

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL050224\
 Data File : VL041203.D
 Acq On : 2 May 2024 20:02
 Operator : SY/MD
 Sample : P2334-07
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 BA-20-IA02-20240425

Quant Time: May 03 03:43:56 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL042924AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 03 03:34:47 2024
 Response via : Initial Calibration

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

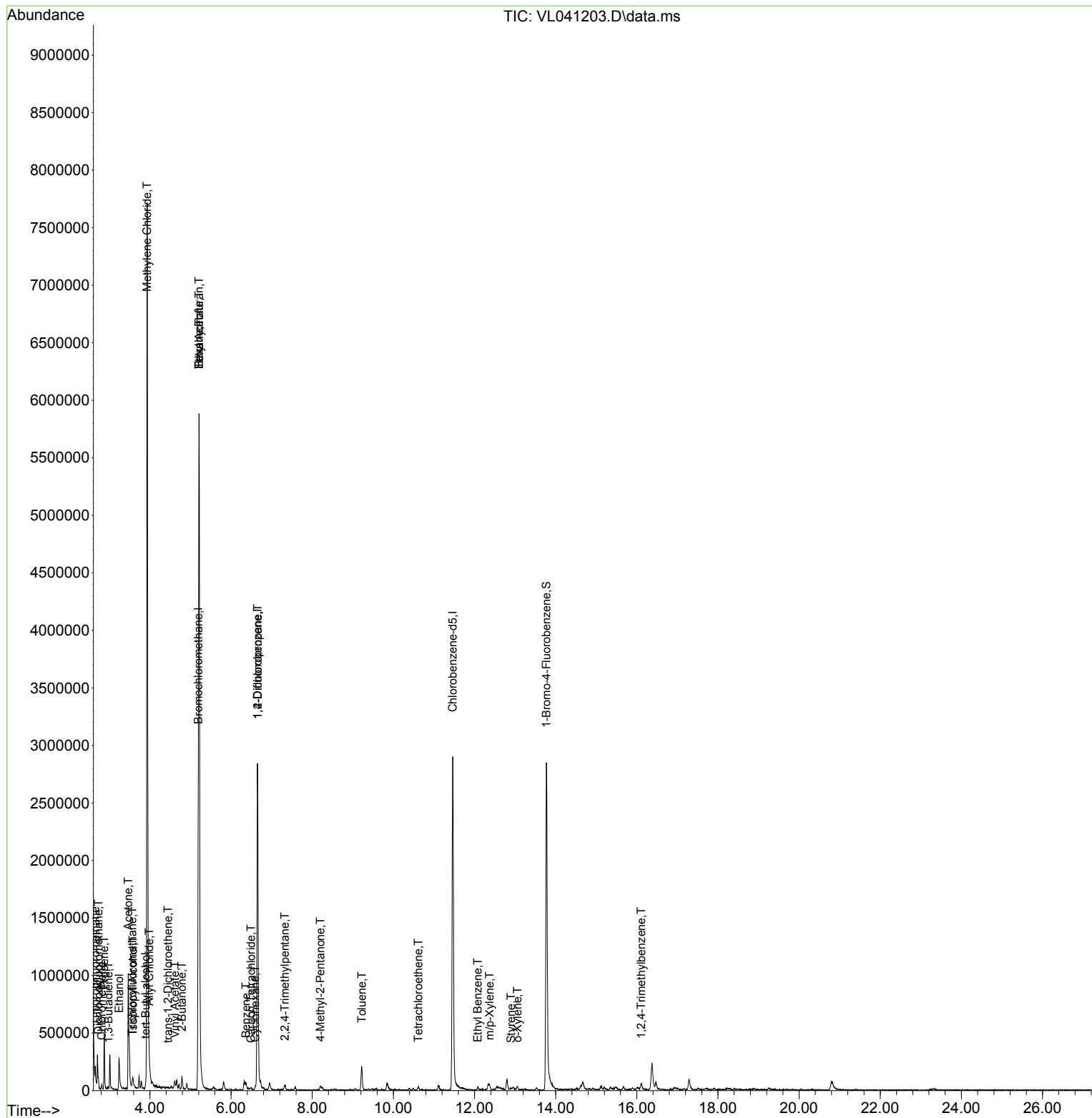
Internal Standards						
1) Bromochloromethane	5.192	49	850600	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.652	114	2136230	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.465	117	1959875	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.770	95	1462708	9.886	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.900%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.732	85	44618	0.388	ppbv	94
3) Chlorodifluoromethane	2.655	51	124128	0.961	ppbv #	74
4) Chloromethane	2.816	50	30794	0.607	ppbv	88
9) Propene	2.874	41	110919	2.194	ppbv	96
11) Trichlorofluoromethane	3.565	101	28627	0.245	ppbv	98
13) Ethanol	3.240	45	287151	25.337	ppbv	98
15) Acetone	3.465	43	1053279	10.492	ppbv	99
16) 1,3-Butadiene	2.976	39	1977	0.039	ppbv #	10
17) tert-Butyl alcohol	3.893	59	14481	0.134	ppbv #	88
19) Isopropyl Alcohol	3.581	45	76261	1.158	ppbv #	1
20) Methylene Chloride	3.931	84	2567839	73.559	ppbv	95
21) Allyl Chloride	3.980	41	3325	0.051	ppbv #	71
22) trans-1,2-Dichloroethene	4.446	96	1778	0.044	ppbv	80
23) Vinyl Acetate	4.620	43	32661	0.295	ppbv #	58
25) Ethyl Acetate	5.211	43	1666914	8.319	ppbv #	77
26) Hexane	5.211	57	2325669	26.009	ppbv #	40
30) Cyclohexane	6.594	84	5644	0.080	ppbv #	1
34) 2-Butanone	4.790	43	122615	1.128	ppbv	94
35) Carbon Tetrachloride	6.491	117	5617	0.047	ppbv	96
36) Benzene	6.365	78	30501	0.170	ppbv #	90
39) 1,2-Dichloropropane	6.652	63	546580	7.911	ppbv #	23
41) Tetrahydrofuran	5.211	42	867543	11.022	ppbv #	52
44) 2,2,4-Trimethylpentane	7.324	57	21265	0.069	ppbv #	40
50) 4-Methyl-2-Pentanone	8.198	43	18718	0.096	ppbv #	69
52) Tetrachloroethene	10.616	164	2678	0.043	ppbv #	77
53) Toluene	9.224	91	158765	0.764	ppbv	99
58) Ethyl Benzene	12.079	91	8353	0.031	ppbv	91
59) m/p-Xylene	12.368	91	26163	0.116	ppbv #	31
60) o-Xylene	13.060	91	12684	0.060	ppbv #	31
61) Styrene	12.899	104	4480	0.040	ppbv #	21
74) 1,2,4-Trimethylbenzene	16.105	105	22727	0.096	ppbv #	68

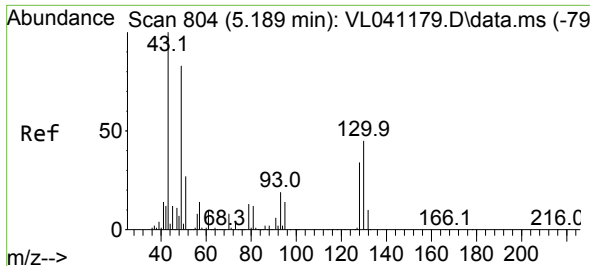
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Fri May 03 03:34:47 2024
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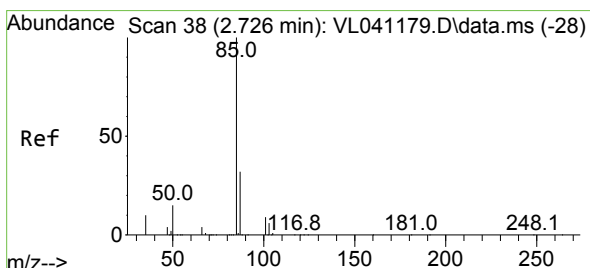
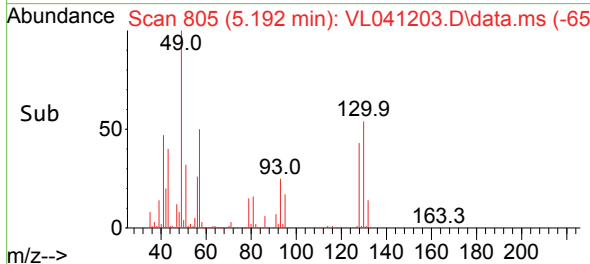
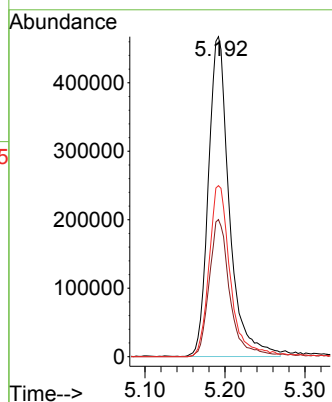
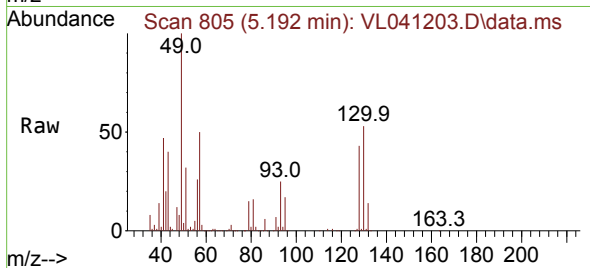




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.192 min Scan# 80
 Delta R.T. -0.000 min
 Lab File: VL041203.D
 Acq: 2 May 2024 20:02

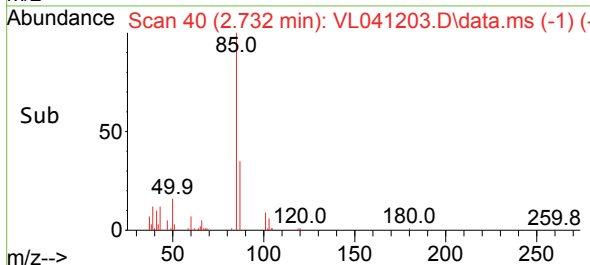
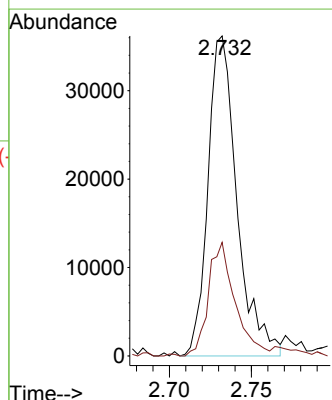
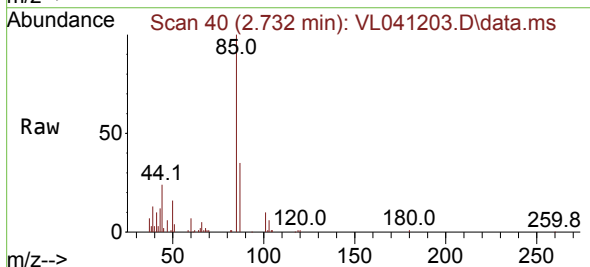
Instrument :
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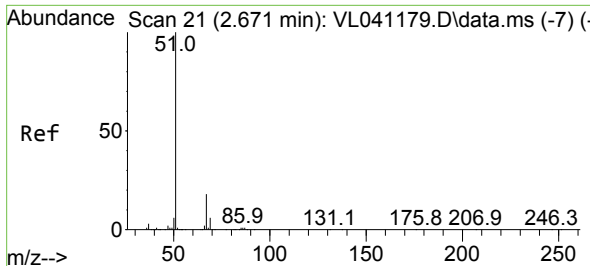
Tgt Ion: 49 Resp: 850600
 Ion Ratio Lower Upper
 49 100
 128 43.0 21.5 64.5
 130 55.7 27.2 81.6



#2
 Dichlorodifluoromethane
 Concen: 0.388 ppbv
 RT: 2.732 min Scan# 40
 Delta R.T. 0.003 min
 Lab File: VL041203.D
 Acq: 2 May 2024 20:02

Tgt Ion: 85 Resp: 44618
 Ion Ratio Lower Upper
 85 100
 87 35.5 25.7 38.5

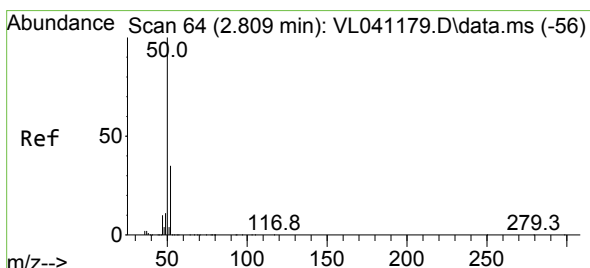
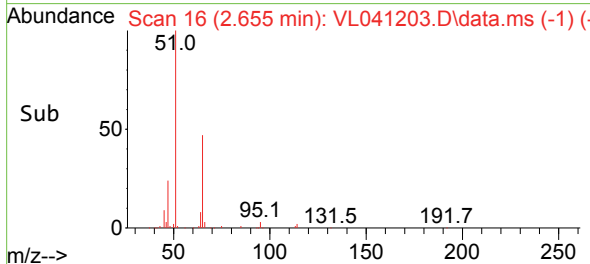
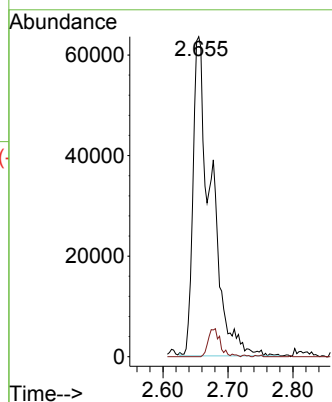
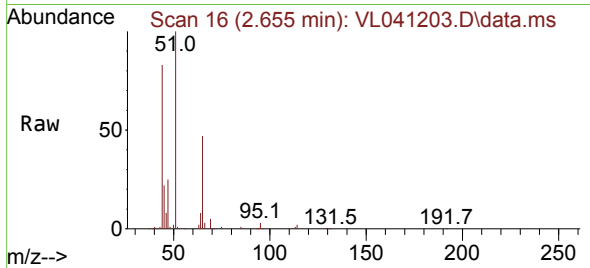




#3
Chlorodifluoromethane
Concen: 0.961 ppbv
RT: 2.655 min Scan# 16
Delta R.T. -0.019 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

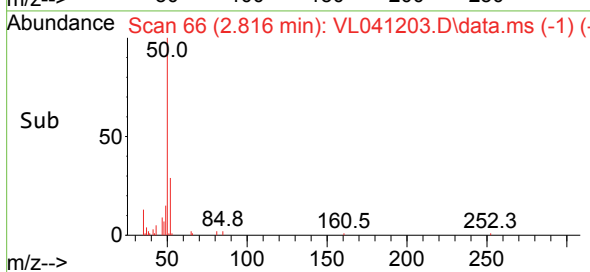
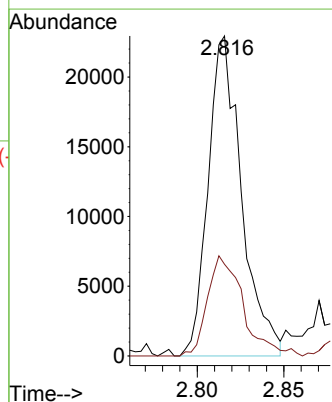
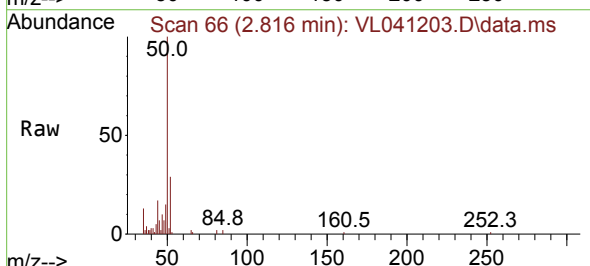
Instrument :
MSVOA_L
ClientSampleId :
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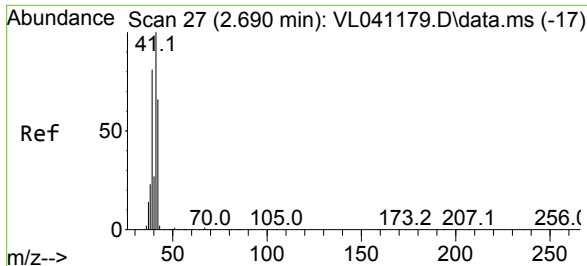
Tgt Ion: 51 Resp: 124128
Ion Ratio Lower Upper
51 100
67 6.1 14.0 21.0#



#4
Chloromethane
Concen: 0.607 ppbv
RT: 2.816 min Scan# 66
Delta R.T. 0.003 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

Tgt Ion: 50 Resp: 30794
Ion Ratio Lower Upper
50 100
52 28.6 28.3 42.5

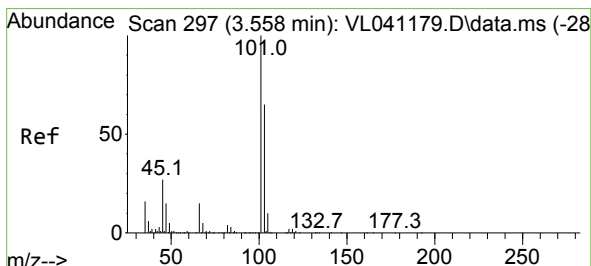
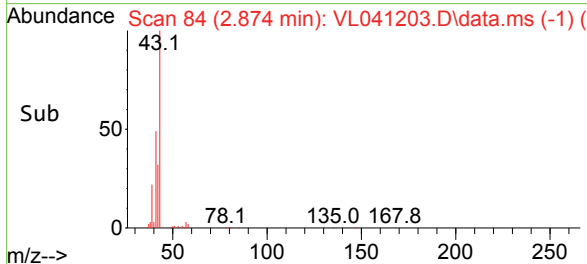
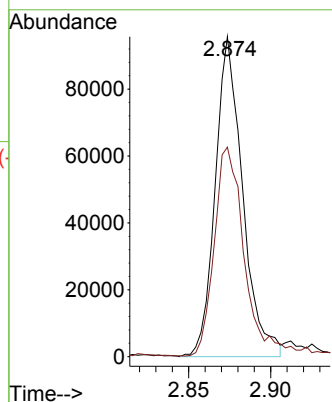
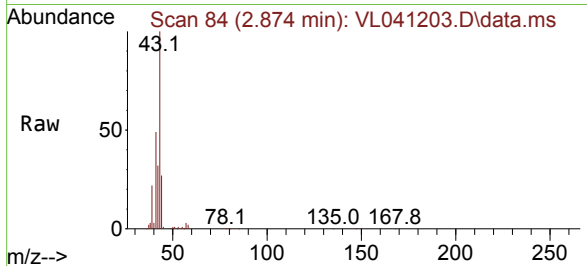




#9
Propene
Concen: 2.194 ppbv
RT: 2.874 min Scan# 84
Delta R.T. 0.180 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

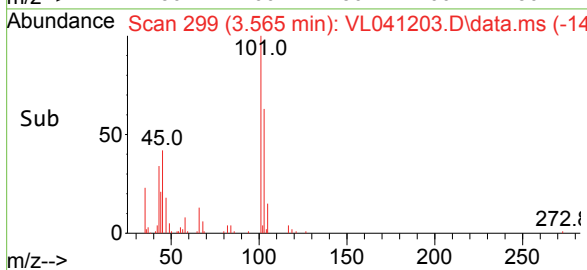
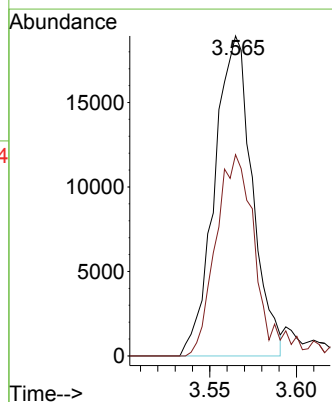
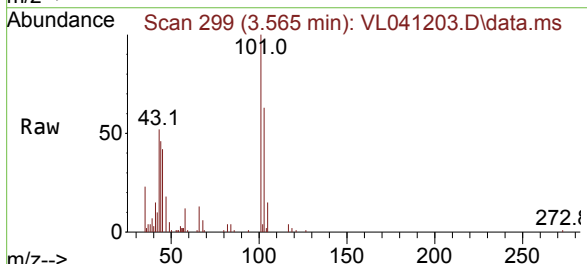
Instrument :
MSVOA_L
ClientSampleId :
BA-20-IA02-20240425

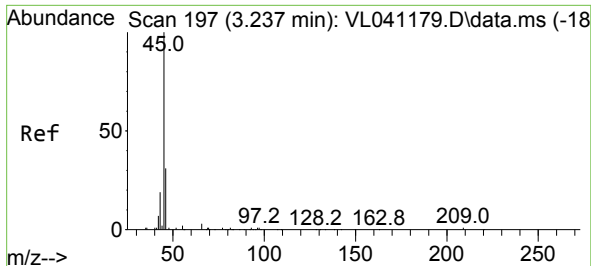
Tgt Ion: 41 Resp: 110919
Ion Ratio Lower Upper
41 100
42 72.7 55.3 82.9



#11
Trichlorofluoromethane
Concen: 0.245 ppbv
RT: 3.565 min Scan# 299
Delta R.T. 0.007 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

Tgt Ion: 101 Resp: 28627
Ion Ratio Lower Upper
101 100
103 62.9 51.6 77.4

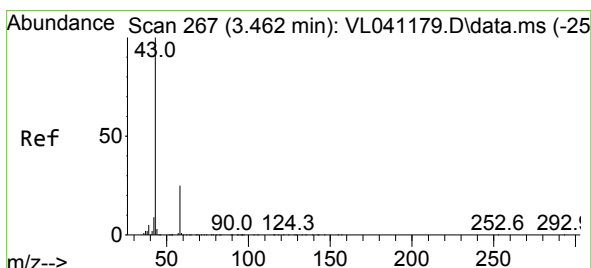
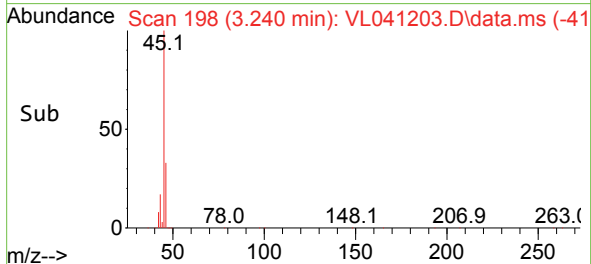
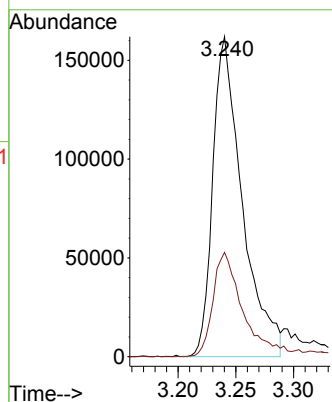
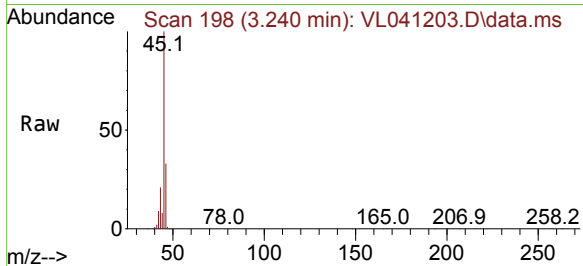




#13
Ethanol
Concen: 25.337 ppbv
RT: 3.240 min Scan# 197
Delta R.T. 0.003 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

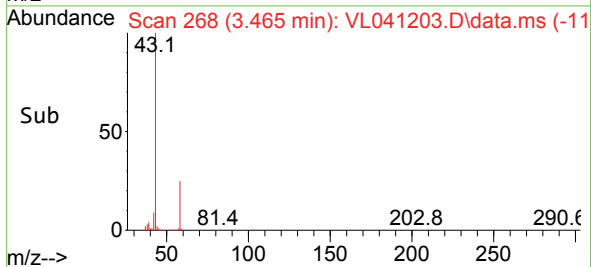
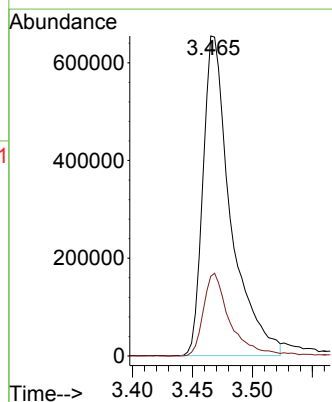
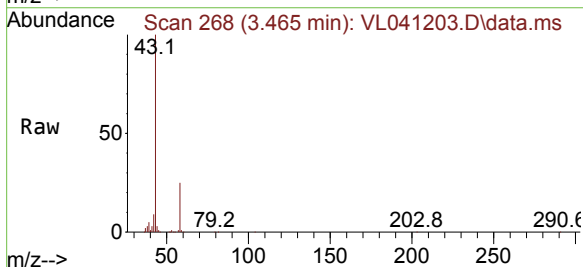
Instrument :
MSVOA_L
ClientSampleId :
BA-20-IA02-20240425

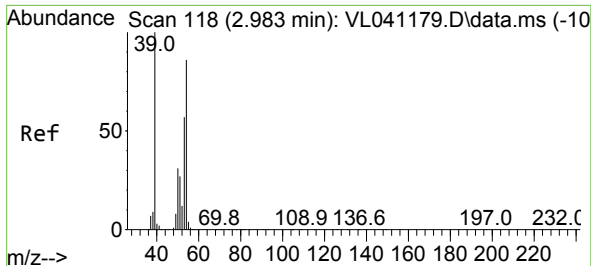
Tgt Ion: 45 Resp: 287151
Ion Ratio Lower Upper
45 100
46 35.4 14.8 59.0



#15
Acetone
Concen: 10.492 ppbv
RT: 3.465 min Scan# 268
Delta R.T. 0.000 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

Tgt Ion: 43 Resp: 1053279
Ion Ratio Lower Upper
43 100
58 26.0 21.4 32.0

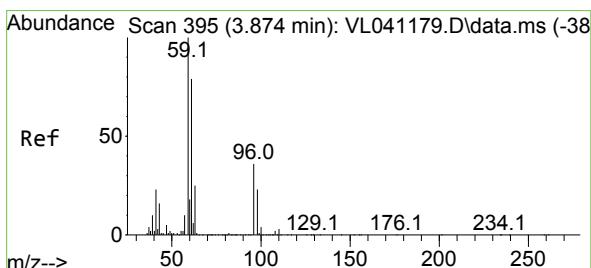
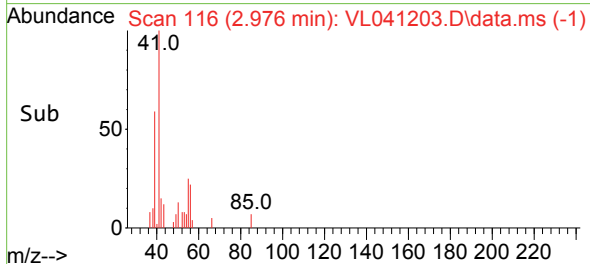
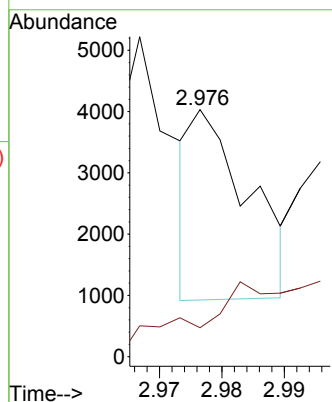
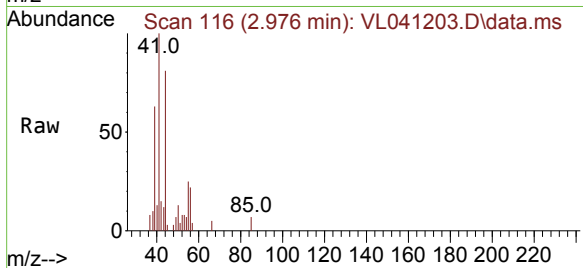




#16
1,3-Butadiene
Concen: 0.039 ppbv
RT: 2.976 min Scan# 116
Delta R.T. -0.006 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

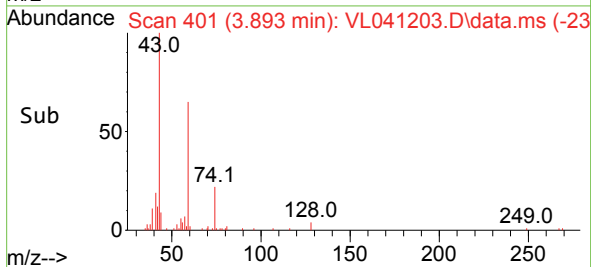
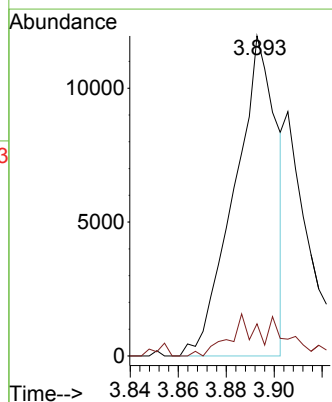
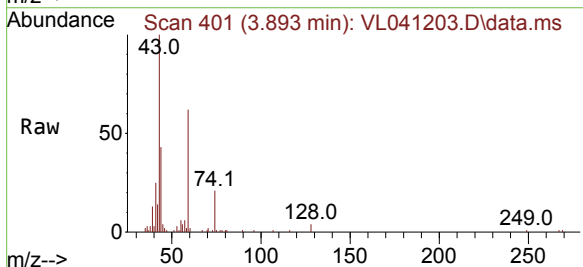
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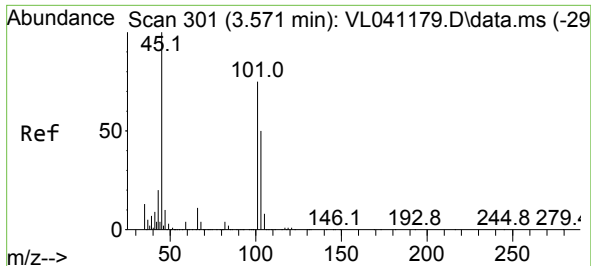
Tgt Ion: 39 Resp: 1977
Ion Ratio Lower Upper
39 100
54 0.0 62.2 93.4#



#17
tert-Butyl alcohol
Concen: 0.134 ppbv
RT: 3.893 min Scan# 401
Delta R.T. 0.019 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

Tgt Ion: 59 Resp: 14481
Ion Ratio Lower Upper
59 100
57 14.9 8.4 12.6#





#19

Isopropyl Alcohol

Concen: 1.158 ppbv

RT: 3.581 min Scan# 301

Delta R.T. 0.010 min

Lab File: VL041203.D

Acq: 2 May 2024 20:02

Instrument :

MSVOA_L

ClientSampleId :

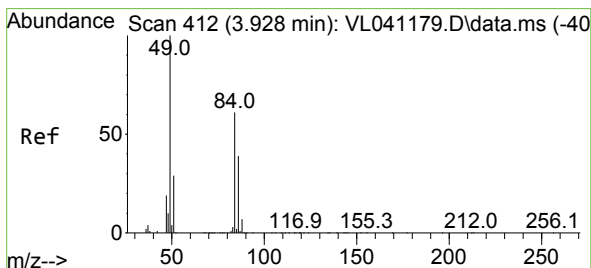
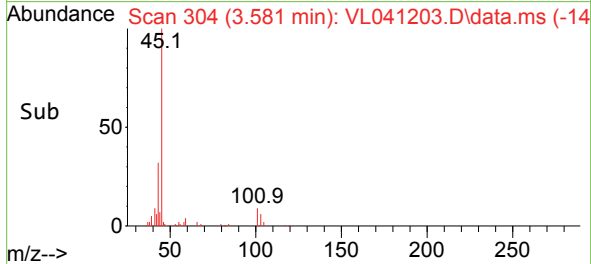
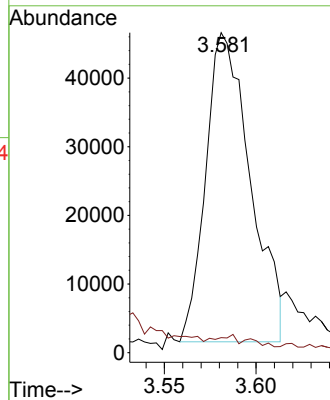
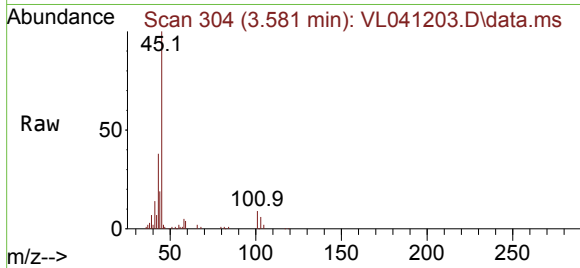
BA-20-IA02-20240425

Tgt Ion: 45 Resp: 76261

Ion Ratio Lower Upper

45 100

58 358.6 26.8 40.2#



#20

Methylene Chloride

Concen: 73.559 ppbv

RT: 3.931 min Scan# 413

Delta R.T. 0.000 min

Lab File: VL041203.D

Acq: 2 May 2024 20:02

Tgt Ion: 84 Resp: 2567839

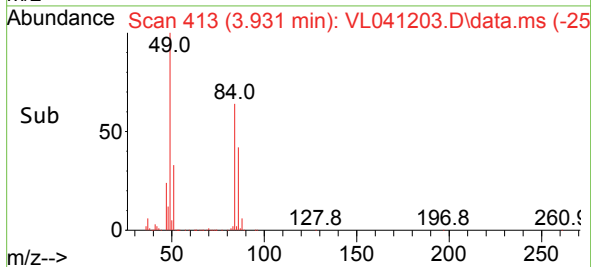
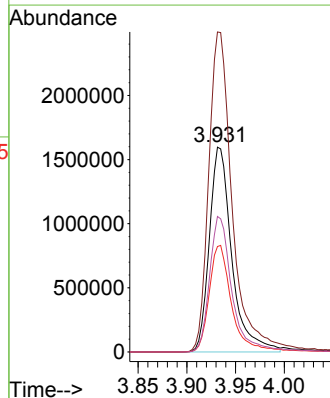
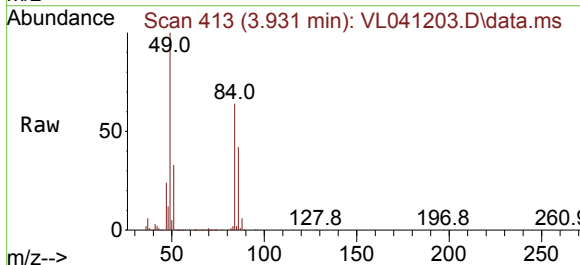
Ion Ratio Lower Upper

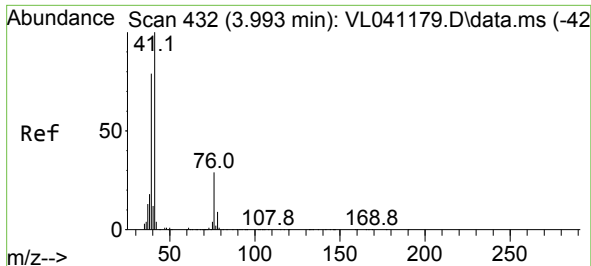
84 100

49 156.2 130.4 195.6

51 51.5 38.0 57.0

86 66.2 50.3 75.5





#21

Allyl Chloride

Concen: 0.051 ppbv

RT: 3.980 min Scan# 41

Delta R.T. -0.016 min

Lab File: VL041203.D

Acq: 2 May 2024 20:02

Instrument :

MSVOA_L

ClientSampleId :

BA-20-IA02-20240425

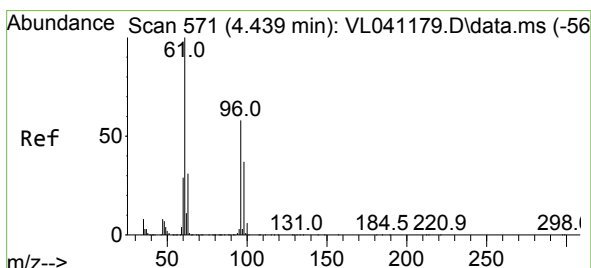
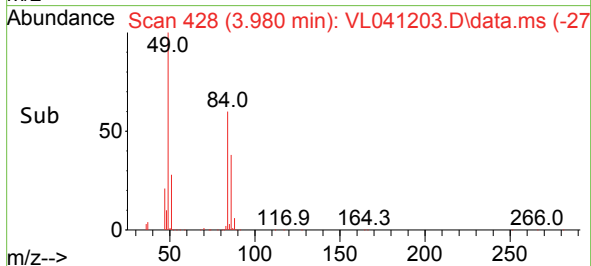
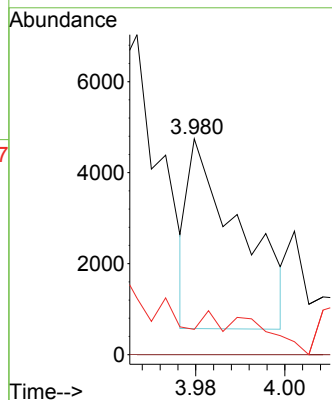
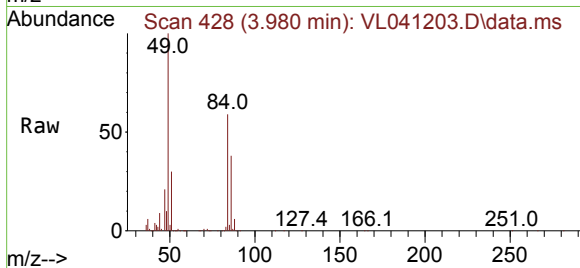
Tgt Ion: 41 Resp: 3325

Ion Ratio Lower Upper

41 100

76 0.0 23.7 35.5#

39 63.4 64.7 97.1#



#22

trans-1,2-Dichloroethene

Concen: 0.044 ppbv

RT: 4.446 min Scan# 573

Delta R.T. 0.003 min

Lab File: VL041203.D

Acq: 2 May 2024 20:02

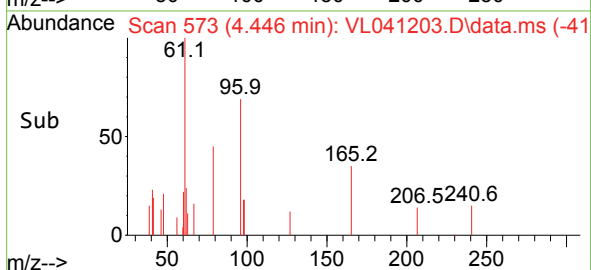
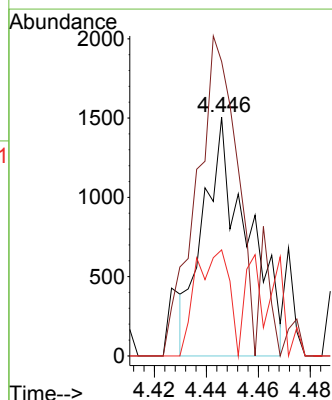
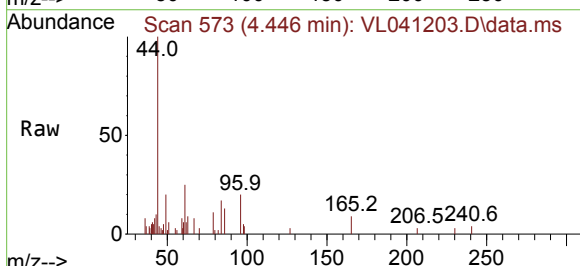
Tgt Ion: 96 Resp: 1778

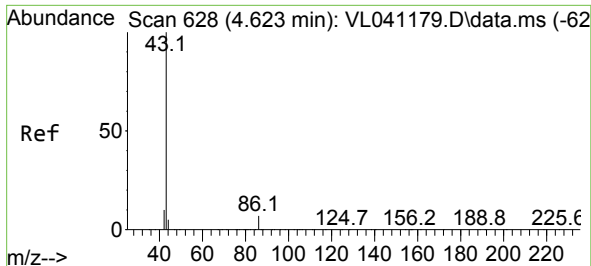
Ion Ratio Lower Upper

96 100

61 142.3 137.6 206.4

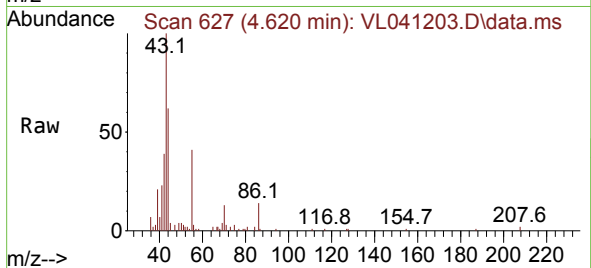
98 51.3 50.6 76.0



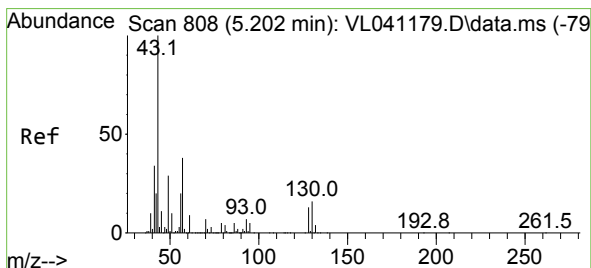
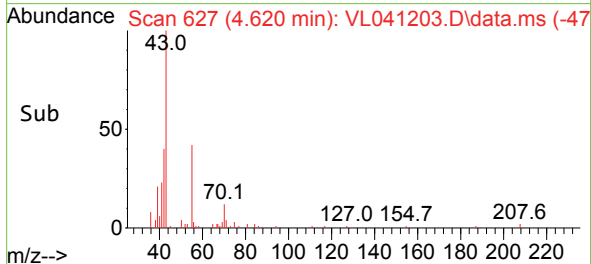
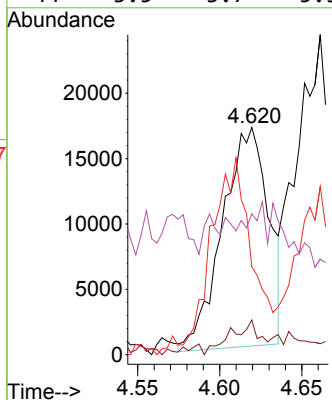


#23
Vinyl Acetate
Concen: 0.295 ppbv
RT: 4.620 min Scan# 61
Delta R.T. -0.006 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

Instrument :
MSVOA_L
ClientSampleId :
BA-20-IA02-20240425

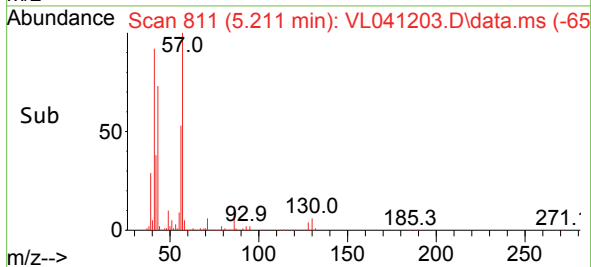
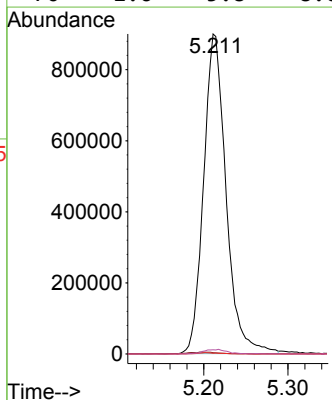
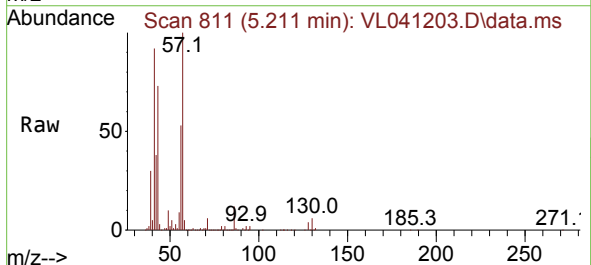


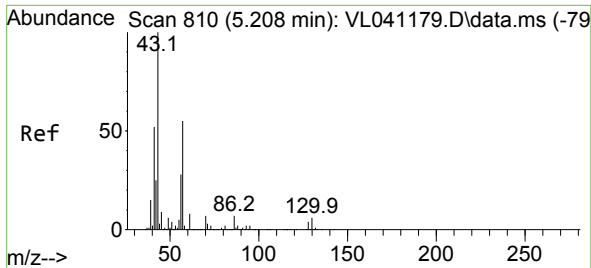
Tgt Ion: 43 Resp: 32661
Ion Ratio Lower Upper
43 100
86 14.9 4.9 7.3#
42 36.1 8.0 12.0#
44 3.5 3.7 5.5#



#25
Ethyl Acetate
Concen: 8.319 ppbv
RT: 5.211 min Scan# 811
Delta R.T. 0.010 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

Tgt Ion: 43 Resp: 1666914
Ion Ratio Lower Upper
43 100
45 0.8 8.2 12.2#
61 0.4 7.7 11.5#
70 1.6 5.8 8.6#

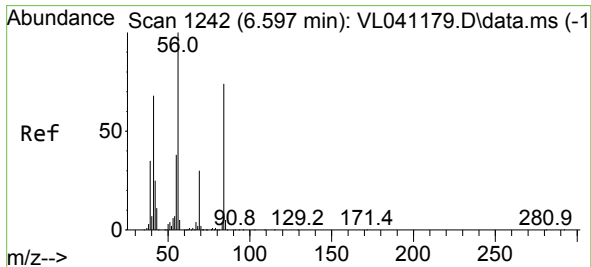
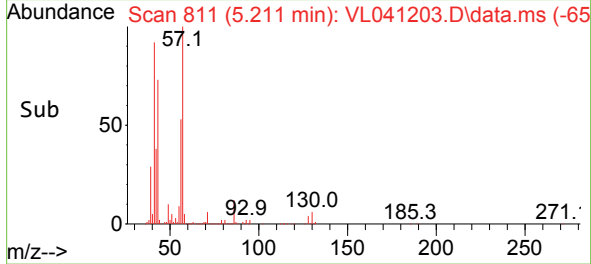
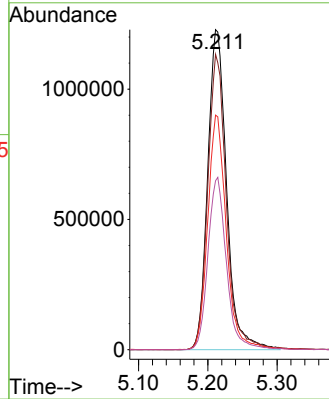
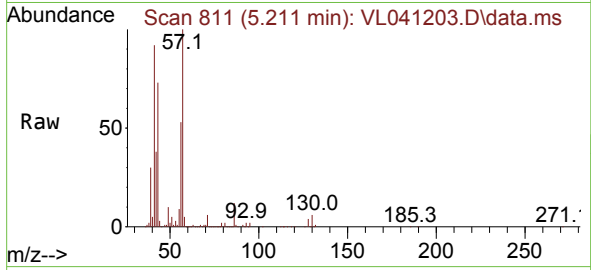




#26
Hexane
Concen: 26.009 ppbv
RT: 5.211 min Scan# 810
Delta R.T. 0.000 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

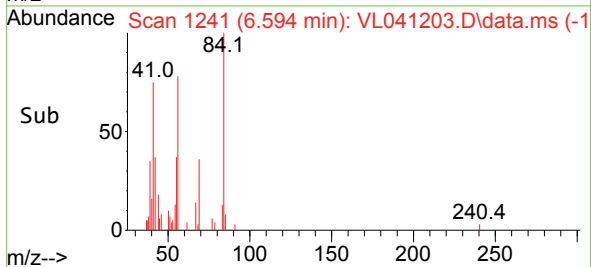
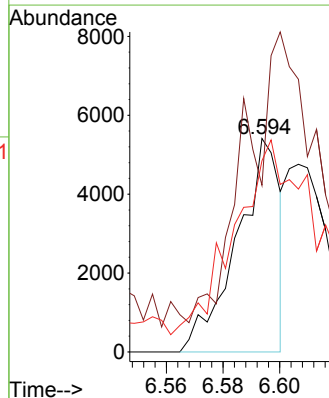
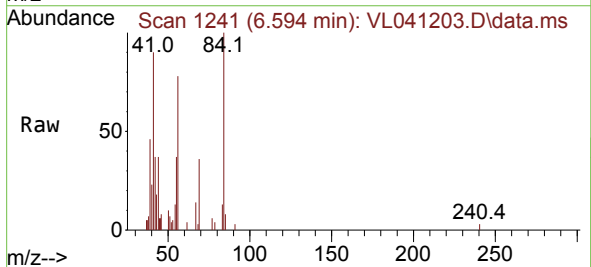
Instrument :
MSVOA_L
ClientSampleId :
BA-20-IA02-20240425

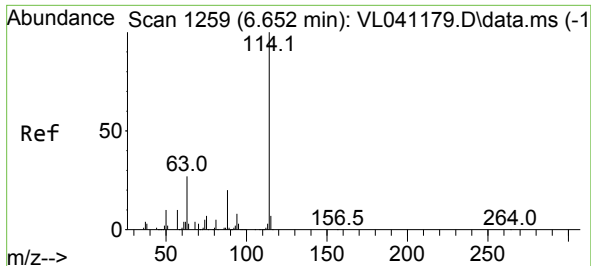
Tgt Ion: 57 Resp: 2325669
Ion Ratio Lower Upper
57 100
41 91.7 75.8 113.8
43 72.4 187.0 280.4#
56 53.0 42.7 64.1



#30
Cyclohexane
Concen: 0.080 ppbv
RT: 6.594 min Scan# 1241
Delta R.T. -0.006 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

Tgt Ion: 84 Resp: 5644
Ion Ratio Lower Upper
84 100
56 277.6 116.8 175.2#
41 241.0 73.8 110.8#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.652 min Scan# 11

Delta R.T. 0.000 min

Lab File: VL041203.D

Acq: 2 May 2024 20:02

Instrument :

MSVOA_L

ClientSampleId :

BA-20-IA02-20240425

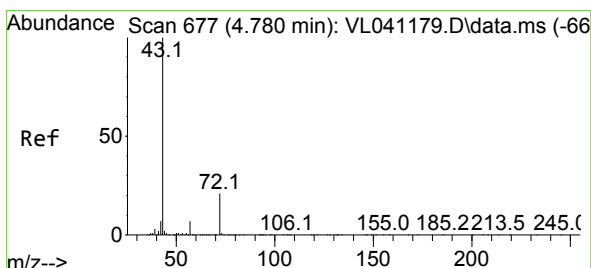
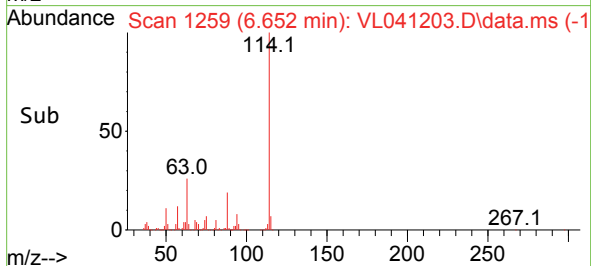
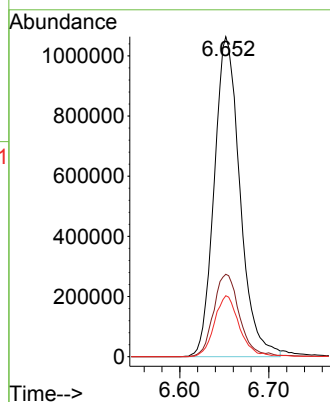
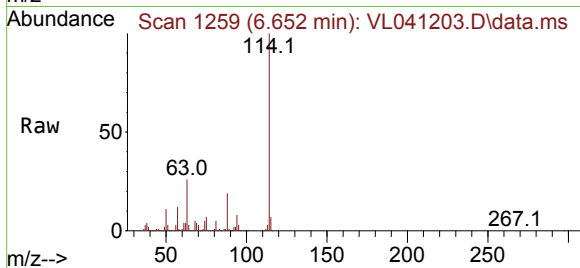
Tgt Ion:114 Resp: 2136230

Ion Ratio Lower Upper

114 100

63 26.4 21.8 32.6

88 18.8 15.2 22.8



#34

2-Butanone

Concen: 1.128 ppbv

RT: 4.790 min Scan# 680

Delta R.T. 0.007 min

Lab File: VL041203.D

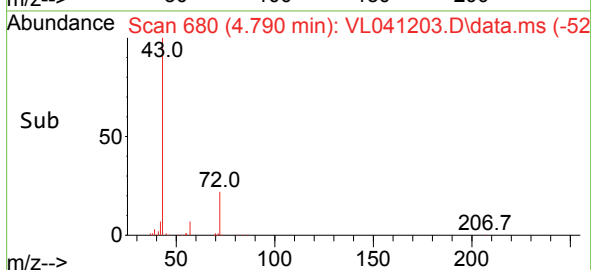
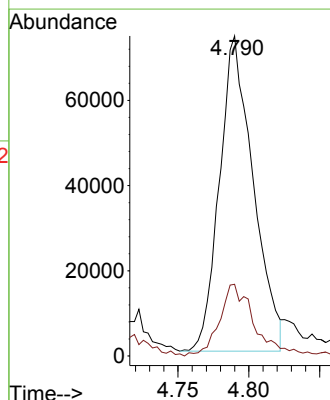
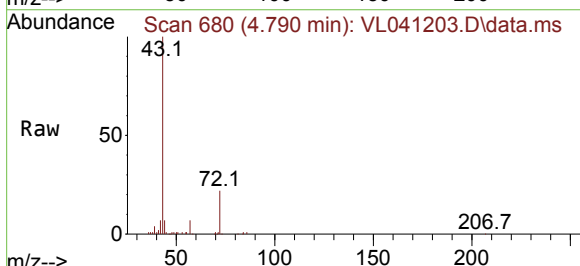
Acq: 2 May 2024 20:02

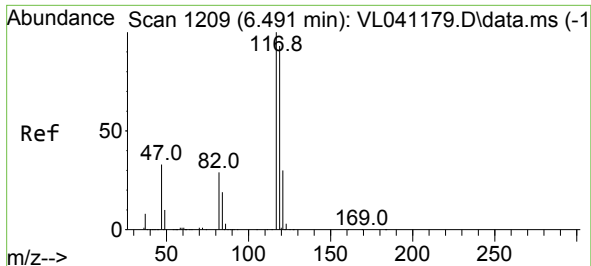
Tgt Ion: 43 Resp: 122615

Ion Ratio Lower Upper

43 100

72 24.4 17.3 25.9

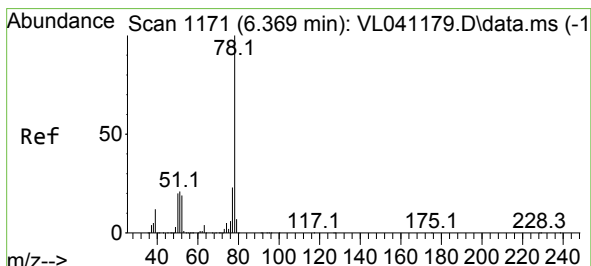
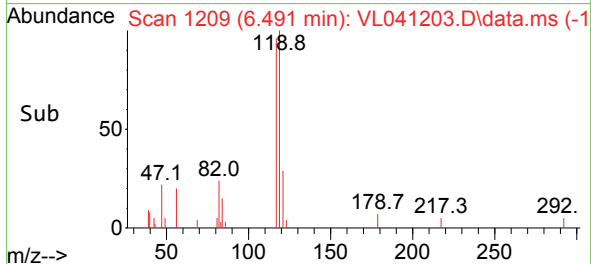
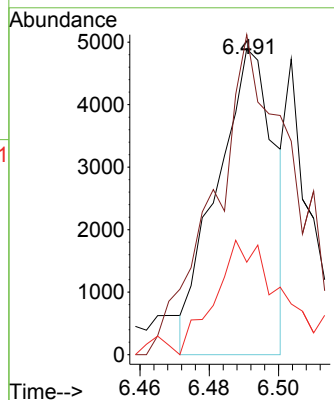
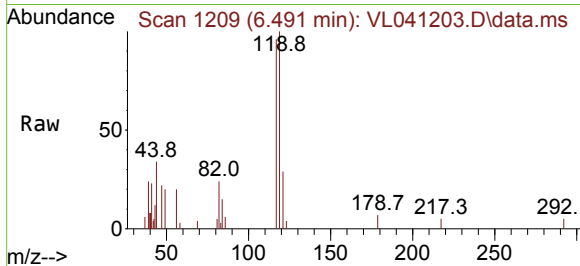




#35
Carbon Tetrachloride
Concen: 0.047 ppbv
RT: 6.491 min Scan# 1170
Delta R.T. 0.000 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

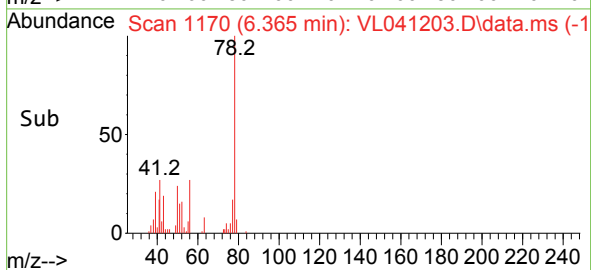
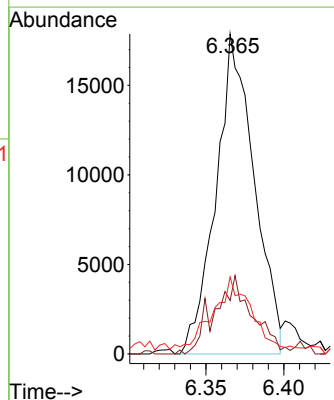
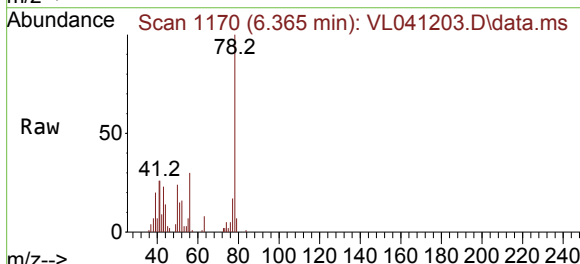
Instrument :
MSVOA_L
ClientSampleId :
BA-20-IA02-20240425

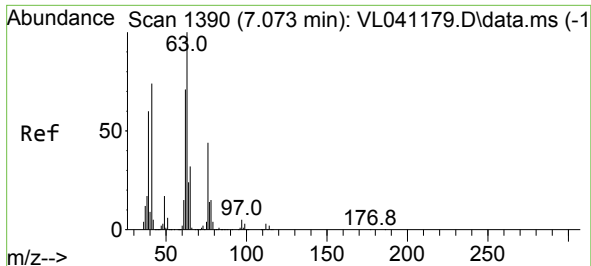
Tgt Ion:117 Resp: 5617
Ion Ratio Lower Upper
117 100
119 95.4 74.3 111.5
121 34.7 23.8 35.8



#36
Benzene
Concen: 0.170 ppbv
RT: 6.365 min Scan# 1170
Delta R.T. -0.003 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

Tgt Ion: 78 Resp: 30501
Ion Ratio Lower Upper
78 100
77 15.6 18.3 27.5#
50 22.0 15.9 23.9





#39

1,2-Dichloropropane

Concen: 7.911 ppbv

RT: 6.652 min Scan# 1

Delta R.T. -0.421 min

Lab File: VL041203.D

Acq: 2 May 2024 20:02

Instrument :

MSVOA_L

ClientSampleId :

BA-20-IA02-20240425

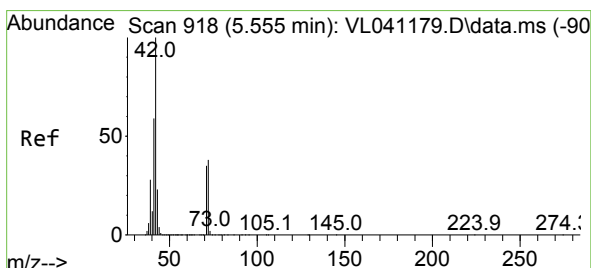
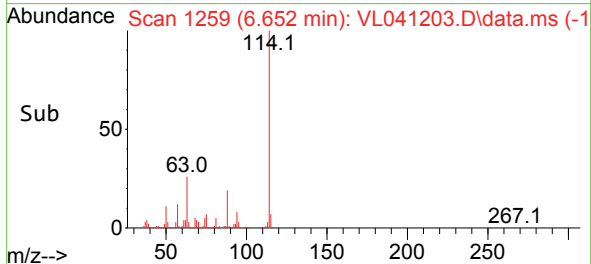
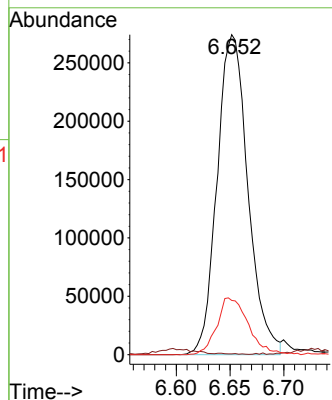
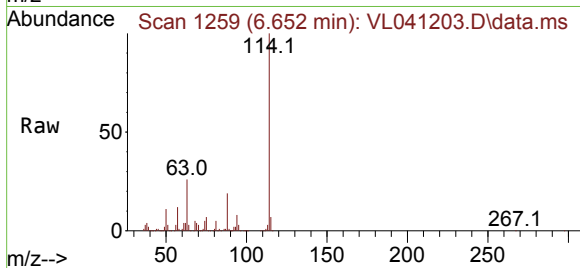
Tgt Ion: 63 Resp: 546580

Ion Ratio Lower Upper

63 100

41 0.0 59.4 89.0#

62 16.9 56.8 85.2#



#41

Tetrahydrofuran

Concen: 11.022 ppbv

RT: 5.211 min Scan# 811

Delta R.T. -0.341 min

Lab File: VL041203.D

Acq: 2 May 2024 20:02

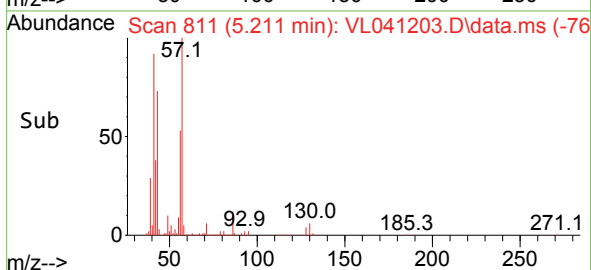
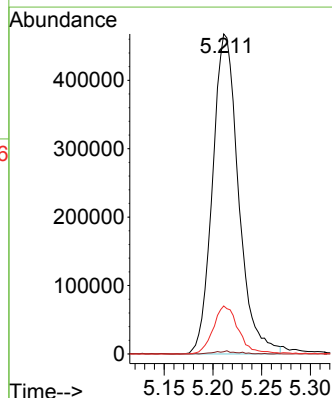
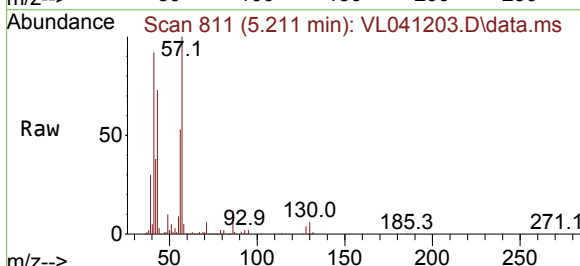
Tgt Ion: 42 Resp: 867543

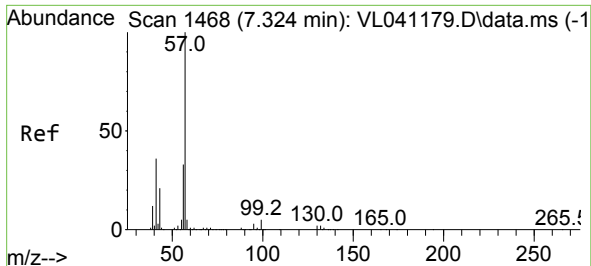
Ion Ratio Lower Upper

42 100

72 0.8 29.4 44.0#

71 14.9 29.1 43.7#

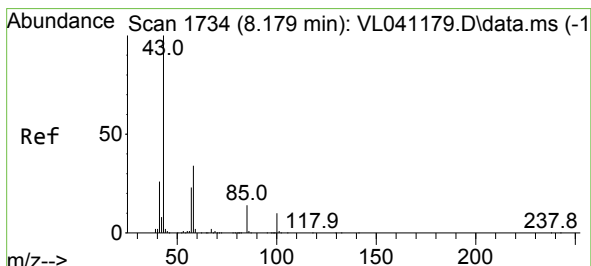
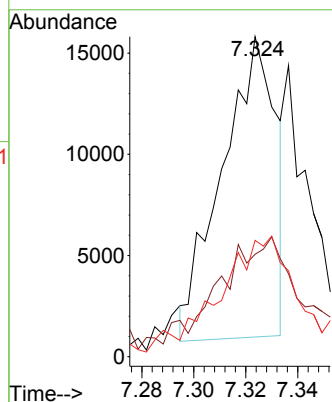
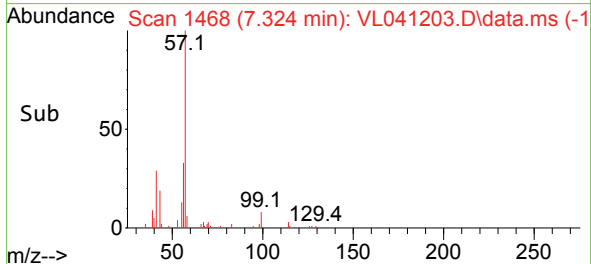
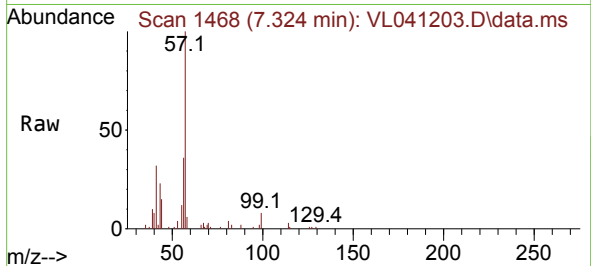




#44
2,2,4-Trimethylpentane
Concen: 0.069 ppbv
RT: 7.324 min Scan# 1468
Delta R.T. -0.003 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

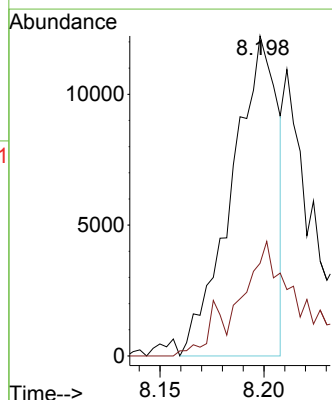
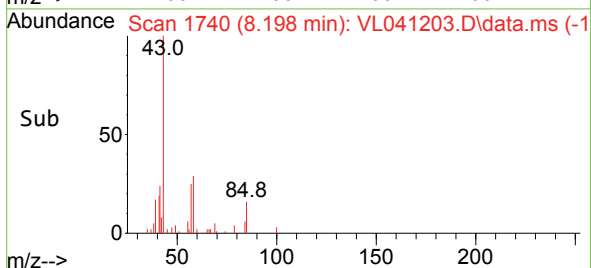
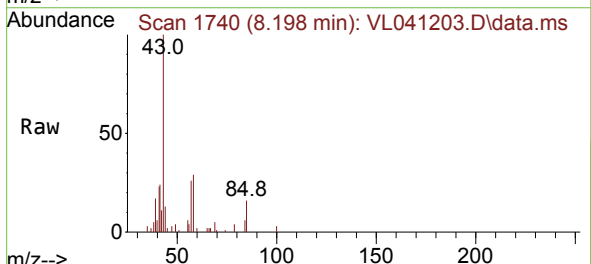
Instrument : MSVOA_L
ClientSampleId : BA-20-IA02-20240425

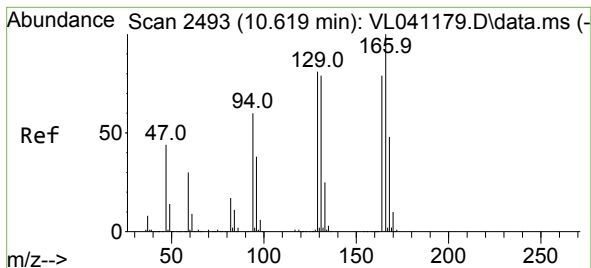
Tgt Ion:	57	Resp:	21265
Ion	Ratio	Lower	Upper
57	100		
41	0.0	29.5	44.3#
56	0.0	25.3	37.9#



#50
4-Methyl-2-Pentanone
Concen: 0.096 ppbv
RT: 8.198 min Scan# 1740
Delta R.T. 0.019 min
Lab File: VL041203.D
Acq: 2 May 2024 20:02

Tgt Ion:	43	Resp:	18718
Ion	Ratio	Lower	Upper
43	100		
58	52.7	27.7	41.5#





#52

Tetrachloroethene

Concen: 0.043 ppbv

RT: 10.616 min Scan# 2493

Delta R.T. 0.003 min

Lab File: VL041203.D

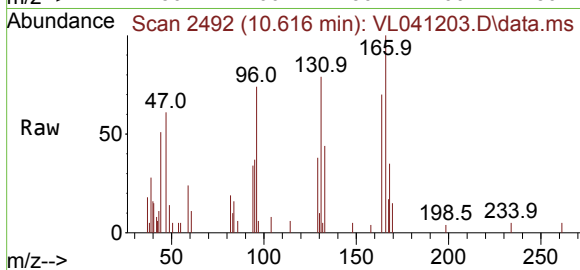
Acq: 2 May 2024 20:02

Instrument :

MSVOA_L

ClientSampleId :

BA-20-IA02-20240425



Tgt Ion:164 Resp: 2678

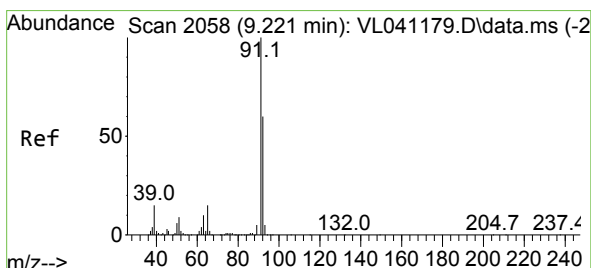
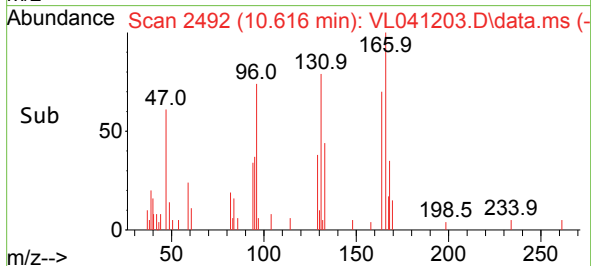
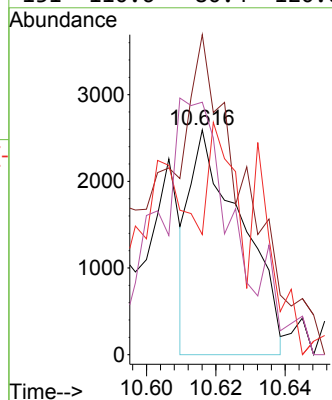
Ion Ratio Lower Upper

164 100

166 126.0 101.1 151.7

129 37.3 81.7 122.5#

131 110.6 80.4 120.6



#53

Toluene

Concen: 0.764 ppbv

RT: 9.224 min Scan# 2059

Delta R.T. 0.003 min

Lab File: VL041203.D

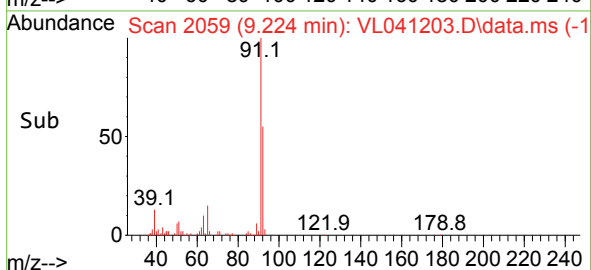
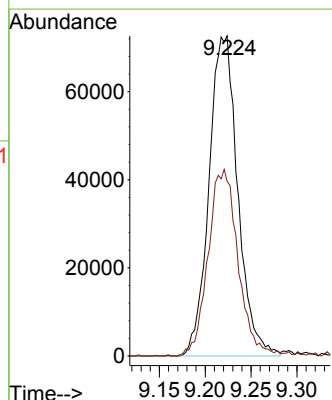
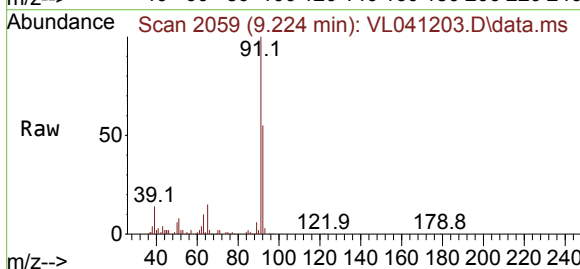
Acq: 2 May 2024 20:02

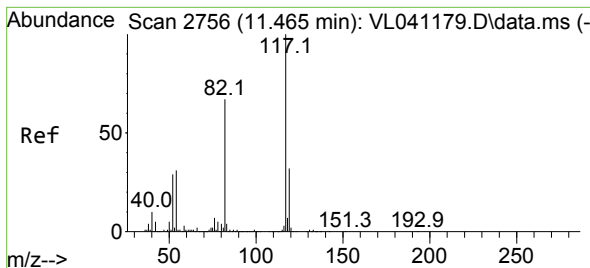
Tgt Ion: 91 Resp: 158765

Ion Ratio Lower Upper

91 100

92 60.7 48.2 72.4





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.465 min Scan# 21

Delta R.T. 0.000 min

Lab File: VL041203.D

Acq: 2 May 2024 20:02

Instrument :

MSVOA_L

ClientSampleId :

BA-20-IA02-20240425

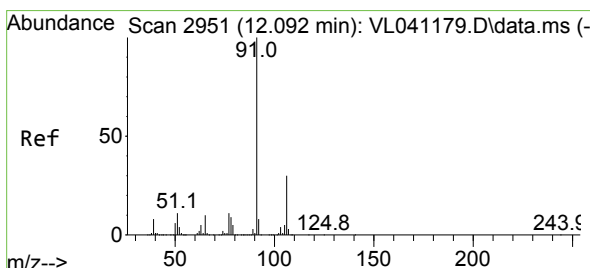
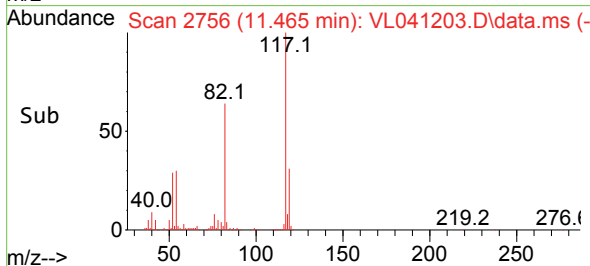
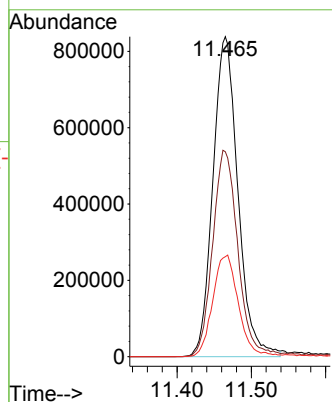
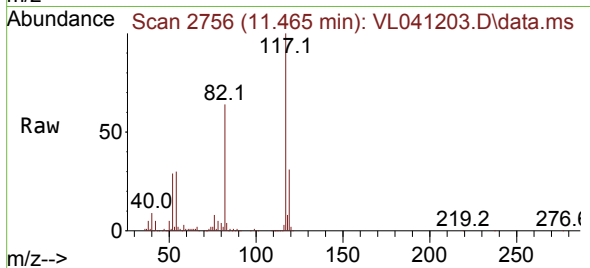
Tgt Ion:117 Resp: 1959875

Ion Ratio Lower Upper

117 100

82 66.9 53.6 80.4

119 33.6 27.2 40.8



#58

Ethyl Benzene

Concen: 0.031 ppbv

RT: 12.079 min Scan# 2947

Delta R.T. -0.006 min

Lab File: VL041203.D

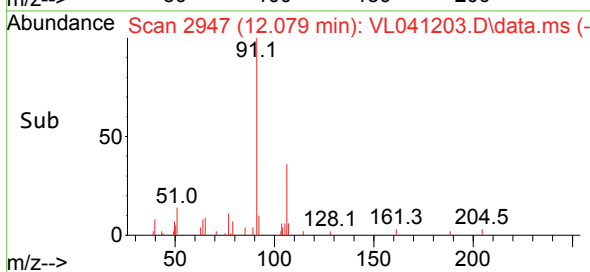
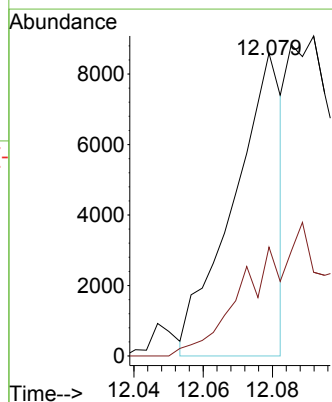
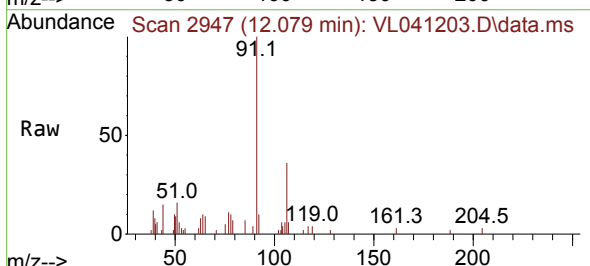
Acq: 2 May 2024 20:02

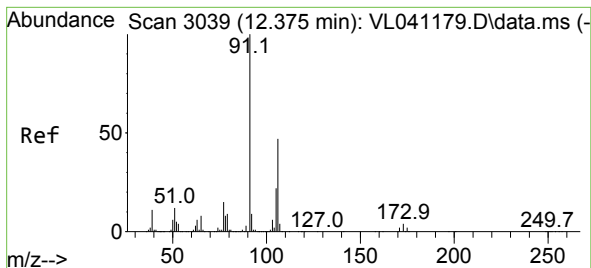
Tgt Ion: 91 Resp: 8353

Ion Ratio Lower Upper

91 100

106 35.1 24.3 36.5





#59

m/p-Xylene

Concen: 0.116 ppbv

RT: 12.368 min Scan# 3039

Delta R.T. -0.003 min

Lab File: VL041203.D

Acq: 2 May 2024 20:02

Instrument :

MSVOA_L

ClientSampleId :

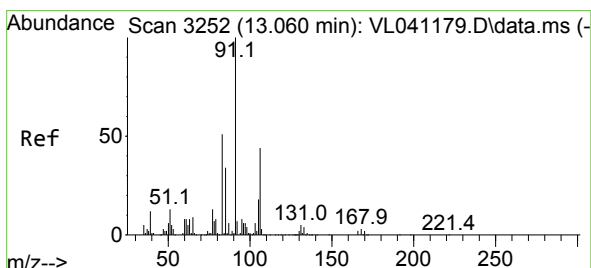
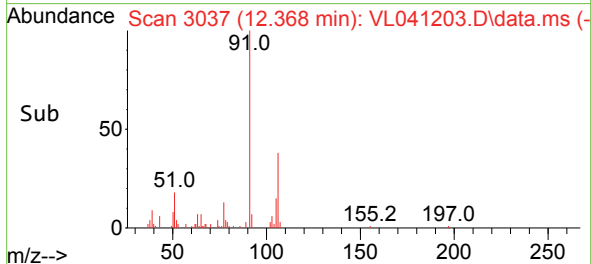
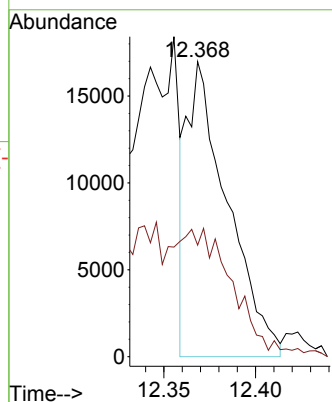
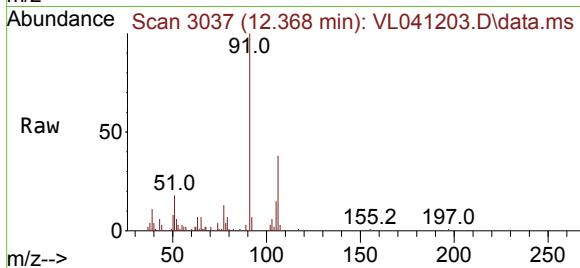
BA-20-IA02-20240425

Tgt Ion: 91 Resp: 26163

Ion Ratio Lower Upper

91 100

106 0.0 35.7 53.5#



#60

o-Xylene

Concen: 0.060 ppbv

RT: 13.060 min Scan# 3252

Delta R.T. 0.003 min

Lab File: VL041203.D

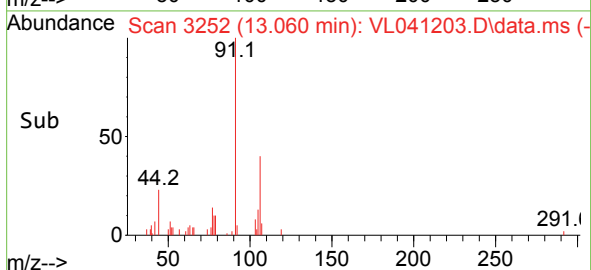
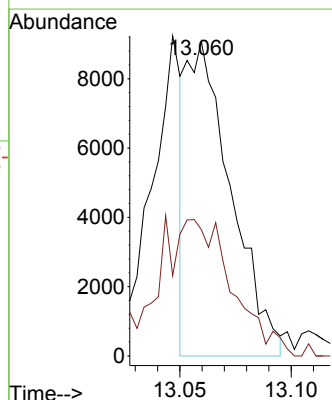
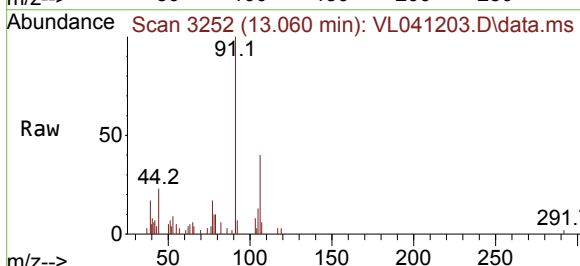
Acq: 2 May 2024 20:02

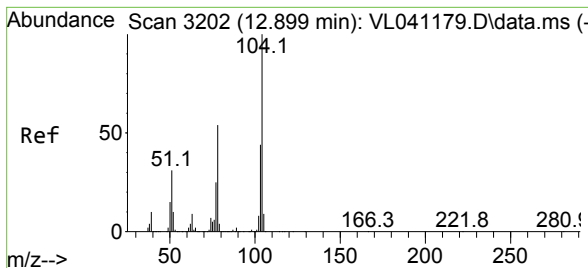
Tgt Ion: 91 Resp: 12684

Ion Ratio Lower Upper

91 100

106 0.0 22.4 67.3#





#61

Styrene

Concen: 0.040 ppbv

RT: 12.899 min Scan# 31

Delta R.T. 0.003 min

Lab File: VL041203.D

Acq: 2 May 2024 20:02

Instrument :

MSVOA_L

ClientSampleId :

BA-20-IA02-20240425

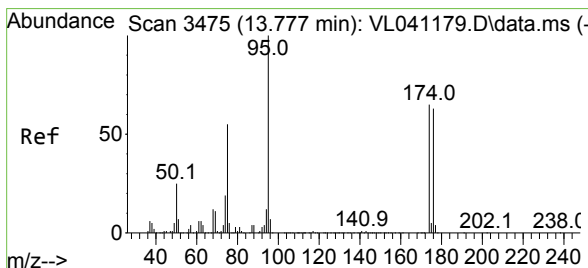
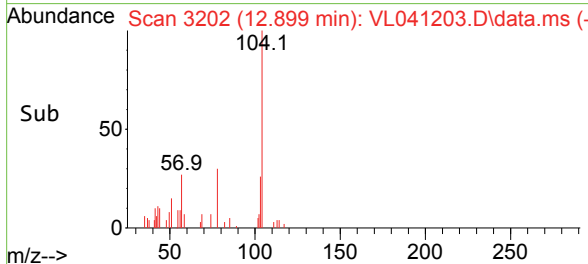
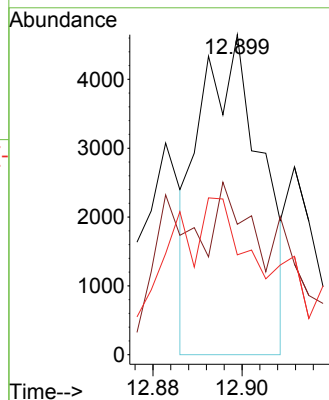
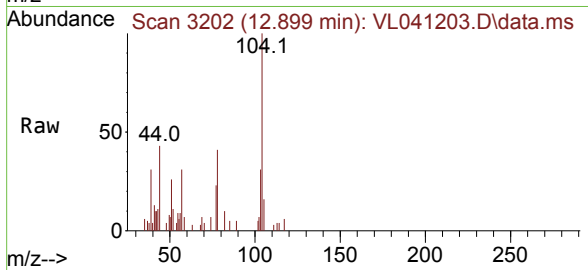
Tgt Ion:104 Resp: 4480

Ion Ratio Lower Upper

104 100

78 110.6 42.6 63.8#

103 99.4 38.4 57.6#



#68

1-Bromo-4-Fluorobenzene

Concen: 9.886 ppbv

RT: 13.770 min Scan# 3473

Delta R.T. -0.003 min

Lab File: VL041203.D

Acq: 2 May 2024 20:02

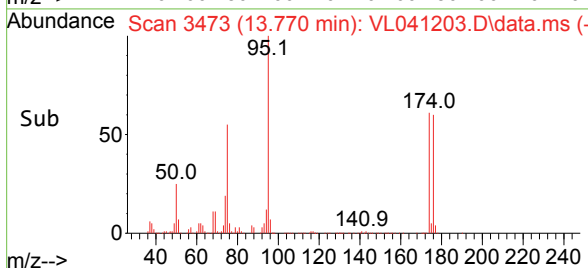
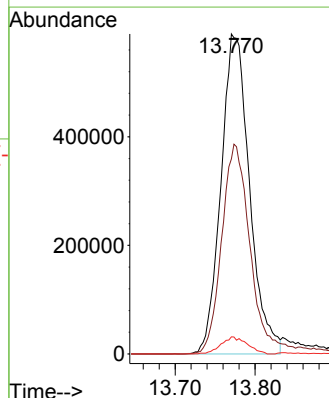
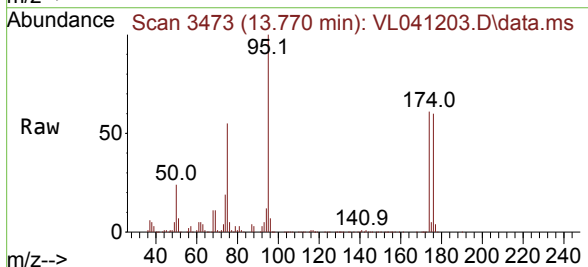
Tgt Ion: 95 Resp: 1462708

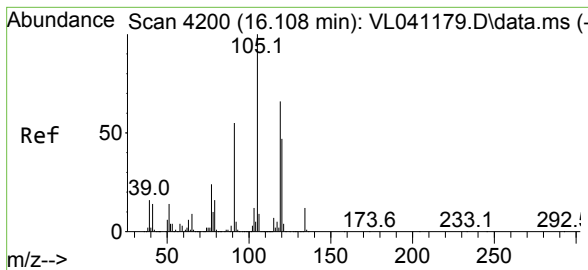
Ion Ratio Lower Upper

95 100

174 68.6 53.6 80.4

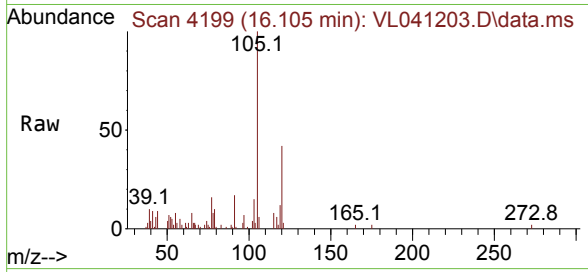
175 4.9 4.2 6.4





#74
 1,2,4-Trimethylbenzene
 Concen: 0.096 ppbv
 RT: 16.105 min Scan# 4199
 Delta R.T. 0.000 min
 Lab File: VL041203.D
 Acq: 2 May 2024 20:02

Instrument :
 MSVOA_L
 ClientSampleId :
 BA-20-IA02-20240425



Tgt Ion:	105	Resp:	22727
Ion	Ratio	Lower	Upper
105	100		
120	41.4	37.8	56.6
91	13.7	44.3	66.5#
77	14.9	19.0	28.4#

