

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL031025\
 Data File : VL042130.D
 Acq On : 10 Mar 2025 17:52
 Operator : SY/MD
 Sample : Q1506-01 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Quant Time: Mar 11 01:28:19 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL022525AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Feb 26 01:08:36 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.800	49	170506	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.982	114	389368	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.901	117	362933	10.000	ppbv	0.00

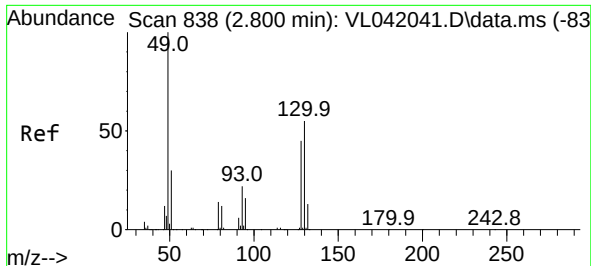
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.390	95	312050	11.176	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	111.800%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.502	85	3106	0.175	ppbv #	85
3) Chlorodifluoromethane	1.477	51	3249	0.131	ppbv #	78
4) Chloromethane	1.535	50	548	0.084	ppbv #	83
7) Chloroethane	1.700	64	131	0.052	ppbv #	79
9) Propene	1.486	41	11439	1.133	ppbv	100
10) Heptane	5.011	43	2631	0.084	ppbv #	28
11) Trichlorofluoromethane	1.888	101	1047	0.059	ppbv	94
13) Ethanol	1.729	45	6546	10.214	ppbv #	33
15) Acetone	1.846	43	19762	1.312	ppbv #	80
16) 1,3-Butadiene	1.625	39	1295	0.185	ppbv #	82
17) tert-Butyl alcohol	2.056	59	582	0.031	ppbv #	37
19) Isopropyl Alcohol	1.894	45	5237	0.605	ppbv #	1
20) Methylene Chloride	2.069	84	2392	0.420	ppbv #	80
23) Vinyl Acetate	2.470	43	1089	0.103	ppbv #	27
25) Ethyl Acetate	2.839	43	15987	0.265	ppbv #	77
26) Hexane	2.839	57	19732	0.810	ppbv #	32
27) Carbon Disulfide	2.156	76	1211	0.073	ppbv #	1
34) 2-Butanone	2.574	43	18077	0.596	ppbv	96
39) 1,2-Dichloropropane	3.978	63	98702	6.380	ppbv #	24
51) 2-Hexanone	7.471	43	6741	0.250	ppbv #	94
53) Toluene	6.963	91	20904	0.459	ppbv	97
59) m/p-Xylene	9.545	91	13882	0.261	ppbv #	100
60) o-Xylene	9.979	91	12149	0.227	ppbv	89
62) Isopropylbenzene	10.549	105	4083	0.051	ppbv	98
64) n-propylbenzene	11.008	120	1014	0.048	ppbv #	1
66) Benzyl Chloride	11.636	91	256	0.046	ppbv #	65
67) sec-Butylbenzene	11.782	105	6979	0.067	ppbv #	90
71) 2-Chlorotoluene	11.112	91	2162	0.035	ppbv	87
72) 4-Ethyltoluene	11.141	105	4708	0.072	ppbv #	48
73) 1,3,5-Trimethylbenzene	11.219	105	8258	0.146	ppbv	98
74) 1,2,4-Trimethylbenzene	11.549	105	13124	0.206	ppbv #	64

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

Quant Time: Mar 11 01:28:19 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL022525AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Wed Feb 26 01:08:36 2025
Response via : Initial Calibration

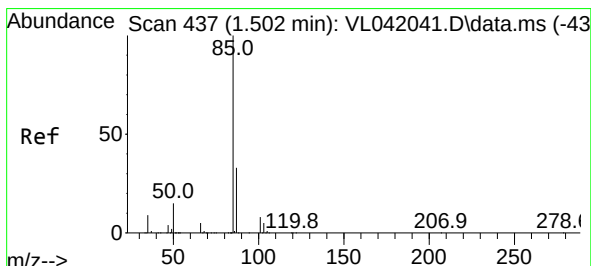
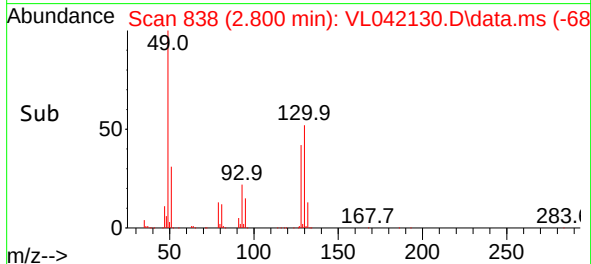
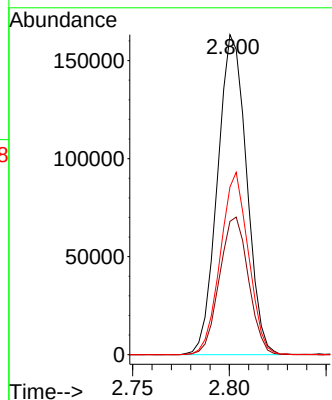
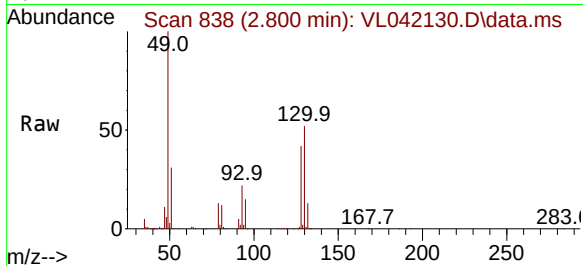




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.800 min Scan# 81
 Delta R.T. 0.000 min
 Lab File: VL042130.D
 Acq: 10 Mar 2025 17:52

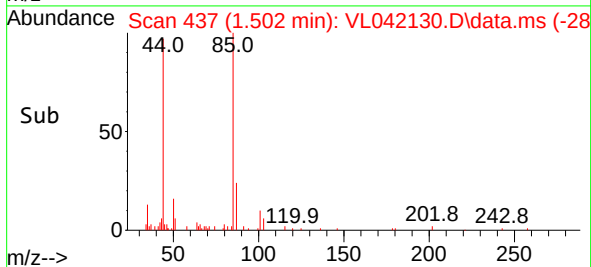
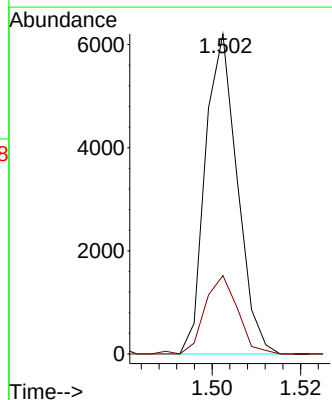
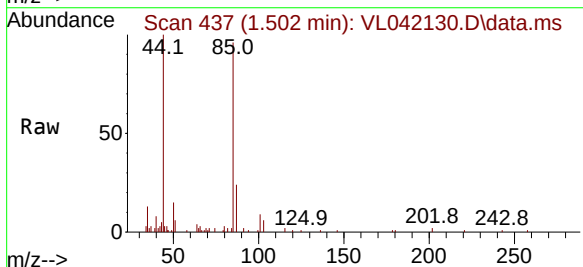
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

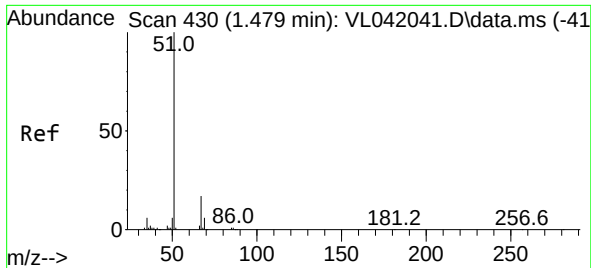
Tgt Ion: 49 Resp: 170506
 Ion Ratio Lower Upper
 49 100
 128 42.8 21.6 64.8
 130 55.0 27.8 83.4



#2
 Dichlorodifluoromethane
 Concen: 0.175 ppbv
 RT: 1.502 min Scan# 437
 Delta R.T. 0.000 min
 Lab File: VL042130.D
 Acq: 10 Mar 2025 17:52

Tgt Ion: 85 Resp: 3106
 Ion Ratio Lower Upper
 85 100
 87 24.5 26.4 39.6#

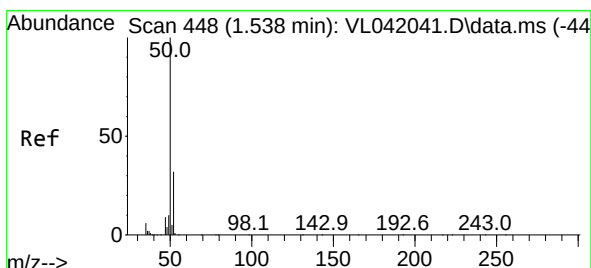
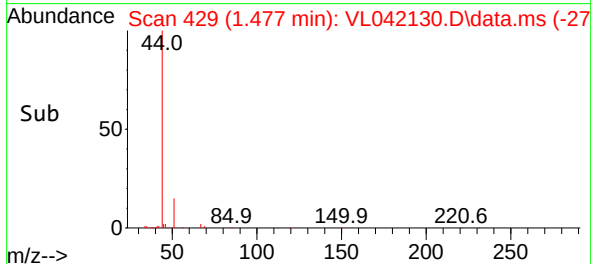
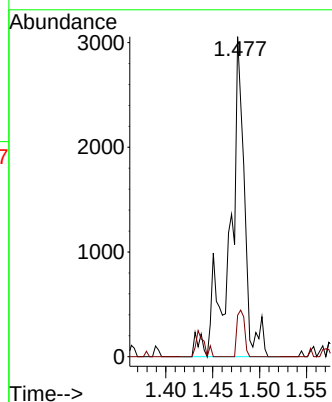
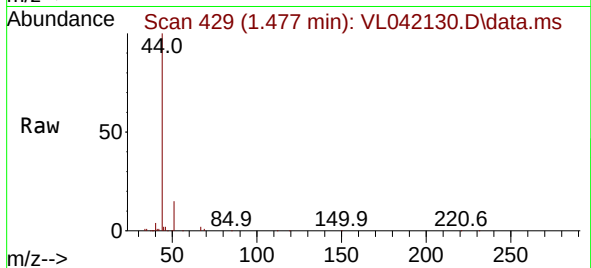




#3
Chlorodifluoromethane
Concen: 0.131 ppbv
RT: 1.477 min Scan# 41
Delta R.T. -0.003 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

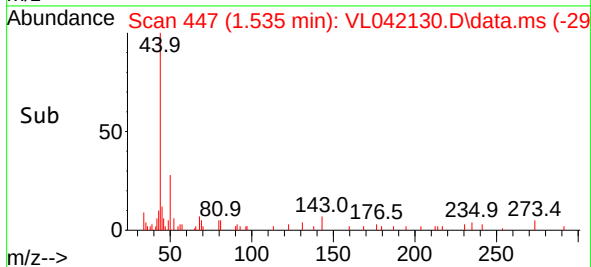
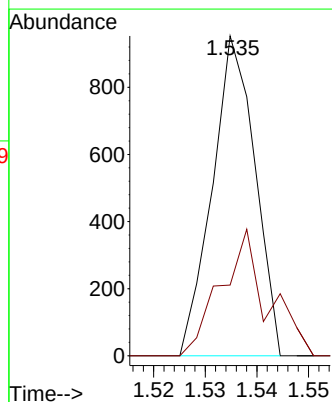
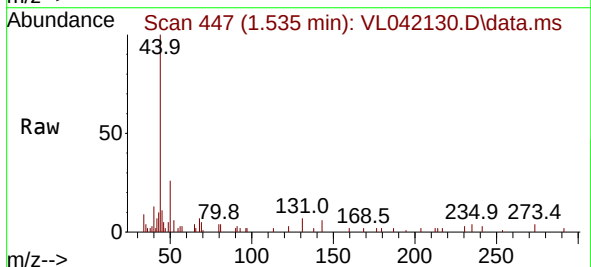
Instrument :
MSVOA_L
ClientSampleId :
SV1

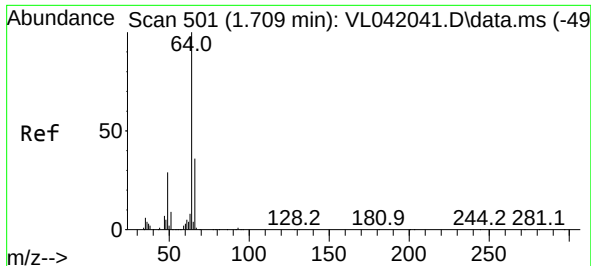
Tgt Ion: 51 Resp: 3249
Ion Ratio Lower Upper
51 100
67 7.6 13.7 20.5#



#4
Chloromethane
Concen: 0.084 ppbv
RT: 1.535 min Scan# 447
Delta R.T. -0.003 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

Tgt Ion: 50 Resp: 548
Ion Ratio Lower Upper
50 100
52 22.1 25.4 38.0#

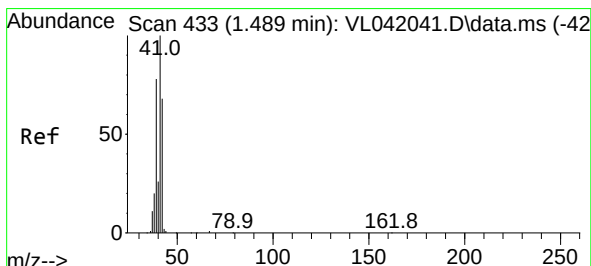
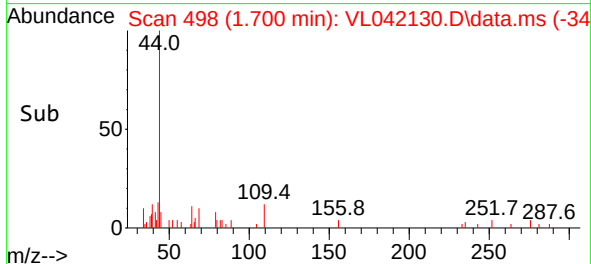
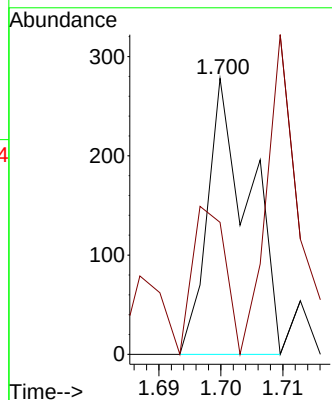
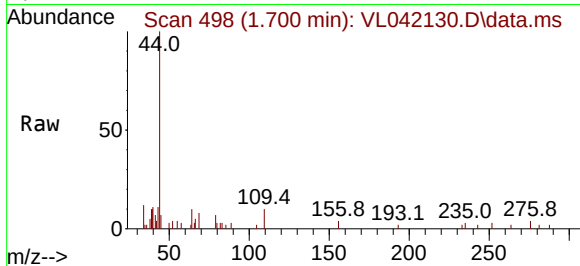




#7
Chloroethane
Concen: 0.052 ppbv
RT: 1.700 min Scan# 498
Delta R.T. -0.009 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

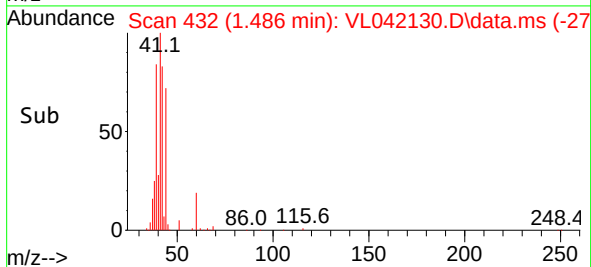
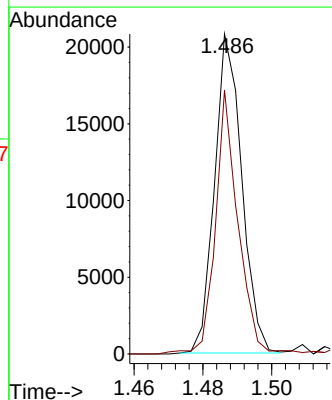
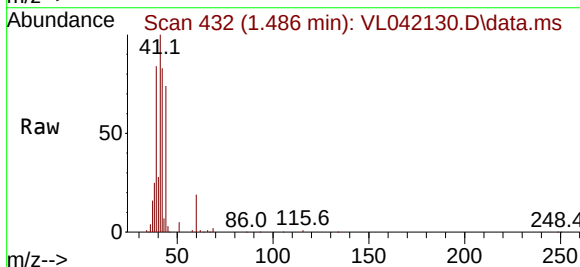
Instrument :
MSVOA_L
ClientSampleId :
SV1

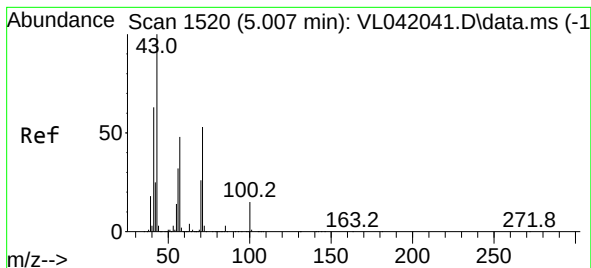
Tgt Ion: 64 Resp: 131
Ion Ratio Lower Upper
64 100
66 47.8 28.4 42.6#



#9
Propene
Concen: 1.133 ppbv
RT: 1.486 min Scan# 432
Delta R.T. -0.003 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

Tgt Ion: 41 Resp: 11439
Ion Ratio Lower Upper
41 100
42 70.0 55.8 83.6





#10

Heptane

Concen: 0.084 ppbv

RT: 5.011 min Scan# 11

Delta R.T. 0.004 min

Lab File: VL042130.D

Acq: 10 Mar 2025 17:52

Instrument :

MSVOA_L

ClientSampleId :

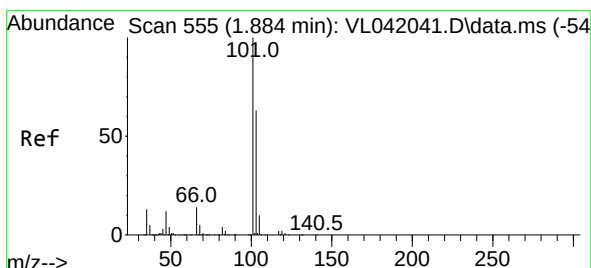
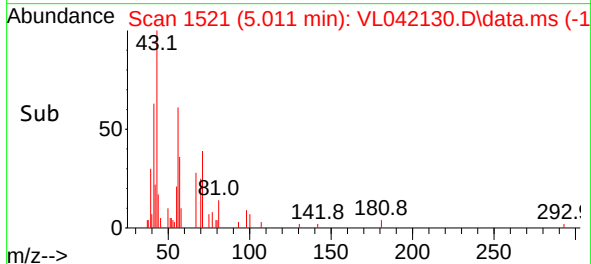
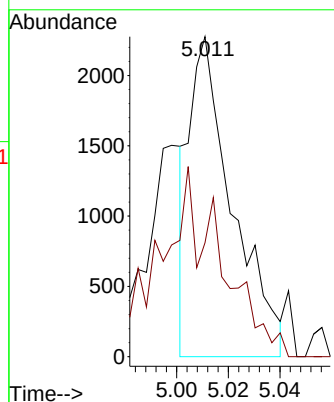
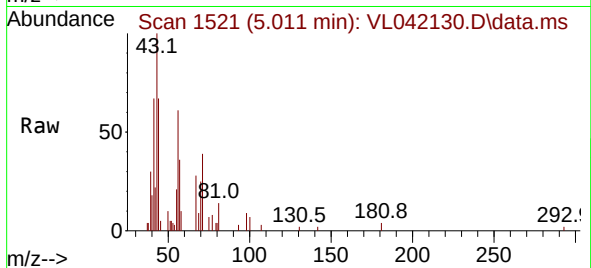
SV1

Tgt Ion: 43 Resp: 2631

Ion Ratio Lower Upper

43 100

57 0.0 39.4 59.0#



#11

Trichlorofluoromethane

Concen: 0.059 ppbv

RT: 1.888 min Scan# 556

Delta R.T. 0.004 min

Lab File: VL042130.D

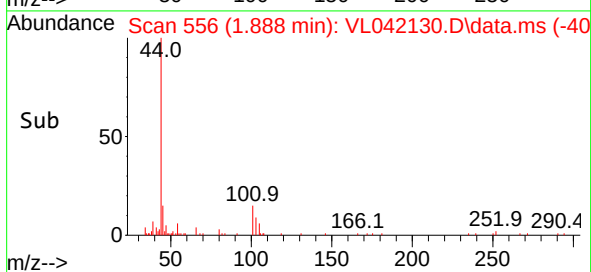
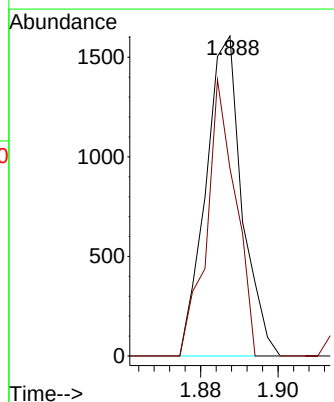
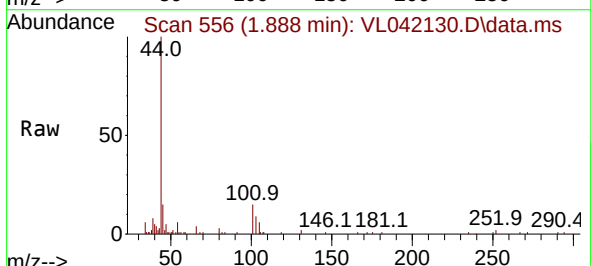
Acq: 10 Mar 2025 17:52

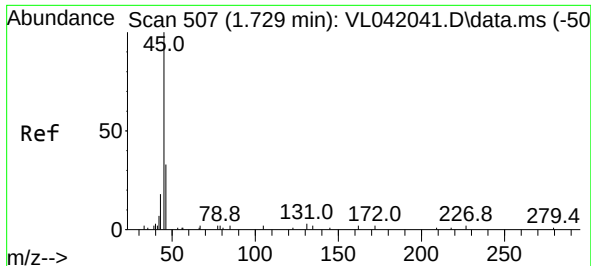
Tgt Ion: 101 Resp: 1047

Ion Ratio Lower Upper

101 100

103 58.6 50.6 75.8

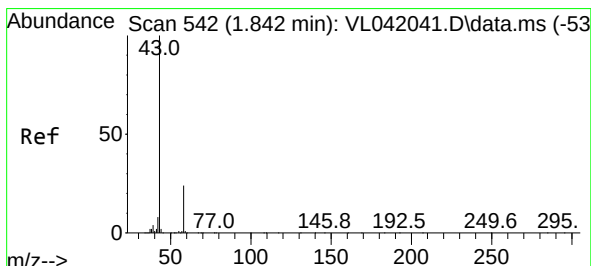
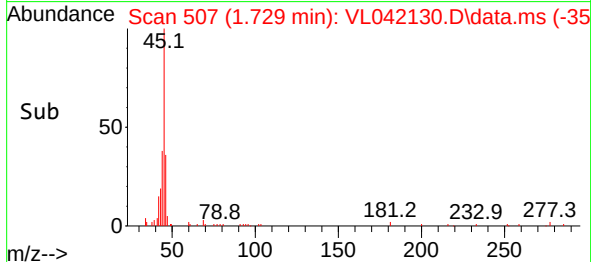
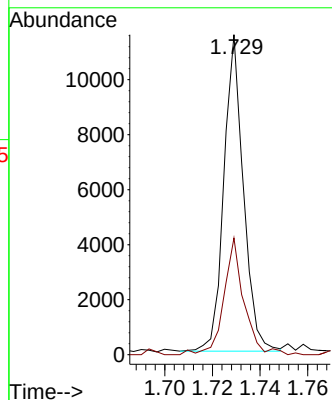
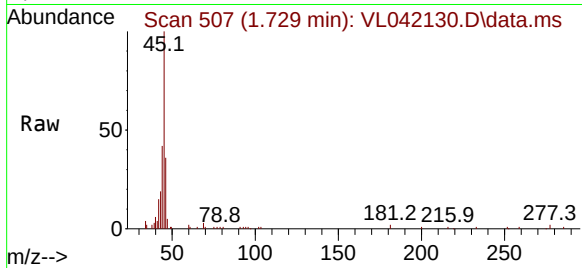




#13
 Ethanol
 Concen: 10.214 ppbv
 RT: 1.729 min Scan# 507
 Delta R.T. 0.000 min
 Lab File: VL042130.D
 Acq: 10 Mar 2025 17:52

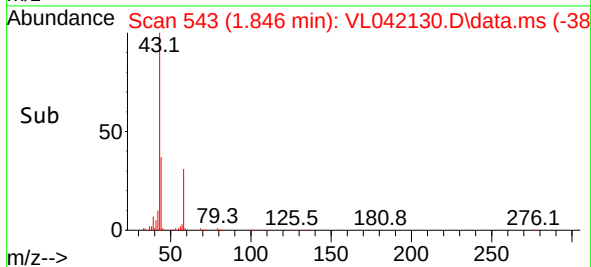
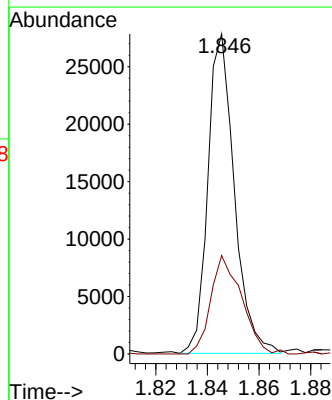
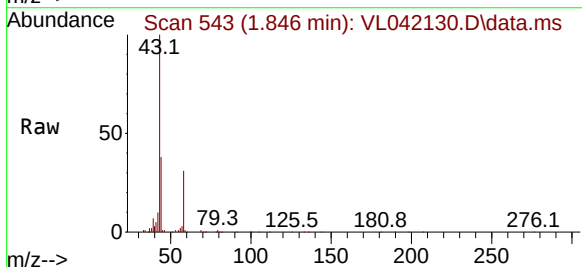
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

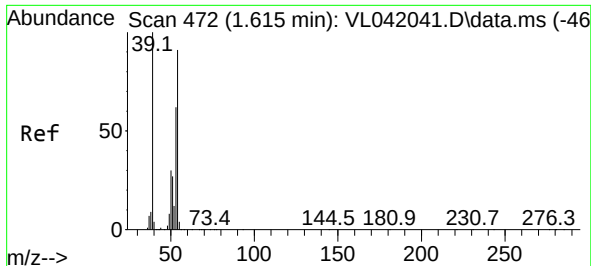
Tgt Ion: 45 Resp: 6546
 Ion Ratio Lower Upper
 45 100
 46 0.0 17.1 68.3#



#15
 Acetone
 Concen: 1.312 ppbv
 RT: 1.846 min Scan# 543
 Delta R.T. 0.004 min
 Lab File: VL042130.D
 Acq: 10 Mar 2025 17:52

Tgt Ion: 43 Resp: 19762
 Ion Ratio Lower Upper
 43 100
 58 36.0 20.7 31.1#

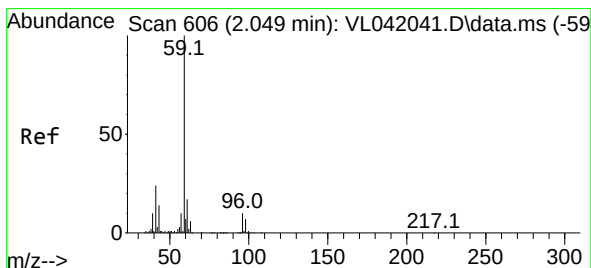
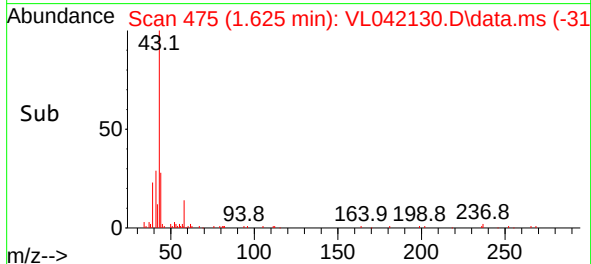
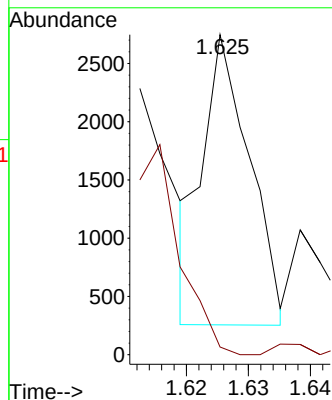
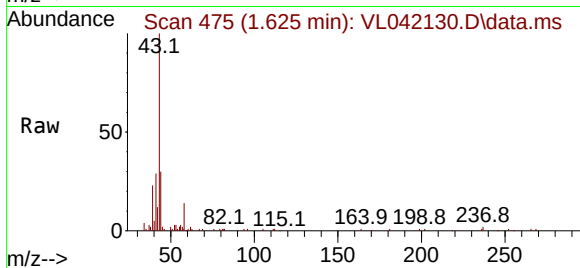




#16
1,3-Butadiene
Concen: 0.185 ppbv
RT: 1.625 min Scan# 41
Delta R.T. 0.010 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

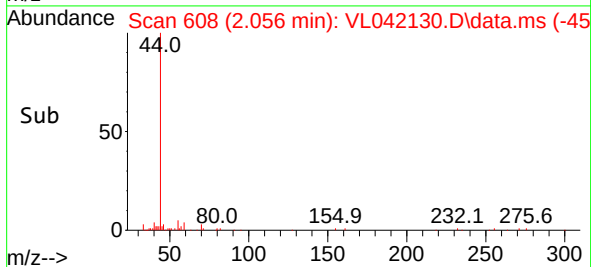
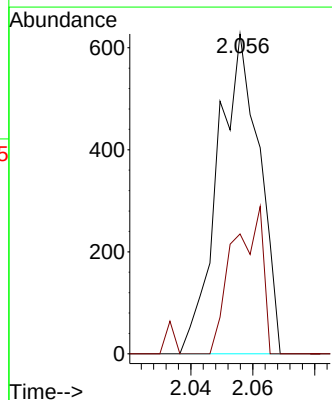
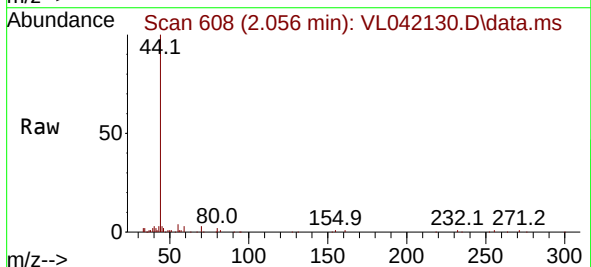
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ClientSampleId :
SV1

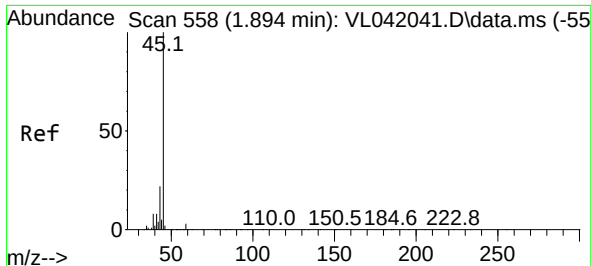
Tgt Ion: 39 Resp: 1295
Ion Ratio Lower Upper
39 100
54 90.0 59.6 89.4#



#17
tert-Butyl alcohol
Concen: 0.031 ppbv
RT: 2.056 min Scan# 608
Delta R.T. 0.007 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

Tgt Ion: 59 Resp: 582
Ion Ratio Lower Upper
59 100
57 35.7 9.3 13.9#

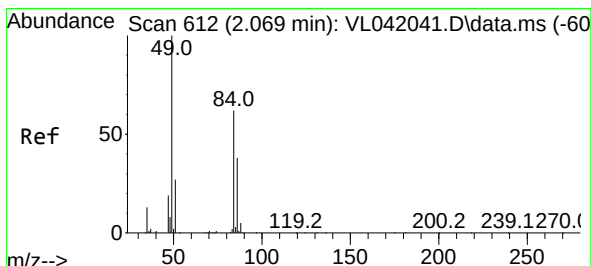
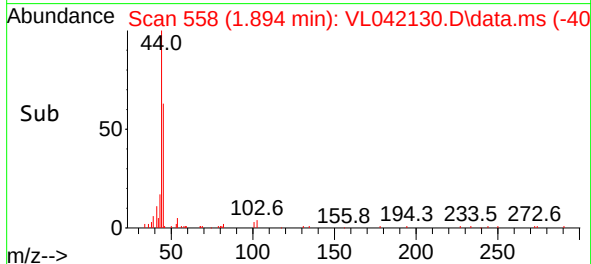
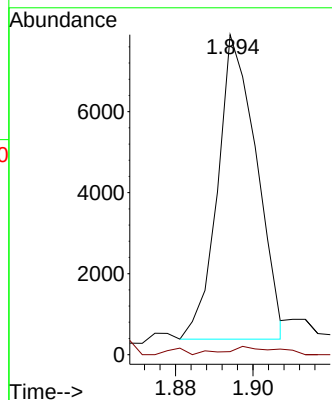
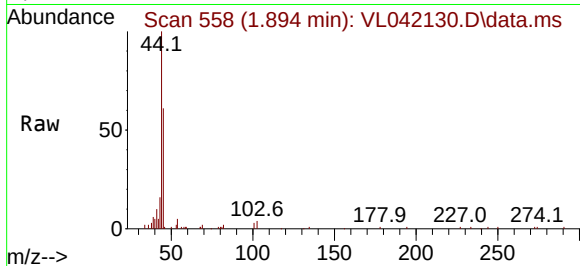




#19
Isopropyl Alcohol
Concen: 0.605 ppbv
RT: 1.894 min Scan# 511
Delta R.T. 0.000 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

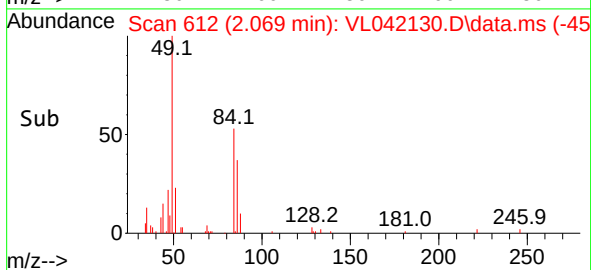
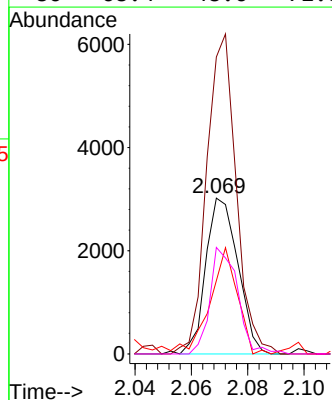
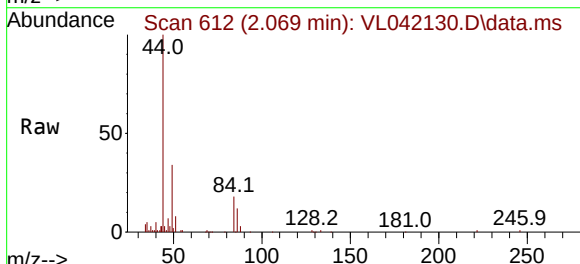
Instrument :
MSVOA_L
ClientSampleId :
SV1

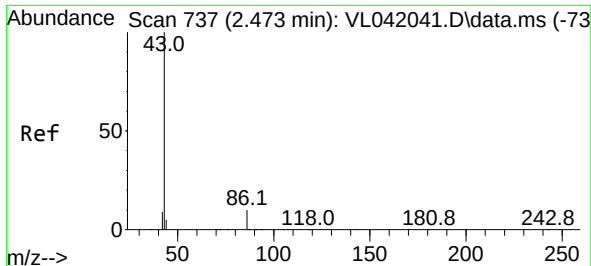
Tgt Ion: 45 Resp: 5237
Ion Ratio Lower Upper
45 100
58 139.0 35.3 52.9#



#20
Methylene Chloride
Concen: 0.420 ppbv
RT: 2.069 min Scan# 612
Delta R.T. 0.000 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

Tgt Ion: 84 Resp: 2392
Ion Ratio Lower Upper
84 100
49 200.9 130.0 195.0#
51 44.9 37.4 56.0
86 68.4 48.6 72.8

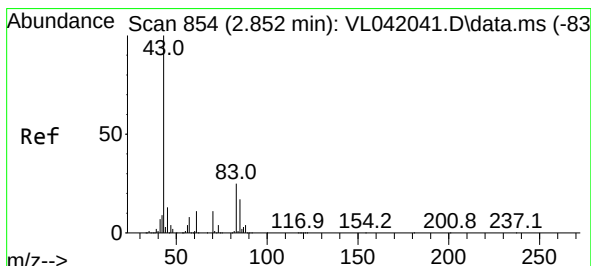
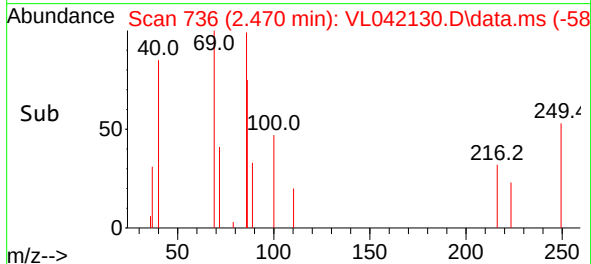
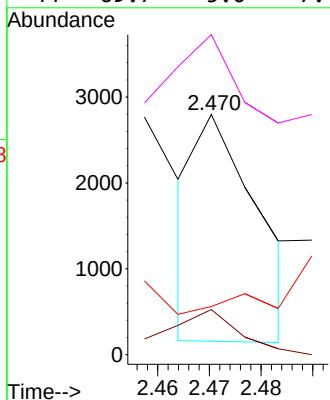
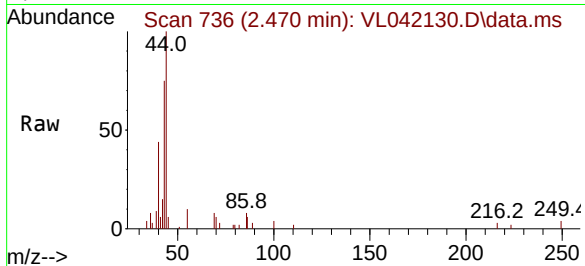




#23
 Vinyl Acetate
 Concen: 0.103 ppbv
 RT: 2.470 min Scan# 71
 Delta R.T. -0.003 min
 Lab File: VL042130.D
 Acq: 10 Mar 2025 17:52

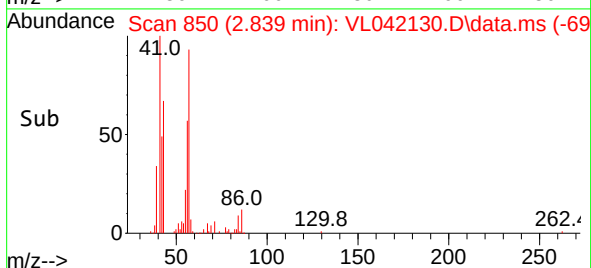
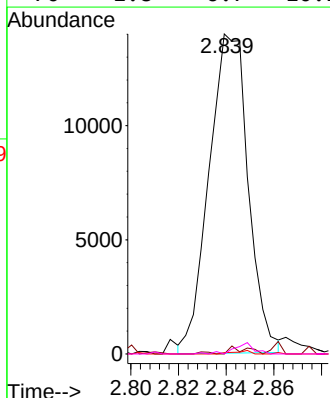
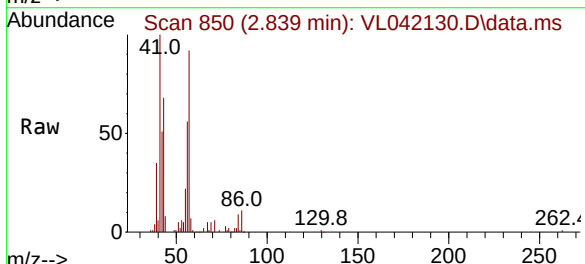
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

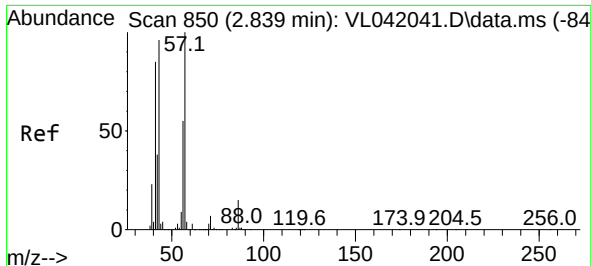
Tgt Ion:	43	Resp:	1089
Ion	Ratio	Lower	Upper
43	100		
86	31.0	7.0	10.4#
42	6.2	7.6	11.4#
44	69.7	5.0	7.4#



#25
 Ethyl Acetate
 Concen: 0.265 ppbv
 RT: 2.839 min Scan# 850
 Delta R.T. -0.013 min
 Lab File: VL042130.D
 Acq: 10 Mar 2025 17:52

Tgt Ion:	43	Resp:	15987
Ion	Ratio	Lower	Upper
43	100		
45	0.0	8.1	12.1#
61	0.5	7.2	10.8#
70	1.8	6.7	10.1#

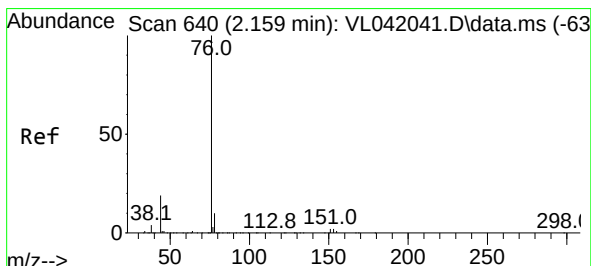
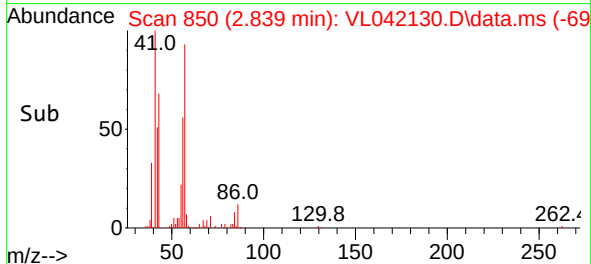
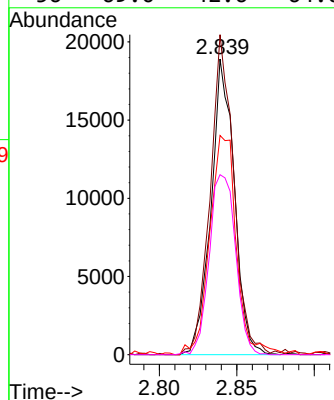
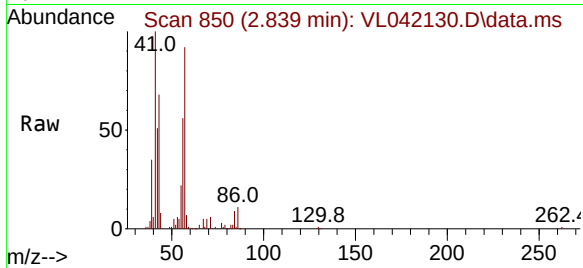




#26
Hexane
Concen: 0.810 ppbv
RT: 2.839 min Scan# 81
Delta R.T. 0.000 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

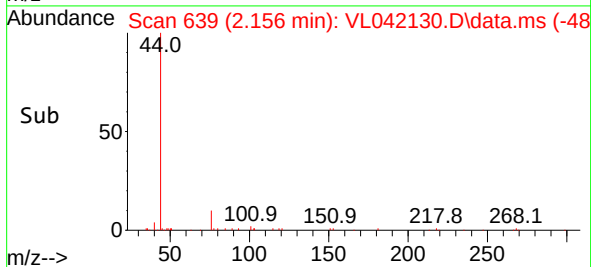
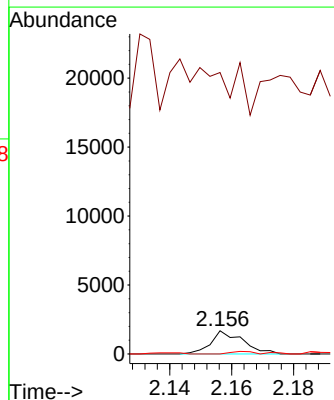
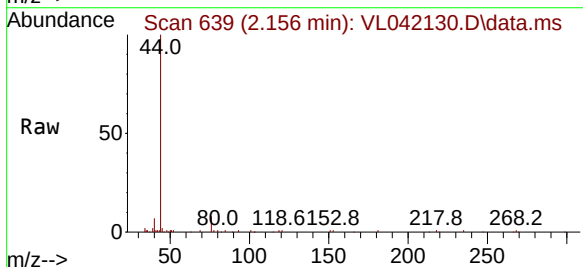
Instrument :
MSVOA_L
ClientSampleId :
SV1

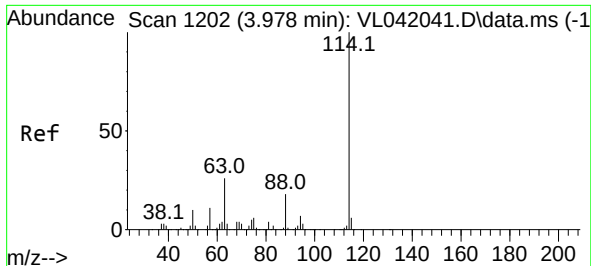
Tgt Ion: 57 Resp: 19732
Ion Ratio Lower Upper
57 100
41 110.4 70.6 106.0#
43 86.7 199.4 299.0#
56 69.0 42.6 64.0#



#27
Carbon Disulfide
Concen: 0.073 ppbv
RT: 2.156 min Scan# 639
Delta R.T. -0.003 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

Tgt Ion: 76 Resp: 1211
Ion Ratio Lower Upper
76 100
44 7545.1 16.2 24.2#
78 15.4 9.4 14.0#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.982 min Scan# 11

Delta R.T. 0.004 min

Lab File: VL042130.D

Acq: 10 Mar 2025 17:52

Instrument :

MSVOA_L

ClientSampleId :

SV1

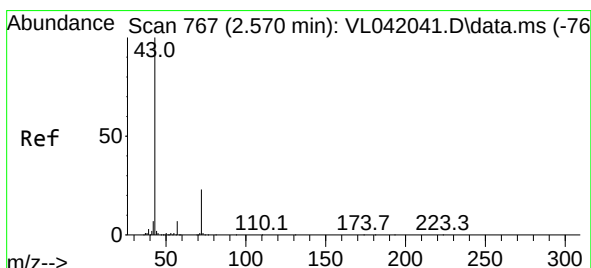
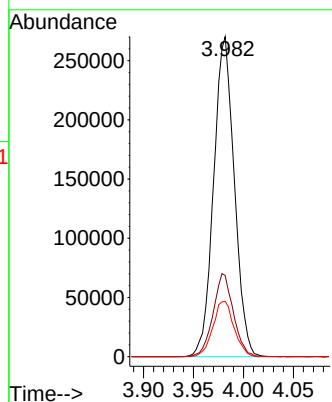
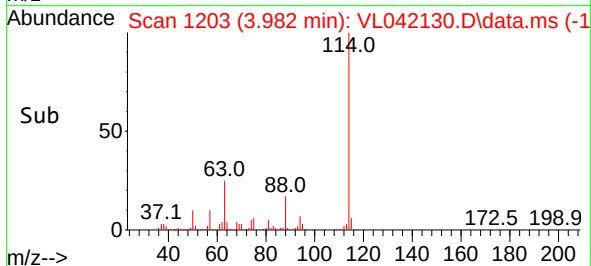
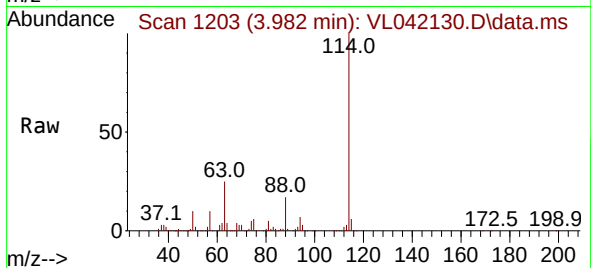
Tgt Ion:114 Resp: 389368

Ion Ratio Lower Upper

114 100

63 25.5 20.1 30.1

88 17.7 14.3 21.5



#34

2-Butanone

Concen: 0.596 ppbv

RT: 2.574 min Scan# 768

Delta R.T. 0.004 min

Lab File: VL042130.D

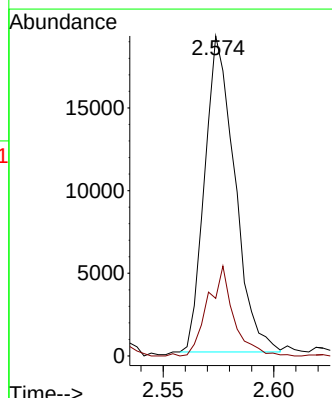
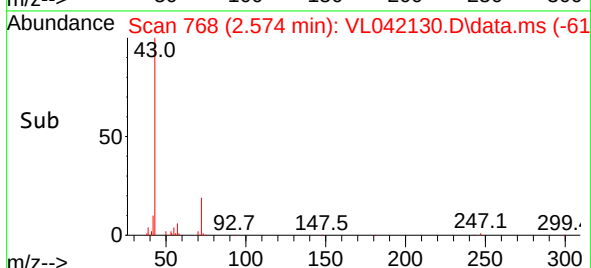
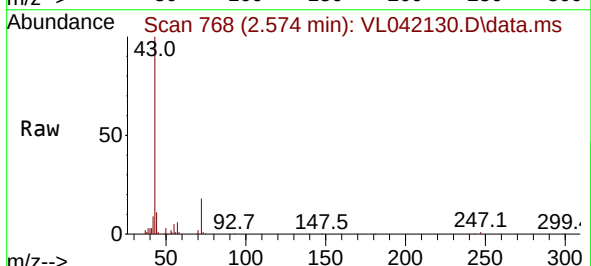
Acq: 10 Mar 2025 17:52

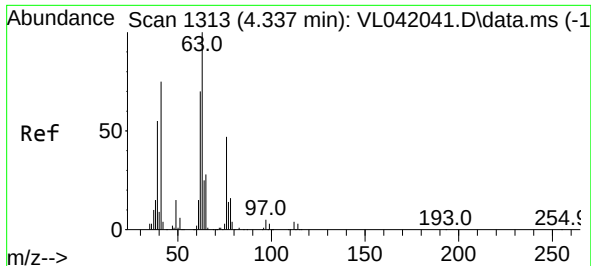
Tgt Ion: 43 Resp: 18077

Ion Ratio Lower Upper

43 100

72 24.9 18.5 27.7





#39

1,2-Dichloropropane

Concen: 6.380 ppbv

RT: 3.978 min Scan# 11

Delta R.T. -0.359 min

Lab File: VL042130.D

Acq: 10 Mar 2025 17:52

Instrument :

MSVOA_L

ClientSampleId :

SV1

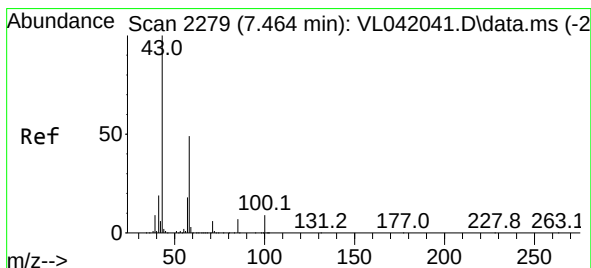
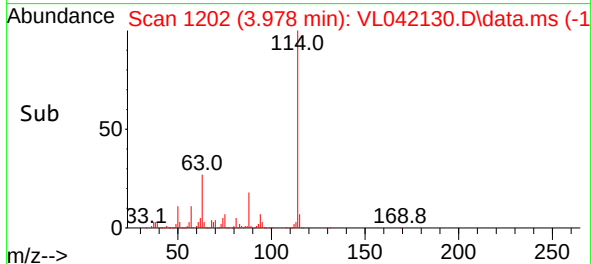
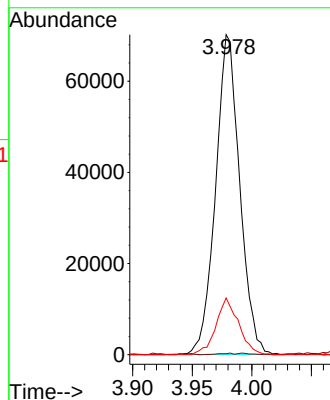
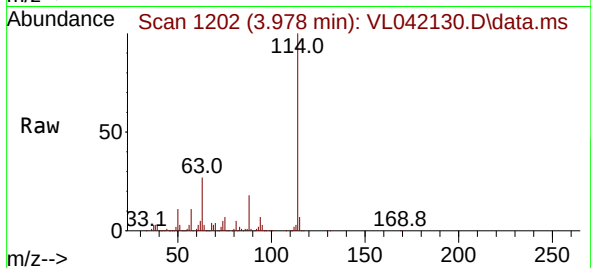
Tgt Ion: 63 Resp: 98702

Ion Ratio Lower Upper

63 100

41 0.3 60.1 90.1#

62 17.7 55.8 83.8#



#51

2-Hexanone

Concen: 0.250 ppbv

RT: 7.471 min Scan# 2281

Delta R.T. 0.007 min

Lab File: VL042130.D

Acq: 10 Mar 2025 17:52

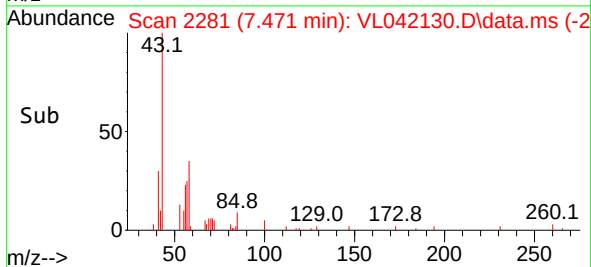
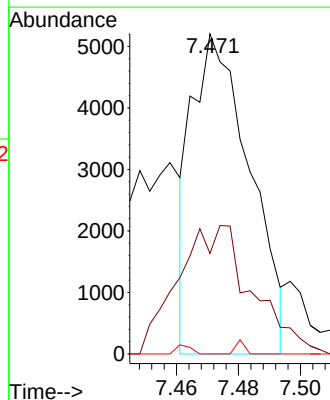
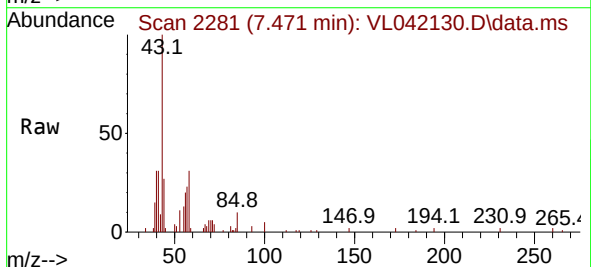
Tgt Ion: 43 Resp: 6741

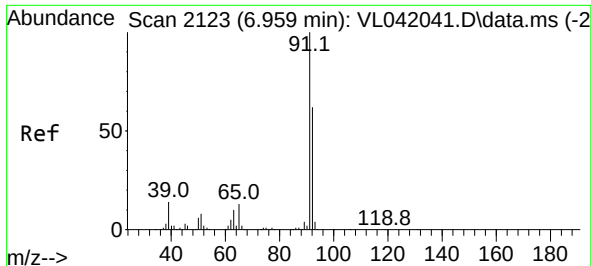
Ion Ratio Lower Upper

43 100

58 52.8 39.0 58.6

98 1.4 0.1 0.1#

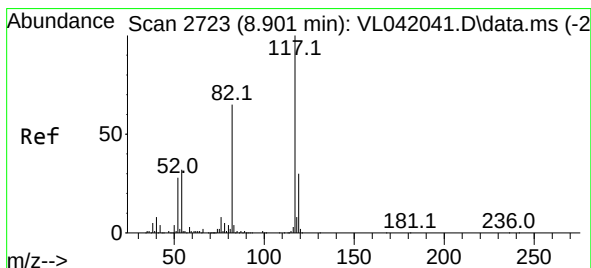
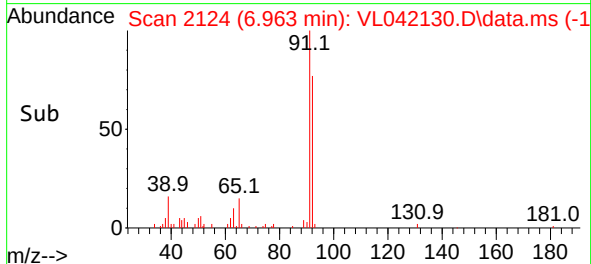
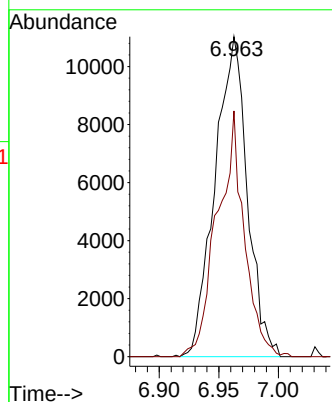
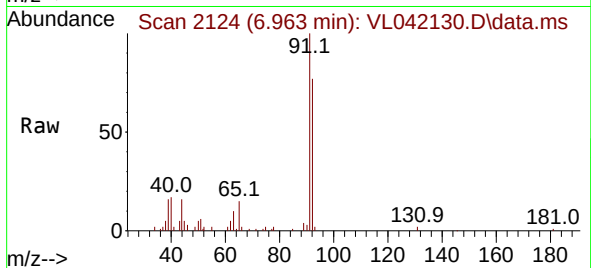




#53
Toluene
Concen: 0.459 ppbv
RT: 6.963 min Scan# 2123
Delta R.T. 0.004 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

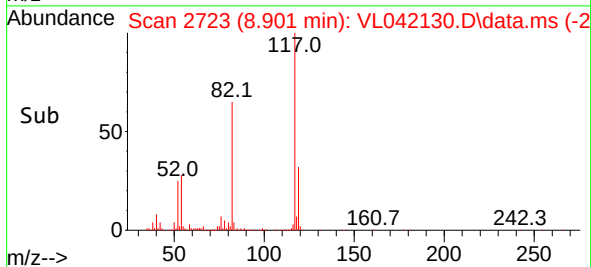
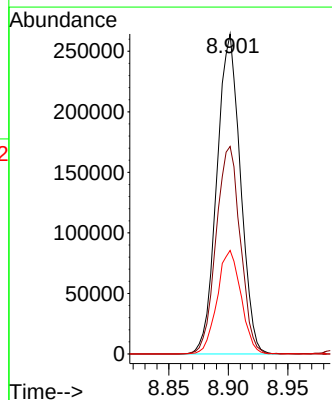
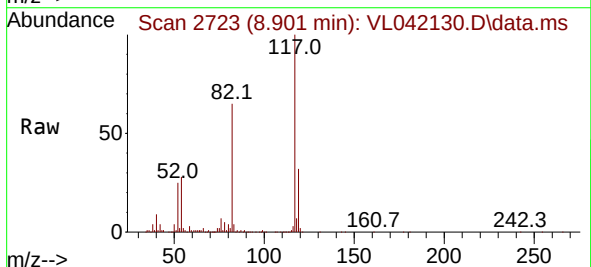
Instrument :
MSVOA_L
ClientSampleId :
SV1

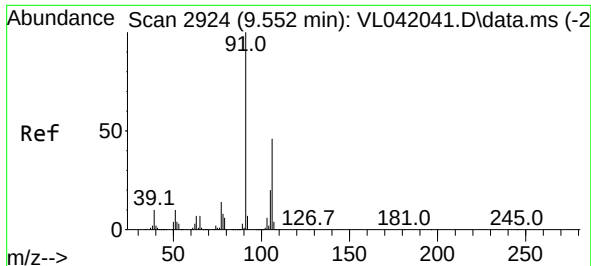
Tgt Ion: 91 Resp: 20904
Ion Ratio Lower Upper
91 100
92 63.8 49.0 73.6



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.901 min Scan# 2723
Delta R.T. 0.000 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

Tgt Ion: 117 Resp: 362933
Ion Ratio Lower Upper
117 100
82 66.7 55.0 82.6
119 32.8 25.9 38.9





#59

m/p-Xylene

Concen: 0.261 ppbv

RT: 9.545 min Scan# 2924

Delta R.T. -0.006 min

Lab File: VL042130.D

Acq: 10 Mar 2025 17:52

Instrument :

MSVOA_L

ClientSampleId :

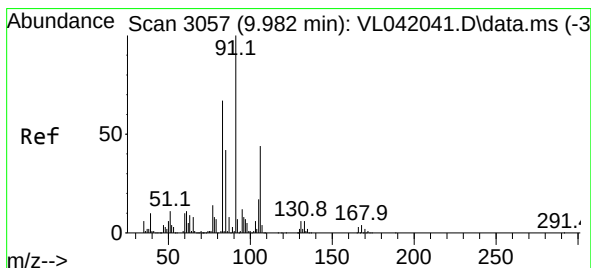
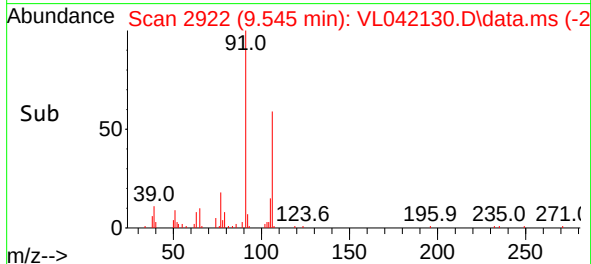
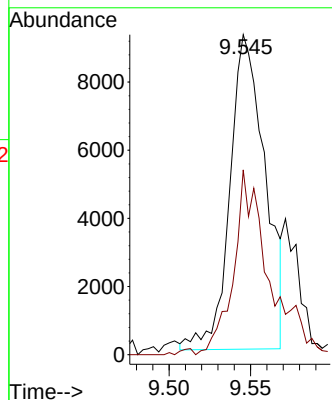
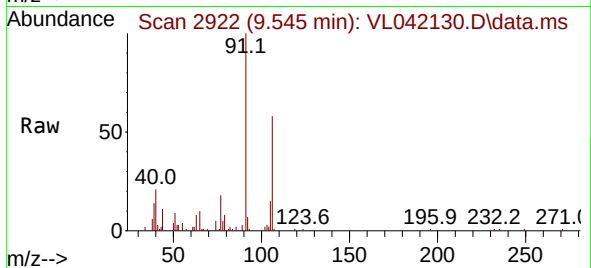
SV1

Tgt Ion: 91 Resp: 13882

Ion Ratio Lower Upper

91 100

106 58.9 0.0 0.0#



#60

o-Xylene

Concen: 0.227 ppbv

RT: 9.979 min Scan# 3056

Delta R.T. -0.003 min

Lab File: VL042130.D

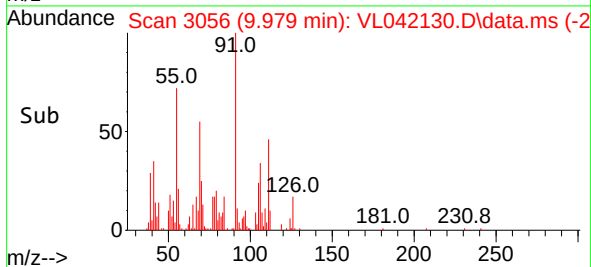
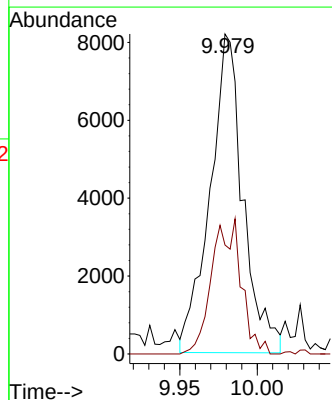
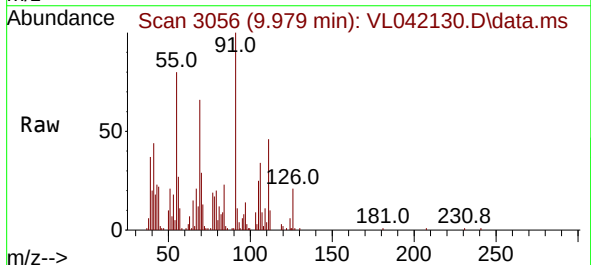
Acq: 10 Mar 2025 17:52

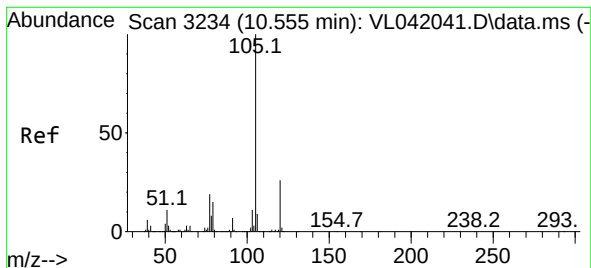
Tgt Ion: 91 Resp: 12149

Ion Ratio Lower Upper

91 100

106 37.5 22.3 66.8





#62

Isopropylbenzene

Concen: 0.051 ppbv

RT: 10.549 min Scan# 31

Delta R.T. -0.006 min

Lab File: VL042130.D

Acq: 10 Mar 2025 17:52

Instrument :

MSVOA_L

ClientSampleId :

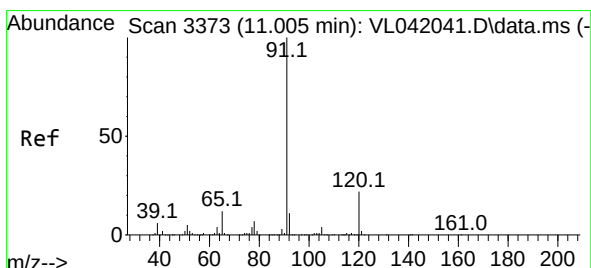
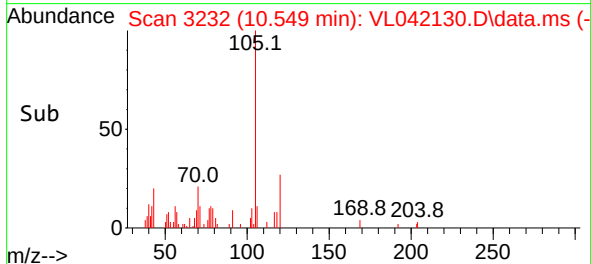
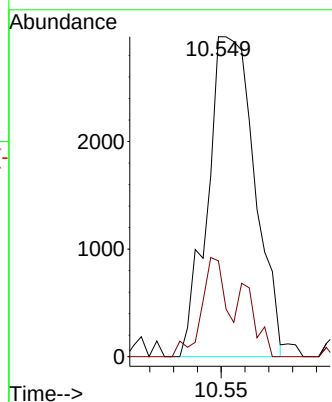
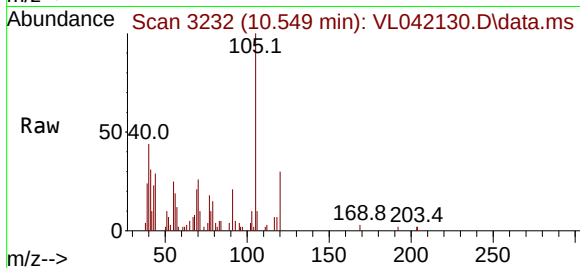
SV1

Tgt Ion:105 Resp: 4083

Ion Ratio Lower Upper

105 100

120 24.9 20.7 31.1



#64

n-propylbenzene

Concen: 0.048 ppbv

RT: 11.008 min Scan# 3374

Delta R.T. 0.004 min

Lab File: VL042130.D

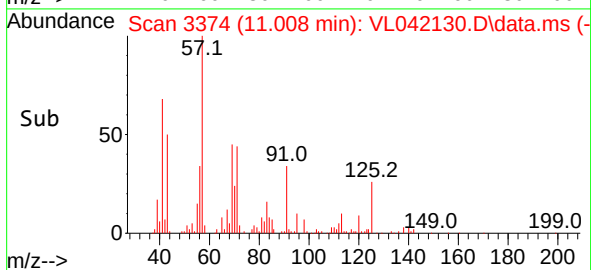
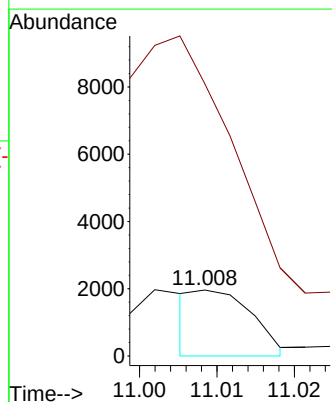
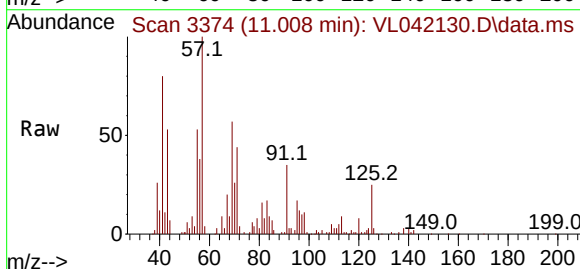
Acq: 10 Mar 2025 17:52

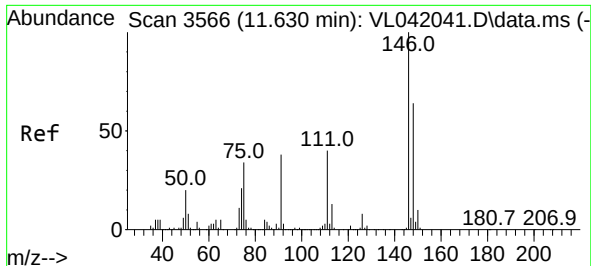
Tgt Ion:120 Resp: 1014

Ion Ratio Lower Upper

120 100

91 1428.9 370.6 556.0#

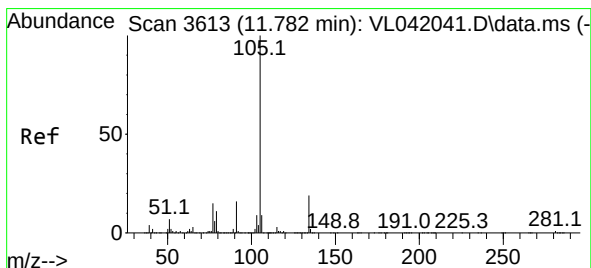
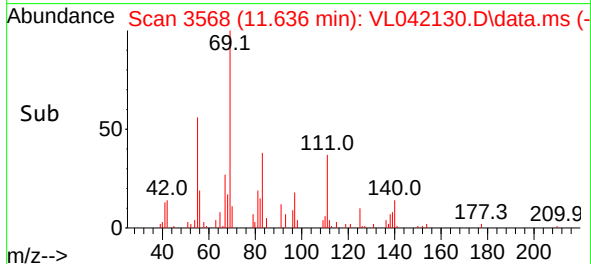
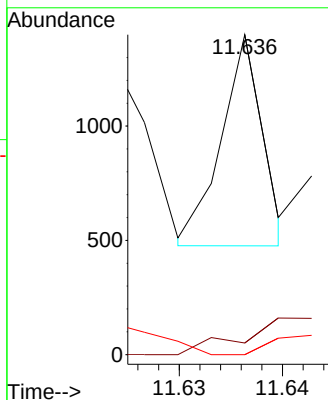
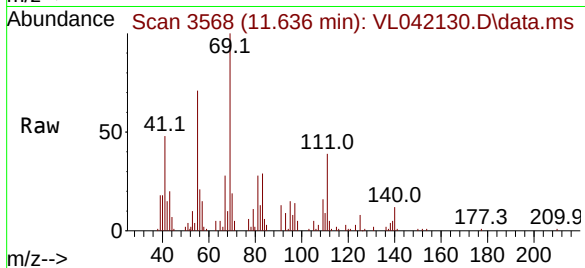




#66
Benzyl Chloride
Concen: 0.046 ppbv
RT: 11.636 min Scan# 31
Delta R.T. 0.007 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

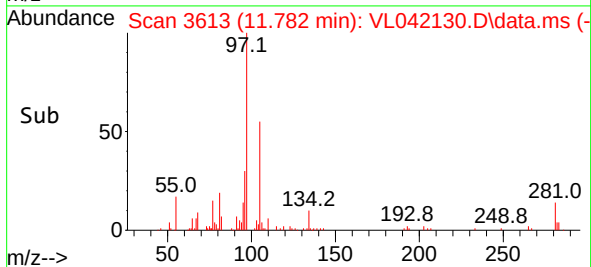
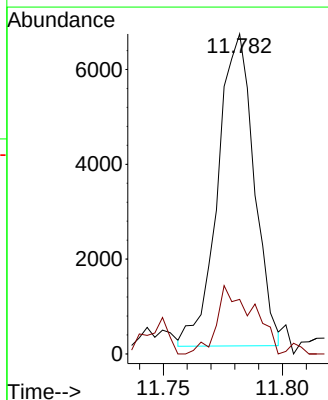
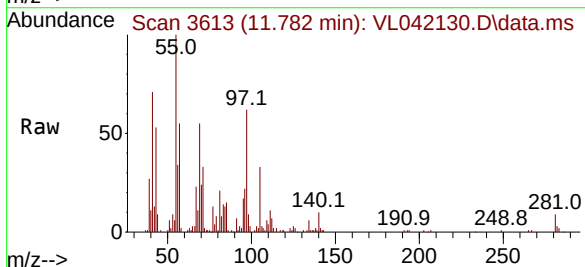
Instrument :
MSVOA_L
ClientSampleId :
SV1

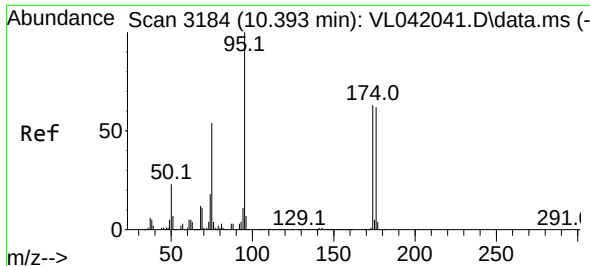
Tgt Ion: 91 Resp: 256
Ion Ratio Lower Upper
91 100
126 0.0 14.5 21.7#
128 0.0 5.4 8.2#



#67
sec-Butylbenzene
Concen: 0.067 ppbv
RT: 11.782 min Scan# 3613
Delta R.T. 0.000 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

Tgt Ion: 105 Resp: 6979
Ion Ratio Lower Upper
105 100
134 23.0 14.9 22.3#

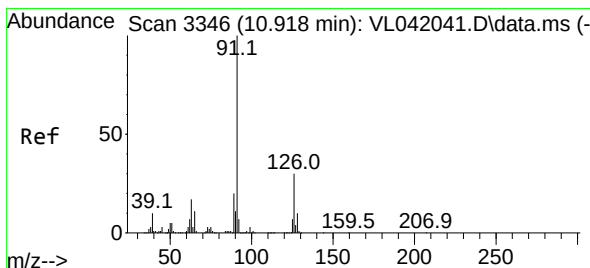
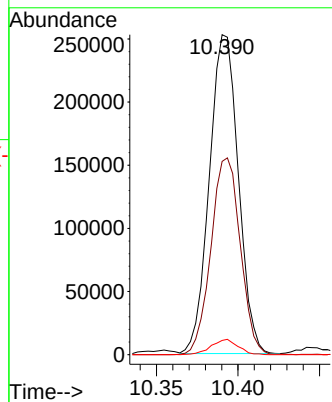
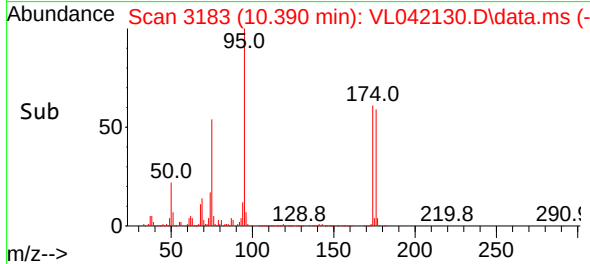
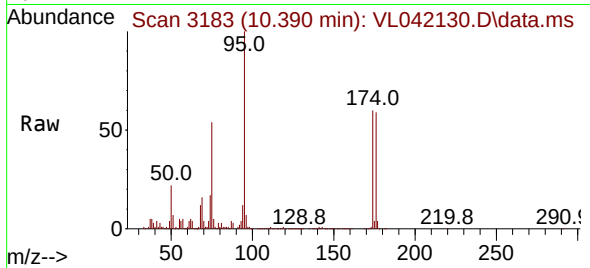




#68
1-Bromo-4-Fluorobenzene
Concen: 11.176 ppbv
RT: 10.390 min Scan# 3184
Delta R.T. -0.003 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

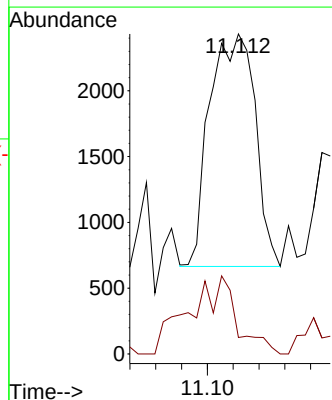
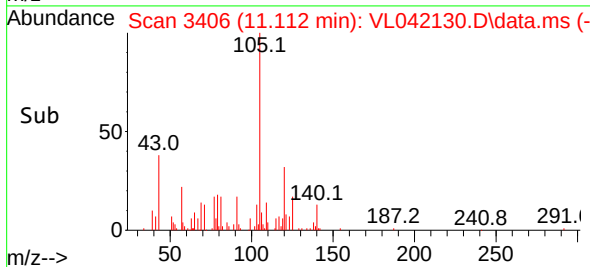
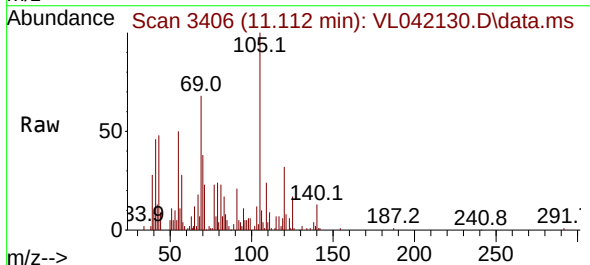
Instrument :
MSVOA_L
ClientSampleId :
SV1

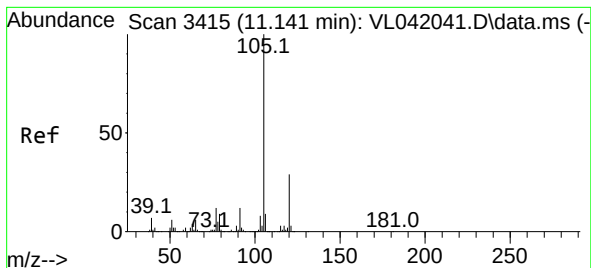
Tgt Ion: 95 Resp: 312050
Ion Ratio Lower Upper
95 100
174 62.4 51.8 77.6
175 4.4 3.9 5.9



#71
2-Chlorotoluene
Concen: 0.035 ppbv
RT: 11.112 min Scan# 3406
Delta R.T. 0.194 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

Tgt Ion: 91 Resp: 2162
Ion Ratio Lower Upper
91 100
126 36.5 11.9 47.5

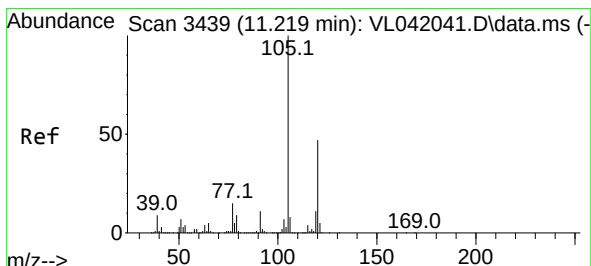
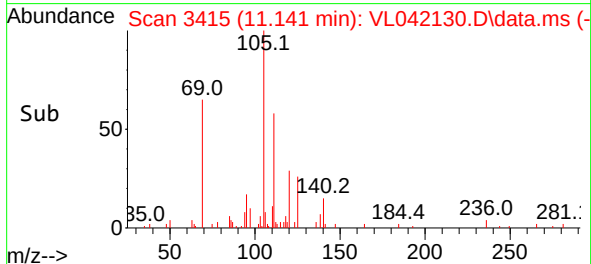
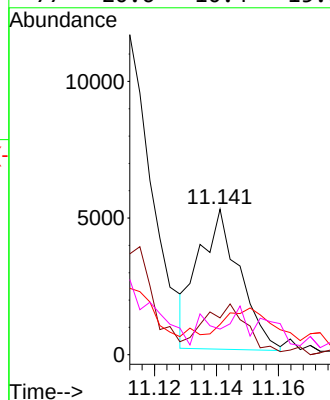
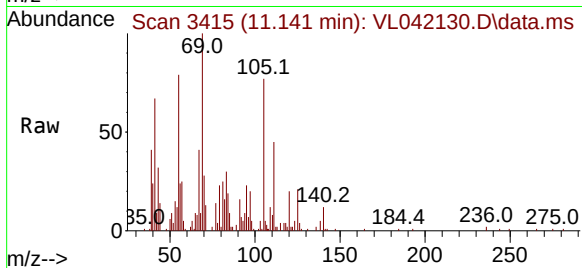




#72
4-Ethyltoluene
Concen: 0.072 ppbv
RT: 11.141 min Scan# 3415
Delta R.T. 0.000 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

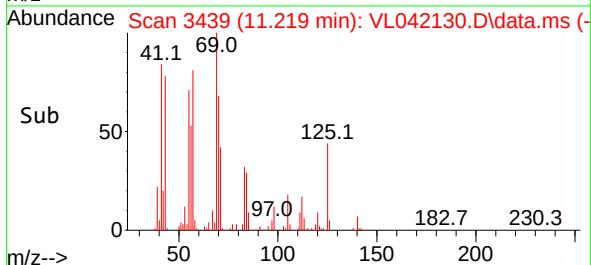
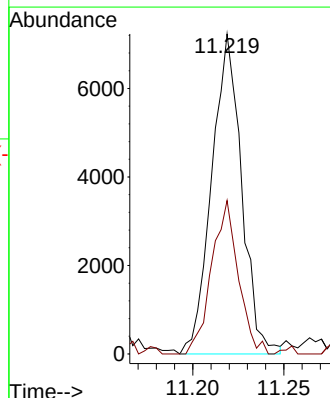
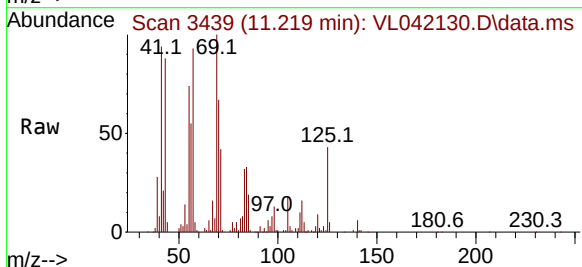
Instrument :
MSVOA_L
ClientSampleId :
SV1

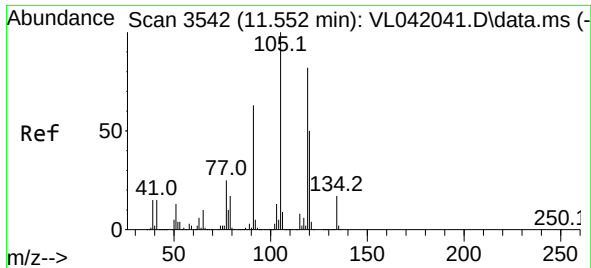
Tgt Ion:105 Resp: 4708
Ion Ratio Lower Upper
105 100
120 0.0 24.1 36.1#
91 42.8 10.2 15.4#
77 20.6 10.4 15.6#



#73
1,3,5-Trimethylbenzene
Concen: 0.146 ppbv
RT: 11.219 min Scan# 3439
Delta R.T. 0.000 min
Lab File: VL042130.D
Acq: 10 Mar 2025 17:52

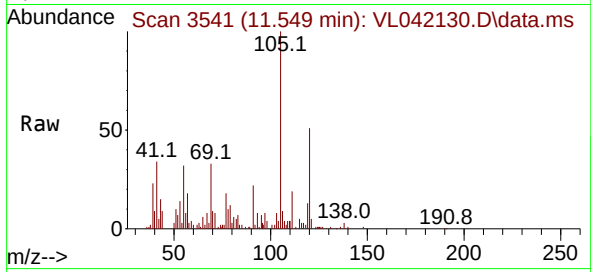
Tgt Ion:105 Resp: 8258
Ion Ratio Lower Upper
105 100
120 47.9 37.4 56.0





#74
 1,2,4-Trimethylbenzene
 Concen: 0.206 ppbv
 RT: 11.549 min Scan# 31
 Delta R.T. -0.003 min
 Lab File: VL042130.D
 Acq: 10 Mar 2025 17:52

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1



Tgt Ion:	105	Resp:	13124
Ion	Ratio	Lower	Upper
105	100		
120	49.8	40.2	60.2
91	11.8	51.4	77.2#
77	11.9	20.1	30.1#

