

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL040825\
 Data File : VL042256.D
 Acq On : 08 Apr 2025 10:55
 Operator : SY/MD
 Sample : Q1725-03
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SSSG-DUP-2-04012025

Quant Time: Apr 09 01:52:47 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

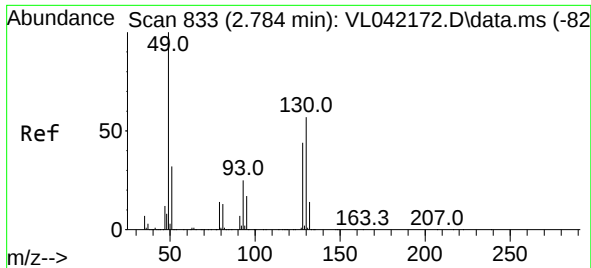
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.803	49	196935	10.000	ppbv	0.02
33) 1,4-Difluorobenzene	3.981	114	510940	10.000	ppbv	0.03
55) Chlorobenzene-d5	8.904	117	446395	10.000	ppbv	0.03
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.393	95	365114	9.960	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.600%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.505	85	10848	0.373	ppbv	92
3) Chlorodifluoromethane	1.482	51	12055	0.406	ppbv	93
4) Chloromethane	1.537	50	4839	0.407	ppbv #	81
9) Propene	1.894	41	198833	14.604	ppbv	87
11) Trichlorofluoromethane	1.887	101	5679	0.201	ppbv	97
12) 1,1,2-Trichlorotrifluo...	2.152	101	1514	0.065	ppbv	86
13) Ethanol	1.894	45	1694950	1316.893	ppbv #	31
15) Acetone	1.842	43	1059776	38.478	ppbv	100
16) 1,3-Butadiene	1.609	39	8145	0.606	ppbv #	31
17) tert-Butyl alcohol	2.055	59	6118	0.178	ppbv	97
19) Isopropyl Alcohol	1.894	45	1694950	109.070	ppbv #	32
20) Methylene Chloride	2.072	84	6489	0.633	ppbv #	74
21) Allyl Chloride	1.971	41	3955	0.204	ppbv #	21
23) Vinyl Acetate	2.486	43	7084	0.594	ppbv #	63
25) Ethyl Acetate	2.845	43	8388	0.117	ppbv #	88
26) Hexane	2.839	57	7856	0.285	ppbv #	37
29) Chloroform	2.861	83	15580	0.386	ppbv	96
34) 2-Butanone	2.573	43	16376	0.442	ppbv	99
35) Carbon Tetrachloride	3.780	117	1520	0.038	ppbv	91
36) Benzene	3.680	78	8061	0.159	ppbv	95
39) 1,2-Dichloropropane	3.981	63	131794	7.144	ppbv #	22
51) 2-Hexanone	7.480	43	2024	0.042	ppbv #	28
53) Toluene	6.962	91	42966	0.716	ppbv	96
57) Chlorobenzene	8.940	112	1324	0.031	ppbv #	55
58) Ethyl Benzene	9.377	91	106361	1.341	ppbv	96
59) m/p-Xylene	9.551	91	400289	6.322	ppbv	98
60) o-Xylene	9.985	91	78832	1.242	ppbv	99
61) Styrene	9.888	104	11084	0.353	ppbv	94
72) 4-Ethyltoluene	11.141	105	8715	0.110	ppbv #	55
73) 1,3,5-Trimethylbenzene	11.218	105	8928	0.129	ppbv	86
74) 1,2,4-Trimethylbenzene	11.552	105	28863	0.363	ppbv #	65
80) Naphthalene,2-methyl-	14.481	142	1713	0.040	ppbv	96

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

Quant Time: Apr 09 01:52:47 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL032725AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri Mar 28 02:00:52 2025
Response via : Initial Calibration

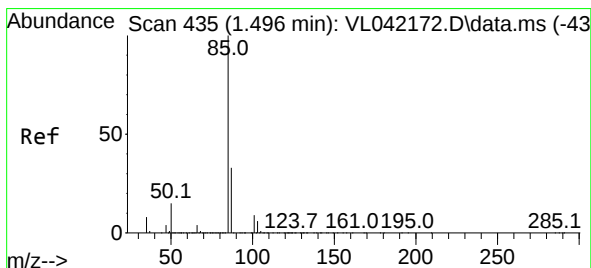
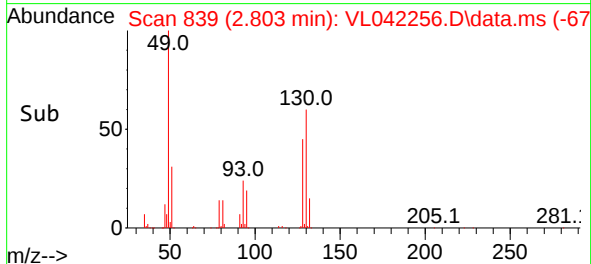
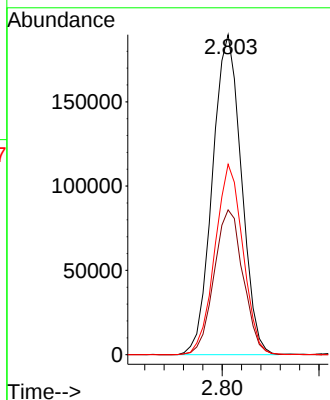
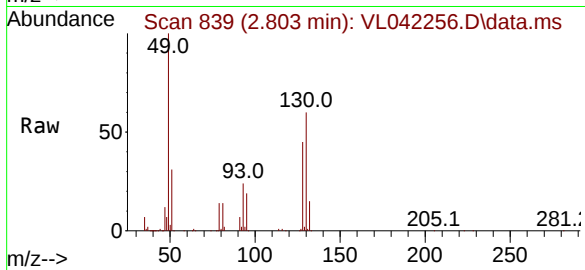




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.803 min Scan# 81
 Delta R.T. 0.019 min
 Lab File: VL042256.D
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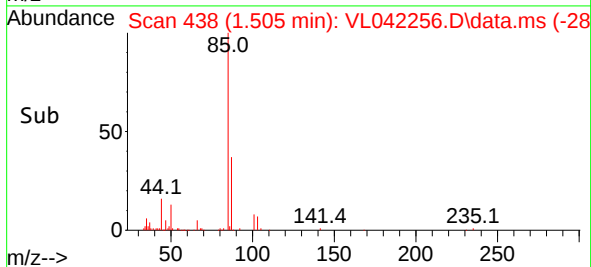
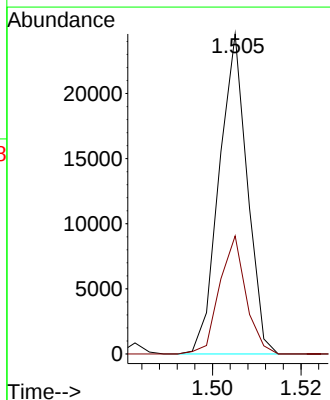
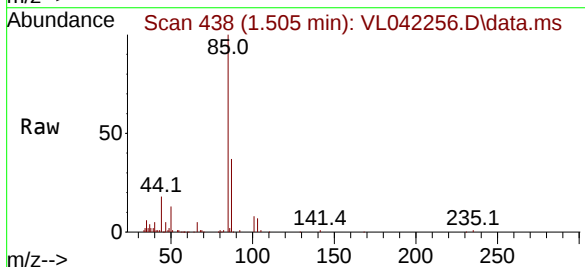
Instrument :
 MSVOA_L
 ClientSampleId :
 SSSG-DUP-2-04012025

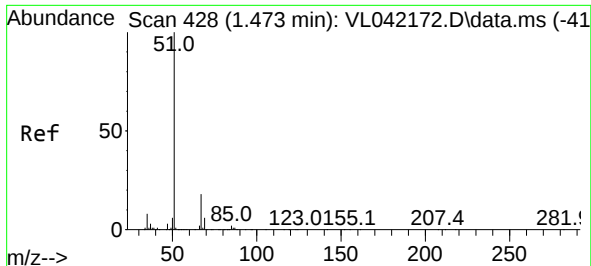
Tgt Ion: 49 Resp: 196935
 Ion Ratio Lower Upper
 49 100
 128 45.6 22.9 68.5
 130 57.9 28.8 86.4



#2
 Dichlorodifluoromethane
 Concen: 0.373 ppbv
 RT: 1.505 min Scan# 438
 Delta R.T. 0.009 min
 Lab File: VL042256.D
 Acq: 08 Apr 2025 10:55

Tgt Ion: 85 Resp: 10848
 Ion Ratio Lower Upper
 85 100
 87 36.9 26.1 39.1

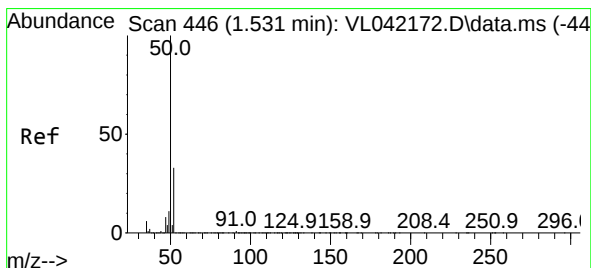
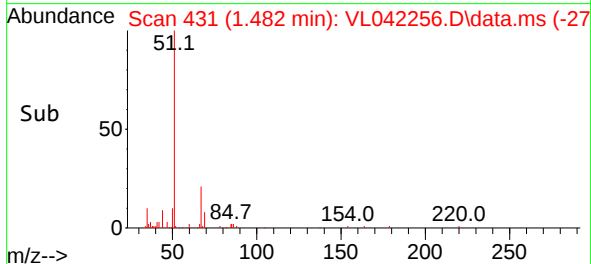
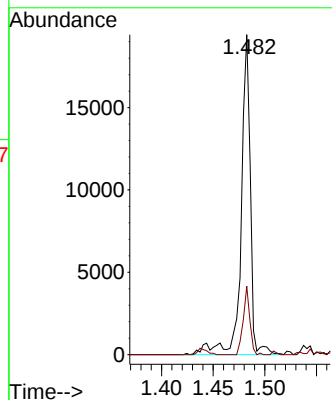
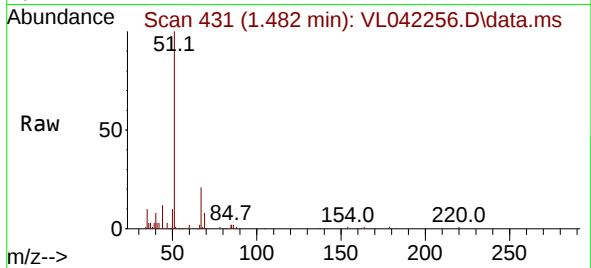




#3
Chlorodifluoromethane
Concen: 0.406 ppbv
RT: 1.482 min Scan# 41
Delta R.T. 0.009 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

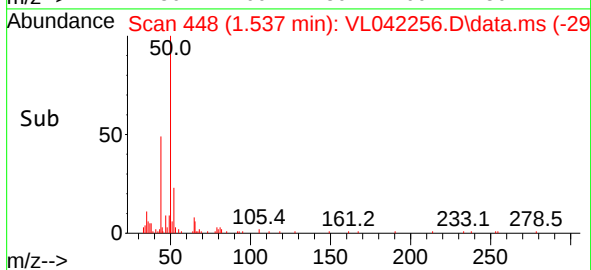
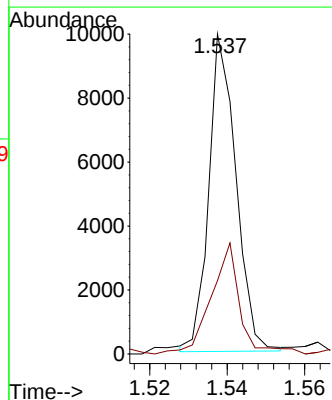
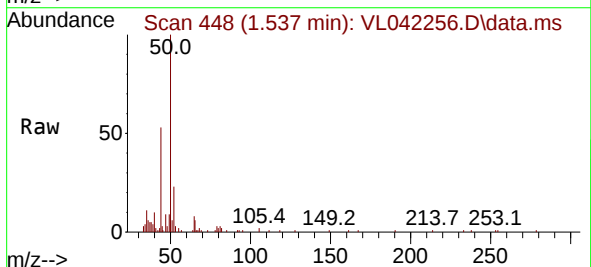
Instrument :
MSVOA_L
ClientSampleId :
SSSG-DUP-2-04012025

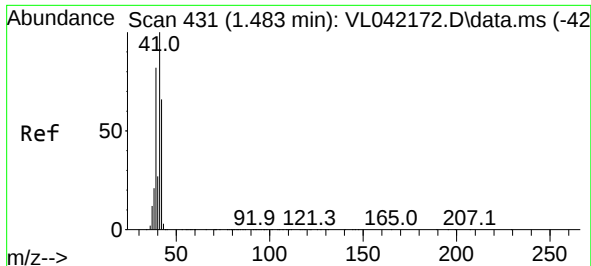
Tgt Ion: 51 Resp: 12055
Ion Ratio Lower Upper
51 100
67 15.8 15.0 22.6



#4
Chloromethane
Concen: 0.407 ppbv
RT: 1.537 min Scan# 448
Delta R.T. 0.006 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

Tgt Ion: 50 Resp: 4839
Ion Ratio Lower Upper
50 100
52 22.1 26.1 39.1#





#9

Propene

Concen: 14.604 ppbv

RT: 1.894 min Scan# 51

Delta R.T. 0.411 min

Lab File: VL042256.D

Acq: 08 Apr 2025 10:55

Instrument :

MSVOA_L

ClientSampleId :

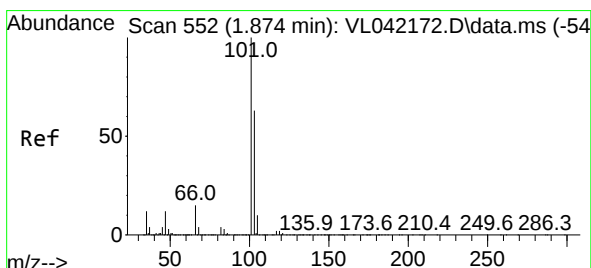
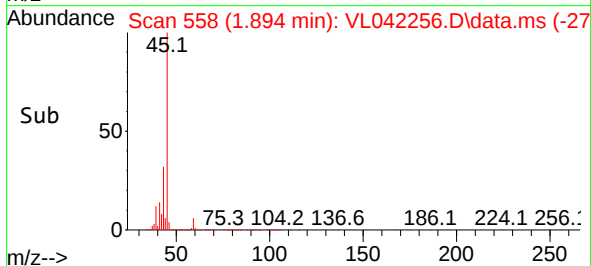
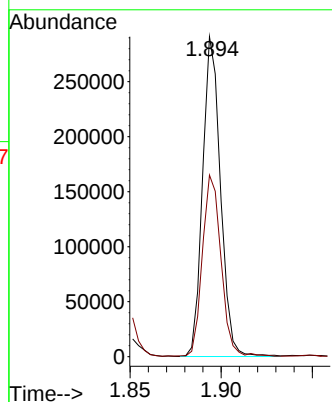
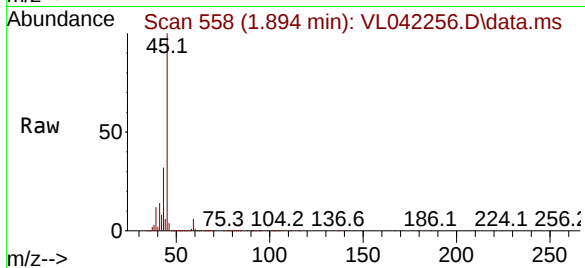
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Tgt Ion: 41 Resp: 198833

Ion Ratio Lower Upper

41 100

42 58.8 55.4 83.2



#11

Trichlorofluoromethane

Concen: 0.201 ppbv

RT: 1.887 min Scan# 556

Delta R.T. 0.013 min

Lab File: VL042256.D

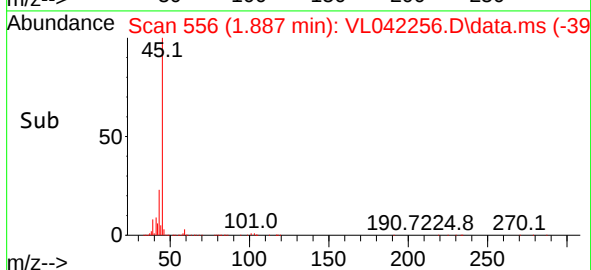
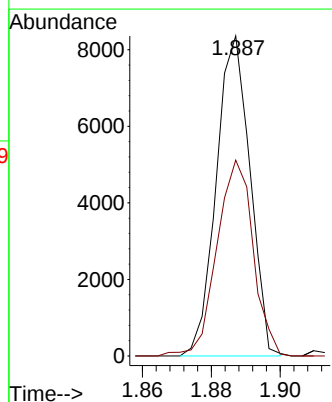
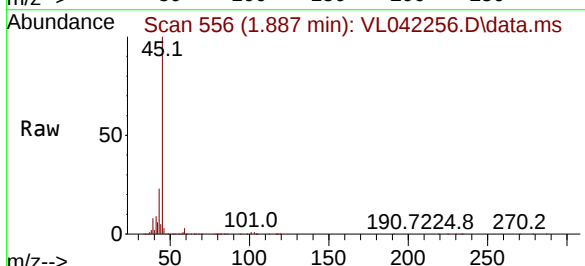
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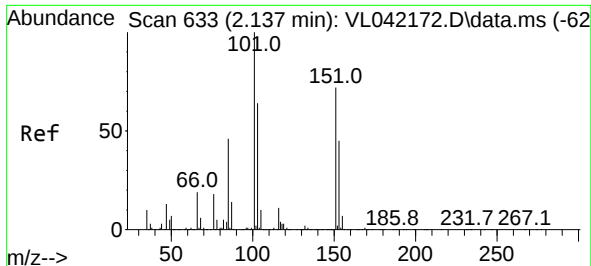
Tgt Ion:101 Resp: 5679

Ion Ratio Lower Upper

101 100

103 60.6 50.2 75.2

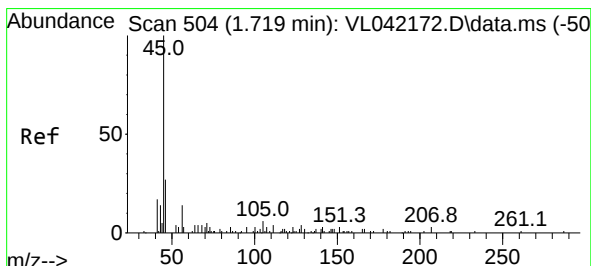
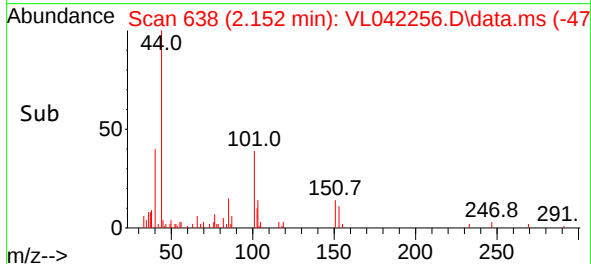
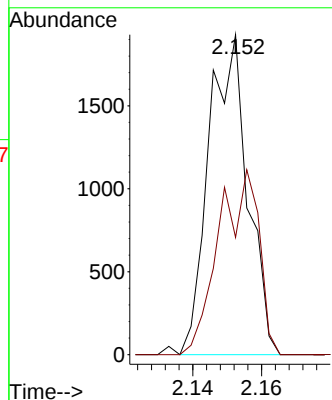
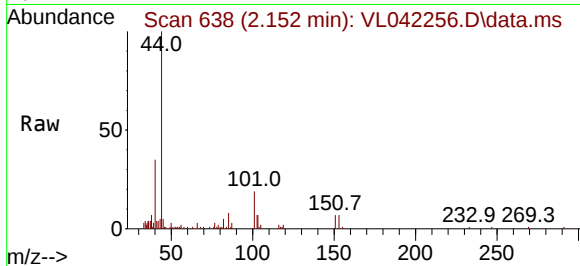




#12
1,1,2-Trichlorotrifluoroethane
Concen: 0.065 ppbv
RT: 2.152 min Scan# 61
Delta R.T. 0.016 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

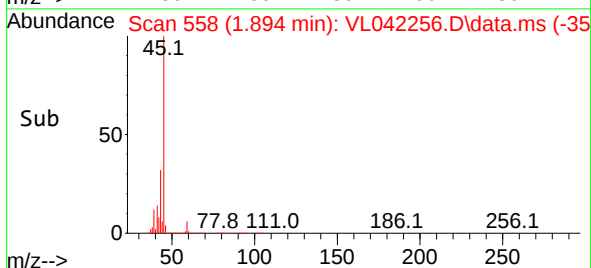
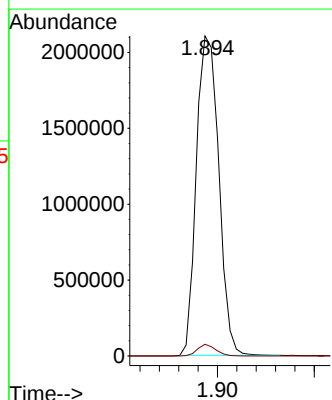
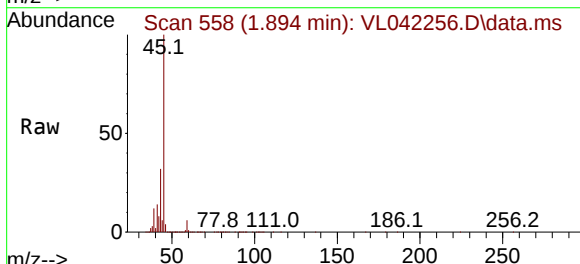
Instrument :
MSVOA_L
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SSSG-DUP-2-04012025

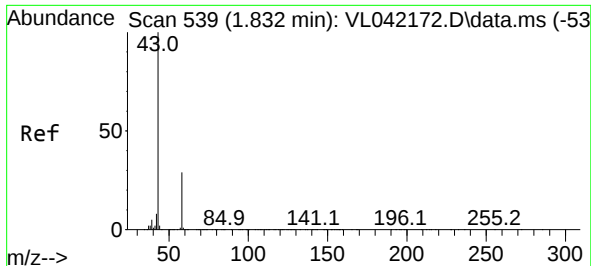
Tgt Ion:101 Resp: 1514
Ion Ratio Lower Upper
101 100
151 59.4 57.1 85.7



#13
Ethanol
Concen: 1316.893 ppbv
RT: 1.894 min Scan# 558
Delta R.T. 0.174 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

Tgt Ion: 45 Resp: 1694950
Ion Ratio Lower Upper
45 100
46 3.0 20.2 80.8#

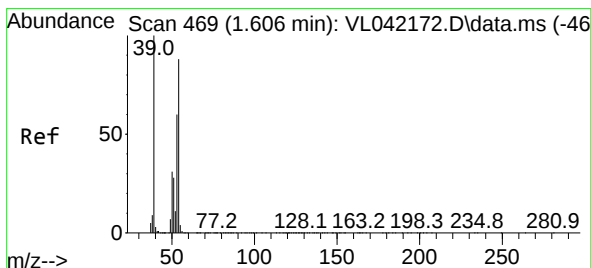
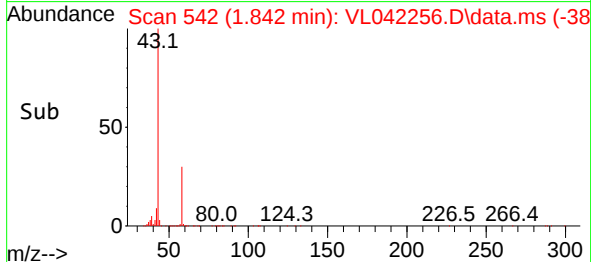
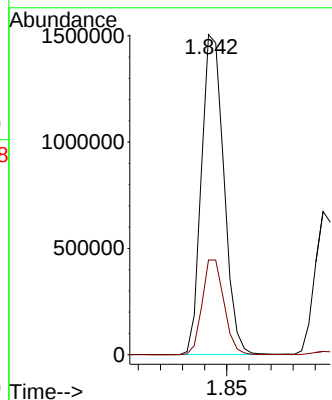
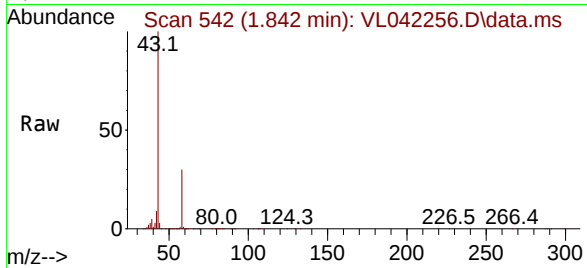




#15
Acetone
Concen: 38.478 ppbv
RT: 1.842 min Scan# 54
Delta R.T. 0.009 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

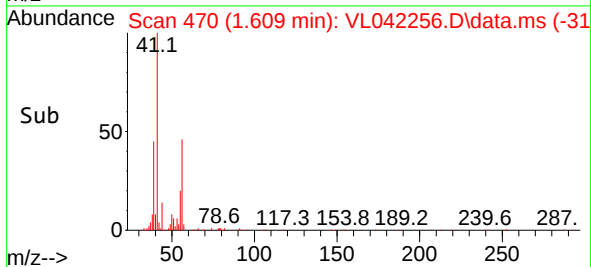
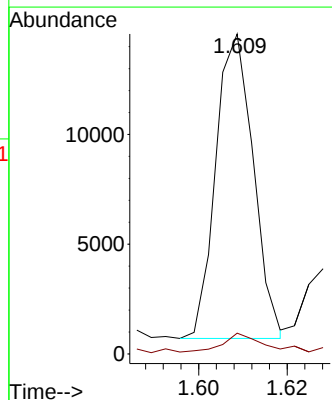
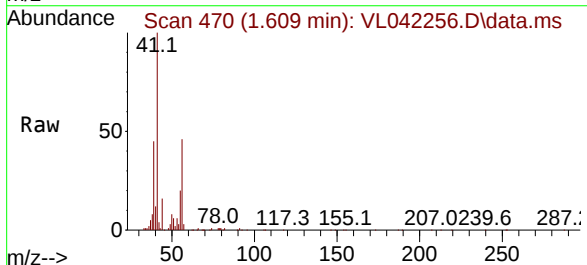
Instrument :
MSVOA_L
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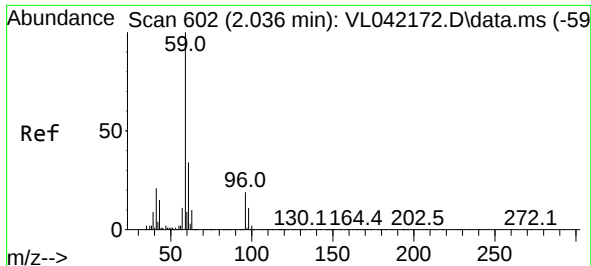
Tgt Ion: 43 Resp: 1059776
Ion Ratio Lower Upper
43 100
58 28.8 23.2 34.8



#16
1,3-Butadiene
Concen: 0.606 ppbv
RT: 1.609 min Scan# 470
Delta R.T. 0.003 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

Tgt Ion: 39 Resp: 8145
Ion Ratio Lower Upper
39 100
54 16.8 60.7 91.1#





#17

tert-Butyl alcohol

Concen: 0.178 ppbv

RT: 2.055 min Scan# 602

Delta R.T. 0.019 min

Lab File: VL042256.D

Acq: 08 Apr 2025 10:55

Instrument :

MSVOA_L

ClientSampleId :

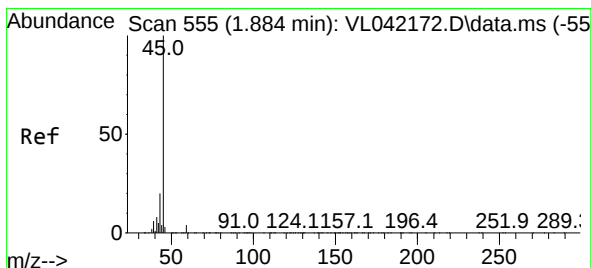
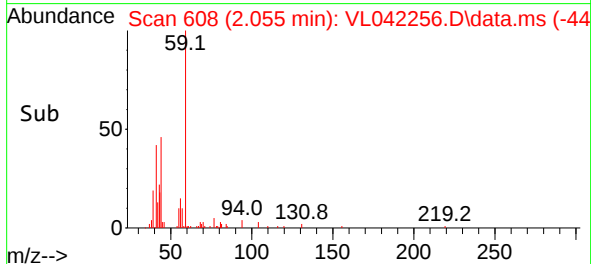
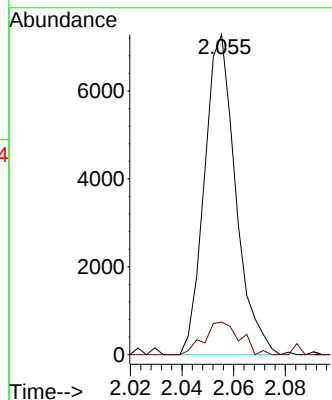
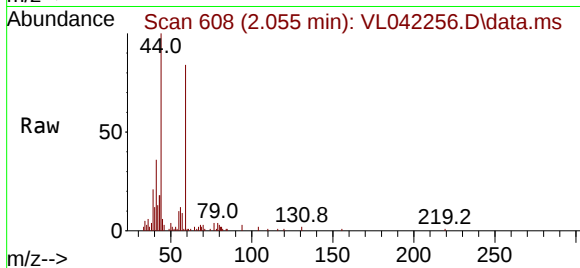
SSSG-DUP-2-04012025

Tgt Ion: 59 Resp: 6118

Ion Ratio Lower Upper

59 100

57 12.4 8.9 13.3



#19

Isopropyl Alcohol

Concen: 109.070 ppbv

RT: 1.894 min Scan# 558

Delta R.T. 0.009 min

Lab File: VL042256.D

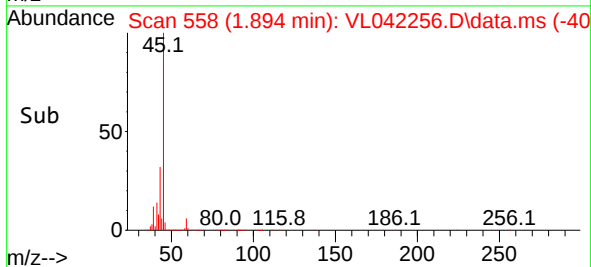
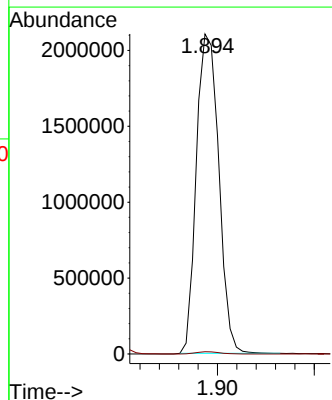
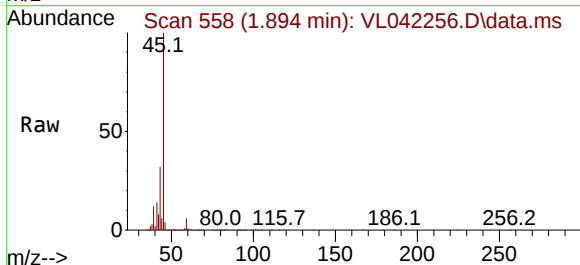
Acq: 08 Apr 2025 10:55

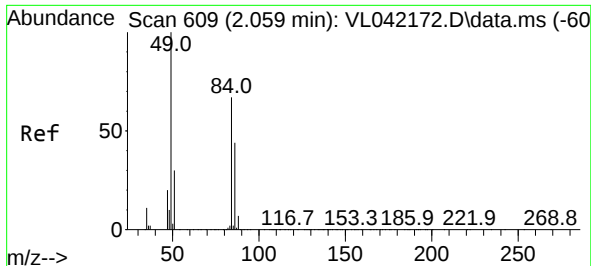
Tgt Ion: 45 Resp: 1694950

Ion Ratio Lower Upper

45 100

58 0.8 36.9 55.3#

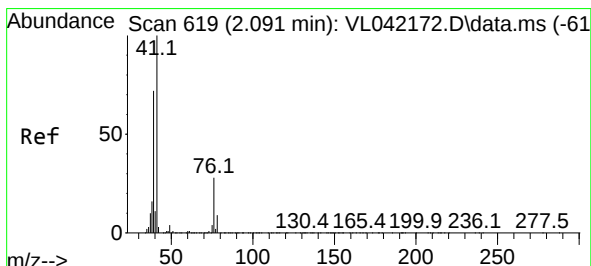
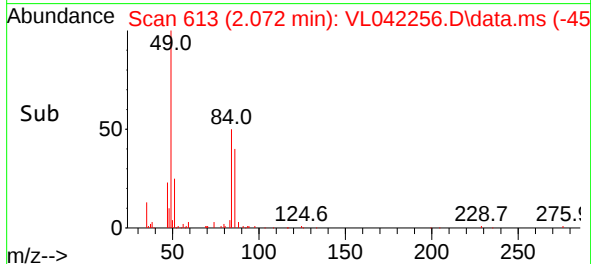
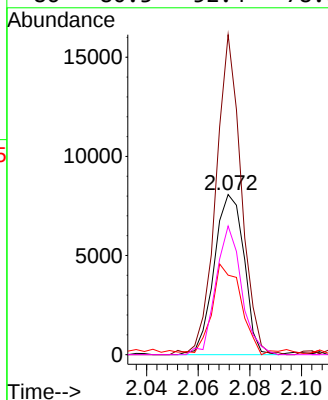
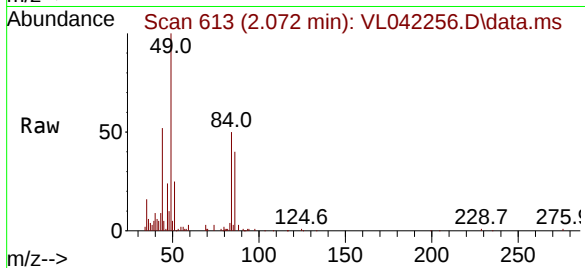




#20
Methylene Chloride
Concen: 0.633 ppbv
RT: 2.072 min Scan# 613
Delta R.T. 0.013 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

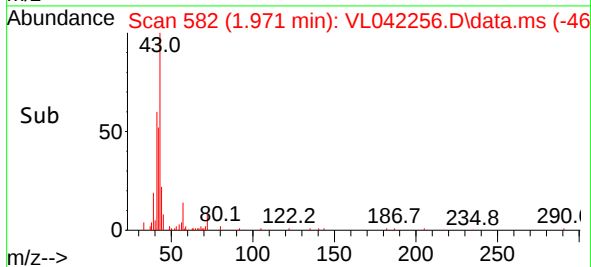
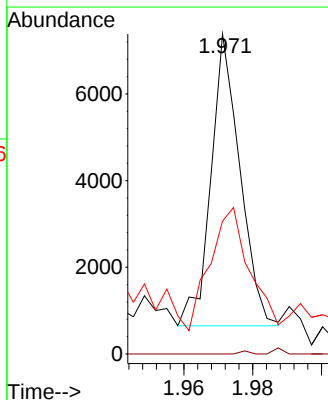
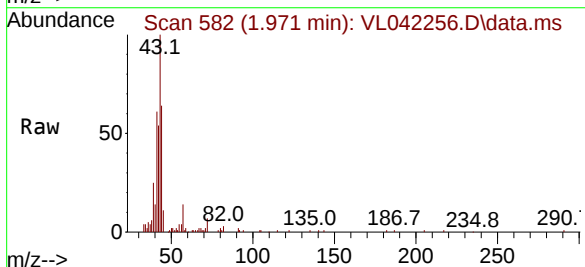
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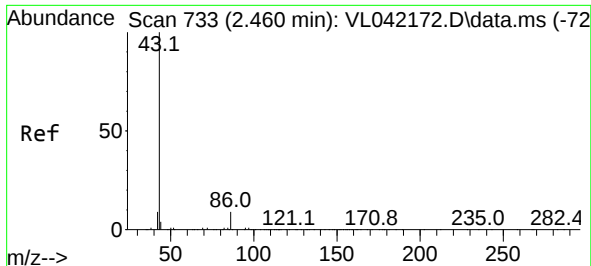
Tgt Ion:	84	Resp:	6489
Ion	Ratio	Lower	Upper
84	100		
49	197.4	120.2	180.4#
51	48.0	37.4	56.0
86	80.3	52.4	78.6#



#21
Allyl Chloride
Concen: 0.204 ppbv
RT: 1.971 min Scan# 582
Delta R.T. -0.120 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

Tgt Ion:	41	Resp:	3955
Ion	Ratio	Lower	Upper
41	100		
76	0.8	24.1	36.1#
39	0.0	61.1	91.7#

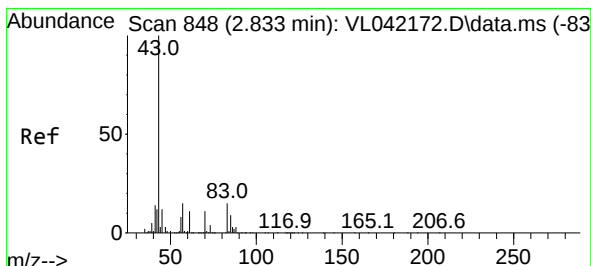
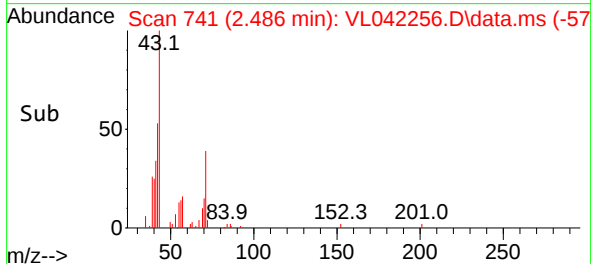
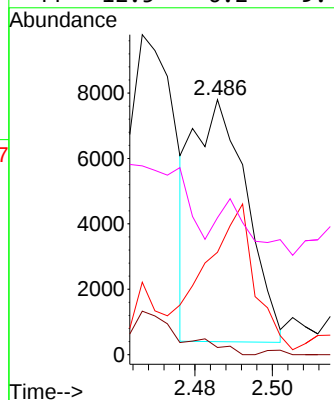
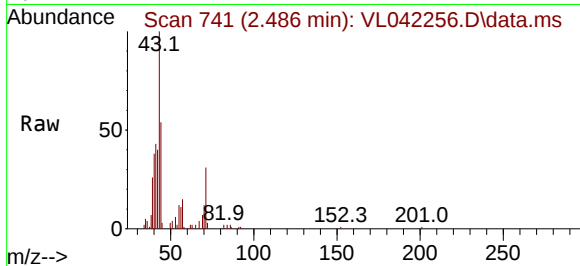




#23
 Vinyl Acetate
 Concen: 0.594 ppbv
 RT: 2.486 min Scan# 741
 Delta R.T. 0.026 min
 Lab File: VL042256.D
 Acq: 08 Apr 2025 10:55

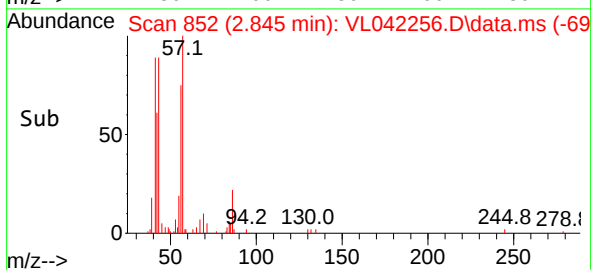
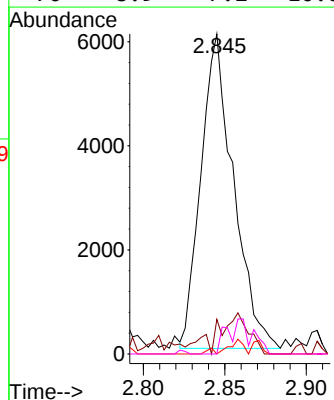
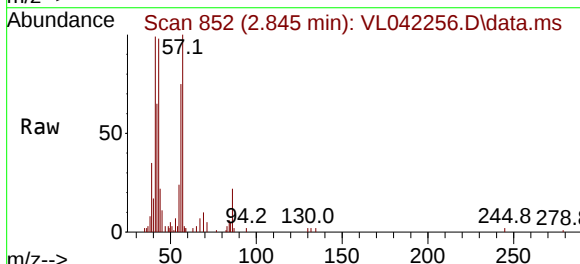
Instrument :
 MSVOA_L
 ClientSampleId :
 SSSG-DUP-2-04012025

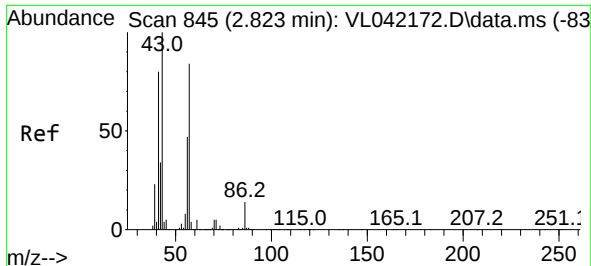
Tgt Ion:	43	Resp:	7084
Ion	Ratio	Lower	Upper
43	100		
86	1.2	5.5	8.3#
42	36.2	8.6	13.0#
44	12.5	6.2	9.4#



#25
 Ethyl Acetate
 Concen: 0.117 ppbv
 RT: 2.845 min Scan# 852
 Delta R.T. 0.013 min
 Lab File: VL042256.D
 Acq: 08 Apr 2025 10:55

Tgt Ion:	43	Resp:	8388
Ion	Ratio	Lower	Upper
43	100		
45	16.9	8.2	12.2#
61	3.5	7.3	10.9#
70	8.9	7.2	10.8

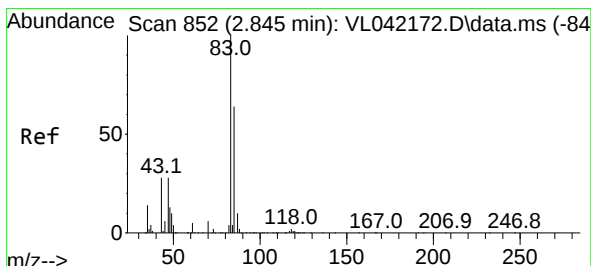
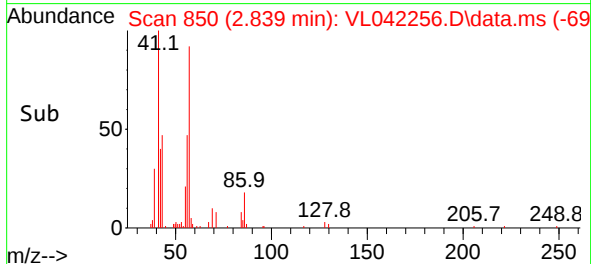
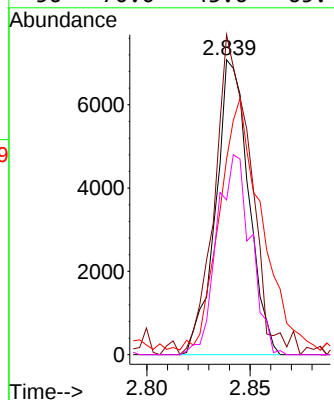
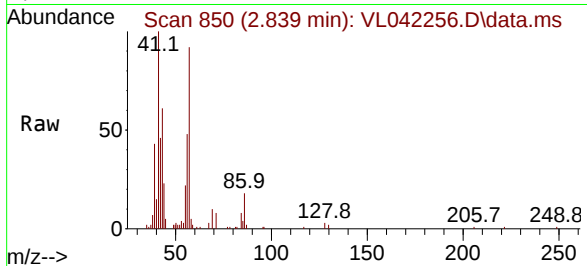




#26
Hexane
Concen: 0.285 ppbv
RT: 2.839 min Scan# 81
Delta R.T. 0.016 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

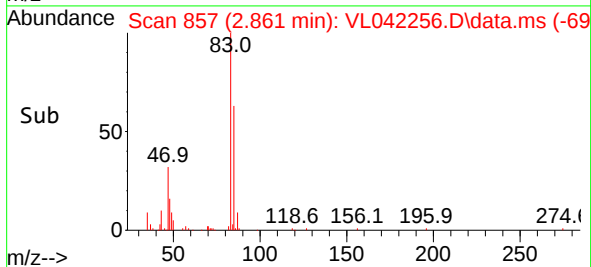
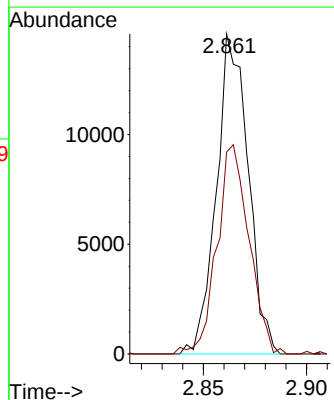
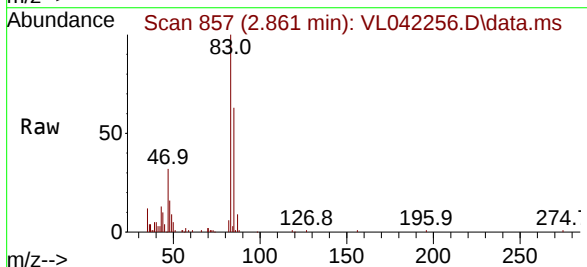
Instrument :
MSVOA_L
ClientSampleId :
SSSG-DUP-2-04012025

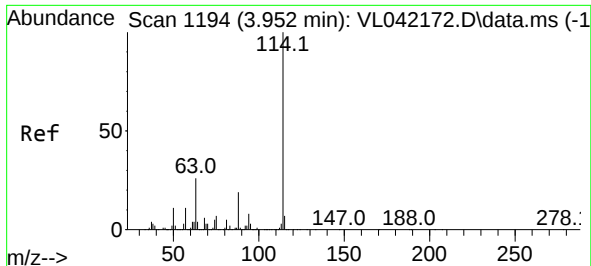
Tgt Ion: 57 Resp: 7856
Ion Ratio Lower Upper
57 100
41 121.0 76.6 114.8#
43 107.6 207.8 311.8#
56 70.0 43.6 65.4#



#29
Chloroform
Concen: 0.386 ppbv
RT: 2.861 min Scan# 857
Delta R.T. 0.016 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

Tgt Ion: 83 Resp: 15580
Ion Ratio Lower Upper
83 100
85 61.4 51.4 77.2





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.981 min Scan# 1194

Delta R.T. 0.029 min

Lab File: VL042256.D

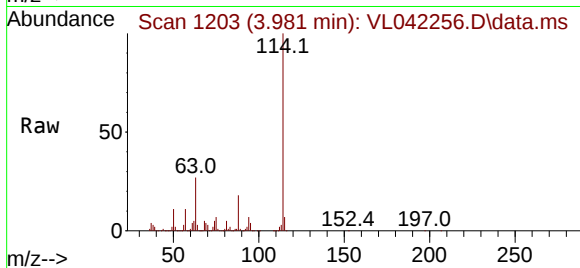
Acq: 08 Apr 2025 10:55

Instrument :

MSVOA_L

ClientSampleId :

SSSG-DUP-2-04012025



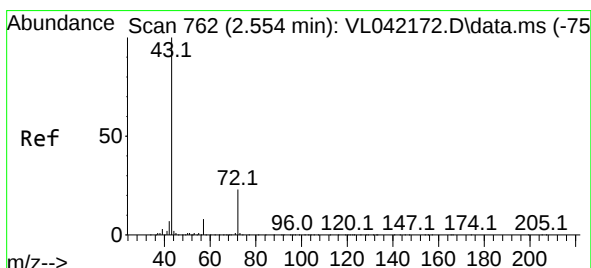
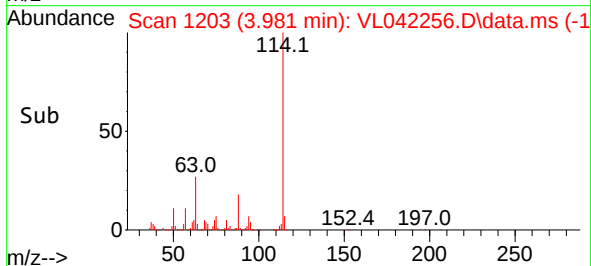
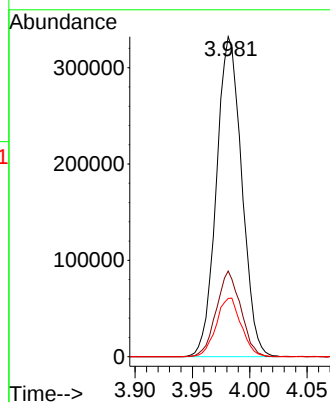
Tgt Ion:114 Resp: 510940

Ion Ratio Lower Upper

114 100

63 25.8 20.7 31.1

88 18.1 15.0 22.4



#34

2-Butanone

Concen: 0.442 ppbv

RT: 2.573 min Scan# 768

Delta R.T. 0.019 min

Lab File: VL042256.D

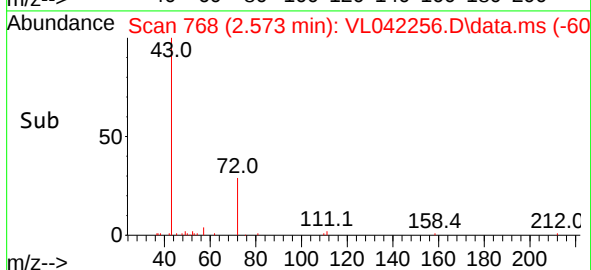
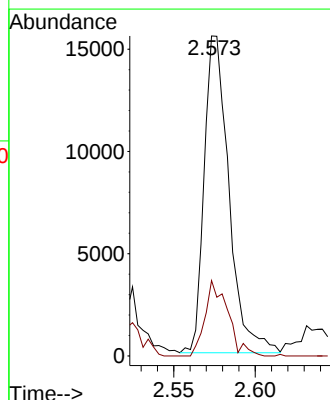
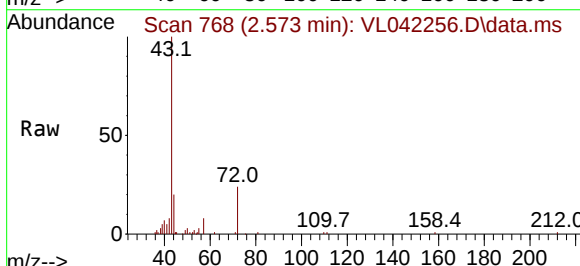
Acq: 08 Apr 2025 10:55

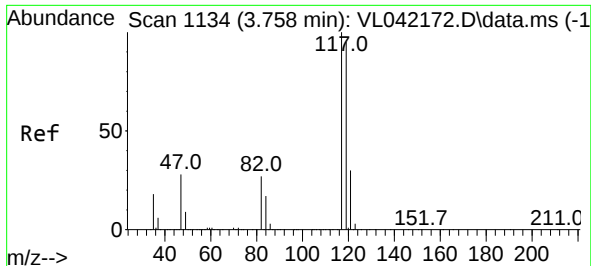
Tgt Ion: 43 Resp: 16376

Ion Ratio Lower Upper

43 100

72 22.0 18.2 27.2

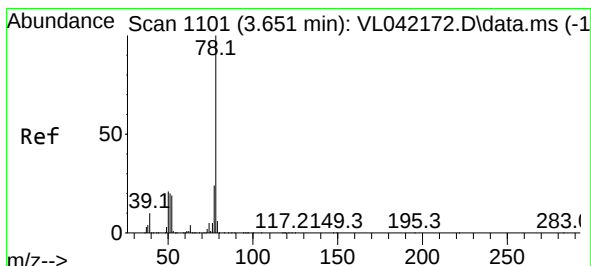
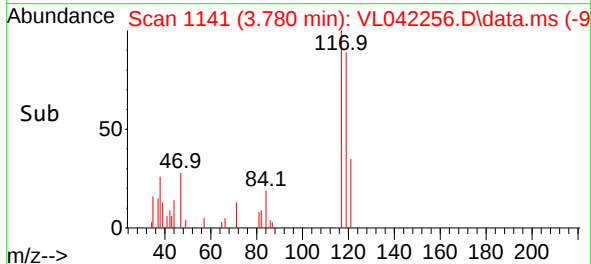
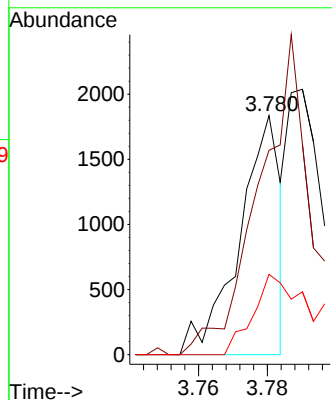
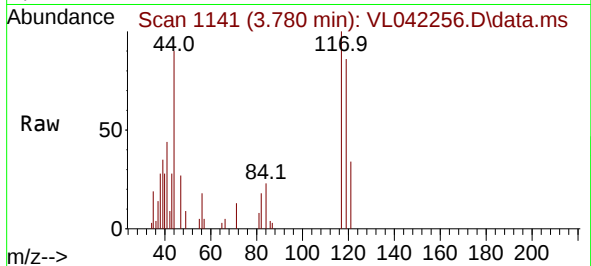




#35
Carbon Tetrachloride
Concen: 0.038 ppbv
RT: 3.780 min Scan# 1110
Delta R.T. 0.022 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

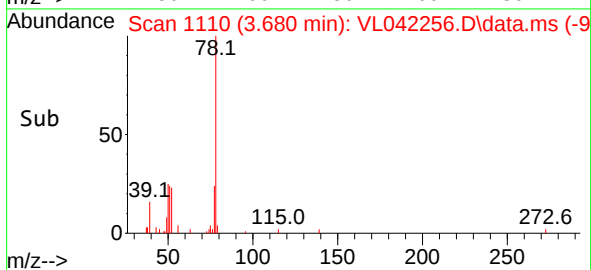
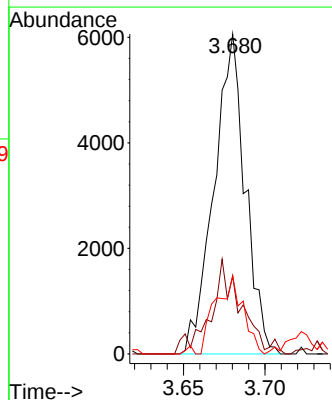
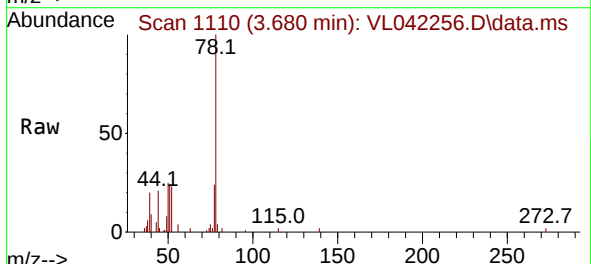
Instrument :
MSVOA_L
ClientSampleId :
SSSG-DUP-2-04012025

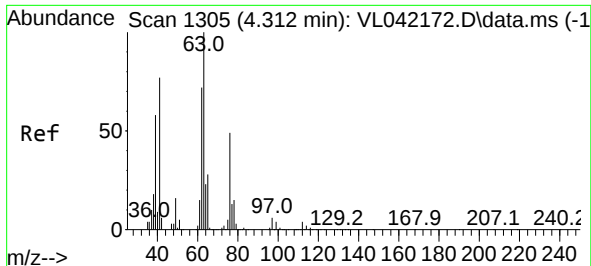
Tgt Ion:117 Resp: 1520
Ion Ratio Lower Upper
117 100
119 85.5 76.2 114.2
121 33.6 24.2 36.4



#36
Benzene
Concen: 0.159 ppbv
RT: 3.680 min Scan# 1110
Delta R.T. 0.029 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

Tgt Ion: 78 Resp: 8061
Ion Ratio Lower Upper
78 100
77 23.0 19.1 28.7
50 24.5 16.6 24.8





#39

1,2-Dichloropropane

Concen: 7.144 ppbv

RT: 3.981 min Scan# 11

Delta R.T. -0.330 min

Lab File: VL042256.D

Acq: 08 Apr 2025 10:55

Instrument :

MSVOA_L

ClientSampleId :

SSSG-DUP-2-04012025

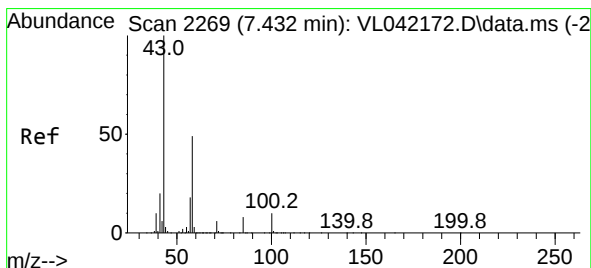
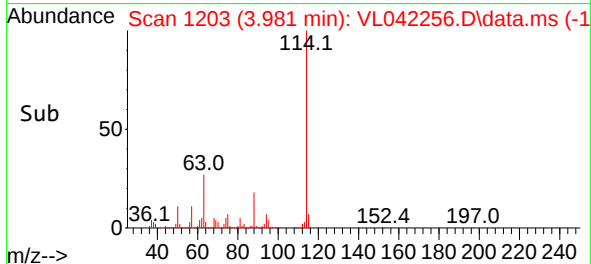
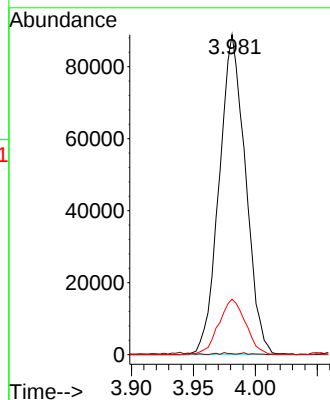
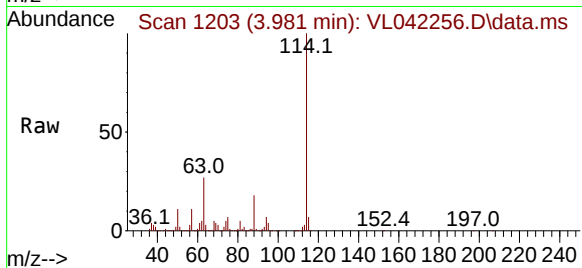
Tgt Ion: 63 Resp: 131794

Ion Ratio Lower Upper

63 100

41 0.0 61.7 92.5#

62 17.4 57.6 86.4#



#51

2-Hexanone

Concen: 0.042 ppbv

RT: 7.480 min Scan# 2284

Delta R.T. 0.048 min

Lab File: VL042256.D

Acq: 08 Apr 2025 10:55

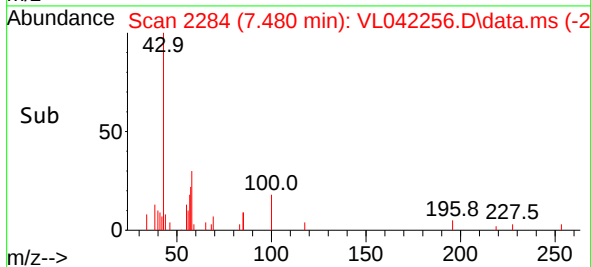
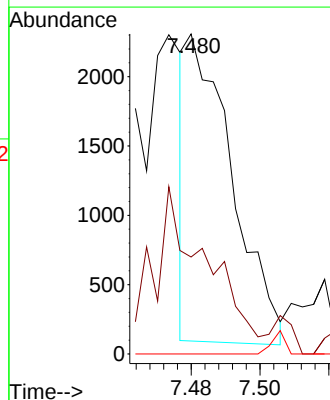
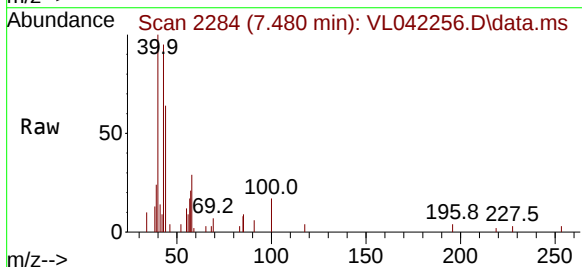
Tgt Ion: 43 Resp: 2024

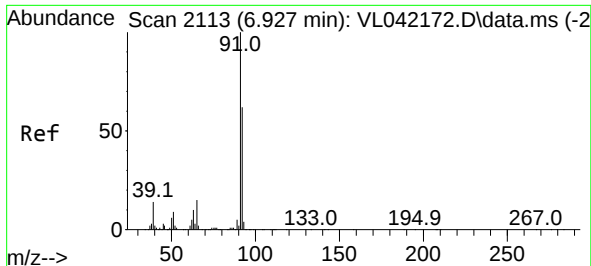
Ion Ratio Lower Upper

43 100

58 0.0 39.7 59.5#

98 0.0 0.1 0.1#

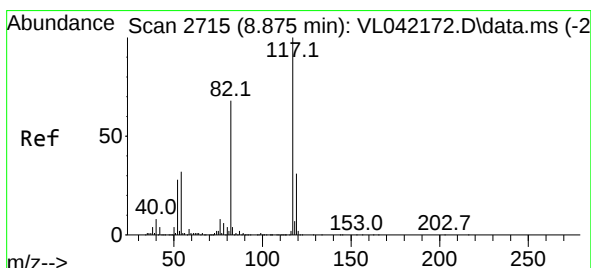
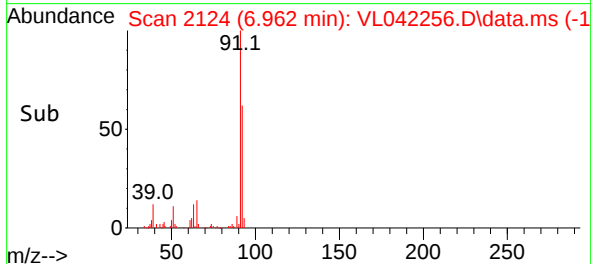
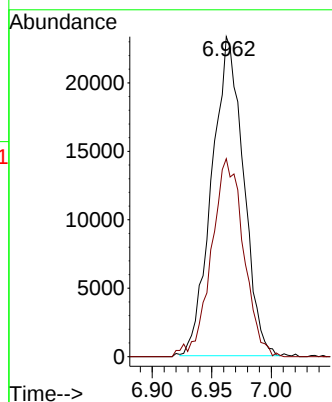
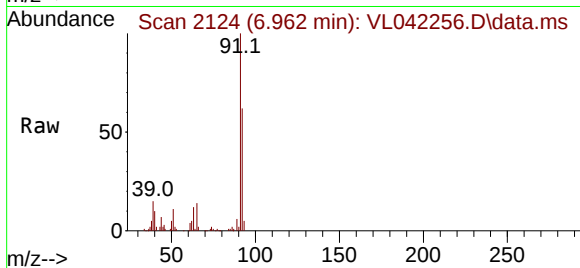




#53
Toluene
Concen: 0.716 ppbv
RT: 6.962 min Scan# 2113
Delta R.T. 0.035 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

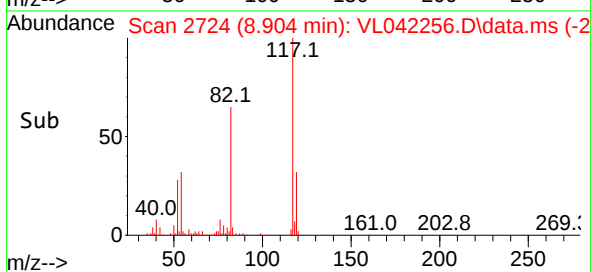
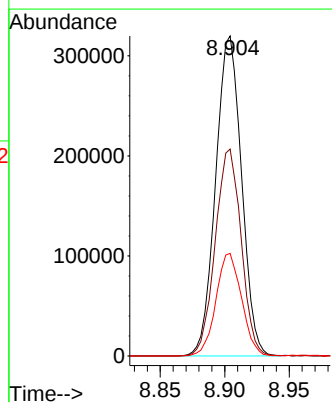
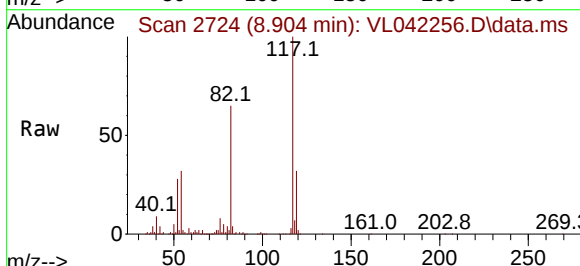
Instrument :
MSVOA_L
ClientSampleId :
SSSG-DUP-2-04012025

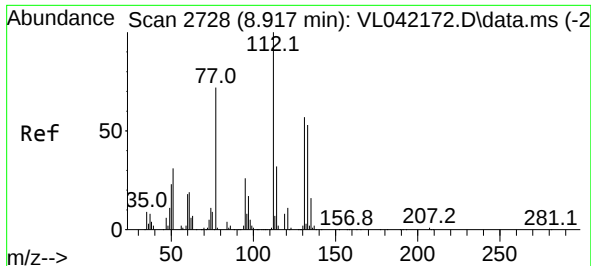
Tgt Ion: 91 Resp: 42966
Ion Ratio Lower Upper
91 100
92 63.3 48.4 72.6



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.904 min Scan# 2724
Delta R.T. 0.029 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

Tgt Ion: 117 Resp: 446395
Ion Ratio Lower Upper
117 100
82 64.8 55.8 83.6
119 31.7 25.5 38.3





#57

Chlorobenzene

Concen: 0.031 ppbv

RT: 8.940 min Scan# 21

Delta R.T. 0.022 min

Lab File: VL042256.D

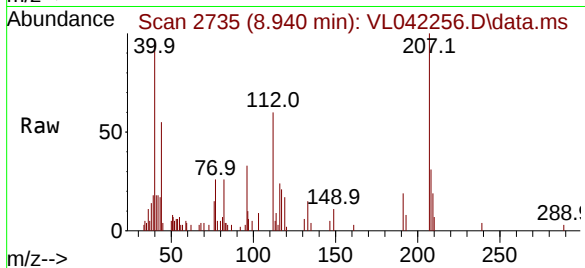
Acq: 08 Apr 2025 10:55

Instrument :

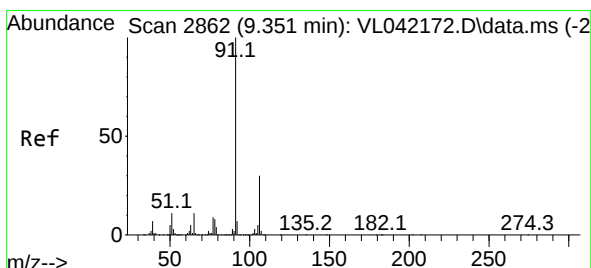
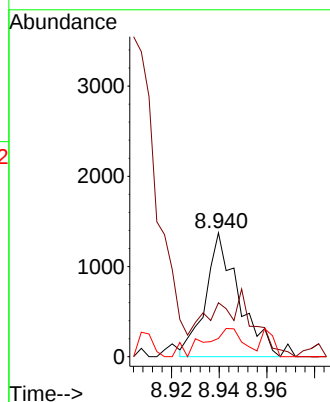
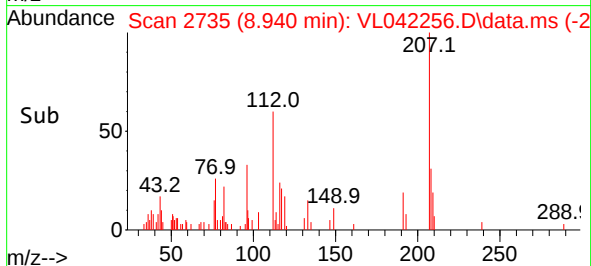
MSVOA_1

ClientSampleId :

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Tgt Ion:	112	Resp:	1324
Ion Ratio	Lower	Upper	
112	100		
77	37.9	58.2	87.2#
114	3.2	29.1	35.5#



#58

Ethyl Benzene

Concen: 1.341 ppbv

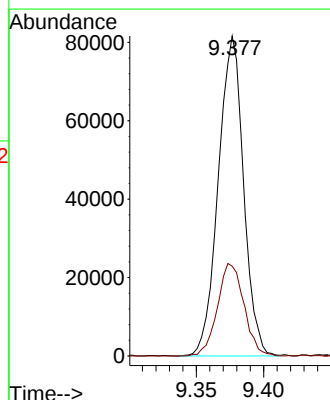
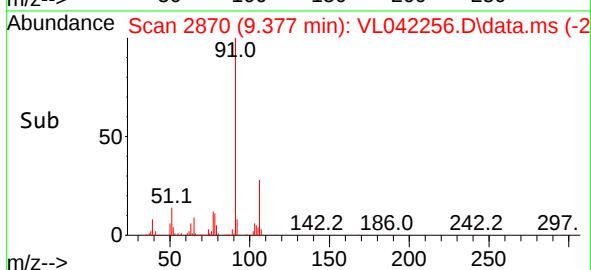
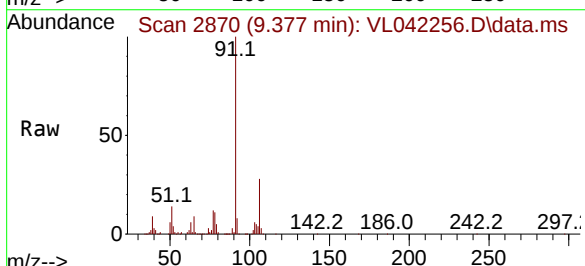
RT: 9.377 min Scan# 2870

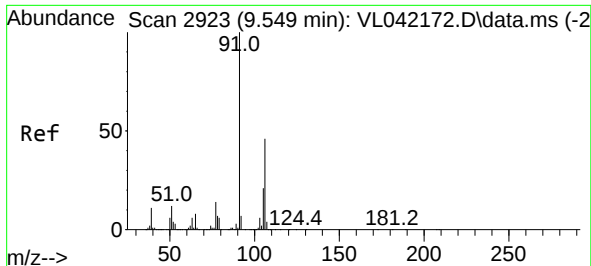
Delta R.T. 0.026 min

Lab File: VL042256.D

Acq: 08 Apr 2025 10:55

Tgt Ion:	91	Resp:	106361
Ion Ratio	Lower	Upper	
91	100		
106	28.0	24.2	36.2

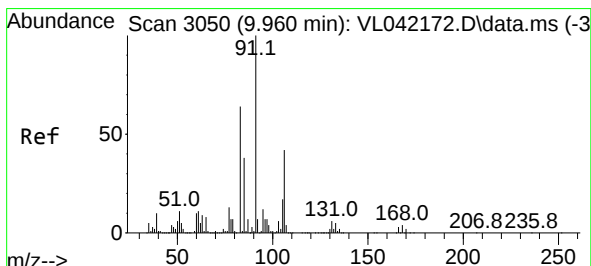
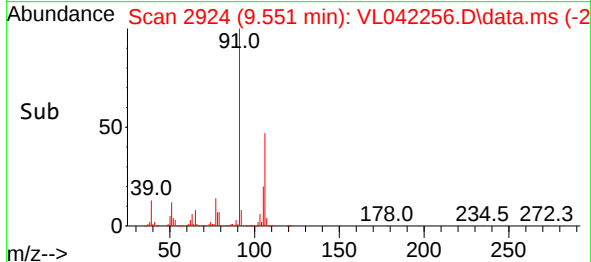
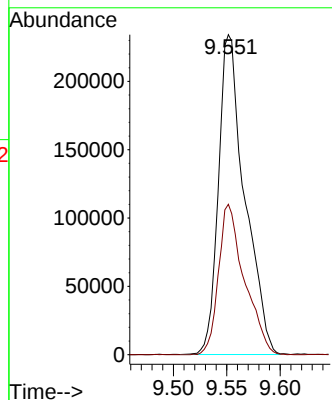
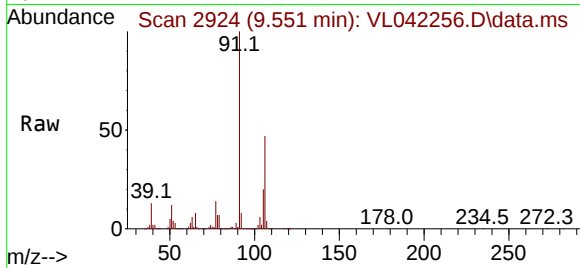




#59
m/p-Xylene
Concen: 6.322 ppbv
RT: 9.551 min Scan# 2923
Delta R.T. 0.003 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

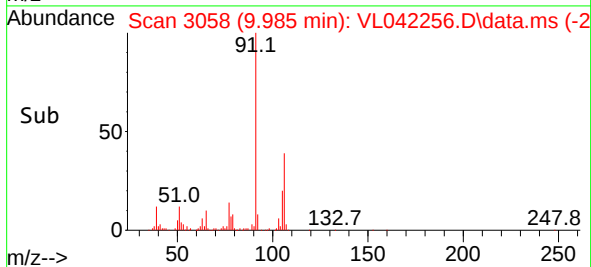
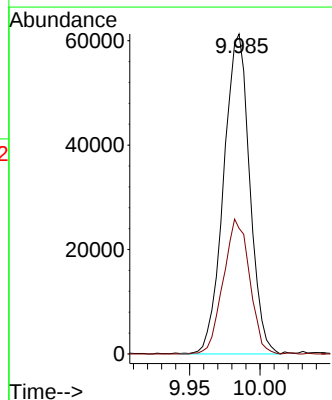
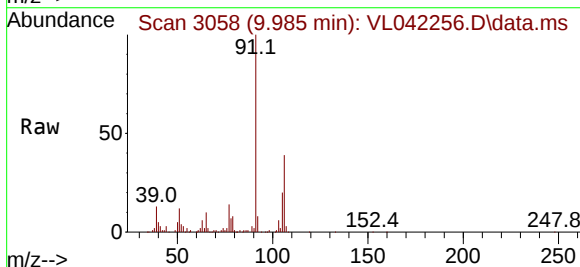
Instrument :
MSVOA_L
ClientSampleId :
SSSG-DUP-2-04012025

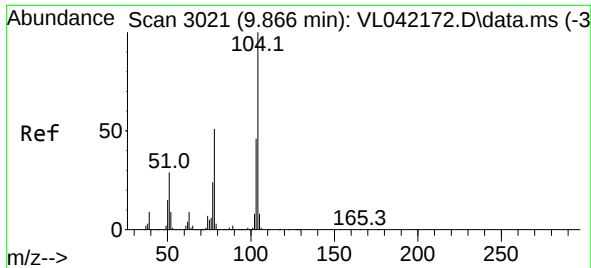
Tgt Ion: 91 Resp: 400289
Ion Ratio Lower Upper
91 100
106 46.5 36.4 54.6



#60
o-Xylene
Concen: 1.242 ppbv
RT: 9.985 min Scan# 3058
Delta R.T. 0.026 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

Tgt Ion: 91 Resp: 78832
Ion Ratio Lower Upper
91 100
106 42.6 20.8 62.5





#61

Styrene

Concen: 0.353 ppbv

RT: 9.888 min Scan# 3021

Delta R.T. 0.022 min

Lab File: VL042256.D

Acq: 08 Apr 2025 10:55

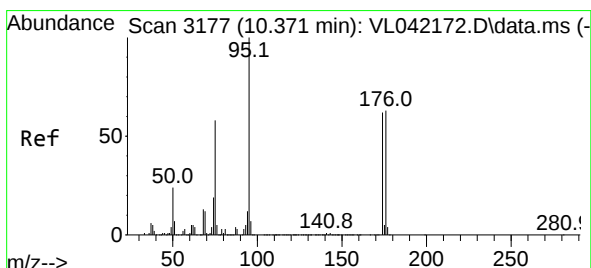
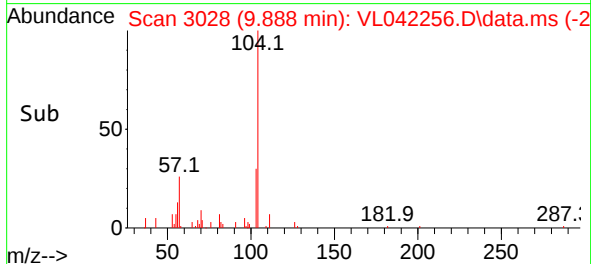
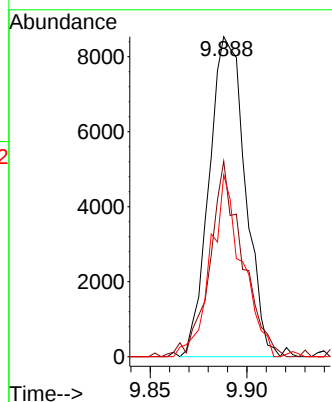
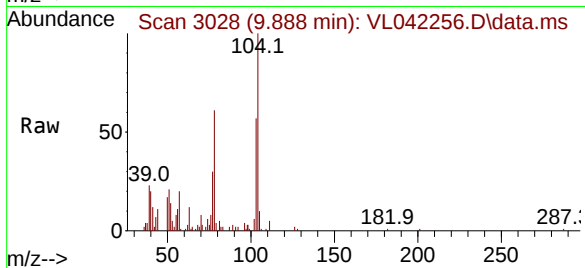
Instrument :

MSVOA_L

ClientSampleId :

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Tgt Ion:	104	Resp:	11084
Ion	Ratio	Lower	Upper
104	100		
78	55.6	41.8	62.6
103	50.4	37.0	55.4



#68

1-Bromo-4-Fluorobenzene

Concen: 9.960 ppbv

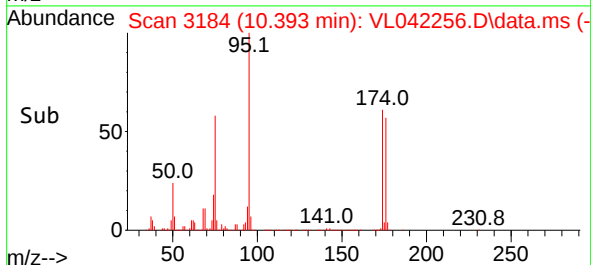
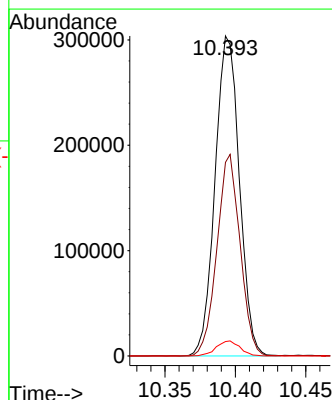
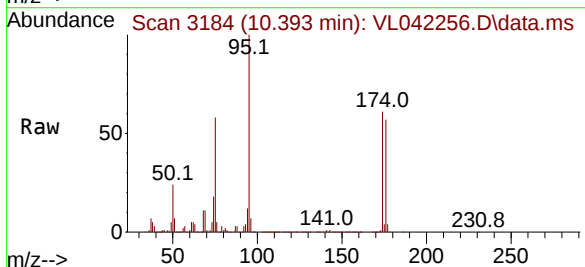
RT: 10.393 min Scan# 3184

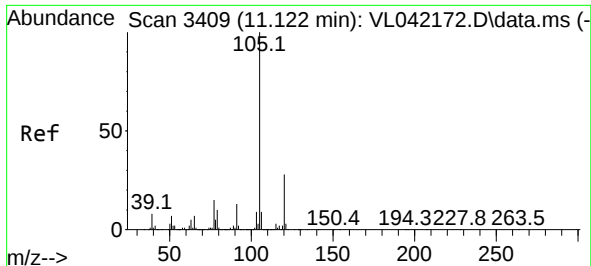
Delta R.T. 0.022 min

Lab File: VL042256.D

Acq: 08 Apr 2025 10:55

Tgt Ion:	95	Resp:	365114
Ion	Ratio	Lower	Upper
95	100		
174	60.2	50.6	76.0
175	4.6	3.8	5.6

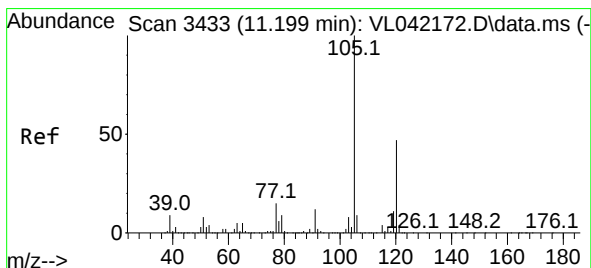
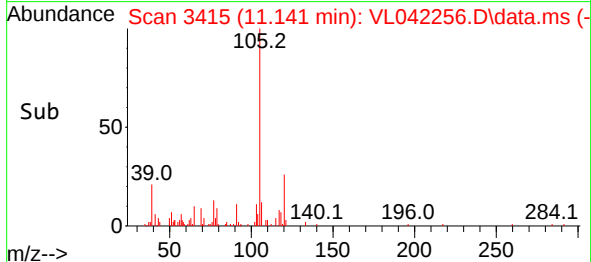
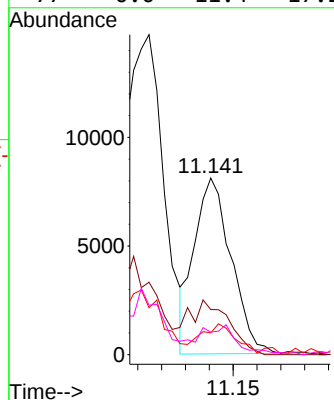
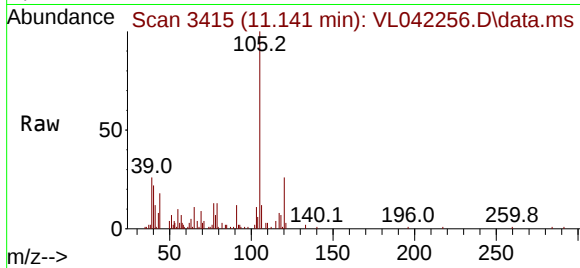




#72
4-Ethyltoluene
Concen: 0.110 ppbv
RT: 11.141 min Scan# 3415
Delta R.T. 0.019 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

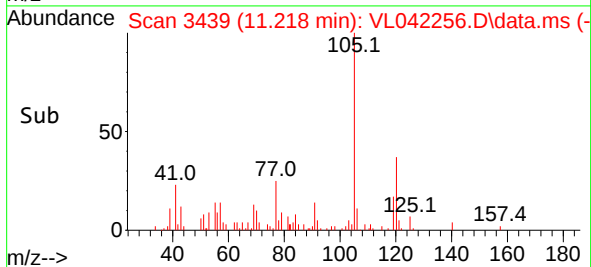
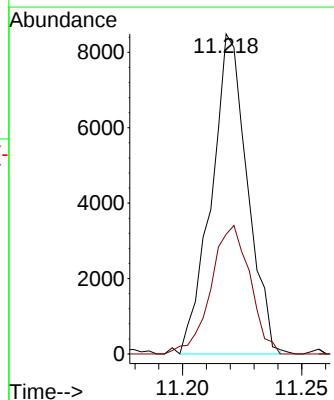
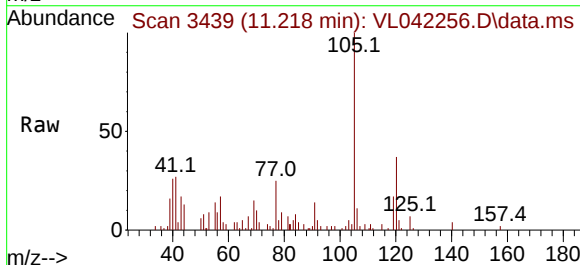
Instrument :
MSVOA_L
ClientSampleId :
SSSG-DUP-2-04012025

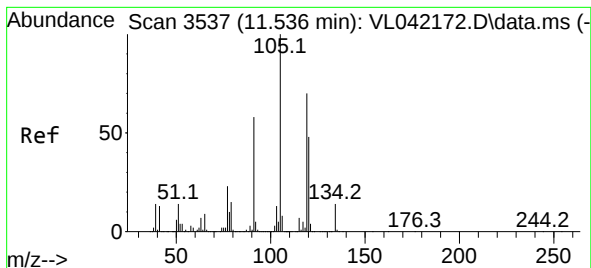
Tgt Ion:105	Resp:	8715
Ion Ratio	Lower	Upper
105	100	
120	0.0	23.4 35.0#
91	0.0	10.3 15.5#
77	0.0	11.4 17.2#



#73
1,3,5-Trimethylbenzene
Concen: 0.129 ppbv
RT: 11.218 min Scan# 3439
Delta R.T. 0.019 min
Lab File: VL042256.D
Acq: 08 Apr 2025 10:55

Tgt Ion:105	Resp:	8928
Ion Ratio	Lower	Upper
105	100	
120	37.4	37.4 56.0





#74

1,2,4-Trimethylbenzene

Concen: 0.363 ppbv

RT: 11.552 min Scan# 31

Delta R.T. 0.016 min

Lab File: VL042256.D

Acq: 08 Apr 2025 10:55

Instrument :

MSVOA_1

ClientSampleId :

SSSG-DUP-2-04012025

Tgt Ion:105 Resp: 28863

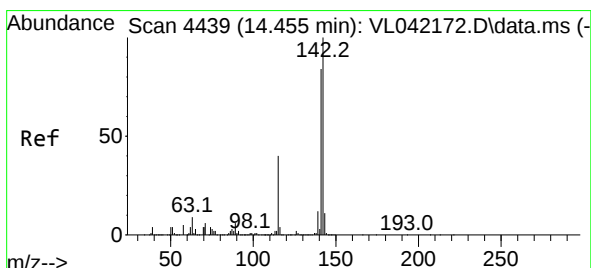
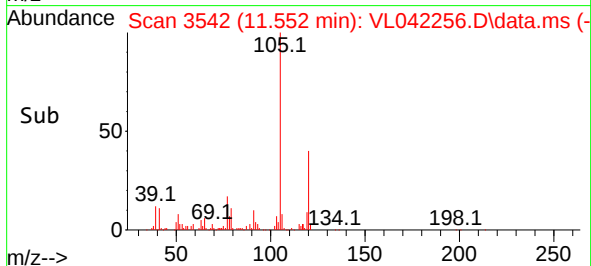
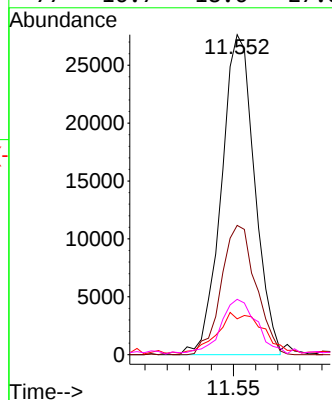
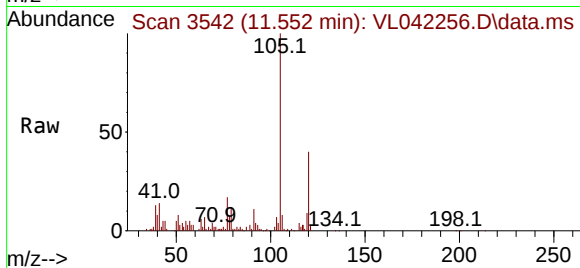
Ion Ratio Lower Upper

105 100

120 40.4 38.6 58.0

91 10.7 46.2 69.2#

77 16.7 18.6 27.8#



#80

Naphthalene,2-methyl-

Concen: 0.040 ppbv

RT: 14.481 min Scan# 4447

Delta R.T. 0.026 min

Lab File: VL042256.D

Acq: 08 Apr 2025 10:55

Tgt Ion:142 Resp: 1713

Ion Ratio Lower Upper

142 100

141 81.6 66.3 99.5

115 44.8 31.6 47.4

