

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL080923\
 Data File : VL040611.D
 Acq On : 9 Aug 2023 18:38
 Operator : SY/MD
 Sample : 03907-02DL 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-1DL

Quant Time: Aug 10 01:31:04 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)

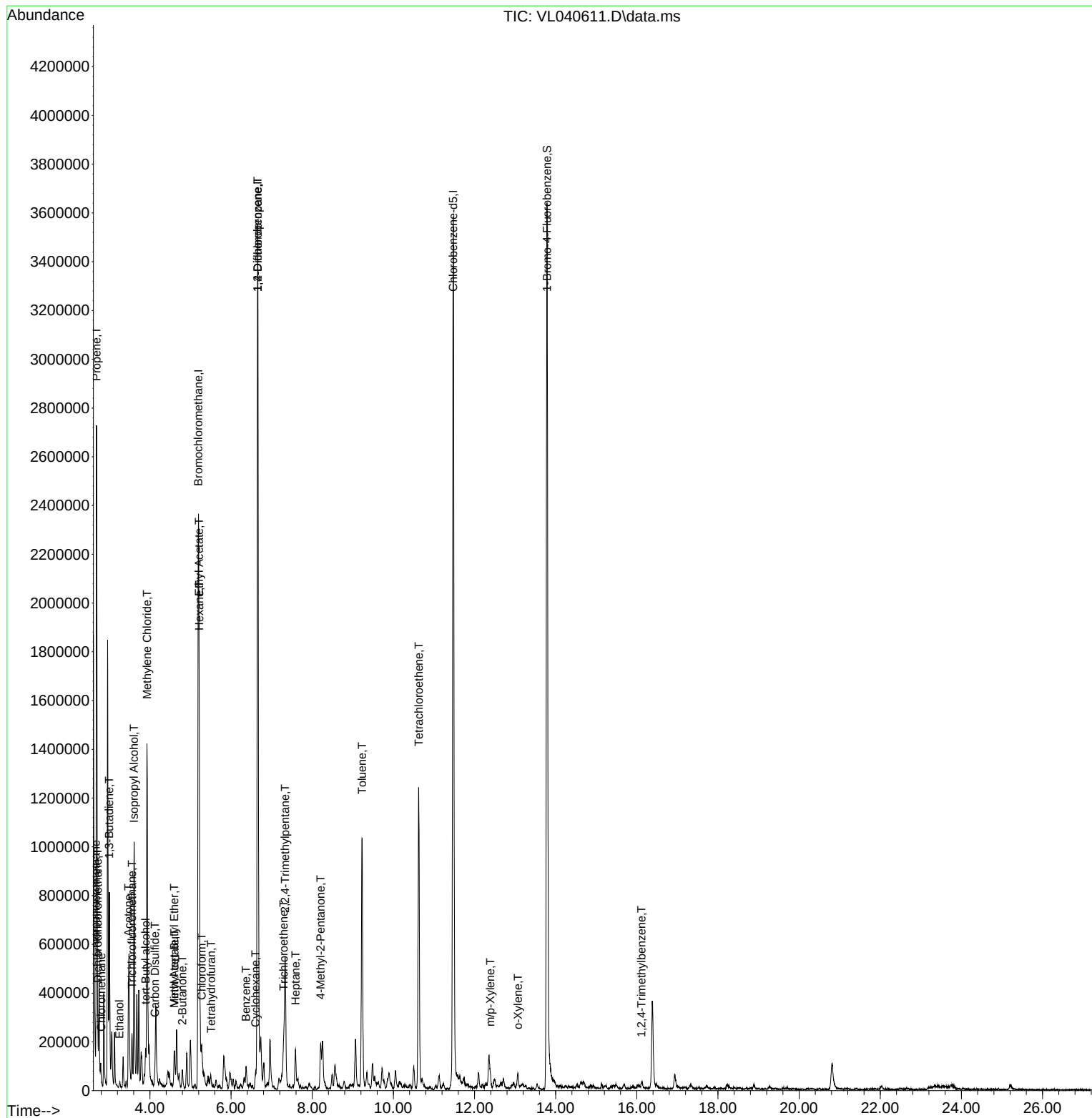
Internal Standards						
1) Bromochloromethane	5.192	49	1021113	10.000	ppbv	-0.01
33) 1,4-Difluorobenzene	6.655	114	2632451	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.475	117	2347689	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.790	95	1855382	9.986	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.900%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.716	85	12806	0.063	ppbv	98
3) Chlorodifluoromethane	2.668	51	5063	0.031	ppbv	93
4) Chloromethane	2.800	50	2360	0.037	ppbv #	76
9) Propene	2.684	41	1102798	19.903	ppbv	96
10) Heptane	7.587	43	55756	0.456	ppbv	91
11) Trichlorofluoromethane	3.558	101	121320	0.736	ppbv	91
13) Ethanol	3.250	45	12154	1.008	ppbv #	37
15) Acetone	3.472	43	455770	3.878	ppbv	99
16) 1,3-Butadiene	2.999	39	105883	1.786	ppbv #	8
17) tert-Butyl alcohol	3.896	59	33070	0.272	ppbv #	83
19) Isopropyl Alcohol	3.607	45	109402	1.621	ppbv #	1
20) Methylene Chloride	3.928	84	468711	9.375	ppbv	97
23) Vinyl Acetate	4.603	43	48894	0.437	ppbv #	1
25) Ethyl Acetate	5.211	43	318527	1.423	ppbv #	76
26) Hexane	5.214	57	478606	4.604	ppbv #	39
27) Carbon Disulfide	4.124	76	66375	0.543	ppbv #	93
28) Methyl tert-Butyl Ether	4.597	73	38267	0.457	ppbv	94
29) Chloroform	5.275	83	62726	0.364	ppbv	98
30) Cyclohexane	6.603	84	18742	0.217	ppbv #	76
34) 2-Butanone	4.800	43	87942	0.676	ppbv	97
36) Benzene	6.369	78	67649	0.319	ppbv	96
38) Trichloroethene	7.298	130	23310	0.291	ppbv	92
39) 1,2-Dichloropropane	6.655	63	654811	8.031	ppbv #	26
41) Tetrahydrofuran	5.507	42	2376	0.031	ppbv #	41
44) 2,2,4-Trimethylpentane	7.333	57	475096	1.394	ppbv #	79
50) 4-Methyl-2-Pentanone	8.205	43	77675	0.411	ppbv #	37
52) Tetrachloroethene	10.626	164	285953	4.169	ppbv	98
53) Toluene	9.230	91	650573	2.828	ppbv	100
59) m/p-Xylene	12.388	91	18646	0.071	ppbv #	31
60) o-Xylene	13.069	91	45744	0.183	ppbv	99
74) 1,2,4-Trimethylbenzene	16.117	105	9522	0.032	ppbv #	56

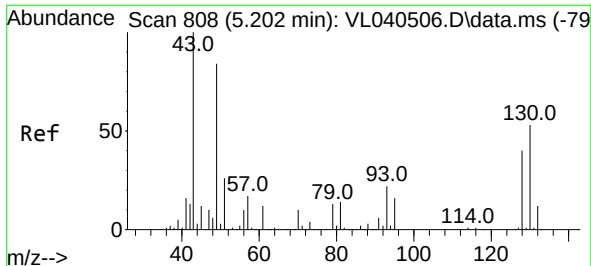
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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SV-1DL

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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

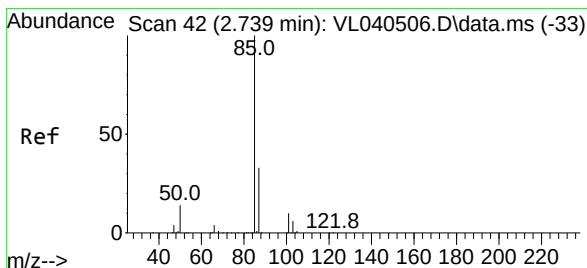
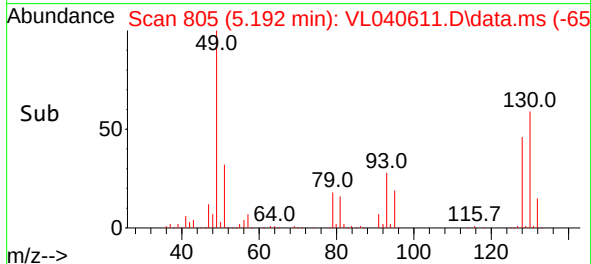
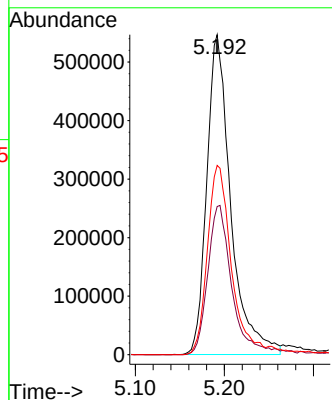
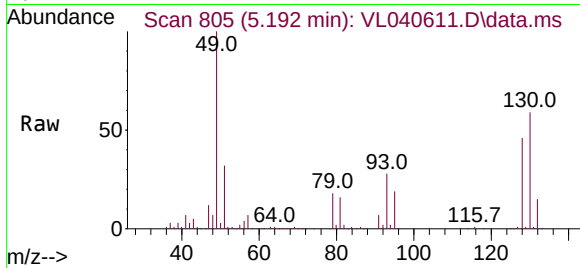




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.192 min Scan# 80
Delta R.T. -0.010 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

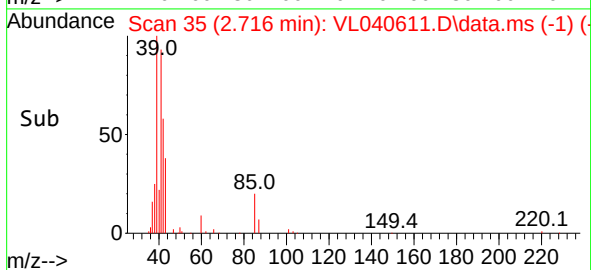
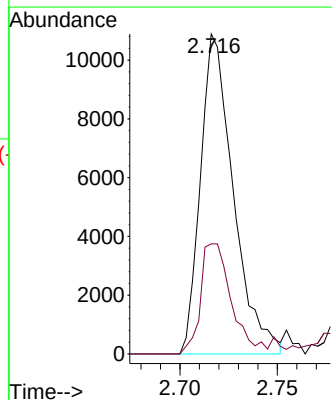
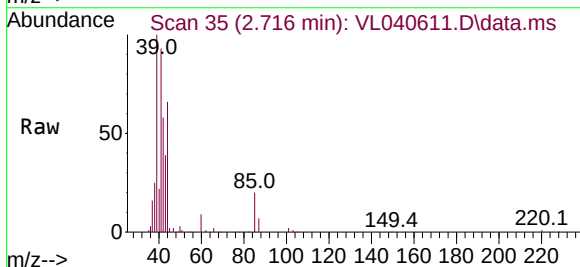
Instrument :
MSVOA_L
ClientSampleId :
SV-1DL

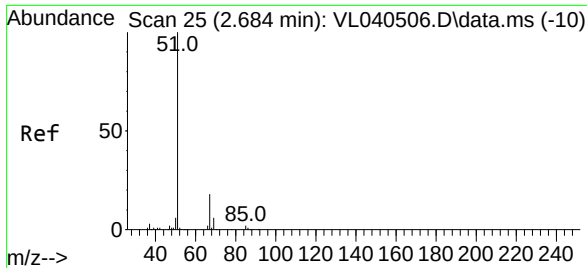
Tgt Ion: 49 Resp: 1021113
Ion Ratio Lower Upper
49 100
128 47.6 25.1 75.4
130 62.4 31.6 94.7



#2
Dichlorodifluoromethane
Concen: 0.063 ppbv
RT: 2.716 min Scan# 35
Delta R.T. -0.023 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

Tgt Ion: 85 Resp: 12806
Ion Ratio Lower Upper
85 100
87 34.4 26.8 40.2

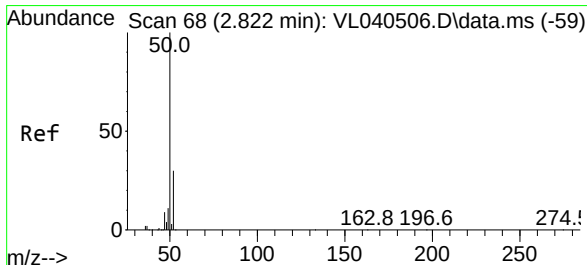
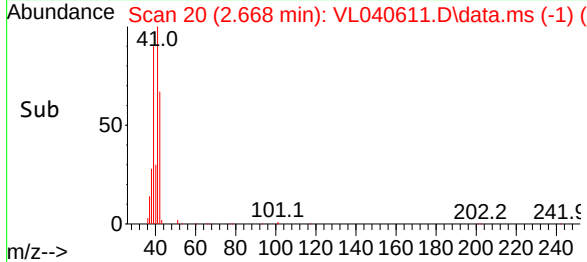
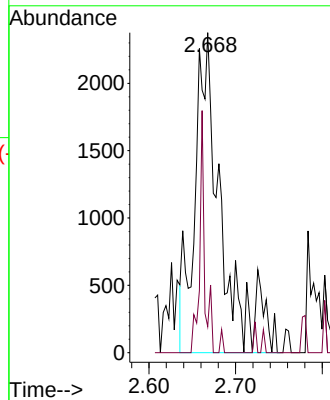
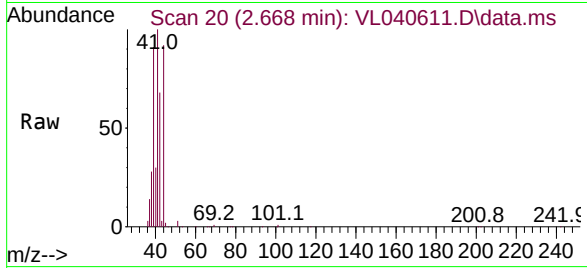




#3
Chlorodifluoromethane
Concen: 0.031 ppbv
RT: 2.668 min Scan# 20
Delta R.T. -0.016 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

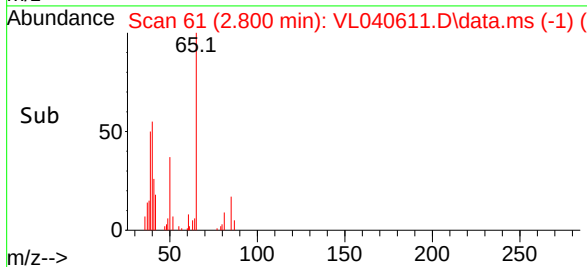
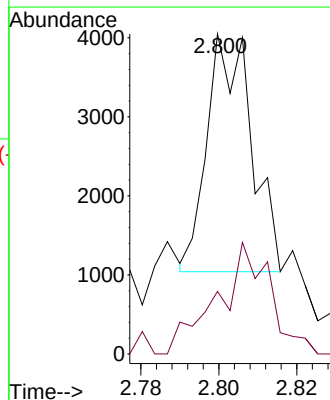
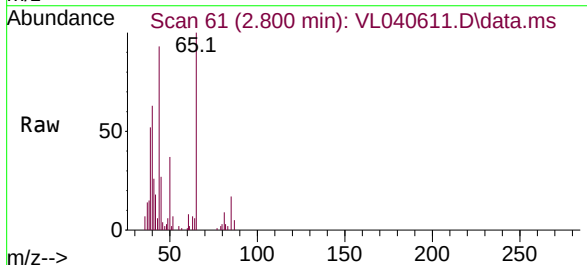
Instrument :
MSVOA_L
ClientSampleId :
SV-1DL

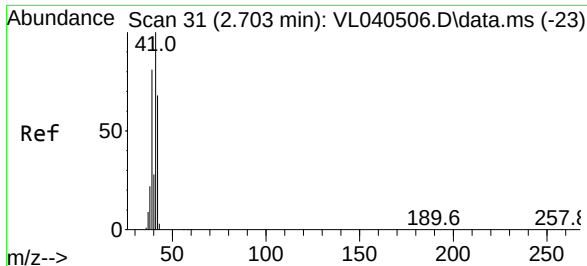
Tgt Ion: 51 Resp: 5063
Ion Ratio Lower Upper
51 100
67 15.0 14.6 21.8



#4
Chloromethane
Concen: 0.037 ppbv
RT: 2.800 min Scan# 61
Delta R.T. -0.023 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

Tgt Ion: 50 Resp: 2360
Ion Ratio Lower Upper
50 100
52 17.4 24.4 36.6#

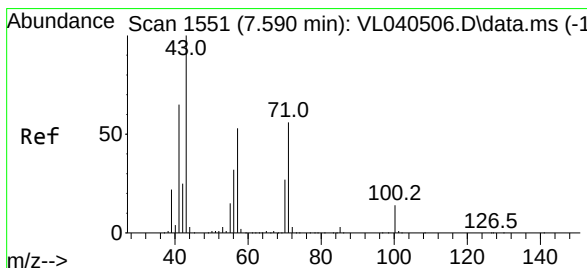
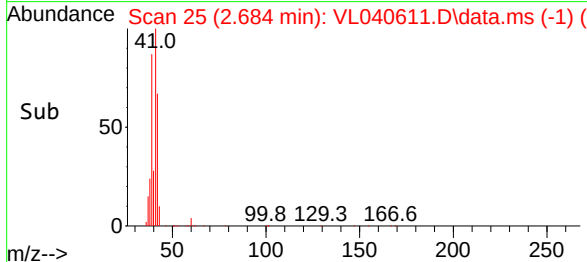
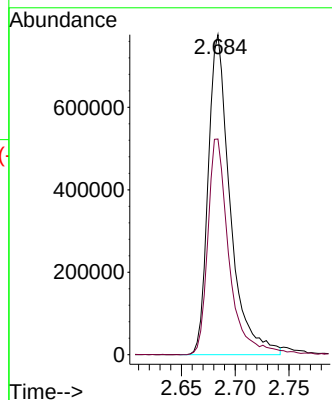
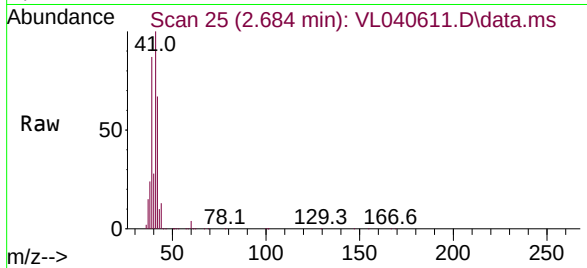




#9
 Propene
 Concen: 19.903 ppbv
 RT: 2.684 min Scan# 21
 Delta R.T. -0.019 min
 Lab File: VL040611.D
 Acq: 9 Aug 2023 18:38

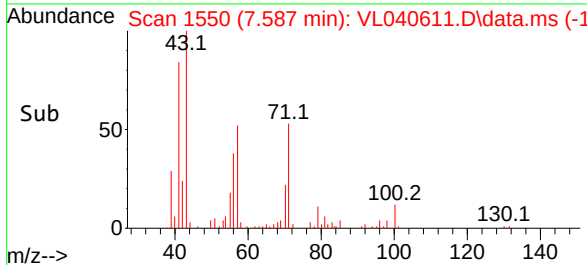
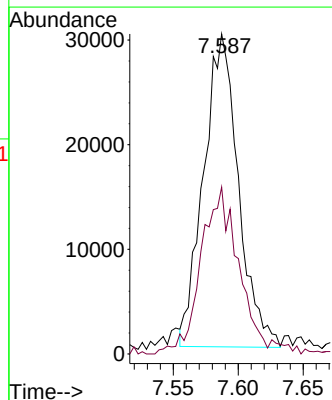
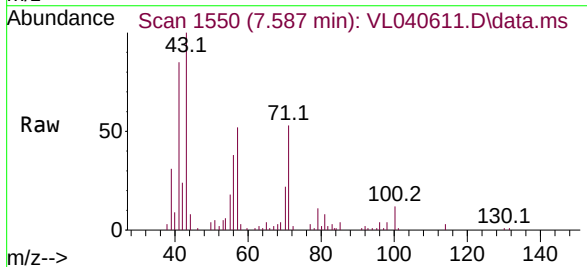
Instrument :
 MSVOA_1
 ClientSampleId :
 SV-1DL

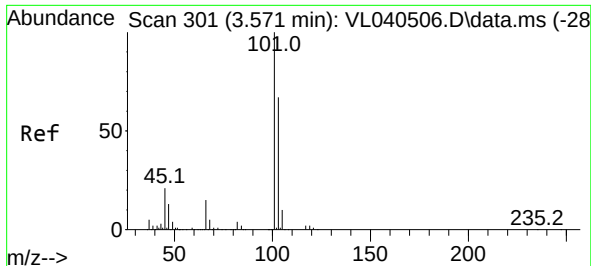
Tgt Ion: 41 Resp: 1102798
 Ion Ratio Lower Upper
 41 100
 42 65.8 55.0 82.6



#10
 Heptane
 Concen: 0.456 ppbv
 RT: 7.587 min Scan# 1550
 Delta R.T. -0.003 min
 Lab File: VL040611.D
 Acq: 9 Aug 2023 18:38

Tgt Ion: 43 Resp: 55756
 Ion Ratio Lower Upper
 43 100
 57 59.3 42.5 63.7

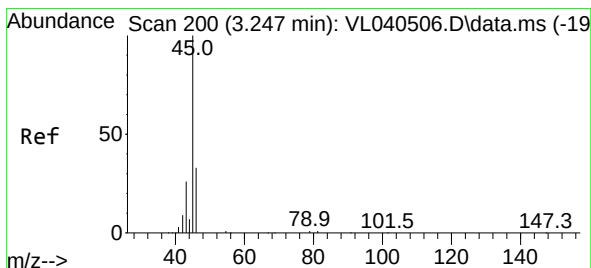
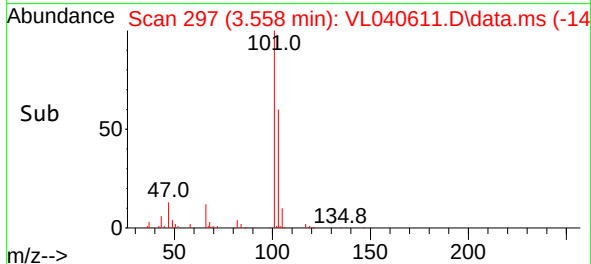
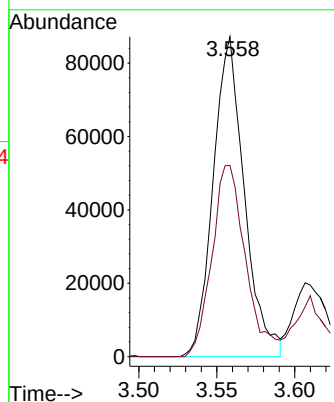
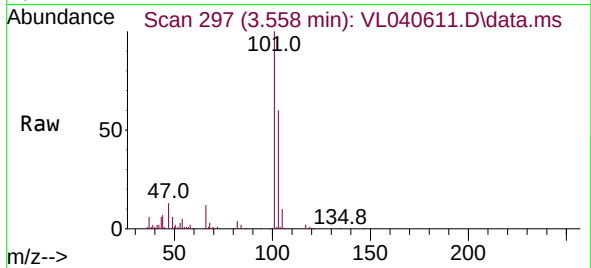




#11
 Trichlorofluoromethane
 Concen: 0.736 ppbv
 RT: 3.558 min Scan# 201
 Delta R.T. -0.013 min
 Lab File: VL040611.D
 Acq: 9 Aug 2023 18:38

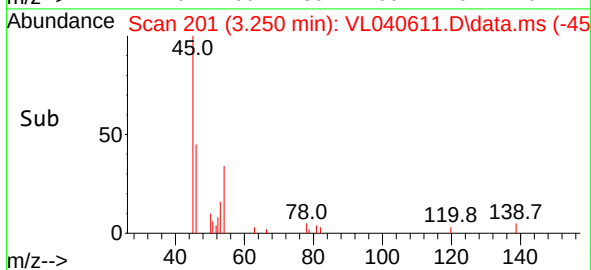
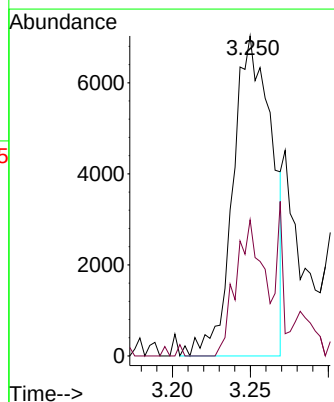
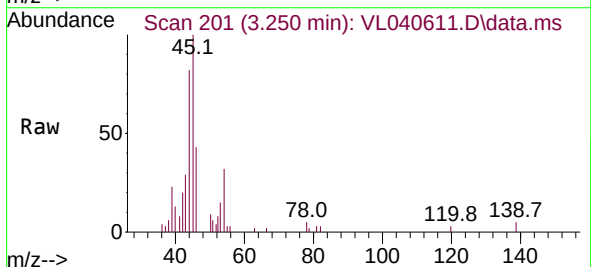
Instrument :
 MSVOA_L
 ClientSampleId :
 SV-1DL

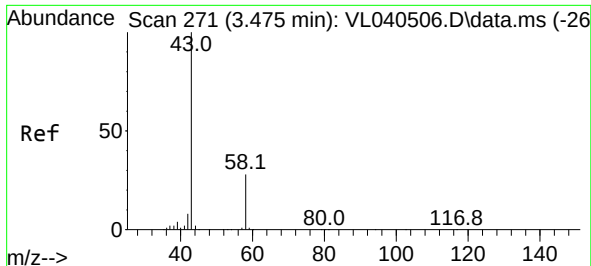
Tgt Ion:101 Resp: 121320
 Ion Ratio Lower Upper
 101 100
 103 59.8 53.4 80.0



#13
 Ethanol
 Concen: 1.008 ppbv
 RT: 3.250 min Scan# 201
 Delta R.T. 0.003 min
 Lab File: VL040611.D
 Acq: 9 Aug 2023 18:38

Tgt Ion: 45 Resp: 12154
 Ion Ratio Lower Upper
 45 100
 46 0.0 15.3 61.1#

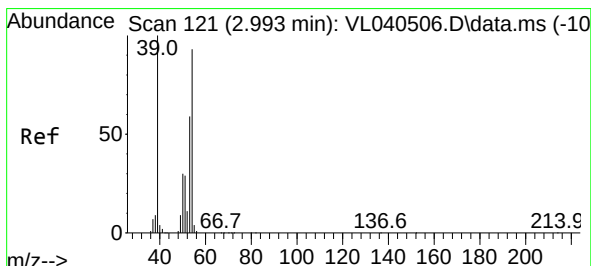
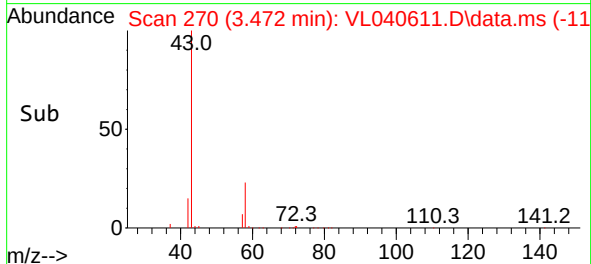
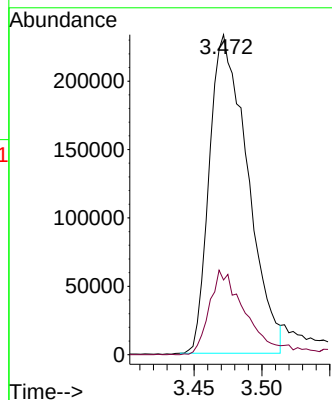
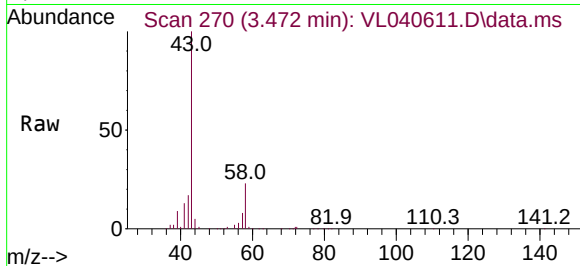




#15
 Acetone
 Concen: 3.878 ppbv
 RT: 3.472 min Scan# 21
 Delta R.T. -0.003 min
 Lab File: VL040611.D
 Acq: 9 Aug 2023 18:38

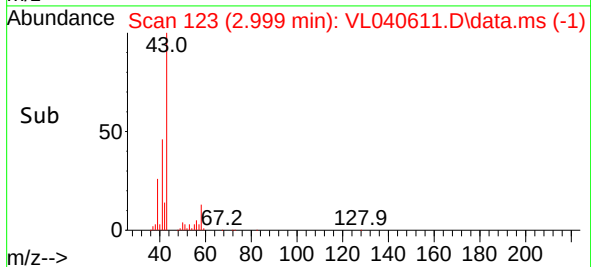
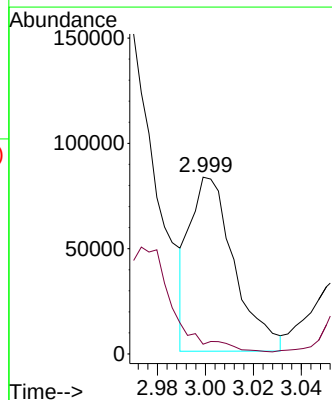
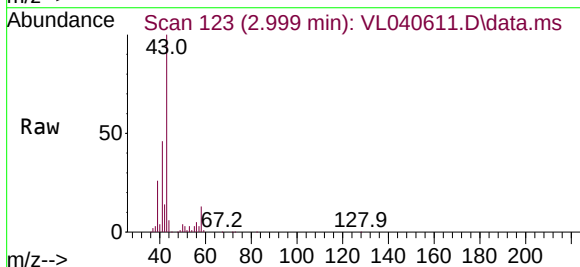
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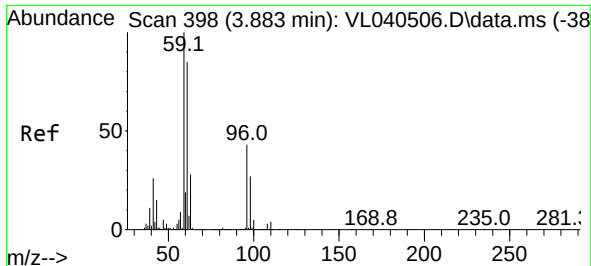
Tgt Ion: 43 Resp: 455770
 Ion Ratio Lower Upper
 43 100
 58 27.8 22.9 34.3



#16
 1,3-Butadiene
 Concen: 1.786 ppbv
 RT: 2.999 min Scan# 123
 Delta R.T. 0.006 min
 Lab File: VL040611.D
 Acq: 9 Aug 2023 18:38

Tgt Ion: 39 Resp: 105883
 Ion Ratio Lower Upper
 39 100
 54 0.0 66.6 100.0#





#17

tert-Butyl alcohol

Concen: 0.272 ppbv

RT: 3.896 min Scan# 402

Delta R.T. 0.013 min

Lab File: VL040611.D

Acq: 9 Aug 2023 18:38

Instrument :

MSVOA_L

ClientSampleId :

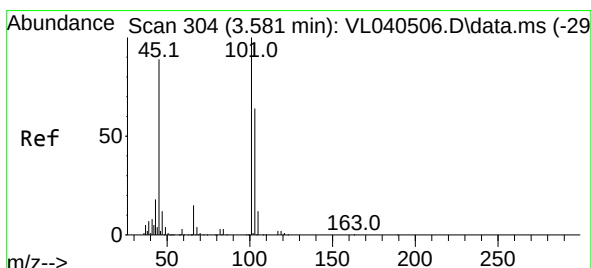
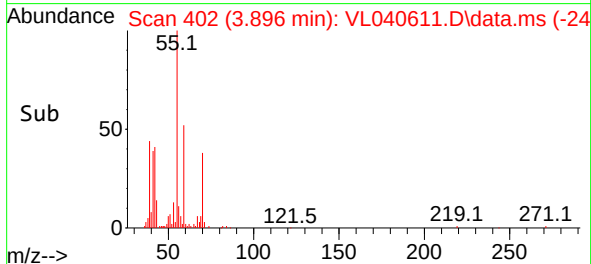
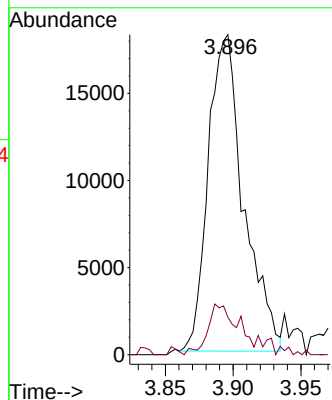
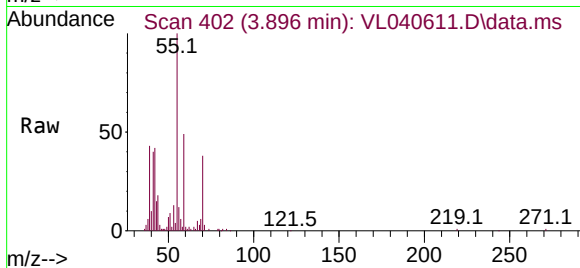
SV-1DL

Tgt Ion: 59 Resp: 33070

Ion Ratio Lower Upper

59 100

57 17.5 8.7 13.1#



#19

Isopropyl Alcohol

Concen: 1.621 ppbv

RT: 3.607 min Scan# 312

Delta R.T. 0.026 min

Lab File: VL040611.D

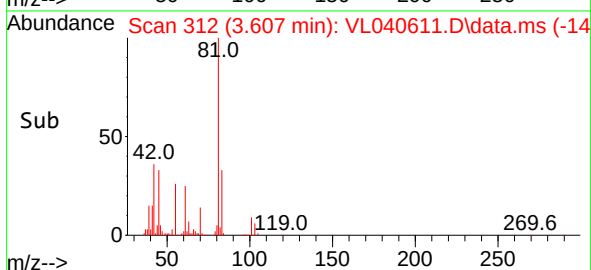
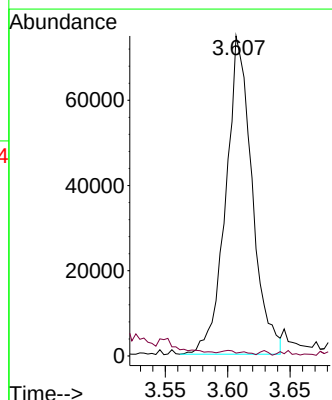
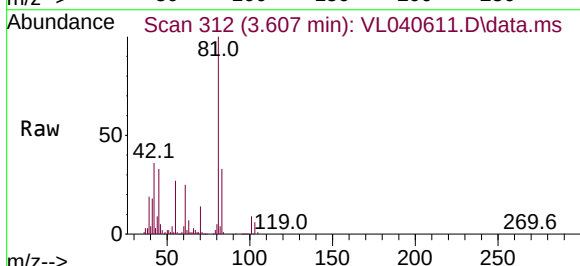
Acq: 9 Aug 2023 18:38

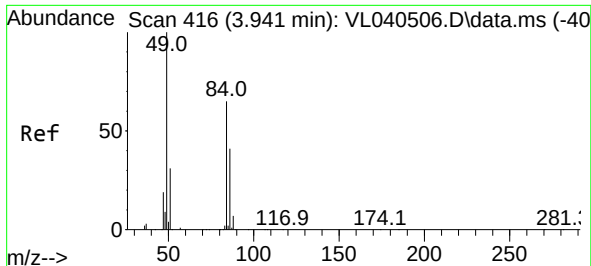
Tgt Ion: 45 Resp: 109402

Ion Ratio Lower Upper

45 100

58 116.0 1.1 1.7#



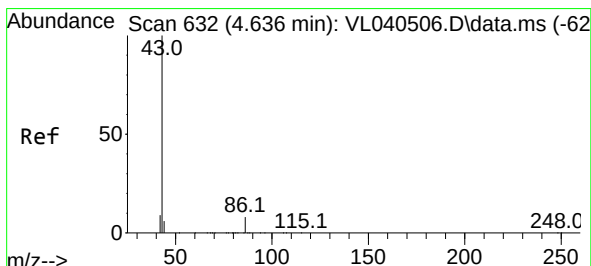
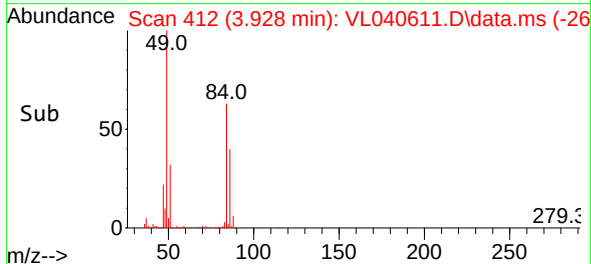
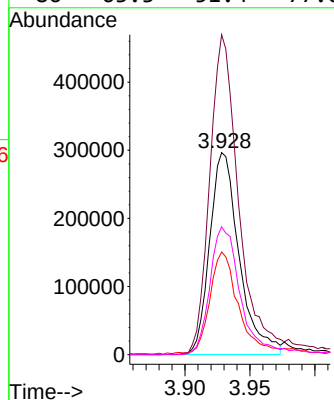
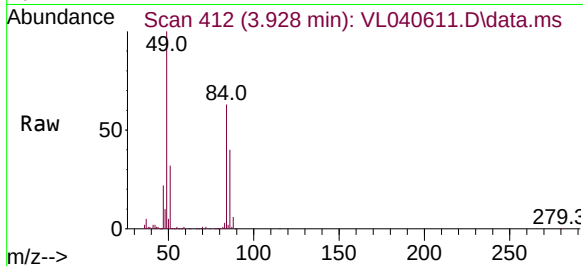


#20
Methylene Chloride
Concen: 9.375 ppbv
RT: 3.928 min Scan# 416
Delta R.T. -0.013 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

Instrument :
MSVOA_L
ClientSampleId :
SV-1DL

Tgt Ion: 84 Resp: 468711

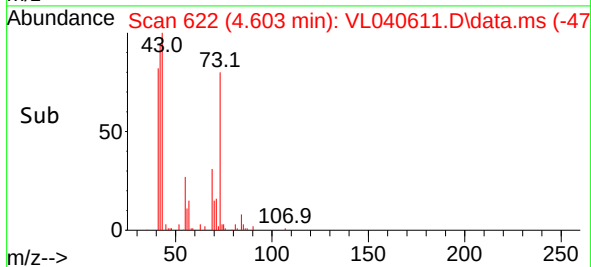
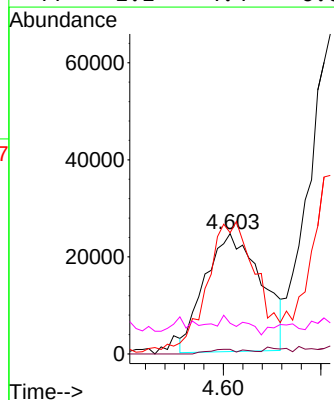
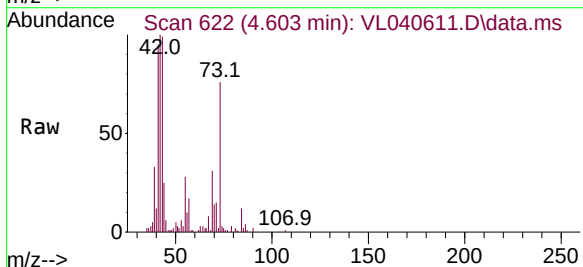
Ion	Ratio	Lower	Upper
84	100		
49	158.2	123.4	185.2
51	49.7	38.3	57.5
86	63.3	51.4	77.0

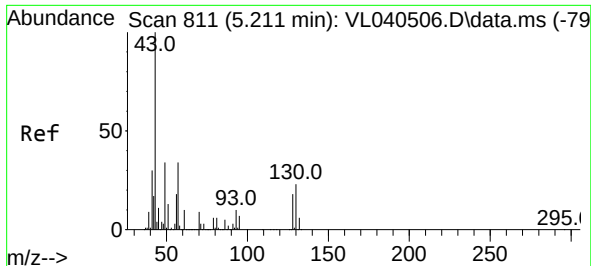


#23
Vinyl Acetate
Concen: 0.437 ppbv
RT: 4.603 min Scan# 622
Delta R.T. -0.032 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

Tgt Ion: 43 Resp: 48894

Ion	Ratio	Lower	Upper
43	100		
86	4.5	5.6	8.4#
42	105.4	7.4	11.2#
44	1.1	4.4	6.6#

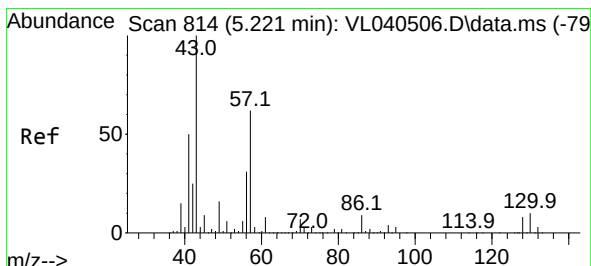
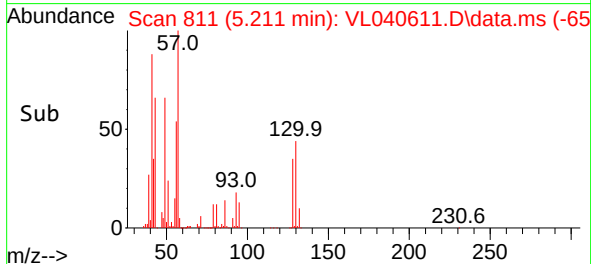
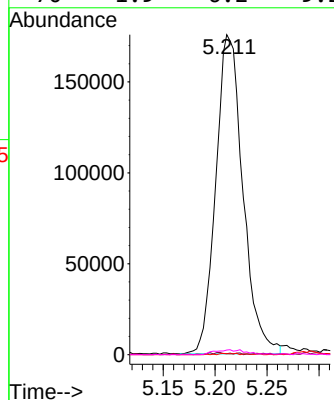
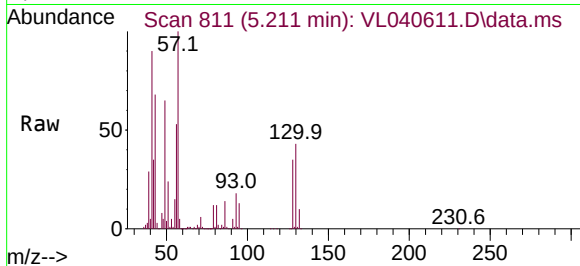




#25
Ethyl Acetate
Concen: 1.423 ppbv
RT: 5.211 min Scan# 811
Delta R.T. -0.000 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

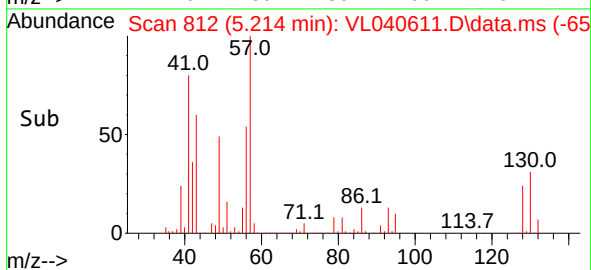
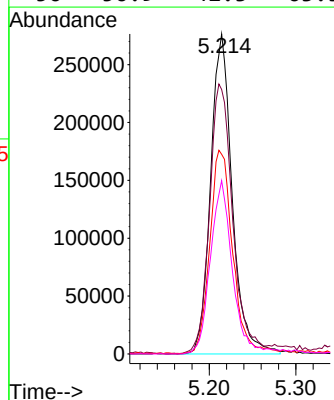
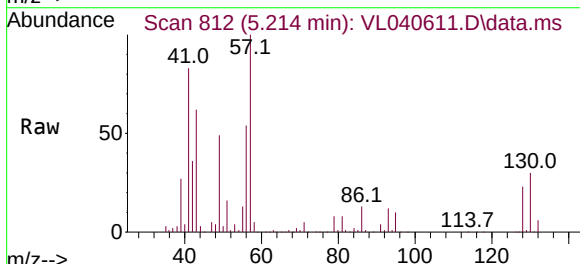
Instrument :
MSVOA_L
ClientSampleId :
SV-1DL

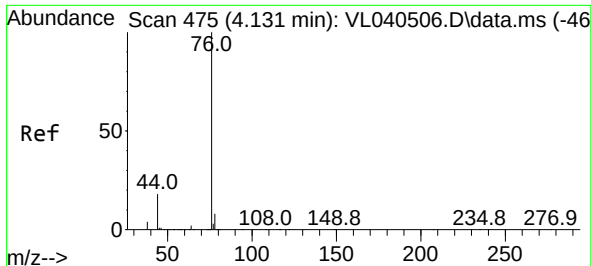
Tgt Ion: 43 Resp: 318527
Ion Ratio Lower Upper
43 100
45 0.7 8.2 12.4#
61 0.2 8.3 12.5#
70 1.9 6.2 9.2#



#26
Hexane
Concen: 4.604 ppbv
RT: 5.214 min Scan# 812
Delta R.T. -0.006 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

Tgt Ion: 57 Resp: 478606
Ion Ratio Lower Upper
57 100
41 94.1 69.5 104.3
43 68.1 177.1 265.7#
56 56.9 42.3 63.5





#27

Carbon Disulfide

Concen: 0.543 ppbv

RT: 4.124 min Scan# 41

Delta R.T. -0.006 min

Lab File: VL040611.D

Acq: 9 Aug 2023 18:38

Instrument :

MSVOA_L

ClientSampleId :

SV-1DL

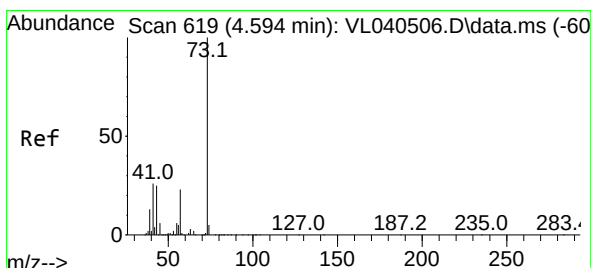
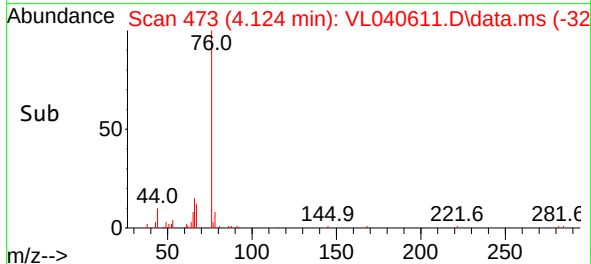
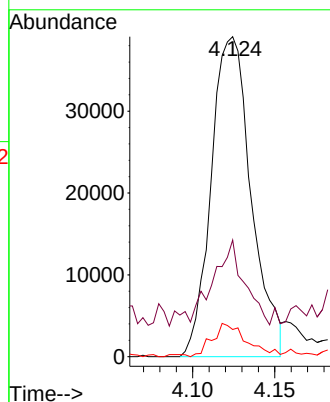
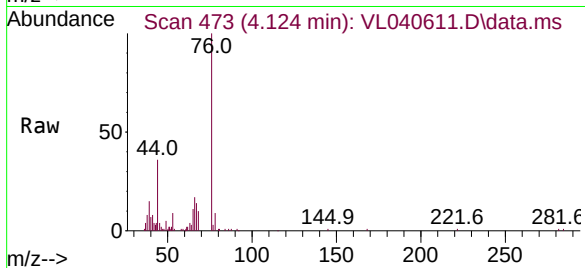
Tgt Ion: 76 Resp: 66375

Ion Ratio Lower Upper

76 100

44 23.3 15.1 22.7#

78 10.4 7.5 11.3



#28

Methyl tert-Butyl Ether

Concen: 0.457 ppbv

RT: 4.597 min Scan# 620

Delta R.T. 0.003 min

Lab File: VL040611.D

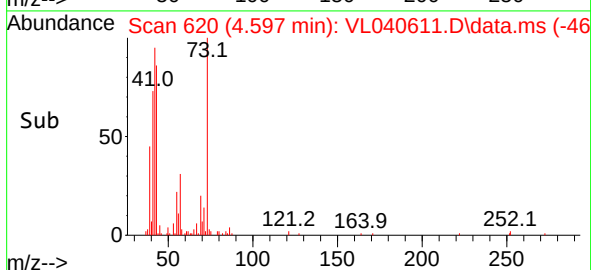
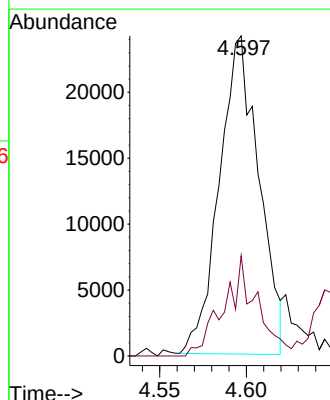
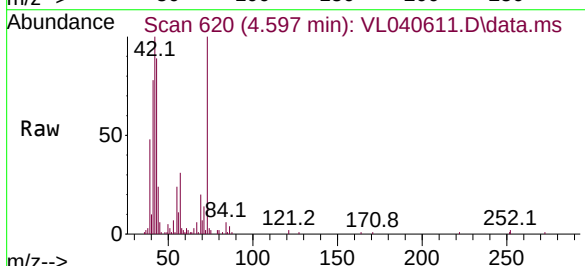
Acq: 9 Aug 2023 18:38

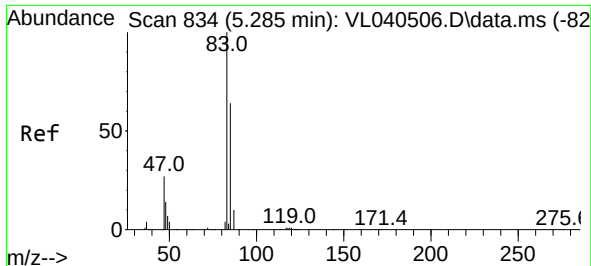
Tgt Ion: 73 Resp: 38267

Ion Ratio Lower Upper

73 100

57 26.5 18.8 28.2

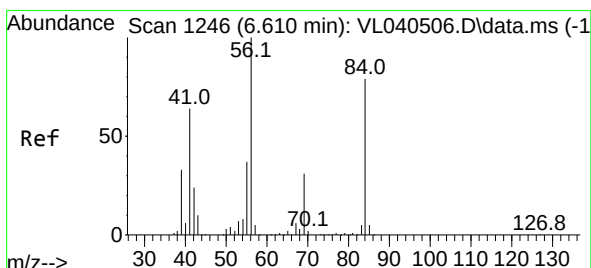
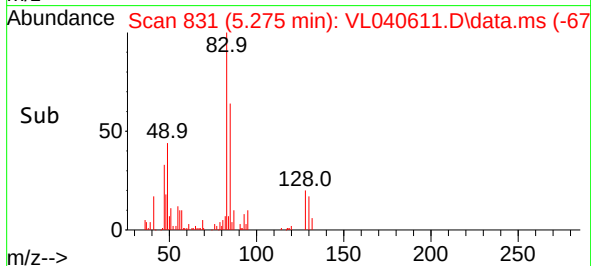
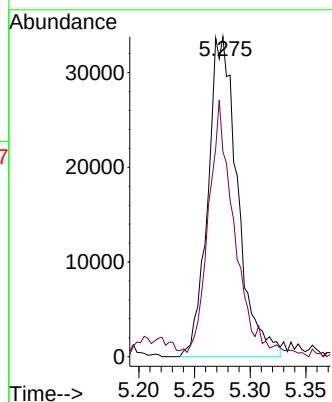
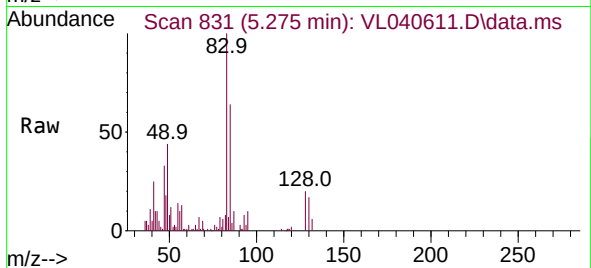




#29
Chloroform
Concen: 0.364 ppbv
RT: 5.275 min Scan# 81
Delta R.T. -0.010 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

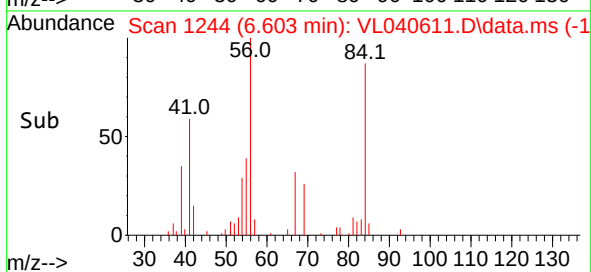
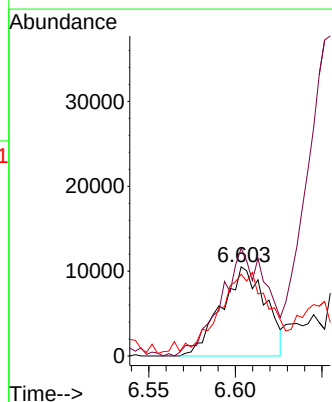
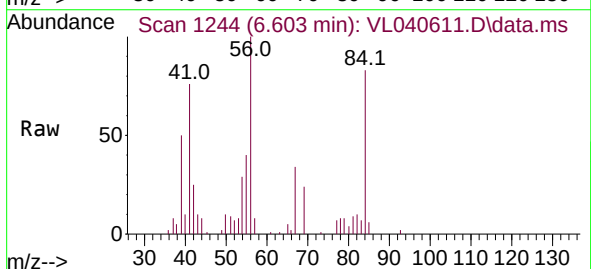
Instrument :
MSVOA_L
ClientSampleId :
SV-1DL

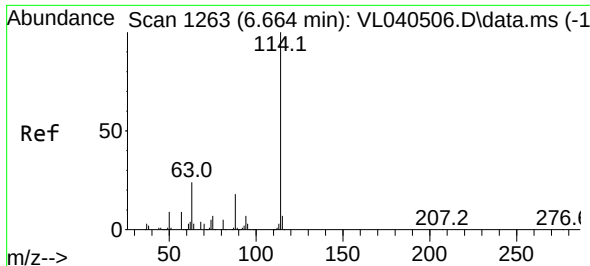
Tgt Ion: 83 Resp: 62726
Ion Ratio Lower Upper
83 100
85 62.1 51.1 76.7



#30
Cyclohexane
Concen: 0.217 ppbv
RT: 6.603 min Scan# 1244
Delta R.T. -0.006 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

Tgt Ion: 84 Resp: 18742
Ion Ratio Lower Upper
84 100
56 103.7 108.7 163.1#
41 97.0 64.5 96.7#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.655 min Scan# 11

Delta R.T. -0.010 min

Lab File: VL040611.D

Acq: 9 Aug 2023 18:38

Instrument :

MSVOA_L

ClientSampleId :

SV-1DL

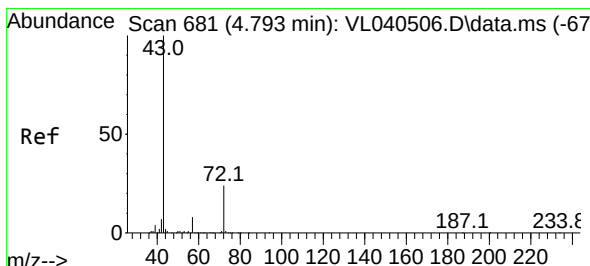
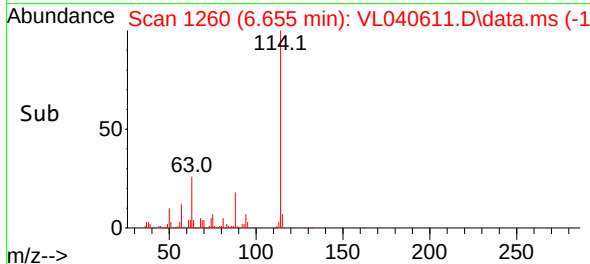
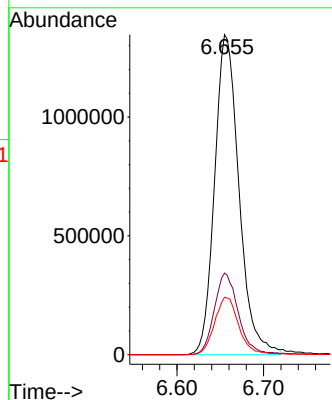
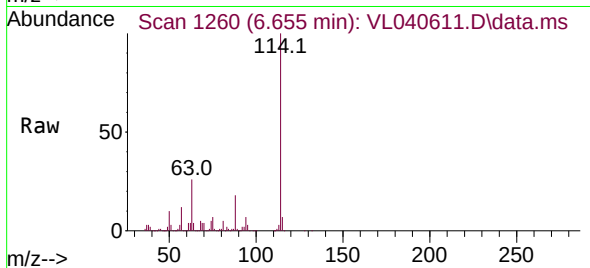
Tgt Ion:114 Resp: 2632451

Ion Ratio Lower Upper

114 100

63 25.5 19.6 29.4

88 18.1 14.2 21.2



#34

2-Butanone

Concen: 0.676 ppbv

RT: 4.800 min Scan# 683

Delta R.T. 0.006 min

Lab File: VL040611.D

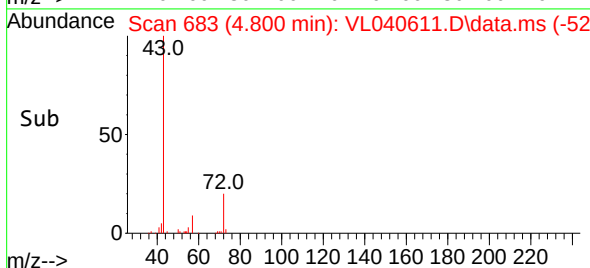
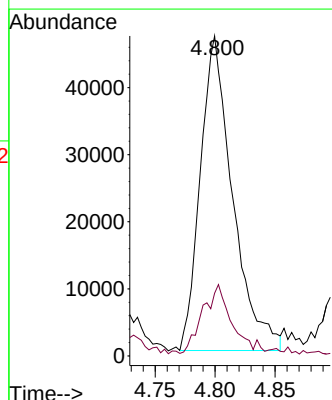
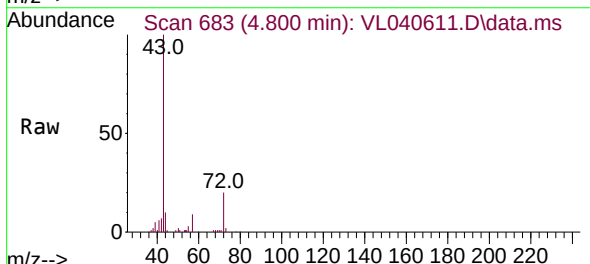
Acq: 9 Aug 2023 18:38

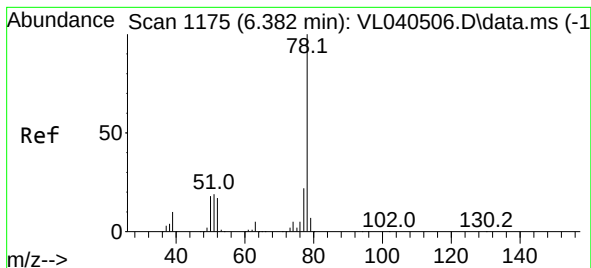
Tgt Ion: 43 Resp: 87942

Ion Ratio Lower Upper

43 100

72 25.2 19.1 28.7





#36

Benzene

Concen: 0.319 ppbv

RT: 6.369 min Scan# 1171

Delta R.T. -0.013 min

Lab File: VL040611.D

Acq: 9 Aug 2023 18:38

Instrument :

MSVOA_L

ClientSampleId :

SV-1DL

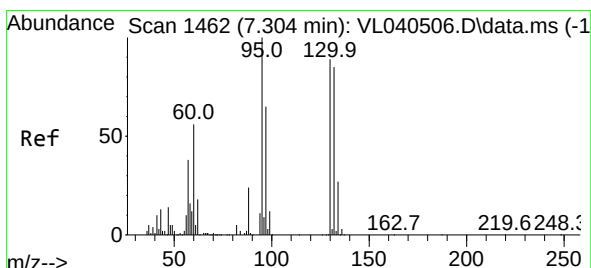
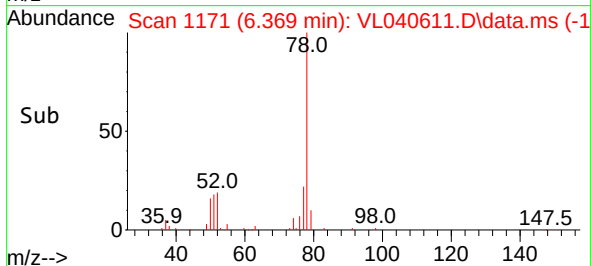
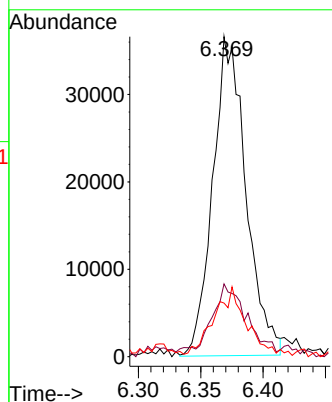
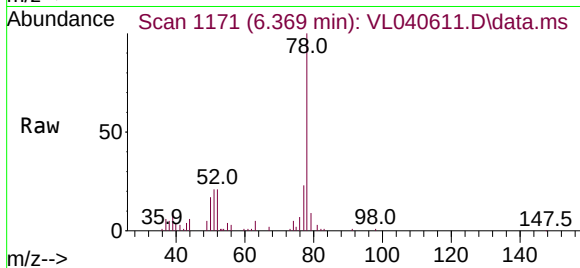
Tgt Ion: 78 Resp: 67649

Ion Ratio Lower Upper

78 100

77 20.7 17.4 26.0

50 15.2 14.4 21.6



#38

Trichloroethene

Concen: 0.291 ppbv

RT: 7.298 min Scan# 1460

Delta R.T. -0.006 min

Lab File: VL040611.D

Acq: 9 Aug 2023 18:38

Tgt Ion: 130 Resp: 23310

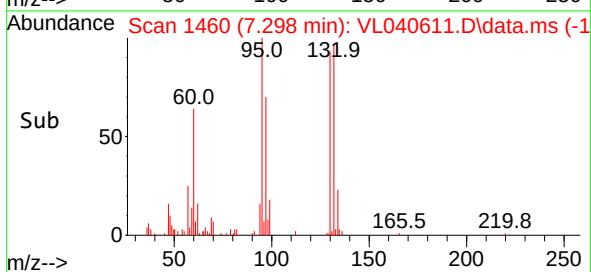
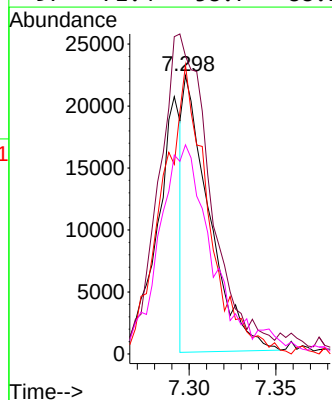
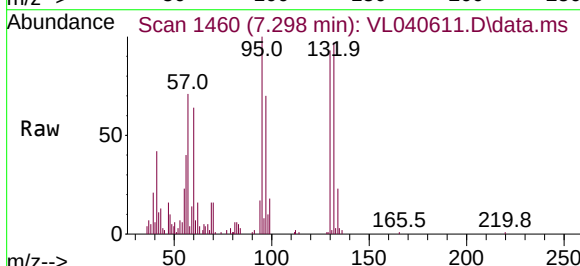
Ion Ratio Lower Upper

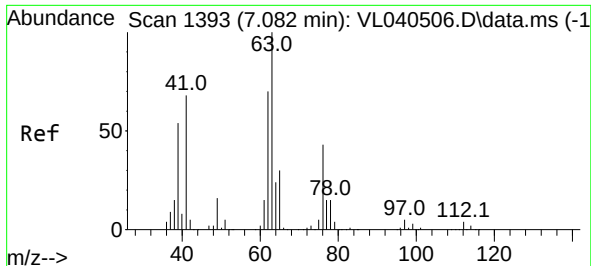
130 100

95 100.9 90.2 135.2

132 103.8 76.3 114.5

97 71.4 58.7 88.1





#39

1,2-Dichloropropane

Concen: 8.031 ppbv

RT: 6.655 min Scan# 11

Delta R.T. -0.428 min

Lab File: VL040611.D

Acq: 9 Aug 2023 18:38

Instrument :

MSVOA_L

ClientSampleId :

SV-1DL

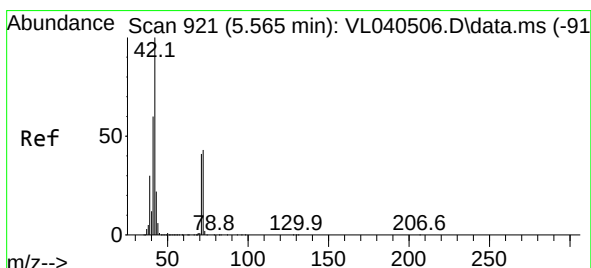
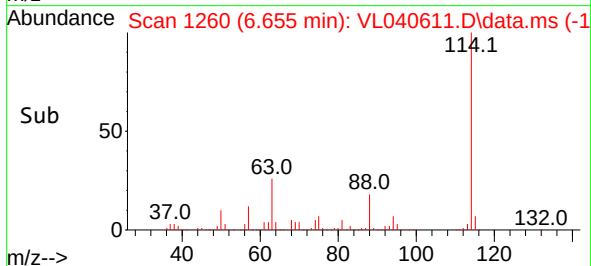
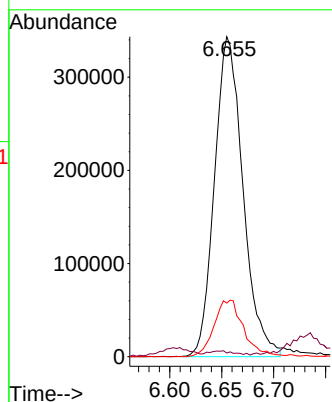
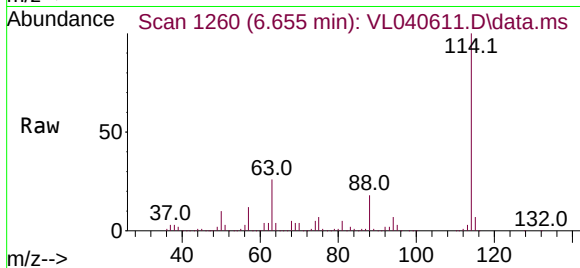
Tgt Ion: 63 Resp: 654811

Ion Ratio Lower Upper

63 100

41 0.0 54.3 81.5#

62 16.6 55.6 83.4#



#41

Tetrahydrofuran

Concen: 0.031 ppbv

RT: 5.507 min Scan# 903

Delta R.T. -0.058 min

Lab File: VL040611.D

Acq: 9 Aug 2023 18:38

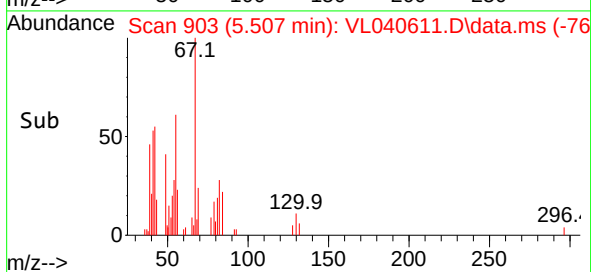
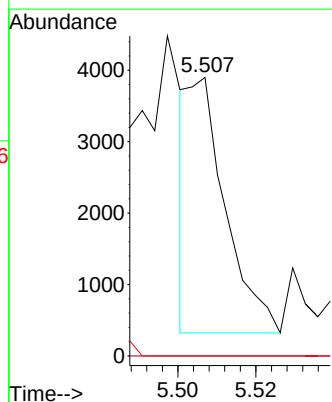
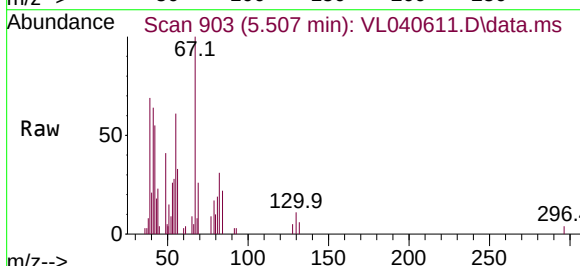
Tgt Ion: 42 Resp: 2376

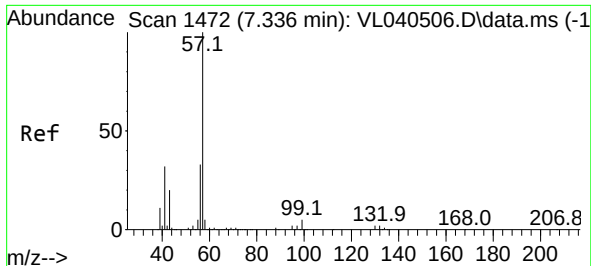
Ion Ratio Lower Upper

42 100

72 8.7 33.8 50.8#

71 0.0 33.0 49.6#





#44

2,2,4-Trimethylpentane

Concen: 1.394 ppbv

RT: 7.333 min Scan# 1471

Delta R.T. -0.003 min

Lab File: VL040611.D

Acq: 9 Aug 2023 18:38

Instrument :

MSVOA_L

ClientSampleId :

SV-1DL

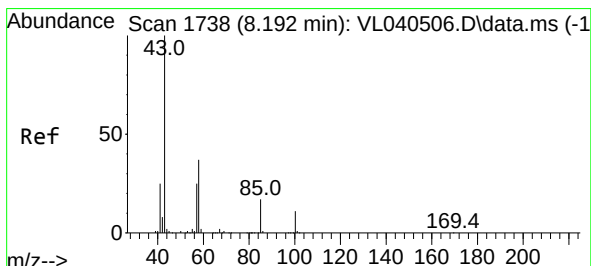
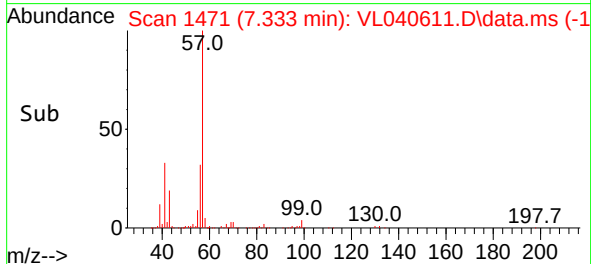
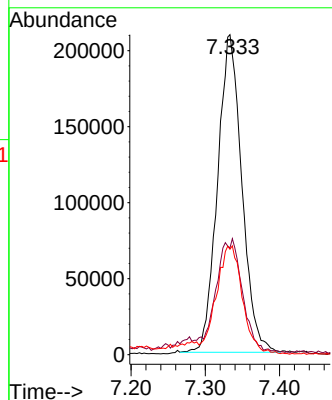
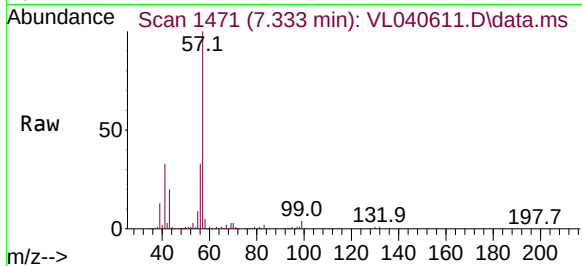
Tgt Ion: 57 Resp: 475096

Ion Ratio Lower Upper

57 100

41 44.4 25.5 38.3#

56 42.1 25.1 37.7#



#50

4-Methyl-2-Pentanone

Concen: 0.411 ppbv

RT: 8.205 min Scan# 1742

Delta R.T. 0.013 min

Lab File: VL040611.D

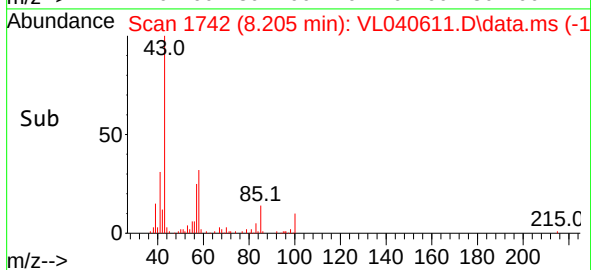
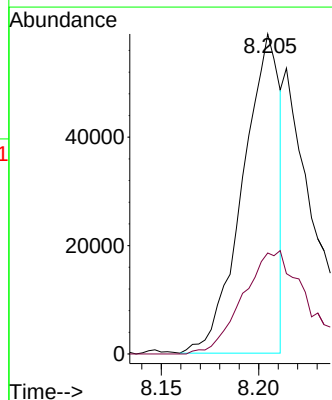
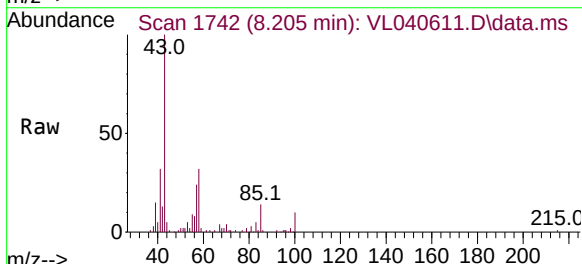
Acq: 9 Aug 2023 18:38

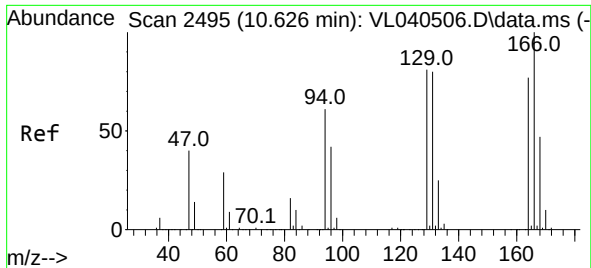
Tgt Ion: 43 Resp: 77675

Ion Ratio Lower Upper

43 100

58 0.0 30.2 45.2#

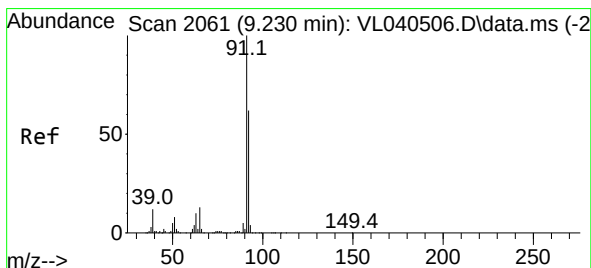
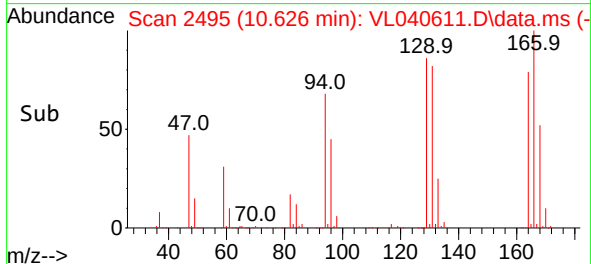
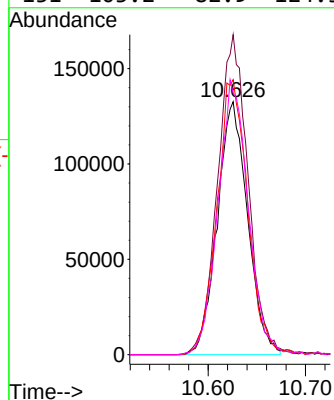
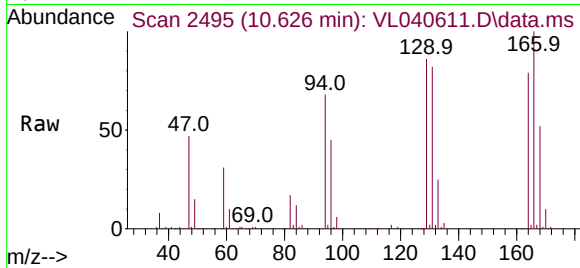




#52
Tetrachloroethene
Concen: 4.169 ppbv
RT: 10.626 min Scan# 2495
Delta R.T. -0.000 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

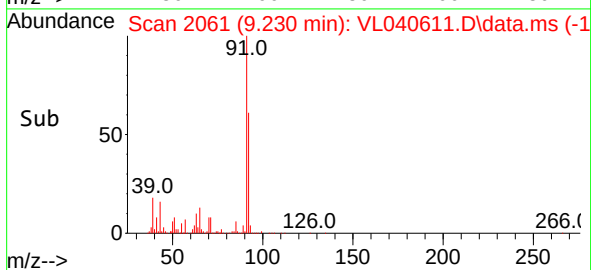
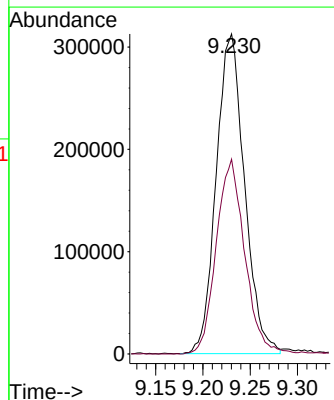
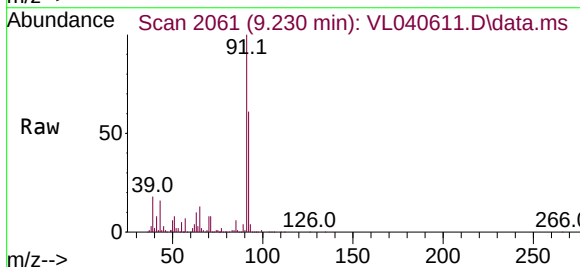
Instrument :
MSVOA_L
ClientSampleId :
SV-1DL

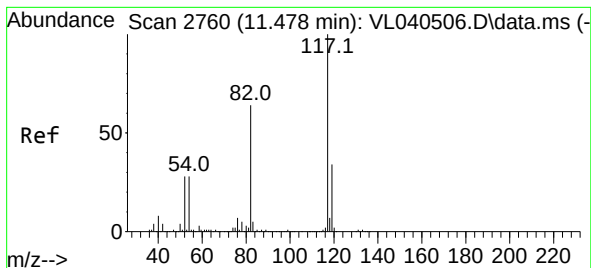
Tgt Ion:164 Resp: 285953
Ion Ratio Lower Upper
164 100
166 126.5 103.9 155.9
129 108.4 84.6 126.8
131 103.2 82.9 124.3



#53
Toluene
Concen: 2.828 ppbv
RT: 9.230 min Scan# 2061
Delta R.T. -0.000 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

Tgt Ion: 91 Resp: 650573
Ion Ratio Lower Upper
91 100
92 61.6 49.1 73.7

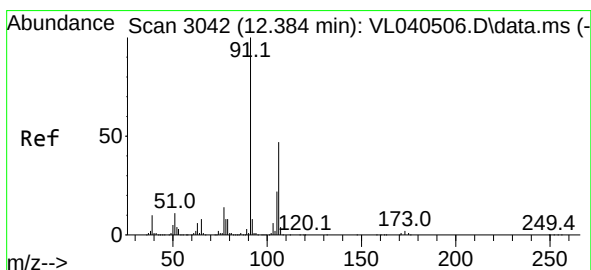
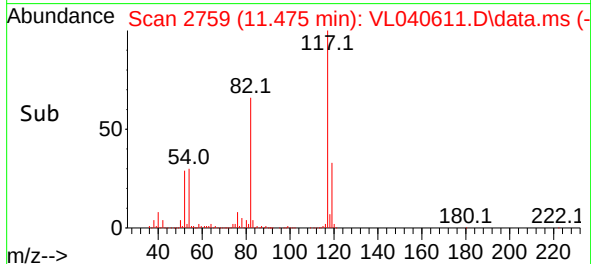
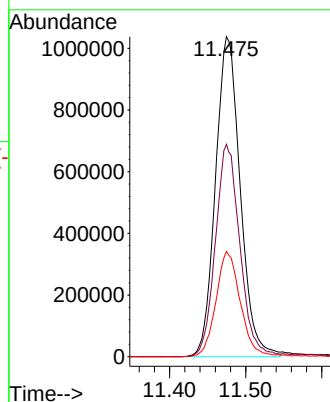
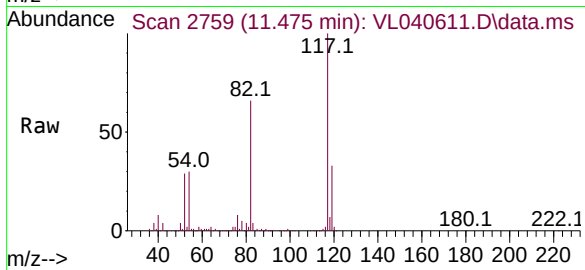




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.475 min Scan# 21
Delta R.T. -0.003 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

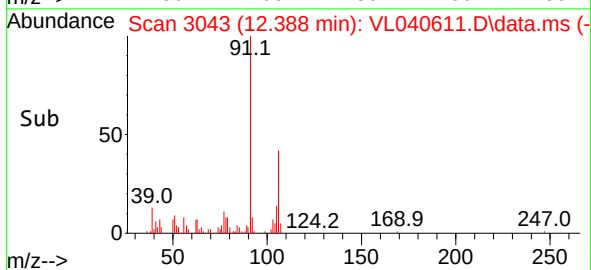
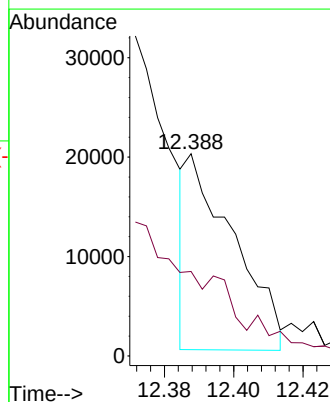
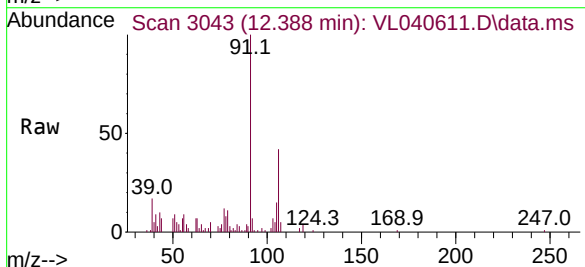
Instrument :
MSVOA_L
ClientSampleId :
SV-1DL

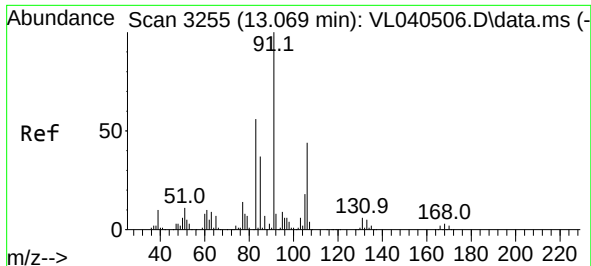
Tgt Ion:117 Resp: 2347689
Ion Ratio Lower Upper
117 100
82 67.1 50.2 75.4
119 32.5 26.9 40.3



#59
m/p-Xylene
Concen: 0.071 ppbv
RT: 12.388 min Scan# 3043
Delta R.T. 0.003 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

Tgt Ion: 91 Resp: 18646
Ion Ratio Lower Upper
91 100
106 0.0 35.9 53.9#

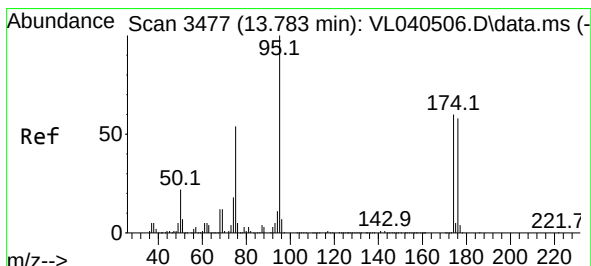
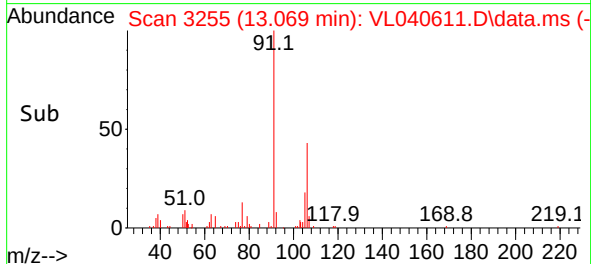
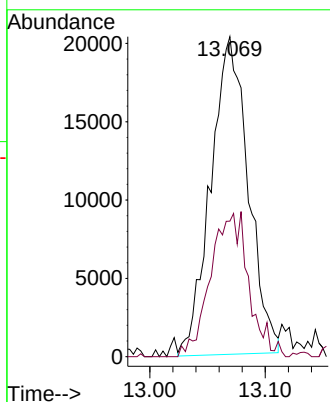
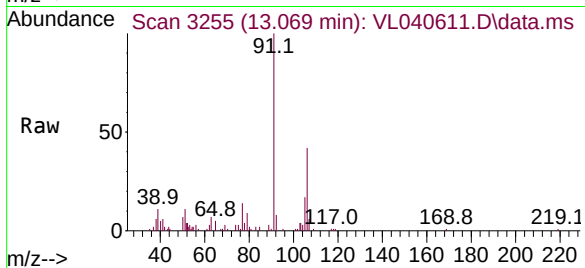




#60
o-Xylene
Concen: 0.183 ppbv
RT: 13.069 min Scan# 31
Delta R.T. -0.000 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

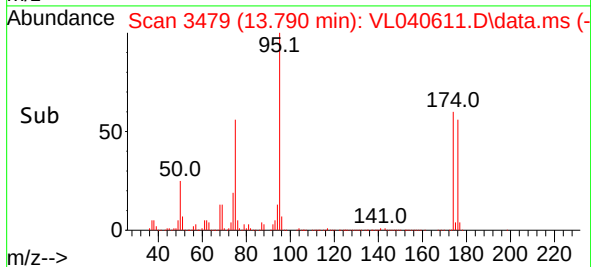
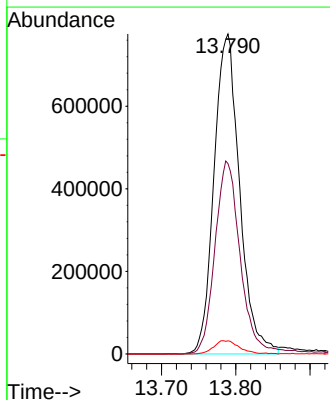
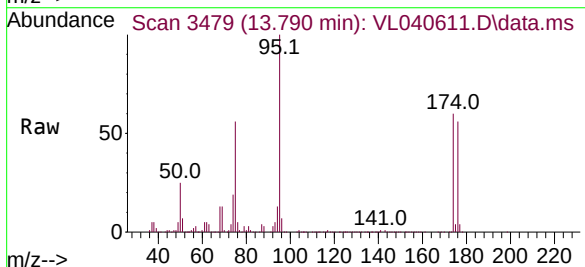
Instrument :
MSVOA_L
ClientSampleId :
SV-1DL

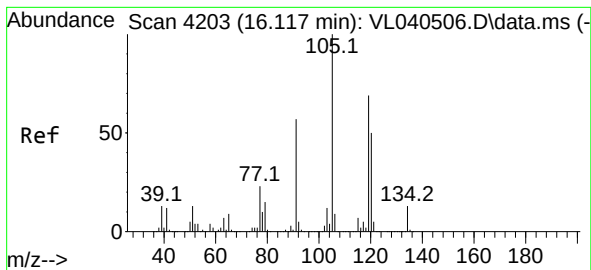
Tgt Ion: 91 Resp: 45744
Ion Ratio Lower Upper
91 100
106 46.1 22.7 68.0



#68
1-Bromo-4-Fluorobenzene
Concen: 9.986 ppbv
RT: 13.790 min Scan# 3479
Delta R.T. 0.006 min
Lab File: VL040611.D
Acq: 9 Aug 2023 18:38

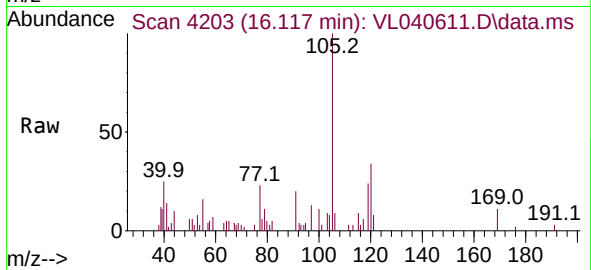
Tgt Ion: 95 Resp: 1855382
Ion Ratio Lower Upper
95 100
174 60.6 50.6 75.8
175 4.2 3.7 5.5





#74
 1,2,4-Trimethylbenzene
 Concen: 0.032 ppbv
 RT: 16.117 min Scan# 41
 Delta R.T. -0.000 min
 Lab File: VL040611.D
 Acq: 9 Aug 2023 18:38

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-1DL



Tgt Ion:	105	Resp:	9522
Ion	Ratio	Lower	Upper
105	100		
120	13.4	40.3	60.5#
91	25.1	46.8	70.2#
77	12.0	18.6	28.0#

