

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL040725\
 Data File : VL042231.D
 Acq On : 07 Apr 2025 12:27
 Operator : SY/MD
 Sample : Q1725-04
 Misc : 400mL/MSVOA_L
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 AA-1-03312025

Quant Time: Apr 08 01:30:38 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL032725AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Mar 28 02:00:52 2025
 Response via : Initial Calibration

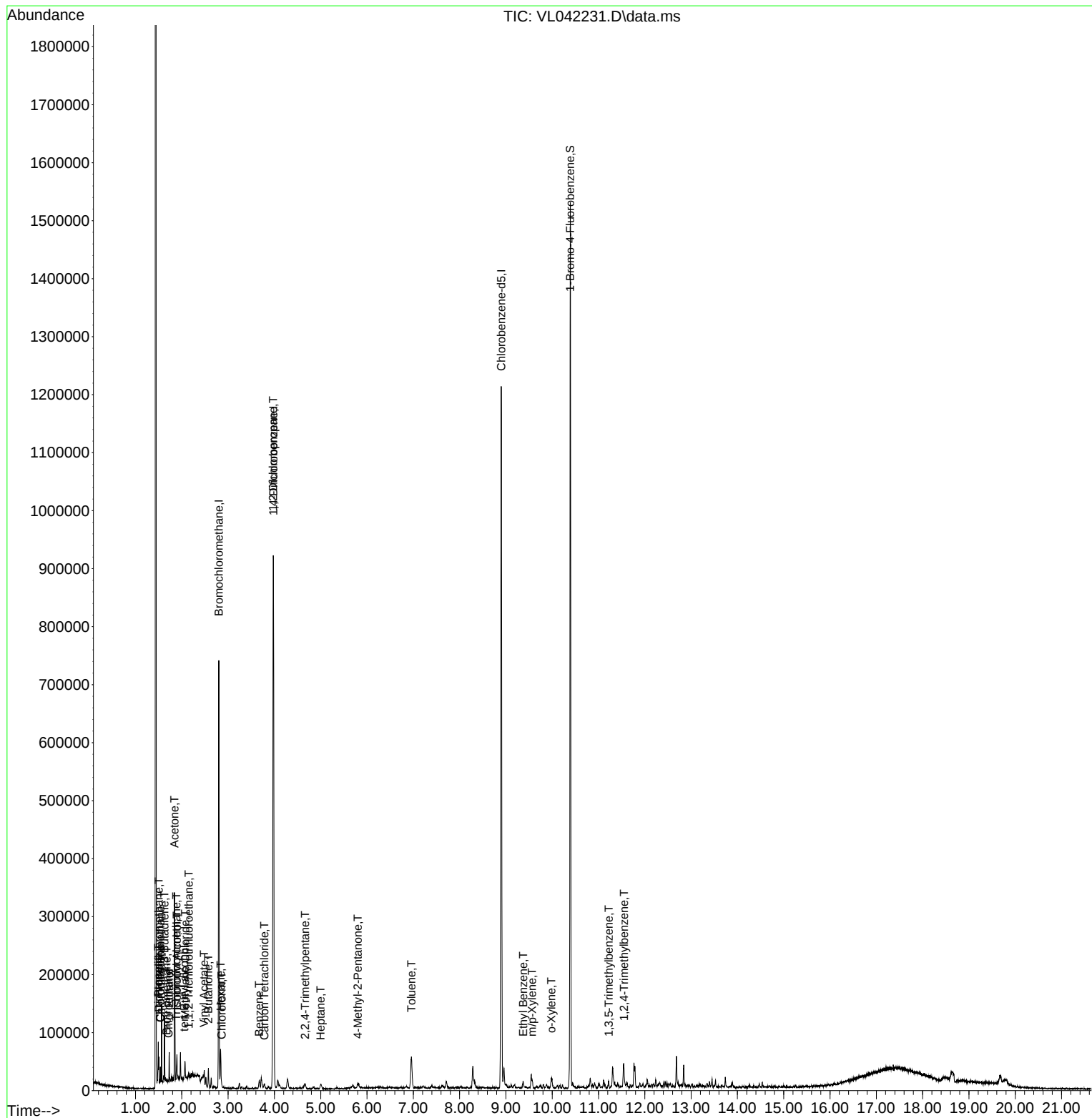
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	2.800	49	202620	10.000	ppbv	0.02
33) 1,4-Difluorobenzene	3.978	114	551417	10.000	ppbv	0.03
55) Chlorobenzene-d5	8.901	117	479781	10.000	ppbv	0.03
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.390	95	381172	9.674	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.700%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.502	85	12053	0.403	ppbv	95
3) Chlorodifluoromethane	1.538	51	1230	0.040	ppbv	95
4) Chloromethane	1.538	50	7078	0.579	ppbv	97
6) Bromomethane	1.674	94	345	0.062	ppbv #	56
7) Chloroethane	1.713	64	289	0.059	ppbv #	57
9) Propene	1.492	41	6667	0.476	ppbv #	80
10) Heptane	4.998	43	1591	0.043	ppbv #	28
11) Trichlorofluoromethane	1.884	101	5976	0.205	ppbv	92
12) 1,1,2-Trichlorotrifluo...	2.149	101	1330	0.056	ppbv	86
13) Ethanol	1.729	45	17438	13.168	ppbv	81
15) Acetone	1.842	43	143188	5.053	ppbv	96
16) 1,3-Butadiene	1.625	39	6834	0.494	ppbv #	30
17) tert-Butyl alcohol	2.056	59	1872	0.053	ppbv #	22
19) Isopropyl Alcohol	1.894	45	17414	1.089	ppbv #	1
20) Methylene Chloride	2.072	84	4263	0.404	ppbv #	76
23) Vinyl Acetate	2.480	43	5875	0.479	ppbv #	68
26) Hexane	2.842	57	9360	0.329	ppbv #	44
29) Chloroform	2.862	83	1797	0.043	ppbv	100
34) 2-Butanone	2.573	43	21340	0.534	ppbv	92
35) Carbon Tetrachloride	3.784	117	1350	0.031	ppbv #	87
36) Benzene	3.671	78	7483	0.137	ppbv #	91
39) 1,2-Dichloropropane	3.975	63	141072	7.086	ppbv #	22
44) 2,2,4-Trimethylpentane	4.664	57	4650	0.050	ppbv #	19
50) 4-Methyl-2-Pentanone	5.804	43	5156	0.081	ppbv #	76
53) Toluene	6.959	91	20311	0.313	ppbv #	27
58) Ethyl Benzene	9.370	91	5840	0.069	ppbv #	83
59) m/p-Xylene	9.565	91	3568	0.052	ppbv #	31
60) o-Xylene	9.982	91	5058	0.074	ppbv	93
73) 1,3,5-Trimethylbenzene	11.219	105	2375	0.032	ppbv #	60
74) 1,2,4-Trimethylbenzene	11.549	105	8564	0.100	ppbv #	68

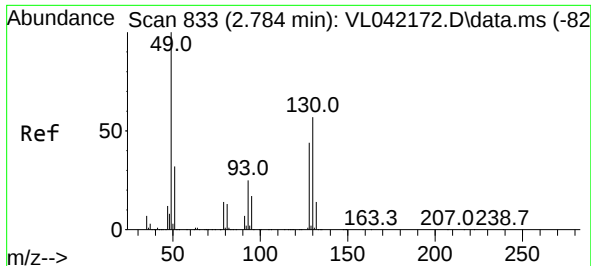
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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ALS Vial : 5 Sample Multiplier: 1

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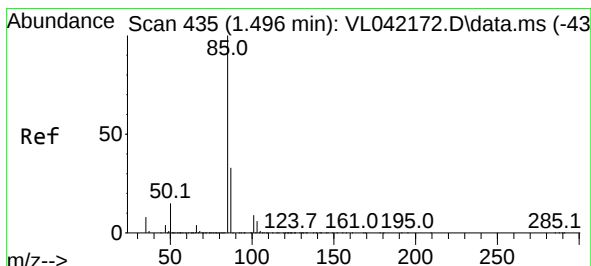
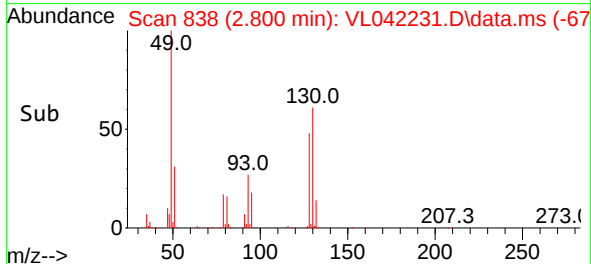
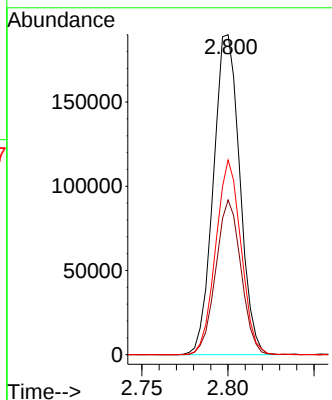
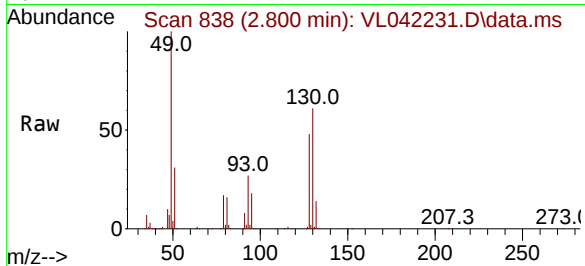




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.800 min Scan# 81
 Delta R.T. 0.016 min
 Lab File: VL042231.D
 Acq: 07 Apr 2025 12:27

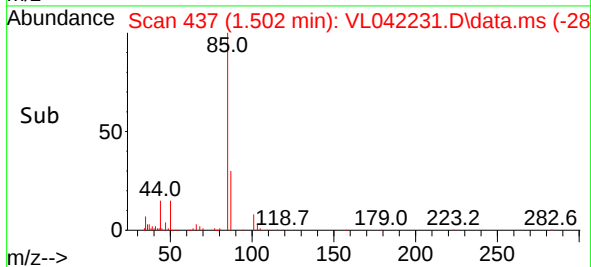
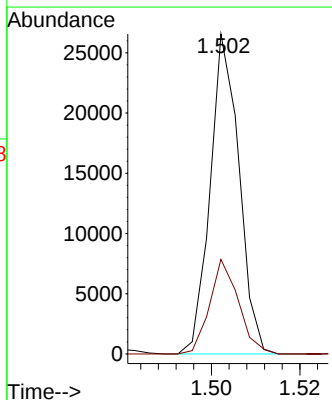
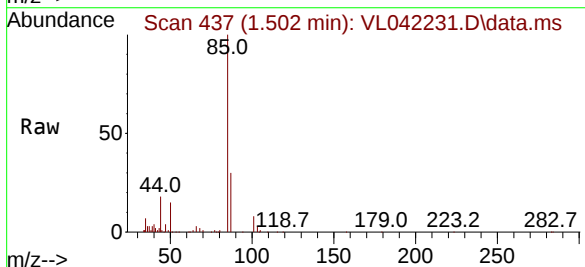
Instrument :
 MSVOA_L
 ClientSampleId :
 AA-1-03312025

Tgt Ion: 49 Resp: 202620
 Ion Ratio Lower Upper
 49 100
 128 46.2 22.9 68.5
 130 58.4 28.8 86.4



#2
 Dichlorodifluoromethane
 Concen: 0.403 ppbv
 RT: 1.502 min Scan# 437
 Delta R.T. 0.006 min
 Lab File: VL042231.D
 Acq: 07 Apr 2025 12:27

Tgt Ion: 85 Resp: 12053
 Ion Ratio Lower Upper
 85 100
 87 29.6 26.1 39.1

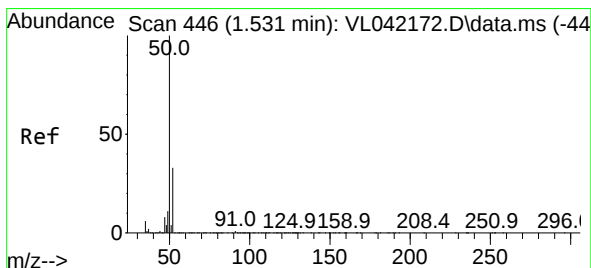
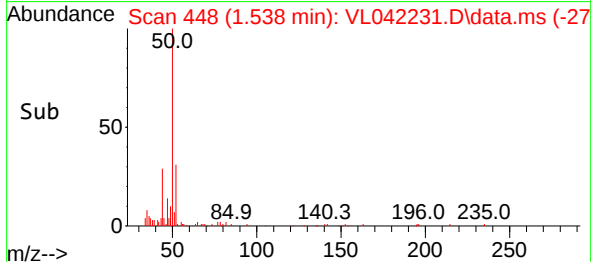
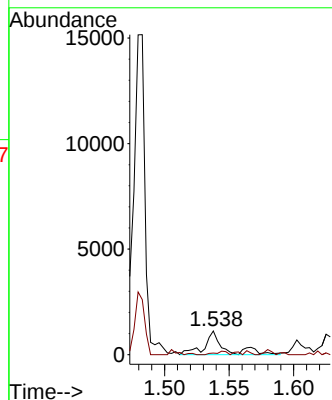
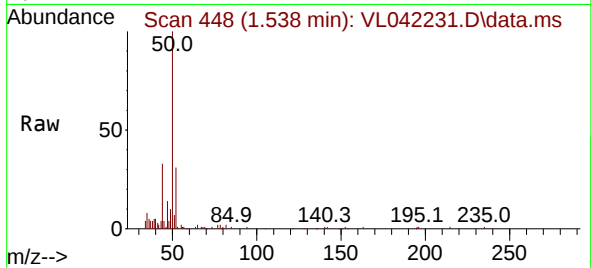




#3
Chlorodifluoromethane
Concen: 0.040 ppbv
RT: 1.538 min Scan# 448
Delta R.T. 0.065 min
Lab File: VL042231.D
Acq: 07 Apr 2025 12:27

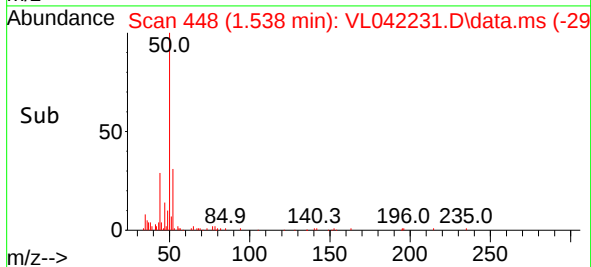
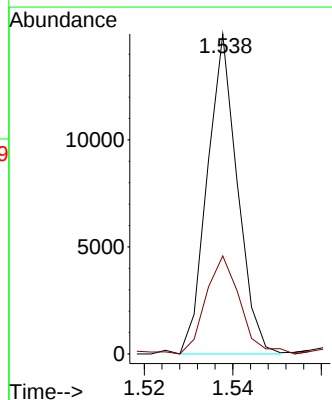
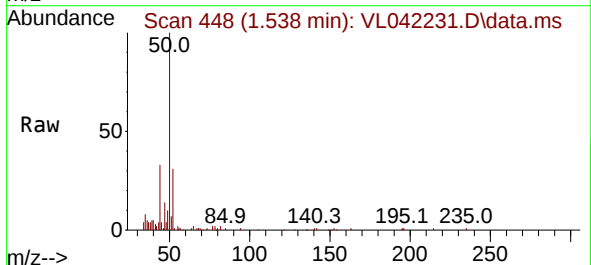
Instrument :
MSVOA_L
ClientSampleId :
AA-1-03312025

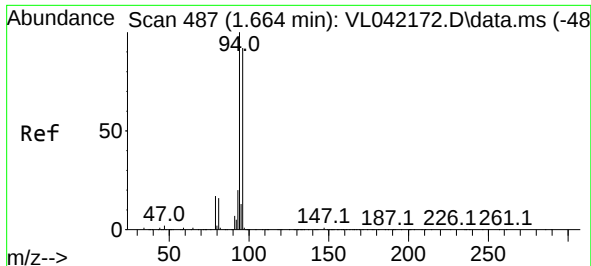
Tgt Ion: 51 Resp: 1230
Ion Ratio Lower Upper
51 100
67 16.6 15.0 22.6



#4
Chloromethane
Concen: 0.579 ppbv
RT: 1.538 min Scan# 448
Delta R.T. 0.006 min
Lab File: VL042231.D
Acq: 07 Apr 2025 12:27

Tgt Ion: 50 Resp: 7078
Ion Ratio Lower Upper
50 100
52 30.8 26.1 39.1

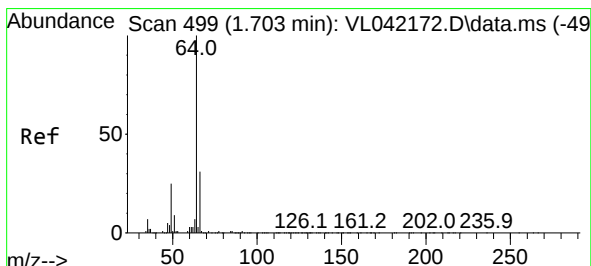
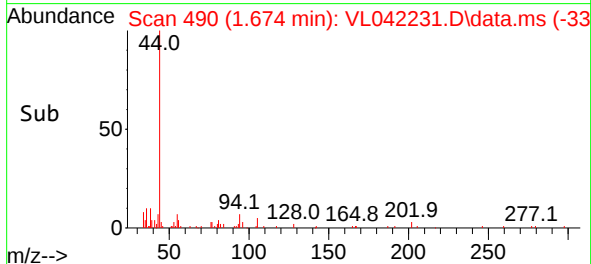
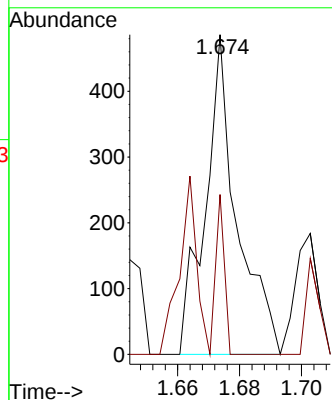
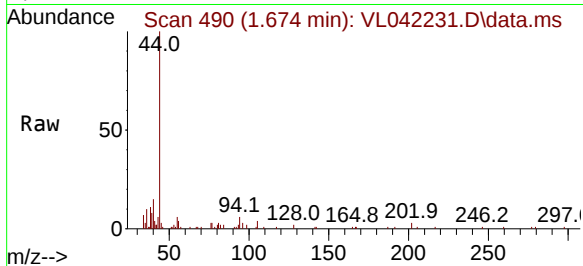




#6
Bromomethane
Concen: 0.062 ppbv
RT: 1.674 min Scan# 490
Delta R.T. 0.010 min
Lab File: VL042231.D
Acq: 07 Apr 2025 12:27

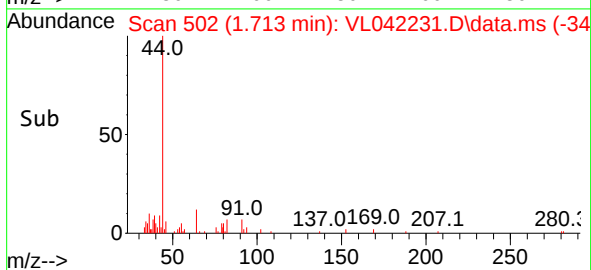
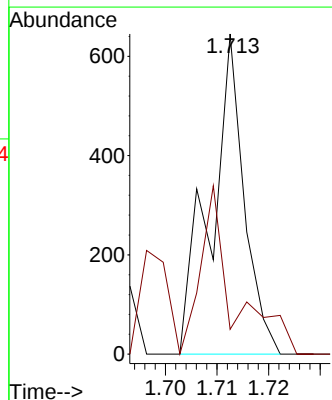
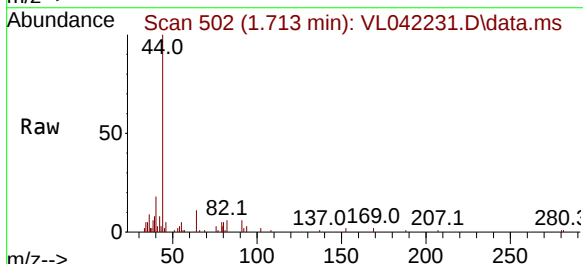
Instrument :
MSVOA_1
ClientSampleId :
AA-1-03312025

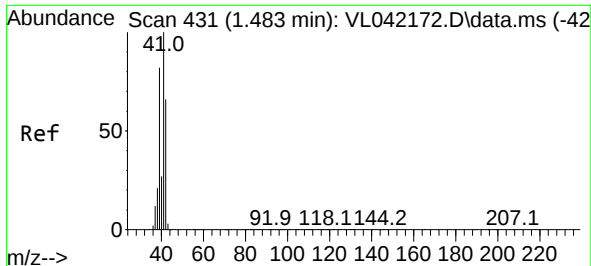
Tgt Ion: 94 Resp: 345
Ion Ratio Lower Upper
94 100
96 50.0 73.1 109.7#



#7
Chloroethane
Concen: 0.059 ppbv
RT: 1.713 min Scan# 502
Delta R.T. 0.010 min
Lab File: VL042231.D
Acq: 07 Apr 2025 12:27

Tgt Ion: 64 Resp: 289
Ion Ratio Lower Upper
64 100
66 7.8 25.2 37.8#





#9

Propene

Concen: 0.476 ppbv

RT: 1.492 min Scan# 41

Delta R.T. 0.010 min

Lab File: VL042231.D

Acq: 07 Apr 2025 12:27

Instrument :

MSVOA_L

ClientSampleId :

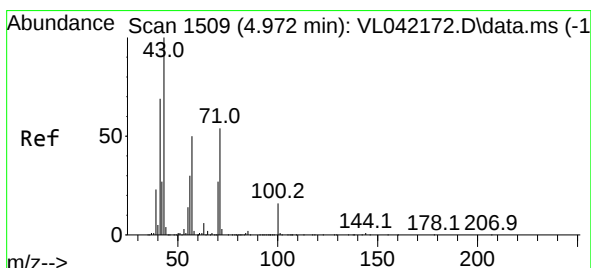
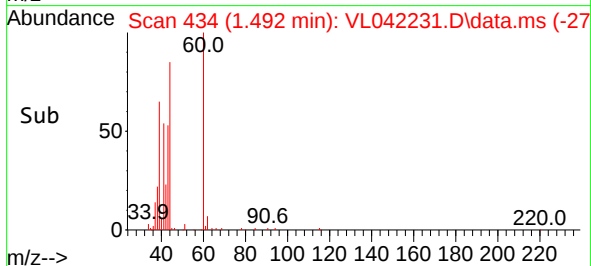
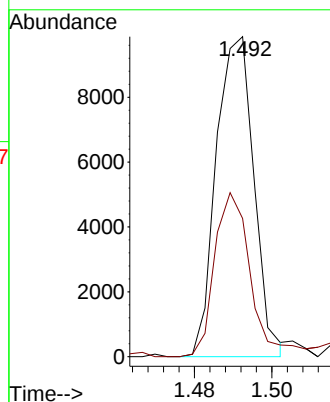
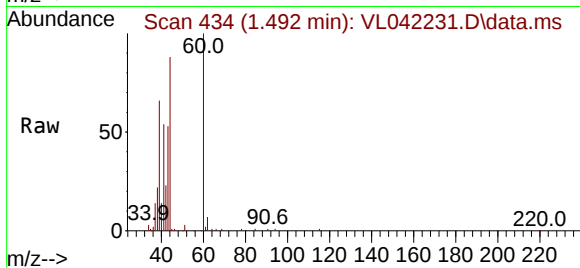
AA-1-03312025

Tgt Ion: 41 Resp: 6667

Ion Ratio Lower Upper

41 100

42 52.8 55.4 83.2#



#10

Heptane

Concen: 0.043 ppbv

RT: 4.998 min Scan# 1517

Delta R.T. 0.026 min

Lab File: VL042231.D

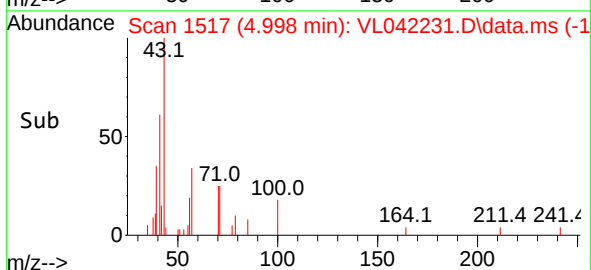
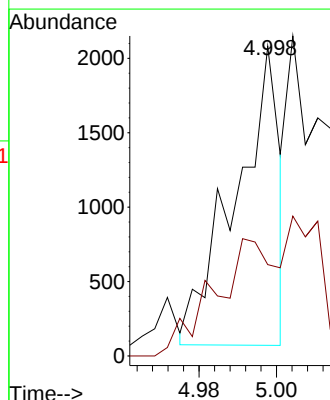
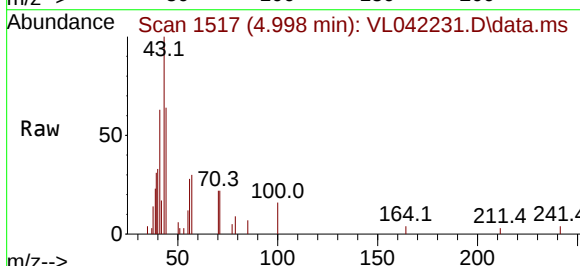
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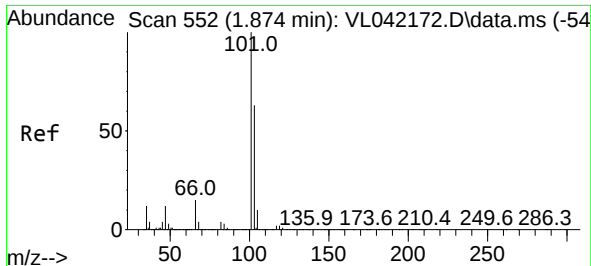
Tgt Ion: 43 Resp: 1591

Ion Ratio Lower Upper

43 100

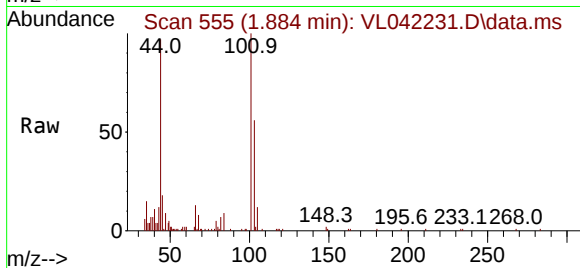
57 0.0 39.4 59.2#



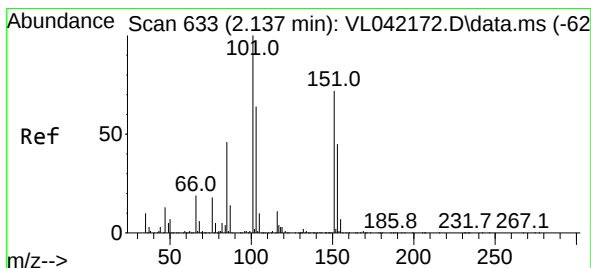
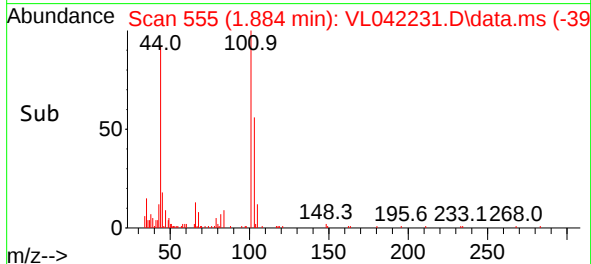
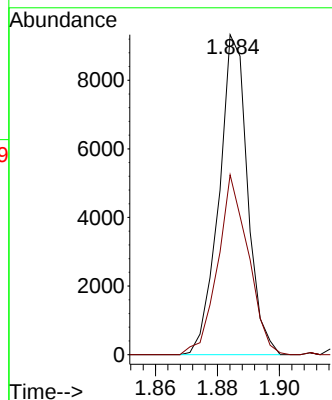


#11
 Trichlorofluoromethane
 Concen: 0.205 ppbv
 RT: 1.884 min Scan# 51
 Delta R.T. 0.010 min
 Lab File: VL042231.D
 Acq: 07 Apr 2025 12:27

Instrument :
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 ClientSampleId :
 AA-1-03312025

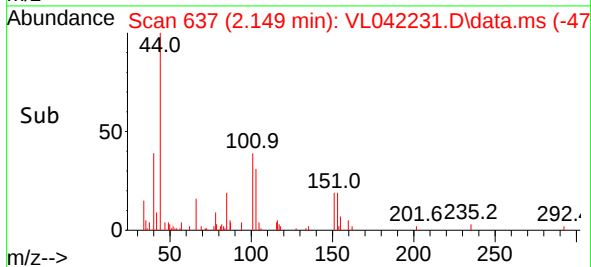
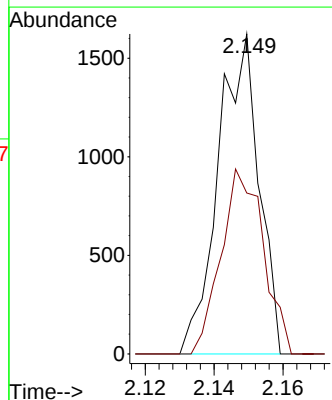
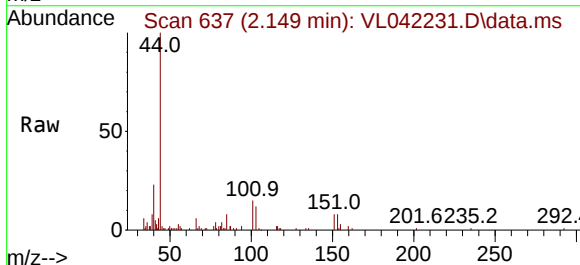


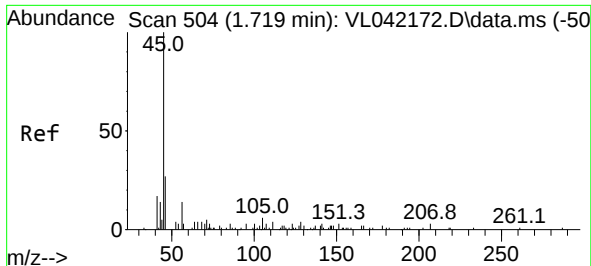
Tgt Ion:101 Resp: 5976
 Ion Ratio Lower Upper
 101 100
 103 56.2 50.2 75.2



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.056 ppbv
 RT: 2.149 min Scan# 637
 Delta R.T. 0.013 min
 Lab File: VL042231.D
 Acq: 07 Apr 2025 12:27

Tgt Ion:101 Resp: 1330
 Ion Ratio Lower Upper
 101 100
 151 60.1 57.1 85.7

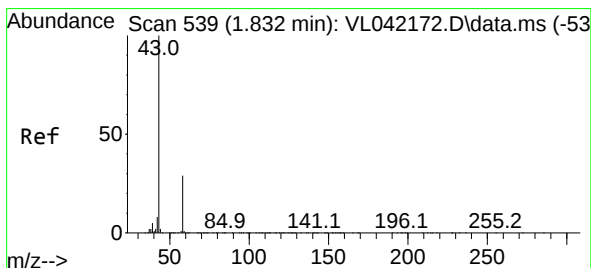
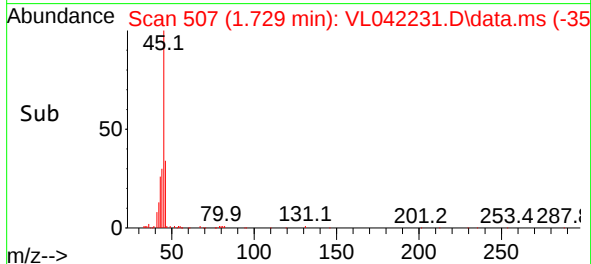
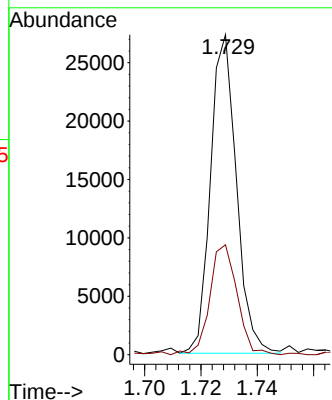
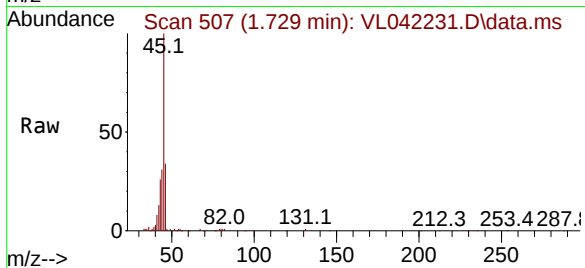




#13
Ethanol
Concen: 13.168 ppbv
RT: 1.729 min Scan# 504
Delta R.T. 0.010 min
Lab File: VL042231.D
Acq: 07 Apr 2025 12:27

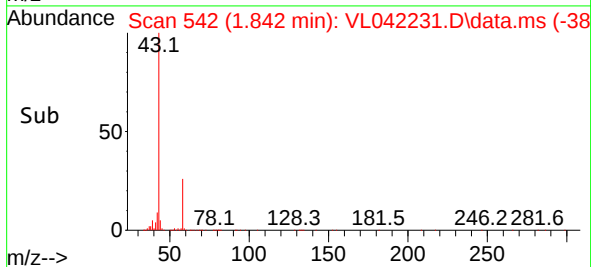
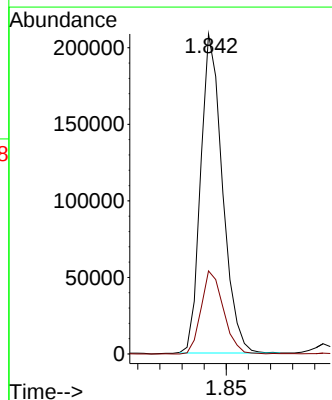
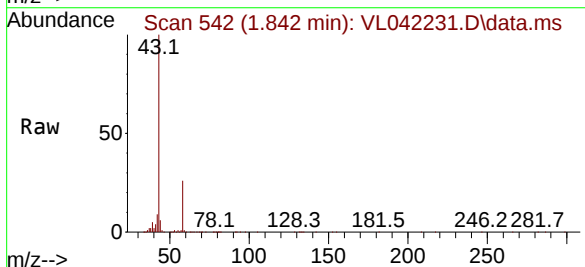
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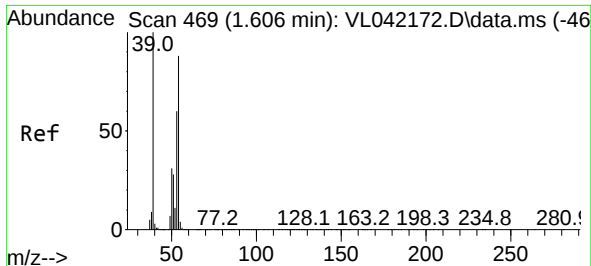
Tgt Ion: 45 Resp: 17438
Ion Ratio Lower Upper
45 100
46 37.7 20.2 80.8



#15
Acetone
Concen: 5.053 ppbv
RT: 1.842 min Scan# 542
Delta R.T. 0.010 min
Lab File: VL042231.D
Acq: 07 Apr 2025 12:27

Tgt Ion: 43 Resp: 143188
Ion Ratio Lower Upper
43 100
58 26.7 23.2 34.8





#16

1,3-Butadiene

Concen: 0.494 ppbv

RT: 1.625 min Scan# 41

Delta R.T. 0.019 min

Lab File: VL042231.D

Acq: 07 Apr 2025 12:27

Instrument :

MSVOA_L

ClientSampleId :

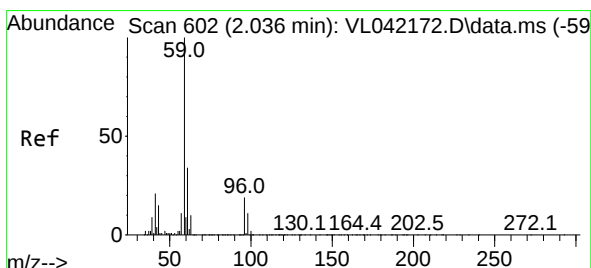
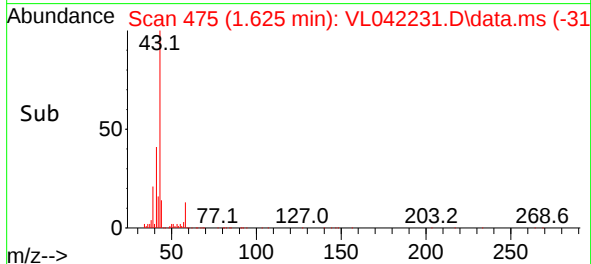
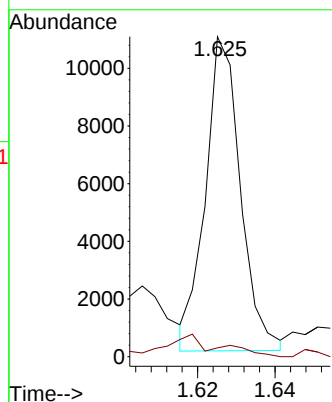
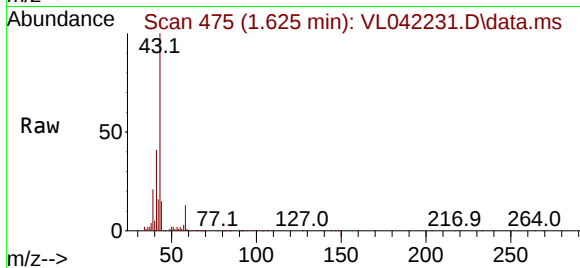
AA-1-03312025

Tgt Ion: 39 Resp: 6834

Ion Ratio Lower Upper

39 100

54 16.1 60.7 91.1#



#17

tert-Butyl alcohol

Concen: 0.053 ppbv

RT: 2.056 min Scan# 608

Delta R.T. 0.019 min

Lab File: VL042231.D

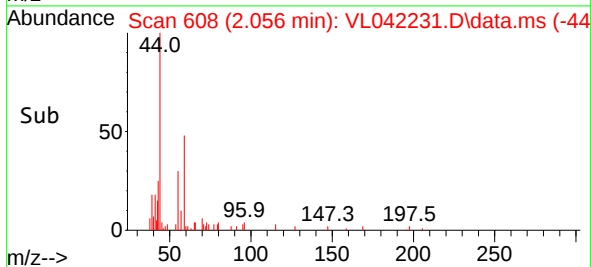
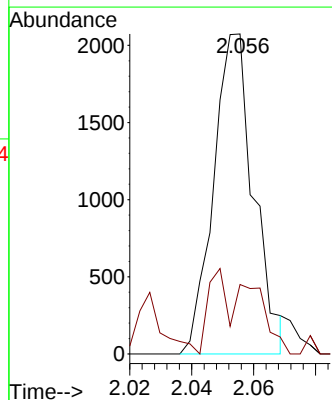
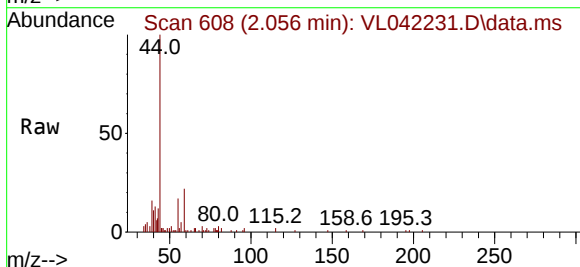
Acq: 07 Apr 2025 12:27

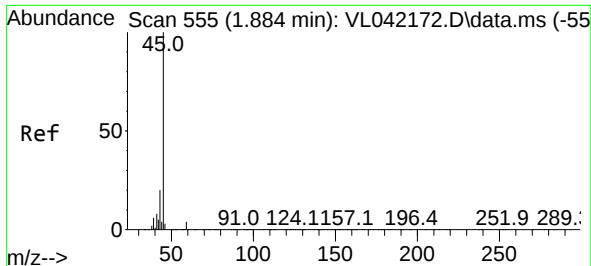
Tgt Ion: 59 Resp: 1872

Ion Ratio Lower Upper

59 100

57 40.8 8.9 13.3#





#19

Isopropyl Alcohol

Concen: 1.089 ppbv

RT: 1.894 min Scan# 51

Delta R.T. 0.010 min

Lab File: VL042231.D

Acq: 07 Apr 2025 12:27

Instrument :

MSVOA_L

ClientSampleId :

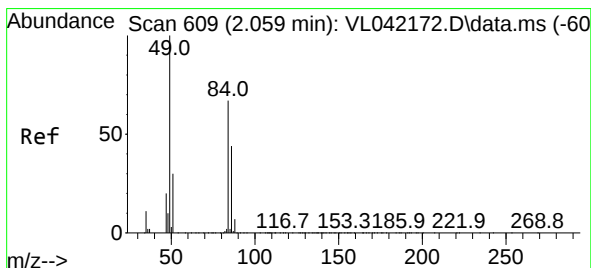
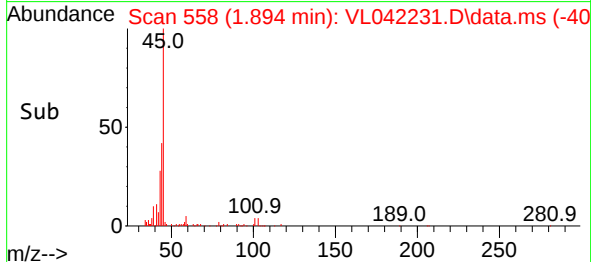
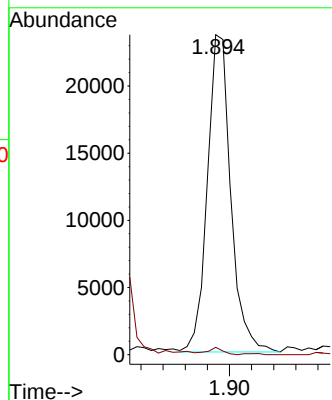
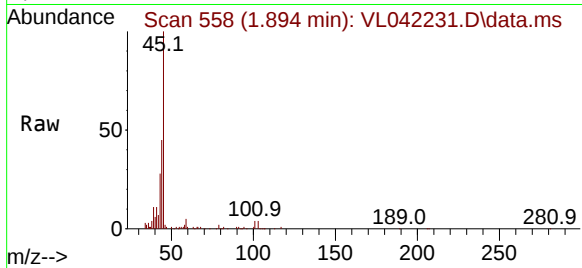
AA-1-03312025

Tgt Ion: 45 Resp: 17414

Ion Ratio Lower Upper

45 100

58 219.8 36.9 55.3#



#20

Methylene Chloride

Concen: 0.404 ppbv

RT: 2.072 min Scan# 613

Delta R.T. 0.013 min

Lab File: VL042231.D

Acq: 07 Apr 2025 12:27

Tgt Ion: 84 Resp: 4263

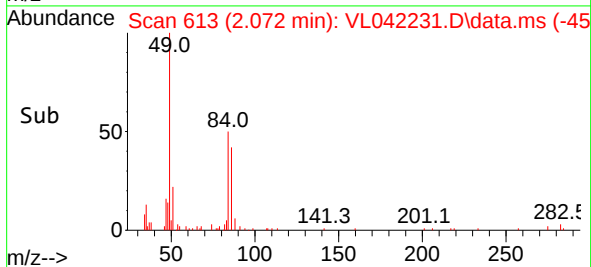
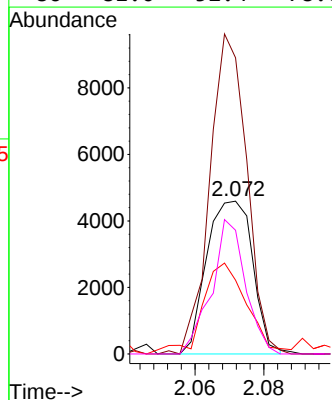
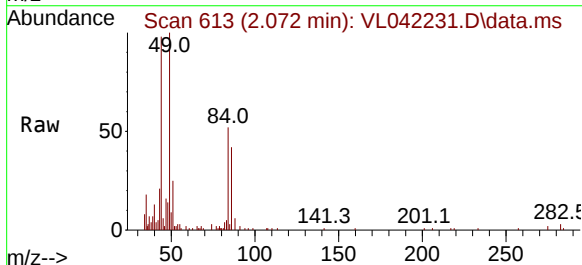
Ion Ratio Lower Upper

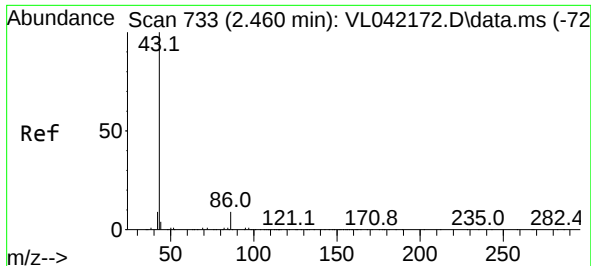
84 100

49 191.3 120.2 180.4#

51 44.7 37.4 56.0

86 81.0 52.4 78.6#

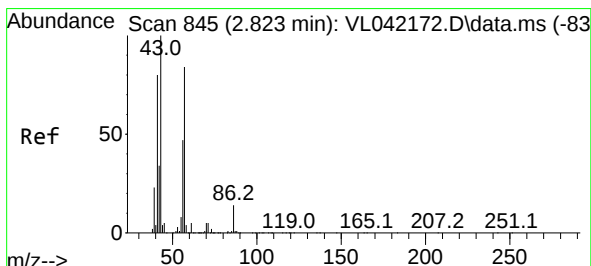
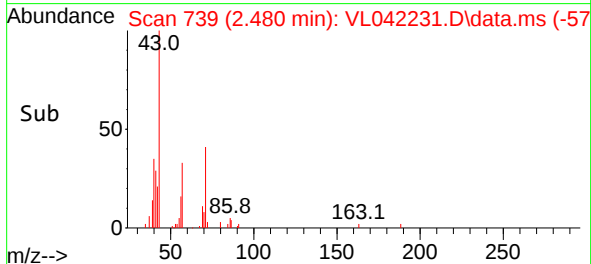
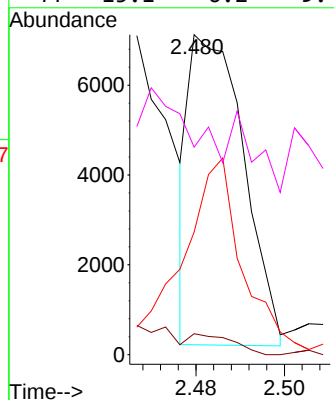
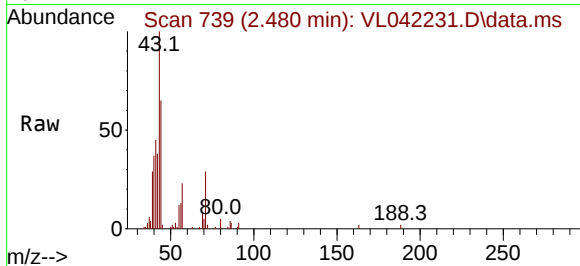




#23
 Vinyl Acetate
 Concen: 0.479 ppbv
 RT: 2.480 min Scan# 71
 Delta R.T. 0.019 min
 Lab File: VL042231.D
 Acq: 07 Apr 2025 12:27

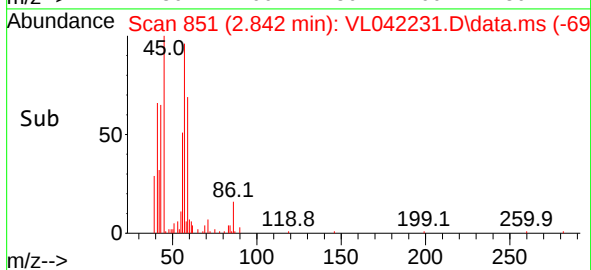
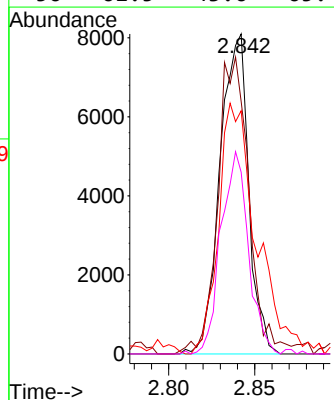
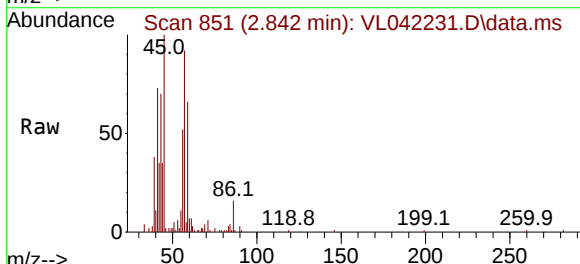
Instrument :
 MSVOA_L
 ClientSampleId :
 AA-1-03312025

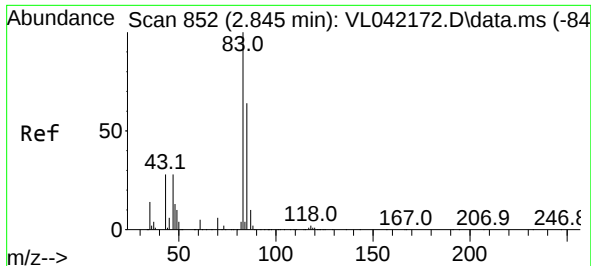
Tgt Ion: 43	Resp: 5875
Ion Ratio	Lower Upper
43 100	
86 7.0	5.5 8.3
42 33.3	8.6 13.0#
44 15.1	6.2 9.4#



#26
 Hexane
 Concen: 0.329 ppbv
 RT: 2.842 min Scan# 851
 Delta R.T. 0.019 min
 Lab File: VL042231.D
 Acq: 07 Apr 2025 12:27

Tgt Ion: 57	Resp: 9360
Ion Ratio	Lower Upper
57 100	
41 101.0	76.6 114.8
43 110.0	207.8 311.8#
56 61.5	43.6 65.4





#29

Chloroform

Concen: 0.043 ppbv

RT: 2.862 min Scan# 81

Delta R.T. 0.016 min

Lab File: VL042231.D

Acq: 07 Apr 2025 12:27

Instrument :

MSVOA_L

ClientSampleId :

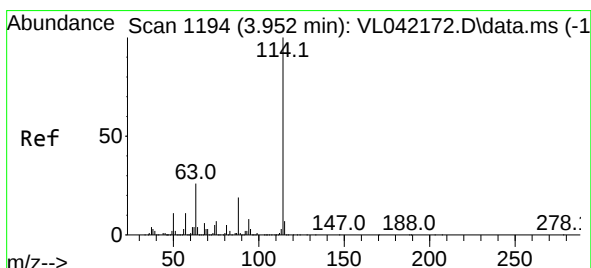
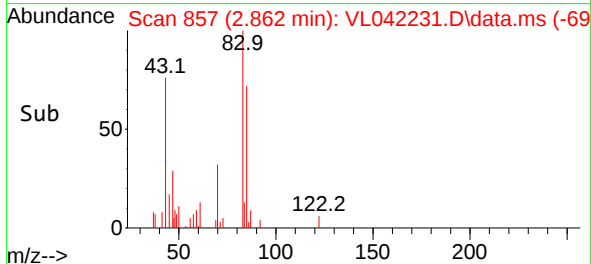
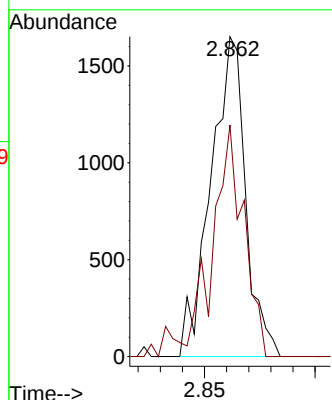
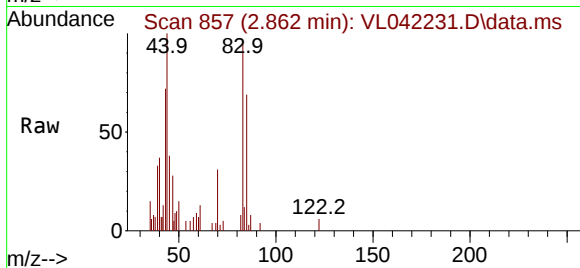
AA-1-03312025

Tgt Ion: 83 Resp: 1797

Ion Ratio Lower Upper

83 100

85 64.1 51.4 77.2



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.978 min Scan# 1202

Delta R.T. 0.026 min

Lab File: VL042231.D

Acq: 07 Apr 2025 12:27

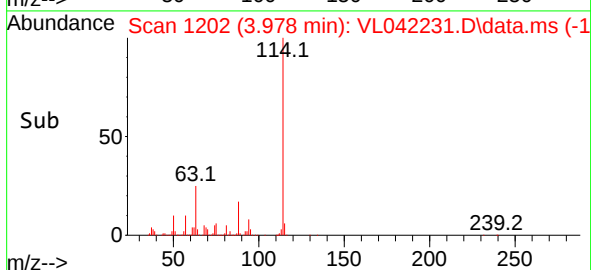
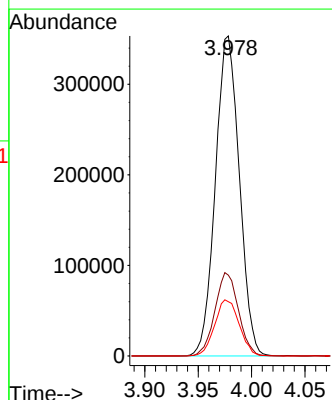
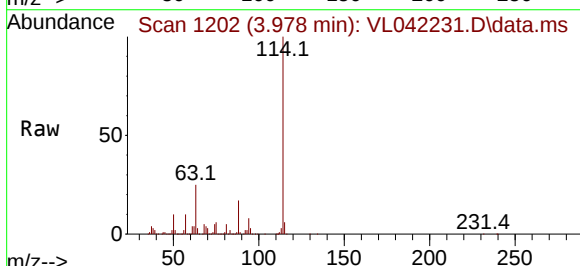
Tgt Ion: 114 Resp: 551417

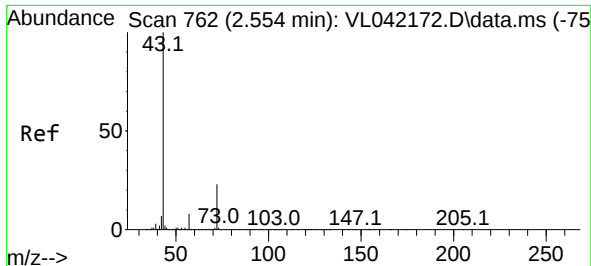
Ion Ratio Lower Upper

114 100

63 25.6 20.7 31.1

88 18.0 15.0 22.4

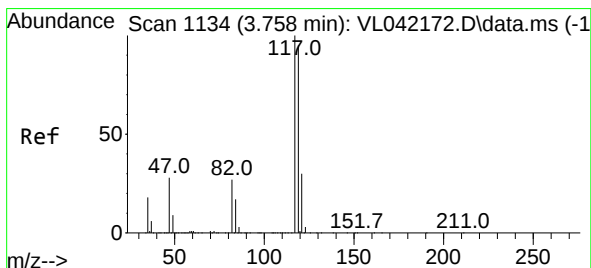
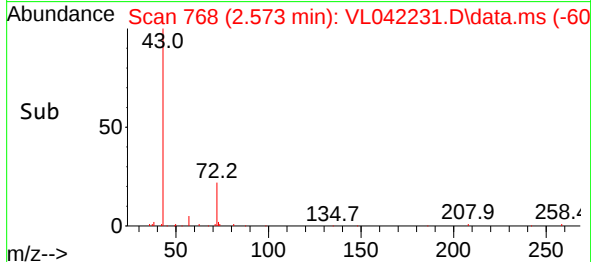
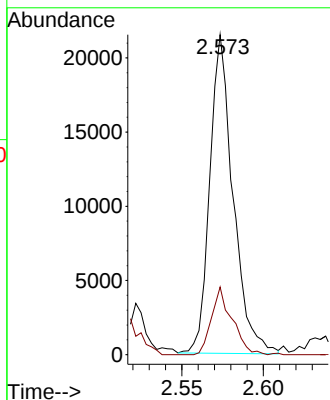
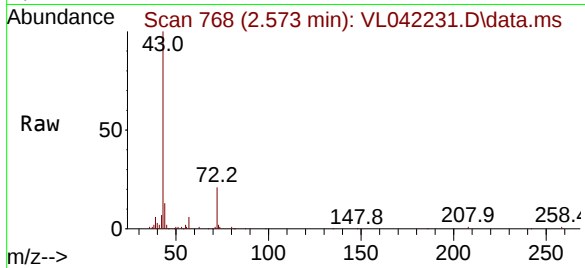




#34
2-Butanone
Concen: 0.534 ppbv
RT: 2.573 min Scan# 768
Delta R.T. 0.019 min
Lab File: VL042231.D
Acq: 07 Apr 2025 12:27

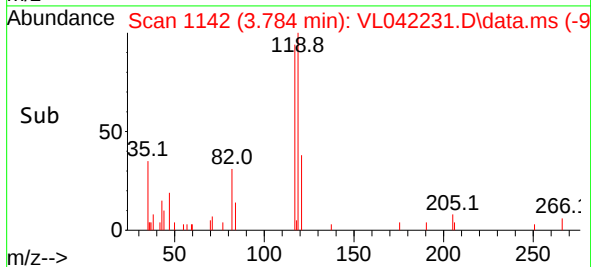
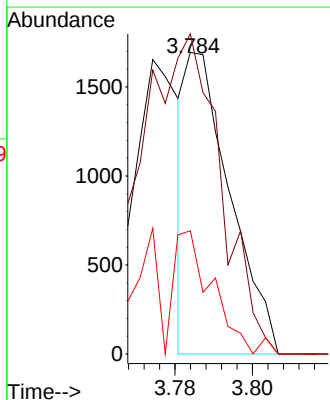
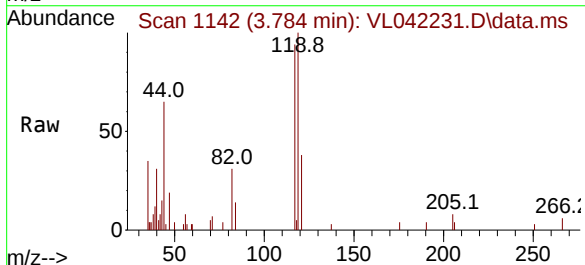
Instrument :
MSVOA_L
ClientSampleId :
AA-1-03312025

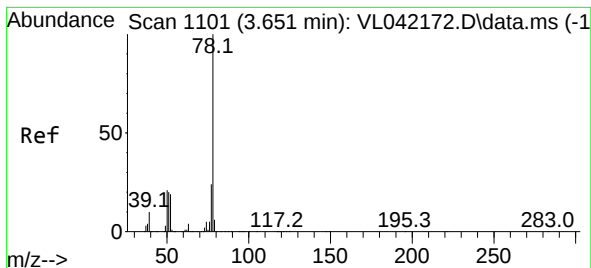
Tgt Ion: 43 Resp: 21340
Ion Ratio Lower Upper
43 100
72 18.9 18.2 27.2



#35
Carbon Tetrachloride
Concen: 0.031 ppbv
RT: 3.784 min Scan# 1142
Delta R.T. 0.026 min
Lab File: VL042231.D
Acq: 07 Apr 2025 12:27

Tgt Ion: 117 Resp: 1350
Ion Ratio Lower Upper
117 100
119 106.1 76.2 114.2
121 40.8 24.2 36.4#





#36

Benzene

Concen: 0.137 ppbv

RT: 3.671 min Scan# 1107

Delta R.T. 0.019 min

Lab File: VL042231.D

Acq: 07 Apr 2025 12:27

Instrument :

MSVOA_L

ClientSampleId :

AA-1-03312025

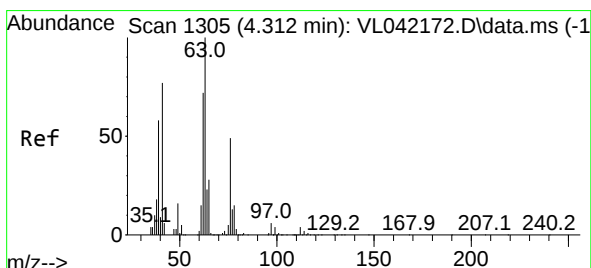
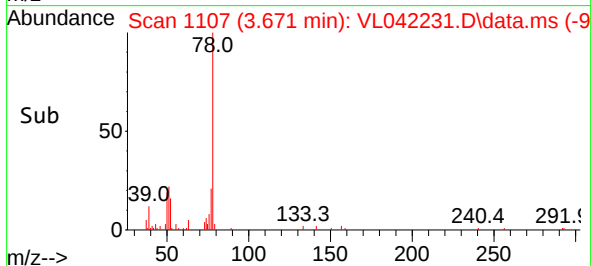
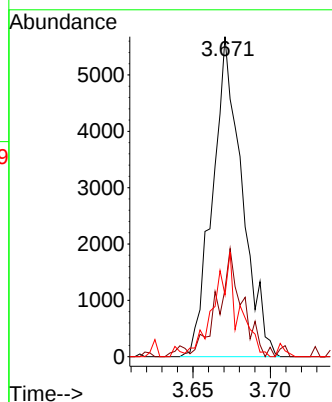
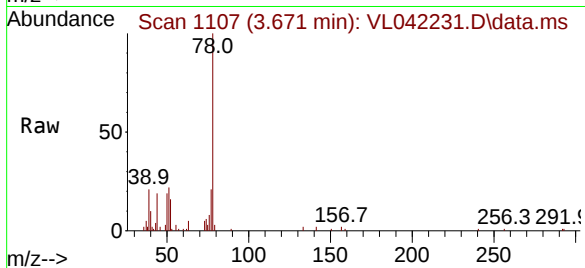
Tgt Ion: 78 Resp: 7483

Ion Ratio Lower Upper

78 100

77 18.7 19.1 28.7#

50 17.7 16.6 24.8



#39

1,2-Dichloropropane

Concen: 7.086 ppbv

RT: 3.975 min Scan# 1201

Delta R.T. -0.337 min

Lab File: VL042231.D

Acq: 07 Apr 2025 12:27

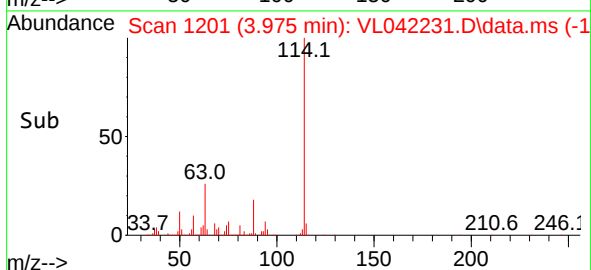
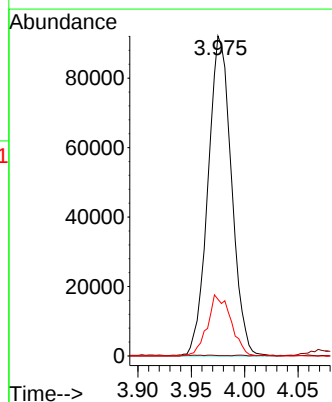
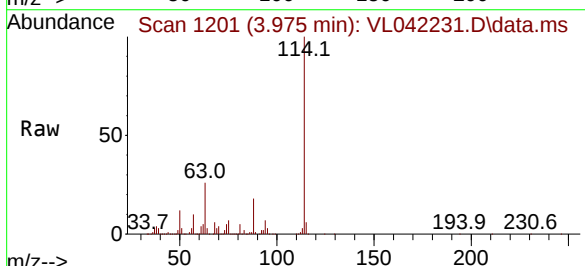
Tgt Ion: 63 Resp: 141072

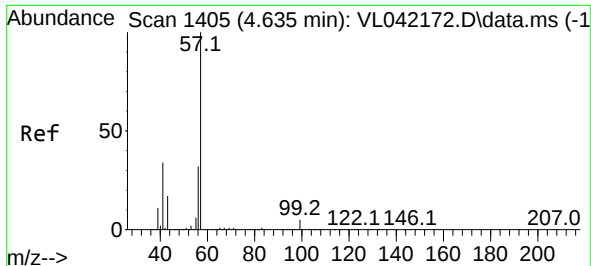
Ion Ratio Lower Upper

63 100

41 0.0 61.7 92.5#

62 17.7 57.6 86.4#





#44

2,2,4-Trimethylpentane

Concen: 0.050 ppbv

RT: 4.664 min Scan# 1405

Delta R.T. 0.029 min

Lab File: VL042231.D

Acq: 07 Apr 2025 12:27

Instrument :

MSVOA_L

ClientSampleId :

AA-1-03312025

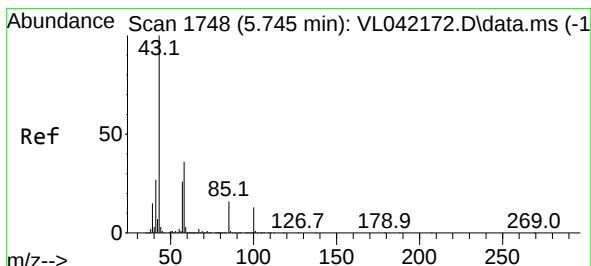
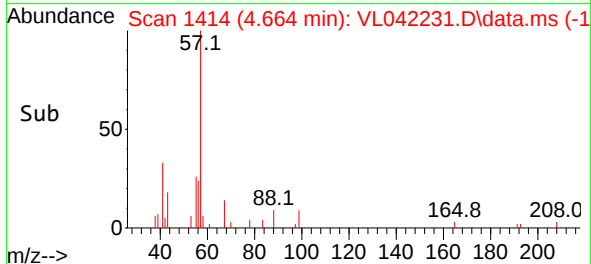
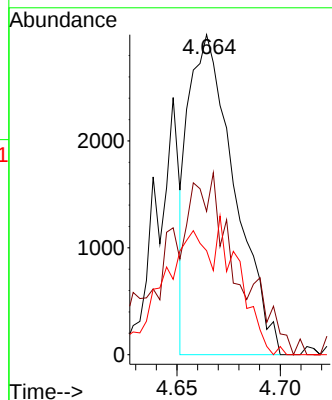
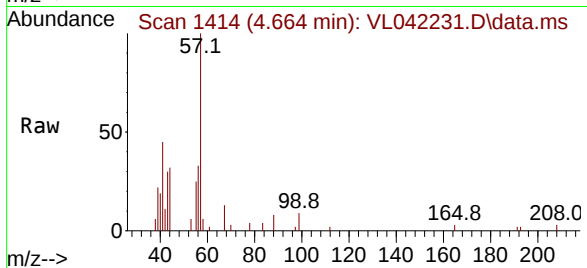
Tgt Ion: 57 Resp: 4650

Ion Ratio Lower Upper

57 100

41 95.6 26.8 40.2#

56 60.4 25.6 38.4#



#50

4-Methyl-2-Pentanone

Concen: 0.081 ppbv

RT: 5.804 min Scan# 1766

Delta R.T. 0.058 min

Lab File: VL042231.D

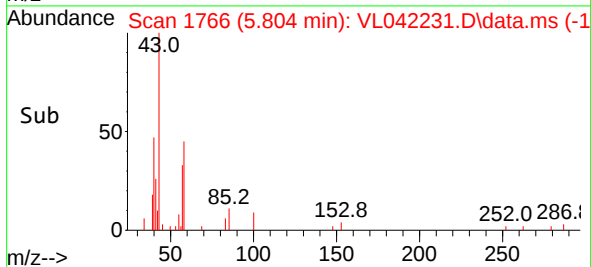
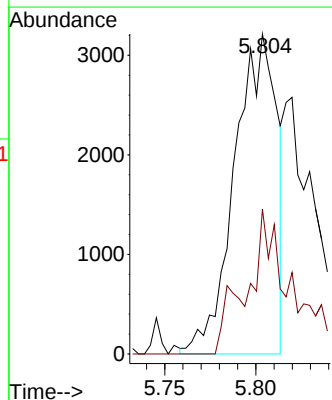
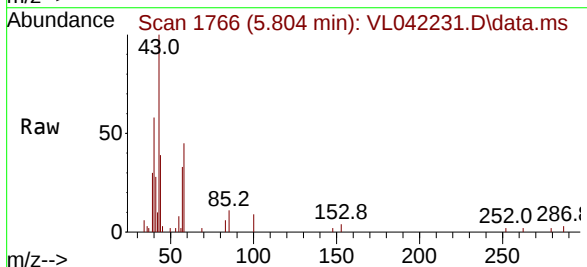
Acq: 07 Apr 2025 12:27

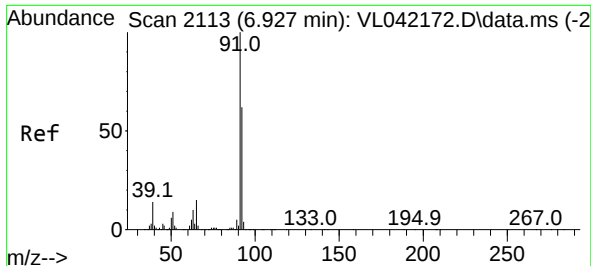
Tgt Ion: 43 Resp: 5156

Ion Ratio Lower Upper

43 100

58 50.2 29.0 43.6#

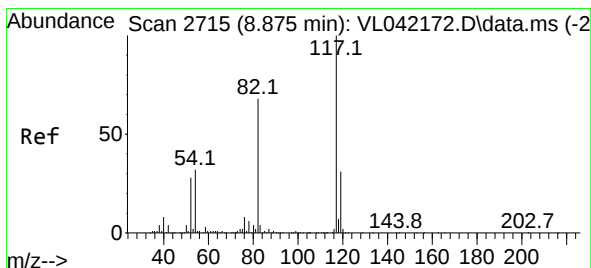
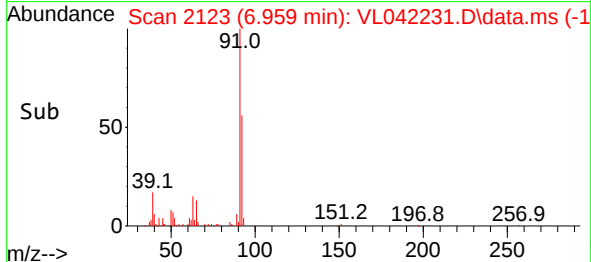
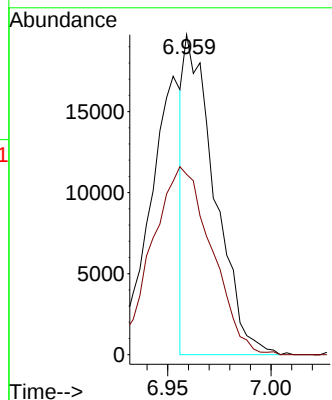
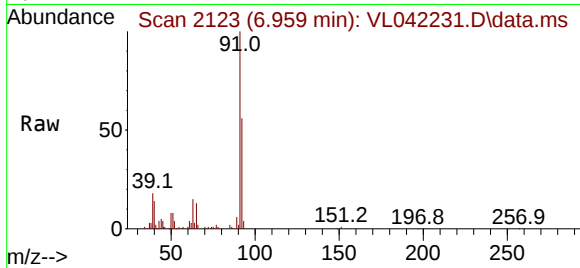




#53
Toluene
Concen: 0.313 ppbv
RT: 6.959 min Scan# 2113
Delta R.T. 0.032 min
Lab File: VL042231.D
Acq: 07 Apr 2025 12:27

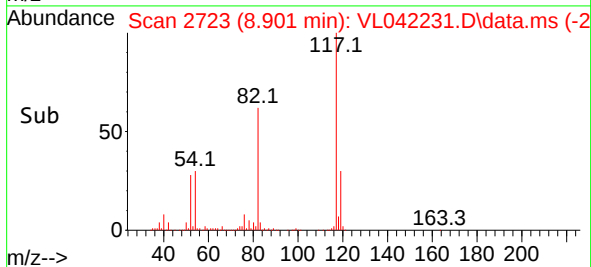
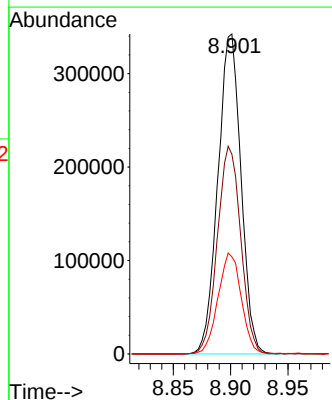
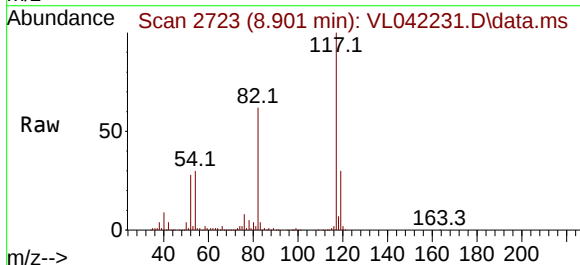
Instrument :
MSVOA_L
ClientSampleId :
AA-1-03312025

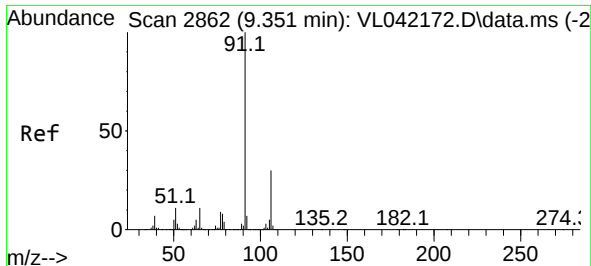
Tgt Ion: 91 Resp: 20311
Ion Ratio Lower Upper
91 100
92 115.8 48.4 72.6#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.901 min Scan# 2723
Delta R.T. 0.026 min
Lab File: VL042231.D
Acq: 07 Apr 2025 12:27

Tgt Ion: 117 Resp: 479781
Ion Ratio Lower Upper
117 100
82 65.5 55.8 83.6
119 32.0 25.5 38.3





#58

Ethyl Benzene

Concen: 0.069 ppbv

RT: 9.370 min Scan# 21

Delta R.T. 0.019 min

Lab File: VL042231.D

Acq: 07 Apr 2025 12:27

Instrument :

MSVOA_L

ClientSampleId :

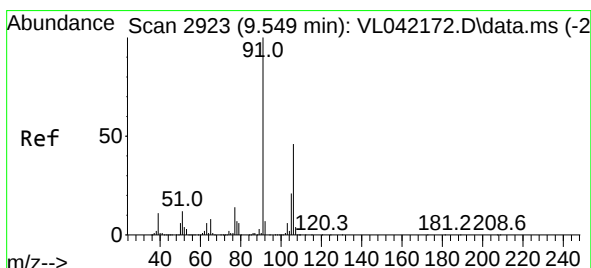
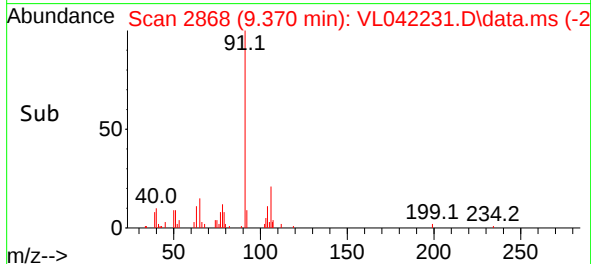
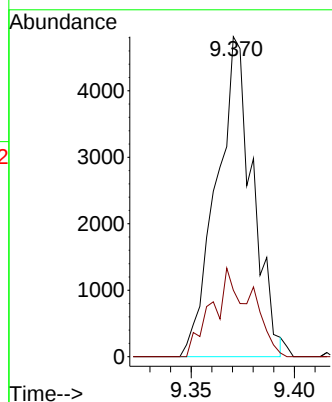
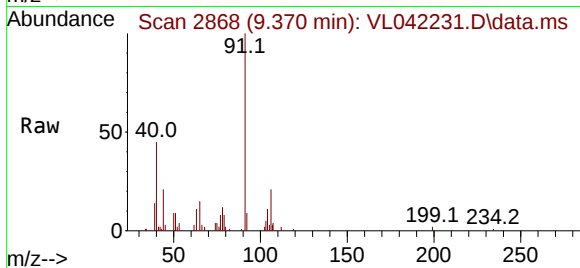
AA-1-03312025

Tgt Ion: 91 Resp: 5840

Ion Ratio Lower Upper

91 100

106 20.8 24.2 36.2#



#59

m/p-Xylene

Concen: 0.052 ppbv

RT: 9.565 min Scan# 2928

Delta R.T. 0.016 min

Lab File: VL042231.D

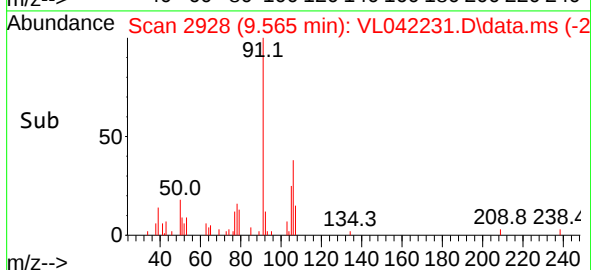
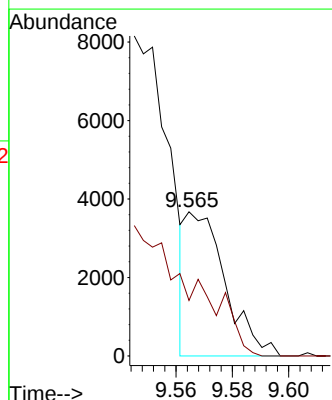
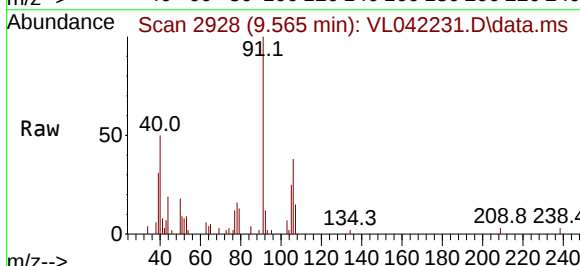
Acq: 07 Apr 2025 12:27

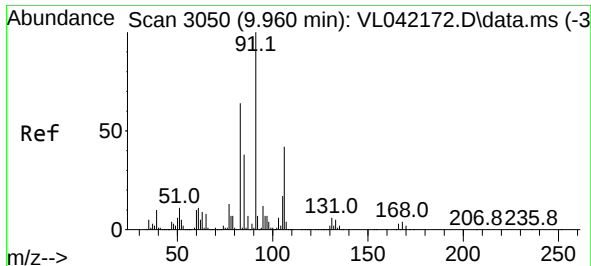
Tgt Ion: 91 Resp: 3568

Ion Ratio Lower Upper

91 100

106 0.0 36.4 54.6#

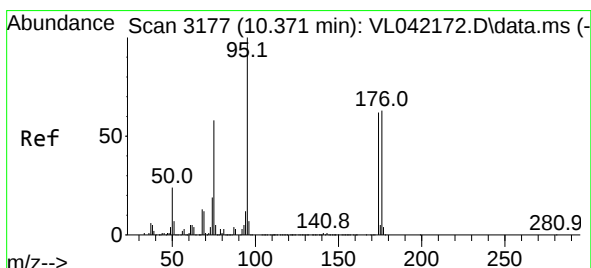
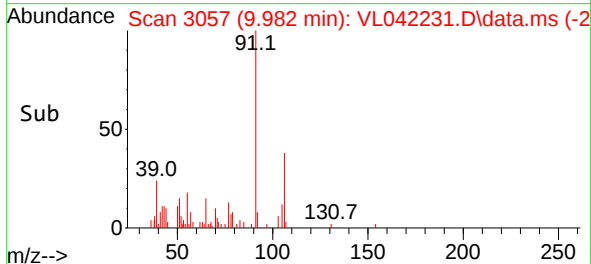
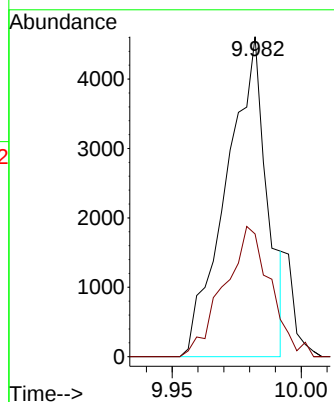
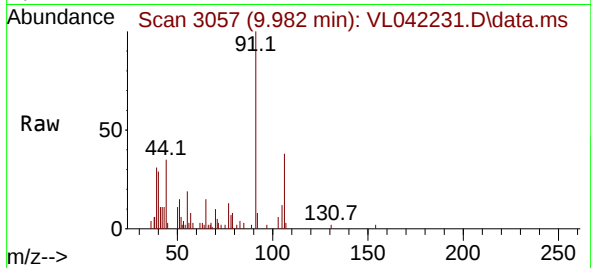




#60
o-Xylene
Concen: 0.074 ppbv
RT: 9.982 min Scan# 3057
Delta R.T. 0.023 min
Lab File: VL042231.D
Acq: 07 Apr 2025 12:27

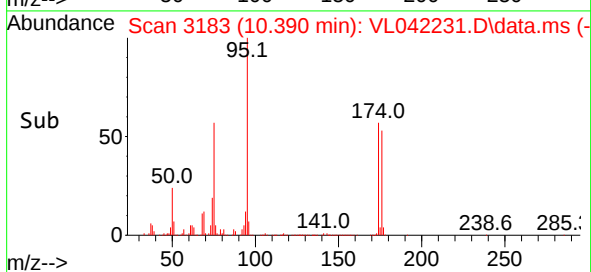
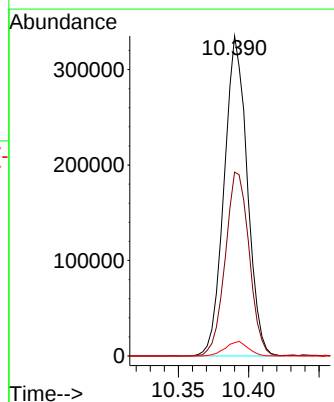
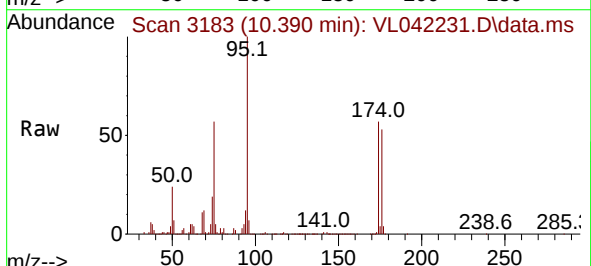
Instrument :
MSVOA_L
ClientSampleId :
AA-1-03312025

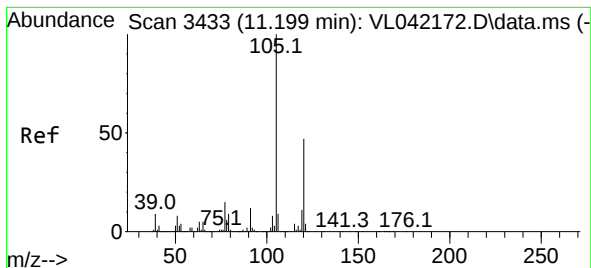
Tgt Ion: 91 Resp: 5058
Ion Ratio Lower Upper
91 100
106 46.3 20.8 62.5



#68
1-Bromo-4-Fluorobenzene
Concen: 9.674 ppbv
RT: 10.390 min Scan# 3183
Delta R.T. 0.019 min
Lab File: VL042231.D
Acq: 07 Apr 2025 12:27

Tgt Ion: 95 Resp: 381172
Ion Ratio Lower Upper
95 100
174 59.8 50.6 76.0
175 4.5 3.8 5.6





#73

1,3,5-Trimethylbenzene

Concen: 0.032 ppbv

RT: 11.219 min Scan# 3433

Delta R.T. 0.019 min

Lab File: VL042231.D

Acq: 07 Apr 2025 12:27

Instrument :

MSVOA_L

ClientSampleId :

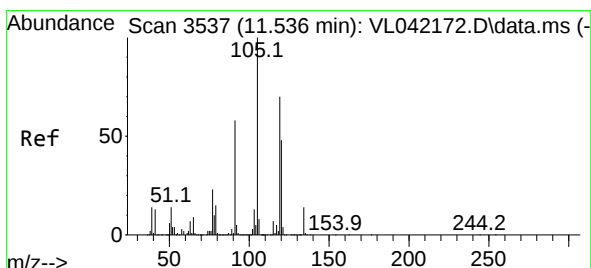
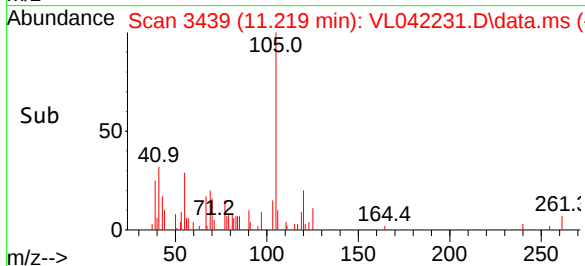
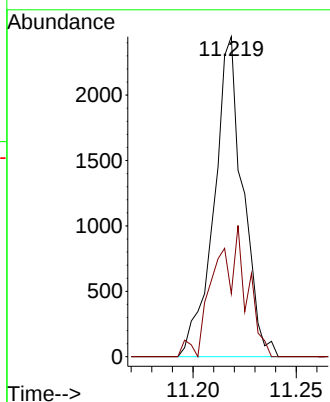
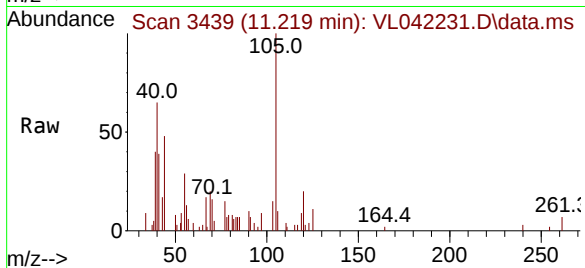
AA-1-03312025

Tgt Ion:105 Resp: 2375

Ion Ratio Lower Upper

105 100

120 19.7 37.4 56.0#



#74

1,2,4-Trimethylbenzene

Concen: 0.100 ppbv

RT: 11.549 min Scan# 3541

Delta R.T. 0.013 min

Lab File: VL042231.D

Acq: 07 Apr 2025 12:27

Tgt Ion:105 Resp: 8564

Ion Ratio Lower Upper

105 100

120 38.5 38.6 58.0#

91 18.1 46.2 69.2#

77 15.3 18.6 27.8#

