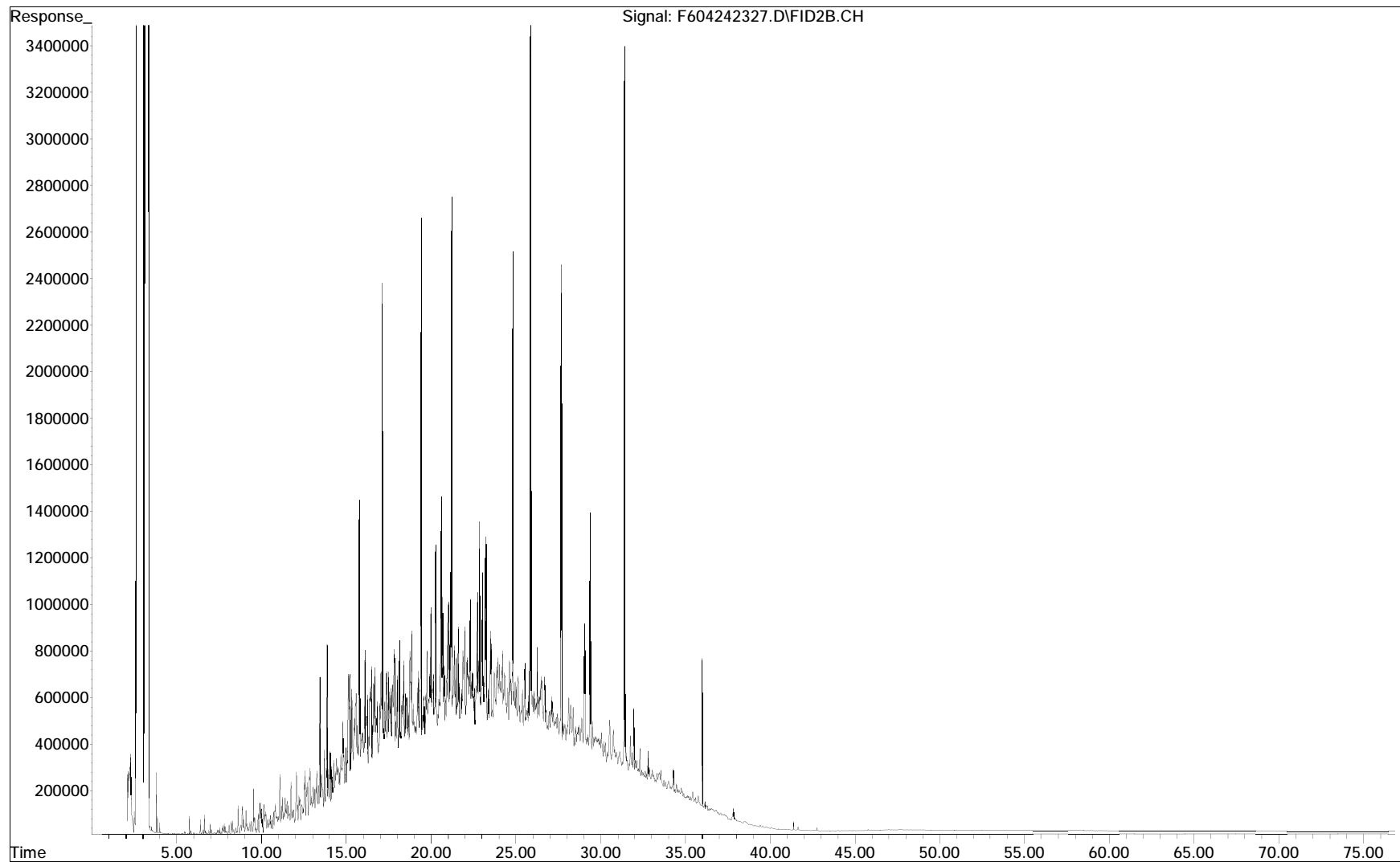
SemiQuant Compounds - Not Calibrated on this Instrument

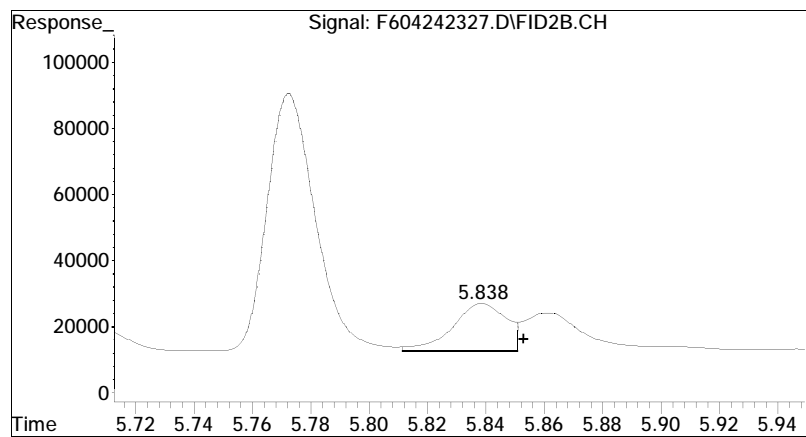
(f)=RT Delta > 1/2 Window

(m)=manual int.

Quantitation Report (QT Reviewed)

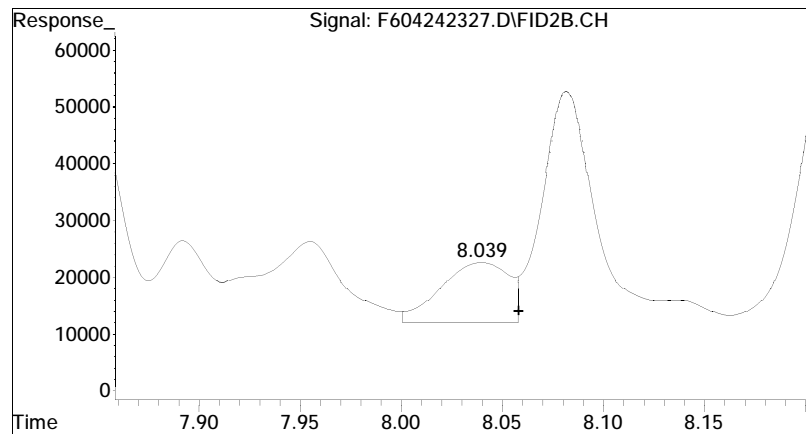
File : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\F604242327.D
Operator : FID6:AMV
Acquired : 25 Apr 2023 4:57 am using AcqMethod FID6A.M
Sample Name: WG1769534-4
Instrument: FID6
Misc Info : WG1770521, WG1769534, ICAL19796
Vial Number: 64
CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M





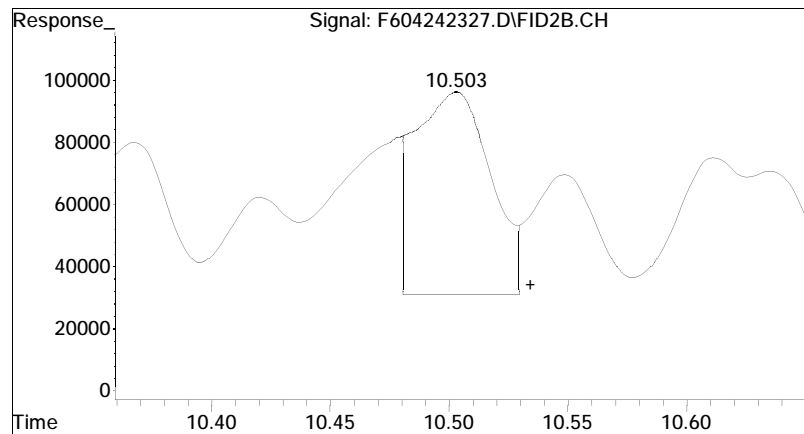
#2 n-Octane (C8)

R.T.: 5.838 min
Delta R.T.: -0.015 min
Response: 178913
Conc: 0.13 ug/mL M4



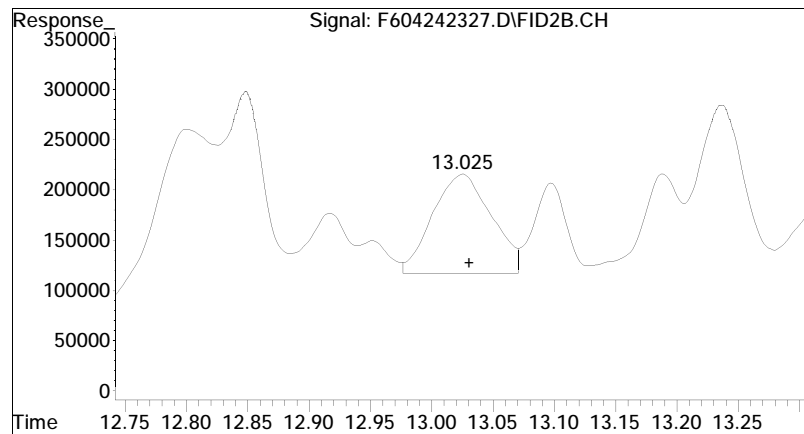
#3 n-Nonane (C9)

R.T.: 8.039 min
Delta R.T.: -0.020 min
Response: 248331
Conc: 0.18 ug/mL M4



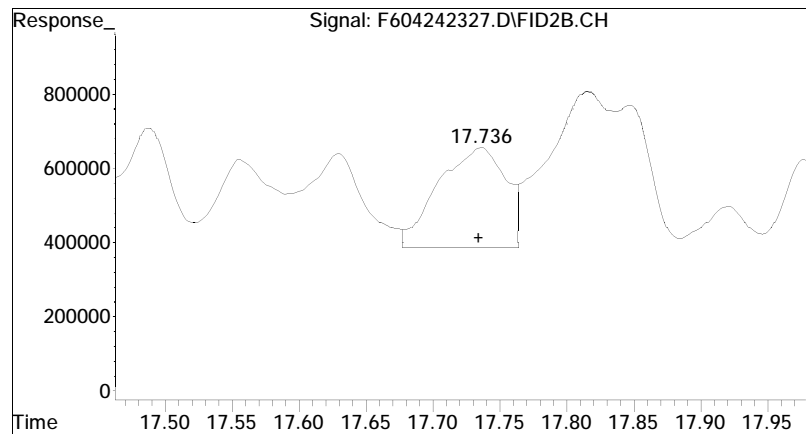
#4 n-Decane (C10)

R.T.: 10.503 min
Delta R.T.: -0.031 min
Response: 1453989
Conc: 1.04 ug/mL M4



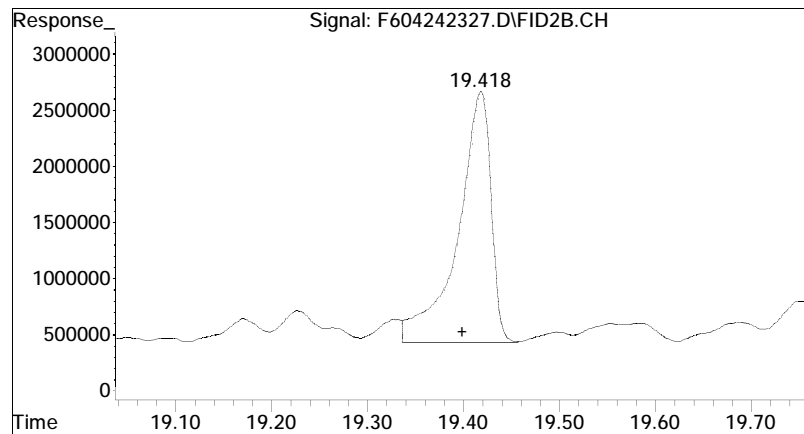
#5 n-Undecane (C11)

R.T.: 13.025 min
Delta R.T.: -0.006 min
Response: 3273681
Conc: 2.33 ug/mL M4



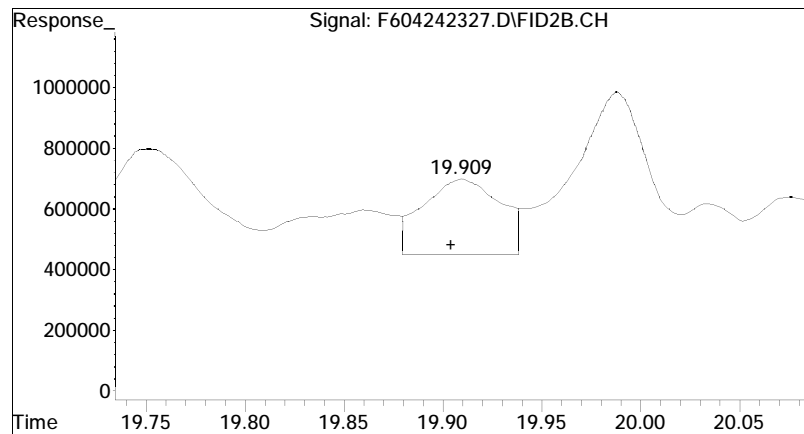
#7 n-Tridecane (C13)

R.T.: 17.736 min
Delta R.T.: 0.002 min
Response: 9523960
Conc: 6.67 ug/mL M4



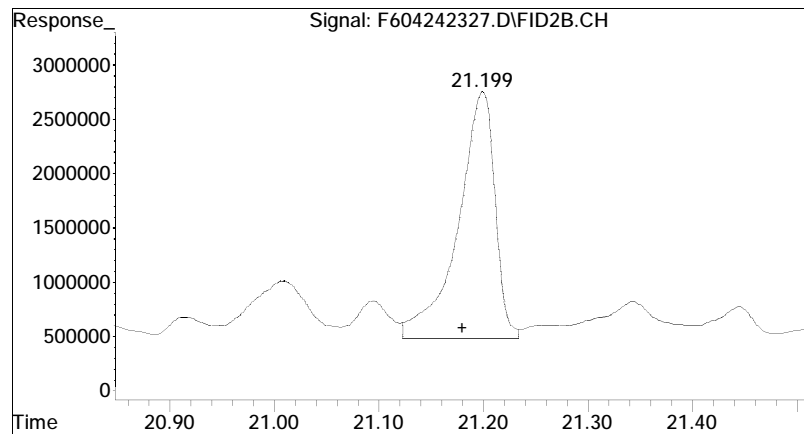
#8 1380

R.T.: 19.418 min
Delta R.T.: 0.019 min
Response: 52618520
Conc: 35.91 ug/mL M4



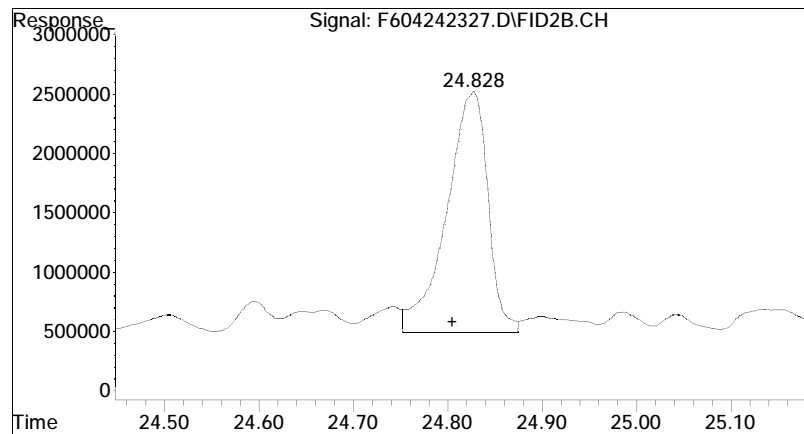
#9 n-Tetradecane (C14)

R.T.: 19.909 min
Delta R.T.: 0.005 min
Response: 6744197
Conc: 4.60 ug/mL M4



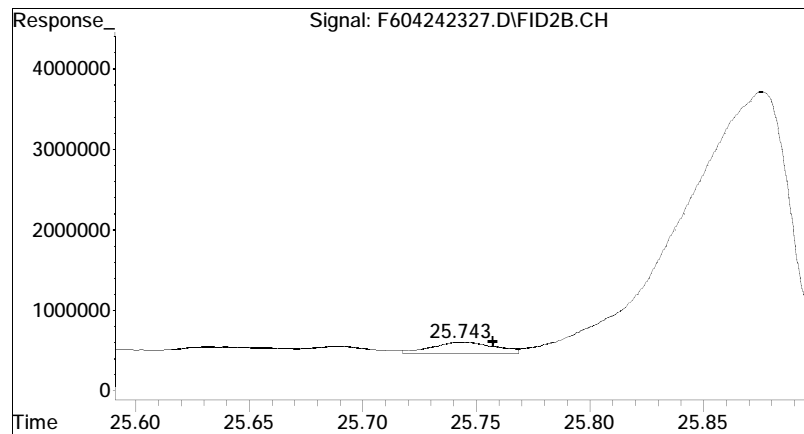
#10 1470

R.T.: 21.199 min
Delta R.T.: 0.019 min
Response: 54707168
Conc: 37.13 ug/mL M4



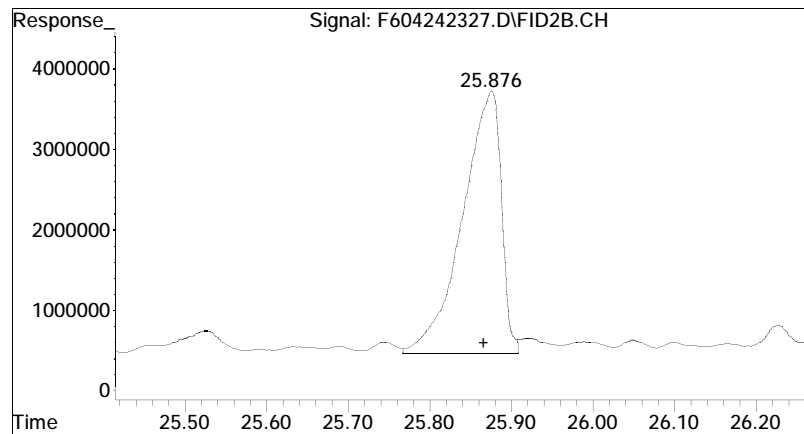
#13 1650

R.T.: 24.828 min
Delta R.T.: 0.023 min
Response: 60573302
Conc: 40.52 ug/mL M4



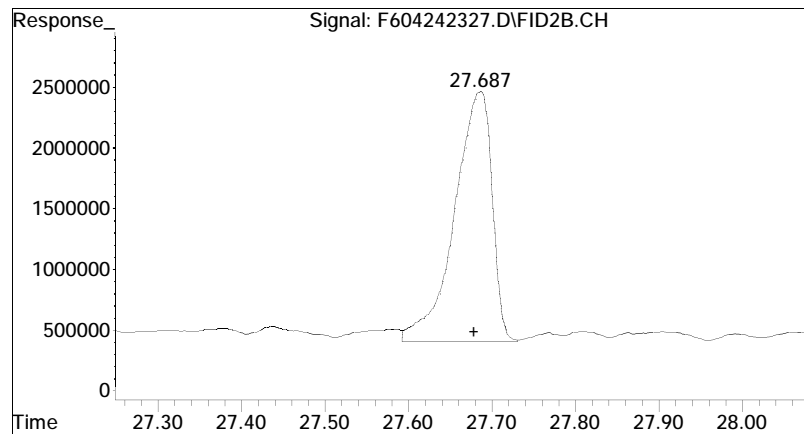
#14 n-Heptadecane (C17)

R.T.: 25.743 min
Delta R.T.: -0.014 min
Response: 2575560
Conc: 1.72 ug/mL M4



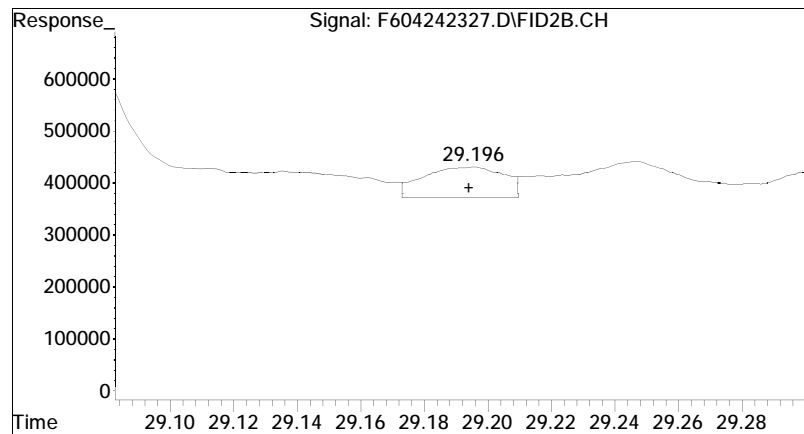
#15 Pristane

R.T.: 25.876 min
Delta R.T.: 0.009 min
Response: 105377600
Conc: 69.24 ug/mL M4



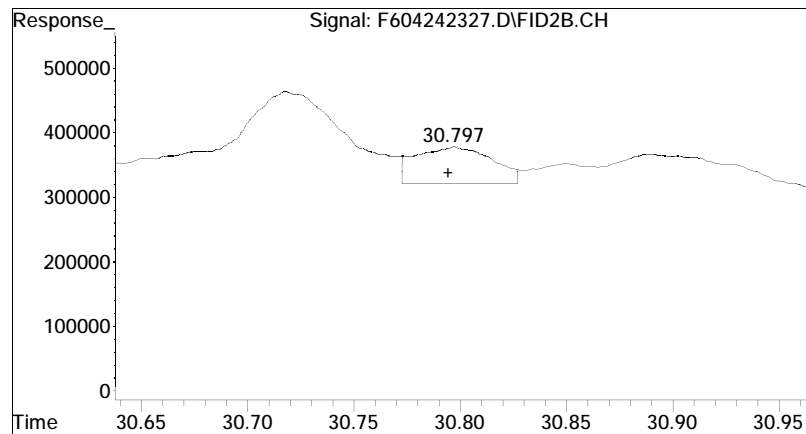
#17 Phytane

R.T.: 27.687 min
Delta R.T.: 0.008 min
Response: 63317509
Conc: 44.97 ug/mL M4



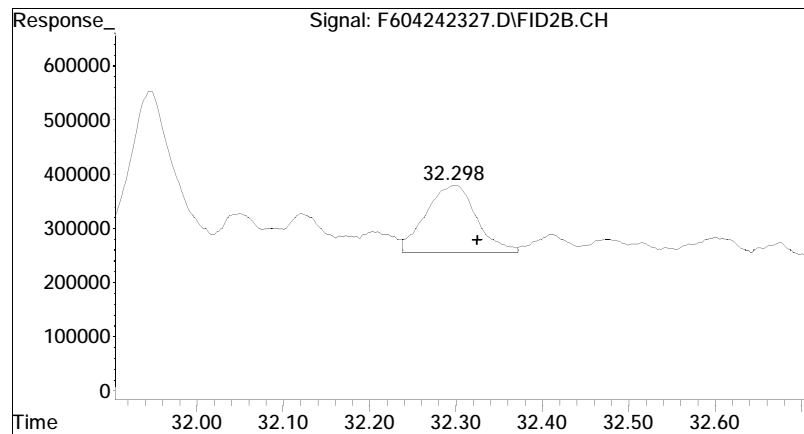
#18 n-Nonadecane (C19)

R.T.: 29.196 min
Delta R.T.: 0.001 min
Response: 1069667
Conc: 0.70 ug/mL M4



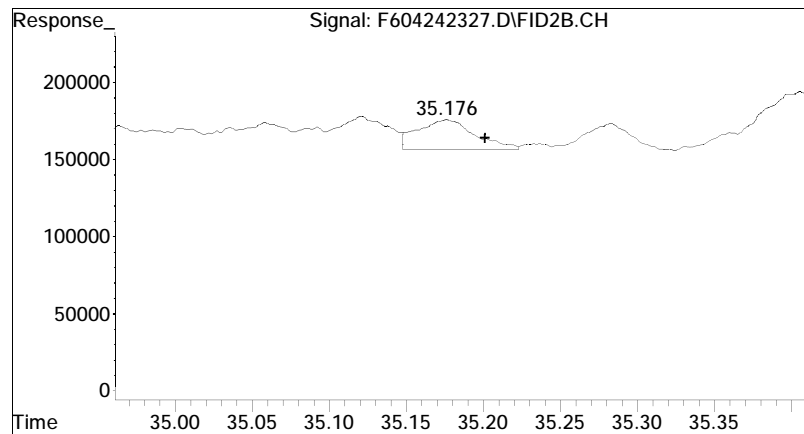
#20 n-Eicosane (C20)

R.T.: 30.797 min
Delta R.T.: 0.003 min
Response: 1395371
Conc: 0.91 ug/mL M4



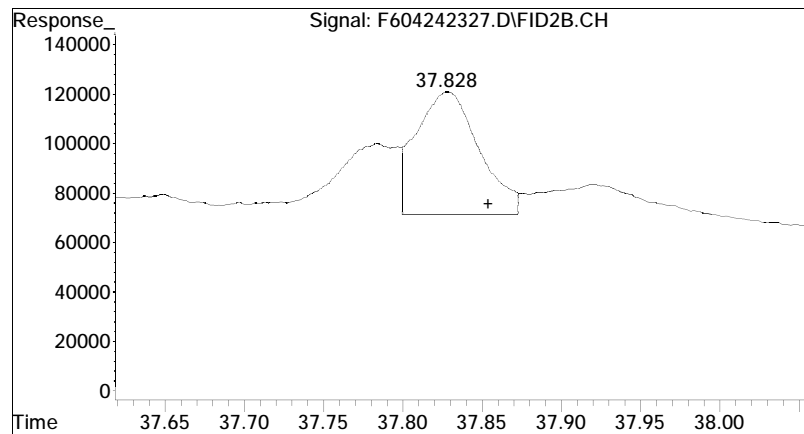
#21 n-Heneicosane (C21)

R.T.: 32.298 min
Delta R.T.: -0.027 min
Response: 4986508
Conc: 3.23 ug/mL M4



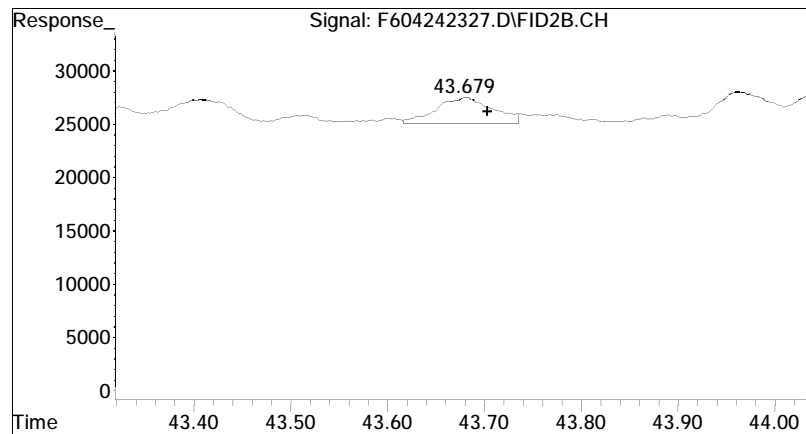
#23 n-Tricosane (C23)

R.T.: 35.176 min
Delta R.T.: -0.025 min
Response: 501627
Conc: 0.32 ug/mL M4



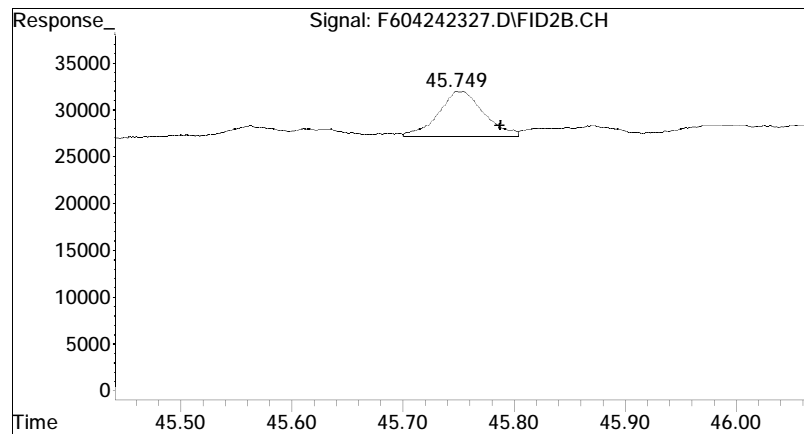
#26 n-Pentacosane (C25)

R.T.: 37.828 min
Delta R.T.: -0.026 min
Response: 1353671
Conc: 0.89 ug/mL M4



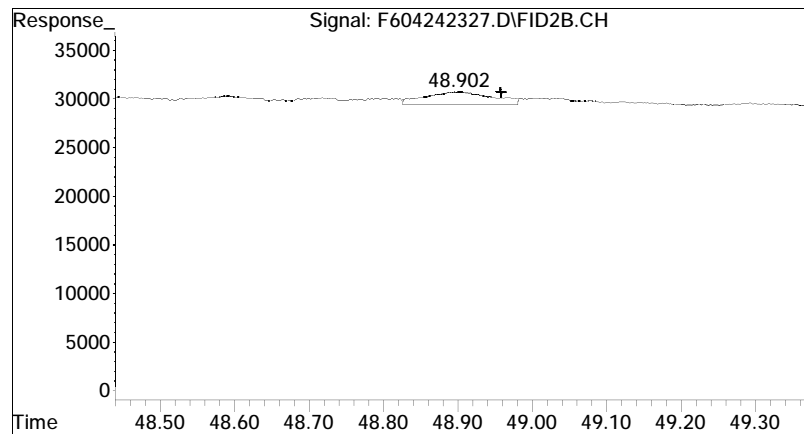
#31 n-Triacontane (C30)

R.T.: 43.679 min
Delta R.T.: -0.023 min
Response: 96589
Conc: 0.06 ug/mL M4



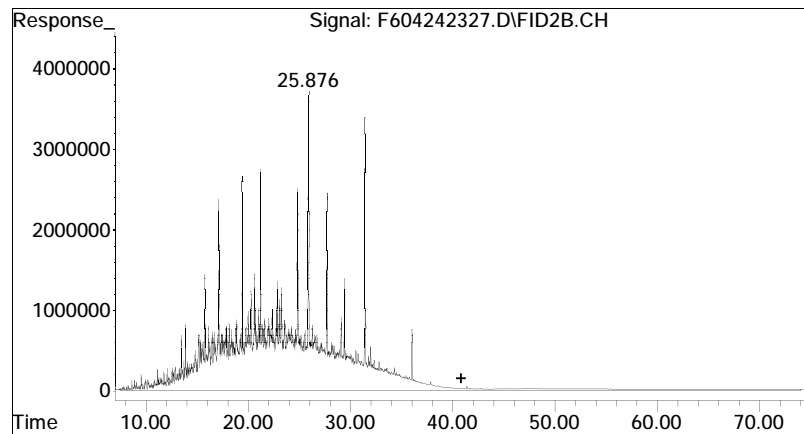
#33 n-Dotriacontane (C32)

R.T.: 45.749 min
Delta R.T.: -0.039 min
Response: 138218
Conc: 0.09 ug/mL M4



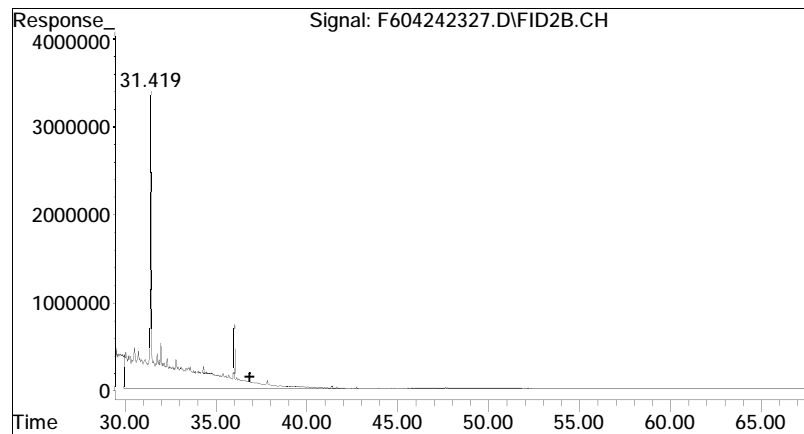
#36 n-Pentatriacontane (C35)

R.T.: 48.902 min
Delta R.T.: -0.056 min
Response: 77468
Conc: 0.05 ug/mL M4



#42 C9-C44 Total Petroleum Hy

R.T.: 40.848 min
Delta R.T.: 0.000 min
Response: 7344462909
Conc: 4825.78 ug/mL m



#49 Total Resolved Hydrocarbo

R.T.: 36.878 min
Delta R.T.: 0.000 min
Response: 110960373
Conc: 72.91 ug/L m

Instrument Blank Raw Data

Data Path : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\
Data File : F604242309.D
Signal(s) : FID2B.CH
Acq On : 24 Apr 2023 3:53 pm
Operator : FID6:AMV
Sample : IB604242301R
Misc :
ALS Vial : 55 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Apr 28 16:11:55 2023
Quant Method : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M
Quant Title : FID Forensics
QLast Update : Fri Apr 28 16:00:05 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Sub List : TPH - TPH

Compound	R.T.	Response	Conc Units

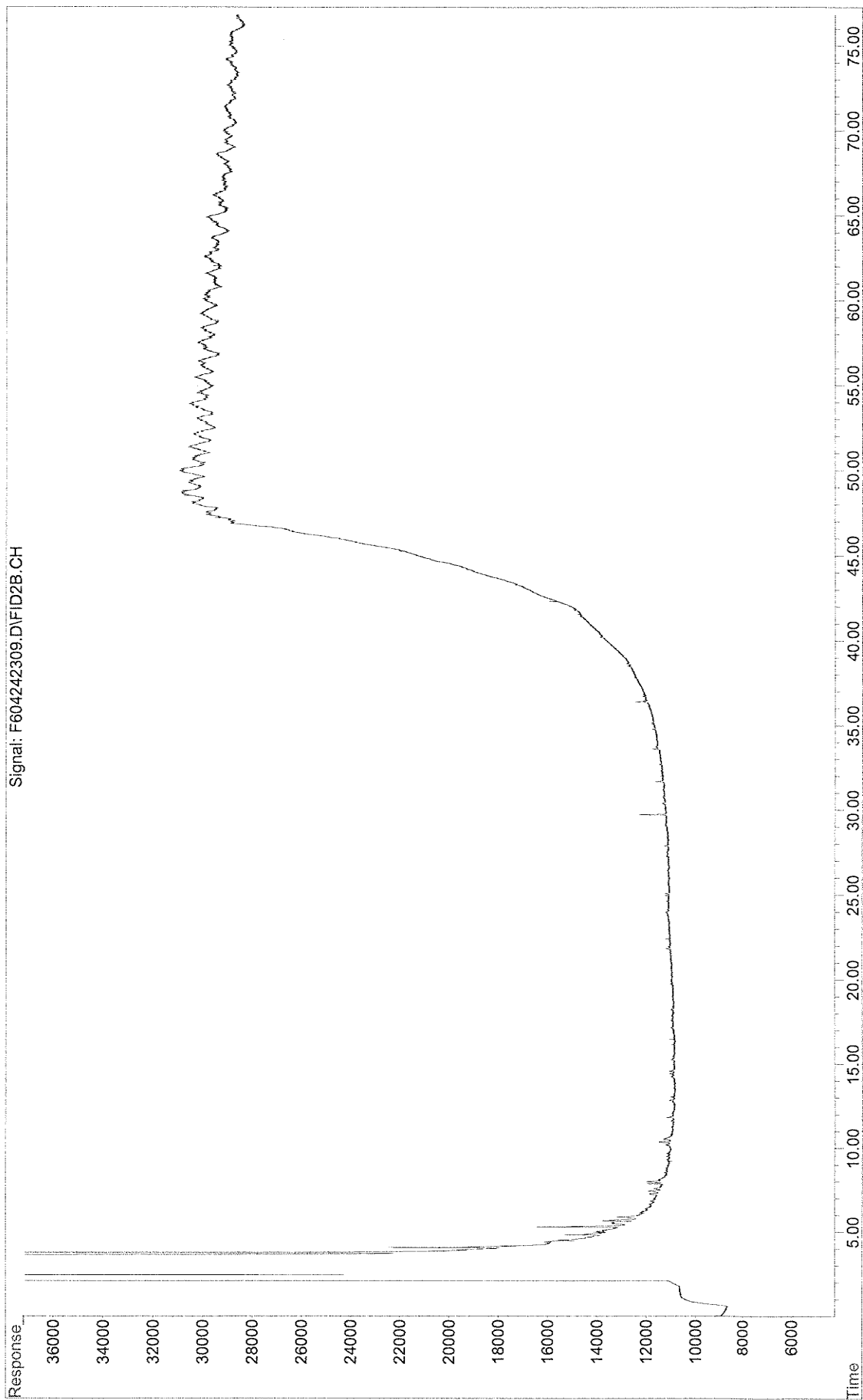
Internal Standards			
1) I 5-alpha-androstane	31.374	3906	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
24) s d50-Tetracosane	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
Target Compounds			
42) h C9-C44 Total Petroleu...	40.848	393824156	5299880.839 ug/mL M5
49) h Total Resolved Hydroc...	36.878	3814180	51329.248 ug/L m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

File : O:\Forensics\Data\FID6\2023\APR\APR24.SEC\F604242309.D
Operator : FID6:AMV
Acquired : 24 Apr 2023 3:53 pm using AcqMethod FID6A.M
Sample Name: IB604242301R
Instrument: FID6
Misc Info :
Vial Number: 55
CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR24.SEC\HC6012023R_DRO.M



Data Path : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\
 Data File : F604272309.D
 Signal(s) : FID2B.CH
 Acq On : 27 Apr 2023 3:17 pm
 Operator : FID6:AMV
 Sample : IB604272301R
 Misc :
 ALS Vial : 55 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 04 13:28:15 2023
 Quant Method : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M
 Quant Title : FID Forensics
 QLast Update : Thu May 04 13:18:14 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : TPH - TPH

Compound	R.T.	Response	Conc Units

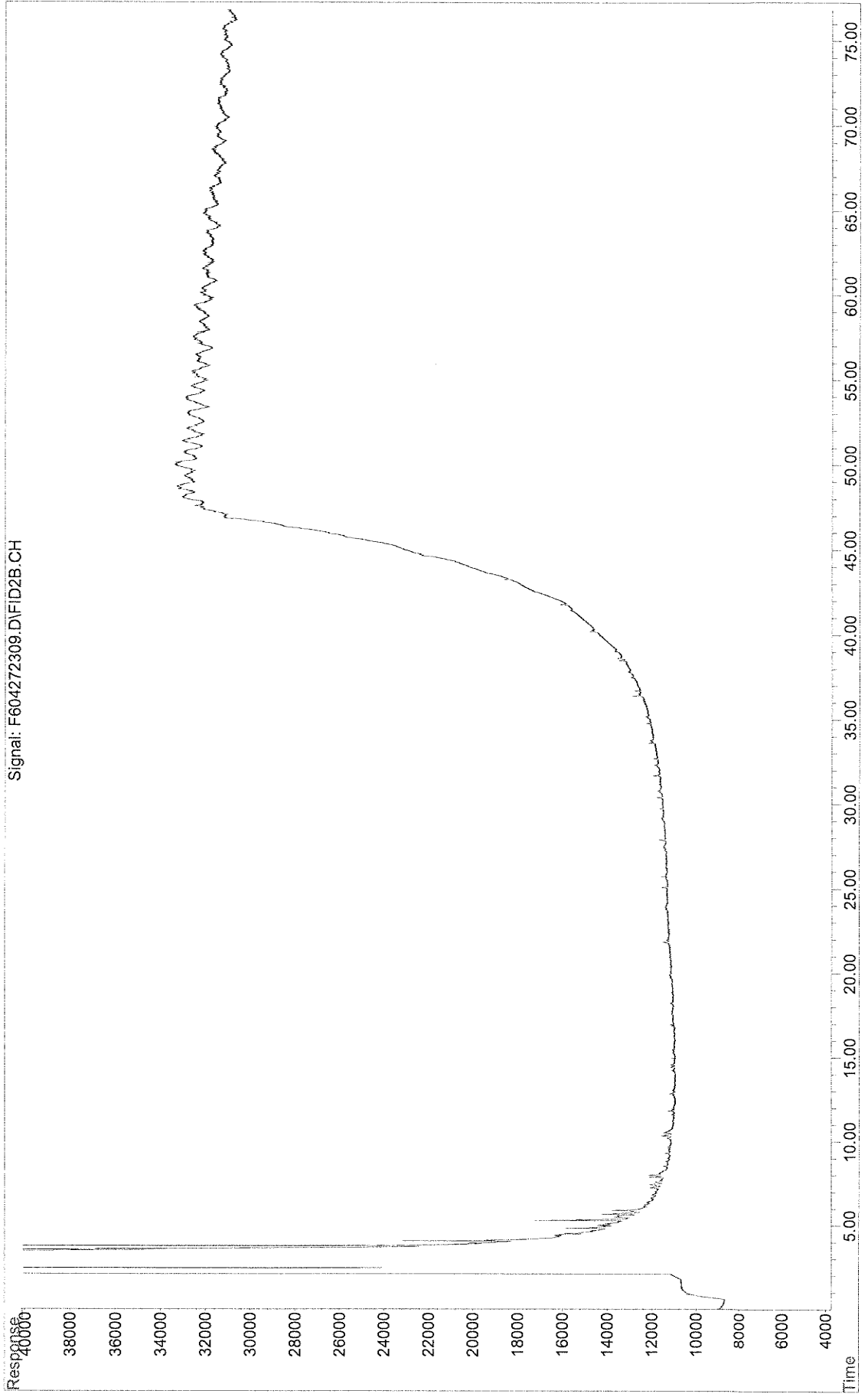
Internal Standards			
1) I 5-alpha-androstane	31.376	4063	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
24) s d50-Tetracosane	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
Target Compounds			
42) h C9-C44 Total Petroleu...	40.853	478273433	6187583.537 ug/mL M5
49) h Total Resolved Hydroc...	36.878	2968658	38406.517 ug/L m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

File : O:\Forensics\Data\FID6\2023\APR\APR27.SEC\F604272309.D
 Operator : FID6:AMV
 Acquired : 27 Apr 2023 3:17 pm using AcqMethod FID6A.M
 Sample Name: IB604272301R
 Instrument: FID6
 Misc Info :
 Vial Number: 55
 CurrentMeth: O:\Forensics\Data\FID6\2023\APR\APR27.SEC\HC6012023R_DRO.M



Data Path : O:\Forensics\Data\FID17\2023\MAY\MAY04\
 Data File : F1705042310.D
 Signal(s) : FID1A.CH
 Acq On : 04 May 2023 3:18 pm
 Operator : FID17:AMV
 Sample : IB1705042301F
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Integration File: SHCINT2.E
 Quant Time: May 05 09:52:50 2023
 Quant Method : O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M
 Quant Title : FID Forensics
 QLast Update : Fri May 05 09:44:09 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
 Signal Phase : Rtx-5MS
 Signal Info : 0.25mm

Sub List : TPH - TPH

Compound	R.T.	Response	Conc Units

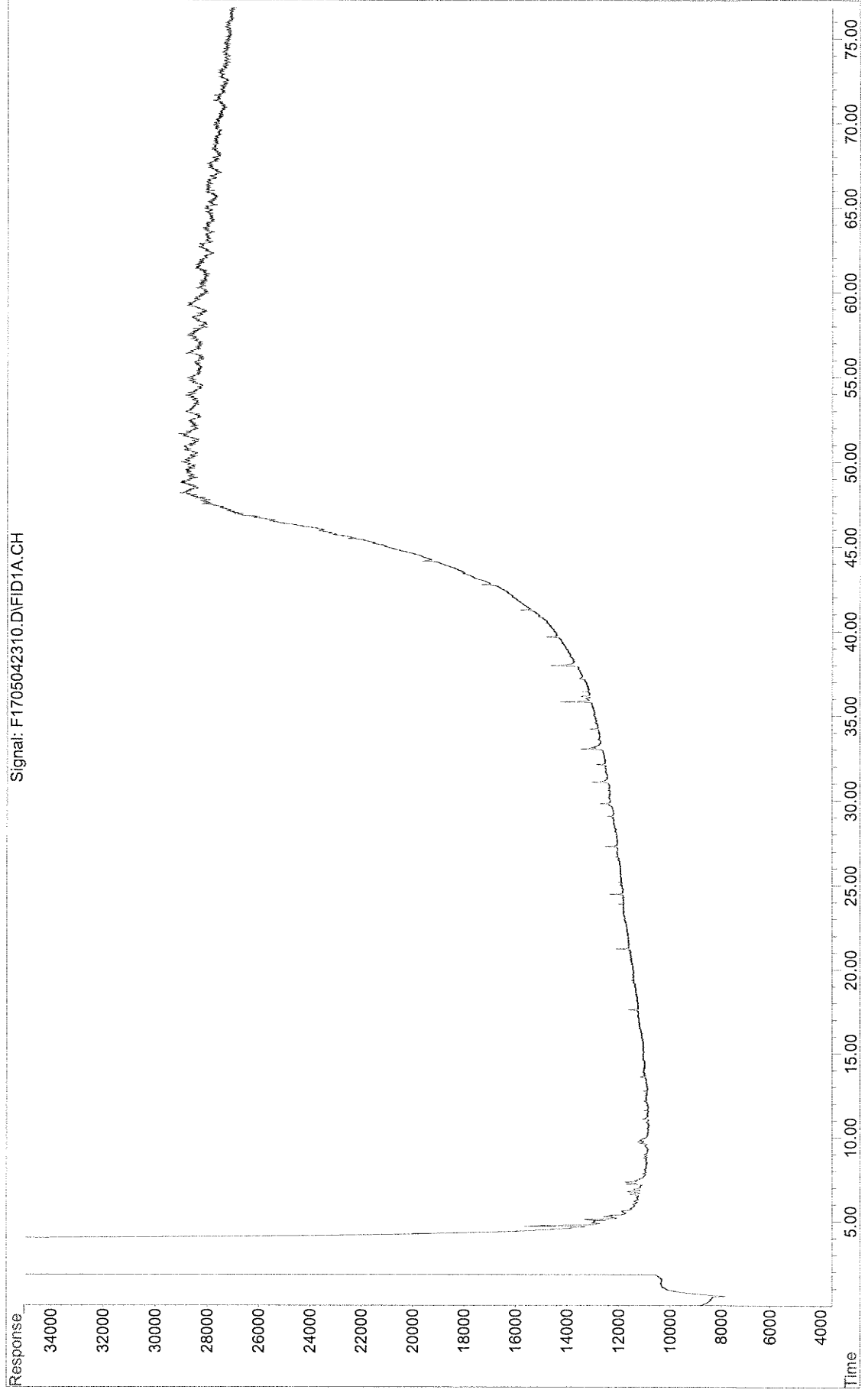
Internal Standards			
1) I 5-alpha-androstane	30.756	5739	50.000 ug/mL M4
System Monitoring Compounds			
19) s ortho-terphenyl	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
24) s d50-Tetracosane	0.000	0	N.D. ug/mL
Spiked Amount 50.000	Range 50 - 130	Recovery =	0.00%#
Target Compounds			
42) h C9-C44 Total Petroleu...	38.995	369621801	3438792.296 ug/mL M4
46) h Total Resolved Hydroc...	40.681	3812242	35467.358 ug/mL m

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window

(m)=manual int.

File : O:\Forensics\Data\FID17\2023\MAY\MAY04\F1705042310.D
 Operator : FID17:AMV
 Acquired : 04 May 2023 3:18 pm using AcqMethod FID17A.M
 Sample Name: IB1705042301F
 Instrument: FID17
 Misc Info :
 Vial Number: 5
 CurrentMeth: O:\Forensics\Data\FID17\2023\MAY\MAY04\HC17010323F_DRO.M



Sample Preparation



ORGANIC ELN REPORT

Workgroup: WG1769534

Prep Method: EPA 3580A Solvent Type: DCM Surrogate Type: A2-PAH/SHC Spike Type: A2-PAH/SHC Spike Verify by: NAG Lims Spikelot: A2-PAH/SHC Additional Reagents/Std <div>RISFRBF63</div>	Conc.Method: Solvent Type: Lot #: Additional Reagents/Std	Cleanup 1 Cleanup Method 1: Cleanup Method 2: Solvent Type: Lot #: Additional Reagents/Std
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Sample/ Type	Extraction										Concentration	
	Extract Date	Analyst	Sample Weight g	Balanc e Id	Extract Vol ml	Split Vol ml	Surr Amt ml	Spike Amt ml	Is Amt ml	Final Vol ml		
L2320537-01 OIL	04/21/23 13:40	Natasha Gambaro v	.1038	BAL-23	10	10	0.5		0.1	20		
WG1769534-1 BLANK	04/21/23 13:40	Natasha Gambaro v	0.1	BAL-23	10	10	0.5		0.1	20		
WG1769534-2 LCS	04/21/23 13:40	Natasha Gambaro v	0.1	BAL-23	10	10	0.5	0.5	0.1	20		
WG1769534-3 LCSD	04/21/23 13:40	Natasha Gambaro v	0.1	BAL-23	10	10	0.5	0.5	0.1	20		
WG1769534-4 DUP	04/21/23 13:40	Natasha Gambaro v	.1033	BAL-23	10	10	0.5		0.1	20		



ORGANIC ELN REPORT

Workgroup: WG1770361

<div>Prep Method: ALPHA OP-013</div> <div>Solvent Type: DCM</div> <div>Surrogate Type: A2-PAH/SHC</div> <div>Spike Type: A2-PAH/SHC</div> <div>Spike Verify by: NA</div> <div>Lims Spikelot: A2-PAH/SHC</div> <div>Additional Reagents/Std</div> <table><tr><td>Na2SO4</td><td>23A1161006</td></tr><tr><td></td><td></td></tr></table>	Na2SO4	23A1161006			<div>Conc.Method: S-EVAP/N-EVAP</div> <div>Solvent Type: DCM</div> <div>Lot #: EG212-US</div> <div>Additional Reagents/Std</div> <table><tr><td>Glass Wool</td><td>16022999</td></tr><tr><td>Na2SO4</td><td>23A1161006</td></tr><tr><td>Granulated Copper</td><td>OWR042523A</td></tr></table>	Glass Wool	16022999	Na2SO4	23A1161006	Granulated Copper	OWR042523A	<div>Cleanup 1</div> <div>Cleanup Method 1:</div> <div>Cleanup Method 2:</div> <div>Solvent Type:</div> <div>Lot #:</div> <div>Additional Reagents/Std</div>
Na2SO4	23A1161006											
Glass Wool	16022999											
Na2SO4	23A1161006											
Granulated Copper	OWR042523A											

Extraction

Concentration

Sample/ Type	Extract Date	Analyst	Sample Weight g	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
L2320537-02 WIPE	04/24/23 13:11	Brittany Robinson	1	0.5		04/25/23 20:00	Gregory Fernberg	100	SEVAP 1/NEV AP2
BOTH NETS FROM SAMPLE CONTAINER A AND B WERE COMBINED TO CREATE ONE SAMPLE. 4/24/23 BLR									
WG1770361-1 BLANK	04/24/23 13:11	Brittany Robinson	1	0.1		04/25/23 20:00	Gregory Fernberg	2	SEVAP 1/NEV AP2
WG1770361-2 LCS	04/24/23 13:11	Brittany Robinson	1	0.1	0.1	04/25/23 20:00	Gregory Fernberg	2	SEVAP 1/NEV AP2
WG1770361-3 LCSD	04/24/23 13:11	Brittany Robinson	1	0.1	0.1	04/25/23 20:00	Gregory Fernberg	2	SEVAP 1/NEV AP2

Supporting Documentation

L# L2320537

Analyst: NAG
Date: 04/26/2023

Gravimetric Standard:	5.064	mg/mL
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- ☐ Pre-Alumina
- ☐ Post-Alumina
- ☐ Pre-Silica
- ☐ Oily Material Prep.
- ☒ Other

[illegible]

Notes:

Total Extract Weight (mg) = (Extract Volume + Aliquot Removed) (Aliquot Weight)

LCS Acceptance Criteria: 95% - 105%

Summary Forms

Results Summary

Form 1

Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC
 Project Name : GASCO HYDROCARBON INVESTIGATION
 Lab ID : L2320537-01
 Client ID : MW2112-041723-NAPL
 Sample Location : OR
 Sample Matrix : OIL
 Analytical Method : 1,8015D(M)
 Lab File ID : F604242325
 Sample Amount : 0.1038 g
 Extraction Method : EPA 3580A
 Extract Volume : 20000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2320537
 Project Number : 000029-02.78 T12A
 Date Collected : 04/17/23 09:30
 Date Received : 04/18/23
 Date Analyzed : 04/25/23 03:30
 Date Extracted : 04/21/23
 Dilution Factor : 1
 Analyst : AMV
 Instrument ID : FID6
 GC Column : RTX-5
 %Solids : 100
 Injection Volume : 1 uL

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
111-84-2	n-Nonane (C9)	ND	193	57.2	U
124-18-5	n-Decane (C10)	194	193	61.5	
1120-21-4	n-Undecane (C11)	595	193	57.5	
112-40-3	n-Dodecane (C12)	ND	193	42.0	U
629-50-5	n-Tridecane (C13)	1200	193	52.9	
3891-98-3	2,6,10-Trimethyldodecane (1380)	6840	193	29.0	
629-59-4	n-Tetradecane (C14)	918	193	29.0	
TMTD1470	2,6,10-Trimethyltridecane (1470)	7240	193	23.0	
629-62-9	n-Pentadecane (C15)	ND	193	23.0	U
544-76-3	n-Hexadecane (C16)	ND	193	29.0	U
3892-00-0	Norpristane (1650)	7720	193	63.6	
629-78-7	n-Heptadecane (C17)	357	193	63.6	
1921-70-6	Pristane	13300	193	41.2	
593-45-3	n-Octadecane (C18)	ND	193	38.7	U
638-36-8	Phytane	8500	193	24.2	
629-92-5	n-Nonadecane (C19)	132	193	49.5	J
112-95-8	n-Eicosane (C20)	239	193	27.3	
629-94-7	n-Heneicosane (C21)	582	193	23.1	
629-97-0	n-Docosane (C22)	ND	193	20.1	U
638-67-5	n-Tricosane (C23)	53.4	193	24.5	J
646-31-1	n-Tetracosane (C24)	ND	193	32.2	U



Results Summary

Form 1

Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Lab ID : L2320537-01 Client ID : MW2112-041723-NAPL Sample Location : OR Sample Matrix : OIL Analytical Method : 1,8015D(M) Lab File ID : F604242325 Sample Amount : 0.1038 g Extraction Method : EPA 3580A Extract Volume : 20000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2320537 Project Number : 000029-02.78 T12A Date Collected : 04/17/23 09:30 Date Received : 04/18/23 Date Analyzed : 04/25/23 03:30 Date Extracted : 04/21/23 Dilution Factor : 1 Analyst : AMV Instrument ID : FID6 GC Column : RTX-5 %Solids : 100 Injection Volume : 1 uL
---	--

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
629-99-2	n-Pentacosane (C25)	178	193	102.	JC
630-01-3	n-Hexacosane (C26)	ND	193	28.3	U
593-49-7	n-Heptacosane (C27)	ND	193	23.2	U
630-02-4	n-Octacosane (C28)	ND	193	41.3	U
630-03-5	n-Nonacosane (C29)	ND	193	128.	U
638-68-6	n-Triacontane (C30)	ND	193	22.1	U
630-04-6	n-Hentriacontane (C31)	ND	193	27.3	U
544-85-4	n-Dotriacontane (C32)	ND	193	24.3	U
630-05-7	n-Tritriacontane (C33)	ND	193	27.1	U
14167-59-0	n-Tettratriacontane (C34)	ND	193	30.6	U
630-07-9	n-Pentatriacontane (C35)	ND	193	33.6	U
630-06-8	n-Hexatriacontane (C36)	ND	193	38.3	U
7194-84-5	n-Heptatriacontane (C37)	ND	193	42.8	U
7194-85-6	n-Octatriacontane (C38)	ND	193	44.9	U
7194-86-7	n-Nonatriacontane (C39)	ND	193	62.6	U
4181-95-7	n-Tetracontane (C40)	ND	193	62.6	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	879000	6360	1400	
TSATHC	Total Saturated Hydrocarbons	48000	193	20.1	J

Results Summary

Form 1

Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Lab ID : L2320537-02 Client ID : MW2112-041723-NET Sample Location : OR Sample Matrix : Sheen Net Analytical Method : 1,8015D(M) Lab File ID : F604272319 Sample Amount : Extraction Method : ALPHA OP-013 Extract Volume : 100000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2320537 Project Number : 000029-02.78 T12A Date Collected : 04/17/23 09:30 Date Received : 04/18/23 Date Analyzed : 04/27/23 22:33 Date Extracted : 04/24/23 Dilution Factor : 1 Analyst : WR Instrument ID : FID6 GC Column : RTX-5 %Solids : 100 Injection Volume : 1 uL
---	---

CAS NO.	Parameter	ug Abs			Qualifier
		Results	RL	MDL	
111-84-2	n-Nonane (C9)	ND	100	29.7	U
124-18-5	n-Decane (C10)	251	100	31.9	
1120-21-4	n-Undecane (C11)	872	100	29.9	
112-40-3	n-Dodecane (C12)	ND	100	21.8	U
629-50-5	n-Tridecane (C13)	ND	100	27.4	U
3891-98-3	2,6,10-Trimethyldodecane (1380)	2910	100	15.0	
629-59-4	n-Tetradecane (C14)	742	100	15.0	
TMTD1470	2,6,10-Trimethyltridecane (1470)	1360	100	11.9	
629-62-9	n-Pentadecane (C15)	2040	100	11.9	
544-76-3	n-Hexadecane (C16)	1310	100	15.1	
3892-00-0	Norpristane (1650)	1620	100	33.0	
629-78-7	n-Heptadecane (C17)	291	100	33.0	
1921-70-6	Pristane	25500	100	21.4	E
593-45-3	n-Octadecane (C18)	842	100	20.1	
638-36-8	Phytane	16800	100	12.6	
629-92-5	n-Nonadecane (C19)	ND	100	25.7	U
112-95-8	n-Eicosane (C20)	1140	100	14.2	
629-94-7	n-Heneicosane (C21)	1070	100	12.0	
629-97-0	n-Docosane (C22)	230	100	10.4	
638-67-5	n-Tricosane (C23)	ND	100	12.7	U
646-31-1	n-Tetracosane (C24)	ND	100	16.7	U



Results Summary

Form 1

Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Lab ID : L2320537-02 Client ID : MW2112-041723-NET Sample Location : OR Sample Matrix : Sheen Net Analytical Method : 1,8015D(M) Lab File ID : F604272319 Sample Amount : Extraction Method : ALPHA OP-013 Extract Volume : 100000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2320537 Project Number : 000029-02.78 T12A Date Collected : 04/17/23 09:30 Date Received : 04/18/23 Date Analyzed : 04/27/23 22:33 Date Extracted : 04/24/23 Dilution Factor : 1 Analyst : WR Instrument ID : FID6 GC Column : RTX-5 %Solids : 100 Injection Volume : 1 uL
---	---

CAS NO.	Parameter	ug Abs			Qualifier
		Results	RL	MDL	
629-99-2	n-Pentacosane (C25)	120	100	52.9	
630-01-3	n-Hexacosane (C26)	50.8	100	14.7	J
593-49-7	n-Heptacosane (C27)	ND	100	12.0	U
630-02-4	n-Octacosane (C28)	ND	100	21.4	U
630-03-5	n-Nonacosane (C29)	ND	100	66.6	U
638-68-6	n-Triacontane (C30)	18.4	100	11.5	J
630-04-6	n-Hentriacontane (C31)	ND	100	14.2	U
544-85-4	n-Dotriacontane (C32)	30.1	100	12.6	J
630-05-7	n-Tritriacontane (C33)	ND	100	14.1	U
14167-59-0	n-Tetratriacontane (C34)	ND	100	15.9	U
630-07-9	n-Pentatriacontane (C35)	ND	100	17.4	U
630-06-8	n-Hexatriacontane (C36)	ND	100	19.9	U
7194-84-5	n-Heptatriacontane (C37)	ND	100	22.2	U
7194-85-6	n-Octatriacontane (C38)	ND	100	23.3	U
7194-86-7	n-Nonatriacontane (C39)	ND	100	32.5	U
4181-95-7	n-Tetracontane (C40)	ND	100	32.5	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	1680000	3300	726.	

Results Summary

Form 1

Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02.78 T12A
Lab ID : L2320537-02D	Date Collected : 04/17/23 09:30
Client ID : MW2112-041723-NET	Date Received : 04/18/23
Sample Location : OR	Date Analyzed : 05/04/23 16:45
Sample Matrix : Sheen Net	Date Extracted : 04/24/23
Analytical Method : 1,8015D(M)	Dilution Factor : 10
Lab File ID : F1705042312	Analyst : WR
Sample Amount :	Instrument ID : FID17
Extraction Method : ALPHA OP-013	GC Column : RTX-5
Extract Volume : 100000 uL	%Solids : 100
GPC Cleanup : N	Injection Volume : 1 uL
Sulfur Cleanup : N	

CAS NO.	Parameter	ug Abs			Qualifier
		Results	RL	MDL	
1921-70-6	Pristane	28900	1000	214.	
TSATHC	Total Saturated Hydrocarbons	60600	100	10.4	J

Results Summary

Form 1

Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Lab ID : WG1769534-1 Client ID : WG1769534-1BLANK Sample Location : Sample Matrix : OIL Analytical Method : 1,8015D(M) Lab File ID : F604242311 Sample Amount : 0.1 g Extraction Method : EPA 3580A Extract Volume : 20000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2320537 Project Number : 000029-02.78 T12A Date Collected : NA Date Received : NA Date Analyzed : 04/24/23 17:20 Date Extracted : 04/21/23 Dilution Factor : 1 Analyst : AMV Instrument ID : FID6 GC Column : RTX-5 %Solids : NA Injection Volume : 1 uL
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CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
111-84-2	n-Nonane (C9)	ND	200	59.3	U
124-18-5	n-Decane (C10)	ND	200	63.8	U
1120-21-4	n-Undecane (C11)	ND	200	59.7	U
112-40-3	n-Dodecane (C12)	ND	200	43.6	U
629-50-5	n-Tridecane (C13)	ND	200	54.9	U
3891-98-3	2,6,10-Trimethyldodecane (1380)	ND	200	30.1	U
629-59-4	n-Tetradecane (C14)	ND	200	30.1	U
TMTD1470	2,6,10-Trimethyltridecane (1470)	ND	200	23.9	U
629-62-9	n-Pentadecane (C15)	ND	200	23.9	U
544-76-3	n-Hexadecane (C16)	ND	200	30.1	U
3892-00-0	Norpristane (1650)	ND	200	66.0	U
629-78-7	n-Heptadecane (C17)	ND	200	66.0	U
1921-70-6	Pristane	ND	200	42.7	U
593-45-3	n-Octadecane (C18)	53.2	200	40.1	J
638-36-8	Phytane	ND	200	25.1	U
629-92-5	n-Nonadecane (C19)	ND	200	51.4	U
112-95-8	n-Eicosane (C20)	ND	200	28.3	U
629-94-7	n-Heneicosane (C21)	ND	200	23.9	U
629-97-0	n-Docosane (C22)	ND	200	20.9	U
638-67-5	n-Tricosane (C23)	ND	200	25.4	U
646-31-1	n-Tetracosane (C24)	ND	200	33.5	U

Results Summary

Form 1

Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Lab ID : WG1769534-1 Client ID : WG1769534-1BLANK Sample Location : Sample Matrix : OIL Analytical Method : 1,8015D(M) Lab File ID : F604242311 Sample Amount : 0.1 g Extraction Method : EPA 3580A Extract Volume : 20000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2320537 Project Number : 000029-02.78 T12A Date Collected : NA Date Received : NA Date Analyzed : 04/24/23 17:20 Date Extracted : 04/21/23 Dilution Factor : 1 Analyst : AMV Instrument ID : FID6 GC Column : RTX-5 %Solids : NA Injection Volume : 1 uL
---	---

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
629-99-2	n-Pentacosane (C25)	122	200	106.	JC
630-01-3	n-Hexacosane (C26)	ND	200	29.4	U
593-49-7	n-Heptacosane (C27)	ND	200	24.1	U
630-02-4	n-Octacosane (C28)	ND	200	42.9	U
630-03-5	n-Nonacosane (C29)	ND	200	133.	U
638-68-6	n-Triacontane (C30)	ND	200	22.9	U
630-04-6	n-Hentriacontane (C31)	ND	200	28.3	U
544-85-4	n-Dotriacontane (C32)	ND	200	25.2	U
630-05-7	n-Tritriacontane (C33)	ND	200	28.1	U
14167-59-0	n-Tetratriacontane (C34)	ND	200	31.8	U
630-07-9	n-Pentatriacontane (C35)	ND	200	34.9	U
630-06-8	n-Hexatriacontane (C36)	ND	200	39.8	U
7194-84-5	n-Heptatriacontane (C37)	ND	200	44.4	U
7194-85-6	n-Octatriacontane (C38)	ND	200	46.6	U
7194-86-7	n-Nonatriacontane (C39)	ND	200	64.9	U
4181-95-7	n-Tetracontane (C40)	ND	200	64.9	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	ND	6600	1450	U
TSATHC	Total Saturated Hydrocarbons	175	200	20.9	J

Results Summary

Form 1

Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Lab ID : WG1769534-4 Client ID : MW2112-041723-NAPLDUP Sample Location : Sample Matrix : OIL Analytical Method : 1,8015D(M) Lab File ID : F604242327 Sample Amount : 0.1033 g Extraction Method : EPA 3580A Extract Volume : 20000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2320537 Project Number : 000029-02.78 T12A Date Collected : 04/17/23 09:30 Date Received : 04/18/23 Date Analyzed : 04/25/23 04:57 Date Extracted : 04/21/23 Dilution Factor : 1 Analyst : AMV Instrument ID : FID6 GC Column : RTX-5 %Solids : 100 Injection Volume : 1 uL
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CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
111-84-2	n-Nonane (C9)	ND	194	57.4	U
124-18-5	n-Decane (C10)	200	194	61.8	
1120-21-4	n-Undecane (C11)	451	194	57.8	
112-40-3	n-Dodecane (C12)	ND	194	42.2	U
629-50-5	n-Tridecane (C13)	1290	194	53.1	
3891-98-3	2,6,10-Trimethyldodecane (1380)	6950	194	29.1	
629-59-4	n-Tetradecane (C14)	891	194	29.1	
TMTD1470	2,6,10-Trimethyltridecane (1470)	7190	194	23.1	
629-62-9	n-Pentadecane (C15)	ND	194	23.1	U
544-76-3	n-Hexadecane (C16)	ND	194	29.2	U
3892-00-0	Norpristane (1650)	7840	194	63.9	
629-78-7	n-Heptadecane (C17)	334	194	63.9	
1921-70-6	Pristane	13400	194	41.4	
593-45-3	n-Octadecane (C18)	ND	194	38.8	U
638-36-8	Phytane	8710	194	24.3	
629-92-5	n-Nonadecane (C19)	136	194	49.8	J
112-95-8	n-Eicosane (C20)	176	194	27.4	J
629-94-7	n-Heneicosane (C21)	626	194	23.2	
629-97-0	n-Docosane (C22)	ND	194	20.2	U
638-67-5	n-Tricosane (C23)	62.5	194	24.6	J
646-31-1	n-Tetracosane (C24)	ND	194	32.4	U



Results Summary

Form 1

Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATIO Lab ID : WG1769534-4 Client ID : MW2112-041723-NAPLDUP Sample Location : Sample Matrix : OIL Analytical Method : 1,8015D(M) Lab File ID : F604242327 Sample Amount : 0.1033 g Extraction Method : EPA 3580A Extract Volume : 20000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2320537 Project Number : 000029-02.78 T12A Date Collected : 04/17/23 09:30 Date Received : 04/18/23 Date Analyzed : 04/25/23 04:57 Date Extracted : 04/21/23 Dilution Factor : 1 Analyst : AMV Instrument ID : FID6 GC Column : RTX-5 %Solids : 100 Injection Volume : 1 uL
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CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
629-99-2	n-Pentacosane (C25)	172	194	102.	JC
630-01-3	n-Hexacosane (C26)	ND	194	28.4	U
593-49-7	n-Heptacosane (C27)	ND	194	23.3	U
630-02-4	n-Octacosane (C28)	ND	194	41.5	U
630-03-5	n-Nonacosane (C29)	ND	194	129.	U
638-68-6	n-Triacontane (C30)	ND	194	22.2	U
630-04-6	n-Hentriacontane (C31)	ND	194	27.4	U
544-85-4	n-Dotriacontane (C32)	ND	194	24.4	U
630-05-7	n-Tritriacontane (C33)	ND	194	27.2	U
14167-59-0	n-Tettratriacontane (C34)	ND	194	30.8	U
630-07-9	n-Pentatriacontane (C35)	ND	194	33.8	U
630-06-8	n-Hexatriacontane (C36)	ND	194	38.5	U
7194-84-5	n-Heptatriacontane (C37)	ND	194	43.0	U
7194-85-6	n-Octatriacontane (C38)	ND	194	45.1	U
7194-86-7	n-Nonatriacontane (C39)	ND	194	62.9	U
4181-95-7	n-Tetracontane (C40)	ND	194	62.9	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	884000	6390	1400	
TSATHC	Total Saturated Hydrocarbons	48400	194	20.2	J

Results Summary

Form 1

Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Lab ID : WG1770361-1 Client ID : WG1770361-1BLANK Sample Location : Sample Matrix : WIPE Analytical Method : 1,8015D(M) Lab File ID : F604272311 Sample Amount : Extraction Method : ALPHA OP-013 Extract Volume : 2000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2320537 Project Number : 000029-02.78 T12A Date Collected : NA Date Received : NA Date Analyzed : 04/27/23 16:44 Date Extracted : 04/24/23 Dilution Factor : 1 Analyst : WR Instrument ID : FID6 GC Column : RTX-5 %Solids : NA Injection Volume : 1 uL
--	--

CAS NO.	Parameter	ug Abs			Qualifier
		Results	RL	MDL	
111-84-2	n-Nonane (C9)	ND	2.00	0.593	U
124-18-5	n-Decane (C10)	ND	2.00	0.638	U
1120-21-4	n-Undecane (C11)	ND	2.00	0.597	U
112-40-3	n-Dodecane (C12)	ND	2.00	0.436	U
629-50-5	n-Tridecane (C13)	ND	2.00	0.549	U
3891-98-3	2,6,10-Trimethyldodecane (1380)	ND	2.00	0.301	U
629-59-4	n-Tetradecane (C14)	ND	2.00	0.301	U
TMTD1470	2,6,10-Trimethyltridecane (1470)	ND	2.00	0.239	U
629-62-9	n-Pentadecane (C15)	ND	2.00	0.239	U
544-76-3	n-Hexadecane (C16)	ND	2.00	0.301	U
3892-00-0	Norpristane (1650)	ND	2.00	0.660	U
629-78-7	n-Heptadecane (C17)	ND	2.00	0.660	U
1921-70-6	Pristane	ND	2.00	0.427	U
593-45-3	n-Octadecane (C18)	0.996	2.00	0.401	JC
638-36-8	Phytane	ND	2.00	0.251	U
629-92-5	n-Nonadecane (C19)	ND	2.00	0.514	U
112-95-8	n-Eicosane (C20)	ND	2.00	0.283	U
629-94-7	n-Heneicosane (C21)	ND	2.00	0.239	U
629-97-0	n-Docosane (C22)	ND	2.00	0.209	U
638-67-5	n-Tricosane (C23)	ND	2.00	0.254	U
646-31-1	n-Tetracosane (C24)	ND	2.00	0.335	U



Results Summary

Form 1

Saturated Hydrocarbons by GC-FID

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATIO Lab ID : WG1770361-1 Client ID : WG1770361-1BLANK Sample Location : Sample Matrix : WIPE Analytical Method : 1,8015D(M) Lab File ID : F604272311 Sample Amount : Extraction Method : ALPHA OP-013 Extract Volume : 2000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2320537 Project Number : 000029-02.78 T12A Date Collected : NA Date Received : NA Date Analyzed : 04/27/23 16:44 Date Extracted : 04/24/23 Dilution Factor : 1 Analyst : WR Instrument ID : FID6 GC Column : RTX-5 %Solids : NA Injection Volume : 1 uL
---	--

CAS NO.	Parameter	ug Abs			Qualifier
		Results	RL	MDL	
629-99-2	n-Pentacosane (C25)	1.20	2.00	1.06	JC
630-01-3	n-Hexacosane (C26)	ND	2.00	0.294	U
593-49-7	n-Heptacosane (C27)	ND	2.00	0.241	U
630-02-4	n-Octacosane (C28)	ND	2.00	0.429	U
630-03-5	n-Nonacosane (C29)	ND	2.00	1.33	U
638-68-6	n-Triacontane (C30)	ND	2.00	0.229	U
630-04-6	n-Hentriacontane (C31)	ND	2.00	0.283	U
544-85-4	n-Dotriacontane (C32)	ND	2.00	0.252	U
630-05-7	n-Tritriacontane (C33)	ND	2.00	0.281	U
14167-59-0	n-Tettratriacontane (C34)	ND	2.00	0.318	U
630-07-9	n-Pentatriacontane (C35)	ND	2.00	0.349	U
630-06-8	n-Hexatriacontane (C36)	ND	2.00	0.398	U
7194-84-5	n-Heptatriacontane (C37)	ND	2.00	0.444	U
7194-85-6	n-Octatriacontane (C38)	ND	2.00	0.466	U
7194-86-7	n-Nonatriacontane (C39)	ND	2.00	0.649	U
4181-95-7	n-Tetracontane (C40)	ND	2.00	0.649	U
NONE	Total Petroleum Hydrocarbons (C9-C44)	ND	66.0	14.5	U
TSATHC	Total Saturated Hydrocarbons	2.20	2.00	0.209	J

Surrogate Recovery Summary

Form 2

Petroleum

Client: Anchor QEA, LLC
 Project Name: GASCO HYDROCARBON INVESTIGATION

Lab Number: L2320537
 Project Number: 000029-02.78 T12A
 Matrix: Oil/Sheen Net

GC Column 1: RTX-5

CLIENT ID (LAB SAMPLE NO.)	d50 %REC	OTP %REC	%REC	%REC	OTHER (1)	OTHER (2)	TOT OUT
MW2112-041723-NAPL (L2320537-01)	96	103	--	--			0
MW2112-041723-NET (L2320537-02D)	0*	0*	--	--			2
MW2112-041723-NET (L2320537-02)	174*	0*	--	--			2
WG1769534-1BLANK	99	102	--	--			0
WG1769534-2LCS	98	101	--	--			0
WG1769534-3LCSD	99	101	--	--			0
MW2112-041723-NAPLDUP	96	101	--	--			0
WG1770361-1BLANK	94	97	--	--			0
WG1770361-2LCS	93	96	--	--			0
WG1770361-3LCSD	93	96	--	--			0

QC LIMITS

(50-130) d50- = D50-TETRACOSANE

(50-130) OTP = O-TERPHENYL

* Values outside of QC limits

FORM II A2-SHC



Lab Duplicate Sample Summary

Form 3

Petroleum

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Client Sample ID	: MW2112-041723-NAPL	Matrix (Level)	: OIL (LOW)
Lab Sample ID	: L2320537-01	Analysis Date	: 04/25/23 03:30
Lab File ID	: F604242325	DUP File ID	: F604242327
Dup Sample ID	: WG1769534-4	DUP Analysis Date	: 04/25/23 04:57

Parameter	Sample Concentration (mg/kg)	Duplicate Concentration (mg/kg)	RPD	RPD Limit
n-Nonane (C9)	ND	ND	NC	30
n-Decane (C10)	194	200	3	30
n-Undecane (C11)	595	451	28	30
n-Dodecane (C12)	ND	ND	NC	30
n-Tridecane (C13)	1200	1290	7	30
2,6,10-Trimethyldodecane (1380)	6840	6950	2	30
n-Tetradecane (C14)	918	891	3	30
2,6,10-Trimethyltridecane (1470)	7240	7190	1	30
n-Pentadecane (C15)	ND	ND	NC	30
n-Hexadecane (C16)	ND	ND	NC	30
Norpristane (1650)	7720	7840	2	30
n-Heptadecane (C17)	357	334	7	30
Pristane	13300	13400	1	30
n-Octadecane (C18)	ND	ND	NC	30
Phytane	8500	8710	2	30
n-Nonadecane (C19)	132J	136J	NC	30
n-Eicosane (C20)	239	176J	NC	30
n-Heneicosane (C21)	582	626	7	30
n-Docosane (C22)	ND	ND	NC	30
n-Tricosane (C23)	53.4J	62.5J	NC	30
n-Tetracosane (C24)	ND	ND	NC	30
n-Pentacosane (C25)	178JC	172JC	NC	30
n-Hexacosane (C26)	ND	ND	NC	30
n-Heptacosane (C27)	ND	ND	NC	30
n-Octacosane (C28)	ND	ND	NC	30

Lab Duplicate Sample Summary

Form 3

Petroleum

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Client Sample ID	: MW2112-041723-NAPL	Matrix (Level)	: OIL (LOW)
Lab Sample ID	: L2320537-01	Analysis Date	: 04/25/23 03:30
Lab File ID	: F604242325	DUP File ID	: F604242327
Dup Sample ID	: WG1769534-4	DUP Analysis Date	: 04/25/23 04:57

Parameter	Sample Concentration (mg/kg)	Duplicate Concentration (mg/kg)	RPD	RPD Limit
n-Nonacosane (C29)	ND	ND	NC	30
n-Triacontane (C30)	ND	ND	NC	30
n-Hentriacontane (C31)	ND	ND	NC	30
n-Dotriacontane (C32)	ND	ND	NC	30
n-Tritriacontane (C33)	ND	ND	NC	30
n-Tetratriacontane (C34)	ND	ND	NC	30
n-Pentatriacontane (C35)	ND	ND	NC	30
n-Hexatriacontane (C36)	ND	ND	NC	30
n-Heptatriacontane (C37)	ND	ND	NC	30
n-Octatriacontane (C38)	ND	ND	NC	30
n-Nonatriacontane (C39)	ND	ND	NC	30
n-Tetracontane (C40)	ND	ND	NC	30
Total Petroleum Hydrocarbons (C9-C44)	879000	884000	1	30
Total Saturated Hydrocarbons	48000J	48400J	NC	30

Laboratory Control Sample Summary

Form 3

Petroleum

Client : Anchor QEA, LLC Lab Number : L2320537
 Project Name : GASCO HYDROCARBON INVESTIGATION Project Number : 000029-02.78 T12A
 Matrix (Level) : OIL (LOW)
 LCS Sample ID : WG1769534-2 Analysis Date : 04/24/23 20:14 File ID : F604242315
 LCSD Sample ID : WG1769534-3 Analysis Date : 04/24/23 21:42 File ID : F604242317

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (mg/kg)	Found (mg/kg)	%R	True (mg/kg)	Found (mg/kg)	%R			
Nonane (C9)	1000	948	95	1000	952	95	0	50-130	30
n-Decane (C10)	1000	963	96	1000	976	98	2	50-130	30
n-Dodecane (C12)	1000	980	98	1000	1000	100	2	50-130	30
n-Tetradecane (C14)	1000	975	98	1000	996	100	2	50-130	30
n-Hexadecane (C16)	1000	1090	109	1000	1100	110	1	50-130	30
n-Octadecane (C18)	1000	1060	106	1000	1080	108	2	50-130	30
n-Nonadecane (C19)	1000	1010	101	1000	1030	103	2	50-130	30
n-Eicosane (C20)	1000	999	100	1000	1020	102	2	50-130	30
n-Docosane (C22)	1000	996	100	1000	1020	102	2	50-130	30
n-Tetracosane (C24)	1000	1020	102	1000	1040	104	2	50-130	30
n-Hexacosane (C26)	1000	990	99	1000	1010	101	2	50-130	30
n-Octacosane (C28)	1000	982	98	1000	999	100	2	50-130	30
n-Triacontane (C30)	1000	984	98	1000	996	100	2	50-130	30
n-Hexatriacontane (C36)	1000	894	89	1000	902	90	1	50-130	30

Laboratory Control Sample Summary

Form 3

Petroleum

Client : Anchor QEA, LLC Lab Number : L2320537
 Project Name : GASCO HYDROCARBON INVESTIGATION Project Number : 000029-02.78 T12A
 Matrix (Level) : WIPE (LOW)
 LCS Sample ID : WG1770361-2 Analysis Date : 04/27/23 18:11 File ID : F604272313
 LCSD Sample ID : WG1770361-3 Analysis Date : 04/27/23 19:38 File ID : F604272315

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug Abs)	Found (ug Abs)	%R	True (ug Abs)	Found (ug Abs)	%R			
Nonane (C9)	20	14.6	73	20	14.8	74	1	50-130	30
n-Decane (C10)	20	16.7	84	20	16.9	84	0	50-130	30
n-Dodecane (C12)	20	18.2	91	20	18.1	91	0	50-130	30
n-Tetradecane (C14)	20	18.4	92	20	18.3	92	0	50-130	30
n-Hexadecane (C16)	20	21.0	105	20	21.0	105	0	50-130	30
n-Octadecane (C18)	20	20.6	103	20	20.5	102	1	50-130	30
n-Nonadecane (C19)	20	19.8	99	20	19.6	98	1	50-130	30
n-Eicosane (C20)	20	19.6	98	20	19.4	97	1	50-130	30
n-Docosane (C22)	20	19.6	98	20	19.4	97	1	50-130	30
n-Tetracosane (C24)	20	19.8	99	20	19.6	98	1	50-130	30
n-Hexacosane (C26)	20	19.1	95	20	18.8	94	1	50-130	30
n-Octacosane (C28)	20	18.7	94	20	18.6	93	1	50-130	30
n-Triacontane (C30)	20	18.5	93	20	18.3	92	1	50-130	30
n-Hexatriacontane (C36)	20	16.5	83	20	16.3	82	1	50-130	30



Method Blank Summary
Form 4
Petroleum

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATIO	Project Number	: 000029-02.78 T12A
Lab Sample ID	: WG1769534-1	Lab File ID	: F604242311
Instrument ID	: FID6	Extraction Date	: 04/21/23
Matrix	: OIL	Analysis Date	: 04/24/23 17:20
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG1769534-2LCS	WG1769534-2	04/24/23 20:14
WG1769534-3LCSD	WG1769534-3	04/24/23 21:42
MW2112-041723-NAPL	L2320537-01	04/25/23 03:30
MW2112-041723-NAPLDUP	WG1769534-4	04/25/23 04:57

Method Blank Summary
Form 4
Petroleum

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATIO	Project Number	: 000029-02.78 T12A
Lab Sample ID	: WG1770361-1	Lab File ID	: F604272311
Instrument ID	: FID6	Extraction Date	: 04/24/23
Matrix	: WIPE	Analysis Date	: 04/27/23 16:44
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG1770361-2LCS	WG1770361-2	04/27/23 18:11
WG1770361-3LCSD	WG1770361-3	04/27/23 19:38
MW2112-041723-NET	L2320537-02	04/27/23 22:33
MW2112-041723-NET	L2320537-02D	05/04/23 16:45

Initial Calibration Summary

Form 6

Petroleum

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : FID17
Calibration dates : 01/03/23 17:12 01/04/23 00:42
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19667

Calibration Files

1 =F1701032212.D 10 =F1701032214.D 50 =F1701032216.D 100 =F1701032218.D 200 =F1701032220.D
 500 =F1701032222.D

Compound	1	10	50	100	200	500	Avg	%RSD
1) I 5-alpha-androstane	-----ISTD-----							
2) t n-Octane (C8)	0.850	0.835	0.867	0.778	0.758		0.817	5.77
3) t n-Nonane (C9)	0.872	0.867	0.898	0.817	0.796		0.850	4.95
4) t n-Decane (C10)	0.900	0.902	0.930	0.859	0.836		0.885	4.25
5) t n-Undecane (C11)	0.891	0.901	0.944	0.860	0.838		0.887	4.60
6) t n-Dodecane (C12)	0.898	0.912	0.945	0.871	0.848		0.895	4.17
7) t n-Tridecane (C13)	0.902	0.915	0.954	0.875	0.850		0.899	4.39
8) t 1380	0.932	0.942	0.972	0.899	0.872		0.923	4.20
9) t n-Tetradecane (C14)	0.932	0.942	0.972	0.899	0.872		0.923	4.20
10) t 1470	0.942	0.948	0.965	0.906	0.877		0.927	3.86
11) t n-Pentadecane (C15)	0.942	0.948	0.965	0.906	0.877		0.927	3.86
12) t n-Hexadecane (C16)	0.931	0.941	0.980	0.899	0.869		0.924	4.56
13) t 1650	0.940	0.953	0.987	0.913	0.892		0.937	3.91
14) t n-Heptadecane (C17)	0.940	0.953	0.987	0.913	0.892		0.937	3.91
15) t Pristane	0.959	0.970	1.002	0.923	0.881		0.947	4.93
16) t n-Octadecane (C18)	0.949	0.963	0.994	0.922	0.891		0.944	4.17
17) t Phytane	0.883	0.895	0.932	0.858	0.834		0.880	4.21
18) t n-Nonadecane (C19)	0.954	0.968	0.985	0.923	0.891		0.944	3.99
19) s ortho-terphenyl	1.076	1.048	1.162	1.025	0.991	1.066	1.061	5.46
20) t n-Eicosane (C20)	0.960	0.974	1.004	0.925	0.895		0.951	4.47
21) t n-Heneicosane (C21)	0.962	0.978	0.995	0.929	0.897		0.952	4.13
22) t n-Docosane (C22)	0.963	0.978	1.010	0.925	0.895		0.954	4.73
23) t n-Tricosane (C23)	0.970	0.978	1.008	0.926	0.893		0.955	4.74
24) s d50-Tetracosane	0.844	0.819	0.913	0.797	0.769	0.836	0.830	5.93
25) t n-Tetracosane (C24)	0.960	0.974	0.956	0.920	0.887		0.939	3.77
26) t n-Pentacosane (C25)	0.949	0.956	0.988	0.903	0.870		0.933	4.99
27) t n-Hexacosane (C26)	0.965	0.982	1.017	0.925	0.891		0.956	5.14
28) t n-Heptacosane (C27)	0.969	0.981	0.980	0.922	0.887		0.948	4.39
29) t n-Octacosane (C28)	0.986	1.001	1.020	0.939	0.903		0.970	4.94
30) t n-Nonacosane (C29)	0.977	0.995	1.012	0.932	0.895		0.962	4.97
31) t n-Triacontane (C30)	0.979	0.997	1.014	0.933	0.894		0.963	5.10
32) t n-Hentriacontane (C31)	0.946	0.960	0.982	0.896	0.860		0.929	5.37
33) t n-Dotriacontane (C32)	0.988	1.005	1.028	0.937	0.901		0.972	5.32
34) t n-Tritriacontane (C33)	0.955	0.974	0.988	0.908	0.874		0.940	5.08
35) t n-tetratriacontane (C34)	0.948	0.966	0.982	0.900	0.872		0.933	4.94
36) t n-Pentatriacontane (C35)	0.887	0.903	0.989	0.838	0.818		0.887	7.50



Initial Calibration Summary

Form 6

Petroleum

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : FID17
Calibration dates : 01/03/23 17:12 01/04/23 00:42
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19667

Calibration Files

1 =F1701032212.D 10 =F1701032214.D 50 =F1701032216.D 100 =F1701032218.D 200 =F1701032220.D
 500 =F1701032222.D

Compound	1	10	50	100	200	500	Avg	%RSD
37) t n-Hexatriacontane (C36)	1.052	1.084	1.060	1.008	0.993		1.039	3.65
38) t n-Heptatriacontane (C37)	0.985	0.982	0.974	0.916	0.909		0.953	3.90
39) t n-Octatriacontane (C38)	0.983	0.995	1.004	0.926	0.925		0.967	3.98
40) t n-Nonatriacontane (C39)	0.955	0.979	1.006	0.913	0.916		0.954	4.21
41) t n-Tetracontane (C40)	0.955	0.979	1.006	0.913	0.916		0.954	4.21
42) h C9-C44 Total	0.948	0.961	0.985	0.907	0.880		0.936	4.50
43) h C9-C40 Total	0.948	0.961	0.985	0.907	0.880		0.936	4.50
44) h C10-C28 DRO	0.943	0.955	0.981	0.907	0.878		0.933	4.34
45) h C28-C40 ORO	0.970	0.987	1.005	0.920	0.898		0.956	4.75
46) h Total Resolve	0.948	0.961	0.985	0.907	0.880		0.936	4.50



Initial Calibration Summary

Form 6

Petroleum

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : FID6
Calibration dates : 01/20/23 18:43 01/21/23 02:00
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19796

Calibration Files

1 =F601202311.D 10 =F601202313.D 50 =F601202315.D 100 =F601202317.D 200 =F601202319.D
 500 =F601202321.D

Compound	1	10	50	100	200	500	Avg	%RSD
1) I 5-alpha-androstane	-----ISTD-----							
2) t n-Octane (C8)	0.822	0.859	0.890	0.837	0.801		0.842	4.10
3) t n-Nonane (C9)	0.834	0.869	0.907	0.850	0.812		0.854	4.21
4) t n-Decane (C10)	0.856	0.890	0.920	0.877	0.844		0.877	3.37
5) t n-Undecane (C11)	0.855	0.889	0.929	0.874	0.843		0.878	3.83
6) t n-Dodecane (C12)	0.878	0.901	0.928	0.882	0.850		0.888	3.26
7) t n-Tridecane (C13)	0.884	0.907	0.936	0.882	0.850		0.892	3.60
8) t 1380	0.915	0.936	0.955	0.904	0.870		0.916	3.54
9) t n-Tetradecane (C14)	0.915	0.936	0.955	0.904	0.870		0.916	3.54
10) t 1470	0.928	0.944	0.950	0.909	0.874		0.921	3.35
11) t n-Pentadecane (C15)	0.928	0.944	0.950	0.909	0.874		0.921	3.35
12) t n-Hexadecane (C16)	0.927	0.940	0.969	0.902	0.867		0.921	4.21
13) t 1650	0.941	0.955	0.980	0.915	0.880		0.934	4.13
14) t n-Heptadecane (C17)	0.941	0.955	0.980	0.915	0.880		0.934	4.13
15) t Pristane	0.962	0.975	0.996	0.930	0.892		0.951	4.30
16) t n-Octadecane (C18)	0.955	0.969	0.990	0.925	0.890		0.946	4.13
17) t Phytane	0.889	0.902	0.927	0.857	0.826		0.880	4.46
18) t n-Nonadecane (C19)	0.963	0.979	0.987	0.928	0.896		0.951	4.01
19) s ortho-terphenyl	1.066	1.034	1.145	1.015	0.982	1.061	1.050	5.29
20) t n-Eicosane (C20)	0.974	0.986	1.009	0.935	0.903		0.961	4.40
21) t n-Heneicosane (C21)	0.978	0.994	1.004	0.940	0.907		0.965	4.17
22) t n-Docosane (C22)	0.986	0.997	1.023	0.940	0.906		0.971	4.82
23) t n-Tricosane (C23)	0.984	0.999	1.024	0.941	0.906		0.971	4.84
24) s d50-Tetracosane	0.876	0.849	0.938	0.819	0.789	0.860	0.855	5.99
25) t n-Tetracosane (C24)	0.981	0.998	0.974	0.939	0.902		0.959	3.98
26) t n-Pentacosane (C25)	0.970	0.984	1.010	0.925	0.888		0.955	5.12
27) t n-Hexacosane (C26)	0.991	1.013	1.040	0.949	0.910		0.981	5.26
28) t n-Heptacosane (C27)	0.994	1.014	1.003	0.948	0.909		0.974	4.52
29) t n-Octacosane (C28)	1.020	1.036	1.049	0.968	0.928		1.000	5.04
30) t n-Nonacosane (C29)	1.008	1.030	1.037	0.957	0.923		0.991	4.96
31) t n-Triacontane (C30)	1.010	1.032	1.038	0.957	0.927		0.993	4.91
32) t n-Hentriacontane (C31)	0.972	0.993	1.003	0.919	0.895		0.957	4.94
33) t n-Dotriacontane (C32)	1.019	1.041	1.050	0.960	0.943		1.003	4.82
34) t n-Tritriacontane (C33)	0.983	1.008	1.011	0.931	0.919		0.970	4.45
35) t n-tetratriacontane (C34)	0.988	1.001	1.007	0.925	0.917		0.967	4.45
36) t n-Pentatriacontane (C35)	0.910	0.935	1.017	0.865	0.856		0.917	7.05



Initial Calibration Summary

Form 6

Petroleum

Client : Anchor QEA, LLC
Project Name : GASCO HYDROCARBON INVESTIGATION
Instrument ID : FID6
Calibration dates : 01/20/23 18:43 01/21/23 02:00
Lab Number : L2320537
Project Number : 000029-02.78 T12A
Ical Ref : ICAL19796

Calibration Files

1 =F601202311.D 10 =F601202313.D 50 =F601202315.D 100 =F601202317.D 200 =F601202319.D
 500 =F601202321.D

Compound	1	10	50	100	200	500	Avg	%RSD
37) t n-Hexatriacontane (C36)	1.112	1.124	1.097	1.045	1.025		1.081	3.99
38) t n-Heptatriacontane (C37)	1.002	1.022	1.014	0.954	0.920		0.982	4.44
39) t n-Octatriacontane (C38)	1.042	1.034	1.051	0.970	0.917		1.003	5.74
40) t n-Nonatriacontane	0.989	1.019	1.062	0.962	0.873		0.981	7.20
41) t n-Tetracontane (C40)	0.989	1.019	1.062	0.962	0.873		0.981	7.20
42) h C9-C44 Total	0.961	0.979	0.997	0.926	0.893		0.951	4.39
43) h C10-C25 DRO	0.961	0.979	0.997	0.926	0.893		0.951	4.39
44) h C25-C44 ORO	0.961	0.979	0.997	0.926	0.893		0.951	4.39
45) h C9-C40 Total	0.961	0.979	0.997	0.926	0.893		0.951	4.39
46) h C10-C28 DRO	0.946	0.965	0.983	0.920	0.885		0.940	4.08
47) h C8-C40 Total	0.961	0.979	0.997	0.926	0.893		0.951	4.39
48) h C28-C40 ORO	1.005	1.023	1.036	0.951	0.920		0.987	5.00
49) h Total Resolve	0.961	0.979	0.997	0.926	0.893		0.951	4.39



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Instrument ID : FID6 Lab File ID : F604242305 Sample No : WG1770521-1 Channel :	Lab Number : L2320537 Project Number : 000029-02.78 T12A Calibration Date : 04/24/23 12:58 Init. Calib. Date(s) : 01/20/23 01/21/23 Init. Calib. Times : 18:43 02:00
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Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	143	0
n-Octane (C8)	0.842	0.82	.05	2.6	25	136	0
n-Nonane (C9)	0.854	0.858	.05	-0.5	25	140	0
n-Decane (C10)	0.877	0.902	.05	-2.9	25	145	0
n-Undecane (C11)	0.878	0.918	.05	-4.6	25	146	0
n-Dodecane (C12)	0.888	0.922	.05	-3.8	25	147	0
n-Tridecane (C13)	0.892	0.932	.05	-4.5	25	147	0
n-Tetradecane (C14)	0.916	0.955	.05	-4.3	25	148	0
n-Pentadecane (C15)	0.921	0.952	.05	-3.4	25	148	0
n-Hexadecane (C16)	0.921	0.97	.05	-5.3	25	148	0
n-Heptadecane (C17)	0.934	0.974	.05	-4.3	25	147	0
Pristane	0.951	0.996	.05	-4.7	25	148	0
n-Octadecane (C18)	0.946	0.983	.05	-3.9	25	147	0
Phytane	0.88	0.925	.05	-5.1	25	148	0
n-Nonadecane (C19)	0.951	0.977	.05	-2.7	25	147	0
ortho-terphenyl	1.05	1.111	.05	-5.8	25	144	0
n-Eicosane (C20)	0.961	0.993	.05	-3.3	25	146	0
n-Heneicosane (C21)	0.965	0.983	.05	-1.9	25	145	0
n-Docosane (C22)	0.971	0.996	.05	-2.6	25	144	0
n-Tricosane (C23)	0.971	0.992	.05	-2.2	25	143	0
d50-Tetracosane	0.855	0.823	.05	3.7	25	130	0
n-Tetracosane (C24)	0.959	0.937	.05	2.3	25	142	0
n-Pentacosane (C25)	0.955	0.967	.05	-1.3	25	142	0
n-Hexacosane (C26)	0.981	0.993	.05	-1.2	25	141	0
n-Heptacosane (C27)	0.974	0.956	.05	1.8	25	141	0
n-Octacosane (C28)	1	0.994	.05	0.6	25	140	0
n-Nonacosane (C29)	0.991	0.985	.05	0.6	25	141	0
n-Triacontane (C30)	0.993	0.985	.05	0.8	25	140	0
n-Hentriacontane (C31)	0.957	0.955	.05	0.2	25	141	0
n-Dotriacontane (C32)	1.003	0.998	.05	0.5	25	141	0
n-Tritriacontane (C33)	0.97	0.961	.05	0.9	25	141	0
n-tetratriacontane (C34)	0.967	0.954	.05	1.3	25	140	0
n-Pentatriacontane (C35)	0.917	0.963	.05	-5	25	140	0
n-Hexatriacontane (C36)	1.081	1.034	.05	4.3	25	140	0
n-Heptatriacontane (C37)	0.982	0.948	.05	3.5	25	138	0
n-Octatriacontane (C38)	1.003	0.98	.05	2.3	25	138	0
n-Tetracontane (C40)	0.981	0.982	.05	-0.1	25	137	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Instrument ID : FID6 Lab File ID : F604242335 Sample No : WG1770521-2 Channel :	Lab Number : L2320537 Project Number : 000029-02.78 T12A Calibration Date : 04/25/23 10:46 Init. Calib. Date(s) : 01/20/23 01/21/23 Init. Calib. Times : 18:43 02:00
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Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	155	0
n-Octane (C8)	0.842	0.779	.05	7.5	25	141	0
n-Nonane (C9)	0.854	0.832	.05	2.6	25	148	0
n-Decane (C10)	0.877	0.891	.05	-1.6	25	156	0
n-Undecane (C11)	0.878	0.915	.05	-4.2	25	158	0
n-Dodecane (C12)	0.888	0.924	.05	-4.1	25	160	0
n-Tridecane (C13)	0.892	0.938	.05	-5.2	25	161	0
n-Tetradecane (C14)	0.916	0.962	.05	-5	25	162	0
n-Pentadecane (C15)	0.921	0.959	.05	-4.1	25	162	0
n-Hexadecane (C16)	0.921	0.982	.05	-6.6	25	163	0
n-Heptadecane (C17)	0.934	0.987	.05	-5.7	25	162	0
Pristane	0.951	1.011	.05	-6.3	25	163	0
n-Octadecane (C18)	0.946	0.995	.05	-5.2	25	162	0
Phytane	0.88	0.935	.05	-6.3	25	162	0
n-Nonadecane (C19)	0.951	0.988	.05	-3.9	25	161	0
ortho-terphenyl	1.05	1.122	.05	-6.9	25	158	0
n-Eicosane (C20)	0.961	0.999	.05	-4	25	159	0
n-Heneicosane (C21)	0.965	0.983	.05	-1.9	25	157	0
n-Docosane (C22)	0.971	0.997	.05	-2.7	25	157	0
n-Tricosane (C23)	0.971	0.993	.05	-2.3	25	156	0
d50-Tetracosane	0.855	0.823	.05	3.7	25	141	0
n-Tetracosane (C24)	0.959	0.938	.05	2.2	25	155	0
n-Pentacosane (C25)	0.955	0.963	.05	-0.8	25	153	0
n-Hexacosane (C26)	0.981	0.984	.05	-0.3	25	152	0
n-Heptacosane (C27)	0.974	0.945	.05	3	25	152	0
n-Octacosane (C28)	1	0.982	.05	1.8	25	151	0
n-Nonacosane (C29)	0.991	0.971	.05	2	25	150	0
n-Triacontane (C30)	0.993	0.971	.05	2.2	25	150	0
n-Hentriacontane (C31)	0.957	0.944	.05	1.4	25	151	0
n-Dotriacontane (C32)	1.003	0.989	.05	1.4	25	151	0
n-Tritriacontane (C33)	0.97	0.954	.05	1.6	25	152	0
n-tetratriacontane (C34)	0.967	0.946	.05	2.2	25	151	0
n-Pentatriacontane (C35)	0.917	0.957	.05	-4.4	25	151	0
n-Hexatriacontane (C36)	1.081	1.021	.05	5.6	25	150	0
n-Heptatriacontane (C37)	0.982	0.939	.05	4.4	25	149	0
n-Octatriacontane (C38)	1.003	0.963	.05	4	25	147	0
n-Tetracontane (C40)	0.981	0.963	.05	1.8	25	146	-.01

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Instrument ID : FID6 Lab File ID : F604272305 Sample No : WG1772076-1 Channel :	Lab Number : L2320537 Project Number : 000029-02.78 T12A Calibration Date : 04/27/23 12:23 Init. Calib. Date(s) : 01/20/23 01/21/23 Init. Calib. Times : 18:43 02:00
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Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	154	0
n-Octane (C8)	0.842	0.795	.05	5.6	25	142	0
n-Nonane (C9)	0.854	0.837	.05	2	25	147	0
n-Decane (C10)	0.877	0.893	.05	-1.8	25	155	0
n-Undecane (C11)	0.878	0.913	.05	-4	25	157	0
n-Dodecane (C12)	0.888	0.923	.05	-3.9	25	158	0
n-Tridecane (C13)	0.892	0.941	.05	-5.5	25	160	0
n-Tetradecane (C14)	0.916	0.961	.05	-4.9	25	160	0
n-Pentadecane (C15)	0.921	0.963	.05	-4.6	25	162	0
n-Hexadecane (C16)	0.921	0.983	.05	-6.7	25	162	0
n-Heptadecane (C17)	0.934	0.989	.05	-5.9	25	161	0
Pristane	0.951	1.015	.05	-6.7	25	162	0
n-Octadecane (C18)	0.946	0.996	.05	-5.3	25	160	0
Phytane	0.88	0.94	.05	-6.8	25	162	0
n-Nonadecane (C19)	0.951	0.993	.05	-4.4	25	161	0
ortho-terphenyl	1.05	1.125	.05	-7.1	25	157	0
n-Eicosane (C20)	0.961	1.009	.05	-5	25	159	0
n-Heneicosane (C21)	0.965	0.996	.05	-3.2	25	158	0
n-Docosane (C22)	0.971	1.005	.05	-3.5	25	157	0
n-Tricosane (C23)	0.971	0.997	.05	-2.7	25	155	0
d50-Tetracosane	0.855	0.825	.05	3.5	25	140	0
n-Tetracosane (C24)	0.959	0.94	.05	2	25	154	0
n-Pentacosane (C25)	0.955	0.965	.05	-1	25	152	0
n-Hexacosane (C26)	0.981	0.986	.05	-0.5	25	151	0
n-Heptacosane (C27)	0.974	0.946	.05	2.9	25	150	0
n-Octacosane (C28)	1	0.982	.05	1.8	25	149	0
n-Nonacosane (C29)	0.991	0.972	.05	1.9	25	149	0
n-Triacontane (C30)	0.993	0.972	.05	2.1	25	149	0
n-Hentriacontane (C31)	0.957	0.943	.05	1.5	25	150	0
n-Dotriacontane (C32)	1.003	0.987	.05	1.6	25	150	0
n-Tritriacontane (C33)	0.97	0.951	.05	2	25	150	0
n-tetratriacontane (C34)	0.967	0.944	.05	2.4	25	150	0
n-Pentatriacontane (C35)	0.917	0.95	.05	-3.6	25	149	0
n-Hexatriacontane (C36)	1.081	1.014	.05	6.2	25	147	0
n-Heptatriacontane (C37)	0.982	0.931	.05	5.2	25	147	0
n-Octatriacontane (C38)	1.003	0.957	.05	4.6	25	145	0
n-Tetracontane (C40)	0.981	0.955	.05	2.7	25	143	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC	Lab Number : L2320537
Project Name : GASCO HYDROCARBON INVESTIGATION	Project Number : 000029-02.78 T12A
Instrument ID : FID6	Calibration Date : 04/28/23 01:27
Lab File ID : F604272323	Init. Calib. Date(s) : 01/20/23 01/21/23
Sample No : WG1772076-2	Init. Calib. Times : 18:43 02:00
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	154	0
n-Octane (C8)	0.842	0.785	.05	6.8	25	141	0
n-Nonane (C9)	0.854	0.838	.05	1.9	25	148	0
n-Decane (C10)	0.877	0.899	.05	-2.5	25	156	0
n-Undecane (C11)	0.878	0.919	.05	-4.7	25	158	0
n-Dodecane (C12)	0.888	0.928	.05	-4.5	25	160	0
n-Tridecane (C13)	0.892	0.945	.05	-5.9	25	161	0
n-Tetradecane (C14)	0.916	0.966	.05	-5.5	25	162	0
n-Pentadecane (C15)	0.921	0.964	.05	-4.7	25	162	0
n-Hexadecane (C16)	0.921	0.984	.05	-6.8	25	162	0
n-Heptadecane (C17)	0.934	0.987	.05	-5.7	25	161	0
Pristane	0.951	1.018	.05	-7	25	163	0
n-Octadecane (C18)	0.946	0.996	.05	-5.3	25	161	0
Phytane	0.88	0.942	.05	-7	25	162	0
n-Nonadecane (C19)	0.951	0.994	.05	-4.5	25	161	0
ortho-terphenyl	1.05	1.125	.05	-7.1	25	157	0
n-Eicosane (C20)	0.961	1.012	.05	-5.3	25	160	0
n-Heneicosane (C21)	0.965	1.002	.05	-3.8	25	159	0
n-Docosane (C22)	0.971	1.011	.05	-4.1	25	158	0
n-Tricosane (C23)	0.971	1.005	.05	-3.5	25	157	0
d50-Tetracosane	0.855	0.832	.05	2.7	25	142	0
n-Tetracosane (C24)	0.959	0.947	.05	1.3	25	155	0
n-Pentacosane (C25)	0.955	0.975	.05	-2.1	25	154	0
n-Hexacosane (C26)	0.981	0.998	.05	-1.7	25	153	0
n-Heptacosane (C27)	0.974	0.957	.05	1.7	25	152	0
n-Octacosane (C28)	1	0.996	.05	0.4	25	152	0
n-Nonacosane (C29)	0.991	0.984	.05	0.7	25	151	0
n-Triacontane (C30)	0.993	0.984	.05	0.9	25	151	0
n-Hentriacontane (C31)	0.957	0.953	.05	0.4	25	152	0
n-Dotriacontane (C32)	1.003	0.998	.05	0.5	25	152	0
n-Tritriacontane (C33)	0.97	0.961	.05	0.9	25	152	0
n-tetratriacontane (C34)	0.967	0.955	.05	1.2	25	152	0
n-Pentatriacontane (C35)	0.917	0.96	.05	-4.7	25	151	0
n-Hexatriacontane (C36)	1.081	1.027	.05	5	25	150	0
n-Heptatriacontane (C37)	0.982	0.94	.05	4.3	25	148	0
n-Octatriacontane (C38)	1.003	0.966	.05	3.7	25	147	0
n-Tetracontane (C40)	0.981	0.956	.05	2.5	25	144	-.01

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Instrument ID : FID17 Lab File ID : F1705042306 Sample No : WG1772076-3 Channel :	Lab Number : L2320537 Project Number : 000029-02.78 T12A Calibration Date : 05/04/23 12:23 Init. Calib. Date(s) : 01/03/23 01/04/23 Init. Calib. Times : 17:12 00:42
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Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	91	0
n-Octane (C8)	0.817	0.797	.05	2.4	25	93	0
n-Nonane (C9)	0.85	0.833	.05	2	25	94	0
n-Decane (C10)	0.885	0.889	.05	-0.5	25	97	0
n-Undecane (C11)	0.887	0.902	.05	-1.7	25	97	0
n-Dodecane (C12)	0.895	0.91	.05	-1.7	25	97	0
n-Tridecane (C13)	0.899	0.922	.05	-2.6	25	98	0
n-Tetradecane (C14)	0.923	0.943	.05	-2.2	25	98	0
n-Pentadecane (C15)	0.927	0.94	.05	-1.4	25	98	0
n-Hexadecane (C16)	0.924	0.96	.05	-3.9	25	99	0
n-Heptadecane (C17)	0.937	0.971	.05	-3.6	25	99	0
Pristane	0.947	0.988	.05	-4.3	25	100	0
n-Octadecane (C18)	0.944	0.982	.05	-4	25	100	0
Phytane	0.88	0.919	.05	-4.4	25	100	0
n-Nonadecane (C19)	0.944	0.98	.05	-3.8	25	100	0
ortho-terphenyl	1.061	1.093	.05	-3	25	95	0
n-Eicosane (C20)	0.951	0.999	.05	-5	25	101	0
n-Heneicosane (C21)	0.952	0.995	.05	-4.5	25	101	0
n-Docosane (C22)	0.954	1.011	.05	-6	25	101	0
n-Tricosane (C23)	0.955	1.011	.05	-5.9	25	101	0
d50-Tetracosane	0.83	0.874	.05	-5.3	25	97	0
n-Tetracosane (C24)	0.939	0.961	.05	-2.3	25	102	0
n-Pentacosane (C25)	0.933	0.998	.05	-7	25	102	0
n-Hexacosane (C26)	0.956	1.028	.05	-7.5	25	102	0
n-Heptacosane (C27)	0.948	0.99	.05	-4.4	25	102	0
n-Octacosane (C28)	0.97	1.03	.05	-6.2	25	102	0
n-Nonacosane (C29)	0.962	1.025	.05	-6.5	25	102	0
n-Triacontane (C30)	0.963	1.026	.05	-6.5	25	102	0
n-Hentriacontane (C31)	0.929	0.992	.05	-6.8	25	102	0
n-Dotriacontane (C32)	0.972	1.039	.05	-6.9	25	102	0
n-Tritriacontane (C33)	0.94	0.997	.05	-6.1	25	102	0
n-tetratriacontane (C34)	0.933	0.992	.05	-6.3	25	102	0
n-Pentatriacontane (C35)	0.887	0.998	.05	-12.5	25	102	0
n-Hexatriacontane (C36)	1.039	1.072	.05	-3.2	25	102	0
n-Heptatriacontane (C37)	0.953	0.984	.05	-3.3	25	102	0
n-Octatriacontane (C38)	0.967	1.015	.05	-5	25	102	0
n-Tetracontane (C40)	0.954	1.018	.05	-6.7	25	102	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Anchor QEA, LLC Project Name : GASCO HYDROCARBON INVESTIGATION Instrument ID : FID17 Lab File ID : F1705042314 Sample No : WG1772076-4 Channel :	Lab Number : L2320537 Project Number : 000029-02.78 T12A Calibration Date : 05/04/23 18:13 Init. Calib. Date(s) : 01/03/23 01/04/23 Init. Calib. Times : 17:12 00:42
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Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
5-alpha-androstane	1	1	.05	0	25	89	0
n-Octane (C8)	0.817	0.779	.05	4.7	25	89	0
n-Nonane (C9)	0.85	0.812	.05	4.5	25	90	0
n-Decane (C10)	0.885	0.876	.05	1	25	93	0
n-Undecane (C11)	0.887	0.894	.05	-0.8	25	94	0
n-Dodecane (C12)	0.895	0.904	.05	-1	25	95	0
n-Tridecane (C13)	0.899	0.918	.05	-2.1	25	95	0
n-Tetradecane (C14)	0.923	0.94	.05	-1.8	25	96	0
n-Pentadecane (C15)	0.927	0.941	.05	-1.5	25	97	0
n-Hexadecane (C16)	0.924	0.96	.05	-3.9	25	97	0
n-Heptadecane (C17)	0.937	0.969	.05	-3.4	25	97	0
Pristane	0.947	0.989	.05	-4.4	25	98	0
n-Octadecane (C18)	0.944	0.981	.05	-3.9	25	98	0
Phytane	0.88	0.919	.05	-4.4	25	98	0
n-Nonadecane (C19)	0.944	0.977	.05	-3.5	25	98	0
ortho-terphenyl	1.061	1.094	.05	-3.1	25	93	0
n-Eicosane (C20)	0.951	0.994	.05	-4.5	25	98	0
n-Heneicosane (C21)	0.952	0.994	.05	-4.4	25	99	0
n-Docosane (C22)	0.954	1.009	.05	-5.8	25	99	0
n-Tricosane (C23)	0.955	1.006	.05	-5.3	25	99	0
d50-Tetracosane	0.83	0.868	.05	-4.6	25	94	0
n-Tetracosane (C24)	0.939	0.954	.05	-1.6	25	99	0
n-Pentacosane (C25)	0.933	0.988	.05	-5.9	25	99	0
n-Hexacosane (C26)	0.956	1.016	.05	-6.3	25	99	0
n-Heptacosane (C27)	0.948	0.978	.05	-3.2	25	99	0
n-Octacosane (C28)	0.97	1.018	.05	-4.9	25	99	0
n-Nonacosane (C29)	0.962	1.011	.05	-5.1	25	99	0
n-Triacontane (C30)	0.963	1.011	.05	-5	25	99	0
n-Hentriacontane (C31)	0.929	0.978	.05	-5.3	25	99	0
n-Dotriacontane (C32)	0.972	1.023	.05	-5.2	25	99	0
n-Tritriacontane (C33)	0.94	0.983	.05	-4.6	25	99	0
n-tetratriacontane (C34)	0.933	0.974	.05	-4.4	25	98	0
n-Pentatriacontane (C35)	0.887	0.982	.05	-10.7	25	98	0
n-Hexatriacontane (C36)	1.039	1.052	.05	-1.3	25	98	0
n-Heptatriacontane (C37)	0.953	0.966	.05	-1.4	25	98	-.01
n-Octatriacontane (C38)	0.967	0.997	.05	-3.1	25	98	-.03
n-Tetracontane (C40)	0.954	0.996	.05	-4.4	25	98	-.01

* Value outside of QC limits.



Internal Standard Area and RT Summary

Form 8a

Petroleum

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Instrument ID	: FID6	Analysis Date	: 04/24/23 12:58:00
Sample No	: WG1770521-1	Lab File ID	: F604242305

	5-a-androstane		Area	RT	Area	RT
	Area	RT				
WG1770521-1	64801209	31.41				
Upper Limit	129602418	31.91				
Lower Limit	32400605	30.91				
Sample ID						
WG1769534-1 BLANK	65032156	31.41				
WG1769534-2 LCS	64314701	31.40				
WG1769534-3 LCSD	65876514	31.40				
MW2112-041723-NAPL	80551182	31.42				
MW2112-041723-NAPL DUP	79999104	31.42				
WG1770521-2 CCAL	70334454	31.41				

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

Petroleum

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATION	Project Number	: 000029-02.78 T12A
Instrument ID	: FID6	Analysis Date	: 04/27/23 12:23:00
Sample No	: WG1772076-1	Lab File ID	: F604272305

	5-a-androstane		Area	RT	Area	RT
	Area	RT				
WG1772076-1	69792146	31.41				
Upper Limit	139584292	31.91				
Lower Limit	34896073	30.91				
Sample ID						
WG1770361-1 BLANK	66502931	31.40				
WG1770361-2 LCS	68969283	31.40				
WG1770361-3 LCSD	69437155	31.40				
MW2112-041723-NET	76713760	31.45				
WG1772076-2 CCAL	69907587	31.40				

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

Petroleum

Client	: Anchor QEA, LLC	Lab Number	: L2320537
Project Name	: GASCO HYDROCARBON INVESTIGATIO	Project Number	: 000029-02.78 T12A
Instrument ID	: FID17	Analysis Date	: 05/04/23 12:23:00
Sample No	: WG1772076-3	Lab File ID	: F1705042306

	5-a-androstane		Area	RT	Area	RT	Area	RT
	Area	RT						
WG1772076-3	56446528	30.73						
Upper Limit	112893056	31.23						
Lower Limit	28223264	30.23						
Sample ID								
MW2112-041723-NET	57829674	30.73						
WG1772076-4 CCAL	55405672	30.72						

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



Alpha Report



ANALYTICAL REPORT

Lab Number:	L2320537
Client:	Anchor QEA, LLC 123 Tice Boulevard Suite 205 Woodcliff Lake, NJ 07677
ATTN:	Deborah Chiavelli
Phone:	(201) 571-0945
Project Name:	GASCO HYDROCARBON INVESTIGATIO
Project Number:	000029-02.78 T12A
Report Date:	05/09/23

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).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2320537-01	MW2112-041723-NAPL	OIL	OR	04/17/23 09:30	04/18/23
L2320537-02	MW2112-041723-NET	SHEEN NET	OR	04/17/23 09:30	04/18/23

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

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.

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

PIANO Volatile Organics

WG1774659-7 Dup: The relative percent difference for 3-methylnonane (36%) is above the RPD limit of 25%. This compound represented less than 10% of the compounds detected; therefore no further action was taken.

Alkylated PAHs

L2320537-02D: The sample has elevated detection limits due to the dilution required by the sample matrix.

Saturated Hydrocarbons

L2320537-02: The surrogate recoveries are outside the acceptance criteria for o-terphenyl (0%) and d50-tetracosane (174%), due to the sample matrix.

L2320537-02D: 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.

L2320537-02D: The surrogate recoveries are outside the acceptance criteria for o-terphenyl (0%) and d50-Tetracosane (0%), due to the dilution required to quantitate the sample.

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: 05/09/23

ORGANICS

VOLATILES

Project Name: GASCO HYDROCARBON INVESTIGATION**Lab Number:** L2320537**Project Number:** 000029-02.78 T12A**Report Date:** 05/09/23**SAMPLE RESULTS**

Lab ID: L2320537-01
 Client ID: MW2112-041723-NAPL
 Sample Location: OR

Date Collected: 04/17/23 09:30
 Date Received: 04/18/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Oil

Analytical Method: 1,8260D

Analytical Date: 05/03/23 23:36

Analyst: RAY

Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by GC/MS - Mansfield Lab						
3-Methyl-1-butene	ND		mg/kg	9.26	1.38	1
Isopentane	ND		mg/kg	9.26	1.69	1
1-Pentene	ND		mg/kg	9.26	1.69	1
2-Methyl-1-Butene	ND		mg/kg	9.26	1.44	1
Pentane	ND		mg/kg	9.26	2.89	1
trans-2-Pentene	ND		mg/kg	9.26	1.25	1
Isoprene	ND		mg/kg	9.26	1.65	1
cis-2-Pentene	ND		mg/kg	9.26	1.49	1
Tertiary Butanol	ND		mg/kg	116	15.0	1
2,2-Dimethylbutane	ND		mg/kg	9.26	2.86	1
4-Methyl-1-pentene	ND		mg/kg	9.26	1.44	1
Cyclopentane	ND		mg/kg	9.26	2.40	1
2,3-Dimethylbutane	ND		mg/kg	9.26	3.82	1
2-Methylpentane	ND		mg/kg	9.26	2.51	1
Methyl tert butyl ether	ND		mg/kg	9.26	1.91	1
3-Methylpentane	ND		mg/kg	9.26	1.47	1
1-Hexene	ND		mg/kg	9.26	1.30	1
n-Hexane	ND		mg/kg	9.26	1.52	1
Isopropyl Ether	ND		mg/kg	9.26	1.12	1
trans-2-Hexene	ND		mg/kg	9.26	1.21	1
2-Methyl-2-pentene	ND		mg/kg	9.26	1.42	1
cis-2-Hexene	ND		mg/kg	9.26	1.25	1
Ethyl-Tert-Butyl-Ether	ND		mg/kg	9.26	1.40	1
2,2-Dimethylpentane	ND		mg/kg	9.26	1.24	1
Methylcyclopentane	ND		mg/kg	9.26	1.24	1
2,4-Dimethylpentane	ND		mg/kg	9.26	1.14	1
2,2,3-Trimethylbutane	ND		mg/kg	9.26	1.25	1
1,2-Dichloroethane	ND		mg/kg	9.26	1.36	1

Project Name: GASCO HYDROCARBON INVESTIGATION**Lab Number:** L2320537**Project Number:** 000029-02.78 T12A**Report Date:** 05/09/23**SAMPLE RESULTS**

Lab ID: L2320537-01
 Client ID: MW2112-041723-NAPL
 Sample Location: OR

Date Collected: 04/17/23 09:30
 Date Received: 04/18/23
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by GC/MS - Mansfield Lab						
3,3-Dimethylpentane	ND		mg/kg	9.26	1.72	1
Cyclohexane	ND		mg/kg	9.26	1.14	1
2-Methylhexane	ND		mg/kg	9.26	1.46	1
Benzene	2.84	J	mg/kg	9.26	1.41	1
2,3-Dimethylpentane	ND		mg/kg	9.26	1.23	1
Thiophene	ND		mg/kg	9.26	1.31	1
1,1-Dimethylcyclopentane	ND		mg/kg	9.26	1.11	1
3-Methylhexane	ND		mg/kg	9.26	1.48	1
Tertiary-Amyl Methyl Ether	ND		mg/kg	9.26	1.14	1
1,3-Dimethylcyclopentane (cis)	ND		mg/kg	9.26	1.39	1
3-Ethylpentane	ND		mg/kg	9.26	1.34	1
1-Heptene/1,2-DMCP (trans)	ND		mg/kg	18.5	2.71	1
Isooctane	ND		mg/kg	9.26	1.01	1
trans-3-Heptene	ND		mg/kg	9.26	1.44	1
Heptane	ND		mg/kg	9.26	1.61	1
trans-2-Heptene	ND		mg/kg	9.26	1.18	1
cis-2-Heptene	ND		mg/kg	9.26	1.79	1
2,2-Dimethylhexane	ND		mg/kg	9.26	1.34	1
Methylcyclohexane	3.92	J	mg/kg	9.26	1.25	1
2,5-Dimethylhexane	ND		mg/kg	9.26	1.61	1
2,4-Dimethylhexane	ND		mg/kg	9.26	1.12	1
Ethylcyclopentane	ND		mg/kg	9.26	1.23	1
2,2,3-Trimethylpentane	ND		mg/kg	9.26	1.61	1
2,3,4-Trimethylpentane	2.12	J	mg/kg	9.26	1.21	1
2,3,3-Trimethylpentane	2.11	J	mg/kg	9.26	1.84	1
2,3-Dimethylhexane	ND		mg/kg	9.26	2.24	1
2-Methylheptane	3.61	J	mg/kg	9.26	1.56	1
4-Methylheptane	ND		mg/kg	9.26	1.59	1
3-Methylheptane	ND		mg/kg	9.26	1.32	1
3-Ethylhexane	ND		mg/kg	9.26	1.66	1
Toluene	ND		mg/kg	9.26	1.25	1
2-Methylthiophene	ND		mg/kg	9.26	0.787	1
1,4-Dimethylcyclohexane (trans)	9.60		mg/kg	9.26	1.20	1
3-Methylthiophene	ND		mg/kg	9.26	1.08	1
1-Octene	ND		mg/kg	23.1	1.42	1
Octane	ND		mg/kg	9.26	1.09	1
1,2-Dimethylcyclohexane (trans)	21.3		mg/kg	9.26	1.36	1



Project Name: GASCO HYDROCARBON INVESTIGATION

Lab Number: L2320537

Project Number: 000029-02.78 T12A

Report Date: 05/09/23

SAMPLE RESULTS

Lab ID: L2320537-01
 Client ID: MW2112-041723-NAPL
 Sample Location: OR

Date Collected: 04/17/23 09:30
 Date Received: 04/18/23
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by GC/MS - Mansfield Lab						
1,2-Dibromoethane	ND		mg/kg	9.26	1.48	1
cis-2-Octene	ND		mg/kg	9.26	1.06	1
Isopropylcyclopentane	ND		mg/kg	9.26	1.36	1
1,2-Dimethylcyclohexane (cis)	15.2		mg/kg	9.26	2.69	1
2,5-Dimethylheptane	8.06	J	mg/kg	9.26	1.55	1
3,5-Dimethylheptane	3.02	J	mg/kg	9.26	1.30	1
3,3-Dimethylheptane	1.27	J	mg/kg	9.26	1.12	1
1,1,4-Trimethylcyclohexane	ND		mg/kg	9.26	0.921	1
2,3-Dimethylheptane	24.3		mg/kg	9.26	1.06	1
3,4-Dimethylheptane	10.2		mg/kg	9.26	1.57	1
4-Methyloctane	6.52	J	mg/kg	9.26	1.55	1
2-Methyloctane	6.80	J	mg/kg	9.26	2.37	1
Ethylbenzene	ND		mg/kg	9.26	1.00	1
2-Ethylthiophene	ND		mg/kg	9.26	0.815	1
3-Methyloctane	16.9		mg/kg	9.26	1.04	1
3,3-Diethylpentane	ND		mg/kg	9.26	1.08	1
p/m-Xylene	2.68	J	mg/kg	18.5	1.76	1
1-Nonene	ND		mg/kg	23.1	1.25	1
trans-3-Nonene	ND		mg/kg	9.26	1.10	1
cis-3-Nonene	ND		mg/kg	9.26	1.73	1
Nonane (C9)	ND		mg/kg	9.26	1.44	1
Styrene	ND		mg/kg	9.26	0.935	1
o-Xylene	2.51	J	mg/kg	9.26	0.968	1
Xylene (Total) ¹	5.19	J	mg/kg	9.26	0.968	1
2-Nonene	ND		mg/kg	23.1	1.18	1
Isopropylcyclohexane	ND		mg/kg	9.26	0.981	1
Isopropylbenzene	14.7		mg/kg	9.26	0.866	1
3,3-Dimethyloctane	6.24	J	mg/kg	9.26	0.935	1
n-Propylbenzene	7.69	J	mg/kg	9.26	0.819	1
2-Methylnonane	ND		mg/kg	9.26	1.31	1
3-Methylnonane	14.4		mg/kg	9.26	1.29	1
1-Methyl-3-Ethylbenzene	ND		mg/kg	9.26	1.46	1
1-Methyl-4-Ethylbenzene	ND		mg/kg	9.26	1.30	1
1,3,5-Trimethylbenzene	1.62	J	mg/kg	9.26	1.06	1
1-Decene	ND		mg/kg	9.26	1.20	1
Isobutylcyclohexane	ND		mg/kg	9.26	0.755	1
1-Methyl-2-Ethylbenzene	7.76	J	mg/kg	9.26	0.787	1

Project Name: GASCO HYDROCARBON INVESTIGATION**Lab Number:** L2320537**Project Number:** 000029-02.78 T12A**Report Date:** 05/09/23**SAMPLE RESULTS**

Lab ID: L2320537-01
 Client ID: MW2112-041723-NAPL
 Sample Location: OR

Date Collected: 04/17/23 09:30
 Date Received: 04/18/23
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by GC/MS - Mansfield Lab						
Decane (C10)	10.7		mg/kg	9.26	1.25	1
tert-Butylbenzene	2.74	J	mg/kg	9.26	0.977	1
1,2,4-Trimethylbenzene	2.60	J	mg/kg	9.26	0.958	1
Isobutylbenzene	11.4		mg/kg	9.26	1.25	1
sec-Butylbenzene	21.3		mg/kg	9.26	1.20	1
1-Methyl-3-Isopropylbenzene	ND		mg/kg	9.26	1.19	1
1-Methyl-4-Isopropylbenzene	ND		mg/kg	9.26	0.981	1
1,2,3-Trimethylbenzene	ND		mg/kg	9.26	1.03	1
1-Methyl-2-Isopropylbenzene	7.04	J	mg/kg	9.26	1.00	1
Indane	9.89		mg/kg	9.26	0.569	1
1,3-Diethylbenzene	35.0		mg/kg	9.26	1.15	1
1-Methyl-3-N-Propylbenzene	ND		mg/kg	9.26	0.935	1
Indene	2.31	J	mg/kg	9.26	0.537	1
1-Methyl-4-N-Propylbenzene	5.65	J	mg/kg	9.26	1.16	1
n-Butylbenzene	20.6		mg/kg	9.26	0.912	1
1,2-Dimethyl-4-Ethylbenzene	ND		mg/kg	9.26	1.13	1
1,2-Diethylbenzene	23.8		mg/kg	9.26	1.37	1
1-Methyl-2-N-Propylbenzene	ND		mg/kg	9.26	1.15	1
1,4-Dimethyl-2-Ethylbenzene	ND		mg/kg	9.26	0.866	1
Undecane	45.0		mg/kg	9.26	1.03	1
1,3-Dimethyl-4-Ethylbenzene	ND		mg/kg	9.26	0.898	1
1,3-Dimethyl-5-Ethylbenzene	41.3		mg/kg	9.26	1.09	1
1,3-Dimethyl-2-Ethylbenzene	28.0		mg/kg	9.26	0.690	1
1,2-Dimethyl-3-Ethylbenzene	ND		mg/kg	9.26	0.588	1
1,2,4,5-Tetramethylbenzene	154		mg/kg	9.26	0.718	1
1,2,3,5-Tetramethylbenzene	ND		mg/kg	9.26	0.704	1
N-Pentylbenzene	15.1		mg/kg	9.26	1.15	1
1,2,3,4-Tetramethylbenzene	ND		mg/kg	9.26	0.991	1
1,3-Dimethyl-5-tert-Butylbenzene	ND		mg/kg	9.26	1.32	1
Dodecane (C12)	ND		mg/kg	23.1	3.04	1
1,3,5-Triethylbenzene	ND		mg/kg	9.26	1.76	1
Naphthalene	13.3		mg/kg	9.26	3.86	1
Benzothiophene	ND		mg/kg	9.26	4.89	1
1,2,4-Triethylbenzene	25.2		mg/kg	9.26	1.57	1
Hexylbenzene	ND		mg/kg	9.26	1.78	1
MMT	ND		mg/kg	23.1	5.95	1
Tridecane	47.6		mg/kg	23.1	6.45	1

Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

SAMPLE RESULTS

Lab ID: L2320537-01
Client ID: MW2112-041723-NAPL
Sample Location: OR

Date Collected: 04/17/23 09:30
Date Received: 04/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PIANO Volatile Organics by GC/MS - Mansfield Lab						
2-Methylnaphthalene	ND		mg/kg	23.1	6.12	1
1-Methylnaphthalene	ND		mg/kg	23.1	6.80	1
Tetradecane (C14)	ND		mg/kg	23.1	2.83	1
Pentadecane	ND		mg/kg	23.1	5.16	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Dibromofluoromethane	123		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	86		70-130

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D
 Analytical Date: 05/02/23 17:19
 Analyst: RAY

Parameter	Result	Qualifier	Units	RL	MDL
PIANO Volatile Organics by GC/MS - Mansfield Lab for sample(s): 01 Batch: WG1774659-6					
3-Methyl-1-butene	ND		mg/kg	10.0	1.48
Isopentane	ND		mg/kg	10.0	1.83
1-Pentene	ND		mg/kg	10.0	1.82
2-Methyl-1-Butene	ND		mg/kg	10.0	1.56
Pentane	ND		mg/kg	10.0	3.12
trans-2-Pentene	ND		mg/kg	10.0	1.35
Isoprene	ND		mg/kg	10.0	1.78
cis-2-Pentene	ND		mg/kg	10.0	1.61
Tertiary Butanol	ND		mg/kg	125	16.2
2,2-Dimethylbutane	ND		mg/kg	10.0	3.08
4-Methyl-1-pentene	ND		mg/kg	10.0	1.56
Cyclopentane	ND		mg/kg	10.0	2.60
2,3-Dimethylbutane	ND		mg/kg	10.0	4.13
2-Methylpentane	ND		mg/kg	10.0	2.71
Methyl tert butyl ether	ND		mg/kg	10.0	2.06
3-Methylpentane	ND		mg/kg	10.0	1.58
1-Hexene	ND		mg/kg	10.0	1.40
n-Hexane	ND		mg/kg	10.0	1.64
Isopropyl Ether	ND		mg/kg	10.0	1.21
trans-2-Hexene	ND		mg/kg	10.0	1.30
2-Methyl-2-pentene	ND		mg/kg	10.0	1.53
cis-2-Hexene	ND		mg/kg	10.0	1.36
Ethyl-Tert-Butyl-Ether	ND		mg/kg	10.0	1.52
2,2-Dimethylpentane	ND		mg/kg	10.0	1.34
Methylcyclopentane	ND		mg/kg	10.0	1.34
2,4-Dimethylpentane	ND		mg/kg	10.0	1.24
2,2,3-Trimethylbutane	ND		mg/kg	10.0	1.35
1,2-Dichloroethane	ND		mg/kg	10.0	1.48
3,3-Dimethylpentane	ND		mg/kg	10.0	1.86

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D
 Analytical Date: 05/02/23 17:19
 Analyst: RAY

Parameter	Result	Qualifier	Units	RL	MDL
PIANO Volatile Organics by GC/MS - Mansfield Lab for sample(s): 01 Batch: WG1774659-6					
Cyclohexane	ND		mg/kg	10.0	1.24
2-Methylhexane	ND		mg/kg	10.0	1.58
Benzene	2.87	J	mg/kg	10.0	1.52
2,3-Dimethylpentane	ND		mg/kg	10.0	1.32
Thiophene	ND		mg/kg	10.0	1.42
1,1-Dimethylcyclopentane	ND		mg/kg	10.0	1.20
3-Methylhexane	ND		mg/kg	10.0	1.60
Tertiary-Amyl Methyl Ether	ND		mg/kg	10.0	1.23
1,3-Dimethylcyclopentane (cis)	ND		mg/kg	10.0	1.50
3-Ethylpentane	ND		mg/kg	10.0	1.44
1-Heptene/1,2-DMCP (trans)	ND		mg/kg	20.0	2.92
Isooctane	ND		mg/kg	10.0	1.09
trans-3-Heptene	ND		mg/kg	10.0	1.56
Heptane	ND		mg/kg	10.0	1.74
trans-2-Heptene	ND		mg/kg	10.0	1.28
cis-2-Heptene	ND		mg/kg	10.0	1.94
2,2-Dimethylhexane	ND		mg/kg	10.0	1.45
Methylcyclohexane	ND		mg/kg	10.0	1.35
2,5-Dimethylhexane	ND		mg/kg	10.0	1.74
2,4-Dimethylhexane	ND		mg/kg	10.0	1.22
Ethylcyclopentane	ND		mg/kg	10.0	1.32
2,2,3-Trimethylpentane	ND		mg/kg	10.0	1.74
2,3,4-Trimethylpentane	ND		mg/kg	10.0	1.30
2,3,3-Trimethylpentane	ND		mg/kg	10.0	1.98
2,3-Dimethylhexane	ND		mg/kg	10.0	2.42
2-Methylheptane	ND		mg/kg	10.0	1.69
4-Methylheptane	ND		mg/kg	10.0	1.72
3-Methylheptane	ND		mg/kg	10.0	1.42
3-Ethylhexane	ND		mg/kg	10.0	1.79

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D
 Analytical Date: 05/02/23 17:19
 Analyst: RAY

Parameter	Result	Qualifier	Units	RL	MDL
PIANO Volatile Organics by GC/MS - Mansfield Lab for sample(s): 01 Batch: WG1774659-6					
Toluene	ND		mg/kg	10.0	1.36
2-Methylthiophene	ND		mg/kg	10.0	0.850
1,4-Dimethylcyclohexane (trans)	ND		mg/kg	10.0	1.30
3-Methylthiophene	ND		mg/kg	10.0	1.17
1-Octene	ND		mg/kg	25.0	1.54
Octane	ND		mg/kg	10.0	1.18
1,2-Dimethylcyclohexane (trans)	ND		mg/kg	10.0	1.47
1,2-Dibromoethane	ND		mg/kg	10.0	1.60
cis-2-Octene	ND		mg/kg	10.0	1.14
Isopropylcyclopentane	ND		mg/kg	10.0	1.46
1,2-Dimethylcyclohexane (cis)	ND		mg/kg	10.0	2.90
2,5-Dimethylheptane	ND		mg/kg	10.0	1.68
3,5-Dimethylheptane	ND		mg/kg	10.0	1.41
3,3-Dimethylheptane	ND		mg/kg	10.0	1.21
1,1,4-Trimethylcyclohexane	ND		mg/kg	10.0	0.995
2,3-Dimethylheptane	ND		mg/kg	10.0	1.14
3,4-Dimethylheptane	ND		mg/kg	10.0	1.70
4-Methyloctane	ND		mg/kg	10.0	1.67
2-Methyloctane	ND		mg/kg	10.0	2.56
Ethylbenzene	ND		mg/kg	10.0	1.08
2-Ethylthiophene	ND		mg/kg	10.0	0.880
3-Methyloctane	ND		mg/kg	10.0	1.12
3,3-Diethylpentane	ND		mg/kg	10.0	1.16
p/m-Xylene	ND		mg/kg	20.0	1.90
1-Nonene	ND		mg/kg	25.0	1.35
trans-3-Nonene	ND		mg/kg	10.0	1.18
cis-3-Nonene	ND		mg/kg	10.0	1.87
Nonane (C9)	ND		mg/kg	10.0	1.56
Styrene	ND		mg/kg	10.0	1.01

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/02/23 17:19
Analyst: RAY

Parameter	Result	Qualifier	Units	RL	MDL
PIANO Volatile Organics by GC/MS - Mansfield Lab for sample(s): 01 Batch: WG1774659-6					
o-Xylene	ND		mg/kg	10.0	1.04
Xylene (Total) ¹	ND		mg/kg	10.0	1.04
2-Nonene	ND		mg/kg	25.0	1.27
Isopropylcyclohexane	ND		mg/kg	10.0	1.06
Isopropylbenzene	ND		mg/kg	10.0	0.935
3,3-Dimethyloctane	ND		mg/kg	10.0	1.01
n-Propylbenzene	ND		mg/kg	10.0	0.885
2-Methylnonane	ND		mg/kg	10.0	1.42
3-Methylnonane	ND		mg/kg	10.0	1.40
1-Methyl-3-Ethylbenzene	ND		mg/kg	10.0	1.58
1-Methyl-4-Ethylbenzene	ND		mg/kg	10.0	1.41
1,3,5-Trimethylbenzene	ND		mg/kg	10.0	1.15
1-Decene	ND		mg/kg	10.0	1.30
Isobutylcyclohexane	ND		mg/kg	10.0	0.815
1-Methyl-2-Ethylbenzene	ND		mg/kg	10.0	0.850
Decane (C10)	ND		mg/kg	10.0	1.36
tert-Butylbenzene	ND		mg/kg	10.0	1.06
1,2,4-Trimethylbenzene	ND		mg/kg	10.0	1.04
Isobutylbenzene	ND		mg/kg	10.0	1.35
sec-Butylbenzene	ND		mg/kg	10.0	1.30
1-Methyl-3-Isopropylbenzene	ND		mg/kg	10.0	1.29
1-Methyl-4-Isopropylbenzene	ND		mg/kg	10.0	1.06
1,2,3-Trimethylbenzene	ND		mg/kg	10.0	1.12
1-Methyl-2-Isopropylbenzene	ND		mg/kg	10.0	1.08
Indane	ND		mg/kg	10.0	0.615
1,3-Diethylbenzene	ND		mg/kg	10.0	1.24
1-Methyl-3-N-Propylbenzene	ND		mg/kg	10.0	1.01
Indene	ND		mg/kg	10.0	0.580
1-Methyl-4-N-Propylbenzene	ND		mg/kg	10.0	1.25

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/02/23 17:19
Analyst: RAY

Parameter	Result	Qualifier	Units	RL	MDL
PIANO Volatile Organics by GC/MS - Mansfield Lab for sample(s): 01 Batch: WG1774659-6					
n-Butylbenzene	ND		mg/kg	10.0	0.985
1,2-Dimethyl-4-Ethylbenzene	ND		mg/kg	10.0	1.22
1,2-Diethylbenzene	ND		mg/kg	10.0	1.48
1-Methyl-2-N-Propylbenzene	ND		mg/kg	10.0	1.24
1,4-Dimethyl-2-Ethylbenzene	ND		mg/kg	10.0	0.935
Undecane	ND		mg/kg	10.0	1.11
1,3-Dimethyl-4-Ethylbenzene	ND		mg/kg	10.0	0.970
1,3-Dimethyl-5-Ethylbenzene	ND		mg/kg	10.0	1.18
1,3-Dimethyl-2-Ethylbenzene	ND		mg/kg	10.0	0.745
1,2-Dimethyl-3-Ethylbenzene	ND		mg/kg	10.0	0.635
1,2,4,5-Tetramethylbenzene	ND		mg/kg	10.0	0.775
1,2,3,5-Tetramethylbenzene	ND		mg/kg	10.0	0.760
N-Pentylbenzene	ND		mg/kg	10.0	1.24
1,2,3,4-Tetramethylbenzene	ND		mg/kg	10.0	1.07
1,3-Dimethyl-5-tert-Butylbenzene	ND		mg/kg	10.0	1.42
Dodecane (C12)	ND		mg/kg	25.0	3.28
1,3,5-Triethylbenzene	ND		mg/kg	10.0	1.90
Naphthalene	ND		mg/kg	10.0	4.18
Benzothiophene	ND		mg/kg	10.0	5.28
1,2,4-Triethylbenzene	ND		mg/kg	10.0	1.70
Hexylbenzene	ND		mg/kg	10.0	1.92
MMT	ND		mg/kg	25.0	6.43
Tridecane	ND		mg/kg	25.0	6.96
2-Methylnaphthalene	ND		mg/kg	25.0	6.61
1-Methylnaphthalene	ND		mg/kg	25.0	7.34
Tetradecane (C14)	ND		mg/kg	25.0	3.06
Pentadecane	ND		mg/kg	25.0	5.58

Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/02/23 17:19
Analyst: RAY

Parameter	Result	Qualifier	Units	RL	MDL
PIANO Volatile Organics by GC/MS - Mansfield Lab for sample(s): 01 Batch: WG1774659-6					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Dibromofluoromethane	104		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	93		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATION

Lab Number: L2320537

Project Number: 000029-02.78 T12A

Report Date: 05/09/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PIANO Volatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01 Batch: WG1774659-3 WG1774659-4								
1-Pentene	76		79		50-130	4		30
Pentane	82		85		50-130	4		30
Tertiary Butanol	84		85		50-130	1		30
Cyclopentane	86		89		50-130	3		30
2-Methylpentane	89		92		50-130	3		30
Methyl tert butyl ether	80		85		50-130	6		30
3-Methylpentane	93		96		50-130	3		30
1-Hexene	93		97		50-130	4		30
n-Hexane	84		86		50-130	2		30
Isopropyl Ether	84		88		50-130	5		30
Ethyl-Tert-Butyl-Ether	84		87		50-130	4		30
Methylcyclopentane	91		92		50-130	1		30
2,4-Dimethylpentane	90		95		50-130	5		30
Cyclohexane	93		97		50-130	4		30
2-Methylhexane	92		94		50-130	2		30
Benzene	91		94		50-130	3		30
2,3-Dimethylpentane	91		94		50-130	3		30
3-Methylhexane	82		82		50-130	0		30
Tertiary-Amyl Methyl Ether	80		82		50-130	2		30
Isooctane	89		92		50-130	3		30
Heptane	92		95		50-130	3		30
Methylcyclohexane	91		93		50-130	2		30
2-Methylheptane	91		92		50-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATION

Lab Number: L2320537

Project Number: 000029-02.78 T12A

Report Date: 05/09/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PIANO Volatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01 Batch: WG1774659-3 WG1774659-4								
3-Methylheptane	87		90		50-130	3		30
Toluene	91		93		50-130	2		30
Octane	89		90		50-130	1		30
Ethylbenzene	87		89		50-130	2		30
p/m-Xylene	90		92		50-130	2		30
Nonane (C9)	82		84		50-130	2		30
o-Xylene	89		91		50-130	2		30
Isopropylbenzene	89		91		50-130	2		30
n-Propylbenzene	91		92		50-130	1		30
1-Methyl-3-Ethylbenzene	88		90		50-130	2		30
1-Methyl-4-Ethylbenzene	92		95		50-130	3		30
1,3,5-Trimethylbenzene	90		93		50-130	3		30
1-Decene	72		74		50-130	3		30
1-Methyl-2-Ethylbenzene	91		92		50-130	1		30
Decane (C10)	84		88		50-130	5		30
1,2,4-Trimethylbenzene	85		87		50-130	2		30
sec-Butylbenzene	92		95		50-130	3		30
1-Methyl-4-N-Propylbenzene	84		86		50-130	2		30
n-Butylbenzene	86		88		50-130	2		30
1,2-Diethylbenzene	85		88		50-130	3		30
Undecane	85		87		50-130	2		30
N-Pentylbenzene	84		86		50-130	2		30
Dodecane (C12)	97		100		50-130	3		30

Lab Control Sample Analysis**Batch Quality Control****Project Name:** GASCO HYDROCARBON INVESTIGATION**Lab Number:** L2320537**Project Number:** 000029-02.78 T12A**Report Date:** 05/09/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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PIANO Volatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01 Batch: WG1774659-3 WG1774659-4

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Dibromofluoromethane	102		102		70-130
Toluene-d8	104		104		70-130
4-Bromofluorobenzene	96		96		70-130

Lab Duplicate Analysis Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATIO

Project Number: 000029-02.78 T12A

Lab Number: L2320537

Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
PIANO Volatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1774659-7 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						
3-Methyl-1-butene	ND	ND	mg/kg	NC		30
Isopentane	ND	ND	mg/kg	NC		30
1-Pentene	ND	ND	mg/kg	NC		30
2-Methyl-1-Butene	ND	ND	mg/kg	NC		30
Pentane	ND	ND	mg/kg	NC		30
trans-2-Pentene	ND	ND	mg/kg	NC		30
Isoprene	ND	ND	mg/kg	NC		30
cis-2-Pentene	ND	ND	mg/kg	NC		30
Tertiary Butanol	ND	ND	mg/kg	NC		30
2,2-Dimethylbutane	ND	ND	mg/kg	NC		30
4-Methyl-1-pentene	ND	ND	mg/kg	NC		30
Cyclopentane	ND	ND	mg/kg	NC		30
2,3-Dimethylbutane	ND	ND	mg/kg	NC		30
2-Methylpentane	ND	ND	mg/kg	NC		30
Methyl tert butyl ether	ND	ND	mg/kg	NC		30
3-Methylpentane	ND	ND	mg/kg	NC		30
1-Hexene	ND	ND	mg/kg	NC		30
n-Hexane	ND	ND	mg/kg	NC		30
Isopropyl Ether	ND	ND	mg/kg	NC		30
trans-2-Hexene	ND	ND	mg/kg	NC		30
2-Methyl-2-pentene	ND	ND	mg/kg	NC		30

Lab Duplicate Analysis Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATION

Project Number: 000029-02.78 T12A

Lab Number: L2320537

Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
PIANO Volatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1774659-7 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						
cis-2-Hexene	ND	ND	mg/kg	NC		30
Ethyl-Tert-Butyl-Ether	ND	ND	mg/kg	NC		30
2,2-Dimethylpentane	ND	ND	mg/kg	NC		30
Methylcyclopentane	ND	ND	mg/kg	NC		30
2,4-Dimethylpentane	ND	ND	mg/kg	NC		30
2,2,3-Trimethylbutane	ND	ND	mg/kg	NC		30
1,2-Dichloroethane	ND	ND	mg/kg	NC		30
3,3-Dimethylpentane	ND	ND	mg/kg	NC		30
Cyclohexane	ND	ND	mg/kg	NC		30
2-Methylhexane	ND	ND	mg/kg	NC		30
Benzene	2.84J	2.82J	mg/kg	NC		30
2,3-Dimethylpentane	ND	ND	mg/kg	NC		30
Thiophene	ND	ND	mg/kg	NC		30
1,1-Dimethylcyclopentane	ND	ND	mg/kg	NC		30
3-Methylhexane	ND	ND	mg/kg	NC		30
Tertiary-Amyl Methyl Ether	ND	ND	mg/kg	NC		30
1,3-Dimethylcyclopentane (cis)	ND	ND	mg/kg	NC		30
3-Ethylpentane	ND	ND	mg/kg	NC		30
1-Heptene/1,2-DMCP (trans)	ND	ND	mg/kg	NC		30
Isooctane	ND	ND	mg/kg	NC		30
trans-3-Heptene	ND	ND	mg/kg	NC		30

Project Name: GASCO HYDROCARBON INVESTIGATION

Project Number: 000029-02.78 T12A

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L2320537

Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
PIANO Volatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1774659-7 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						
Heptane	ND	ND	mg/kg	NC		30
trans-2-Heptene	ND	ND	mg/kg	NC		30
cis-2-Heptene	ND	ND	mg/kg	NC		30
2,2-Dimethylhexane	ND	ND	mg/kg	NC		30
Methylcyclohexane	3.92J	3.47J	mg/kg	NC		30
2,5-Dimethylhexane	ND	ND	mg/kg	NC		30
2,4-Dimethylhexane	ND	ND	mg/kg	NC		30
Ethylcyclopentane	ND	ND	mg/kg	NC		30
2,2,3-Trimethylpentane	ND	ND	mg/kg	NC		30
2,3,4-Trimethylpentane	2.12J	2.00J	mg/kg	NC		30
2,3,3-Trimethylpentane	2.11J	1.98J	mg/kg	NC		30
2,3-Dimethylhexane	ND	ND	mg/kg	NC		30
2-Methylheptane	3.61J	3.84J	mg/kg	NC		30
4-Methylheptane	ND	ND	mg/kg	NC		30
3-Methylheptane	ND	ND	mg/kg	NC		30
3-Ethylhexane	ND	ND	mg/kg	NC		30
Toluene	ND	ND	mg/kg	NC		30
2-Methylthiophene	ND	ND	mg/kg	NC		30
1,4-Dimethylcyclohexane (trans)	9.60	11.6	mg/kg	19		30
3-Methylthiophene	ND	ND	mg/kg	NC		30
1-Octene	ND	ND	mg/kg	NC		30

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L2320537
Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
PIANO Volatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1774659-7 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						
Octane	ND	ND	mg/kg	NC		30
1,2-Dimethylcyclohexane (trans)	21.3	22.3	mg/kg	5		30
1,2-Dibromoethane	ND	ND	mg/kg	NC		30
cis-2-Octene	ND	ND	mg/kg	NC		30
Isopropylcyclopentane	ND	ND	mg/kg	NC		30
1,2-Dimethylcyclohexane (cis)	15.2	15.6	mg/kg	3		30
2,5-Dimethylheptane	8.06J	8.33J	mg/kg	NC		30
3,5-Dimethylheptane	3.02J	2.91J	mg/kg	NC		30
3,3-Dimethylheptane	1.27J	1.24J	mg/kg	NC		30
1,1,4-Trimethylcyclohexane	ND	ND	mg/kg	NC		30
2,3-Dimethylheptane	24.3	26.4	mg/kg	8		30
3,4-Dimethylheptane	10.2	10.5	mg/kg	3		30
4-Methyloctane	6.52J	7.50J	mg/kg	NC		30
2-Methyloctane	6.80J	5.79J	mg/kg	NC		30
Ethylbenzene	ND	ND	mg/kg	NC		30
2-Ethylthiophene	ND	ND	mg/kg	NC		30
3-Methyloctane	16.9	17.3	mg/kg	2		30
3,3-Diethylpentane	ND	ND	mg/kg	NC		30
p/m-Xylene	2.68J	2.25J	mg/kg	NC		30
1-Nonene	ND	ND	mg/kg	NC		30
trans-3-Nonene	ND	ND	mg/kg	NC		30

Lab Duplicate Analysis Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATION

Project Number: 000029-02.78 T12A

Lab Number: L2320537

Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
PIANO Volatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1774659-7 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						
cis-3-Nonene	ND	ND	mg/kg	NC		30
Nonane (C9)	ND	ND	mg/kg	NC		30
Styrene	ND	ND	mg/kg	NC		30
o-Xylene	2.51J	2.34J	mg/kg	NC		30
Xylene (Total) ¹	5.19J	4.59J	mg/kg	NC		30
2-Nonene	ND	ND	mg/kg	NC		30
Isopropylcyclohexane	ND	ND	mg/kg	NC		30
Isopropylbenzene	14.7	14.7	mg/kg	0		30
3,3-Dimethyloctane	6.24J	6.79J	mg/kg	NC		30
n-Propylbenzene	7.69J	7.38J	mg/kg	NC		30
2-Methylnonane	ND	ND	mg/kg	NC		30
3-Methylnonane	14.4	10.0	mg/kg	36	Q	30
1-Methyl-3-Ethylbenzene	ND	ND	mg/kg	NC		30
1-Methyl-4-Ethylbenzene	ND	ND	mg/kg	NC		30
1,3,5-Trimethylbenzene	1.62J	1.56J	mg/kg	NC		30
1-Decene	ND	ND	mg/kg	NC		30
Isobutylcyclohexane	ND	ND	mg/kg	NC		30
1-Methyl-2-Ethylbenzene	7.76J	7.31J	mg/kg	NC		30
Decane (C10)	10.7	ND	mg/kg	NC		30
tert-Butylbenzene	2.74J	2.84J	mg/kg	NC		30
1,2,4-Trimethylbenzene	2.60J	1.25J	mg/kg	NC		30

Lab Duplicate Analysis Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATION

Project Number: 000029-02.78 T12A

Lab Number: L2320537

Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
PIANO Volatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1774659-7 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						
Isobutylbenzene	11.4	10.6	mg/kg	7		30
sec-Butylbenzene	21.3	20.2	mg/kg	5		30
1-Methyl-3-Isopropylbenzene	ND	ND	mg/kg	NC		30
1-Methyl-4-Isopropylbenzene	ND	ND	mg/kg	NC		30
1,2,3-Trimethylbenzene	ND	ND	mg/kg	NC		30
1-Methyl-2-Isopropylbenzene	7.04J	6.96J	mg/kg	NC		30
Indane	9.89	9.73	mg/kg	2		30
1,3-Diethylbenzene	35.0	33.1	mg/kg	6		30
1-Methyl-3-N-Propylbenzene	ND	ND	mg/kg	NC		30
Indene	2.31J	2.42J	mg/kg	NC		30
1-Methyl-4-N-Propylbenzene	5.65J	5.14J	mg/kg	NC		30
n-Butylbenzene	20.6	19.3	mg/kg	7		30
1,2-Dimethyl-4-Ethylbenzene	ND	ND	mg/kg	NC		30
1,2-Diethylbenzene	23.8	22.7	mg/kg	5		30
1-Methyl-2-N-Propylbenzene	ND	1.42J	mg/kg	NC		30
1,4-Dimethyl-2-Ethylbenzene	ND	ND	mg/kg	NC		30
Undecane	45.0	40.5	mg/kg	11		30
1,3-Dimethyl-4-Ethylbenzene	ND	ND	mg/kg	NC		30
1,3-Dimethyl-5-Ethylbenzene	41.3	37.0	mg/kg	11		30
1,3-Dimethyl-2-Ethylbenzene	28.0	25.3	mg/kg	10		30
1,2-Dimethyl-3-Ethylbenzene	ND	ND	mg/kg	NC		30

Lab Duplicate Analysis Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATION

Project Number: 000029-02.78 T12A

Lab Number: L2320537

Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
PIANO Volatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1774659-7 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						
1,2,4,5-Tetramethylbenzene	154	137	mg/kg	12		30
1,2,3,5-Tetramethylbenzene	ND	ND	mg/kg	NC		30
N-Pentylbenzene	15.1	12.7	mg/kg	17		30
1,2,3,4-Tetramethylbenzene	ND	ND	mg/kg	NC		30
1,3-Dimethyl-5-tert-Butylbenzene	ND	ND	mg/kg	NC		30
Dodecane (C12)	ND	ND	mg/kg	NC		30
1,3,5-Triethylbenzene	ND	ND	mg/kg	NC		30
Naphthalene	13.3	11.6	mg/kg	14		30
Benzothiophene	ND	ND	mg/kg	NC		30
1,2,4-Triethylbenzene	25.2	ND	mg/kg	NC		30
Hexylbenzene	ND	ND	mg/kg	NC		30
MMT	ND	ND	mg/kg	NC		30
Tridecane	47.6	46.7	mg/kg	2		30
2-Methylnaphthalene	ND	ND	mg/kg	NC		30
1-Methylnaphthalene	ND	ND	mg/kg	NC		30
Tetradecane (C14)	ND	ND	mg/kg	NC		30
Pentadecane	ND	ND	mg/kg	NC		30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Dibromofluoromethane	123		123		70-130

Project Name: GASCO HYDROCARBON INVESTIGATIO

Project Number: 000029-02.78 T12A

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L2320537

Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
PIANO Volatile Organics by GC/MS - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1774659-7 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Toluene-d8	109		110		70-130
4-Bromofluorobenzene	86		85		70-130

SEMIVOLATILES

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

SAMPLE RESULTS

Lab ID: L2320537-01
Client ID: MW2112-041723-NAPL
Sample Location: OR

Date Collected: 04/17/23 09:30
Date Received: 04/18/23
Field Prep: Not Specified

Sample Depth:

Matrix: Oil
Analytical Method: 1,8270E-SIM(M)
Analytical Date: 04/26/23 18:46
Analyst: CNC
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: EPA 3580A
Extraction Date: 04/21/23 13:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
cis/trans-Decalin	536		mg/kg	1.44	0.287	1
C1-Decalins	2010		mg/kg	1.44	0.287	1
C2-Decalins	3090		mg/kg	1.44	0.287	1
C3-Decalins	1910		mg/kg	1.44	0.287	1
C4-Decalins	1980		mg/kg	1.44	0.287	1
Naphthalene	26.2		mg/kg	2.89	0.831	1
C1-Naphthalenes	38.4		mg/kg	2.89	0.831	1
C2-Naphthalenes	3350		mg/kg	2.89	0.831	1
C3-Naphthalenes	4100		mg/kg	2.89	0.831	1
C4-Naphthalenes	2110		mg/kg	2.89	0.831	1
2-Methylnaphthalene	2.32	J	mg/kg	2.89	0.745	1
1-Methylnaphthalene	45.8		mg/kg	2.89	0.910	1
Benzothiophene	3.34		mg/kg	2.89	0.905	1
C1-Benzo(b)thiophenes	191		mg/kg	2.89	0.905	1
C2-Benzo(b)thiophenes	172		mg/kg	2.89	0.905	1
C3-Benzo(b)thiophenes	336		mg/kg	2.89	0.905	1
Biphenyl	1.36	J	mg/kg	2.89	0.893	1
2,6-Dimethylnaphthalene	2360		mg/kg	2.89	0.687	1
Dibenzofuran	36.8		mg/kg	2.89	0.910	1
Acenaphthylene	24.8		mg/kg	2.89	0.551	1
Acenaphthene	471		mg/kg	2.89	0.509	1
2,3,5-Trimethylnaphthalene	617		mg/kg	2.89	0.473	1
Fluorene	403		mg/kg	2.89	0.771	1
C1-Fluorenes	617		mg/kg	2.89	0.771	1
C2-Fluorenes	755		mg/kg	2.89	0.771	1
C3-Fluorenes	531		mg/kg	2.89	0.771	1
Dibenzothiophene	13.0		mg/kg	2.89	0.797	1
C1-Dibenzothiophenes BS	251		mg/kg	2.89	0.797	1

Project Name: GASCO HYDROCARBON INVESTIGATION**Lab Number:** L2320537**Project Number:** 000029-02.78 T12A**Report Date:** 05/09/23**SAMPLE RESULTS**

Lab ID: L2320537-01
 Client ID: MW2112-041723-NAPL
 Sample Location: OR

Date Collected: 04/17/23 09:30
 Date Received: 04/18/23
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
C2-Dibenzothiophenes	298		mg/kg	2.89	0.797	1
C3-Dibenzothiophenes	198		mg/kg	2.89	0.797	1
C4-Dibenzothiophenes	96.2		mg/kg	2.89	0.797	1
Phenanthrene	8.26		mg/kg	2.89	0.958	1
C1-Phenanthrenes/Anthracenes	447		mg/kg	2.89	0.958	1
C2-Phenanthrenes/Anthr BS	851		mg/kg	2.89	0.958	1
C3-Phenanthrenes/Anthracenes	517		mg/kg	2.89	0.958	1
C4-Phenanthrenes/Anthracenes	184		mg/kg	2.89	0.958	1
Retene	ND		mg/kg	2.89	0.709	1
Anthracene	34.9		mg/kg	2.89	0.596	1
Carbazole	8.39		mg/kg	2.89	0.945	1
1-Methylphenanthrene	189		mg/kg	2.89	0.763	1
Fluoranthene	30.2		mg/kg	2.89	0.918	1
Benzo(b)fluorene	17.4		mg/kg	2.89	0.837	1
Pyrene	77.0		mg/kg	2.89	0.760	1
C1-Fluoranthenes/Pyrenes	143		mg/kg	2.89	0.760	1
C2-Fluoranthenes/Pyrenes	141		mg/kg	2.89	0.760	1
C3-Fluoranthenes/Pyrenes	91.9		mg/kg	2.89	0.760	1
C4-Fluoranthenes/Pyrenes	44.3		mg/kg	2.89	0.760	1
Naphthobenzothiophenes	15.1	J	mg/kg	2.89	0.809	1
C1-Naphthobenzothiophenes	25.3		mg/kg	2.89	0.809	1
C2-Naphthobenzothiophenes	21.8		mg/kg	2.89	0.809	1
C3-Naphthobenzothiophenes	13.1		mg/kg	2.89	0.809	1
C4-Naphthobenzothiophenes	7.97		mg/kg	2.89	0.809	1
Benz(a)anthracene	20.4		mg/kg	2.89	0.589	1
Chrysene	33.3		mg/kg	2.89	0.584	1
C1-Chrysenes	66.1		mg/kg	2.89	0.584	1
C2-Chrysenes BS	68.4		mg/kg	2.89	0.584	1
C3-Chrysenes	48.6		mg/kg	2.89	0.584	1
C4-Chrysenes	21.6		mg/kg	2.89	0.584	1
Benzo(b)fluoranthene	4.56		mg/kg	2.89	0.752	1
Benzo(j)+(k)fluoranthene	3.74		mg/kg	2.89	0.574	1
Benzo(a)fluoranthene	0.832	J	mg/kg	2.89	0.574	1
Benzo(e)pyrene	8.14		mg/kg	2.89	0.596	1
Benzo(a)pyrene	9.35		mg/kg	2.89	0.825	1
Perylene	3.00		mg/kg	2.89	0.558	1
Indeno(1,2,3-cd)pyrene	2.90		mg/kg	2.89	0.784	1

Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

SAMPLE RESULTS

Lab ID: L2320537-01
Client ID: MW2112-041723-NAPL
Sample Location: OR

Date Collected: 04/17/23 09:30
Date Received: 04/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Dibenz(a,h)+(a,c)anthracene	1.54	J	mg/kg	2.89	0.781	1
Benzo(g,h,i)perylene	5.35		mg/kg	2.89	0.768	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	85		50-130
Phenanthrene-d10	102		50-130
Benzo(a)pyrene-d12	110		50-130

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

SAMPLE RESULTS

Lab ID: L2320537-02
Client ID: MW2112-041723-NET
Sample Location: OR

Date Collected: 04/17/23 09:30
Date Received: 04/18/23
Field Prep: Not Specified

Sample Depth:

Matrix: Sheen Net
Analytical Method: 1,8270E-SIM(M)
Analytical Date: 05/01/23 22:58
Analyst: MJS
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: ALPHA OP-013
Extraction Date: 04/24/23 13:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
Benz(a)anthracene	39900		ng Abs	1000	130.	1
Chrysene	59500		ng Abs	1000	127.	1
C1-Chrysenes	136000		ng Abs	1000	127.	1
C2-Chrysenes BS	159000		ng Abs	1000	127.	1
C3-Chrysenes	109000		ng Abs	1000	127.	1
C4-Chrysenes	49700		ng Abs	1000	127.	1
Benzo(b)fluoranthene	10500		ng Abs	1000	123.	1
Benzo(j)+(k)fluoranthene	6940		ng Abs	1000	141.	1
Benzo(a)fluoranthene	1900		ng Abs	1000	141.	1
Benzo(e)pyrene	19400		ng Abs	1000	162.	1
Benzo(a)pyrene	23900		ng Abs	1000	162.	1
Perylene	6980		ng Abs	1000	251.	1
Indeno(1,2,3-cd)pyrene	6900		ng Abs	1000	206.	1
Dibenz(a,h)+(a,c)anthracene	2830		ng Abs	1000	136.	1
Benzo(g,h,i)perylene	12700		ng Abs	1000	164.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Benzo(a)pyrene-d12	116		50-130

Project Name: GASCO HYDROCARBON INVESTIGATION**Lab Number:** L2320537**Project Number:** 000029-02.78 T12A**Report Date:** 05/09/23**SAMPLE RESULTS**

Lab ID: L2320537-02 D

Date Collected: 04/17/23 09:30

Client ID: MW2112-041723-NET

Date Received: 04/18/23

Sample Location: OR

Field Prep: Not Specified

Sample Depth:

Matrix: Sheen Net

Extraction Method: ALPHA OP-013

Analytical Method: 1,8270E-SIM(M)

Extraction Date: 04/24/23 13:11

Analytical Date: 05/04/23 17:57

Analyst: MJS

Percent Solids: Results reported on an 'AS RECEIVED' basis.

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
cis/trans-Decalin	1620000		ng Abs	2000	332.	4
C1-Decalins	4580000		ng Abs	2000	332.	4
C2-Decalins	7660000		ng Abs	2000	332.	4
C3-Decalins	5110000		ng Abs	2000	332.	4
C4-Decalins	5340000		ng Abs	2000	332.	4
Naphthalene	67300		ng Abs	4000	1180	4
C1-Naphthalenes	83800		ng Abs	4000	1180	4
C2-Naphthalenes	7040000		ng Abs	4000	1180	4
C3-Naphthalenes	8480000		ng Abs	4000	1180	4
C4-Naphthalenes	4400000		ng Abs	4000	1180	4
2-Methylnaphthalene	4480		ng Abs	4000	1130	4
1-Methylnaphthalene	106000		ng Abs	4000	608.	4
Benzothiophene	5490		ng Abs	4000	880.	4
C1-Benzo(b)thiophenes	497000		ng Abs	4000	880.	4
C2-Benzo(b)thiophenes	380000		ng Abs	4000	880.	4
C3-Benzo(b)thiophenes	735000		ng Abs	4000	880.	4
Biphenyl	4920		ng Abs	4000	808.	4
2,6-Dimethylnaphthalene	5350000		ng Abs	4000	852.	4
Dibenzofuran	77800		ng Abs	4000	984.	4
Acenaphthylene	42200		ng Abs	4000	776.	4
Acenaphthene	991000		ng Abs	4000	1100	4
2,3,5-Trimethylnaphthalene	1360000		ng Abs	4000	680.	4
Fluorene	814000		ng Abs	4000	1260	4
C1-Fluorenes	1310000		ng Abs	4000	1260	4
C2-Fluorenes	1730000		ng Abs	4000	1260	4
C3-Fluorenes	1300000		ng Abs	4000	1260	4
Dibenzothiophene	29200		ng Abs	4000	548.	4
C1-Dibenzothiophenes BS	496000		ng Abs	4000	548.	4



Project Name: GASCO HYDROCARBON INVESTIGATIO**Lab Number:** L2320537**Project Number:** 000029-02.78 T12A**Report Date:** 05/09/23**SAMPLE RESULTS**

Lab ID: L2320537-02 D

Date Collected: 04/17/23 09:30

Client ID: MW2112-041723-NET

Date Received: 04/18/23

Sample Location: OR

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						
C2-Dibenzothiophenes	637000		ng Abs	4000	548.	4
C3-Dibenzothiophenes	454000		ng Abs	4000	548.	4
C4-Dibenzothiophenes	219000		ng Abs	4000	548.	4
Phenanthrene	18100		ng Abs	4000	1030	4
C1-Phenanthrenes/Anthracenes	910000		ng Abs	4000	1030	4
C2-Phenanthrenes/Anthr BS	1780000		ng Abs	4000	1030	4
C3-Phenanthrenes/Anthracenes	1190000		ng Abs	4000	1030	4
C4-Phenanthrenes/Anthracenes	474000		ng Abs	4000	1030	4
Retene	ND		ng Abs	4000	1030	4
Anthracene	52900		ng Abs	4000	664.	4
Carbazole	25000		ng Abs	4000	1040	4
1-Methylphenanthrene	391000		ng Abs	4000	844.	4
Fluoranthene	53200		ng Abs	4000	440.	4
Benzo(b)fluorene	37500		ng Abs	4000	632.	4
Pyrene	147000		ng Abs	4000	600.	4
C1-Fluoranthenes/Pyrenes	304000		ng Abs	4000	600.	4
C2-Fluoranthenes/Pyrenes	316000		ng Abs	4000	600.	4
C3-Fluoranthenes/Pyrenes	242000		ng Abs	4000	600.	4
C4-Fluoranthenes/Pyrenes	124000		ng Abs	4000	600.	4
Naphthobenzothiophenes	35700		ng Abs	4000	656.	4
C1-Naphthobenzothiophenes	61500		ng Abs	4000	656.	4
C2-Naphthobenzothiophenes	65400		ng Abs	4000	656.	4
C3-Naphthobenzothiophenes	46300		ng Abs	4000	656.	4
C4-Naphthobenzothiophenes	31200		ng Abs	4000	656.	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	85		50-130
Phenanthrene-d10	107		50-130

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM(M)
Analytical Date: 04/26/23 13:01
Analyst: CNC

Extraction Method: EPA 3580A
Extraction Date: 04/21/23 13:40

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 01 Batch: WG1769534-1					
cis/trans-Decalin	ND		mg/kg	1.50	0.298
C1-Decalins	ND		mg/kg	1.50	0.298
C2-Decalins	ND		mg/kg	1.50	0.298
C3-Decalins	ND		mg/kg	1.50	0.298
C4-Decalins	ND		mg/kg	1.50	0.298
Naphthalene	ND		mg/kg	3.00	0.862
C1-Naphthalenes	ND		mg/kg	3.00	0.862
C2-Naphthalenes	ND		mg/kg	3.00	0.862
C3-Naphthalenes	ND		mg/kg	3.00	0.862
C4-Naphthalenes	ND		mg/kg	3.00	0.862
2-Methylnaphthalene	ND		mg/kg	3.00	0.774
1-Methylnaphthalene	ND		mg/kg	3.00	0.945
Benzothiophene	ND		mg/kg	3.00	0.940
C1-Benzo(b)thiophenes	ND		mg/kg	3.00	0.940
C2-Benzo(b)thiophenes	ND		mg/kg	3.00	0.940
C3-Benzo(b)thiophenes	ND		mg/kg	3.00	0.940
Biphenyl	ND		mg/kg	3.00	0.927
2,6-Dimethylnaphthalene	ND		mg/kg	3.00	0.713
Dibenzofuran	ND		mg/kg	3.00	0.945
Acenaphthylene	0.804	J	mg/kg	3.00	0.572
Acenaphthene	ND		mg/kg	3.00	0.529
2,3,5-Trimethylnaphthalene	ND		mg/kg	3.00	0.491
Fluorene	ND		mg/kg	3.00	0.800
C1-Fluorenes	ND		mg/kg	3.00	0.800
C2-Fluorenes	ND		mg/kg	3.00	0.800
C3-Fluorenes	ND		mg/kg	3.00	0.800
Dibenzothiophene	ND		mg/kg	3.00	0.827
C1-Dibenzothiophenes BS	ND		mg/kg	3.00	0.827
C2-Dibenzothiophenes	ND		mg/kg	3.00	0.827

Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270E-SIM(M)
 Analytical Date: 04/26/23 13:01
 Analyst: CNC

Extraction Method: EPA 3580A
 Extraction Date: 04/21/23 13:40

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 01 Batch: WG1769534-1					
C3-Dibenzothiophenes	ND		mg/kg	3.00	0.827
C4-Dibenzothiophenes	ND		mg/kg	3.00	0.827
Phenanthrene	ND		mg/kg	3.00	0.994
C1-Phenanthrenes/Anthracenes	ND		mg/kg	3.00	0.994
C2-Phenanthrenes/Anthr BS	ND		mg/kg	3.00	0.994
C3-Phenanthrenes/Anthracenes	ND		mg/kg	3.00	0.994
C4-Phenanthrenes/Anthracenes	ND		mg/kg	3.00	0.994
Retene	ND		mg/kg	3.00	0.736
Anthracene	ND		mg/kg	3.00	0.618
Carbazole	ND		mg/kg	3.00	0.981
1-Methylphenanthrene	ND		mg/kg	3.00	0.792
Fluoranthene	ND		mg/kg	3.00	0.953
Benzo(b)fluorene	ND		mg/kg	3.00	0.869
Pyrene	ND		mg/kg	3.00	0.789
C1-Fluoranthenes/Pyrenes	ND		mg/kg	3.00	0.789
C2-Fluoranthenes/Pyrenes	ND		mg/kg	3.00	0.789
C3-Fluoranthenes/Pyrenes	ND		mg/kg	3.00	0.789
C4-Fluoranthenes/Pyrenes	ND		mg/kg	3.00	0.789
Naphthobenzothiophenes	ND		mg/kg	3.00	0.839
C1-Naphthobenzothiophenes	ND		mg/kg	3.00	0.839
C2-Naphthobenzothiophenes	ND		mg/kg	3.00	0.839
C3-Naphthobenzothiophenes	ND		mg/kg	3.00	0.839
C4-Naphthobenzothiophenes	ND		mg/kg	3.00	0.839
Benz(a)anthracene	ND		mg/kg	3.00	0.612
Chrysene	ND		mg/kg	3.00	0.606
C1-Chrysenes	ND		mg/kg	3.00	0.606
C2-Chrysenes BS	ND		mg/kg	3.00	0.606
C3-Chrysenes	ND		mg/kg	3.00	0.606
C4-Chrysenes	ND		mg/kg	3.00	0.606

Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270E-SIM(M)
 Analytical Date: 04/26/23 13:01
 Analyst: CNC

Extraction Method: EPA 3580A
 Extraction Date: 04/21/23 13:40

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 01 Batch: WG1769534-1					
Benzo(b)fluoranthene	ND		mg/kg	3.00	0.780
Benzo(j)+(k)fluoranthene	ND		mg/kg	3.00	0.595
Benzo(a)fluoranthene	ND		mg/kg	3.00	0.595
Benzo(e)pyrene	ND		mg/kg	3.00	0.619
Benzo(a)pyrene	ND		mg/kg	3.00	0.856
Perylene	ND		mg/kg	3.00	0.579
Indeno(1,2,3-cd)pyrene	ND		mg/kg	3.00	0.814
Dibenz(a,h)+(a,c)anthracene	ND		mg/kg	3.00	0.810
Benzo(g,h,i)perylene	ND		mg/kg	3.00	0.797

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	88		50-130
Phenanthrene-d10	93		50-130
Benzo(a)pyrene-d12	93		50-130

Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270E-SIM(M)
Analytical Date: 05/01/23 18:43
Analyst: MJS

Extraction Method: ALPHA OP-013
Extraction Date: 04/24/23 13:11

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 02 Batch: WG1770361-1					
cis/trans-Decalin	ND		ng Abs	10.0	1.66
C1-Decalins	ND		ng Abs	10.0	1.66
C2-Decalins	ND		ng Abs	10.0	1.66
C3-Decalins	ND		ng Abs	10.0	1.66
C4-Decalins	ND		ng Abs	10.0	1.66
Naphthalene	ND		ng Abs	20.0	5.92
C1-Naphthalenes	ND		ng Abs	20.0	5.92
C2-Naphthalenes	ND		ng Abs	20.0	5.92
C3-Naphthalenes	ND		ng Abs	20.0	5.92
C4-Naphthalenes	ND		ng Abs	20.0	5.92
2-Methylnaphthalene	ND		ng Abs	20.0	5.64
1-Methylnaphthalene	ND		ng Abs	20.0	3.04
Benzothiophene	ND		ng Abs	20.0	4.40
C1-Benzo(b)thiophenes	ND		ng Abs	20.0	4.40
C2-Benzo(b)thiophenes	ND		ng Abs	20.0	4.40
C3-Benzo(b)thiophenes	ND		ng Abs	20.0	4.40
Biphenyl	ND		ng Abs	20.0	4.04
2,6-Dimethylnaphthalene	ND		ng Abs	20.0	4.26
Dibenzofuran	ND		ng Abs	20.0	4.92
Acenaphthylene	ND		ng Abs	20.0	3.88
Acenaphthene	ND		ng Abs	20.0	5.48
2,3,5-Trimethylnaphthalene	ND		ng Abs	20.0	3.40
Fluorene	ND		ng Abs	20.0	6.32
C1-Fluorenes	ND		ng Abs	20.0	6.32
C2-Fluorenes	ND		ng Abs	20.0	6.32
C3-Fluorenes	ND		ng Abs	20.0	6.32
Dibenzothiophene	ND		ng Abs	20.0	2.74
C1-Dibenzothiophenes BS	ND		ng Abs	20.0	2.74
C2-Dibenzothiophenes	3.48	J	ng Abs	20.0	2.74

Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270E-SIM(M)
Analytical Date: 05/01/23 18:43
Analyst: MJS

Extraction Method: ALPHA OP-013
Extraction Date: 04/24/23 13:11

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 02 Batch: WG1770361-1					
C3-Dibenzothiophenes	ND		ng Abs	20.0	2.74
C4-Dibenzothiophenes	ND		ng Abs	20.0	2.74
Phenanthrene	ND		ng Abs	20.0	5.16
C1-Phenanthrenes/Anthracenes	ND		ng Abs	20.0	5.16
C2-Phenanthrenes/Anthr BS	ND		ng Abs	20.0	5.16
C3-Phenanthrenes/Anthracenes	ND		ng Abs	20.0	5.16
C4-Phenanthrenes/Anthracenes	ND		ng Abs	20.0	5.16
Retene	ND		ng Abs	20.0	5.16
Anthracene	ND		ng Abs	20.0	3.32
Carbazole	ND		ng Abs	20.0	5.18
1-Methylphenanthrene	ND		ng Abs	20.0	4.22
Fluoranthene	ND		ng Abs	20.0	2.20
Benzo(b)fluorene	ND		ng Abs	20.0	3.16
Pyrene	ND		ng Abs	20.0	3.00
C1-Fluoranthenes/Pyrenes	ND		ng Abs	20.0	3.00
C2-Fluoranthenes/Pyrenes	ND		ng Abs	20.0	3.00
C3-Fluoranthenes/Pyrenes	ND		ng Abs	20.0	3.00
C4-Fluoranthenes/Pyrenes	ND		ng Abs	20.0	3.00
Naphthobenzothiophenes	ND		ng Abs	20.0	3.28
C1-Naphthobenzothiophenes	ND		ng Abs	20.0	3.28
C2-Naphthobenzothiophenes	ND		ng Abs	20.0	3.28
C3-Naphthobenzothiophenes	ND		ng Abs	20.0	3.28
C4-Naphthobenzothiophenes	ND		ng Abs	20.0	3.28
Benz(a)anthracene	ND		ng Abs	20.0	2.60
Chrysene	ND		ng Abs	20.0	2.54
C1-Chrysenes	ND		ng Abs	20.0	2.54
C2-Chrysenes BS	ND		ng Abs	20.0	2.54
C3-Chrysenes	ND		ng Abs	20.0	2.54
C4-Chrysenes	ND		ng Abs	20.0	2.54

Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM(M)
Analytical Date: 05/01/23 18:43
Analyst: MJS

Extraction Method: ALPHA OP-013
Extraction Date: 04/24/23 13:11

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 02 Batch: WG1770361-1					
Benzo(b)fluoranthene	ND		ng Abs	20.0	2.46
Benzo(j)+(k)fluoranthene	ND		ng Abs	20.0	2.82
Benzo(a)fluoranthene	ND		ng Abs	20.0	2.82
Benzo(e)pyrene	ND		ng Abs	20.0	3.24
Benzo(a)pyrene	ND		ng Abs	20.0	3.24
Perylene	ND		ng Abs	20.0	5.02
Indeno(1,2,3-cd)pyrene	4.70	J	ng Abs	20.0	4.12
Dibenz(a,h)+(a,c)anthracene	3.16	J	ng Abs	20.0	2.72
Benzo(g,h,i)perylene	5.09	J	ng Abs	20.0	3.28

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	84		50-130
Phenanthrene-d10	91		50-130
Benzo(a)pyrene-d12	105		50-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATION

Lab Number: L2320537

Project Number: 000029-02.78 T12A

Report Date: 05/09/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PAHs - Mansfield Lab Associated sample(s): 01 Batch: WG1769534-2 WG1769534-3								
Naphthalene	100		102		50-130	2		30
2-Methylnaphthalene	93		94		50-130	1		30
Acenaphthylene	96		98		50-130	2		30
Acenaphthene	97		99		50-130	2		30
Fluorene	98		101		50-130	3		30
Phenanthrene	98		100		50-130	2		30
Anthracene	106		108		50-130	2		30
Fluoranthene	94		96		50-130	2		30
Pyrene	94		97		50-130	3		30
Benz(a)anthracene	101		105		50-130	4		30
Chrysene	101		103		50-130	2		30
Benzo(b)fluoranthene	92		97		50-130	5		30
Benzo(j)+(k)fluoranthene	99		99		50-130	0		30
Benzo(a)pyrene	87		88		50-130	1		30
Indeno(1,2,3-cd)pyrene	81		85		50-130	5		30
Dibenz(a,h)+(a,c)anthracene	82		83		50-130	1		30
Benzo(g,h,i)perylene	84		84		50-130	0		30

Lab Control Sample Analysis**Batch Quality Control****Project Name:** GASCO HYDROCARBON INVESTIGATION**Lab Number:** L2320537**Project Number:** 000029-02.78 T12A**Report Date:** 05/09/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PAHs - Mansfield Lab Associated sample(s): 01 Batch: WG1769534-2 WG1769534-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Naphthalene-d8	93		94		50-130
Phenanthrene-d10	93		95		50-130
Benzo(a)pyrene-d12	94		93		50-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATION

Lab Number: L2320537

Project Number: 000029-02.78 T12A

Report Date: 05/09/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PAHs - Mansfield Lab Associated sample(s): 02 Batch: WG1770361-2 WG1770361-3								
Naphthalene	111		93		50-130	18		30
2-Methylnaphthalene	121		97		50-130	22		30
Acenaphthylene	92		93		50-130	1		30
Acenaphthene	94		105		50-130	11		30
Fluorene	106		119		50-130	12		30
Phenanthrene	104		113		50-130	8		30
Anthracene	102		110		50-130	8		30
Fluoranthene	101		99		50-130	2		30
Pyrene	107		105		50-130	2		30
Benz(a)anthracene	103		97		50-130	6		30
Chrysene	94		91		50-130	3		30
Benzo(b)fluoranthene	104		104		50-130	0		30
Benzo(j)+(k)fluoranthene	96		97		50-130	1		30
Benzo(a)pyrene	97		96		50-130	1		30
Indeno(1,2,3-cd)pyrene	108		110		50-130	2		30
Dibenz(a,h)+(a,c)anthracene	113		124		50-130	9		30
Benzo(g,h,i)perylene	102		101		50-130	1		30

Lab Control Sample Analysis**Batch Quality Control****Project Name:** GASCO HYDROCARBON INVESTIGATION**Lab Number:** L2320537**Project Number:** 000029-02.78 T12A**Report Date:** 05/09/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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PAHs - Mansfield Lab Associated sample(s): 02 Batch: WG1770361-2 WG1770361-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Naphthalene-d8	104		78		50-130
Phenanthrene-d10	94		103		50-130
Benzo(a)pyrene-d12	103		105		50-130

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L2320537
Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
PAHs - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1769534-4 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						
cis/trans-Decalin	536	576	mg/kg	7.1		30
C1-Decalins	2010	2200	mg/kg	9		30
C2-Decalins	3090	3320	mg/kg	7		30
C3-Decalins	1910	2020	mg/kg	6		30
C4-Decalins	1980	2010	mg/kg	2		30
Naphthalene	26.2	25.4	mg/kg	3		30
C1-Naphthalenes	38.4	40.3	mg/kg	5		30
C2-Naphthalenes	3350	3260	mg/kg	3		30
C3-Naphthalenes	4100	3880	mg/kg	6		30
C4-Naphthalenes	2110	1990	mg/kg	6		30
2-Methylnaphthalene	2.32J	1.66J	mg/kg	NC		30
1-Methylnaphthalene	45.8	45.2	mg/kg	1		30
Benzothiophene	3.34	3.34	mg/kg	0		30
C1-Benzo(b)thiophenes	191	189	mg/kg	1		30
C2-Benzo(b)thiophenes	172	167	mg/kg	3		30
C3-Benzo(b)thiophenes	336	322	mg/kg	4		30
Biphenyl	1.36J	1.18J	mg/kg	NC		30
2,6-Dimethylnaphthalene	2360	2300	mg/kg	3		30
Dibenzofuran	36.8	35.3	mg/kg	4		30
Acenaphthylene	24.8	23.6	mg/kg	5		30
Acenaphthene	471	449	mg/kg	5		30

Lab Duplicate Analysis Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATION

Project Number: 000029-02.78 T12A

Lab Number: L2320537

Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
PAHs - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1769534-4 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						
2,3,5-Trimethylnaphthalene	617	578	mg/kg	7		30
Fluorene	403	381	mg/kg	6		30
C1-Fluorenes	617	588	mg/kg	5		30
C2-Fluorenes	755	729	mg/kg	4		30
C3-Fluorenes	531	515	mg/kg	3		30
Dibenzothiophene	13.0	12.8	mg/kg	2		30
C1-Dibenzothiophenes BS	251	241	mg/kg	4		30
C2-Dibenzothiophenes	298	287	mg/kg	4		30
C3-Dibenzothiophenes	198	193	mg/kg	3		30
C4-Dibenzothiophenes	96.2	90.6	mg/kg	6		30
Phenanthrene	8.26	7.72	mg/kg	7		30
C1-Phenanthrenes/Anthracenes	447	428	mg/kg	4		30
C2-Phenanthrenes/Anthr BS	851	817	mg/kg	4		30
C3-Phenanthrenes/Anthracenes	517	501	mg/kg	3		30
C4-Phenanthrenes/Anthracenes	184	182	mg/kg	1		30
Retene	ND	ND	mg/kg	NC		30
Anthracene	34.9	35.7	mg/kg	2		30
Carbazole	8.39	10.2	mg/kg	19		30
1-Methylphenanthrene	189	180	mg/kg	5		30
Fluoranthene	30.2	27.6	mg/kg	9		30
Benzo(b)fluorene	17.4	16.7	mg/kg	4		30

Lab Duplicate Analysis Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATION

Project Number: 000029-02.78 T12A

Lab Number: L2320537

Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
PAHs - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1769534-4 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						
Pyrene	77.0	75.2	mg/kg	2		30
C1-Fluoranthenes/Pyrenes	143	138	mg/kg	4		30
C2-Fluoranthenes/Pyrenes	141	137	mg/kg	3		30
C3-Fluoranthenes/Pyrenes	91.9	90.4	mg/kg	2		30
C4-Fluoranthenes/Pyrenes	44.3	44.7	mg/kg	1		30
Naphthobenzothiophenes	15.1J	14.7J	mg/kg	NC		30
C1-Naphthobenzothiophenes	25.3	24.3	mg/kg	4		30
C2-Naphthobenzothiophenes	21.8	22.3	mg/kg	2		30
C3-Naphthobenzothiophenes	13.1	13.3	mg/kg	2		30
C4-Naphthobenzothiophenes	7.97	8.69	mg/kg	9		30
Benz(a)anthracene	20.4	18.4	mg/kg	10		30
Chrysene	33.3	31.9	mg/kg	4		30
C1-Chrysenes	66.1	64.1	mg/kg	3		30
C2-Chrysenes BS	68.4	67.6	mg/kg	1		30
C3-Chrysenes	48.6	49.4	mg/kg	2		30
C4-Chrysenes	21.6	22.1	mg/kg	2		30
Benzo(b)fluoranthene	4.56	3.97	mg/kg	14		30
Benzo(j)+(k)fluoranthene	3.74	2.82J	mg/kg	NC		30
Benzo(a)fluoranthene	0.832J	0.817J	mg/kg	NC		30
Benzo(e)pyrene	8.14	8.15	mg/kg	0		30
Benzo(a)pyrene	9.35	8.85	mg/kg	5		30

Project Name: GASCO HYDROCARBON INVESTIGATIO

Project Number: 000029-02.78 T12A

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L2320537

Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
PAHs - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1769534-4 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						
Perylene	3.00	2.66J	mg/kg	NC		30
Indeno(1,2,3-cd)pyrene	2.90	2.25J	mg/kg	NC		30
Dibenz(a,h)+(a,c)anthracene	1.54J	0.917J	mg/kg	NC		30
Benzo(g,h,i)perylene	5.35	4.50	mg/kg	17		30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	85		87		50-130
Phenanthrene-d10	102		99		50-130
Benzo(a)pyrene-d12	110		111		50-130

PETROLEUM HYDROCARBONS

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

SAMPLE RESULTS

Lab ID: L2320537-01
Client ID: MW2112-041723-NAPL
Sample Location: OR

Date Collected: 04/17/23 09:30
Date Received: 04/18/23
Field Prep: Not Specified

Sample Depth:

Matrix: Oil
Analytical Method: 1,8015D(M)
Analytical Date: 04/25/23 03:30
Analyst: AMV
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: EPA 3580A
Extraction Date: 04/21/23 13:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		mg/kg	193	57.2	1
n-Decane (C10)	194		mg/kg	193	61.5	1
n-Undecane (C11)	595		mg/kg	193	57.5	1
n-Dodecane (C12)	ND		mg/kg	193	42.0	1
n-Tridecane (C13)	1200		mg/kg	193	52.9	1
2,6,10-Trimethyldodecane (1380)	6840		mg/kg	193	29.0	1
n-Tetradecane (C14)	918		mg/kg	193	29.0	1
2,6,10-Trimethyltridecane (1470)	7240		mg/kg	193	23.0	1
n-Pentadecane (C15)	ND		mg/kg	193	23.0	1
n-Hexadecane (C16)	ND		mg/kg	193	29.0	1
Norpristane (1650)	7720		mg/kg	193	63.6	1
n-Heptadecane (C17)	357		mg/kg	193	63.6	1
Pristane	13300		mg/kg	193	41.2	1
n-Octadecane (C18)	ND		mg/kg	193	38.7	1
Phytane	8500		mg/kg	193	24.2	1
n-Nonadecane (C19)	132	J	mg/kg	193	49.5	1
n-Eicosane (C20)	239		mg/kg	193	27.3	1
n-Heneicosane (C21)	582		mg/kg	193	23.1	1
n-Docosane (C22)	ND		mg/kg	193	20.1	1
n-Tricosane (C23)	53.4	J	mg/kg	193	24.5	1
n-Tetracosane (C24)	ND		mg/kg	193	32.2	1
n-Pentacosane (C25)	178	JC	mg/kg	193	102.	1
n-Hexacosane (C26)	ND		mg/kg	193	28.3	1
n-Heptacosane (C27)	ND		mg/kg	193	23.2	1
n-Octacosane (C28)	ND		mg/kg	193	41.3	1
n-Nonacosane (C29)	ND		mg/kg	193	128.	1
n-Triacontane (C30)	ND		mg/kg	193	22.1	1
n-Hentriacontane (C31)	ND		mg/kg	193	27.3	1

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

SAMPLE RESULTS

Lab ID: L2320537-01
Client ID: MW2112-041723-NAPL
Sample Location: OR

Date Collected: 04/17/23 09:30
Date Received: 04/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	ND		mg/kg	193	24.3	1
n-Tritriacontane (C33)	ND		mg/kg	193	27.1	1
n-Tetratriacontane (C34)	ND		mg/kg	193	30.6	1
n-Pentatriacontane (C35)	ND		mg/kg	193	33.6	1
n-Hexatriacontane (C36)	ND		mg/kg	193	38.3	1
n-Heptatriacontane (C37)	ND		mg/kg	193	42.8	1
n-Octatriacontane (C38)	ND		mg/kg	193	44.9	1
n-Nonatriacontane (C39)	ND		mg/kg	193	62.6	1
n-Tetracontane (C40)	ND		mg/kg	193	62.6	1
Total Petroleum Hydrocarbons (C9-C44)	879000		mg/kg	6360	1400	1
Total Saturated Hydrocarbons	48000	J	mg/kg	193	20.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	103		50-130
d50-Tetracosane	96		50-130

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

SAMPLE RESULTS

Lab ID: L2320537-02
Client ID: MW2112-041723-NET
Sample Location: OR

Date Collected: 04/17/23 09:30
Date Received: 04/18/23
Field Prep: Not Specified

Sample Depth:

Matrix: Sheen Net
Analytical Method: 1,8015D(M)
Analytical Date: 04/27/23 22:33
Analyst: WR
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: ALPHA OP-013
Extraction Date: 04/24/23 13:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Nonane (C9)	ND		ug Abs	100	29.7	1
n-Decane (C10)	251		ug Abs	100	31.9	1
n-Undecane (C11)	872		ug Abs	100	29.9	1
n-Dodecane (C12)	ND		ug Abs	100	21.8	1
n-Tridecane (C13)	ND		ug Abs	100	27.4	1
2,6,10-Trimethyldodecane (1380)	2910		ug Abs	100	15.0	1
n-Tetradecane (C14)	742		ug Abs	100	15.0	1
2,6,10-Trimethyltridecane (1470)	1360		ug Abs	100	11.9	1
n-Pentadecane (C15)	2040		ug Abs	100	11.9	1
n-Hexadecane (C16)	1310		ug Abs	100	15.1	1
Norpristane (1650)	1620		ug Abs	100	33.0	1
n-Heptadecane (C17)	291		ug Abs	100	33.0	1
Pristane	25500	E	ug Abs	100	21.4	1
n-Octadecane (C18)	842		ug Abs	100	20.1	1
Phytane	16800		ug Abs	100	12.6	1
n-Nonadecane (C19)	ND		ug Abs	100	25.7	1
n-Eicosane (C20)	1140		ug Abs	100	14.2	1
n-Heneicosane (C21)	1070		ug Abs	100	12.0	1
n-Docosane (C22)	230		ug Abs	100	10.4	1
n-Tricosane (C23)	ND		ug Abs	100	12.7	1
n-Tetracosane (C24)	ND		ug Abs	100	16.7	1
n-Pentacosane (C25)	120		ug Abs	100	52.9	1
n-Hexacosane (C26)	50.8	J	ug Abs	100	14.7	1
n-Heptacosane (C27)	ND		ug Abs	100	12.0	1
n-Octacosane (C28)	ND		ug Abs	100	21.4	1
n-Nonacosane (C29)	ND		ug Abs	100	66.6	1
n-Triacontane (C30)	18.4	J	ug Abs	100	11.5	1
n-Hentriacontane (C31)	ND		ug Abs	100	14.2	1

Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

SAMPLE RESULTS

Lab ID: L2320537-02
Client ID: MW2112-041723-NET
Sample Location: OR

Date Collected: 04/17/23 09:30
Date Received: 04/18/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
n-Dotriacontane (C32)	30.1	J	ug Abs	100	12.6	1
n-Tritriacontane (C33)	ND		ug Abs	100	14.1	1
n-Tetratriacontane (C34)	ND		ug Abs	100	15.9	1
n-Pentatriacontane (C35)	ND		ug Abs	100	17.4	1
n-Hexatriacontane (C36)	ND		ug Abs	100	19.9	1
n-Heptatriacontane (C37)	ND		ug Abs	100	22.2	1
n-Octatriacontane (C38)	ND		ug Abs	100	23.3	1
n-Nonatriacontane (C39)	ND		ug Abs	100	32.5	1
n-Tetracontane (C40)	ND		ug Abs	100	32.5	1
Total Petroleum Hydrocarbons (C9-C44)	1680000		ug Abs	3300	726.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	0	Q	50-130
d50-Tetracosane	174	Q	50-130

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

SAMPLE RESULTS

Lab ID: L2320537-02 D
Client ID: MW2112-041723-NET
Sample Location: OR

Date Collected: 04/17/23 09:30
Date Received: 04/18/23
Field Prep: Not Specified

Sample Depth:

Matrix: Sheen Net
Analytical Method: 1,8015D(M)
Analytical Date: 05/04/23 16:45
Analyst: WR
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Extraction Method: ALPHA OP-013
Extraction Date: 04/24/23 13:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Saturated Hydrocarbons by GC-FID - Mansfield Lab						
Pristane	28900		ug Abs	1000	214.	10
Total Saturated Hydrocarbons	60600	J	ug Abs	100	10.4	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	0	Q	50-130
d50-Tetracosane	0		50-130

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8015D(M)
 Analytical Date: 04/24/23 17:20
 Analyst: AMV

Extraction Method: EPA 3580A
 Extraction Date: 04/21/23 13:40

Parameter	Result	Qualifier	Units	RL	MDL
Saturated Hydrocarbons by GC-FID - Mansfield Lab for sample(s): 01 Batch: WG1769534-1					
n-Nonane (C9)	ND		mg/kg	200	59.3
n-Decane (C10)	ND		mg/kg	200	63.8
n-Undecane (C11)	ND		mg/kg	200	59.7
n-Dodecane (C12)	ND		mg/kg	200	43.6
n-Tridecane (C13)	ND		mg/kg	200	54.9
2,6,10-Trimethyldodecane (1380)	ND		mg/kg	200	30.1
n-Tetradecane (C14)	ND		mg/kg	200	30.1
2,6,10-Trimethyltridecane (1470)	ND		mg/kg	200	23.9
n-Pentadecane (C15)	ND		mg/kg	200	23.9
n-Hexadecane (C16)	ND		mg/kg	200	30.1
Norpristane (1650)	ND		mg/kg	200	66.0
n-Heptadecane (C17)	ND		mg/kg	200	66.0
Pristane	ND		mg/kg	200	42.7
n-Octadecane (C18)	53.2	J	mg/kg	200	40.1
Phytane	ND		mg/kg	200	25.1
n-Nonadecane (C19)	ND		mg/kg	200	51.4
n-Eicosane (C20)	ND		mg/kg	200	28.3
n-Heneicosane (C21)	ND		mg/kg	200	23.9
n-Docosane (C22)	ND		mg/kg	200	20.9
n-Tricosane (C23)	ND		mg/kg	200	25.4
n-Tetracosane (C24)	ND		mg/kg	200	33.5
n-Pentacosane (C25)	122	JC	mg/kg	200	106.
n-Hexacosane (C26)	ND		mg/kg	200	29.4
n-Heptacosane (C27)	ND		mg/kg	200	24.1
n-Octacosane (C28)	ND		mg/kg	200	42.9
n-Nonacosane (C29)	ND		mg/kg	200	133.
n-Triacontane (C30)	ND		mg/kg	200	22.9
n-Hentriacontane (C31)	ND		mg/kg	200	28.3
n-Dotriacontane (C32)	ND		mg/kg	200	25.2

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 04/24/23 17:20
Analyst: AMV

Extraction Method: EPA 3580A
Extraction Date: 04/21/23 13:40

Parameter	Result	Qualifier	Units	RL	MDL
Saturated Hydrocarbons by GC-FID - Mansfield Lab for sample(s): 01 Batch: WG1769534-1					
n-Tritriacontane (C33)	ND		mg/kg	200	28.1
n-Tetratriacontane (C34)	ND		mg/kg	200	31.8
n-Pentatriacontane (C35)	ND		mg/kg	200	34.9
n-Hexatriacontane (C36)	ND		mg/kg	200	39.8
n-Heptatriacontane (C37)	ND		mg/kg	200	44.4
n-Octatriacontane (C38)	ND		mg/kg	200	46.6
n-Nonatriacontane (C39)	ND		mg/kg	200	64.9
n-Tetracontane (C40)	ND		mg/kg	200	64.9
Total Petroleum Hydrocarbons (C9-C44)	ND		mg/kg	6600	1450
Total Saturated Hydrocarbons	175	J	mg/kg	200	20.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	102		50-130
d50-Tetracosane	99		50-130

Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 04/27/23 16:44
Analyst: WR

Extraction Method: ALPHA OP-013
Extraction Date: 04/24/23 13:11

Parameter	Result	Qualifier	Units	RL	MDL
Saturated Hydrocarbons by GC-FID - Mansfield Lab for sample(s): 02 Batch: WG1770361-1					
n-Nonane (C9)	ND		ug Abs	2.00	0.593
n-Decane (C10)	ND		ug Abs	2.00	0.638
n-Undecane (C11)	ND		ug Abs	2.00	0.597
n-Dodecane (C12)	ND		ug Abs	2.00	0.436
n-Tridecane (C13)	ND		ug Abs	2.00	0.549
2,6,10-Trimethyldodecane (1380)	ND		ug Abs	2.00	0.301
n-Tetradecane (C14)	ND		ug Abs	2.00	0.301
2,6,10-Trimethyltridecane (1470)	ND		ug Abs	2.00	0.239
n-Pentadecane (C15)	ND		ug Abs	2.00	0.239
n-Hexadecane (C16)	ND		ug Abs	2.00	0.301
Norpristane (1650)	ND		ug Abs	2.00	0.660
n-Heptadecane (C17)	ND		ug Abs	2.00	0.660
Pristane	ND		ug Abs	2.00	0.427
n-Octadecane (C18)	0.996	JC	ug Abs	2.00	0.401
Phytane	ND		ug Abs	2.00	0.251
n-Nonadecane (C19)	ND		ug Abs	2.00	0.514
n-Eicosane (C20)	ND		ug Abs	2.00	0.283
n-Heneicosane (C21)	ND		ug Abs	2.00	0.239
n-Docosane (C22)	ND		ug Abs	2.00	0.209
n-Tricosane (C23)	ND		ug Abs	2.00	0.254
n-Tetracosane (C24)	ND		ug Abs	2.00	0.335
n-Pentacosane (C25)	1.20	JC	ug Abs	2.00	1.06
n-Hexacosane (C26)	ND		ug Abs	2.00	0.294
n-Heptacosane (C27)	ND		ug Abs	2.00	0.241
n-Octacosane (C28)	ND		ug Abs	2.00	0.429
n-Nonacosane (C29)	ND		ug Abs	2.00	1.33
n-Triacontane (C30)	ND		ug Abs	2.00	0.229
n-Hentriacontane (C31)	ND		ug Abs	2.00	0.283
n-Dotriacontane (C32)	ND		ug Abs	2.00	0.252

Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 04/27/23 16:44
Analyst: WR

Extraction Method: ALPHA OP-013
Extraction Date: 04/24/23 13:11

Parameter	Result	Qualifier	Units	RL	MDL
Saturated Hydrocarbons by GC-FID - Mansfield Lab for sample(s): 02 Batch: WG1770361-1					
n-Tritriacontane (C33)	ND		ug Abs	2.00	0.281
n-Tetratriacontane (C34)	ND		ug Abs	2.00	0.318
n-Pentatriacontane (C35)	ND		ug Abs	2.00	0.349
n-Hexatriacontane (C36)	ND		ug Abs	2.00	0.398
n-Heptatriacontane (C37)	ND		ug Abs	2.00	0.444
n-Octatriacontane (C38)	ND		ug Abs	2.00	0.466
n-Nonatriacontane (C39)	ND		ug Abs	2.00	0.649
n-Tetracontane (C40)	ND		ug Abs	2.00	0.649
Total Petroleum Hydrocarbons (C9-C44)	ND		ug Abs	66.0	14.5
Total Saturated Hydrocarbons	2.20	J	ug Abs	2.00	0.209

Surrogate	%Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	97		50-130
d50-Tetracosane	94		50-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATION

Lab Number: L2320537

Project Number: 000029-02.78 T12A

Report Date: 05/09/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Saturated Hydrocarbons by GC-FID - Mansfield Lab Associated sample(s): 01 Batch: WG1769534-2 WG1769534-3								
Nonane (C9)	95		95		50-130	0		30
n-Decane (C10)	96		98		50-130	2		30
n-Dodecane (C12)	98		100		50-130	2		30
n-Tetradecane (C14)	98		100		50-130	2		30
n-Hexadecane (C16)	109		110		50-130	1		30
n-Octadecane (C18)	106		108		50-130	2		30
n-Nonadecane (C19)	101		103		50-130	2		30
n-Eicosane (C20)	100		102		50-130	2		30
n-Docosane (C22)	100		102		50-130	2		30
n-Tetracosane (C24)	102		104		50-130	2		30
n-Hexacosane (C26)	99		101		50-130	2		30
n-Octacosane (C28)	98		100		50-130	2		30
n-Triacontane (C30)	98		100		50-130	2		30
n-Hexatriacontane (C36)	89		90		50-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
ortho-terphenyl	101		101		50-130
d50-Tetracosane	98		99		50-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATION

Lab Number: L2320537

Project Number: 000029-02.78 T12A

Report Date: 05/09/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Saturated Hydrocarbons by GC-FID - Mansfield Lab Associated sample(s): 02 Batch: WG1770361-2 WG1770361-3								
Nonane (C9)	73		74		50-130	1		30
n-Decane (C10)	84		84		50-130	0		30
n-Dodecane (C12)	91		91		50-130	0		30
n-Tetradecane (C14)	92		92		50-130	0		30
n-Hexadecane (C16)	105		105		50-130	0		30
n-Octadecane (C18)	103		102		50-130	1		30
n-Nonadecane (C19)	99		98		50-130	1		30
n-Eicosane (C20)	98		97		50-130	1		30
n-Docosane (C22)	98		97		50-130	1		30
n-Tetracosane (C24)	99		98		50-130	1		30
n-Hexacosane (C26)	95		94		50-130	1		30
n-Octacosane (C28)	94		93		50-130	1		30
n-Triacontane (C30)	93		92		50-130	1		30
n-Hexatriacontane (C36)	83		82		50-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
ortho-terphenyl	96		96		50-130
d50-Tetracosane	93		93		50-130

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L2320537
Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Saturated Hydrocarbons by GC-FID - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1769534-4 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						
n-Nonane (C9)	ND	ND	mg/kg	NC		30
n-Decane (C10)	194	200	mg/kg	3		30
n-Undecane (C11)	595	451	mg/kg	28		30
n-Dodecane (C12)	ND	ND	mg/kg	NC		30
n-Tridecane (C13)	1200	1290	mg/kg	7		30
2,6,10-Trimethyldodecane (1380)	6840	6950	mg/kg	2		30
n-Tetradecane (C14)	918	891	mg/kg	3		30
2,6,10-Trimethyltridecane (1470)	7240	7190	mg/kg	1		30
n-Pentadecane (C15)	ND	ND	mg/kg	NC		30
n-Hexadecane (C16)	ND	ND	mg/kg	NC		30
Norpristane (1650)	7720	7840	mg/kg	2		30
n-Heptadecane (C17)	357	334	mg/kg	7		30
Pristane	13300	13400	mg/kg	1		30
n-Octadecane (C18)	ND	ND	mg/kg	NC		30
Phytane	8500	8710	mg/kg	2		30
n-Nonadecane (C19)	132J	136J	mg/kg	NC		30
n-Eicosane (C20)	239	176J	mg/kg	NC		30
n-Heneicosane (C21)	582	626	mg/kg	7		30
n-Docosane (C22)	ND	ND	mg/kg	NC		30
n-Tricosane (C23)	53.4J	62.5J	mg/kg	NC		30
n-Tetracosane (C24)	ND	ND	mg/kg	NC		30

Lab Duplicate Analysis Batch Quality Control

Project Name: GASCO HYDROCARBON INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Saturated Hydrocarbons by GC-FID - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1769534-4 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						
n-Pentacosane (C25)	178JC	172JC	mg/kg	NC		30
n-Hexacosane (C26)	ND	ND	mg/kg	NC		30
n-Heptacosane (C27)	ND	ND	mg/kg	NC		30
n-Octacosane (C28)	ND	ND	mg/kg	NC		30
n-Nonacosane (C29)	ND	ND	mg/kg	NC		30
n-Triacontane (C30)	ND	ND	mg/kg	NC		30
n-Hentriacontane (C31)	ND	ND	mg/kg	NC		30
n-Dotriacontane (C32)	ND	ND	mg/kg	NC		30
n-Tritriacontane (C33)	ND	ND	mg/kg	NC		30
n-Tetratriacontane (C34)	ND	ND	mg/kg	NC		30
n-Pentatriacontane (C35)	ND	ND	mg/kg	NC		30
n-Hexatriacontane (C36)	ND	ND	mg/kg	NC		30
n-Heptatriacontane (C37)	ND	ND	mg/kg	NC		30
n-Octatriacontane (C38)	ND	ND	mg/kg	NC		30
n-Nonatriacontane (C39)	ND	ND	mg/kg	NC		30
n-Tetracontane (C40)	ND	ND	mg/kg	NC		30
Total Petroleum Hydrocarbons (C9-C44)	879000	884000	mg/kg	1		30
Total Saturated Hydrocarbons	48000J	48400J	mg/kg	NC		30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
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Project Name: GASCO HYDROCARBON INVESTIGATIO

Project Number: 000029-02.78 T12A

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L2320537

Report Date: 05/09/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Saturated Hydrocarbons by GC-FID - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1769534-4 QC Sample: L2320537-01 Client ID: MW2112-041723-NAPL						

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
ortho-terphenyl	103		101		50-130
d50-Tetracosane	96		96		50-130

Project Name: GASCO HYDROCARBON INVESTIGATIO**Lab Number:** L2320537**Project Number:** 000029-02.78 T12A**Report Date:** 05/09/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2320537-01A	Vial unpreserved 20ml hard-cap	A	NA		6.0	Y	Absent		A2-PIANO8260(365),A2-SHC(365),A2-ALKPAH(365)
L2320537-02A	Glass 120ml/4oz w/1:4 Acetone:Hexane	A	NA		6.0	Y	Absent		A2-SHC(14),A2-ALKPAH(14)
L2320537-02B	Glass 120ml/4oz w/1:4 Acetone:Hexane	A	NA		6.0	Y	Absent		A2-SHC(14),A2-ALKPAH(14)

Project Name: GASCO HYDROCARBON INVESTIGATION**Lab Number:** L2320537**Project Number:** 000029-02.78 T12A**Report Date:** 05/09/23

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 INVESTIGATION
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

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.

Chlordane: 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.)

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'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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.

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

Report Format: DU Report with 'J' Qualifiers



Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

Data Qualifiers

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.
- 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



Project Name: GASCO HYDROCARBON INVESTIGATIO
Project Number: 000029-02.78 T12A

Lab Number: L2320537
Report Date: 05/09/23

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

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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, NO₂, NO₃.**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, **LACHAT 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.

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UNITED STATES US

SHIP DATE: 17APR23
ACTWGT: 6.00 LB
CAD: 109495568/INET4535
DIMS: 13x10x9 IN
BILL SENDER

TO **LIZ PORTA**
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320 FORBES BLVD
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583J378CFE2D

(508) 844-4124
INV: 000029-02.84 T - 01.001K
PC: DOUG LAFFOON

REF: 000029-02.84 T - 01.001K

DEPT: ANALYTICAL

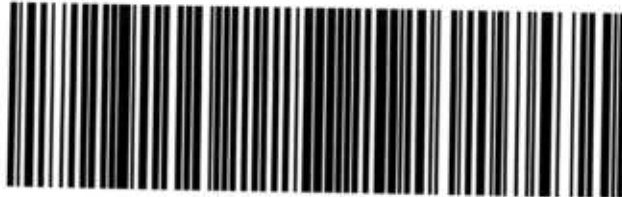


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