

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL060622\
 Data File : VL039187.D
 Acq On : 6 Jun 2022 15:31
 Operator : SY/AP
 Sample : N3110-02 5X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-9

Quant Time: Jun 06 16:07:22 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	5.66	49	1233808	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3401846	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.08	117	3084810	10.00	ppbv	-0.01

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.40	95	2375169	9.31	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.10%

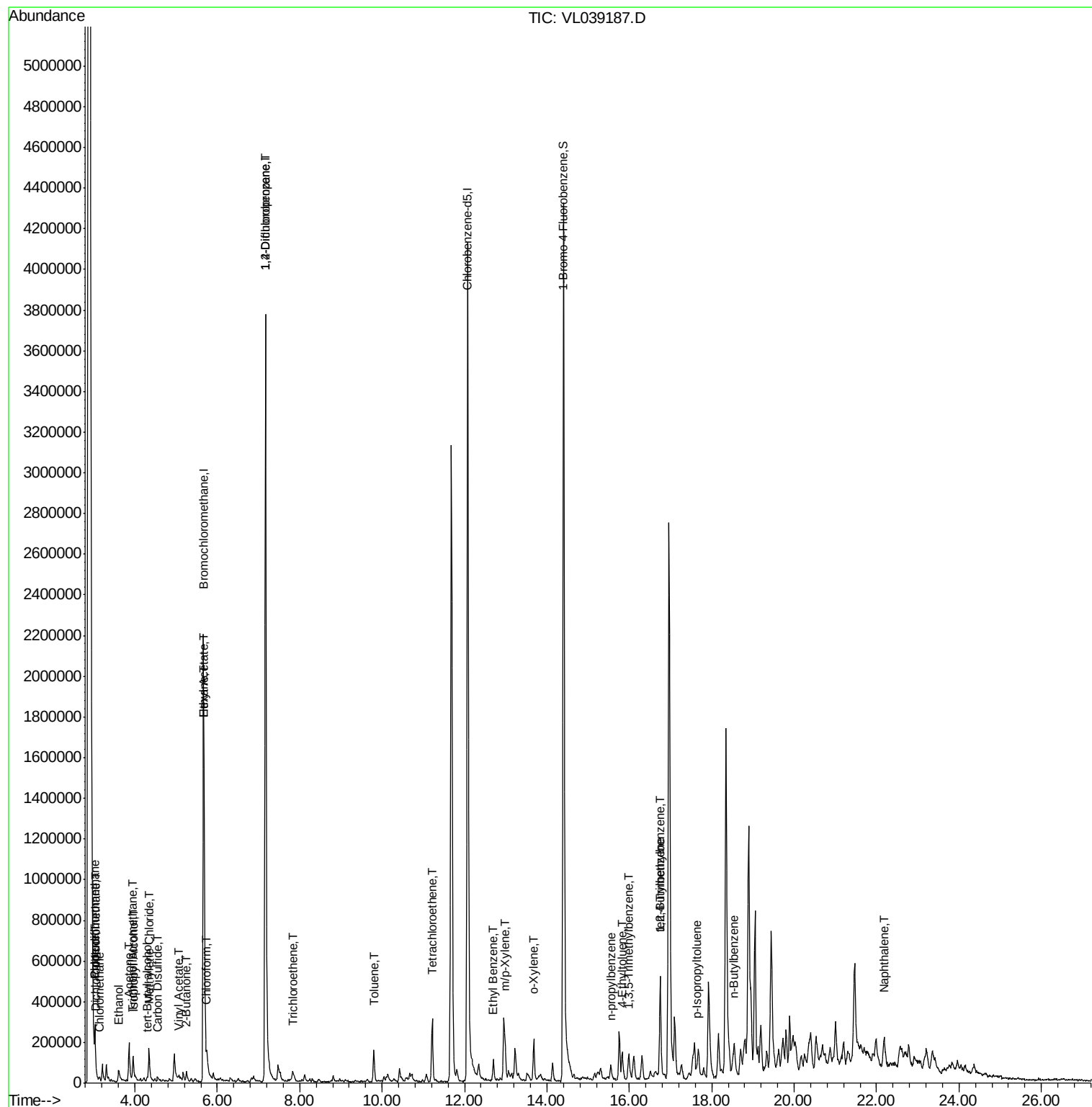
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.05	85	16023	0.07	ppbv	100
3) Chlorodifluoromethane	3.03	51	82229	0.52	ppbv #	62
4) Chloromethane	3.14	50	3143	0.04	ppbv #	57
9) Propene	3.02	41	11255	0.16	ppbv	87
11) Trichlorofluoromethane	3.95	101	83600	0.43	ppbv	97
13) Ethanol	3.60	45	38883	10.42	ppbv #	100
15) Acetone	3.85	43	217159	1.69	ppbv #	81
17) tert-Butyl alcohol	4.29	59	7280	0.07	ppbv #	37
19) Isopropyl Alcohol	3.97	45	14520	0.24	ppbv #	93
20) Methylene Chloride	4.35	84	60729	1.12	ppbv	91
23) Vinyl Acetate	5.07	43	4491	0.04	ppbv #	65
25) Ethyl Acetate	5.69	43	82806	0.29	ppbv #	84
26) Hexane	5.69	57	62130	0.49	ppbv #	42
27) Carbon Disulfide	4.55	76	12333	0.09	ppbv #	59
29) Chloroform	5.75	83	48880	0.23	ppbv	96
34) 2-Butanone	5.25	43	34274	0.19	ppbv #	41
38) Trichloroethene	7.83	130	11085	0.09	ppbv #	85
39) 1,2-Dichloropropane	7.17	63	794042	7.23	ppbv #	24
52) Tetrachloroethene	11.21	164	32741	0.30	ppbv	96
53) Toluene	9.80	91	122491	0.39	ppbv	97
58) Ethyl Benzene	12.70	91	88450	0.21	ppbv #	79
59) m/p-Xylene	12.99	91	87227	0.23	ppbv #	33
60) o-Xylene	13.68	91	88791	0.25	ppbv #	44
64) n-propylbenzene	15.55	120	8100	0.06	ppbv #	1
65) tert-Butylbenzene	16.75	119	33748	0.07	ppbv #	29
69) p-Isopropyltoluene	17.64	119	16812	0.03	ppbv #	60
70) n-Butylbenzene	18.54	91	39960	0.07	ppbv #	81
72) 4-Ethyltoluene	15.82	105	62357	0.15	ppbv #	60
73) 1,3,5-Trimethylbenzene	15.99	105	91153	0.25	ppbv	90
74) 1,2,4-Trimethylbenzene	16.75	105	388243	0.94	ppbv #	62
79) Naphthalene	22.18	128	16237	0.05	ppbv #	90

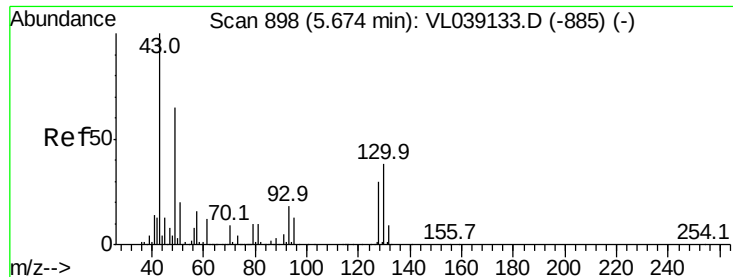
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL060622\
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ClientSampleId :
SG-9

Quant Time: Jun 06 16:07:22 2022
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL053122AIR.M
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: 10.00 ppbv

RT: 5.66 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId :

Acq: 6 Jun 2022 15:31 SG-9

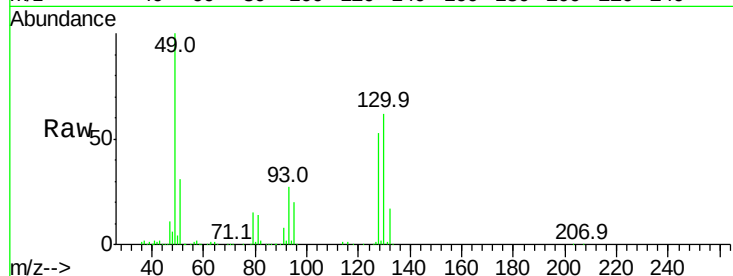
Tgt Ion: 49 Resp: 1233808

Ion Ratio Lower Upper

49 100

128 53.8 24.7 74.1

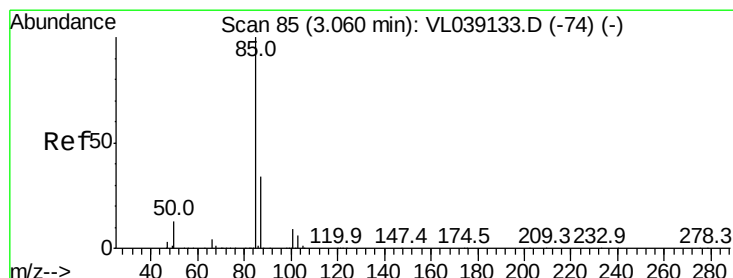
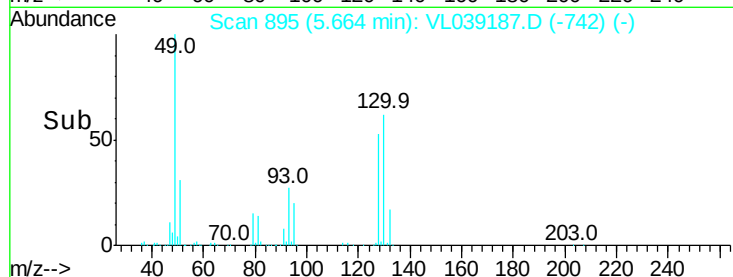
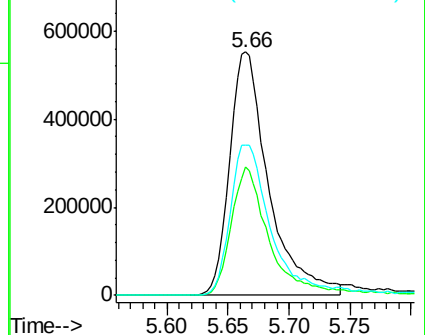
130 67.4 31.4 94.0



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.07 ppbv

RT: 3.05 min Scan# 83

Delta R.T. -0.01 min

Lab File: VL039187.D

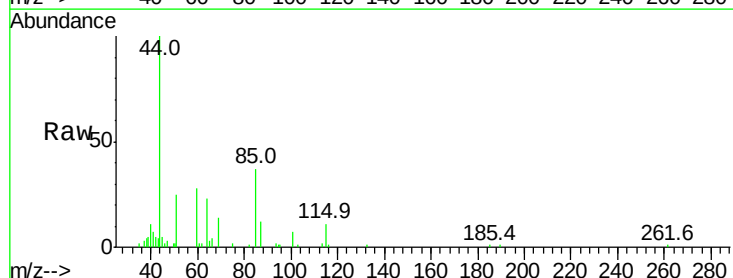
Acq: 6 Jun 2022 15:31

Tgt Ion: 85 Resp: 16023

Ion Ratio Lower Upper

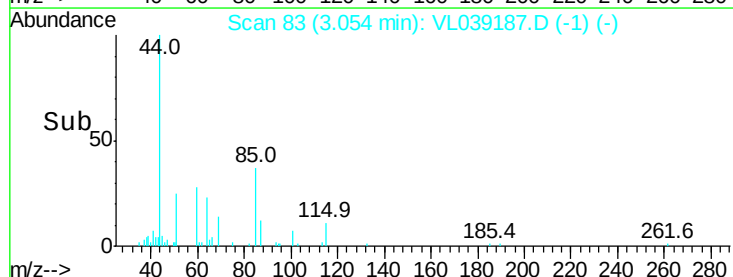
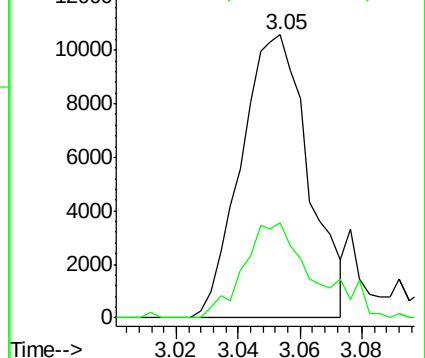
85 100

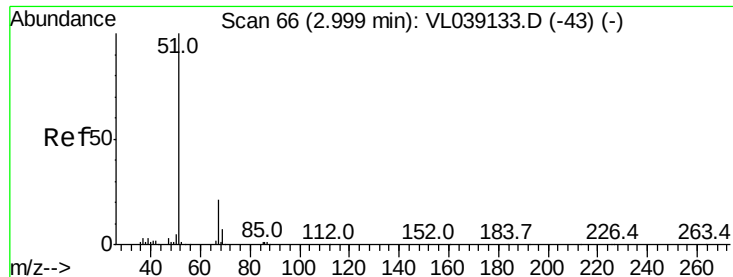
87 33.8 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.52 ppbv

RT: 3.03 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

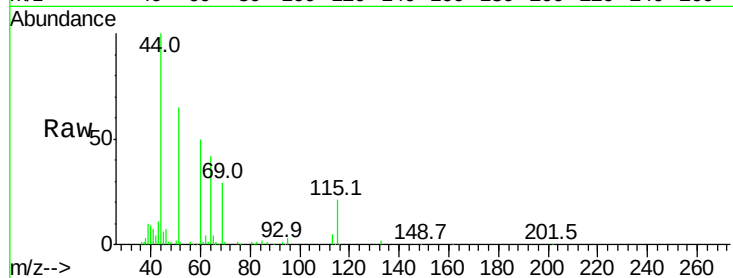
Acq: 6 Jun 2022 15:31 SG-9

Tgt Ion: 51 Resp: 82229

Ion Ratio Lower Upper

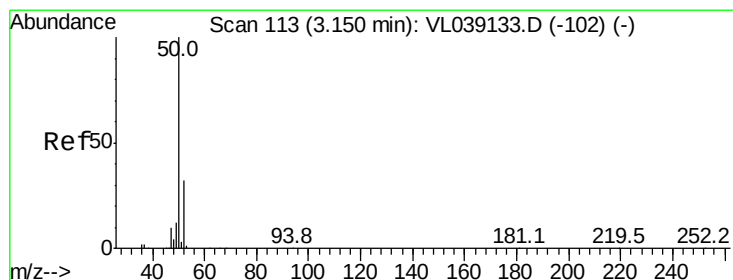
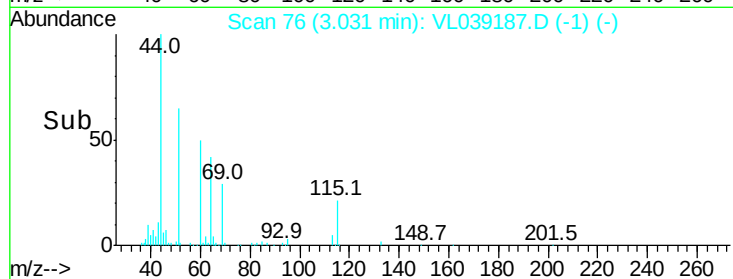
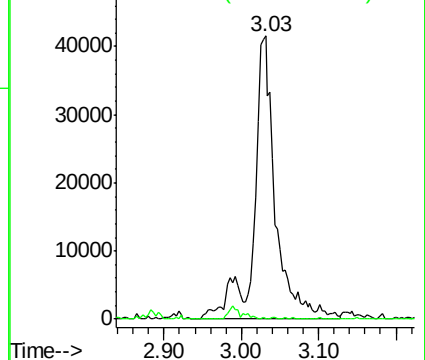
51 100

67 2.8 16.2 24.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.04 ppbv

RT: 3.14 min Scan# 111

Delta R.T. -0.01 min

Lab File: VL039187.D

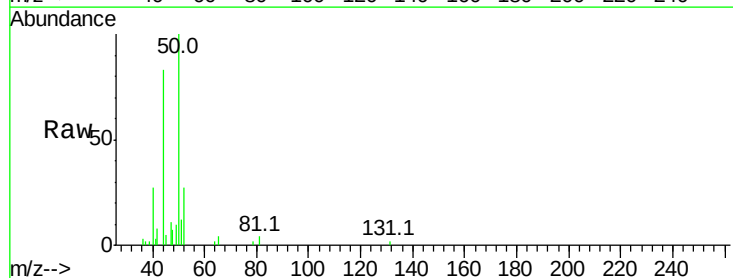
Acq: 6 Jun 2022 15:31

Tgt Ion: 50 Resp: 3143

Ion Ratio Lower Upper

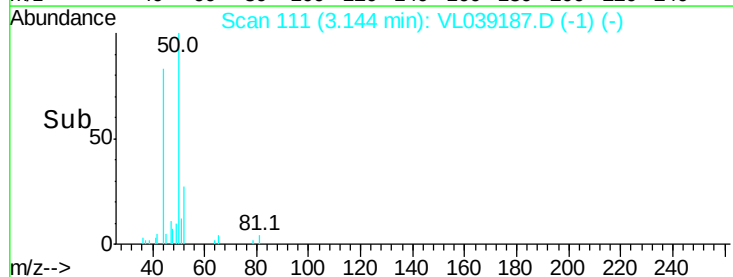
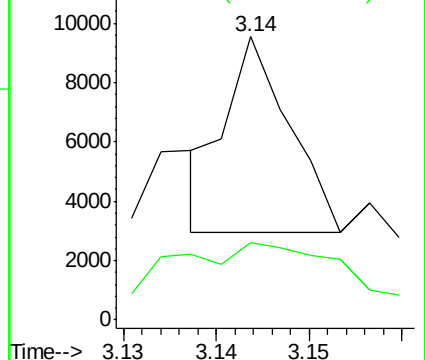
50 100

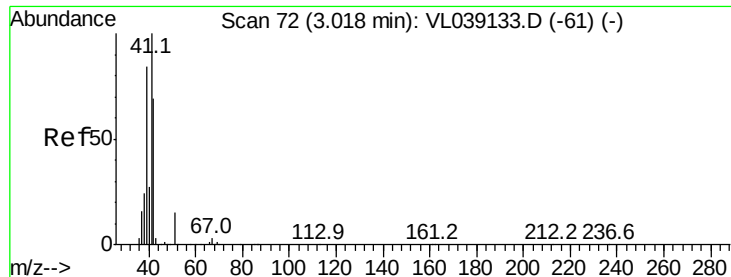
52 8.2 25.9 38.9#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.16 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

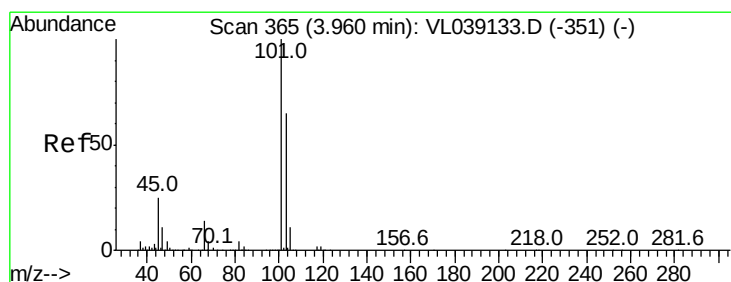
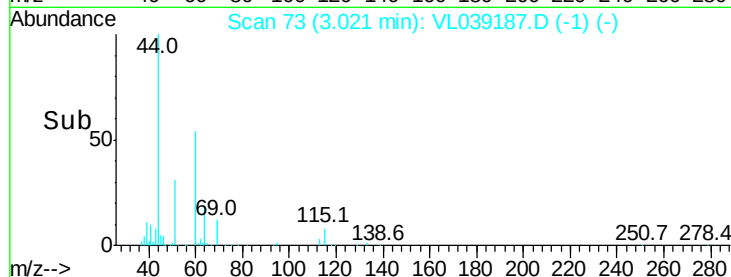
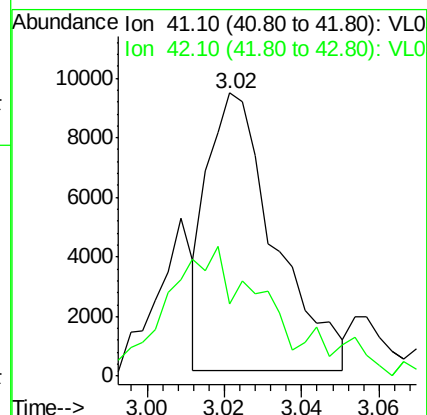
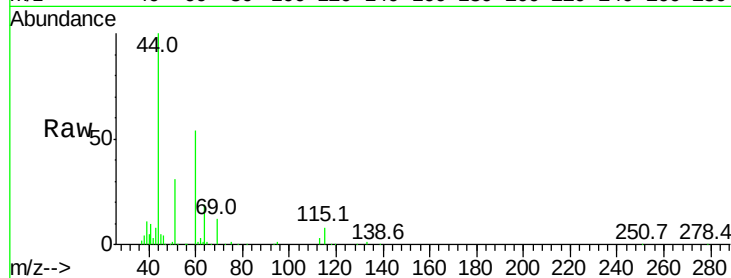
Acq: 6 Jun 2022 15:31 SG-9

Tgt Ion: 41 Resp: 11255

Ion Ratio Lower Upper

41 100

42 80.0 55.4 83.2



#11

Trichlorofluoromethane

Concen: 0.43 ppbv

RT: 3.95 min Scan# 363

Delta R.T. -0.01 min

Lab File: VL039187.D

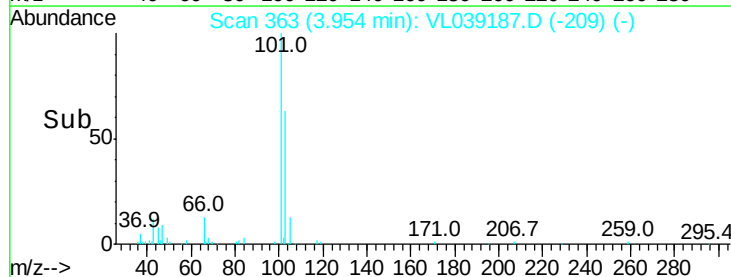
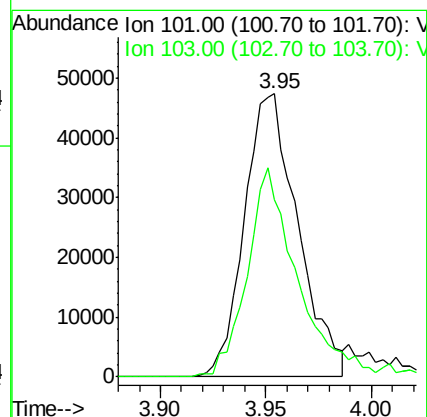
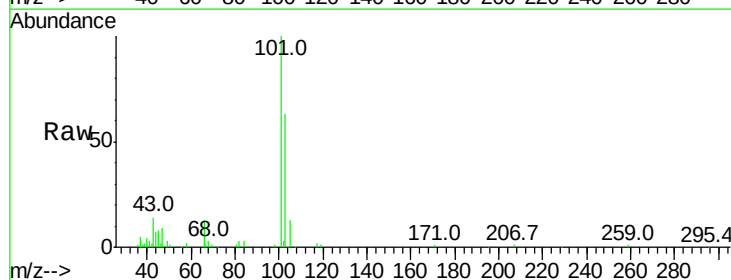
Acq: 6 Jun 2022 15:31

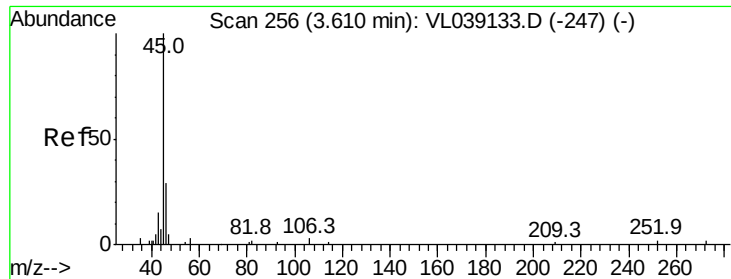
Tgt Ion: 101 Resp: 83600

Ion Ratio Lower Upper

101 100

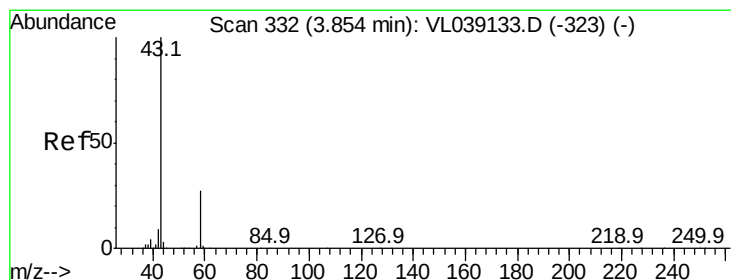
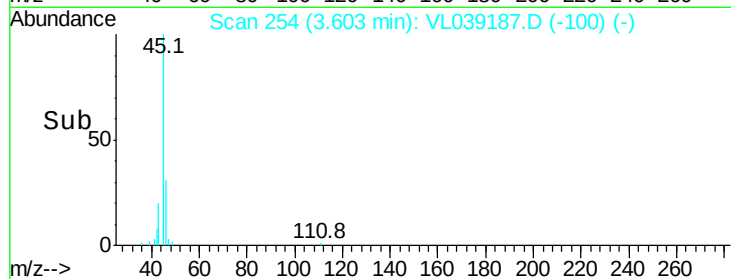
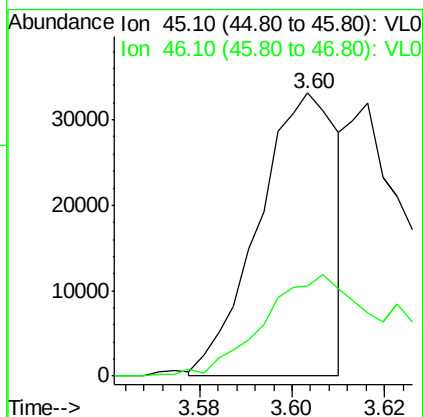
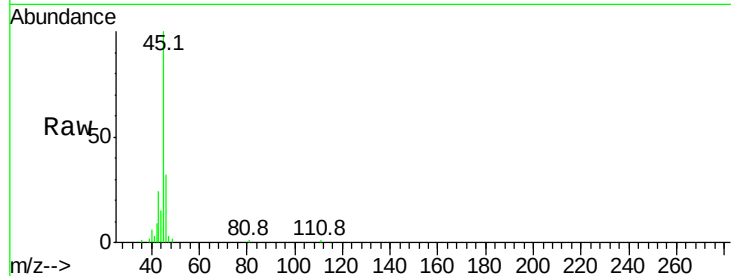
103 62.5 51.7 77.5





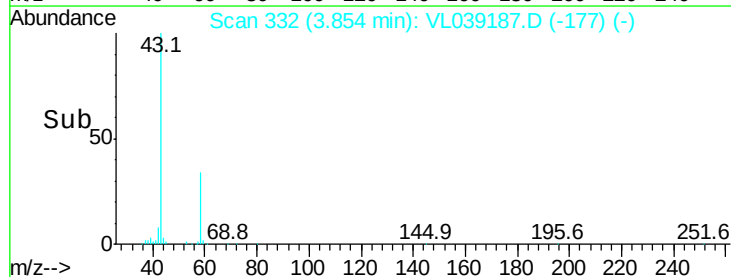
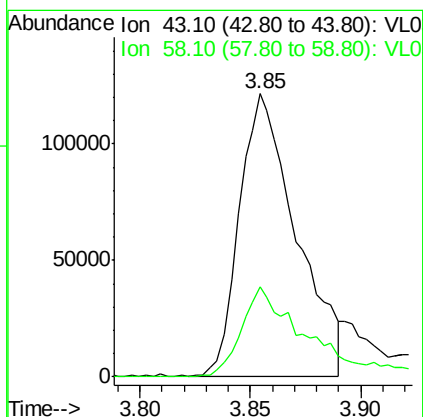
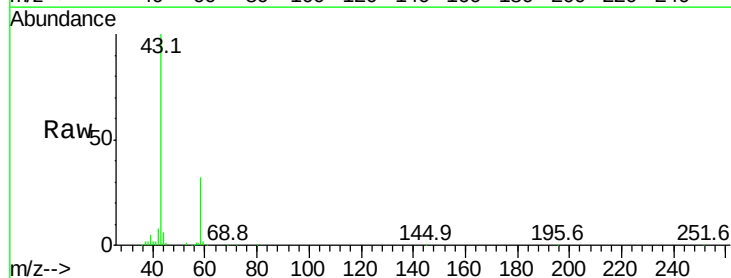
#13
Ethanol
Concen: 10.42 ppbv
RT: 3.60
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 6 Jun 2022 15:31

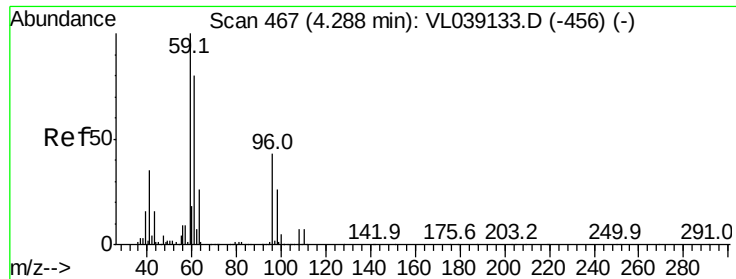
Tgt Ion: 45 Resp: 38883
Ion Ratio Lower Upper
45 100
46 91.8 0.0 0.0#



#15
Acetone
Concen: 1.69 ppbv
RT: 3.85 min Scan# 332
Delta R.T. -0.00 min
Lab File: VL039187.D
Acq: 6 Jun 2022 15:31

Tgt Ion: 43 Resp: 217159
Ion Ratio Lower Upper
43 100
58 38.3 22.5 33.7#





#17

tert-Butyl alcohol

Concen: 0.07 ppbv

RT: 4.29 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

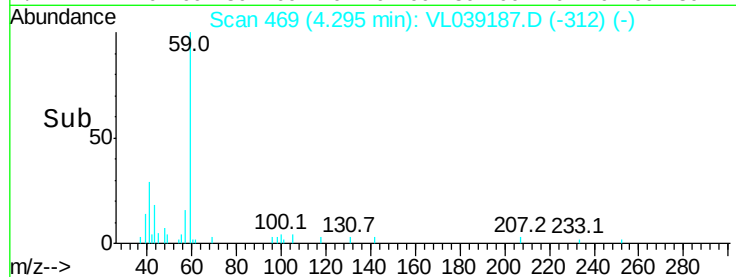
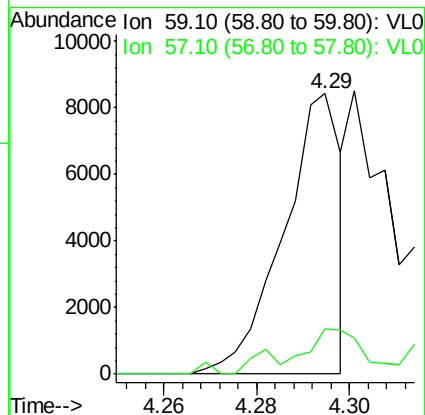
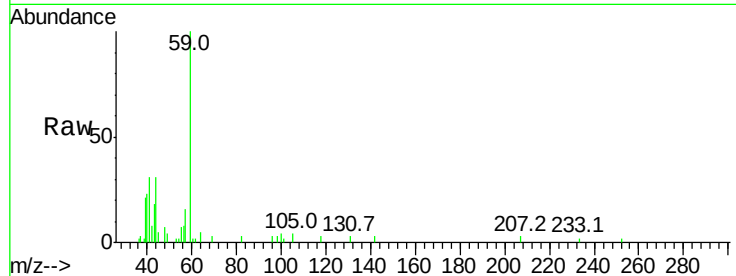
Acq: 6 Jun 2022 15:31 SG-9

Tgt Ion: 59 Resp: 7280

Ion Ratio Lower Upper

59 100

57 35.6 9.1 13.7#



#19

Isopropyl Alcohol

Concen: 0.24 ppbv

RT: 3.97 min Scan# 367

Delta R.T. 0.00 min

Lab File: VL039187.D

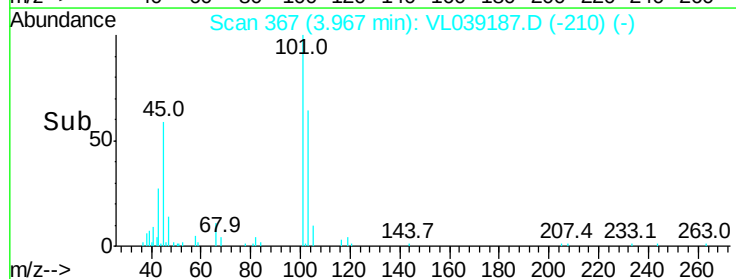
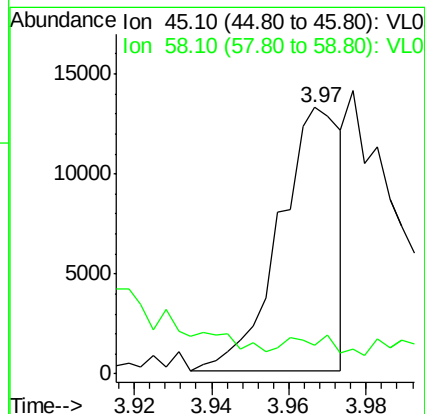
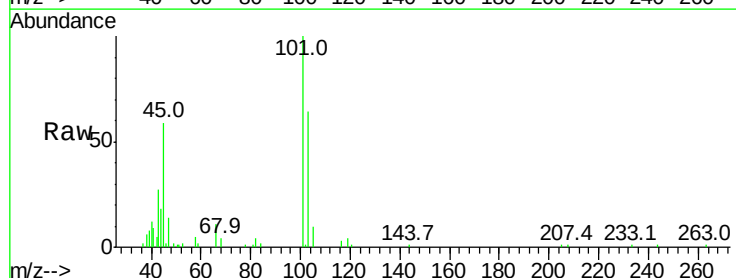
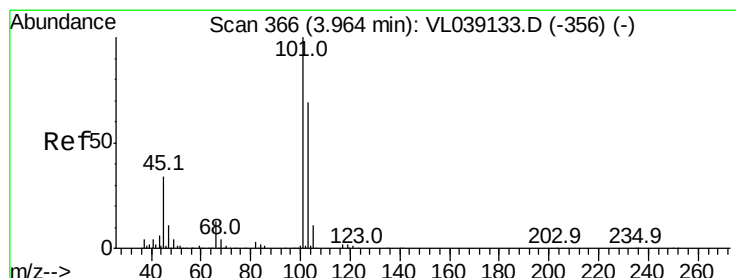
Acq: 6 Jun 2022 15:31

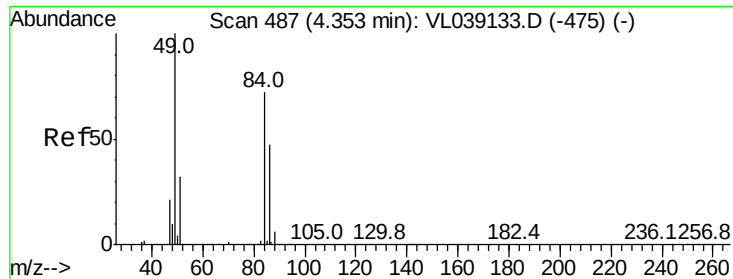
Tgt Ion: 45 Resp: 14520

Ion Ratio Lower Upper

45 100

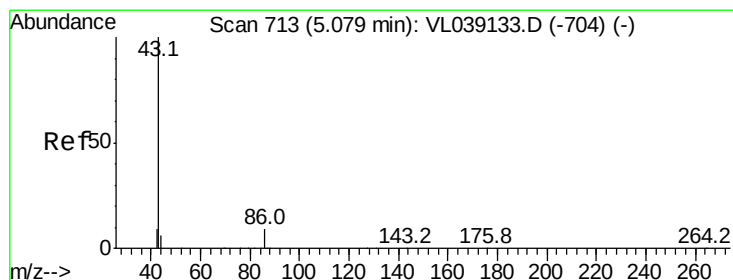
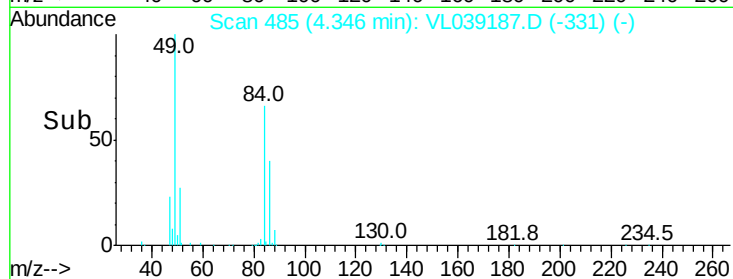
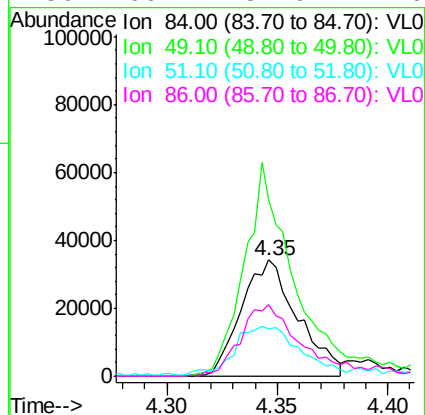
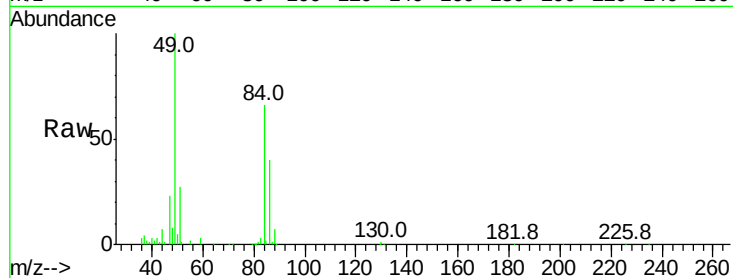
58 0.0 1.8 2.8#





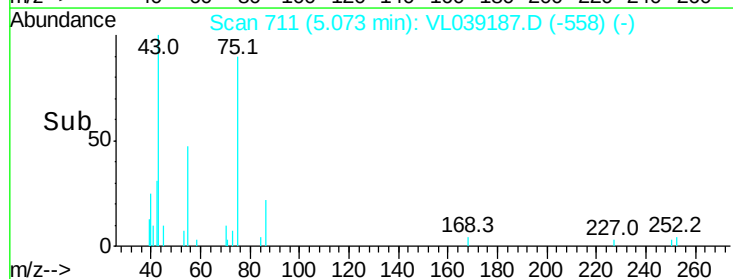
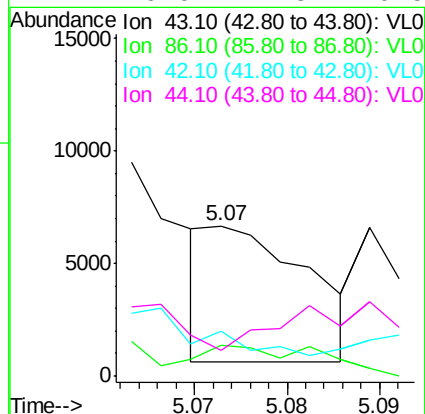
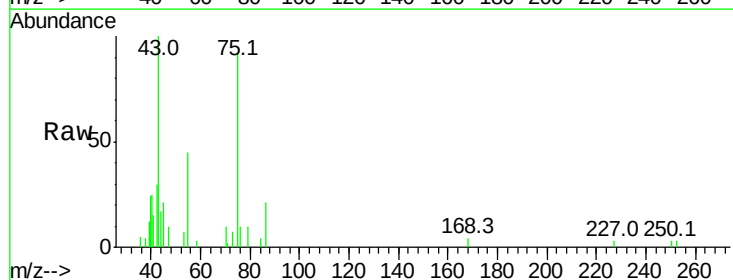
#20
Methylene Chloride
Concen: 1.12 ppbv
RT: 4.35
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 6 Jun 2022 15:31

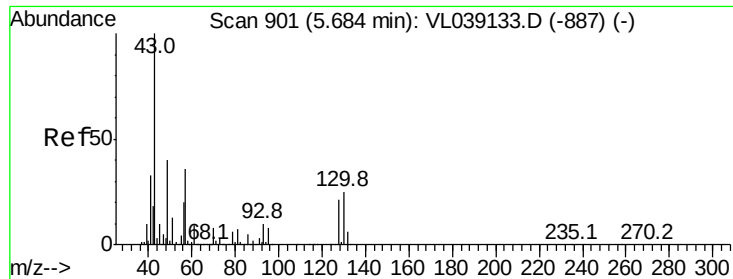
Tgt Ion:	84	Resp:	60729
Ion	Ratio	Lower	Upper
84	100		
49	150.6	111.1	166.7
51	37.7	35.3	52.9
86	60.7	51.9	77.9



#23
Vinyl Acetate
Concen: 0.04 ppbv
RT: 5.07 min Scan# 711
Delta R.T. -0.01 min
Lab File: VL039187.D
Acq: 6 Jun 2022 15:31

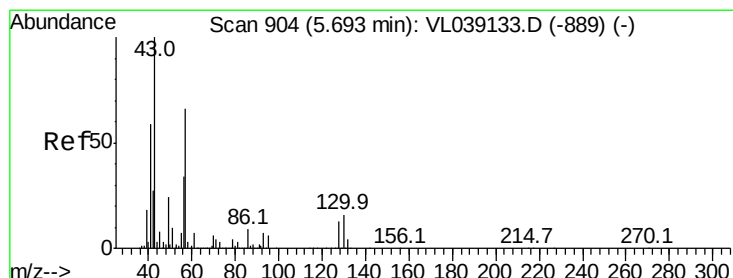
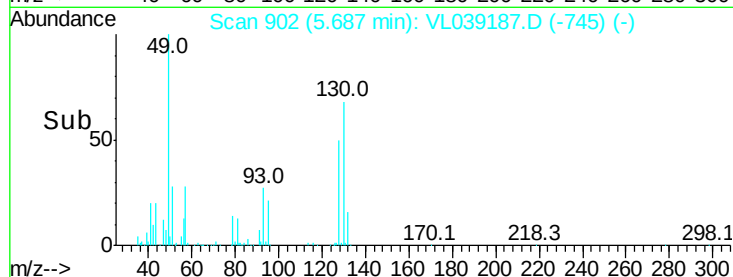
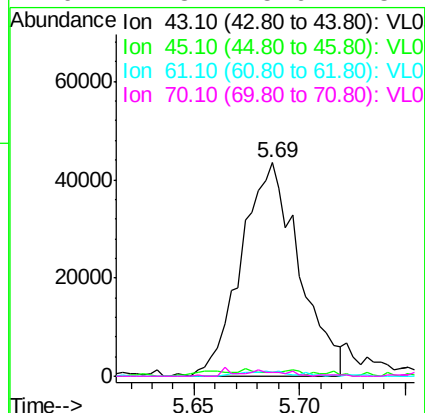
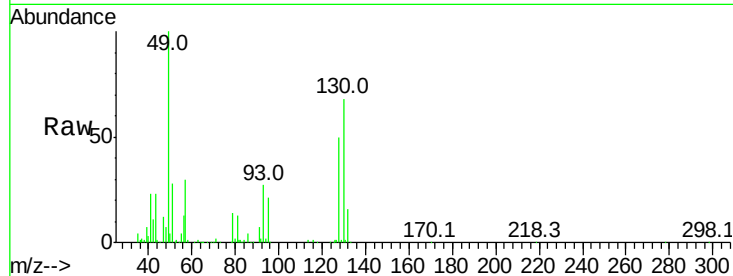
Tgt Ion:	43	Resp:	4491
Ion	Ratio	Lower	Upper
43	100		
86	20.3	6.0	9.0#
42	26.3	8.2	12.4#
44	0.0	4.3	6.5#





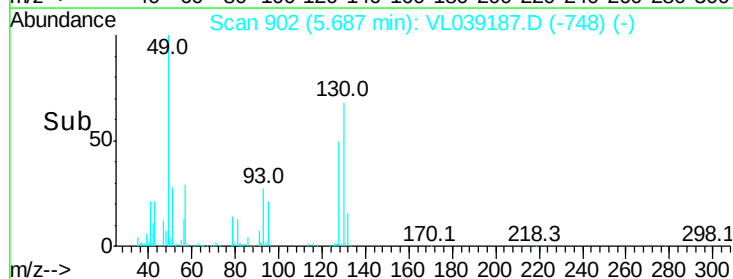
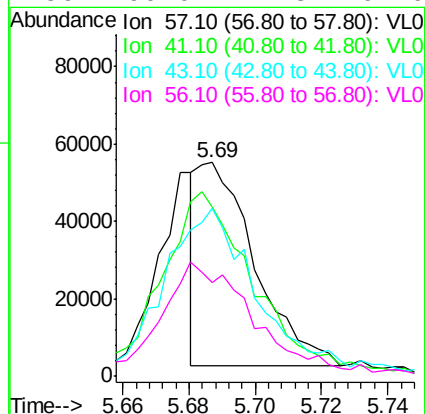
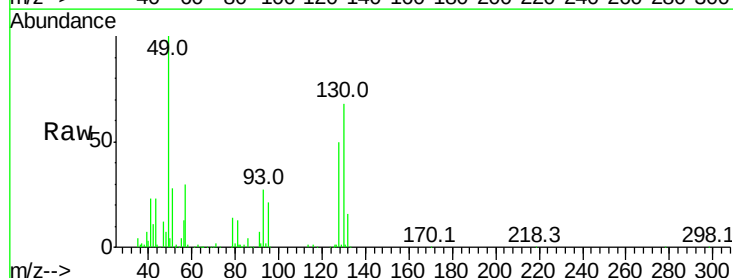
#25
Ethyl Acetate
Concen: 0.29 ppbv
RT: 5.69
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId : SG-9
Acq: 6 Jun 2022 15:31

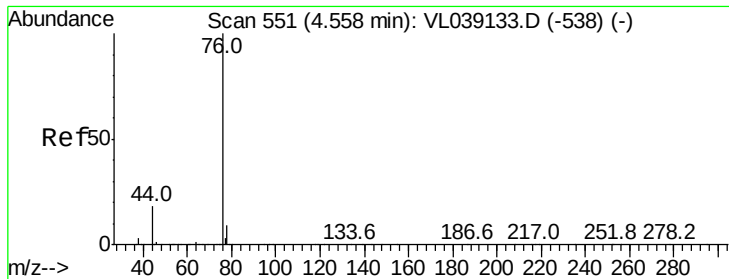
Tgt Ion:	43	Resp:	82806
Ion	Ratio	Lower	Upper
43	100		
45	5.0	8.2	12.2#
61	2.3	8.4	12.6#
70	2.8	5.6	8.4#



#26
Hexane
Concen: 0.49 ppbv
RT: 5.69 min Scan# 902
Delta R.T. -0.01 min
Lab File: VL039187.D
Acq: 6 Jun 2022 15:31

Tgt Ion:	57	Resp:	62130
Ion	Ratio	Lower	Upper
57	100		
41	157.1	72.4	108.6#
43	147.6	187.0	280.6#
56	99.0	41.8	62.6#





#27

Carbon Disulfide

Concen: 0.09 ppbv

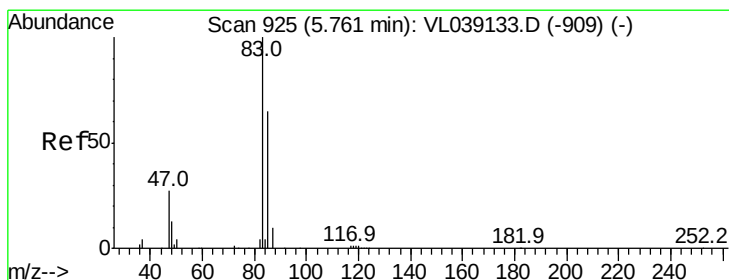
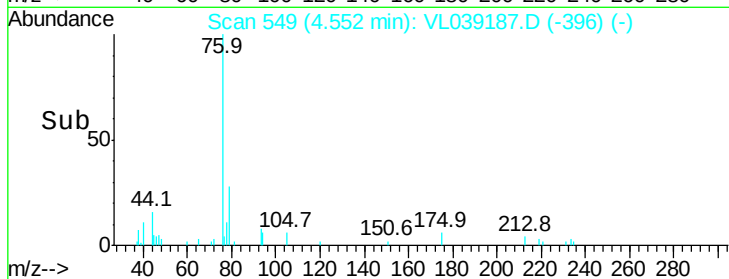
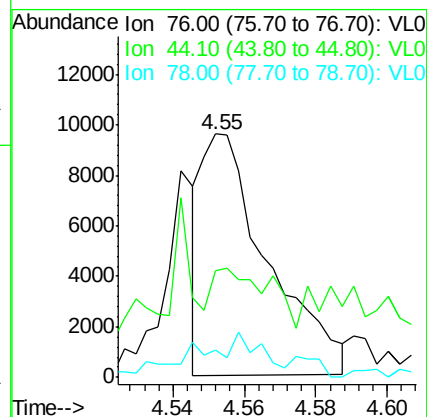
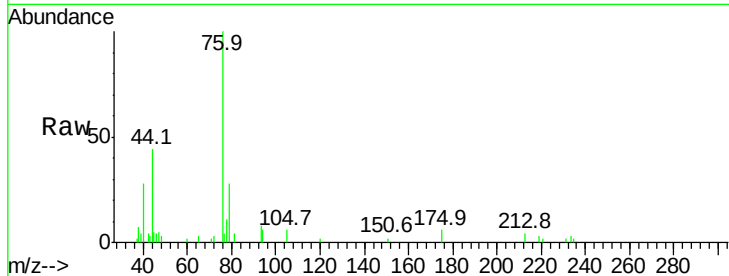
RT: 4.55

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 6 Jun 2022 15:31

Tgt Ion	Ratio	Lower	Upper
76	100		
44	0.0	14.4	21.6#
78	25.2	7.7	11.5#



#29

Chloroform

Concen: 0.23 ppbv

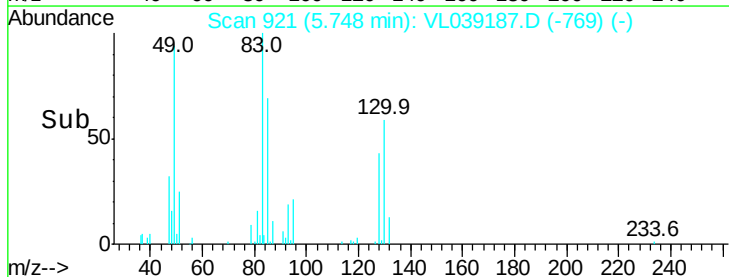
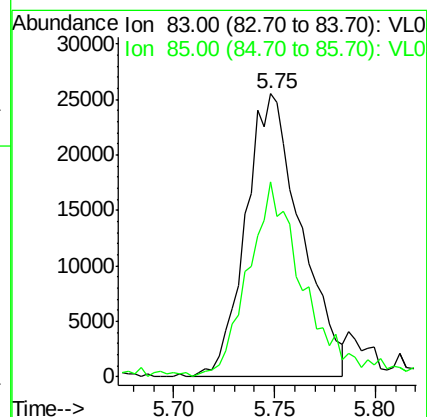
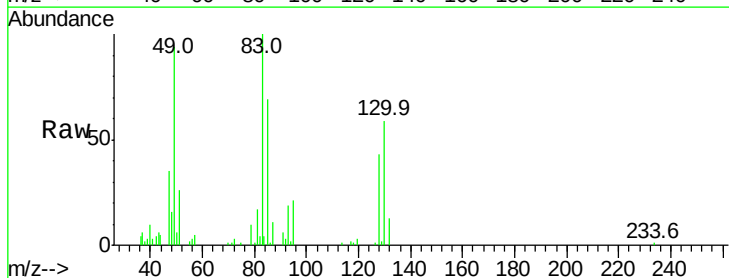
RT: 5.75 min Scan# 921

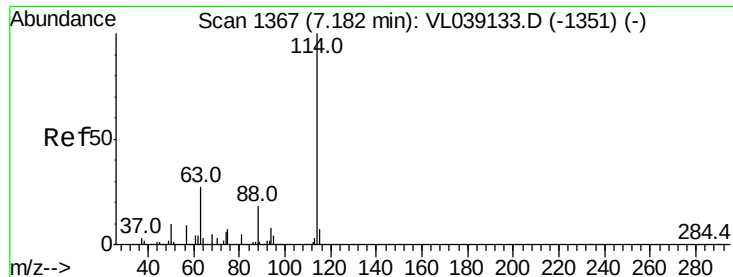
Delta R.T. -0.01 min

Lab File: VL039187.D

Acq: 6 Jun 2022 15:31

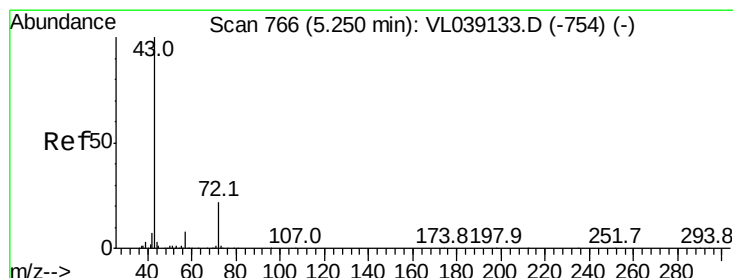
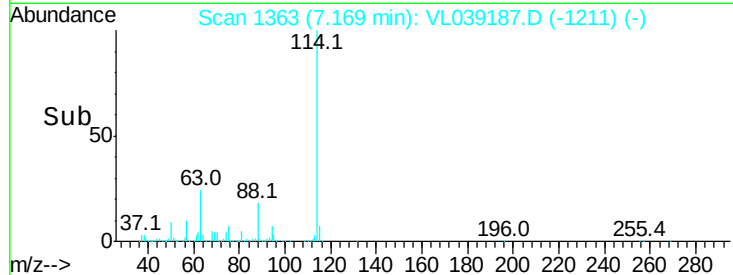
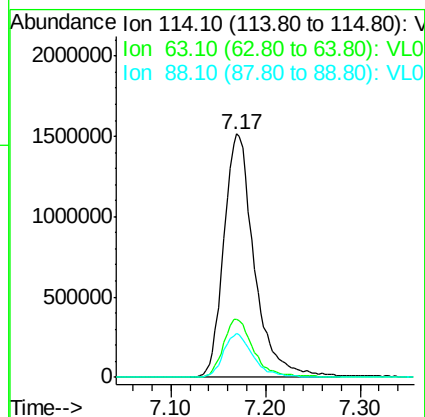
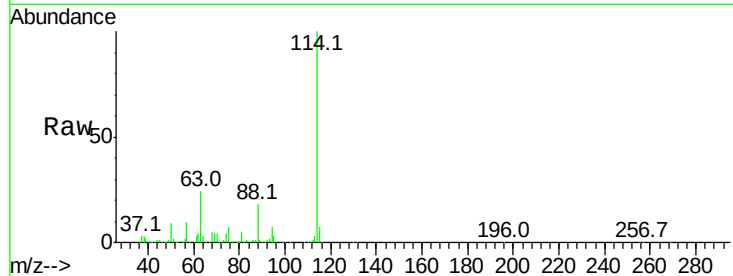
Tgt Ion	Ratio	Lower	Upper
83	100		
85	68.7	52.4	78.6





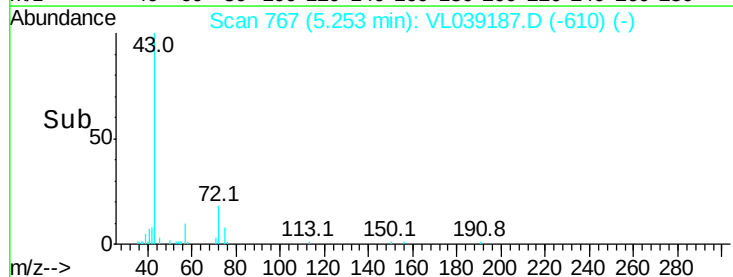
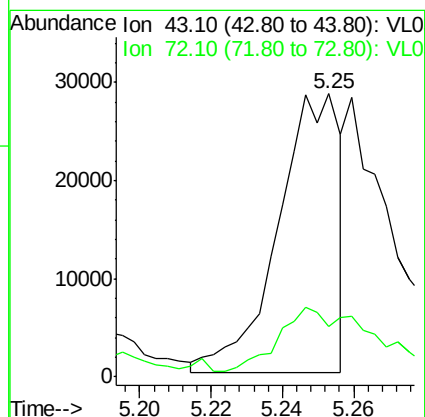
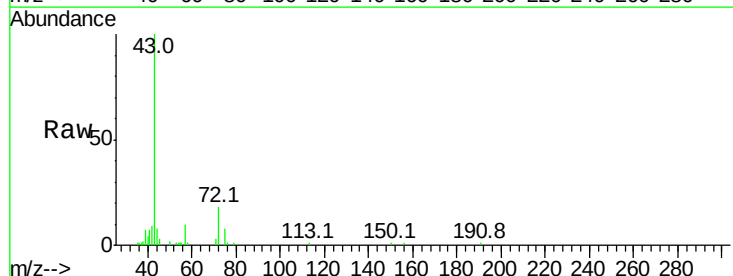
#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.17
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 6 Jun 2022 15:31

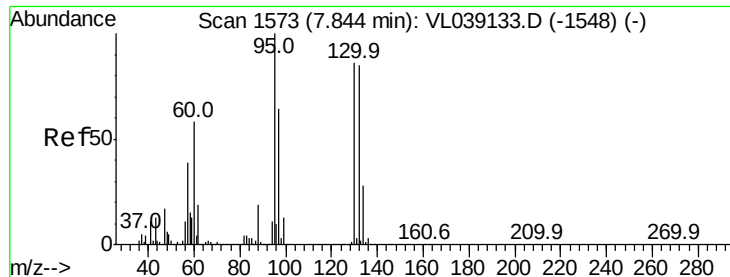
Tgt Ion: 114 Resp: 3401846
 Ion Ratio Lower Upper
 114 100
 63 24.0 21.7 32.5
 88 17.8 14.8 22.2



#34
 2-Butanone
 Concen: 0.19 ppbv
 RT: 5.25 min Scan# 767
 Delta R.T. 0.00 min
 Lab File: VL039187.D
 Acq: 6 Jun 2022 15:31

Tgt Ion: 43 Resp: 34274
 Ion Ratio Lower Upper
 43 100
 72 51.2 18.2 27.2#





#38

Trichloroethene

Concen: 0.09 ppbv

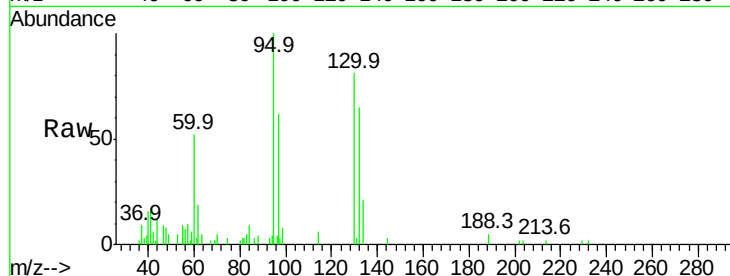
RT: 7.83 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 6 Jun 2022 15:31 SG-9

Tgt Ion:	130	Resp:	11085
Ion Ratio	Lower	Upper	
130	100		
95	121.0	93.3	139.9
132	58.6	79.0	118.4#
97	74.1	59.4	89.2

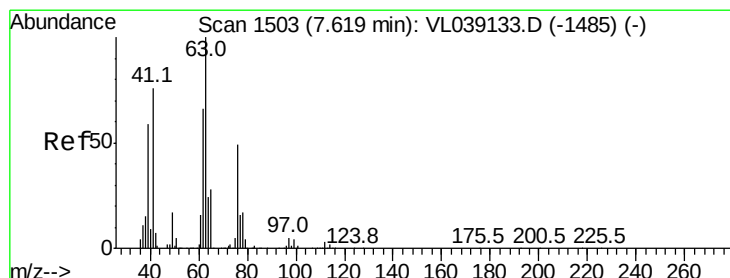
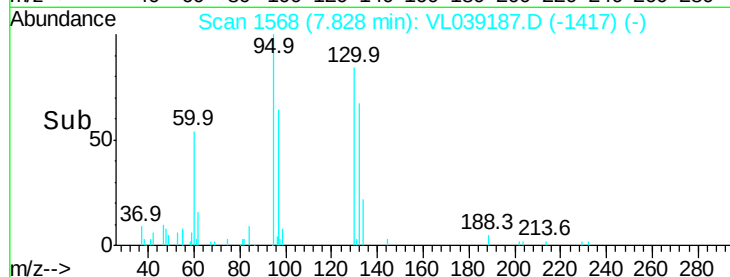
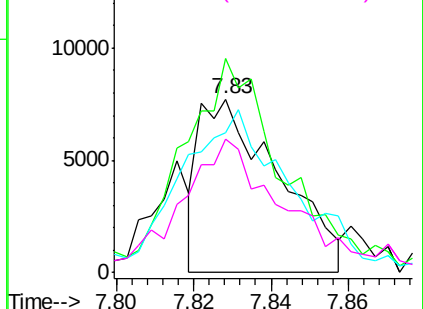


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#39

1,2-Dichloropropane

Concen: 7.23 ppbv

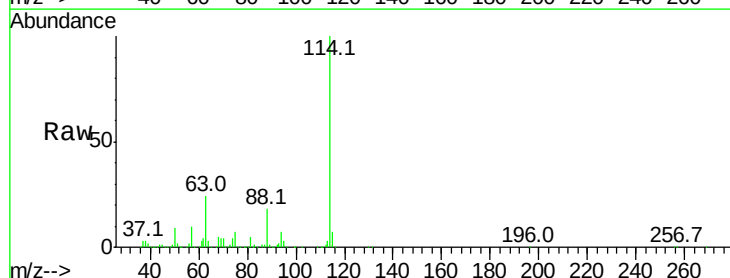
RT: 7.17 min Scan# 1363

Delta R.T. -0.45 min

Lab File: VL039187.D

Acq: 6 Jun 2022 15:31

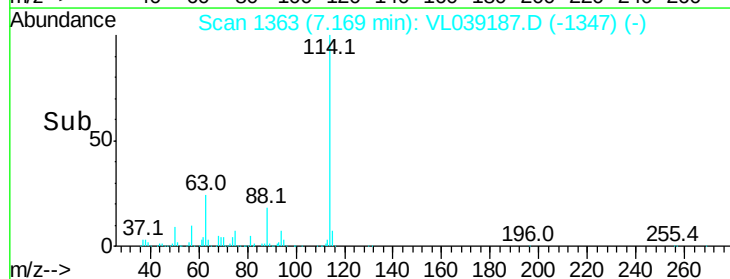
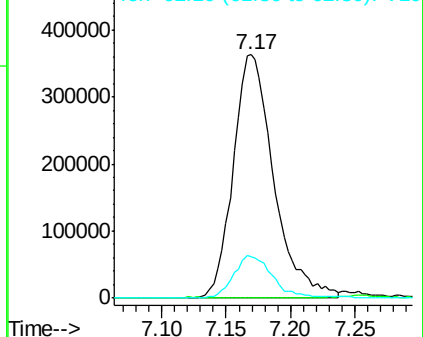
Tgt Ion:	63	Resp:	794042
Ion Ratio	Lower	Upper	
63	100		
41	0.0	60.8	91.2#
62	17.1	52.9	79.3#

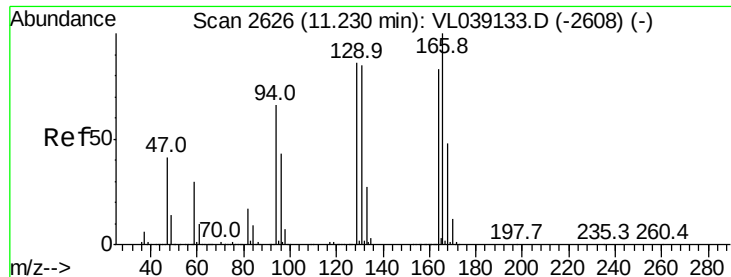


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#52

Tetrachloroethene

Concen: 0.30 ppbv

RT: 11.21

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 6 Jun 2022 15:31

Tgt Ion: 164 Resp: 32741

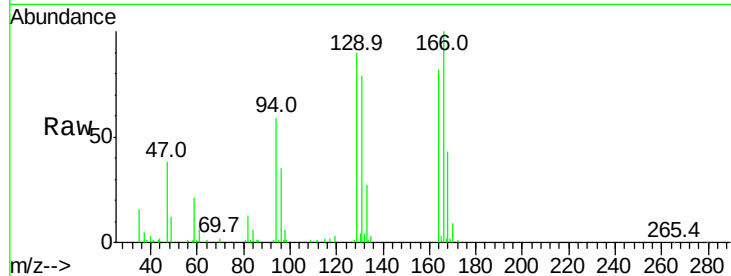
Ion Ratio Lower Upper

164 100

166 121.5 96.3 144.5

129 109.3 82.5 123.7

131 96.2 82.1 123.1

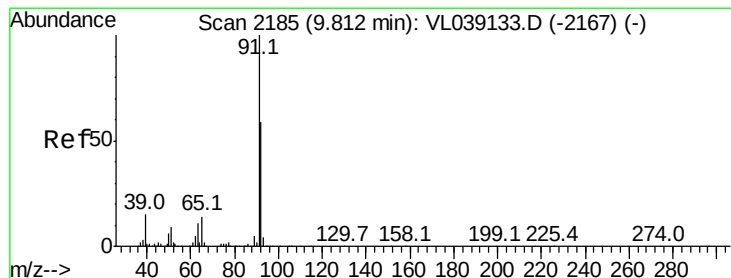
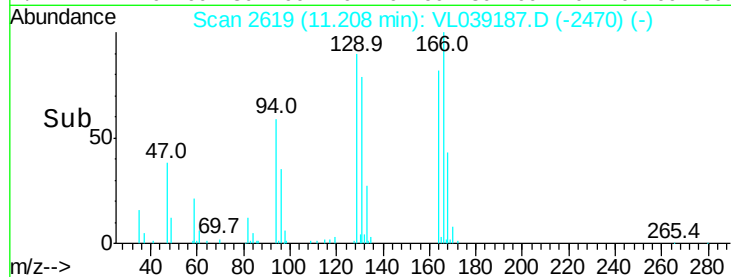
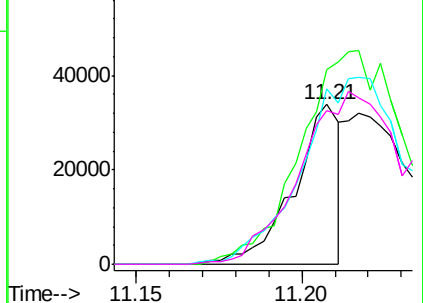


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.39 ppbv

RT: 9.80 min Scan# 2180

Delta R.T. -0.02 min

Lab File: VL039187.D

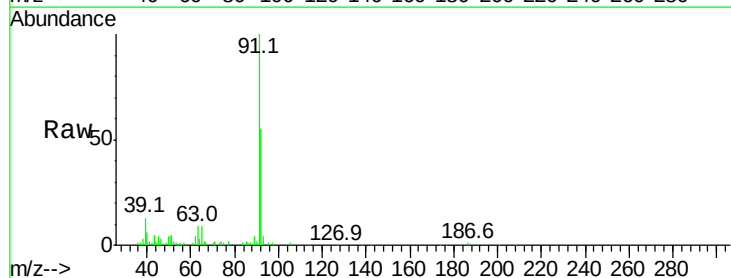
Acq: 6 Jun 2022 15:31

Tgt Ion: 91 Resp: 122491

Ion Ratio Lower Upper

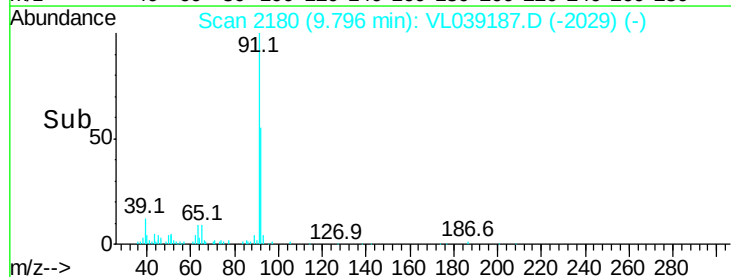
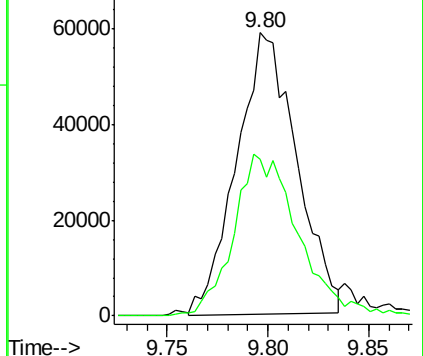
91 100

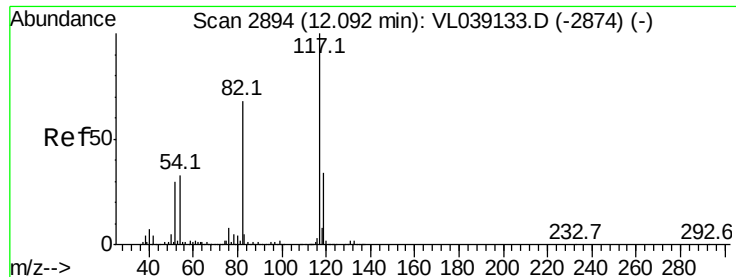
92 62.6 48.1 72.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 12.08

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 6 Jun 2022 15:31

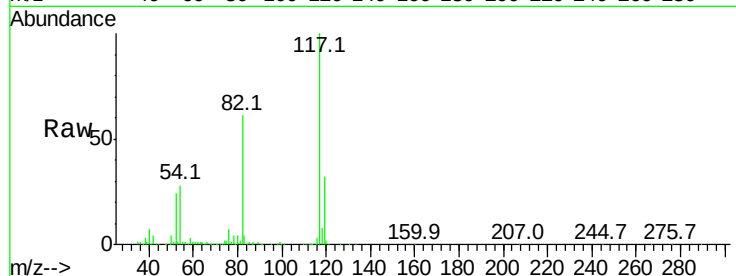
Tgt Ion: 117 Resp: 3084810

Ion Ratio Lower Upper

117 100

82 65.9 55.1 82.7

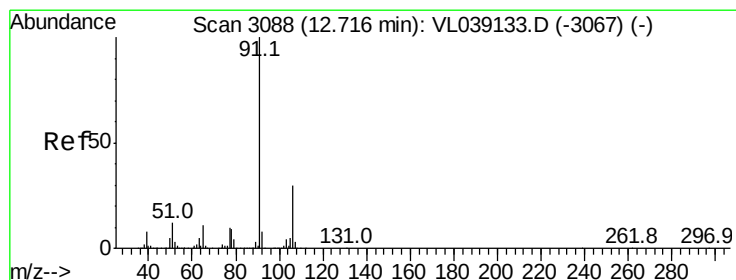
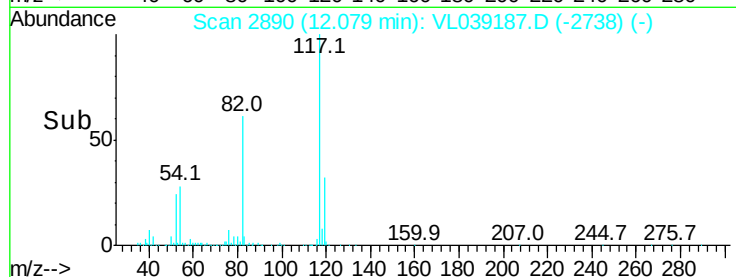
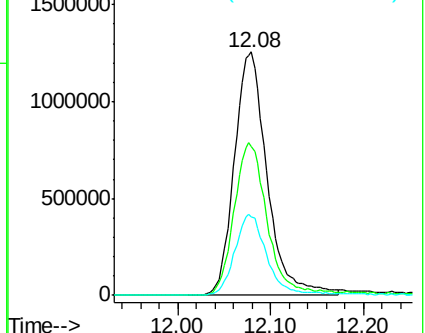
119 32.8 24.7 37.1



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: 0.21 ppbv

RT: 12.70 min Scan# 3084

Delta R.T. -0.01 min

Lab File: VL039187.D

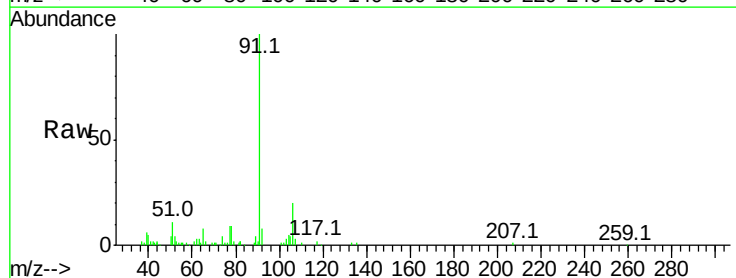
Acq: 6 Jun 2022 15:31

Tgt Ion: 91 Resp: 88450

Ion Ratio Lower Upper

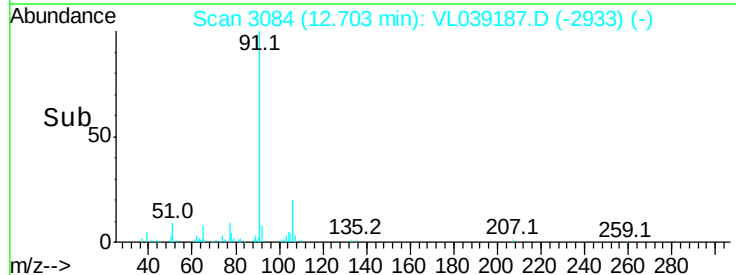
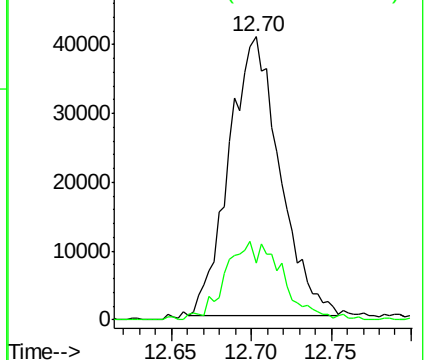
91 100

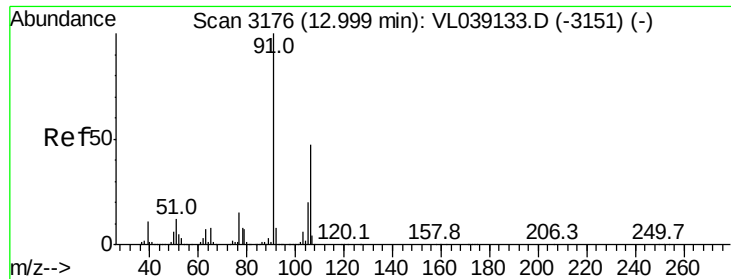
106 18.9 24.2 36.4#



Abundance Ion 91.10 (90.80 to 91.80): VL0

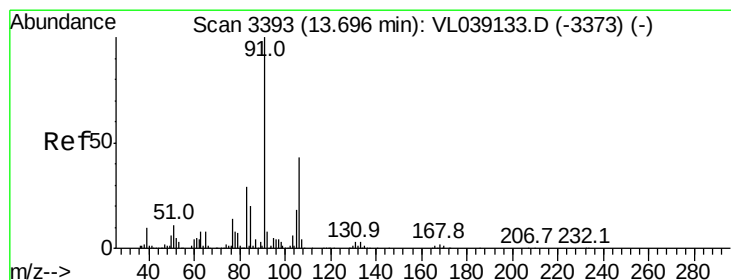
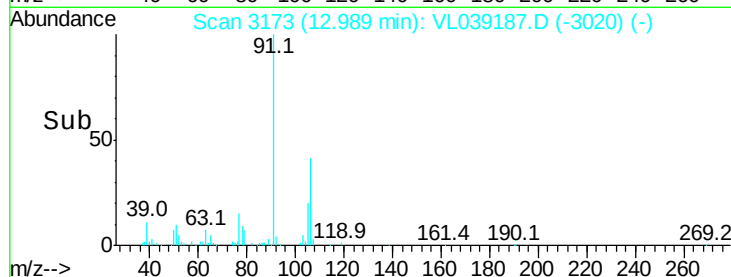
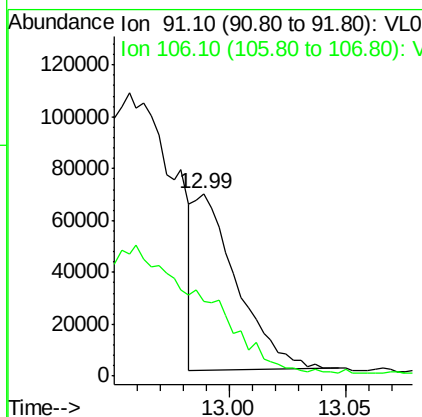
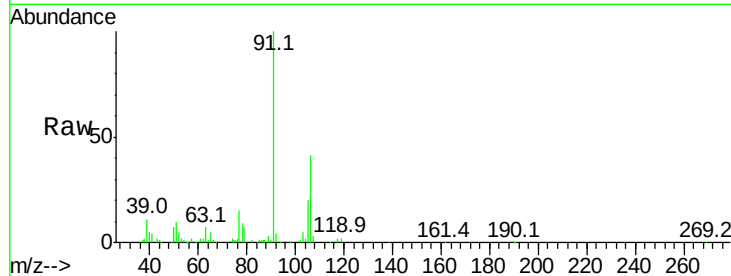
Ion 106.10 (105.80 to 106.80): V





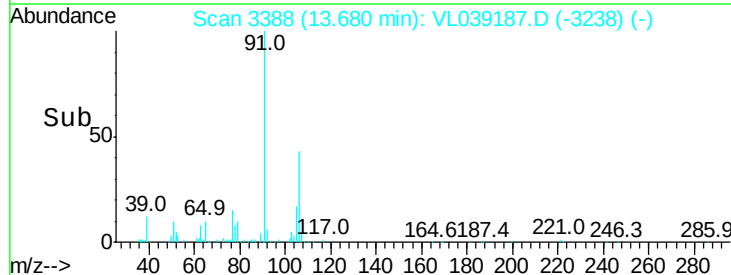
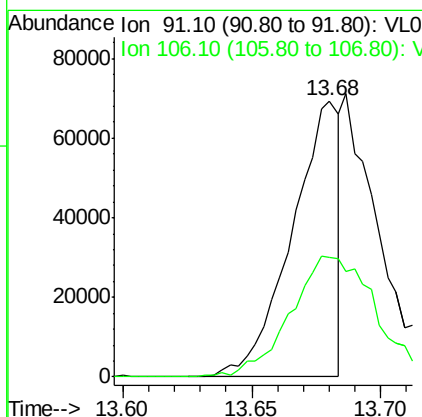
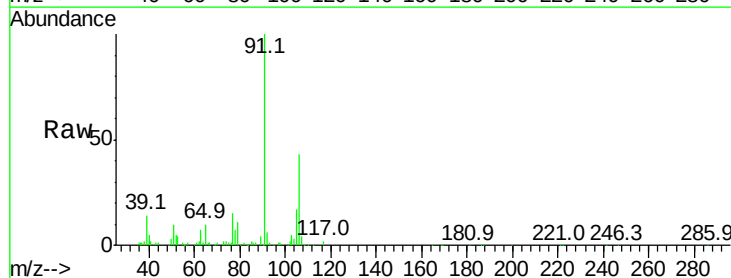
#59
m/p-Xylene
Concen: 0.23 ppbv
RT: 12.99
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 6 Jun 2022 15:31

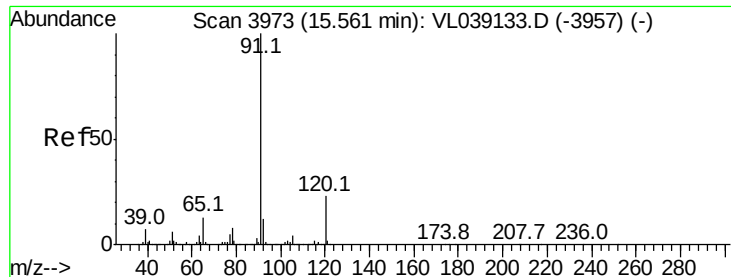
Tgt Ion: 91 Resp: 87227
Ion Ratio Lower Upper
91 100
106 0.0 34.3 51.5#



#60
o-Xylene
Concen: 0.25 ppbv
RT: 13.68 min Scan# 3388
Delta R.T. -0.02 min
Lab File: VL039187.D
Acq: 6 Jun 2022 15:31

Tgt Ion: 91 Resp: 88791
Ion Ratio Lower Upper
91 100
106 81.1 22.3 66.9#





#64

n-propylbenzene

Concen: 0.06 ppbv

RT: 15.55

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

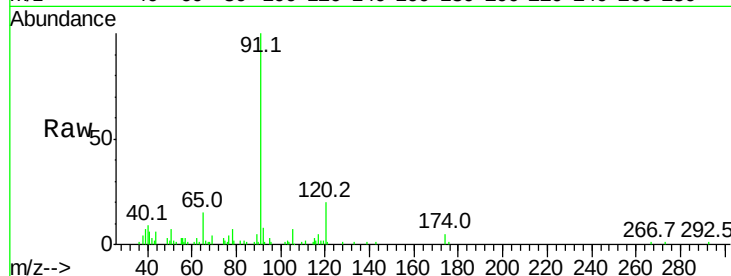
Acq: 6 Jun 2022 15:31

Tgt Ion:120 Resp: 8100

Ion Ratio Lower Upper

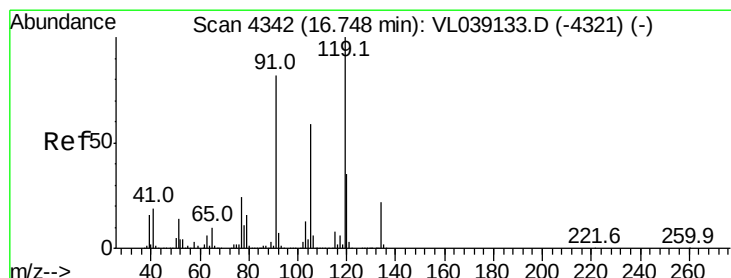
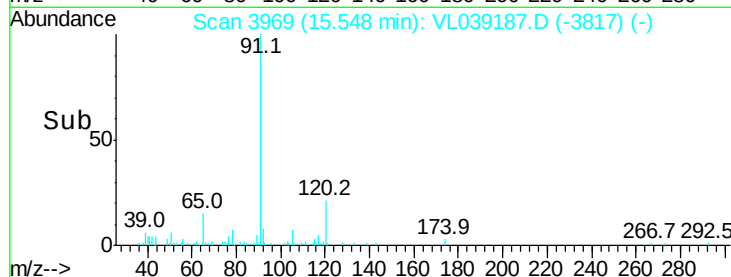
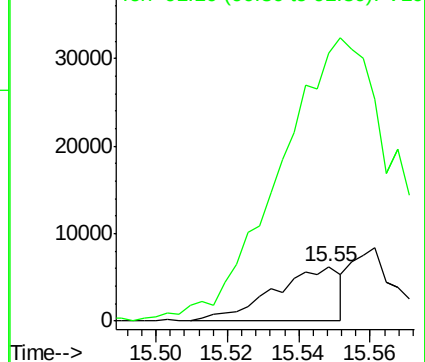
120 100

91 941.4 388.4 582.6#



Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0



#65

tert-Butylbenzene

Concen: 0.07 ppbv

RT: 16.75 min Scan# 4342

Delta R.T. -0.00 min

Lab File: VL039187.D

Acq: 6 Jun 2022 15:31

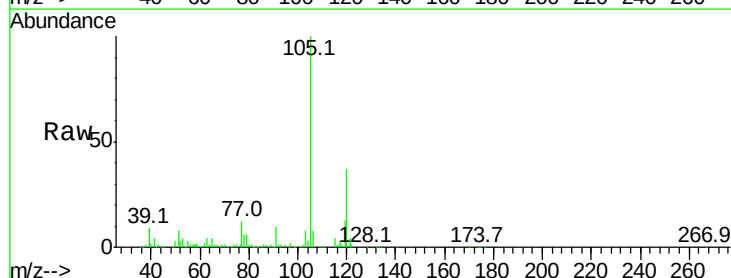
Tgt Ion:119 Resp: 33748

Ion Ratio Lower Upper

119 100

91 156.8 67.1 100.7#

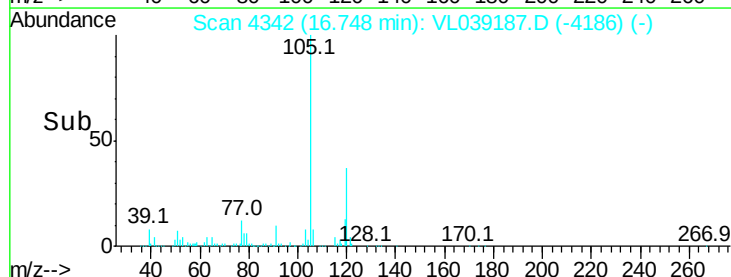
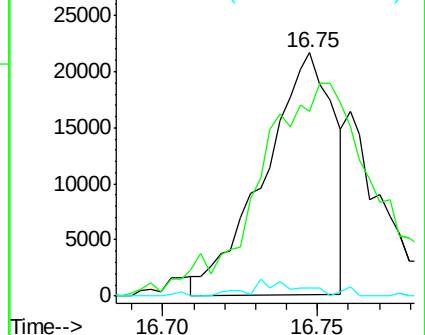
134 5.5 15.8 23.8#

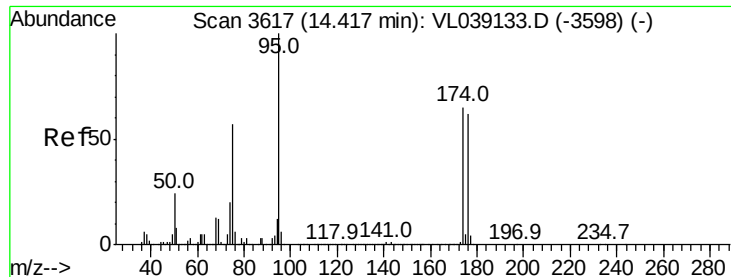


Abundance Ion 119.20 (118.90 to 119.90): V

Ion 91.10 (90.80 to 91.80): VL0

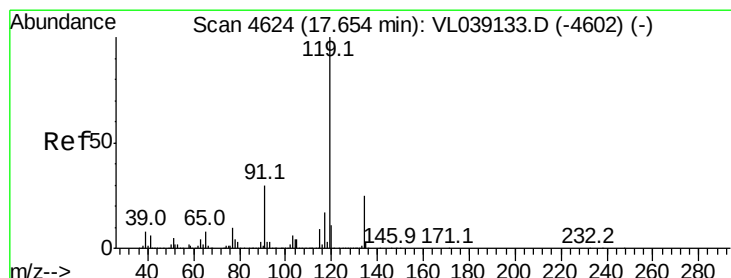
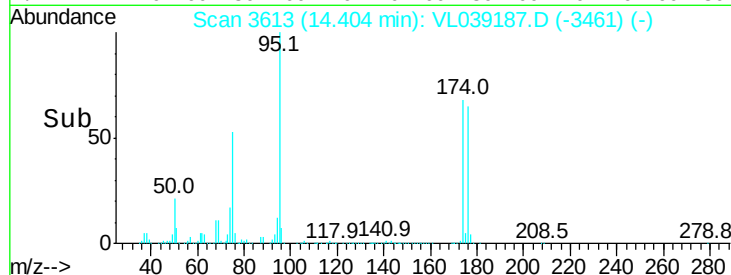
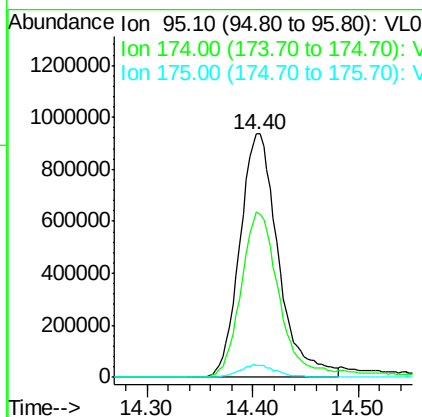
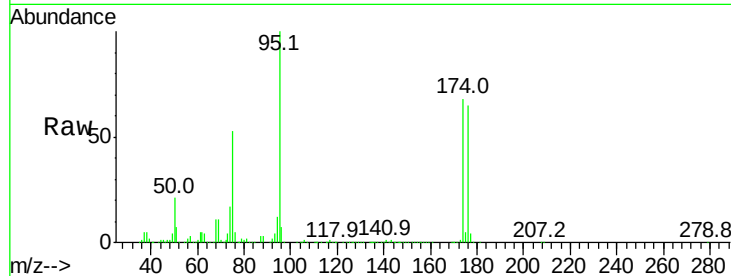
Ion 134.20 (133.90 to 134.90): V





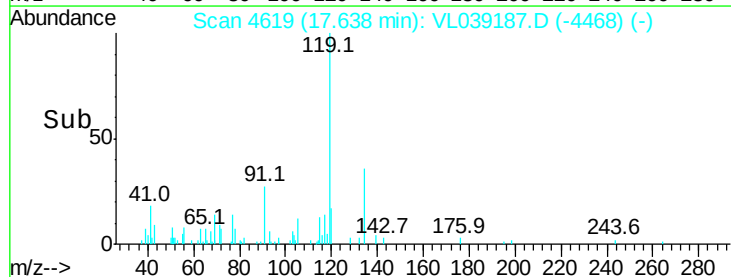
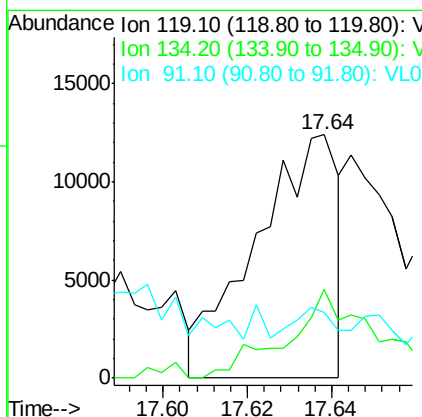
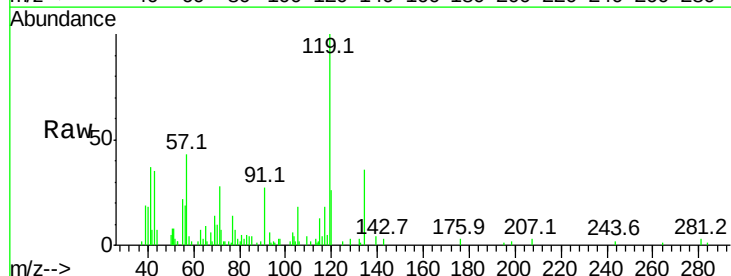
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.31 ppbv
 RT: 14.40 min
 Delta R.T.: MSVOA_1
 Lab File: ClientSampleId : SG-9
 Acq: 6 Jun 2022 15:31

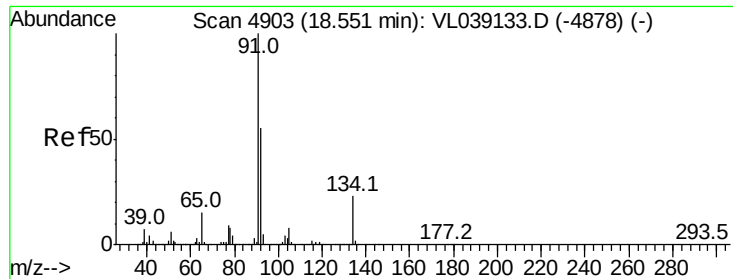
Tgt Ion: 95 Resp: 2375169
 Ion Ratio Lower Upper
 95 100
 174 71.2 53.8 80.8
 175 5.0 4.1 6.1



#69
 p-Isopropyltoluene
 Concen: 0.03 ppbv
 RT: 17.64 min Scan# 4619
 Delta R.T.: -0.02 min
 Lab File: VL039187.D
 Acq: 6 Jun 2022 15:31

Tgt Ion: 119 Resp: 16812
 Ion Ratio Lower Upper
 119 100
 134 45.0 20.4 30.6#
 91 53.1 24.2 36.4#





#70

n-Butylbenzene

Concen: 0.07 ppbv

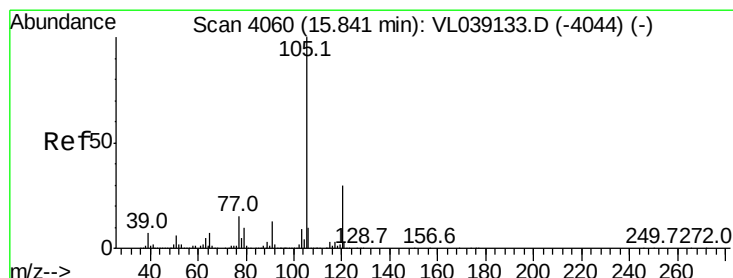
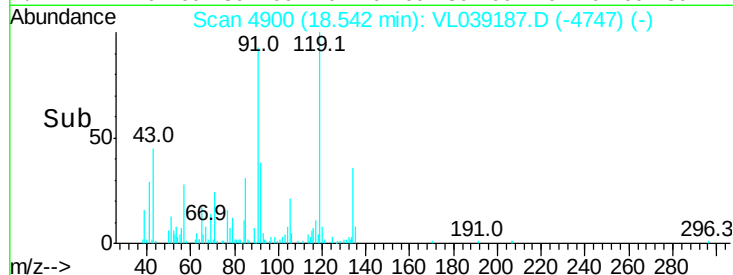
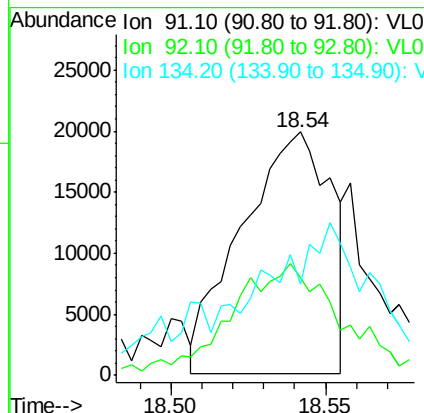
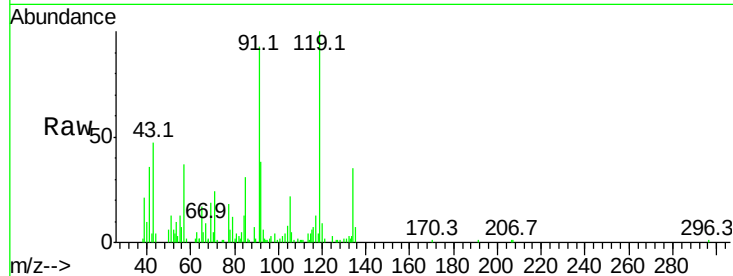
RT: 18.54

Delta R.T. MSVOA_1

Lab File: ClientSampleId :

Acq: 6 Jun 2022 15:31

Tgt Ion:	91	Resp:	39960
Ion Ratio	Lower	Upper	
91	100		
92	60.6	43.6	65.4
134	0.0	17.7	26.5#



#72

4-Ethyltoluene

Concen: 0.15 ppbv

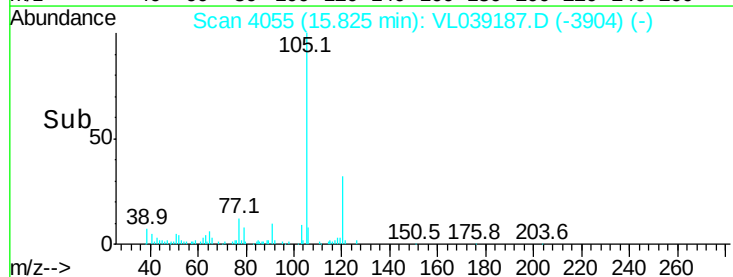
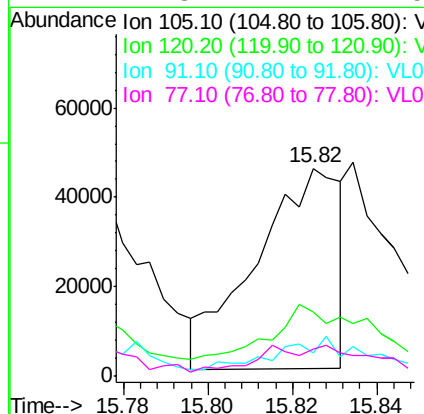
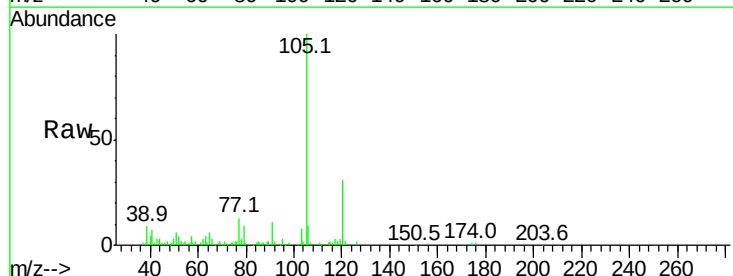
RT: 15.82 min Scan# 4055

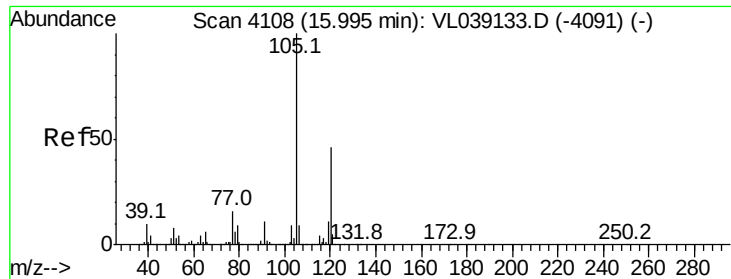
Delta R.T. -0.02 min

Lab File: VL039187.D

Acq: 6 Jun 2022 15:31

Tgt Ion:	105	Resp:	62357
Ion Ratio	Lower	Upper	
105	100		
120	56.1	23.9	35.9#
91	28.4	10.6	16.0#
77	24.3	11.7	17.5#





#73

1,3,5-Trimethylbenzene

Concen: 0.25 ppbv

RT: 15.99 min

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

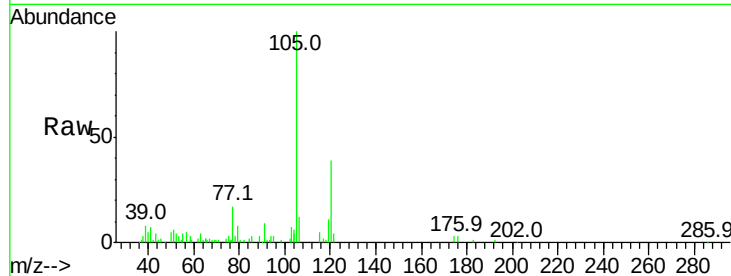
Acq: 6 Jun 2022 15:31

Tgt Ion:105 Resp: 91153

Ion Ratio Lower Upper

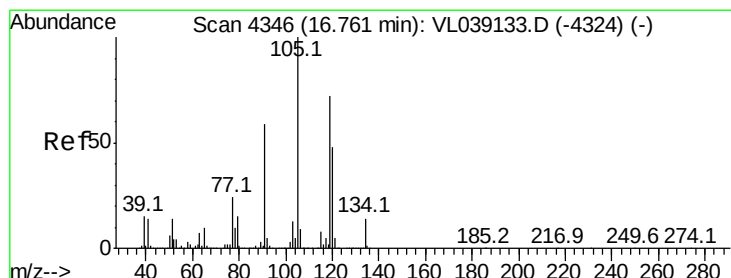
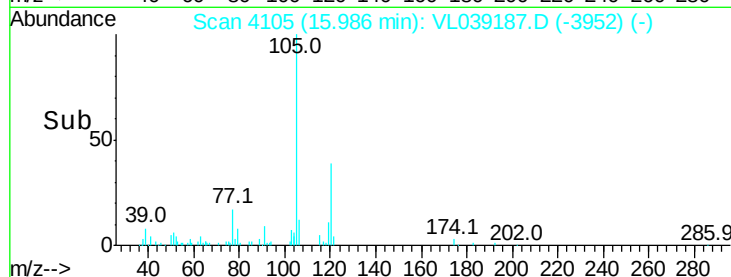
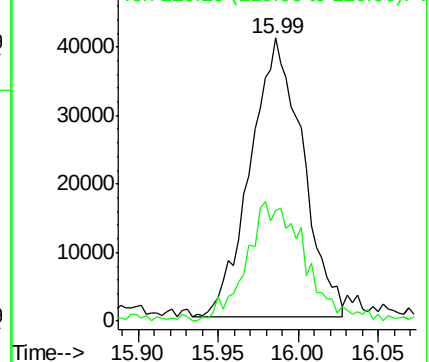
105 100

120 39.4 36.7 55.1



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.94 ppbv

RT: 16.75 min Scan# 4343

Delta R.T. -0.01 min

Lab File: VL039187.D

Acq: 6 Jun 2022 15:31

Tgt Ion:105 Resp: 388243

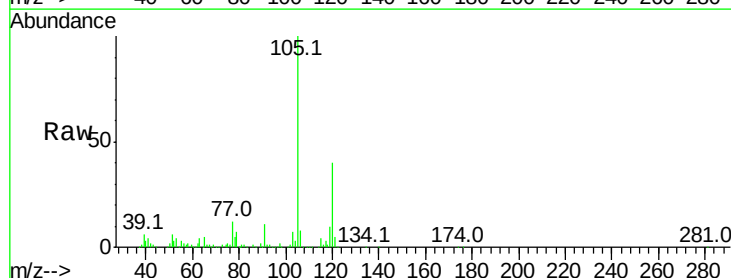
Ion Ratio Lower Upper

105 100

120 40.1 38.1 57.1

91 10.4 47.4 71.0#

77 11.8 19.5 29.3#

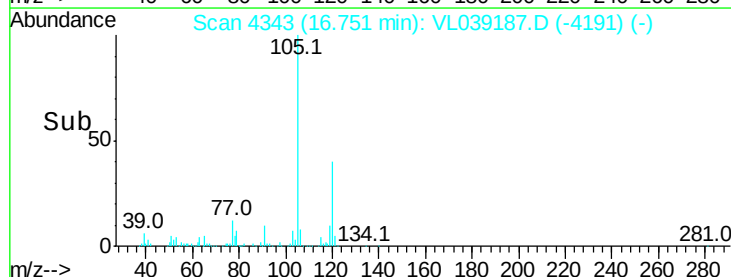
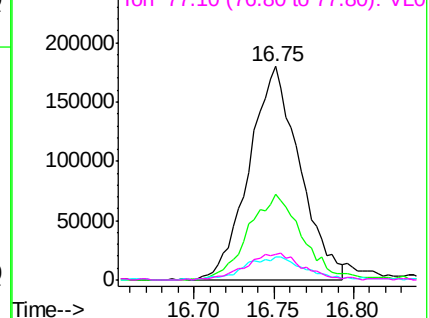


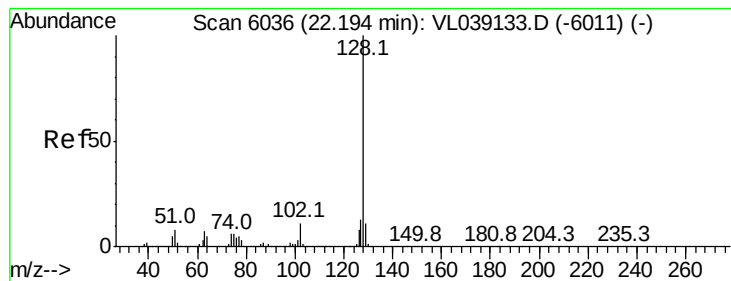
Abundance Ion 105.10 (104.80 to 105.80): V

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





#79

Naphthalene

Concen: 0.05 ppbv

RT: 22.18

Delta R.T: MSVOA_L

Lab File: ClientSampleId :

Acq: 6 Jun 2022 15:31

Tgt Ion:	128	Resp:	16237
Ion Ratio		Lower	Upper
128	100		
127	10.7	10.4	15.6
129	5.9	9.0	13.6

