

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL090425\
 Data File : VL042893.D
 Acq On : 04 Sep 2025 16:53
 Operator : SY/MD
 Sample : Q3000-02DUP
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Sep 05 01:23:49 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL081325AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Aug 14 02:12:54 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.800	49	122666	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.975	114	326405	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.898	117	275541	10.000	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.390	95	211831	10.251	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.500%

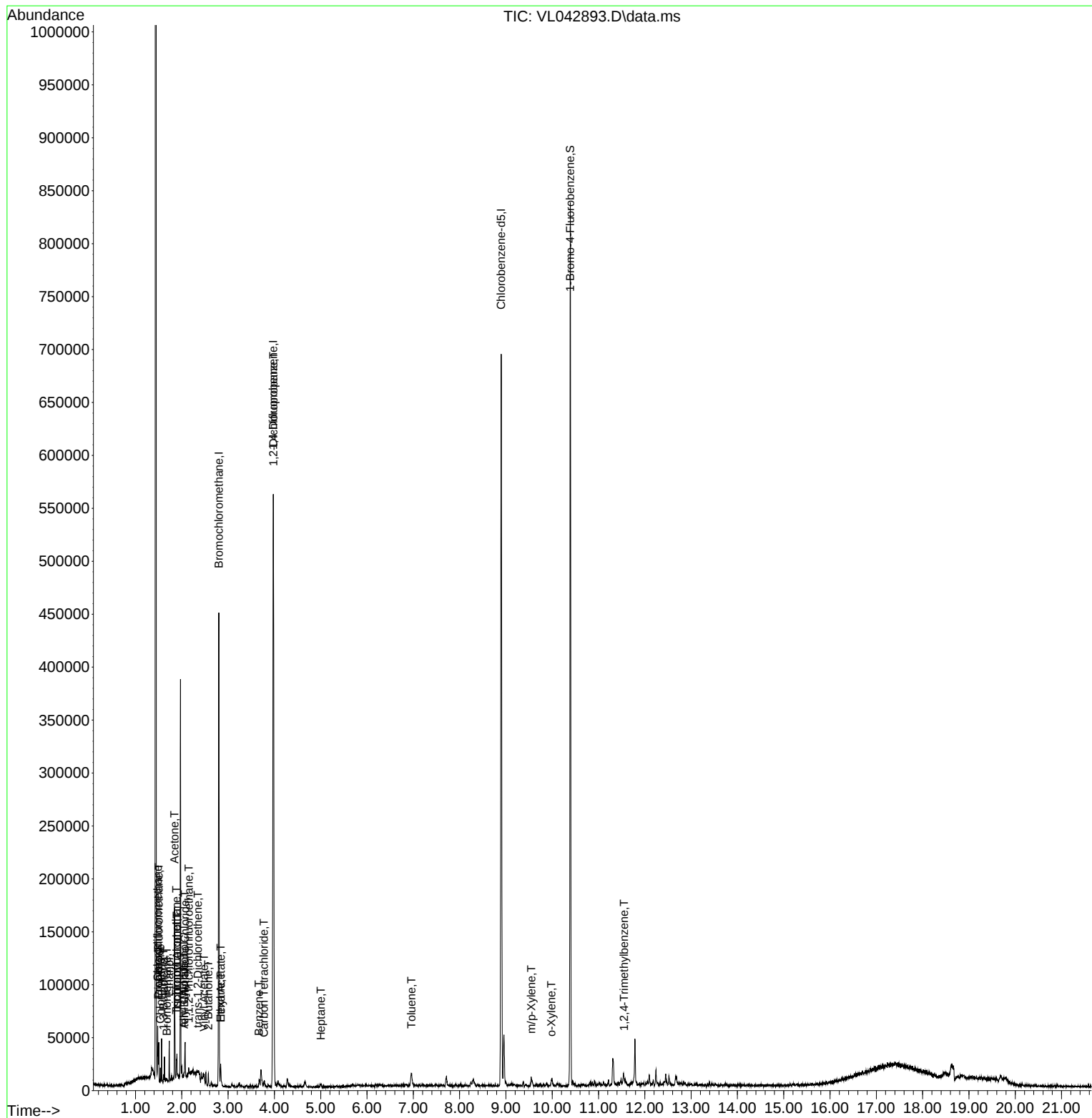
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.502	85	9023	0.502	ppbv	93
3) Chlorodifluoromethane	1.479	51	18038	0.908	ppbv	99
4) Chloromethane	1.538	50	3386	0.467	ppbv	98
6) Bromomethane	1.677	94	309	0.108	ppbv #	71
9) Propene	1.492	41	3270	0.381	ppbv #	17
10) Heptane	5.004	43	713	0.031	ppbv	89
11) Trichlorofluoromethane	1.884	101	4658	0.263	ppbv	88
12) 1,1,2-Trichlorotrifluo...	2.149	101	1143	0.081	ppbv	84
13) Ethanol	1.729	45	12445	15.860	ppbv	96
15) Acetone	1.842	43	72197	4.449	ppbv	100
16) 1,3-Butadiene	1.606	39	984	0.134	ppbv #	54
17) tert-Butyl alcohol	2.052	59	1310	0.068	ppbv #	71
19) Isopropyl Alcohol	1.894	45	8676	0.895	ppbv #	1
20) Methylene Chloride	2.068	84	4915	0.723	ppbv	92
21) Allyl Chloride	2.049	41	835	0.073	ppbv #	17
22) trans-1,2-Dichloroethene	2.350	96	324	0.045	ppbv #	35
23) Vinyl Acetate	2.483	43	1909	0.086	ppbv #	59
25) Ethyl Acetate	2.842	43	4246	0.108	ppbv #	74
26) Hexane	2.842	57	4354	0.240	ppbv #	52
34) 2-Butanone	2.570	43	6784	0.308	ppbv	99
35) Carbon Tetrachloride	3.774	117	1283	0.057	ppbv #	66
36) Benzene	3.667	78	1691	0.054	ppbv	95
39) 1,2-Dichloropropane	3.978	63	86616	7.588	ppbv #	26
53) Toluene	6.959	91	8604	0.232	ppbv	98
59) m/p-Xylene	9.548	91	3699	0.097	ppbv #	100
60) o-Xylene	9.979	91	1682	0.044	ppbv	85
74) 1,2,4-Trimethylbenzene	11.549	105	2077	0.048	ppbv #	65

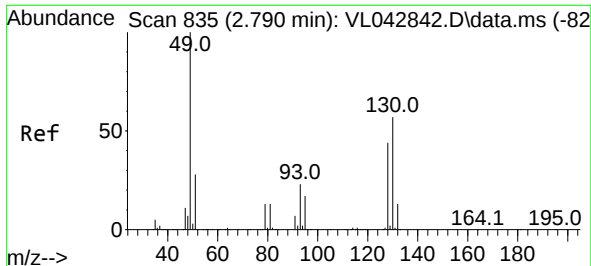
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL090425\
Data File : VL042893.D
Acq On : 04 Sep 2025 16:53
Operator : SY/MD
Sample : Q3000-02DUP
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :

Quant Time: Sep 05 01:23:49 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL081325AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Thu Aug 14 02:12:54 2025
Response via : Initial Calibration

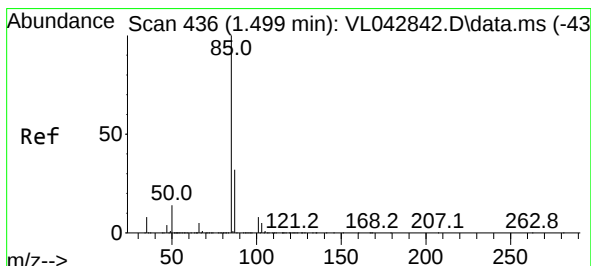
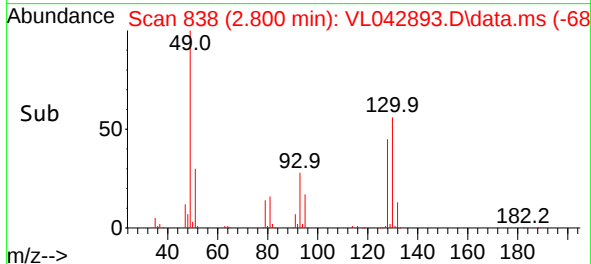
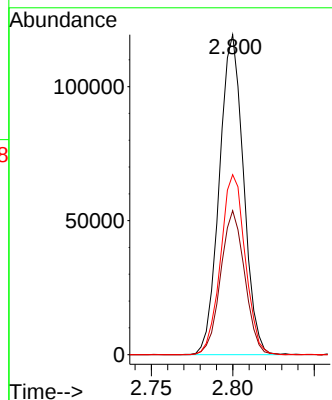
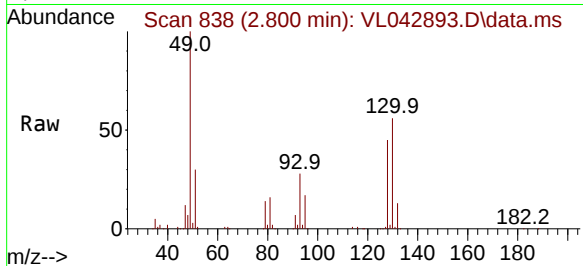




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.800 min Scan# 81
 Delta R.T. 0.010 min
 Lab File: VL042893.D
 Acq: 04 Sep 2025 16:53

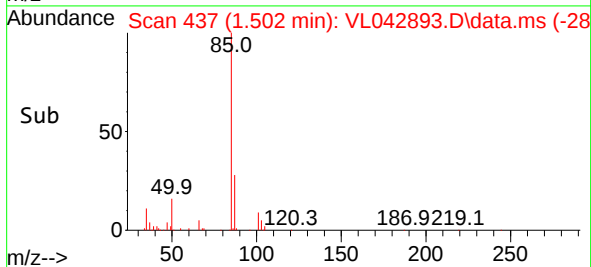
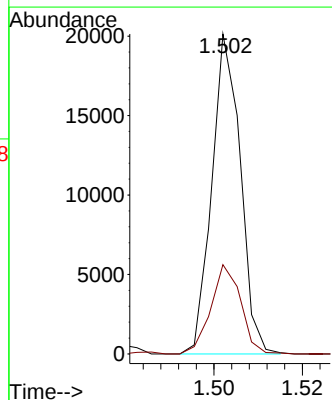
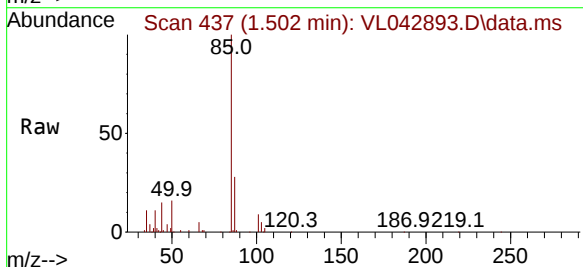
Instrument :
 MSVOA_L
 ClientSampleId :

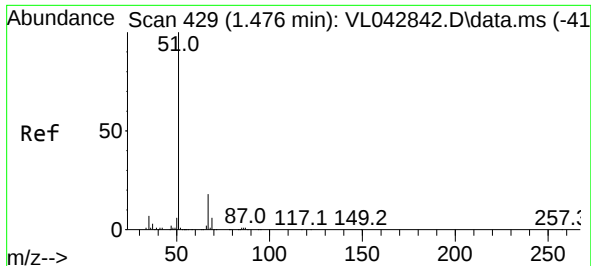
Tgt Ion: 49 Resp: 122666
 Ion Ratio Lower Upper
 49 100
 128 44.9 23.7 71.1
 130 57.4 30.6 91.6



#2
 Dichlorodifluoromethane
 Concen: 0.502 ppbv
 RT: 1.502 min Scan# 437
 Delta R.T. 0.003 min
 Lab File: VL042893.D
 Acq: 04 Sep 2025 16:53

Tgt Ion: 85 Resp: 9023
 Ion Ratio Lower Upper
 85 100
 87 27.9 25.3 37.9

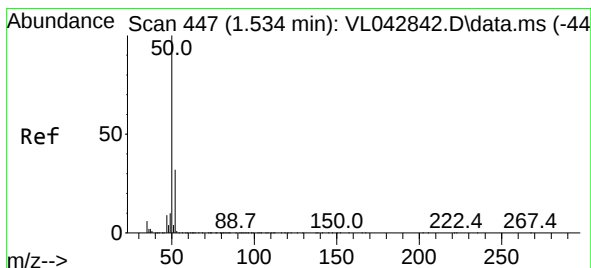
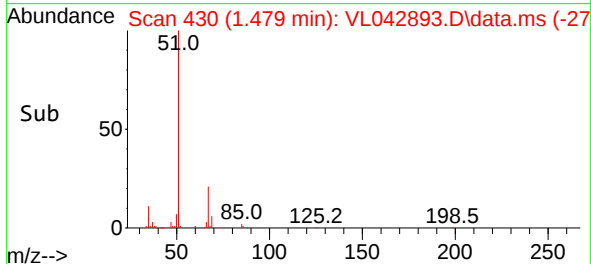
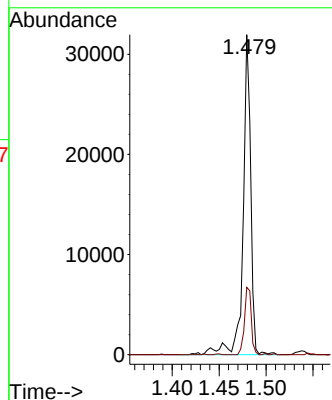
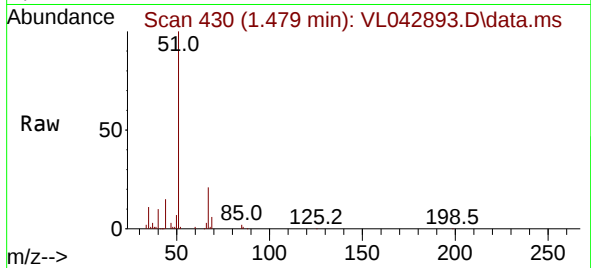




#3
Chlorodifluoromethane
Concen: 0.908 ppbv
RT: 1.479 min Scan# 41
Delta R.T. 0.003 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

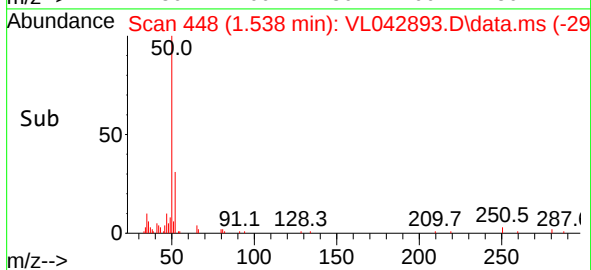
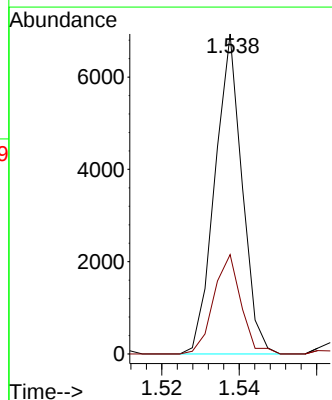
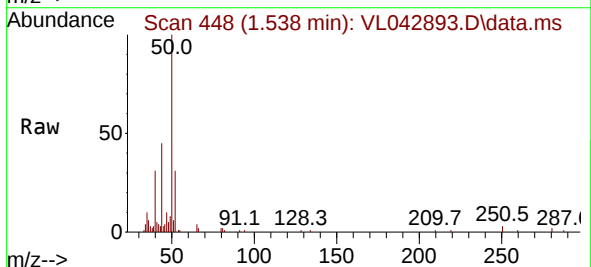
Instrument :
MSVOA_L
ClientSampleId :

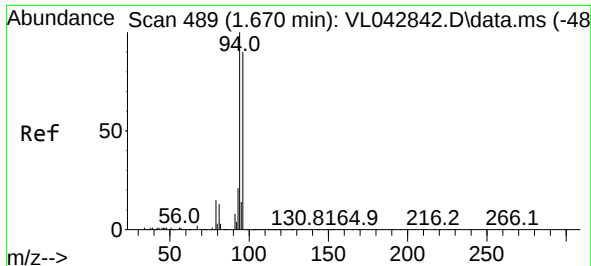
Tgt Ion: 51 Resp: 18038
Ion Ratio Lower Upper
51 100
67 19.0 14.9 22.3



#4
Chloromethane
Concen: 0.467 ppbv
RT: 1.538 min Scan# 448
Delta R.T. 0.003 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

Tgt Ion: 50 Resp: 3386
Ion Ratio Lower Upper
50 100
52 31.0 25.9 38.9

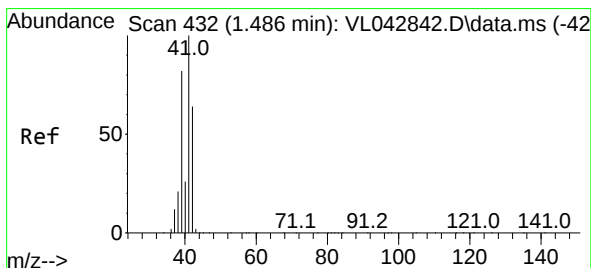
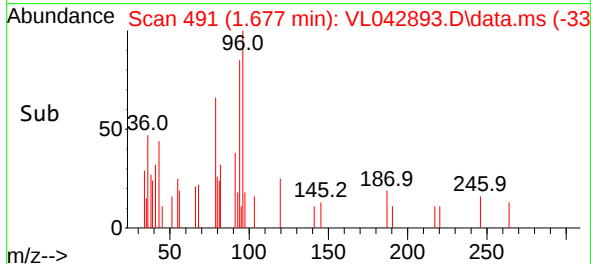
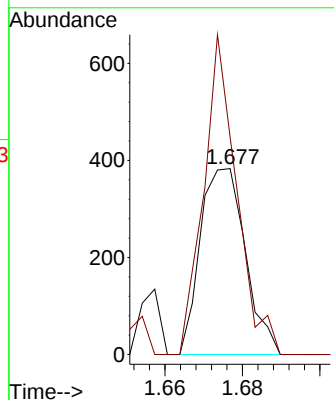
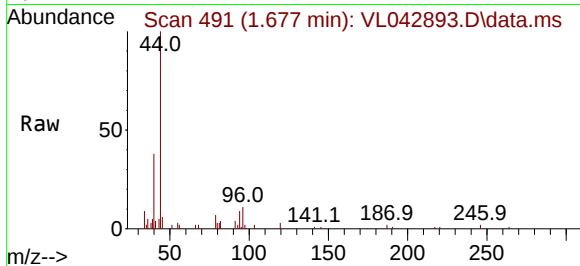




#6
Bromomethane
Concen: 0.108 ppbv
RT: 1.677 min Scan# 491
Delta R.T. 0.006 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

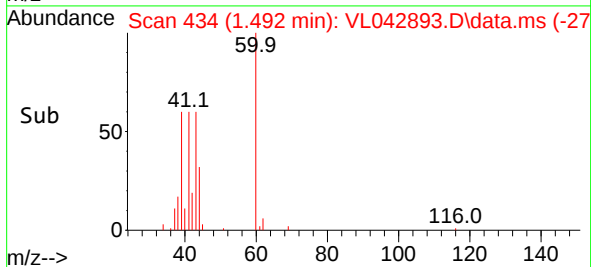
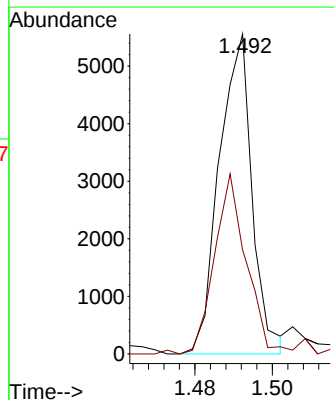
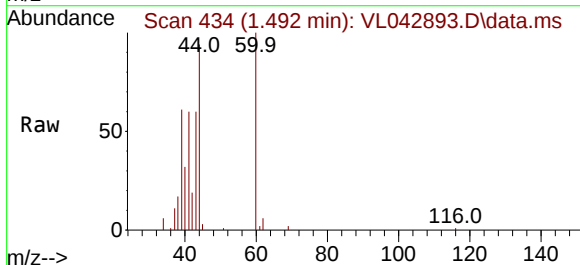
Instrument :
MSVOA_L
ClientSampleId :

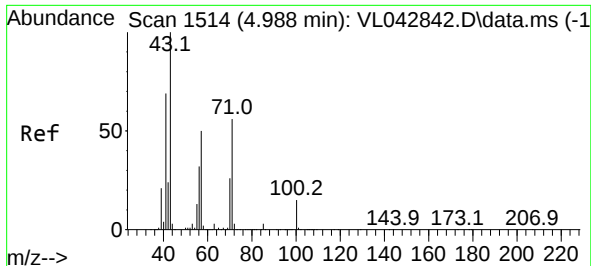
Tgt Ion: 94 Resp: 309
Ion Ratio Lower Upper
94 100
96 117.0 72.1 108.1#



#9
Propene
Concen: 0.381 ppbv
RT: 1.492 min Scan# 434
Delta R.T. 0.006 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

Tgt Ion: 41 Resp: 3270
Ion Ratio Lower Upper
41 100
42 0.0 53.0 79.4#

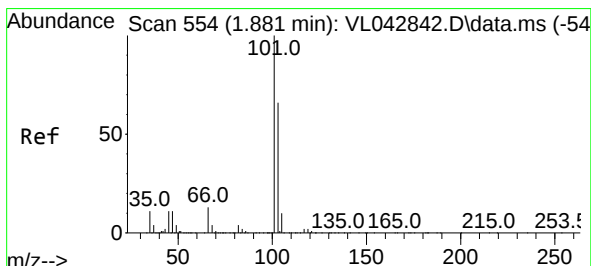
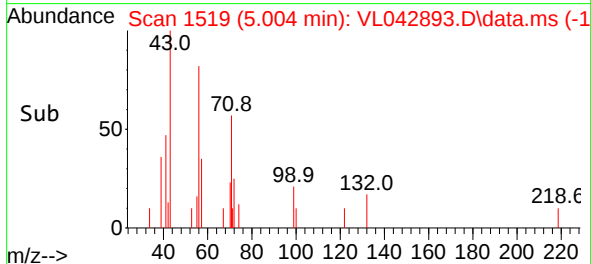
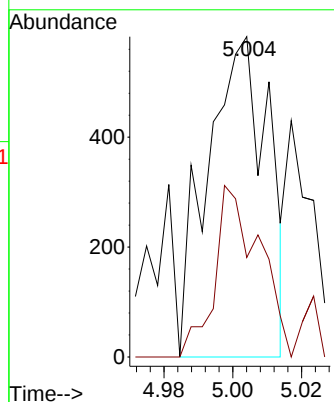
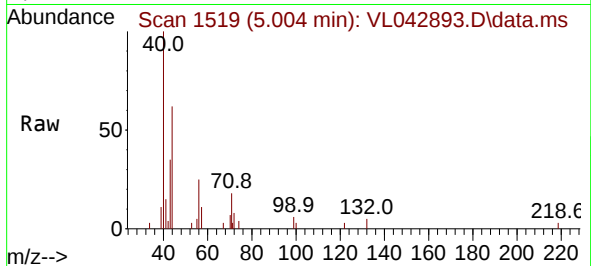




#10
Heptane
Concen: 0.031 ppbv
RT: 5.004 min Scan# 11
Delta R.T. 0.016 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

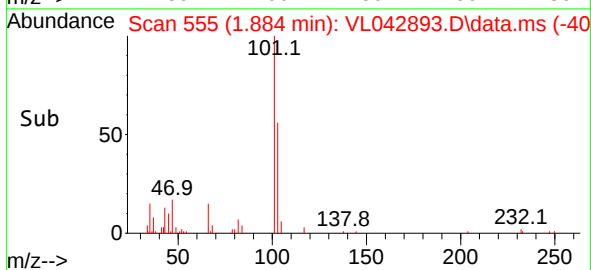
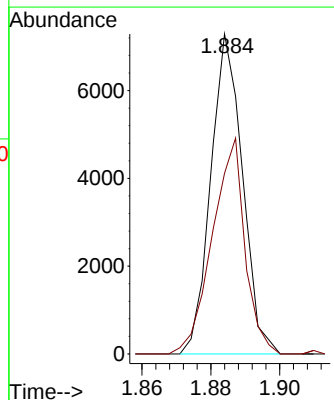
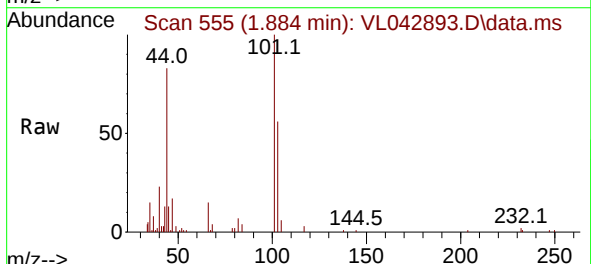
Instrument :
MSVOA_L
ClientSampleId :

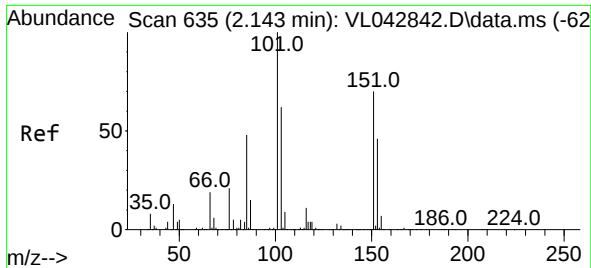
Tgt Ion: 43 Resp: 713
Ion Ratio Lower Upper
43 100
57 44.3 41.4 62.0



#11
Trichlorofluoromethane
Concen: 0.263 ppbv
RT: 1.884 min Scan# 555
Delta R.T. 0.003 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

Tgt Ion: 101 Resp: 4658
Ion Ratio Lower Upper
101 100
103 56.4 52.5 78.7

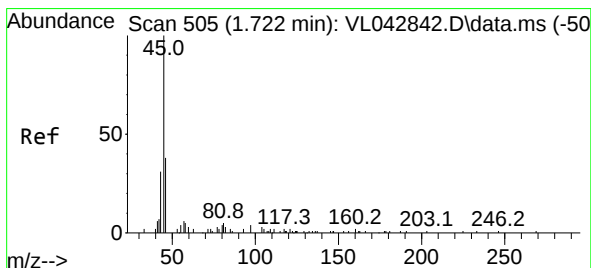
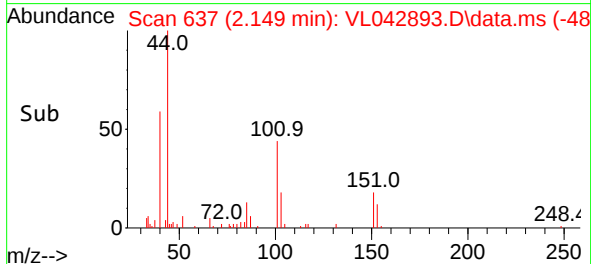
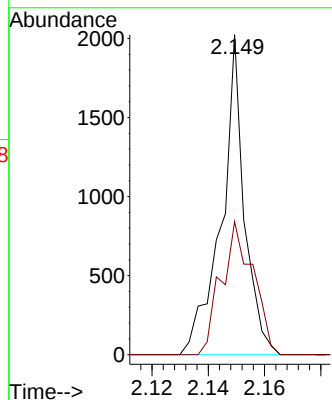
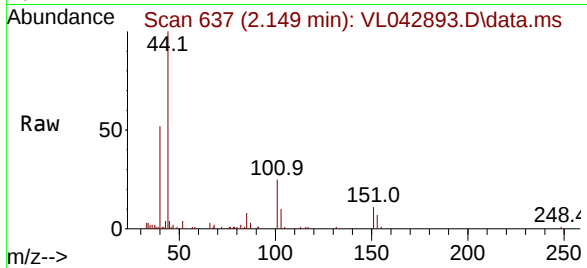




#12
1,1,2-Trichlorotrifluoroethane
Concen: 0.081 ppbv
RT: 2.149 min Scan# 611
Delta R.T. 0.006 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

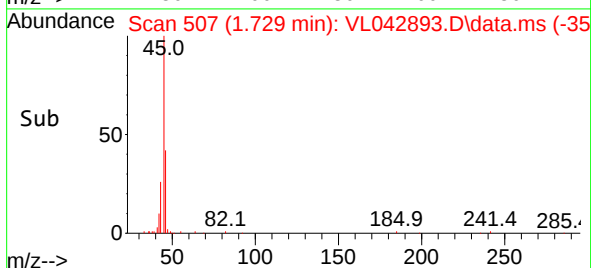
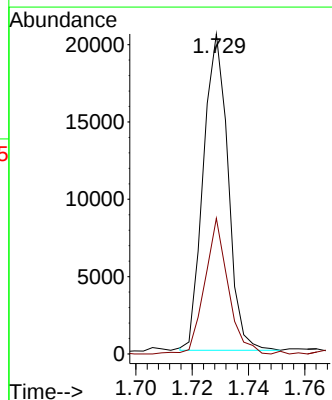
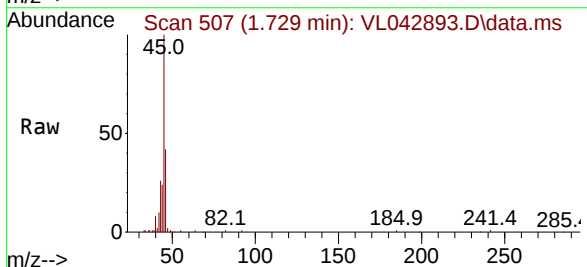
Instrument :
MSVOA_L
ClientSampleId :

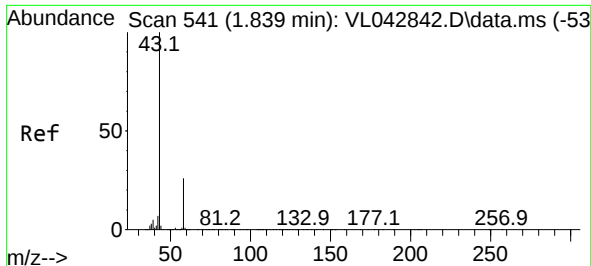
Tgt Ion:101 Resp: 1143
Ion Ratio Lower Upper
101 100
151 57.7 56.4 84.6



#13
Ethanol
Concen: 15.860 ppbv
RT: 1.729 min Scan# 507
Delta R.T. 0.006 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

Tgt Ion: 45 Resp: 12445
Ion Ratio Lower Upper
45 100
46 41.0 17.5 69.9

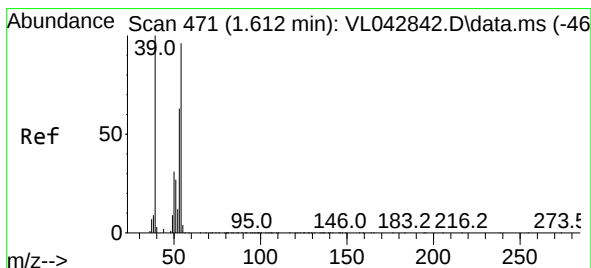
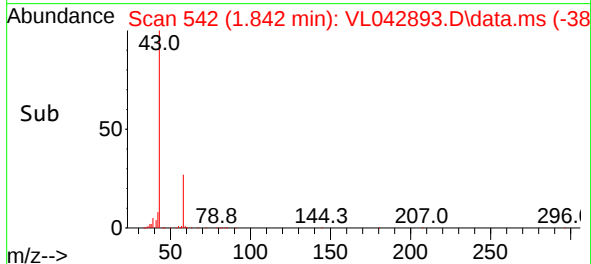
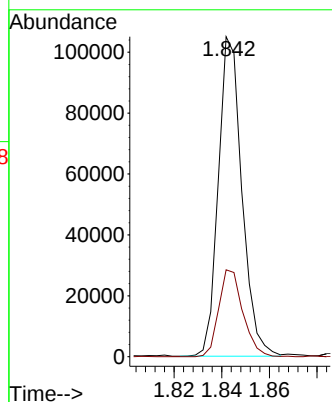
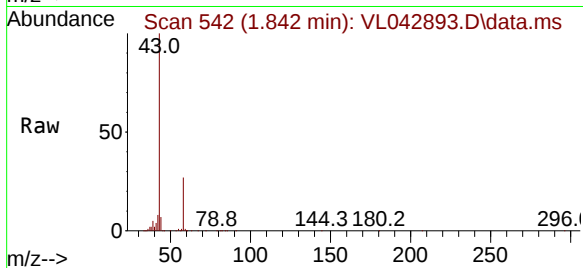




#15
Acetone
Concen: 4.449 ppbv
RT: 1.842 min Scan# 541
Delta R.T. 0.003 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

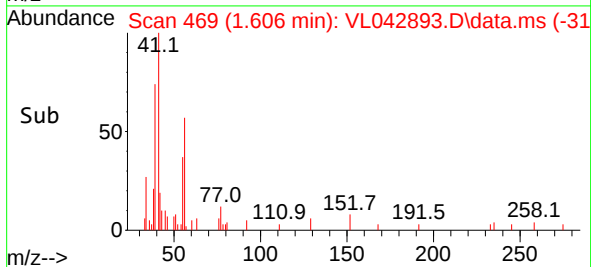
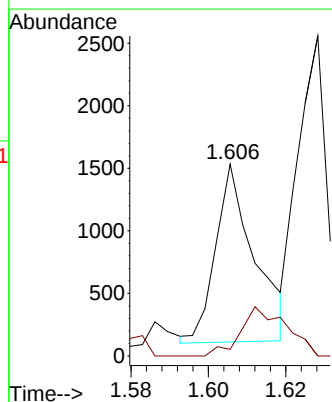
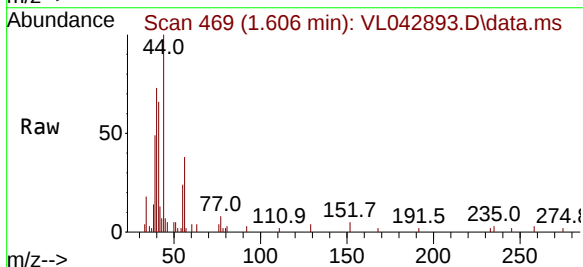
Instrument :
MSVOA_L
ClientSampleId :

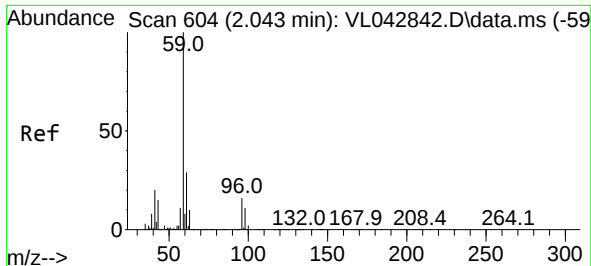
Tgt Ion: 43 Resp: 72197
Ion Ratio Lower Upper
43 100
58 27.9 22.4 33.6



#16
1,3-Butadiene
Concen: 0.134 ppbv
RT: 1.606 min Scan# 469
Delta R.T. -0.007 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

Tgt Ion: 39 Resp: 984
Ion Ratio Lower Upper
39 100
54 38.6 63.6 95.4#





#17

tert-Butyl alcohol

Concen: 0.068 ppbv

RT: 2.052 min Scan# 604

Delta R.T. 0.010 min

Lab File: VL042893.D

Acq: 04 Sep 2025 16:53

Instrument :

MSVOA_L

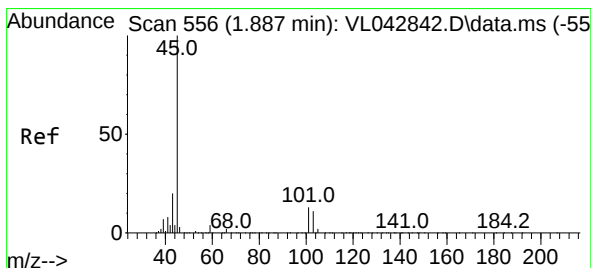
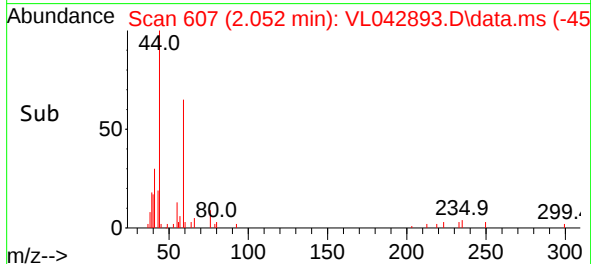
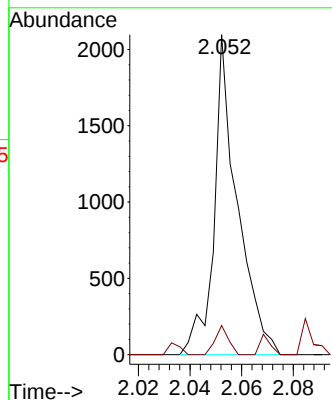
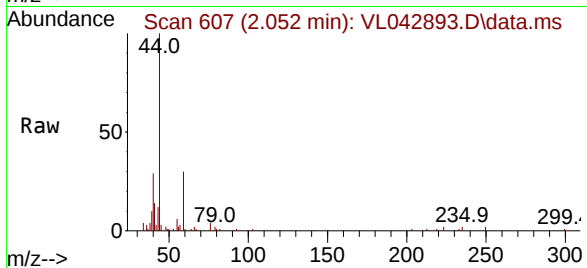
ClientSampleId :

Tgt Ion: 59 Resp: 1310

Ion Ratio Lower Upper

59 100

57 0.0 9.0 13.4#



#19

Isopropyl Alcohol

Concen: 0.895 ppbv

RT: 1.894 min Scan# 558

Delta R.T. 0.006 min

Lab File: VL042893.D

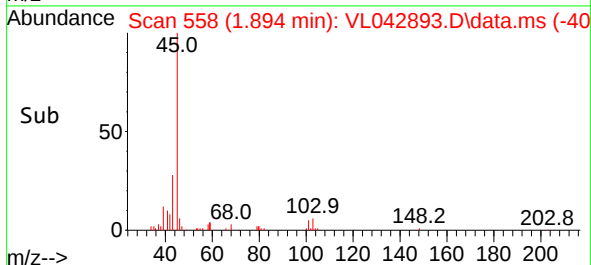
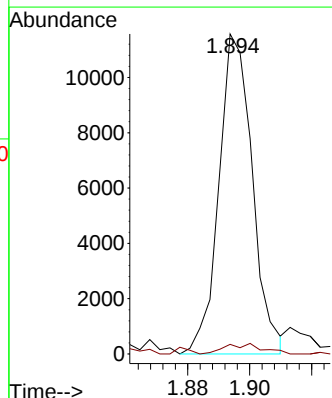
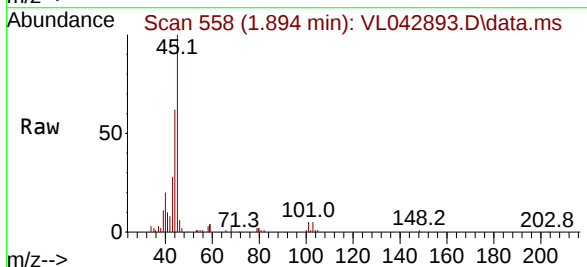
Acq: 04 Sep 2025 16:53

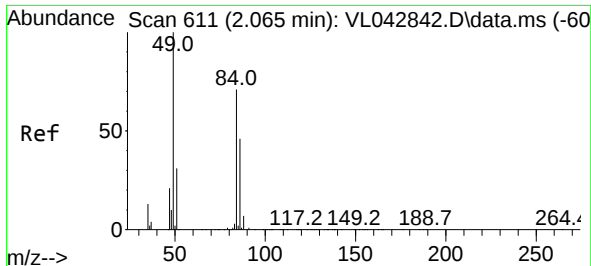
Tgt Ion: 45 Resp: 8676

Ion Ratio Lower Upper

45 100

58 232.0 32.7 49.1#





#20

Methylene Chloride

Concen: 0.723 ppbv

RT: 2.068 min Scan# 611

Delta R.T. 0.003 min

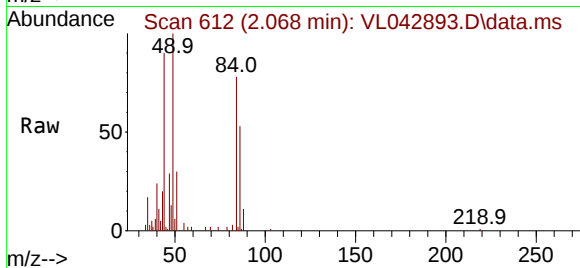
Lab File: VL042893.D

Acq: 04 Sep 2025 16:53

Instrument :

MSVOA_L

ClientSampleId :



Tgt Ion: 84 Resp: 4915

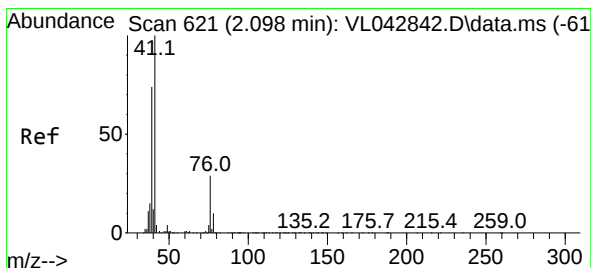
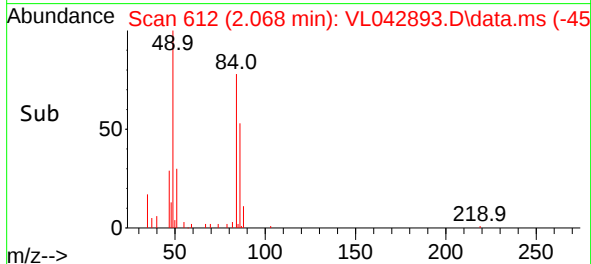
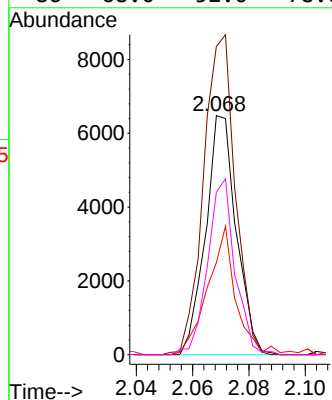
Ion Ratio Lower Upper

84 100

49 129.0 112.3 168.5

51 37.6 36.0 54.0

86 68.0 52.0 78.0



#21

Allyl Chloride

Concen: 0.073 ppbv

RT: 2.049 min Scan# 606

Delta R.T. -0.049 min

Lab File: VL042893.D

Acq: 04 Sep 2025 16:53

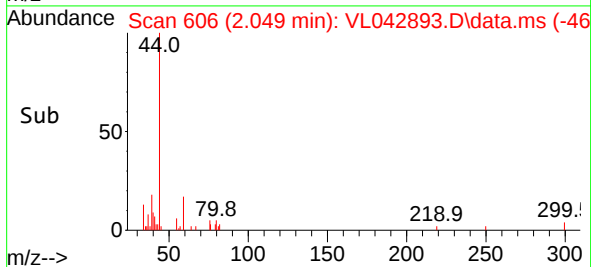
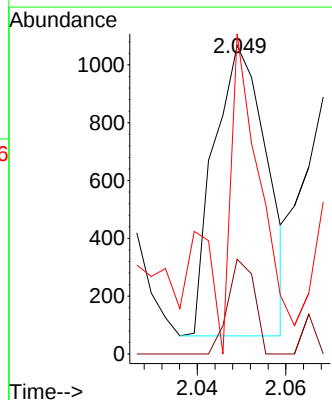
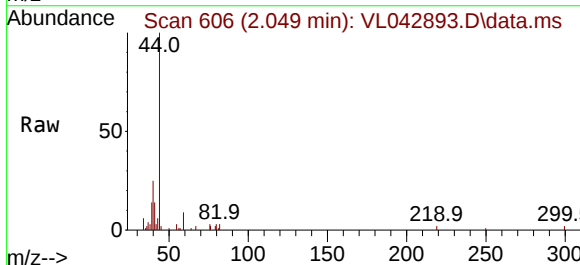
Tgt Ion: 41 Resp: 835

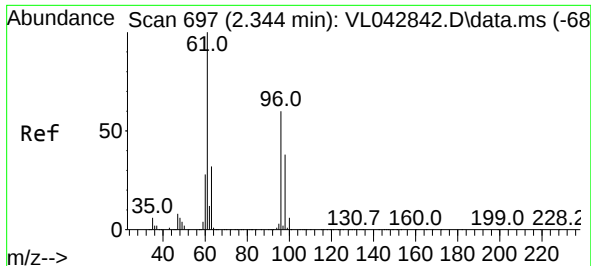
Ion Ratio Lower Upper

41 100

76 19.5 23.9 35.9#

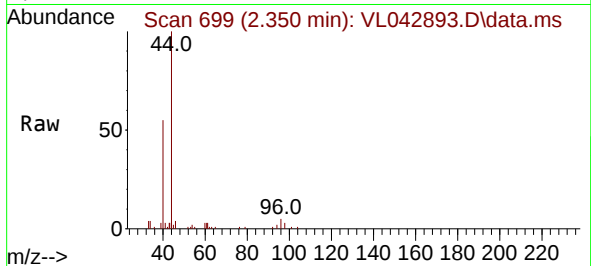
39 163.4 57.8 86.6#



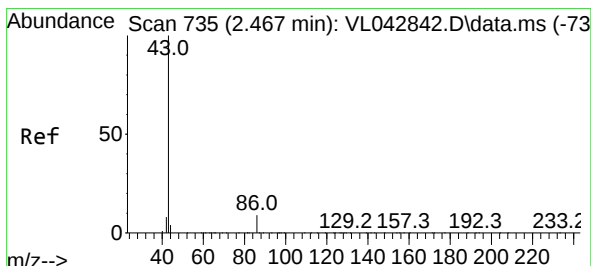
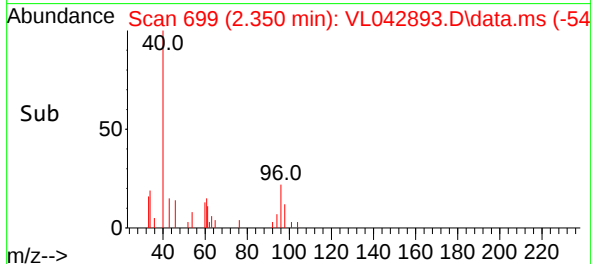
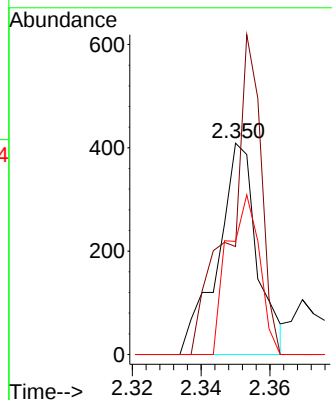


#22
trans-1,2-Dichloroethene
Concen: 0.045 ppbv
RT: 2.350 min Scan# 697
Delta R.T. 0.006 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

Instrument :
MSVOA_L
ClientSampleId :

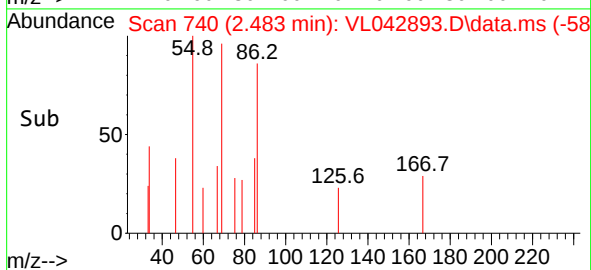
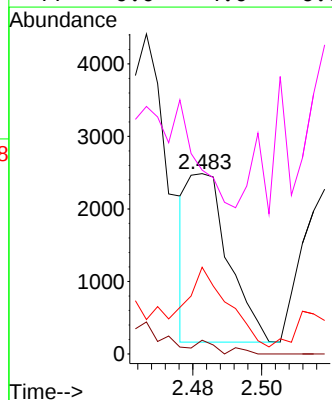
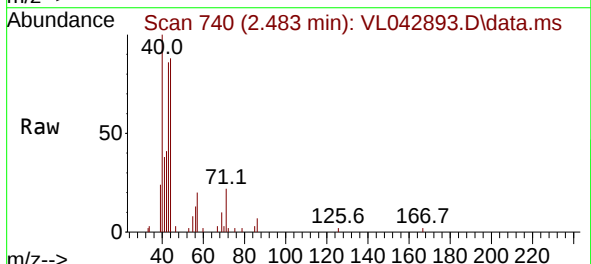


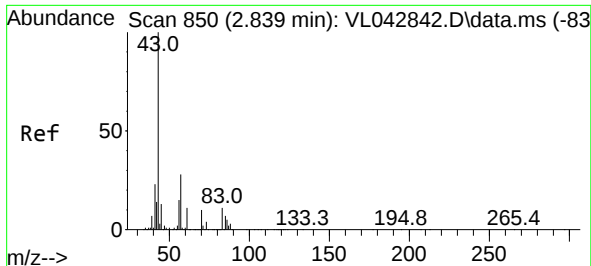
Tgt Ion: 96 Resp: 324
Ion Ratio Lower Upper
96 100
61 51.1 132.6 199.0#
98 53.5 50.0 75.0



#23
Vinyl Acetate
Concen: 0.086 ppbv
RT: 2.483 min Scan# 740
Delta R.T. 0.016 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

Tgt Ion: 43 Resp: 1909
Ion Ratio Lower Upper
43 100
86 8.2 6.6 9.8
42 42.5 7.0 10.6#
44 0.0 4.0 6.0#

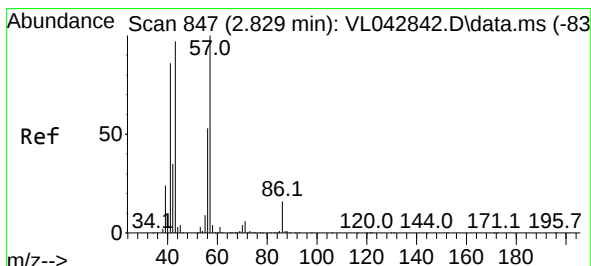
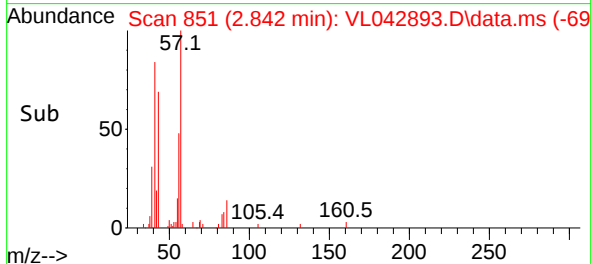
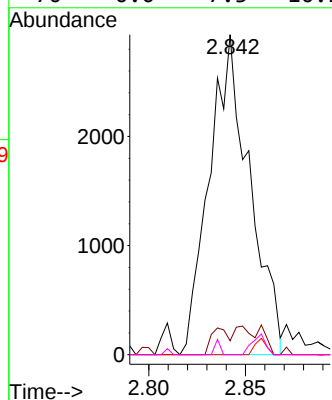
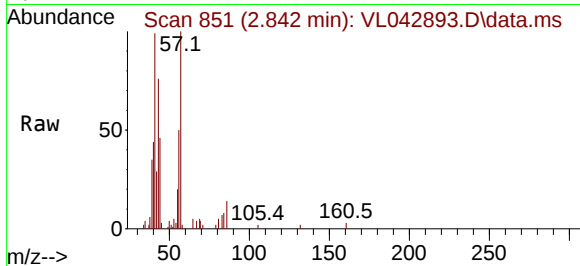




#25
Ethyl Acetate
Concen: 0.108 ppbv
RT: 2.842 min Scan# 851
Delta R.T. 0.003 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

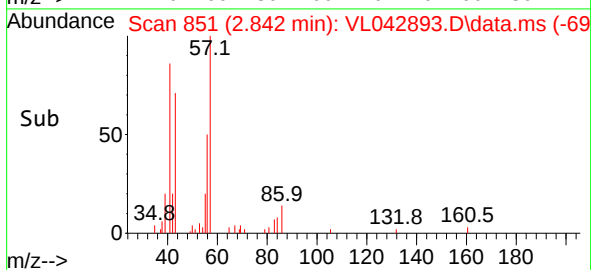
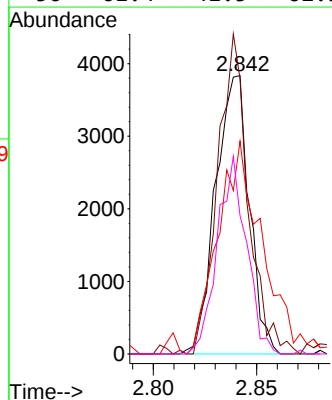
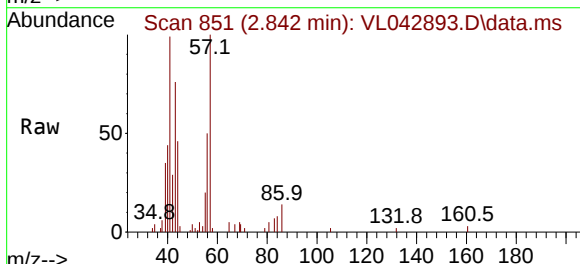
Instrument :
MSVOA_L
ClientSampleId :

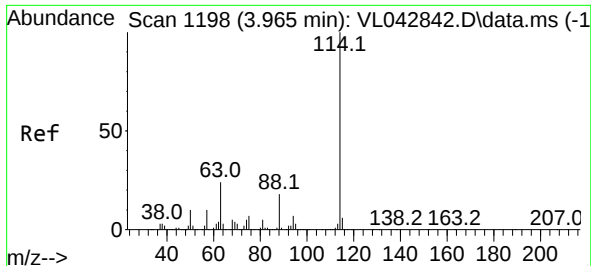
Tgt Ion: 43 Resp: 4246
Ion Ratio Lower Upper
43 100
45 0.0 8.1 12.1#
61 0.0 7.4 11.2#
70 0.0 7.3 10.9#



#26
Hexane
Concen: 0.240 ppbv
RT: 2.842 min Scan# 851
Delta R.T. 0.013 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

Tgt Ion: 57 Resp: 4354
Ion Ratio Lower Upper
57 100
41 105.4 68.6 103.0#
43 104.7 168.5 252.7#
56 61.4 41.5 62.3





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.975 min Scan# 11

Delta R.T. 0.010 min

Lab File: VL042893.D

Acq: 04 Sep 2025 16:53

Instrument :

MSVOA_L

ClientSampleId :

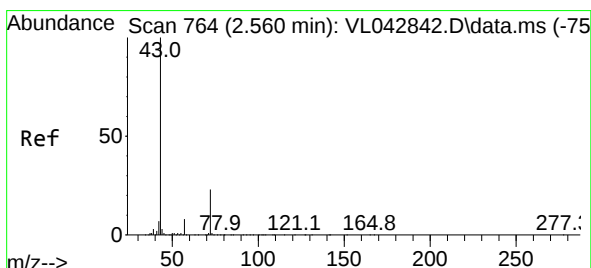
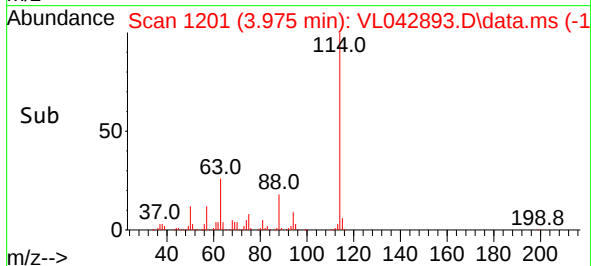
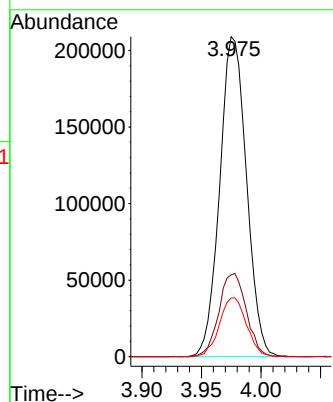
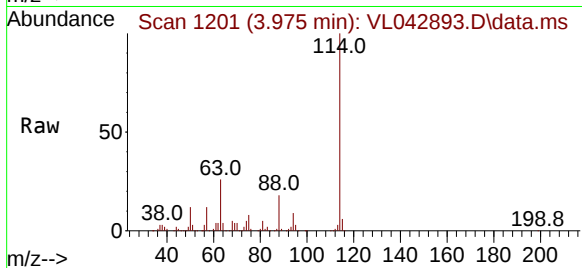
Tgt Ion:114 Resp: 326405

Ion Ratio Lower Upper

114 100

63 26.6 19.7 29.5

88 18.6 14.4 21.6



#34

2-Butanone

Concen: 0.308 ppbv

RT: 2.570 min Scan# 767

Delta R.T. 0.010 min

Lab File: VL042893.D

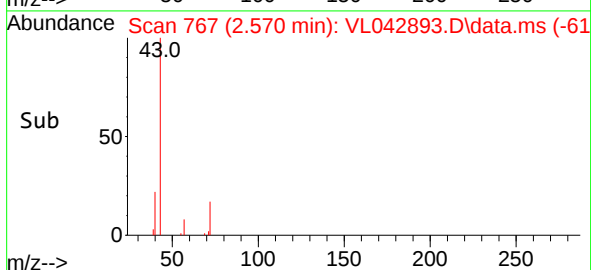
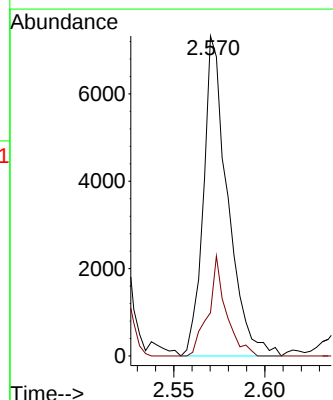
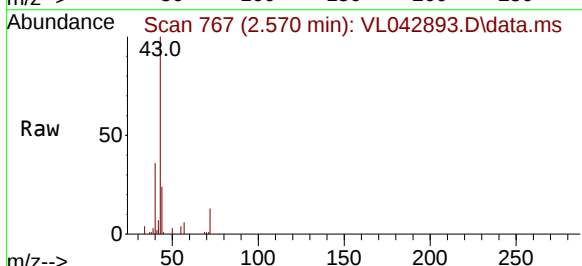
Acq: 04 Sep 2025 16:53

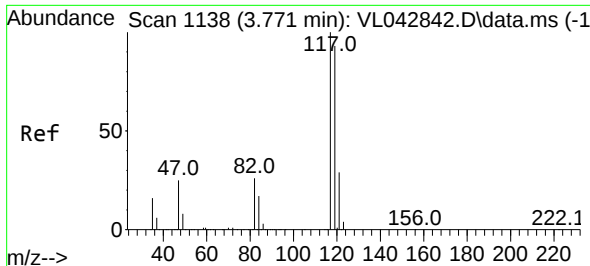
Tgt Ion: 43 Resp: 6784

Ion Ratio Lower Upper

43 100

72 22.8 18.6 28.0

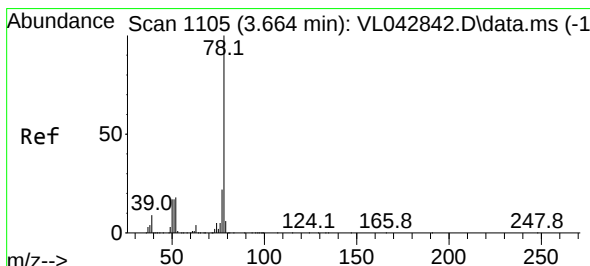
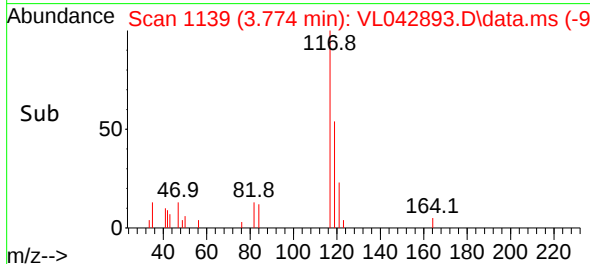
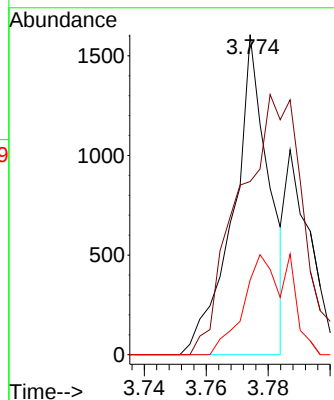
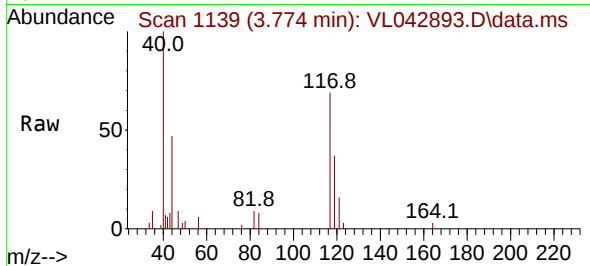




#35
Carbon Tetrachloride
Concen: 0.057 ppbv
RT: 3.774 min Scan# 1138
Delta R.T. 0.003 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

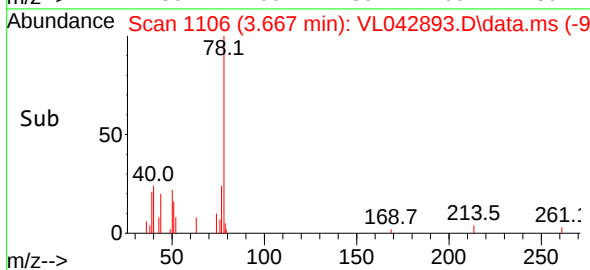
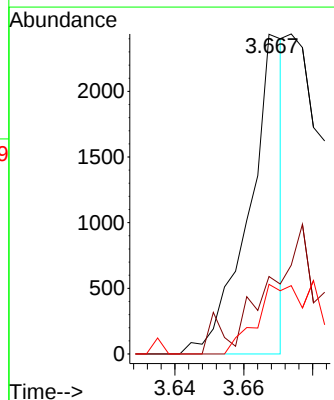
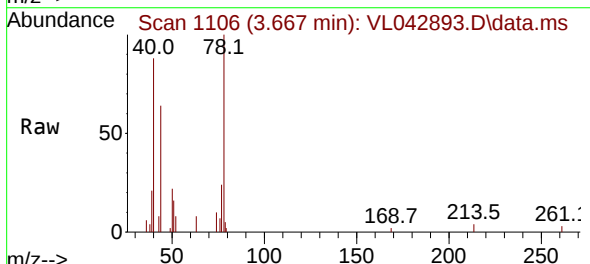
Instrument :
MSVOA_L
ClientSampleId :

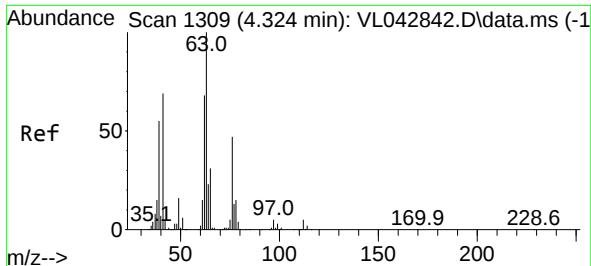
Tgt Ion:117 Resp: 1283
Ion Ratio Lower Upper
117 100
119 54.1 74.7 112.1#
121 23.3 23.2 34.8



#36
Benzene
Concen: 0.054 ppbv
RT: 3.667 min Scan# 1106
Delta R.T. 0.003 min
Lab File: VL042893.D
Acq: 04 Sep 2025 16:53

Tgt Ion: 78 Resp: 1691
Ion Ratio Lower Upper
78 100
77 23.2 17.7 26.5
50 20.8 13.9 20.9





#39

1,2-Dichloropropane

Concen: 7.588 ppbv

RT: 3.978 min Scan# 11

Delta R.T. -0.346 min

Lab File: VL042893.D

Acq: 04 Sep 2025 16:53

Instrument :

MSVOA_L

ClientSampleId :

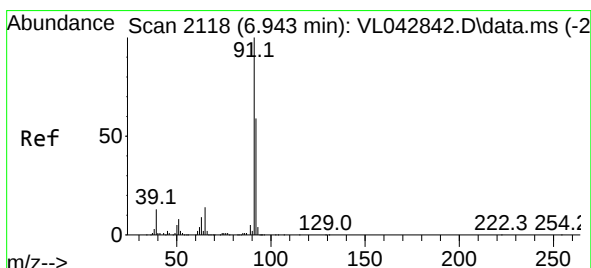
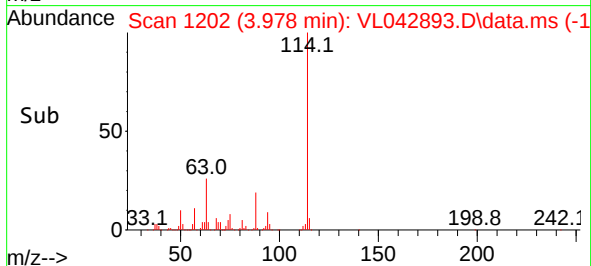
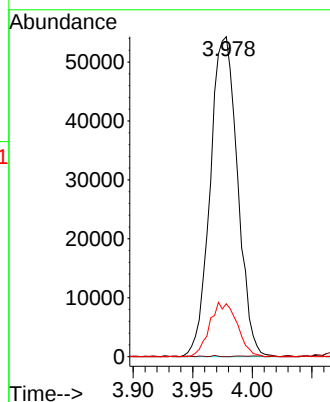
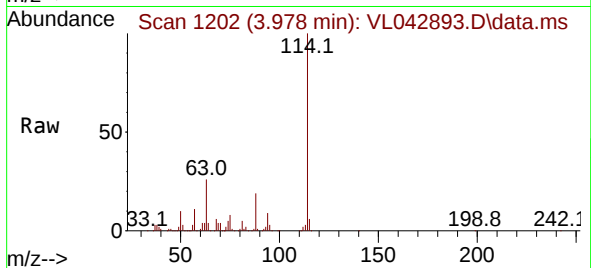
Tgt Ion: 63 Resp: 86616

Ion Ratio Lower Upper

63 100

41 0.0 55.0 82.4#

62 16.5 54.4 81.6#



#53

Toluene

Concen: 0.232 ppbv

RT: 6.959 min Scan# 2123

Delta R.T. 0.016 min

Lab File: VL042893.D

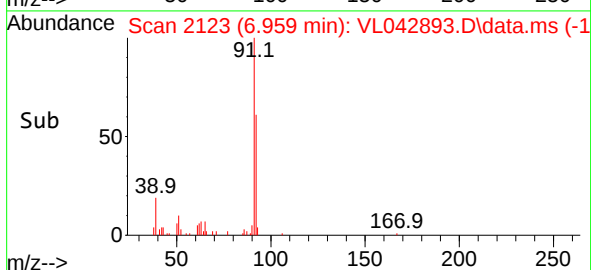
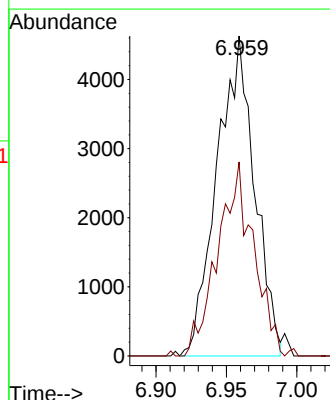
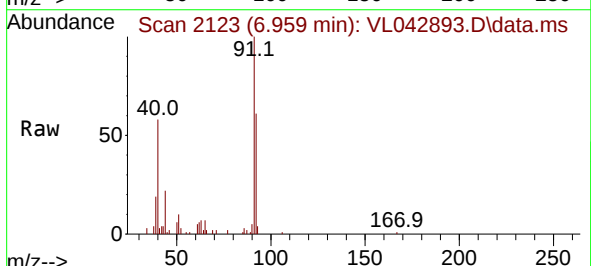
Acq: 04 Sep 2025 16:53

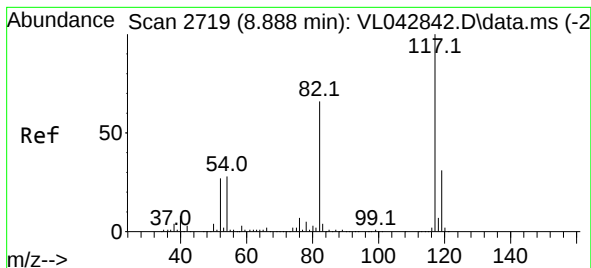
Tgt Ion: 91 Resp: 8604

Ion Ratio Lower Upper

91 100

92 58.1 47.8 71.6





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 8.898 min Scan# 21

Delta R.T. 0.010 min

Lab File: VL042893.D

Acq: 04 Sep 2025 16:53

Instrument :

MSVOA_L

ClientSampleId :

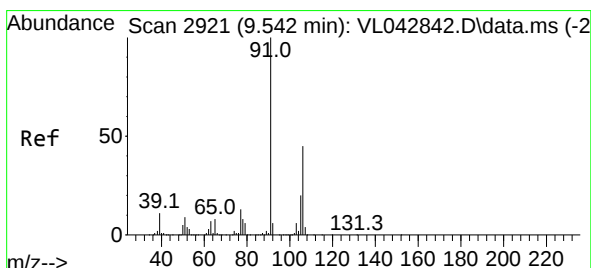
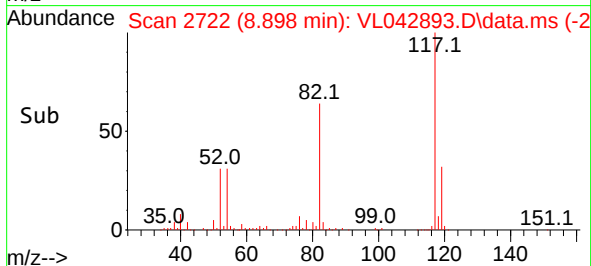
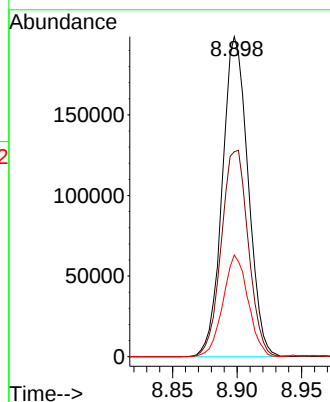
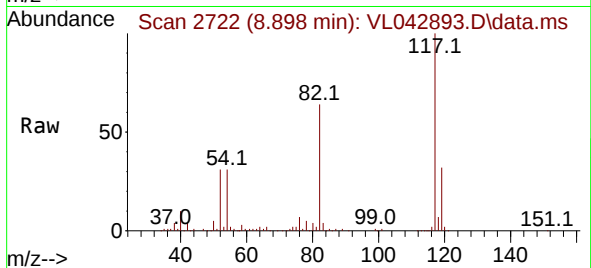
Tgt Ion:117 Resp: 275541

Ion Ratio Lower Upper

117 100

82 67.6 54.6 81.8

119 31.0 25.9 38.9



#59

m/p-Xylene

Concen: 0.097 ppbv

RT: 9.548 min Scan# 2923

Delta R.T. 0.006 min

Lab File: VL042893.D

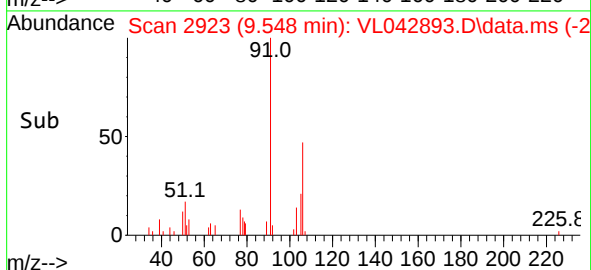
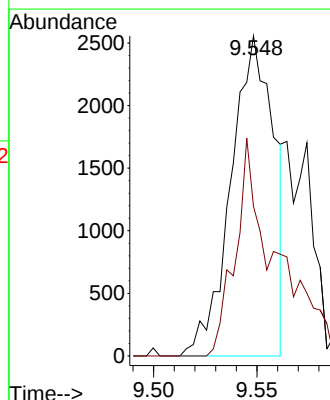
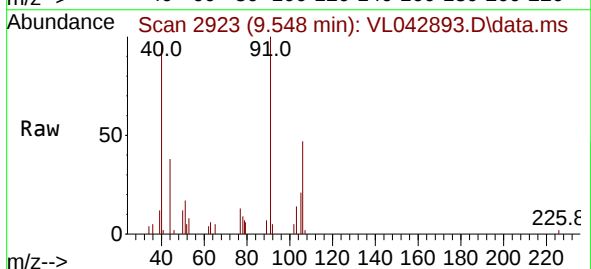
Acq: 04 Sep 2025 16:53

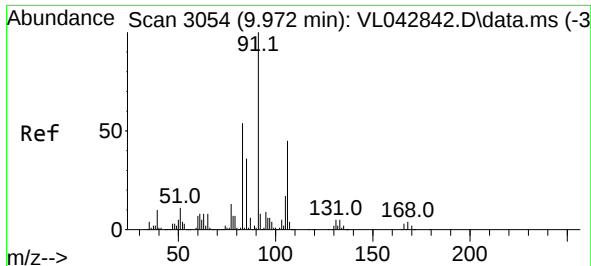
Tgt Ion: 91 Resp: 3699

Ion Ratio Lower Upper

91 100

106 64.7 0.0 0.0#





#60

o-Xylene

Concen: 0.044 ppbv

RT: 9.979 min Scan# 3054

Delta R.T. 0.006 min

Lab File: VL042893.D

Acq: 04 Sep 2025 16:53

Instrument :

MSVOA_L

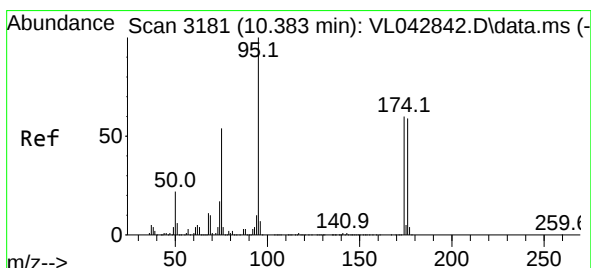
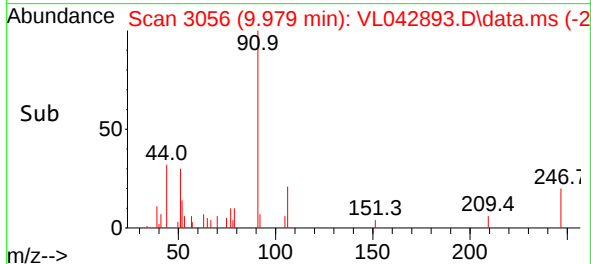
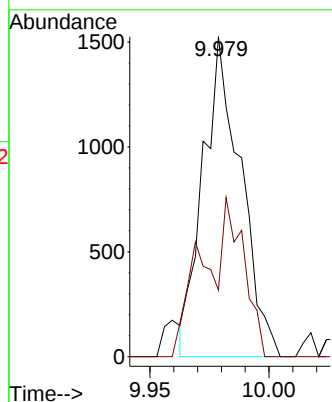
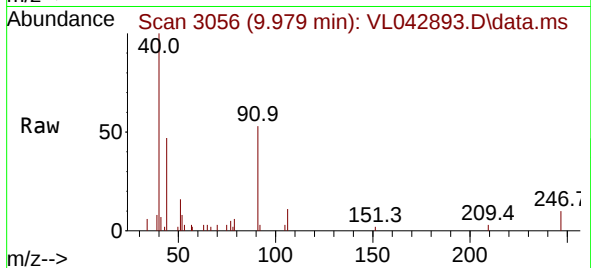
ClientSampleId :

Tgt Ion: 91 Resp: 1682

Ion Ratio Lower Upper

91 100

106 53.2 21.8 65.4



#68

1-Bromo-4-Fluorobenzene

Concen: 10.251 ppbv

RT: 10.390 min Scan# 3183

Delta R.T. 0.006 min

Lab File: VL042893.D

Acq: 04 Sep 2025 16:53

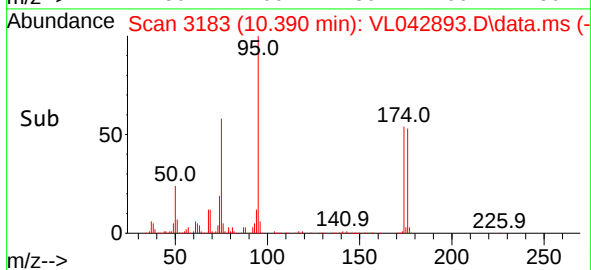
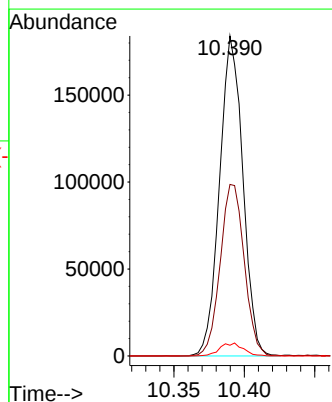
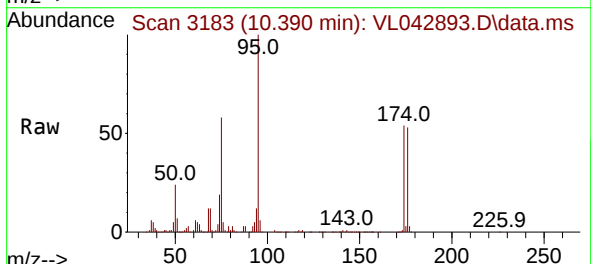
Tgt Ion: 95 Resp: 211831

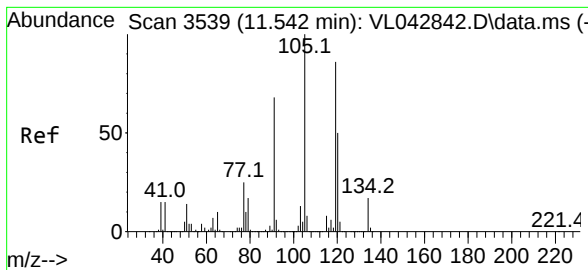
Ion Ratio Lower Upper

95 100

174 55.5 48.4 72.6

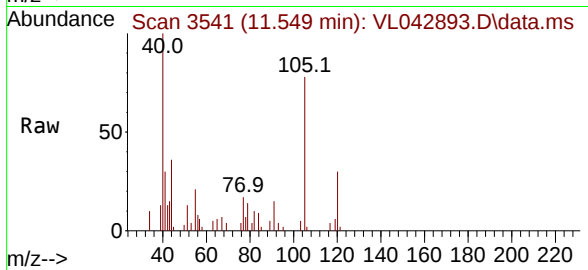
175 4.1 3.8 5.8





#74
 1,2,4-Trimethylbenzene
 Concen: 0.048 ppbv
 RT: 11.549 min Scan# 31
 Delta R.T. 0.006 min
 Lab File: VL042893.D
 Acq: 04 Sep 2025 16:53

Instrument :
 MSVOA_L
 ClientSampleId :



Tgt Ion:	105	Resp:	2077
Ion	Ratio	Lower	Upper
105	100		
120	38.4	39.8	59.6#
91	19.6	54.2	81.4#
77	21.6	19.8	29.6

