

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL060622\
 Data File : VL039188.D
 Acq On : 6 Jun 2022 16:11
 Operator : SY/AP
 Sample : N3110-07 5X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-6

Quant Time: Jun 06 16:40:16 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	1232967	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3365582	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3018039	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	2401495	9.62	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.20%

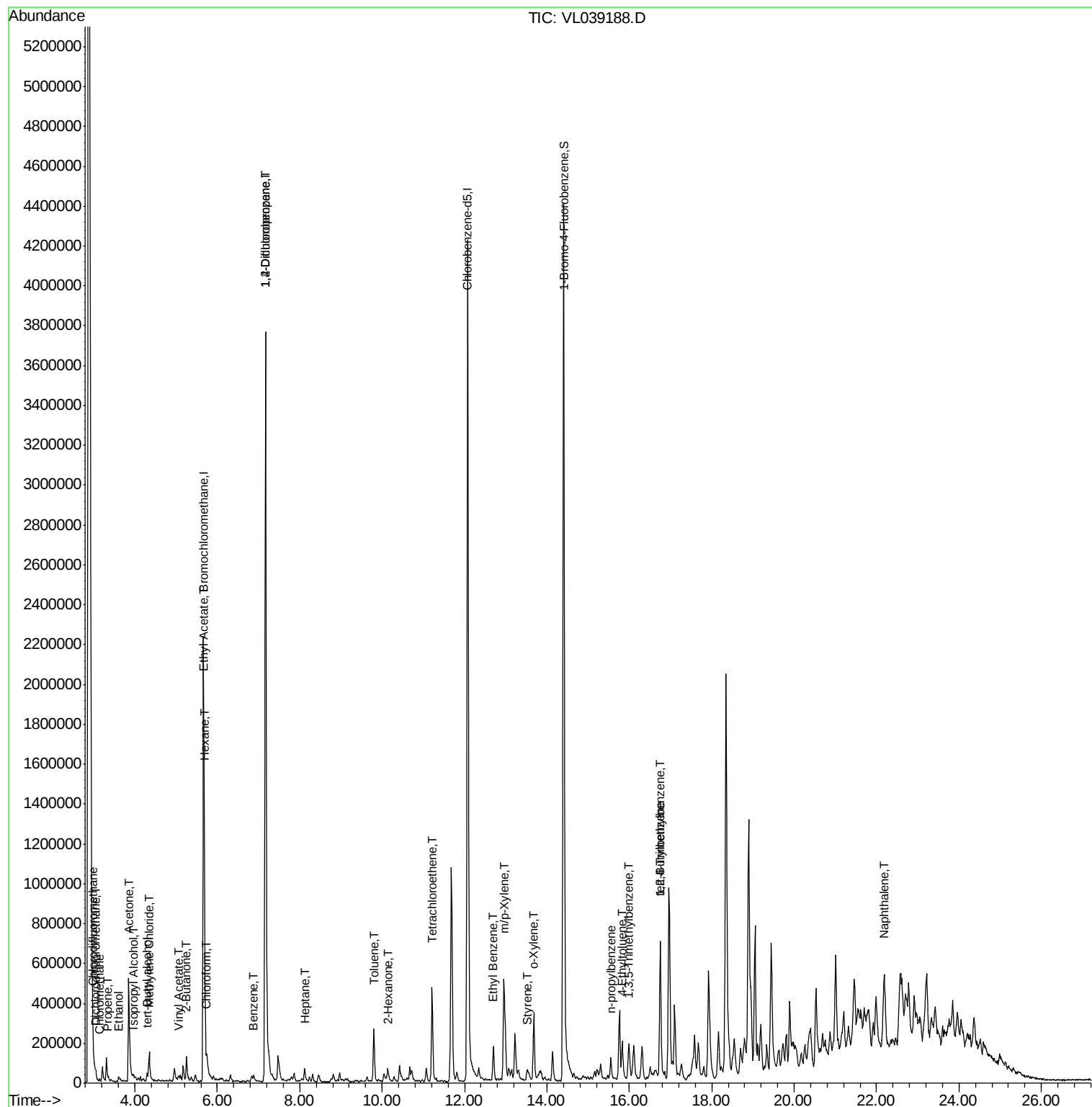
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.05	85	23022	0.11	ppbv	93
3) Chlorodifluoromethane	2.99	51	7958	0.05	ppbv	98
4) Chloromethane	3.14	50	7206	0.09	ppbv #	85
9) Propene	3.36	41	4976	0.07	ppbv	95
10) Heptane	8.12	43	20547	0.13	ppbv #	64
13) Ethanol	3.61	45	20785	5.57	ppbv #	100
15) Acetone	3.85	43	660616	5.14	ppbv	90
17) tert-Butyl alcohol	4.29	59	12095	0.12	ppbv #	21
19) Isopropyl Alcohol	3.97	45	12699	0.21	ppbv #	93
20) Methylene Chloride	4.35	84	54649	1.01	ppbv	86
23) Vinyl Acetate	5.06	43	10196	0.10	ppbv #	67
25) Ethyl Acetate	5.68	43	83138	0.29	ppbv #	80
26) Hexane	5.69	57	107451	0.84	ppbv #	38
29) Chloroform	5.75	83	32627	0.15	ppbv #	78
34) 2-Butanone	5.25	43	168825	0.92	ppbv	94
36) Benzene	6.88	78	11211	0.04	ppbv	94
39) 1,2-Dichloropropane	7.17	63	796767	7.33	ppbv #	24
51) 2-Hexanone	10.14	43	51693	0.24	ppbv #	92
52) Tetrachloroethene	11.22	164	119046	1.12	ppbv	95
53) Toluene	9.80	91	213284	0.68	ppbv	98
58) Ethyl Benzene	12.70	91	155246	0.37	ppbv	97
59) m/p-Xylene	12.96	91	569521	1.56	ppbv	92
60) o-Xylene	13.68	91	269183	0.78	ppbv	99
61) Styrene	13.52	104	17905	0.10	ppbv	93
64) n-propylbenzene	15.55	120	10201	0.08	ppbv #	1
65) tert-Butylbenzene	16.75	119	61650	0.13	ppbv #	72
72) 4-Ethyltoluene	15.83	105	141930	0.35	ppbv	95
73) 1,3,5-Trimethylbenzene	15.99	105	133626	0.37	ppbv	87
74) 1,2,4-Trimethylbenzene	16.75	105	562251	1.39	ppbv #	65
79) Naphthalene	22.17	128	11262	0.04	ppbv #	95

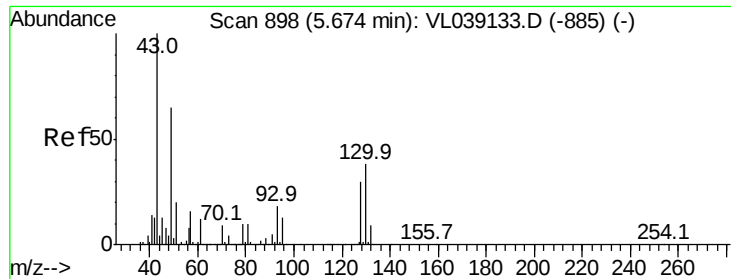
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed Jun 01 01:22:18 2022
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 6 Jun 2022 16:11 SG-6

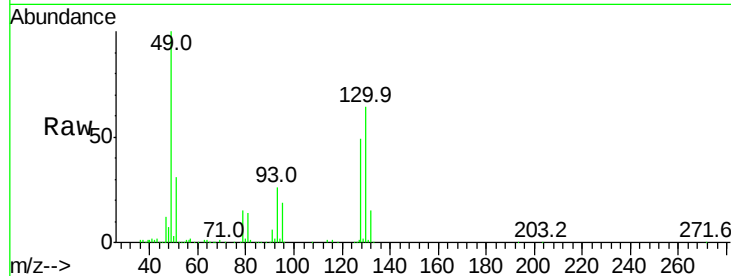
Tgt Ion: 49 Resp: 1232967

Ion Ratio Lower Upper

49 100

128 52.2 24.7 74.1

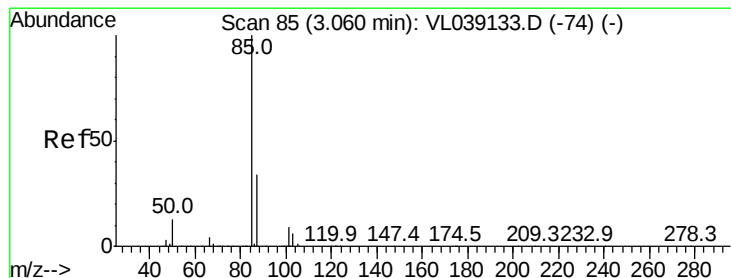
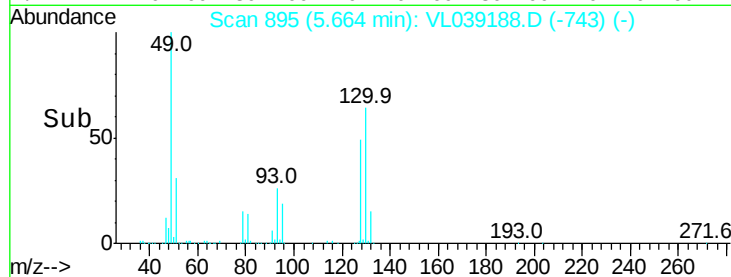
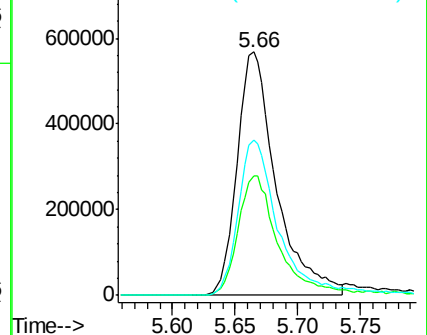
130 68.3 31.4 94.0



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.11 ppbv

RT: 3.05 min Scan# 82

Delta R.T. -0.01 min

Lab File: VL039188.D

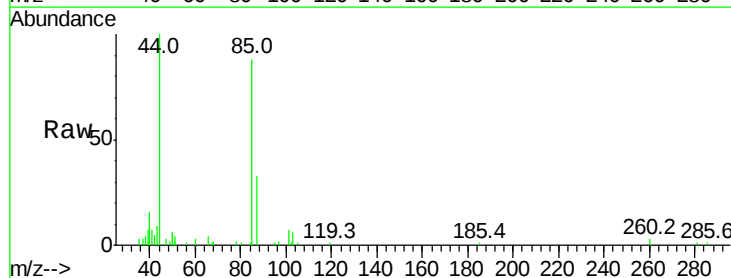
Acq: 6 Jun 2022 16:11

Tgt Ion: 85 Resp: 23022

Ion Ratio Lower Upper

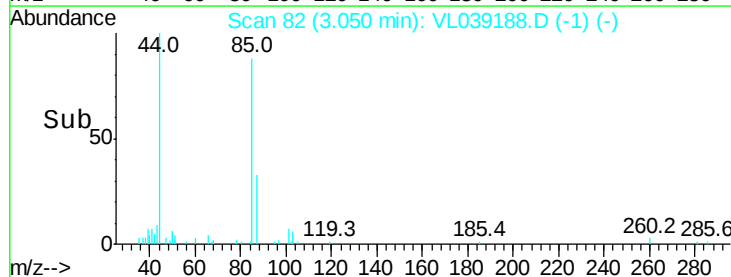
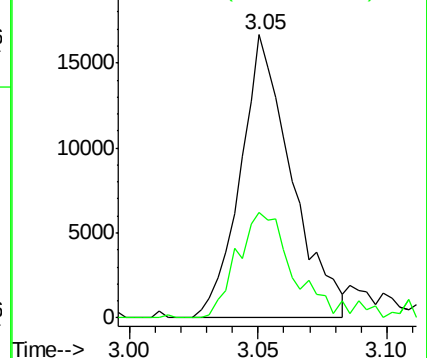
85 100

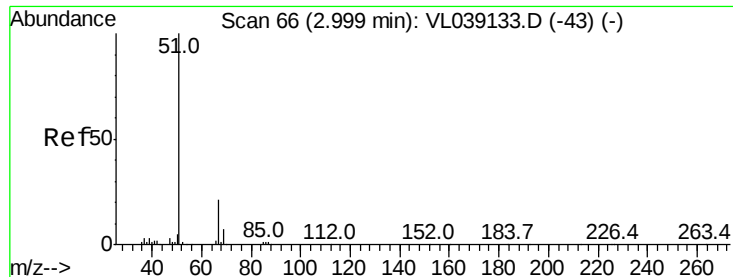
87 37.3 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.05 ppbv

RT: 2.99 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

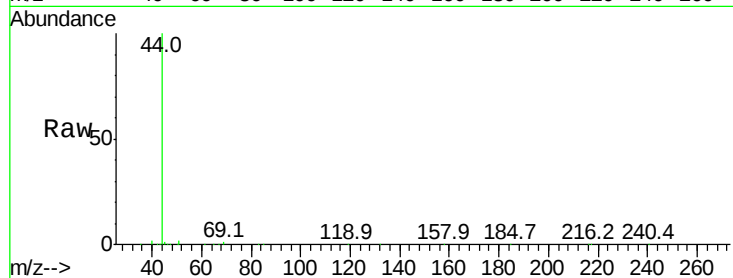
Acq: 6 Jun 2022 16:11 SG-6

Tgt Ion: 51 Resp: 7958

Ion Ratio Lower Upper

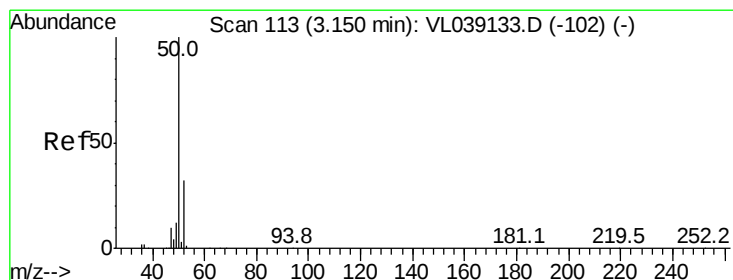
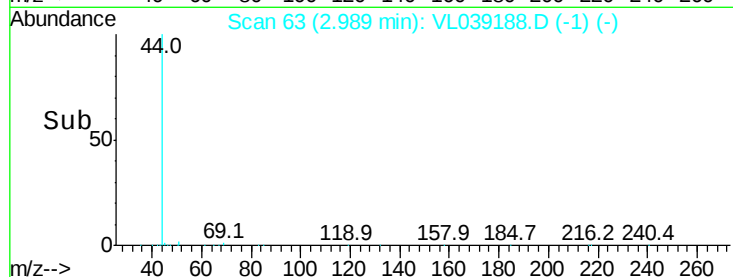
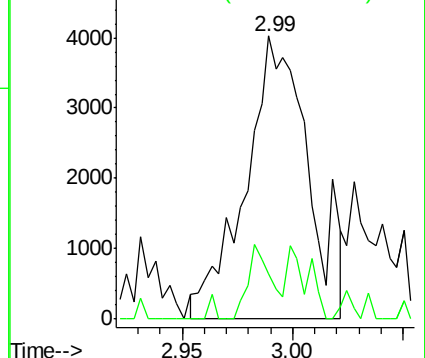
51 100

67 21.0 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: 0.09 ppbv

RT: 3.14 min Scan# 111

Delta R.T. -0.01 min

Lab File: VL039188.D

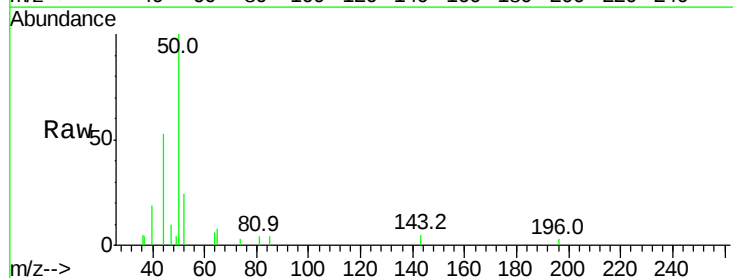
Acq: 6 Jun 2022 16:11

Tgt Ion: 50 Resp: 7206

Ion Ratio Lower Upper

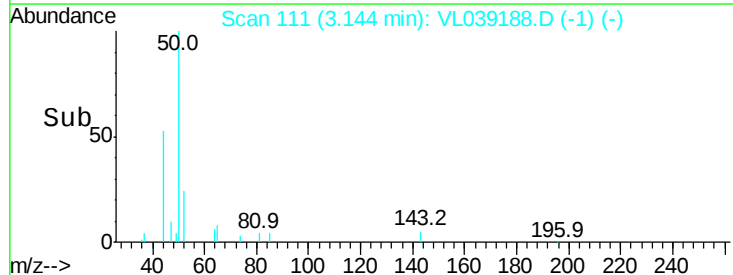
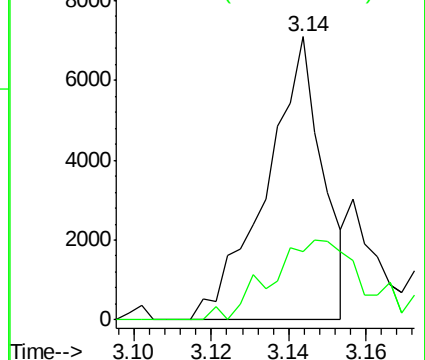
50 100

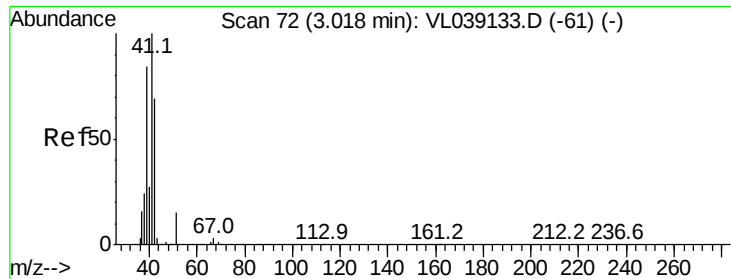
52 24.3 25.9 38.9#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.07 ppbv

RT: 3.36 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

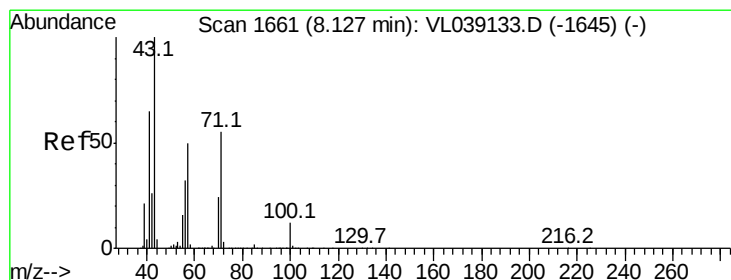
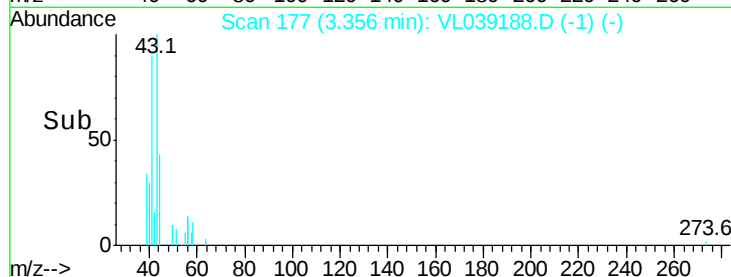
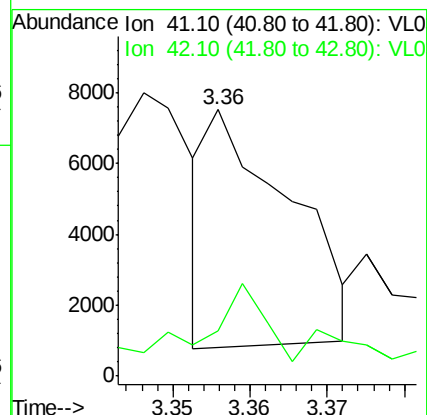
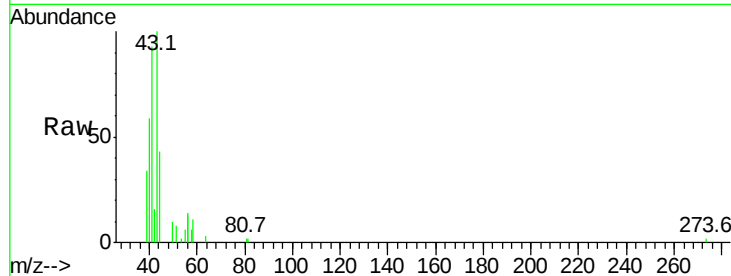
Acq: 6 Jun 2022 16:11 SG-6

Tgt Ion: 41 Resp: 4976

Ion Ratio Lower Upper

41 100

42 65.1 55.4 83.2



#10

Heptane

Concen: 0.13 ppbv

RT: 8.12 min Scan# 1658

Delta R.T. -0.01 min

Lab File: VL039188.D

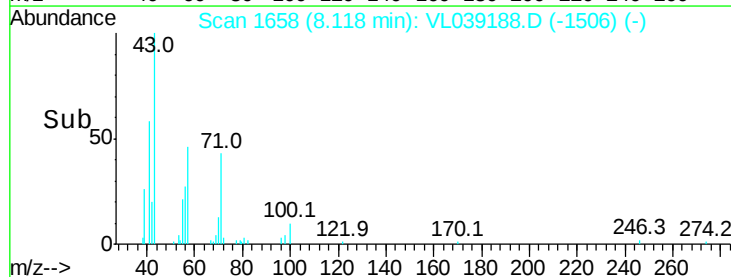
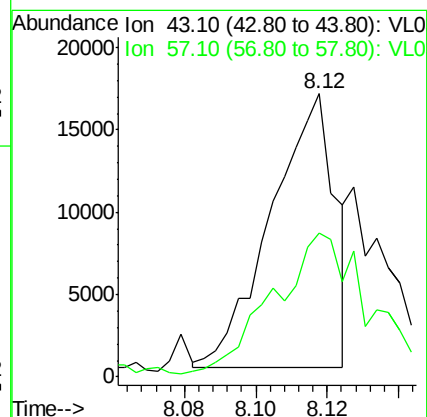
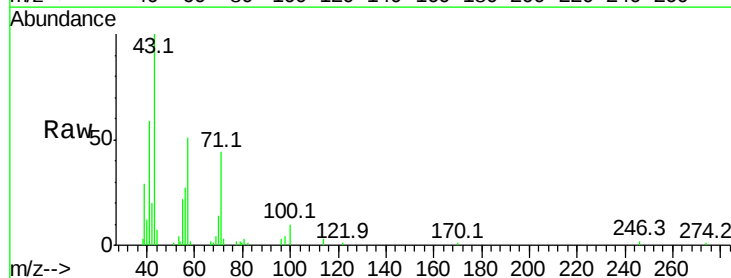
Acq: 6 Jun 2022 16:11

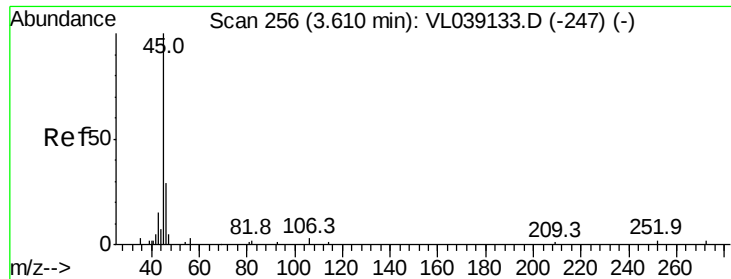
Tgt Ion: 43 Resp: 20547

Ion Ratio Lower Upper

43 100

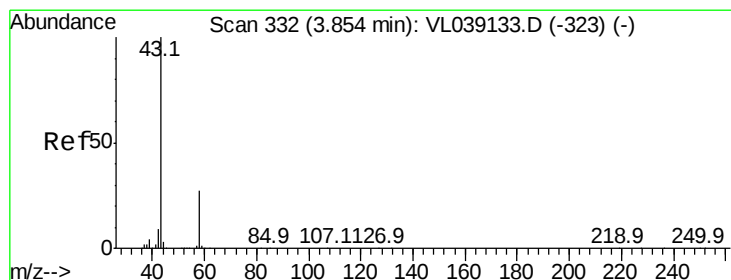
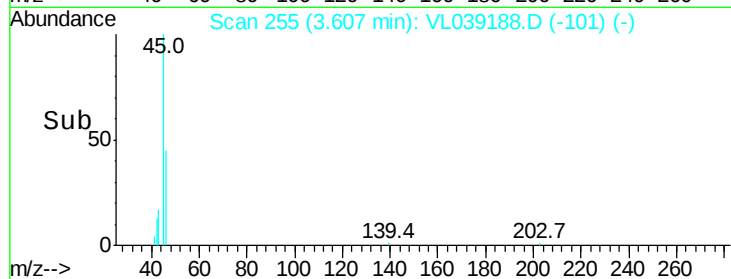
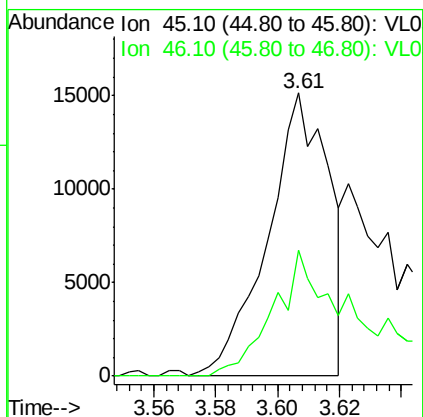
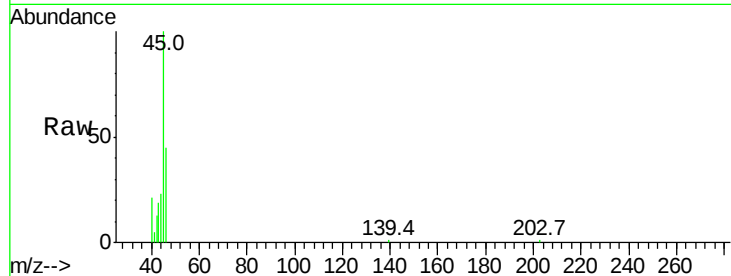
57 77.1 41.4 62.2#





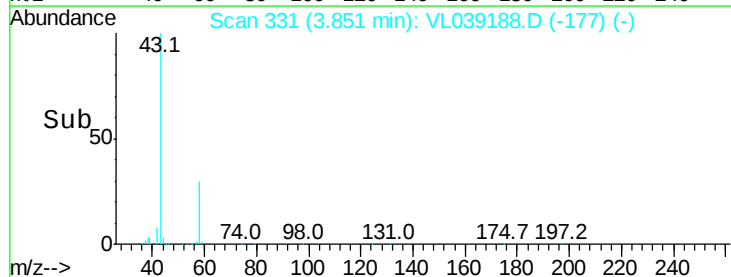
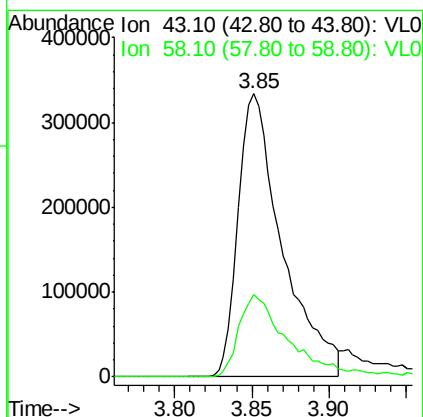
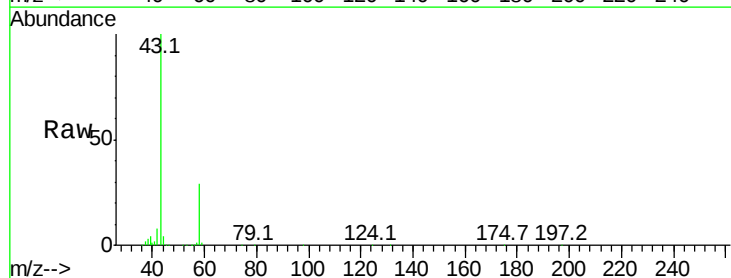
#13
Ethanol
Concen: 5.57 ppbv
RT: 3.61
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 6 Jun 2022 16:11

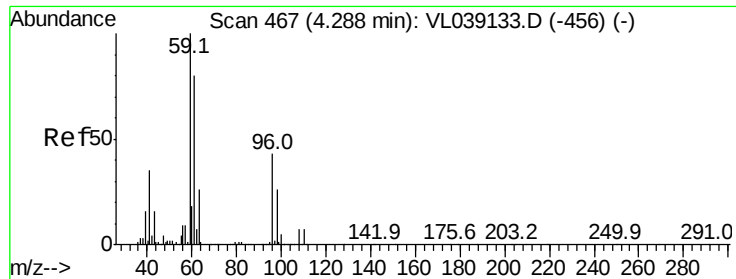
Tgt Ion: 45 Resp: 20785
Ion Ratio Lower Upper
45 100
46 73.8 0.0 0.0#



#15
Acetone
Concen: 5.14 ppbv
RT: 3.85 min Scan# 331
Delta R.T. -0.00 min
Lab File: VL039188.D
Acq: 6 Jun 2022 16:11

Tgt Ion: 43 Resp: 660616
Ion Ratio Lower Upper
43 100
58 33.5 22.5 33.7





#17

tert-Butyl alcohol

Concen: 0.12 ppbv

RT: 4.29

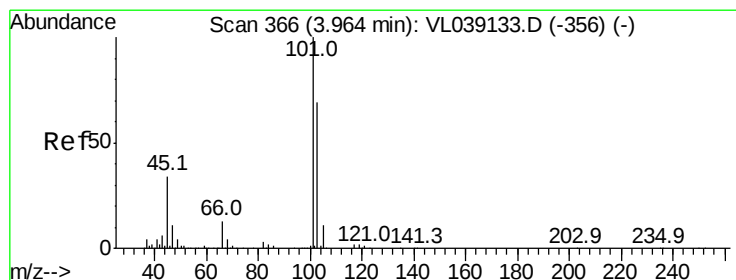
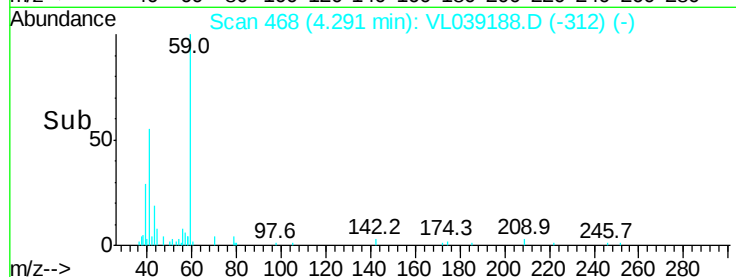
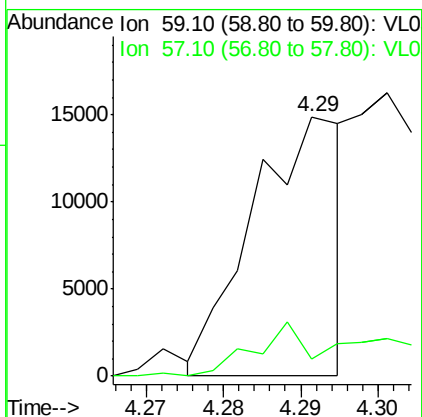
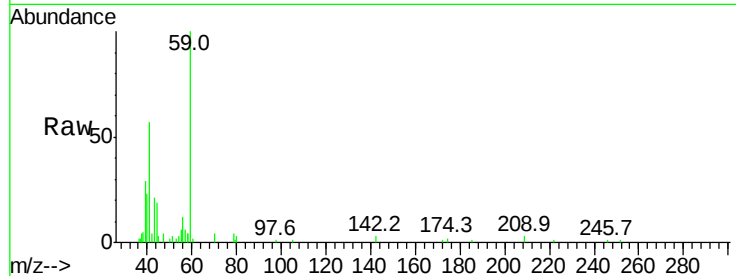
Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 6 Jun 2022 16:11

Tgt Ion: 59 Resp: 12095

Ion	Ratio	Lower	Upper
59	100		
57	41.5	9.1	13.7#



#19

Isopropyl Alcohol

Concen: 0.21 ppbv

RT: 3.97 min Scan# 367

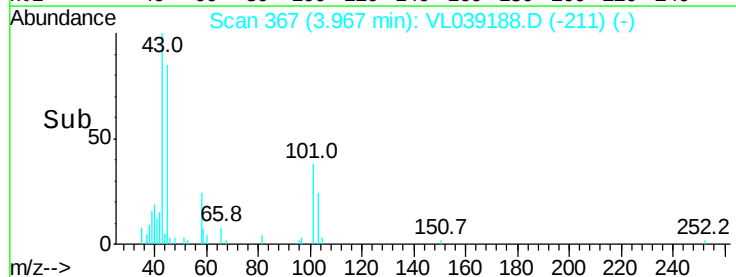
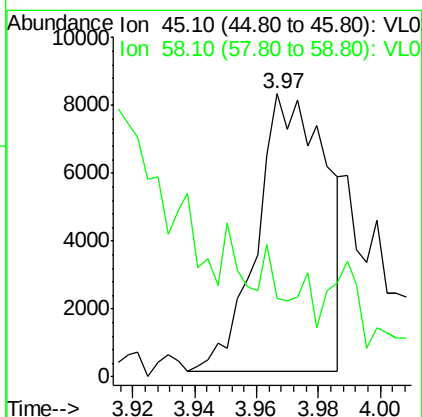
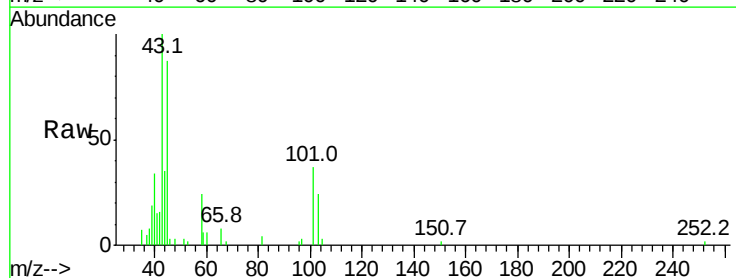
Delta R.T. 0.00 min

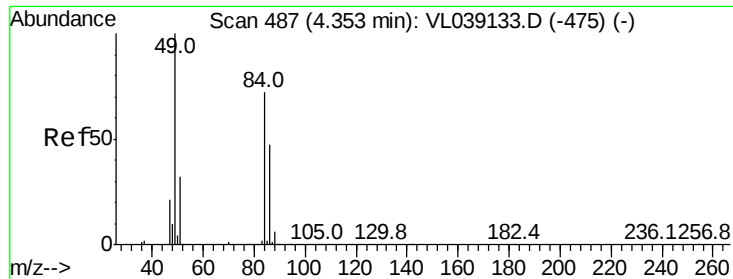
Lab File: VL039188.D

Acq: 6 Jun 2022 16:11

Tgt Ion: 45 Resp: 12699

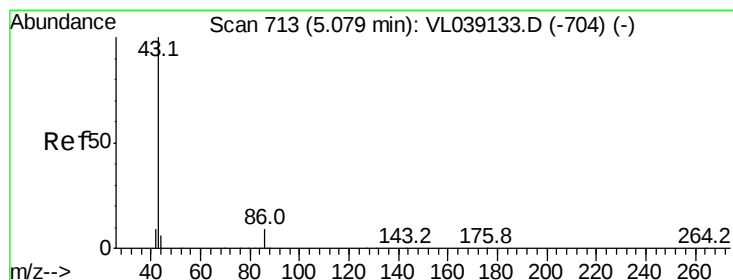
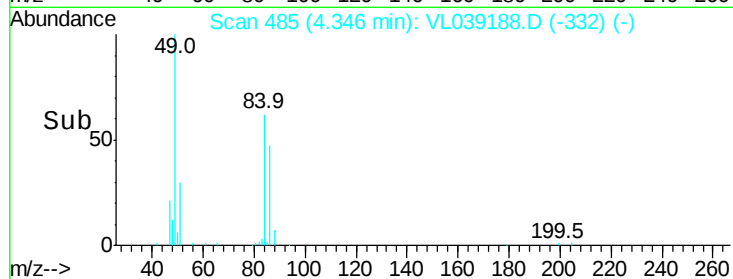
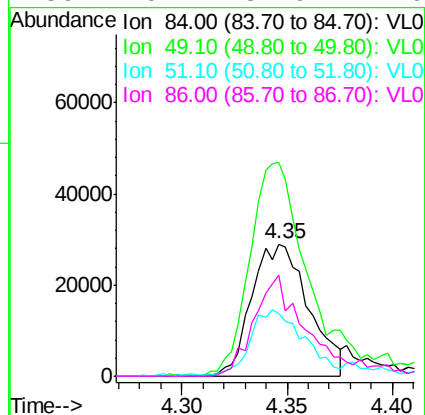
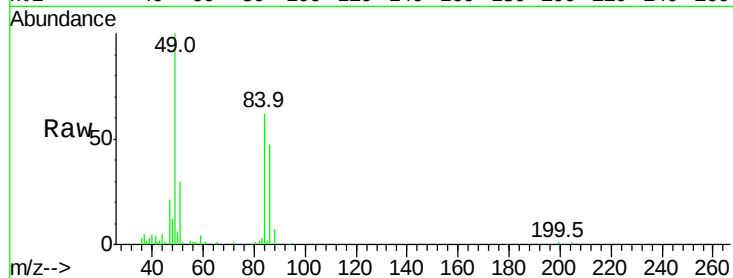
Ion	Ratio	Lower	Upper
45	100		
58	0.0	1.8	2.8#





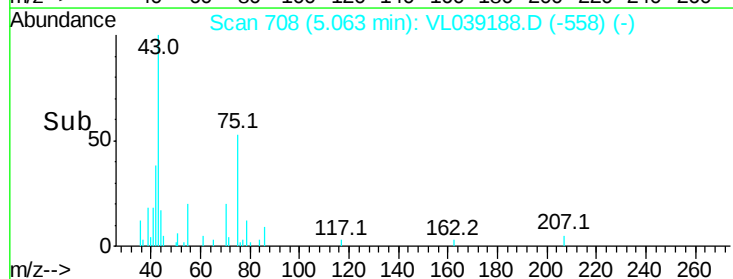
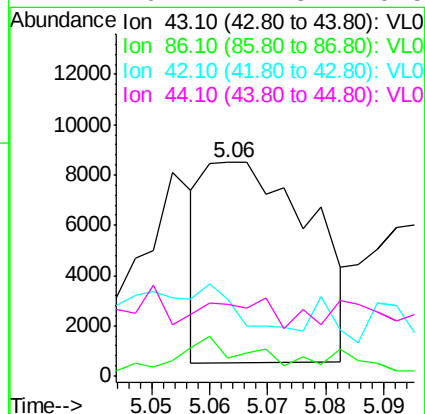
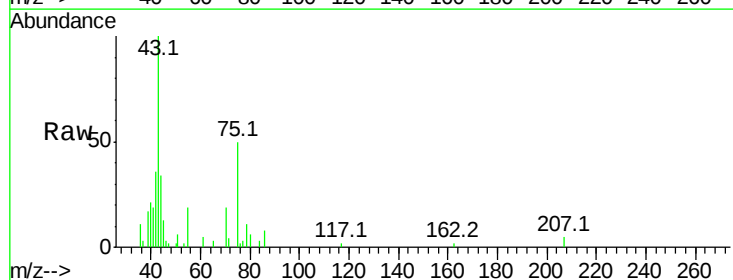
#20
Methylene Chloride
Concen: 1.01 ppbv
RT: 4.35
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 6 Jun 2022 16:11

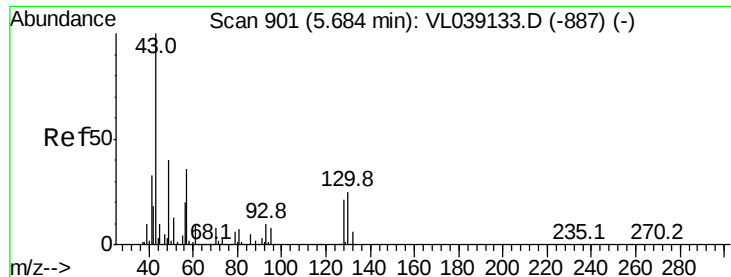
Tgt Ion:	84	Resp:	54649
Ion	Ratio	Lower	Upper
84	100		
49	160.5	111.1	166.7
51	46.0	35.3	52.9
86	76.4	51.9	77.9



#23
Vinyl Acetate
Concen: 0.10 ppbv
RT: 5.06 min Scan# 708
Delta R.T. -0.02 min
Lab File: VL039188.D
Acq: 6 Jun 2022 16:11

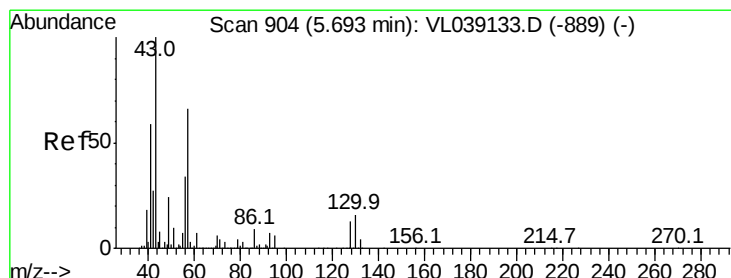
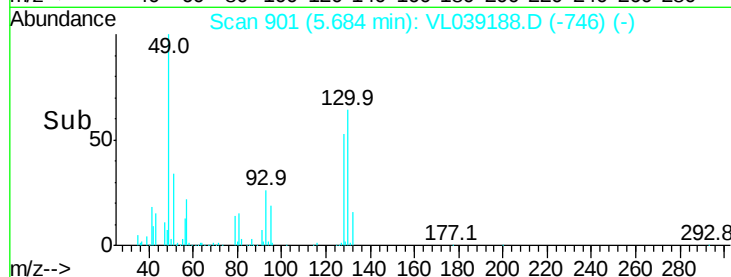
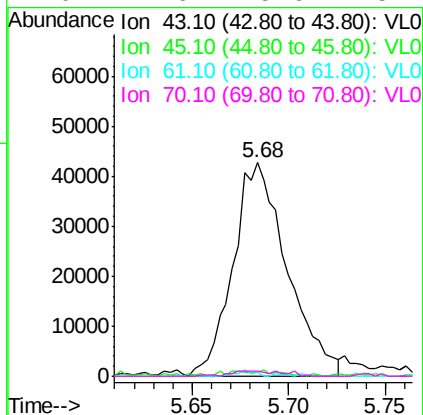
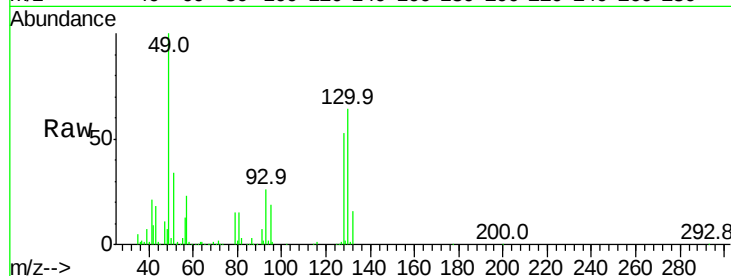
Tgt Ion:	43	Resp:	10196
Ion	Ratio	Lower	Upper
43	100		
86	0.0	6.0	9.0#
42	29.4	8.2	12.4#
44	10.1	4.3	6.5#





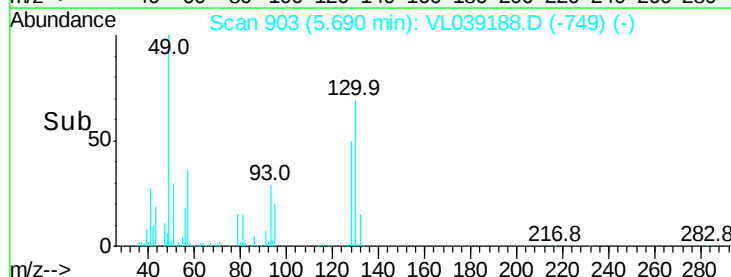
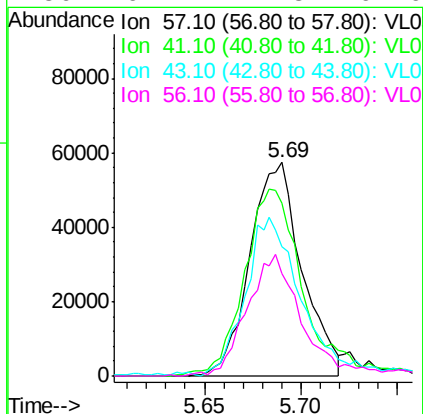
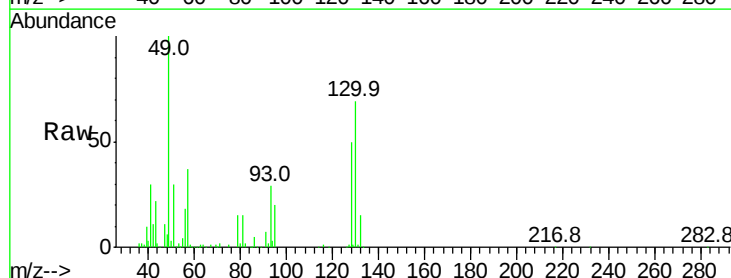
#25
 Ethyl Acetate
 Concen: 0.29 ppbv
 RT: 5.68
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 6 Jun 2022 16:11

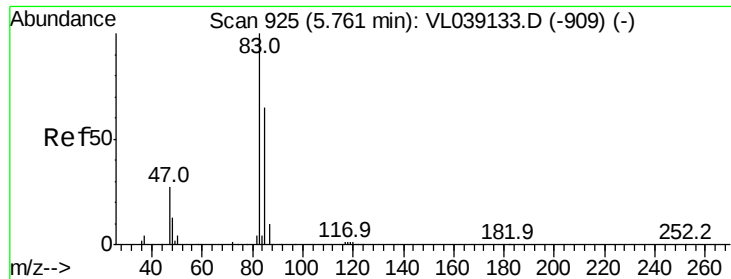
Tgt Ion:	43	Resp:	83138
Ion	Ratio	Lower	Upper
43	100		
45	2.5	8.2	12.2#
61	1.0	8.4	12.6#
70	2.6	5.6	8.4#



#26
 Hexane
 Concen: 0.84 ppbv
 RT: 5.69 min Scan# 903
 Delta R.T. -0.00 min
 Lab File: VL039188.D
 Acq: 6 Jun 2022 16:11

Tgt Ion:	57	Resp:	107451
Ion	Ratio	Lower	Upper
57	100		
41	102.1	72.4	108.6
43	79.8	187.0	280.6#
56	61.7	41.8	62.6





#29

Chloroform

Concen: 0.15 ppbv

RT: 5.75 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

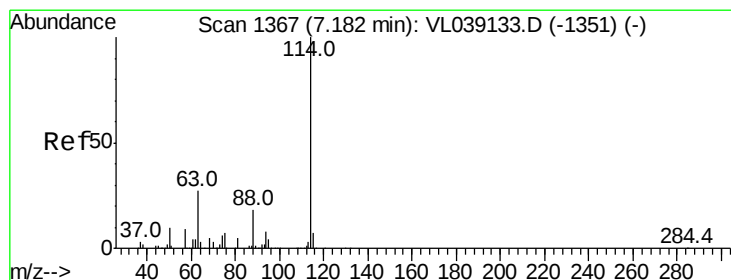
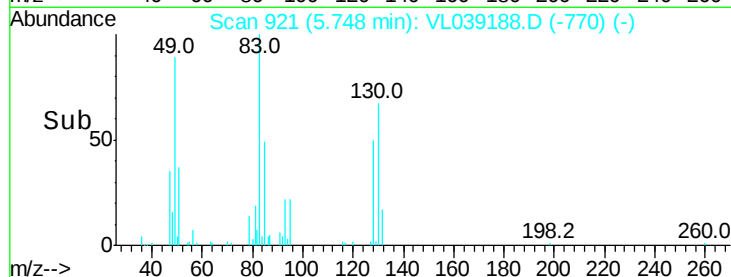
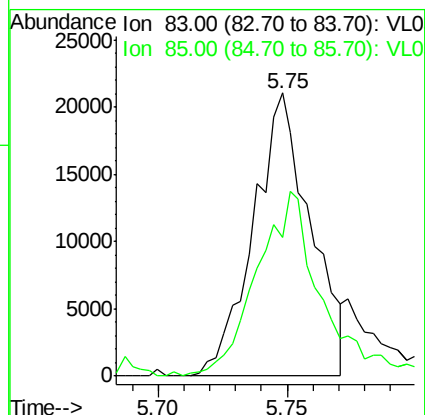
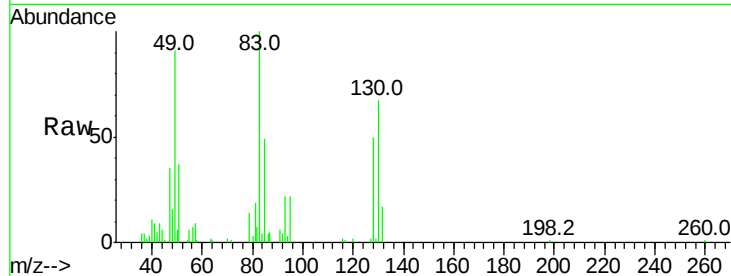
Acq: 6 Jun 2022 16:11 SG-6

Tgt Ion: 83 Resp: 32627

Ion Ratio Lower Upper

83 100

85 48.0 52.4 78.6#



#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.01 min

Lab File: VL039188.D

Acq: 6 Jun 2022 16:11

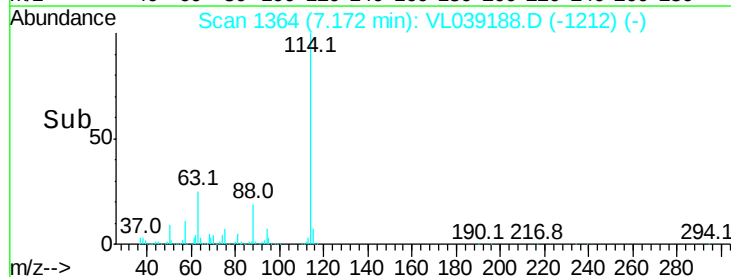
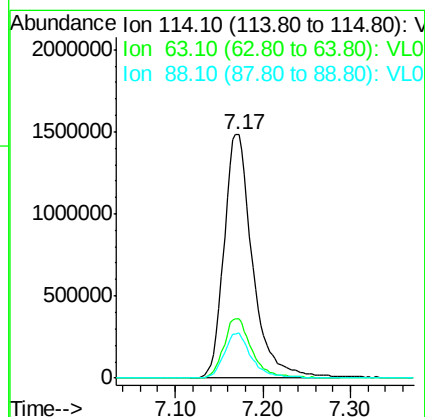
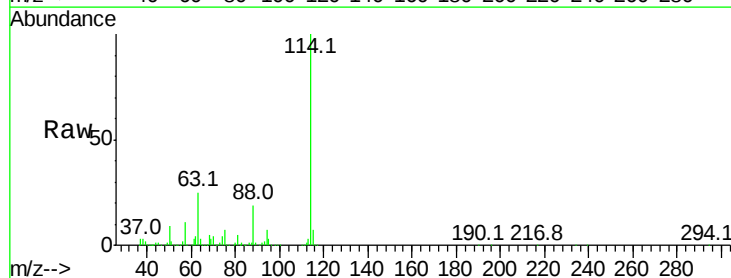
Tgt Ion: 114 Resp: 3365582

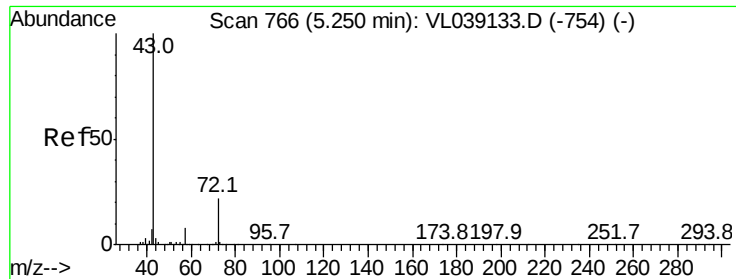
Ion Ratio Lower Upper

114 100

63 24.4 21.7 32.5

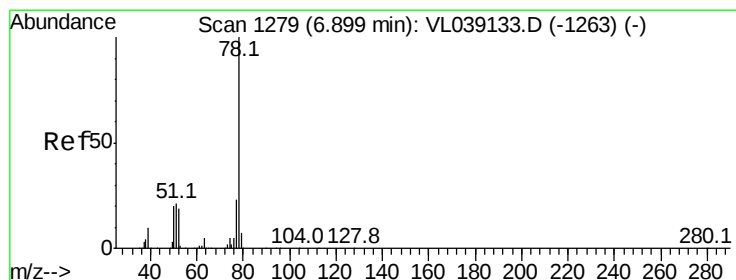
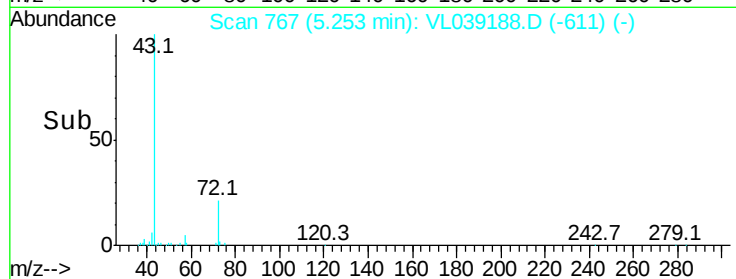
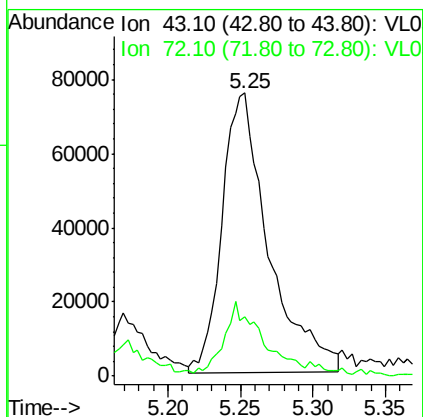
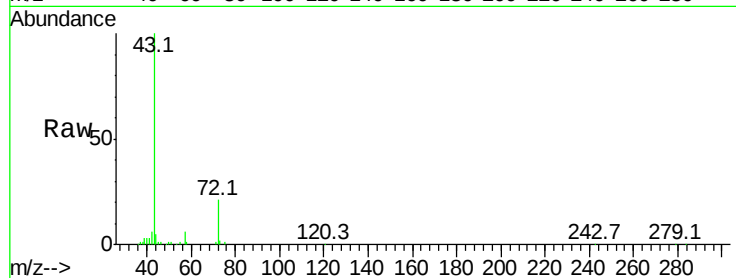
88 18.1 14.8 22.2





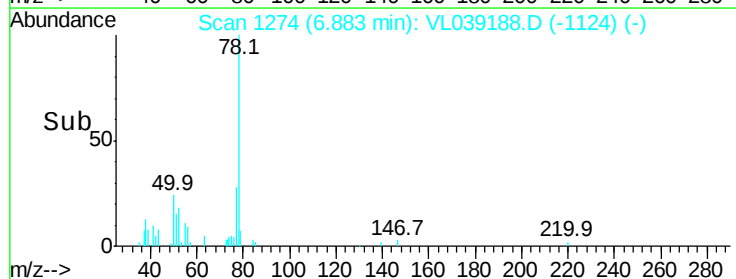
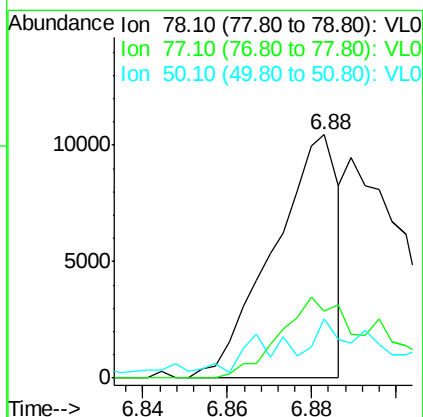
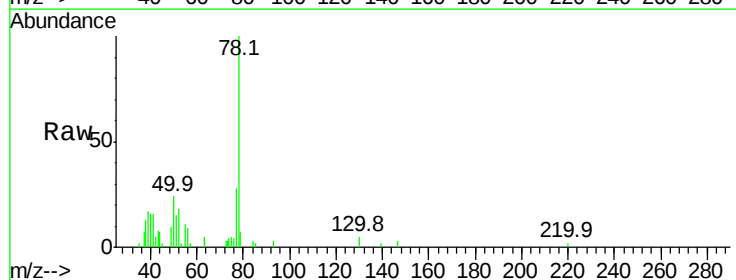
#34
2-Butanone
Concen: 0.92 ppbv
RT: 5.25
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 6 Jun 2022 16:11

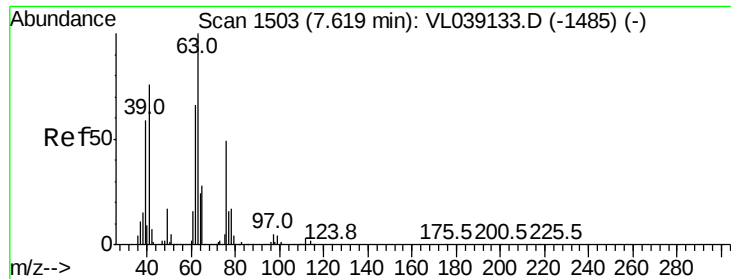
Tgt Ion: 43 Resp: 168825
Ion Ratio Lower Upper
43 100
72 25.5 18.2 27.2



#36
Benzene
Concen: 0.04 ppbv
RT: 6.88 min Scan# 1274
Delta R.T. -0.02 min
Lab File: VL039188.D
Acq: 6 Jun 2022 16:11

Tgt Ion: 78 Resp: 11211
Ion Ratio Lower Upper
78 100
77 27.5 18.6 27.8
50 21.3 15.8 23.8





#39

1,2-Dichloropropane

Concen: 7.33 ppbv

RT: 7.17

Delta R.T. MSVOA_L

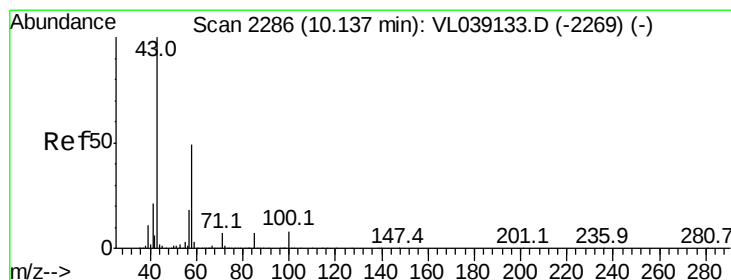
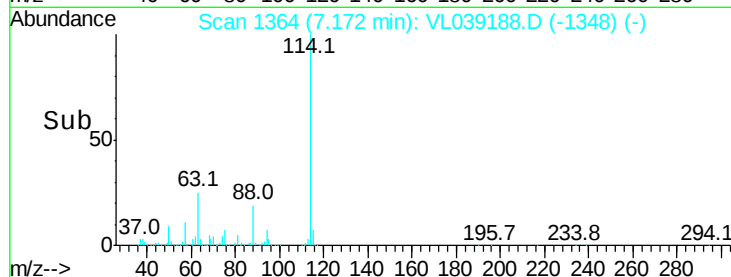
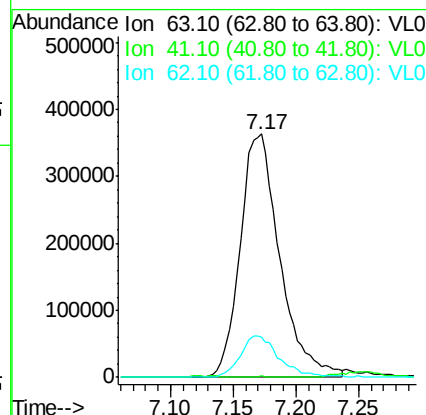
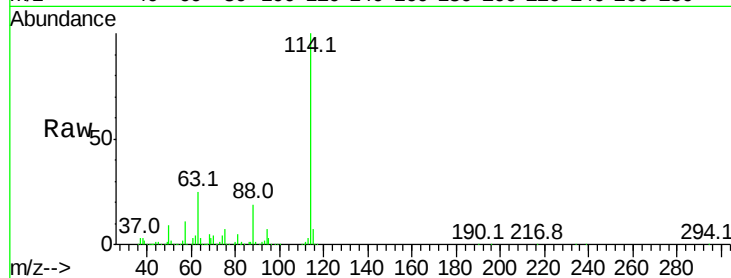
Lab File: ClientSampleId :

SG-6

Acq: 6 Jun 2022 16:11

Tgt Ion: 63 Resp: 796767

Ion	Ratio	Lower	Upper
63	100		
41	0.0	60.8	91.2#
62	16.4	52.9	79.3#



#51

2-Hexanone

Concen: 0.24 ppbv

RT: 10.14 min Scan# 2286

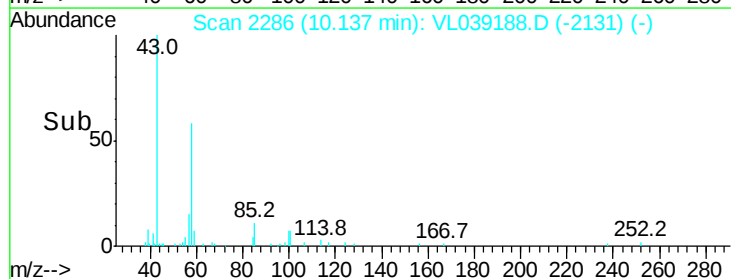
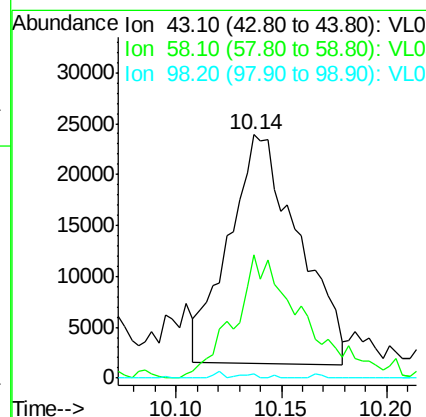
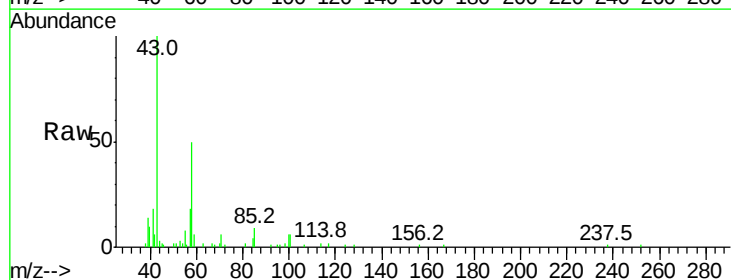
Delta R.T. -0.00 min

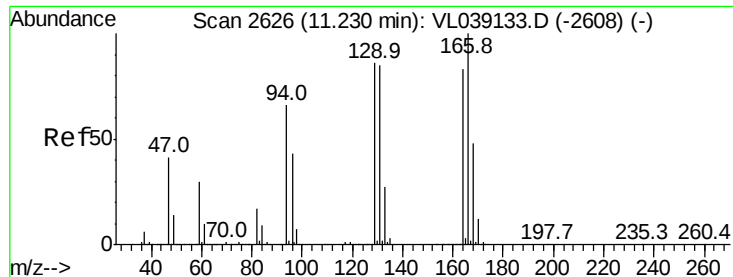
Lab File: VL039188.D

Acq: 6 Jun 2022 16:11

Tgt Ion: 43 Resp: 51693

Ion	Ratio	Lower	Upper
43	100		
58	55.5	40.0	60.0
98	0.5	0.1	0.1#





#52

Tetrachloroethene

Concen: 1.12 ppbv

RT: 11.22

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 6 Jun 2022 16:11

Tgt Ion:164 Resp: 119046

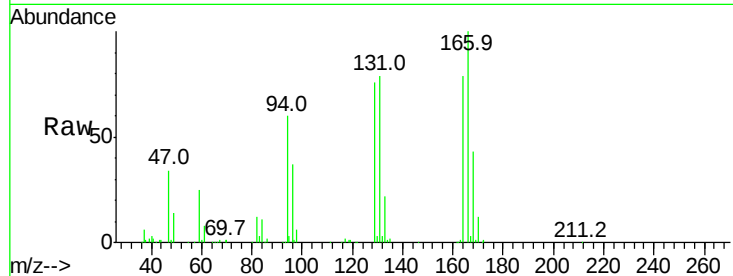
Ion Ratio Lower Upper

164 100

166 126.1 96.3 144.5

129 96.6 82.5 123.7

131 100.0 82.1 123.1

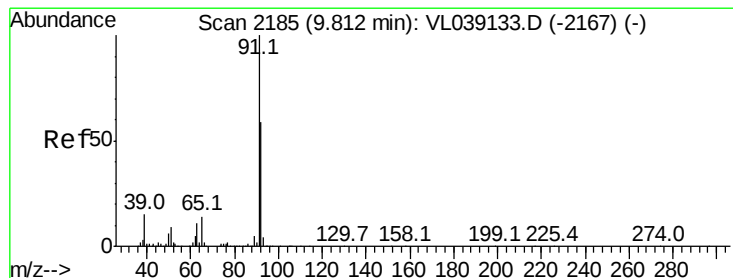
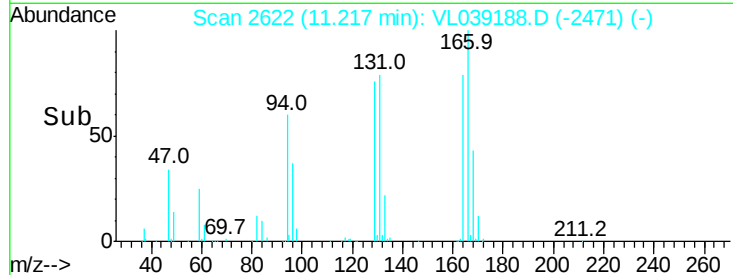
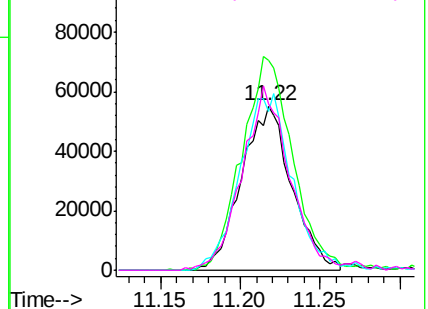


Abundance Ion 163.90 (163.60 to 164.60): V

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: 0.68 ppbv

RT: 9.80 min Scan# 2181

Delta R.T. -0.01 min

Lab File: VL039188.D

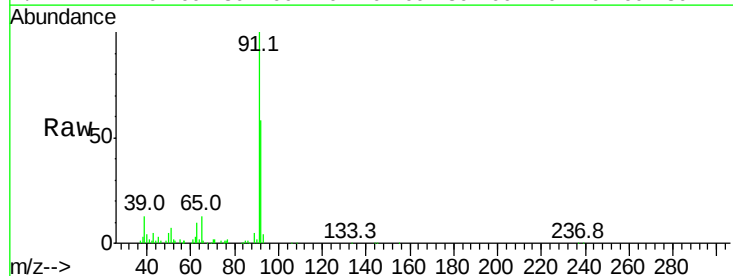
Acq: 6 Jun 2022 16:11

Tgt Ion: 91 Resp: 213284

Ion Ratio Lower Upper

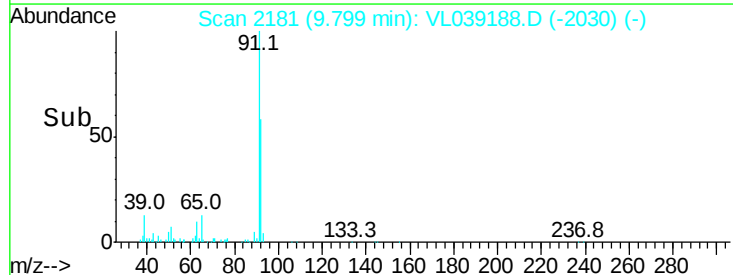
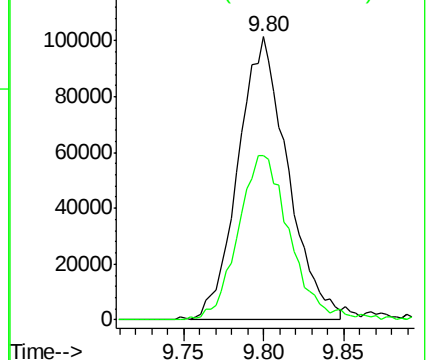
91 100

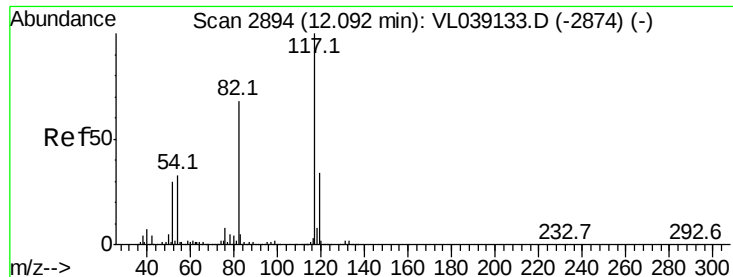
92 61.8 48.1 72.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

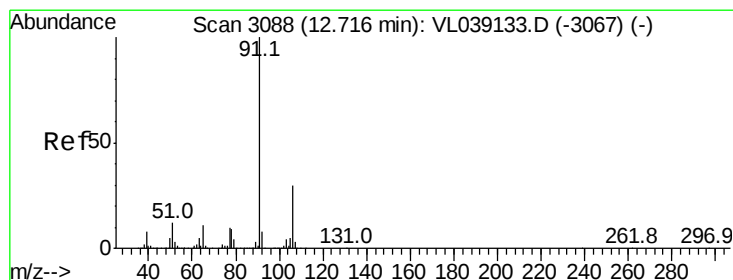
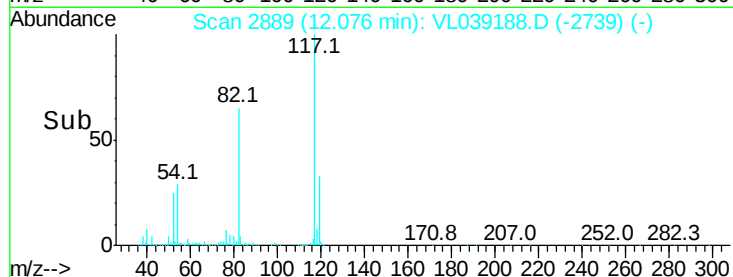
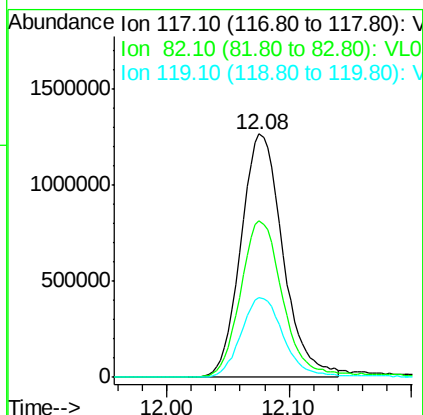
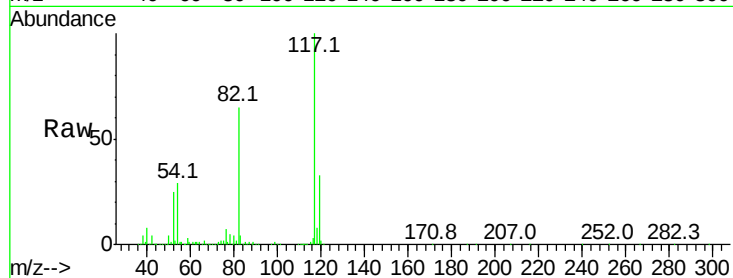
Ion 92.10 (91.80 to 92.80): VL0





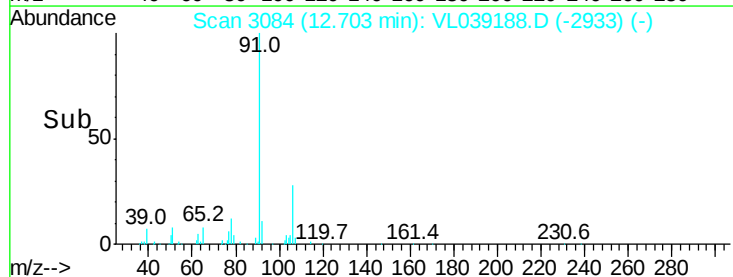
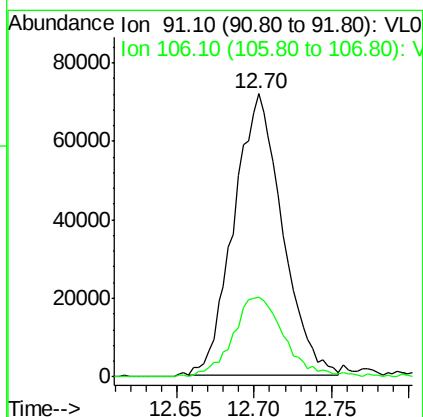
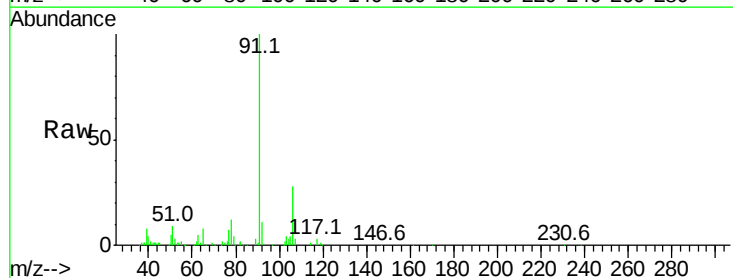
#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.08
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 6 Jun 2022 16:11

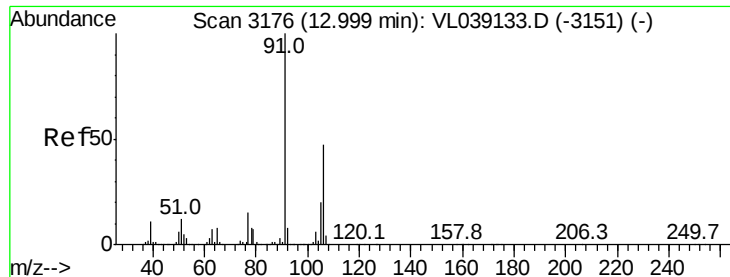
Tgt Ion: 117 Resp: 3018039
Ion Ratio Lower Upper
117 100
82 67.5 55.1 82.7
119 34.1 24.7 37.1



#58
Ethyl Benzene
Concen: 0.37 ppbv
RT: 12.70 min Scan# 3084
Delta R.T. -0.01 min
Lab File: VL039188.D
Acq: 6 Jun 2022 16:11

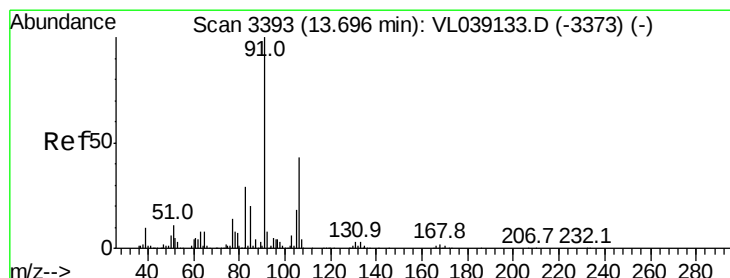
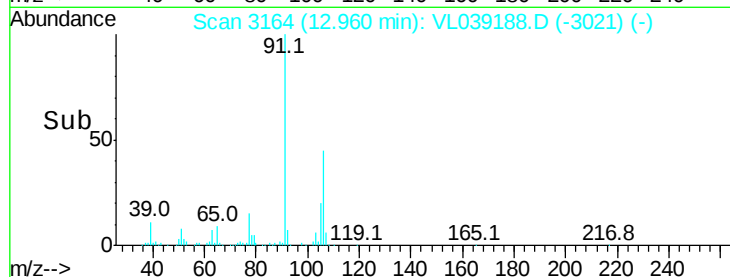
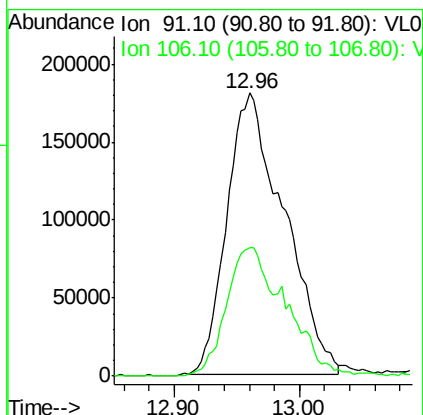
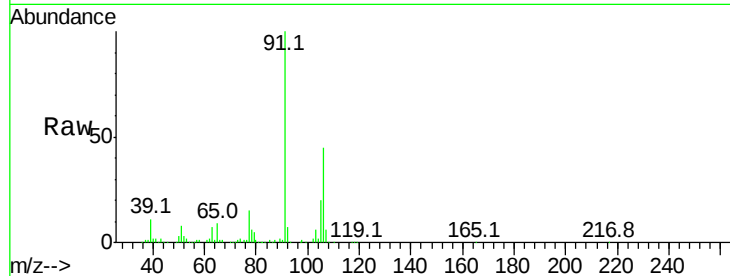
Tgt Ion: 91 Resp: 155246
Ion Ratio Lower Upper
91 100
106 28.5 24.2 36.4





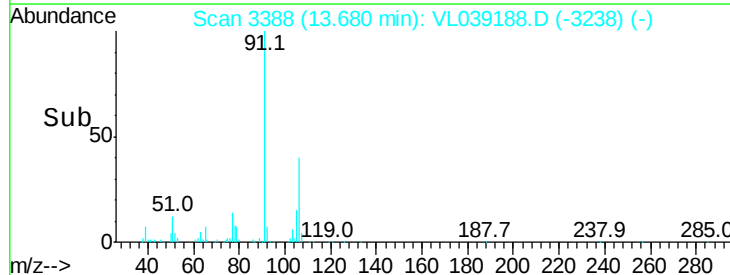
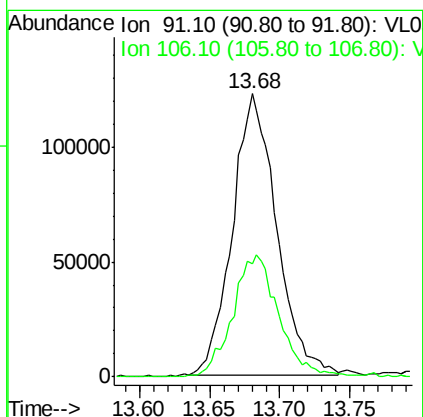
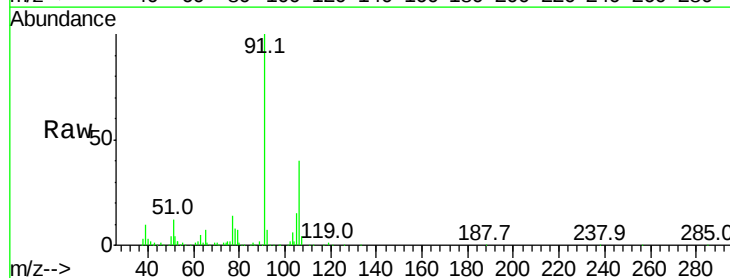
#59
m/p-Xylene
Concen: 1.56 ppbv
RT: 12.96
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 6 Jun 2022 16:11

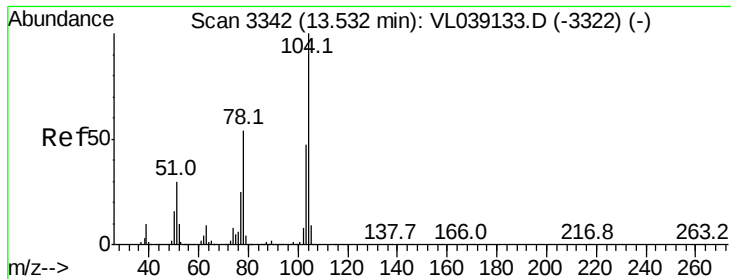
Tgt Ion: 91 Resp: 569521
Ion Ratio Lower Upper
91 100
106 47.8 34.3 51.5



#60
o-Xylene
Concen: 0.78 ppbv
RT: 13.68 min Scan# 3388
Delta R.T. -0.02 min
Lab File: VL039188.D
Acq: 6 Jun 2022 16:11

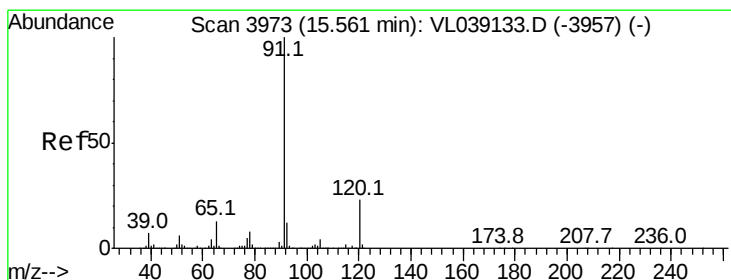
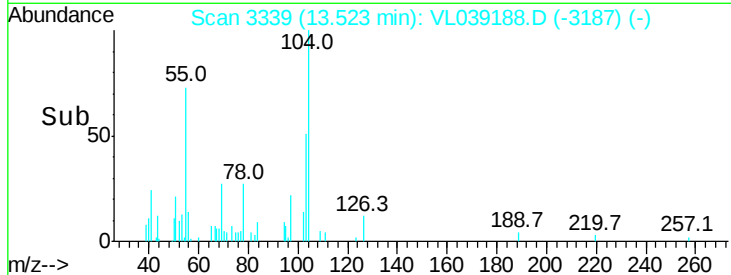
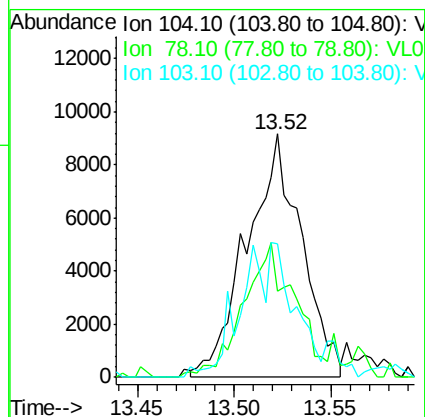
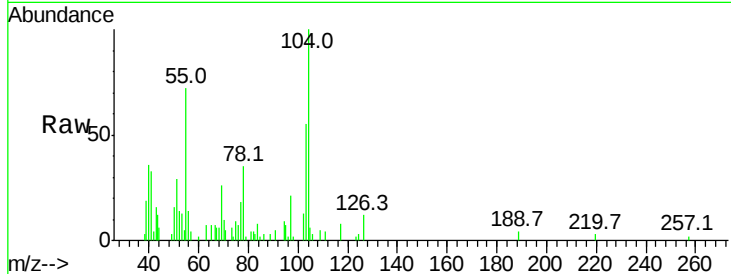
Tgt Ion: 91 Resp: 269183
Ion Ratio Lower Upper
91 100
106 45.0 22.3 66.9





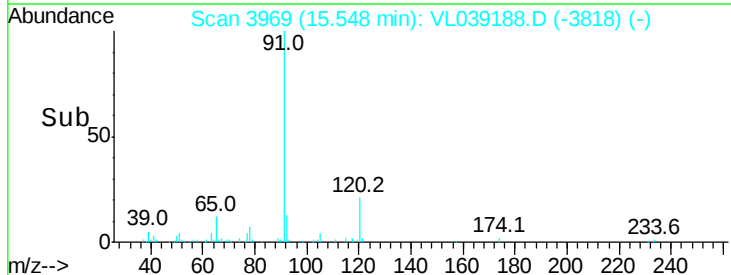
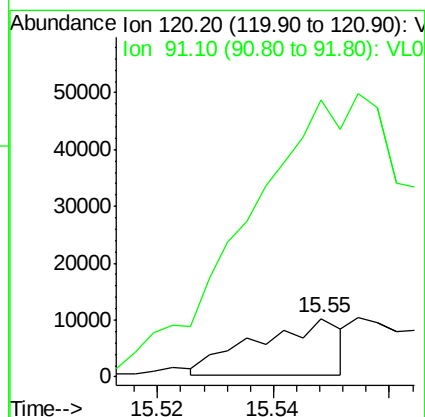
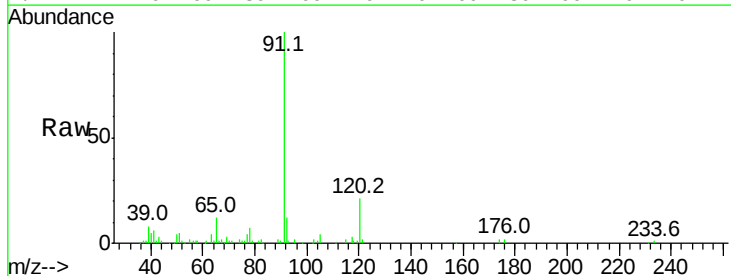
#61
Styrene
Concen: 0.10 ppbv
RT: 13.52
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 6 Jun 2022 16:11

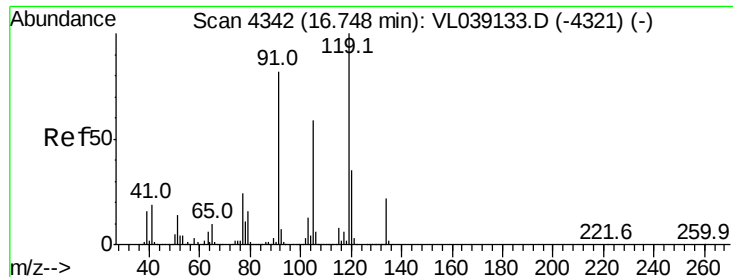
Tgt Ion:104 Resp: 17905
Ion Ratio Lower Upper
104 100
78 58.7 45.7 68.5
103 57.8 39.6 59.4



#64
n-propylbenzene
Concen: 0.08 ppbv
RT: 15.55 min Scan# 3969
Delta R.T. -0.01 min
Lab File: VL039188.D
Acq: 6 Jun 2022 16:11

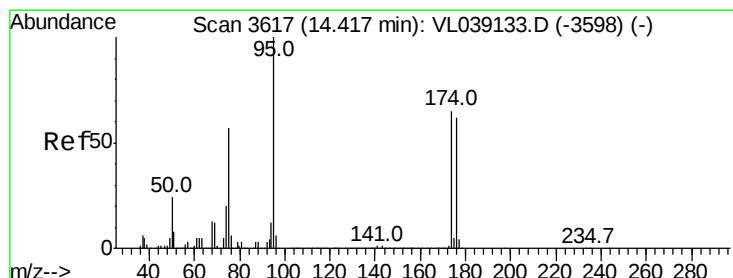
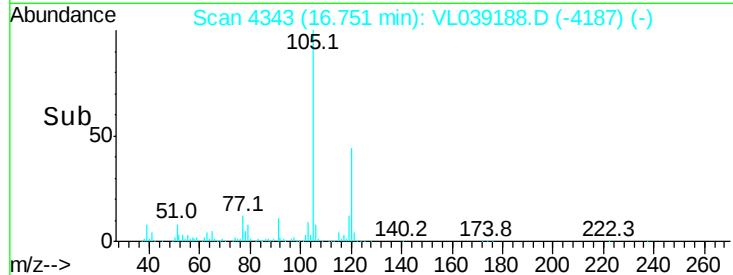
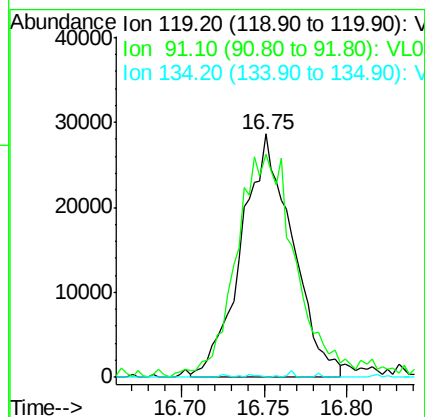
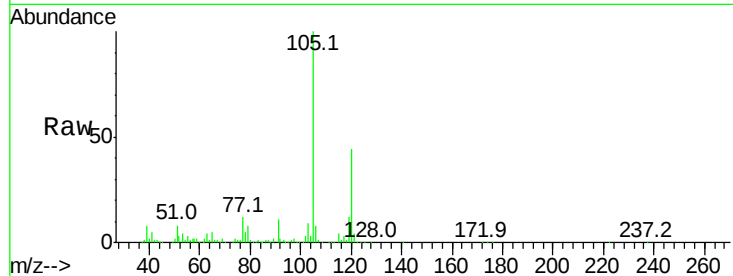
Tgt Ion:120 Resp: 10201
Ion Ratio Lower Upper
120 100
91 0.0 388.4 582.6#





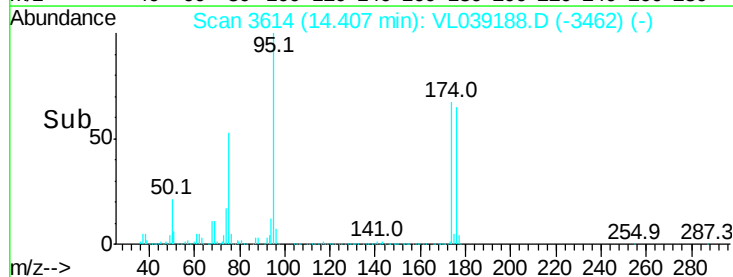
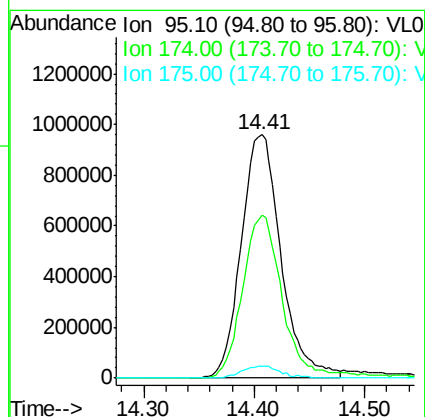
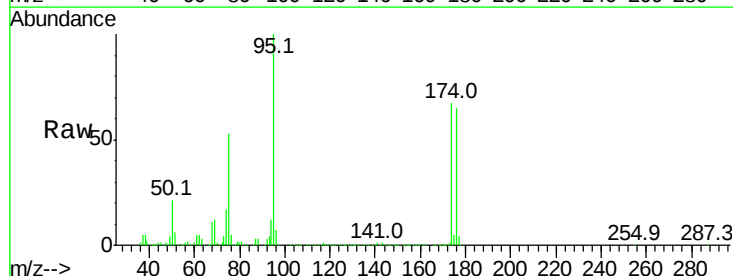
#65
 tert-Butylbenzene
 Concen: 0.13 ppbv
 RT: 16.75
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 6 Jun 2022 16:11

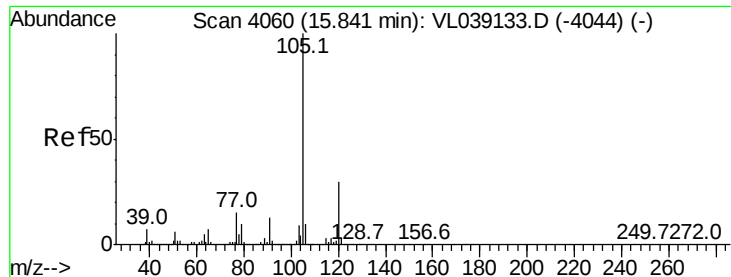
Tgt Ion: 119 Resp: 61650
 Ion Ratio Lower Upper
 119 100
 91 106.7 67.1 100.7#
 134 1.0 15.8 23.8#



#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.62 ppbv
 RT: 14.41 min Scan# 3614
 Delta R.T. -0.01 min
 Lab File: VL039188.D
 Acq: 6 Jun 2022 16:11

Tgt Ion: 95 Resp: 2401495
 Ion Ratio Lower Upper
 95 100
 174 69.4 53.8 80.8
 175 5.1 4.1 6.1





#72

4-Ethyltoluene

Concen: 0.35 ppbv

RT: 15.83

Delta R.T. MSVOA_1

Lab File: ClientSampleId :

Acq: 6 Jun 2022 16:11

Tgt Ion:105 Resp: 141930

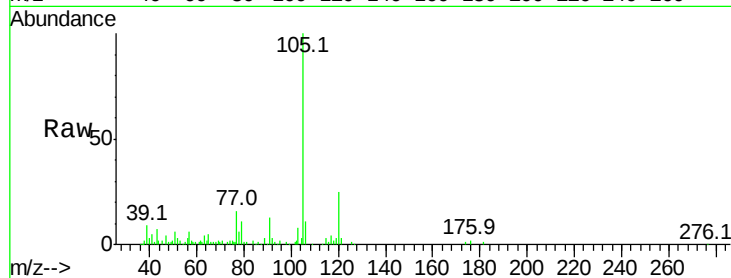
Ion Ratio Lower Upper

105 100

120 32.3 23.9 35.9

91 12.2 10.6 16.0

77 17.3 11.7 17.5

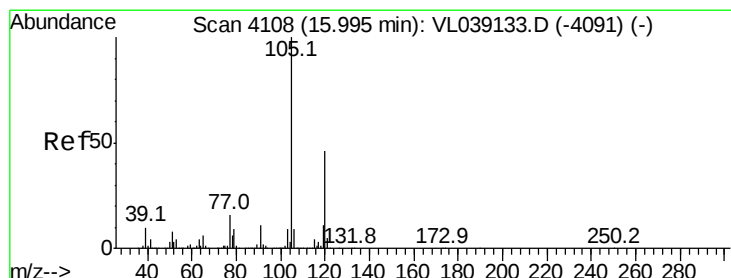
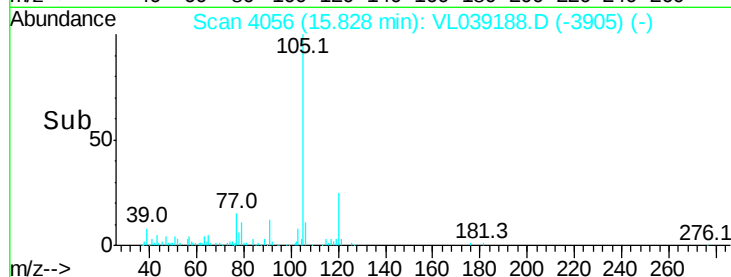
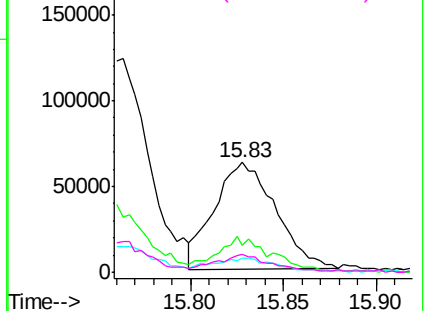


Abundance Ion 105.10 (104.80 to 105.80): V

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



#73

1,3,5-Trimethylbenzene

Concen: 0.37 ppbv

RT: 15.99 min Scan# 4105

Delta R.T. -0.01 min

Lab File: VL039188.D

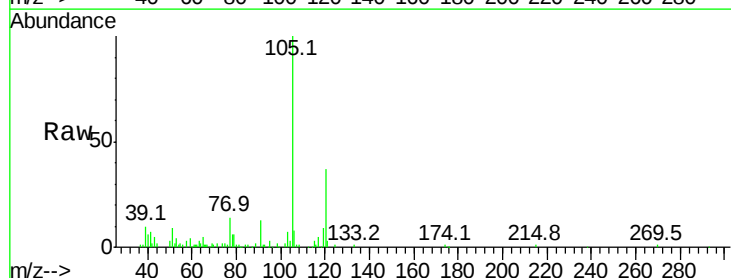
Acq: 6 Jun 2022 16:11

Tgt Ion:105 Resp: 133626

Ion Ratio Lower Upper

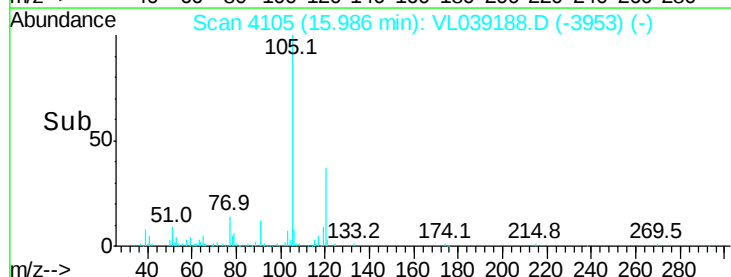
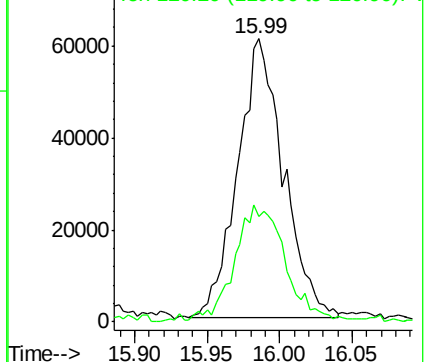
105 100

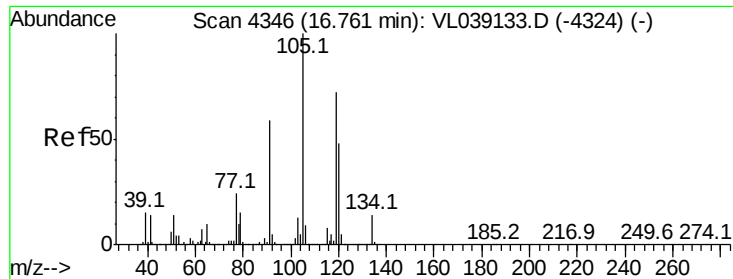
120 37.0 36.7 55.1



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: 1.39 ppbv

RT: 16.75

Delta R.T.

Lab File:

Acq: 6 Jun 2022 16:11

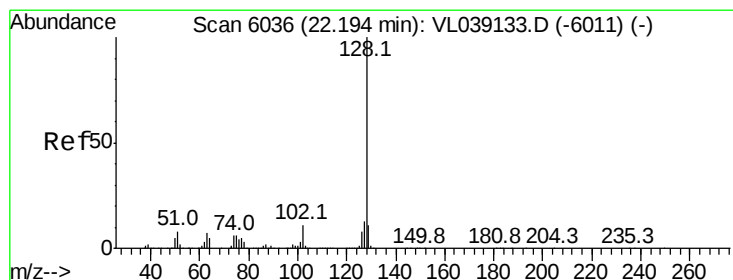
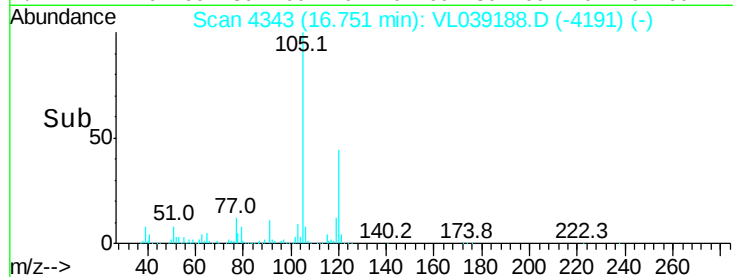
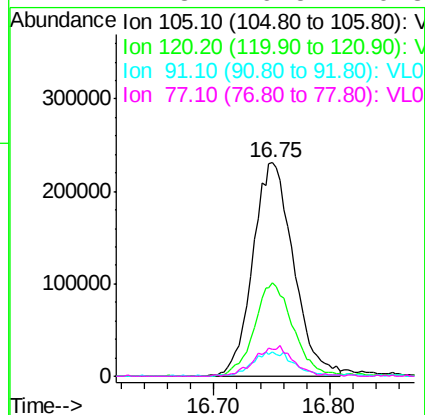
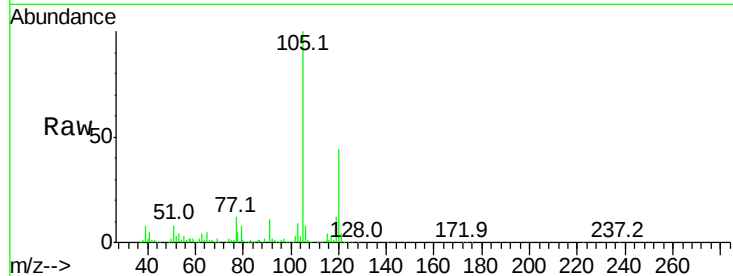
Instrument:

MSVOA_1

ClientSampleId:

SG-6

Tgt Ion:	105	Resp:	562251
Ion Ratio	Lower	Upper	
105	100		
120	43.9	38.1	57.1
91	11.4	47.4	71.0#
77	12.3	19.5	29.3#



#79

Naphthalene

Concen: 0.04 ppbv

RT: 22.17 min Scan# 6027

Delta R.T. -0.03 min

Lab File: VL039188.D

Acq: 6 Jun 2022 16:11

Tgt Ion:	128	Resp:	11262
Ion Ratio	Lower	Upper	
128	100		
127	11.9	10.4	15.6
129	8.2	9.0	13.6#

