

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL090825\
 Data File : VL042915.D
 Acq On : 08 Sep 2025 22:20
 Operator : SY/MD
 Sample : Q3052-02 60X
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

Quant Time: Sep 09 01:00:52 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL081325AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue Sep 09 00:52:26 2025
 Response via : Initial Calibration

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

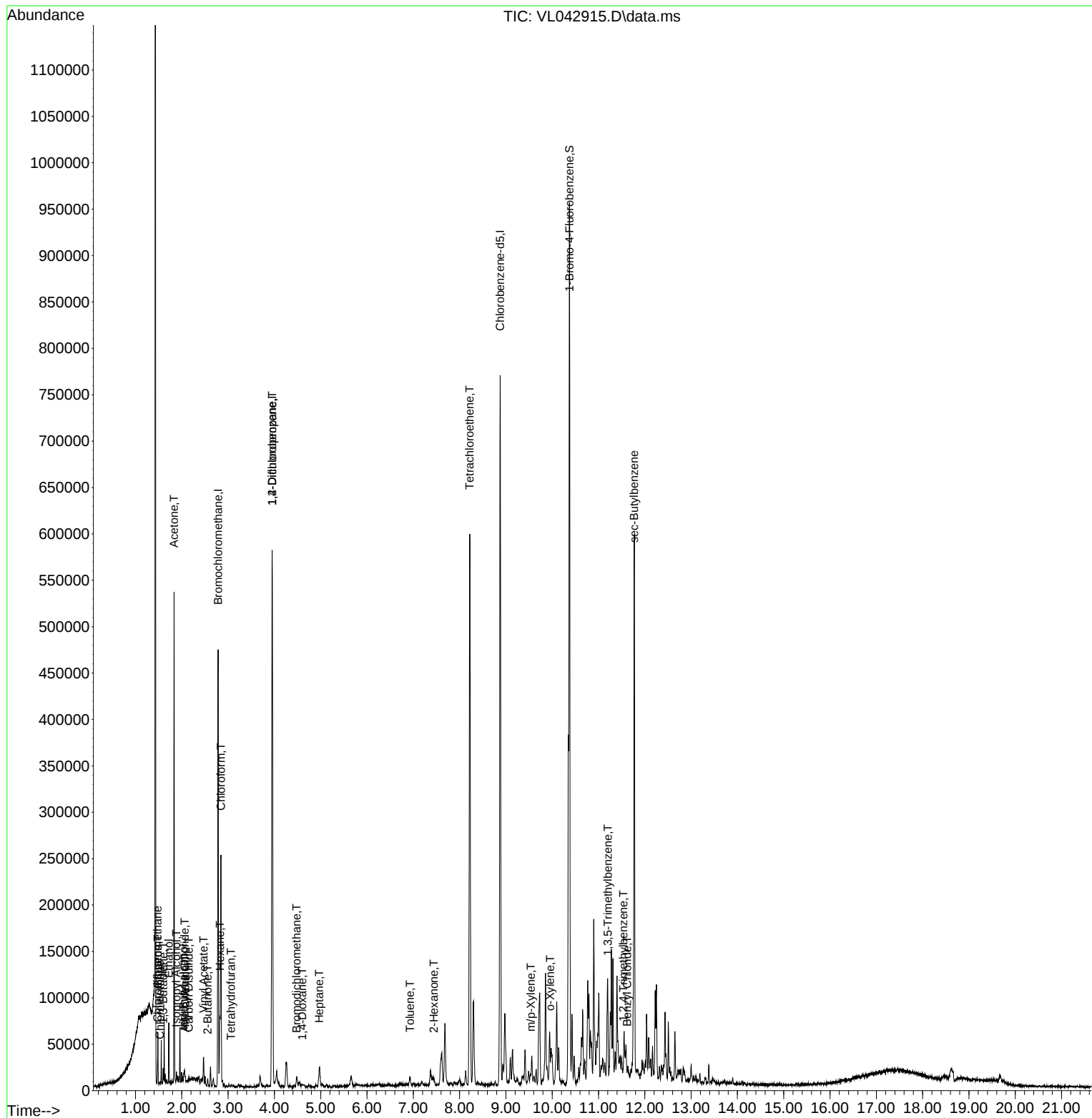
Internal Standards						
1) Bromochloromethane	2.784	49	134811	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.952	114	320038	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.875	117	301432	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.370	95	249201	11.023	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	110.200%
Target Compounds						
					Qvalue	
3) Chlorodifluoromethane	1.473	51	6012	0.275	ppbv	96
4) Chloromethane	1.528	50	460	0.058	ppbv #	66
9) Propene	1.483	41	6595	0.699	ppbv	85
10) Heptane	4.968	43	7166	0.284	ppbv	99
13) Ethanol	1.719	45	20056	23.257	ppbv	95
15) Acetone	1.832	43	218032	12.226	ppbv	99
16) 1,3-Butadiene	1.599	39	2141	0.265	ppbv #	54
17) tert-Butyl alcohol	2.039	59	2555	0.121	ppbv #	73
19) Isopropyl Alcohol	1.884	45	4885	0.459	ppbv #	34
20) Methylene Chloride	2.062	84	2206	0.295	ppbv	93
21) Allyl Chloride	2.075	41	688	0.055	ppbv #	23
23) Vinyl Acetate	2.466	43	8022	0.327	ppbv #	47
26) Hexane	2.823	57	14127	0.709	ppbv #	39
27) Carbon Disulfide	2.149	76	1715	0.088	ppbv #	1
29) Chloroform	2.845	83	101843	3.581	ppbv	98
34) 2-Butanone	2.557	43	5389	0.249	ppbv	100
39) 1,2-Dichloropropane	3.952	63	86248	7.706	ppbv #	27
40) 1,4-Dioxane	4.599	88	217	0.041	ppbv #	1
41) Tetrahydrofuran	3.062	42	508	0.042	ppbv #	64
42) Bromodichloromethane	4.480	83	6360	0.267	ppbv #	92
51) 2-Hexanone	7.441	43	2149	0.093	ppbv #	98
52) Tetrachloroethene	8.218	164	99264	8.953	ppbv	96
53) Toluene	6.927	91	4149	0.114	ppbv #	47
59) m/p-Xylene	9.539	91	1872	0.045	ppbv #	100
60) o-Xylene	9.956	91	2947	0.070	ppbv	95
66) Benzyl Chloride	11.620	91	206	0.030	ppbv #	65
67) sec-Butylbenzene	11.769	105	2560	0.034	ppbv #	74
73) 1,3,5-Trimethylbenzene	11.202	105	1400	0.032	ppbv	93
74) 1,2,4-Trimethylbenzene	11.536	105	1901	0.040	ppbv #	47

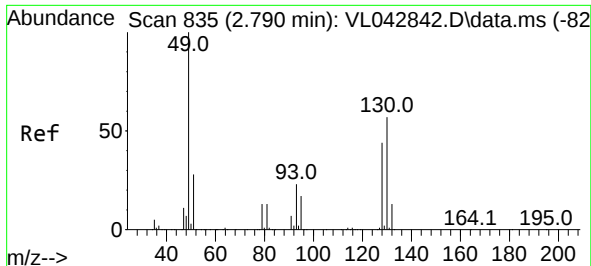
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Sep 09 01:00:52 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL081325AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Tue Sep 09 00:52:26 2025
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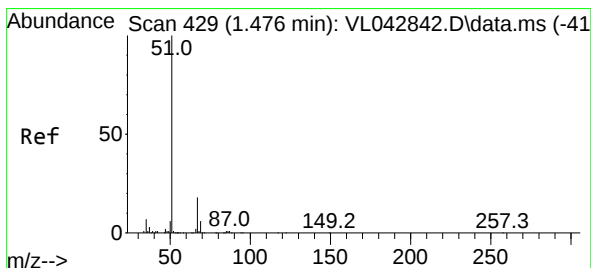
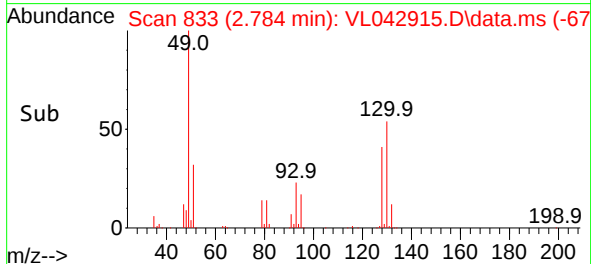
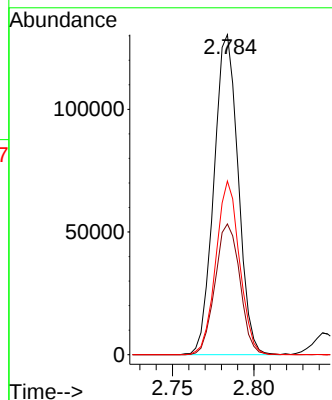
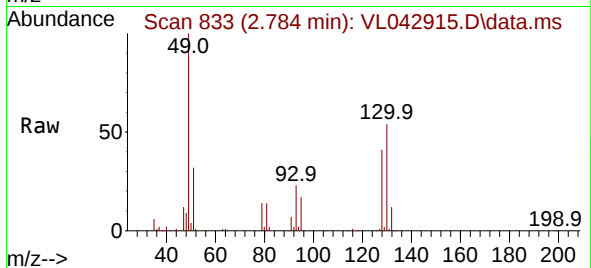




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.784 min Scan# 81
 Delta R.T. 0.007 min
 Lab File: VL042915.D
 Acq: 08 Sep 2025 22:20

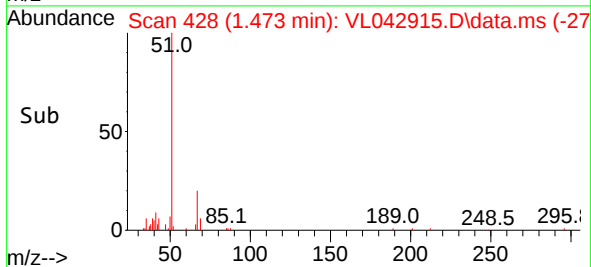
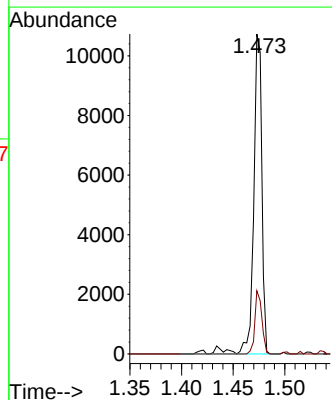
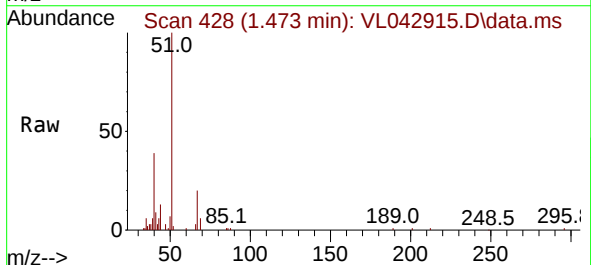
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 MSVOA_L
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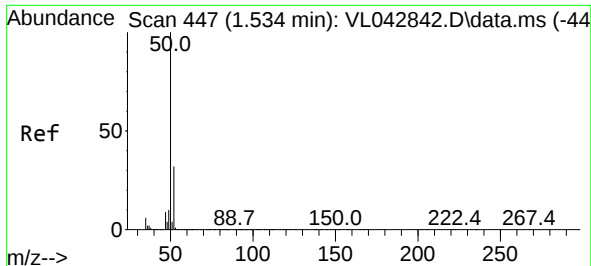
Tgt Ion: 49 Resp: 134811
 Ion Ratio Lower Upper
 49 100
 128 41.8 23.7 71.1
 130 52.9 30.6 91.6



#3
 Chlorodifluoromethane
 Concen: 0.275 ppbv
 RT: 1.473 min Scan# 428
 Delta R.T. 0.003 min
 Lab File: VL042915.D
 Acq: 08 Sep 2025 22:20

Tgt Ion: 51 Resp: 6012
 Ion Ratio Lower Upper
 51 100
 67 16.6 14.9 22.3

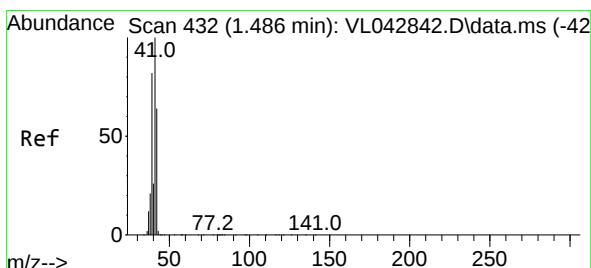
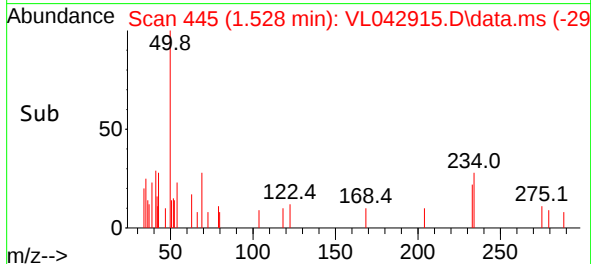
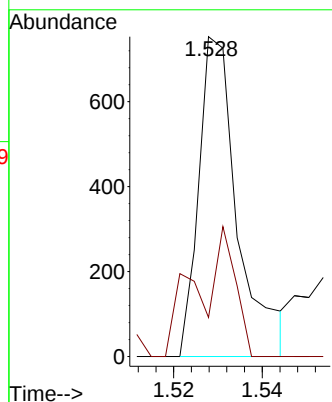
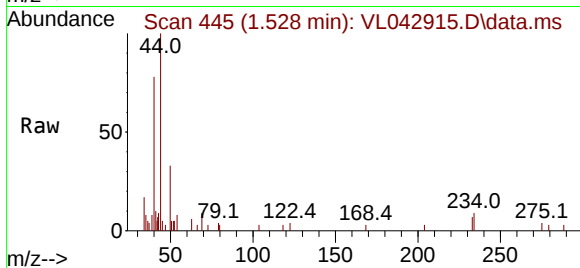




#4
Chloromethane
Concen: 0.058 ppbv
RT: 1.528 min Scan# 445
Delta R.T. -0.000 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

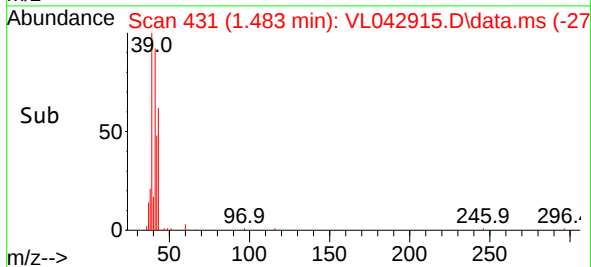
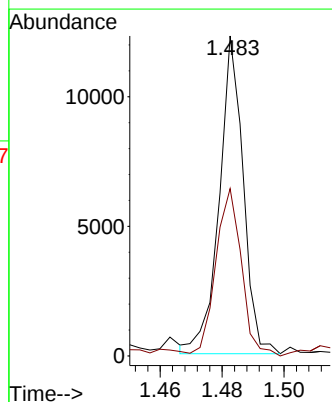
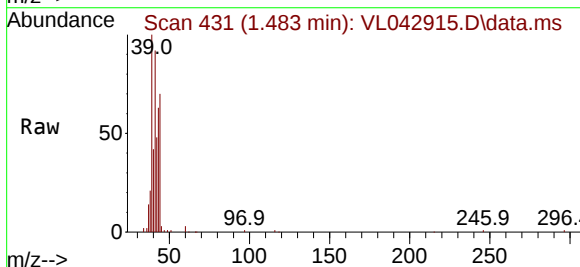
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

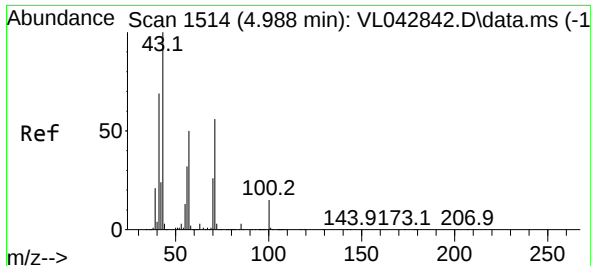
Tgt Ion: 50 Resp: 460
Ion Ratio Lower Upper
50 100
52 13.3 25.9 38.9#



#9
Propene
Concen: 0.699 ppbv
RT: 1.483 min Scan# 431
Delta R.T. 0.006 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

Tgt Ion: 41 Resp: 6595
Ion Ratio Lower Upper
41 100
42 53.9 53.0 79.4

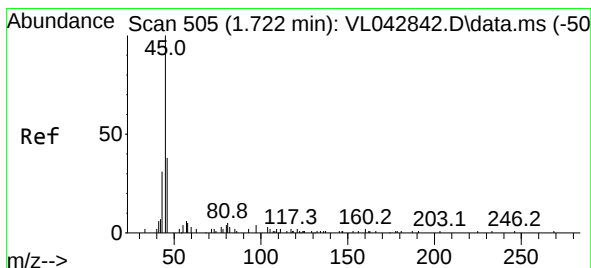
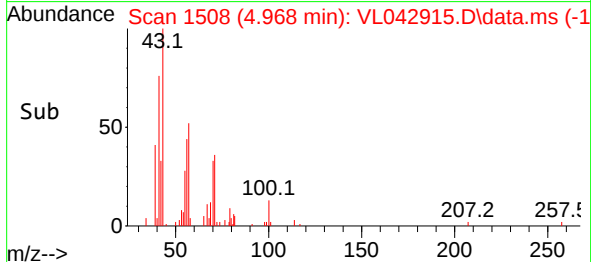
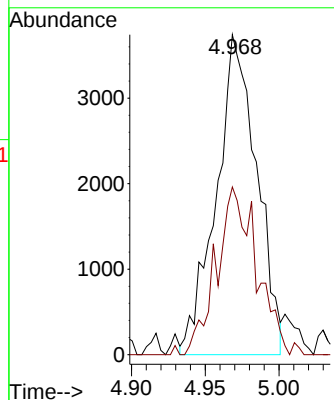
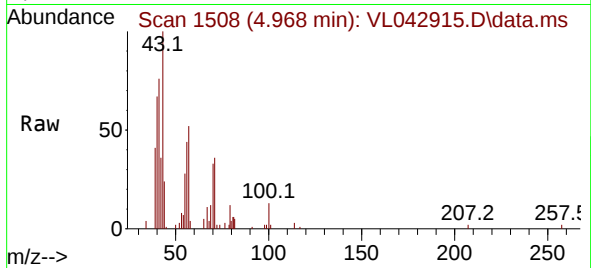




#10
Heptane
Concen: 0.284 ppbv
RT: 4.968 min Scan# 11
Delta R.T. 0.010 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

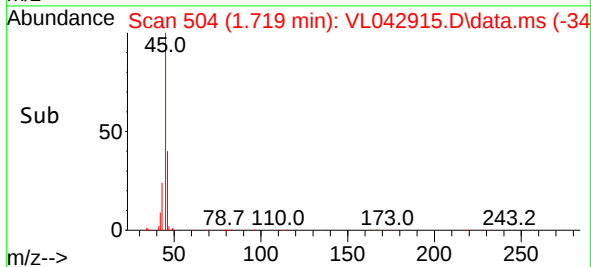
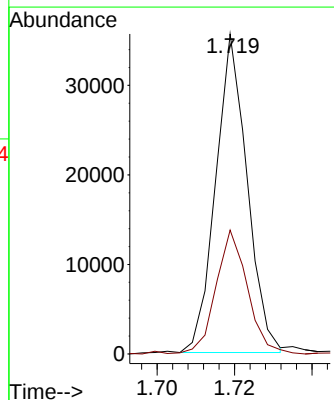
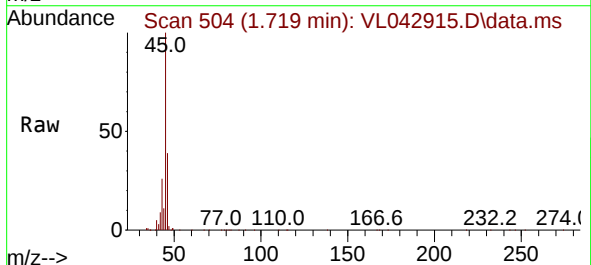
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

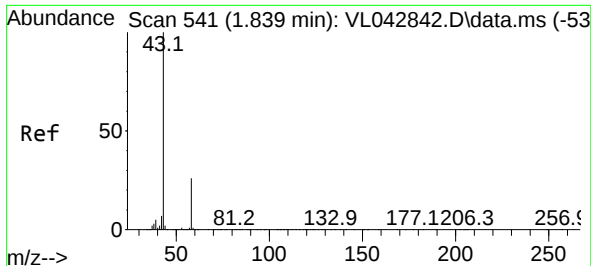
Tgt Ion: 43 Resp: 7166
Ion Ratio Lower Upper
43 100
57 52.4 41.4 62.0



#13
Ethanol
Concen: 23.257 ppbv
RT: 1.719 min Scan# 504
Delta R.T. 0.003 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

Tgt Ion: 45 Resp: 20056
Ion Ratio Lower Upper
45 100
46 40.4 17.5 69.9

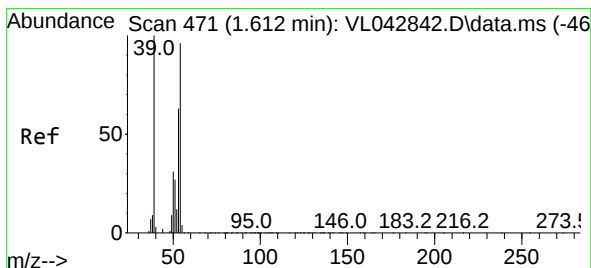
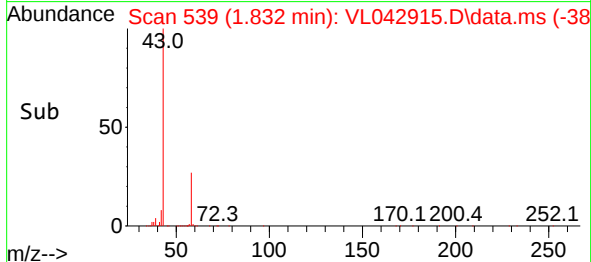
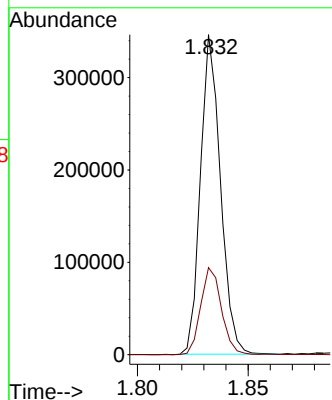
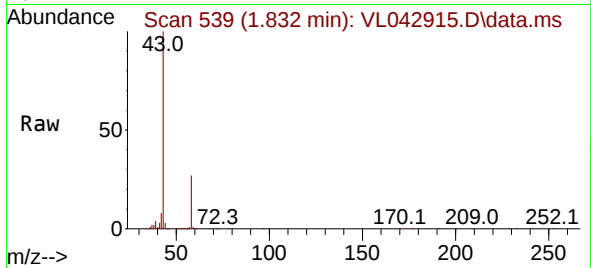




#15
Acetone
Concen: 12.226 ppbv
RT: 1.832 min Scan# 51
Delta R.T. 0.003 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

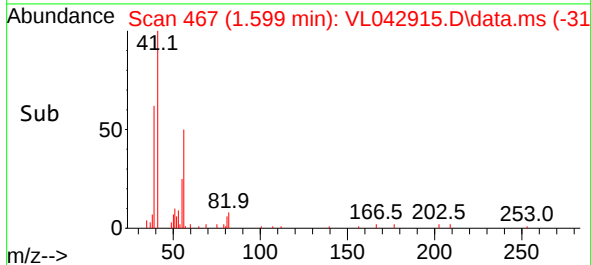
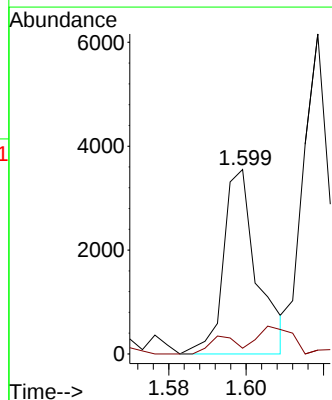
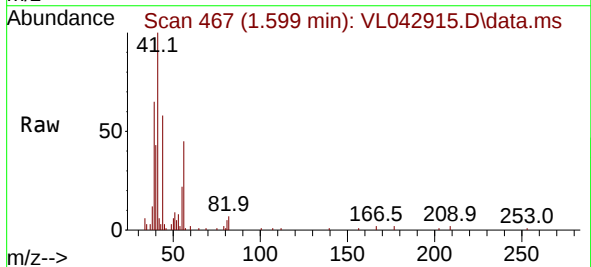
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

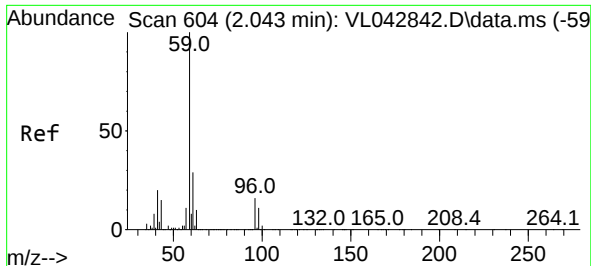
Tgt Ion: 43 Resp: 218032
Ion Ratio Lower Upper
43 100
58 28.4 22.4 33.6



#16
1,3-Butadiene
Concen: 0.265 ppbv
RT: 1.599 min Scan# 467
Delta R.T. -0.003 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

Tgt Ion: 39 Resp: 2141
Ion Ratio Lower Upper
39 100
54 39.4 63.6 95.4#





#17

tert-Butyl alcohol

Concen: 0.121 ppbv

RT: 2.039 min Scan# 604

Delta R.T. 0.006 min

Lab File: VL042915.D

Acq: 08 Sep 2025 22:20

Instrument :

MSVOA_L

ClientSampleId :

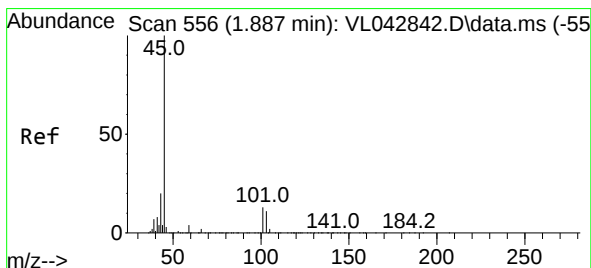
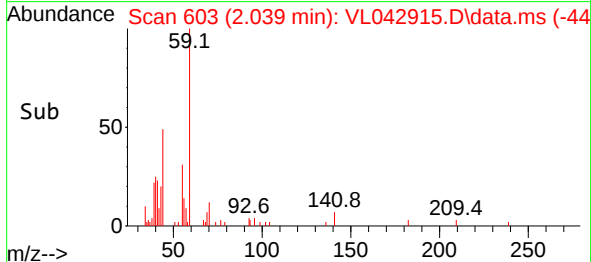
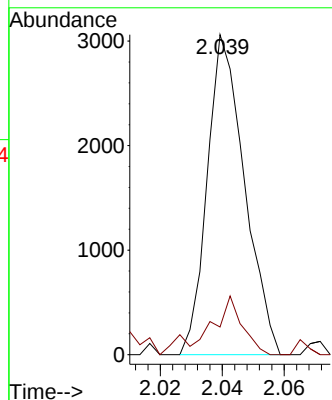
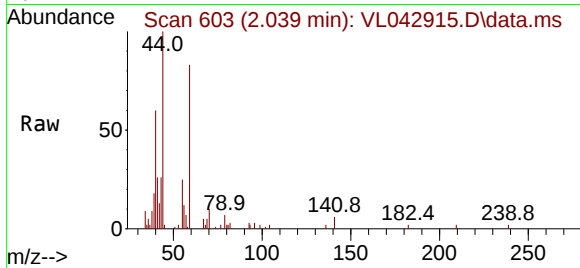
SV2DL

Tgt Ion: 59 Resp: 2555

Ion Ratio Lower Upper

59 100

57 21.7 9.0 13.4#



#19

Isopropyl Alcohol

Concen: 0.459 ppbv

RT: 1.884 min Scan# 555

Delta R.T. 0.003 min

Lab File: VL042915.D

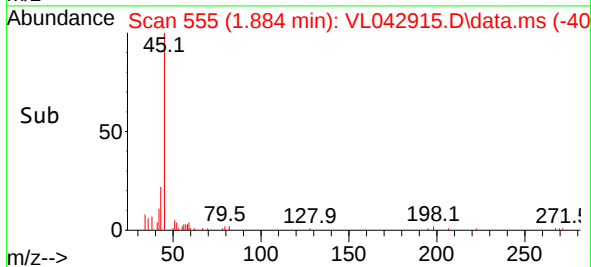
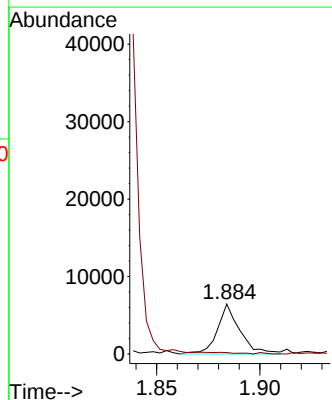
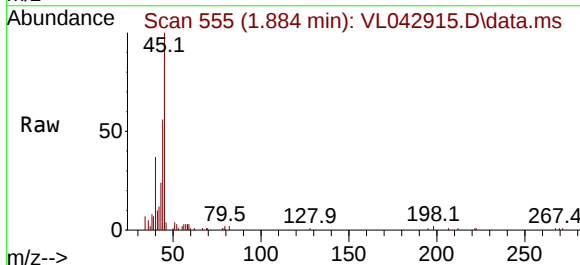
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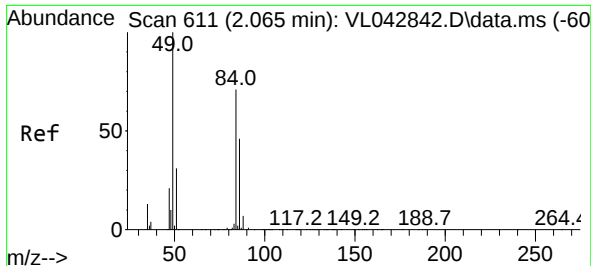
Tgt Ion: 45 Resp: 4885

Ion Ratio Lower Upper

45 100

58 0.0 32.7 49.1#





#20

Methylene Chloride

Concen: 0.295 ppbv

RT: 2.062 min Scan# 611

Delta R.T. 0.006 min

Lab File: VL042915.D

Acq: 08 Sep 2025 22:20

Instrument :

MSVOA_L

ClientSampleId :

SV2DL

Tgt Ion: 84 Resp: 2206

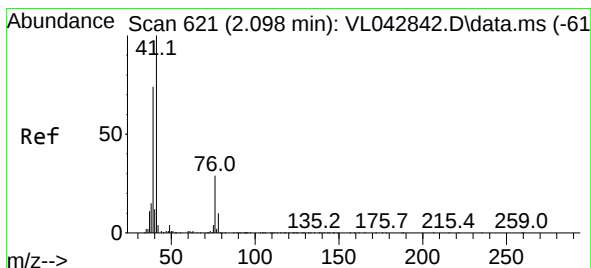
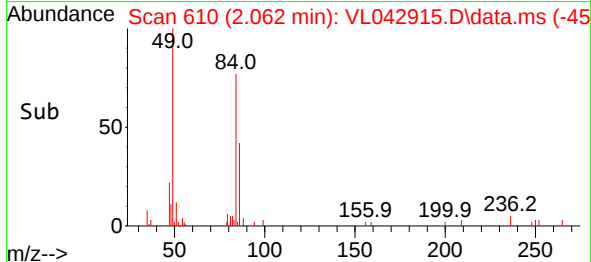
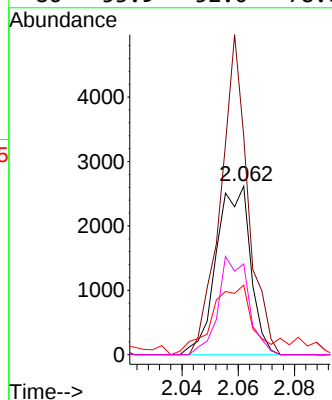
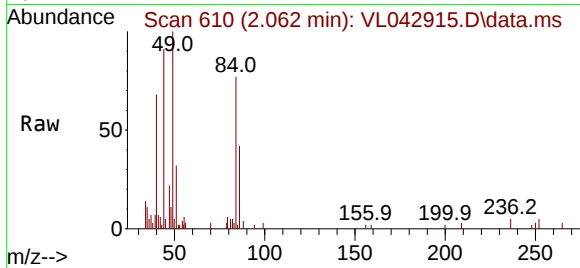
Ion Ratio Lower Upper

84 100

49 136.2 112.3 168.5

51 39.3 36.0 54.0

86 53.9 52.0 78.0



#21

Allyl Chloride

Concen: 0.055 ppbv

RT: 2.075 min Scan# 614

Delta R.T. -0.013 min

Lab File: VL042915.D

Acq: 08 Sep 2025 22:20

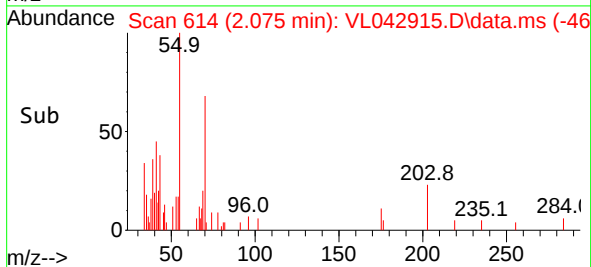
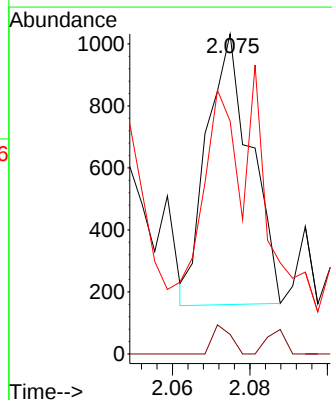
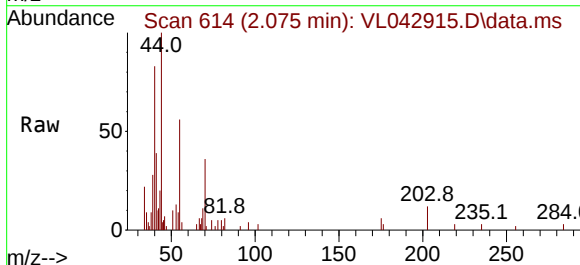
Tgt Ion: 41 Resp: 688

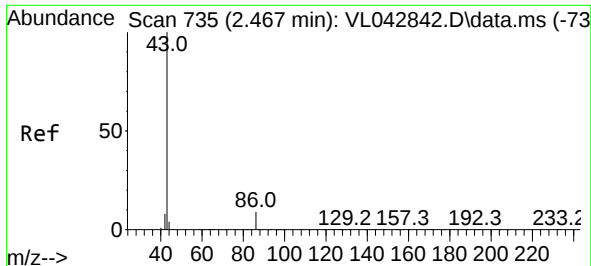
Ion Ratio Lower Upper

41 100

76 0.0 23.9 35.9#

39 143.8 57.8 86.6#



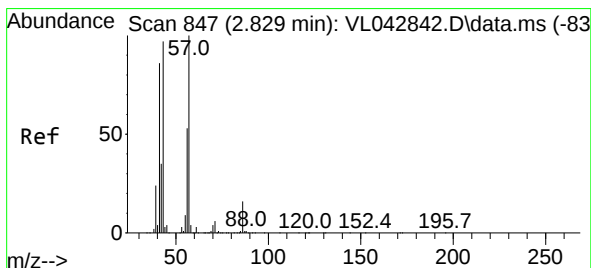
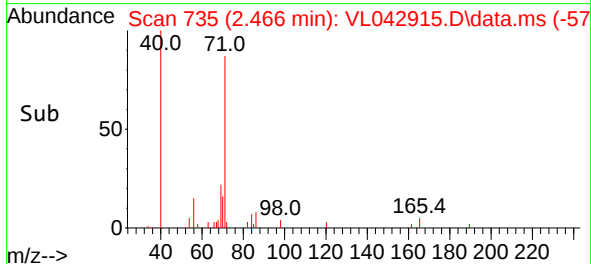
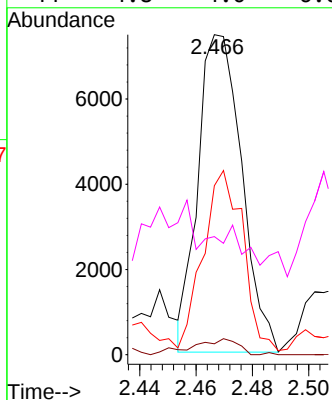
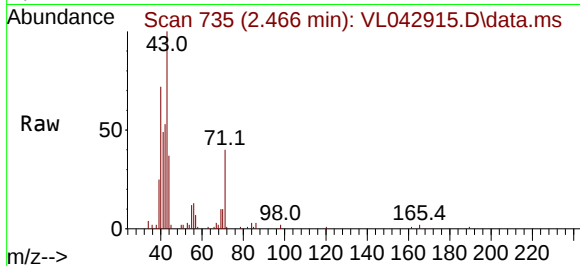


#23
 Vinyl Acetate
 Concen: 0.327 ppbv
 RT: 2.466 min Scan# 71
 Delta R.T. 0.013 min
 Lab File: VL042915.D
 Acq: 08 Sep 2025 22:20

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

Tgt Ion: 43 Resp: 8022

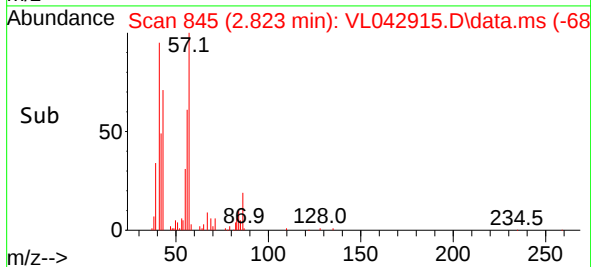
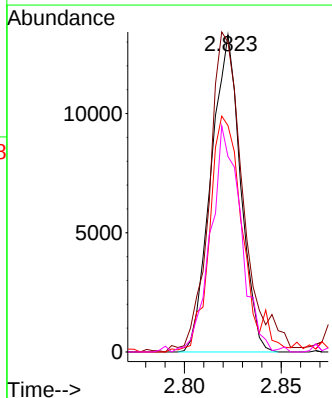
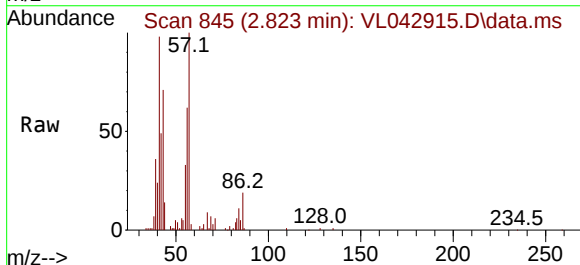
Ion	Ratio	Lower	Upper
43	100		
86	3.4	6.6	9.8#
42	51.9	7.0	10.6#
44	4.8	4.0	6.0

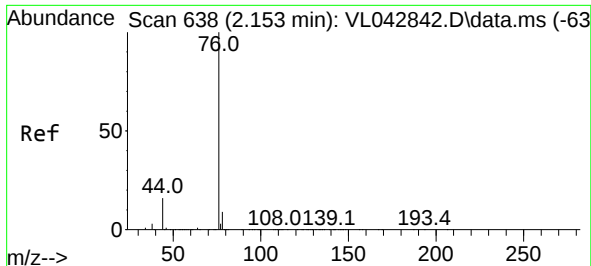


#26
 Hexane
 Concen: 0.709 ppbv
 RT: 2.823 min Scan# 845
 Delta R.T. 0.006 min
 Lab File: VL042915.D
 Acq: 08 Sep 2025 22:20

Tgt Ion: 57 Resp: 14127

Ion	Ratio	Lower	Upper
57	100		
41	116.3	68.6	103.0#
43	86.7	168.5	252.7#
56	73.0	41.5	62.3#





#27

Carbon Disulfide

Concen: 0.088 ppbv

RT: 2.149 min Scan# 61

Delta R.T. 0.006 min

Lab File: VL042915.D

Acq: 08 Sep 2025 22:20

Instrument :

MSVOA_L

ClientSampleId :

SV2DL

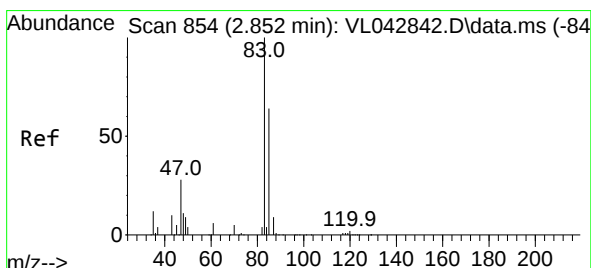
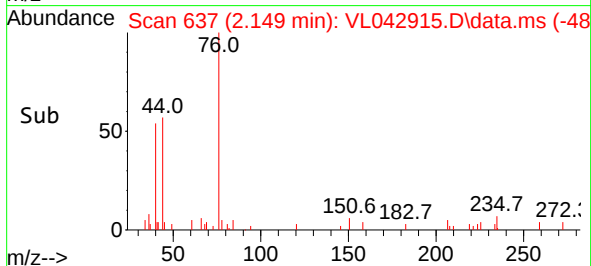
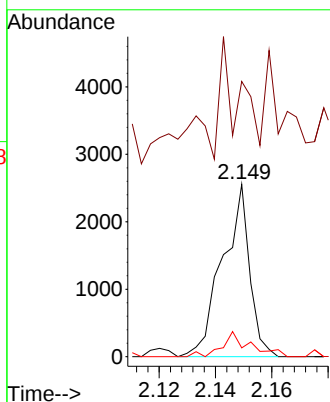
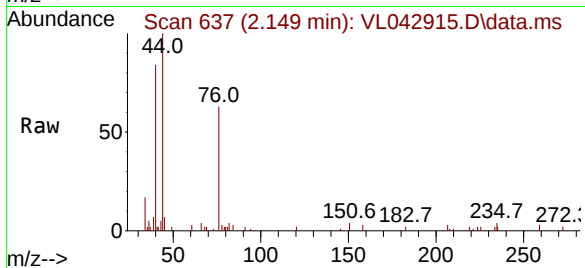
Tgt Ion: 76 Resp: 1715

Ion Ratio Lower Upper

76 100

44 392.1 15.9 23.9#

78 15.9 9.5 14.3#



#29

Chloroform

Concen: 3.581 ppbv

RT: 2.845 min Scan# 852

Delta R.T. 0.006 min

Lab File: VL042915.D

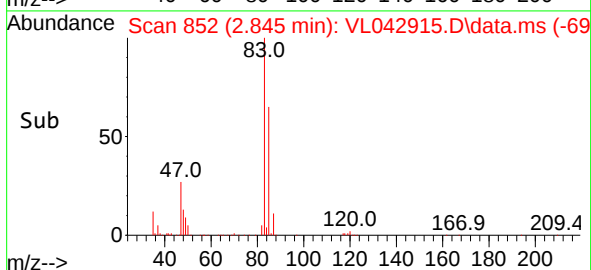
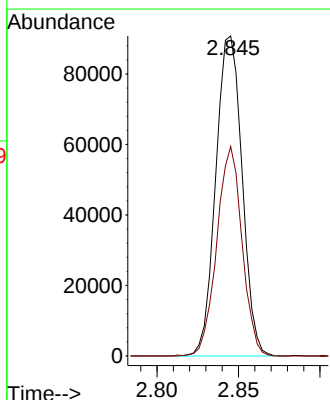
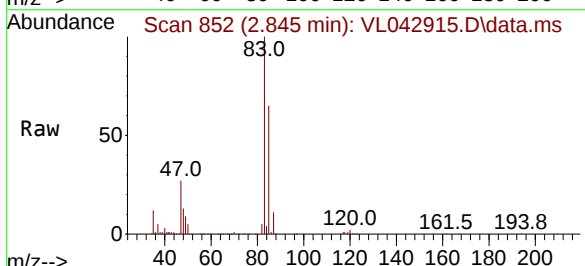
Acq: 08 Sep 2025 22:20

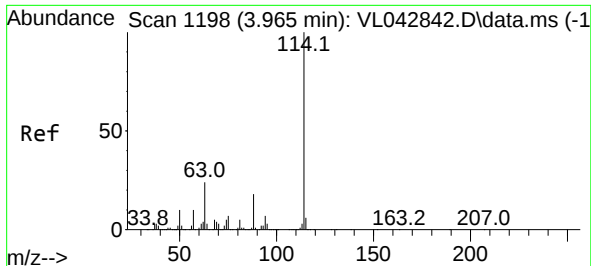
Tgt Ion: 83 Resp: 101843

Ion Ratio Lower Upper

83 100

85 65.5 51.1 76.7





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.952 min Scan# 1194

Delta R.T. 0.010 min

Lab File: VL042915.D

Acq: 08 Sep 2025 22:20

Instrument :

MSVOA_L

ClientSampleId :

SV2DL

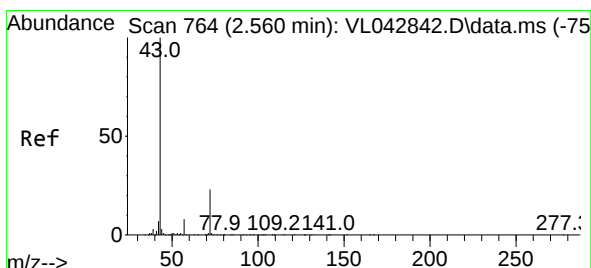
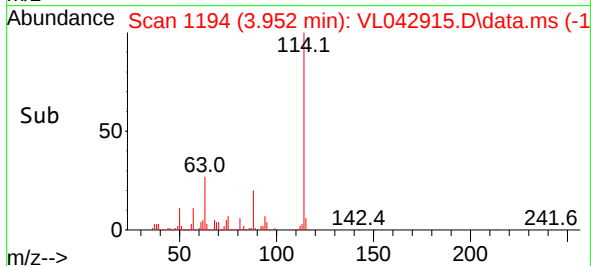
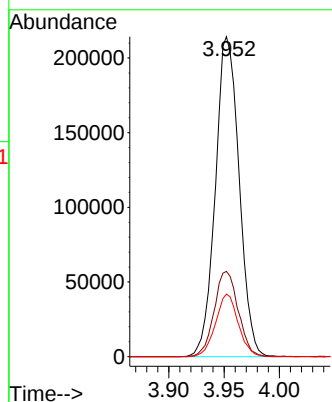
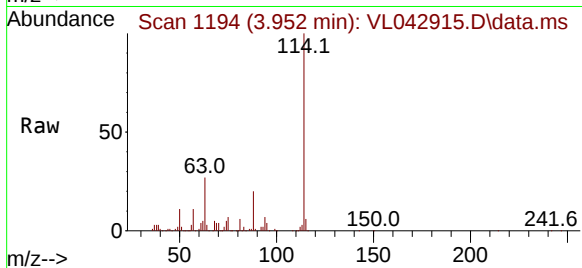
Tgt Ion:114 Resp: 320038

Ion Ratio Lower Upper

114 100

63 27.0 19.7 29.5

88 18.7 14.4 21.6



#34

2-Butanone

Concen: 0.249 ppbv

RT: 2.557 min Scan# 763

Delta R.T. 0.010 min

Lab File: VL042915.D

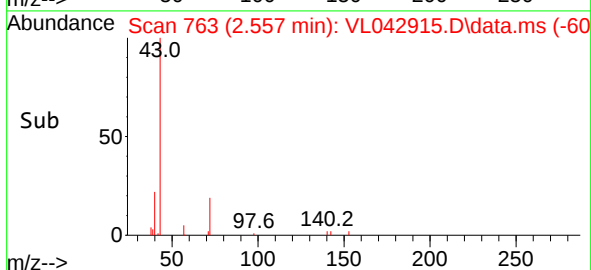
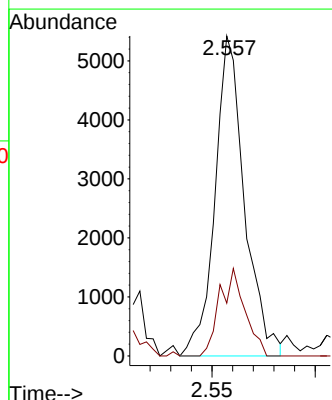
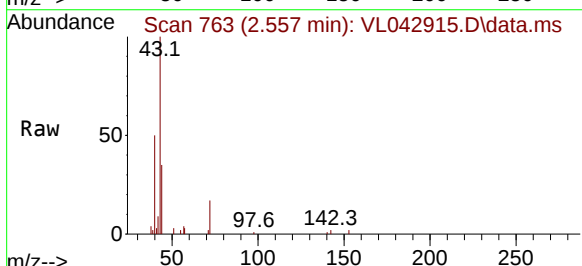
Acq: 08 Sep 2025 22:20

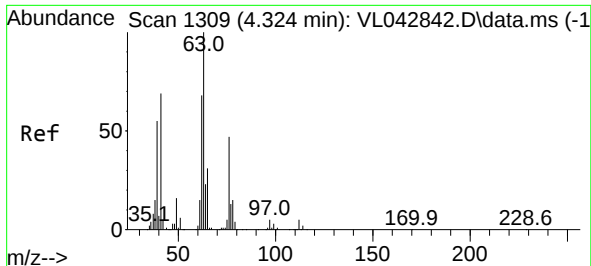
Tgt Ion: 43 Resp: 5389

Ion Ratio Lower Upper

43 100

72 23.4 18.6 28.0





#39

1,2-Dichloropropane

Concen: 7.706 ppbv

RT: 3.952 min Scan# 1194

Delta R.T. -0.346 min

Lab File: VL042915.D

Acq: 08 Sep 2025 22:20

Instrument :

MSVOA_L

ClientSampleId :

SV2DL

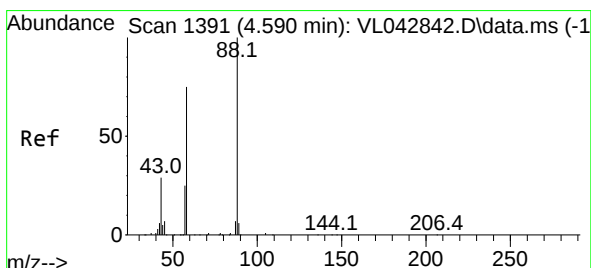
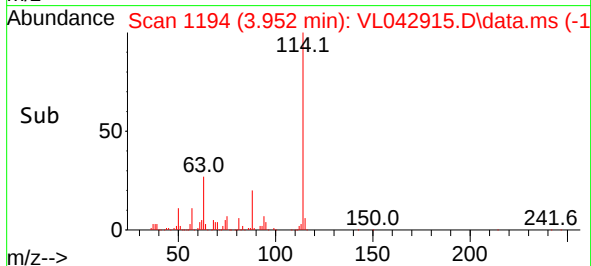
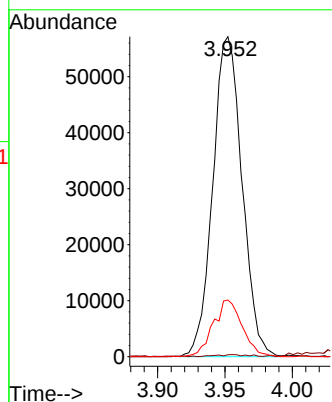
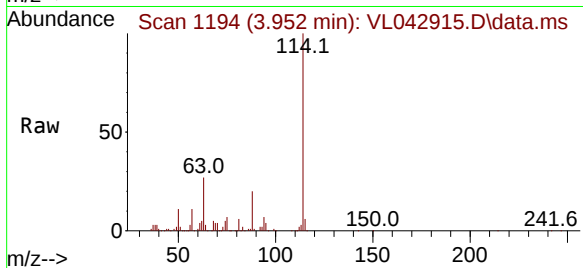
Tgt Ion: 63 Resp: 86248

Ion Ratio Lower Upper

63 100

41 0.4 55.0 82.4#

62 17.7 54.4 81.6#



#40

1,4-Dioxane

Concen: 0.041 ppbv

RT: 4.599 min Scan# 1394

Delta R.T. 0.039 min

Lab File: VL042915.D

Acq: 08 Sep 2025 22:20

Tgt Ion: 88 Resp: 217

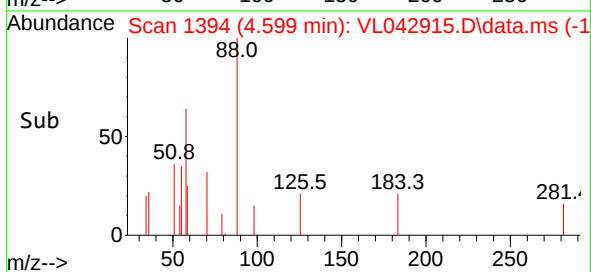
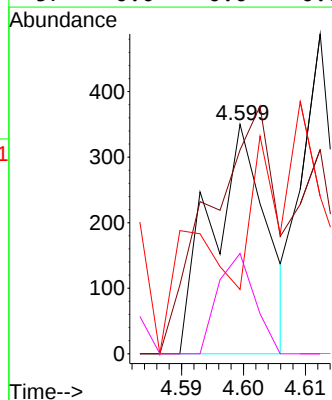
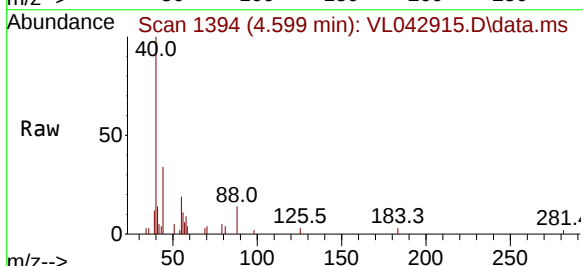
Ion Ratio Lower Upper

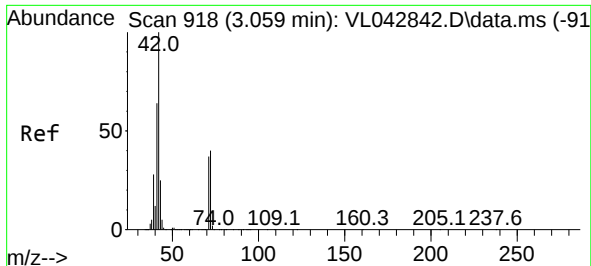
88 100

58 229.0 53.8 80.6#

43 662.2 22.8 34.2#

57 0.0 0.0 0.0

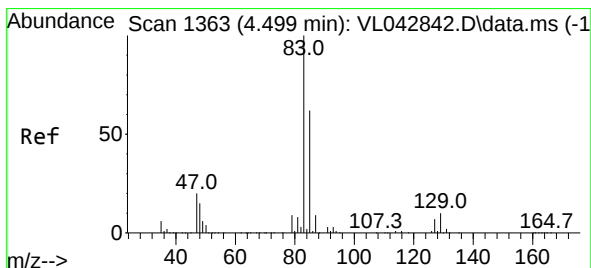
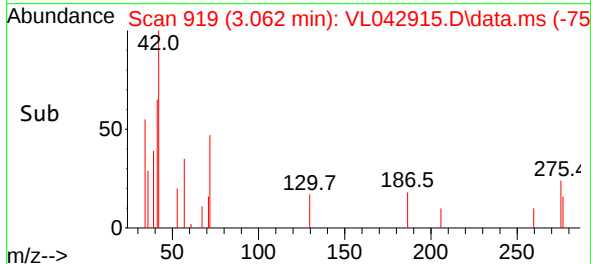
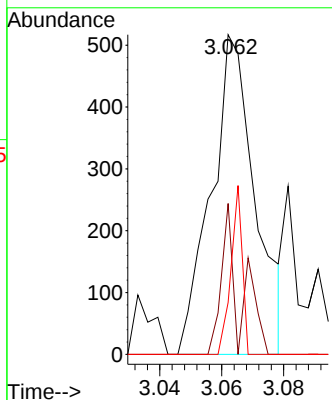
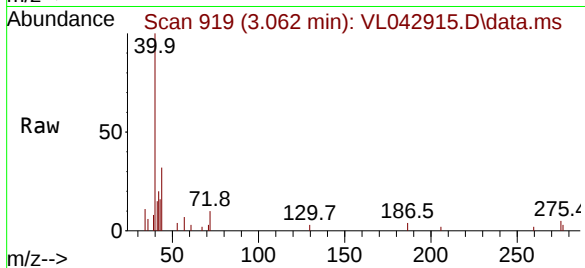




#41
Tetrahydrofuran
Concen: 0.042 ppbv
RT: 3.062 min Scan# 918
Delta R.T. 0.019 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

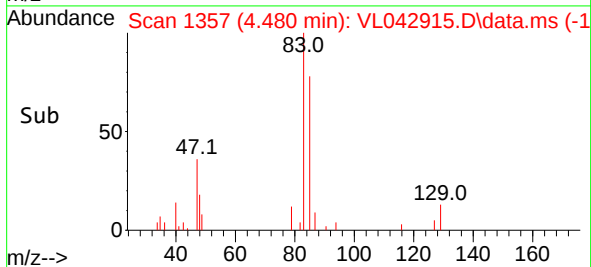
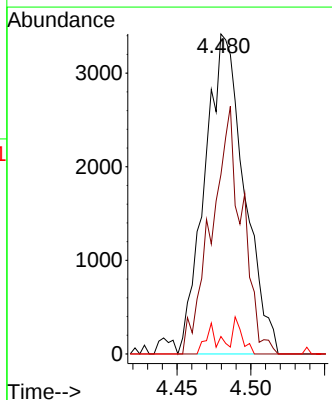
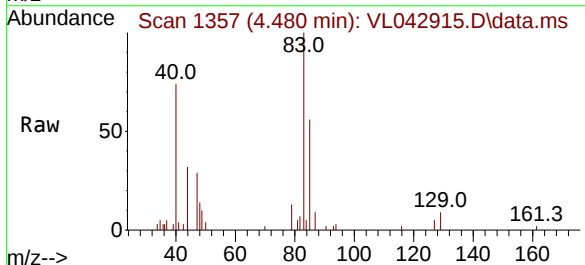
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

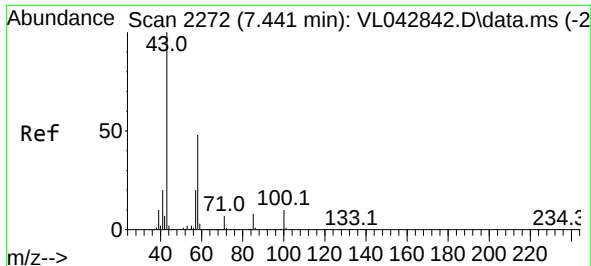
Tgt Ion: 42 Resp: 508
Ion Ratio Lower Upper
42 100
72 20.5 32.6 48.8#
71 13.6 30.0 45.0#



#42
Bromodichloromethane
Concen: 0.267 ppbv
RT: 4.480 min Scan# 1357
Delta R.T. 0.006 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

Tgt Ion: 83 Resp: 6360
Ion Ratio Lower Upper
83 100
85 56.0 49.8 74.8
127 5.4 5.8 8.6#

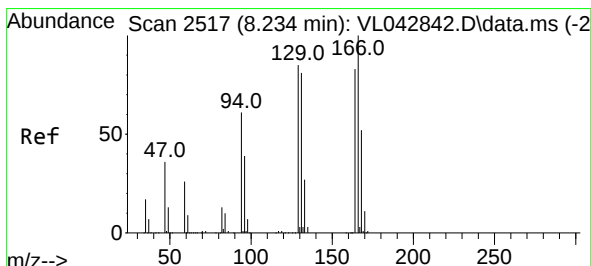
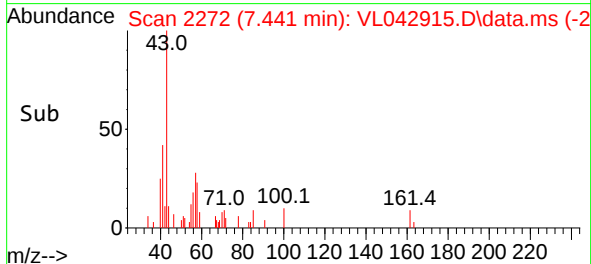
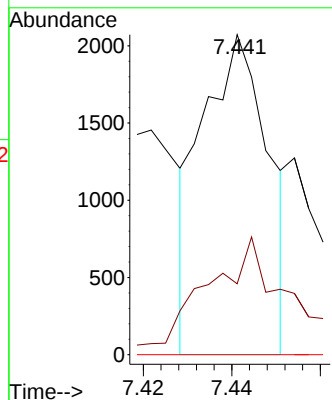
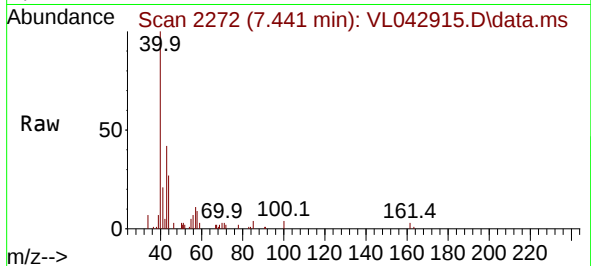




#51
2-Hexanone
Concen: 0.093 ppbv
RT: 7.441 min Scan# 2149
Delta R.T. 0.022 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

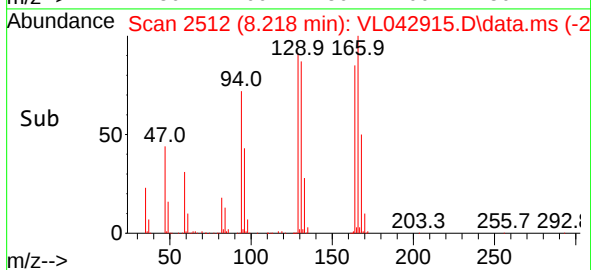
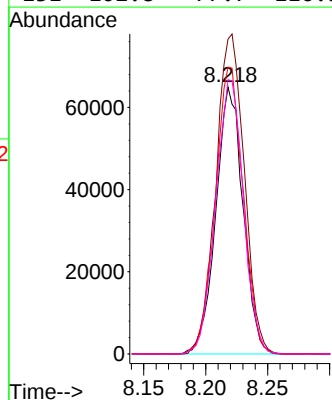
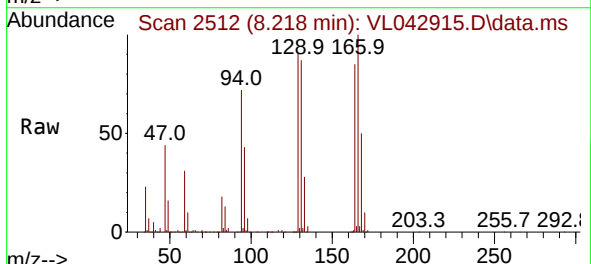
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

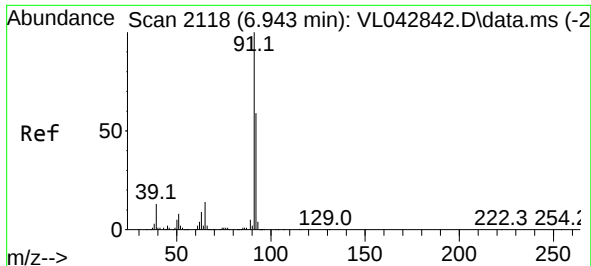
Tgt Ion: 43 Resp: 2149
Ion Ratio Lower Upper
43 100
58 52.9 41.0 61.6
98 0.0 0.1 0.1#



#52
Tetrachloroethene
Concen: 8.953 ppbv
RT: 8.218 min Scan# 2512
Delta R.T. 0.006 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

Tgt Ion:164 Resp: 99264
Ion Ratio Lower Upper
164 100
166 118.1 96.5 144.7
129 107.6 81.8 122.6
131 102.8 77.7 116.5

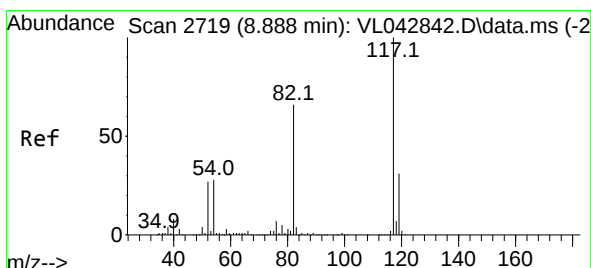
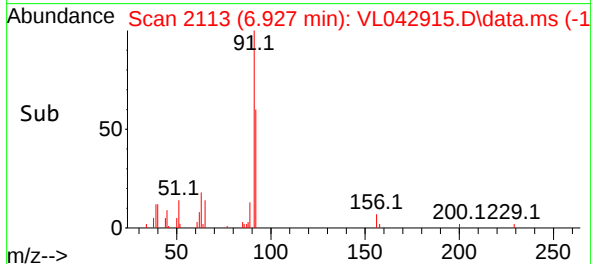
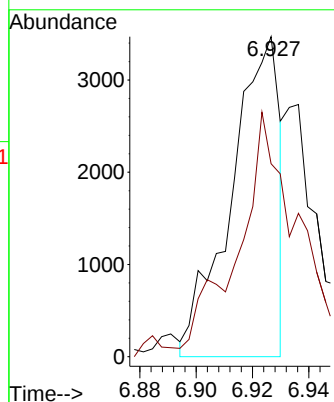
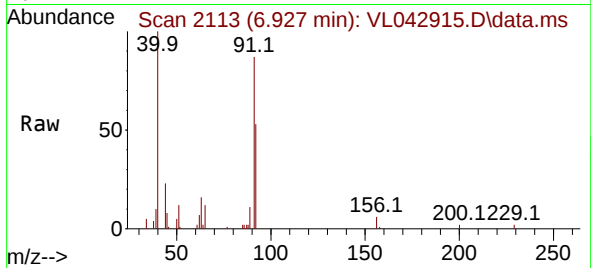




#53
Toluene
Concen: 0.114 ppbv
RT: 6.927 min Scan# 2118
Delta R.T. 0.013 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

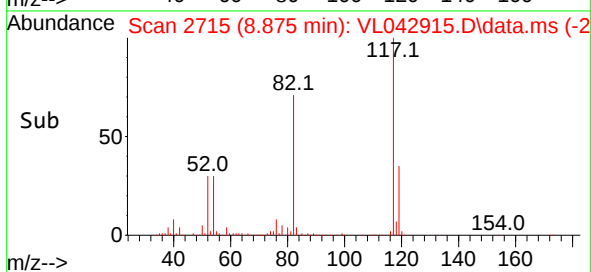
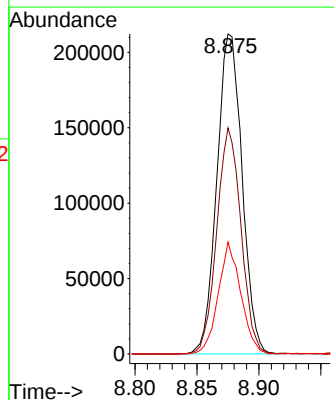
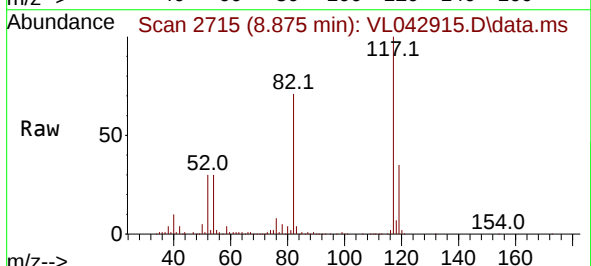
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

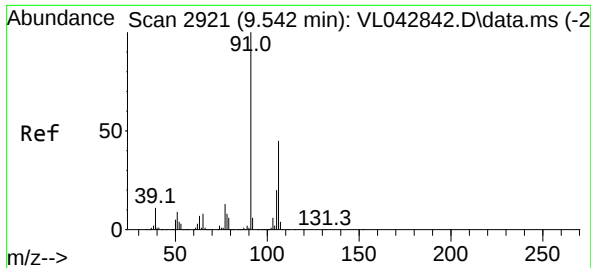
Tgt Ion: 91 Resp: 4149
Ion Ratio Lower Upper
91 100
92 99.6 47.8 71.6#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.875 min Scan# 2715
Delta R.T. 0.006 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

Tgt Ion: 117 Resp: 301432
Ion Ratio Lower Upper
117 100
82 68.0 54.6 81.8
119 31.3 25.9 38.9

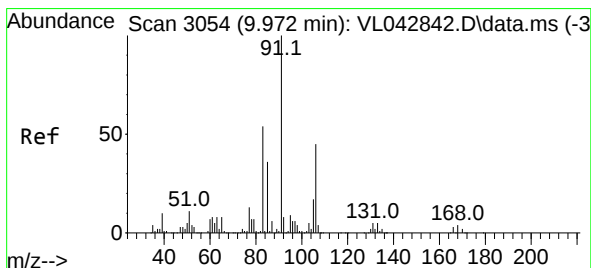
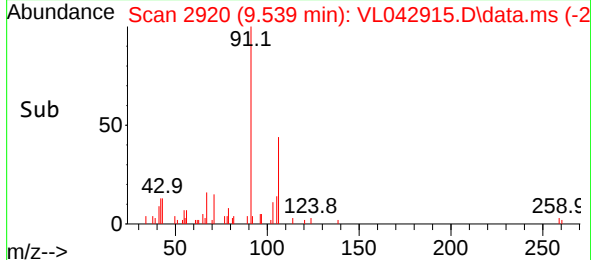
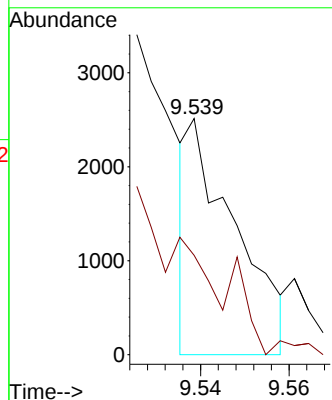
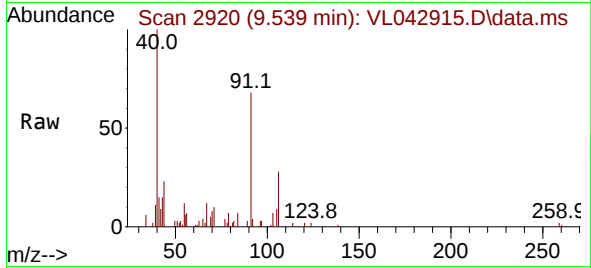




#59
m/p-Xylene
Concen: 0.045 ppbv
RT: 9.539 min Scan# 2921
Delta R.T. -0.000 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

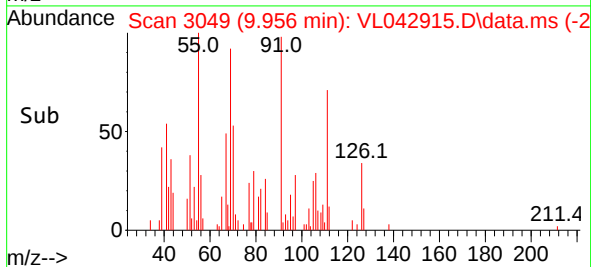
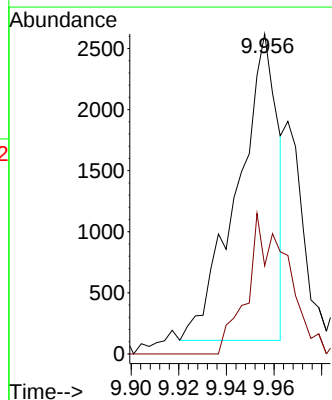
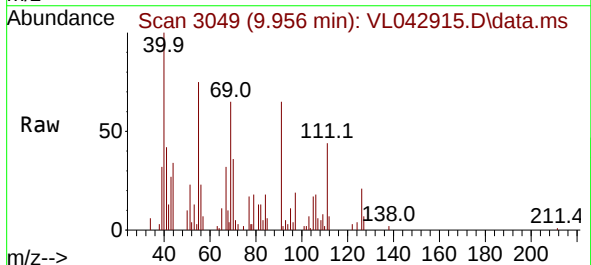
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

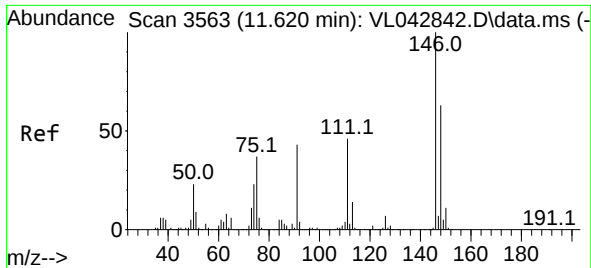
Tgt Ion: 91 Resp: 1872
Ion Ratio Lower Upper
91 100
106 0.0 0.0 0.0



#60
o-Xylene
Concen: 0.070 ppbv
RT: 9.956 min Scan# 3049
Delta R.T. 0.003 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

Tgt Ion: 91 Resp: 2947
Ion Ratio Lower Upper
91 100
106 47.0 21.8 65.4

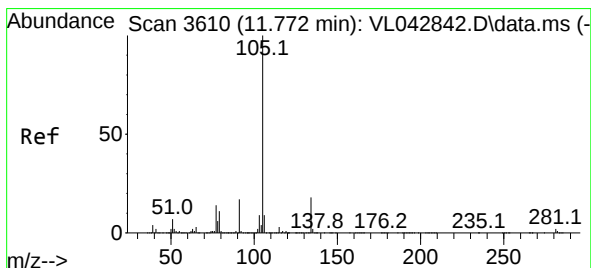
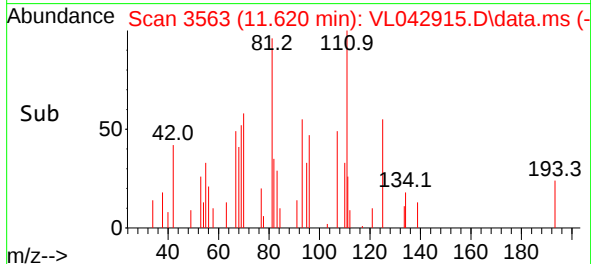
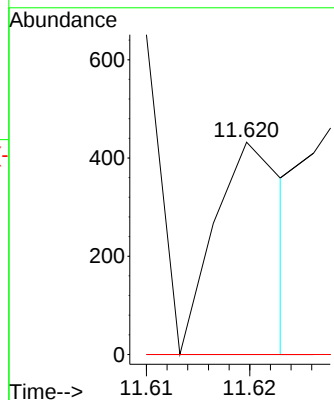
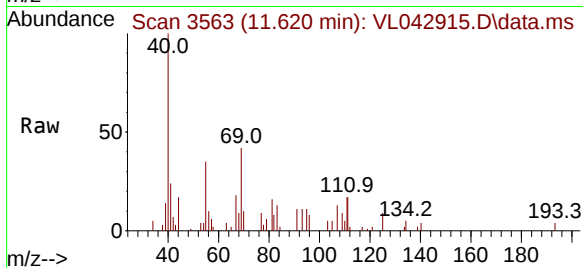




#66
Benzyl Chloride
Concen: 0.030 ppbv
RT: 11.620 min Scan# 311
Delta R.T. 0.013 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

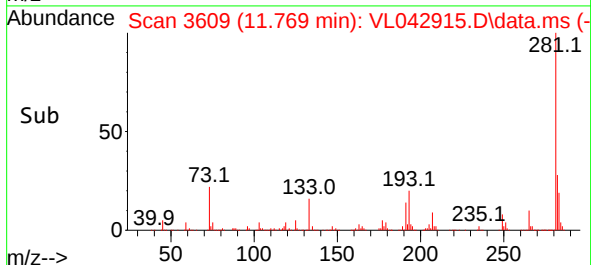
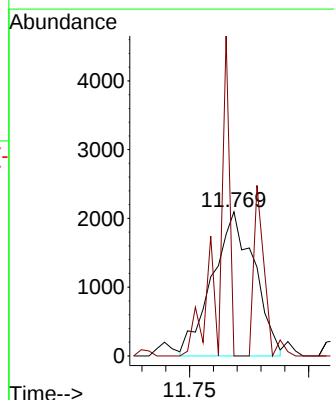
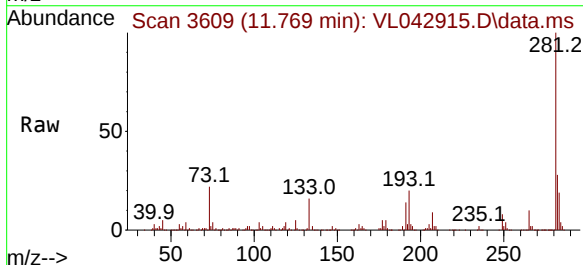
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

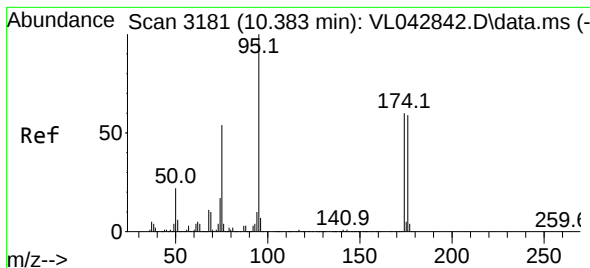
Tgt Ion: 91 Resp: 206
Ion Ratio Lower Upper
91 100
126 0.0 14.2 21.4#
128 0.0 5.0 7.6#



#67
sec-Butylbenzene
Concen: 0.034 ppbv
RT: 11.769 min Scan# 3609
Delta R.T. 0.010 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

Tgt Ion: 105 Resp: 2560
Ion Ratio Lower Upper
105 100
134 30.3 14.9 22.3#

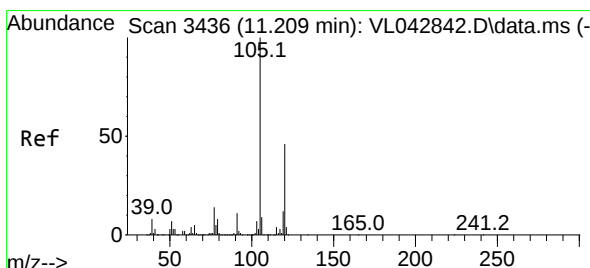
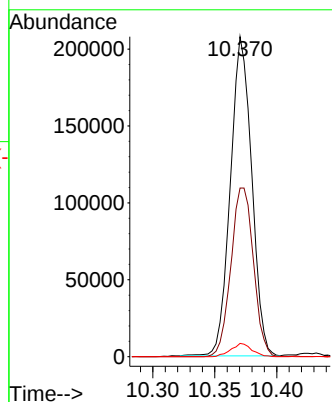
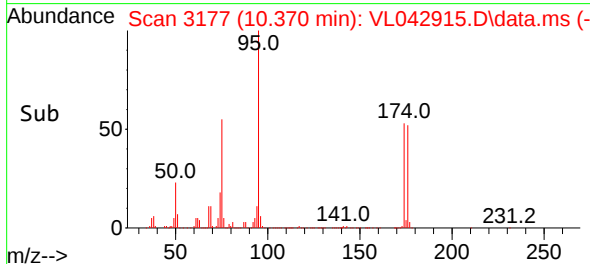
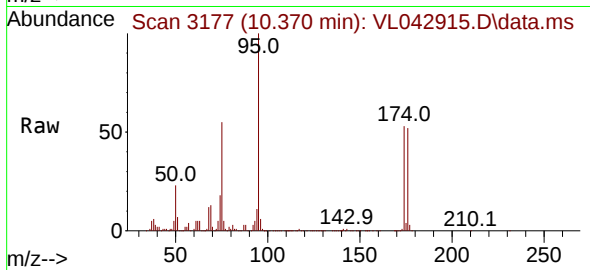




#68
1-Bromo-4-Fluorobenzene
Concen: 11.023 ppbv
RT: 10.370 min Scan# 3181
Delta R.T. 0.006 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

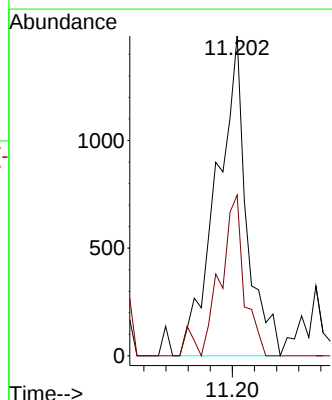
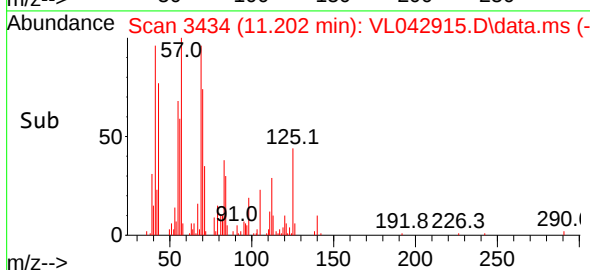
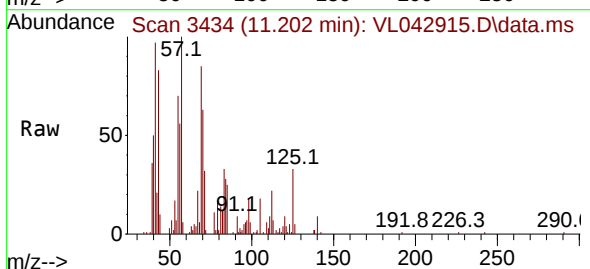
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

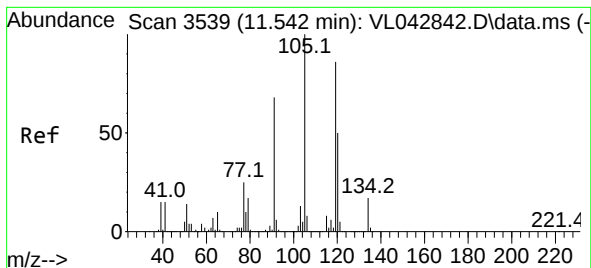
Tgt Ion: 95 Resp: 249201
Ion Ratio Lower Upper
95 100
174 55.9 48.4 72.6
175 4.1 3.8 5.8



#73
1,3,5-Trimethylbenzene
Concen: 0.032 ppbv
RT: 11.202 min Scan# 3434
Delta R.T. 0.006 min
Lab File: VL042915.D
Acq: 08 Sep 2025 22:20

Tgt Ion: 105 Resp: 1400
Ion Ratio Lower Upper
105 100
120 50.2 36.6 54.8





#74

1,2,4-Trimethylbenzene

Concen: 0.040 ppbv

RT: 11.536 min Scan# 3

Delta R.T. 0.006 min

Lab File: VL042915.D

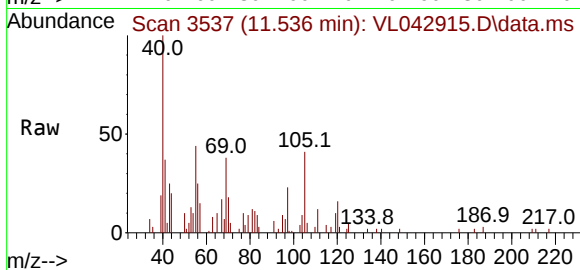
Acq: 08 Sep 2025 22:20

Instrument :

MSVOA_L

ClientSampleId :

SV2DL



Tgt Ion:105 Resp: 1901

Ion Ratio Lower Upper

105 100

120 40.3 39.8 59.6

91 0.0 54.2 81.4#

77 0.5 19.8 29.6#

