

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL042925\
 Data File : VL042454.D
 Acq On : 29 Apr 2025 19:57
 Operator : SY/MD
 Sample : Q1908-01DUP
 Misc : 400mL/MSVOA_L
 ALS Vial : 15 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 B-1DUP

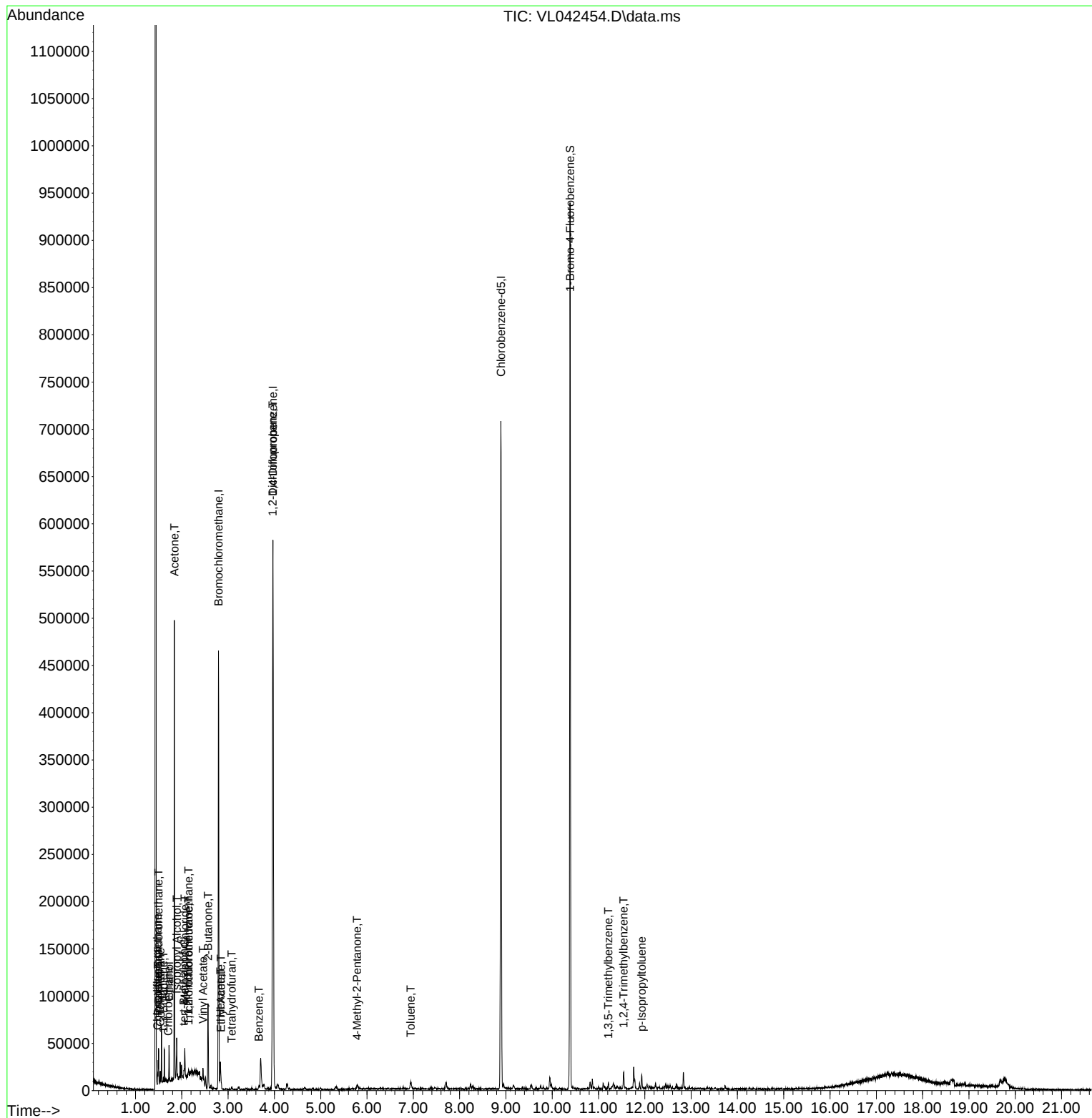
Quant Time: Apr 30 01:25:05 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041725AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Apr 18 02:14:00 2025
 Response via : Initial Calibration

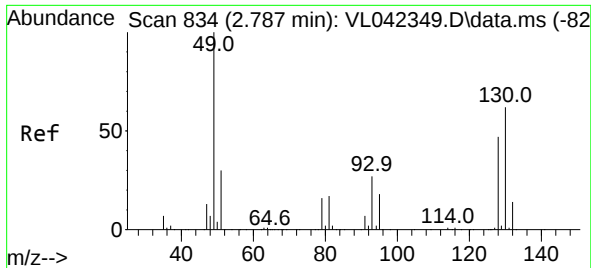
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.793	49	114972	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.968	114	297262	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.891	117	249799	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.386	95	227429	11.079	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	110.800%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.499	85	8835	0.435	ppbv	98
3) Chlorodifluoromethane	1.476	51	5973	0.309	ppbv	92
4) Chloromethane	1.534	50	2990	0.372	ppbv #	79
7) Chloroethane	1.706	64	126	0.040	ppbv #	86
9) Propene	1.489	41	1876	0.213	ppbv	93
11) Trichlorofluoromethane	2.146	101	1170	0.061	ppbv	88
12) 1,1,2-Trichlorotrifluo...	2.146	101	1170	0.074	ppbv	90
13) Ethanol	1.725	45	13819	9.870	ppbv	78
15) Acetone	1.839	43	204657	10.874	ppbv	95
16) 1,3-Butadiene	1.602	39	869	0.097	ppbv #	64
17) tert-Butyl alcohol	2.046	59	1786	0.077	ppbv #	62
19) Isopropyl Alcohol	1.890	45	15228	1.456	ppbv #	1
20) Methylene Chloride	2.065	84	4181	0.567	ppbv	93
23) Vinyl Acetate	2.457	43	5933	0.779	ppbv #	66
25) Ethyl Acetate	2.845	43	3467	0.075	ppbv #	77
26) Hexane	2.832	57	6028	0.321	ppbv #	57
34) 2-Butanone	2.567	43	52901	2.250	ppbv	99
36) Benzene	3.664	78	1385	0.043	ppbv #	81
39) 1,2-Dichloropropane	3.965	63	87095	7.289	ppbv #	23
41) Tetrahydrofuran	3.075	42	528	0.039	ppbv #	64
50) 4-Methyl-2-Pentanone	5.784	43	1321	0.034	ppbv #	39
53) Toluene	6.946	91	2964	0.077	ppbv #	36
69) p-Isopropyltoluene	11.930	119	4601	0.070	ppbv #	91
73) 1,3,5-Trimethylbenzene	11.209	105	1799	0.042	ppbv	94
74) 1,2,4-Trimethylbenzene	11.542	105	5541	0.109	ppbv #	70

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

Quant Time: Apr 30 01:25:05 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041725AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri Apr 18 02:14:00 2025
Response via : Initial Calibration

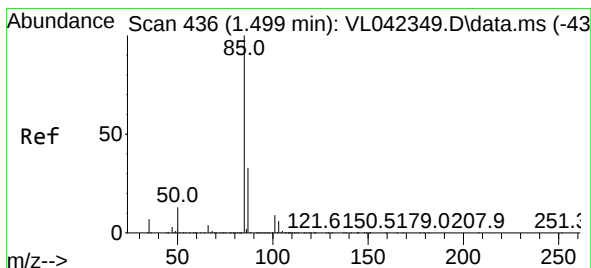
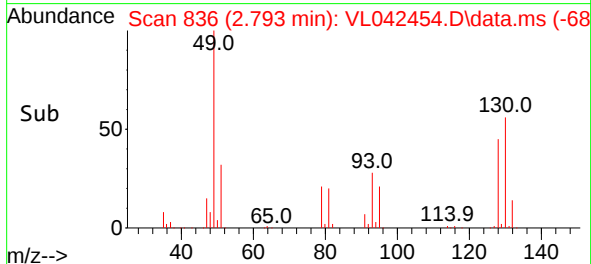
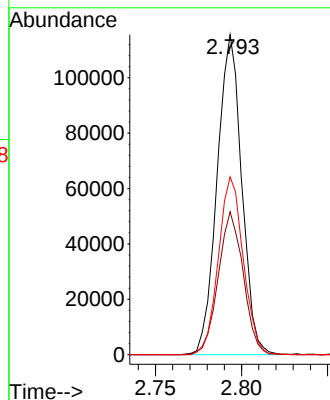
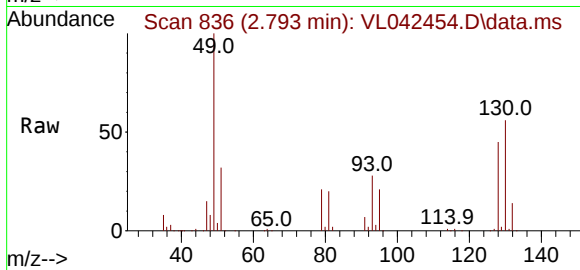




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.793 min Scan# 834
 Delta R.T. 0.006 min
 Lab File: VL042454.D
 Acq: 29 Apr 2025 19:57

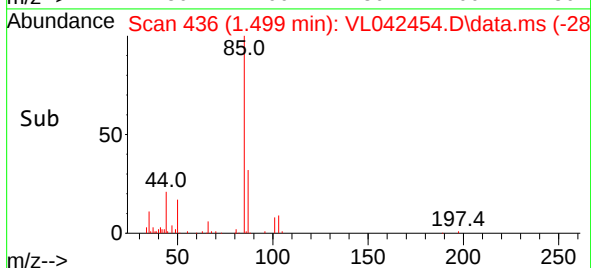
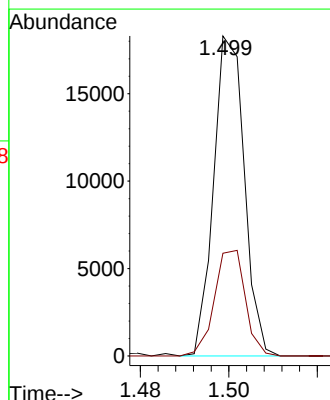
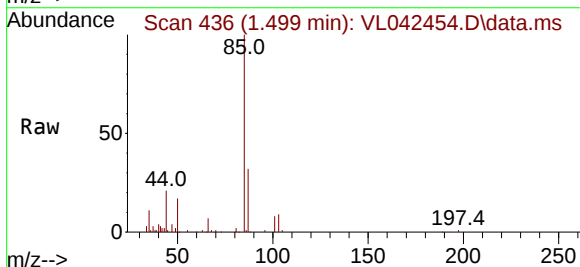
Instrument :
 MSVOA_L
 ClientSampleId :
 B-1DUP

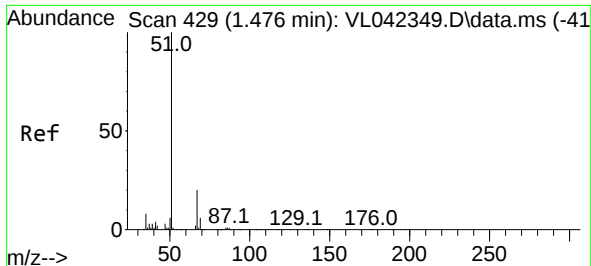
Tgt Ion: 49 Resp: 114972
 Ion Ratio Lower Upper
 49 100
 128 45.3 22.8 68.4
 130 56.2 29.3 88.0



#2
 Dichlorodifluoromethane
 Concen: 0.435 ppbv
 RT: 1.499 min Scan# 436
 Delta R.T. -0.000 min
 Lab File: VL042454.D
 Acq: 29 Apr 2025 19:57

Tgt Ion: 85 Resp: 8835
 Ion Ratio Lower Upper
 85 100
 87 32.1 26.6 39.8

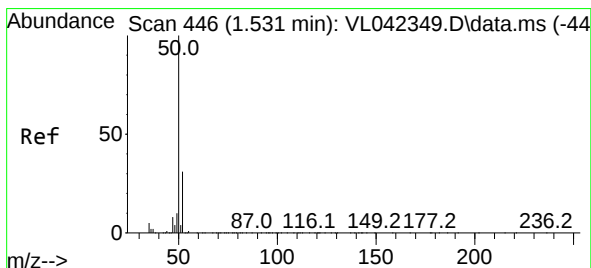
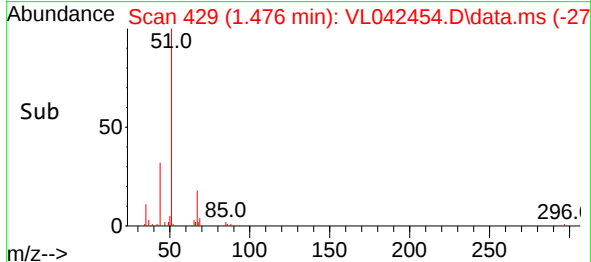
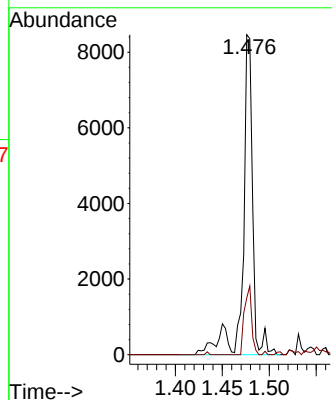
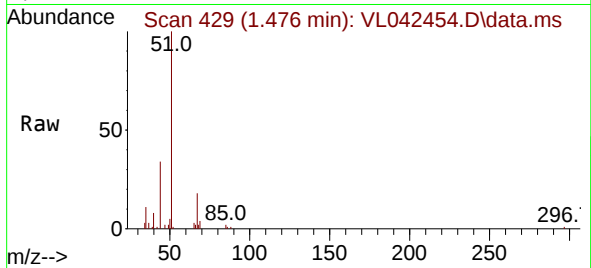




#3
Chlorodifluoromethane
Concen: 0.309 ppbv
RT: 1.476 min Scan# 41
Delta R.T. -0.000 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

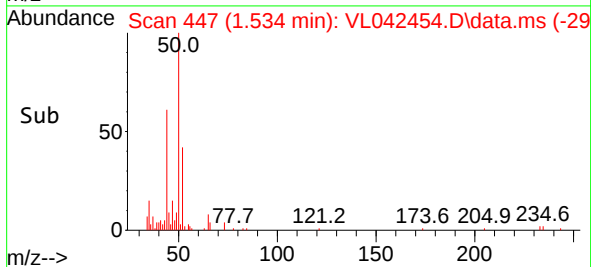
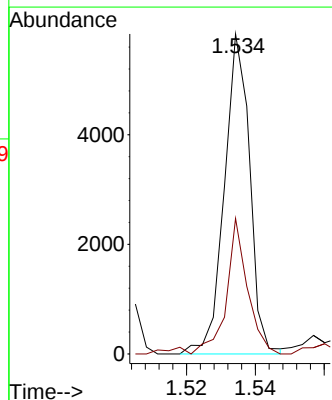
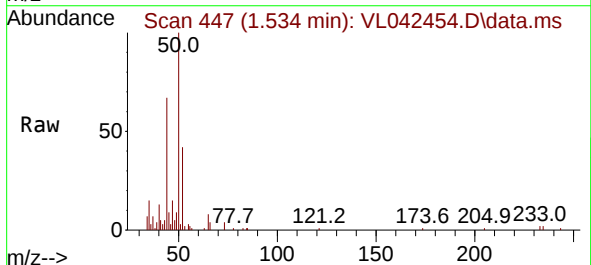
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ClientSampleId :
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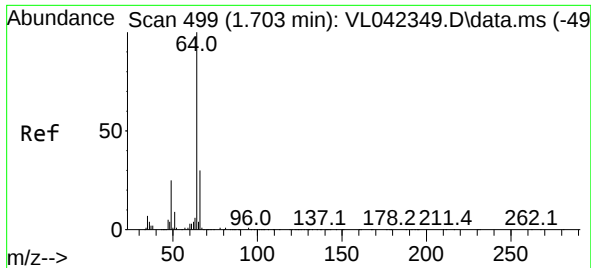
Tgt Ion: 51 Resp: 5973
Ion Ratio Lower Upper
51 100
67 16.5 16.2 24.4



#4
Chloromethane
Concen: 0.372 ppbv
RT: 1.534 min Scan# 447
Delta R.T. 0.003 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

Tgt Ion: 50 Resp: 2990
Ion Ratio Lower Upper
50 100
52 42.4 24.7 37.1#

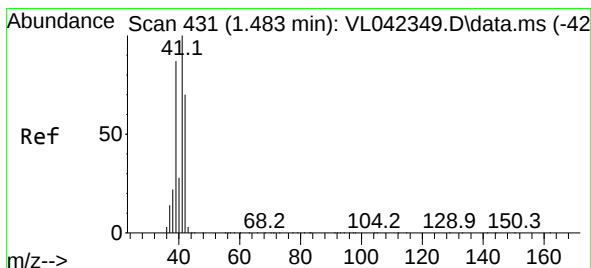
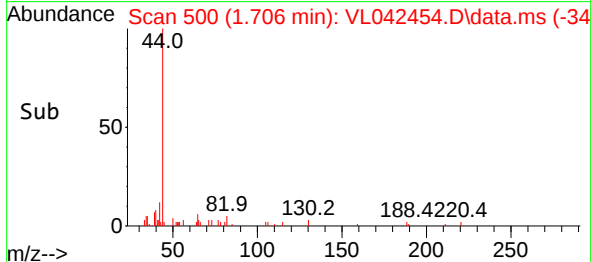
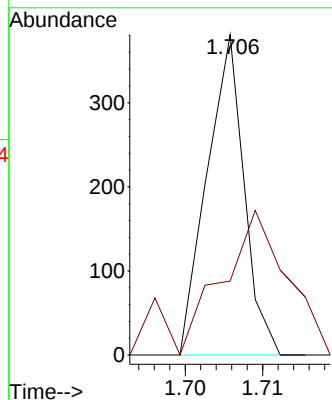
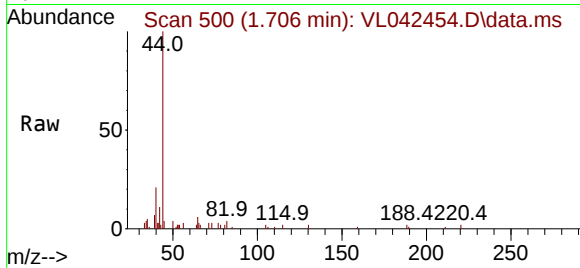




#7
Chloroethane
Concen: 0.040 ppbv
RT: 1.706 min Scan# 500
Delta R.T. 0.003 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

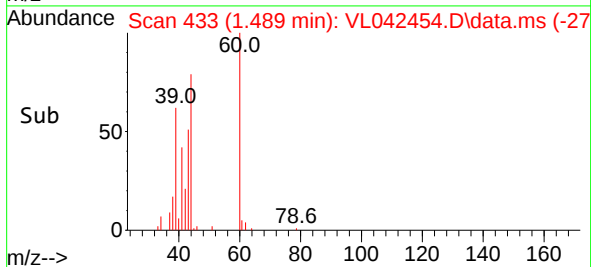
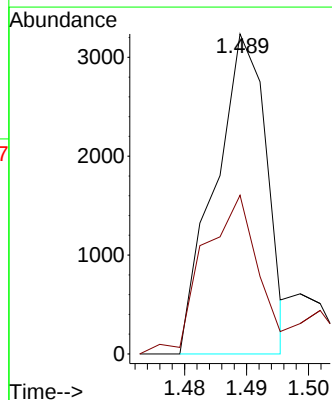
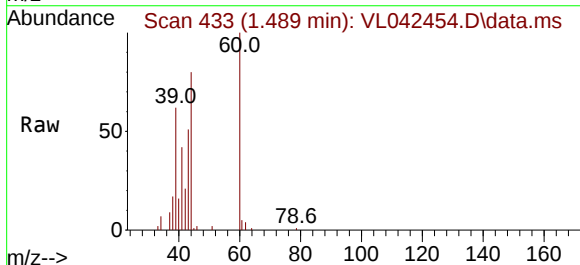
Instrument :
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ClientSampleId :
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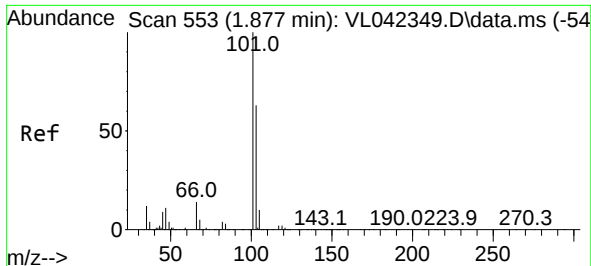
Tgt Ion: 64 Resp: 126
Ion Ratio Lower Upper
64 100
66 23.1 24.6 37.0#



#9
Propene
Concen: 0.213 ppbv
RT: 1.489 min Scan# 433
Delta R.T. 0.006 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

Tgt Ion: 41 Resp: 1876
Ion Ratio Lower Upper
41 100
42 64.6 56.2 84.4

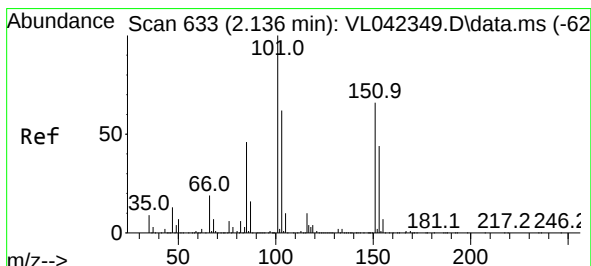
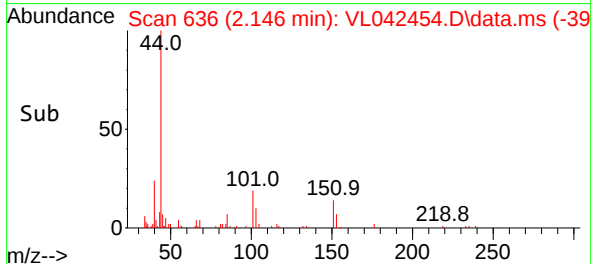
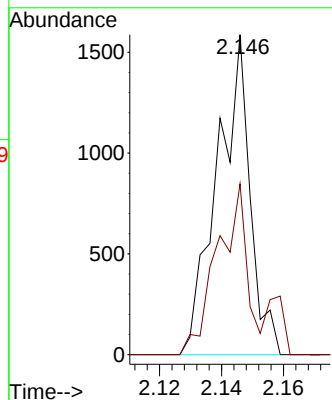
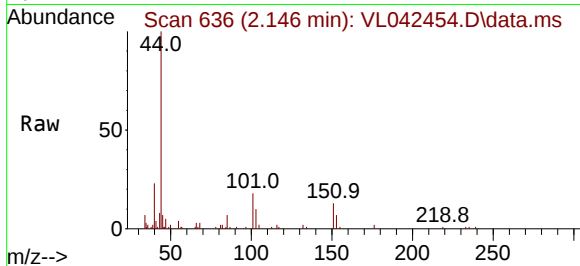




#11
 Trichlorofluoromethane
 Concen: 0.061 ppbv
 RT: 2.146 min Scan# 611
 Delta R.T. 0.269 min
 Lab File: VL042454.D
 Acq: 29 Apr 2025 19:57

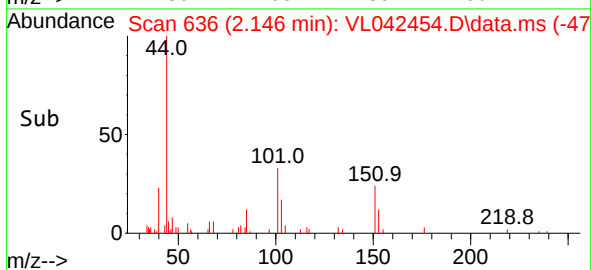
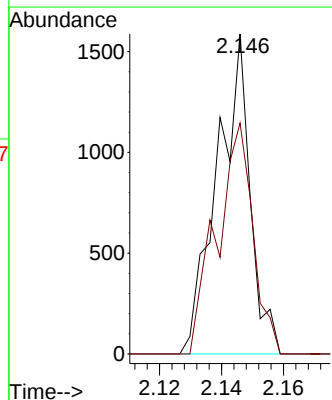
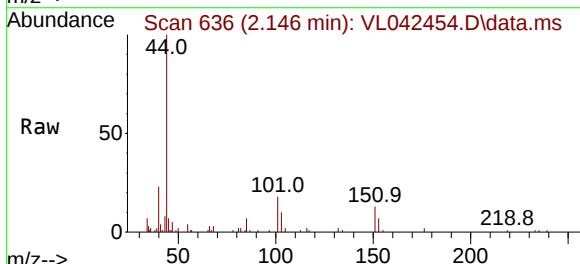
Instrument :
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 ClientSampleId :
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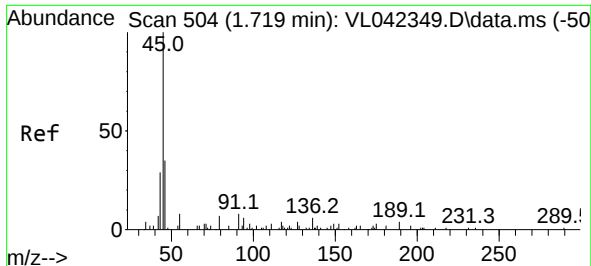
Tgt Ion:101 Resp: 1170
 Ion Ratio Lower Upper
 101 100
 103 53.4 50.1 75.1



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.074 ppbv
 RT: 2.146 min Scan# 636
 Delta R.T. 0.010 min
 Lab File: VL042454.D
 Acq: 29 Apr 2025 19:57

Tgt Ion:101 Resp: 1170
 Ion Ratio Lower Upper
 101 100
 151 79.4 57.0 85.6

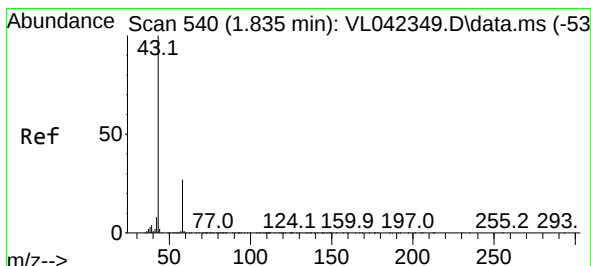
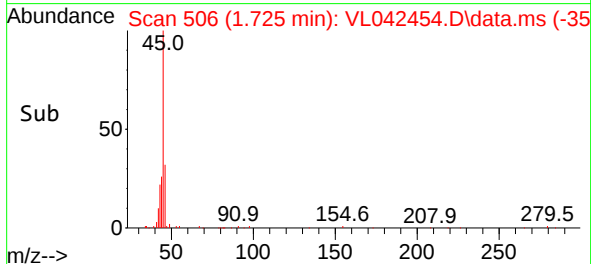
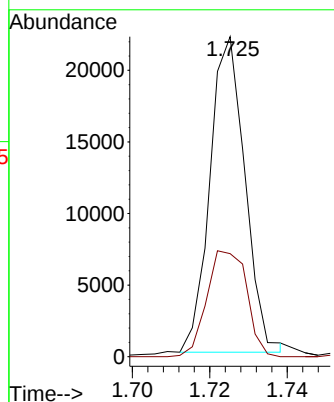
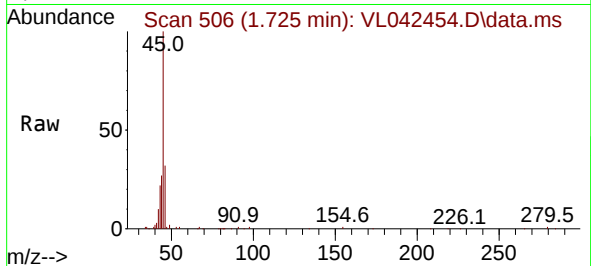




#13
Ethanol
Concen: 9.870 ppbv
RT: 1.725 min Scan# 504
Delta R.T. 0.006 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

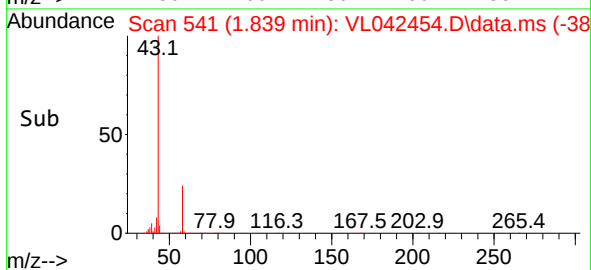
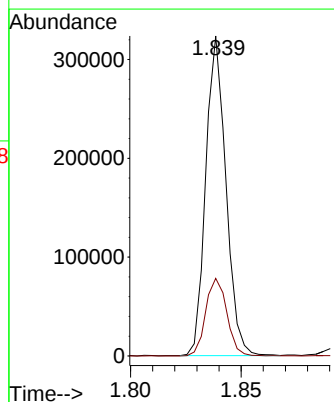
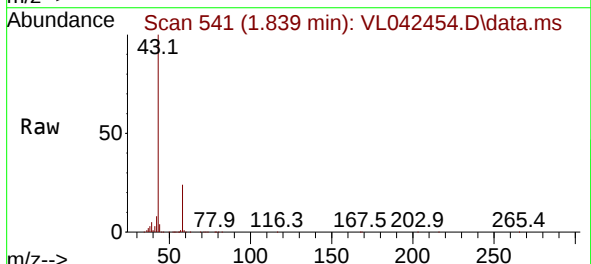
Instrument :
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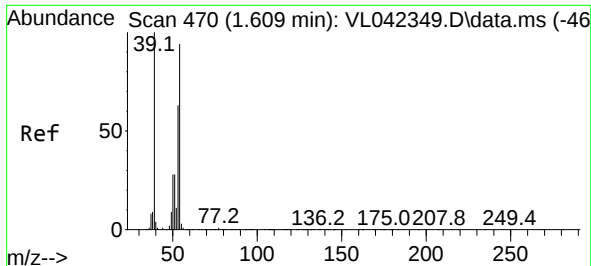
Tgt Ion: 45 Resp: 13819
Ion Ratio Lower Upper
45 100
46 38.9 21.9 87.7



#15
Acetone
Concen: 10.874 ppbv
RT: 1.839 min Scan# 541
Delta R.T. 0.003 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

Tgt Ion: 43 Resp: 204657
Ion Ratio Lower Upper
43 100
58 25.5 22.4 33.6

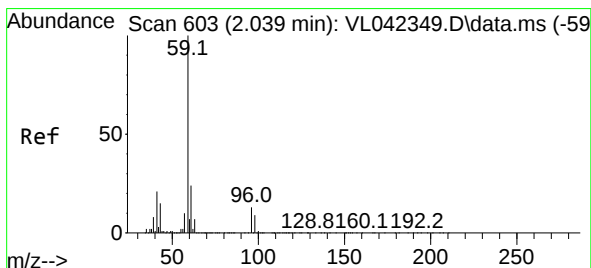
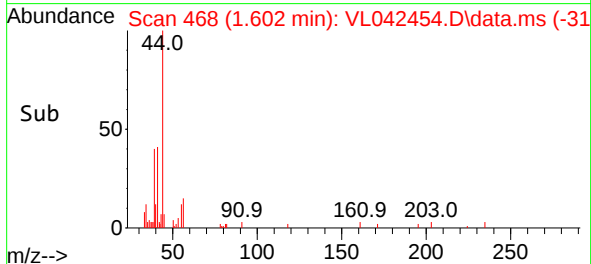
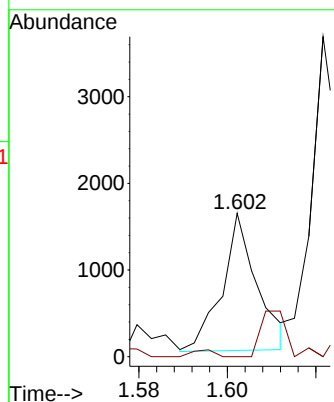
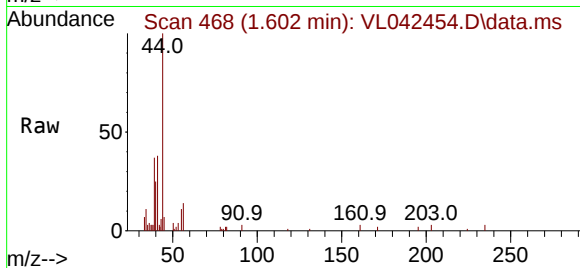




#16
1,3-Butadiene
Concen: 0.097 ppbv
RT: 1.602 min Scan# 41
Delta R.T. -0.007 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

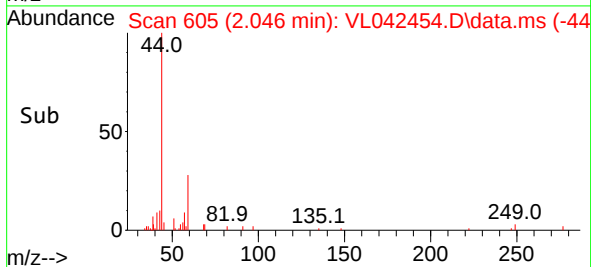
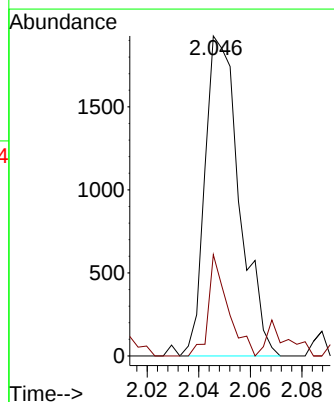
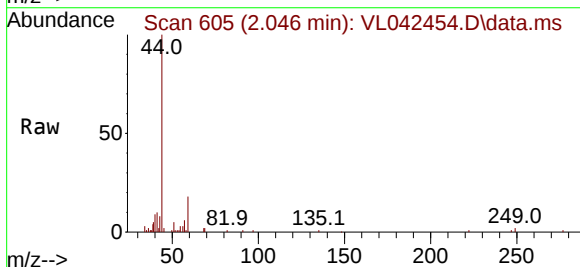
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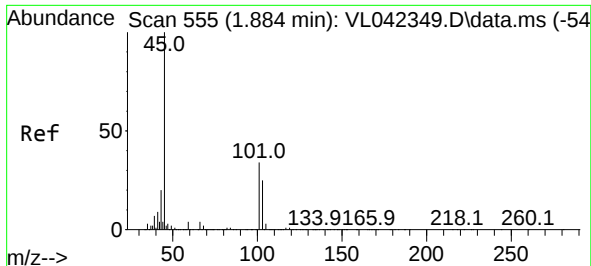
Tgt Ion: 39 Resp: 869
Ion Ratio Lower Upper
39 100
54 48.8 64.9 97.3#



#17
tert-Butyl alcohol
Concen: 0.077 ppbv
RT: 2.046 min Scan# 605
Delta R.T. 0.006 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

Tgt Ion: 59 Resp: 1786
Ion Ratio Lower Upper
59 100
57 25.3 8.7 13.1#

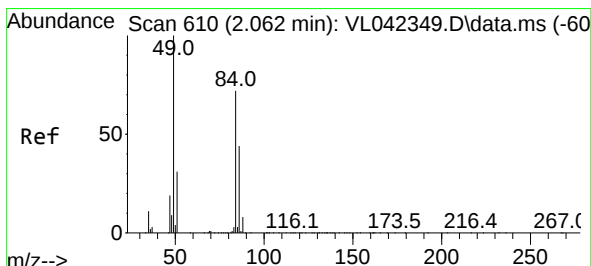
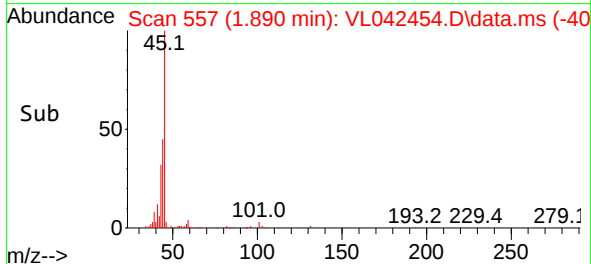
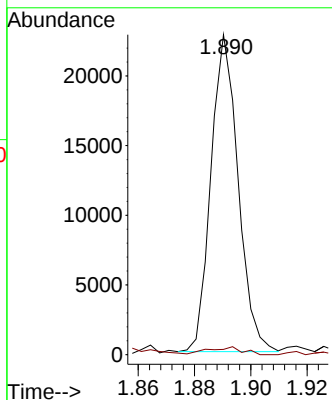
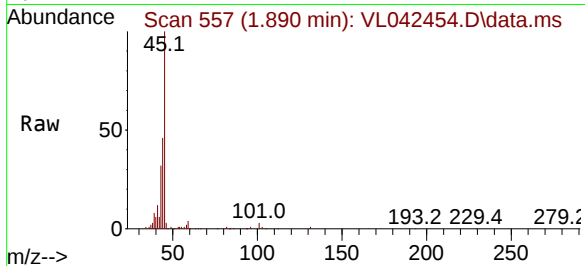




#19
Isopropyl Alcohol
Concen: 1.456 ppbv
RT: 1.890 min Scan# 51
Delta R.T. 0.006 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

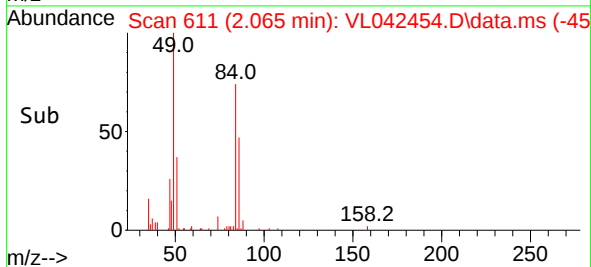
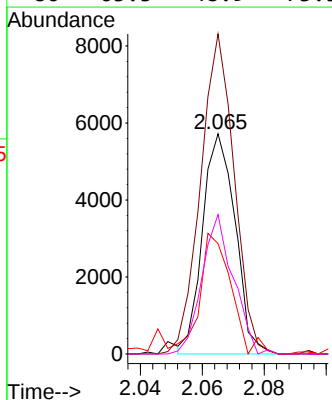
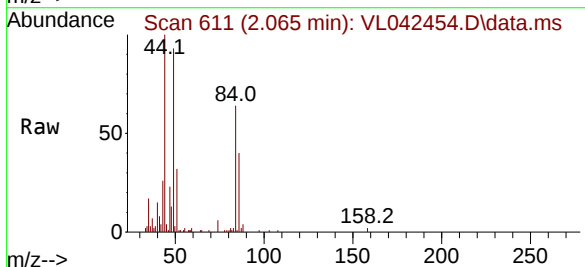
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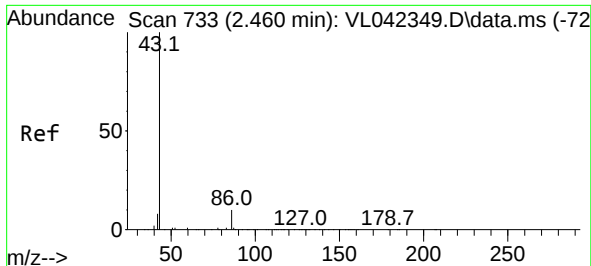
Tgt Ion: 45 Resp: 15228
Ion Ratio Lower Upper
45 100
58 342.6 34.5 51.7#



#20
Methylene Chloride
Concen: 0.567 ppbv
RT: 2.065 min Scan# 611
Delta R.T. 0.003 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

Tgt Ion: 84 Resp: 4181
Ion Ratio Lower Upper
84 100
49 149.6 111.6 167.4
51 50.1 35.1 52.7
86 63.3 48.9 73.3

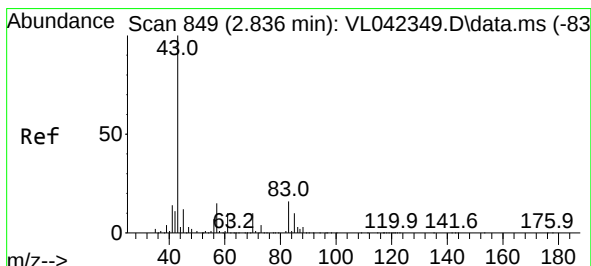
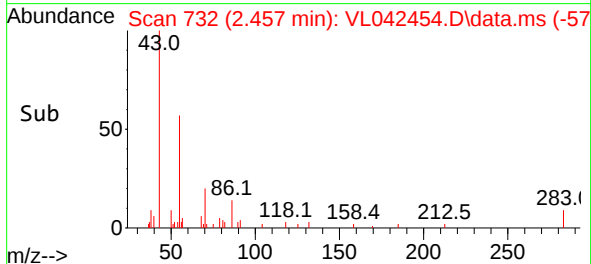
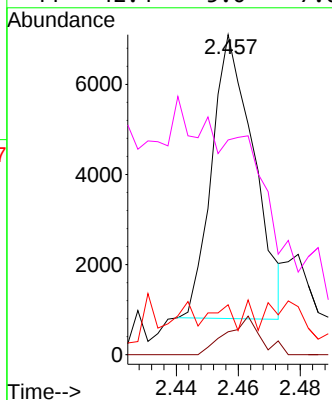
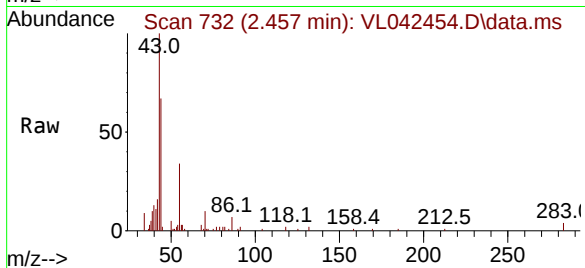




#23
Vinyl Acetate
Concen: 0.779 ppbv
RT: 2.457 min Scan# 71
Delta R.T. -0.003 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

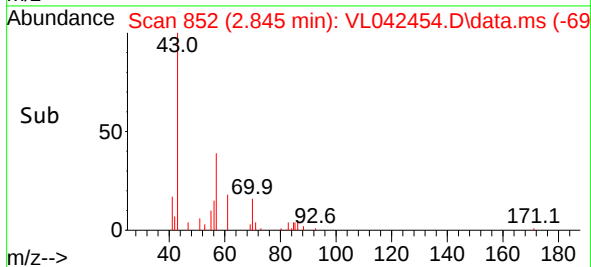
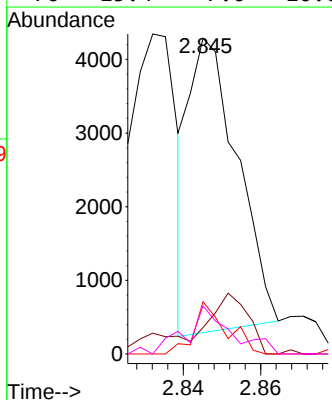
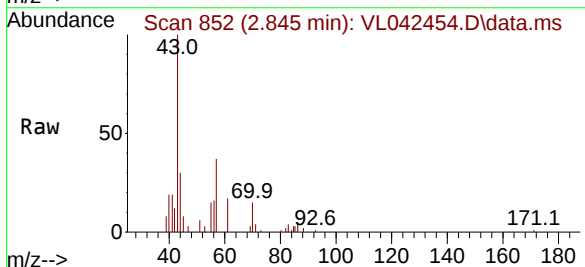
Instrument :
MSVOA_1
ClientSampleId :
B-1DUP

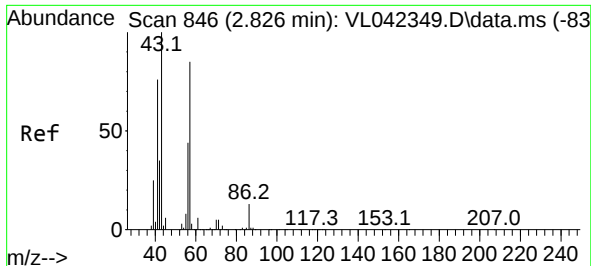
Tgt Ion:	43	Resp:	5933
Ion	Ratio	Lower	Upper
43	100		
86	8.1	6.5	9.7
42	3.9	7.8	11.8#
44	42.4	5.0	7.6#



#25
Ethyl Acetate
Concen: 0.075 ppbv
RT: 2.845 min Scan# 852
Delta R.T. 0.010 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

Tgt Ion:	43	Resp:	3467
Ion	Ratio	Lower	Upper
43	100		
45	25.7	8.3	12.5#
61	11.8	7.3	10.9#
70	15.4	7.0	10.6#

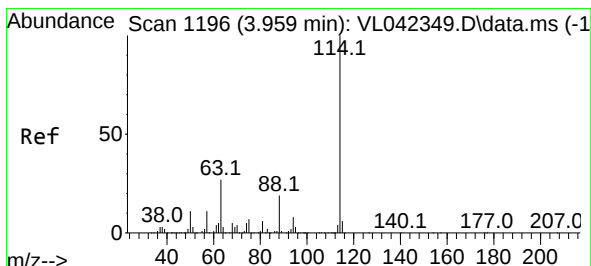
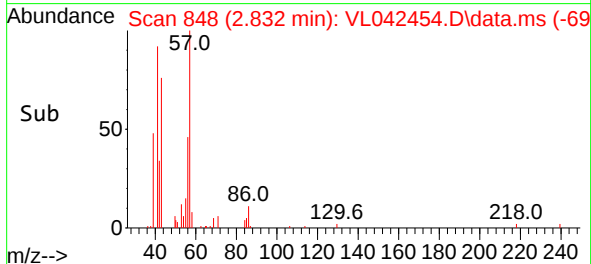
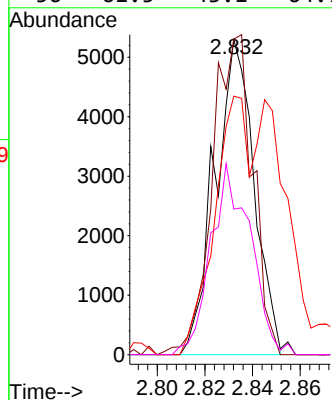
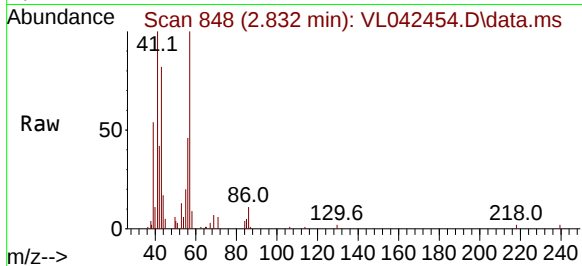




#26
Hexane
Concen: 0.321 ppbv
RT: 2.832 min Scan# 846
Delta R.T. 0.006 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

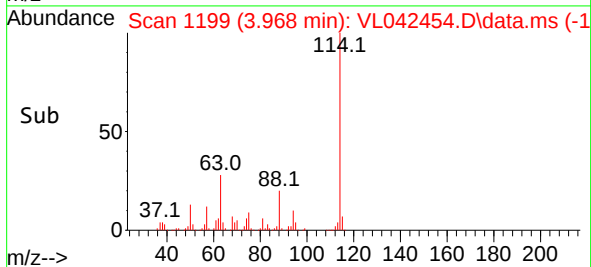
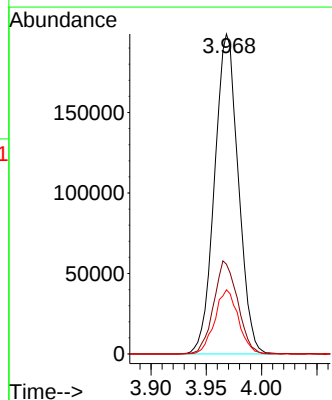
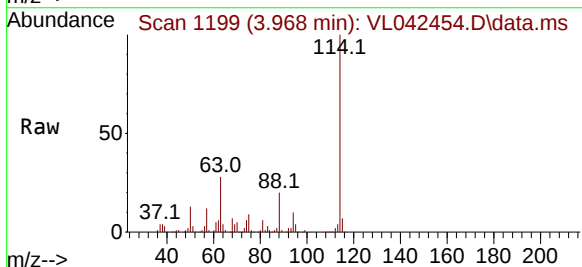
Instrument :
MSVOA_L
ClientSampleId :
B-1DUP

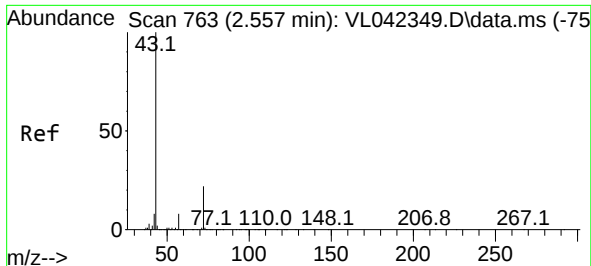
Tgt Ion:	57	Resp:	6028
Ion	Ratio	Lower	Upper
57	100		
41	105.4	77.9	116.9
43	147.4	208.4	312.6#
56	61.5	43.1	64.7



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.968 min Scan# 1199
Delta R.T. 0.010 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

Tgt Ion:	114	Resp:	297262
Ion	Ratio	Lower	Upper
114	100		
63	29.5	21.8	32.6
88	19.9	15.5	23.3

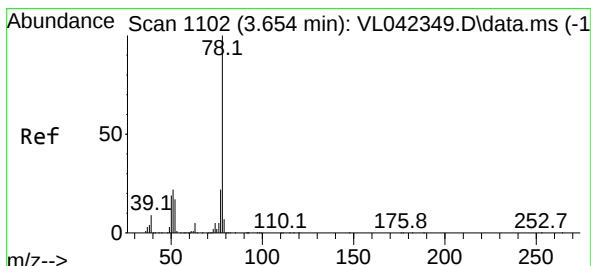
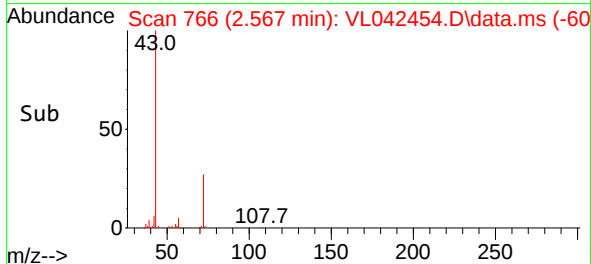
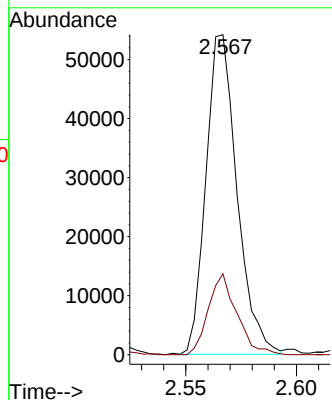
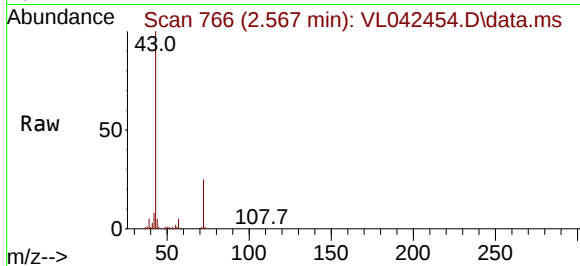




#34
2-Butanone
Concen: 2.250 ppbv
RT: 2.567 min Scan# 766
Delta R.T. 0.010 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

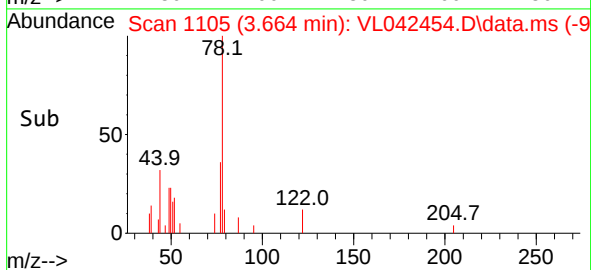
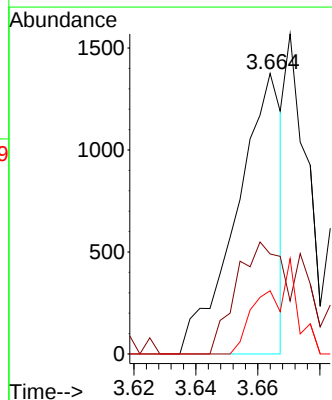
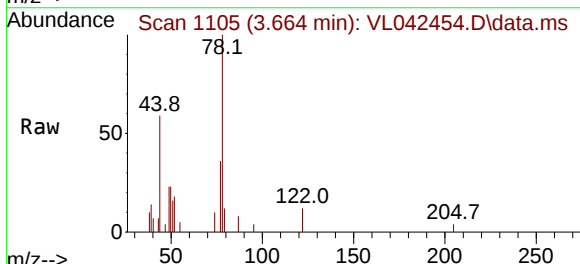
Instrument :
MSVOA_L
ClientSampleId :
B-1DUP

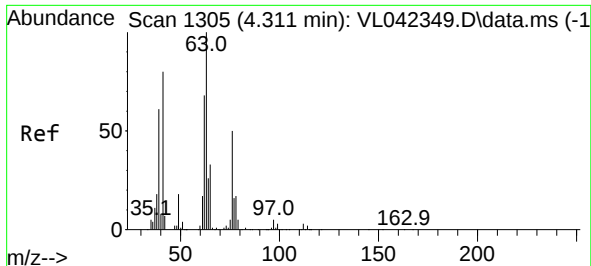
Tgt Ion: 43 Resp: 52901
Ion Ratio Lower Upper
43 100
72 23.1 18.2 27.2



#36
Benzene
Concen: 0.043 ppbv
RT: 3.664 min Scan# 1105
Delta R.T. 0.010 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

Tgt Ion: 78 Resp: 1385
Ion Ratio Lower Upper
78 100
77 35.6 17.4 26.0#
50 22.5 15.5 23.3





#39

1,2-Dichloropropane

Concen: 7.289 ppbv

RT: 3.965 min Scan# 1198

Delta R.T. -0.346 min

Lab File: VL042454.D

Acq: 29 Apr 2025 19:57

Instrument :

MSVOA_L

ClientSampleId :

B-1DUP

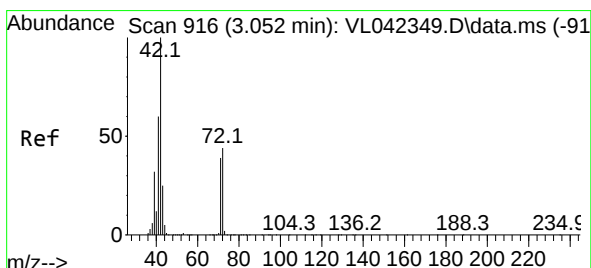
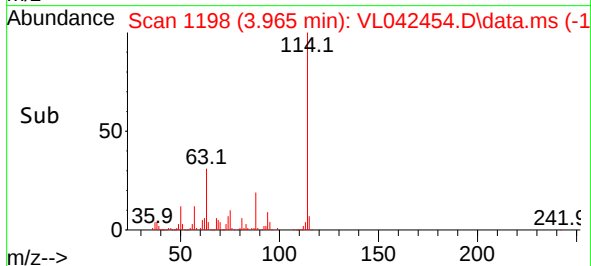
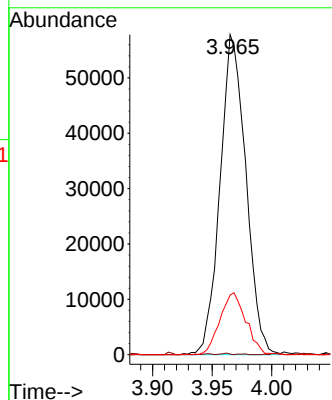
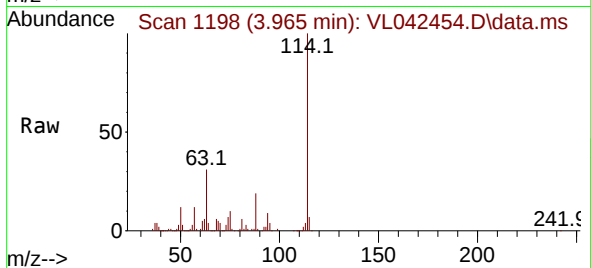
Tgt Ion: 63 Resp: 87095

Ion Ratio Lower Upper

63 100

41 0.2 64.2 96.2#

62 18.7 54.3 81.5#



#41

Tetrahydrofuran

Concen: 0.039 ppbv

RT: 3.075 min Scan# 923

Delta R.T. 0.023 min

Lab File: VL042454.D

Acq: 29 Apr 2025 19:57

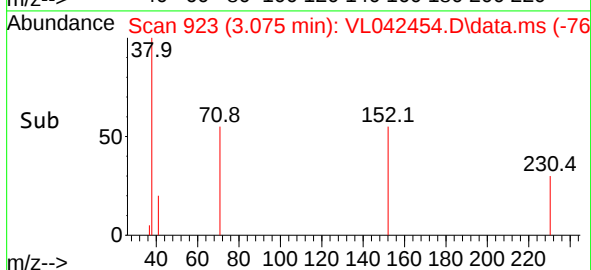
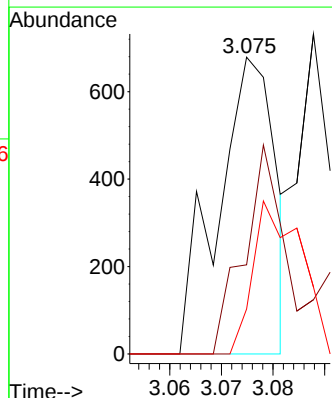
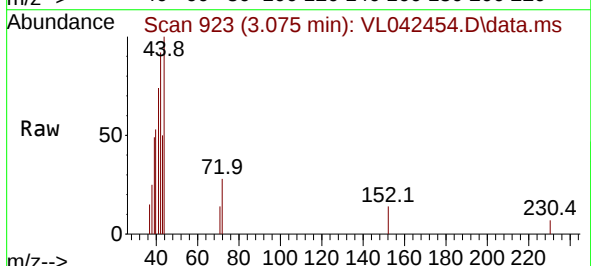
Tgt Ion: 42 Resp: 528

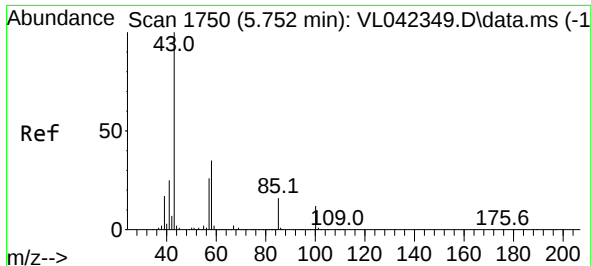
Ion Ratio Lower Upper

42 100

72 0.0 32.3 48.5#

71 42.6 31.4 47.2

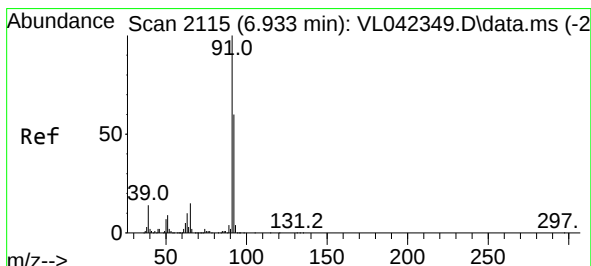
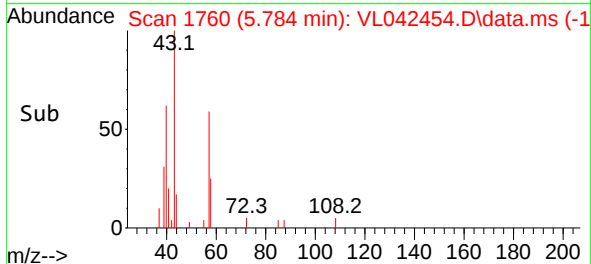
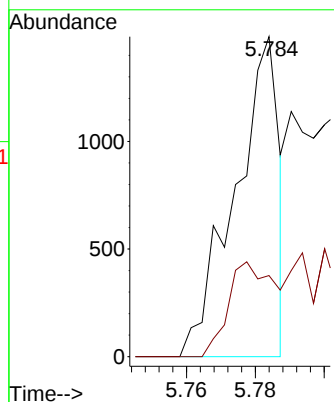
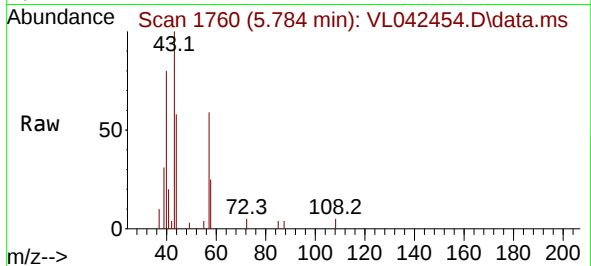




#50
4-Methyl-2-Pentanone
Concen: 0.034 ppbv
RT: 5.784 min Scan# 11
Delta R.T. 0.032 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

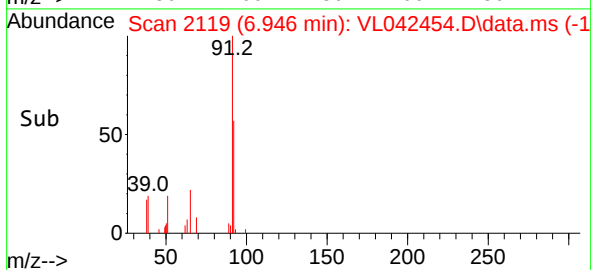
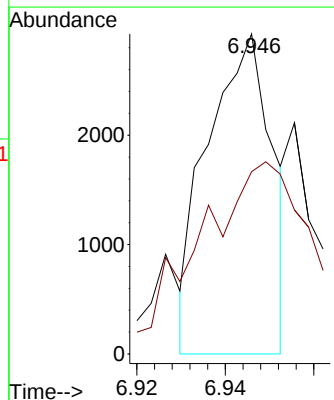
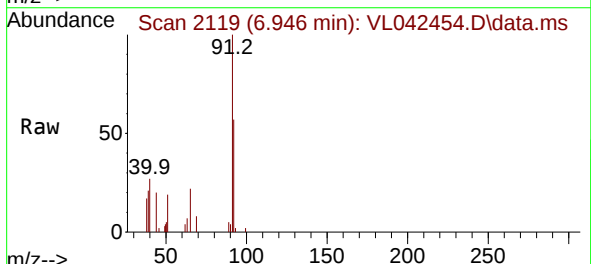
Instrument :
MSVOA_L
ClientSampleId :
B-1DUP

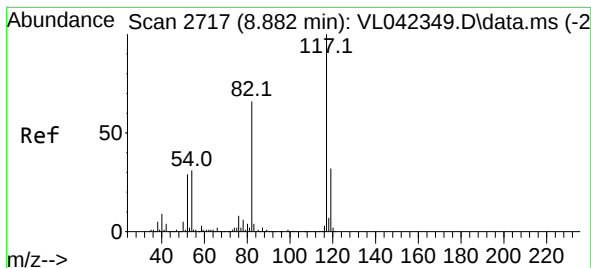
Tgt Ion: 43 Resp: 1321
Ion Ratio Lower Upper
43 100
58 0.0 28.6 43.0#



#53
Toluene
Concen: 0.077 ppbv
RT: 6.946 min Scan# 2119
Delta R.T. 0.013 min
Lab File: VL042454.D
Acq: 29 Apr 2025 19:57

Tgt Ion: 91 Resp: 2964
Ion Ratio Lower Upper
91 100
92 108.6 48.2 72.4#





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 8.891 min Scan# 21

Delta R.T. 0.010 min

Lab File: VL042454.D

Acq: 29 Apr 2025 19:57

Instrument :

MSVOA_L

ClientSampleId :

B-1DUP

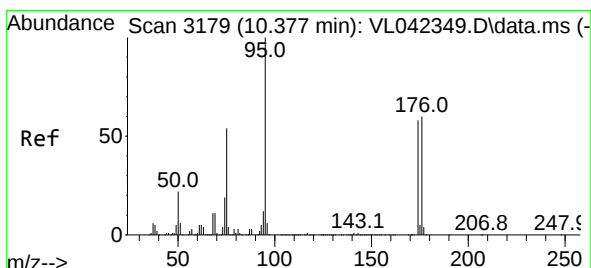
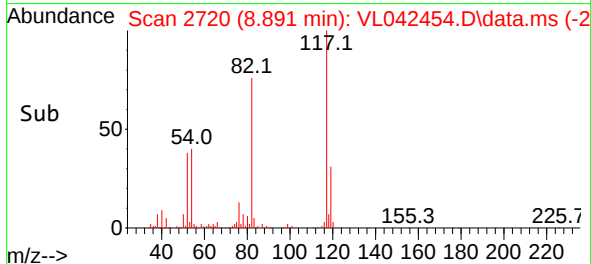
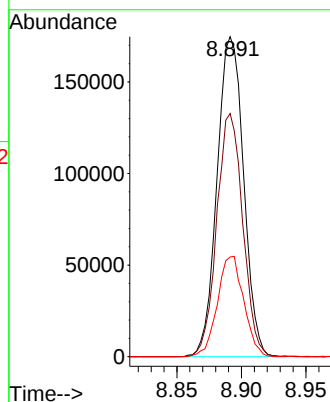
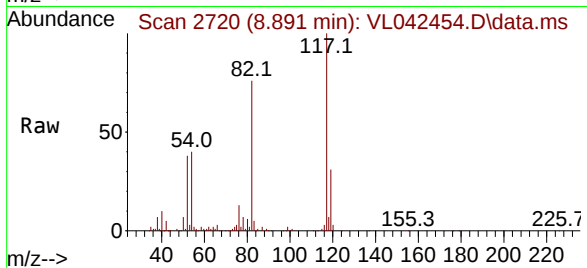
Tgt Ion:117 Resp: 249799

Ion Ratio Lower Upper

117 100

82 74.5 57.8 86.6

119 31.1 25.2 37.8



#68

1-Bromo-4-Fluorobenzene

Concen: 11.079 ppbv

RT: 10.386 min Scan# 3182

Delta R.T. 0.010 min

Lab File: VL042454.D

Acq: 29 Apr 2025 19:57

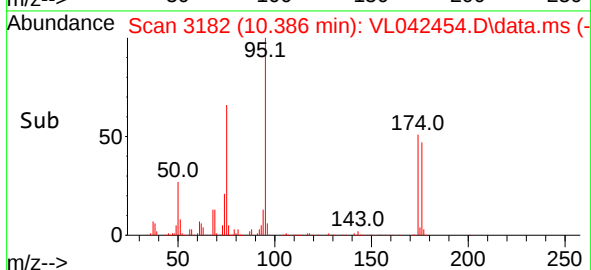
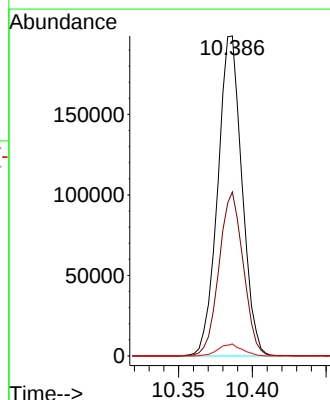
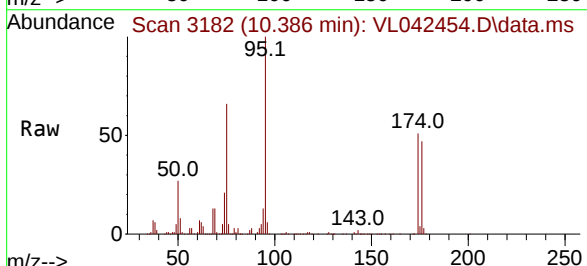
Tgt Ion: 95 Resp: 227429

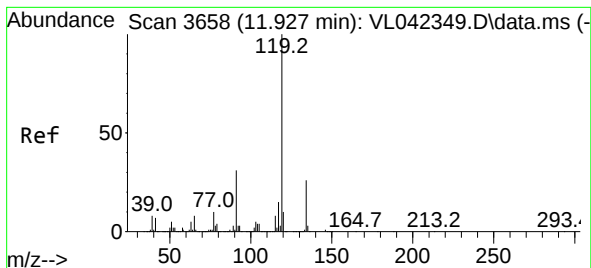
Ion Ratio Lower Upper

95 100

174 51.2 48.5 72.7

175 3.7 3.7 5.5





#69

p-Isopropyltoluene

Concen: 0.070 ppbv

RT: 11.930 min Scan# 3659

Delta R.T. 0.003 min

Lab File: VL042454.D

Acq: 29 Apr 2025 19:57

Instrument :

MSVOA_L

ClientSampleId :

B-1DUP

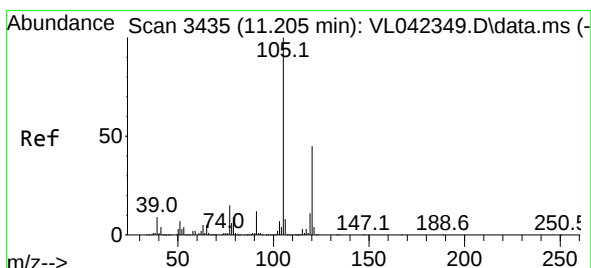
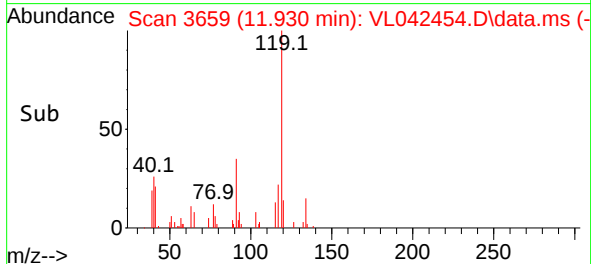
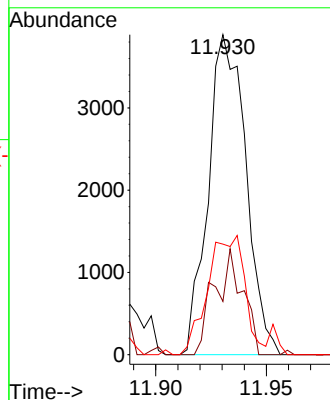
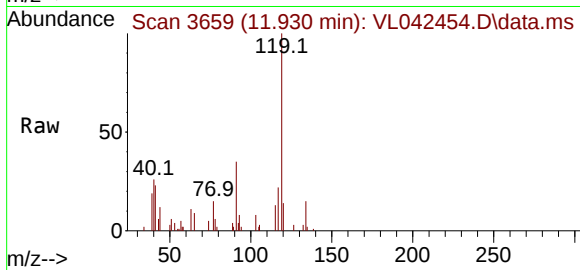
Tgt Ion:119 Resp: 4601

Ion Ratio Lower Upper

119 100

134 25.1 20.0 30.0

91 39.1 24.4 36.6#



#73

1,3,5-Trimethylbenzene

Concen: 0.042 ppbv

RT: 11.209 min Scan# 3436

Delta R.T. 0.003 min

Lab File: VL042454.D

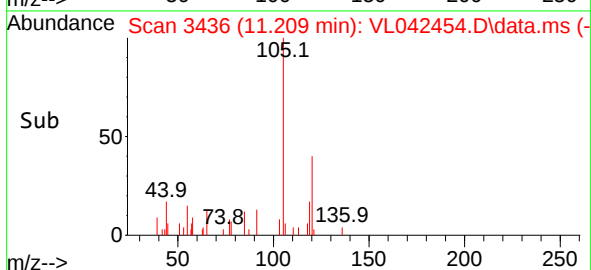
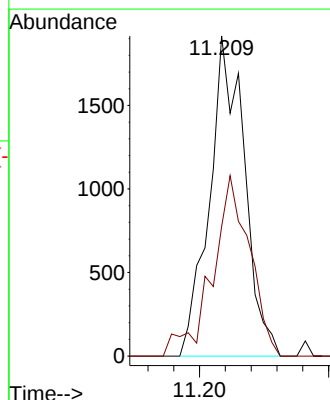
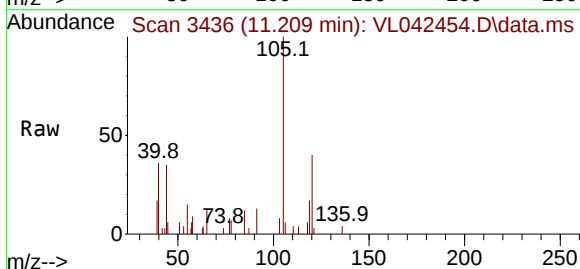
Acq: 29 Apr 2025 19:57

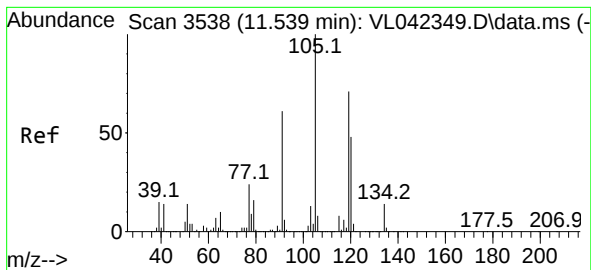
Tgt Ion:105 Resp: 1799

Ion Ratio Lower Upper

105 100

120 40.4 35.6 53.4





#74

1,2,4-Trimethylbenzene

Concen: 0.109 ppbv

RT: 11.542 min Scan# 3

Delta R.T. 0.003 min

Lab File: VL042454.D

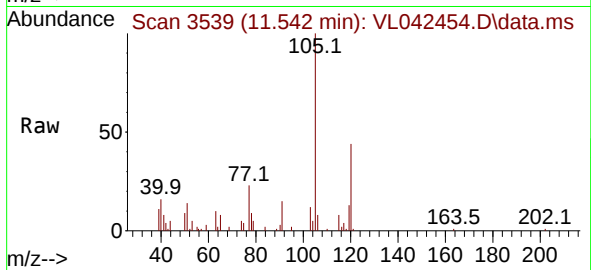
Acq: 29 Apr 2025 19:57

Instrument :

MSVOA_L

ClientSampleId :

B-1DUP



Tgt Ion:105 Resp: 5541

Ion Ratio Lower Upper

105 100

120 44.1 38.1 57.1

91 15.5 48.8 73.2#

77 22.7 19.0 28.4

