

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL022625\
 Data File : VL042060.D
 Acq On : 26 Feb 2025 14:24
 Operator : SY/MD
 Sample : Q1419-01 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Quant Time: Feb 27 00:30:18 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL022525AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Feb 26 01:08:36 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.794	49	153956	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.969	114	353365	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.892	117	304148	10.000	ppbv	0.00

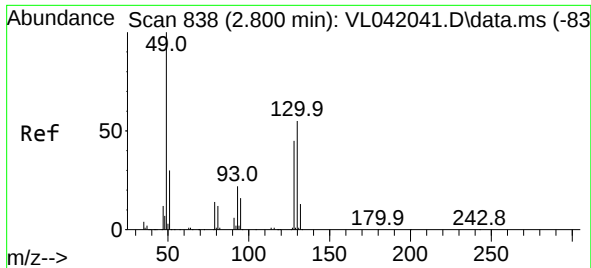
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.384	95	247293	10.568	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.700%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.502	85	3278	0.205	ppbv	95
3) Chlorodifluoromethane	1.480	51	3430	0.153	ppbv #	84
4) Chloromethane	1.535	50	278	0.047	ppbv #	68
9) Propene	1.489	41	3793	0.416	ppbv	88
10) Heptane	4.998	43	1141	0.040	ppbv #	28
11) Trichlorofluoromethane	1.884	101	970	0.060	ppbv	90
13) Ethanol	1.431	45	250529	432.945	ppbv	88
15) Acetone	1.839	43	21957	1.615	ppbv #	83
16) 1,3-Butadiene	1.606	39	935	0.148	ppbv #	41
17) tert-Butyl alcohol	2.053	59	700	0.041	ppbv #	82
19) Isopropyl Alcohol	1.431	45	250529	32.079	ppbv #	32
20) Methylene Chloride	2.066	84	5332	1.037	ppbv	85
23) Vinyl Acetate	2.477	43	2825	0.296	ppbv #	84
25) Ethyl Acetate	2.833	43	17080	0.314	ppbv #	75
26) Hexane	2.836	57	23263	1.057	ppbv #	31
27) Carbon Disulfide	2.156	76	502	0.034	ppbv #	1
29) Chloroform	2.852	83	17593	0.594	ppbv	94
34) 2-Butanone	2.567	43	39365	1.430	ppbv	97
36) Benzene	3.668	78	1589	0.043	ppbv #	87
38) Trichloroethene	4.561	130	4784	0.317	ppbv #	81
39) 1,2-Dichloropropane	3.972	63	95812	6.824	ppbv #	22
51) 2-Hexanone	7.432	43	931	0.038	ppbv #	28
52) Tetrachloroethene	8.244	164	1400742	110.610	ppbv	95
53) Toluene	6.950	91	21458	0.519	ppbv	99
58) Ethyl Benzene	9.364	91	2147	0.038	ppbv	94
59) m/p-Xylene	9.539	91	3345	0.075	ppbv #	100
60) o-Xylene	9.979	91	2332	0.052	ppbv	66
74) 1,2,4-Trimethylbenzene	11.546	105	2996	0.056	ppbv #	66

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

Quant Time: Feb 27 00:30:18 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL022525AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Wed Feb 26 01:08:36 2025
Response via : Initial Calibration

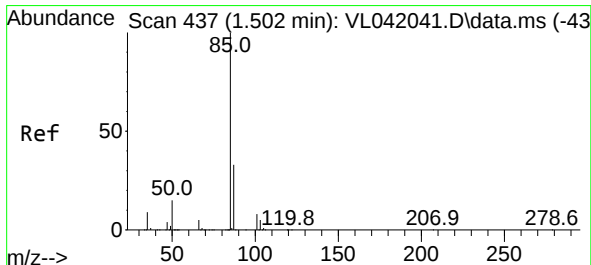
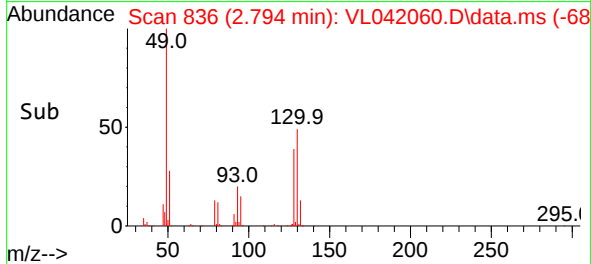
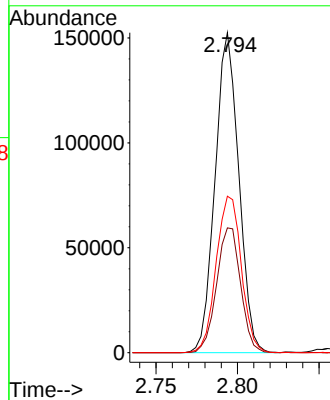
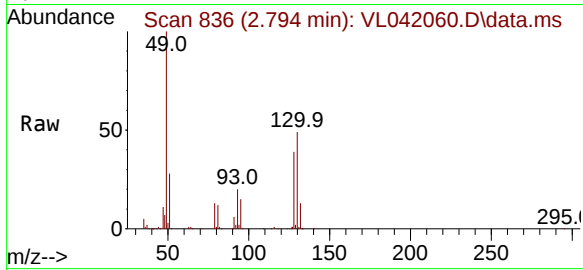




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.794 min Scan# 81
 Delta R.T. -0.006 min
 Lab File: VL042060.D
 Acq: 26 Feb 2025 14:24

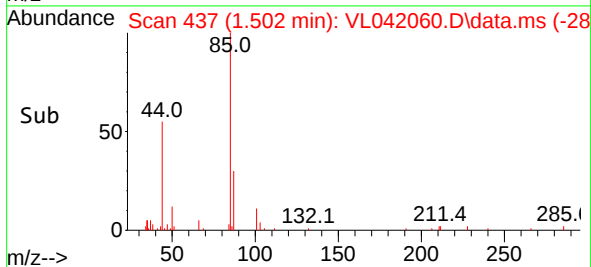
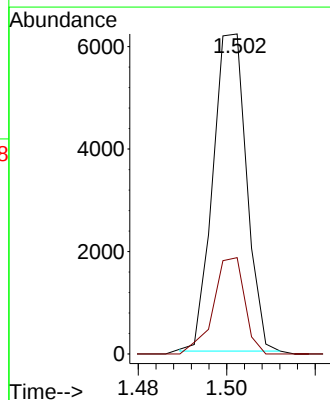
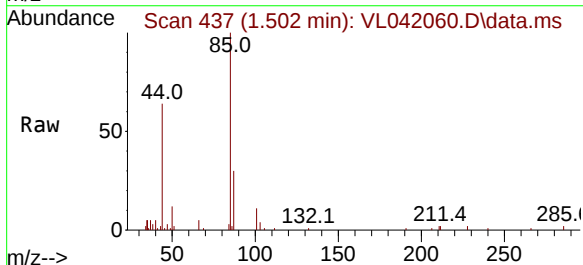
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

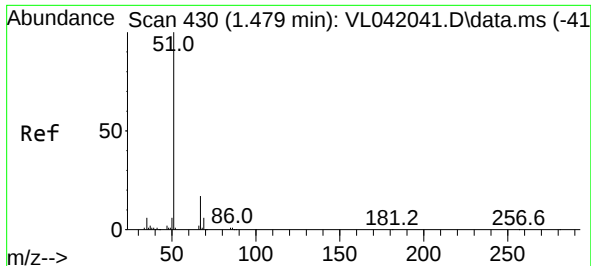
Tgt Ion: 49 Resp: 153956
 Ion Ratio Lower Upper
 49 100
 128 39.6 21.6 64.8
 130 52.0 27.8 83.4



#2
 Dichlorodifluoromethane
 Concen: 0.205 ppbv
 RT: 1.502 min Scan# 437
 Delta R.T. 0.000 min
 Lab File: VL042060.D
 Acq: 26 Feb 2025 14:24

Tgt Ion: 85 Resp: 3278
 Ion Ratio Lower Upper
 85 100
 87 30.4 26.4 39.6

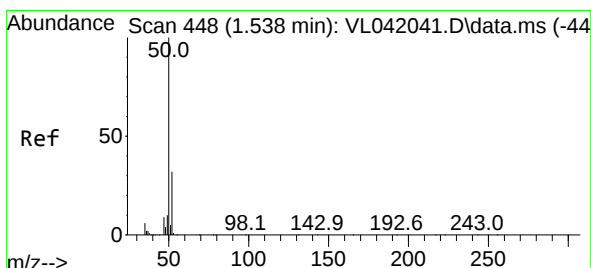
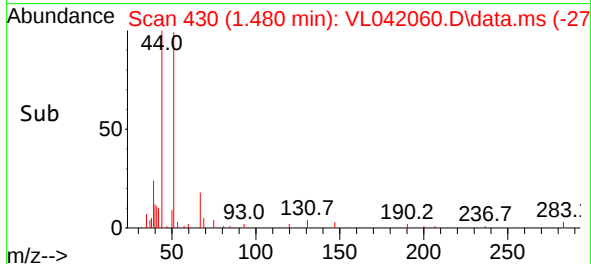
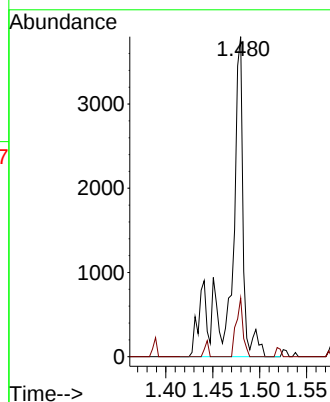
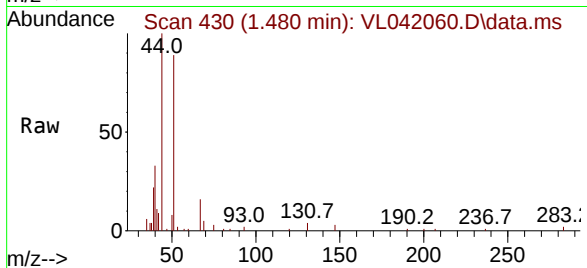




#3
Chlorodifluoromethane
Concen: 0.153 ppbv
RT: 1.480 min Scan# 41
Delta R.T. 0.000 min
Lab File: VL042060.D
Acq: 26 Feb 2025 14:24

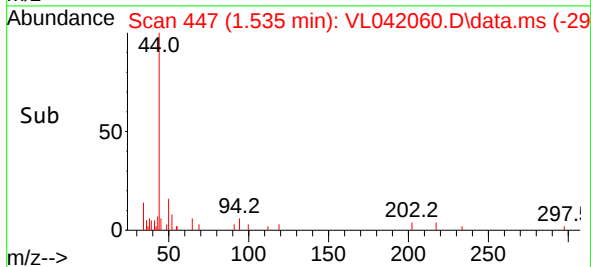
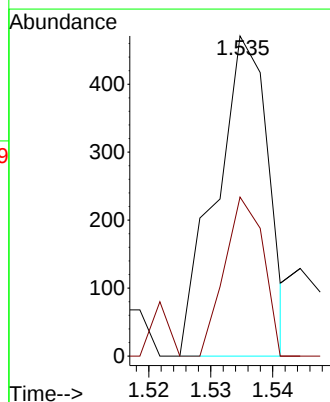
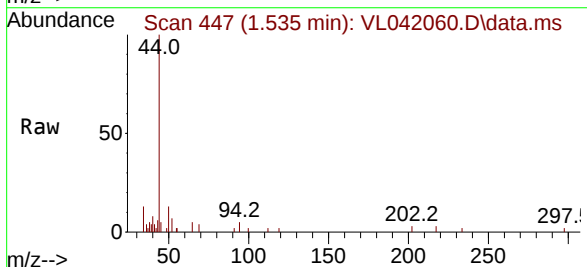
Instrument :
MSVOA_L
ClientSampleId :
SV1

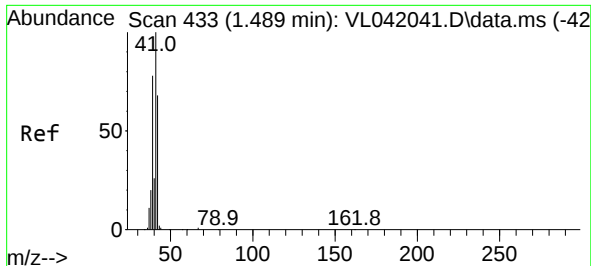
Tgt Ion: 51 Resp: 3430
Ion Ratio Lower Upper
51 100
67 10.2 13.7 20.5#



#4
Chloromethane
Concen: 0.047 ppbv
RT: 1.535 min Scan# 447
Delta R.T. -0.003 min
Lab File: VL042060.D
Acq: 26 Feb 2025 14:24

Tgt Ion: 50 Resp: 278
Ion Ratio Lower Upper
50 100
52 49.7 25.4 38.0#





#9

Propene

Concen: 0.416 ppbv

RT: 1.489 min Scan# 41

Delta R.T. 0.000 min

Lab File: VL042060.D

Acq: 26 Feb 2025 14:24

Instrument :

MSVOA_L

ClientSampleId :

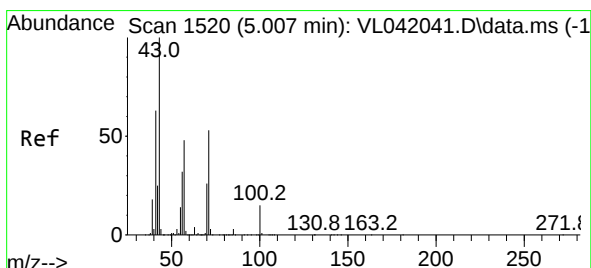
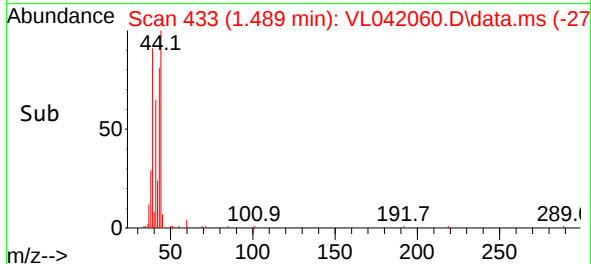
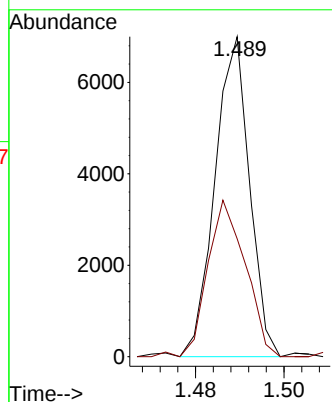
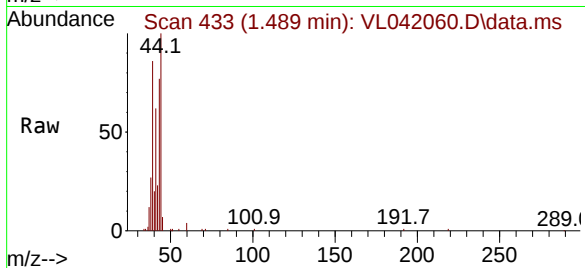
SV1

Tgt Ion: 41 Resp: 3793

Ion Ratio Lower Upper

41 100

42 60.1 55.8 83.6



#10

Heptane

Concen: 0.040 ppbv

RT: 4.998 min Scan# 1517

Delta R.T. -0.009 min

Lab File: VL042060.D

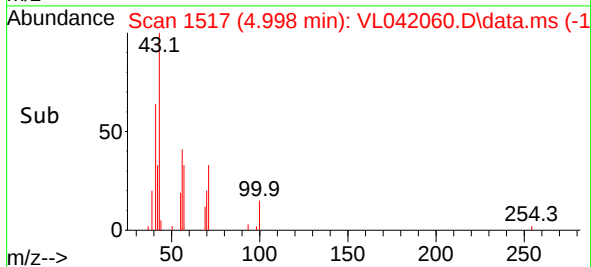
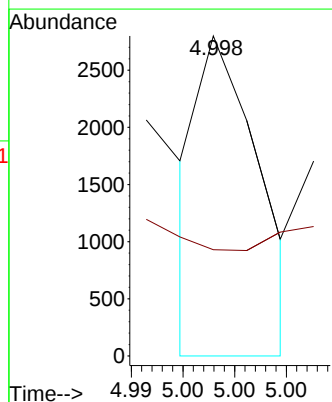
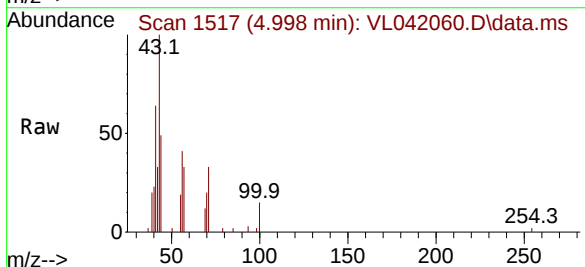
Acq: 26 Feb 2025 14:24

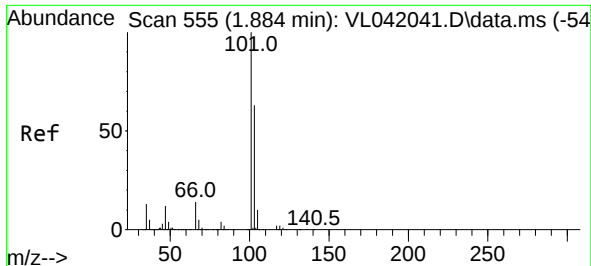
Tgt Ion: 43 Resp: 1141

Ion Ratio Lower Upper

43 100

57 0.0 39.4 59.0#

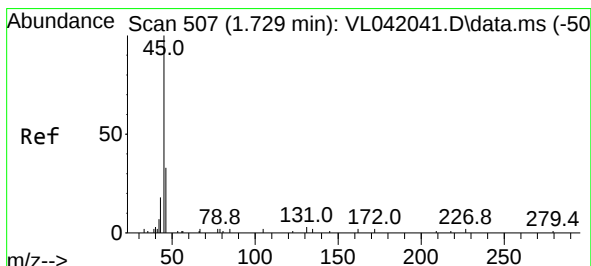
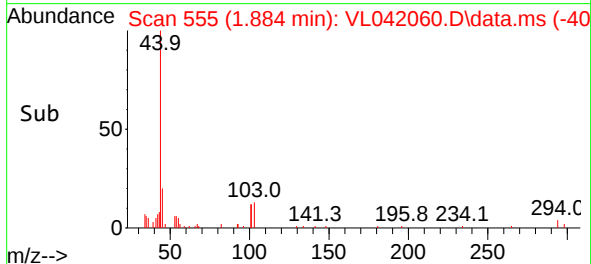
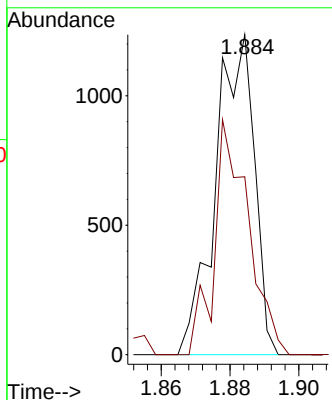
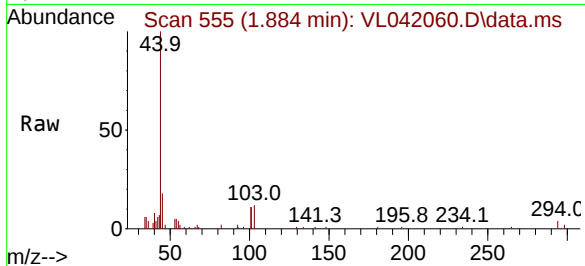




#11
 Trichlorofluoromethane
 Concen: 0.060 ppbv
 RT: 1.884 min Scan# 511
 Delta R.T. 0.000 min
 Lab File: VL042060.D
 Acq: 26 Feb 2025 14:24

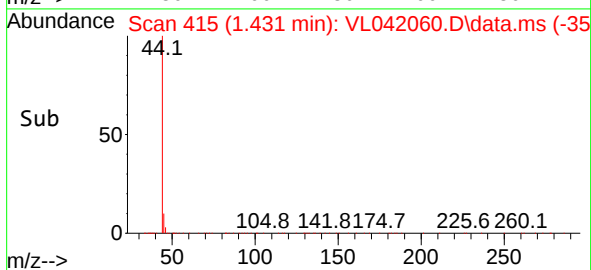
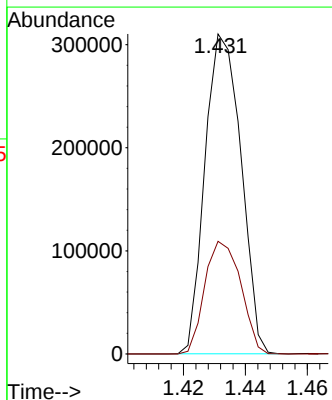
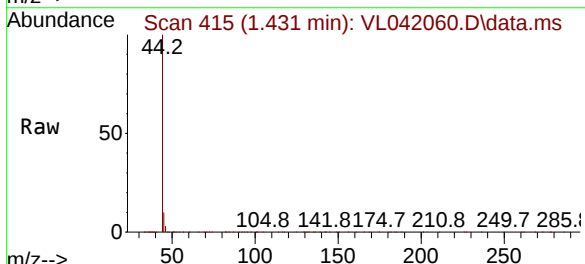
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

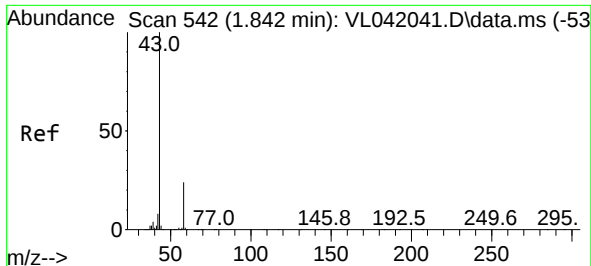
Tgt Ion:101 Resp: 970
 Ion Ratio Lower Upper
 101 100
 103 55.6 50.6 75.8



#13
 Ethanol
 Concen: 432.945 ppbv
 RT: 1.431 min Scan# 415
 Delta R.T. -0.298 min
 Lab File: VL042060.D
 Acq: 26 Feb 2025 14:24

Tgt Ion: 45 Resp: 250529
 Ion Ratio Lower Upper
 45 100
 46 35.3 17.1 68.3

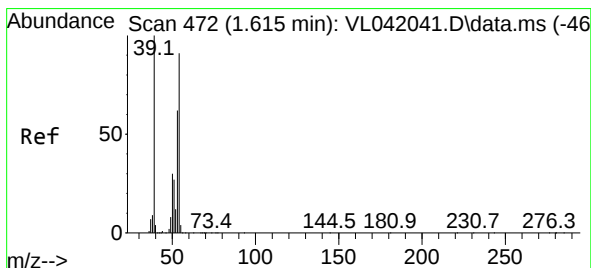
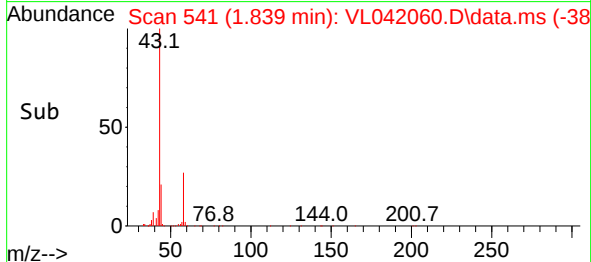
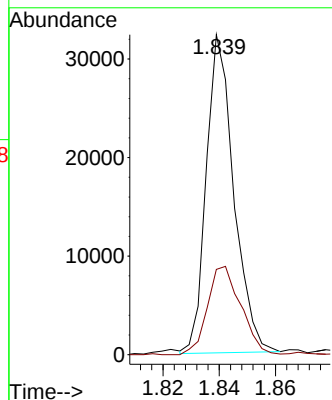
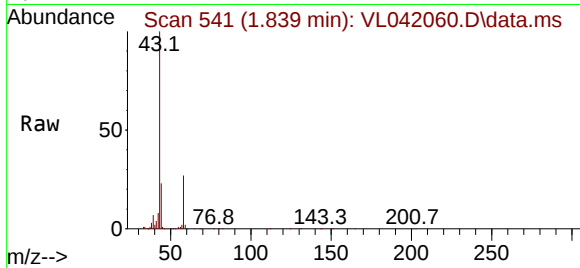




#15
Acetone
Concen: 1.615 ppbv
RT: 1.839 min Scan# 541
Delta R.T. -0.003 min
Lab File: VL042060.D
Acq: 26 Feb 2025 14:24

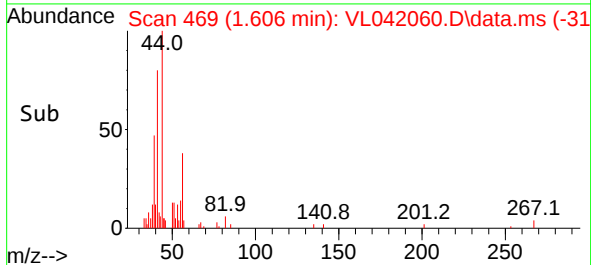
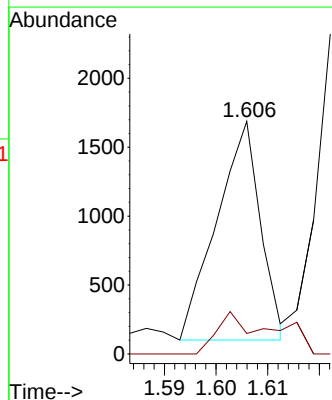
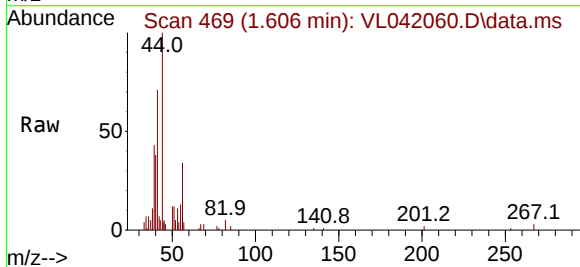
Instrument :
MSVOA_L
ClientSampleId :
SV1

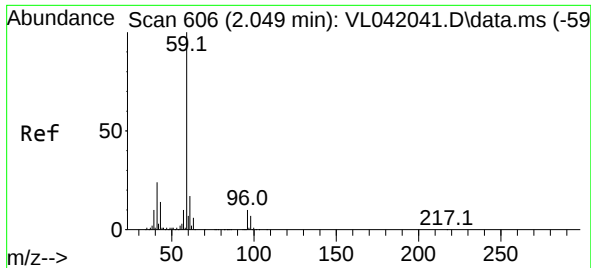
Tgt Ion: 43 Resp: 21957
Ion Ratio Lower Upper
43 100
58 34.3 20.7 31.1#



#16
1,3-Butadiene
Concen: 0.148 ppbv
RT: 1.606 min Scan# 469
Delta R.T. -0.009 min
Lab File: VL042060.D
Acq: 26 Feb 2025 14:24

Tgt Ion: 39 Resp: 935
Ion Ratio Lower Upper
39 100
54 24.3 59.6 89.4#





#17

tert-Butyl alcohol

Concen: 0.041 ppbv

RT: 2.053 min Scan# 606

Delta R.T. 0.003 min

Lab File: VL042060.D

Acq: 26 Feb 2025 14:24

Instrument :

MSVOA_L

ClientSampleId :

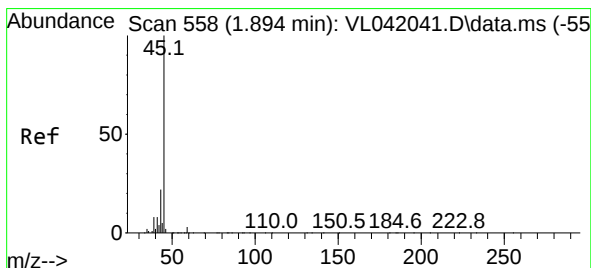
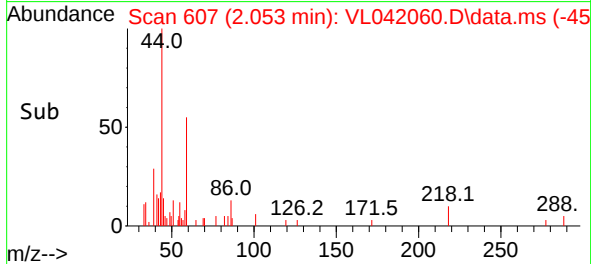
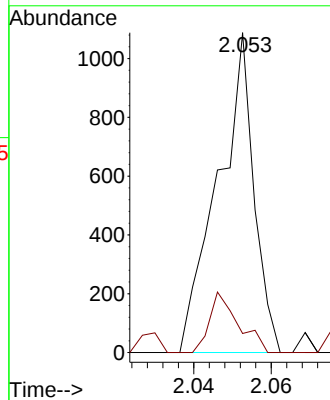
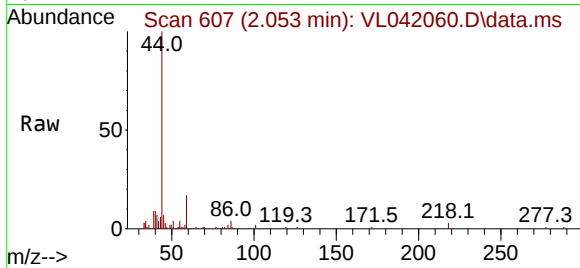
SV1

Tgt Ion: 59 Resp: 700

Ion Ratio Lower Upper

59 100

57 18.6 9.3 13.9#



#19

Isopropyl Alcohol

Concen: 32.079 ppbv

RT: 1.431 min Scan# 415

Delta R.T. -0.463 min

Lab File: VL042060.D

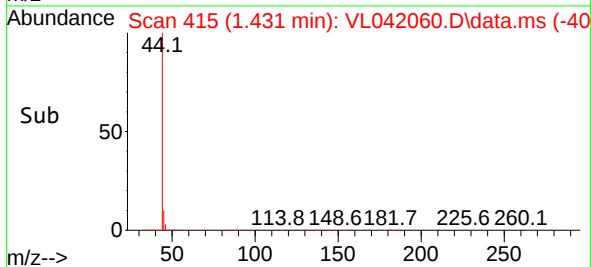
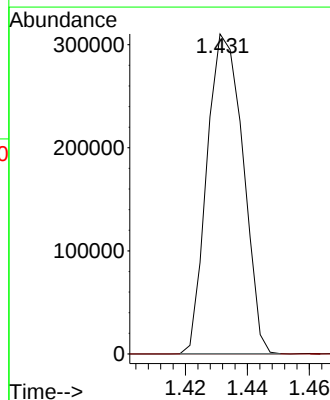
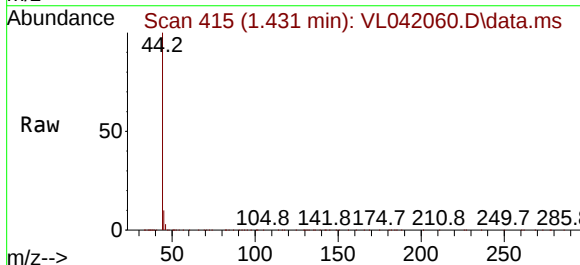
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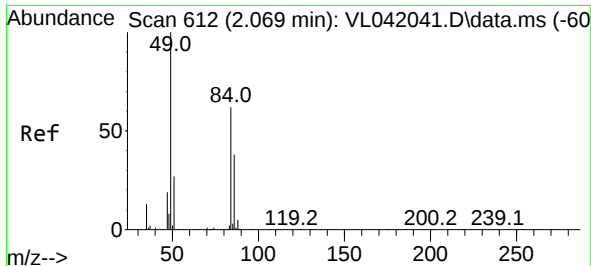
Tgt Ion: 45 Resp: 250529

Ion Ratio Lower Upper

45 100

58 0.3 35.3 52.9#

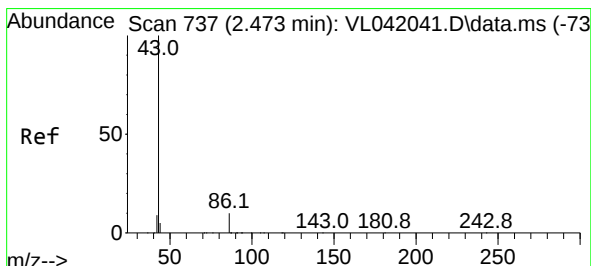
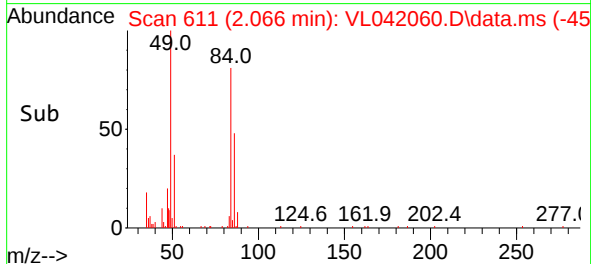
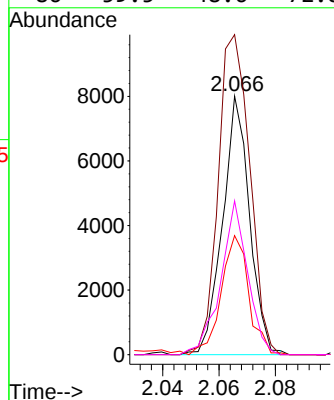
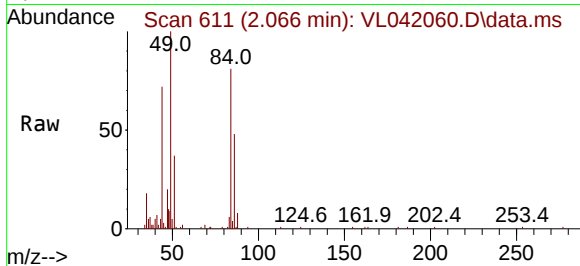




#20
Methylene Chloride
Concen: 1.037 ppbv
RT: 2.066 min Scan# 611
Delta R.T. -0.003 min
Lab File: VL042060.D
Acq: 26 Feb 2025 14:24

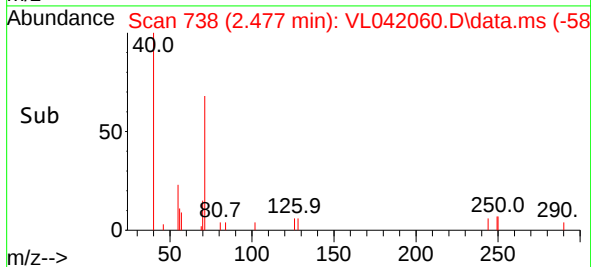
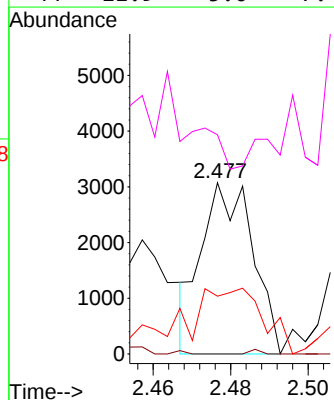
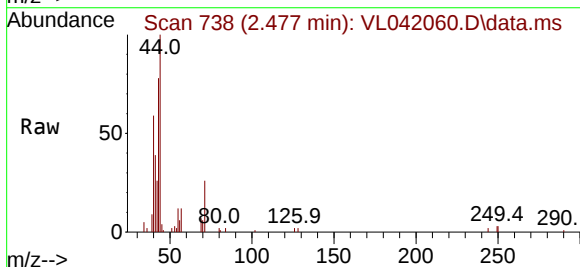
Instrument :
MSVOA_L
ClientSampleId :
SV1

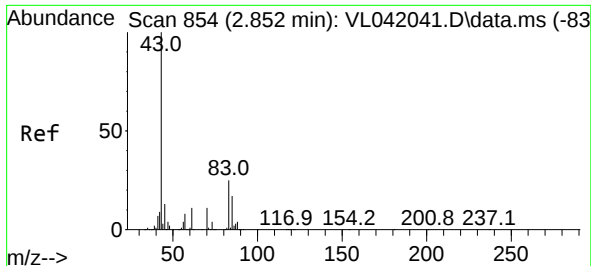
Tgt Ion:	84	Resp:	5332
Ion	Ratio	Lower	Upper
84	100		
49	130.0	130.0	195.0
51	45.3	37.4	56.0
86	59.5	48.6	72.8



#23
Vinyl Acetate
Concen: 0.296 ppbv
RT: 2.477 min Scan# 738
Delta R.T. 0.003 min
Lab File: VL042060.D
Acq: 26 Feb 2025 14:24

Tgt Ion:	43	Resp:	2825
Ion	Ratio	Lower	Upper
43	100		
86	0.0	7.0	10.4#
42	12.5	7.6	11.4#
44	11.9	5.0	7.4#





#25

Ethyl Acetate

Concen: 0.314 ppbv

RT: 2.833 min Scan# 84

Delta R.T. -0.019 min

Lab File: VL042060.D

Acq: 26 Feb 2025 14:24

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tgt Ion: 43 Resp: 17080

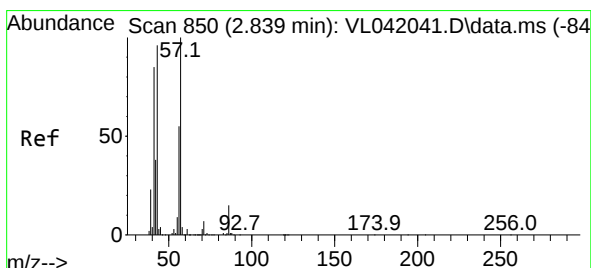
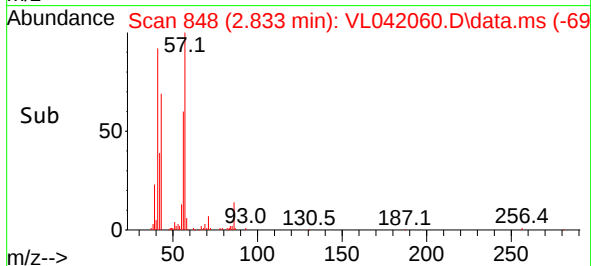
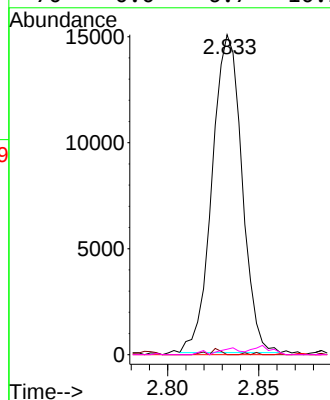
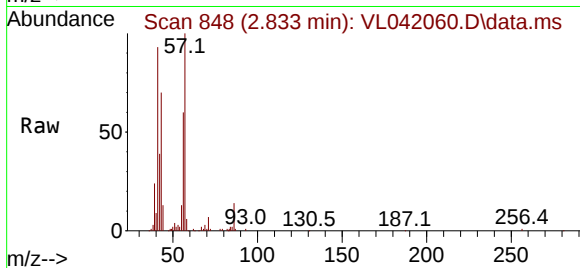
Ion Ratio Lower Upper

43 100

45 0.7 8.1 12.1#

61 0.0 7.2 10.8#

70 0.0 6.7 10.1#



#26

Hexane

Concen: 1.057 ppbv

RT: 2.836 min Scan# 849

Delta R.T. -0.003 min

Lab File: VL042060.D

Acq: 26 Feb 2025 14:24

Tgt Ion: 57 Resp: 23263

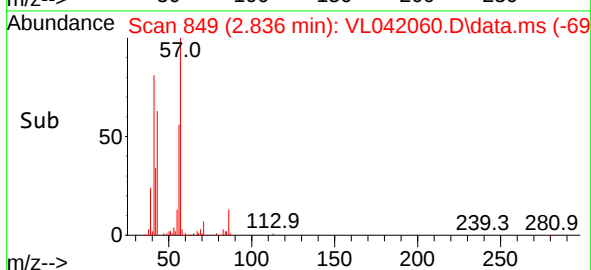
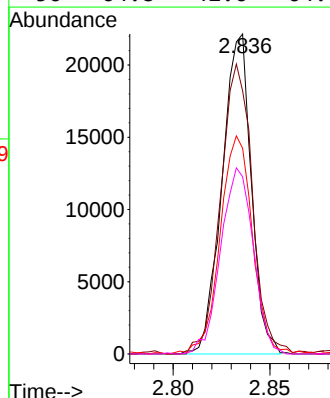
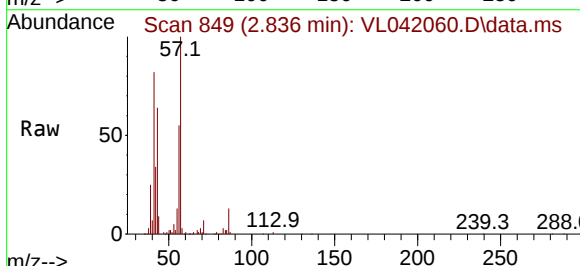
Ion Ratio Lower Upper

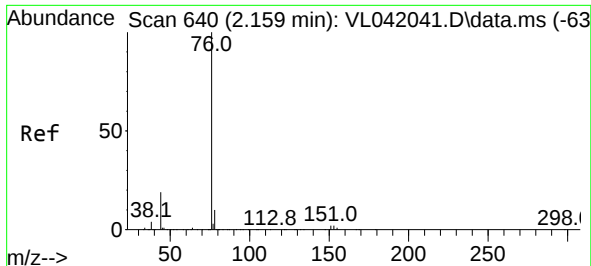
57 100

41 100.1 70.6 106.0

43 76.0 199.4 299.0#

56 64.8 42.6 64.0#





#27

Carbon Disulfide

Concen: 0.034 ppbv

RT: 2.156 min Scan# 61

Delta R.T. -0.003 min

Lab File: VL042060.D

Acq: 26 Feb 2025 14:24

Instrument :

MSVOA_L

ClientSampleId :

SV1

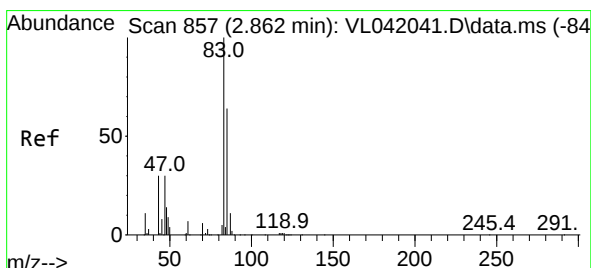
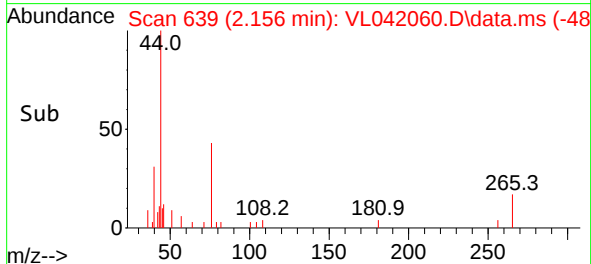
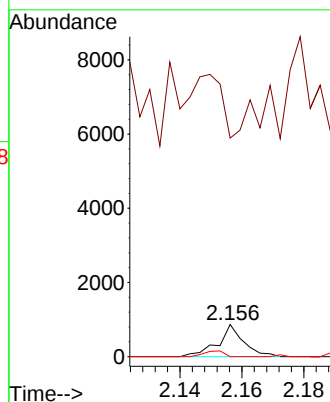
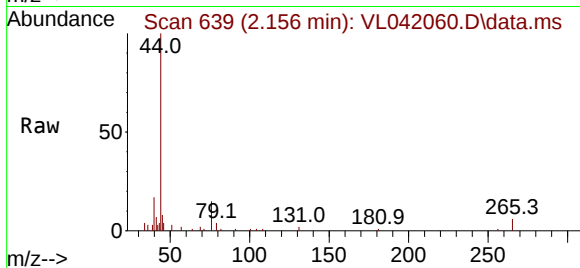
Tgt Ion: 76 Resp: 502

Ion Ratio Lower Upper

76 100

44 934.5 16.2 24.2#

78 13.7 9.4 14.0



#29

Chloroform

Concen: 0.594 ppbv

RT: 2.852 min Scan# 854

Delta R.T. -0.010 min

Lab File: VL042060.D

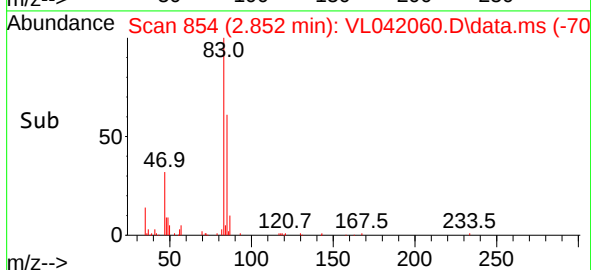
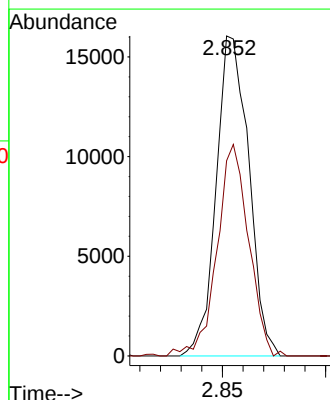
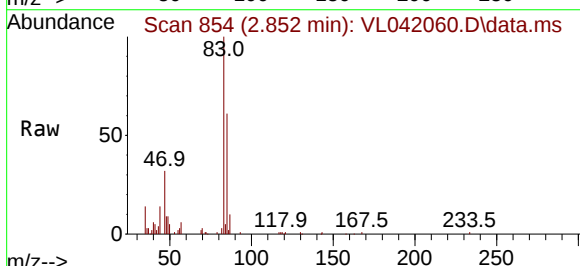
Acq: 26 Feb 2025 14:24

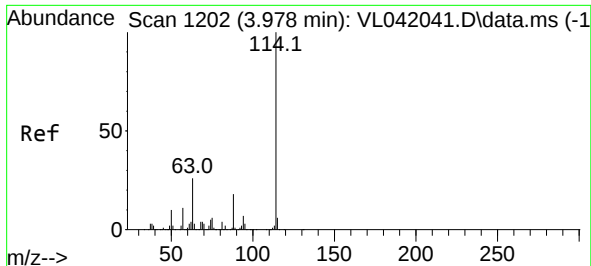
Tgt Ion: 83 Resp: 17593

Ion Ratio Lower Upper

83 100

85 59.6 51.2 76.8





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.969 min Scan# 1199

Delta R.T. -0.009 min

Lab File: VL042060.D

Acq: 26 Feb 2025 14:24

Instrument :

MSVOA_L

ClientSampleId :

SV1

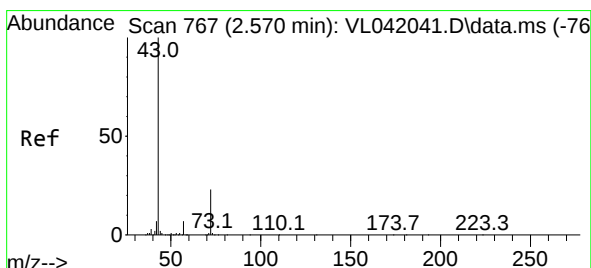
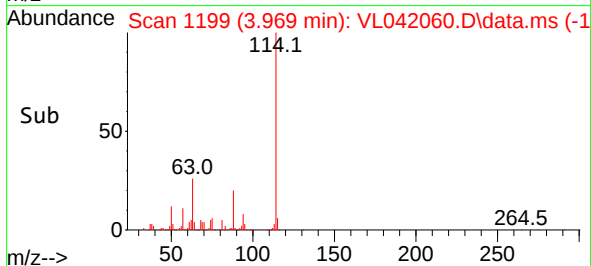
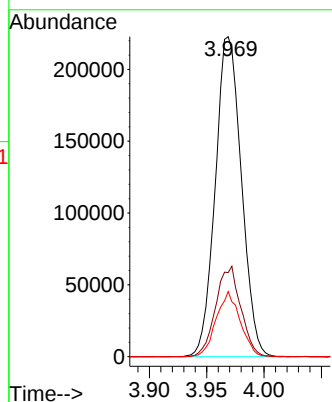
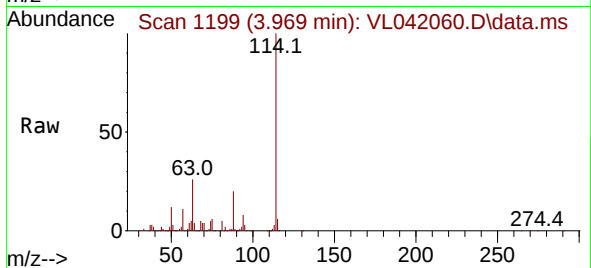
Tgt Ion:114 Resp: 353365

Ion Ratio Lower Upper

114 100

63 27.1 20.1 30.1

88 18.7 14.3 21.5



#34

2-Butanone

Concen: 1.430 ppbv

RT: 2.567 min Scan# 766

Delta R.T. -0.003 min

Lab File: VL042060.D

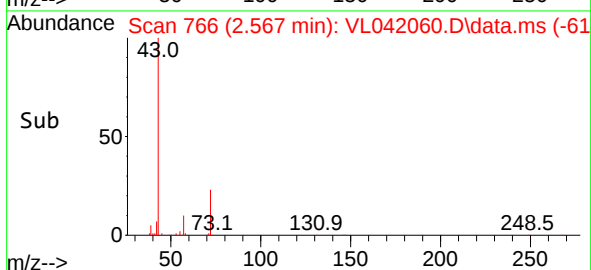
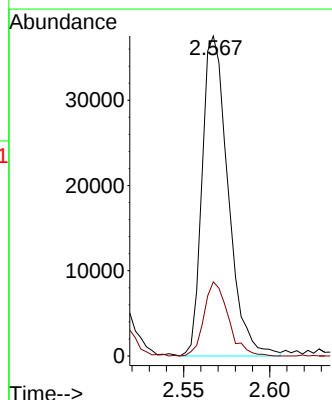
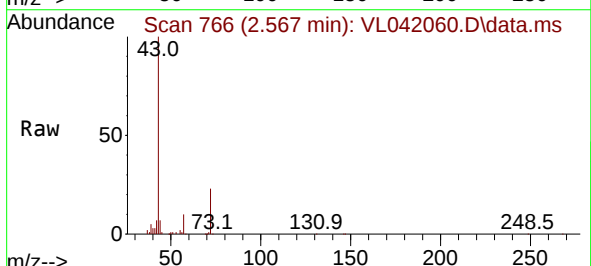
Acq: 26 Feb 2025 14:24

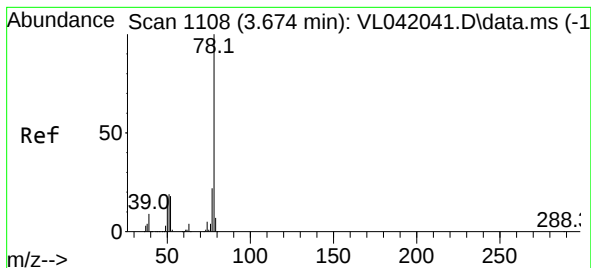
Tgt Ion: 43 Resp: 39365

Ion Ratio Lower Upper

43 100

72 21.7 18.5 27.7





#36

Benzene

Concen: 0.043 ppbv

RT: 3.668 min Scan# 1108

Delta R.T. -0.006 min

Lab File: VL042060.D

Acq: 26 Feb 2025 14:24

Instrument :

MSVOA_L

ClientSampleId :

SV1

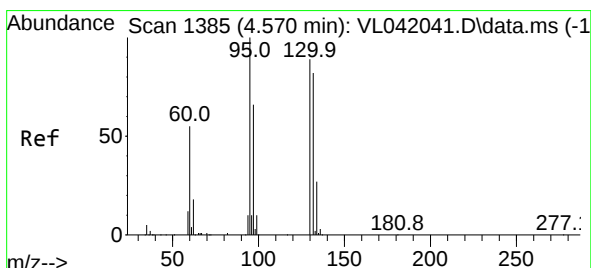
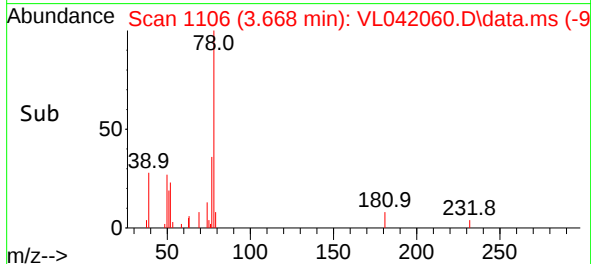
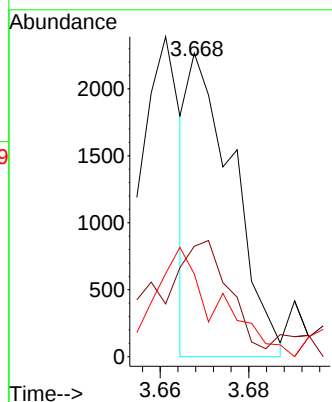
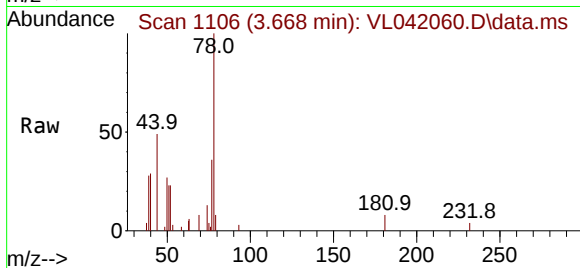
Tgt Ion: 78 Resp: 1589

Ion Ratio Lower Upper

78 100

77 26.5 17.7 26.5

50 25.2 13.9 20.9#



#38

Trichloroethene

Concen: 0.317 ppbv

RT: 4.561 min Scan# 1382

Delta R.T. -0.009 min

Lab File: VL042060.D

Acq: 26 Feb 2025 14:24

Tgt Ion:130 Resp: 4784

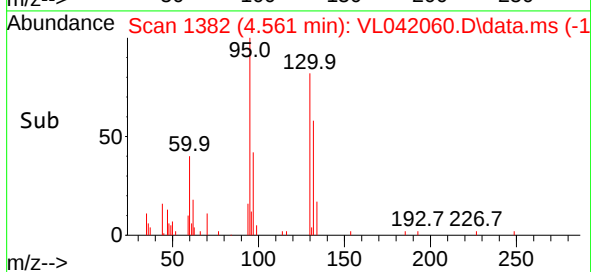
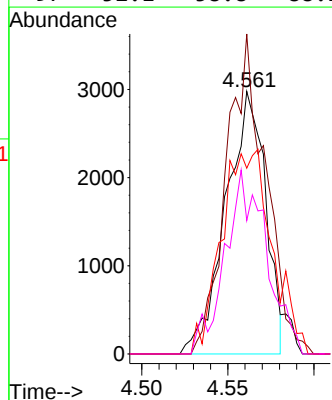
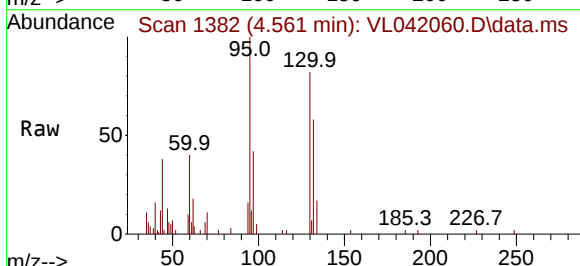
Ion Ratio Lower Upper

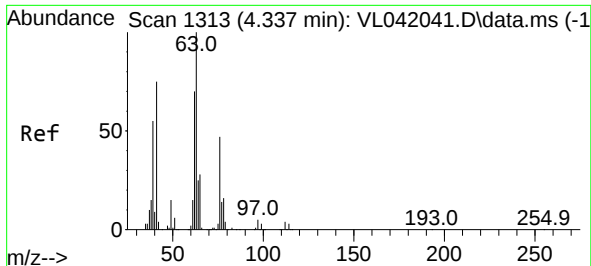
130 100

95 124.9 89.5 134.3

132 72.5 73.8 110.6#

97 52.1 58.8 88.2#





#39

1,2-Dichloropropane

Concen: 6.824 ppbv

RT: 3.972 min Scan# 11

Delta R.T. -0.366 min

Lab File: VL042060.D

Acq: 26 Feb 2025 14:24

Instrument :

MSVOA_L

ClientSampleId :

SV1

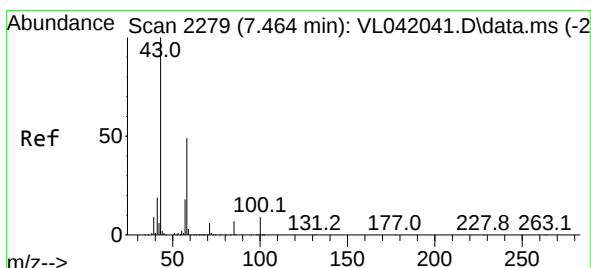
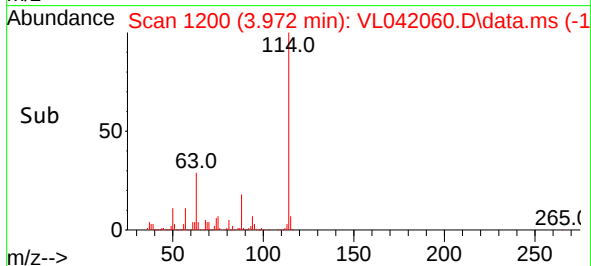
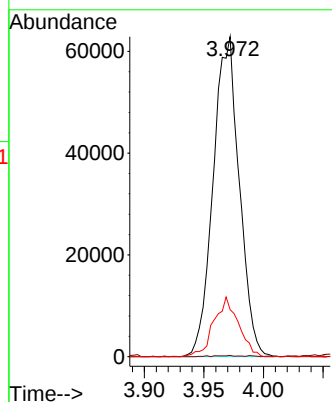
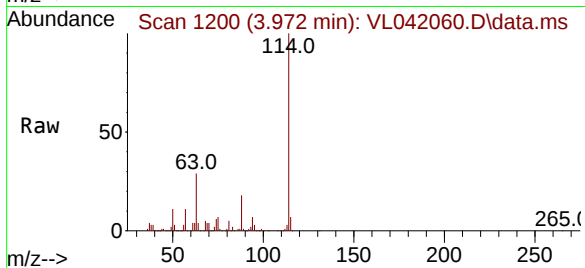
Tgt Ion: 63 Resp: 95812

Ion Ratio Lower Upper

63 100

41 0.4 60.1 90.1#

62 14.7 55.8 83.8#



#51

2-Hexanone

Concen: 0.038 ppbv

RT: 7.432 min Scan# 2269

Delta R.T. -0.032 min

Lab File: VL042060.D

Acq: 26 Feb 2025 14:24

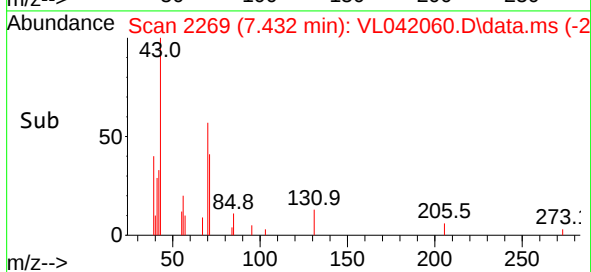
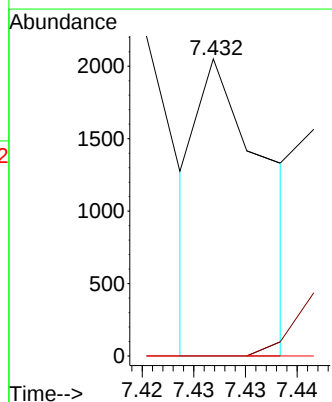
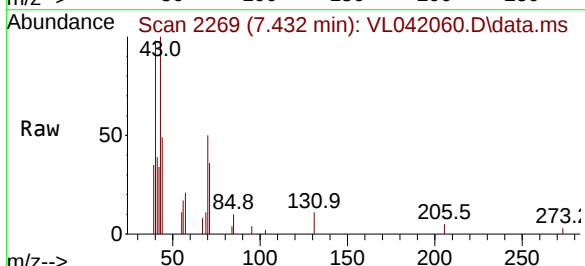
Tgt Ion: 43 Resp: 931

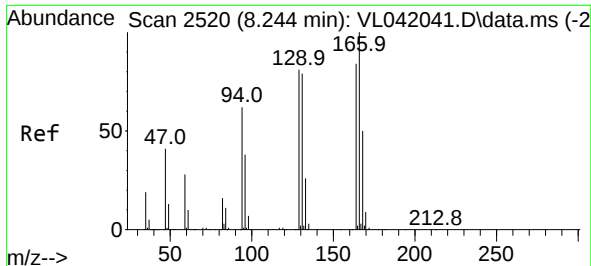
Ion Ratio Lower Upper

43 100

58 0.0 39.0 58.6#

98 0.0 0.1 0.1#

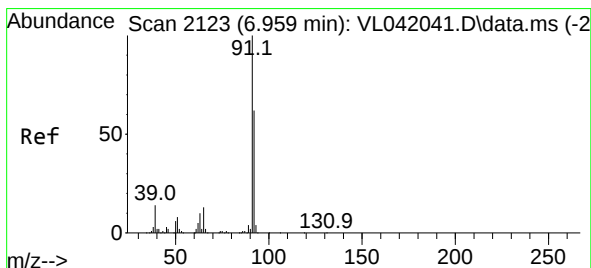
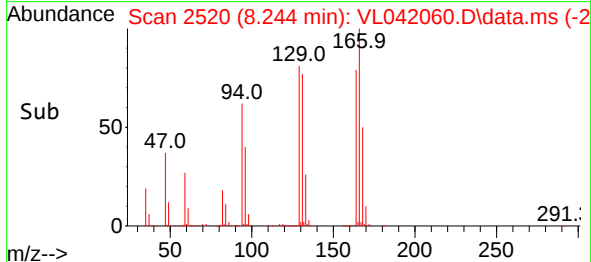
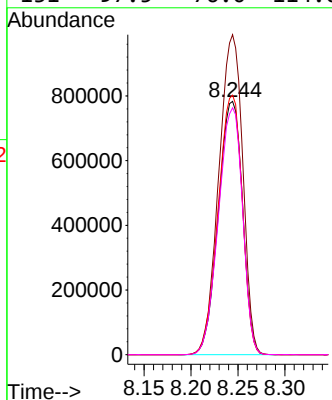
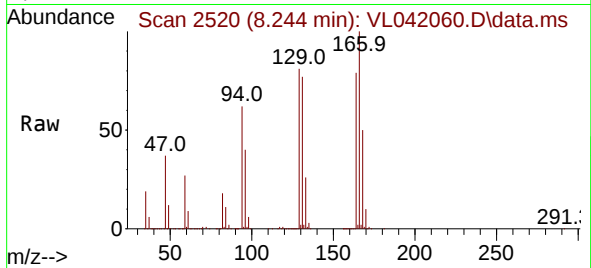




#52
Tetrachloroethene
Concen: 110.610 ppbv
RT: 8.244 min Scan# 2120
Delta R.T. 0.000 min
Lab File: VL042060.D
Acq: 26 Feb 2025 14:24

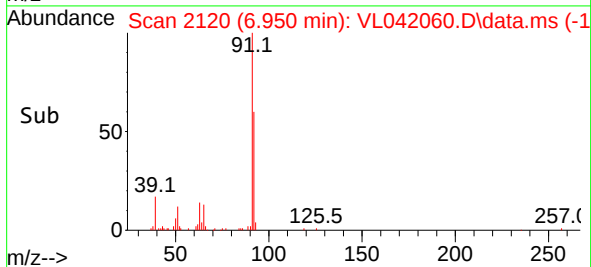
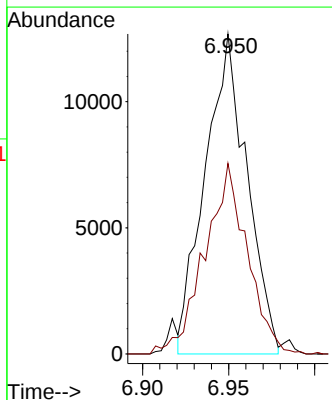
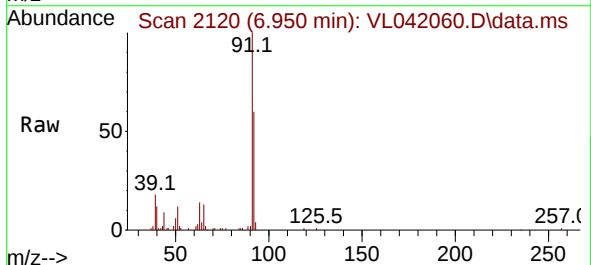
Instrument :
MSVOA_L
ClientSampleId :
SV1

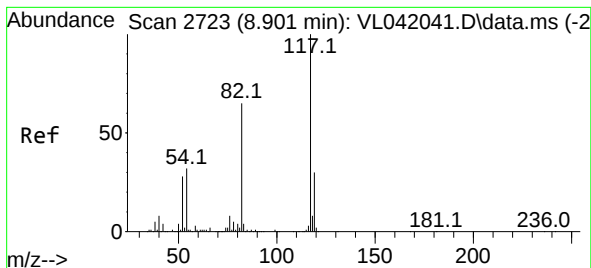
Tgt Ion:164 Resp: 1400742
Ion Ratio Lower Upper
164 100
166 126.4 95.7 143.5
129 102.5 77.1 115.7
131 97.5 76.0 114.0



#53
Toluene
Concen: 0.519 ppbv
RT: 6.950 min Scan# 2120
Delta R.T. -0.010 min
Lab File: VL042060.D
Acq: 26 Feb 2025 14:24

Tgt Ion: 91 Resp: 21458
Ion Ratio Lower Upper
91 100
92 60.4 49.0 73.6





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 8.892 min Scan# 21

Delta R.T. -0.009 min

Lab File: VL042060.D

Acq: 26 Feb 2025 14:24

Instrument :

MSVOA_L

ClientSampleId :

SV1

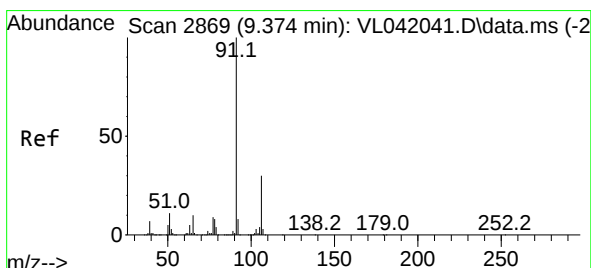
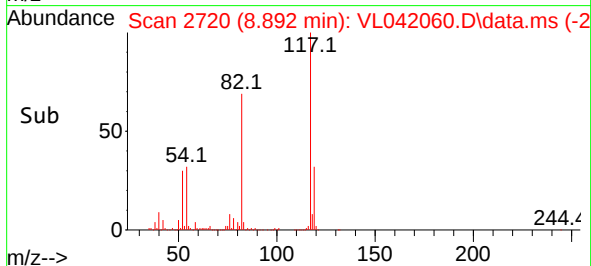
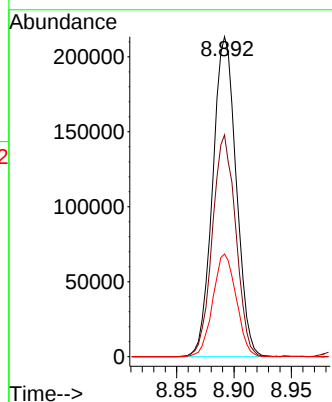
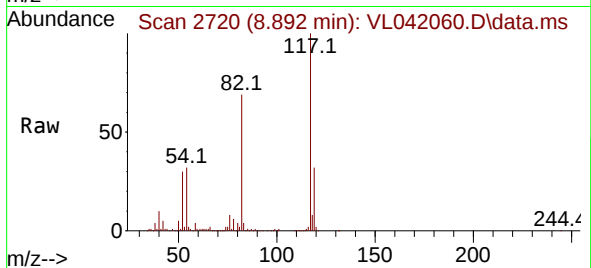
Tgt Ion:117 Resp: 304148

Ion Ratio Lower Upper

117 100

82 69.1 55.0 82.6

119 32.0 25.9 38.9



#58

Ethyl Benzene

Concen: 0.038 ppbv

RT: 9.364 min Scan# 2866

Delta R.T. -0.009 min

Lab File: VL042060.D

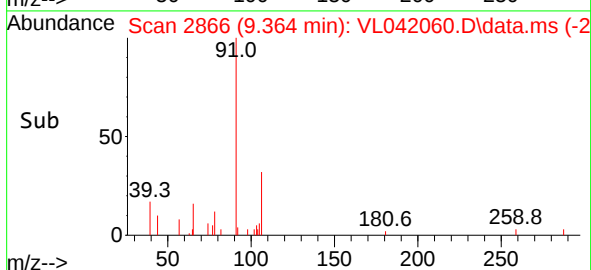
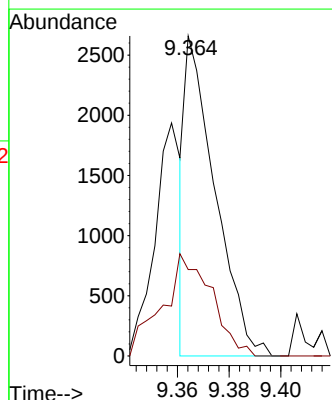
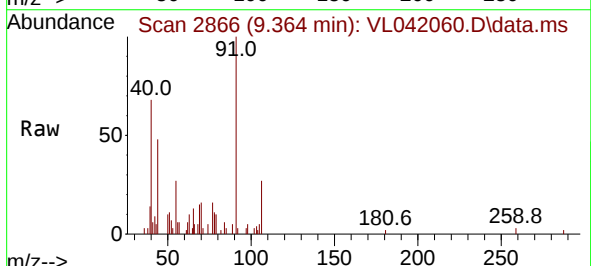
Acq: 26 Feb 2025 14:24

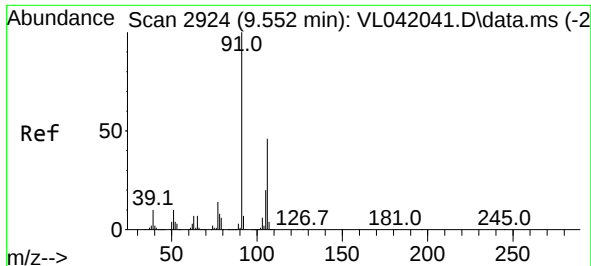
Tgt Ion: 91 Resp: 2147

Ion Ratio Lower Upper

91 100

106 27.0 24.2 36.2





#59

m/p-Xylene

Concen: 0.075 ppbv

RT: 9.539 min Scan# 2920

Delta R.T. -0.013 min

Lab File: VL042060.D

Acq: 26 Feb 2025 14:24

Instrument :

MSVOA_L

ClientSampleId :

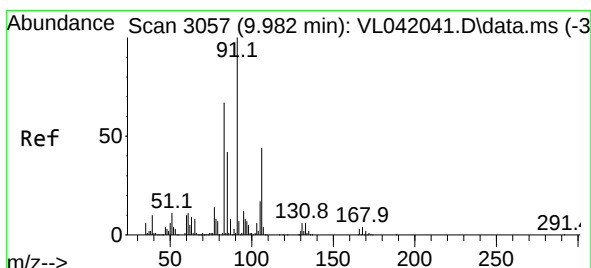
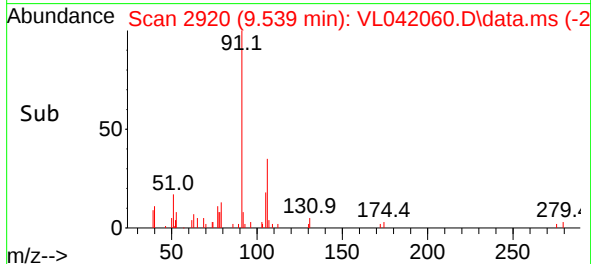
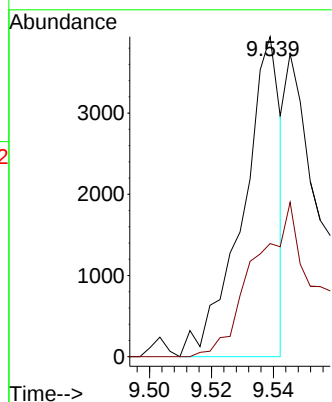
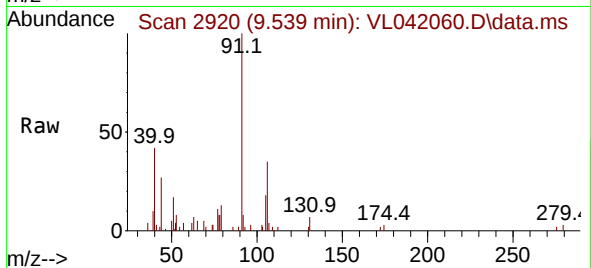
SV1

Tgt Ion: 91 Resp: 3345

Ion Ratio Lower Upper

91 100

106 0.0 0.0 0.0



#60

o-Xylene

Concen: 0.052 ppbv

RT: 9.979 min Scan# 3056

Delta R.T. -0.003 min

Lab File: VL042060.D

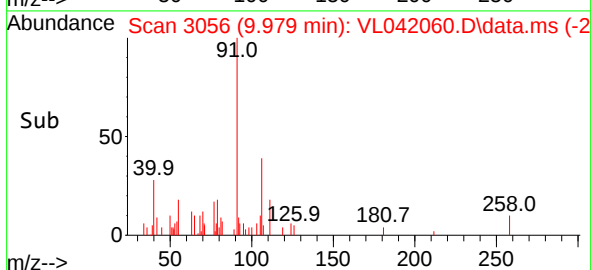
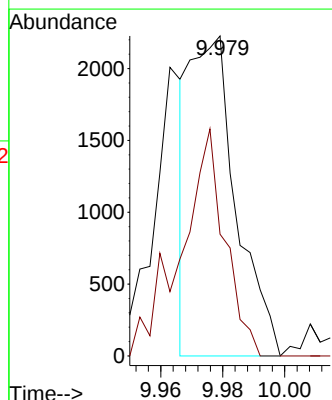
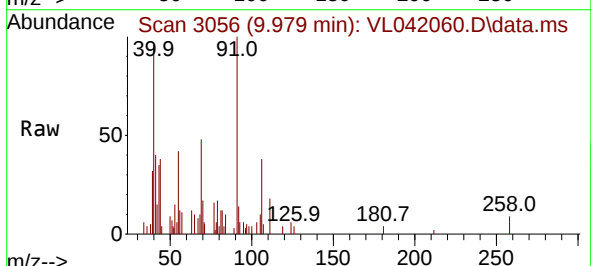
Acq: 26 Feb 2025 14:24

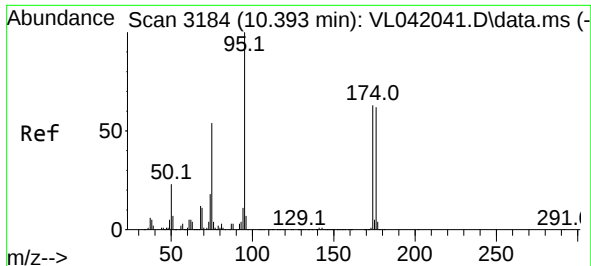
Tgt Ion: 91 Resp: 2332

Ion Ratio Lower Upper

91 100

106 66.6 22.3 66.8

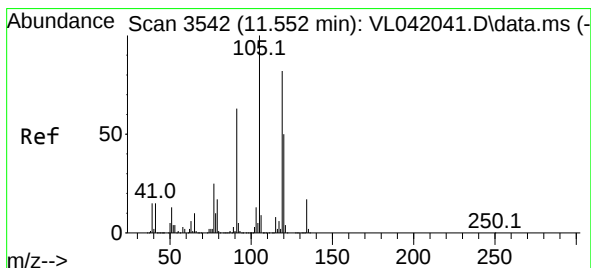
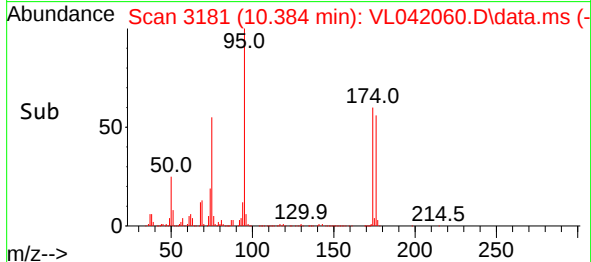
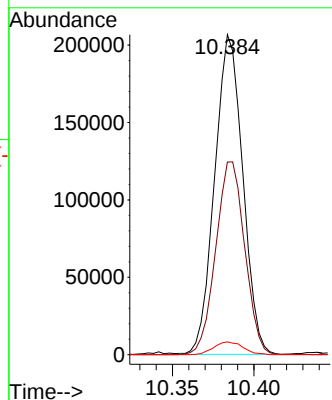
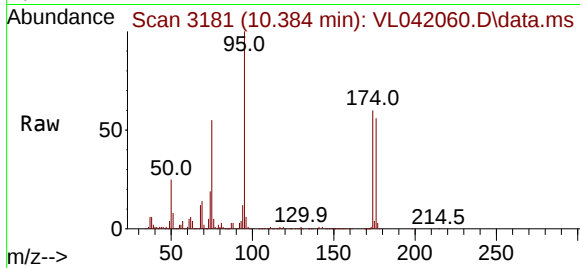




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.568 ppbv
 RT: 10.384 min Scan# 3184
 Delta R.T. -0.009 min
 Lab File: VL042060.D
 Acq: 26 Feb 2025 14:24

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Tgt Ion: 95 Resp: 247293
 Ion Ratio Lower Upper
 95 100
 174 62.2 51.8 77.6
 175 4.2 3.9 5.9



#74
 1,2,4-Trimethylbenzene
 Concen: 0.056 ppbv
 RT: 11.546 min Scan# 3540
 Delta R.T. -0.006 min
 Lab File: VL042060.D
 Acq: 26 Feb 2025 14:24

Tgt Ion: 105 Resp: 2996
 Ion Ratio Lower Upper
 105 100
 120 48.2 40.2 60.2
 91 19.8 51.4 77.2#
 77 4.6 20.1 30.1#

