

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111925\
 Data File : VL043249.D
 Acq On : 19 Nov 2025 21:01
 Operator : SY/MD
 Sample : Q3626-02DUP 2X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 9A-SG-2DUP

Quant Time: Nov 20 00:10:42 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 2025
 Response via : Initial Calibration

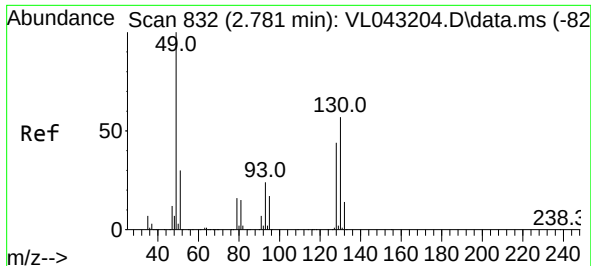
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.784	49	99705	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.952	114	276826	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.872	117	209824	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.367	95	154207	10.026	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	= 100.300%	
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.499	85	4070	0.289	ppbv	91
3) Chlorodifluoromethane	1.476	51	3532	0.255	ppbv #	79
4) Chloromethane	1.531	50	514	0.098	ppbv #	85
9) Propene	1.486	41	4782	0.814	ppbv #	1
10) Heptane	4.965	43	723	0.041	ppbv #	1
11) Trichlorofluoromethane	1.878	101	4186	0.307	ppbv	97
13) Ethanol	1.719	45	13138	6.362	ppbv	99
15) Acetone	1.832	43	110125	7.950	ppbv	98
16) 1,3-Butadiene	1.603	39	2105	0.341	ppbv #	45
17) tert-Butyl alcohol	2.040	59	8475	0.466	ppbv	97
19) Isopropyl Alcohol	1.884	45	45218	5.777	ppbv #	66
20) Methylene Chloride	2.059	84	18957	4.188	ppbv	91
23) Vinyl Acetate	2.470	43	2224	0.133	ppbv #	44
25) Ethyl Acetate	2.823	43	20994	0.703	ppbv #	80
26) Hexane	2.823	57	29288	2.236	ppbv #	42
27) Carbon Disulfide	2.146	76	4694	0.351	ppbv #	1
29) Chloroform	2.845	83	34264	1.840	ppbv	98
34) 2-Butanone	2.557	43	4730	0.242	ppbv	99
36) Benzene	3.645	78	3642	0.137	ppbv	95
38) Trichloroethene	4.532	130	369	0.036	ppbv	88
39) 1,2-Dichloropropane	3.949	63	68478	7.057	ppbv #	24
41) Tetrahydrofuran	3.059	42	537	0.050	ppbv #	62
52) Tetrachloroethene	8.222	164	2471	0.251	ppbv #	77
53) Toluene	6.917	91	3835	0.122	ppbv #	76
58) Ethyl Benzene	9.348	91	1400	0.035	ppbv	96
59) m/p-Xylene	9.526	91	3209	0.099	ppbv	92
60) o-Xylene	9.953	91	1059	0.033	ppbv	76
61) Styrene	9.866	104	633	0.045	ppbv	95
74) 1,2,4-Trimethylbenzene	11.526	105	1628	0.045	ppbv #	53

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

Quant Time: Nov 20 00:10:42 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

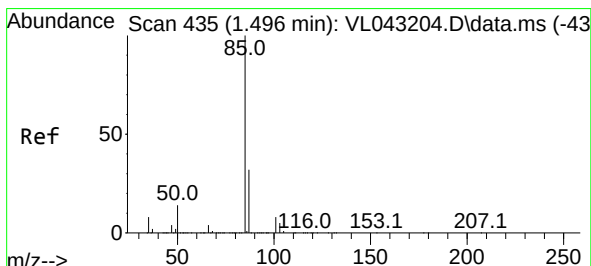
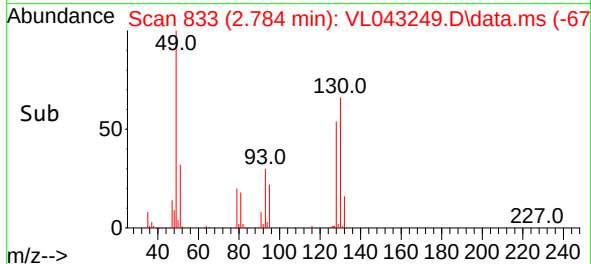
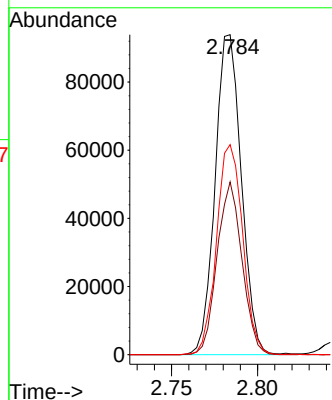
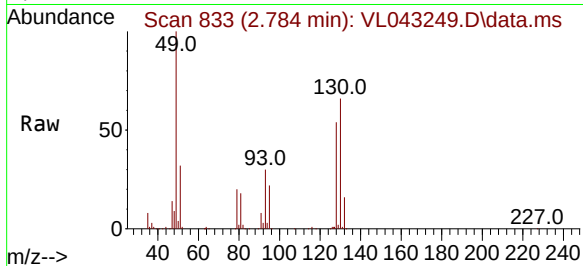




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 832
Delta R.T. 0.003 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

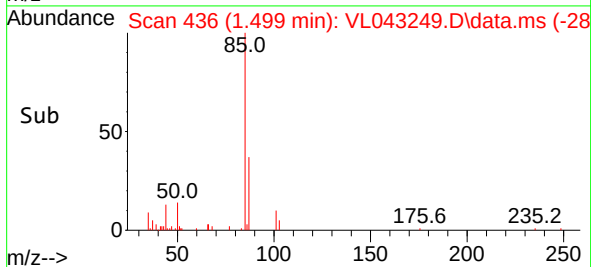
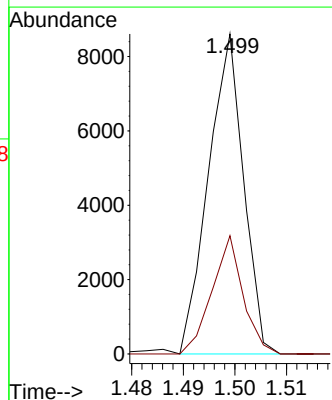
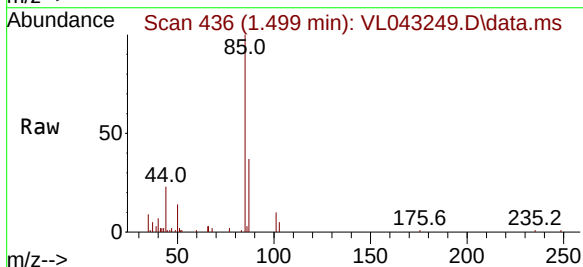
Instrument :
MSVOA_L
ClientSampleId :
9A-SG-2DUP

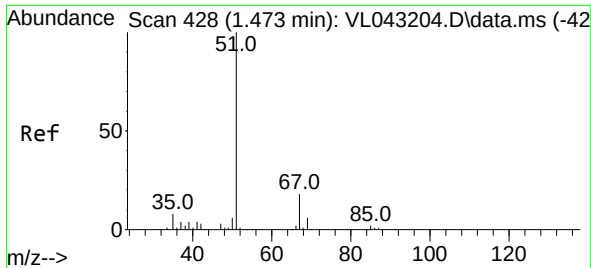
Tgt Ion: 49 Resp: 99705
Ion Ratio Lower Upper
49 100
128 51.2 23.0 69.0
130 65.5 29.9 89.7



#2
Dichlorodifluoromethane
Concen: 0.289 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.003 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

Tgt Ion: 85 Resp: 4070
Ion Ratio Lower Upper
85 100
87 37.0 25.4 38.2

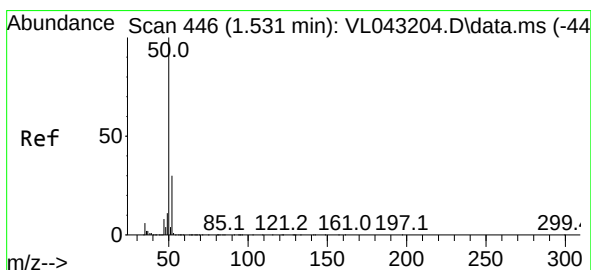
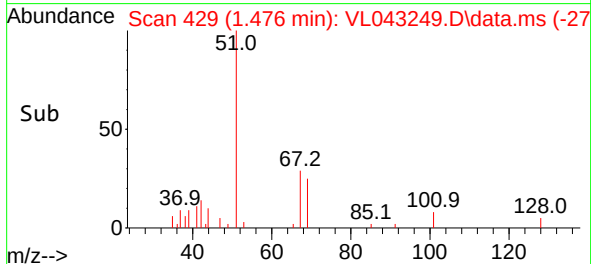
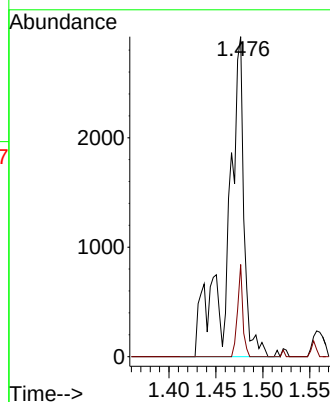
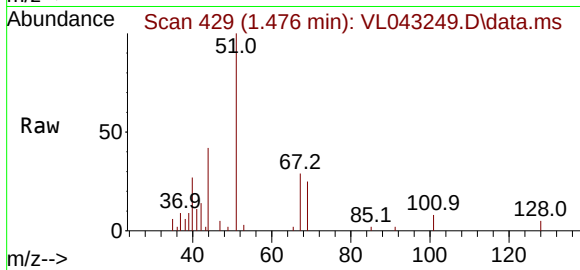




#3
Chlorodifluoromethane
Concen: 0.255 ppbv
RT: 1.476 min Scan# 41
Delta R.T. 0.003 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

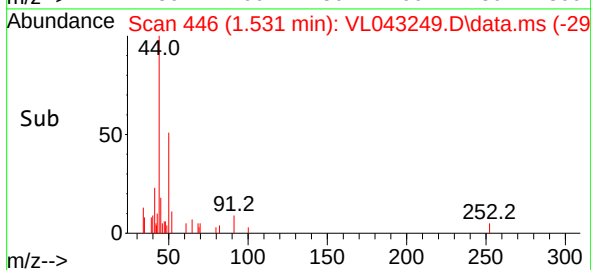
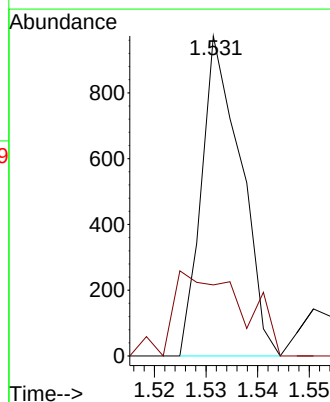
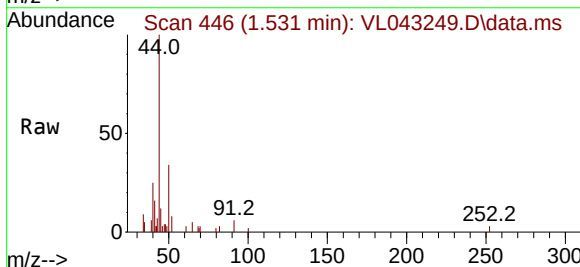
Instrument :
MSVOA_L
ClientSampleId :
9A-SG-2DUP

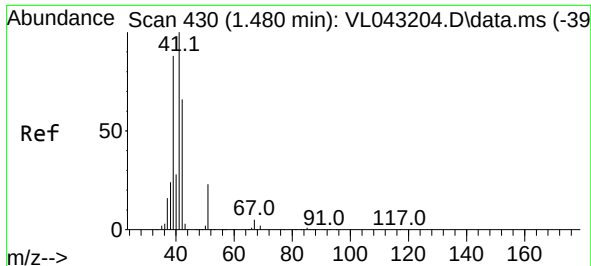
Tgt Ion: 51 Resp: 3532
Ion Ratio Lower Upper
51 100
67 9.2 14.9 22.3#



#4
Chloromethane
Concen: 0.098 ppbv
RT: 1.531 min Scan# 446
Delta R.T. -0.000 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

Tgt Ion: 50 Resp: 514
Ion Ratio Lower Upper
50 100
52 22.2 24.1 36.1#





#9

Propene

Concen: 0.814 ppbv

RT: 1.486 min Scan# 41

Delta R.T. 0.006 min

Lab File: VL043249.D

Acq: 19 Nov 2025 21:01

Instrument :

MSVOA_L

ClientSampleId :

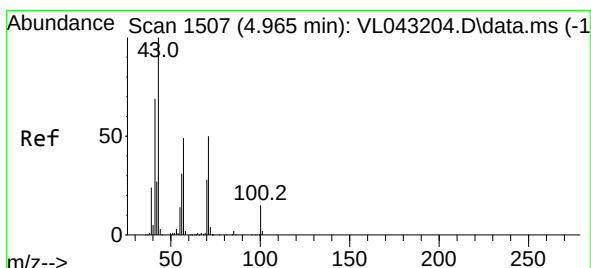
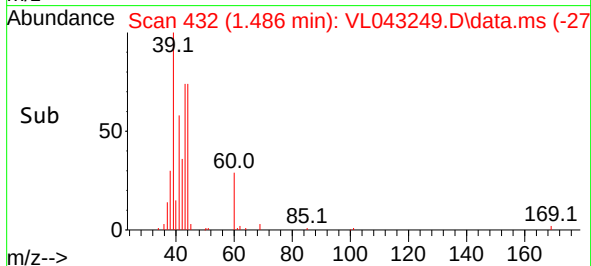
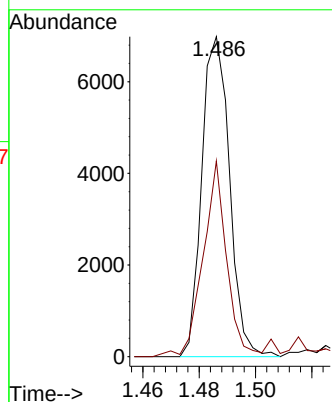
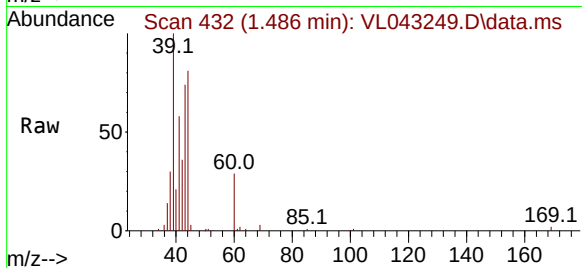
9A-SG-2DUP

Tgt Ion: 41 Resp: 4782

Ion Ratio Lower Upper

41 100

42 53.5 3.7 5.5#



#10

Heptane

Concen: 0.041 ppbv

RT: 4.965 min Scan# 1507

Delta R.T. -0.000 min

Lab File: VL043249.D

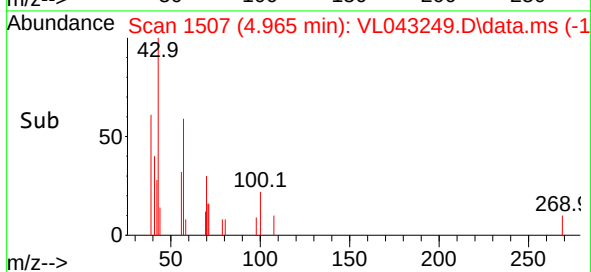
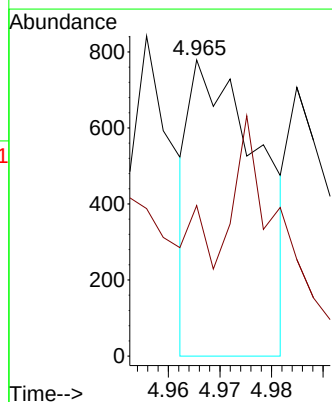
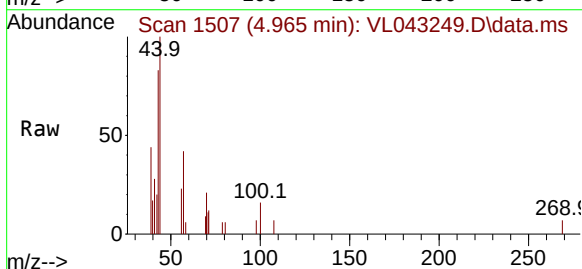
Acq: 19 Nov 2025 21:01

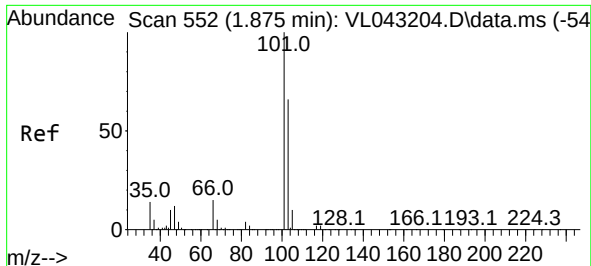
Tgt Ion: 43 Resp: 723

Ion Ratio Lower Upper

43 100

57 125.2 39.7 59.5#

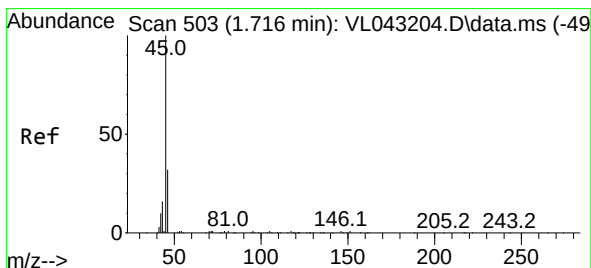
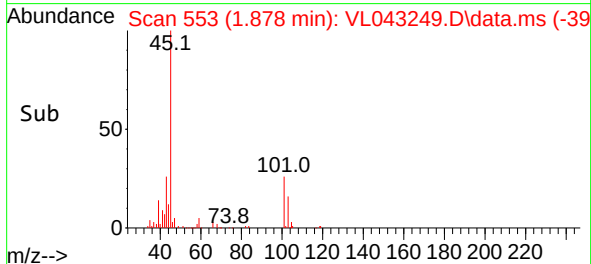
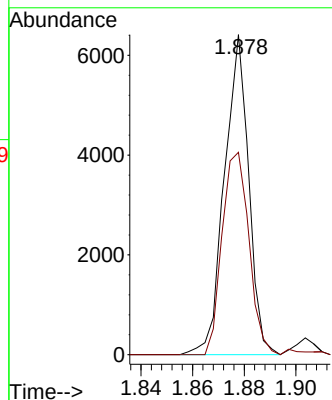
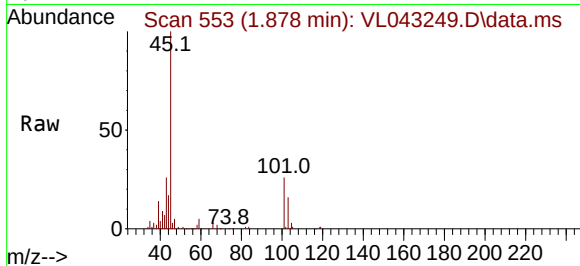




#11
Trichlorofluoromethane
Concen: 0.307 ppbv
RT: 1.878 min Scan# 51
Delta R.T. 0.003 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

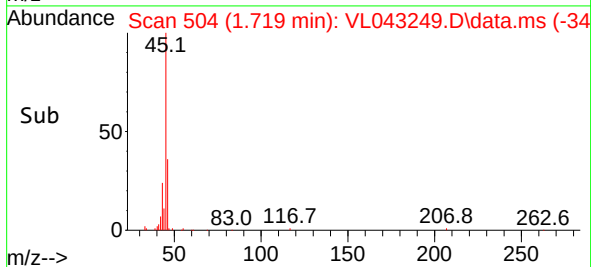
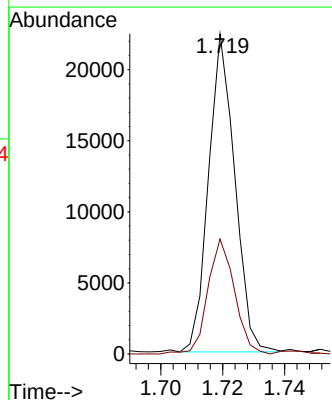
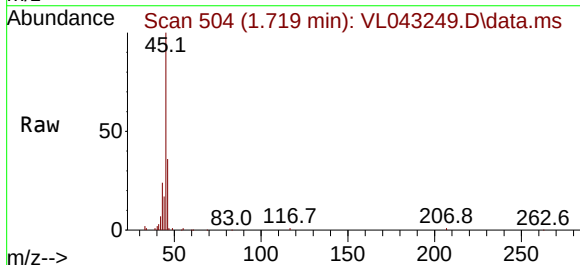
Instrument :
MSVOA_L
ClientSampleId :
9A-SG-2DUP

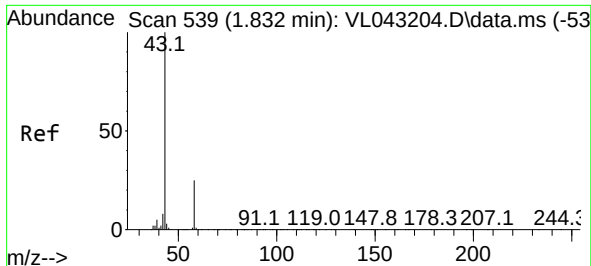
Tgt Ion:101 Resp: 4186
Ion Ratio Lower Upper
101 100
103 63.3 52.6 79.0



#13
Ethanol
Concen: 6.362 ppbv
RT: 1.719 min Scan# 504
Delta R.T. 0.003 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

Tgt Ion: 45 Resp: 13138
Ion Ratio Lower Upper
45 100
46 37.7 15.0 59.8

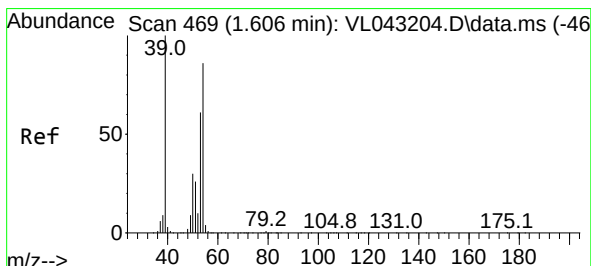
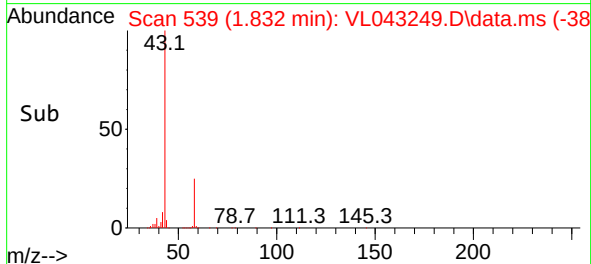
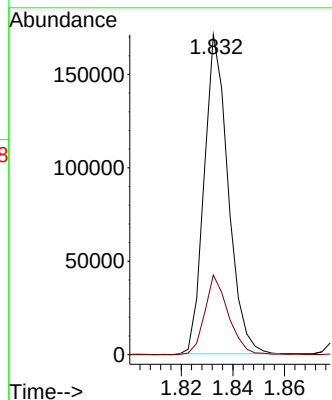
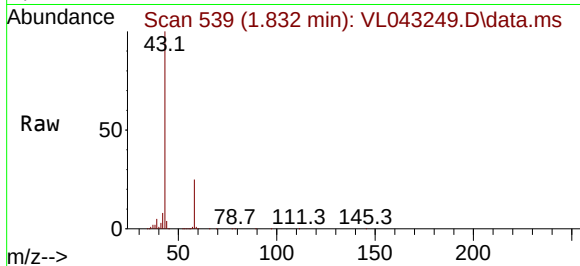




#15
Acetone
Concen: 7.950 ppbv
RT: 1.832 min Scan# 51
Delta R.T. -0.000 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

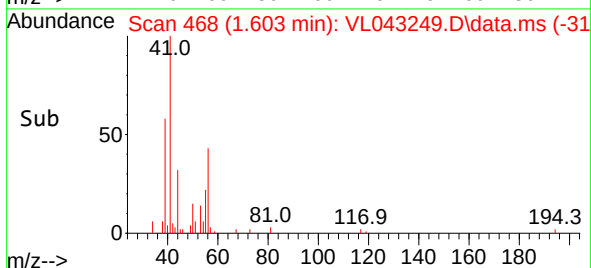
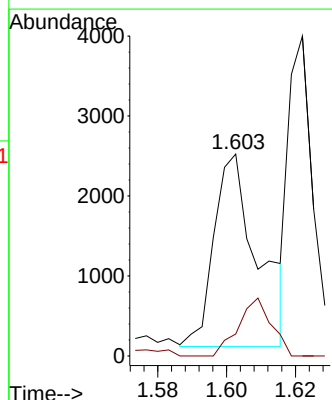
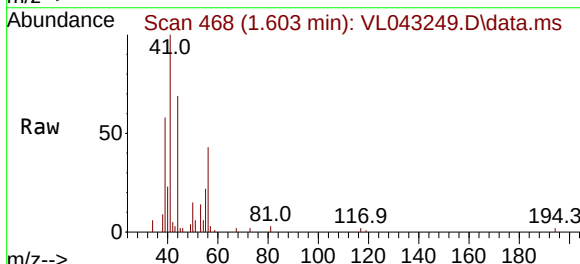
Instrument :
MSVOA_L
ClientSampleId :
9A-SG-2DUP

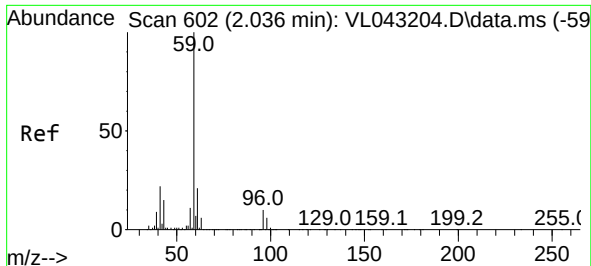
Tgt Ion: 43 Resp: 110125
Ion Ratio Lower Upper
43 100
58 24.6 20.7 31.1



#16
1,3-Butadiene
Concen: 0.341 ppbv
RT: 1.603 min Scan# 468
Delta R.T. -0.003 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

Tgt Ion: 39 Resp: 2105
Ion Ratio Lower Upper
39 100
54 27.4 59.4 89.2#





#17

tert-Butyl alcohol

Concen: 0.466 ppbv

RT: 2.040 min Scan# 602

Delta R.T. 0.003 min

Lab File: VL043249.D

Acq: 19 Nov 2025 21:01

Instrument :

MSVOA_L

ClientSampleId :

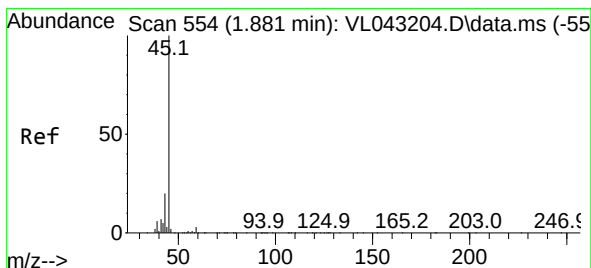
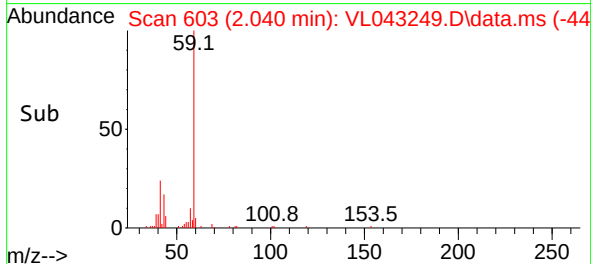
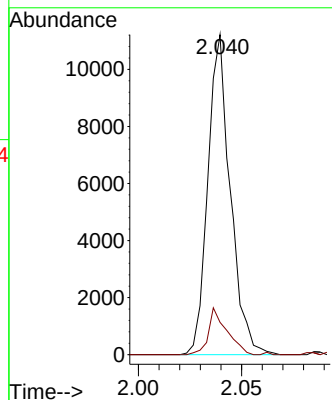
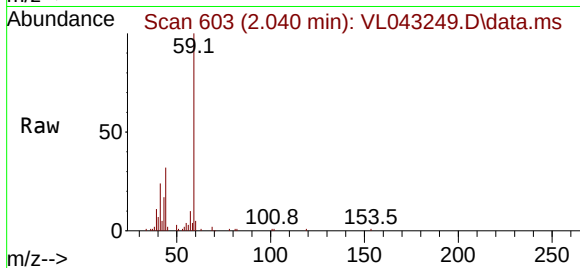
9A-SG-2DUP

Tgt Ion: 59 Resp: 8475

Ion Ratio Lower Upper

59 100

57 12.2 9.0 13.4



#19

Isopropyl Alcohol

Concen: 5.777 ppbv

RT: 1.884 min Scan# 555

Delta R.T. 0.003 min

Lab File: VL043249.D

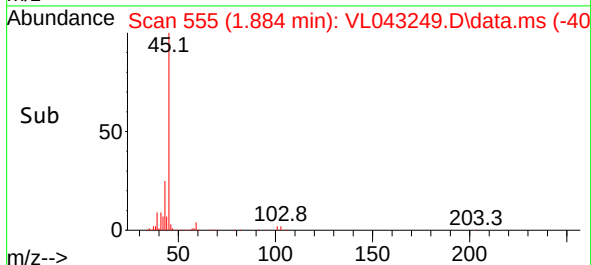
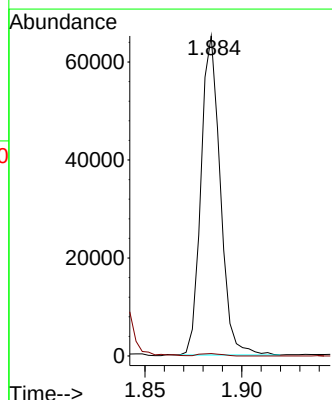
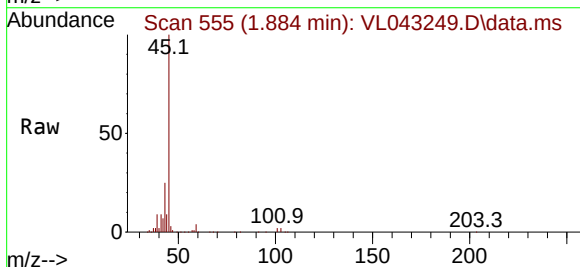
Acq: 19 Nov 2025 21:01

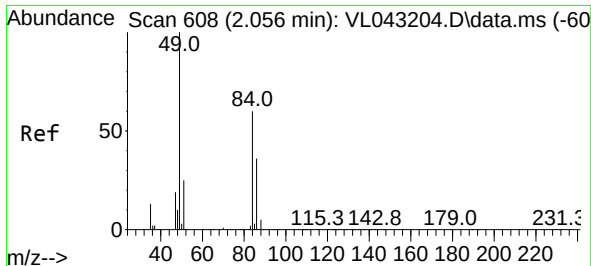
Tgt Ion: 45 Resp: 45218

Ion Ratio Lower Upper

45 100

58 60.0 31.3 46.9#

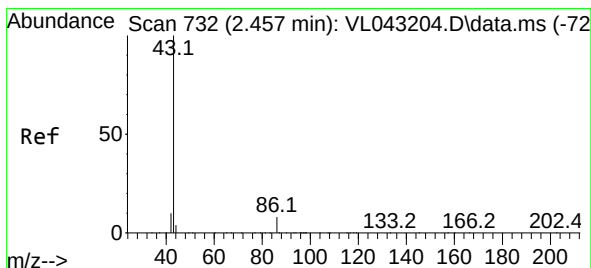
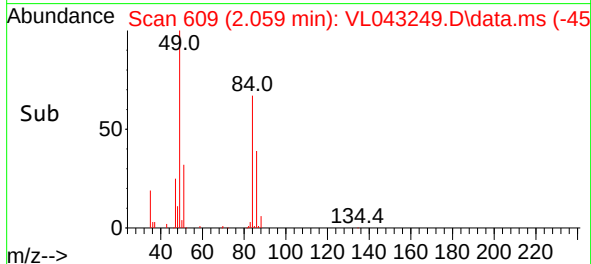
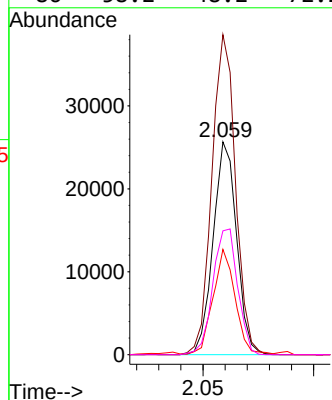
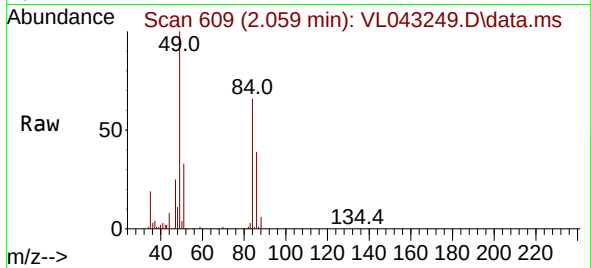




#20
Methylene Chloride
Concen: 4.188 ppbv
RT: 2.059 min Scan# 608
Delta R.T. 0.003 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

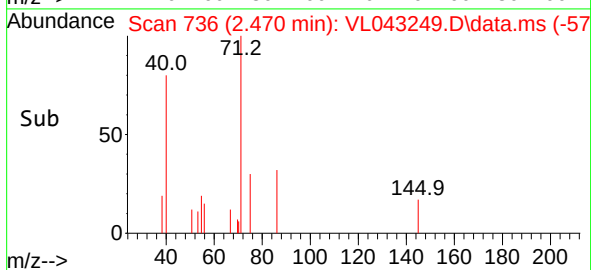
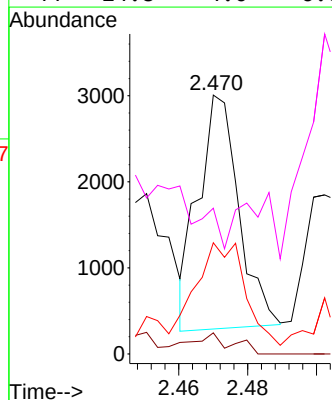
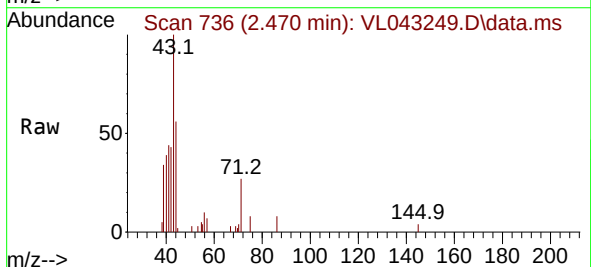
Instrument :
MSVOA_L
ClientSampleId :
9A-SG-2DUP

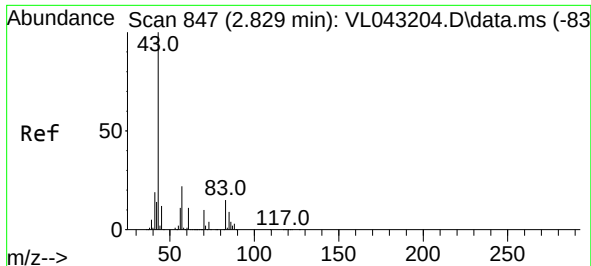
Tgt Ion: 84 Resp: 18957
Ion Ratio Lower Upper
84 100
49 150.4 132.9 199.3
51 49.1 34.8 52.2
86 58.2 48.2 72.2



#23
Vinyl Acetate
Concen: 0.133 ppbv
RT: 2.470 min Scan# 736
Delta R.T. 0.013 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

Tgt Ion: 43 Resp: 2224
Ion Ratio Lower Upper
43 100
86 9.3 6.2 9.2#
42 45.0 8.0 12.0#
44 24.8 4.0 6.0#

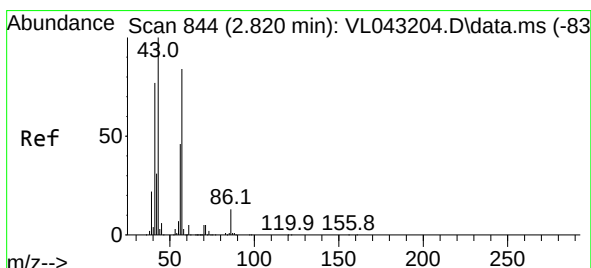
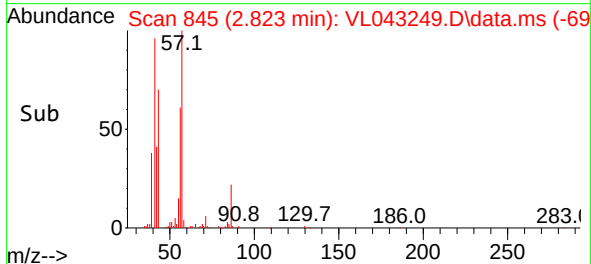
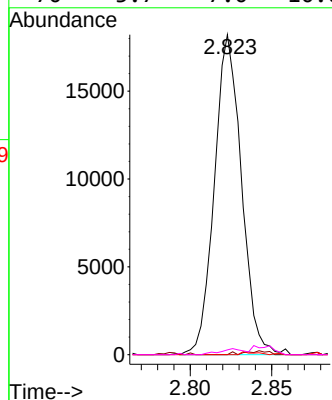
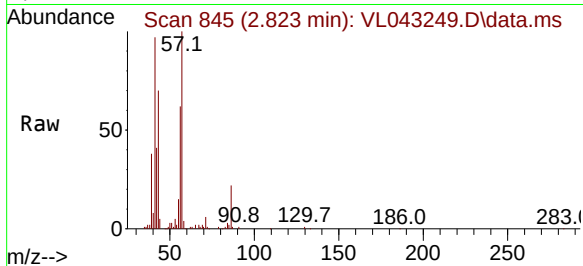




#25
Ethyl Acetate
Concen: 0.703 ppbv
RT: 2.823 min Scan# 845
Delta R.T. -0.006 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

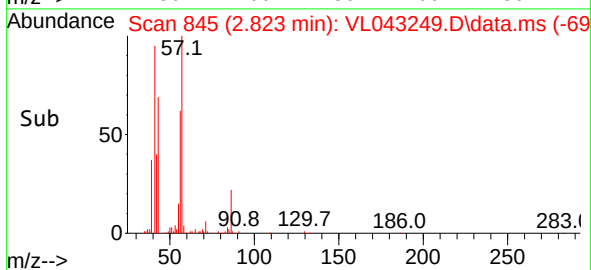
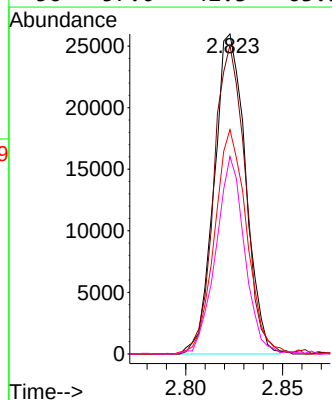
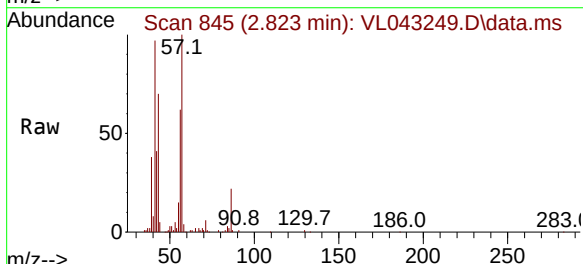
Instrument :
MSVOA_L
ClientSampleId :
9A-SG-2DUP

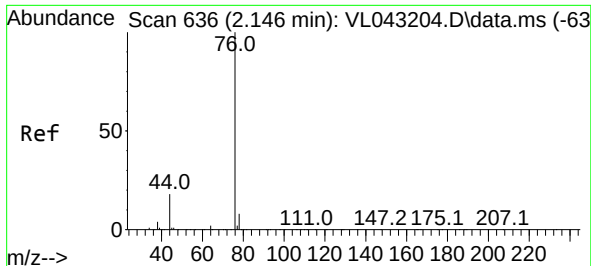
Tgt Ion: 43	Resp: 20994
Ion Ratio	Lower Upper
43 100	
45 1.0	8.1 12.1#
61 0.8	7.0 10.4#
70 3.7	7.0 10.6#



#26
Hexane
Concen: 2.236 ppbv
RT: 2.823 min Scan# 845
Delta R.T. 0.003 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

Tgt Ion: 57	Resp: 29288
Ion Ratio	Lower Upper
57 100	
41 96.8	74.6 111.8
43 71.9	179.0 268.4#
56 57.0	42.3 63.5





#27

Carbon Disulfide

Concen: 0.351 ppbv

RT: 2.146 min Scan# 61

Delta R.T. -0.000 min

Lab File: VL043249.D

Acq: 19 Nov 2025 21:01

Instrument :

MSVOA_L

ClientSampleId :

9A-SG-2DUP

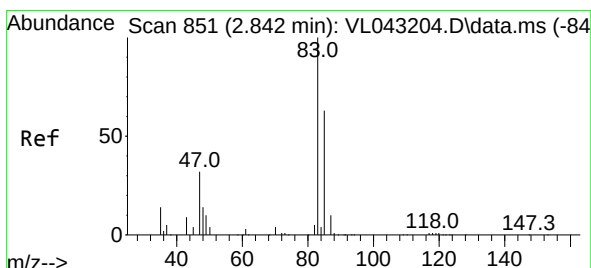
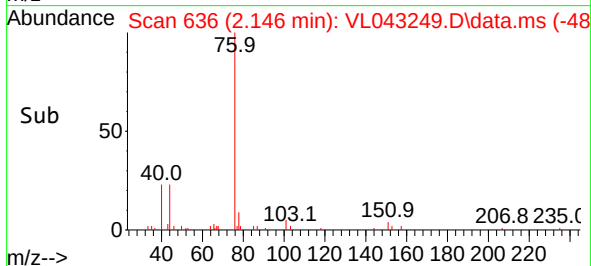
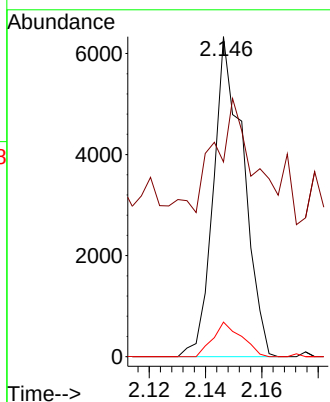
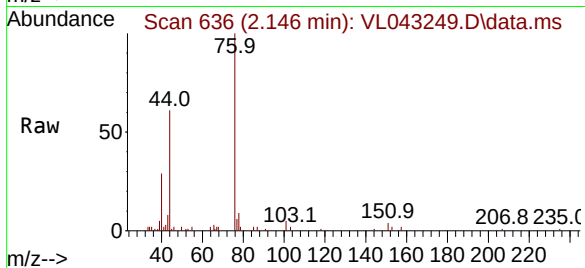
Tgt Ion: 76 Resp: 4694

Ion Ratio Lower Upper

76 100

44 132.7 16.1 24.1#

78 10.5 9.6 14.4



#29

Chloroform

Concen: 1.840 ppbv

RT: 2.845 min Scan# 852

Delta R.T. 0.003 min

Lab File: VL043249.D

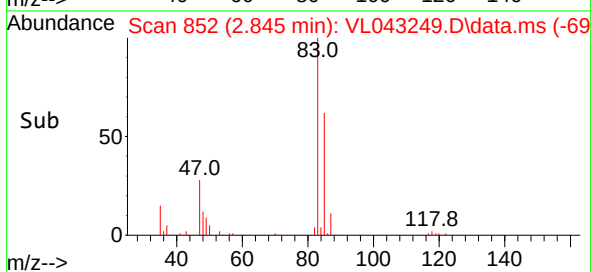
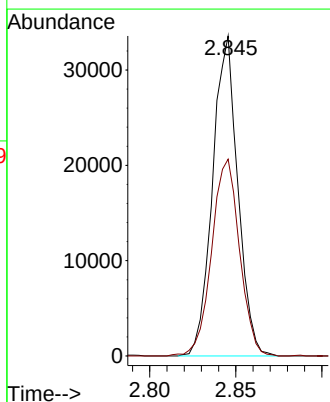
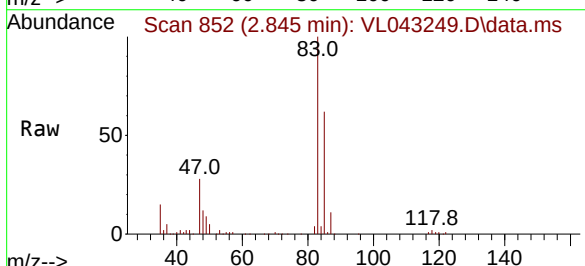
Acq: 19 Nov 2025 21:01

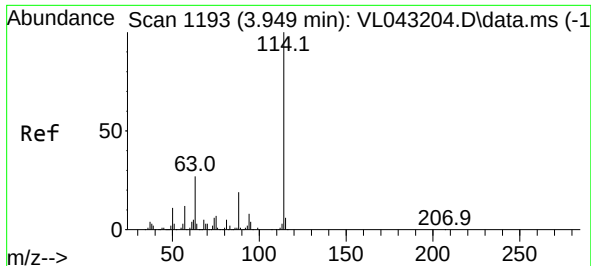
Tgt Ion: 83 Resp: 34264

Ion Ratio Lower Upper

83 100

85 61.5 50.5 75.7





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.952 min Scan# 1194

Delta R.T. 0.003 min

Lab File: VL043249.D

Acq: 19 Nov 2025 21:01

Instrument :

MSVOA_L

ClientSampleId :

9A-SG-2DUP

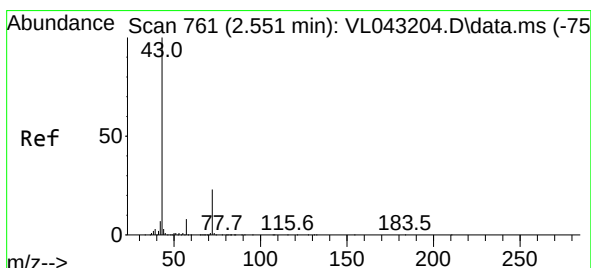
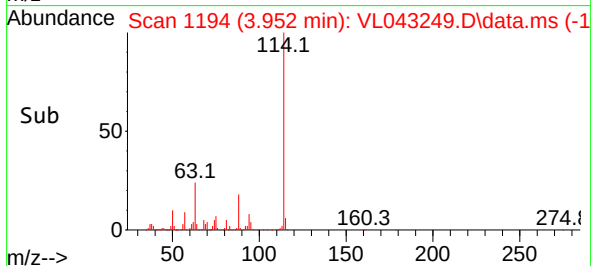
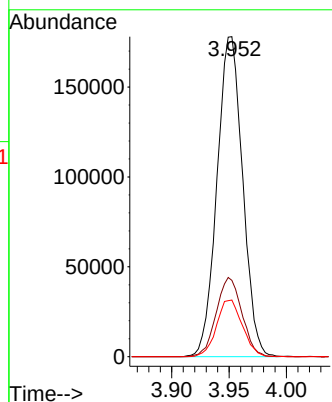
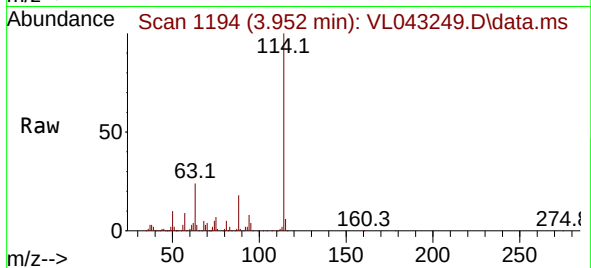
Tgt Ion:114 Resp: 276826

Ion Ratio Lower Upper

114 100

63 24.8 21.0 31.6

88 17.9 14.9 22.3



#34

2-Butanone

Concen: 0.242 ppbv

RT: 2.557 min Scan# 763

Delta R.T. 0.006 min

Lab File: VL043249.D

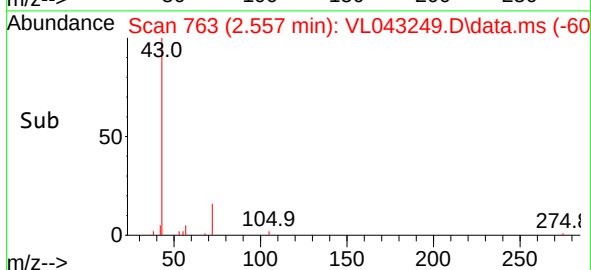
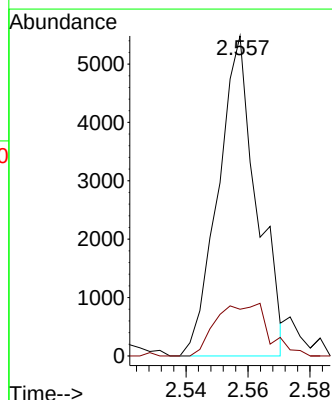
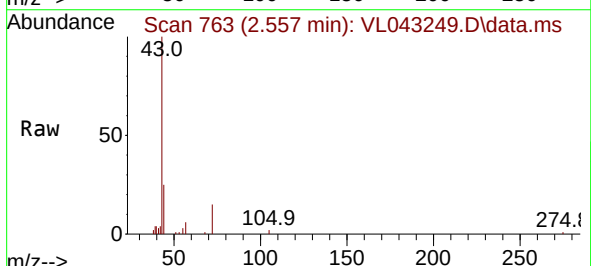
Acq: 19 Nov 2025 21:01

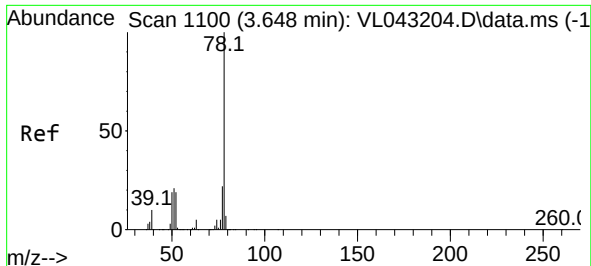
Tgt Ion: 43 Resp: 4730

Ion Ratio Lower Upper

43 100

72 22.2 18.1 27.1

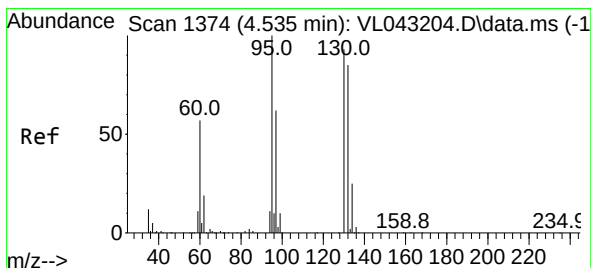
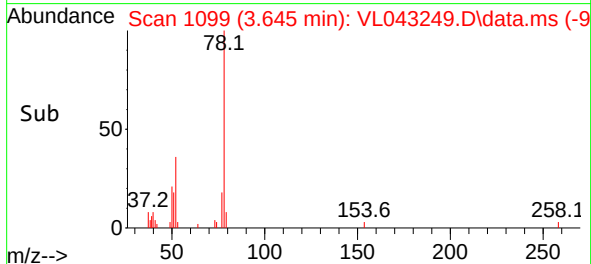
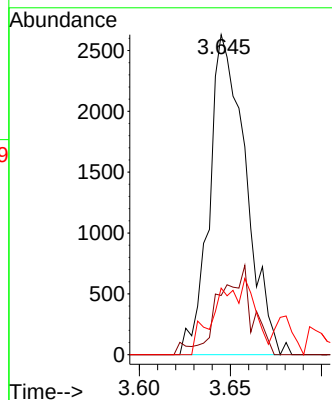
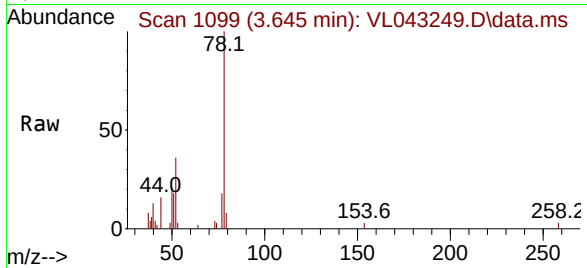




#36
Benzene
Concen: 0.137 ppbv
RT: 3.645 min Scan# 1100
Delta R.T. -0.003 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

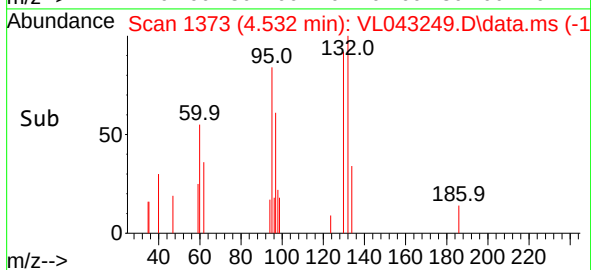
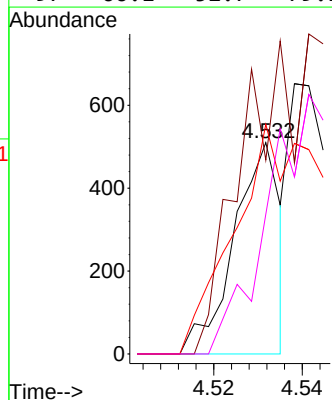
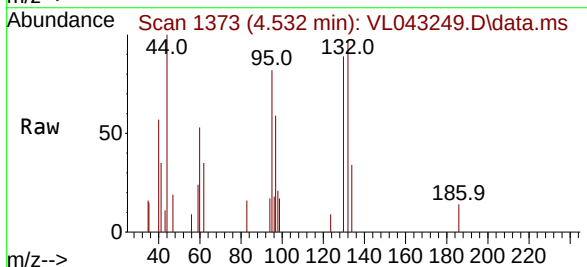
Instrument :
MSVOA_L
ClientSampleId :
9A-SG-2DUP

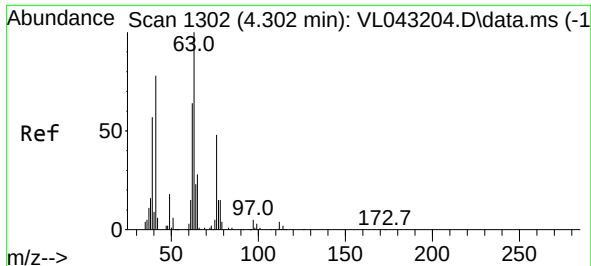
Tgt Ion: 78	Resp: 3642
Ion Ratio	Lower Upper
78 100	
77 18.5	17.5 26.3
50 20.8	15.5 23.3



#38
Trichloroethene
Concen: 0.036 ppbv
RT: 4.532 min Scan# 1373
Delta R.T. -0.003 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

Tgt Ion	130	Resp:	369
	Ratio	Lower	Upper
130	100		
95	91.8	85.7	128.5
132	108.6	73.4	110.0
97	66.1	52.7	79.1





#39

1,2-Dichloropropane

Concen: 7.057 ppbv

RT: 3.949 min Scan# 1193

Delta R.T. -0.353 min

Lab File: VL043249.D

Acq: 19 Nov 2025 21:01

Instrument :

MSVOA_L

ClientSampleId :

9A-SG-2DUP

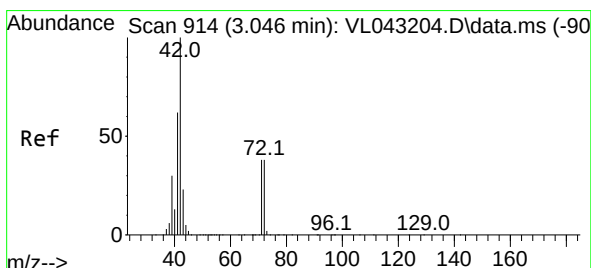
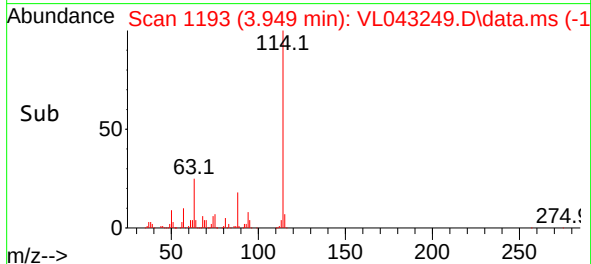
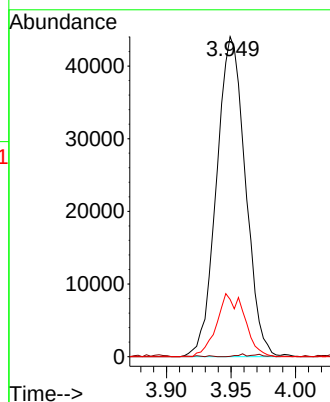
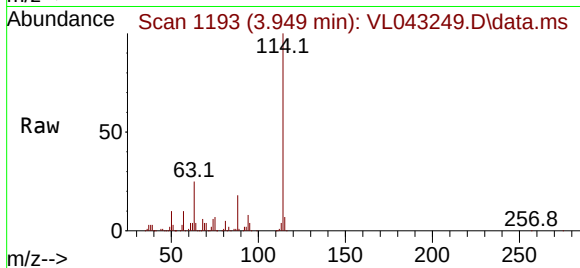
Tgt Ion: 63 Resp: 68478

Ion Ratio Lower Upper

63 100

41 0.1 62.6 93.8#

62 17.9 51.0 76.6#



#41

Tetrahydrofuran

Concen: 0.050 ppbv

RT: 3.059 min Scan# 918

Delta R.T. 0.013 min

Lab File: VL043249.D

Acq: 19 Nov 2025 21:01

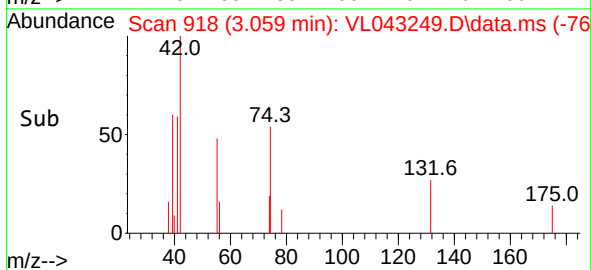
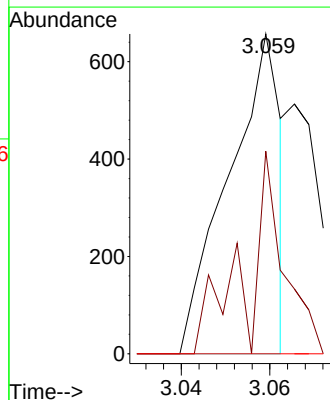
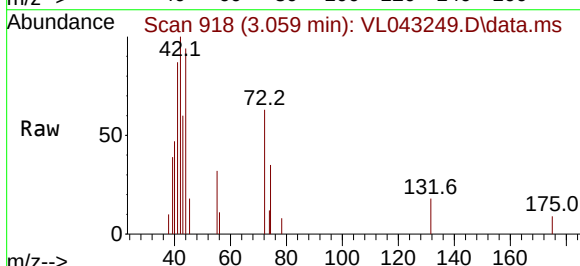
Tgt Ion: 42 Resp: 537

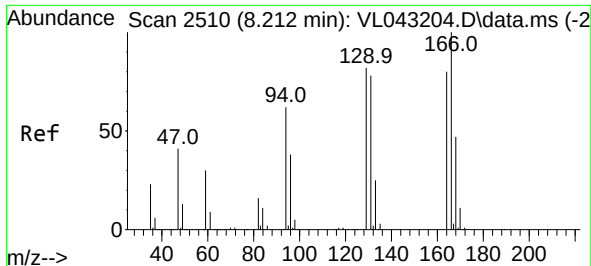
Ion Ratio Lower Upper

42 100

72 46.4 30.6 46.0#

71 0.0 30.5 45.7#

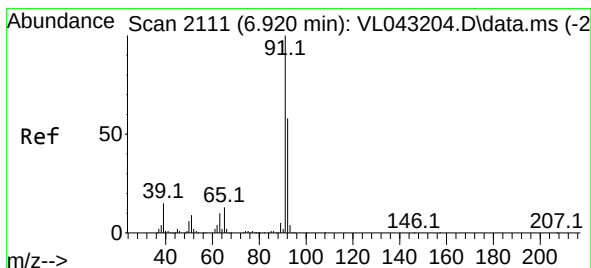
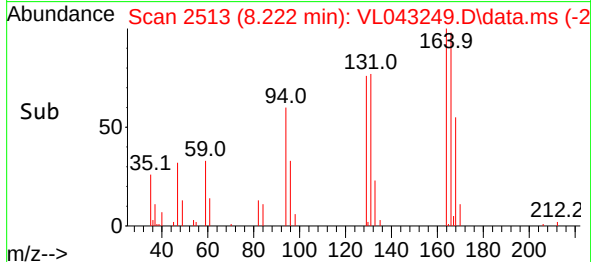
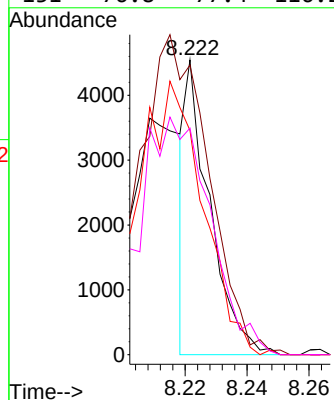
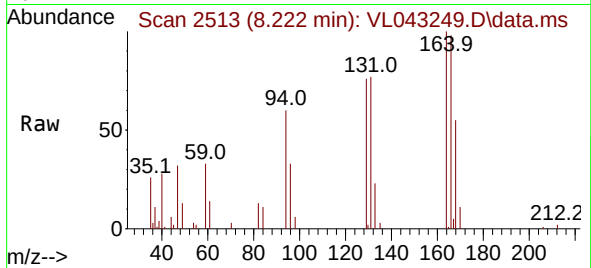




#52
Tetrachloroethene
Concen: 0.251 ppbv
RT: 8.222 min Scan# 2110
Delta R.T. 0.010 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

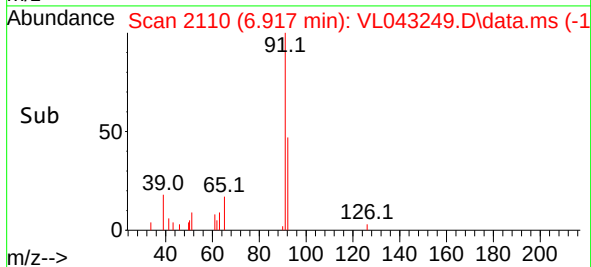
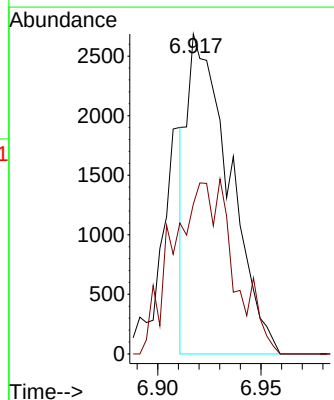
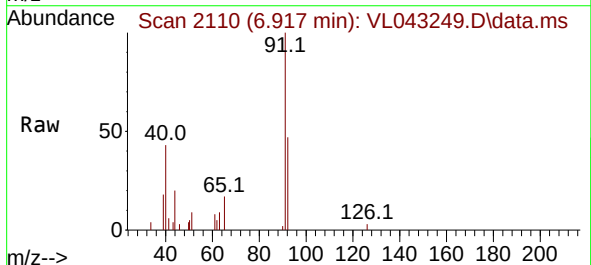
Instrument :
MSVOA_1
ClientSampleId :
9A-SG-2DUP

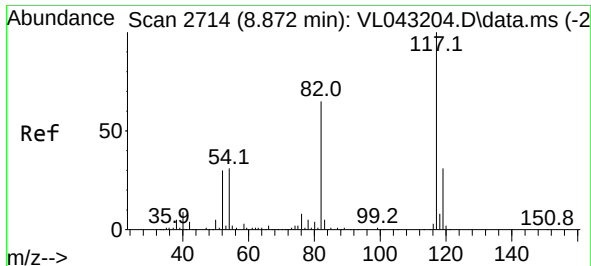
Tgt Ion:164 Resp: 2471
Ion Ratio Lower Upper
164 100
166 96.7 99.4 149.2#
129 78.2 81.8 122.8#
131 76.8 77.4 116.2#



#53
Toluene
Concen: 0.122 ppbv
RT: 6.917 min Scan# 2110
Delta R.T. -0.003 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

Tgt Ion: 91 Resp: 3835
Ion Ratio Lower Upper
91 100
92 77.4 47.4 71.0#

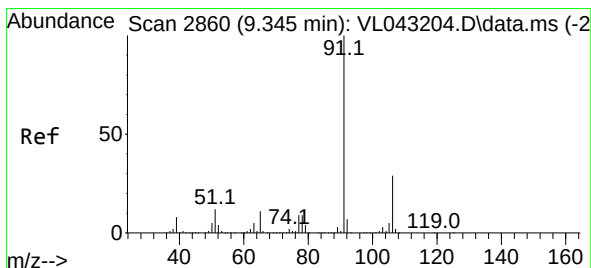
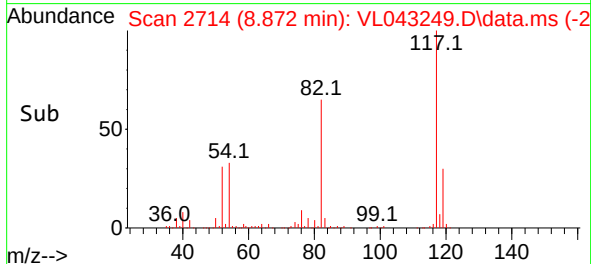
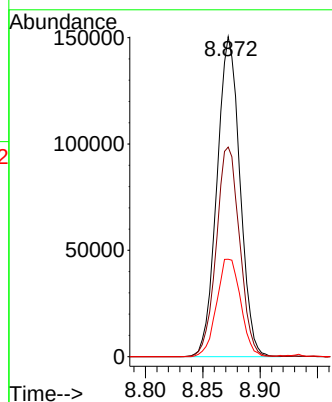
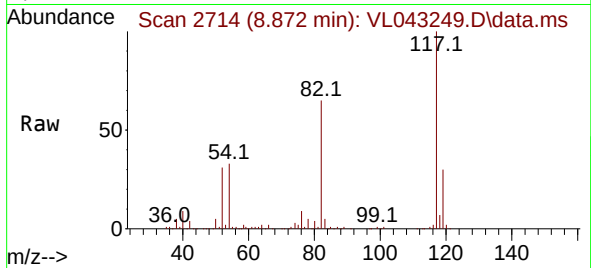




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.872 min Scan# 21
Delta R.T. -0.000 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

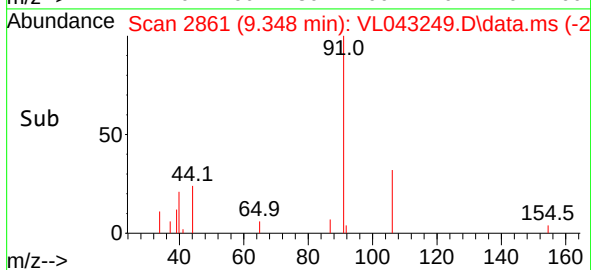
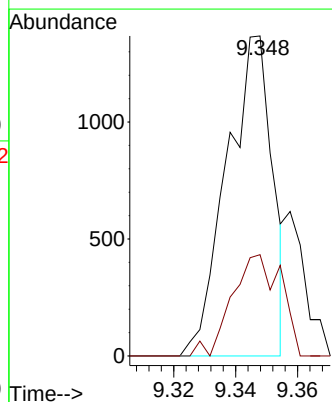
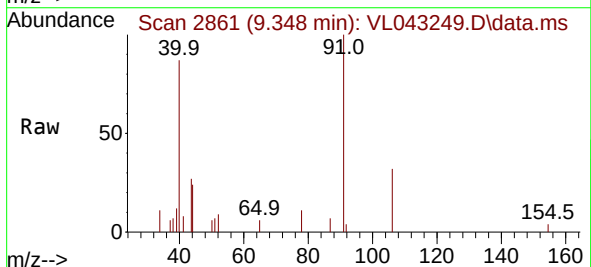
Instrument :
MSVOA_L
ClientSampleId :
9A-SG-2DUP

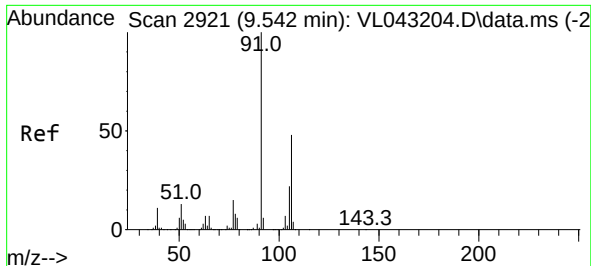
Tgt Ion:117 Resp: 209824
Ion Ratio Lower Upper
117 100
82 66.7 56.1 84.1
119 31.9 25.0 37.6



#58
Ethyl Benzene
Concen: 0.035 ppbv
RT: 9.348 min Scan# 2861
Delta R.T. 0.003 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

Tgt Ion: 91 Resp: 1400
Ion Ratio Lower Upper
91 100
106 30.5 22.8 34.2





#59

m/p-Xylene

Concen: 0.099 ppbv

RT: 9.526 min Scan# 2916

Delta R.T. -0.016 min

Lab File: VL043249.D

Acq: 19 Nov 2025 21:01

Instrument :

MSVOA_L

ClientSampleId :

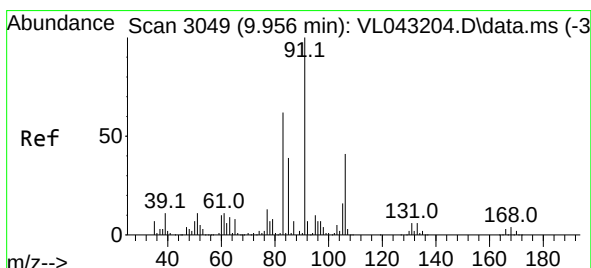
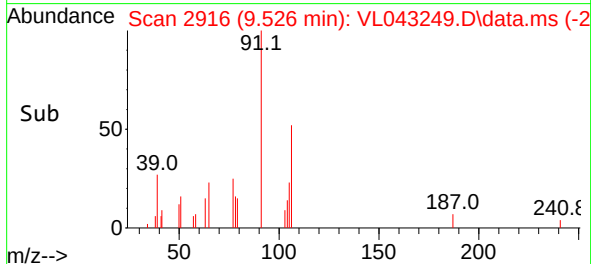
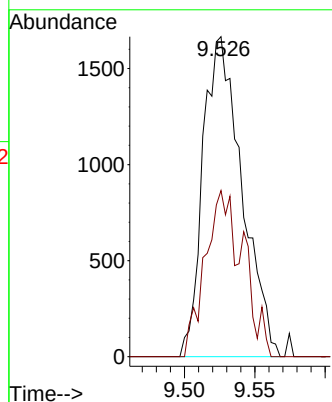
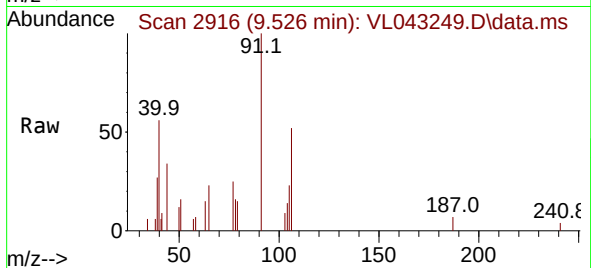
9A-SG-2DUP

Tgt Ion: 91 Resp: 3209

Ion Ratio Lower Upper

91 100

106 50.4 36.1 54.1



#60

o-Xylene

Concen: 0.033 ppbv

RT: 9.953 min Scan# 3048

Delta R.T. -0.003 min

Lab File: VL043249.D

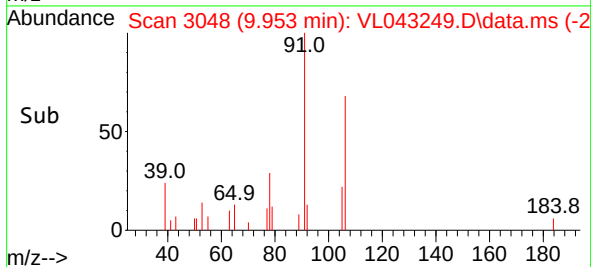
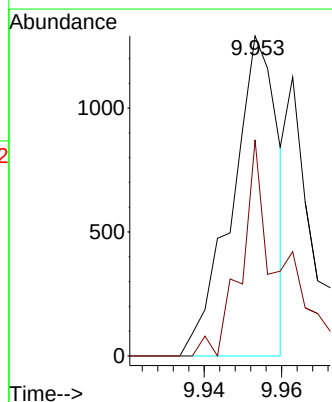
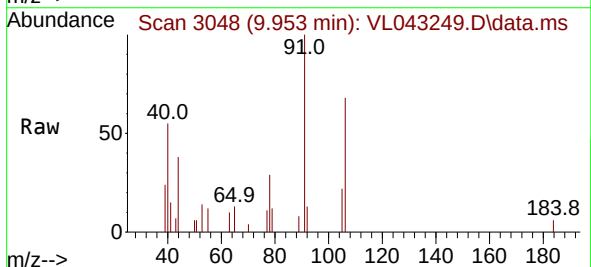
Acq: 19 Nov 2025 21:01

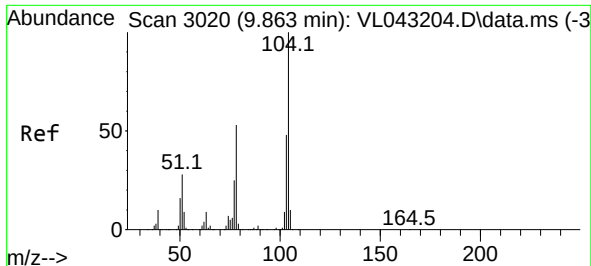
Tgt Ion: 91 Resp: 1059

Ion Ratio Lower Upper

91 100

106 57.0 20.9 62.8

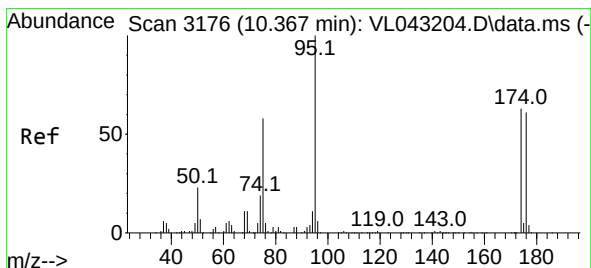
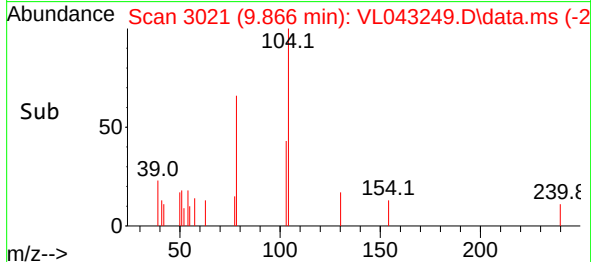
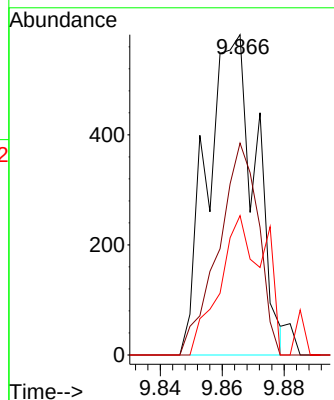
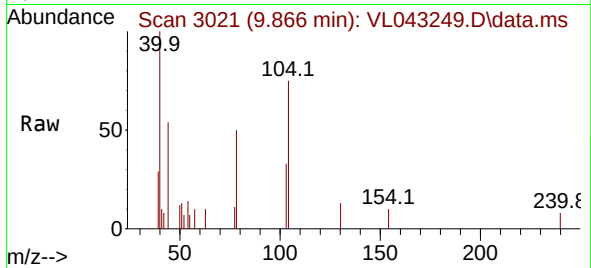




#61
Styrene
Concen: 0.045 ppbv
RT: 9.866 min Scan# 3020
Delta R.T. 0.003 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

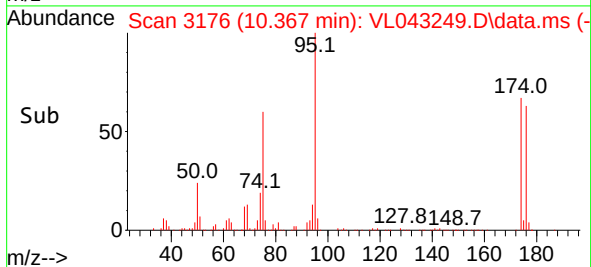
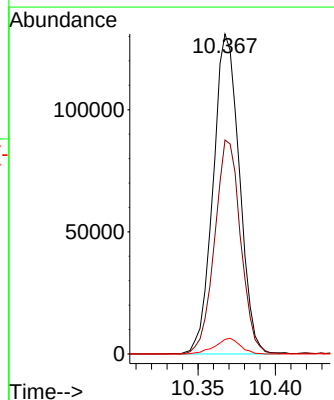
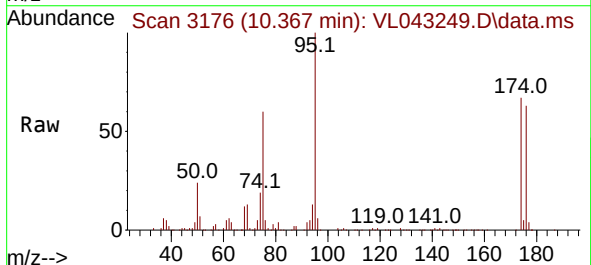
Instrument :
MSVOA_L
ClientSampleId :
9A-SG-2DUP

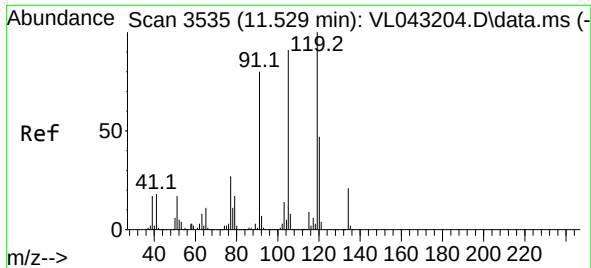
Tgt Ion:104 Resp: 633
Ion Ratio Lower Upper
104 100
78 54.8 42.1 63.1
103 42.2 37.2 55.8



#68
1-Bromo-4-Fluorobenzene
Concen: 10.026 ppbv
RT: 10.367 min Scan# 3176
Delta R.T. -0.000 min
Lab File: VL043249.D
Acq: 19 Nov 2025 21:01

Tgt Ion: 95 Resp: 154207
Ion Ratio Lower Upper
95 100
174 66.2 50.2 75.2
175 4.7 4.1 6.1





#74

1,2,4-Trimethylbenzene

Concen: 0.045 ppbv

RT: 11.526 min Scan# 31

Delta R.T. -0.003 min

Lab File: VL043249.D

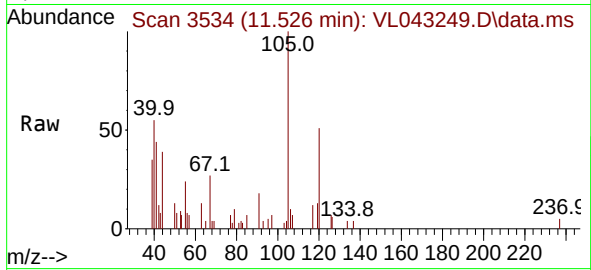
Acq: 19 Nov 2025 21:01

Instrument :

MSVOA_L

ClientSampleId :

9A-SG-2DUP



Tgt Ion:105 Resp: 1628

Ion Ratio Lower Upper

105 100

120 50.6 41.7 62.5

91 18.1 70.0 105.0#

77 7.2 23.8 35.8#

