

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051322\
 Data File : VL039044.D
 Acq On : 13 May 2022 19:42
 Operator : SY/AP
 Sample : N2812-01DL 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DL

Quant Time: May 14 00:54:15 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050522AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu May 05 10:12:15 2022
 QLast Update : Thu May 05 10:12:15 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	950022	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.16	114	2304083	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.06	117	1925572	10.00	ppbv	-0.01

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	1446725	9.49	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.90%

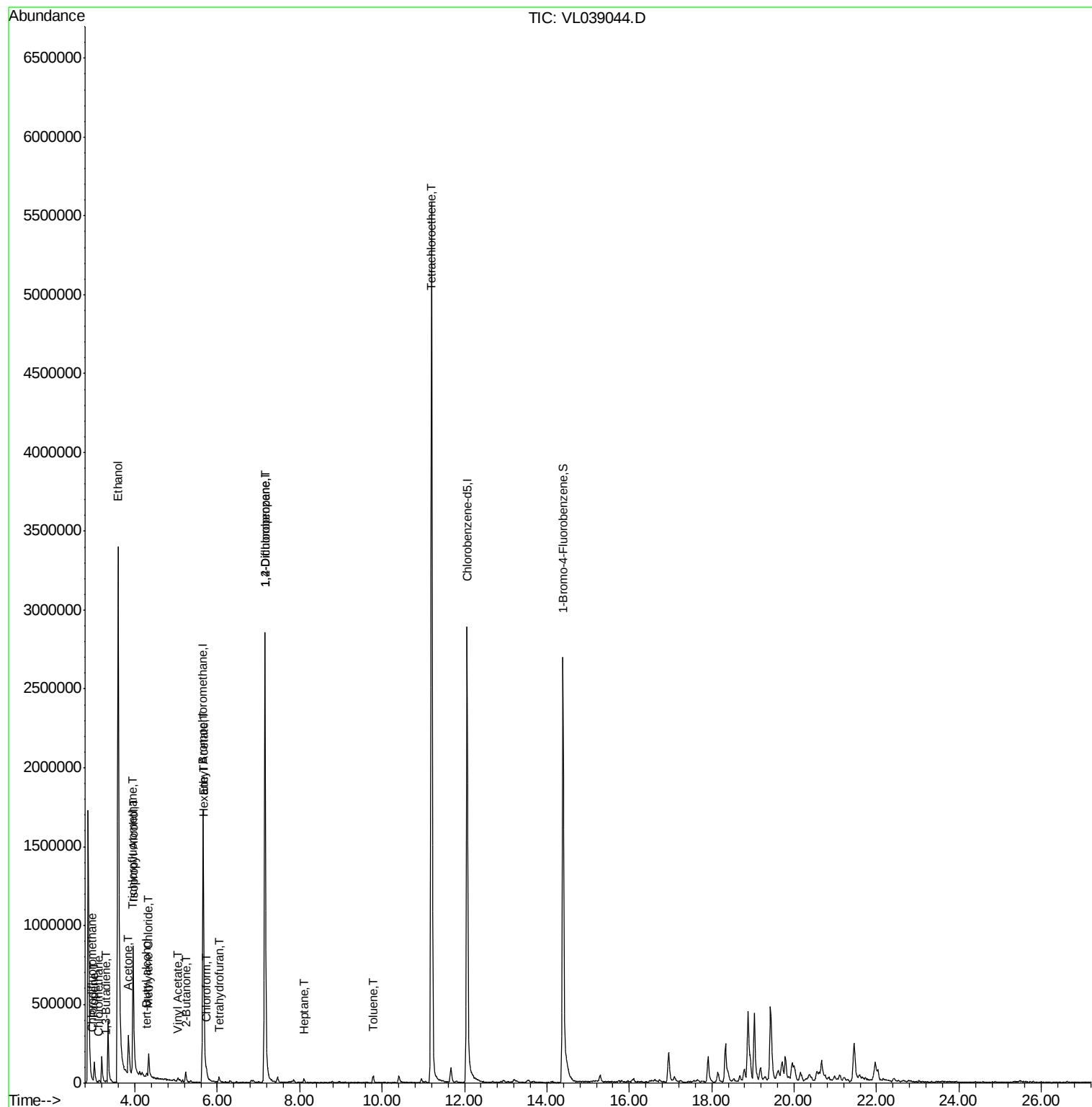
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.96	51	23909	0.203	ppbv #	78
4) Chloromethane	3.13	50	4565	0.077	ppbv #	72
9) Propene	3.01	41	32064	0.623	ppbv #	68
10) Heptane	8.10	43	9067	0.072	ppbv #	69
11) Trichlorofluoromethane	3.94	101	5932	0.046	ppbv	88
13) Ethanol	3.59	45	5015992	1376.798	ppbv	88
15) Acetone	3.84	43	321630	3.589	ppbv	100
16) 1,3-Butadiene	3.29	39	1943	0.038	ppbv #	9
17) tert-Butyl alcohol	4.28	59	5621	0.082	ppbv #	19
19) Isopropyl Alcohol	3.95	45	1015640	23.836	ppbv	99
20) Methylene Chloride	4.33	84	31408	0.930	ppbv	93
23) Vinyl Acetate	5.06	43	5710	0.081	ppbv #	65
25) Ethyl Acetate	5.67	43	70716	0.330	ppbv #	86
26) Hexane	5.67	57	81204	0.852	ppbv #	46
29) Chloroform	5.73	83	31667	0.205	ppbv	95
34) 2-Butanone	5.23	43	78716	0.670	ppbv	92
39) 1,2-Dichloropropane	7.15	63	625412	8.152	ppbv #	26
41) Tetrahydrofuran	6.04	42	13441	0.170	ppbv #	69
52) Tetrachloroethene	11.20	164	1426051	20.238	ppbv	95
53) Toluene	9.79	91	25930	0.117	ppbv	88

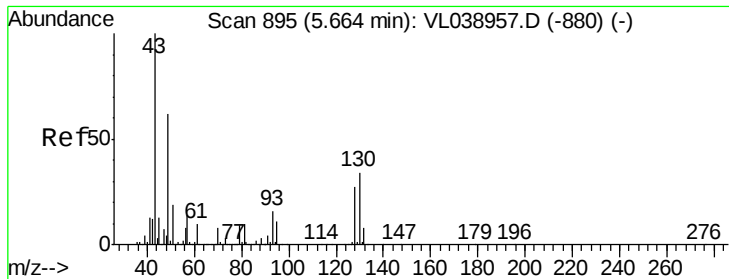
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu May 05 10:12:15 2022
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA-1DL

Acq: 13 May 2022 19:42

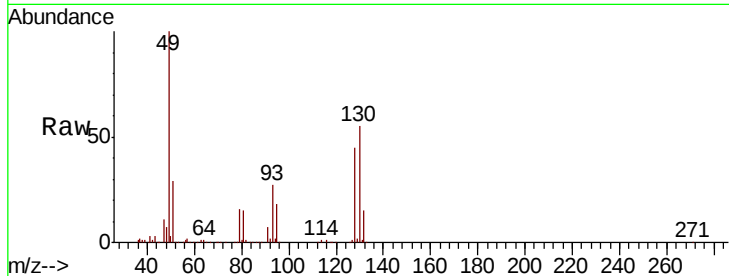
Tot Ion: 49 Resp: 950022

Ion Ratio Lower Upper

49 100

128 47.1 23.3 69.8

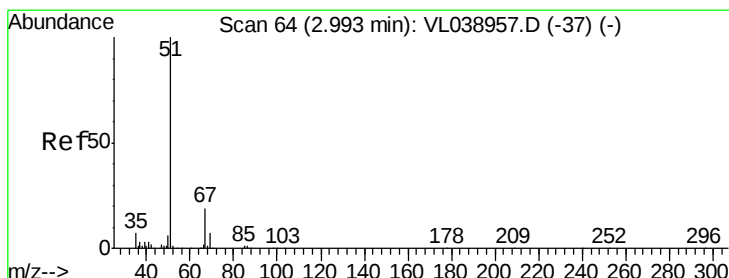
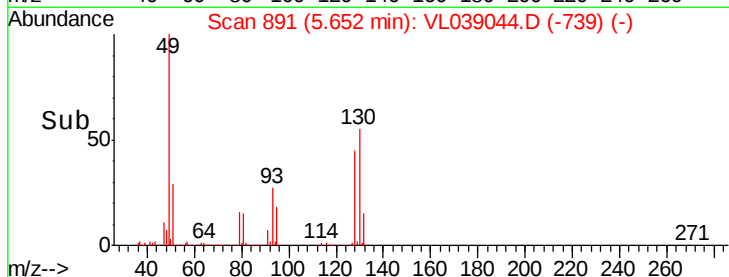
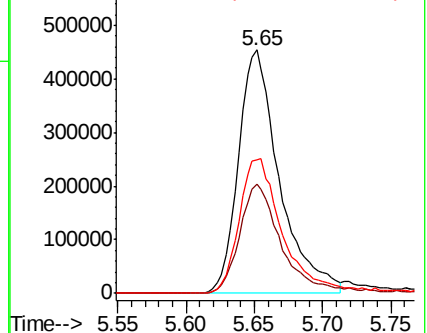
130 60.8 29.8 89.3



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



#3

Chlorodifluoromethane

Concen: 0.203 ppbv

RT: 2.96 min Scan# 54

Delta R.T. -0.03 min

Lab File: VL039044.D

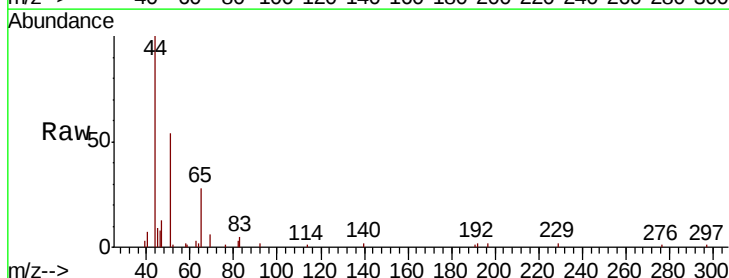
Acq: 13 May 2022 19:42

Tgt Ion: 51 Resp: 23909

Ion Ratio Lower Upper

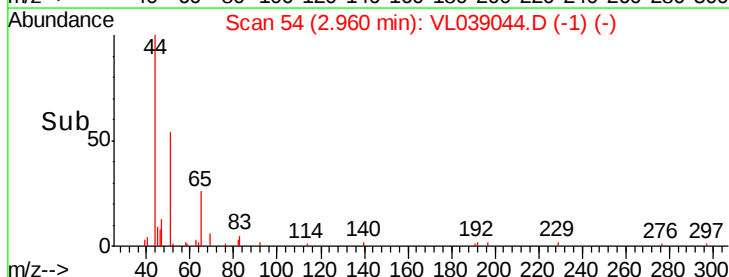
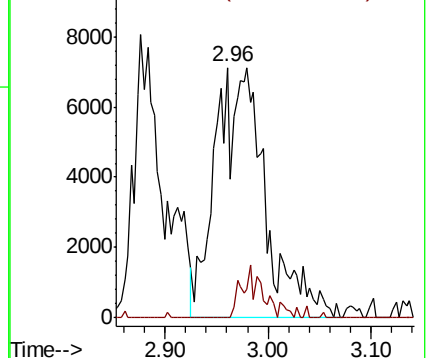
51 100

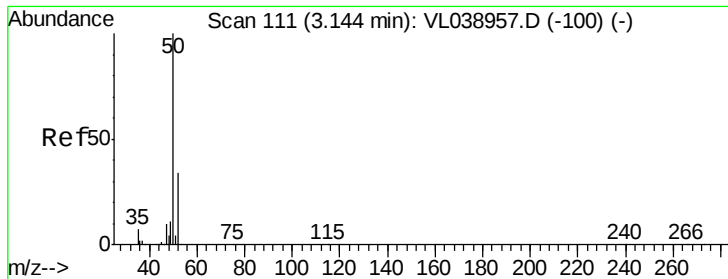
67 9.5 15.8 23.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.077 ppbv

RT: 3.13 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

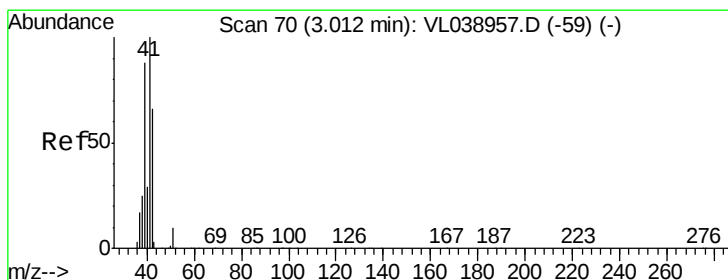
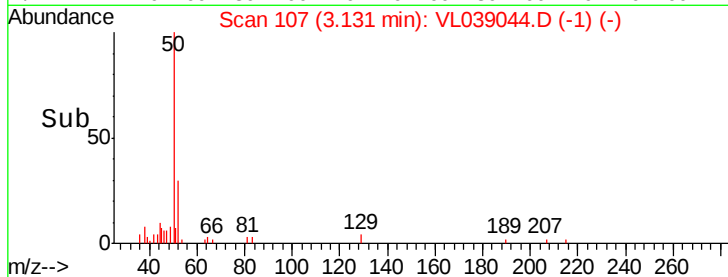
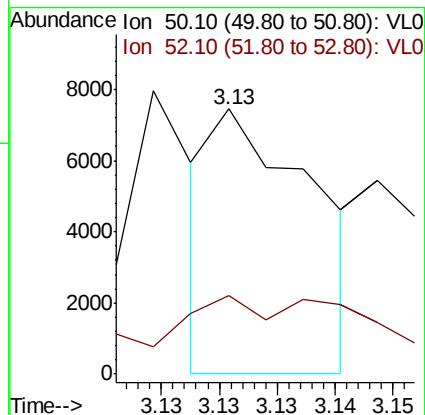
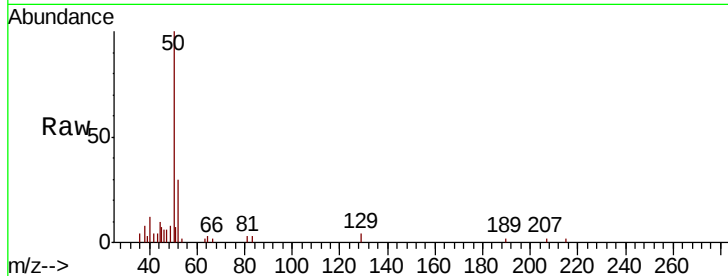
Acq: 13 May 2022 19:42

Tot Ion: 50 Resp: 4565

Ion Ratio Lower Upper

50 100

52 18.0 27.3 40.9#



#9

Propene

Concen: 0.623 ppbv

RT: 3.01 min Scan# 69

Delta R.T. -0.00 min

Lab File: VL039044.D

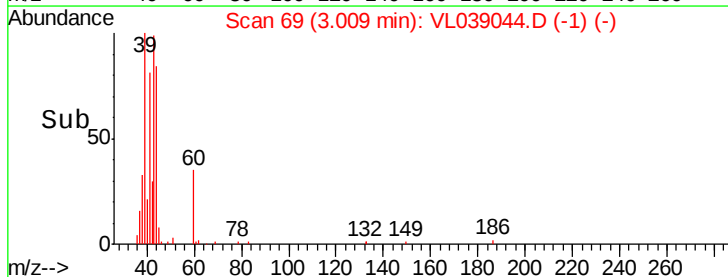
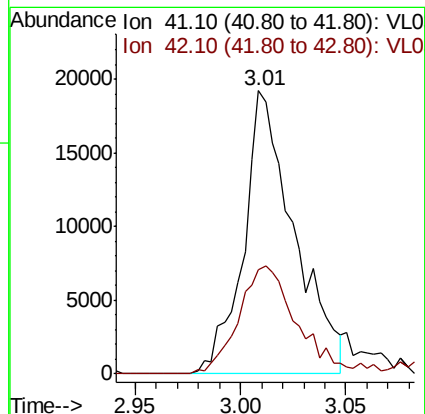
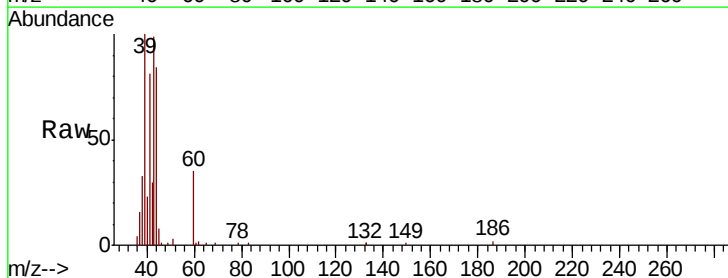
Acq: 13 May 2022 19:42

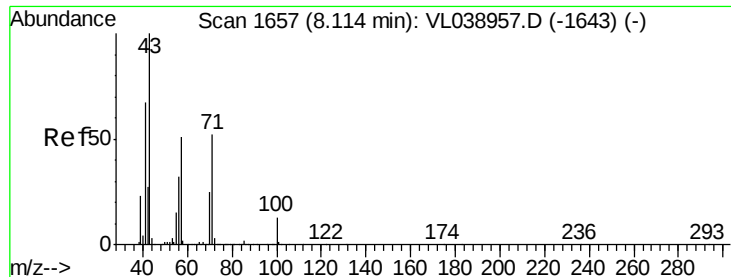
Tgt Ion: 41 Resp: 32064

Ion Ratio Lower Upper

41 100

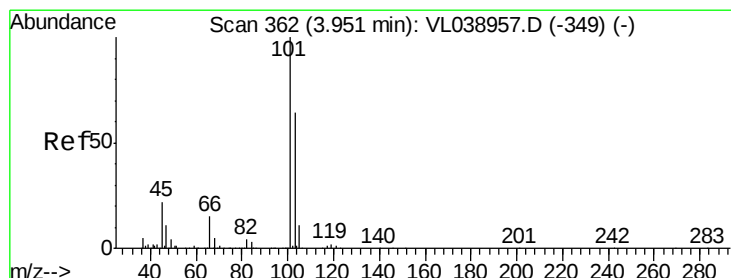
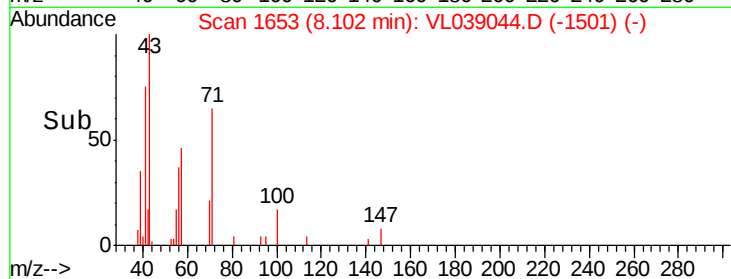
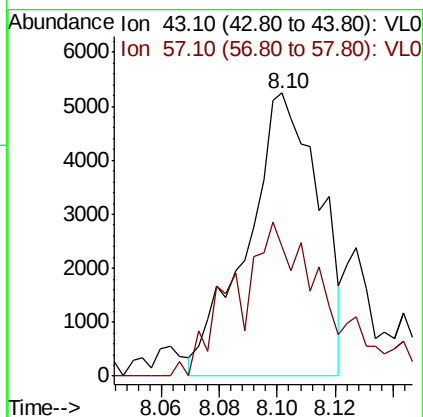
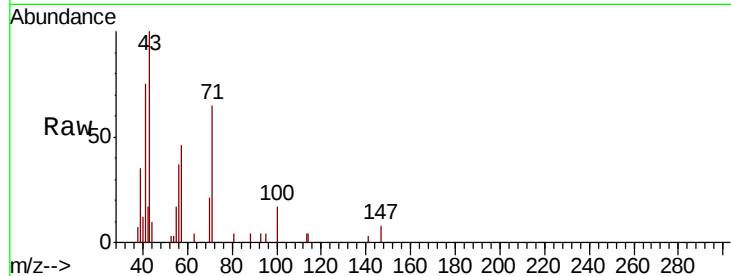
42 46.4 58.3 87.5#





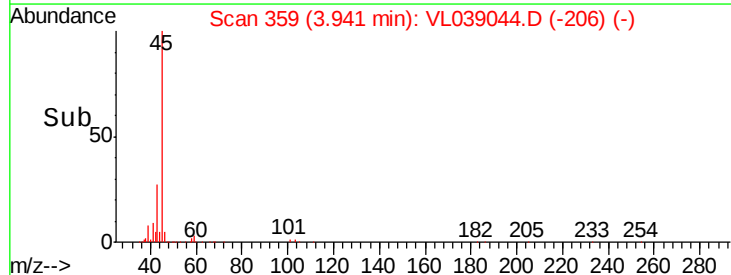
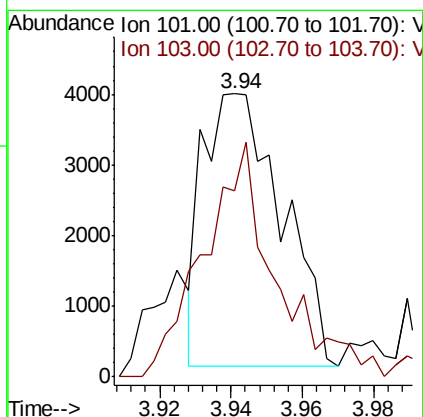
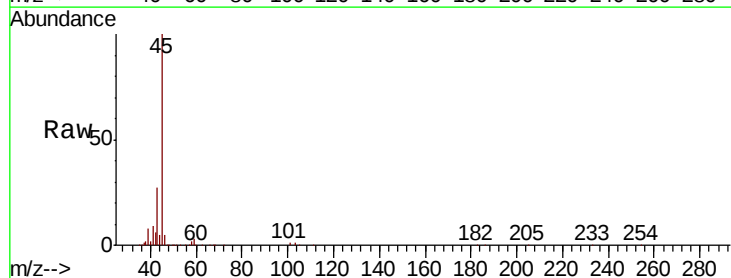
#10
 Heptane
 Concen: 0.072 ppbv
 RT: 8.10
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 13 May 2022 19:42

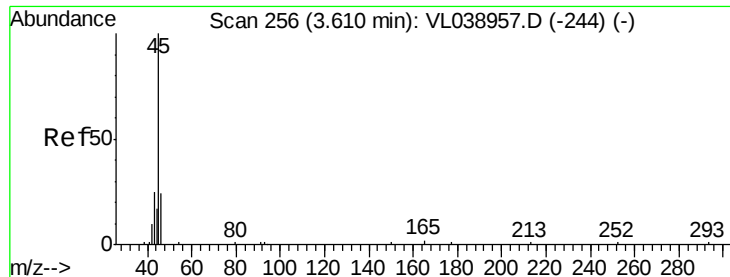
Tot Ion: 43 Resp: 9067
 Ion Ratio Lower Upper
 43 100
 57 72.0 40.5 60.7#



#11
 Trichlorofluoromethane
 Concen: 0.046 ppbv
 RT: 3.94 min Scan# 359
 Delta R.T. -0.01 min
 Lab File: VL039044.D
 Acq: 13 May 2022 19:42

Tgt Ion:101 Resp: 5932
 Ion Ratio Lower Upper
 101 100
 103 55.2 51.5 77.3





#13

Ethanol

Concen: 1376.798 ppbv

RT: 3.59 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

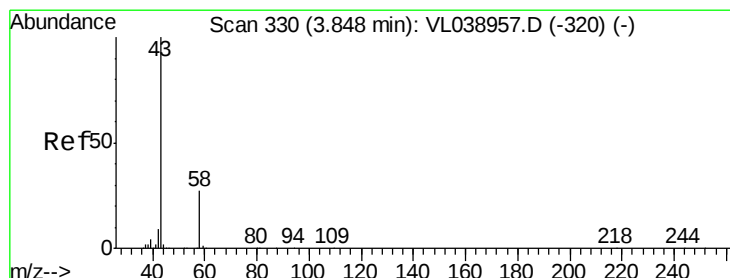
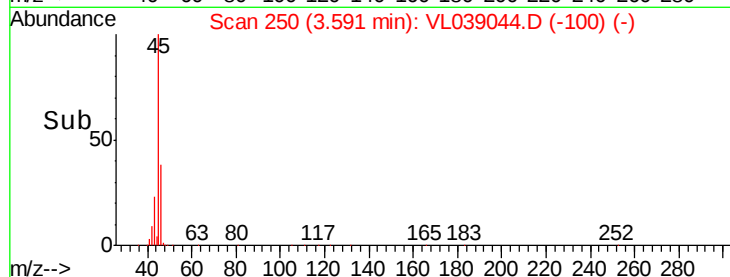
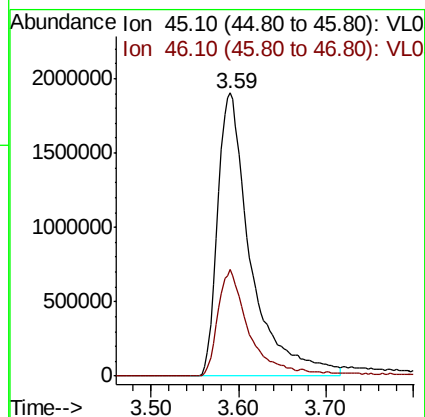
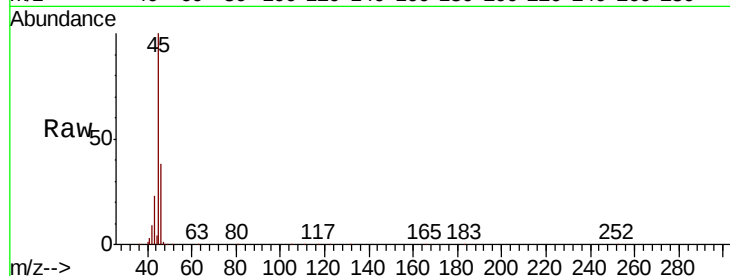
Acq: 13 May 2022 19:42

Tot Ion: 45 Resp: 5015992

Ion Ratio Lower Upper

45 100

46 37.0 18.0 72.2



#15

Acetone

Concen: 3.589 ppbv

RT: 3.84 min Scan# 327

Delta R.T. -0.01 min

Lab File: VL039044.D

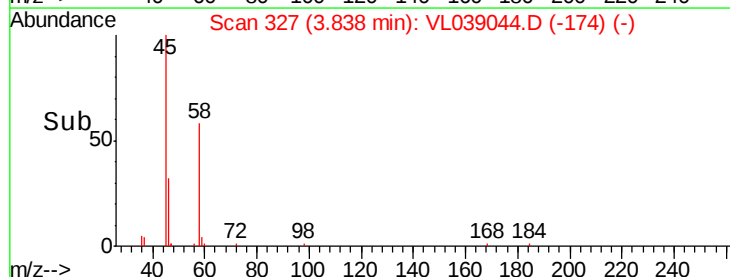
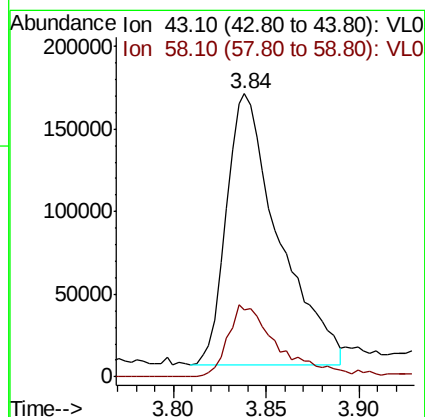
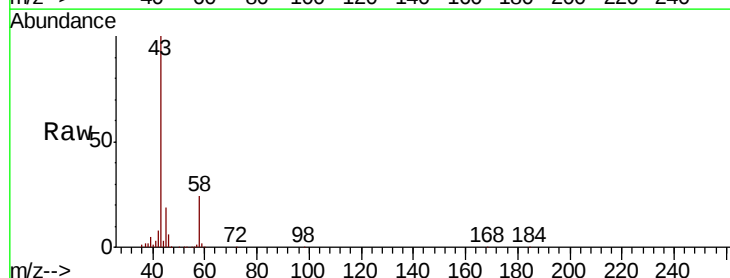
Acq: 13 May 2022 19:42

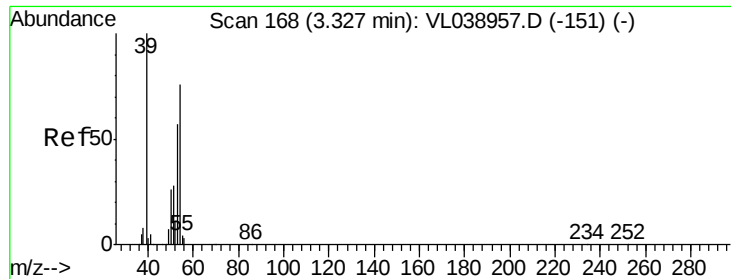
Tgt Ion: 43 Resp: 321630

Ion Ratio Lower Upper

43 100

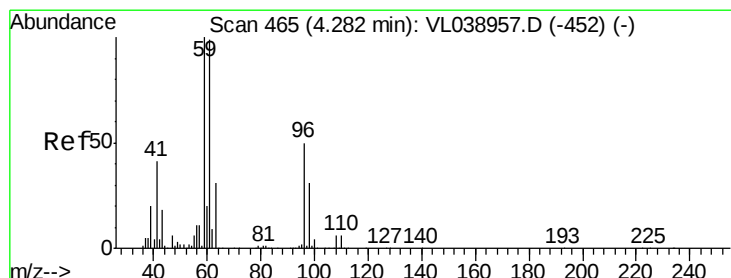
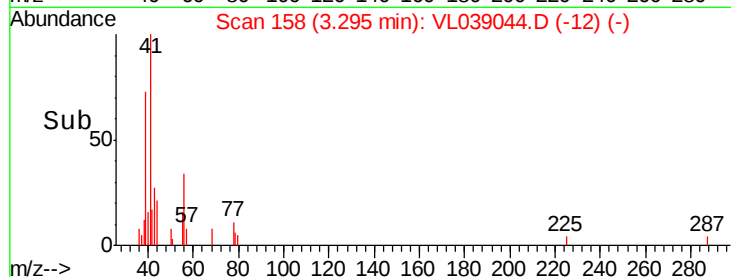
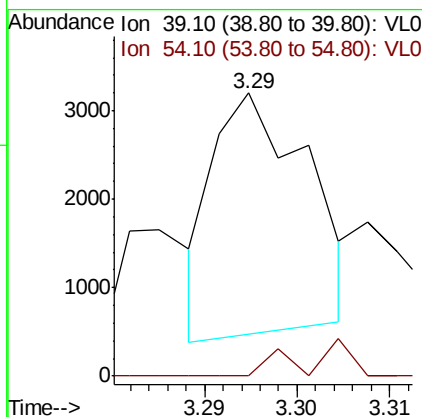
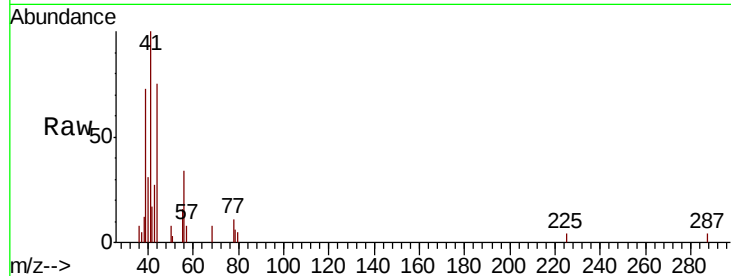
58 26.5 21.3 31.9





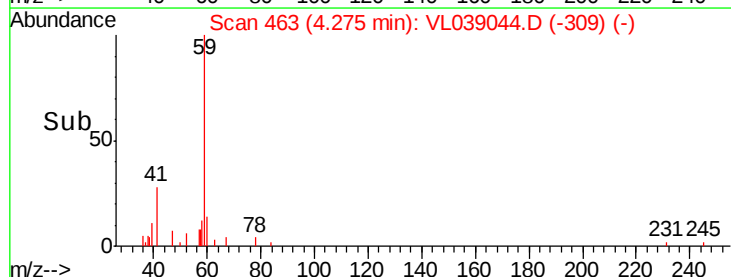
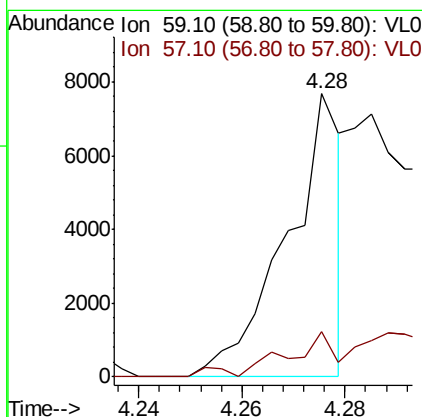
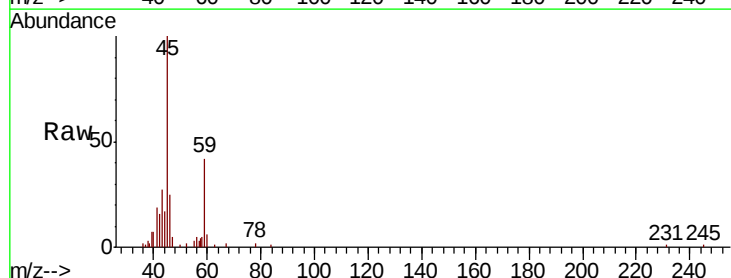
#16
 1,3-Butadiene
 Concen: 0.038 ppbv
 RT: 3.29 Instrument: MSVOA_1
 Delta R.T.: ClientSampleId:
 Lab File: IA-1DL
 Acq: 13 May 2022 19:42

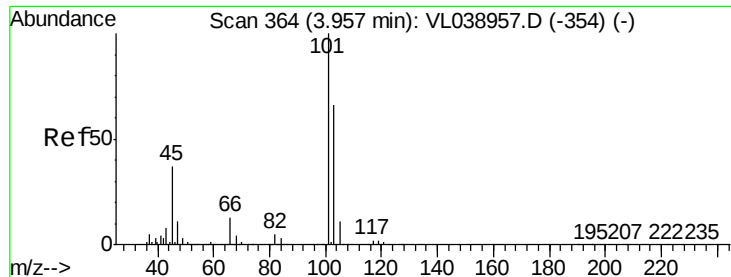
Tot Ion: 39 Resp: 1943
 Ion Ratio Lower Upper
 39 100
 54 0.0 65.2 97.8#



#17
 tert-Butyl alcohol
 Concen: 0.082 ppbv
 RT: 4.28 min Scan# 463
 Delta R.T. -0.01 min
 Lab File: VL039044.D
 Acq: 13 May 2022 19:42

Tgt Ion: 59 Resp: 5621
 Ion Ratio Lower Upper
 59 100
 57 42.6 9.2 13.8#





#19

Isopropyl Alcohol

Concen: 23.836 ppbv

RT: 3.95 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA-1DL

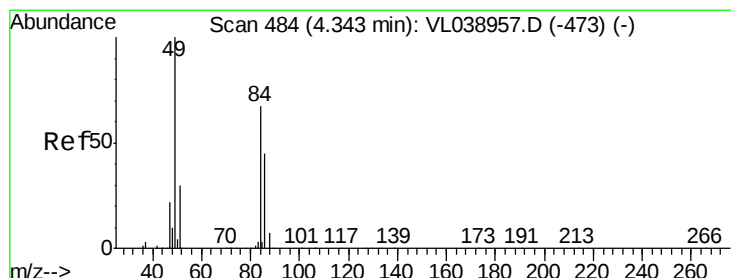
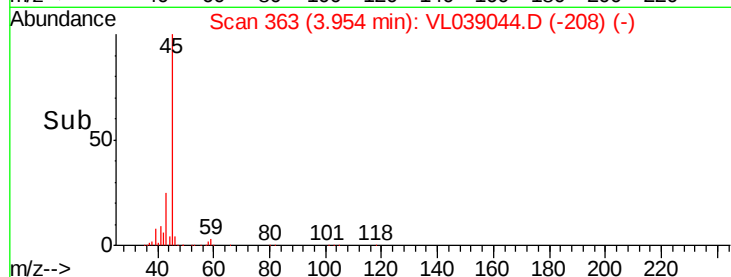
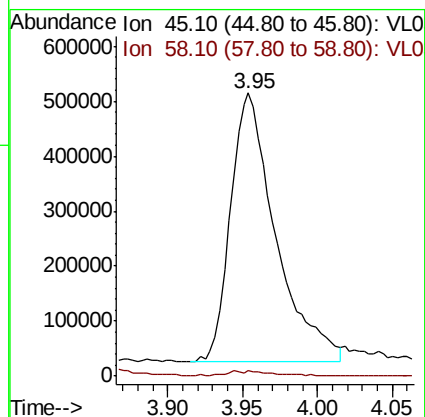
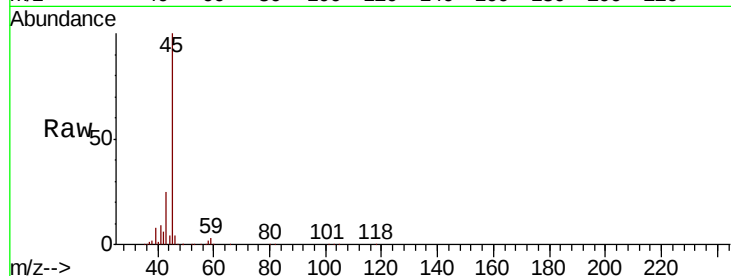
Acq: 13 May 2022 19:42

Tot Ion: 45 Resp: 1015640

Ion Ratio Lower Upper

45 100

58 2.0 1.4 2.2



#20

Methylene Chloride

Concen: 0.930 ppbv

RT: 4.33 min Scan# 479

Delta R.T. -0.02 min

Lab File: VL039044.D

Acq: 13 May 2022 19:42

Tgt Ion: 84 Resp: 31408

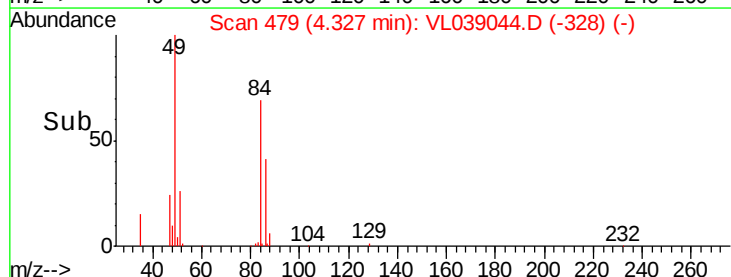
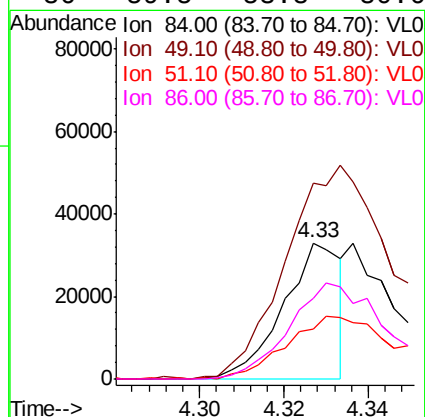
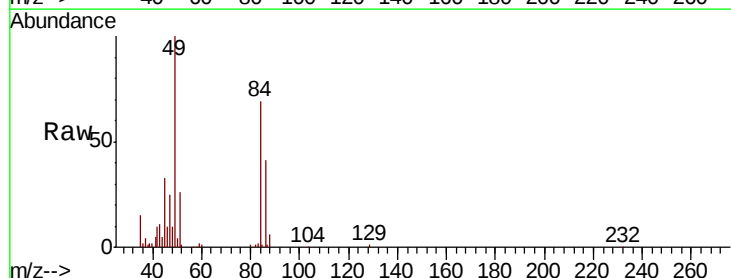
Ion Ratio Lower Upper

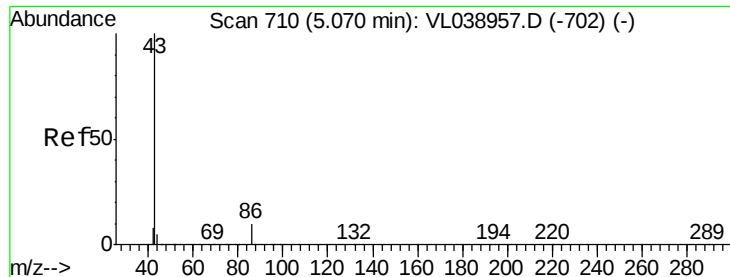
84 100

49 144.5 119.9 179.9

51 37.0 35.7 53.5

86 59.5 53.8 80.6





#23

Vinyl Acetate

Concen: 0.081 ppbv

RT: 5.06 Instrument:

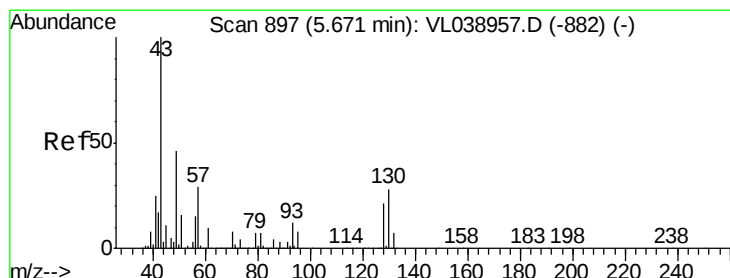
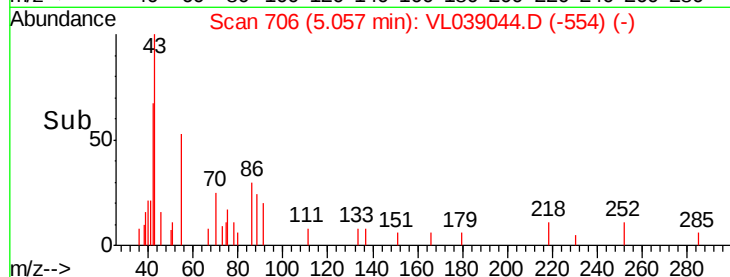
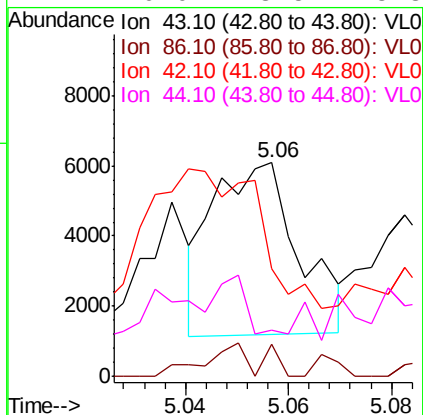
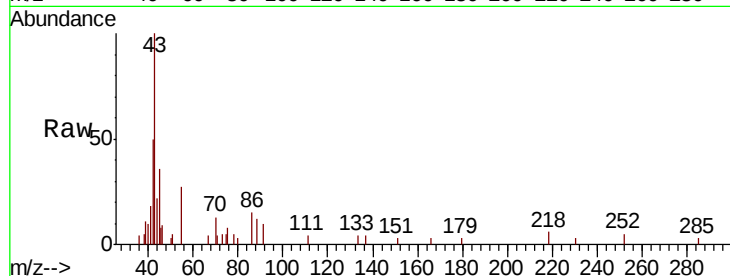
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 13 May 2022 19:42

Tot Ion: 43 Resp: 5710

Ion	Ratio	Lower	Upper
43	100		
86	16.7	6.6	9.8#
42	30.3	8.1	12.1#
44	0.0	3.5	5.3#



#25

Ethyl Acetate

Concen: 0.330 ppbv

RT: 5.67 min Scan# 896

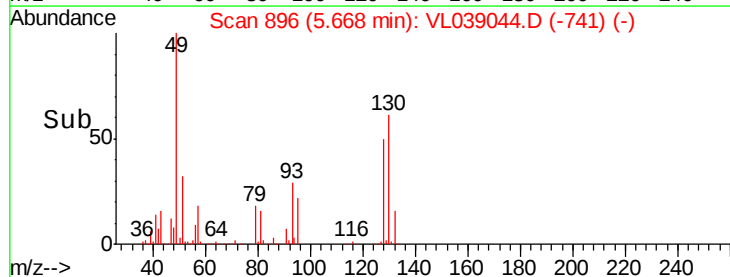
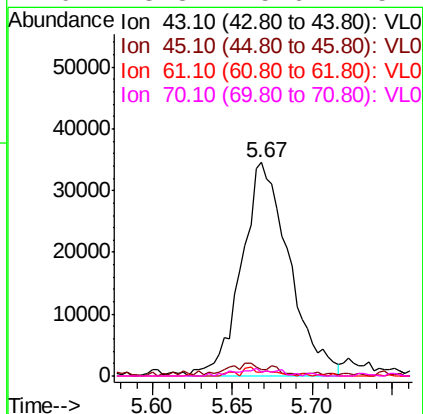
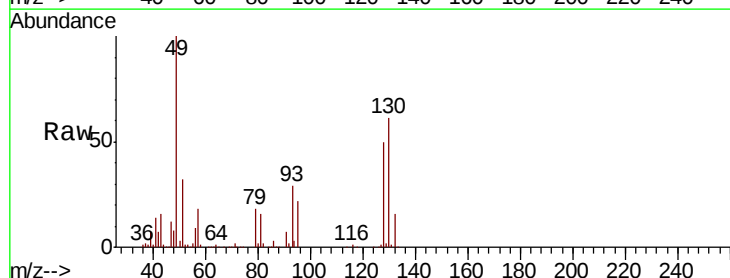
Delta R.T. -0.00 min

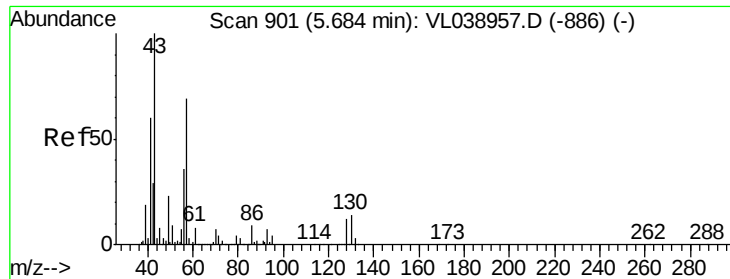
Lab File: VL039044.D

Acq: 13 May 2022 19:42

Tgt Ion: 43 Resp: 70716

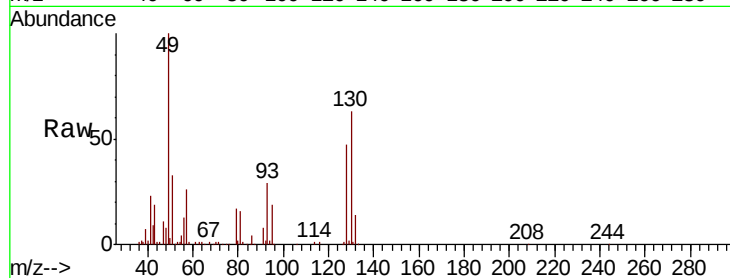
Ion	Ratio	Lower	Upper
43	100		
45	6.3	8.1	12.1#
61	2.7	7.8	11.6#
70	3.3	5.6	8.4#



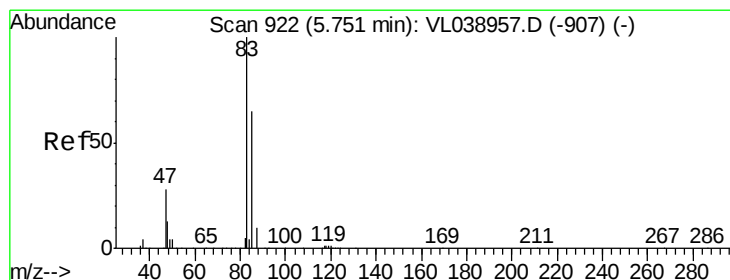
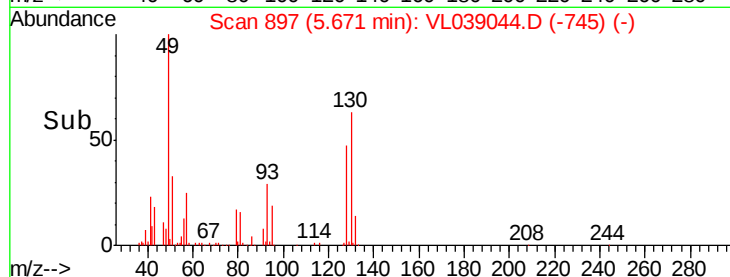
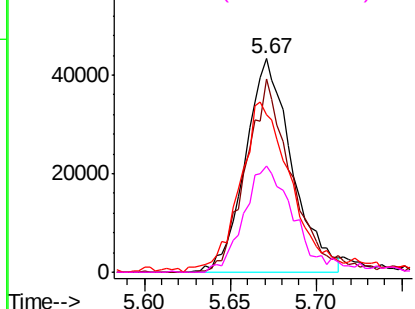


#26
Hexane
Concen: 0.852 ppbv
RT: 5.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 13 May 2022 19:42

Tot Ion:	57	Resp:	81204
Ion	Ratio	Lower	Upper
57	100		
41	90.6	75.2	112.8
43	93.6	190.8	286.2#
56	55.8	43.0	64.6

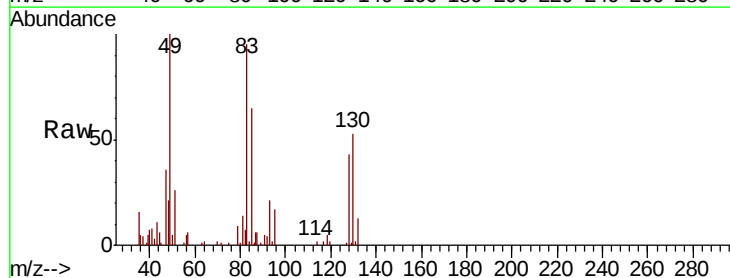


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

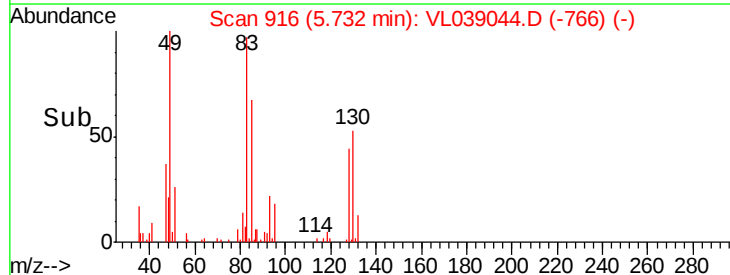
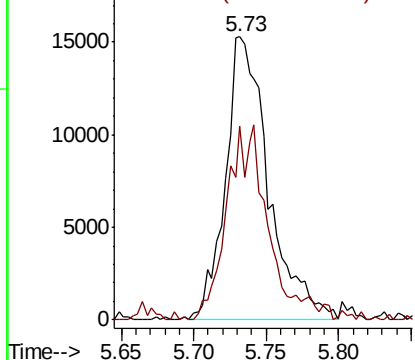


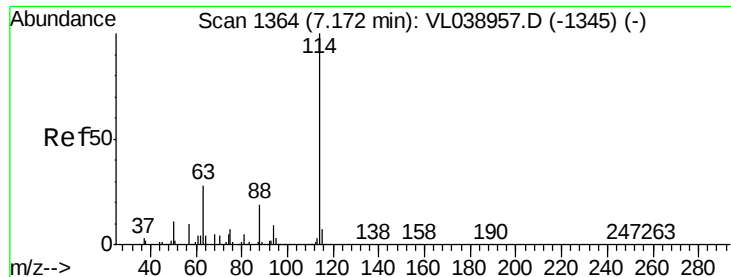
#29
Chloroform
Concen: 0.205 ppbv
RT: 5.73 min Scan# 916
Delta R.T. -0.02 min
Lab File: VL039044.D
Acq: 13 May 2022 19:42

Tgt Ion:	83	Resp:	31667
Ion	Ratio	Lower	Upper
83	100		
85	68.4	51.8	77.6



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





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16

Instrument: MSVOA_1

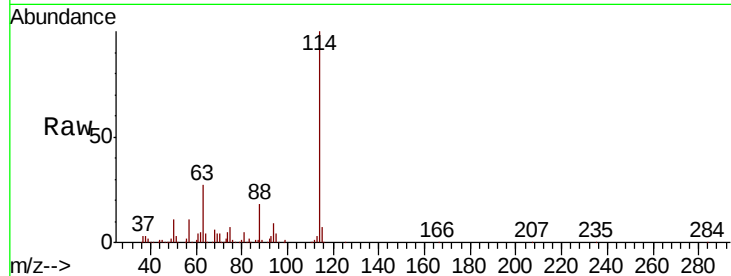
Delta R.T.:

Lab File: ClientSampleId:

Acq: 13 May 2022 19:42

Tot Ion: 114 Resp: 2304083

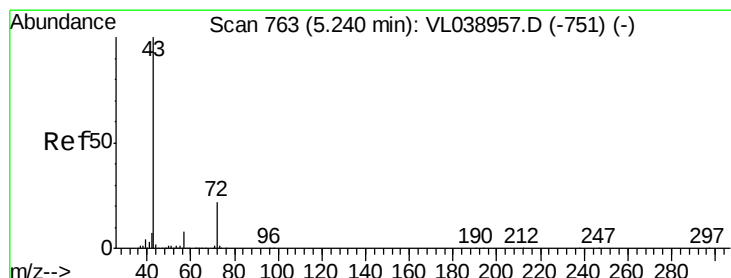
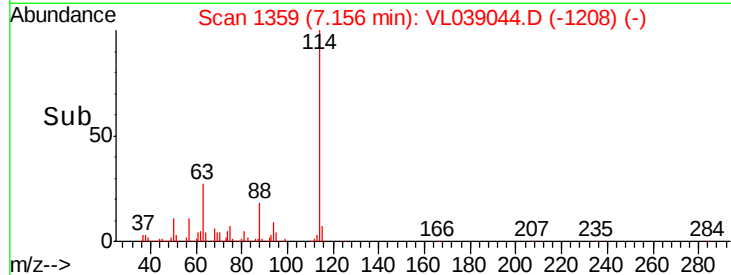
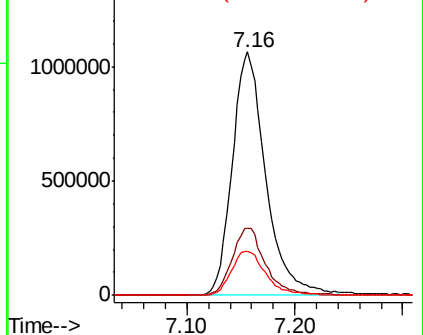
Ion	Ratio	Lower	Upper
114	100		
63	27.8	22.6	33.8
88	19.0	15.4	23.0



Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 0.670 ppbv

RT: 5.23 min Scan# 761

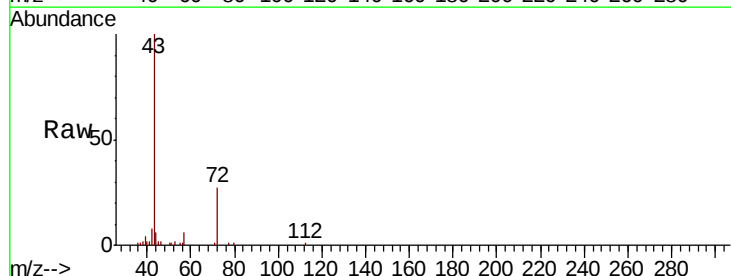
Delta R.T. -0.01 min

Lab File: VL039044.D

Acq: 13 May 2022 19:42

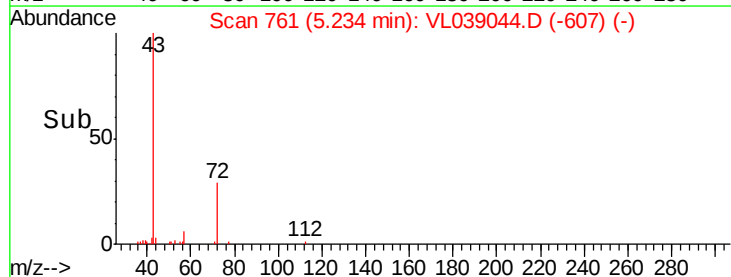
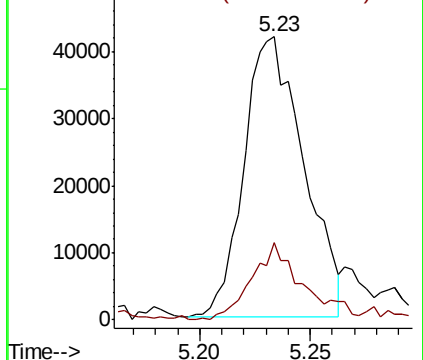
Tgt Ion: 43 Resp: 78716

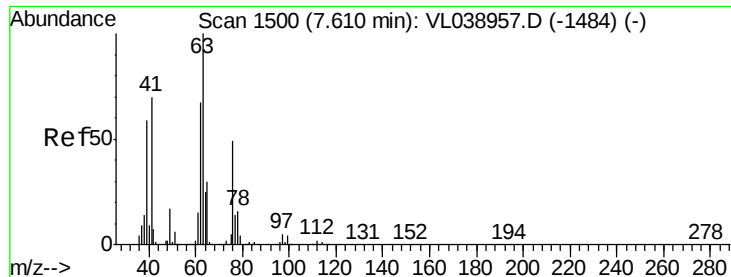
Ion	Ratio	Lower	Upper
43	100		
72	26.2	17.8	26.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#39

1,2-Dichloropropane

Concen: 8.152 ppbv

RT: 7.15 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 13 May 2022 19:42

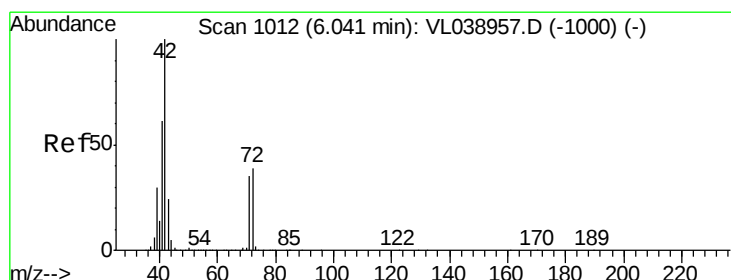
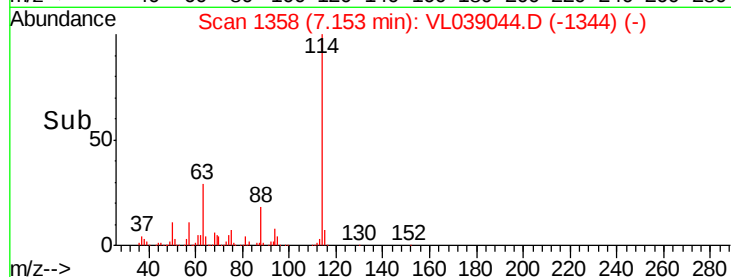
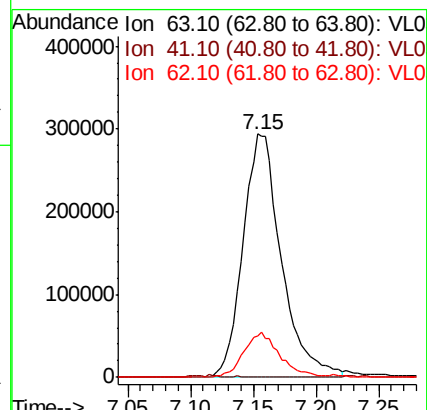
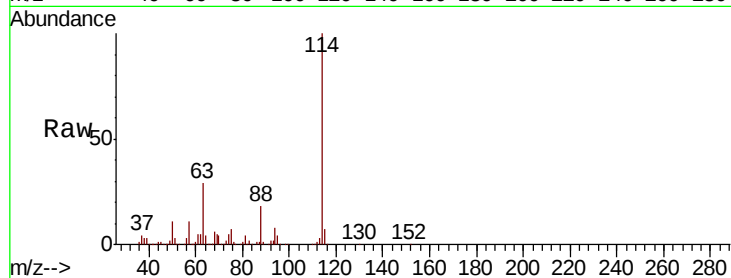
Tot Ion: 63 Resp: 625412

Ion Ratio Lower Upper

63 100

41 0.0 55.9 83.9#

62 16.9 53.8 80.6#



#41

Tetrahydrofuran

Concen: 0.170 ppbv

RT: 6.04 min Scan# 1013

Delta R.T. 0.00 min

Lab File: VL039044.D

Acq: 13 May 2022 19:42

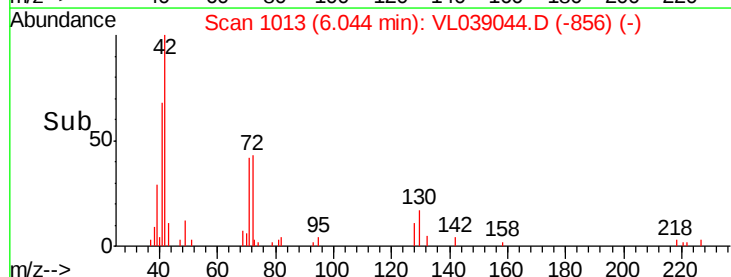
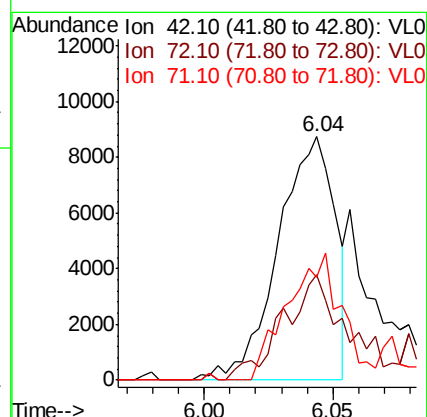
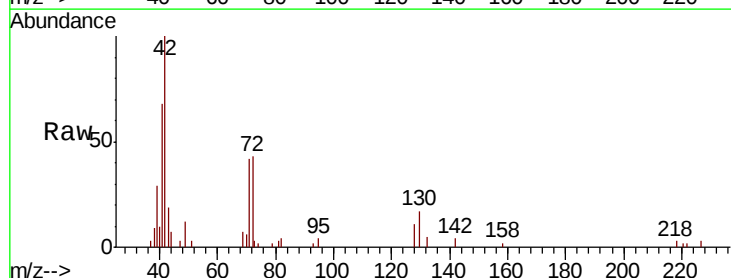
Tgt Ion: 42 Resp: 13441

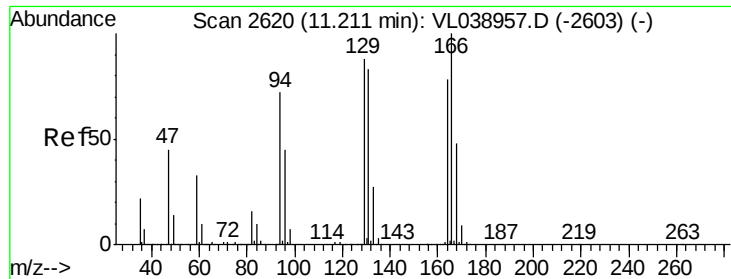
Ion Ratio Lower Upper

42 100

72 56.0 31.8 47.6#

71 60.0 30.6 45.8#





#52

Tetrachloroethene

Concen: 20.238 ppbv

RT: 11.20

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 13 May 2022 19:42

Tot Ion:164 Resp: 1426051

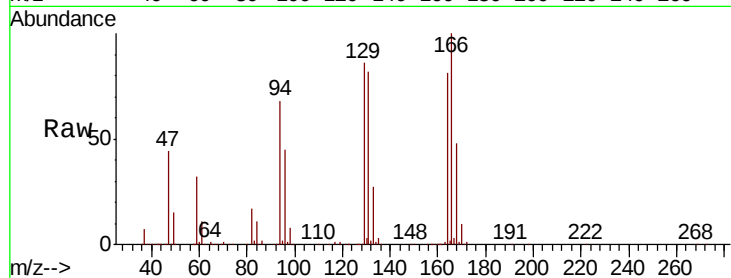
Ion Ratio Lower Upper

164 100

166 123.5 102.5 153.7

129 105.7 90.1 135.1

131 101.4 84.8 127.2

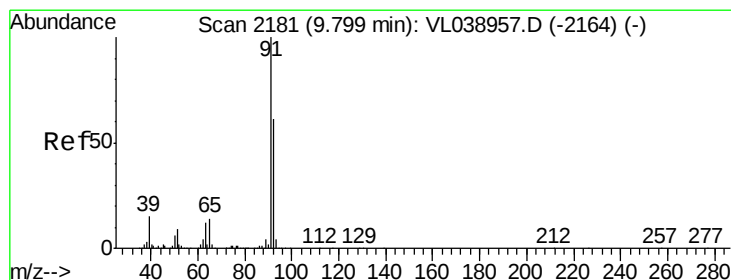
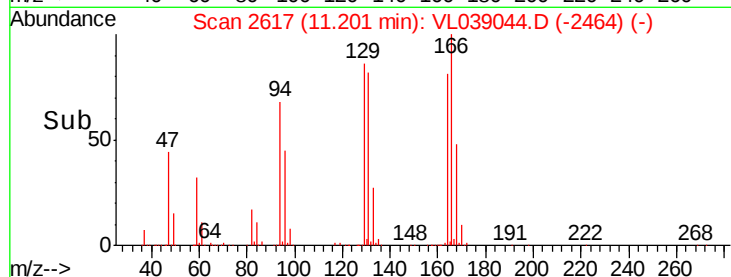
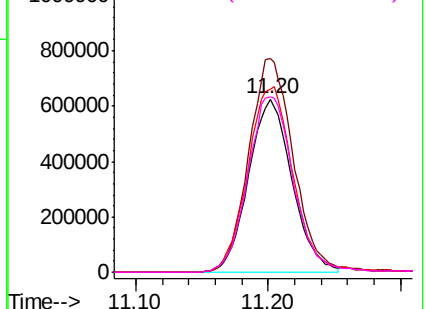


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.117 ppbv

RT: 9.79 min Scan# 2177

Delta R.T. -0.01 min

Lab File: VL039044.D

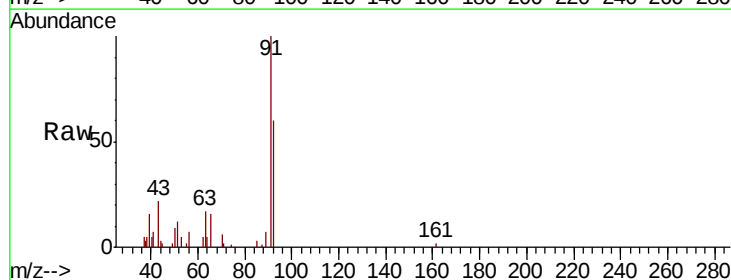
Acq: 13 May 2022 19:42

Tgt Ion: 91 Resp: 25930

Ion Ratio Lower Upper

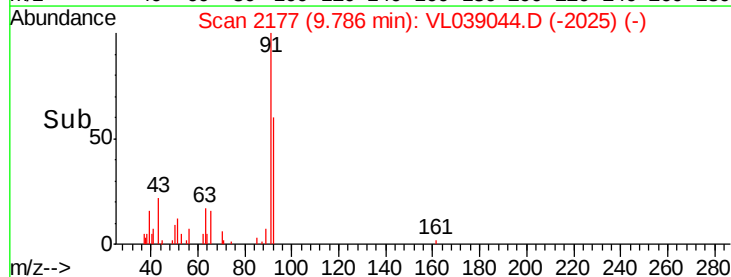
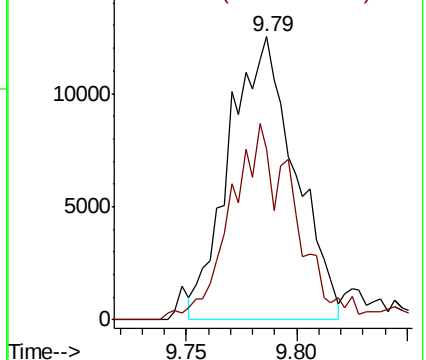
91 100

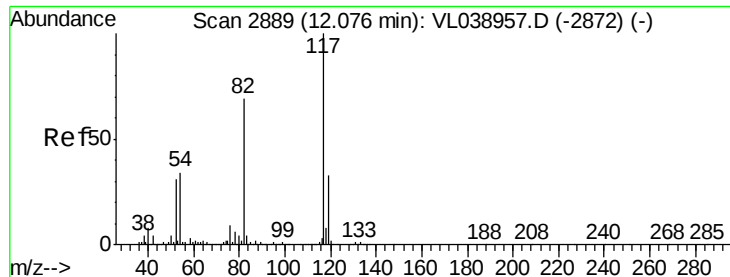
92 69.0 48.2 72.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

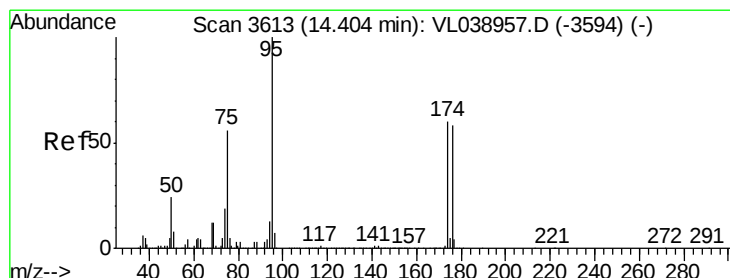
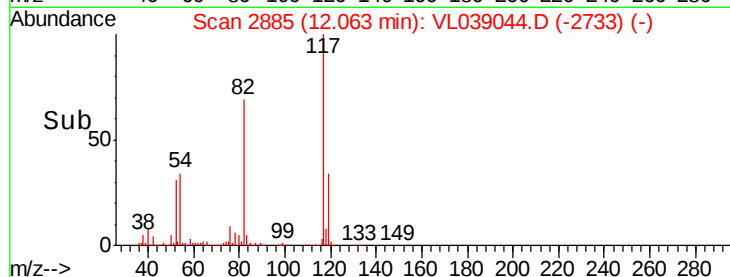
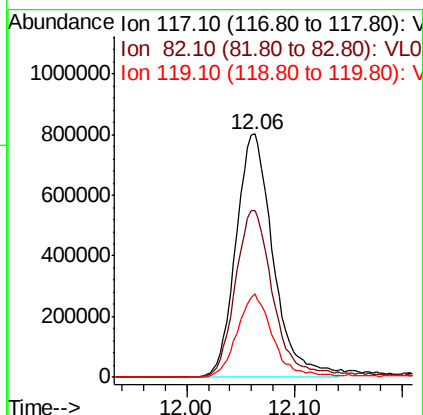
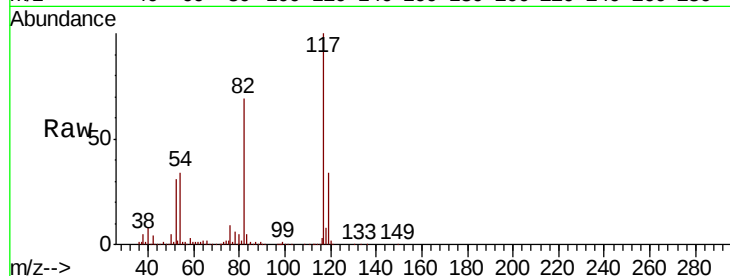




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.06 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 13 May 2022 19:42

Tot Ion: 117 Resp: 1925572

Ion	Ratio	Lower	Upper
117	100		
82	72.0	57.0	85.6
119	33.3	27.2	40.8



#68
1-Bromo-4-Fluorobenzene
Concen: 9.487 ppbv
RT: 14.39 min Scan# 3608
Delta R.T.: -0.02 min
Lab File: VL039044.D
Acq: 13 May 2022 19:42

Tgt Ion: 95 Resp: 1446725

Ion	Ratio	Lower	Upper
95	100		
174	66.9	50.8	76.2
175	4.5	3.8	5.6

