

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL112425\
 Data File : VL043285.D
 Acq On : 24 Nov 2025 16:43
 Operator : SY/MD
 Sample : Q3696-07
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

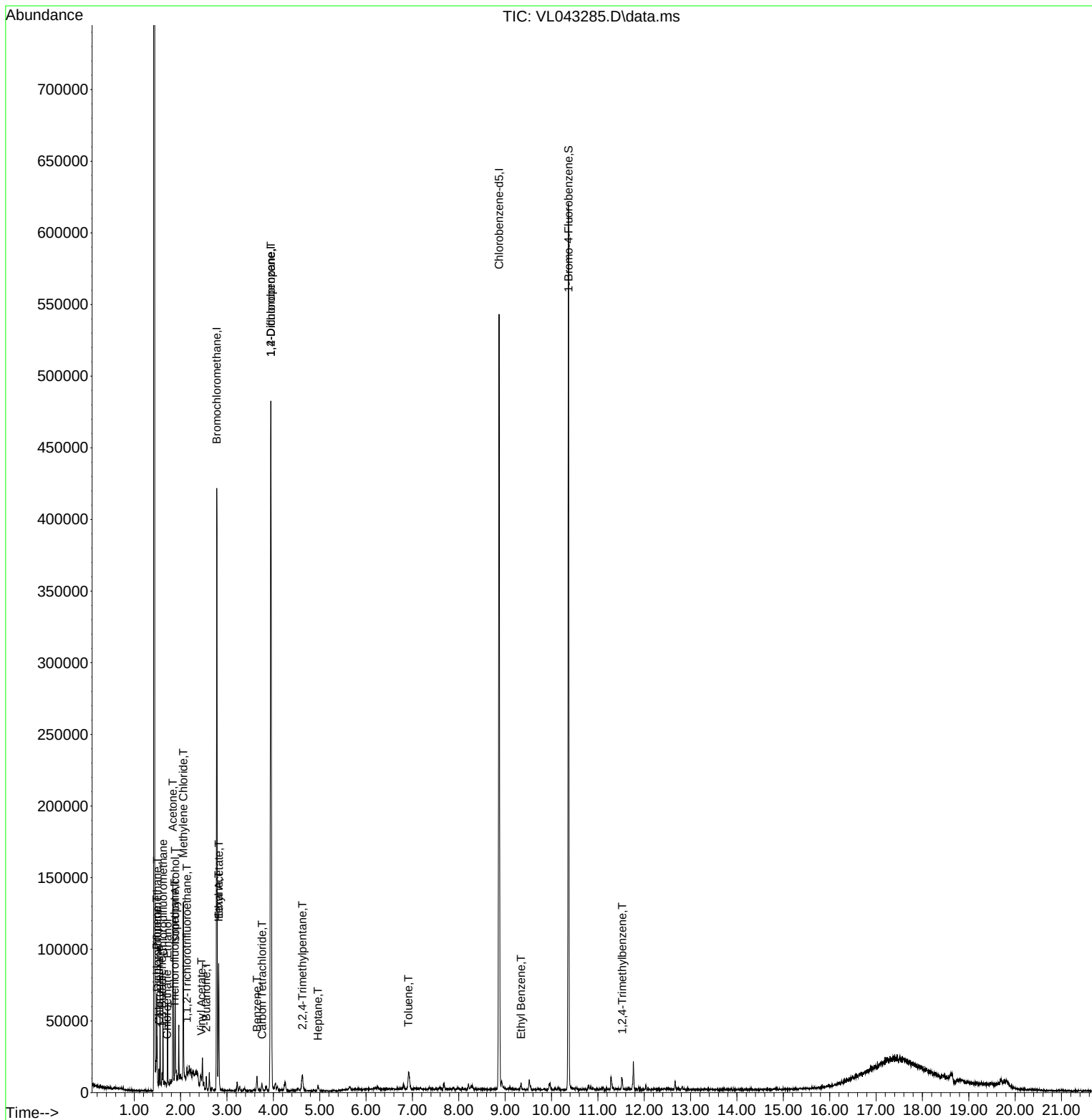
Quant Time: Nov 24 23:42:22 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 2025
 Response via : Initial Calibration

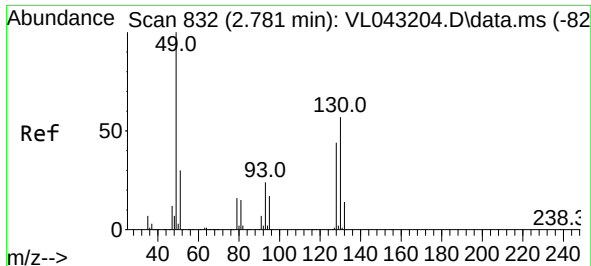
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.780	49	106827	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.946	114	272263	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.869	117	212048	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.364	95	150154	9.660	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.600%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.496	85	7424	0.493	ppbv	98
3) Chlorodifluoromethane	1.622	51	813	0.055	ppbv	93
4) Chloromethane	1.531	50	2906	0.516	ppbv	90
7) Chloroethane	1.706	64	100	0.042	ppbv #	41
9) Propene	1.486	41	5289	0.841	ppbv #	1
10) Heptane	4.962	43	703	0.038	ppbv #	28
11) Trichlorofluoromethane	1.874	101	3779	0.259	ppbv	87
12) 1,1,2-Trichlorotrifluo...	2.136	101	865	0.076	ppbv #	78
13) Ethanol	1.719	45	19354	8.747	ppbv	98
15) Acetone	1.832	43	65952	4.444	ppbv	95
16) 1,3-Butadiene	1.599	39	1279	0.193	ppbv #	45
19) Isopropyl Alcohol	1.884	45	25817	3.078	ppbv #	66
20) Methylene Chloride	2.059	84	17762	3.556	ppbv	97
23) Vinyl Acetate	2.450	43	709	0.040	ppbv #	42
25) Ethyl Acetate	2.823	43	14070	0.440	ppbv #	81
26) Hexane	2.819	57	18805	1.340	ppbv #	41
34) 2-Butanone	2.554	43	5733	0.298	ppbv	93
35) Carbon Tetrachloride	3.755	117	1807	0.087	ppbv	97
36) Benzene	3.648	78	5808	0.223	ppbv #	91
39) 1,2-Dichloropropane	3.946	63	68852	7.215	ppbv #	25
44) 2,2,4-Trimethylpentane	4.629	57	5286	0.118	ppbv #	29
53) Toluene	6.914	91	6340	0.205	ppbv #	21
58) Ethyl Benzene	9.341	91	2030	0.050	ppbv	99
74) 1,2,4-Trimethylbenzene	11.526	105	1655	0.045	ppbv #	52

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

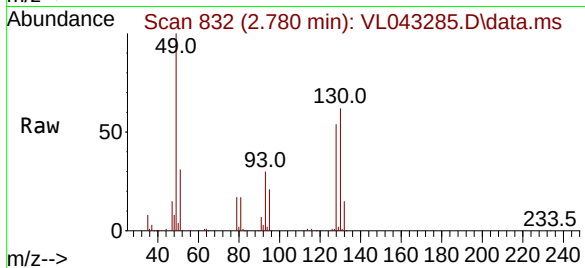
Quant Time: Nov 24 23:42:22 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration



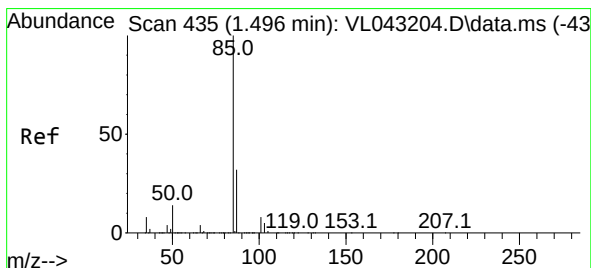
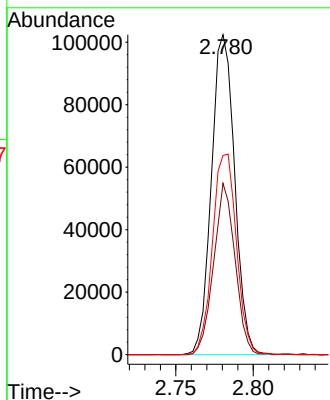
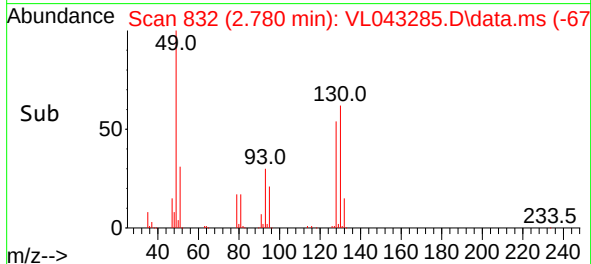


#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.780 min Scan# 81
Delta R.T. -0.001 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

Instrument :
MSVOA_L
ClientSampleId :

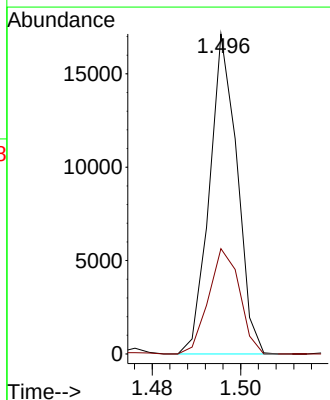
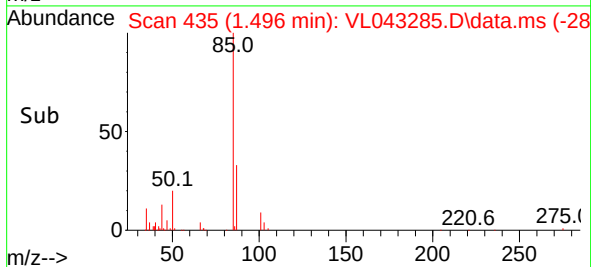
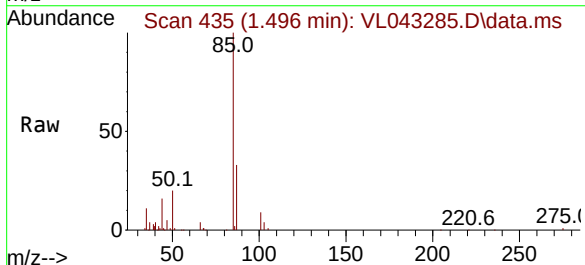


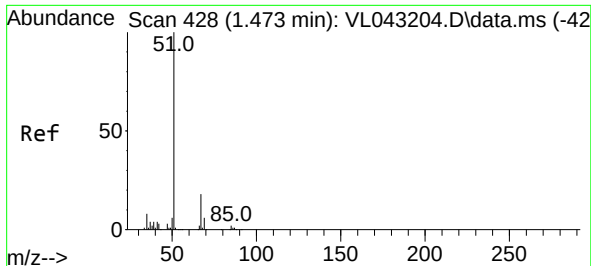
Tgt Ion: 49 Resp: 106827
Ion Ratio Lower Upper
49 100
128 49.3 23.0 69.0
130 64.8 29.9 89.7



#2
Dichlorodifluoromethane
Concen: 0.493 ppbv
RT: 1.496 min Scan# 435
Delta R.T. -0.000 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

Tgt Ion: 85 Resp: 7424
Ion Ratio Lower Upper
85 100
87 32.9 25.4 38.2

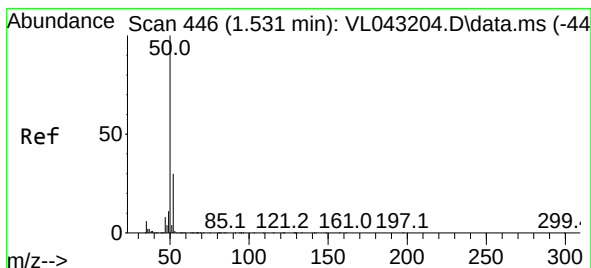
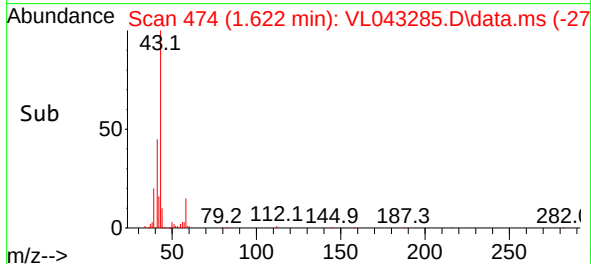
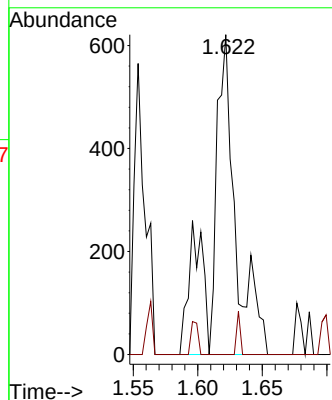
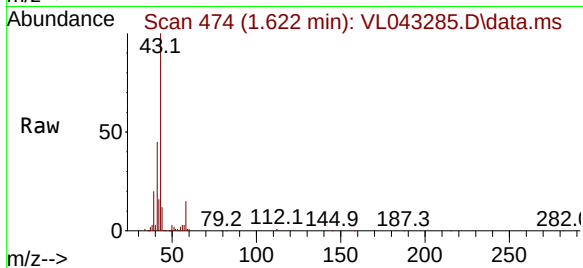




#3
Chlorodifluoromethane
Concen: 0.055 ppbv
RT: 1.622 min Scan# 41
Delta R.T. 0.149 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

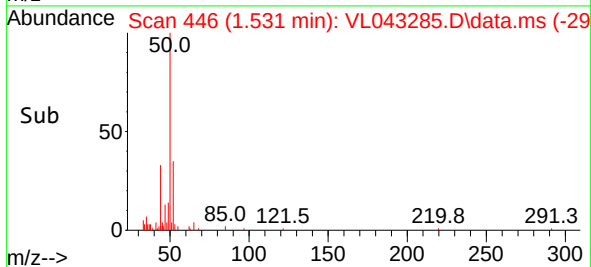
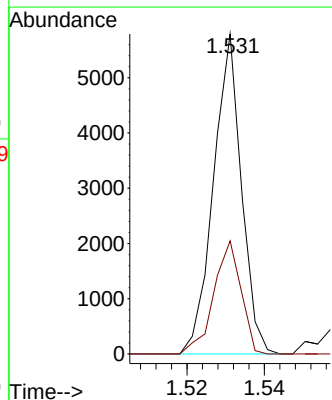
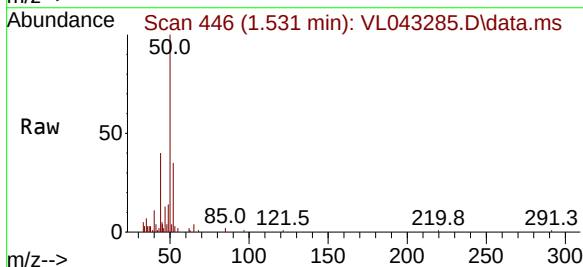
Instrument :
MSVOA_L
ClientSampleId :

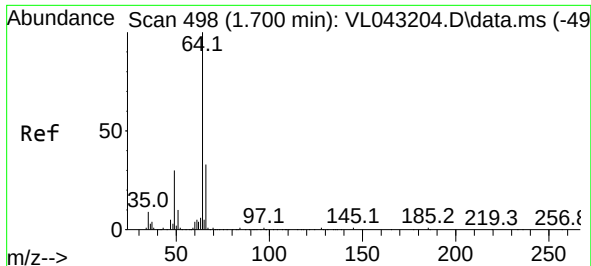
Tgt Ion: 51 Resp: 813
Ion Ratio Lower Upper
51 100
67 15.3 14.9 22.3



#4
Chloromethane
Concen: 0.516 ppbv
RT: 1.531 min Scan# 446
Delta R.T. -0.000 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

Tgt Ion: 50 Resp: 2906
Ion Ratio Lower Upper
50 100
52 35.4 24.1 36.1

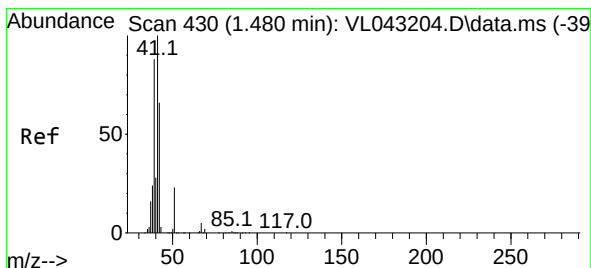
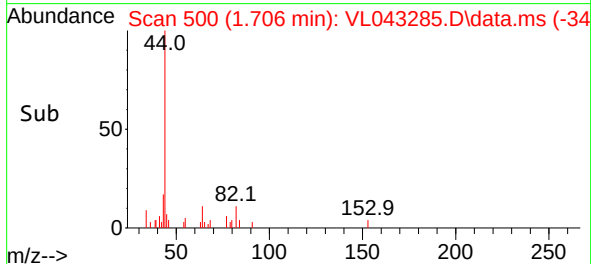
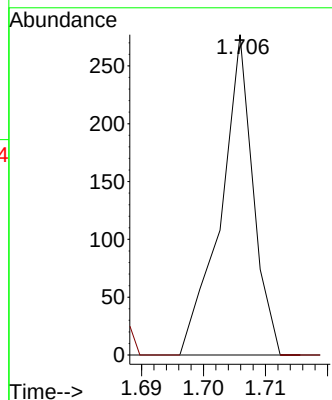
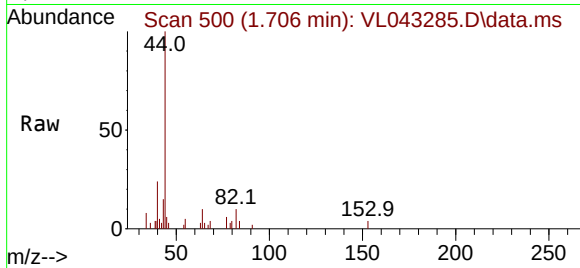




#7
Chloroethane
Concen: 0.042 ppbv
RT: 1.706 min Scan# 50
Delta R.T. 0.006 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

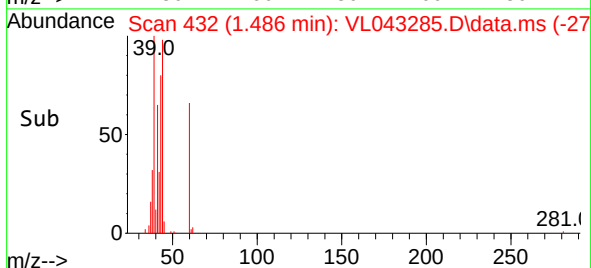
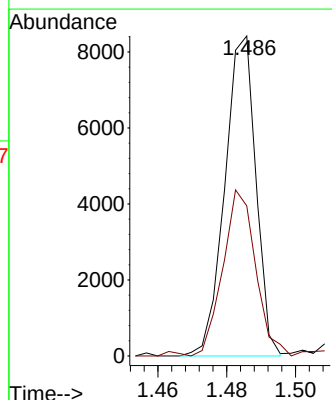
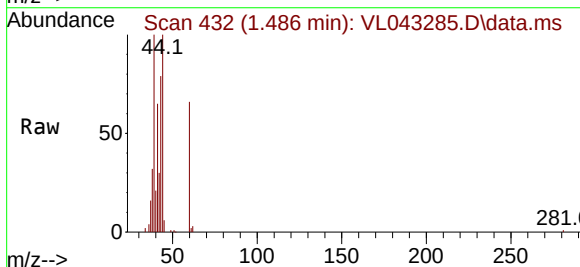
Instrument :
MSVOA_L
ClientSampleId :

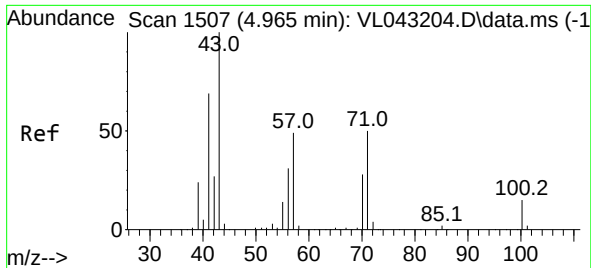
Tgt Ion: 64 Resp: 100
Ion Ratio Lower Upper
64 100
66 0.0 26.8 40.2#



#9
Propene
Concen: 0.841 ppbv
RT: 1.486 min Scan# 432
Delta R.T. 0.006 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

Tgt Ion: 41 Resp: 5289
Ion Ratio Lower Upper
41 100
42 57.3 3.7 5.5#

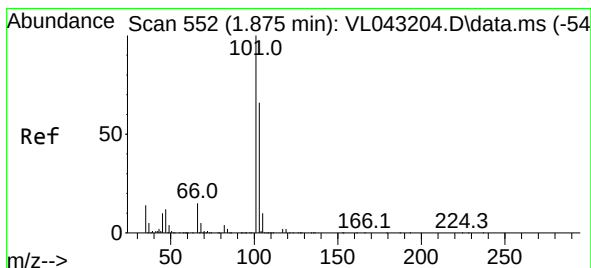
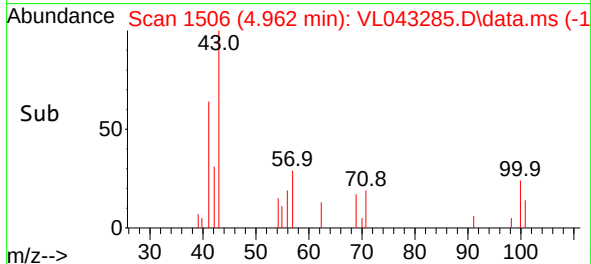
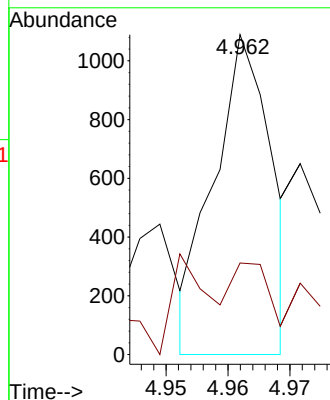
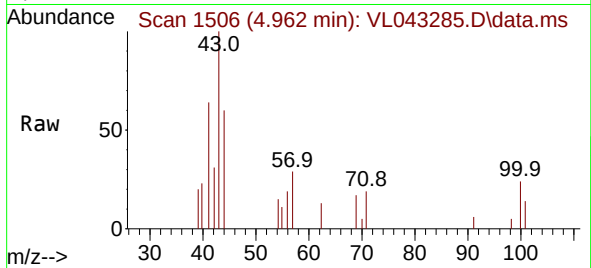




#10
 Heptane
 Concen: 0.038 ppbv
 RT: 4.962 min Scan# 11
 Delta R.T. -0.004 min
 Lab File: VL043285.D
 Acq: 24 Nov 2025 16:43

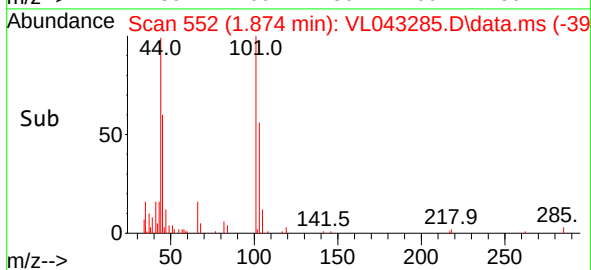
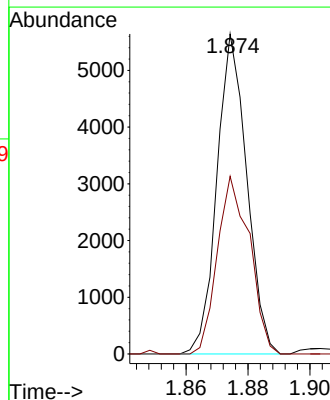
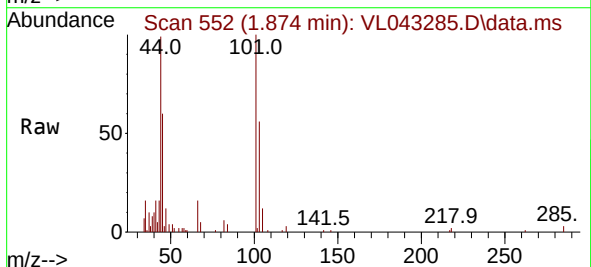
Instrument :
 MSVOA_L
 ClientSampleId :

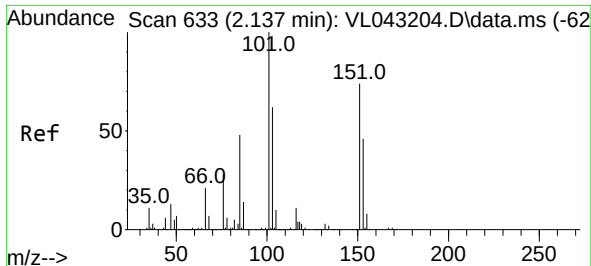
Tgt Ion: 43 Resp: 703
 Ion Ratio Lower Upper
 43 100
 57 0.0 39.7 59.5#



#11
 Trichlorofluoromethane
 Concen: 0.259 ppbv
 RT: 1.874 min Scan# 552
 Delta R.T. -0.000 min
 Lab File: VL043285.D
 Acq: 24 Nov 2025 16:43

Tgt Ion:101 Resp: 3779
 Ion Ratio Lower Upper
 101 100
 103 55.5 52.6 79.0

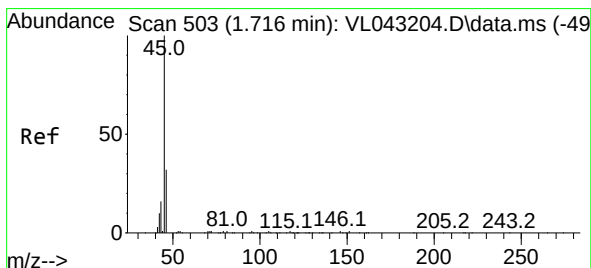
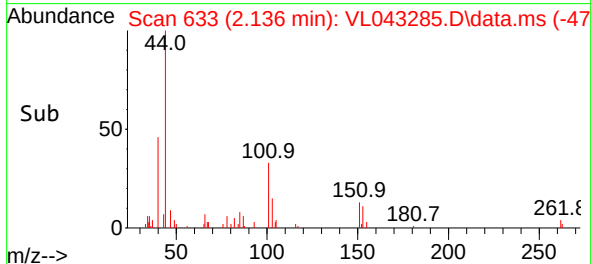
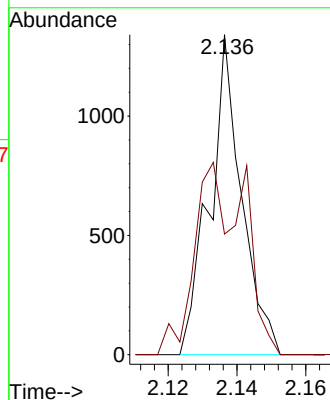
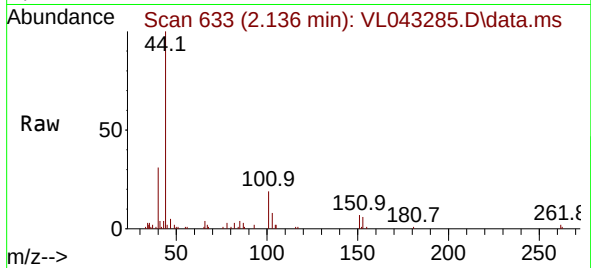




#12
1,1,2-Trichlorotrifluoroethane
Concen: 0.076 ppbv
RT: 2.136 min Scan# 61
Delta R.T. -0.000 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

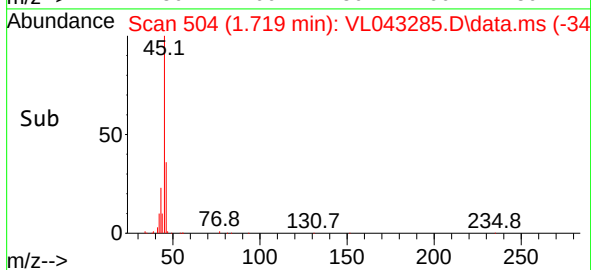
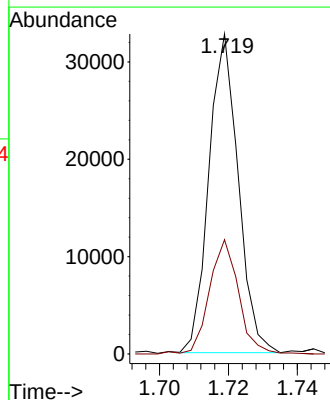
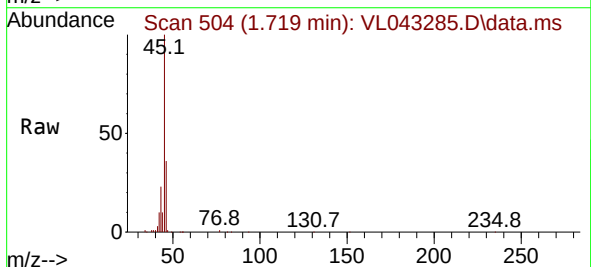
Instrument :
MSVOA_L
ClientSampleId :

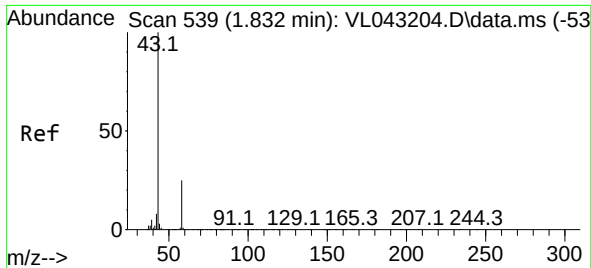
Tgt Ion:101 Resp: 865
Ion Ratio Lower Upper
101 100
151 92.6 59.2 88.8#



#13
Ethanol
Concen: 8.747 ppbv
RT: 1.719 min Scan# 504
Delta R.T. 0.003 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

Tgt Ion: 45 Resp: 19354
Ion Ratio Lower Upper
45 100
46 36.2 15.0 59.8

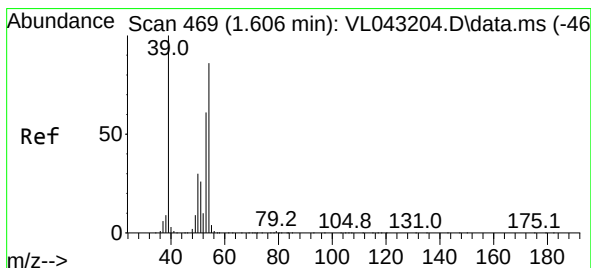
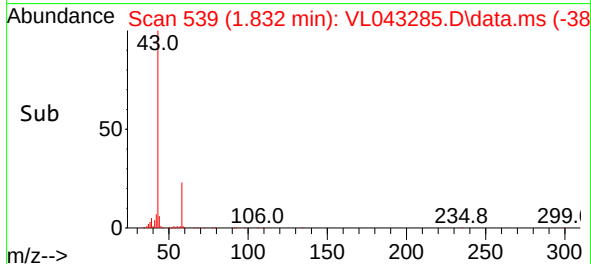
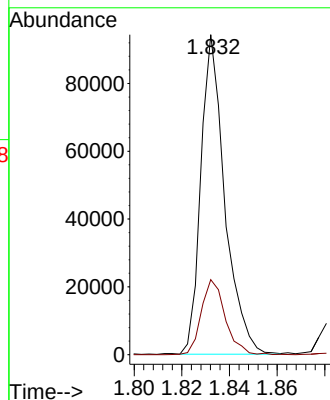
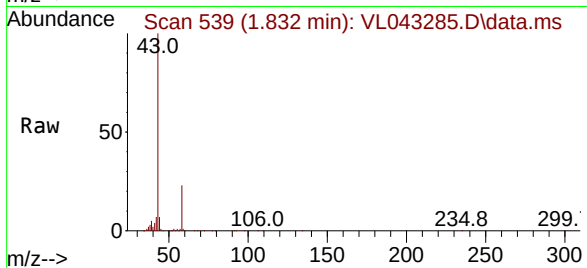




#15
Acetone
Concen: 4.444 ppbv
RT: 1.832 min Scan# 51
Delta R.T. -0.000 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

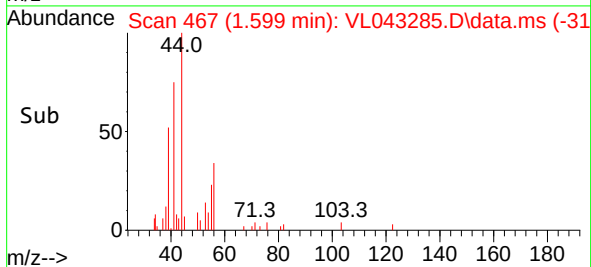
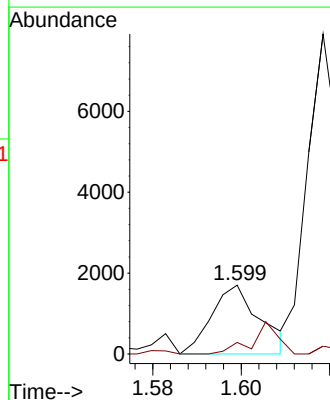
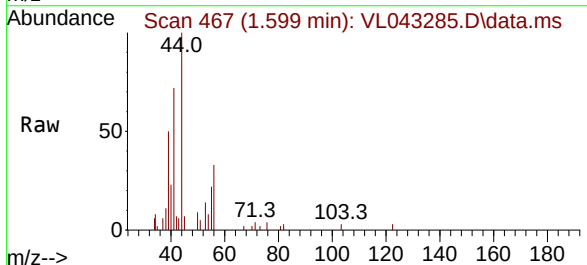
Instrument :
MSVOA_L
ClientSampleId :

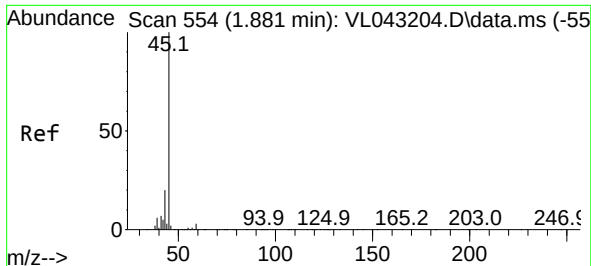
Tgt Ion: 43 Resp: 65952
Ion Ratio Lower Upper
43 100
58 23.5 20.7 31.1



#16
1,3-Butadiene
Concen: 0.193 ppbv
RT: 1.599 min Scan# 467
Delta R.T. -0.007 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

Tgt Ion: 39 Resp: 1279
Ion Ratio Lower Upper
39 100
54 27.4 59.4 89.2#

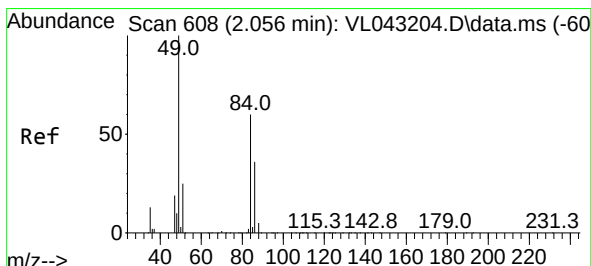
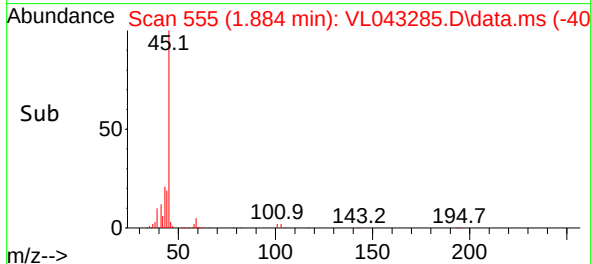
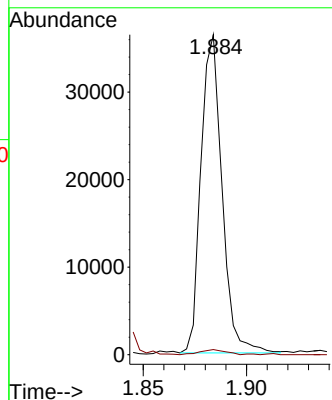
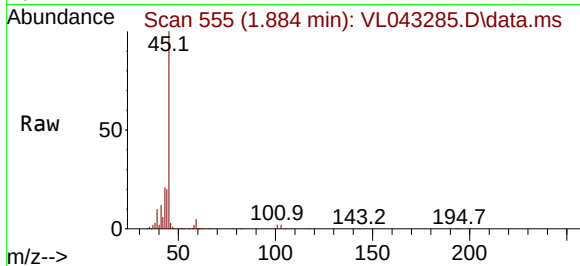




#19
Isopropyl Alcohol
Concen: 3.078 ppbv
RT: 1.884 min Scan# 51
Delta R.T. 0.003 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

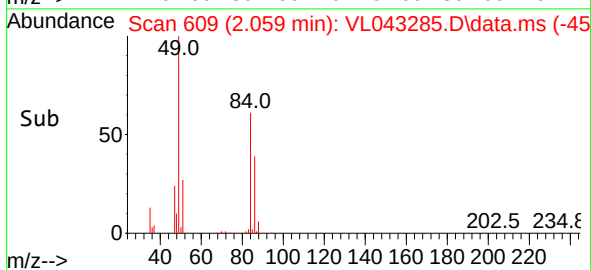
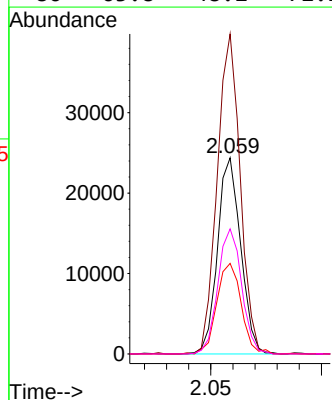
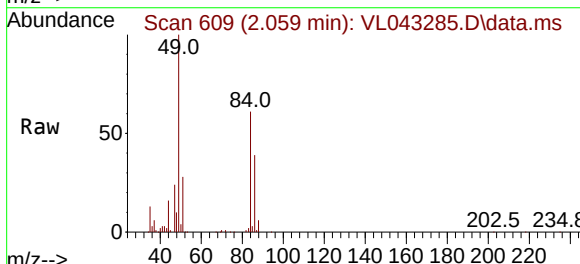
Instrument :
MSVOA_L
ClientSampleId :

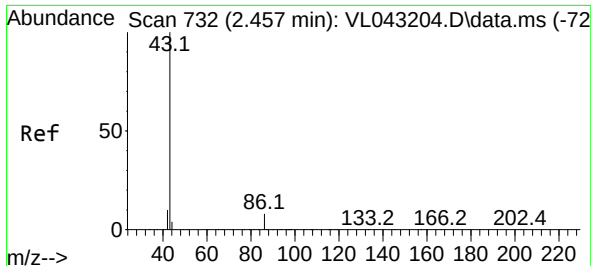
Tgt Ion: 45 Resp: 25817
Ion Ratio Lower Upper
45 100
58 60.0 31.3 46.9#



#20
Methylene Chloride
Concen: 3.556 ppbv
RT: 2.059 min Scan# 609
Delta R.T. 0.003 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

Tgt Ion: 84 Resp: 17762
Ion Ratio Lower Upper
84 100
49 163.1 132.9 199.3
51 46.1 34.8 52.2
86 63.8 48.2 72.2



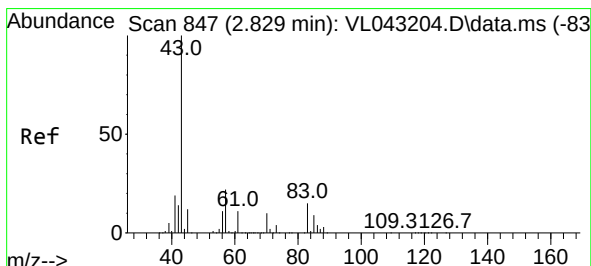
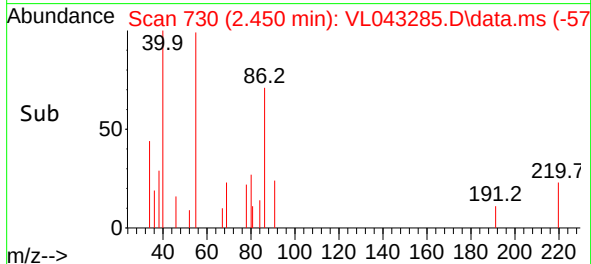
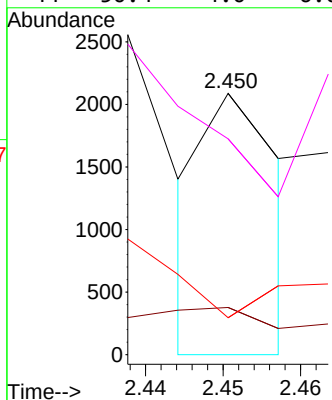
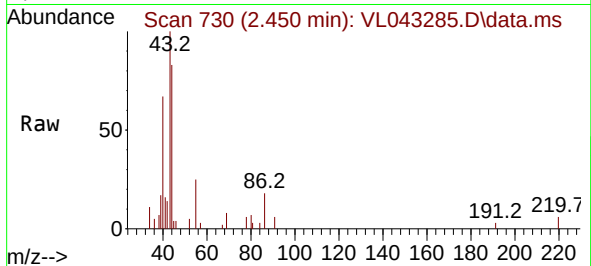


#23
 Vinyl Acetate
 Concen: 0.040 ppbv
 RT: 2.450 min Scan# 71
 Delta R.T. -0.007 min
 Lab File: VL043285.D
 Acq: 24 Nov 2025 16:43

Instrument :
 MSVOA_L
 ClientSampleId :

Tgt Ion: 43 Resp: 709

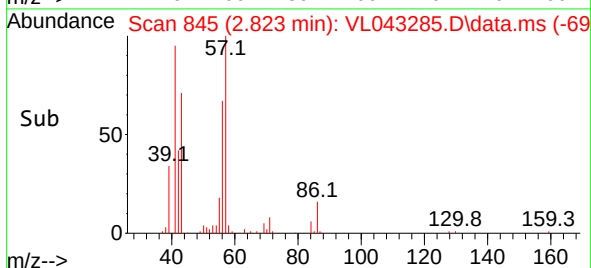
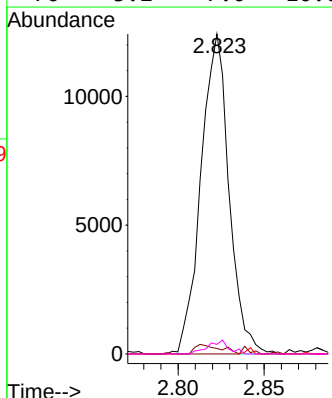
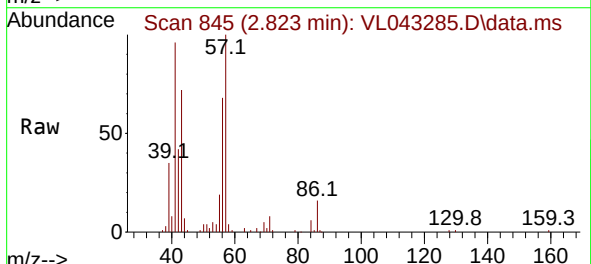
Ion	Ratio	Lower	Upper
43	100		
86	24.5	6.2	9.2#
42	0.0	8.0	12.0#
44	50.4	4.0	6.0#

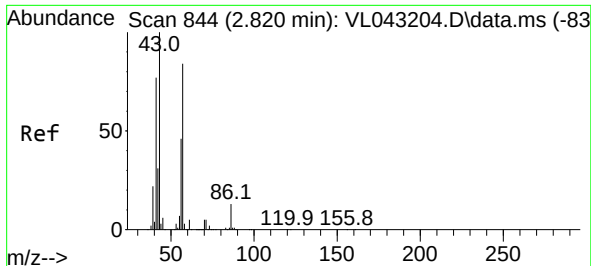


#25
 Ethyl Acetate
 Concen: 0.440 ppbv
 RT: 2.823 min Scan# 845
 Delta R.T. -0.007 min
 Lab File: VL043285.D
 Acq: 24 Nov 2025 16:43

Tgt Ion: 43 Resp: 14070

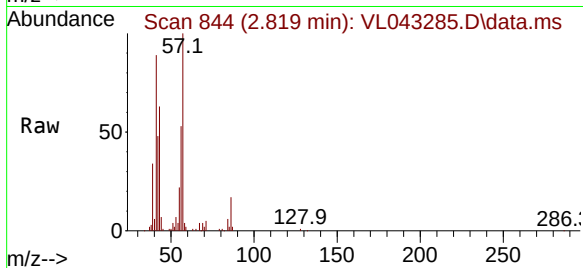
Ion	Ratio	Lower	Upper
43	100		
45	3.6	8.1	12.1#
61	0.4	7.0	10.4#
70	3.2	7.0	10.6#



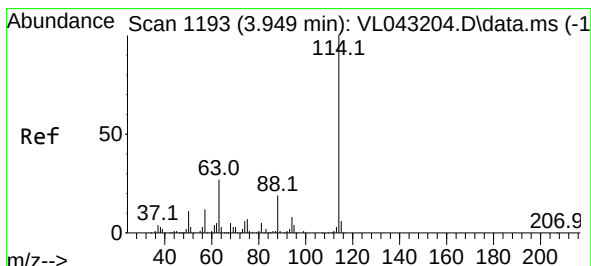
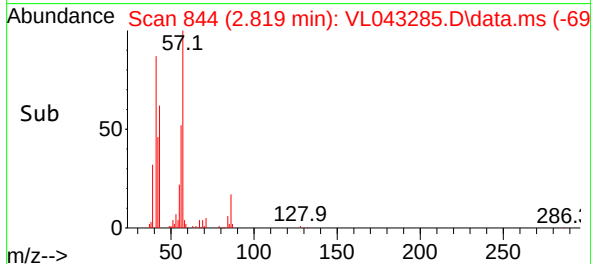
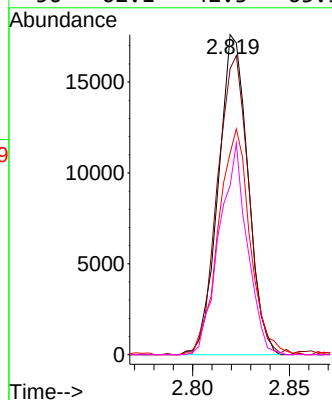


#26
Hexane
Concen: 1.340 ppbv
RT: 2.819 min Scan# 844
Delta R.T. -0.000 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

Instrument :
MSVOA_L
ClientSampleId :

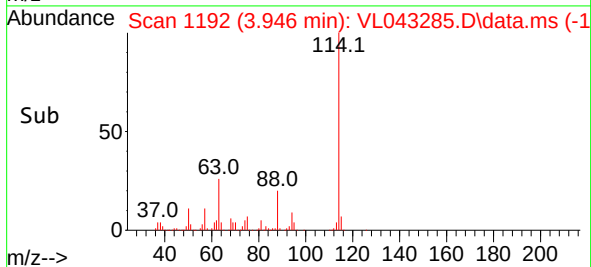
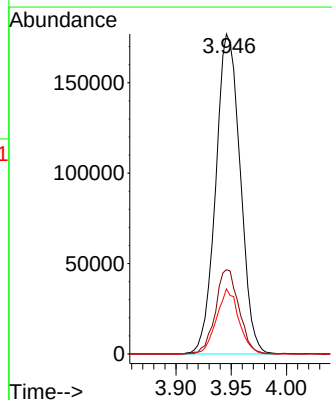
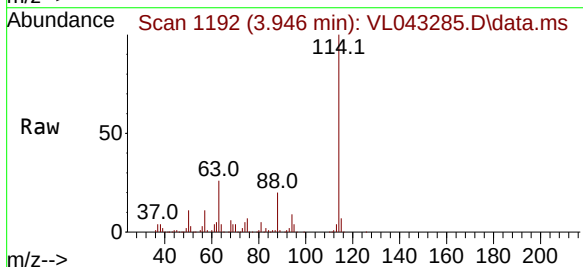


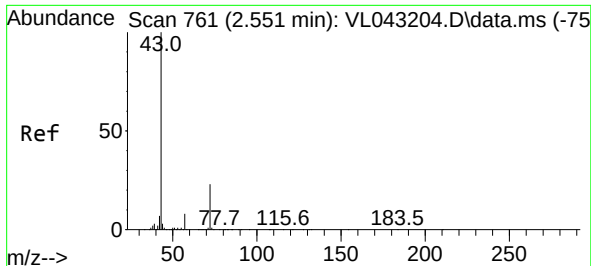
Tgt Ion: 57 Resp: 18805
Ion Ratio Lower Upper
57 100
41 99.8 74.6 111.8
43 75.0 179.0 268.4#
56 62.1 42.3 63.5



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.946 min Scan# 1192
Delta R.T. -0.004 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

Tgt Ion: 114 Resp: 272263
Ion Ratio Lower Upper
114 100
63 25.3 21.0 31.6
88 18.6 14.9 22.3





#34

2-Butanone

Concen: 0.298 ppbv

RT: 2.554 min Scan# 761

Delta R.T. 0.003 min

Lab File: VL043285.D

Acq: 24 Nov 2025 16:43

Instrument :

MSVOA_L

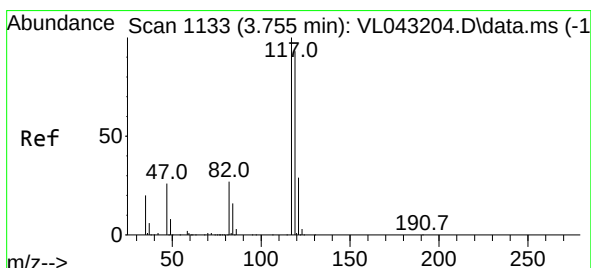
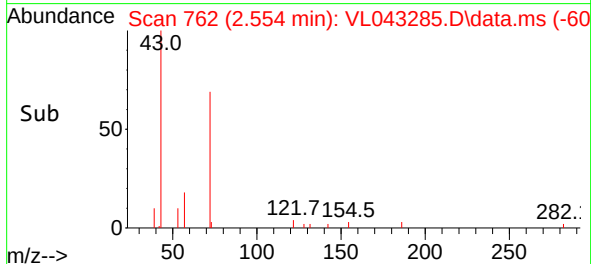
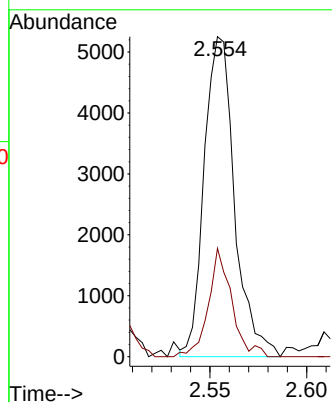
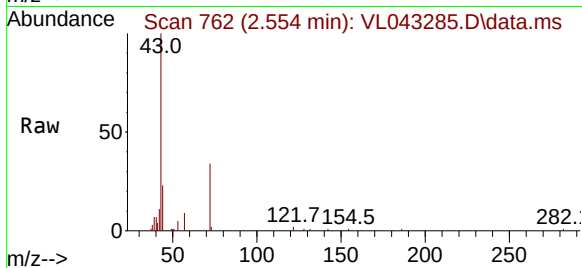
ClientSampleId :

Tgt Ion: 43 Resp: 5733

Ion Ratio Lower Upper

43 100

72 26.0 18.1 27.1



#35

Carbon Tetrachloride

Concen: 0.087 ppbv

RT: 3.755 min Scan# 1133

Delta R.T. -0.000 min

Lab File: VL043285.D

Acq: 24 Nov 2025 16:43

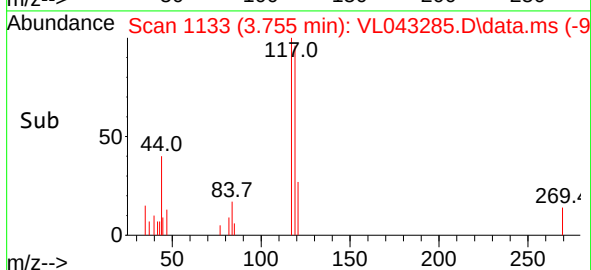
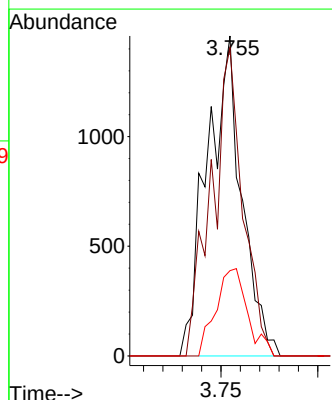
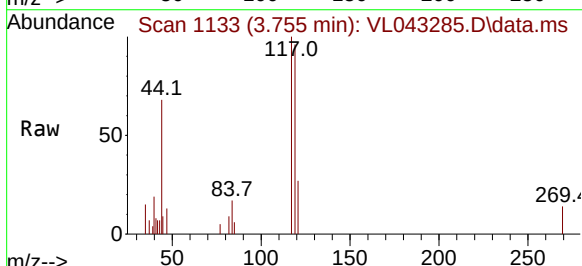
Tgt Ion: 117 Resp: 1807

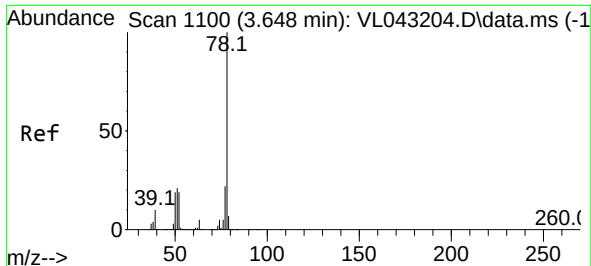
Ion Ratio Lower Upper

117 100

119 96.2 74.6 112.0

121 26.7 23.2 34.8

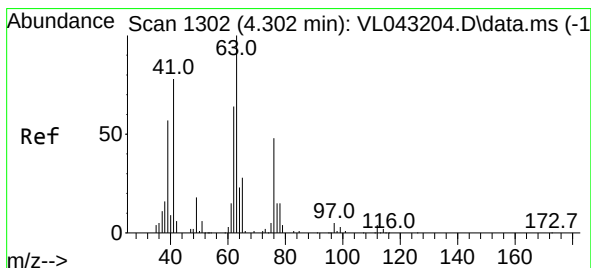
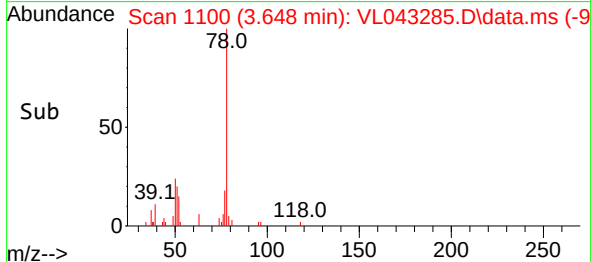
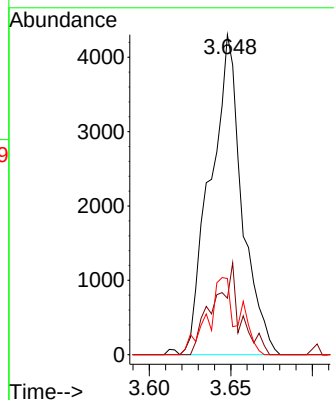
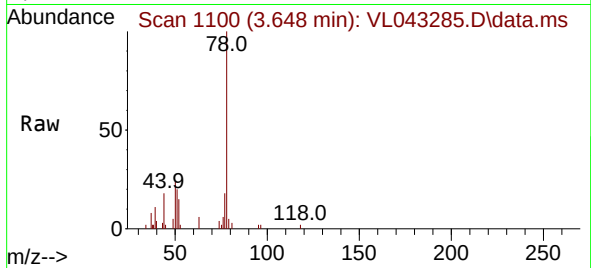




#36
Benzene
Concen: 0.223 ppbv
RT: 3.648 min Scan# 1100
Delta R.T. -0.000 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

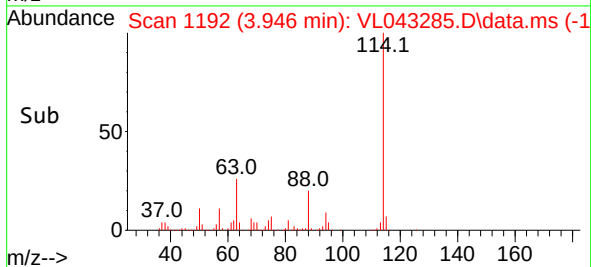
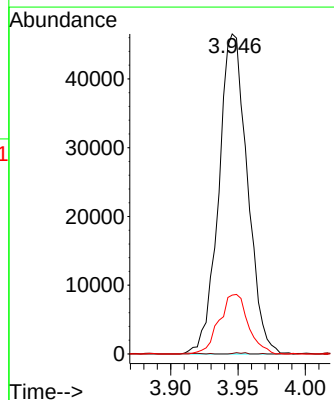
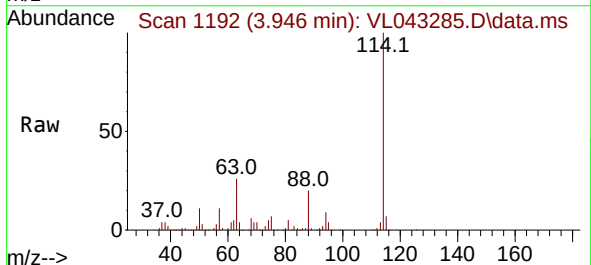
Instrument :
MSVOA_L
ClientSampleId :

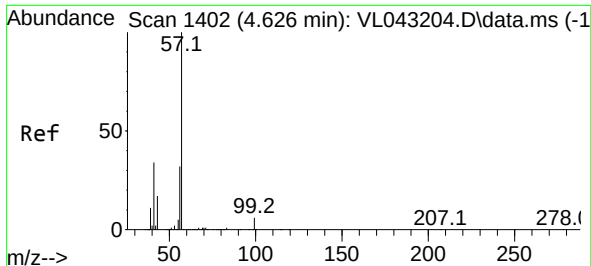
Tgt Ion	Ratio	Lower	Upper
78	100		
77	17.7	17.5	26.3
50	23.8	15.5	23.3



#39
1,2-Dichloropropane
Concen: 7.215 ppbv
RT: 3.946 min Scan# 1192
Delta R.T. -0.356 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

Tgt Ion	Ratio	Lower	Upper
63	100		
41	0.4	62.6	93.8
62	18.4	51.0	76.6





#44

2,2,4-Trimethylpentane

Concen: 0.118 ppbv

RT: 4.629 min Scan# 1402

Delta R.T. 0.003 min

Lab File: VL043285.D

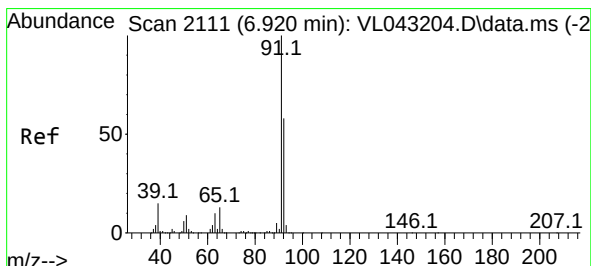
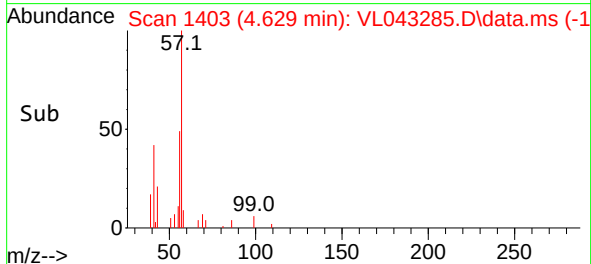
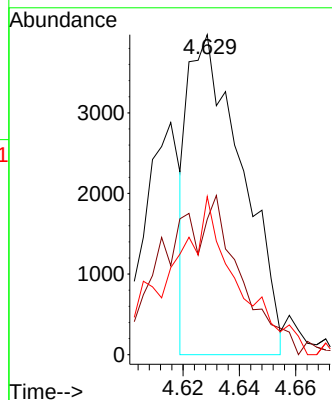
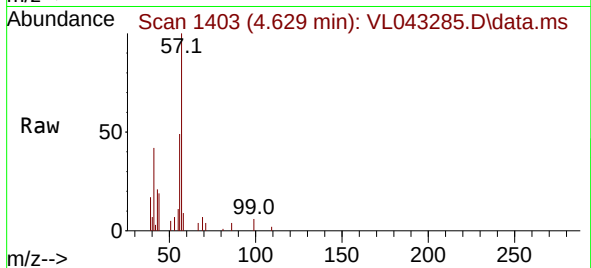
Acq: 24 Nov 2025 16:43

Instrument :

MSVOA_L

ClientSampleId :

Tgt Ion: 57	Resp: 5286
Ion Ratio	Lower Upper
57 100	
41 80.0	28.0 42.0#
56 67.2	25.6 38.4#



#53

Toluene

Concen: 0.205 ppbv

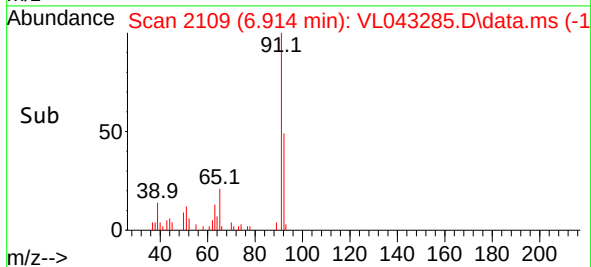
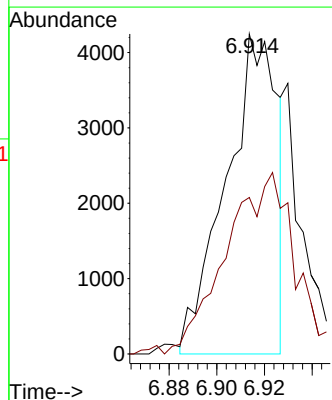
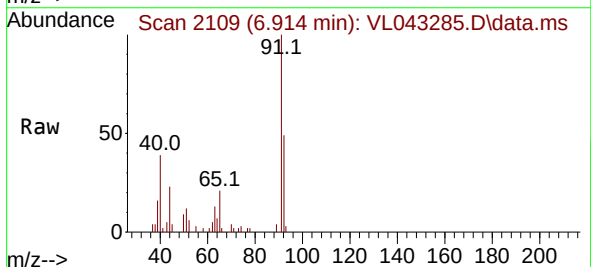
RT: 6.914 min Scan# 2109

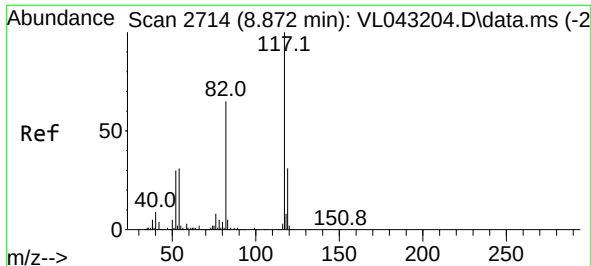
Delta R.T. -0.007 min

Lab File: VL043285.D

Acq: 24 Nov 2025 16:43

Tgt Ion: 91	Resp: 6340
Ion Ratio	Lower Upper
91 100	
92 0.0	47.4 71.0#

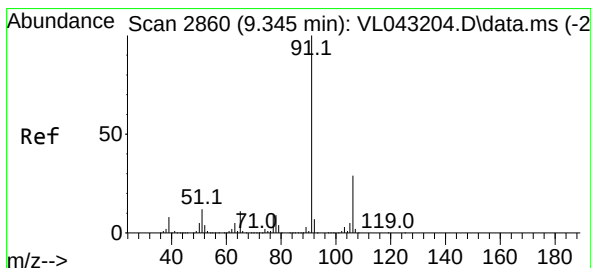
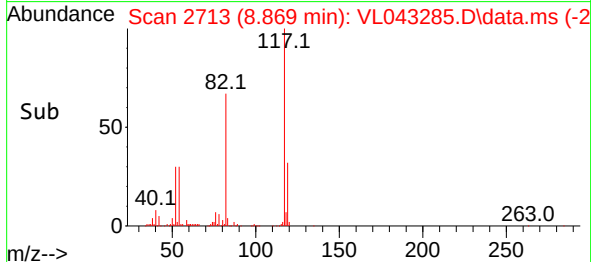
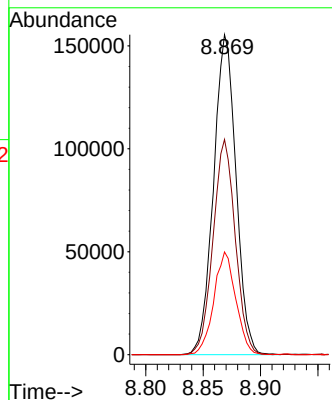
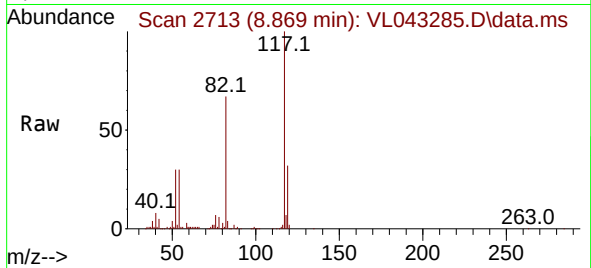




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.869 min Scan# 21
Delta R.T. -0.004 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

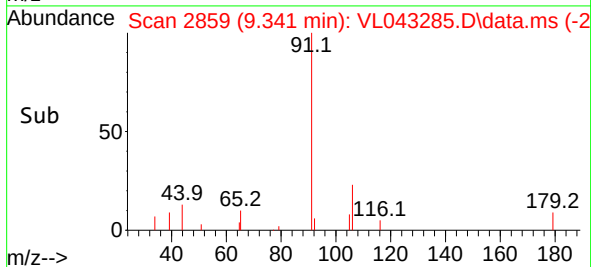
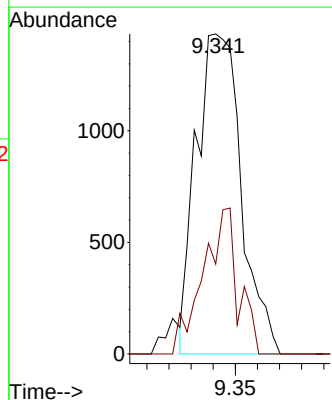
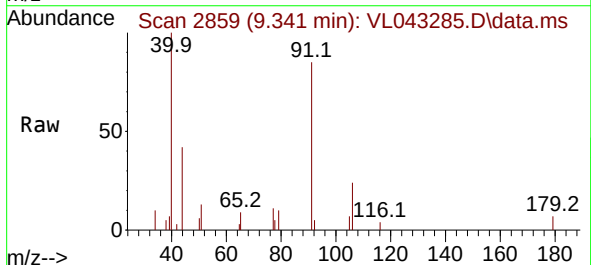
Instrument :
MSVOA_L
ClientSampleId :

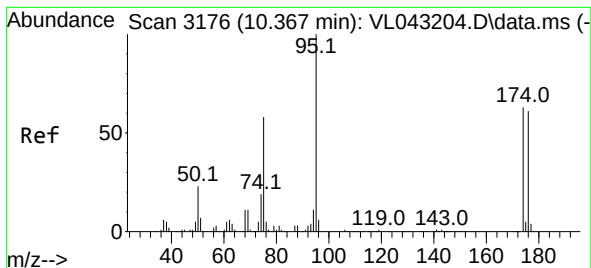
Tgt Ion:117 Resp: 212048
Ion Ratio Lower Upper
117 100
82 66.4 56.1 84.1
119 31.5 25.0 37.6



#58
Ethyl Benzene
Concen: 0.050 ppbv
RT: 9.341 min Scan# 2859
Delta R.T. -0.004 min
Lab File: VL043285.D
Acq: 24 Nov 2025 16:43

Tgt Ion: 91 Resp: 2030
Ion Ratio Lower Upper
91 100
106 28.1 22.8 34.2





#68

1-Bromo-4-Fluorobenzene

Concen: 9.660 ppbv

RT: 10.364 min Scan# 3176

Delta R.T. -0.004 min

Lab File: VL043285.D

Acq: 24 Nov 2025 16:43

Instrument :

MSVOA_L

ClientSampleId :

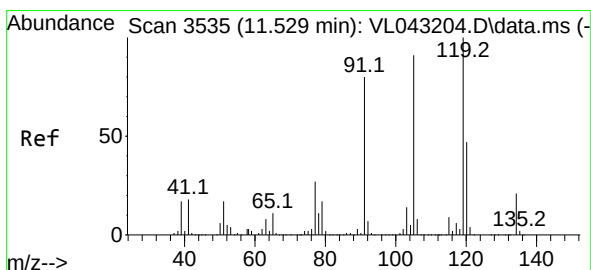
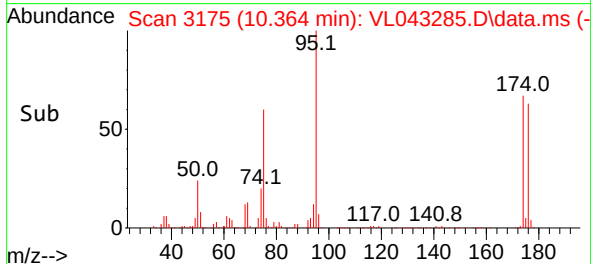
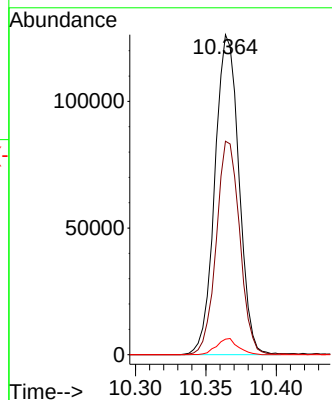
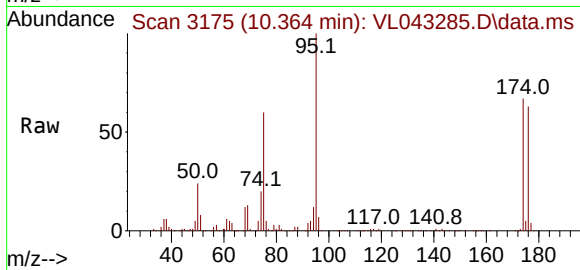
Tgt Ion: 95 Resp: 150154

Ion Ratio Lower Upper

95 100

174 65.4 50.2 75.2

175 4.5 4.1 6.1



#74

1,2,4-Trimethylbenzene

Concen: 0.045 ppbv

RT: 11.526 min Scan# 3534

Delta R.T. -0.004 min

Lab File: VL043285.D

Acq: 24 Nov 2025 16:43

Tgt Ion: 105 Resp: 1655

Ion Ratio Lower Upper

105 100

120 60.3 41.7 62.5

91 13.6 70.0 105.0#

77 19.1 23.8 35.8#

