

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL061522\
 Data File : VL039309.D
 Acq On : 15 Jun 2022 23:59
 Operator : SY/AP
 Sample : N3338-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Quant Time: Jun 16 04:37:02 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

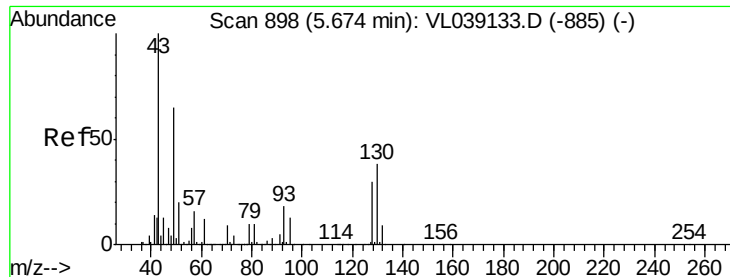
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1185753	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	3260916	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.07	117	2903891	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	2250405	9.37	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	54317	0.261	ppbv	91
4) Chloromethane	3.14	50	30431	0.393	ppbv	97
9) Propene	3.01	41	57237	0.870	ppbv	95
10) Heptane	8.10	43	7327	0.048	ppbv #	1
11) Trichlorofluoromethane	3.94	101	42828	0.227	ppbv	97
12) 1,1,2-Trichlorotrifluoroet	4.47	101	7819	0.063	ppbv #	70
13) Ethanol	3.60	45	9867261	2750.307	ppbv #	100
15) Acetone	3.84	43	1561242	12.640	ppbv	93
16) 1,3-Butadiene	3.32	39	4539	0.068	ppbv #	38
17) tert-Butyl alcohol	4.29	59	39011	0.407	ppbv #	89
19) Isopropyl Alcohol	3.96	45	3720254	64.217	ppbv #	98
20) Methylene Chloride	4.33	84	901529	17.320	ppbv	91
21) Allyl Chloride	4.34	41	7346	0.088	ppbv #	34
23) Vinyl Acetate	5.05	43	100612	0.984	ppbv #	58
25) Ethyl Acetate	5.67	43	575763	2.068	ppbv #	79
26) Hexane	5.67	57	750296	6.133	ppbv #	41
29) Chloroform	5.74	83	539030	2.618	ppbv	97
30) Cyclohexane	7.11	84	5078	0.049	ppbv #	1
34) 2-Butanone	5.23	43	80134	0.452	ppbv	92
35) Carbon Tetrachloride	7.00	117	12683	0.053	ppbv #	73
36) Benzene	6.87	78	90018	0.340	ppbv	95
39) 1,2-Dichloropropane	7.16	63	804117	7.636	ppbv #	25
41) Tetrahydrofuran	5.75	42	3704	0.035	ppbv #	13
42) Bromodichloromethane	7.77	83	20979	0.087	ppbv #	69
44) 2,2,4-Trimethylpentane	7.85	57	53449	0.115	ppbv #	18
52) Tetrachloroethene	11.21	164	5883	0.057	ppbv	98
53) Toluene	9.79	91	239401	0.785	ppbv	99
58) Ethyl Benzene	12.97	91	23336	0.058	ppbv	97
59) m/p-Xylene	12.97	91	23336	0.066	ppbv #	33
60) o-Xylene	13.67	91	24748	0.075	ppbv #	33
72) 4-Ethyltoluene	15.82	105	16346	0.042	ppbv #	72
74) 1,2,4-Trimethylbenzene	16.73	105	31342	0.080	ppbv #	56
76) 1,4-Dichlorobenzene	17.11	146	32769	0.149	ppbv #	26

(#) = 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: IA1

Acq: 15 Jun 2022 23:59

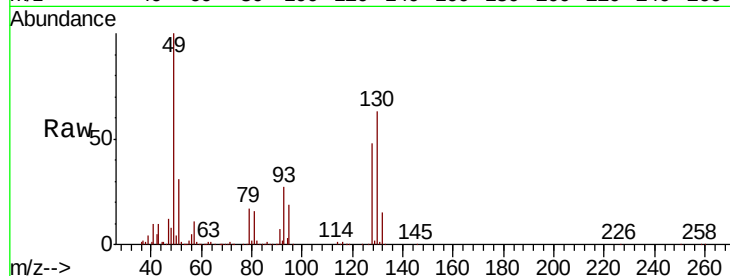
Tot Ion: 49 Resp: 1185753

Ion Ratio Lower Upper

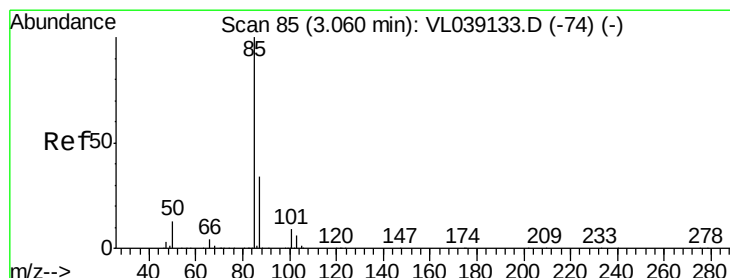
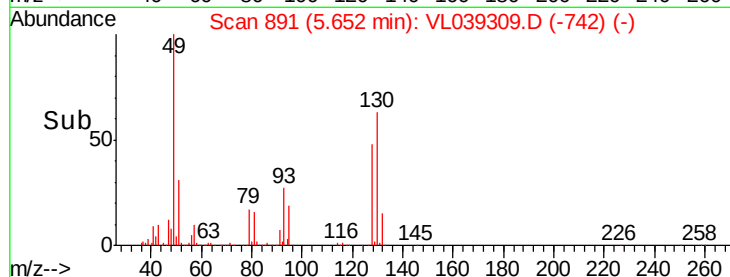
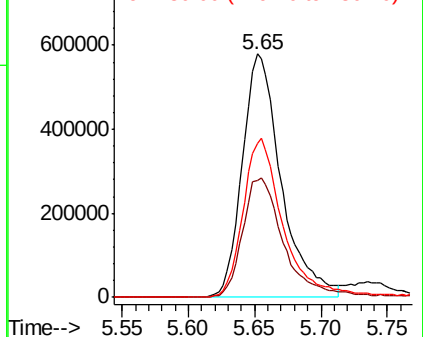
49 100

128 53.2 24.7 74.1

130 68.3 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: 0.261 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.02 min

Lab File: VL039309.D

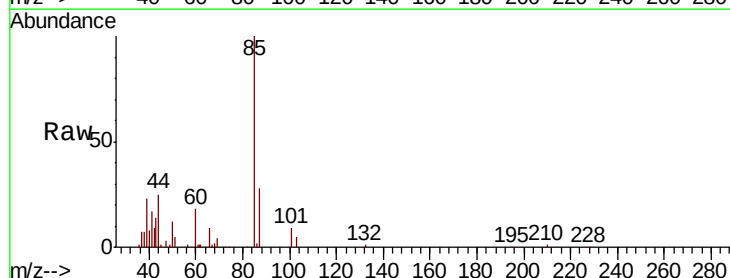
Acq: 15 Jun 2022 23:59

Tgt Ion: 85 Resp: 54317

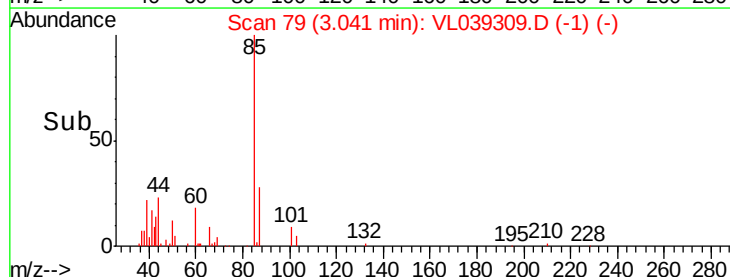
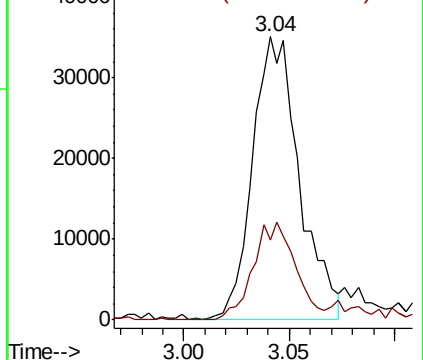
Ion Ratio Lower Upper

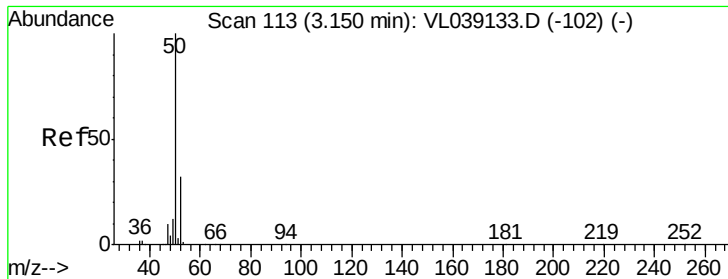
85 100

87 28.4 26.9 40.3



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





#4

Chloromethane

Concen: 0.393 ppbv

RT: 3.14 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

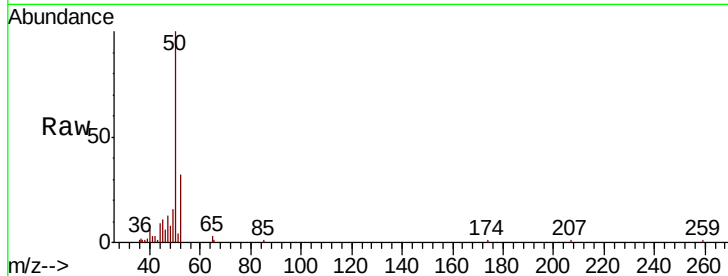
Acq: 15 Jun 2022 23:59

Tot Ion: 50 Resp: 30431

Ion Ratio Lower Upper

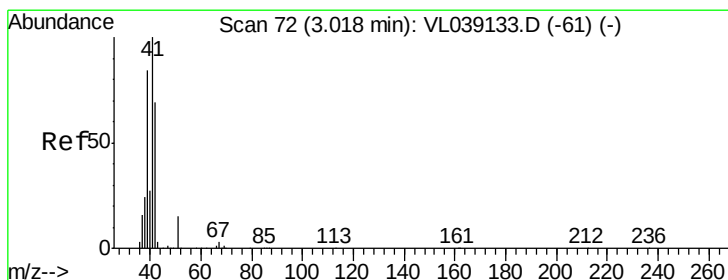
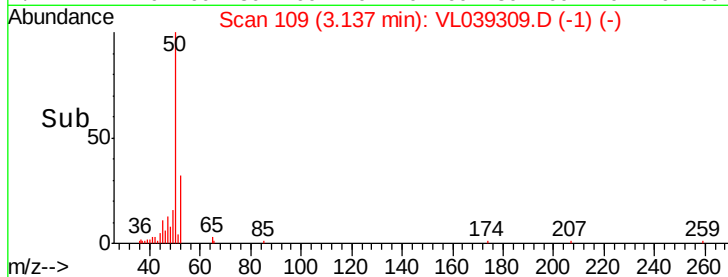
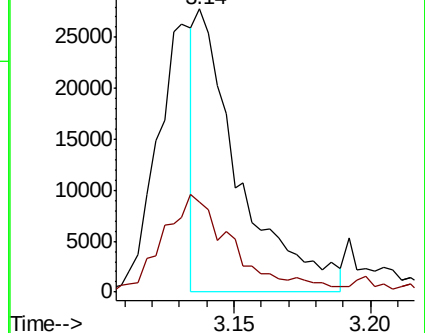
50 100

52 30.9 25.9 38.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#9

Propene

Concen: 0.870 ppbv

RT: 3.01 min Scan# 69

Delta R.T. -0.01 min

Lab File: VL039309.D

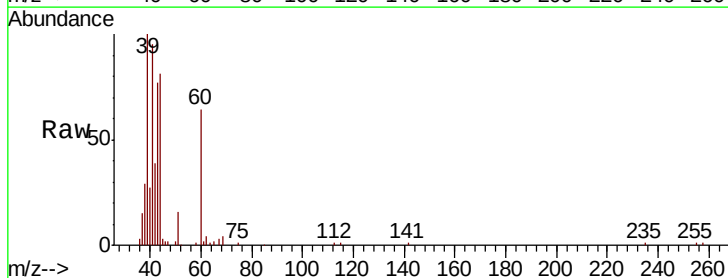
Acq: 15 Jun 2022 23:59

Tgt Ion: 41 Resp: 57237

Ion Ratio Lower Upper

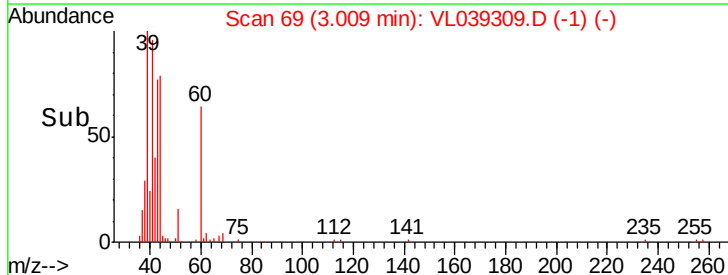
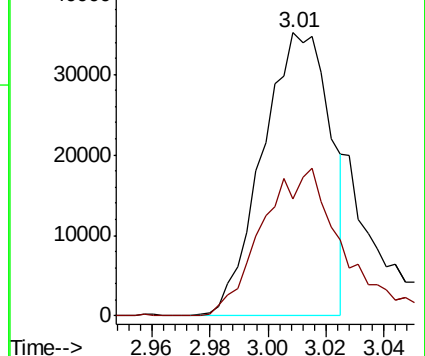
41 100

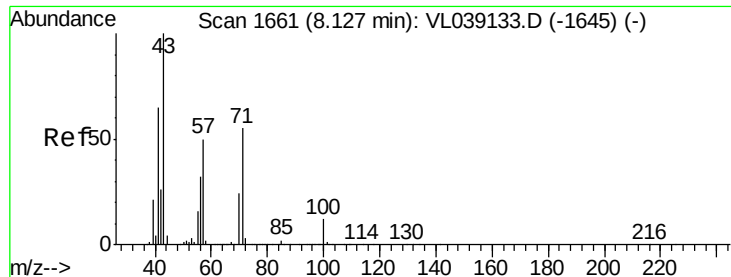
42 65.2 55.4 83.2



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.048 ppbv

RT: 8.10 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

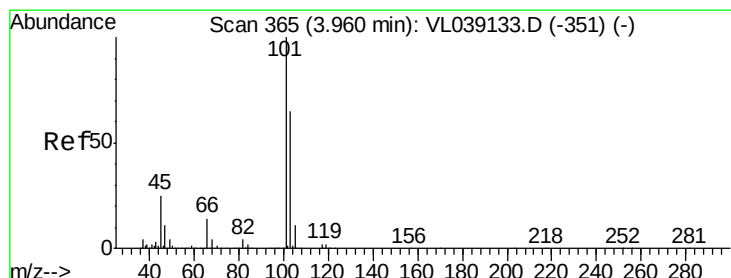
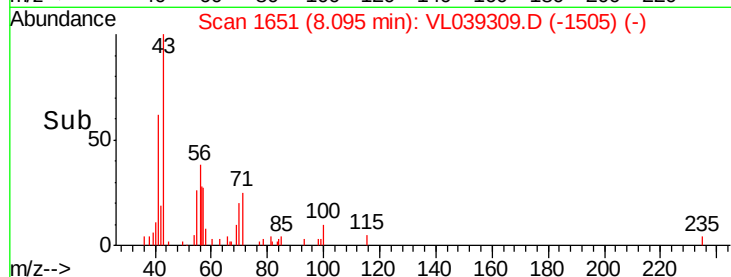
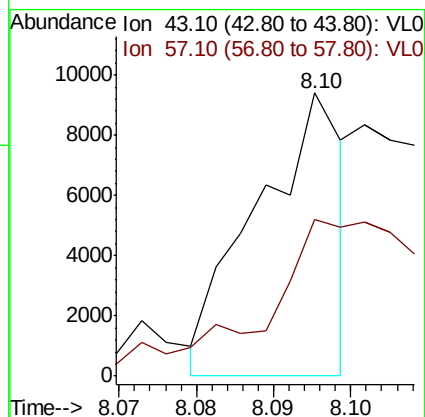
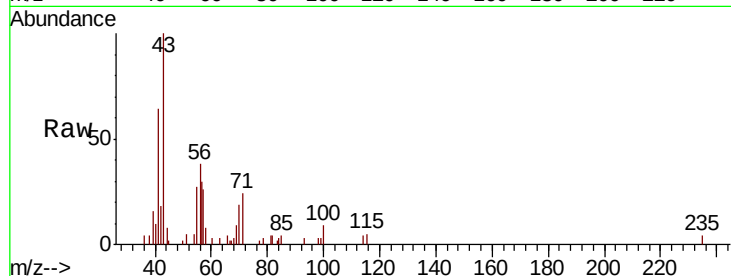
Acq: 15 Jun 2022 23:59

Tot Ion: 43 Resp: 7327

Ion Ratio Lower Upper

43 100

57 170.1 41.4 62.2#



#11

Trichlorofluoromethane

Concen: 0.227 ppbv

RT: 3.94 min Scan# 359

Delta R.T. -0.02 min

Lab File: VL039309.D

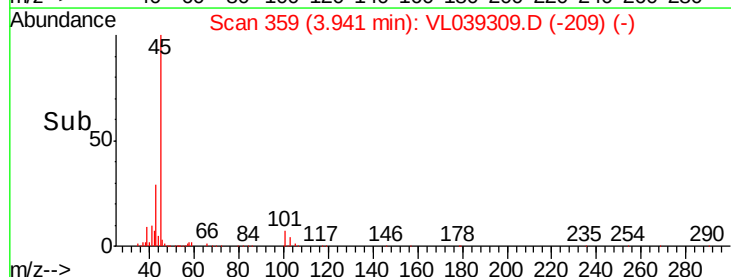
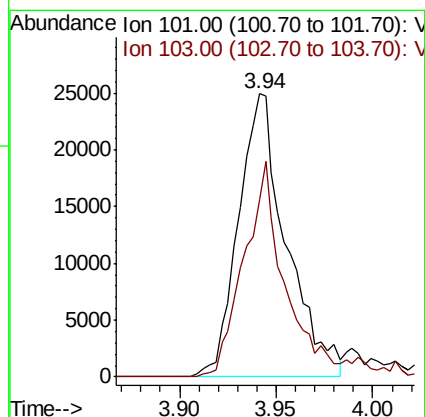
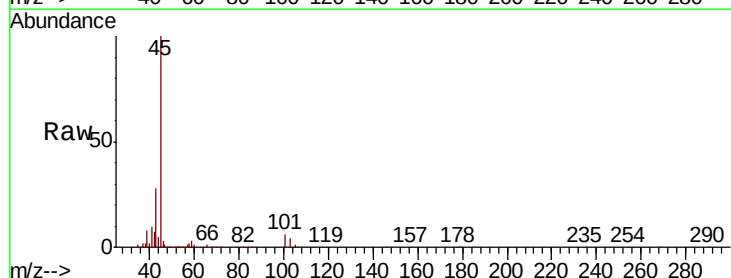
Acq: 15 Jun 2022 23:59

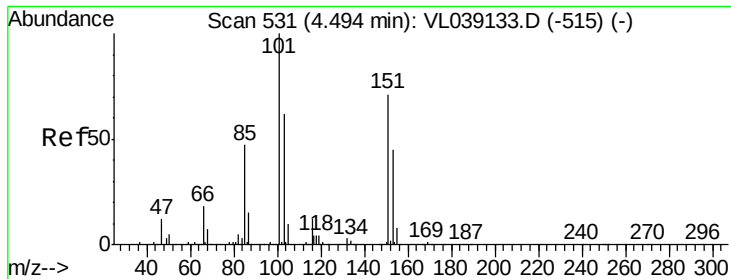
Tgt Ion:101 Resp: 42828

Ion Ratio Lower Upper

101 100

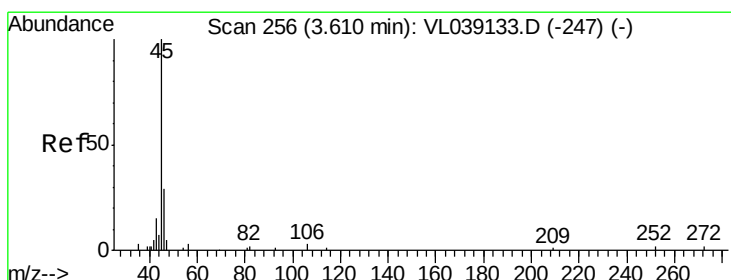
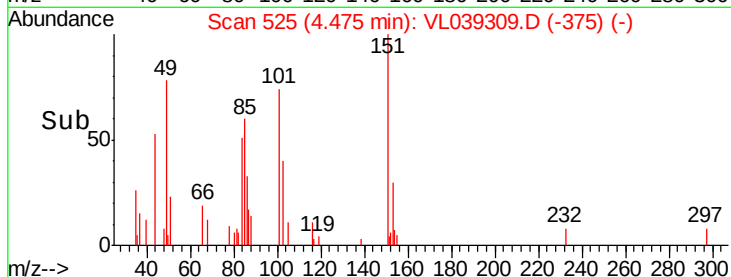
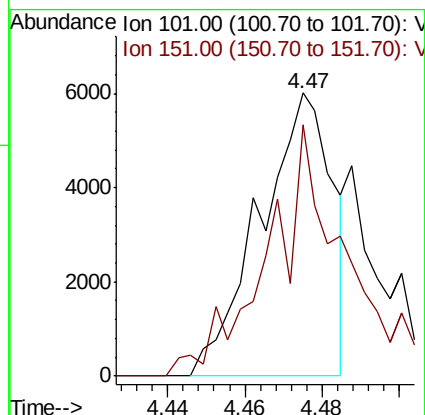
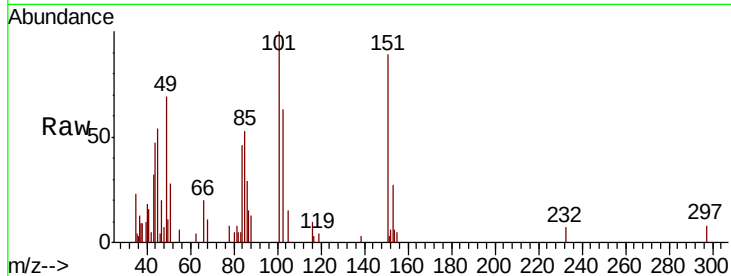
103 62.5 51.7 77.5





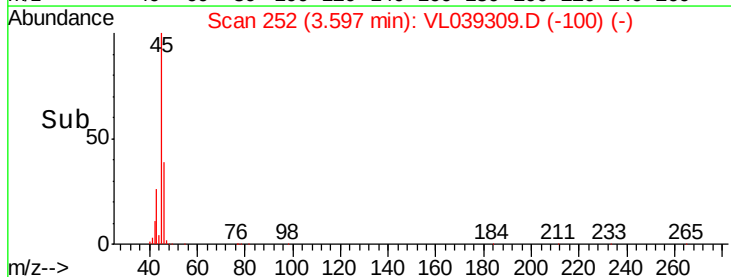
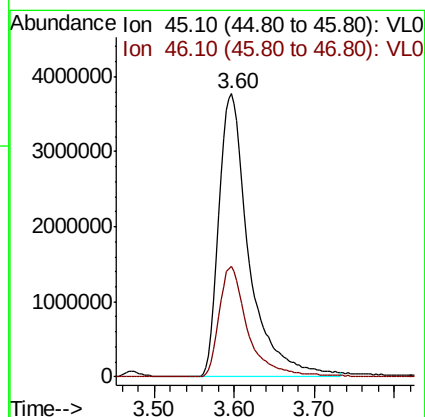
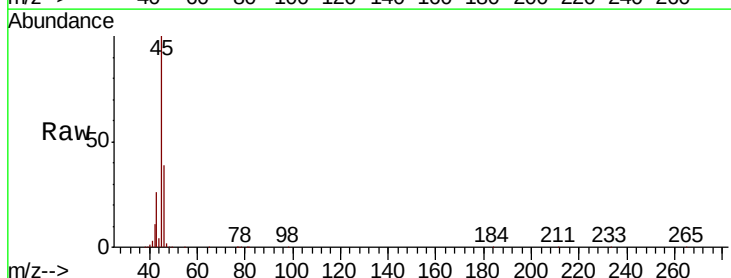
#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.063 ppbv
 RT: 4.47
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 15 Jun 2022 23:59

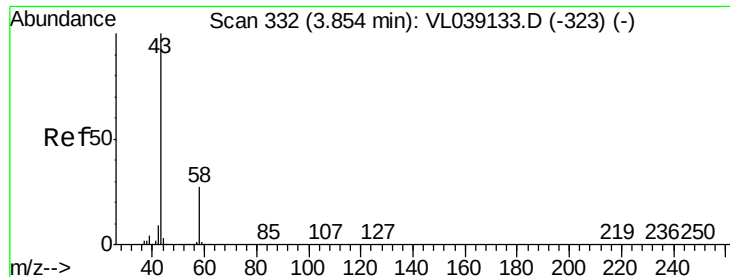
Tot Ion: 101 Resp: 7819
 Ion Ratio Lower Upper
 101 100
 151 99.9 59.4 89.0#



#13
 Ethanol
 Concen: 2750.307 ppbv
 RT: 3.60 min Scan# 252
 Delta R.T. -0.01 min
 Lab File: VL039309.D
 Acq: 15 Jun 2022 23:59

Tgt Ion: 45 Resp: 9867261
 Ion Ratio Lower Upper
 45 100
 46 37.9 0.0 0.0#





#15

Acetone

Concen: 12.640 ppbv

RT: 3.84 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

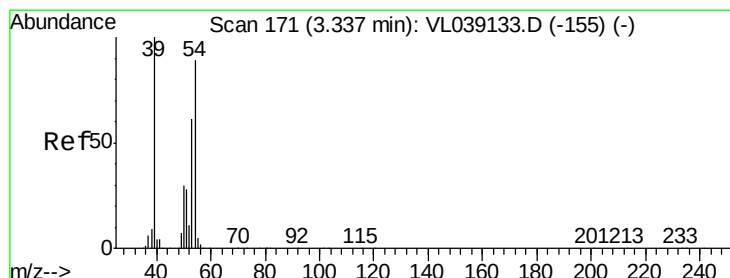
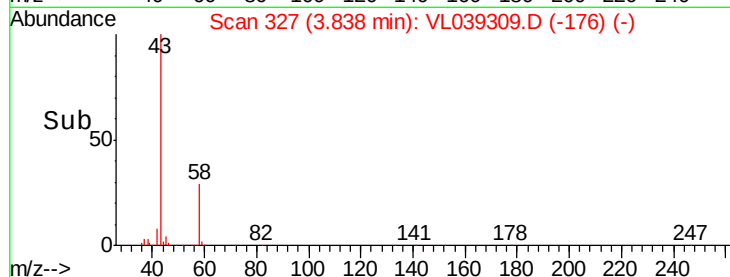
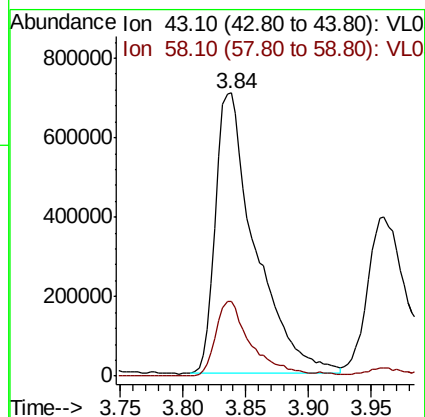
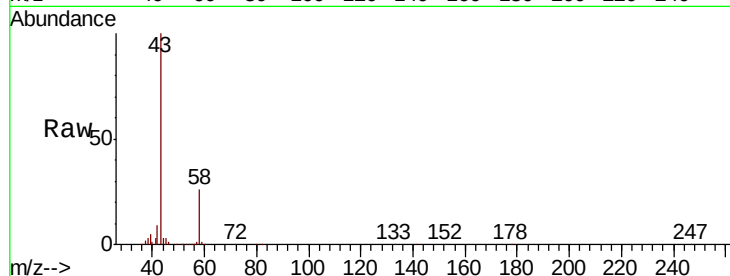
Acq: 15 Jun 2022 23:59

Tot Ion: 43 Resp: 1561242

Ion Ratio Lower Upper

43 100

58 24.4 22.5 33.7



#16

1,3-Butadiene

Concen: 0.068 ppbv

RT: 3.32 min Scan# 165

Delta R.T. -0.02 min

Lab File: VL039309.D

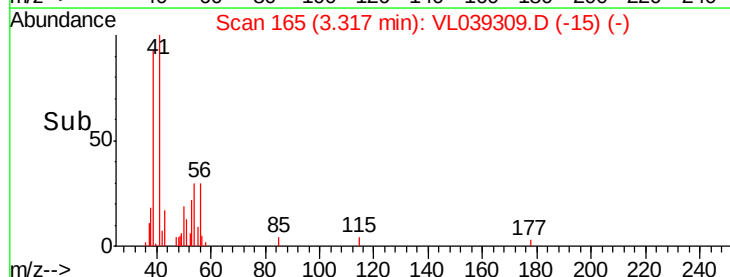
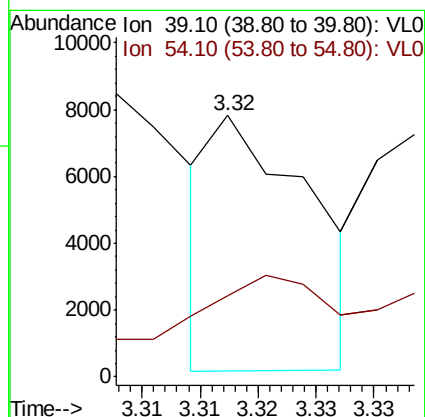
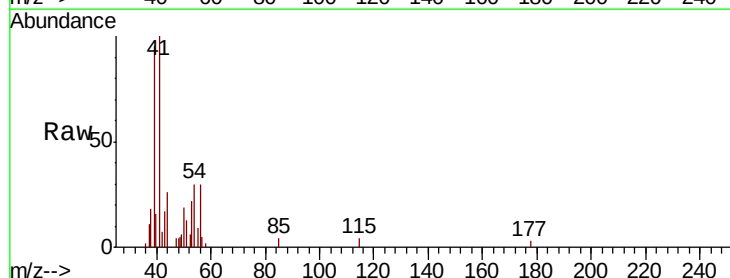
Acq: 15 Jun 2022 23:59

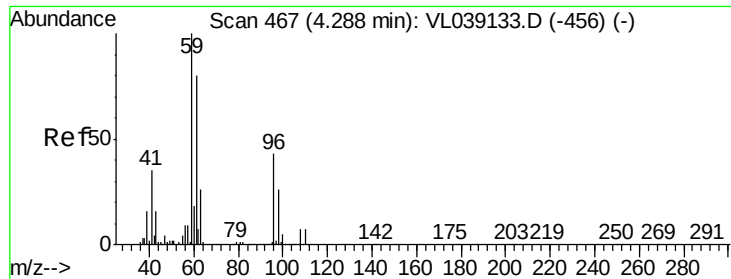
Tgt Ion: 39 Resp: 4539

Ion Ratio Lower Upper

39 100

54 138.1 65.8 98.6#





#17

tert-Butyl alcohol

Concen: 0.407 ppbv

RT: 4.29 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

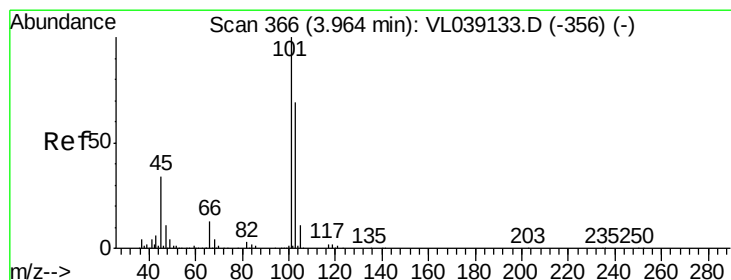
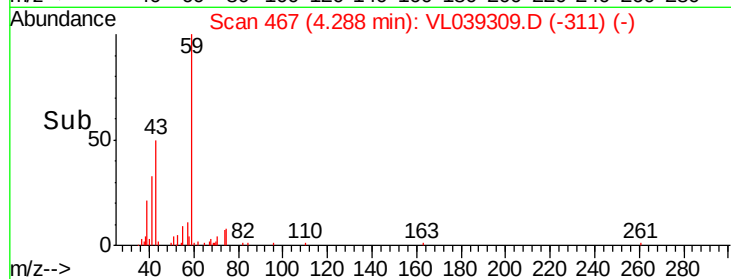
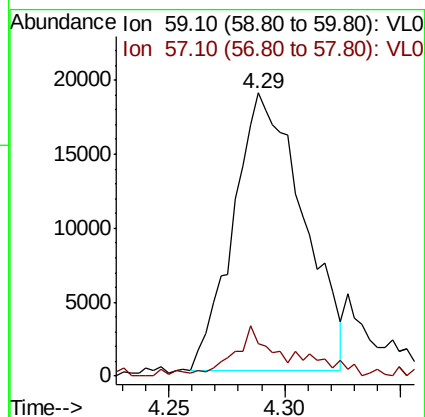
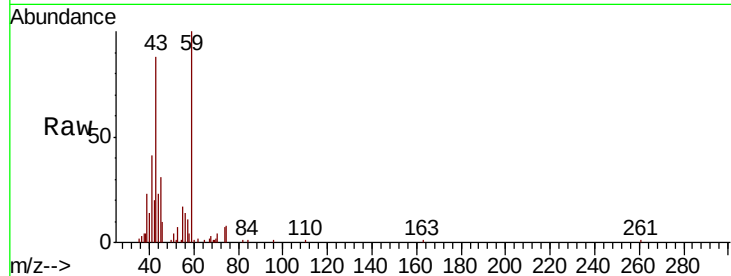
Acq: 15 Jun 2022 23:59

Tot Ion: 59 Resp: 39011

Ion Ratio Lower Upper

59 100

57 15.7 9.1 13.7#



#19

Isopropyl Alcohol

Concen: 64.217 ppbv

RT: 3.96 min Scan# 365

Delta R.T. -0.00 min

Lab File: VL039309.D

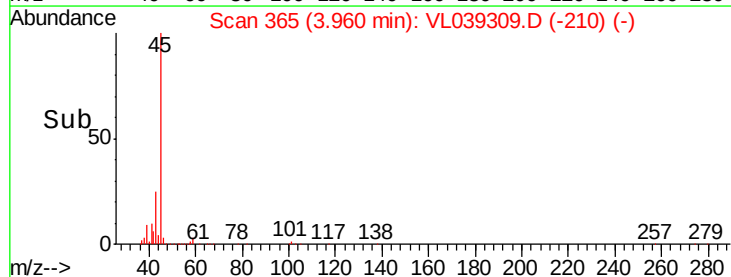
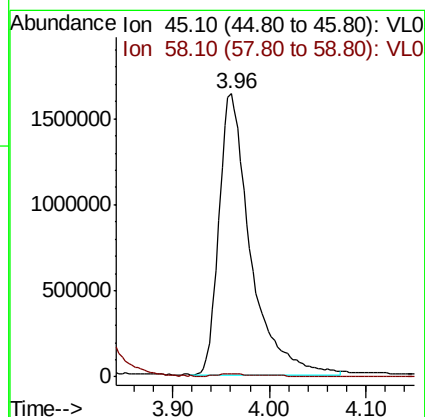
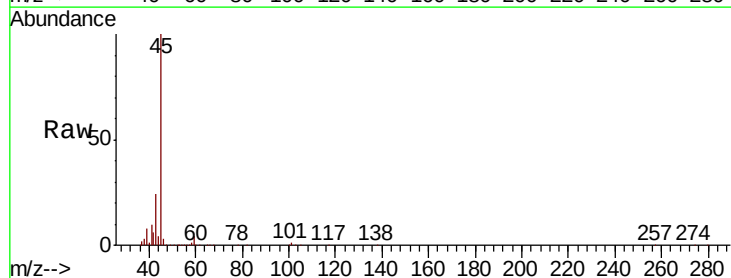
Acq: 15 Jun 2022 23:59

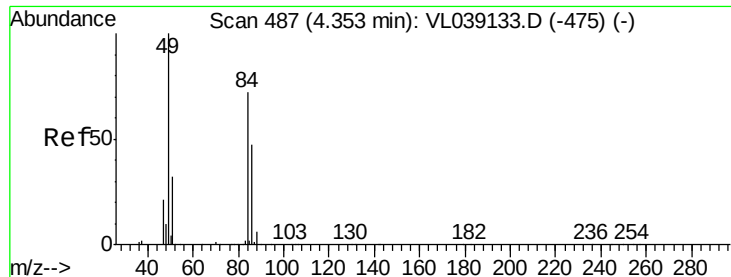
Tgt Ion: 45 Resp: 3720254

Ion Ratio Lower Upper

45 100

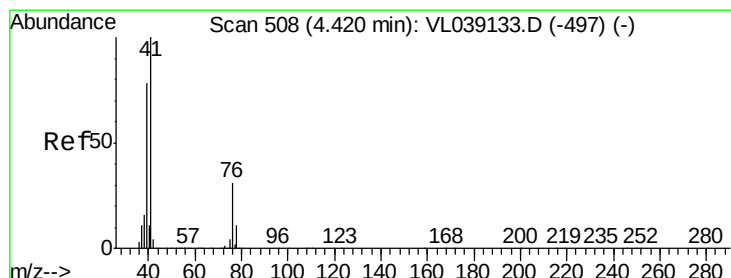
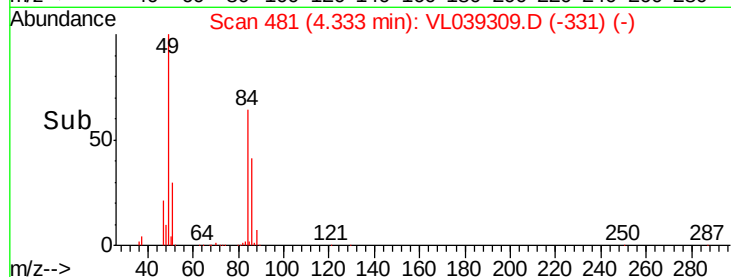
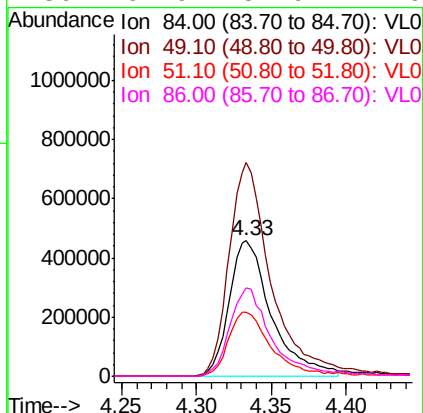
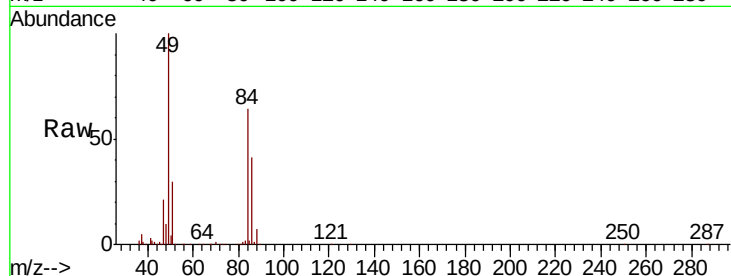
58 1.6 1.8 2.8#





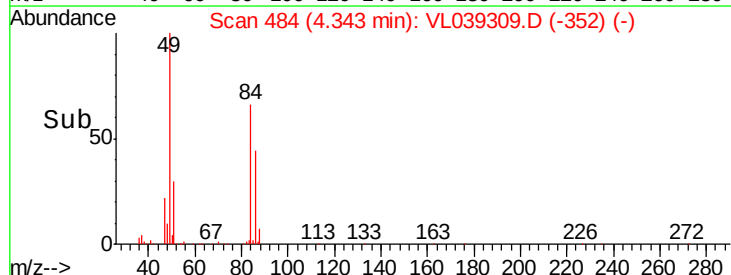
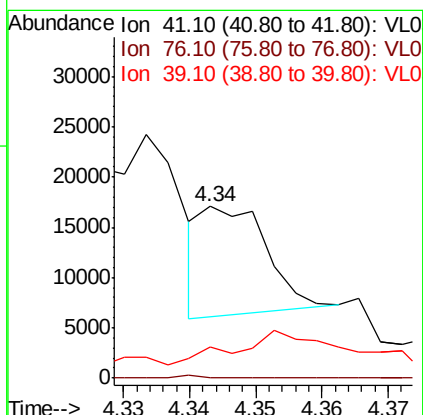
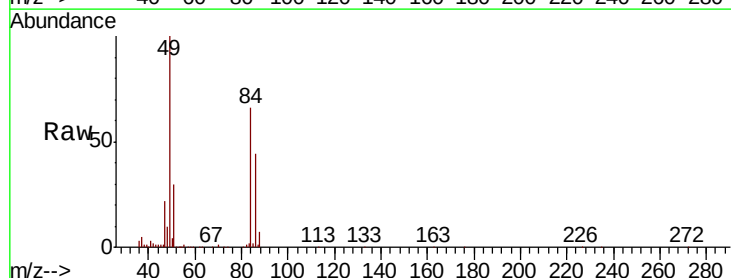
#20
Methylene Chloride
Concen: 17.320 ppbv
RT: 4.33
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 15 Jun 2022 23:59

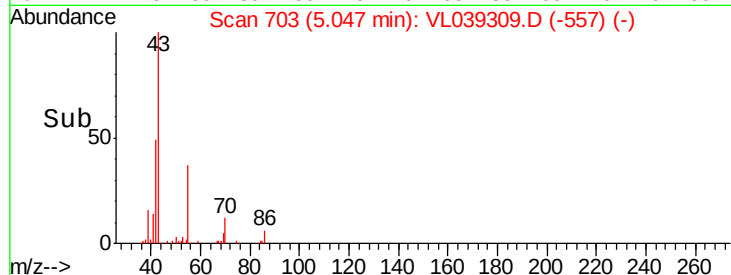
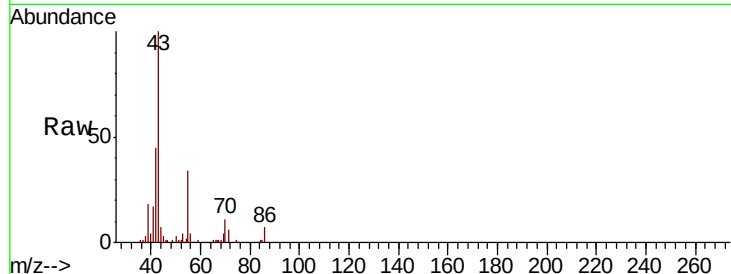
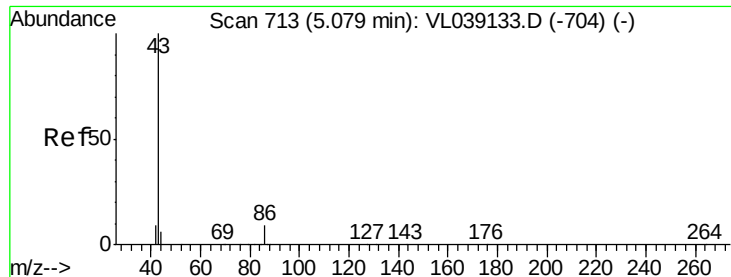
Tot Ion:	84	Resp:	901529
Ion	Ratio	Lower	Upper
84	100		
49	157.4	111.1	166.7
51	47.1	35.3	52.9
86	64.9	51.9	77.9



#21
Allyl Chloride
Concen: 0.088 ppbv
RT: 4.34 min Scan# 484
Delta R.T. -0.08 min
Lab File: VL039309.D
Acq: 15 Jun 2022 23:59

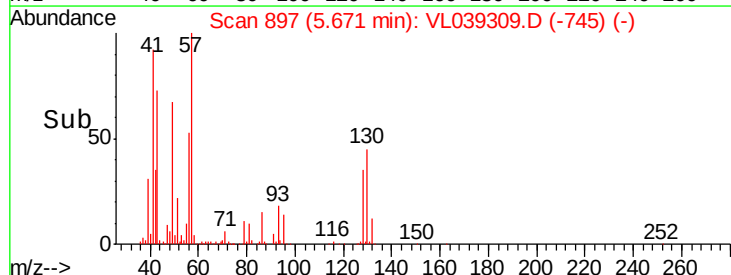
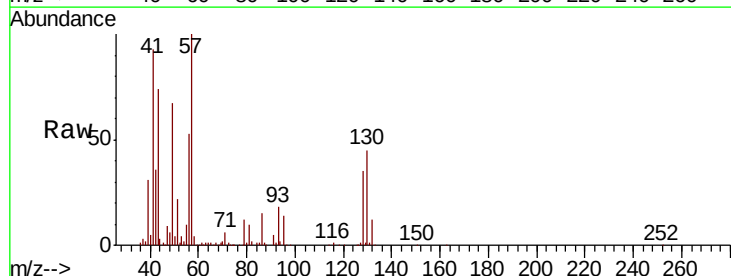
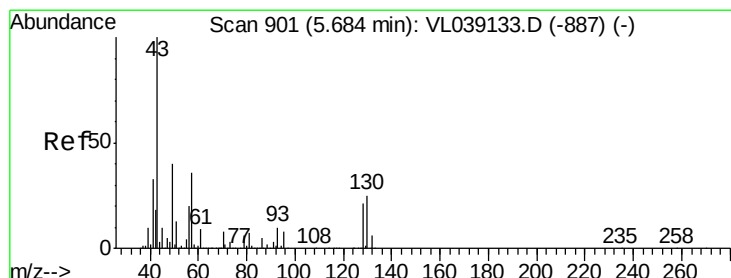
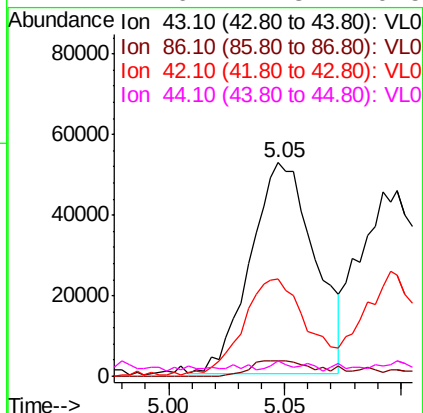
Tgt Ion:	41	Resp:	7346
Ion	Ratio	Lower	Upper
41	100		
76	33.8	24.2	36.2
39	0.0	62.2	93.2#





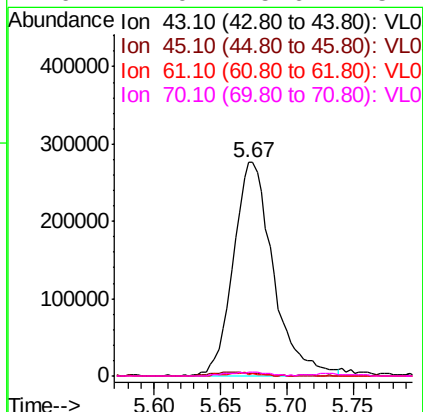
#23
 Vinyl Acetate
 Concen: 0.984 ppbv
 RT: 5.05
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 15 Jun 2022 23:59

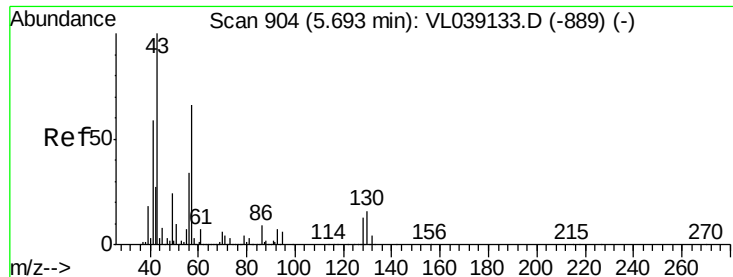
Tot Ion:	43	Resp:	100612
Ion	Ratio	Lower	Upper
43	100		
86	7.2	6.0	9.0
42	43.9	8.2	12.4#
44	2.6	4.3	6.5#



#25
 Ethyl Acetate
 Concen: 2.068 ppbv
 RT: 5.67 min Scan# 897
 Delta R.T. -0.01 min
 Lab File: VL039309.D
 Acq: 15 Jun 2022 23:59

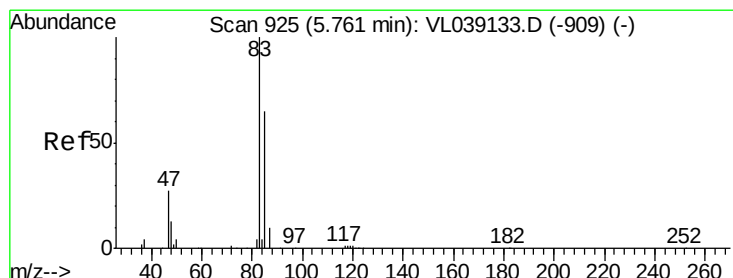
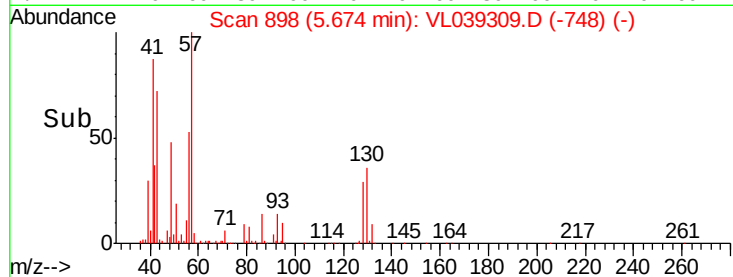
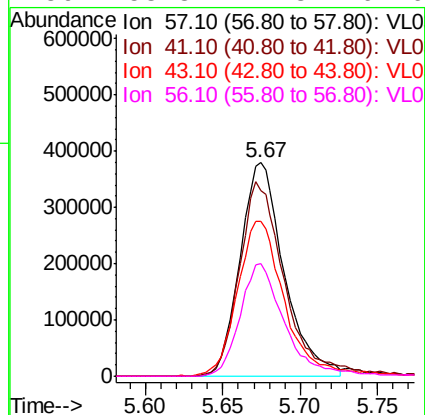
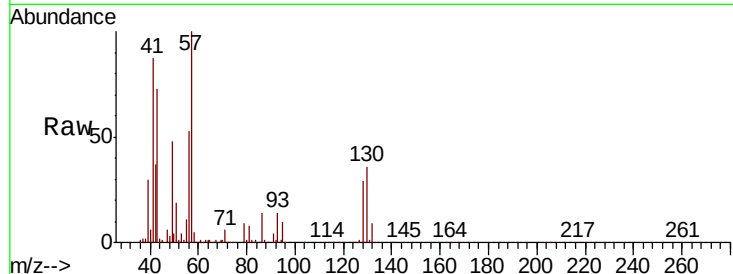
Tgt Ion:	43	Resp:	575763
Ion	Ratio	Lower	Upper
43	100		
45	2.2	8.2	12.2#
61	1.4	8.4	12.6#
70	2.0	5.6	8.4#





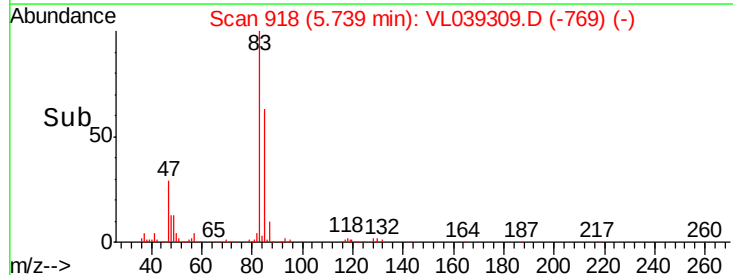
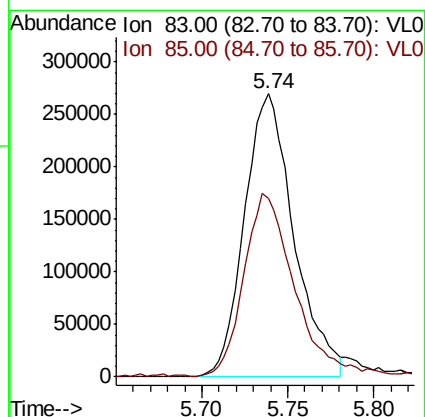
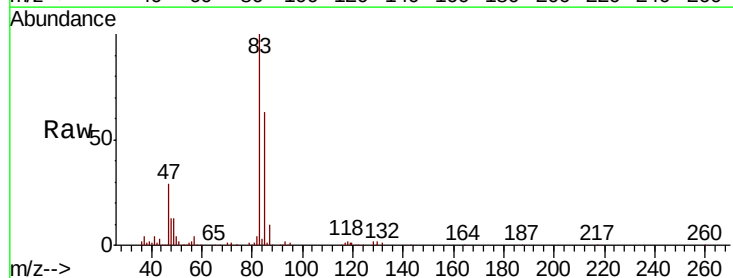
#26
Hexane
Concen: 6.133 ppbv
RT: 5.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 15 Jun 2022 23:59

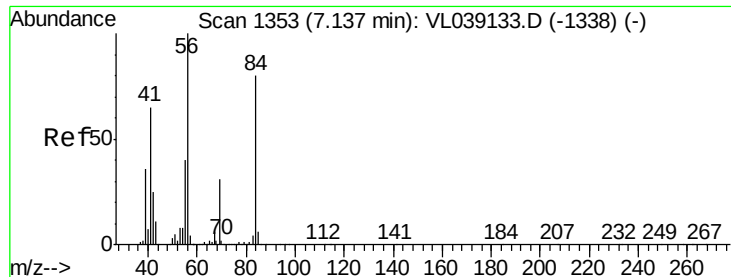
Tot Ion:	57	Resp:	750296
Ion	Ratio	Lower	Upper
57	100		
41	95.5	72.4	108.6
43	78.7	187.0	280.6#
56	53.8	41.8	62.6



#29
Chloroform
Concen: 2.618 ppbv
RT: 5.74 min Scan# 918
Delta R.T. -0.02 min
Lab File: VL039309.D
Acq: 15 Jun 2022 23:59

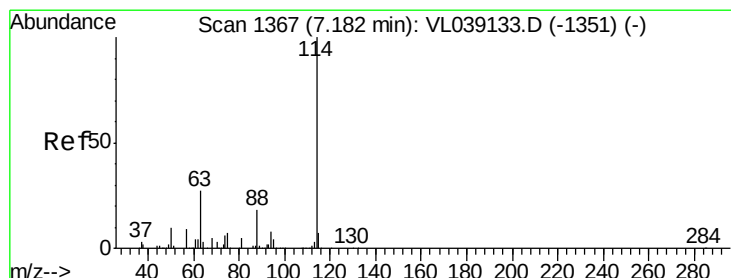
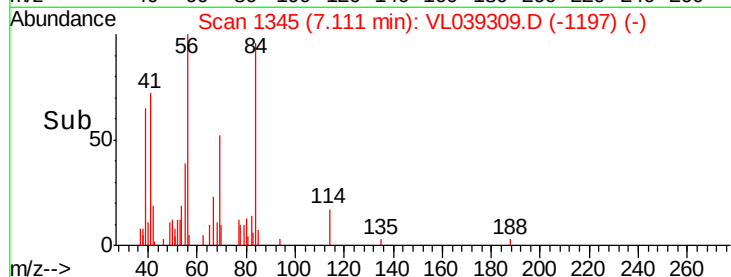
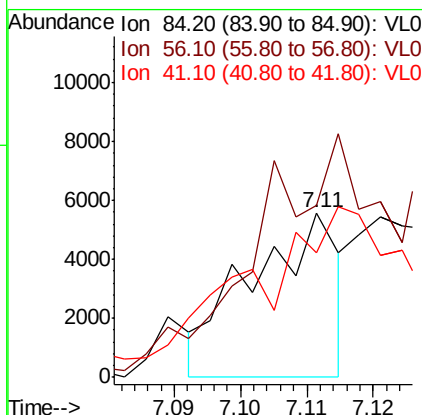
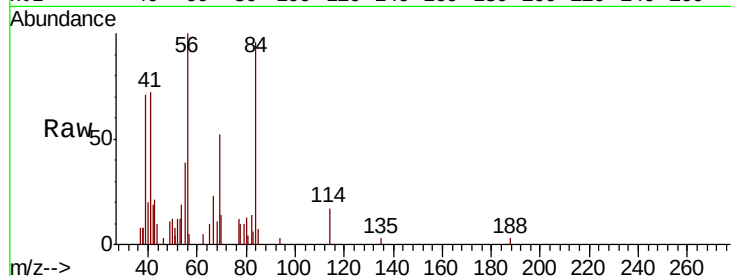
Tgt Ion:	83	Resp:	539030
Ion	Ratio	Lower	Upper
83	100		
85	63.2	52.4	78.6





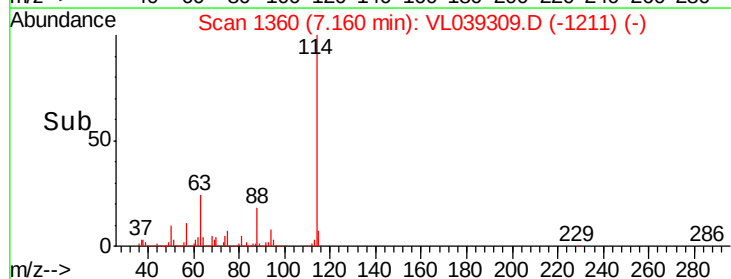
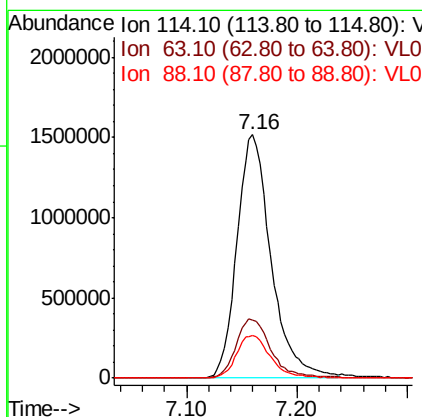
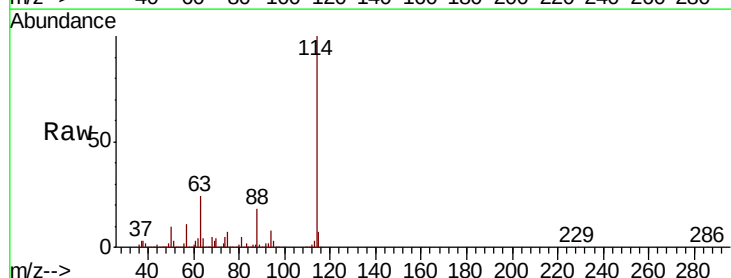
#30
Cvclohexane
Concen: 0.049 ppbv
RT: 7.11 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 15 Jun 2022 23:59

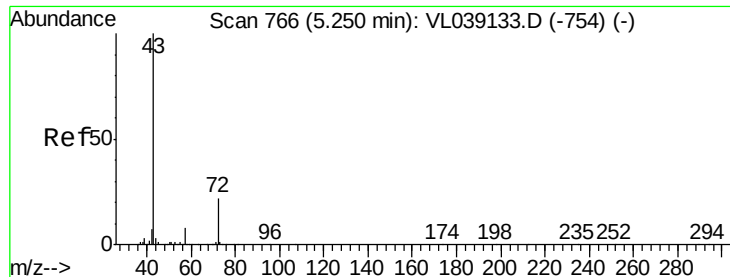
Tot Ion: 84 Resp: 5078
Ion Ratio Lower Upper
84 100
56 0.0 110.6 165.8#
41 275.6 68.9 103.3#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.16 min Scan# 1360
Delta R.T. -0.02 min
Lab File: VL039309.D
Acq: 15 Jun 2022 23:59

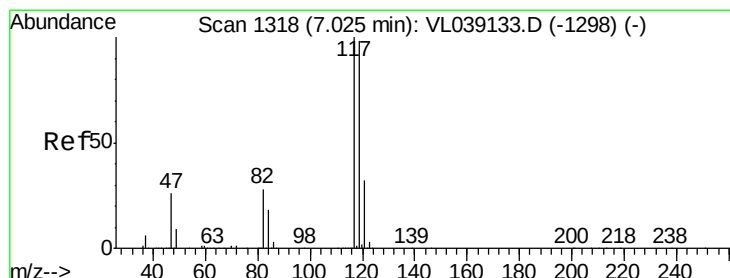
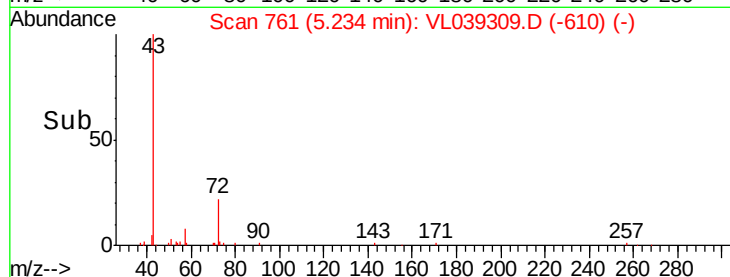
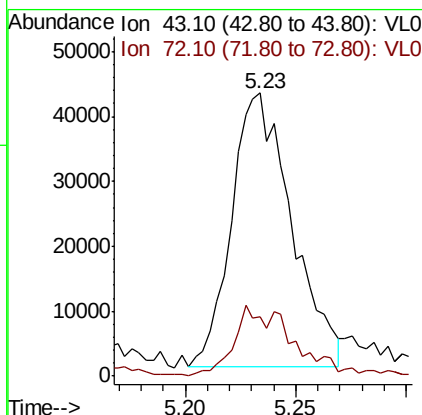
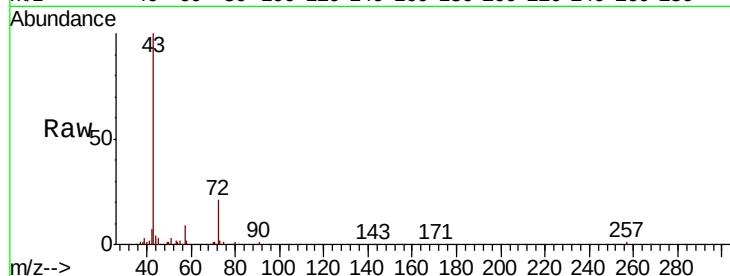
Tgt Ion: 114 Resp: 3260916
Ion Ratio Lower Upper
114 100
63 25.2 21.7 32.5
88 18.1 14.8 22.2





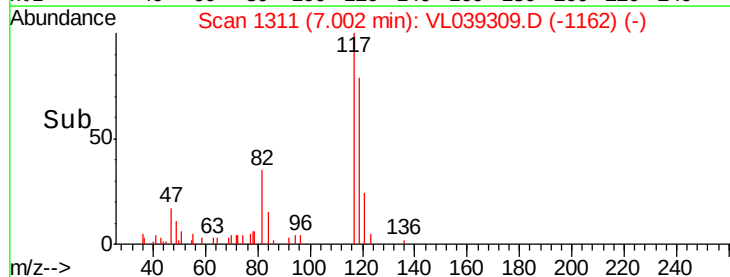
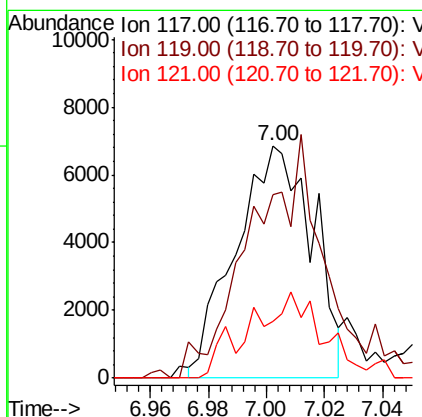
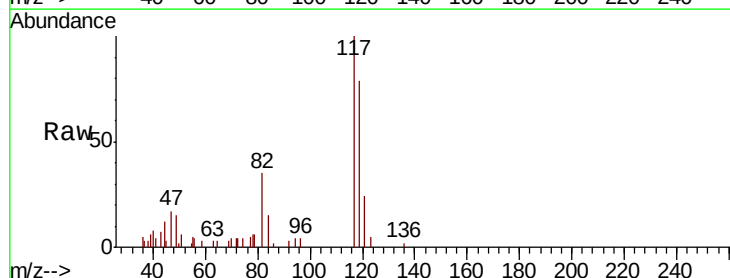
#34
2-Butanone
Concen: 0.452 ppbv
RT: 5.23
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 15 Jun 2022 23:59

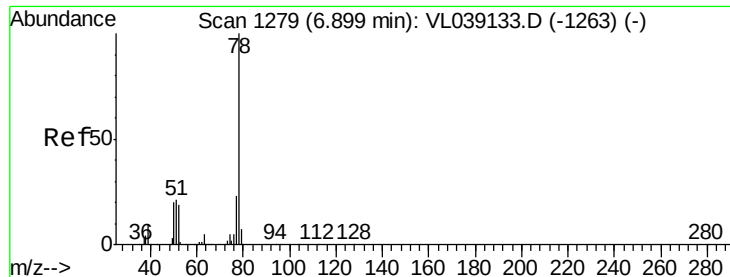
Tot Ion: 43 Resp: 80134
Ion Ratio Lower Upper
43 100
72 26.5 18.2 27.2



#35
Carbon Tetrachloride
Concen: 0.053 ppbv
RT: 7.00 min Scan# 1311
Delta R.T. -0.02 min
Lab File: VL039309.D
Acq: 15 Jun 2022 23:59

Tgt Ion: 117 Resp: 12683
Ion Ratio Lower Upper
117 100
119 66.7 78.6 118.0#
121 25.4 25.4 38.0





#36

Benzene

Concen: 0.340 ppbv

RT: 6.87 Instrument:

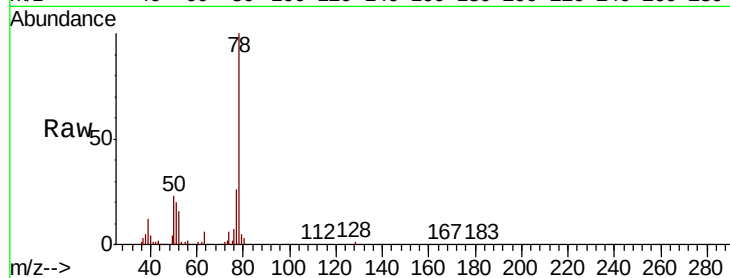
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 15 Jun 2022 23:59

Tot Ion: 78 Resp: 90018

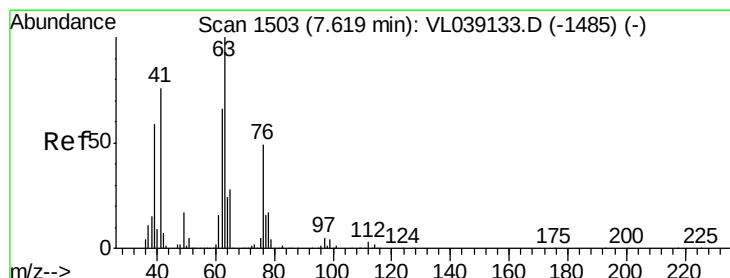
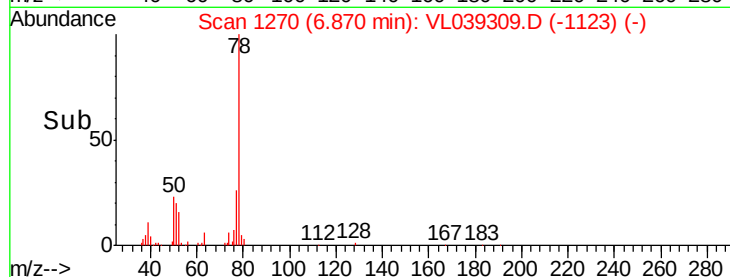
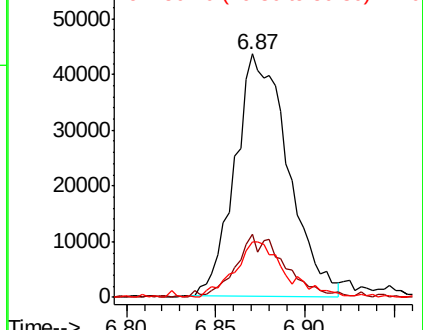
Ion	Ratio	Lower	Upper
78	100		
77	25.9	18.6	27.8
50	22.2	15.8	23.8



Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0



#39

1,2-Dichloropropane

Concen: 7.636 ppbv

RT: 7.16 min Scan# 1359

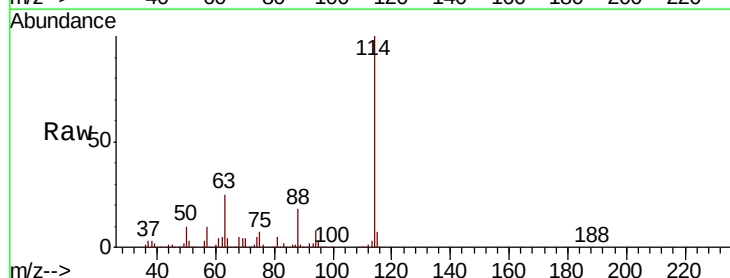
Delta R.T. -0.46 min

Lab File: VL039309.D

Acq: 15 Jun 2022 23:59

Tgt Ion: 63 Resp: 804117

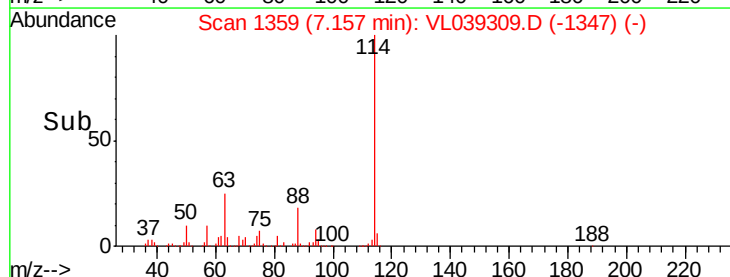
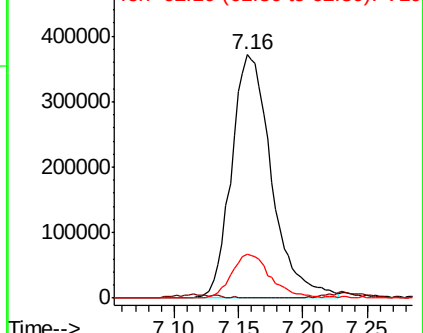
Ion	Ratio	Lower	Upper
63	100		
41	0.0	60.8	91.2#
62	18.0	52.9	79.3#

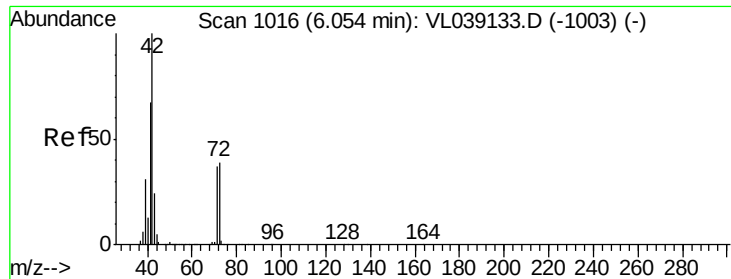


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

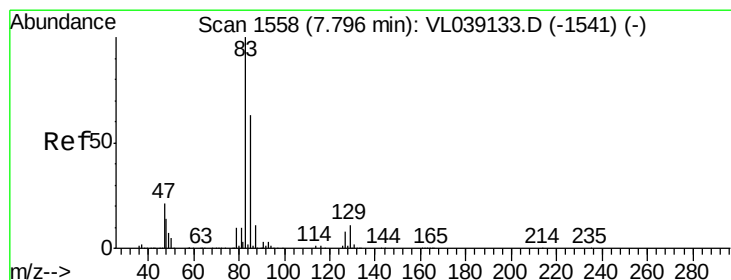
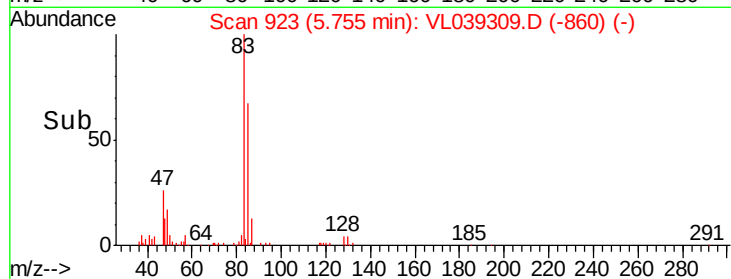
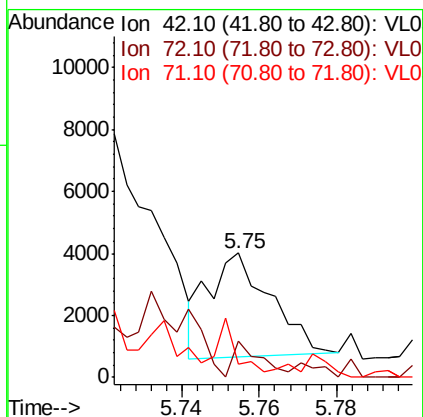
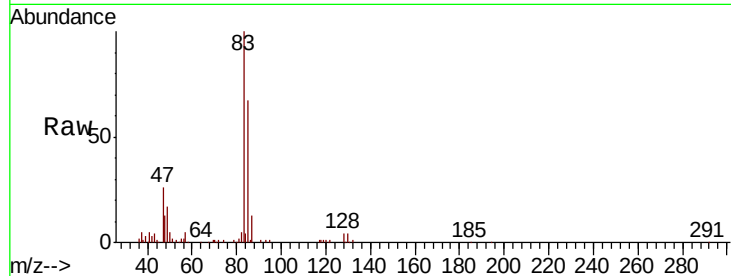
Ion 62.10 (61.80 to 62.80): VL0





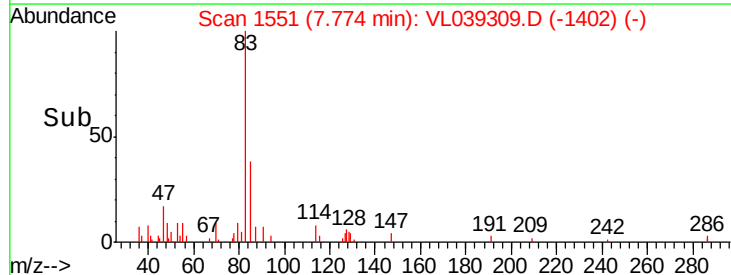
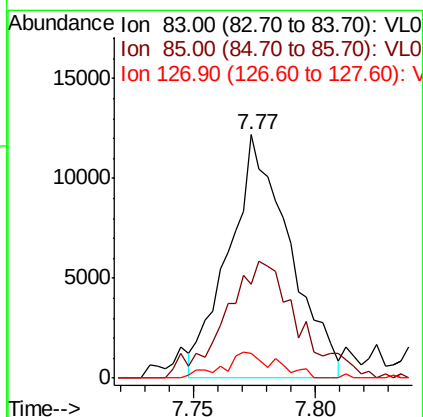
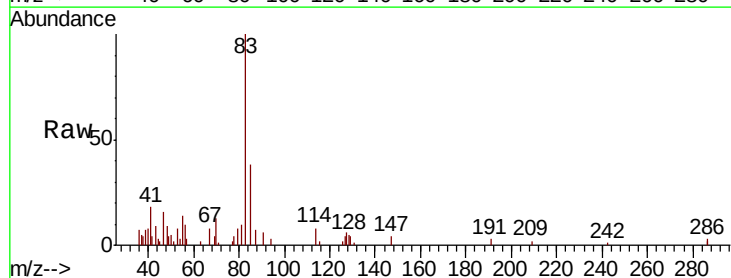
#41
Tetrahydrofuran
Concen: 0.035 ppbv
RT: 5.75
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 15 Jun 2022 23:59

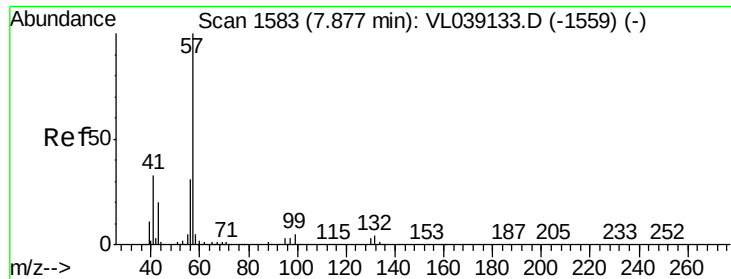
Tot Ion	Ratio	Lower	Upper
42	100		
72	107.2	32.0	48.0#
71	0.0	31.1	46.7#



#42
Bromodichloromethane
Concen: 0.087 ppbv
RT: 7.77 min Scan# 1551
Delta R.T.: -0.02 min
Lab File: VL039309.D
Acq: 15 Jun 2022 23:59

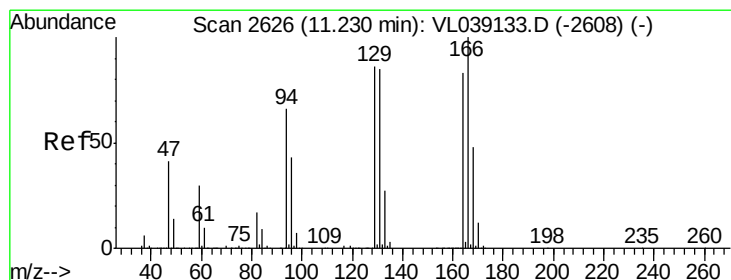
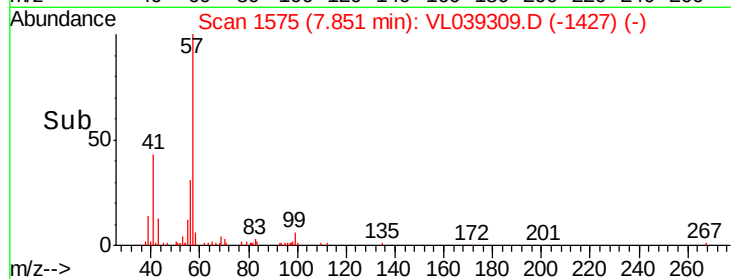
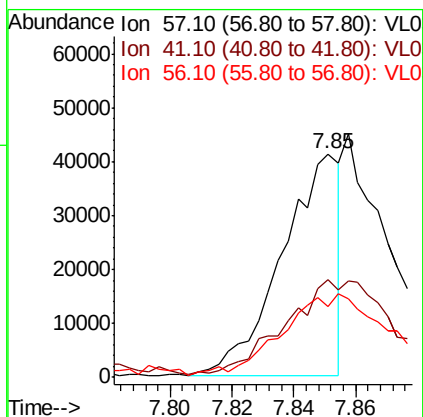
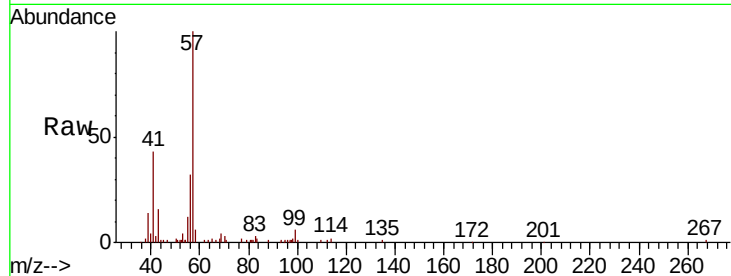
Tgt Ion	Ratio	Lower	Upper
83	100		
85	36.1	50.2	75.4#
127	10.8	6.6	9.8#





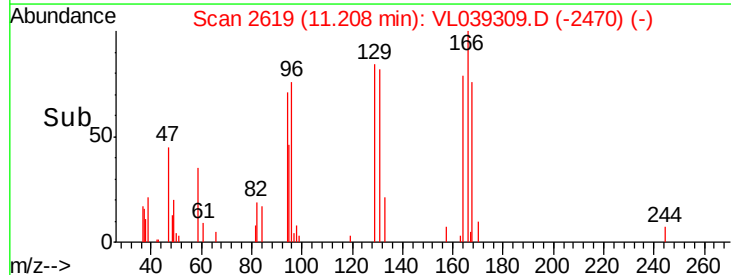
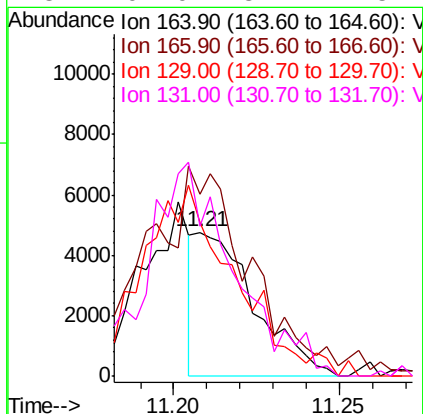
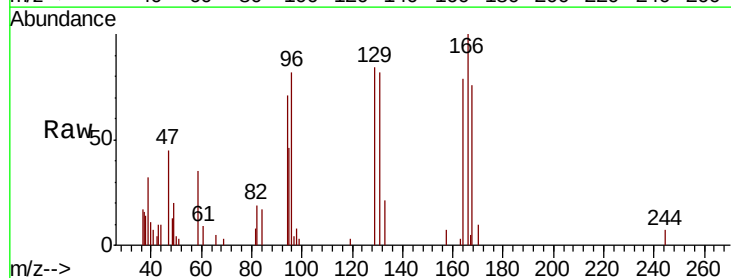
#44
 2,2,4-Trimethylpentane
 Concen: 0.115 ppbv
 RT: 7.85
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 15 Jun 2022 23:59

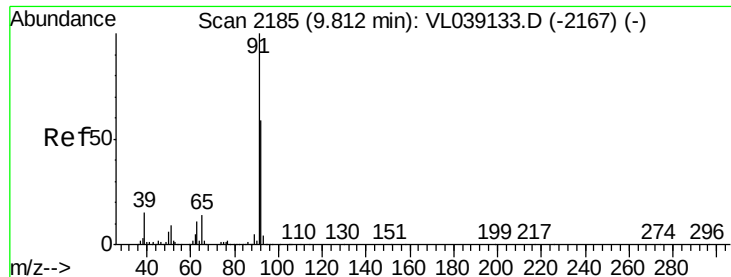
Tot Ion	57	Resp	53449
Ion Ratio	Lower	Upper	
57	100		
41	92.5	26.2	39.4#
56	0.0	24.7	37.1#



#52
 Tetrachloroethene
 Concen: 0.057 ppbv
 RT: 11.21 min Scan# 2619
 Delta R.T. -0.02 min
 Lab File: VL039309.D
 Acq: 15 Jun 2022 23:59

Tgt Ion	164	Resp	5883
Ion Ratio	Lower	Upper	
164	100		
166	119.3	96.3	144.5
129	106.6	82.5	123.7
131	104.0	82.1	123.1





#53

Toluene

Concen: 0.785 ppbv

RT: 9.79 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA1

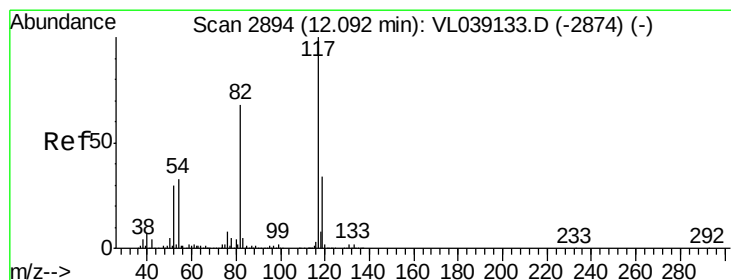
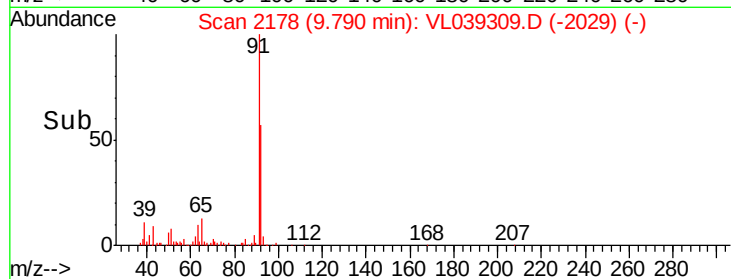
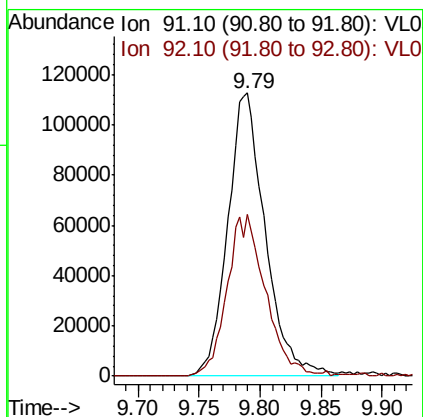
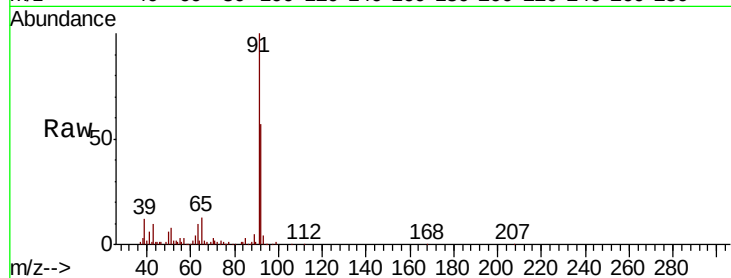
Acq: 15 Jun 2022 23:59

Tot Ion: 91 Resp: 239401

Ion Ratio Lower Upper

91 100

92 59.7 48.1 72.1



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2887

Delta R.T. -0.02 min

Lab File: VL039309.D

Acq: 15 Jun 2022 23:59

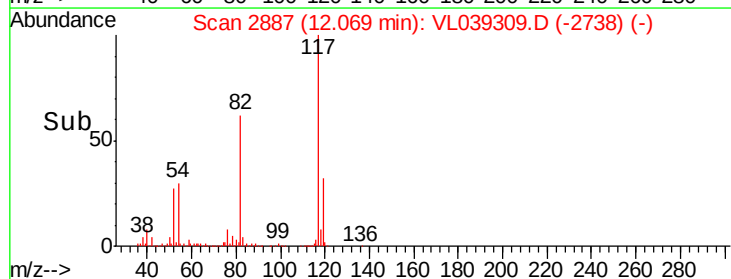
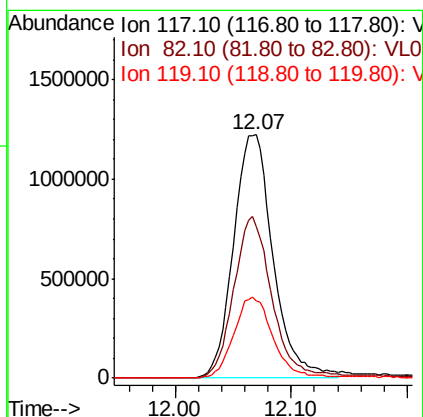
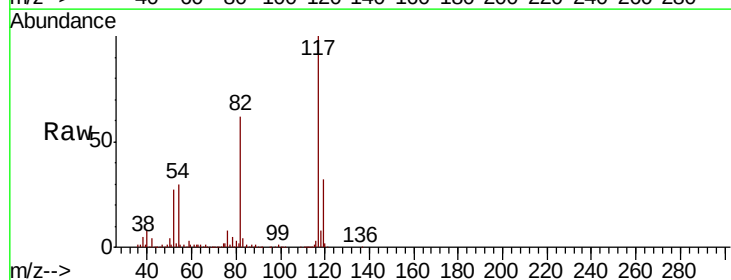
Tgt Ion: 117 Resp: 2903891

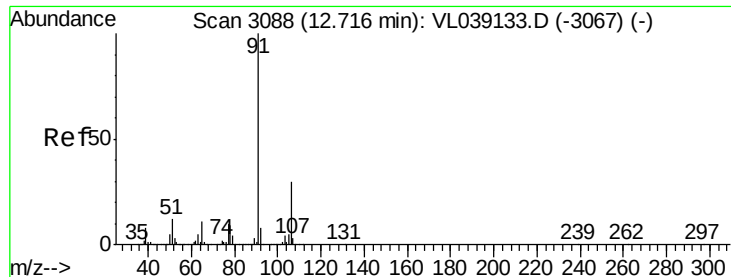
Ion Ratio Lower Upper

117 100

82 66.1 55.1 82.7

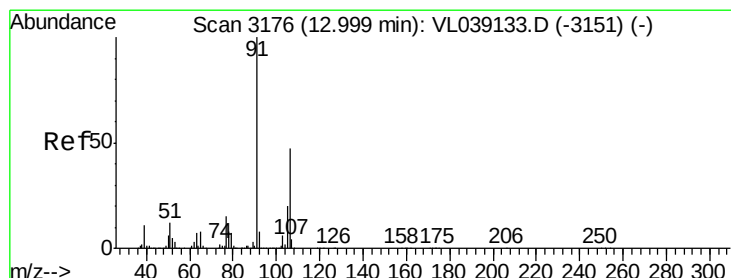
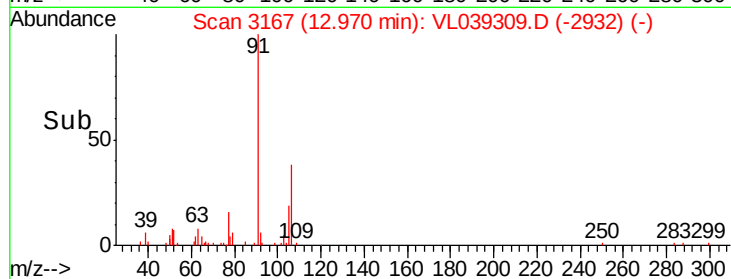
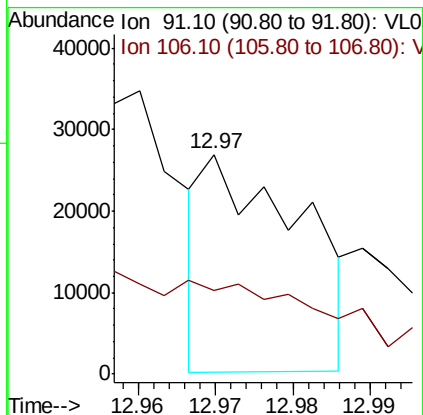
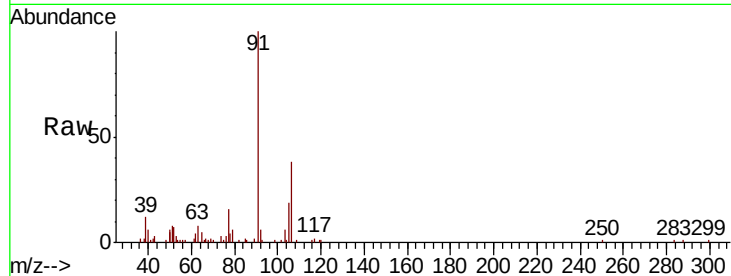
119 33.3 24.7 37.1





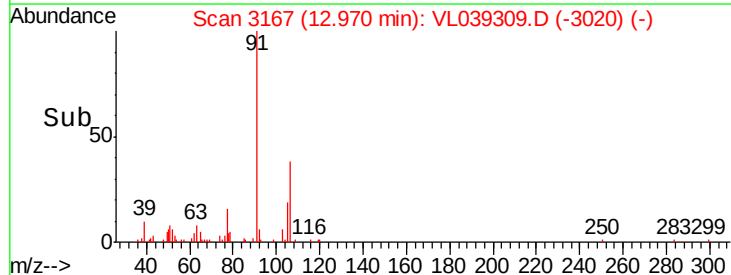
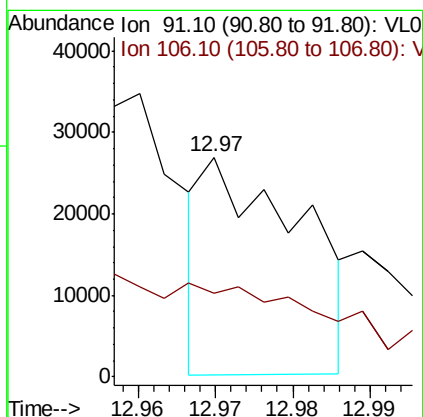
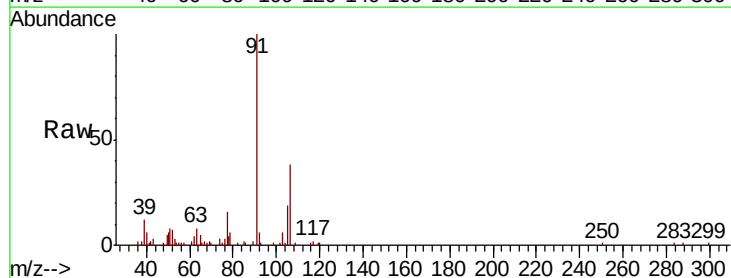
#58
Ethyl Benzene
Concen: 0.058 ppbv
RT: 12.97 min
Delta R.T. MSVOA_L
Lab File: ClientSampled :
Acq: 15 Jun 2022 23:59

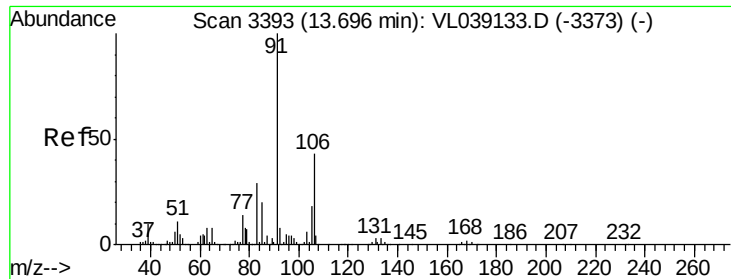
Tot Ion: 91 Resp: 23336
Ion Ratio Lower Upper
91 100
106 28.5 24.2 36.4



#59
m/p-Xylene
Concen: 0.066 ppbv
RT: 12.97 min Scan# 3167
Delta R.T. -0.03 min
Lab File: VL039309.D
Acq: 15 Jun 2022 23:59

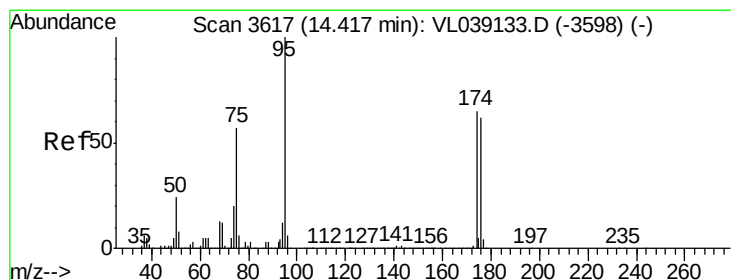
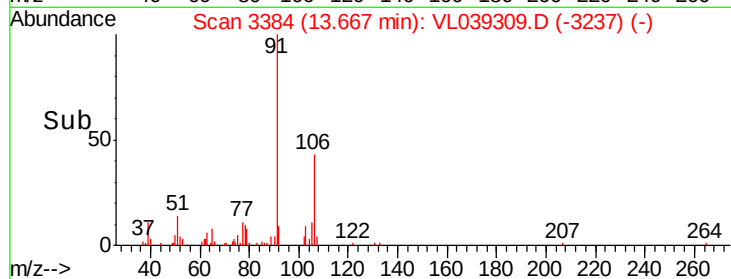
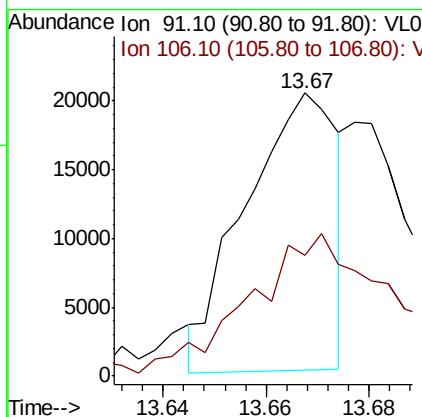
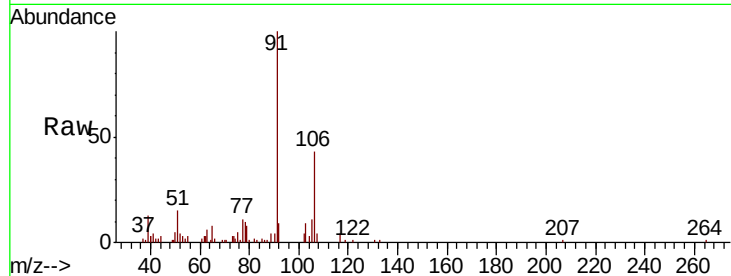
Tgt Ion: 91 Resp: 23336
Ion Ratio Lower Upper
91 100
106 0.0 34.3 51.5#





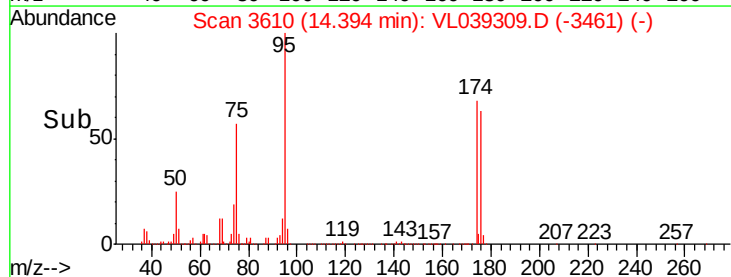
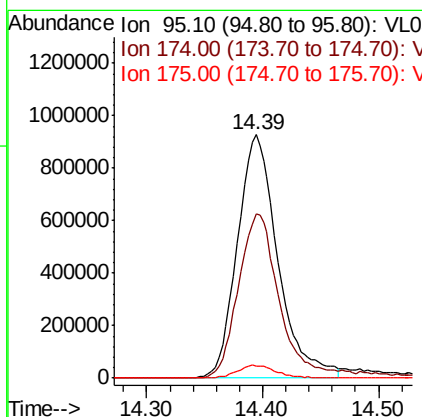
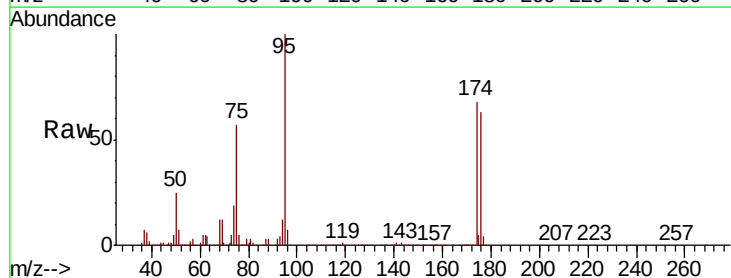
#60
o-Xylene
Concen: 0.075 ppbv
RT: 13.67
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 15 Jun 2022 23:59

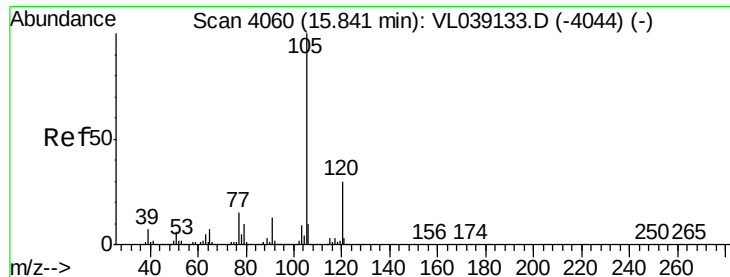
Tot Ion: 91 Resp: 24748
Ion Ratio Lower Upper
91 100
106 88.3 22.3 66.9#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.374 ppbv
RT: 14.39 min Scan# 3610
Delta R.T. -0.02 min
Lab File: VL039309.D
Acq: 15 Jun 2022 23:59

Tgt Ion: 95 Resp: 2250405
Ion Ratio Lower Upper
95 100
174 72.3 53.8 80.8
175 5.5 4.1 6.1





#72

4-Ethyltoluene

Concen: 0.042 ppbv

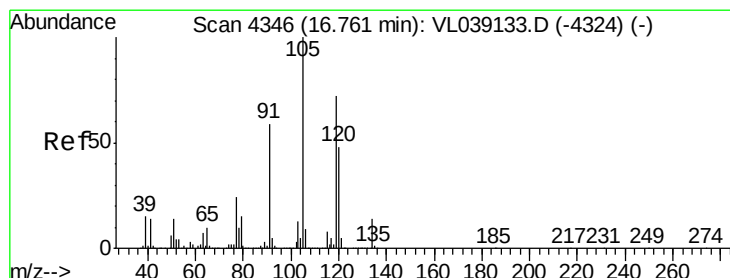
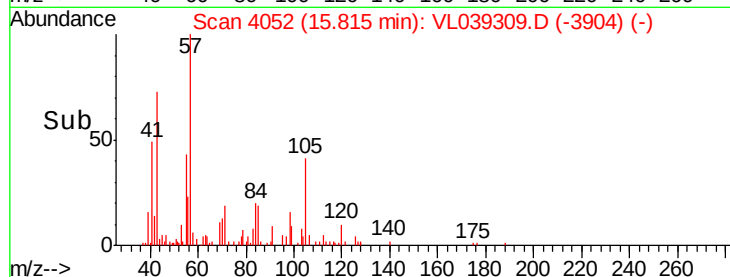
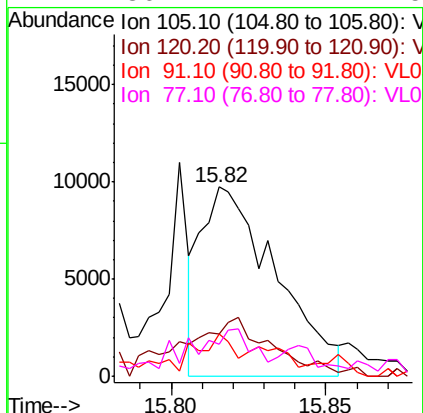
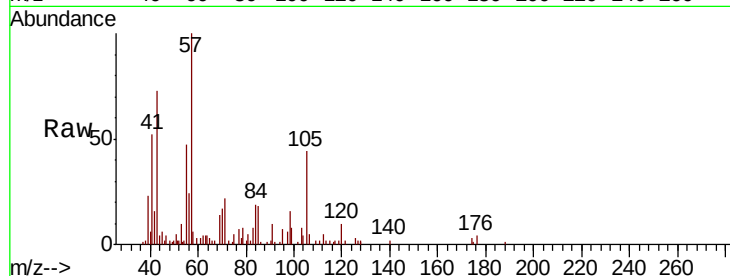
RT: 15.82

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 15 Jun 2022 23:59

Tot Ion:	105	Resp:	16346
Ion	Ratio	Lower	Upper
105	100		
120	37.8	23.9	35.9#
91	25.8	10.6	16.0#
77	36.4	11.7	17.5#



#74

1,2,4-Trimethylbenzene

Concen: 0.080 ppbv

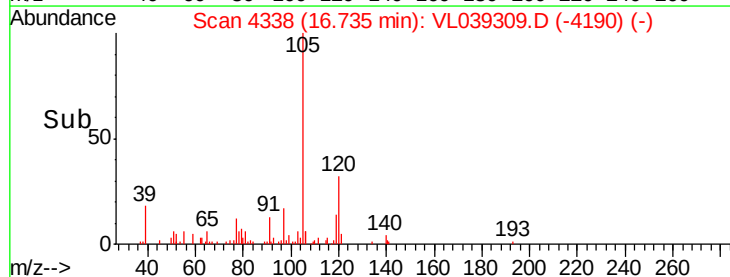
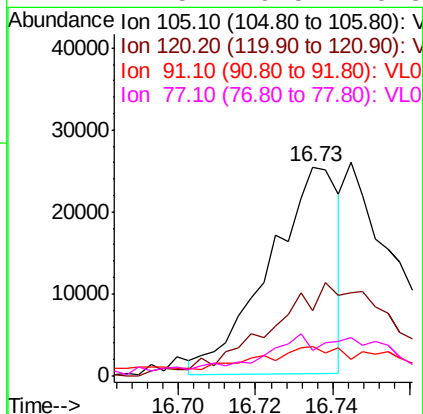
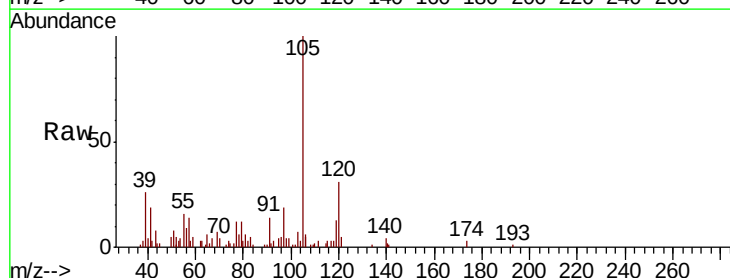
RT: 16.73 min Scan# 4338

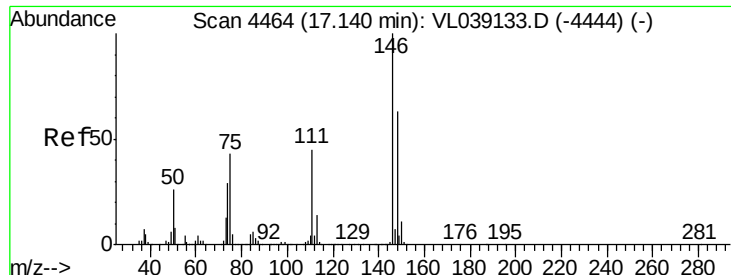
Delta R.T. -0.03 min

Lab File: VL039309.D

Acq: 15 Jun 2022 23:59

Tgt Ion:	105	Resp:	31342
Ion	Ratio	Lower	Upper
105	100		
120	30.7	38.1	57.1#
91	12.4	47.4	71.0#
77	7.5	19.5	29.3#





#76

1,4-Dichlorobenzene

Concen: 0.149 ppbv

RT: 17.11 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 15 Jun 2022 23:59

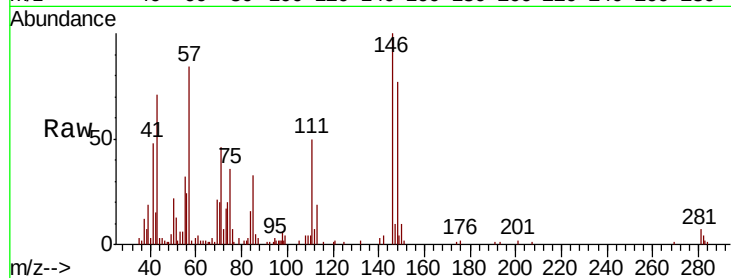
Tot Ion:146 Resp: 32769

Ion Ratio Lower Upper

146 100

111 0.0 23.6 71.0#

148 129.1 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

