

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL042125\
 Data File : VL042404.D
 Acq On : 21 Apr 2025 14:44
 Operator : SY/MD
 Sample : Q1844-02DL 5X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DL

Quant Time: Apr 22 02:54:42 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041725AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Apr 18 02:14:00 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.784	49	132427	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.955	114	368774	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.878	117	315151	10.000	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.374	95	263653	10.181	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.800%

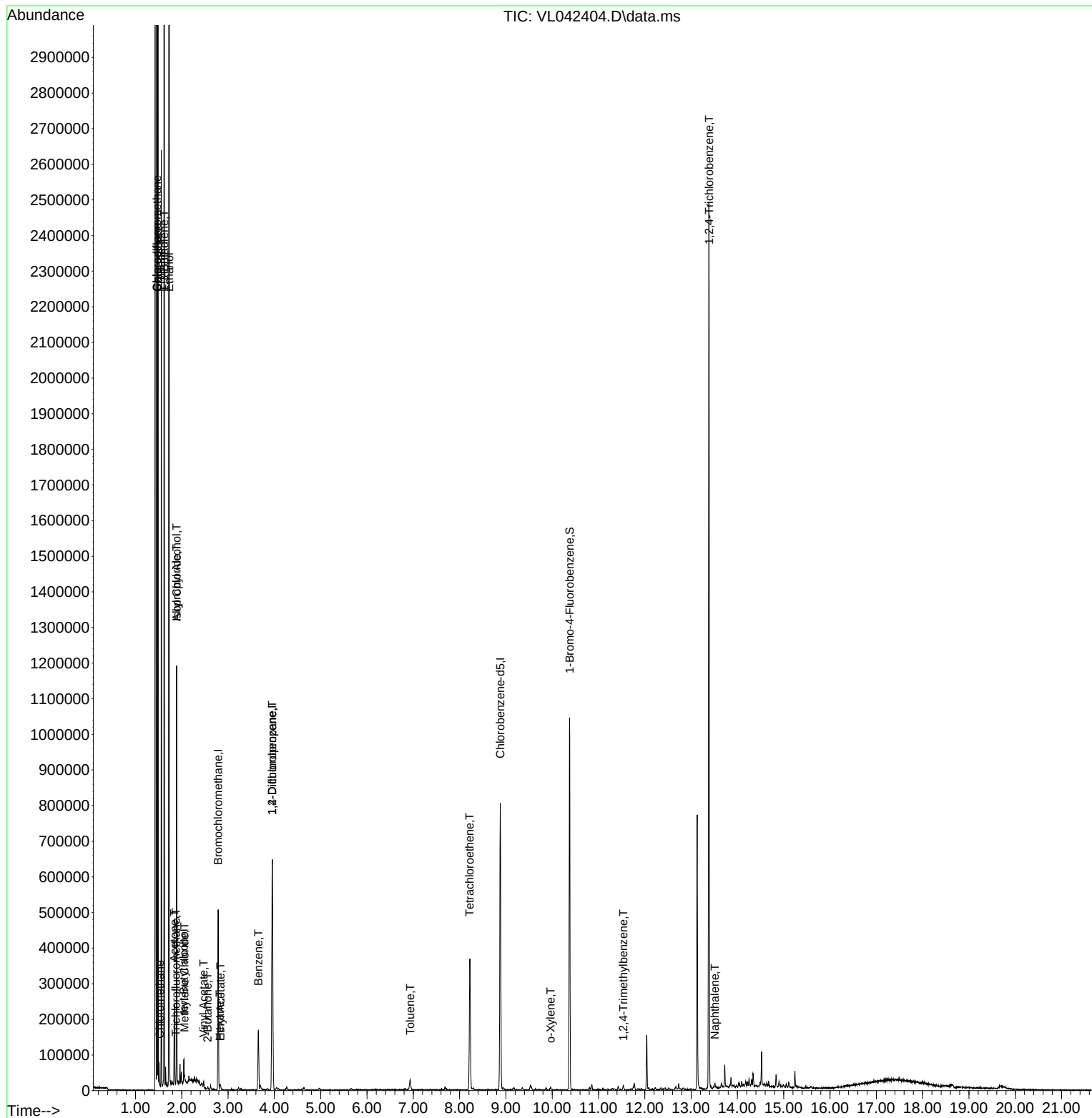
Target Compounds						Qvalue
3) Chlorodifluoromethane	1.466	51	1215361	54.549	ppbv #	56
4) Chloromethane	1.528	50	1227	0.133	ppbv #	66
7) Chloroethane	1.466	64	75599	20.740	ppbv	95
9) Propene	1.557	41	317420	31.284	ppbv	96
11) Trichlorofluoromethane	1.874	101	963	0.043	ppbv #	54
13) Ethanol	1.729	45	2712814	1682.135	ppbv	99
15) Acetone	1.835	43	98175	4.529	ppbv #	86
16) 1,3-Butadiene	1.622	39	474689	45.781	ppbv #	11
17) tert-Butyl alcohol	2.046	59	28201	1.050	ppbv #	71
19) Isopropyl Alcohol	1.887	45	471563	39.157	ppbv #	39
20) Methylene Chloride	2.059	84	2138	0.252	ppbv #	93
21) Allyl Chloride	1.887	41	41030	2.741	ppbv #	73
23) Vinyl Acetate	2.470	43	5434	0.619	ppbv #	51
25) Ethyl Acetate	2.836	43	6839	0.128	ppbv #	88
26) Hexane	2.819	57	3436	0.159	ppbv	93
34) 2-Butanone	2.557	43	4166	0.143	ppbv	99
36) Benzene	3.654	78	100002	2.514	ppbv #	92
39) 1,2-Dichloropropane	3.955	63	100469	6.778	ppbv #	21
52) Tetrachloroethene	8.218	164	58798	3.824	ppbv	97
53) Toluene	6.933	91	17326	0.363	ppbv	96
60) o-Xylene	9.966	91	3008	0.059	ppbv	98
74) 1,2,4-Trimethylbenzene	11.536	105	2814	0.044	ppbv #	71
79) Naphthalene	13.513	128	5765	0.075	ppbv #	91
81) 1,2,4-Trichlorobenzene	13.387	180	4690	0.143	ppbv #	18

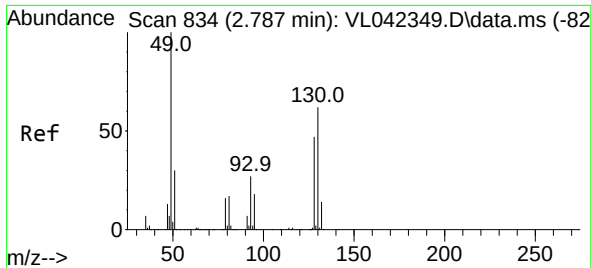
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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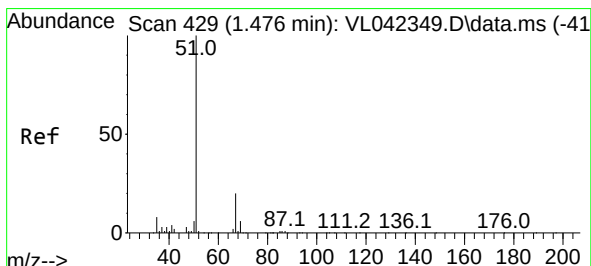
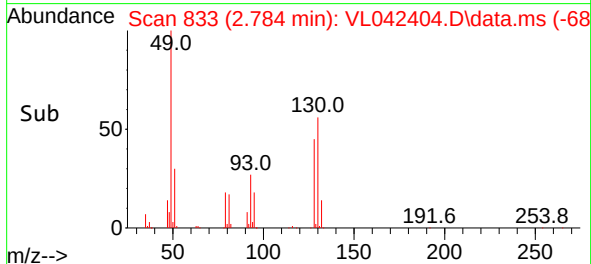
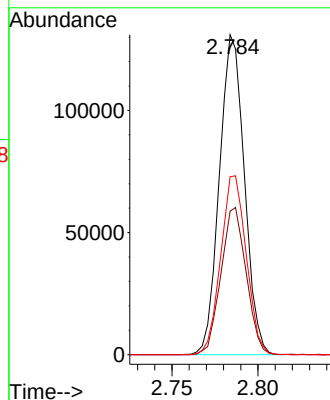
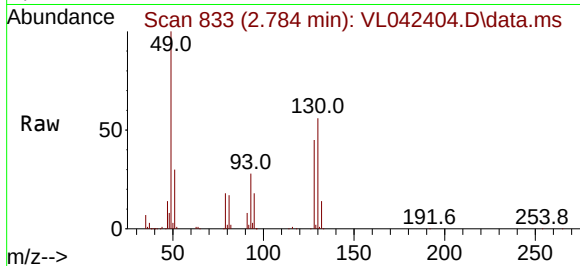




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 81
Delta R.T. -0.003 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

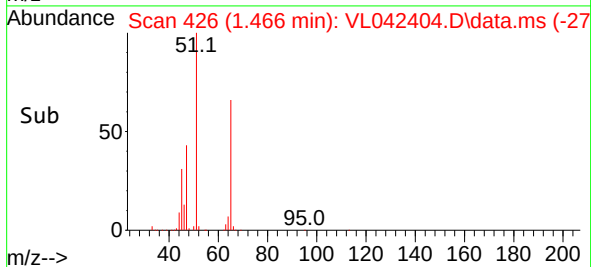
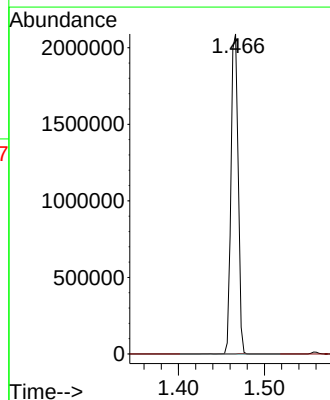
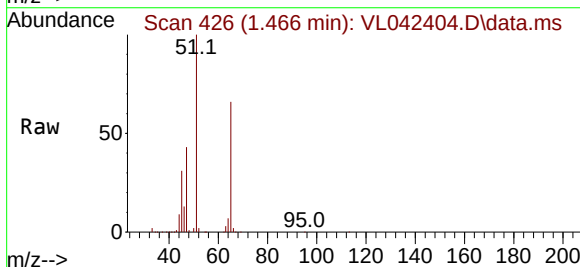
Instrument :
MSVOA_L
ClientSampleId :
IA1DL

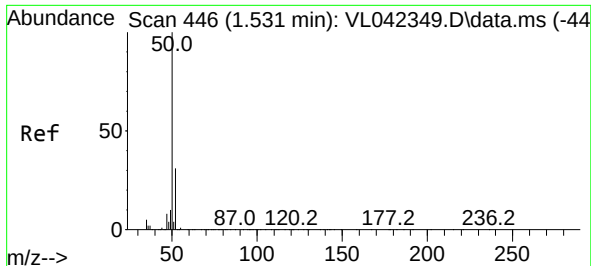
Tgt Ion: 49 Resp: 132427
Ion Ratio Lower Upper
49 100
128 46.4 22.8 68.4
130 57.2 29.3 88.0



#3
Chlorodifluoromethane
Concen: 54.549 ppbv
RT: 1.466 min Scan# 426
Delta R.T. -0.010 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

Tgt Ion: 51 Resp: 1215361
Ion Ratio Lower Upper
51 100
67 0.1 16.2 24.4#

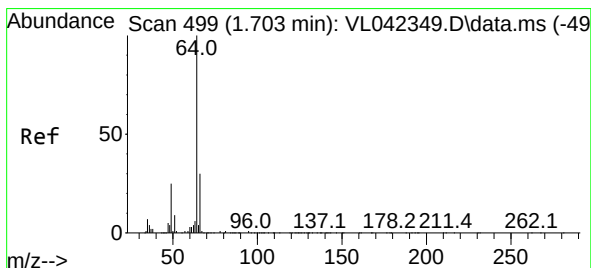
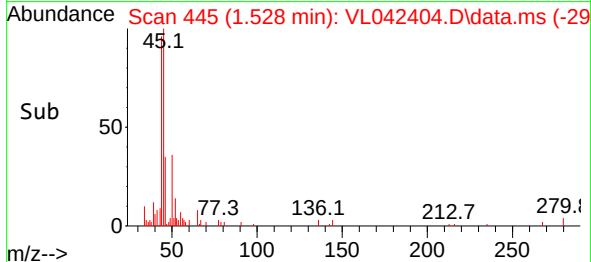
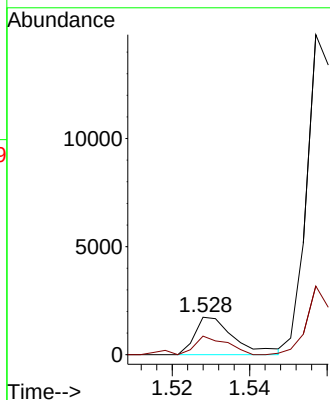
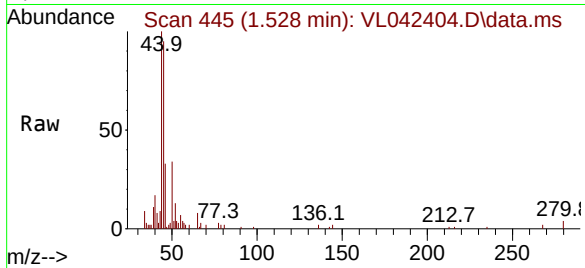




#4
Chloromethane
Concen: 0.133 ppbv
RT: 1.528 min Scan# 446
Delta R.T. -0.003 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

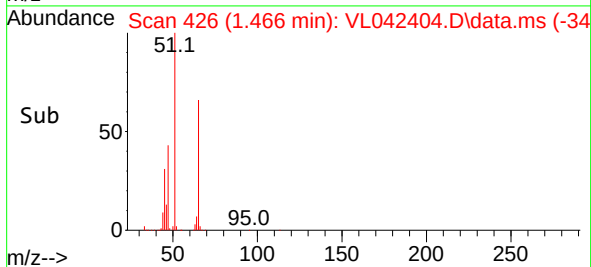
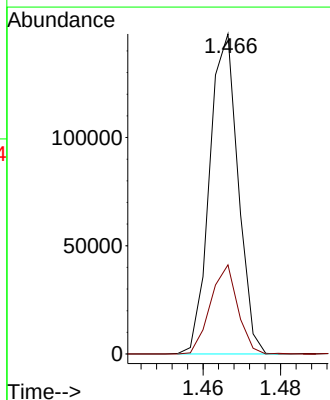
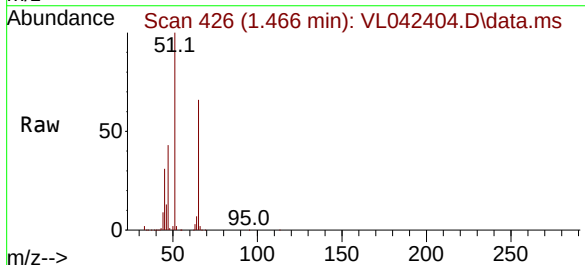
Instrument :
MSVOA_L
ClientSampleId :
IA1DL

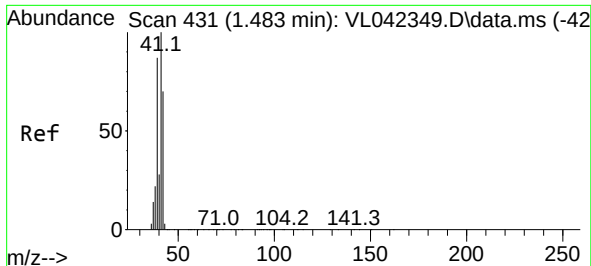
Tgt Ion: 50 Resp: 1227
Ion Ratio Lower Upper
50 100
52 49.5 24.7 37.1#



#7
Chloroethane
Concen: 20.740 ppbv
RT: 1.466 min Scan# 426
Delta R.T. -0.236 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

Tgt Ion: 64 Resp: 75599
Ion Ratio Lower Upper
64 100
66 27.9 24.6 37.0





#9

Propene

Concen: 31.284 ppbv

RT: 1.557 min Scan# 41

Delta R.T. 0.074 min

Lab File: VL042404.D

Acq: 21 Apr 2025 14:44

Instrument :

MSVOA_L

ClientSampleId :

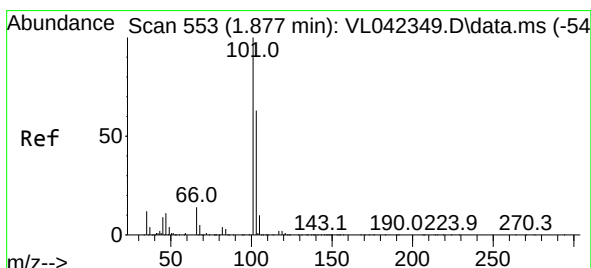
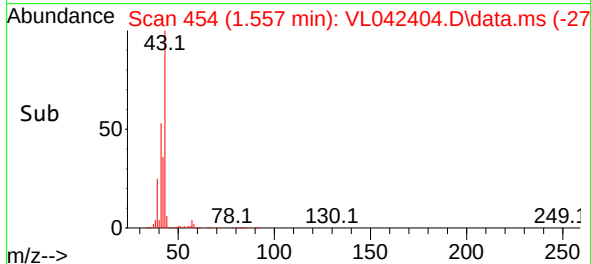
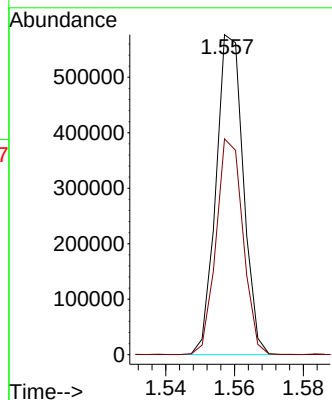
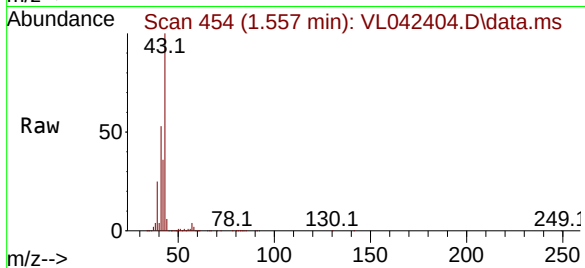
IA1DL

Tgt Ion: 41 Resp: 317420

Ion Ratio Lower Upper

41 100

42 66.7 56.2 84.4



#11

Trichlorofluoromethane

Concen: 0.043 ppbv

RT: 1.874 min Scan# 552

Delta R.T. -0.003 min

Lab File: VL042404.D

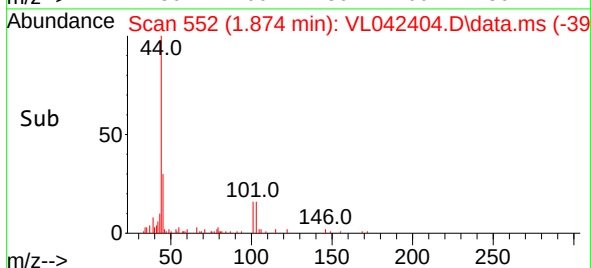
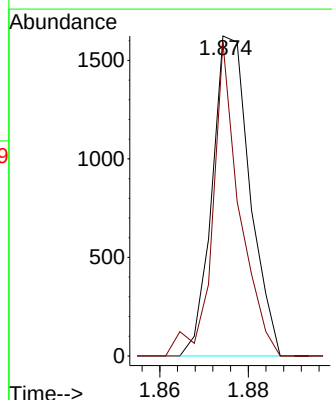
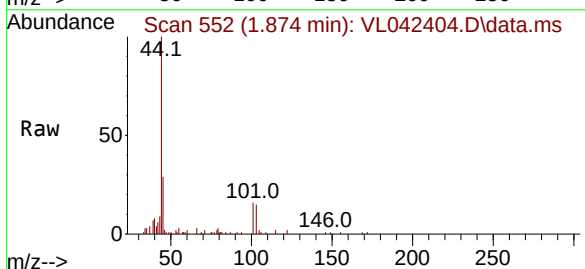
Acq: 21 Apr 2025 14:44

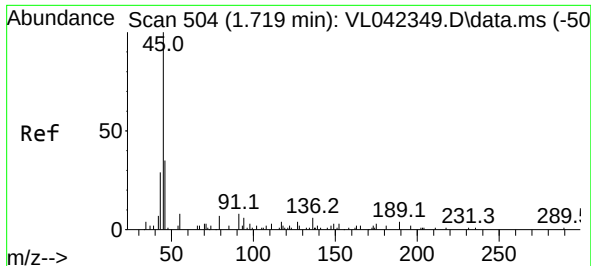
Tgt Ion:101 Resp: 963

Ion Ratio Lower Upper

101 100

103 98.1 50.1 75.1#

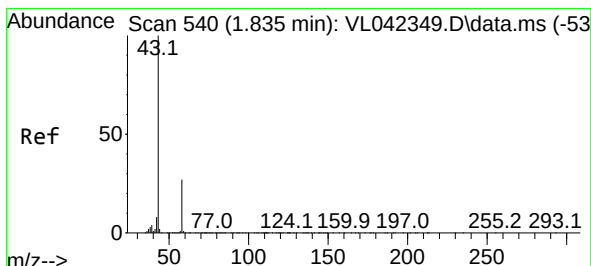
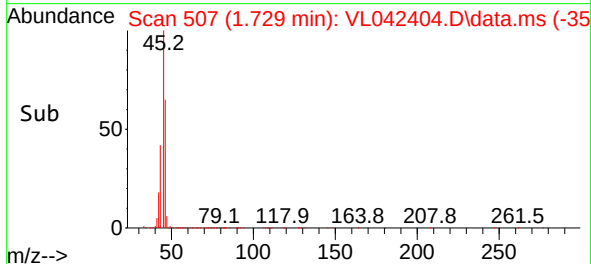
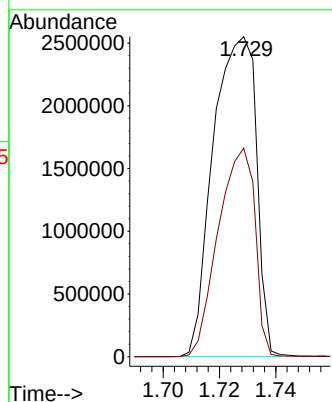
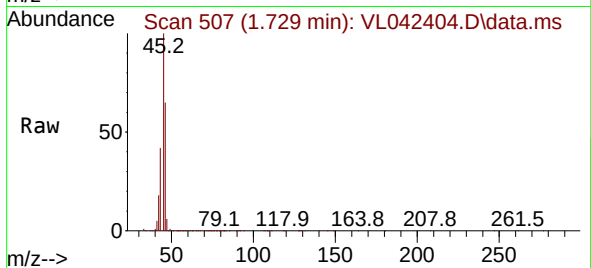




#13
Ethanol
Concen: 1682.135 ppbv
RT: 1.729 min Scan# 504
Delta R.T. 0.010 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

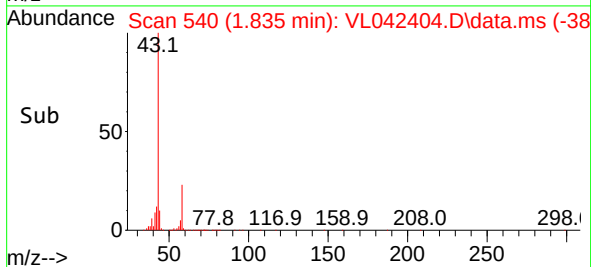
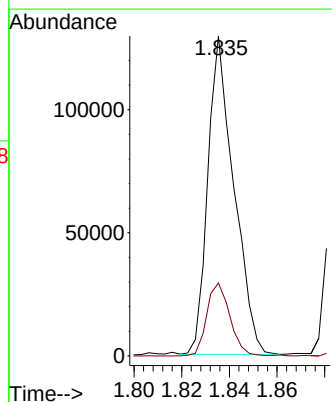
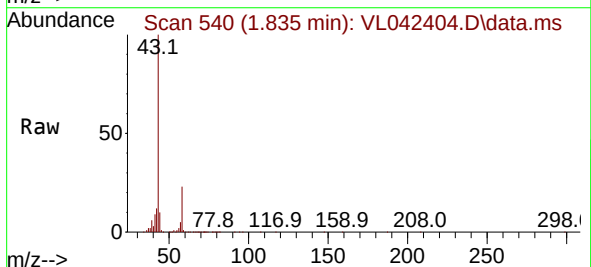
Instrument :
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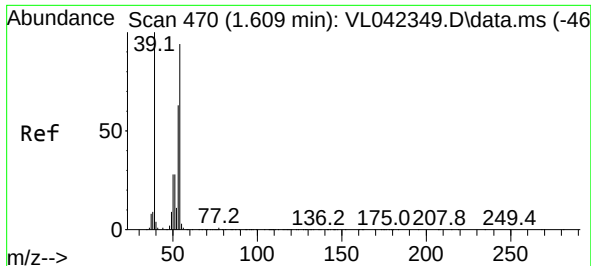
Tgt Ion: 45 Resp: 2712814
Ion Ratio Lower Upper
45 100
46 55.7 21.9 87.7



#15
Acetone
Concen: 4.529 ppbv
RT: 1.835 min Scan# 540
Delta R.T. 0.000 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

Tgt Ion: 43 Resp: 98175
Ion Ratio Lower Upper
43 100
58 20.5 22.4 33.6#

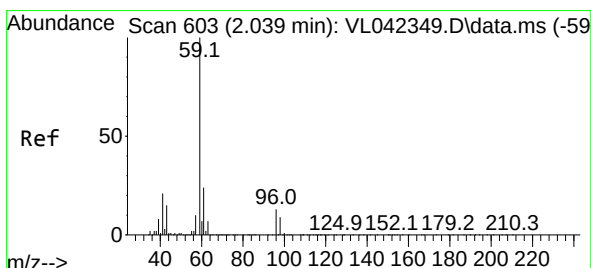
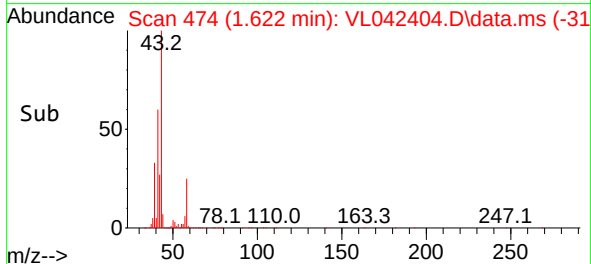
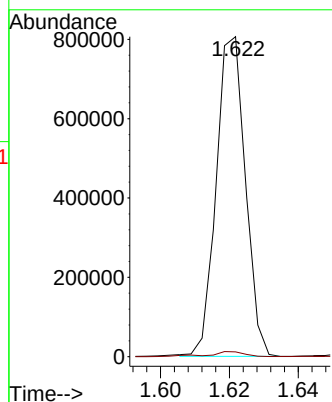
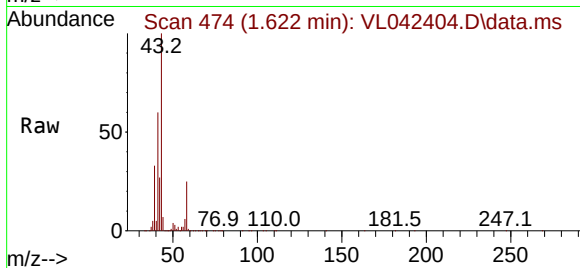




#16
1,3-Butadiene
Concen: 45.781 ppbv
RT: 1.622 min Scan# 41
Delta R.T. 0.013 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

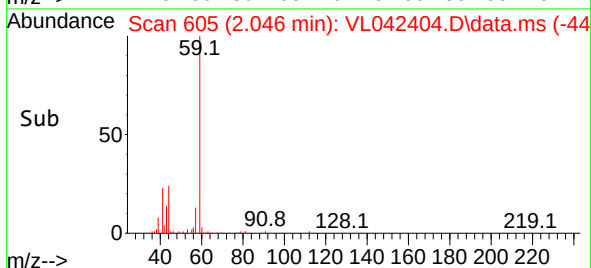
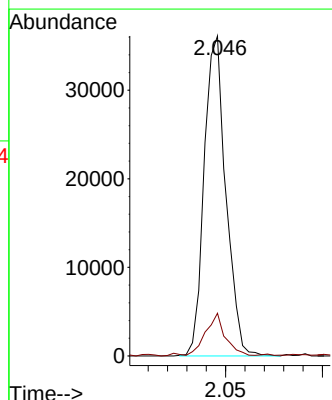
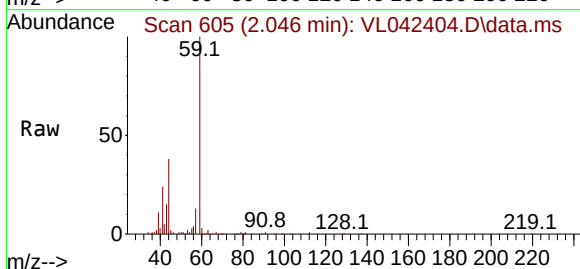
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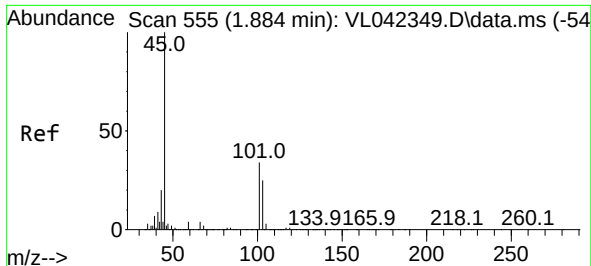
Tgt Ion: 39 Resp: 474689
Ion Ratio Lower Upper
39 100
54 2.2 64.9 97.3#



#17
tert-Butyl alcohol
Concen: 1.050 ppbv
RT: 2.046 min Scan# 605
Delta R.T. 0.007 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

Tgt Ion: 59 Resp: 28201
Ion Ratio Lower Upper
59 100
57 0.0 8.7 13.1#

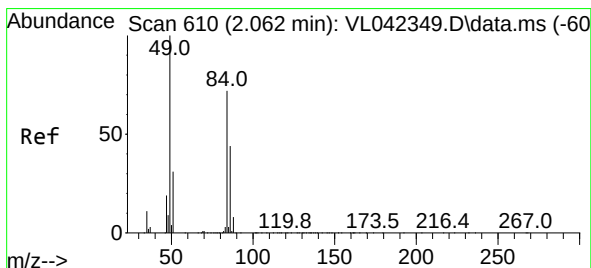
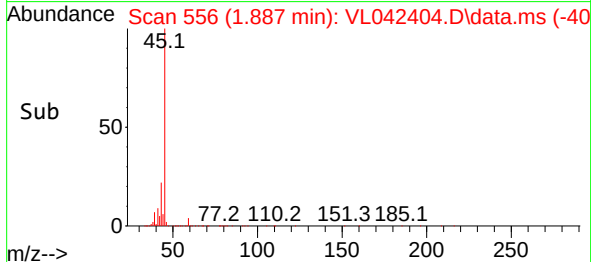
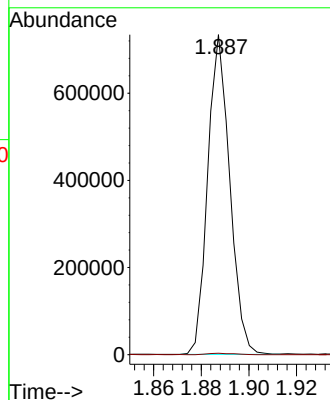
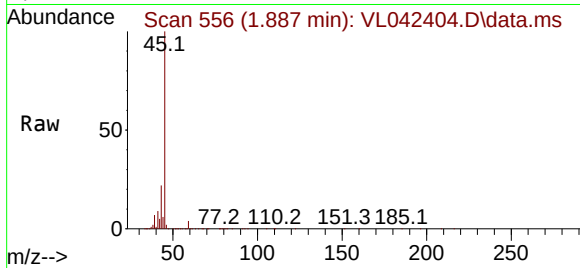




#19
Isopropyl Alcohol
Concen: 39.157 ppbv
RT: 1.887 min Scan# 51
Delta R.T. 0.003 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

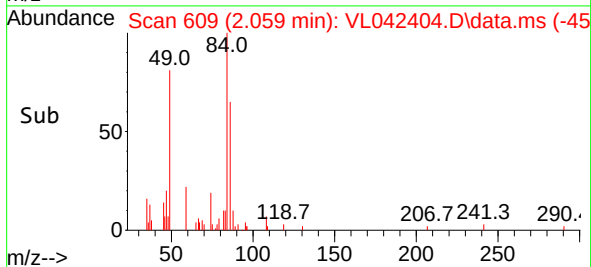
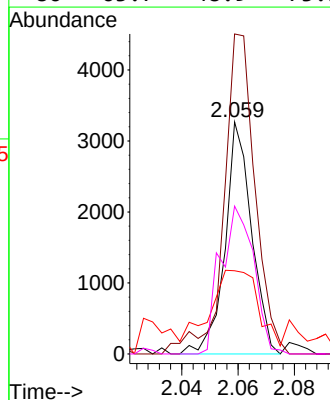
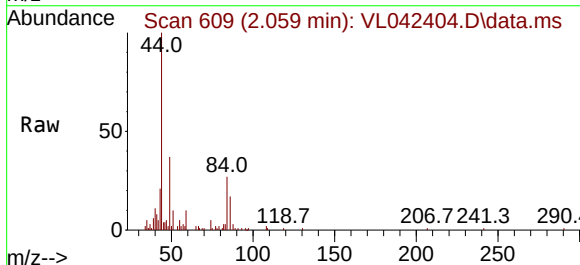
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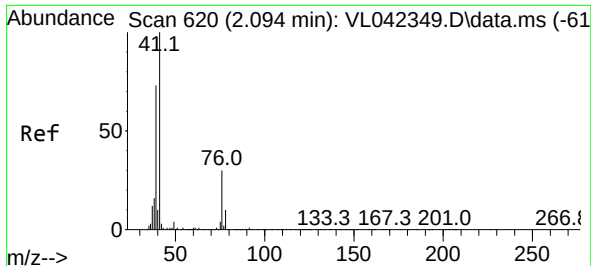
Tgt Ion: 45 Resp: 471563
Ion Ratio Lower Upper
45 100
58 4.3 34.5 51.7#



#20
Methylene Chloride
Concen: 0.252 ppbv
RT: 2.059 min Scan# 609
Delta R.T. -0.003 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

Tgt Ion: 84 Resp: 2138
Ion Ratio Lower Upper
84 100
49 133.3 111.6 167.4
51 32.4 35.1 52.7#
86 63.7 48.9 73.3

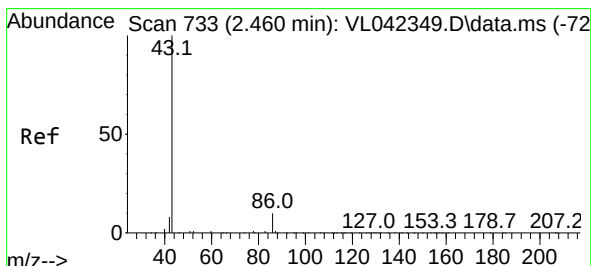
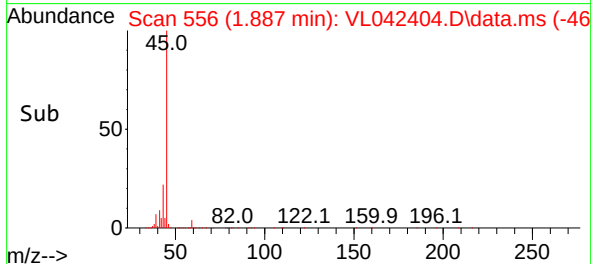
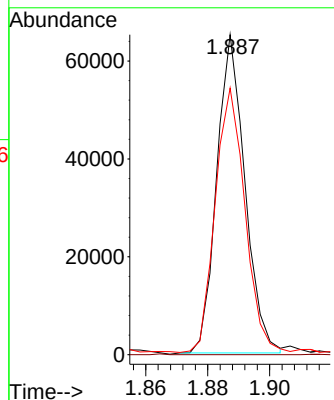
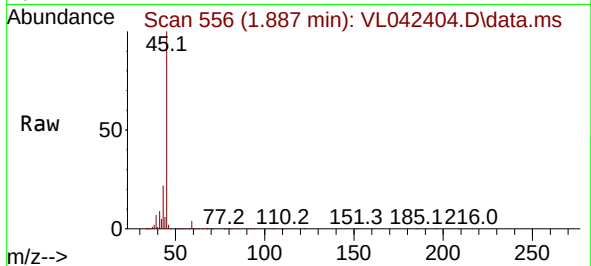




#21
 Allyl Chloride
 Concen: 2.741 ppbv
 RT: 1.887 min Scan# 51
 Delta R.T. -0.207 min
 Lab File: VL042404.D
 Acq: 21 Apr 2025 14:44

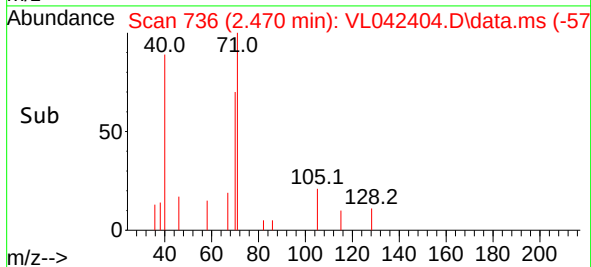
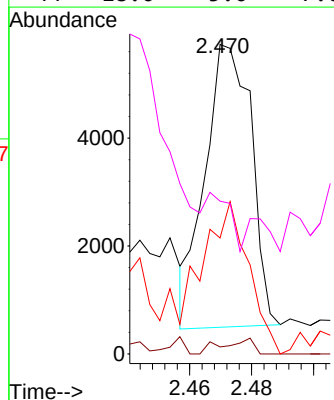
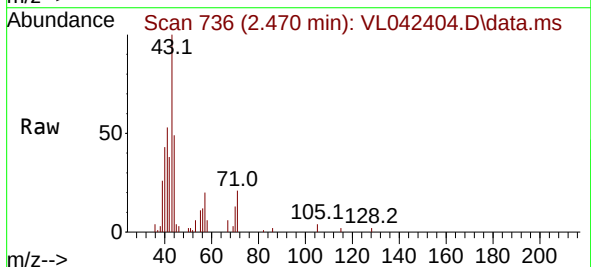
Instrument :
 MSVOA_L
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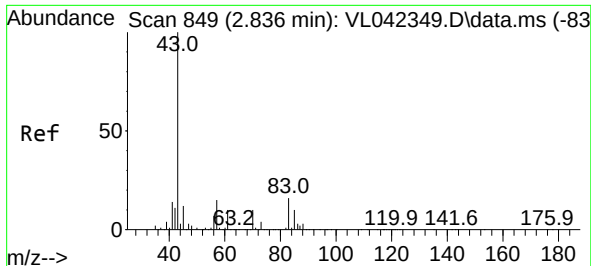
Tgt Ion: 41 Resp: 41030
 Ion Ratio Lower Upper
 41 100
 76 0.1 24.8 37.2#
 39 88.2 60.6 90.8



#23
 Vinyl Acetate
 Concen: 0.619 ppbv
 RT: 2.470 min Scan# 736
 Delta R.T. 0.010 min
 Lab File: VL042404.D
 Acq: 21 Apr 2025 14:44

Tgt Ion: 43 Resp: 5434
 Ion Ratio Lower Upper
 43 100
 86 2.5 6.5 9.7#
 42 41.4 7.8 11.8#
 44 18.0 5.0 7.6#

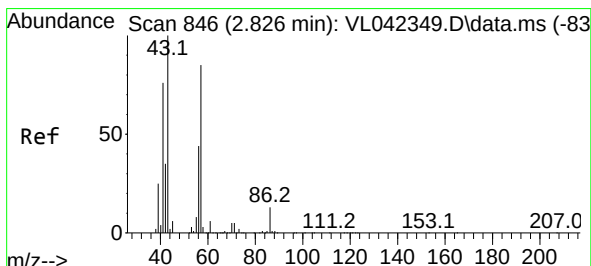
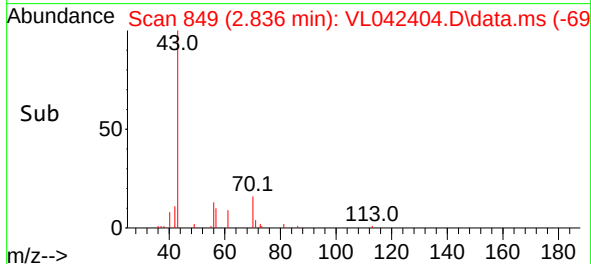
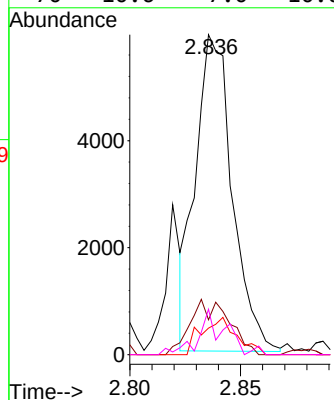
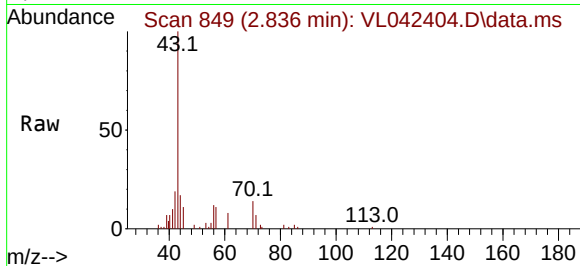




#25
Ethyl Acetate
Concen: 0.128 ppbv
RT: 2.836 min Scan# 844
Delta R.T. 0.000 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

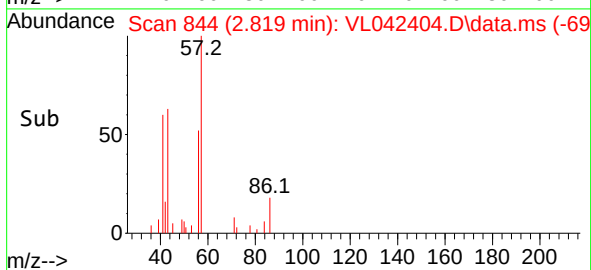
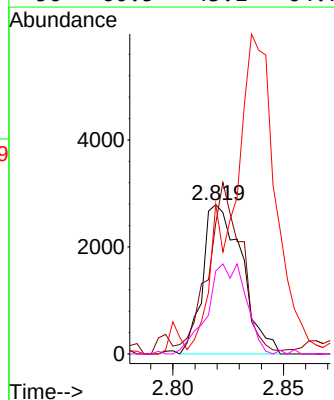
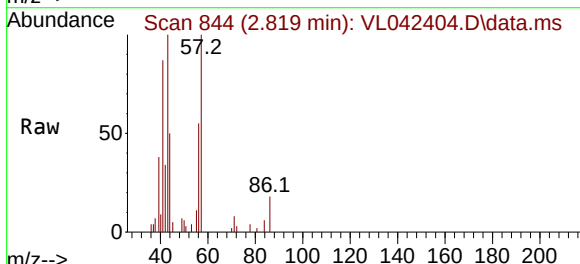
Instrument :
MSVOA_L
ClientSampleId :
IA1DL

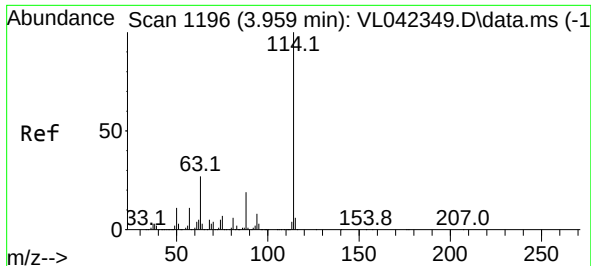
Tgt Ion:	43	Resp:	6839
Ion	Ratio	Lower	Upper
43	100		
45	19.3	8.3	12.5#
61	11.2	7.3	10.9#
70	10.6	7.0	10.6#



#26
Hexane
Concen: 0.159 ppbv
RT: 2.819 min Scan# 844
Delta R.T. -0.006 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

Tgt Ion:	57	Resp:	3436
Ion	Ratio	Lower	Upper
57	100		
41	108.4	77.9	116.9
43	250.6	208.4	312.6
56	60.5	43.1	64.7





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.955 min Scan# 1195

Delta R.T. -0.003 min

Lab File: VL042404.D

Acq: 21 Apr 2025 14:44

Instrument :

MSVOA_L

ClientSampleId :

IA1DL

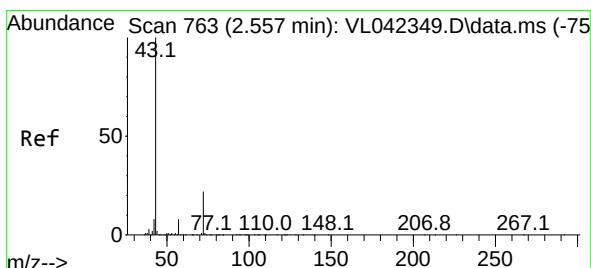
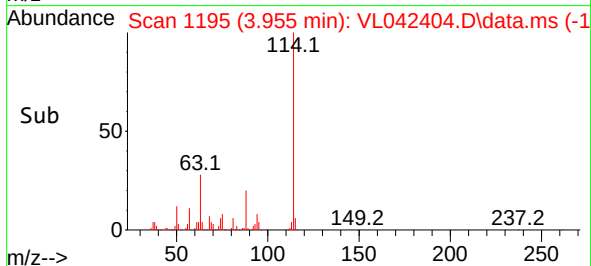
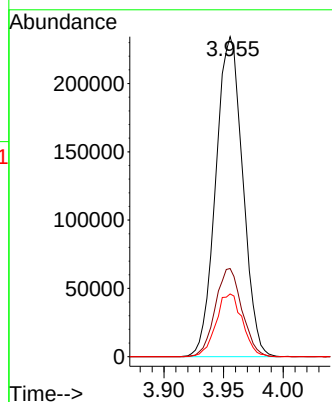
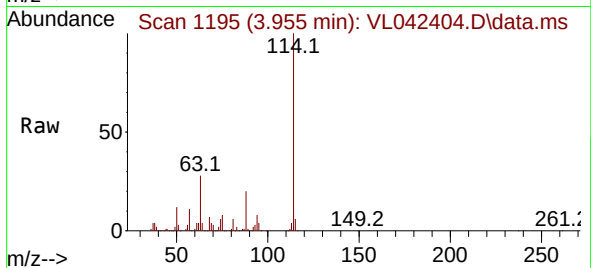
Tgt Ion:114 Resp: 368774

Ion Ratio Lower Upper

114 100

63 27.3 21.8 32.6

88 19.2 15.5 23.3



#34

2-Butanone

Concen: 0.143 ppbv

RT: 2.557 min Scan# 763

Delta R.T. 0.000 min

Lab File: VL042404.D

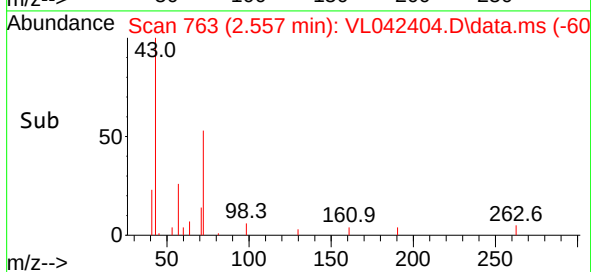
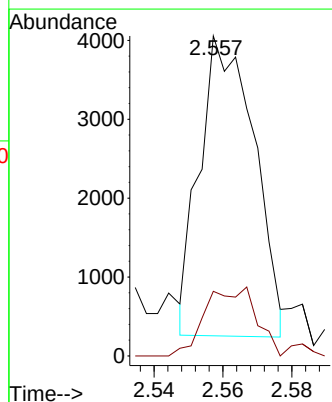
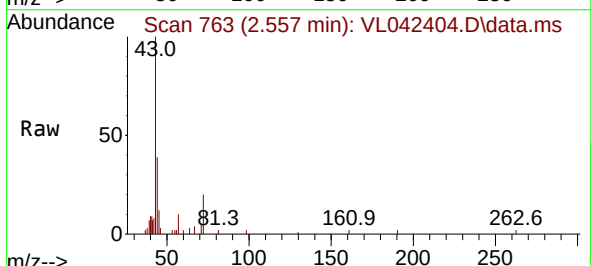
Acq: 21 Apr 2025 14:44

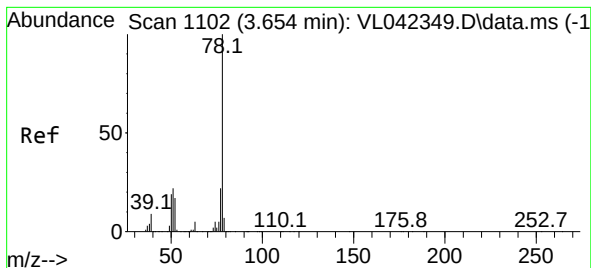
Tgt Ion: 43 Resp: 4166

Ion Ratio Lower Upper

43 100

72 23.0 18.2 27.2





#36

Benzene

Concen: 2.514 ppbv

RT: 3.654 min Scan# 1102

Delta R.T. 0.000 min

Lab File: VL042404.D

Acq: 21 Apr 2025 14:44

Instrument :

MSVOA_L

ClientSampleId :

IA1DL

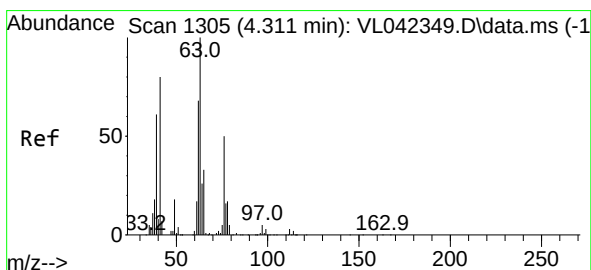
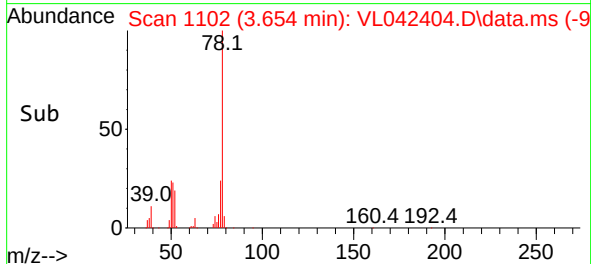
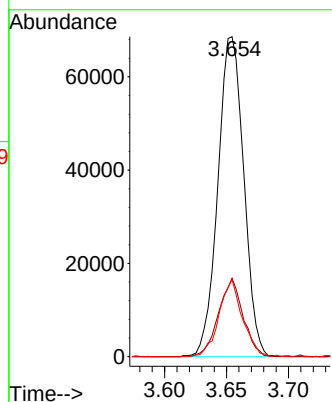
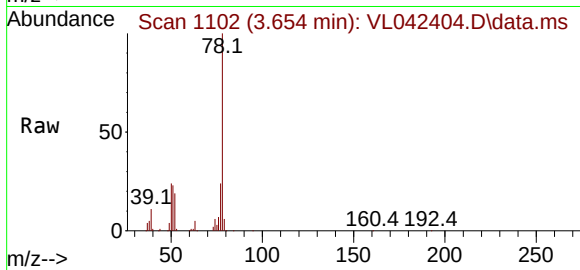
Tgt Ion: 78 Resp: 100002

Ion Ratio Lower Upper

78 100

77 24.5 17.4 26.0

50 24.1 15.5 23.3#



#39

1,2-Dichloropropane

Concen: 6.778 ppbv

RT: 3.955 min Scan# 1195

Delta R.T. -0.356 min

Lab File: VL042404.D

Acq: 21 Apr 2025 14:44

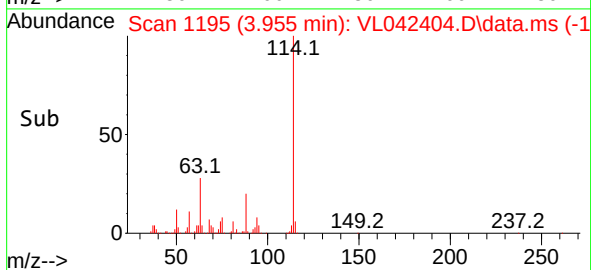
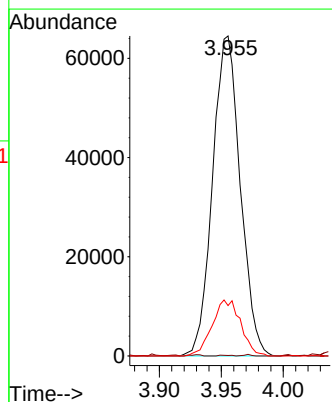
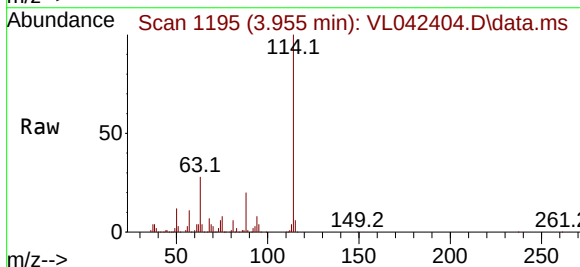
Tgt Ion: 63 Resp: 100469

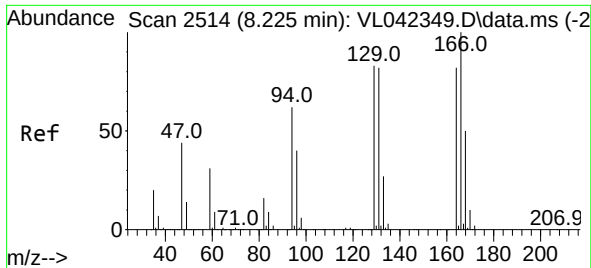
Ion Ratio Lower Upper

63 100

41 0.2 64.2 96.2#

62 15.8 54.3 81.5#

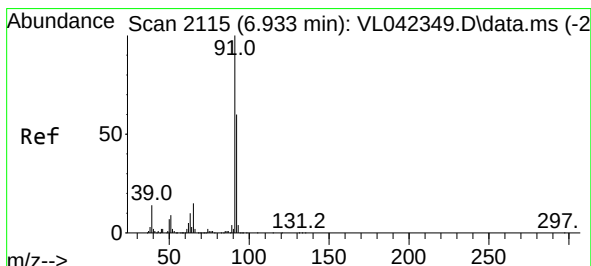
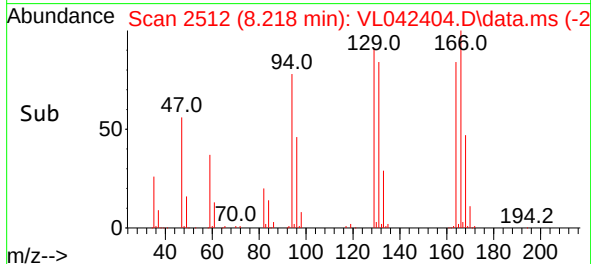
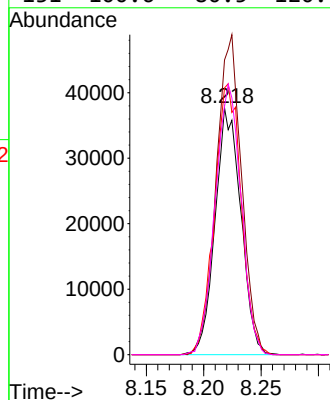
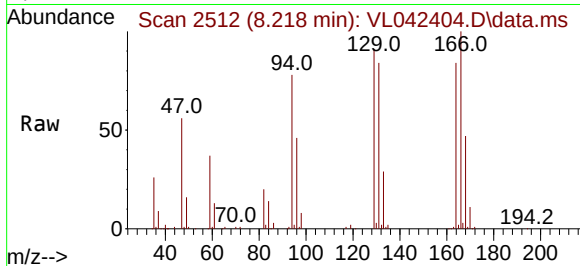




#52
Tetrachloroethene
Concen: 3.824 ppbv
RT: 8.218 min Scan# 2115
Delta R.T. -0.006 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

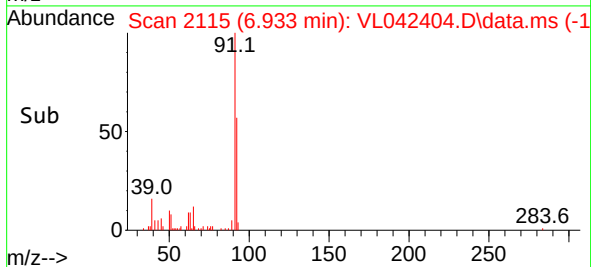
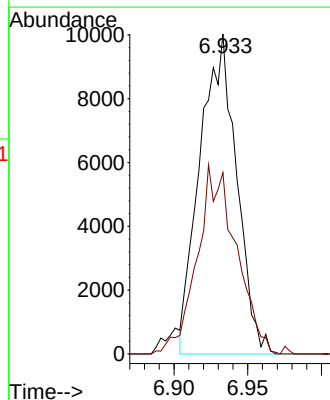
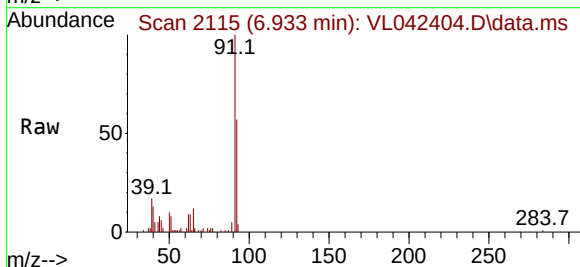
Instrument :
MSVOA_L
ClientSampleId :
IA1DL

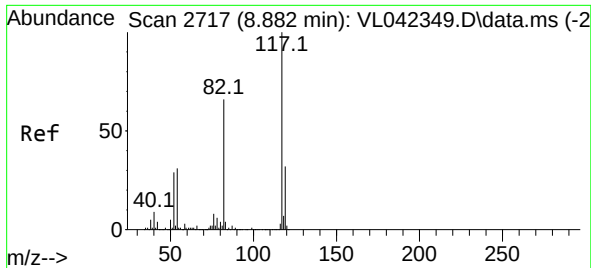
Tgt Ion:164 Resp: 58798
Ion Ratio Lower Upper
164 100
166 119.4 98.2 147.2
129 108.1 81.8 122.8
131 100.6 80.5 120.7



#53
Toluene
Concen: 0.363 ppbv
RT: 6.933 min Scan# 2115
Delta R.T. 0.000 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

Tgt Ion: 91 Resp: 17326
Ion Ratio Lower Upper
91 100
92 63.1 48.2 72.4

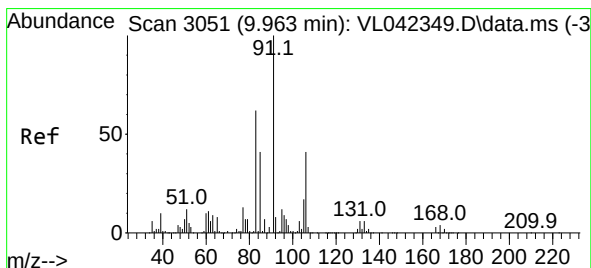
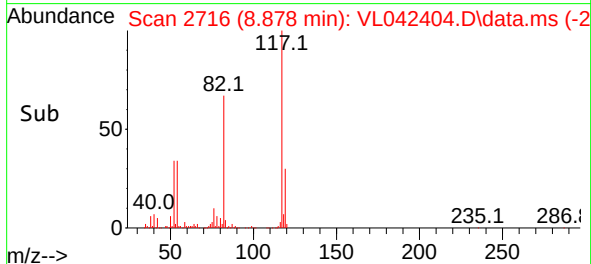
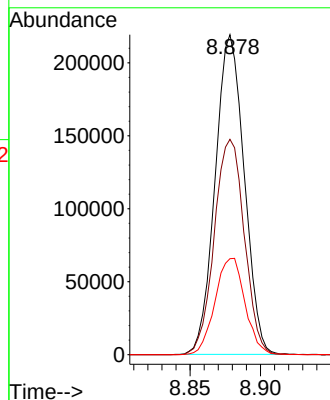
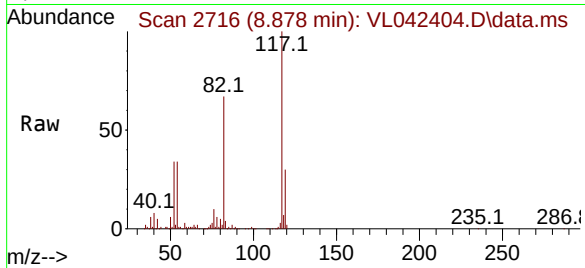




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.878 min Scan# 21
Delta R.T. -0.003 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

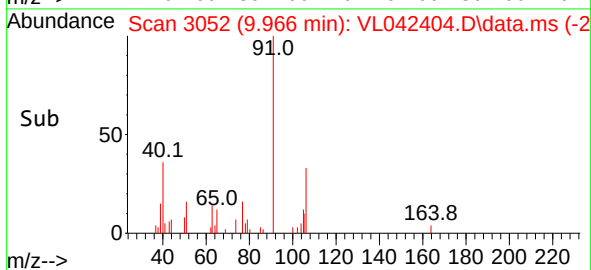
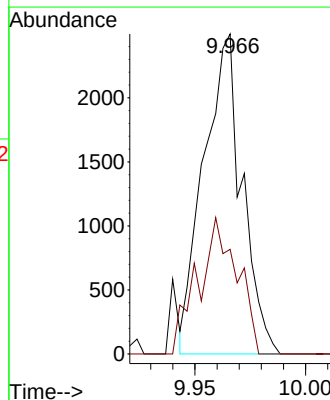
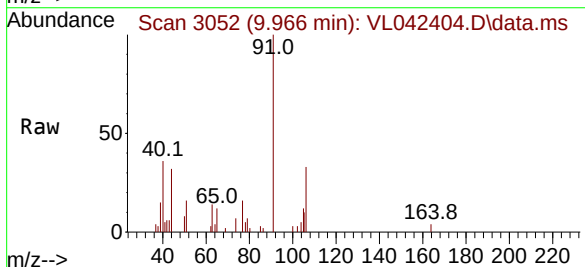
Instrument :
MSVOA_L
ClientSampleId :
IA1DL

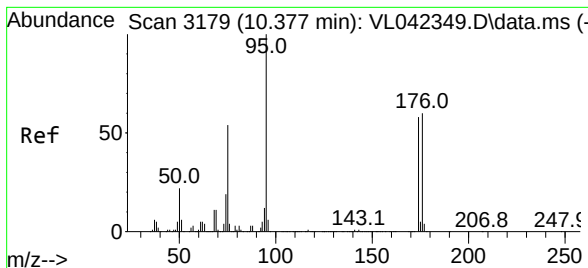
Tgt Ion:117 Resp: 315151
Ion Ratio Lower Upper
117 100
82 69.6 57.8 86.6
119 31.2 25.2 37.8



#60
o-Xylene
Concen: 0.059 ppbv
RT: 9.966 min Scan# 3052
Delta R.T. 0.003 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

Tgt Ion: 91 Resp: 3008
Ion Ratio Lower Upper
91 100
106 43.8 21.1 63.4

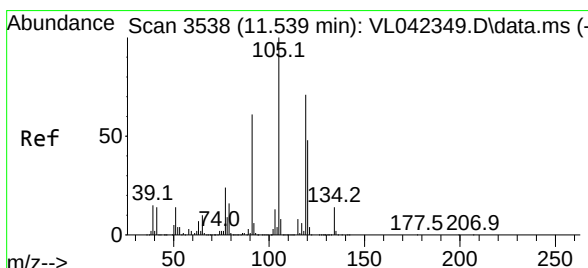
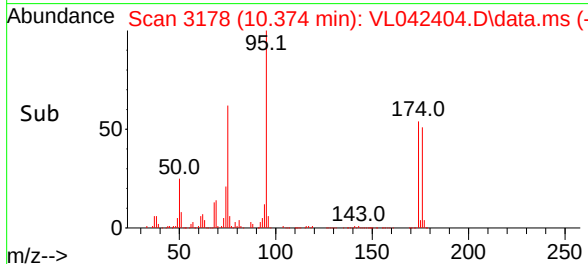
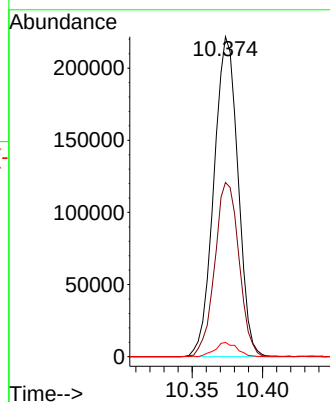
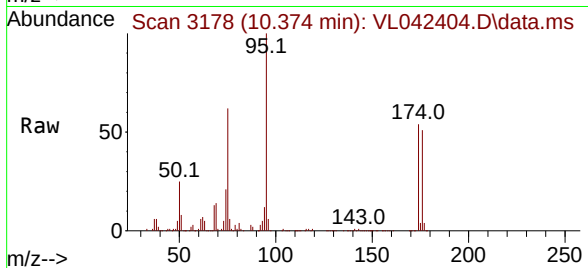




#68
1-Bromo-4-Fluorobenzene
Concen: 10.181 ppbv
RT: 10.374 min Scan# 3178
Delta R.T. -0.003 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

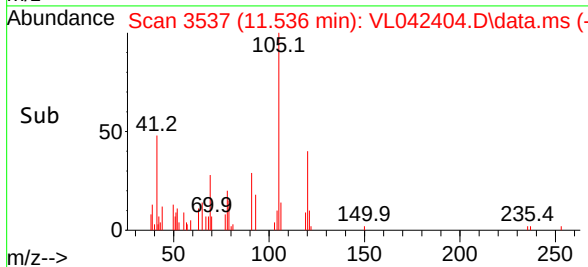
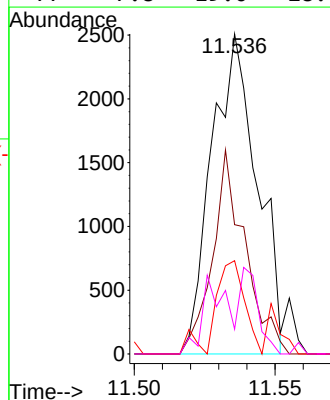
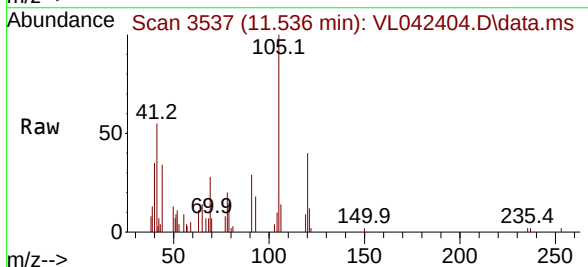
Instrument :
MSVOA_1
ClientSampleId :
IA1DL

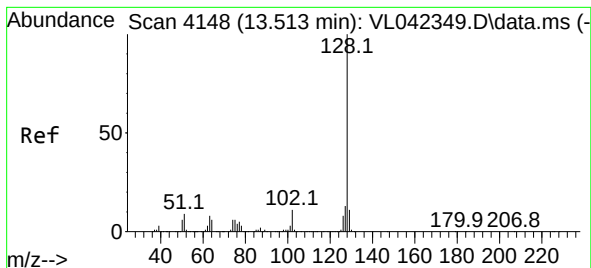
Tgt Ion: 95 Resp: 263653
Ion Ratio Lower Upper
95 100
174 55.0 48.5 72.7
175 4.2 3.7 5.5



#74
1,2,4-Trimethylbenzene
Concen: 0.044 ppbv
RT: 11.536 min Scan# 3537
Delta R.T. -0.003 min
Lab File: VL042404.D
Acq: 21 Apr 2025 14:44

Tgt Ion: 105 Resp: 2814
Ion Ratio Lower Upper
105 100
120 40.4 38.1 57.1
91 29.1 48.8 73.2#
77 7.8 19.0 28.4#





#79

Naphthalene

Concen: 0.075 ppbv

RT: 13.513 min Scan# 4148

Delta R.T. 0.000 min

Lab File: VL042404.D

Acq: 21 Apr 2025 14:44

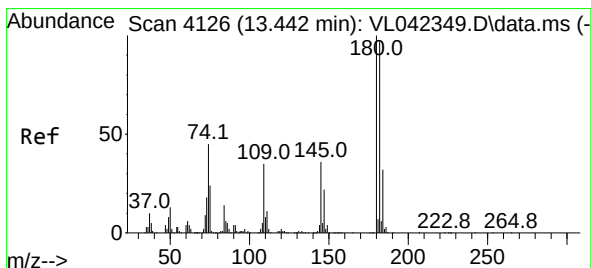
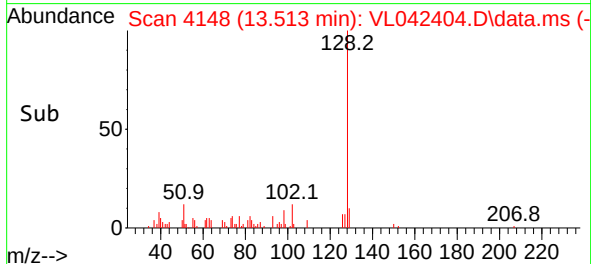
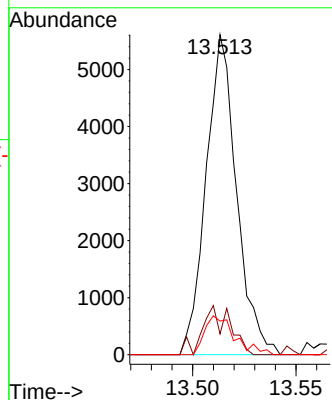
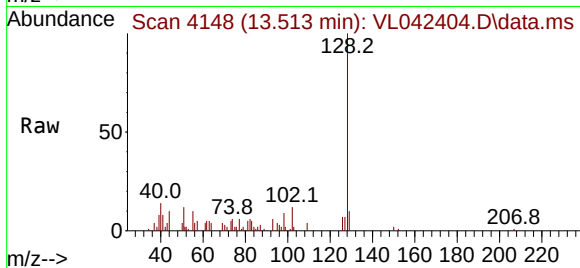
Instrument :

MSVOA_L

ClientSampleId :

IA1DL

Tgt Ion:	128	Resp:	5765
Ion Ratio	Lower	Upper	
128	100		
127	6.5	10.6	15.8#
129	10.5	8.6	12.8



#81

1,2,4-Trichlorobenzene

Concen: 0.143 ppbv

RT: 13.387 min Scan# 4109

Delta R.T. -0.055 min

Lab File: VL042404.D

Acq: 21 Apr 2025 14:44

Tgt Ion:	180	Resp:	4690
Ion Ratio	Lower	Upper	
180	100		
182	7.5	76.8	115.2#
184	0.0	24.6	36.8#

