

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL061522\
 Data File : VL039310.D
 Acq On : 16 Jun 2022 00:41
 Operator : SY/AP
 Sample : N3338-02DUP
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA L
 ClientSampleId :
 IA1DUP

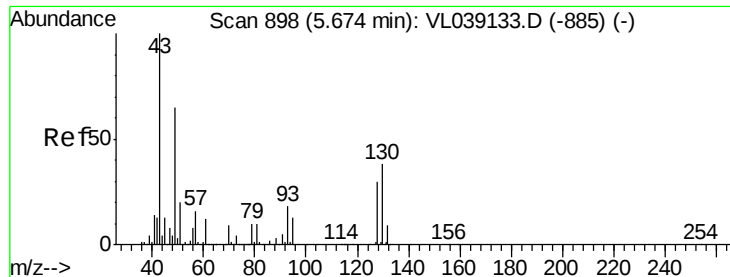
Quant Time: Jun 16 04:37:25 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL053122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jun 01 01:22:18 2022
 QLast Update : Wed Jun 01 01:22:18 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1202893	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	3309011	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.07	117	2934927	10.00	ppbv	-0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	2255669	9.30	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.00%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.04	85	55509	0.263 ppbv	92
3) Chlorodifluoromethane	2.98	51	102467	0.669 ppbv #	79
4) Chloromethane	3.13	50	47937	0.610 ppbv	93
9) Propene	3.01	41	72091	1.080 ppbv #	81
10) Heptane	8.11	43	22274	0.143 ppbv	92
11) Trichlorofluoromethane	3.94	101	41423	0.217 ppbv	94
12) 1,1,2-Trichlorotrifluoroet	4.48	101	8100	0.064 ppbv #	78
13) Ethanol	3.60	45	10702529	2940.616 ppbv #	100
15) Acetone	3.84	43	1583336	12.636 ppbv	93
16) 1,3-Butadiene	3.35	39	38304	0.569 ppbv #	26
17) tert-Butyl alcohol	4.29	59	14078	0.145 ppbv #	70
19) Isopropyl Alcohol	3.96	45	3947231	67.164 ppbv #	98
20) Methylene Chloride	4.33	84	938947	17.782 ppbv	92
21) Allyl Chloride	4.33	41	25804	0.305 ppbv #	26
23) Vinyl Acetate	5.05	43	104525	1.008 ppbv #	68
25) Ethyl Acetate	5.67	43	585150	2.072 ppbv #	79
26) Hexane	5.67	57	792608	6.386 ppbv #	41
29) Chloroform	5.74	83	555318	2.659 ppbv	94
30) Cyclohexane	7.11	84	4873	0.047 ppbv #	1
34) 2-Butanone	5.23	43	74324	0.413 ppbv #	88
36) Benzene	6.87	78	86456	0.322 ppbv	97
39) 1,2-Dichloropropane	7.16	63	794392	7.434 ppbv #	24
41) Tetrahydrofuran	5.67	42	288585	2.669 ppbv #	50
44) 2,2,4-Trimethylpentane	7.85	57	104384	0.222 ppbv #	80
52) Tetrachloroethene	11.21	164	3203	0.031 ppbv	97
53) Toluene	9.78	91	245288	0.793 ppbv	99
58) Ethyl Benzene	12.68	91	23765	0.059 ppbv	94
59) m/p-Xylene	12.95	91	107018	0.301 ppbv #	85
60) o-Xylene	13.67	91	18666	0.056 ppbv #	1
69) p-Isopropyltoluene	17.63	119	21464	0.041 ppbv #	54
74) 1,2,4-Trimethylbenzene	16.74	105	36081	0.091 ppbv #	58
75) 1,3-Dichlorobenzene	17.11	146	57098	0.256 ppbv	87
76) 1,4-Dichlorobenzene	17.11	146	57098	0.256 ppbv	87

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA1DUP

Acq: 16 Jun 2022 00:41

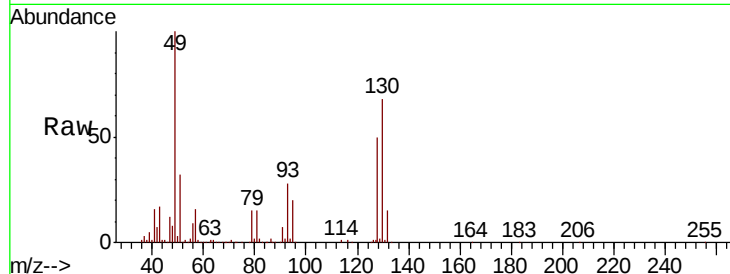
Tot Ion: 49 Resp: 1202893

Ion Ratio Lower Upper

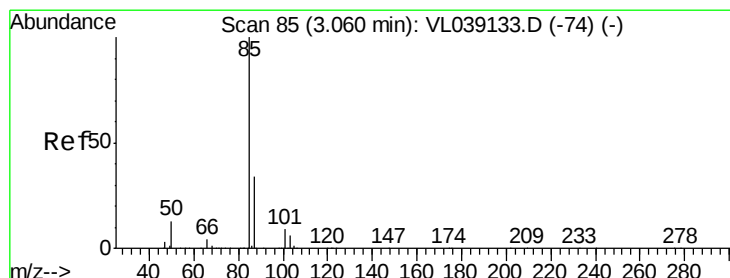
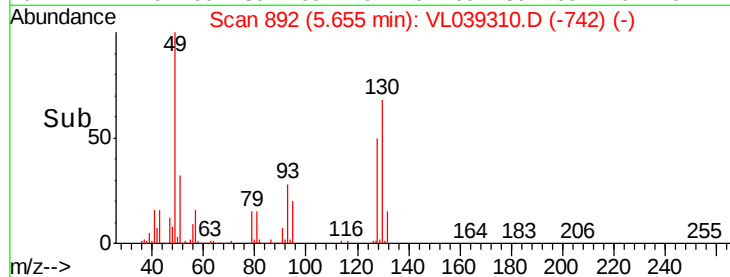
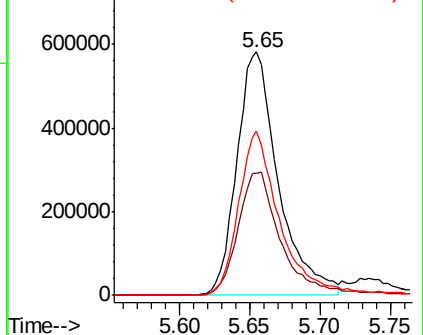
49 100

128 53.4 24.7 74.1

130 68.4 31.4 94.0



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: 0.263 ppbv

RT: 3.04 min Scan# 80

Delta R.T. -0.02 min

Lab File: VL039310.D

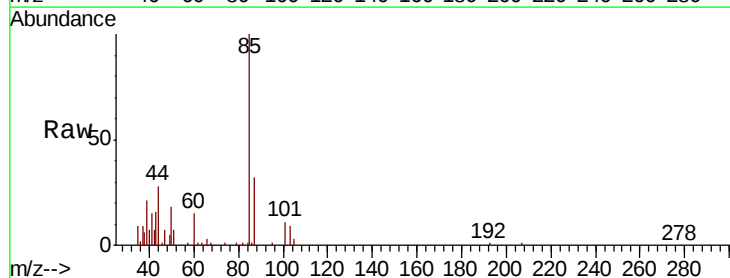
Acq: 16 Jun 2022 00:41

Tgt Ion: 85 Resp: 55509

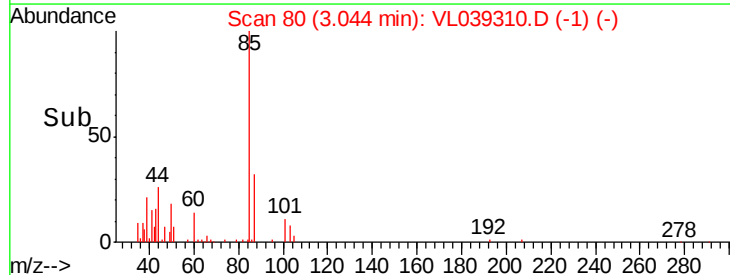
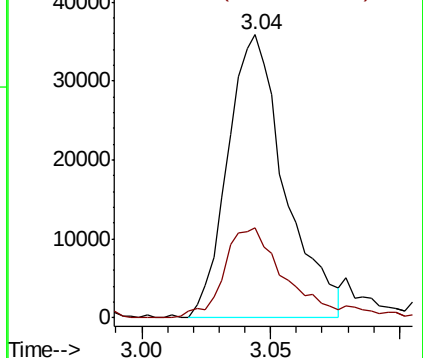
Ion Ratio Lower Upper

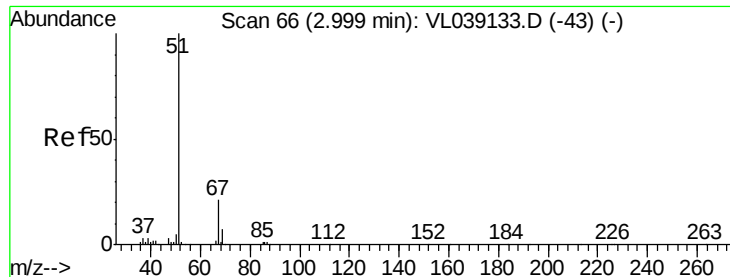
85 100

87 29.1 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.669 ppbv

RT: 2.98 Instrument:

Delta R.T. MSVOA.L

Lab File: ClientSampleId:

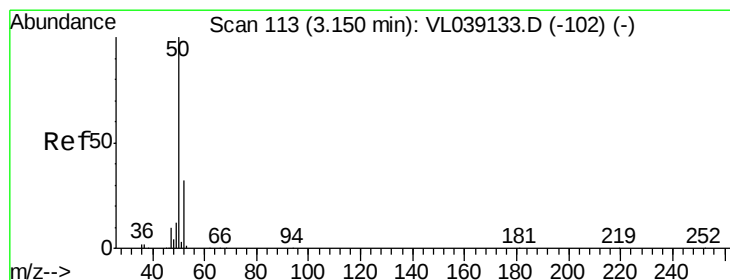
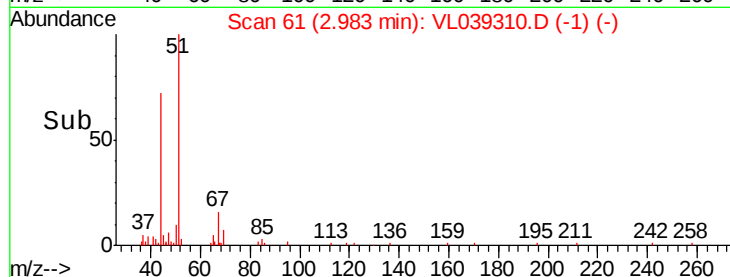
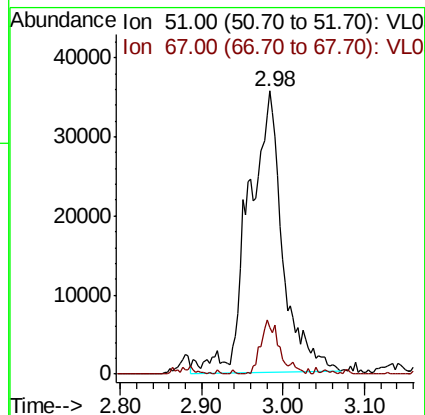
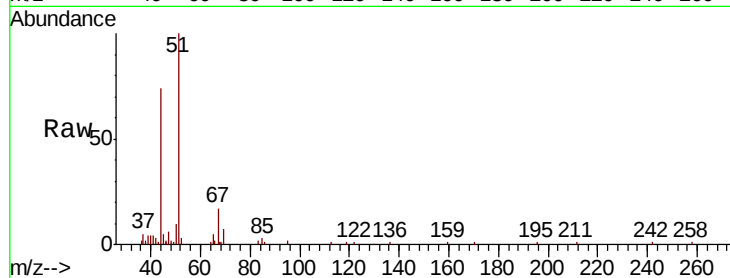
Acq: 16 Jun 2022 00:41

Tot Ion: 51 Resp: 102467

Ion Ratio Lower Upper

51 100

67 10.6 16.2 24.4#



#4

Chloromethane

Concen: 0.610 ppbv

RT: 3.13 min Scan# 107

Delta R.T. -0.02 min

Lab File: VL039310.D

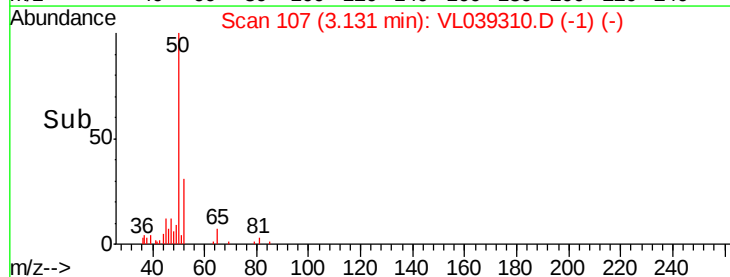
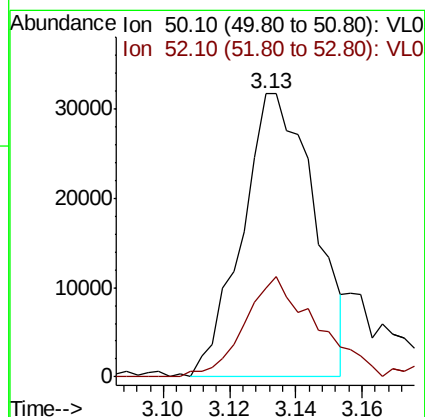
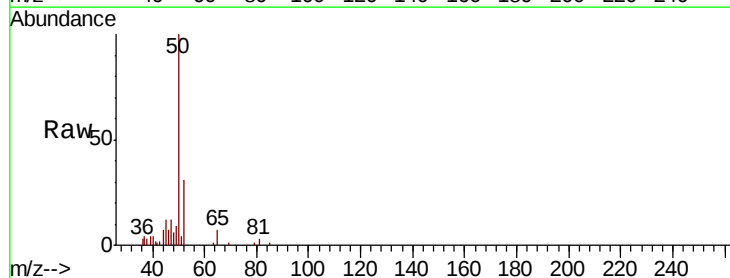
Acq: 16 Jun 2022 00:41

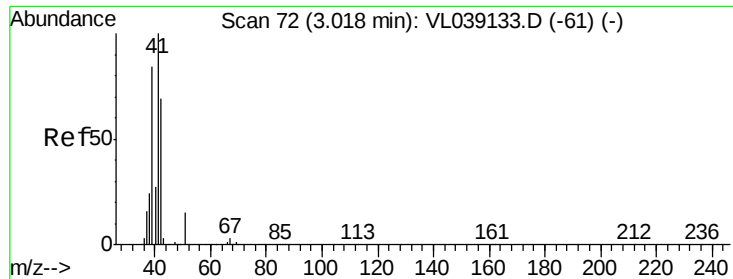
Tgt Ion: 50 Resp: 47937

Ion Ratio Lower Upper

50 100

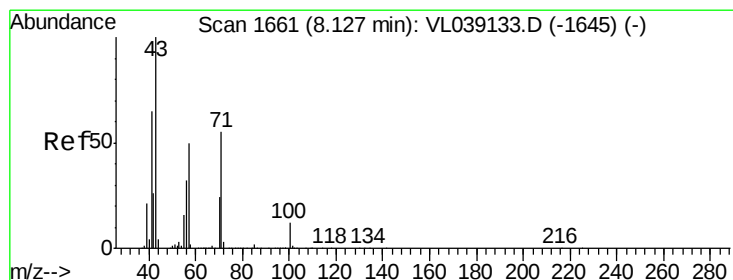
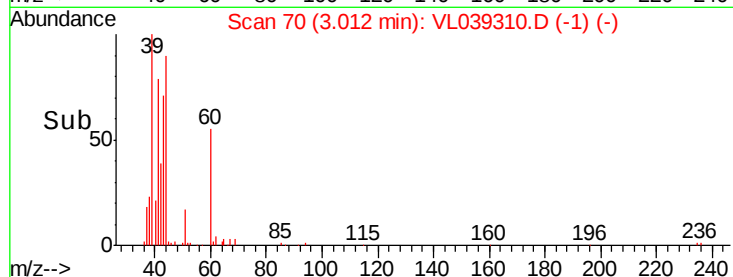
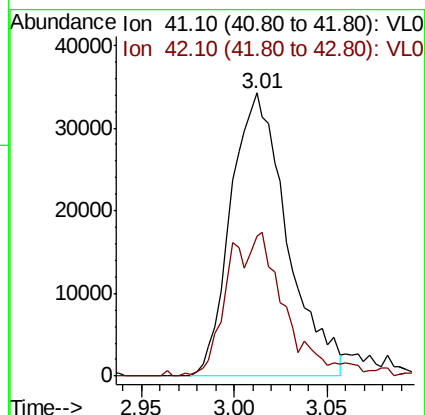
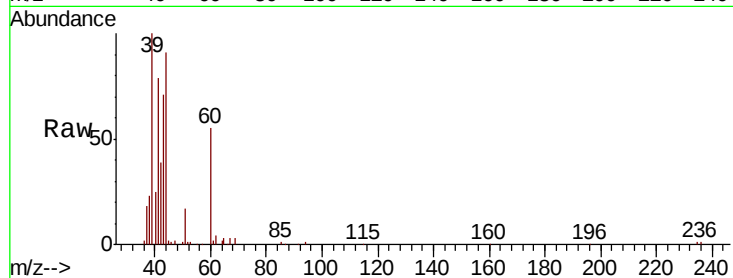
52 28.5 25.9 38.9





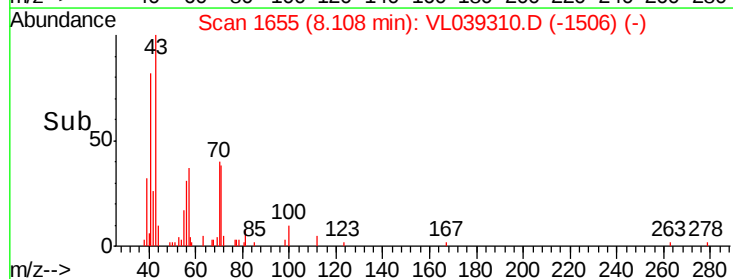
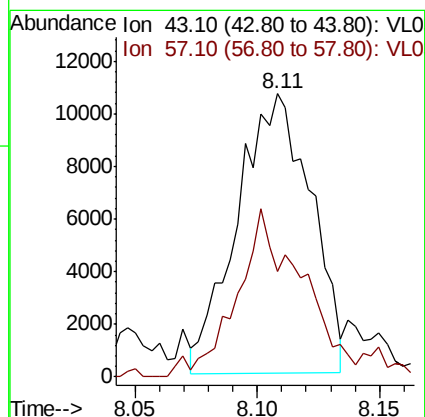
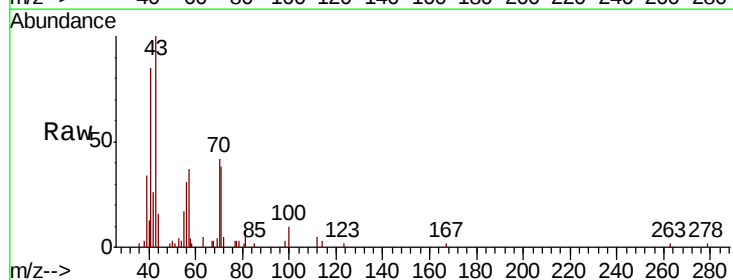
#9
 Propene
 Concen: 1.080 ppbv
 RT: 3.01 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 16 Jun 2022 00:41

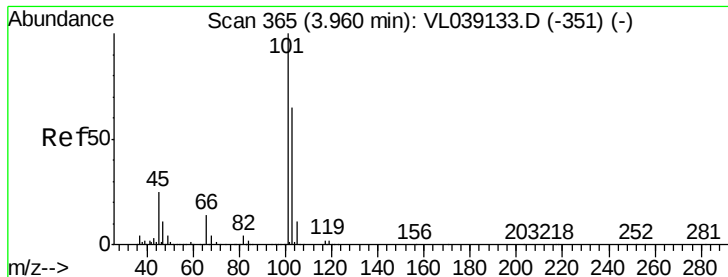
Tot Ion: 41 Resp: 72091
 Ion Ratio Lower Upper
 41 100
 42 53.9 55.4 83.2#



#10
 Heptane
 Concen: 0.143 ppbv
 RT: 8.11 min Scan# 1655
 Delta R.T. -0.02 min
 Lab File: VL039310.D
 Acq: 16 Jun 2022 00:41

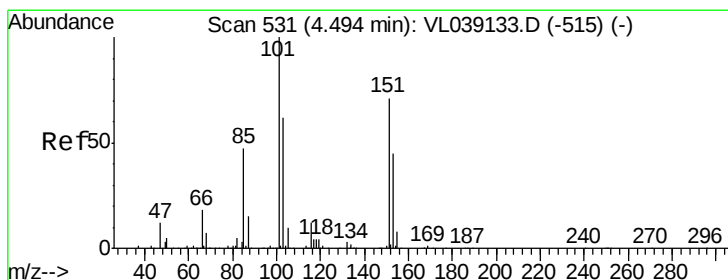
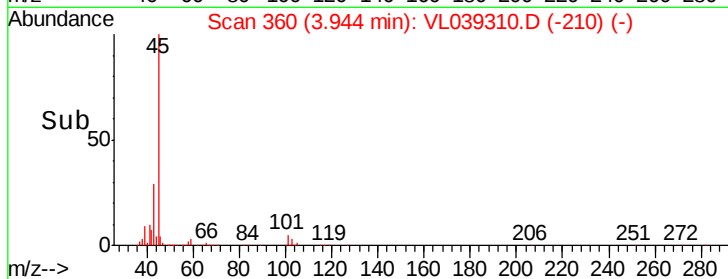
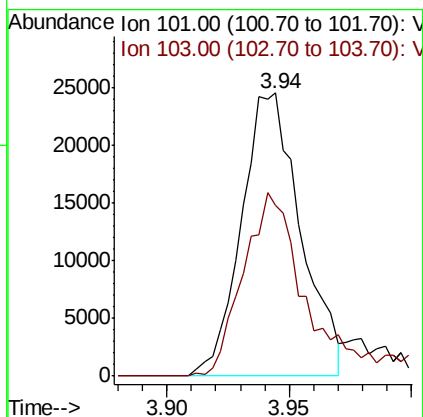
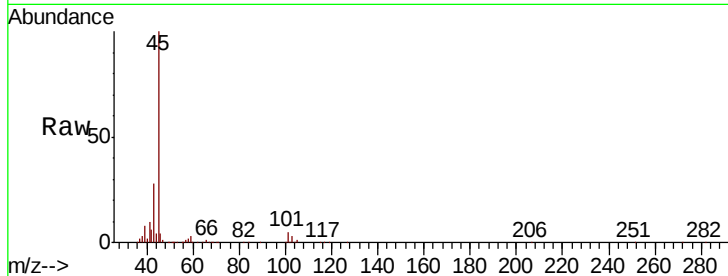
Tgt Ion: 43 Resp: 22274
 Ion Ratio Lower Upper
 43 100
 57 57.7 41.4 62.2





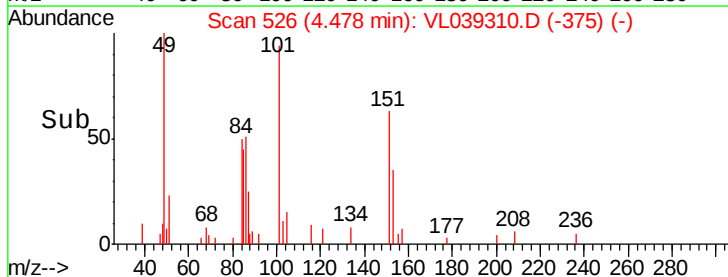
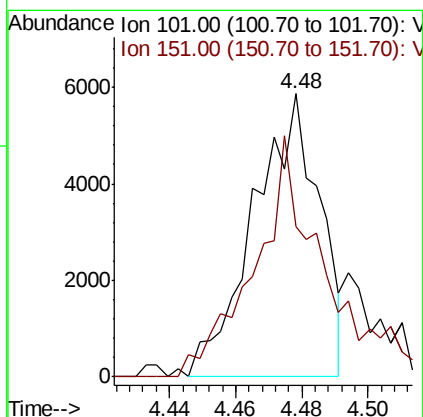
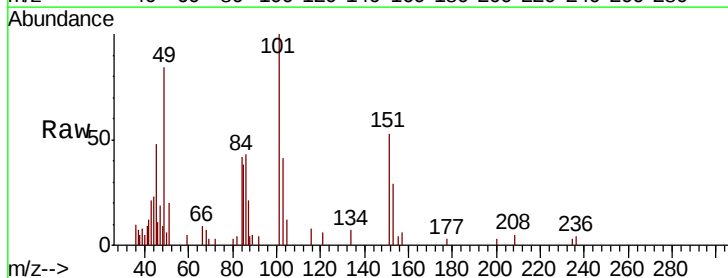
#11
 Trichlorofluoromethane
 Concen: 0.217 ppbv
 RT: 3.94
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 16 Jun 2022 00:41

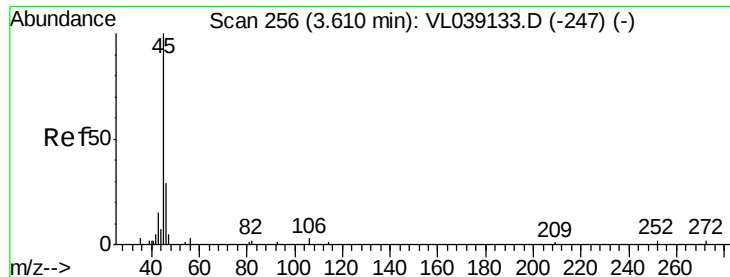
Tot Ion:101 Resp: 41423
 Ion Ratio Lower Upper
 101 100
 103 60.2 51.7 77.5



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.064 ppbv
 RT: 4.48 min Scan# 526
 Delta R.T. -0.02 min
 Lab File: VL039310.D
 Acq: 16 Jun 2022 00:41

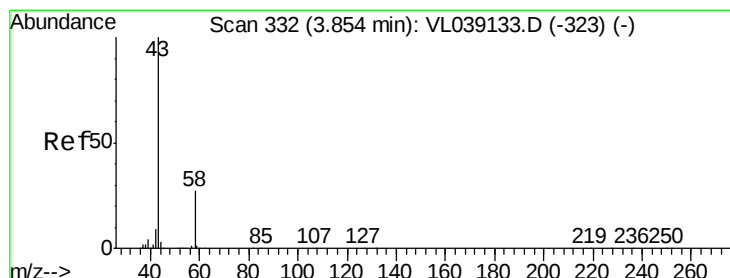
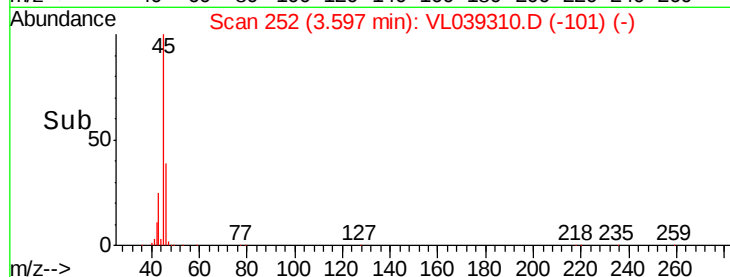
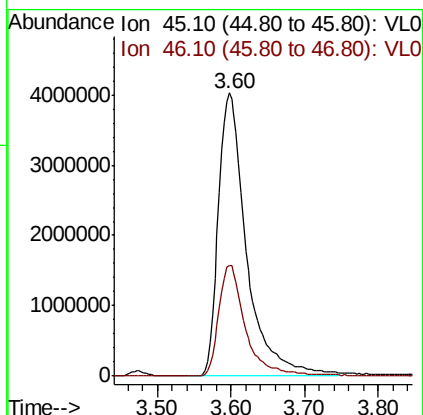
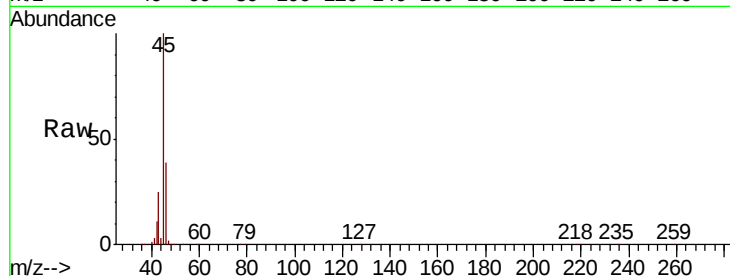
Tgt Ion:101 Resp: 8100
 Ion Ratio Lower Upper
 101 100
 151 93.1 59.4 89.0#





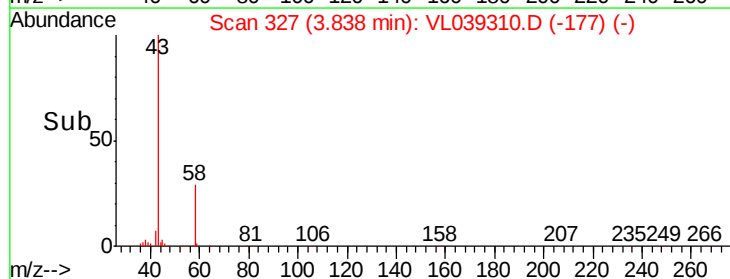
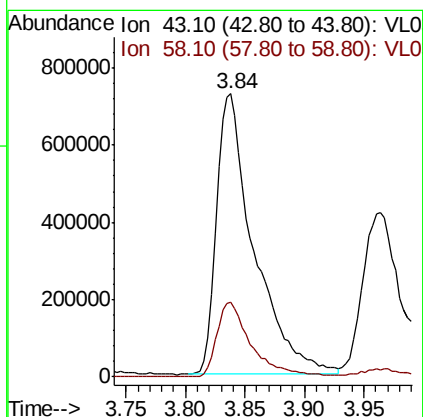
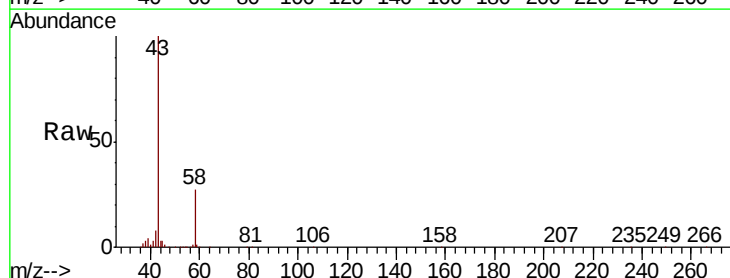
#13
Ethanol
Concen: 2940.616 ppbv
RT: 3.60
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 16 Jun 2022 00:41

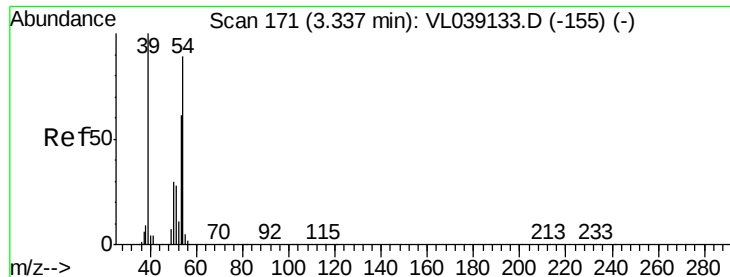
Tot Ion: 45 Resp: 10702529
Ion Ratio Lower Upper
45 100
46 38.0 0.0 0.0#



#15
Acetone
Concen: 12.636 ppbv
RT: 3.84 min Scan# 327
Delta R.T. -0.02 min
Lab File: VL039310.D
Acq: 16 Jun 2022 00:41

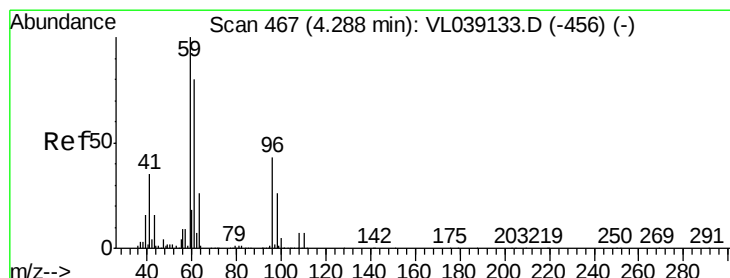
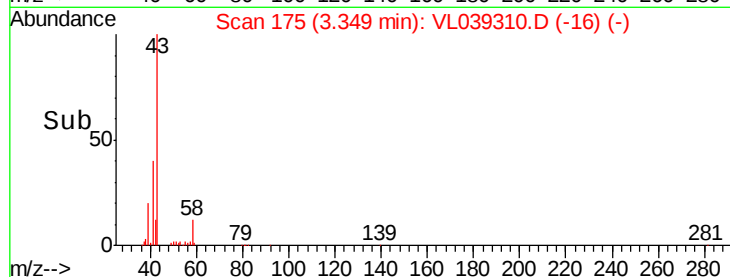
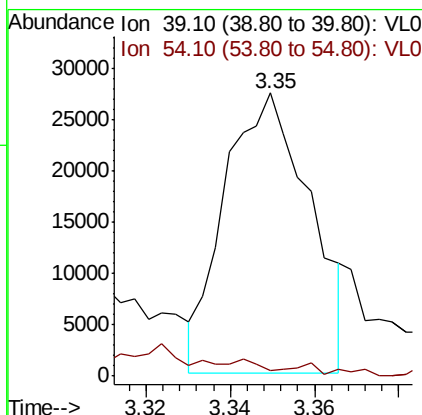
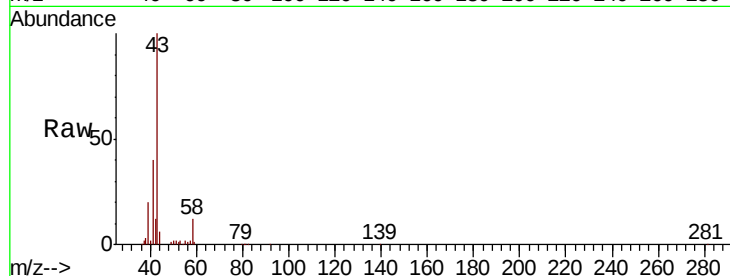
Tgt Ion: 43 Resp: 1583336
Ion Ratio Lower Upper
43 100
58 24.5 22.5 33.7





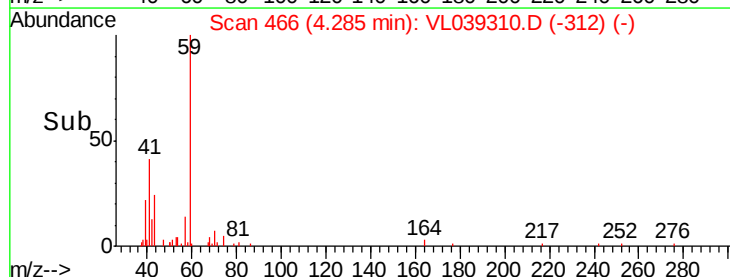
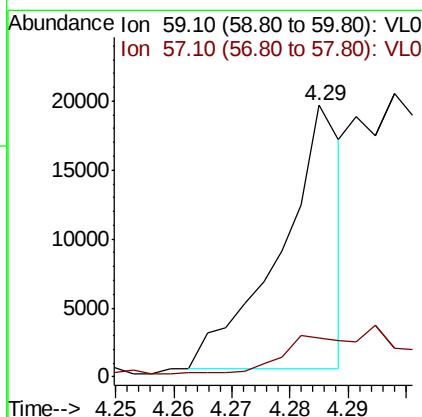
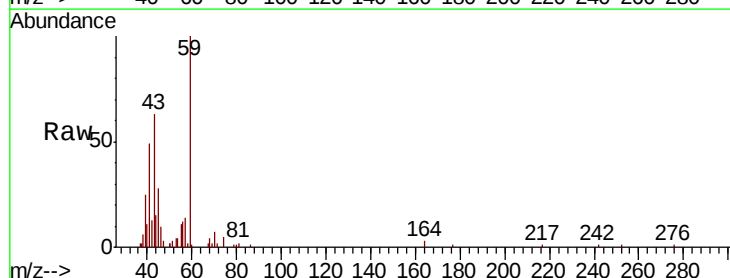
#16
 1,3-Butadiene
 Concen: 0.569 ppbv
 RT: 3.35
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 16 Jun 2022 00:41

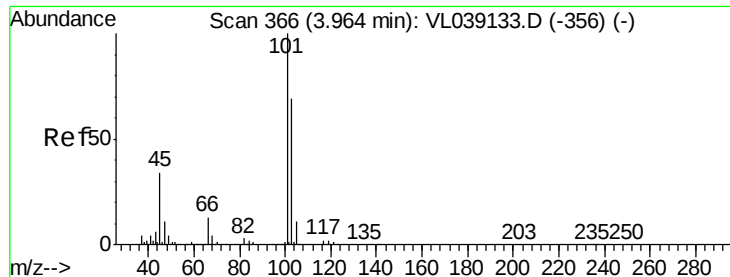
Tot Ion: 39 Resp: 38304
 Ion Ratio Lower Upper
 39 100
 54 16.1 65.8 98.6#



#17
 tert-Butyl alcohol
 Concen: 0.145 ppbv
 RT: 4.29 min Scan# 466
 Delta R.T. -0.00 min
 Lab File: VL039310.D
 Acq: 16 Jun 2022 00:41

Tgt Ion: 59 Resp: 14078
 Ion Ratio Lower Upper
 59 100
 57 0.0 9.1 13.7#





#19

Isopropyl Alcohol

Concen: 67.164 ppbv

RT: 3.96

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

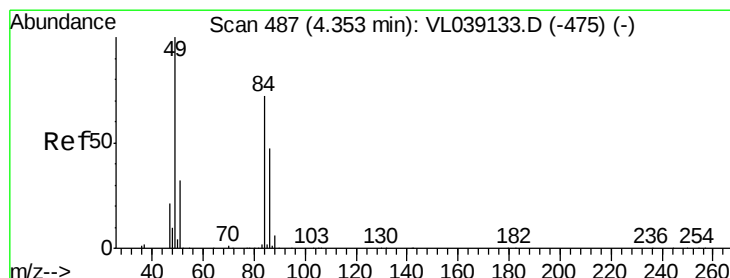
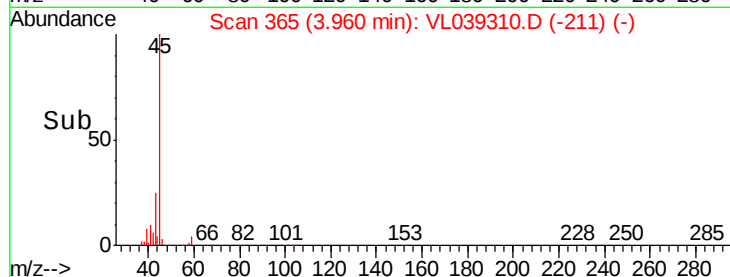
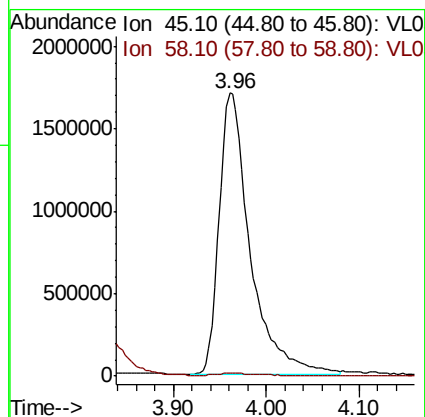
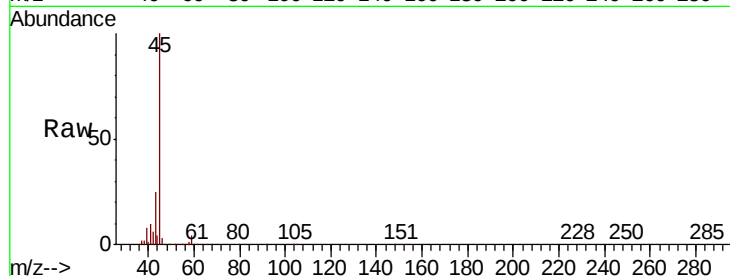
Acq: 16 Jun 2022 00:41

Tot Ion: 45 Resp: 3947231

Ion Ratio Lower Upper

45 100

58 1.6 1.8 2.8#



#20

Methylene Chloride

Concen: 17.782 ppbv

RT: 4.33 min Scan# 481

Delta R.T. -0.02 min

Lab File: VL039310.D

Acq: 16 Jun 2022 00:41

Tgt Ion: 84 Resp: 938947

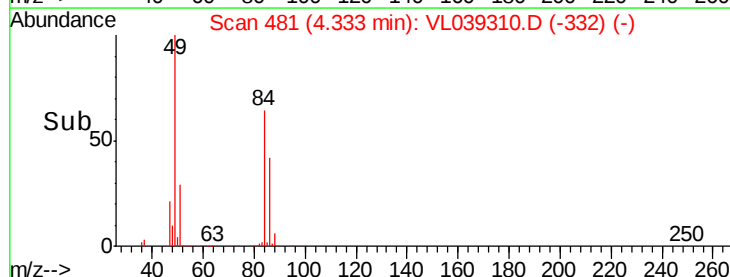
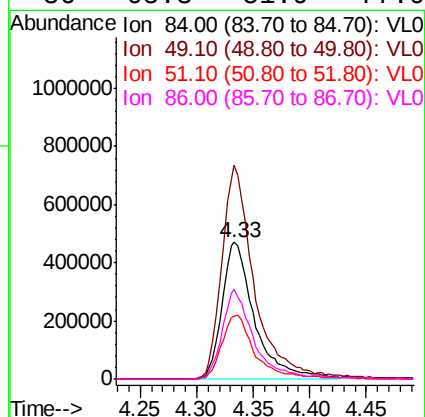
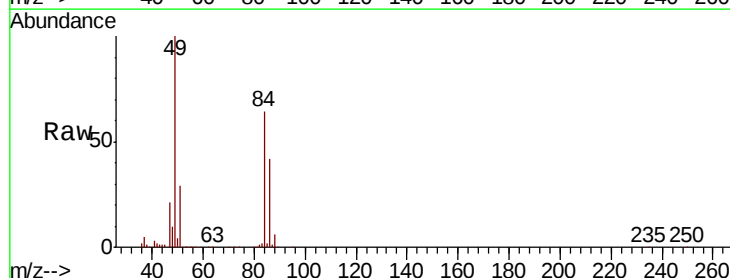
Ion Ratio Lower Upper

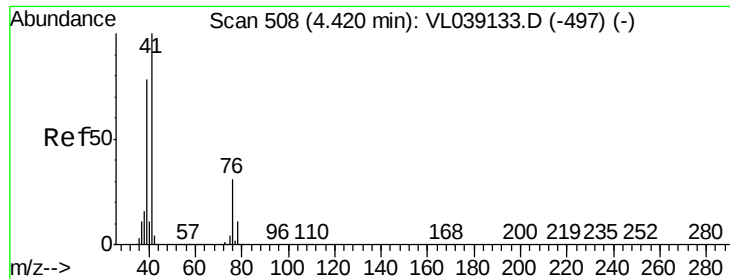
84 100

49 156.1 111.1 166.7

51 45.5 35.3 52.9

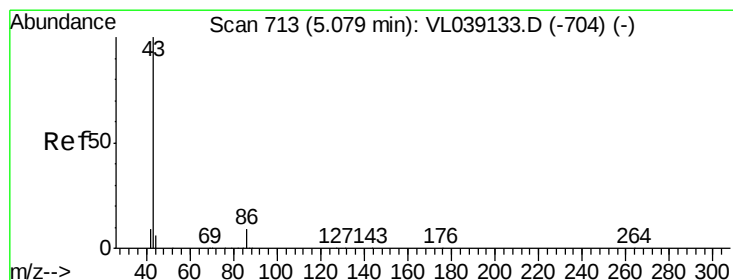
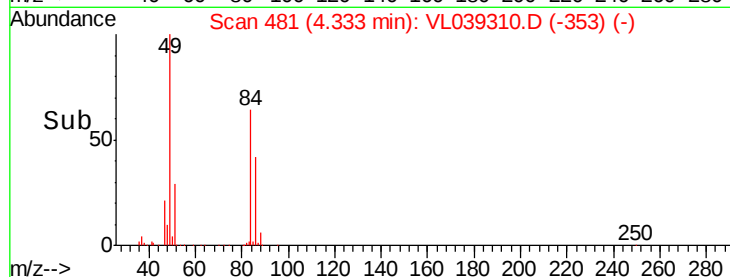
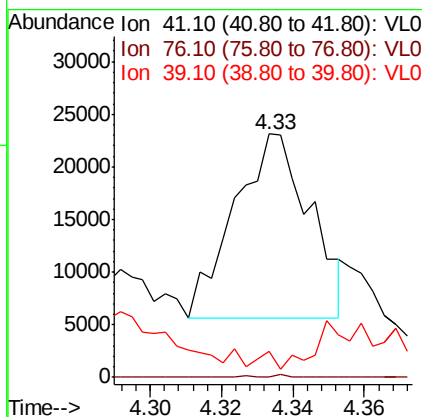
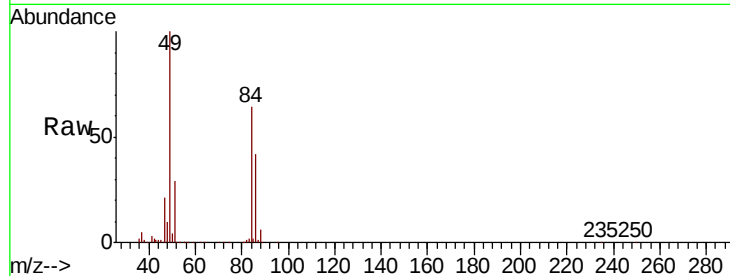
86 65.3 51.9 77.9





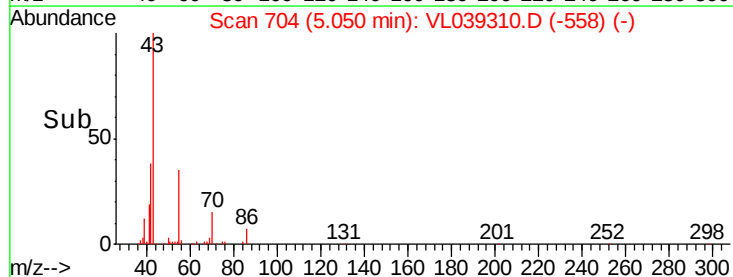
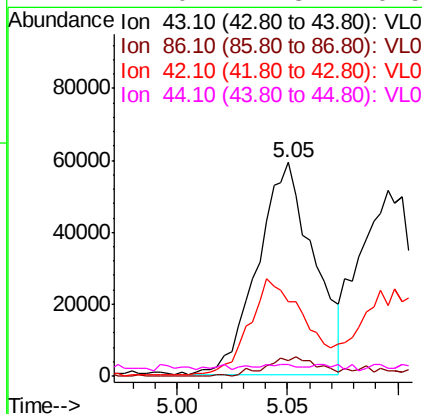
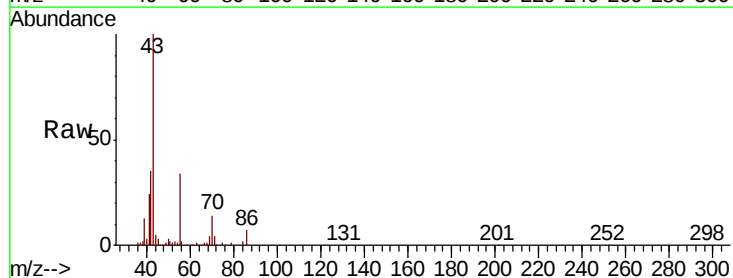
#21
 Allvl Chloride
 Concen: 0.305 ppbv
 RT: 4.33
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 16 Jun 2022 00:41

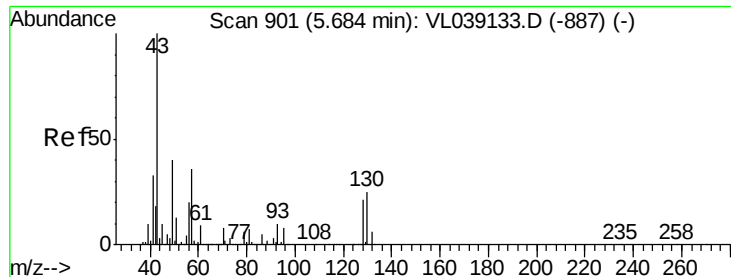
Tot Ion	Ratio	Lower	Upper
41	100		
76	10.8	24.2	36.2#
39	0.0	62.2	93.2#



#23
 Vinyl Acetate
 Concen: 1.008 ppbv
 RT: 5.05 min Scan# 704
 Delta R.T. -0.03 min
 Lab File: VL039310.D
 Acq: 16 Jun 2022 00:41

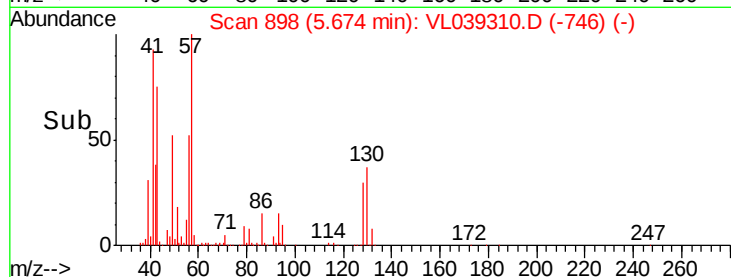
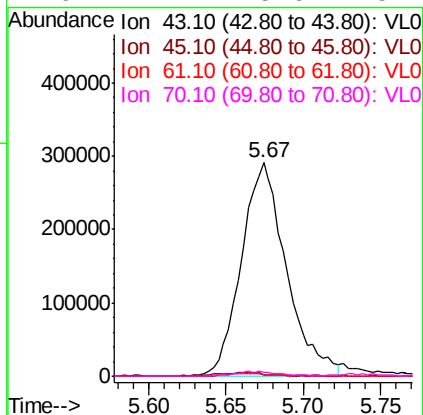
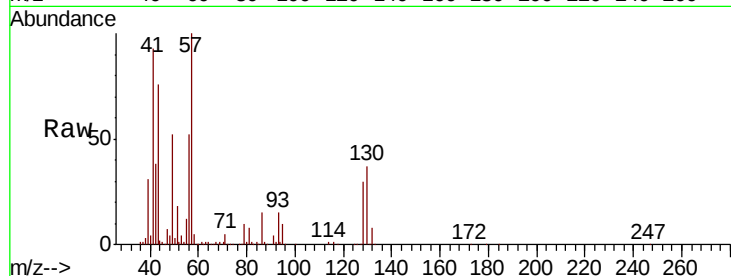
Tgt Ion	Ratio	Lower	Upper
43	100		
86	7.3	6.0	9.0
42	34.1	8.2	12.4#
44	1.0	4.3	6.5#





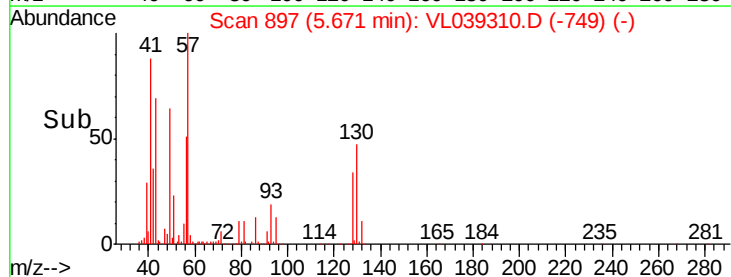
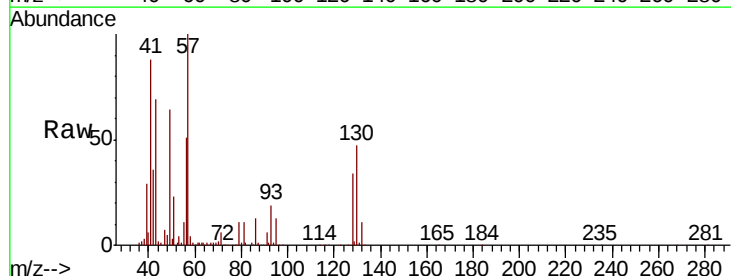
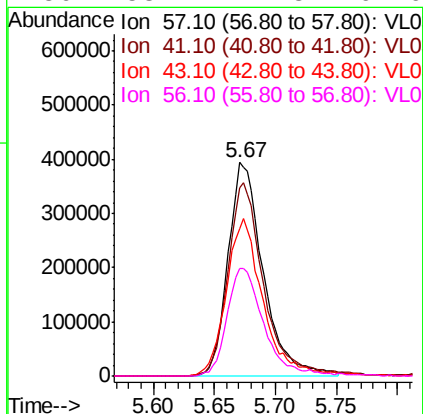
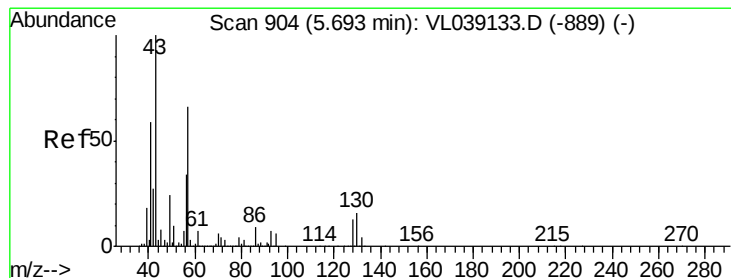
#25
Ethyl Acetate
Concen: 2.072 ppbv
RT: 5.67 min
Delta R.T.: MSVOA_L
Lab File: ClientSampleId :
Acq: 16 Jun 2022 00:41

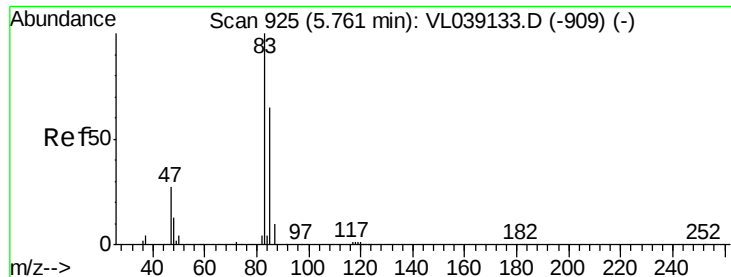
Tot Ion:	43	Resp:	585150
Ion	Ratio	Lower	Upper
43	100		
45	1.7	8.2	12.2#
61	1.4	8.4	12.6#
70	2.2	5.6	8.4#



#26
Hexane
Concen: 6.386 ppbv
RT: 5.67 min Scan# 897
Delta R.T.: -0.02 min
Lab File: VL039310.D
Acq: 16 Jun 2022 00:41

Tgt Ion:	57	Resp:	792608
Ion	Ratio	Lower	Upper
57	100		
41	92.5	72.4	108.6
43	77.1	187.0	280.6#
56	53.4	41.8	62.6





#29

Chloroform

Concen: 2.659 ppbv

RT: 5.74 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

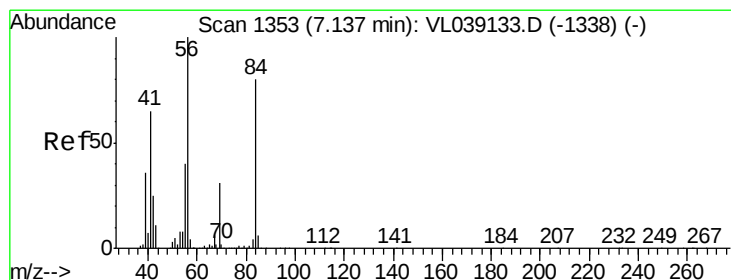
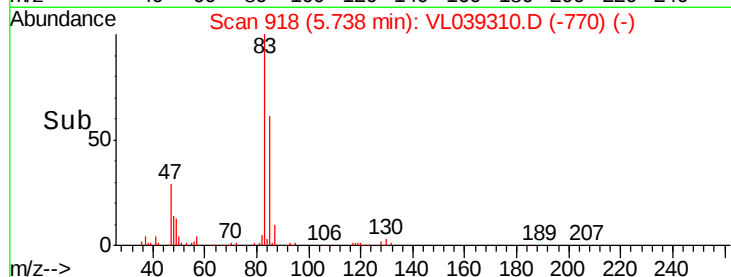
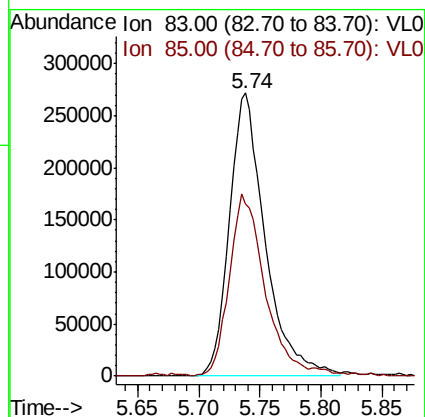
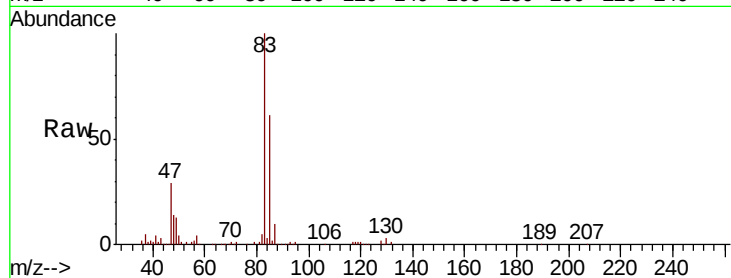
Acq: 16 Jun 2022 00:41

Tot Ion: 83 Resp: 555318

Ion Ratio Lower Upper

83 100

85 60.6 52.4 78.6



#30

Cyclohexane

Concen: 0.047 ppbv

RT: 7.11 min Scan# 1345

Delta R.T. -0.03 min

Lab File: VL039310.D

Acq: 16 Jun 2022 00:41

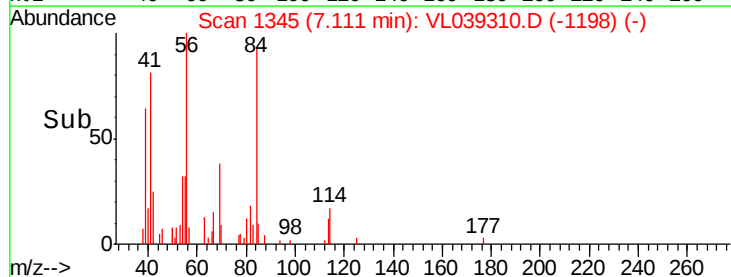
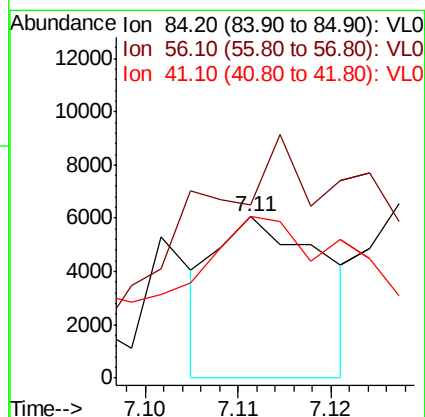
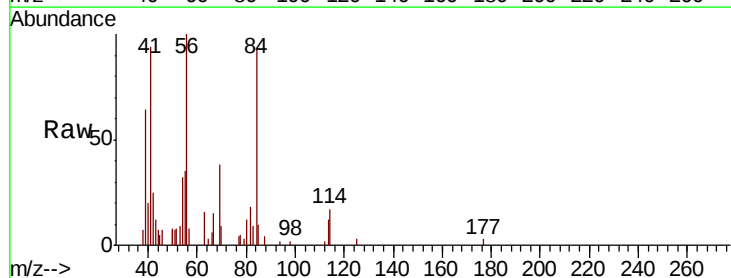
Tgt Ion: 84 Resp: 4873

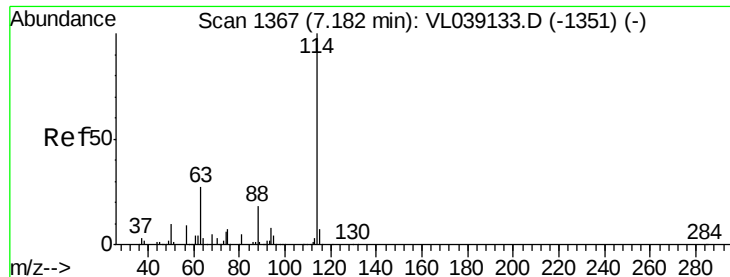
Ion Ratio Lower Upper

84 100

56 0.0 110.6 165.8#

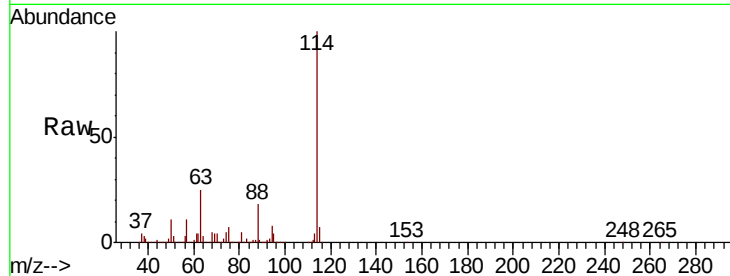
41 291.7 68.9 103.3#



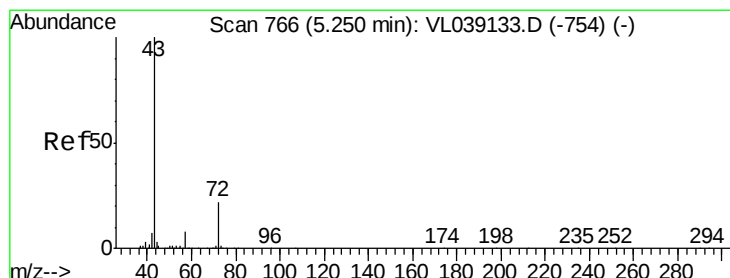
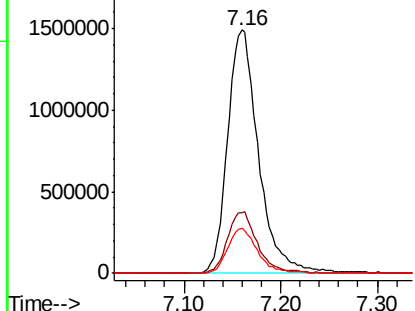
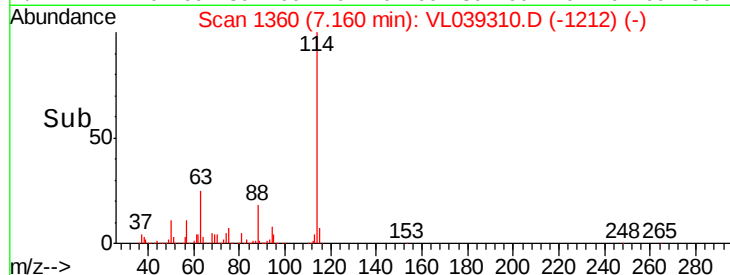


#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 16 Jun 2022 00:41

Tot Ion:114 Resp: 3309011
 Ion Ratio Lower Upper
 114 100
 63 25.0 21.7 32.5
 88 18.1 14.8 22.2

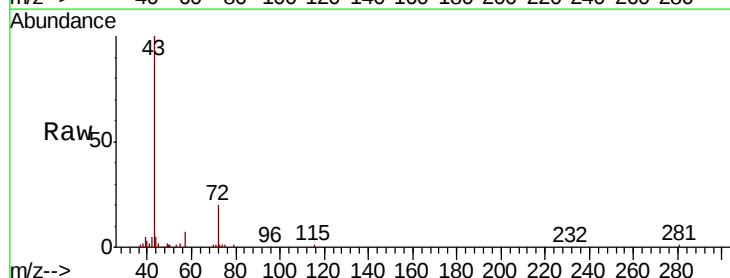


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

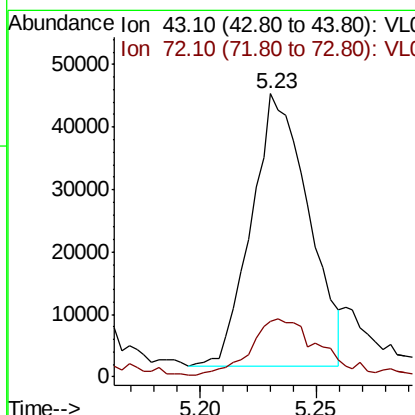
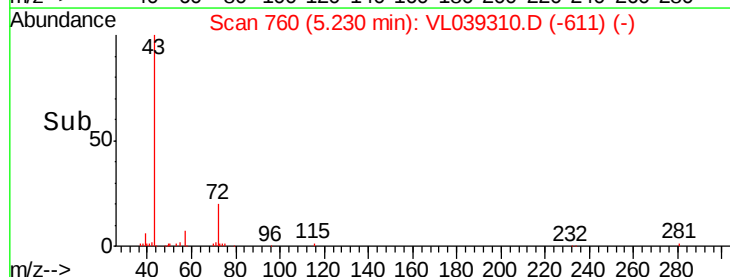


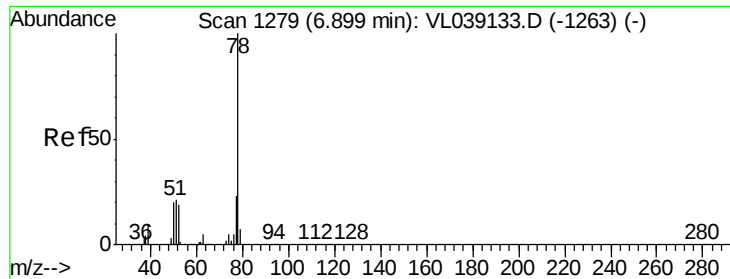
#34
 2-Butanone
 Concen: 0.413 ppbv
 RT: 5.23 min Scan# 760
 Delta R.T. -0.02 min
 Lab File: VL039310.D
 Acq: 16 Jun 2022 00:41

Tgt Ion: 43 Resp: 74324
 Ion Ratio Lower Upper
 43 100
 72 28.3 18.2 27.2#



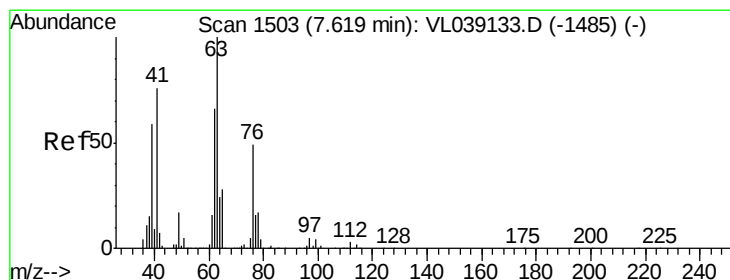
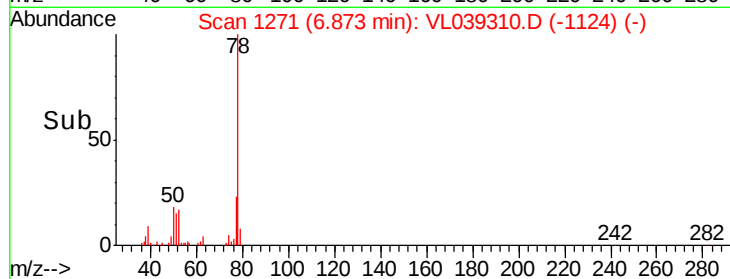
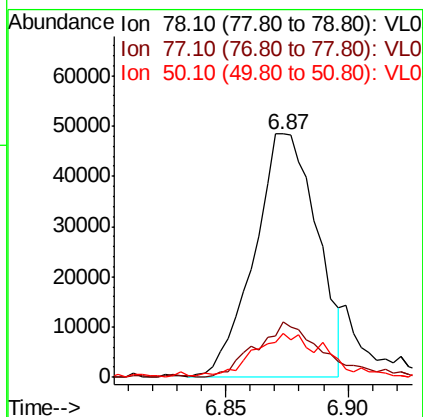
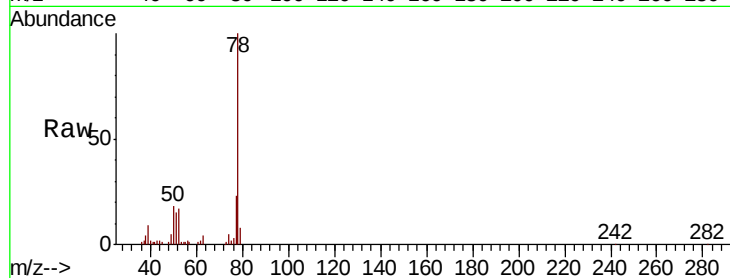
Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





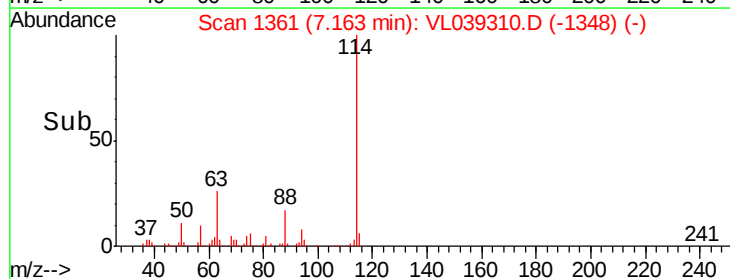
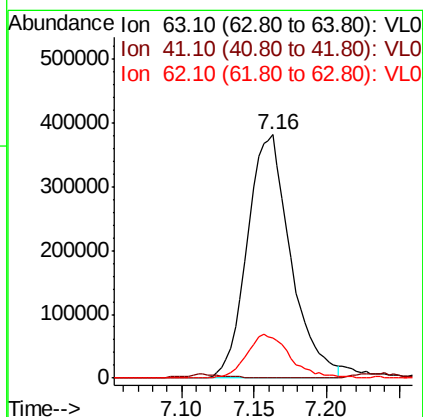
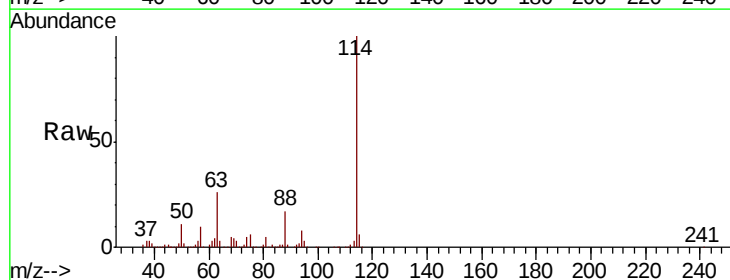
#36
Benzene
Concen: 0.322 ppbv
RT: 6.87
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 16 Jun 2022 00:41

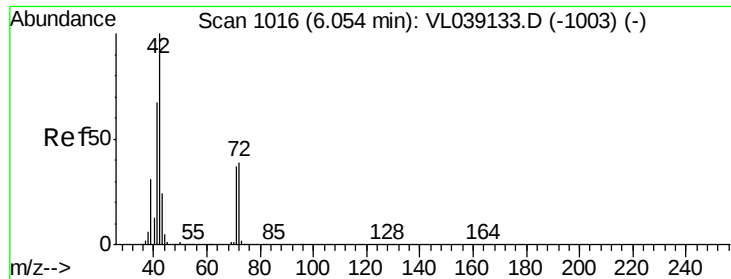
Tot Ion	78	Resp	86456
Ion Ratio	Lower	Upper	
78	100		
77	22.2	18.6	27.8
50	17.6	15.8	23.8



#39
1,2-Dichloropropane
Concen: 7.434 ppbv
RT: 7.16 min Scan# 1361
Delta R.T. -0.46 min
Lab File: VL039310.D
Acq: 16 Jun 2022 00:41

Tgt Ion	63	Resp	794392
Ion Ratio	Lower	Upper	
63	100		
41	0.0	60.8	91.2#
62	16.3	52.9	79.3#





#41

Tetrahydrofuran

Concen: 2.669 ppbv

RT: 5.67

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 16 Jun 2022 00:41

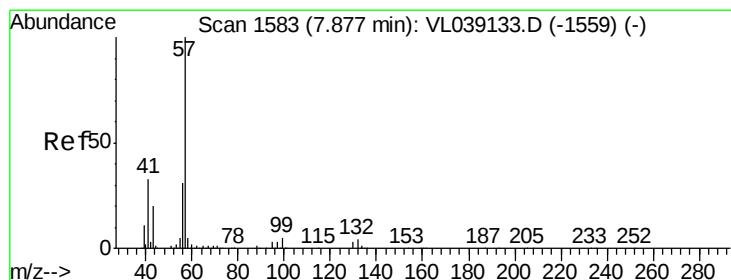
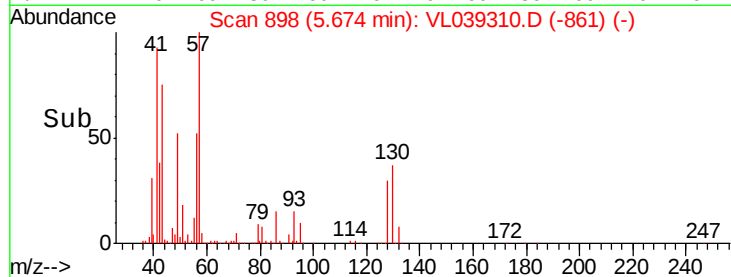
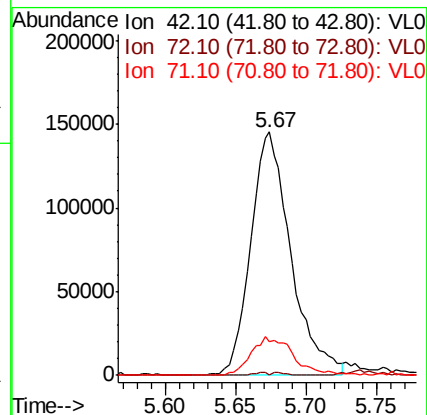
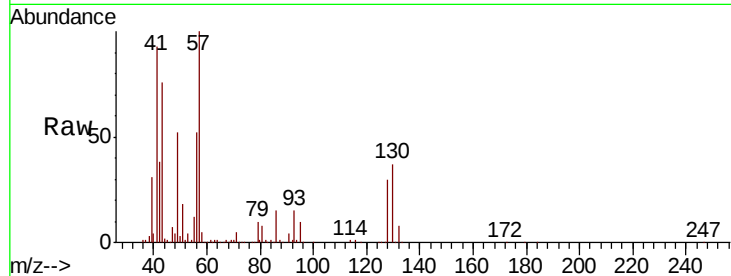
Tot Ion: 42 Resp: 288585

Ion Ratio Lower Upper

42 100

72 1.1 32.0 48.0#

71 17.1 31.1 46.7#



#44

2,2,4-Trimethylpentane

Concen: 0.222 ppbv

RT: 7.85 min Scan# 1576

Delta R.T. -0.02 min

Lab File: VL039310.D

Acq: 16 Jun 2022 00:41

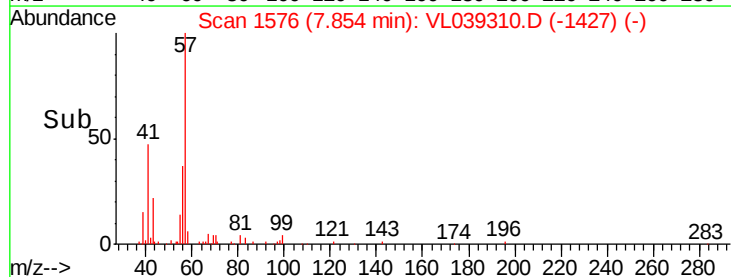
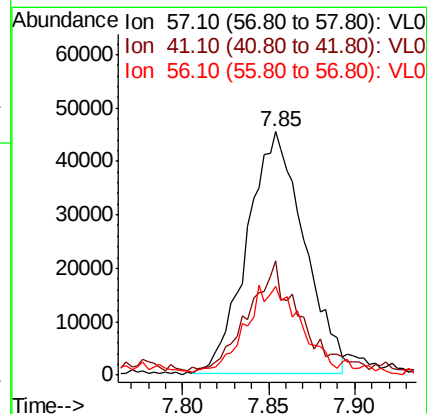
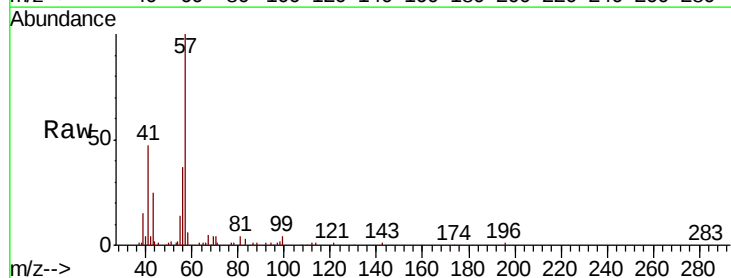
Tgt Ion: 57 Resp: 104384

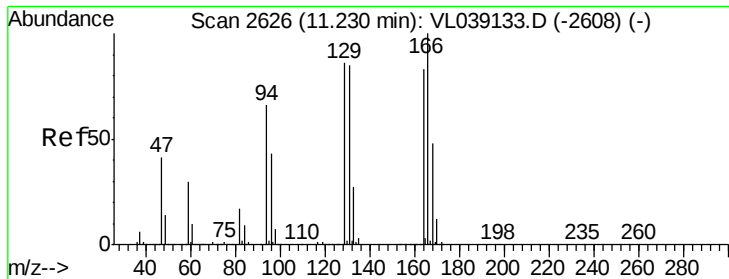
Ion Ratio Lower Upper

57 100

41 48.0 26.2 39.4#

56 37.4 24.7 37.1#





#52

Tetrachloroethene

Concen: 0.031 ppbv

RT: 11.21

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 16 Jun 2022 00:41

Tot Ion:164 Resp: 3203

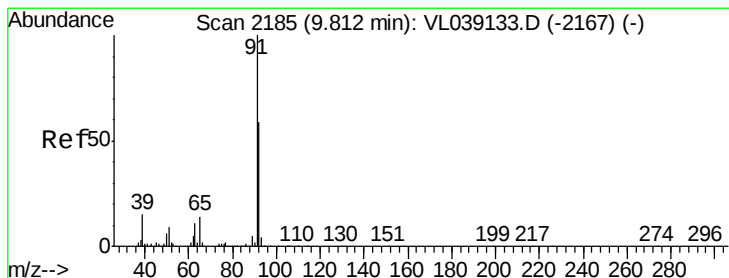
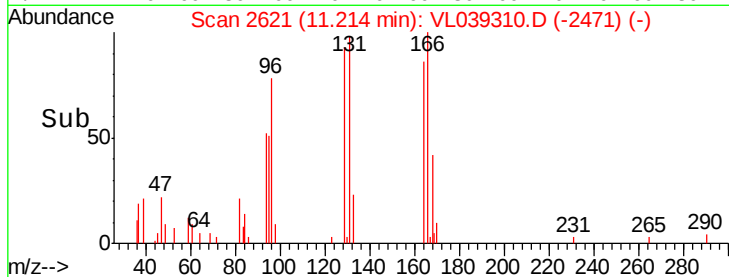
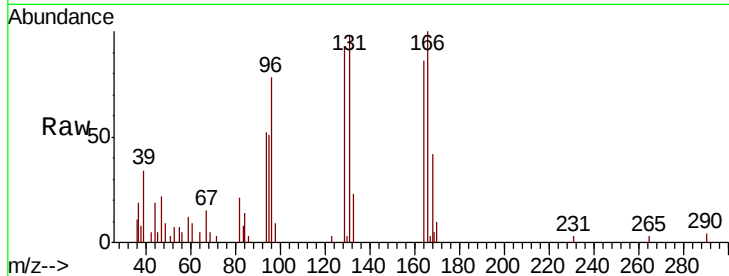
Ion Ratio Lower Upper

164 100

166 116.1 96.3 144.5

129 106.6 82.5 123.7

131 101.5 82.1 123.1



#53

Toluene

Concen: 0.793 ppbv

RT: 9.78 min Scan# 2176

Delta R.T. -0.03 min

Lab File: VL039310.D

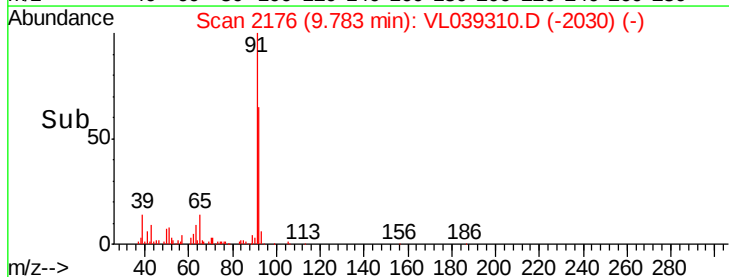
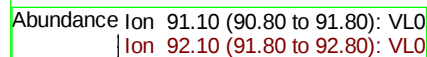
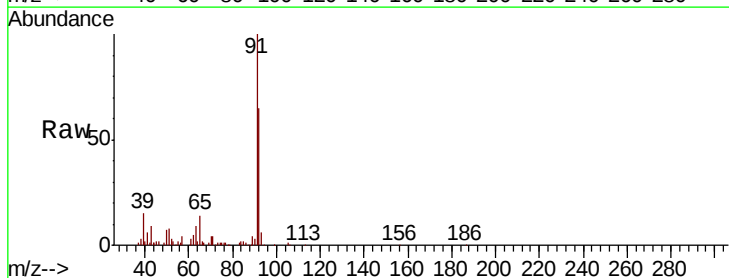
Acq: 16 Jun 2022 00:41

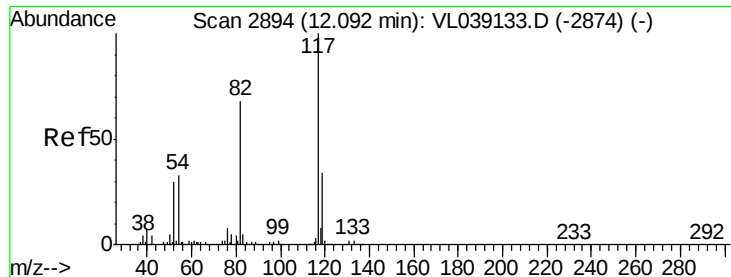
Tgt Ion: 91 Resp: 245288

Ion Ratio Lower Upper

91 100

92 61.0 48.1 72.1

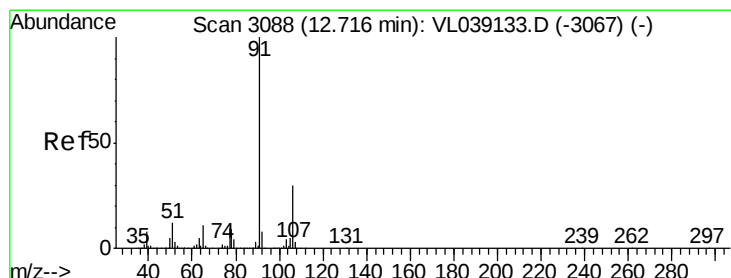
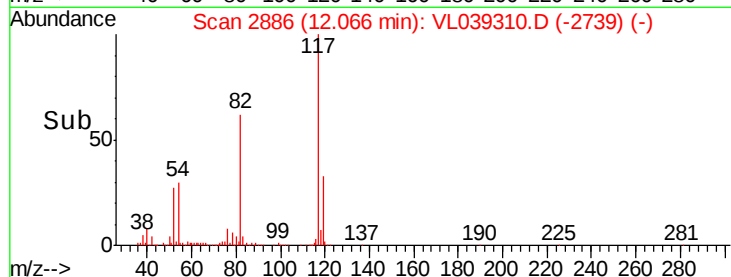
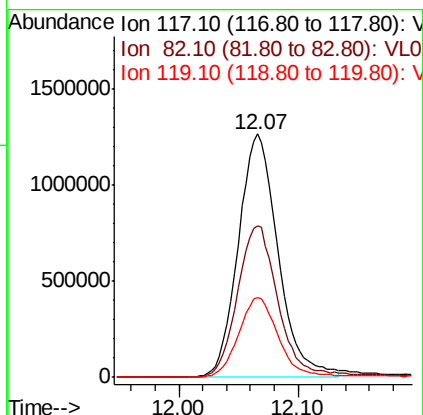
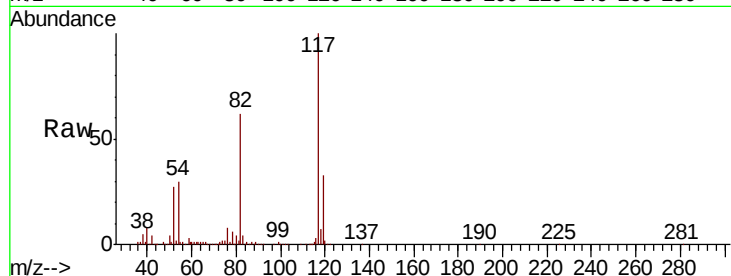




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.07 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 16 Jun 2022 00:41

Tot Ion: 117 Resp: 2934927

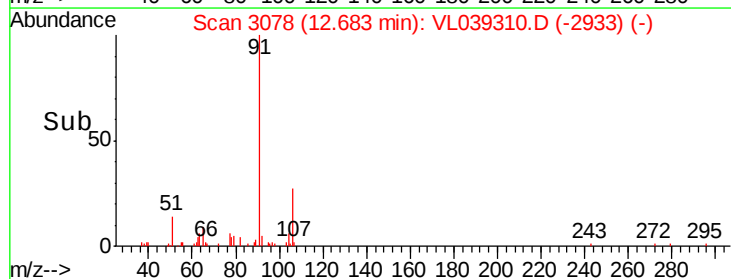
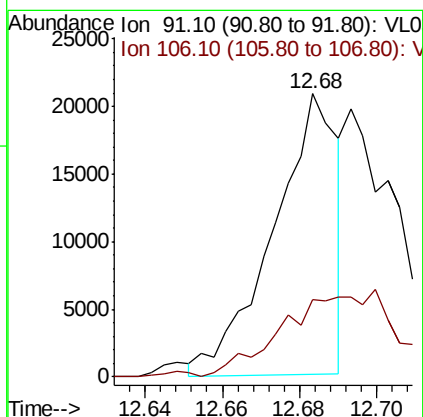
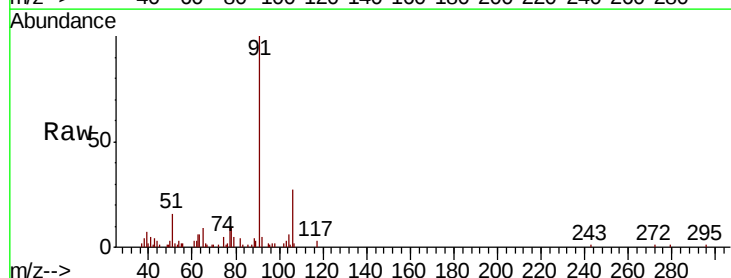
Ion	Ratio	Lower	Upper
117	100		
82	65.8	55.1	82.7
119	33.7	24.7	37.1

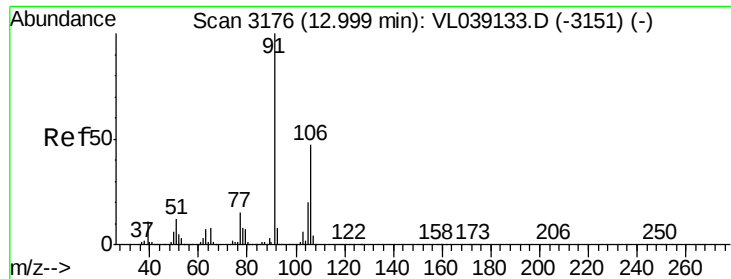


#58
Ethyl Benzene
Concen: 0.059 ppbv
RT: 12.68 min Scan# 3078
Delta R.T.: -0.03 min
Lab File: VL039310.D
Acq: 16 Jun 2022 00:41

Tgt Ion: 91 Resp: 23765

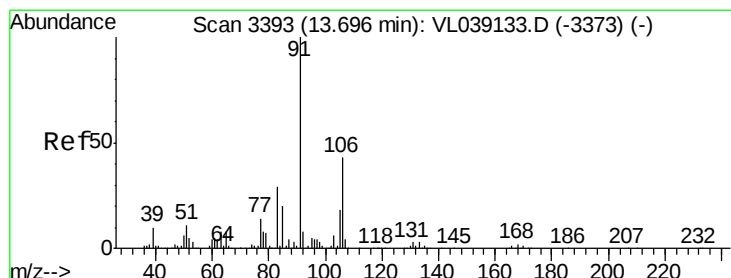
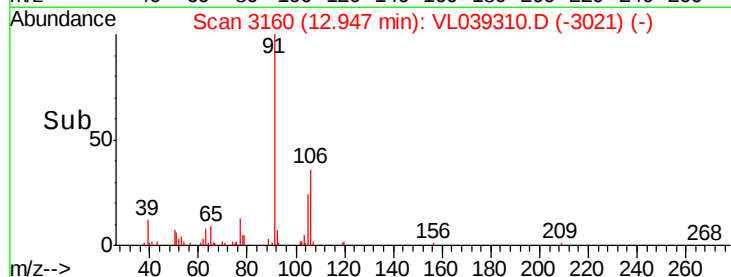
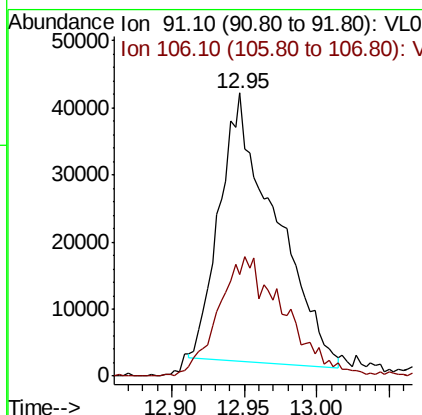
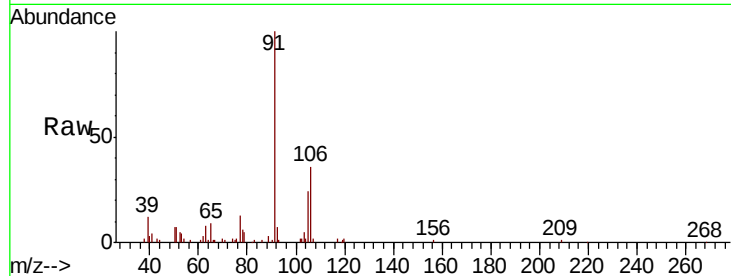
Ion	Ratio	Lower	Upper
91	100		
106	27.1	24.2	36.4





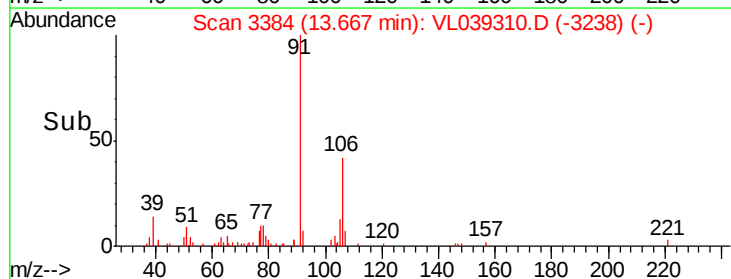
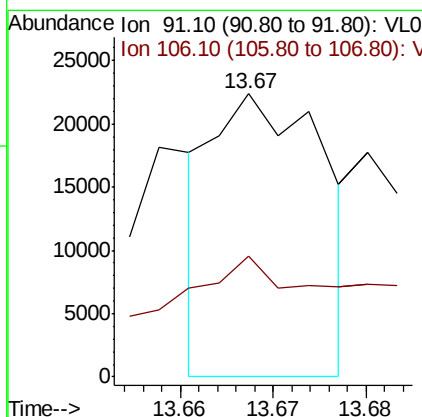
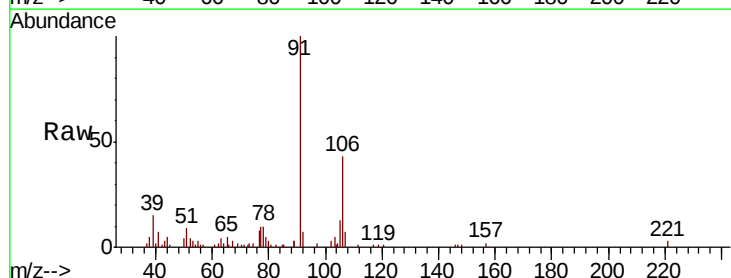
#59
m/p-Xylene
Concen: 0.301 ppbv
RT: 12.95
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 16 Jun 2022 00:41

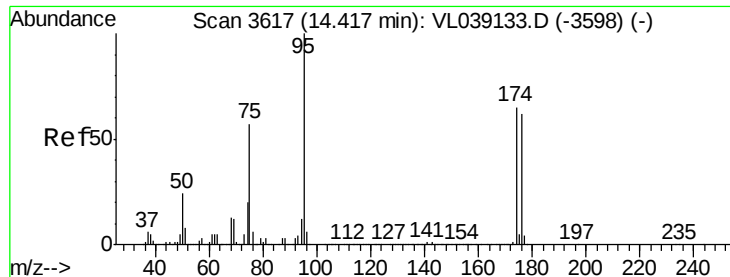
Tot Ion: 91 Resp: 107018
Ion Ratio Lower Upper
91 100
106 52.5 34.3 51.5#



#60
o-Xylene
Concen: 0.056 ppbv
RT: 13.67 min Scan# 3384
Delta R.T. -0.03 min
Lab File: VL039310.D
Acq: 16 Jun 2022 00:41

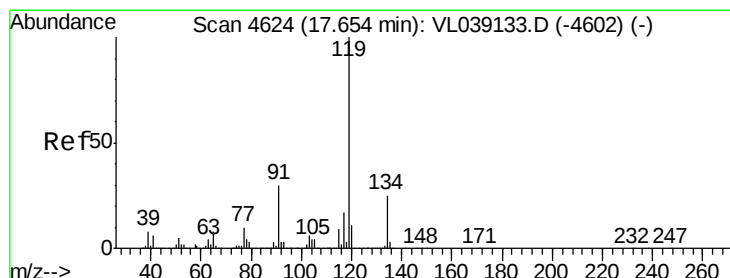
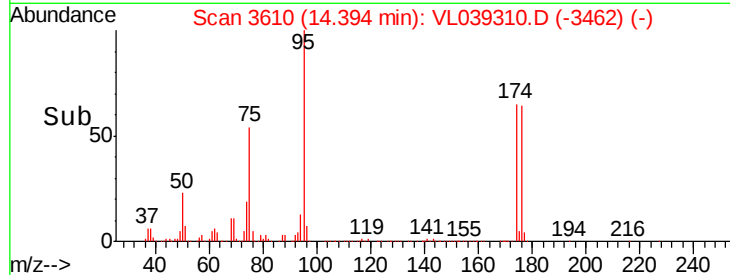
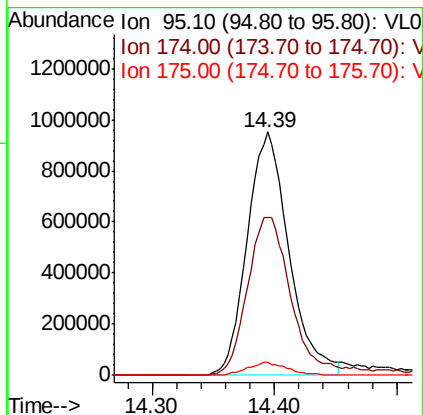
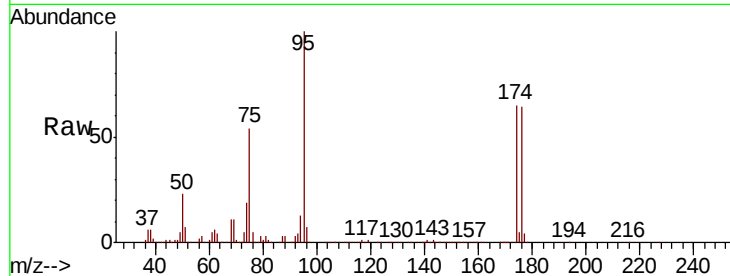
Tgt Ion: 91 Resp: 18666
Ion Ratio Lower Upper
91 100
106 114.7 22.3 66.9#





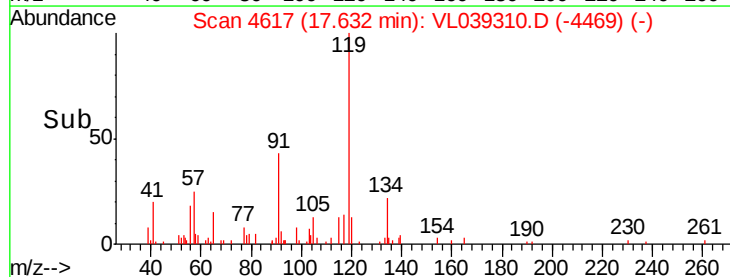
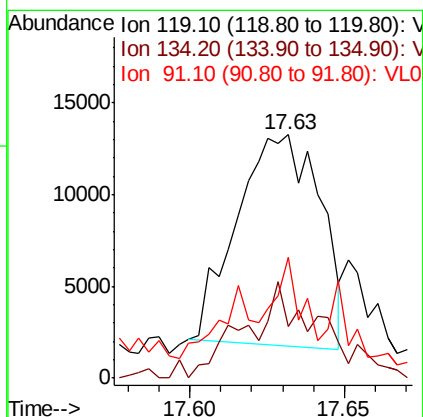
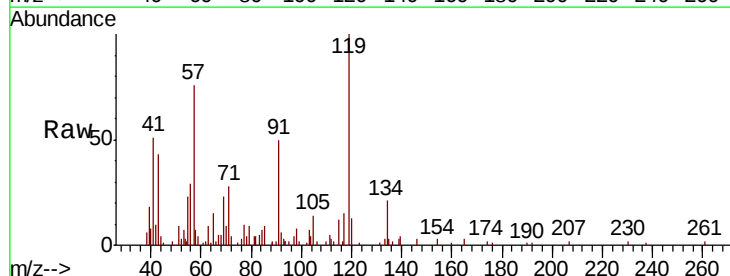
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.296 ppbv
 RT: 14.39 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampled :
 Acq: 16 Jun 2022 00:41

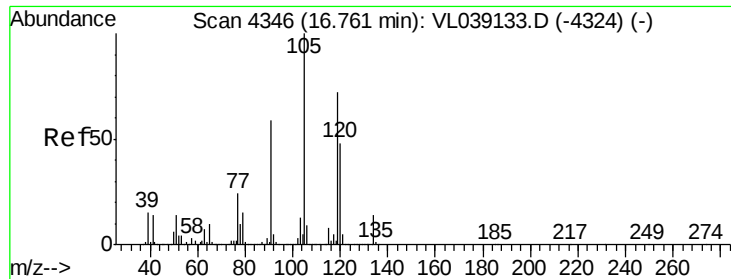
Tot Ion: 95 Resp: 2255669
 Ion Ratio Lower Upper
 95 100
 174 72.2 53.8 80.8
 175 5.1 4.1 6.1



#69
 p-Isopropyltoluene
 Concen: 0.041 ppbv
 RT: 17.63 min Scan# 4617
 Delta R.T. -0.02 min
 Lab File: VL039310.D
 Acq: 16 Jun 2022 00:41

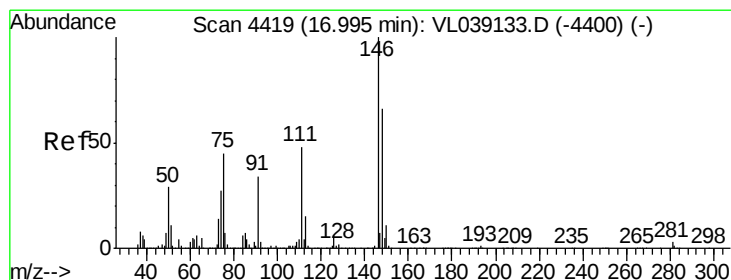
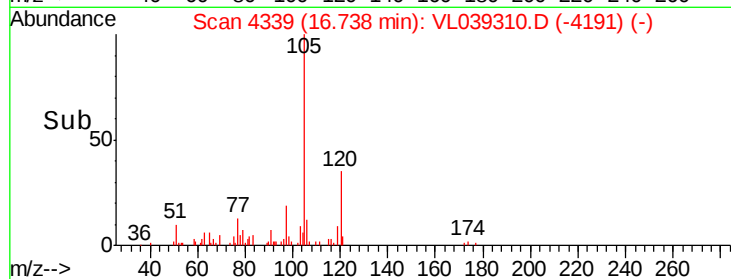
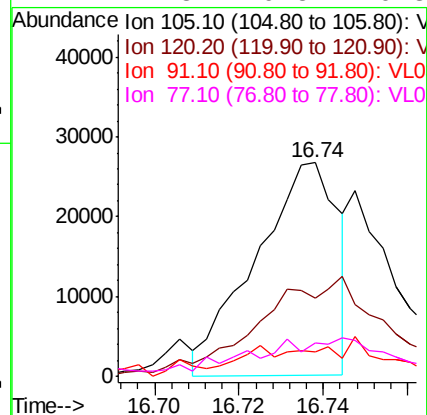
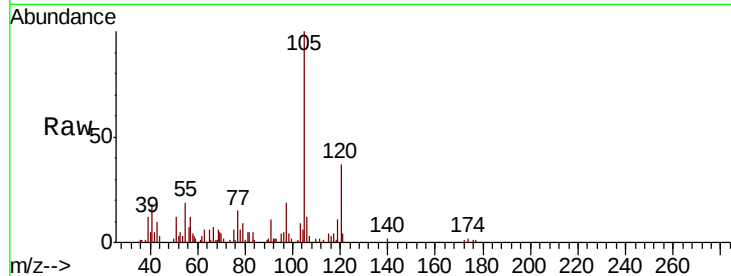
Tgt Ion: 119 Resp: 21464
 Ion Ratio Lower Upper
 119 100
 134 42.4 20.4 30.6#
 91 0.0 24.2 36.4#





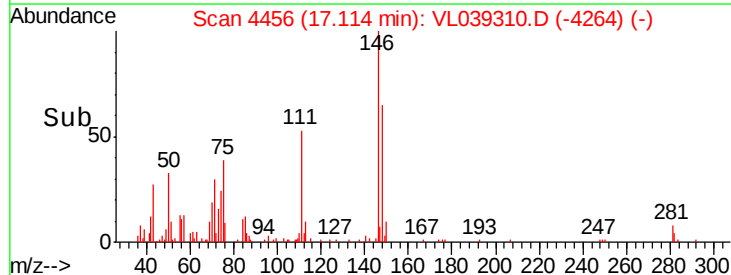
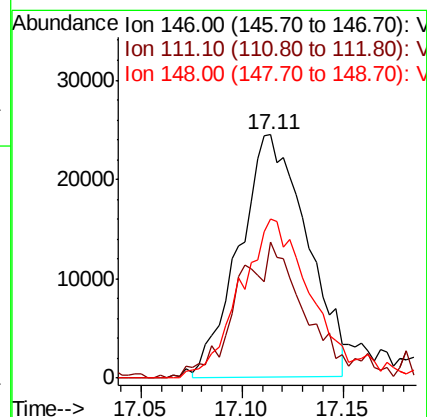
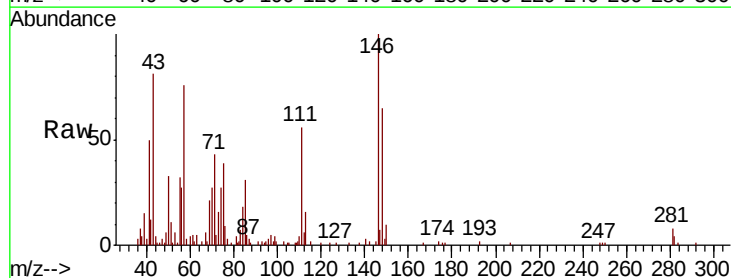
#74
 1,2,4-Trimethylbenzene
 Concen: 0.091 ppbv
 RT: 16.74 min
 Delta R.T. 0.12 min
 Lab File: VL039133.D
 Acq: 16 Jun 2022 00:41

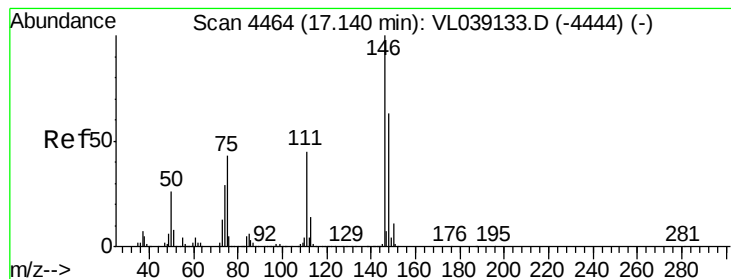
Tot Ion:	105	Resp:	36081
Ion	Ratio	Lower	Upper
105	100		
120	33.6	38.1	57.1#
91	9.5	47.4	71.0#
77	11.8	19.5	29.3#



#75
 1,3-Dichlorobenzene
 Concen: 0.256 ppbv
 RT: 17.11 min Scan# 4456
 Delta R.T. 0.12 min
 Lab File: VL039310.D
 Acq: 16 Jun 2022 00:41

Tgt Ion:	146	Resp:	57098
Ion	Ratio	Lower	Upper
146	100		
111	58.1	23.8	71.4
148	73.9	32.4	97.0





#76

1,4-Dichlorobenzene

Concen: 0.256 ppbv

RT: 17.11

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 16 Jun 2022 00:41

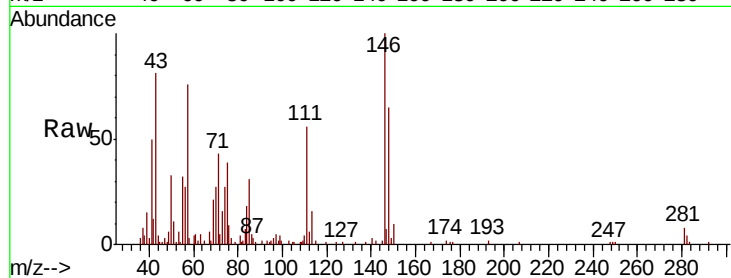
Tot Ion:146 Resp: 57098

Ion Ratio Lower Upper

146 100

111 61.6 23.6 71.0

148 73.2 33.7 101.0



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V

