

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL021524\
 Data File : VL041072.D
 Acq On : 15 Feb 2024 15:32
 Operator : SY/MD
 Sample : P1490-02
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Quant Time: Feb 16 04:09:31 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL012324AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Feb 16 04:05:22 2024
 Response via : Initial Calibration

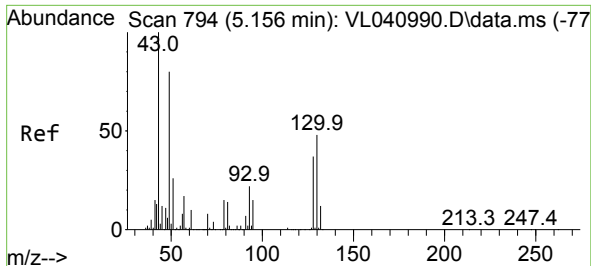
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	5.208	49	557506	10.000	ppbv	# 0.03
33) 1,4-Difluorobenzene	6.665	114	3262865	10.000	ppbv	0.03
55) Chlorobenzene-d5	11.465	117	2919087	10.000	ppbv	0.01
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.774	95	2200977	9.983	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.800%
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.713	85	138383	1.124	ppbv	96
3) Chlorodifluoromethane	2.661	51	61673	0.658	ppbv #	87
4) Chloromethane	2.800	50	38395	1.092	ppbv	100
7) Chloroethane	3.186	64	497	0.040	ppbv #	42
8) Dichlorotetrafluoroethane	2.845	85	2911	0.032	ppbv	84
9) Propene	2.687	41	95665	3.110	ppbv #	78
10) Heptane	7.578	43	360071	4.757	ppbv	99
11) Trichlorofluoromethane	3.549	101	43148	0.435	ppbv	99
12) 1,1,2-Trichlorotrifluo...	4.063	101	7571	0.105	ppbv #	66
13) Ethanol	3.247	45	2230423	304.274	ppbv	93
15) Acetone	3.456	43	3087384	43.305	ppbv #	1
16) 1,3-Butadiene	2.858	39	33241	0.975	ppbv #	16
17) tert-Butyl alcohol	3.587	59	788429	13.483	ppbv	97
19) Isopropyl Alcohol	3.584	45	15473936	374.953	ppbv #	92
20) Methylene Chloride	3.941	84	1168002	42.575	ppbv	99
21) Allyl Chloride	3.944	41	39776	0.918	ppbv #	17
23) Vinyl Acetate	4.642	43	28460	0.387	ppbv #	88
25) Ethyl Acetate	4.793	43	122113	0.945	ppbv #	75
26) Hexane	5.208	57	861861	15.641	ppbv #	1
29) Chloroform	5.292	83	33313	0.341	ppbv	89
31) cis-1,2-Dichloroethene	5.214	61	10641670	205.770	ppbv #	25
34) 2-Butanone	4.793	43	122113	0.786	ppbv	98
36) Benzene	6.375	78	33417	0.124	ppbv	93
37) 1,2-Dichloroethane	5.819	62	4861	0.030	ppbv #	82
39) 1,2-Dichloropropane	6.661	63	805425	7.587	ppbv #	23
41) Tetrahydrofuran	5.214	42	6225463	58.983	ppbv #	44
43) Methyl Methacrylate	7.478	69	3259957	31.350	ppbv	95
50) 4-Methyl-2-Pentanone	8.195	43	5907	0.022	ppbv #	4
52) Tetrachloroethene	10.616	164	651455	7.280	ppbv	98
53) Toluene	9.221	91	1176105	3.984	ppbv	99
59) m/p-Xylene	12.368	91	29219	0.085	ppbv #	22

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

Quant Time: Feb 16 04:09:31 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL012324AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri Feb 16 04:05:22 2024
Response via : Initial Calibration

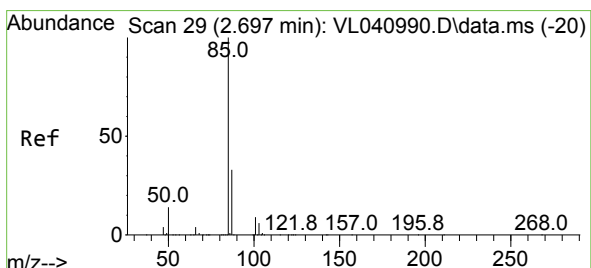
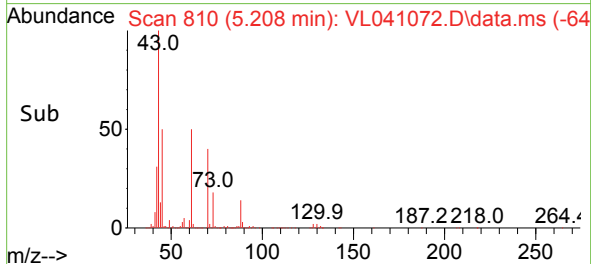
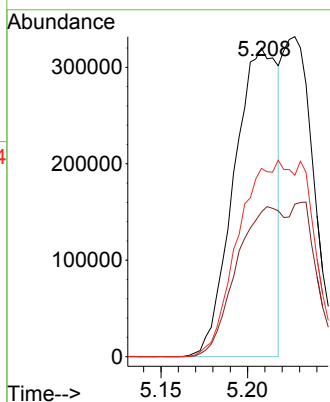
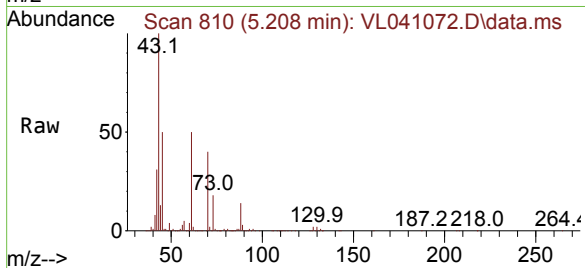




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.208 min Scan# 81
Delta R.T. 0.032 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

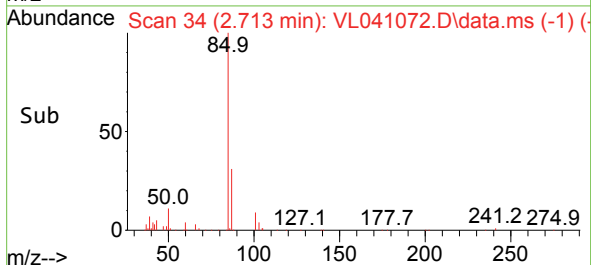
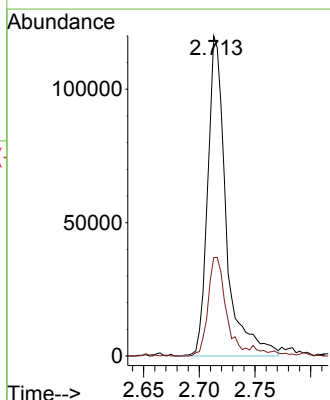
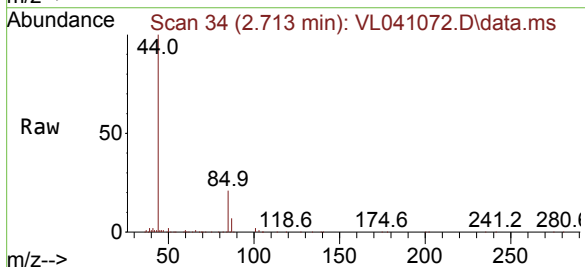
Instrument :
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ClientSampleId :
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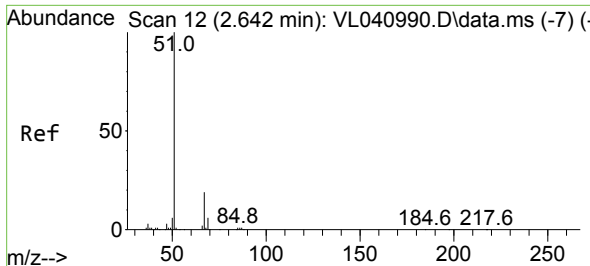
Tgt Ion: 49 Resp: 557506
Ion Ratio Lower Upper
49 100
128 0.0 23.9 71.7#
130 0.0 31.1 93.5#



#2
Dichlorodifluoromethane
Concen: 1.124 ppbv
RT: 2.713 min Scan# 34
Delta R.T. 0.007 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

Tgt Ion: 85 Resp: 138383
Ion Ratio Lower Upper
85 100
87 30.8 26.3 39.5

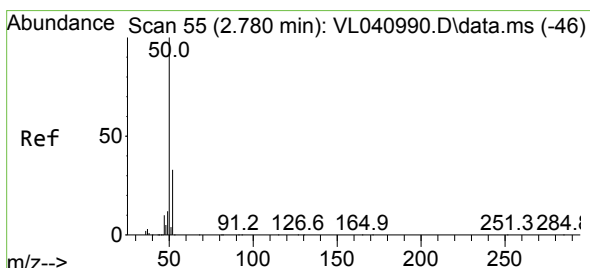
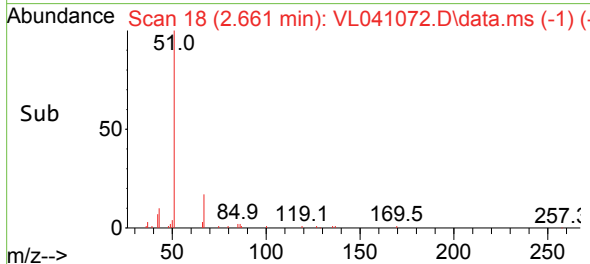
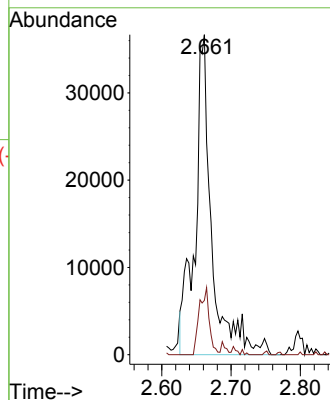
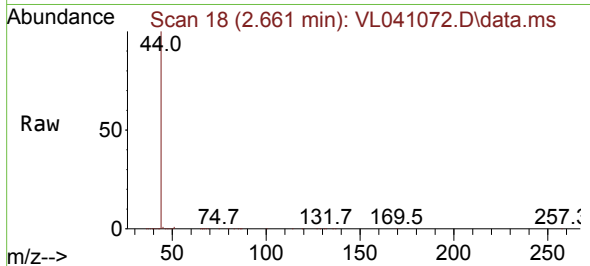




#3
Chlorodifluoromethane
Concen: 0.658 ppbv
RT: 2.661 min Scan# 11
Delta R.T. 0.010 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

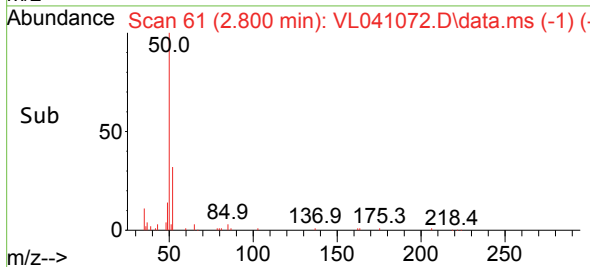
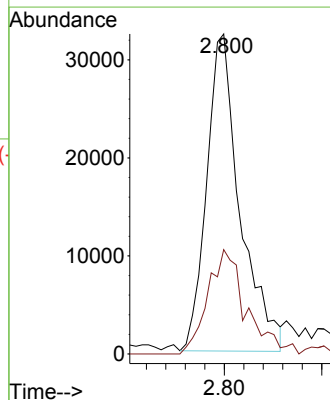
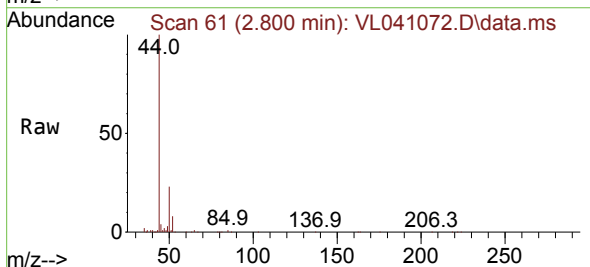
Instrument :
MSVOA_L
ClientSampleId :
IA1

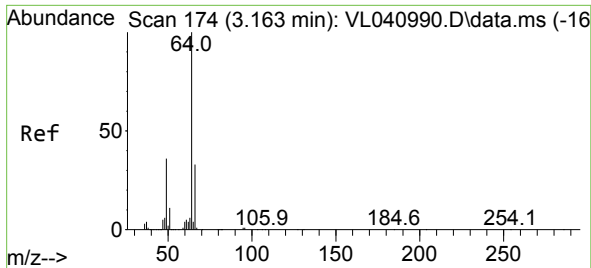
Tgt Ion: 51 Resp: 61673
Ion Ratio Lower Upper
51 100
67 12.6 14.8 22.2#



#4
Chloromethane
Concen: 1.092 ppbv
RT: 2.800 min Scan# 61
Delta R.T. 0.010 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

Tgt Ion: 50 Resp: 38395
Ion Ratio Lower Upper
50 100
52 32.9 26.2 39.4

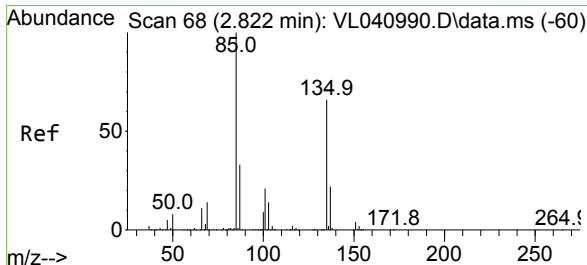
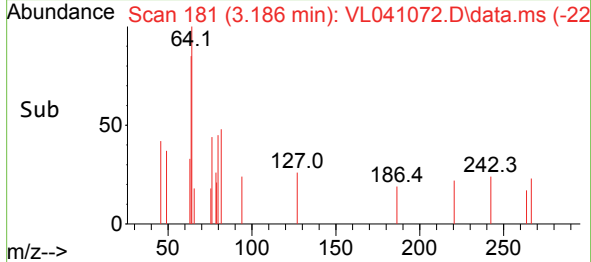
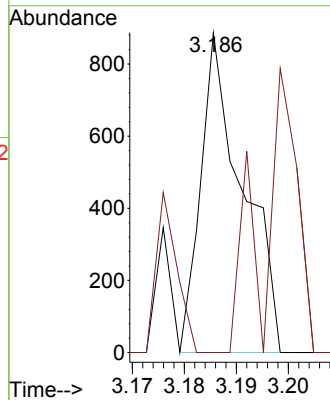
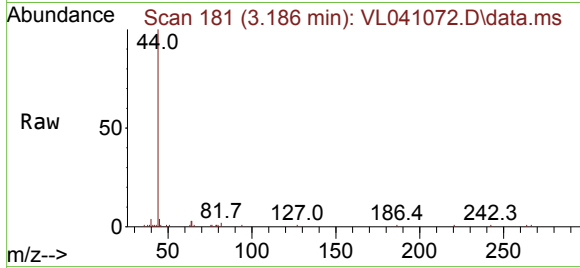




#7
Chloroethane
Concen: 0.040 ppbv
RT: 3.186 min Scan# 11
Delta R.T. 0.010 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

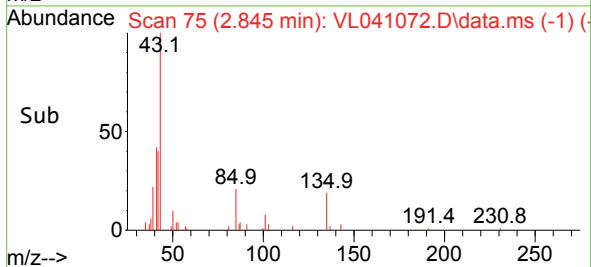
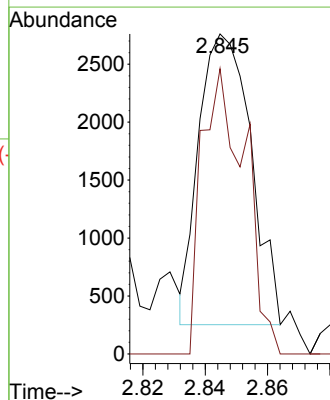
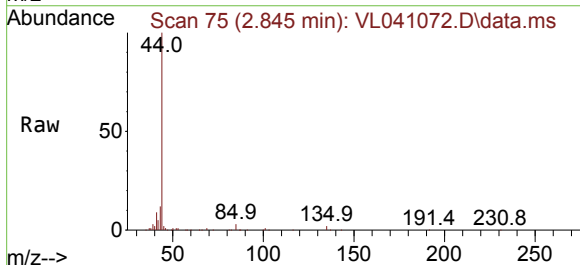
Instrument :
MSVOA_L
ClientSampleId :
IA1

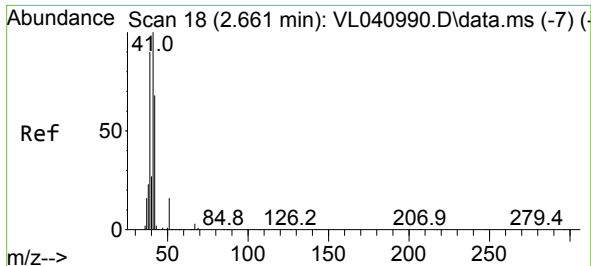
Tgt Ion: 64 Resp: 497
Ion Ratio Lower Upper
64 100
66 0.0 26.0 39.0#



#8
Dichlorotetrafluoroethane
Concen: 0.032 ppbv
RT: 2.845 min Scan# 75
Delta R.T. 0.010 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

Tgt Ion: 85 Resp: 2911
Ion Ratio Lower Upper
85 100
135 81.8 55.0 82.6

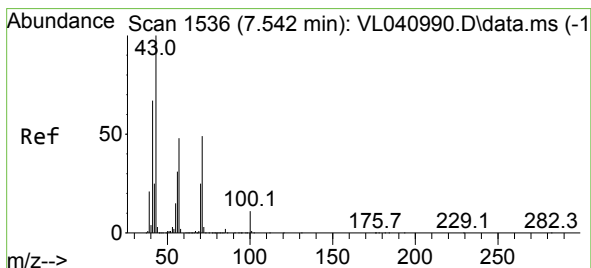
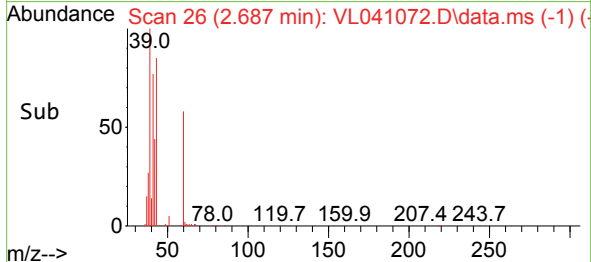
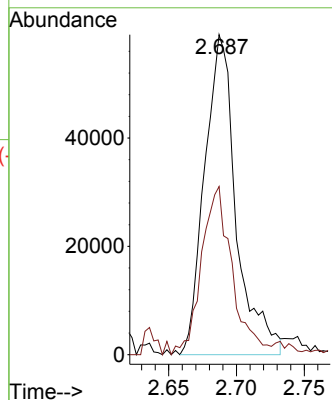
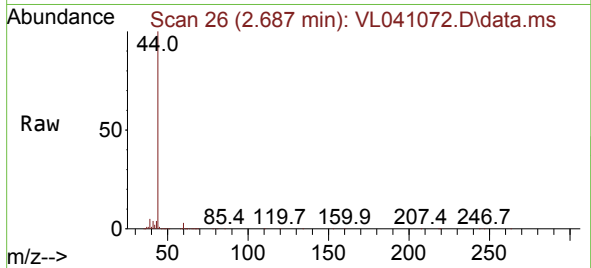




#9
Propene
Concen: 3.110 ppbv
RT: 2.687 min Scan# 20
Delta R.T. 0.016 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

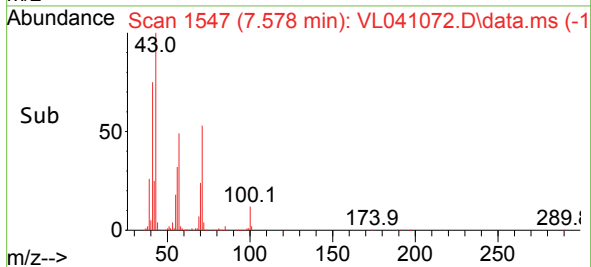
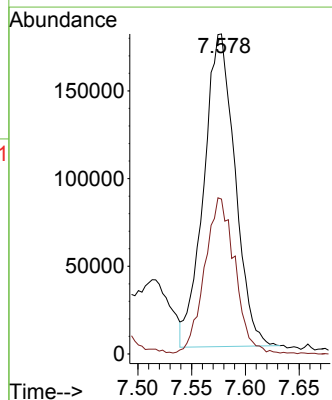
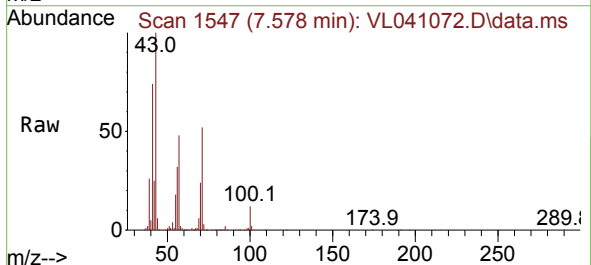
Instrument :
MSVOA_L
ClientSampleId :
IA1

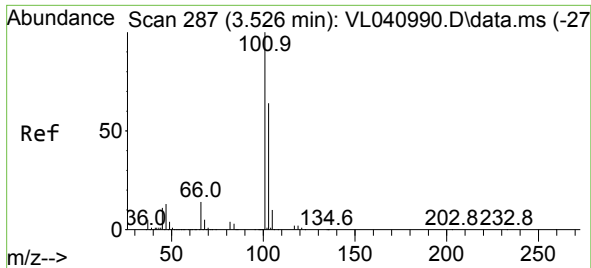
Tgt Ion: 41 Resp: 95665
Ion Ratio Lower Upper
41 100
42 55.0 59.0 88.4#



#10
Heptane
Concen: 4.757 ppbv
RT: 7.578 min Scan# 1547
Delta R.T. 0.013 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

Tgt Ion: 43 Resp: 360071
Ion Ratio Lower Upper
43 100
57 48.8 39.4 59.2

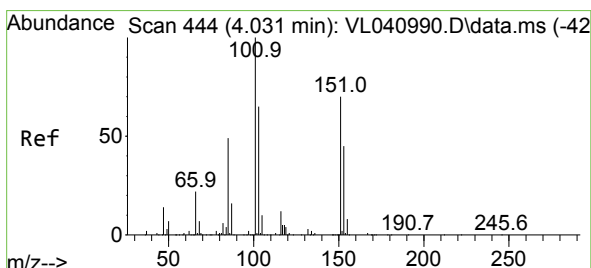
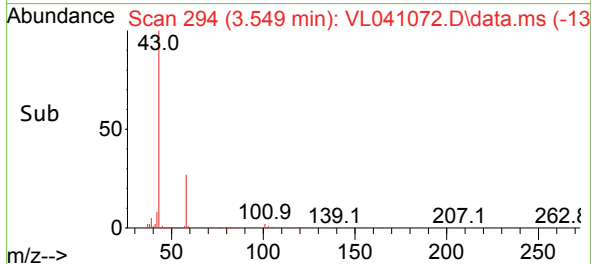
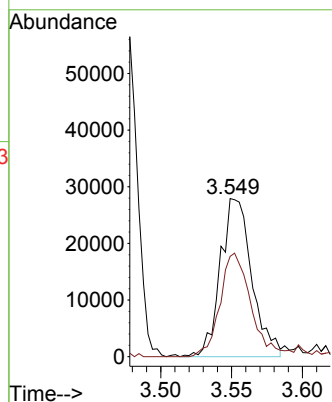
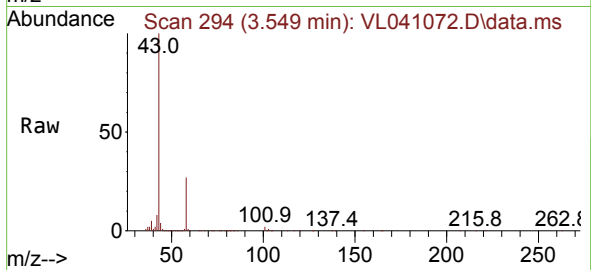




#11
 Trichlorofluoromethane
 Concen: 0.435 ppbv
 RT: 3.549 min Scan# 294
 Delta R.T. 0.007 min
 Lab File: VL041072.D
 Acq: 15 Feb 2024 15:32

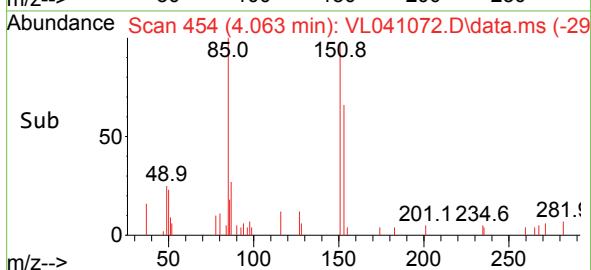
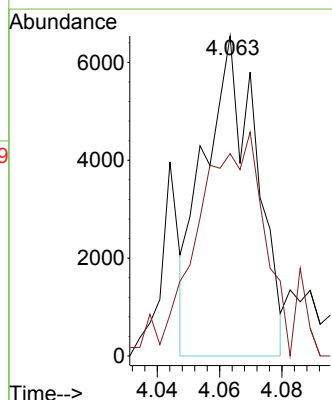
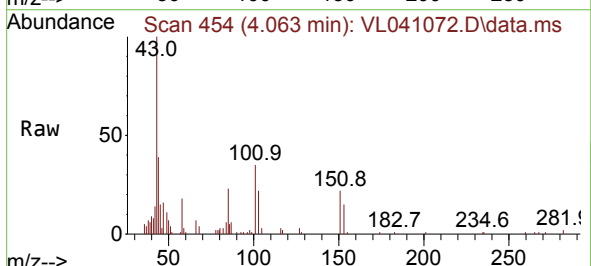
Instrument :
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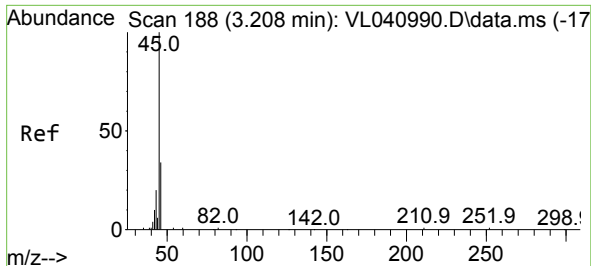
Tgt Ion:101 Resp: 43148
 Ion Ratio Lower Upper
 101 100
 103 63.4 51.4 77.2



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.105 ppbv
 RT: 4.063 min Scan# 454
 Delta R.T. 0.016 min
 Lab File: VL041072.D
 Acq: 15 Feb 2024 15:32

Tgt Ion:101 Resp: 7571
 Ion Ratio Lower Upper
 101 100
 151 99.0 56.6 85.0#

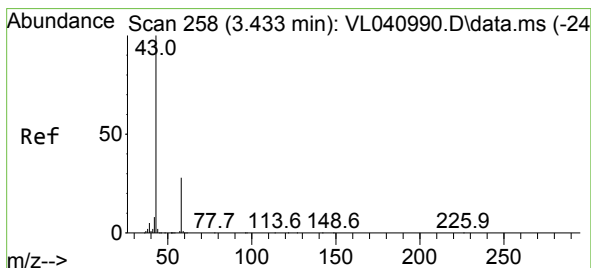
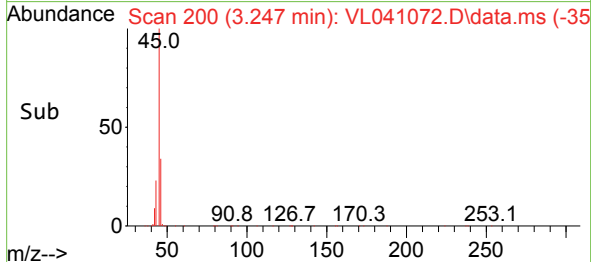
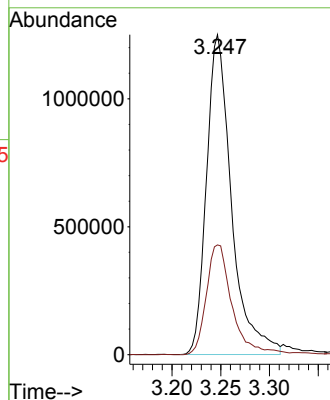
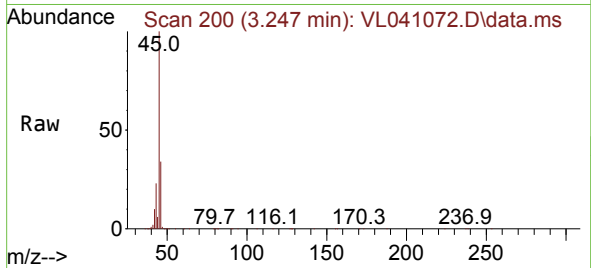




#13
Ethanol
Concen: 304.274 ppbv
RT: 3.247 min Scan# 200
Delta R.T. 0.029 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

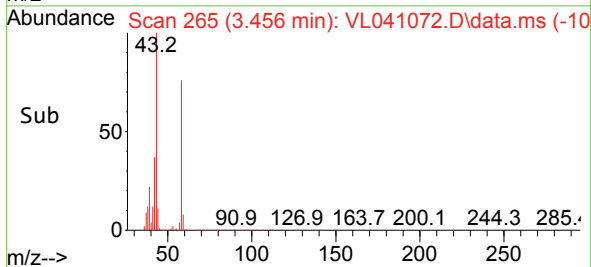
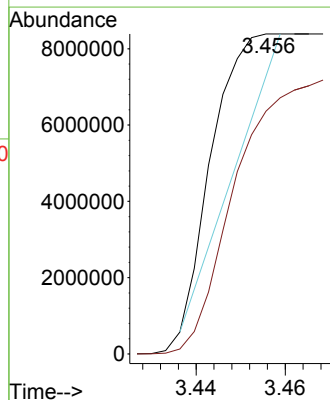
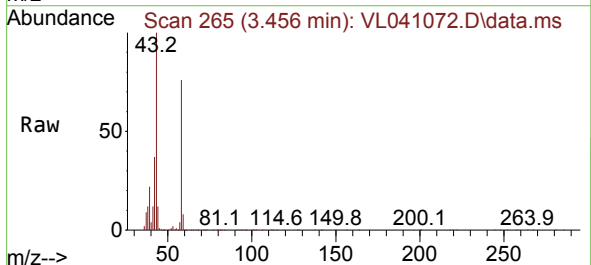
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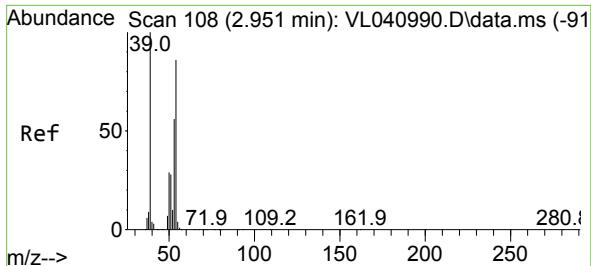
Tgt Ion: 45 Resp: 2230423
Ion Ratio Lower Upper
45 100
46 36.0 16.2 64.8



#15
Acetone
Concen: 43.305 ppbv
RT: 3.456 min Scan# 265
Delta R.T. 0.010 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

Tgt Ion: 43 Resp: 3087384
Ion Ratio Lower Upper
43 100
58 771.4 22.2 33.2#

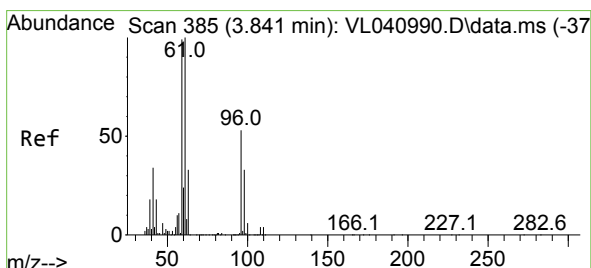
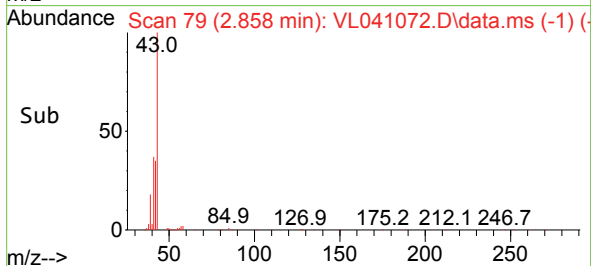
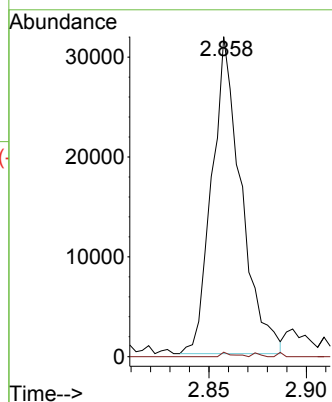
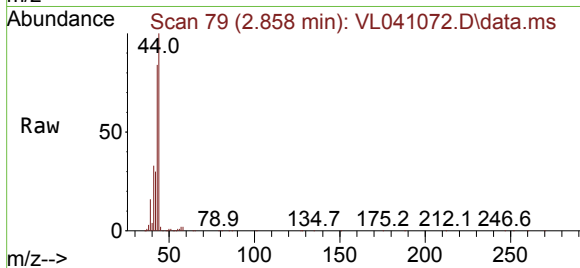




#16
1,3-Butadiene
Concen: 0.975 ppbv
RT: 2.858 min Scan# 79
Delta R.T. -0.106 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

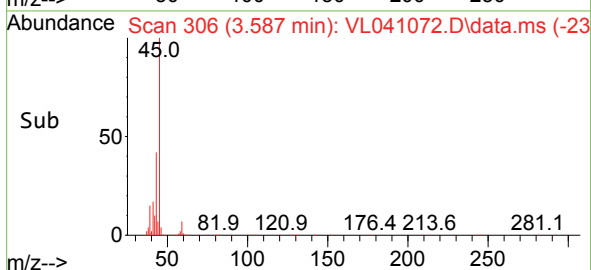
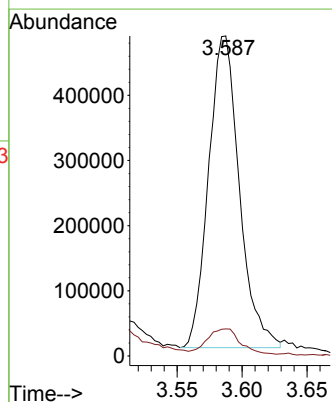
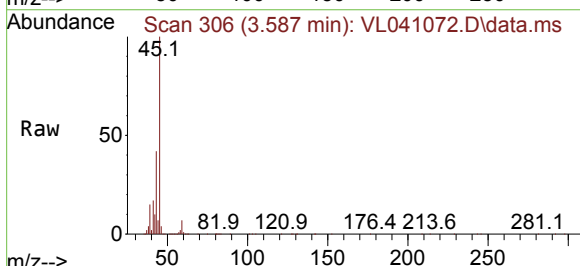
Instrument :
MSVOA_L
ClientSampleId :
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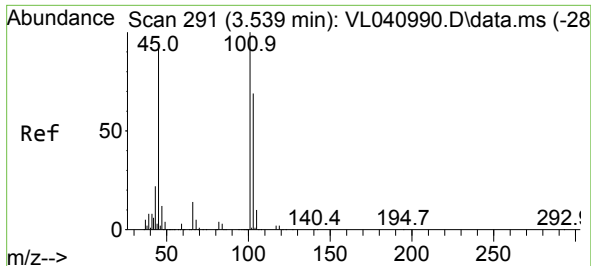
Tgt Ion: 39 Resp: 33241
Ion Ratio Lower Upper
39 100
54 4.9 62.7 94.1#



#17
tert-Butyl alcohol
Concen: 13.483 ppbv
RT: 3.587 min Scan# 306
Delta R.T. -0.270 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

Tgt Ion: 59 Resp: 788429
Ion Ratio Lower Upper
59 100
57 9.9 8.7 13.1





#19

Isopropyl Alcohol

Concen: 374.953 ppbv

RT: 3.584 min Scan# 305

Delta R.T. 0.029 min

Lab File: VL041072.D

Acq: 15 Feb 2024 15:32

Instrument :

MSVOA_L

ClientSampleId :

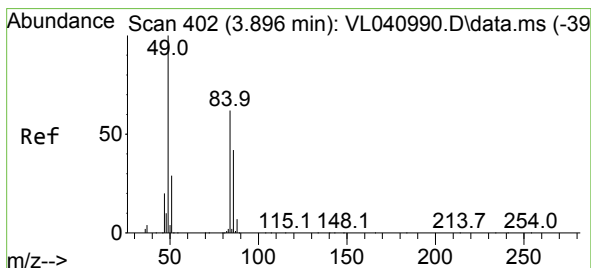
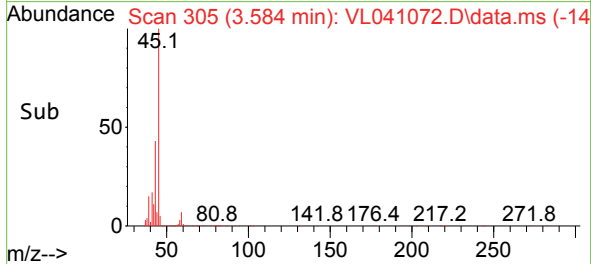
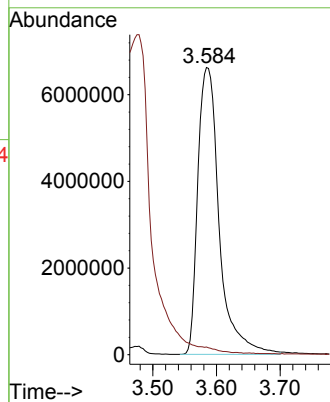
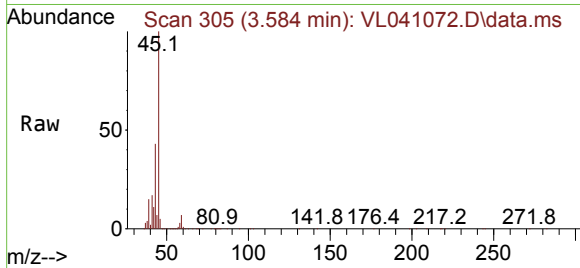
IA1

Tgt Ion: 45 Resp:15473936

Ion Ratio Lower Upper

45 100

58 0.0 2.2 3.4#



#20

Methylene Chloride

Concen: 42.575 ppbv

RT: 3.941 min Scan# 416

Delta R.T. 0.029 min

Lab File: VL041072.D

Acq: 15 Feb 2024 15:32

Tgt Ion: 84 Resp: 1168002

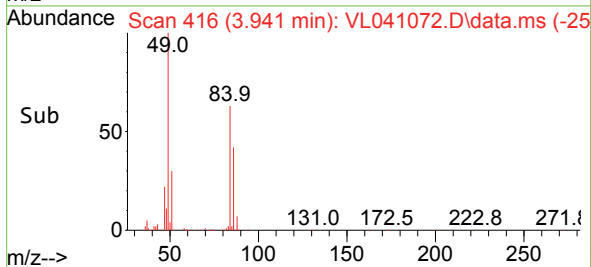
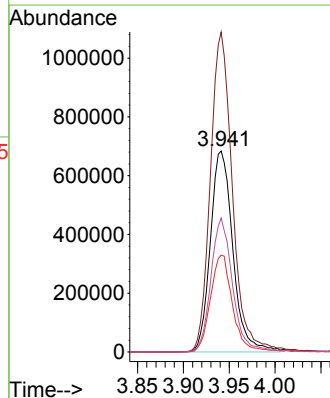
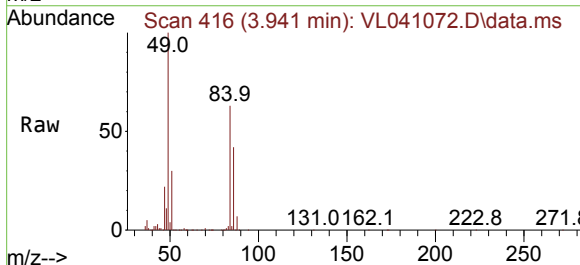
Ion Ratio Lower Upper

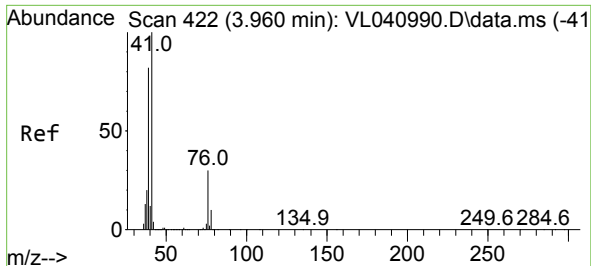
84 100

49 159.1 128.1 192.1

51 48.1 36.5 54.7

86 66.6 54.1 81.1

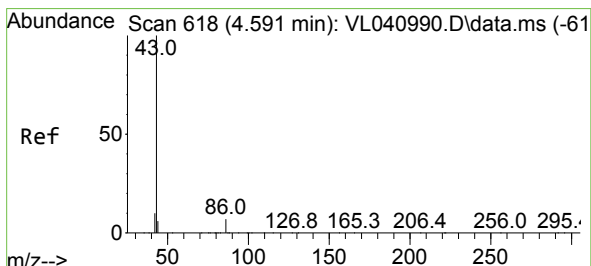
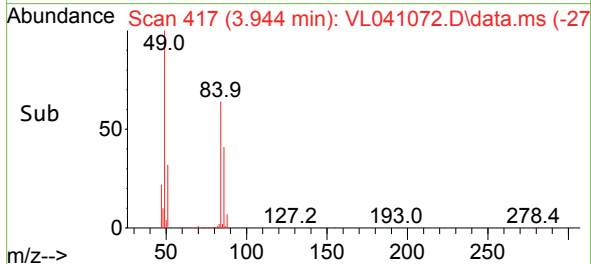
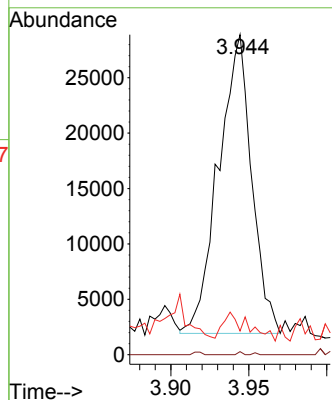
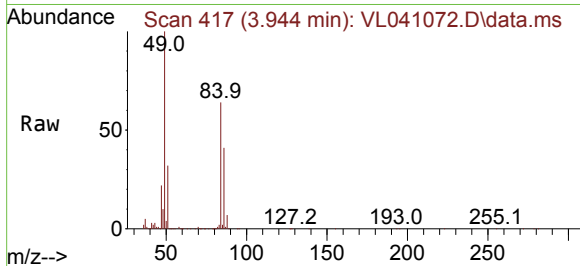




#21
 Allyl Chloride
 Concen: 0.918 ppbv
 RT: 3.944 min Scan# 41
 Delta R.T. -0.032 min
 Lab File: VL041072.D
 Acq: 15 Feb 2024 15:32

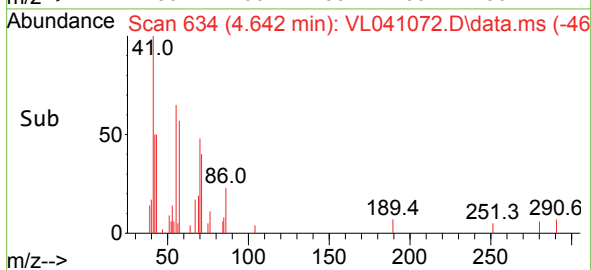
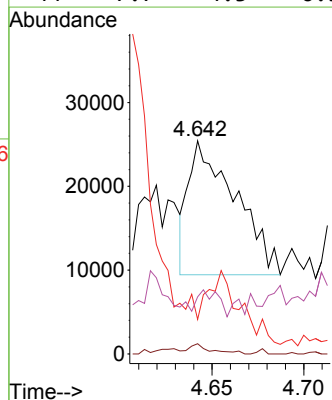
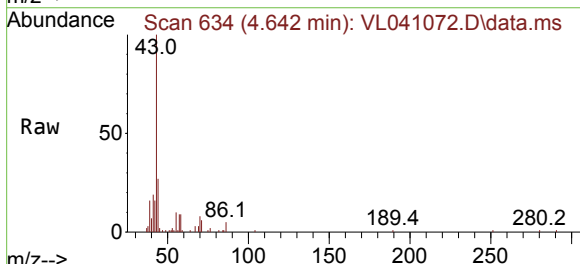
Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

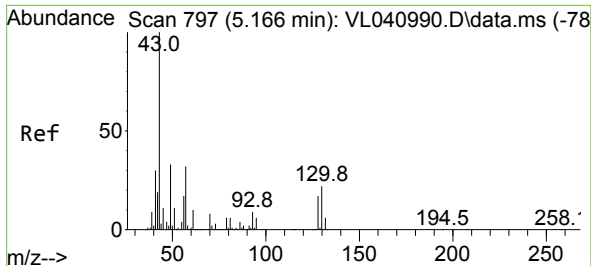
Tgt Ion: 41 Resp: 39776
 Ion Ratio Lower Upper
 41 100
 76 0.3 25.0 37.4#
 39 0.0 67.0 100.6#



#23
 Vinyl Acetate
 Concen: 0.387 ppbv
 RT: 4.642 min Scan# 634
 Delta R.T. 0.035 min
 Lab File: VL041072.D
 Acq: 15 Feb 2024 15:32

Tgt Ion: 43 Resp: 28460
 Ion Ratio Lower Upper
 43 100
 86 7.6 5.4 8.0
 42 18.7 8.6 13.0#
 44 7.7 4.3 6.5#





#25

Ethyl Acetate

Concen: 0.945 ppbv

RT: 4.793 min Scan# 61

Delta R.T. -0.392 min

Lab File: VL041072.D

Acq: 15 Feb 2024 15:32

Instrument :

MSVOA_L

ClientSampleId :

IA1

Tgt Ion: 43 Resp: 122113

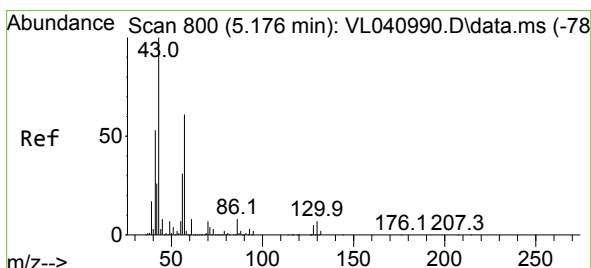
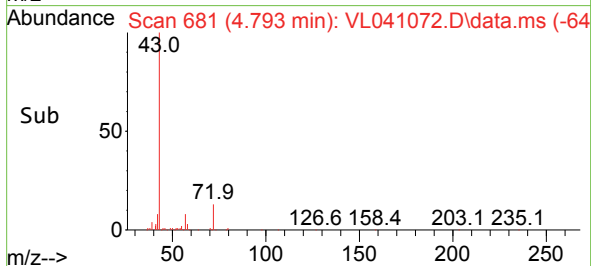
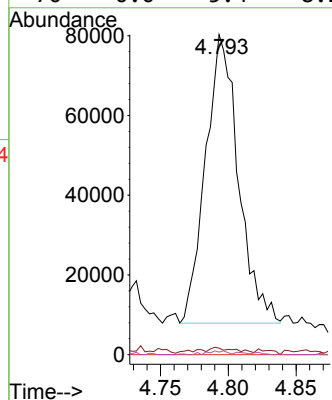
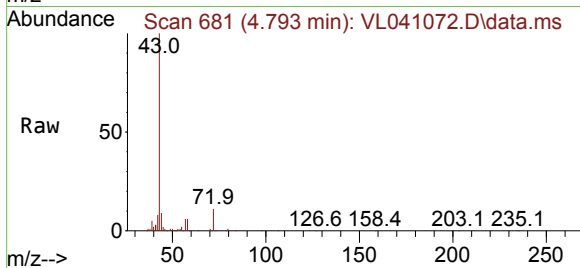
Ion Ratio Lower Upper

43 100

45 0.0 8.2 12.4#

61 0.0 7.9 11.9#

70 0.0 5.4 8.2#



#26

Hexane

Concen: 15.641 ppbv

RT: 5.208 min Scan# 810

Delta R.T. 0.013 min

Lab File: VL041072.D

Acq: 15 Feb 2024 15:32

Tgt Ion: 57 Resp: 861861

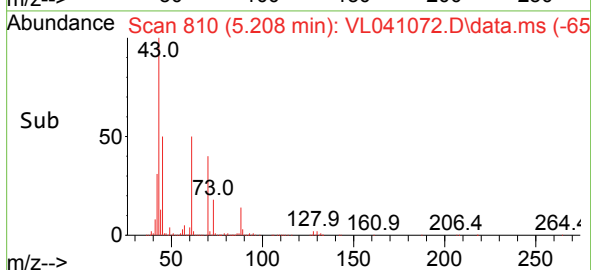
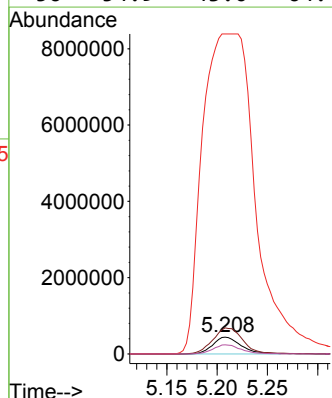
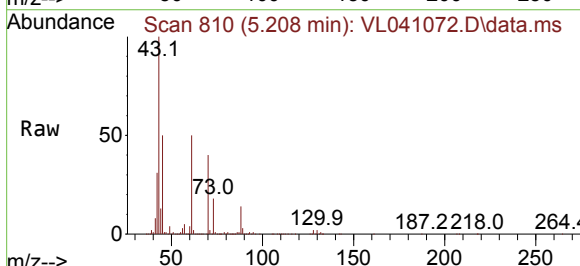
Ion Ratio Lower Upper

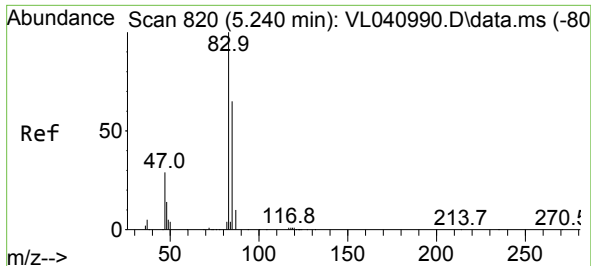
57 100

41 168.9 74.4 111.6#

43 3652.8 190.6 285.8#

56 54.9 43.0 64.4





#29

Chloroform

Concen: 0.341 ppbv

RT: 5.292 min Scan# 81

Delta R.T. 0.035 min

Lab File: VL041072.D

Acq: 15 Feb 2024 15:32

Instrument :

MSVOA_L

ClientSampleId :

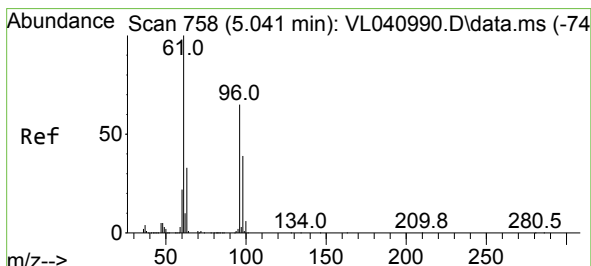
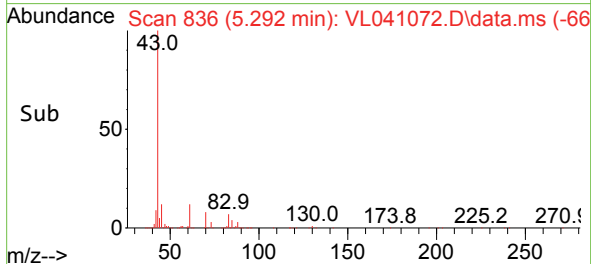
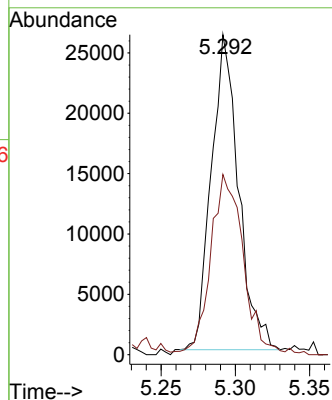
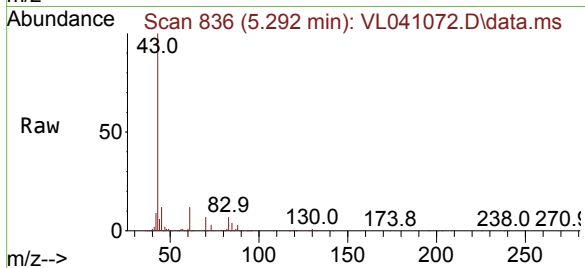
IA1

Tgt Ion: 83 Resp: 33313

Ion Ratio Lower Upper

83 100

85 56.1 51.6 77.4



#31

cis-1,2-Dichloroethene

Concen: 205.770 ppbv

RT: 5.214 min Scan# 812

Delta R.T. 0.154 min

Lab File: VL041072.D

Acq: 15 Feb 2024 15:32

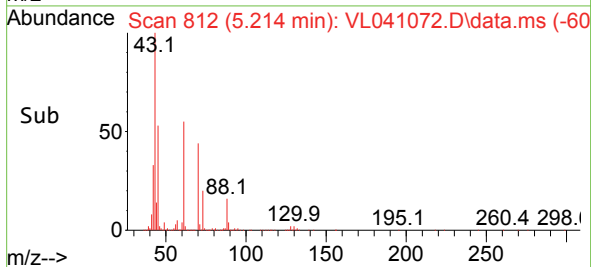
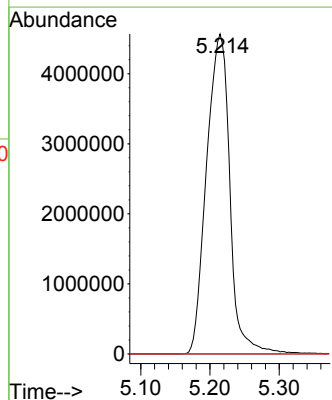
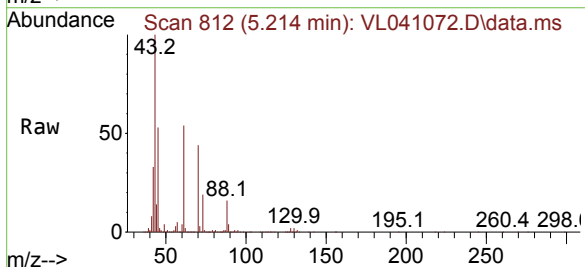
Tgt Ion: 61 Resp:10641670

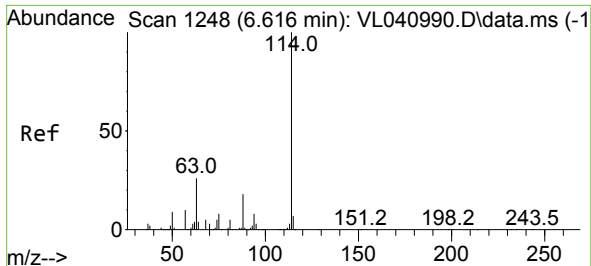
Ion Ratio Lower Upper

61 100

96 0.0 51.9 77.9#

98 0.0 31.5 47.3#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.665 min Scan# 1

Delta R.T. 0.026 min

Lab File: VL041072.D

Acq: 15 Feb 2024 15:32

Instrument :

MSVOA_L

ClientSampleId :

IA1

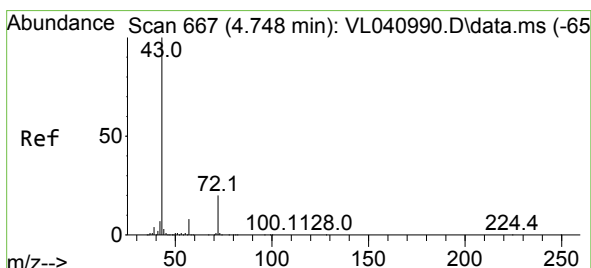
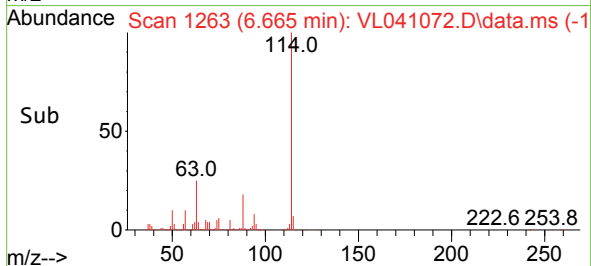
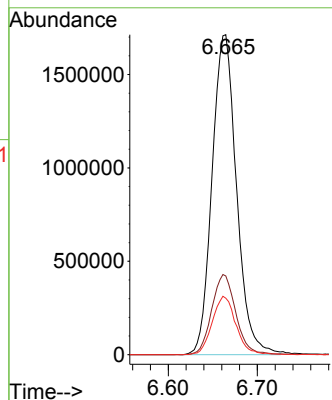
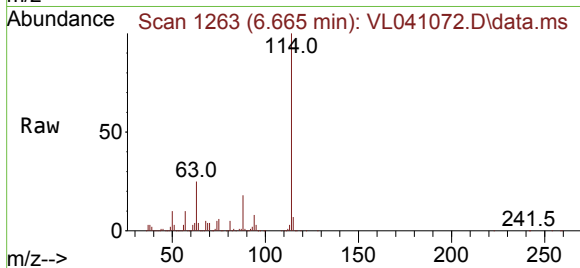
Tgt Ion:114 Resp: 3262865

Ion Ratio Lower Upper

114 100

63 24.8 20.8 31.2

88 17.8 14.3 21.5



#34

2-Butanone

Concen: 0.786 ppbv

RT: 4.793 min Scan# 681

Delta R.T. 0.026 min

Lab File: VL041072.D

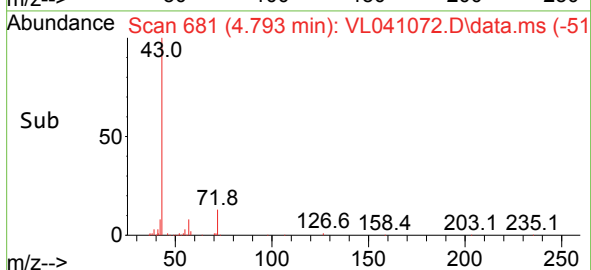
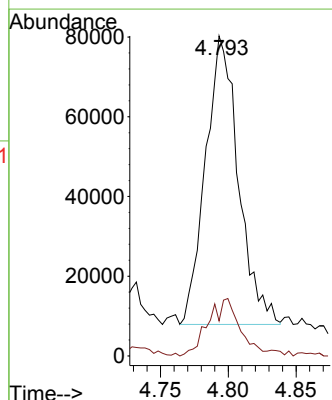
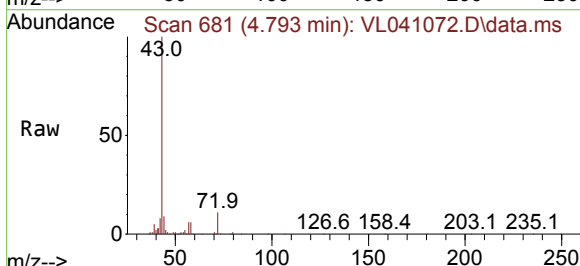
Acq: 15 Feb 2024 15:32

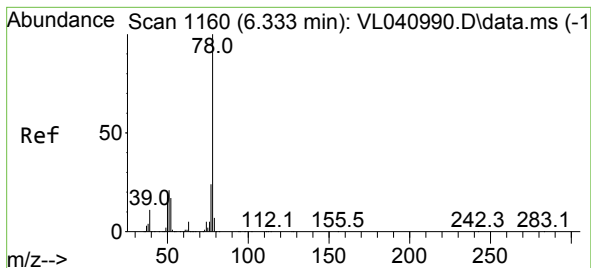
Tgt Ion: 43 Resp: 122113

Ion Ratio Lower Upper

43 100

72 20.9 17.5 26.3





#36

Benzene

Concen: 0.124 ppbv

RT: 6.375 min Scan# 1160

Delta R.T. 0.019 min

Lab File: VL041072.D

Acq: 15 Feb 2024 15:32

Instrument :

MSVOA_L

ClientSampleId :

IA1

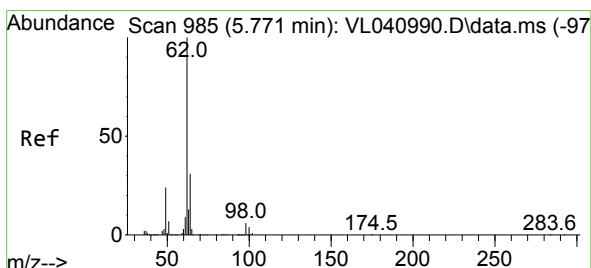
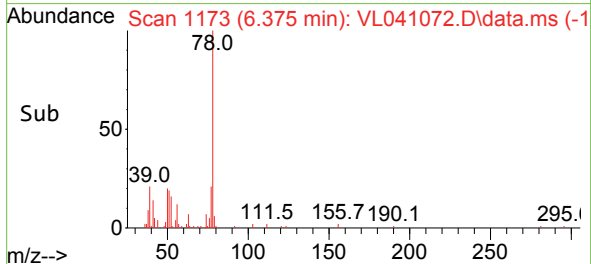
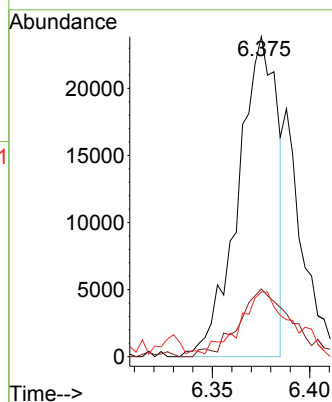
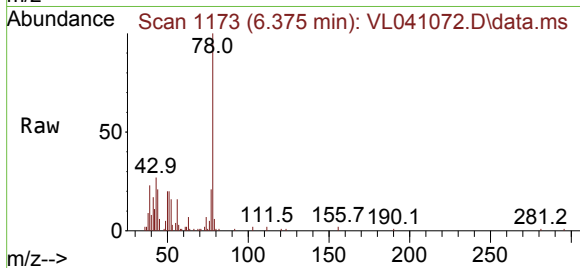
Tgt Ion: 78 Resp: 33417

Ion Ratio Lower Upper

78 100

77 21.1 19.0 28.4

50 15.8 15.8 23.6



#37

1,2-Dichloroethane

Concen: 0.030 ppbv

RT: 5.819 min Scan# 1000

Delta R.T. 0.029 min

Lab File: VL041072.D

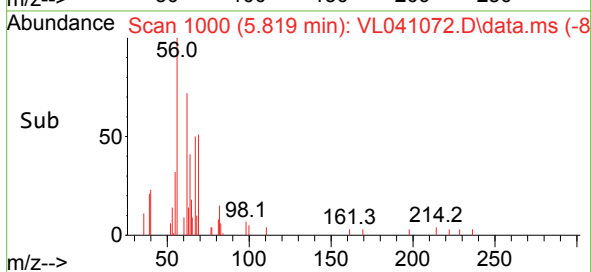
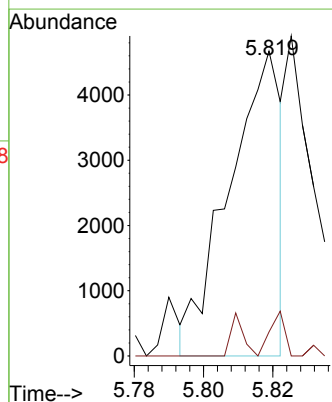
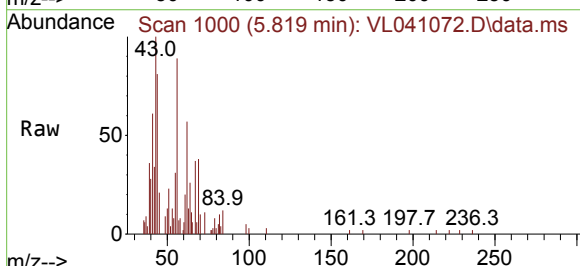
Acq: 15 Feb 2024 15:32

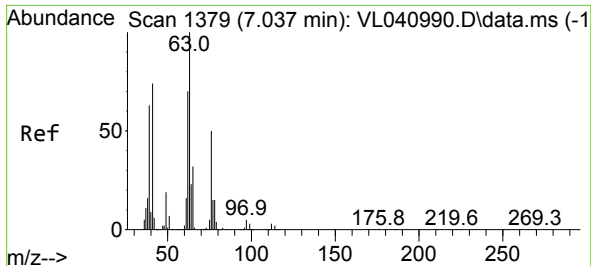
Tgt Ion: 62 Resp: 4861

Ion Ratio Lower Upper

62 100

98 0.0 4.7 7.1#





#39

1,2-Dichloropropane

Concen: 7.587 ppbv

RT: 6.661 min Scan# 11

Delta R.T. -0.395 min

Lab File: VL041072.D

Acq: 15 Feb 2024 15:32

Instrument :

MSVOA_L

ClientSampleId :

IA1

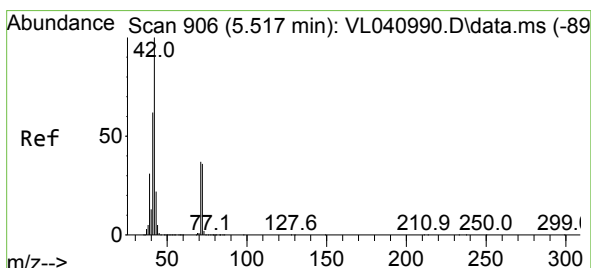
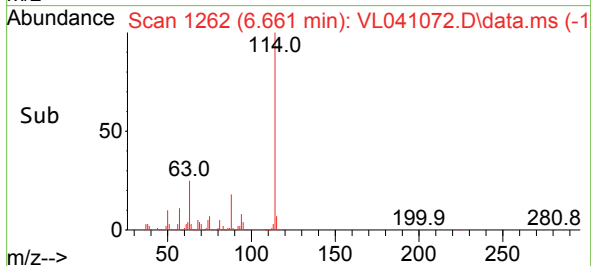
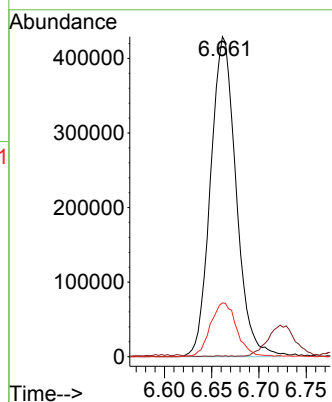
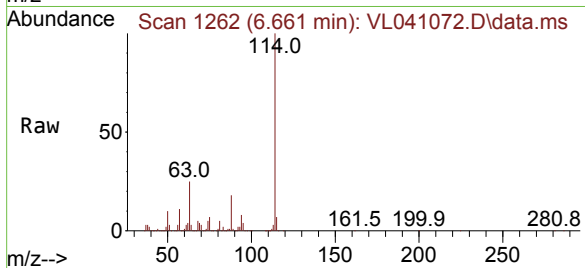
Tgt Ion: 63 Resp: 805425

Ion Ratio Lower Upper

63 100

41 0.0 59.6 89.4#

62 16.7 55.6 83.4#



#41

Tetrahydrofuran

Concen: 58.983 ppbv

RT: 5.214 min Scan# 812

Delta R.T. -0.325 min

Lab File: VL041072.D

Acq: 15 Feb 2024 15:32

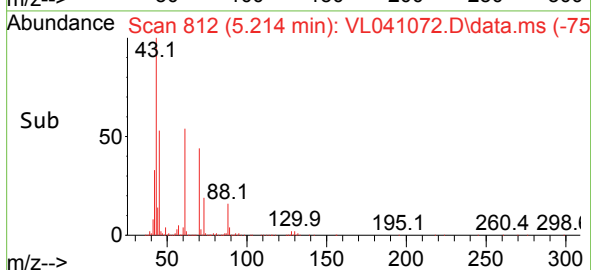
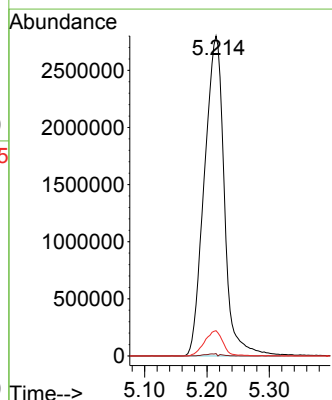
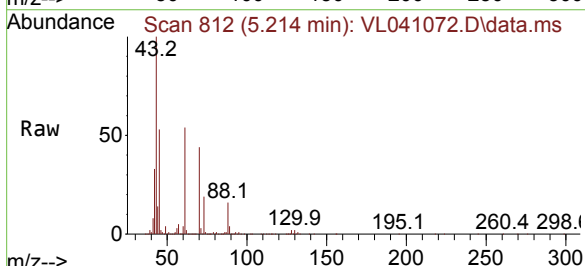
Tgt Ion: 42 Resp: 6225463

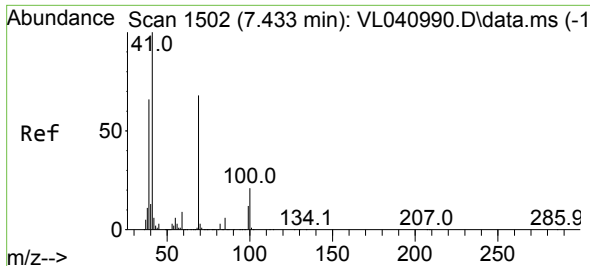
Ion Ratio Lower Upper

42 100

72 0.6 30.0 45.0#

71 7.5 29.5 44.3#

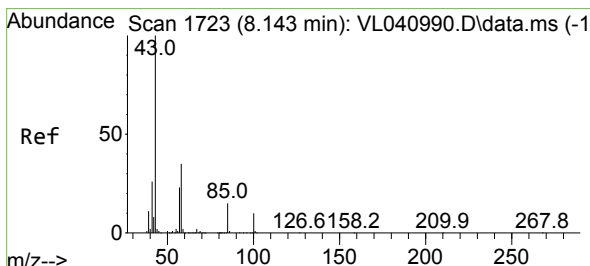
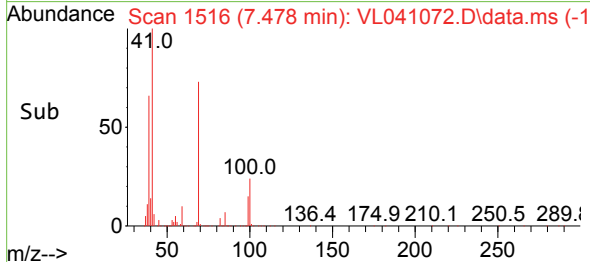
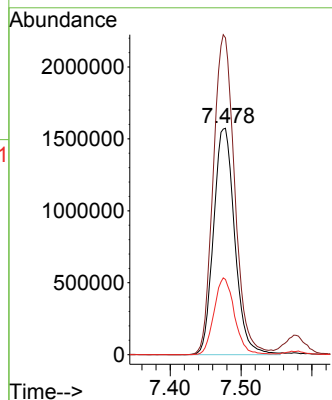
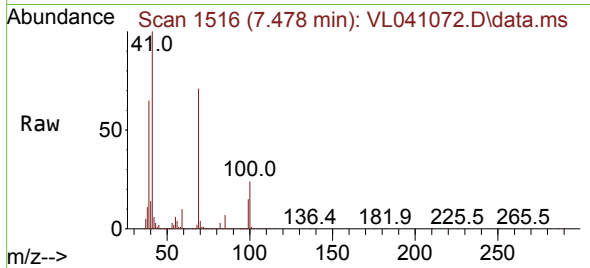




#43
Methyl Methacrylate
Concen: 31.350 ppbv
RT: 7.478 min Scan# 11
Delta R.T. 0.016 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

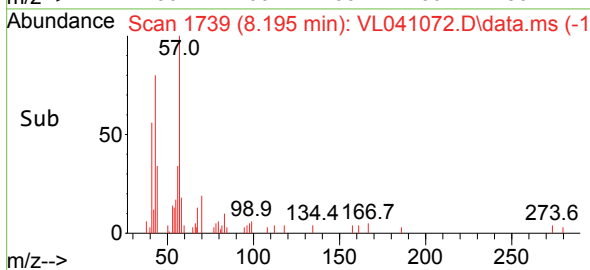
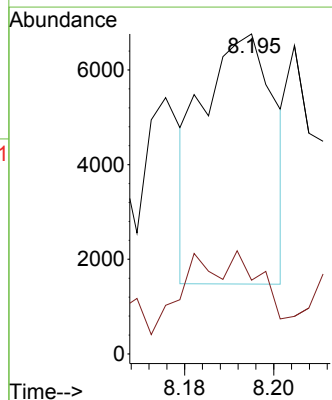
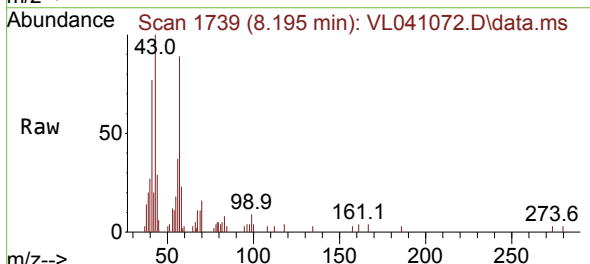
Instrument :
MSVOA_L
ClientSampleId :
IA1

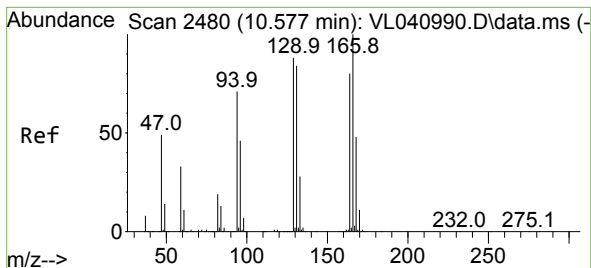
Tgt Ion: 69 Resp: 3259957
Ion Ratio Lower Upper
69 100
41 143.0 120.2 180.2
100 32.8 24.6 36.8



#50
4-Methyl-2-Pentanone
Concen: 0.022 ppbv
RT: 8.195 min Scan# 1739
Delta R.T. 0.029 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

Tgt Ion: 43 Resp: 5907
Ion Ratio Lower Upper
43 100
58 90.3 27.8 41.8#





#52

Tetrachloroethene

Concen: 7.280 ppbv

RT: 10.616 min Scan# 24

Delta R.T. 0.016 min

Lab File: VL041072.D

Acq: 15 Feb 2024 15:32

Instrument :

MSVOA_L

ClientSampleId :

IA1

Tgt Ion:164 Resp: 651455

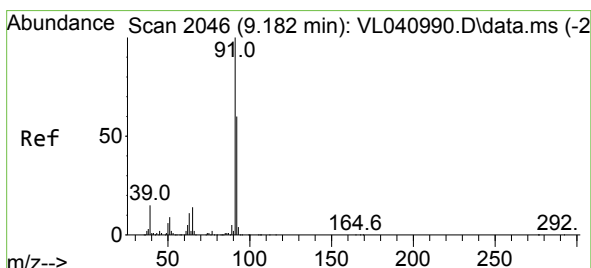
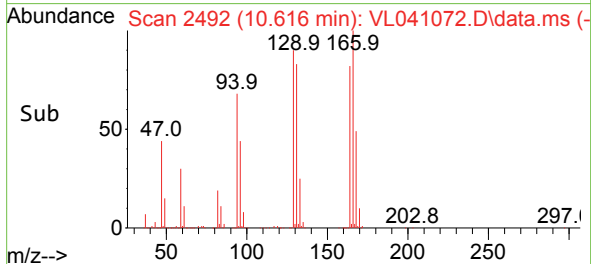
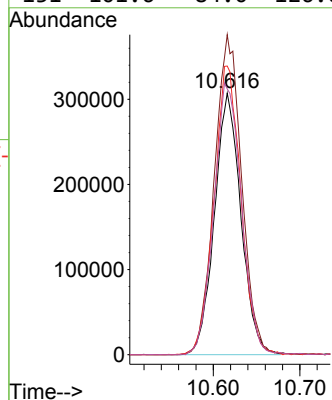
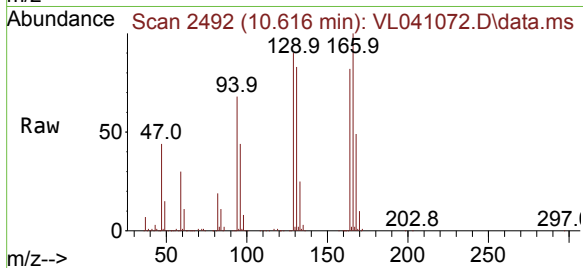
Ion Ratio Lower Upper

164 100

166 122.2 100.2 150.2

129 110.2 87.9 131.9

131 101.6 84.0 126.0



#53

Toluene

Concen: 3.984 ppbv

RT: 9.221 min Scan# 2058

Delta R.T. 0.016 min

Lab File: VL041072.D

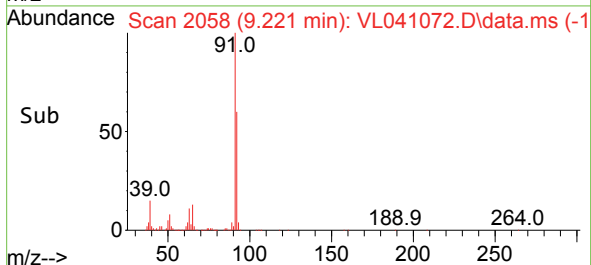
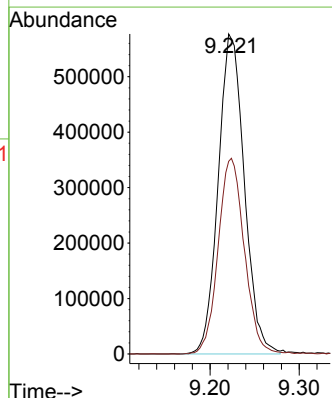
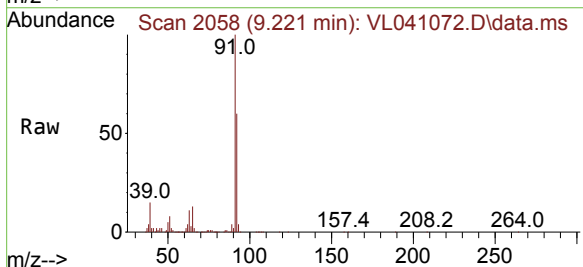
Acq: 15 Feb 2024 15:32

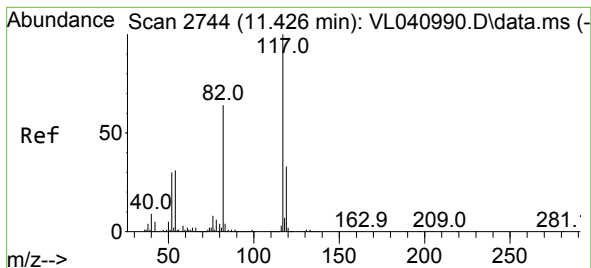
Tgt Ion: 91 Resp: 1176105

Ion Ratio Lower Upper

91 100

92 61.5 48.6 72.8

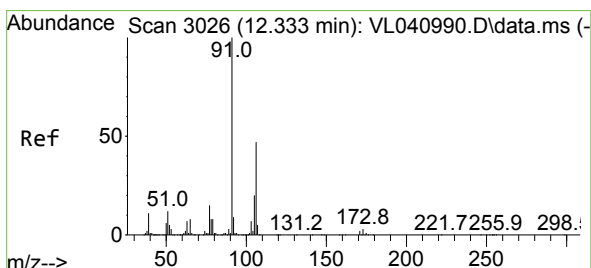
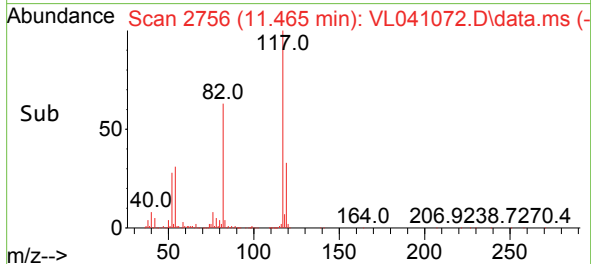
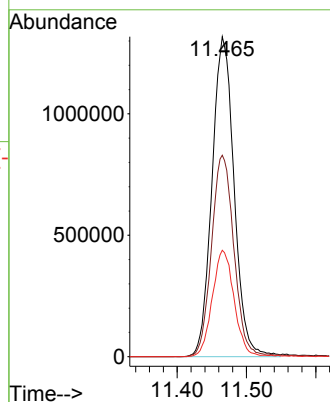
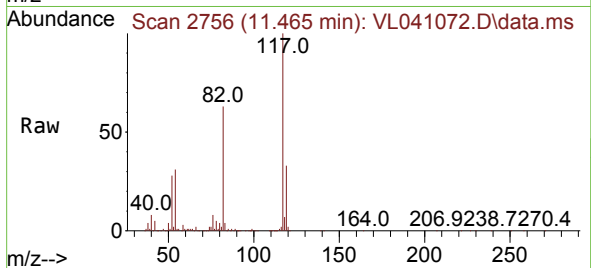




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.465 min Scan# 21
Delta R.T. 0.013 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

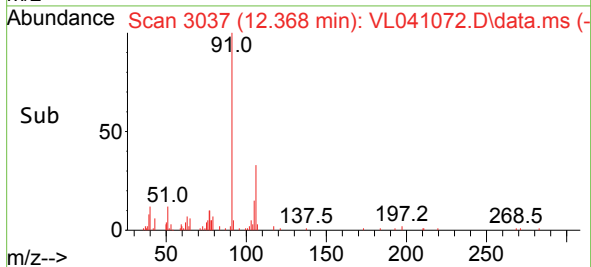
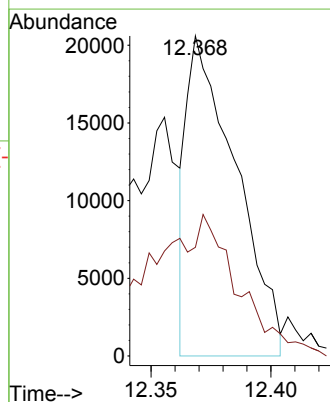
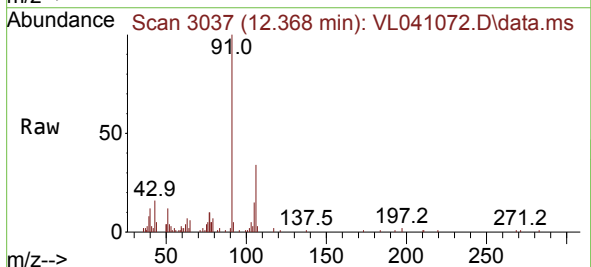
Instrument :
MSVOA_L
ClientSampleId :
IA1

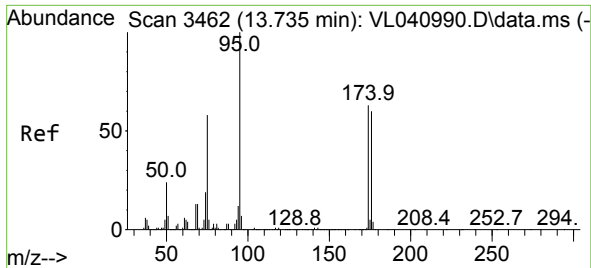
Tgt Ion:117 Resp: 2919087
Ion Ratio Lower Upper
117 100
82 64.4 51.7 77.5
119 33.2 23.8 35.6



#59
m/p-Xylene
Concen: 0.085 ppbv
RT: 12.368 min Scan# 3037
Delta R.T. 0.010 min
Lab File: VL041072.D
Acq: 15 Feb 2024 15:32

Tgt Ion: 91 Resp: 29219
Ion Ratio Lower Upper
91 100
106 94.1 34.9 52.3#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.983 ppbv
 RT: 13.774 min Scan# 34
 Delta R.T. 0.013 min
 Lab File: VL041072.D
 Acq: 15 Feb 2024 15:32

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Tgt Ion: 95 Resp: 2200977

Ion	Ratio	Lower	Upper
95	100		
174	61.3	49.1	73.7
175	4.5	3.7	5.5

