

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121621\
 Data File : VL038188.D
 Acq On : 16 Dec 2021 14:05
 Operator : SY/AP
 Sample : M5117-01DUP
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Dec 17 05:08:16 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Nov 18 13:16:09 2021
 QLast Update : Thu Nov 18 13:16:09 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1040108	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	2697773	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	2305133	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	1790001	10.77	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	107.70%

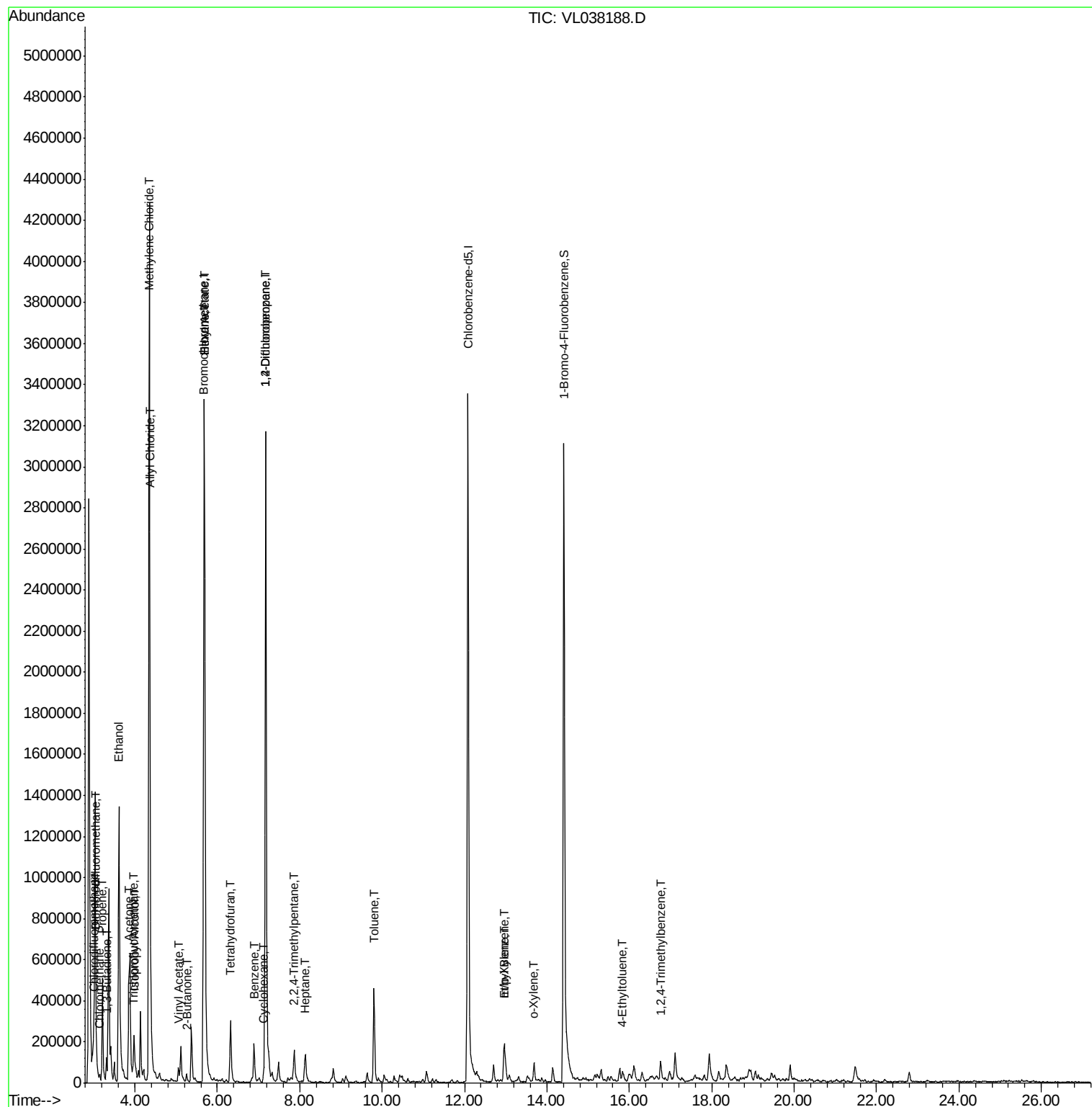
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.06	85	38364	0.223 ppbv	93
3) Chlorodifluoromethane	2.99	51	306795	1.405 ppbv #	90
4) Chloromethane	3.14	50	27387	0.368 ppbv	100
9) Propene	3.21	41	163461	2.032 ppbv	95
10) Heptane	8.12	43	18652	0.094 ppbv #	27
11) Trichlorofluoromethane	3.95	101	30298	0.185 ppbv	92
13) Ethanol	3.61	45	1826543	234.961 ppbv	90
15) Acetone	3.85	43	747189	8.286 ppbv #	87
16) 1,3-Butadiene	3.31	39	35183	0.500 ppbv #	50
19) Isopropyl Alcohol	3.98	45	262018	4.021 ppbv #	95
20) Methylene Chloride	4.35	84	1874029	37.101 ppbv	99
21) Allyl Chloride	4.37	41	14781	0.177 ppbv #	44
23) Vinyl Acetate	5.06	43	26846	0.206 ppbv #	1
25) Ethyl Acetate	5.69	43	922450	3.078 ppbv #	78
26) Hexane	5.69	57	1233361	8.538 ppbv #	46
30) Cyclohexane	7.12	84	7786	0.059 ppbv #	1
34) 2-Butanone	5.25	43	45365	0.417 ppbv #	90
36) Benzene	6.89	78	160085	0.595 ppbv	93
39) 1,2-Dichloropropane	7.18	63	701986	6.800 ppbv #	27
41) Tetrahydrofuran	6.31	42	42507	0.629 ppbv #	36
44) 2,2,4-Trimethylpentane	7.87	57	134913	0.300 ppbv #	77
53) Toluene	9.81	91	350743	1.133 ppbv	98
58) Ethyl Benzene	12.97	91	205998	0.541 ppbv	90
59) m/p-Xylene	12.97	91	205998	0.642 ppbv	95
60) o-Xylene	13.69	91	71790	0.241 ppbv	97
72) 4-Ethyltoluene	15.83	105	16844	0.049 ppbv #	59
74) 1,2,4-Trimethylbenzene	16.76	105	63544	0.196 ppbv #	68

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

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 16 Dec 2021 14:05

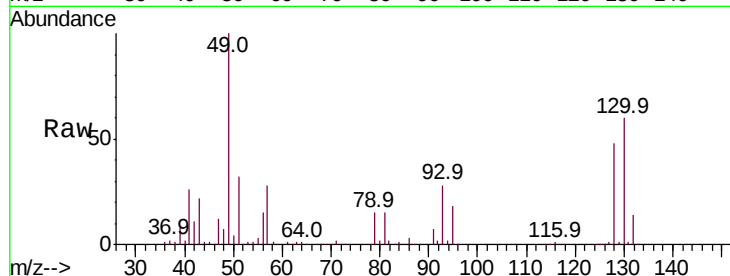
Tot Ion: 49 Resp: 1040108

Ion	Ratio	Lower	Upper
49	100		
128	46.3	26.5	79.5
130	59.6	32.5	97.4

49 100

128 46.3 26.5 79.5

130 59.6 32.5 97.4



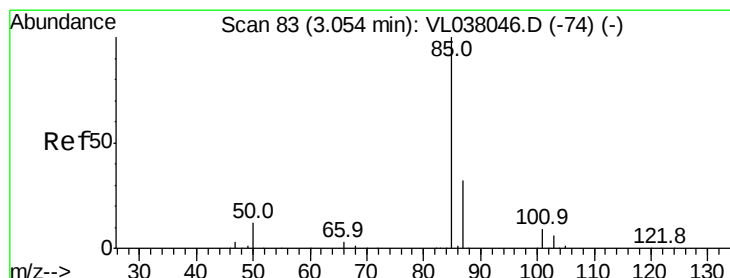
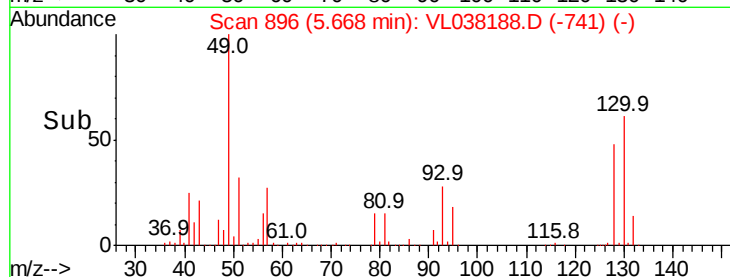
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V

5.67

Time-->



#2

Dichlorodifluoromethane

Concen: 0.223 ppbv

RT: 3.06 min Scan# 84

Delta R.T. 0.00 min

Lab File: VL038188.D

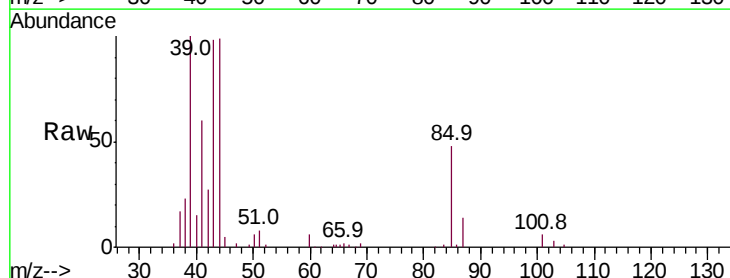
Acq: 16 Dec 2021 14:05

Tgt Ion: 85 Resp: 38364

Ion	Ratio	Lower	Upper
85	100		
87	28.2	25.8	38.6

85 100

87 28.2 25.8 38.6

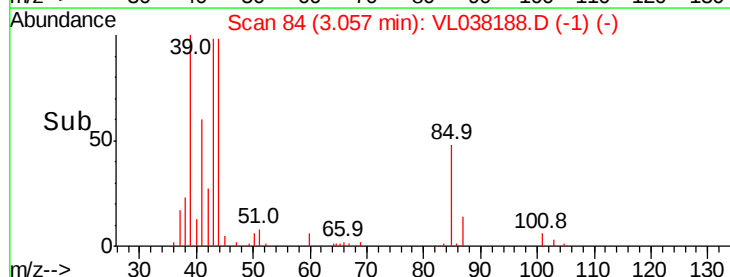


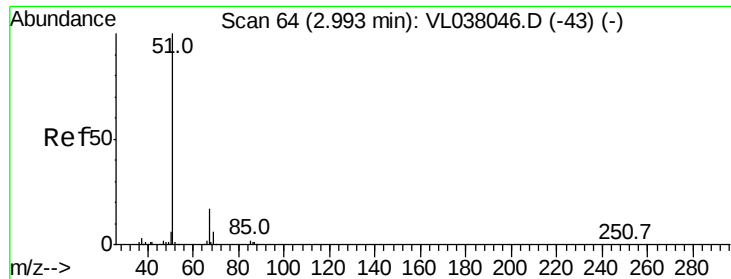
Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.06

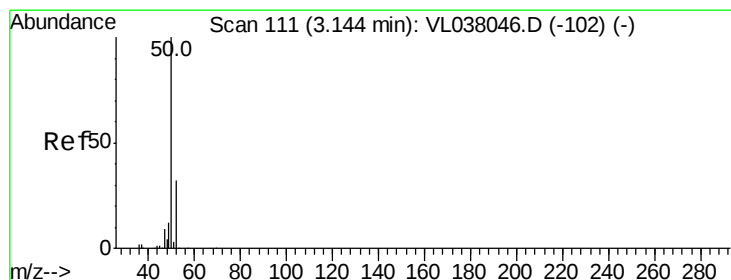
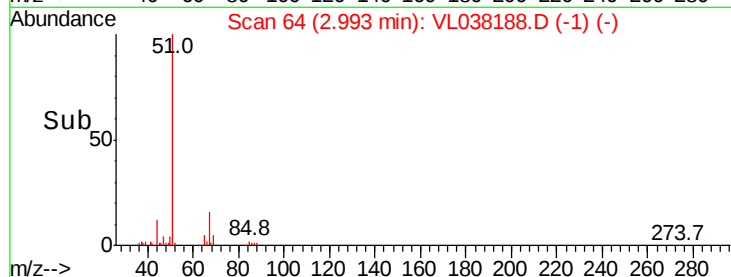
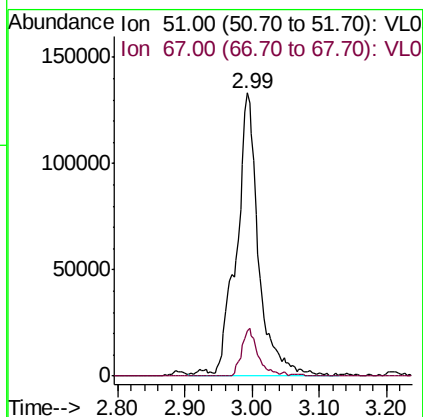
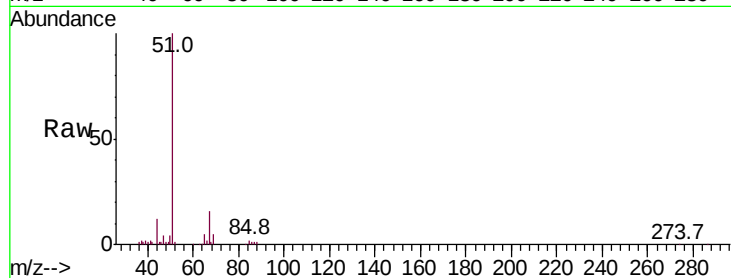
Time-->





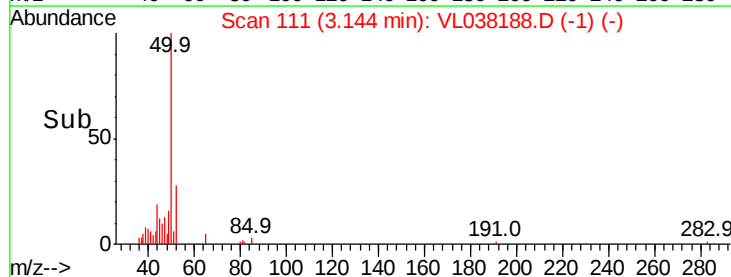
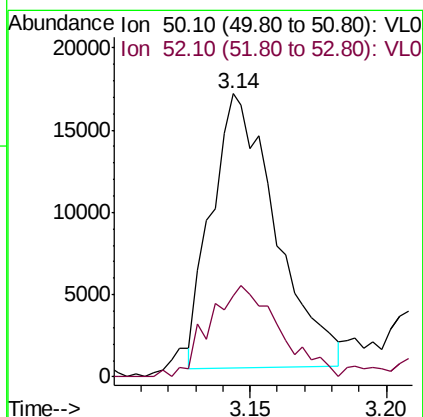
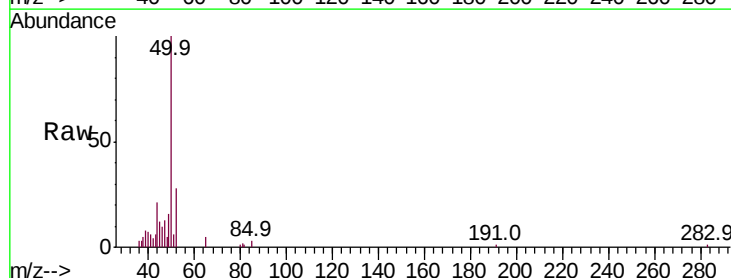
#3
Chlorodifluoromethane
Concen: 1.405 ppbv
RT: 2.99 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 16 Dec 2021 14:05

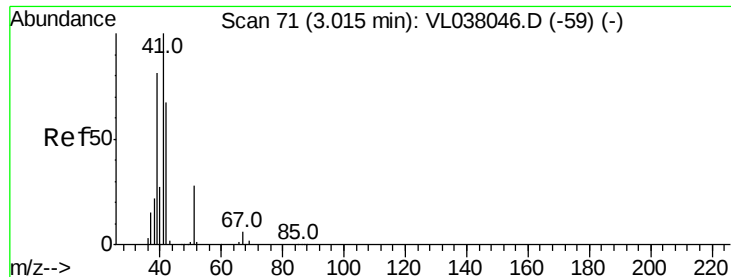
Tot Ion: 51 Resp: 306795
Ion Ratio Lower Upper
51 100
67 12.9 13.8 20.8#



#4
Chloromethane
Concen: 0.368 ppbv
RT: 3.14 min Scan# 111
Delta R.T.: -0.00 min
Lab File: VL038188.D
Acq: 16 Dec 2021 14:05

Tgt Ion: 50 Resp: 27387
Ion Ratio Lower Upper
50 100
52 31.7 25.4 38.0





#9

Propene

Concen: 2.032 ppbv

RT: 3.21 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

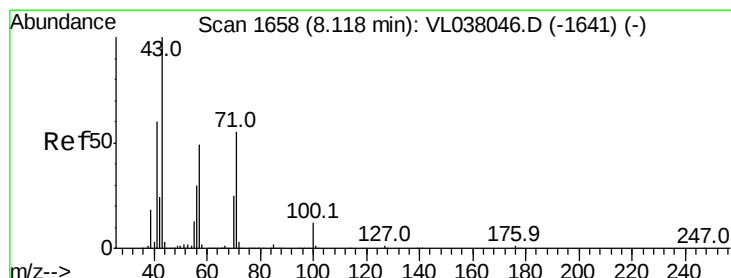
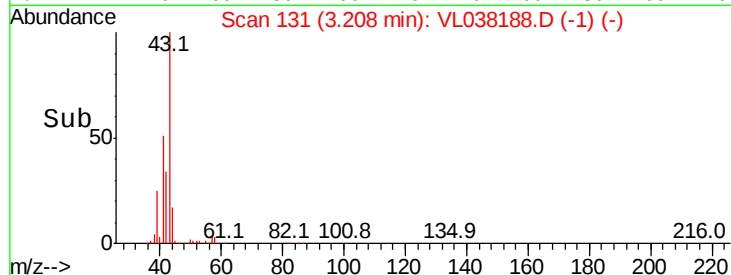
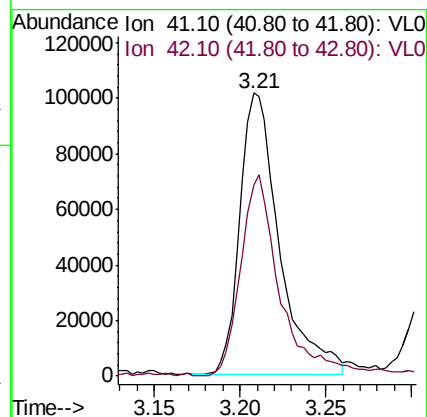
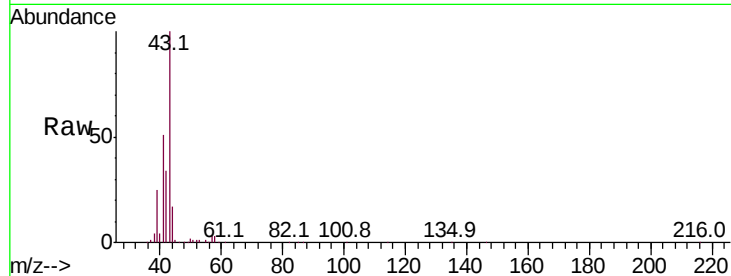
Acq: 16 Dec 2021 14:05

Tot Ion: 41 Resp: 163461

Ion Ratio Lower Upper

41 100

42 71.3 53.8 80.8



#10

Heptane

Concen: 0.094 ppbv

RT: 8.12 min Scan# 1658

Delta R.T. -0.00 min

Lab File: VL038188.D

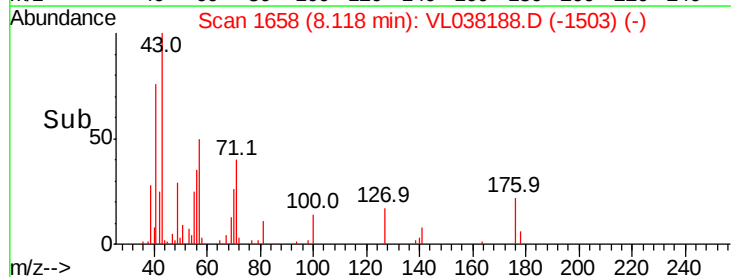
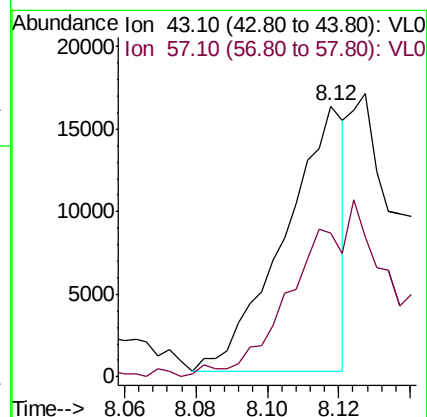
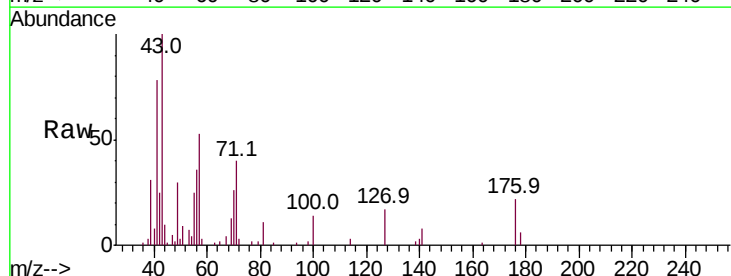
Acq: 16 Dec 2021 14:05

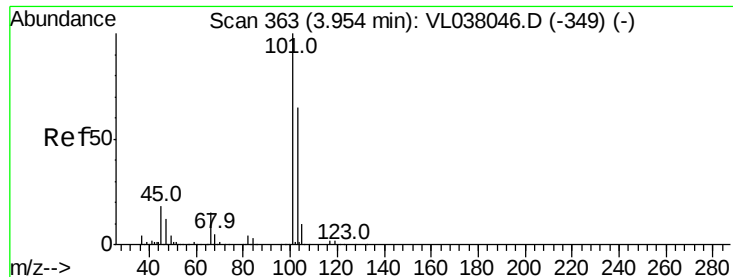
Tgt Ion: 43 Resp: 18652

Ion Ratio Lower Upper

43 100

57 0.0 40.4 60.6#





#11

Trichlorofluoromethane

Concen: 0.185 ppbv

RT: 3.95 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

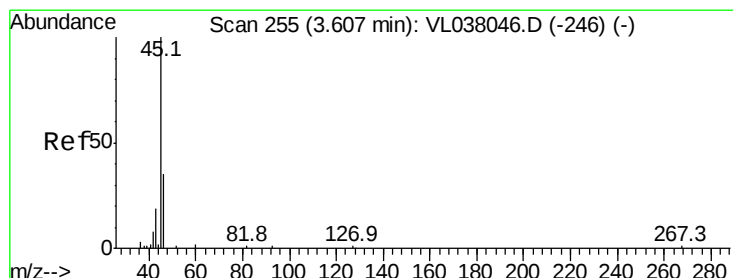
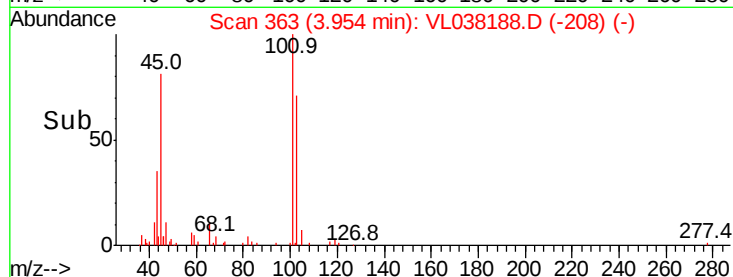
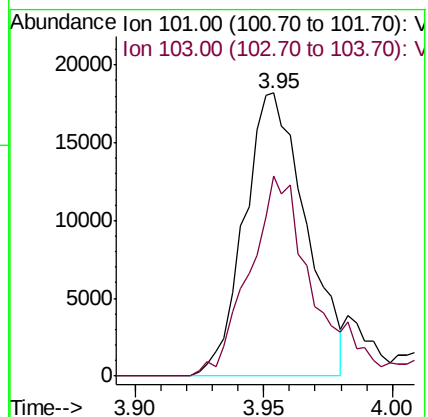
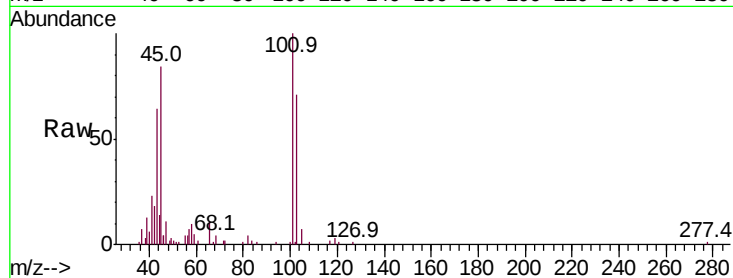
Acq: 16 Dec 2021 14:05

Tot Ion:101 Resp: 30298

Ion Ratio Lower Upper

101 100

103 70.6 51.8 77.6



#13

Ethanol

Concen: 234.961 ppbv

RT: 3.61 min Scan# 256

Delta R.T. 0.00 min

Lab File: VL038188.D

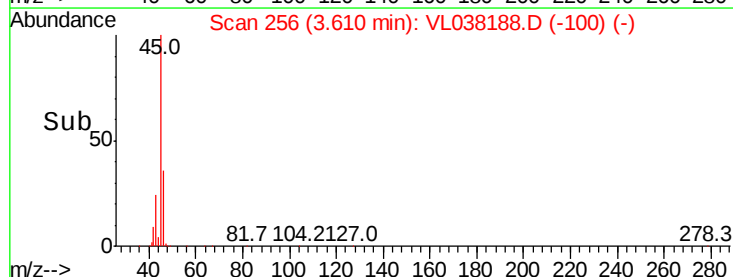
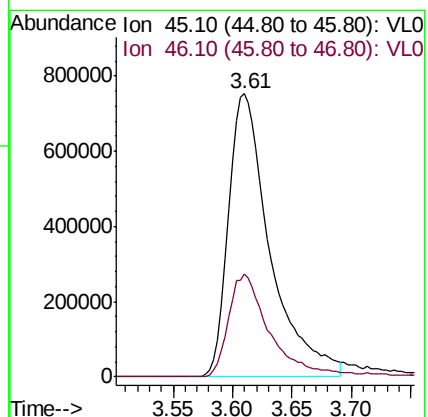
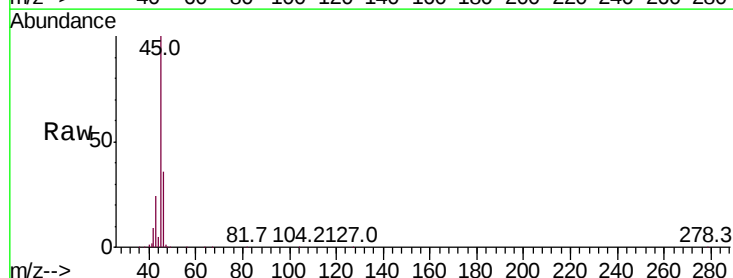
Acq: 16 Dec 2021 14:05

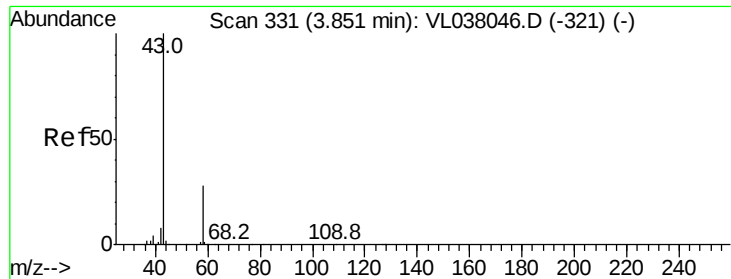
Tgt Ion: 45 Resp: 1826543

Ion Ratio Lower Upper

45 100

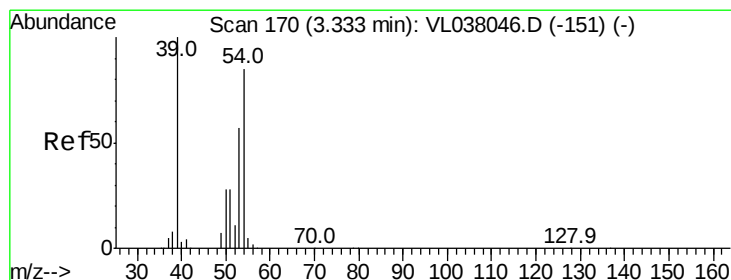
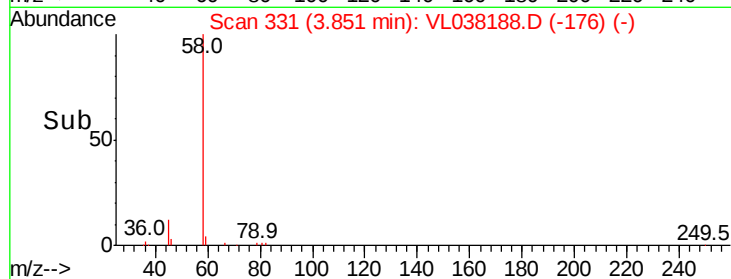
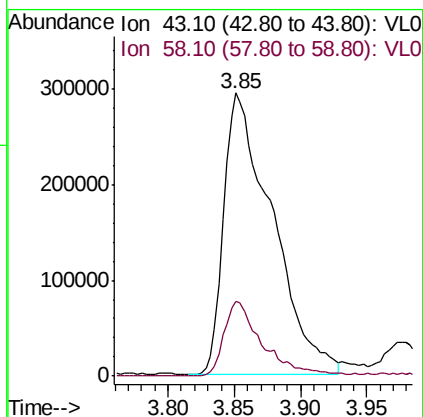
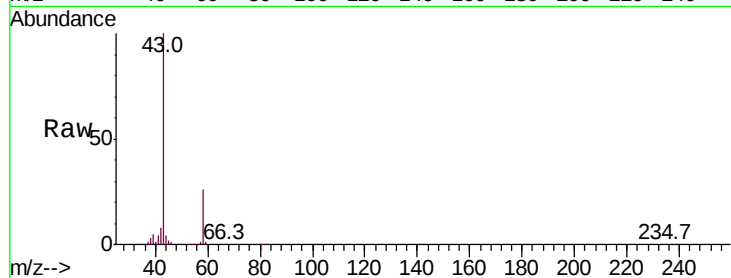
46 37.2 17.6 70.2





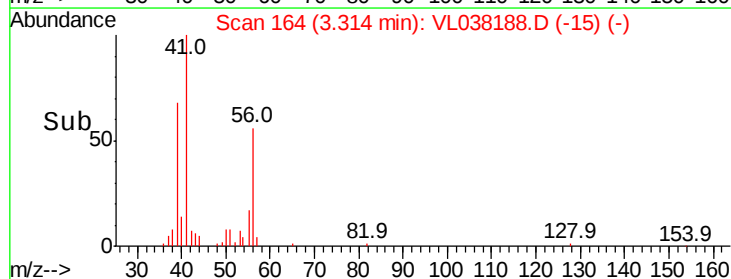
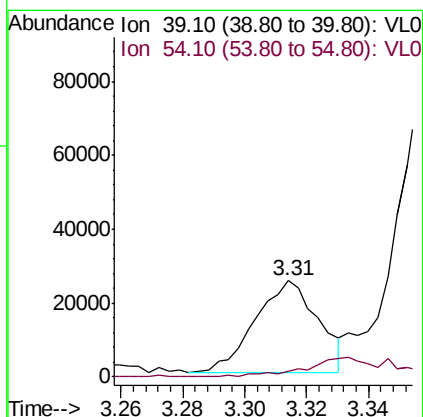
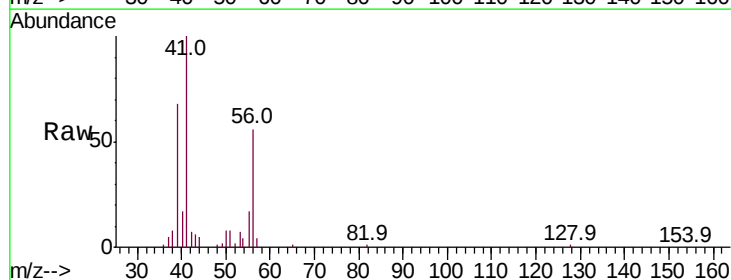
#15
Acetone
Concen: 8.286 ppbv
RT: 3.85
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 16 Dec 2021 14:05

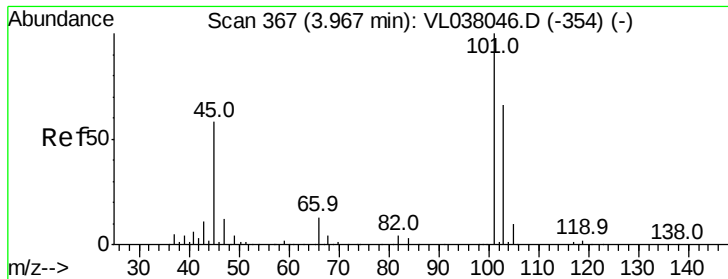
Tot Ion: 43 Resp: 747189
Ion Ratio Lower Upper
43 100
58 21.3 22.4 33.6#



#16
1,3-Butadiene
Concen: 0.500 ppbv
RT: 3.31 min Scan# 164
Delta R.T. -0.02 min
Lab File: VL038188.D
Acq: 16 Dec 2021 14:05

Tgt Ion: 39 Resp: 35183
Ion Ratio Lower Upper
39 100
54 36.6 64.4 96.6#





#19

Isopropyl Alcohol

Concen: 4.021 ppbv

RT: 3.98 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

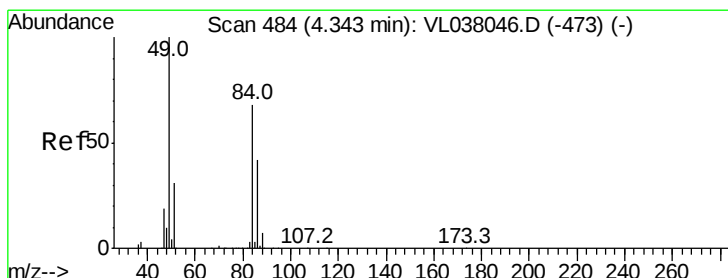
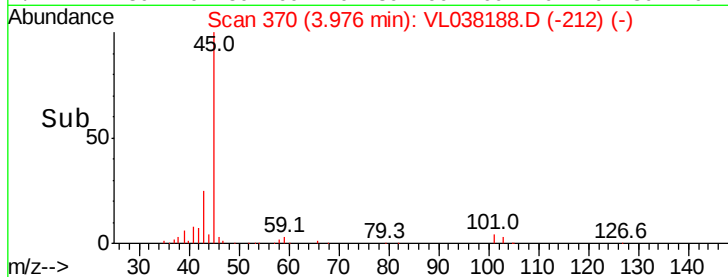
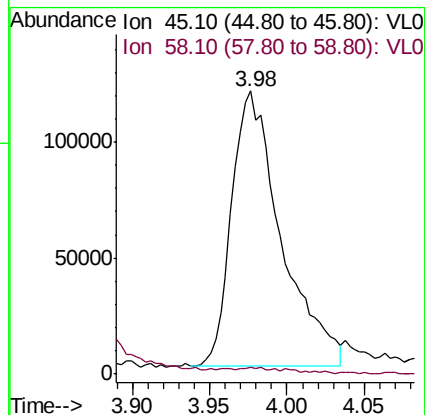
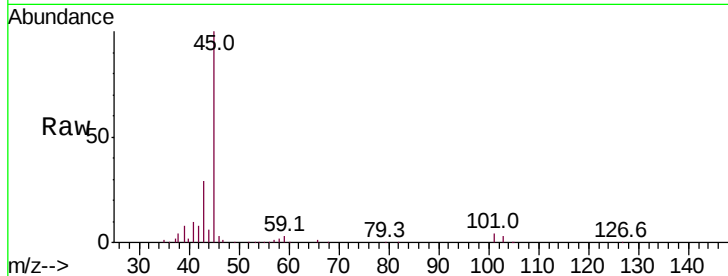
Acq: 16 Dec 2021 14:05

Tot Ion: 45 Resp: 262018

Ion Ratio Lower Upper

45 100

58 3.5 1.4 2.0#



#20

Methylene Chloride

Concen: 37.101 ppbv

RT: 4.35 min Scan# 485

Delta R.T. 0.00 min

Lab File: VL038188.D

Acq: 16 Dec 2021 14:05

Tgt Ion: 84 Resp: 1874029

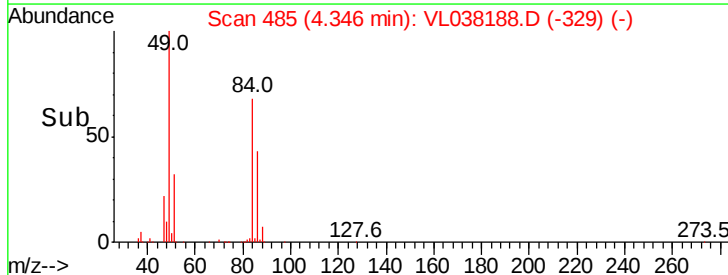
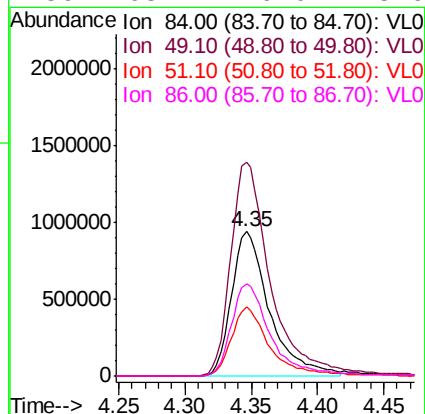
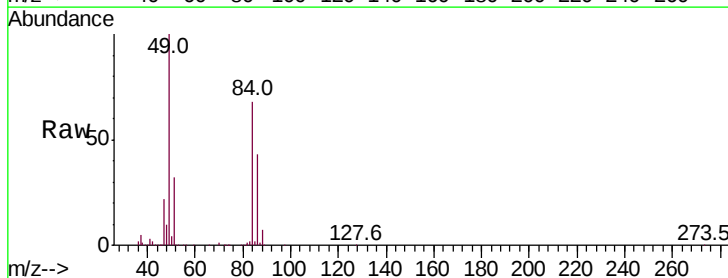
Ion Ratio Lower Upper

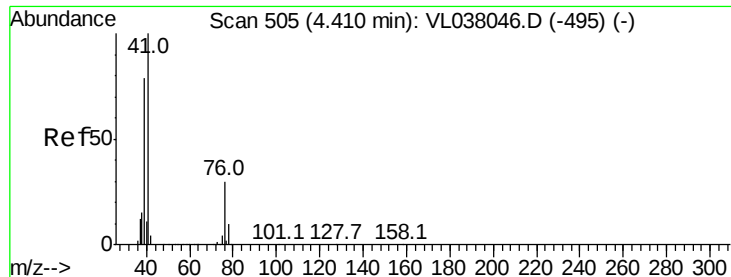
84 100

49 148.0 118.2 177.2

51 48.1 36.8 55.2

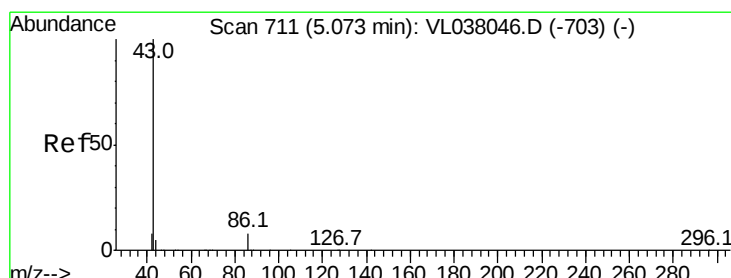
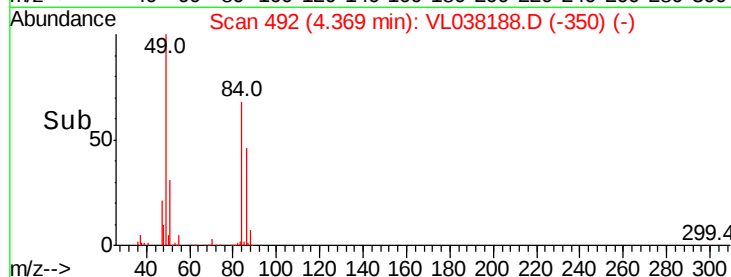
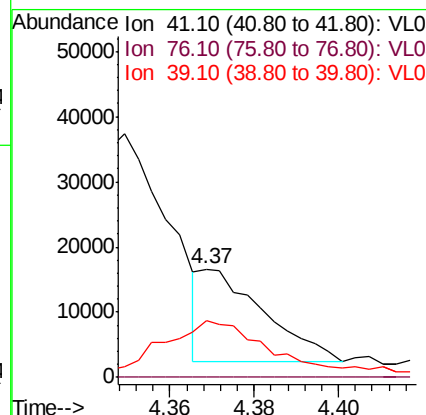
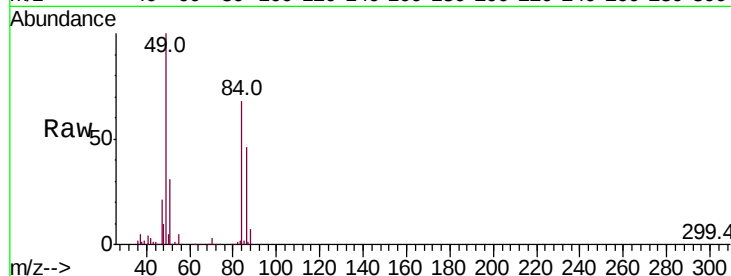
86 63.7 49.0 73.6





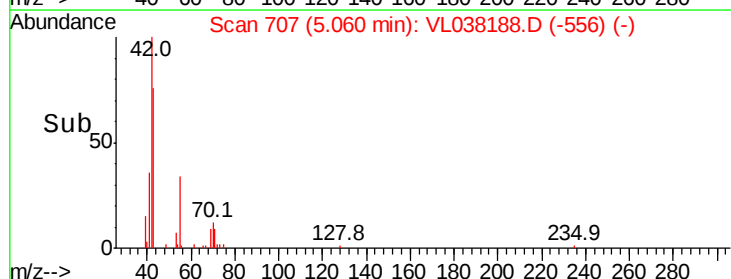
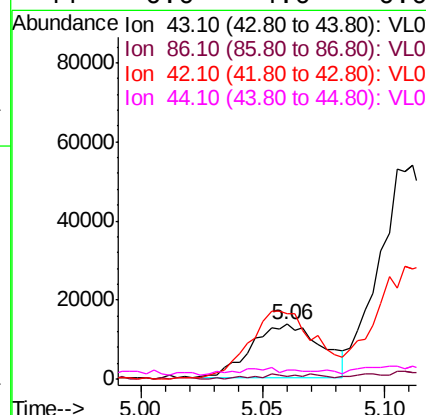
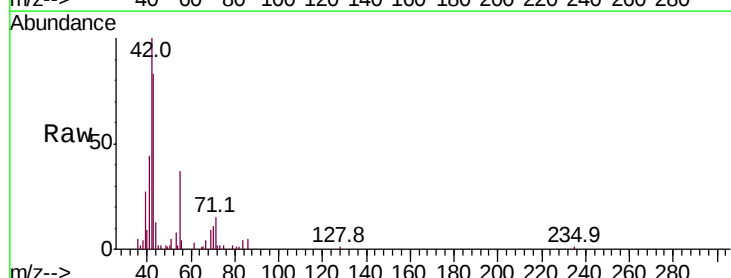
#21
 Allvl Chloride
 Concen: 0.177 ppbv
 RT: 4.37
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 16 Dec 2021 14:05

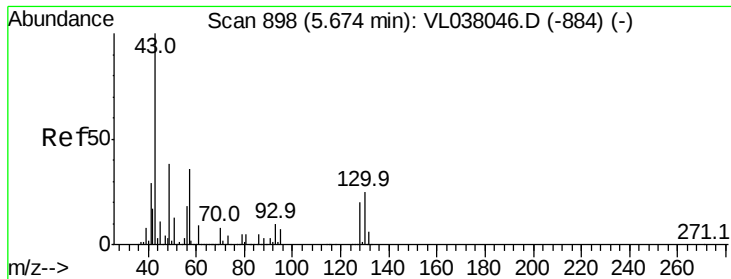
Tot Ion	Ratio	Lower	Upper
41	100		
76	0.0	24.6	36.8#
39	128.9	63.4	95.0#



#23
 Vinyl Acetate
 Concen: 0.206 ppbv
 RT: 5.06 min Scan# 707
 Delta R.T. -0.01 min
 Lab File: VL038188.D
 Acq: 16 Dec 2021 14:05

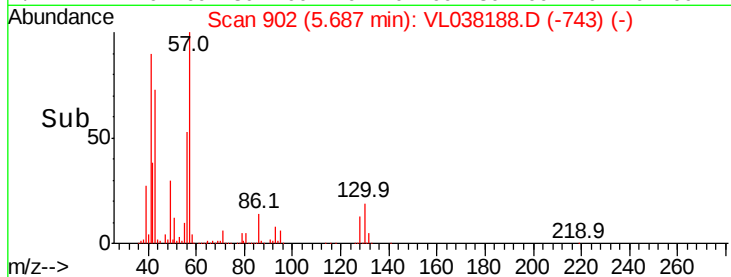
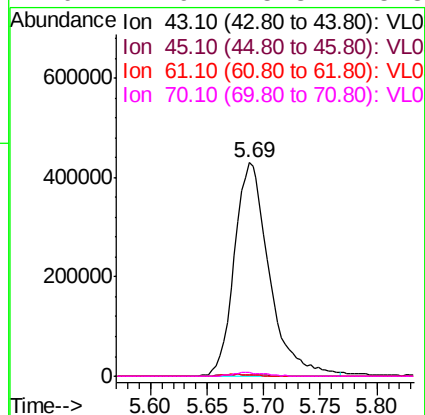
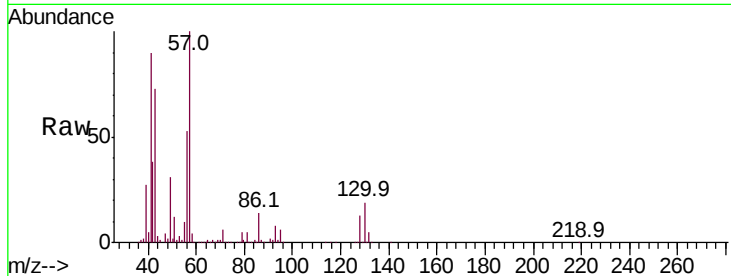
Tgt Ion	Ratio	Lower	Upper
43	100		
86	2.8	5.3	7.9#
42	119.6	7.0	10.6#
44	6.0	4.0	6.0





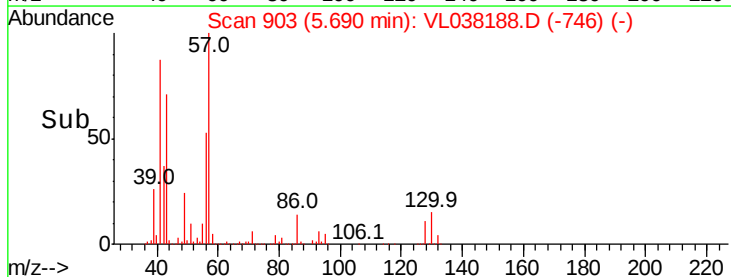
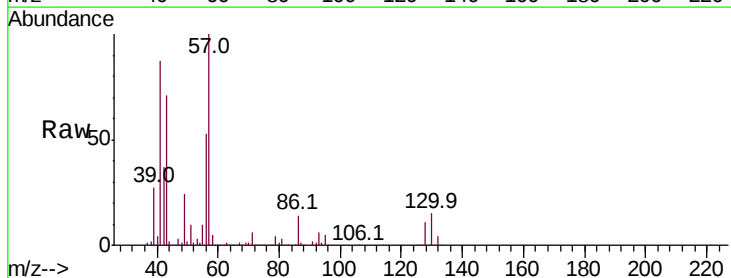
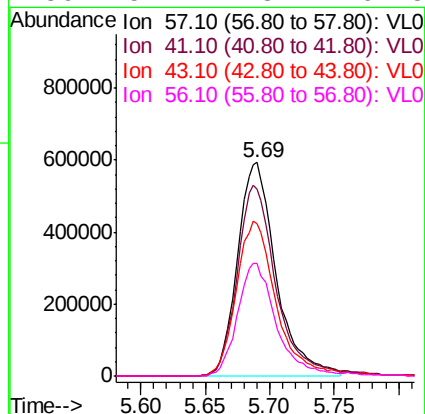
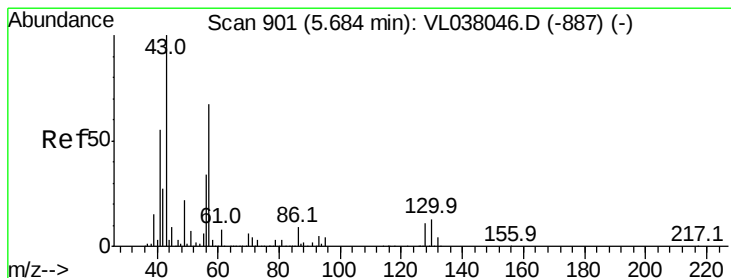
#25
Ethyl Acetate
Concen: 3.078 ppbv
RT: 5.69 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 16 Dec 2021 14:05

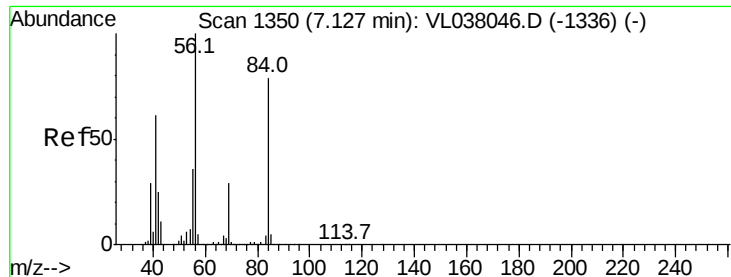
Tot Ion:	43	Resp:	922450
Ion	Ratio	Lower	Upper
43	100		
45	1.0	7.9	11.9#
61	0.9	7.8	11.6#
70	1.9	5.8	8.8#



#26
Hexane
Concen: 8.538 ppbv
RT: 5.69 min Scan# 903
Delta R.T.: 0.01 min
Lab File: VL038188.D
Acq: 16 Dec 2021 14:05

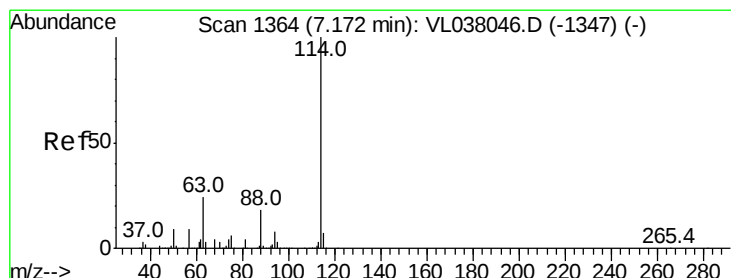
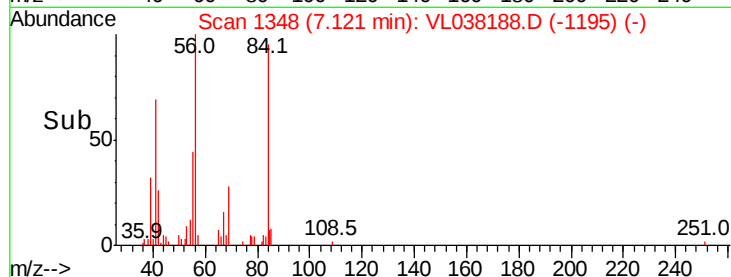
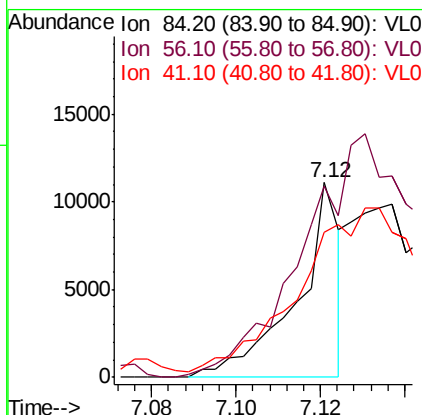
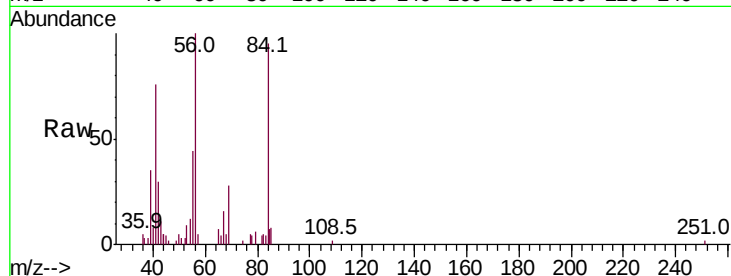
Tgt Ion:	57	Resp:	1233361
Ion	Ratio	Lower	Upper
57	100		
41	91.1	71.4	107.2
43	76.3	174.6	261.8#
56	54.1	43.2	64.8





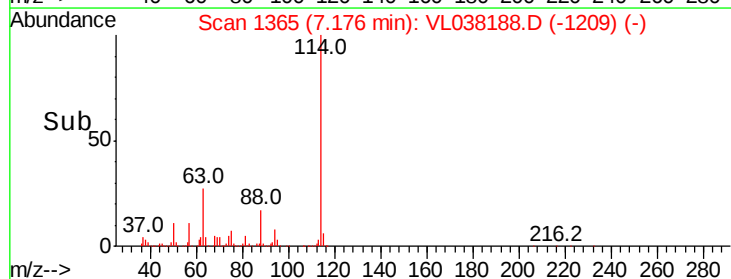
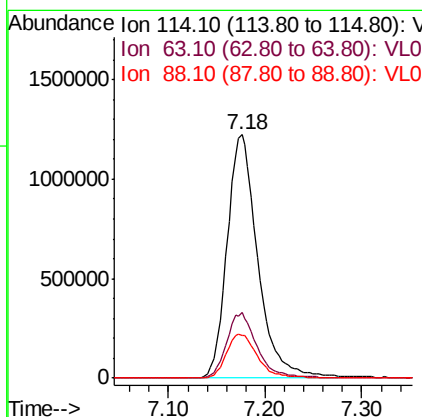
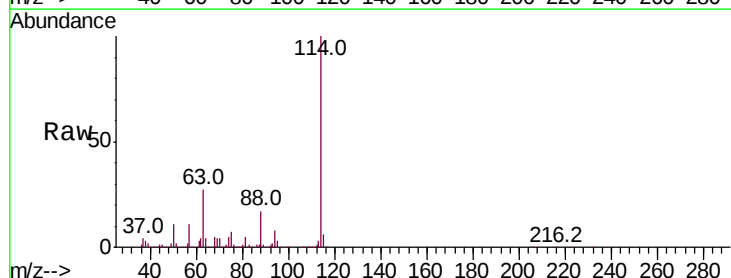
#30
Cvclohexane
Concen: 0.059 ppbv
RT: 7.12 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 16 Dec 2021 14:05

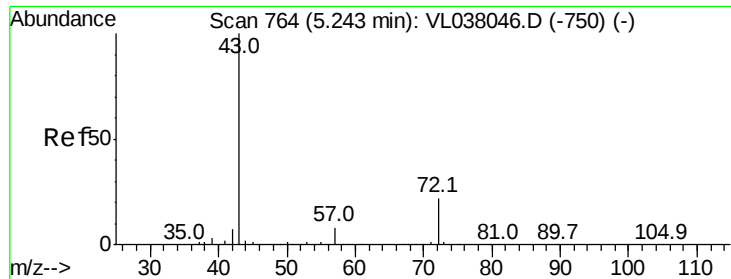
Tot Ion: 84 Resp: 7786
Ion Ratio Lower Upper
84 100
56 0.0 108.1 162.1#
41 0.0 64.4 96.6#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.18 min Scan# 1365
Delta R.T.: 0.00 min
Lab File: VL038188.D
Acq: 16 Dec 2021 14:05

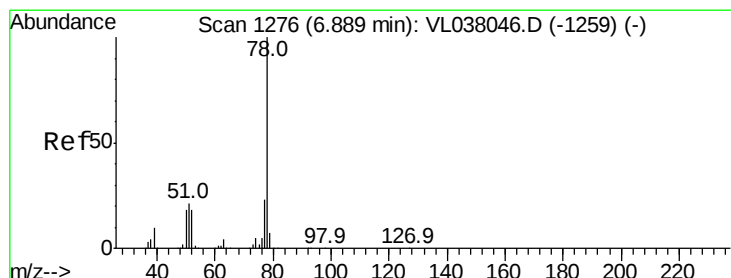
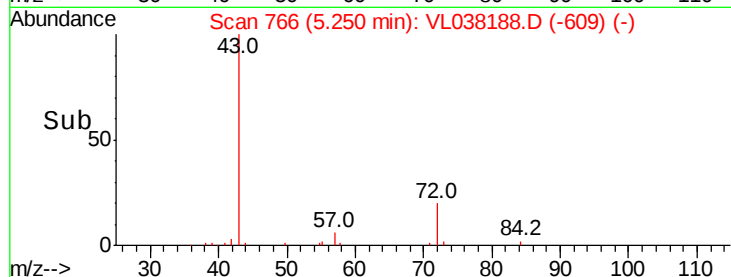
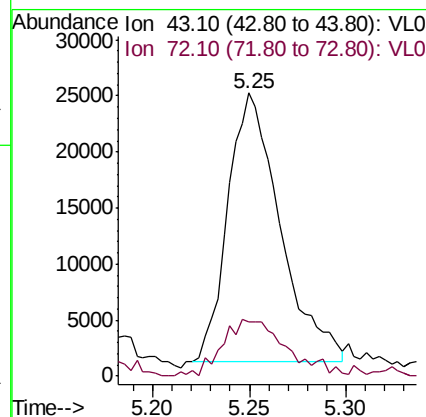
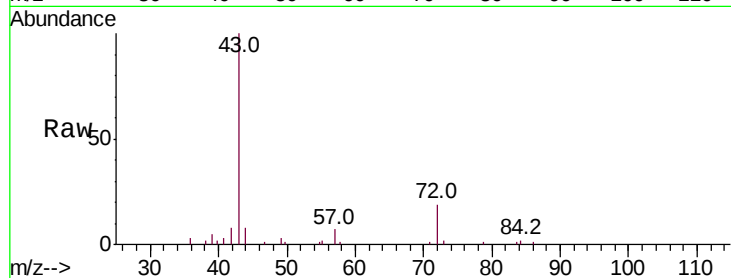
Tgt Ion: 114 Resp: 2697773
Ion Ratio Lower Upper
114 100
63 26.8 19.7 29.5
88 18.7 14.4 21.6





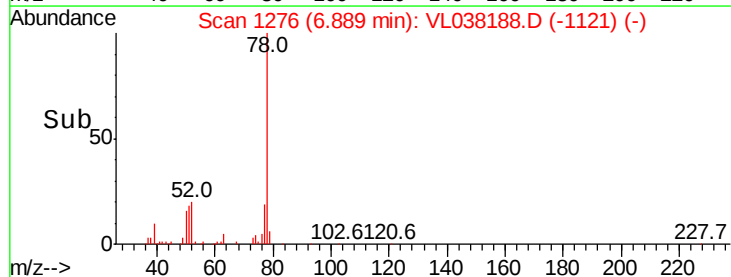
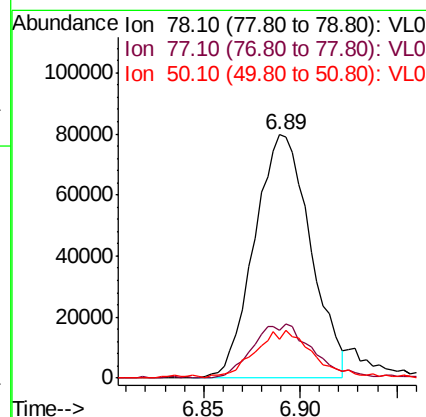
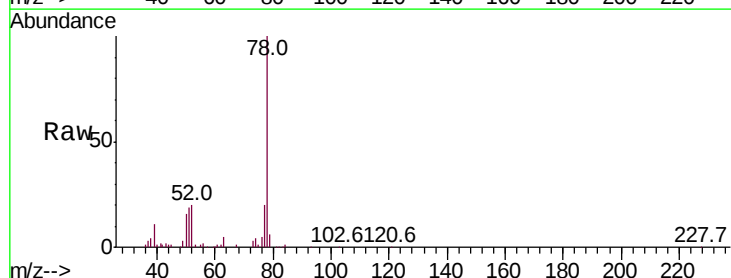
#34
 2-Butanone
 Concen: 0.417 ppbv
 RT: 5.25
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 16 Dec 2021 14:05

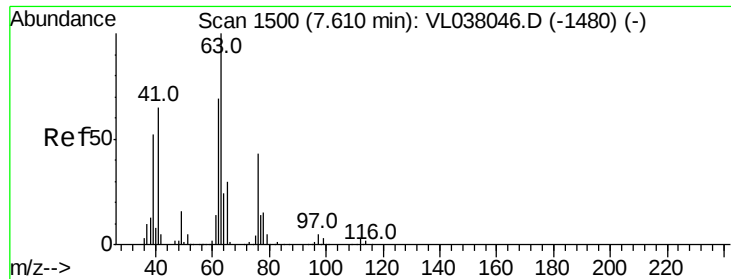
Tot Ion: 43 Resp: 45365
 Ion Ratio Lower Upper
 43 100
 72 28.5 18.8 28.2#



#36
 Benzene
 Concen: 0.595 ppbv
 RT: 6.89 min Scan# 1276
 Delta R.T. -0.00 min
 Lab File: VL038188.D
 Acq: 16 Dec 2021 14:05

Tgt Ion: 78 Resp: 160085
 Ion Ratio Lower Upper
 78 100
 77 19.8 18.2 27.4
 50 15.1 14.7 22.1





#39

1,2-Dichloropropane

Concen: 6.800 ppbv

RT: 7.18 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 16 Dec 2021 14:05

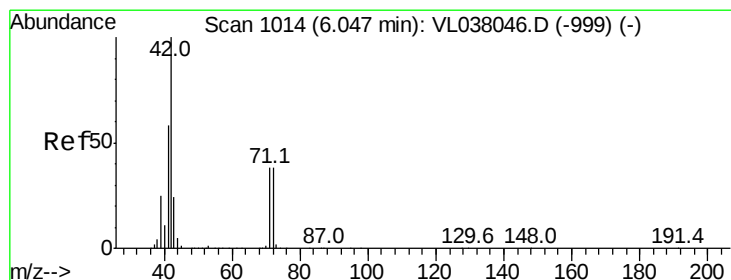
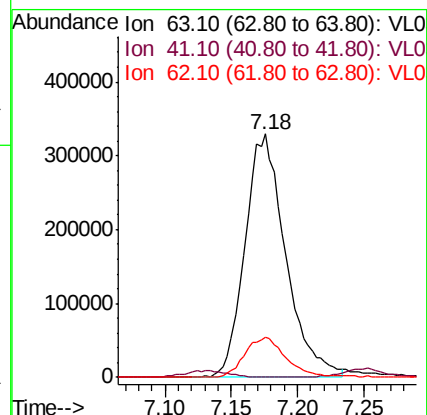
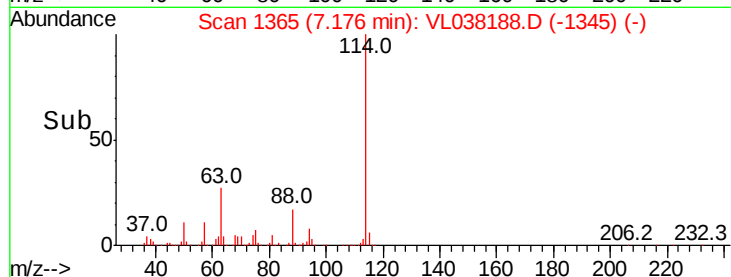
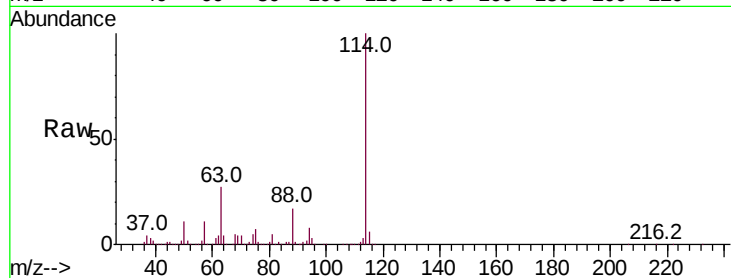
Tot Ion: 63 Resp: 701986

Ion Ratio Lower Upper

63 100

41 0.0 52.3 78.5#

62 16.2 55.1 82.7#



#41

Tetrahydrofuran

Concen: 0.629 ppbv

RT: 6.31 min Scan# 1097

Delta R.T. 0.27 min

Lab File: VL038188.D

Acq: 16 Dec 2021 14:05

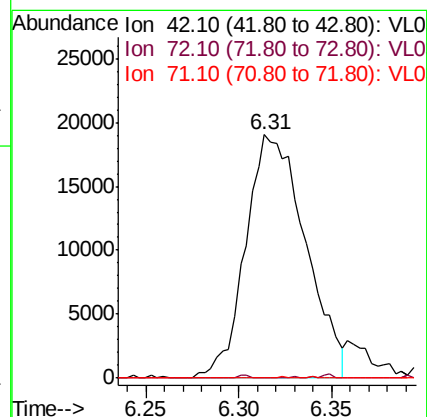
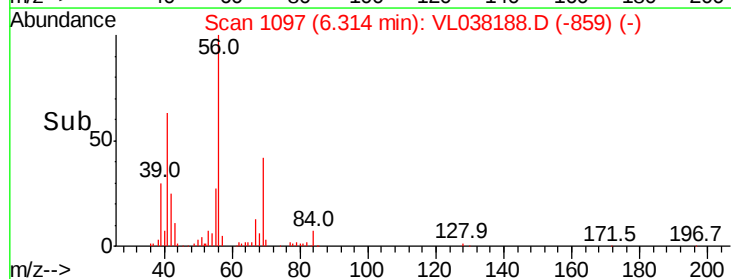
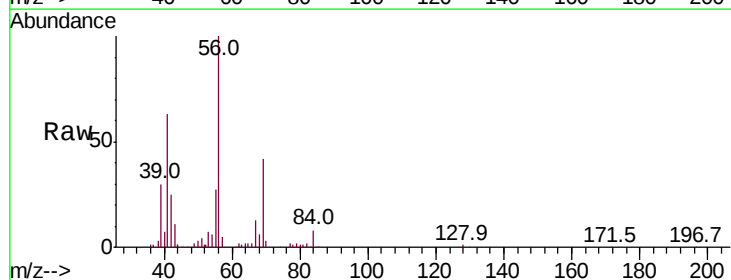
Tgt Ion: 42 Resp: 42507

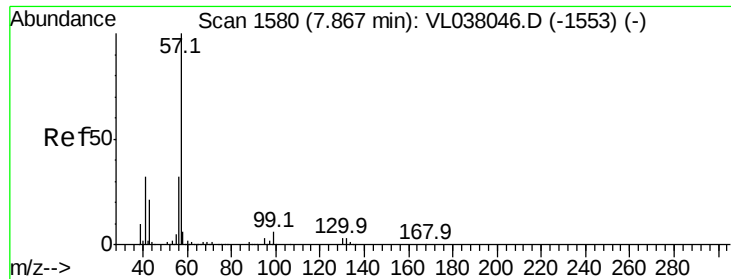
Ion Ratio Lower Upper

42 100

72 0.4 31.7 47.5#

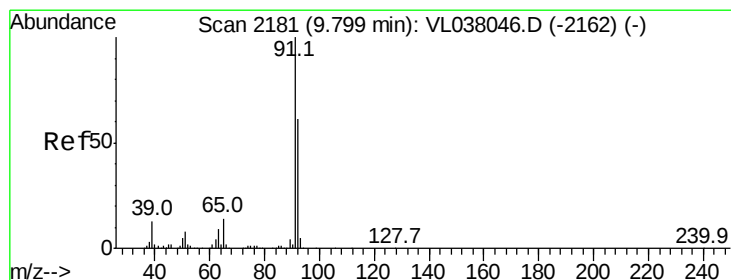
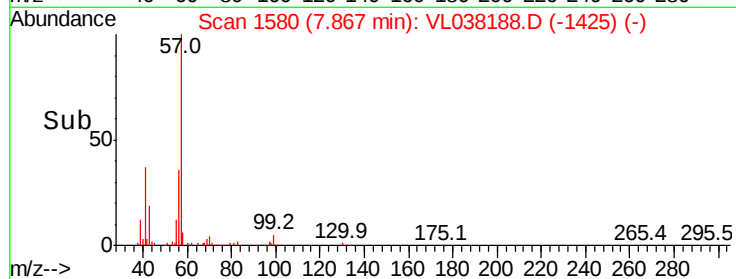
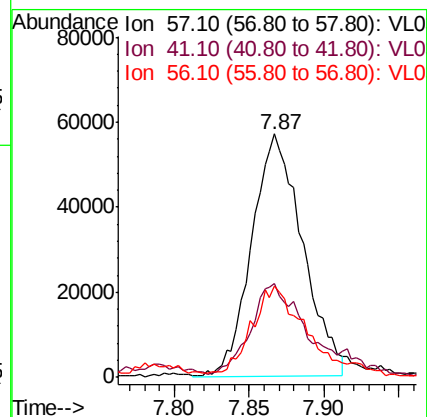
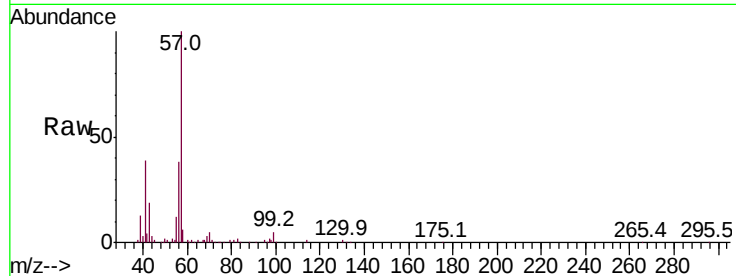
71 0.0 30.6 46.0#





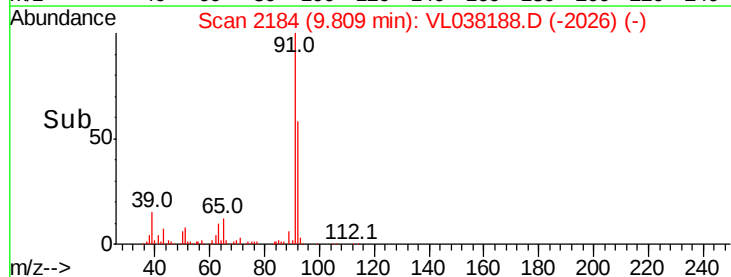
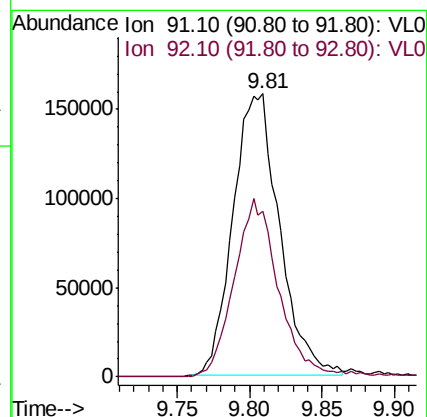
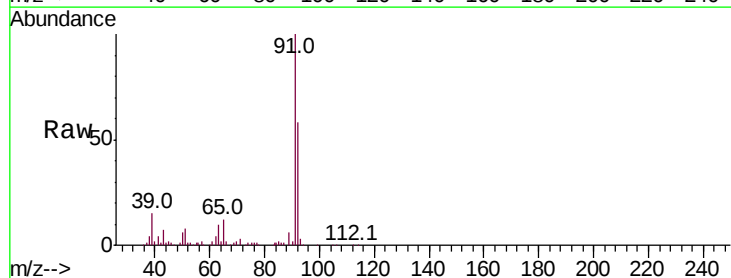
#44
 2,2,4-Trimethylpentane
 Concen: 0.300 ppbv
 RT: 7.87
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 16 Dec 2021 14:05

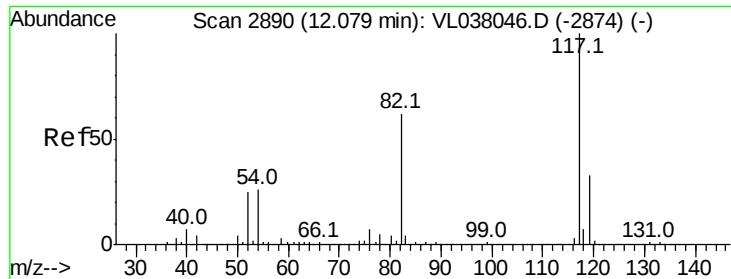
Tot Ion: 57 Resp: 134913
 Ion Ratio Lower Upper
 57 100
 41 46.7 25.8 38.6#
 56 43.0 25.6 38.4#



#53
 Toluene
 Concen: 1.133 ppbv
 RT: 9.81 min Scan# 2184
 Delta R.T. 0.01 min
 Lab File: VL038188.D
 Acq: 16 Dec 2021 14:05

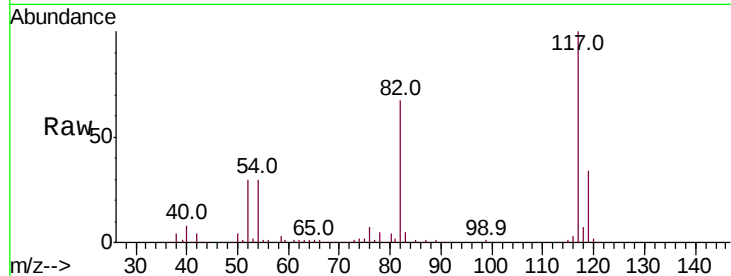
Tgt Ion: 91 Resp: 350743
 Ion Ratio Lower Upper
 91 100
 92 60.9 49.7 74.5



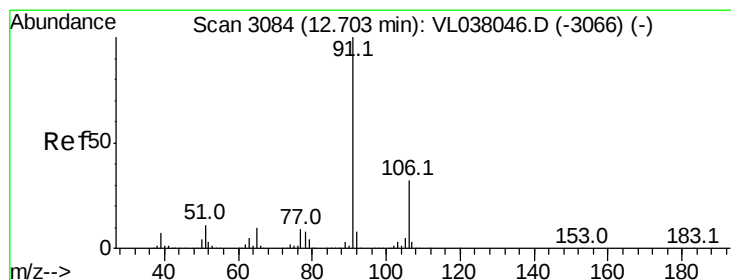
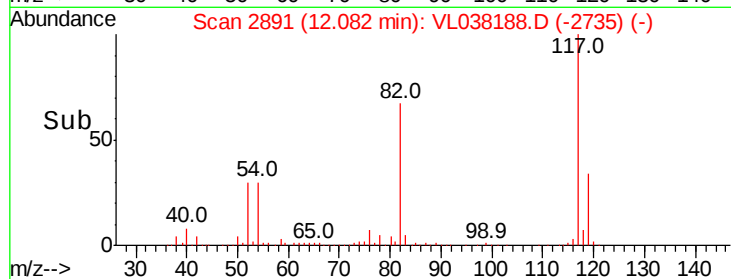
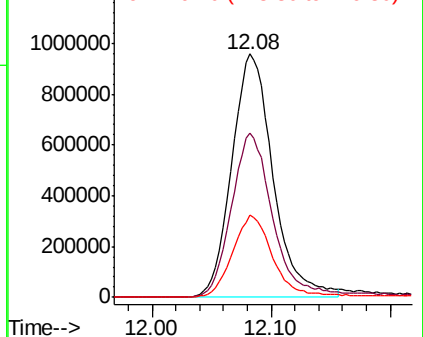


#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.08 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 16 Dec 2021 14:05

Tot Ion: 117 Resp: 2305133
Ion Ratio Lower Upper
117 100
82 71.2 52.8 79.2
119 34.1 26.8 40.2

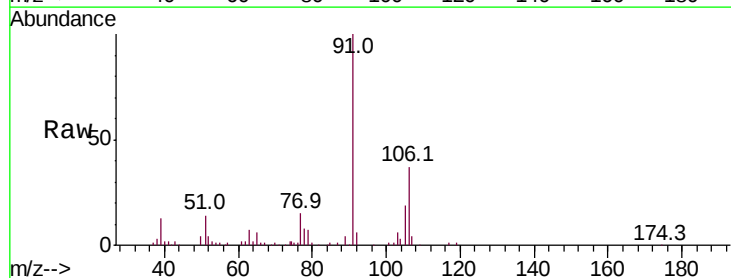


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

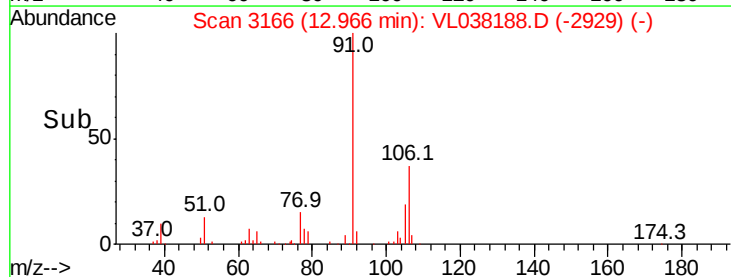
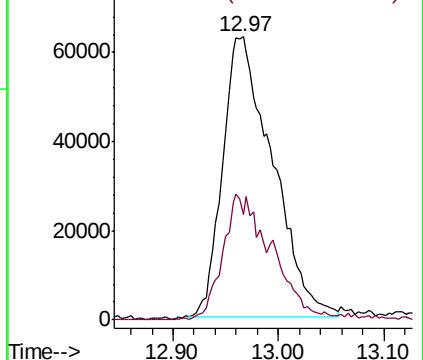


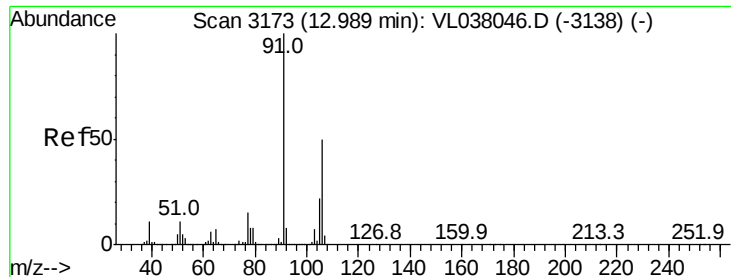
#58
Ethyl Benzene
Concen: 0.541 ppbv
RT: 12.97 min Scan# 3166
Delta R.T.: 0.26 min
Lab File: VL038188.D
Acq: 16 Dec 2021 14:05

Tgt Ion: 91 Resp: 205998
Ion Ratio Lower Upper
91 100
106 37.5 25.8 38.6



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 106.10 (105.80 to 106.80): V





#59

m/p-Xylene

Concen: 0.642 ppbv

RT: 12.97 min

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

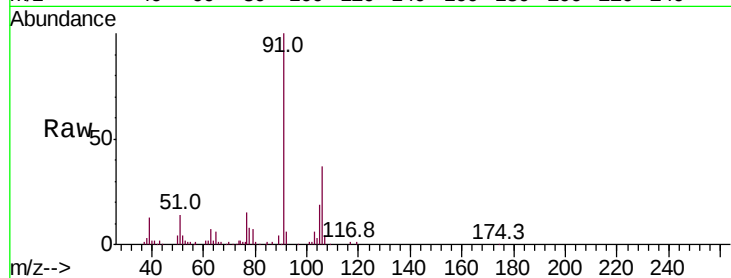
Acq: 16 Dec 2021 14:05

Tot Ion: 91 Resp: 205998

Ion Ratio Lower Upper

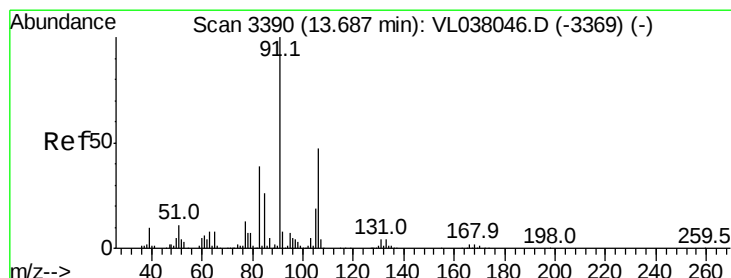
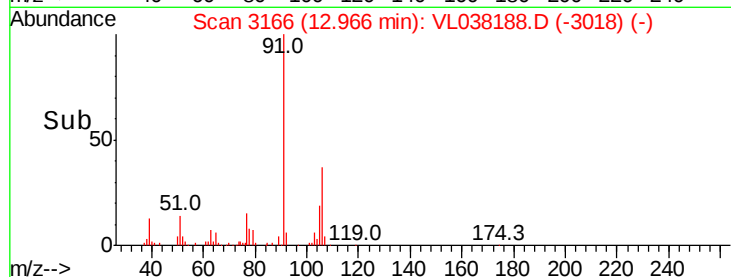
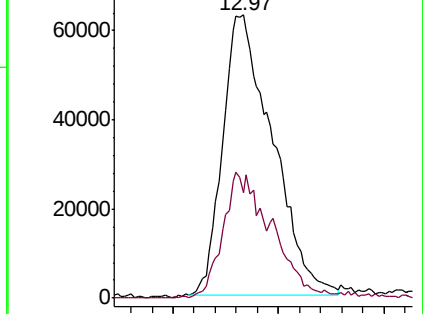
91 100

106 44.3 38.1 57.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 0.241 ppbv

RT: 13.69 min Scan# 3390

Delta R.T. -0.00 min

Lab File: VL038188.D

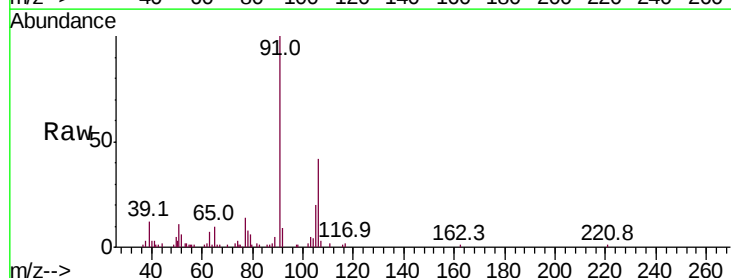
Acq: 16 Dec 2021 14:05

Tgt Ion: 91 Resp: 71790

Ion Ratio Lower Upper

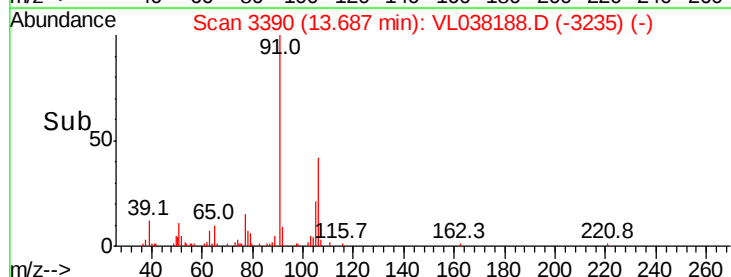
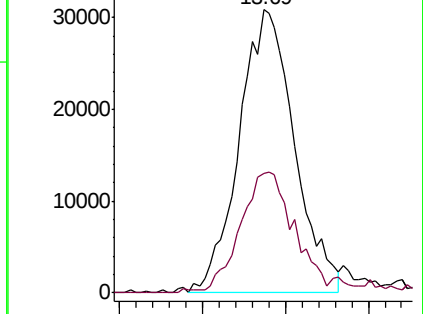
91 100

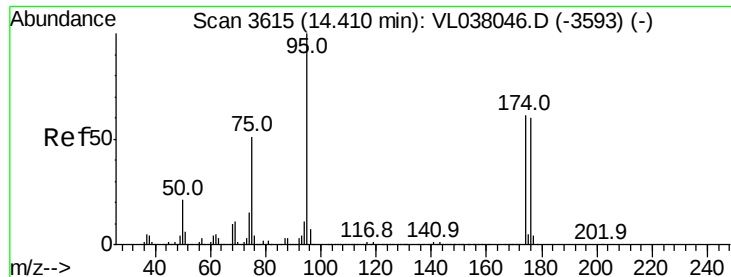
106 46.1 24.2 72.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

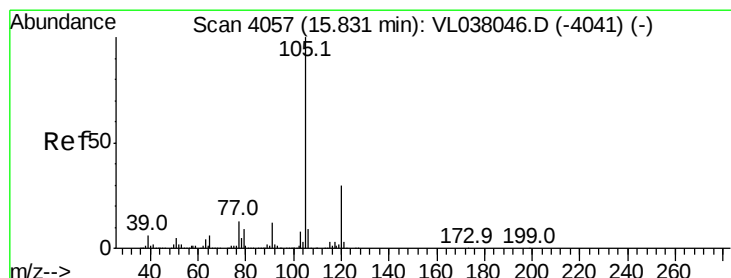
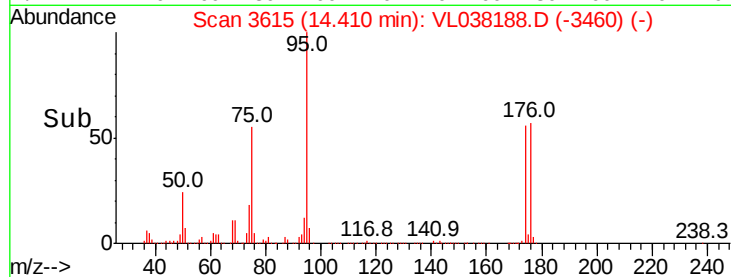
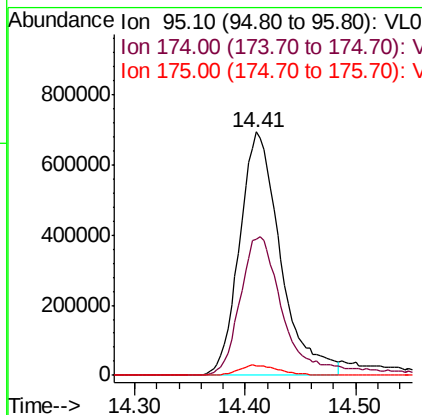
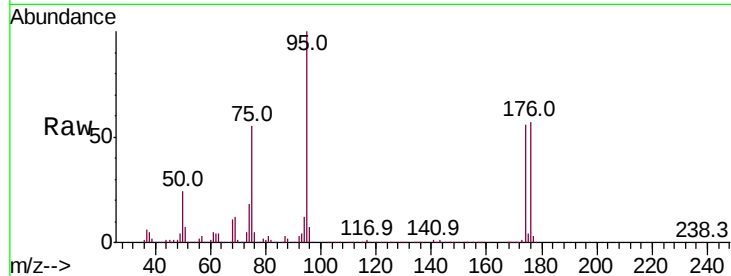
Ion 106.10 (105.80 to 106.80): V





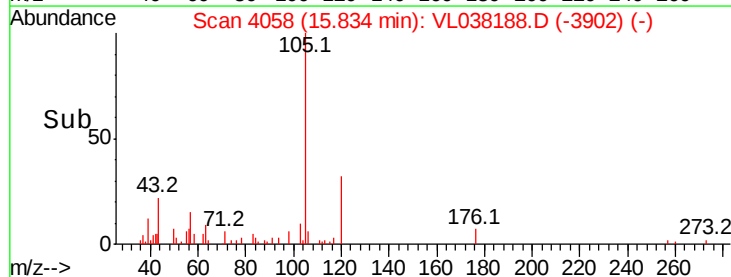
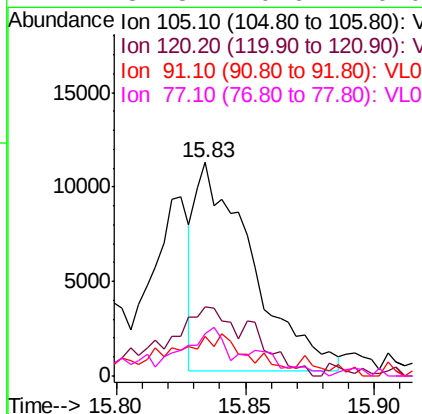
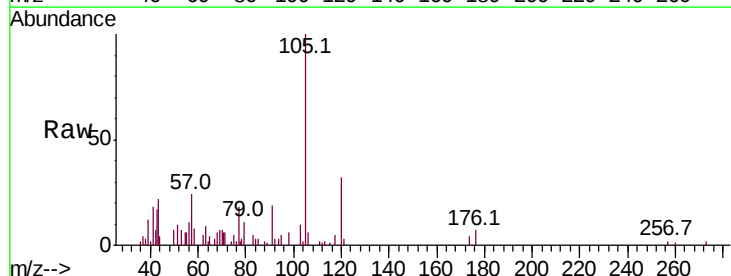
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.765 ppbv
 RT: 14.41 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 16 Dec 2021 14:05

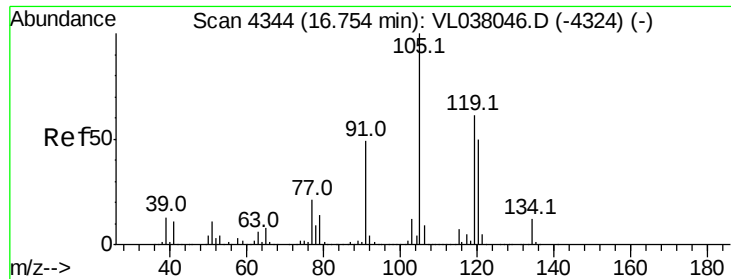
Tot Ion: 95 Resp: 1790001
 Ion Ratio Lower Upper
 95 100
 174 62.9 53.1 79.7
 175 4.4 4.0 6.0



#72
 4-Ethyltoluene
 Concen: 0.049 ppbv
 RT: 15.83 min Scan# 4058
 Delta R.T. 0.00 min
 Lab File: VL038188.D
 Acq: 16 Dec 2021 14:05

Tgt Ion:105 Resp: 16844
 Ion Ratio Lower Upper
 105 100
 120 51.3 25.1 37.7#
 91 30.7 9.7 14.5#
 77 32.8 10.6 16.0#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.196 ppbv
 RT: 16.76
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 Acq: 16 Dec 2021 14:05

Tot Ion:	105	Resp:	63544
Ion Ratio	Lower	Upper	
105	100		
120	41.6	40.1	60.1
91	10.5	39.8	59.8#
77	12.9	16.6	25.0#

