

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL072623\
 Data File : VL040548.D
 Acq On : 26 Jul 2023 19:51
 Operator : SY/MD
 Sample : 03696-01 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jul 27 01:52:05 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL071023AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Mon Jul 10 16:32:00 2023
 Response via : Initial Calibration

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

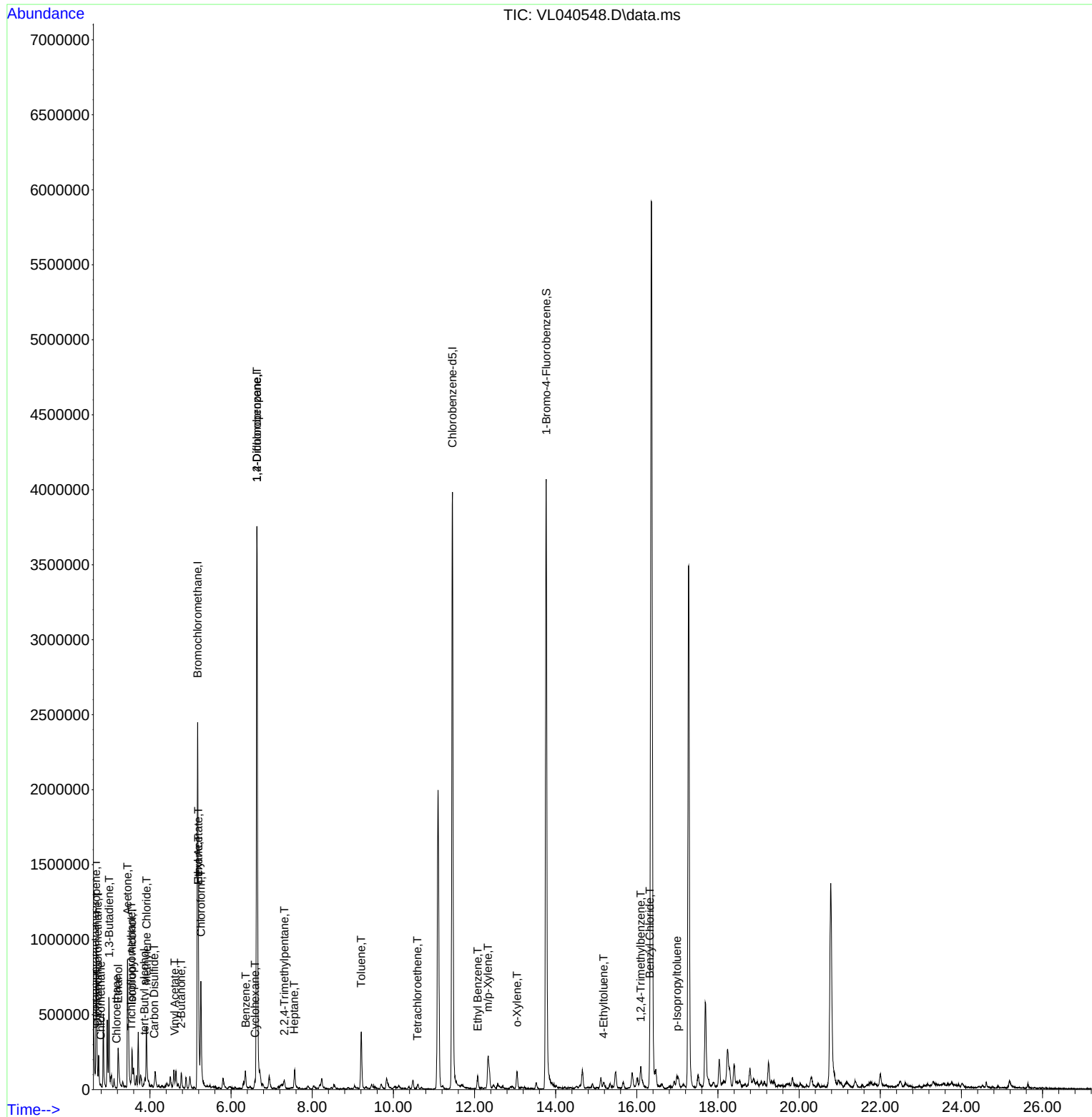
Internal Standards						
1) Bromochloromethane	5.176	49	1062530	10.000	ppbv	-0.03
33) 1,4-Difluorobenzene	6.639	114	2794971	10.000	ppbv	-0.03
55) Chlorobenzene-d5	11.455	117	2512669	10.000	ppbv	-0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.767	95	2002482	10.070	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	= 100.700%	
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.710	85	22039	0.104	ppbv	94
3) Chlorodifluoromethane	2.652	51	31163	0.185	ppbv	98
4) Chloromethane	2.793	50	9681	0.145	ppbv #	69
7) Chloroethane	3.179	64	811	0.033	ppbv	98
9) Propene	2.674	41	350934	6.087	ppbv	87
10) Heptane	7.552	43	9712	0.076	ppbv #	25
11) Trichlorofluoromethane	3.542	101	13436	0.078	ppbv	95
13) Ethanol	3.218	45	310295	24.736	ppbv	100
15) Acetone	3.449	43	922098	7.539	ppbv	98
16) 1,3-Butadiene	2.993	39	69554	1.127	ppbv #	8
17) tert-Butyl alcohol	3.867	59	13062	0.103	ppbv #	71
19) Isopropyl Alcohol	3.558	45	242665	3.456	ppbv #	93
20) Methylene Chloride	3.919	84	140706	2.705	ppbv	83
23) Vinyl Acetate	4.610	43	6983	0.060	ppbv #	48
25) Ethyl Acetate	5.195	43	147660	0.634	ppbv #	90
26) Hexane	5.195	57	140890	1.302	ppbv #	53
27) Carbon Disulfide	4.105	76	22927	0.180	ppbv #	53
29) Chloroform	5.256	83	438934	2.446	ppbv	97
30) Cyclohexane	6.587	84	8060	0.090	ppbv #	1
34) 2-Butanone	4.771	43	110537	0.800	ppbv	96
36) Benzene	6.359	78	35007	0.156	ppbv	96
39) 1,2-Dichloropropane	6.639	63	709566	8.196	ppbv #	27
44) 2,2,4-Trimethylpentane	7.314	57	30446	0.084	ppbv #	39
52) Tetrachloroethene	10.594	164	3164	0.043	ppbv #	64
53) Toluene	9.208	91	275074	1.126	ppbv	99
58) Ethyl Benzene	12.076	91	51138	0.162	ppbv	94
59) m/p-Xylene	12.333	91	230507	0.819	ppbv	98
60) o-Xylene	13.047	91	55177	0.206	ppbv #	31
66) Benzyl Chloride	16.317	91	774	0.031	ppbv #	63
69) p-Isopropyltoluene	16.989	119	46029	0.107	ppbv #	86
72) 4-Ethyltoluene	15.179	105	9620	0.031	ppbv #	32
74) 1,2,4-Trimethylbenzene	16.098	105	89267	0.276	ppbv #	66

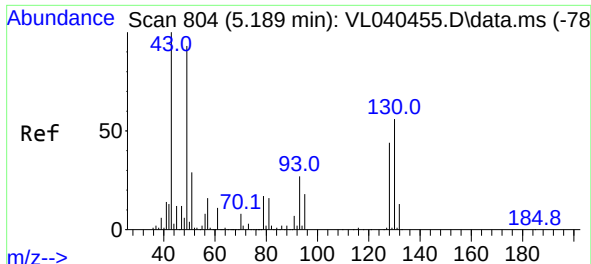
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :
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Quant Time: Jul 27 01:52:05 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL071023AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Mon Jul 10 16:32:00 2023
Response via : Initial Calibration

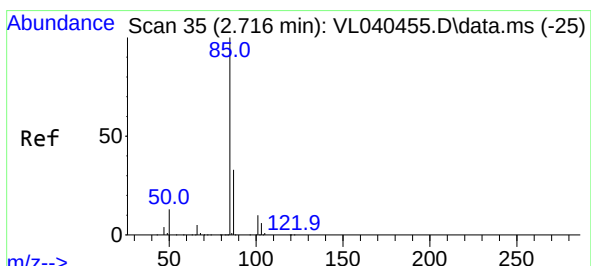
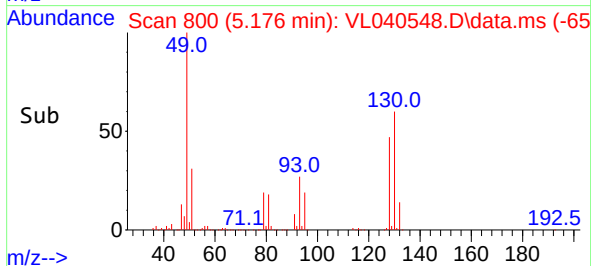
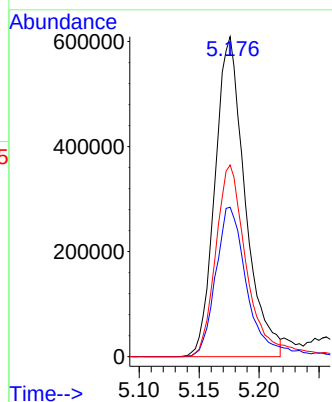
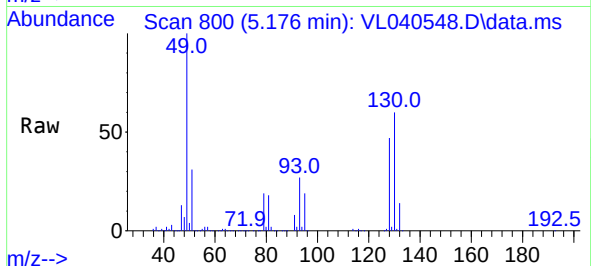




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.176 min Scan# 80
Delta R.T. -0.026 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

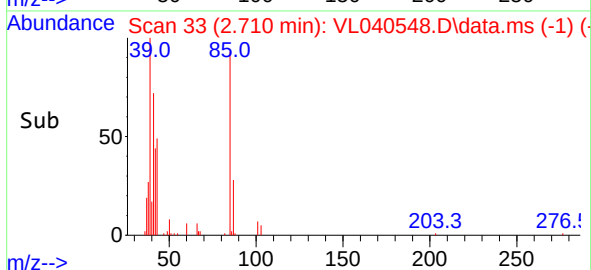
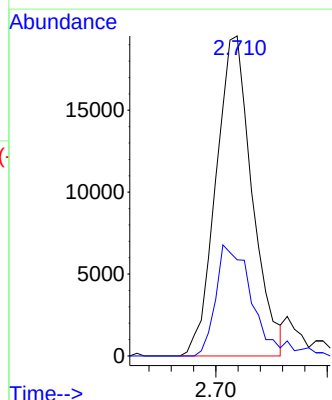
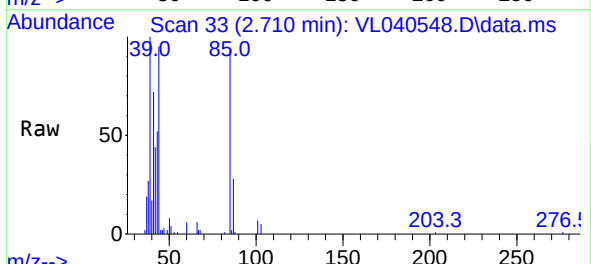
Instrument :
MSVOA_L
ClientSampleId :

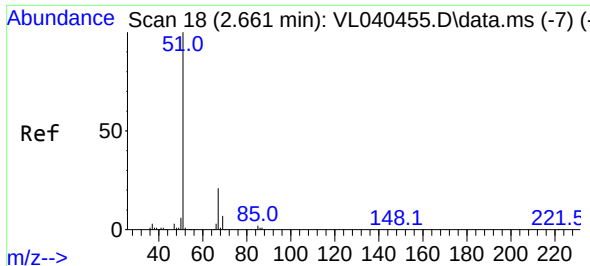
Tgt Ion: 49 Resp: 1062530
Ion Ratio Lower Upper
49 100
128 50.5 25.1 75.4
130 64.1 31.6 94.7



#2
Dichlorodifluoromethane
Concen: 0.104 ppbv
RT: 2.710 min Scan# 33
Delta R.T. -0.029 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

Tgt Ion: 85 Resp: 22039
Ion Ratio Lower Upper
85 100
87 30.0 26.8 40.2

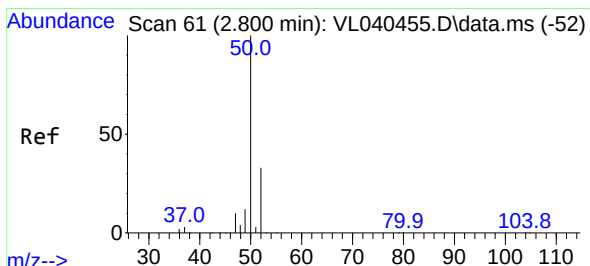
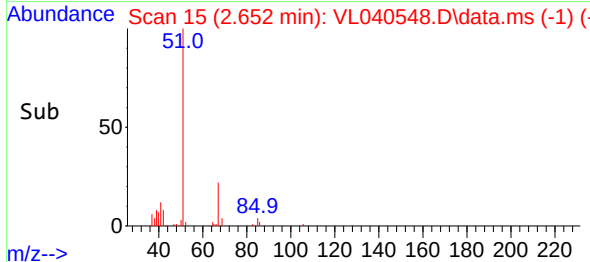
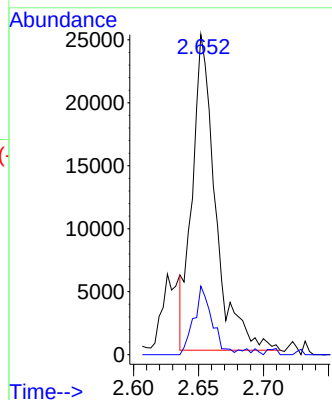
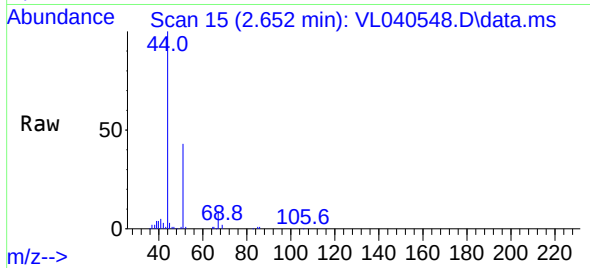




#3
Chlorodifluoromethane
Concen: 0.185 ppbv
RT: 2.652 min Scan# 11
Delta R.T. -0.032 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

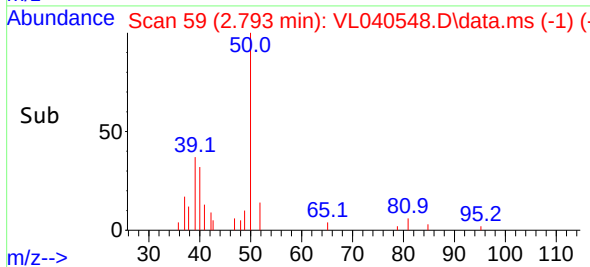
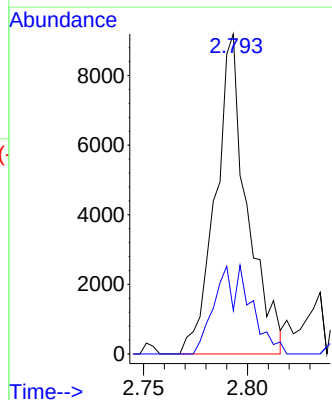
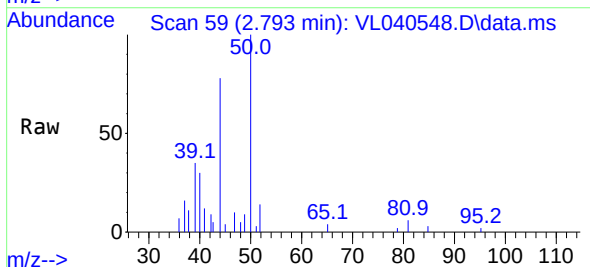
Instrument :
MSVOA_L
ClientSampleId :

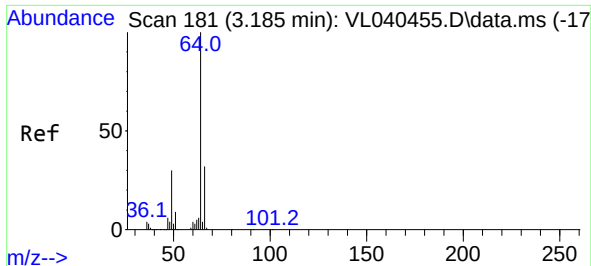
Tgt Ion: 51 Resp: 31163
Ion Ratio Lower Upper
51 100
67 19.0 14.6 21.8



#4
Chloromethane
Concen: 0.145 ppbv
RT: 2.793 min Scan# 59
Delta R.T. -0.029 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

Tgt Ion: 50 Resp: 9681
Ion Ratio Lower Upper
50 100
52 13.6 24.4 36.6#

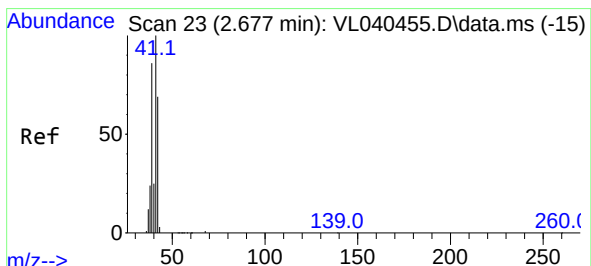
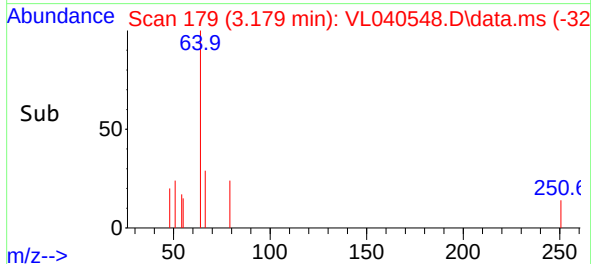
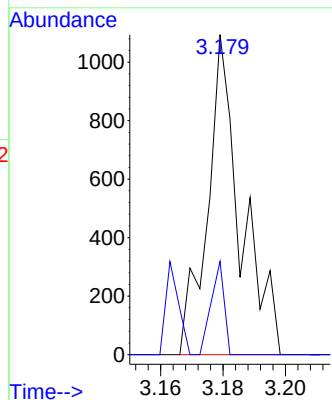
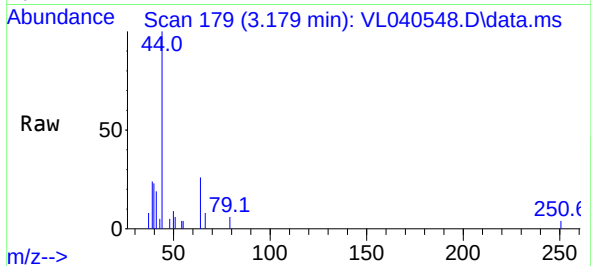




#7
Chloroethane
Concen: 0.033 ppbv
RT: 3.179 min Scan# 11
Delta R.T. -0.026 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

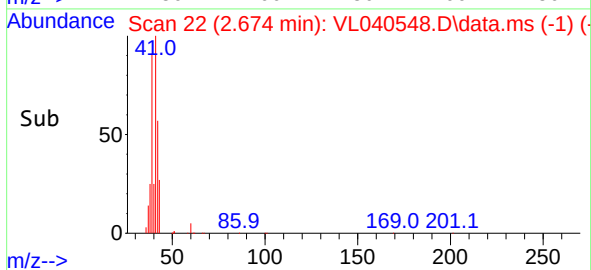
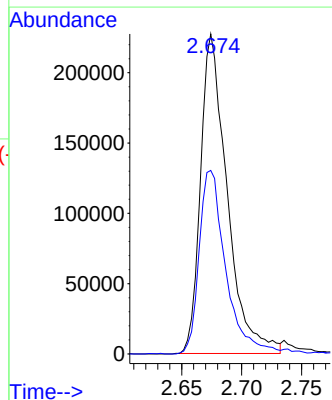
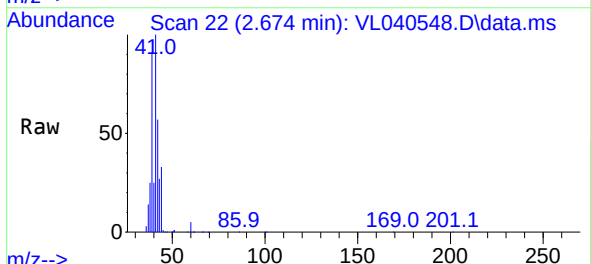
Instrument :
MSVOA_L
ClientSampleId :

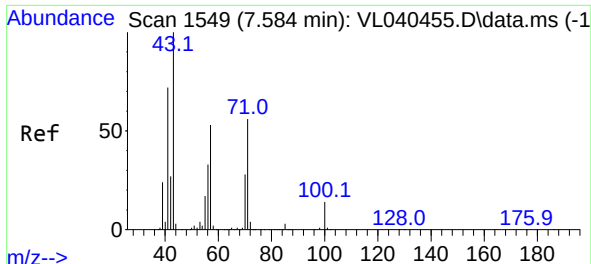
Tgt Ion: 64 Resp: 811
Ion Ratio Lower Upper
64 100
66 29.2 24.4 36.6



#9
Propene
Concen: 6.087 ppbv
RT: 2.674 min Scan# 22
Delta R.T. -0.029 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

Tgt Ion: 41 Resp: 350934
Ion Ratio Lower Upper
41 100
42 58.3 55.0 82.6

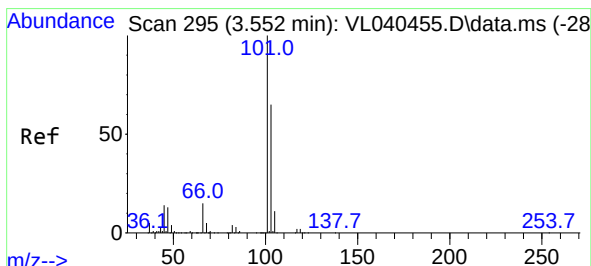
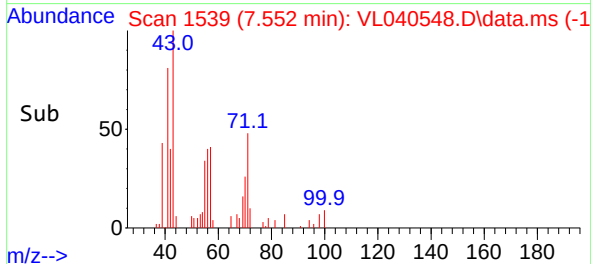
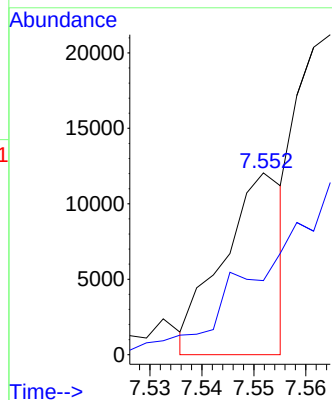
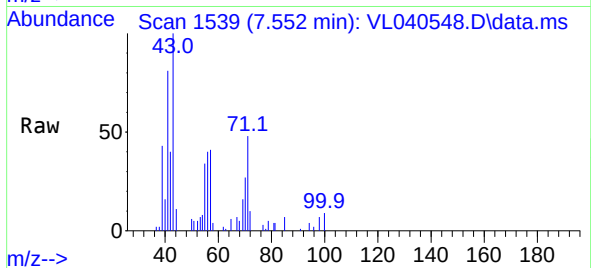




#10
Heptane
Concen: 0.076 ppbv
RT: 7.552 min Scan# 11
Delta R.T. -0.039 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

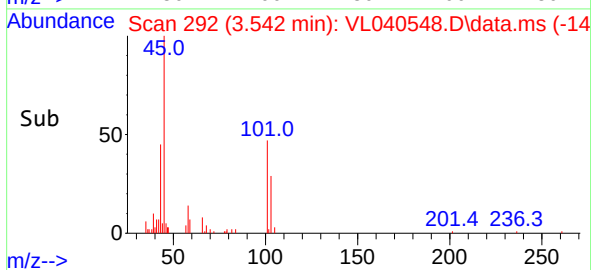
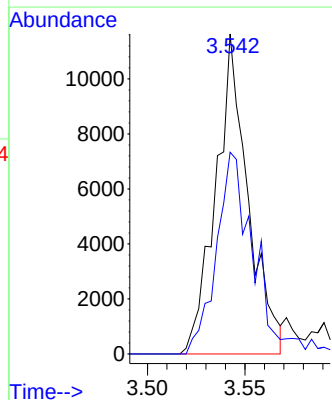
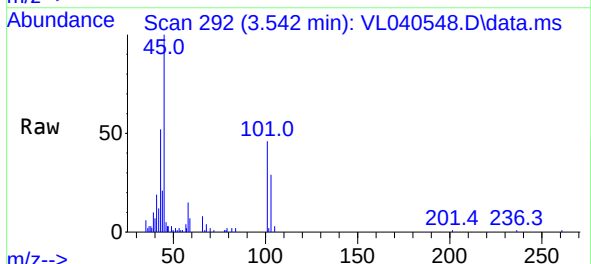
Instrument :
MSVOA_L
ClientSampleId :

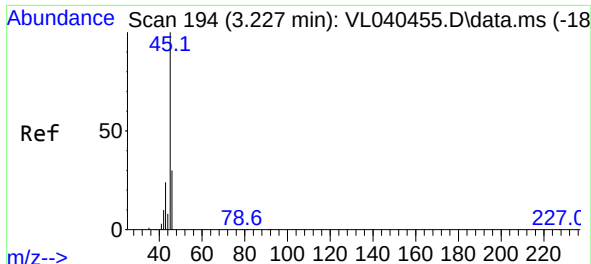
Tgt Ion: 43 Resp: 9712
Ion Ratio Lower Upper
43 100
57 0.0 42.5 63.7#



#11
Trichlorofluoromethane
Concen: 0.078 ppbv
RT: 3.542 min Scan# 292
Delta R.T. -0.029 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

Tgt Ion:101 Resp: 13436
Ion Ratio Lower Upper
101 100
103 63.1 53.4 80.0

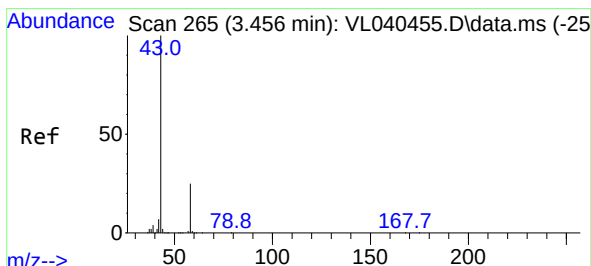
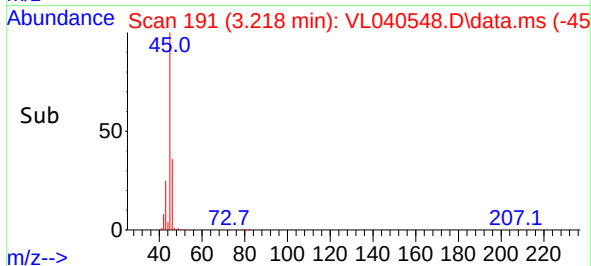
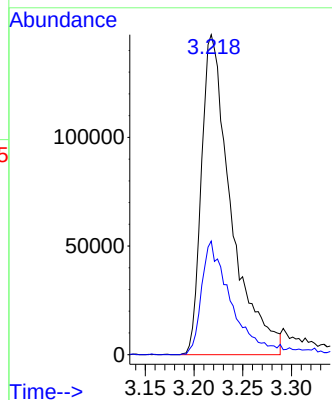
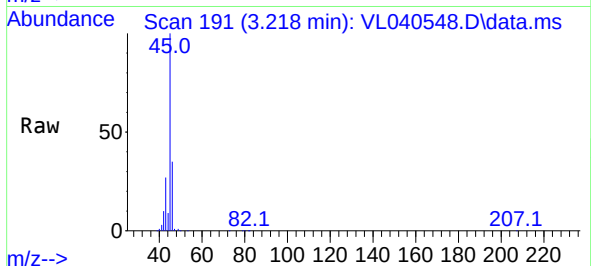




#13
Ethanol
Concen: 24.736 ppbv
RT: 3.218 min Scan# 194
Delta R.T. -0.029 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

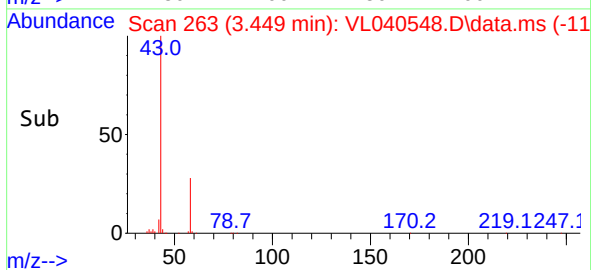
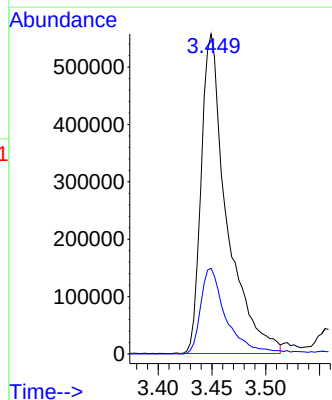
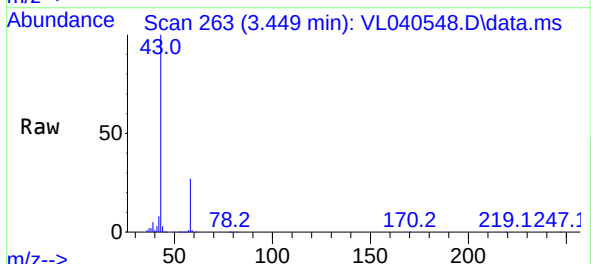
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MSVOA_L
ClientSampleId :

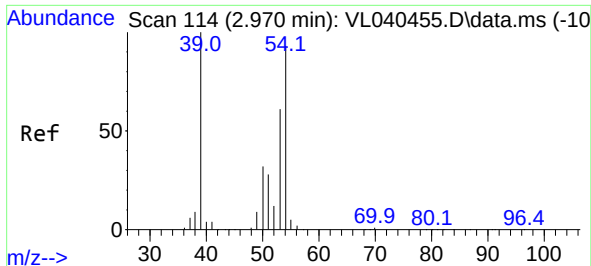
Tgt Ion: 45 Resp: 310295
Ion Ratio Lower Upper
45 100
46 38.0 15.3 61.1



#15
Acetone
Concen: 7.539 ppbv
RT: 3.449 min Scan# 263
Delta R.T. -0.026 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

Tgt Ion: 43 Resp: 922098
Ion Ratio Lower Upper
43 100
58 27.3 22.9 34.3





#16

1,3-Butadiene

Concen: 1.127 ppbv

RT: 2.993 min Scan# 114

Delta R.T. -0.000 min

Lab File: VL040548.D

Acq: 26 Jul 2023 19:51

Instrument :

MSVOA_L

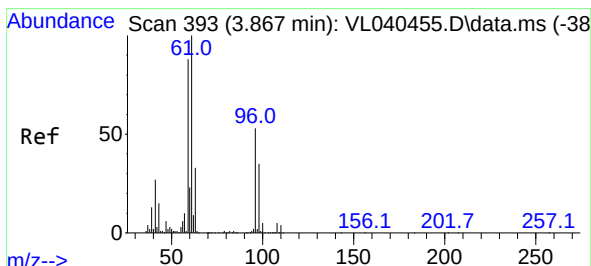
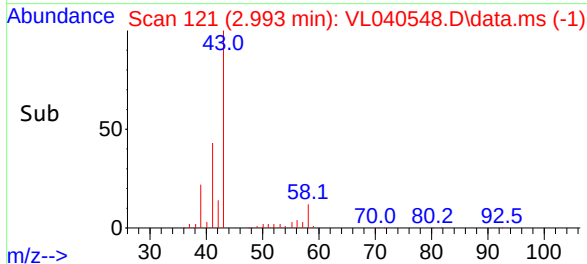
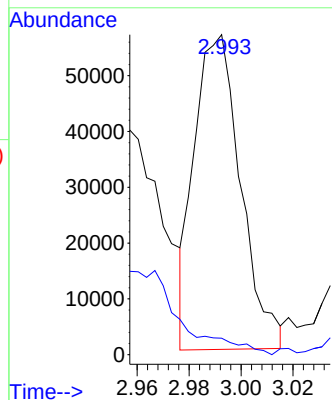
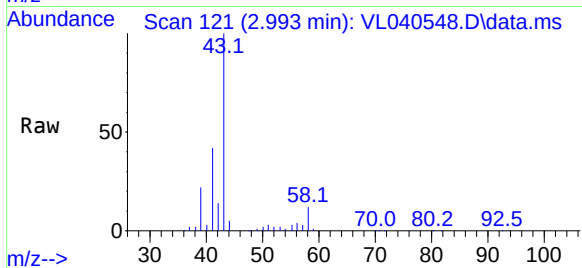
ClientSampleId :

Tgt Ion: 39 Resp: 69554

Ion Ratio Lower Upper

39 100

54 0.0 66.6 100.0#



#17

tert-Butyl alcohol

Concen: 0.103 ppbv

RT: 3.867 min Scan# 393

Delta R.T. -0.016 min

Lab File: VL040548.D

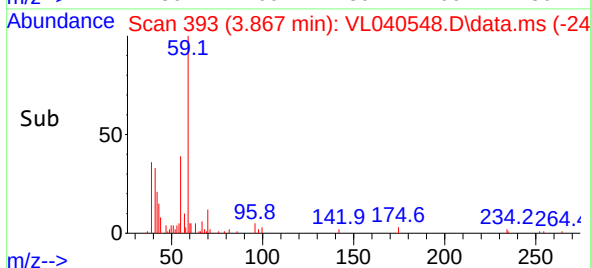
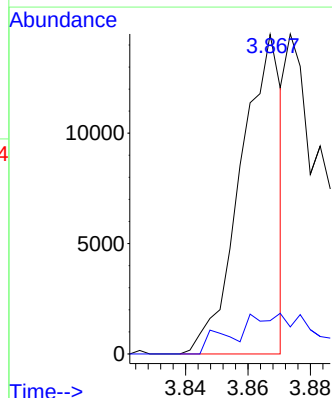
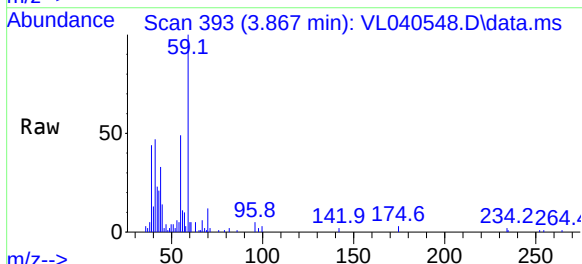
Acq: 26 Jul 2023 19:51

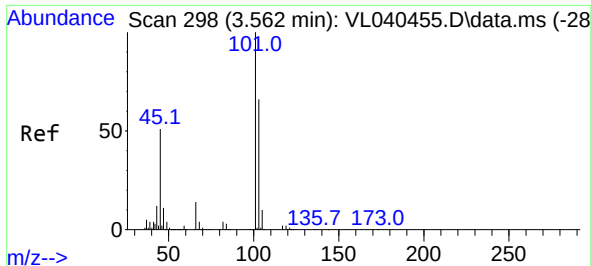
Tgt Ion: 59 Resp: 13062

Ion Ratio Lower Upper

59 100

57 0.0 8.7 13.1#





#19

Isopropyl Alcohol

Concen: 3.456 ppbv

RT: 3.558 min Scan# 24

Delta R.T. -0.023 min

Lab File: VL040548.D

Acq: 26 Jul 2023 19:51

Instrument :

MSVOA_L

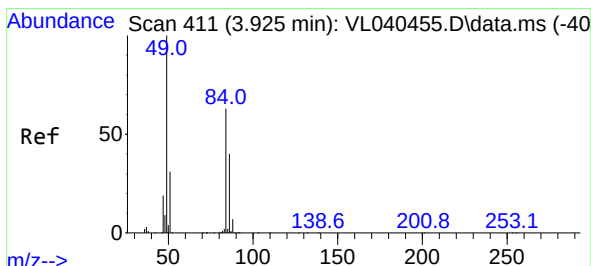
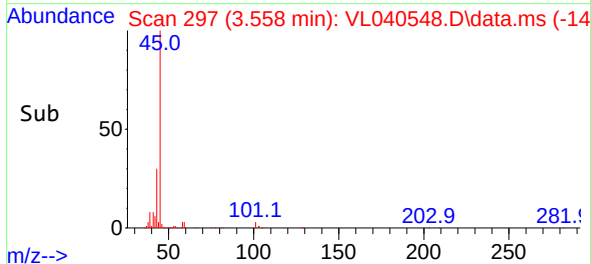
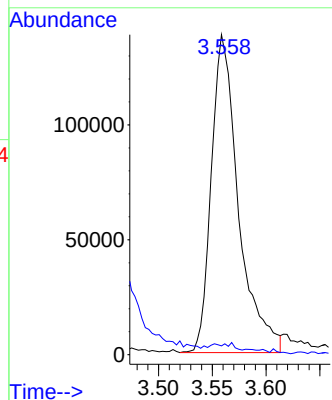
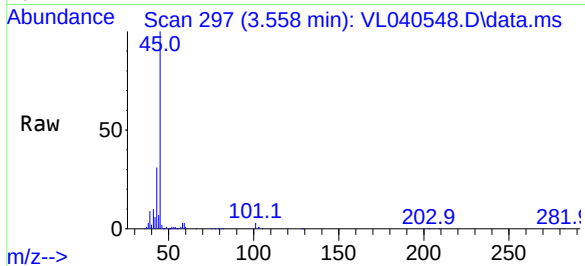
ClientSampleId :

Tgt Ion: 45 Resp: 242665

Ion Ratio Lower Upper

45 100

58 4.3 1.1 1.7#



#20

Methylene Chloride

Concen: 2.705 ppbv

RT: 3.919 min Scan# 409

Delta R.T. -0.023 min

Lab File: VL040548.D

Acq: 26 Jul 2023 19:51

Tgt Ion: 84 Resp: 140706

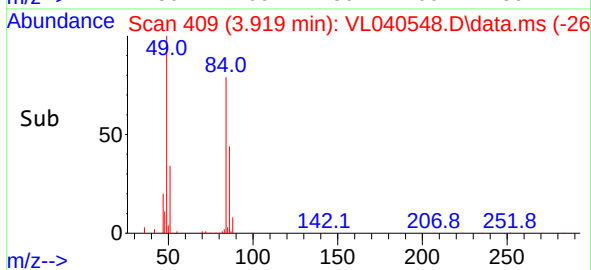
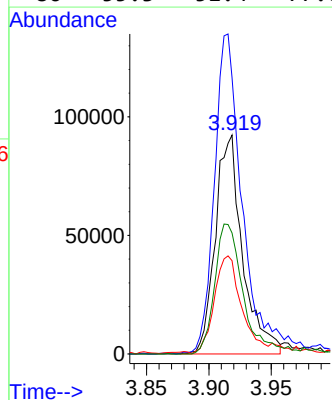
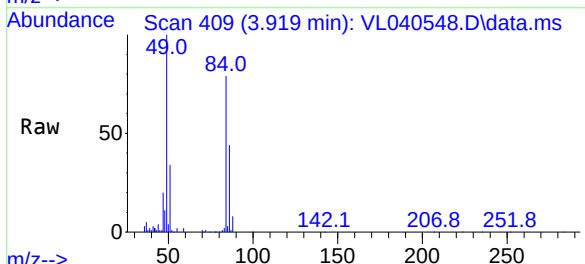
Ion Ratio Lower Upper

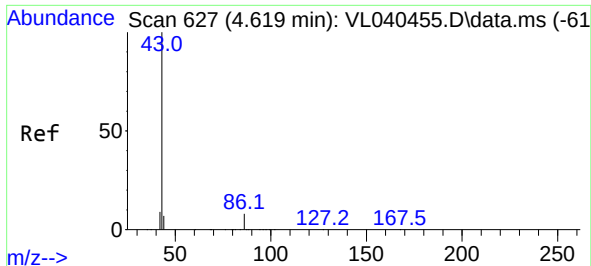
84 100

49 125.9 123.4 185.2

51 41.8 38.3 57.5

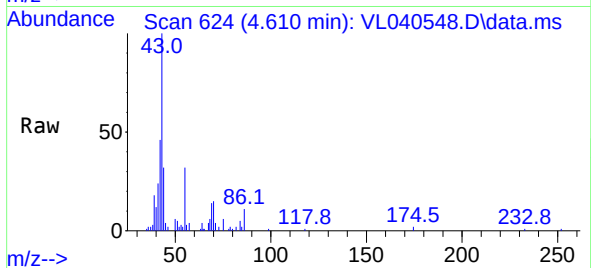
86 55.3 51.4 77.0



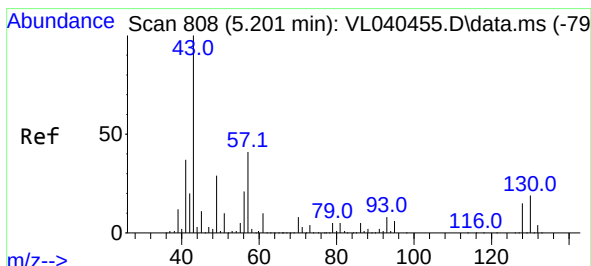
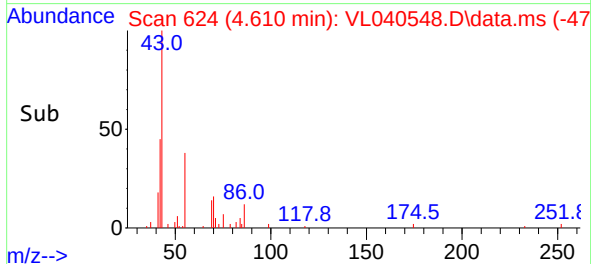
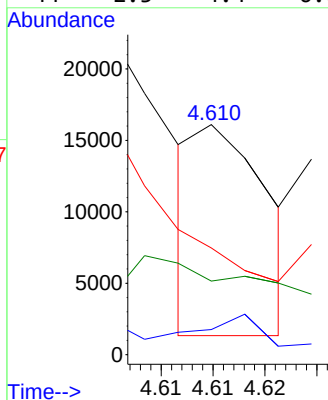


#23
Vinyl Acetate
Concen: 0.060 ppbv
RT: 4.610 min Scan# 61
Delta R.T. -0.026 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

Instrument :
MSVOA_L
ClientSampleId :

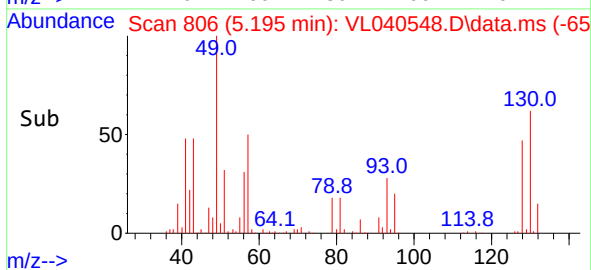
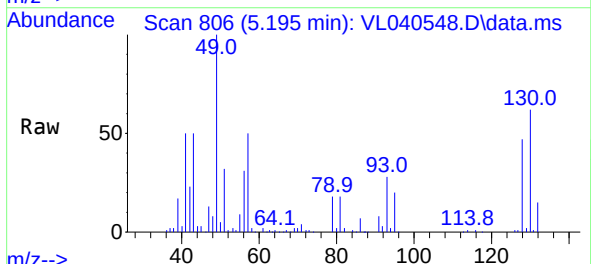
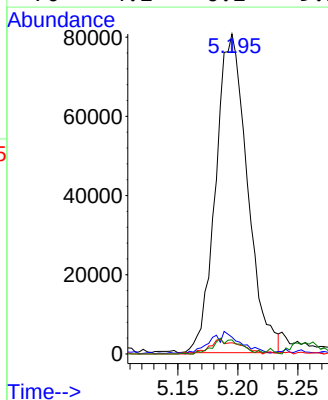


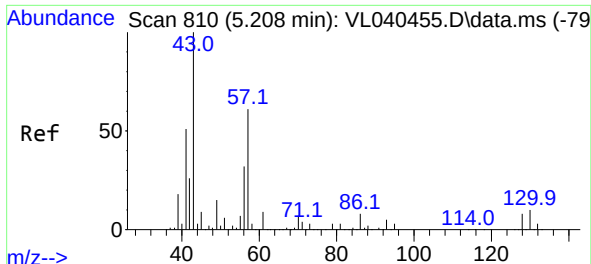
Tgt Ion: 43 Resp: 6983
Ion Ratio Lower Upper
43 100
86 20.1 5.6 8.4#
42 40.8 7.4 11.2#
44 2.3 4.4 6.6#



#25
Ethyl Acetate
Concen: 0.634 ppbv
RT: 5.195 min Scan# 806
Delta R.T. -0.016 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

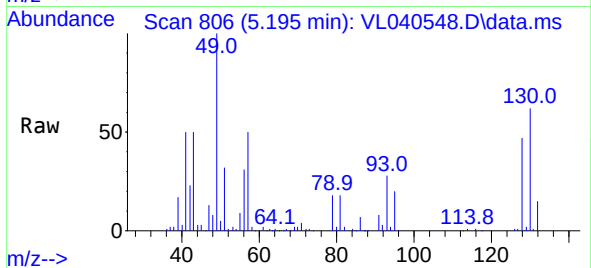
Tgt Ion: 43 Resp: 147660
Ion Ratio Lower Upper
43 100
45 8.2 8.2 12.4#
61 4.7 8.3 12.5#
70 4.2 6.2 9.2#



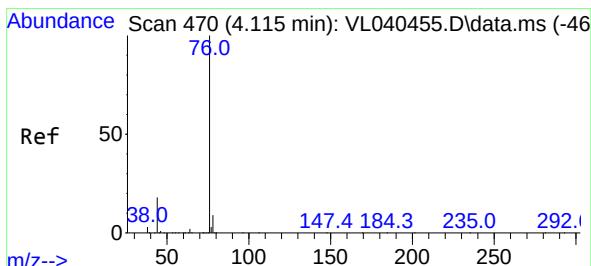
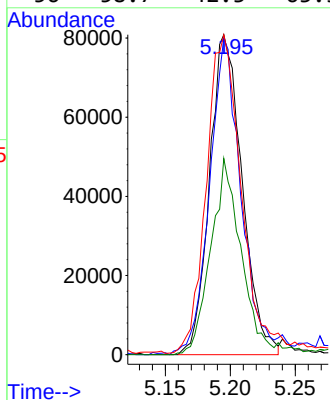
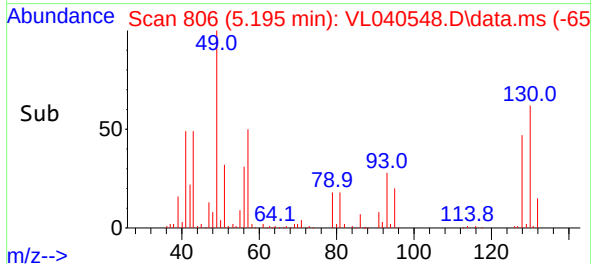


#26
Hexane
Concen: 1.302 ppbv
RT: 5.195 min Scan# 80
Delta R.T. -0.026 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

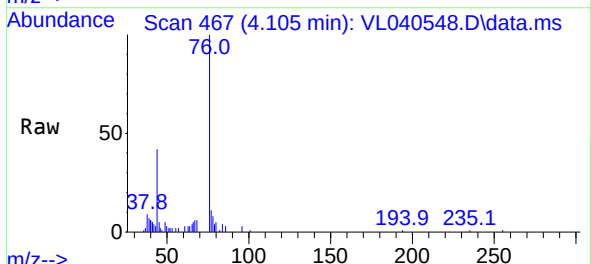
Instrument :
MSVOA_L
ClientSampleId :



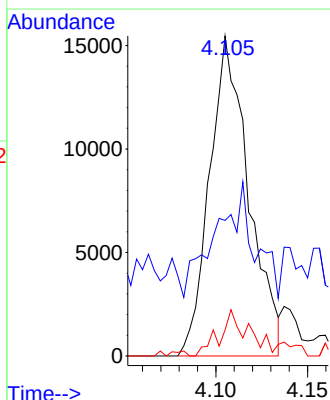
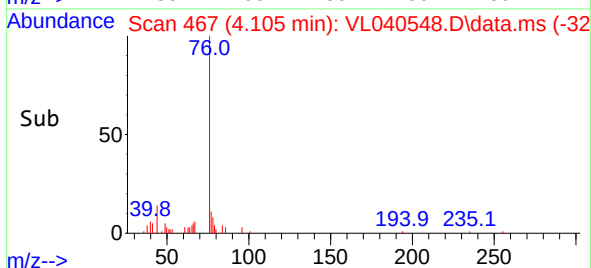
Tgt Ion: 57 Resp: 140890
Ion Ratio Lower Upper
57 100
41 102.8 69.5 104.3
43 110.5 177.1 265.7#
56 58.7 42.3 63.5

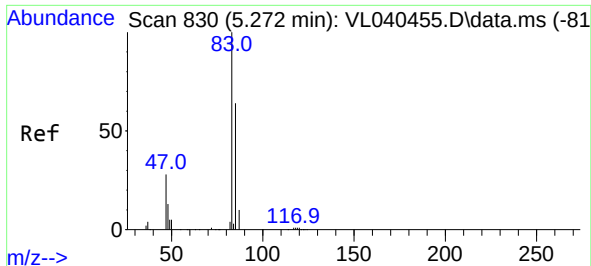


#27
Carbon Disulfide
Concen: 0.180 ppbv
RT: 4.105 min Scan# 467
Delta R.T. -0.026 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51



Tgt Ion: 76 Resp: 22927
Ion Ratio Lower Upper
76 100
44 47.6 15.1 22.7#
78 14.1 7.5 11.3#





#29

Chloroform

Concen: 2.446 ppbv

RT: 5.256 min Scan# 81

Delta R.T. -0.029 min

Lab File: VL040548.D

Acq: 26 Jul 2023 19:51

Instrument :

MSVOA_L

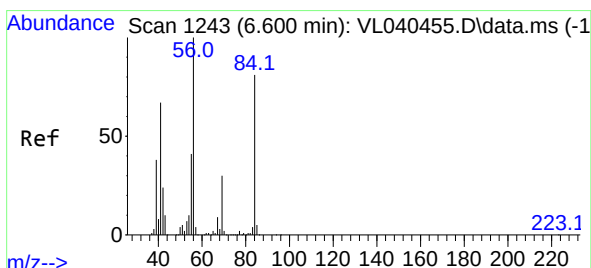
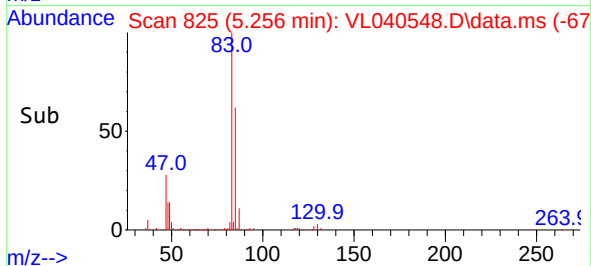
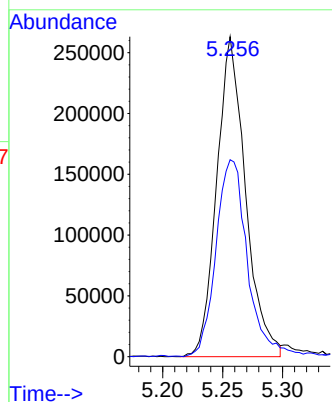
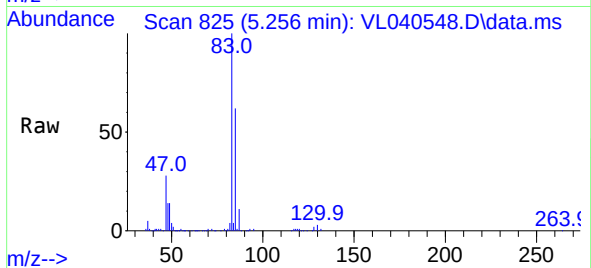
ClientSampleId :

Tgt Ion: 83 Resp: 438934

Ion Ratio Lower Upper

83 100

85 61.4 51.1 76.7



#30

Cyclohexane

Concen: 0.090 ppbv

RT: 6.587 min Scan# 1239

Delta R.T. -0.023 min

Lab File: VL040548.D

Acq: 26 Jul 2023 19:51

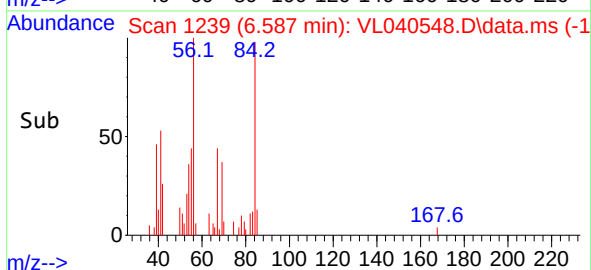
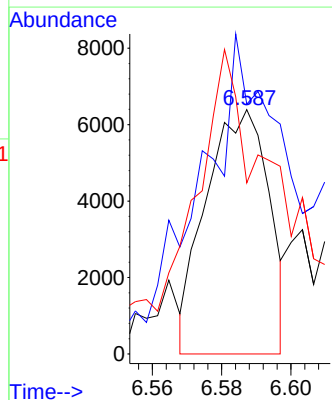
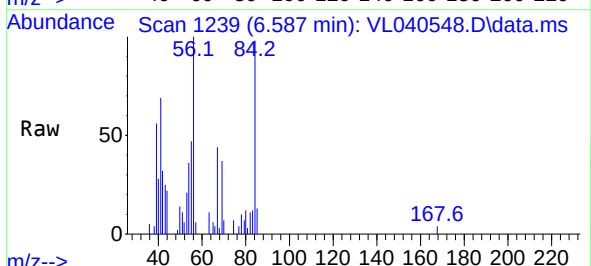
Tgt Ion: 84 Resp: 8060

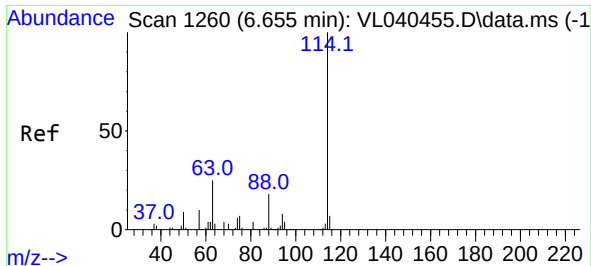
Ion Ratio Lower Upper

84 100

56 0.0 108.7 163.1#

41 223.3 64.5 96.7#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.639 min Scan# 11

Delta R.T. -0.026 min

Lab File: VL040548.D

Acq: 26 Jul 2023 19:51

Instrument :

MSVOA_L

ClientSampleId :

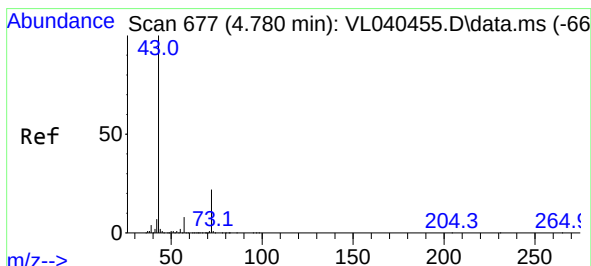
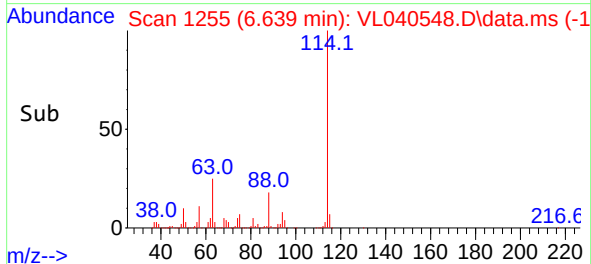
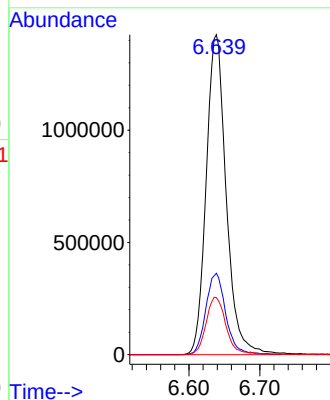
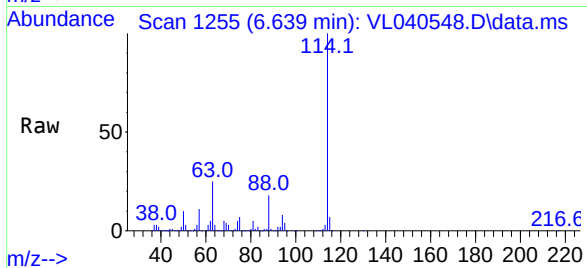
Tgt Ion:114 Resp: 2794971

Ion Ratio Lower Upper

114 100

63 25.7 19.6 29.4

88 18.1 14.2 21.2



#34

2-Butanone

Concen: 0.800 ppbv

RT: 4.771 min Scan# 674

Delta R.T. -0.023 min

Lab File: VL040548.D

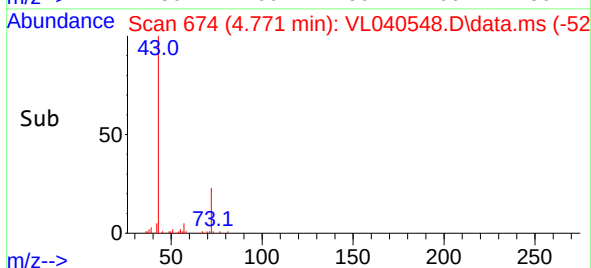
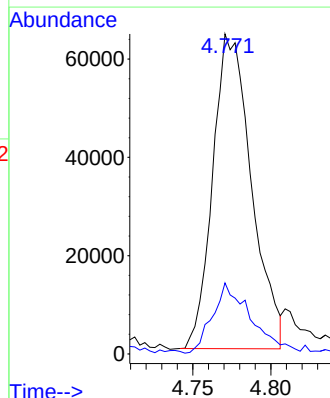
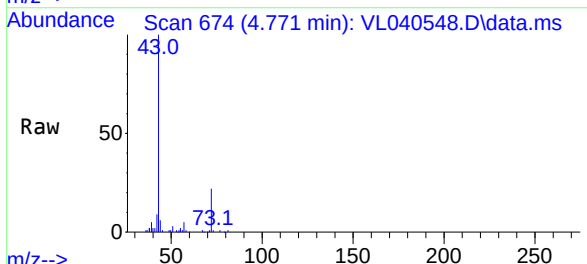
Acq: 26 Jul 2023 19:51

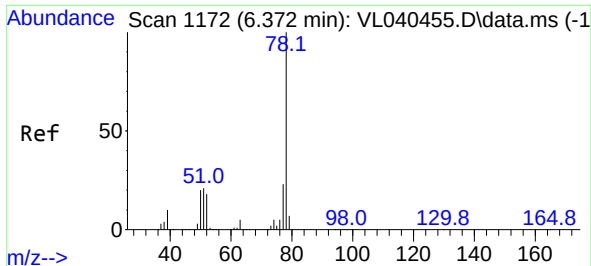
Tgt Ion: 43 Resp: 110537

Ion Ratio Lower Upper

43 100

72 21.8 19.1 28.7

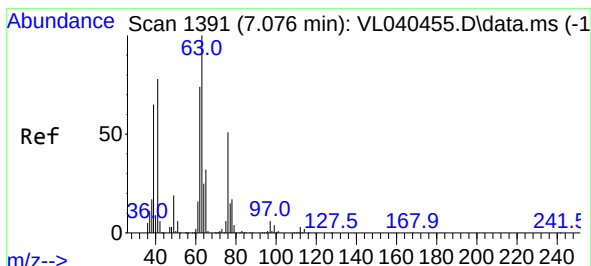
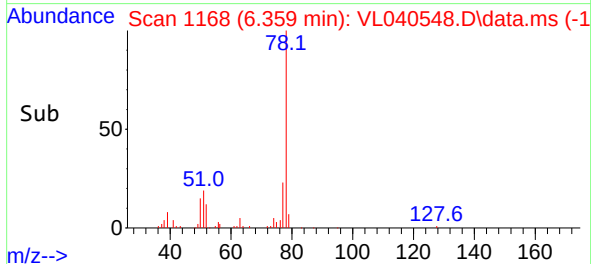
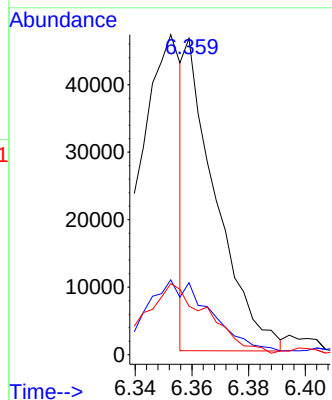
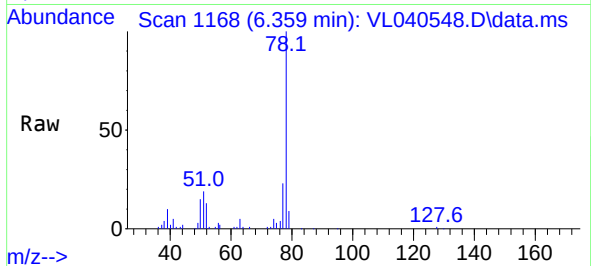




#36
Benzene
Concen: 0.156 ppbv
RT: 6.359 min Scan# 1172
Delta R.T. -0.023 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

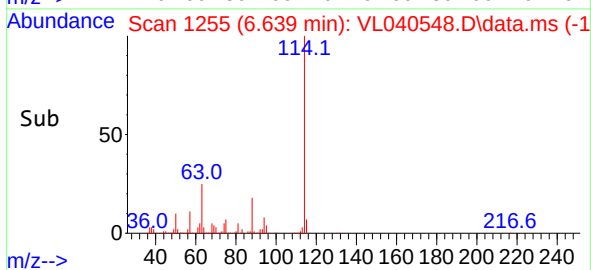
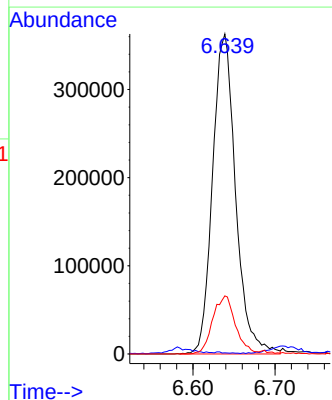
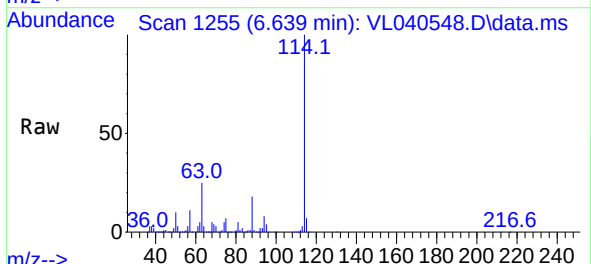
Instrument :
MSVOA_L
ClientSampleId :

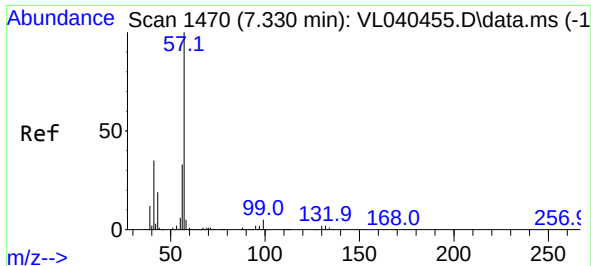
Tgt Ion: 78 Resp: 35007
Ion Ratio Lower Upper
78 100
77 22.6 17.4 26.0
50 14.9 14.4 21.6



#39
1,2-Dichloropropane
Concen: 8.196 ppbv
RT: 6.639 min Scan# 1255
Delta R.T. -0.444 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

Tgt Ion: 63 Resp: 709566
Ion Ratio Lower Upper
63 100
41 0.0 54.3 81.5#
62 18.1 55.6 83.4#

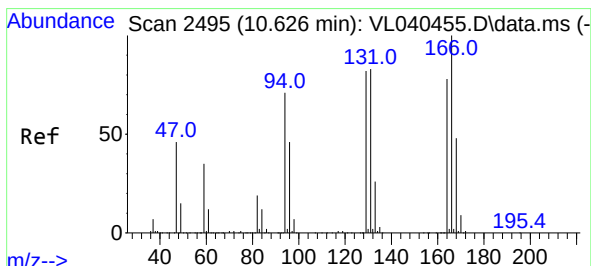
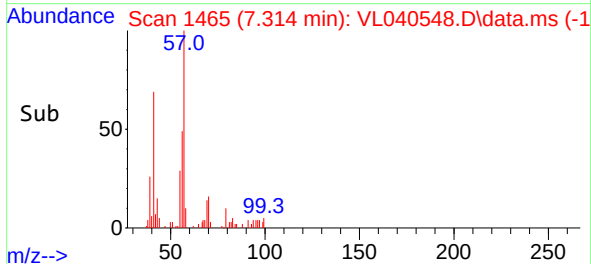
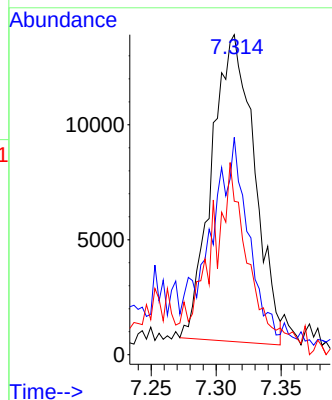
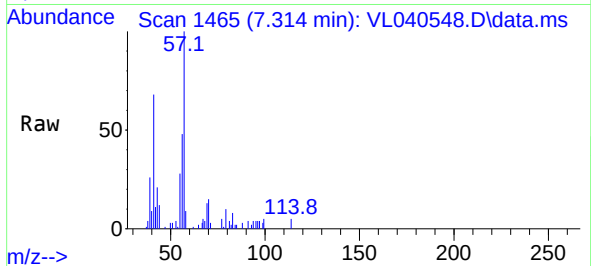




#44
2,2,4-Trimethylpentane
Concen: 0.084 ppbv
RT: 7.314 min Scan# 1470
Delta R.T. -0.023 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

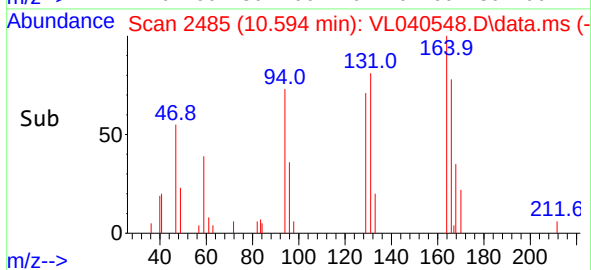
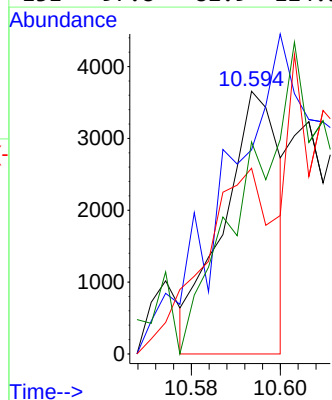
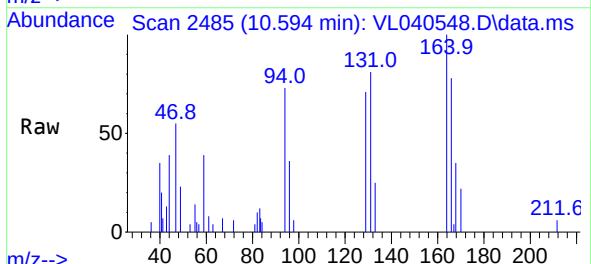
Instrument :
MSVOA_L
ClientSampleId :

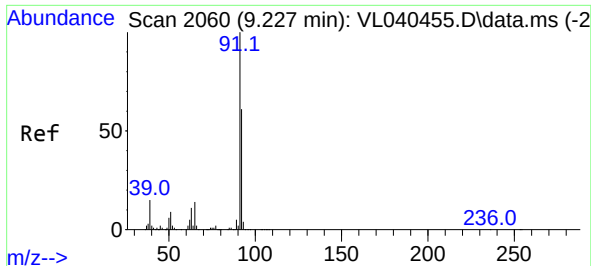
Tgt Ion: 57 Resp: 30446
Ion Ratio Lower Upper
57 100
41 71.1 25.5 38.3#
56 60.0 25.1 37.7#



#52
Tetrachloroethene
Concen: 0.043 ppbv
RT: 10.594 min Scan# 2485
Delta R.T. -0.032 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

Tgt Ion:164 Resp: 3164
Ion Ratio Lower Upper
164 100
166 71.3 103.9 155.9#
129 56.0 84.6 126.8#
131 97.8 82.9 124.3

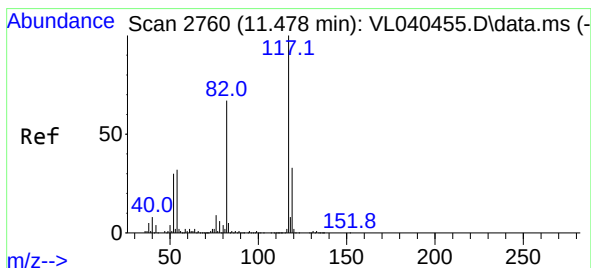
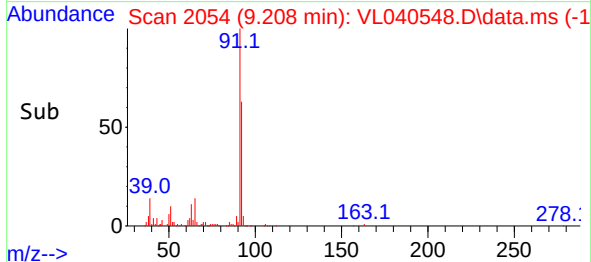
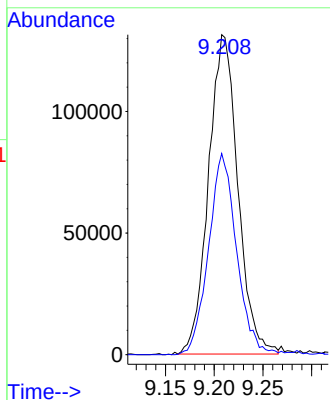
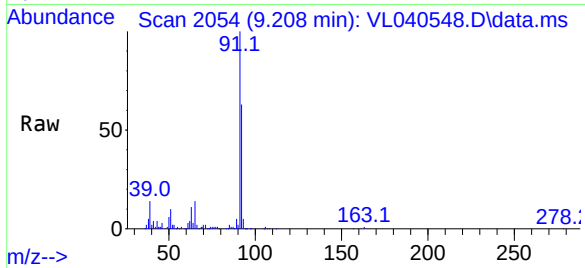




#53
Toluene
Concen: 1.126 ppbv
RT: 9.208 min Scan# 2060
Delta R.T. -0.023 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

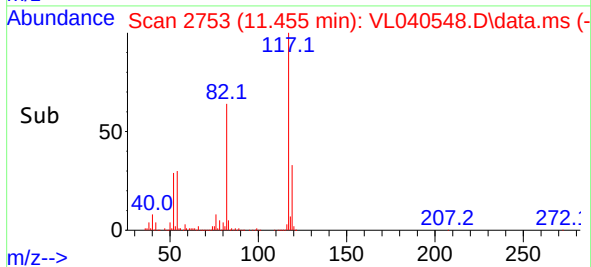
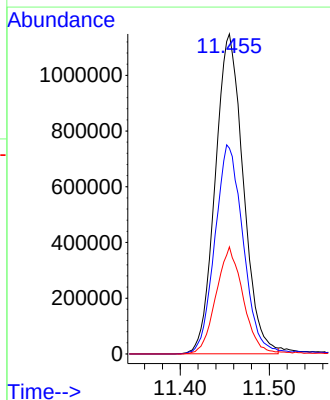
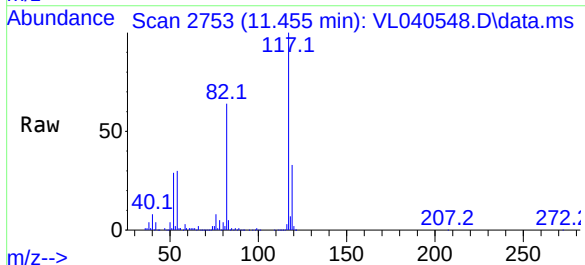
Instrument :
MSVOA_L
ClientSampleId :

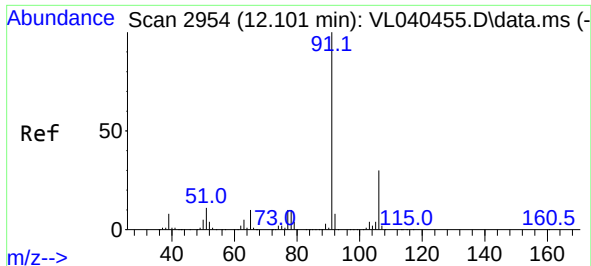
Tgt Ion: 91 Resp: 275074
Ion Ratio Lower Upper
91 100
92 60.4 49.1 73.7



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.455 min Scan# 2753
Delta R.T. -0.023 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

Tgt Ion: 117 Resp: 2512669
Ion Ratio Lower Upper
117 100
82 67.0 50.2 75.4
119 32.8 26.9 40.3

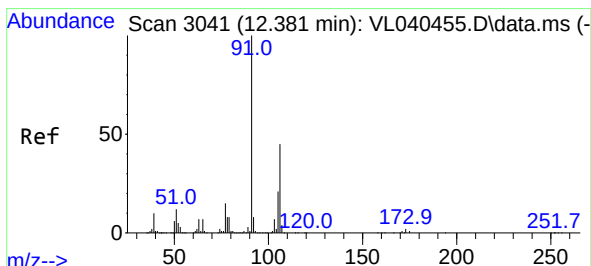
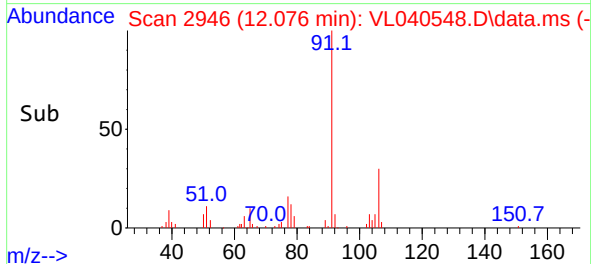
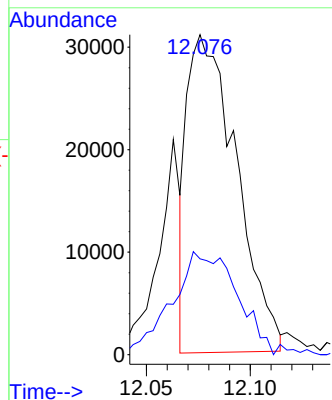
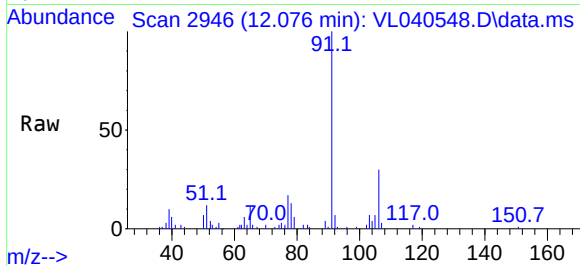




#58
Ethyl Benzene
Concen: 0.162 ppbv
RT: 12.076 min Scan# 2954
Delta R.T. -0.026 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

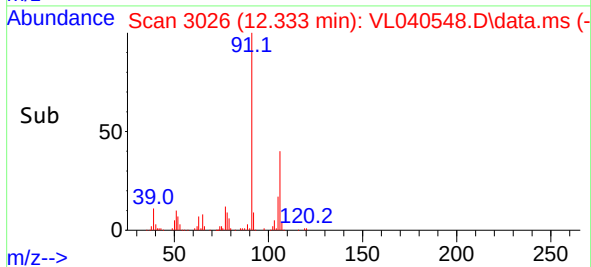
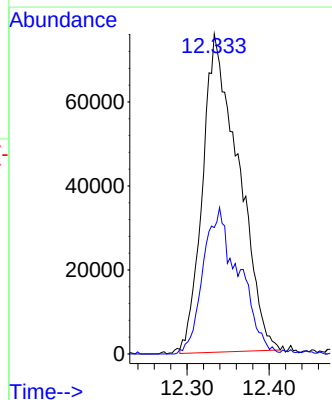
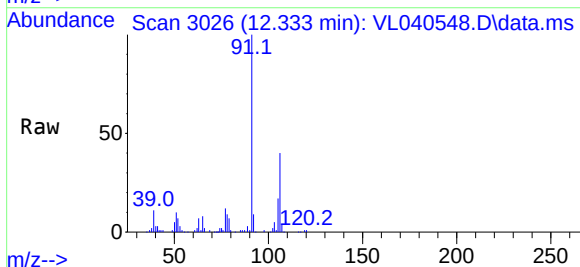
Instrument :
MSVOA_L
ClientSampleId :

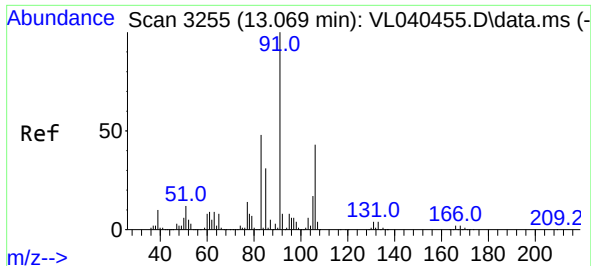
Tgt Ion: 91 Resp: 51138
Ion Ratio Lower Upper
91 100
106 28.5 25.4 38.0



#59
m/p-Xylene
Concen: 0.819 ppbv
RT: 12.333 min Scan# 3026
Delta R.T. -0.051 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

Tgt Ion: 91 Resp: 230507
Ion Ratio Lower Upper
91 100
106 46.5 35.9 53.9

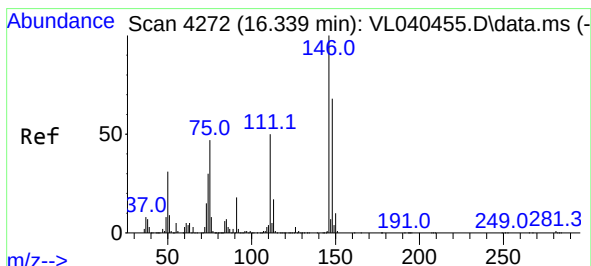
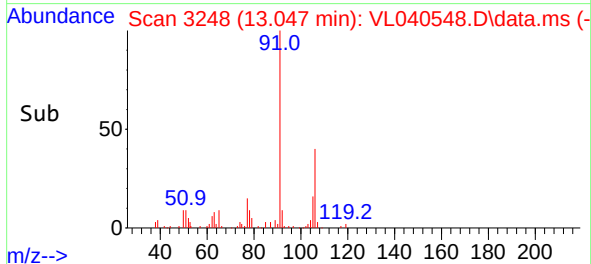
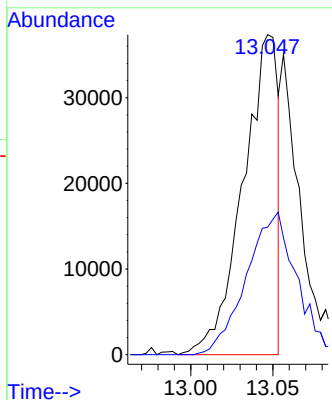
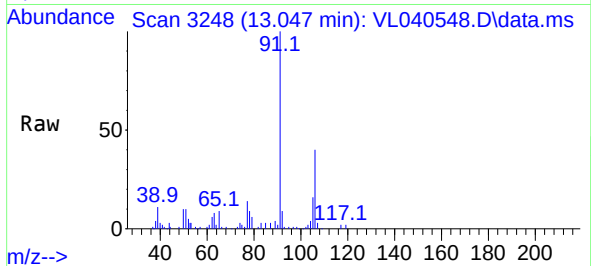




#60
o-Xylene
Concen: 0.206 ppbv
RT: 13.047 min Scan# 31
Delta R.T. -0.023 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

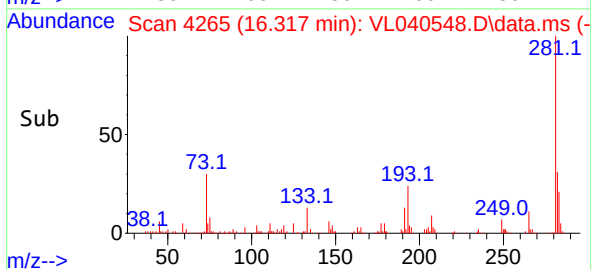
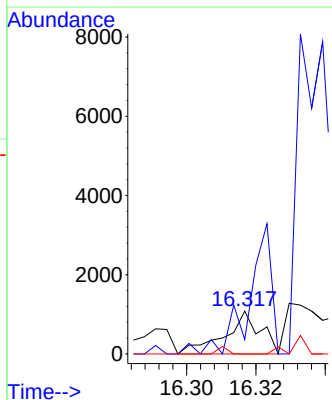
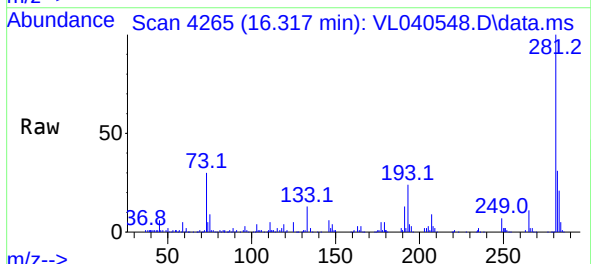
Instrument :
MSVOA_L
ClientSampleId :

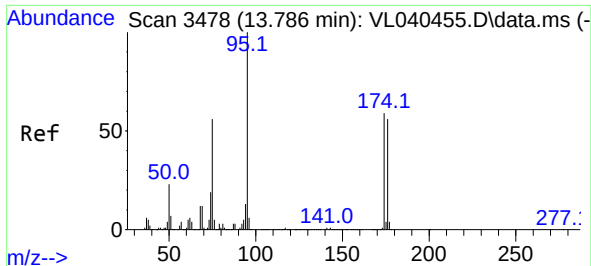
Tgt Ion: 91 Resp: 55177
Ion Ratio Lower Upper
91 100
106 0.0 22.7 68.0#



#66
Benzyl Chloride
Concen: 0.031 ppbv
RT: 16.317 min Scan# 4265
Delta R.T. -0.019 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

Tgt Ion: 91 Resp: 774
Ion Ratio Lower Upper
91 100
126 0.0 15.4 23.2#
128 0.0 4.5 6.7#

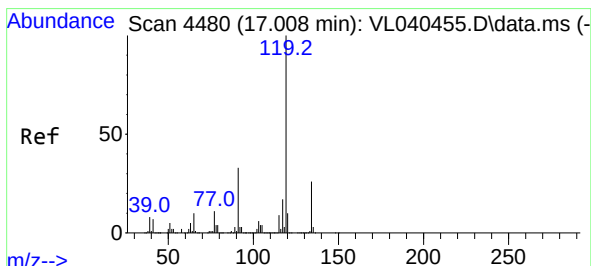
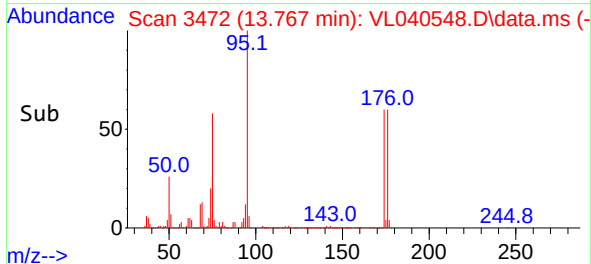
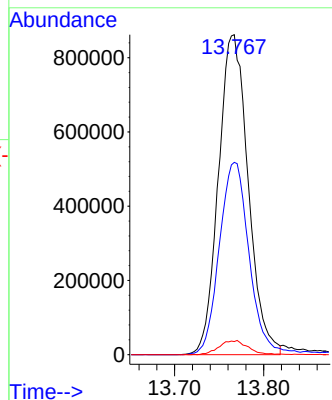
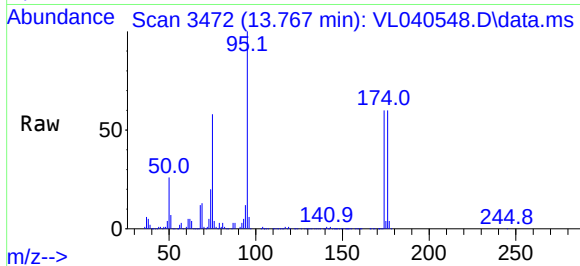




#68
1-Bromo-4-Fluorobenzene
Concen: 10.070 ppbv
RT: 13.767 min Scan# 3478
Delta R.T. -0.016 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

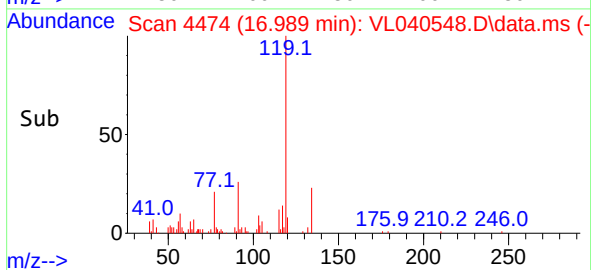
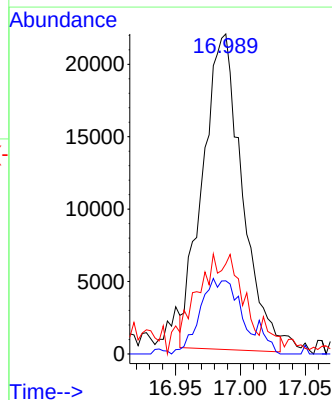
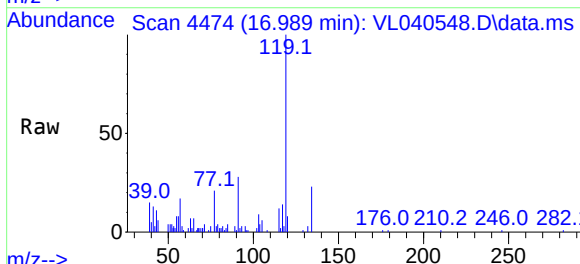
Instrument :
MSVOA_L
ClientSampleId :

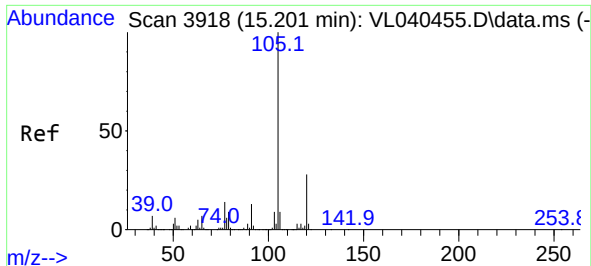
Tgt Ion: 95 Resp: 2002482
Ion Ratio Lower Upper
95 100
174 61.6 50.6 75.8
175 4.4 3.7 5.5



#69
p-Isopropyltoluene
Concen: 0.107 ppbv
RT: 16.989 min Scan# 4474
Delta R.T. -0.016 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

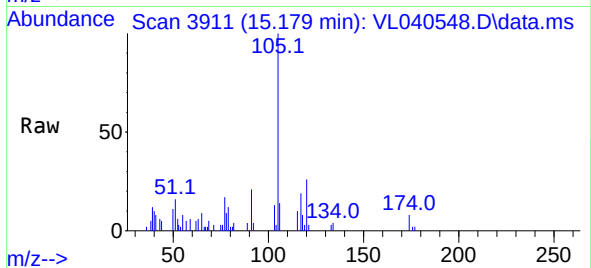
Tgt Ion: 119 Resp: 46029
Ion Ratio Lower Upper
119 100
134 26.7 20.5 30.7
91 42.6 23.8 35.8#



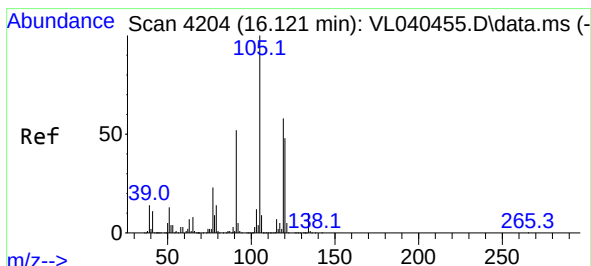
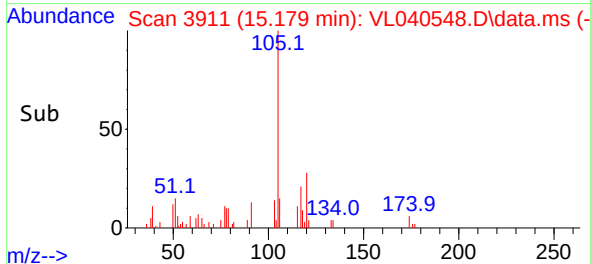
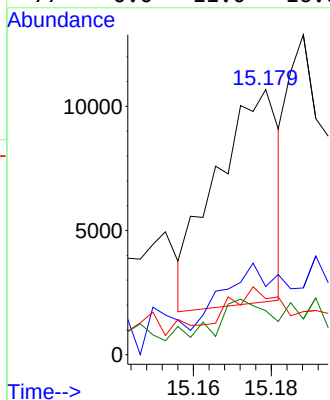


#72
4-Ethyltoluene
Concen: 0.031 ppbv
RT: 15.179 min Scan# 3918
Delta R.T. -0.026 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

Instrument :
MSVOA_L
ClientSampleId :



Tgt Ion:	105	Resp:	9620
Ion	Ratio	Lower	Upper
105	100		
120	0.0	24.6	37.0#
91	65.7	10.7	16.1#
77	0.0	11.0	16.6#



#74
1,2,4-Trimethylbenzene
Concen: 0.276 ppbv
RT: 16.098 min Scan# 4197
Delta R.T. -0.019 min
Lab File: VL040548.D
Acq: 26 Jul 2023 19:51

Tgt Ion:	105	Resp:	89267
Ion	Ratio	Lower	Upper
105	100		
120	37.9	40.3	60.5#
91	15.6	46.8	70.2#
77	18.0	18.6	28.0#

