

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL040925\
 Data File : VL042292.D
 Acq On : 09 Apr 2025 14:36
 Operator : SY/MD
 Sample : Q1665-04
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 AA-1-3242025

Quant Time: Apr 10 01:44:34 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL032725AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Mar 28 02:00:52 2025
 Response via : Initial Calibration

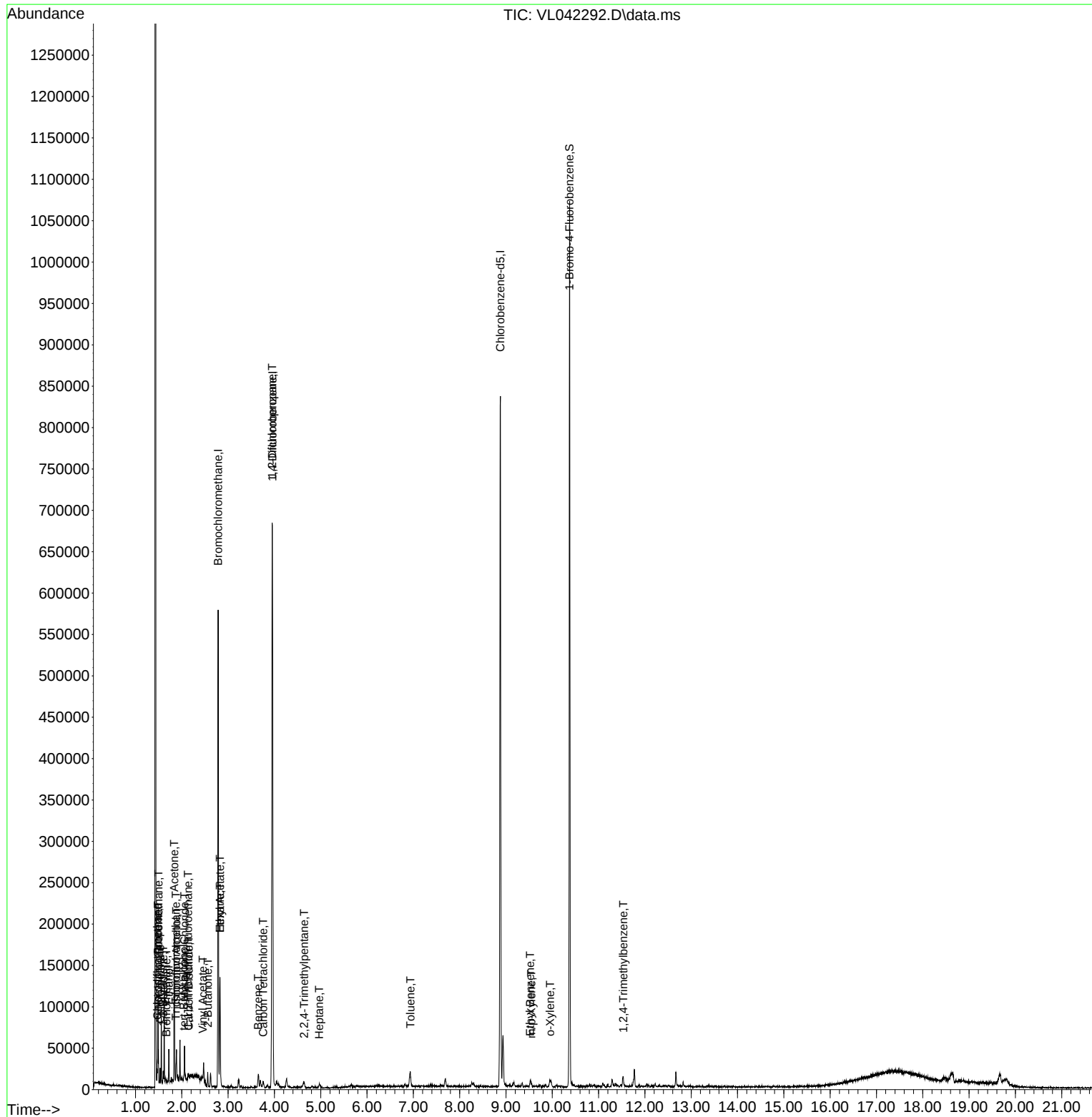
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	2.784	49	157856	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.956	114	383411	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.879	117	331322	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.374	95	250999	9.225	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	92.200%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.496	85	9272	0.398	ppbv	99
3) Chlorodifluoromethane	1.473	51	12952	0.544	ppbv #	88
4) Chloromethane	1.531	50	5277	0.554	ppbv	92
6) Bromomethane	1.664	94	192	0.044	ppbv #	47
9) Propene	1.486	41	8231	0.754	ppbv	93
10) Heptane	4.969	43	1272	0.044	ppbv #	28
11) Trichlorofluoromethane	1.874	101	4773	0.210	ppbv	100
12) 1,1,2-Trichlorotrifluo...	2.137	101	1154	0.062	ppbv	92
13) Ethanol	1.719	45	13232	12.826	ppbv	88
15) Acetone	1.836	43	76719	3.475	ppbv	91
16) 1,3-Butadiene	1.599	39	1674	0.155	ppbv #	68
17) tert-Butyl alcohol	2.046	59	1518	0.055	ppbv #	71
19) Isopropyl Alcohol	1.884	45	14854	1.192	ppbv #	1
20) Methylene Chloride	2.059	84	5511	0.670	ppbv	96
23) Vinyl Acetate	2.454	43	1222	0.128	ppbv #	74
25) Ethyl Acetate	2.823	43	21094	0.368	ppbv #	78
26) Hexane	2.823	57	23758	1.073	ppbv #	35
27) Carbon Disulfide	2.150	76	1122	0.047	ppbv #	51
34) 2-Butanone	2.561	43	9840	0.354	ppbv	99
35) Carbon Tetrachloride	3.758	117	2688	0.090	ppbv	89
36) Benzene	3.651	78	9637	0.254	ppbv #	85
39) 1,2-Dichloropropane	3.952	63	102317	7.391	ppbv #	22
44) 2,2,4-Trimethylpentane	4.642	57	2764	0.043	ppbv #	26
53) Toluene	6.937	91	5021	0.111	ppbv #	1
58) Ethyl Benzene	9.523	91	2126	0.036	ppbv	93
59) m/p-Xylene	9.549	91	1569	0.033	ppbv #	31
60) o-Xylene	9.956	91	1723	0.037	ppbv	78
74) 1,2,4-Trimethylbenzene	11.533	105	2383	0.040	ppbv #	68

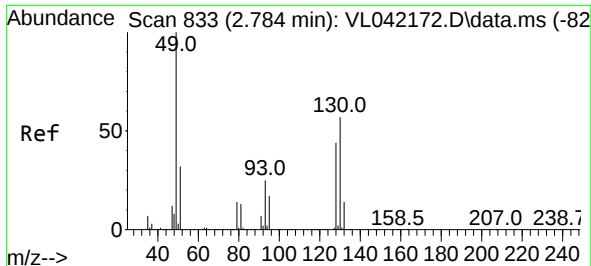
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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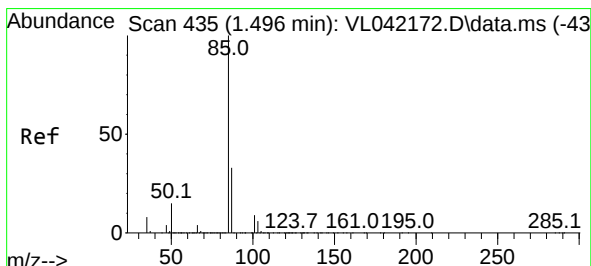
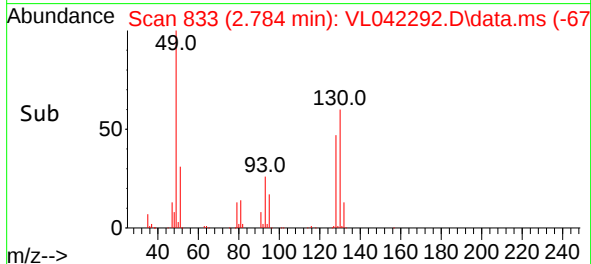
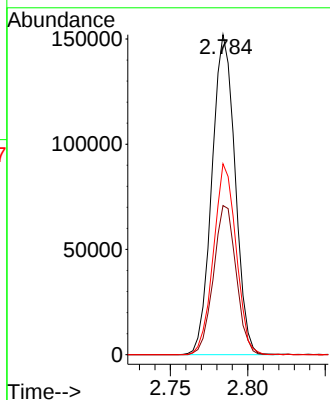
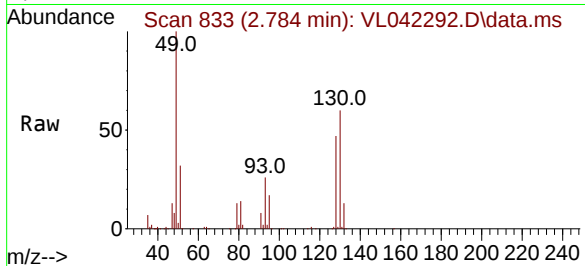




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 81
Delta R.T. -0.000 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

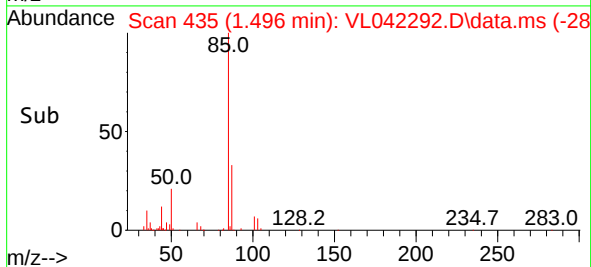
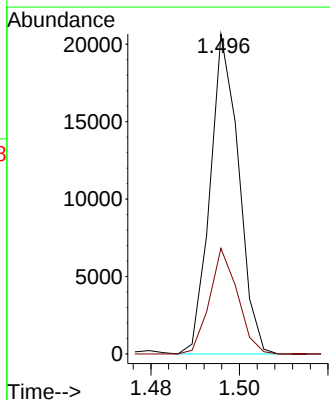
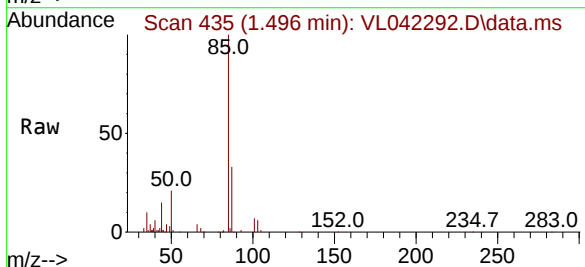
Instrument :
MSVOA_L
ClientSampleId :
AA-1-3242025

Tgt Ion: 49 Resp: 157856
Ion Ratio Lower Upper
49 100
128 45.7 22.9 68.5
130 58.3 28.8 86.4



#2
Dichlorodifluoromethane
Concen: 0.398 ppbv
RT: 1.496 min Scan# 435
Delta R.T. 0.000 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

Tgt Ion: 85 Resp: 9272
Ion Ratio Lower Upper
85 100
87 33.0 26.1 39.1

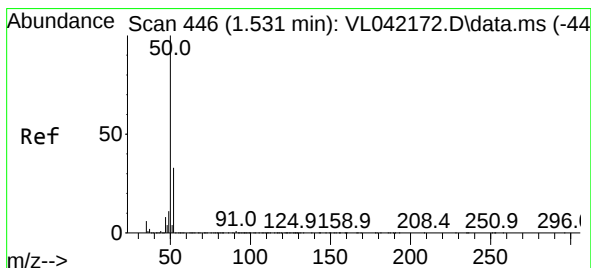
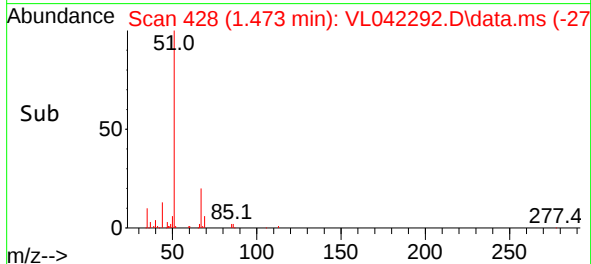
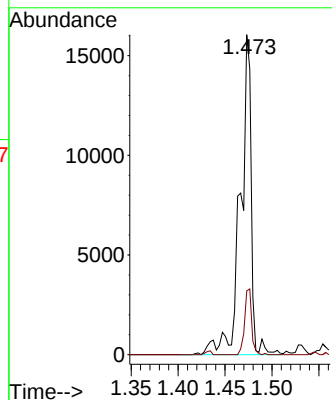
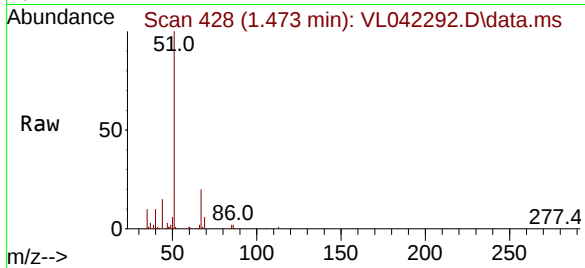




#3
Chlorodifluoromethane
Concen: 0.544 ppbv
RT: 1.473 min Scan# 41
Delta R.T. 0.000 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

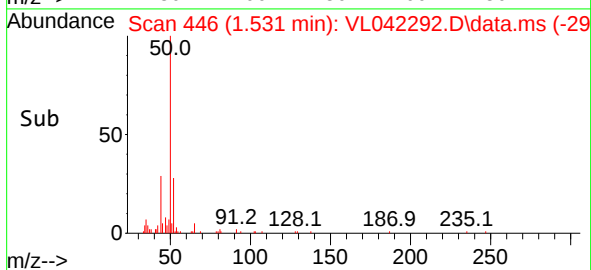
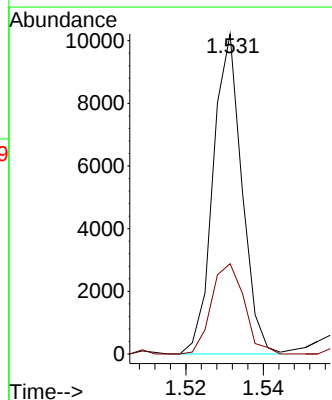
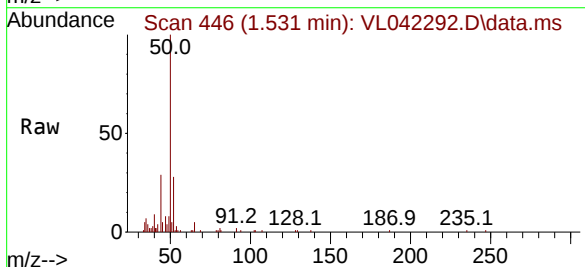
Instrument :
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ClientSampleId :
AA-1-3242025

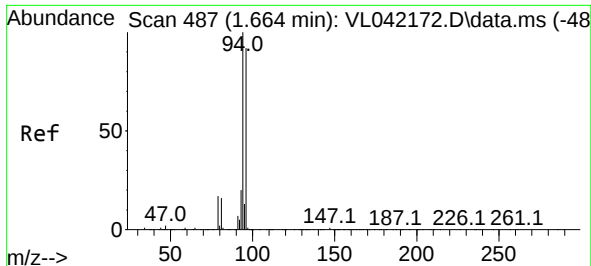
Tgt Ion: 51 Resp: 12952
Ion Ratio Lower Upper
51 100
67 13.3 15.0 22.6#



#4
Chloromethane
Concen: 0.554 ppbv
RT: 1.531 min Scan# 446
Delta R.T. 0.000 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

Tgt Ion: 50 Resp: 5277
Ion Ratio Lower Upper
50 100
52 28.2 26.1 39.1

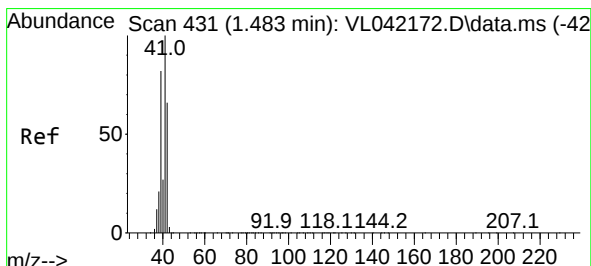
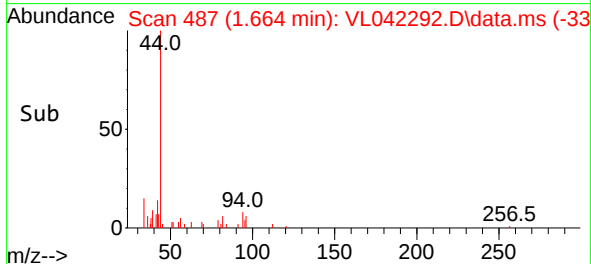
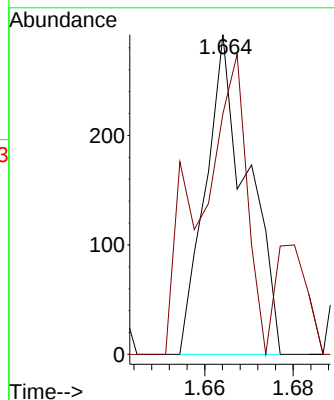
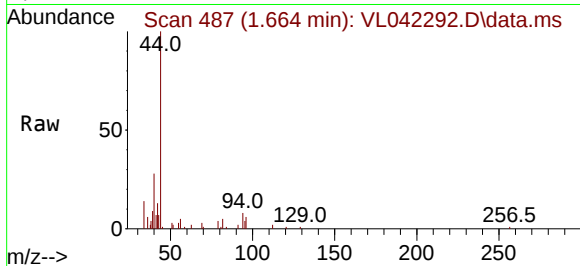




#6
Bromomethane
Concen: 0.044 ppbv
RT: 1.664 min Scan# 41
Delta R.T. 0.000 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

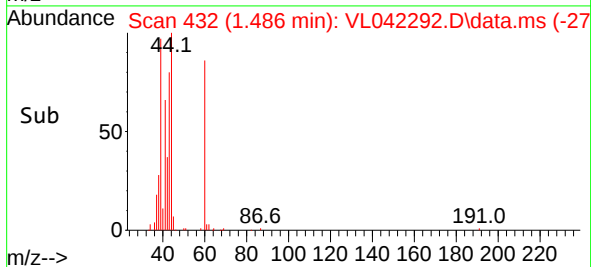
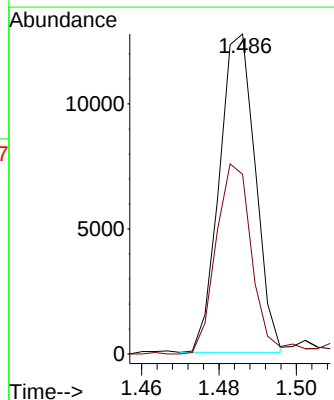
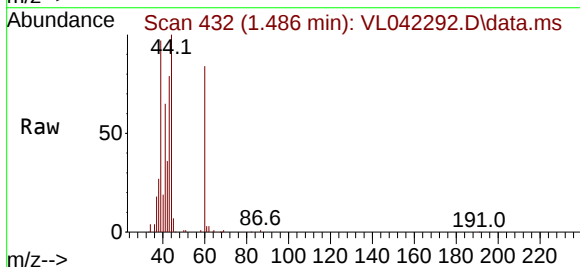
Instrument :
MSVOA_L
ClientSampleId :
AA-1-3242025

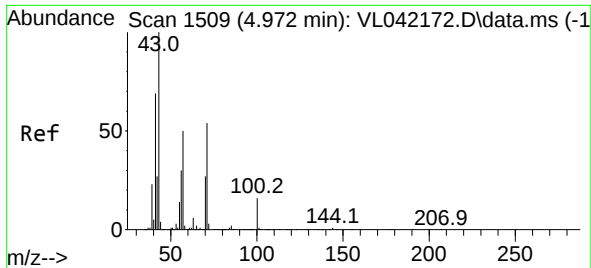
Tgt Ion: 94 Resp: 192
Ion Ratio Lower Upper
94 100
96 41.4 73.1 109.7#



#9
Propene
Concen: 0.754 ppbv
RT: 1.486 min Scan# 432
Delta R.T. 0.003 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

Tgt Ion: 41 Resp: 8231
Ion Ratio Lower Upper
41 100
42 63.3 55.4 83.2





#10

Heptane

Concen: 0.044 ppbv

RT: 4.969 min Scan# 11

Delta R.T. -0.003 min

Lab File: VL042292.D

Acq: 09 Apr 2025 14:36

Instrument :

MSVOA_L

ClientSampleId :

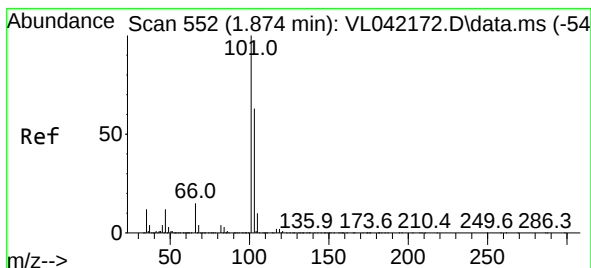
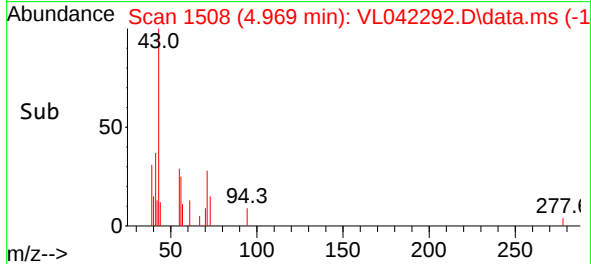
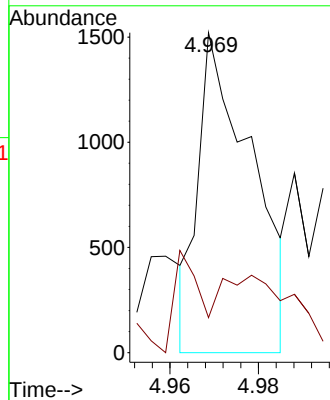
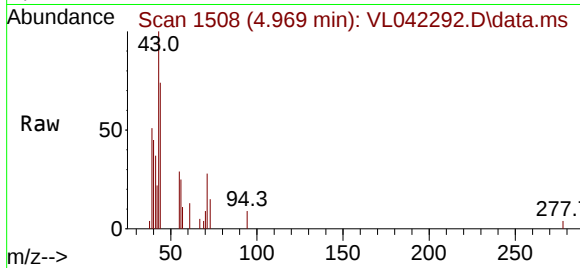
AA-1-3242025

Tgt Ion: 43 Resp: 1272

Ion Ratio Lower Upper

43 100

57 0.0 39.4 59.2#



#11

Trichlorofluoromethane

Concen: 0.210 ppbv

RT: 1.874 min Scan# 552

Delta R.T. 0.000 min

Lab File: VL042292.D

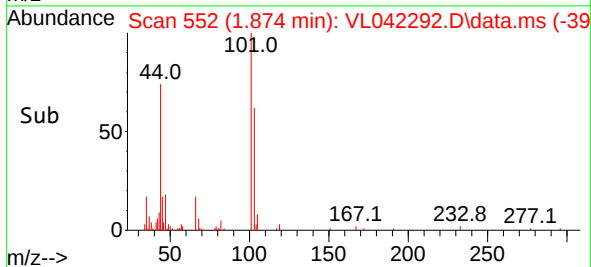
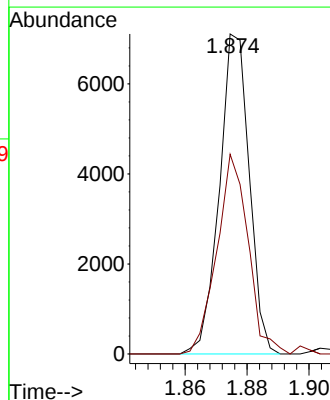
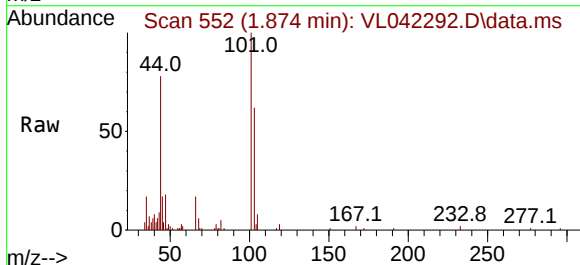
Acq: 09 Apr 2025 14:36

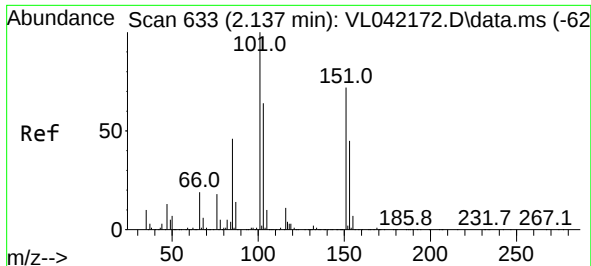
Tgt Ion:101 Resp: 4773

Ion Ratio Lower Upper

101 100

103 62.4 50.2 75.2

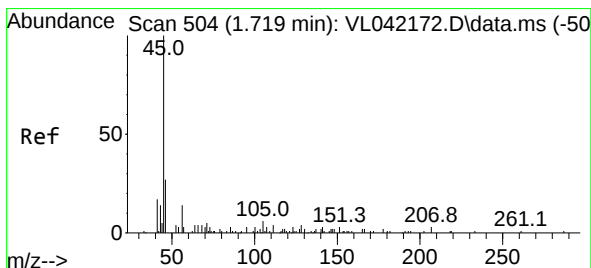
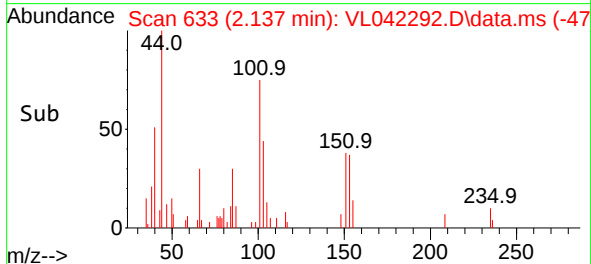
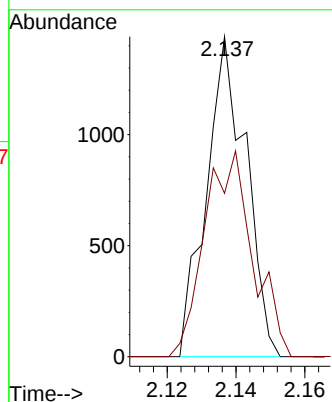
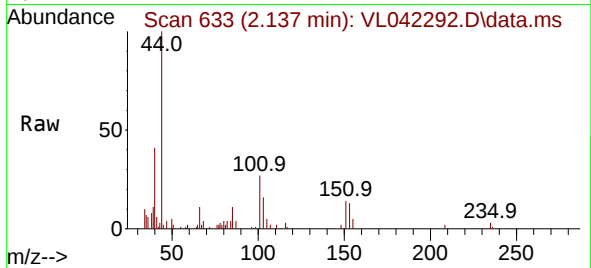




#12
1,1,2-Trichlorotrifluoroethane
Concen: 0.062 ppbv
RT: 2.137 min Scan# 611
Delta R.T. 0.000 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

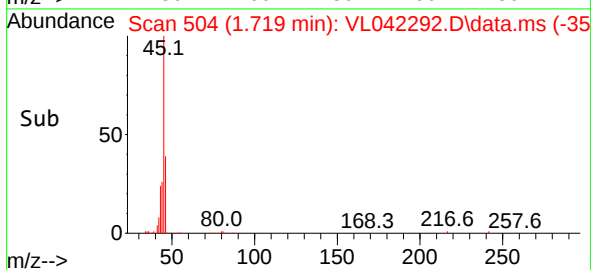
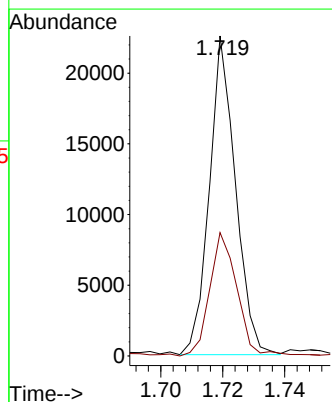
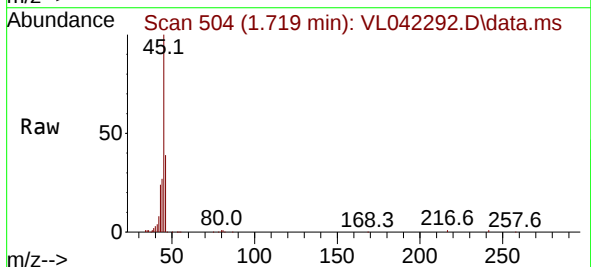
Instrument :
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AA-1-3242025

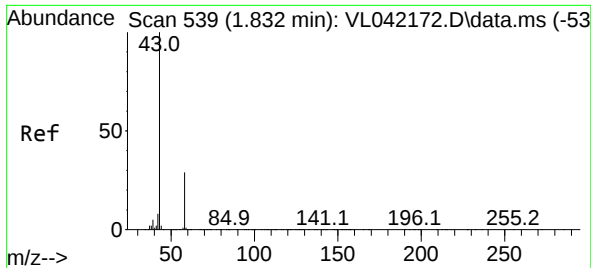
Tgt Ion:101 Resp: 1154
Ion Ratio Lower Upper
101 100
151 78.2 57.1 85.7



#13
Ethanol
Concen: 12.826 ppbv
RT: 1.719 min Scan# 504
Delta R.T. 0.000 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

Tgt Ion: 45 Resp: 13232
Ion Ratio Lower Upper
45 100
46 42.5 20.2 80.8





#15

Acetone

Concen: 3.475 ppbv

RT: 1.836 min Scan# 54

Delta R.T. 0.003 min

Lab File: VL042292.D

Acq: 09 Apr 2025 14:36

Instrument :

MSVOA_L

ClientSampleId :

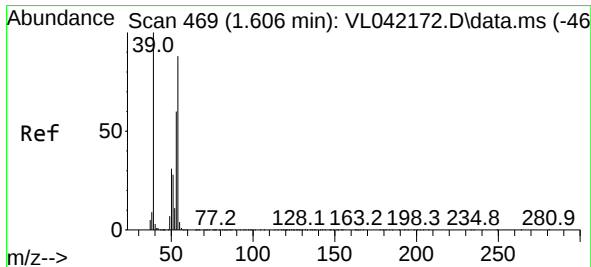
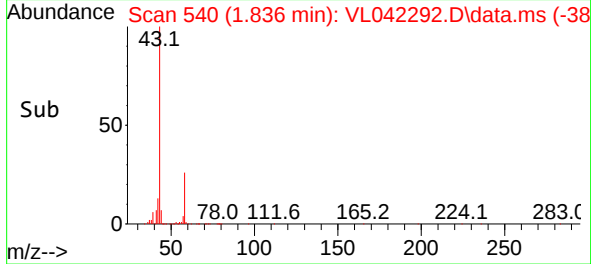
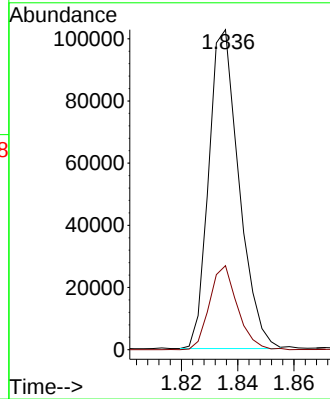
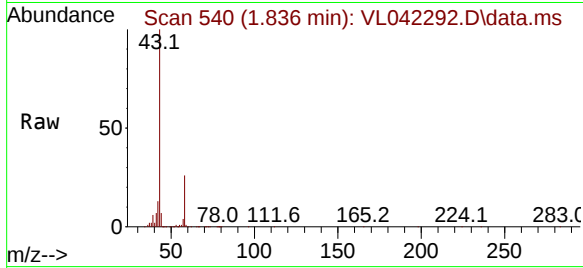
AA-1-3242025

Tgt Ion: 43 Resp: 76719

Ion Ratio Lower Upper

43 100

58 24.3 23.2 34.8



#16

1,3-Butadiene

Concen: 0.155 ppbv

RT: 1.599 min Scan# 467

Delta R.T. -0.006 min

Lab File: VL042292.D

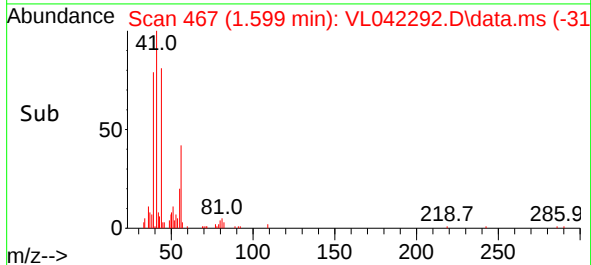
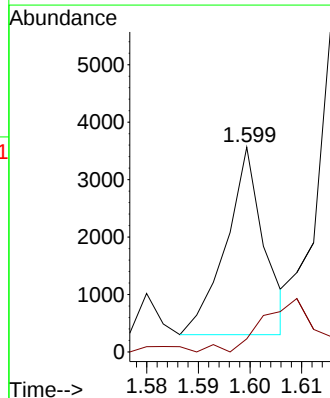
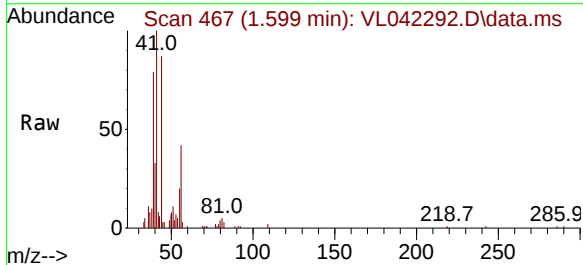
Acq: 09 Apr 2025 14:36

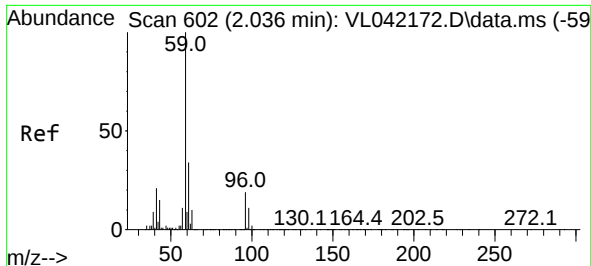
Tgt Ion: 39 Resp: 1674

Ion Ratio Lower Upper

39 100

54 48.3 60.7 91.1#

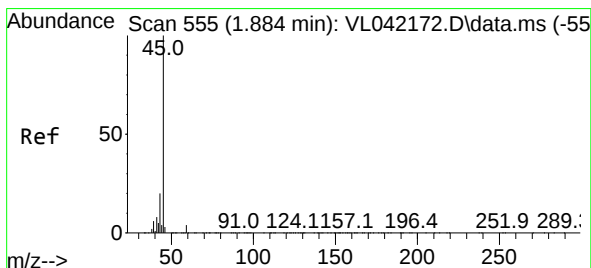
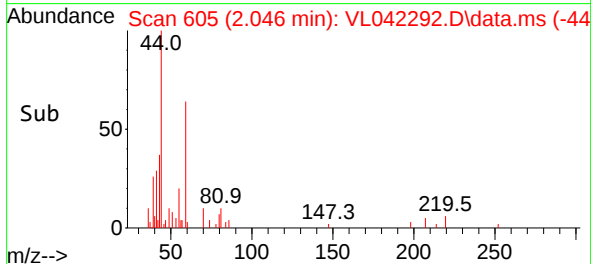
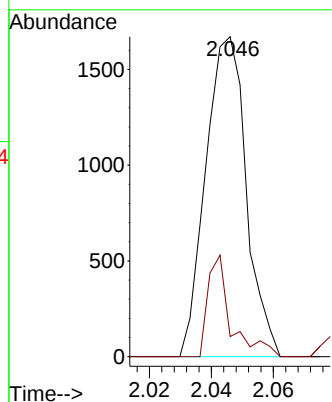
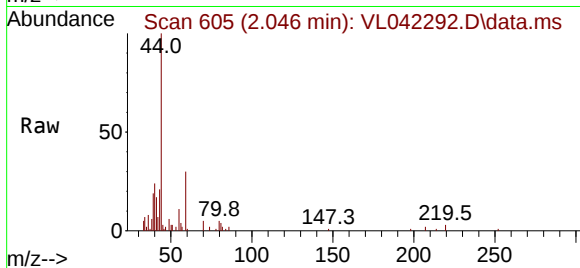




#17
tert-Butyl alcohol
Concen: 0.055 ppbv
RT: 2.046 min Scan# 602
Delta R.T. 0.010 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

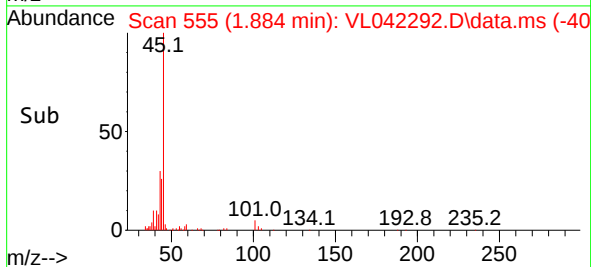
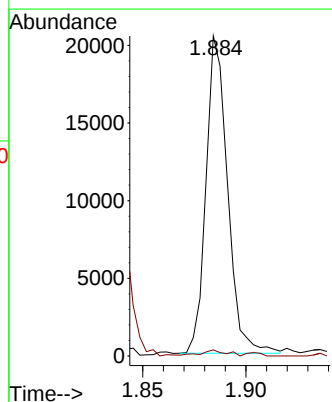
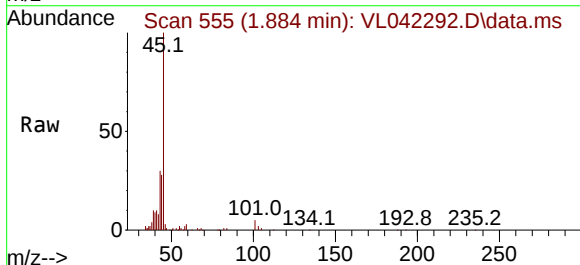
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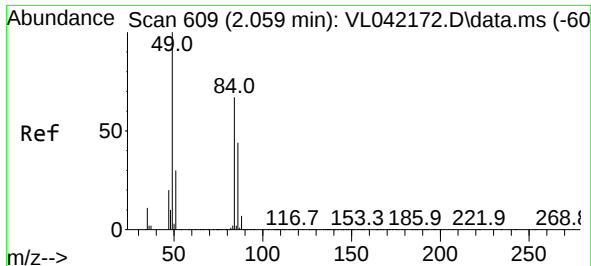
Tgt Ion: 59 Resp: 1518
Ion Ratio Lower Upper
59 100
57 0.0 8.9 13.3#



#19
Isopropyl Alcohol
Concen: 1.192 ppbv
RT: 1.884 min Scan# 555
Delta R.T. 0.000 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

Tgt Ion: 45 Resp: 14854
Ion Ratio Lower Upper
45 100
58 125.4 36.9 55.3#





#20

Methylene Chloride

Concen: 0.670 ppbv

RT: 2.059 min Scan# 609

Delta R.T. 0.000 min

Lab File: VL042292.D

Acq: 09 Apr 2025 14:36

Instrument :

MSVOA_L

ClientSampleId :

AA-1-3242025

Tgt Ion: 84 Resp: 5511

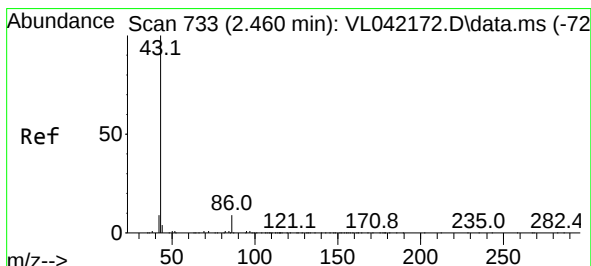
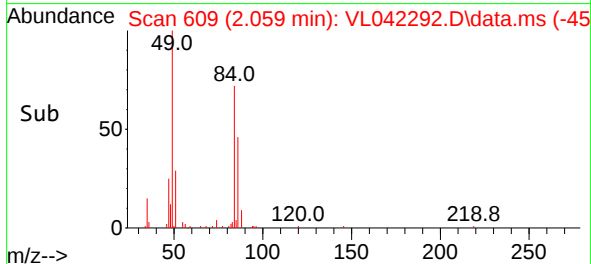
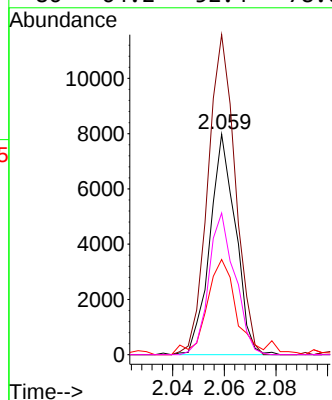
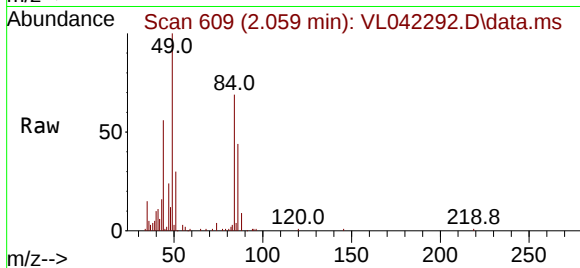
Ion Ratio Lower Upper

84 100

49 145.1 120.2 180.4

51 42.4 37.4 56.0

86 64.2 52.4 78.6



#23

Vinyl Acetate

Concen: 0.128 ppbv

RT: 2.454 min Scan# 731

Delta R.T. -0.006 min

Lab File: VL042292.D

Acq: 09 Apr 2025 14:36

Tgt Ion: 43 Resp: 1222

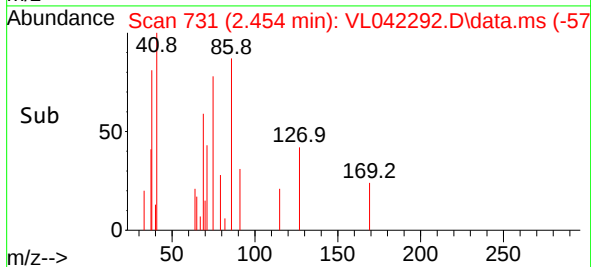
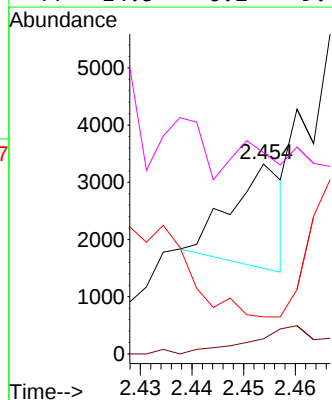
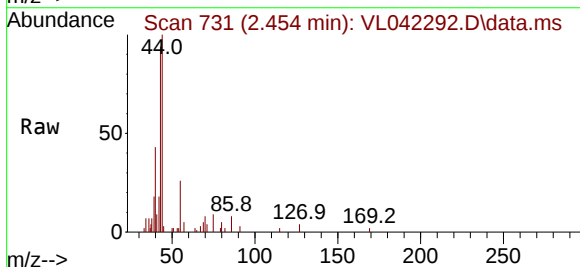
Ion Ratio Lower Upper

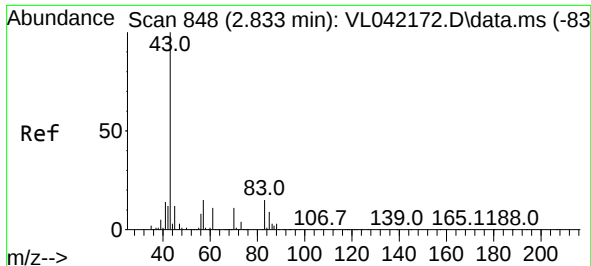
43 100

86 17.8 5.5 8.3#

42 0.2 8.6 13.0#

44 14.5 6.2 9.4#

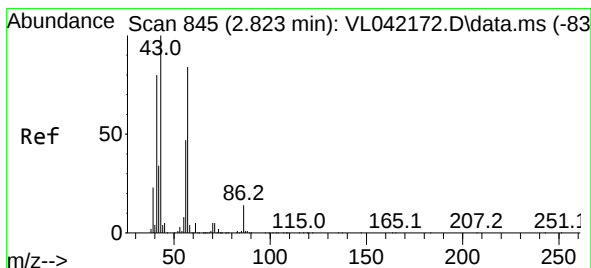
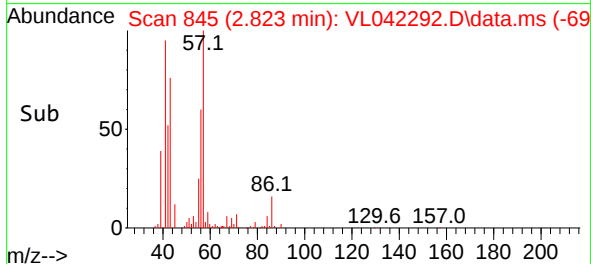
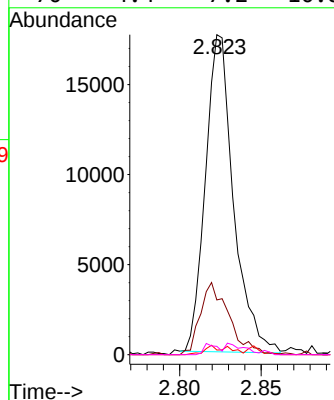
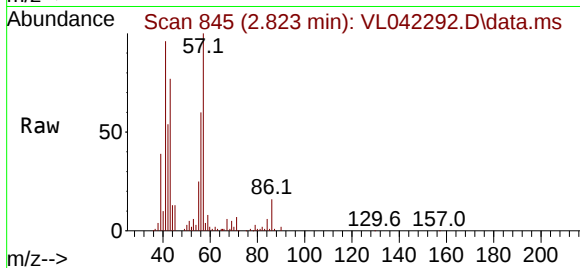




#25
Ethyl Acetate
Concen: 0.368 ppbv
RT: 2.823 min Scan# 845
Delta R.T. -0.010 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

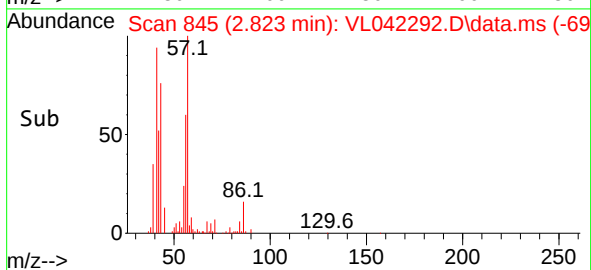
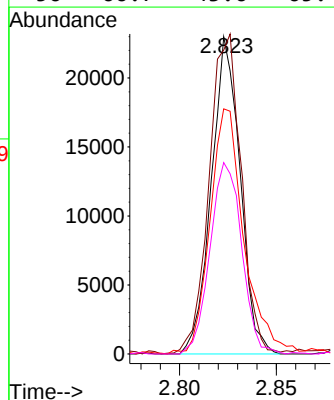
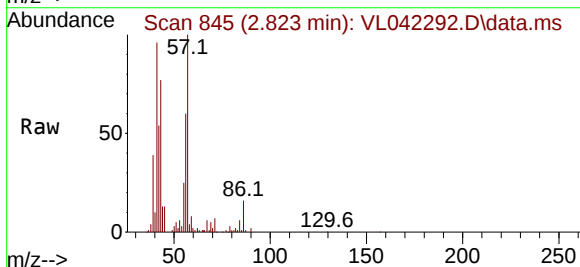
Instrument :
MSVOA_L
ClientSampleId :
AA-1-3242025

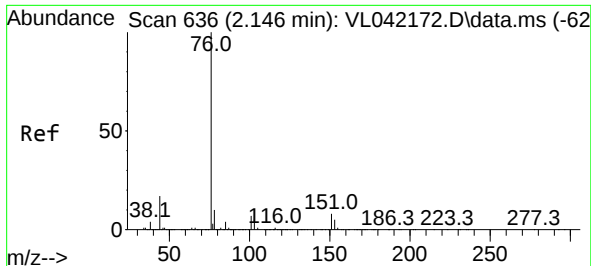
Tgt Ion:	43	Resp:	21094
Ion	Ratio	Lower	Upper
43	100		
45	23.5	8.2	12.2#
61	3.7	7.3	10.9#
70	4.4	7.2	10.8#



#26
Hexane
Concen: 1.073 ppbv
RT: 2.823 min Scan# 845
Delta R.T. 0.000 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

Tgt Ion:	57	Resp:	23758
Ion	Ratio	Lower	Upper
57	100		
41	112.9	76.6	114.8
43	94.2	207.8	311.8#
56	66.7	43.6	65.4#





#27

Carbon Disulfide

Concen: 0.047 ppbv

RT: 2.150 min Scan# 61

Delta R.T. 0.003 min

Lab File: VL042292.D

Acq: 09 Apr 2025 14:36

Instrument :

MSVOA_L

ClientSampleId :

AA-1-3242025

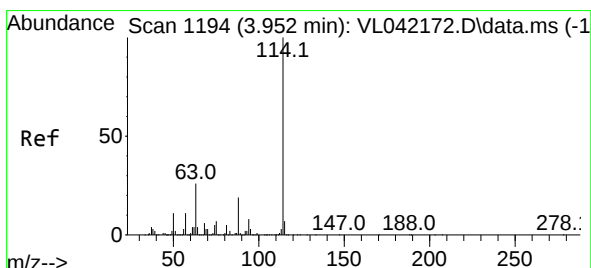
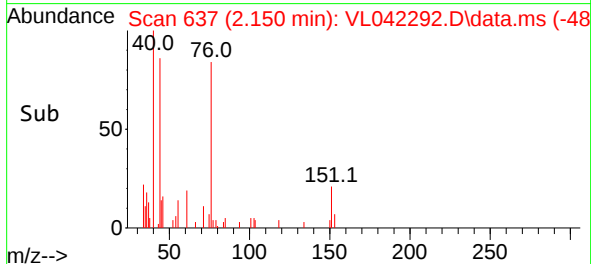
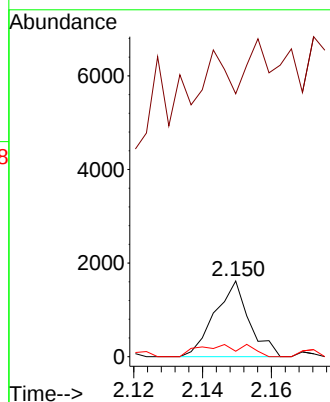
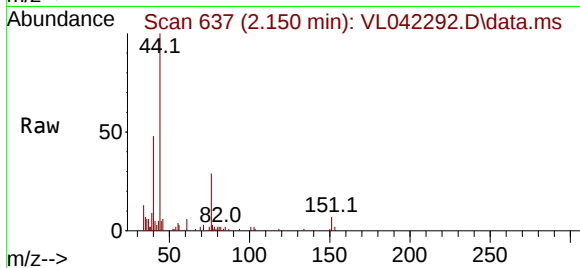
Tgt Ion: 76 Resp: 1122

Ion Ratio Lower Upper

76 100

44 0.0 14.7 22.1#

78 34.8 9.3 13.9#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.956 min Scan# 1195

Delta R.T. 0.003 min

Lab File: VL042292.D

Acq: 09 Apr 2025 14:36

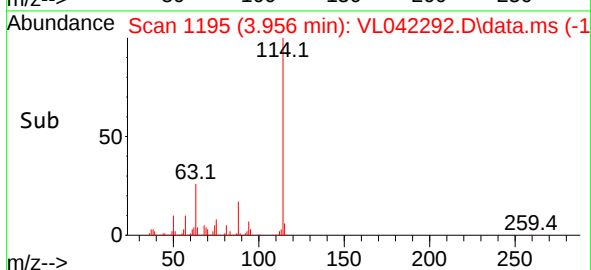
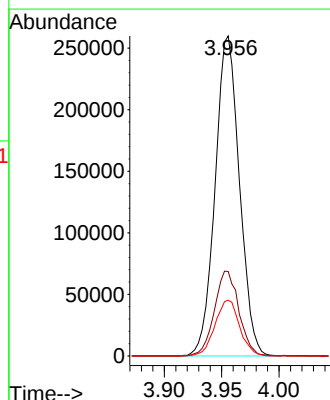
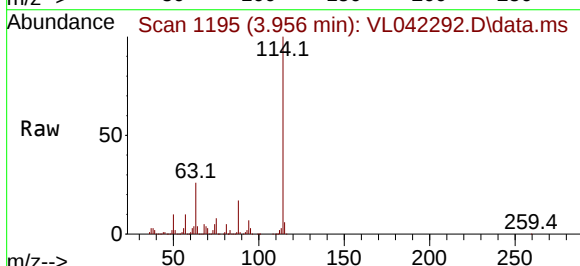
Tgt Ion: 114 Resp: 383411

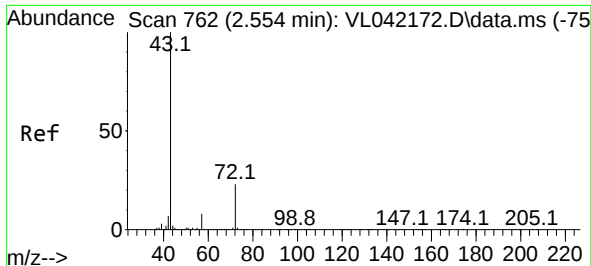
Ion Ratio Lower Upper

114 100

63 26.7 20.7 31.1

88 17.7 15.0 22.4

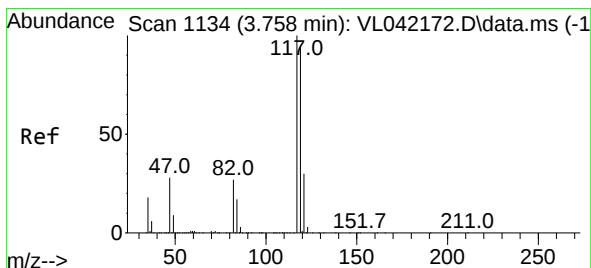
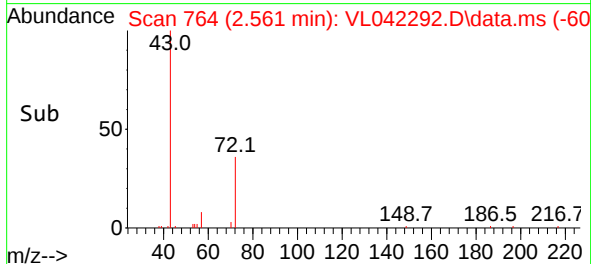
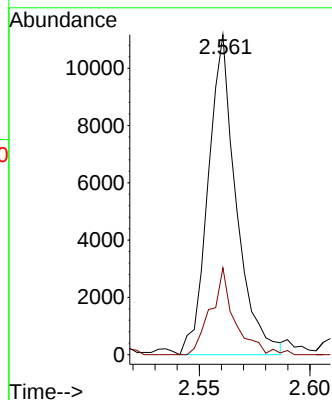
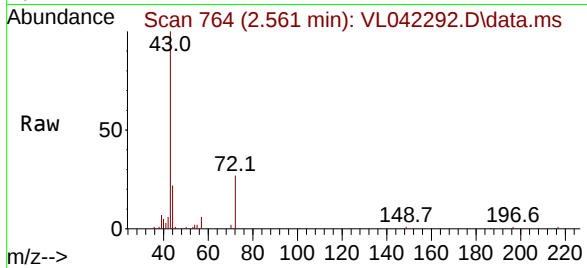




#34
2-Butanone
Concen: 0.354 ppbv
RT: 2.561 min Scan# 764
Delta R.T. 0.006 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

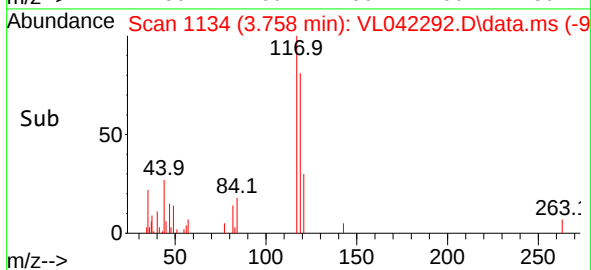
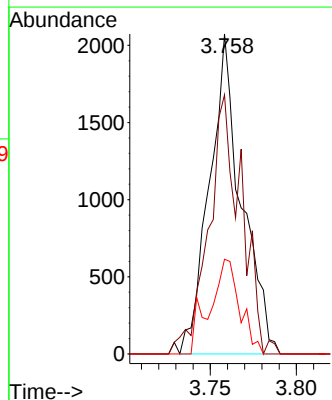
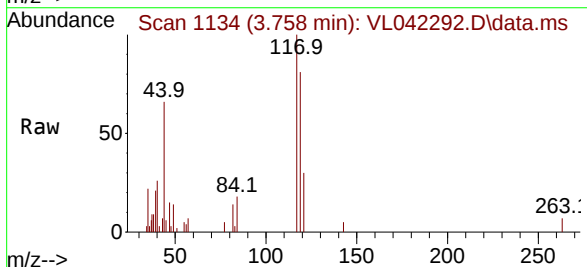
Instrument :
MSVOA_L
ClientSampleId :
AA-1-3242025

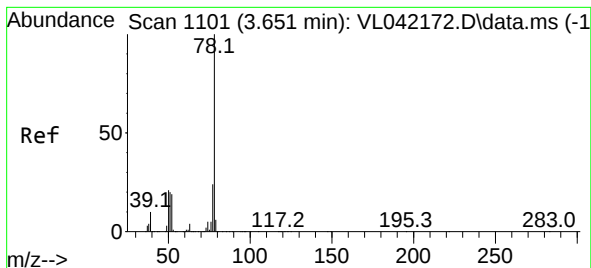
Tgt Ion: 43 Resp: 9840
Ion Ratio Lower Upper
43 100
72 23.2 18.2 27.2



#35
Carbon Tetrachloride
Concen: 0.090 ppbv
RT: 3.758 min Scan# 1134
Delta R.T. 0.000 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

Tgt Ion: 117 Resp: 2688
Ion Ratio Lower Upper
117 100
119 81.0 76.2 114.2
121 29.6 24.2 36.4





#36

Benzene

Concen: 0.254 ppbv

RT: 3.651 min Scan# 1101

Delta R.T. 0.000 min

Lab File: VL042292.D

Acq: 09 Apr 2025 14:36

Instrument :

MSVOA_L

ClientSampleId :

AA-1-3242025

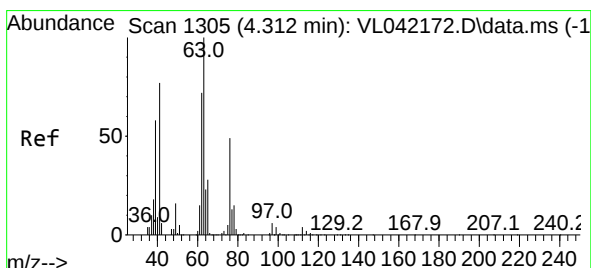
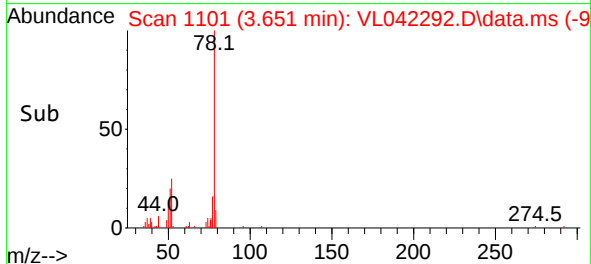
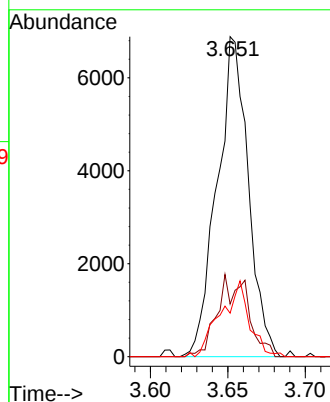
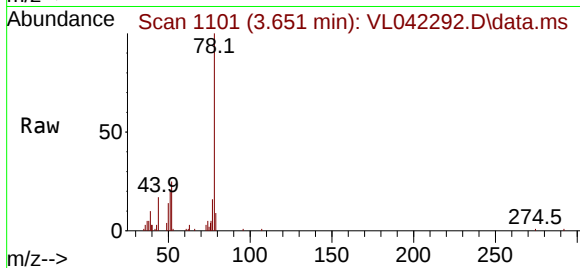
Tgt Ion: 78 Resp: 9637

Ion Ratio Lower Upper

78 100

77 16.4 19.1 28.7#

50 13.6 16.6 24.8#



#39

1,2-Dichloropropane

Concen: 7.391 ppbv

RT: 3.952 min Scan# 1194

Delta R.T. -0.359 min

Lab File: VL042292.D

Acq: 09 Apr 2025 14:36

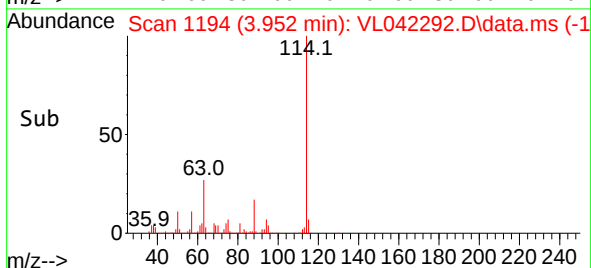
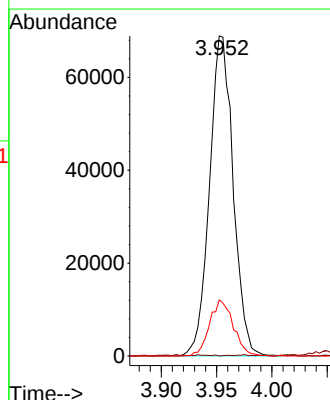
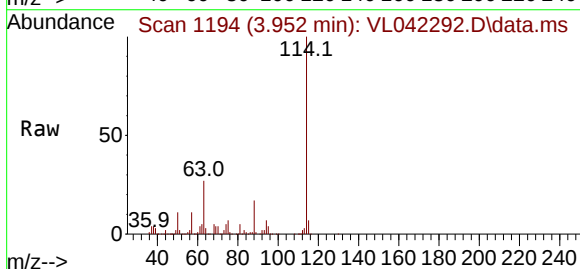
Tgt Ion: 63 Resp: 102317

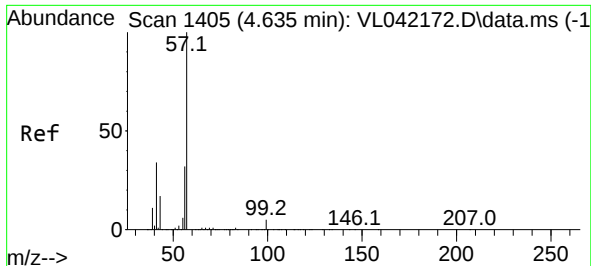
Ion Ratio Lower Upper

63 100

41 0.0 61.7 92.5#

62 17.5 57.6 86.4#

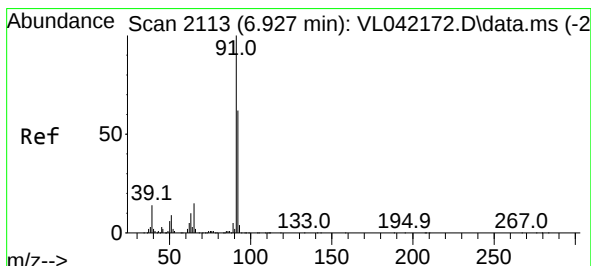
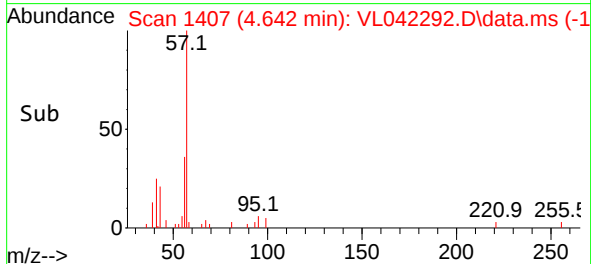
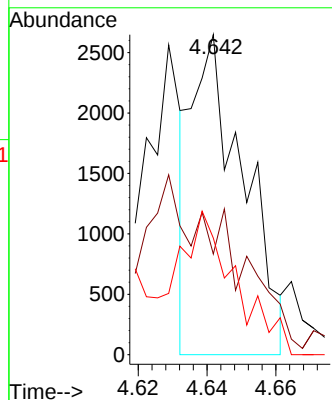
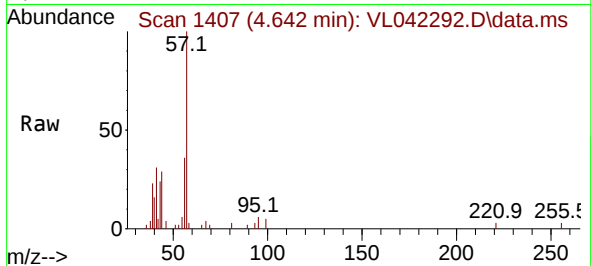




#44
 2,2,4-Trimethylpentane
 Concen: 0.043 ppbv
 RT: 4.642 min Scan# 1405
 Delta R.T. 0.006 min
 Lab File: VL042292.D
 Acq: 09 Apr 2025 14:36

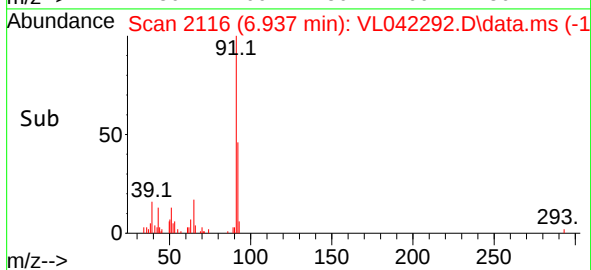
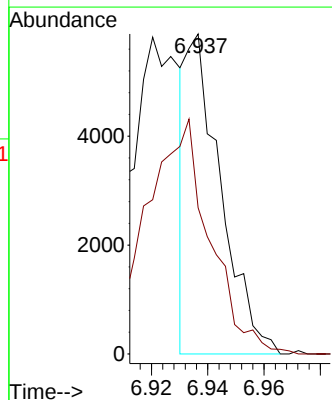
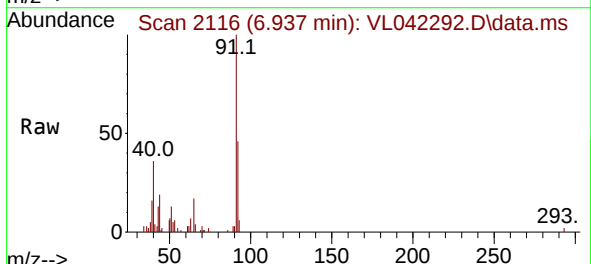
Instrument :
 MSVOA_L
 ClientSampleId :
 AA-1-3242025

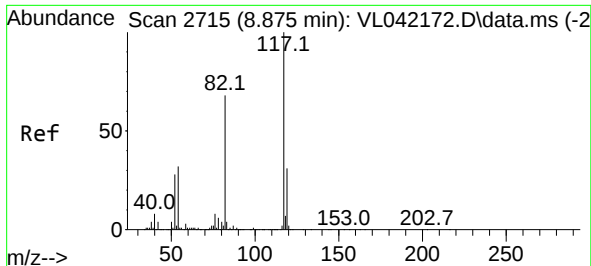
Tgt Ion: 57 Resp: 2764
 Ion Ratio Lower Upper
 57 100
 41 0.0 26.8 40.2#
 56 82.6 25.6 38.4#



#53
 Toluene
 Concen: 0.111 ppbv
 RT: 6.937 min Scan# 2116
 Delta R.T. 0.010 min
 Lab File: VL042292.D
 Acq: 09 Apr 2025 14:36

Tgt Ion: 91 Resp: 5021
 Ion Ratio Lower Upper
 91 100
 92 142.8 48.4 72.6#

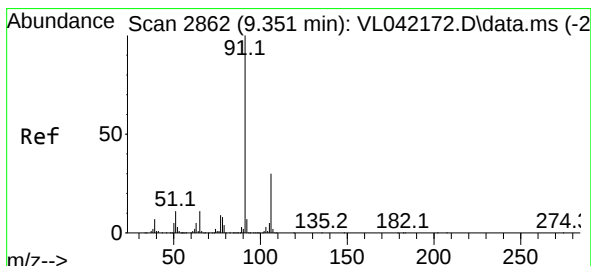
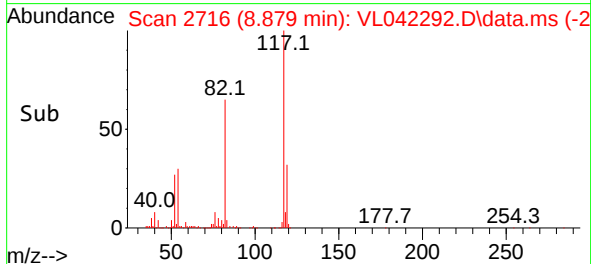
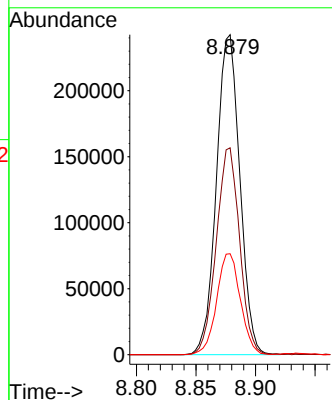
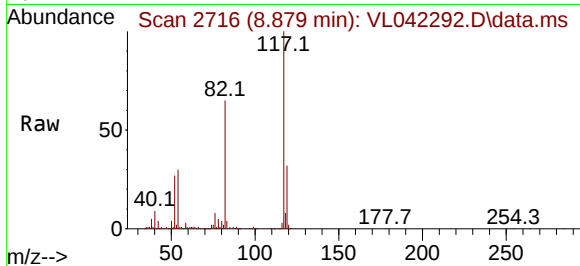




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.879 min Scan# 21
Delta R.T. 0.003 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

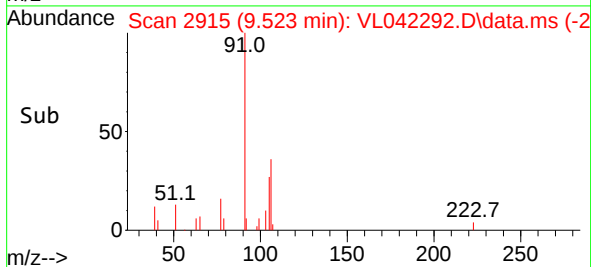
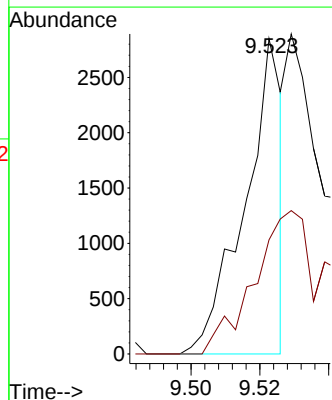
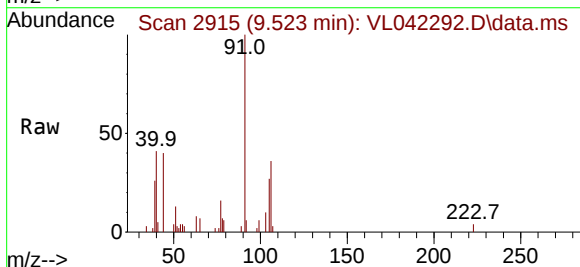
Instrument :
MSVOA_L
ClientSampleId :
AA-1-3242025

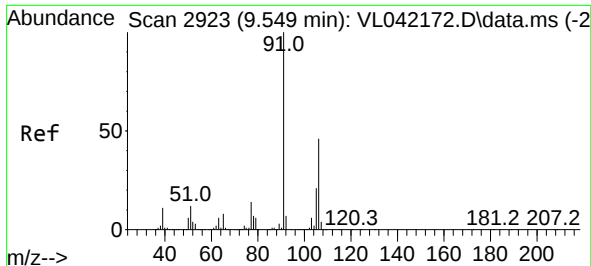
Tgt Ion:117 Resp: 331322
Ion Ratio Lower Upper
117 100
82 64.4 55.8 83.6
119 31.9 25.5 38.3



#58
Ethyl Benzene
Concen: 0.036 ppbv
RT: 9.523 min Scan# 2915
Delta R.T. 0.172 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

Tgt Ion: 91 Resp: 2126
Ion Ratio Lower Upper
91 100
106 34.3 24.2 36.2





#59

m/p-Xylene

Concen: 0.033 ppbv

RT: 9.549 min Scan# 2923

Delta R.T. 0.000 min

Lab File: VL042292.D

Acq: 09 Apr 2025 14:36

Instrument :

MSVOA_L

ClientSampleId :

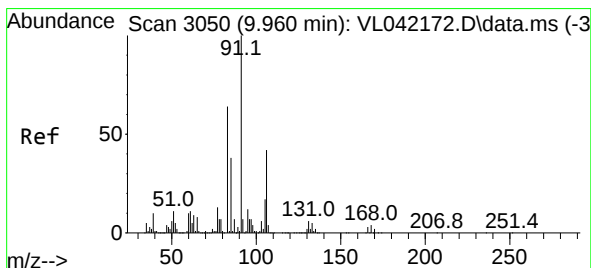
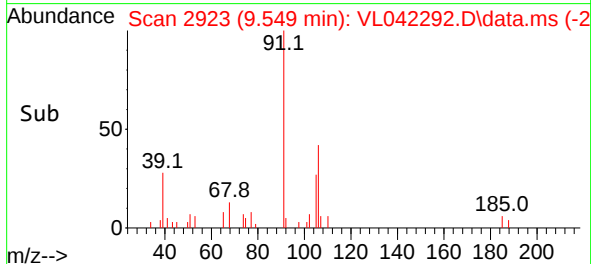
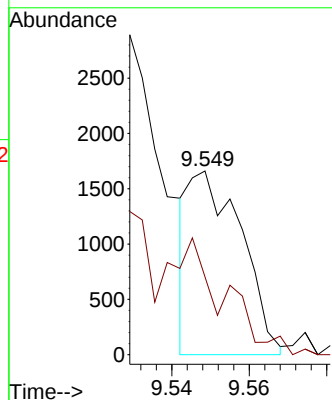
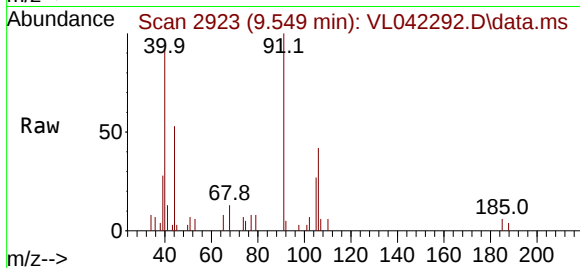
AA-1-3242025

Tgt Ion: 91 Resp: 1569

Ion Ratio Lower Upper

91 100

106 0.0 36.4 54.6#



#60

o-Xylene

Concen: 0.037 ppbv

RT: 9.956 min Scan# 3049

Delta R.T. -0.003 min

Lab File: VL042292.D

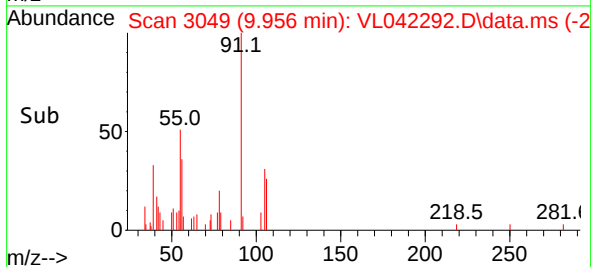
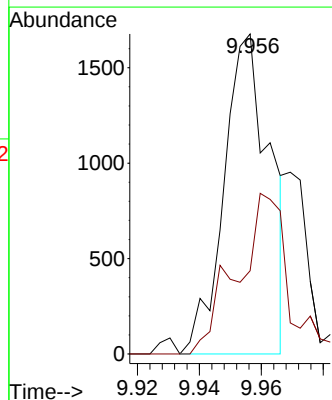
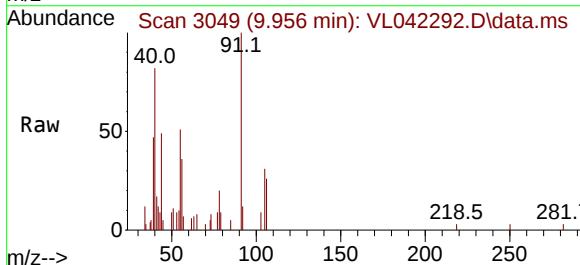
Acq: 09 Apr 2025 14:36

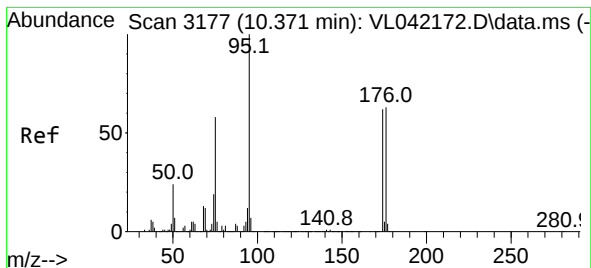
Tgt Ion: 91 Resp: 1723

Ion Ratio Lower Upper

91 100

106 55.3 20.8 62.5

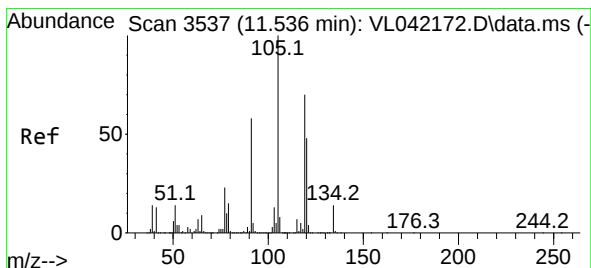
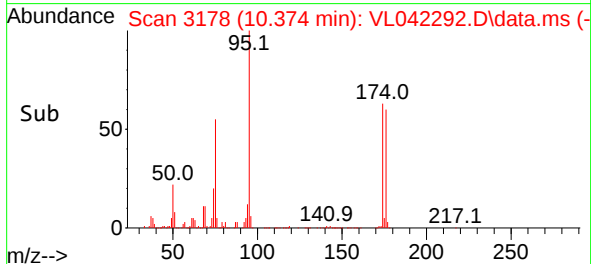
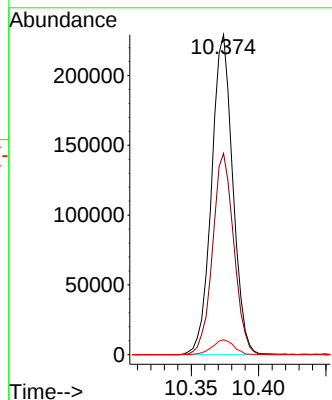
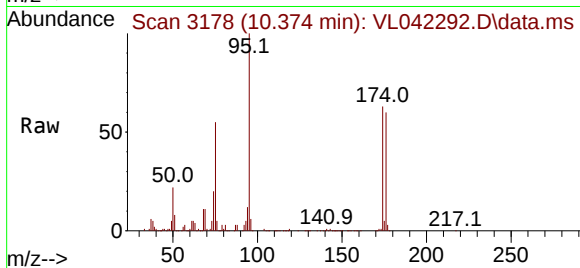




#68
1-Bromo-4-Fluorobenzene
Concen: 9.225 ppbv
RT: 10.374 min Scan# 3177
Delta R.T. 0.003 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

Instrument :
MSVOA_L
ClientSampleId :
AA-1-3242025

Tgt Ion: 95 Resp: 250999
Ion Ratio Lower Upper
95 100
174 63.1 50.6 76.0
175 4.8 3.8 5.6



#74
1,2,4-Trimethylbenzene
Concen: 0.040 ppbv
RT: 11.533 min Scan# 3536
Delta R.T. -0.003 min
Lab File: VL042292.D
Acq: 09 Apr 2025 14:36

Tgt Ion: 105 Resp: 2383
Ion Ratio Lower Upper
105 100
120 57.1 38.6 58.0
91 15.2 46.2 69.2#
77 26.5 18.6 27.8

