

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL090722\
 Data File : VL039621.D
 Acq On : 7 Sep 2022 16:14
 Operator : SY/AP
 Sample : NN4507-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1

Quant Time: Sep 08 05:20:19 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081722AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Aug 26 06:05:16 2022
 Response via : Initial Calibration

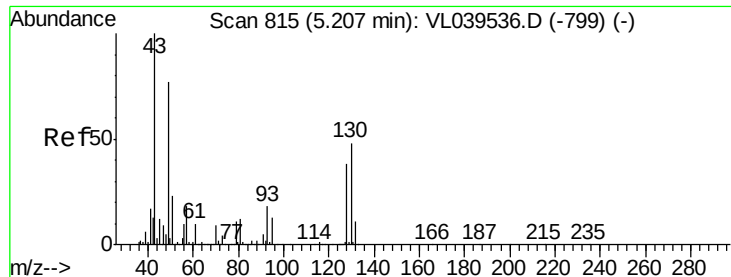
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.21	49	903192	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	6.66	114	2353474	10.00	ppbv	0.00
55) Chlorobenzene-d5	11.47	117	2149565	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	13.78	95	1587852	9.79	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.90%

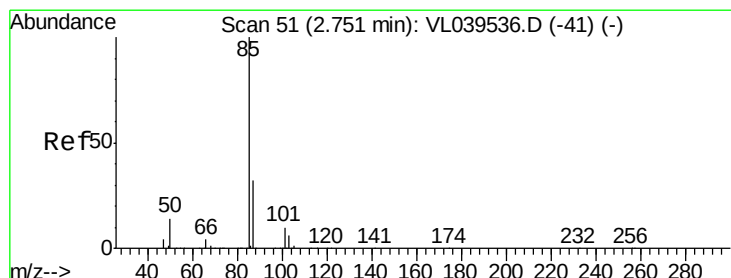
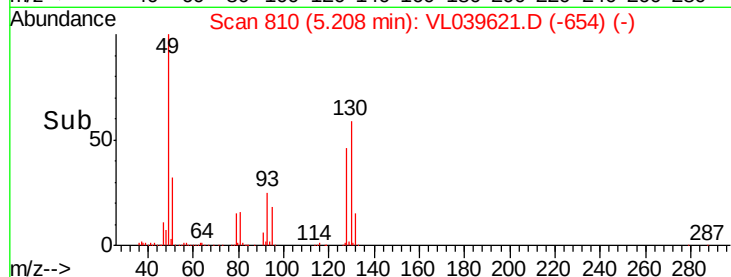
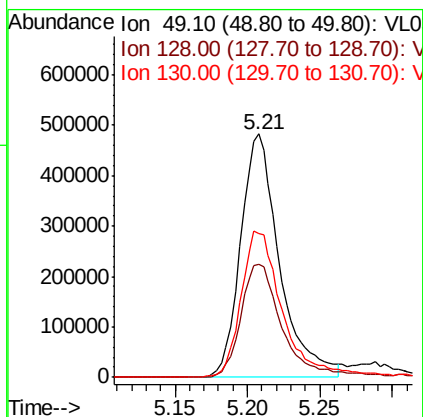
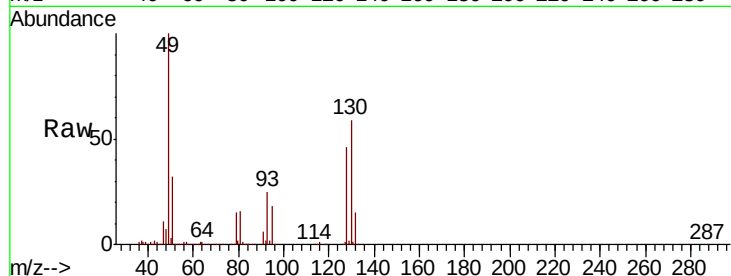
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	2.75	85	37969	0.316	ppbv	92
3) Chlorodifluoromethane	2.70	51	445121	4.136	ppbv	96
4) Chloromethane	2.83	50	25456	0.393	ppbv #	86
9) Propene	2.73	41	36202	0.735	ppbv	86
11) Trichlorofluoromethane	3.59	101	245193	1.859	ppbv	95
12) 1,1,2-Trichlorotrifluoroet	4.08	101	3420	0.035	ppbv #	1
13) Ethanol	3.26	45	399208	112.813	ppbv	71
15) Acetone	3.49	43	1868188	18.465	ppbv #	87
16) 1,3-Butadiene	2.99	39	12141	0.230	ppbv #	36
17) tert-Butyl alcohol	3.90	59	12295	0.142	ppbv #	71
19) Isopropyl Alcohol	3.60	45	101273	2.058	ppbv #	1
20) Methylene Chloride	3.95	84	69020	1.679	ppbv	98
21) Allyl Chloride	3.92	41	47068	0.715	ppbv	87
23) Vinyl Acetate	4.63	43	31058	0.646	ppbv #	79
25) Ethyl Acetate	5.22	43	65686	0.303	ppbv #	88
26) Hexane	5.23	57	71769	0.812	ppbv #	46
29) Chloroform	5.29	83	307005	2.222	ppbv	97
34) 2-Butanone	4.81	43	68931	0.589	ppbv	96
35) Carbon Tetrachloride	6.51	117	6721	0.053	ppbv #	71
36) Benzene	6.39	78	25292	0.141	ppbv	96
39) 1,2-Dichloropropane	6.66	63	562834	8.344	ppbv #	24
42) Bromodichloromethane	7.25	83	45491	0.336	ppbv	92
44) 2,2,4-Trimethylpentane	7.33	57	10941	0.036	ppbv #	42
48) Dibromochloromethane	9.72	129	4256	0.037	ppbv #	32
50) 4-Methyl-2-Pentanone	8.21	43	18373	0.101	ppbv #	51
53) Toluene	9.23	91	250921	1.250	ppbv	96
60) o-Xylene	13.07	91	7808	0.037	ppbv #	31
74) 1,2,4-Trimethylbenzene	16.11	105	11831	0.047	ppbv #	54
79) Naphthalene	21.38	128	11133	0.062	ppbv	99
80) Naphthalene,2-methyl-	24.38	142	4004	0.055	ppbv	90

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



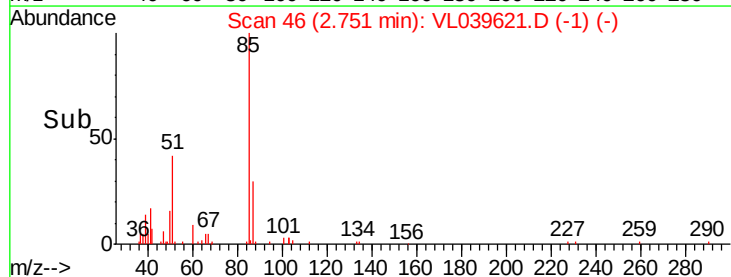
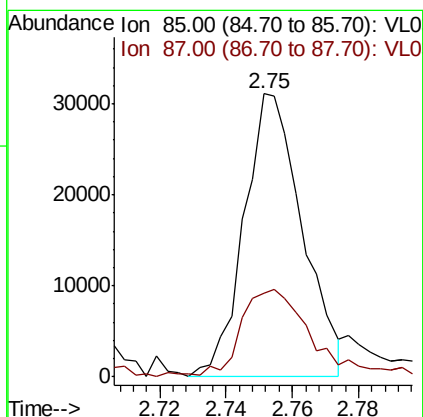
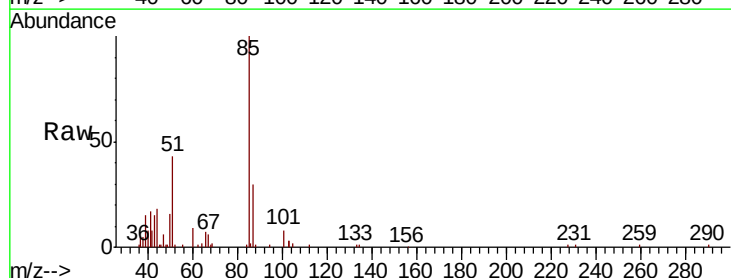
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.21
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 7 Sep 2022 16:14

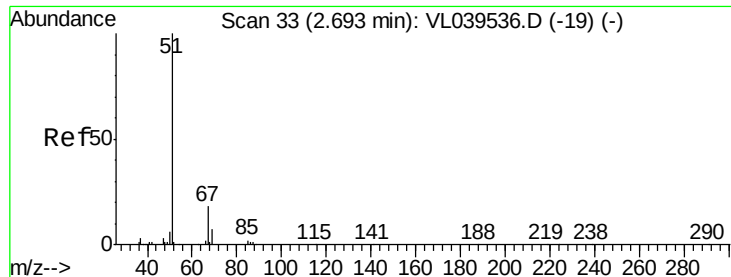
Tot Ion: 49 Resp: 903192
 Ion Ratio Lower Upper
 49 100
 128 50.7 26.7 80.0
 130 65.6 34.3 102.8



#2
 Dichlorodifluoromethane
 Concen: 0.316 ppbv
 RT: 2.75 min Scan# 46
 Delta R.T.: 0.00 min
 Lab File: VL039621.D
 Acq: 7 Sep 2022 16:14

Tgt Ion: 85 Resp: 37969
 Ion Ratio Lower Upper
 85 100
 87 28.7 26.7 40.1





#3

Chlorodifluoromethane

Concen: 4.136 ppbv

RT: 2.70 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

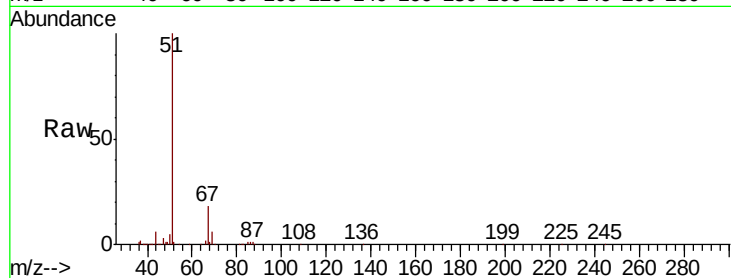
Acq: 7 Sep 2022 16:14

Tot Ion: 51 Resp: 445121

Ion Ratio Lower Upper

51 100

67 17.8 15.7 23.5



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

2.70

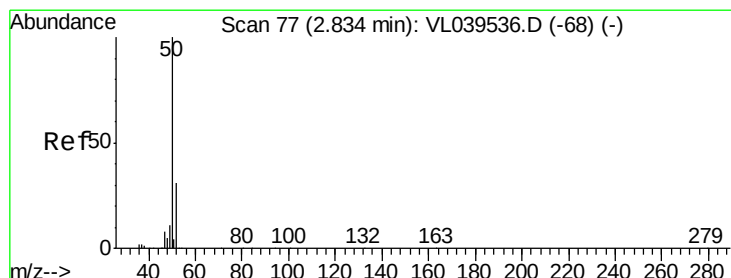
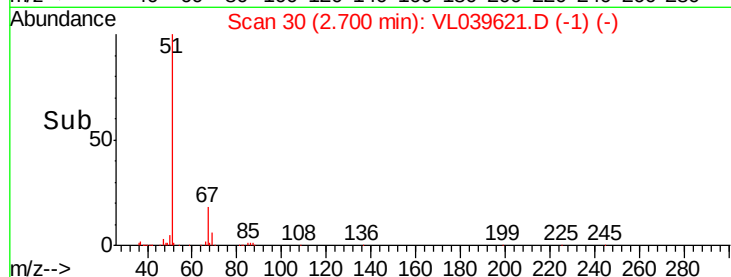
300000

200000

100000

0

Time-->



#4

Chloromethane

Concen: 0.393 ppbv

RT: 2.83 min Scan# 72

Delta R.T. 0.00 min

Lab File: VL039621.D

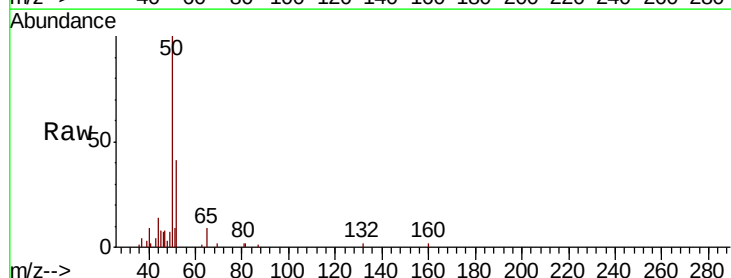
Acq: 7 Sep 2022 16:14

Tgt Ion: 50 Resp: 25456

Ion Ratio Lower Upper

50 100

52 41.2 26.5 39.7#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

2.83

20000

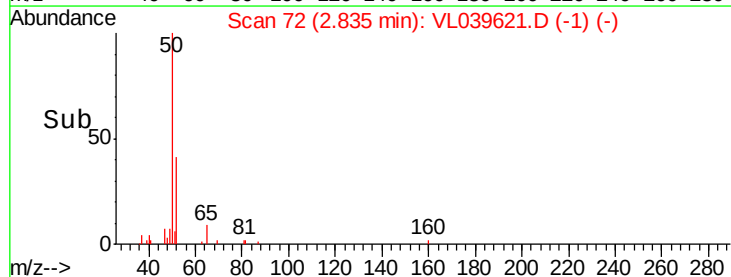
15000

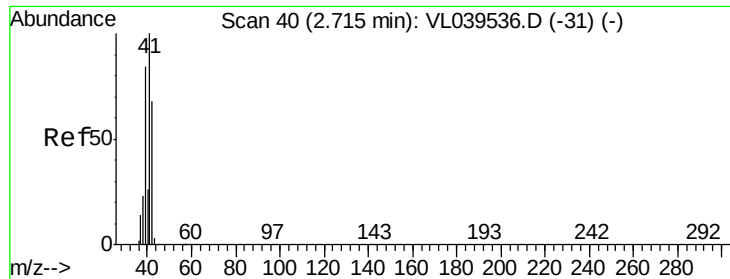
10000

5000

0

Time-->





#9

Propene

Concen: 0.735 ppbv

RT: 2.73 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

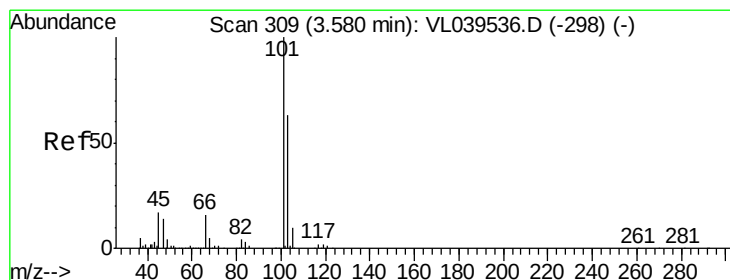
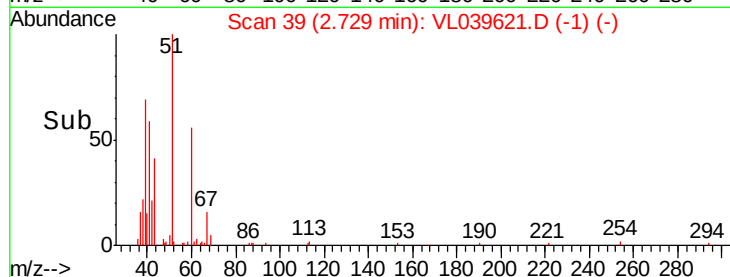
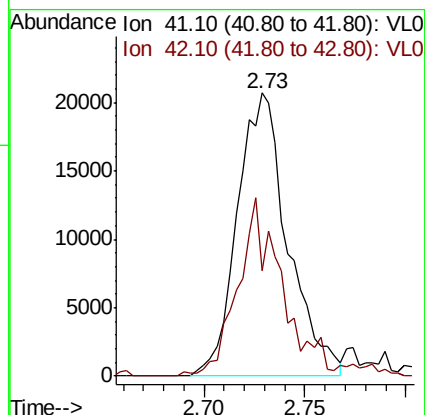
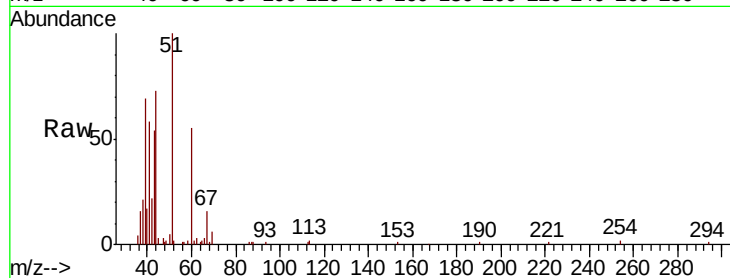
Acq: 7 Sep 2022 16:14

Tot Ion: 41 Resp: 36202

Ion Ratio Lower Upper

41 100

42 57.6 55.2 82.8



#11

Trichlorofluoromethane

Concen: 1.859 ppbv

RT: 3.59 min Scan# 306

Delta R.T. 0.01 min

Lab File: VL039621.D

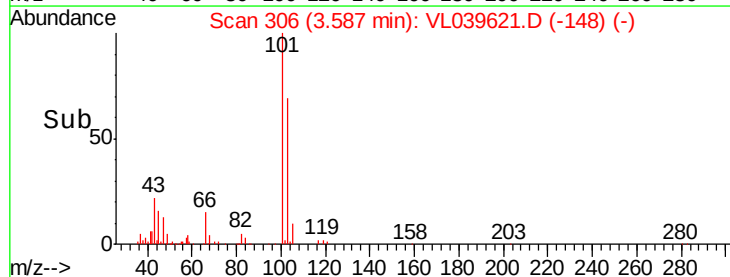
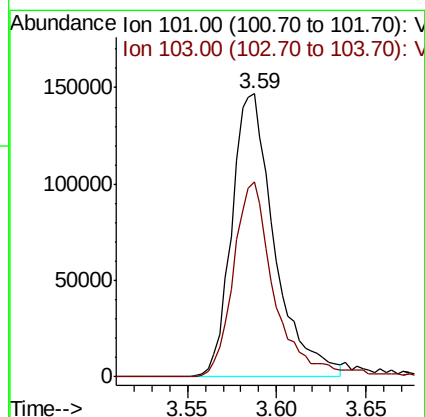
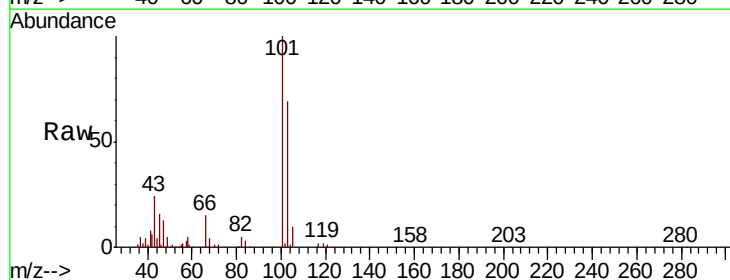
Acq: 7 Sep 2022 16:14

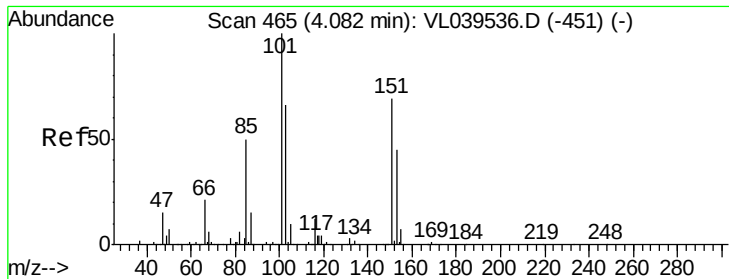
Tgt Ion: 101 Resp: 245193

Ion Ratio Lower Upper

101 100

103 69.1 51.8 77.8





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.035 ppbv

RT: 4.08 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

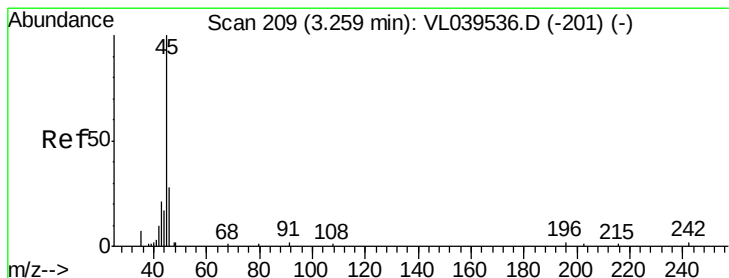
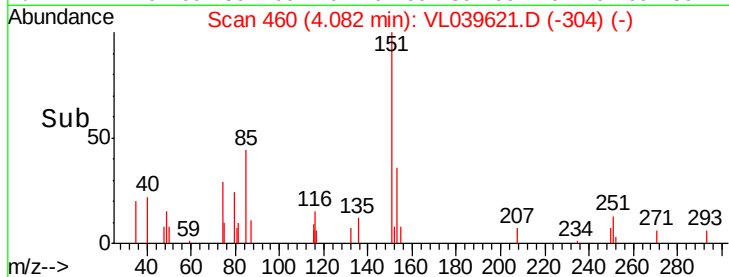
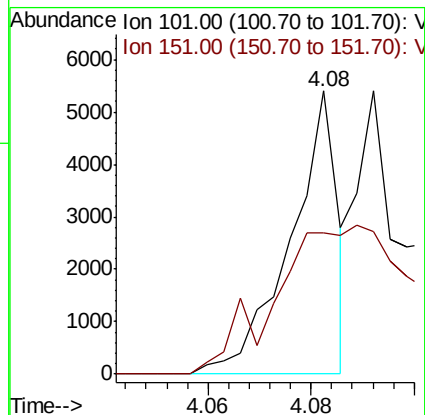
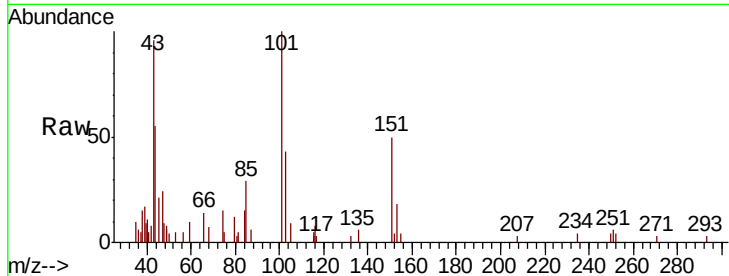
Acq: 7 Sep 2022 16:14

Tot Ion:101 Resp: 3420

Ion Ratio Lower Upper

101 100

151 182.6 58.9 88.3#



#13

Ethanol

Concen: 112.813 ppbv

RT: 3.26 min Scan# 204

Delta R.T. 0.00 min

Lab File: VL039621.D

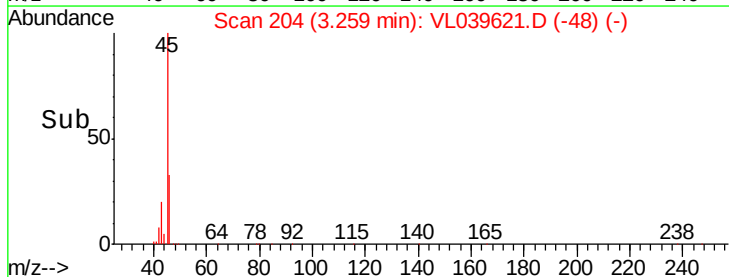
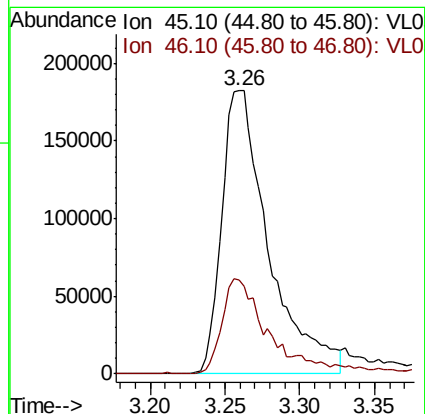
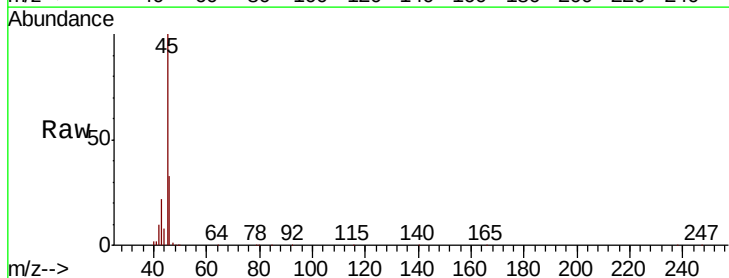
Acq: 7 Sep 2022 16:14

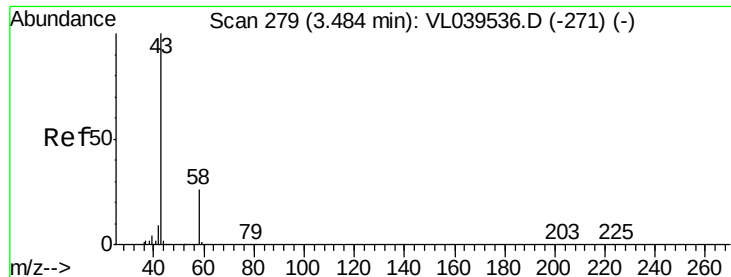
Tgt Ion: 45 Resp: 399208

Ion Ratio Lower Upper

45 100

46 35.4 22.8 91.2





#15

Acetone

Concen: 18.465 ppbv

RT: 3.49 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

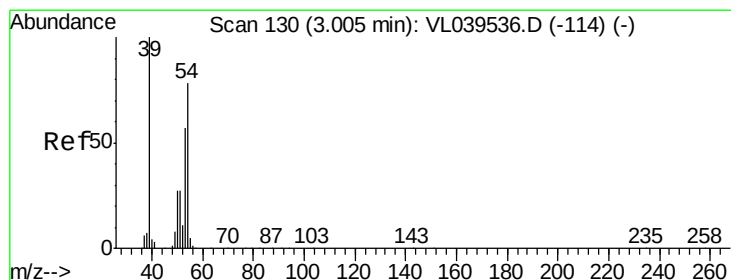
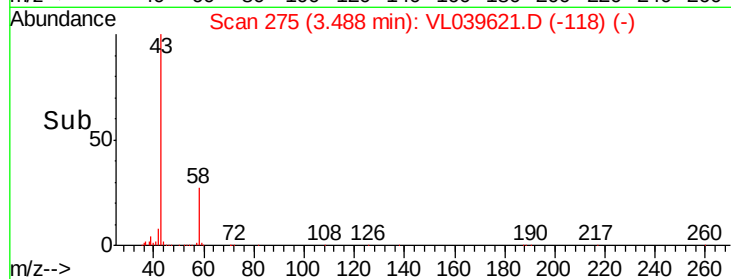
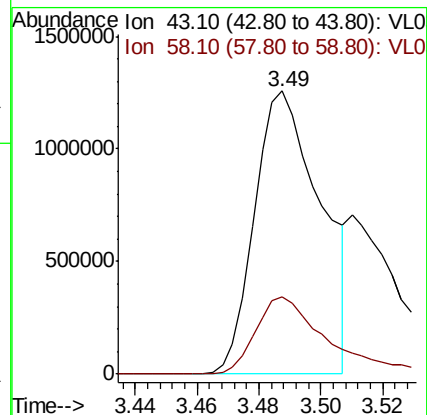
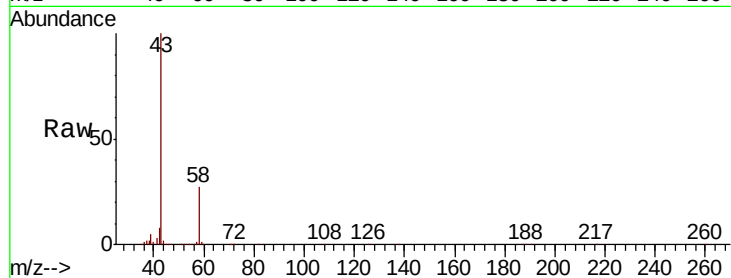
Acq: 7 Sep 2022 16:14

Tot Ion: 43 Resp: 1868188

Ion Ratio Lower Upper

43 100

58 32.9 21.0 31.6#



#16

1,3-Butadiene

Concen: 0.230 ppbv

RT: 2.99 min Scan# 120

Delta R.T. -0.02 min

Lab File: VL039621.D

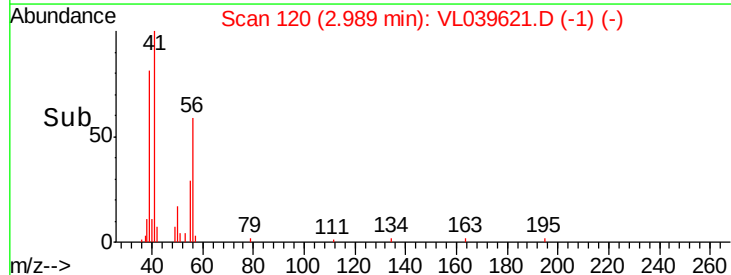
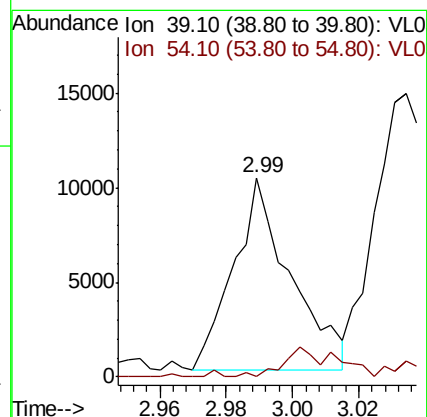
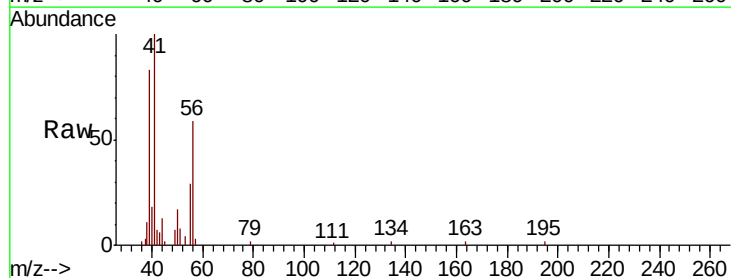
Acq: 7 Sep 2022 16:14

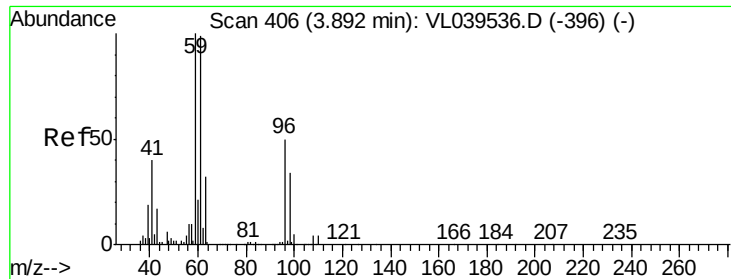
Tgt Ion: 39 Resp: 12141

Ion Ratio Lower Upper

39 100

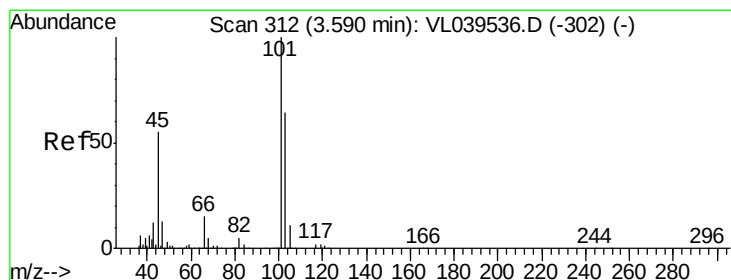
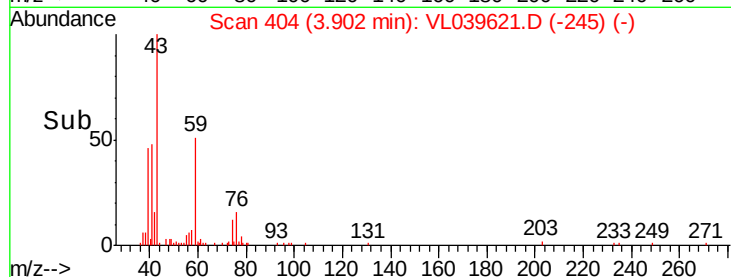
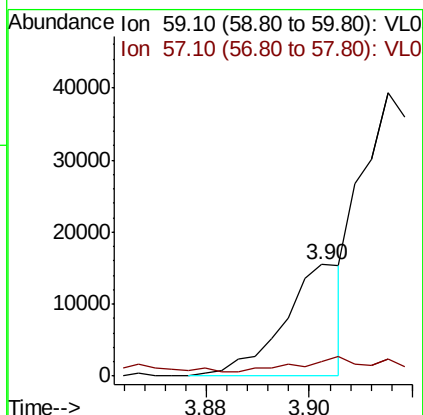
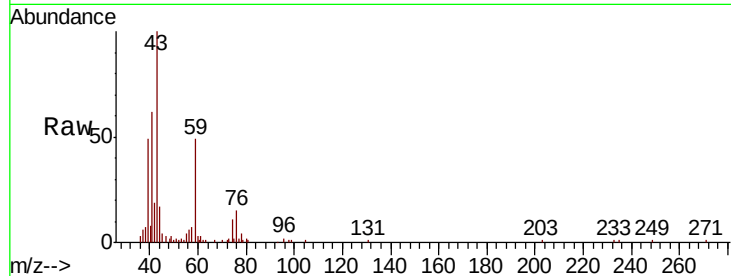
54 22.9 63.7 95.5#





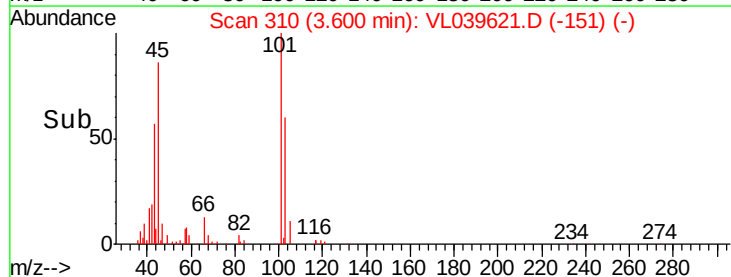
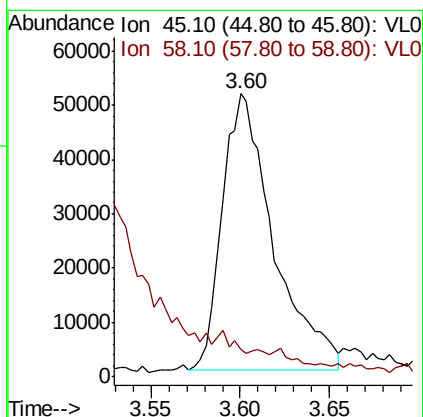
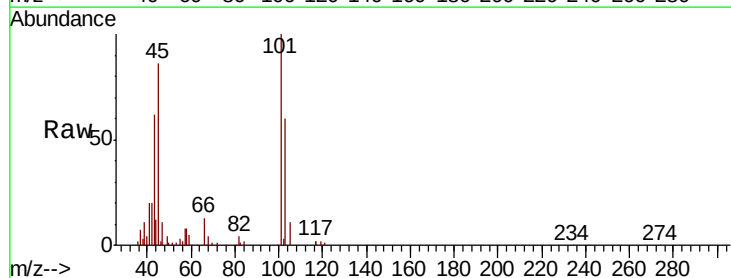
#17
 tert-Butyl alcohol
 Concen: 0.142 ppbv
 RT: 3.90
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 7 Sep 2022 16:14

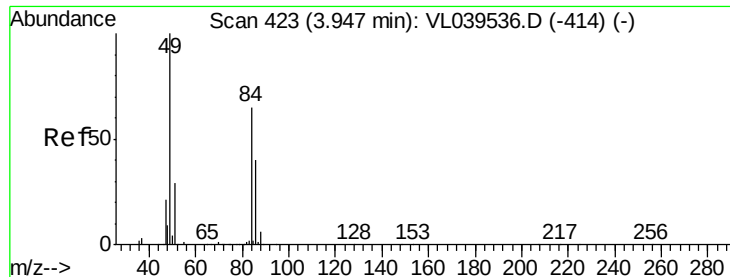
Tot Ion: 59 Resp: 12295
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.7 13.1#



#19
 Isopropyl Alcohol
 Concen: 2.058 ppbv
 RT: 3.60 min Scan# 310
 Delta R.T. 0.01 min
 Lab File: VL039621.D
 Acq: 7 Sep 2022 16:14

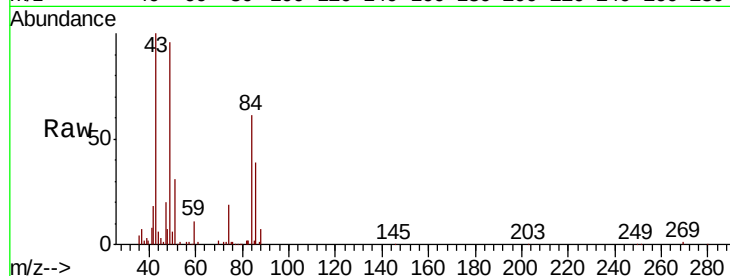
Tgt Ion: 45 Resp: 101273
 Ion Ratio Lower Upper
 45 100
 58 606.4 3.2 4.8#





#20
Methvlene Chloride
Concen: 1.679 ppbv
RT: 3.95
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 7 Sep 2022 16:14

Tot Ion:	84	Resp:	69020
Ion	Ratio	Lower	Upper
84	100		
49	153.4	123.1	184.7
51	48.0	34.4	51.6
86	64.0	51.1	76.7



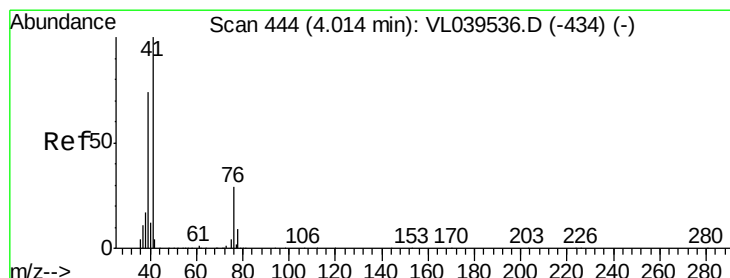
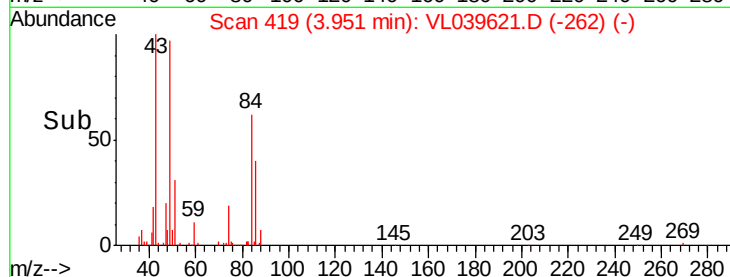
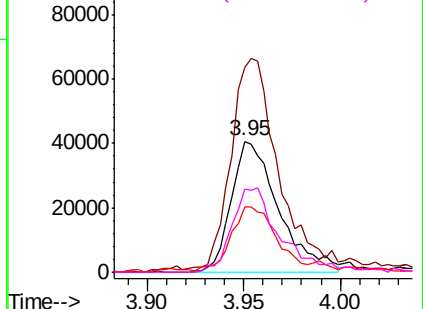
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

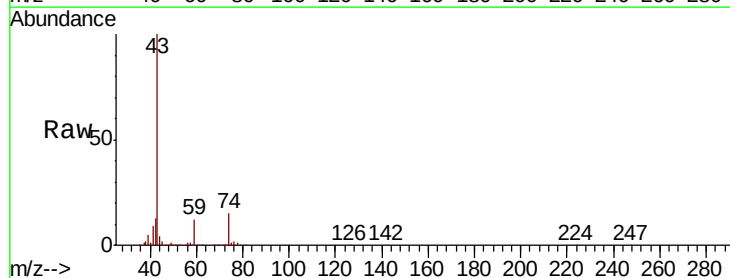
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#21
Allyl Chloride
Concen: 0.715 ppbv
RT: 3.92 min Scan# 408
Delta R.T. -0.10 min
Lab File: VL039621.D
Acq: 7 Sep 2022 16:14

Tgt Ion:	41	Resp:	47068
Ion	Ratio	Lower	Upper
41	100		
76	29.0	24.4	36.6
39	64.3	63.5	95.3

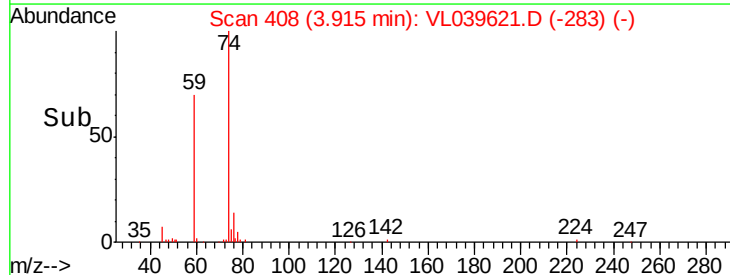
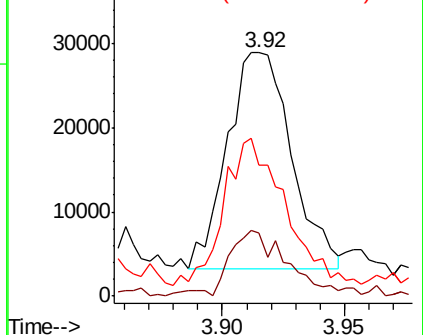


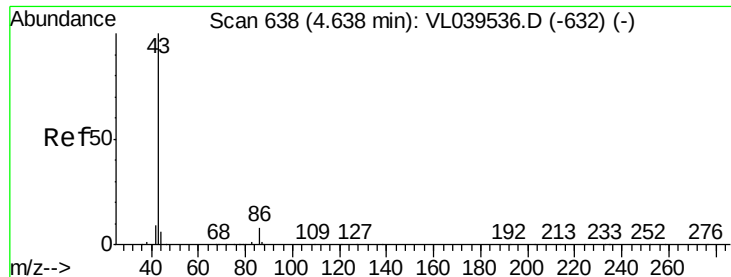
Abundance

Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.646 ppbv

RT: 4.63 Instrument: MSVOA_1

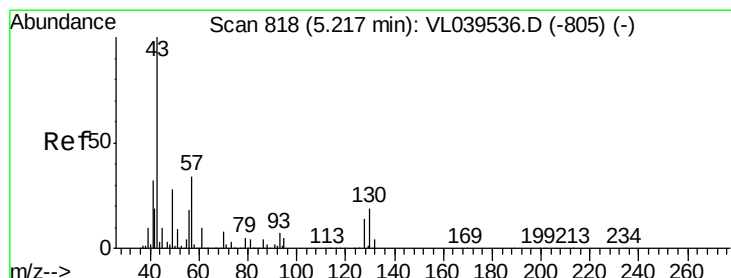
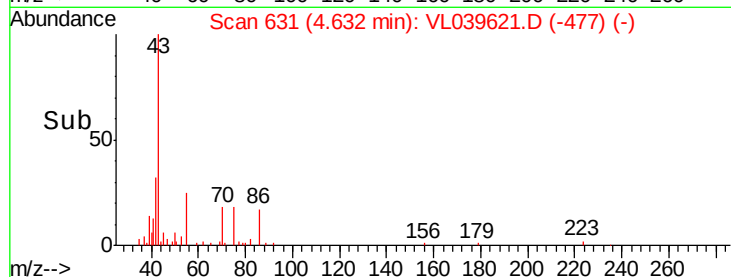
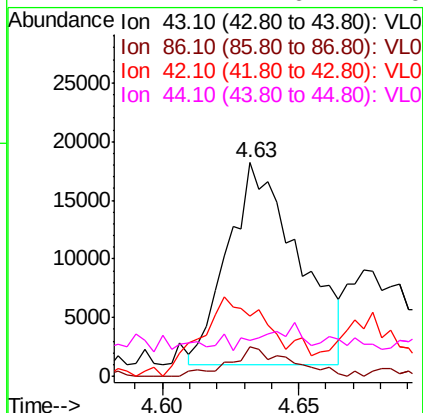
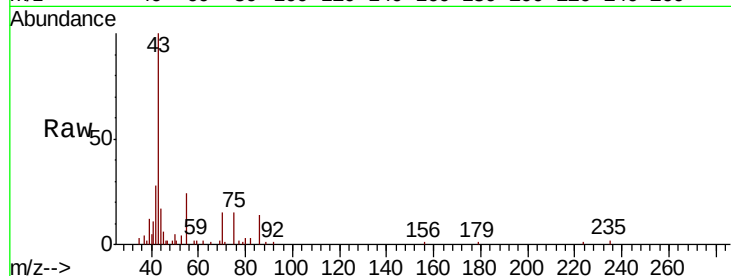
Delta R.T.

Lab File: ClientSampleId:

Acq: 7 Sep 2022 16:14

Tot Ion: 43 Resp: 31058

Ion	Ratio	Lower	Upper
43	100		
86	17.0	5.0	7.6#
42	16.6	7.7	11.5#
44	1.4	4.6	7.0#



#25

Ethyl Acetate

Concen: 0.303 ppbv

RT: 5.22 min Scan# 815

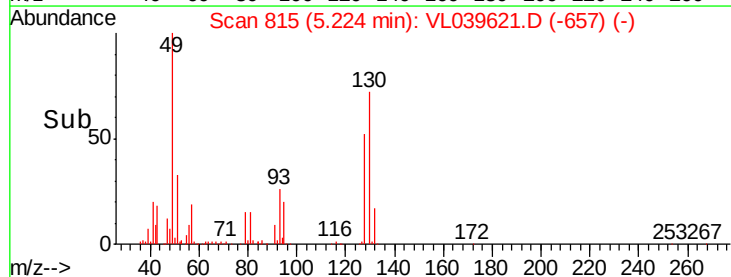
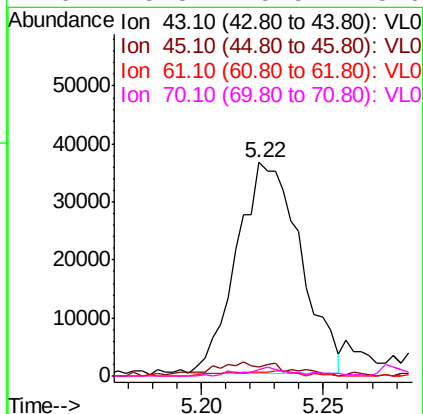
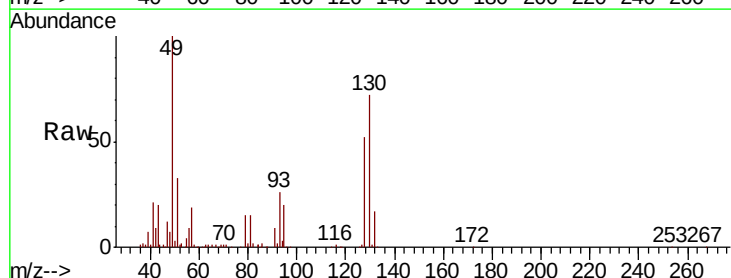
Delta R.T. 0.01 min

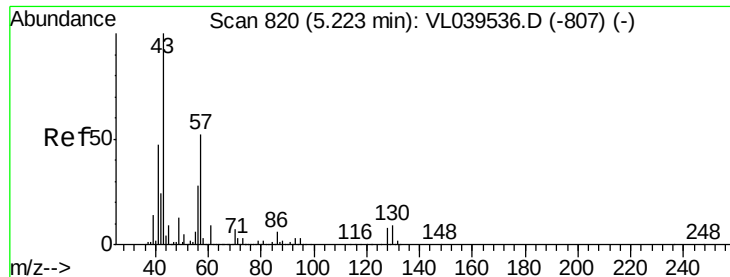
Lab File: VL039621.D

Acq: 7 Sep 2022 16:14

Tgt Ion: 43 Resp: 65686

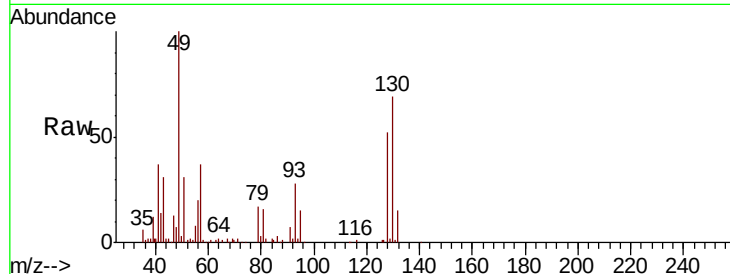
Ion	Ratio	Lower	Upper
43	100		
45	8.4	8.2	12.4
61	2.9	8.3	12.5#
70	3.3	5.9	8.9#



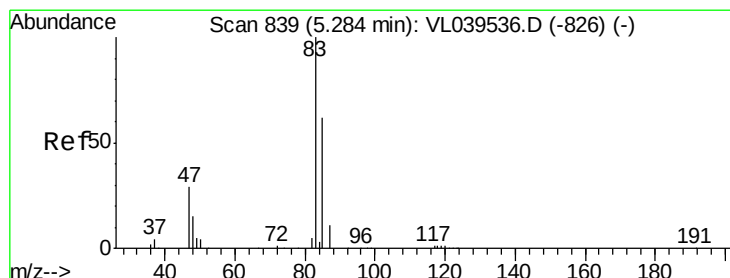
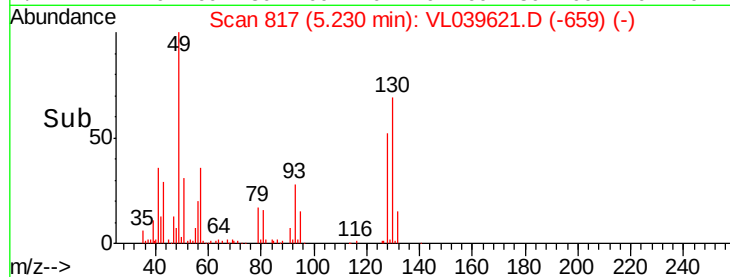
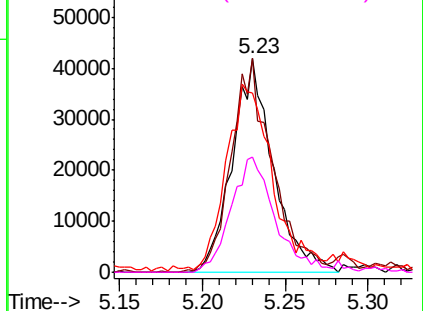


#26
Hexane
Concen: 0.812 ppbv
RT: 5.23
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 7 Sep 2022 16:14

Tot Ion:	57	Resp:	71769
Ion	Ratio	Lower	Upper
57	100		
41	106.3	76.9	115.3
43	100.6	191.0	286.6#
56	60.4	43.2	64.8

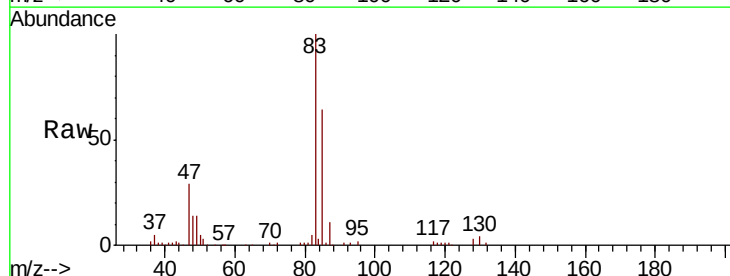


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

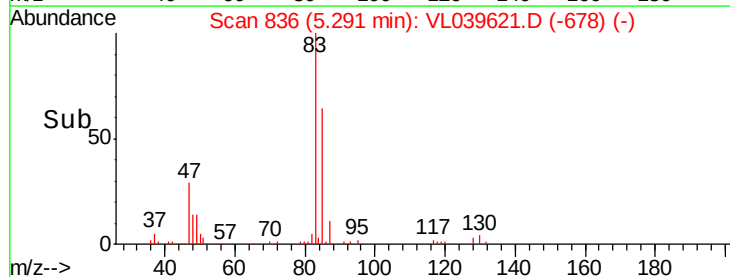
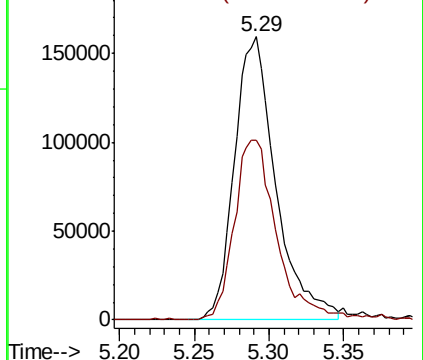


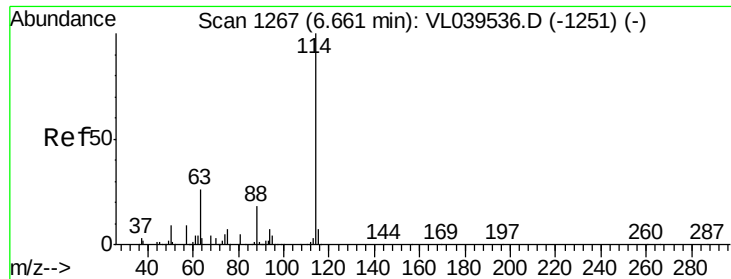
#29
Chloroform
Concen: 2.222 ppbv
RT: 5.29 min Scan# 836
Delta R.T. 0.01 min
Lab File: VL039621.D
Acq: 7 Sep 2022 16:14

Tgt Ion:	83	Resp:	307005
Ion	Ratio	Lower	Upper
83	100		
85	63.6	52.8	79.2



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

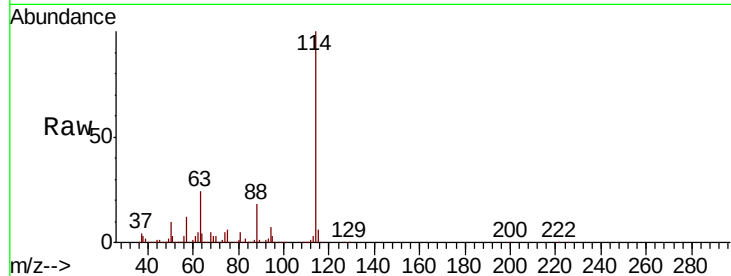




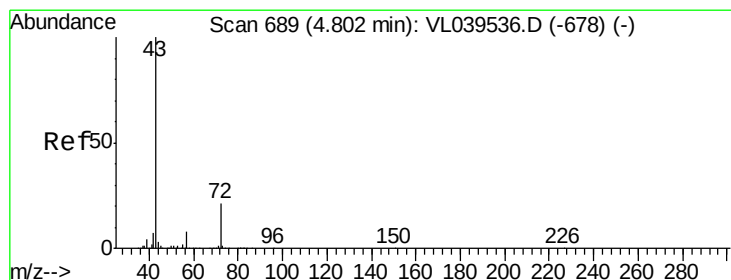
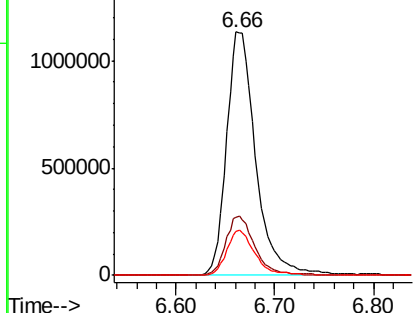
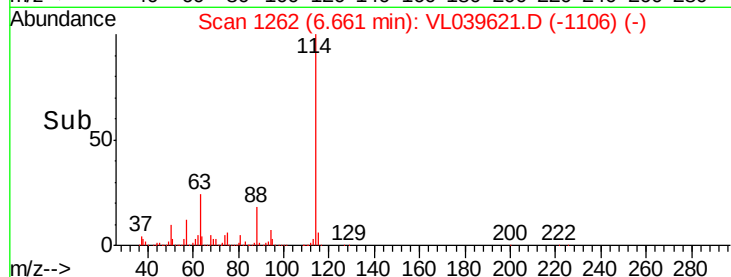
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 6.66
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 7 Sep 2022 16:14

Tot Ion:114 Resp: 2353474

Ion	Ratio	Lower	Upper
114	100		
63	24.6	20.2	30.4
88	17.9	14.5	21.7



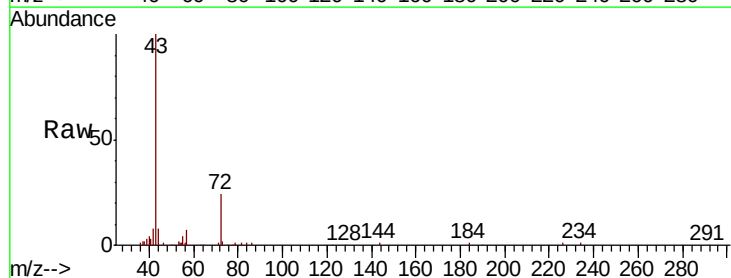
Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0



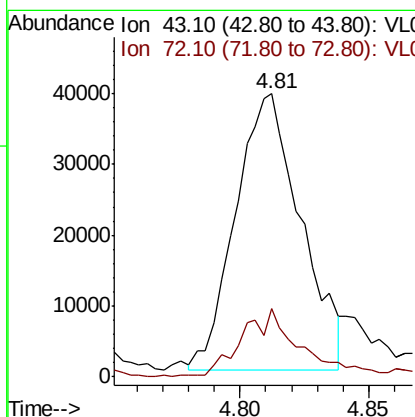
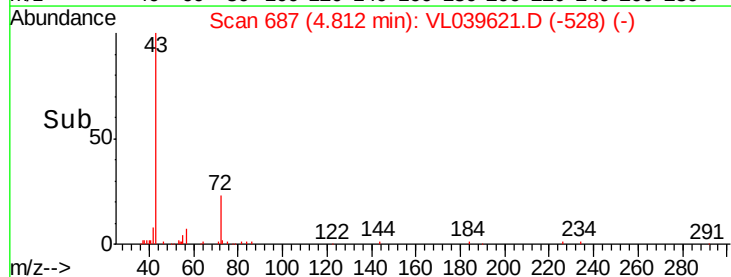
#34
 2-Butanone
 Concen: 0.589 ppbv
 RT: 4.81 min Scan# 687
 Delta R.T. 0.01 min
 Lab File: VL039621.D
 Acq: 7 Sep 2022 16:14

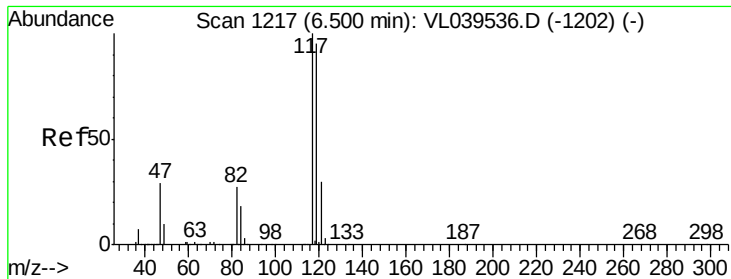
Tgt Ion: 43 Resp: 68931

Ion	Ratio	Lower	Upper
43	100		
72	24.4	17.9	26.9



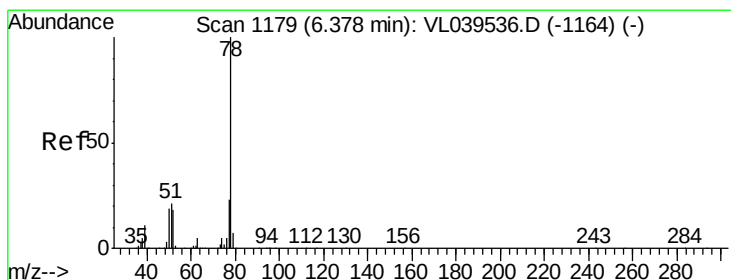
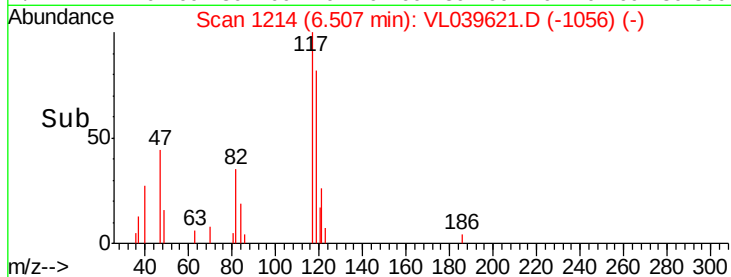
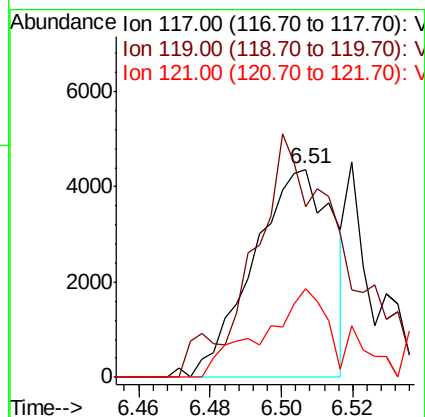
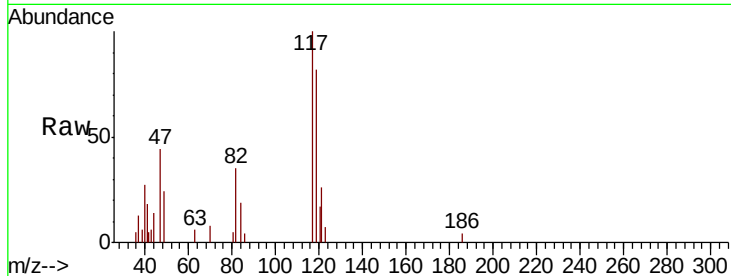
Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





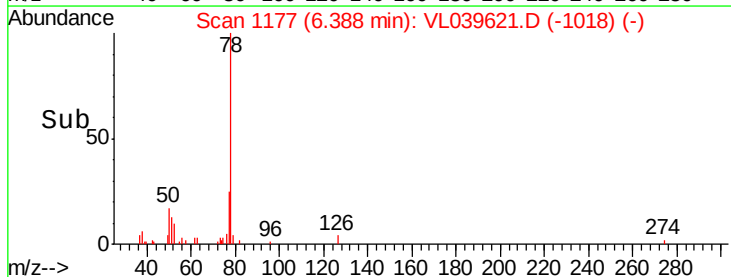
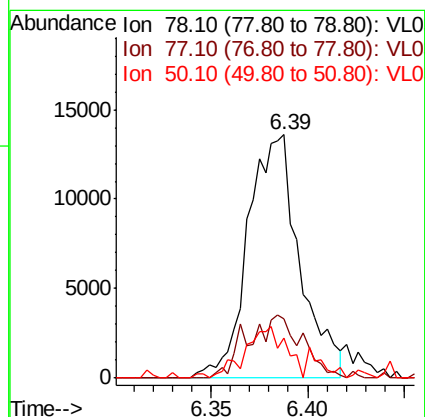
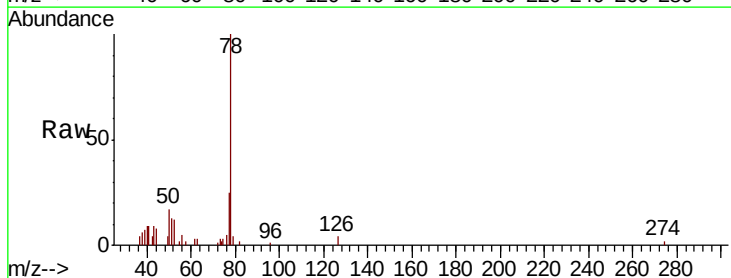
#35
 Carbon Tetrachloride
 Concen: 0.053 ppbv
 RT: 6.51
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 7 Sep 2022 16:14

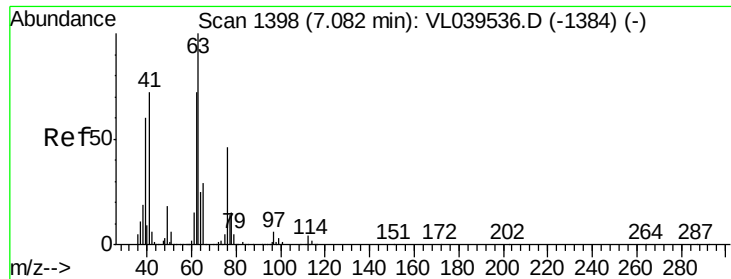
Tot Ion:117 Resp: 6721
 Ion Ratio Lower Upper
 117 100
 119 64.6 75.4 113.2#
 121 42.4 24.2 36.2#



#36
 Benzene
 Concen: 0.141 ppbv
 RT: 6.39 min Scan# 1177
 Delta R.T. 0.01 min
 Lab File: VL039621.D
 Acq: 7 Sep 2022 16:14

Tgt Ion: 78 Resp: 25292
 Ion Ratio Lower Upper
 78 100
 77 24.6 20.3 30.5
 50 16.5 15.5 23.3





#39

1,2-Dichloropropane

Concen: 8.344 ppbv

RT: 6.66 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 7 Sep 2022 16:14

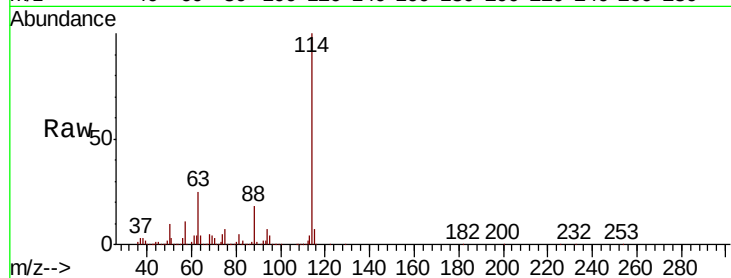
Tot Ion: 63 Resp: 562834

Ion Ratio Lower Upper

63 100

41 0.0 59.6 89.4#

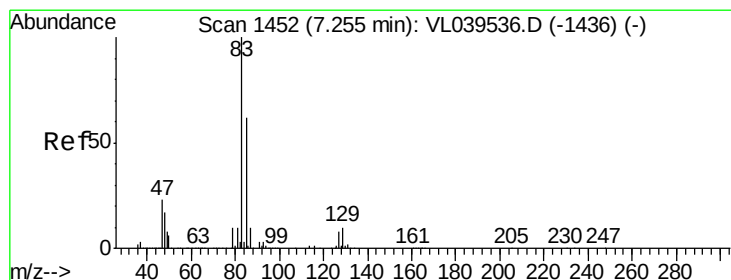
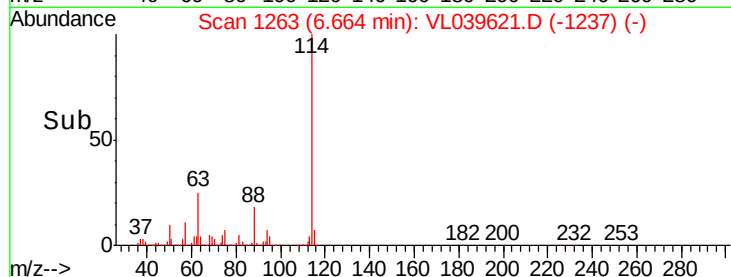
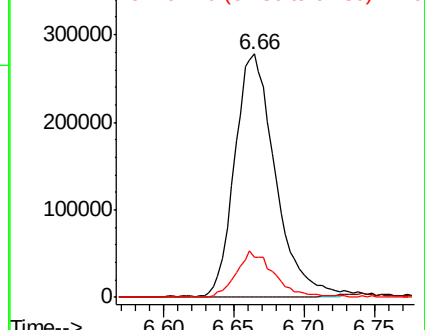
62 16.0 51.4 77.0#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#42

Bromodichloromethane

Concen: 0.336 ppbv

RT: 7.25 min Scan# 1446

Delta R.T. -0.00 min

Lab File: VL039621.D

Acq: 7 Sep 2022 16:14

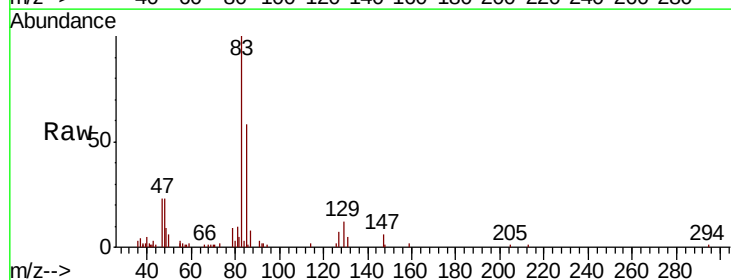
Tgt Ion: 83 Resp: 45491

Ion Ratio Lower Upper

83 100

85 56.3 50.7 76.1

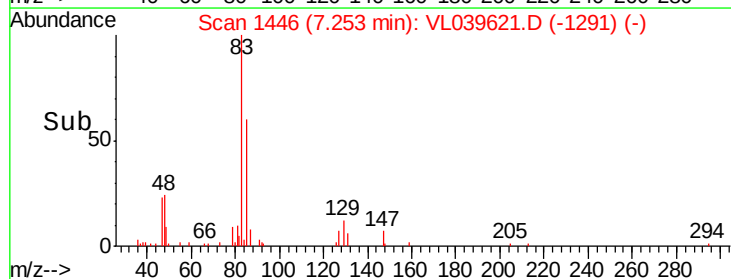
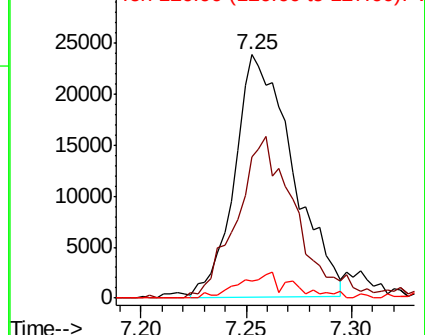
127 7.0 6.6 9.8

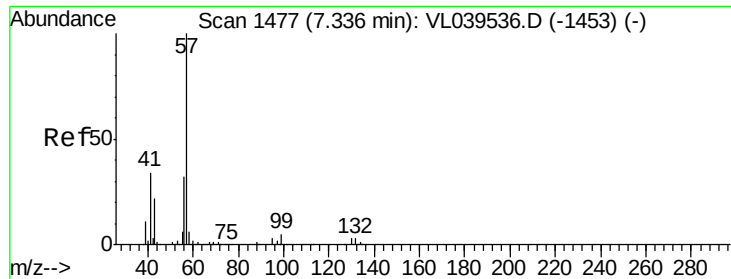


Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

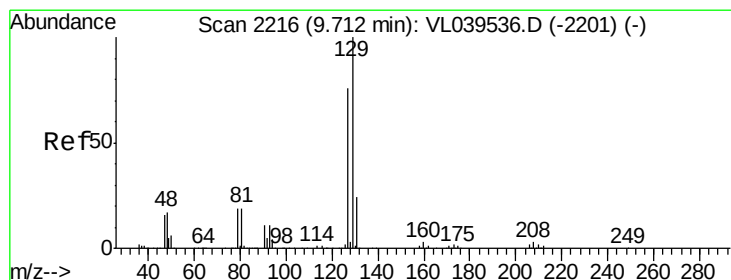
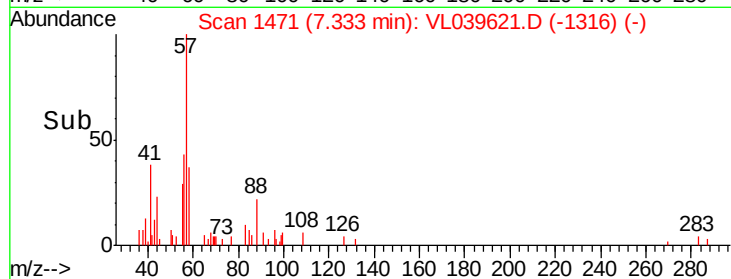
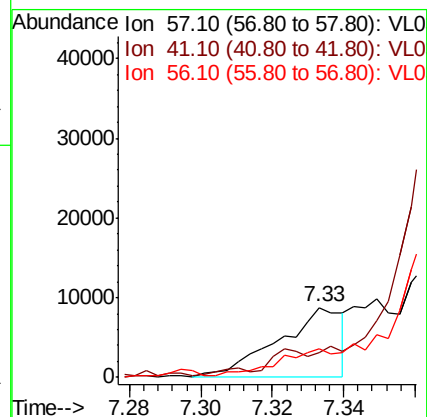
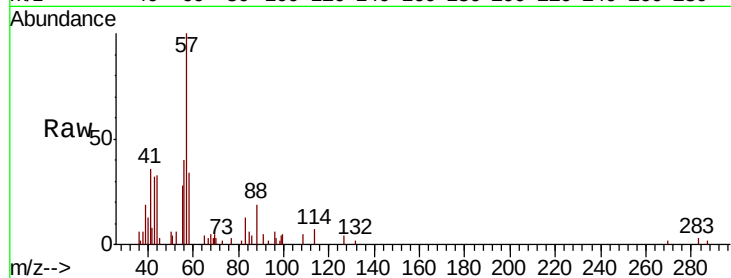
Ion 126.90 (126.60 to 127.60): V





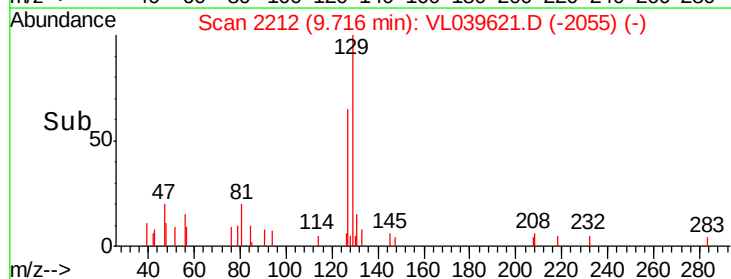
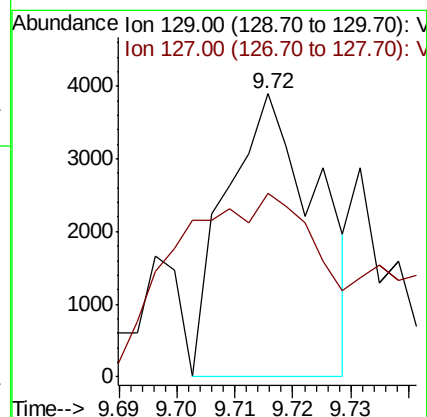
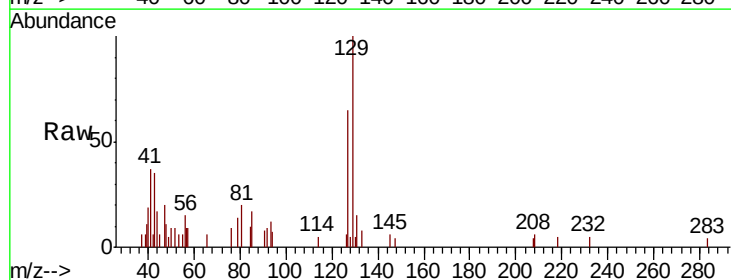
#44
 2,2,4-Trimethylpentane
 Concen: 0.036 ppbv
 RT: 7.33
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 7 Sep 2022 16:14

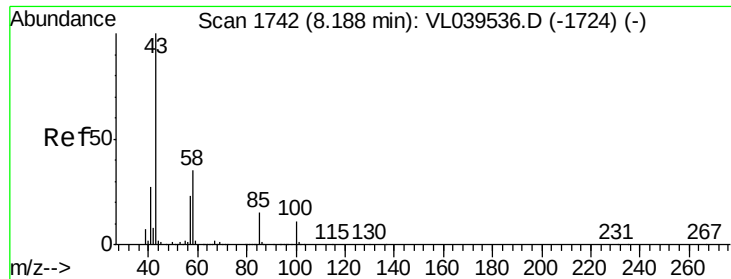
Tot Ion	57	Resp	10941
Ion Ratio	Lower	Upper	
57	100		
41	0.0	27.4	41.2#
56	0.0	24.5	36.7#



#48
 Dibromochloromethane
 Concen: 0.037 ppbv
 RT: 9.72 min Scan# 2212
 Delta R.T. 0.00 min
 Lab File: VL039621.D
 Acq: 7 Sep 2022 16:14

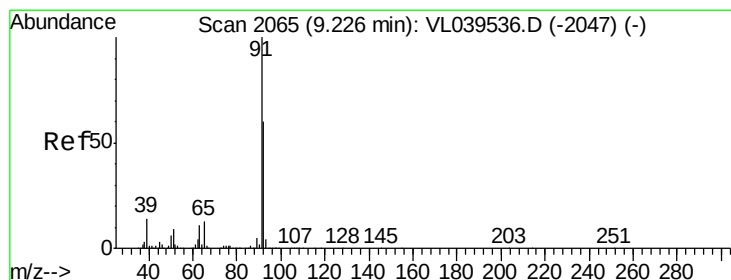
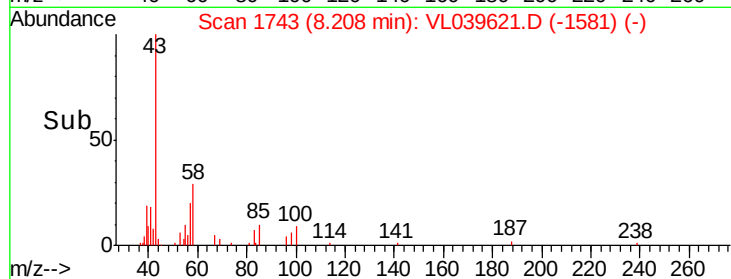
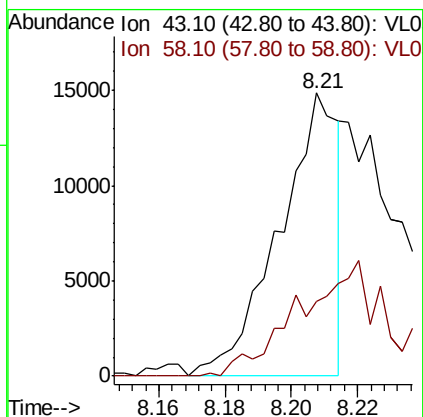
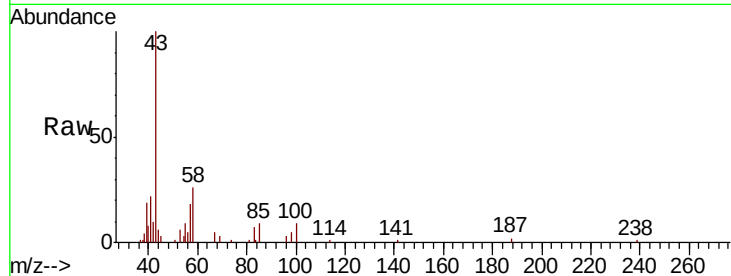
Tgt Ion	129	Resp	4256
Ion Ratio	Lower	Upper	
129	100		
127	138.1	39.3	117.9#





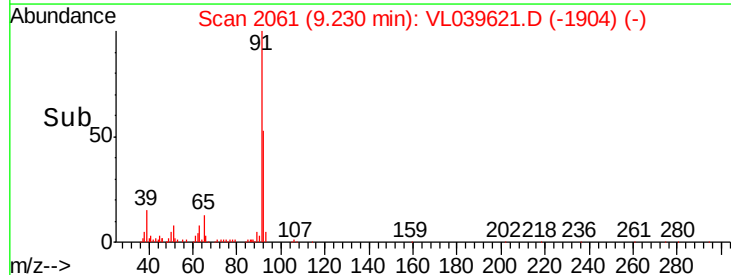
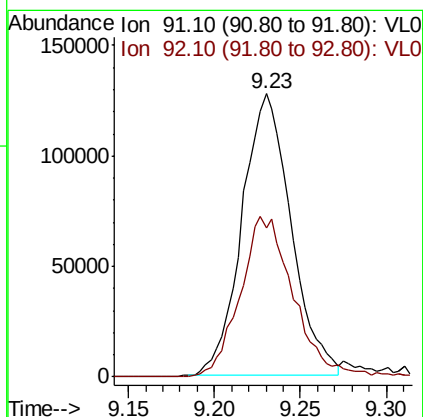
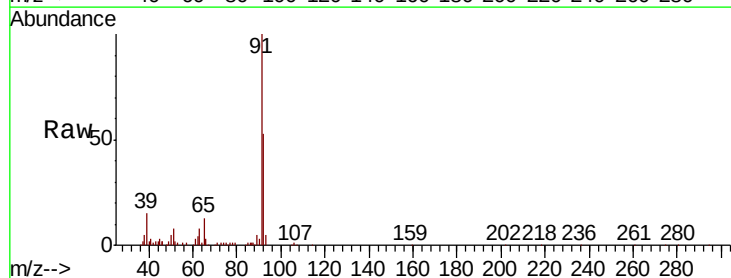
#50
4-Methyl-2-Pentanone
Concen: 0.101 ppbv
RT: 8.21
Delta R.T. MSVOA.L
Lab File: ClientSampleId :
Acq: 7 Sep 2022 16:14

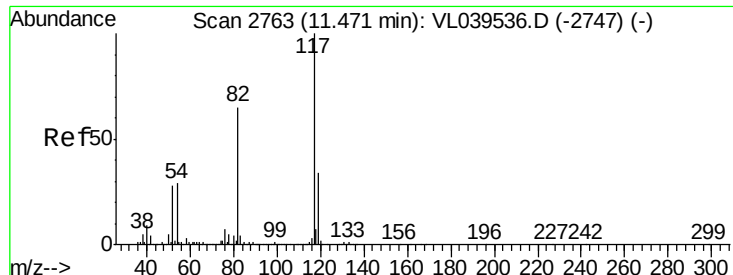
Tot Ion: 43 Resp: 18373
Ion Ratio Lower Upper
43 100
58 64.6 28.8 43.2#



#53
Toluene
Concen: 1.250 ppbv
RT: 9.23 min Scan# 2061
Delta R.T. 0.00 min
Lab File: VL039621.D
Acq: 7 Sep 2022 16:14

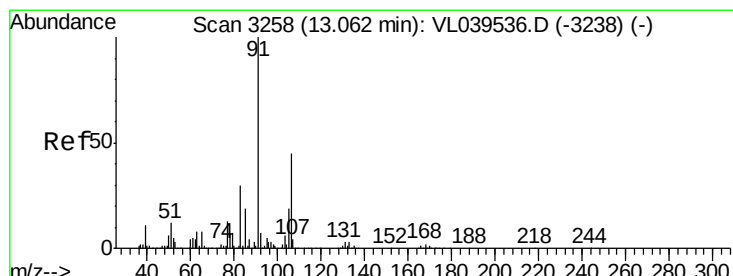
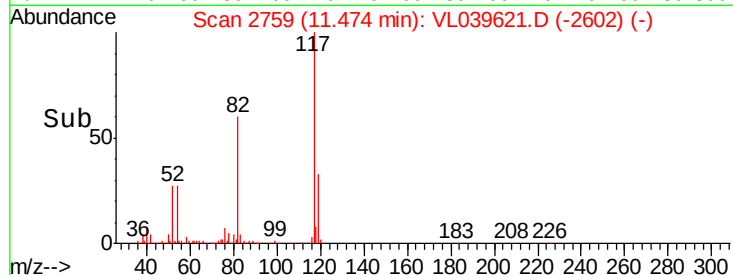
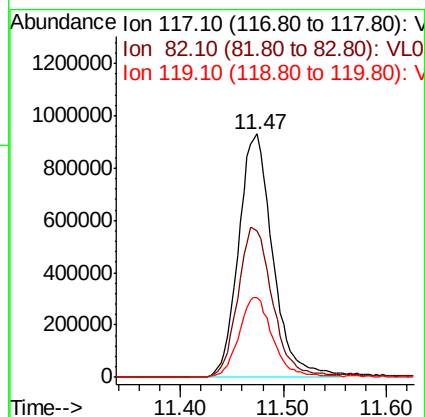
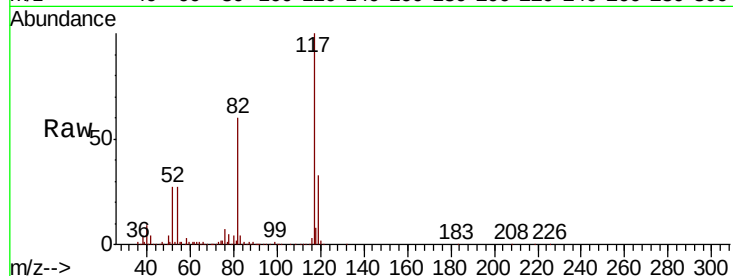
Tgt Ion: 91 Resp: 250921
Ion Ratio Lower Upper
91 100
92 63.2 48.2 72.2





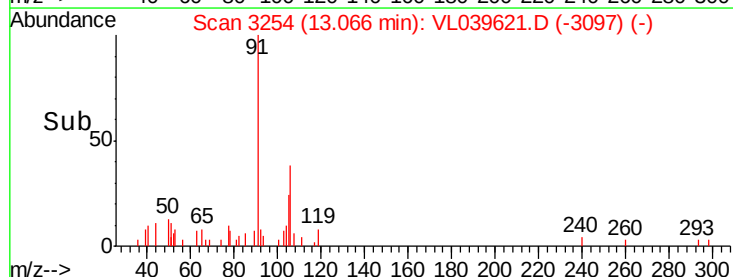
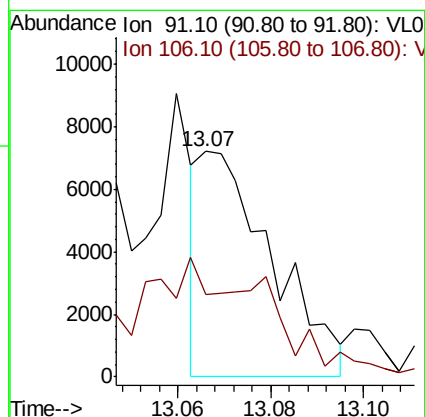
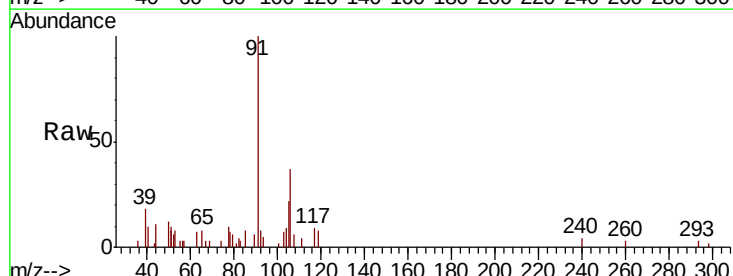
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.47 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 7 Sep 2022 16:14

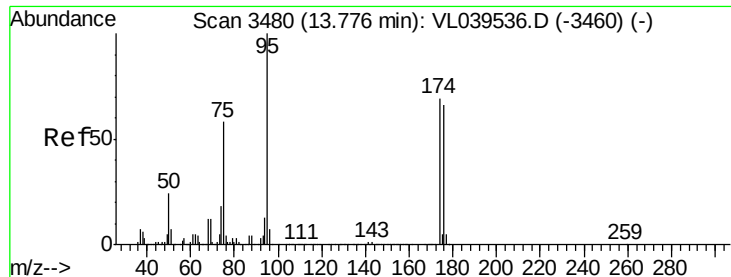
Tot Ion: 117 Resp: 2149565
Ion Ratio Lower Upper
117 100
82 63.9 50.8 76.2
119 33.2 24.1 36.1



#60
o-Xylene
Concen: 0.037 ppbv
RT: 13.07 min Scan# 3254
Delta R.T.: 0.00 min
Lab File: VL039621.D
Acq: 7 Sep 2022 16:14

Tgt Ion: 91 Resp: 7808
Ion Ratio Lower Upper
91 100
106 0.0 22.4 67.3#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.791 ppbv

RT: 13.78

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 7 Sep 2022 16:14

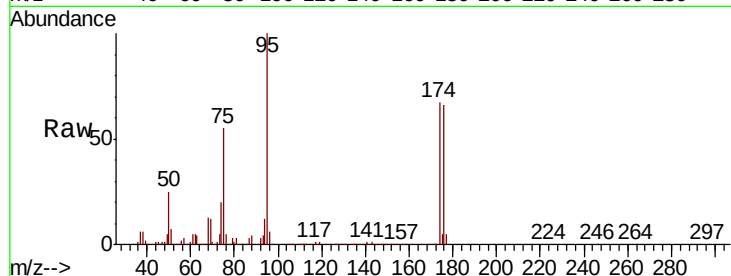
Tot Ion: 95 Resp: 1587852

Ion Ratio Lower Upper

95 100

174 73.6 55.9 83.9

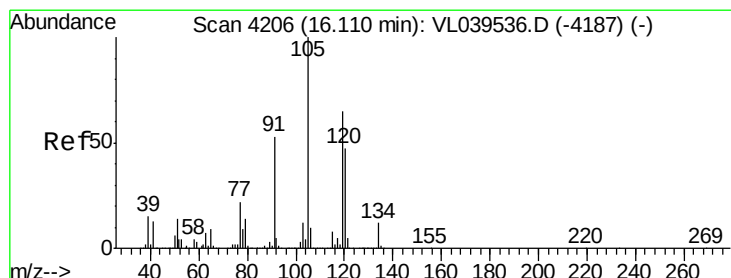
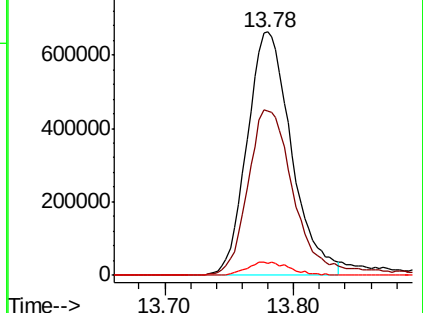
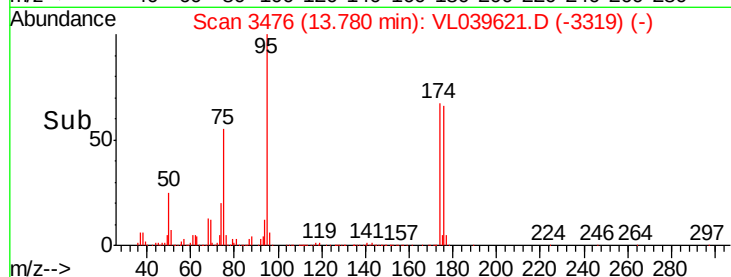
175 5.6 4.2 6.4



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#74

1,2,4-Trimethylbenzene

Concen: 0.047 ppbv

RT: 16.11 min Scan# 4202

Delta R.T. 0.00 min

Lab File: VL039621.D

Acq: 7 Sep 2022 16:14

Tgt Ion:105 Resp: 11831

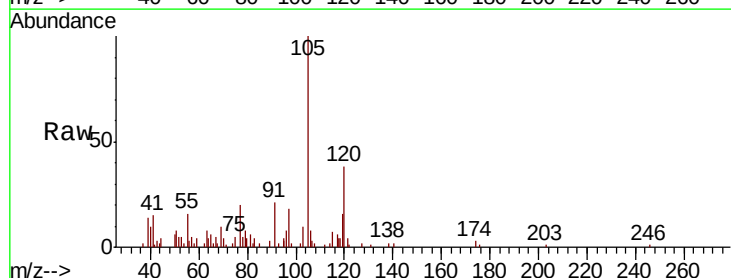
Ion Ratio Lower Upper

105 100

120 10.5 39.5 59.3#

91 17.0 39.2 58.8#

77 12.1 17.2 25.8#

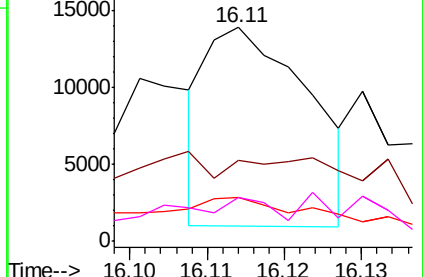
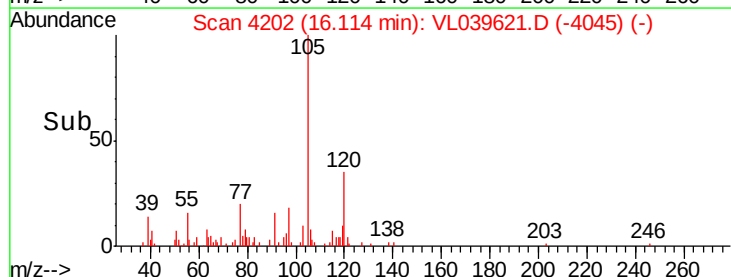


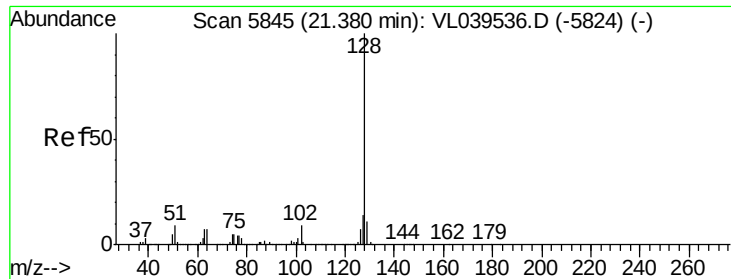
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

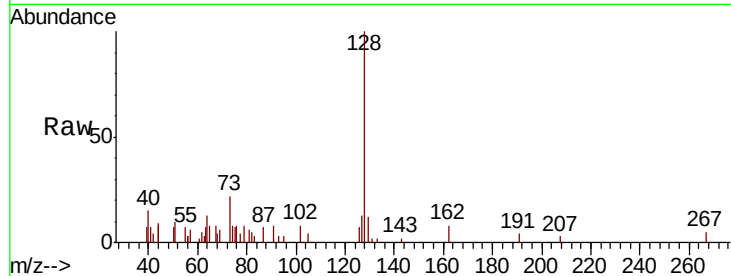
Ion 77.10 (76.80 to 77.80): VL0





#79
Naphthalene
Concen: 0.062 ppbv
RT: 21.38 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 7 Sep 2022 16:14

Tot Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.6	15.8
129	12.0	8.8	13.2

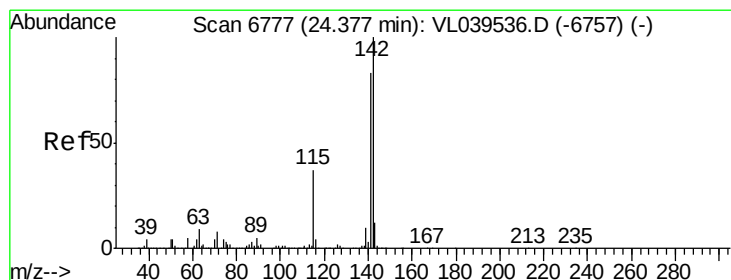
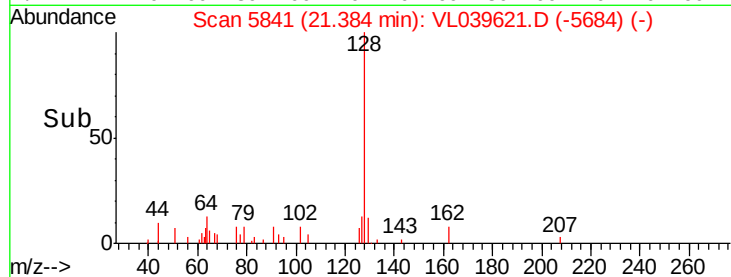
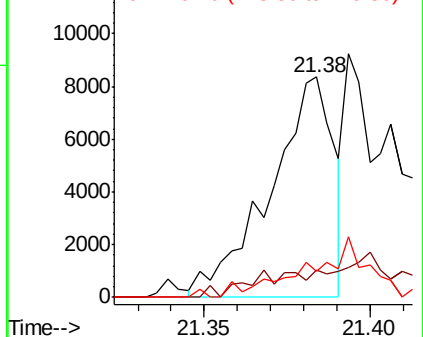


Abundance

Ion 128.10 (127.80 to 128.80): V

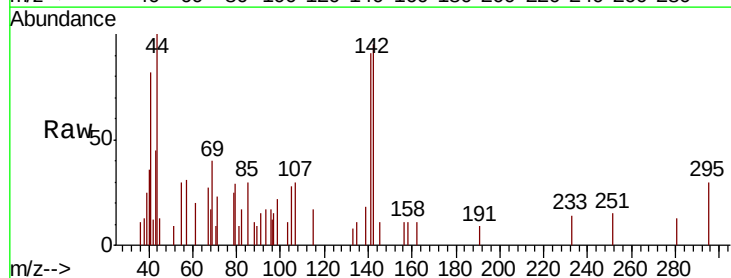
Ion 127.10 (126.80 to 127.80): V

Ion 129.10 (128.80 to 129.80): V



#80
Naphthalene, 2-methyl-
Concen: 0.055 ppbv
RT: 24.38 min Scan# 6774
Delta R.T. 0.01 min
Lab File: VL039621.D
Acq: 7 Sep 2022 16:14

Tgt Ion	Ratio	Lower	Upper
142	100		
141	94.8	68.9	103.3
115	44.5	30.0	45.0



Abundance

Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V

