

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL033125\
 Data File : VL042208.D
 Acq On : 31 Mar 2025 13:36
 Operator : SY/MD
 Sample : Q1649-02 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2

Quant Time: Apr 01 01:39:45 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL032725AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Mar 28 02:00:52 2025
 Response via : Initial Calibration

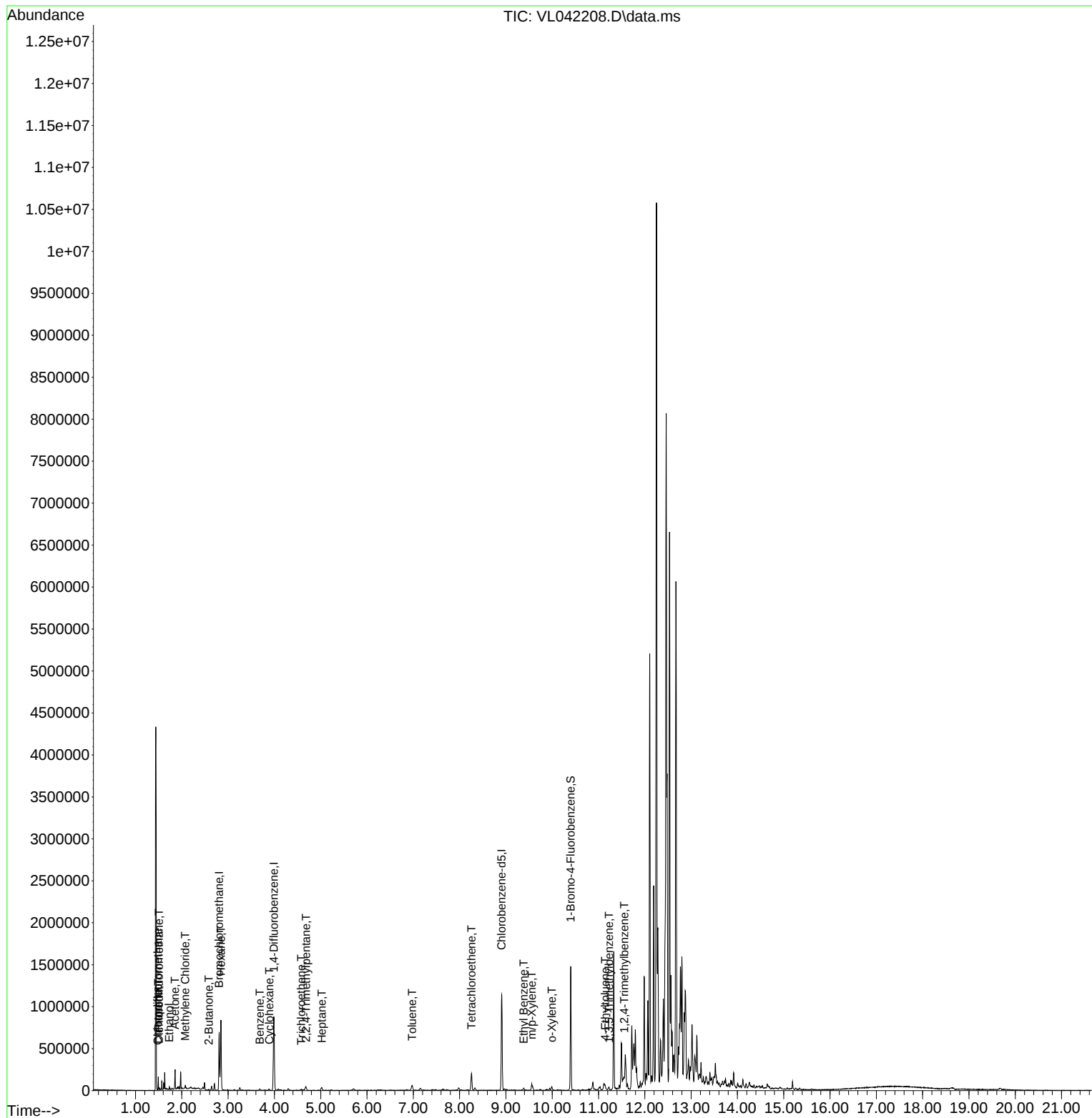
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	2.806	49	185856	10.000	ppbv	0.02
33) 1,4-Difluorobenzene	3.988	114	529863	10.000	ppbv	0.04
55) Chlorobenzene-d5	8.907	117	478116	10.000	ppbv	0.03
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.400	95	376053	9.578	ppbv	0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.800%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.505	85	4751	0.173	ppbv	91
3) Chlorodifluoromethane	1.483	51	4223m	0.151	ppbv	
9) Propene	1.492	41	23121	1.799	ppbv	89
10) Heptane	5.024	43	14961m	0.438	ppbv	
13) Ethanol	1.732	45	10254	8.442	ppbv #	27
15) Acetone	1.852	43	57758	2.222	ppbv #	75
20) Methylene Chloride	2.075	84	5788	0.598	ppbv	91
26) Hexane	2.845	57	202226	7.761	ppbv #	29
30) Cyclohexane	3.887	84	4298m	0.190	ppbv	
34) 2-Butanone	2.580	43	6987	0.182	ppbv	100
36) Benzene	3.684	78	10828	0.206	ppbv #	89
38) Trichloroethene	4.583	130	1895m	0.086	ppbv	
44) 2,2,4-Trimethylpentane	4.680	57	13836m	0.156	ppbv	
52) Tetrachloroethene	8.257	164	33600	1.613	ppbv #	86
53) Toluene	6.972	91	41185	0.661	ppbv	99
58) Ethyl Benzene	9.383	91	12675	0.149	ppbv	99
59) m/p-Xylene	9.558	91	47626m	0.702	ppbv	
60) o-Xylene	9.989	91	19197	0.282	ppbv	99
72) 4-Ethyltoluene	11.144	105	11557	0.137	ppbv #	83
73) 1,3,5-Trimethylbenzene	11.228	105	9755	0.132	ppbv	93
74) 1,2,4-Trimethylbenzene	11.555	105	41806	0.491	ppbv #	64

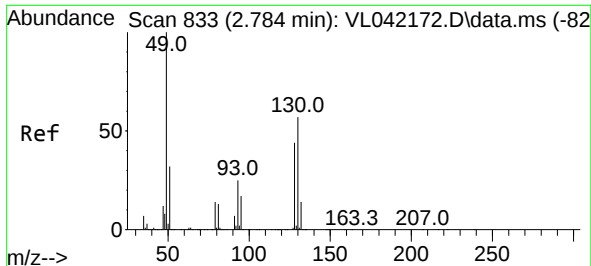
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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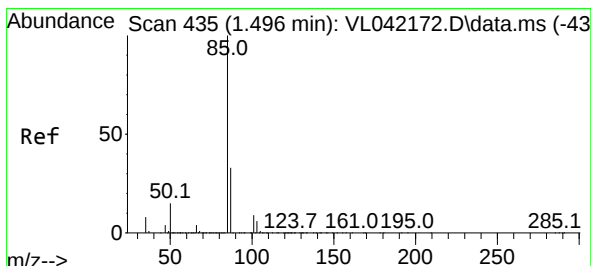
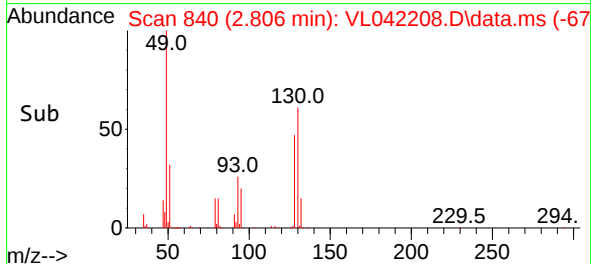
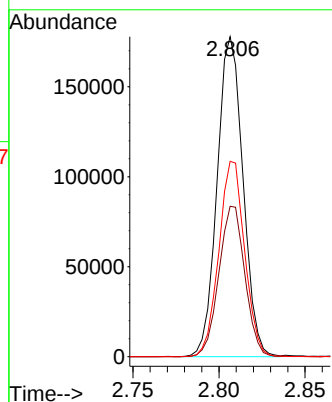
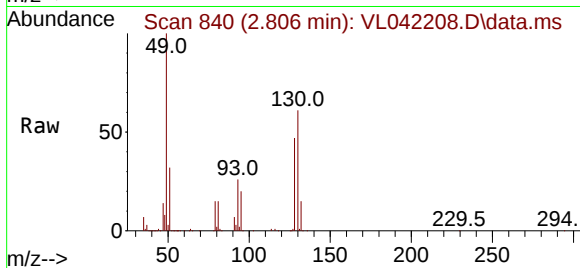




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.806 min Scan# 84
Delta R.T. 0.022 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

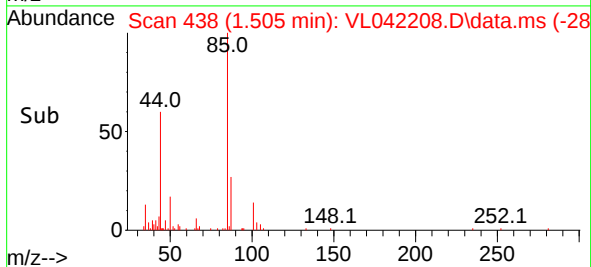
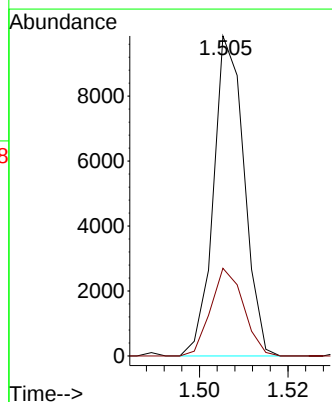
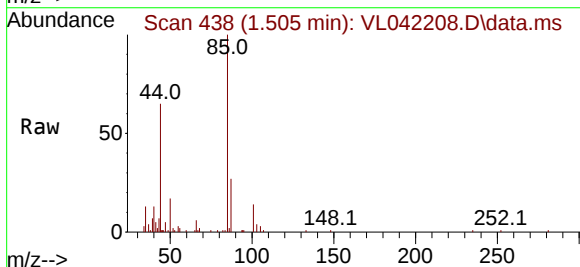
Instrument :
MSVOA_L
ClientSampleId :
SV2

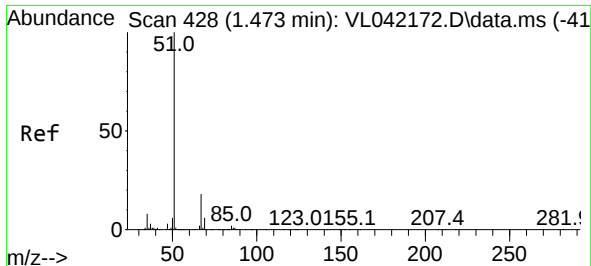
Tgt Ion: 49 Resp: 185856
Ion Ratio Lower Upper
49 100
128 47.3 22.9 68.5
130 61.0 28.8 86.4



#2
Dichlorodifluoromethane
Concen: 0.173 ppbv
RT: 1.505 min Scan# 438
Delta R.T. 0.010 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

Tgt Ion: 85 Resp: 4751
Ion Ratio Lower Upper
85 100
87 27.4 26.1 39.1

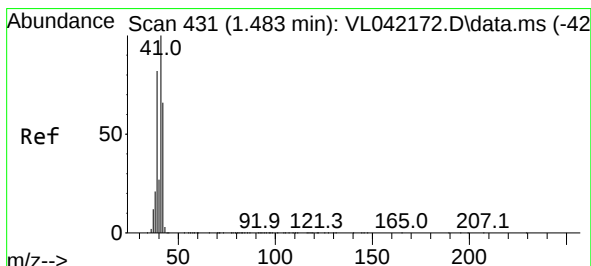
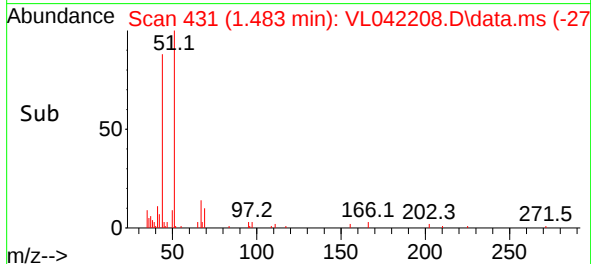
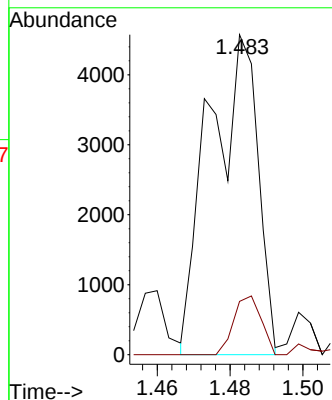
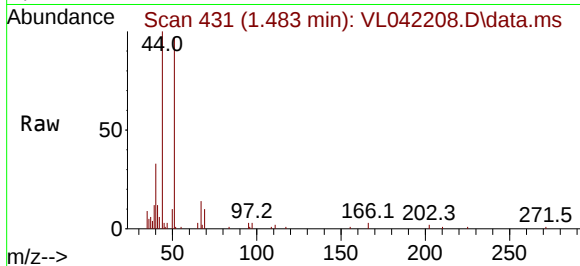




#3
Chlorodifluoromethane
Concen: 0.151 ppbv m
RT: 1.483 min Scan# 41
Delta R.T. 0.010 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

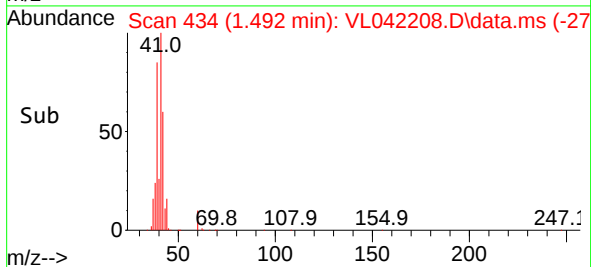
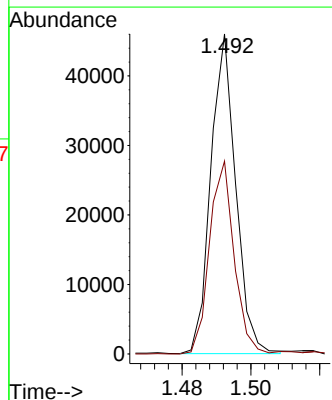
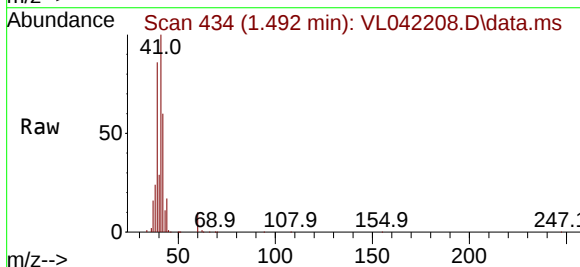
Instrument :
MSVOA_L
ClientSampleId :
SV2

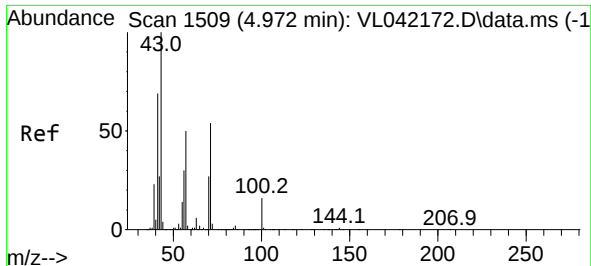
Tgt Ion: 51 Resp: 4223
Ion Ratio Lower Upper
51 100
67 11.7 15.0 22.6#



#9
Propene
Concen: 1.799 ppbv
RT: 1.492 min Scan# 434
Delta R.T. 0.010 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

Tgt Ion: 41 Resp: 23121
Ion Ratio Lower Upper
41 100
42 60.5 55.4 83.2

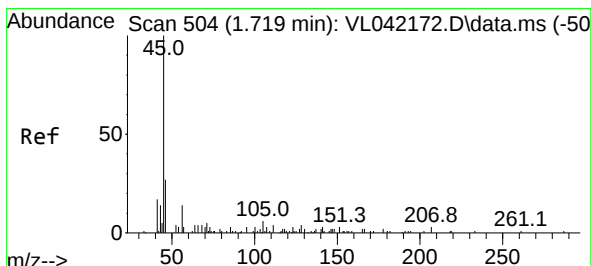
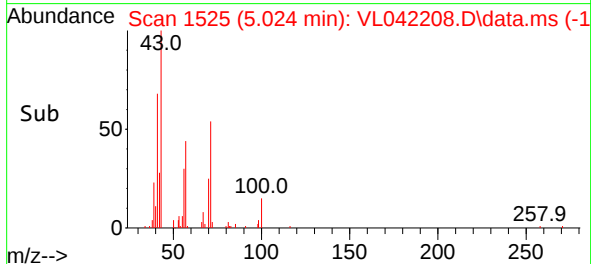
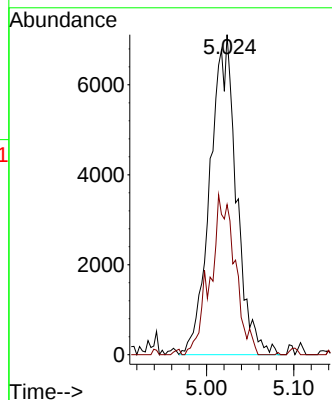
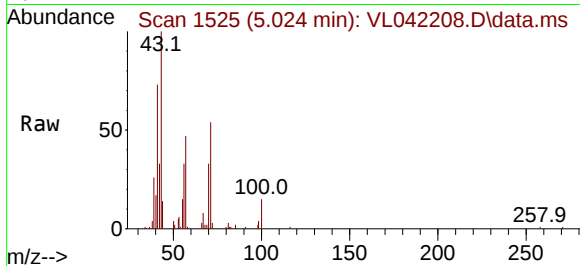




#10
Heptane
Concen: 0.438 ppbv m
RT: 5.024 min Scan# 11
Delta R.T. 0.052 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

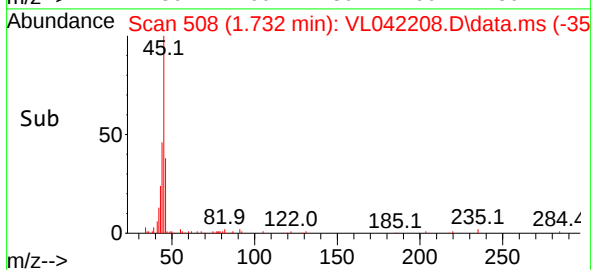
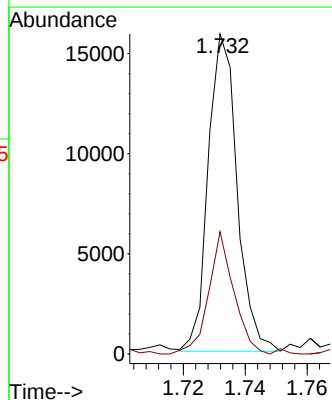
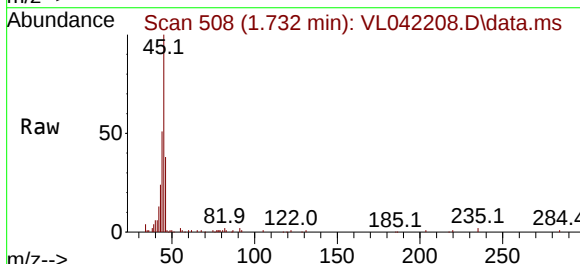
Instrument :
MSVOA_L
ClientSampleId :
SV2

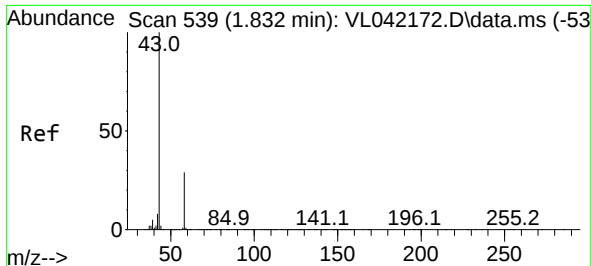
Tgt Ion: 43 Resp: 14961
Ion Ratio Lower Upper
43 100
57 47.3 39.4 59.2



#13
Ethanol
Concen: 8.442 ppbv
RT: 1.732 min Scan# 508
Delta R.T. 0.013 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

Tgt Ion: 45 Resp: 10254
Ion Ratio Lower Upper
45 100
46 0.0 20.2 80.8#

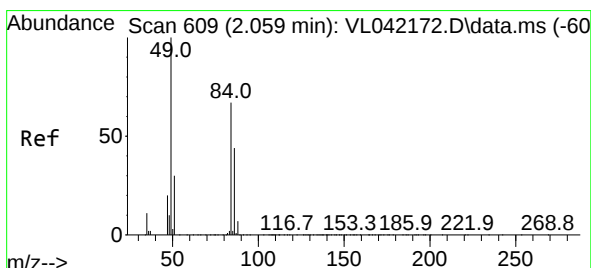
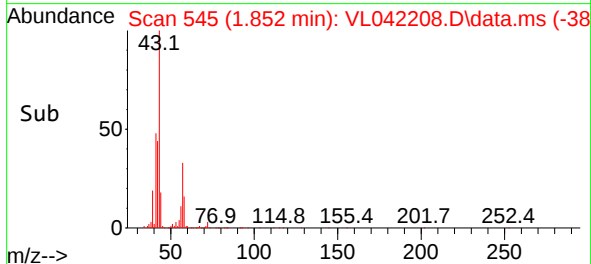
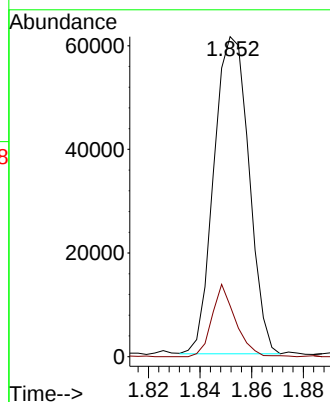
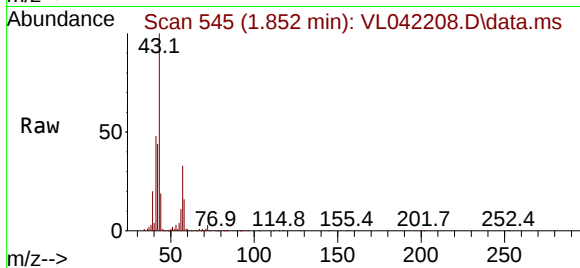




#15
Acetone
Concen: 2.222 ppbv
RT: 1.852 min Scan# 54
Delta R.T. 0.019 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

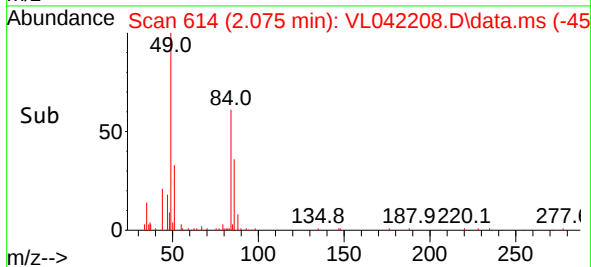
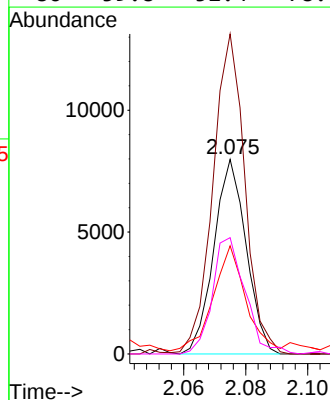
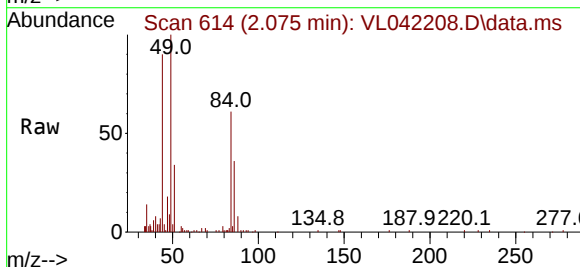
Instrument :
MSVOA_L
ClientSampleId :
SV2

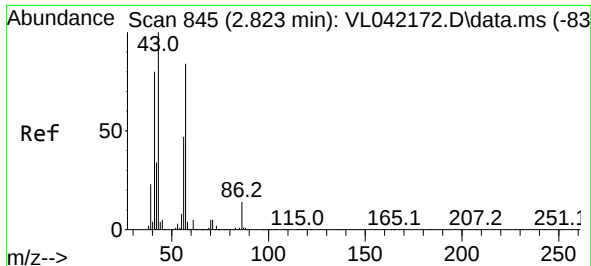
Tgt Ion: 43 Resp: 57758
Ion Ratio Lower Upper
43 100
58 15.7 23.2 34.8#



#20
Methylene Chloride
Concen: 0.598 ppbv
RT: 2.075 min Scan# 614
Delta R.T. 0.016 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

Tgt Ion: 84 Resp: 5788
Ion Ratio Lower Upper
84 100
49 163.3 120.2 180.4
51 52.8 37.4 56.0
86 59.8 52.4 78.6

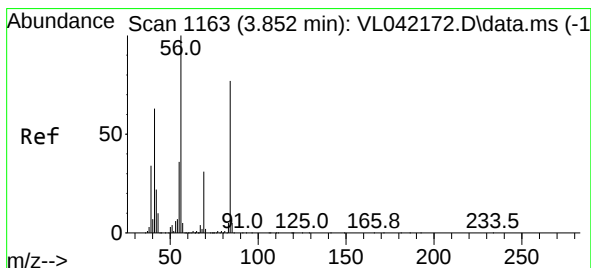
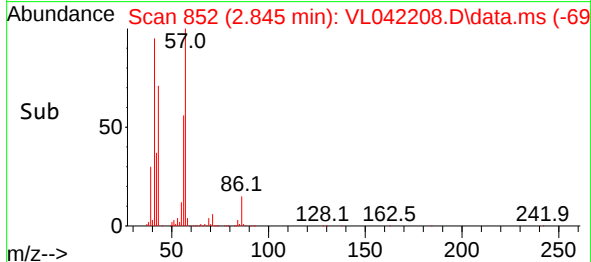
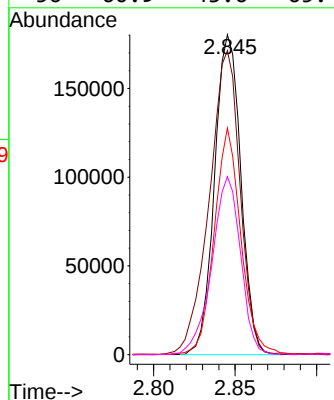
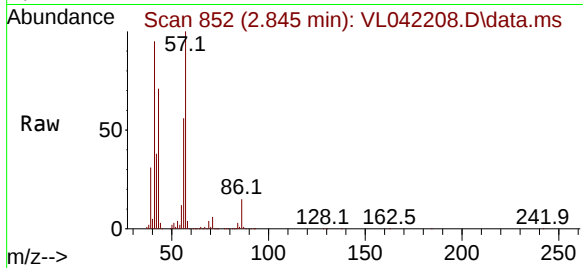




#26
Hexane
Concen: 7.761 ppbv
RT: 2.845 min Scan# 81
Delta R.T. 0.022 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

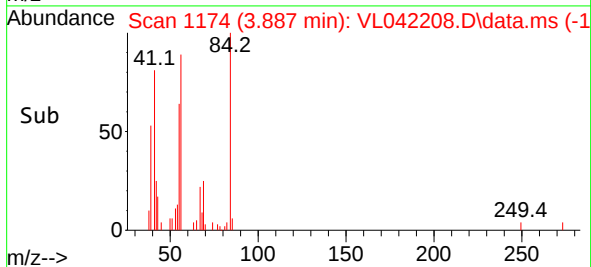
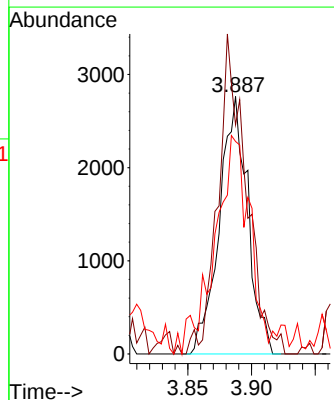
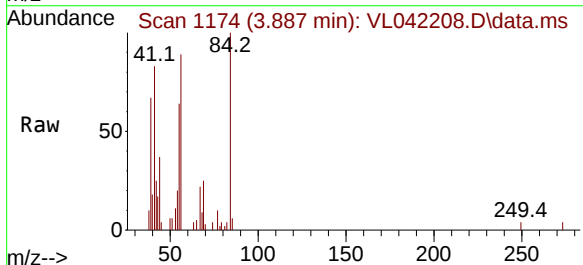
Instrument :
MSVOA_L
ClientSampleId :
SV2

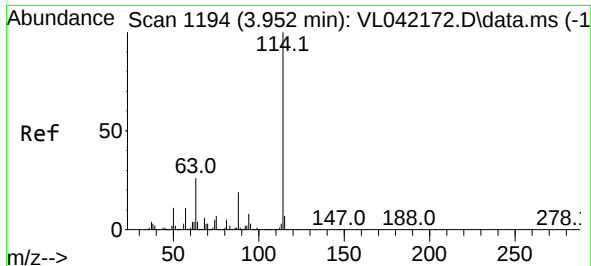
Tgt Ion: 57 Resp: 202226
Ion Ratio Lower Upper
57 100
41 110.9 76.6 114.8
43 72.4 207.8 311.8#
56 60.9 43.6 65.4



#30
Cyclohexane
Concen: 0.190 ppbv m
RT: 3.887 min Scan# 1174
Delta R.T. 0.035 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

Tgt Ion: 84 Resp: 4298
Ion Ratio Lower Upper
84 100
56 122.5 102.8 154.2
41 110.4 66.5 99.7#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.988 min Scan# 11

Delta R.T. 0.035 min

Lab File: VL042208.D

Acq: 31 Mar 2025 13:36

Instrument :

MSVOA_L

ClientSampleId :

SV2

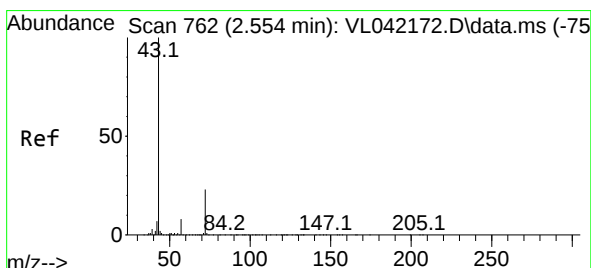
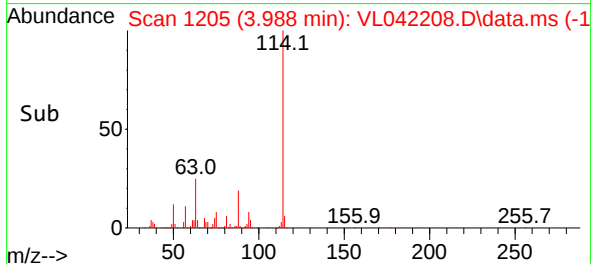
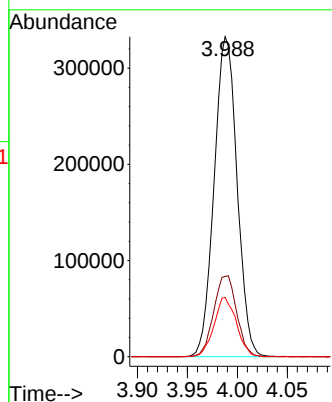
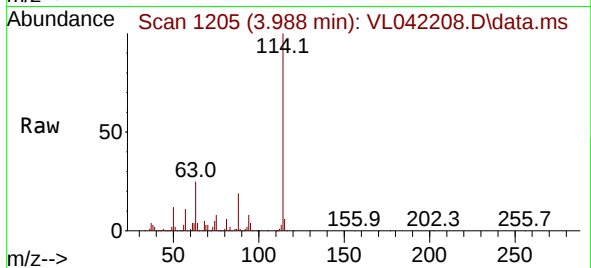
Tgt Ion:114 Resp: 529863

Ion Ratio Lower Upper

114 100

63 25.4 20.7 31.1

88 18.1 15.0 22.4



#34

2-Butanone

Concen: 0.182 ppbv

RT: 2.580 min Scan# 770

Delta R.T. 0.026 min

Lab File: VL042208.D

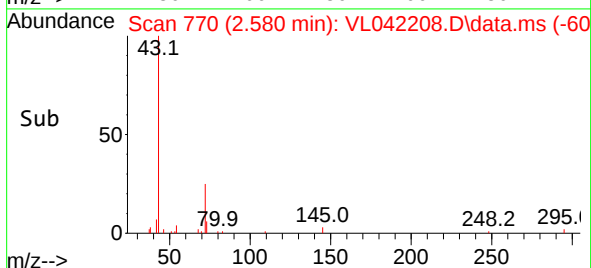
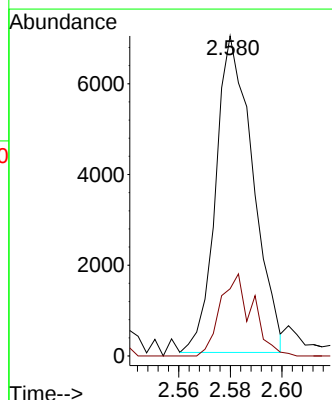
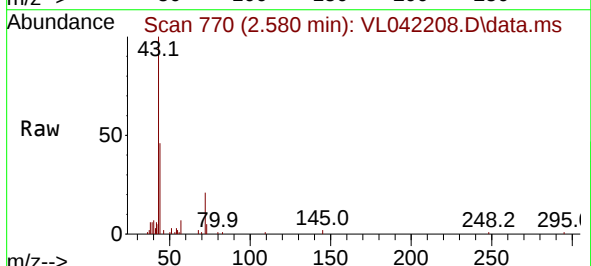
Acq: 31 Mar 2025 13:36

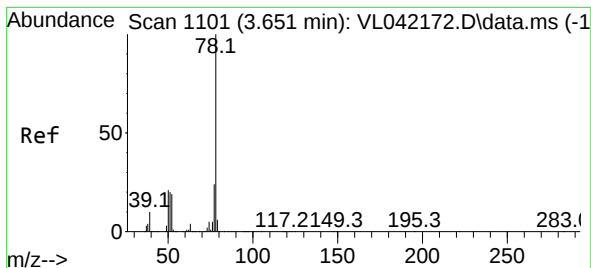
Tgt Ion: 43 Resp: 6987

Ion Ratio Lower Upper

43 100

72 22.5 18.2 27.2





#36

Benzene

Concen: 0.206 ppbv

RT: 3.684 min Scan# 1111

Delta R.T. 0.032 min

Lab File: VL042208.D

Acq: 31 Mar 2025 13:36

Instrument :

MSVOA_L

ClientSampleId :

SV2

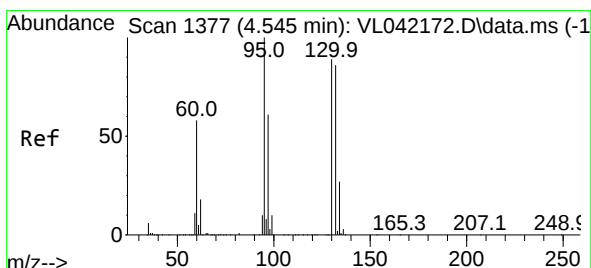
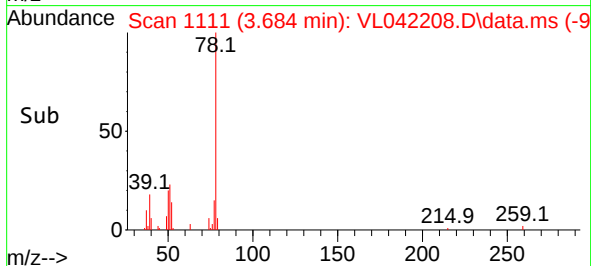
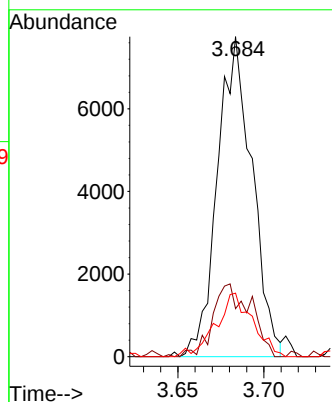
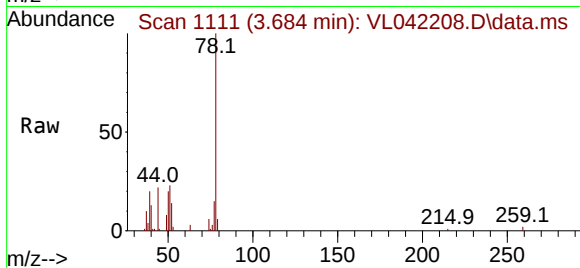
Tgt Ion: 78 Resp: 10828

Ion Ratio Lower Upper

78 100

77 15.0 19.1 28.7#

50 18.9 16.6 24.8



#38

Trichloroethene

Concen: 0.086 ppbv m

RT: 4.583 min Scan# 1389

Delta R.T. 0.039 min

Lab File: VL042208.D

Acq: 31 Mar 2025 13:36

Tgt Ion: 130 Resp: 1895

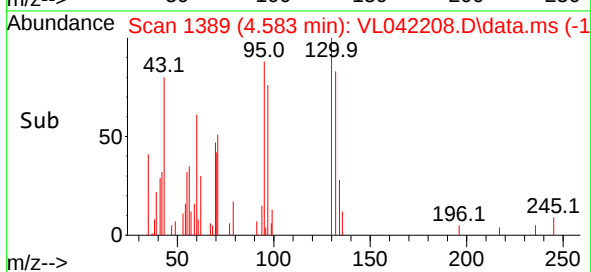
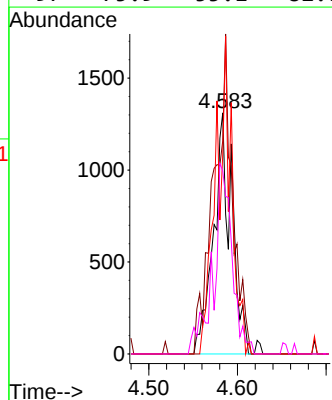
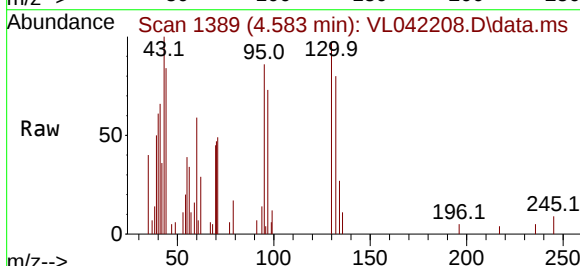
Ion Ratio Lower Upper

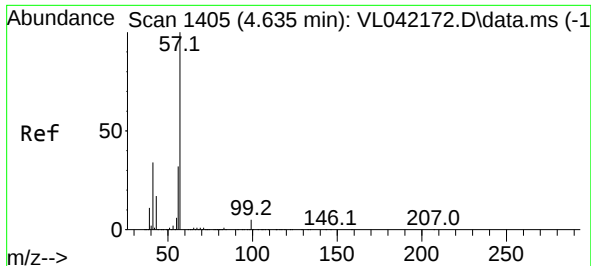
130 100

95 88.5 89.8 134.8#

132 82.9 77.4 116.2

97 75.9 55.1 82.7

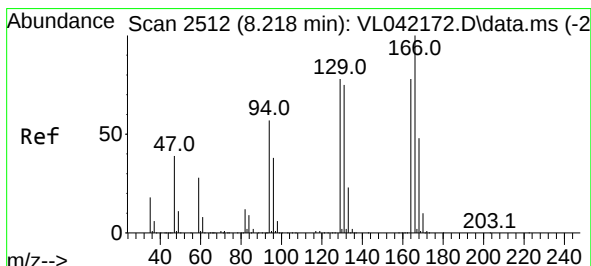
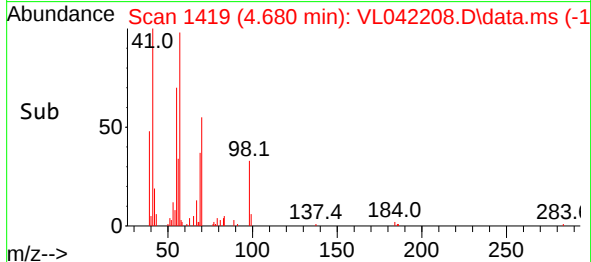
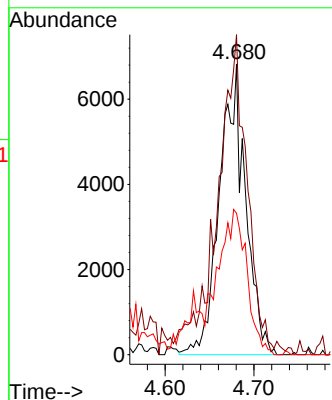
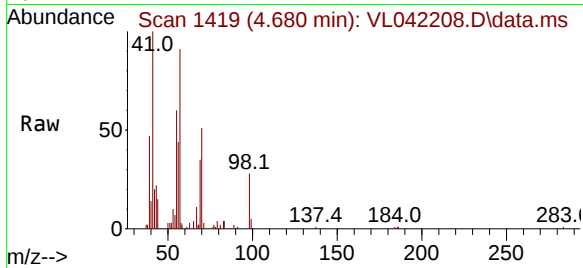




#44
2,2,4-Trimethylpentane
Concen: 0.156 ppbv m
RT: 4.680 min Scan# 1405
Delta R.T. 0.045 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

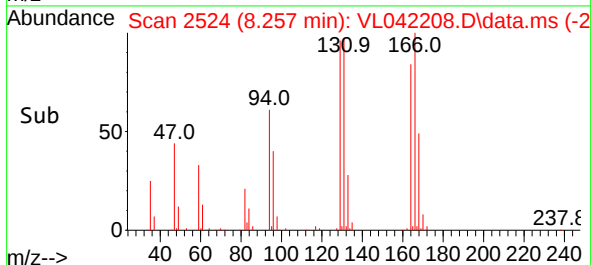
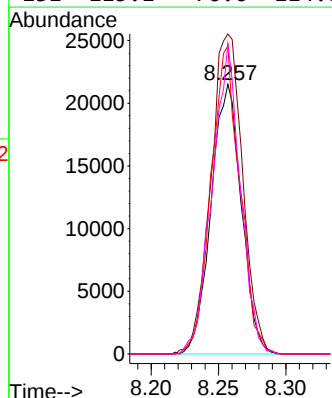
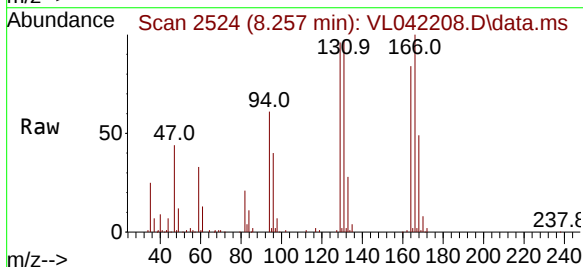
Instrument :
MSVOA_L
ClientSampleId :
SV2

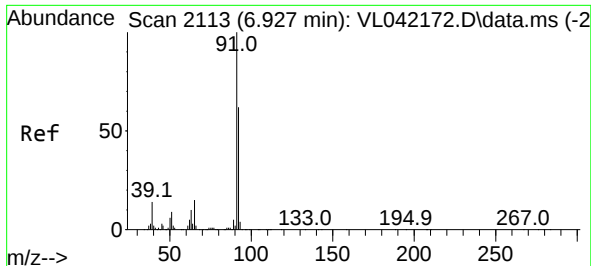
Tgt Ion: 57 Resp: 13836
Ion Ratio Lower Upper
57 100
41 126.8 26.8 40.2#
56 68.7 25.6 38.4#



#52
Tetrachloroethene
Concen: 1.613 ppbv
RT: 8.257 min Scan# 2524
Delta R.T. 0.039 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

Tgt Ion: 164 Resp: 33600
Ion Ratio Lower Upper
164 100
166 118.7 102.5 153.7
129 114.2 79.8 119.8
131 115.1 76.6 114.8#

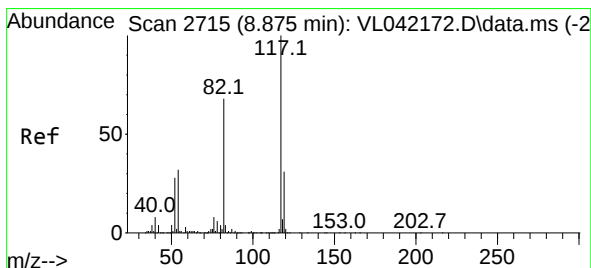
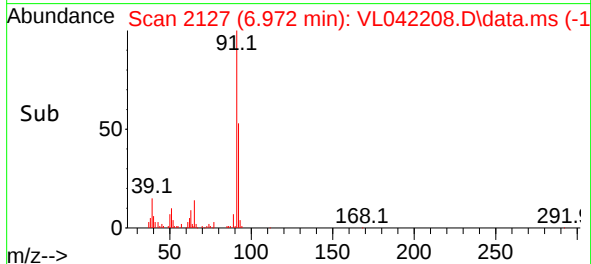
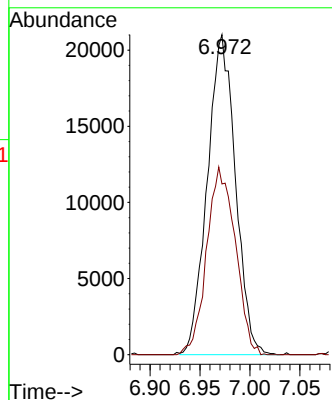
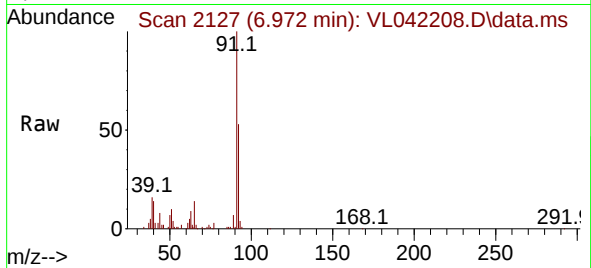




#53
Toluene
Concen: 0.661 ppbv
RT: 6.972 min Scan# 2113
Delta R.T. 0.045 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

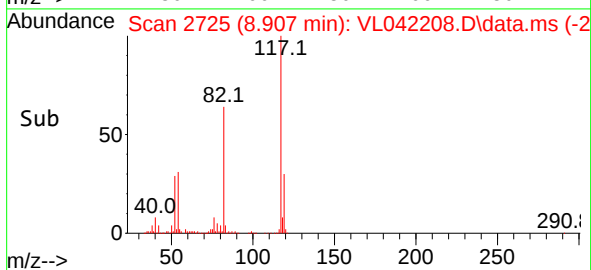
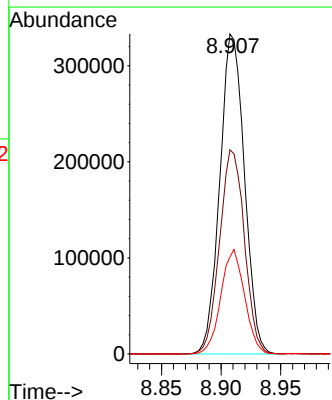
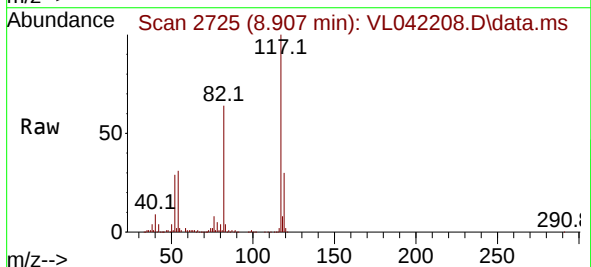
Instrument :
MSVOA_L
ClientSampleId :
SV2

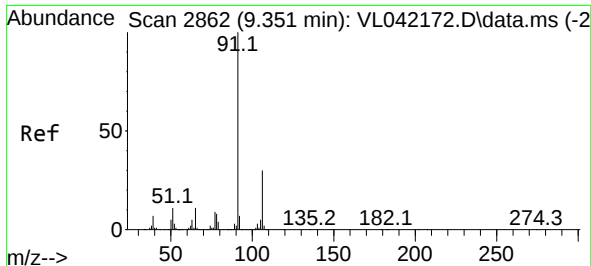
Tgt Ion: 91 Resp: 41185
Ion Ratio Lower Upper
91 100
92 59.6 48.4 72.6



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.907 min Scan# 2725
Delta R.T. 0.032 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

Tgt Ion: 117 Resp: 478116
Ion Ratio Lower Upper
117 100
82 64.4 55.8 83.6
119 31.6 25.5 38.3

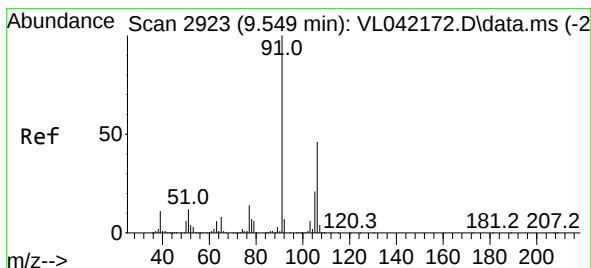
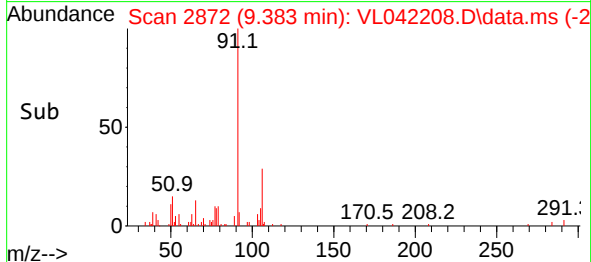
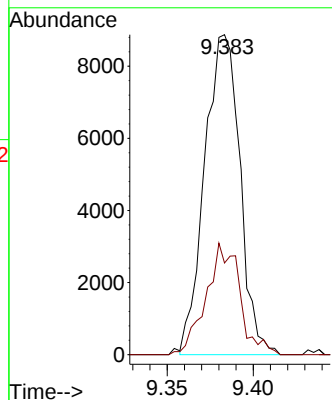
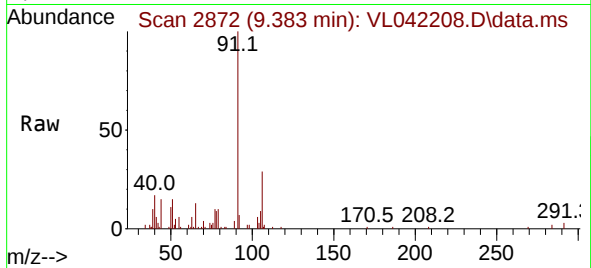




#58
Ethyl Benzene
Concen: 0.149 ppbv
RT: 9.383 min Scan# 21
Delta R.T. 0.032 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

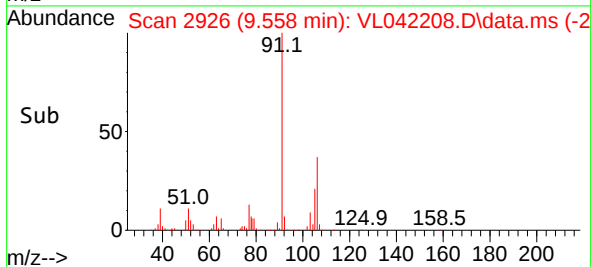
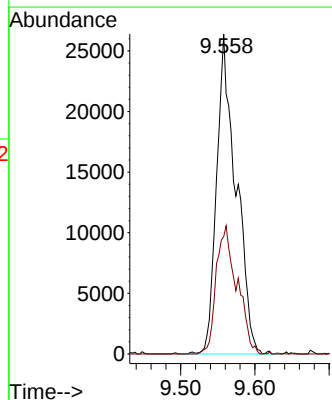
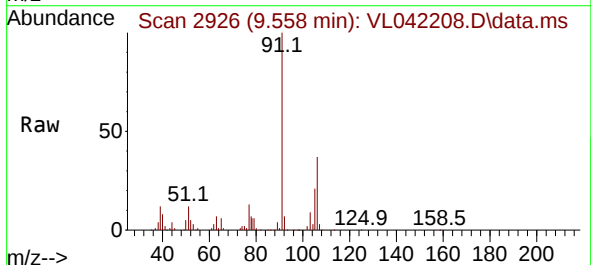
Instrument :
MSVOA_L
ClientSampleId :
SV2

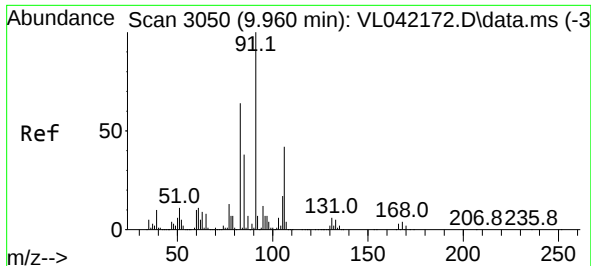
Tgt Ion: 91 Resp: 12675
Ion Ratio Lower Upper
91 100
106 29.5 24.2 36.2



#59
m/p-Xylene
Concen: 0.702 ppbv m
RT: 9.558 min Scan# 2926
Delta R.T. 0.010 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

Tgt Ion: 91 Resp: 47626
Ion Ratio Lower Upper
91 100
106 0.0 36.4 54.6#

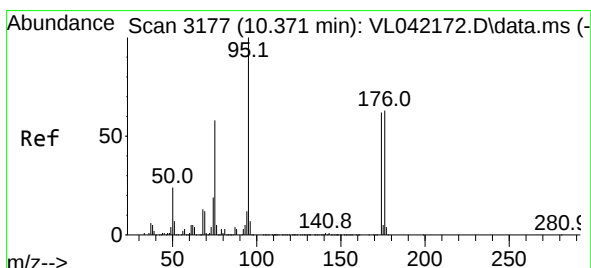
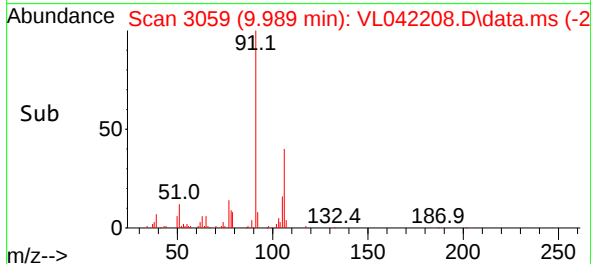
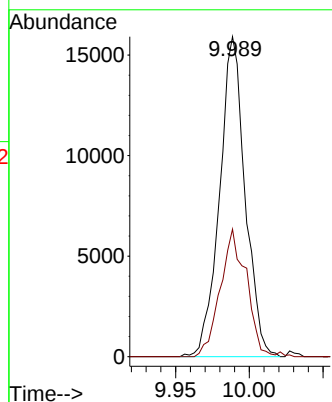
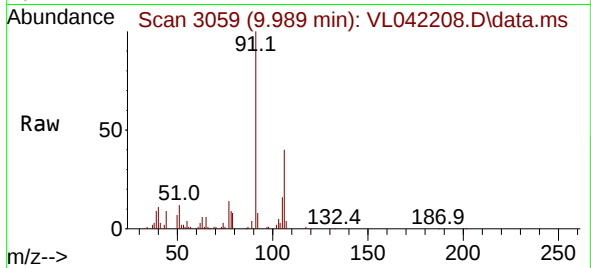




#60
o-Xylene
Concen: 0.282 ppbv
RT: 9.989 min Scan# 3050
Delta R.T. 0.029 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

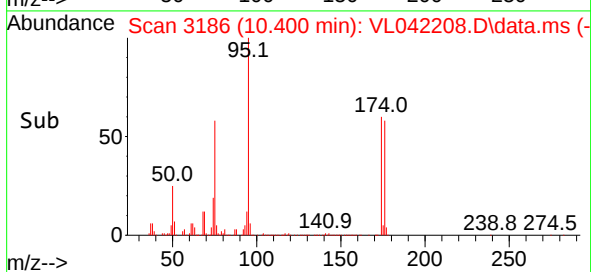
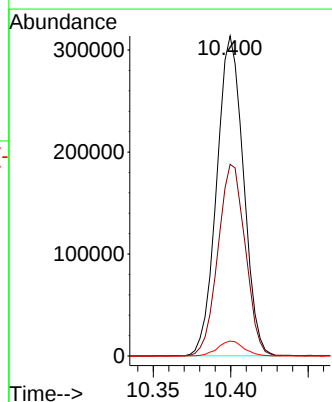
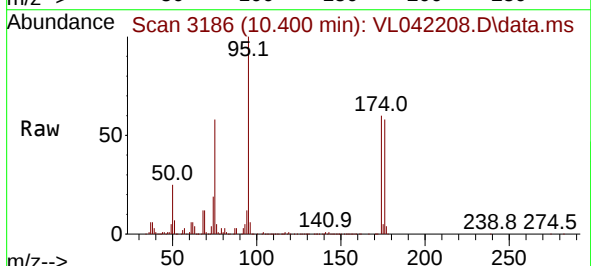
Instrument :
MSVOA_L
ClientSampleId :
SV2

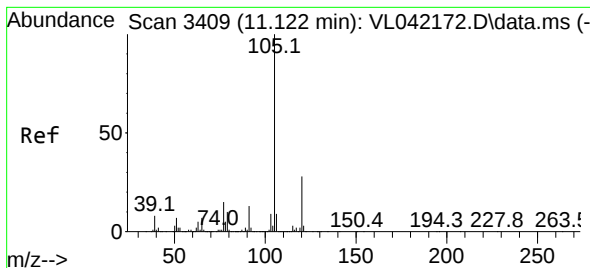
Tgt Ion: 91 Resp: 19197
Ion Ratio Lower Upper
91 100
106 41.0 20.8 62.5



#68
1-Bromo-4-Fluorobenzene
Concen: 9.578 ppbv
RT: 10.400 min Scan# 3186
Delta R.T. 0.029 min
Lab File: VL042208.D
Acq: 31 Mar 2025 13:36

Tgt Ion: 95 Resp: 376053
Ion Ratio Lower Upper
95 100
174 61.4 50.6 76.0
175 4.6 3.8 5.6





#72

4-Ethyltoluene

Concen: 0.137 ppbv

RT: 11.144 min Scan# 3416

Delta R.T. 0.022 min

Lab File: VL042208.D

Acq: 31 Mar 2025 13:36

Instrument :

MSVOA_L

ClientSampleId :

SV2

Tgt Ion:105 Resp: 11557

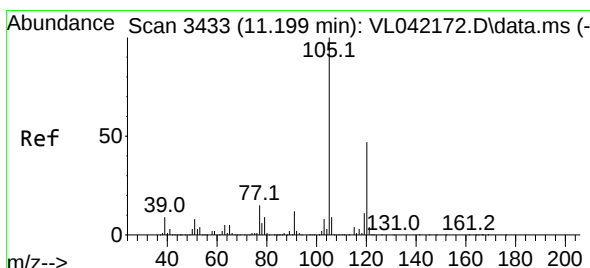
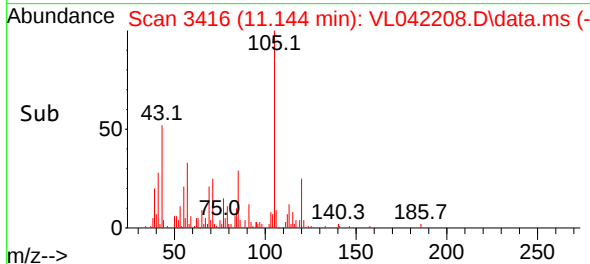
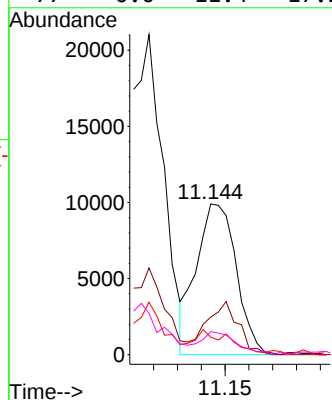
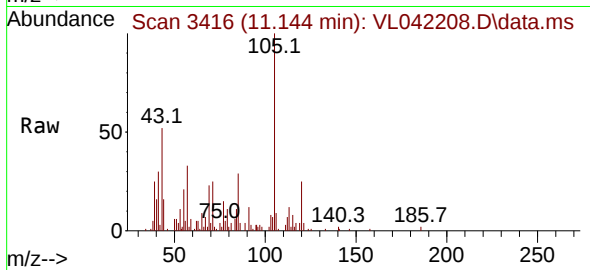
Ion Ratio Lower Upper

105 100

120 28.2 23.4 35.0

91 0.0 10.3 15.5#

77 0.0 11.4 17.2#



#73

1,3,5-Trimethylbenzene

Concen: 0.132 ppbv

RT: 11.228 min Scan# 3442

Delta R.T. 0.029 min

Lab File: VL042208.D

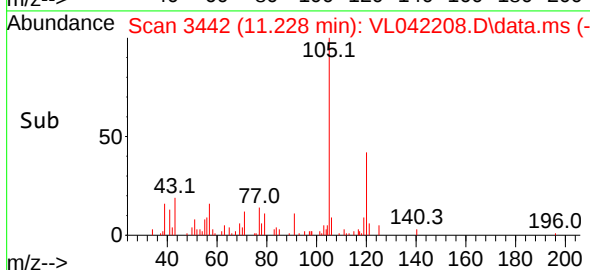
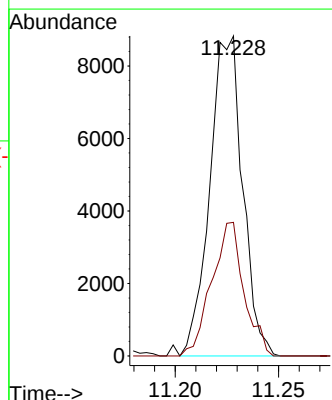
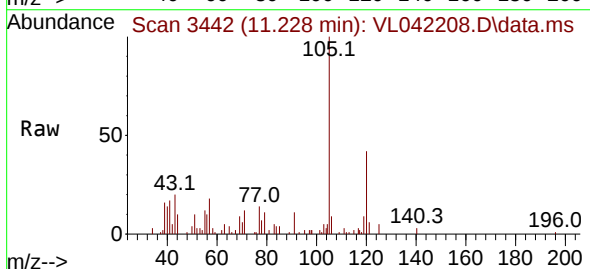
Acq: 31 Mar 2025 13:36

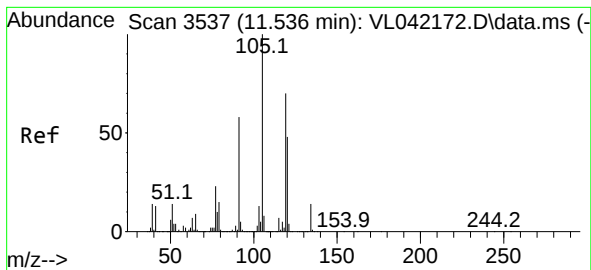
Tgt Ion:105 Resp: 9755

Ion Ratio Lower Upper

105 100

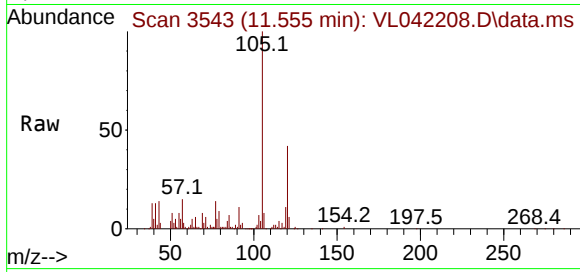
120 41.8 37.4 56.0





#74
 1,2,4-Trimethylbenzene
 Concen: 0.491 ppbv
 RT: 11.555 min Scan# 31
 Delta R.T. 0.019 min
 Lab File: VL042208.D
 Acq: 31 Mar 2025 13:36

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2



Tgt Ion:	105	Resp:	41806
Ion	Ratio	Lower	Upper
105	100		
120	41.7	38.6	58.0
91	10.3	46.2	69.2#
77	13.5	18.6	27.8#

