

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL082625\
 Data File : VL042883.D
 Acq On : 26 Aug 2025 13:42
 Operator : SY/MD
 Sample : Q2943-01DL 10X
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

Quant Time: Aug 27 01:11:13 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 : Thu Aug 14 02:12:54 2025
 Response via : Initial Calibration

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

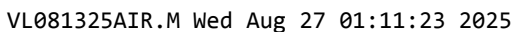
Internal Standards						
1) Bromochloromethane	2.787	49	123837	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.959	114	342269	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.885	117	292713	10.000	ppbv	0.00

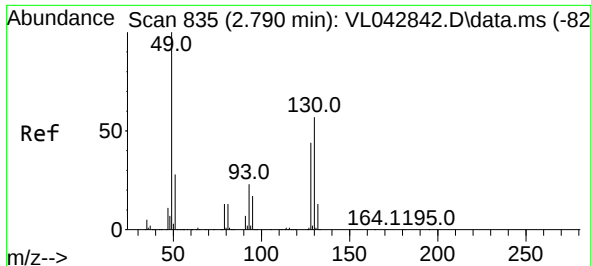
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.377	95	232578	10.595	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.900%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.499	85	1033	0.057	ppbv #	81
3) Chlorodifluoromethane	1.450	51	1138549	56.754	ppbv #	59
4) Chloromethane	1.450	50	532243	72.671	ppbv #	48
5) Vinyl Chloride	1.454	62	11753	1.629	ppbv #	1
7) Chloroethane	1.450	64	128511	45.622	ppbv #	39
9) Propene	1.887	41	5790	0.668	ppbv	98
10) Heptane	4.985	43	1151	0.050	ppbv #	26
11) Trichlorofluoromethane	1.450	101	94632	5.285	ppbv #	22
13) Ethanol	1.722	45	60538	76.420	ppbv	91
15) Acetone	1.839	43	201004	12.270	ppbv #	77
16) 1,3-Butadiene	1.599	39	1058	0.142	ppbv #	28
17) tert-Butyl alcohol	2.043	59	4272	0.220	ppbv #	71
19) Isopropyl Alcohol	1.887	45	60497	6.183	ppbv #	80
20) Methylene Chloride	2.062	84	1771	0.258	ppbv	90
21) Allyl Chloride	1.965	41	83022	7.174	ppbv #	55
23) Vinyl Acetate	2.476	43	1879	0.083	ppbv #	45
25) Ethyl Acetate	2.826	43	8486	0.214	ppbv #	79
26) Hexane	2.829	57	10952	0.598	ppbv #	44
29) Chloroform	2.849	83	3846	0.147	ppbv	99
34) 2-Butanone	2.561	43	4440	0.192	ppbv	99
36) Benzene	3.655	78	2855	0.087	ppbv #	87
39) 1,2-Dichloropropane	3.959	63	89326	7.462	ppbv #	26
53) Toluene	6.940	91	11361	0.292	ppbv #	43
58) Ethyl Benzene	9.361	91	52532	1.017	ppbv	99
59) m/p-Xylene	9.536	91	12581	0.311	ppbv #	100
60) o-Xylene	9.966	91	7912	0.194	ppbv	93
61) Styrene	9.872	104	210799	11.047	ppbv	99
62) Isopropylbenzene	10.545	105	3414	0.057	ppbv	90
64) n-propylbenzene	10.992	120	768	0.051	ppbv #	1
72) 4-Ethyltoluene	11.131	105	2121	0.043	ppbv #	61
73) 1,3,5-Trimethylbenzene	11.206	105	2696	0.064	ppbv #	80
74) 1,2,4-Trimethylbenzene	11.539	105	6318	0.137	ppbv #	51
80) Naphthalene,2-methyl-	14.468	142	1051	0.067	ppbv #	83

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

Quant Time: Aug 27 01:11:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL081325AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Thu Aug 14 02:12:54 2025
Response via : Initial Calibration

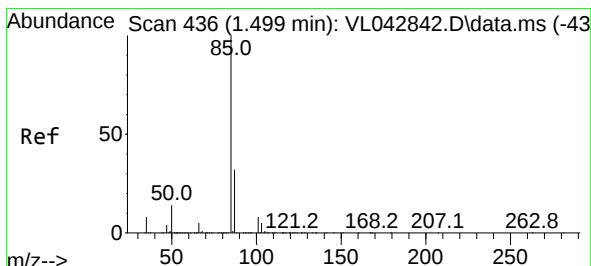
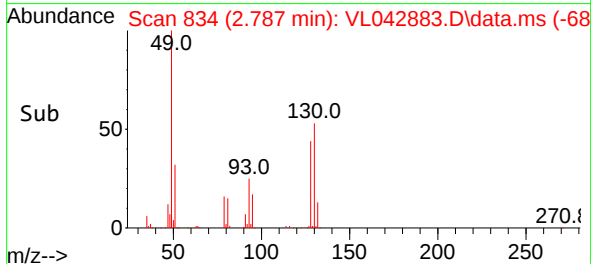
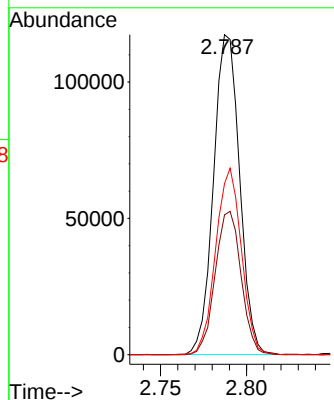
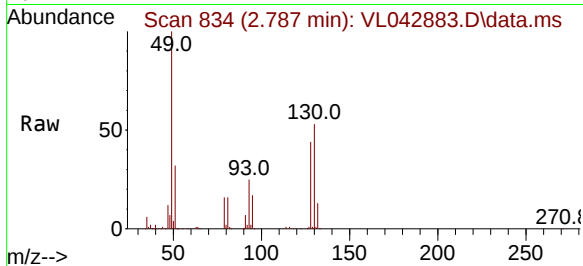




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.787 min Scan# 81
Delta R.T. -0.003 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

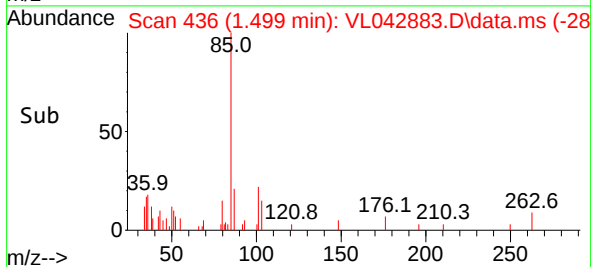
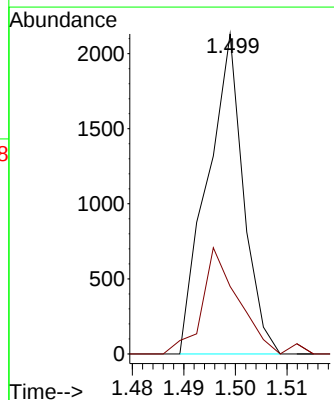
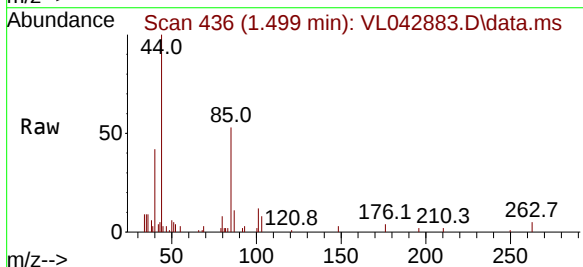
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

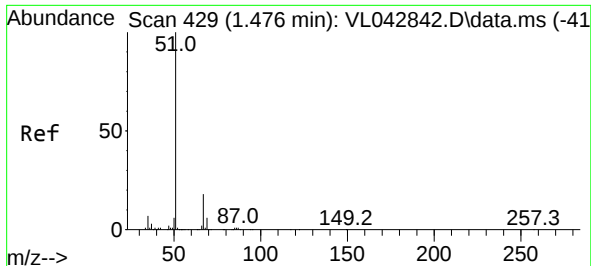
Tgt Ion: 49 Resp: 123837
Ion Ratio Lower Upper
49 100
128 44.5 23.7 71.1
130 57.5 30.6 91.6



#2
Dichlorodifluoromethane
Concen: 0.057 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.000 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

Tgt Ion: 85 Resp: 1033
Ion Ratio Lower Upper
85 100
87 21.1 25.3 37.9

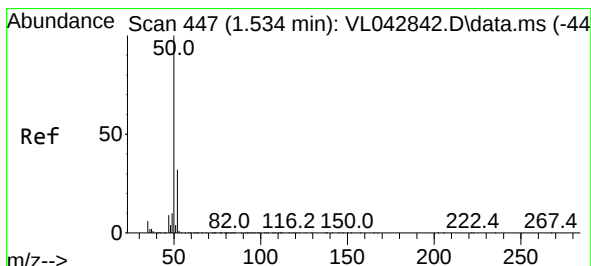
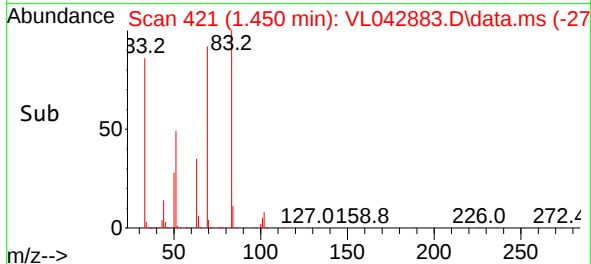
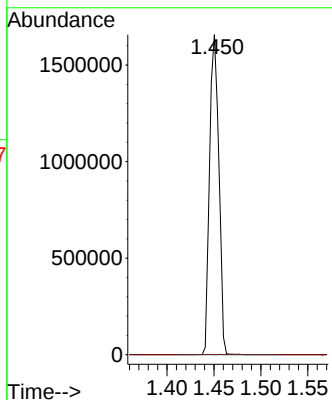
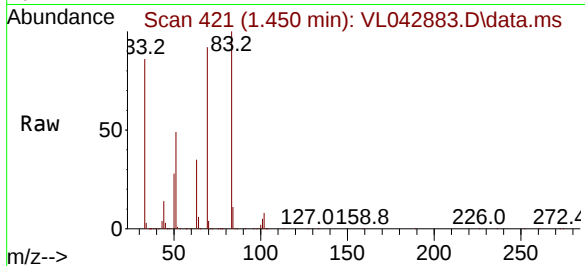




#3
Chlorodifluoromethane
Concen: 56.754 ppbv
RT: 1.450 min Scan# 41
Delta R.T. -0.026 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

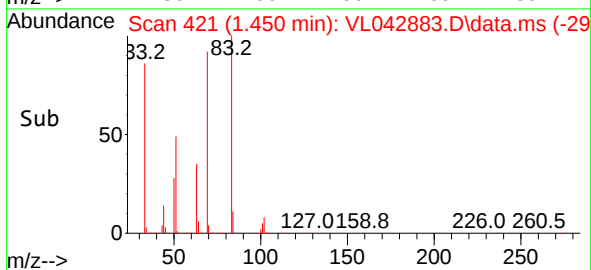
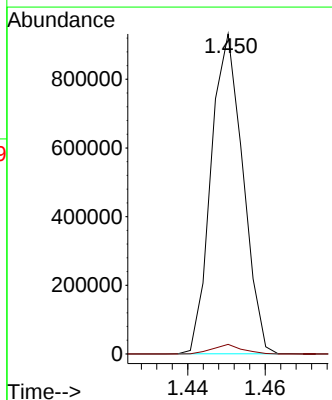
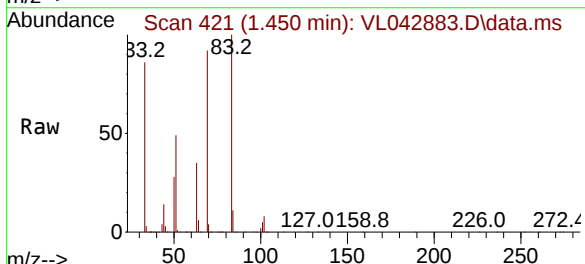
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

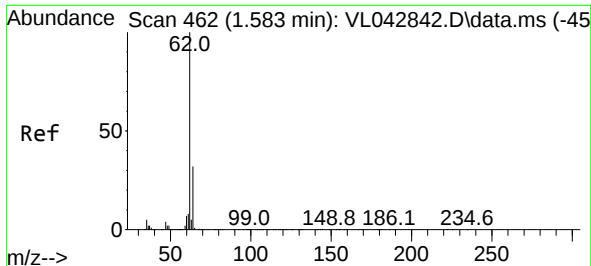
Tgt Ion: 51 Resp: 1138549
Ion Ratio Lower Upper
51 100
67 0.1 14.9 22.3#



#4
Chloromethane
Concen: 72.671 ppbv
RT: 1.450 min Scan# 421
Delta R.T. -0.084 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

Tgt Ion: 50 Resp: 532243
Ion Ratio Lower Upper
50 100
52 3.0 25.9 38.9#

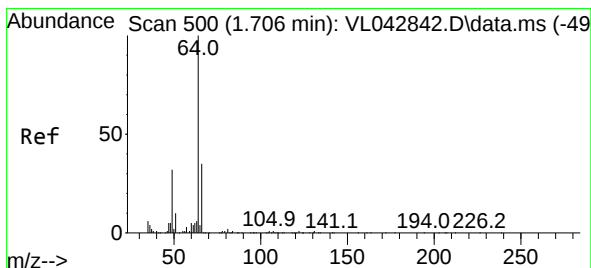
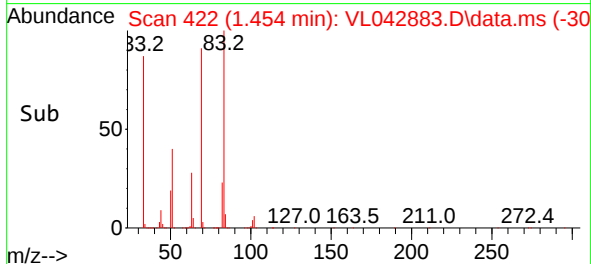
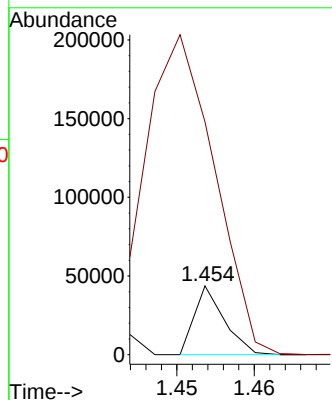
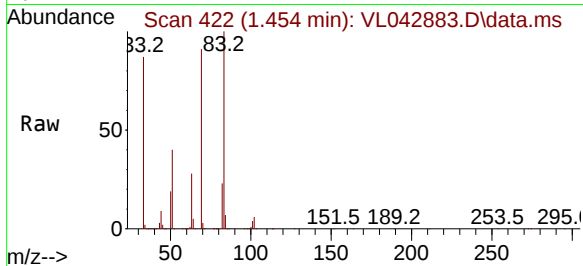




#5
 Vinyl Chloride
 Concen: 1.629 ppbv
 RT: 1.454 min Scan# 41
 Delta R.T. -0.129 min
 Lab File: VL042883.D
 Acq: 26 Aug 2025 13:42

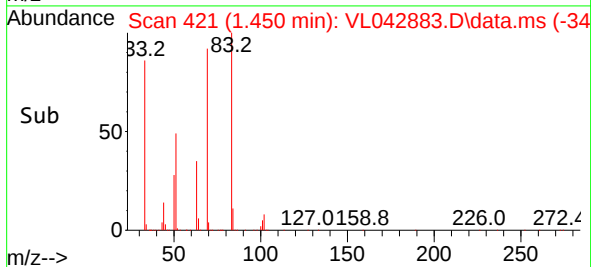
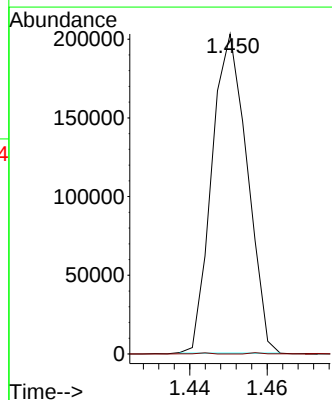
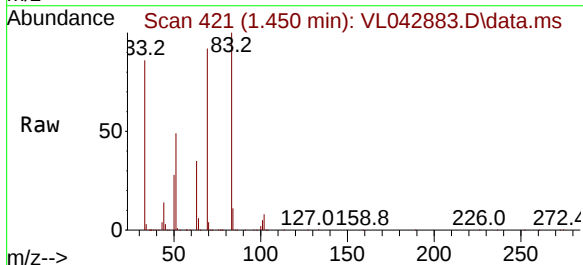
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

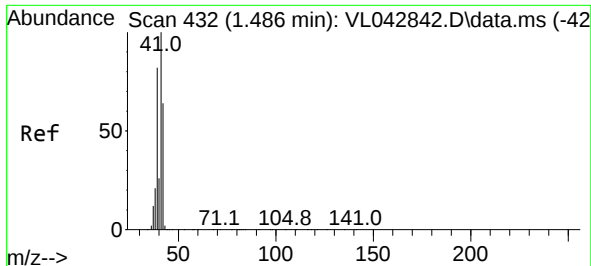
Tgt Ion: 62 Resp: 11753
 Ion Ratio Lower Upper
 62 100
 64 337.3 25.4 38.2#



#7
 Chloroethane
 Concen: 45.622 ppbv
 RT: 1.450 min Scan# 421
 Delta R.T. -0.256 min
 Lab File: VL042883.D
 Acq: 26 Aug 2025 13:42

Tgt Ion: 64 Resp: 128511
 Ion Ratio Lower Upper
 64 100
 66 0.0 28.6 42.8#

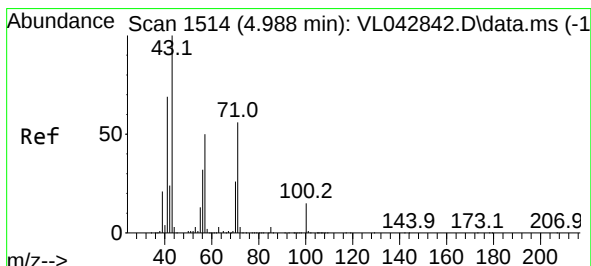
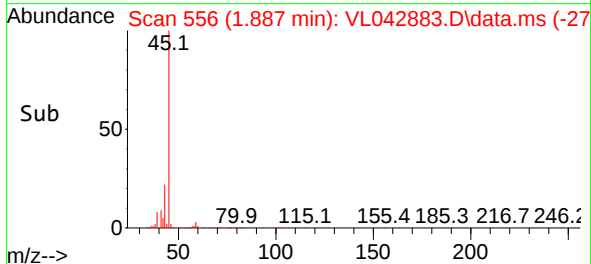
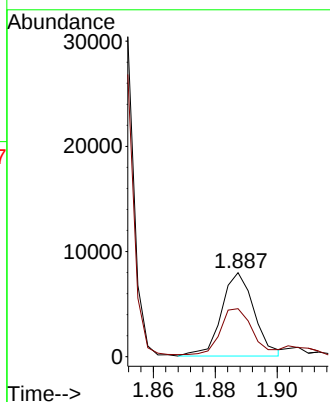
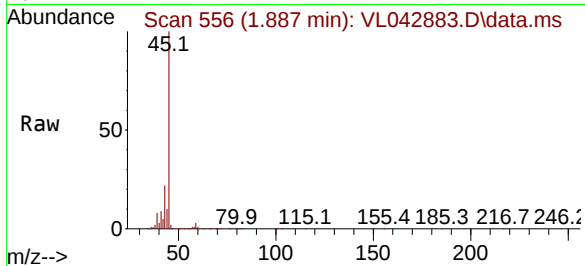




#9
Propene
Concen: 0.668 ppbv
RT: 1.887 min Scan# 51
Delta R.T. 0.401 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

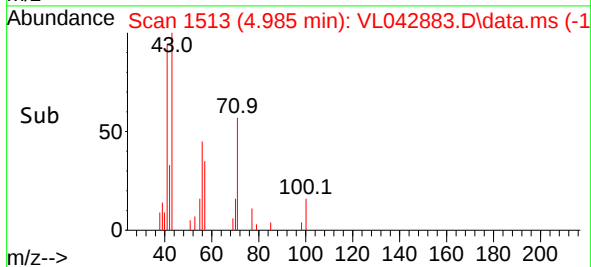
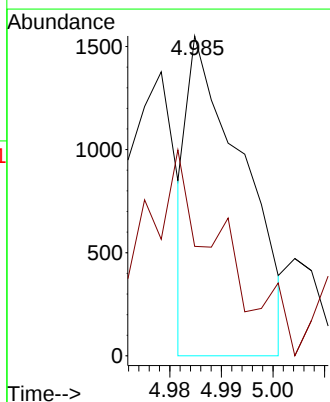
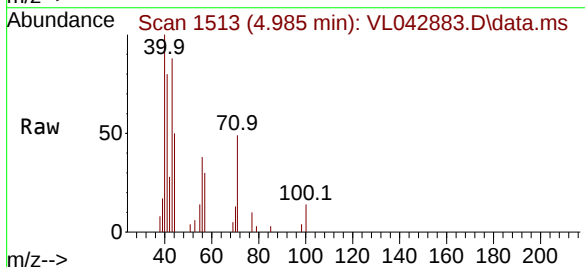
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

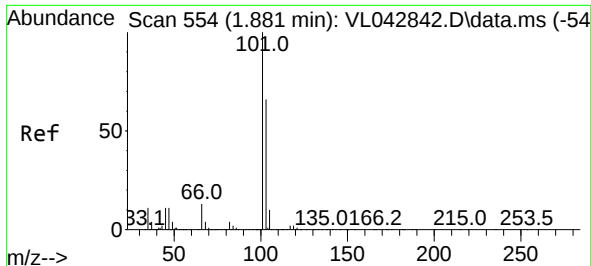
Tgt Ion: 41 Resp: 5790
Ion Ratio Lower Upper
41 100
42 65.0 53.0 79.4



#10
Heptane
Concen: 0.050 ppbv
RT: 4.985 min Scan# 1513
Delta R.T. -0.003 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

Tgt Ion: 43 Resp: 1151
Ion Ratio Lower Upper
43 100
57 0.0 41.4 62.0#

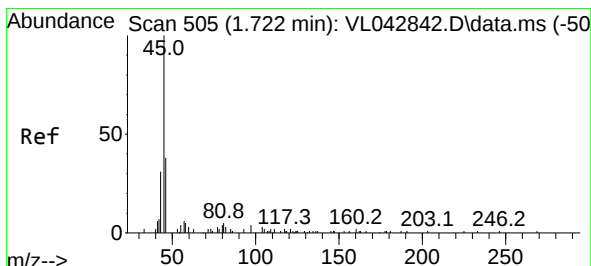
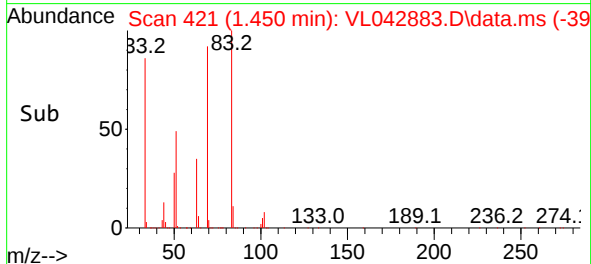
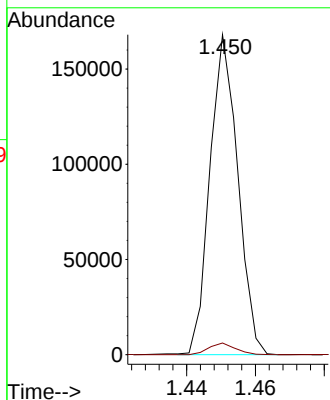
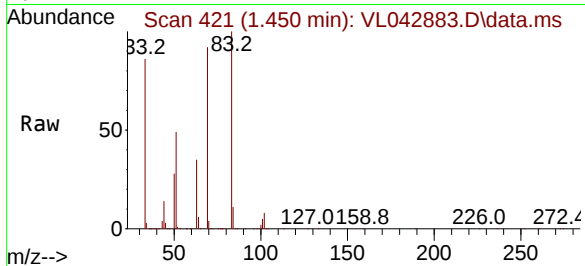




#11
 Trichlorofluoromethane
 Concen: 5.285 ppbv
 RT: 1.450 min Scan# 41
 Delta R.T. -0.430 min
 Lab File: VL042883.D
 Acq: 26 Aug 2025 13:42

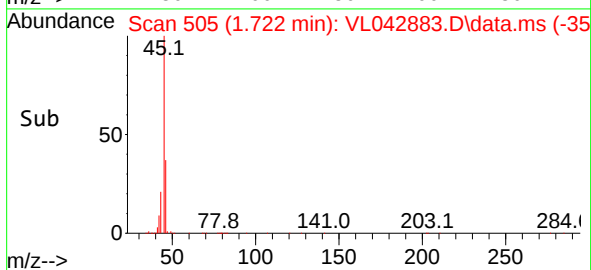
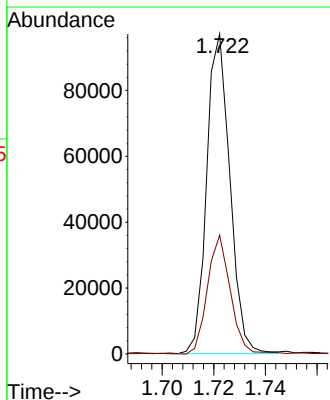
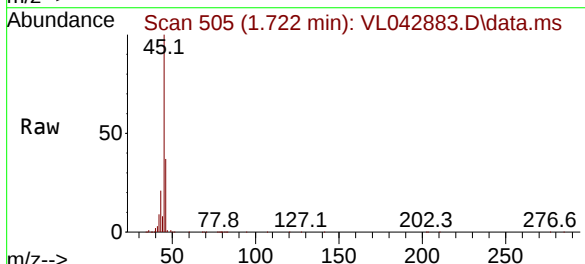
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

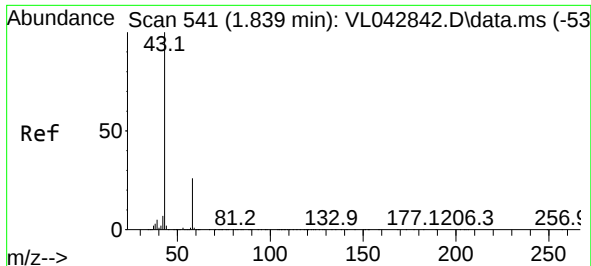
Tgt Ion:101 Resp: 94632
 Ion Ratio Lower Upper
 101 100
 103 3.7 52.5 78.7#



#13
 Ethanol
 Concen: 76.420 ppbv
 RT: 1.722 min Scan# 505
 Delta R.T. 0.000 min
 Lab File: VL042883.D
 Acq: 26 Aug 2025 13:42

Tgt Ion: 45 Resp: 60538
 Ion Ratio Lower Upper
 45 100
 46 37.7 17.5 69.9

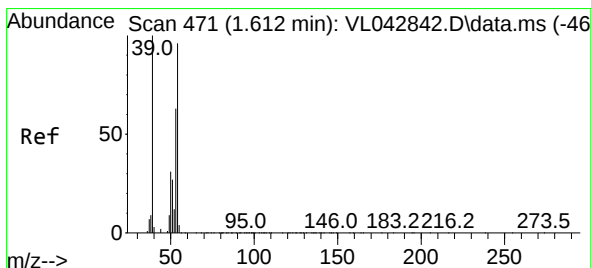
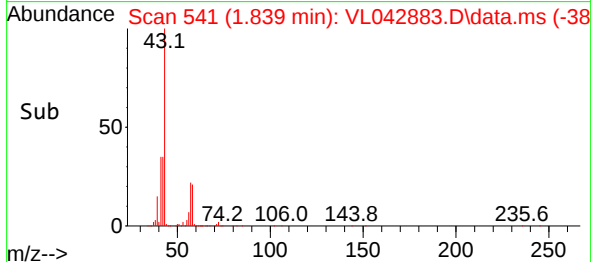
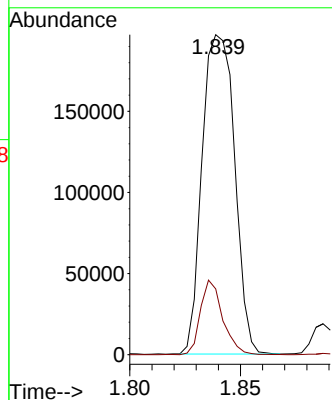
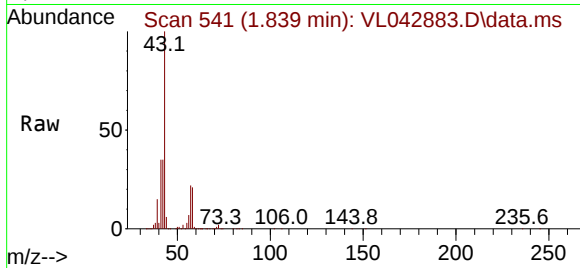




#15
Acetone
Concen: 12.270 ppbv
RT: 1.839 min Scan# 541
Delta R.T. 0.000 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

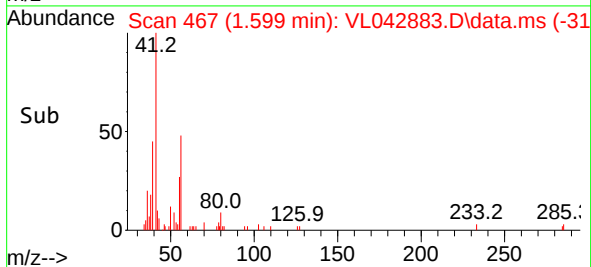
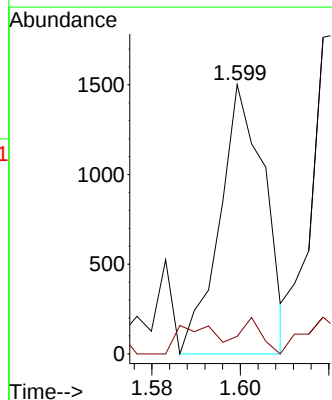
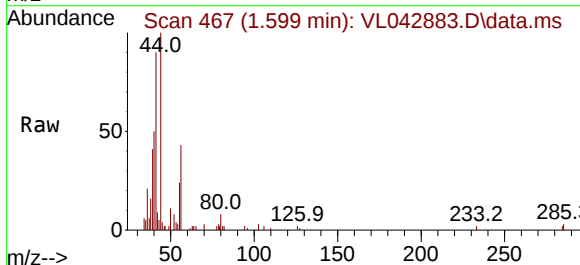
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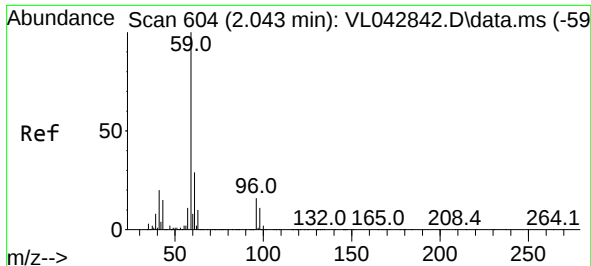
Tgt Ion: 43 Resp: 201004
Ion Ratio Lower Upper
43 100
58 16.0 22.4 33.6#



#16
1,3-Butadiene
Concen: 0.142 ppbv
RT: 1.599 min Scan# 467
Delta R.T. -0.013 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

Tgt Ion: 39 Resp: 1058
Ion Ratio Lower Upper
39 100
54 16.1 63.6 95.4#

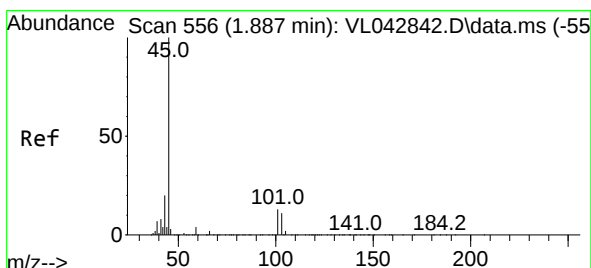
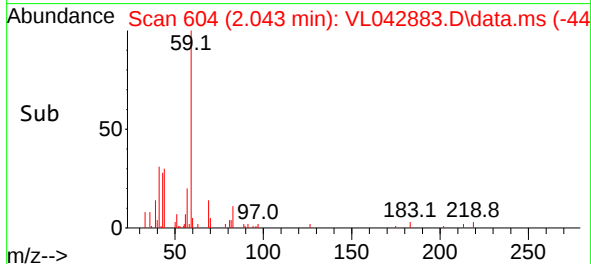
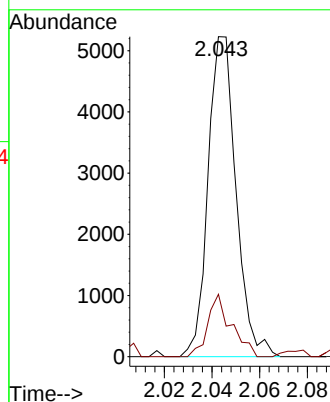
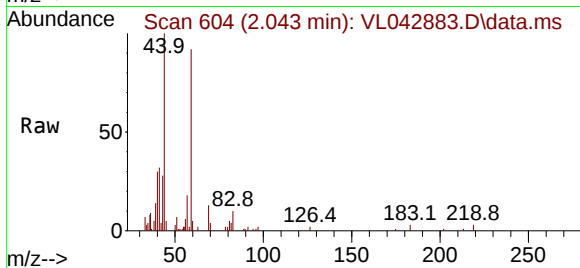




#17
tert-Butyl alcohol
Concen: 0.220 ppbv
RT: 2.043 min Scan# 604
Delta R.T. 0.000 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

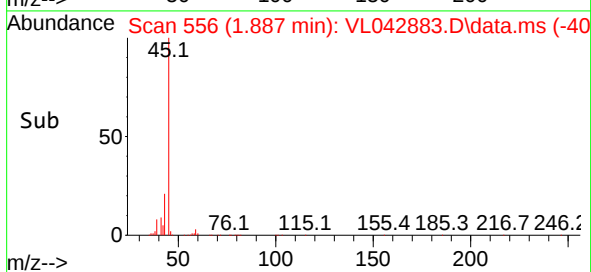
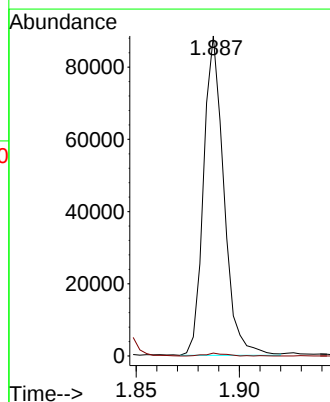
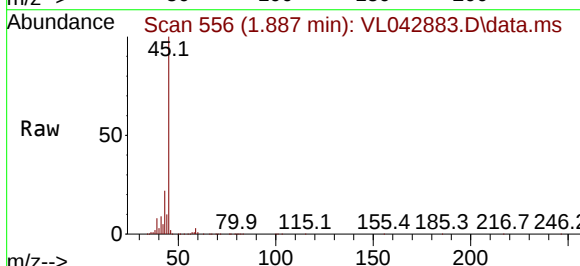
Instrument :
MSVOA_1
ClientSampleId :
SV1DL

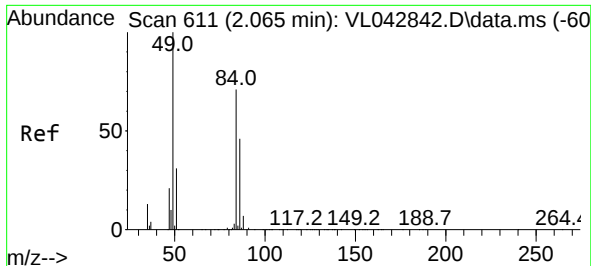
Tgt Ion: 59 Resp: 4272
Ion Ratio Lower Upper
59 100
57 0.0 9.0 13.4#



#19
Isopropyl Alcohol
Concen: 6.183 ppbv
RT: 1.887 min Scan# 556
Delta R.T. 0.000 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

Tgt Ion: 45 Resp: 60497
Ion Ratio Lower Upper
45 100
58 53.2 32.7 49.1#

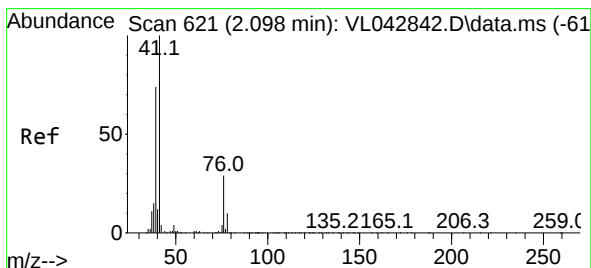
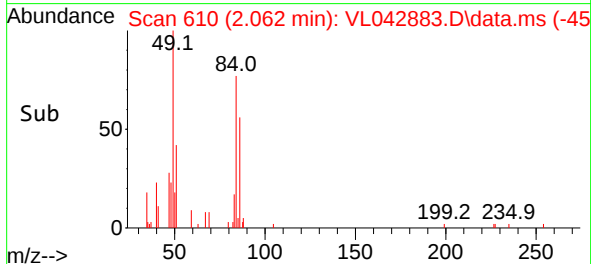
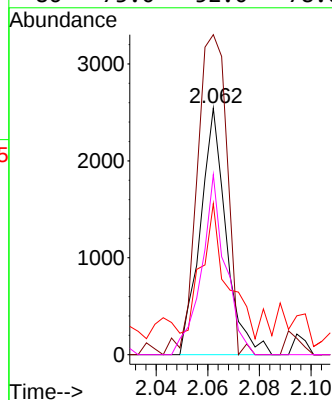
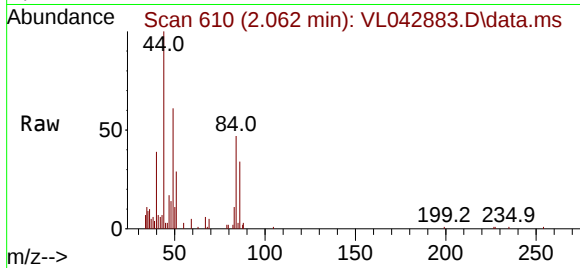




#20
Methylene Chloride
Concen: 0.258 ppbv
RT: 2.062 min Scan# 611
Delta R.T. -0.003 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

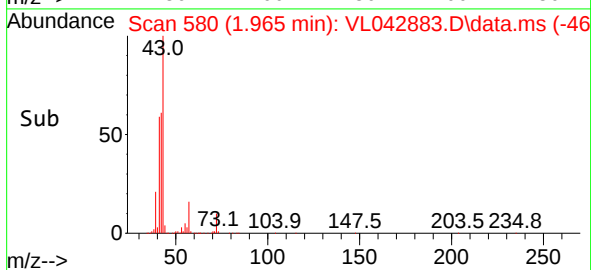
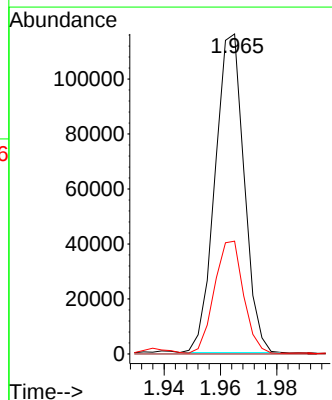
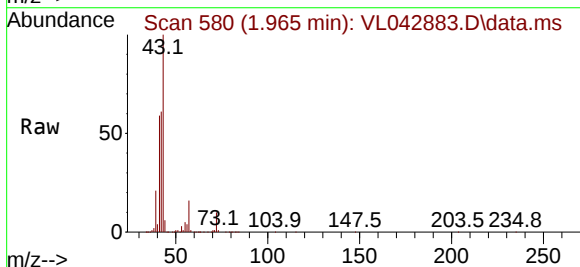
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

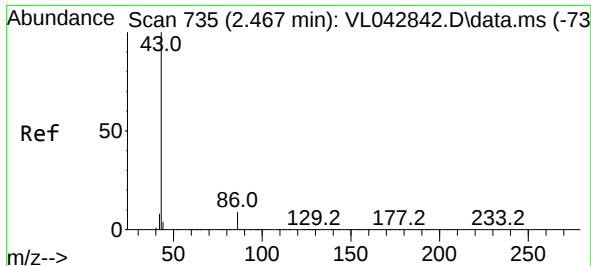
Tgt Ion:	84	Resp:	1771
Ion	Ratio	Lower	Upper
84	100		
49	129.8	112.3	168.5
51	52.6	36.0	54.0
86	73.0	52.0	78.0



#21
Allyl Chloride
Concen: 7.174 ppbv
RT: 1.965 min Scan# 580
Delta R.T. -0.133 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

Tgt Ion:	41	Resp:	83022
Ion	Ratio	Lower	Upper
41	100		
76	0.0	23.9	35.9#
39	37.8	57.8	86.6#

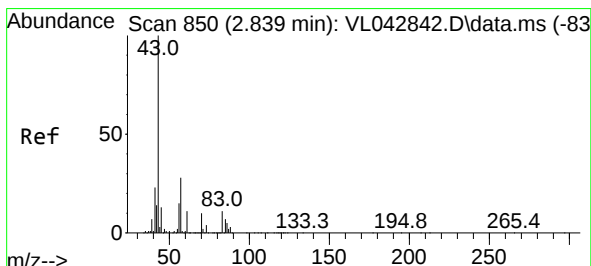
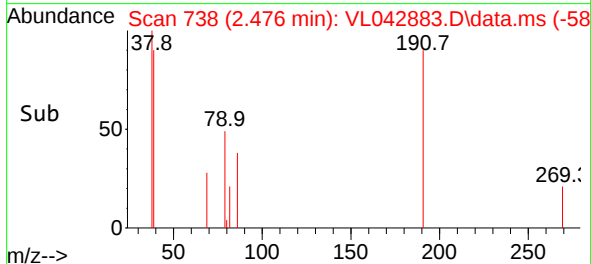
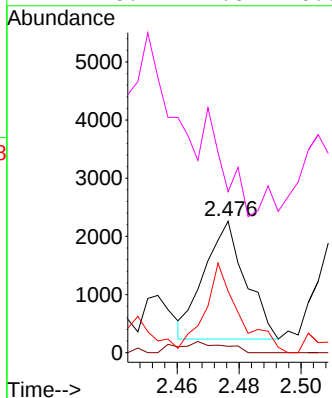
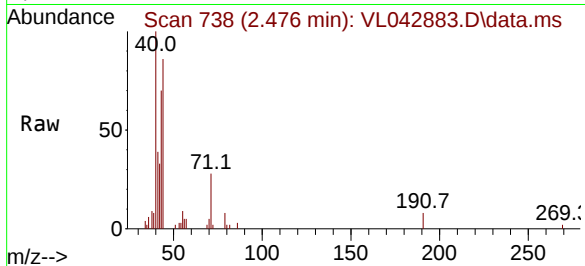




#23
 Vinyl Acetate
 Concen: 0.083 ppbv
 RT: 2.476 min Scan# 71
 Delta R.T. 0.010 min
 Lab File: VL042883.D
 Acq: 26 Aug 2025 13:42

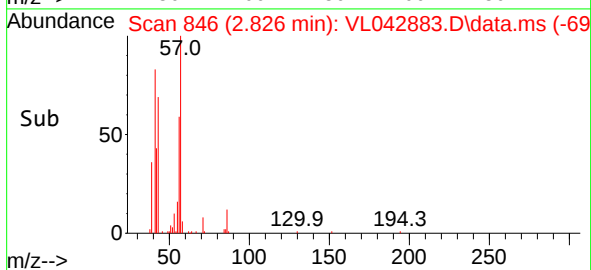
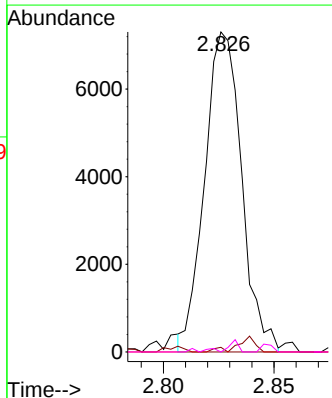
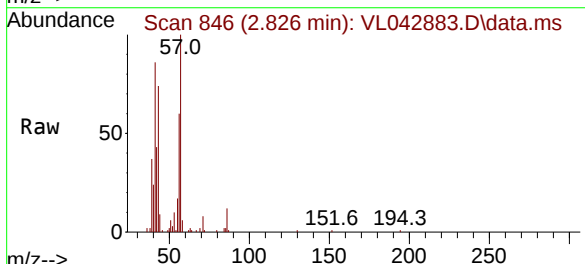
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

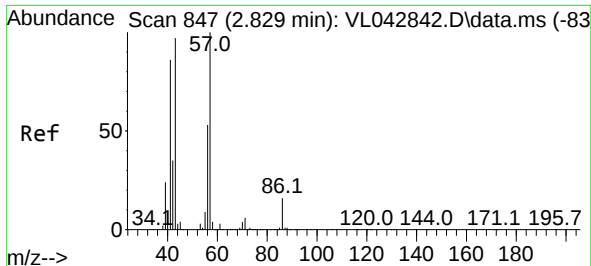
Tgt Ion:	43	Resp:	1879
Ion	Ratio	Lower	Upper
43	100		
86	5.4	6.6	9.8#
42	48.5	7.0	10.6#
44	16.7	4.0	6.0#



#25
 Ethyl Acetate
 Concen: 0.214 ppbv
 RT: 2.826 min Scan# 846
 Delta R.T. -0.013 min
 Lab File: VL042883.D
 Acq: 26 Aug 2025 13:42

Tgt Ion:	43	Resp:	8486
Ion	Ratio	Lower	Upper
43	100		
45	3.2	8.1	12.1#
61	0.0	7.4	11.2#
70	2.1	7.3	10.9#

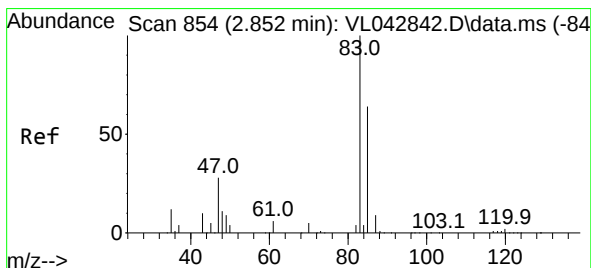
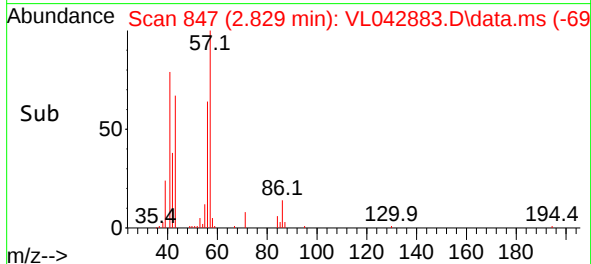
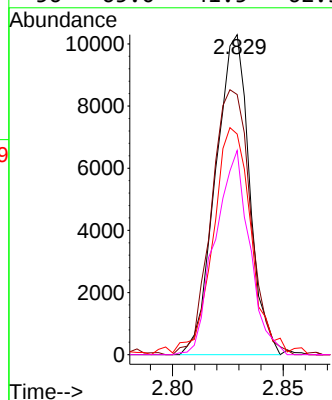
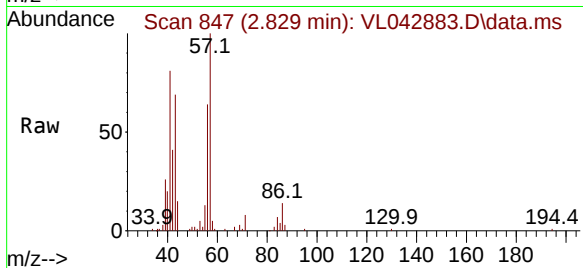




#26
Hexane
Concen: 0.598 ppbv
RT: 2.829 min Scan# 847
Delta R.T. 0.000 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

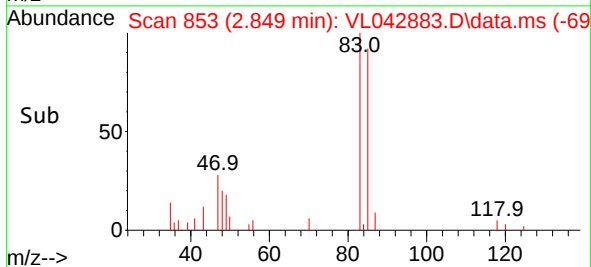
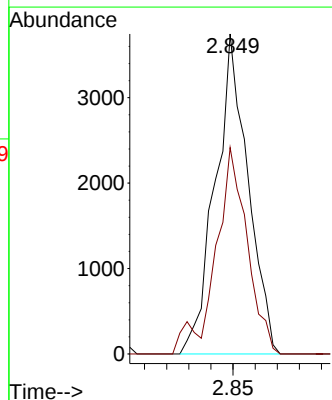
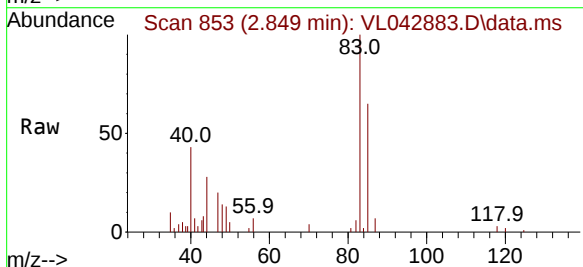
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

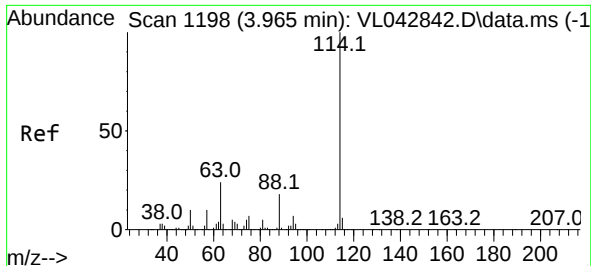
Tgt Ion: 57 Resp: 10952
Ion Ratio Lower Upper
57 100
41 96.2 68.6 103.0
43 80.9 168.5 252.7#
56 65.0 41.5 62.3#



#29
Chloroform
Concen: 0.147 ppbv
RT: 2.849 min Scan# 853
Delta R.T. -0.003 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

Tgt Ion: 83 Resp: 3846
Ion Ratio Lower Upper
83 100
85 64.5 51.1 76.7





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.959 min Scan# 1196

Delta R.T. -0.006 min

Lab File: VL042883.D

Acq: 26 Aug 2025 13:42

Instrument :

MSVOA_L

ClientSampleId :

SV1DL

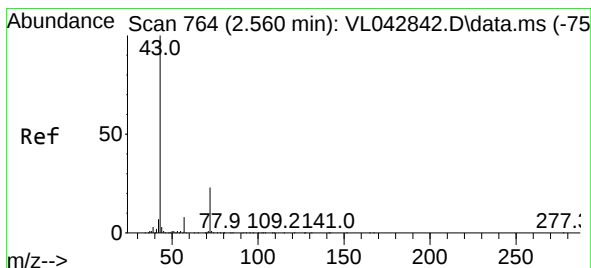
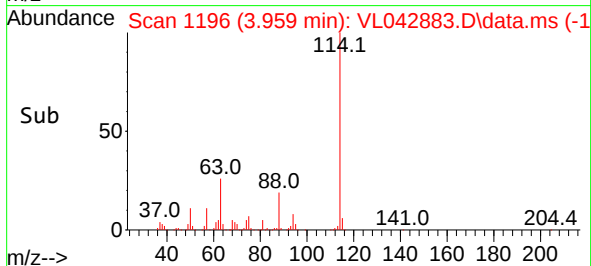
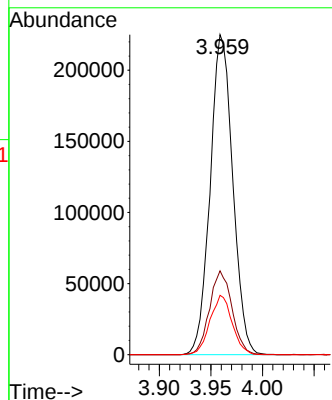
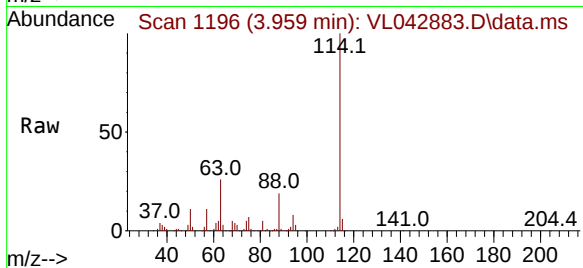
Tgt Ion:114 Resp: 342269

Ion Ratio Lower Upper

114 100

63 26.2 19.7 29.5

88 18.2 14.4 21.6



#34

2-Butanone

Concen: 0.192 ppbv

RT: 2.561 min Scan# 764

Delta R.T. 0.000 min

Lab File: VL042883.D

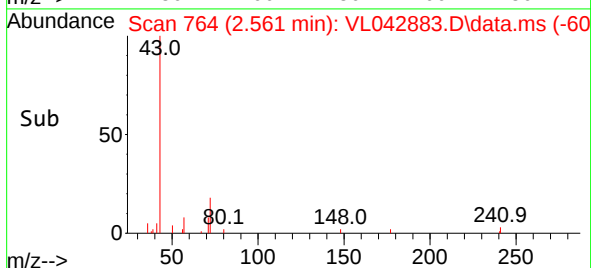
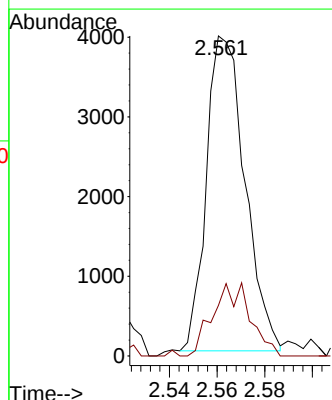
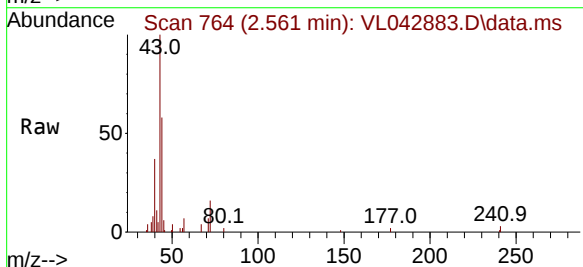
Acq: 26 Aug 2025 13:42

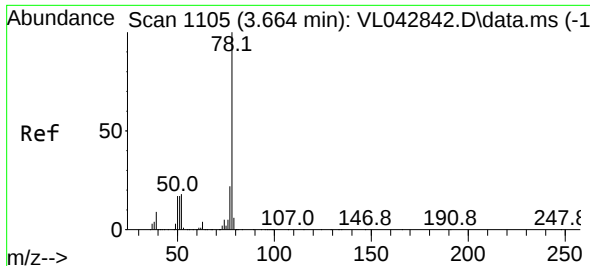
Tgt Ion: 43 Resp: 4440

Ion Ratio Lower Upper

43 100

72 22.8 18.6 28.0

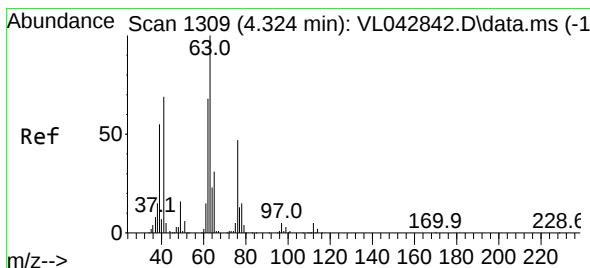
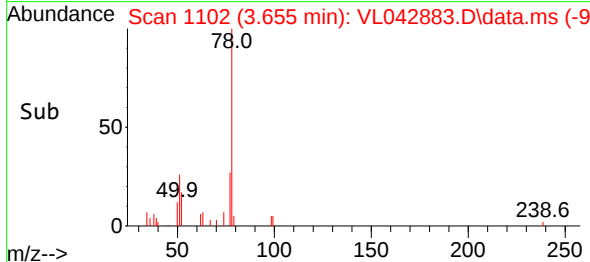
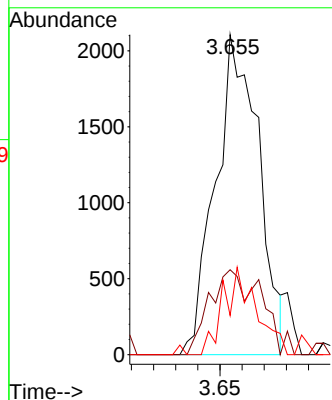
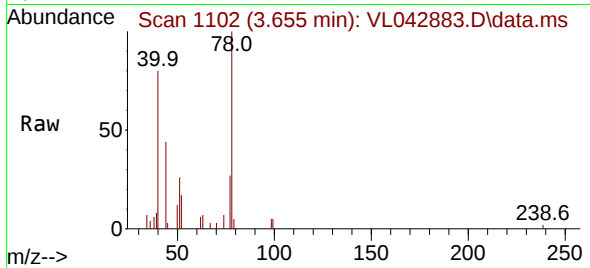




#36
Benzene
Concen: 0.087 ppbv
RT: 3.655 min Scan# 1105
Delta R.T. -0.010 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

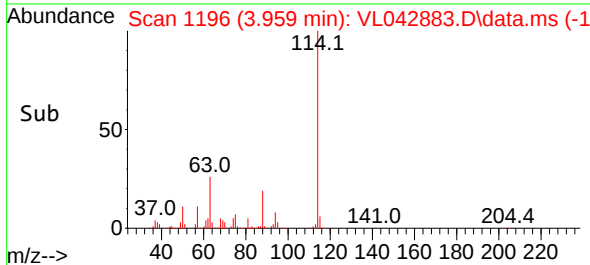
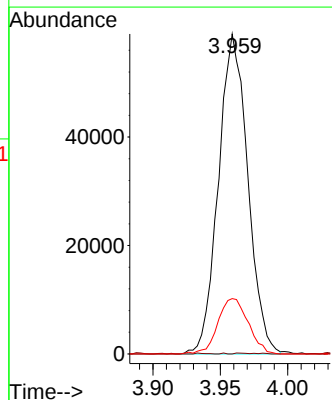
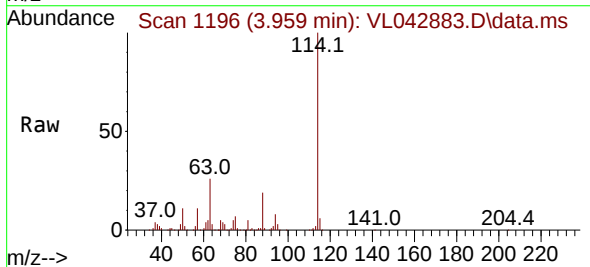
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

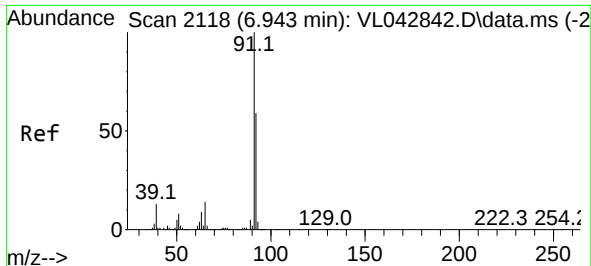
Tgt Ion: 78 Resp: 2855
Ion Ratio Lower Upper
78 100
77 26.5 17.7 26.5#
50 9.3 13.9 20.9#



#39
1,2-Dichloropropane
Concen: 7.462 ppbv
RT: 3.959 min Scan# 1196
Delta R.T. -0.366 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

Tgt Ion: 63 Resp: 89326
Ion Ratio Lower Upper
63 100
41 0.0 55.0 82.4#
62 17.3 54.4 81.6#

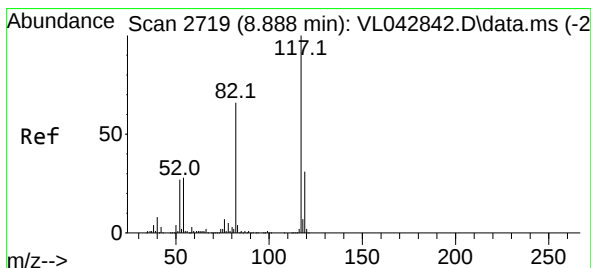
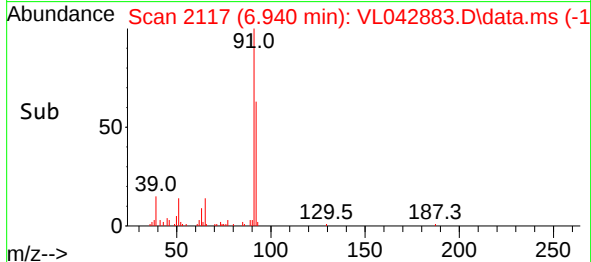
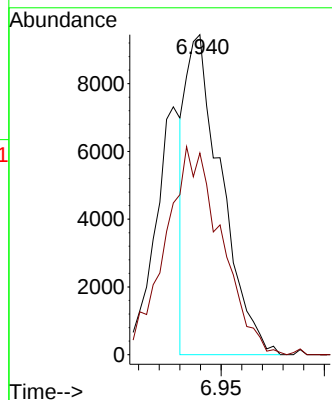
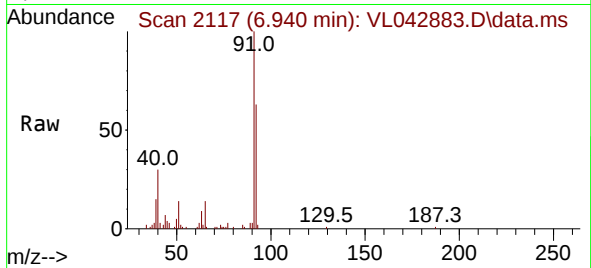




#53
Toluene
Concen: 0.292 ppbv
RT: 6.940 min Scan# 2118
Delta R.T. -0.003 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

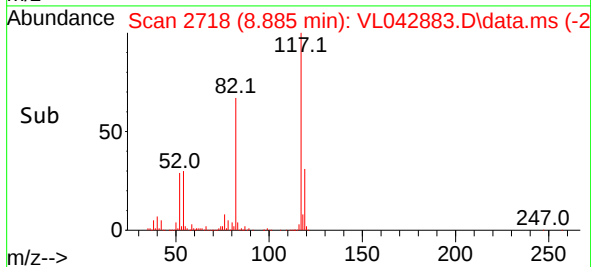
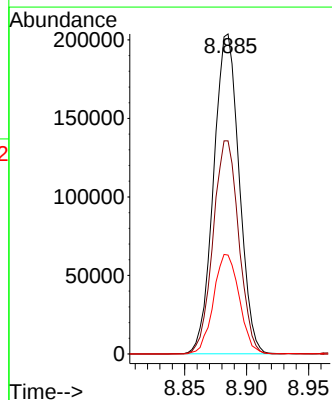
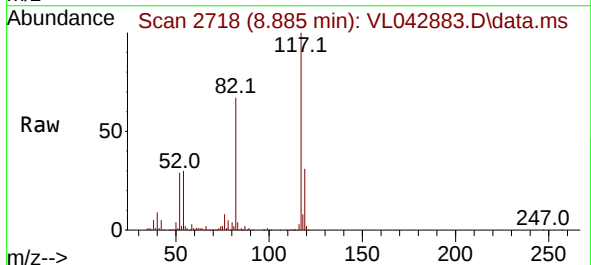
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

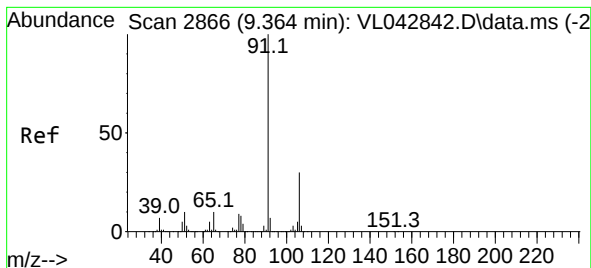
Tgt Ion: 91 Resp: 11361
Ion Ratio Lower Upper
91 100
92 103.0 47.8 71.6#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.885 min Scan# 2718
Delta R.T. -0.003 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

Tgt Ion: 117 Resp: 292713
Ion Ratio Lower Upper
117 100
82 67.1 54.6 81.8
119 31.6 25.9 38.9





#58

Ethyl Benzene

Concen: 1.017 ppbv

RT: 9.361 min Scan# 21

Delta R.T. -0.003 min

Lab File: VL042883.D

Acq: 26 Aug 2025 13:42

Instrument :

MSVOA_L

ClientSampleId :

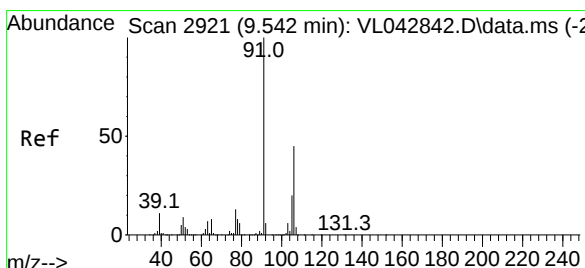
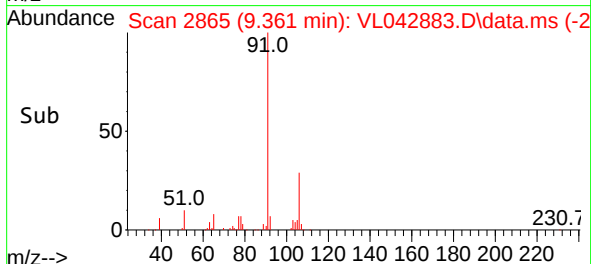
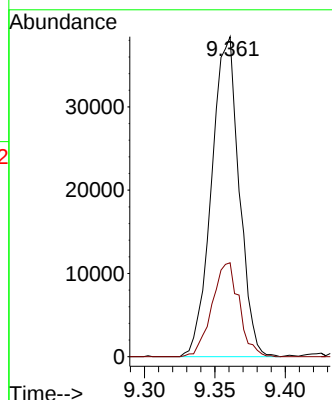
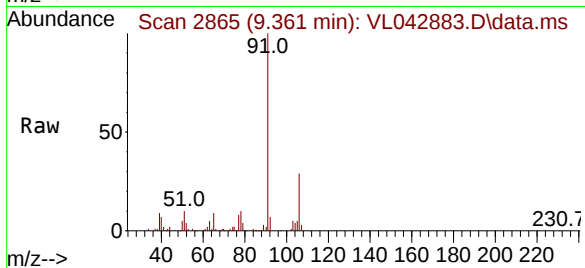
SV1DL

Tgt Ion: 91 Resp: 52532

Ion Ratio Lower Upper

91 100

106 29.4 23.9 35.9



#59

m/p-Xylene

Concen: 0.311 ppbv

RT: 9.536 min Scan# 2919

Delta R.T. -0.006 min

Lab File: VL042883.D

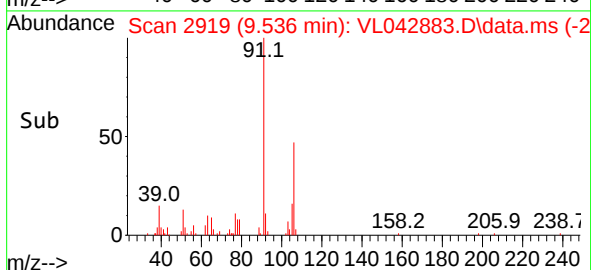
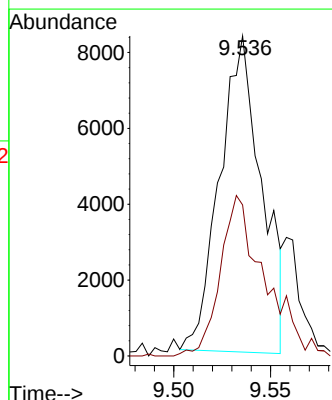
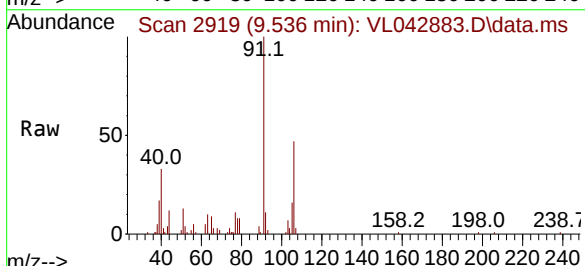
Acq: 26 Aug 2025 13:42

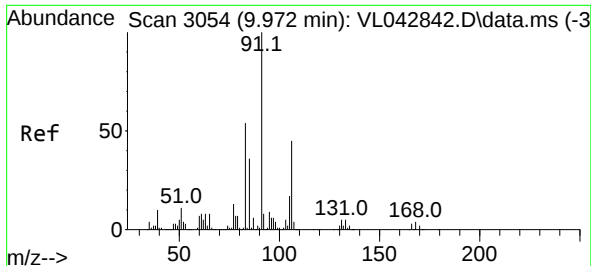
Tgt Ion: 91 Resp: 12581

Ion Ratio Lower Upper

91 100

106 53.5 0.0 0.0#

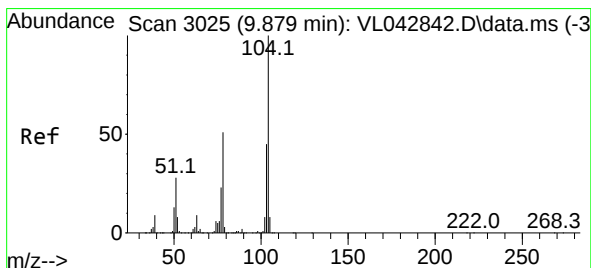
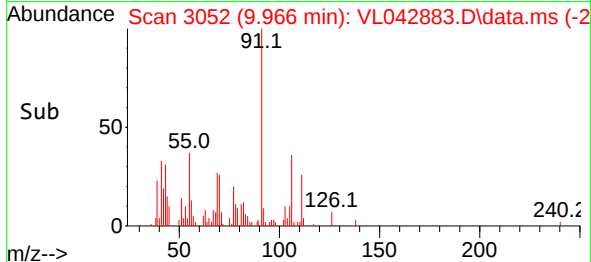
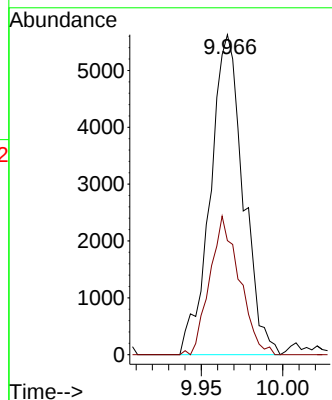
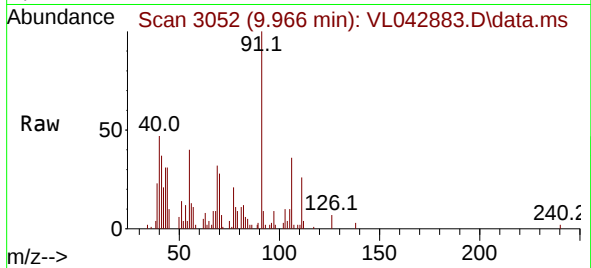




#60
o-Xylene
Concen: 0.194 ppbv
RT: 9.966 min Scan# 3052
Delta R.T. -0.006 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

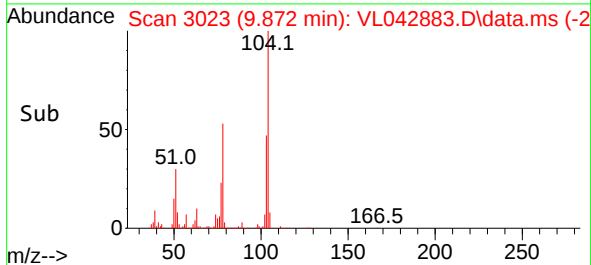
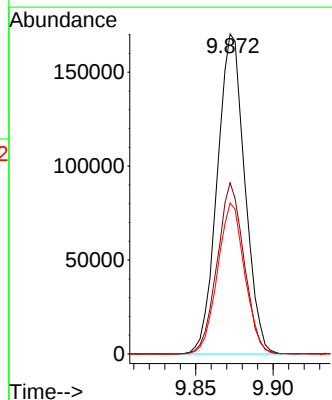
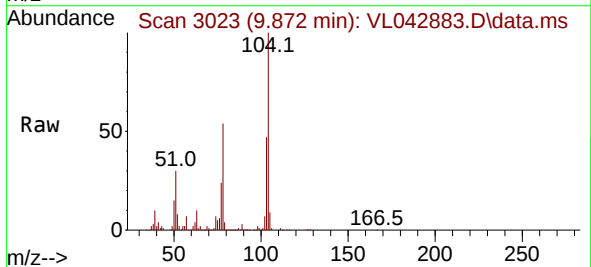
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

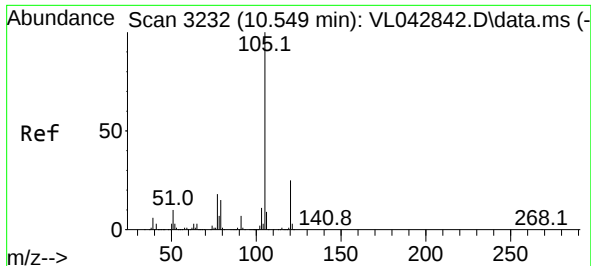
Tgt Ion: 91 Resp: 7912
Ion Ratio Lower Upper
91 100
106 39.0 21.8 65.4



#61
Styrene
Concen: 11.047 ppbv
RT: 9.872 min Scan# 3023
Delta R.T. -0.006 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

Tgt Ion:104 Resp: 210799
Ion Ratio Lower Upper
104 100
78 52.1 40.6 61.0
103 46.6 37.7 56.5

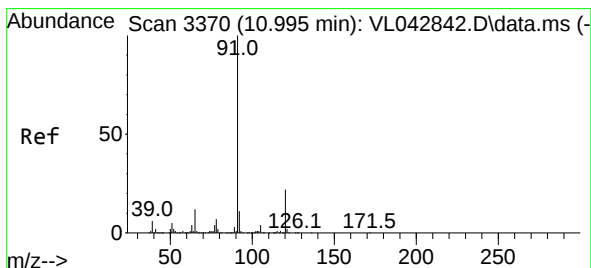
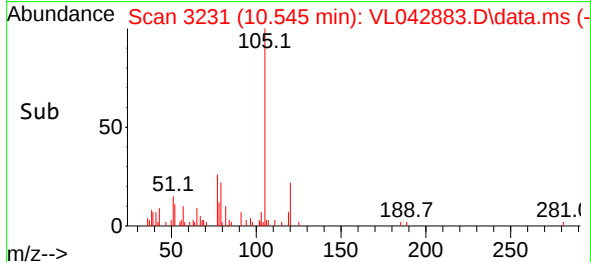
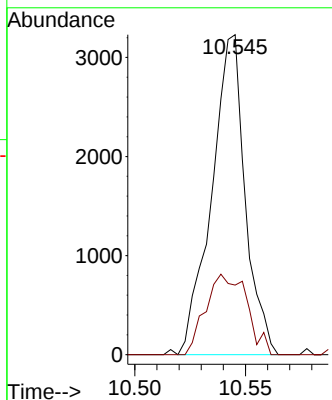
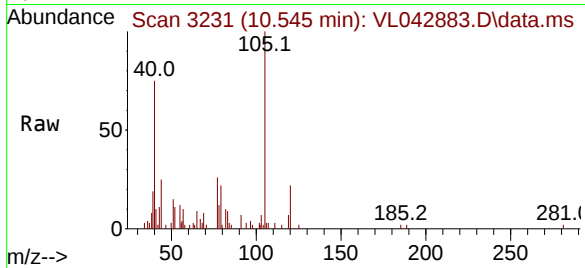




#62
Isopropylbenzene
Concen: 0.057 ppbv
RT: 10.545 min Scan# 31
Delta R.T. -0.003 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

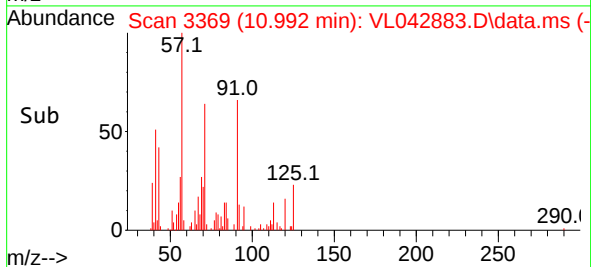
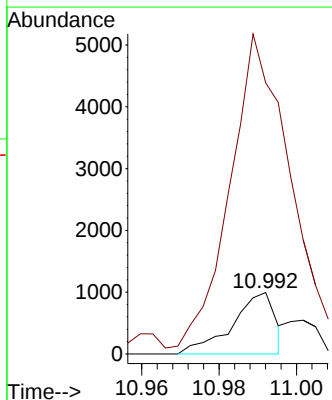
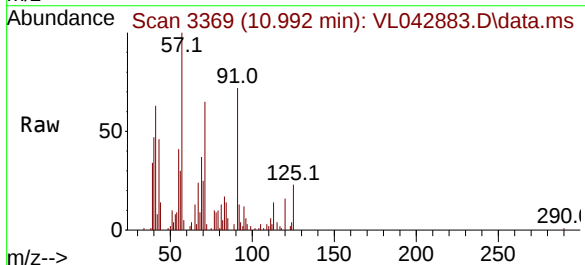
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

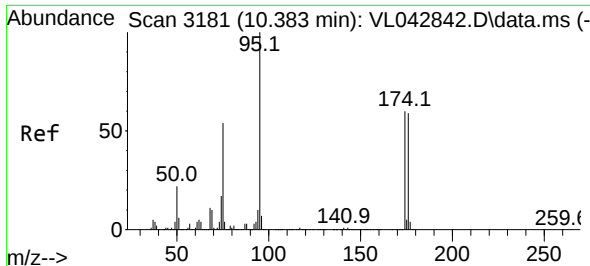
Tgt Ion:105 Resp: 3414
Ion Ratio Lower Upper
105 100
120 30.8 20.6 30.8



#64
n-propylbenzene
Concen: 0.051 ppbv
RT: 10.992 min Scan# 3369
Delta R.T. -0.003 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

Tgt Ion:120 Resp: 768
Ion Ratio Lower Upper
120 100
91 813.5 375.8 563.6#

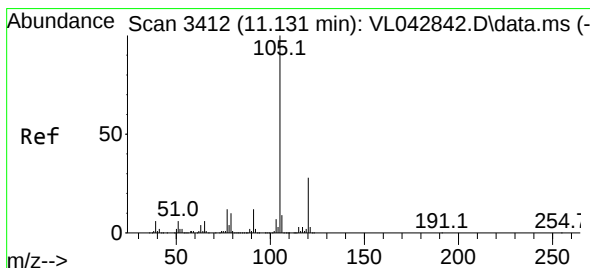
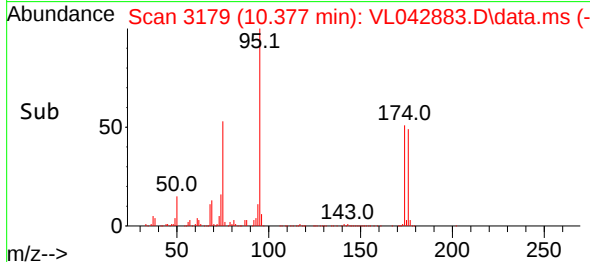
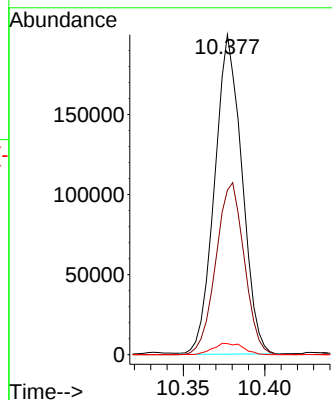
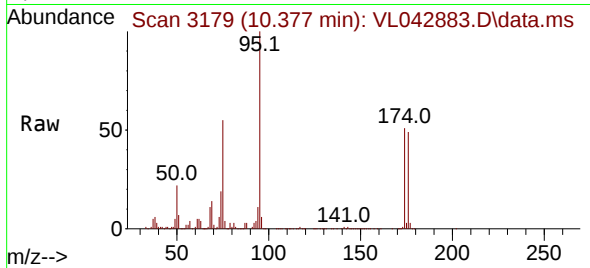




#68
1-Bromo-4-Fluorobenzene
Concen: 10.595 ppbv
RT: 10.377 min Scan# 3181
Delta R.T. -0.006 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

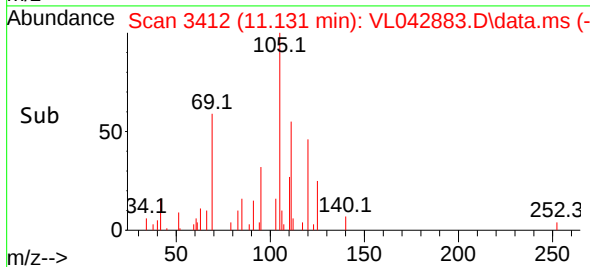
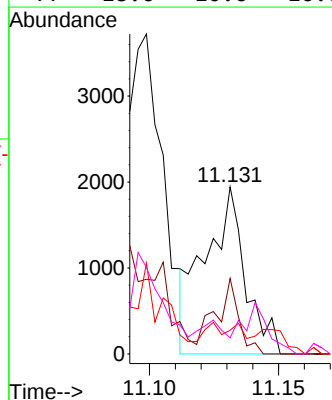
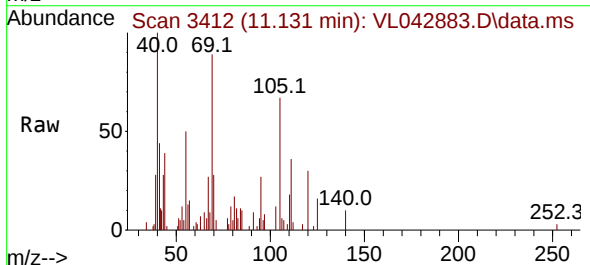
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

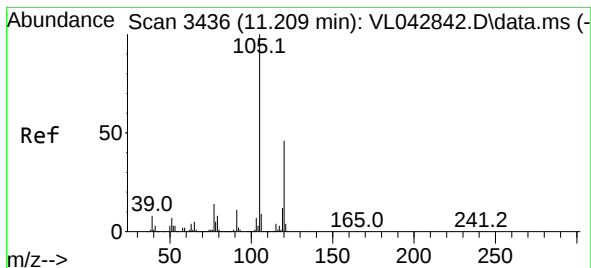
Tgt Ion: 95 Resp: 232578
Ion Ratio Lower Upper
95 100
174 55.9 48.4 72.6
175 4.0 3.8 5.8



#72
4-Ethyltoluene
Concen: 0.043 ppbv
RT: 11.131 min Scan# 3412
Delta R.T. 0.000 min
Lab File: VL042883.D
Acq: 26 Aug 2025 13:42

Tgt Ion:105 Resp: 2121
Ion Ratio Lower Upper
105 100
120 0.0 23.4 35.2#
91 0.0 9.8 14.6#
77 18.6 10.6 16.0#





#73

1,3,5-Trimethylbenzene

Concen: 0.064 ppbv

RT: 11.206 min Scan# 3436

Delta R.T. -0.003 min

Lab File: VL042883.D

Acq: 26 Aug 2025 13:42

Instrument :

MSVOA_L

ClientSampleId :

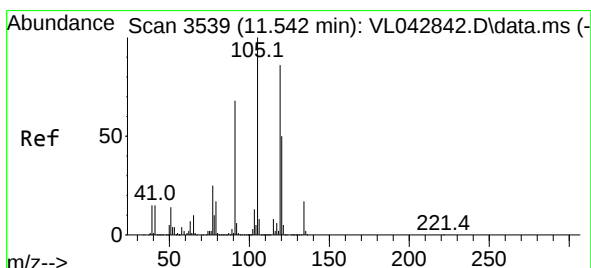
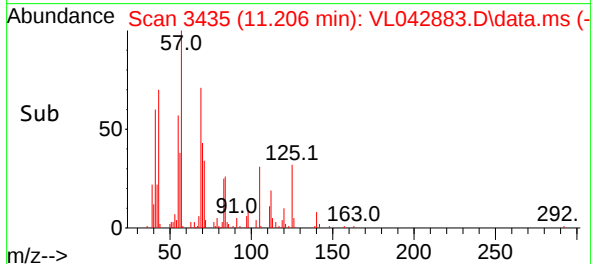
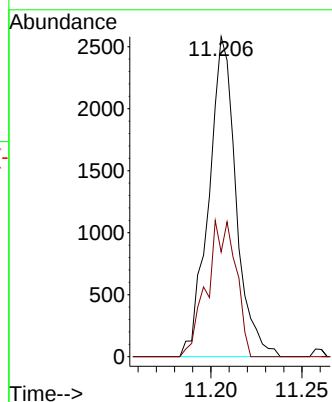
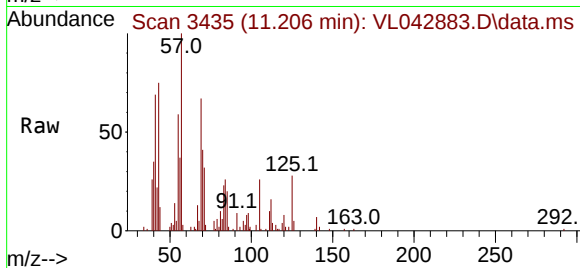
SV1DL

Tgt Ion:105 Resp: 2696

Ion Ratio Lower Upper

105 100

120 32.7 36.6 54.8#



#74

1,2,4-Trimethylbenzene

Concen: 0.137 ppbv

RT: 11.539 min Scan# 3538

Delta R.T. -0.003 min

Lab File: VL042883.D

Acq: 26 Aug 2025 13:42

Tgt Ion:105 Resp: 6318

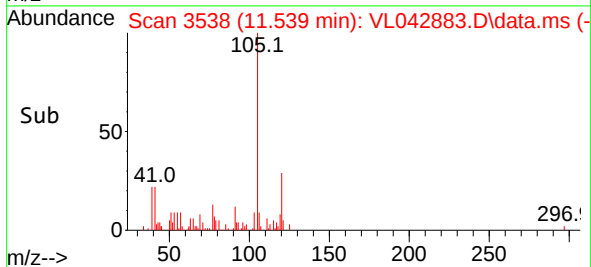
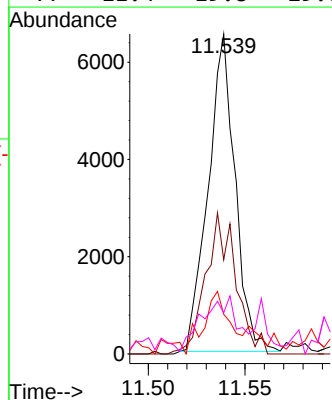
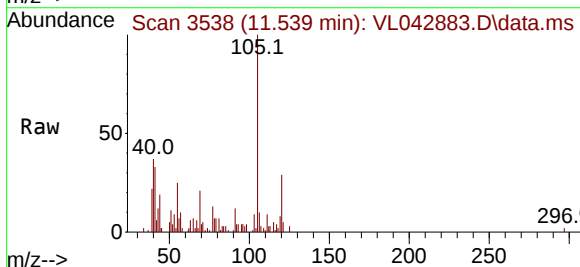
Ion Ratio Lower Upper

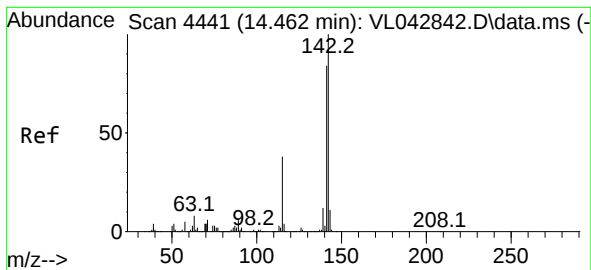
105 100

120 29.7 39.8 59.6#

91 9.9 54.2 81.4#

77 11.4 19.8 29.6#





#80
 Naphthalene, 2-methyl-
 Concen: 0.067 ppbv
 RT: 14.468 min Scan# 4443
 Delta R.T. 0.007 min
 Lab File: VL042883.D
 Acq: 26 Aug 2025 13:42

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

Tgt Ion:142 Resp: 1051
 Ion Ratio Lower Upper
 142 100
 141 97.7 67.0 100.6
 115 51.1 30.9 46.3#

