

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111325\
 Data File : VL043199.D
 Acq On : 13 Nov 2025 14:47
 Operator : SY/MD
 Sample : Q3627-05 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 UNIT-7-SS-1DL

Quant Time: Nov 14 04:40:23 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL101425AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Oct 15 02:12:58 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.793	49	140657	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.968	114	374439	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.888	117	343535	10.000	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.383	95	234436	8.780	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	87.800%

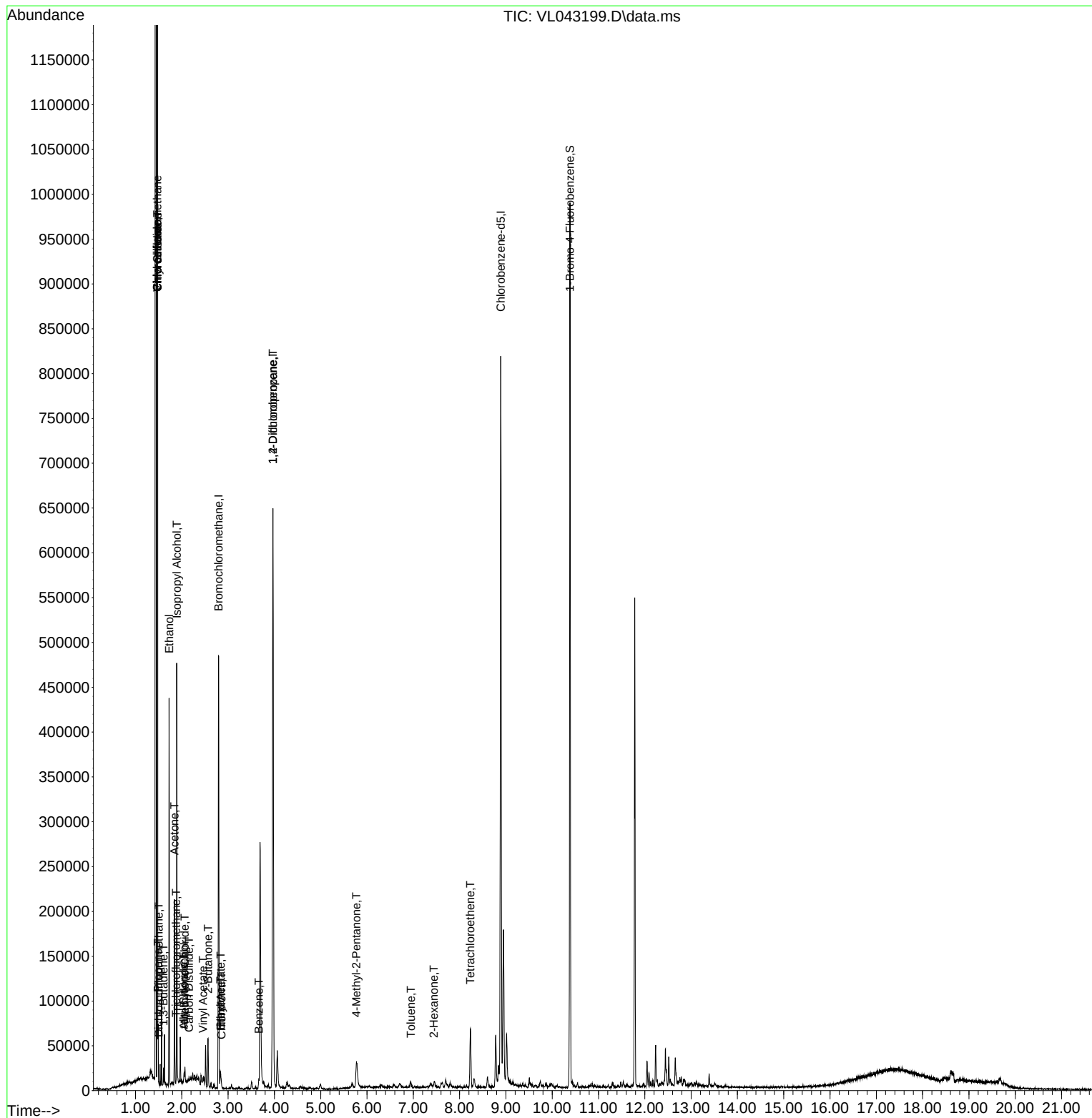
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.502	85	1137	0.057	ppbv #	75
3) Chlorodifluoromethane	1.470	51	2819765	130.332	ppbv #	58
4) Chloromethane	1.473	50	24729	3.122	ppbv #	1
5) Vinyl Chloride	1.470	62	7403	0.953	ppbv #	1
7) Chloroethane	1.470	64	337521	106.247	ppbv	99
9) Propene	1.486	41	8148	0.849	ppbv	98
11) Trichlorofluoromethane	1.881	101	811	0.041	ppbv #	82
13) Ethanol	1.725	45	139693	39.357	ppbv	97
15) Acetone	1.839	43	89656	4.729	ppbv	93
16) 1,3-Butadiene	1.602	39	2295	0.254	ppbv #	34
17) tert-Butyl alcohol	2.049	59	4553	0.175	ppbv	99
19) Isopropyl Alcohol	1.890	45	190045	16.095	ppbv #	38
20) Methylene Chloride	2.065	84	2288	0.305	ppbv #	72
21) Allyl Chloride	2.046	41	1457	0.104	ppbv #	64
23) Vinyl Acetate	2.460	43	3027	0.109	ppbv #	78
25) Ethyl Acetate	2.842	43	7121	0.151	ppbv #	94
26) Hexane	2.832	57	2858	0.132	ppbv #	59
27) Carbon Disulfide	2.156	76	2364	0.119	ppbv #	1
29) Chloroform	2.858	83	1196	0.038	ppbv	97
34) 2-Butanone	2.567	43	35547	1.412	ppbv	98
36) Benzene	3.667	78	5825	0.165	ppbv #	82
39) 1,2-Dichloropropane	3.968	63	95652	7.419	ppbv #	25
50) 4-Methyl-2-Pentanone	5.771	43	14009	0.403	ppbv #	38
51) 2-Hexanone	7.445	43	1335	0.051	ppbv #	27
52) Tetrachloroethene	8.231	164	11745	0.924	ppbv	94
53) Toluene	6.949	91	3246	0.078	ppbv #	59

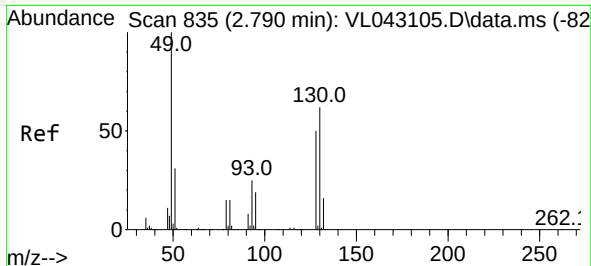
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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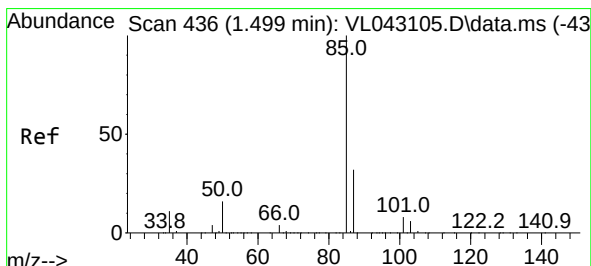
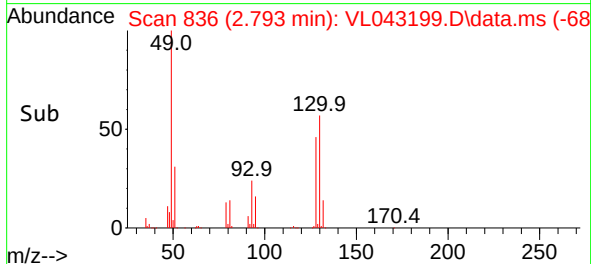
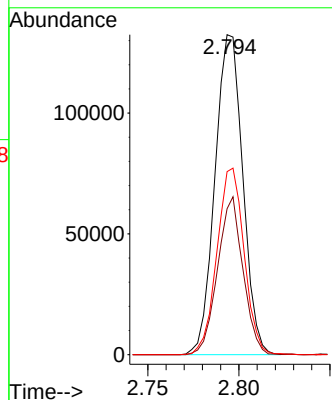
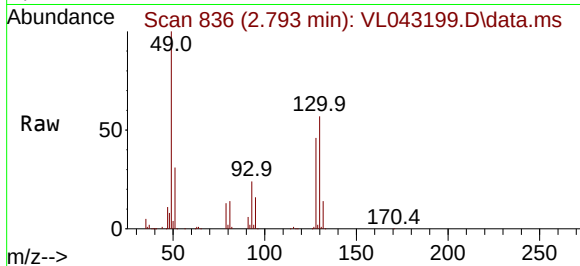




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.793 min Scan# 81
Delta R.T. 0.003 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

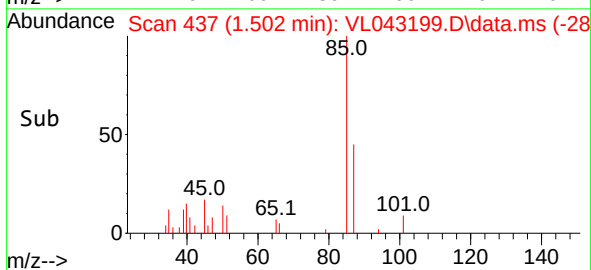
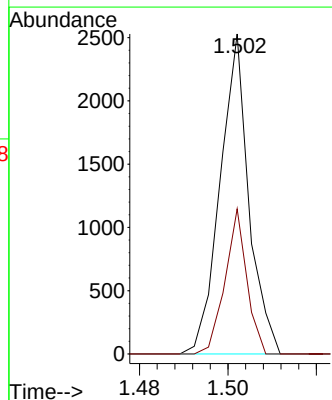
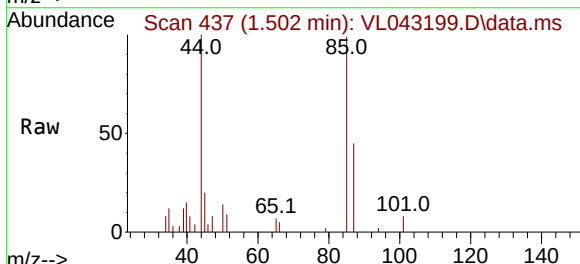
Instrument :
MSVOA_L
ClientSampleId :
UNIT-7-SS-1DL

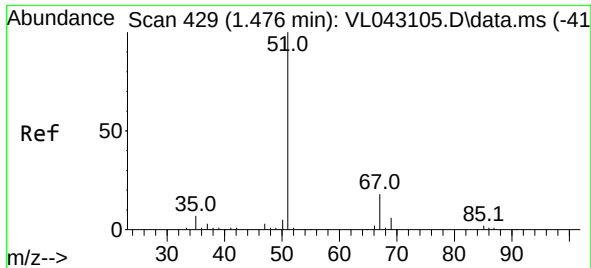
Tgt Ion: 49 Resp: 140657
Ion Ratio Lower Upper
49 100
128 45.0 24.4 73.4
130 57.0 31.0 93.0



#2
Dichlorodifluoromethane
Concen: 0.057 ppbv
RT: 1.502 min Scan# 437
Delta R.T. 0.003 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

Tgt Ion: 85 Resp: 1137
Ion Ratio Lower Upper
85 100
87 45.4 25.3 37.9#

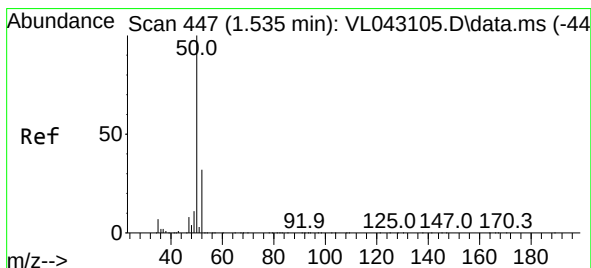
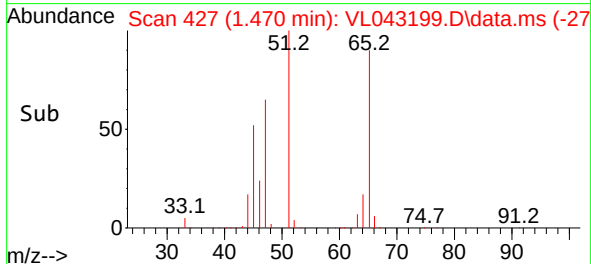
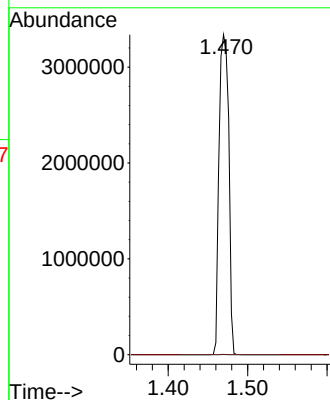
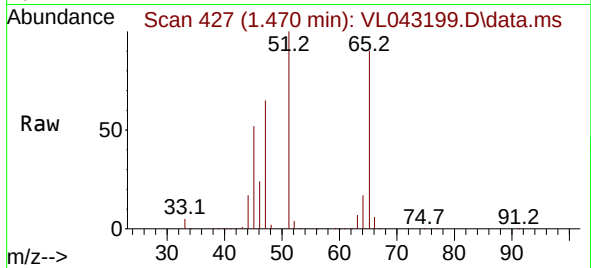




#3
Chlorodifluoromethane
Concen: 130.332 ppbv
RT: 1.470 min Scan# 41
Delta R.T. -0.007 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

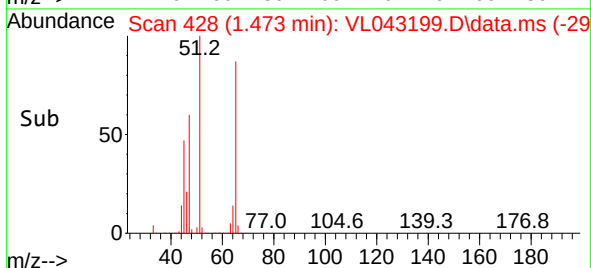
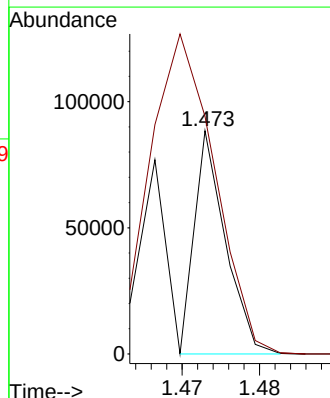
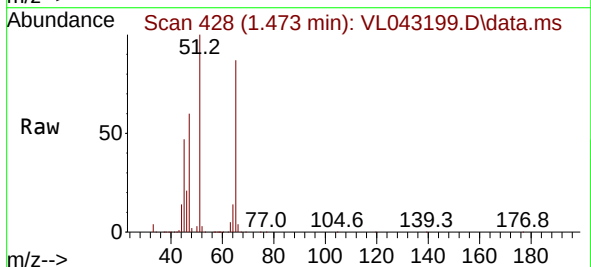
Instrument :
MSVOA_L
ClientSampleId :
UNIT-7-SS-1DL

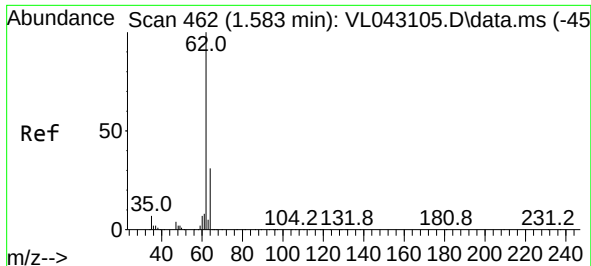
Tgt Ion: 51 Resp: 2819765
Ion Ratio Lower Upper
51 100
67 0.1 15.1 22.7#



#4
Chloromethane
Concen: 3.122 ppbv
RT: 1.473 min Scan# 428
Delta R.T. -0.062 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

Tgt Ion: 50 Resp: 24729
Ion Ratio Lower Upper
50 100
52 106.0 25.2 37.8#

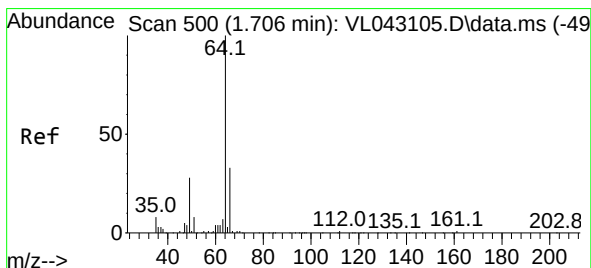
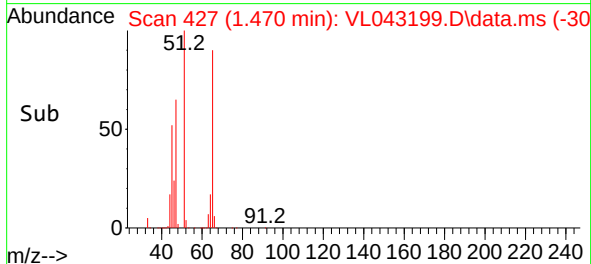
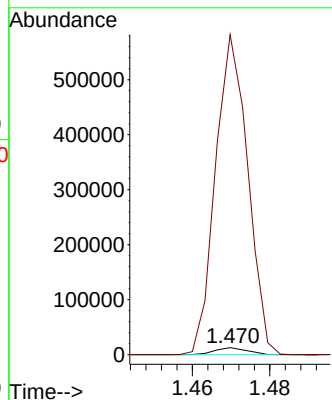
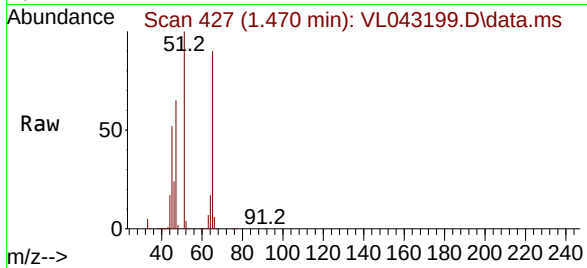




#5
 Vinyl Chloride
 Concen: 0.953 ppbv
 RT: 1.470 min Scan# 41
 Delta R.T. -0.113 min
 Lab File: VL043199.D
 Acq: 13 Nov 2025 14:47

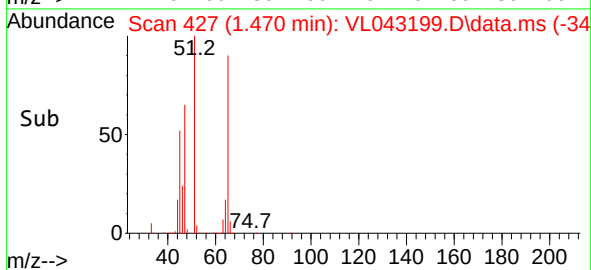
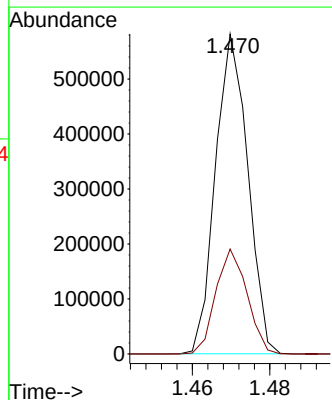
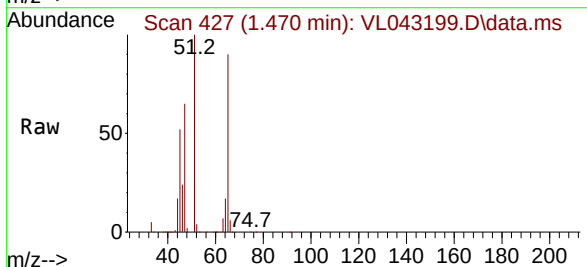
Instrument :
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 UNIT-7-SS-1DL

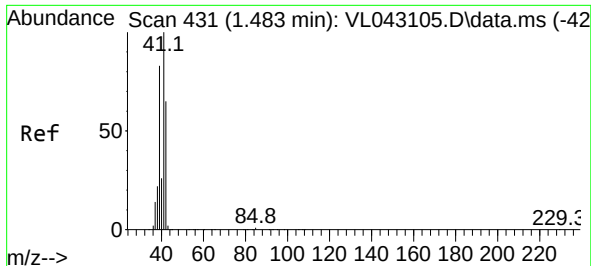
Tgt Ion: 62 Resp: 7403
 Ion Ratio Lower Upper
 62 100
 64 4538.0 24.6 36.8#



#7
 Chloroethane
 Concen: 106.247 ppbv
 RT: 1.470 min Scan# 427
 Delta R.T. -0.236 min
 Lab File: VL043199.D
 Acq: 13 Nov 2025 14:47

Tgt Ion: 64 Resp: 337521
 Ion Ratio Lower Upper
 64 100
 66 32.8 26.0 39.0





#9

Propene

Concen: 0.849 ppbv

RT: 1.486 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL043199.D

Acq: 13 Nov 2025 14:47

Instrument :

MSVOA_L

ClientSampleId :

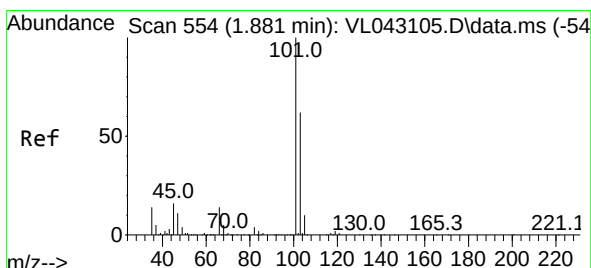
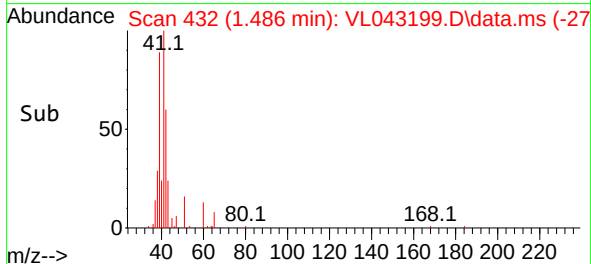
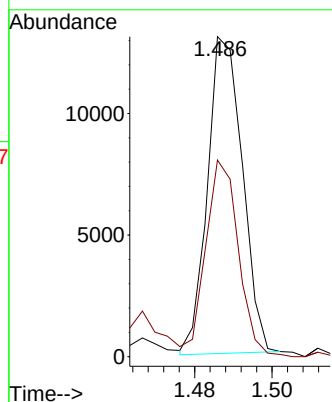
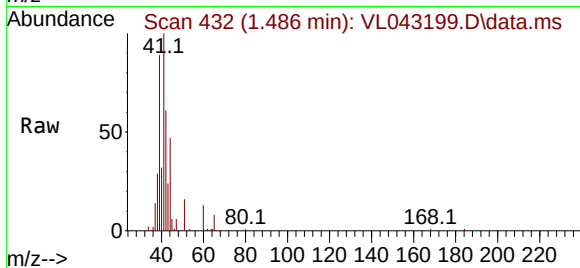
UNIT-7-SS-1DL

Tgt Ion: 41 Resp: 8148

Ion Ratio Lower Upper

41 100

42 70.7 55.1 82.7



#11

Trichlorofluoromethane

Concen: 0.041 ppbv

RT: 1.881 min Scan# 554

Delta R.T. -0.000 min

Lab File: VL043199.D

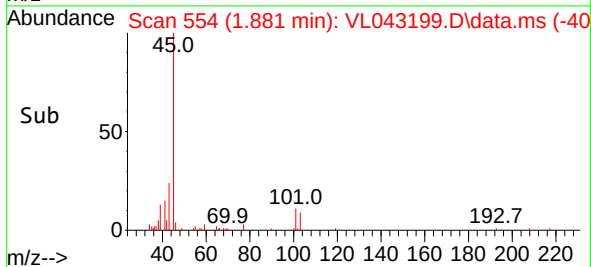
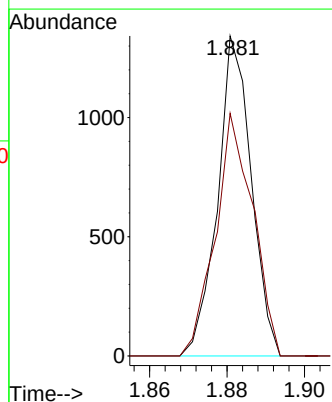
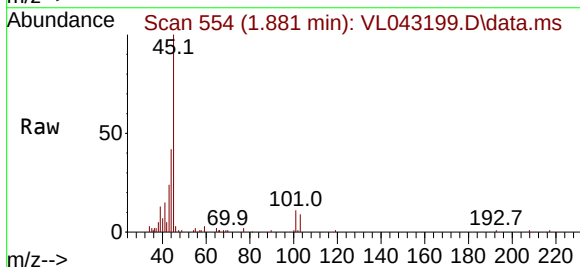
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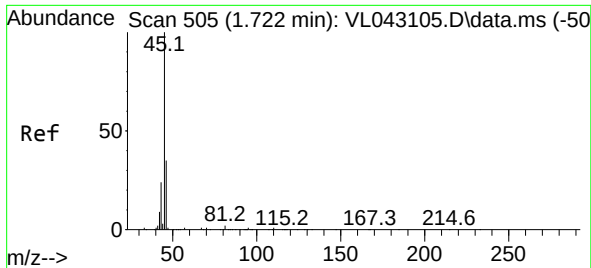
Tgt Ion:101 Resp: 811

Ion Ratio Lower Upper

101 100

103 75.8 49.3 73.9#





#13

Ethanol

Concen: 39.357 ppbv

RT: 1.725 min Scan# 505

Delta R.T. 0.003 min

Lab File: VL043199.D

Acq: 13 Nov 2025 14:47

Instrument :

MSVOA_L

ClientSampleId :

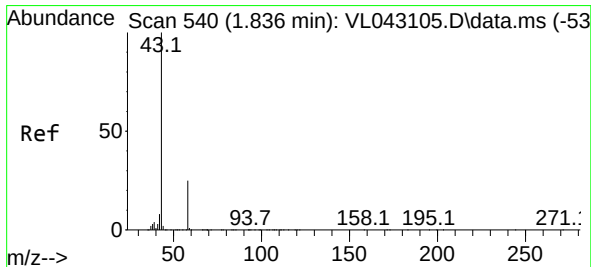
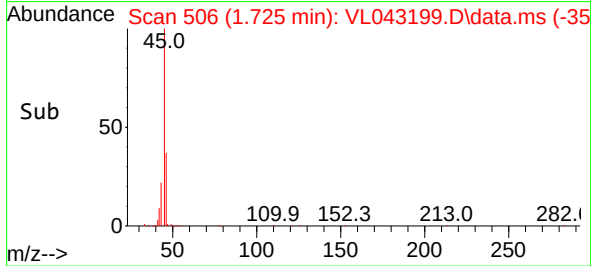
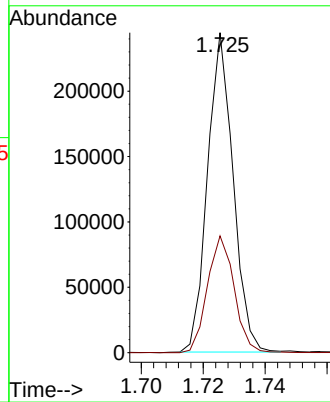
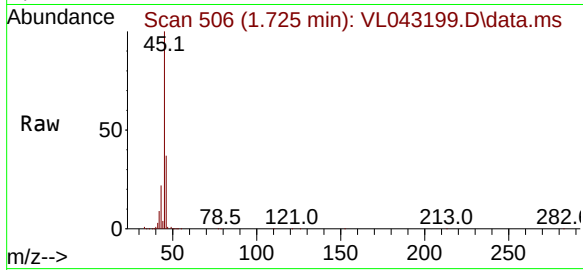
UNIT-7-SS-1DL

Tgt Ion: 45 Resp: 139693

Ion Ratio Lower Upper

45 100

46 38.4 14.7 58.9



#15

Acetone

Concen: 4.729 ppbv

RT: 1.839 min Scan# 541

Delta R.T. 0.003 min

Lab File: VL043199.D

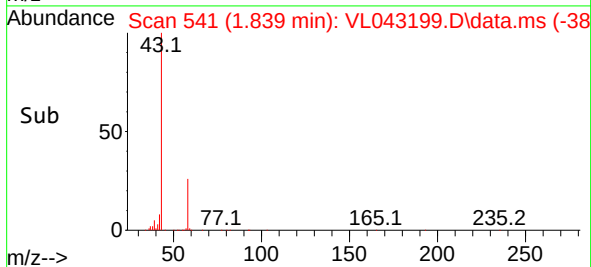
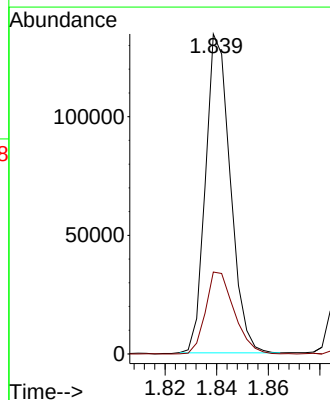
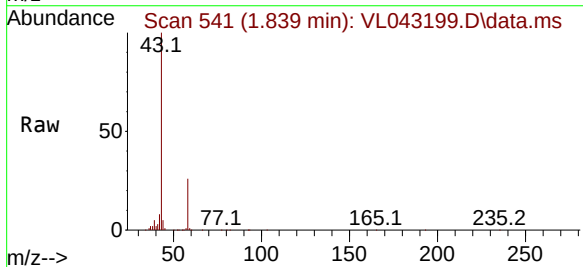
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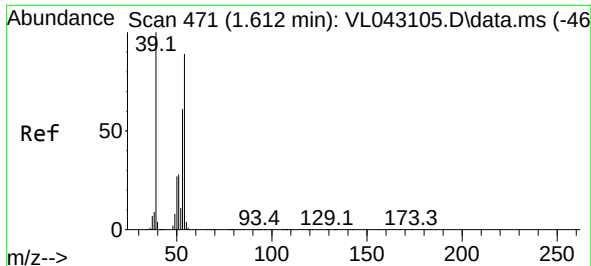
Tgt Ion: 43 Resp: 89656

Ion Ratio Lower Upper

43 100

58 29.6 20.8 31.2

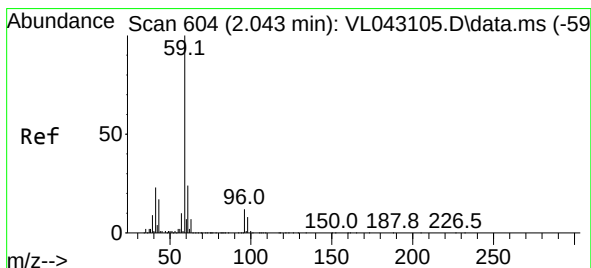
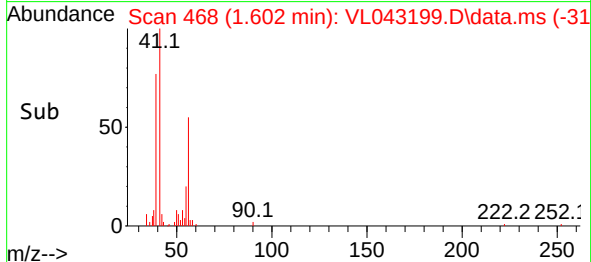
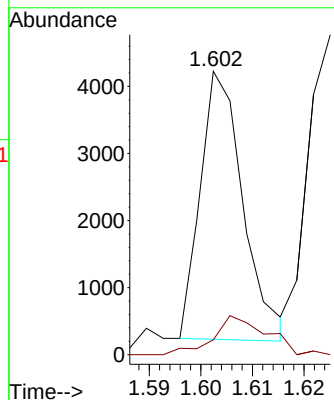
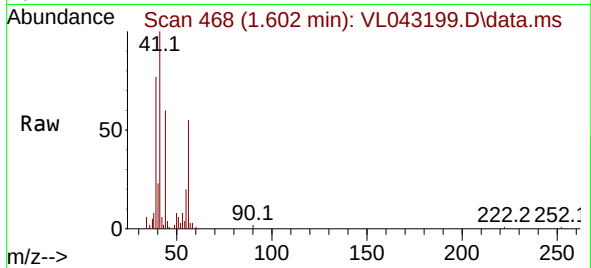




#16
1,3-Butadiene
Concen: 0.254 ppbv
RT: 1.602 min Scan# 41
Delta R.T. -0.010 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

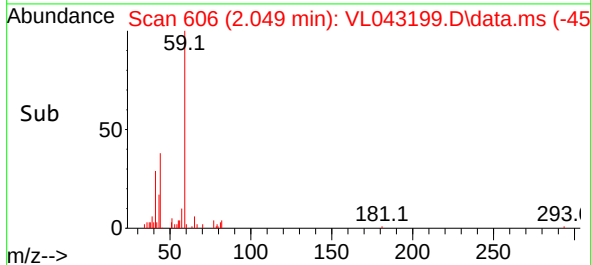
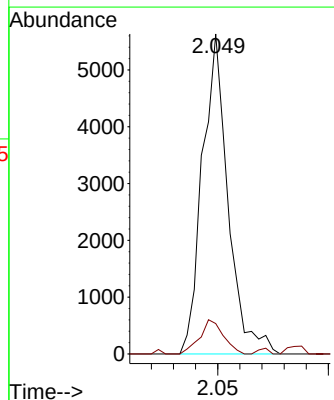
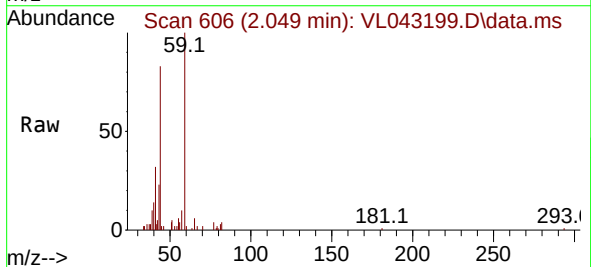
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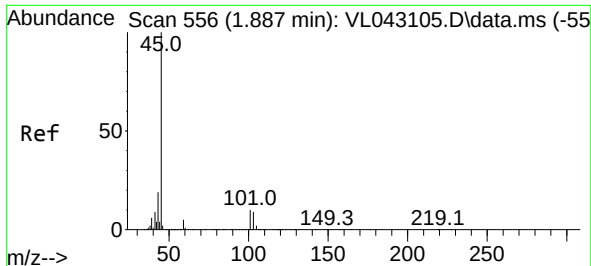
Tgt Ion: 39 Resp: 2295
Ion Ratio Lower Upper
39 100
54 18.1 59.0 88.4#



#17
tert-Butyl alcohol
Concen: 0.175 ppbv
RT: 2.049 min Scan# 606
Delta R.T. 0.006 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

Tgt Ion: 59 Resp: 4553
Ion Ratio Lower Upper
59 100
57 10.8 8.2 12.4

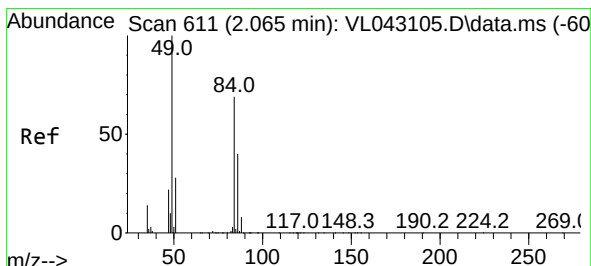
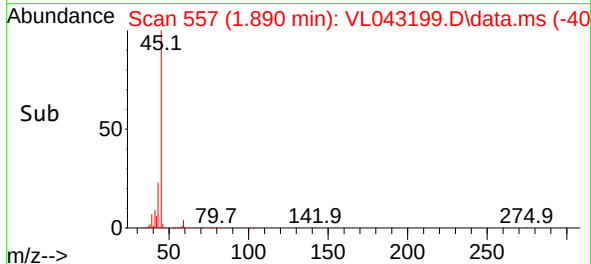
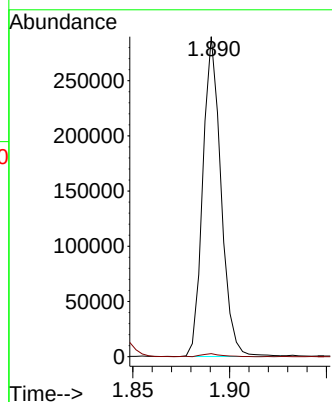
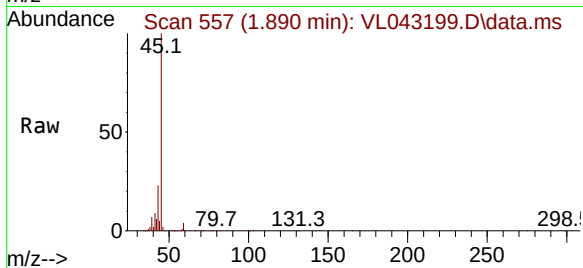




#19
Isopropyl Alcohol
Concen: 16.095 ppbv
RT: 1.890 min Scan# 556
Delta R.T. 0.003 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

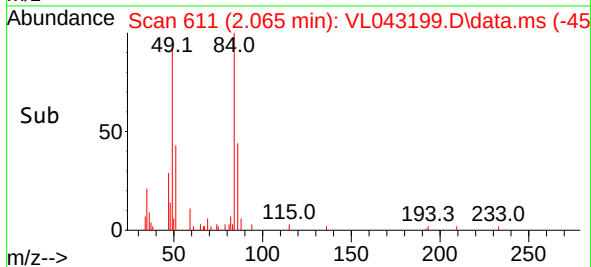
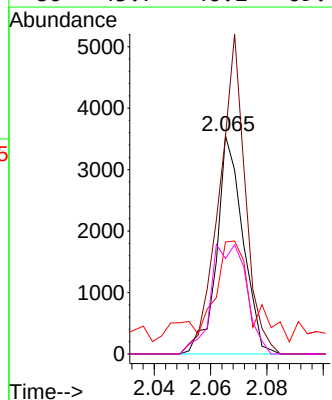
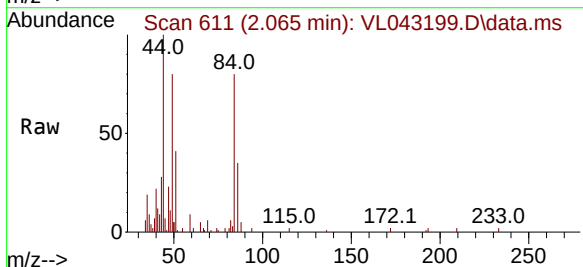
Instrument :
MSVOA_L
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UNIT-7-SS-1DL

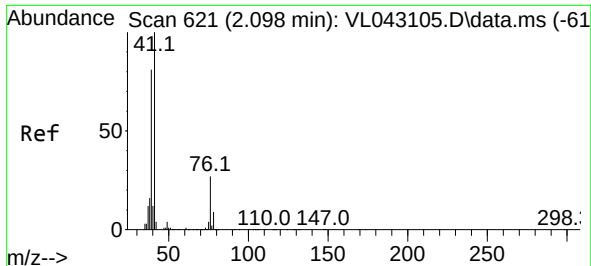
Tgt Ion: 45 Resp: 190045
Ion Ratio Lower Upper
45 100
58 1.1 31.3 46.9#



#20
Methylene Chloride
Concen: 0.305 ppbv
RT: 2.065 min Scan# 611
Delta R.T. -0.000 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

Tgt Ion: 84 Resp: 2288
Ion Ratio Lower Upper
84 100
49 99.4 116.6 175.0#
51 37.0 34.8 52.2
86 43.7 46.2 69.4#

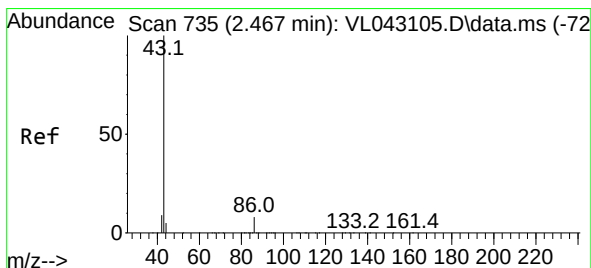
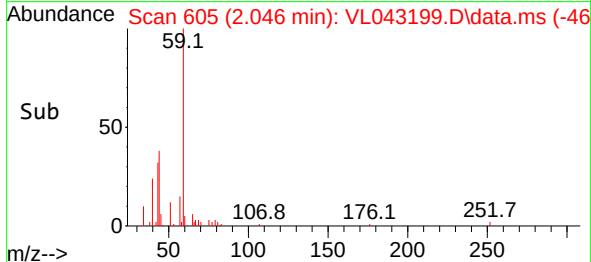
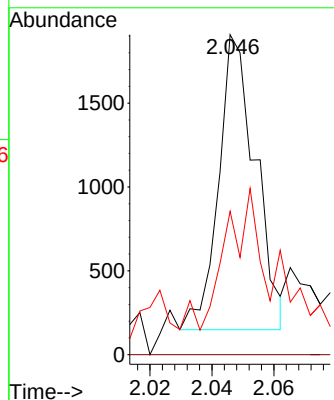
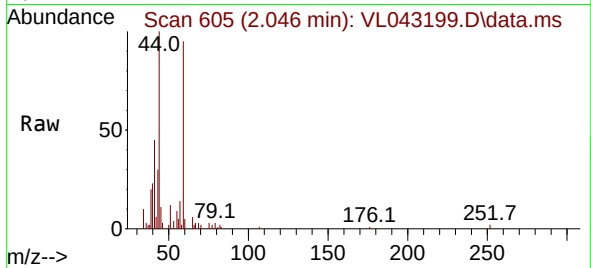




#21
 Allyl Chloride
 Concen: 0.104 ppbv
 RT: 2.046 min Scan# 605
 Delta R.T. -0.052 min
 Lab File: VL043199.D
 Acq: 13 Nov 2025 14:47

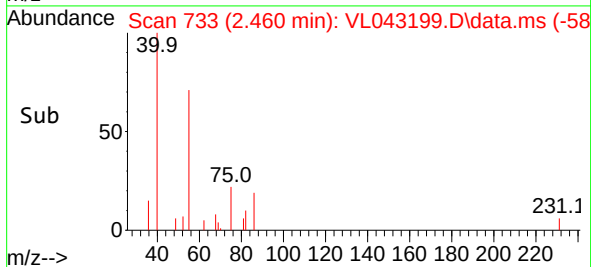
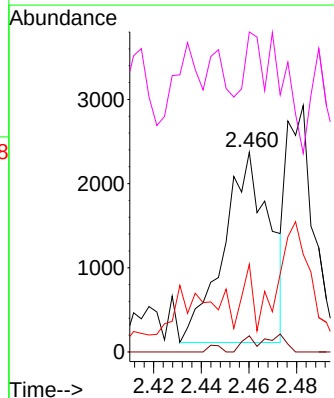
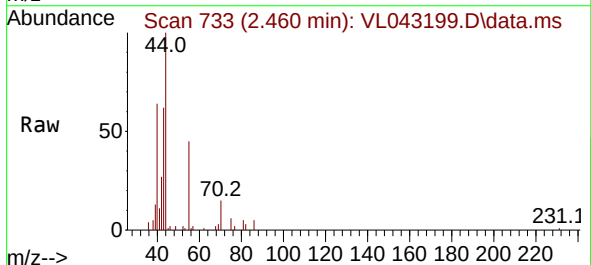
Instrument :
 MSVOA_1
 ClientSampleId :
 UNIT-7-SS-1DL

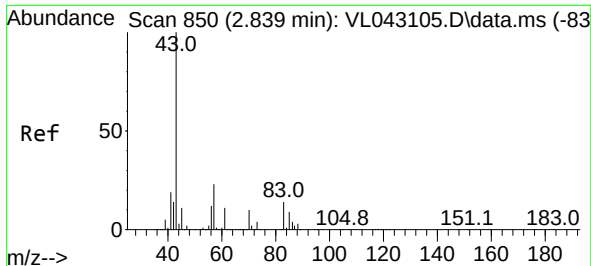
Tgt Ion: 41 Resp: 1457
 Ion Ratio Lower Upper
 41 100
 76 0.0 21.5 32.3#
 39 50.4 60.8 91.2#



#23
 Vinyl Acetate
 Concen: 0.109 ppbv
 RT: 2.460 min Scan# 733
 Delta R.T. -0.007 min
 Lab File: VL043199.D
 Acq: 13 Nov 2025 14:47

Tgt Ion: 43 Resp: 3027
 Ion Ratio Lower Upper
 43 100
 86 8.5 6.2 9.2
 42 11.1 7.6 11.4
 44 33.1 4.2 6.4#

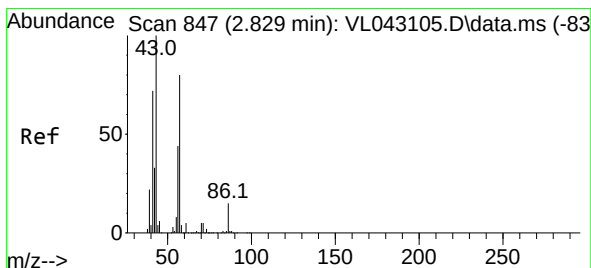
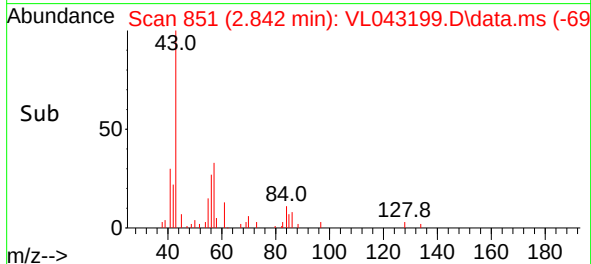
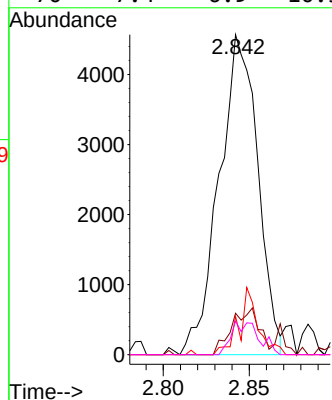
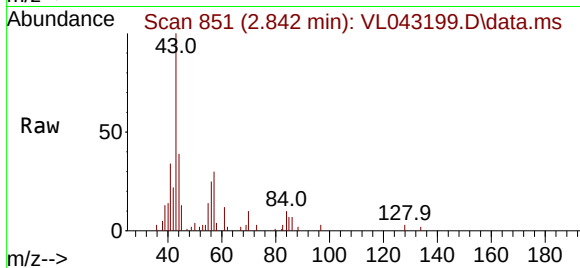




#25
Ethyl Acetate
Concen: 0.151 ppbv
RT: 2.842 min Scan# 851
Delta R.T. 0.003 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

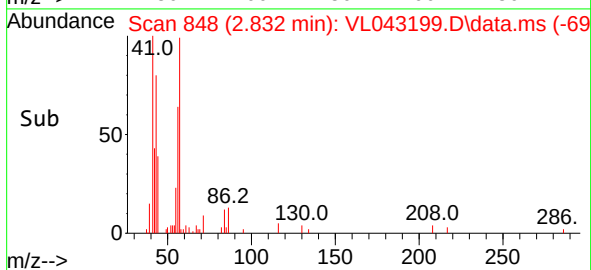
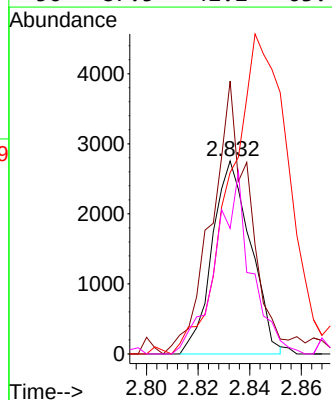
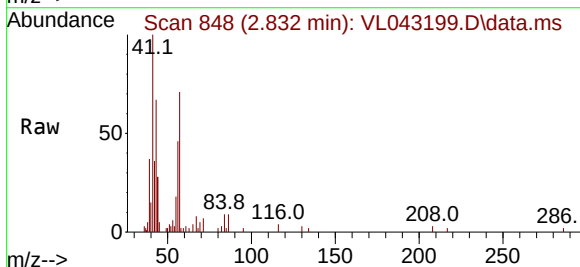
Instrument :
MSVOA_L
ClientSampleId :
UNIT-7-SS-1DL

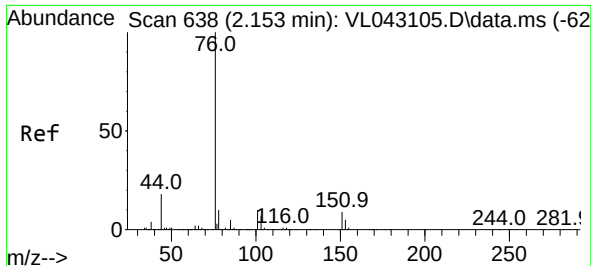
Tgt Ion: 43	Resp: 7121
Ion Ratio	Lower Upper
43 100	
45 13.7	7.8 11.8#
61 10.4	7.0 10.6
70 7.4	6.9 10.3



#26
Hexane
Concen: 0.132 ppbv
RT: 2.832 min Scan# 848
Delta R.T. 0.003 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

Tgt Ion: 57	Resp: 2858
Ion Ratio	Lower Upper
57 100	
41 154.4	71.4 107.0#
43 268.3	178.5 267.7#
56 87.5	42.2 63.4#

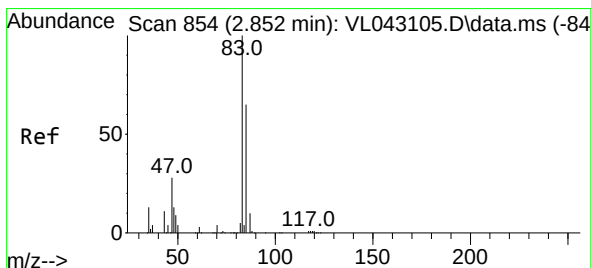
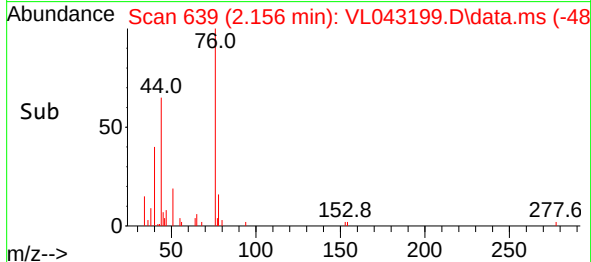
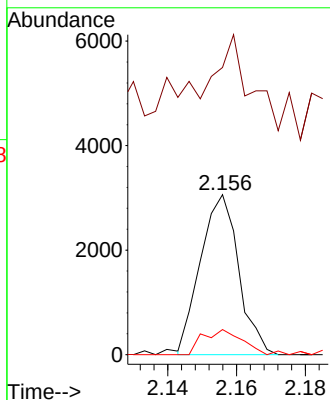
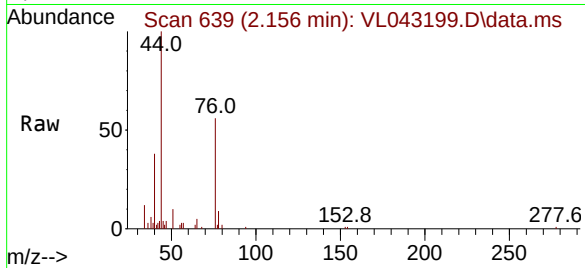




#27
Carbon Disulfide
Concen: 0.119 ppbv
RT: 2.156 min Scan# 61
Delta R.T. 0.003 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

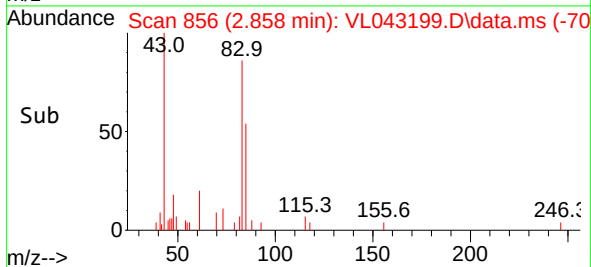
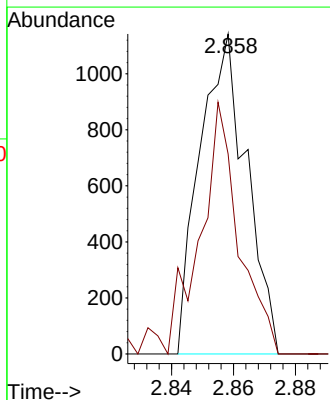
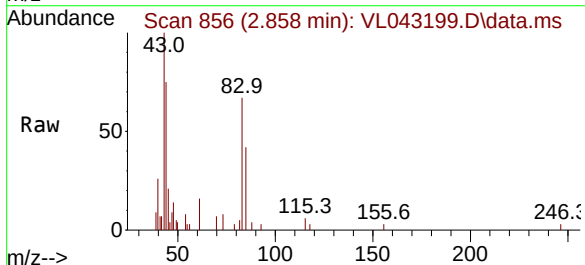
Instrument :
MSVOA_L
ClientSampleId :
UNIT-7-SS-1DL

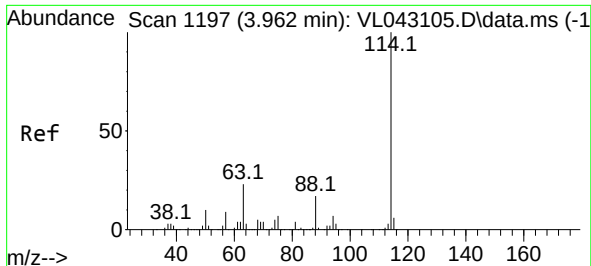
Tgt Ion: 76 Resp: 2364
Ion Ratio Lower Upper
76 100
44 113.7 16.7 25.1#
78 17.7 9.3 13.9#



#29
Chloroform
Concen: 0.038 ppbv
RT: 2.858 min Scan# 856
Delta R.T. 0.006 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

Tgt Ion: 83 Resp: 1196
Ion Ratio Lower Upper
83 100
85 62.5 51.8 77.6





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.968 min Scan# 1199

Delta R.T. 0.006 min

Lab File: VL043199.D

Acq: 13 Nov 2025 14:47

Instrument :

MSVOA_L

ClientSampleId :

UNIT-7-SS-1DL

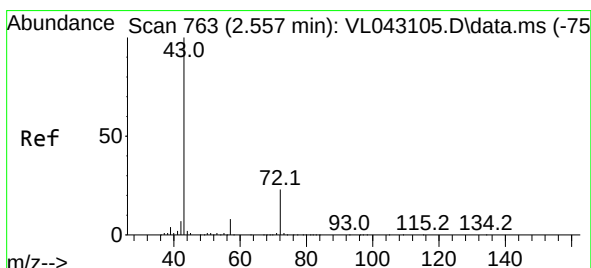
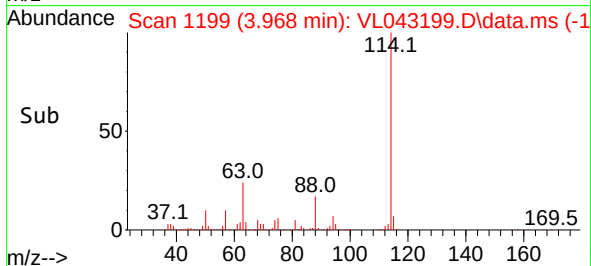
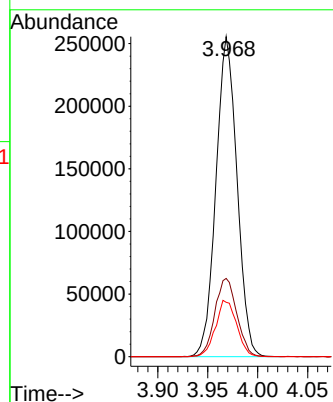
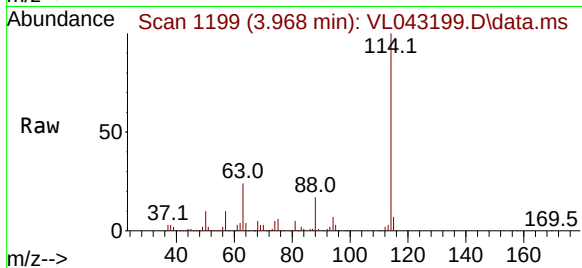
Tgt Ion:114 Resp: 374439

Ion Ratio Lower Upper

114 100

63 25.6 19.3 28.9

88 17.7 13.9 20.9



#34

2-Butanone

Concen: 1.412 ppbv

RT: 2.567 min Scan# 766

Delta R.T. 0.010 min

Lab File: VL043199.D

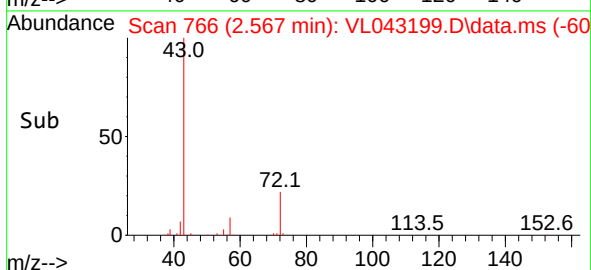
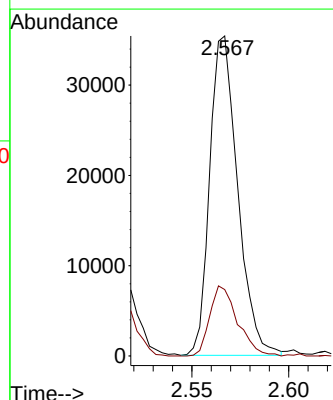
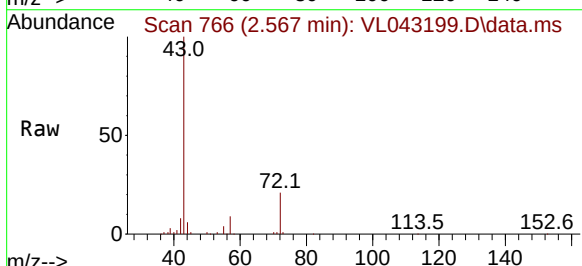
Acq: 13 Nov 2025 14:47

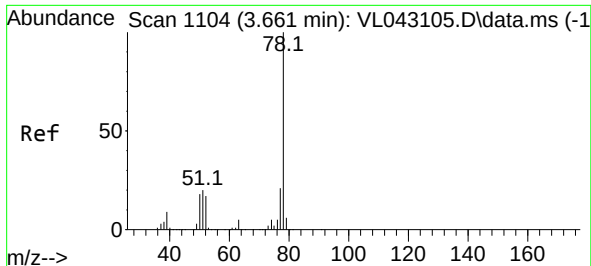
Tgt Ion: 43 Resp: 35547

Ion Ratio Lower Upper

43 100

72 22.1 18.4 27.6

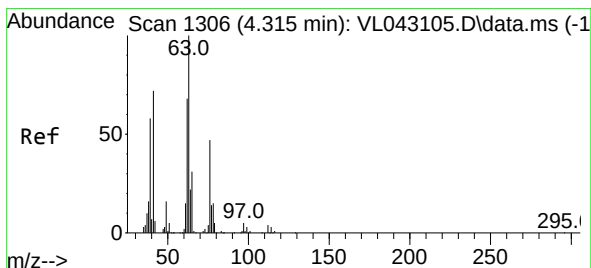
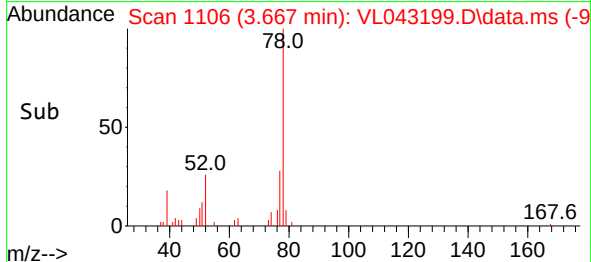
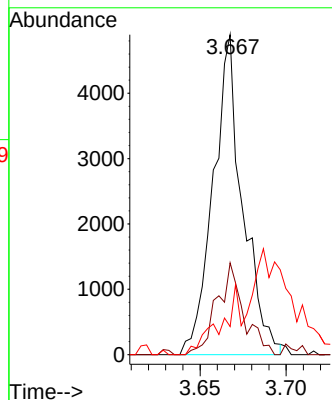
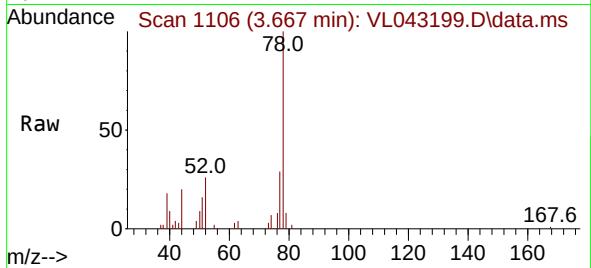




#36
Benzene
Concen: 0.165 ppbv
RT: 3.667 min Scan# 1106
Delta R.T. 0.006 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

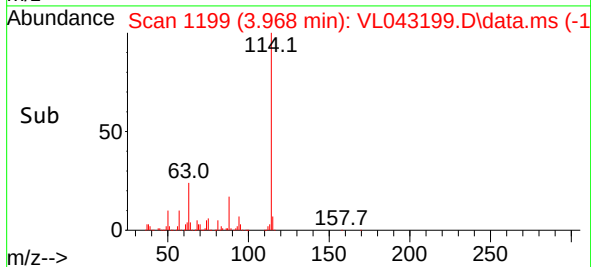
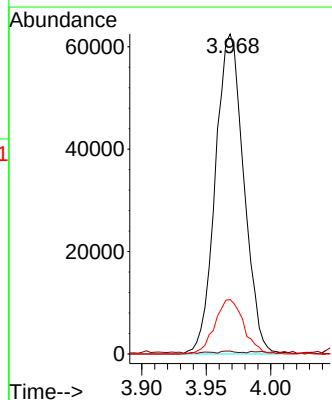
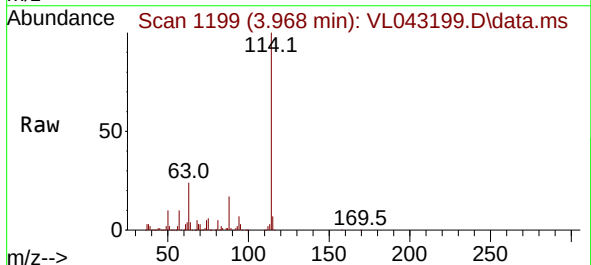
Instrument :
MSVOA_L
ClientSampleId :
UNIT-7-SS-1DL

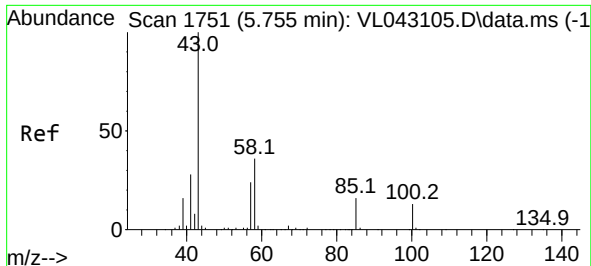
Tgt Ion: 78 Resp: 5825
Ion Ratio Lower Upper
78 100
77 28.7 17.0 25.6#
50 8.8 14.6 22.0#



#39
1,2-Dichloropropane
Concen: 7.419 ppbv
RT: 3.968 min Scan# 1199
Delta R.T. -0.346 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

Tgt Ion: 63 Resp: 95652
Ion Ratio Lower Upper
63 100
41 0.4 58.0 87.0#
62 17.0 54.7 82.1#

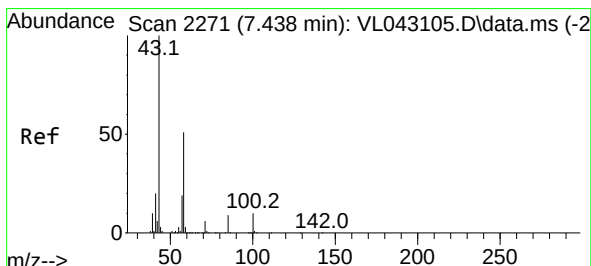
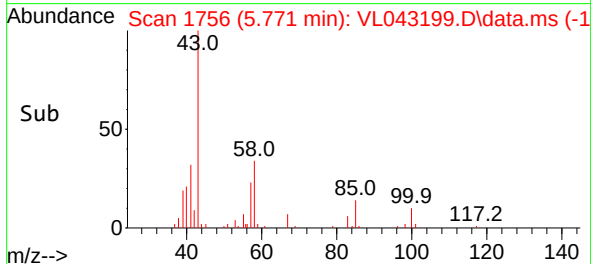
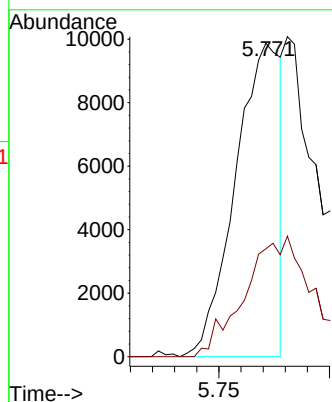
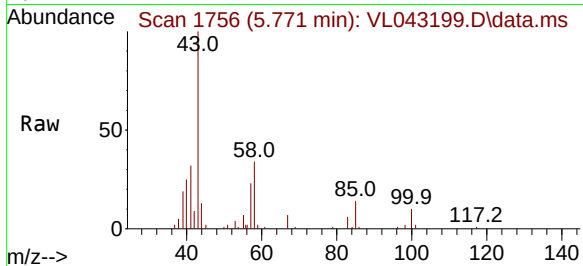




#50
4-Methyl-2-Pentanone
Concen: 0.403 ppbv
RT: 5.771 min Scan# 11
Delta R.T. 0.016 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

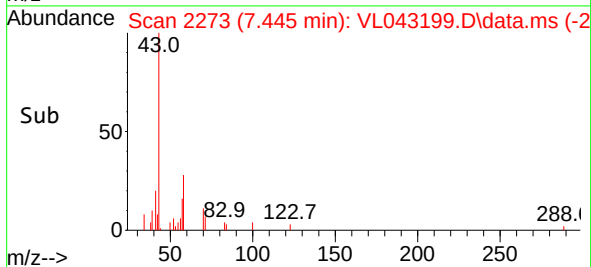
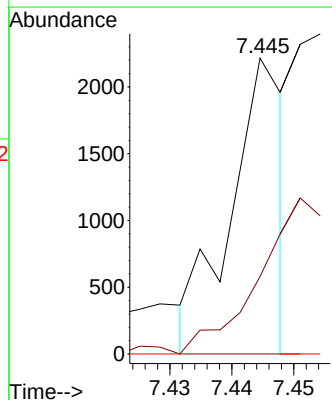
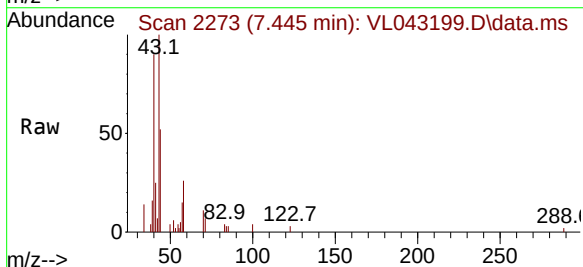
Instrument :
MSVOA_L
ClientSampleId :
UNIT-7-SS-1DL

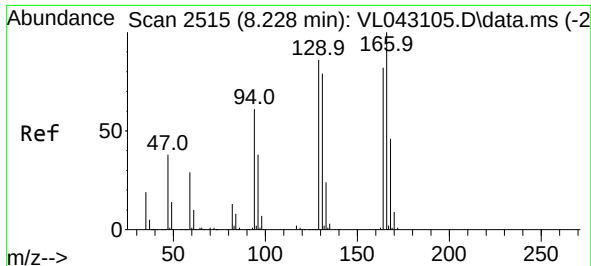
Tgt Ion: 43 Resp: 14009
Ion Ratio Lower Upper
43 100
58 0.0 29.1 43.7#



#51
2-Hexanone
Concen: 0.051 ppbv
RT: 7.445 min Scan# 2273
Delta R.T. 0.006 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

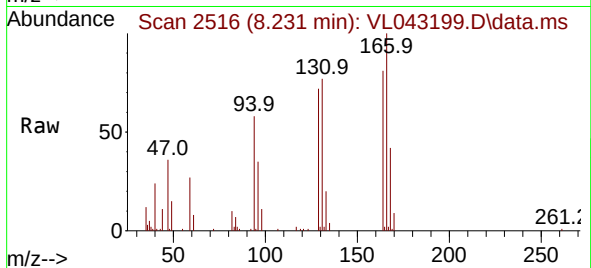
Tgt Ion: 43 Resp: 1335
Ion Ratio Lower Upper
43 100
58 0.0 40.4 60.6#
98 0.0 0.1 0.1#



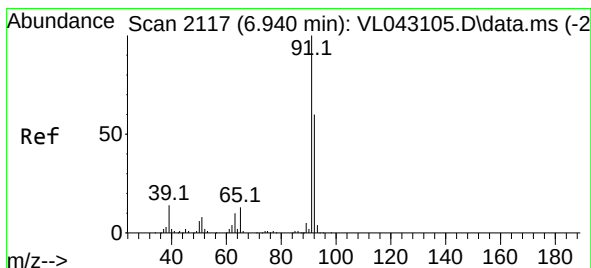
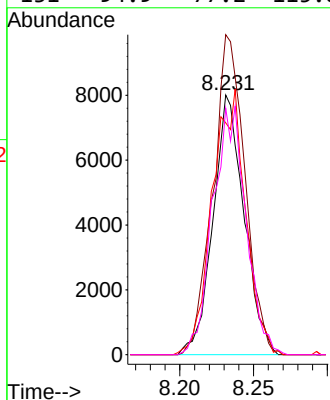
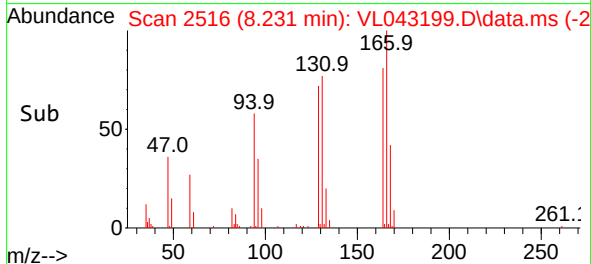


#52
Tetrachloroethene
Concen: 0.924 ppbv
RT: 8.231 min Scan# 2117
Delta R.T. 0.003 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

Instrument :
MSVOA_L
ClientSampleId :
UNIT-7-SS-1DL

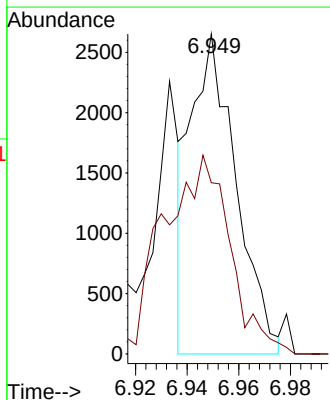
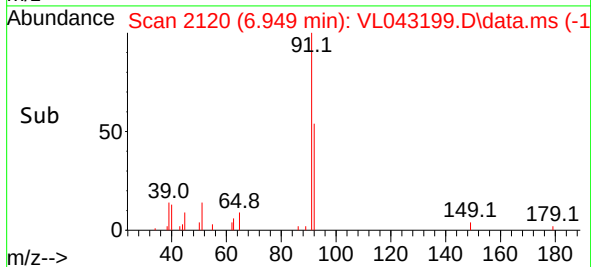
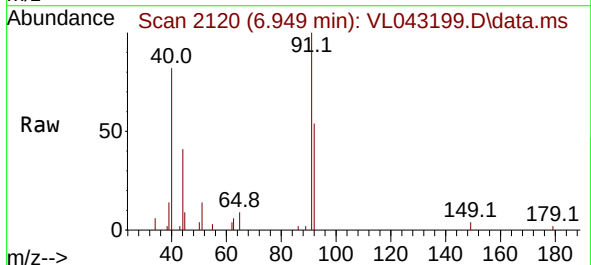


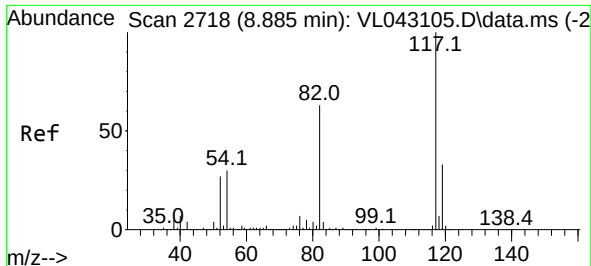
Tgt Ion:	164	Resp:	11745
Ion	Ratio	Lower	Upper
164	100		
166	123.3	97.6	146.4
129	90.5	84.5	126.7
131	94.9	77.2	115.8



#53
Toluene
Concen: 0.078 ppbv
RT: 6.949 min Scan# 2120
Delta R.T. 0.010 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

Tgt Ion:	91	Resp:	3246
Ion	Ratio	Lower	Upper
91	100		
92	91.9	48.8	73.2#

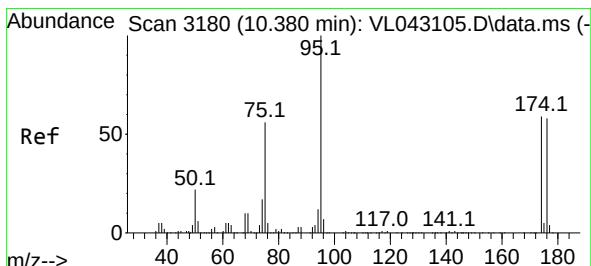
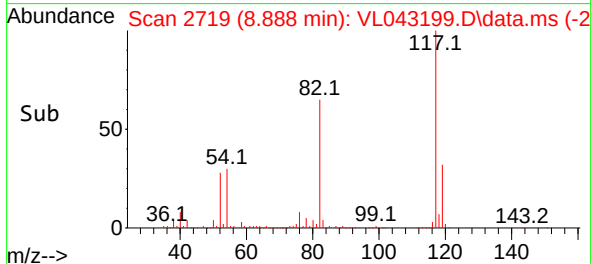
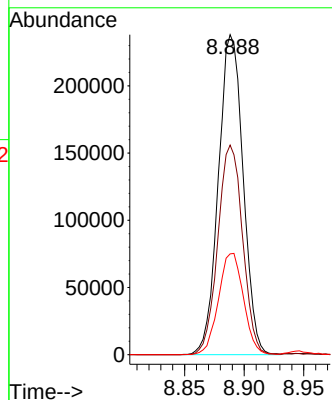
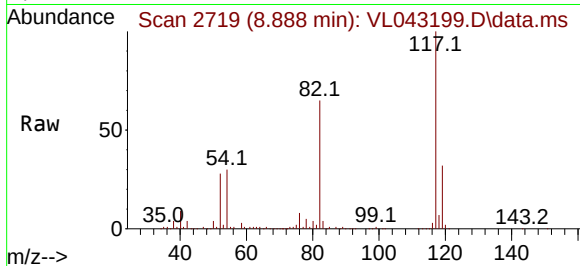




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.888 min Scan# 21
Delta R.T. 0.003 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

Instrument :
MSVOA_L
ClientSampleId :
UNIT-7-SS-1DL

Tgt Ion:117 Resp: 343535
Ion Ratio Lower Upper
117 100
82 66.0 53.8 80.8
119 32.0 25.4 38.0



#68
1-Bromo-4-Fluorobenzene
Concen: 8.780 ppbv
RT: 10.383 min Scan# 3181
Delta R.T. 0.003 min
Lab File: VL043199.D
Acq: 13 Nov 2025 14:47

Tgt Ion: 95 Resp: 234436
Ion Ratio Lower Upper
95 100
174 65.7 48.3 72.5
175 4.9 3.8 5.8

