

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL010923\
 Data File : VL040076.D
 Acq On : 9 Jan 2023 15:16
 Operator : SY/MD
 Sample : 01074-03
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 UR-1

Quant Time: Jan 09 21:31:49 2023
 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

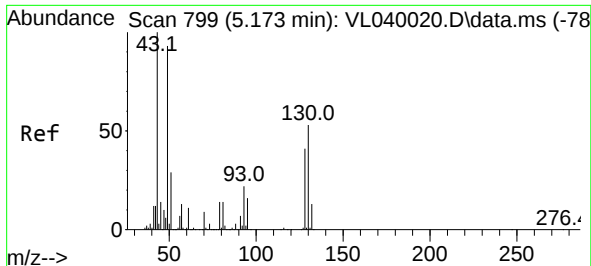
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	5.188	49	1070965	10.000	ppbv	0.02
33) 1,4-Difluorobenzene	6.655	114	2893782	10.000	ppbv	0.02
55) Chlorobenzene-d5	11.471	117	2556310	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.783	95	1990921	10.196	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	= 102.000%	
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.716	85	38953	0.194	ppbv	92
3) Chlorodifluoromethane	2.639	51	384867	2.436	ppbv #	63
4) Chloromethane	2.799	50	68075	0.688	ppbv	99
9) Propene	2.690	41	55898	0.834	ppbv #	73
10) Heptane	7.584	43	5423	0.033	ppbv #	1
11) Trichlorofluoromethane	3.555	101	40824	0.187	ppbv	98
12) 1,1,2-Trichlorotrifluo...	4.060	101	8324	0.050	ppbv #	81
13) Ethanol	3.234	45	376943	59.725	ppbv	93
15) Acetone	3.459	43	1798267	10.854	ppbv	98
16) 1,3-Butadiene	2.954	39	12007	0.167	ppbv #	46
17) tert-Butyl alcohol	3.877	59	5313	0.033	ppbv #	72
19) Isopropyl Alcohol	3.578	45	88573	1.085	ppbv #	1
20) Methylene Chloride	3.925	84	2707351	38.445	ppbv	97
21) Allyl Chloride	3.928	41	108696	1.092	ppbv #	25
23) Vinyl Acetate	4.610	43	69928	1.331	ppbv #	52
25) Ethyl Acetate	5.211	43	2000964	6.974	ppbv #	75
26) Hexane	5.211	57	2939389	24.375	ppbv #	36
29) Chloroform	5.269	83	11053	0.060	ppbv #	61
30) Cyclohexane	6.600	84	12316	0.115	ppbv #	49
34) 2-Butanone	4.787	43	108415	0.691	ppbv	98
36) Benzene	6.368	78	80150	0.310	ppbv	97
39) 1,2-Dichloropropane	6.655	63	710163	7.331	ppbv #	22
41) Tetrahydrofuran	5.561	42	95704	0.977	ppbv	99
44) 2,2,4-Trimethylpentane	7.333	57	22972	0.054	ppbv #	42
53) Toluene	9.227	91	322563	1.127	ppbv	100
58) Ethyl Benzene	12.098	91	88435	0.243	ppbv	99
59) m/p-Xylene	12.375	91	76079	0.240	ppbv #	32
60) o-Xylene	13.072	91	37418	0.123	ppbv #	31
62) Isopropylbenzene	14.037	105	13594	0.031	ppbv #	77
72) 4-Ethyltoluene	15.214	105	11331	0.034	ppbv #	2
73) 1,3,5-Trimethylbenzene	15.358	105	37149	0.122	ppbv	91
74) 1,2,4-Trimethylbenzene	16.121	105	78022	0.233	ppbv #	63
76) 1,4-Dichlorobenzene	16.487	146	10085	0.056	ppbv #	2

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

Quant Time: Jan 09 21:31:49 2023
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

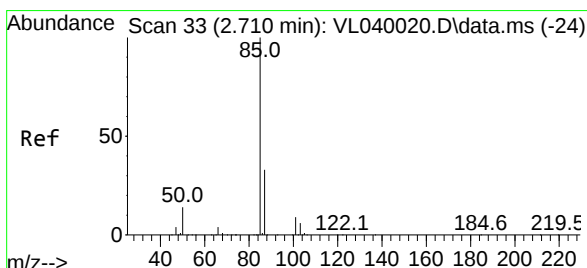
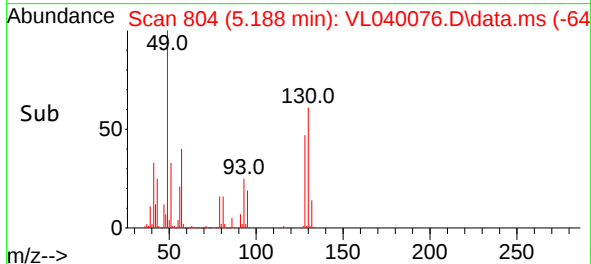
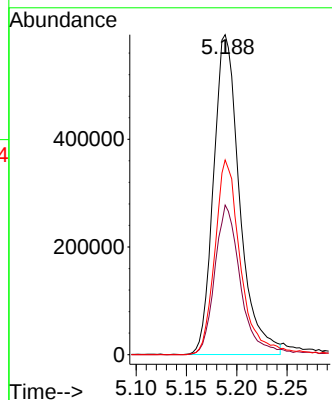
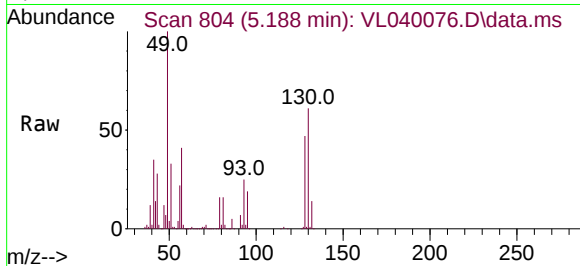




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.188 min Scan# 80
Delta R.T. 0.015 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

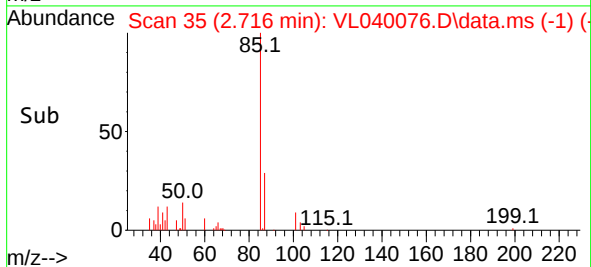
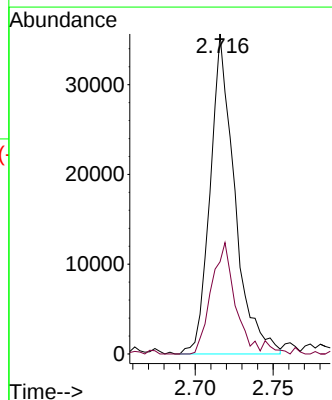
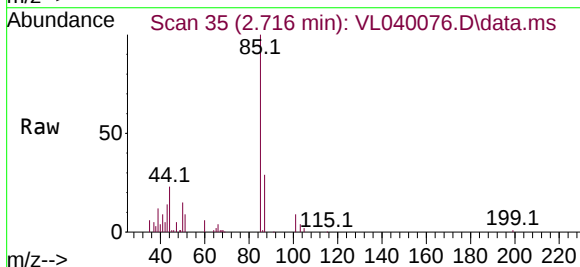
Instrument :
MSVOA_L
ClientSampleId :
UR-1

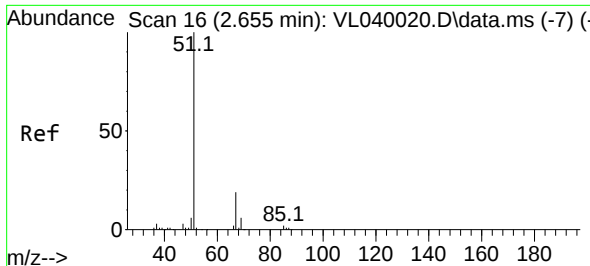
Tgt Ion: 49 Resp: 1070965
Ion Ratio Lower Upper
49 100
128 47.9 22.4 67.3
130 61.1 28.9 86.8



#2
Dichlorodifluoromethane
Concen: 0.194 ppbv
RT: 2.716 min Scan# 35
Delta R.T. 0.006 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

Tgt Ion: 85 Resp: 38953
Ion Ratio Lower Upper
85 100
87 28.8 26.6 40.0

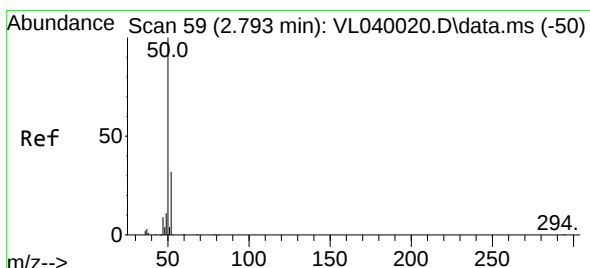
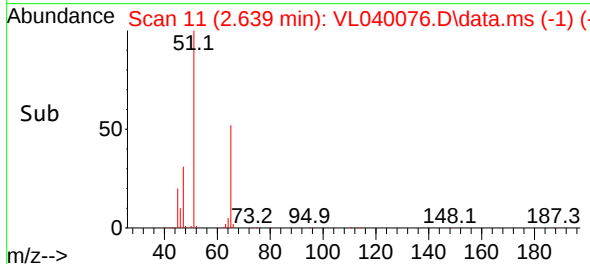
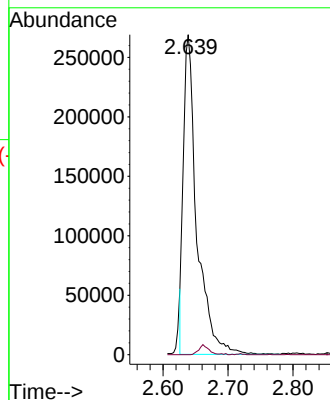
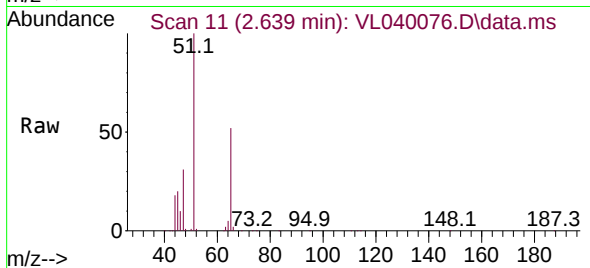




#3
Chlorodifluoromethane
Concen: 2.436 ppbv
RT: 2.639 min Scan# 11
Delta R.T. -0.016 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

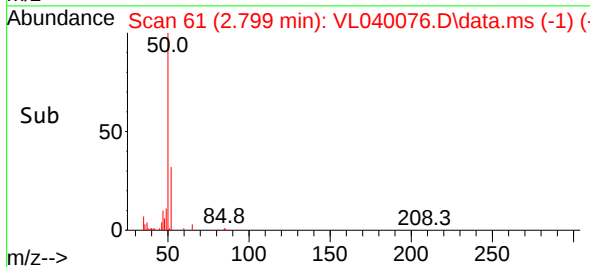
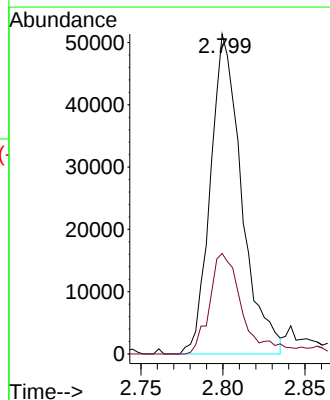
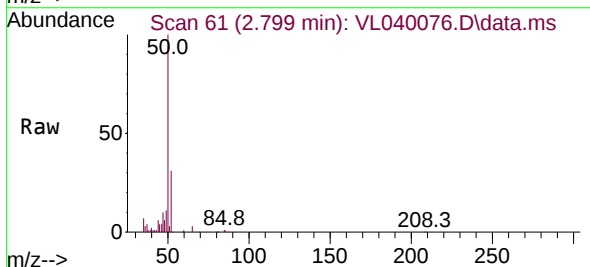
Instrument :
MSVOA_L
ClientSampleId :
UR-1

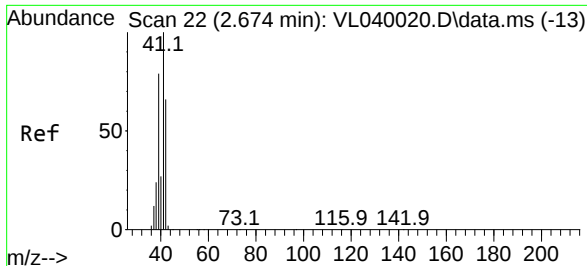
Tgt Ion: 51 Resp: 384867
Ion Ratio Lower Upper
51 100
67 2.4 15.3 22.9#



#4
Chloromethane
Concen: 0.688 ppbv
RT: 2.799 min Scan# 61
Delta R.T. 0.006 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

Tgt Ion: 50 Resp: 68075
Ion Ratio Lower Upper
50 100
52 31.4 25.5 38.3

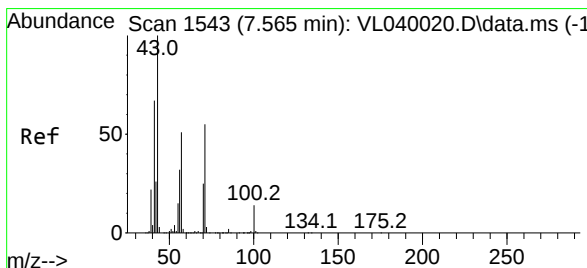
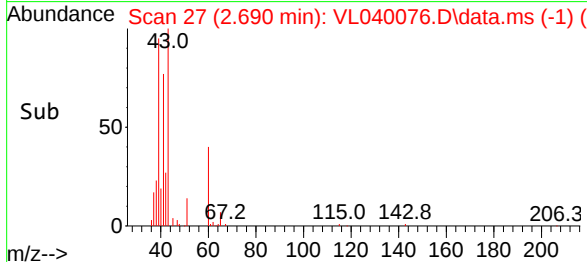
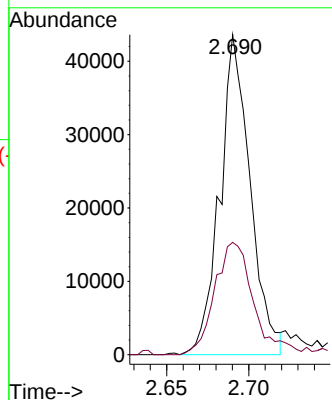
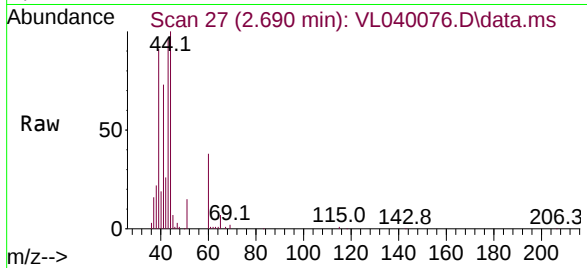




#9
 Propene
 Concen: 0.834 ppbv
 RT: 2.690 min Scan# 21
 Delta R.T. 0.016 min
 Lab File: VL040076.D
 Acq: 9 Jan 2023 15:16

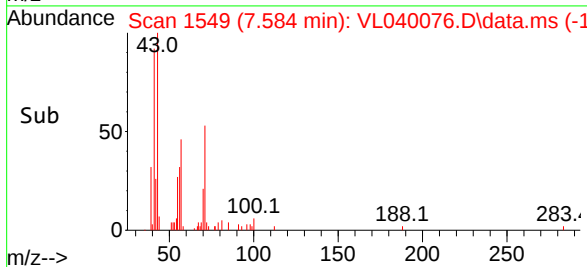
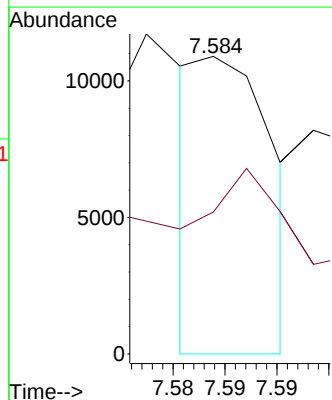
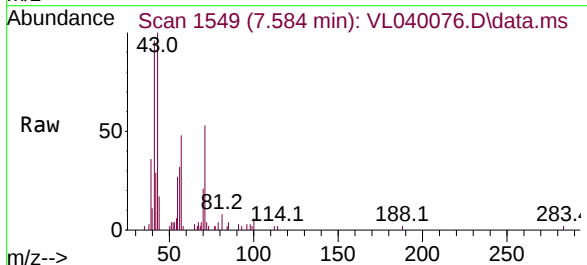
Instrument :
 MSVOA_L
 ClientSampleId :
 UR-1

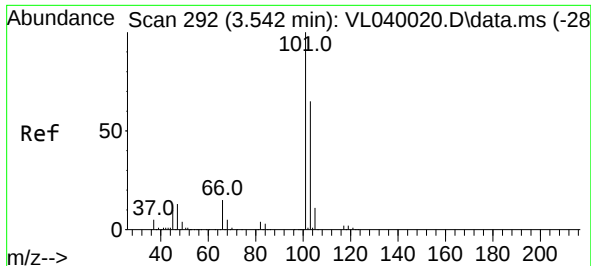
Tgt Ion: 41 Resp: 55898
 Ion Ratio Lower Upper
 41 100
 42 46.3 54.8 82.2#



#10
 Heptane
 Concen: 0.033 ppbv
 RT: 7.584 min Scan# 1549
 Delta R.T. 0.019 min
 Lab File: VL040076.D
 Acq: 9 Jan 2023 15:16

Tgt Ion: 43 Resp: 5423
 Ion Ratio Lower Upper
 43 100
 57 228.6 41.2 61.8#

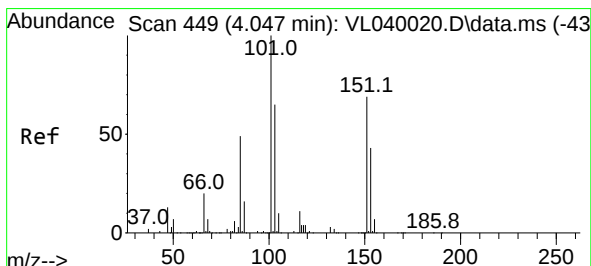
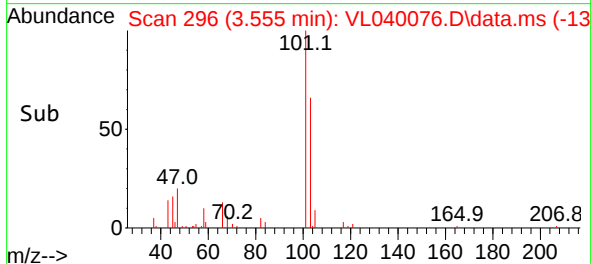
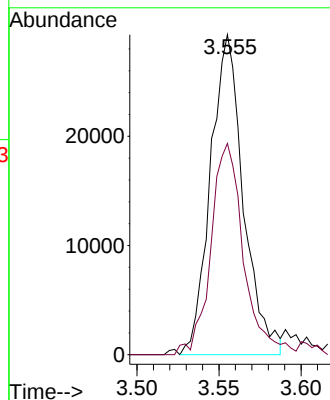
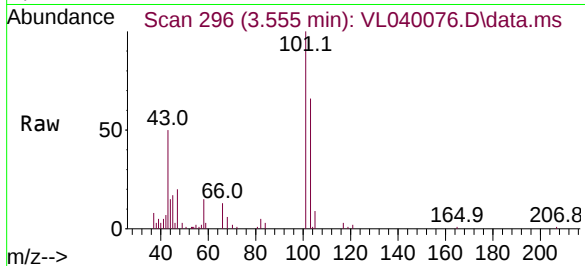




#11
 Trichlorofluoromethane
 Concen: 0.187 ppbv
 RT: 3.555 min Scan# 292
 Delta R.T. 0.013 min
 Lab File: VL040076.D
 Acq: 9 Jan 2023 15:16

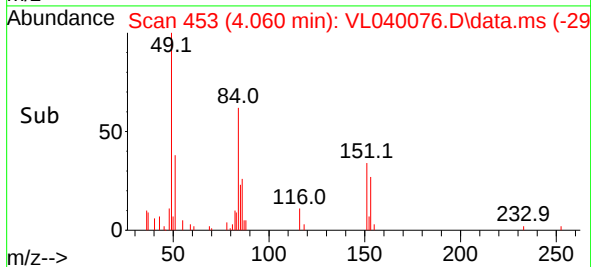
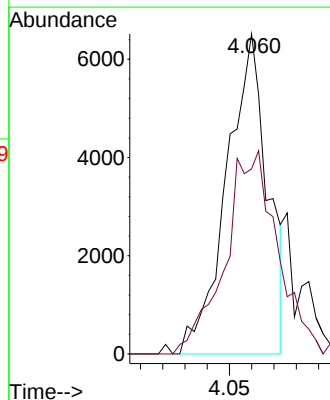
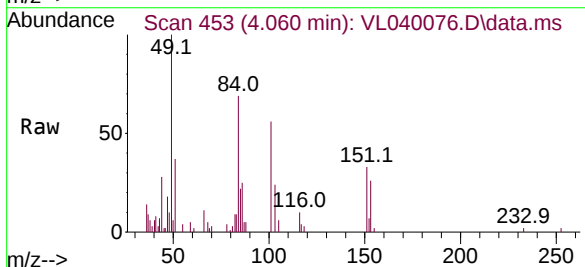
Instrument :
 MSVOA_L
 ClientSampleId :
 UR-1

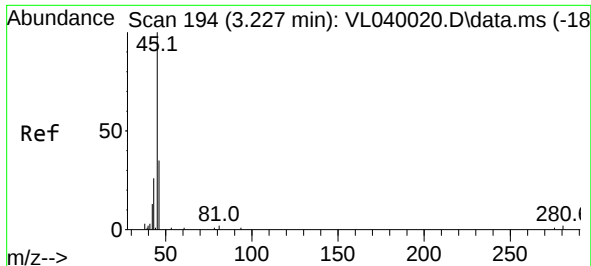
Tgt Ion:101 Resp: 40824
 Ion Ratio Lower Upper
 101 100
 103 63.0 51.7 77.5



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.050 ppbv
 RT: 4.060 min Scan# 453
 Delta R.T. 0.013 min
 Lab File: VL040076.D
 Acq: 9 Jan 2023 15:16

Tgt Ion:101 Resp: 8324
 Ion Ratio Lower Upper
 101 100
 151 84.2 55.0 82.4#

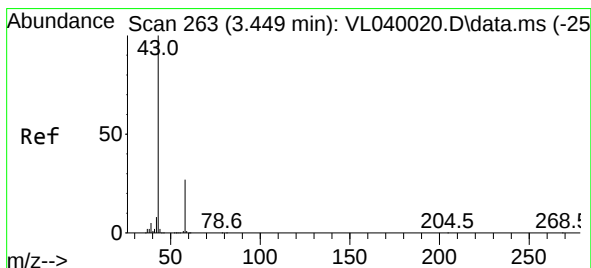
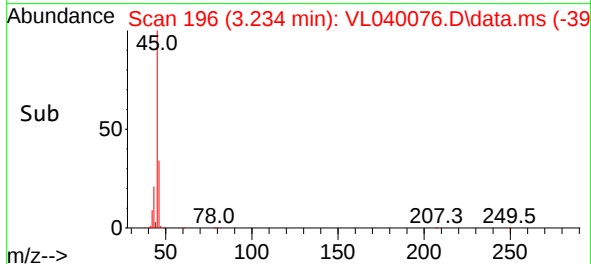
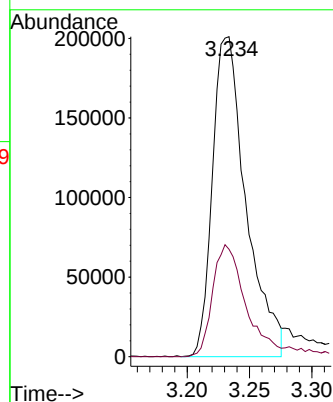
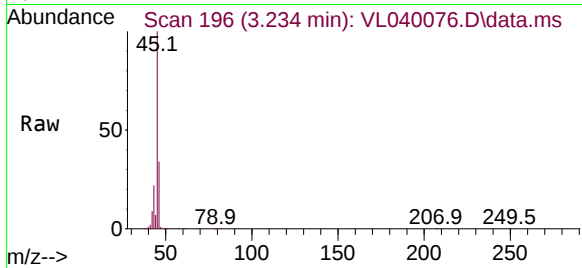




#13
Ethanol
Concen: 59.725 ppbv
RT: 3.234 min Scan# 194
Delta R.T. 0.006 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

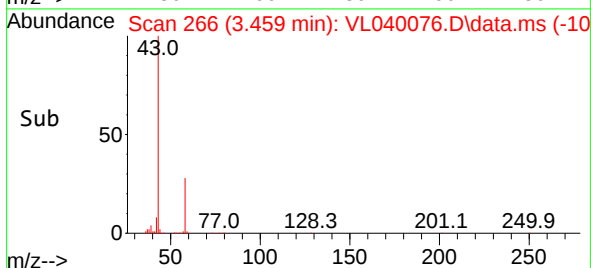
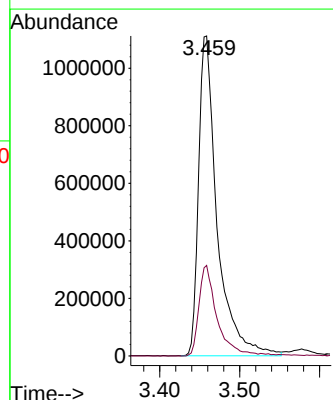
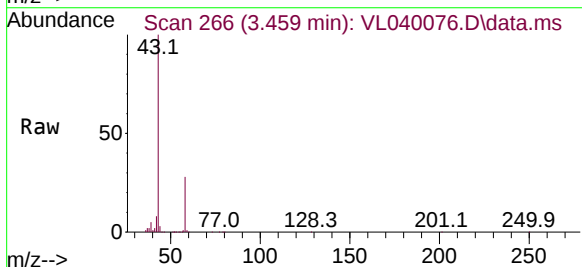
Instrument :
MSVOA_L
ClientSampleId :
UR-1

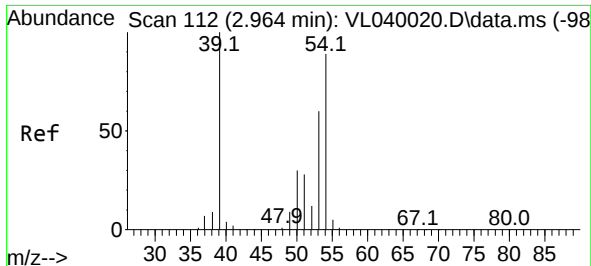
Tgt Ion: 45 Resp: 376943
Ion Ratio Lower Upper
45 100
46 38.3 13.7 54.7



#15
Acetone
Concen: 10.854 ppbv
RT: 3.459 min Scan# 266
Delta R.T. 0.010 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

Tgt Ion: 43 Resp: 1798267
Ion Ratio Lower Upper
43 100
58 28.3 21.8 32.8





#16

1,3-Butadiene

Concen: 0.167 ppbv

RT: 2.954 min Scan# 112

Delta R.T. -0.010 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

Instrument :

MSVOA_L

ClientSampleId :

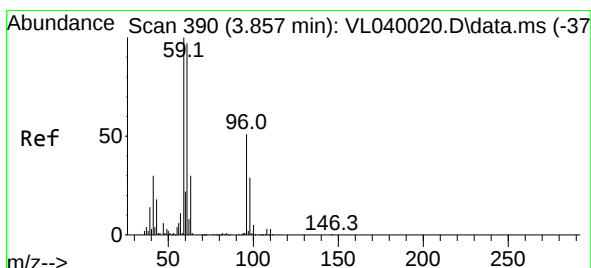
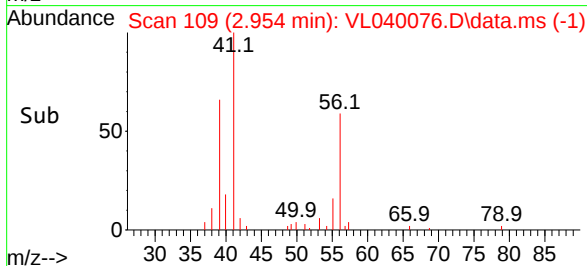
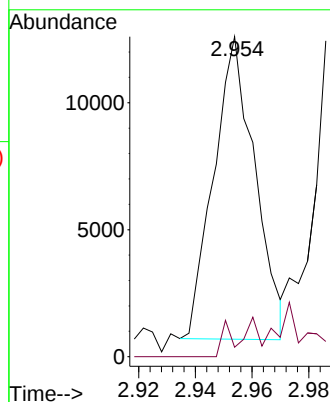
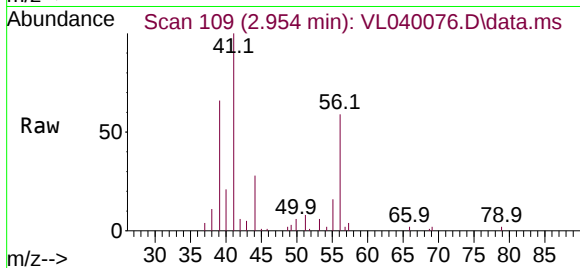
UR-1

Tgt Ion: 39 Resp: 12007

Ion Ratio Lower Upper

39 100

54 35.9 68.3 102.5#



#17

tert-Butyl alcohol

Concen: 0.033 ppbv

RT: 3.877 min Scan# 396

Delta R.T. 0.019 min

Lab File: VL040076.D

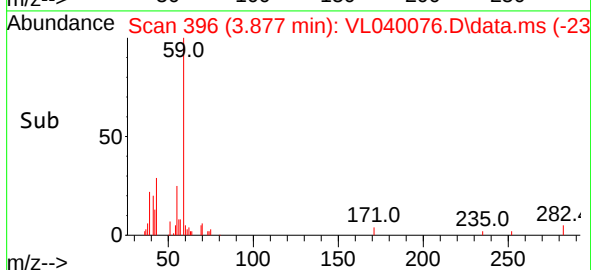
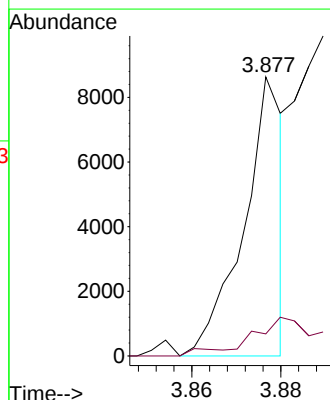
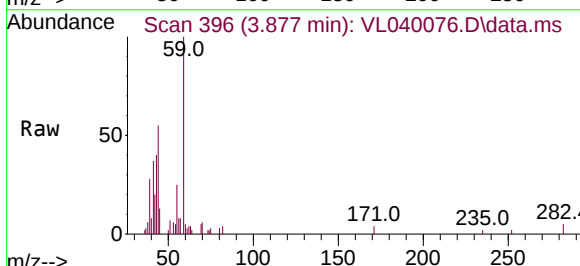
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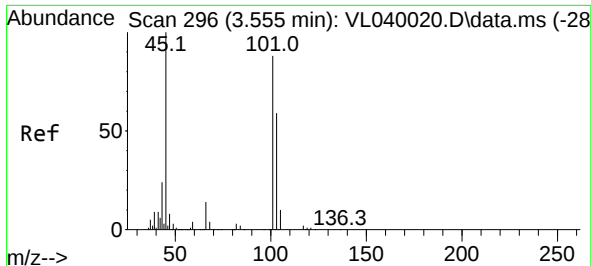
Tgt Ion: 59 Resp: 5313

Ion Ratio Lower Upper

59 100

57 0.0 8.4 12.6#





#19

Isopropyl Alcohol

Concen: 1.085 ppbv

RT: 3.578 min Scan# 303

Delta R.T. 0.022 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

Instrument :

MSVOA_1

ClientSampleId :

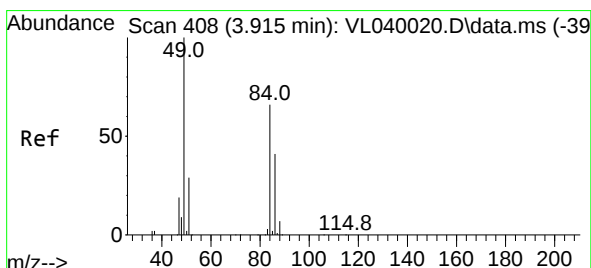
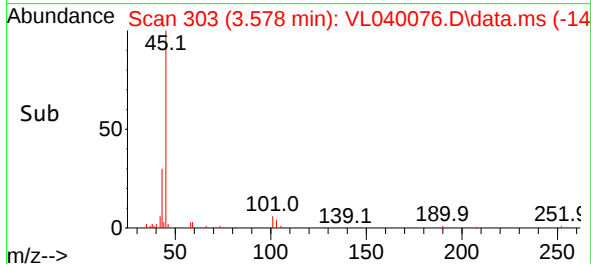
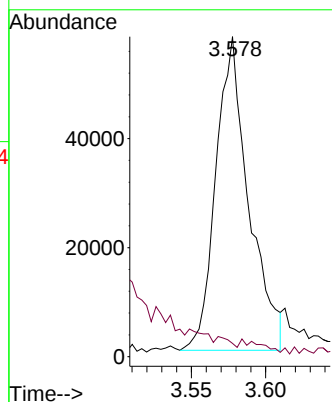
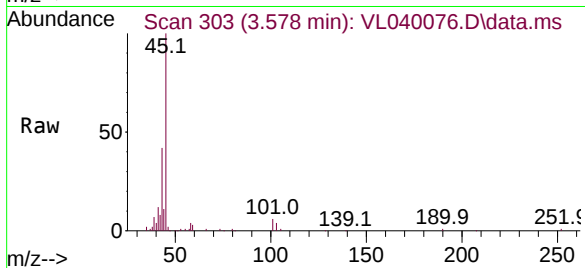
UR-1

Tgt Ion: 45 Resp: 88573

Ion Ratio Lower Upper

45 100

58 575.5 1.7 2.5#



#20

Methylene Chloride

Concen: 38.445 ppbv

RT: 3.925 min Scan# 411

Delta R.T. 0.010 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

Tgt Ion: 84 Resp: 2707351

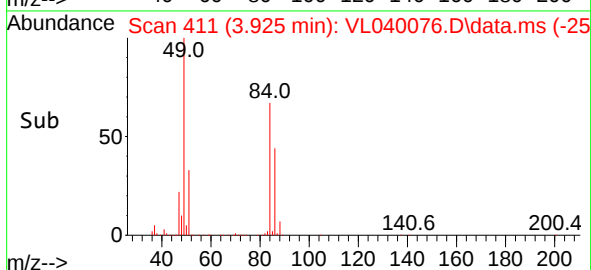
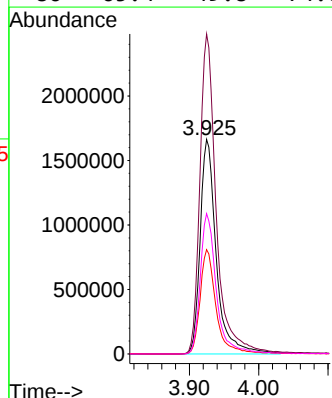
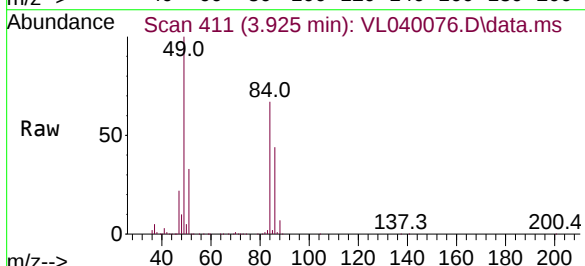
Ion Ratio Lower Upper

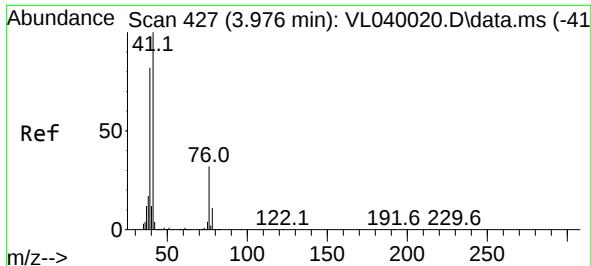
84 100

49 149.2 120.5 180.7

51 48.6 35.2 52.8

86 65.4 49.8 74.6





#21

Allyl Chloride

Concen: 1.092 ppbv

RT: 3.928 min Scan# 41

Delta R.T. -0.048 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

Instrument :

MSVOA_L

ClientSampleId :

UR-1

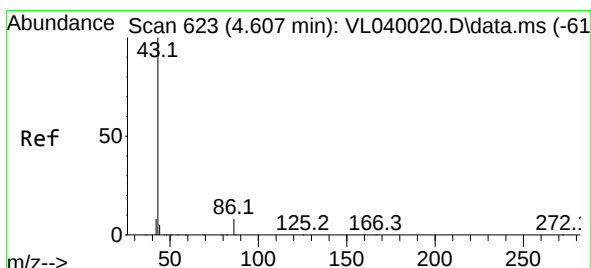
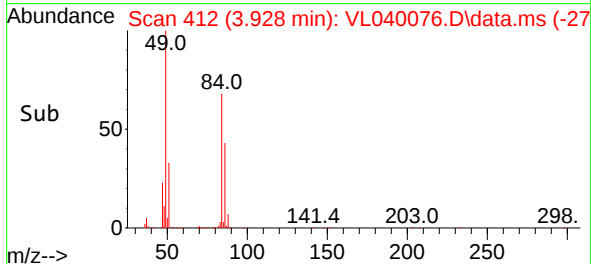
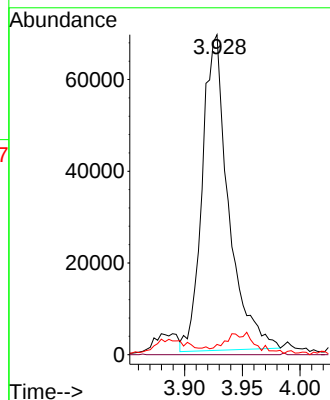
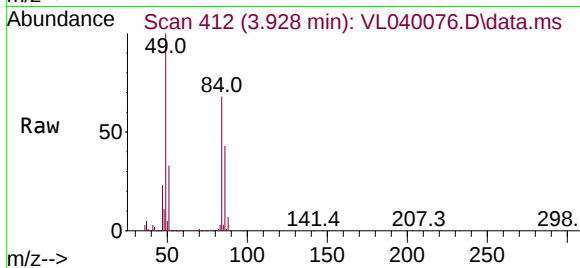
Tgt Ion: 41 Resp: 108696

Ion Ratio Lower Upper

41 100

76 0.0 25.9 38.9#

39 9.0 66.0 99.0#



#23

Vinyl Acetate

Concen: 1.331 ppbv

RT: 4.610 min Scan# 624

Delta R.T. 0.003 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

Tgt Ion: 43 Resp: 69928

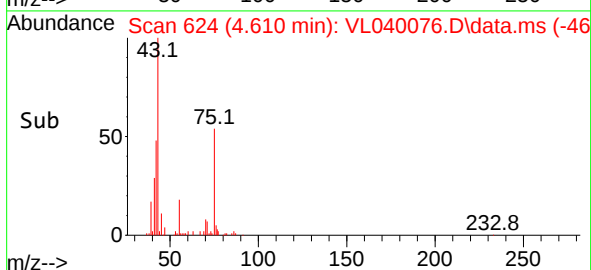
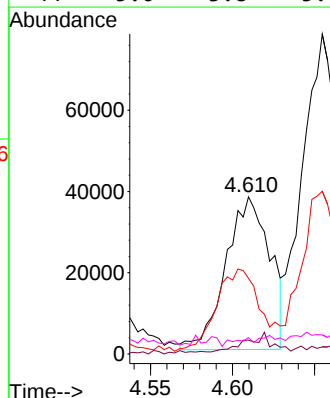
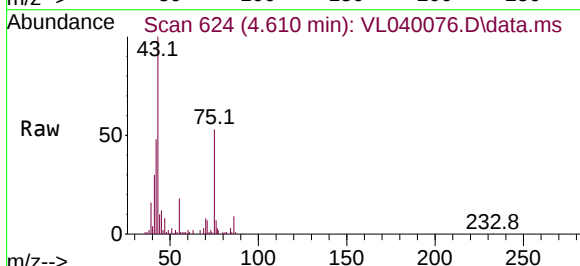
Ion Ratio Lower Upper

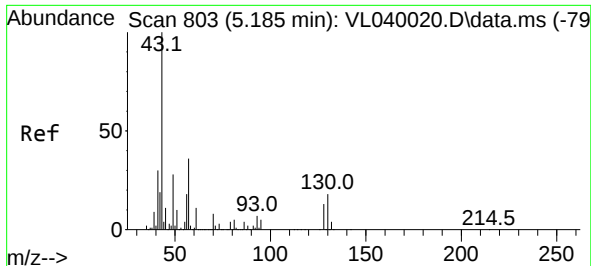
43 100

86 7.1 5.3 7.9

42 47.6 7.4 11.0#

44 5.0 3.8 5.6



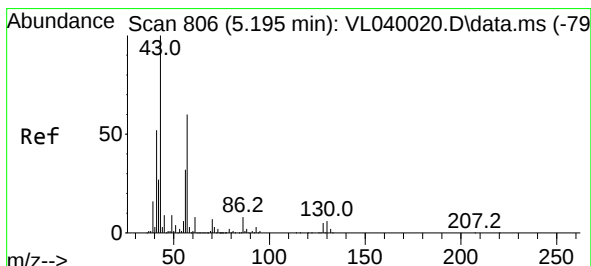
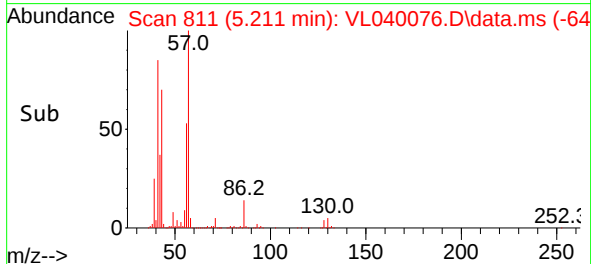
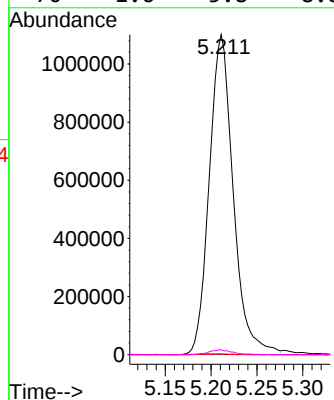
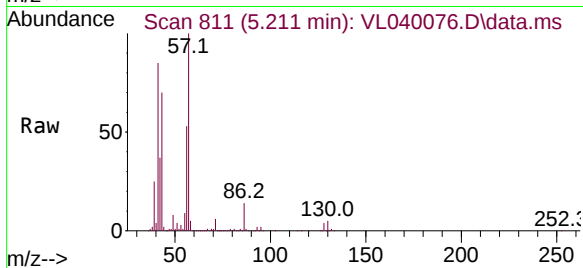


#25
Ethyl Acetate
Concen: 6.974 ppbv
RT: 5.211 min Scan# 811
Delta R.T. 0.026 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

Instrument :
MSVOA_L
ClientSampleId :
UR-1

Tgt Ion: 43 Resp: 2000964

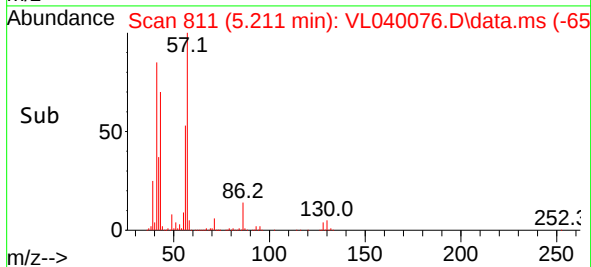
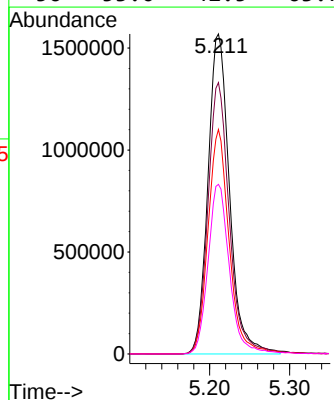
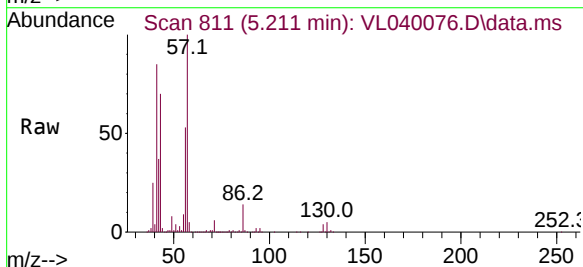
Ion	Ratio	Lower	Upper
43	100		
45	0.3	8.6	12.8#
61	0.2	8.5	12.7#
70	1.6	5.8	8.8#

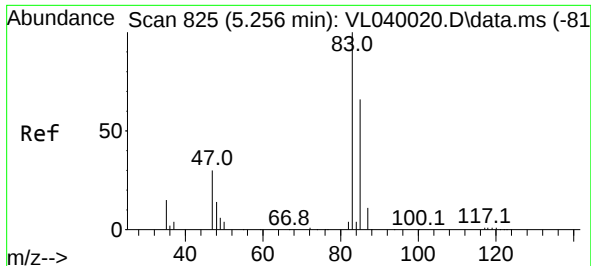


#26
Hexane
Concen: 24.375 ppbv
RT: 5.211 min Scan# 811
Delta R.T. 0.016 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

Tgt Ion: 57 Resp: 2939389

Ion	Ratio	Lower	Upper
57	100		
41	85.1	72.1	108.1
43	69.1	192.1	288.1#
56	53.0	42.5	63.7





#29

Chloroform

Concen: 0.060 ppbv

RT: 5.269 min Scan# 81

Delta R.T. 0.013 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

Instrument :

MSVOA_L

ClientSampleId :

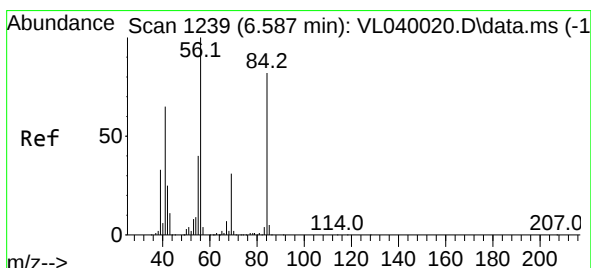
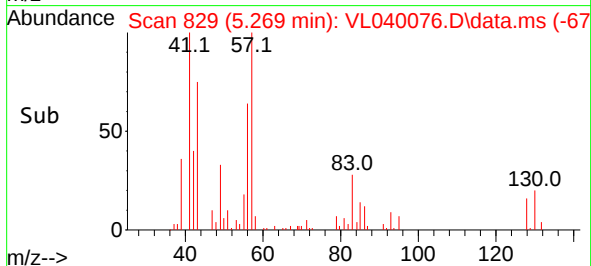
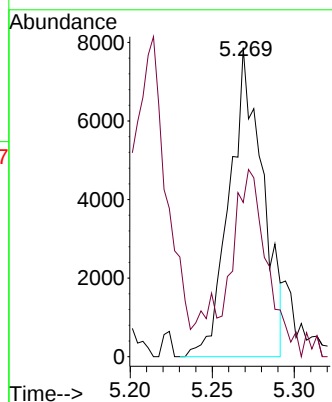
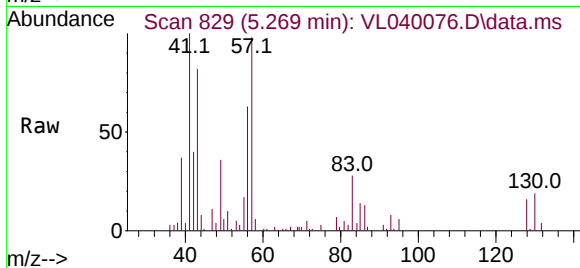
UR-1

Tgt Ion: 83 Resp: 11053

Ion Ratio Lower Upper

83 100

85 34.8 52.4 78.6#



#30

Cyclohexane

Concen: 0.115 ppbv

RT: 6.600 min Scan# 1243

Delta R.T. 0.013 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

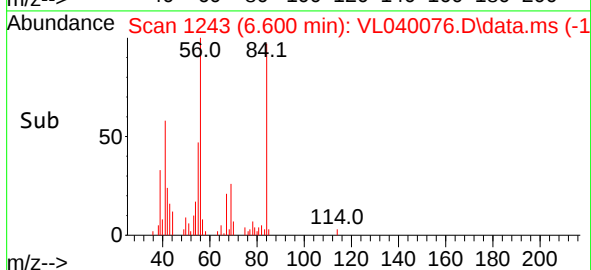
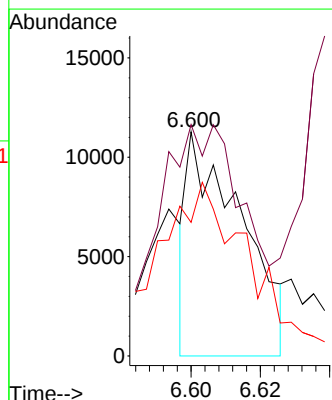
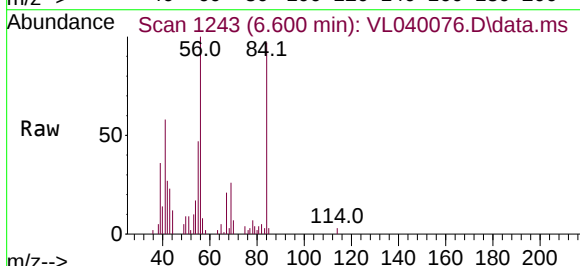
Tgt Ion: 84 Resp: 12316

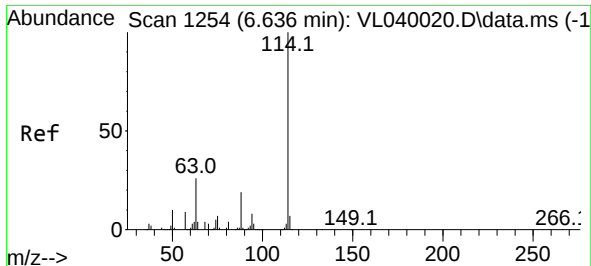
Ion Ratio Lower Upper

84 100

56 186.5 110.2 165.4#

41 146.5 67.8 101.8#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.655 min Scan# 11

Delta R.T. 0.019 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

Instrument :

MSVOA_L

ClientSampleId :

UR-1

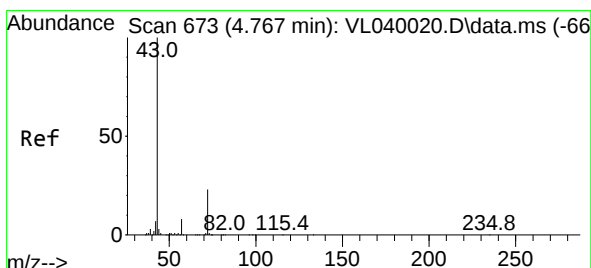
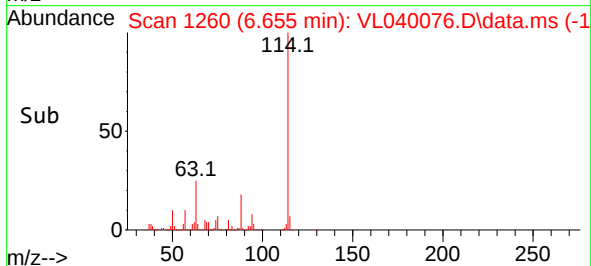
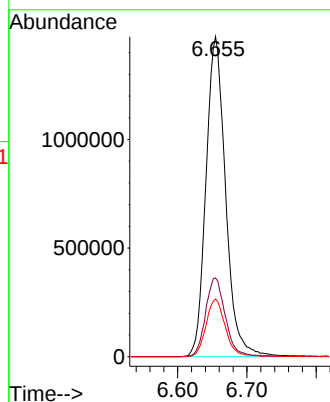
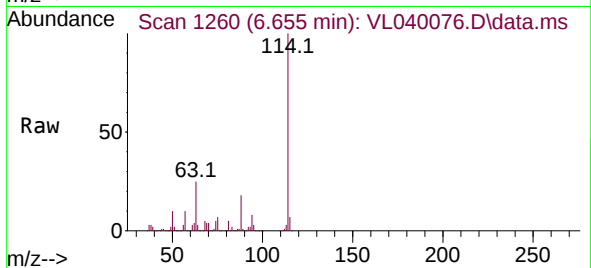
Tgt Ion:114 Resp: 2893782

Ion Ratio Lower Upper

114 100

63 25.0 20.2 30.2

88 17.8 14.6 21.8



#34

2-Butanone

Concen: 0.691 ppbv

RT: 4.787 min Scan# 679

Delta R.T. 0.019 min

Lab File: VL040076.D

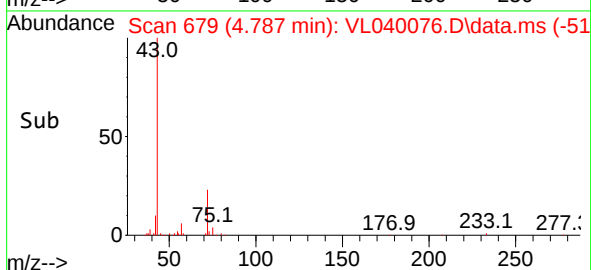
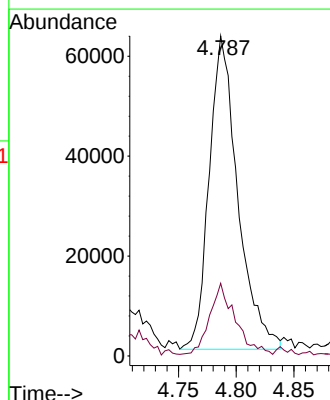
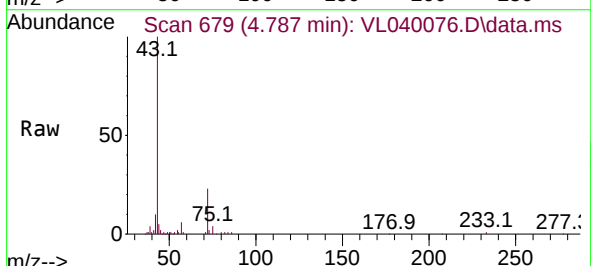
Acq: 9 Jan 2023 15:16

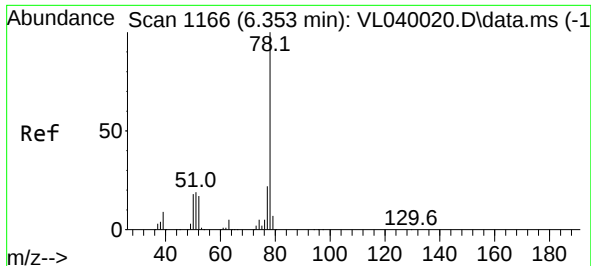
Tgt Ion: 43 Resp: 108415

Ion Ratio Lower Upper

43 100

72 21.4 18.0 27.0

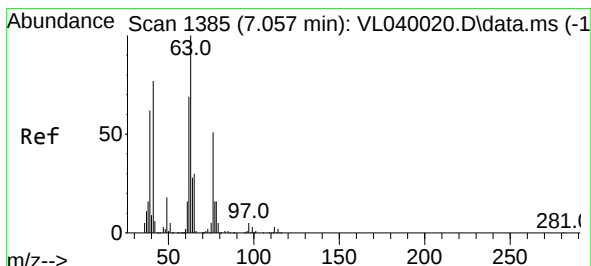
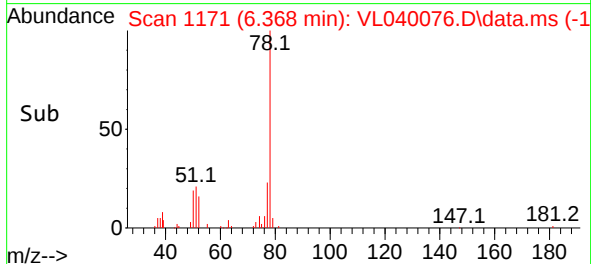
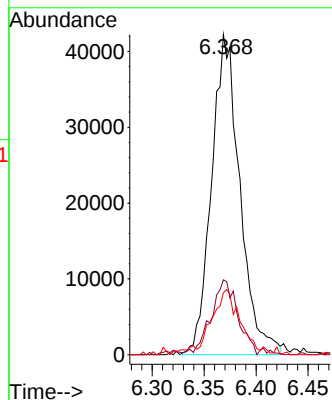
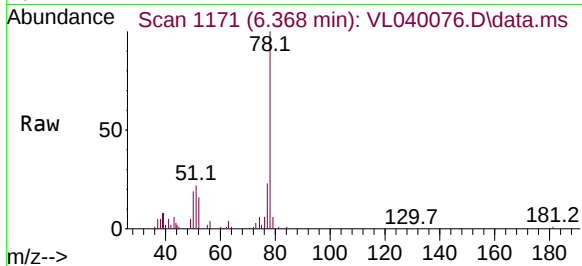




#36
Benzene
Concen: 0.310 ppbv
RT: 6.368 min Scan# 1166
Delta R.T. 0.016 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

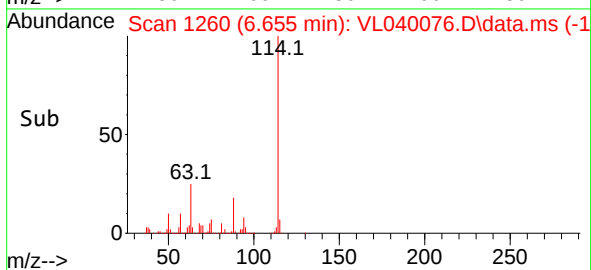
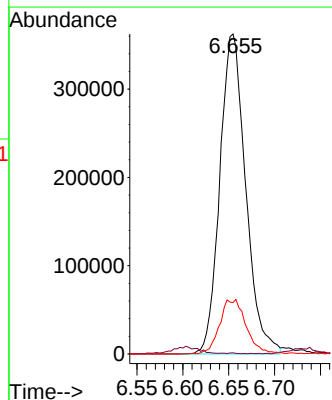
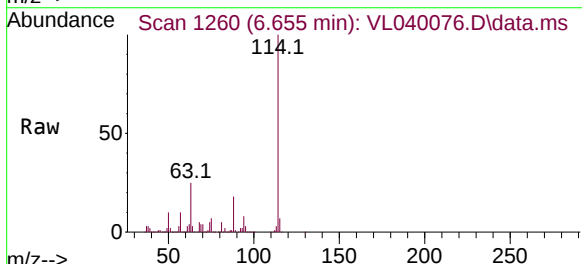
Instrument :
MSVOA_L
ClientSampleId :
UR-1

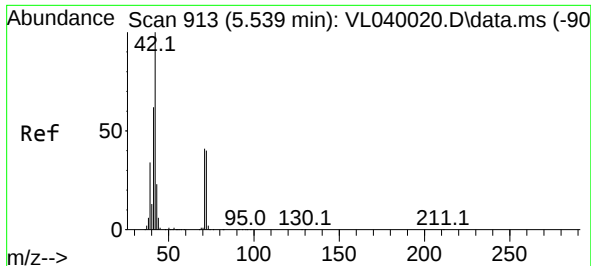
Tgt Ion: 78 Resp: 80150
Ion Ratio Lower Upper
78 100
77 23.1 17.5 26.3
50 19.4 14.2 21.2



#39
1,2-Dichloropropane
Concen: 7.331 ppbv
RT: 6.655 min Scan# 1260
Delta R.T. -0.402 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

Tgt Ion: 63 Resp: 710163
Ion Ratio Lower Upper
63 100
41 0.0 61.4 92.0#
62 16.1 55.4 83.2#





#41

Tetrahydrofuran

Concen: 0.977 ppbv

RT: 5.561 min Scan# 913

Delta R.T. 0.022 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

Instrument :

MSVOA_L

ClientSampleId :

UR-1

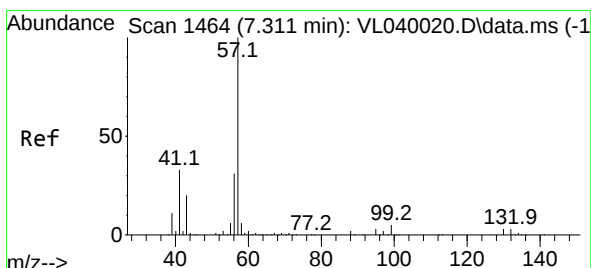
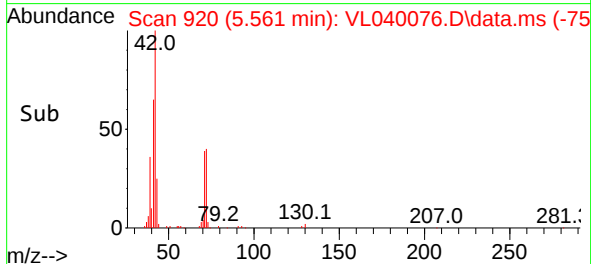
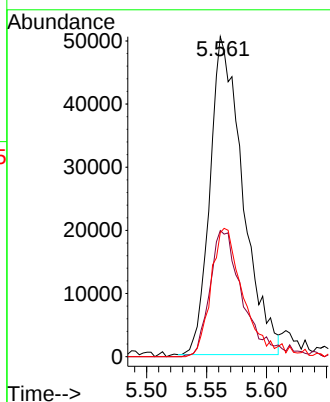
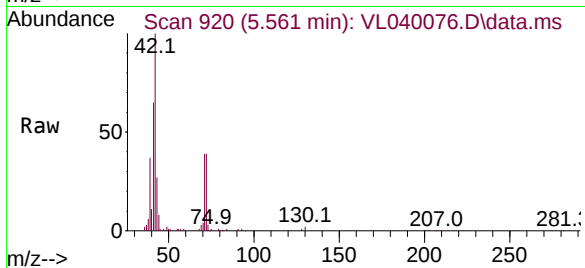
Tgt Ion: 42 Resp: 95704

Ion Ratio Lower Upper

42 100

72 41.6 32.9 49.3

71 41.3 32.2 48.2



#44

2,2,4-Trimethylpentane

Concen: 0.054 ppbv

RT: 7.333 min Scan# 1471

Delta R.T. 0.022 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

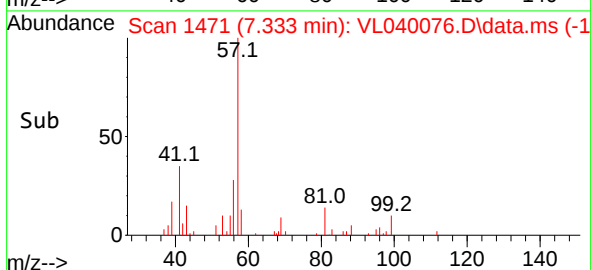
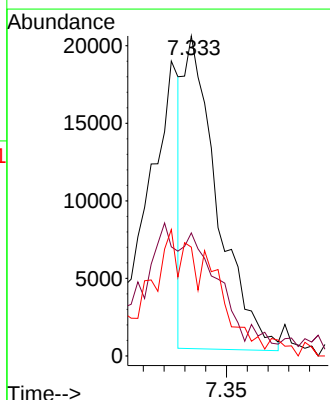
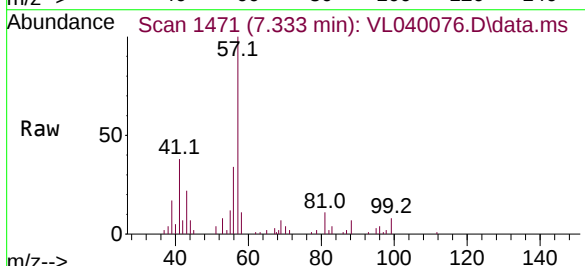
Tgt Ion: 57 Resp: 22972

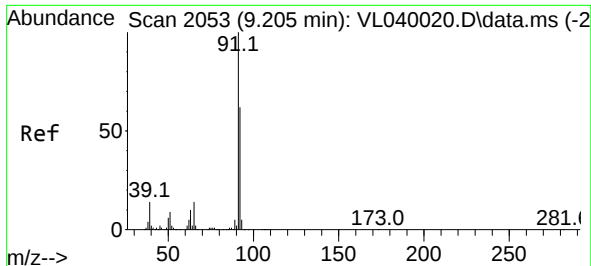
Ion Ratio Lower Upper

57 100

41 0.0 26.2 39.4#

56 0.0 25.1 37.7#





#53

Toluene

Concen: 1.127 ppbv

RT: 9.227 min Scan# 2053

Delta R.T. 0.022 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

Instrument :

MSVOA_L

ClientSampleId :

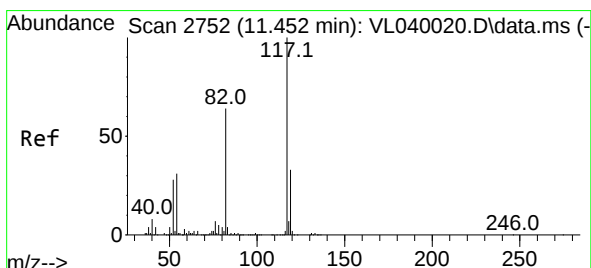
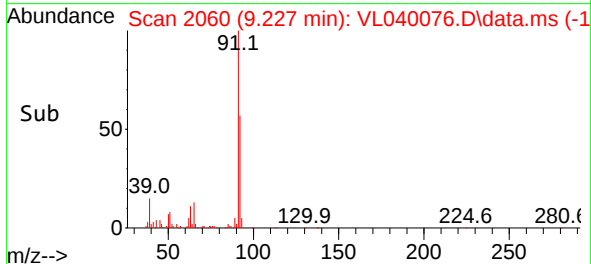
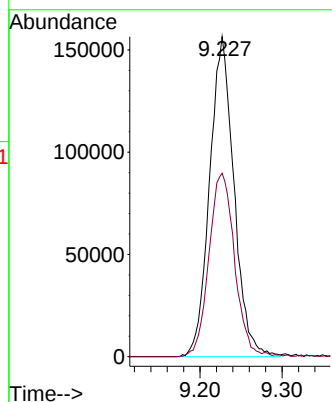
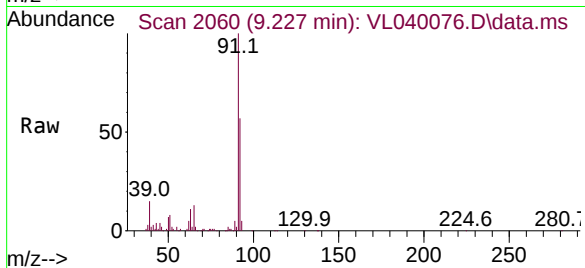
UR-1

Tgt Ion: 91 Resp: 322563

Ion Ratio Lower Upper

91 100

92 60.8 48.7 73.1



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.471 min Scan# 2758

Delta R.T. 0.019 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

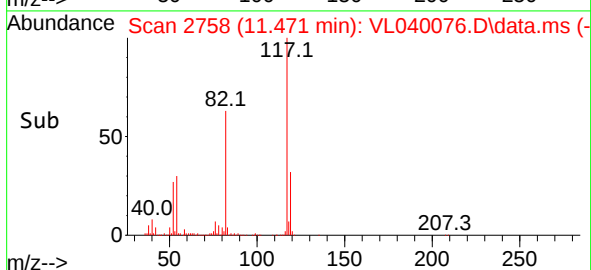
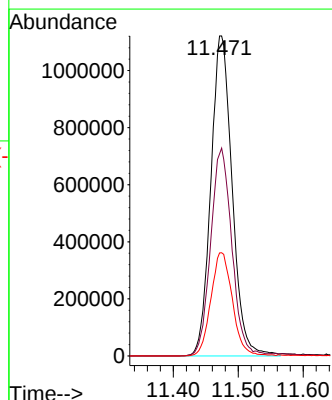
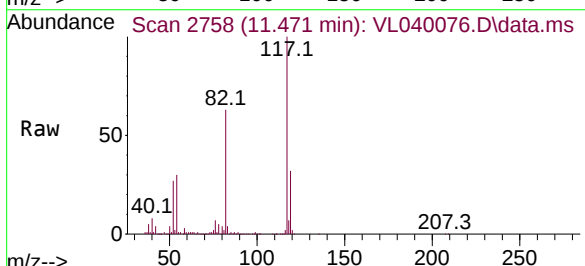
Tgt Ion: 117 Resp: 2556310

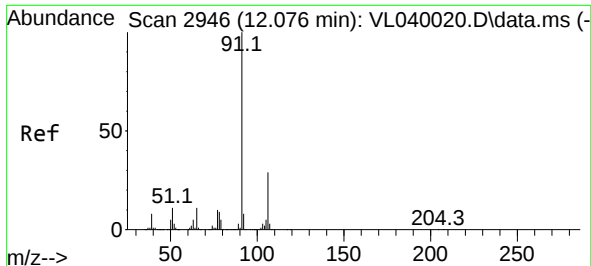
Ion Ratio Lower Upper

117 100

82 65.7 51.2 76.8

119 32.9 23.2 34.8

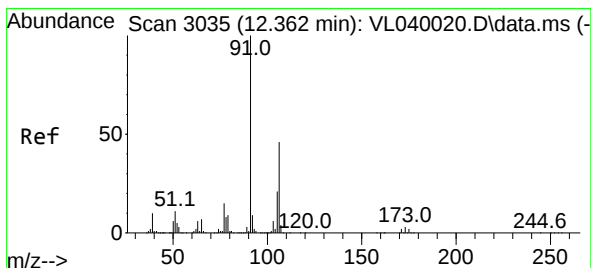
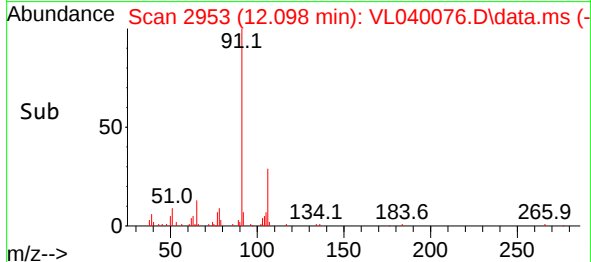
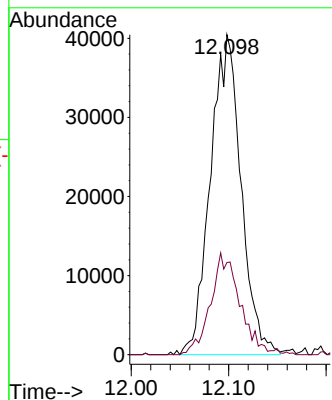
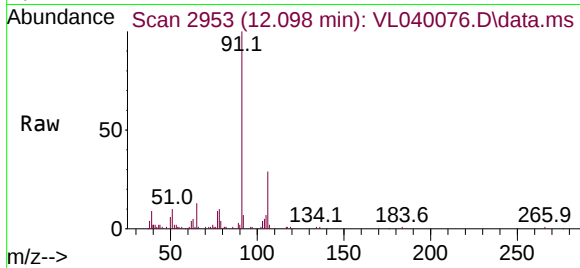




#58
Ethyl Benzene
Concen: 0.243 ppbv
RT: 12.098 min Scan# 2946
Delta R.T. 0.022 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

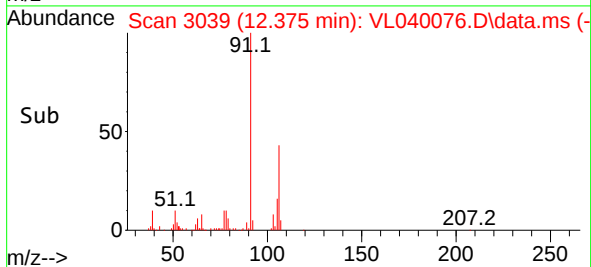
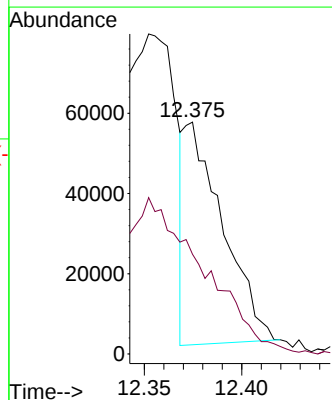
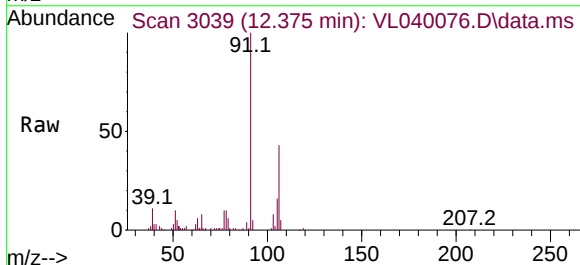
Instrument :
MSVOA_L
ClientSampleId :
UR-1

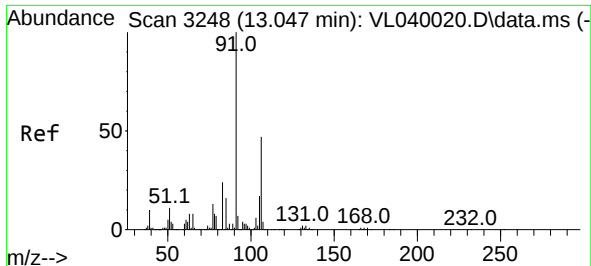
Tgt Ion: 91 Resp: 88435
Ion Ratio Lower Upper
91 100
106 28.8 23.5 35.3



#59
m/p-Xylene
Concen: 0.240 ppbv
RT: 12.375 min Scan# 3039
Delta R.T. 0.013 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

Tgt Ion: 91 Resp: 76079
Ion Ratio Lower Upper
91 100
106 0.0 35.5 53.3#

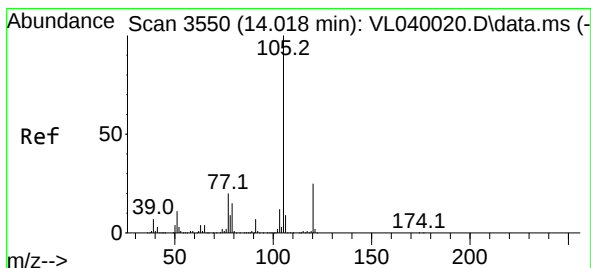
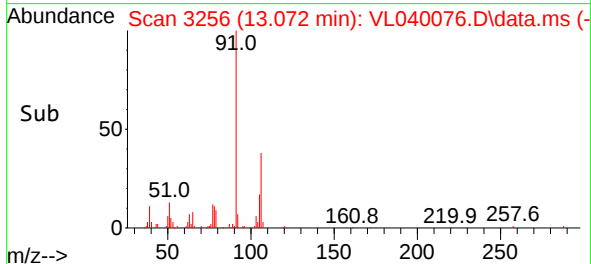
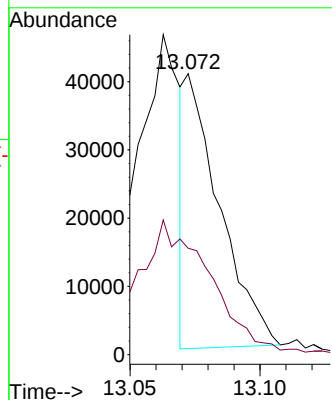
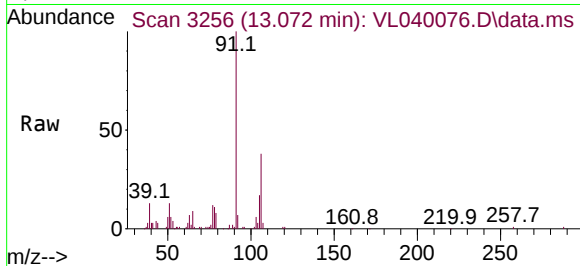




#60
o-Xylene
Concen: 0.123 ppbv
RT: 13.072 min Scan# 31
Delta R.T. 0.026 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

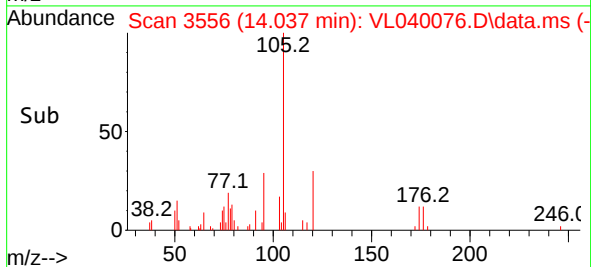
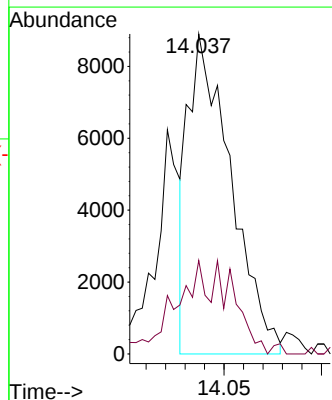
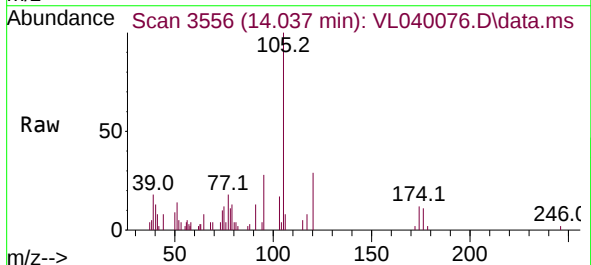
Instrument :
MSVOA_L
ClientSampleId :
UR-1

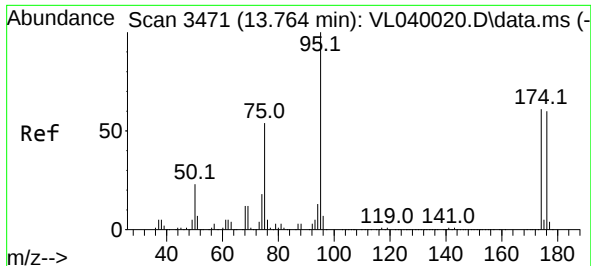
Tgt Ion: 91 Resp: 37418
Ion Ratio Lower Upper
91 100
106 0.0 22.4 67.0#



#62
Isopropylbenzene
Concen: 0.031 ppbv
RT: 14.037 min Scan# 3556
Delta R.T. 0.019 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

Tgt Ion: 105 Resp: 13594
Ion Ratio Lower Upper
105 100
120 37.6 20.6 31.0#

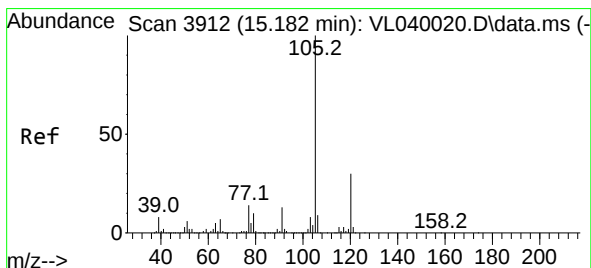
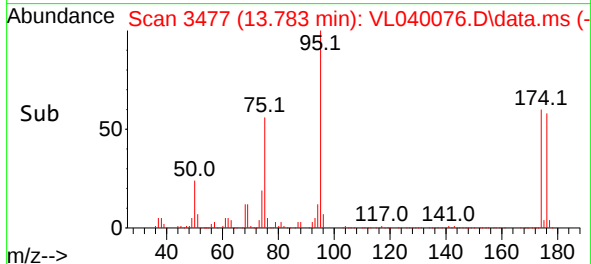
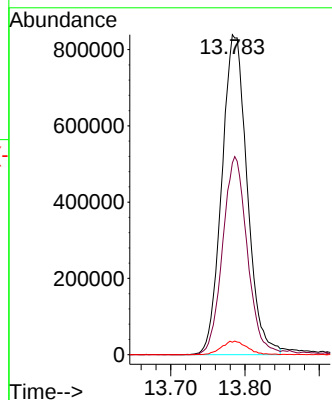
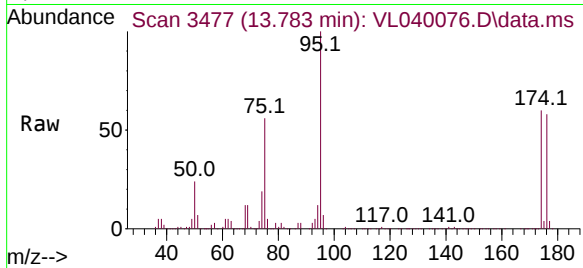




#68
1-Bromo-4-Fluorobenzene
Concen: 10.196 ppbv
RT: 13.783 min Scan# 3477
Delta R.T. 0.019 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

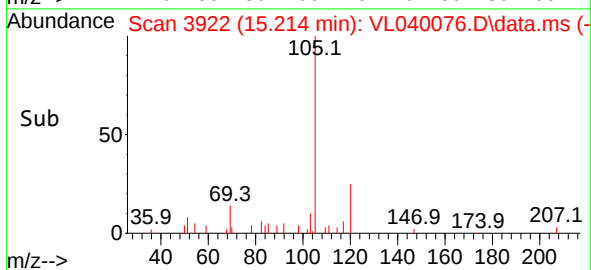
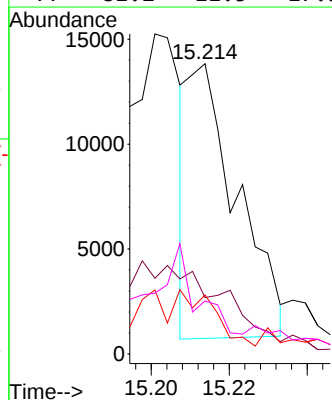
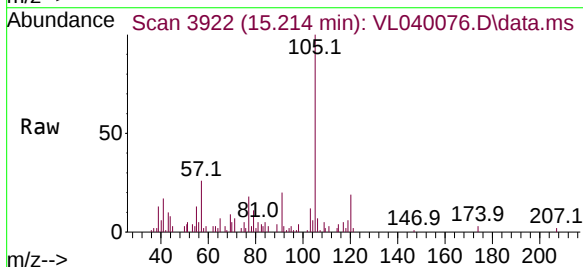
Instrument :
MSVOA_L
ClientSampleId :
UR-1

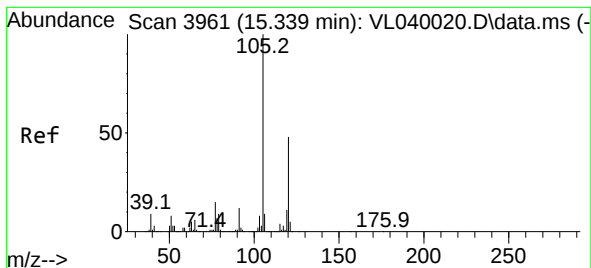
Tgt Ion: 95 Resp: 1990921
Ion Ratio Lower Upper
95 100
174 61.5 48.6 73.0
175 4.4 3.4 5.2



#72
4-Ethyltoluene
Concen: 0.034 ppbv
RT: 15.214 min Scan# 3922
Delta R.T. 0.032 min
Lab File: VL040076.D
Acq: 9 Jan 2023 15:16

Tgt Ion: 105 Resp: 11331
Ion Ratio Lower Upper
105 100
120 0.0 23.5 35.3#
91 62.8 10.5 15.7#
77 81.2 11.5 17.3#





#73

1,3,5-Trimethylbenzene

Concen: 0.122 ppbv

RT: 15.358 min Scan# 3967

Delta R.T. 0.019 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

Instrument :

MSVOA_L

ClientSampleId :

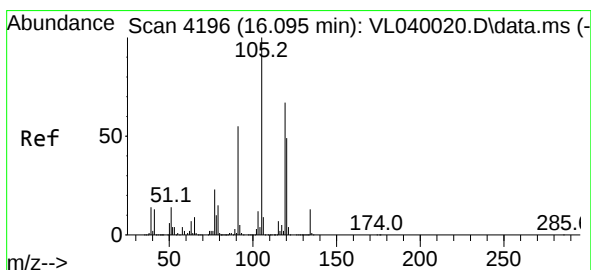
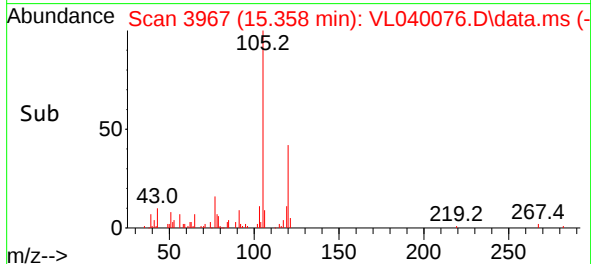
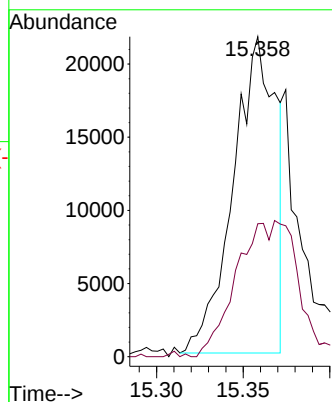
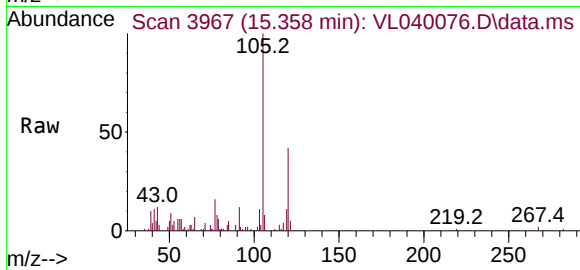
UR-1

Tgt Ion:105 Resp: 37149

Ion Ratio Lower Upper

105 100

120 42.0 38.4 57.6



#74

1,2,4-Trimethylbenzene

Concen: 0.233 ppbv

RT: 16.121 min Scan# 4204

Delta R.T. 0.026 min

Lab File: VL040076.D

Acq: 9 Jan 2023 15:16

Tgt Ion:105 Resp: 78022

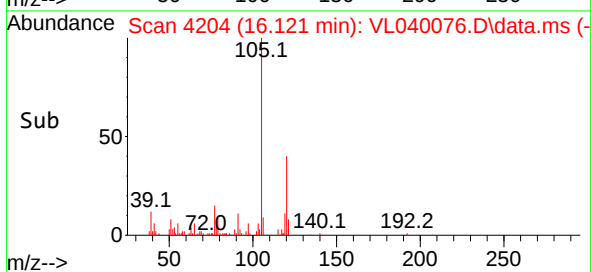
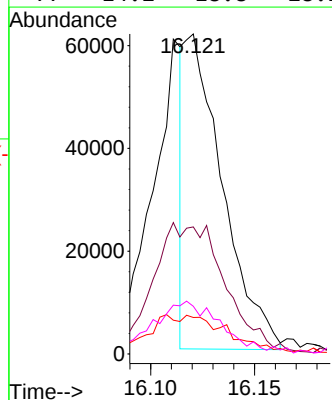
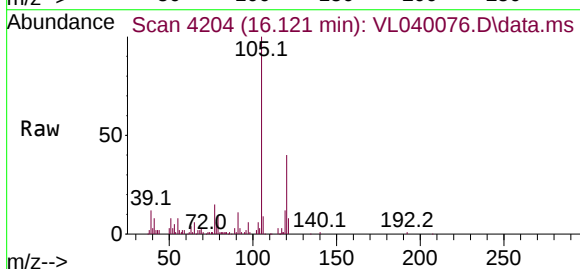
Ion Ratio Lower Upper

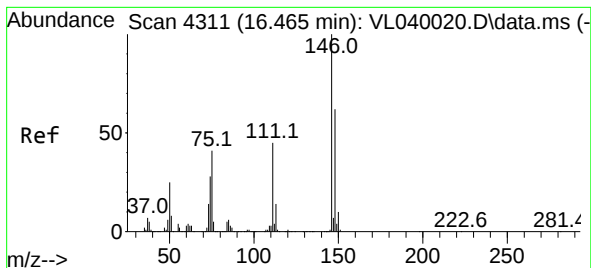
105 100

120 37.8 39.3 58.9#

91 10.1 44.2 66.4#

77 14.2 18.8 28.2#





#76

1,4-Dichlorobenzene

Concen: 0.056 ppbv

RT: 16.487 min Scan# 41

Delta R.T. 0.022 min

Lab File: VL040076.D

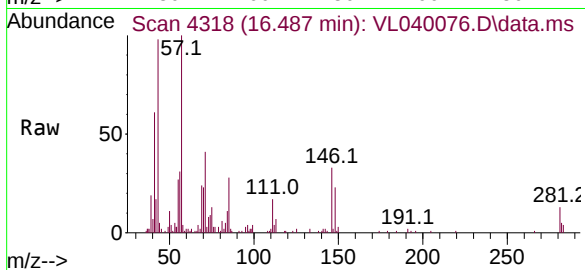
Acq: 9 Jan 2023 15:16

Instrument :

MSVOA_L

ClientSampleId :

UR-1



Tgt Ion:146 Resp: 10085

Ion Ratio Lower Upper

146 100

111 119.9 23.4 70.2#

148 134.7 32.0 96.2#

