

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL042721\
 Data File : VL036863.D
 Acq On : 27 Apr 2021 18:32
 Operator : SY/AP
 Sample : M2172-07
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Apr 28 05:25:39 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL042721AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Apr 27 16:56:35 2021
 QLast Update : Tue Apr 27 16:56:35 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1394030	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	3261268	10.00	ppbv	0.01
55) Chlorobenzene-d5	12.10	117	2837527	10.00	ppbv	0.01

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2241981	9.84	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.40%

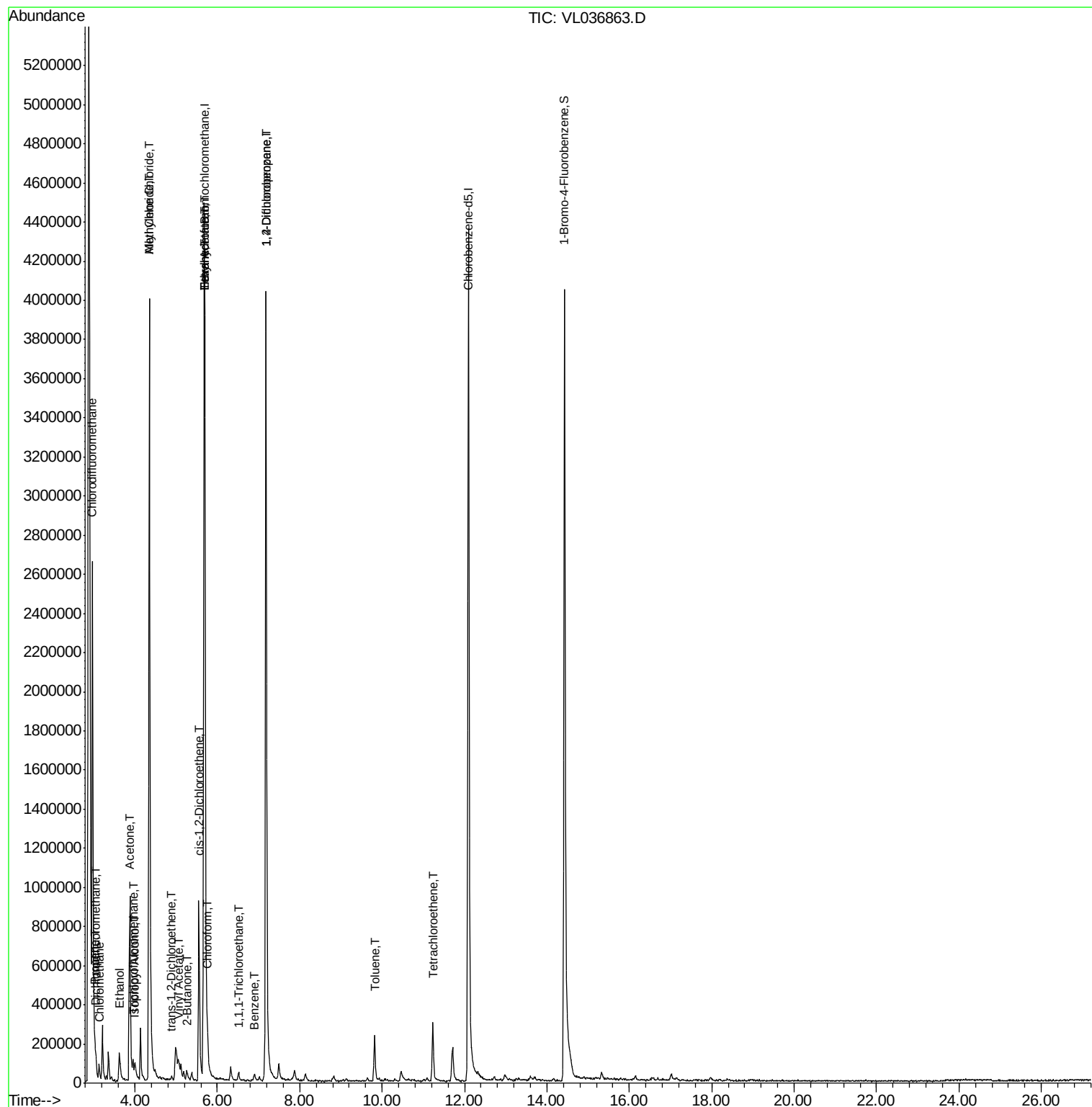
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	59508	0.271	ppbv 92
3) Chlorodifluoromethane	2.97	51	2009247	7.913	ppbv # 60
4) Chloromethane	3.14	50	16379	0.196	ppbv # 84
9) Propene	3.02	41	28458	0.368	ppbv 94
11) Trichlorofluoromethane	3.96	101	57078	0.291	ppbv 91
13) Ethanol	3.63	45	209005	21.181	ppbv 96
15) Acetone	3.86	43	841155	6.402	ppbv # 86
19) Isopropyl Alcohol	3.99	45	40234	0.618	ppbv # 67
20) Methylene Chloride	4.35	84	1588772	25.286	ppbv 97
21) Allyl Chloride	4.35	41	62569	0.641	ppbv # 20
22) trans-1,2-Dichloroethene	4.88	96	5563	0.097	ppbv # 47
23) Vinyl Acetate	5.08	43	12520	0.070	ppbv # 78
25) Ethyl Acetate	5.69	43	1140845	3.555	ppbv # 80
26) Hexane	5.69	57	1490802	9.928	ppbv # 45
29) Chloroform	5.76	83	89707	0.383	ppbv 93
31) cis-1,2-Dichloroethene	5.56	61	565516	4.196	ppbv 97
32) 1,1,1-Trichloroethane	6.51	97	23000	0.097	ppbv 93
34) 2-Butanone	5.26	43	57058	0.399	ppbv # 87
36) Benzene	6.89	78	8438	0.031	ppbv 97
39) 1,2-Dichloropropane	7.18	63	869039	7.894	ppbv # 23
41) Tetrahydrofuran	5.69	42	597796	9.566	ppbv # 51
52) Tetrachloroethene	11.24	164	24150	0.258	ppbv 88
53) Toluene	9.82	91	163954	0.570	ppbv 90

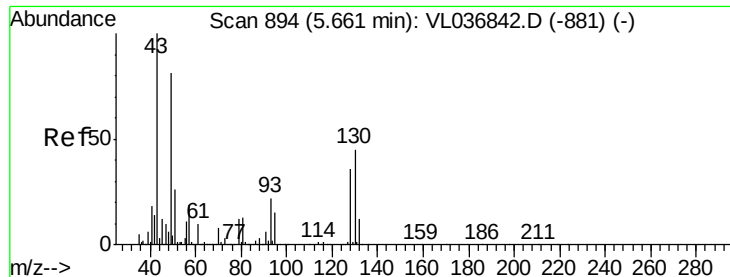
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Tue Apr 27 16:56:35 2021
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 18:32

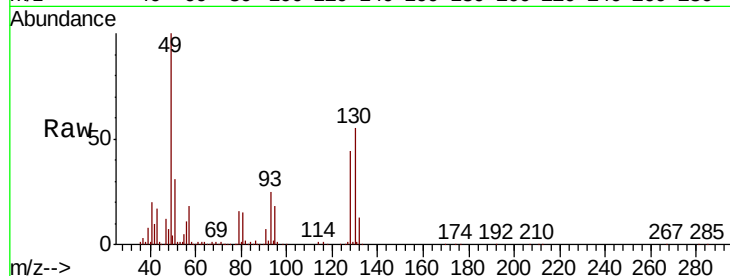
Tot Ion: 49 Resp: 1394030

Ion Ratio Lower Upper

49 100

128 46.3 24.4 73.2

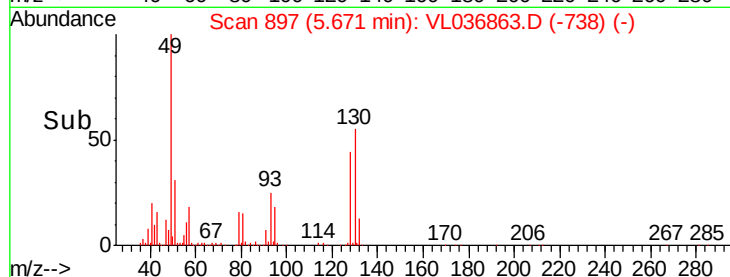
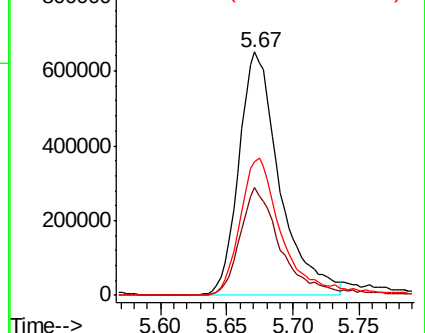
130 60.0 30.3 90.8



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.271 ppbv

RT: 3.05 min Scan# 82

Delta R.T. 0.01 min

Lab File: VL036863.D

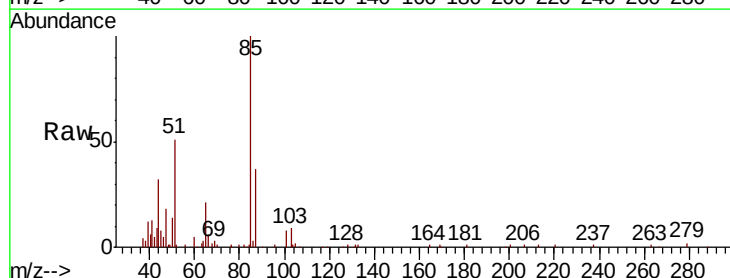
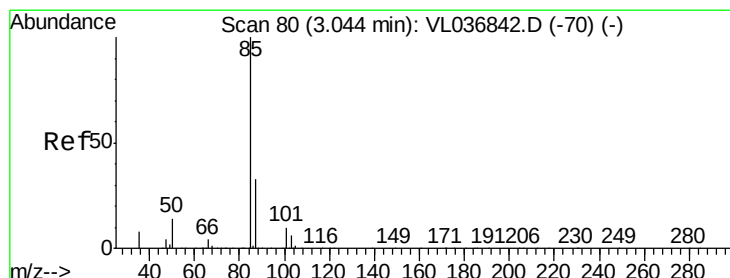
Acq: 27 Apr 2021 18:32

Tgt Ion: 85 Resp: 59508

Ion Ratio Lower Upper

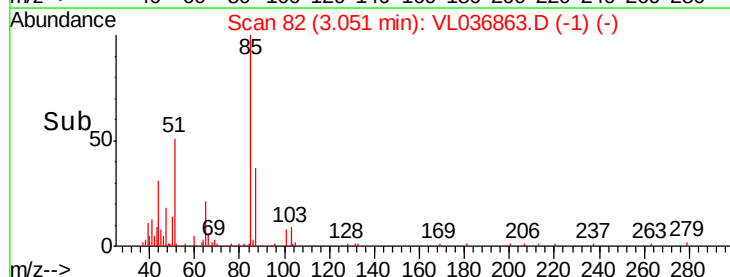
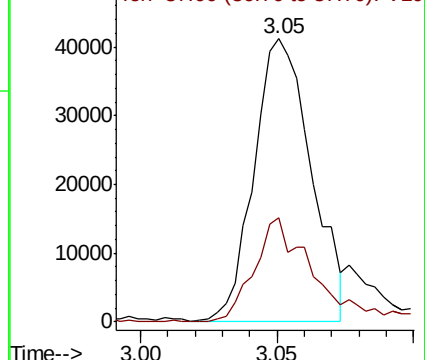
85 100

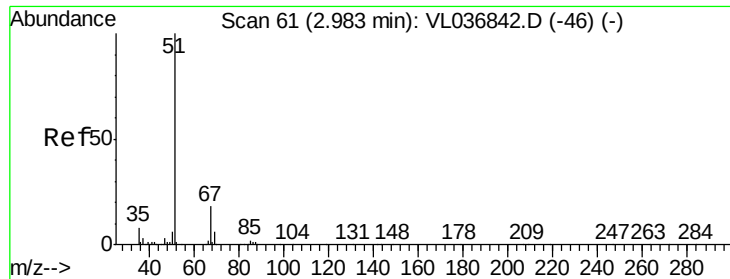
87 37.0 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 7.913 ppbv

RT: 2.97 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

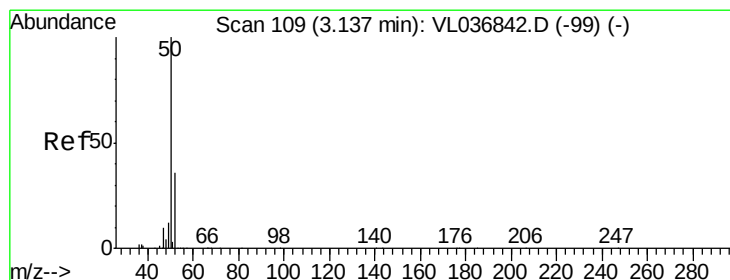
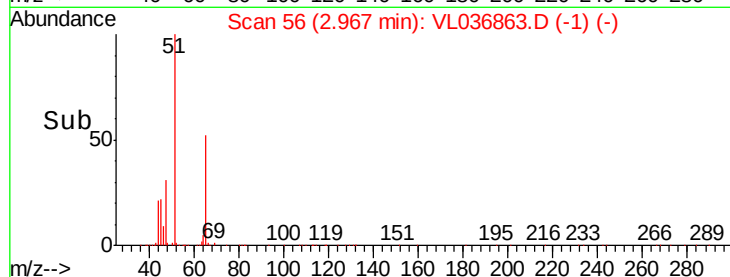
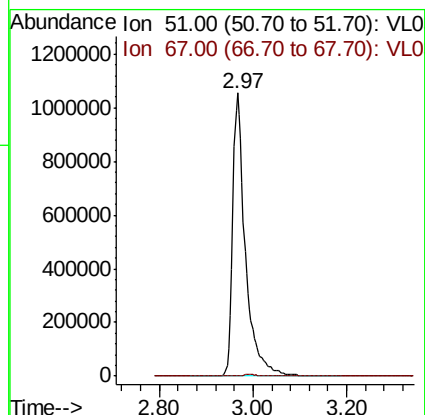
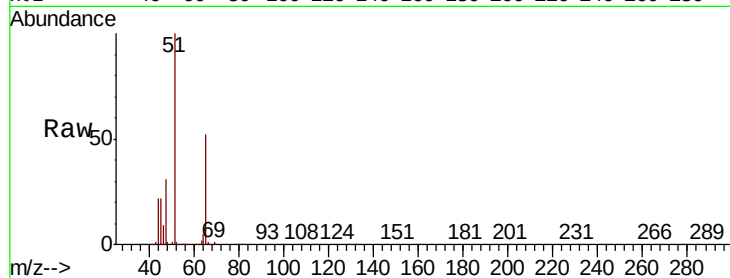
Acq: 27 Apr 2021 18:32

Tot Ion: 51 Resp: 2009247

Ion Ratio Lower Upper

51 100

67 0.6 14.8 22.2#



#4

Chloromethane

Concen: 0.196 ppbv

RT: 3.14 min Scan# 110

Delta R.T. 0.00 min

Lab File: VL036863.D

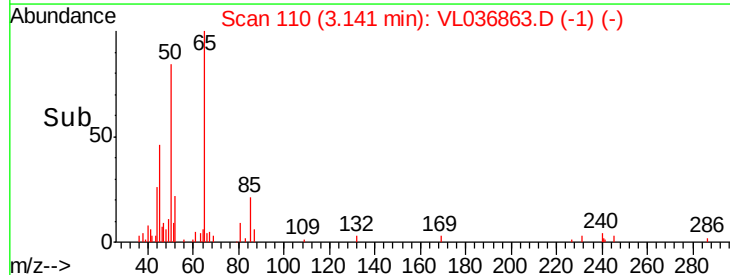
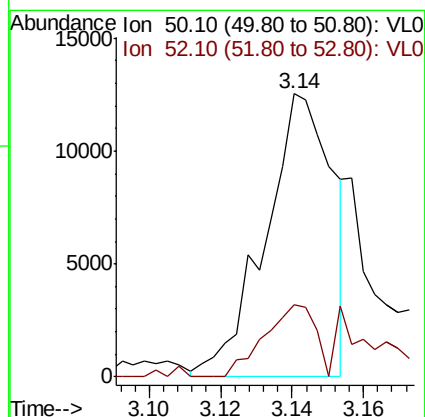
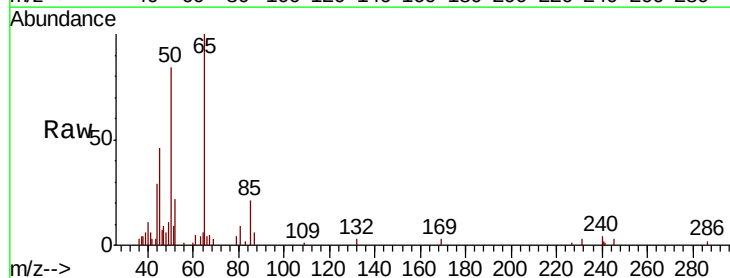
Acq: 27 Apr 2021 18:32

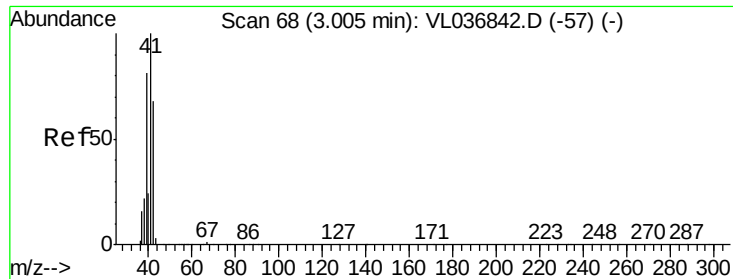
Tgt Ion: 50 Resp: 16379

Ion Ratio Lower Upper

50 100

52 26.2 28.5 42.7#





#9

Propene

Concen: 0.368 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

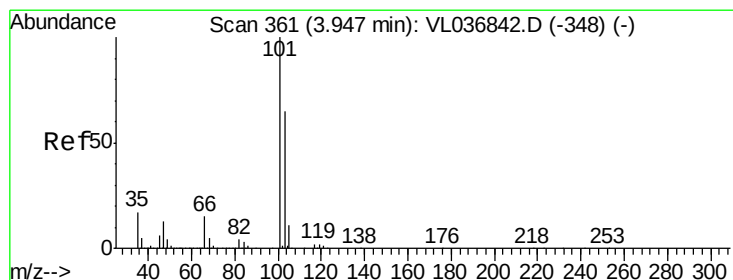
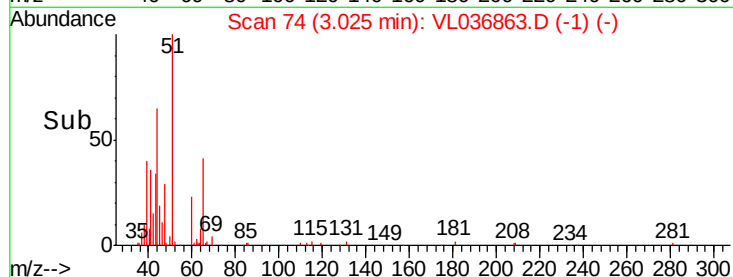
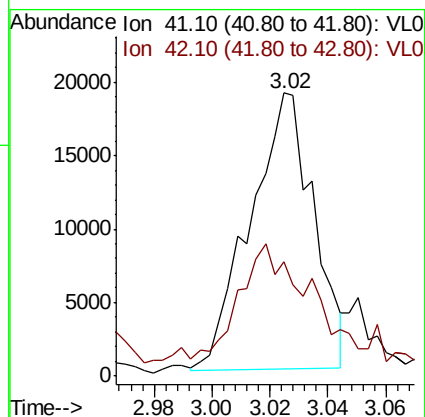
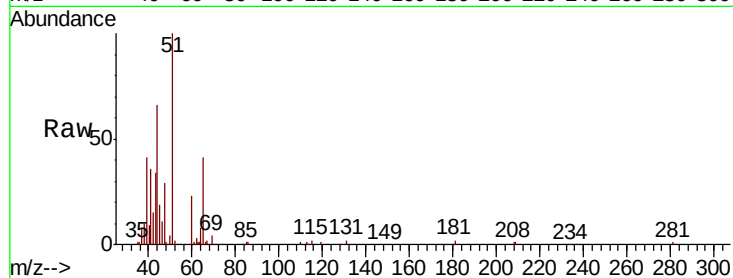
Acq: 27 Apr 2021 18:32

Tot Ion: 41 Resp: 28458

Ion Ratio Lower Upper

41 100

42 74.8 56.0 84.0



#11

Trichlorofluoromethane

Concen: 0.291 ppbv

RT: 3.96 min Scan# 364

Delta R.T. 0.01 min

Lab File: VL036863.D

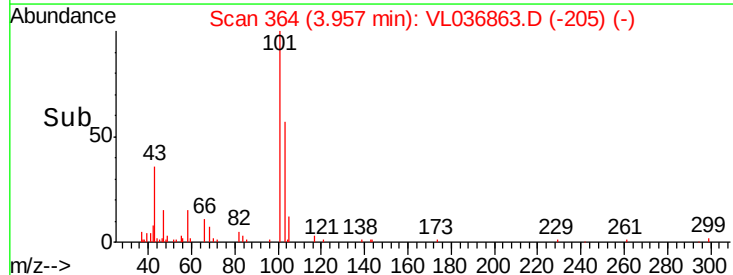
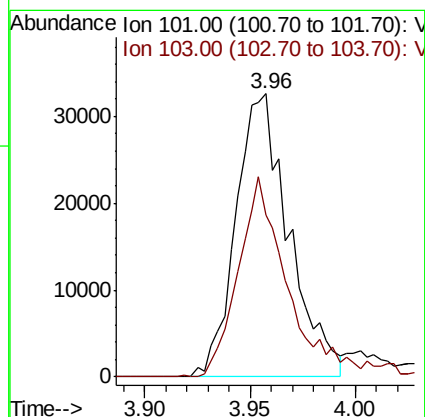
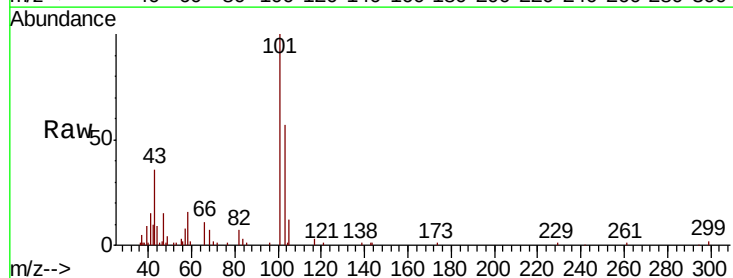
Acq: 27 Apr 2021 18:32

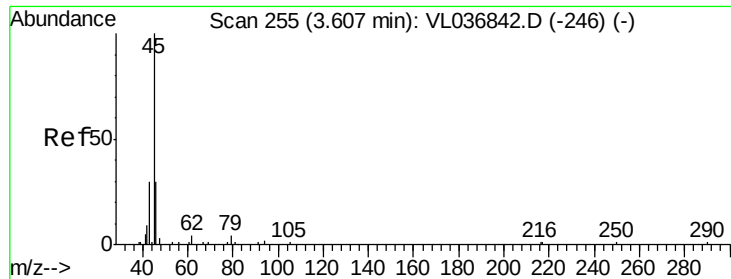
Tgt Ion: 101 Resp: 57078

Ion Ratio Lower Upper

101 100

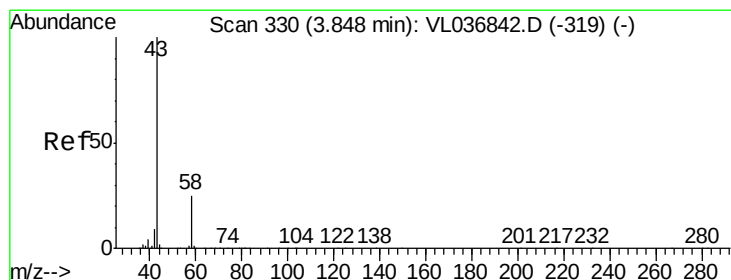
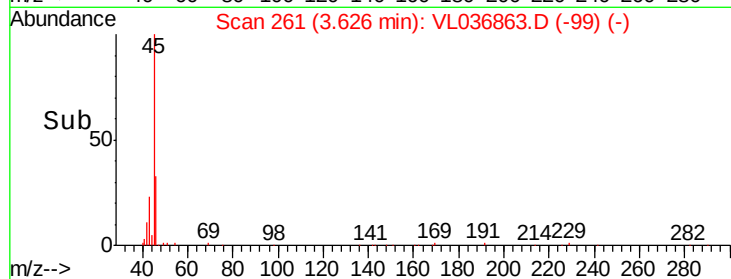
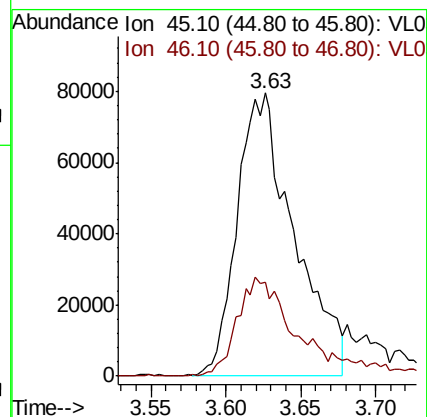
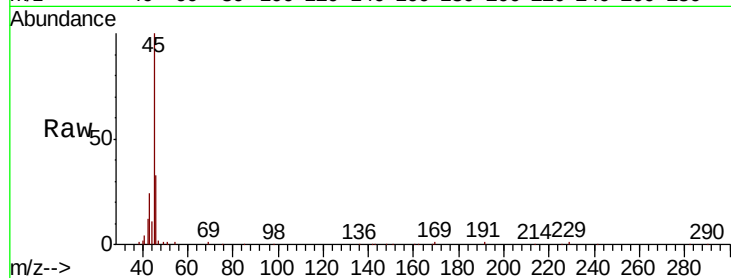
103 57.3 51.6 77.4





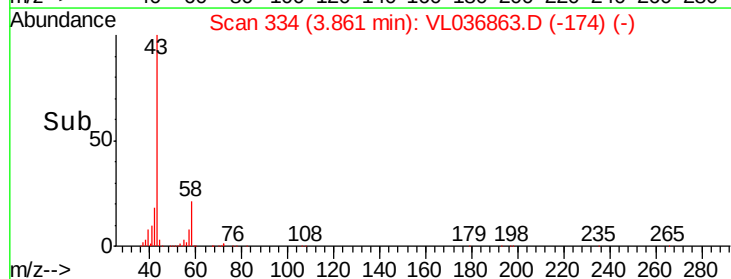
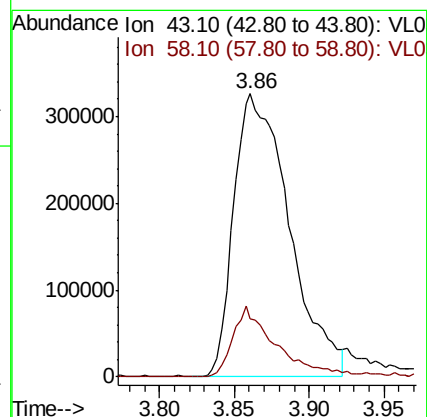
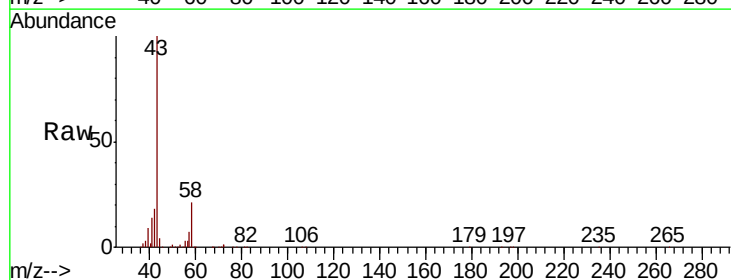
#13
 Ethanol
 Concen: 21.181 ppbv
 RT: 3.63
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 27 Apr 2021 18:32

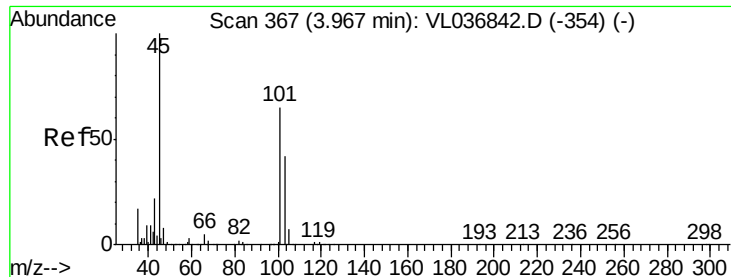
Tot Ion: 45 Resp: 209005
 Ion Ratio Lower Upper
 45 100
 46 39.3 16.8 67.4



#15
 Acetone
 Concen: 6.402 ppbv
 RT: 3.86 min Scan# 334
 Delta R.T. 0.01 min
 Lab File: VL036863.D
 Acq: 27 Apr 2021 18:32

Tgt Ion: 43 Resp: 841155
 Ion Ratio Lower Upper
 43 100
 58 19.9 21.7 32.5#





#19

Isopropyl Alcohol

Concen: 0.618 ppbv

RT: 3.99 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

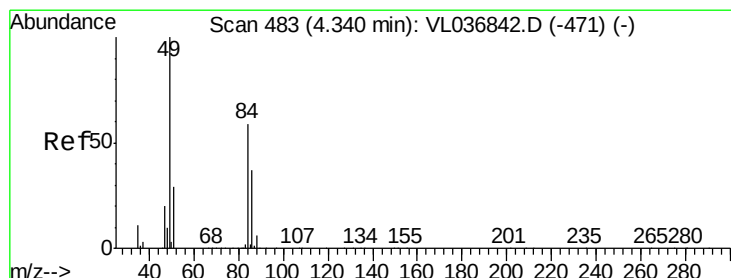
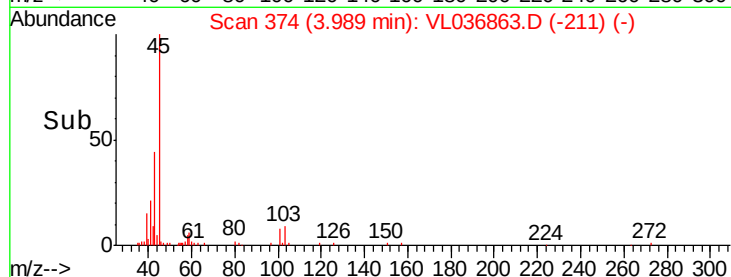
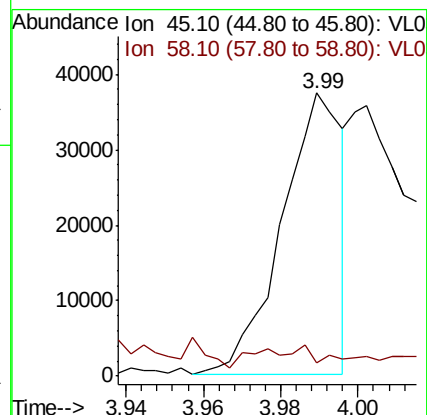
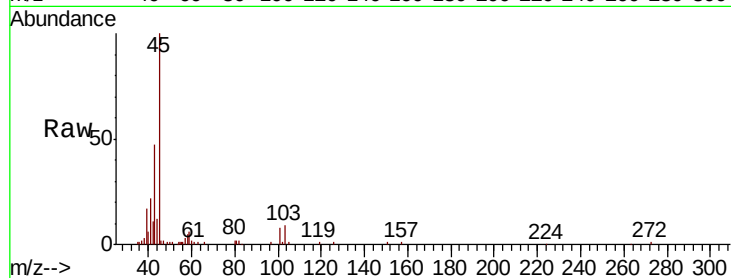
Acq: 27 Apr 2021 18:32

Tot Ion: 45 Resp: 40234

Ion Ratio Lower Upper

45 100

58 14.4 2.8 4.2#



#20

Methylene Chloride

Concen: 25.286 ppbv

RT: 4.35 min Scan# 486

Delta R.T. 0.01 min

Lab File: VL036863.D

Acq: 27 Apr 2021 18:32

Tgt Ion: 84 Resp: 1588772

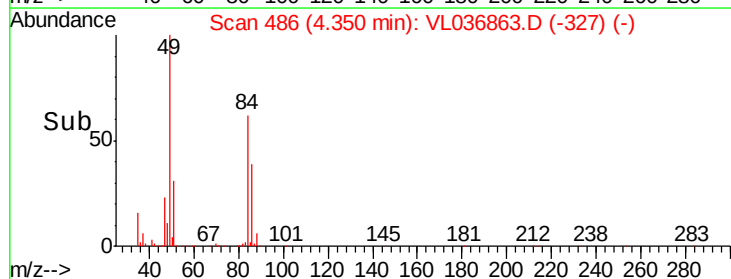
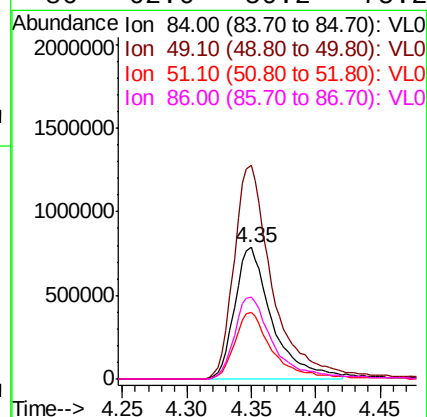
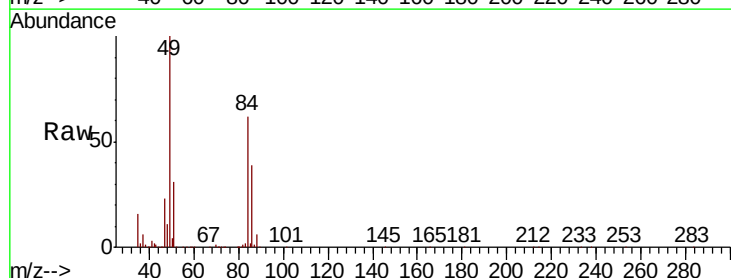
Ion Ratio Lower Upper

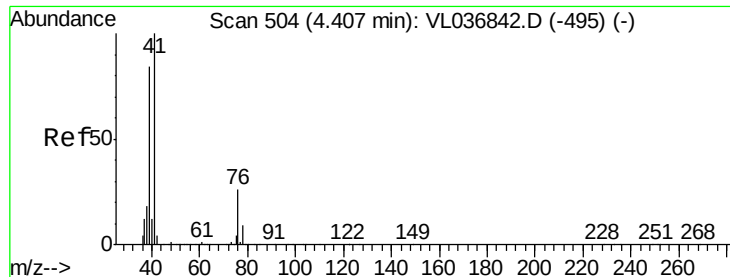
84 100

49 162.5 135.4 203.0

51 50.9 39.3 58.9

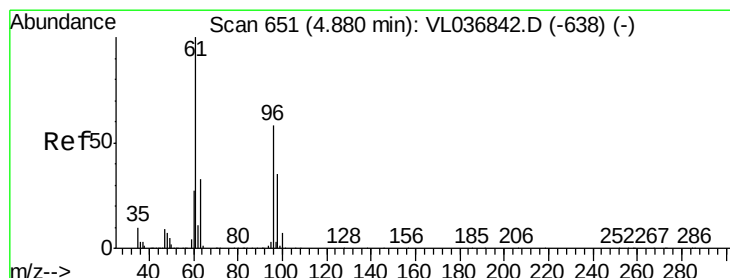
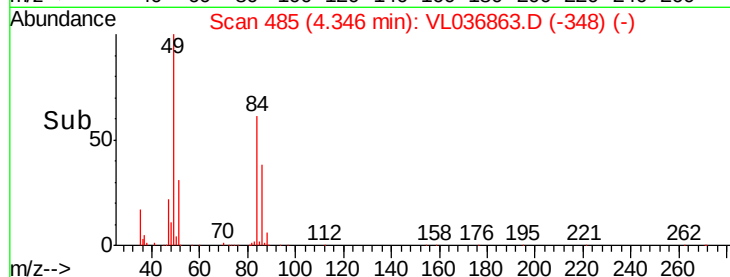
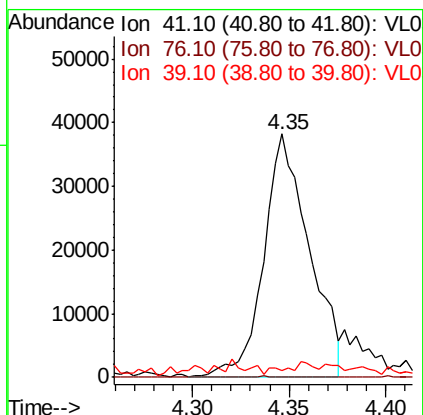
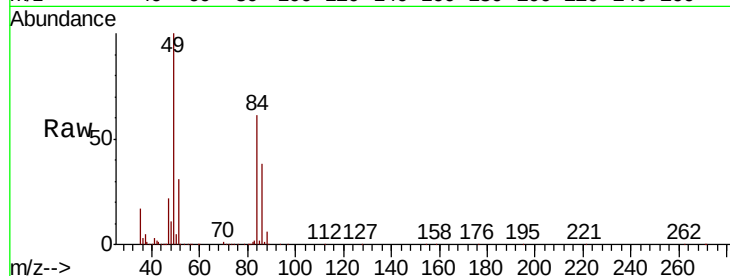
86 62.6 50.2 75.2





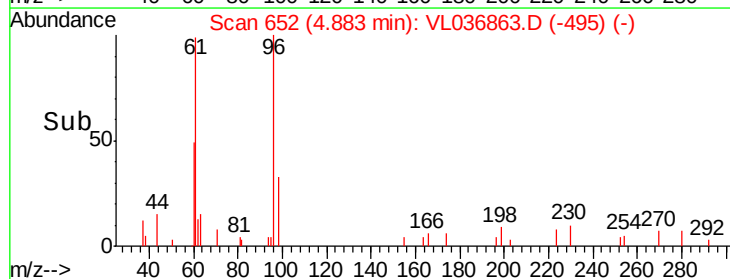
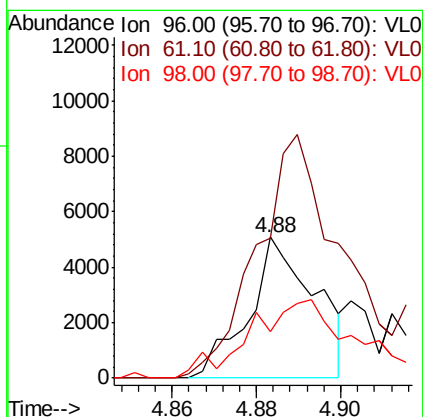
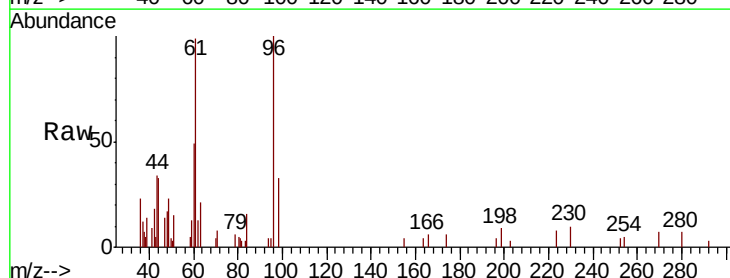
#21
 Allvl Chloride
 Concen: 0.641 ppbv
 RT: 4.35
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 27 Apr 2021 18:32

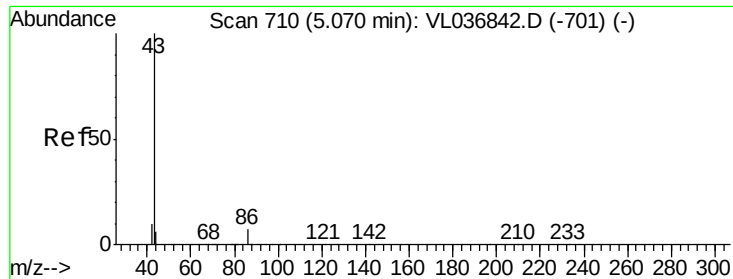
Tot Ion	Ratio	Lower	Upper
41	100		
76	0.0	22.4	33.6#
39	4.8	68.4	102.6#



#22
 trans-1,2-Dichloroethene
 Concen: 0.097 ppbv
 RT: 4.88 min Scan# 652
 Delta R.T. 0.00 min
 Lab File: VL036863.D
 Acq: 27 Apr 2021 18:32

Tgt Ion	Ratio	Lower	Upper
96	100		
61	95.8	138.6	207.8#
98	27.0	48.1	72.1#





#23

Vinyl Acetate

Concen: 0.070 ppbv

RT: 5.08 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 18:32

Tot Ion: 43 Resp: 12520

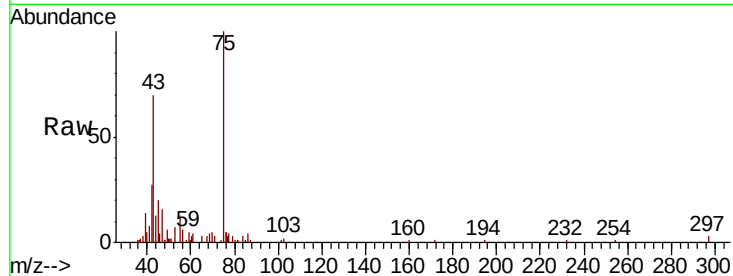
Ion Ratio Lower Upper

43 100

86 0.0 5.3 7.9#

42 4.2 8.7 13.1#

44 17.4 3.9 5.9#

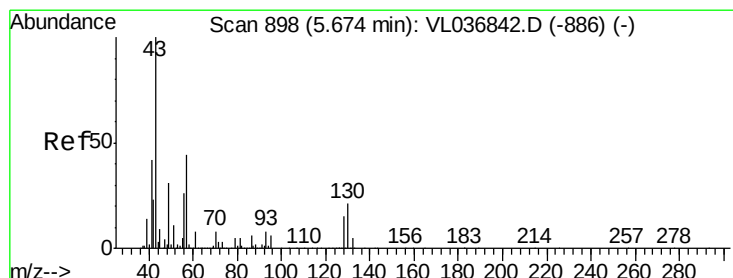
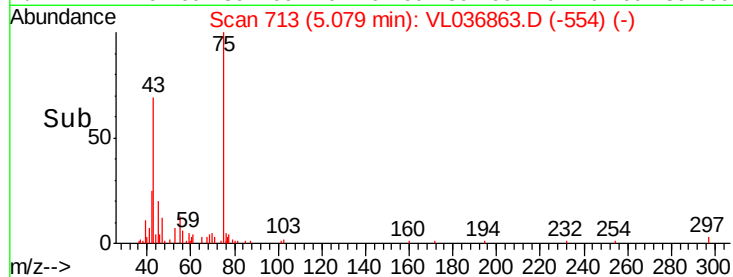
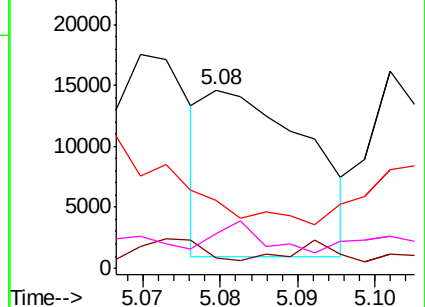


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 3.555 ppbv

RT: 5.69 min Scan# 903

Delta R.T. 0.02 min

Lab File: VL036863.D

Acq: 27 Apr 2021 18:32

Tgt Ion: 43 Resp: 1140845

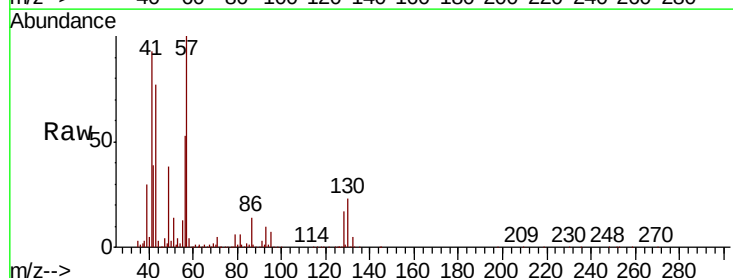
Ion Ratio Lower Upper

43 100

45 1.1 7.8 11.8#

61 1.8 7.4 11.0#

70 2.2 5.4 8.0#

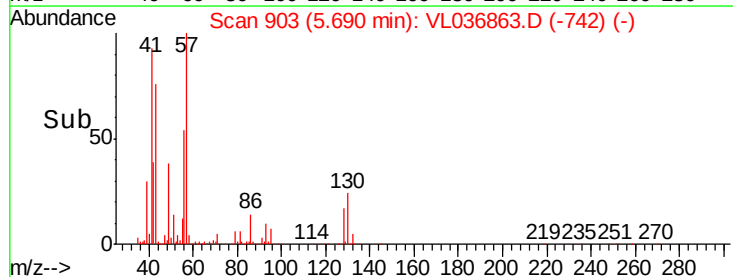
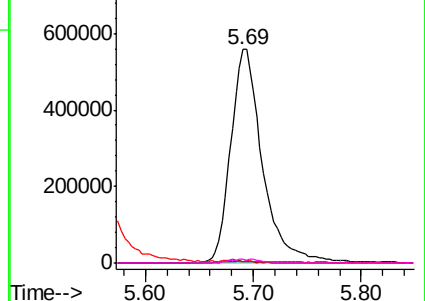


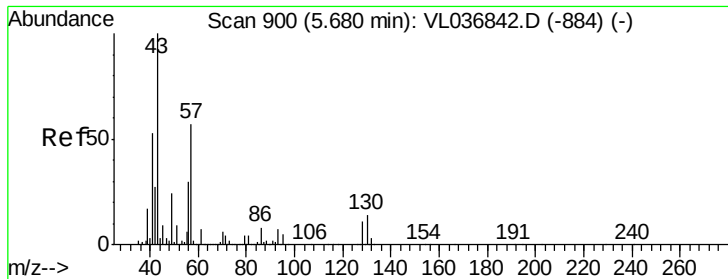
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0





#26

Hexane

Concen: 9.928 ppbv

RT: 5.69 Instrument:

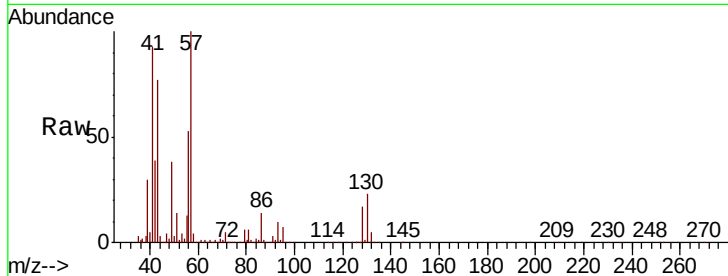
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

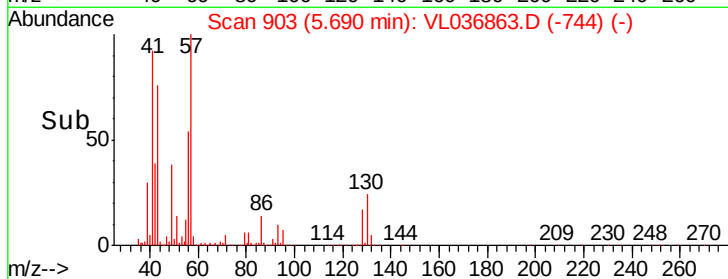
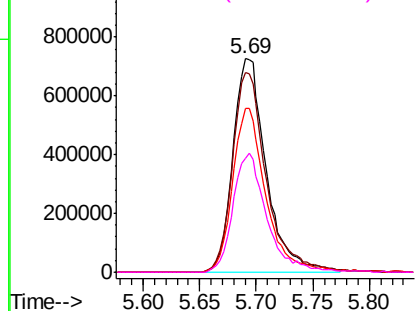
Acq: 27 Apr 2021 18:32

Tot Ion: 57 Resp: 1490802

Ion	Ratio	Lower	Upper
57	100		
41	96.2	77.7	116.5
43	77.3	180.5	270.7#
56	57.1	44.6	66.8



Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0



#29

Chloroform

Concen: 0.383 ppbv

RT: 5.76 min Scan# 924

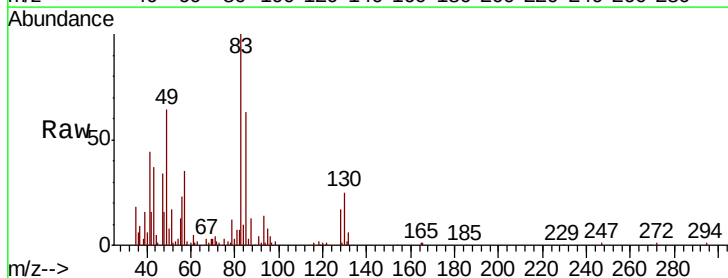
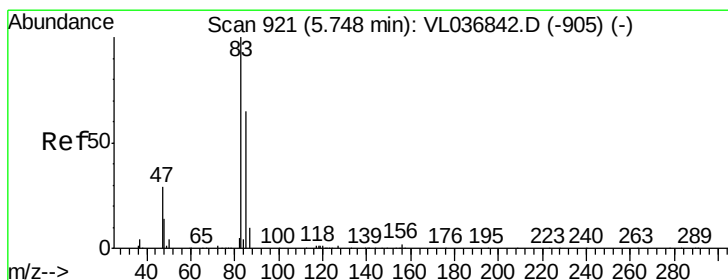
Delta R.T. 0.01 min

Lab File: VL036863.D

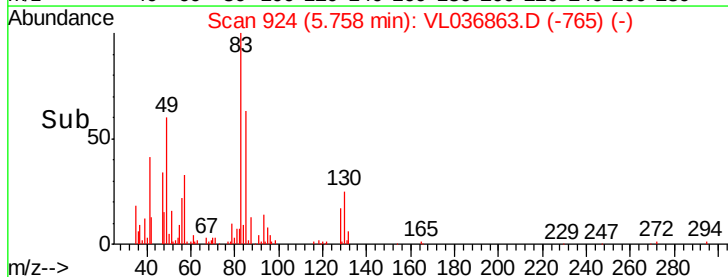
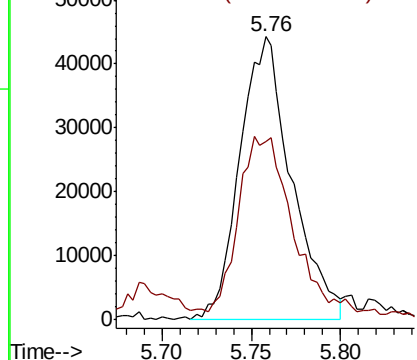
Acq: 27 Apr 2021 18:32

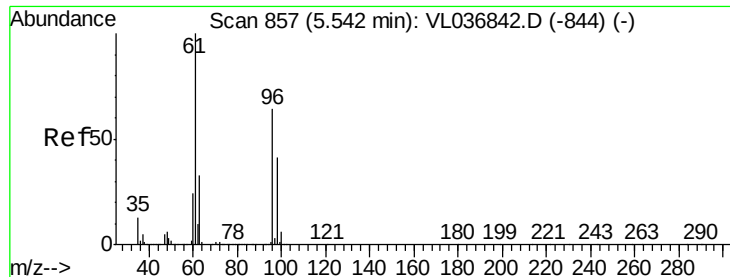
Tgt Ion: 83 Resp: 89707

Ion	Ratio	Lower	Upper
83	100		
85	59.9	52.2	78.4



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0





#31

cis-1,2-Dichloroethene

Concen: 4.196 ppbv

RT: 5.56 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 18:32

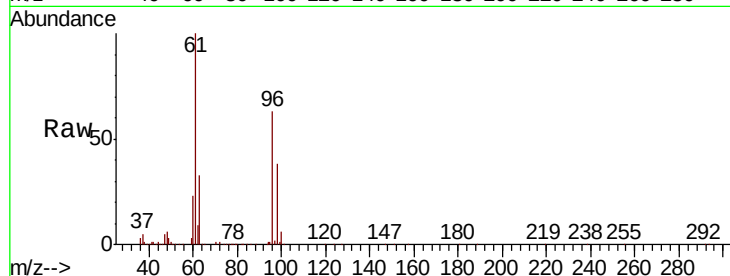
Tot Ion: 61 Resp: 565516

Ion Ratio Lower Upper

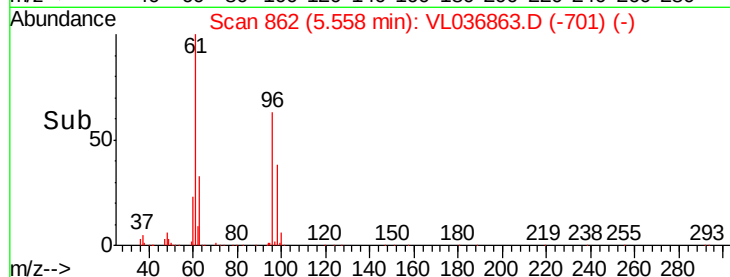
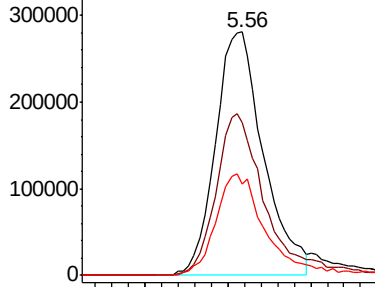
61 100

96 63.0 51.0 76.6

98 37.7 32.7 49.1



Abundance Ion 61.10 (60.80 to 61.80): VL0
Ion 96.00 (95.70 to 96.70): VL0
Ion 98.00 (97.70 to 98.70): VL0



#32

1,1,1-Trichloroethane

Concen: 0.097 ppbv

RT: 6.51 min Scan# 1158

Delta R.T. 0.00 min

Lab File: VL036863.D

Acq: 27 Apr 2021 18:32

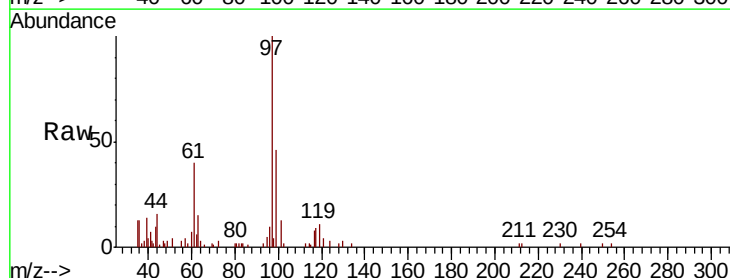
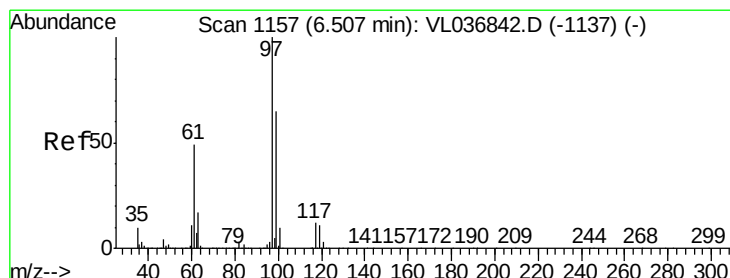
Tgt Ion: 97 Resp: 23000

Ion Ratio Lower Upper

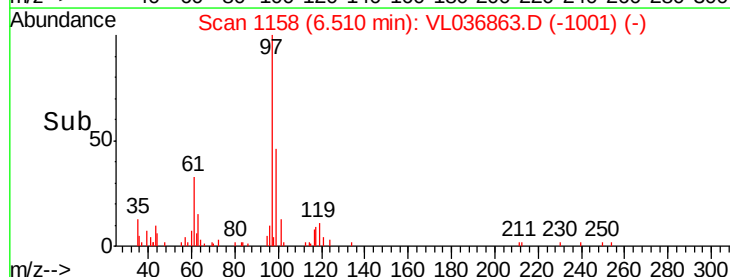
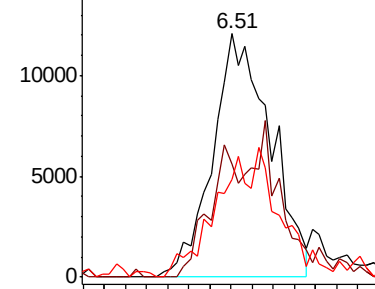
97 100

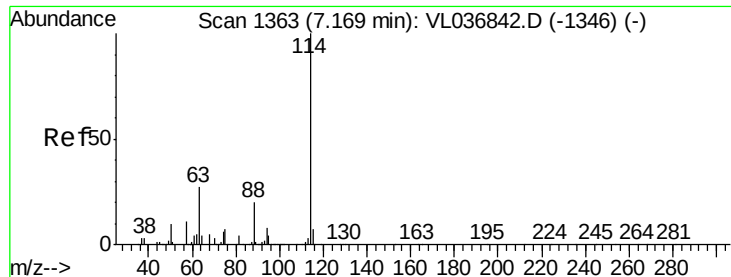
99 66.0 51.8 77.6

61 60.5 40.8 61.2



Abundance Ion 97.00 (96.70 to 97.70): VL0
Ion 99.00 (98.70 to 99.70): VL0
Ion 61.10 (60.80 to 61.80): VL0

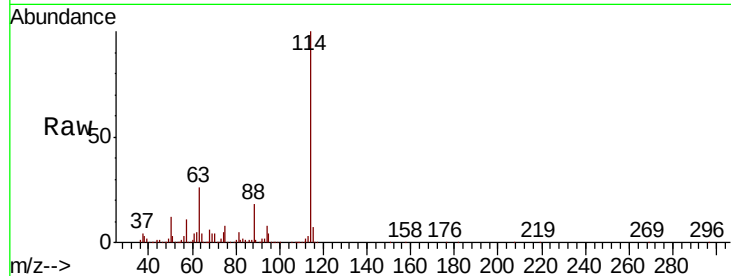




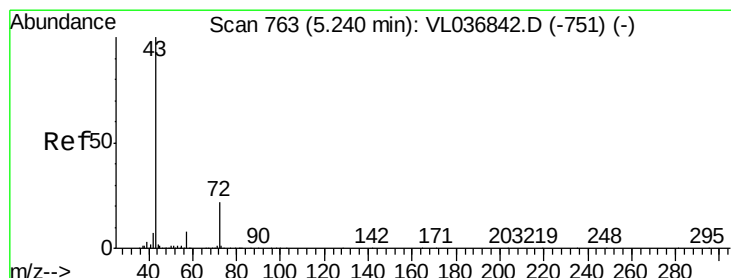
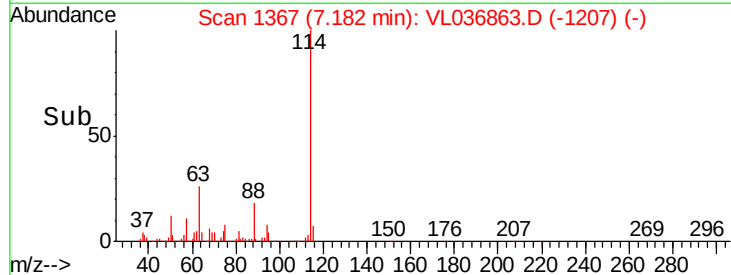
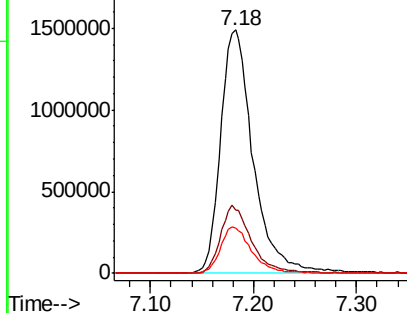
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min
 Instrument: MSVOA_L
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 27 Apr 2021 18:32

Tot Ion: 114 Resp: 3261268

Ion	Ratio	Lower	Upper
114	100		
63	27.1	21.9	32.9
88	18.7	15.1	22.7



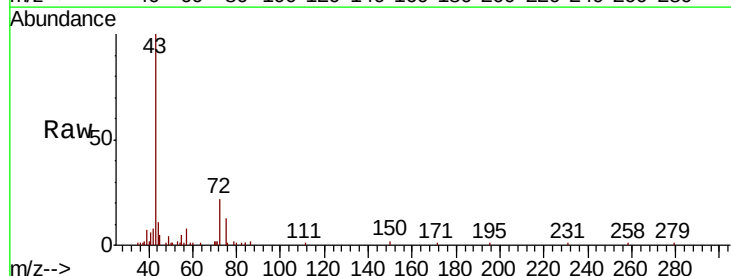
Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0



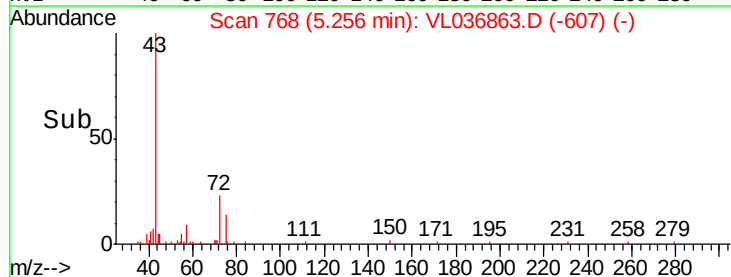
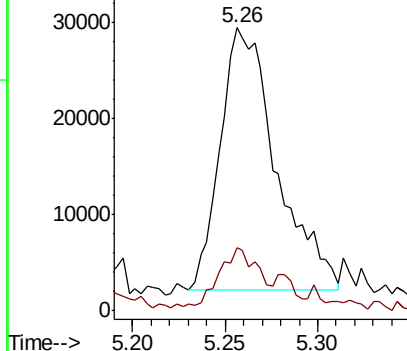
#34
 2-Butanone
 Concen: 0.399 ppbv
 RT: 5.26 min Scan# 768
 Delta R.T.: 0.02 min
 Lab File: VL036863.D
 Acq: 27 Apr 2021 18:32

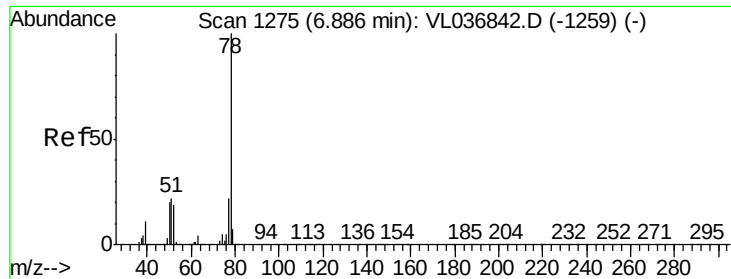
Tgt Ion: 43 Resp: 57058

Ion	Ratio	Lower	Upper
43	100		
72	28.2	17.6	26.4



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.031 ppbv

RT: 6.89 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 18:32

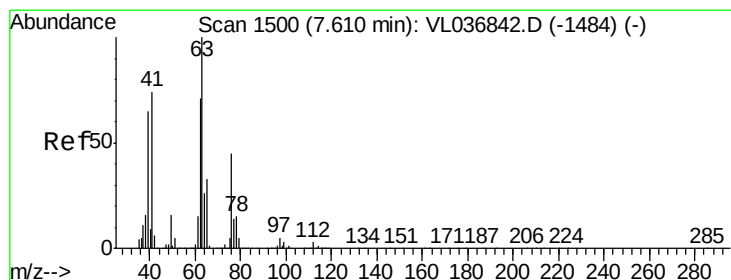
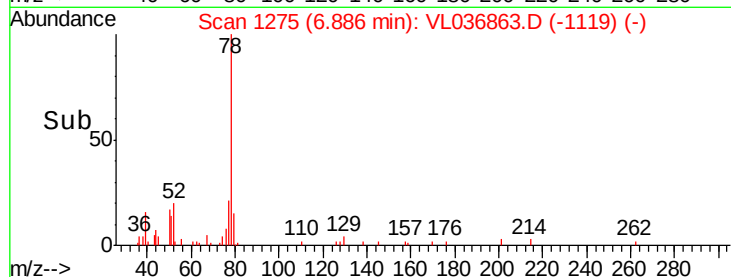
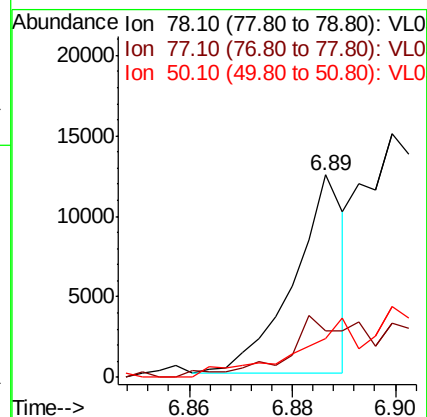
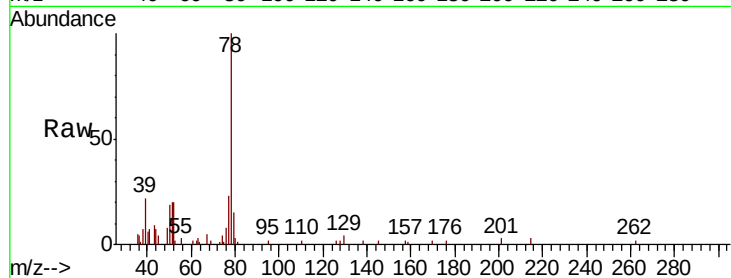
Tot Ion: 78 Resp: 8438

Ion Ratio Lower Upper

78 100

77 20.1 17.6 26.4

50 19.6 16.3 24.5



#39

1,2-Dichloropropane

Concen: 7.894 ppbv

RT: 7.18 min Scan# 1366

Delta R.T. -0.43 min

Lab File: VL036863.D

Acq: 27 Apr 2021 18:32

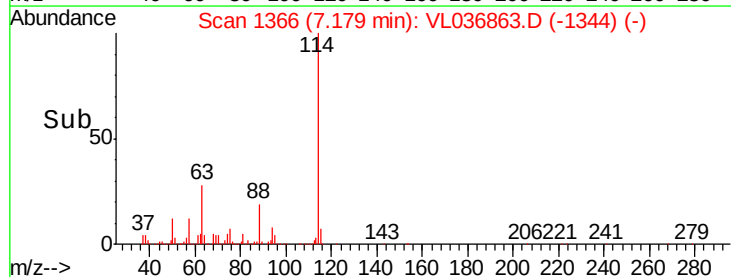
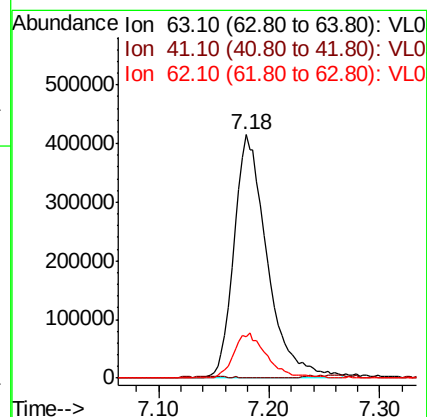
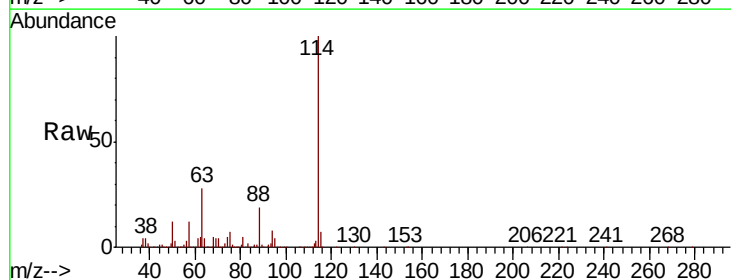
Tgt Ion: 63 Resp: 869039

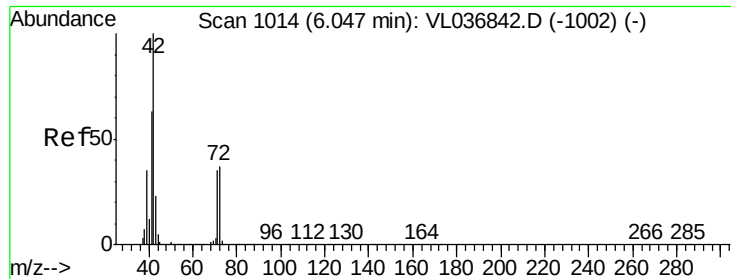
Ion Ratio Lower Upper

63 100

41 0.0 59.1 88.7#

62 16.8 56.9 85.3#





#41

Tetrahydrofuran

Concen: 9.566 ppbv

RT: 5.69

Delta R.T. MSVOA_L

Lab File:

Acq: 27 Apr 2021 18:32

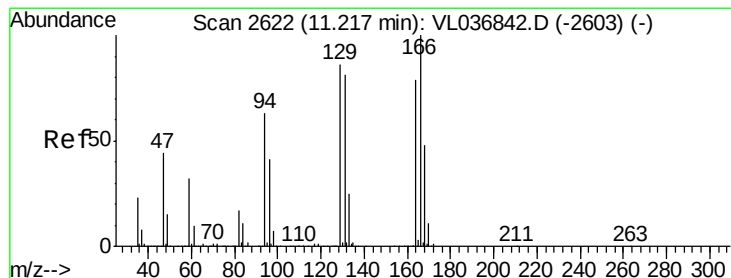
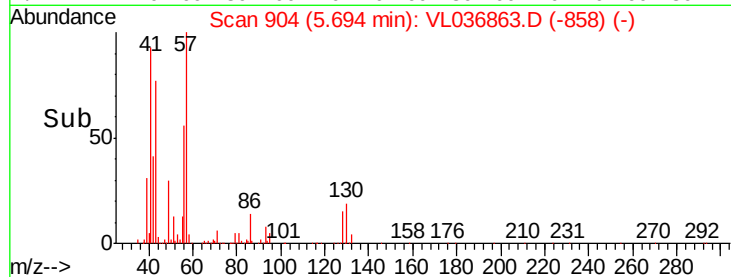
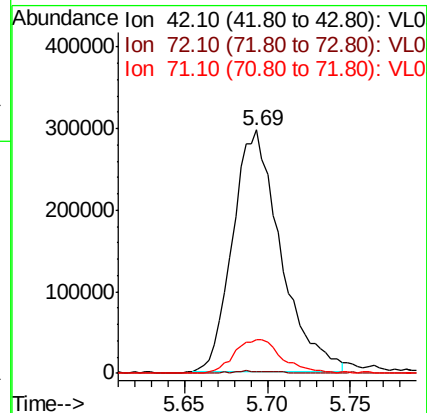
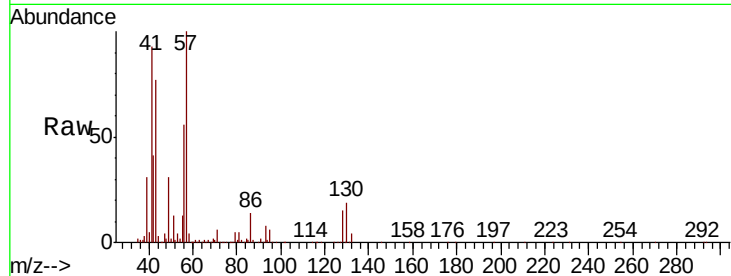
Tot Ion: 42 Resp: 597796

Ion Ratio Lower Upper

42 100

72 1.0 29.7 44.5#

71 14.7 29.0 43.6#



#52

Tetrachloroethene

Concen: 0.258 ppbv

RT: 11.24 min Scan# 2629

Delta R.T. 0.02 min

Lab File: VL036863.D

Acq: 27 Apr 2021 18:32

Tgt Ion: 164 Resp: 24150

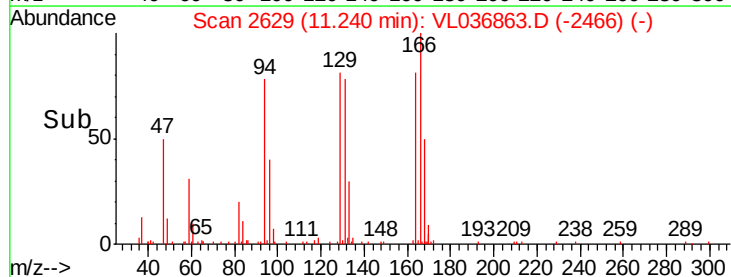
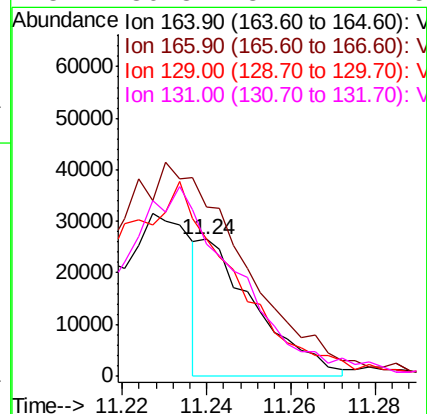
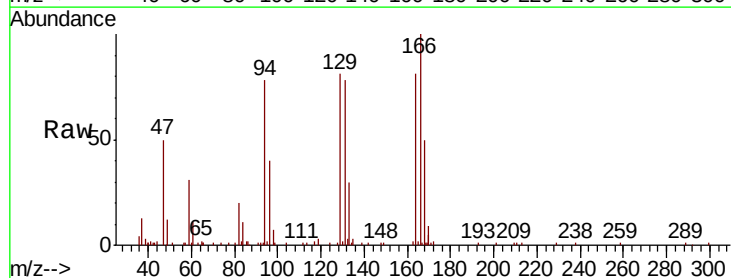
Ion Ratio Lower Upper

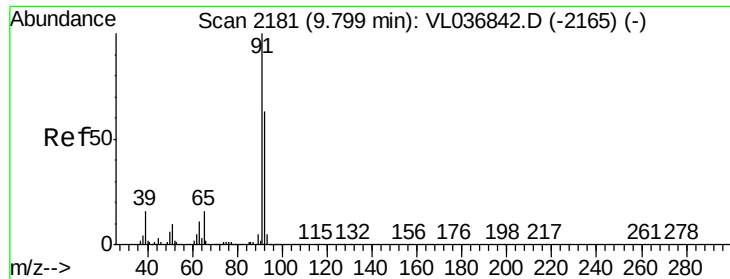
164 100

166 117.9 100.9 151.3

129 93.5 87.0 130.4

131 86.8 81.7 122.5





#53

Toluene

Concen: 0.570 ppbv

RT: 9.82 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

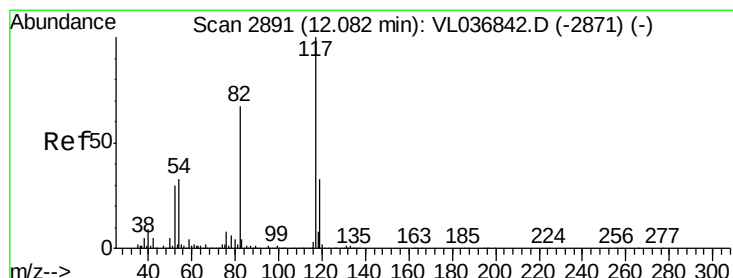
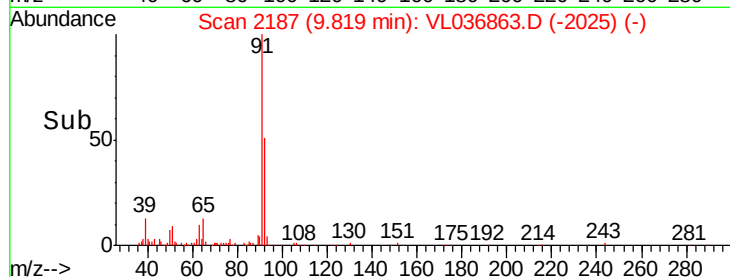
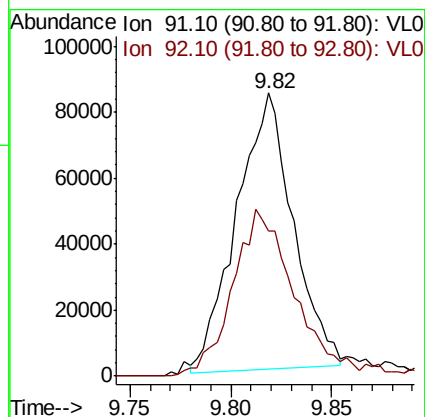
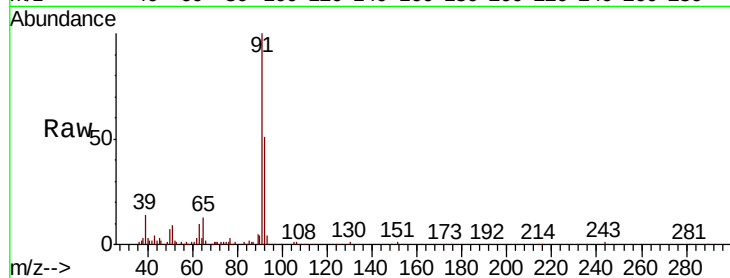
Acq: 27 Apr 2021 18:32

Tot Ion: 91 Resp: 163954

Ion Ratio Lower Upper

91 100

92 68.5 49.0 73.4



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2895

Delta R.T. 0.01 min

Lab File: VL036863.D

Acq: 27 Apr 2021 18:32

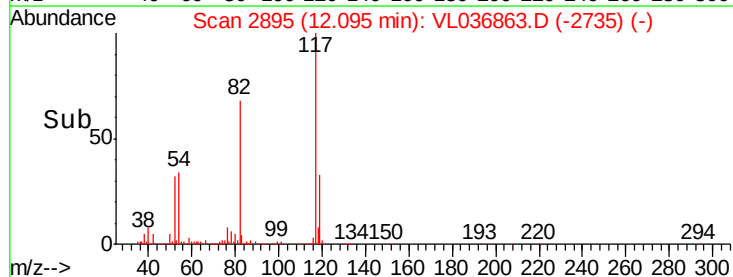
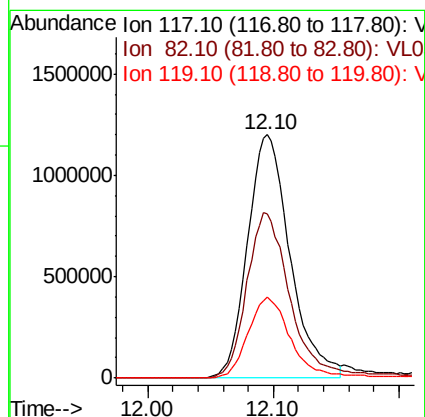
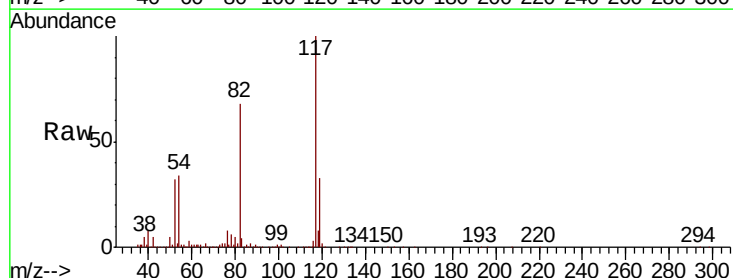
Tgt Ion: 117 Resp: 2837527

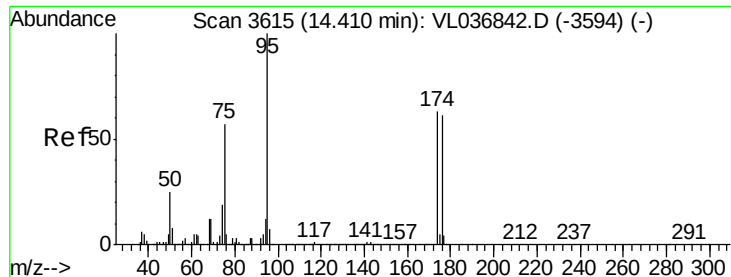
Ion Ratio Lower Upper

117 100

82 72.1 53.5 80.3

119 34.4 25.6 38.4





#68

1-Bromo-4-Fluorobenzene

Concen: 9.843 ppbv

RT: 14.42 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 27 Apr 2021 18:32

Tot Ion: 95 Resp: 2241981

Ion Ratio Lower Upper

95 100

174 66.0 52.2 78.2

175 4.7 4.0 6.0

