

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL051223\
 Data File : VL040423.D
 Acq On : 12 May 2023 18:10
 Operator : SY/MD
 Sample : 02785-02DUP
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DUP

Quant Time: May 15 00:43:29 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041323AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Apr 13 14:37:02 2023
 Response via : Initial Calibration

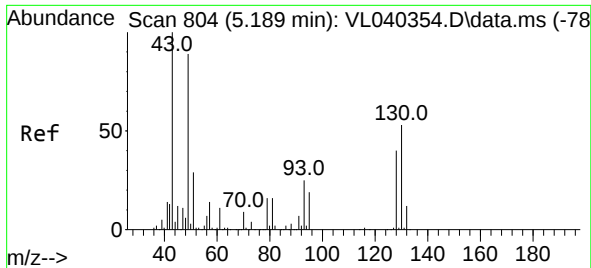
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	5.182	49	1048383	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.645	114	2542460	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.468	117	2169674	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.777	95	1721542	9.595	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.000%
Target Compounds						
					Qvalue	
3) Chlorodifluoromethane	2.658	51	99222	0.724	ppbv #	80
4) Chloromethane	2.793	50	36476	0.421	ppbv	92
9) Propene	2.857	41	153493	2.836	ppbv	96
10) Heptane	7.571	43	16326	0.133	ppbv #	25
11) Trichlorofluoromethane	3.552	101	40413	0.211	ppbv	97
12) 1,1,2-Trichlorotrifluo...	4.057	101	7857	0.059	ppbv	98
13) Ethanol	3.221	45	334589	74.055	ppbv	98
15) Acetone	3.452	43	1207797	8.134	ppbv	93
16) 1,3-Butadiene	2.951	39	13999	0.228	ppbv #	47
17) tert-Butyl alcohol	3.870	59	12388	0.091	ppbv #	72
19) Isopropyl Alcohol	3.562	45	876942	12.943	ppbv #	98
20) Methylene Chloride	3.919	84	1510476	25.479	ppbv	97
21) Allyl Chloride	3.919	41	49609	0.588	ppbv #	25
23) Vinyl Acetate	4.603	43	61940	1.638	ppbv #	51
25) Ethyl Acetate	5.201	43	869989	3.482	ppbv #	76
26) Hexane	5.205	57	1252166	11.887	ppbv #	37
29) Chloroform	5.266	83	14258	0.076	ppbv	92
30) Cyclohexane	6.587	84	6363	0.078	ppbv #	1
34) 2-Butanone	4.780	43	73415	0.536	ppbv	94
36) Benzene	6.362	78	60889	0.294	ppbv	97
39) 1,2-Dichloropropane	6.645	63	646584	7.922	ppbv #	25
41) Tetrahydrofuran	5.803	42	6650	0.089	ppbv #	34
44) 2,2,4-Trimethylpentane	7.320	57	65137	0.188	ppbv #	58
53) Toluene	9.221	91	130979	0.596	ppbv	99
58) Ethyl Benzene	12.092	91	11961	0.045	ppbv	96
59) m/p-Xylene	12.372	91	12939	0.053	ppbv #	32
60) o-Xylene	13.056	91	9780	0.042	ppbv #	32
74) 1,2,4-Trimethylbenzene	16.108	105	13143	0.048	ppbv #	69

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

Quant Time: May 15 00:43:29 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041323AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Thu Apr 13 14:37:02 2023
Response via : Initial Calibration

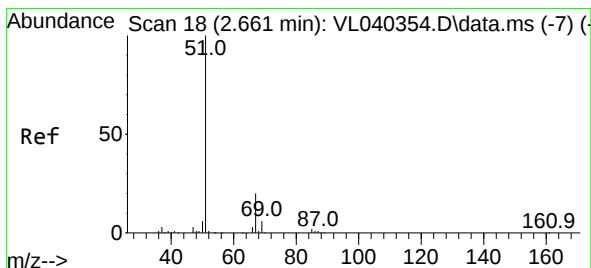
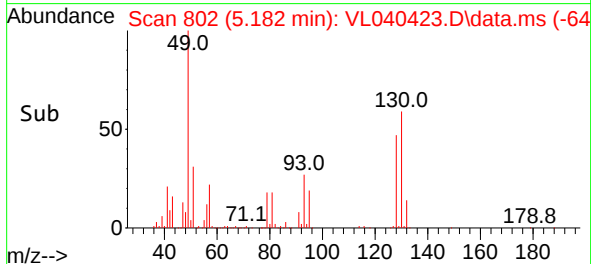
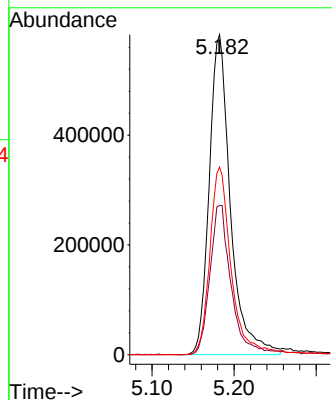
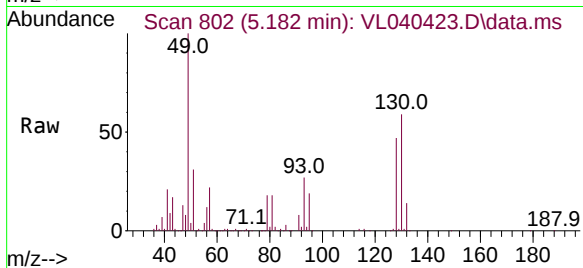




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.182 min Scan# 80
Delta R.T. -0.007 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

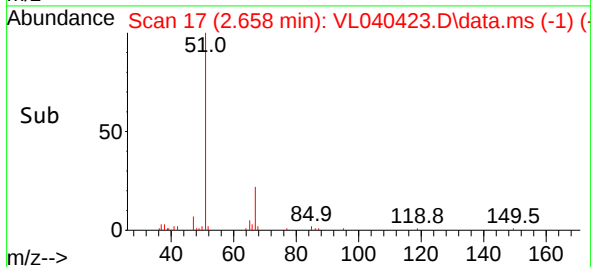
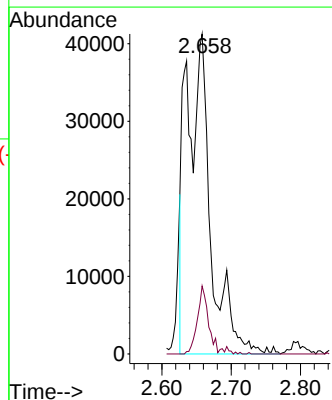
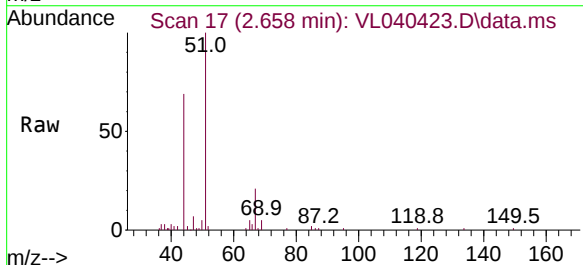
Instrument :
MSVOA_L
ClientSampleId :
IA1DUP

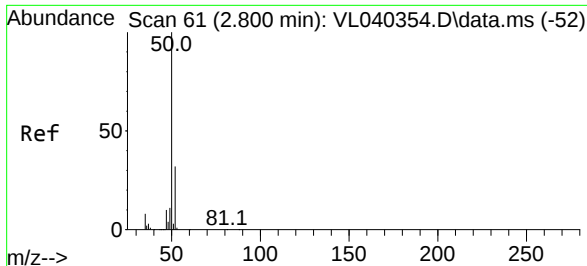
Tgt Ion: 49 Resp: 1048383
Ion Ratio Lower Upper
49 100
128 48.0 23.7 71.1
130 60.3 29.9 89.8



#3
Chlorodifluoromethane
Concen: 0.724 ppbv
RT: 2.658 min Scan# 17
Delta R.T. -0.003 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

Tgt Ion: 51 Resp: 99222
Ion Ratio Lower Upper
51 100
67 10.5 15.5 23.3#

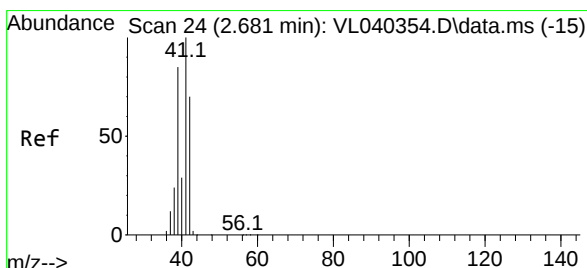
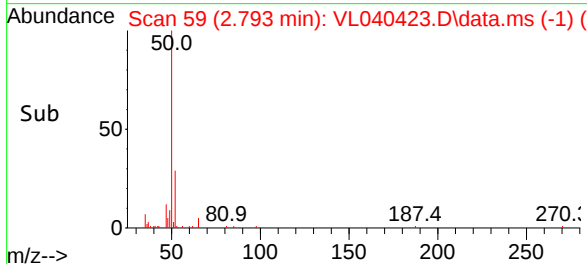
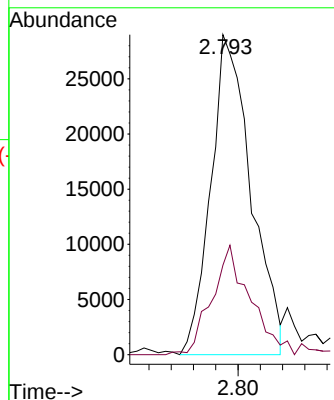
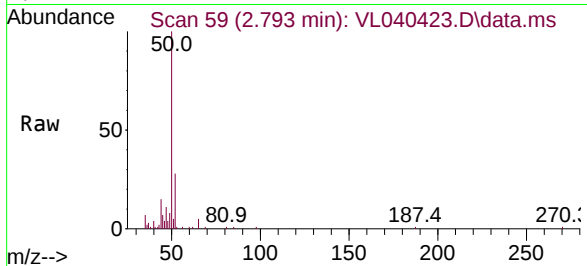




#4
Chloromethane
Concen: 0.421 ppbv
RT: 2.793 min Scan# 51
Delta R.T. -0.007 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

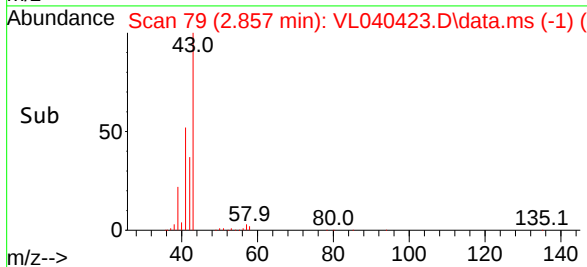
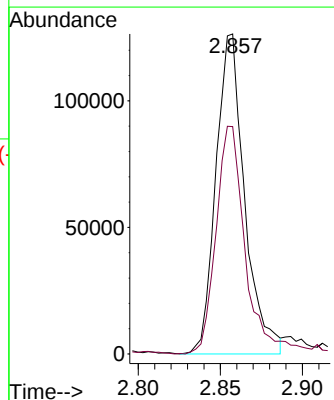
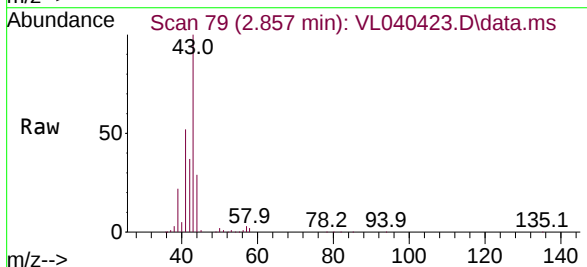
Instrument :
MSVOA_L
ClientSampleId :
IA1DUP

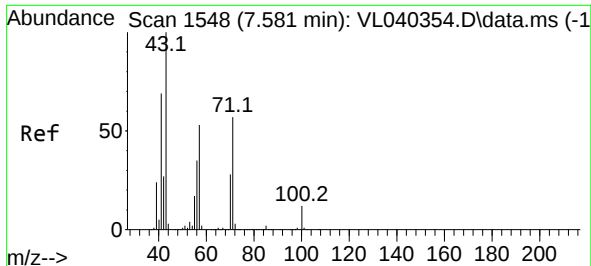
Tgt Ion: 50 Resp: 36476
Ion Ratio Lower Upper
50 100
52 27.2 25.3 37.9



#9
Propene
Concen: 2.836 ppbv
RT: 2.857 min Scan# 79
Delta R.T. 0.176 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

Tgt Ion: 41 Resp: 153493
Ion Ratio Lower Upper
41 100
42 73.5 56.5 84.7

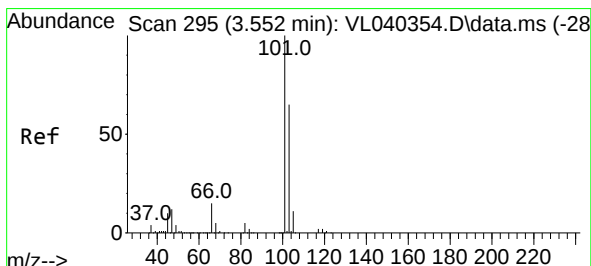
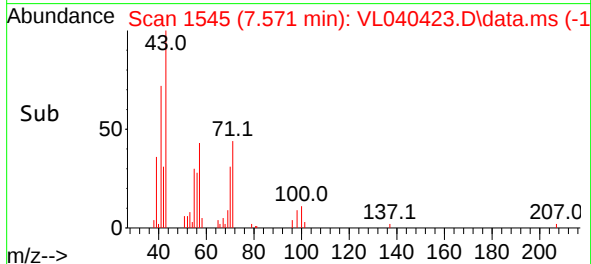
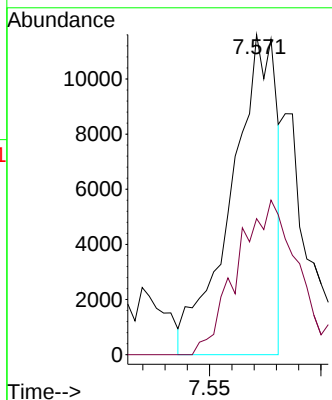
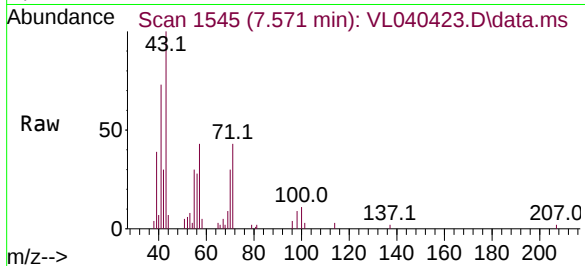




#10
Heptane
Concen: 0.133 ppbv
RT: 7.571 min Scan# 11
Delta R.T. -0.010 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

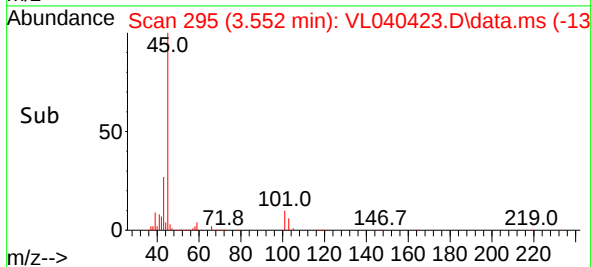
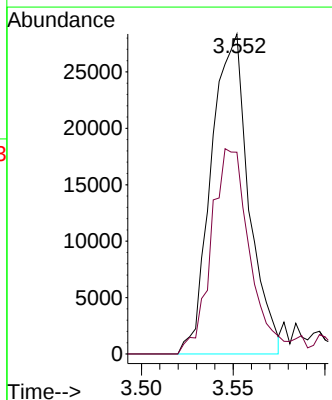
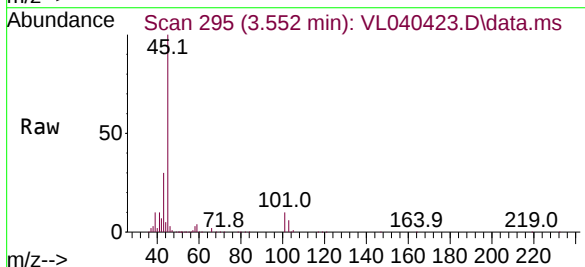
Instrument :
MSVOA_L
ClientSampleId :
IA1DUP

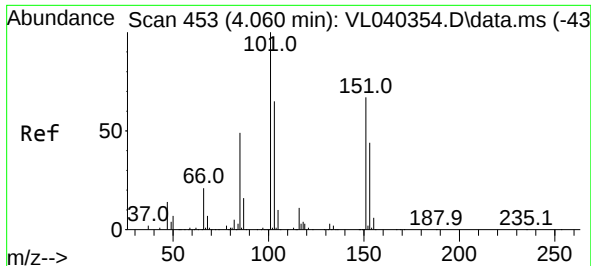
Tgt Ion: 43 Resp: 16326
Ion Ratio Lower Upper
43 100
57 0.0 42.2 63.4#



#11
Trichlorofluoromethane
Concen: 0.211 ppbv
RT: 3.552 min Scan# 295
Delta R.T. 0.000 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

Tgt Ion:101 Resp: 40413
Ion Ratio Lower Upper
101 100
103 63.1 52.2 78.4





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.059 ppbv

RT: 4.057 min Scan# 41

Delta R.T. -0.003 min

Lab File: VL040423.D

Acq: 12 May 2023 18:10

Instrument :

MSVOA_L

ClientSampleId :

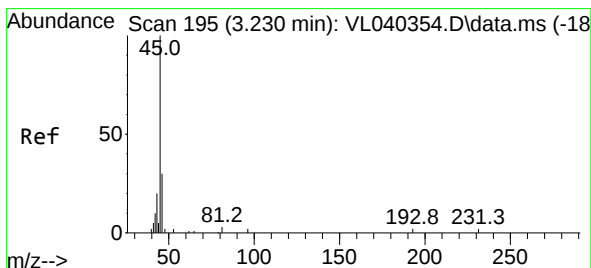
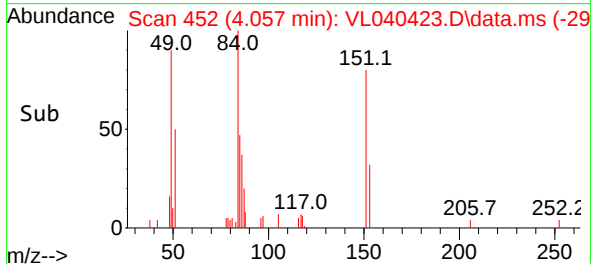
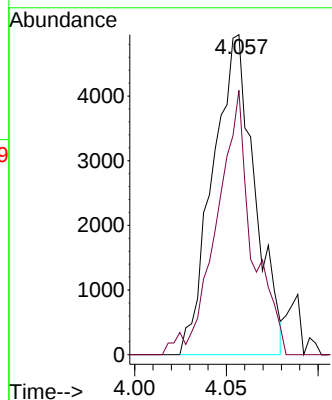
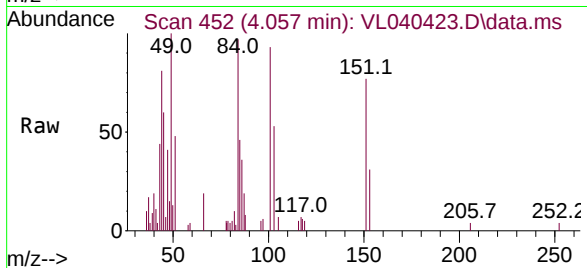
IA1DUP

Tgt Ion:101 Resp: 7857

Ion Ratio Lower Upper

101 100

151 70.1 54.7 82.1



#13

Ethanol

Concen: 74.055 ppbv

RT: 3.221 min Scan# 192

Delta R.T. -0.009 min

Lab File: VL040423.D

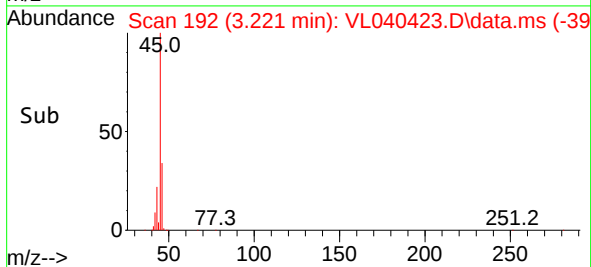
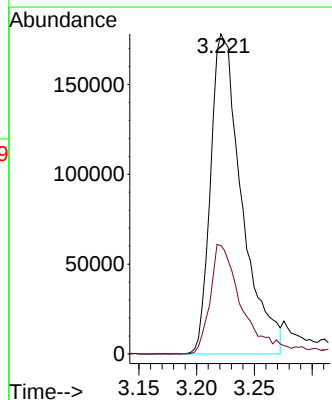
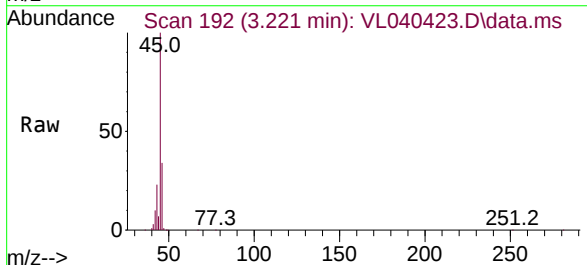
Acq: 12 May 2023 18:10

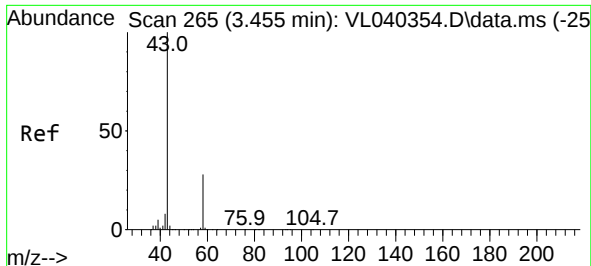
Tgt Ion: 45 Resp: 334589

Ion Ratio Lower Upper

45 100

46 37.1 15.3 61.3





#15

Acetone

Concen: 8.134 ppbv

RT: 3.452 min Scan# 21

Delta R.T. -0.003 min

Lab File: VL040423.D

Acq: 12 May 2023 18:10

Instrument :

MSVOA_L

ClientSampleId :

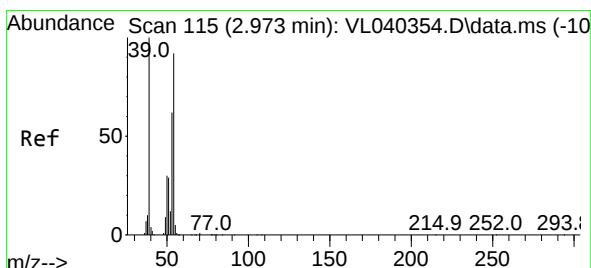
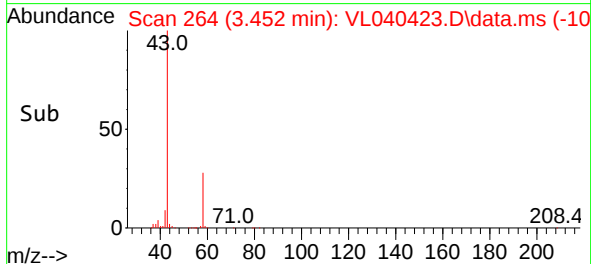
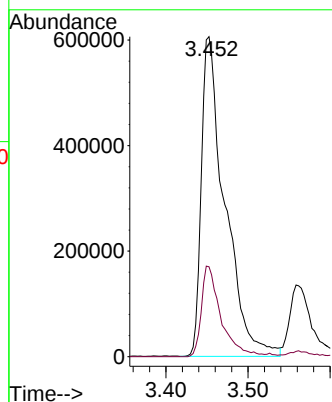
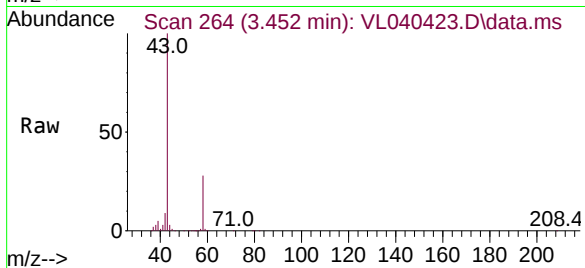
IA1DUP

Tgt Ion: 43 Resp: 1207797

Ion Ratio Lower Upper

43 100

58 23.8 22.2 33.2



#16

1,3-Butadiene

Concen: 0.228 ppbv

RT: 2.951 min Scan# 108

Delta R.T. -0.022 min

Lab File: VL040423.D

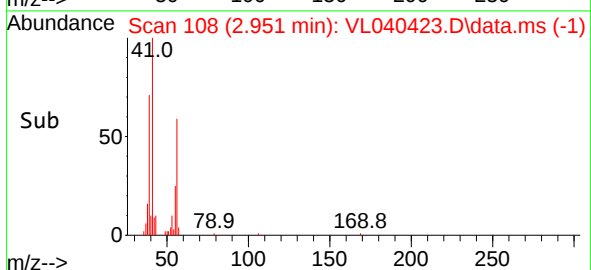
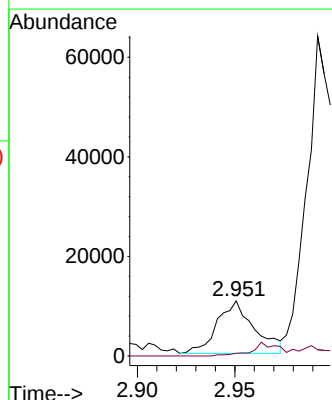
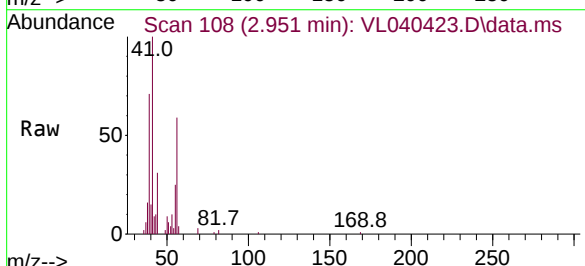
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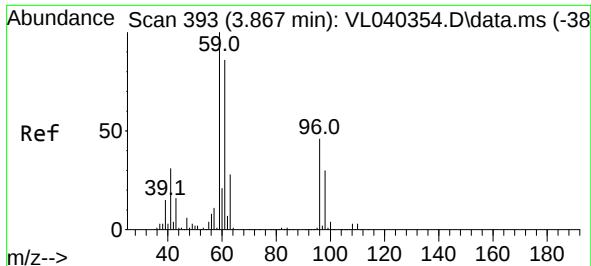
Tgt Ion: 39 Resp: 13999

Ion Ratio Lower Upper

39 100

54 37.3 68.8 103.2#

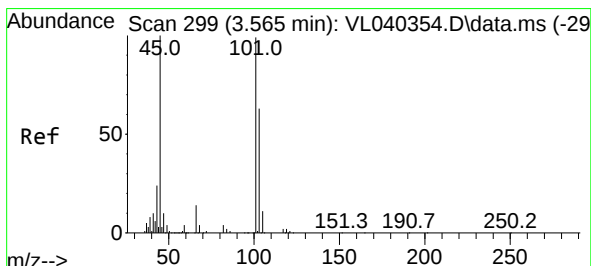
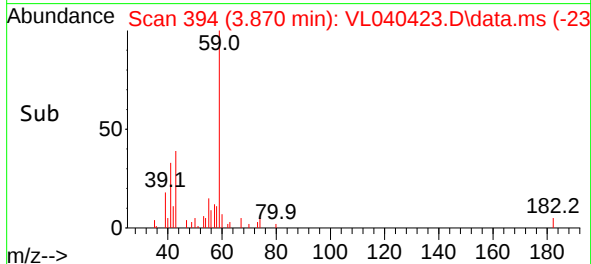
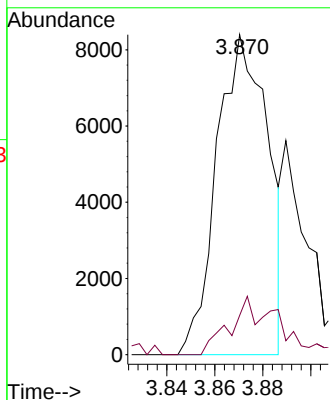
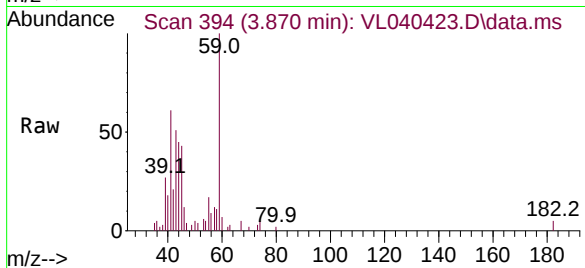




#17
tert-Butyl alcohol
Concen: 0.091 ppbv
RT: 3.870 min Scan# 393
Delta R.T. 0.003 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

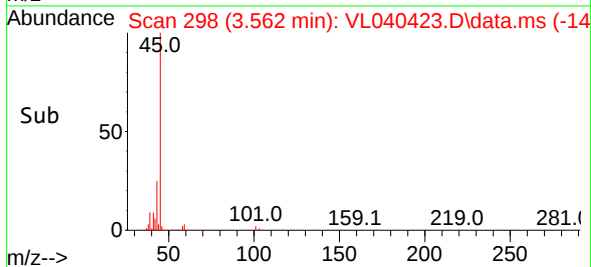
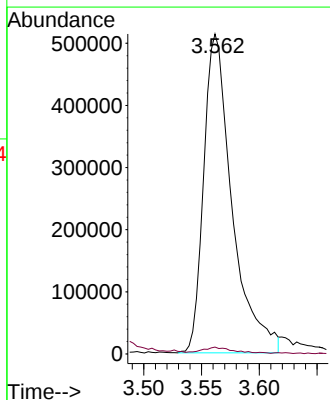
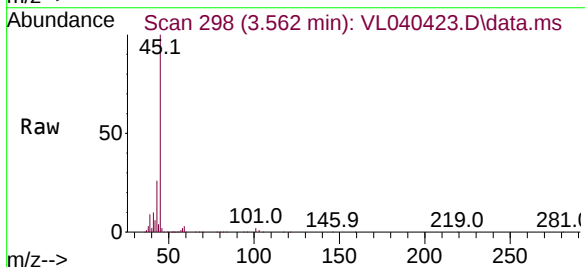
Instrument :
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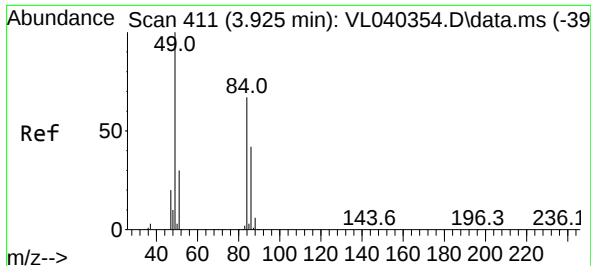
Tgt Ion: 59 Resp: 12388
Ion Ratio Lower Upper
59 100
57 0.0 8.5 12.7#



#19
Isopropyl Alcohol
Concen: 12.943 ppbv
RT: 3.562 min Scan# 298
Delta R.T. -0.003 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

Tgt Ion: 45 Resp: 876942
Ion Ratio Lower Upper
45 100
58 2.5 2.6 4.0#





#20

Methylene Chloride

Concen: 25.479 ppbv

RT: 3.919 min Scan# 409

Delta R.T. -0.006 min

Lab File: VL040423.D

Acq: 12 May 2023 18:10

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP

Tgt Ion: 84 Resp: 1510476

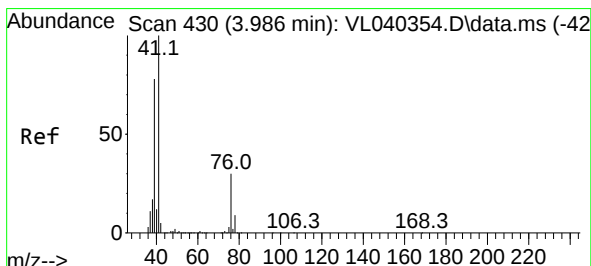
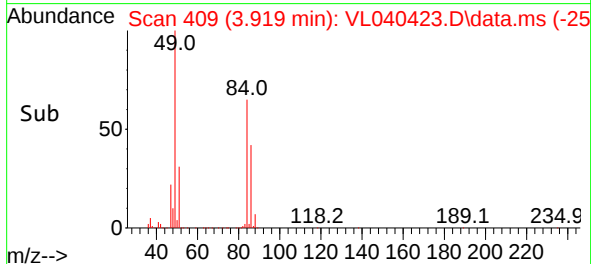
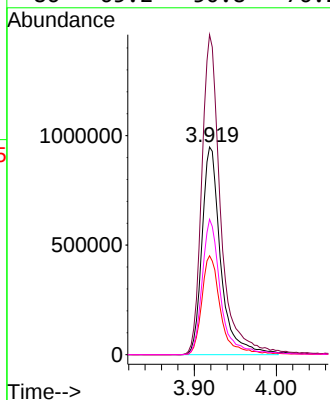
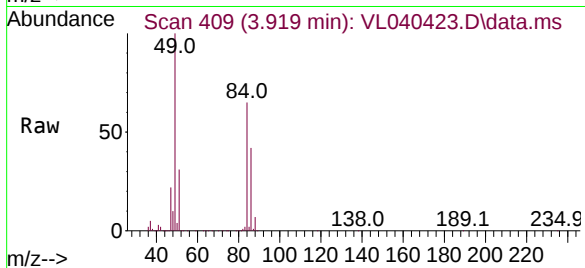
Ion Ratio Lower Upper

84 100

49 154.1 120.1 180.1

51 47.6 36.3 54.5

86 65.2 50.8 76.2



#21

Allyl Chloride

Concen: 0.588 ppbv

RT: 3.919 min Scan# 409

Delta R.T. -0.067 min

Lab File: VL040423.D

Acq: 12 May 2023 18:10

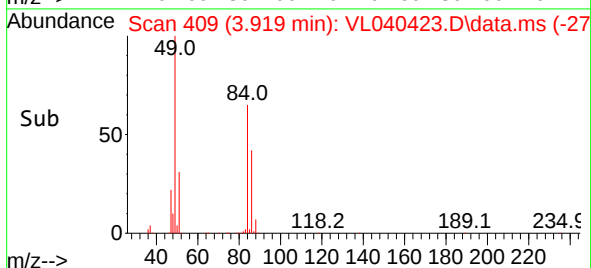
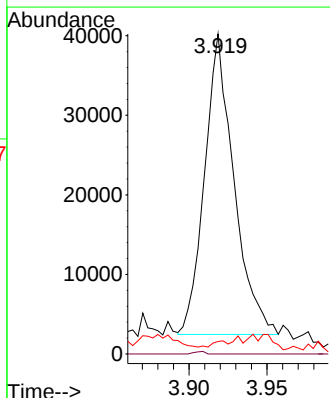
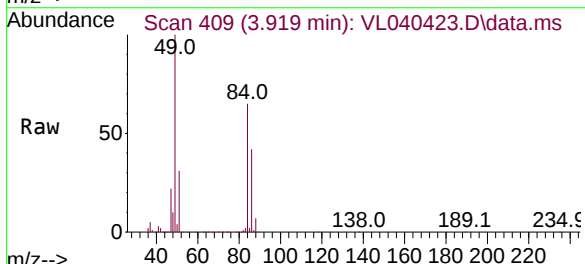
Tgt Ion: 41 Resp: 49609

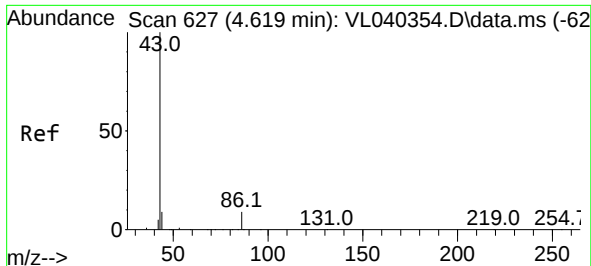
Ion Ratio Lower Upper

41 100

76 0.3 25.5 38.3#

39 7.5 64.0 96.0#

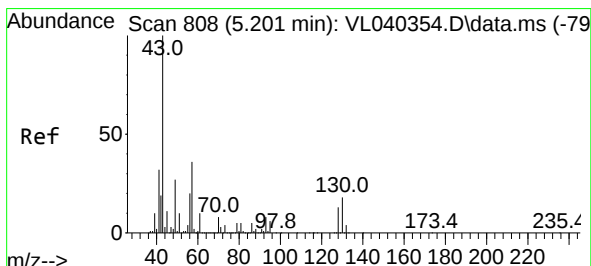
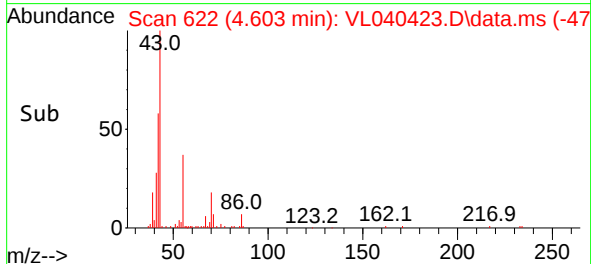
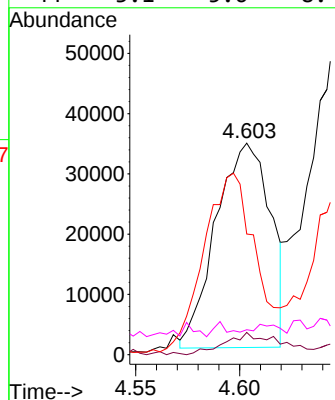
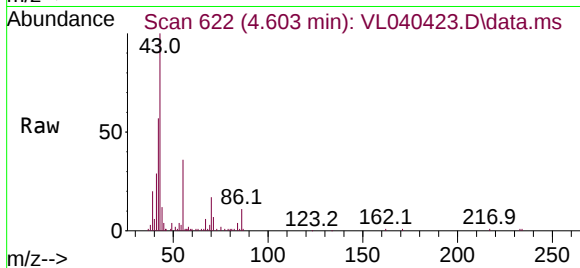




#23
 Vinyl Acetate
 Concen: 1.638 ppbv
 RT: 4.603 min Scan# 61
 Delta R.T. -0.016 min
 Lab File: VL040423.D
 Acq: 12 May 2023 18:10

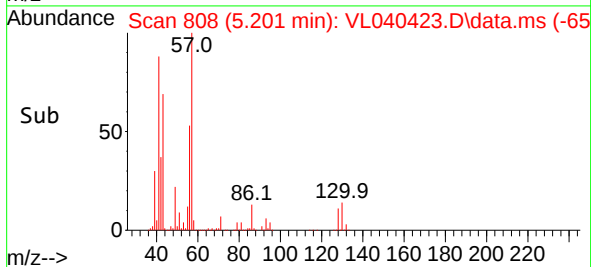
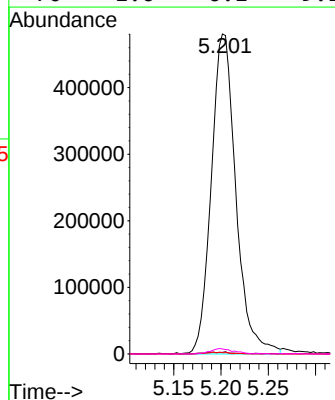
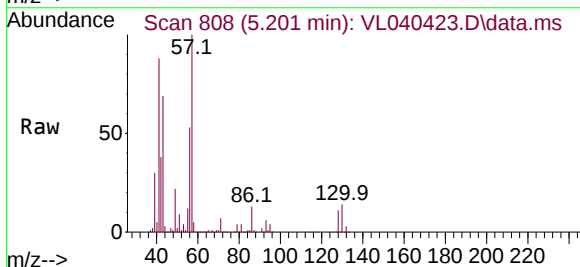
Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DUP

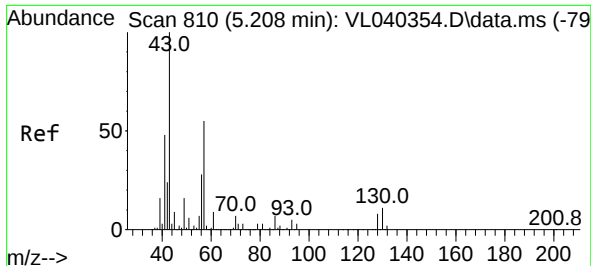
Tgt Ion:	43	Resp:	61940
Ion	Ratio	Lower	Upper
43	100		
86	10.7	6.0	9.0#
42	50.2	6.4	9.6#
44	3.1	5.6	8.4#



#25
 Ethyl Acetate
 Concen: 3.482 ppbv
 RT: 5.201 min Scan# 808
 Delta R.T. 0.000 min
 Lab File: VL040423.D
 Acq: 12 May 2023 18:10

Tgt Ion:	43	Resp:	869989
Ion	Ratio	Lower	Upper
43	100		
45	0.8	8.5	12.7#
61	0.5	8.5	12.7#
70	1.6	6.1	9.1#

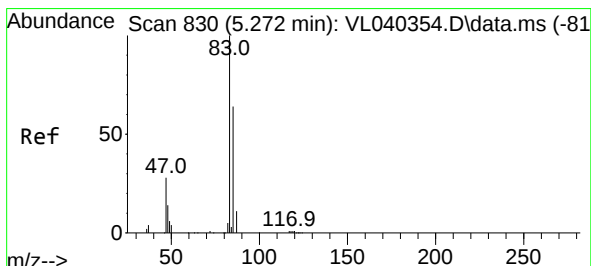
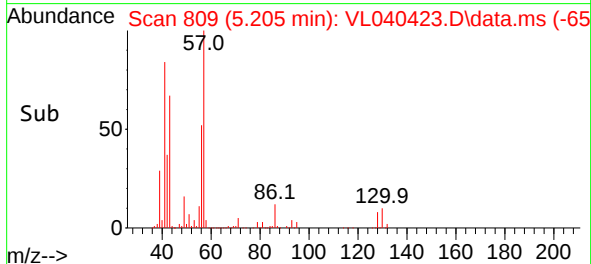
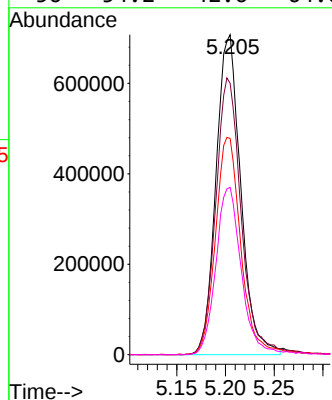
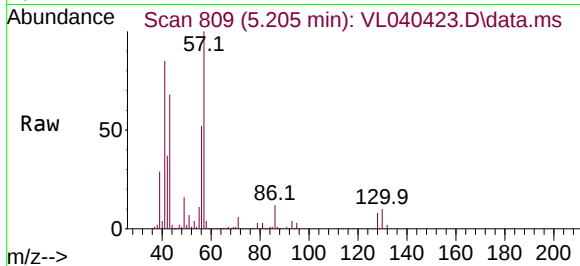




#26
Hexane
Concen: 11.887 ppbv
RT: 5.205 min Scan# 809
Delta R.T. -0.003 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

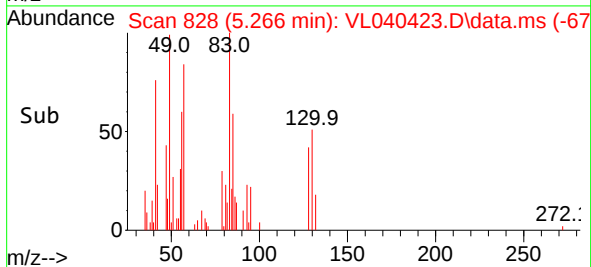
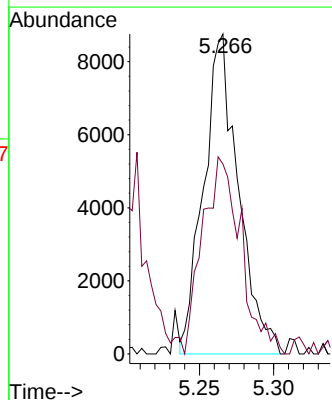
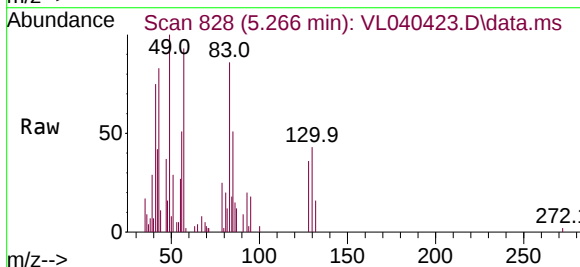
Instrument :
MSVOA_L
ClientSampleId :
IA1DUP

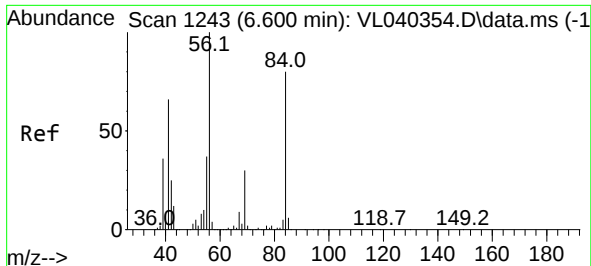
Tgt Ion: 57 Resp: 1252166
Ion Ratio Lower Upper
57 100
41 89.8 74.8 112.2
43 70.5 192.7 289.1#
56 54.2 42.6 64.0



#29
Chloroform
Concen: 0.076 ppbv
RT: 5.266 min Scan# 828
Delta R.T. -0.006 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

Tgt Ion: 83 Resp: 14258
Ion Ratio Lower Upper
83 100
85 57.3 51.0 76.4

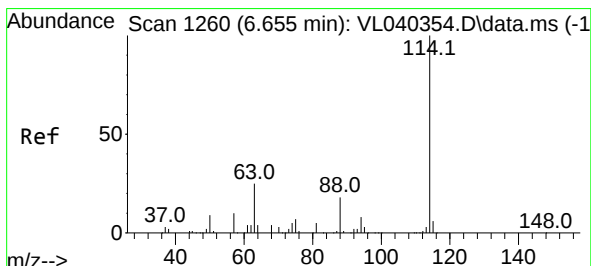
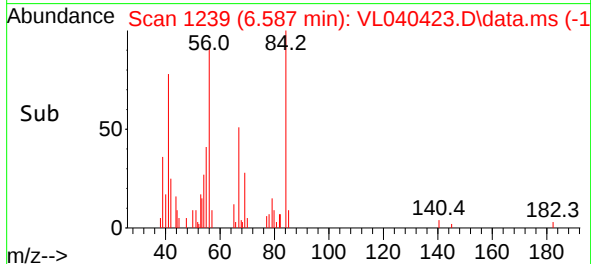
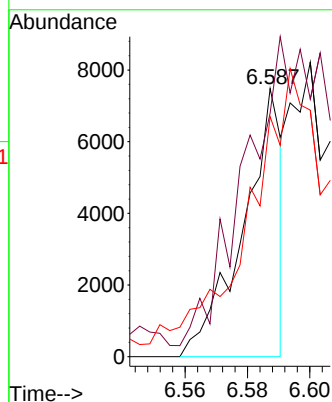
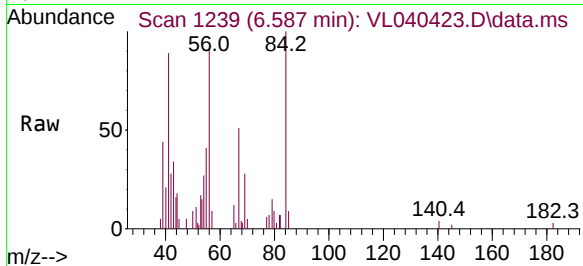




#30
Cyclohexane
Concen: 0.078 ppbv
RT: 6.587 min Scan# 11
Delta R.T. -0.013 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

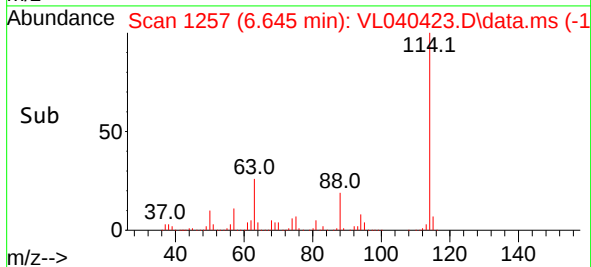
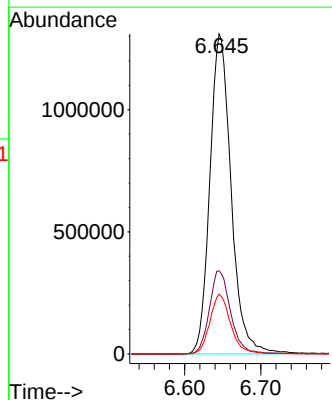
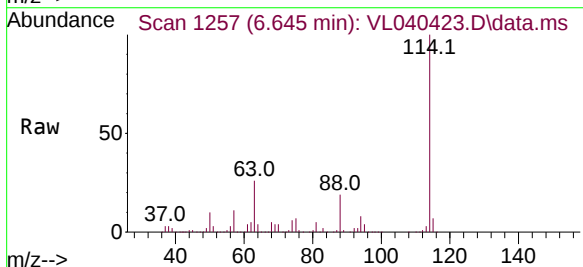
Instrument :
MSVOA_L
ClientSampleId :
IA1DUP

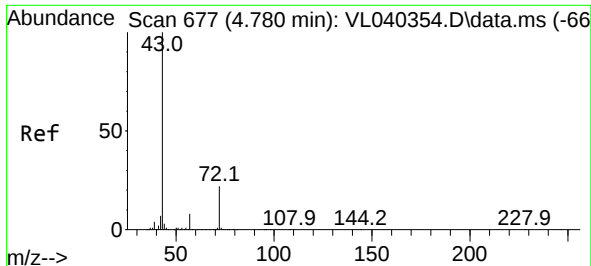
Tgt Ion: 84 Resp: 6363
Ion Ratio Lower Upper
84 100
56 299.9 107.0 160.6#
41 295.2 66.7 100.1#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 6.645 min Scan# 1257
Delta R.T. -0.010 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

Tgt Ion: 114 Resp: 2542460
Ion Ratio Lower Upper
114 100
63 26.2 21.4 32.0
88 18.3 14.6 22.0

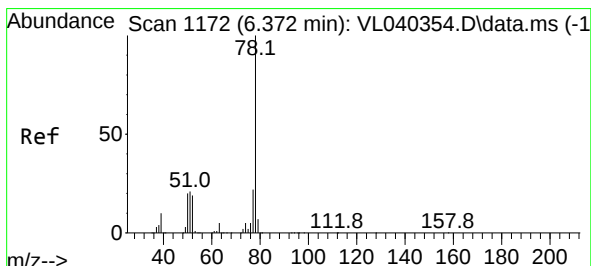
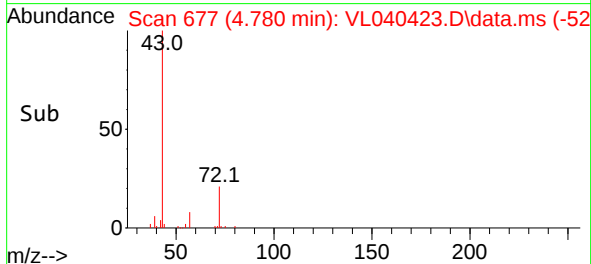
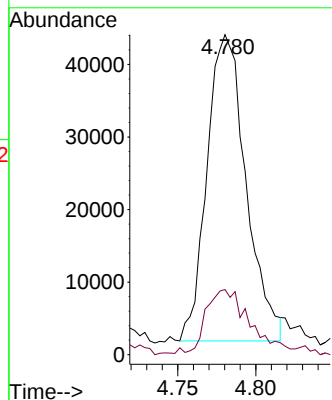
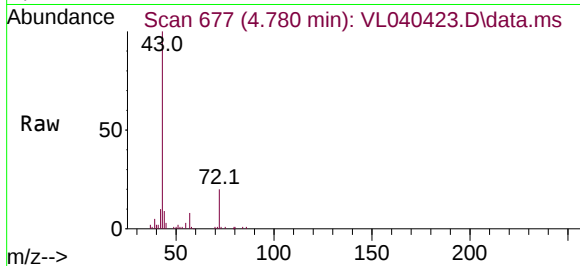




#34
2-Butanone
Concen: 0.536 ppbv
RT: 4.780 min Scan# 61
Delta R.T. 0.000 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

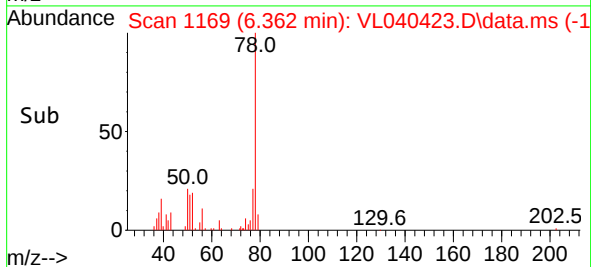
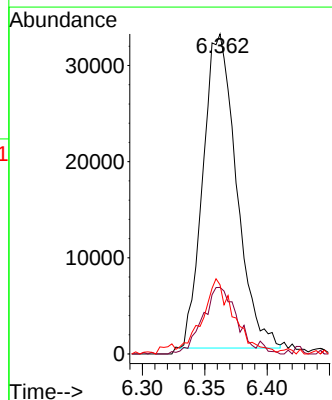
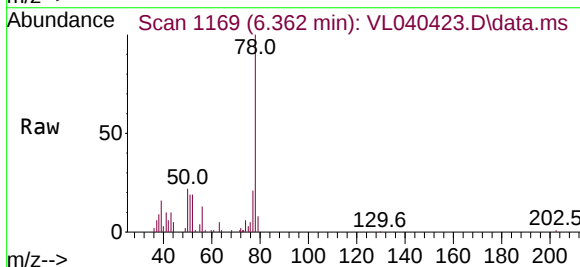
Instrument :
MSVOA_L
ClientSampleId :
IA1DUP

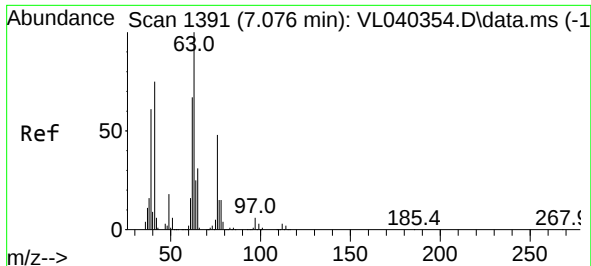
Tgt Ion: 43 Resp: 73415
Ion Ratio Lower Upper
43 100
72 25.9 18.4 27.6



#36
Benzene
Concen: 0.294 ppbv
RT: 6.362 min Scan# 1169
Delta R.T. -0.010 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

Tgt Ion: 78 Resp: 60889
Ion Ratio Lower Upper
78 100
77 21.2 17.8 26.8
50 20.9 15.6 23.4





#39

1,2-Dichloropropane

Concen: 7.922 ppbv

RT: 6.645 min Scan# 1

Delta R.T. -0.431 min

Lab File: VL040423.D

Acq: 12 May 2023 18:10

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP

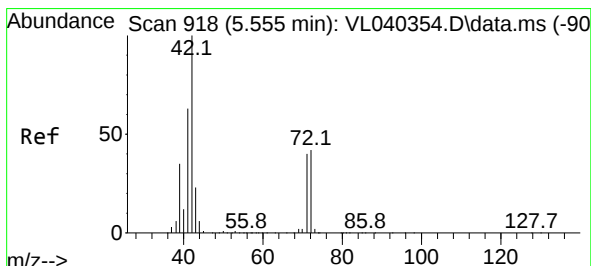
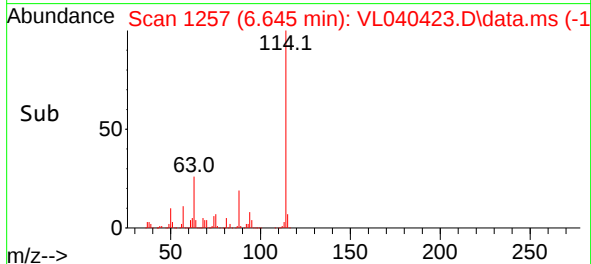
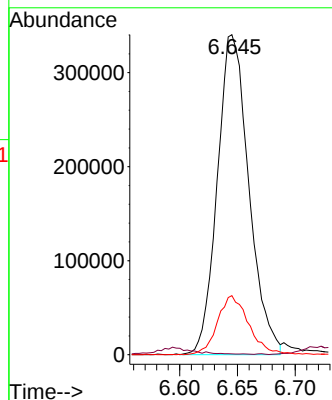
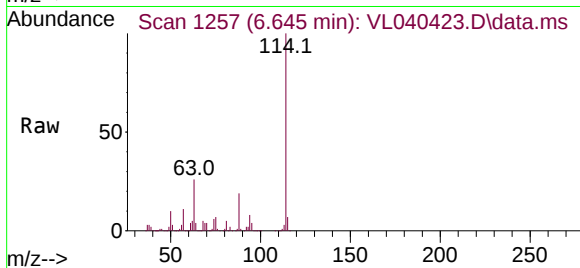
Tgt Ion: 63 Resp: 646584

Ion Ratio Lower Upper

63 100

41 0.0 59.6 89.4#

62 18.3 53.9 80.9#



#41

Tetrahydrofuran

Concen: 0.089 ppbv

RT: 5.803 min Scan# 995

Delta R.T. 0.248 min

Lab File: VL040423.D

Acq: 12 May 2023 18:10

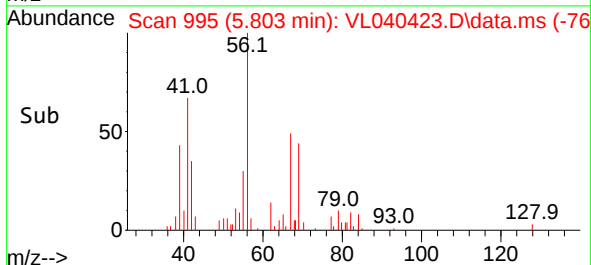
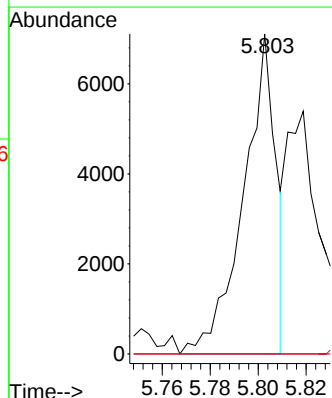
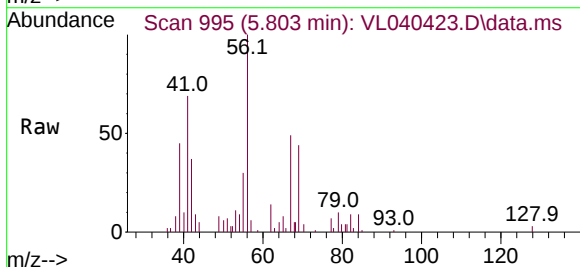
Tgt Ion: 42 Resp: 6650

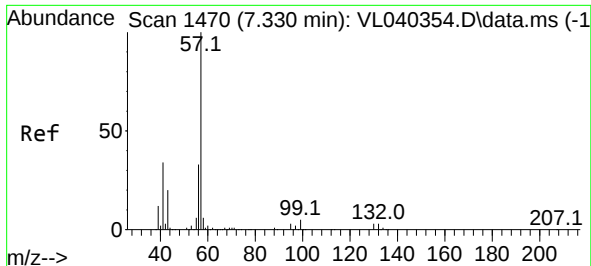
Ion Ratio Lower Upper

42 100

72 0.0 33.7 50.5#

71 0.0 32.2 48.2#

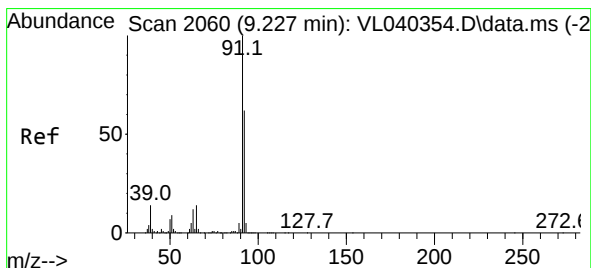
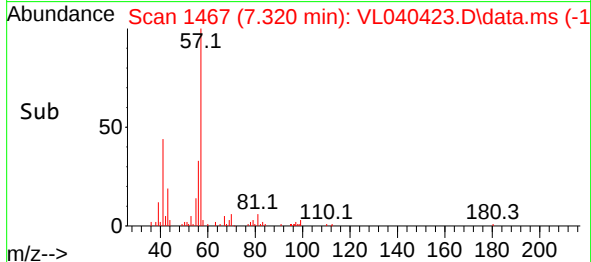
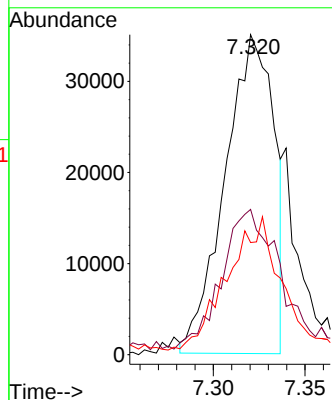
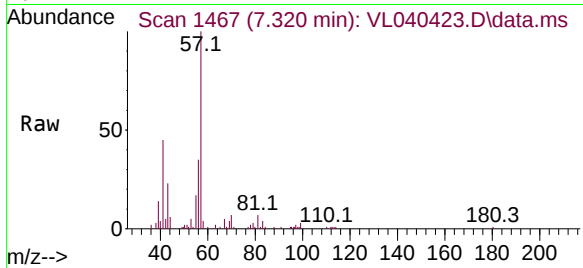




#44
2,2,4-Trimethylpentane
Concen: 0.188 ppbv
RT: 7.320 min Scan# 1467
Delta R.T. -0.010 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

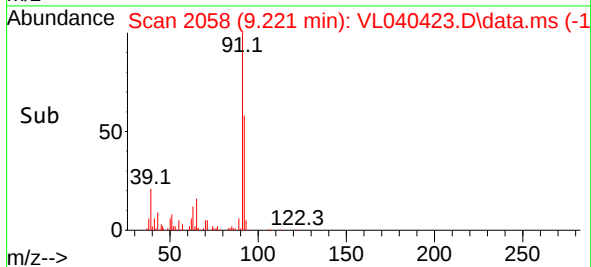
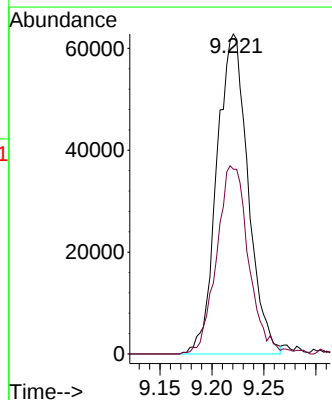
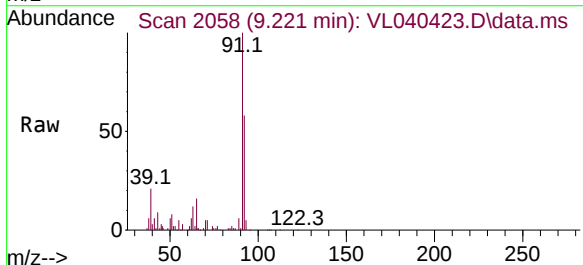
Instrument :
MSVOA_1
ClientSampleId :
IA1DUP

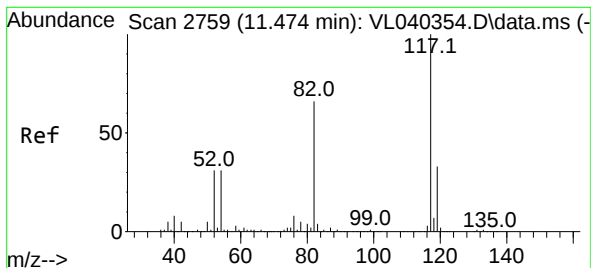
Tgt Ion: 57 Resp: 65137
Ion Ratio Lower Upper
57 100
41 59.0 26.9 40.3#
56 53.5 25.1 37.7#



#53
Toluene
Concen: 0.596 ppbv
RT: 9.221 min Scan# 2058
Delta R.T. -0.006 min
Lab File: VL040423.D
Acq: 12 May 2023 18:10

Tgt Ion: 91 Resp: 130979
Ion Ratio Lower Upper
91 100
92 60.7 48.9 73.3





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.468 min Scan# 21

Delta R.T. -0.006 min

Lab File: VL040423.D

Acq: 12 May 2023 18:10

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP

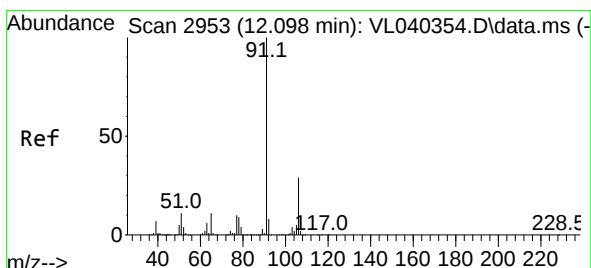
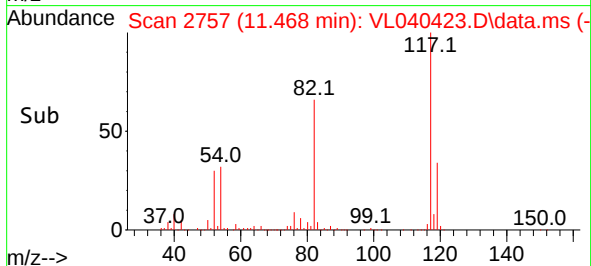
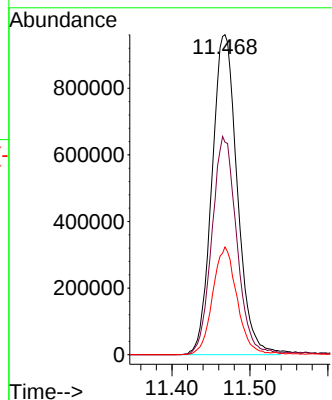
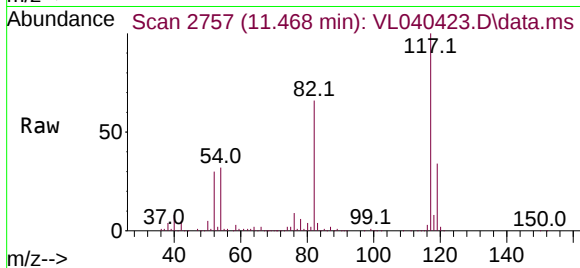
Tgt Ion:117 Resp: 2169674

Ion Ratio Lower Upper

117 100

82 68.2 52.5 78.7

119 32.9 24.3 36.5



#58

Ethyl Benzene

Concen: 0.045 ppbv

RT: 12.092 min Scan# 2951

Delta R.T. -0.006 min

Lab File: VL040423.D

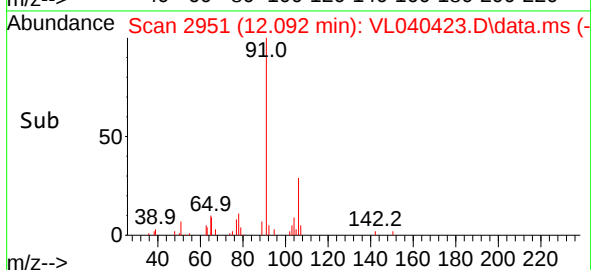
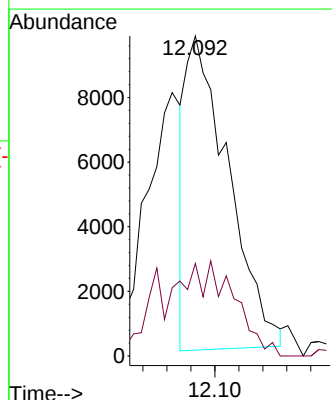
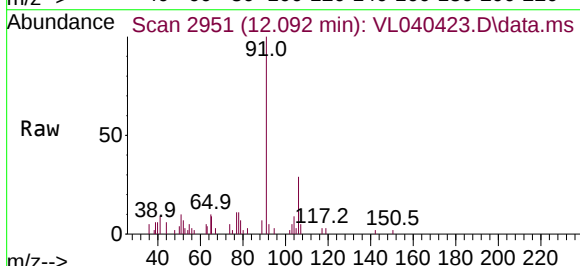
Acq: 12 May 2023 18:10

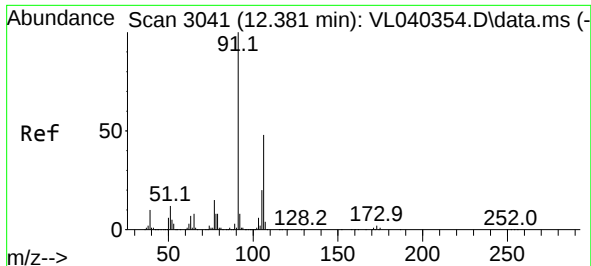
Tgt Ion: 91 Resp: 11961

Ion Ratio Lower Upper

91 100

106 31.6 23.5 35.3





#59

m/p-Xylene

Concen: 0.053 ppbv

RT: 12.372 min Scan# 3041

Delta R.T. -0.009 min

Lab File: VL040423.D

Acq: 12 May 2023 18:10

Instrument :

MSVOA_L

ClientSampleId :

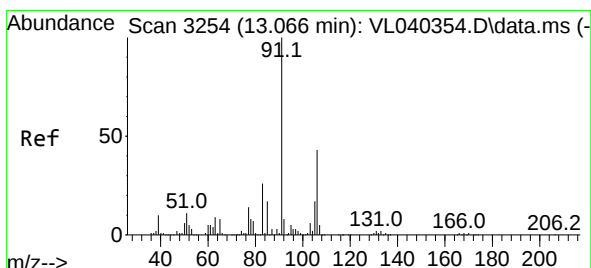
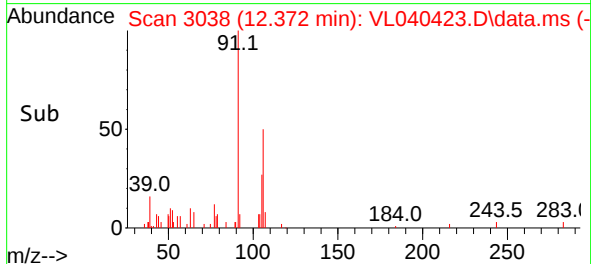
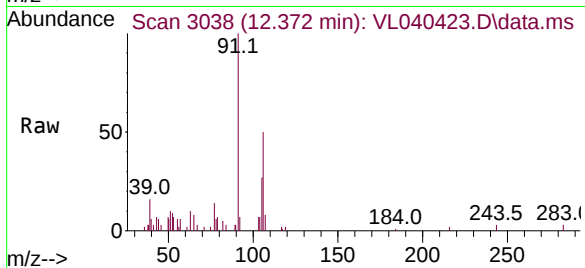
IA1DUP

Tgt Ion: 91 Resp: 12939

Ion Ratio Lower Upper

91 100

106 0.0 34.7 52.1#



#60

o-Xylene

Concen: 0.042 ppbv

RT: 13.056 min Scan# 3251

Delta R.T. -0.010 min

Lab File: VL040423.D

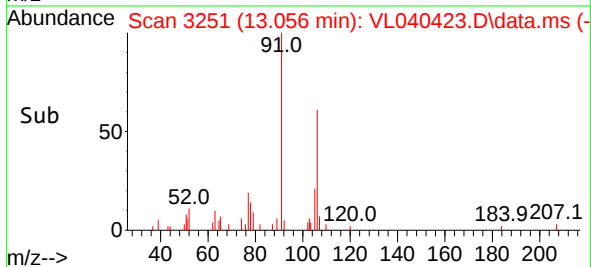
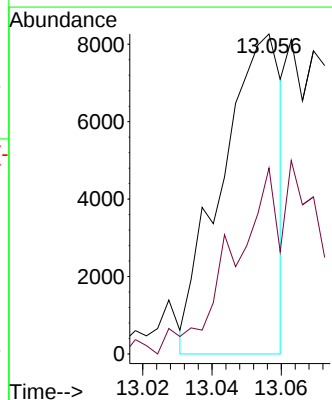
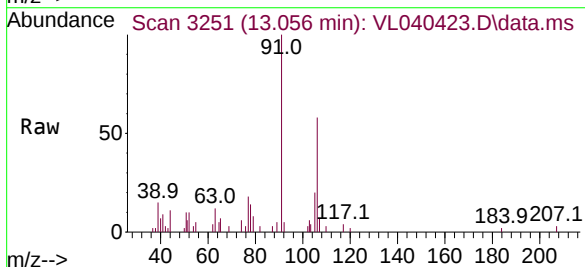
Acq: 12 May 2023 18:10

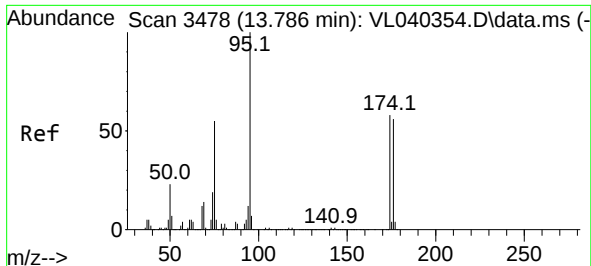
Tgt Ion: 91 Resp: 9780

Ion Ratio Lower Upper

91 100

106 0.0 21.9 65.8#

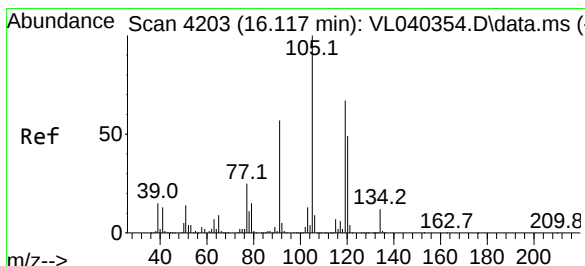
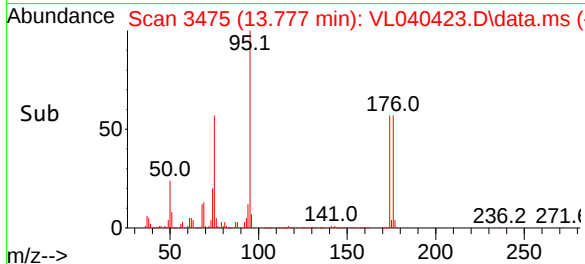
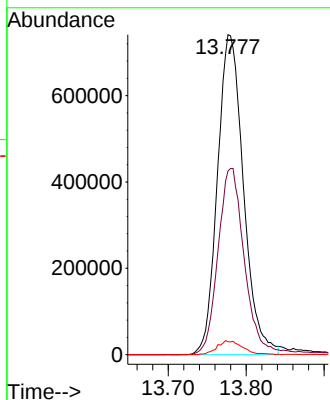
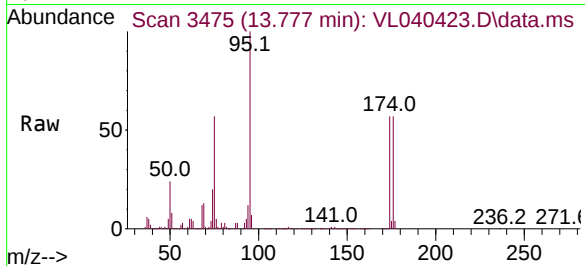




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.595 ppbv
 RT: 13.777 min Scan# 3477
 Delta R.T. -0.009 min
 Lab File: VL040423.D
 Acq: 12 May 2023 18:10

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DUP

Tgt Ion: 95 Resp: 1721542
 Ion Ratio Lower Upper
 95 100
 174 60.6 47.2 70.8
 175 4.4 3.5 5.3



#74
 1,2,4-Trimethylbenzene
 Concen: 0.048 ppbv
 RT: 16.108 min Scan# 4200
 Delta R.T. -0.009 min
 Lab File: VL040423.D
 Acq: 12 May 2023 18:10

Tgt Ion: 105 Resp: 13143
 Ion Ratio Lower Upper
 105 100
 120 38.4 38.9 58.3#
 91 18.7 46.0 69.0#
 77 18.3 20.0 30.0#

