

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL100825\
 Data File : VL043074.D
 Acq On : 09 Oct 2025 00:22
 Operator : SY/MD
 Sample : Q3320-05
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

Quant Time: Oct 09 01:26:56 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL100225AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Oct 03 08:23:34 2025
 Response via : Initial Calibration

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

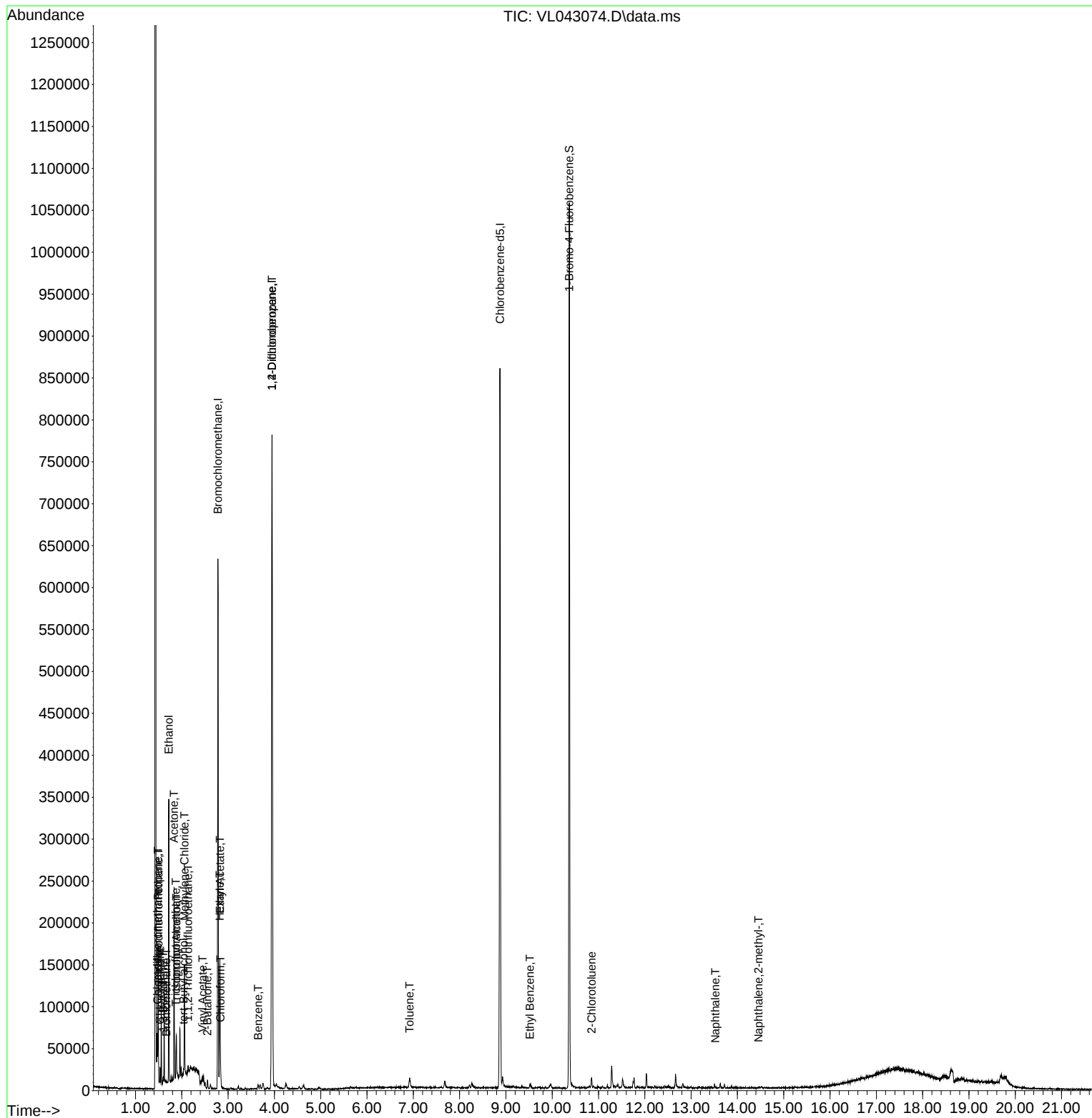
Internal Standards						
1) Bromochloromethane	2.781	49	167022	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.949	114	426656	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.872	117	339471	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.367	95	238110	9.737	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.400%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.496	85	14910	0.530	ppbv	97
3) Chlorodifluoromethane	1.473	51	22804	0.837	ppbv #	80
4) Chloromethane	1.531	50	5306	0.516	ppbv	94
6) Bromomethane	1.670	94	154	0.035	ppbv #	24
9) Propene	1.486	41	11608	1.057	ppbv #	80
11) Trichlorofluoromethane	1.874	101	7450	0.258	ppbv	100
12) 1,1,2-Trichlorotrifluo...	2.133	101	1788	0.078	ppbv	89
13) Ethanol	1.719	45	114736	287.088	ppbv	88
15) Acetone	1.832	43	94442	4.038	ppbv	100
16) 1,3-Butadiene	1.599	39	1035	0.107	ppbv #	66
17) tert-Butyl alcohol	2.039	59	1753	0.071	ppbv #	81
19) Isopropyl Alcohol	1.884	45	18826	1.680	ppbv #	1
20) Methylene Chloride	2.059	84	19598	1.920	ppbv #	89
23) Vinyl Acetate	2.447	43	5287	1.065	ppbv #	91
25) Ethyl Acetate	2.823	43	24460	0.417	ppbv #	82
26) Hexane	2.819	57	26844	1.189	ppbv #	35
29) Chloroform	2.839	83	3994	0.104	ppbv	93
34) 2-Butanone	2.554	43	5741	0.198	ppbv	96
36) Benzene	3.648	78	2953	0.072	ppbv #	86
39) 1,2-Dichloropropane	3.949	63	106700	7.062	ppbv #	21
53) Toluene	6.920	91	7415	0.180	ppbv	98
58) Ethyl Benzene	9.519	91	2376	0.045	ppbv	98
71) 2-Chlorotoluene	10.850	91	2002	0.041	ppbv #	44
79) Naphthalene	13.526	128	79	0.236	ppbv #	1
80) Naphthalene,2-methyl-	14.452	142	503	0.685	ppbv #	83

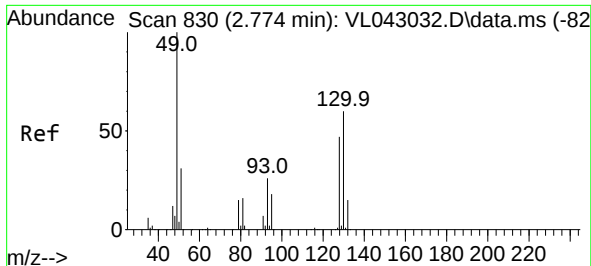
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Fri Oct 03 08:23:34 2025
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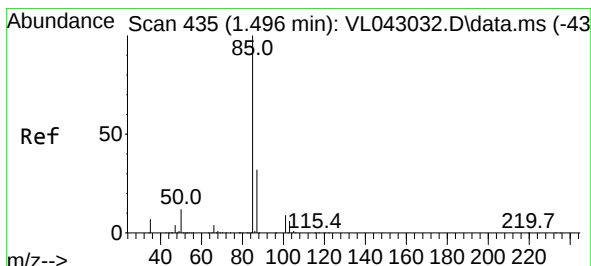
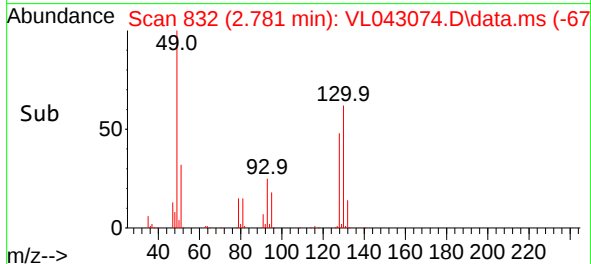
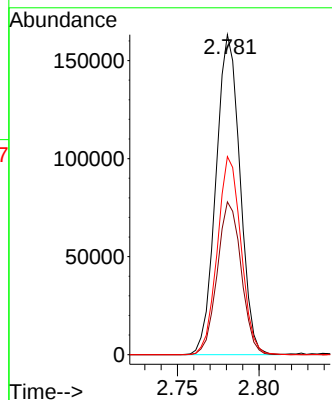
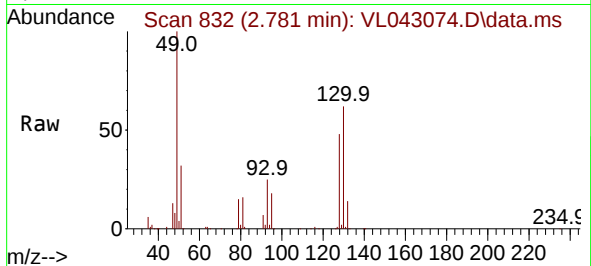




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.781 min Scan# 81
Delta R.T. 0.007 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

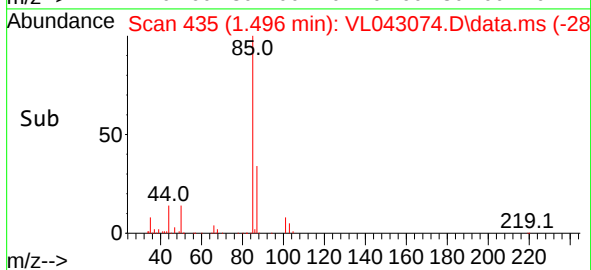
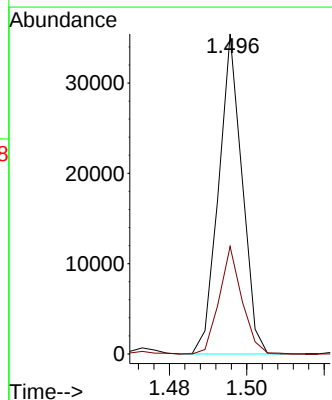
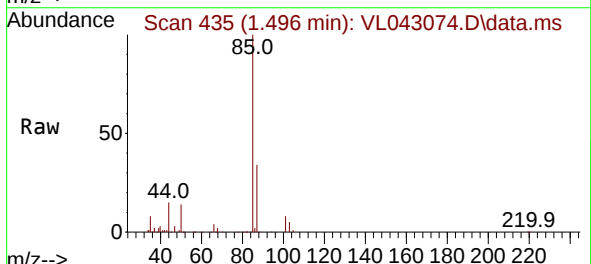
Instrument :
MSVOA_L
ClientSampleId :
IA3

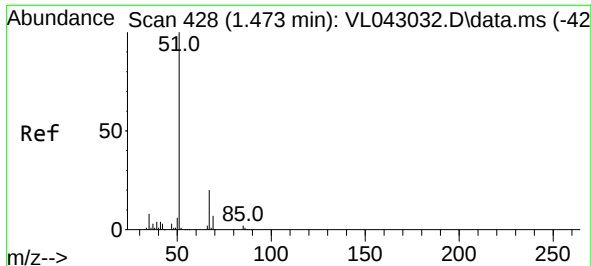
Tgt Ion: 49 Resp: 167022
Ion Ratio Lower Upper
49 100
128 47.6 24.1 72.2
130 61.0 31.4 94.3



#2
Dichlorodifluoromethane
Concen: 0.530 ppbv
RT: 1.496 min Scan# 435
Delta R.T. 0.000 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

Tgt Ion: 85 Resp: 14910
Ion Ratio Lower Upper
85 100
87 33.6 25.8 38.6

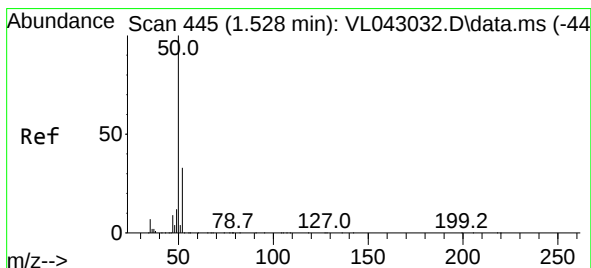
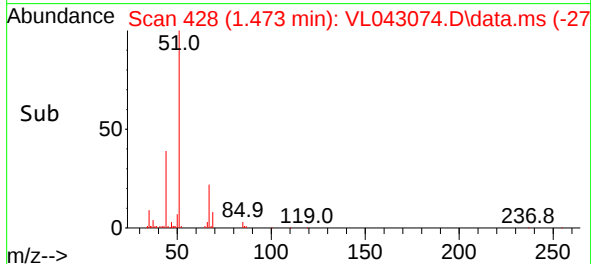
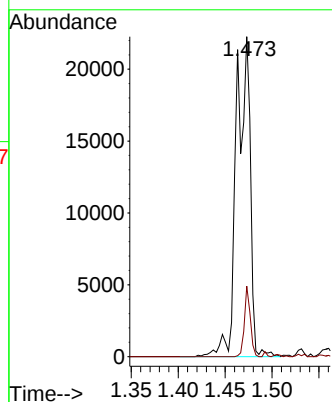
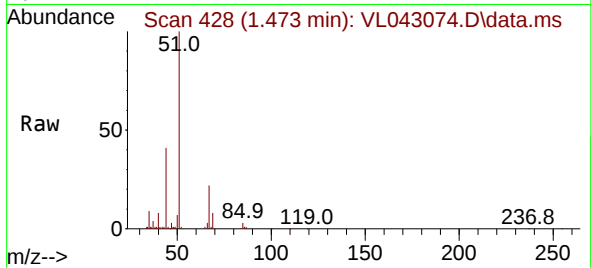




#3
Chlorodifluoromethane
Concen: 0.837 ppbv
RT: 1.473 min Scan# 41
Delta R.T. 0.000 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

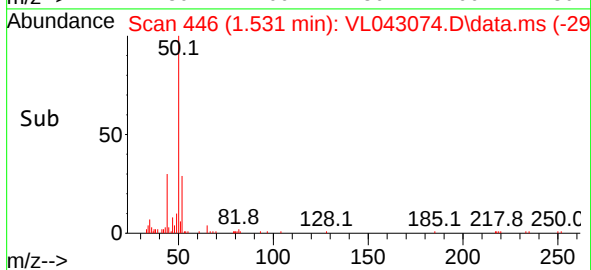
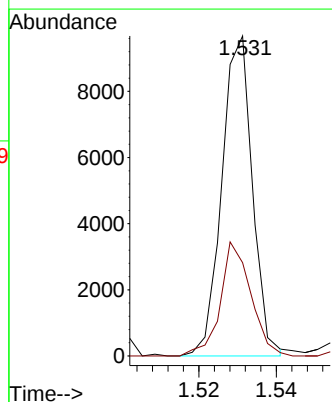
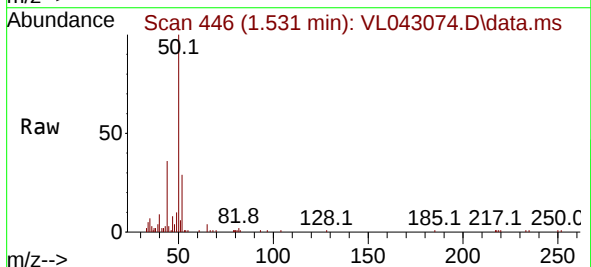
Instrument :
MSVOA_L
ClientSampleId :
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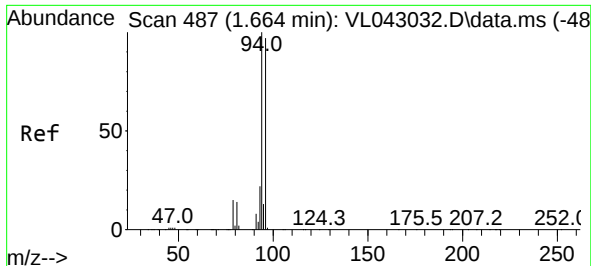
Tgt Ion: 51 Resp: 22804
Ion Ratio Lower Upper
51 100
67 9.7 15.1 22.7#



#4
Chloromethane
Concen: 0.516 ppbv
RT: 1.531 min Scan# 446
Delta R.T. 0.003 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

Tgt Ion: 50 Resp: 5306
Ion Ratio Lower Upper
50 100
52 29.2 26.2 39.2

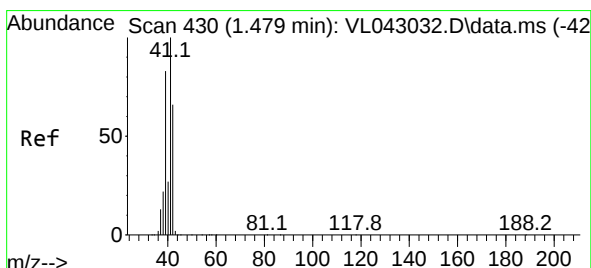
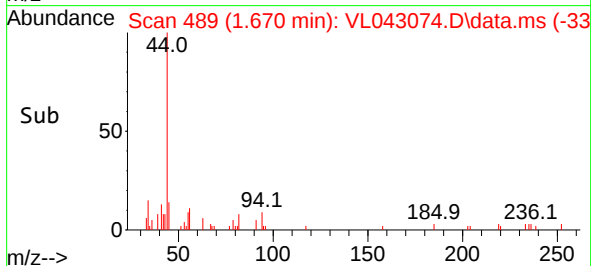
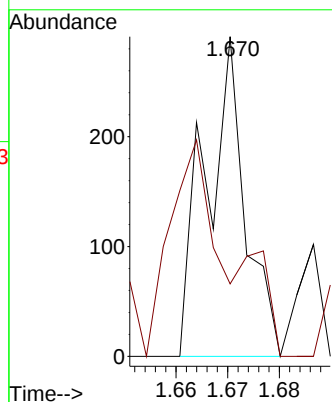
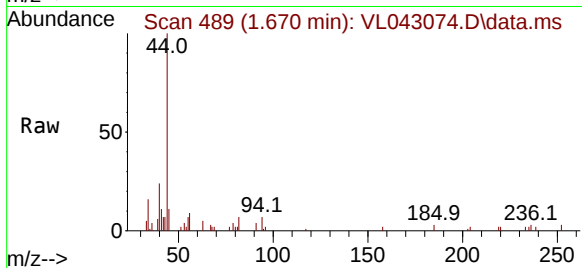




#6
Bromomethane
Concen: 0.035 ppbv
RT: 1.670 min Scan# 41
Delta R.T. 0.007 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

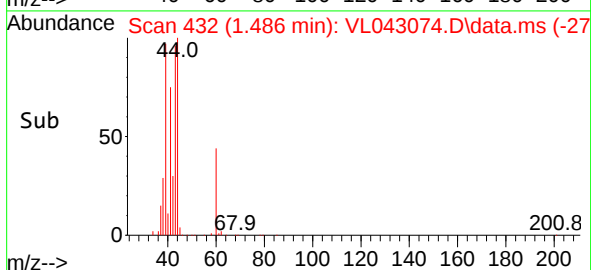
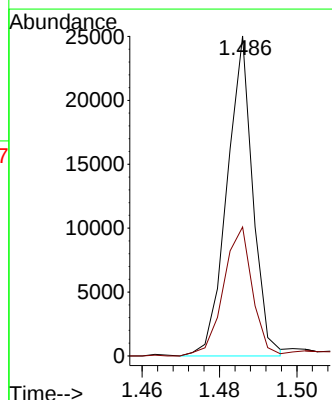
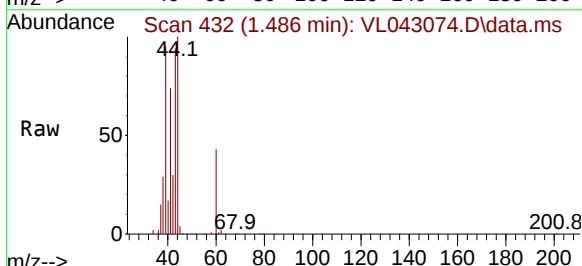
Instrument :
MSVOA_1
ClientSampleId :
IA3

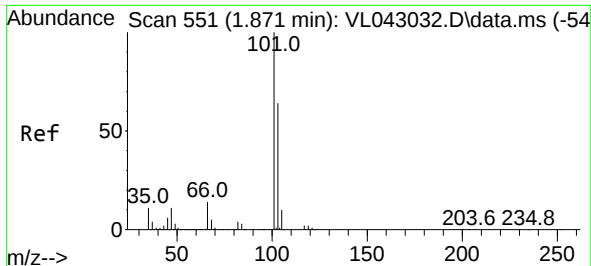
Tgt Ion: 94 Resp: 154
Ion Ratio Lower Upper
94 100
96 22.7 77.6 116.4#



#9
Propene
Concen: 1.057 ppbv
RT: 1.486 min Scan# 432
Delta R.T. 0.007 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

Tgt Ion: 41 Resp: 11608
Ion Ratio Lower Upper
41 100
42 50.8 53.3 79.9#

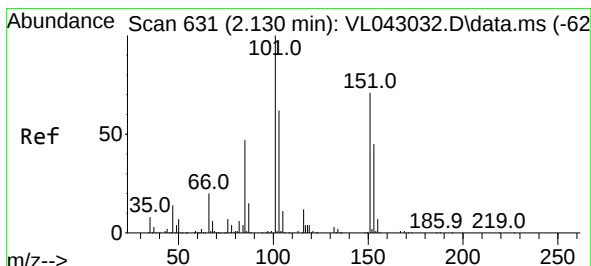
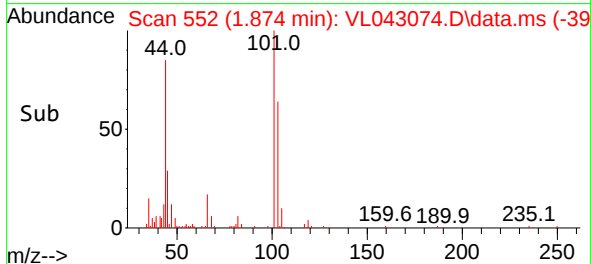
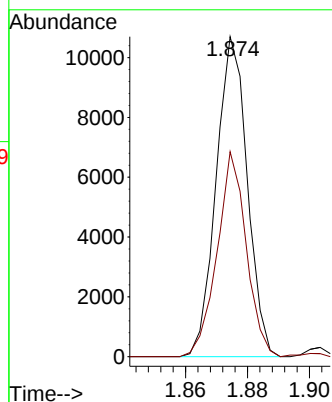
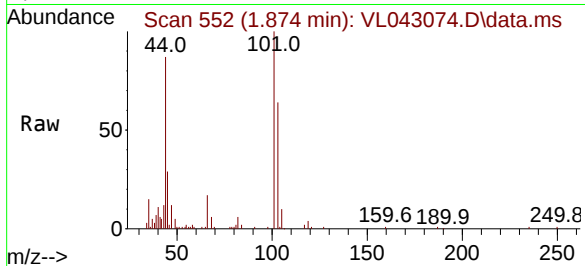




#11
 Trichlorofluoromethane
 Concen: 0.258 ppbv
 RT: 1.874 min Scan# 511
 Delta R.T. 0.003 min
 Lab File: VL043074.D
 Acq: 09 Oct 2025 00:22

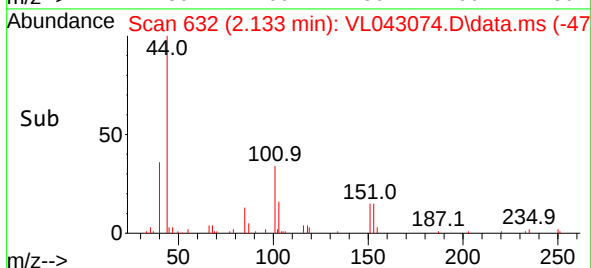
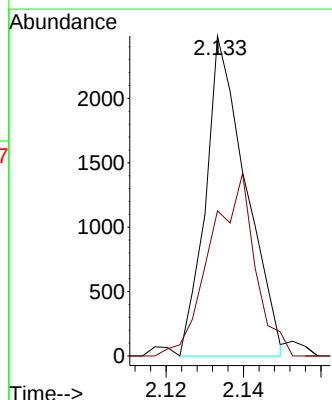
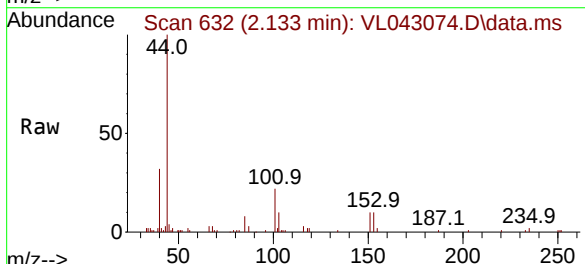
Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

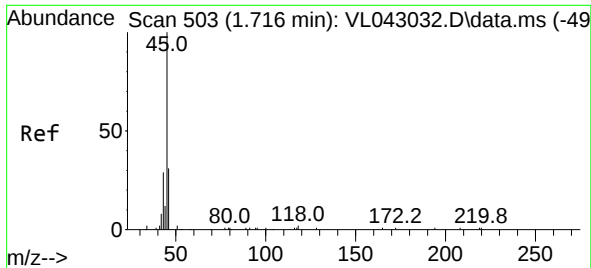
Tgt Ion:101 Resp: 7450
 Ion Ratio Lower Upper
 101 100
 103 64.1 51.1 76.7



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.078 ppbv
 RT: 2.133 min Scan# 632
 Delta R.T. 0.003 min
 Lab File: VL043074.D
 Acq: 09 Oct 2025 00:22

Tgt Ion:101 Resp: 1788
 Ion Ratio Lower Upper
 101 100
 151 63.1 58.1 87.1

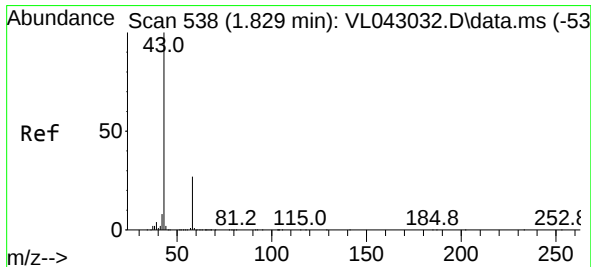
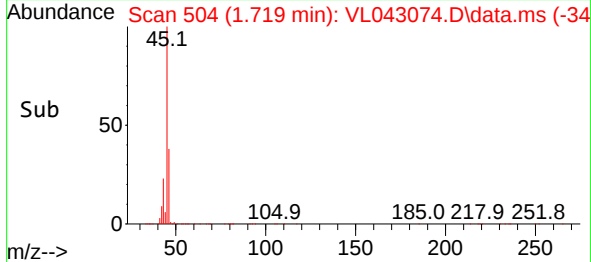
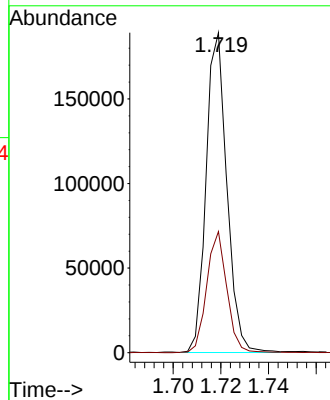
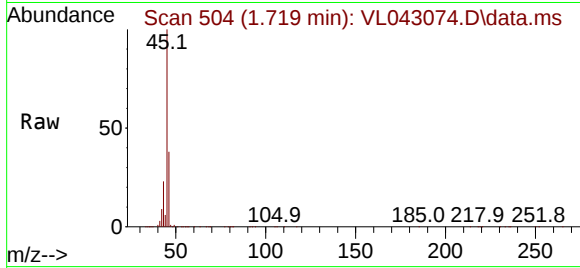




#13
Ethanol
Concen: 287.088 ppbv
RT: 1.719 min Scan# 503
Delta R.T. 0.003 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

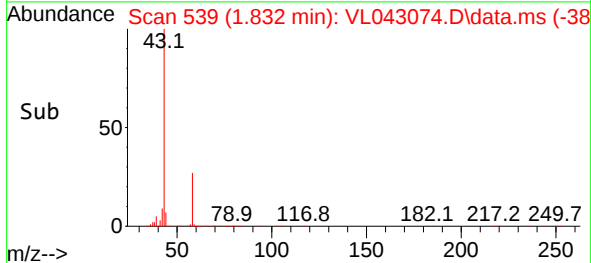
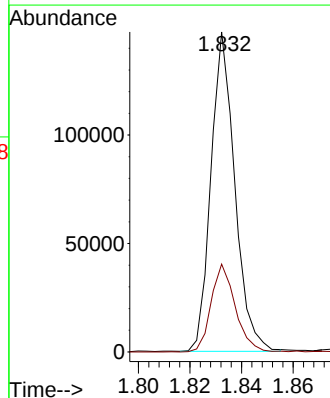
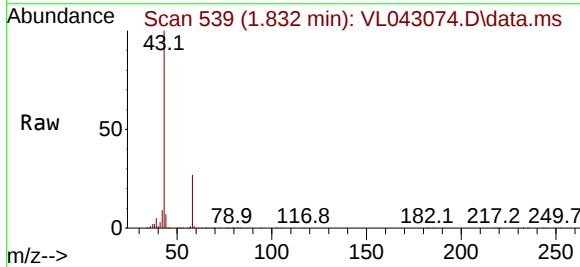
Instrument :
MSVOA_L
ClientSampleId :
IA3

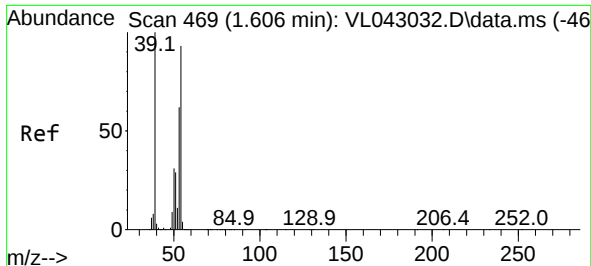
Tgt Ion: 45 Resp: 114736
Ion Ratio Lower Upper
45 100
46 36.9 17.8 71.4



#15
Acetone
Concen: 4.038 ppbv
RT: 1.832 min Scan# 539
Delta R.T. 0.003 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

Tgt Ion: 43 Resp: 94442
Ion Ratio Lower Upper
43 100
58 28.0 22.2 33.4

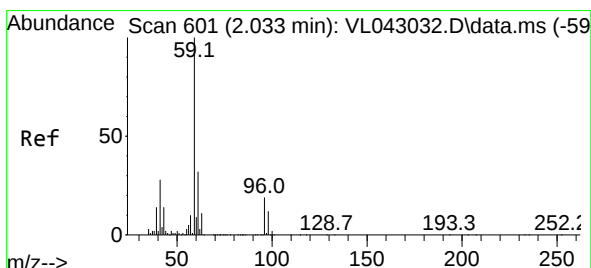
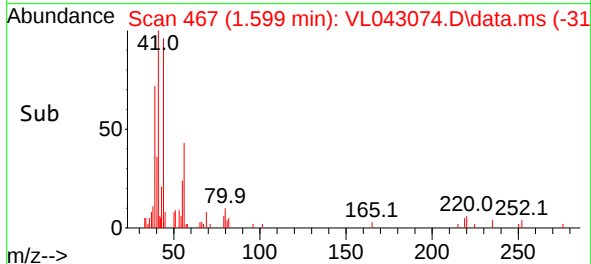
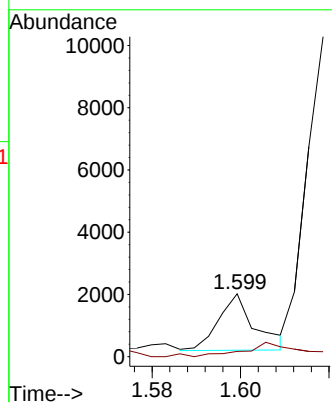
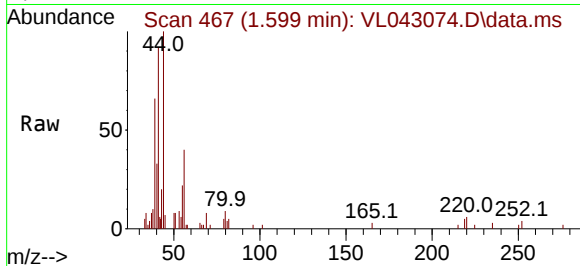




#16
1,3-Butadiene
Concen: 0.107 ppbv
RT: 1.599 min Scan# 467
Delta R.T. -0.006 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

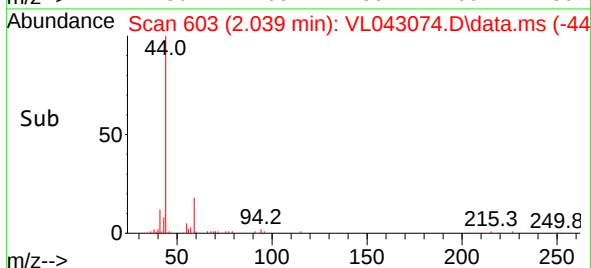
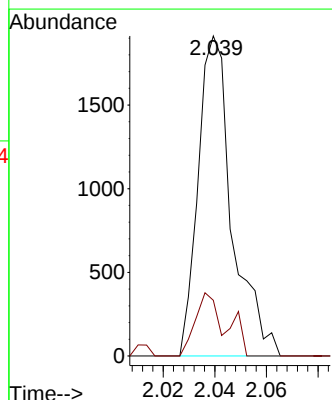
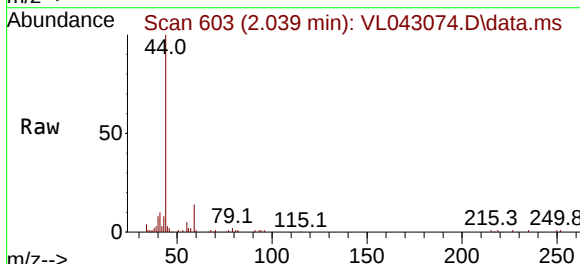
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MSVOA_L
ClientSampleId :
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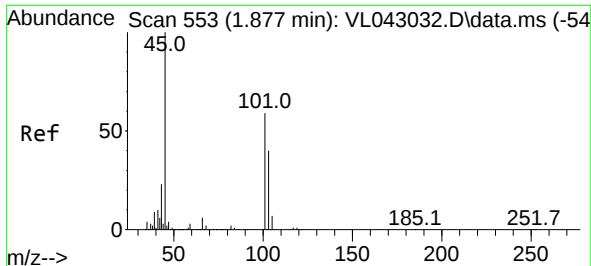
Tgt Ion: 39 Resp: 1035
Ion Ratio Lower Upper
39 100
54 47.5 61.4 92.2#



#17
tert-Butyl alcohol
Concen: 0.071 ppbv
RT: 2.039 min Scan# 603
Delta R.T. 0.007 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

Tgt Ion: 59 Resp: 1753
Ion Ratio Lower Upper
59 100
57 17.7 8.5 12.7#

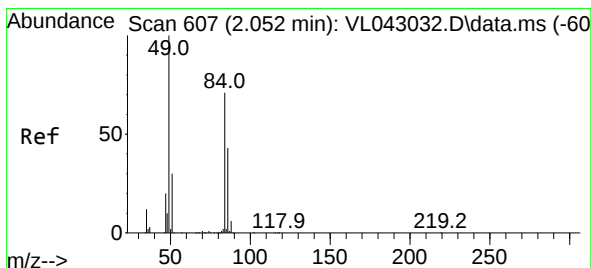
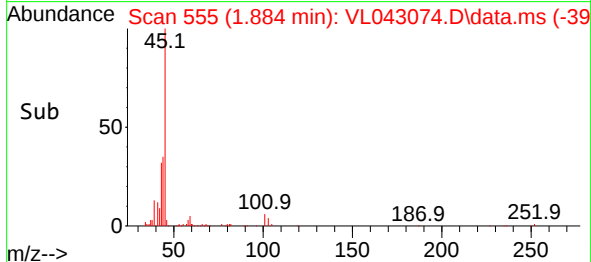
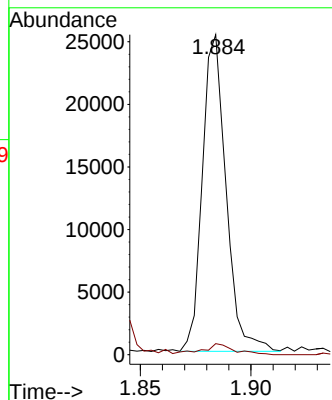
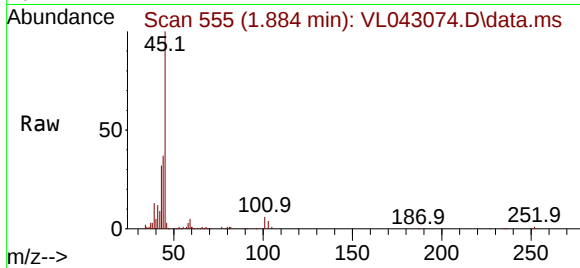




#19
Isopropyl Alcohol
Concen: 1.680 ppbv
RT: 1.884 min Scan# 51
Delta R.T. 0.007 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

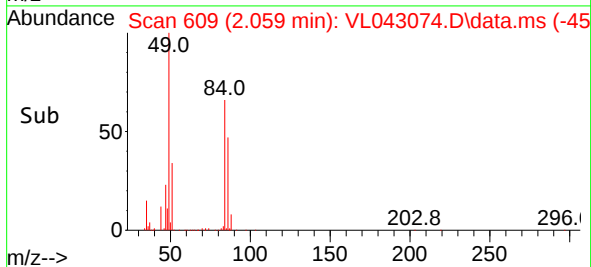
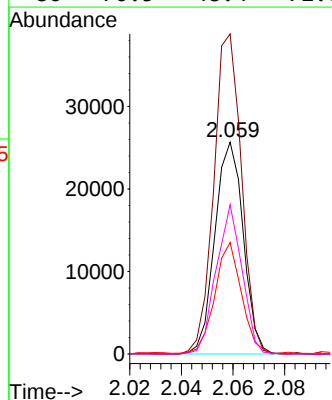
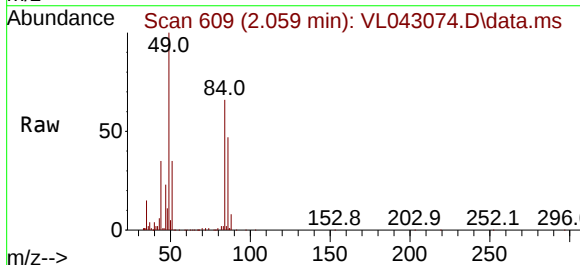
Instrument :
MSVOA_L
ClientSampleId :
IA3

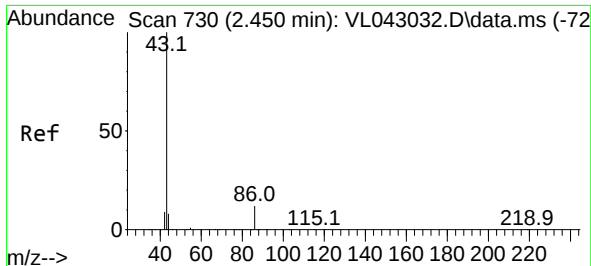
Tgt Ion: 45 Resp: 18826
Ion Ratio Lower Upper
45 100
58 140.6 42.3 63.5#



#20
Methylene Chloride
Concen: 1.920 ppbv
RT: 2.059 min Scan# 609
Delta R.T. 0.007 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

Tgt Ion: 84 Resp: 19598
Ion Ratio Lower Upper
84 100
49 151.1 112.5 168.7
51 52.3 34.2 51.2#
86 70.5 48.4 72.6

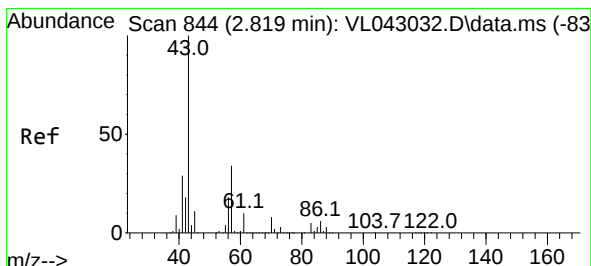
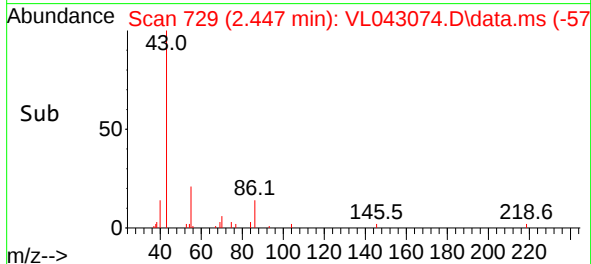
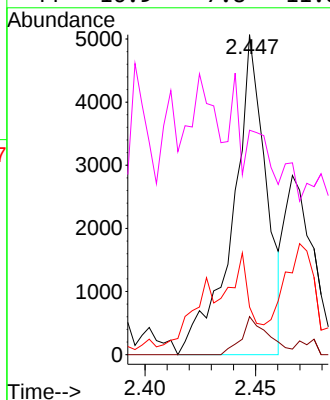
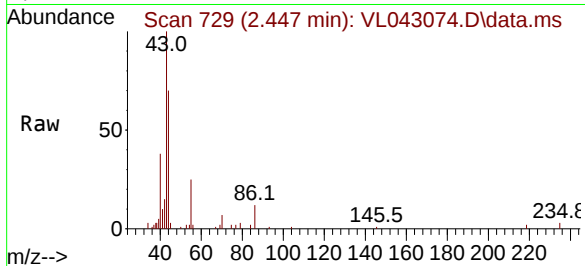




#23
 Vinyl Acetate
 Concen: 1.065 ppbv
 RT: 2.447 min Scan# 71
 Delta R.T. -0.003 min
 Lab File: VL043074.D
 Acq: 09 Oct 2025 00:22

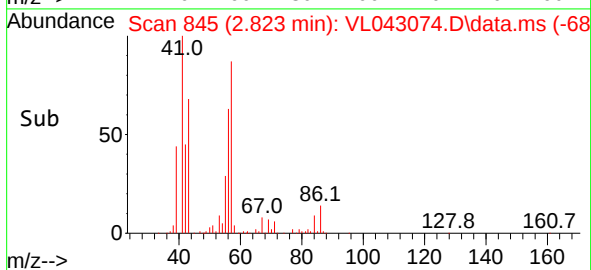
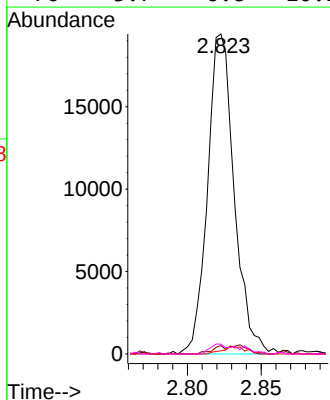
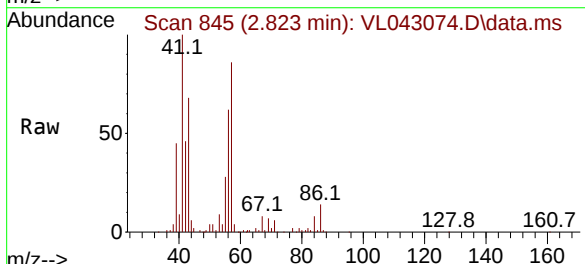
Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

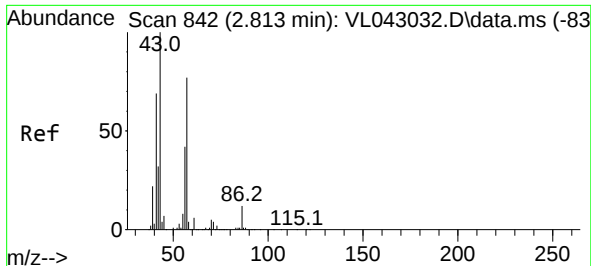
Tgt Ion: 43 Resp: 5287
 Ion Ratio Lower Upper
 43 100
 86 11.9 7.5 11.3#
 42 9.9 8.4 12.6
 44 16.9 7.8 11.8#



#25
 Ethyl Acetate
 Concen: 0.417 ppbv
 RT: 2.823 min Scan# 845
 Delta R.T. 0.003 min
 Lab File: VL043074.D
 Acq: 09 Oct 2025 00:22

Tgt Ion: 43 Resp: 24460
 Ion Ratio Lower Upper
 43 100
 45 3.0 8.3 12.5#
 61 2.1 7.5 11.3#
 70 3.7 6.8 10.2#

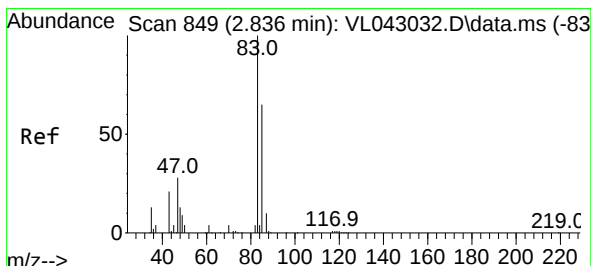
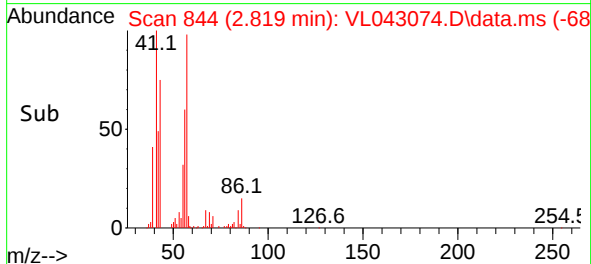
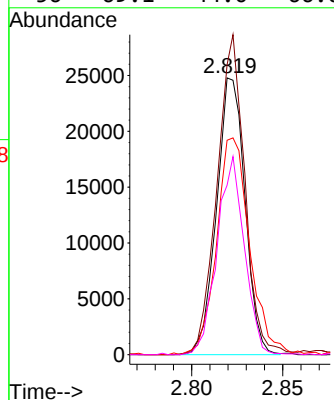
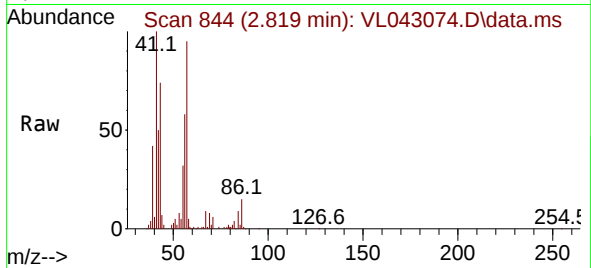




#26
Hexane
Concen: 1.189 ppbv
RT: 2.819 min Scan# 84
Delta R.T. 0.007 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

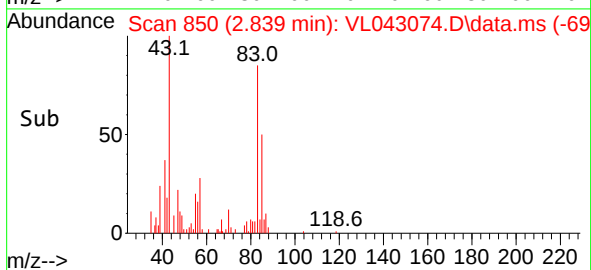
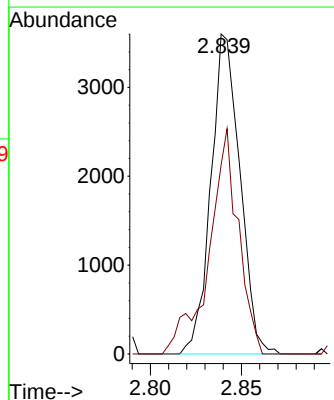
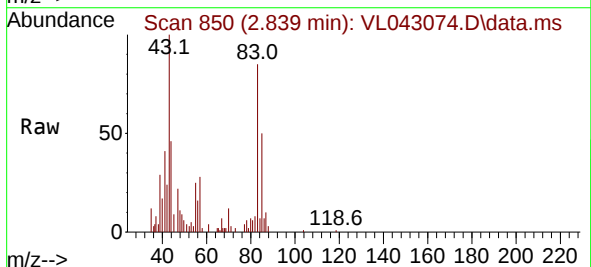
Instrument :
MSVOA_L
ClientSampleId :
IA3

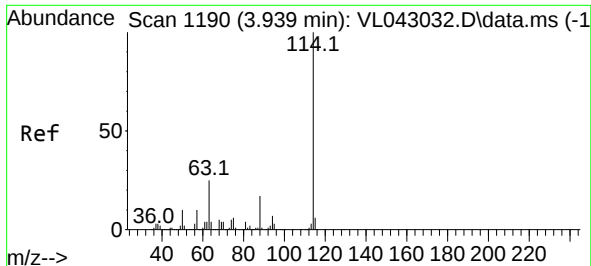
Tgt Ion: 57 Resp: 26844
Ion Ratio Lower Upper
57 100
41 115.2 76.1 114.1#
43 91.5 201.4 302.0#
56 69.1 44.0 66.0#



#29
Chloroform
Concen: 0.104 ppbv
RT: 2.839 min Scan# 850
Delta R.T. 0.003 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

Tgt Ion: 83 Resp: 3994
Ion Ratio Lower Upper
83 100
85 59.2 52.0 78.0





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.949 min Scan# 1193

Delta R.T. 0.010 min

Lab File: VL043074.D

Acq: 09 Oct 2025 00:22

Instrument :

MSVOA_L

ClientSampleId :

IA3

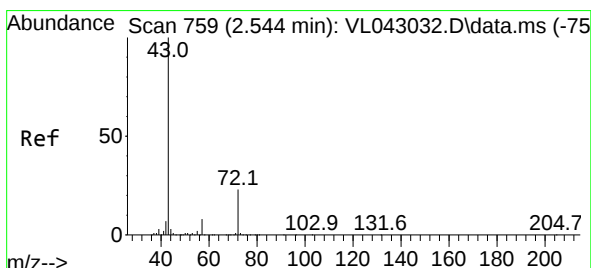
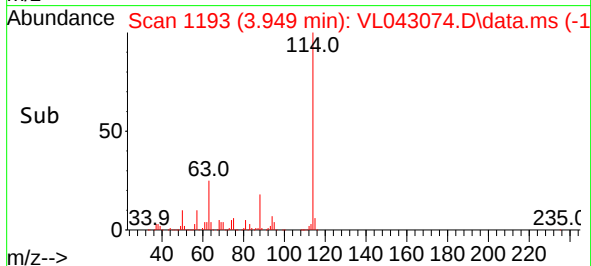
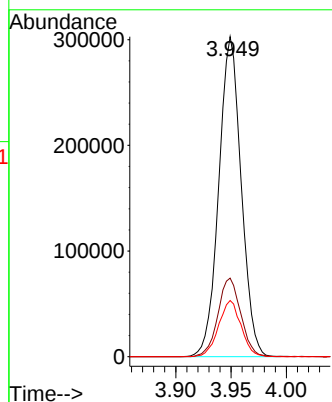
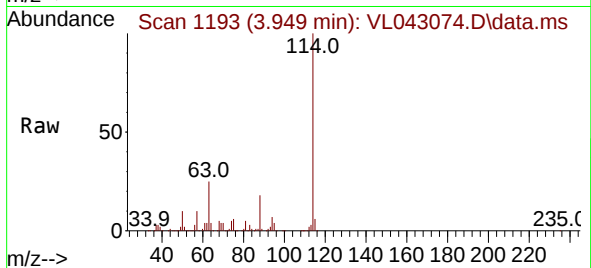
Tgt Ion:114 Resp: 426656

Ion Ratio Lower Upper

114 100

63 25.1 19.4 29.2

88 17.5 13.9 20.9



#34

2-Butanone

Concen: 0.198 ppbv

RT: 2.554 min Scan# 762

Delta R.T. 0.010 min

Lab File: VL043074.D

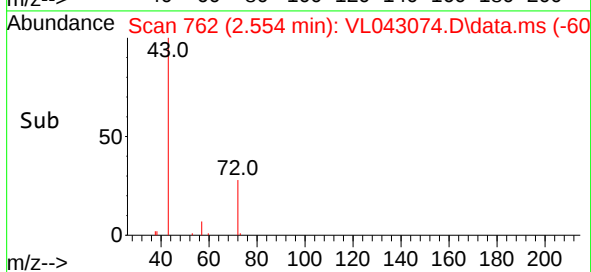
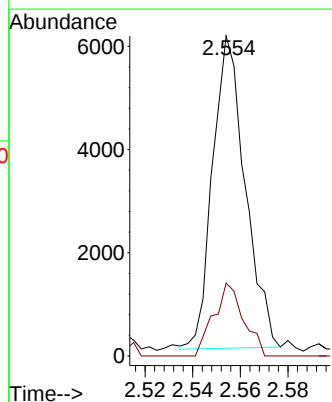
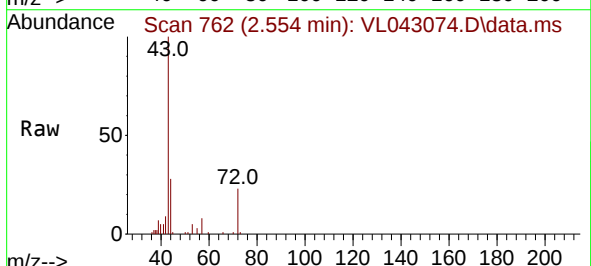
Acq: 09 Oct 2025 00:22

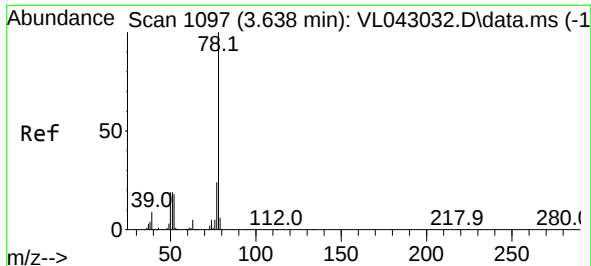
Tgt Ion: 43 Resp: 5741

Ion Ratio Lower Upper

43 100

72 21.3 18.4 27.6

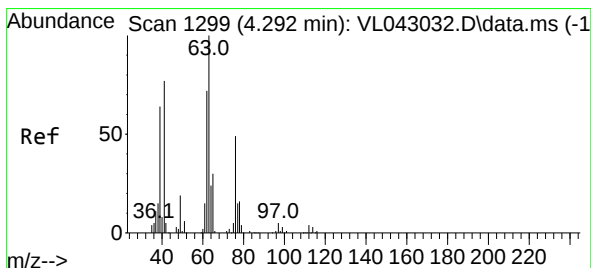
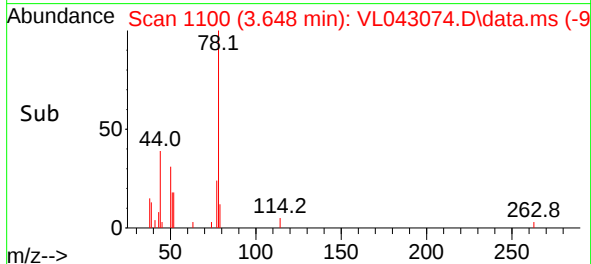
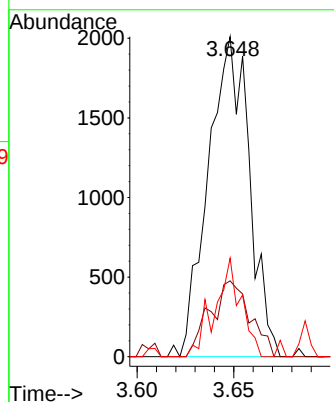
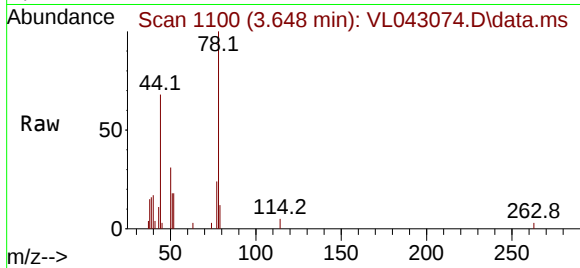




#36
Benzene
Concen: 0.072 ppbv
RT: 3.648 min Scan# 1100
Delta R.T. 0.010 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

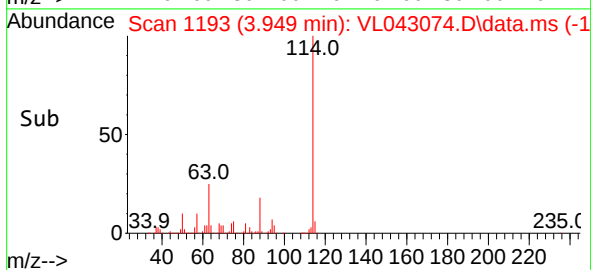
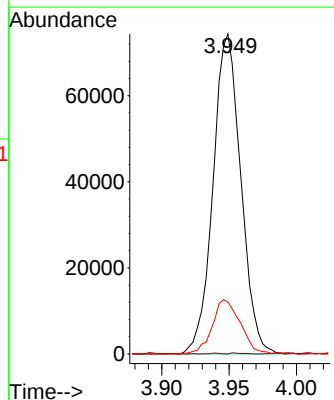
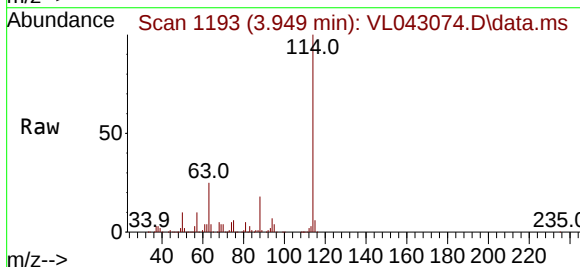
Instrument :
MSVOA_L
ClientSampleId :
IA3

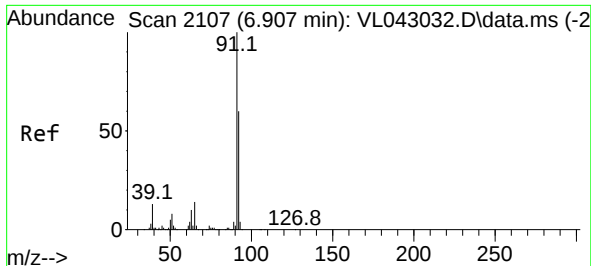
Tgt Ion: 78 Resp: 2953
Ion Ratio Lower Upper
78 100
77 24.8 19.2 28.8
50 32.1 14.9 22.3#



#39
1,2-Dichloropropane
Concen: 7.062 ppbv
RT: 3.949 min Scan# 1193
Delta R.T. -0.343 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

Tgt Ion: 63 Resp: 106700
Ion Ratio Lower Upper
63 100
41 0.0 61.6 92.4#
62 16.2 58.1 87.1#





#53

Toluene

Concen: 0.180 ppbv

RT: 6.920 min Scan# 2111

Delta R.T. 0.013 min

Lab File: VL043074.D

Acq: 09 Oct 2025 00:22

Instrument :

MSVOA_L

ClientSampleId :

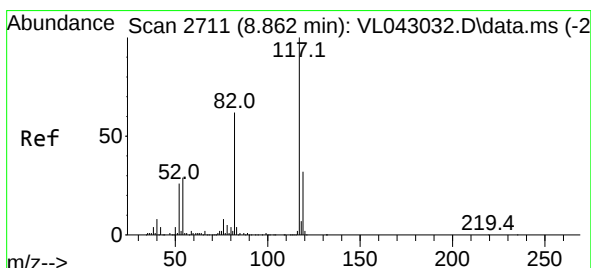
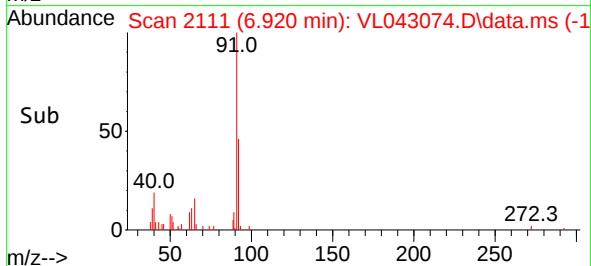
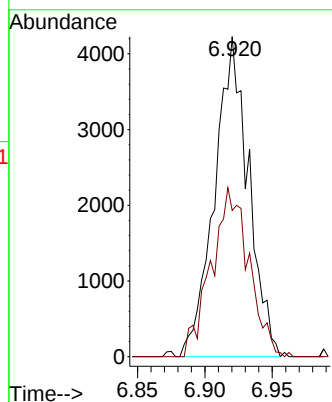
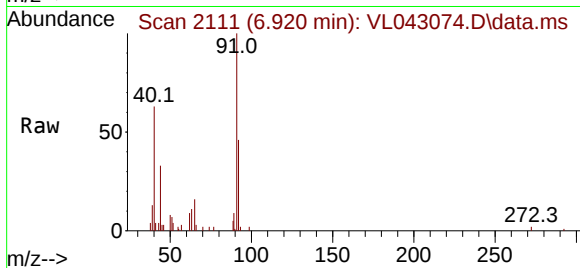
IA3

Tgt Ion: 91 Resp: 7415

Ion Ratio Lower Upper

91 100

92 58.2 47.8 71.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 8.872 min Scan# 2714

Delta R.T. 0.010 min

Lab File: VL043074.D

Acq: 09 Oct 2025 00:22

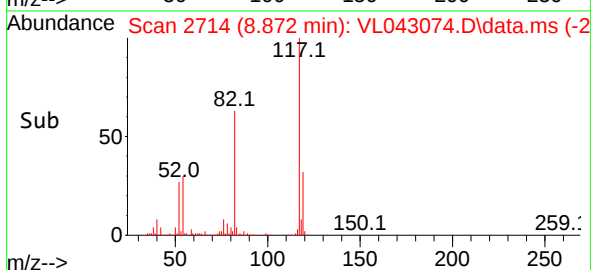
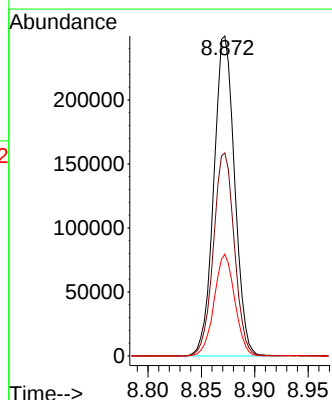
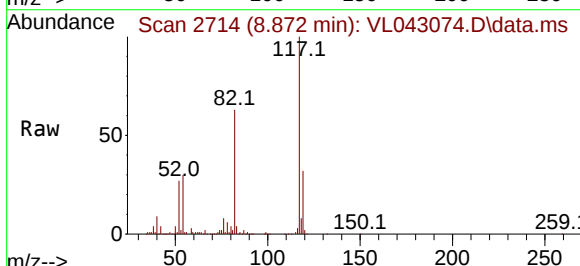
Tgt Ion: 117 Resp: 339471

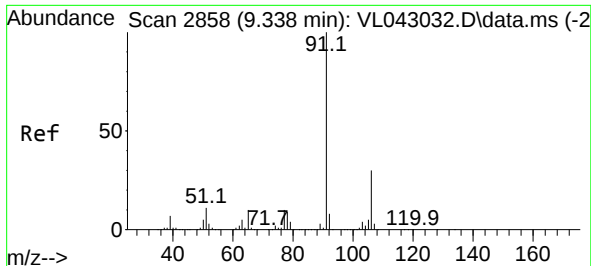
Ion Ratio Lower Upper

117 100

82 63.8 53.0 79.6

119 31.5 25.4 38.2

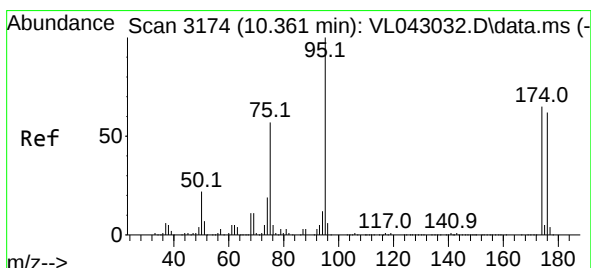
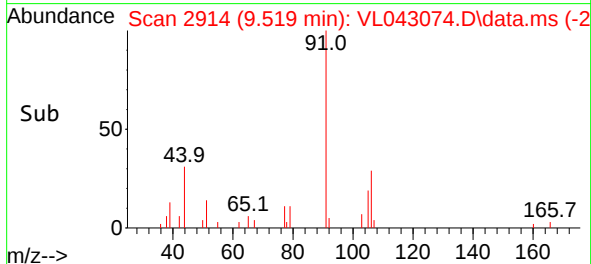
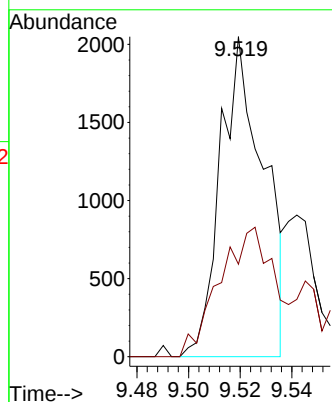
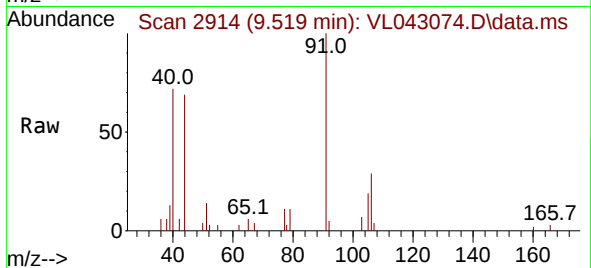




#58
Ethyl Benzene
Concen: 0.045 ppbv
RT: 9.519 min Scan# 2914
Delta R.T. 0.181 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

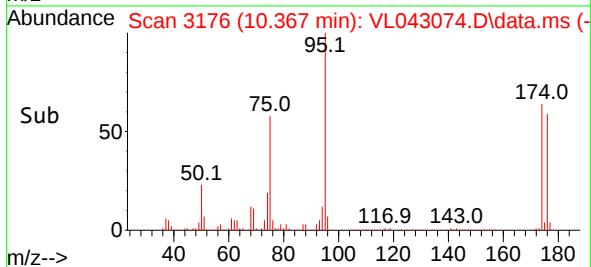
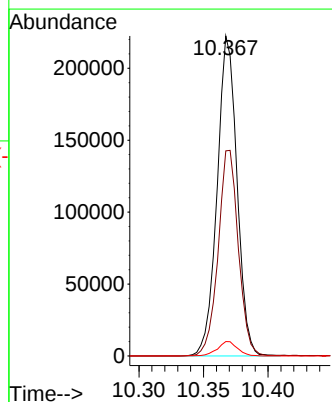
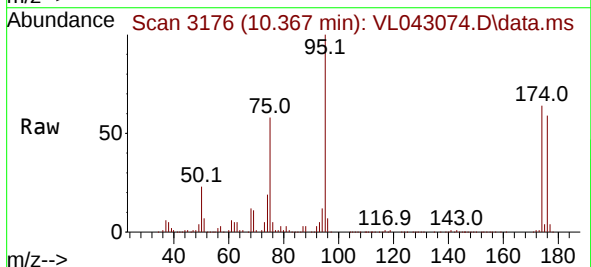
Instrument :
MSVOA_L
ClientSampleId :
IA3

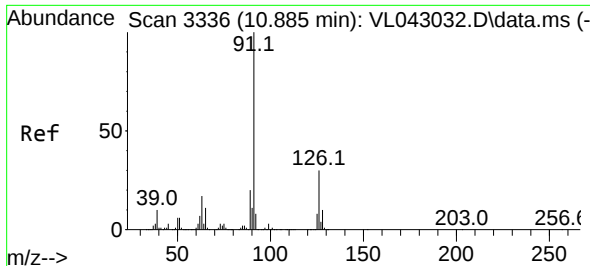
Tgt Ion: 91 Resp: 2376
Ion Ratio Lower Upper
91 100
106 28.9 24.1 36.1



#68
1-Bromo-4-Fluorobenzene
Concen: 9.737 ppbv
RT: 10.367 min Scan# 3176
Delta R.T. 0.007 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

Tgt Ion: 95 Resp: 238110
Ion Ratio Lower Upper
95 100
174 65.3 52.3 78.5
175 4.6 3.8 5.8

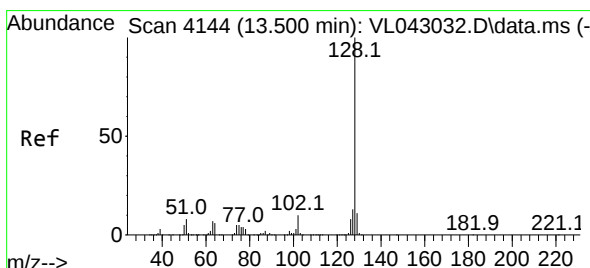
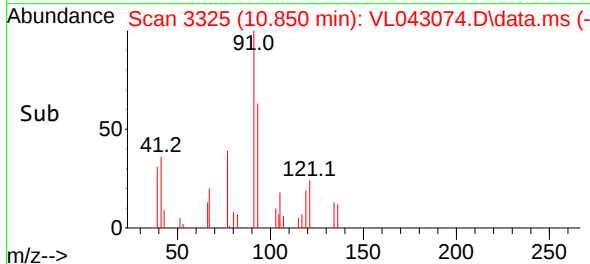
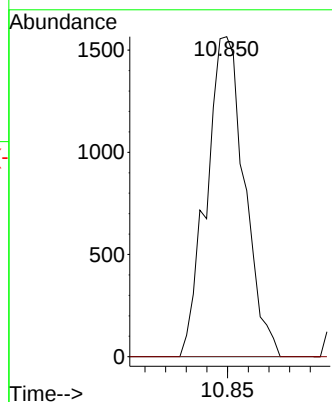
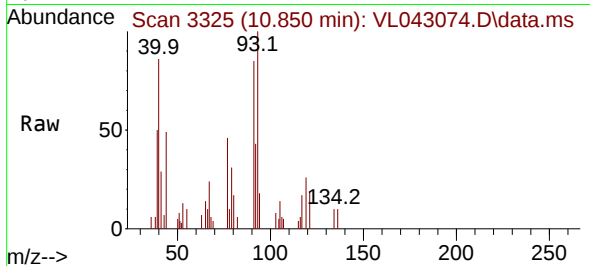




#71
2-Chlorotoluene
Concen: 0.041 ppbv
RT: 10.850 min Scan# 31
Delta R.T. -0.035 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

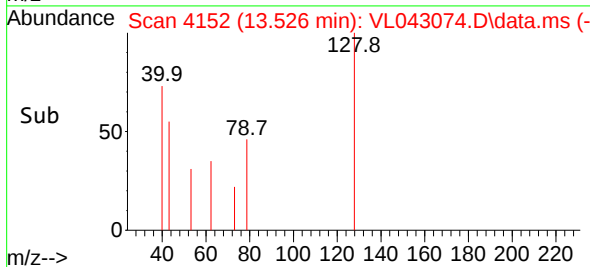
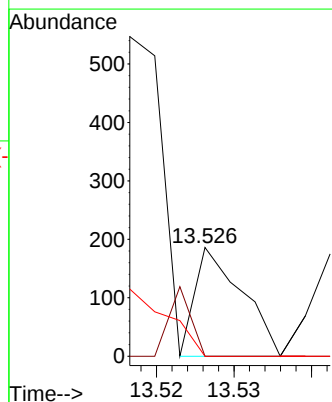
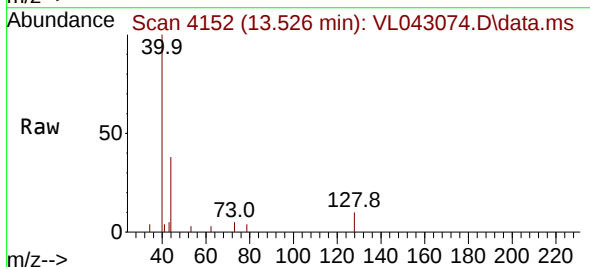
Instrument :
MSVOA_L
ClientSampleId :
IA3

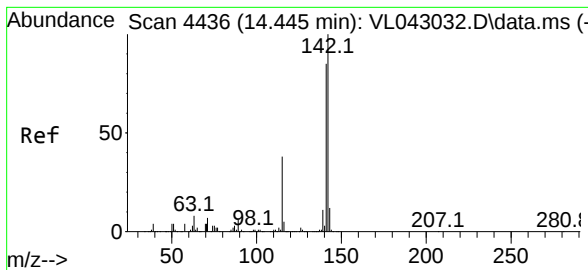
Tgt Ion: 91 Resp: 2002
Ion Ratio Lower Upper
91 100
126 0.0 12.2 48.6#



#79
Naphthalene
Concen: 0.236 ppbv
RT: 13.526 min Scan# 4152
Delta R.T. 0.026 min
Lab File: VL043074.D
Acq: 09 Oct 2025 00:22

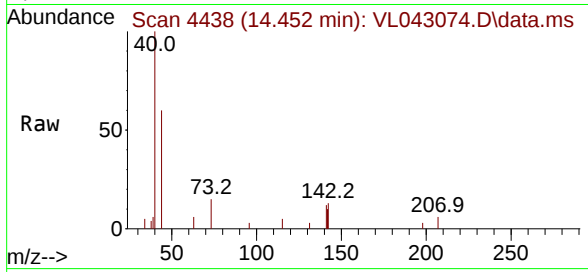
Tgt Ion: 128 Resp: 79
Ion Ratio Lower Upper
128 100
127 100.0 10.6 16.0#
129 0.0 8.8 13.2#





#80
 Naphthalene, 2-methyl-
 Concen: 0.685 ppbv
 RT: 14.452 min Scan# 4438
 Delta R.T. 0.007 min
 Lab File: VL043074.D
 Acq: 09 Oct 2025 00:22

Instrument :
 MSVOA_L
 ClientSampleId :
 IA3



Tgt Ion:	142	Resp:	503
Ion	Ratio	Lower	Upper
142	100		
141	67.4	66.6	100.0
115	47.1	30.1	45.1#

