

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL090425\
 Data File : VL042896.D
 Acq On : 04 Sep 2025 18:41
 Operator : SY/MD
 Sample : Q3000-01
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Sep 05 01:25:13 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	2.797	49	121887	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.972	114	317296	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.895	117	269956	10.000	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.387	95	212487	10.495	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.000%

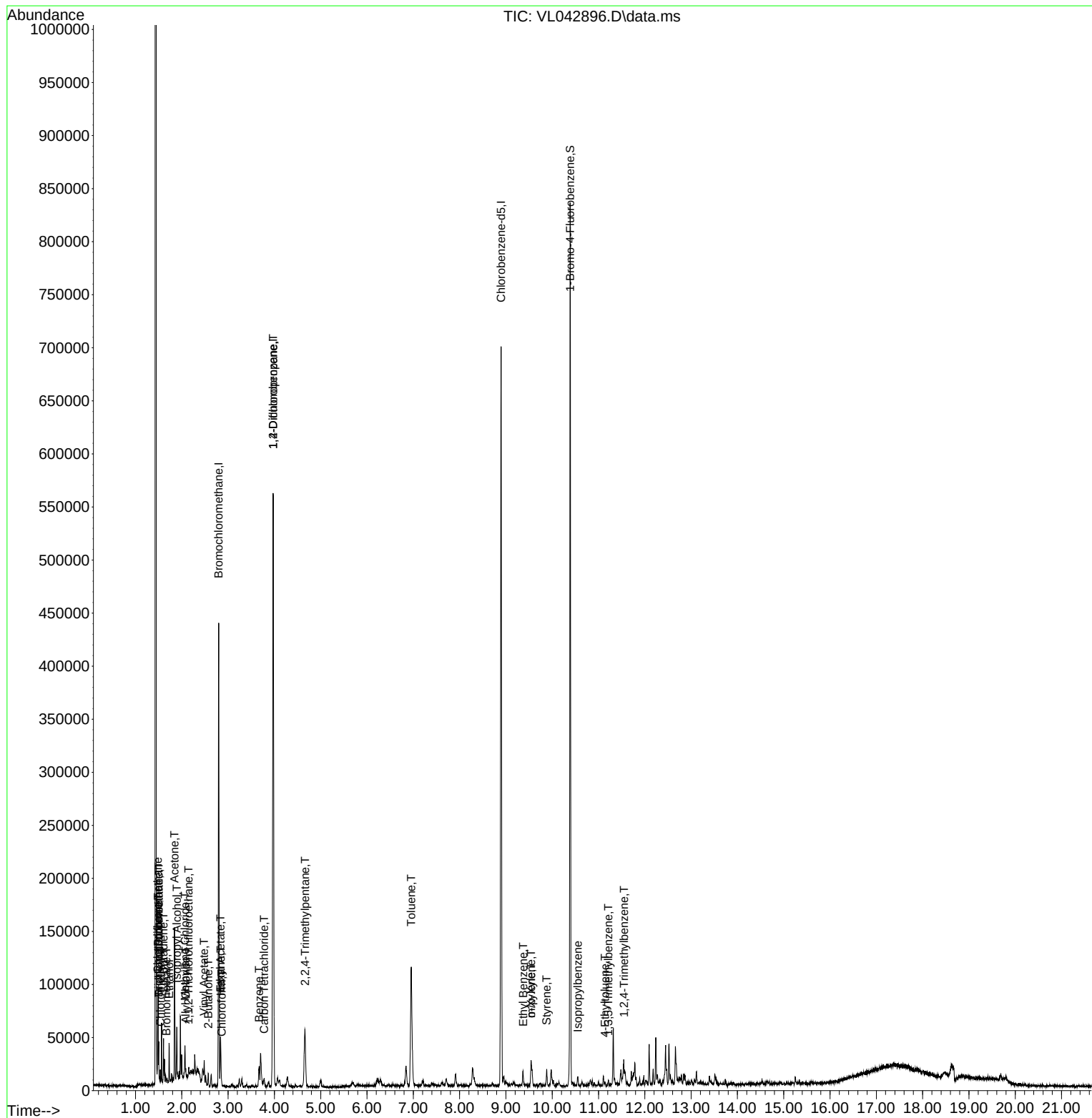
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.502	85	8904	0.498	ppbv	94
3) Chlorodifluoromethane	1.479	51	20069	1.016	ppbv	98
4) Chloromethane	1.538	50	3344	0.464	ppbv	99
6) Bromomethane	1.670	94	138	0.049	ppbv #	4
9) Propene	1.486	41	12586	1.476	ppbv	97
11) Trichlorofluoromethane	1.502	101	858	0.049	ppbv	95
12) 1,1,2-Trichlorotrifluo...	2.146	101	915	0.065	ppbv	91
13) Ethanol	1.725	45	12605	16.166	ppbv	97
15) Acetone	1.842	43	64844	4.022	ppbv	95
16) 1,3-Butadiene	1.606	39	5517	0.755	ppbv #	40
19) Isopropyl Alcohol	1.894	45	20554	2.134	ppbv #	39
20) Methylene Chloride	2.068	84	4141	0.613	ppbv #	75
21) Allyl Chloride	2.085	41	451	0.040	ppbv #	1
23) Vinyl Acetate	2.483	43	5092	0.230	ppbv #	24
25) Ethyl Acetate	2.836	43	10810	0.277	ppbv #	90
26) Hexane	2.839	57	9357	0.519	ppbv #	55
29) Chloroform	2.861	83	833	0.032	ppbv	91
34) 2-Butanone	2.570	43	7209	0.336	ppbv	96
35) Carbon Tetrachloride	3.777	117	1036	0.047	ppbv #	70
36) Benzene	3.671	78	11374	0.374	ppbv	99
39) 1,2-Dichloropropane	3.972	63	85510	7.706	ppbv #	25
44) 2,2,4-Trimethylpentane	4.661	57	42566	0.825	ppbv #	85
53) Toluene	6.953	91	72080	1.995	ppbv	100
58) Ethyl Benzene	9.370	91	6883	0.144	ppbv	92
59) m/p-Xylene	9.545	91	11496	0.308	ppbv #	100
60) o-Xylene	9.545	91	11496	0.306	ppbv	72
61) Styrene	9.878	104	4364	0.248	ppbv	94
62) Isopropylbenzene	10.552	105	3876	0.071	ppbv	98
72) 4-Ethyltoluene	11.138	105	1919	0.042	ppbv #	46
73) 1,3,5-Trimethylbenzene	11.212	105	1502	0.039	ppbv	92
74) 1,2,4-Trimethylbenzene	11.549	105	6066	0.143	ppbv #	63

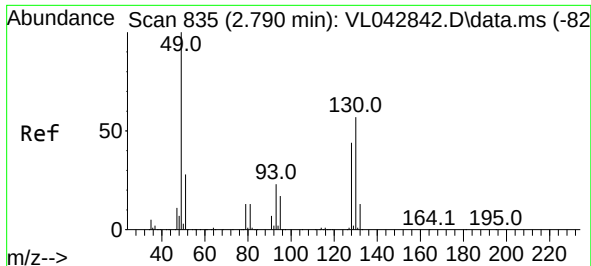
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :

Quant Time: Sep 05 01:25:13 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
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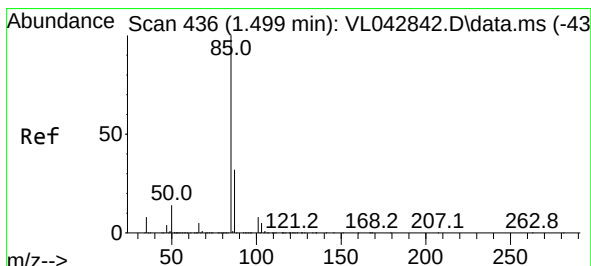
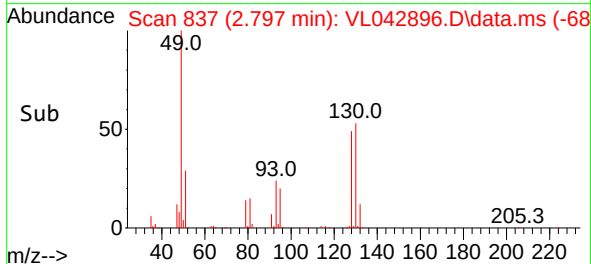
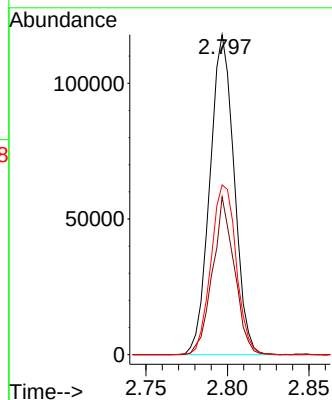
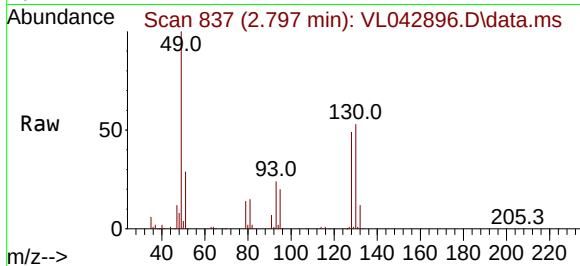




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.797 min Scan# 81
 Delta R.T. 0.007 min
 Lab File: VL042896.D
 Acq: 04 Sep 2025 18:41

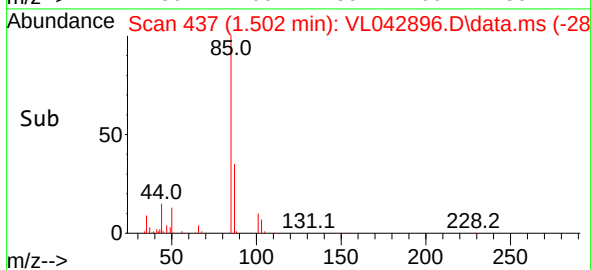
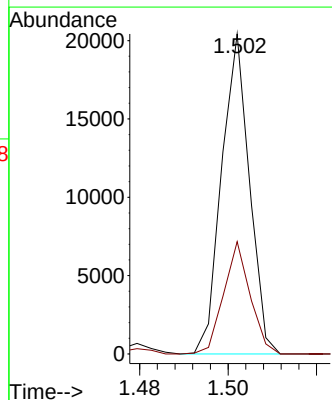
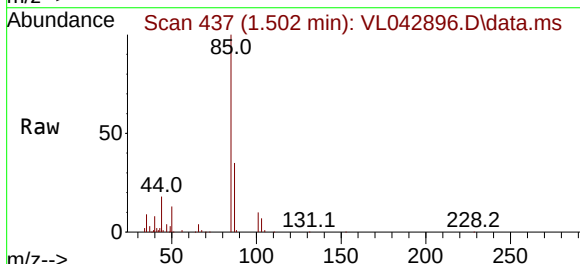
Instrument :
 MSVOA_L
 ClientSampleId :

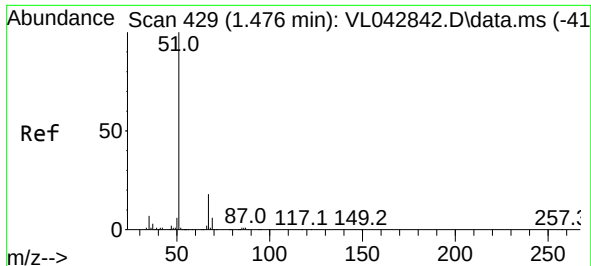
Tgt Ion: 49 Resp: 121887
 Ion Ratio Lower Upper
 49 100
 128 44.5 23.7 71.1
 130 55.3 30.6 91.6



#2
 Dichlorodifluoromethane
 Concen: 0.498 ppbv
 RT: 1.502 min Scan# 437
 Delta R.T. 0.003 min
 Lab File: VL042896.D
 Acq: 04 Sep 2025 18:41

Tgt Ion: 85 Resp: 8904
 Ion Ratio Lower Upper
 85 100
 87 35.1 25.3 37.9

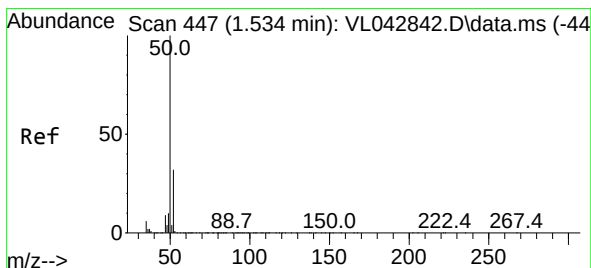
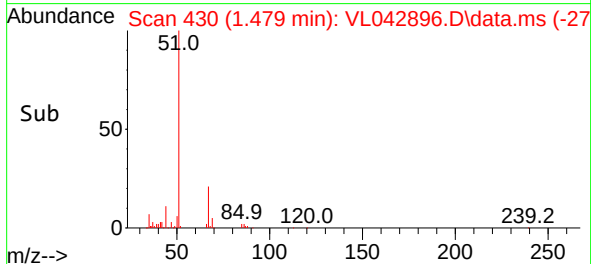
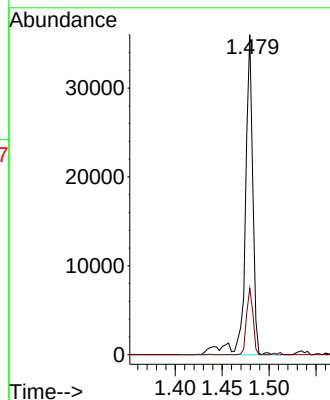
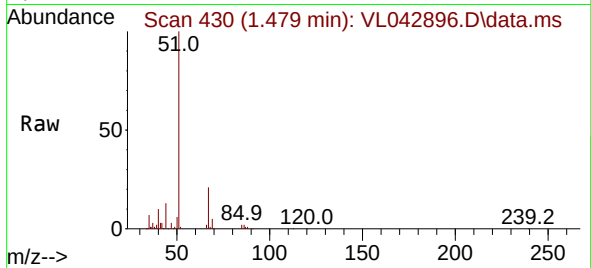




#3
Chlorodifluoromethane
Concen: 1.016 ppbv
RT: 1.479 min Scan# 41
Delta R.T. 0.003 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

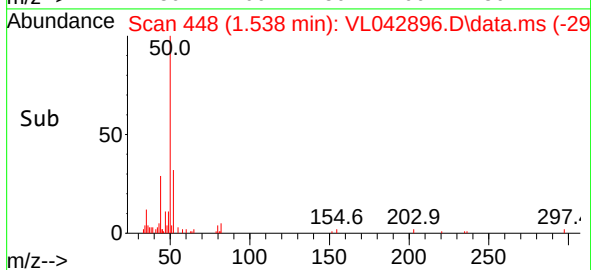
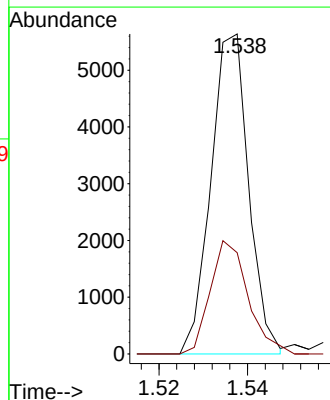
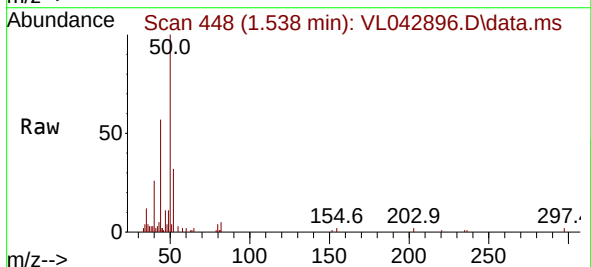
Instrument :
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ClientSampleId :

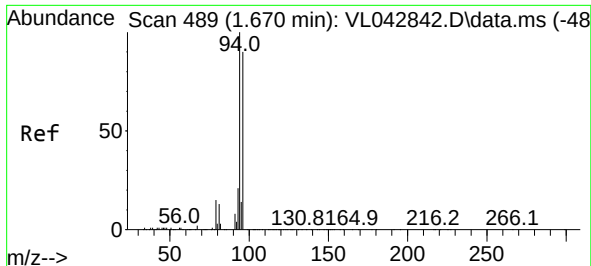
Tgt Ion: 51 Resp: 20069
Ion Ratio Lower Upper
51 100
67 17.7 14.9 22.3



#4
Chloromethane
Concen: 0.464 ppbv
RT: 1.538 min Scan# 448
Delta R.T. 0.003 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

Tgt Ion: 50 Resp: 3344
Ion Ratio Lower Upper
50 100
52 31.7 25.9 38.9

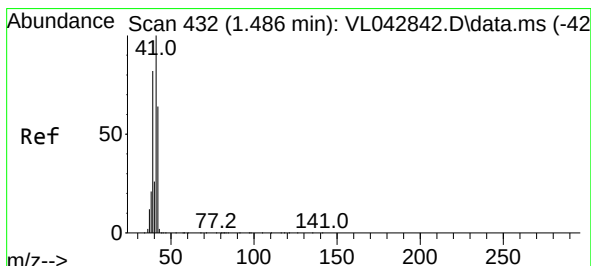
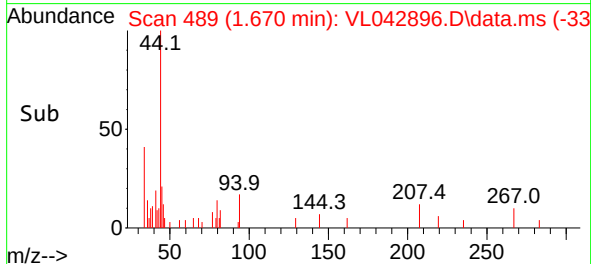
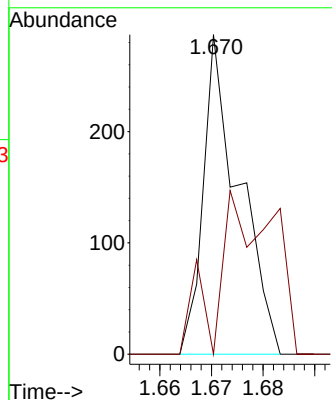
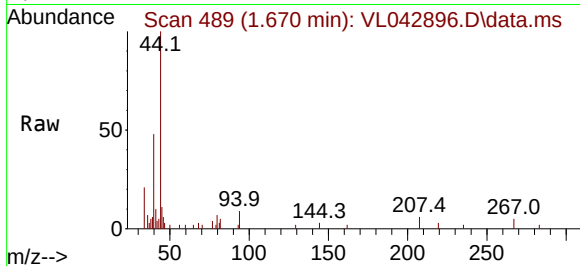




#6
Bromomethane
Concen: 0.049 ppbv
RT: 1.670 min Scan# 489
Delta R.T. -0.000 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

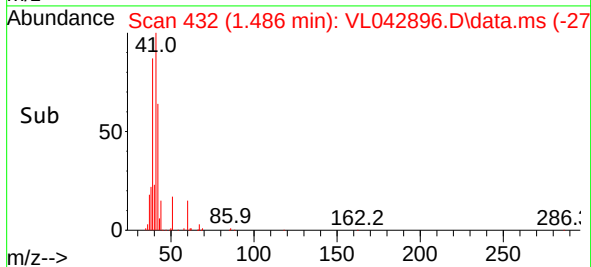
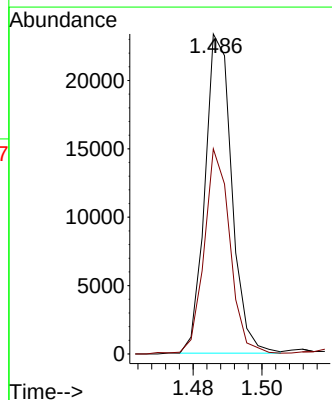
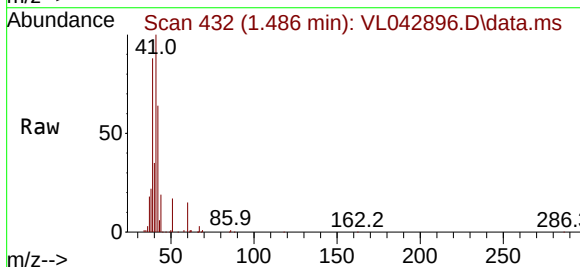
Instrument :
MSVOA_L
ClientSampleId :

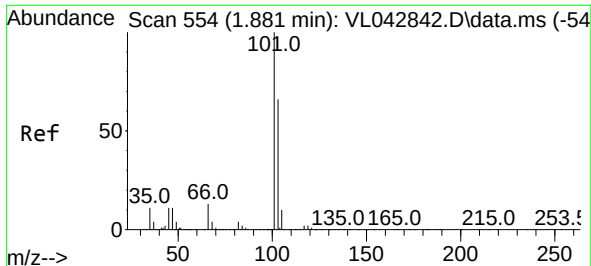
Tgt Ion: 94 Resp: 138
Ion Ratio Lower Upper
94 100
96 0.0 72.1 108.1#



#9
Propene
Concen: 1.476 ppbv
RT: 1.486 min Scan# 432
Delta R.T. -0.000 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

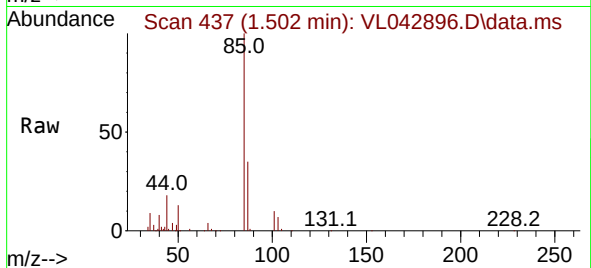
Tgt Ion: 41 Resp: 12586
Ion Ratio Lower Upper
41 100
42 63.5 53.0 79.4



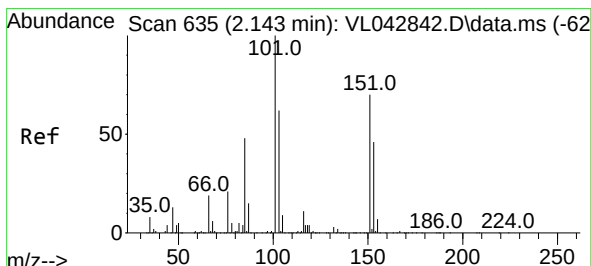
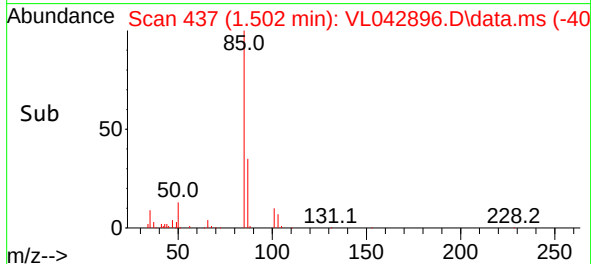
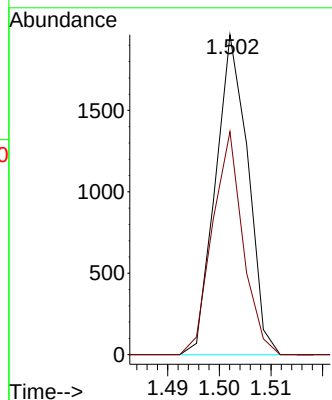


#11
 Trichlorofluoromethane
 Concen: 0.049 ppbv
 RT: 1.502 min Scan# 41
 Delta R.T. -0.379 min
 Lab File: VL042896.D
 Acq: 04 Sep 2025 18:41

Instrument :
 MSVOA_L
 ClientSampleId :

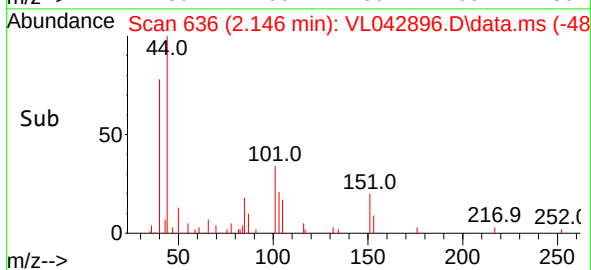
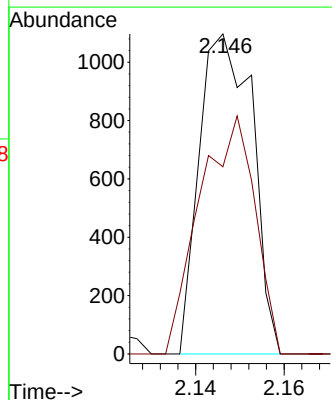
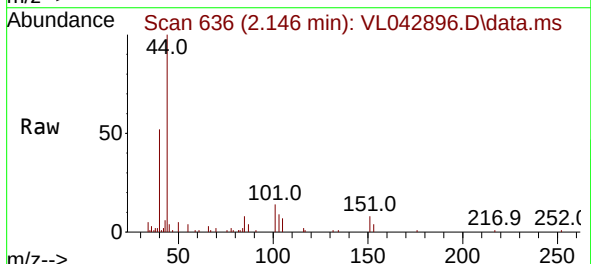


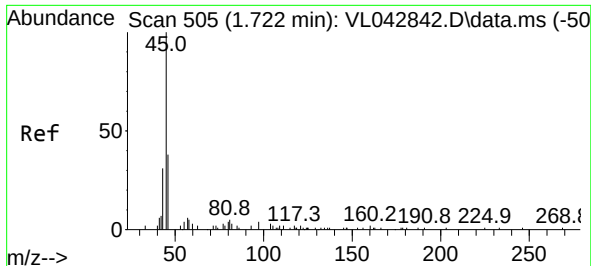
Tgt Ion:101 Resp: 858
 Ion Ratio Lower Upper
 101 100
 103 69.7 52.5 78.7



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.065 ppbv
 RT: 2.146 min Scan# 636
 Delta R.T. 0.003 min
 Lab File: VL042896.D
 Acq: 04 Sep 2025 18:41

Tgt Ion:101 Resp: 915
 Ion Ratio Lower Upper
 101 100
 151 77.6 56.4 84.6

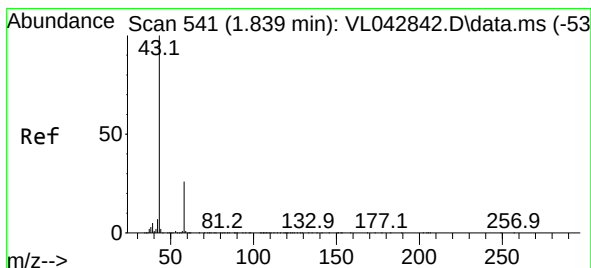
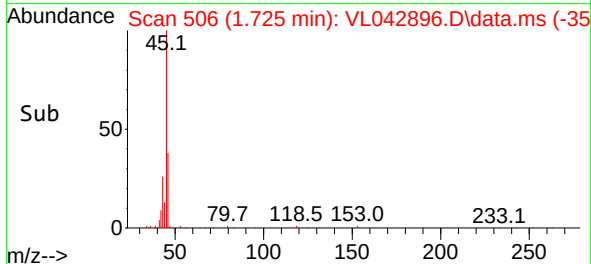
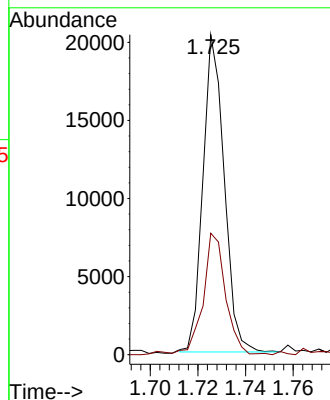
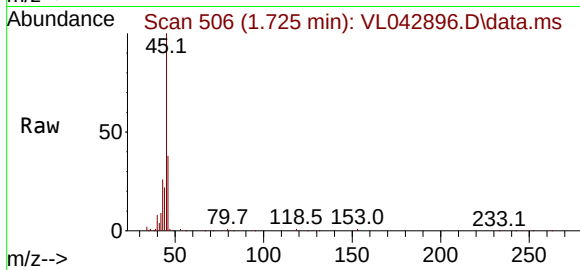




#13
Ethanol
Concen: 16.166 ppbv
RT: 1.725 min Scan# 505
Delta R.T. 0.003 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

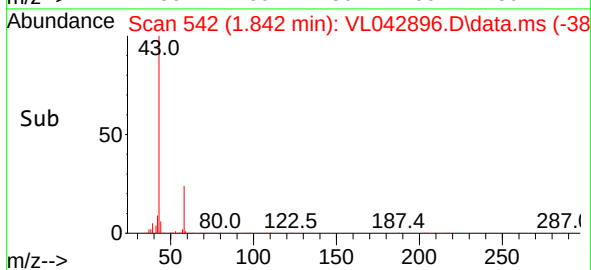
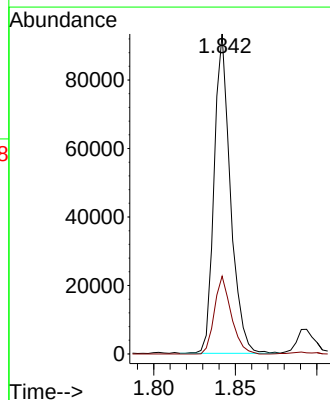
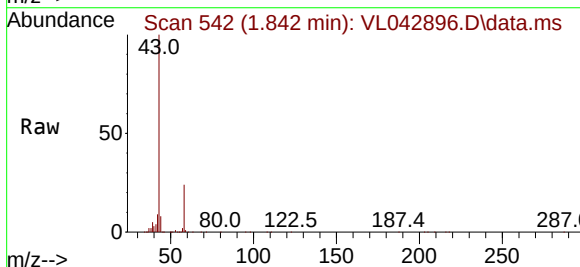
Instrument :
MSVOA_1
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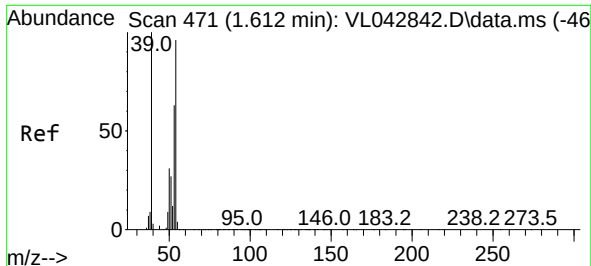
Tgt Ion: 45 Resp: 12605
Ion Ratio Lower Upper
45 100
46 41.5 17.5 69.9



#15
Acetone
Concen: 4.022 ppbv
RT: 1.842 min Scan# 542
Delta R.T. 0.003 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

Tgt Ion: 43 Resp: 64844
Ion Ratio Lower Upper
43 100
58 25.1 22.4 33.6

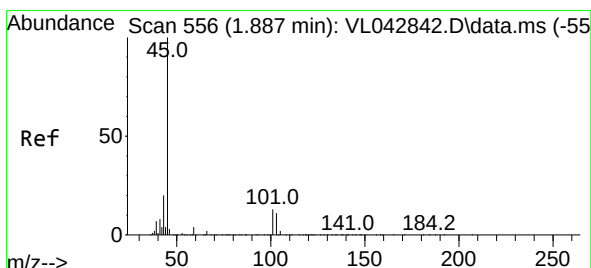
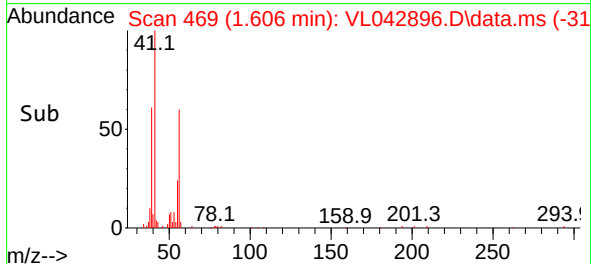
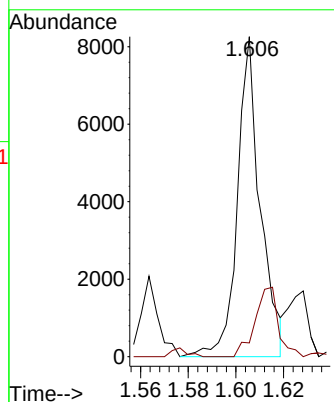
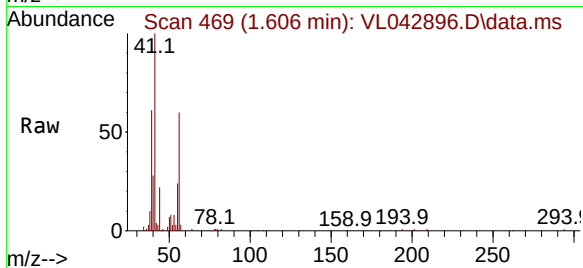




#16
1,3-Butadiene
Concen: 0.755 ppbv
RT: 1.606 min Scan# 41
Delta R.T. -0.007 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

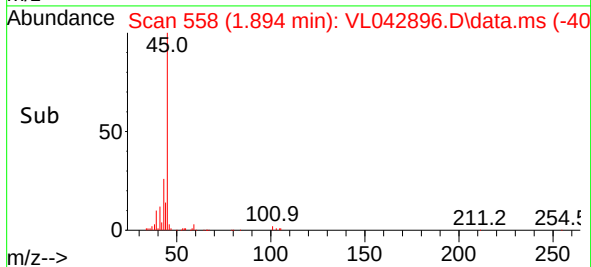
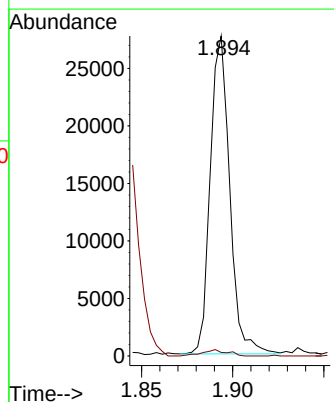
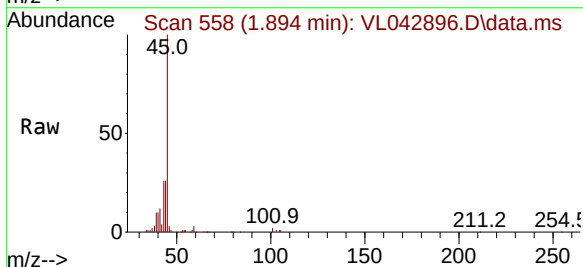
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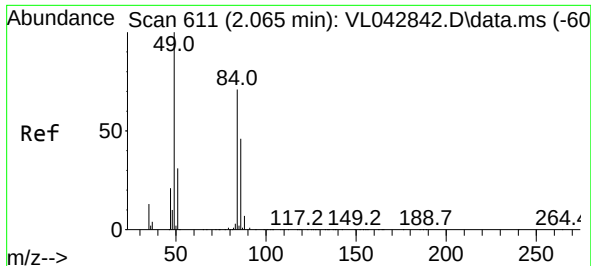
Tgt Ion: 39 Resp: 5517
Ion Ratio Lower Upper
39 100
54 26.4 63.6 95.4#



#19
Isopropyl Alcohol
Concen: 2.134 ppbv
RT: 1.894 min Scan# 558
Delta R.T. 0.006 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

Tgt Ion: 45 Resp: 20554
Ion Ratio Lower Upper
45 100
58 79.3 32.7 49.1#

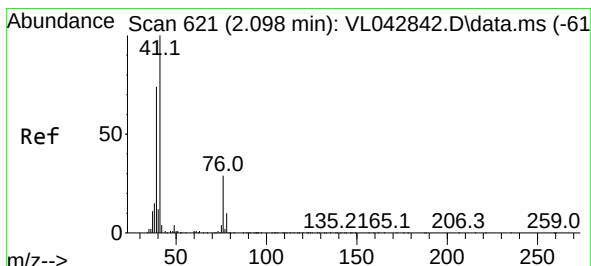
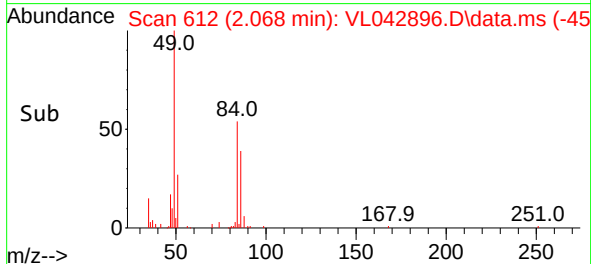
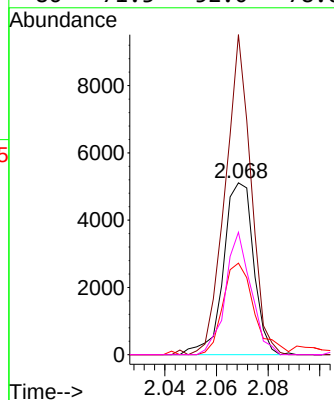
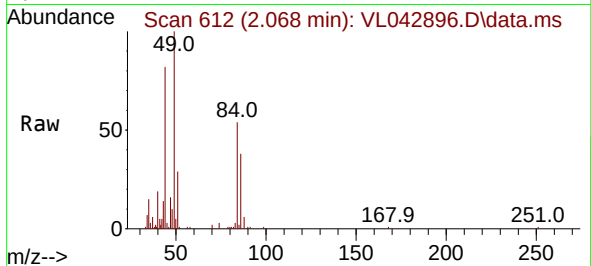




#20
Methylene Chloride
Concen: 0.613 ppbv
RT: 2.068 min Scan# 611
Delta R.T. 0.003 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

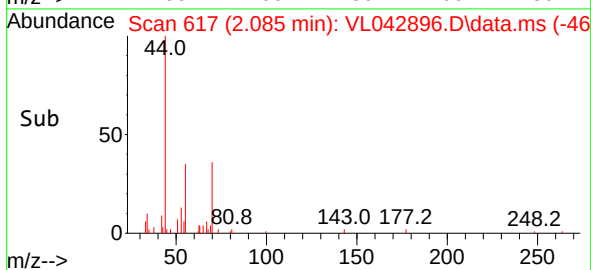
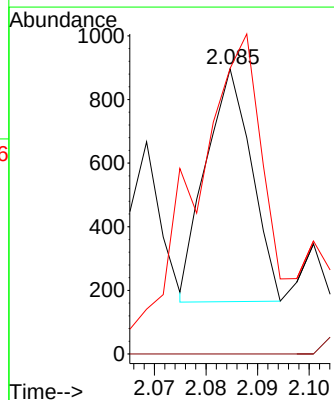
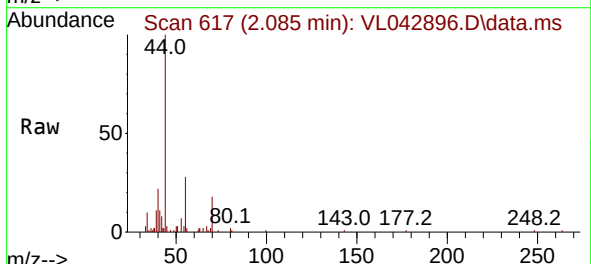
Instrument :
MSVOA_L
ClientSampleId :

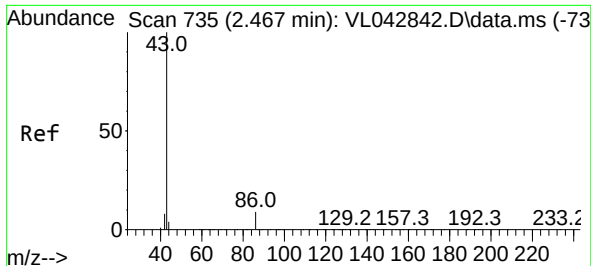
Tgt Ion: 84 Resp: 4141
Ion Ratio Lower Upper
84 100
49 185.0 112.3 168.5#
51 53.3 36.0 54.0
86 71.3 52.0 78.0



#21
Allyl Chloride
Concen: 0.040 ppbv
RT: 2.085 min Scan# 617
Delta R.T. -0.013 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

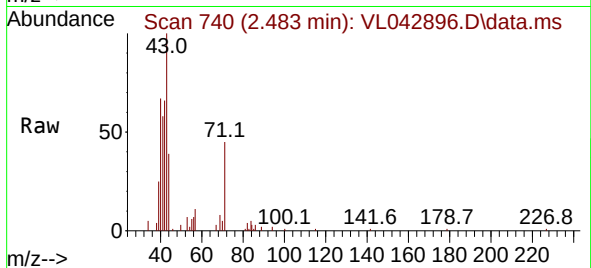
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Ion Ratio Lower Upper
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39 252.3 57.8 86.6#





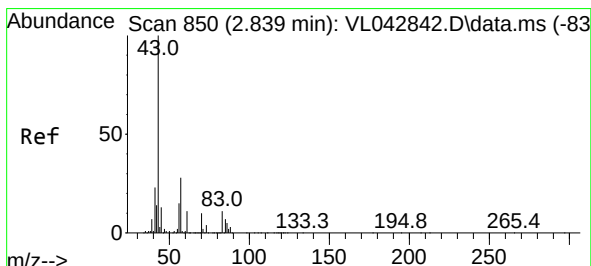
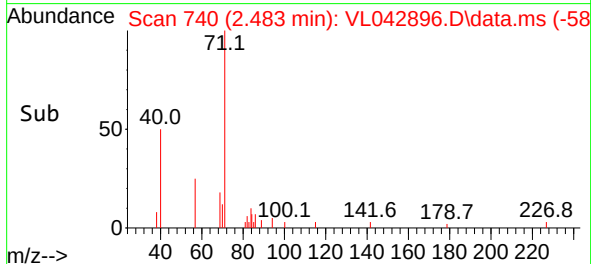
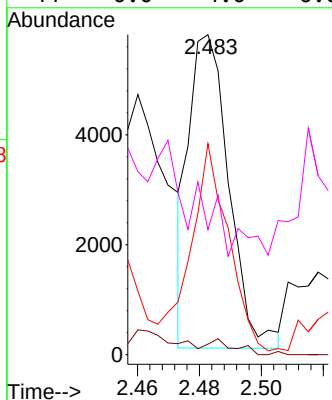
#23
 Vinyl Acetate
 Concen: 0.230 ppbv
 RT: 2.483 min Scan# 741
 Delta R.T. 0.016 min
 Lab File: VL042896.D
 Acq: 04 Sep 2025 18:41

Instrument :
 MSVOA_L
 ClientSampleId :



Tgt Ion: 43 Resp: 5092

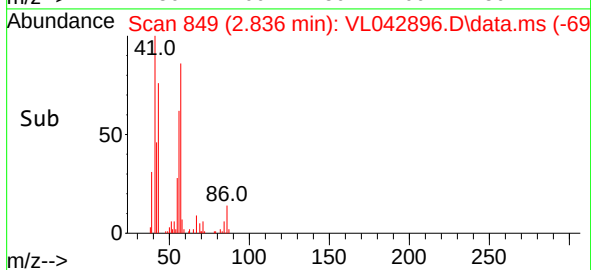
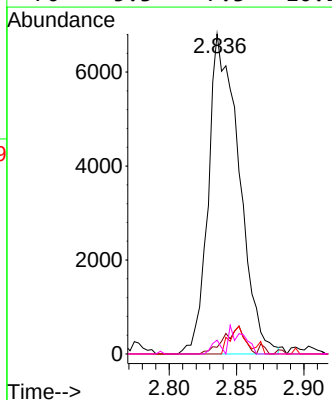
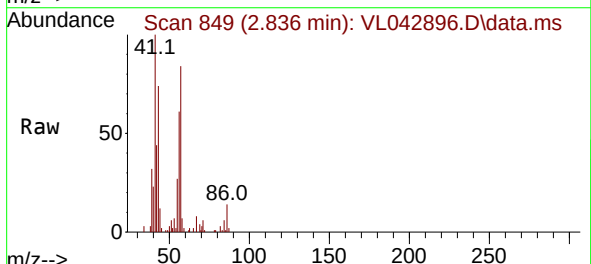
Ion	Ratio	Lower	Upper
43	100		
86	2.5	6.6	9.8#
42	68.9	7.0	10.6#
44	0.0	4.0	6.0#

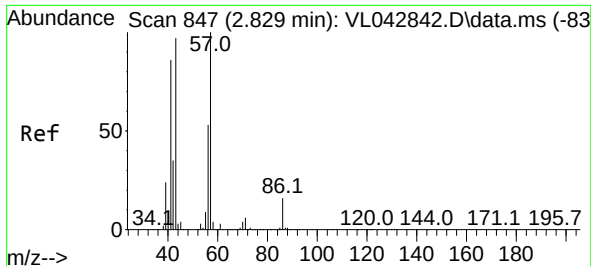


#25
 Ethyl Acetate
 Concen: 0.277 ppbv
 RT: 2.836 min Scan# 849
 Delta R.T. -0.003 min
 Lab File: VL042896.D
 Acq: 04 Sep 2025 18:41

Tgt Ion: 43 Resp: 10810

Ion	Ratio	Lower	Upper
43	100		
45	6.6	8.1	12.1#
61	5.0	7.4	11.2#
70	5.3	7.3	10.9#

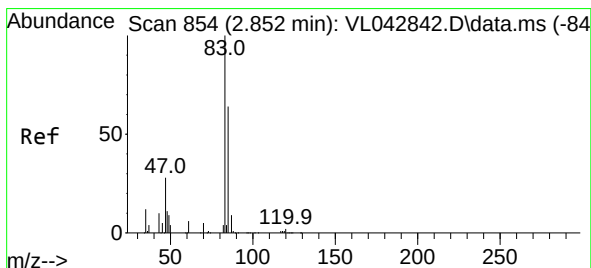
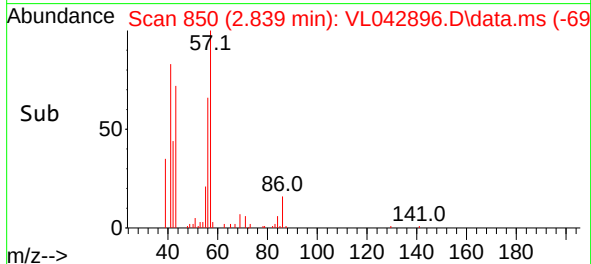
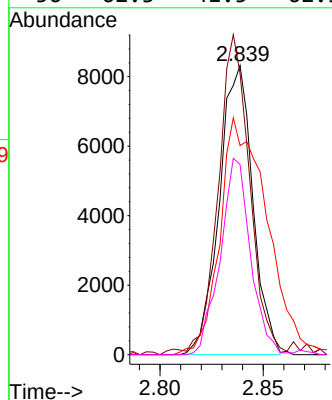
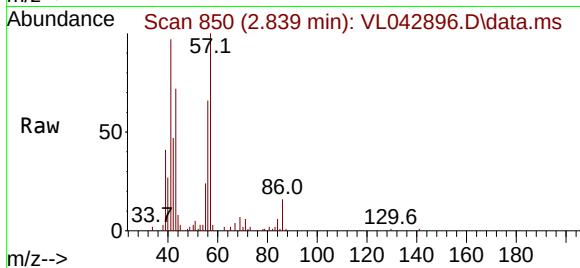




#26
Hexane
Concen: 0.519 ppbv
RT: 2.839 min Scan# 81
Delta R.T. 0.010 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

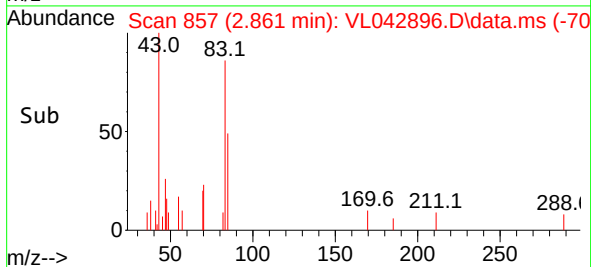
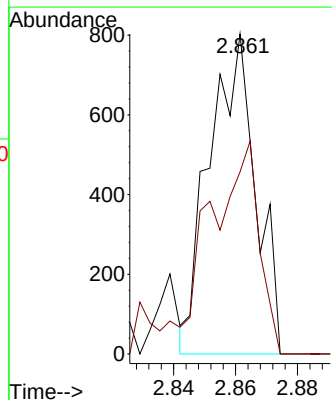
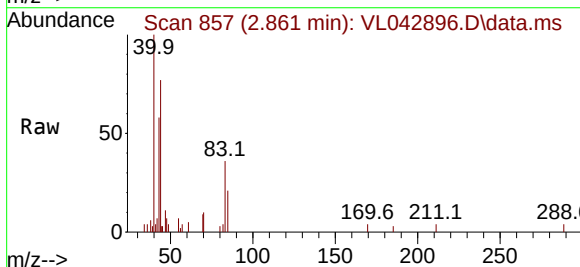
Instrument :
MSVOA_L
ClientSampleId :

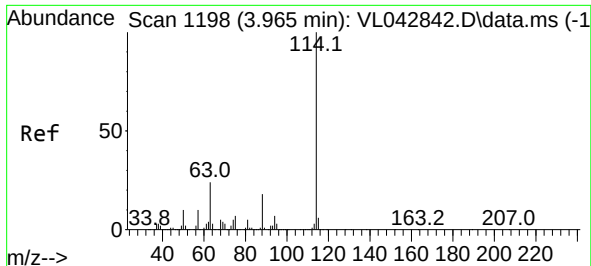
Tgt Ion: 57 Resp: 9357
Ion Ratio Lower Upper
57 100
41 109.0 68.6 103.0#
43 115.8 168.5 252.7#
56 62.3 41.5 62.3



#29
Chloroform
Concen: 0.032 ppbv
RT: 2.861 min Scan# 857
Delta R.T. 0.010 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

Tgt Ion: 83 Resp: 833
Ion Ratio Lower Upper
83 100
85 56.9 51.1 76.7

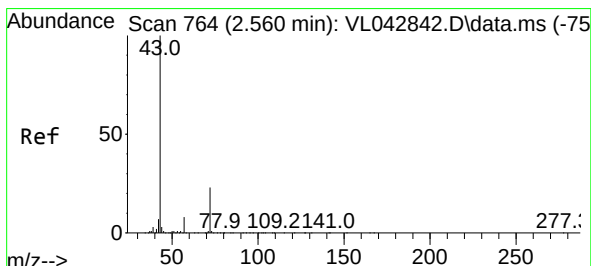
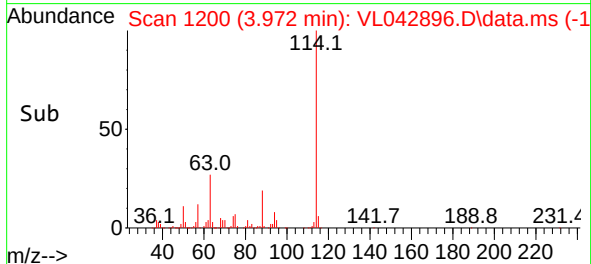
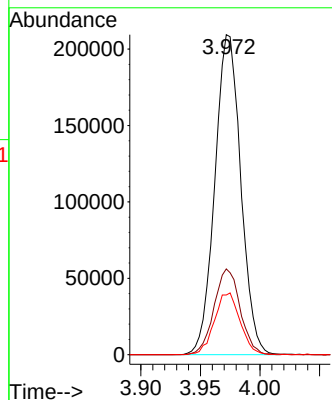
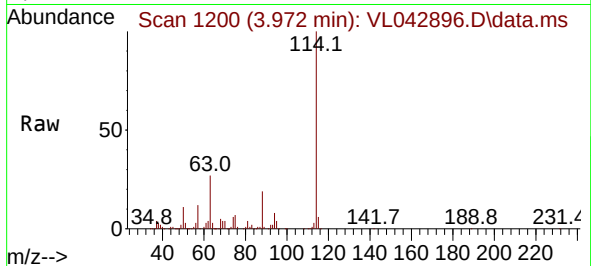




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 3.972 min Scan# 1198
 Delta R.T. 0.006 min
 Lab File: VL042896.D
 Acq: 04 Sep 2025 18:41

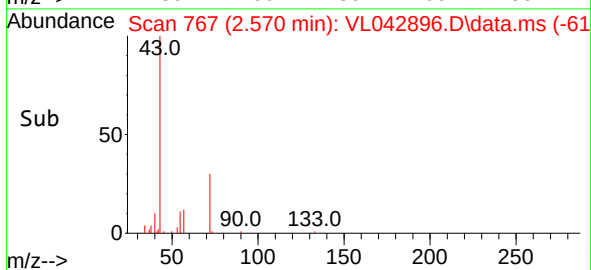
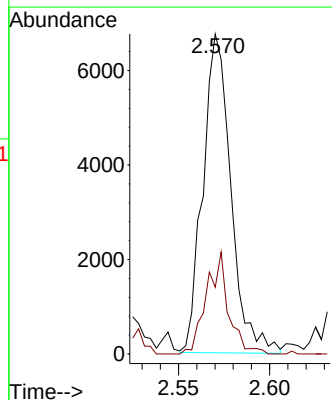
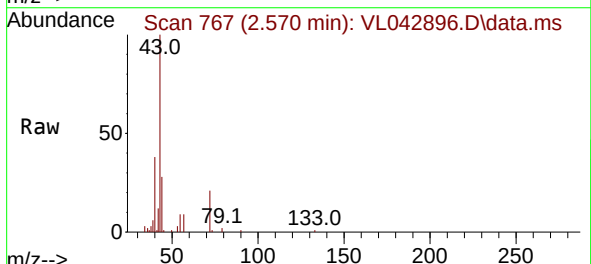
Instrument :
 MSVOA_L
 ClientSampleId :

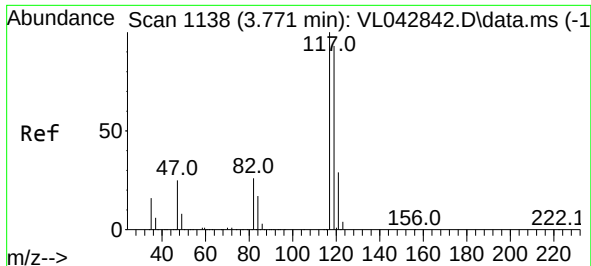
Tgt Ion:114 Resp: 317296
 Ion Ratio Lower Upper
 114 100
 63 27.0 19.7 29.5
 88 19.1 14.4 21.6



#34
 2-Butanone
 Concen: 0.336 ppbv
 RT: 2.570 min Scan# 767
 Delta R.T. 0.010 min
 Lab File: VL042896.D
 Acq: 04 Sep 2025 18:41

Tgt Ion: 43 Resp: 7209
 Ion Ratio Lower Upper
 43 100
 72 25.3 18.6 28.0

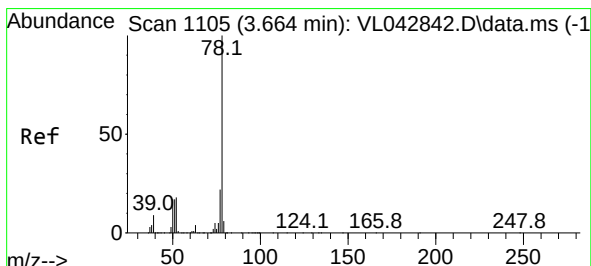
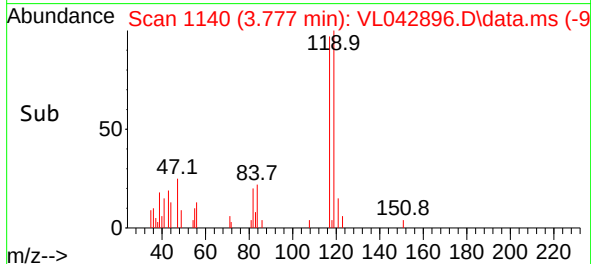
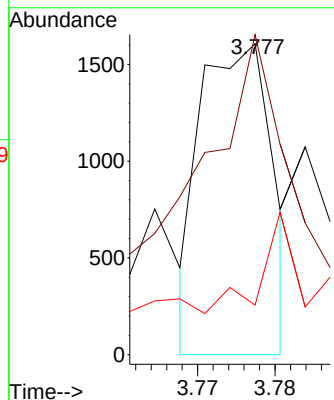
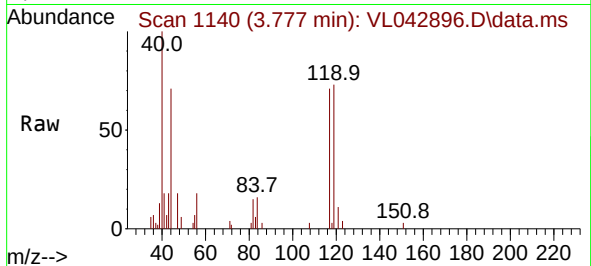




#35
Carbon Tetrachloride
Concen: 0.047 ppbv
RT: 3.777 min Scan# 1138
Delta R.T. 0.006 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

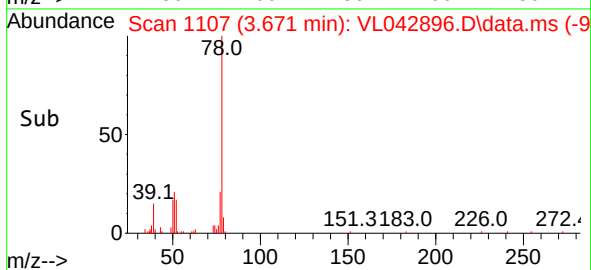
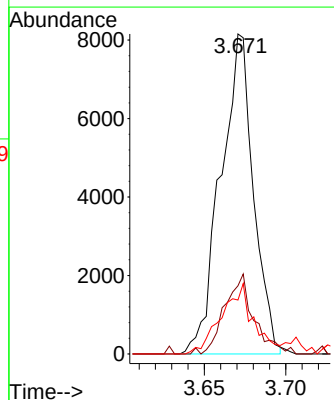
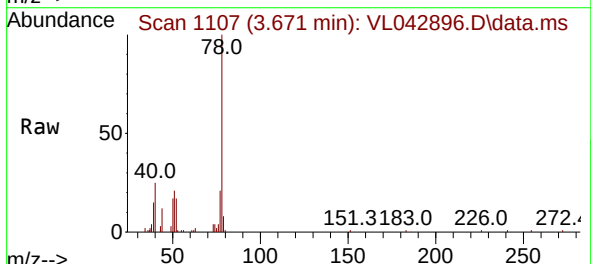
Instrument :
MSVOA_L
ClientSampleId :

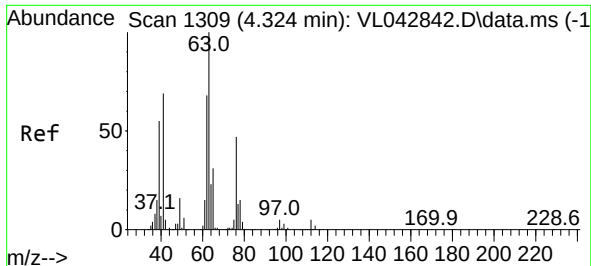
Tgt Ion:117 Resp: 1036
Ion Ratio Lower Upper
117 100
119 72.2 74.7 112.1#
121 0.0 23.2 34.8#



#36
Benzene
Concen: 0.374 ppbv
RT: 3.671 min Scan# 1107
Delta R.T. 0.006 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

Tgt Ion: 78 Resp: 11374
Ion Ratio Lower Upper
78 100
77 21.3 17.7 26.5
50 16.8 13.9 20.9





#39

1,2-Dichloropropane

Concen: 7.706 ppbv

RT: 3.972 min Scan# 11

Delta R.T. -0.353 min

Lab File: VL042896.D

Acq: 04 Sep 2025 18:41

Instrument :

MSVOA_L

ClientSampleId :

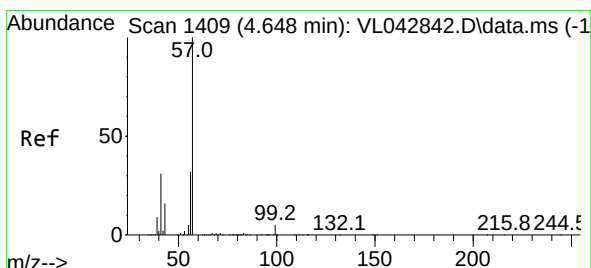
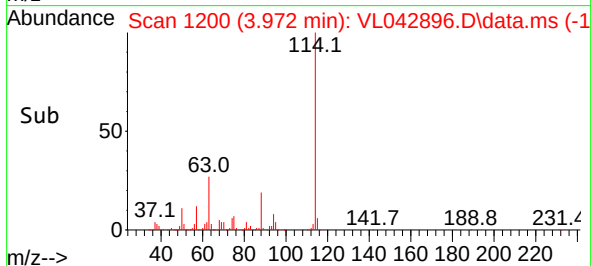
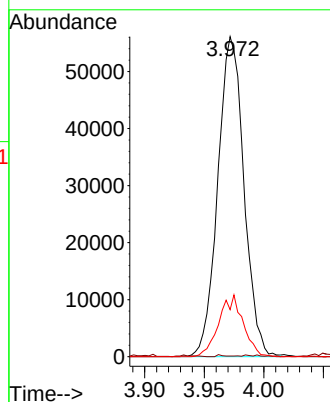
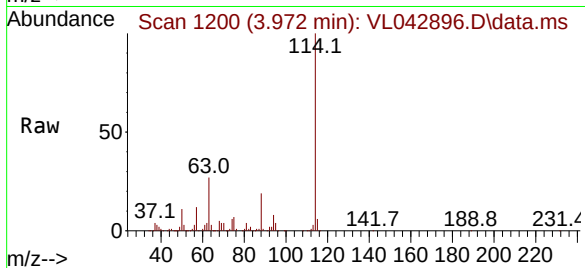
Tgt Ion: 63 Resp: 85510

Ion Ratio Lower Upper

63 100

41 0.2 55.0 82.4#

62 14.7 54.4 81.6#



#44

2,2,4-Trimethylpentane

Concen: 0.825 ppbv

RT: 4.661 min Scan# 1413

Delta R.T. 0.013 min

Lab File: VL042896.D

Acq: 04 Sep 2025 18:41

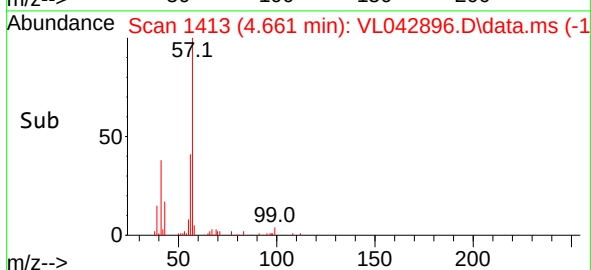
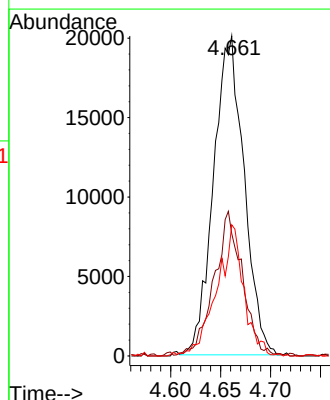
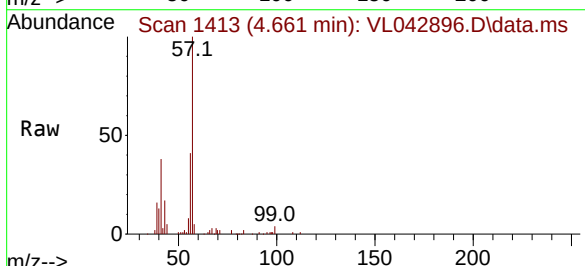
Tgt Ion: 57 Resp: 42566

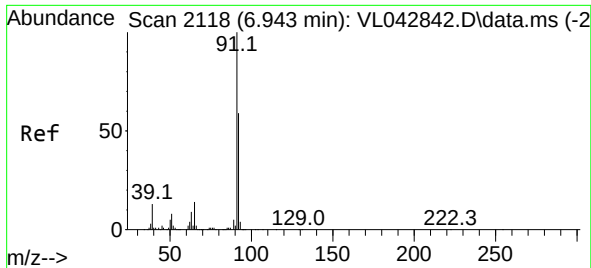
Ion Ratio Lower Upper

57 100

41 42.4 24.8 37.2#

56 36.6 25.5 38.3





#53

Toluene

Concen: 1.995 ppbv

RT: 6.953 min Scan# 2118

Delta R.T. 0.010 min

Lab File: VL042896.D

Acq: 04 Sep 2025 18:41

Instrument :

MSVOA_L

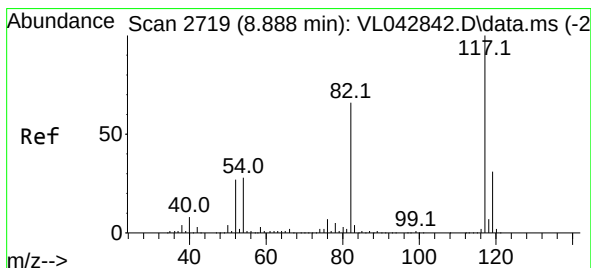
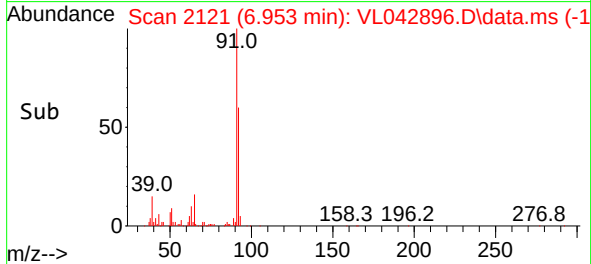
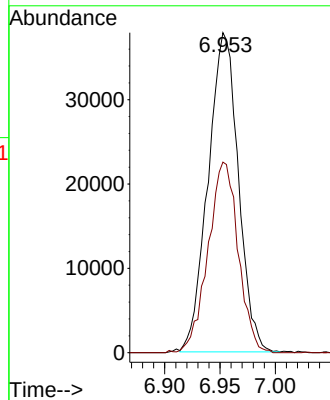
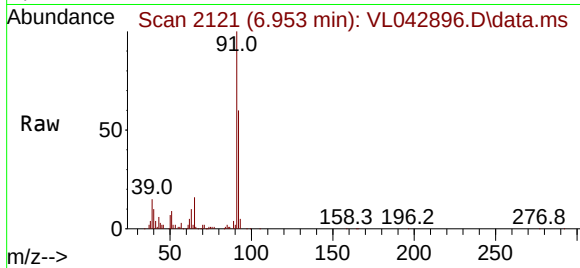
ClientSampleId :

Tgt Ion: 91 Resp: 72080

Ion Ratio Lower Upper

91 100

92 59.5 47.8 71.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 8.895 min Scan# 2721

Delta R.T. 0.006 min

Lab File: VL042896.D

Acq: 04 Sep 2025 18:41

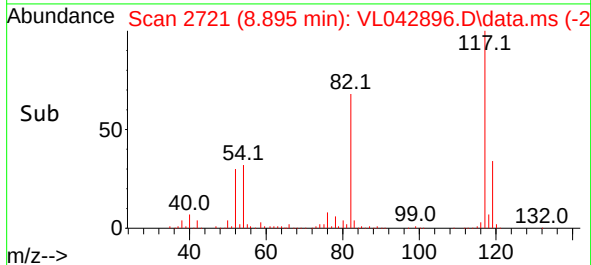
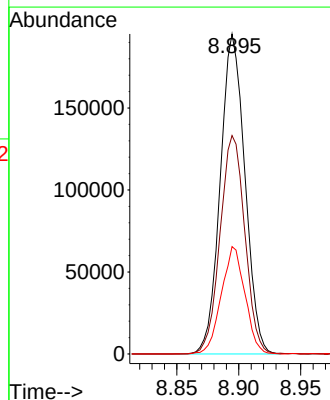
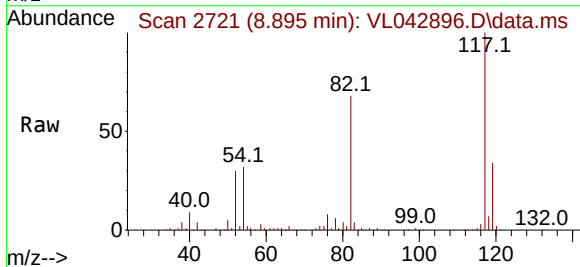
Tgt Ion: 117 Resp: 269956

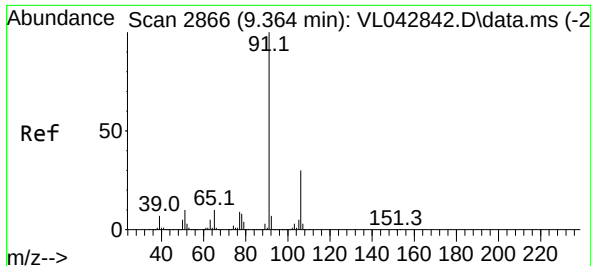
Ion Ratio Lower Upper

117 100

82 68.8 54.6 81.8

119 32.3 25.9 38.9

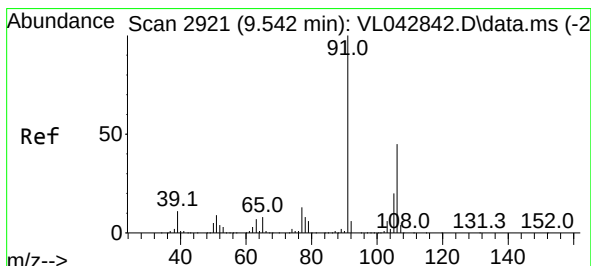
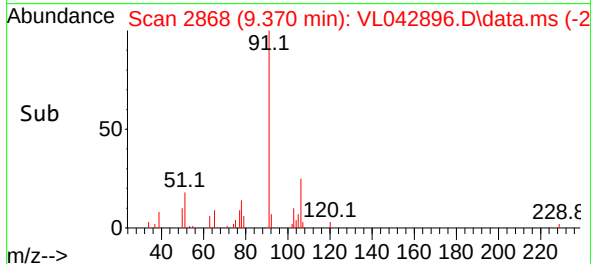
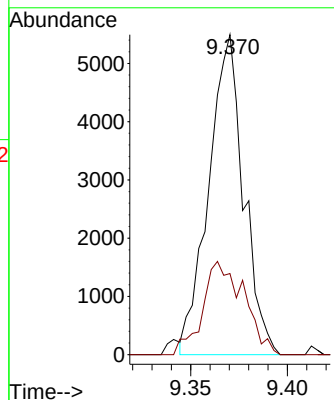
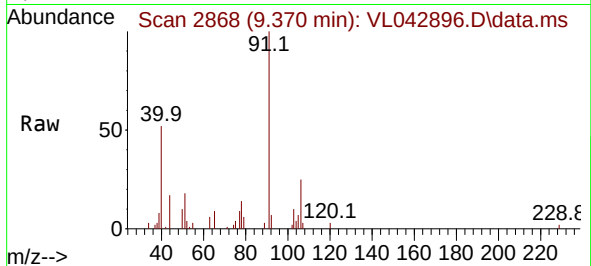




#58
Ethyl Benzene
Concen: 0.144 ppbv
RT: 9.370 min Scan# 21
Delta R.T. 0.006 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

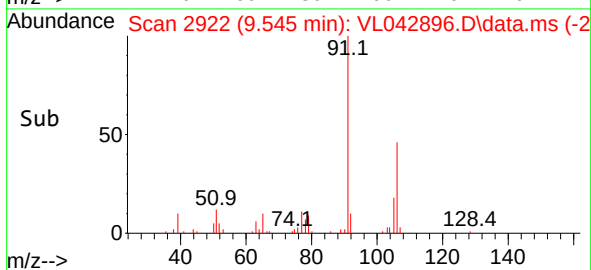
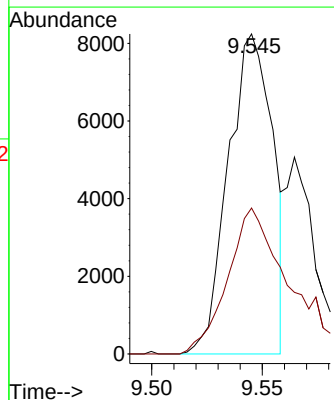
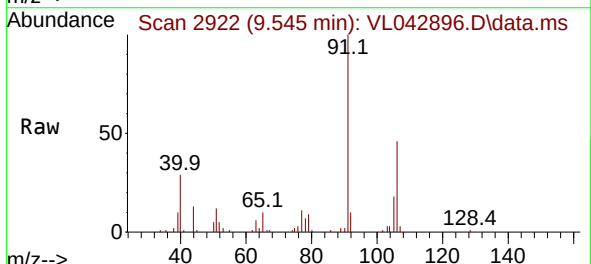
Instrument :
MSVOA_1
ClientSampleId :

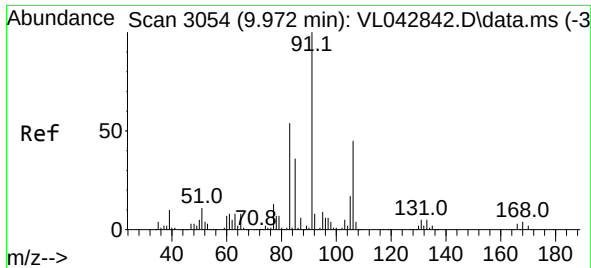
Tgt Ion: 91 Resp: 6883
Ion Ratio Lower Upper
91 100
106 25.3 23.9 35.9



#59
m/p-Xylene
Concen: 0.308 ppbv
RT: 9.545 min Scan# 2922
Delta R.T. 0.003 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

Tgt Ion: 91 Resp: 11496
Ion Ratio Lower Upper
91 100
106 61.5 0.0 0.0#

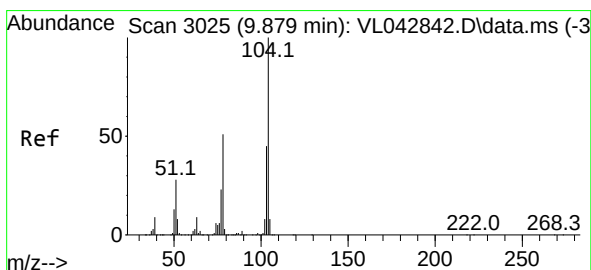
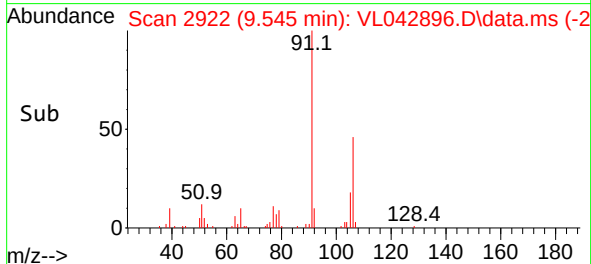
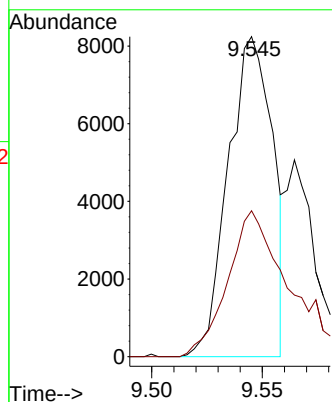
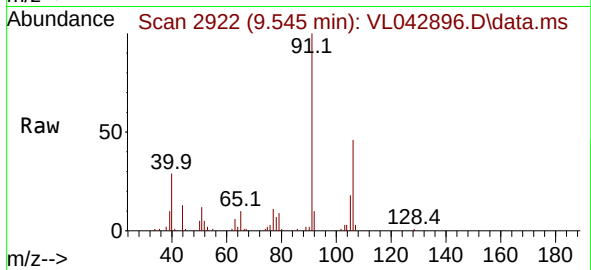




#60
o-Xylene
Concen: 0.306 ppbv
RT: 9.545 min Scan# 2922
Delta R.T. -0.427 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

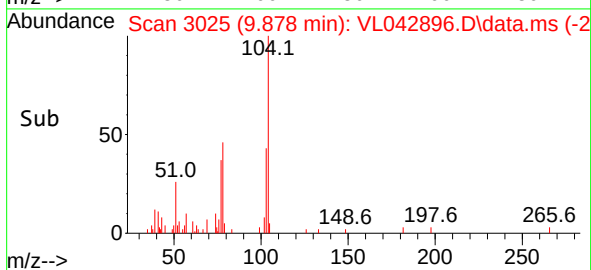
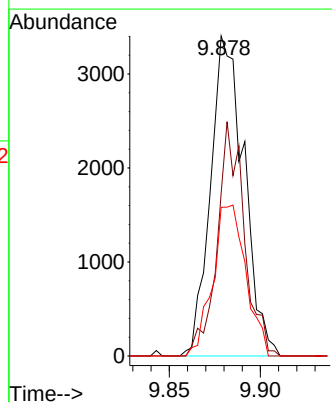
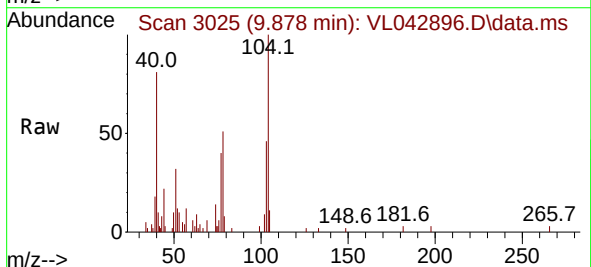
Instrument :
MSVOA_L
ClientSampleId :

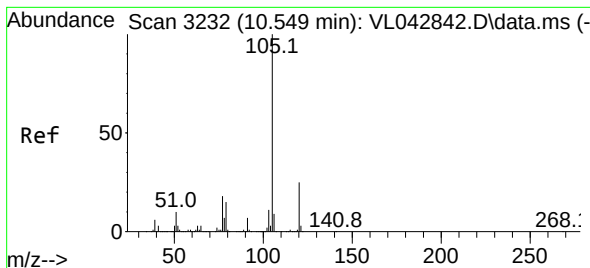
Tgt Ion: 91 Resp: 11496
Ion Ratio Lower Upper
91 100
106 61.5 21.8 65.4



#61
Styrene
Concen: 0.248 ppbv
RT: 9.878 min Scan# 3025
Delta R.T. -0.000 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

Tgt Ion:104 Resp: 4364
Ion Ratio Lower Upper
104 100
78 58.7 40.6 61.0
103 46.4 37.7 56.5





#62

Isopropylbenzene

Concen: 0.071 ppbv

RT: 10.552 min Scan# 31

Delta R.T. 0.003 min

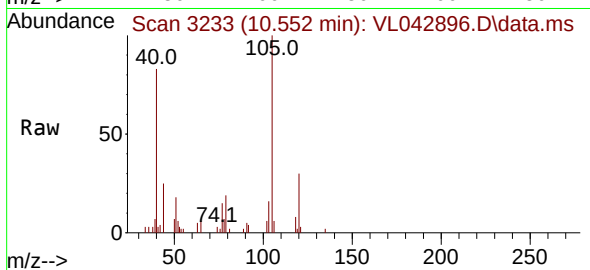
Lab File: VL042896.D

Acq: 04 Sep 2025 18:41

Instrument :

MSVOA_L

ClientSampleId :

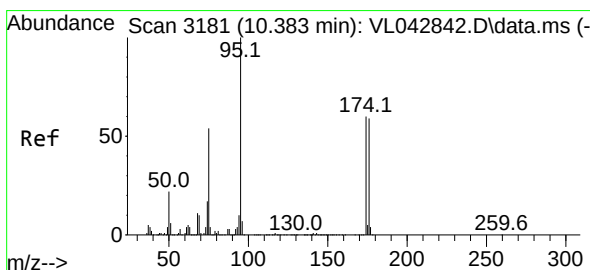
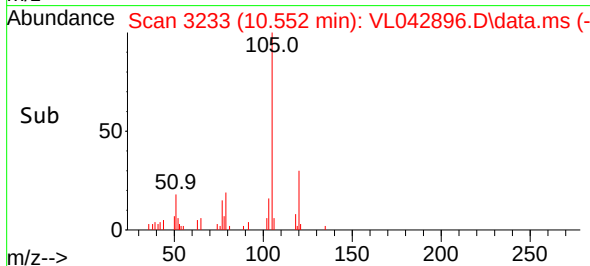
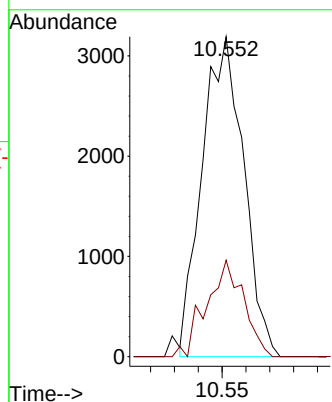


Tgt Ion:105 Resp: 3876

Ion Ratio Lower Upper

105 100

120 26.7 20.6 30.8



#68

1-Bromo-4-Fluorobenzene

Concen: 10.495 ppbv

RT: 10.387 min Scan# 3182

Delta R.T. 0.003 min

Lab File: VL042896.D

Acq: 04 Sep 2025 18:41

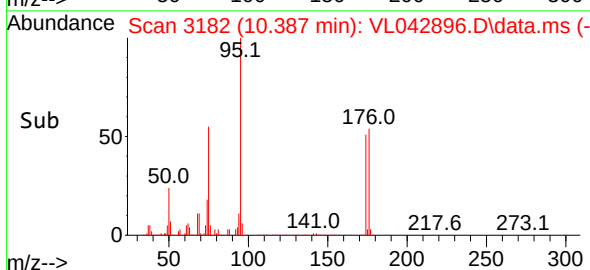
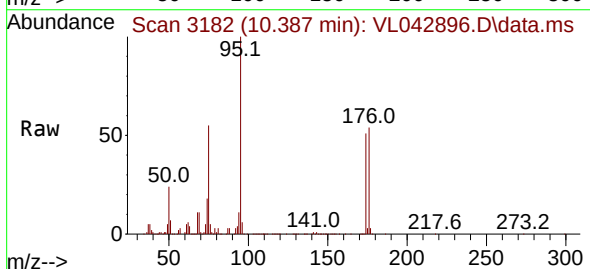
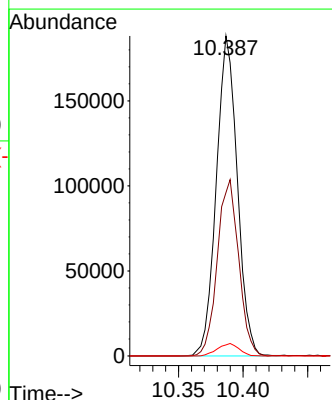
Tgt Ion: 95 Resp: 212487

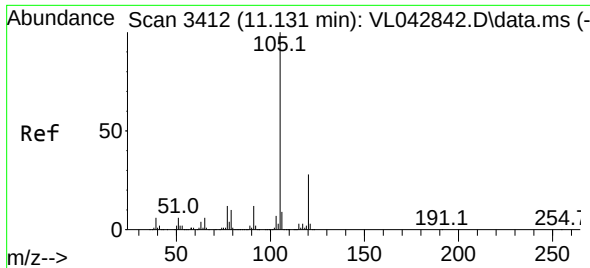
Ion Ratio Lower Upper

95 100

174 56.3 48.4 72.6

175 4.0 3.8 5.8

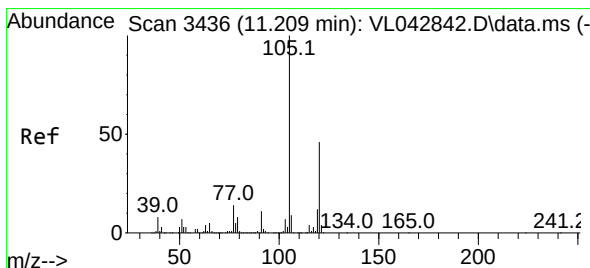
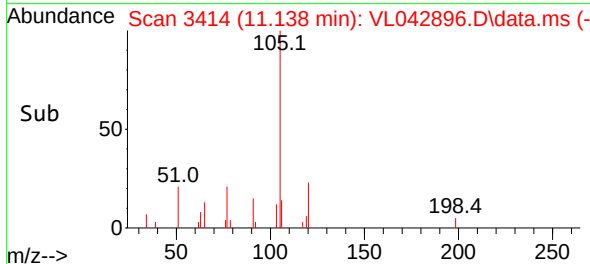
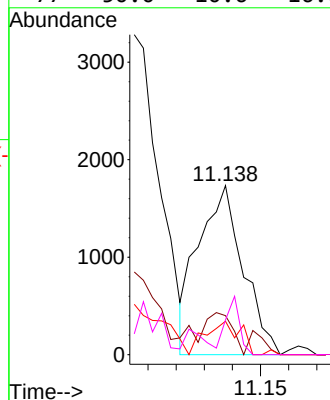
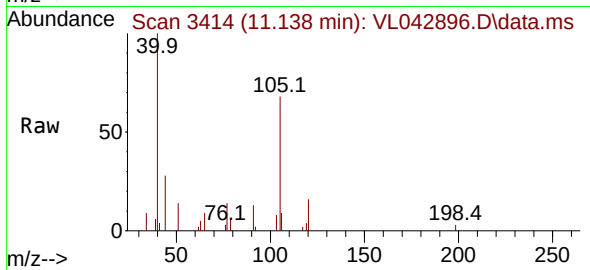




#72
4-Ethyltoluene
Concen: 0.042 ppbv
RT: 11.138 min Scan# 3412
Delta R.T. 0.006 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

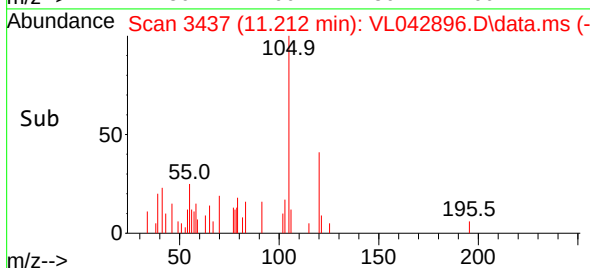
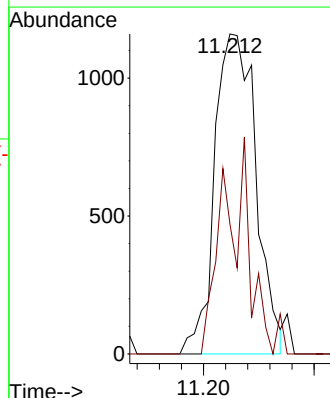
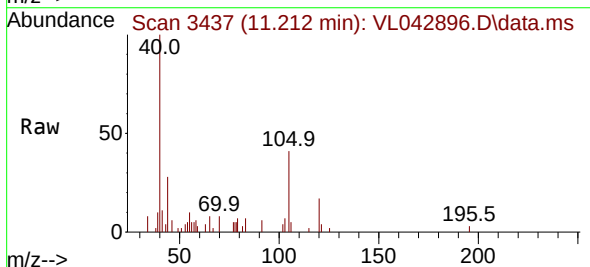
Instrument :
MSVOA_L
ClientSampleId :

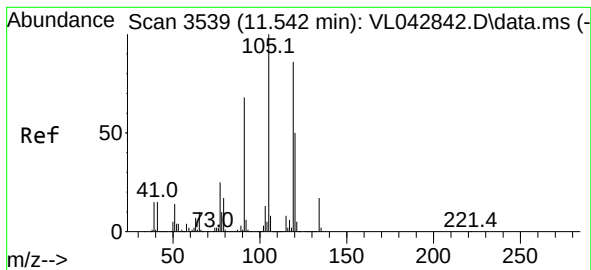
Tgt Ion	Ratio	Lower	Upper
105	100		
120	0.0	23.4	35.2#
91	15.8	9.8	14.6#
77	50.0	10.6	16.0#



#73
1,3,5-Trimethylbenzene
Concen: 0.039 ppbv
RT: 11.212 min Scan# 3437
Delta R.T. 0.003 min
Lab File: VL042896.D
Acq: 04 Sep 2025 18:41

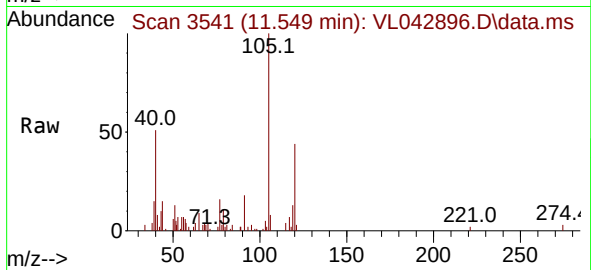
Tgt Ion	Ratio	Lower	Upper
105	100		
120	40.5	36.6	54.8





#74
 1,2,4-Trimethylbenzene
 Concen: 0.143 ppbv
 RT: 11.549 min Scan# 31
 Delta R.T. 0.006 min
 Lab File: VL042896.D
 Acq: 04 Sep 2025 18:41

Instrument :
 MSVOA_L
 ClientSampleId :



Tgt Ion:	105	Resp:	6066
Ion	Ratio	Lower	Upper
105	100		
120	44.4	39.8	59.6
91	16.4	54.2	81.4#
77	14.1	19.8	29.6#

