

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL072925\
 Data File : VL042779.D
 Acq On : 29 Jul 2025 12:37
 Operator : SY/MD
 Sample : Q2712-02DL 40X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2DL

Quant Time: Jul 30 01:10:11 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL072325AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Jul 24 05:24:41 2025
 Response via : Initial Calibration

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

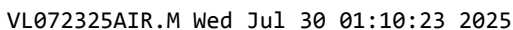
Internal Standards						
1) Bromochloromethane	2.790	49	149861	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.962	114	401762	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.885	117	373347	10.000	ppbv	0.00

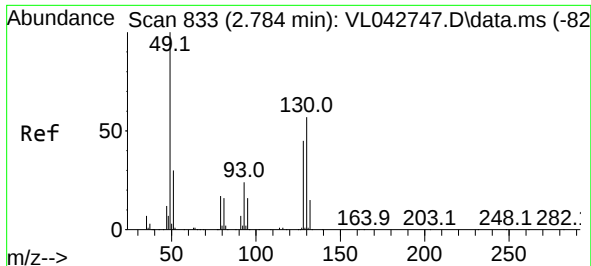
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.380	95	301363	10.193	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.900%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chlorodifluoromethane	1.463	51	8092	0.314	ppbv #	75
4) Chloromethane	1.531	50	386	0.048	ppbv #	41
7) Chloroethane	1.495	64	118	0.039	ppbv	100
9) Propene	1.476	41	1313	0.140	ppbv #	1
10) Heptane	4.985	43	520	0.021	ppbv #	1
11) Trichlorofluoromethane	1.877	101	1148	0.056	ppbv	95
13) Ethanol	1.722	45	24709	35.022	ppbv	91
15) Acetone	1.835	43	22289	1.077	ppbv	98
16) 1,3-Butadiene	1.609	39	411	0.047	ppbv #	16
19) Isopropyl Alcohol	1.722	45	24709	2.247	ppbv #	39
20) Methylene Chloride	2.062	84	1226	0.188	ppbv #	74
23) Vinyl Acetate	2.473	43	866	0.035	ppbv #	1
25) Ethyl Acetate	2.842	43	5973	0.130	ppbv #	62
26) Hexane	2.826	57	13650	0.679	ppbv #	60
34) 2-Butanone	2.564	43	3394	0.119	ppbv #	84
39) 1,2-Dichloropropane	3.962	63	104121	7.408	ppbv #	21
51) 2-Hexanone	7.438	43	1014	0.037	ppbv #	30
52) Tetrachloroethene	8.231	164	18021	1.142	ppbv	90
53) Toluene	6.936	91	6716	0.164	ppbv	86
58) Ethyl Benzene	9.364	91	1537	0.026	ppbv	95
60) o-Xylene	9.966	91	3716	0.079	ppbv	82
66) Benzyl Chloride	11.633	91	209	0.041	ppbv #	65
73) 1,3,5-Trimethylbenzene	11.209	105	1423	0.031	ppbv #	75
79) Naphthalene	13.523	128	38	0.436	ppbv #	69
80) Naphthalene,2-methyl-	14.516	142	61	1.130	ppbv #	26
81) 1,2,4-Trichlorobenzene	13.448	180	13	0.435	ppbv #	1

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

Quant Time: Jul 30 01:10:11 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL072325AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Thu Jul 24 05:24:41 2025
Response via : Initial Calibration

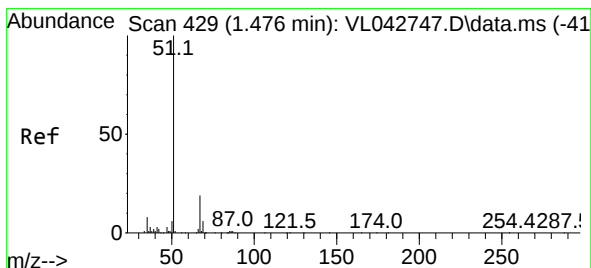
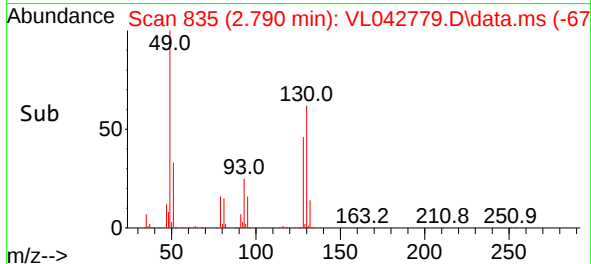
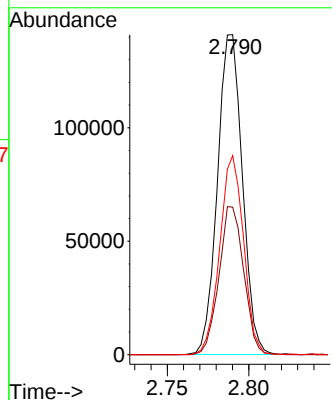
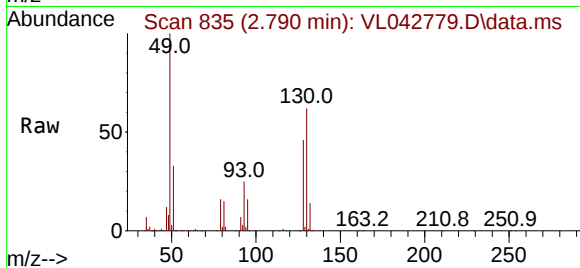




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.790 min Scan# 81
Delta R.T. 0.006 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

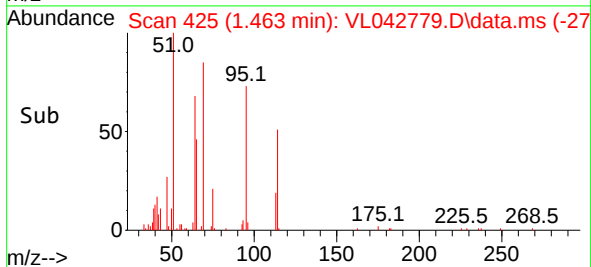
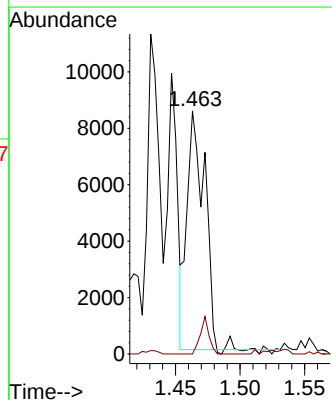
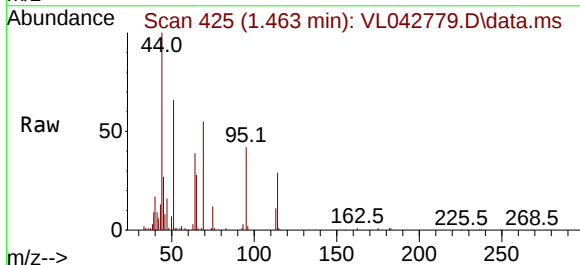
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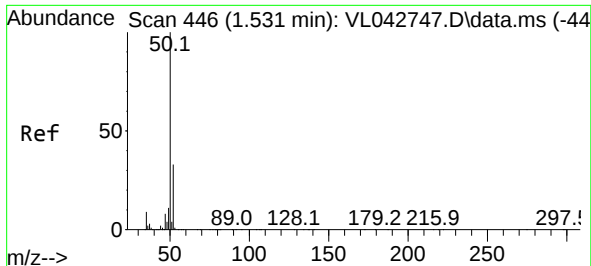
Tgt Ion: 49 Resp: 149861
Ion Ratio Lower Upper
49 100
128 46.0 23.6 71.0
130 59.7 30.3 90.8



#3
Chlorodifluoromethane
Concen: 0.314 ppbv
RT: 1.463 min Scan# 425
Delta R.T. -0.013 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

Tgt Ion: 51 Resp: 8092
Ion Ratio Lower Upper
51 100
67 7.6 15.0 22.6#

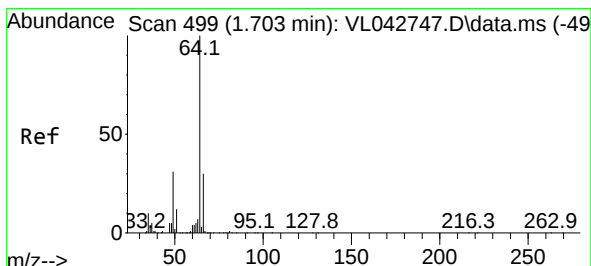
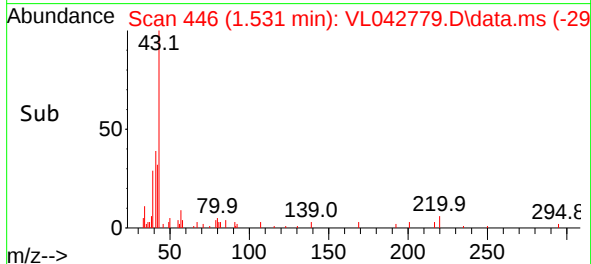
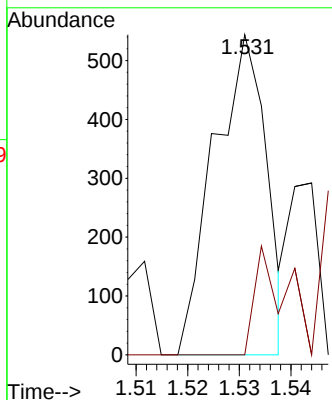
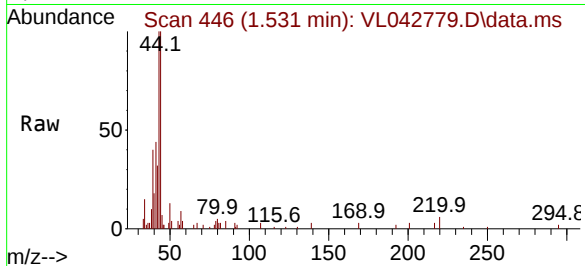




#4
Chloromethane
Concen: 0.048 ppbv
RT: 1.531 min Scan# 446
Delta R.T. -0.000 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

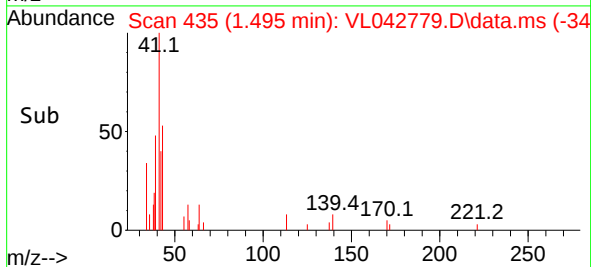
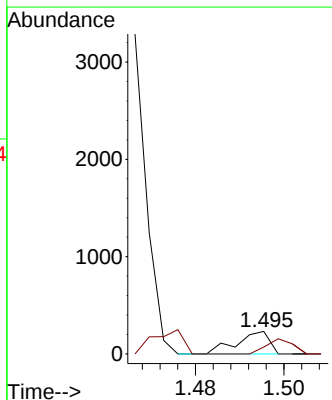
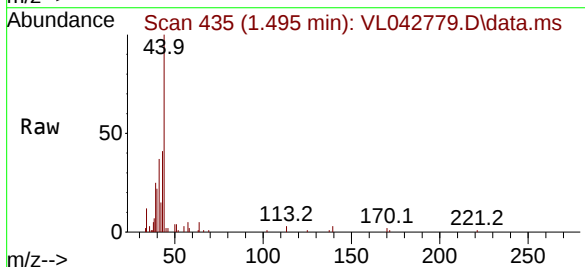
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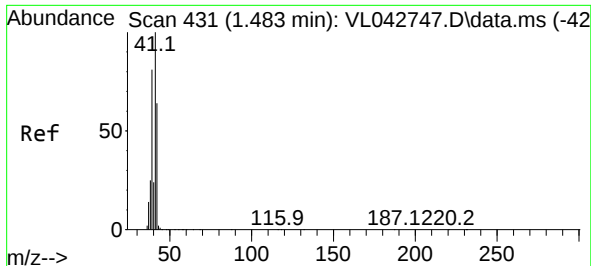
Tgt Ion: 50 Resp: 386
Ion Ratio Lower Upper
50 100
52 0.0 26.6 40.0#



#7
Chloroethane
Concen: 0.039 ppbv
RT: 1.495 min Scan# 435
Delta R.T. -0.207 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

Tgt Ion: 64 Resp: 118
Ion Ratio Lower Upper
64 100
66 30.3 24.1 36.1

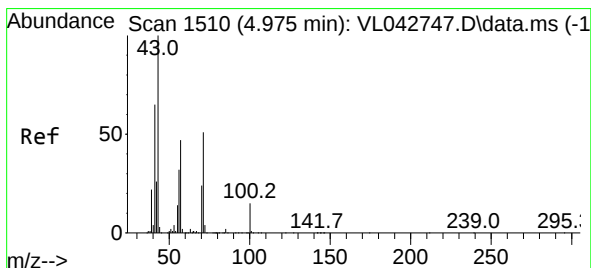
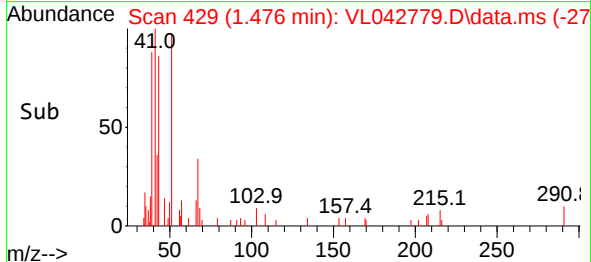
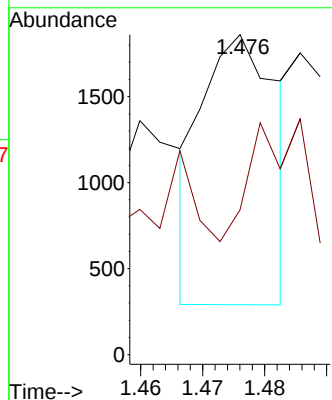
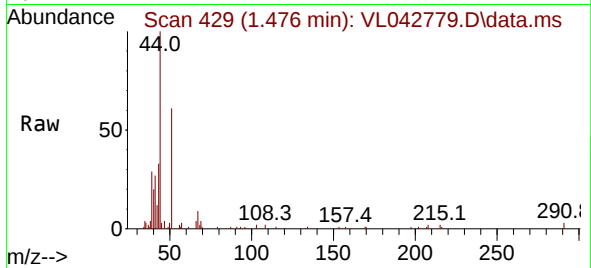




#9
Propene
Concen: 0.140 ppbv
RT: 1.476 min Scan# 41
Delta R.T. -0.007 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

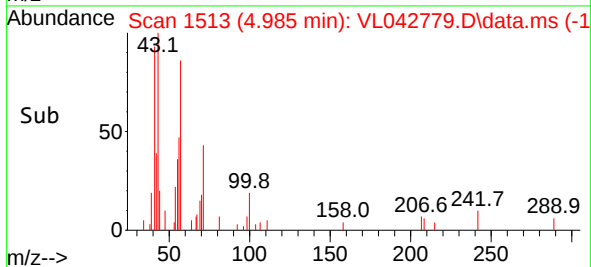
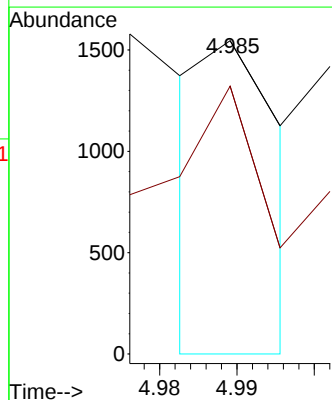
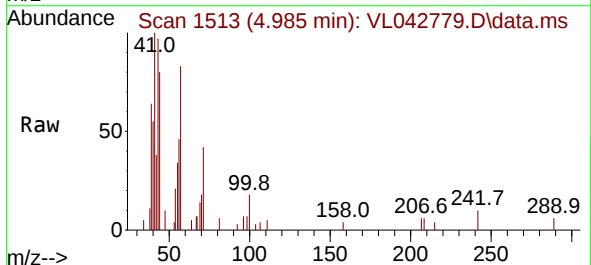
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

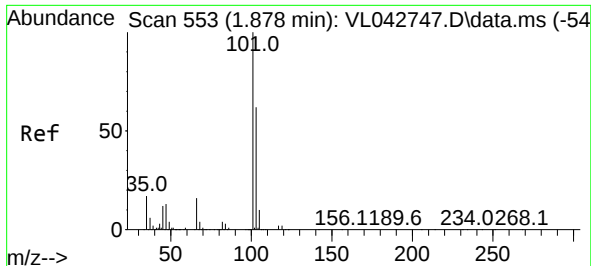
Tgt Ion: 41 Resp: 1313
Ion Ratio Lower Upper
41 100
42 184.3 53.2 79.8#



#10
Heptane
Concen: 0.021 ppbv
RT: 4.985 min Scan# 1513
Delta R.T. 0.010 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

Tgt Ion: 43 Resp: 520
Ion Ratio Lower Upper
43 100
57 352.1 39.9 59.9#

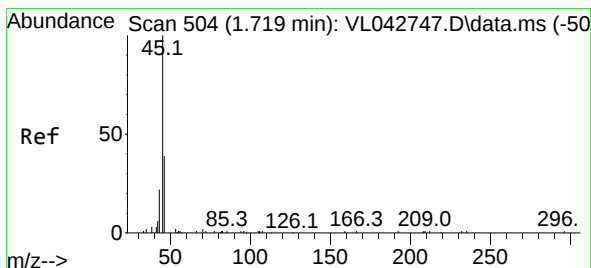
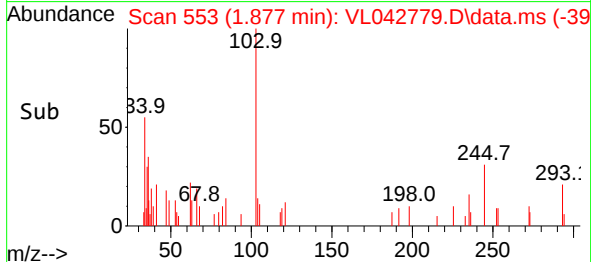
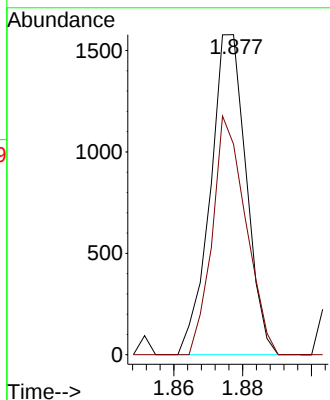
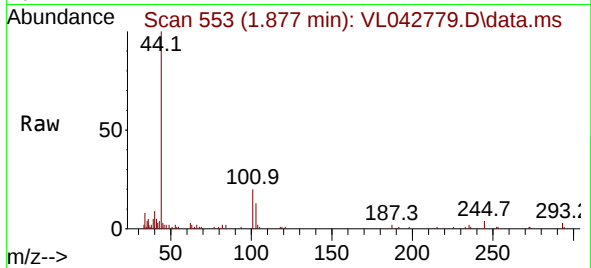




#11
 Trichlorofluoromethane
 Concen: 0.056 ppbv
 RT: 1.877 min Scan# 511
 Delta R.T. -0.000 min
 Lab File: VL042779.D
 Acq: 29 Jul 2025 12:37

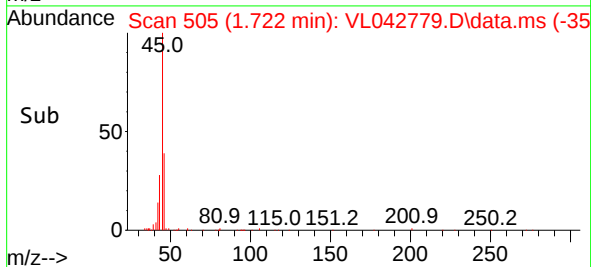
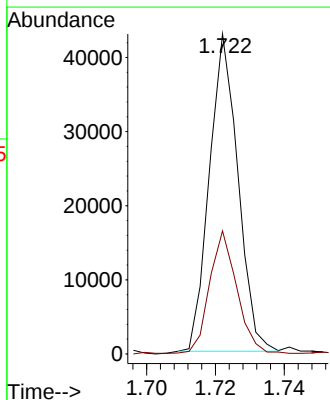
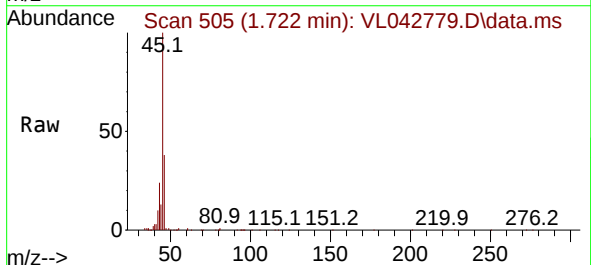
Instrument :
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 ClientSampleId :
 SV2DL

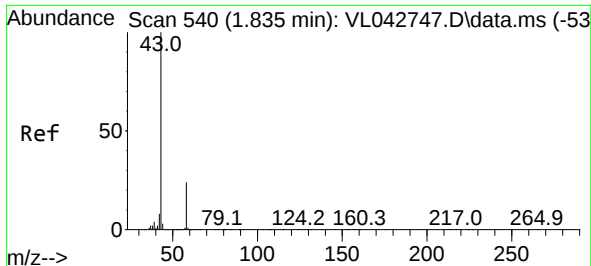
Tgt Ion:101 Resp: 1148
 Ion Ratio Lower Upper
 101 100
 103 65.8 49.6 74.4



#13
 Ethanol
 Concen: 35.022 ppbv
 RT: 1.722 min Scan# 505
 Delta R.T. 0.003 min
 Lab File: VL042779.D
 Acq: 29 Jul 2025 12:37

Tgt Ion: 45 Resp: 24709
 Ion Ratio Lower Upper
 45 100
 46 38.6 17.8 71.4

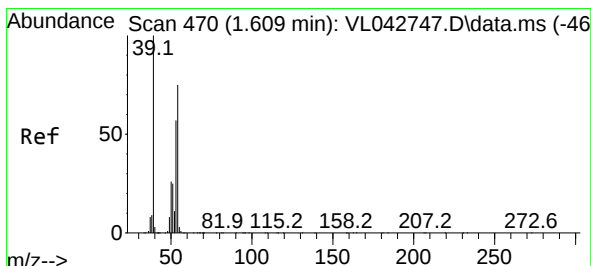
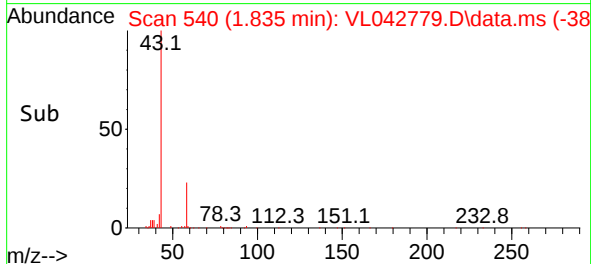
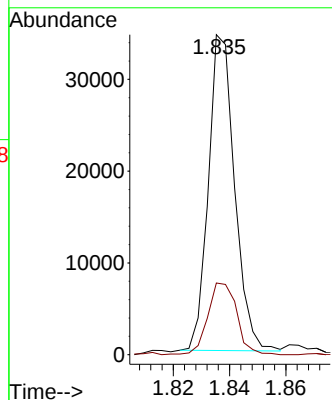
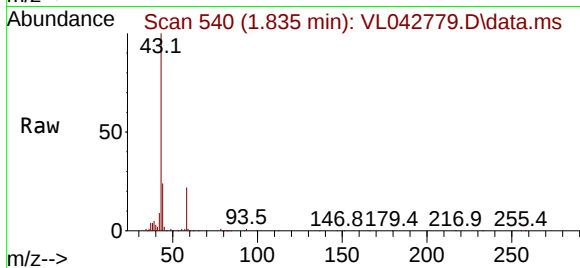




#15
Acetone
Concen: 1.077 ppbv
RT: 1.835 min Scan# 540
Delta R.T. -0.000 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

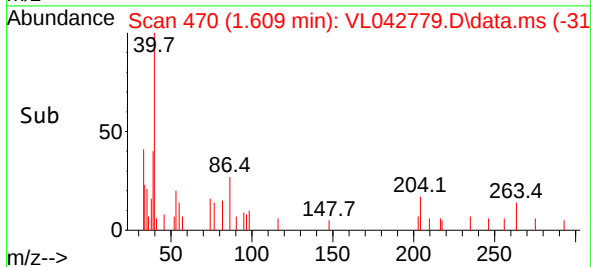
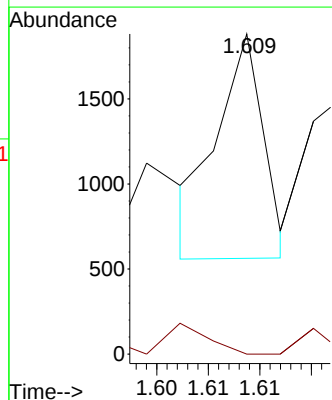
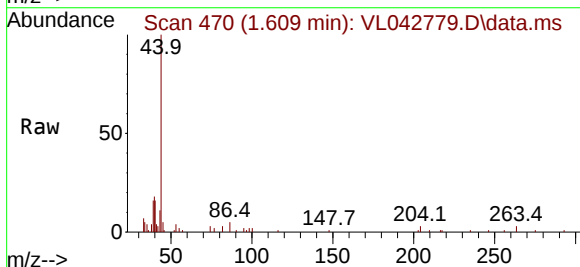
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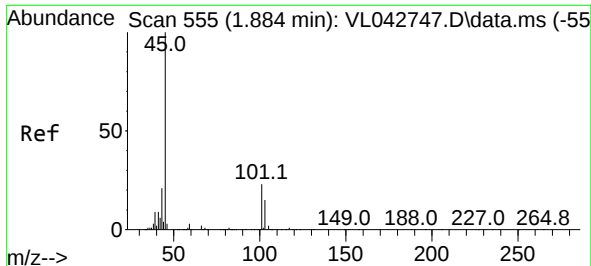
Tgt Ion: 43 Resp: 22289
Ion Ratio Lower Upper
43 100
58 26.0 19.8 29.8



#16
1,3-Butadiene
Concen: 0.047 ppbv
RT: 1.609 min Scan# 470
Delta R.T. -0.000 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

Tgt Ion: 39 Resp: 411
Ion Ratio Lower Upper
39 100
54 0.0 54.5 81.7#

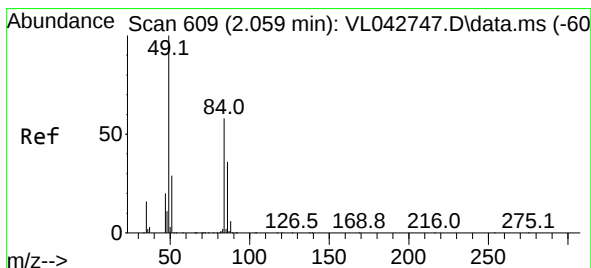
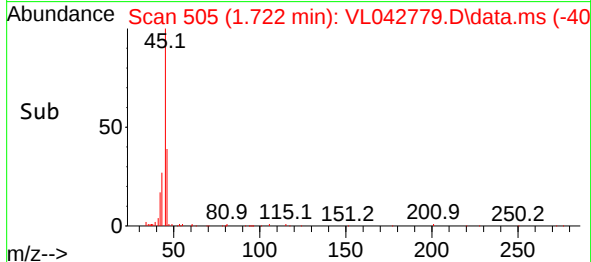
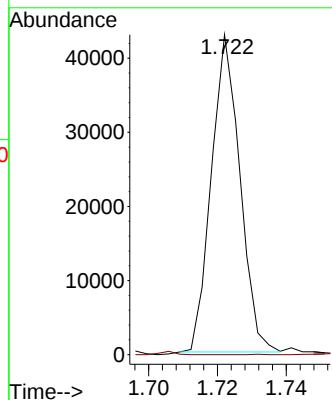
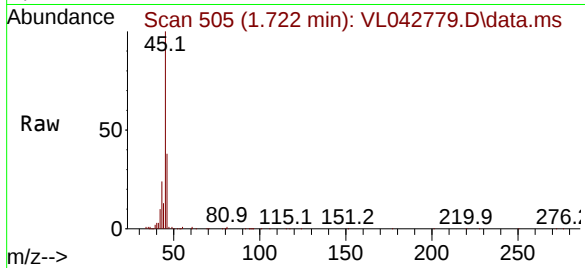




#19
Isopropyl Alcohol
Concen: 2.247 ppbv
RT: 1.722 min Scan# 505
Delta R.T. -0.162 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

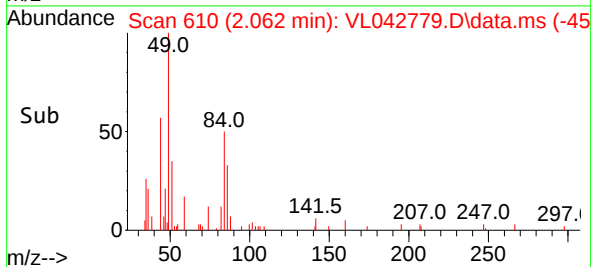
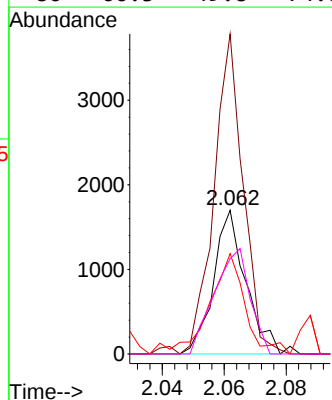
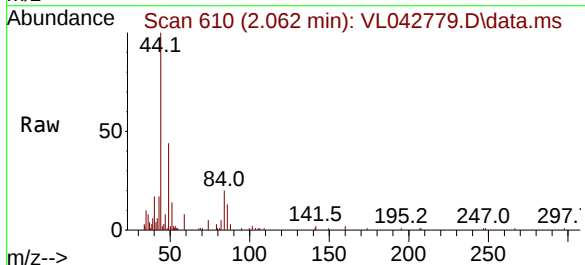
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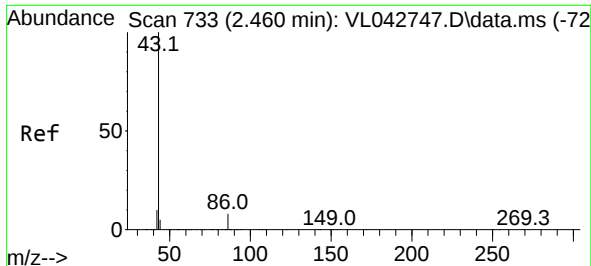
Tgt Ion: 45 Resp: 24709
Ion Ratio Lower Upper
45 100
58 1.1 30.0 45.0#



#20
Methylene Chloride
Concen: 0.188 ppbv
RT: 2.062 min Scan# 610
Delta R.T. 0.003 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

Tgt Ion: 84 Resp: 1226
Ion Ratio Lower Upper
84 100
49 222.7 138.6 208.0#
51 61.9 40.6 61.0#
86 66.3 49.8 74.8

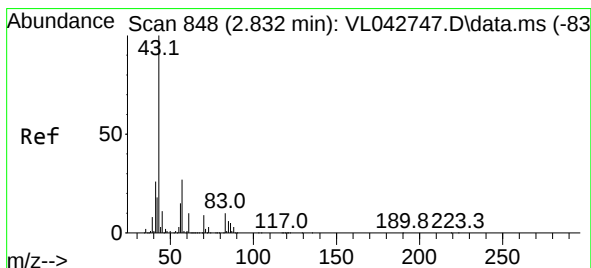
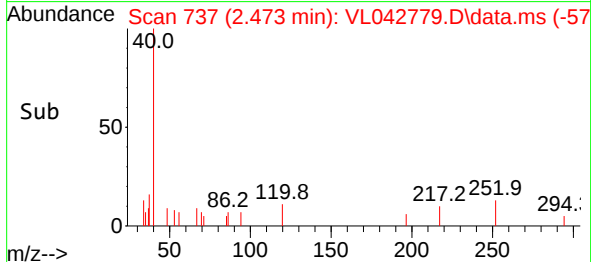
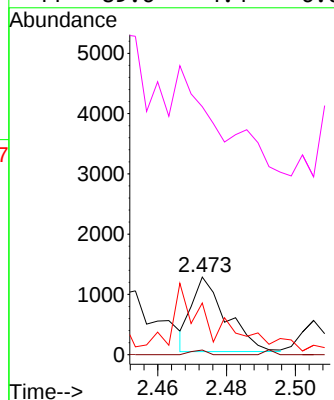
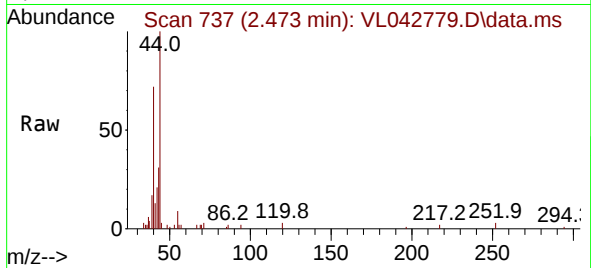




#23
 Vinyl Acetate
 Concen: 0.035 ppbv
 RT: 2.473 min Scan# 71
 Delta R.T. 0.013 min
 Lab File: VL042779.D
 Acq: 29 Jul 2025 12:37

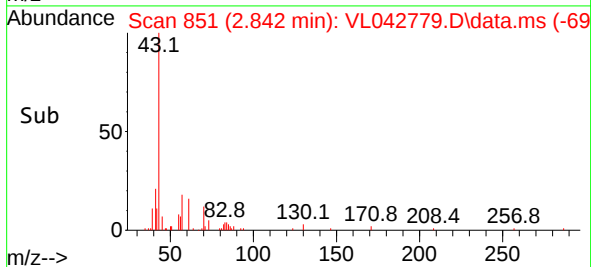
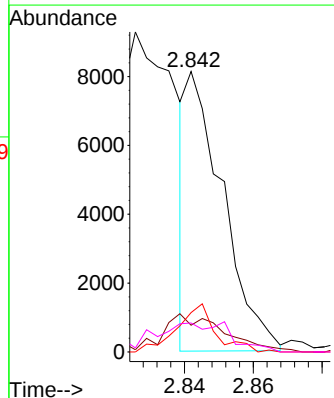
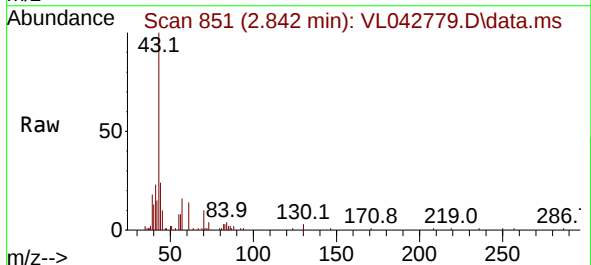
Instrument :
 MSVOA_L
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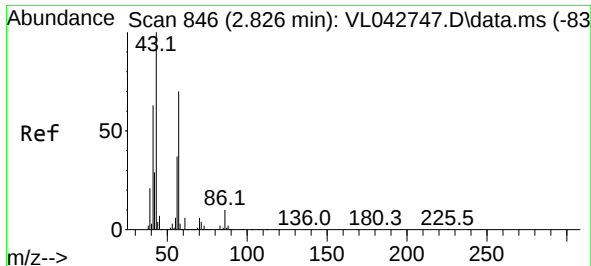
Tgt Ion: 43	Resp:	866	
Ion	Ratio	Lower	Upper
43	100		
86	6.4	6.1	9.1
42	48.6	7.8	11.8#
44	89.6	4.4	6.6#



#25
 Ethyl Acetate
 Concen: 0.130 ppbv
 RT: 2.842 min Scan# 851
 Delta R.T. 0.010 min
 Lab File: VL042779.D
 Acq: 29 Jul 2025 12:37

Tgt Ion: 43	Resp:	5973	
Ion	Ratio	Lower	Upper
43	100		
45	24.8	7.8	11.6#
61	18.9	6.7	10.1#
70	23.2	6.6	10.0#

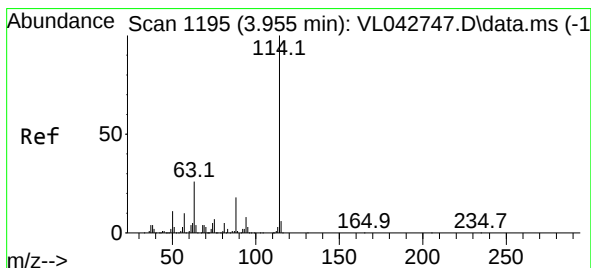
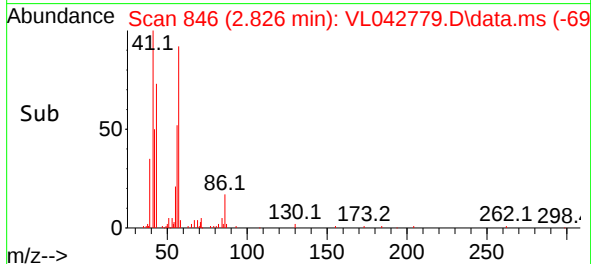
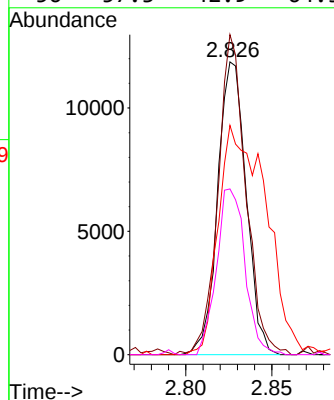
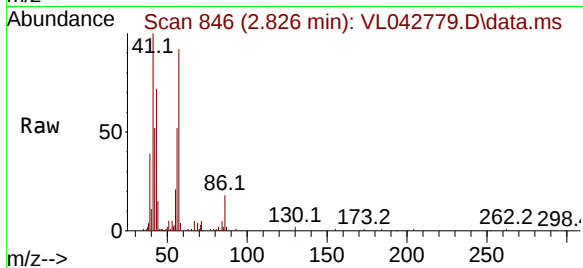




#26
Hexane
Concen: 0.679 ppbv
RT: 2.826 min Scan# 846
Delta R.T. -0.000 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

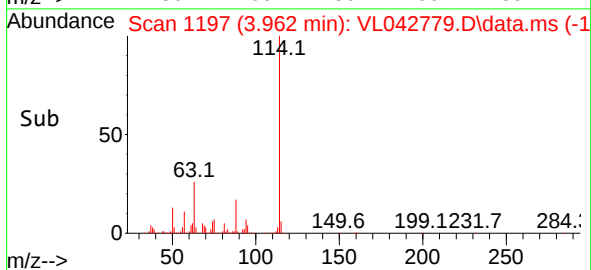
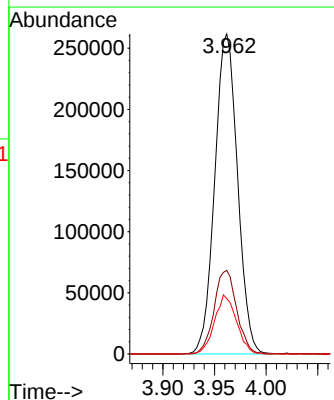
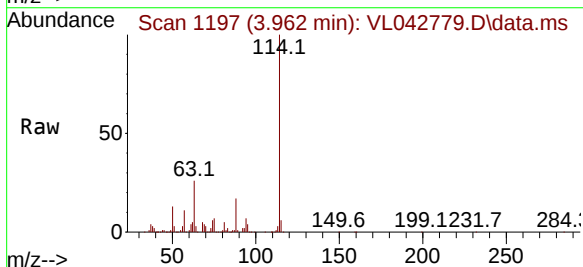
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

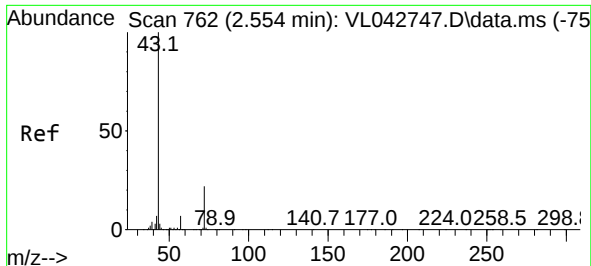
Tgt Ion:	57	Resp:	13650
Ion	Ratio	Lower	Upper
57	100		
41	107.7	75.4	113.2
43	133.5	185.0	277.6#
56	57.3	42.9	64.3



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.962 min Scan# 1197
Delta R.T. 0.006 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

Tgt Ion:	114	Resp:	401762
Ion	Ratio	Lower	Upper
114	100		
63	26.0	20.5	30.7
88	17.7	14.0	21.0

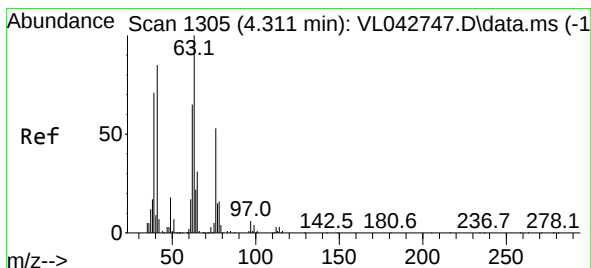
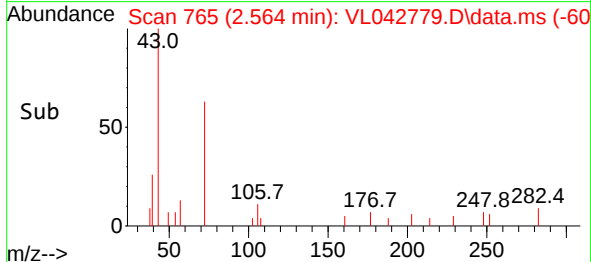
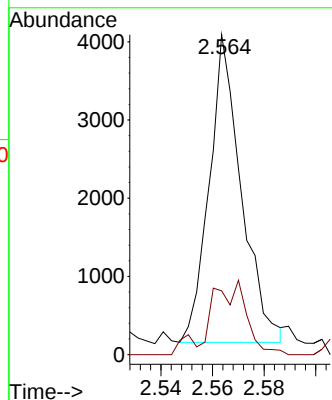
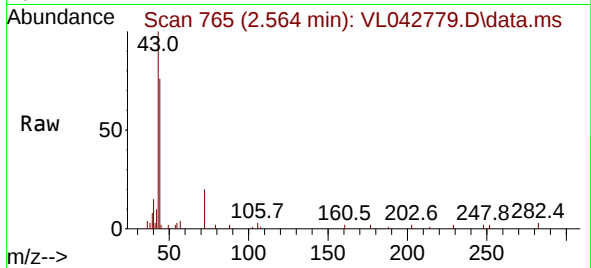




#34
2-Butanone
Concen: 0.119 ppbv
RT: 2.564 min Scan# 71
Delta R.T. 0.010 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

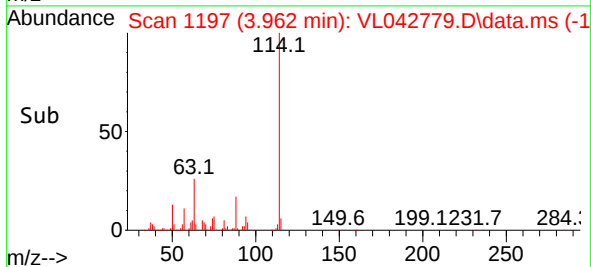
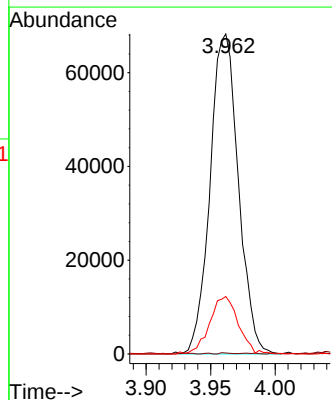
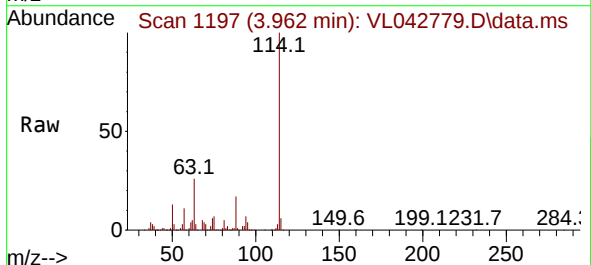
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

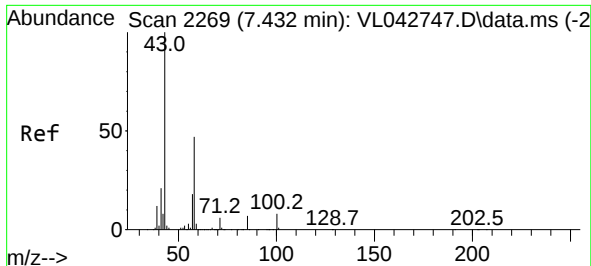
Tgt Ion: 43 Resp: 3394
Ion Ratio Lower Upper
43 100
72 29.3 17.4 26.0#



#39
1,2-Dichloropropane
Concen: 7.408 ppbv
RT: 3.962 min Scan# 1197
Delta R.T. -0.350 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

Tgt Ion: 63 Resp: 104121
Ion Ratio Lower Upper
63 100
41 0.2 68.2 102.4#
62 17.7 52.0 78.0#

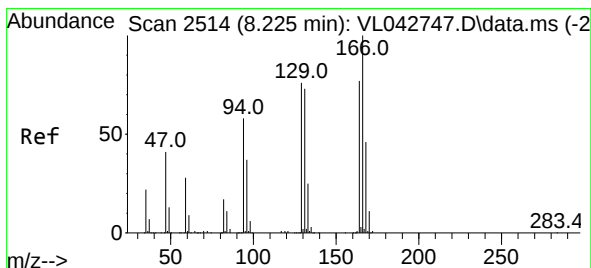
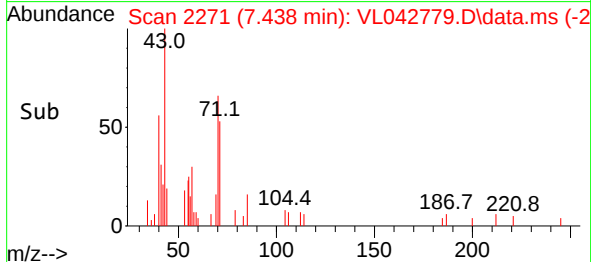
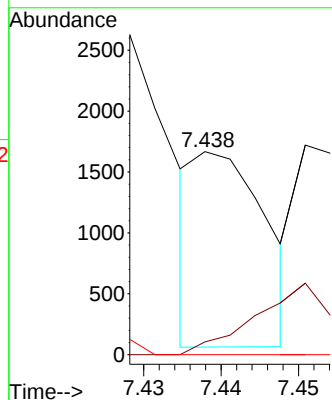
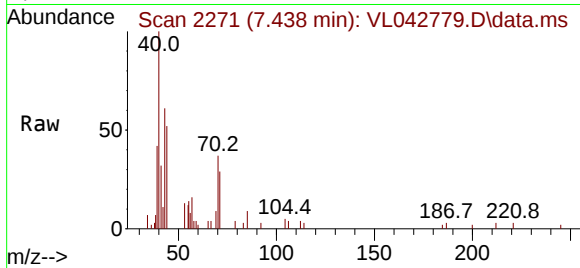




#51
2-Hexanone
Concen: 0.037 ppbv
RT: 7.438 min Scan# 21
Delta R.T. 0.006 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

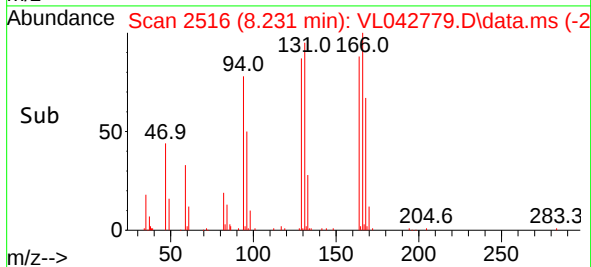
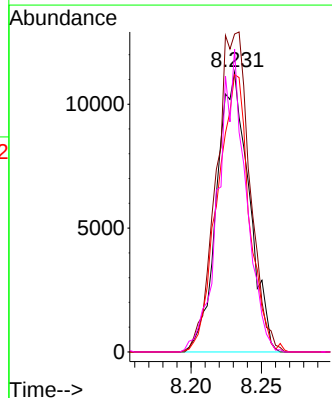
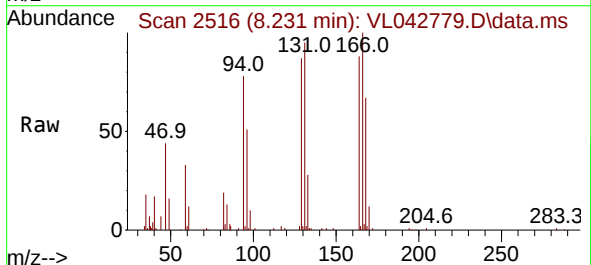
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

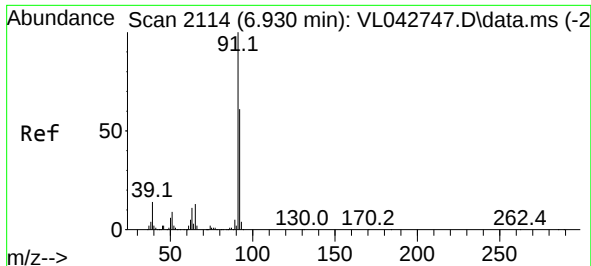
Tgt Ion: 43 Resp: 1014
Ion Ratio Lower Upper
43 100
58 0.0 38.0 57.0#
98 0.0 0.2 0.4#



#52
Tetrachloroethene
Concen: 1.142 ppbv
RT: 8.231 min Scan# 2516
Delta R.T. 0.006 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

Tgt Ion: 164 Resp: 18021
Ion Ratio Lower Upper
164 100
166 113.6 104.0 156.0
129 99.1 79.2 118.8
131 108.2 76.2 114.4

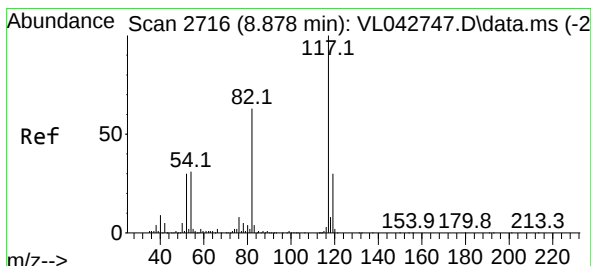
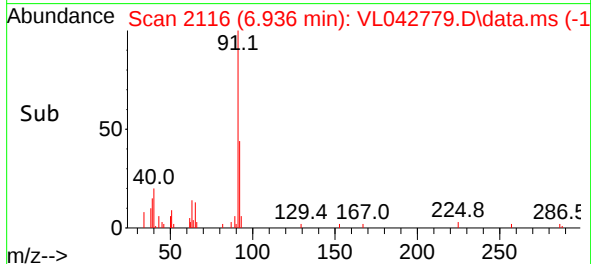
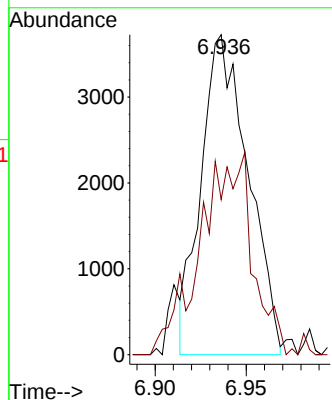
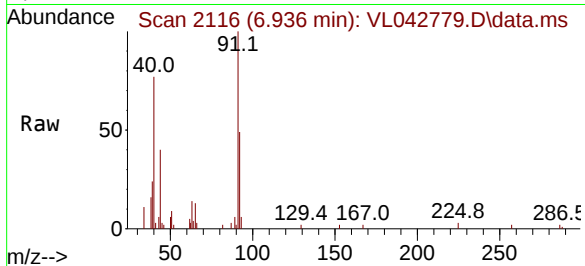




#53
Toluene
Concen: 0.164 ppbv
RT: 6.936 min Scan# 2116
Delta R.T. 0.006 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

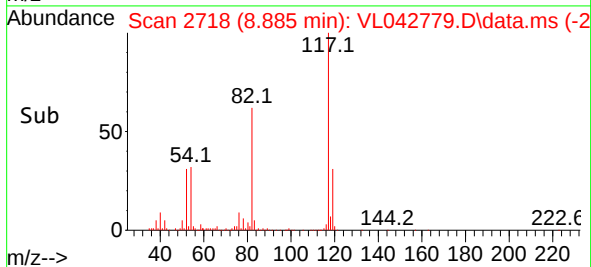
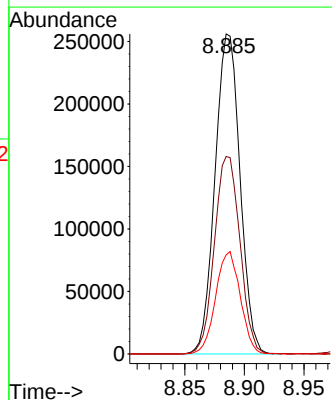
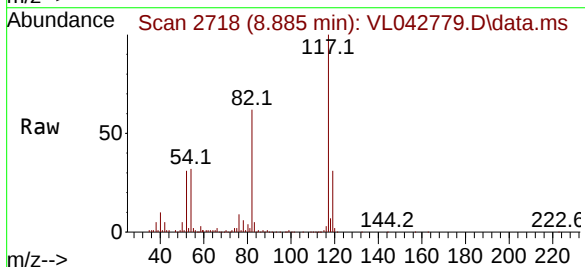
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

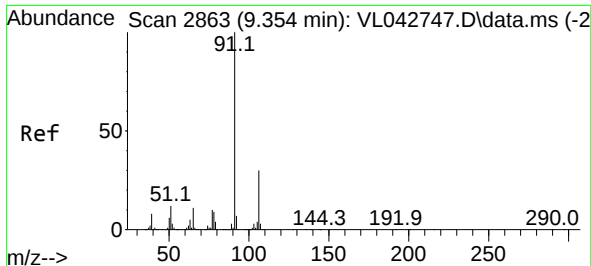
Tgt Ion: 91 Resp: 6716
Ion Ratio Lower Upper
91 100
92 70.6 48.0 72.0



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.885 min Scan# 2718
Delta R.T. 0.006 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

Tgt Ion: 117 Resp: 373347
Ion Ratio Lower Upper
117 100
82 63.1 53.3 79.9
119 31.6 25.8 38.6

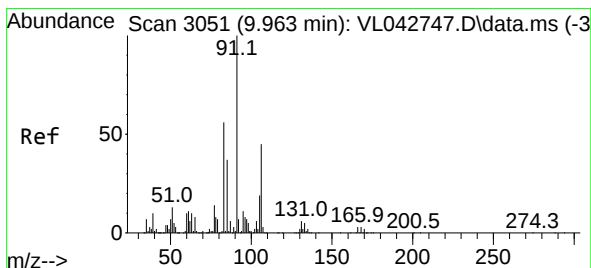
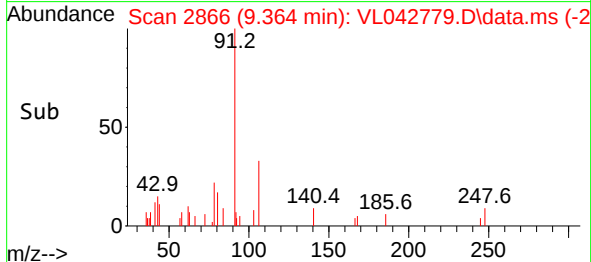
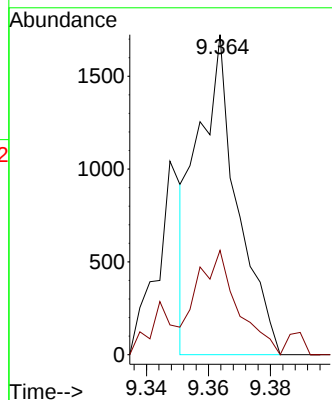
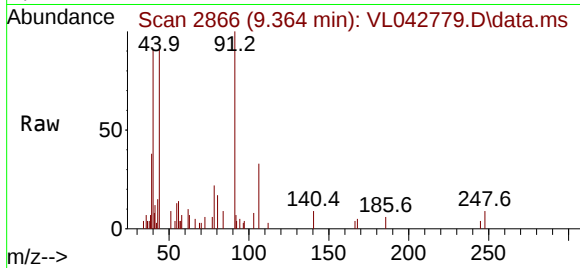




#58
Ethyl Benzene
Concen: 0.026 ppbv
RT: 9.364 min Scan# 21
Delta R.T. 0.010 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

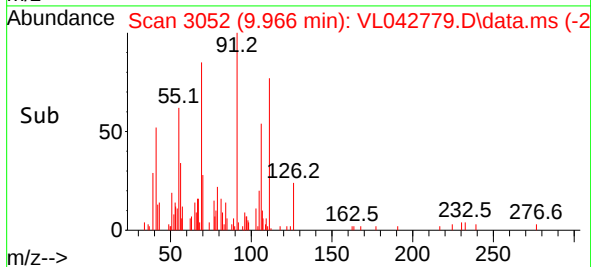
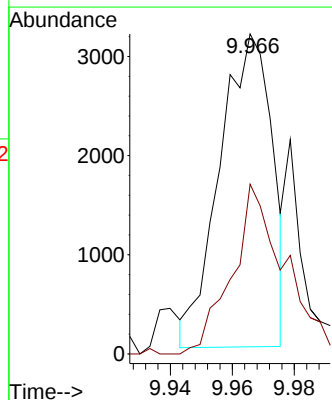
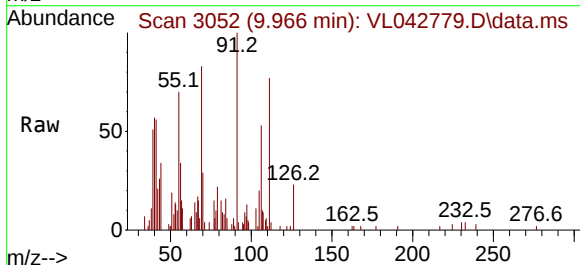
Instrument :
MSVOA_L
ClientSampleId :
SV2DL

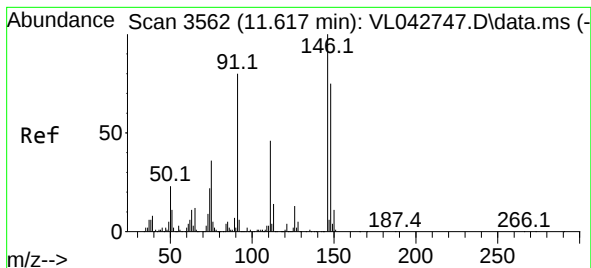
Tgt Ion: 91 Resp: 1537
Ion Ratio Lower Upper
91 100
106 32.6 23.8 35.6



#60
o-Xylene
Concen: 0.079 ppbv
RT: 9.966 min Scan# 3052
Delta R.T. 0.003 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

Tgt Ion: 91 Resp: 3716
Ion Ratio Lower Upper
91 100
106 55.6 22.0 66.0





#66

Benzyl Chloride

Concen: 0.041 ppbv

RT: 11.633 min Scan# 3180

Delta R.T. 0.016 min

Lab File: VL042779.D

Acq: 29 Jul 2025 12:37

Instrument :

MSVOA_L

ClientSampleId :

SV2DL

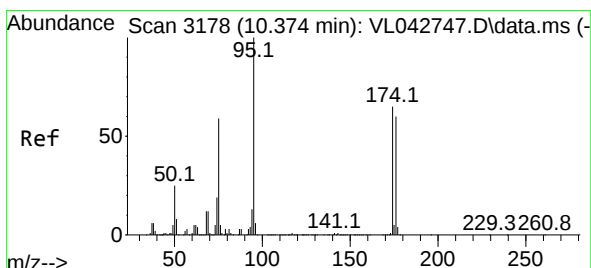
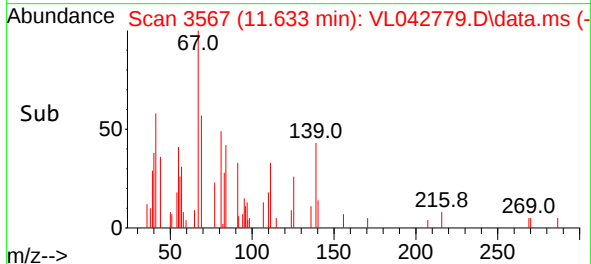
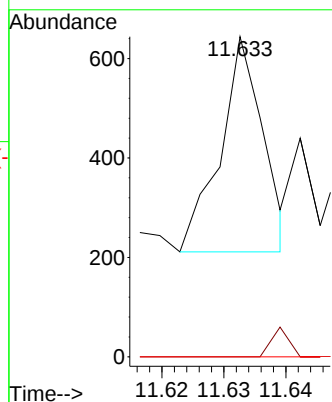
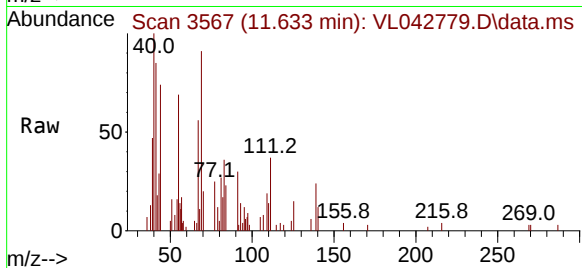
Tgt Ion: 91 Resp: 209

Ion Ratio Lower Upper

91 100

126 0.0 14.4 21.6#

128 0.0 5.2 7.8#



#68

1-Bromo-4-Fluorobenzene

Concen: 10.193 ppbv

RT: 10.380 min Scan# 3180

Delta R.T. 0.006 min

Lab File: VL042779.D

Acq: 29 Jul 2025 12:37

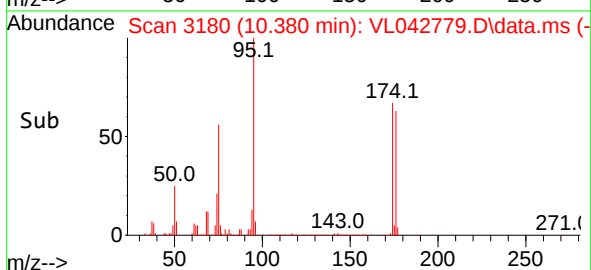
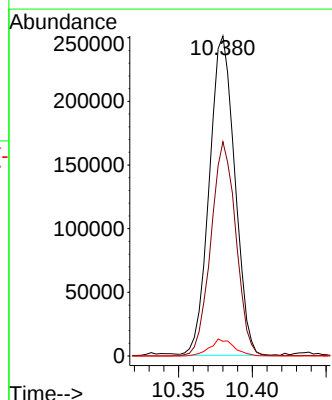
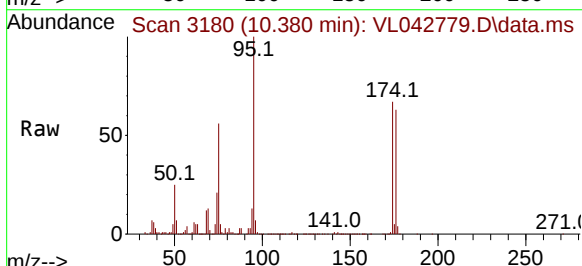
Tgt Ion: 95 Resp: 301363

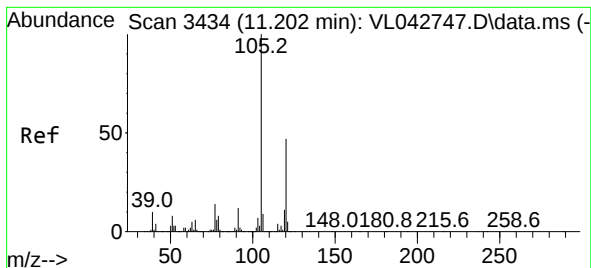
Ion Ratio Lower Upper

95 100

174 66.1 53.8 80.6

175 5.0 4.0 6.0





#73

1,3,5-Trimethylbenzene

Concen: 0.031 ppbv

RT: 11.209 min Scan# 34

Delta R.T. 0.006 min

Lab File: VL042779.D

Acq: 29 Jul 2025 12:37

Instrument :

MSVOA_L

ClientSampleId :

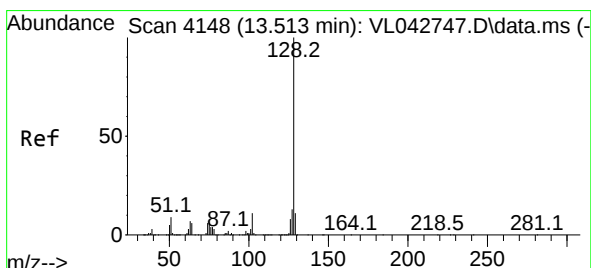
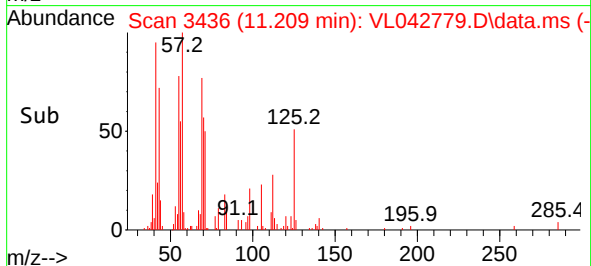
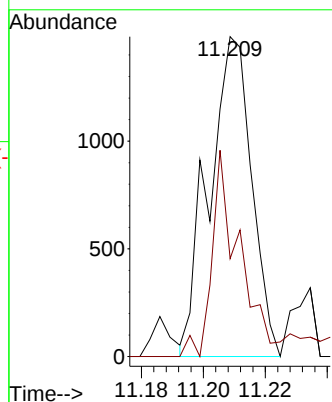
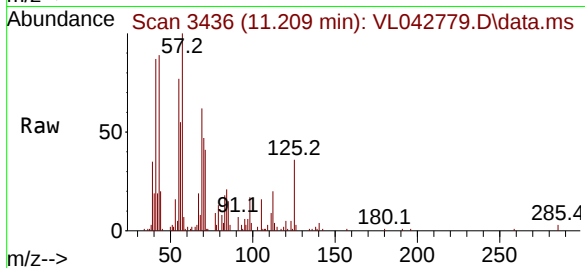
SV2DL

Tgt Ion:105 Resp: 1423

Ion Ratio Lower Upper

105 100

120 30.6 37.8 56.8#



#79

Naphthalene

Concen: 0.436 ppbv

RT: 13.523 min Scan# 4151

Delta R.T. 0.010 min

Lab File: VL042779.D

Acq: 29 Jul 2025 12:37

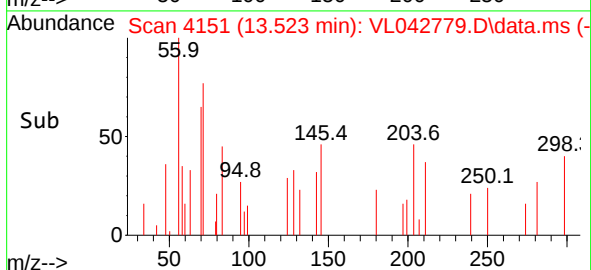
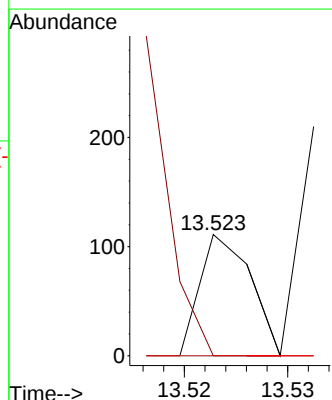
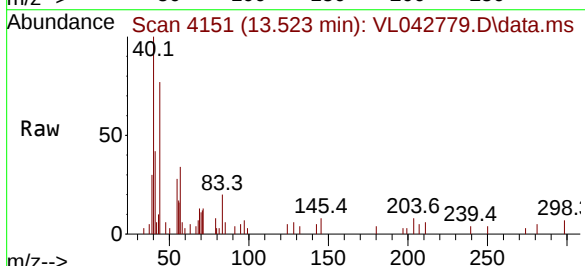
Tgt Ion:128 Resp: 38

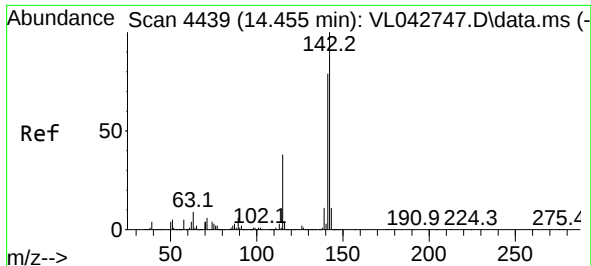
Ion Ratio Lower Upper

128 100

127 0.0 10.5 15.7#

129 0.0 8.6 13.0#

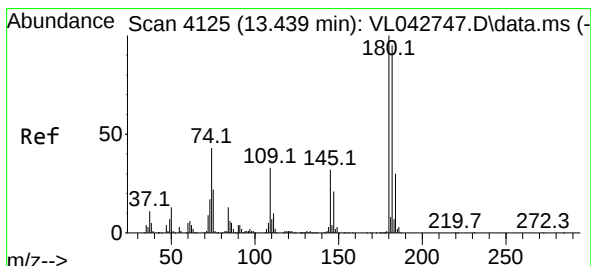
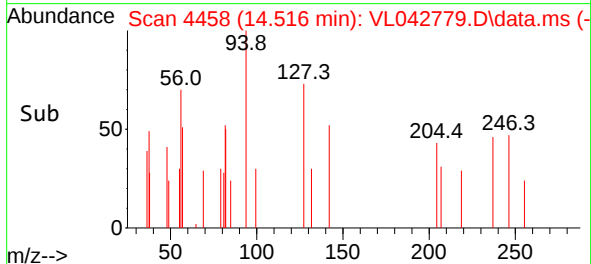
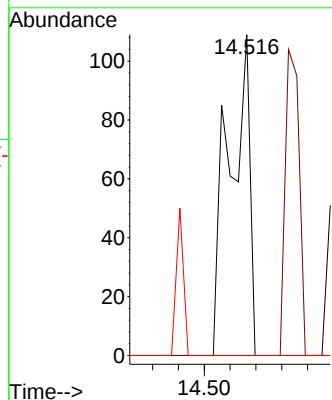
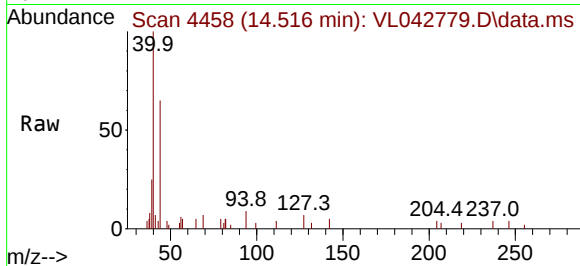




#80
Naphthalene, 2-methyl-
Concen: 1.130 ppbv
RT: 14.516 min Scan# 4439
Delta R.T. 0.061 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

Instrument :
MSVOA_L
ClientSampleId :
SV2DL

Tgt Ion:142 Resp: 61
Ion Ratio Lower Upper
142 100
141 0.0 65.8 98.8#
115 16.4 31.2 46.8#



#81
1,2,4-Trichlorobenzene
Concen: 0.435 ppbv
RT: 13.448 min Scan# 4128
Delta R.T. 0.010 min
Lab File: VL042779.D
Acq: 29 Jul 2025 12:37

Tgt Ion:180 Resp: 13
Ion Ratio Lower Upper
180 100
182 700.0 76.2 114.2#
184 615.4 24.8 37.2#

