

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061523\
 Data File : VL040472.D
 Acq On : 15 Jun 2023 18:15
 Operator : SY/MD
 Sample : 03250-02 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SVP-07

Quant Time: Jun 16 05:39:02 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL060523AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue Jun 06 06:22:12 2023
 Response via : Initial Calibration

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

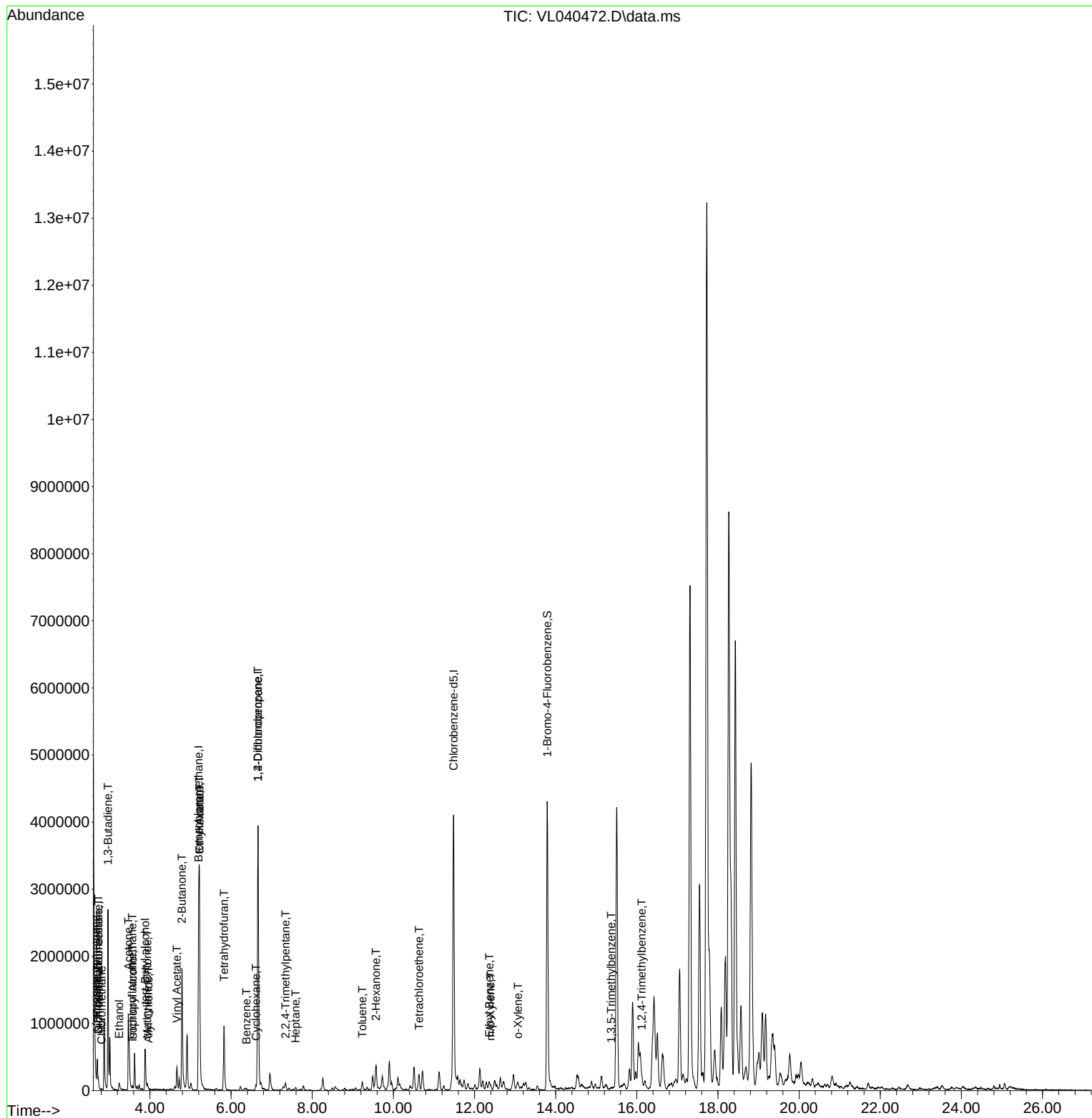
Internal Standards						
1) Bromochloromethane	5.198	49	1148350	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.664	114	3060471	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.484	117	2802441	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.793	95	2174454	9.401	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.000%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.729	85	74278	0.297	ppbv	93
3) Chlorodifluoromethane	2.671	51	12898	0.069	ppbv	94
4) Chloromethane	2.809	50	3987	0.055	ppbv #	88
8) Dichlorotetrafluoroethane	2.729	85	74278	0.376	ppbv #	18
9) Propene	2.697	41	132619	2.287	ppbv	92
10) Heptane	7.587	43	16056	0.122	ppbv #	74
11) Trichlorofluoromethane	3.565	101	16319	0.080	ppbv	95
13) Ethanol	3.243	45	122393	10.190	ppbv	99
15) Acetone	3.468	43	1098051	7.928	ppbv #	32
16) 1,3-Butadiene	2.967	39	668798	9.921	ppbv #	13
17) tert-Butyl alcohol	3.883	59	540925	4.751	ppbv	98
19) Isopropyl Alcohol	3.578	45	20564	0.308	ppbv #	1
20) Methylene Chloride	3.938	84	20384	0.345	ppbv	96
21) Allyl Chloride	3.964	41	3176	0.041	ppbv #	15
23) Vinyl Acetate	4.665	43	181936	1.345	ppbv #	41
25) Ethyl Acetate	5.224	43	734004	2.925	ppbv #	76
26) Hexane	5.221	57	1117431	9.402	ppbv #	41
30) Cyclohexane	6.616	84	23975	0.250	ppbv	92
34) 2-Butanone	4.790	43	2166438	14.680	ppbv	98
36) Benzene	6.381	78	17427	0.072	ppbv #	85
39) 1,2-Dichloropropane	6.664	63	743648	7.924	ppbv #	21
41) Tetrahydrofuran	5.825	42	118632	1.471	ppbv #	34
44) 2,2,4-Trimethylpentane	7.340	57	81068	0.204	ppbv #	75
51) 2-Hexanone	9.571	43	332781	2.425	ppbv #	98
52) Tetrachloroethene	10.632	164	32479	0.425	ppbv #	83
53) Toluene	9.237	91	75470	0.294	ppbv	95
58) Ethyl Benzene	12.365	91	47566	0.140	ppbv	99
59) m/p-Xylene	12.397	91	9913	0.032	ppbv #	33
60) o-Xylene	13.073	91	53779	0.182	ppbv	99
73) 1,3,5-Trimethylbenzene	15.368	105	21073	0.072	ppbv #	83
74) 1,2,4-Trimethylbenzene	16.121	105	95607	0.276	ppbv #	66

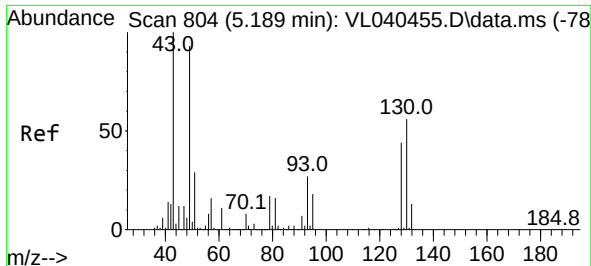
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL060523AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Tue Jun 06 06:22:12 2023
Response via : Initial Calibration

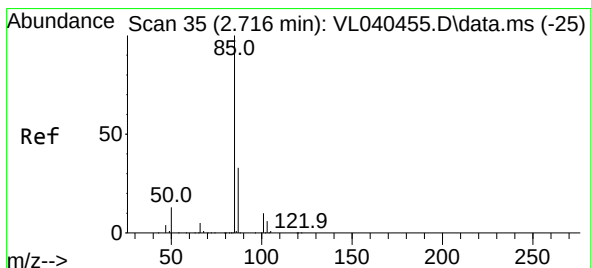
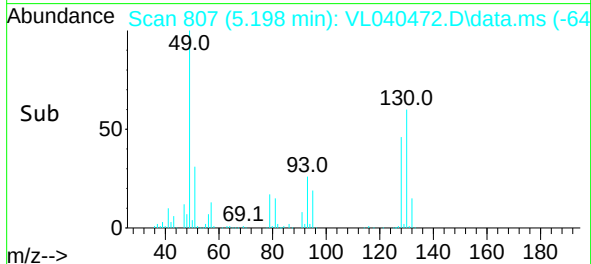
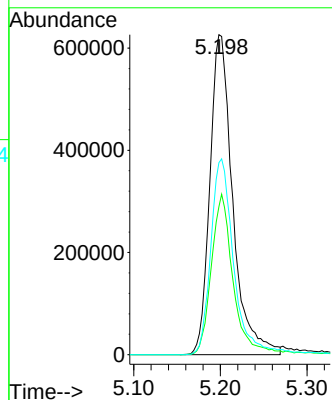
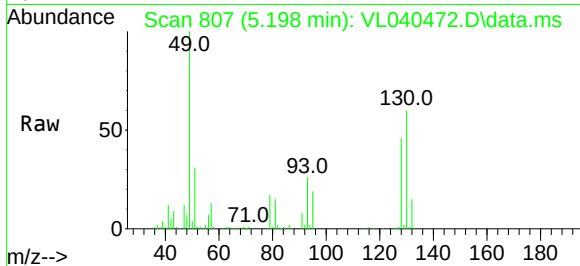




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.198 min Scan# 80
 Delta R.T. 0.009 min
 Lab File: VL040472.D
 Acq: 15 Jun 2023 18:15

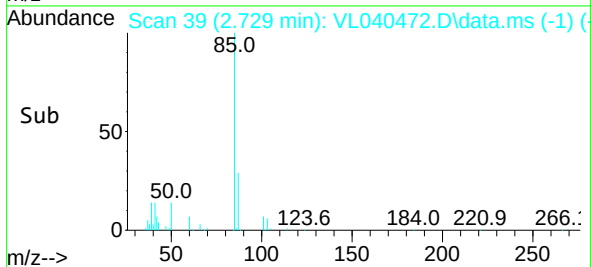
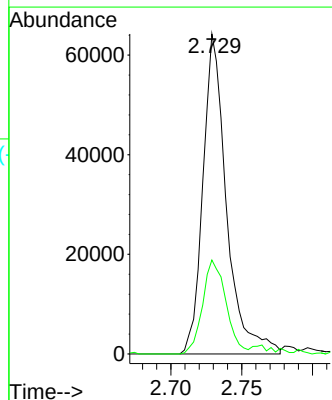
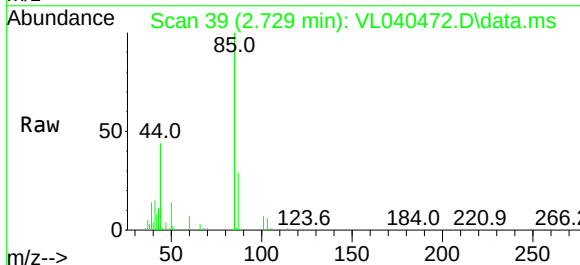
Instrument :
 MSVOA_L
 ClientSampleId :
 SVP-07

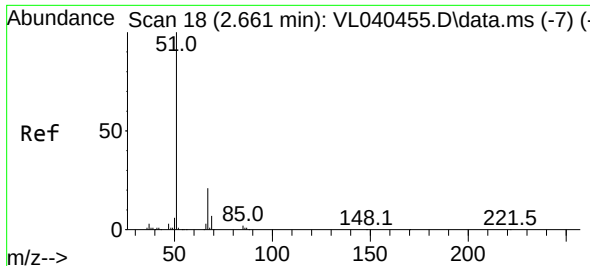
Tgt Ion: 49 Resp: 1148350
 Ion Ratio Lower Upper
 49 100
 128 48.9 24.7 74.1
 130 62.8 31.4 94.2



#2
 Dichlorodifluoromethane
 Concen: 0.297 ppbv
 RT: 2.729 min Scan# 39
 Delta R.T. 0.013 min
 Lab File: VL040472.D
 Acq: 15 Jun 2023 18:15

Tgt Ion: 85 Resp: 74278
 Ion Ratio Lower Upper
 85 100
 87 29.4 26.6 39.8

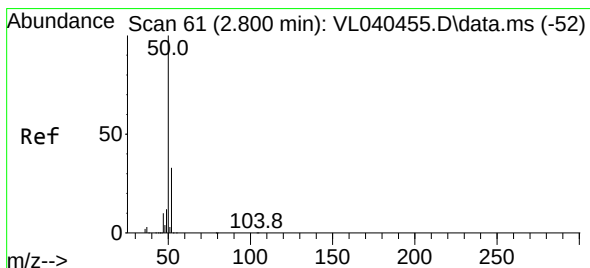
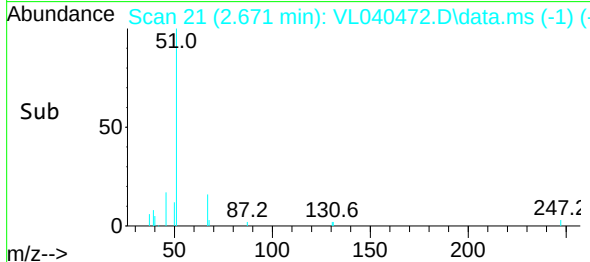
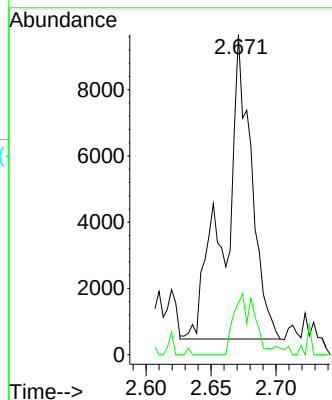
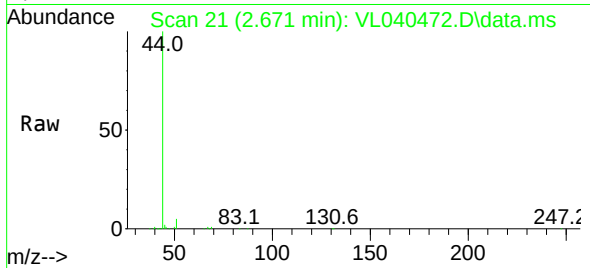




#3
Chlorodifluoromethane
Concen: 0.069 ppbv
RT: 2.671 min Scan# 21
Delta R.T. 0.010 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

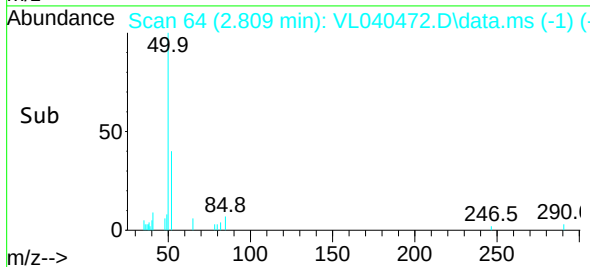
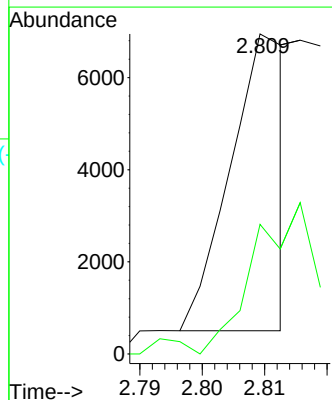
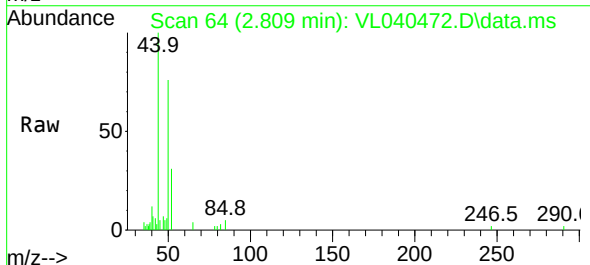
Instrument :
MSVOA_L
ClientSampleId :
SVP-07

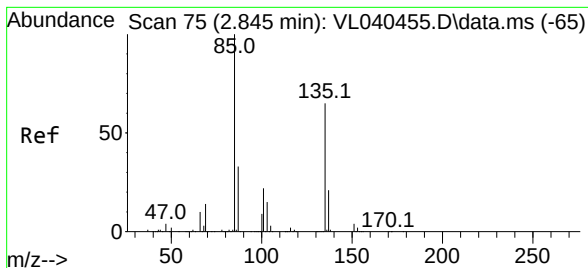
Tgt Ion: 51 Resp: 12898
Ion Ratio Lower Upper
51 100
67 17.6 16.3 24.5



#4
Chloromethane
Concen: 0.055 ppbv
RT: 2.809 min Scan# 64
Delta R.T. 0.010 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

Tgt Ion: 50 Resp: 3987
Ion Ratio Lower Upper
50 100
52 39.5 26.3 39.5#

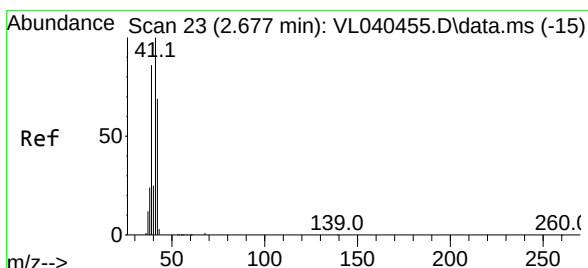
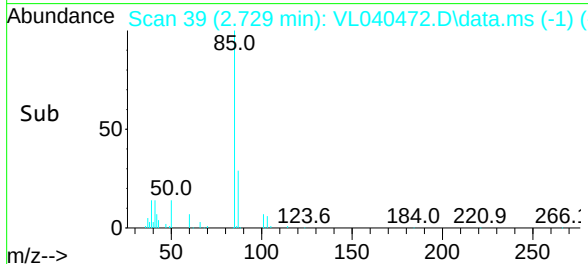
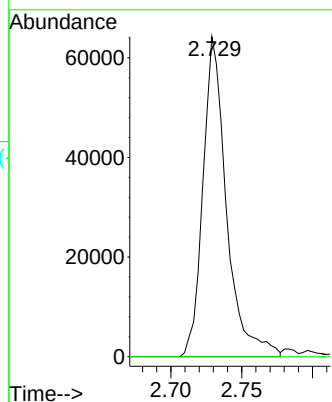
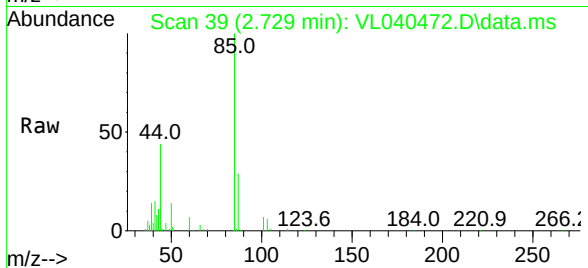




#8
Dichlorotetrafluoroethane
Concen: 0.376 ppbv
RT: 2.729 min Scan# 39
Delta R.T. -0.116 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

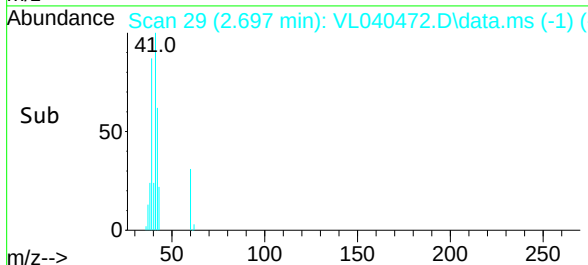
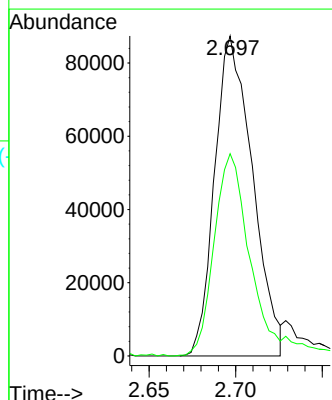
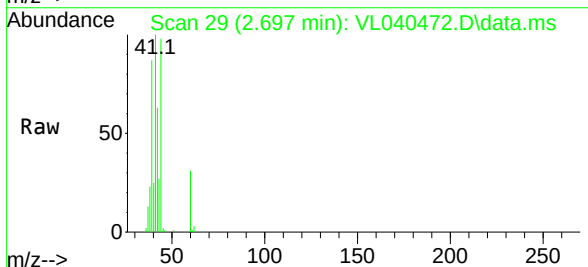
Instrument :
MSVOA_L
ClientSampleId :
SVP-07

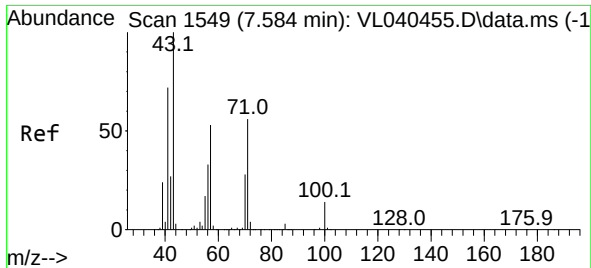
Tgt Ion: 85 Resp: 74278
Ion Ratio Lower Upper
85 100
135 0.6 52.0 78.0#



#9
Propene
Concen: 2.287 ppbv
RT: 2.697 min Scan# 29
Delta R.T. 0.019 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

Tgt Ion: 41 Resp: 132619
Ion Ratio Lower Upper
41 100
42 63.2 56.2 84.2





#10

Heptane

Concen: 0.122 ppbv

RT: 7.587 min Scan# 11

Delta R.T. 0.003 min

Lab File: VL040472.D

Acq: 15 Jun 2023 18:15

Instrument :

MSVOA_L

ClientSampleId :

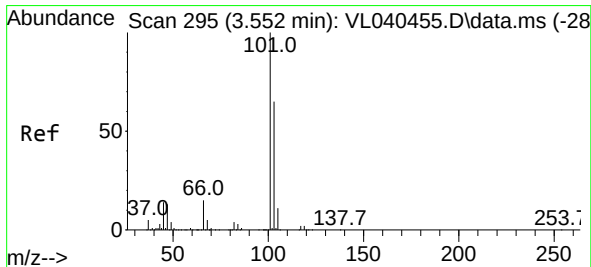
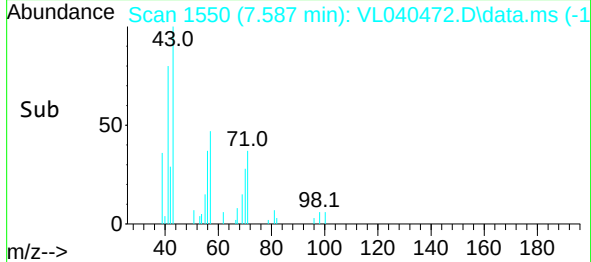
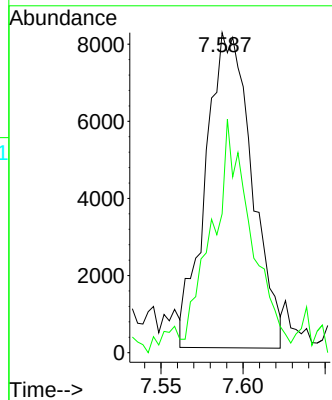
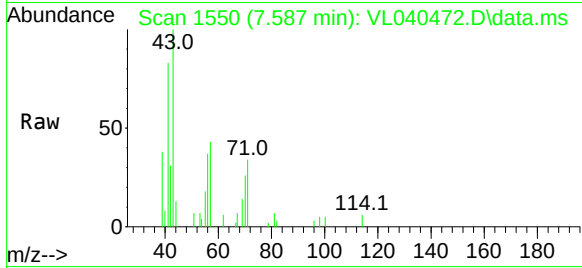
SVP-07

Tgt Ion: 43 Resp: 16056

Ion Ratio Lower Upper

43 100

57 71.3 42.5 63.7#



#11

Trichlorofluoromethane

Concen: 0.080 ppbv

RT: 3.565 min Scan# 299

Delta R.T. 0.013 min

Lab File: VL040472.D

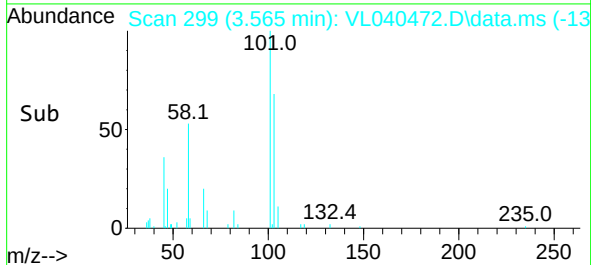
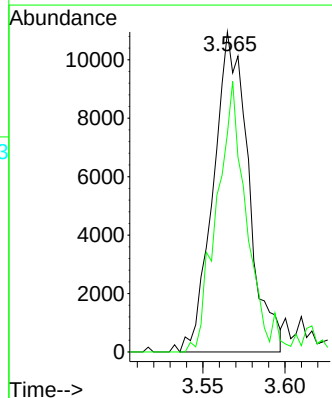
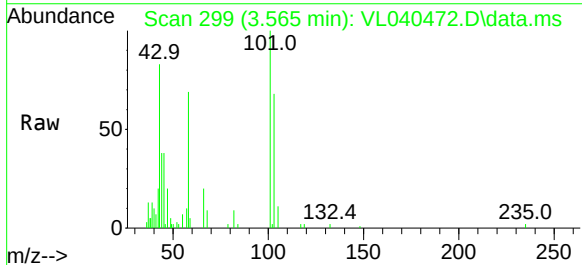
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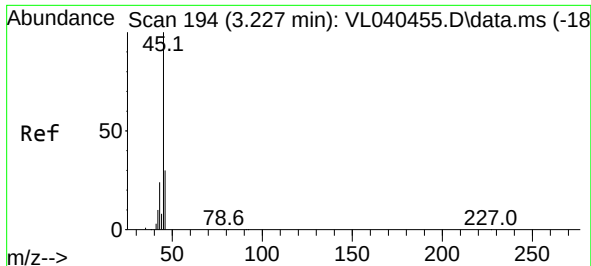
Tgt Ion:101 Resp: 16319

Ion Ratio Lower Upper

101 100

103 68.2 51.7 77.5

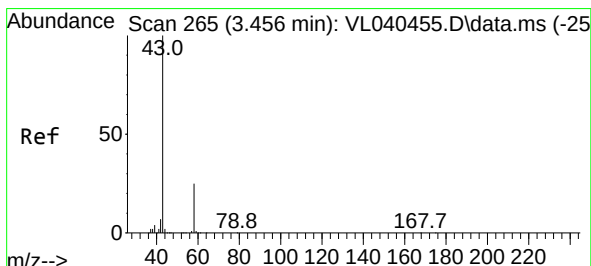
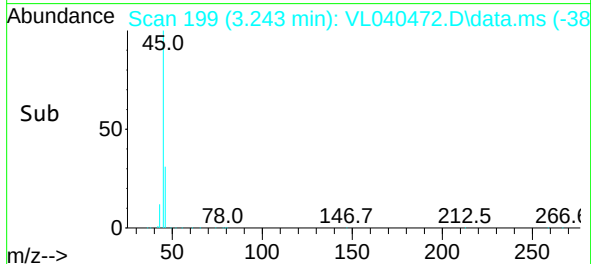
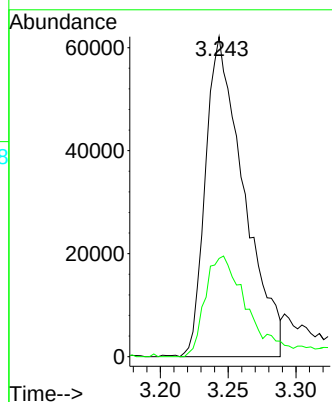
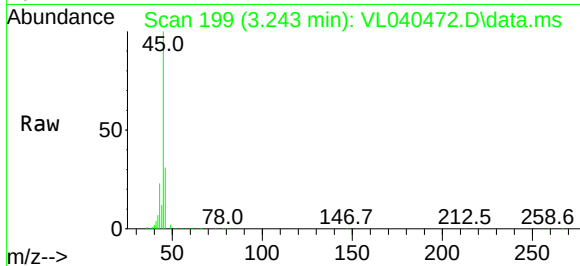




#13
Ethanol
Concen: 10.190 ppbv
RT: 3.243 min Scan# 194
Delta R.T. 0.016 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

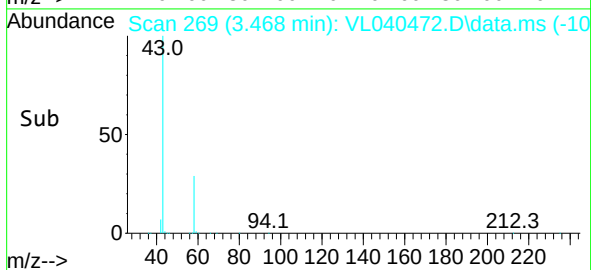
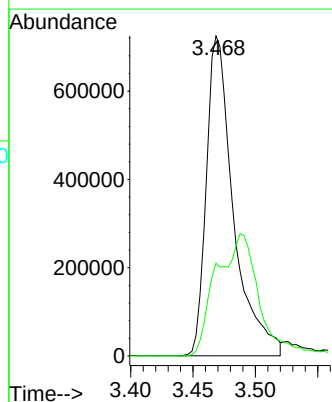
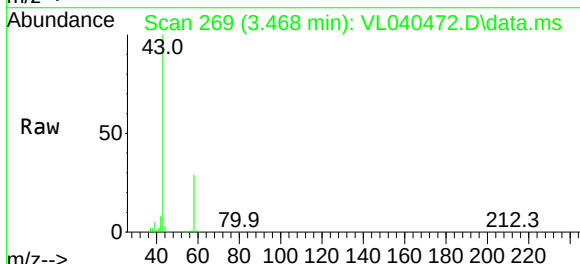
Instrument :
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SVP-07

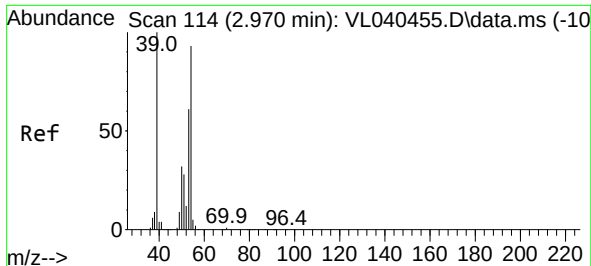
Tgt Ion: 45 Resp: 122393
Ion Ratio Lower Upper
45 100
46 37.1 14.5 58.1



#15
Acetone
Concen: 7.928 ppbv
RT: 3.468 min Scan# 269
Delta R.T. 0.013 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

Tgt Ion: 43 Resp: 1098051
Ion Ratio Lower Upper
43 100
58 62.3 21.6 32.4#





#16

1,3-Butadiene

Concen: 9.921 ppbv

RT: 2.967 min Scan# 114

Delta R.T. -0.003 min

Lab File: VL040472.D

Acq: 15 Jun 2023 18:15

Instrument :

MSVOA_L

ClientSampleId :

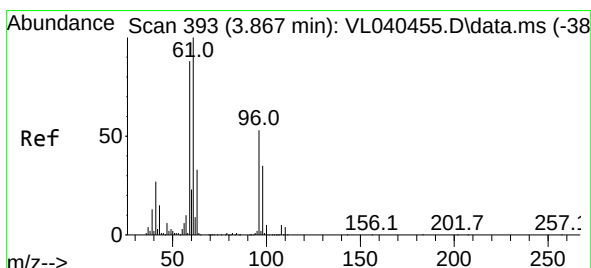
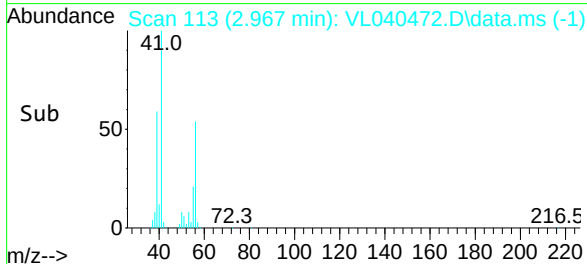
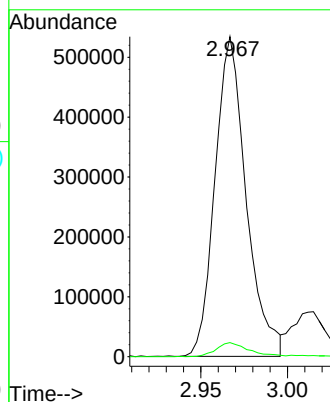
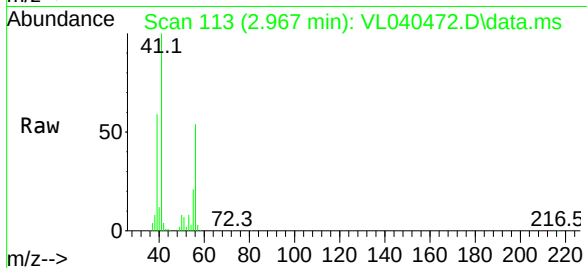
SVP-07

Tgt Ion: 39 Resp: 668798

Ion Ratio Lower Upper

39 100

54 5.1 66.9 100.3#



#17

tert-Butyl alcohol

Concen: 4.751 ppbv

RT: 3.883 min Scan# 398

Delta R.T. 0.016 min

Lab File: VL040472.D

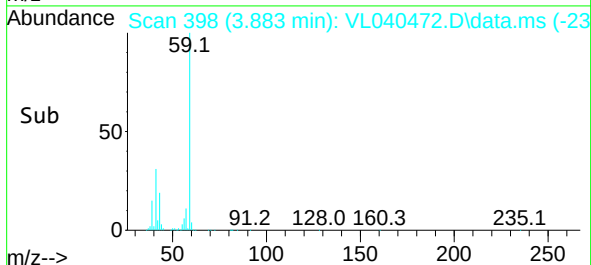
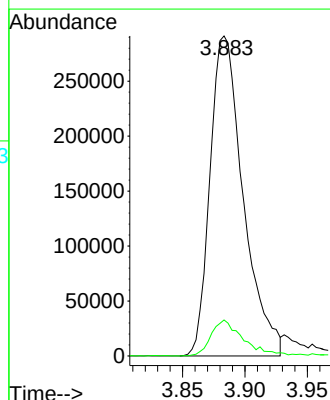
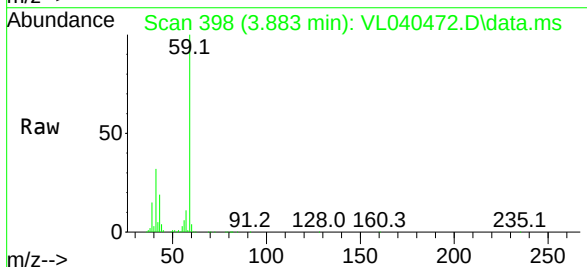
Acq: 15 Jun 2023 18:15

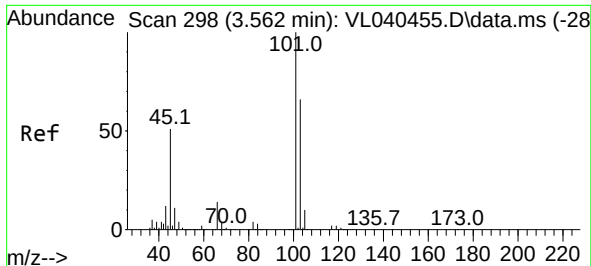
Tgt Ion: 59 Resp: 540925

Ion Ratio Lower Upper

59 100

57 11.6 8.8 13.2





#19

Isopropyl Alcohol

Concen: 0.308 ppbv

RT: 3.578 min Scan# 303

Delta R.T. 0.016 min

Lab File: VL040472.D

Acq: 15 Jun 2023 18:15

Instrument :

MSVOA_L

ClientSampleId :

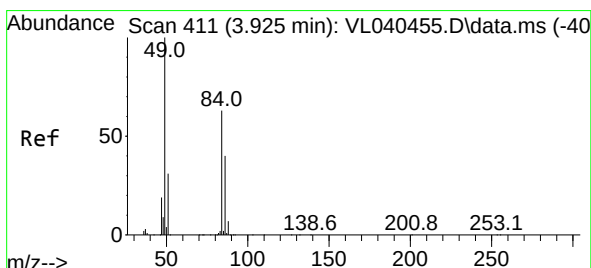
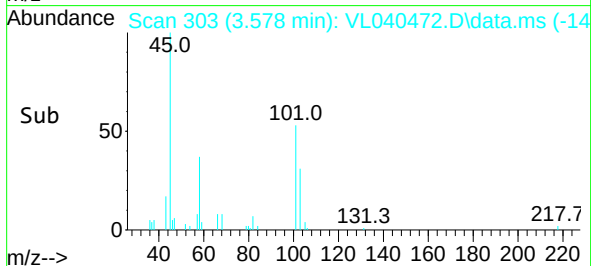
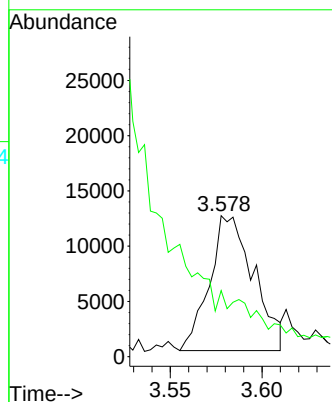
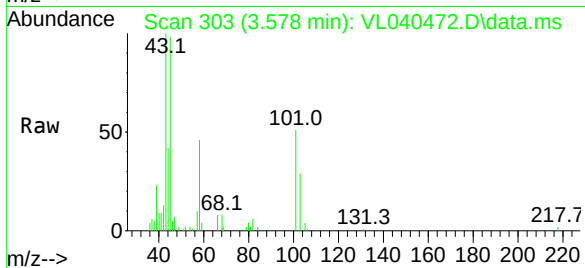
SVP-07

Tgt Ion: 45 Resp: 20564

Ion Ratio Lower Upper

45 100

58 3324.9 2.6 4.0#



#20

Methylene Chloride

Concen: 0.345 ppbv

RT: 3.938 min Scan# 415

Delta R.T. 0.013 min

Lab File: VL040472.D

Acq: 15 Jun 2023 18:15

Tgt Ion: 84 Resp: 20384

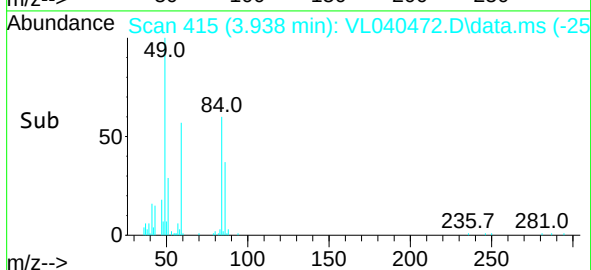
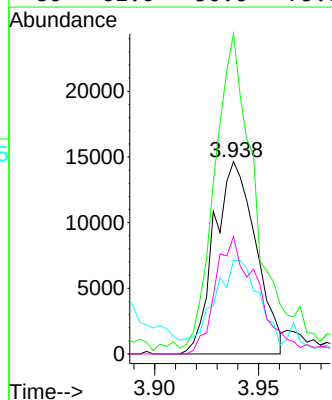
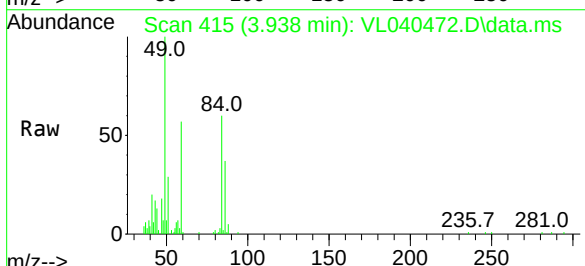
Ion Ratio Lower Upper

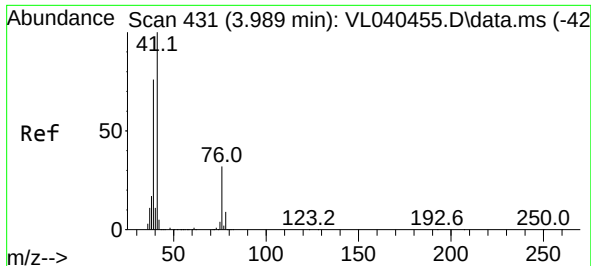
84 100

49 163.4 126.2 189.2

51 43.9 38.7 58.1

86 61.0 50.6 75.8

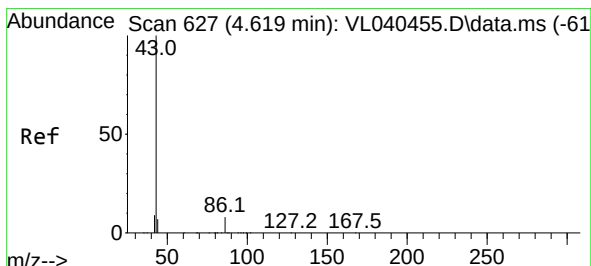
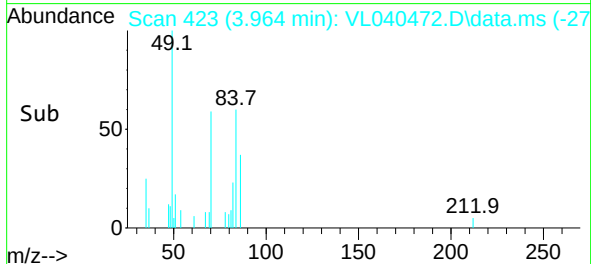
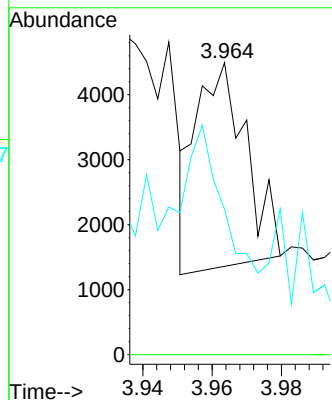
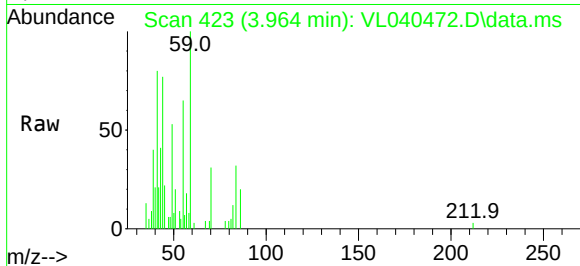




#21
 Allyl Chloride
 Concen: 0.041 ppbv
 RT: 3.964 min Scan# 41
 Delta R.T. -0.026 min
 Lab File: VL040472.D
 Acq: 15 Jun 2023 18:15

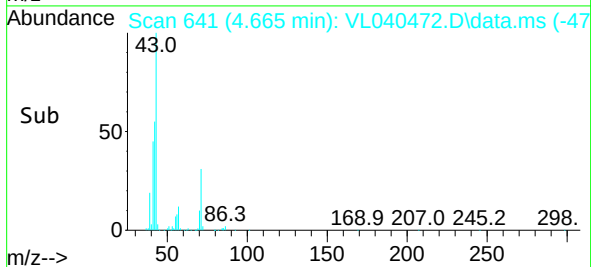
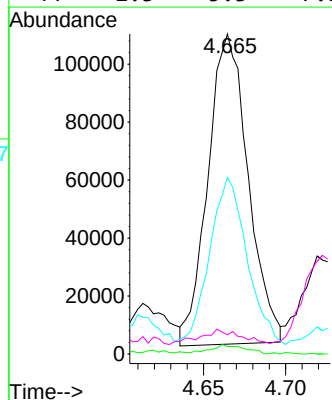
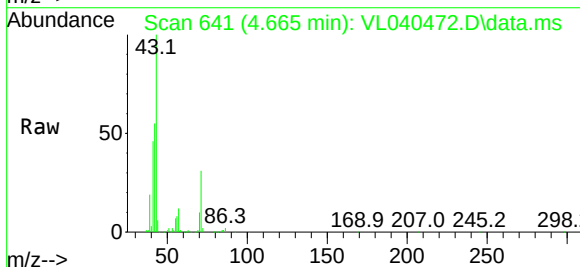
Instrument :
 MSVOA_L
 ClientSampleId :
 SVP-07

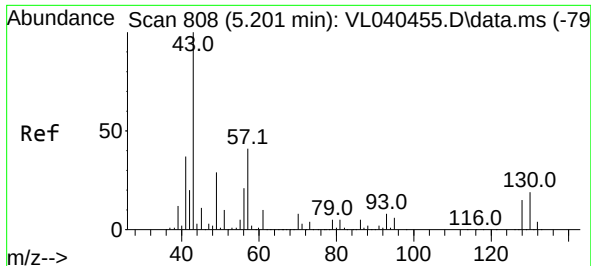
Tgt Ion: 41 Resp: 3176
 Ion Ratio Lower Upper
 41 100
 76 87.5 26.1 39.1#
 39 149.8 63.9 95.9#



#23
 Vinyl Acetate
 Concen: 1.345 ppbv
 RT: 4.665 min Scan# 641
 Delta R.T. 0.045 min
 Lab File: VL040472.D
 Acq: 15 Jun 2023 18:15

Tgt Ion: 43 Resp: 181936
 Ion Ratio Lower Upper
 43 100
 86 2.6 5.8 8.6#
 42 55.8 7.4 11.2#
 44 2.3 5.3 7.9#

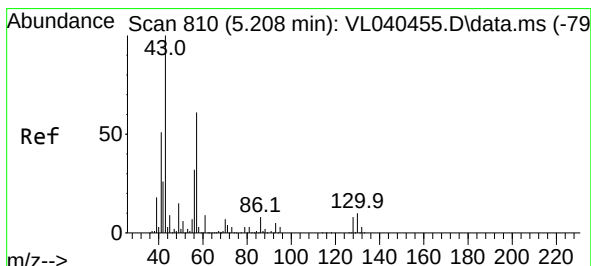
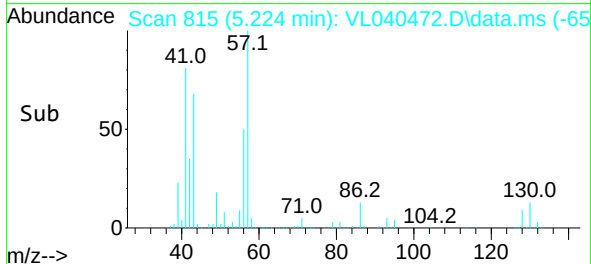
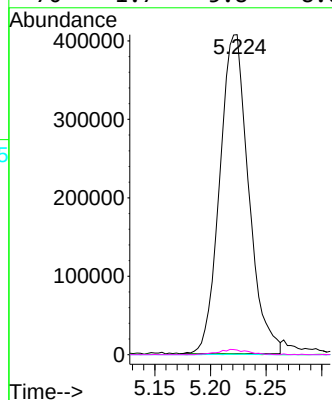
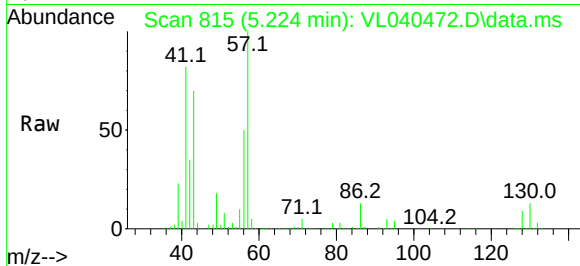




#25
Ethyl Acetate
Concen: 2.925 ppbv
RT: 5.224 min Scan# 815
Delta R.T. 0.023 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

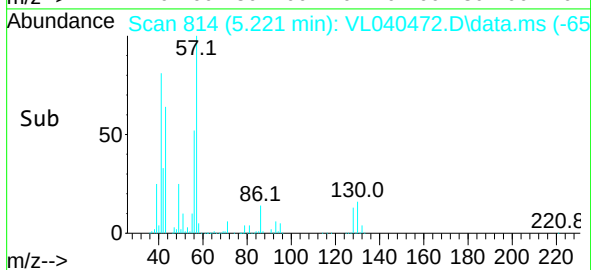
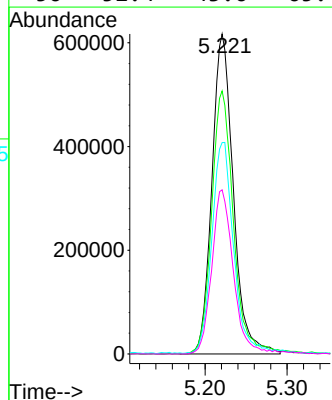
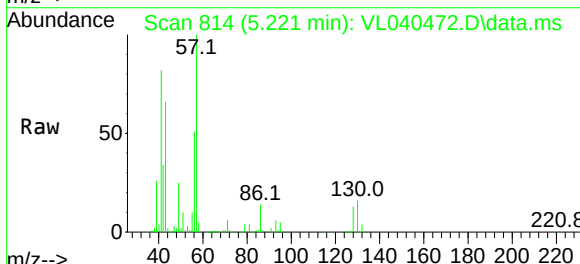
Instrument :
MSVOA_L
ClientSampleId :
SVP-07

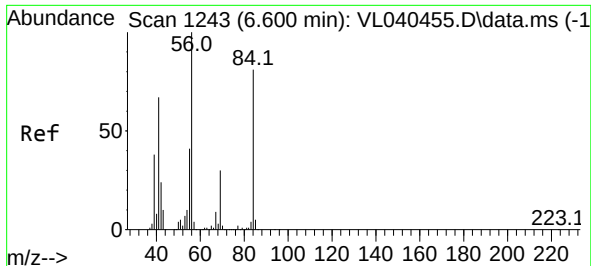
Tgt Ion: 43 Resp: 734004
Ion Ratio Lower Upper
43 100
45 0.4 8.0 12.0#
61 0.2 8.1 12.1#
70 1.7 5.8 8.6#



#26
Hexane
Concen: 9.402 ppbv
RT: 5.221 min Scan# 814
Delta R.T. 0.013 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

Tgt Ion: 57 Resp: 1117431
Ion Ratio Lower Upper
57 100
41 84.8 73.0 109.6
43 68.4 177.5 266.3#
56 52.4 43.6 65.4

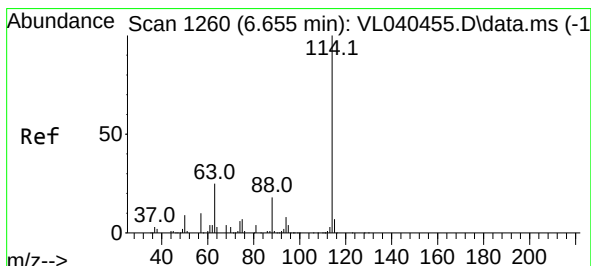
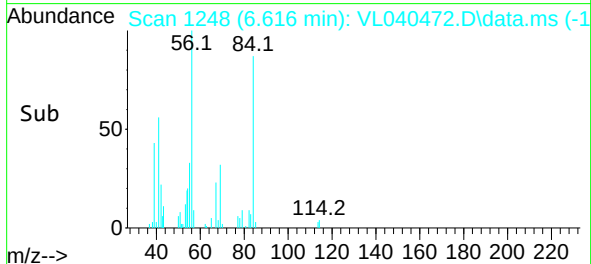
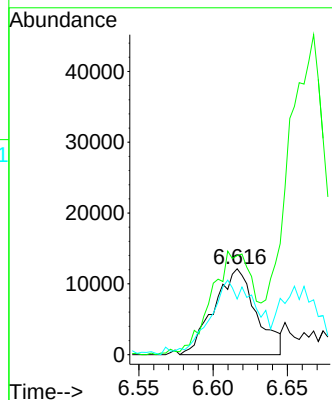
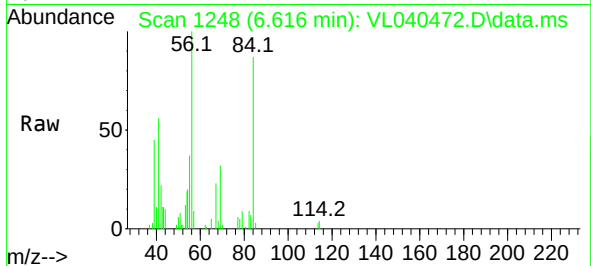




#30
Cyclohexane
Concen: 0.250 ppbv
RT: 6.616 min Scan# 11
Delta R.T. 0.016 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

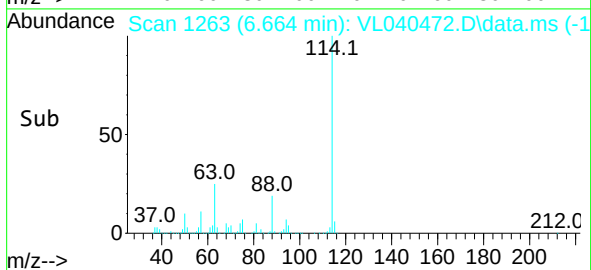
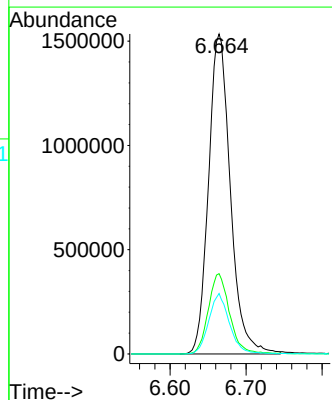
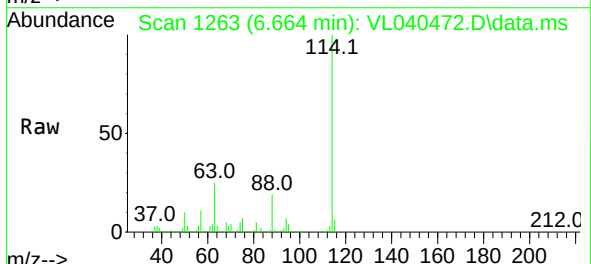
Instrument :
MSVOA_L
ClientSampleId :
SVP-07

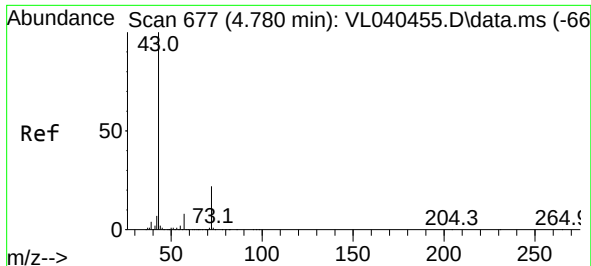
Tgt Ion: 84 Resp: 23975
Ion Ratio Lower Upper
84 100
56 120.7 106.0 159.0
41 86.7 66.8 100.2



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 6.664 min Scan# 1263
Delta R.T. 0.010 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

Tgt Ion: 114 Resp: 3060471
Ion Ratio Lower Upper
114 100
63 24.7 21.0 31.6
88 18.0 14.5 21.7

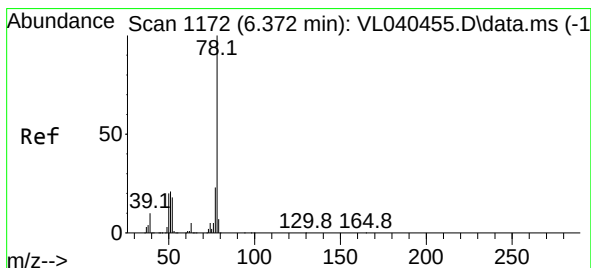
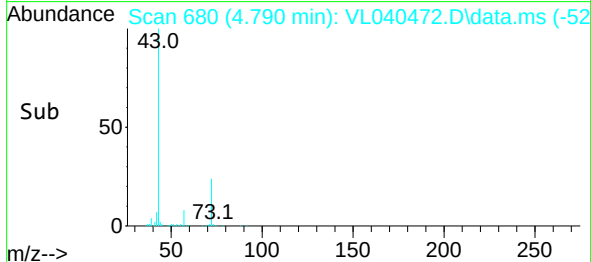
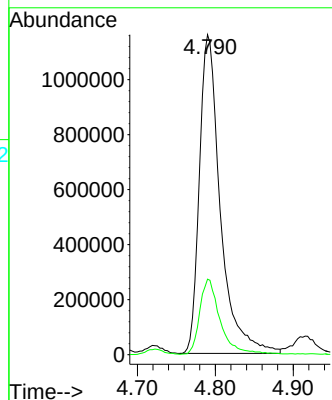
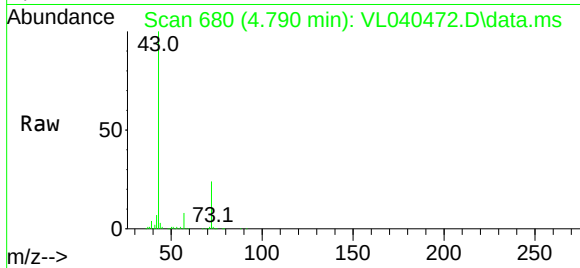




#34
2-Butanone
Concen: 14.680 ppbv
RT: 4.790 min Scan# 677
Delta R.T. 0.010 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

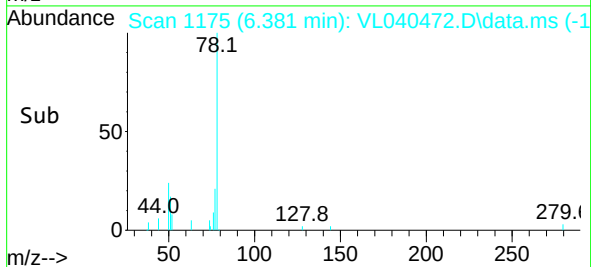
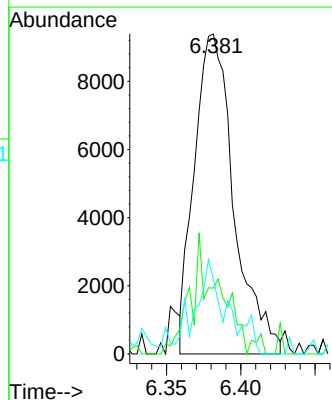
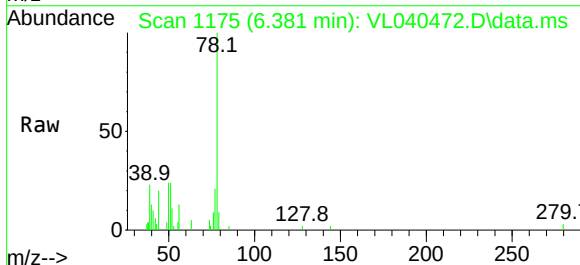
Instrument :
MSVOA_L
ClientSampleId :
SVP-07

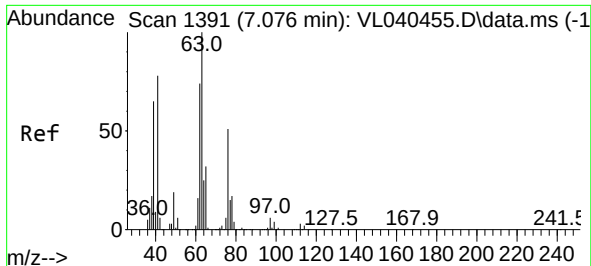
Tgt Ion: 43 Resp: 2166438
Ion Ratio Lower Upper
43 100
72 23.5 18.1 27.1



#36
Benzene
Concen: 0.072 ppbv
RT: 6.381 min Scan# 1175
Delta R.T. 0.010 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

Tgt Ion: 78 Resp: 17427
Ion Ratio Lower Upper
78 100
77 13.3 18.5 27.7#
50 24.5 16.1 24.1#





#39

1,2-Dichloropropane

Concen: 7.924 ppbv

RT: 6.664 min Scan# 11

Delta R.T. -0.412 min

Lab File: VL040472.D

Acq: 15 Jun 2023 18:15

Instrument :

MSVOA_L

ClientSampleId :

SVP-07

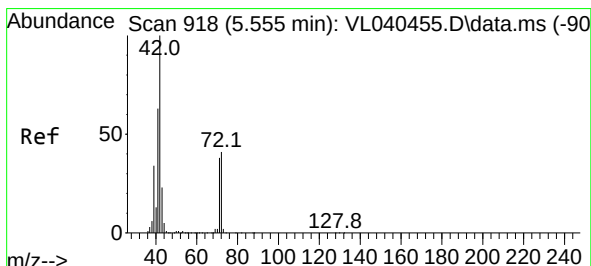
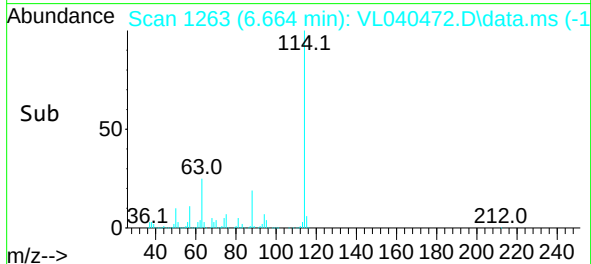
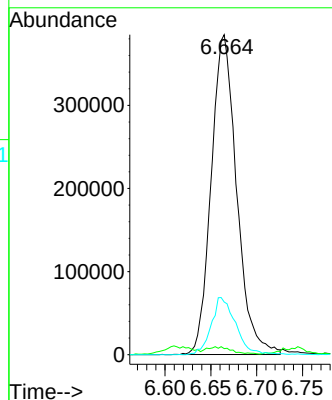
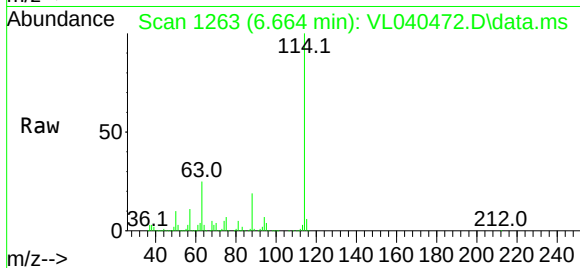
Tgt Ion: 63 Resp: 743648

Ion Ratio Lower Upper

63 100

41 0.9 62.2 93.2#

62 16.3 59.0 88.4#



#41

Tetrahydrofuran

Concen: 1.471 ppbv

RT: 5.825 min Scan# 1002

Delta R.T. 0.270 min

Lab File: VL040472.D

Acq: 15 Jun 2023 18:15

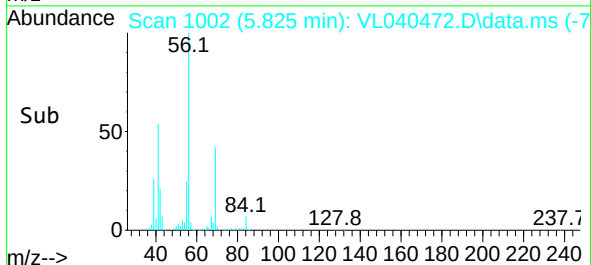
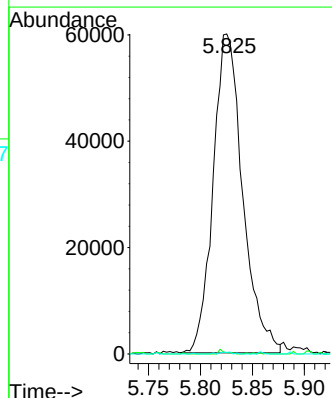
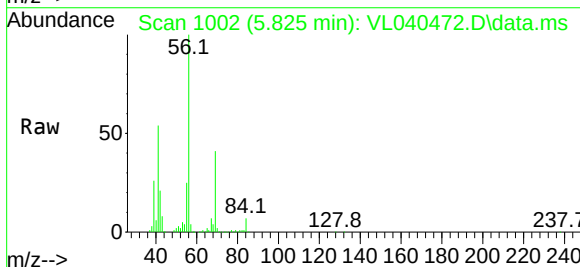
Tgt Ion: 42 Resp: 118632

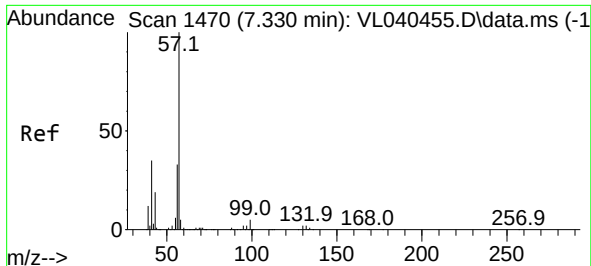
Ion Ratio Lower Upper

42 100

72 0.3 33.8 50.8#

71 0.0 32.3 48.5#

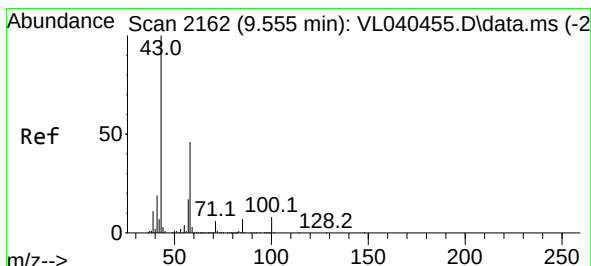
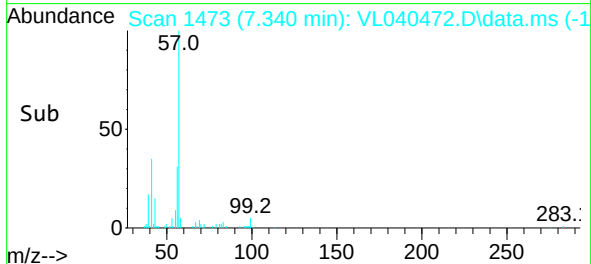
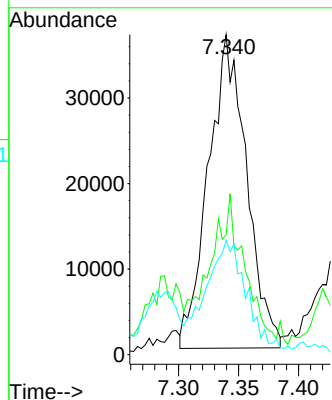
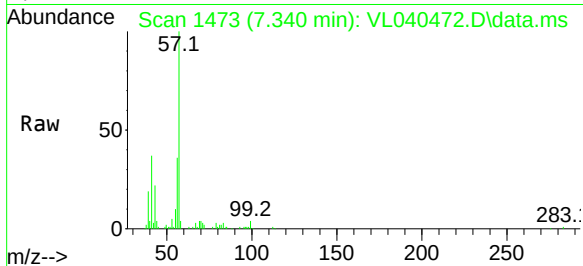




#44
2,2,4-Trimethylpentane
Concen: 0.204 ppbv
RT: 7.340 min Scan# 1470
Delta R.T. 0.010 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

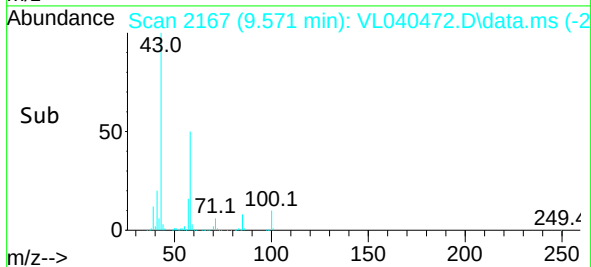
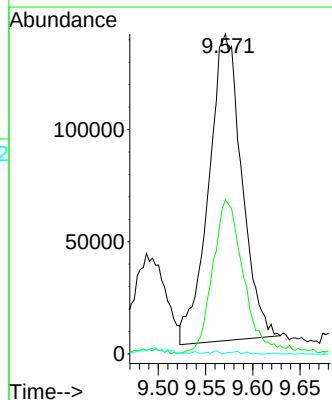
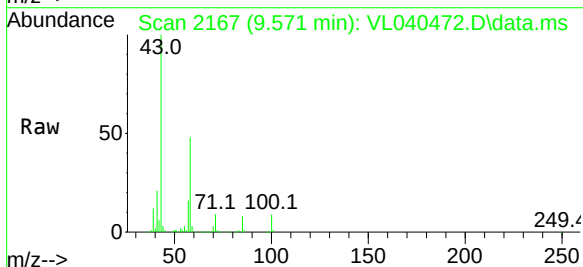
Instrument :
MSVOA_L
ClientSampleId :
SVP-07

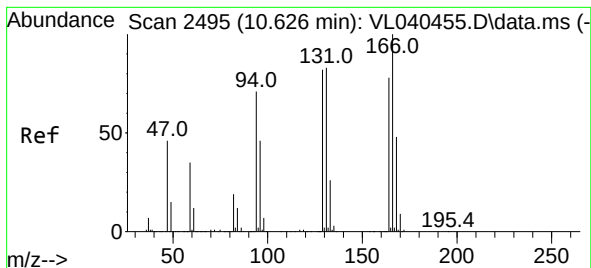
Tgt Ion: 57 Resp: 81068
Ion Ratio Lower Upper
57 100
41 50.5 27.8 41.8#
56 44.3 25.3 37.9#



#51
2-Hexanone
Concen: 2.425 ppbv
RT: 9.571 min Scan# 2167
Delta R.T. 0.016 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

Tgt Ion: 43 Resp: 332781
Ion Ratio Lower Upper
43 100
58 47.7 37.1 55.7
98 0.8 0.5 0.7#





#52

Tetrachloroethene

Concen: 0.425 ppbv

RT: 10.632 min Scan# 2495

Delta R.T. 0.006 min

Lab File: VL040472.D

Acq: 15 Jun 2023 18:15

Instrument :

MSVOA_L

ClientSampleId :

SVP-07

Tgt Ion:164 Resp: 32479

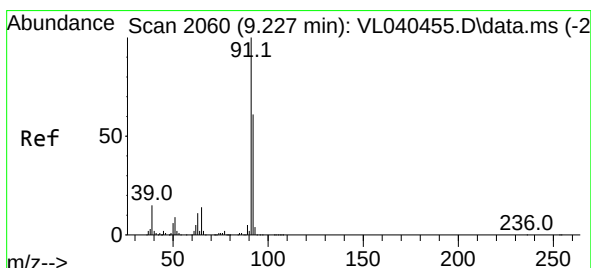
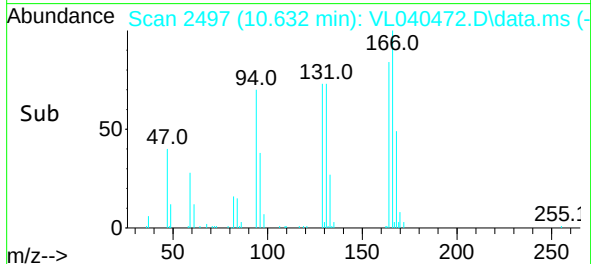
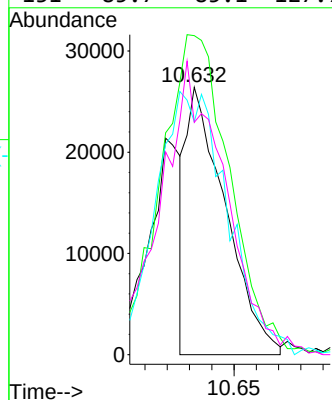
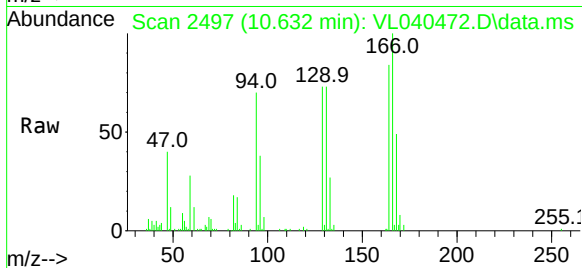
Ion Ratio Lower Upper

164 100

166 116.5 102.7 154.1

129 82.8 84.6 126.8#

131 85.7 85.1 127.7



#53

Toluene

Concen: 0.294 ppbv

RT: 9.237 min Scan# 2063

Delta R.T. 0.010 min

Lab File: VL040472.D

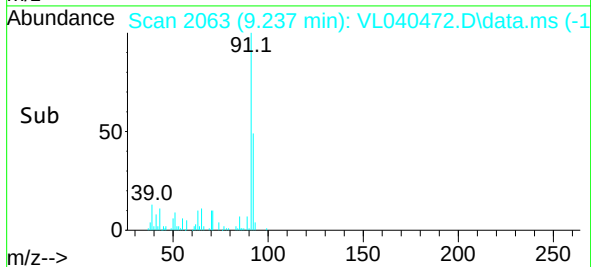
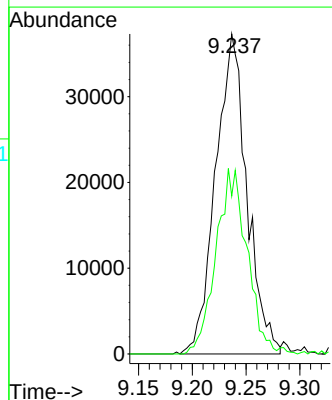
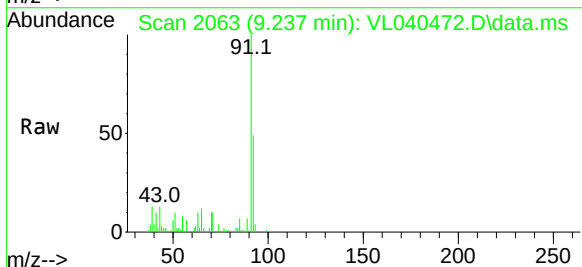
Acq: 15 Jun 2023 18:15

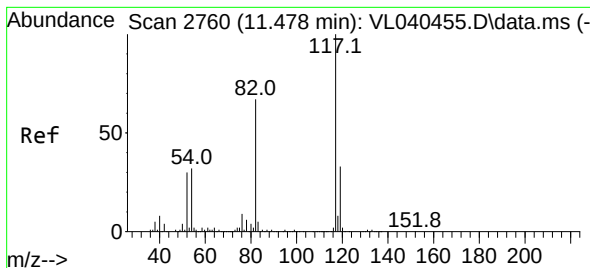
Tgt Ion: 91 Resp: 75470

Ion Ratio Lower Upper

91 100

92 57.7 49.1 73.7





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.484 min Scan# 21

Delta R.T. 0.006 min

Lab File: VL040472.D

Acq: 15 Jun 2023 18:15

Instrument :

MSVOA_1

ClientSampleId :

SVP-07

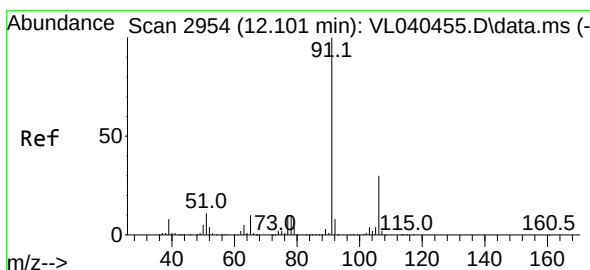
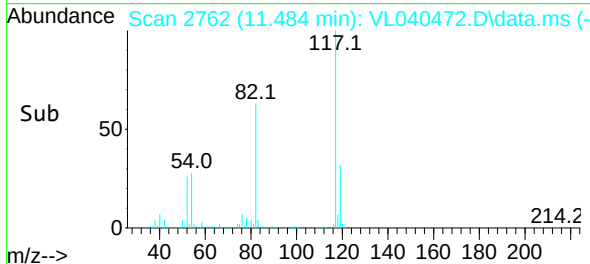
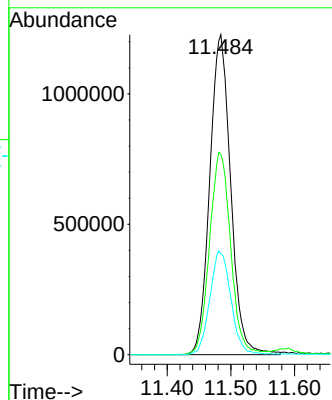
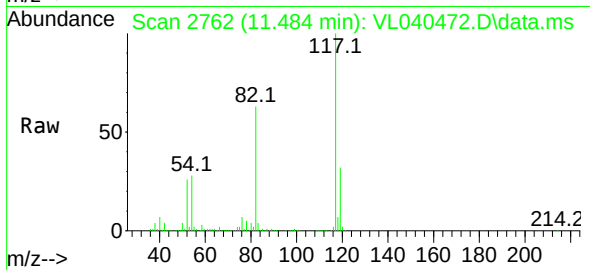
Tgt Ion:117 Resp: 2802441

Ion Ratio Lower Upper

117 100

82 64.1 53.0 79.4

119 33.0 24.4 36.6



#58

Ethyl Benzene

Concen: 0.140 ppbv

RT: 12.365 min Scan# 3036

Delta R.T. 0.264 min

Lab File: VL040472.D

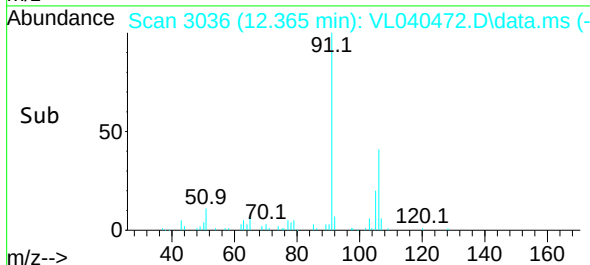
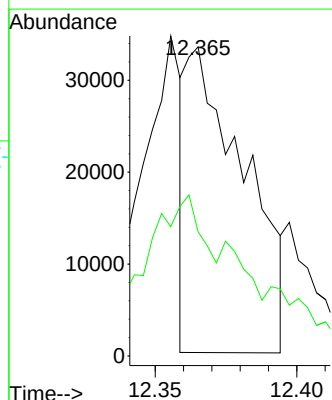
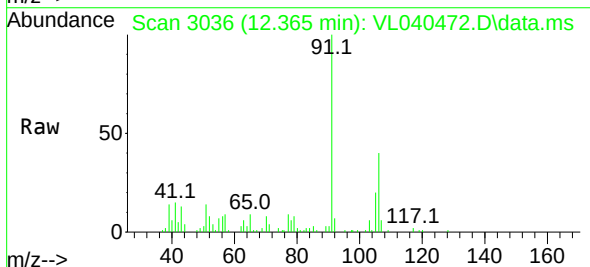
Acq: 15 Jun 2023 18:15

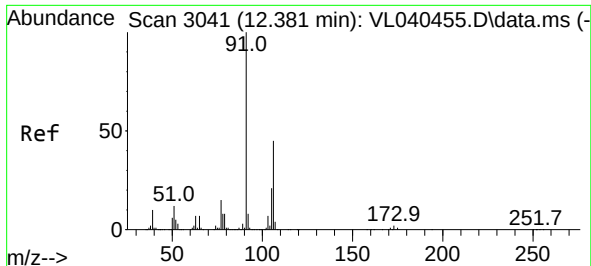
Tgt Ion: 91 Resp: 47566

Ion Ratio Lower Upper

91 100

106 30.1 23.7 35.5





#59

m/p-Xylene

Concen: 0.032 ppbv

RT: 12.397 min Scan# 3041

Delta R.T. 0.016 min

Lab File: VL040472.D

Acq: 15 Jun 2023 18:15

Instrument :

MSVOA_L

ClientSampleId :

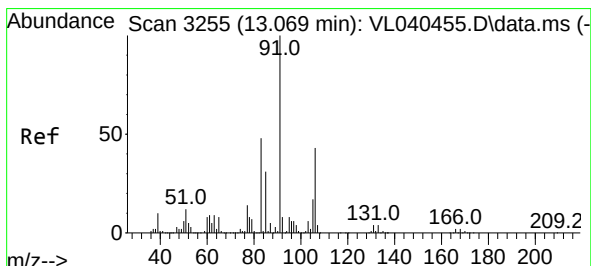
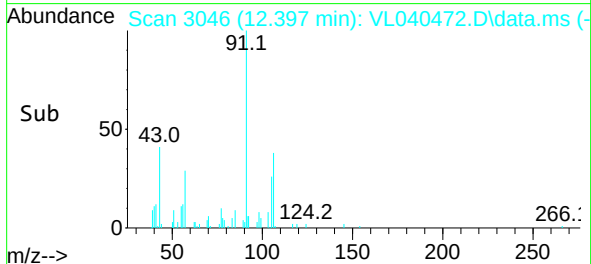
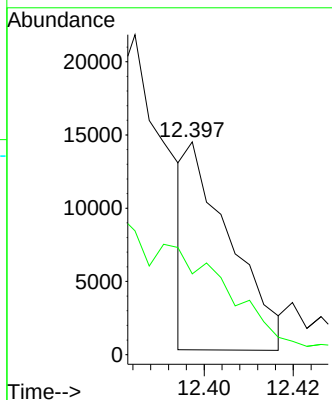
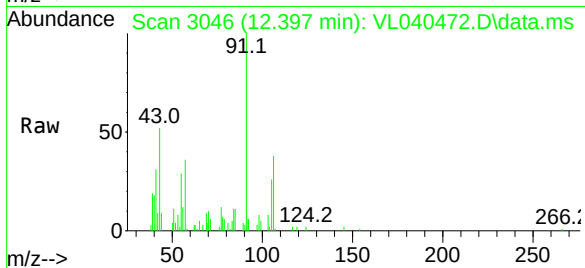
SVP-07

Tgt Ion: 91 Resp: 9913

Ion Ratio Lower Upper

91 100

106 0.0 34.6 52.0#



#60

o-Xylene

Concen: 0.182 ppbv

RT: 13.073 min Scan# 3256

Delta R.T. 0.003 min

Lab File: VL040472.D

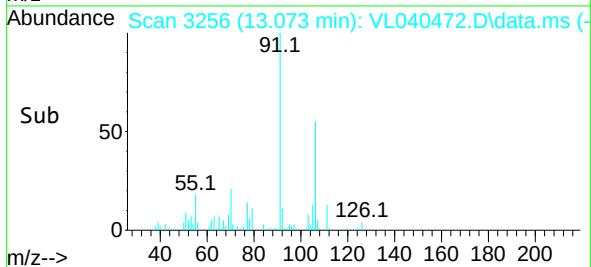
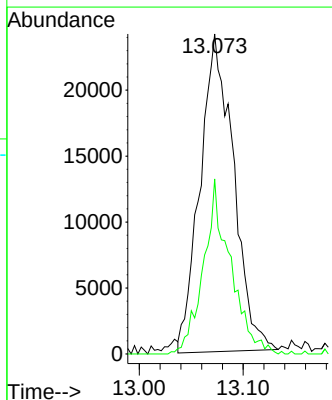
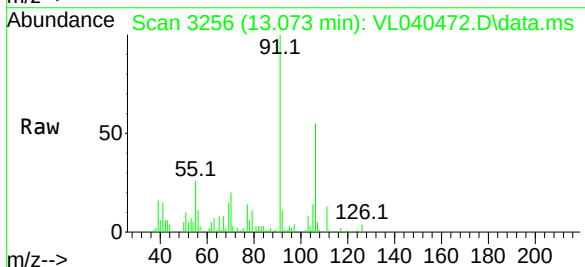
Acq: 15 Jun 2023 18:15

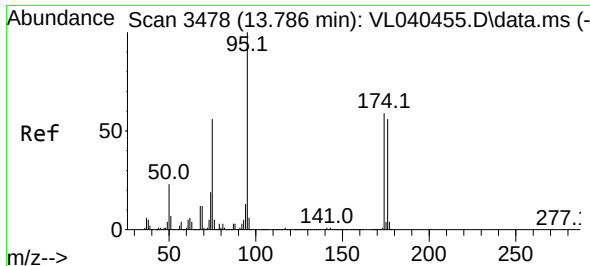
Tgt Ion: 91 Resp: 53779

Ion Ratio Lower Upper

91 100

106 44.6 22.1 66.1

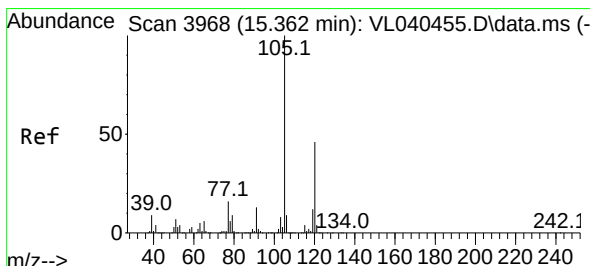
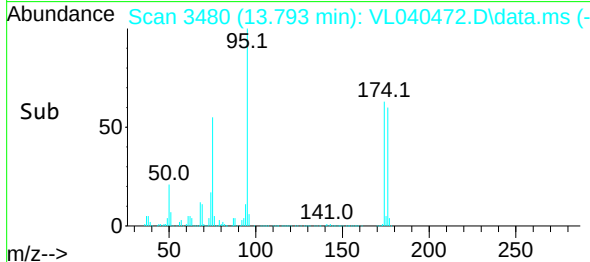
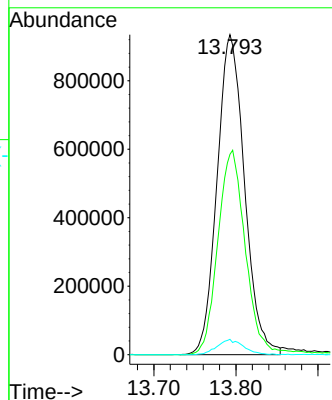
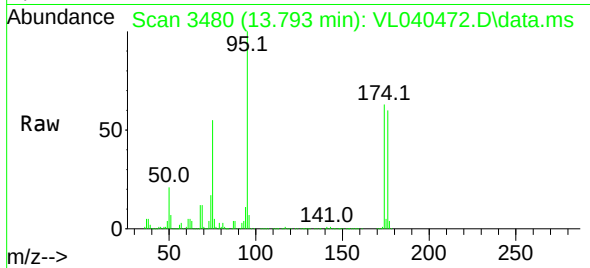




#68
1-Bromo-4-Fluorobenzene
Concen: 9.401 ppbv
RT: 13.793 min Scan# 3478
Delta R.T. 0.006 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

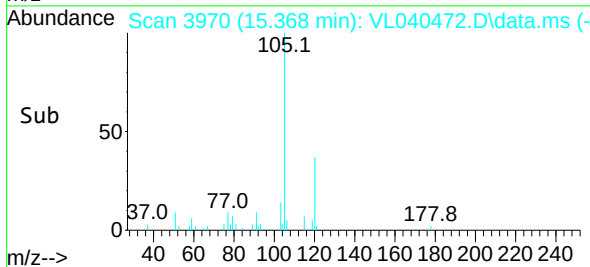
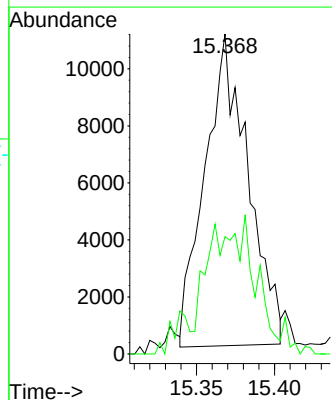
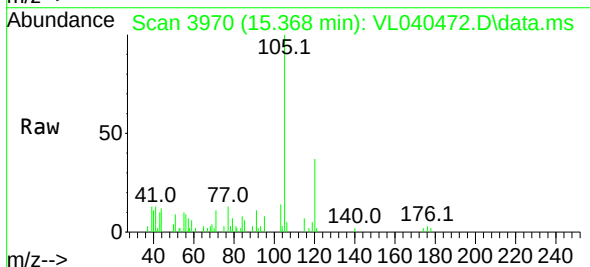
Instrument :
MSVOA_L
ClientSampleId :
SVP-07

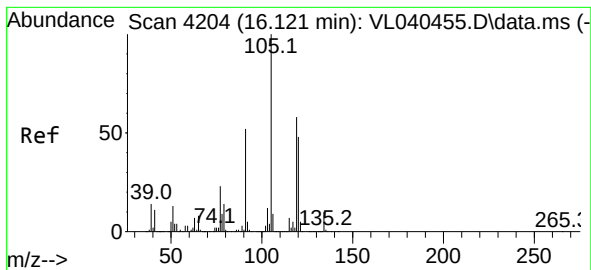
Tgt Ion: 95 Resp: 2174454
Ion Ratio Lower Upper
95 100
174 65.6 47.7 71.5
175 4.7 3.5 5.3



#73
1,3,5-Trimethylbenzene
Concen: 0.072 ppbv
RT: 15.368 min Scan# 3970
Delta R.T. 0.006 min
Lab File: VL040472.D
Acq: 15 Jun 2023 18:15

Tgt Ion: 105 Resp: 21073
Ion Ratio Lower Upper
105 100
120 34.4 36.4 54.6#





#74

1,2,4-Trimethylbenzene

Concen: 0.276 ppbv

RT: 16.121 min Scan# 41

Delta R.T. 0.000 min

Lab File: VL040472.D

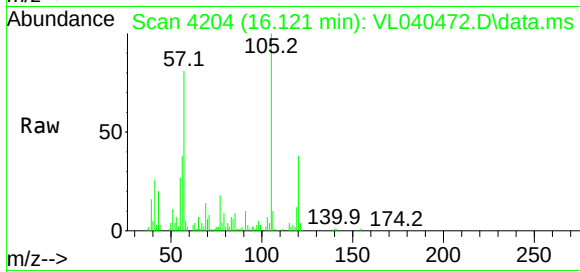
Acq: 15 Jun 2023 18:15

Instrument :

MSVOA_L

ClientSampleId :

SVP-07



Tgt Ion:	105	Resp:	95607
Ion	Ratio	Lower	Upper
105	100		
120	37.9	38.4	57.6#
91	9.2	41.3	61.9#
77	16.1	18.6	28.0#

