

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL041923\
 Data File : VL040378.D
 Acq On : 19 Apr 2023 13:52
 Operator : SY/MD
 Sample : 02368-02
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Apr 20 05:09:28 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

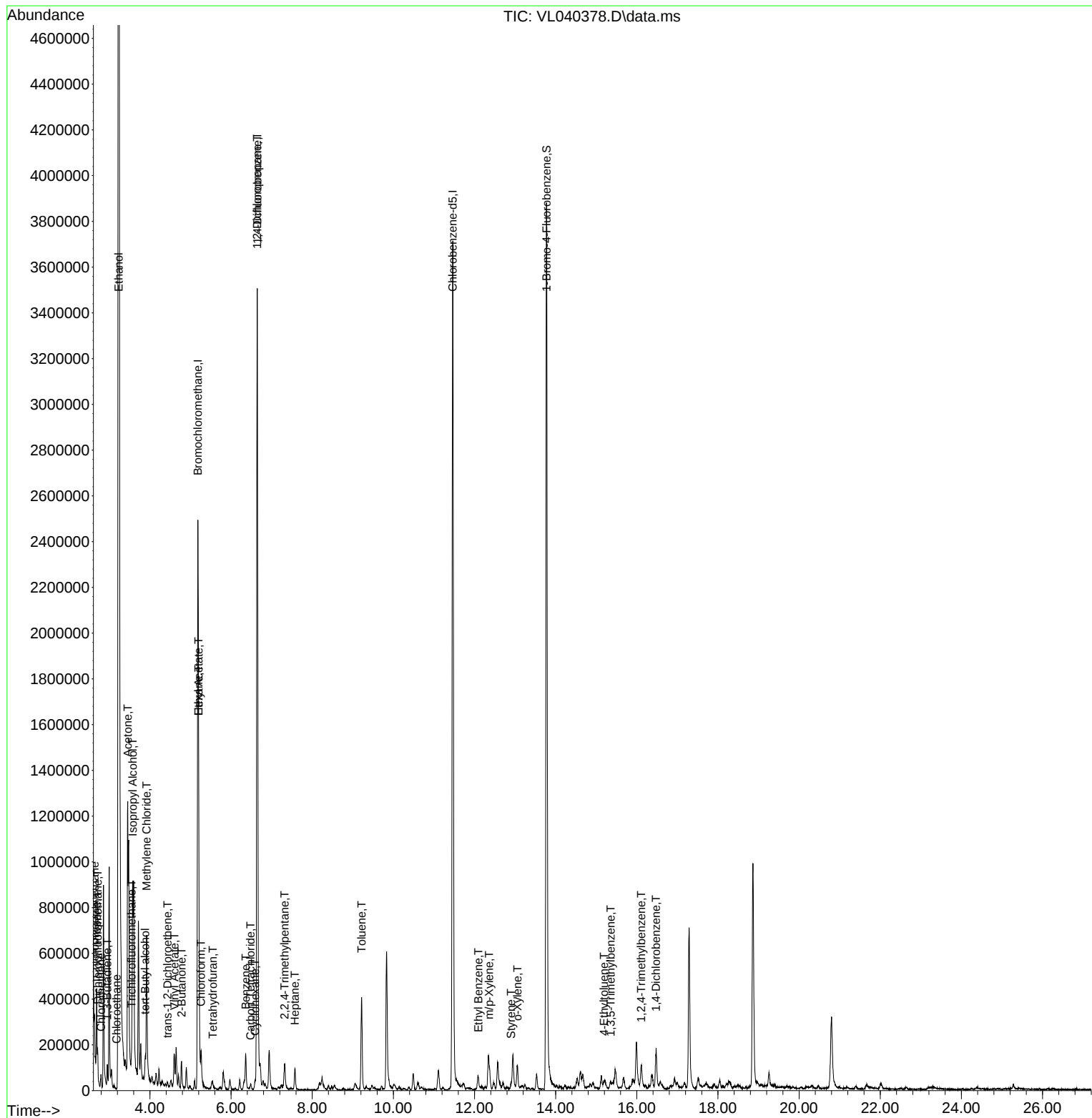
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

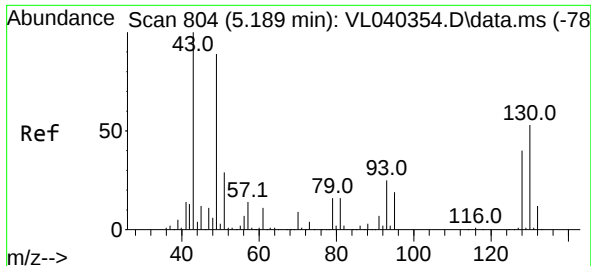
Internal Standards						
1) Bromochloromethane	5.182	49	1066087	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.645	114	2574545	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.465	117	2308433	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.773	95	1932498	10.124	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.200%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.713	85	81180	0.422	ppbv	95
3) Chlorodifluoromethane	2.636	51	147651	1.060	ppbv #	76
4) Chloromethane	2.796	50	42023	0.478	ppbv	97
7) Chloroethane	3.179	64	1311	0.048	ppbv	94
9) Propene	2.687	41	96394	1.751	ppbv #	78
10) Heptane	7.571	43	27549	0.220	ppbv	88
11) Trichlorofluoromethane	3.546	101	42155	0.217	ppbv	95
13) Ethanol	3.230	45	12151633	2644.886	ppbv	95
15) Acetone	3.452	43	1345312	8.910	ppbv	99
16) 1,3-Butadiene	2.947	39	27040	0.433	ppbv #	47
17) tert-Butyl alcohol	3.880	59	54442	0.393	ppbv	98
19) Isopropyl Alcohol	3.574	45	1006458	14.608	ppbv #	96
20) Methylene Chloride	3.918	84	205428	3.408	ppbv	99
22) trans-1,2-Dichloroethene	4.433	96	3876	0.063	ppbv #	64
23) Vinyl Acetate	4.603	43	125218	3.257	ppbv #	74
25) Ethyl Acetate	5.201	43	287119	1.130	ppbv #	91
26) Hexane	5.201	57	291972	2.726	ppbv #	48
29) Chloroform	5.259	83	78863	0.413	ppbv	92
30) Cyclohexane	6.590	84	3593	0.043	ppbv #	1
34) 2-Butanone	4.780	43	129911	0.936	ppbv	98
35) Carbon Tetrachloride	6.478	117	7315	0.040	ppbv #	74
36) Benzene	6.362	78	118087	0.562	ppbv	99
39) 1,2-Dichloropropane	6.642	63	657909	7.960	ppbv #	24
41) Tetrahydrofuran	5.549	42	3783	0.050	ppbv #	48
44) 2,2,4-Trimethylpentane	7.317	57	41399	0.118	ppbv #	24
53) Toluene	9.217	91	279139	1.253	ppbv	99
58) Ethyl Benzene	12.095	91	16489	0.058	ppbv	95
59) m/p-Xylene	12.359	91	52747	0.202	ppbv #	32
60) o-Xylene	13.060	91	74444	0.297	ppbv	99
61) Styrene	12.899	104	6026	0.048	ppbv #	32
72) 4-Ethyltoluene	15.191	105	18063	0.065	ppbv #	78
73) 1,3,5-Trimethylbenzene	15.355	105	12602	0.049	ppbv	93
74) 1,2,4-Trimethylbenzene	16.105	105	28751	0.098	ppbv #	73
76) 1,4-Dichlorobenzene	16.471	146	13940	0.088	ppbv	79

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

Instrument :
MSVOA_L
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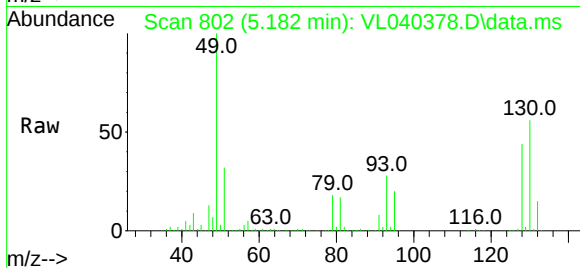
Instrument :
MSVOA_L
ClientSampleId :





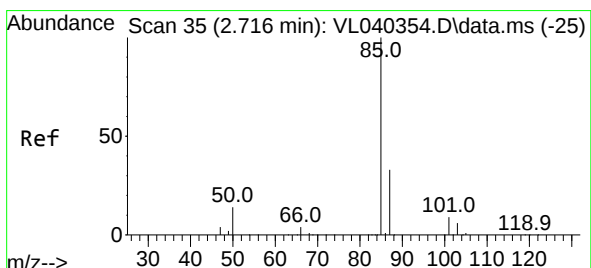
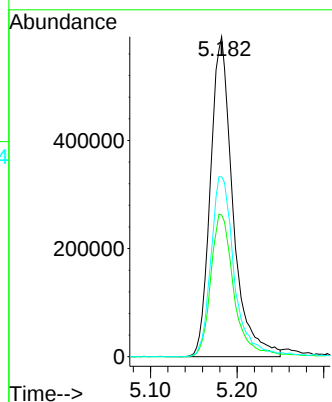
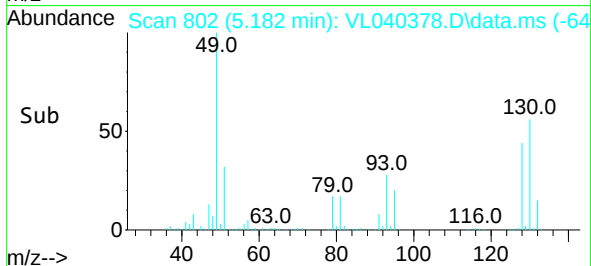
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.182 min Scan# 80
 Delta R.T. -0.007 min
 Lab File: VL040378.D
 Acq: 19 Apr 2023 13:52

Instrument :
 MSVOA_L
 ClientSampleId :



Tgt Ion: 49 Resp: 1066087

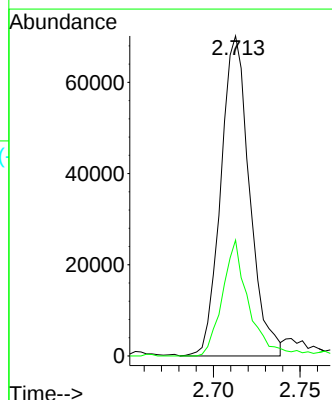
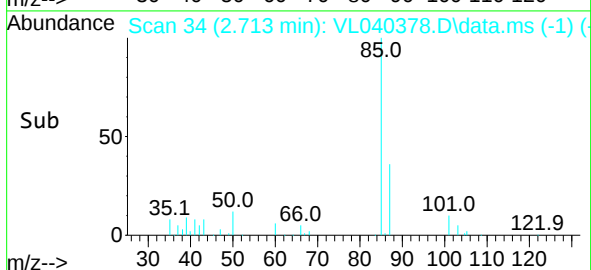
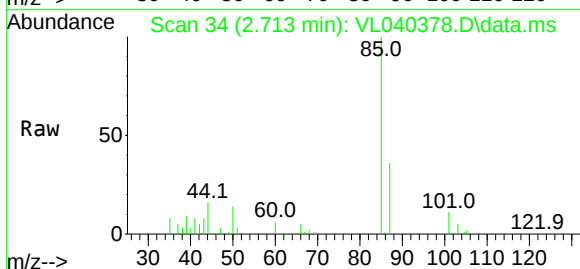
Ion	Ratio	Lower	Upper
49	100		
128	46.5	23.7	71.1
130	60.0	29.9	89.8

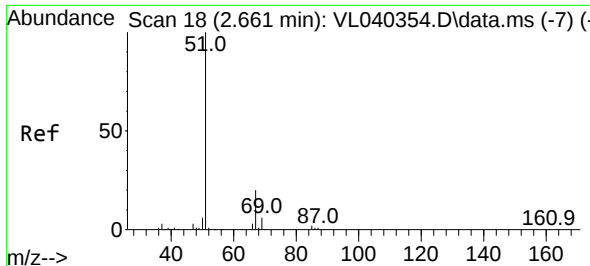


#2
 Dichlorodifluoromethane
 Concen: 0.422 ppbv
 RT: 2.713 min Scan# 34
 Delta R.T. -0.003 min
 Lab File: VL040378.D
 Acq: 19 Apr 2023 13:52

Tgt Ion: 85 Resp: 81180

Ion	Ratio	Lower	Upper
85	100		
87	36.2	26.6	40.0

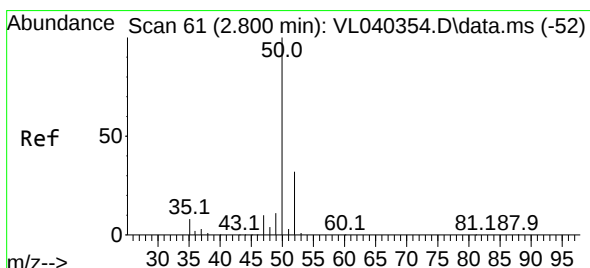
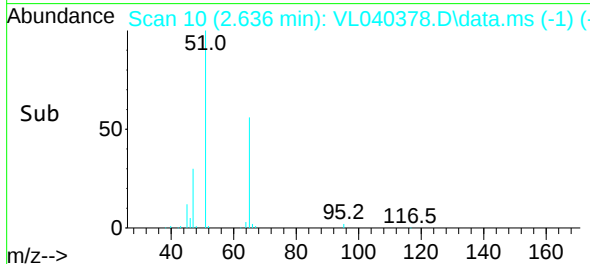
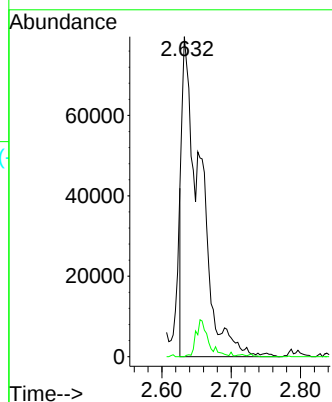
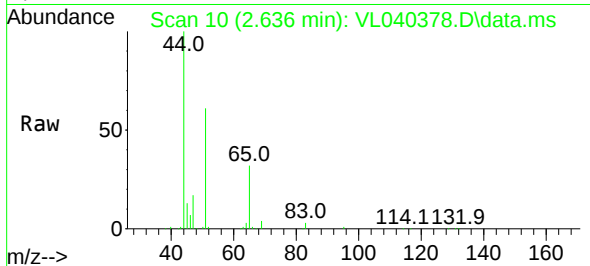




#3
Chlorodifluoromethane
Concen: 1.060 ppbv
RT: 2.636 min Scan# 10
Delta R.T. -0.025 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

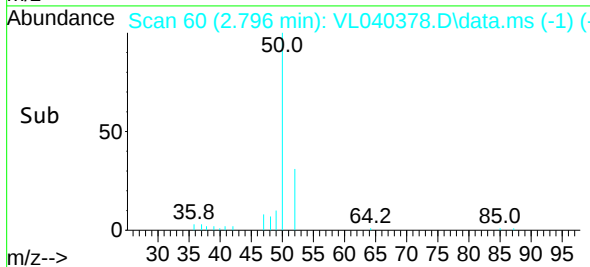
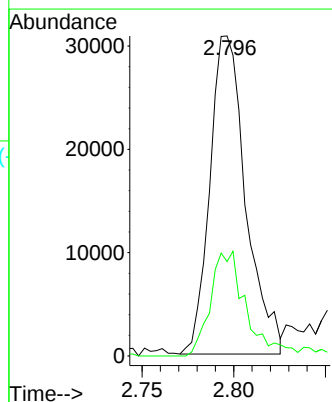
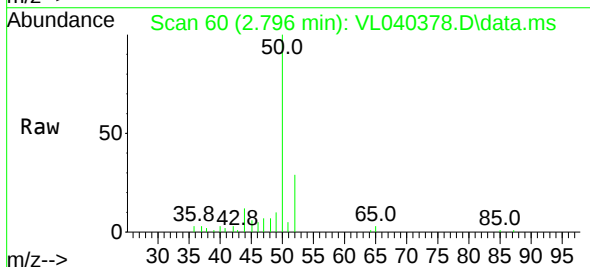
Instrument :
MSVOA_L
ClientSampleId :

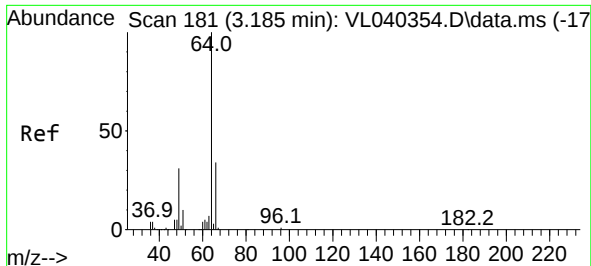
Tgt Ion: 51 Resp: 147651
Ion Ratio Lower Upper
51 100
67 8.4 15.5 23.3#



#4
Chloromethane
Concen: 0.478 ppbv
RT: 2.796 min Scan# 60
Delta R.T. -0.004 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

Tgt Ion: 50 Resp: 42023
Ion Ratio Lower Upper
50 100
52 29.7 25.3 37.9

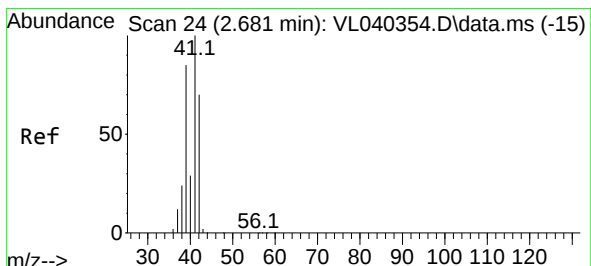
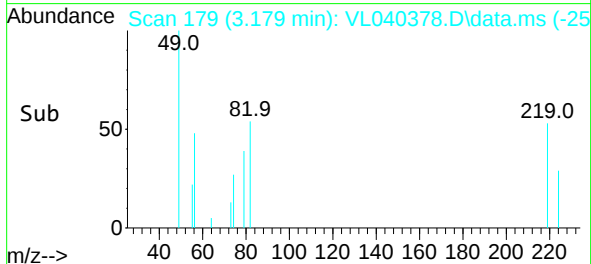
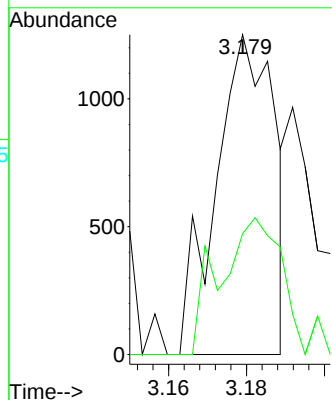
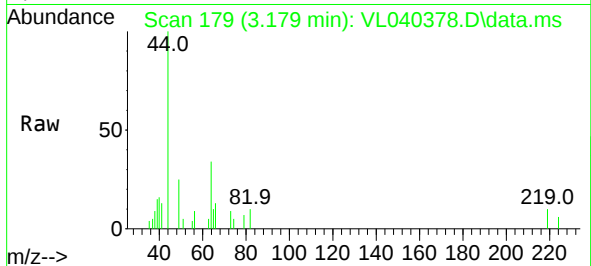




#7
Chloroethane
Concen: 0.048 ppbv
RT: 3.179 min Scan# 11
Delta R.T. -0.006 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

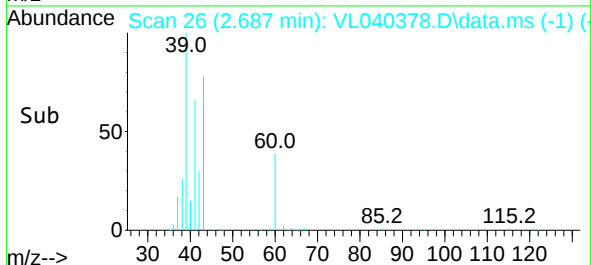
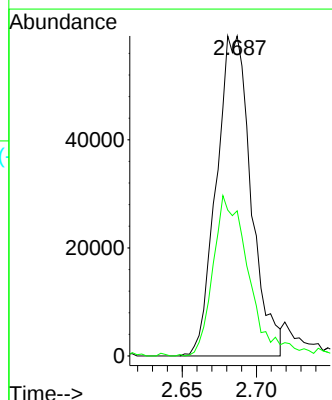
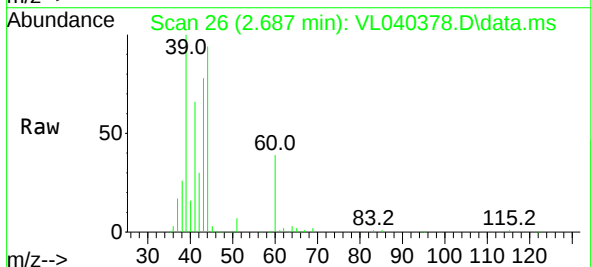
Instrument :
MSVOA_L
ClientSampleId :

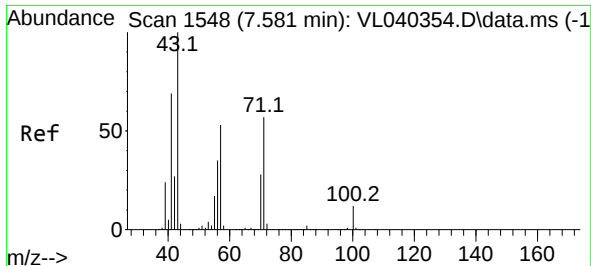
Tgt Ion: 64 Resp: 1311
Ion Ratio Lower Upper
64 100
66 37.8 27.5 41.3



#9
Propene
Concen: 1.751 ppbv
RT: 2.687 min Scan# 26
Delta R.T. 0.006 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

Tgt Ion: 41 Resp: 96394
Ion Ratio Lower Upper
41 100
42 52.3 56.5 84.7#

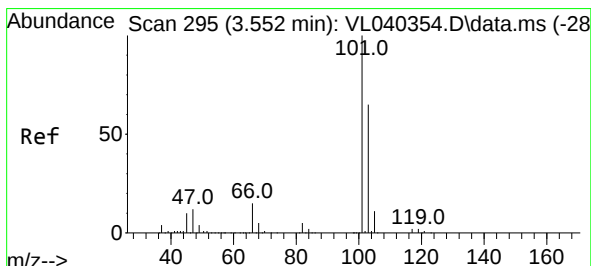
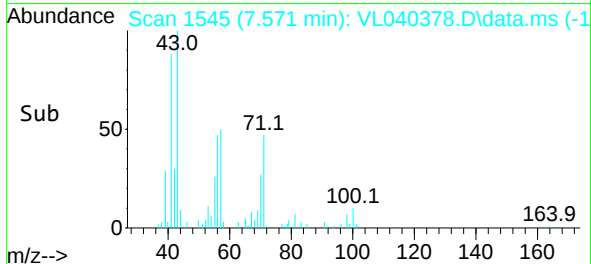
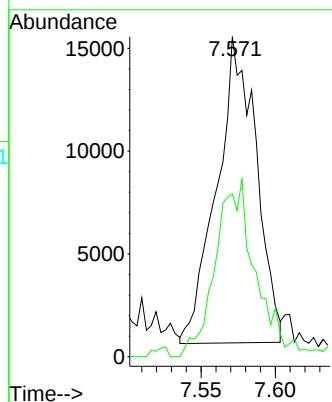
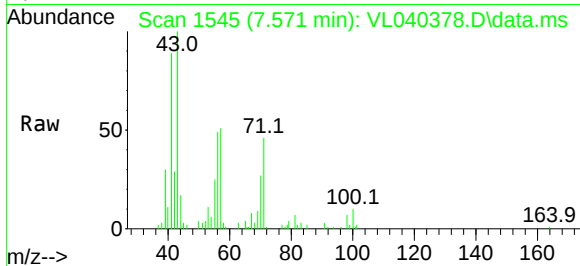




#10
Heptane
Concen: 0.220 ppbv
RT: 7.571 min Scan# 11
Delta R.T. -0.010 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

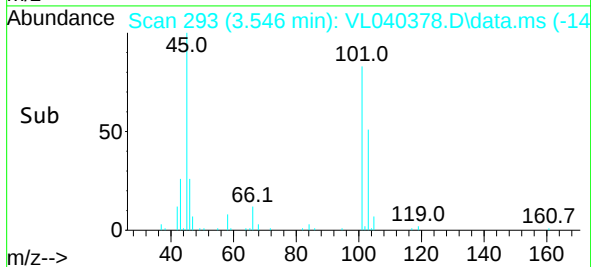
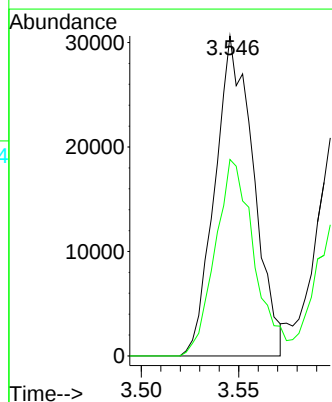
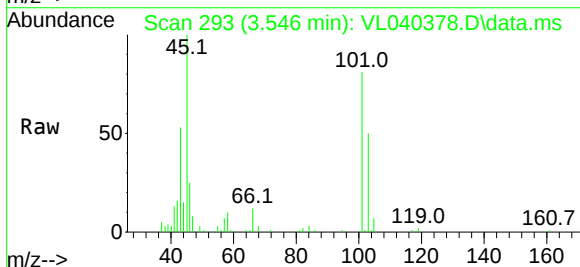
Instrument :
MSVOA_L
ClientSampleId :

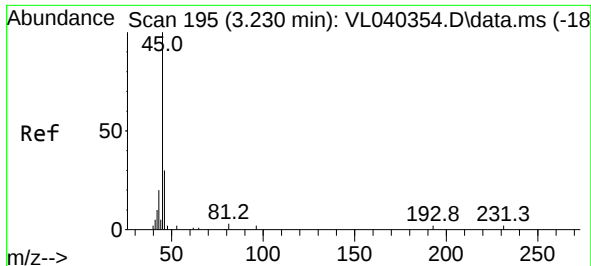
Tgt Ion: 43 Resp: 27549
Ion Ratio Lower Upper
43 100
57 61.2 42.2 63.4



#11
Trichlorofluoromethane
Concen: 0.217 ppbv
RT: 3.546 min Scan# 293
Delta R.T. -0.006 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

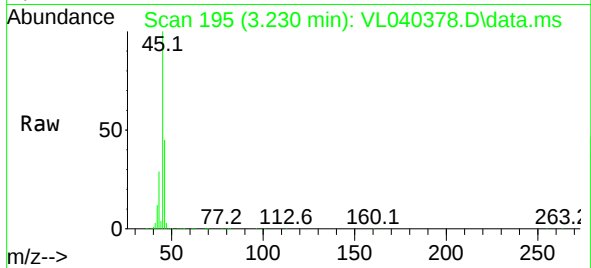
Tgt Ion:101 Resp: 42155
Ion Ratio Lower Upper
101 100
103 61.4 52.2 78.4



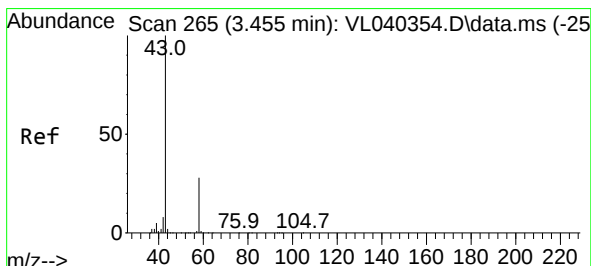
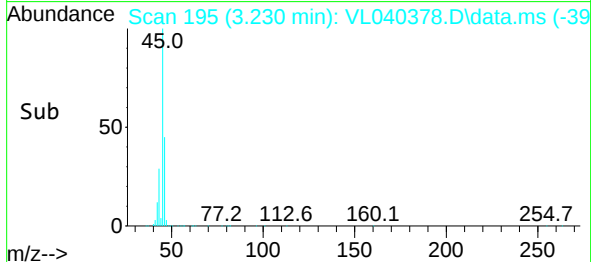
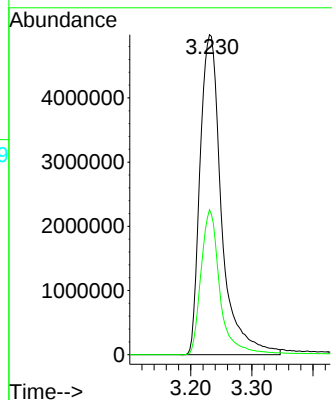


#13
Ethanol
Concen: 2644.886 ppbv
RT: 3.230 min Scan# 195
Delta R.T. 0.000 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

Instrument :
MSVOA_L
ClientSampleId :

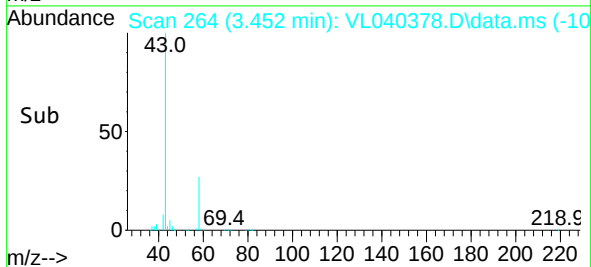
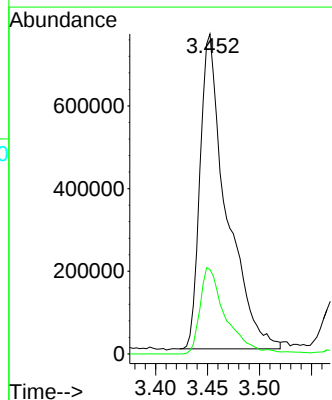
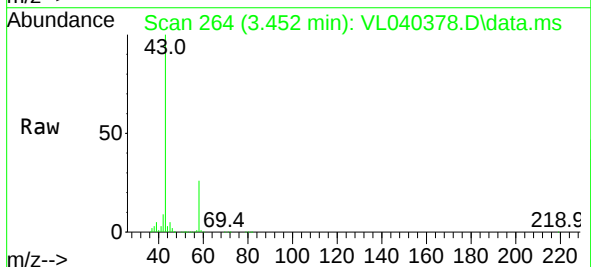


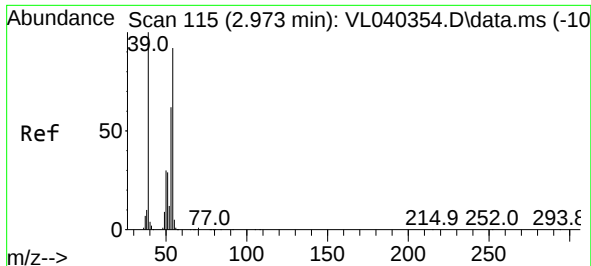
Tgt Ion: 45 Resp: 12151633
Ion Ratio Lower Upper
45 100
46 41.1 15.3 61.3



#15
Acetone
Concen: 8.910 ppbv
RT: 3.452 min Scan# 264
Delta R.T. -0.003 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

Tgt Ion: 43 Resp: 1345312
Ion Ratio Lower Upper
43 100
58 27.1 22.2 33.2





#16

1,3-Butadiene

Concen: 0.433 ppbv

RT: 2.947 min Scan# 115

Delta R.T. -0.026 min

Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

Instrument :

MSVOA_L

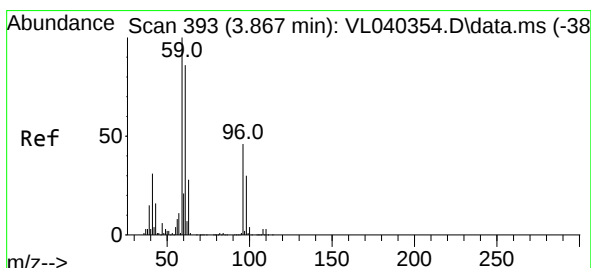
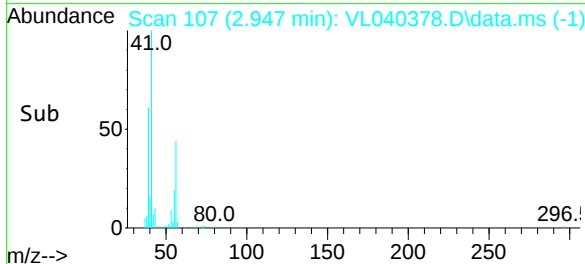
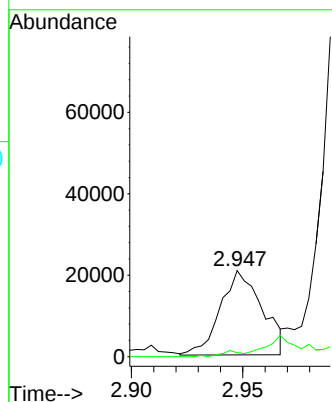
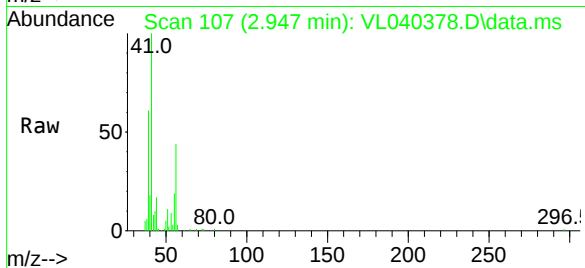
ClientSampleId :

Tgt Ion: 39 Resp: 27040

Ion Ratio Lower Upper

39 100

54 37.1 68.8 103.2#



#17

tert-Butyl alcohol

Concen: 0.393 ppbv

RT: 3.880 min Scan# 397

Delta R.T. 0.013 min

Lab File: VL040378.D

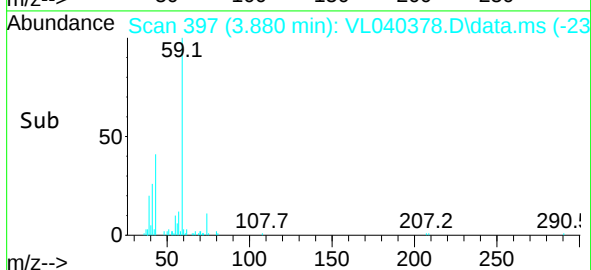
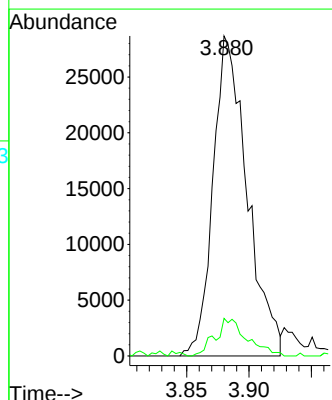
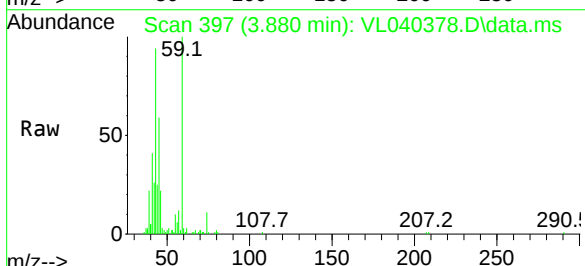
Acq: 19 Apr 2023 13:52

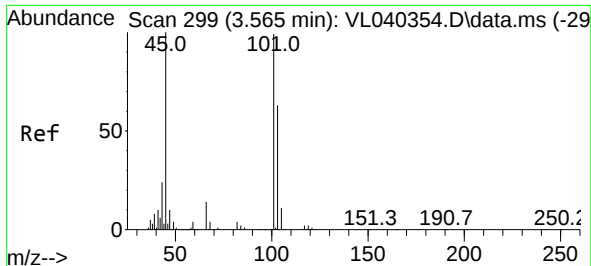
Tgt Ion: 59 Resp: 54442

Ion Ratio Lower Upper

59 100

57 11.3 8.5 12.7





#19

Isopropyl Alcohol

Concen: 14.608 ppbv

RT: 3.574 min Scan# 302

Delta R.T. 0.009 min

Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

Instrument :

MSVOA_L

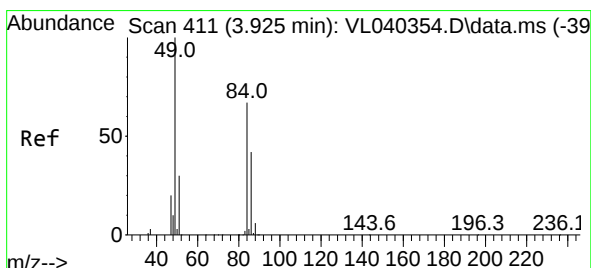
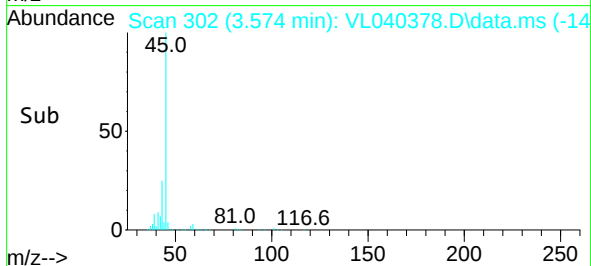
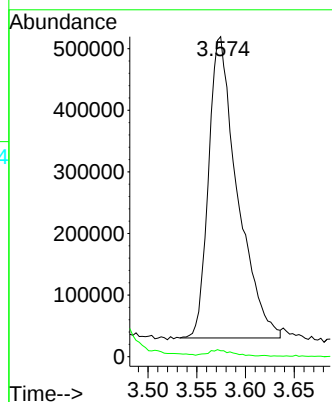
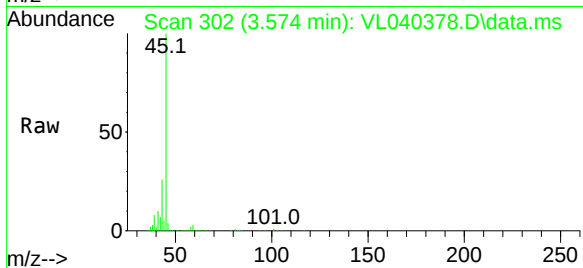
ClientSampleId :

Tgt Ion: 45 Resp: 1006458

Ion Ratio Lower Upper

45 100

58 2.1 2.6 4.0#



#20

Methylene Chloride

Concen: 3.408 ppbv

RT: 3.918 min Scan# 409

Delta R.T. -0.006 min

Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

Tgt Ion: 84 Resp: 205428

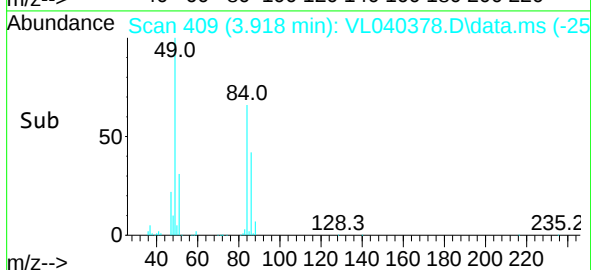
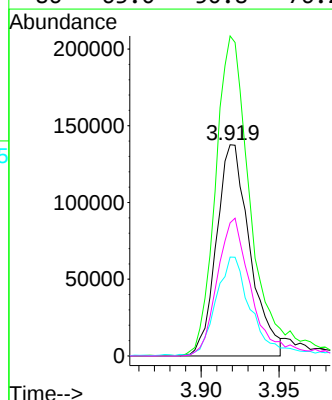
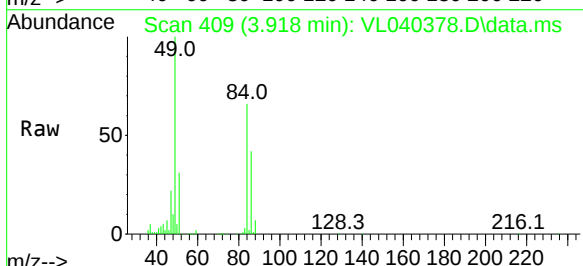
Ion Ratio Lower Upper

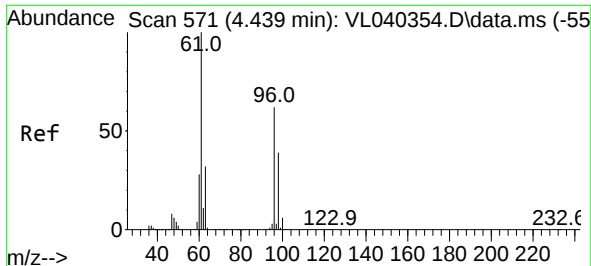
84 100

49 151.2 120.1 180.1

51 46.0 36.3 54.5

86 63.0 50.8 76.2





#22

trans-1,2-Dichloroethene

Concen: 0.063 ppbv

RT: 4.433 min Scan# 571

Delta R.T. -0.006 min

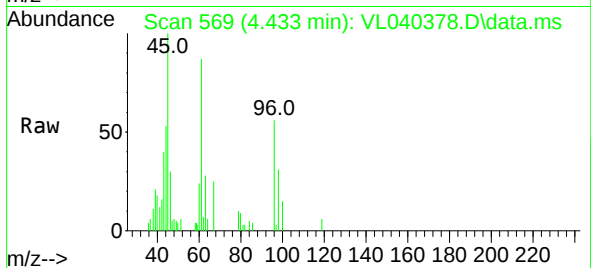
Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

Instrument :

MSVOA_L

ClientSampleId :



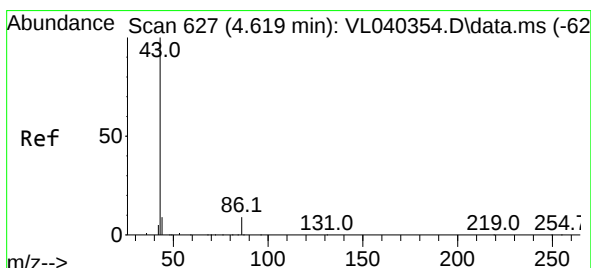
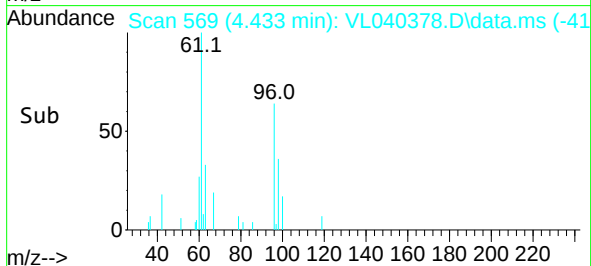
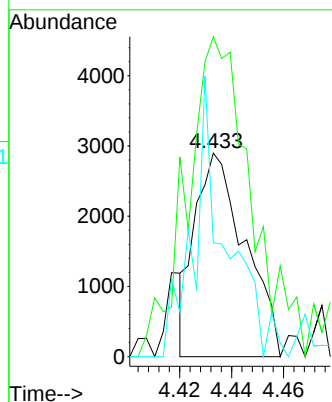
Tgt Ion: 96 Resp: 3876

Ion Ratio Lower Upper

96 100

61 104.2 129.4 194.2#

98 49.3 51.0 76.4#



#23

Vinyl Acetate

Concen: 3.257 ppbv

RT: 4.603 min Scan# 622

Delta R.T. -0.016 min

Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

Tgt Ion: 43 Resp: 125218

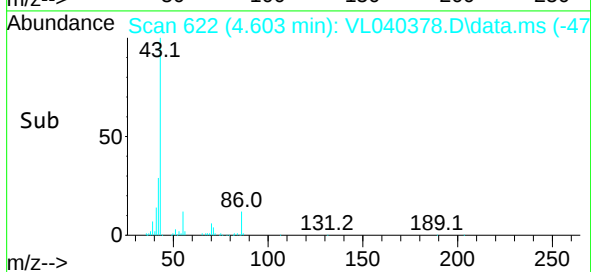
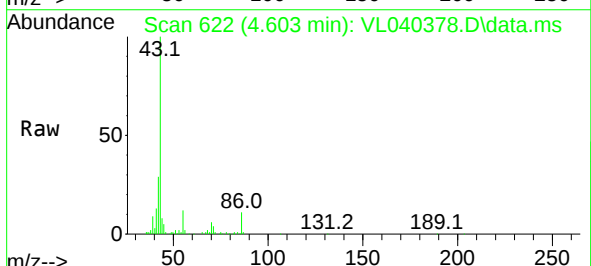
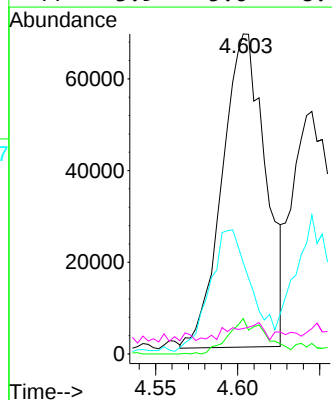
Ion Ratio Lower Upper

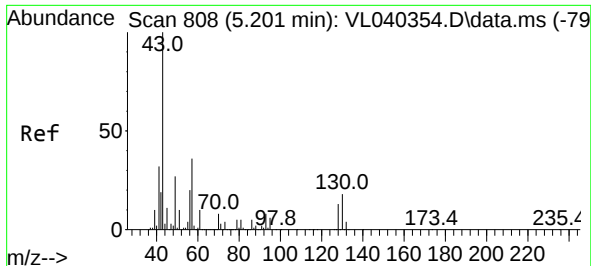
43 100

86 11.4 6.0 9.0#

42 27.3 6.4 9.6#

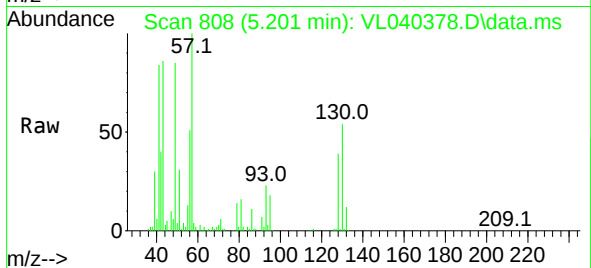
44 3.9 5.6 8.4#



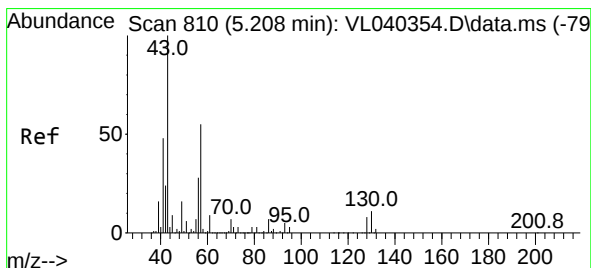
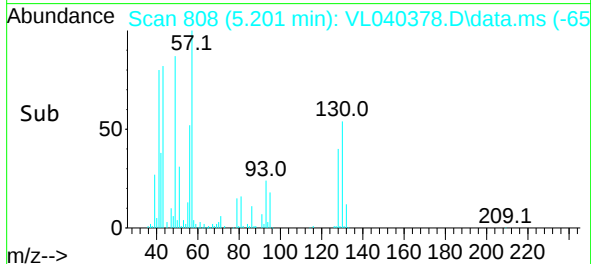
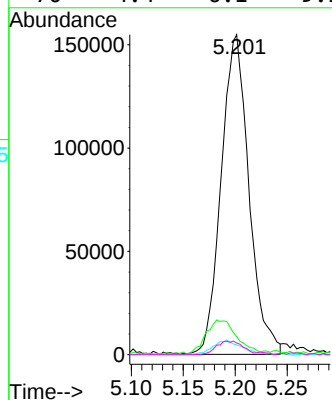


#25
Ethyl Acetate
Concen: 1.130 ppbv
RT: 5.201 min Scan# 808
Delta R.T. 0.000 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

Instrument :
MSVOA_1
ClientSampleId :

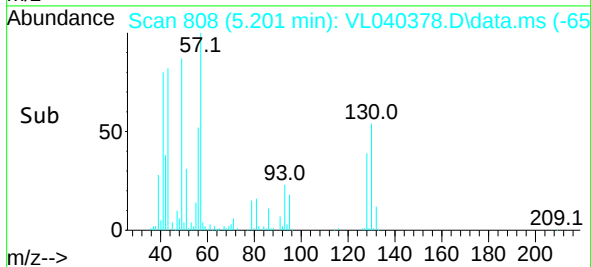
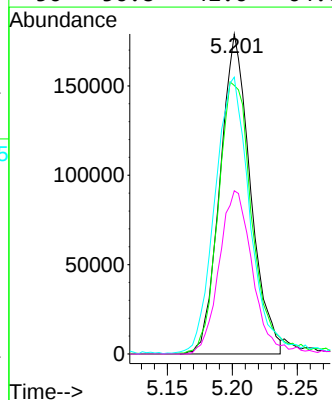
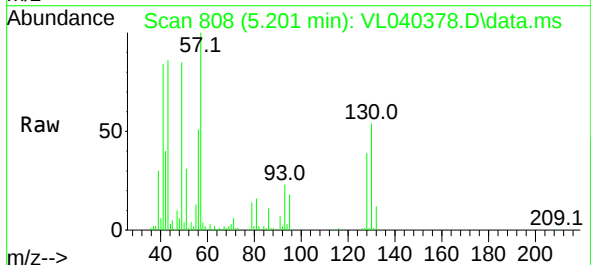


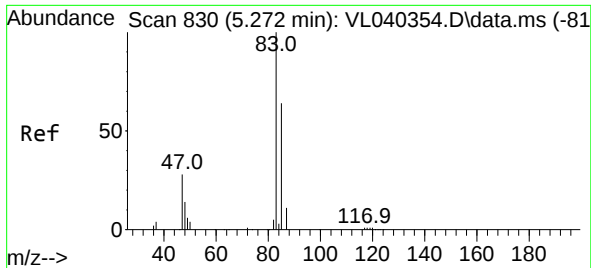
Tgt Ion: 43 Resp: 287119
Ion Ratio Lower Upper
43 100
45 11.8 8.5 12.7
61 4.8 8.5 12.7#
70 4.4 6.1 9.1#



#26
Hexane
Concen: 2.726 ppbv
RT: 5.201 min Scan# 808
Delta R.T. -0.007 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

Tgt Ion: 57 Resp: 291972
Ion Ratio Lower Upper
57 100
41 96.6 74.8 112.2
43 102.9 192.7 289.1#
56 56.8 42.6 64.0





#29

Chloroform

Concen: 0.413 ppbv

RT: 5.259 min Scan# 81

Delta R.T. -0.013 min

Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

Instrument :

MSVOA_L

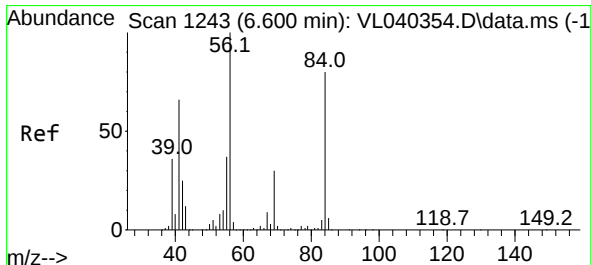
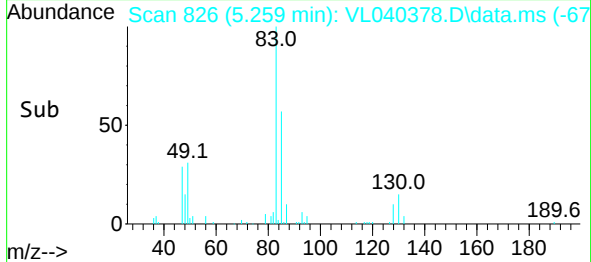
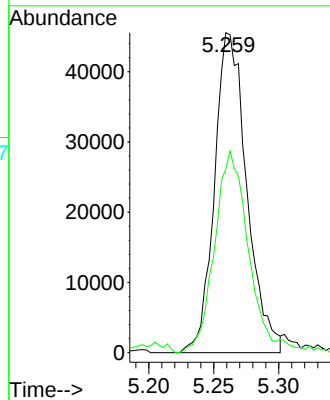
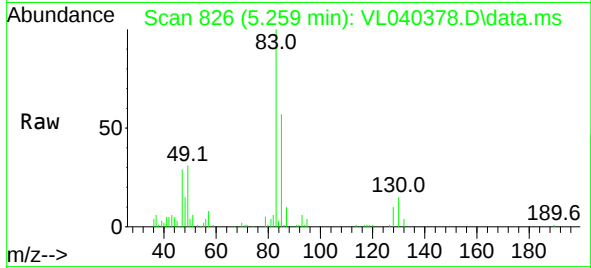
ClientSampleId :

Tgt Ion: 83 Resp: 78863

Ion Ratio Lower Upper

83 100

85 57.5 51.0 76.4



#30

Cyclohexane

Concen: 0.043 ppbv

RT: 6.590 min Scan# 1240

Delta R.T. -0.010 min

Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

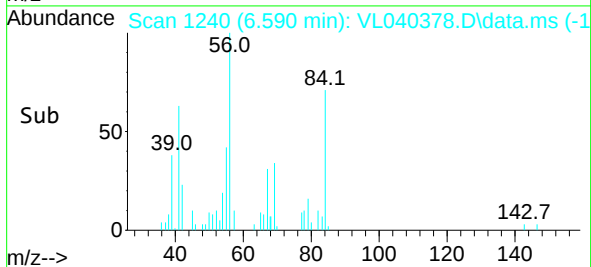
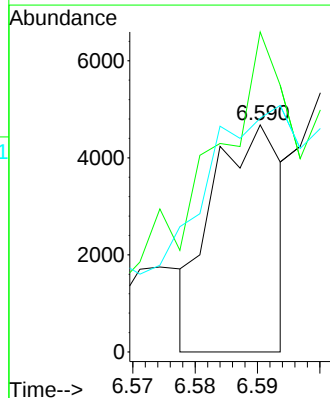
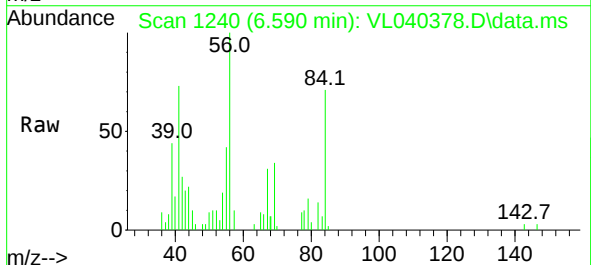
Tgt Ion: 84 Resp: 3593

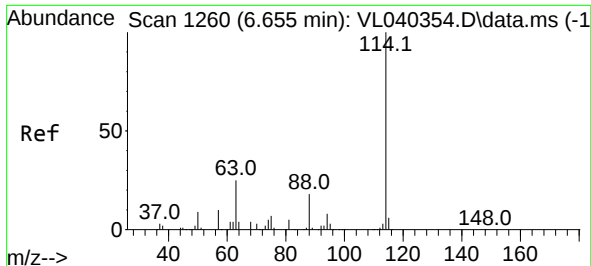
Ion Ratio Lower Upper

84 100

56 313.0 107.0 160.6#

41 373.4 66.7 100.1#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.645 min Scan# 114

Delta R.T. -0.010 min

Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

Instrument :

MSVOA_L

ClientSampleId :

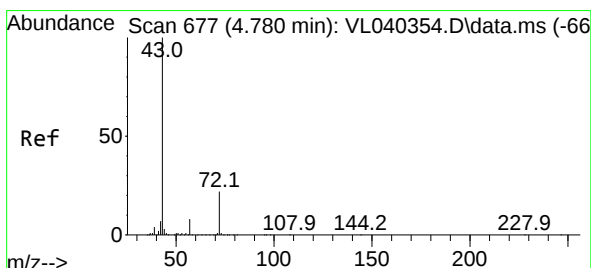
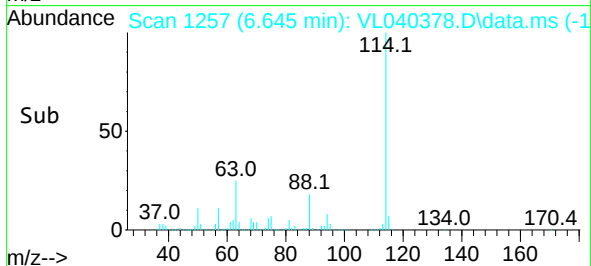
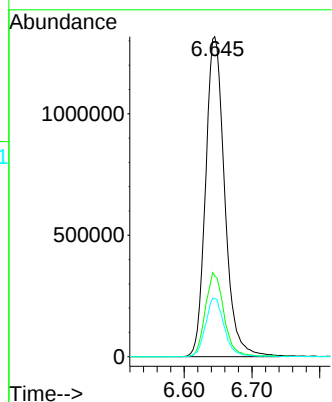
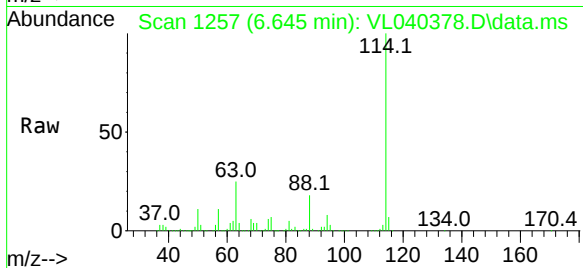
Tgt Ion:114 Resp: 2574545

Ion Ratio Lower Upper

114 100

63 25.9 21.4 32.0

88 18.1 14.6 22.0



#34

2-Butanone

Concen: 0.936 ppbv

RT: 4.780 min Scan# 677

Delta R.T. 0.000 min

Lab File: VL040378.D

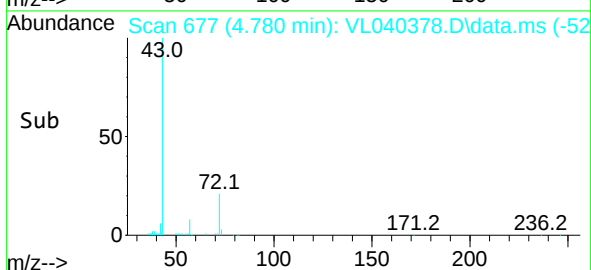
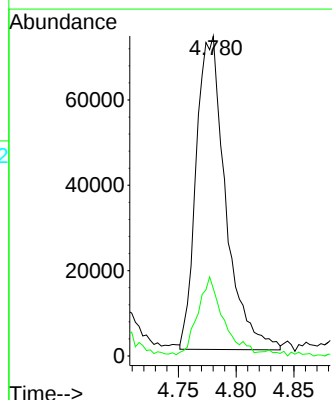
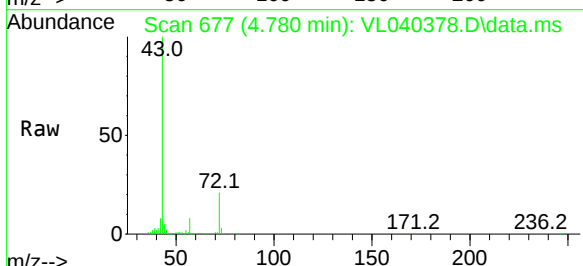
Acq: 19 Apr 2023 13:52

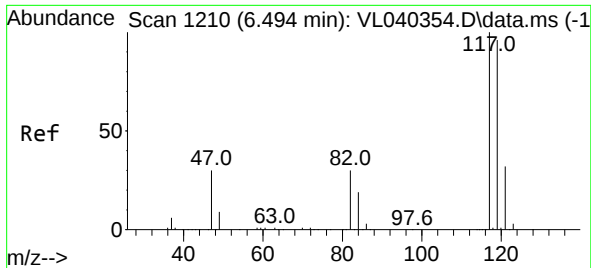
Tgt Ion: 43 Resp: 129911

Ion Ratio Lower Upper

43 100

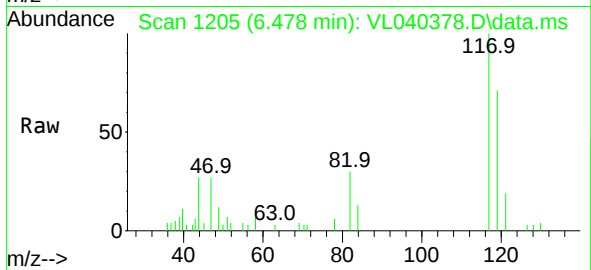
72 24.1 18.4 27.6



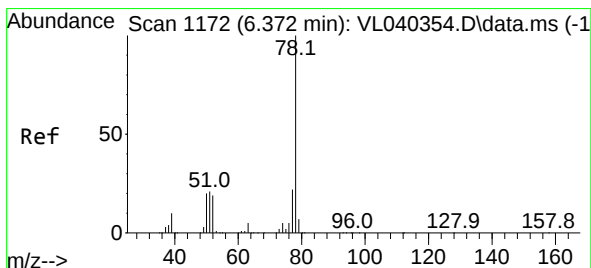
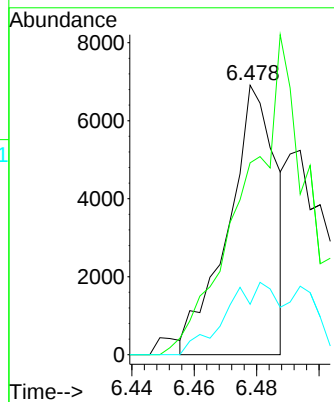
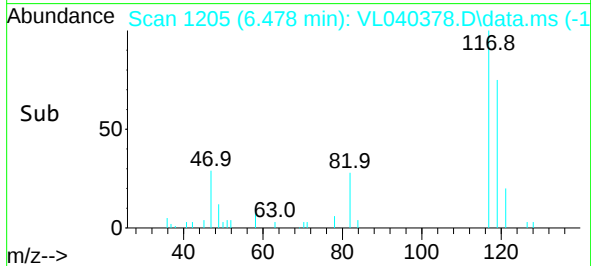


#35
Carbon Tetrachloride
Concen: 0.040 ppbv
RT: 6.478 min Scan# 1169
Delta R.T. -0.016 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

Instrument :
MSVOA_L
ClientSampleId :

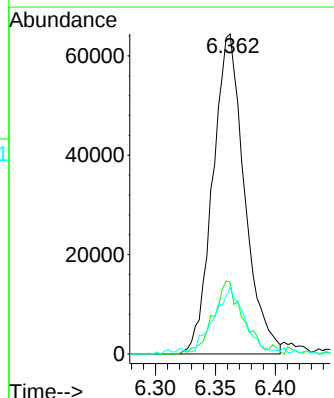
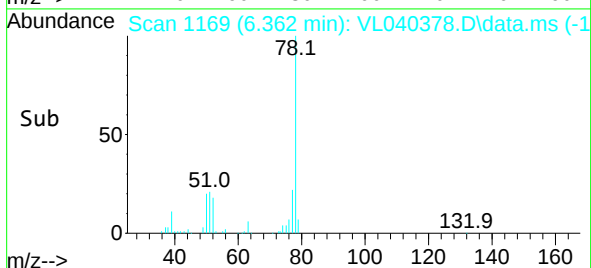
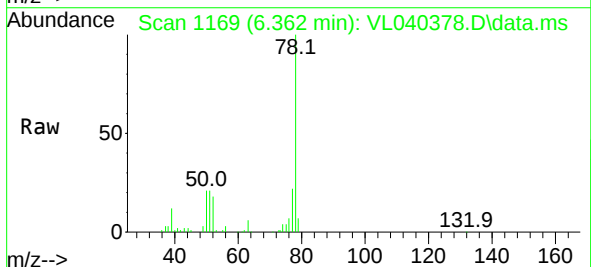


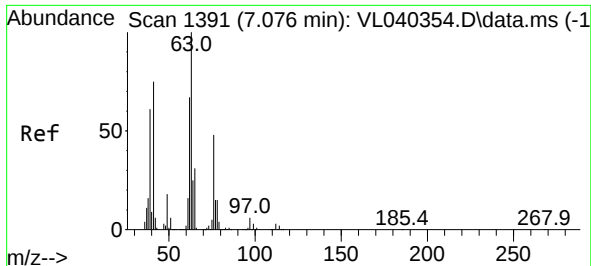
Tgt Ion: 117 Resp: 7315
Ion Ratio Lower Upper
117 100
119 68.8 76.6 114.8#
121 19.8 25.3 37.9#



#36
Benzene
Concen: 0.562 ppbv
RT: 6.362 min Scan# 1169
Delta R.T. -0.010 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

Tgt Ion: 78 Resp: 118087
Ion Ratio Lower Upper
78 100
77 22.2 17.8 26.8
50 19.0 15.6 23.4





#39

1,2-Dichloropropane

Concen: 7.960 ppbv

RT: 6.642 min Scan# 1

Delta R.T. -0.434 min

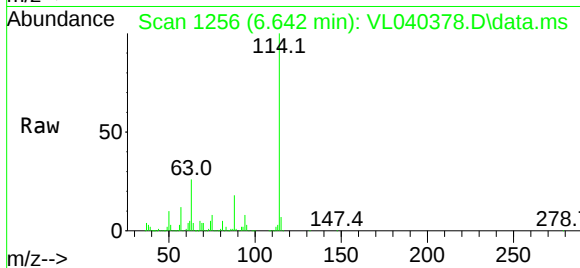
Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

Instrument :

MSVOA_L

ClientSampleId :



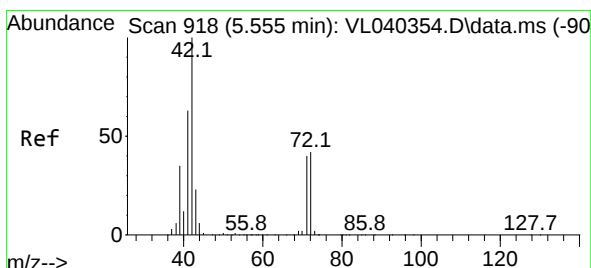
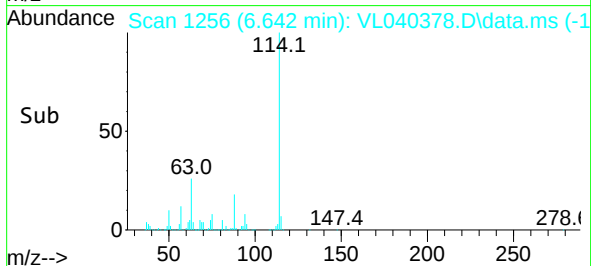
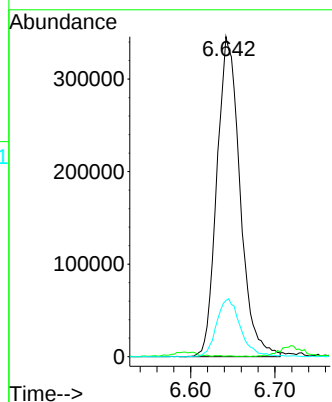
Tgt Ion: 63 Resp: 657909

Ion Ratio Lower Upper

63 100

41 0.0 59.6 89.4#

62 17.6 53.9 80.9#



#41

Tetrahydrofuran

Concen: 0.050 ppbv

RT: 5.549 min Scan# 916

Delta R.T. -0.006 min

Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

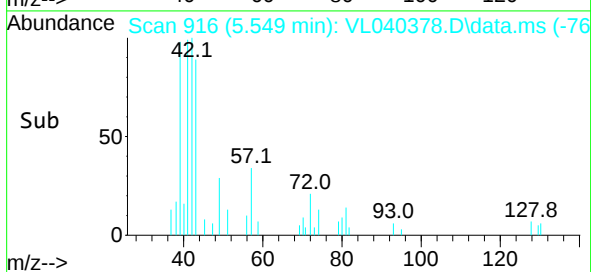
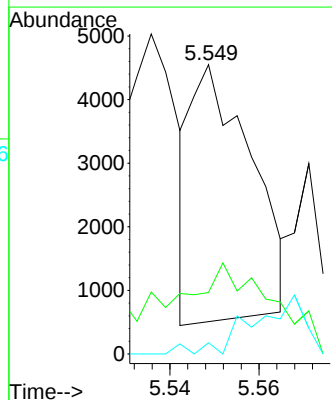
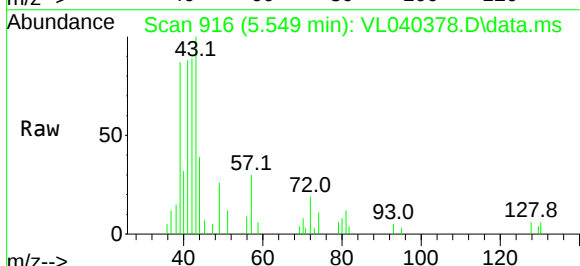
Tgt Ion: 42 Resp: 3783

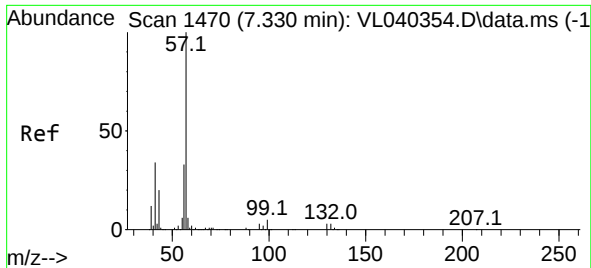
Ion Ratio Lower Upper

42 100

72 88.3 33.7 50.5#

71 21.6 32.2 48.2#

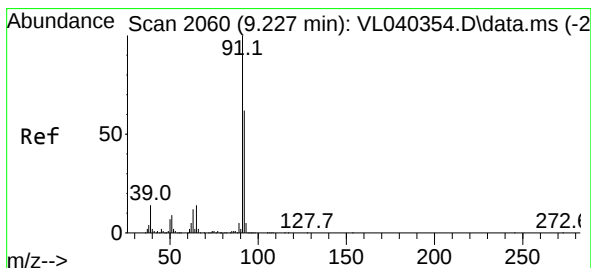
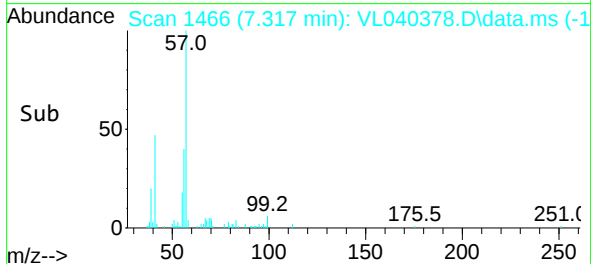
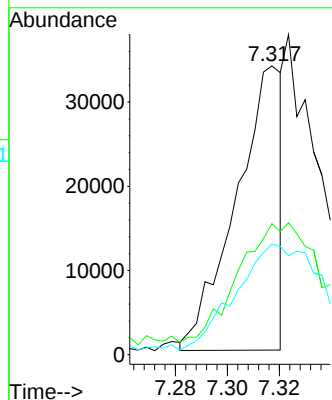
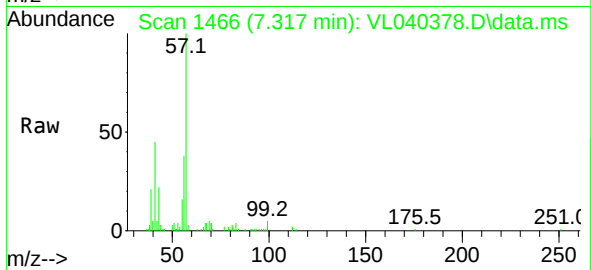




#44
2,2,4-Trimethylpentane
Concen: 0.118 ppbv
RT: 7.317 min Scan# 14
Delta R.T. -0.013 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

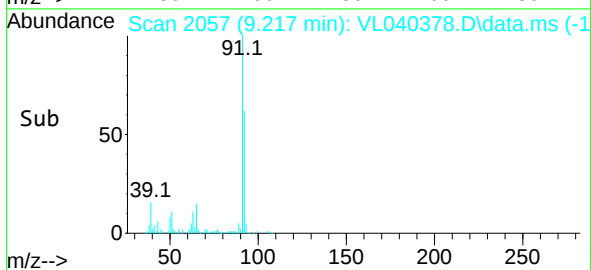
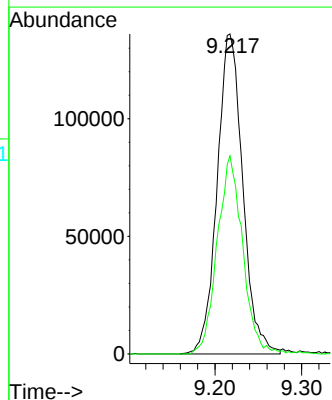
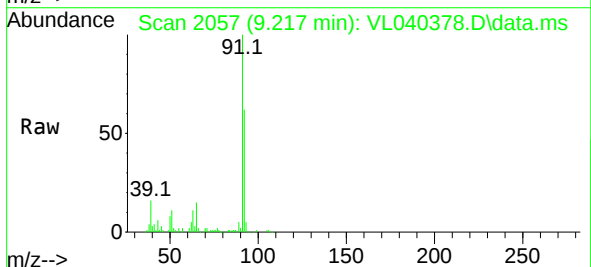
Instrument :
MSVOA_L
ClientSampleId :

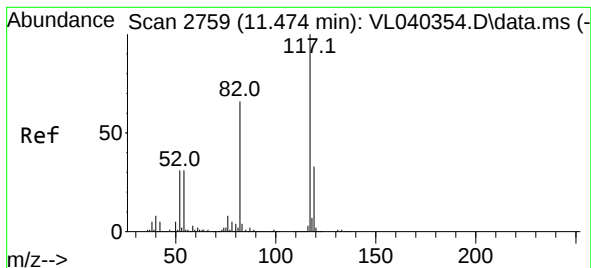
Tgt Ion: 57 Resp: 41399
Ion Ratio Lower Upper
57 100
41 0.0 26.9 40.3#
56 84.0 25.1 37.7#



#53
Toluene
Concen: 1.253 ppbv
RT: 9.217 min Scan# 2057
Delta R.T. -0.010 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

Tgt Ion: 91 Resp: 279139
Ion Ratio Lower Upper
91 100
92 61.9 48.9 73.3





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.465 min Scan# 21

Delta R.T. -0.009 min

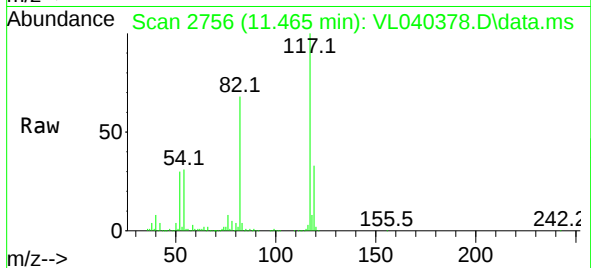
Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

Instrument :

MSVOA_L

ClientSampleId :



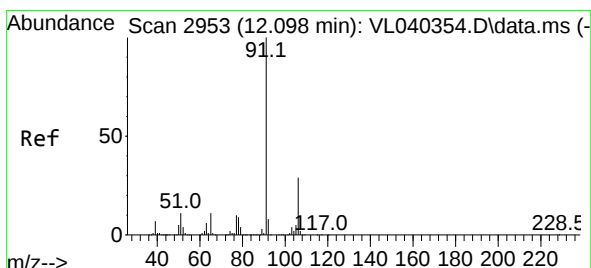
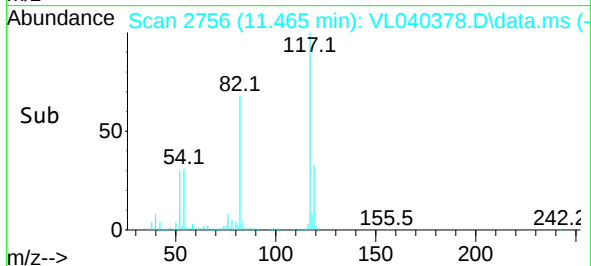
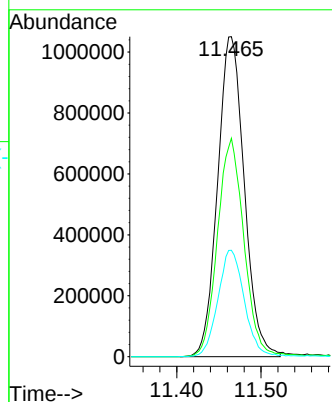
Tgt Ion:117 Resp: 2308433

Ion Ratio Lower Upper

117 100

82 68.4 52.5 78.7

119 33.0 24.3 36.5



#58

Ethyl Benzene

Concen: 0.058 ppbv

RT: 12.095 min Scan# 2952

Delta R.T. -0.003 min

Lab File: VL040378.D

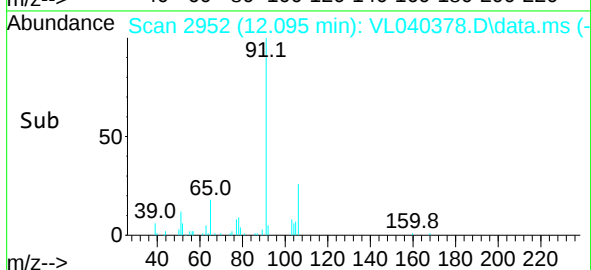
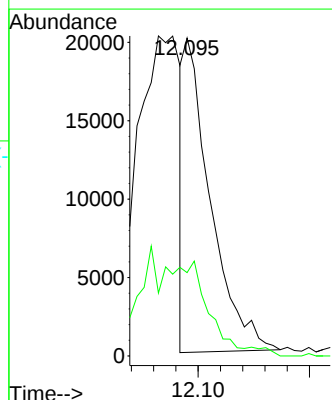
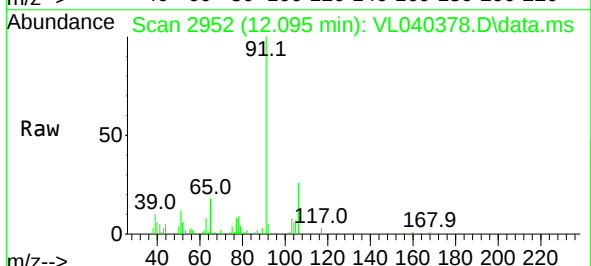
Acq: 19 Apr 2023 13:52

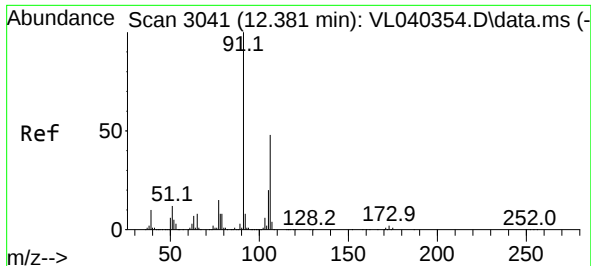
Tgt Ion: 91 Resp: 16489

Ion Ratio Lower Upper

91 100

106 26.8 23.5 35.3





#59

m/p-Xylene

Concen: 0.202 ppbv

RT: 12.359 min Scan# 3041

Delta R.T. -0.022 min

Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

Instrument :

MSVOA_L

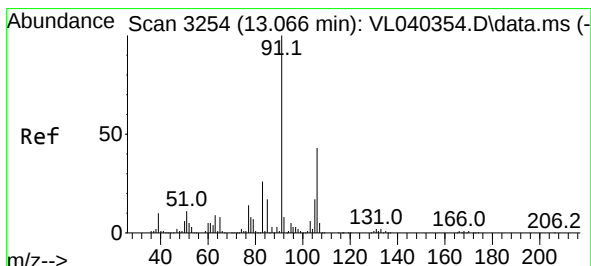
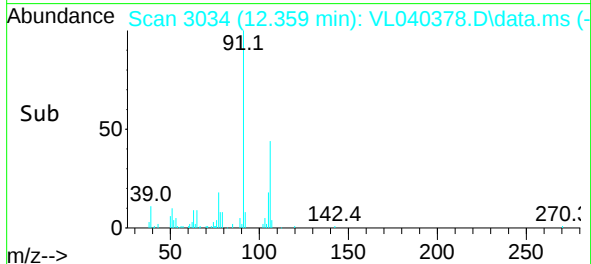
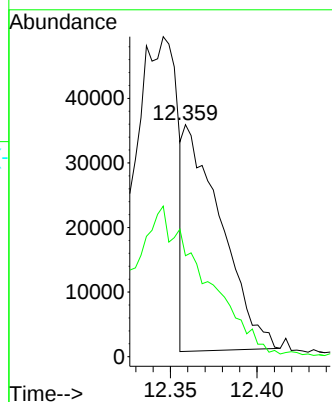
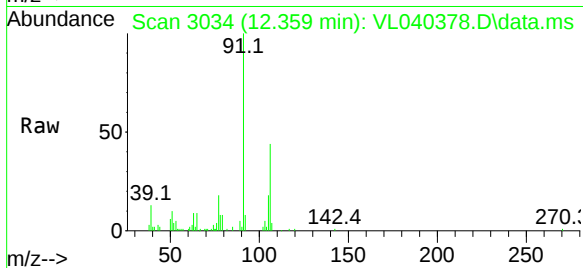
ClientSampleId :

Tgt Ion: 91 Resp: 52747

Ion Ratio Lower Upper

91 100

106 0.0 34.7 52.1#



#60

o-Xylene

Concen: 0.297 ppbv

RT: 13.060 min Scan# 3252

Delta R.T. -0.006 min

Lab File: VL040378.D

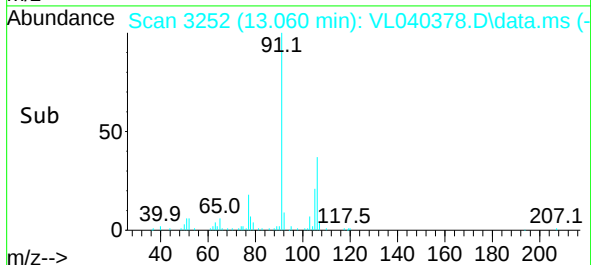
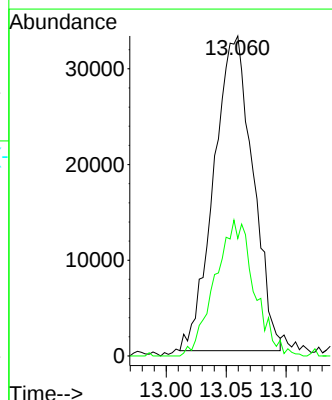
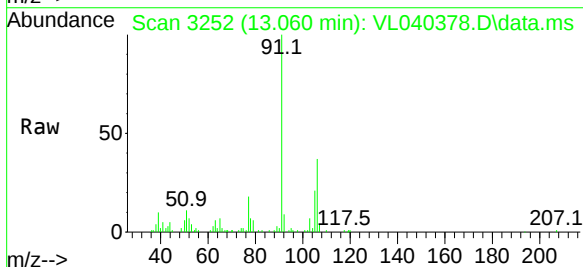
Acq: 19 Apr 2023 13:52

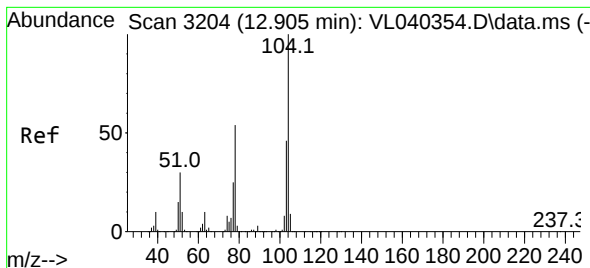
Tgt Ion: 91 Resp: 74444

Ion Ratio Lower Upper

91 100

106 43.3 21.9 65.8





#61

Styrene

Concen: 0.048 ppbv

RT: 12.899 min Scan# 31

Delta R.T. -0.006 min

Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

Instrument :

MSVOA_L

ClientSampleId :

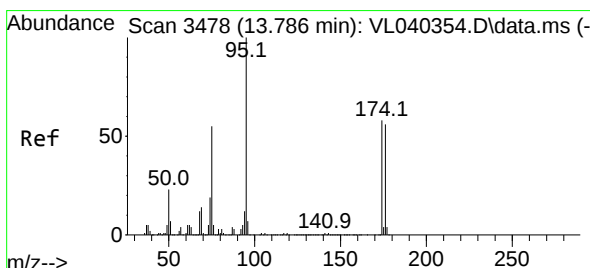
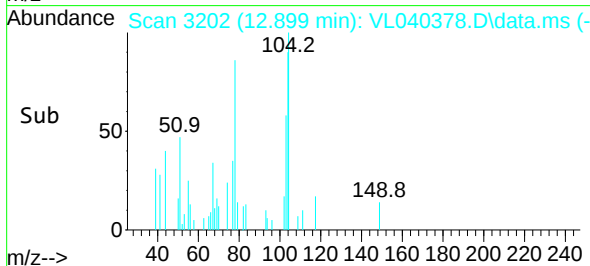
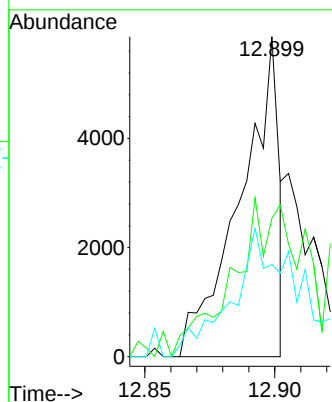
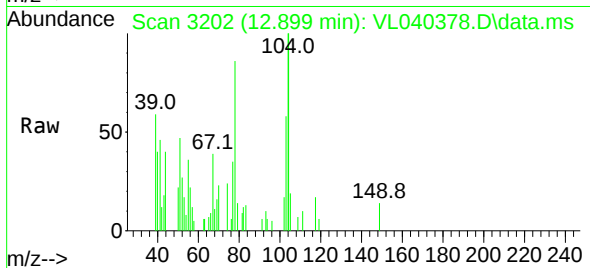
Tgt Ion:104 Resp: 6026

Ion Ratio Lower Upper

104 100

78 120.3 43.4 65.0#

103 73.1 37.0 55.4#



#68

1-Bromo-4-Fluorobenzene

Concen: 10.124 ppbv

RT: 13.773 min Scan# 3474

Delta R.T. -0.013 min

Lab File: VL040378.D

Acq: 19 Apr 2023 13:52

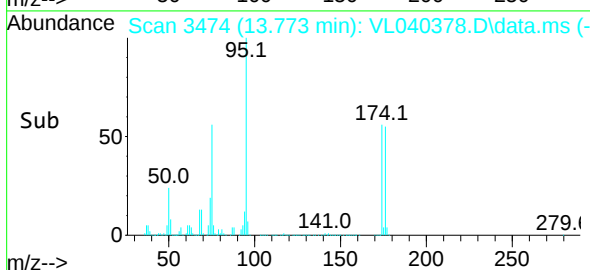
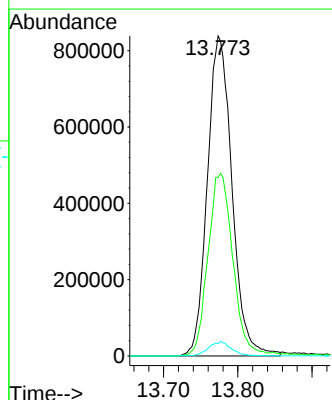
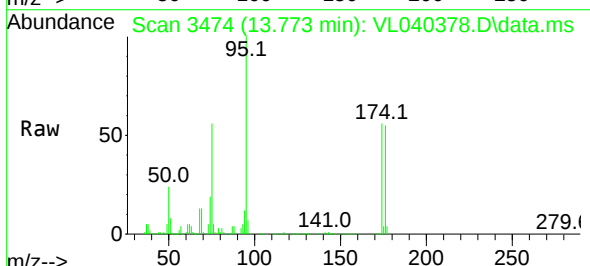
Tgt Ion: 95 Resp: 1932498

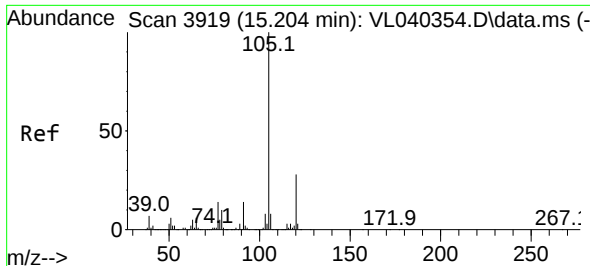
Ion Ratio Lower Upper

95 100

174 58.4 47.2 70.8

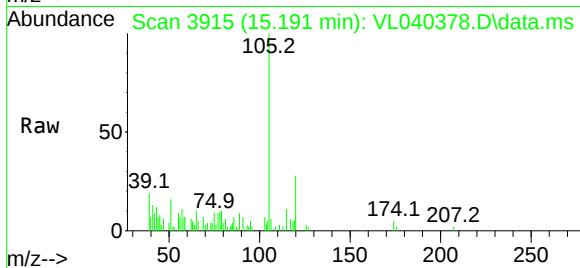
175 4.3 3.5 5.3



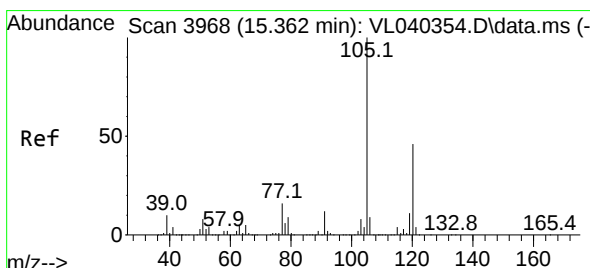
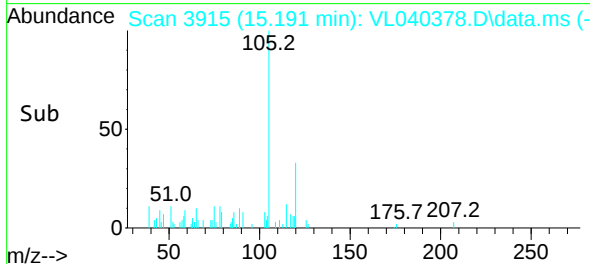
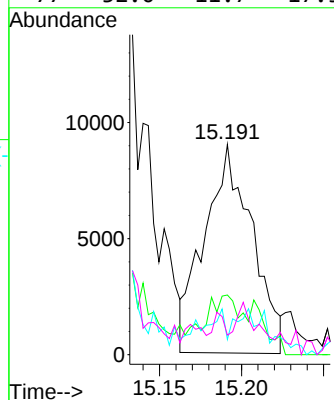


#72
4-Ethyltoluene
Concen: 0.065 ppbv
RT: 15.191 min Scan# 3915
Delta R.T. -0.013 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

Instrument :
MSVOA_L
ClientSampleId :

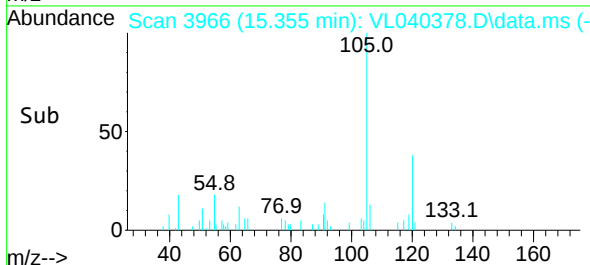
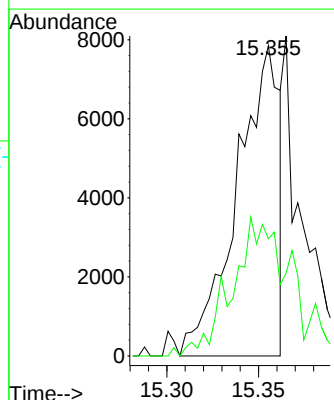
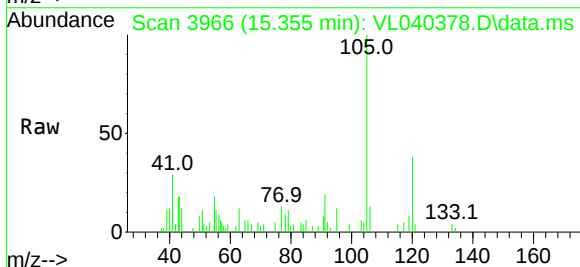


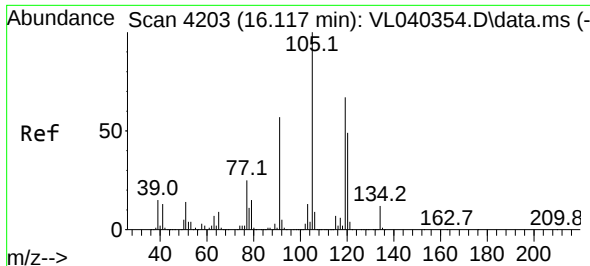
Tgt Ion:105	Resp:	18063
Ion Ratio	Lower	Upper
105	100	
120	31.0	23.0 34.6
91	29.4	11.3 16.9#
77	32.0	11.7 17.5#



#73
1,3,5-Trimethylbenzene
Concen: 0.049 ppbv
RT: 15.355 min Scan# 3966
Delta R.T. -0.007 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

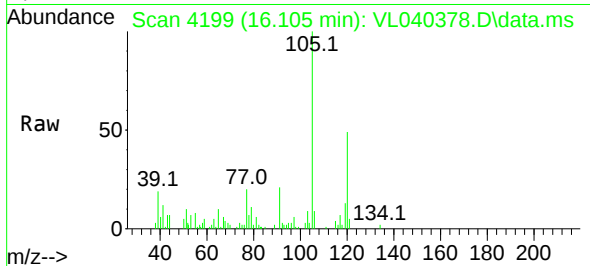
Tgt Ion:105	Resp:	12602
Ion Ratio	Lower	Upper
105	100	
120	41.6	36.9 55.3



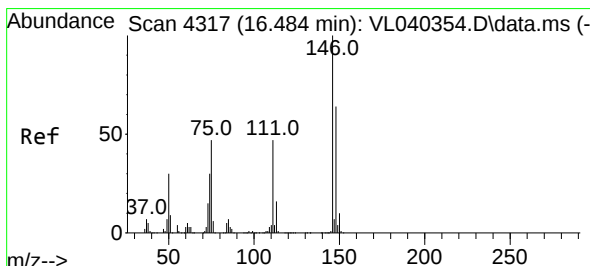
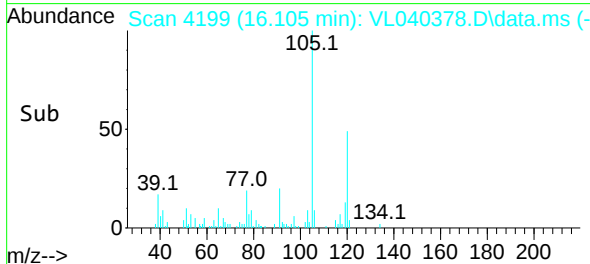
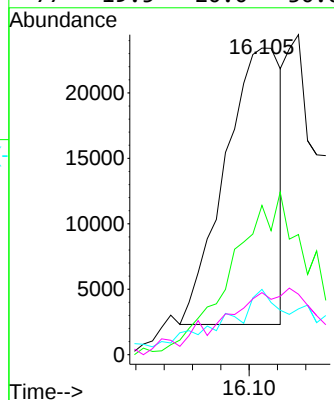


#74
1,2,4-Trimethylbenzene
Concen: 0.098 ppbv
RT: 16.105 min Scan# 4199
Delta R.T. -0.012 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

Instrument :
MSVOA_L
ClientSampleId :



Tgt Ion:105 Resp: 28751
Ion Ratio Lower Upper
105 100
120 47.9 38.9 58.3
91 15.7 46.0 69.0#
77 19.5 20.0 30.0#



#76
1,4-Dichlorobenzene
Concen: 0.088 ppbv
RT: 16.471 min Scan# 4313
Delta R.T. -0.013 min
Lab File: VL040378.D
Acq: 19 Apr 2023 13:52

Tgt Ion:146 Resp: 13940
Ion Ratio Lower Upper
146 100
111 69.6 23.8 71.4
148 74.1 32.4 97.2

