

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL121222\
 Data File : VL039991.D
 Acq On : 13 Dec 2022 1:02
 Operator : SY/MD
 Sample : N6020-01 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Quant Time: Dec 13 07:12:05 2022
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111822AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Dec 02 23:21:36 2022
 Response via : Initial Calibration

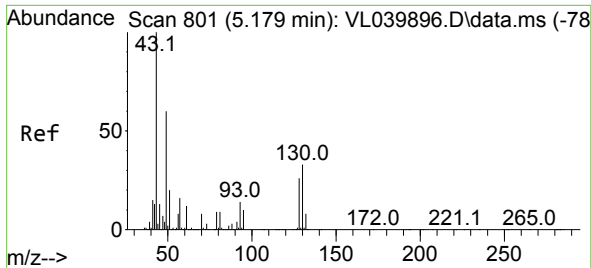
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	5.169	49	1062555	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	6.632	114	2832577	10.000	ppbv	0.01
55) Chlorobenzene-d5	11.449	117	2595654	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.757	95	2190765	11.050	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	110.500%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.706	85	27583	0.181	ppbv	100
3) Chlorodifluoromethane	2.655	51	18697	0.128	ppbv #	82
4) Chloromethane	2.790	50	10417	0.111	ppbv	98
7) Chloroethane	3.173	64	758	0.026	ppbv #	41
9) Propene	2.674	41	29805	0.432	ppbv #	20
10) Heptane	7.558	43	78366	0.470	ppbv	96
11) Trichlorofluoromethane	3.539	101	10148	0.055	ppbv	86
13) Ethanol	3.218	45	163164	30.943	ppbv	98
15) Acetone	3.449	43	605292	4.295	ppbv	98
16) 1,3-Butadiene	2.944	39	28992	0.413	ppbv #	8
17) tert-Butyl alcohol	3.870	59	7667	0.047	ppbv #	72
19) Isopropyl Alcohol	3.562	45	83797	1.098	ppbv #	45
20) Methylene Chloride	3.912	84	45329	0.664	ppbv #	93
23) Vinyl Acetate	4.603	43	109024	1.883	ppbv #	96
25) Ethyl Acetate	5.189	43	167779	0.648	ppbv #	82
26) Hexane	5.192	57	212666	1.881	ppbv #	37
27) Carbon Disulfide	4.102	76	3447	0.024	ppbv #	64
29) Chloroform	5.253	83	271337	1.806	ppbv	99
30) Cyclohexane	6.584	84	4763	0.043	ppbv #	11
34) 2-Butanone	4.771	43	29375	0.217	ppbv #	15
36) Benzene	6.343	78	20497	0.085	ppbv #	86
39) 1,2-Dichloropropane	6.632	63	727097	7.751	ppbv #	27
44) 2,2,4-Trimethylpentane	7.311	57	20428	0.051	ppbv #	42
52) Tetrachloroethene	10.597	164	26700	0.296	ppbv	94
53) Toluene	9.201	91	116508	0.425	ppbv	99
58) Ethyl Benzene	12.066	91	30399	0.086	ppbv #	87
59) m/p-Xylene	12.359	91	6528	0.022	ppbv #	30
60) o-Xylene	13.044	91	50726	0.180	ppbv	91
62) Isopropylbenzene	14.011	105	9299	0.023	ppbv #	76
72) 4-Ethyltoluene	15.182	105	12853	0.041	ppbv #	44
73) 1,3,5-Trimethylbenzene	15.346	105	10203	0.035	ppbv #	86
74) 1,2,4-Trimethylbenzene	16.098	105	32880	0.107	ppbv #	55

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

Quant Time: Dec 13 07:12:05 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111822AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri Dec 02 23:21:36 2022
Response via : Initial Calibration

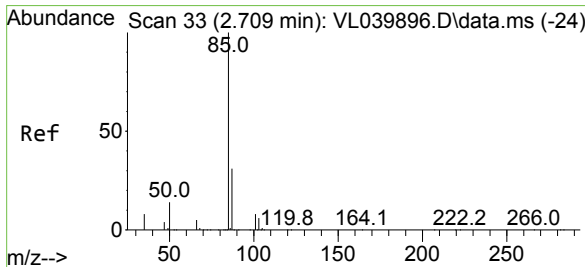
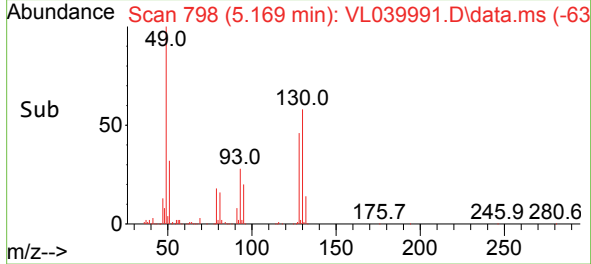
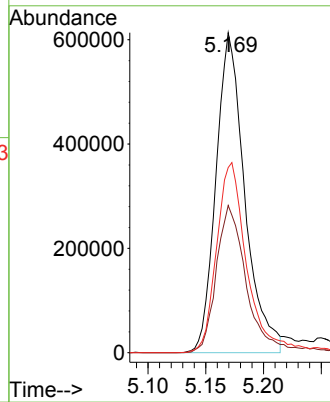
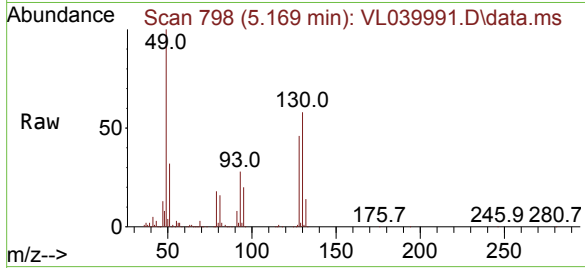




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.169 min Scan# 79
 Delta R.T. 0.013 min
 Lab File: VL039991.D
 Acq: 13 Dec 2022 1:02

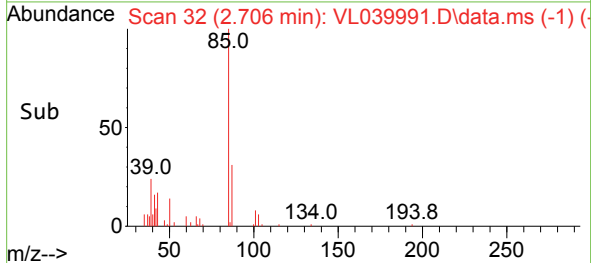
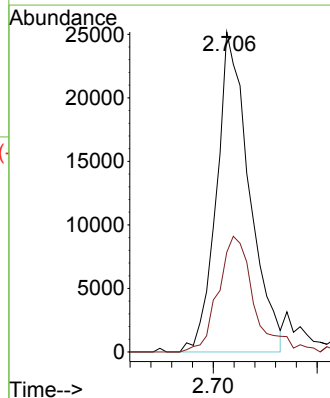
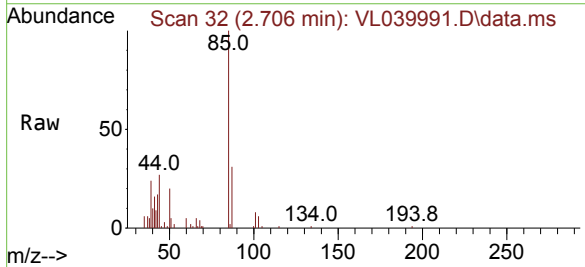
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

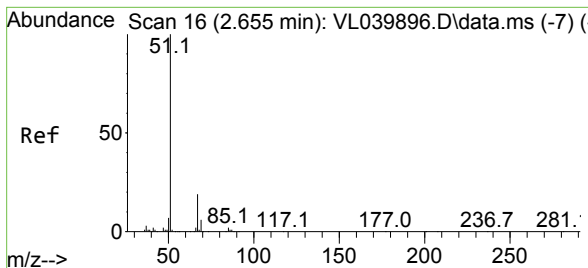
Tgt Ion: 49 Resp: 1062555
 Ion Ratio Lower Upper
 49 100
 128 50.0 22.1 66.3
 130 64.3 27.7 83.1



#2
 Dichlorodifluoromethane
 Concen: 0.181 ppbv
 RT: 2.706 min Scan# 32
 Delta R.T. 0.010 min
 Lab File: VL039991.D
 Acq: 13 Dec 2022 1:02

Tgt Ion: 85 Resp: 27583
 Ion Ratio Lower Upper
 85 100
 87 31.1 25.0 37.4

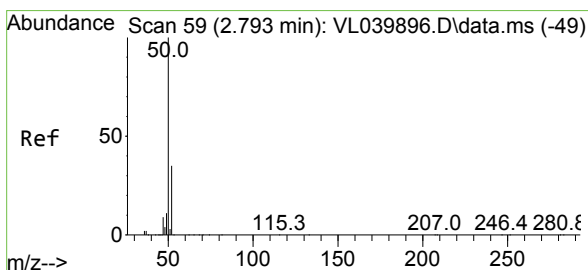
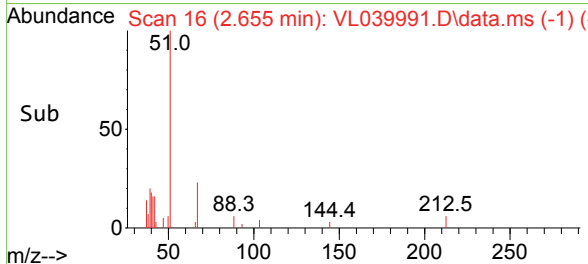
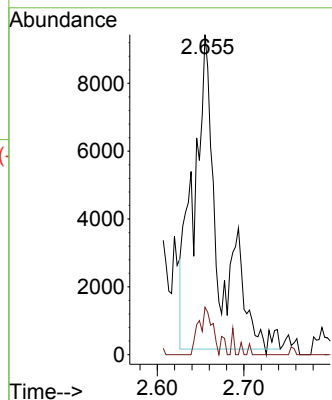
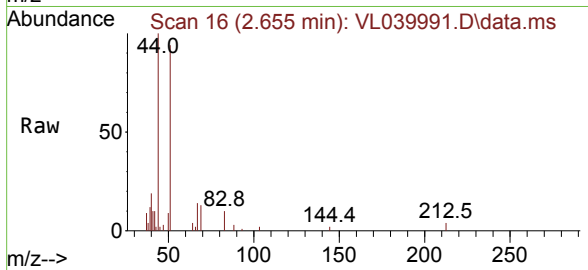




#3
Chlorodifluoromethane
Concen: 0.128 ppbv
RT: 2.655 min Scan# 11
Delta R.T. 0.013 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

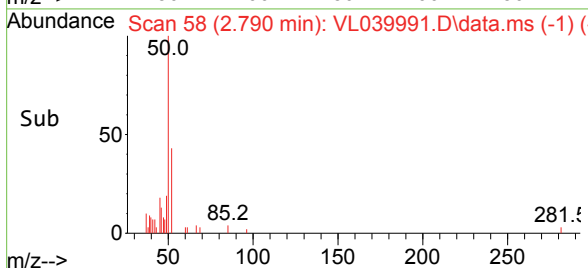
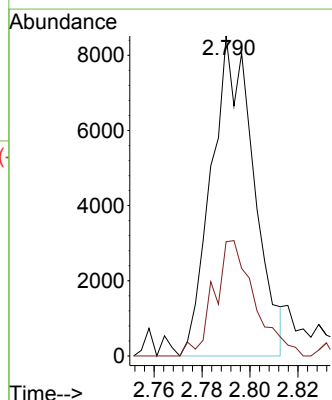
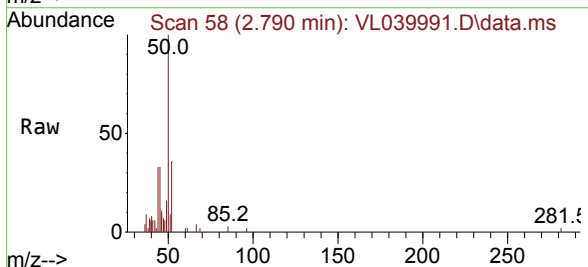
Instrument :
MSVOA_L
ClientSampleId :
SV1

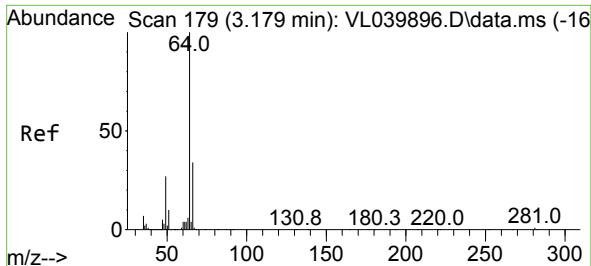
Tgt Ion: 51 Resp: 18697
Ion Ratio Lower Upper
51 100
67 9.9 14.2 21.4#



#4
Chloromethane
Concen: 0.111 ppbv
RT: 2.790 min Scan# 58
Delta R.T. 0.010 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

Tgt Ion: 50 Resp: 10417
Ion Ratio Lower Upper
50 100
52 35.7 27.8 41.8

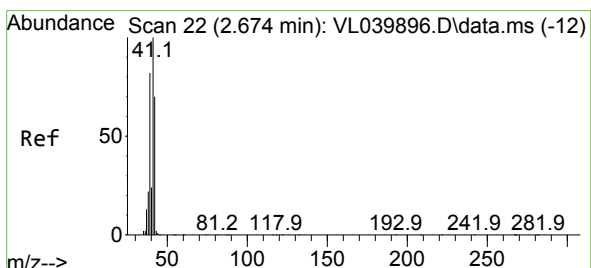
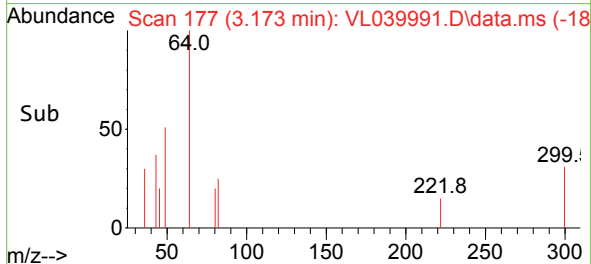
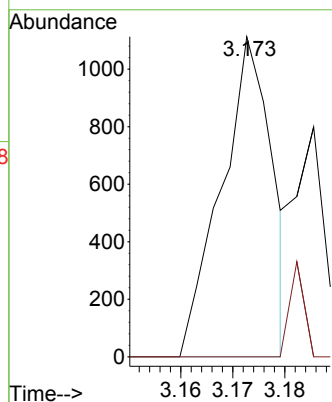
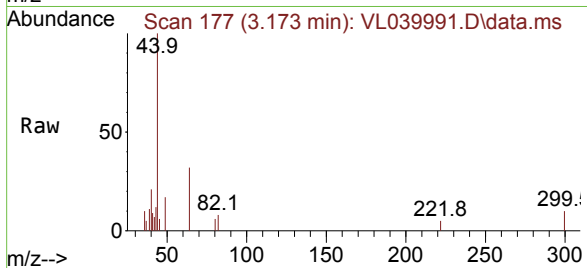




#7
Chloroethane
Concen: 0.026 ppbv
RT: 3.173 min Scan# 11
Delta R.T. 0.010 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

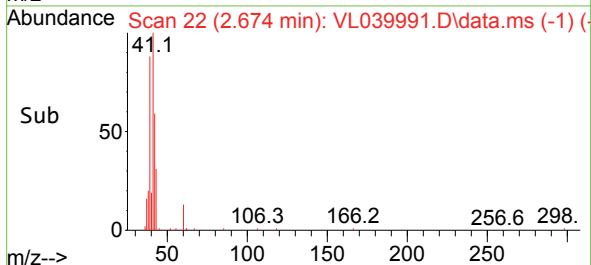
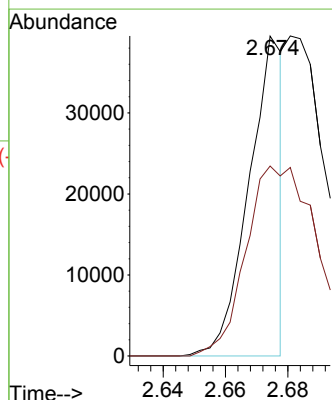
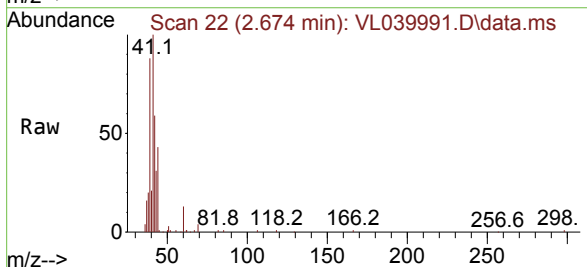
Instrument :
MSVOA_L
ClientSampleId :
SV1

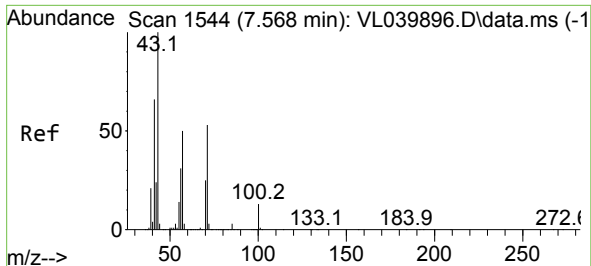
Tgt Ion: 64 Resp: 758
Ion Ratio Lower Upper
64 100
66 0.0 27.3 40.9#



#9
Propene
Concen: 0.432 ppbv
RT: 2.674 min Scan# 22
Delta R.T. 0.013 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

Tgt Ion: 41 Resp: 29805
Ion Ratio Lower Upper
41 100
42 135.0 55.8 83.6#

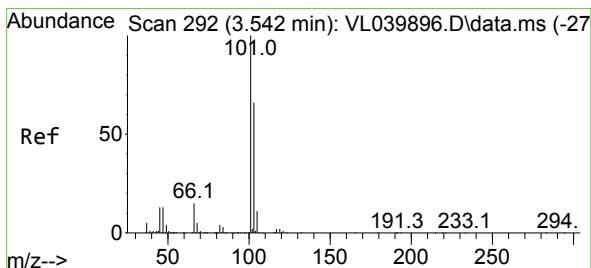
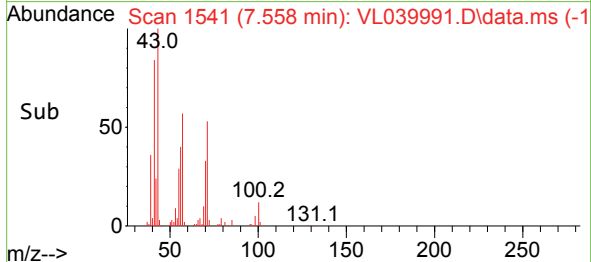
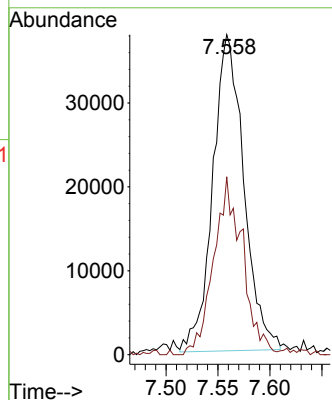
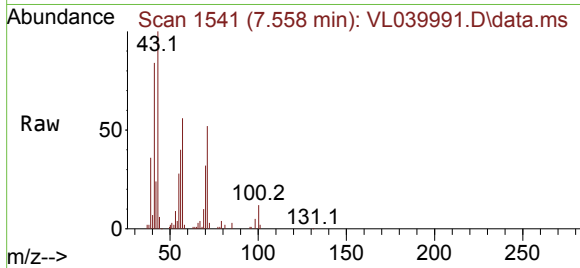




#10
Heptane
Concen: 0.470 ppbv
RT: 7.558 min Scan# 11
Delta R.T. 0.013 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

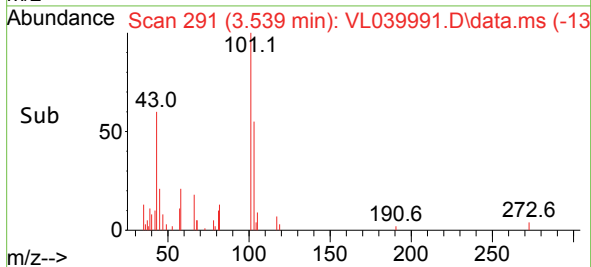
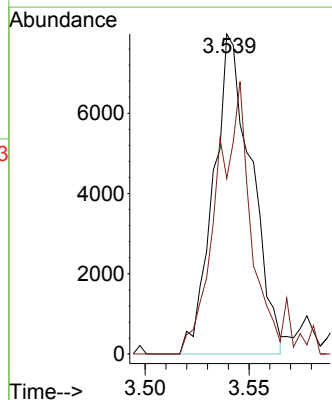
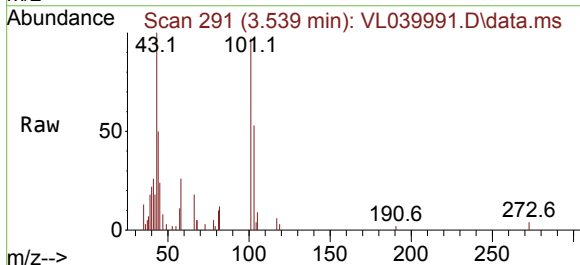
Instrument :
MSVOA_L
ClientSampleId :
SV1

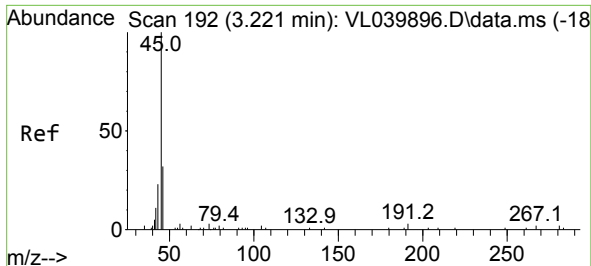
Tgt Ion: 43 Resp: 78366
Ion Ratio Lower Upper
43 100
57 53.5 40.7 61.1



#11
Trichlorofluoromethane
Concen: 0.055 ppbv
RT: 3.539 min Scan# 291
Delta R.T. 0.010 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

Tgt Ion: 101 Resp: 10148
Ion Ratio Lower Upper
101 100
103 54.8 52.6 78.8

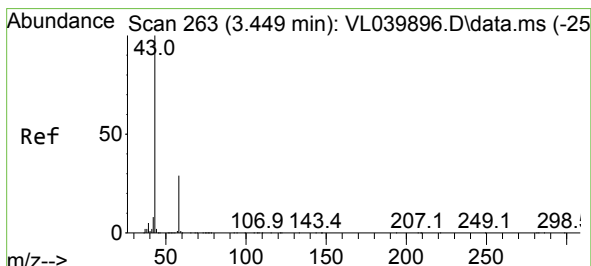
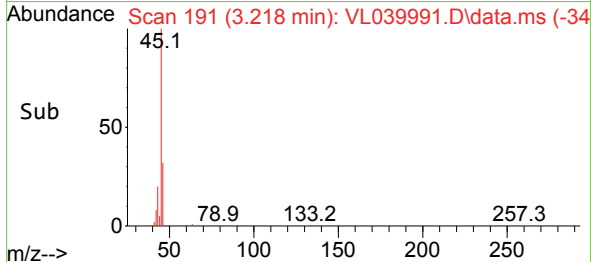
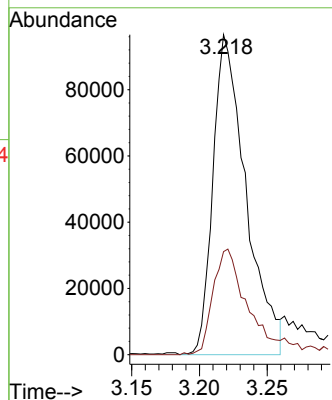
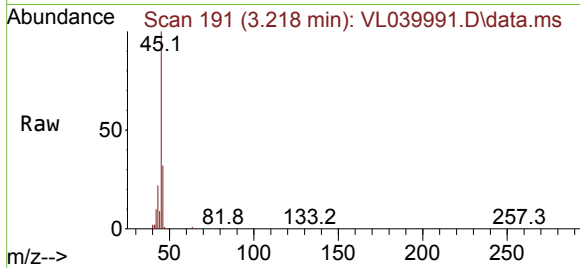




#13
Ethanol
Concen: 30.943 ppbv
RT: 3.218 min Scan# 191
Delta R.T. 0.003 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

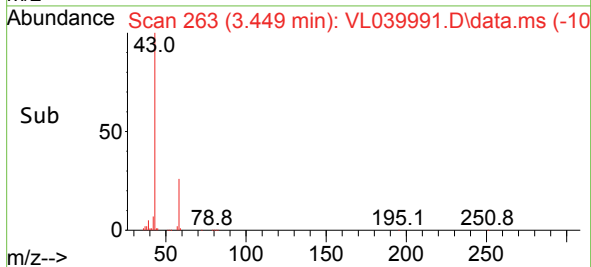
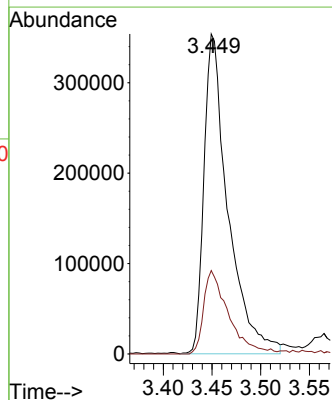
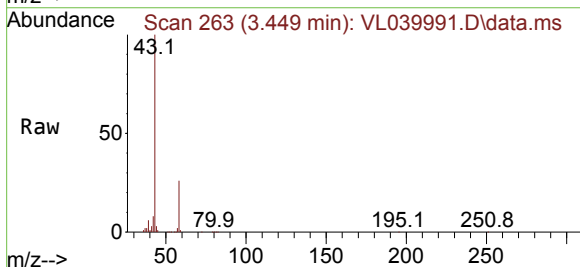
Instrument :
MSVOA_L
ClientSampleId :
SV1

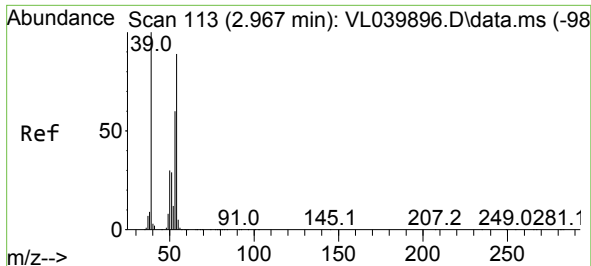
Tgt Ion: 45 Resp: 163164
Ion Ratio Lower Upper
45 100
46 37.8 14.6 58.2



#15
Acetone
Concen: 4.295 ppbv
RT: 3.449 min Scan# 263
Delta R.T. 0.016 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

Tgt Ion: 43 Resp: 605292
Ion Ratio Lower Upper
43 100
58 27.7 22.9 34.3

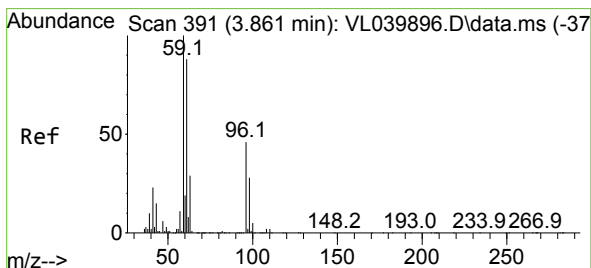
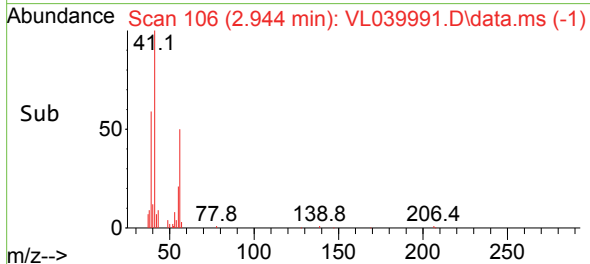
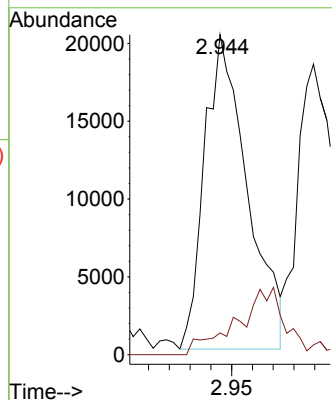
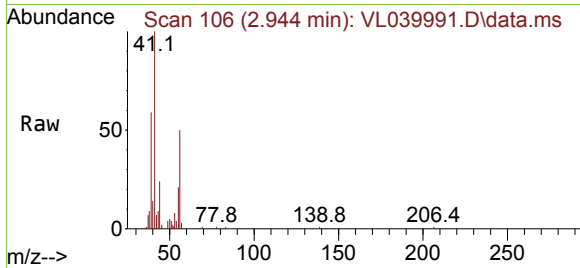




#16
1,3-Butadiene
Concen: 0.413 ppbv
RT: 2.944 min Scan# 106
Delta R.T. -0.006 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

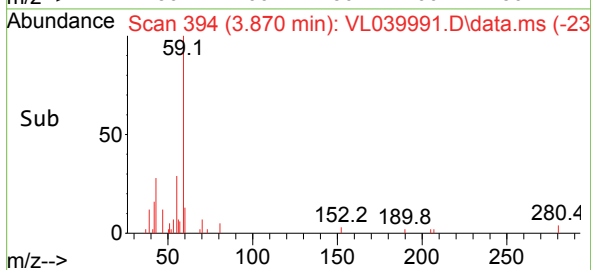
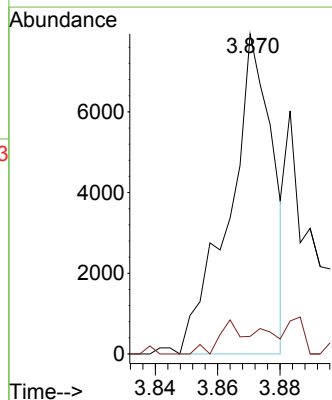
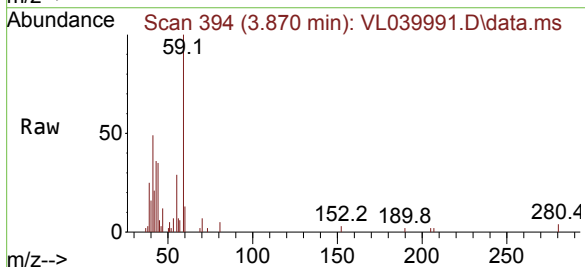
Instrument :
MSVOA_L
ClientSampleId :
SV1

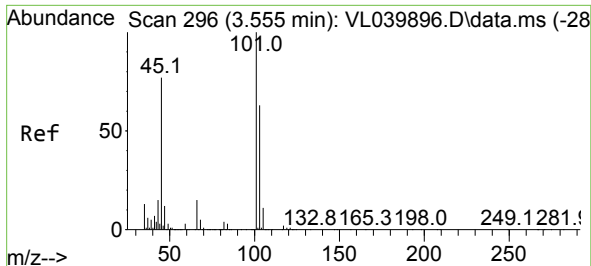
Tgt Ion: 39 Resp: 28992
Ion Ratio Lower Upper
39 100
54 0.0 66.6 99.8#



#17
tert-Butyl alcohol
Concen: 0.047 ppbv
RT: 3.870 min Scan# 394
Delta R.T. 0.026 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

Tgt Ion: 59 Resp: 7667
Ion Ratio Lower Upper
59 100
57 0.0 8.3 12.5#

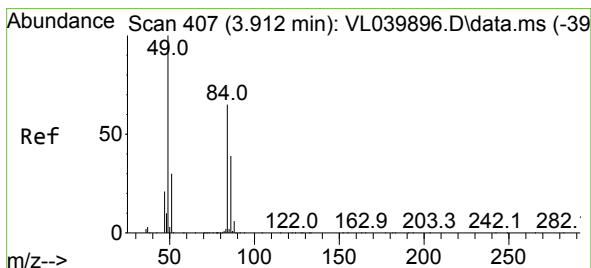
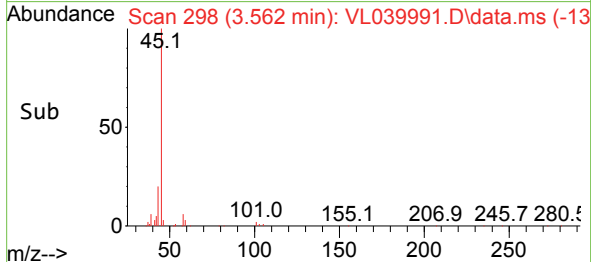
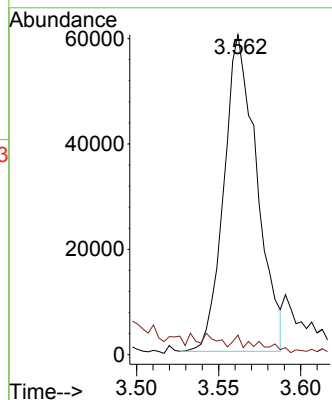
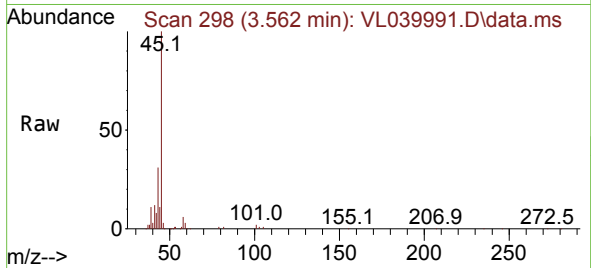




#19
Isopropyl Alcohol
Concen: 1.098 ppbv
RT: 3.562 min Scan# 296
Delta R.T. 0.020 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

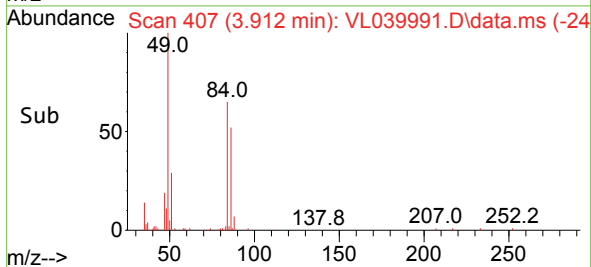
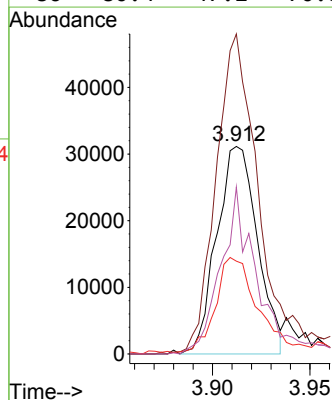
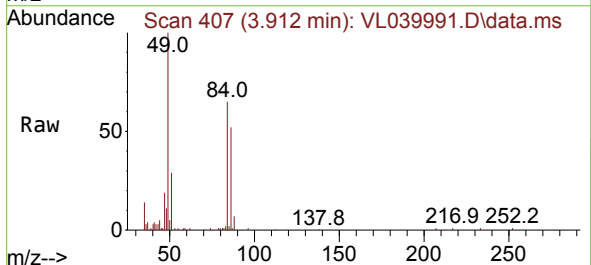
Instrument :
MSVOA_L
ClientSampleId :
SV1

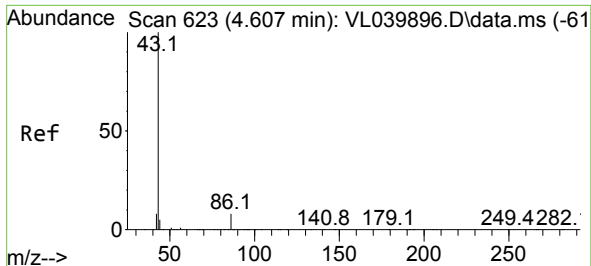
Tgt Ion: 45 Resp: 83797
Ion Ratio Lower Upper
45 100
58 11.2 38.7 58.1#



#20
Methylene Chloride
Concen: 0.664 ppbv
RT: 3.912 min Scan# 407
Delta R.T. 0.016 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

Tgt Ion: 84 Resp: 45329
Ion Ratio Lower Upper
84 100
49 153.2 122.2 183.4
51 43.7 36.3 54.5
86 80.4 47.2 70.8#



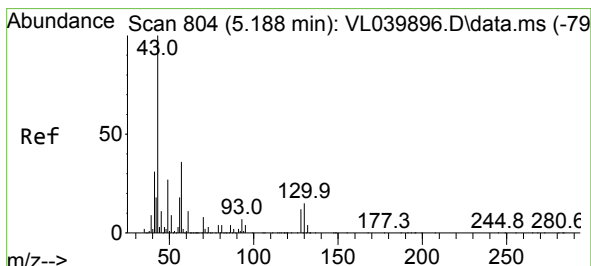
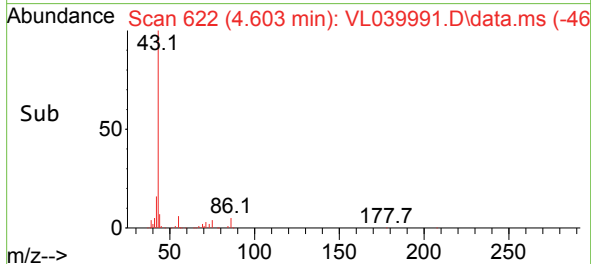
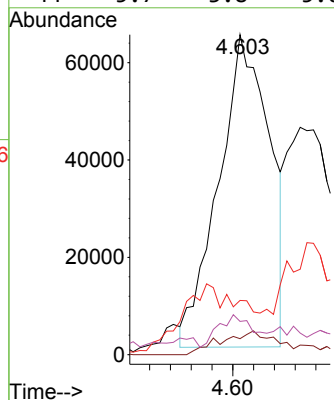
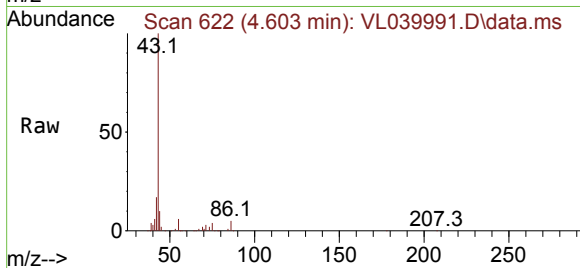


#23
 Vinyl Acetate
 Concen: 1.883 ppbv
 RT: 4.603 min Scan# 61
 Delta R.T. 0.010 min
 Lab File: VL039991.D
 Acq: 13 Dec 2022 1:02

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Tgt Ion: 43 Resp: 109024

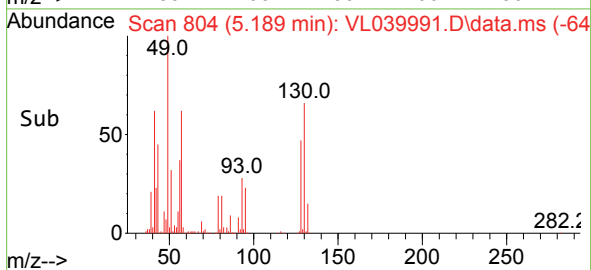
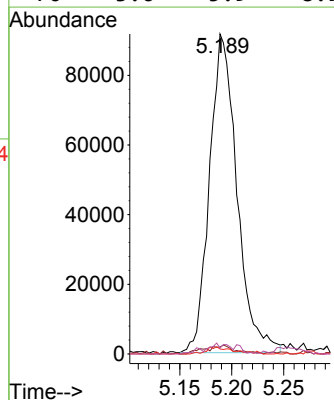
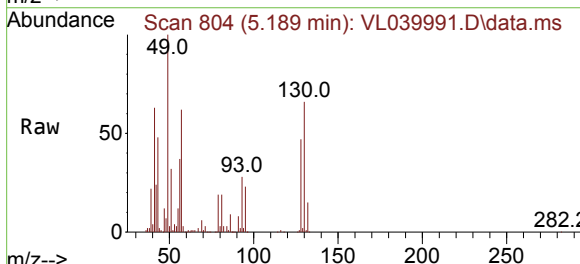
Ion	Ratio	Lower	Upper
43	100		
86	5.5	5.0	7.4
42	7.3	7.6	11.4#
44	5.7	3.8	5.6#

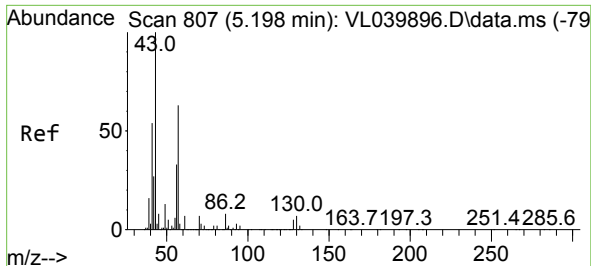


#25
 Ethyl Acetate
 Concen: 0.648 ppbv
 RT: 5.189 min Scan# 804
 Delta R.T. 0.020 min
 Lab File: VL039991.D
 Acq: 13 Dec 2022 1:02

Tgt Ion: 43 Resp: 167779

Ion	Ratio	Lower	Upper
43	100		
45	3.0	8.4	12.6#
61	2.2	8.5	12.7#
70	3.6	5.9	8.9#

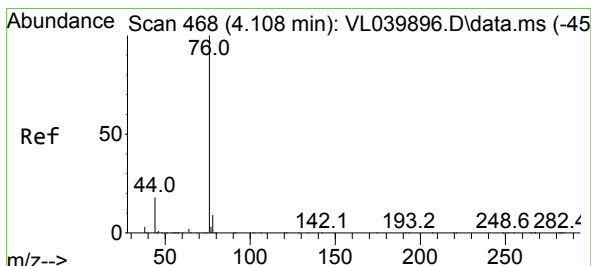
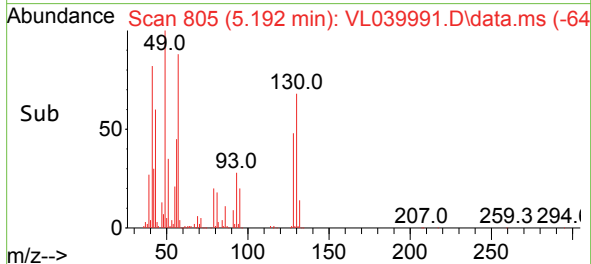
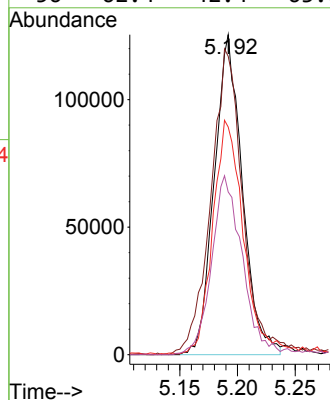
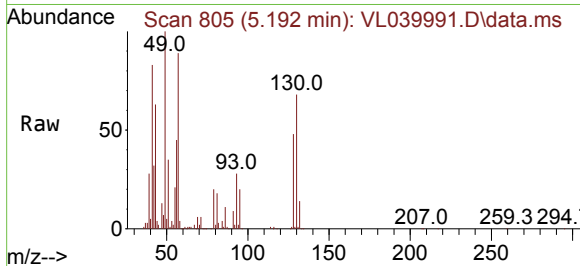




#26
Hexane
Concen: 1.881 ppbv
RT: 5.192 min Scan# 807
Delta R.T. 0.016 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

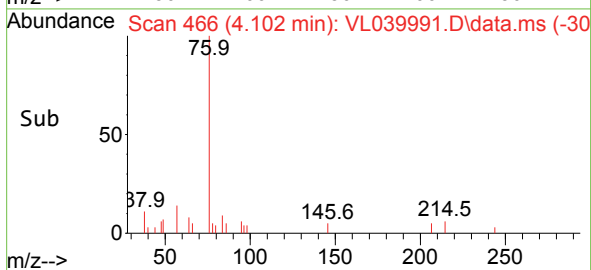
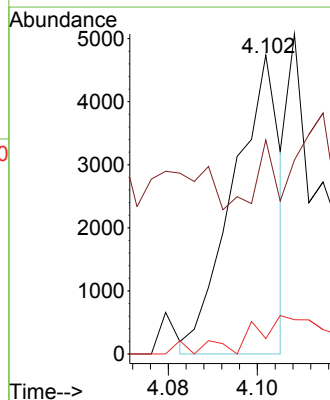
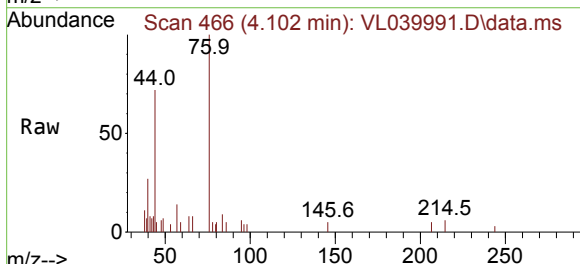
Instrument :
MSVOA_L
ClientSampleId :
SV1

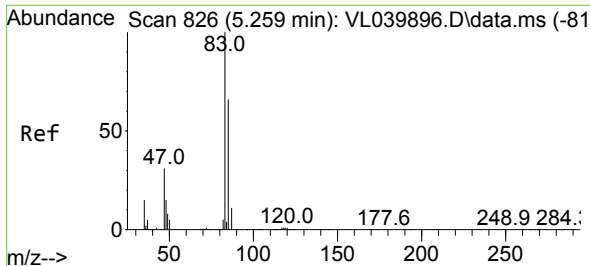
Tgt Ion: 57 Resp: 212666
Ion Ratio Lower Upper
57 100
41 110.4 72.3 108.5#
43 83.0 188.7 283.1#
56 62.4 42.4 63.6



#27
Carbon Disulfide
Concen: 0.024 ppbv
RT: 4.102 min Scan# 466
Delta R.T. 0.016 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

Tgt Ion: 76 Resp: 3447
Ion Ratio Lower Upper
76 100
44 0.0 14.7 22.1#
78 0.0 7.8 11.8#





#29

Chloroform

Concen: 1.806 ppbv

RT: 5.253 min Scan# 81

Delta R.T. 0.016 min

Lab File: VL039991.D

Acq: 13 Dec 2022 1:02

Instrument :

MSVOA_L

ClientSampleId :

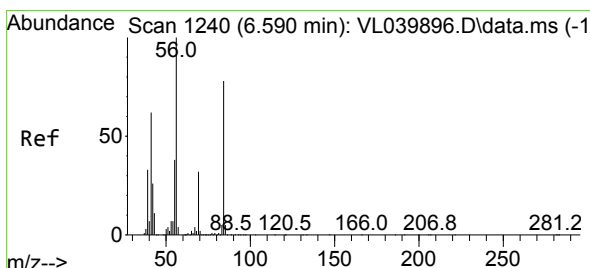
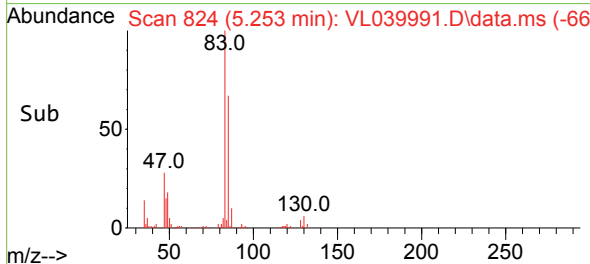
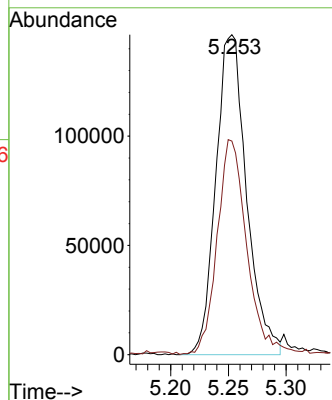
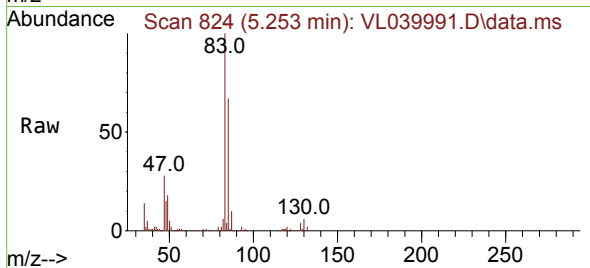
SV1

Tgt Ion: 83 Resp: 271337

Ion Ratio Lower Upper

83 100

85 66.6 52.4 78.6



#30

Cyclohexane

Concen: 0.043 ppbv

RT: 6.584 min Scan# 1238

Delta R.T. 0.020 min

Lab File: VL039991.D

Acq: 13 Dec 2022 1:02

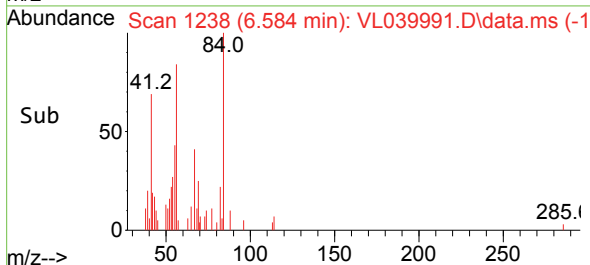
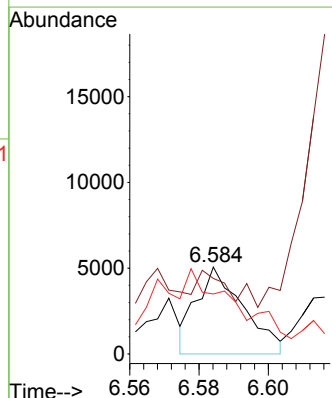
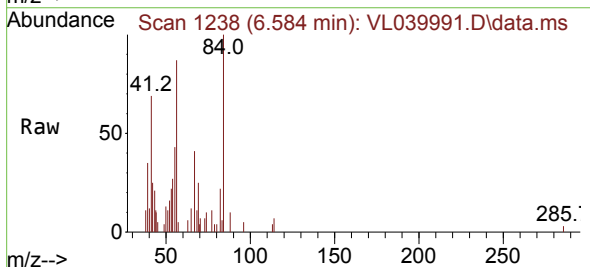
Tgt Ion: 84 Resp: 4763

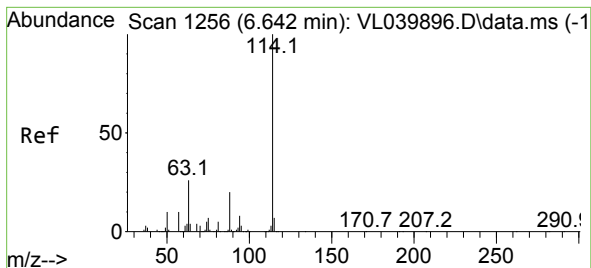
Ion Ratio Lower Upper

84 100

56 0.0 112.5 168.7#

41 125.3 67.8 101.8#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.632 min Scan# 114

Delta R.T. 0.013 min

Lab File: VL039991.D

Acq: 13 Dec 2022 1:02

Instrument :

MSVOA_L

ClientSampleId :

SV1

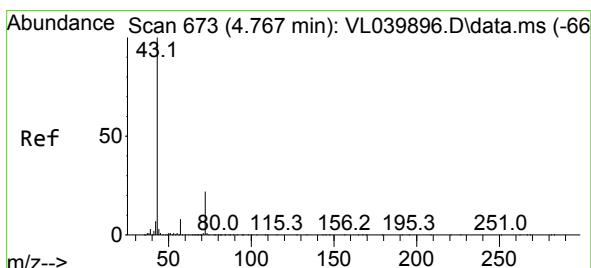
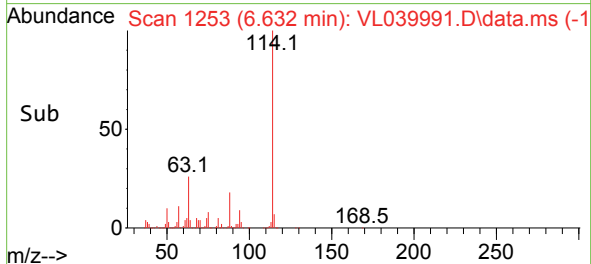
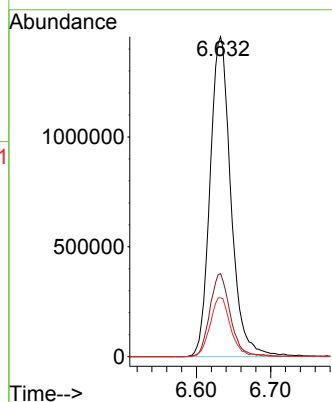
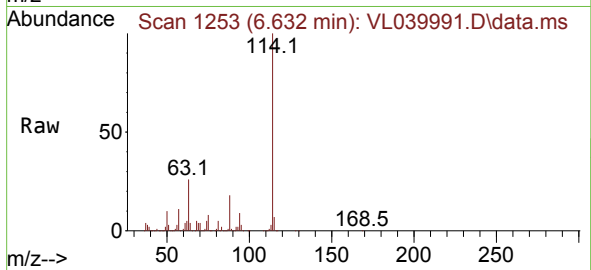
Tgt Ion:114 Resp: 2832577

Ion Ratio Lower Upper

114 100

63 25.9 21.4 32.0

88 18.4 15.3 22.9



#34

2-Butanone

Concen: 0.217 ppbv

RT: 4.771 min Scan# 674

Delta R.T. 0.020 min

Lab File: VL039991.D

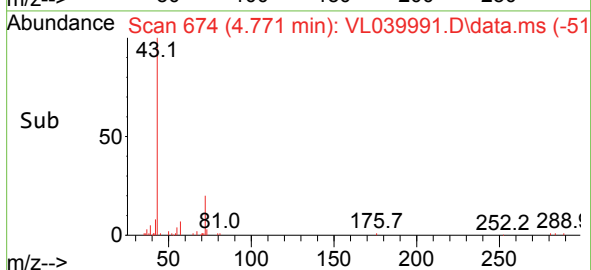
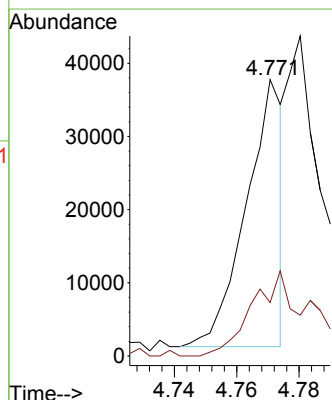
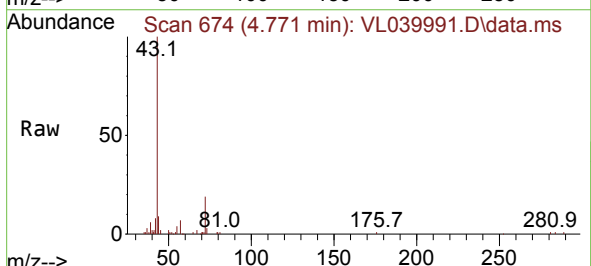
Acq: 13 Dec 2022 1:02

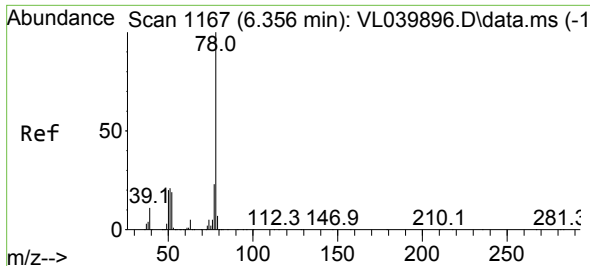
Tgt Ion: 43 Resp: 29375

Ion Ratio Lower Upper

43 100

72 62.1 17.4 26.2#

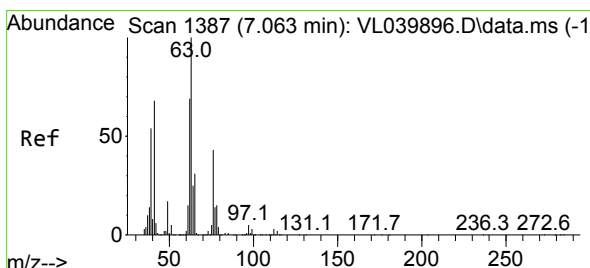
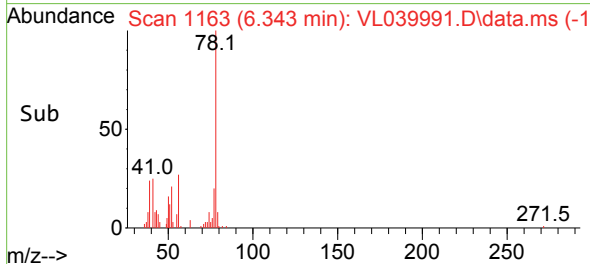
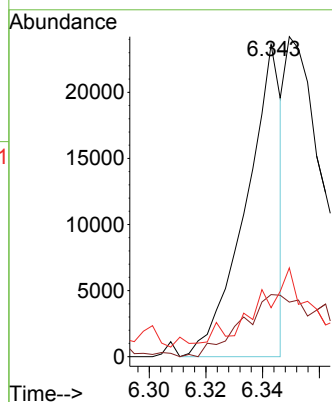
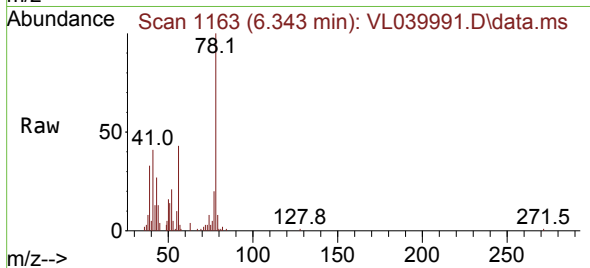




#36
Benzene
Concen: 0.085 ppbv
RT: 6.343 min Scan# 1163
Delta R.T. 0.010 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

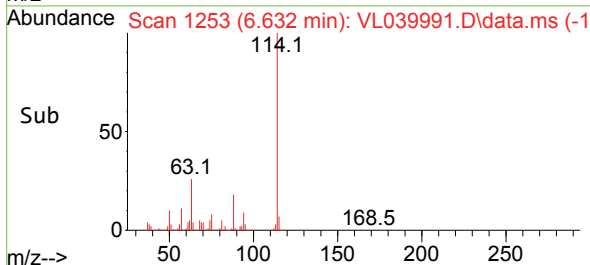
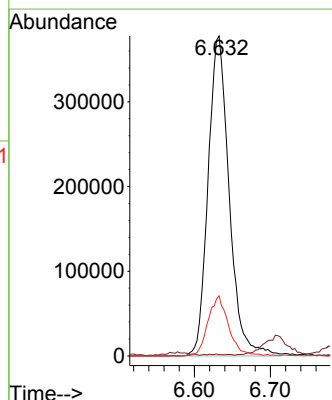
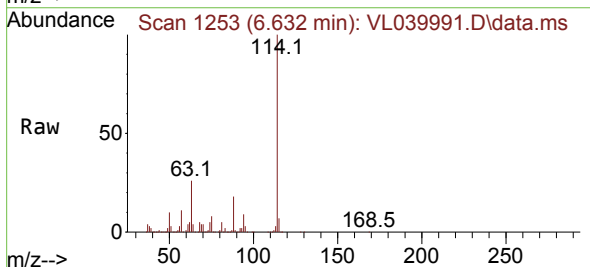
Instrument :
MSVOA_L
ClientSampleId :
SV1

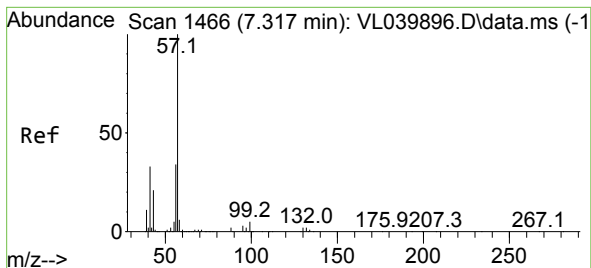
Tgt Ion: 78 Resp: 20497
Ion Ratio Lower Upper
78 100
77 19.9 18.2 27.2
50 9.4 15.8 23.8#



#39
1,2-Dichloropropane
Concen: 7.751 ppbv
RT: 6.632 min Scan# 1253
Delta R.T. -0.402 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

Tgt Ion: 63 Resp: 727097
Ion Ratio Lower Upper
63 100
41 0.0 54.7 82.1#
62 18.8 55.0 82.6#





#44

2,2,4-Trimethylpentane

Concen: 0.051 ppbv

RT: 7.311 min Scan# 1466

Delta R.T. 0.020 min

Lab File: VL039991.D

Acq: 13 Dec 2022 1:02

Instrument :

MSVOA_L

ClientSampleId :

SV1

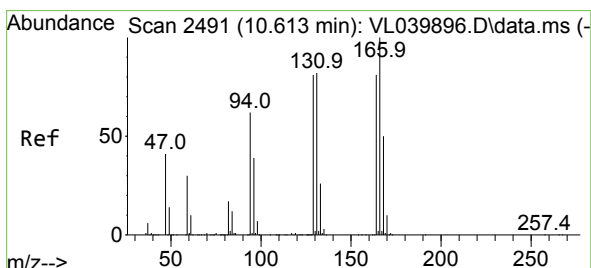
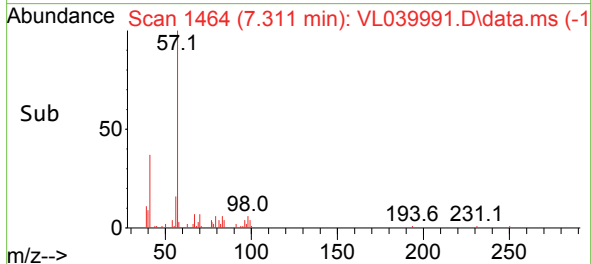
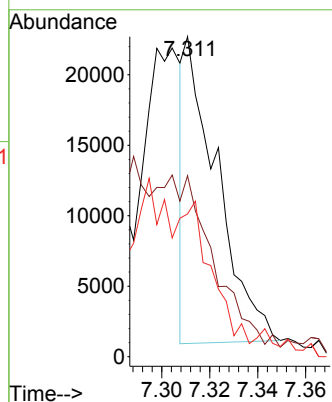
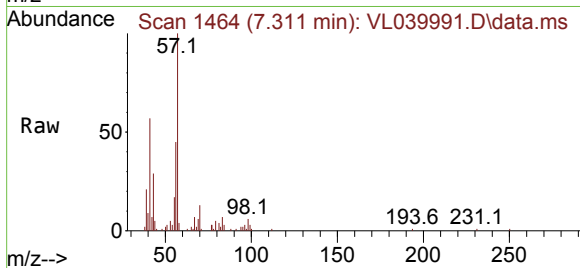
Tgt Ion: 57 Resp: 20428

Ion Ratio Lower Upper

57 100

41 0.0 26.2 39.2#

56 0.0 25.5 38.3#



#52

Tetrachloroethene

Concen: 0.296 ppbv

RT: 10.597 min Scan# 2486

Delta R.T. 0.016 min

Lab File: VL039991.D

Acq: 13 Dec 2022 1:02

Tgt Ion: 164 Resp: 26700

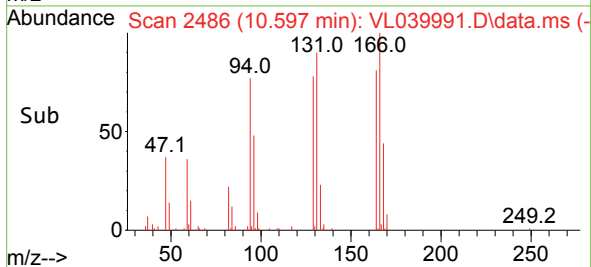
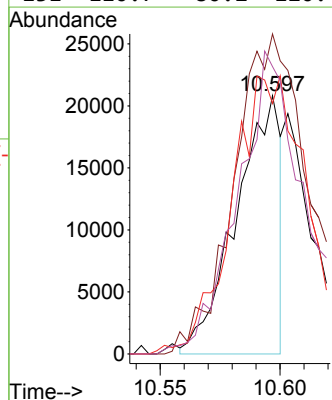
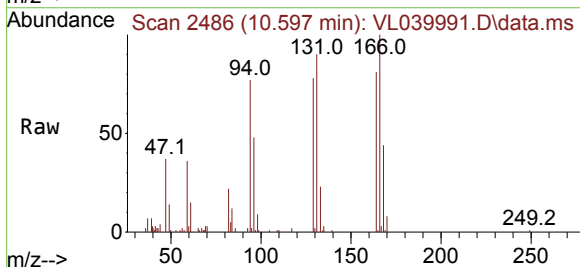
Ion Ratio Lower Upper

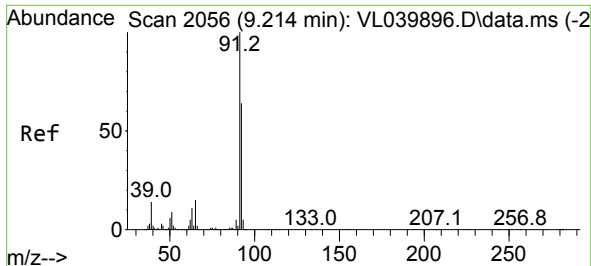
164 100

166 118.1 98.3 147.5

129 95.7 79.7 119.5

131 110.7 80.2 120.4

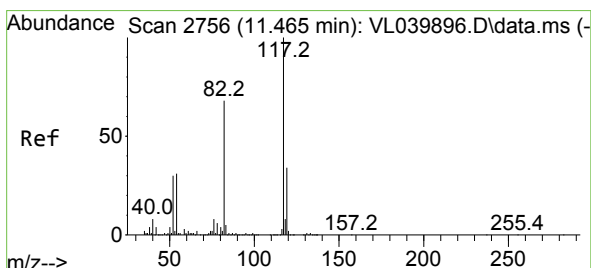
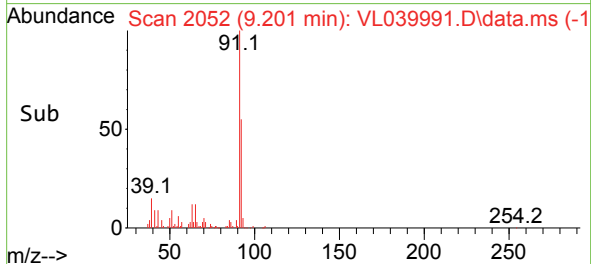
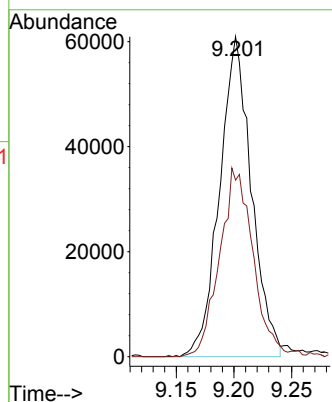
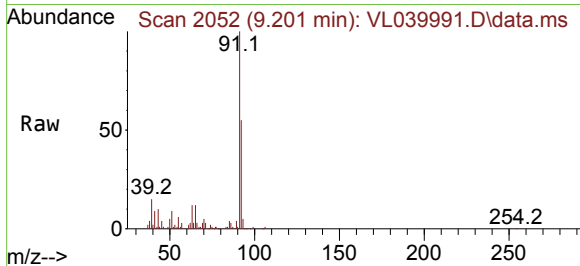




#53
Toluene
Concen: 0.425 ppbv
RT: 9.201 min Scan# 2056
Delta R.T. 0.016 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

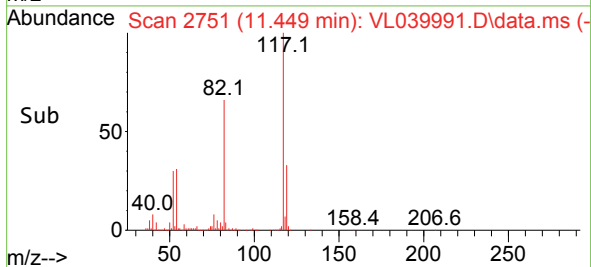
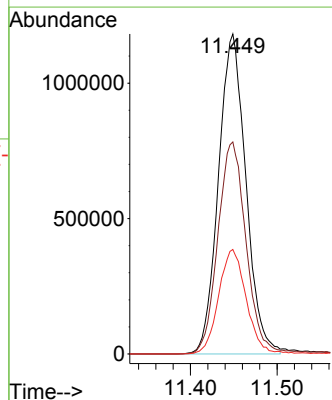
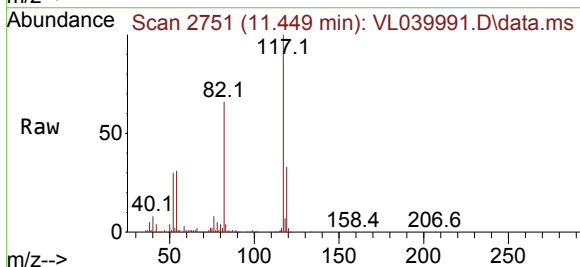
Instrument :
MSVOA_L
ClientSampleId :
SV1

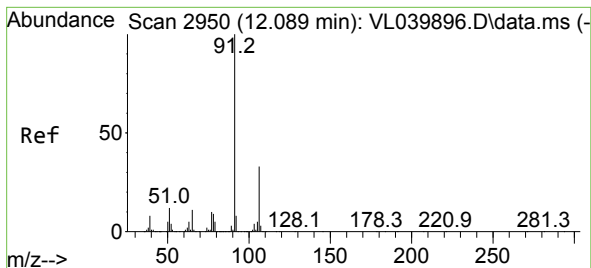
Tgt Ion: 91 Resp: 116508
Ion Ratio Lower Upper
91 100
92 63.0 49.8 74.6



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.449 min Scan# 2751
Delta R.T. 0.016 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

Tgt Ion: 117 Resp: 2595654
Ion Ratio Lower Upper
117 100
82 69.4 52.3 78.5
119 33.1 25.7 38.5





#58

Ethyl Benzene

Concen: 0.086 ppbv

RT: 12.066 min Scan# 29

Delta R.T. 0.010 min

Lab File: VL039991.D

Acq: 13 Dec 2022 1:02

Instrument :

MSVOA_L

ClientSampleId :

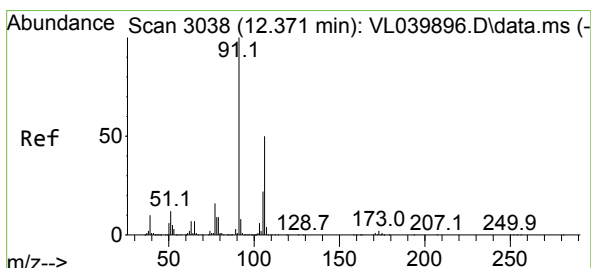
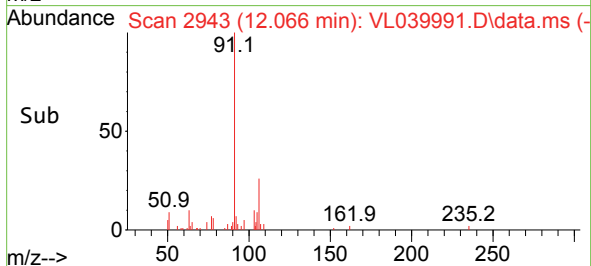
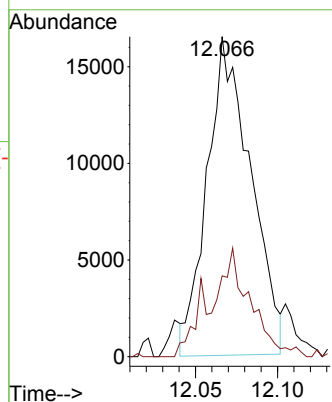
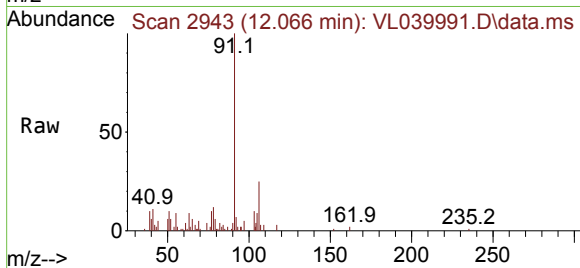
SV1

Tgt Ion: 91 Resp: 30399

Ion Ratio Lower Upper

91 100

106 25.4 26.1 39.1#



#59

m/p-Xylene

Concen: 0.022 ppbv

RT: 12.359 min Scan# 3034

Delta R.T. 0.020 min

Lab File: VL039991.D

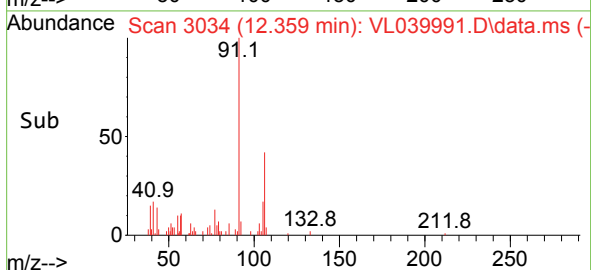
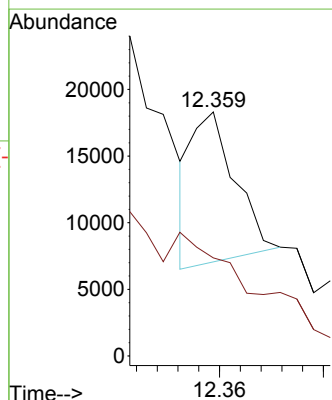
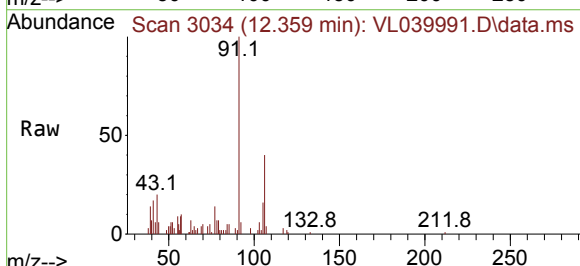
Acq: 13 Dec 2022 1:02

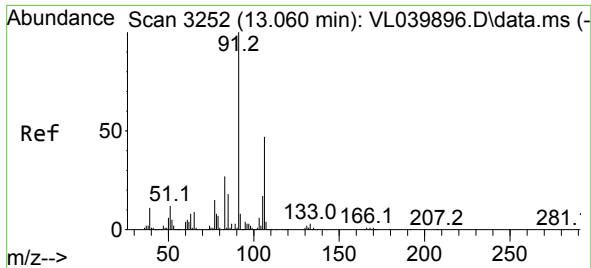
Tgt Ion: 91 Resp: 6528

Ion Ratio Lower Upper

91 100

106 0.0 37.0 55.6#

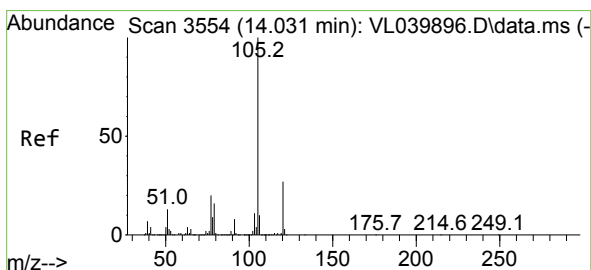
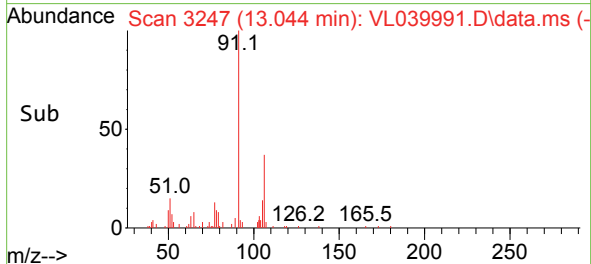
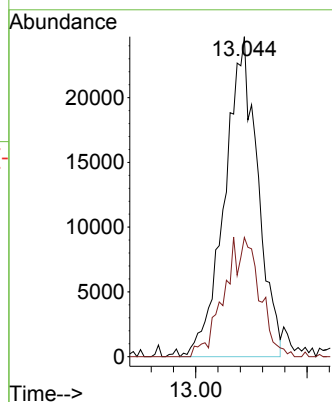
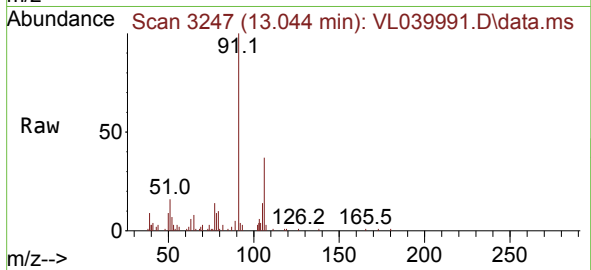




#60
o-Xylene
Concen: 0.180 ppbv
RT: 13.044 min Scan# 31
Delta R.T. 0.016 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

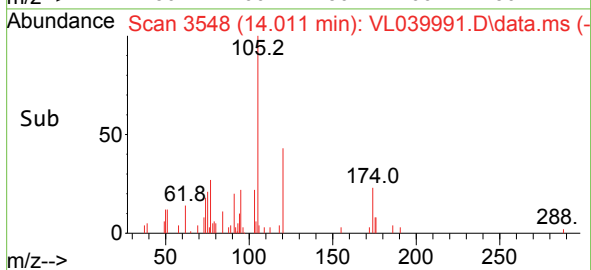
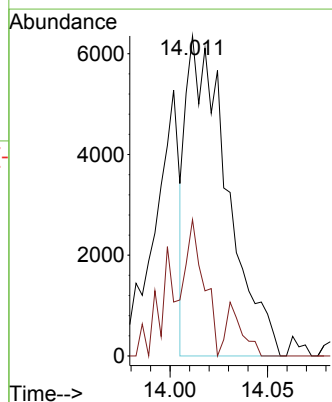
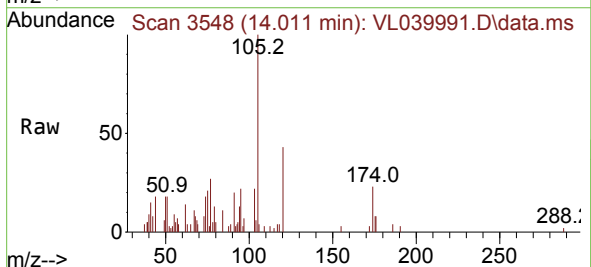
Instrument :
MSVOA_L
ClientSampleId :
SV1

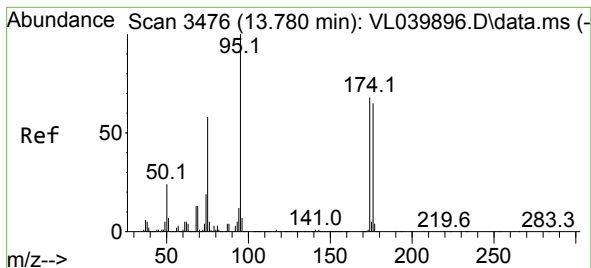
Tgt Ion: 91 Resp: 50726
Ion Ratio Lower Upper
91 100
106 40.2 23.2 69.6



#62
Isopropylbenzene
Concen: 0.023 ppbv
RT: 14.011 min Scan# 3548
Delta R.T. 0.016 min
Lab File: VL039991.D
Acq: 13 Dec 2022 1:02

Tgt Ion: 105 Resp: 9299
Ion Ratio Lower Upper
105 100
120 38.9 21.4 32.2#

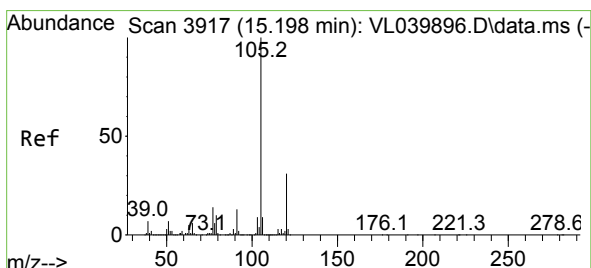
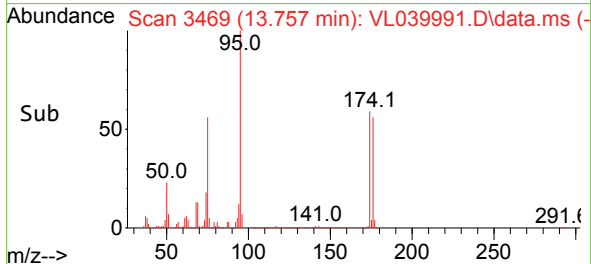
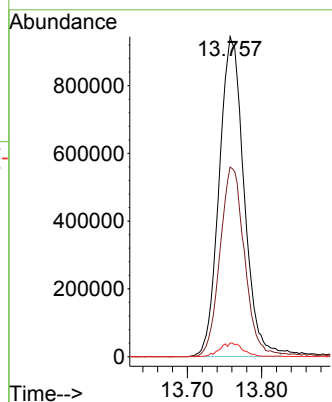
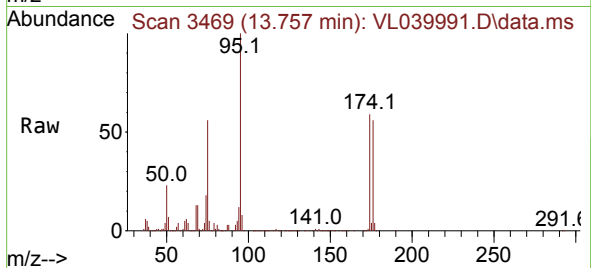




#68
 1-Bromo-4-Fluorobenzene
 Concen: 11.050 ppbv
 RT: 13.757 min Scan# 3476
 Delta R.T. 0.016 min
 Lab File: VL039991.D
 Acq: 13 Dec 2022 1:02

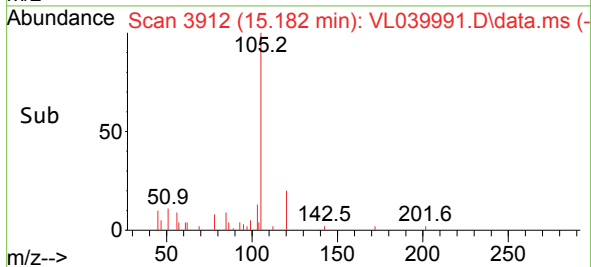
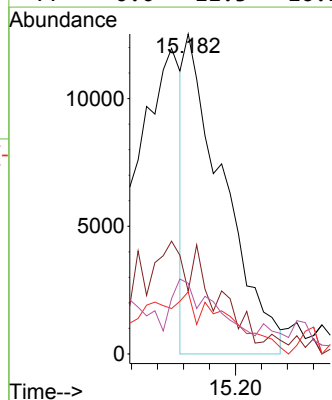
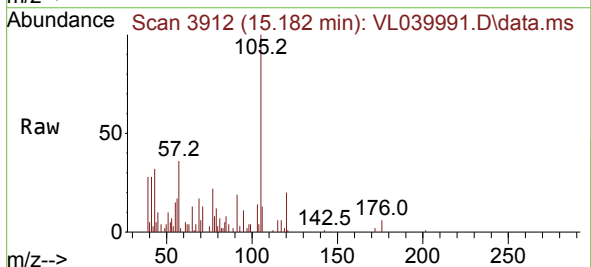
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

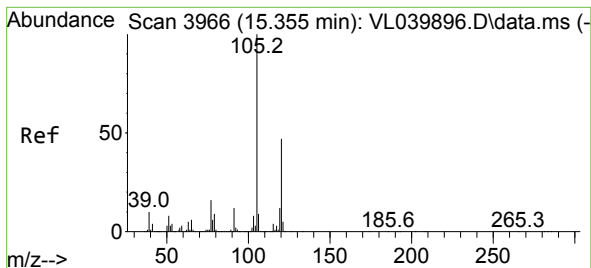
Tgt Ion: 95 Resp: 2190765
 Ion Ratio Lower Upper
 95 100
 174 60.2 53.7 80.5
 175 4.2 4.0 6.0



#72
 4-Ethyltoluene
 Concen: 0.041 ppbv
 RT: 15.182 min Scan# 3912
 Delta R.T. 0.020 min
 Lab File: VL039991.D
 Acq: 13 Dec 2022 1:02

Tgt Ion: 105 Resp: 12853
 Ion Ratio Lower Upper
 105 100
 120 0.0 24.5 36.7#
 91 43.8 10.4 15.6#
 77 0.0 11.3 16.9#





#73

1,3,5-Trimethylbenzene

Concen: 0.035 ppbv

RT: 15.346 min Scan# 3966

Delta R.T. 0.026 min

Lab File: VL039991.D

Acq: 13 Dec 2022 1:02

Instrument :

MSVOA_L

ClientSampleId :

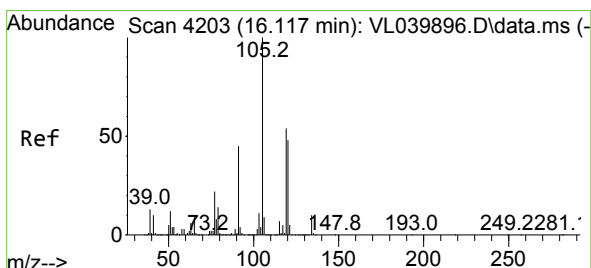
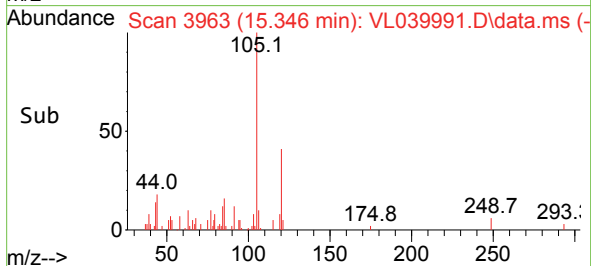
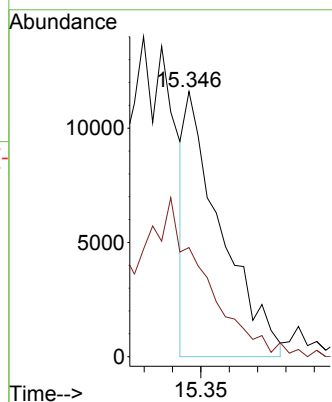
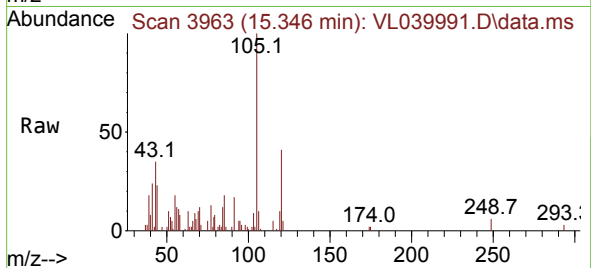
SV1

Tgt Ion:105 Resp: 10203

Ion Ratio Lower Upper

105 100

120 37.8 37.9 56.9#



#74

1,2,4-Trimethylbenzene

Concen: 0.107 ppbv

RT: 16.098 min Scan# 4197

Delta R.T. 0.023 min

Lab File: VL039991.D

Acq: 13 Dec 2022 1:02

Tgt Ion:105 Resp: 32880

Ion Ratio Lower Upper

105 100

120 27.2 38.7 58.1#

91 0.0 36.4 54.6#

77 11.2 17.4 26.0#

