

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL091823\
 Data File : VL040699.D
 Acq On : 18 Sep 2023 15:03
 Operator : SY/MD
 Sample : 04402-01
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ST-1

Quant Time: Sep 19 05:18:33 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL091423AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue Sep 19 05:12:43 2023
 Response via : Initial Calibration

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

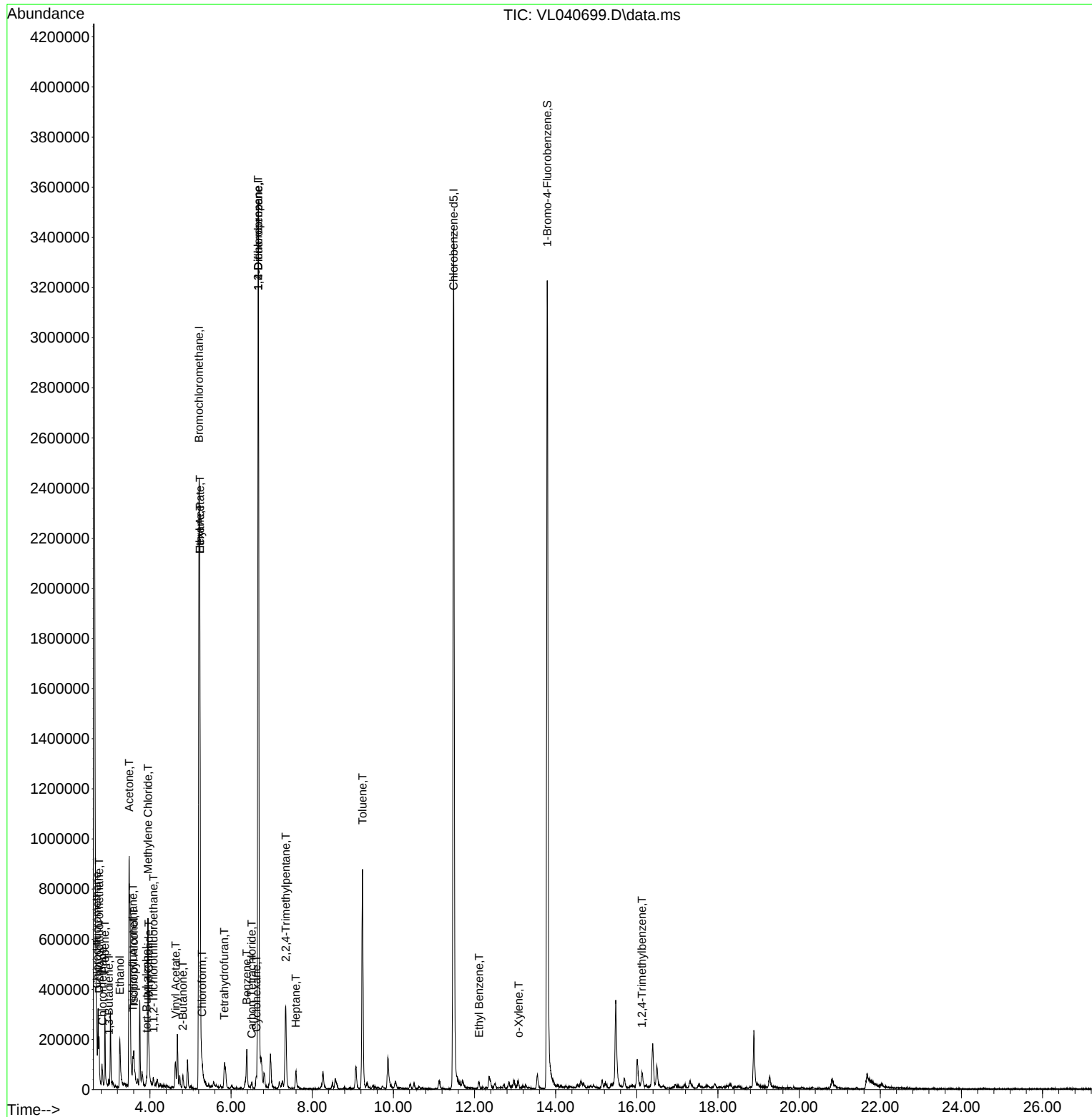
Internal Standards						
1) Bromochloromethane	5.211	49	918562	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	6.671	114	2571613	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.484	117	2124310	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.796	95	1565196	9.536	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.400%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.748	85	112424	0.555	ppbv	98
3) Chlorodifluoromethane	2.690	51	85668	0.572	ppbv #	83
4) Chloromethane	2.832	50	35264	0.616	ppbv	98
9) Propene	2.886	41	66128	1.534	ppbv	87
10) Heptane	7.597	43	16156	0.166	ppbv #	65
11) Trichlorofluoromethane	3.581	101	48316	0.272	ppbv	96
12) 1,1,2-Trichlorotrifluo...	4.086	101	6414	0.050	ppbv #	56
13) Ethanol	3.259	45	213809	16.756	ppbv	100
15) Acetone	3.488	43	1112329	9.181	ppbv	98
16) 1,3-Butadiene	2.986	39	5224	0.099	ppbv	93
17) tert-Butyl alcohol	3.918	59	8848	0.071	ppbv #	71
19) Isopropyl Alcohol	3.603	45	115264	1.579	ppbv #	1
20) Methylene Chloride	3.951	84	231918	3.556	ppbv	94
21) Allyl Chloride	3.970	41	3079	0.041	ppbv #	1
23) Vinyl Acetate	4.632	43	53072	0.424	ppbv #	42
25) Ethyl Acetate	5.230	43	383472	1.962	ppbv #	78
26) Hexane	5.230	57	550315	5.956	ppbv #	41
29) Chloroform	5.288	83	12399	0.078	ppbv	99
30) Cyclohexane	6.629	84	3617	0.052	ppbv #	1
34) 2-Butanone	4.812	43	57368	0.444	ppbv	94
35) Carbon Tetrachloride	6.507	117	13910	0.079	ppbv #	60
36) Benzene	6.388	78	113416	0.596	ppbv #	92
39) 1,2-Dichloropropane	6.668	63	643712	8.782	ppbv #	24
41) Tetrahydrofuran	5.835	42	3472	0.052	ppbv #	33
44) 2,2,4-Trimethylpentane	7.346	57	264433	0.872	ppbv #	88
53) Toluene	9.240	91	601341	2.991	ppbv	98
58) Ethyl Benzene	12.114	91	9709	0.040	ppbv	98
60) o-Xylene	13.089	91	11166	0.051	ppbv #	16
74) 1,2,4-Trimethylbenzene	16.124	105	11225	0.042	ppbv #	69

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

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Quant Time: Sep 19 05:18:33 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL091423AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Tue Sep 19 05:12:43 2023
Response via : Initial Calibration

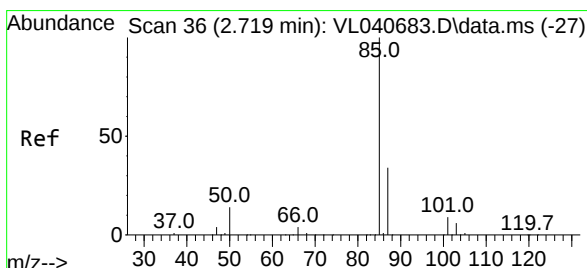
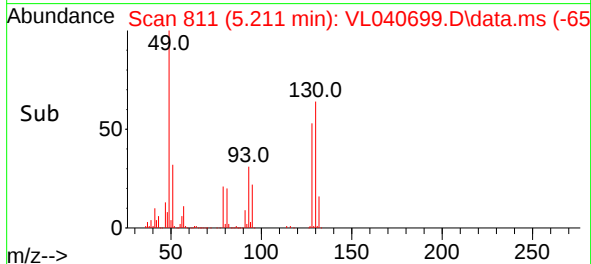
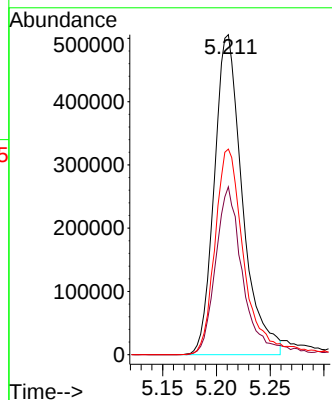
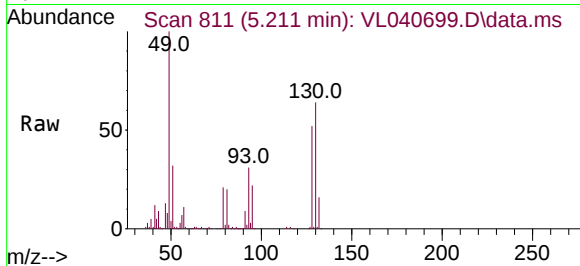




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.211 min Scan# 81
Delta R.T. 0.013 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

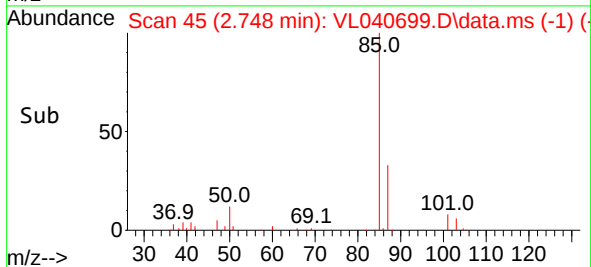
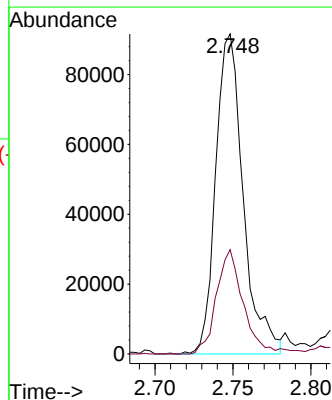
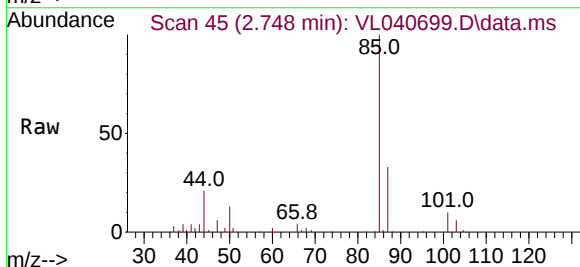
Instrument :
MSVOA_L
ClientSampleId :
ST-1

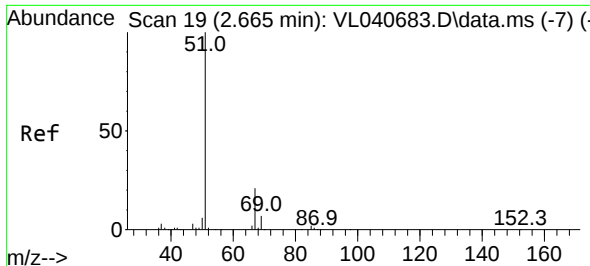
Tgt Ion: 49 Resp: 918562
Ion Ratio Lower Upper
49 100
128 52.1 25.4 76.0
130 67.8 32.3 96.8



#2
Dichlorodifluoromethane
Concen: 0.555 ppbv
RT: 2.748 min Scan# 45
Delta R.T. 0.016 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

Tgt Ion: 85 Resp: 112424
Ion Ratio Lower Upper
85 100
87 32.6 27.2 40.8

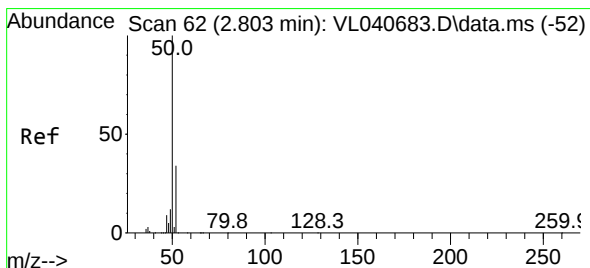
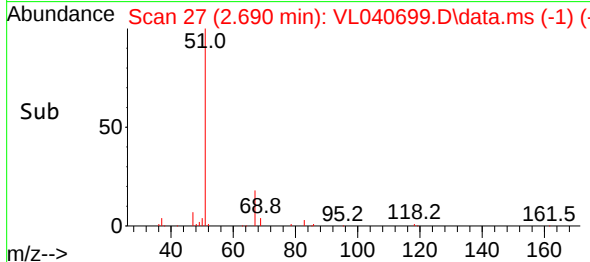
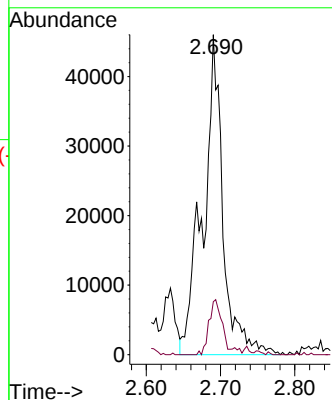
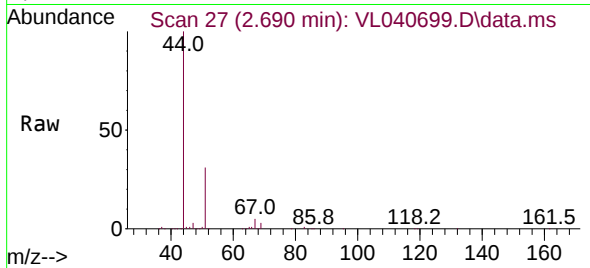




#3
Chlorodifluoromethane
Concen: 0.572 ppbv
RT: 2.690 min Scan# 21
Delta R.T. 0.013 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

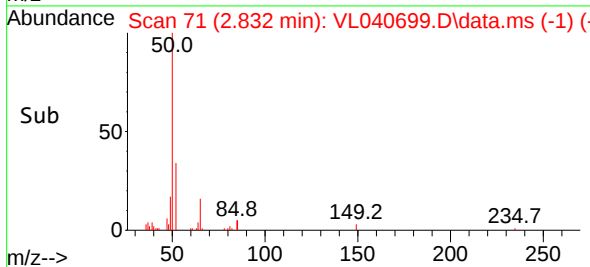
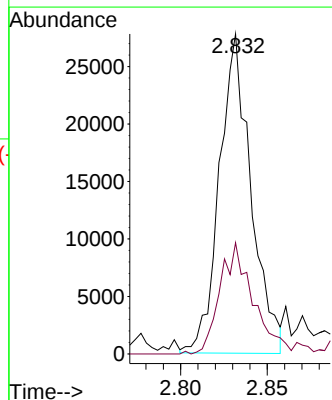
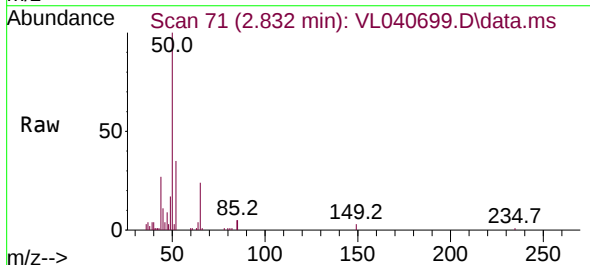
Instrument :
MSVOA_L
ClientSampleId :
ST-1

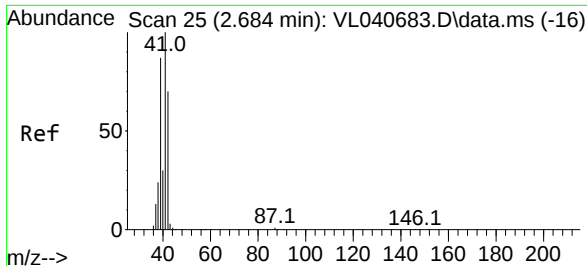
Tgt Ion: 51 Resp: 85668
Ion Ratio Lower Upper
51 100
67 13.2 16.7 25.1#



#4
Chloromethane
Concen: 0.616 ppbv
RT: 2.832 min Scan# 71
Delta R.T. 0.016 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

Tgt Ion: 50 Resp: 35264
Ion Ratio Lower Upper
50 100
52 35.2 27.1 40.7





#9

Propene

Concen: 1.534 ppbv

RT: 2.886 min Scan# 81

Delta R.T. 0.190 min

Lab File: VL040699.D

Acq: 18 Sep 2023 15:03

Instrument :

MSVOA_L

ClientSampleId :

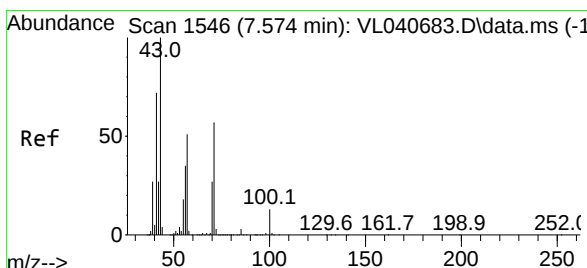
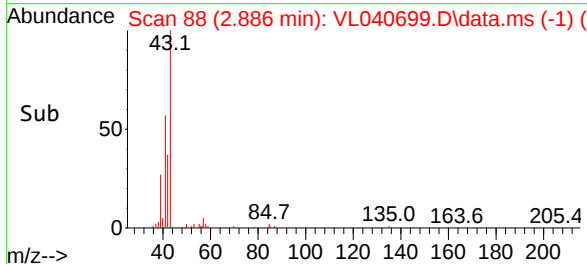
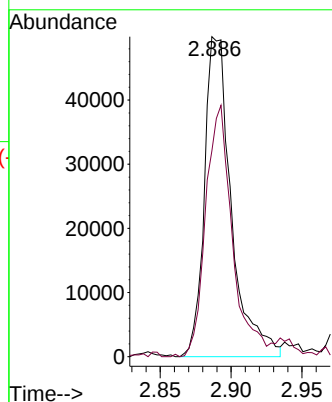
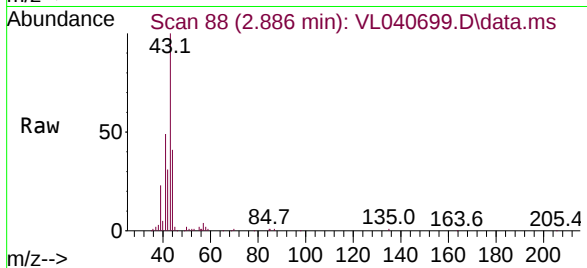
ST-1

Tgt Ion: 41 Resp: 66128

Ion Ratio Lower Upper

41 100

42 81.7 56.7 85.1



#10

Heptane

Concen: 0.166 ppbv

RT: 7.597 min Scan# 1553

Delta R.T. 0.010 min

Lab File: VL040699.D

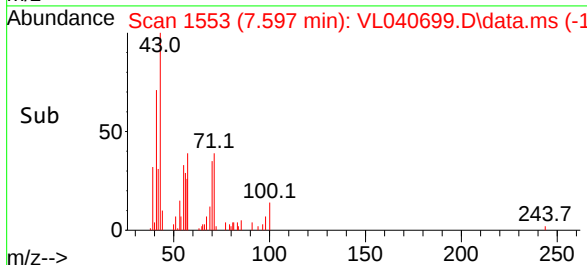
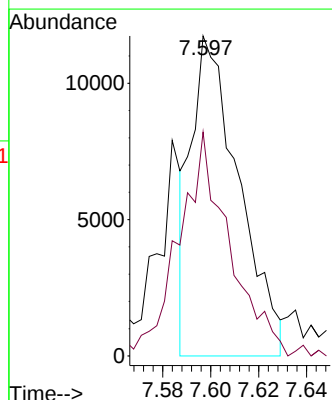
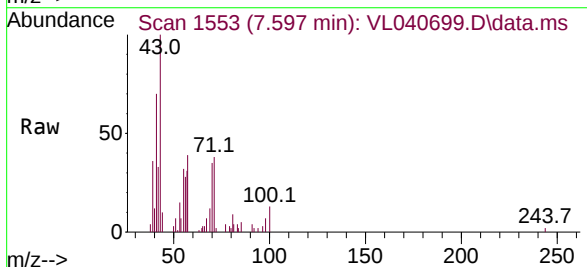
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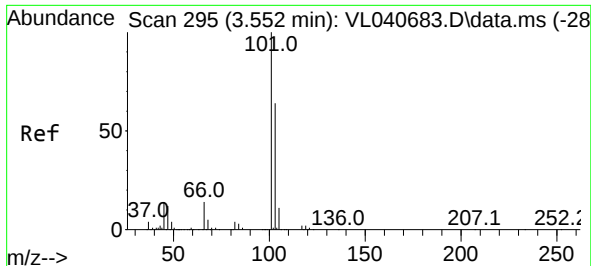
Tgt Ion: 43 Resp: 16156

Ion Ratio Lower Upper

43 100

57 76.6 41.8 62.6

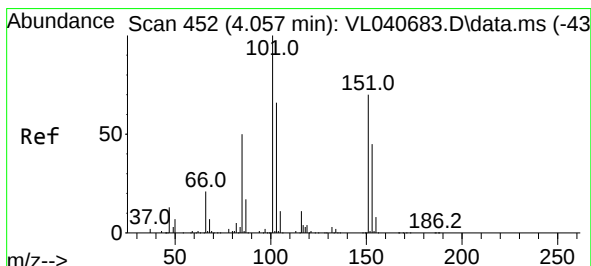
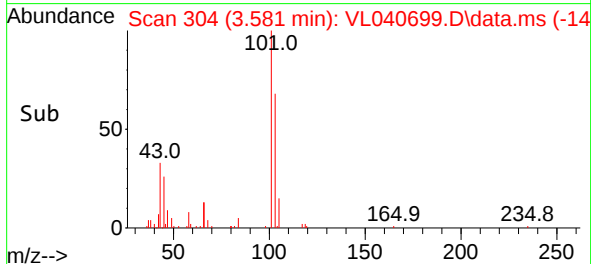
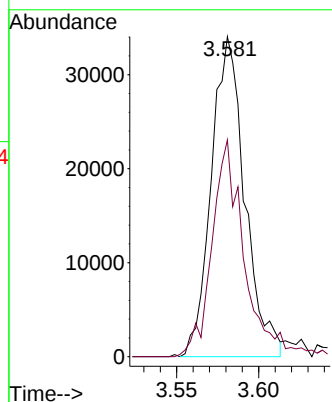
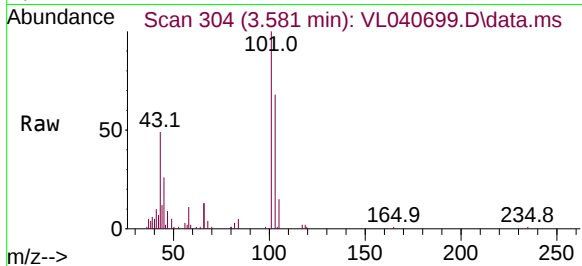




#11
 Trichlorofluoromethane
 Concen: 0.272 ppbv
 RT: 3.581 min Scan# 304
 Delta R.T. 0.013 min
 Lab File: VL040699.D
 Acq: 18 Sep 2023 15:03

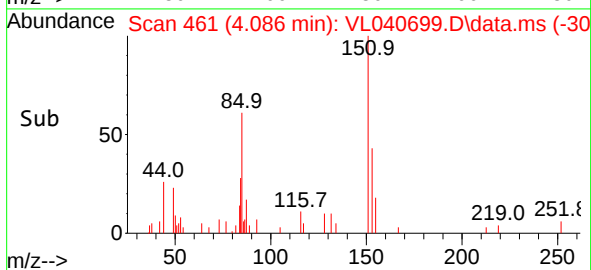
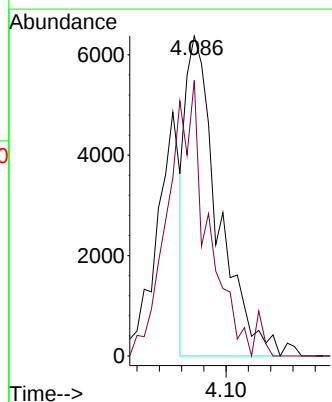
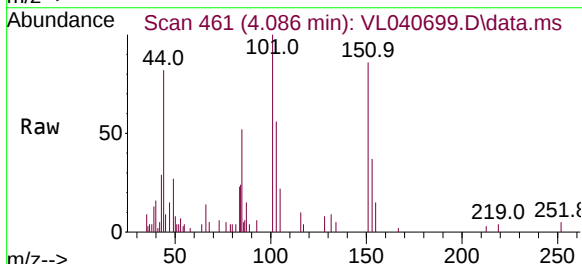
Instrument :
 MSVOA_L
 ClientSampleId :
 ST-1

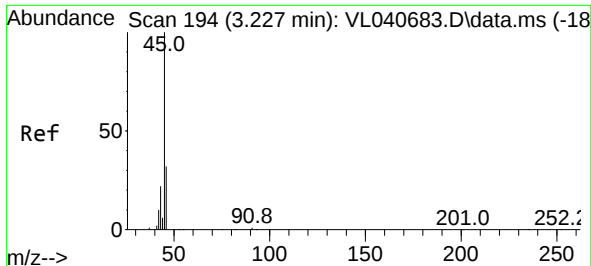
Tgt Ion:101 Resp: 48316
 Ion Ratio Lower Upper
 101 100
 103 67.1 51.3 76.9



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.050 ppbv
 RT: 4.086 min Scan# 461
 Delta R.T. 0.013 min
 Lab File: VL040699.D
 Acq: 18 Sep 2023 15:03

Tgt Ion:101 Resp: 6414
 Ion Ratio Lower Upper
 101 100
 151 107.7 56.8 85.2#

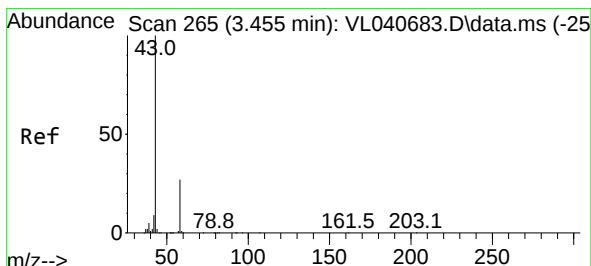
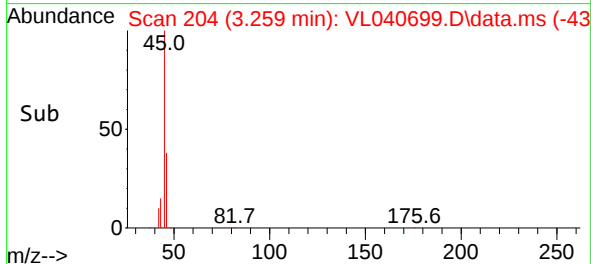
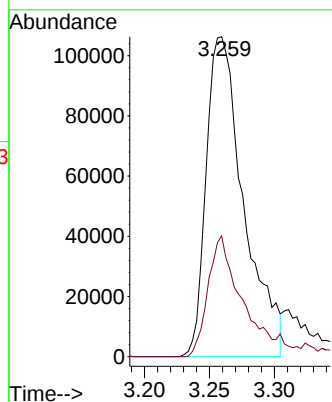
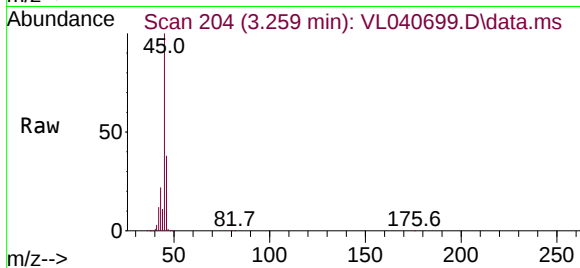




#13
 Ethanol
 Concen: 16.756 ppbv
 RT: 3.259 min Scan# 204
 Delta R.T. 0.016 min
 Lab File: VL040699.D
 Acq: 18 Sep 2023 15:03

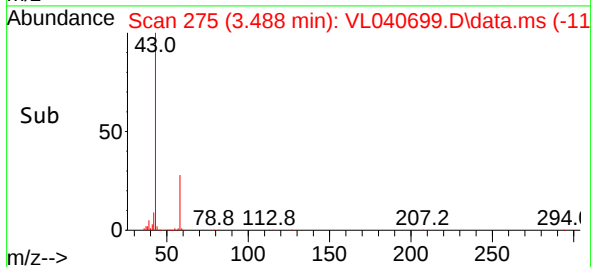
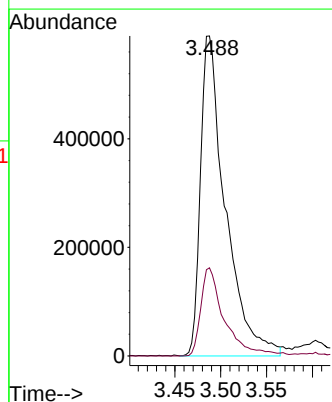
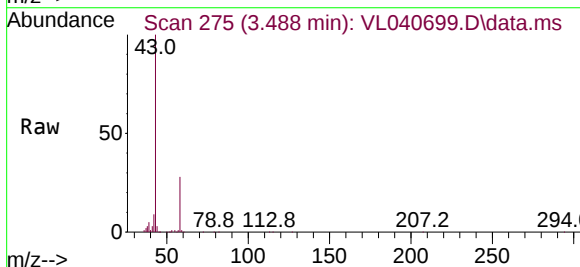
Instrument :
 MSVOA_L
 ClientSampleId :
 ST-1

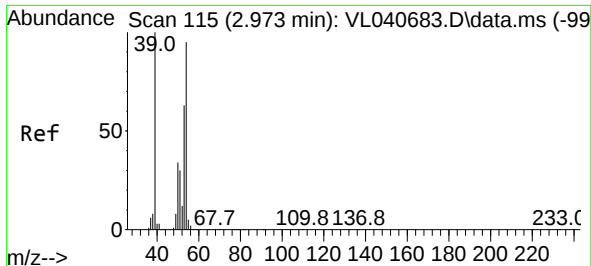
Tgt Ion: 45 Resp: 213809
 Ion Ratio Lower Upper
 45 100
 46 38.4 15.2 61.0



#15
 Acetone
 Concen: 9.181 ppbv
 RT: 3.488 min Scan# 275
 Delta R.T. 0.016 min
 Lab File: VL040699.D
 Acq: 18 Sep 2023 15:03

Tgt Ion: 43 Resp: 1112329
 Ion Ratio Lower Upper
 43 100
 58 27.4 22.6 34.0

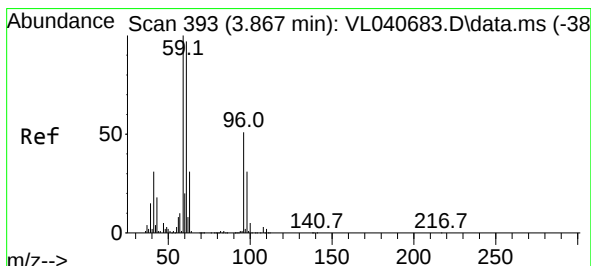
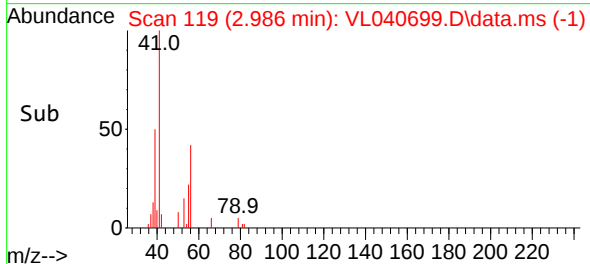
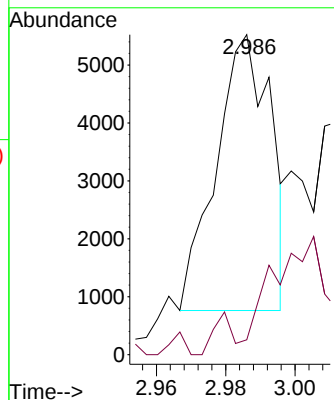
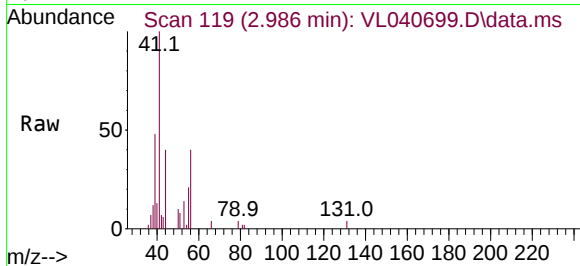




#16
1,3-Butadiene
Concen: 0.099 ppbv
RT: 2.986 min Scan# 115
Delta R.T. -0.003 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

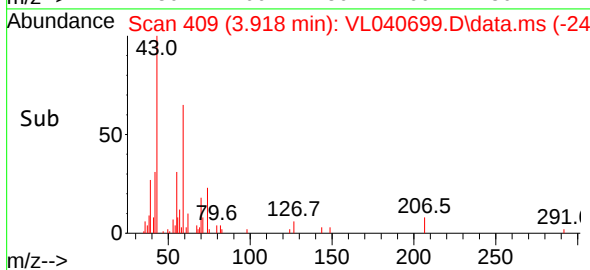
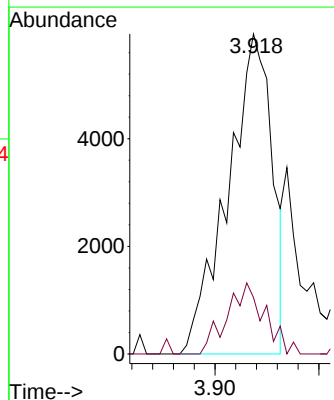
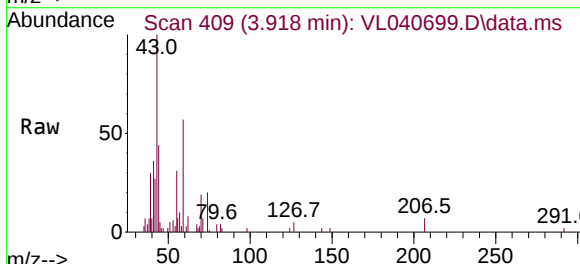
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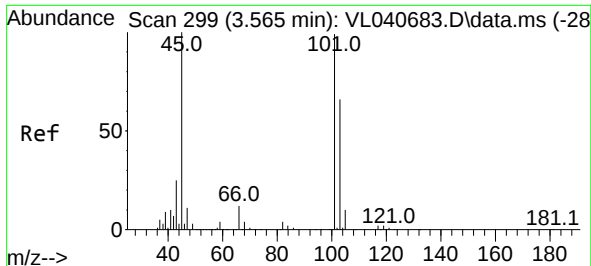
Tgt Ion: 39 Resp: 5224
Ion Ratio Lower Upper
39 100
54 74.6 64.8 97.2



#17
tert-Butyl alcohol
Concen: 0.071 ppbv
RT: 3.918 min Scan# 409
Delta R.T. 0.035 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

Tgt Ion: 59 Resp: 8848
Ion Ratio Lower Upper
59 100
57 0.0 8.7 13.1#





#19

Isopropyl Alcohol

Concen: 1.579 ppbv

RT: 3.603 min Scan# 311

Delta R.T. 0.026 min

Lab File: VL040699.D

Acq: 18 Sep 2023 15:03

Instrument :

MSVOA_L

ClientSampleId :

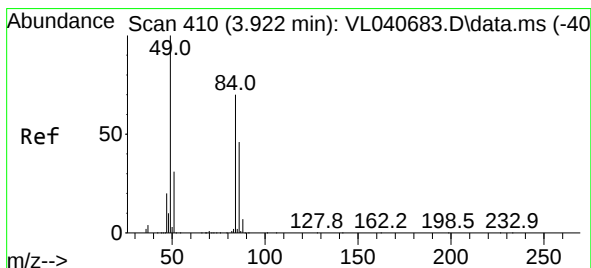
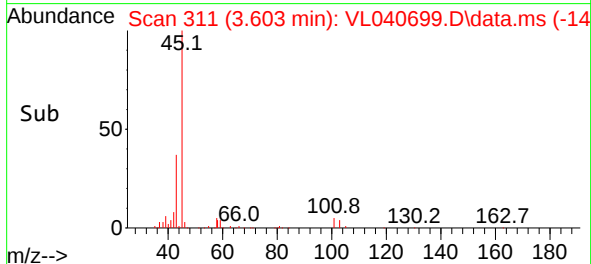
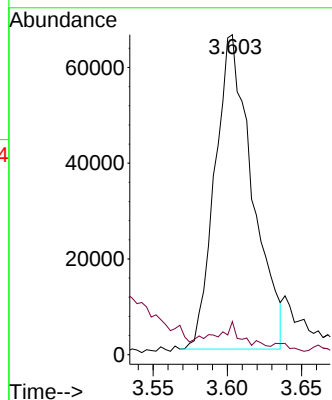
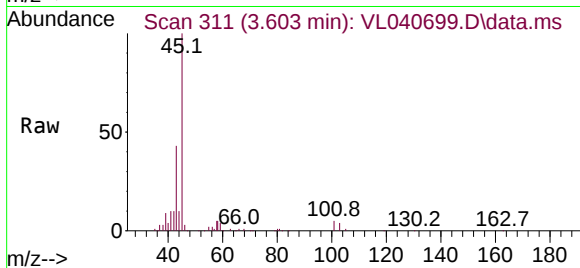
ST-1

Tgt Ion: 45 Resp: 115264

Ion Ratio Lower Upper

45 100

58 264.0 1.9 2.9#



#20

Methylene Chloride

Concen: 3.556 ppbv

RT: 3.951 min Scan# 419

Delta R.T. 0.013 min

Lab File: VL040699.D

Acq: 18 Sep 2023 15:03

Tgt Ion: 84 Resp: 231918

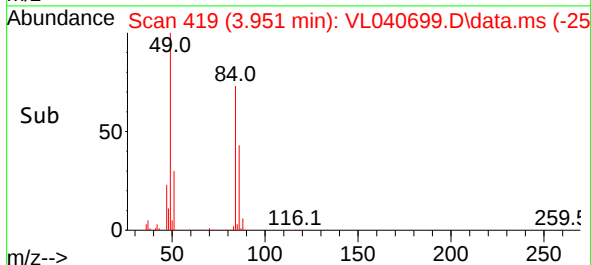
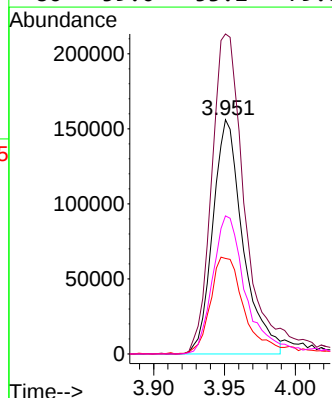
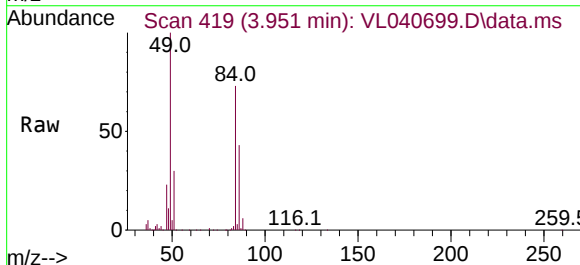
Ion Ratio Lower Upper

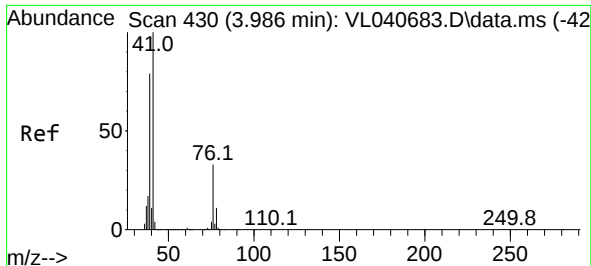
84 100

49 136.5 114.4 171.6

51 40.5 35.5 53.3

86 59.0 53.2 79.8





#21

Allyl Chloride

Concen: 0.041 ppbv

RT: 3.970 min Scan# 41

Delta R.T. -0.032 min

Lab File: VL040699.D

Acq: 18 Sep 2023 15:03

Instrument :

MSVOA_L

ClientSampleId :

ST-1

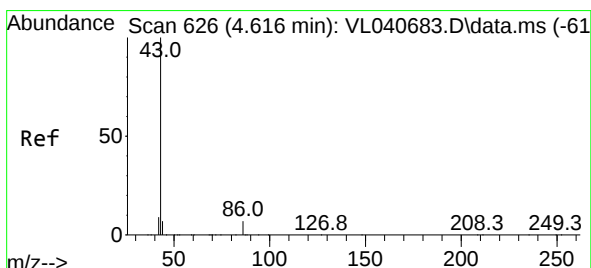
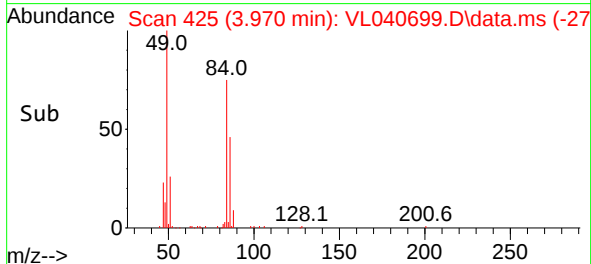
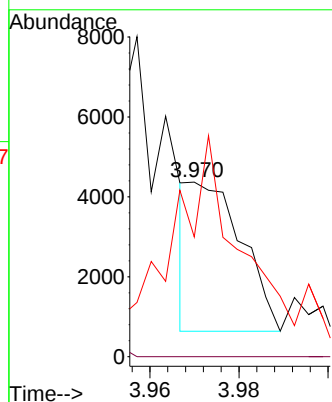
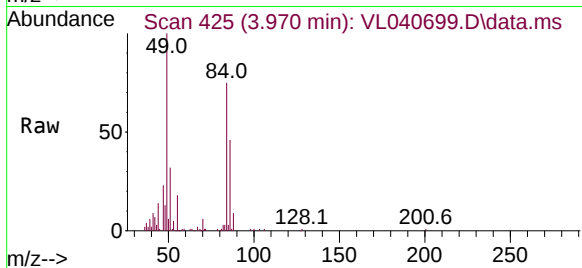
Tgt Ion: 41 Resp: 3079

Ion Ratio Lower Upper

41 100

76 0.0 26.6 40.0#

39 224.0 65.0 97.4#



#23

Vinyl Acetate

Concen: 0.424 ppbv

RT: 4.632 min Scan# 631

Delta R.T. 0.000 min

Lab File: VL040699.D

Acq: 18 Sep 2023 15:03

Tgt Ion: 43 Resp: 53072

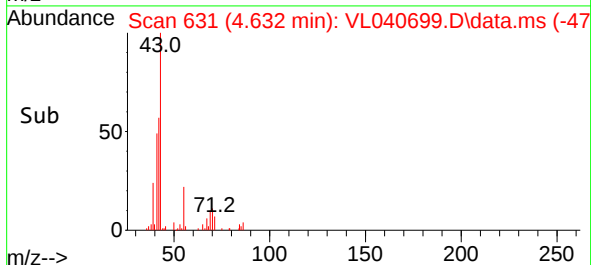
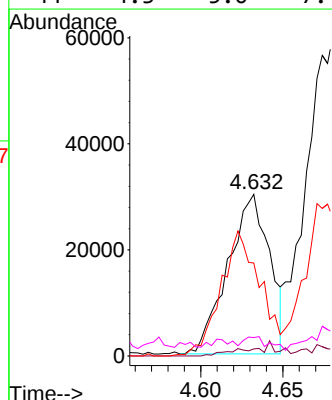
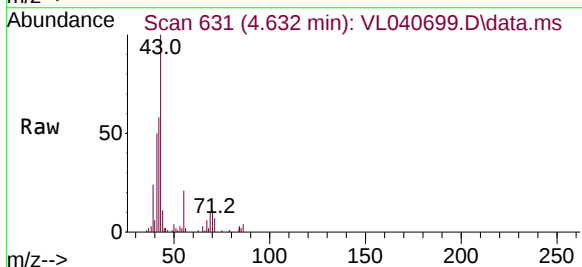
Ion Ratio Lower Upper

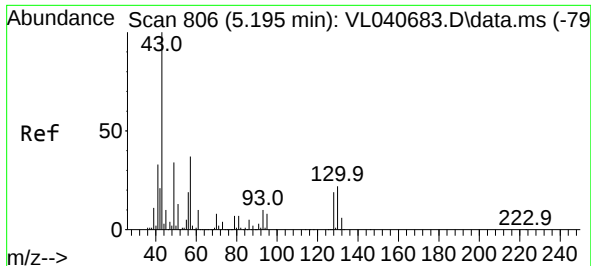
43 100

86 4.4 5.6 8.4#

42 57.2 7.6 11.4#

44 4.3 5.0 7.4#

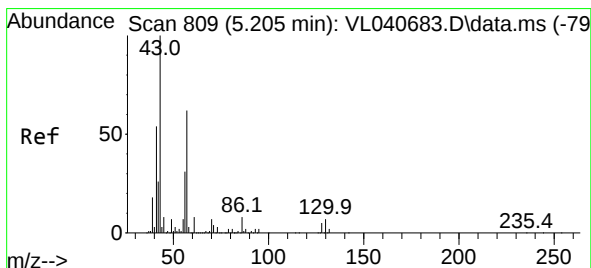
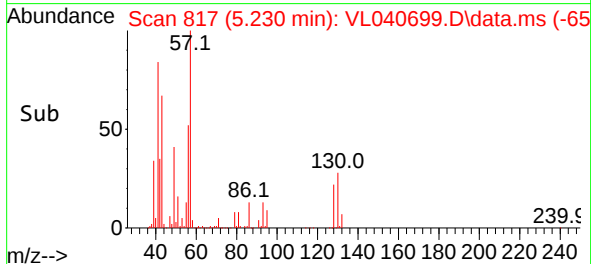
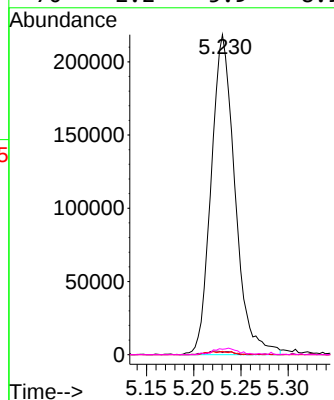
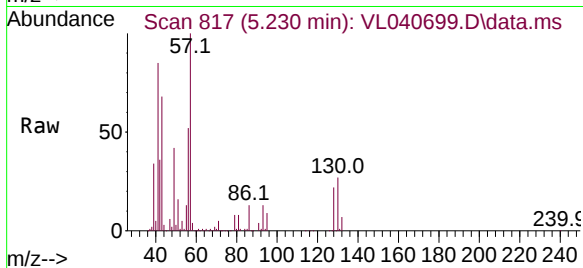




#25
Ethyl Acetate
Concen: 1.962 ppbv
RT: 5.230 min Scan# 817
Delta R.T. 0.019 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

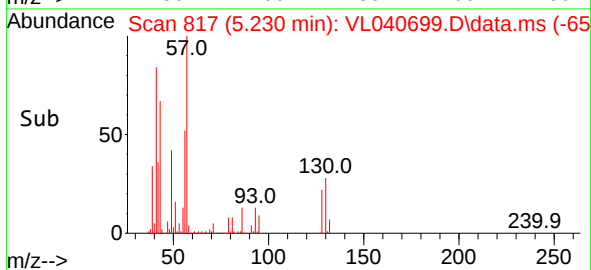
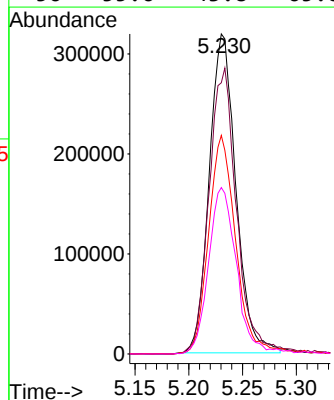
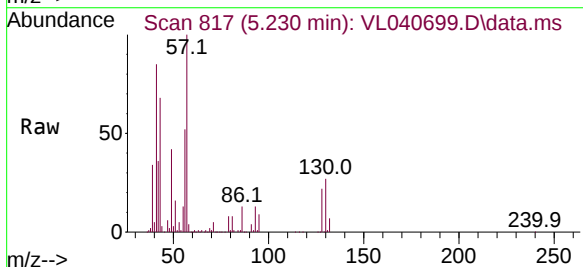
Instrument :
MSVOA_L
ClientSampleId :
ST-1

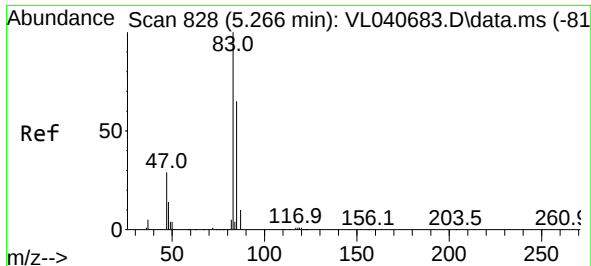
Tgt Ion: 43 Resp: 383472
Ion Ratio Lower Upper
43 100
45 1.2 8.2 12.4#
61 1.1 8.2 12.4#
70 2.2 5.9 8.9#



#26
Hexane
Concen: 5.956 ppbv
RT: 5.230 min Scan# 817
Delta R.T. 0.010 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

Tgt Ion: 57 Resp: 550315
Ion Ratio Lower Upper
57 100
41 94.4 75.2 112.8
43 71.1 185.6 278.4#
56 55.6 43.8 65.8





#29

Chloroform

Concen: 0.078 ppbv

RT: 5.288 min Scan# 81

Delta R.T. 0.006 min

Lab File: VL040699.D

Acq: 18 Sep 2023 15:03

Instrument :

MSVOA_L

ClientSampleId :

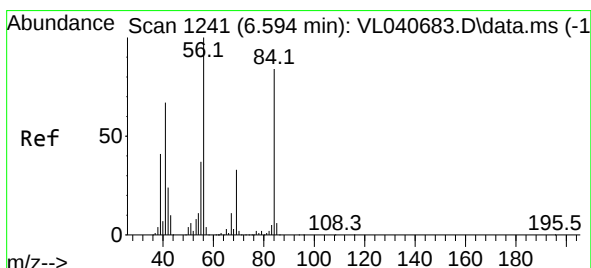
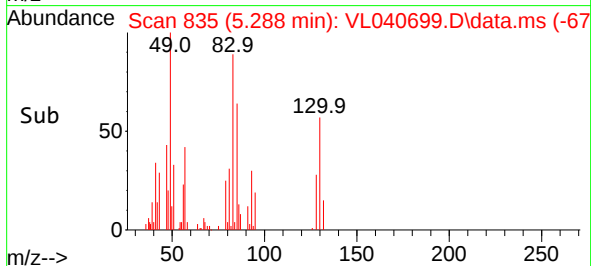
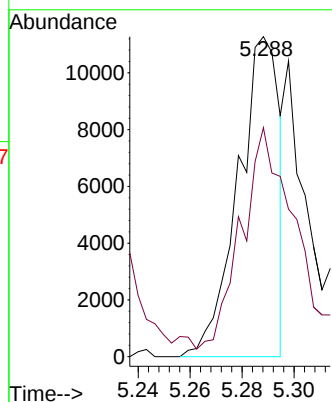
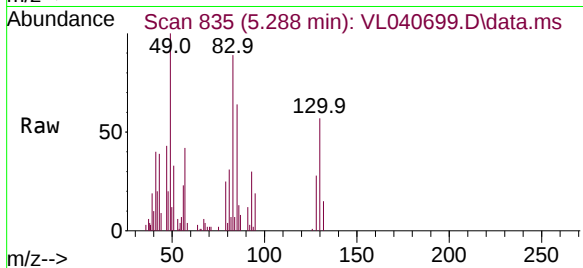
ST-1

Tgt Ion: 83 Resp: 12399

Ion Ratio Lower Upper

83 100

85 65.2 51.8 77.8



#30

Cyclohexane

Concen: 0.052 ppbv

RT: 6.629 min Scan# 1252

Delta R.T. 0.019 min

Lab File: VL040699.D

Acq: 18 Sep 2023 15:03

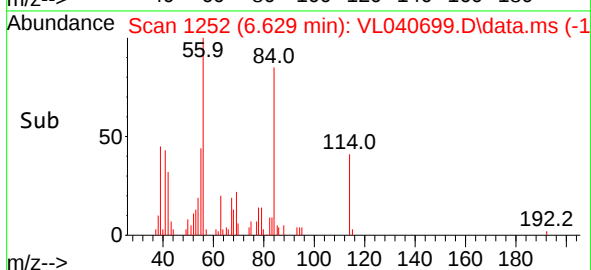
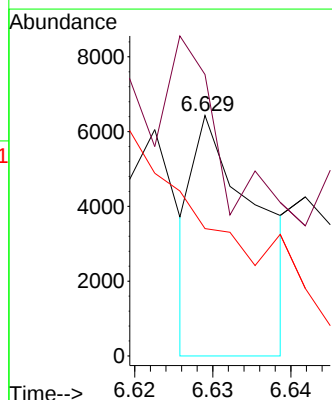
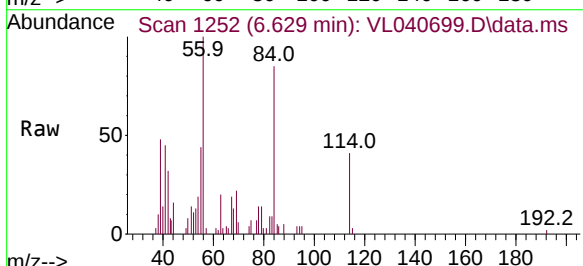
Tgt Ion: 84 Resp: 3617

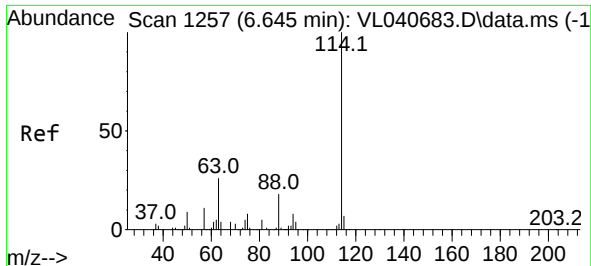
Ion Ratio Lower Upper

84 100

56 0.0 103.2 154.8#

41 0.0 65.5 98.3#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.671 min Scan# 11

Delta R.T. 0.010 min

Lab File: VL040699.D

Acq: 18 Sep 2023 15:03

Instrument :

MSVOA_L

ClientSampleId :

ST-1

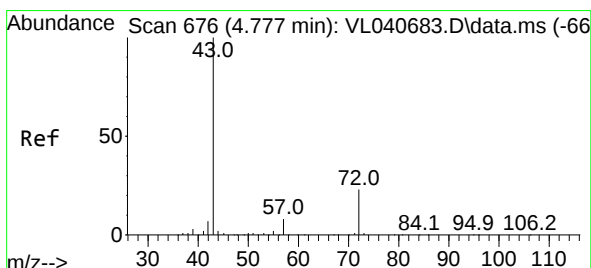
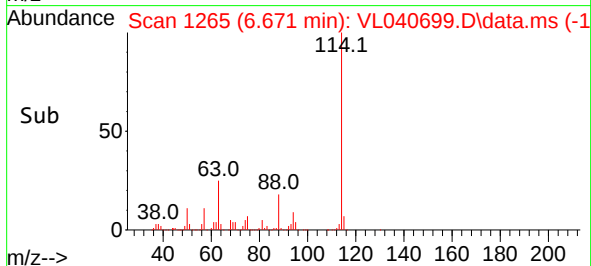
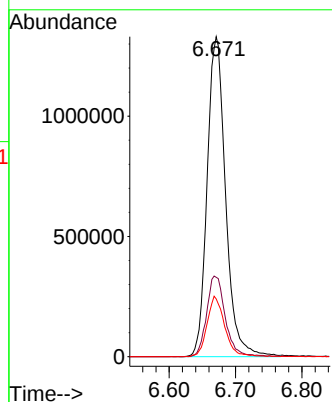
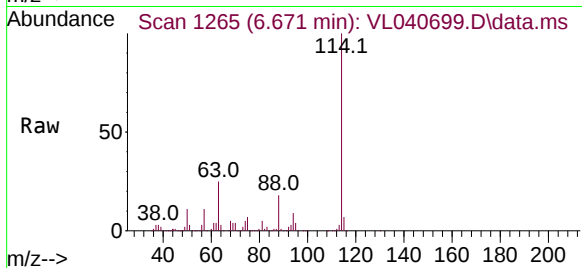
Tgt Ion:114 Resp: 2571613

Ion Ratio Lower Upper

114 100

63 25.7 21.1 31.7

88 18.0 14.5 21.7



#34

2-Butanone

Concen: 0.444 ppbv

RT: 4.812 min Scan# 687

Delta R.T. 0.023 min

Lab File: VL040699.D

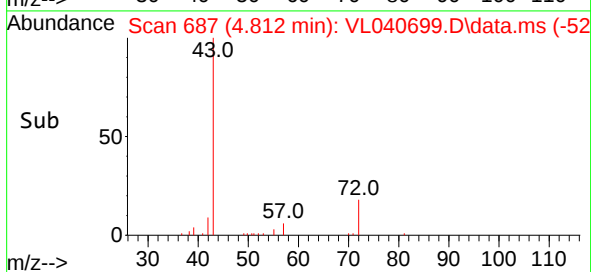
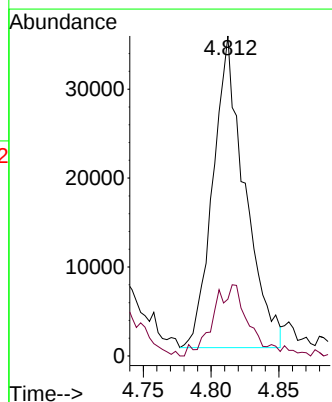
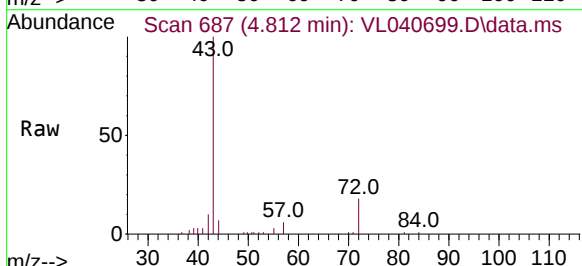
Acq: 18 Sep 2023 15:03

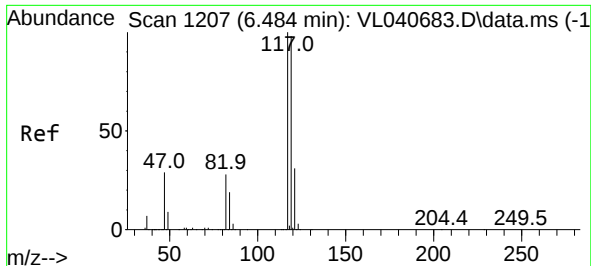
Tgt Ion: 43 Resp: 57368

Ion Ratio Lower Upper

43 100

72 26.2 18.6 27.8

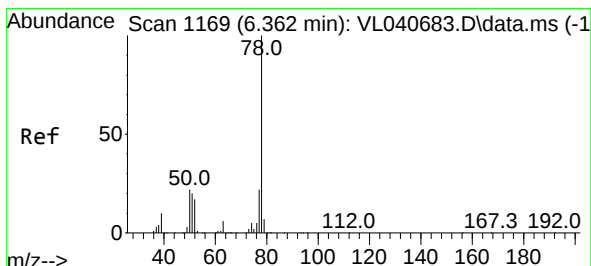
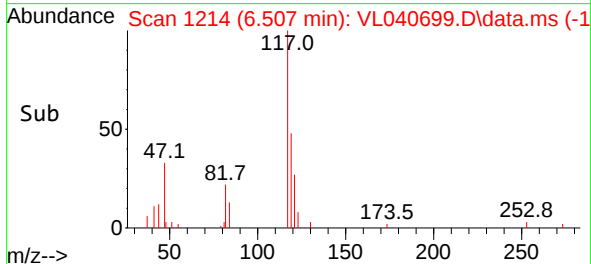
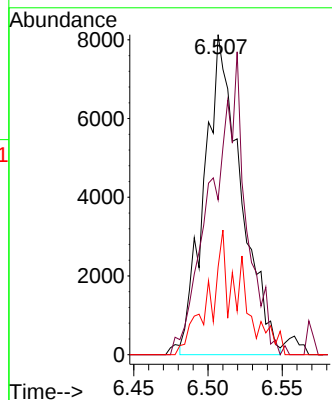
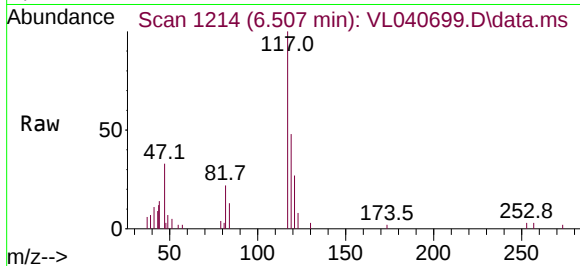




#35
Carbon Tetrachloride
Concen: 0.079 ppbv
RT: 6.507 min Scan# 1177
Delta R.T. 0.003 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

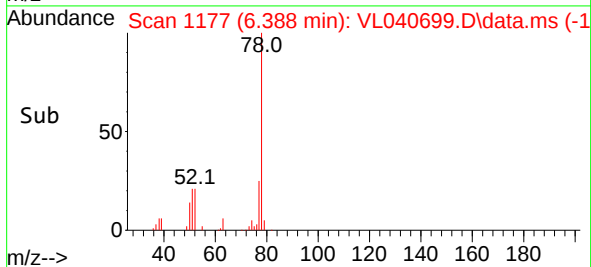
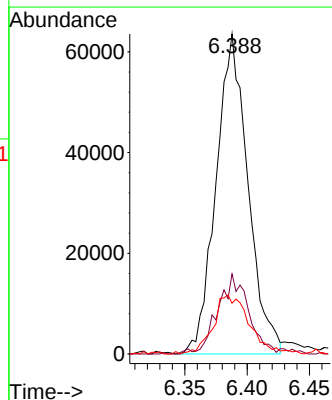
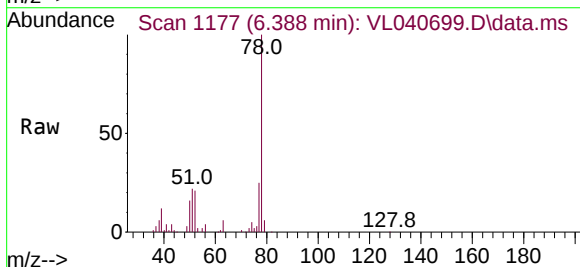
Instrument :
MSVOA_L
ClientSampleId :
ST-1

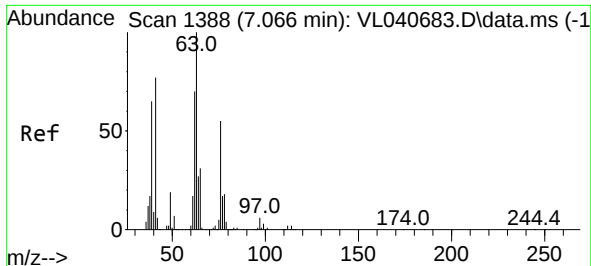
Tgt Ion:117 Resp: 13910
Ion Ratio Lower Upper
117 100
119 49.4 78.6 117.8#
121 25.1 24.7 37.1



#36
Benzene
Concen: 0.596 ppbv
RT: 6.388 min Scan# 1177
Delta R.T. 0.006 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

Tgt Ion: 78 Resp: 113416
Ion Ratio Lower Upper
78 100
77 24.6 17.9 26.9
50 15.9 17.3 25.9#





#39

1,2-Dichloropropane

Concen: 8.782 ppbv

RT: 6.668 min Scan# 11

Delta R.T. -0.415 min

Lab File: VL040699.D

Acq: 18 Sep 2023 15:03

Instrument :

MSVOA_L

ClientSampleId :

ST-1

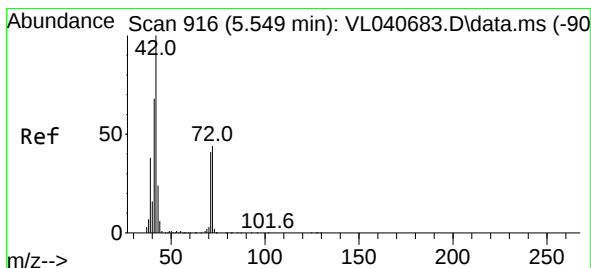
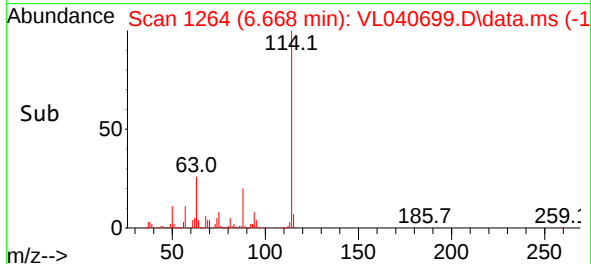
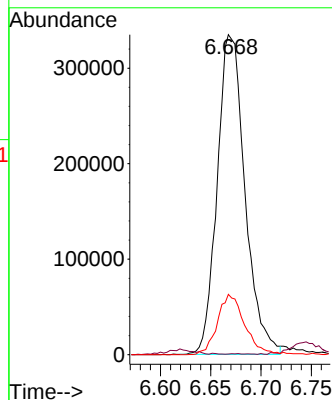
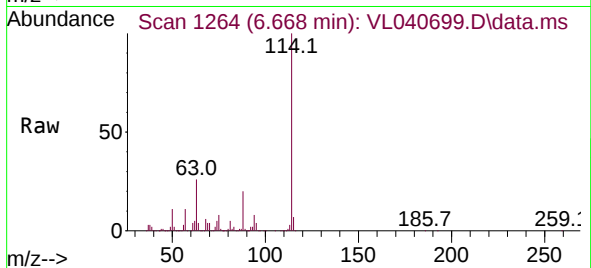
Tgt Ion: 63 Resp: 643712

Ion Ratio Lower Upper

63 100

41 0.0 61.6 92.4#

62 18.9 55.8 83.8#



#41

Tetrahydrofuran

Concen: 0.052 ppbv

RT: 5.835 min Scan# 1005

Delta R.T. 0.273 min

Lab File: VL040699.D

Acq: 18 Sep 2023 15:03

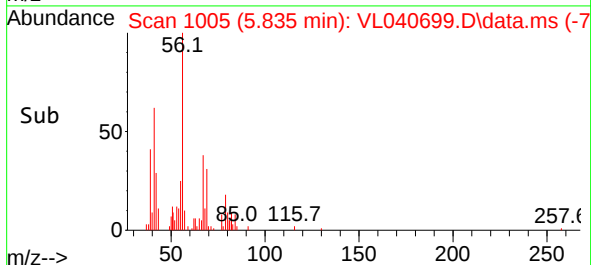
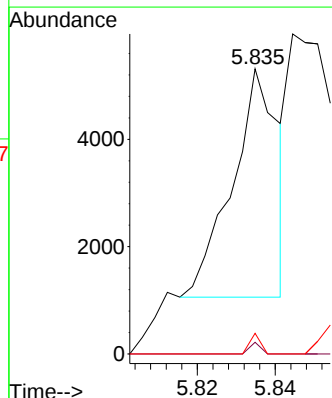
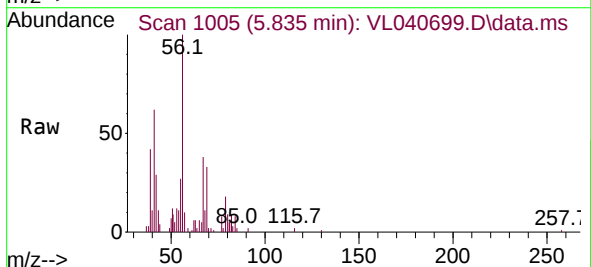
Tgt Ion: 42 Resp: 3472

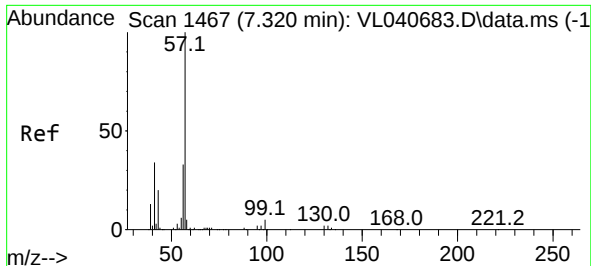
Ion Ratio Lower Upper

42 100

72 0.0 34.9 52.3#

71 0.0 33.8 50.8#

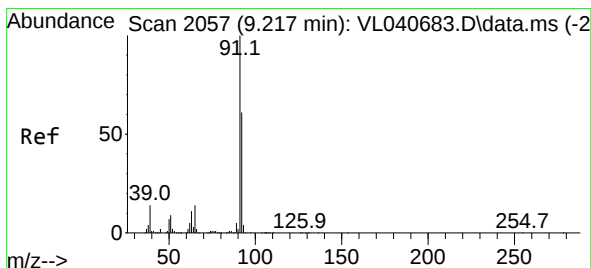
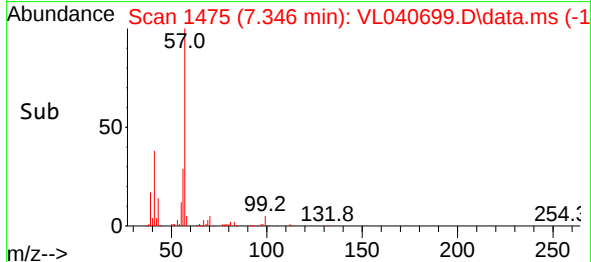
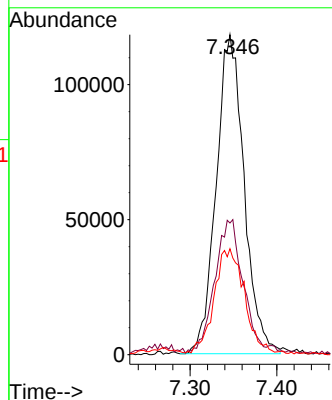
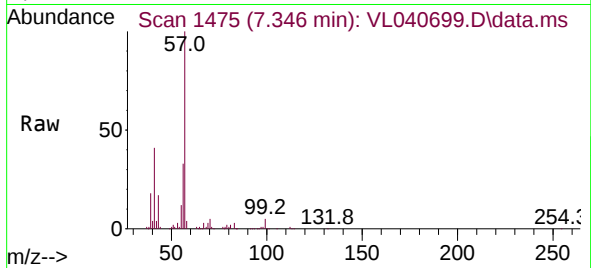




#44
2,2,4-Trimethylpentane
Concen: 0.872 ppbv
RT: 7.346 min Scan# 1467
Delta R.T. 0.010 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

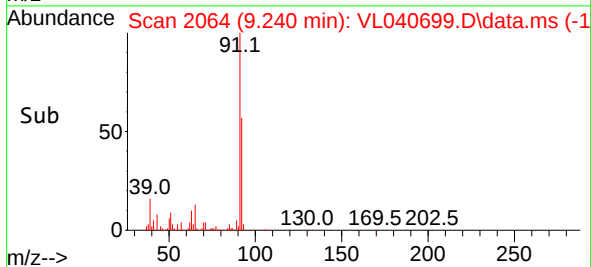
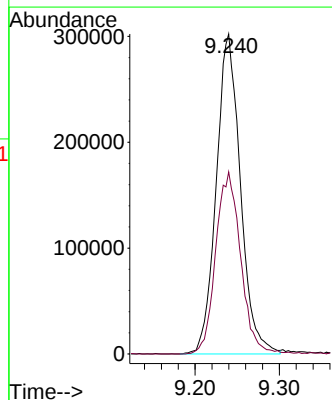
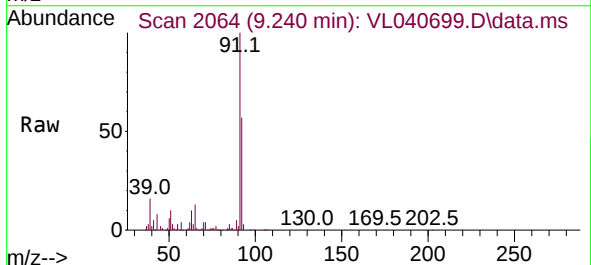
Instrument :
MSVOA_L
ClientSampleId :
ST-1

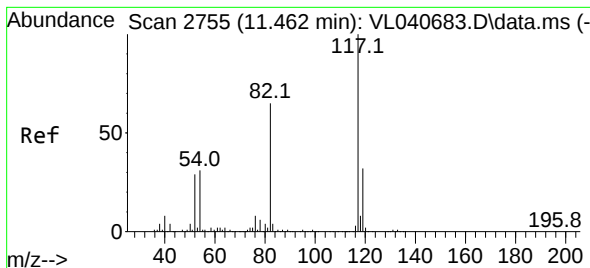
Tgt Ion: 57 Resp: 264433
Ion Ratio Lower Upper
57 100
41 44.0 28.5 42.7#
56 37.2 25.4 38.2



#53
Toluene
Concen: 2.991 ppbv
RT: 9.240 min Scan# 2064
Delta R.T. 0.010 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

Tgt Ion: 91 Resp: 601341
Ion Ratio Lower Upper
91 100
92 58.8 48.5 72.7





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.484 min Scan# 21

Delta R.T. 0.006 min

Lab File: VL040699.D

Acq: 18 Sep 2023 15:03

Instrument :

MSVOA_L

ClientSampleId :

ST-1

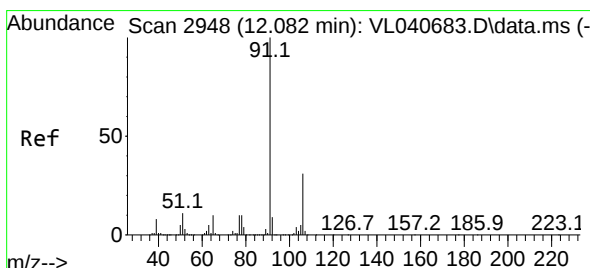
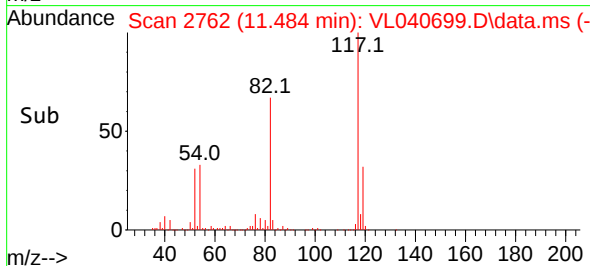
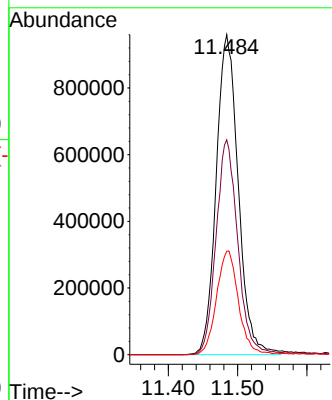
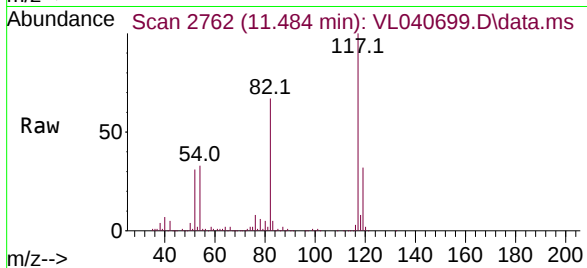
Tgt Ion:117 Resp: 2124310

Ion Ratio Lower Upper

117 100

82 66.6 51.4 77.0

119 32.8 24.7 37.1



#58

Ethyl Benzene

Concen: 0.040 ppbv

RT: 12.114 min Scan# 2958

Delta R.T. 0.013 min

Lab File: VL040699.D

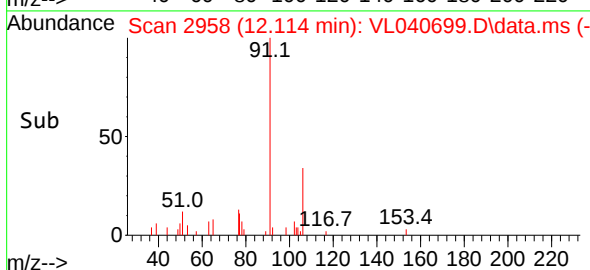
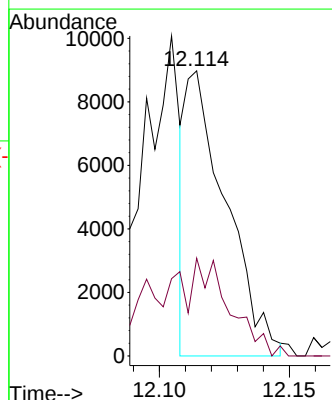
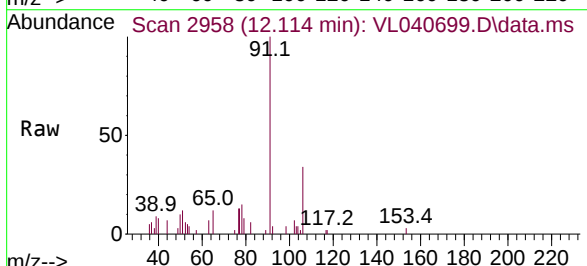
Acq: 18 Sep 2023 15:03

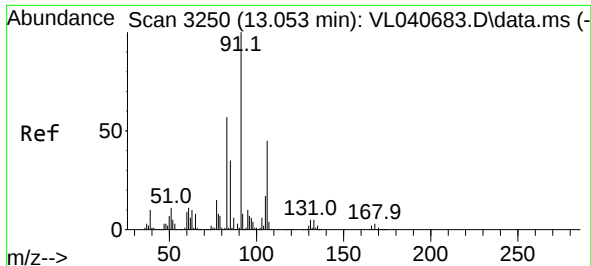
Tgt Ion: 91 Resp: 9709

Ion Ratio Lower Upper

91 100

106 32.2 24.7 37.1

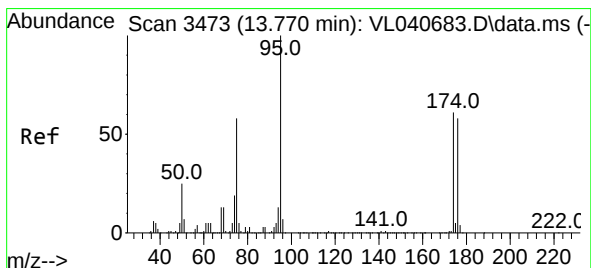
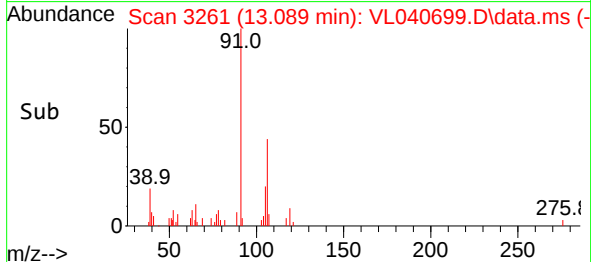
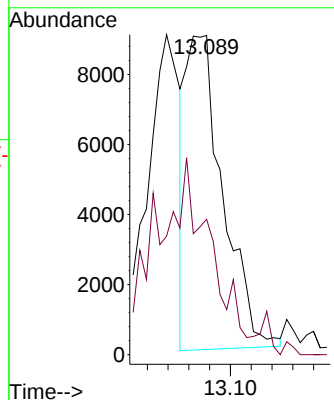
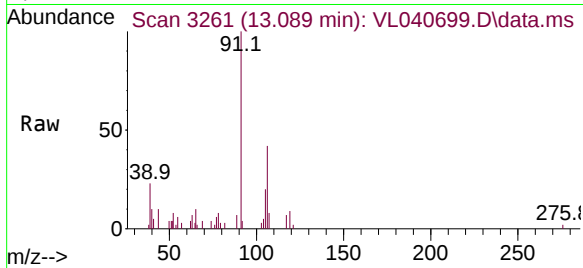




#60
o-Xylene
Concen: 0.051 ppbv
RT: 13.089 min Scan# 311
Delta R.T. 0.019 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

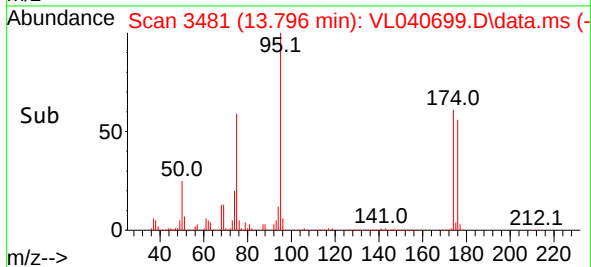
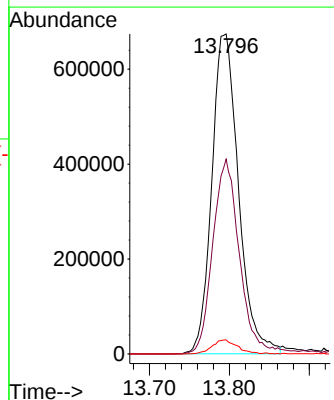
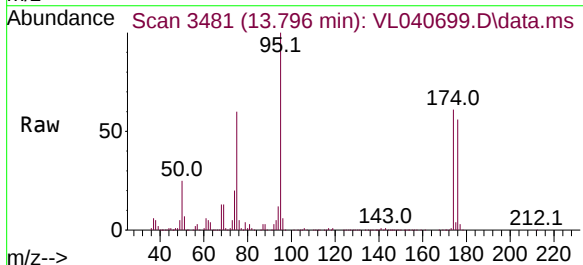
Instrument :
MSVOA_L
ClientSampleId :
ST-1

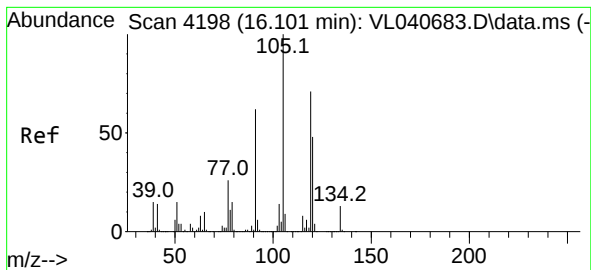
Tgt Ion: 91 Resp: 11166
Ion Ratio Lower Upper
91 100
106 99.5 22.3 66.9#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.536 ppbv
RT: 13.796 min Scan# 3481
Delta R.T. 0.010 min
Lab File: VL040699.D
Acq: 18 Sep 2023 15:03

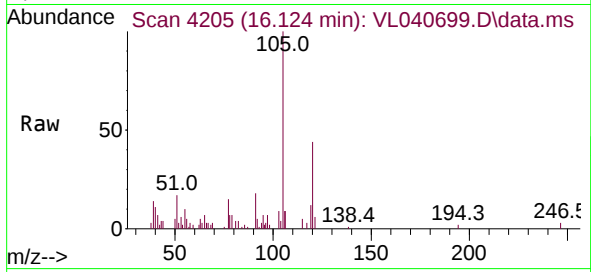
Tgt Ion: 95 Resp: 1565196
Ion Ratio Lower Upper
95 100
174 62.3 48.9 73.3
175 4.3 3.5 5.3





#74
 1,2,4-Trimethylbenzene
 Concen: 0.042 ppbv
 RT: 16.124 min Scan# 4198
 Delta R.T. 0.006 min
 Lab File: VL040699.D
 Acq: 18 Sep 2023 15:03

Instrument :
 MSVOA_L
 ClientSampleId :
 ST-1



Tgt Ion:	105	Resp:	11225
Ion	Ratio	Lower	Upper
105	100		
120	39.4	38.6	57.8
91	23.9	50.0	75.0#
77	17.3	20.6	31.0#

