

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL061322\
 Data File : VL039271.D
 Acq On : 14 Jun 2022 4:01
 Operator : SY/AP
 Sample : N3326-05
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Quant Time: Jun 14 08:08:04 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	5.67	49	1032998	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	2229533	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	1843805	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	1694853	11.12	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	111.20%

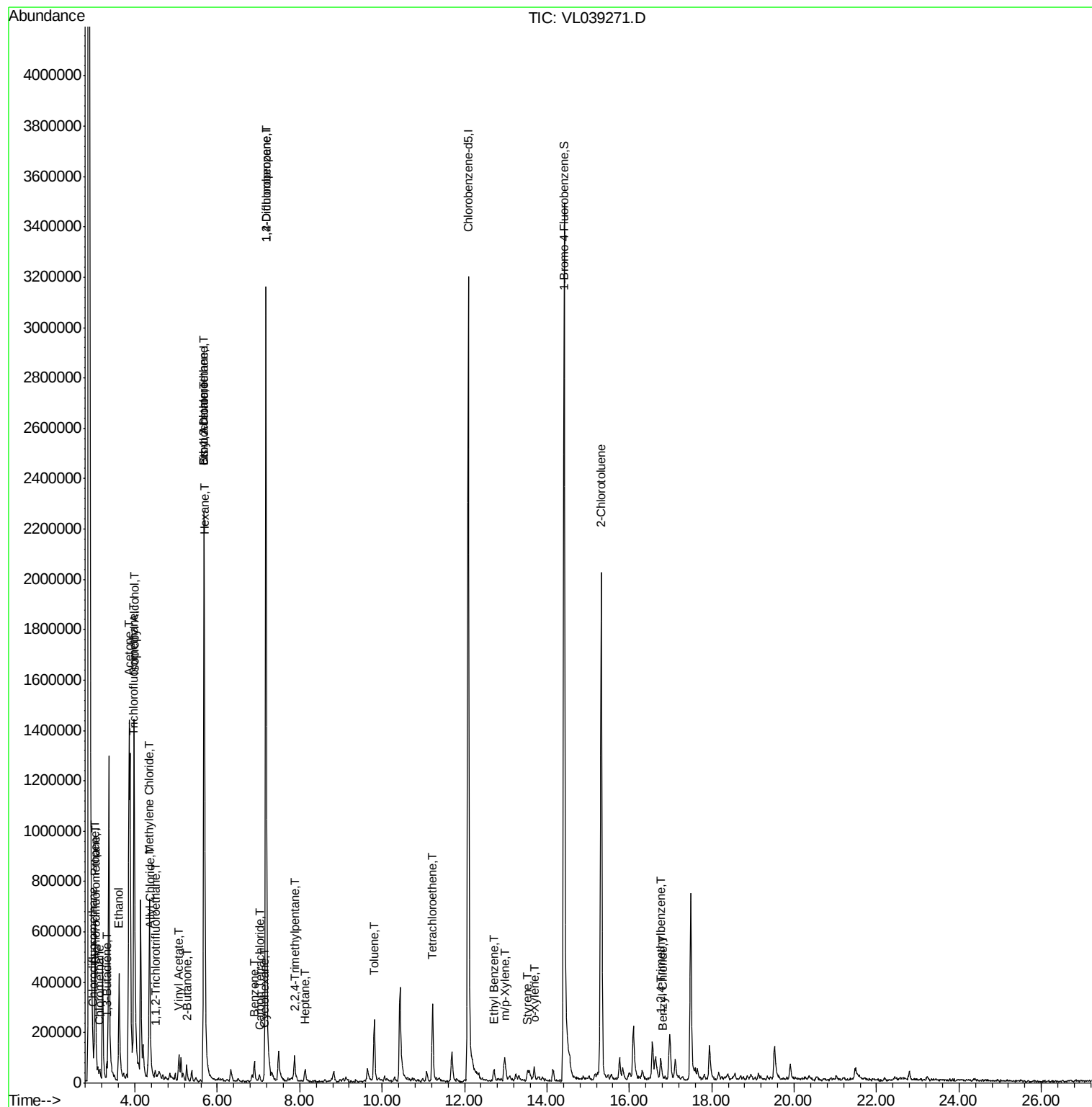
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.06	85	36976	0.204	ppbv 97
3) Chlorodifluoromethane	3.00	51	83222	0.633	ppbv # 84
4) Chloromethane	3.15	50	33160	0.491	ppbv # 86
9) Propene	3.03	41	168700	2.944	ppbv # 74
10) Heptane	8.13	43	8508	0.064	ppbv # 26
11) Trichlorofluoromethane	3.96	101	47248	0.288	ppbv 84
12) 1,1,2-Trichlorotrifluoroet	4.50	101	7621	0.070	ppbv # 62
13) Ethanol	3.61	45	499298	159.749	ppbv # 100
15) Acetone	3.85	43	2162259	20.094	ppbv 91
16) 1,3-Butadiene	3.33	39	5114	0.088	ppbv # 1
19) Isopropyl Alcohol	3.98	45	1757833	34.829	ppbv # 99
20) Methylene Chloride	4.35	84	288409	6.360	ppbv 95
21) Allyl Chloride	4.38	41	3687	0.051	ppbv # 1
23) Vinyl Acetate	5.06	43	59279	0.666	ppbv # 37
25) Ethyl Acetate	5.69	43	262154	1.081	ppbv # 95
26) Hexane	5.69	57	203076	1.905	ppbv # 58
30) Cyclohexane	7.13	84	3401	0.038	ppbv # 1
31) cis-1,2-Dichloroethene	5.68	61	10465	0.096	ppbv # 25
34) 2-Butanone	5.25	43	62692	0.518	ppbv 91
35) Carbon Tetrachloride	7.02	117	10755	0.066	ppbv # 89
36) Benzene	6.90	78	44357	0.245	ppbv # 86
39) 1,2-Dichloropropane	7.18	63	659119	9.155	ppbv # 26
44) 2,2,4-Trimethylpentane	7.88	57	55040	0.174	ppbv # 30
52) Tetrachloroethene	11.22	164	63386	0.897	ppbv 97
53) Toluene	9.81	91	168421	0.808	ppbv 95
58) Ethyl Benzene	12.71	91	23571	0.093	ppbv 90
59) m/p-Xylene	13.00	91	14766	0.066	ppbv # 33
60) o-Xylene	13.70	91	8134	0.039	ppbv # 1
61) Styrene	13.53	104	6196	0.055	ppbv # 1
66) Benzyl Chloride	16.83	91	1277	0.034	ppbv # 86
71) 2-Chlorotoluene	15.32	91	542046	2.276	ppbv # 44
74) 1,2,4-Trimethylbenzene	16.76	105	29137	0.118	ppbv # 51

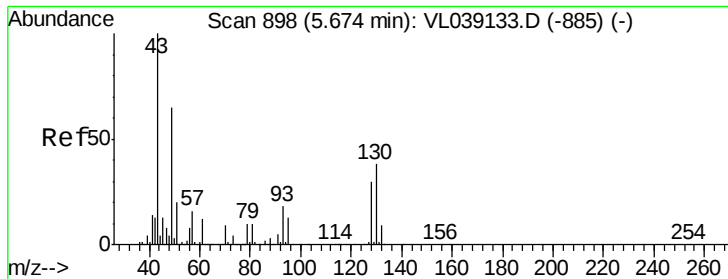
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jun 01 01:22:18 2022
QLast Update : Wed Jun 01 01:22:18 2022
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: OA1

Acq: 14 Jun 2022 4:01

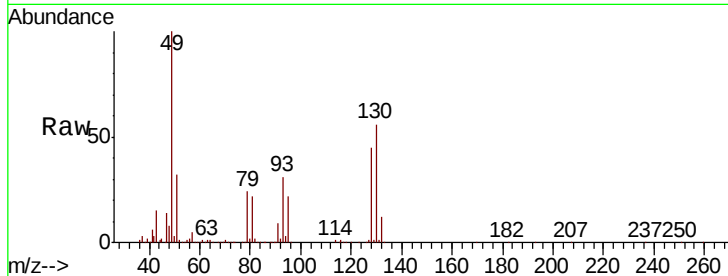
Tot Ion: 49 Resp: 1032998

Ion Ratio Lower Upper

49 100

128 46.3 24.7 74.1

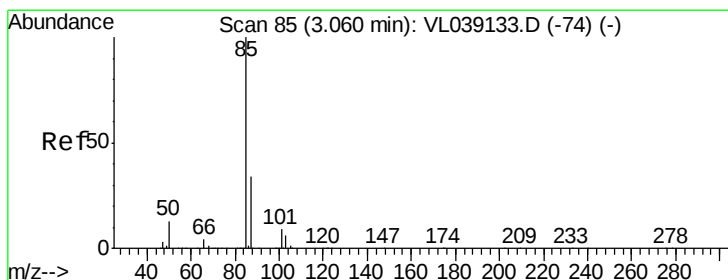
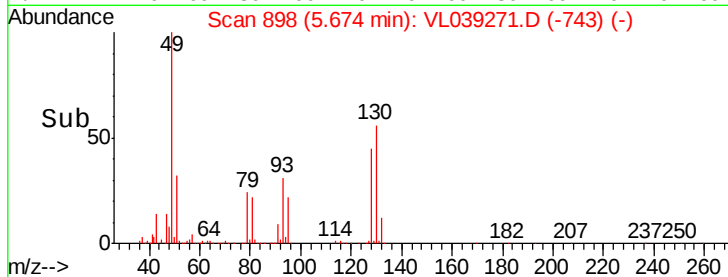
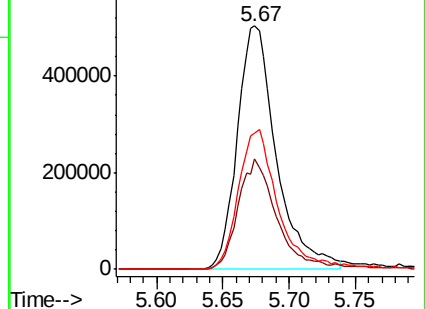
130 60.2 31.4 94.0



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: 0.204 ppbv

RT: 3.06 min Scan# 84

Delta R.T. -0.00 min

Lab File: VL039271.D

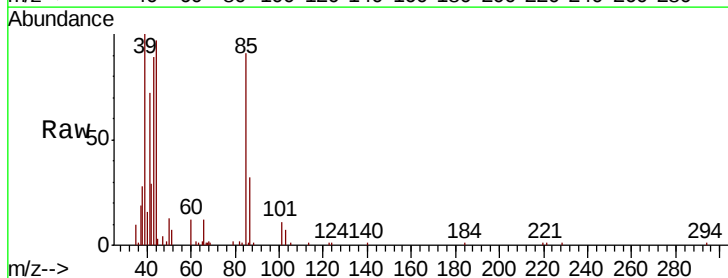
Acq: 14 Jun 2022 4:01

Tgt Ion: 85 Resp: 36976

Ion Ratio Lower Upper

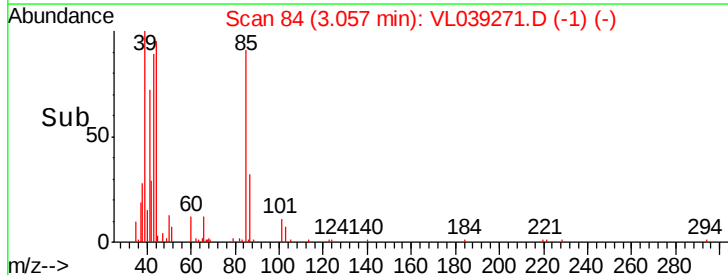
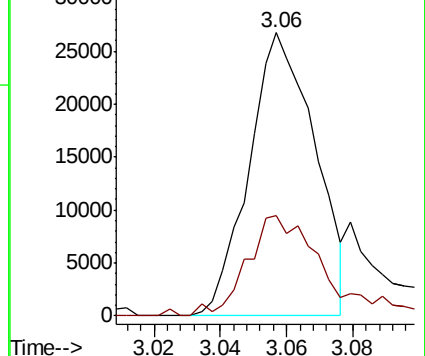
85 100

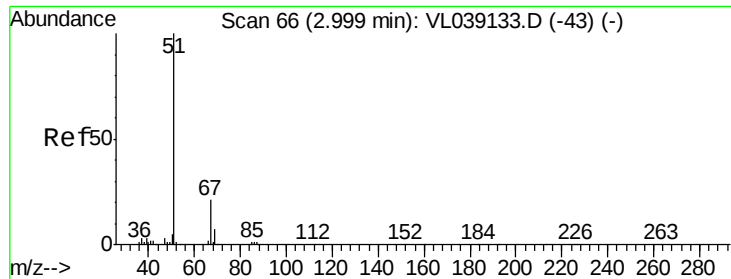
87 35.5 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.633 ppbv

RT: 3.00 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

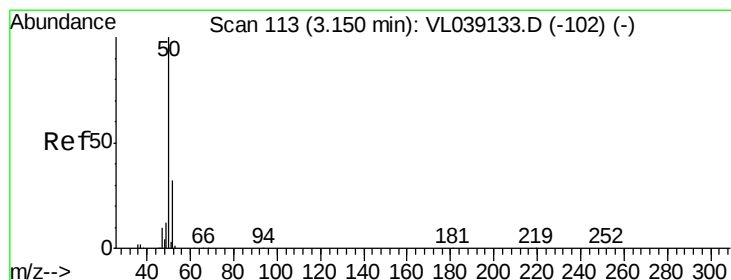
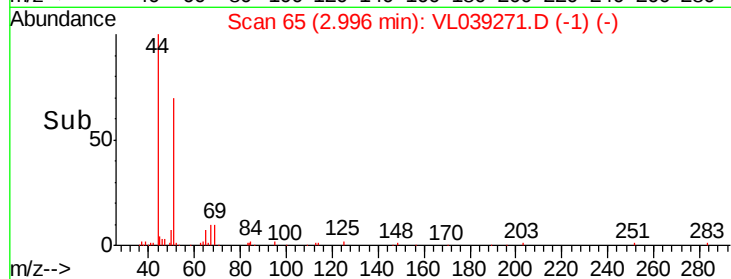
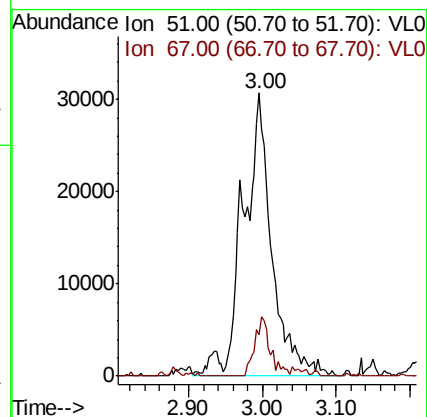
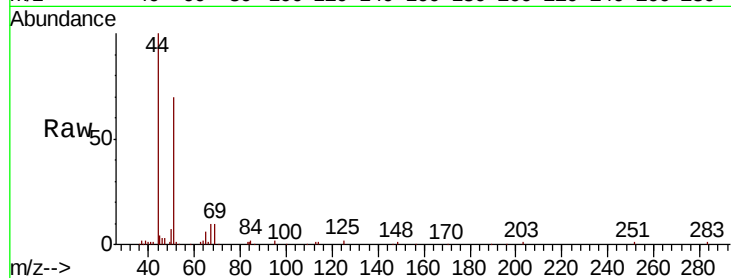
Acq: 14 Jun 2022 4:01

Tot Ion: 51 Resp: 83222

Ion Ratio Lower Upper

51 100

67 12.9 16.2 24.4#



#4

Chloromethane

Concen: 0.491 ppbv

RT: 3.15 min Scan# 113

Delta R.T. -0.00 min

Lab File: VL039271.D

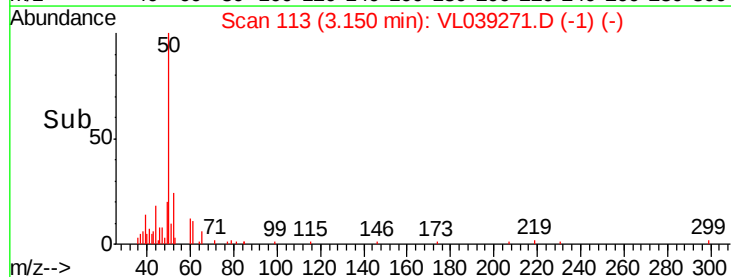
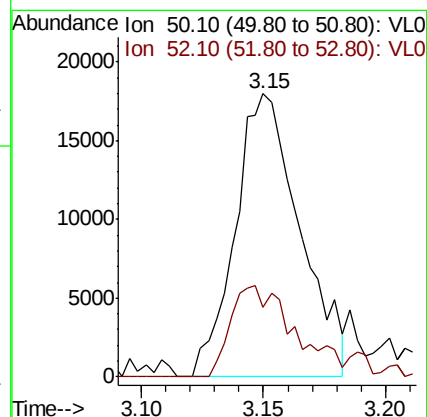
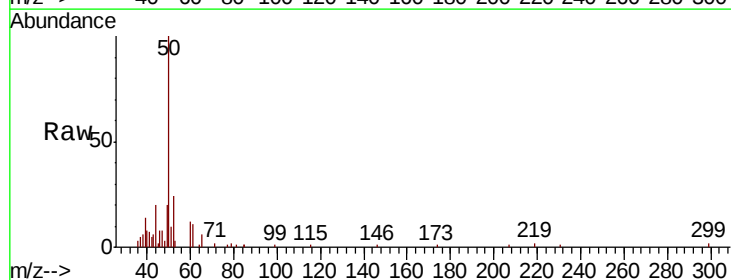
Acq: 14 Jun 2022 4:01

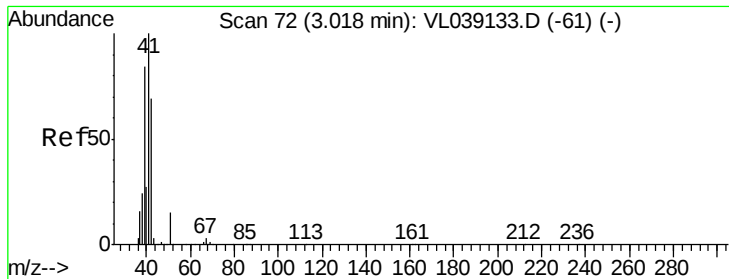
Tgt Ion: 50 Resp: 33160

Ion Ratio Lower Upper

50 100

52 24.5 25.9 38.9#





#9

Propene

Concen: 2.944 ppbv

RT: 3.03 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

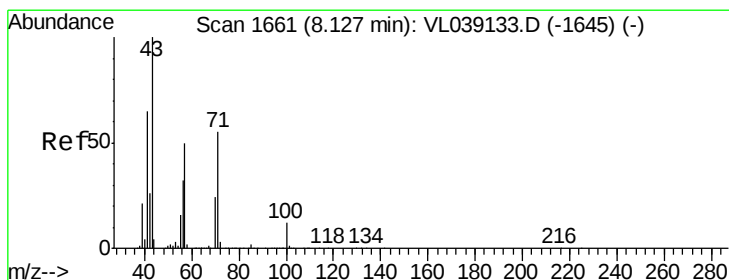
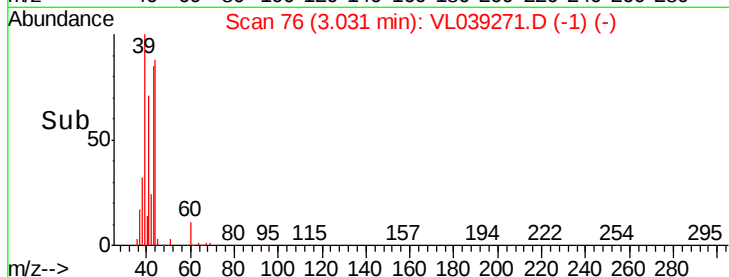
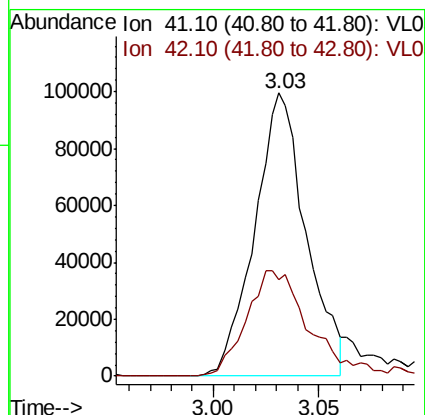
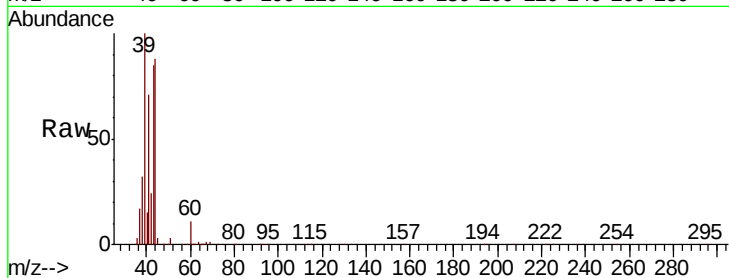
Acq: 14 Jun 2022 4:01

Tot Ion: 41 Resp: 168700

Ion Ratio Lower Upper

41 100

42 48.0 55.4 83.2#



#10

Heptane

Concen: 0.064 ppbv

RT: 8.13 min Scan# 1661

Delta R.T. -0.00 min

Lab File: VL039271.D

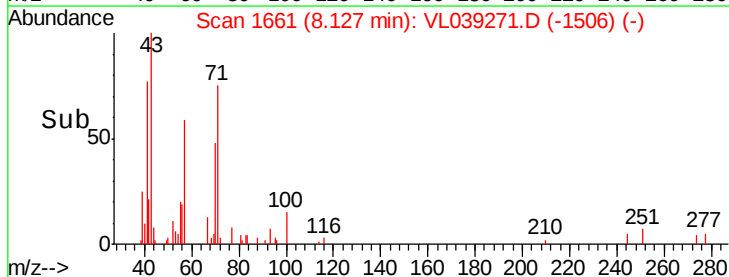
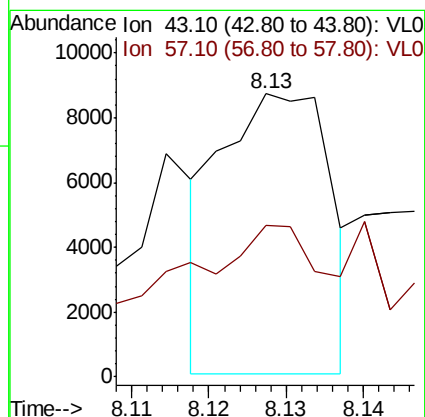
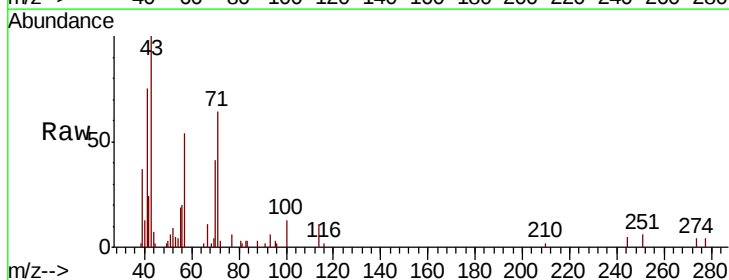
Acq: 14 Jun 2022 4:01

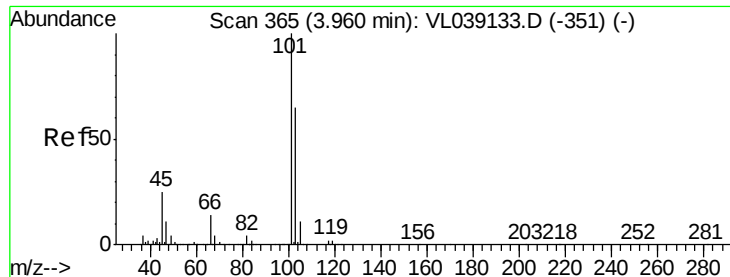
Tgt Ion: 43 Resp: 8508

Ion Ratio Lower Upper

43 100

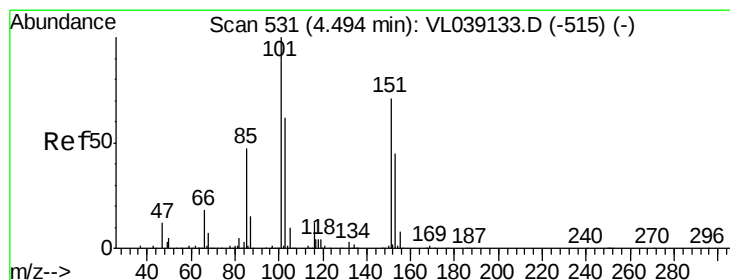
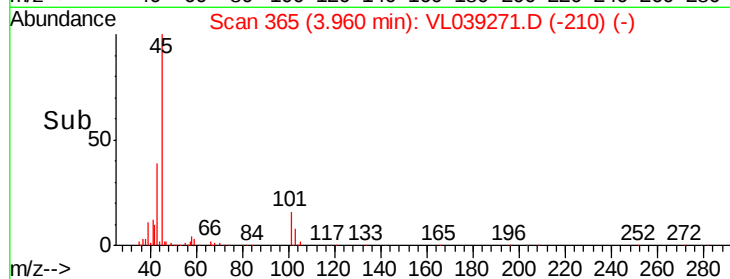
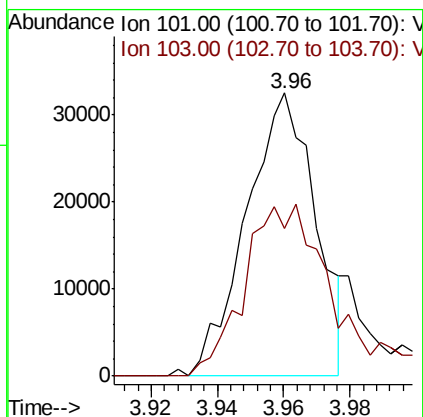
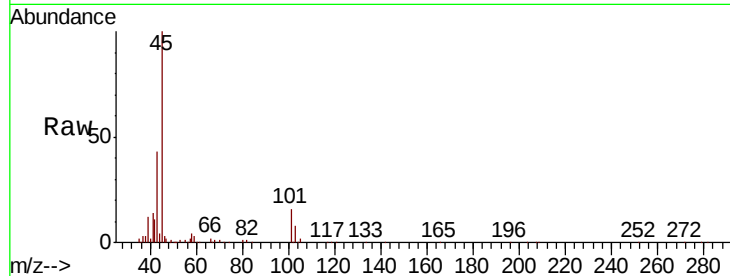
57 0.0 41.4 62.2#





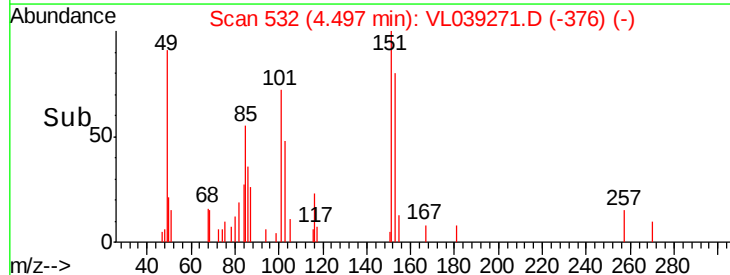
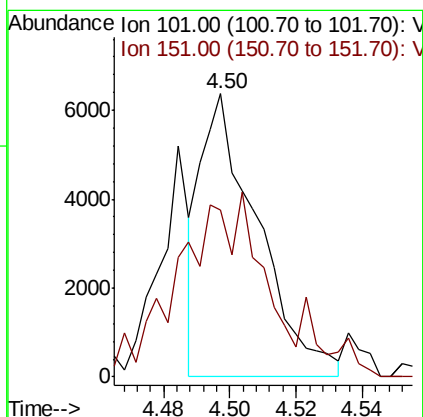
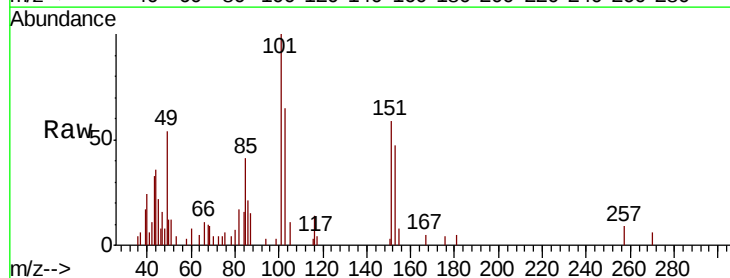
#11
 Trichlorofluoromethane
 Concen: 0.288 ppbv
 RT: 3.96
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 14 Jun 2022 4:01

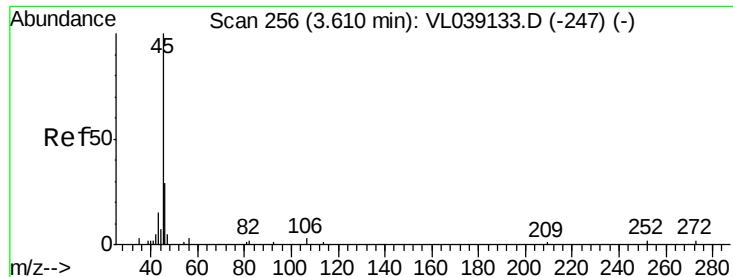
Tot Ion:101 Resp: 47248
 Ion Ratio Lower Upper
 101 100
 103 52.3 51.7 77.5



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.070 ppbv
 RT: 4.50 min Scan# 532
 Delta R.T. 0.00 min
 Lab File: VL039271.D
 Acq: 14 Jun 2022 4:01

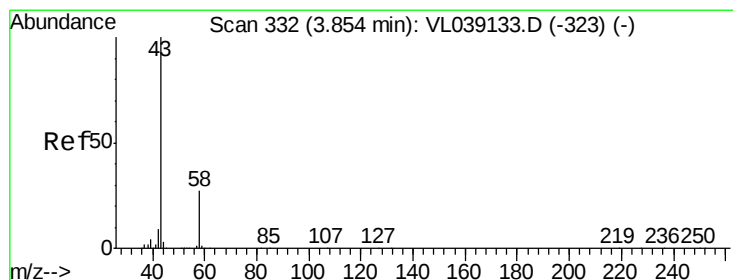
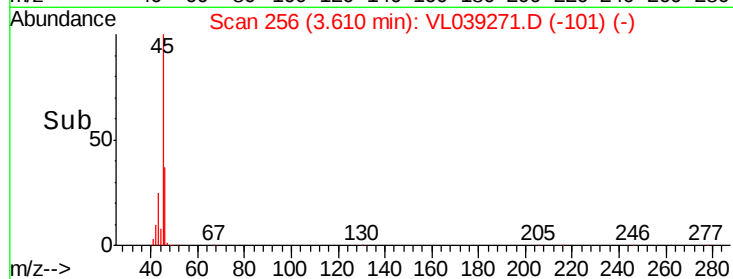
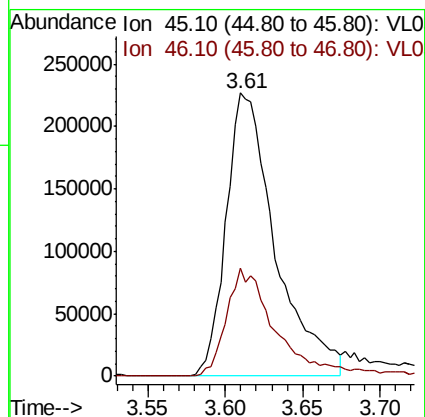
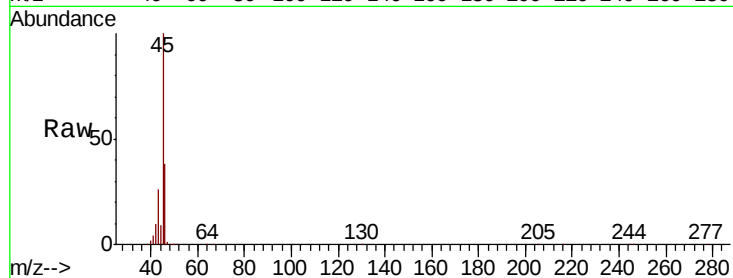
Tgt Ion:101 Resp: 7621
 Ion Ratio Lower Upper
 101 100
 151 106.6 59.4 89.0#





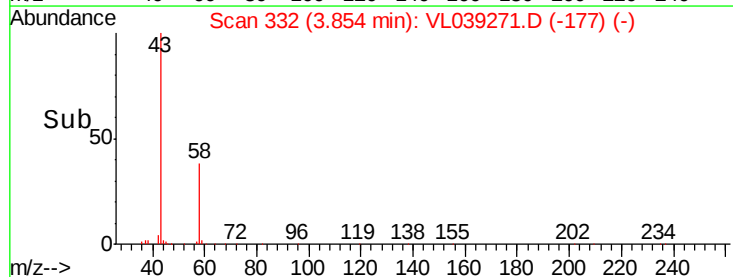
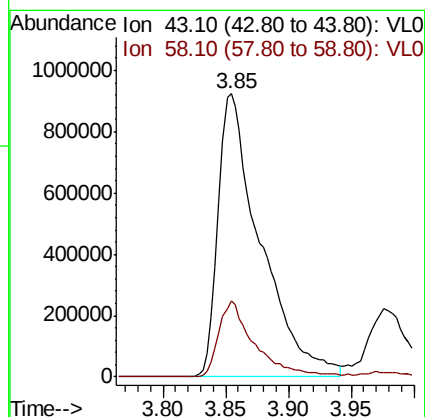
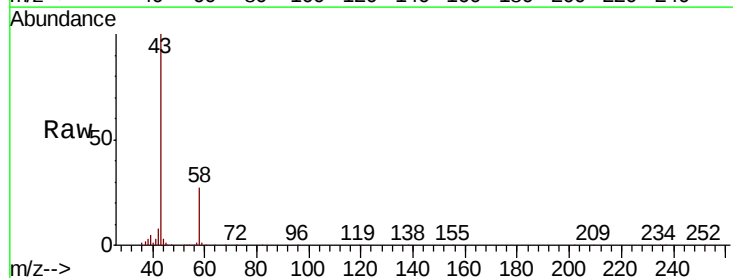
#13
Ethanol
Concen: 159.749 ppbv
RT: 3.61
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 14 Jun 2022 4:01

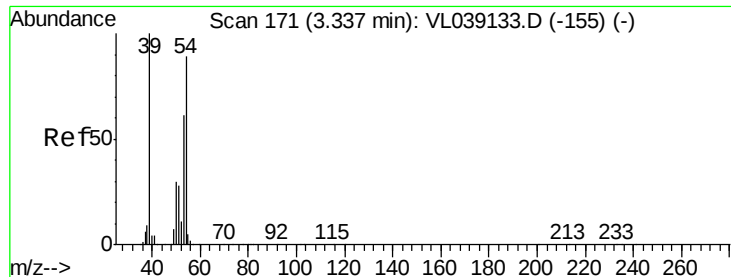
Tot Ion	45	46	Resp	4599298
Ion Ratio	100	39.7		
Lower		0.0		
Upper		0.0#		



#15
Acetone
Concen: 20.094 ppbv
RT: 3.85 min Scan# 332
Delta R.T. -0.00 min
Lab File: VL039271.D
Acq: 14 Jun 2022 4:01

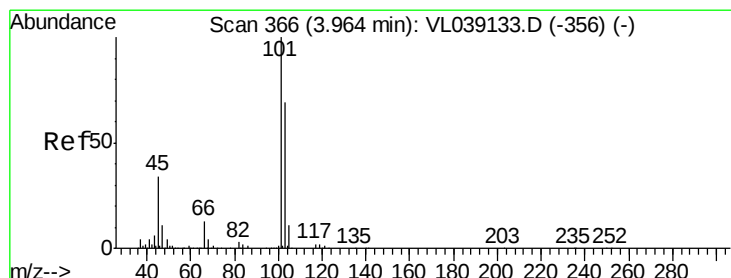
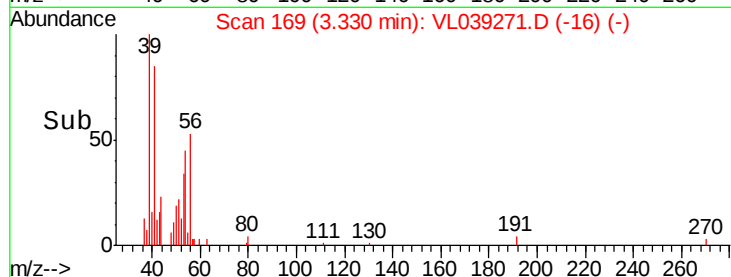
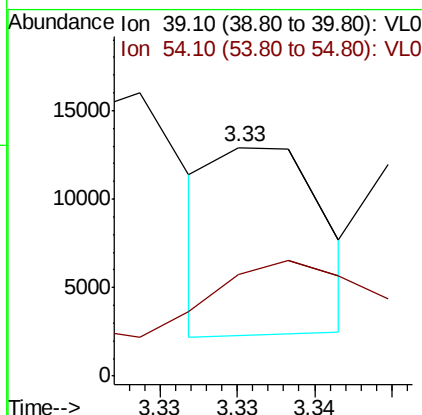
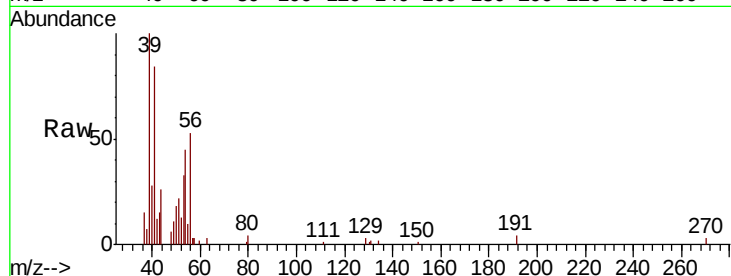
Tgt Ion	43	58	Resp	2162259
Ion Ratio	100	23.2		
Lower		22.5		
Upper		33.7		





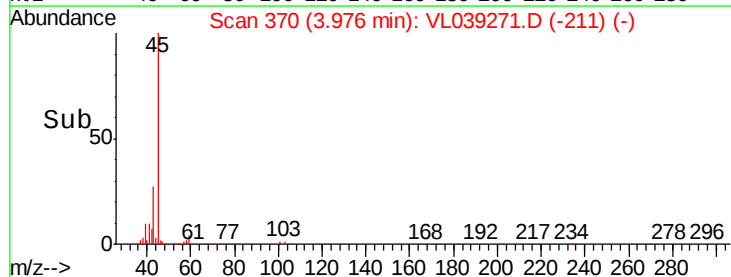
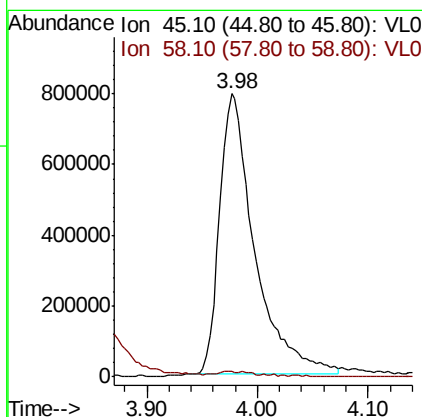
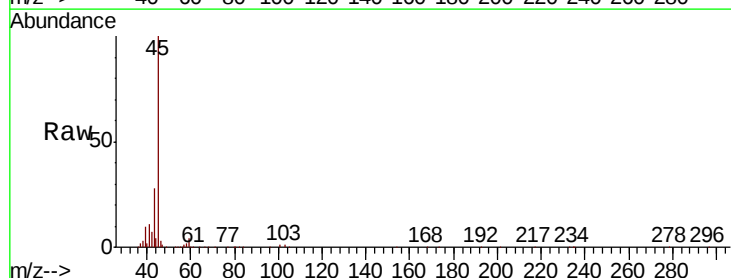
#16
 1,3-Butadiene
 Concen: 0.088 ppbv
 RT: 3.33
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 14 Jun 2022 4:01

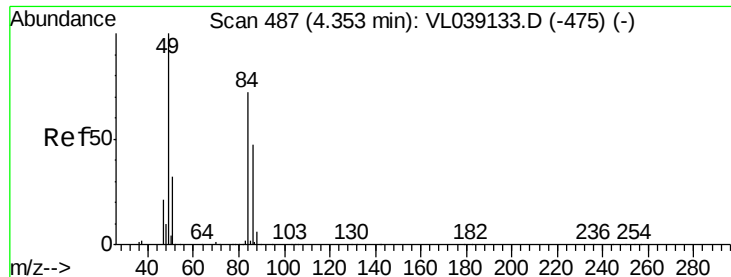
Tot Ion: 39 Resp: 5114
 Ion Ratio Lower Upper
 39 100
 54 309.6 65.8 98.6#



#19
 Isopropyl Alcohol
 Concen: 34.829 ppbv
 RT: 3.98 min Scan# 370
 Delta R.T. 0.01 min
 Lab File: VL039271.D
 Acq: 14 Jun 2022 4:01

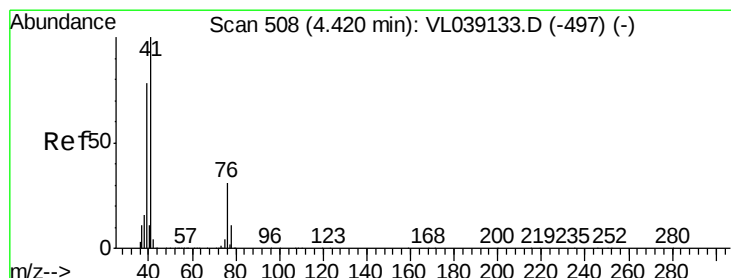
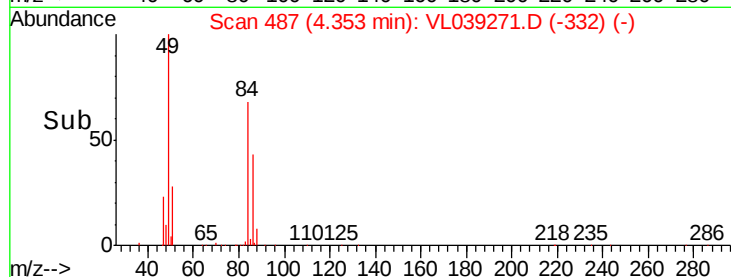
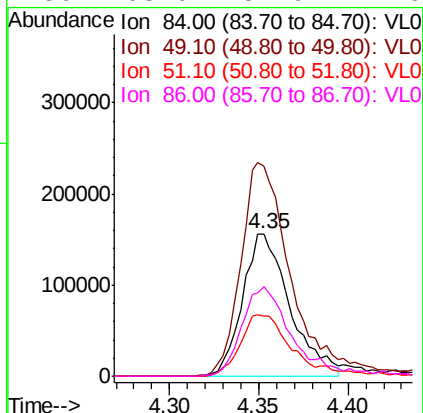
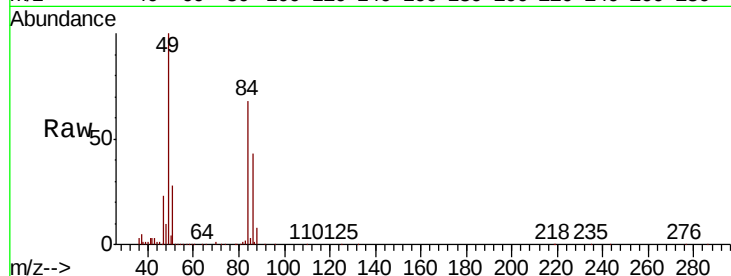
Tgt Ion: 45 Resp: 1757833
 Ion Ratio Lower Upper
 45 100
 58 2.8 1.8 2.8#





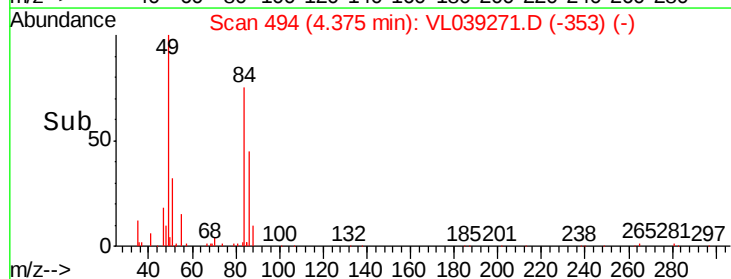
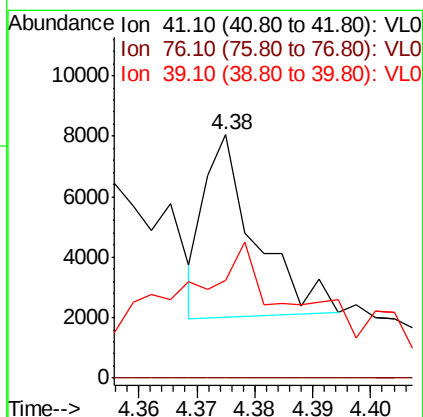
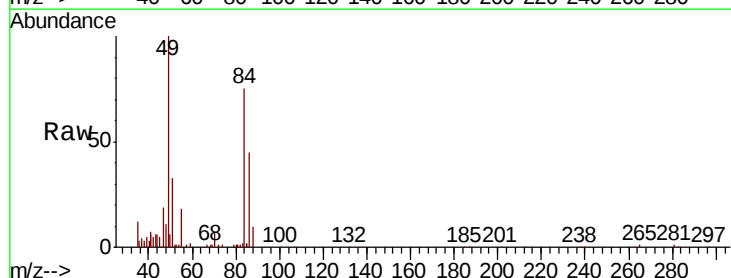
#20
Methylene Chloride
Concen: 6.360 ppbv
RT: 4.35
Delta R.T. MSVOA.L
Lab File: ClientSampleId :
Acq: 14 Jun 2022 4:01

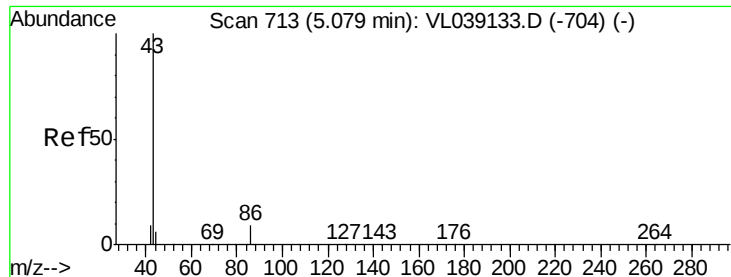
Tot Ion:	84	Resp:	288409
Ion	Ratio	Lower	Upper
84	100		
49	147.7	111.1	166.7
51	41.8	35.3	52.9
86	63.0	51.9	77.9



#21
Allyl Chloride
Concen: 0.051 ppbv
RT: 4.38 min Scan# 494
Delta R.T. -0.05 min
Lab File: VL039271.D
Acq: 14 Jun 2022 4:01

Tgt Ion:	41	Resp:	3687
Ion	Ratio	Lower	Upper
41	100		
76	0.0	24.2	36.2#
39	287.4	62.2	93.2#





#23

Vinyl Acetate

Concen: 0.666 ppbv

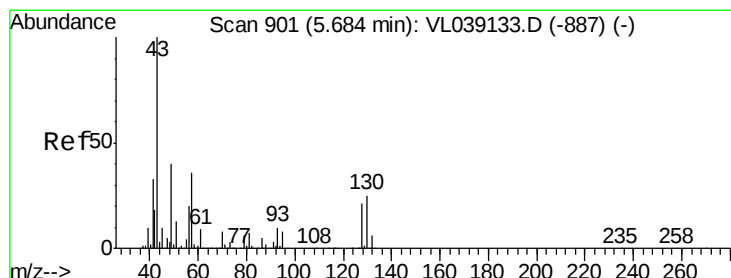
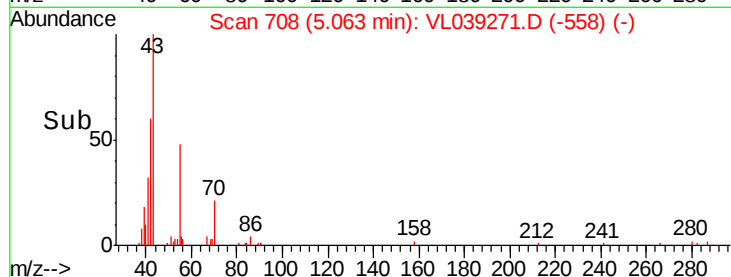
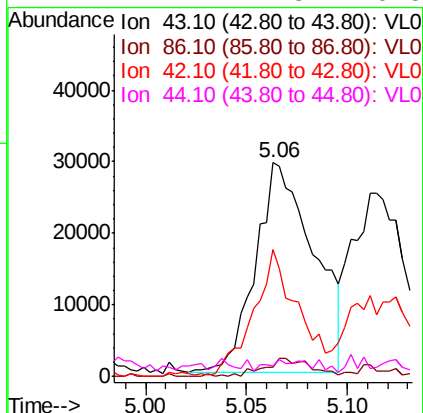
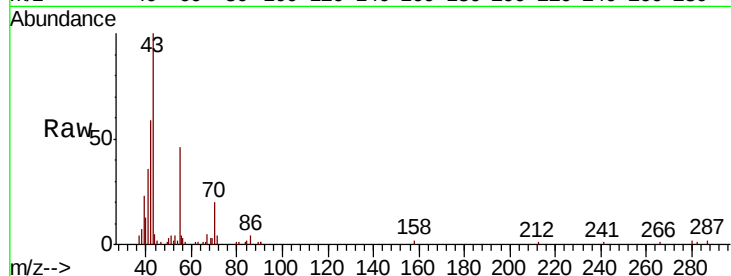
RT: 5.06 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 14 Jun 2022 4:01

Tot Ion:	43	Resp:	59279
Ion	Ratio	Lower	Upper
43	100		
86	4.3	6.0	9.0#
42	59.3	8.2	12.4#
44	2.7	4.3	6.5#



#25

Ethyl Acetate

Concen: 1.081 ppbv

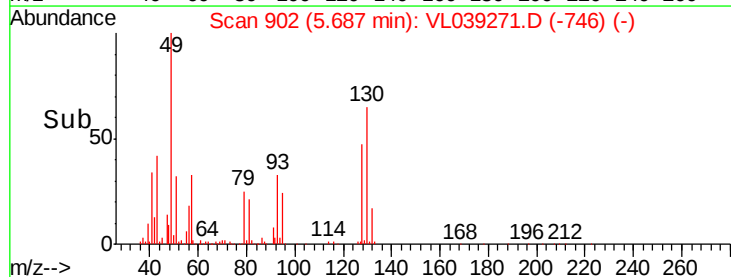
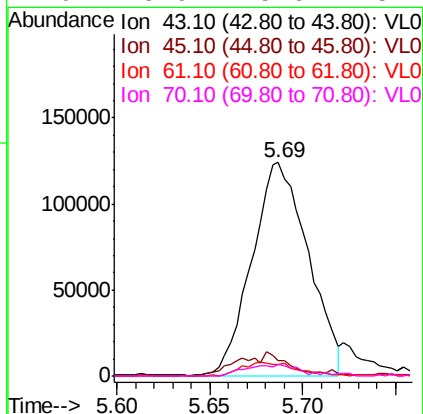
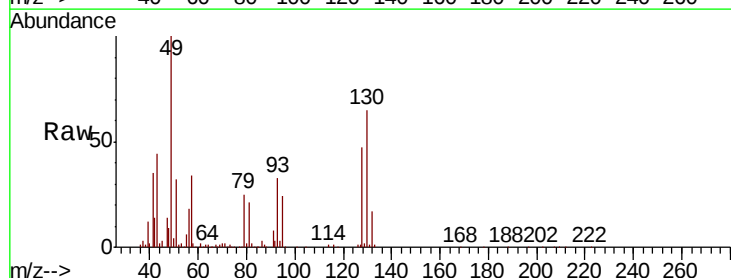
RT: 5.69 min Scan# 902

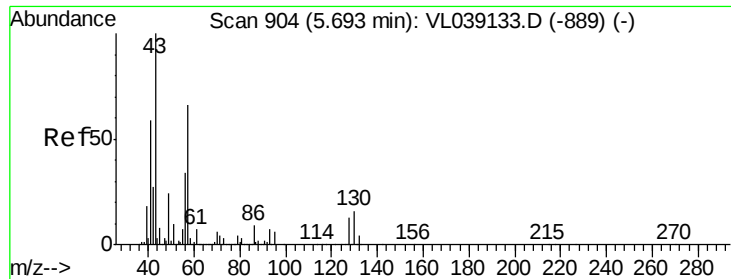
Delta R.T. 0.00 min

Lab File: VL039271.D

Acq: 14 Jun 2022 4:01

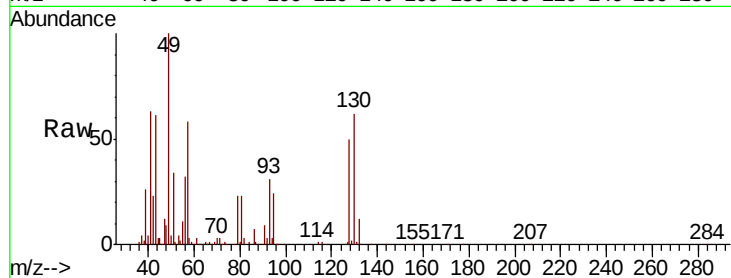
Tgt Ion:	43	Resp:	262154
Ion	Ratio	Lower	Upper
43	100		
45	10.3	8.2	12.2
61	6.8	8.4	12.6#
70	5.9	5.6	8.4



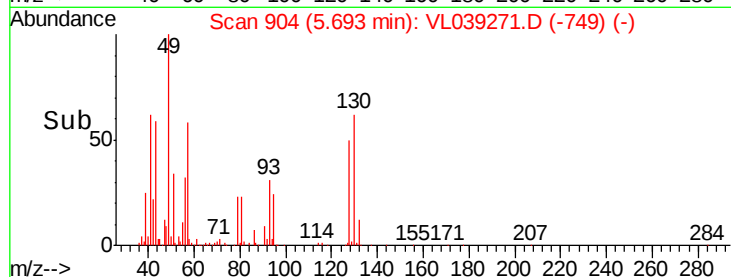
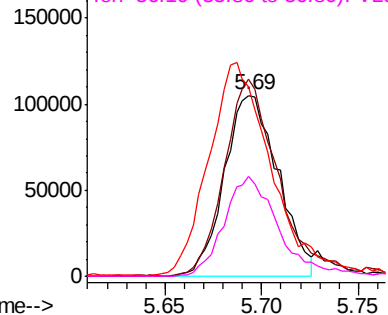


#26
Hexane
Concen: 1.905 ppbv
RT: 5.69
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 14 Jun 2022 4:01

Tot Ion:	57	Resp:	203076
Ion	Ratio	Lower	Upper
57	100		
41	113.6	72.4	108.6#
43	140.0	187.0	280.6#
56	57.5	41.8	62.6

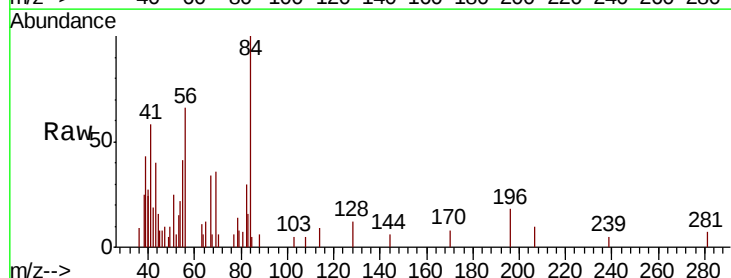
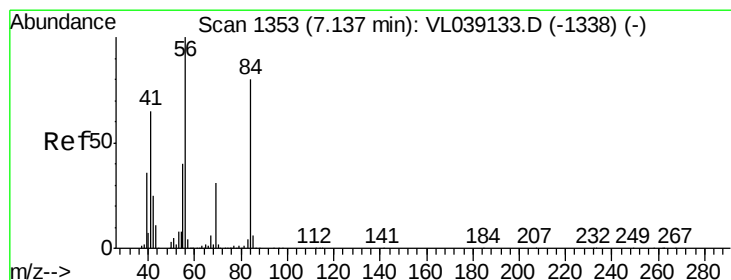


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

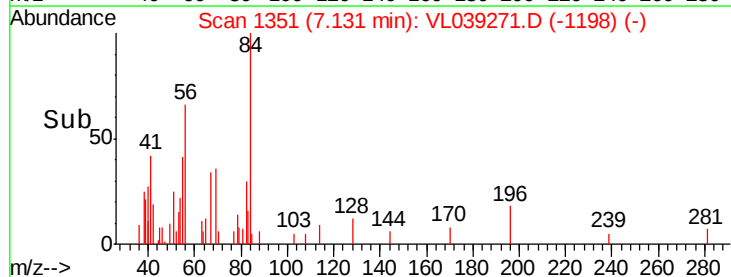
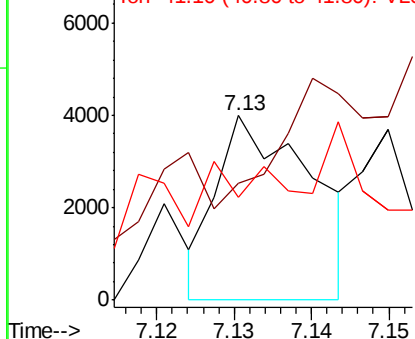


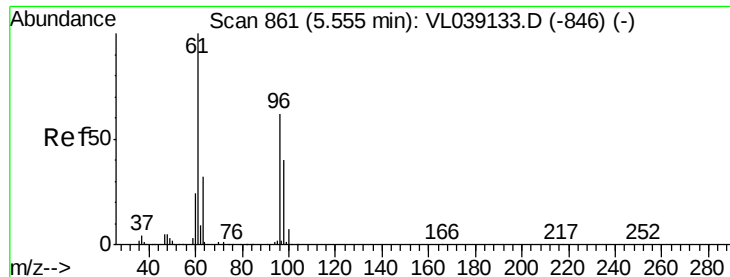
#30
Cyclohexane
Concen: 0.038 ppbv
RT: 7.13 min Scan# 1351
Delta R.T. -0.01 min
Lab File: VL039271.D
Acq: 14 Jun 2022 4:01

Tgt Ion:	84	Resp:	3401
Ion	Ratio	Lower	Upper
84	100		
56	0.0	110.6	165.8#
41	0.0	68.9	103.3#



Abundance Ion 84.20 (83.90 to 84.90): VL0
Ion 56.10 (55.80 to 56.80): VL0
Ion 41.10 (40.80 to 41.80): VL0





#31

cis-1,2-Dichloroethene

Concen: 0.096 ppbv

RT: 5.68 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: OA1

Acq: 14 Jun 2022 4:01

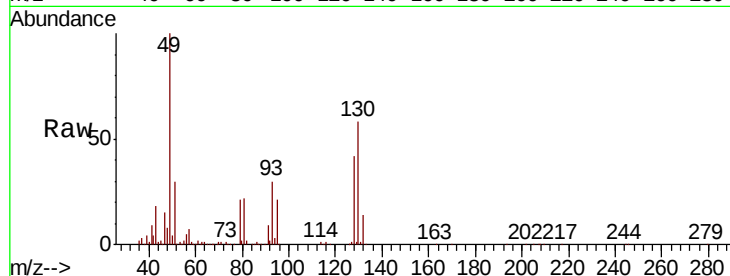
Tot Ion: 61 Resp: 10465

Ion Ratio Lower Upper

61 100

96 0.0 49.9 74.9#

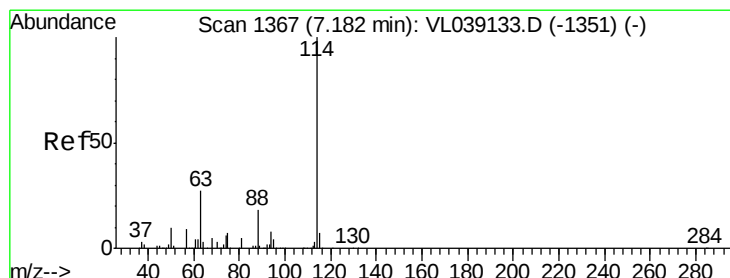
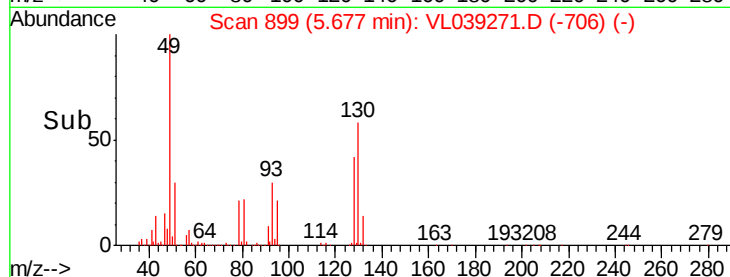
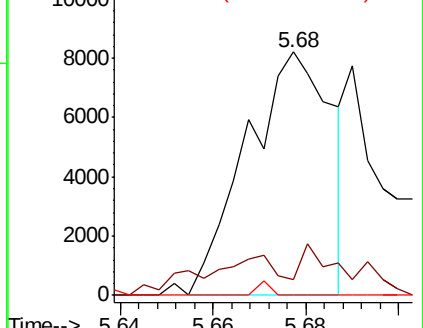
98 0.0 32.0 48.0#



Abundance Ion 61.10 (60.80 to 61.80): VL0

Ion 96.00 (95.70 to 96.70): VL0

Ion 98.00 (97.70 to 98.70): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18 min Scan# 1366

Delta R.T. -0.00 min

Lab File: VL039271.D

Acq: 14 Jun 2022 4:01

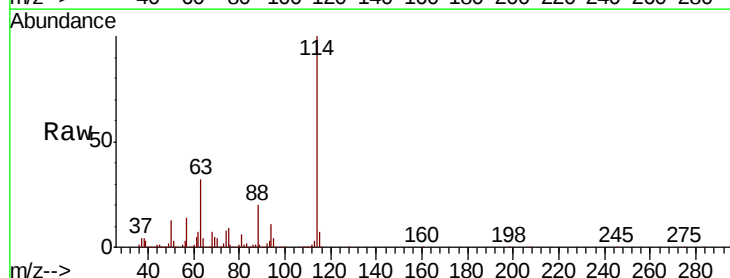
Tgt Ion: 114 Resp: 2229533

Ion Ratio Lower Upper

114 100

63 31.1 21.7 32.5

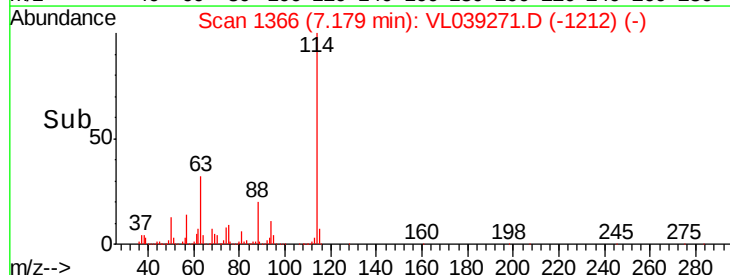
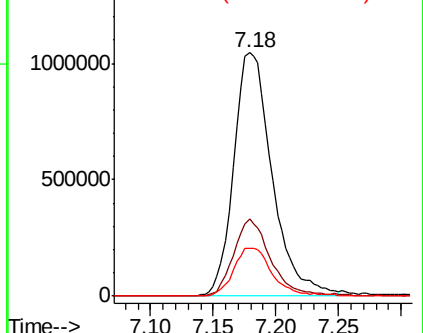
88 20.0 14.8 22.2

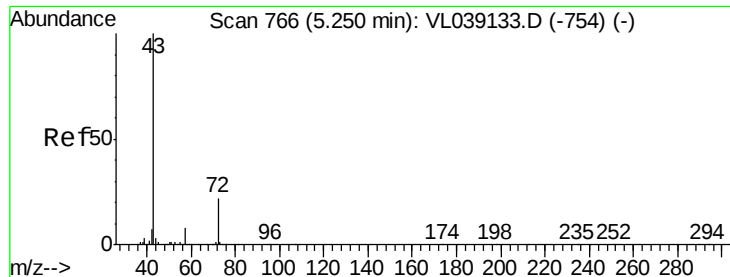


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

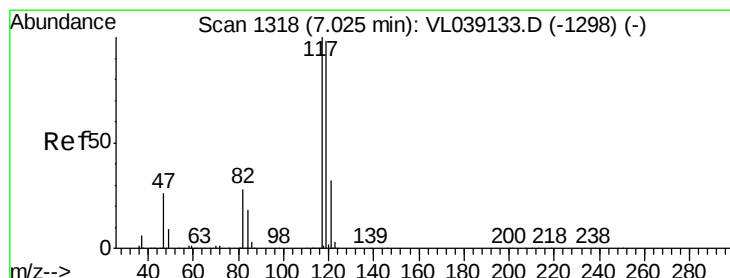
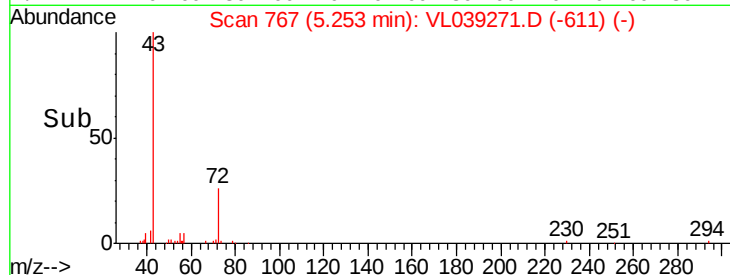
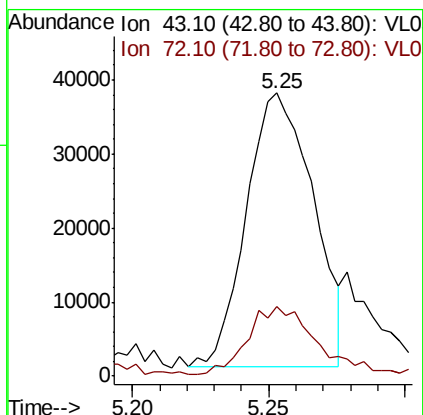
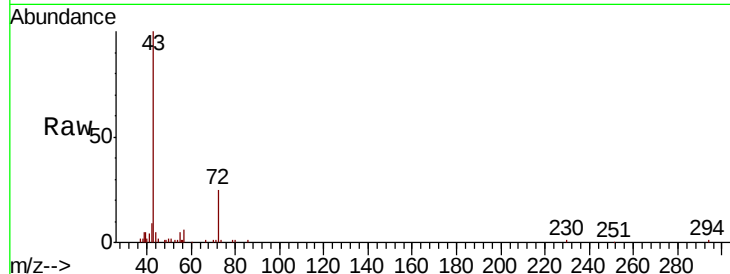
Ion 88.10 (87.80 to 88.80): VL0





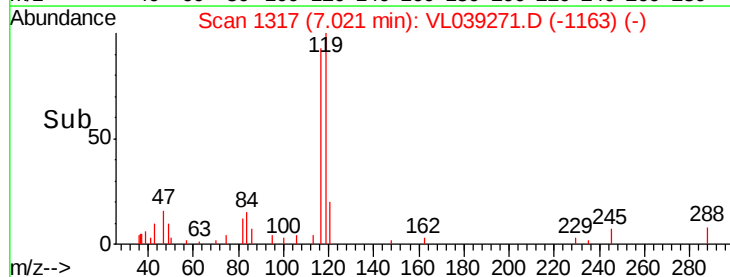
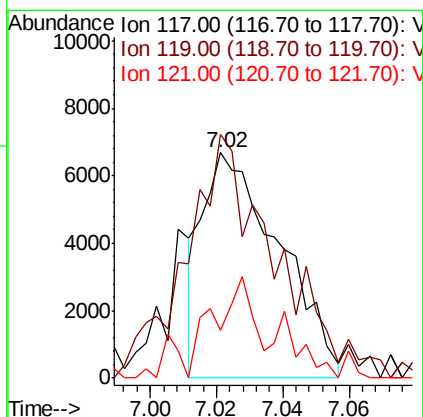
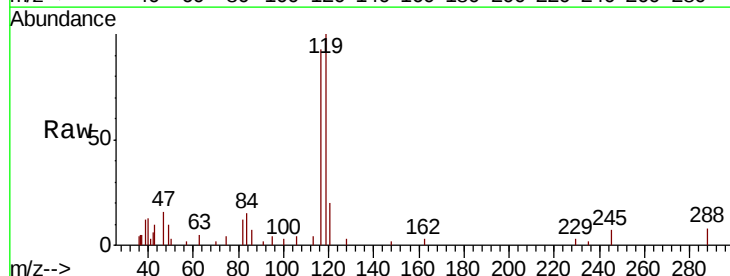
#34
2-Butanone
Concen: 0.518 ppbv
RT: 5.25
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 14 Jun 2022 4:01

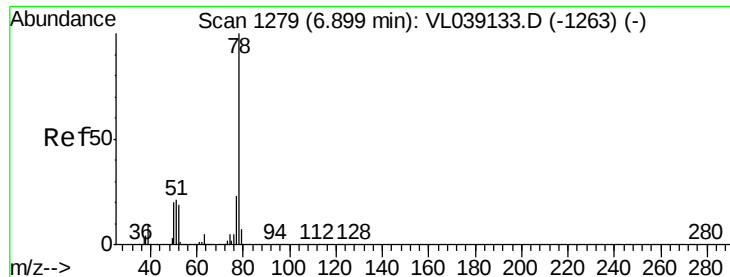
Tot Ion: 43 Resp: 62692
Ion Ratio Lower Upper
43 100
72 27.0 18.2 27.2



#35
Carbon Tetrachloride
Concen: 0.066 ppbv
RT: 7.02 min Scan# 1317
Delta R.T. -0.00 min
Lab File: VL039271.D
Acq: 14 Jun 2022 4:01

Tgt Ion: 117 Resp: 10755
Ion Ratio Lower Upper
117 100
119 107.7 78.6 118.0
121 22.9 25.4 38.0#





#36

Benzene

Concen: 0.245 ppbv

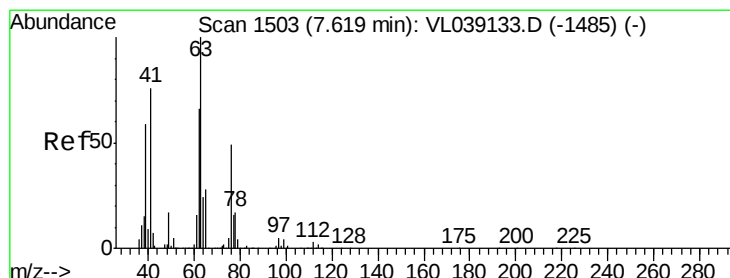
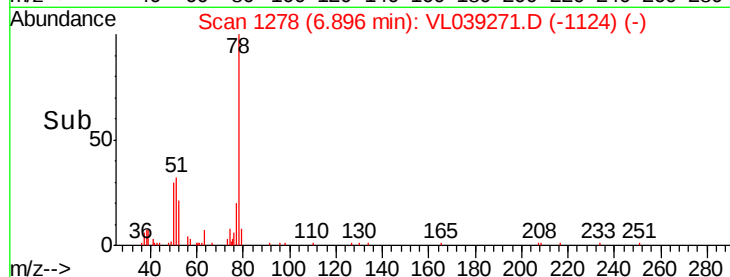
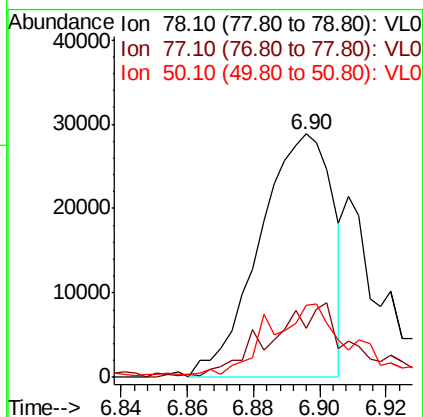
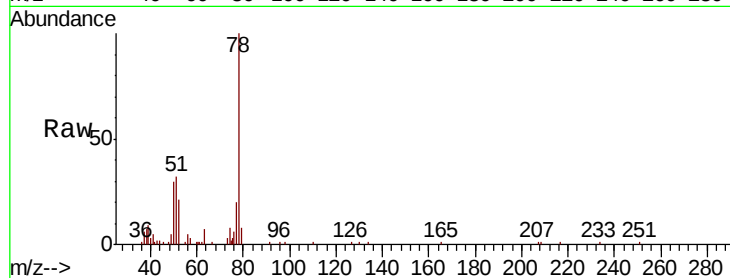
RT: 6.90 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 14 Jun 2022 4:01

Tot Ion:	78	Resp:	44357
Ion	Ratio	Lower	Upper
78	100		
77	18.7	18.6	27.8
50	28.5	15.8	23.8#



#39

1,2-Dichloropropane

Concen: 9.155 ppbv

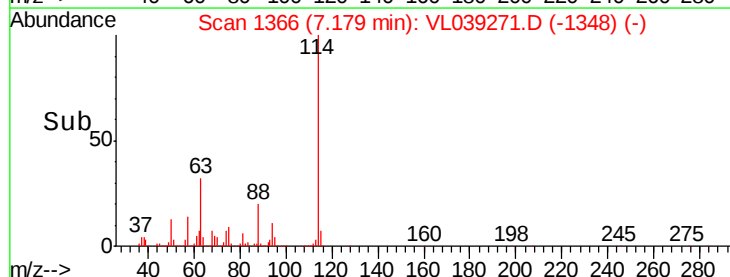
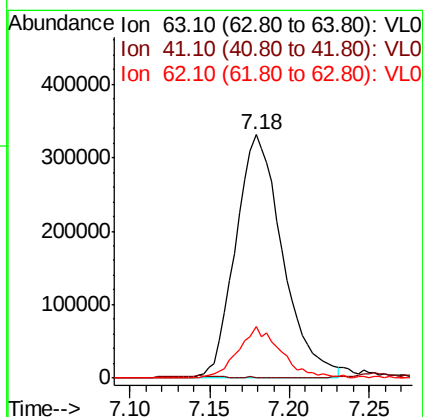
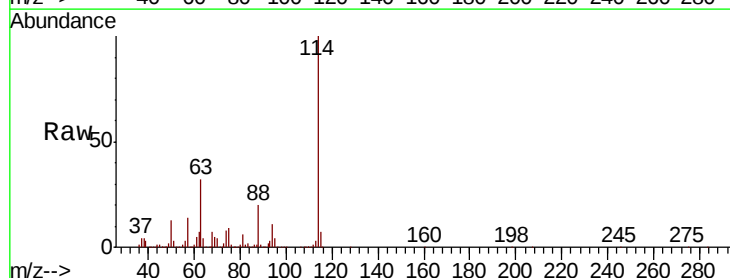
RT: 7.18 min Scan# 1366

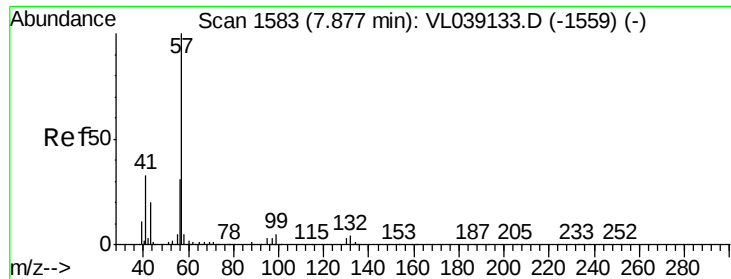
Delta R.T. -0.44 min

Lab File: VL039271.D

Acq: 14 Jun 2022 4:01

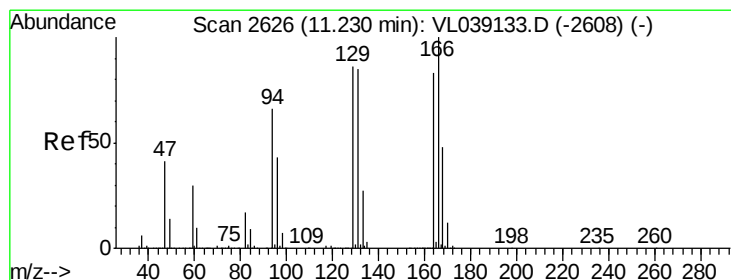
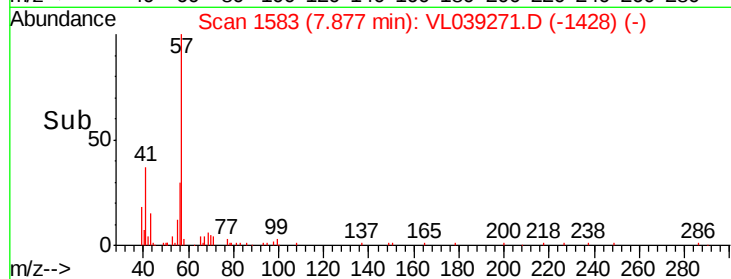
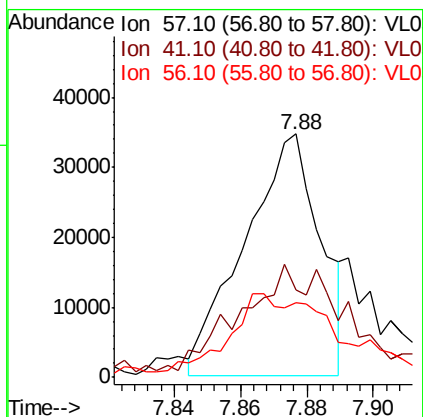
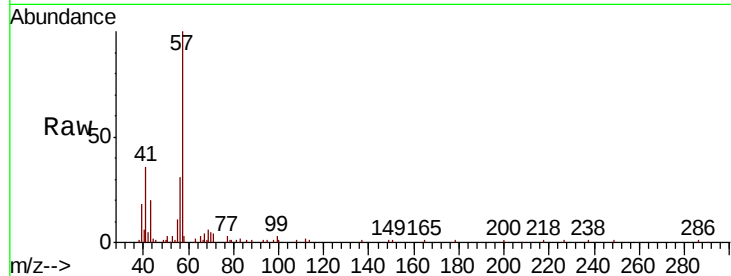
Tgt Ion:	63	Resp:	659119
Ion	Ratio	Lower	Upper
63	100		
41	0.0	60.8	91.2#
62	21.3	52.9	79.3#





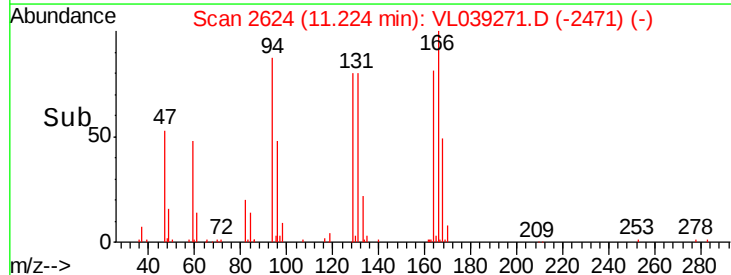
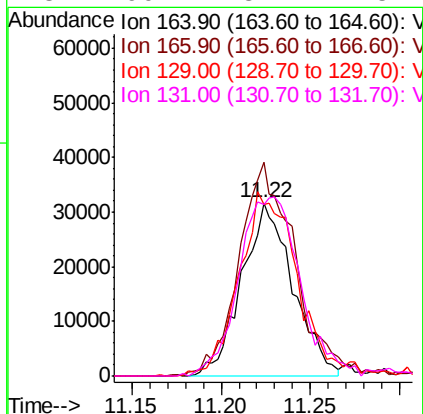
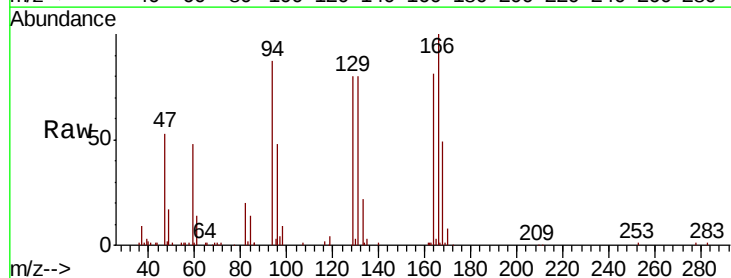
#44
2,2,4-Trimethylpentane
Concen: 0.174 ppbv
RT: 7.88
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 14 Jun 2022 4:01

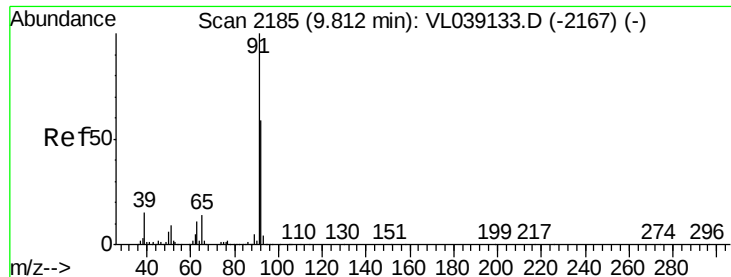
Tot Ion	57	Resp	55040
Ion Ratio	Lower	Upper	
57	100		
41	83.7	26.2	39.4#
56	57.0	24.7	37.1#



#52
Tetrachloroethene
Concen: 0.897 ppbv
RT: 11.22 min Scan# 2624
Delta R.T. -0.01 min
Lab File: VL039271.D
Acq: 14 Jun 2022 4:01

Tgt Ion	164	Resp	63386
Ion Ratio	Lower	Upper	
164	100		
166	121.0	96.3	144.5
129	98.9	82.5	123.7
131	99.2	82.1	123.1





#53

Toluene

Concen: 0.808 ppbv

RT: 9.81 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: OA1

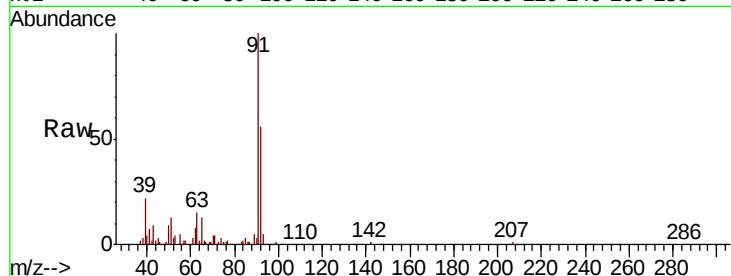
Acq: 14 Jun 2022 4:01

Tot Ion: 91 Resp: 168421

Ion Ratio Lower Upper

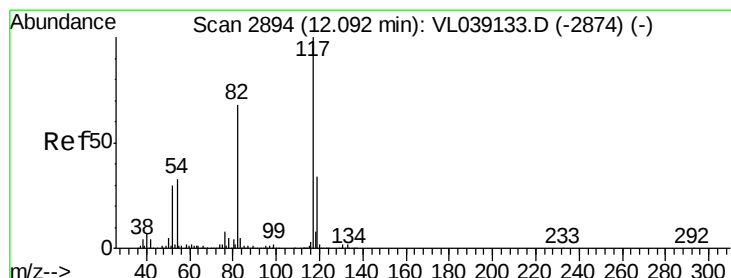
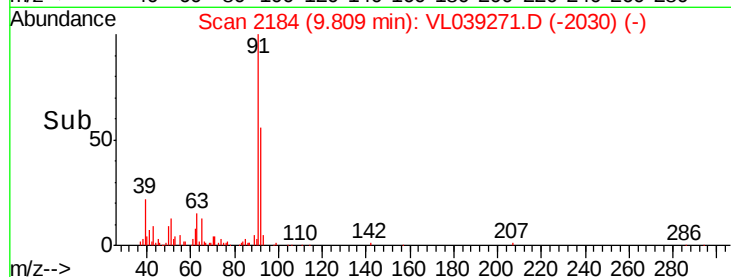
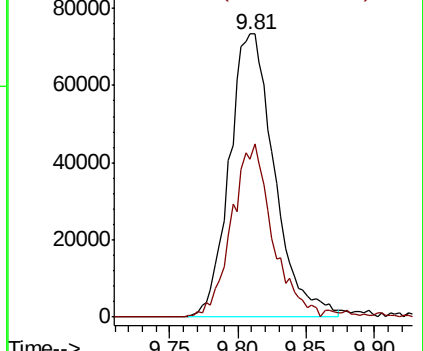
91 100

92 56.5 48.1 72.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2893

Delta R.T. -0.00 min

Lab File: VL039271.D

Acq: 14 Jun 2022 4:01

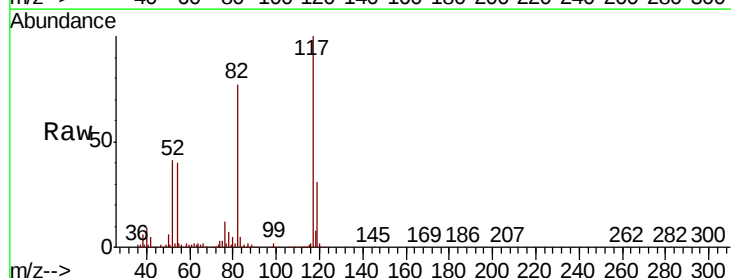
Tgt Ion: 117 Resp: 1843805

Ion Ratio Lower Upper

117 100

82 80.8 55.1 82.7

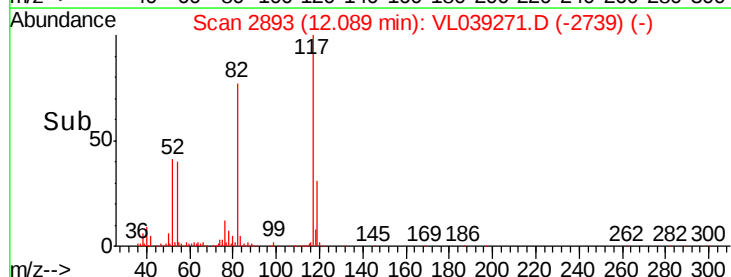
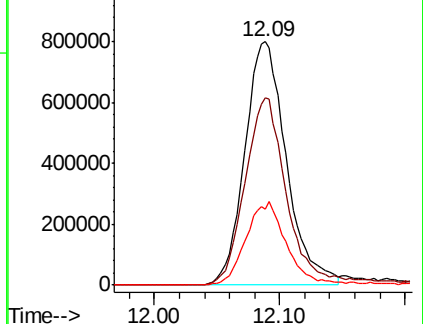
119 34.3 24.7 37.1

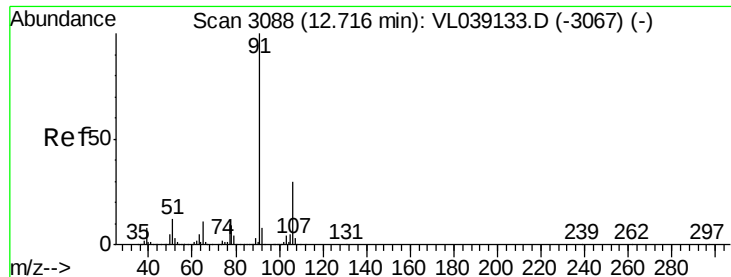


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#58

Ethyl Benzene

Concen: 0.093 ppbv

RT: 12.71 min

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

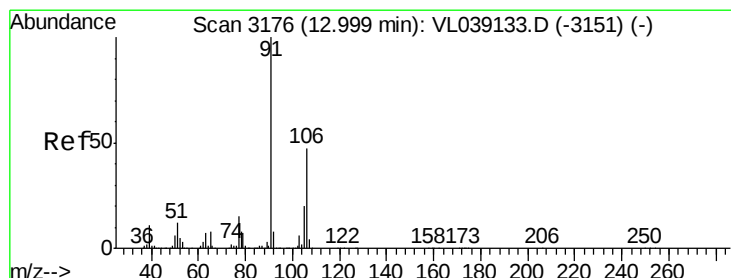
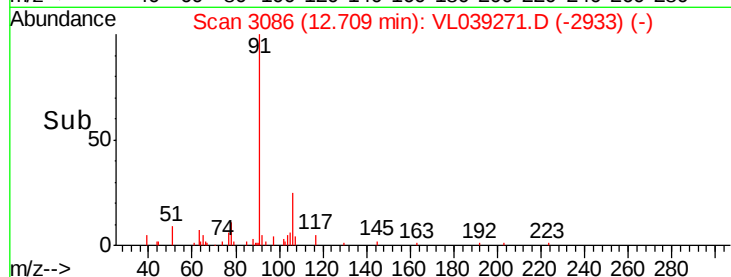
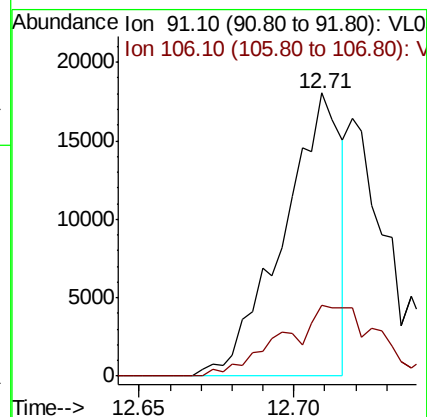
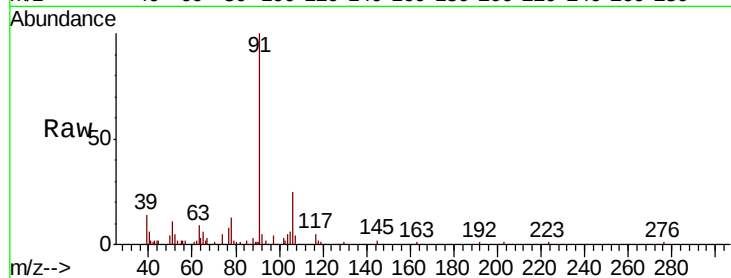
Acq: 14 Jun 2022 4:01

Tot Ion: 91 Resp: 23571

Ion Ratio Lower Upper

91 100

106 25.0 24.2 36.4



#59

m/p-Xylene

Concen: 0.066 ppbv

RT: 13.00 min Scan# 3177

Delta R.T. 0.00 min

Lab File: VL039271.D

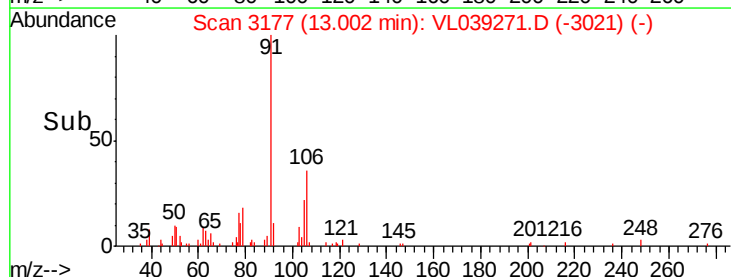
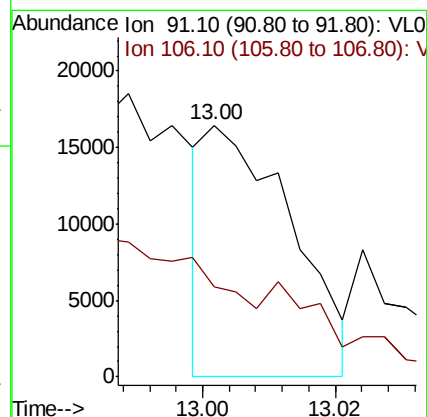
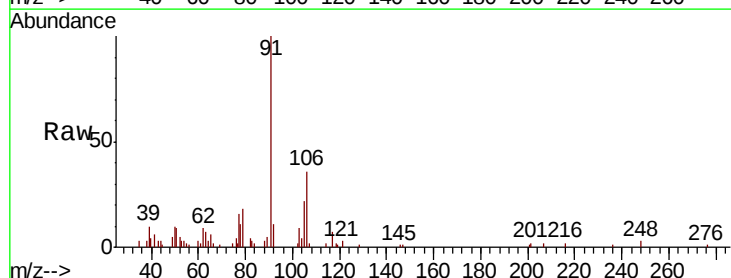
Acq: 14 Jun 2022 4:01

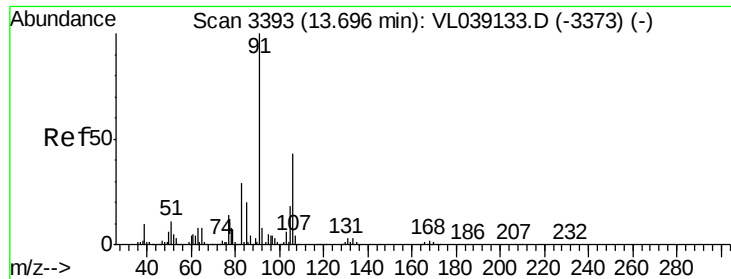
Tgt Ion: 91 Resp: 14766

Ion Ratio Lower Upper

91 100

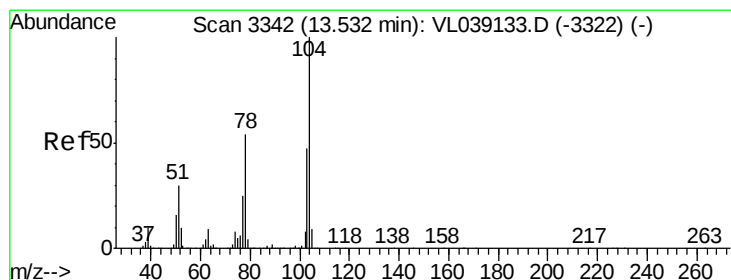
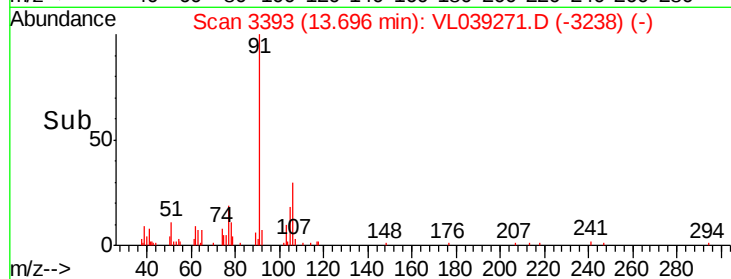
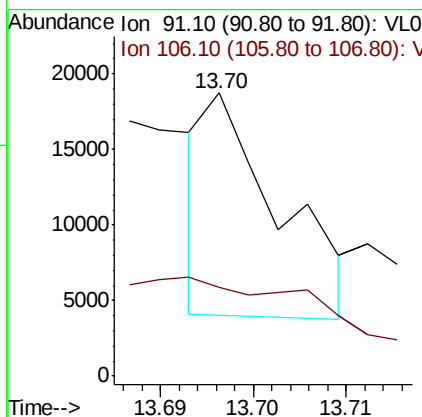
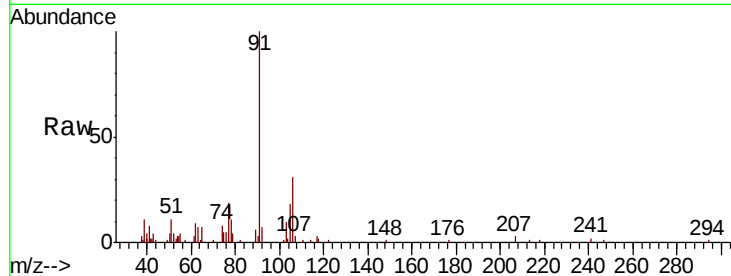
106 0.0 34.3 51.5#





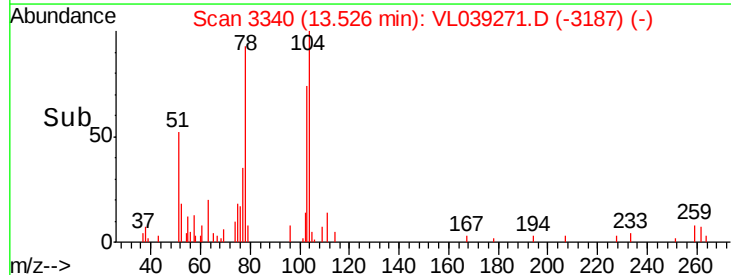
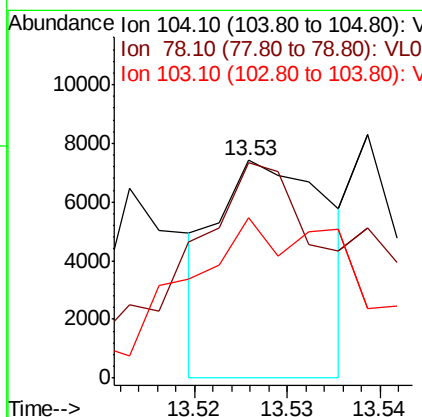
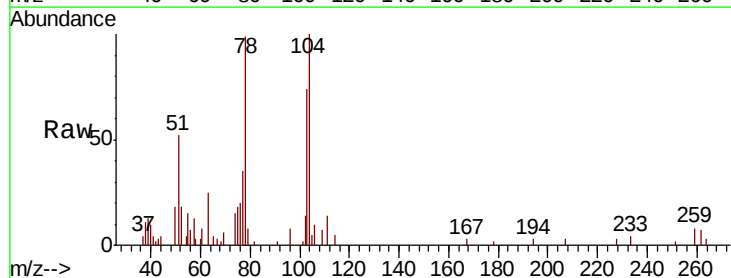
#60
o-Xylene
Concen: 0.039 ppbv
RT: 13.70
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 14 Jun 2022 4:01

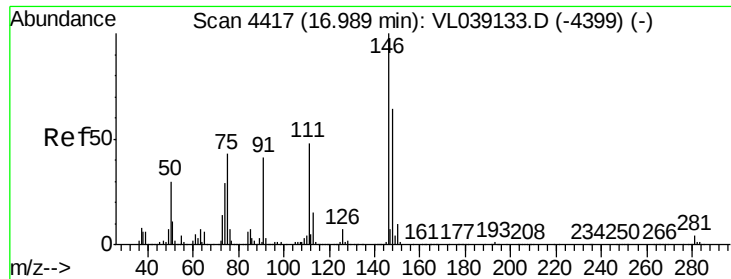
Tot Ion: 91 Resp: 8134
Ion Ratio Lower Upper
91 100
106 203.0 22.3 66.9#



#61
Styrene
Concen: 0.055 ppbv
RT: 13.53 min Scan# 3340
Delta R.T. -0.01 min
Lab File: VL039271.D
Acq: 14 Jun 2022 4:01

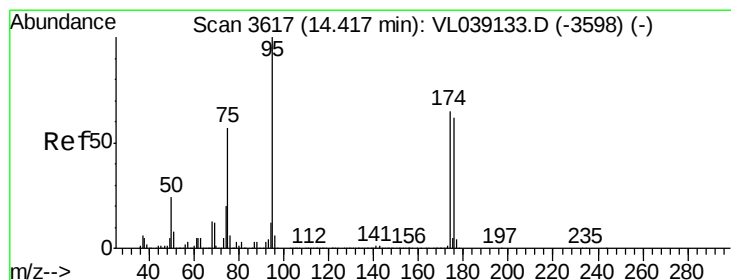
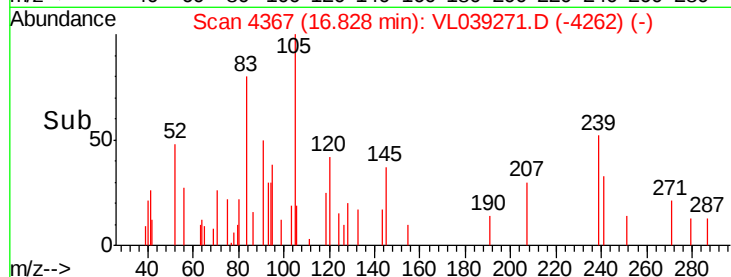
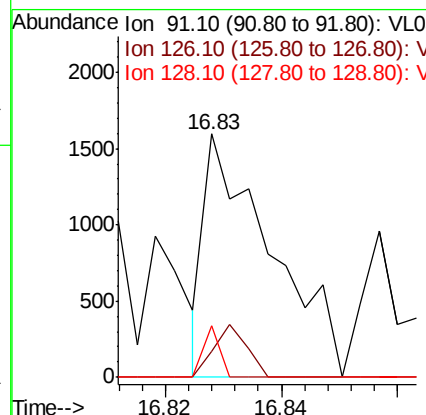
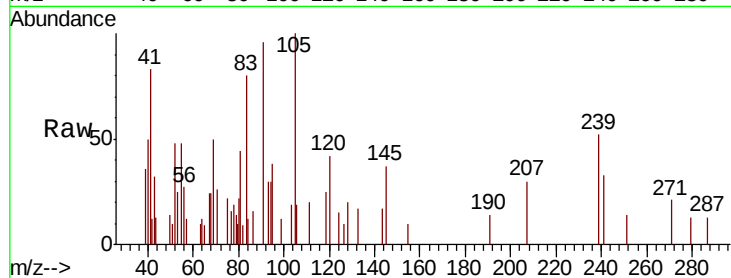
Tgt Ion: 104 Resp: 6196
Ion Ratio Lower Upper
104 100
78 215.7 45.7 68.5#
103 175.0 39.6 59.4#





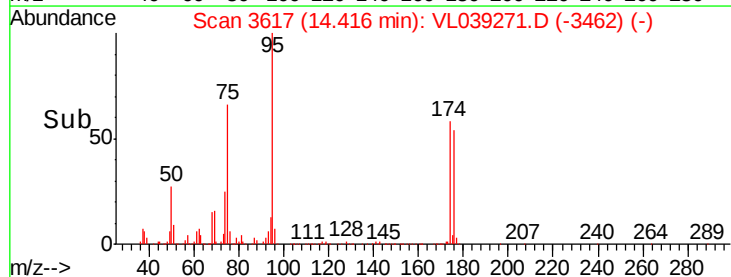
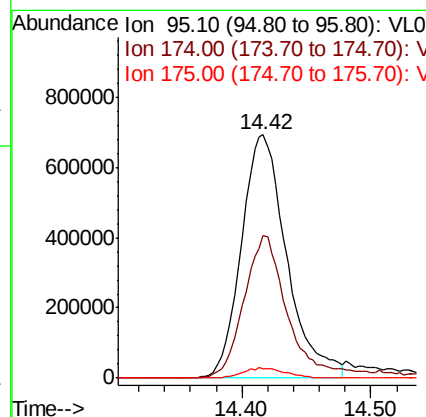
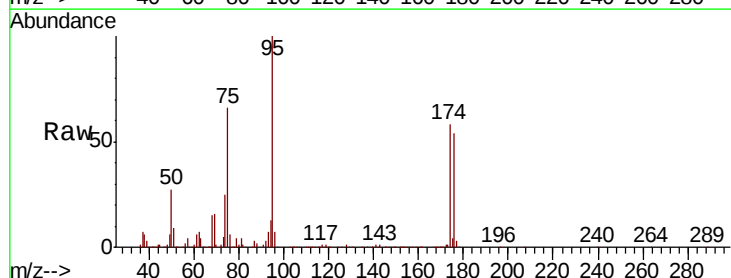
#66
Benzvl Chloride
Concen: 0.034 ppbv
RT: 16.83
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 14 Jun 2022 4:01

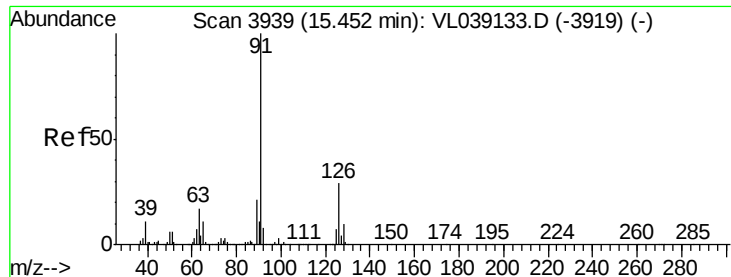
Tot Ion: 91 Resp: 1277
Ion Ratio Lower Upper
91 100
126 10.8 13.4 20.0#
128 0.0 4.1 6.1#



#68
1-Bromo-4-Fluorobenzene
Concen: 11.119 ppbv
RT: 14.42 min Scan# 3617
Delta R.T. -0.00 min
Lab File: VL039271.D
Acq: 14 Jun 2022 4:01

Tgt Ion: 95 Resp: 1694853
Ion Ratio Lower Upper
95 100
174 58.3 53.8 80.8
175 4.5 4.1 6.1





#71

2-Chlorotoluene

Concen: 2.276 ppbv

RT: 15.32

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

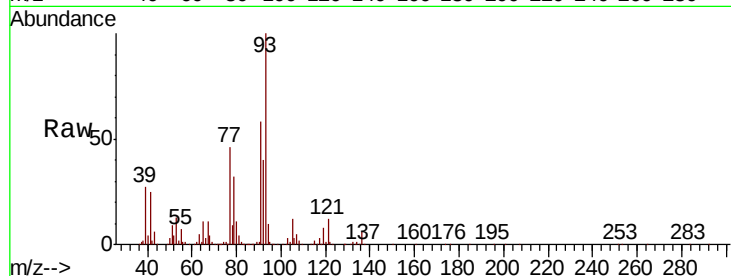
Acq: 14 Jun 2022 4:01

Tot Ion: 91 Resp: 542046

Ion Ratio Lower Upper

91 100

126 0.1 12.2 48.6#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

15.32

200000

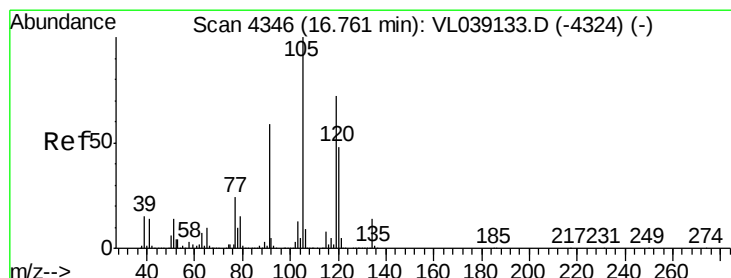
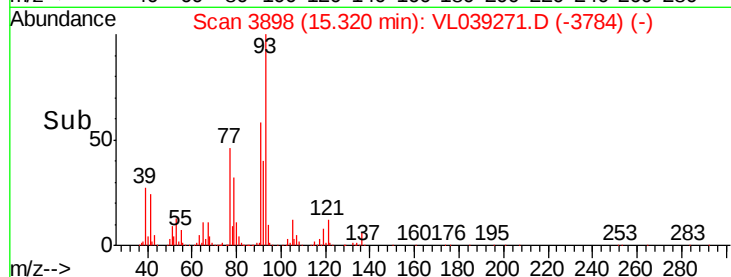
150000

100000

50000

0

Time-->



#74

1,2,4-Trimethylbenzene

Concen: 0.118 ppbv

RT: 16.76 min Scan# 4346

Delta R.T. -0.00 min

Lab File: VL039271.D

Acq: 14 Jun 2022 4:01

Tgt Ion:105 Resp: 29137

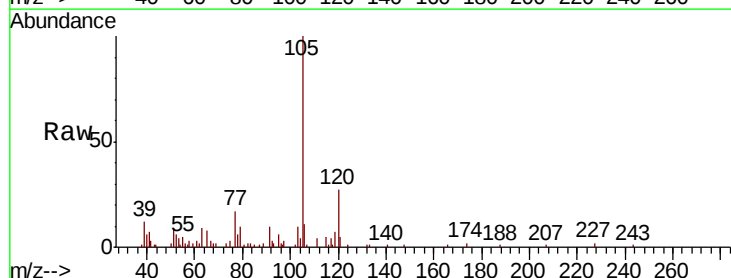
Ion Ratio Lower Upper

105 100

120 23.0 38.1 57.1#

91 6.5 47.4 71.0#

77 13.7 19.5 29.3#



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

30000

20000

10000

0

Time-->

