

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL121922\
 Data File : VL040040.D
 Acq On : 19 Dec 2022 22:49
 Operator : SY/MD
 Sample : N5971-10
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SS-1

Quant Time: Dec 20 05:17:08 2022
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL121922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue Dec 20 04:50:21 2022
 Response via : Initial Calibration

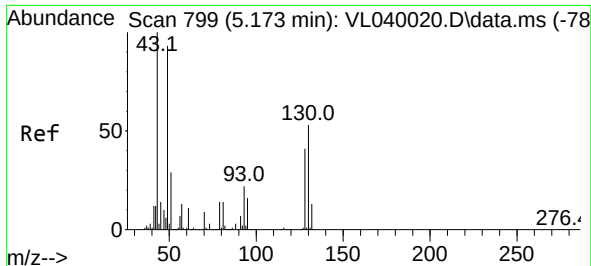
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	5.166	49	990199	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.626	114	2770637	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.442	117	2430625	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.757	95	1837680	9.898	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.000%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.706	85	43556	0.235	ppbv	89
3) Chlorodifluoromethane	2.652	51	50451	0.345	ppbv	95
4) Chloromethane	2.787	50	35290	0.386	ppbv	100
6) Bromomethane	3.095	94	1178	0.043	ppbv #	59
9) Propene	2.848	41	335373	5.409	ppbv	97
10) Heptane	7.558	43	234452	1.549	ppbv	98
11) Trichlorofluoromethane	3.539	101	36221	0.180	ppbv	94
12) 1,1,2-Trichlorotrifluo...	4.041	101	8774	0.058	ppbv	95
13) Ethanol	3.214	45	227073	38.913	ppbv	93
15) Acetone	3.443	43	1399306	9.135	ppbv	93
16) 1,3-Butadiene	2.941	39	113997	1.712	ppbv #	30
17) tert-Butyl alcohol	3.874	59	25071	0.166	ppbv #	72
19) Isopropyl Alcohol	3.591	45	101964	1.351	ppbv #	94
20) Methylene Chloride	3.912	84	70212	1.078	ppbv	90
23) Vinyl Acetate	4.584	43	28408	0.585	ppbv #	1
25) Ethyl Acetate	5.185	43	128526	0.484	ppbv #	79
26) Hexane	5.189	57	179667	1.611	ppbv #	38
27) Carbon Disulfide	4.099	76	9439	0.067	ppbv #	89
29) Chloroform	5.250	83	5546	0.033	ppbv #	74
30) Cyclohexane	6.584	84	16954	0.172	ppbv #	1
34) 2-Butanone	4.767	43	36387	0.242	ppbv #	86
35) Carbon Tetrachloride	6.468	117	8054	0.047	ppbv #	65
36) Benzene	6.343	78	86409	0.349	ppbv	98
39) 1,2-Dichloropropane	6.626	63	666362	7.185	ppbv #	22
44) 2,2,4-Trimethylpentane	7.298	57	32791	0.080	ppbv #	1
53) Toluene	9.195	91	859040	3.136	ppbv	100
58) Ethyl Benzene	12.069	91	140316	0.406	ppbv	99
59) m/p-Xylene	12.320	91	381458	1.268	ppbv	98
60) o-Xylene	13.037	91	141787	0.492	ppbv	100
61) Styrene	12.876	104	13267	0.086	ppbv #	45
62) Isopropylbenzene	14.005	105	25795	0.062	ppbv	97
73) 1,3,5-Trimethylbenzene	15.330	105	15303	0.053	ppbv	89
74) 1,2,4-Trimethylbenzene	16.079	105	15431	0.049	ppbv #	60

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

Quant Time: Dec 20 05:17:08 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL121922AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Tue Dec 20 04:50:21 2022
Response via : Initial Calibration

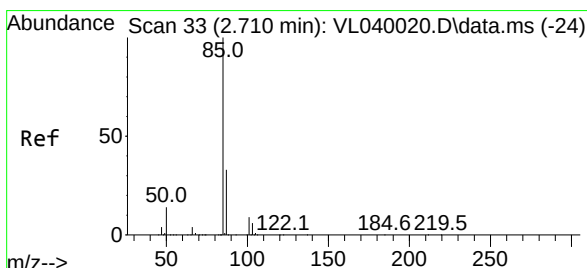
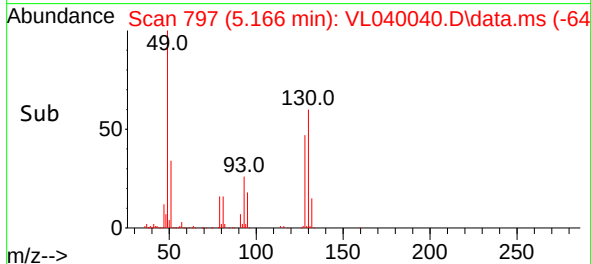
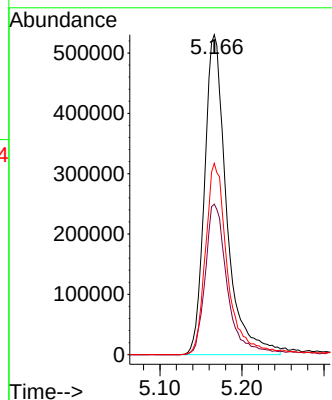
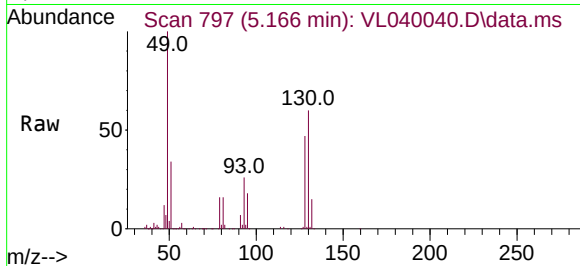




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.166 min Scan# 799
 Delta R.T. -0.007 min
 Lab File: VL040040.D
 Acq: 19 Dec 2022 22:49

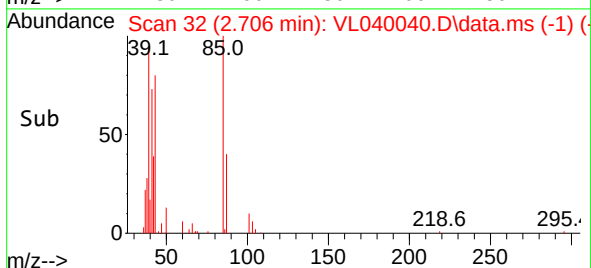
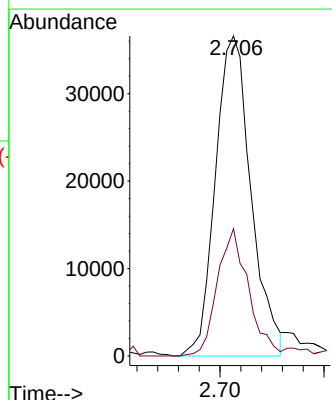
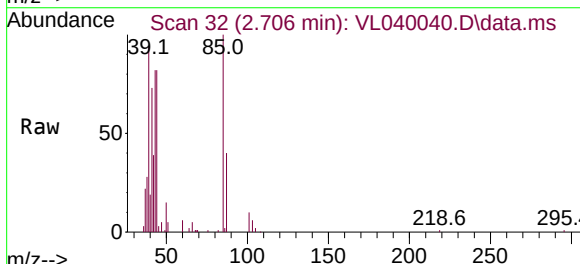
Instrument :
 MSVOA_L
 ClientSampleId :
 SS-1

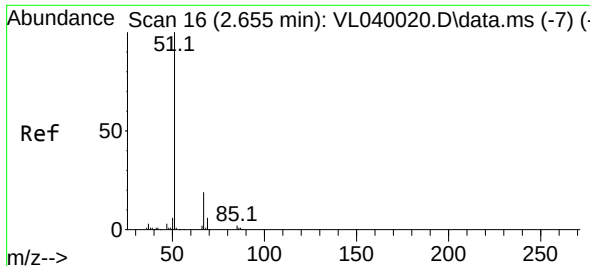
Tgt Ion: 49 Resp: 990199
 Ion Ratio Lower Upper
 49 100
 128 48.8 22.4 67.3
 130 61.1 28.9 86.8



#2
 Dichlorodifluoromethane
 Concen: 0.235 ppbv
 RT: 2.706 min Scan# 32
 Delta R.T. -0.003 min
 Lab File: VL040040.D
 Acq: 19 Dec 2022 22:49

Tgt Ion: 85 Resp: 43556
 Ion Ratio Lower Upper
 85 100
 87 39.8 26.6 40.0

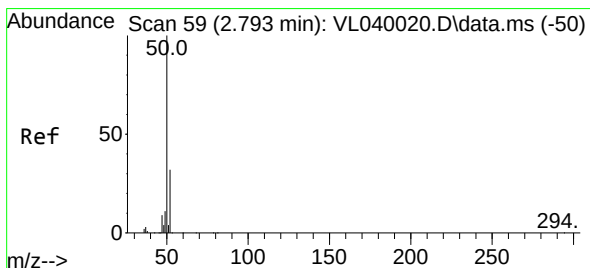
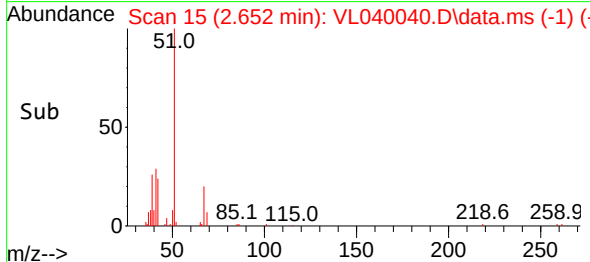
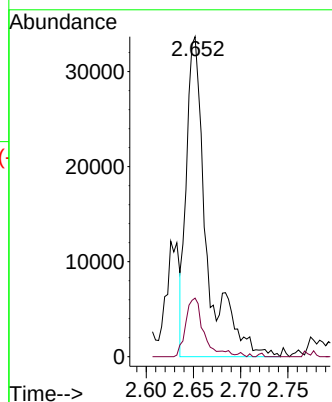
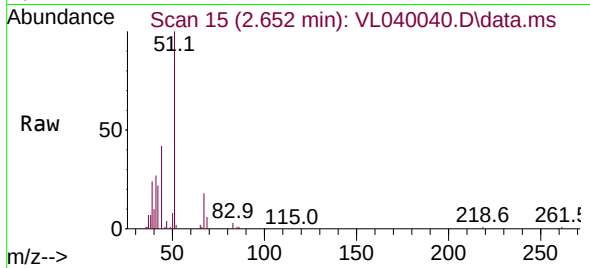




#3
Chlorodifluoromethane
Concen: 0.345 ppbv
RT: 2.652 min Scan# 11
Delta R.T. -0.003 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

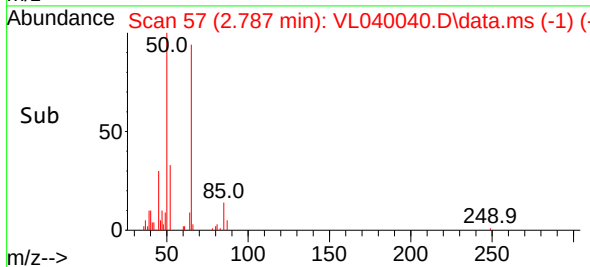
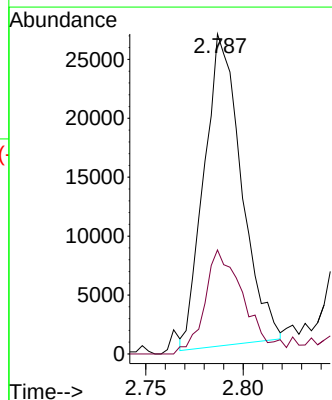
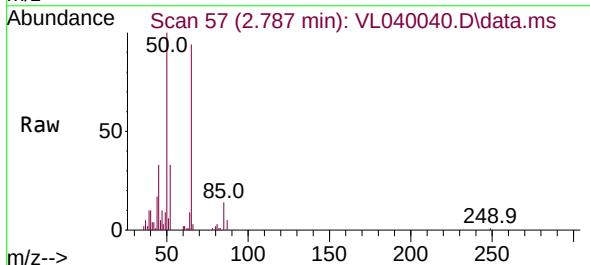
Instrument :
MSVOA_L
ClientSampleId :
SS-1

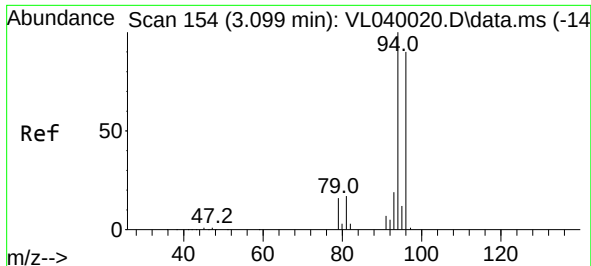
Tgt Ion: 51 Resp: 50451
Ion Ratio Lower Upper
51 100
67 16.6 15.3 22.9



#4
Chloromethane
Concen: 0.386 ppbv
RT: 2.787 min Scan# 57
Delta R.T. -0.006 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

Tgt Ion: 50 Resp: 35290
Ion Ratio Lower Upper
50 100
52 31.7 25.5 38.3

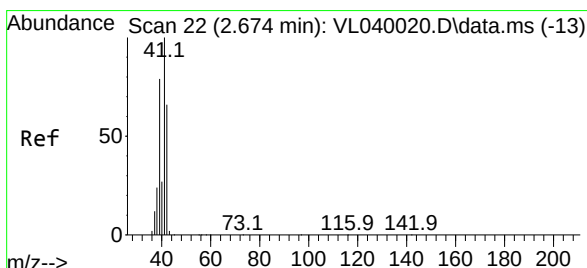
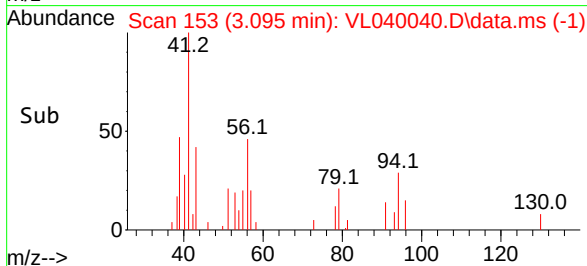
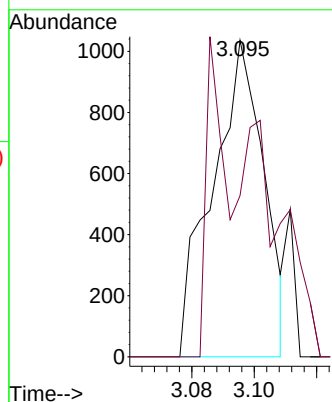
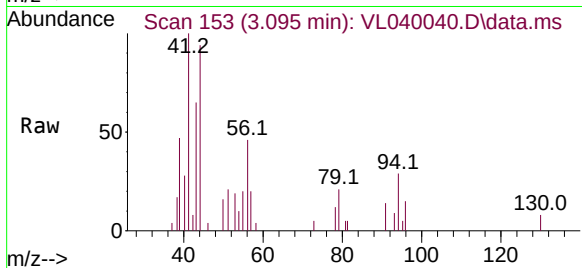




#6
Bromomethane
Concen: 0.043 ppbv
RT: 3.095 min Scan# 11
Delta R.T. -0.003 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

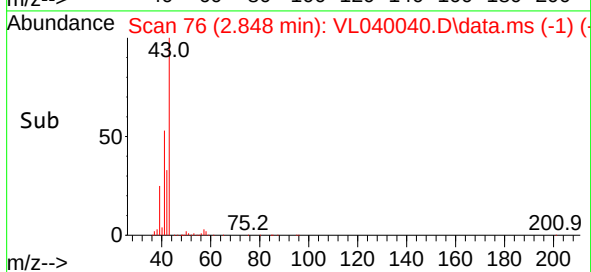
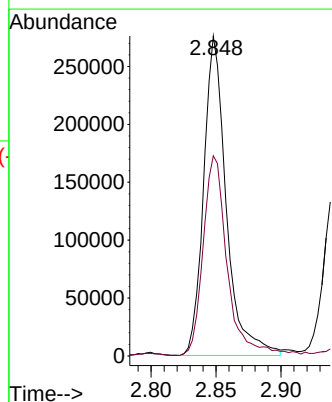
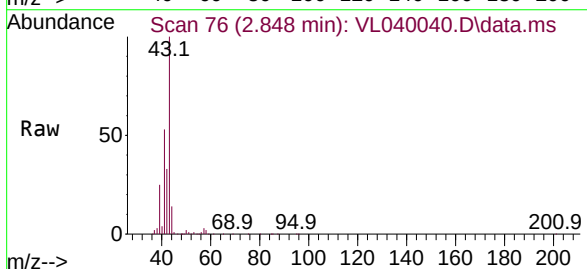
Instrument :
MSVOA_L
ClientSampleId :
SS-1

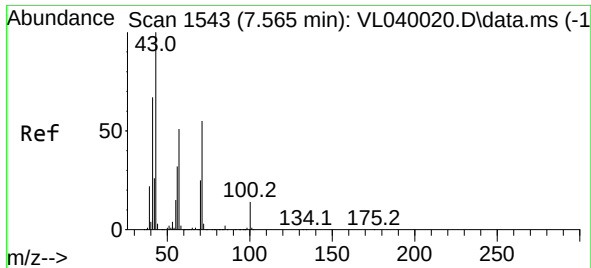
Tgt Ion: 94 Resp: 1178
Ion Ratio Lower Upper
94 100
96 51.0 72.0 108.0#



#9
Propene
Concen: 5.409 ppbv
RT: 2.848 min Scan# 76
Delta R.T. 0.174 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

Tgt Ion: 41 Resp: 335373
Ion Ratio Lower Upper
41 100
42 66.3 54.8 82.2





#10

Heptane

Concen: 1.549 ppbv

RT: 7.558 min Scan# 1

Delta R.T. -0.006 min

Lab File: VL040040.D

Acq: 19 Dec 2022 22:49

Instrument :

MSVOA_L

ClientSampleId :

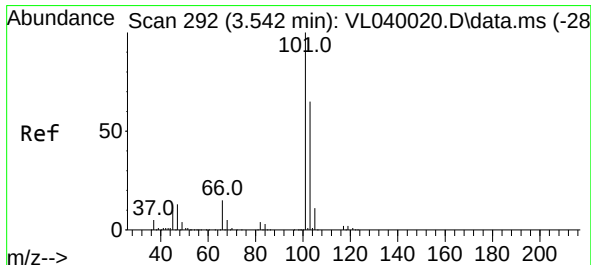
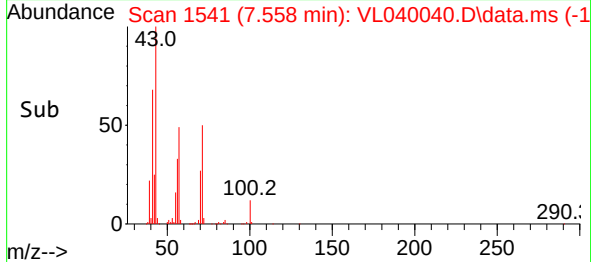
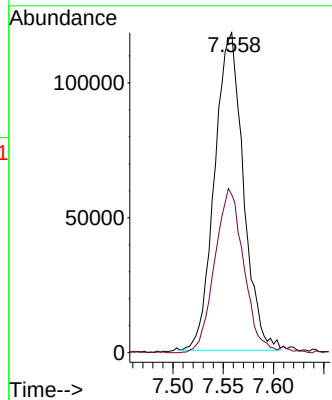
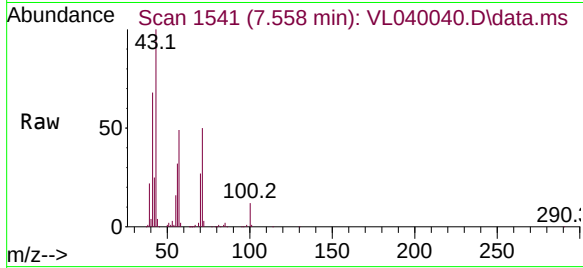
SS-1

Tgt Ion: 43 Resp: 234452

Ion Ratio Lower Upper

43 100

57 52.8 41.2 61.8



#11

Trichlorofluoromethane

Concen: 0.180 ppbv

RT: 3.539 min Scan# 291

Delta R.T. -0.003 min

Lab File: VL040040.D

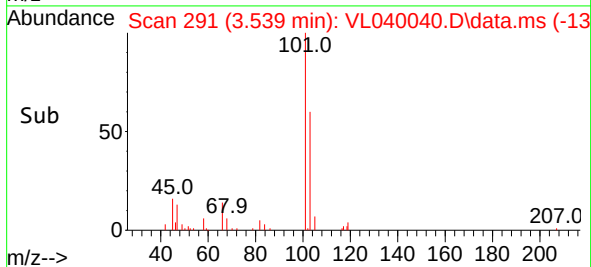
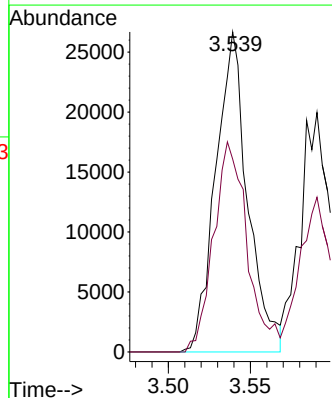
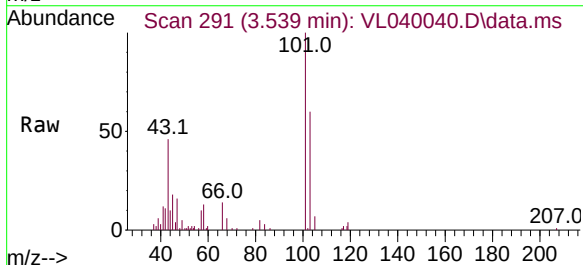
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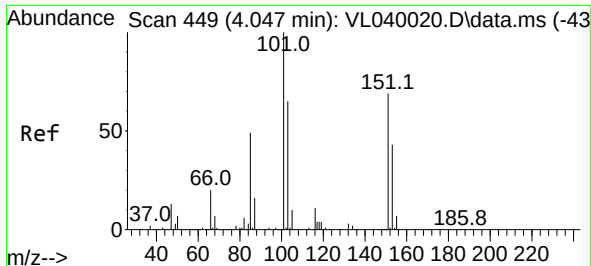
Tgt Ion:101 Resp: 36221

Ion Ratio Lower Upper

101 100

103 60.2 51.7 77.5

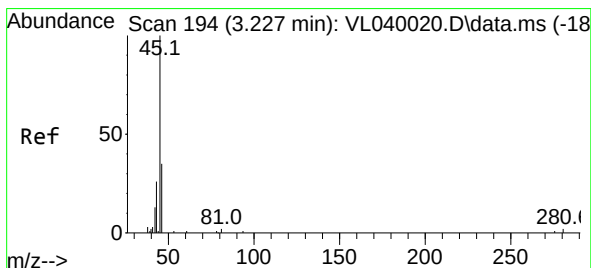
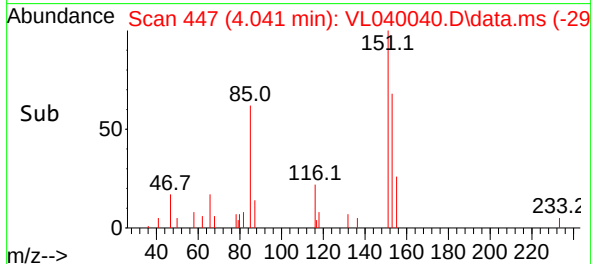
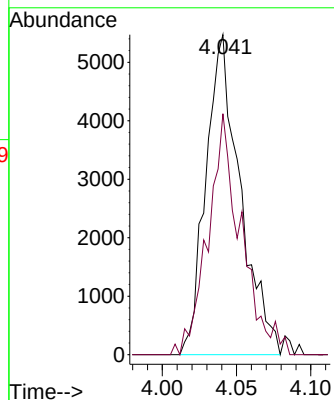
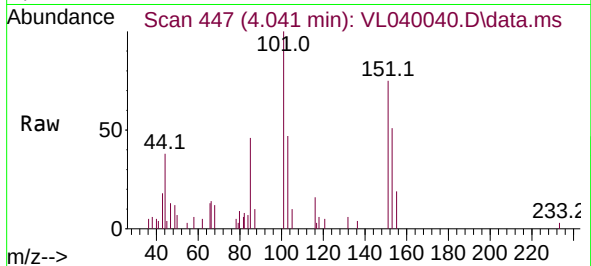




#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.058 ppbv
 RT: 4.041 min Scan# 449
 Delta R.T. -0.006 min
 Lab File: VL040040.D
 Acq: 19 Dec 2022 22:49

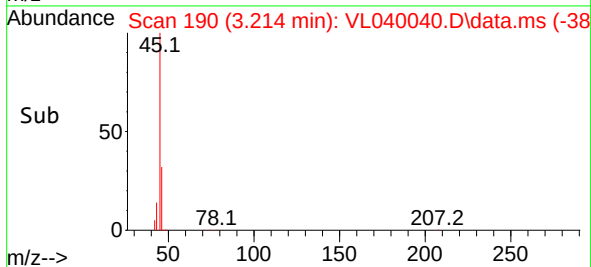
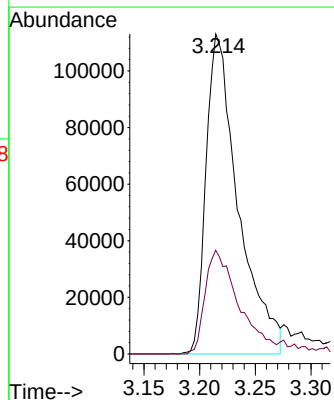
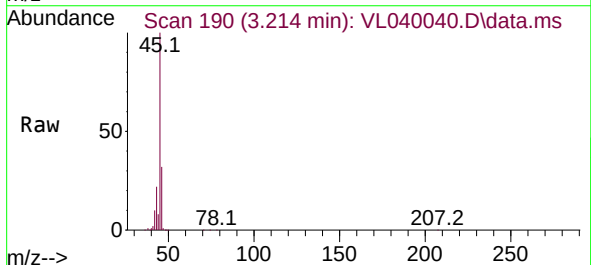
Instrument :
 MSVOA_1
 ClientSampleId :
 SS-1

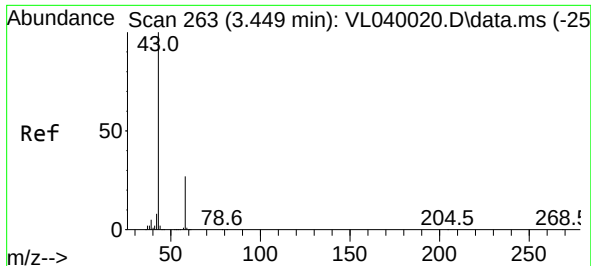
Tgt Ion:101 Resp: 8774
 Ion Ratio Lower Upper
 101 100
 151 72.5 55.0 82.4



#13
 Ethanol
 Concen: 38.913 ppbv
 RT: 3.214 min Scan# 190
 Delta R.T. -0.013 min
 Lab File: VL040040.D
 Acq: 19 Dec 2022 22:49

Tgt Ion: 45 Resp: 227073
 Ion Ratio Lower Upper
 45 100
 46 38.4 13.7 54.7





#15

Acetone

Concen: 9.135 ppbv

RT: 3.443 min Scan# 21

Delta R.T. -0.006 min

Lab File: VL040040.D

Acq: 19 Dec 2022 22:49

Instrument :

MSVOA_1

ClientSampleId :

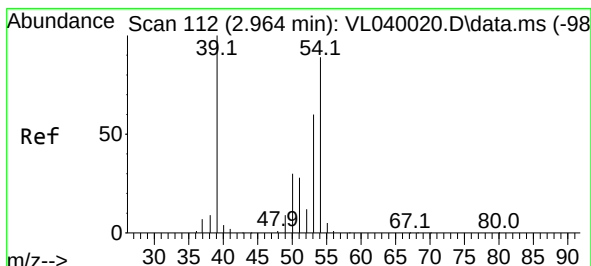
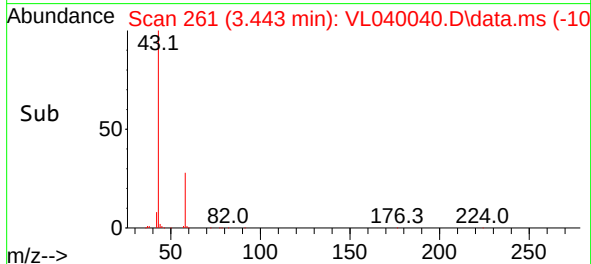
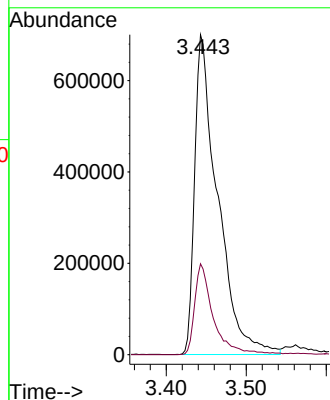
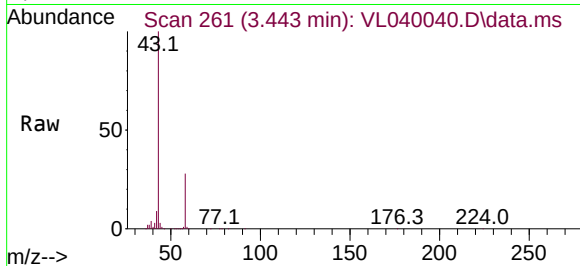
SS-1

Tgt Ion: 43 Resp: 1399306

Ion Ratio Lower Upper

43 100

58 23.6 21.8 32.8



#16

1,3-Butadiene

Concen: 1.712 ppbv

RT: 2.941 min Scan# 105

Delta R.T. -0.022 min

Lab File: VL040040.D

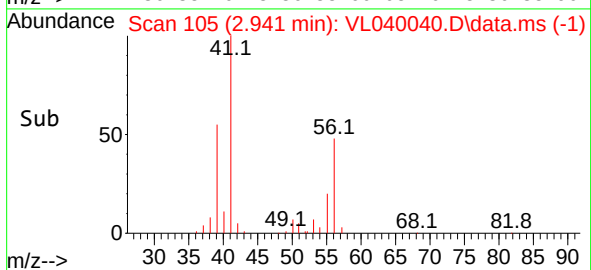
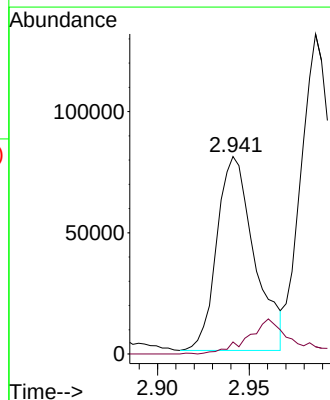
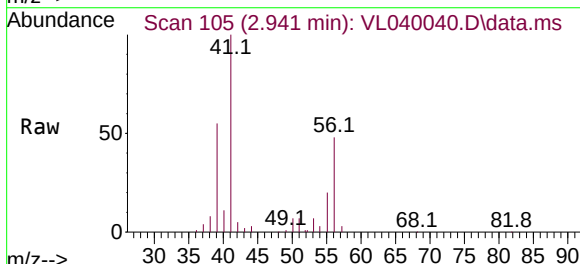
Acq: 19 Dec 2022 22:49

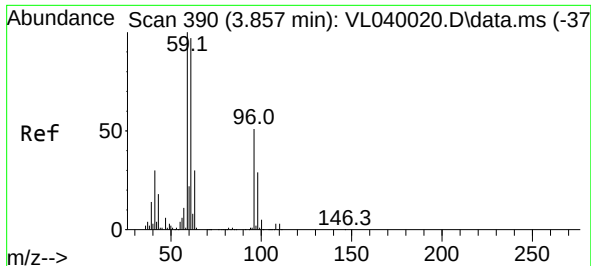
Tgt Ion: 39 Resp: 113997

Ion Ratio Lower Upper

39 100

54 21.8 68.3 102.5#





#17

tert-Butyl alcohol

Concen: 0.166 ppbv

RT: 3.874 min Scan# 307

Delta R.T. 0.016 min

Lab File: VL040040.D

Acq: 19 Dec 2022 22:49

Instrument :

MSVOA_L

ClientSampleId :

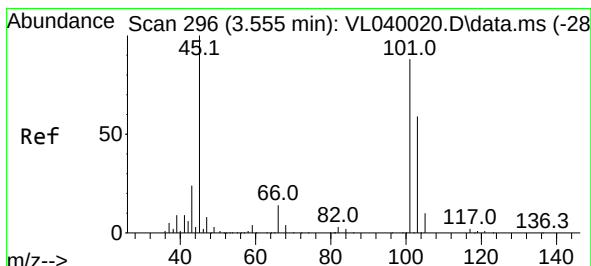
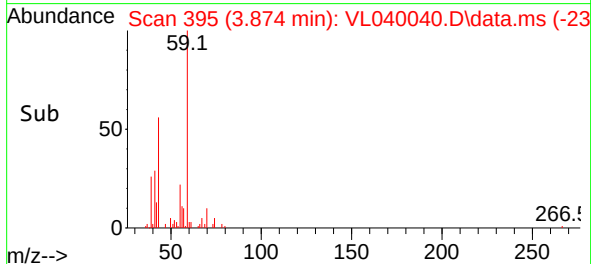
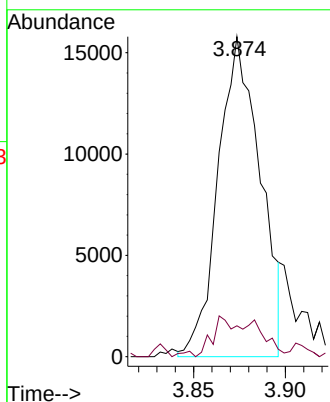
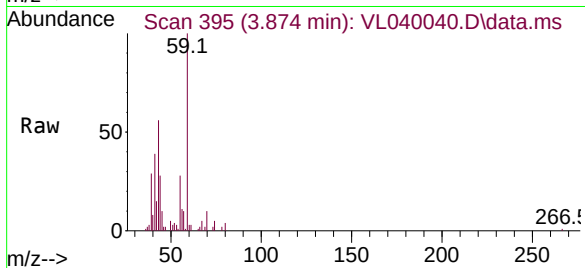
SS-1

Tgt Ion: 59 Resp: 25071

Ion Ratio Lower Upper

59 100

57 0.0 8.4 12.6#



#19

Isopropyl Alcohol

Concen: 1.351 ppbv

RT: 3.591 min Scan# 307

Delta R.T. 0.035 min

Lab File: VL040040.D

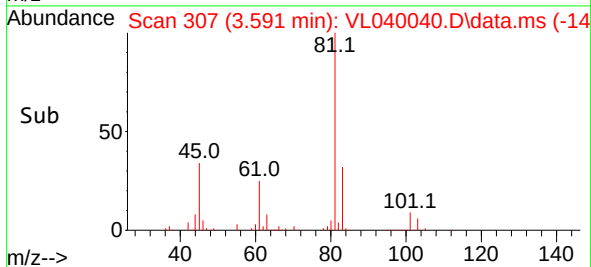
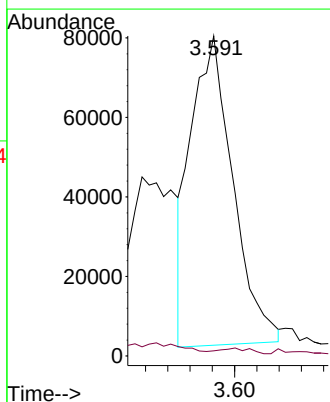
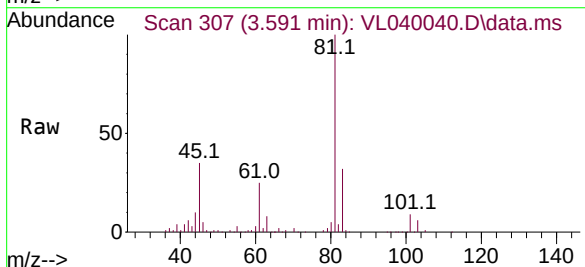
Acq: 19 Dec 2022 22:49

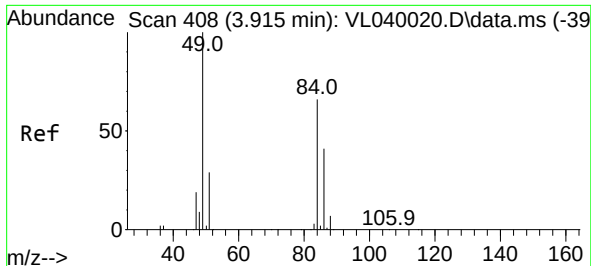
Tgt Ion: 45 Resp: 101964

Ion Ratio Lower Upper

45 100

58 0.0 1.7 2.5#

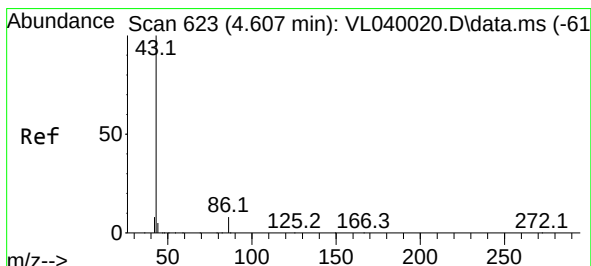
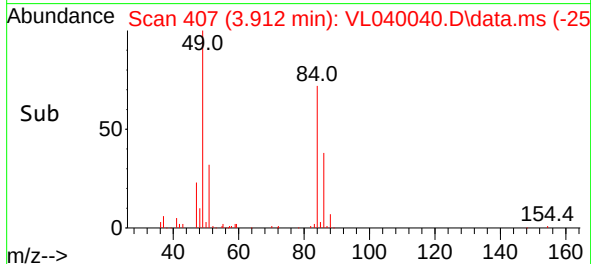
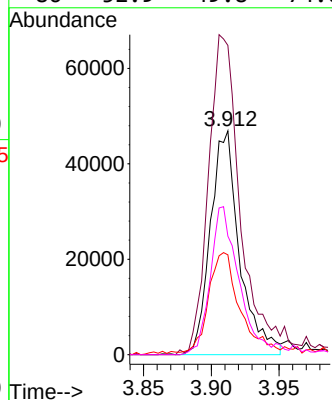
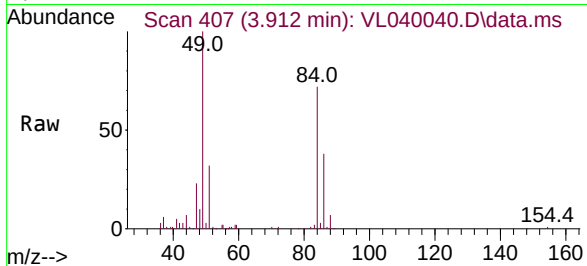




#20
Methylene Chloride
Concen: 1.078 ppbv
RT: 3.912 min Scan# 407
Delta R.T. -0.003 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

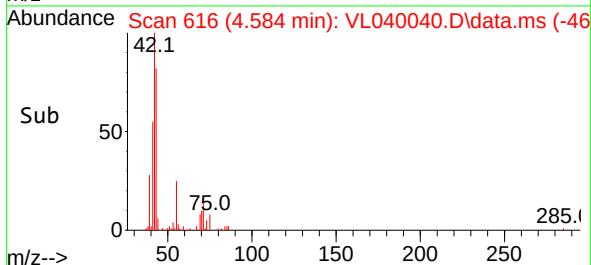
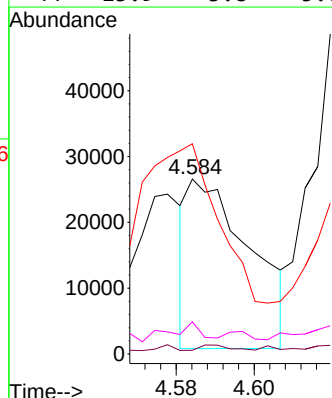
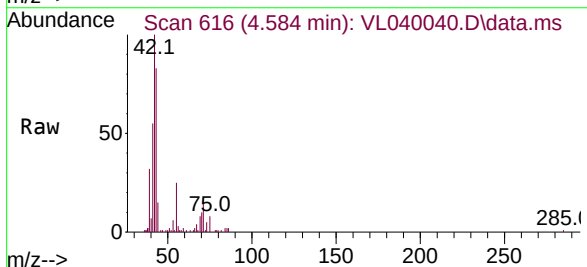
Instrument :
MSVOA_L
ClientSampleId :
SS-1

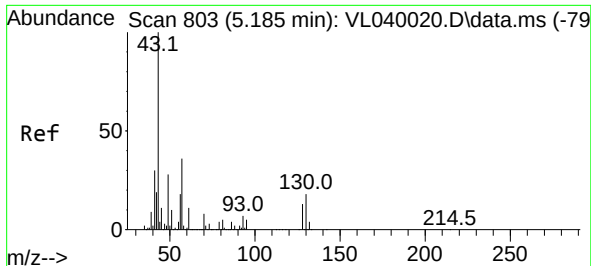
Tgt Ion: 84 Resp: 70212
Ion Ratio Lower Upper
84 100
49 136.0 120.5 180.7
51 43.5 35.2 52.8
86 52.9 49.8 74.6



#23
Vinyl Acetate
Concen: 0.585 ppbv
RT: 4.584 min Scan# 616
Delta R.T. -0.022 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

Tgt Ion: 43 Resp: 28408
Ion Ratio Lower Upper
43 100
86 0.1 5.3 7.9#
42 173.0 7.4 11.0#
44 13.9 3.8 5.6#

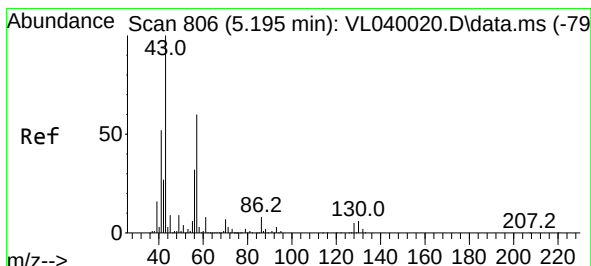
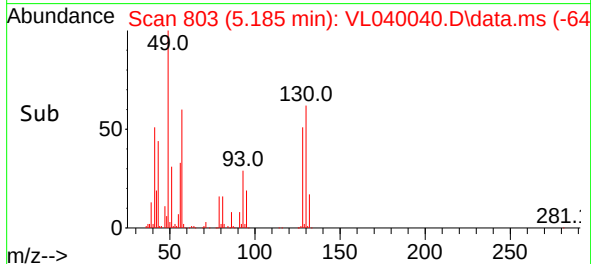
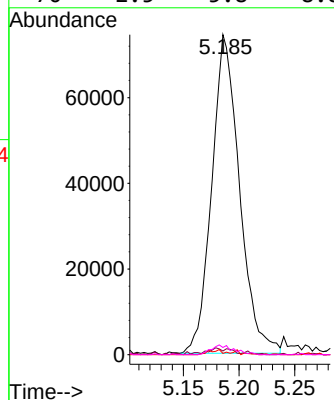
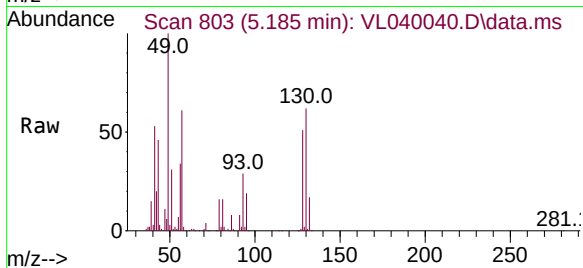




#25
Ethyl Acetate
Concen: 0.484 ppbv
RT: 5.185 min Scan# 803
Delta R.T. 0.000 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

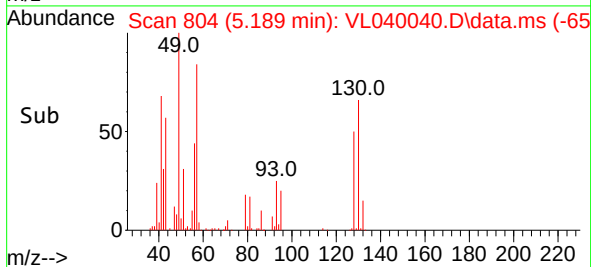
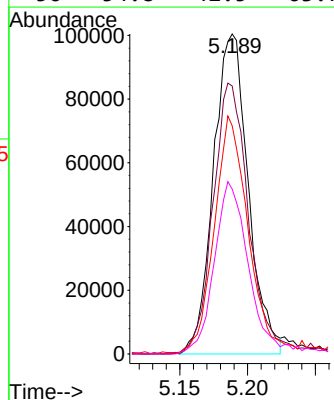
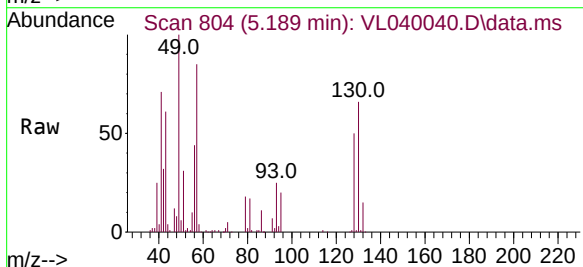
Instrument :
MSVOA_1
ClientSampleId :
SS-1

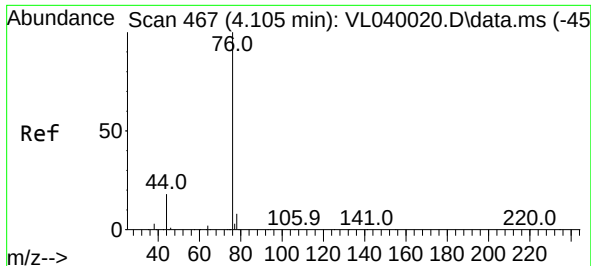
Tgt Ion:	43	Resp:	128526
Ion	Ratio	Lower	Upper
43	100		
45	2.3	8.6	12.8#
61	1.3	8.5	12.7#
70	2.5	5.8	8.8#



#26
Hexane
Concen: 1.611 ppbv
RT: 5.189 min Scan# 804
Delta R.T. -0.006 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

Tgt Ion:	57	Resp:	179667
Ion	Ratio	Lower	Upper
57	100		
41	88.9	72.1	108.1
43	74.7	192.1	288.1#
56	54.8	42.5	63.7

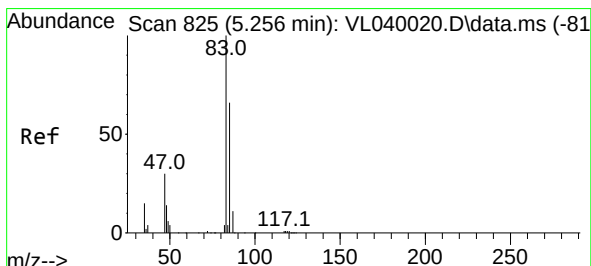
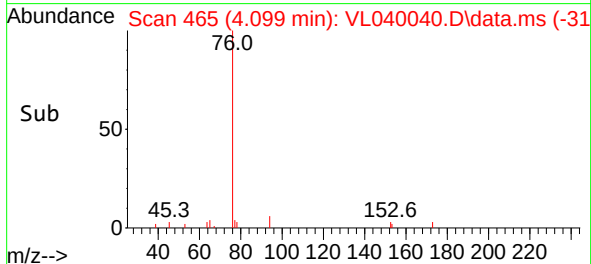
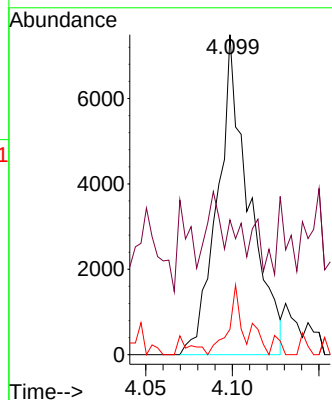
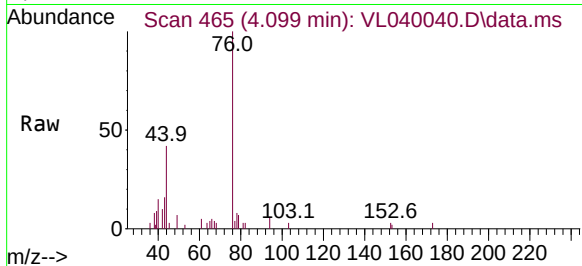




#27
Carbon Disulfide
Concen: 0.067 ppbv
RT: 4.099 min Scan# 41
Delta R.T. -0.006 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

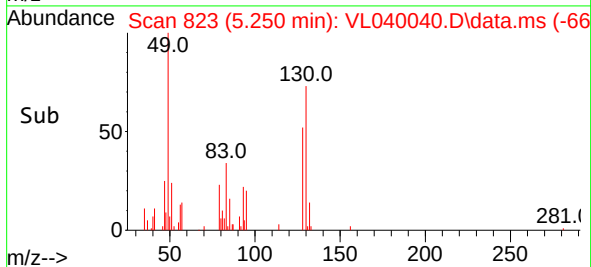
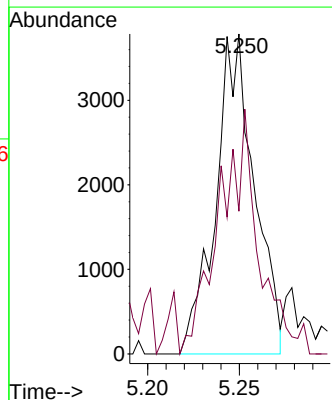
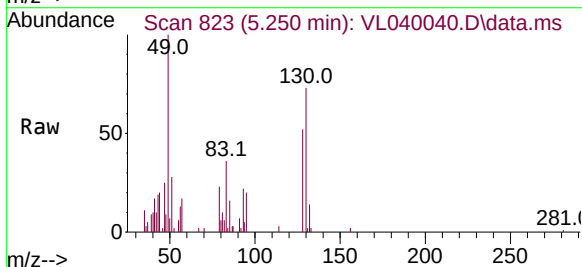
Instrument :
MSVOA_L
ClientSampleId :
SS-1

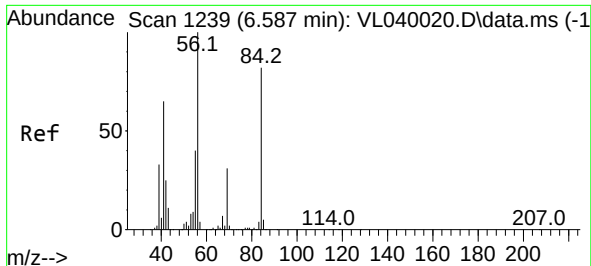
Tgt Ion: 76 Resp: 9439
Ion Ratio Lower Upper
76 100
44 23.2 15.3 22.9#
78 15.4 7.8 11.6#



#29
Chloroform
Concen: 0.033 ppbv
RT: 5.250 min Scan# 823
Delta R.T. -0.006 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

Tgt Ion: 83 Resp: 5546
Ion Ratio Lower Upper
83 100
85 44.6 52.4 78.6#

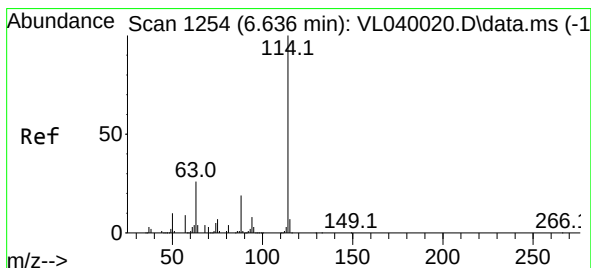
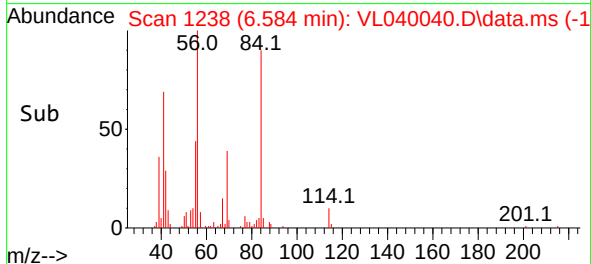
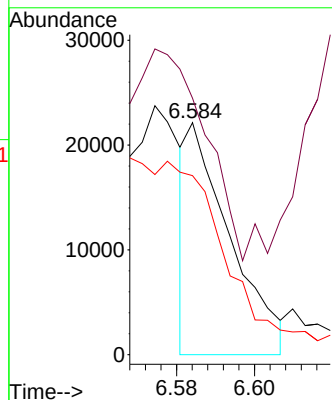
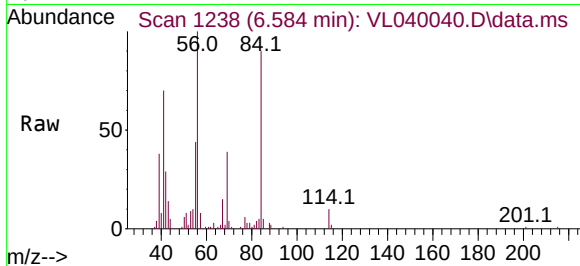




#30
Cyclohexane
Concen: 0.172 ppbv
RT: 6.584 min Scan# 11
Delta R.T. -0.003 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

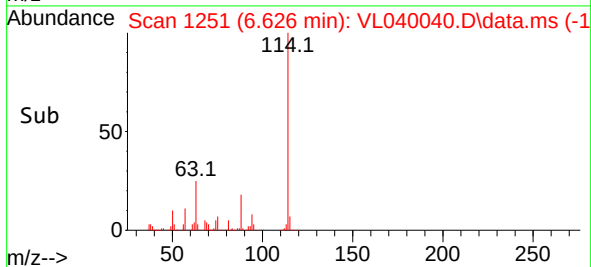
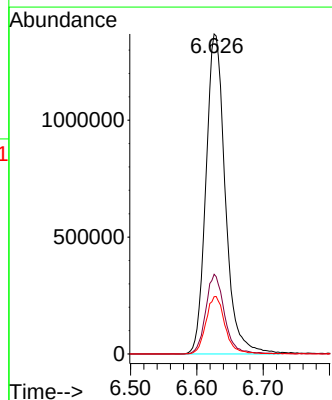
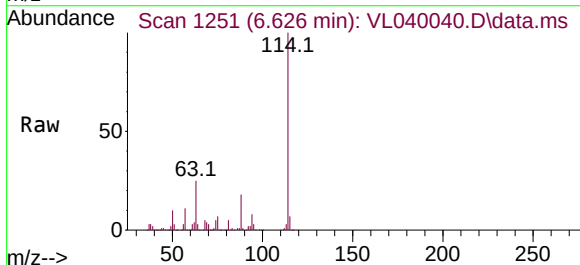
Instrument :
MSVOA_L
ClientSampleId :
SS-1

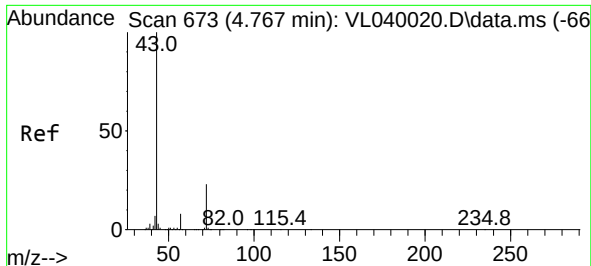
Tgt Ion: 84 Resp: 16954
Ion Ratio Lower Upper
84 100
56 0.0 110.2 165.4#
41 0.0 67.8 101.8#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 6.626 min Scan# 1251
Delta R.T. -0.010 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

Tgt Ion: 114 Resp: 2770637
Ion Ratio Lower Upper
114 100
63 24.4 20.2 30.2
88 17.7 14.6 21.8

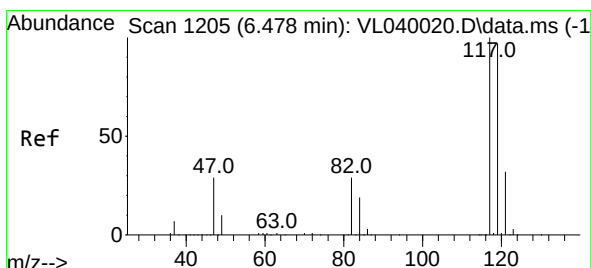
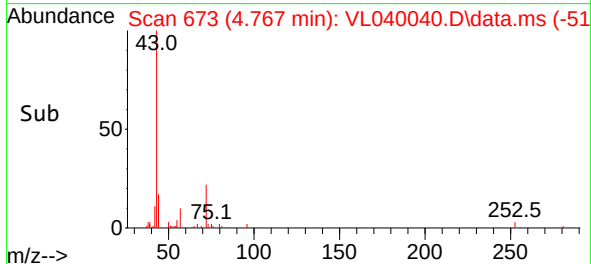
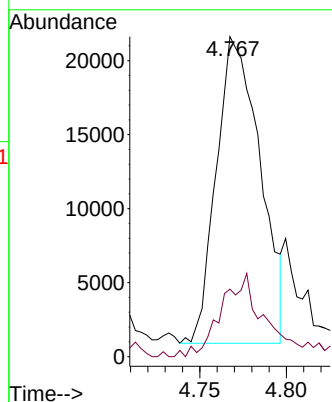
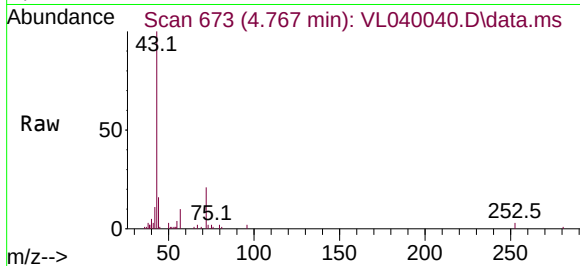




#34
2-Butanone
Concen: 0.242 ppbv
RT: 4.767 min Scan# 61
Delta R.T. 0.000 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

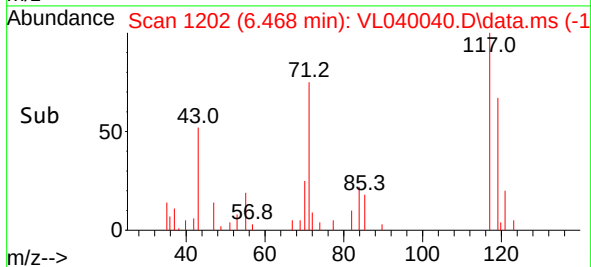
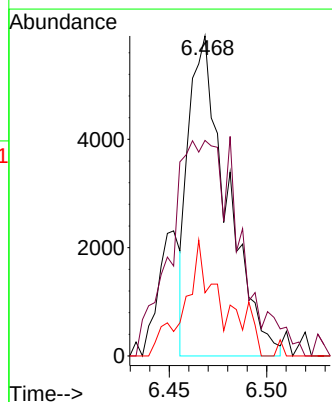
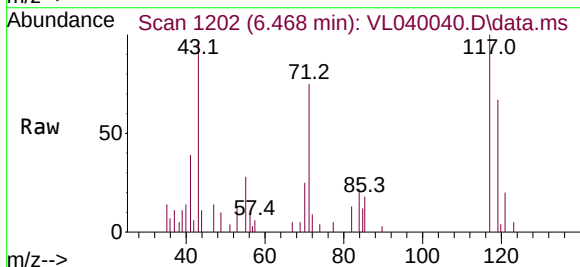
Instrument :
MSVOA_L
ClientSampleId :
SS-1

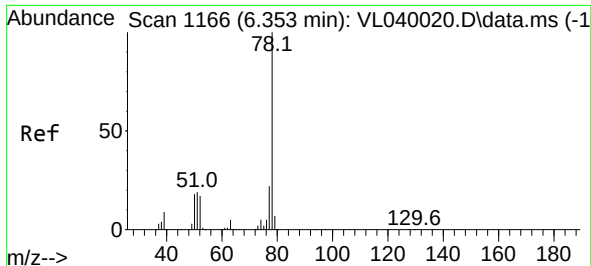
Tgt Ion: 43 Resp: 36387
Ion Ratio Lower Upper
43 100
72 29.2 18.0 27.0#



#35
Carbon Tetrachloride
Concen: 0.047 ppbv
RT: 6.468 min Scan# 1202
Delta R.T. -0.010 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

Tgt Ion: 117 Resp: 8054
Ion Ratio Lower Upper
117 100
119 60.8 77.3 115.9#
121 15.2 25.4 38.0#

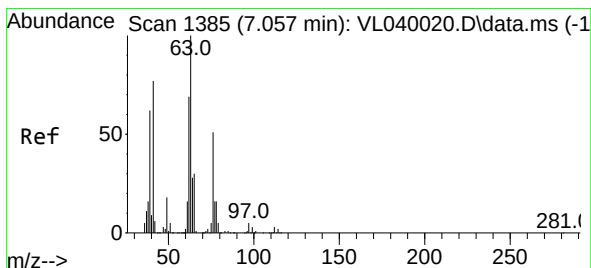
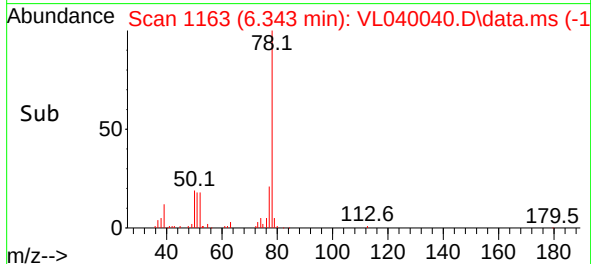
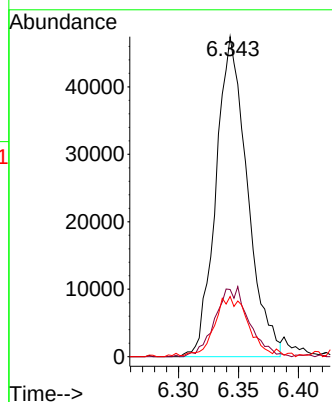
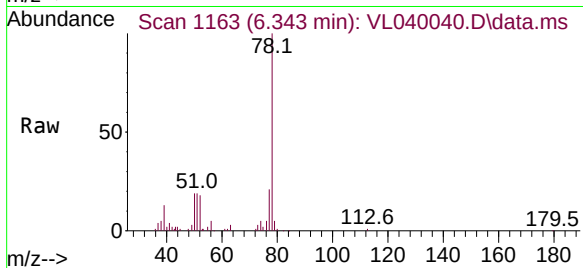




#36
Benzene
Concen: 0.349 ppbv
RT: 6.343 min Scan# 1163
Delta R.T. -0.010 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

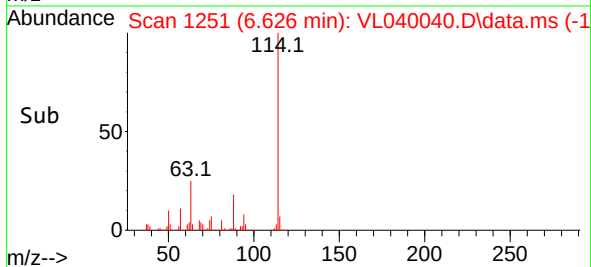
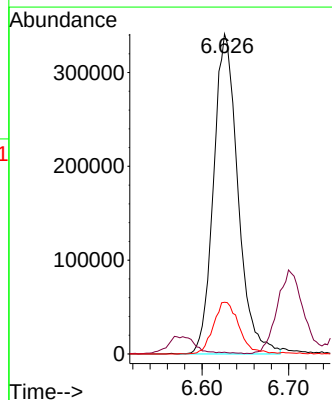
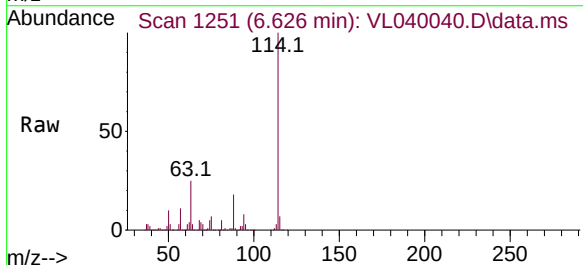
Instrument :
MSVOA_L
ClientSampleId :
SS-1

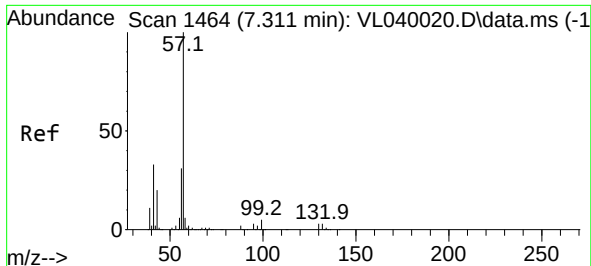
Tgt Ion: 78 Resp: 86409
Ion Ratio Lower Upper
78 100
77 21.0 17.5 26.3
50 18.4 14.2 21.2



#39
1,2-Dichloropropane
Concen: 7.185 ppbv
RT: 6.626 min Scan# 1251
Delta R.T. -0.431 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

Tgt Ion: 63 Resp: 666362
Ion Ratio Lower Upper
63 100
41 0.0 61.4 92.0#
62 16.0 55.4 83.2#





#44

2,2,4-Trimethylpentane

Concen: 0.080 ppbv

RT: 7.298 min Scan# 1460

Delta R.T. -0.013 min

Lab File: VL040040.D

Acq: 19 Dec 2022 22:49

Instrument :

MSVOA_L

ClientSampleId :

SS-1

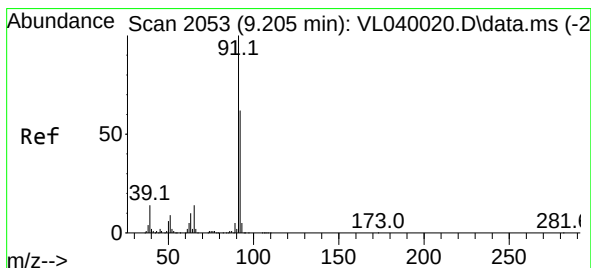
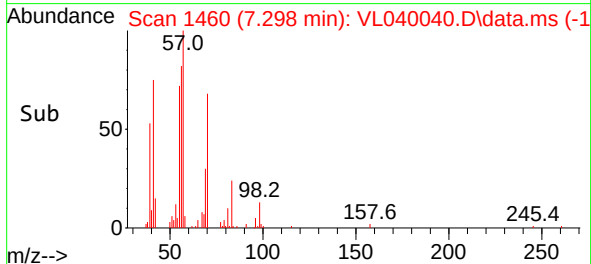
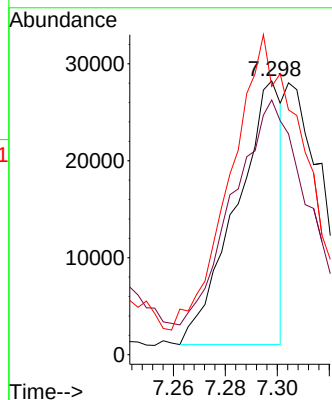
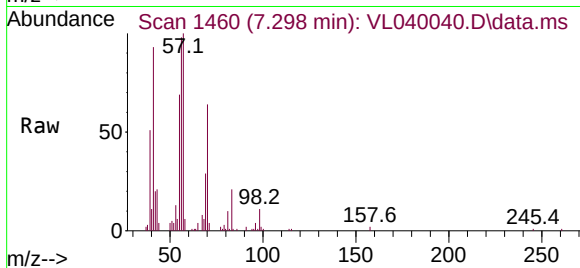
Tgt Ion: 57 Resp: 32791

Ion Ratio Lower Upper

57 100

41 179.7 26.2 39.4#

56 215.4 25.1 37.7#



#53

Toluene

Concen: 3.136 ppbv

RT: 9.195 min Scan# 2050

Delta R.T. -0.010 min

Lab File: VL040040.D

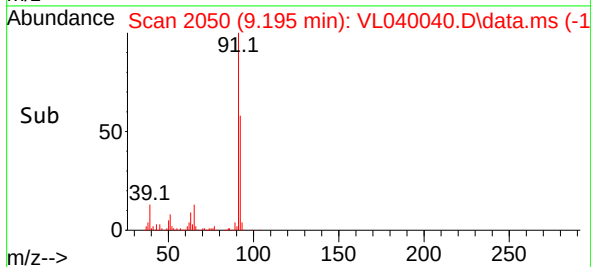
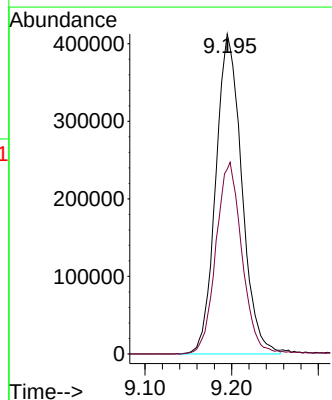
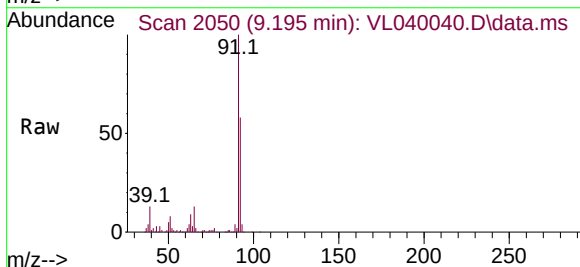
Acq: 19 Dec 2022 22:49

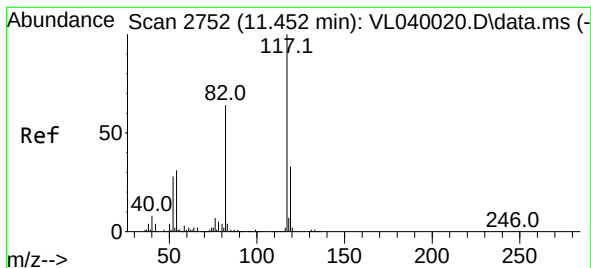
Tgt Ion: 91 Resp: 859040

Ion Ratio Lower Upper

91 100

92 60.7 48.7 73.1





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.442 min Scan# 21

Delta R.T. -0.010 min

Lab File: VL040040.D

Acq: 19 Dec 2022 22:49

Instrument :

MSVOA_L

ClientSampleId :

SS-1

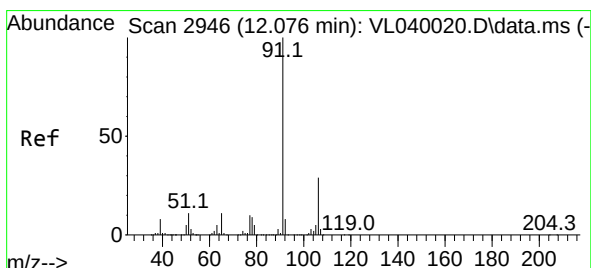
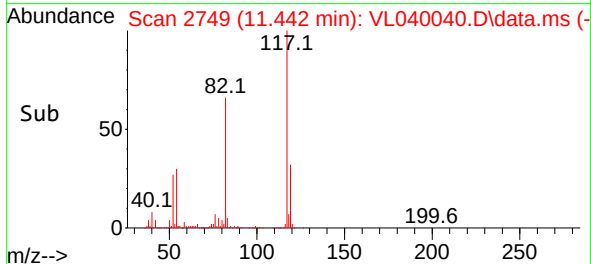
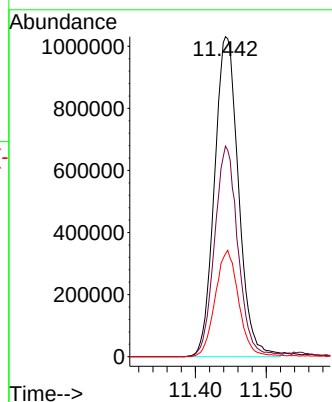
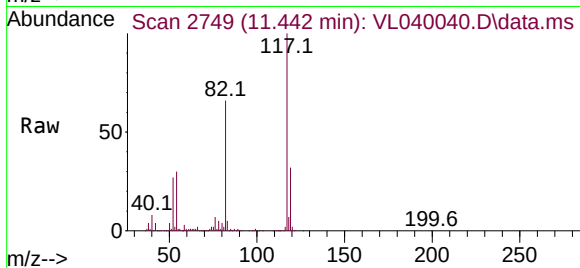
Tgt Ion:117 Resp: 2430625

Ion Ratio Lower Upper

117 100

82 64.5 51.2 76.8

119 32.9 23.2 34.8



#58

Ethyl Benzene

Concen: 0.406 ppbv

RT: 12.069 min Scan# 2944

Delta R.T. -0.006 min

Lab File: VL040040.D

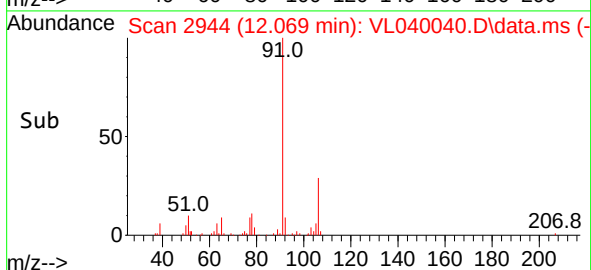
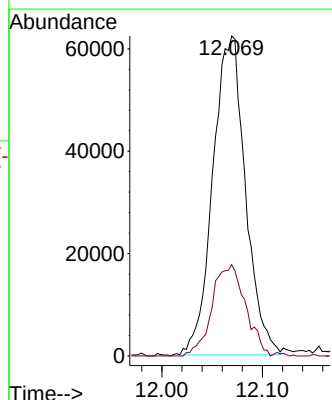
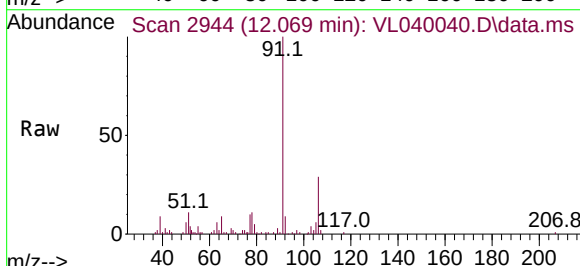
Acq: 19 Dec 2022 22:49

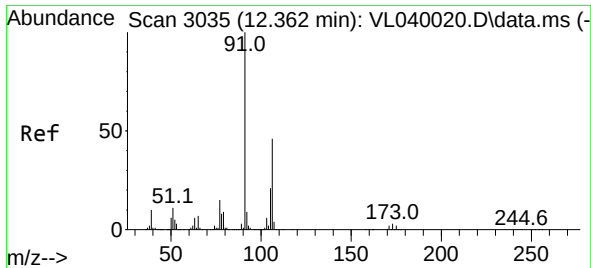
Tgt Ion: 91 Resp: 140316

Ion Ratio Lower Upper

91 100

106 28.6 23.5 35.3





#59

m/p-Xylene

Concen: 1.268 ppbv

RT: 12.320 min Scan# 3035

Delta R.T. -0.042 min

Lab File: VL040040.D

Acq: 19 Dec 2022 22:49

Instrument :

MSVOA_L

ClientSampleId :

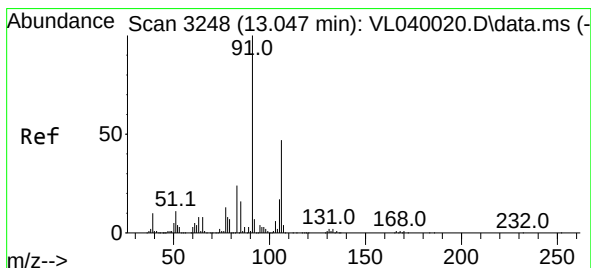
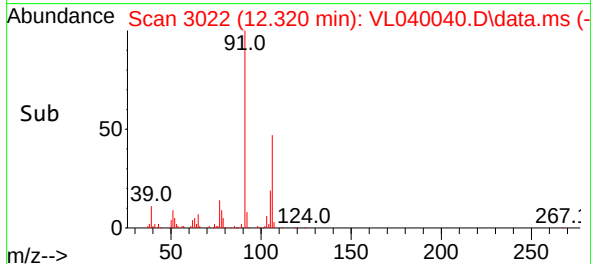
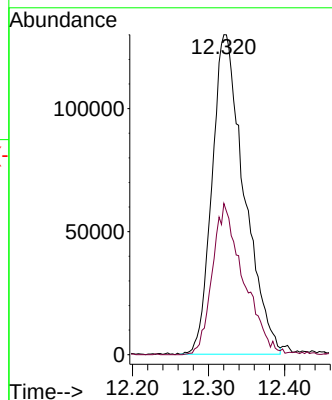
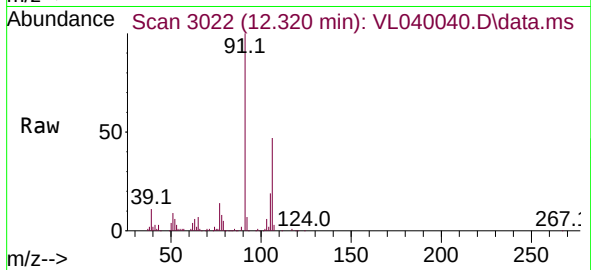
SS-1

Tgt Ion: 91 Resp: 381458

Ion Ratio Lower Upper

91 100

106 46.0 35.5 53.3



#60

o-Xylene

Concen: 0.492 ppbv

RT: 13.037 min Scan# 3245

Delta R.T. -0.010 min

Lab File: VL040040.D

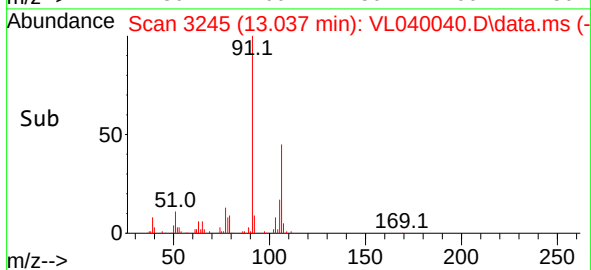
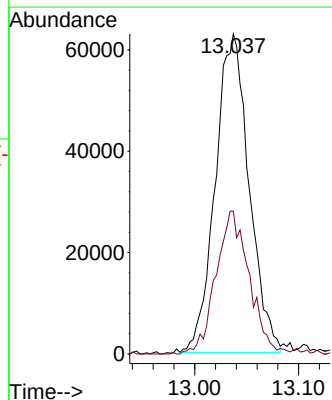
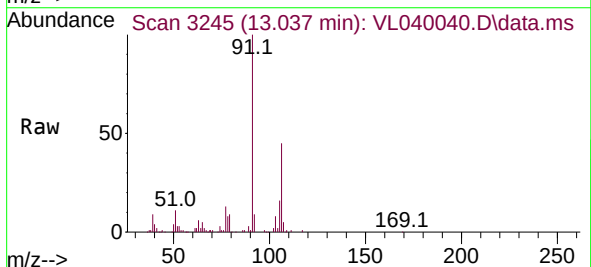
Acq: 19 Dec 2022 22:49

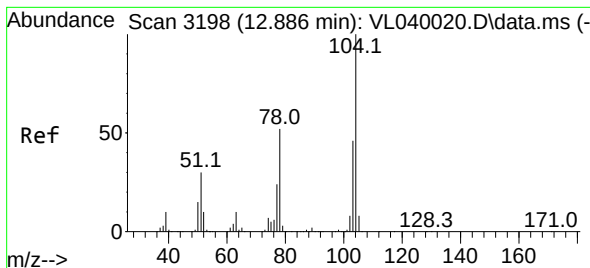
Tgt Ion: 91 Resp: 141787

Ion Ratio Lower Upper

91 100

106 44.9 22.4 67.0





#61

Styrene

Concen: 0.086 ppbv

RT: 12.876 min Scan# 3195

Delta R.T. -0.010 min

Lab File: VL040040.D

Acq: 19 Dec 2022 22:49

Instrument :

MSVOA_L

ClientSampleId :

SS-1

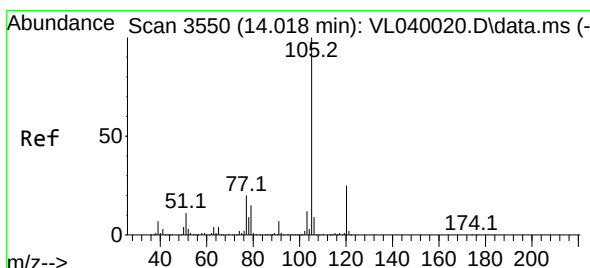
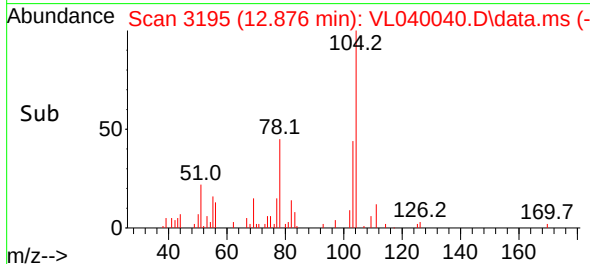
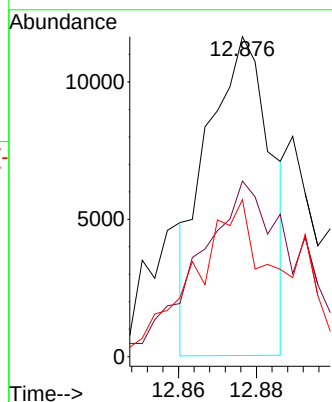
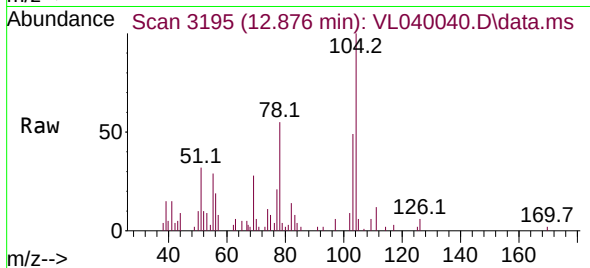
Tgt Ion:104 Resp: 13267

Ion Ratio Lower Upper

104 100

78 94.6 42.4 63.6#

103 80.9 37.2 55.8#



#62

Isopropylbenzene

Concen: 0.062 ppbv

RT: 14.005 min Scan# 3546

Delta R.T. -0.013 min

Lab File: VL040040.D

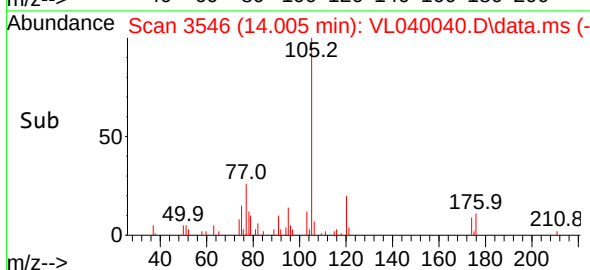
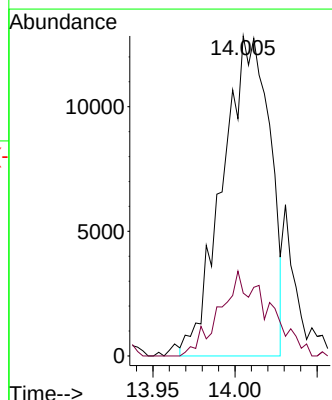
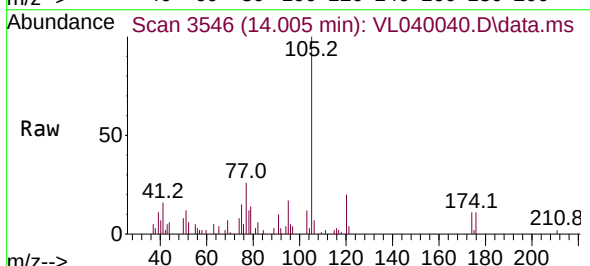
Acq: 19 Dec 2022 22:49

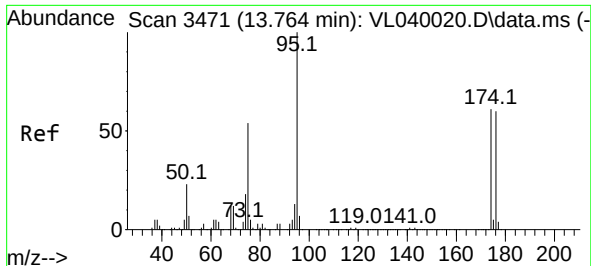
Tgt Ion:105 Resp: 25795

Ion Ratio Lower Upper

105 100

120 27.3 20.6 31.0

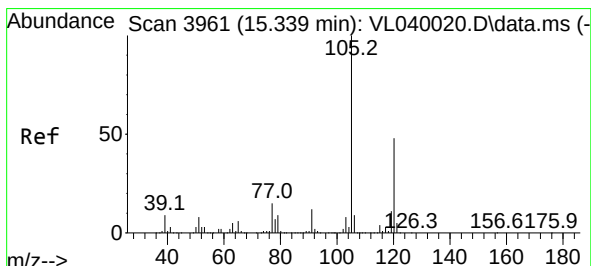
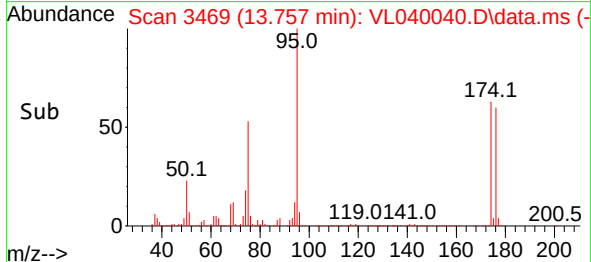
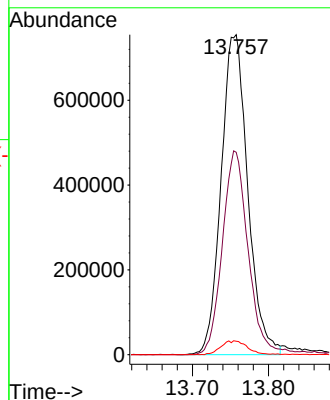
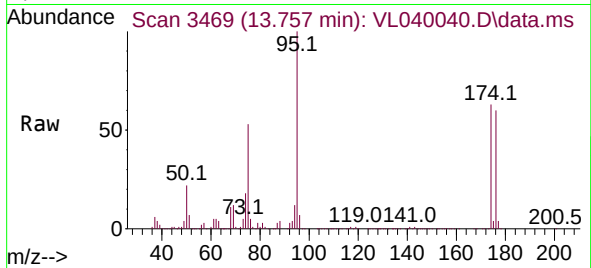




#68
1-Bromo-4-Fluorobenzene
Concen: 9.898 ppbv
RT: 13.757 min Scan# 3471
Delta R.T. -0.006 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

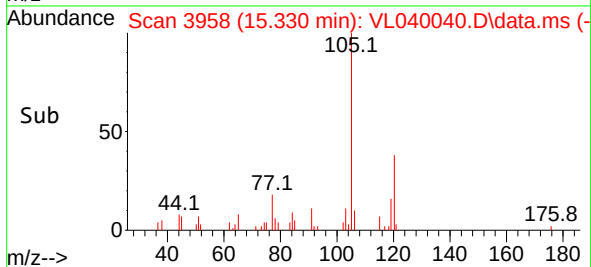
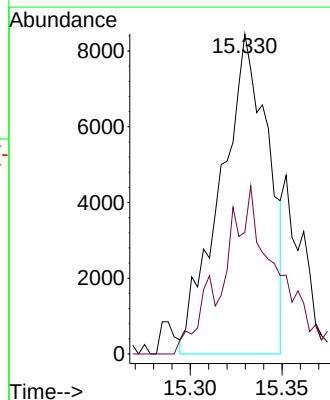
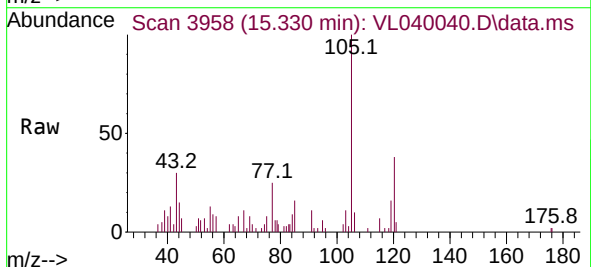
Instrument :
MSVOA_L
ClientSampleId :
SS-1

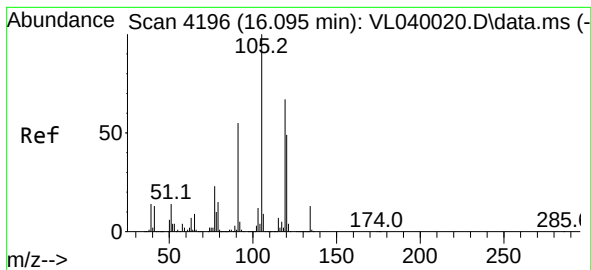
Tgt Ion: 95 Resp: 1837680
Ion Ratio Lower Upper
95 100
174 63.1 48.6 73.0
175 4.5 3.4 5.2



#73
1,3,5-Trimethylbenzene
Concen: 0.053 ppbv
RT: 15.330 min Scan# 3958
Delta R.T. -0.010 min
Lab File: VL040040.D
Acq: 19 Dec 2022 22:49

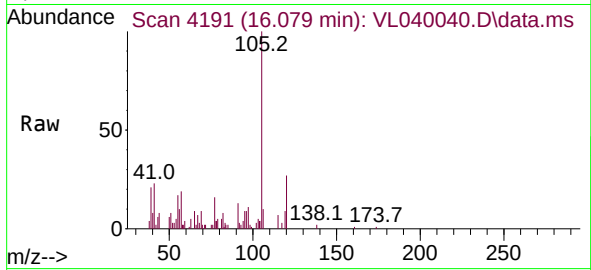
Tgt Ion: 105 Resp: 15303
Ion Ratio Lower Upper
105 100
120 40.6 38.4 57.6





#74
 1,2,4-Trimethylbenzene
 Concen: 0.049 ppbv
 RT: 16.079 min Scan# 41
 Delta R.T. -0.016 min
 Lab File: VL040040.D
 Acq: 19 Dec 2022 22:49

Instrument :
 MSVOA_L
 ClientSampleId :
 SS-1



Tgt Ion:	105	Resp:	15431
Ion	Ratio	Lower	Upper
105	100		
120	26.2	39.3	58.9#
91	16.2	44.2	66.4#
77	14.3	18.8	28.2#

