

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060121\
 Data File : VL037088.D
 Acq On : 2 Jun 2021 2:54
 Operator : SY/AP
 Sample : M2548-05
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jun 02 06:49:38 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 12:00:15 2021
 QLast Update : Tue May 18 12:00:15 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1382401	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	3982133	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	3583135	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2632349	9.78	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.80%

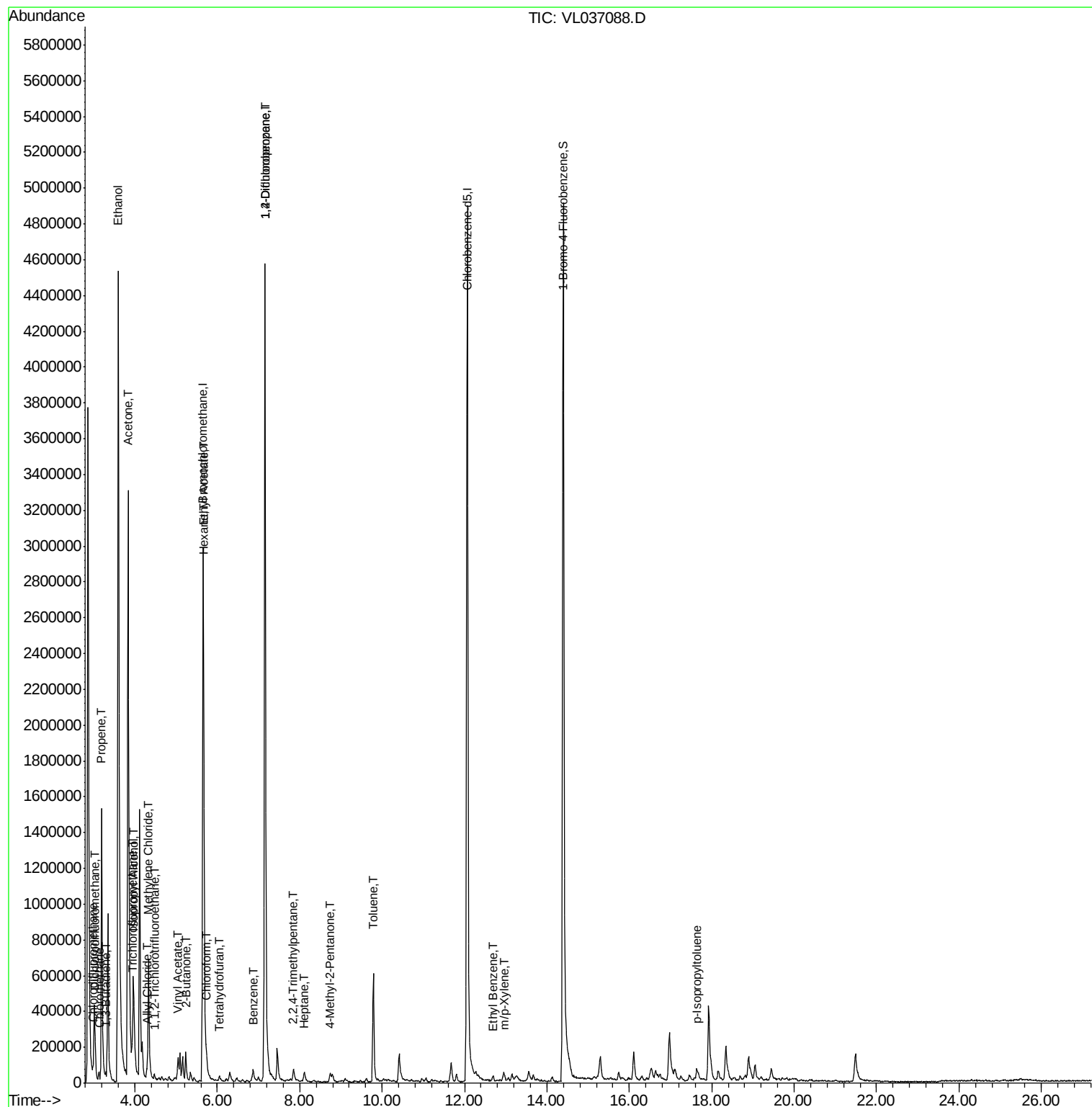
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.03	85	146448	0.624	ppbv	98
3) Chlorodifluoromethane	2.98	51	102162	0.403	ppbv #	86
4) Chloromethane	3.13	50	17874	0.207	ppbv	96
9) Propene	3.19	41	529020	5.833	ppbv	99
10) Heptane	8.10	43	7411	0.033	ppbv #	26
11) Trichlorofluoromethane	3.94	101	76689	0.353	ppbv	87
12) 1,1,2-Trichlorotrifluoroet	4.47	101	10005	0.065	ppbv #	78
13) Ethanol	3.59	45	6577707	543.615	ppbv	94
15) Acetone	3.83	43	4505361	31.819	ppbv	96
16) 1,3-Butadiene	3.30	39	2695	0.031	ppbv #	10
19) Isopropyl Alcohol	3.96	45	702123	9.225	ppbv #	1
20) Methylene Chloride	4.33	84	290866	3.832	ppbv	100
21) Allyl Chloride	4.29	41	8785	0.082	ppbv #	47
23) Vinyl Acetate	5.05	43	108001	0.481	ppbv #	84
25) Ethyl Acetate	5.67	43	362562	1.066	ppbv #	81
26) Hexane	5.67	57	488946	2.813	ppbv #	48
29) Chloroform	5.73	83	29784	0.121	ppbv	88
34) 2-Butanone	5.23	43	194430	1.341	ppbv	91
36) Benzene	6.87	78	34784	0.101	ppbv	93
39) 1,2-Dichloropropane	7.16	63	934785	7.075	ppbv #	26
41) Tetrahydrofuran	6.06	42	8928	0.108	ppbv #	88
44) 2,2,4-Trimethylpentane	7.85	57	29916	0.051	ppbv #	1
50) 4-Methyl-2-Pentanone	8.74	43	23867	0.100	ppbv #	24
53) Toluene	9.79	91	511733	1.254	ppbv	100
58) Ethyl Benzene	12.69	91	15733	0.031	ppbv	92
59) m/p-Xylene	12.97	91	13794	0.033	ppbv #	30
69) p-Isopropyltoluene	17.64	119	25036	0.041	ppbv #	28

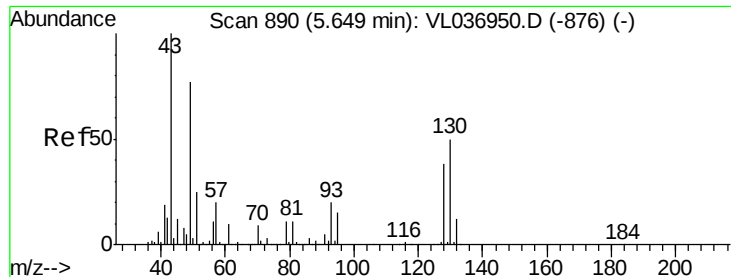
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 890

Delta R.T. -0.00 min

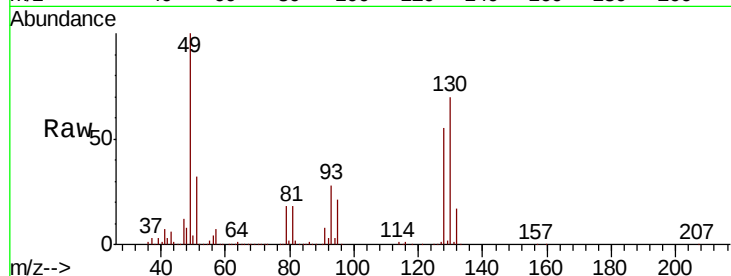
Lab File: VL037088.D

Acq: 2 Jun 2021 2:54

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 49 Resp: 1382401

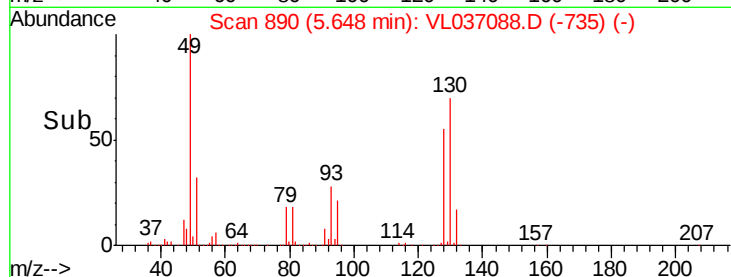
Ion	Ratio	Lower	Upper
49	100		
128	57.6	26.9	80.7
130	73.0	33.8	101.4



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



#2

Dichlorodifluoromethane

Concen: 0.624 ppbv

RT: 3.03 min Scan# 77

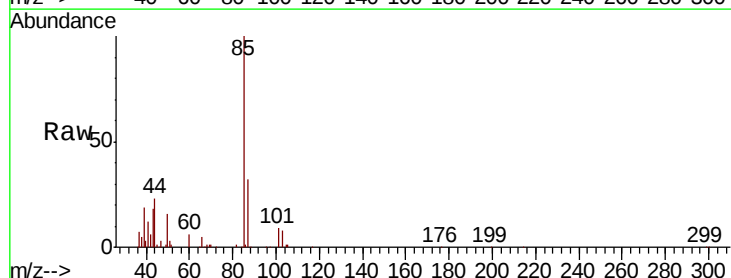
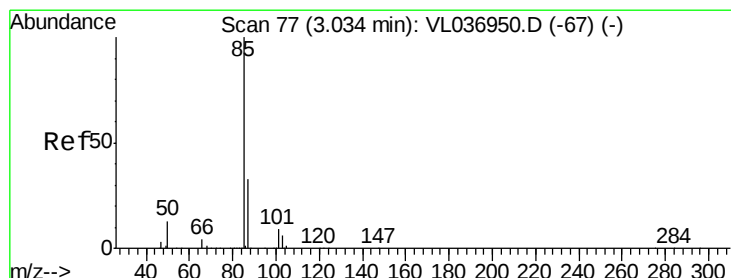
Delta R.T. -0.00 min

Lab File: VL037088.D

Acq: 2 Jun 2021 2:54

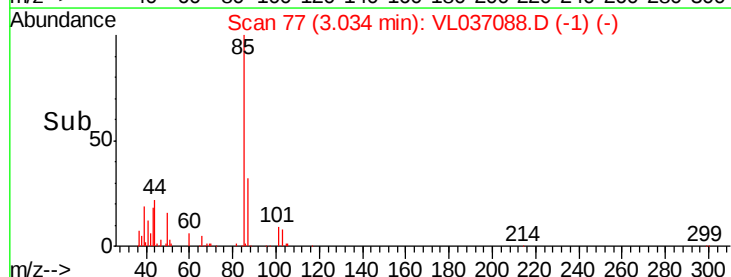
Tgt Ion: 85 Resp: 146448

Ion	Ratio	Lower	Upper
85	100		
87	32.1	26.6	39.8

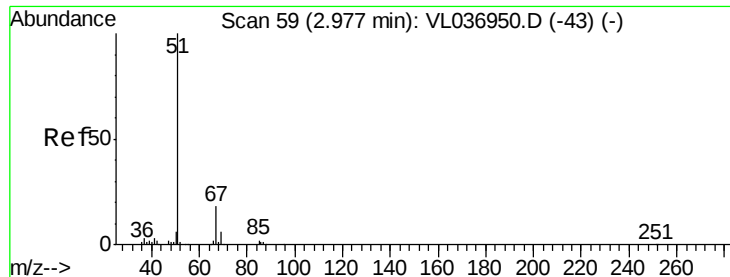


Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0



Time-->



#3

Chlorodifluoromethane

Concen: 0.403 ppbv

RT: 2.98 min Scan# 59

Delta R.T. -0.00 min

Lab File: VL037088.D

Acq: 2 Jun 2021 2:54

Instrument :

MSVOA_L

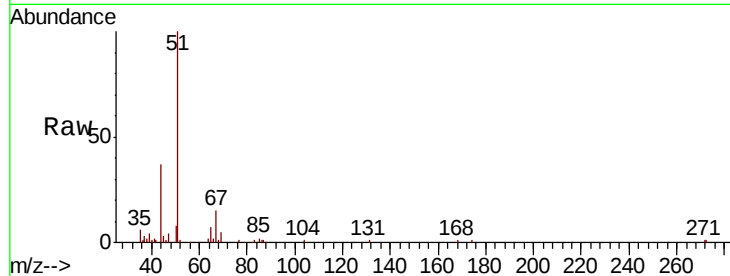
ClientSampleId :

Tot Ion: 51 Resp: 102162

Ion Ratio Lower Upper

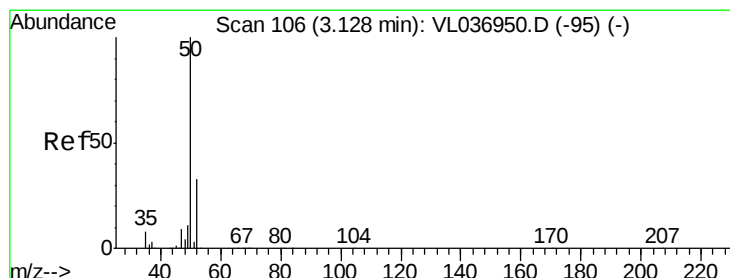
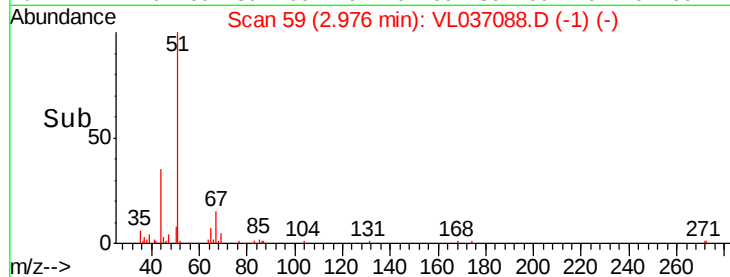
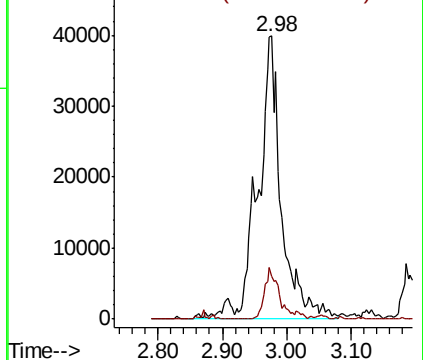
51 100

67 11.8 14.6 21.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.207 ppbv

RT: 3.13 min Scan# 107

Delta R.T. 0.00 min

Lab File: VL037088.D

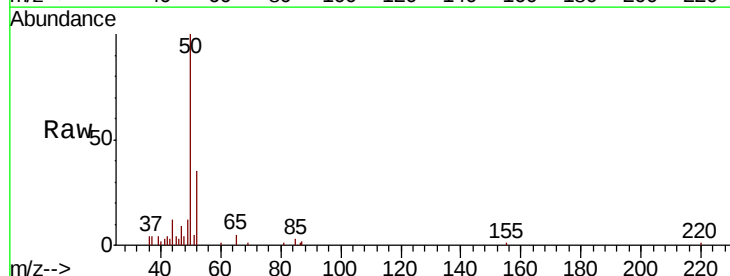
Acq: 2 Jun 2021 2:54

Tgt Ion: 50 Resp: 17874

Ion Ratio Lower Upper

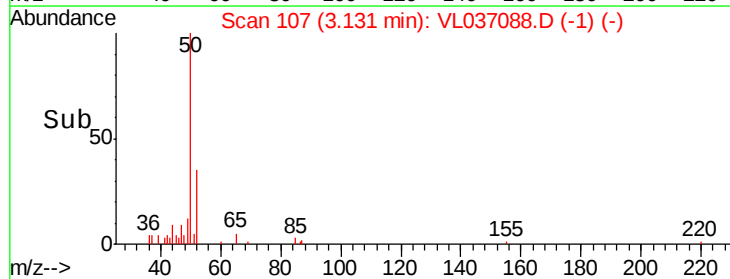
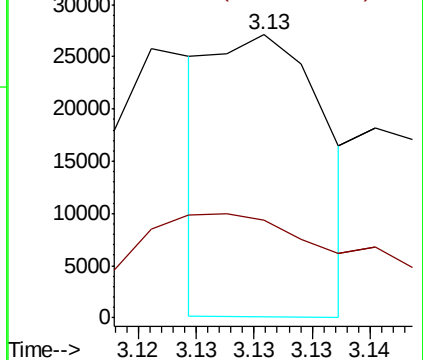
50 100

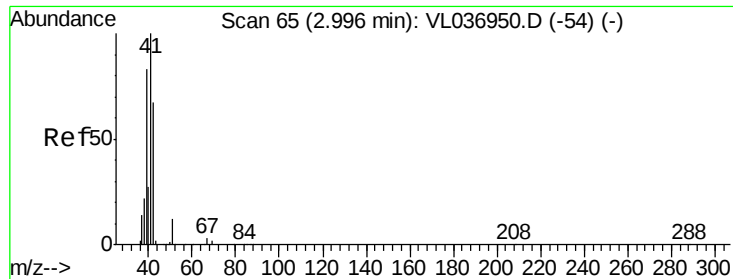
52 30.1 26.1 39.1



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 5.833 ppbv

RT: 3.19 min Scan# 125

Delta R.T. 0.19 min

Lab File: VL037088.D

Acq: 2 Jun 2021 2:54

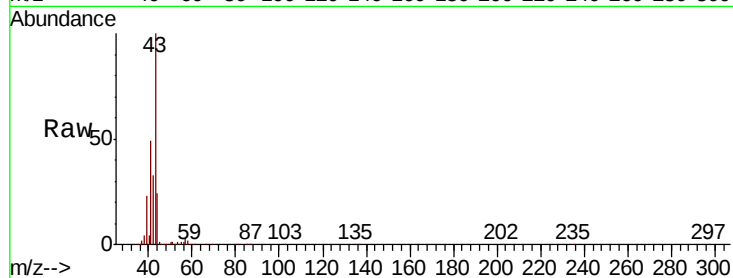
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 41 Resp: 529020

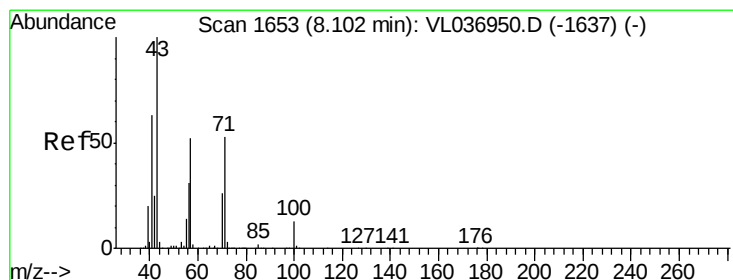
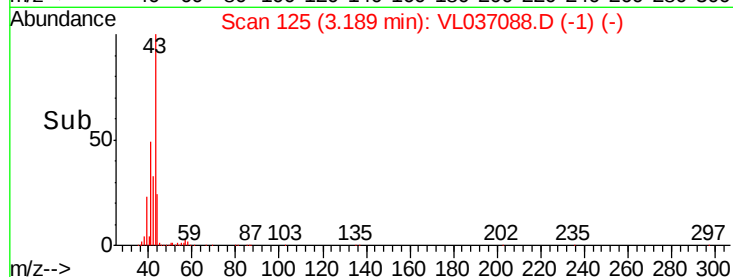
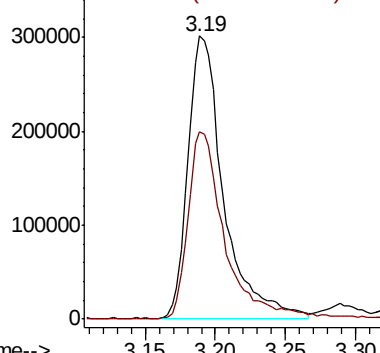
Ion Ratio Lower Upper

41 100

42 68.6 53.9 80.9



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.033 ppbv

RT: 8.10 min Scan# 1652

Delta R.T. -0.00 min

Lab File: VL037088.D

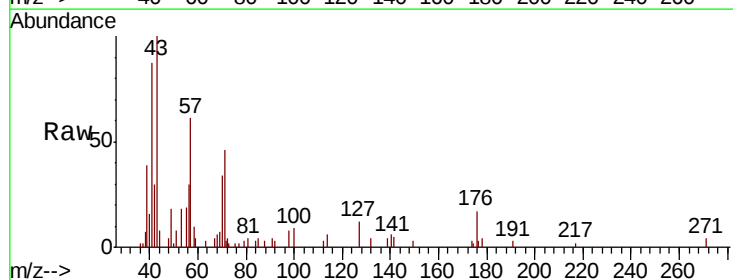
Acq: 2 Jun 2021 2:54

Tgt Ion: 43 Resp: 7411

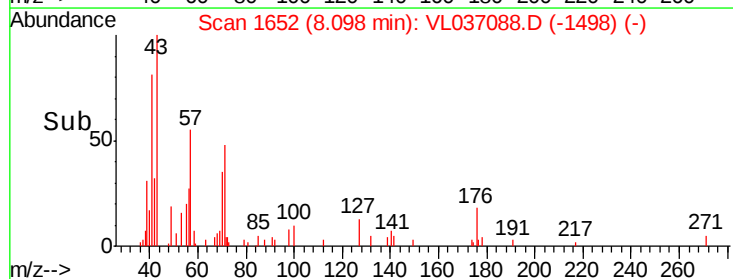
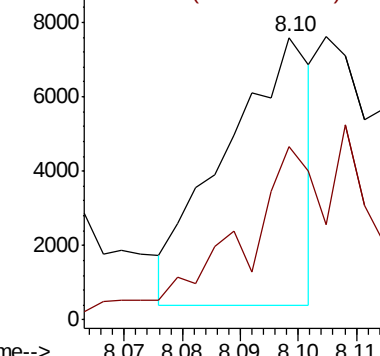
Ion Ratio Lower Upper

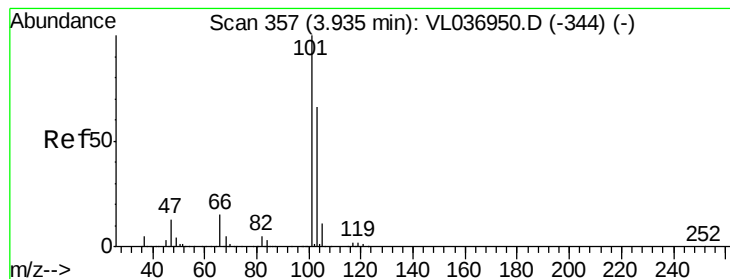
43 100

57 0.0 41.0 61.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 57.10 (56.80 to 57.80): VL0





#11

Trichlorofluoromethane

Concen: 0.353 ppbv

RT: 3.94 min Scan# 358

Delta R.T. 0.00 min

Lab File: VL037088.D

Acq: 2 Jun 2021 2:54

Instrument :

MSVOA_L

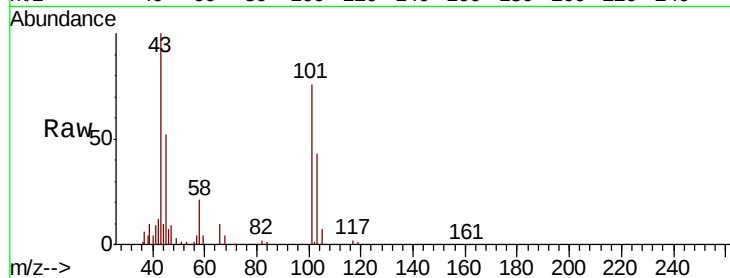
ClientSampleId :

Tot Ion:101 Resp: 76689

Ion Ratio Lower Upper

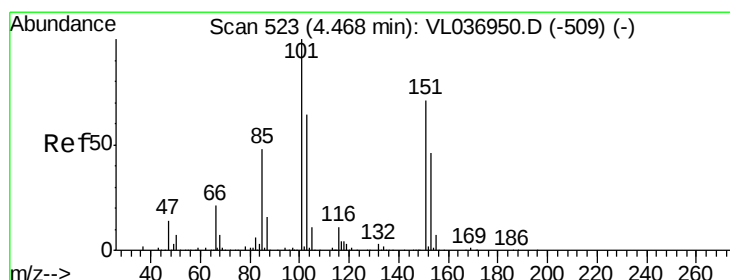
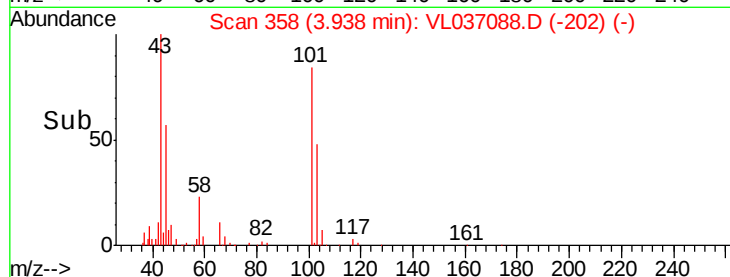
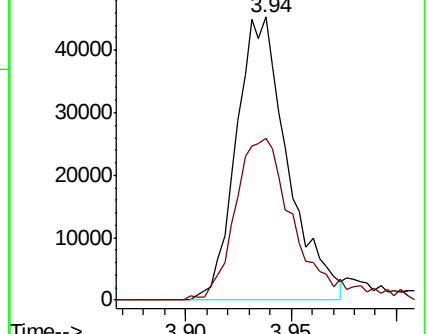
101 100

103 55.4 52.6 79.0



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.065 ppbv

RT: 4.47 min Scan# 524

Delta R.T. 0.00 min

Lab File: VL037088.D

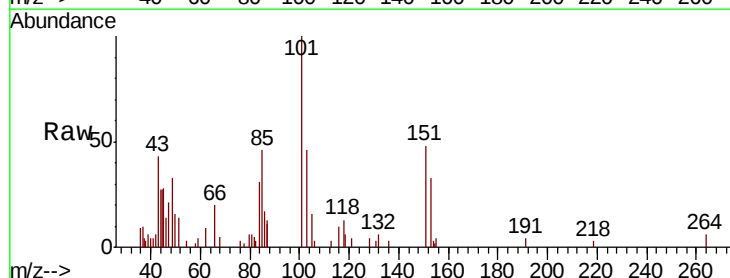
Acq: 2 Jun 2021 2:54

Tgt Ion:101 Resp: 10005

Ion Ratio Lower Upper

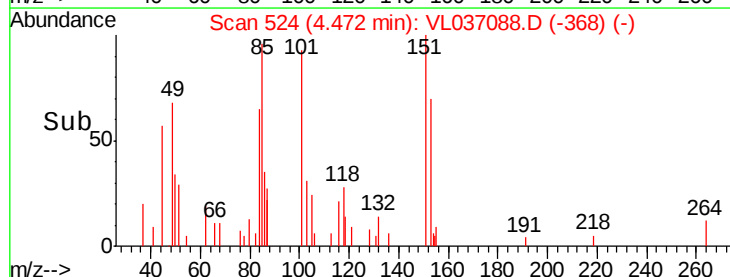
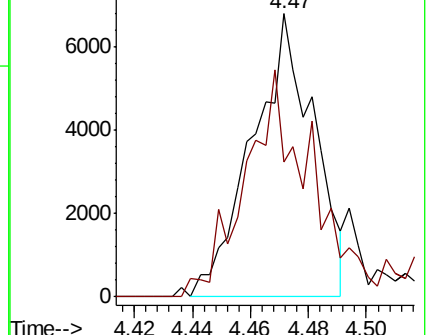
101 100

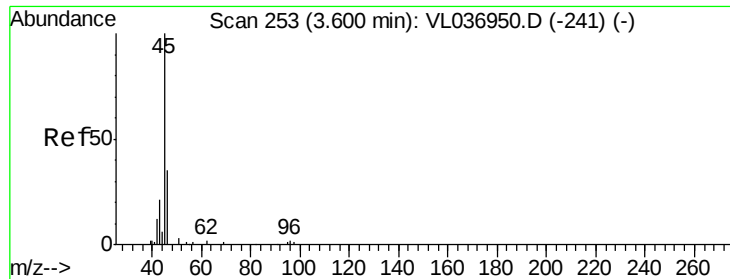
151 90.5 57.7 86.5#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

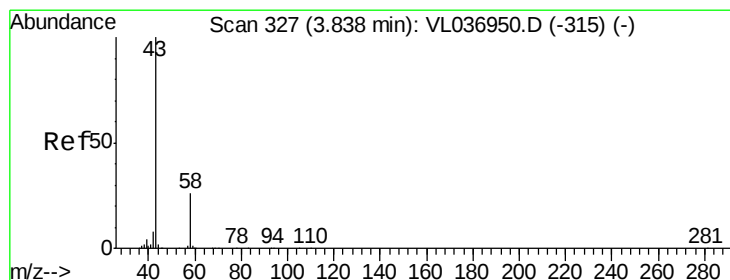
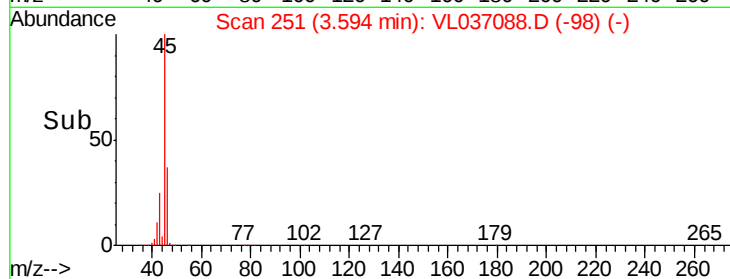
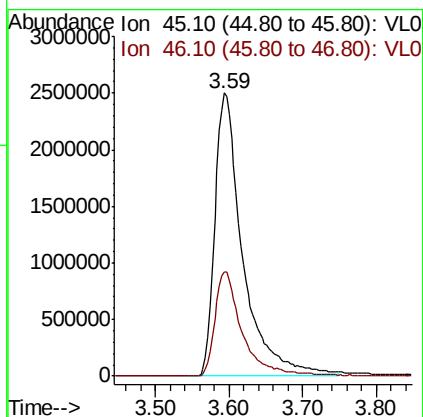
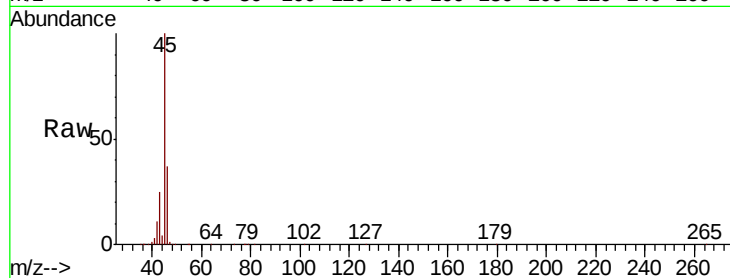




#13
Ethanol
Concen: 543.615 ppbv
RT: 3.59 min Scan# 251
Delta R.T. -0.01 min
Lab File: VL037088.D
Acq: 2 Jun 2021 2:54

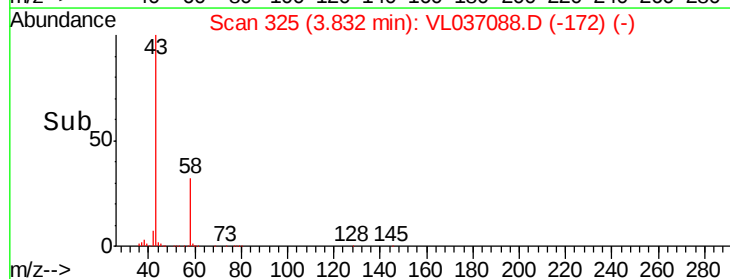
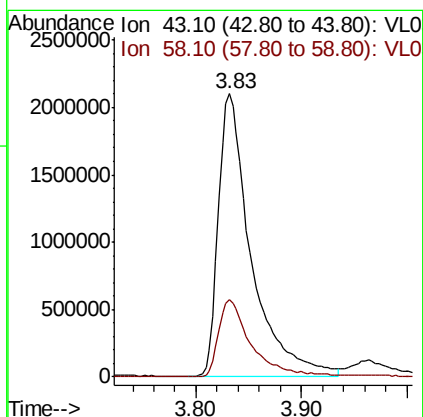
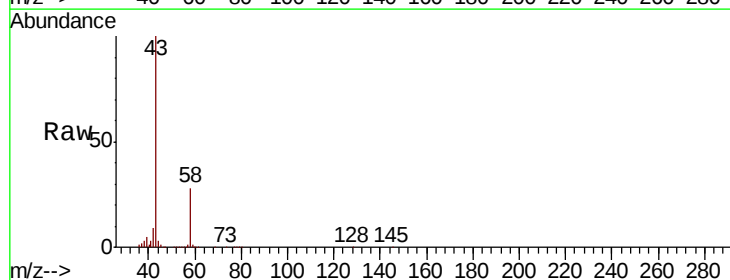
Instrument :
MSVOA_L
ClientSampleId :

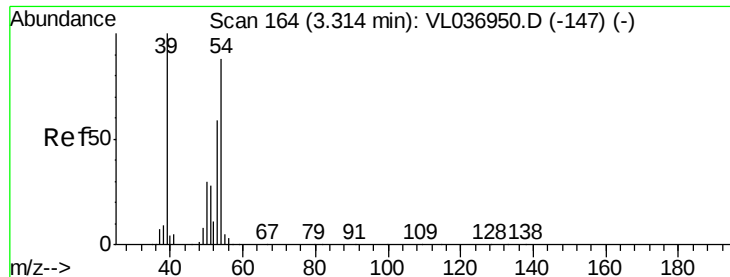
Tot Ion: 45 Resp: 6577707
Ion Ratio Lower Upper
45 100
46 37.0 16.3 65.3



#15
Acetone
Concen: 31.819 ppbv
RT: 3.83 min Scan# 325
Delta R.T. -0.01 min
Lab File: VL037088.D
Acq: 2 Jun 2021 2:54

Tgt Ion: 43 Resp: 4505361
Ion Ratio Lower Upper
43 100
58 27.7 24.0 36.0

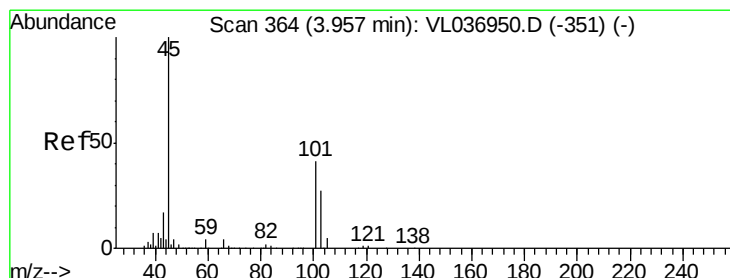
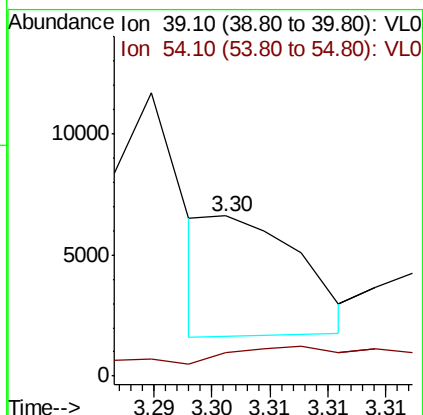
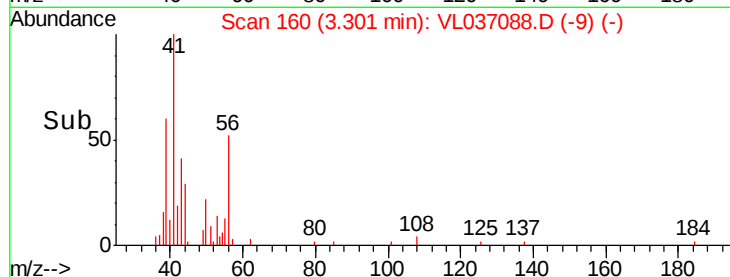
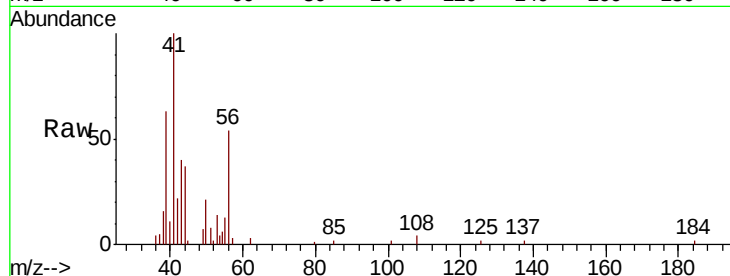




#16
 1,3-Butadiene
 Concen: 0.031 ppbv
 RT: 3.30 min Scan# 160
 Delta R.T. -0.01 min
 Lab File: VL037088.D
 Acq: 2 Jun 2021 2:54

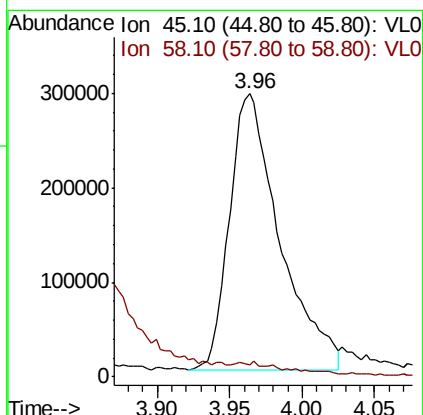
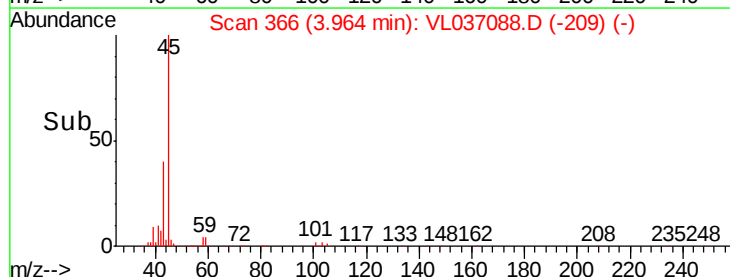
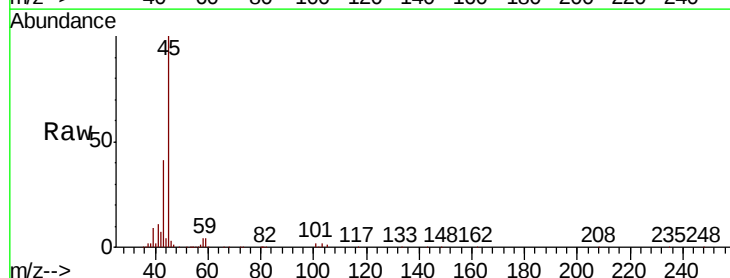
Instrument :
 MSVOA_L
 ClientSampleId :

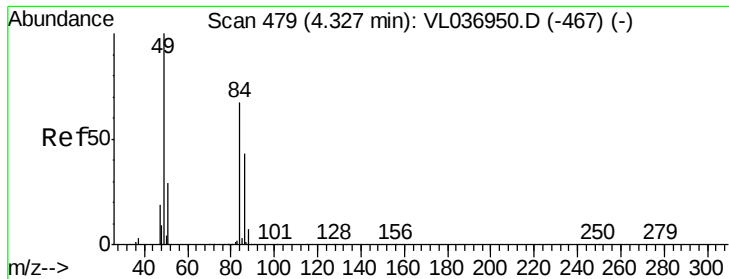
Tot Ion: 39 Resp: 2695
 Ion Ratio Lower Upper
 39 100
 54 0.0 63.2 94.8#



#19
 Isopropyl Alcohol
 Concen: 9.225 ppbv
 RT: 3.96 min Scan# 366
 Delta R.T. 0.01 min
 Lab File: VL037088.D
 Acq: 2 Jun 2021 2:54

Tgt Ion: 45 Resp: 702123
 Ion Ratio Lower Upper
 45 100
 58 185.7 37.2 55.8#

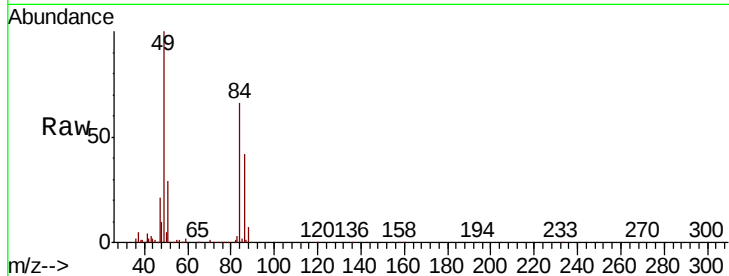




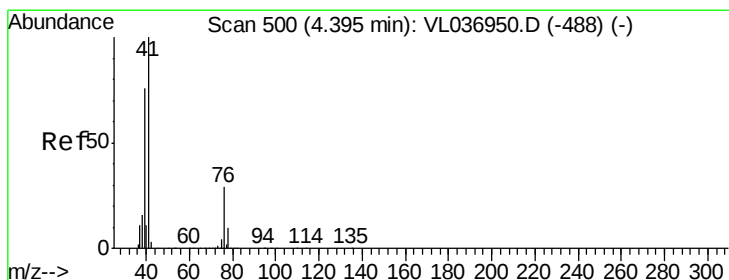
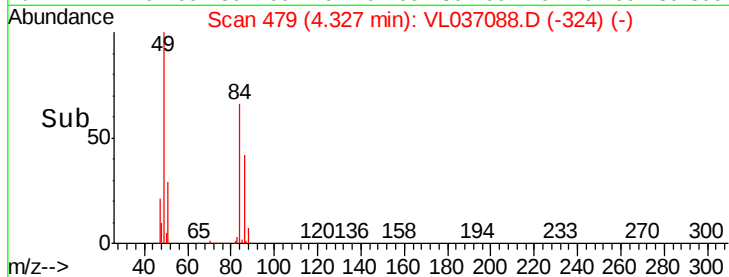
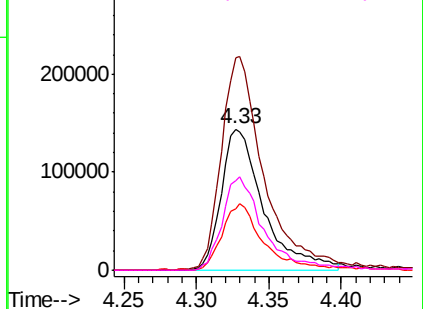
#20
Methylene Chloride
Concen: 3.832 ppbv
RT: 4.33 min Scan# 479
Delta R.T. -0.00 min
Lab File: VL037088.D
Acq: 2 Jun 2021 2:54

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	84	Resp:	290866
Ion	Ratio	Lower	Upper
84	100		
49	149.9	119.8	179.6
51	42.8	35.1	52.7
86	63.5	50.9	76.3

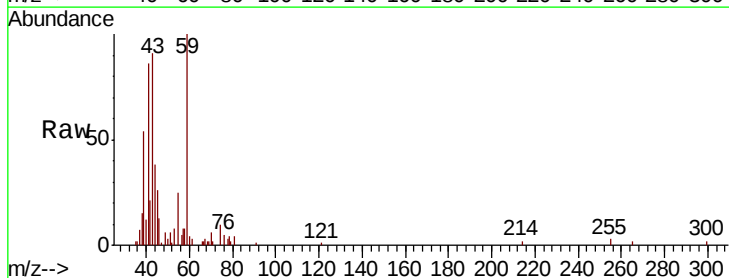


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

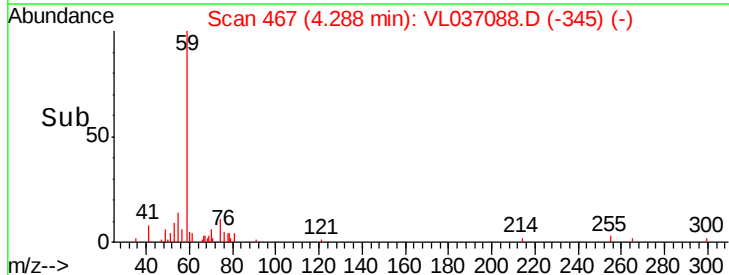
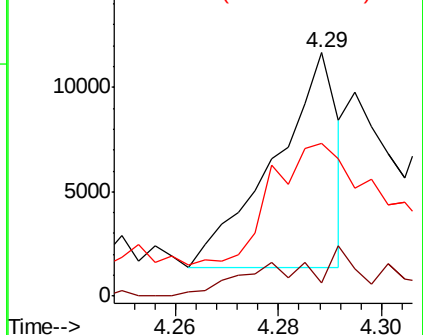


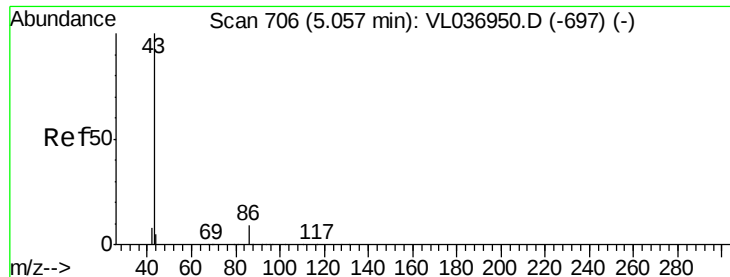
#21
Allyl Chloride
Concen: 0.082 ppbv
RT: 4.29 min Scan# 467
Delta R.T. -0.11 min
Lab File: VL037088.D
Acq: 2 Jun 2021 2:54

Tgt Ion:	41	Resp:	8785
Ion	Ratio	Lower	Upper
41	100		
76	42.1	24.9	37.3#
39	138.2	63.7	95.5#



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.481 ppbv

RT: 5.05 min Scan# 704

Delta R.T. -0.01 min

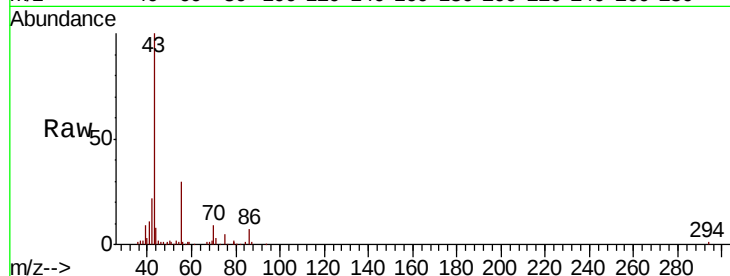
Lab File: VL037088.D

Acq: 2 Jun 2021 2:54

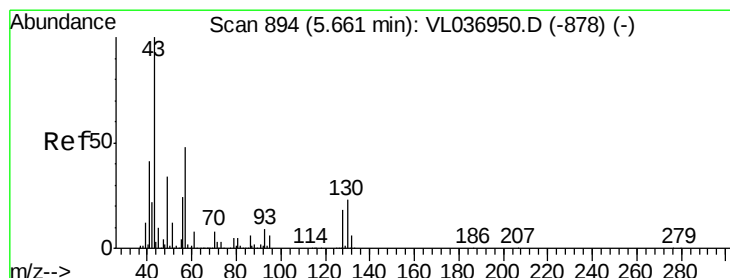
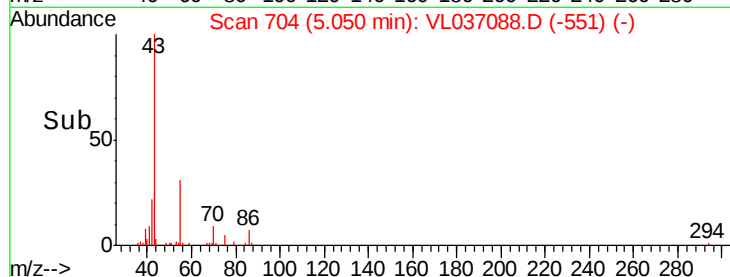
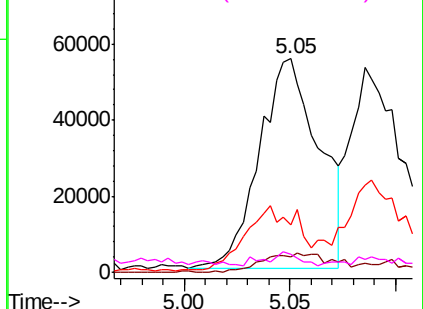
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 43 Resp: 108001

Ion	Ratio	Lower	Upper
43	100		
86	6.3	5.8	8.8
42	21.1	7.4	11.2#
44	4.8	3.3	4.9



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 86.10 (85.80 to 86.80): VL0
Ion 42.10 (41.80 to 42.80): VL0
Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 1.066 ppbv

RT: 5.67 min Scan# 896

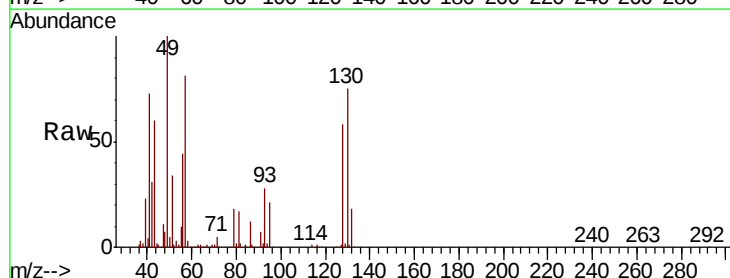
Delta R.T. 0.01 min

Lab File: VL037088.D

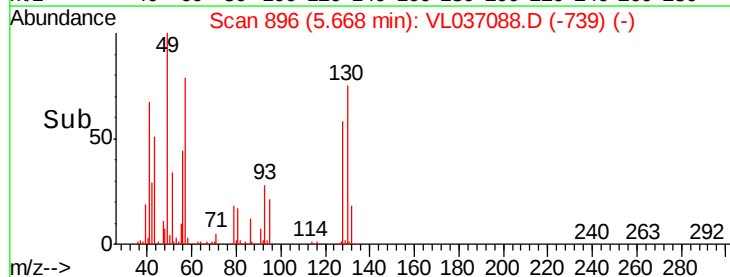
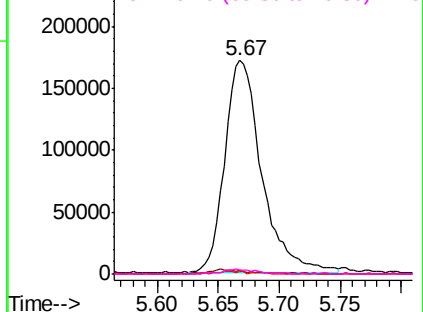
Acq: 2 Jun 2021 2:54

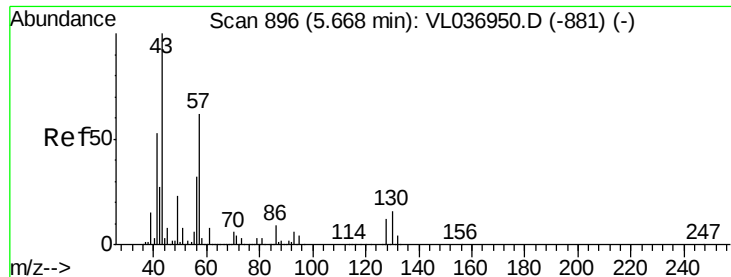
Tgt Ion: 43 Resp: 362562

Ion	Ratio	Lower	Upper
43	100		
45	2.9	7.8	11.8#
61	1.3	7.8	11.8#
70	2.3	5.6	8.4#



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 45.10 (44.80 to 45.80): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 70.10 (69.80 to 70.80): VL0

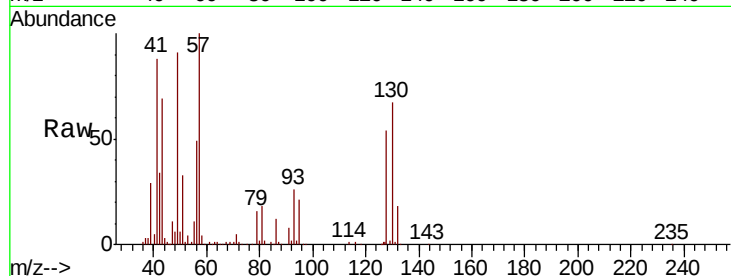




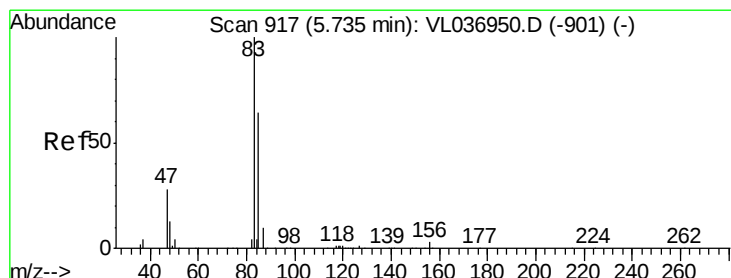
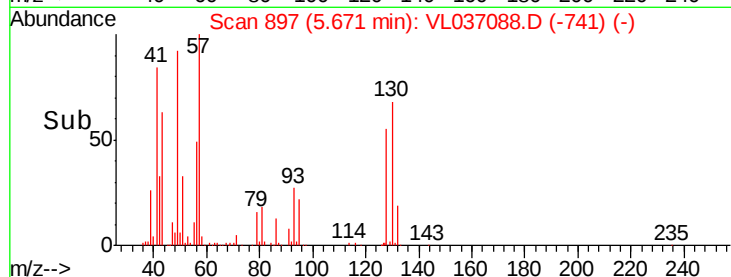
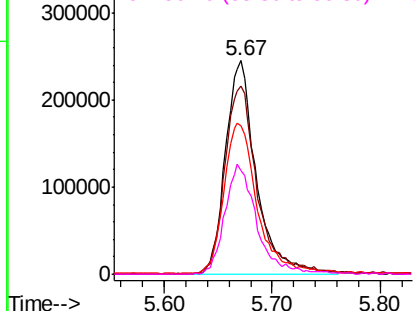
#26
Hexane
Concen: 2.813 ppbv
RT: 5.67 min Scan# 897
Delta R.T. 0.00 min
Lab File: VL037088.D
Acq: 2 Jun 2021 2:54

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 57 Resp: 488946
Ion Ratio Lower Upper
57 100
41 93.3 70.5 105.7
43 76.8 165.8 248.8#
56 53.8 42.2 63.4

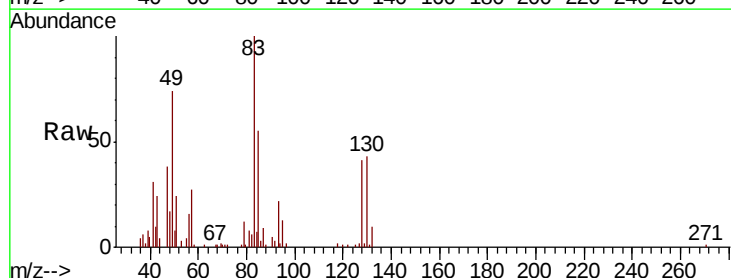


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

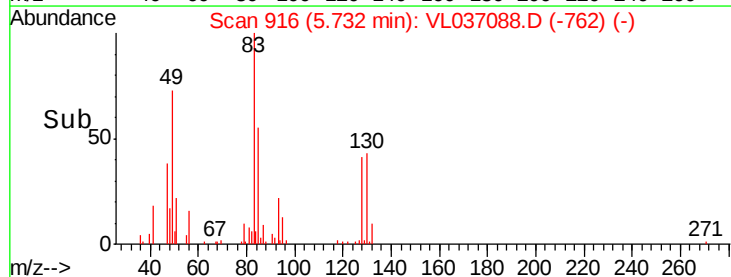
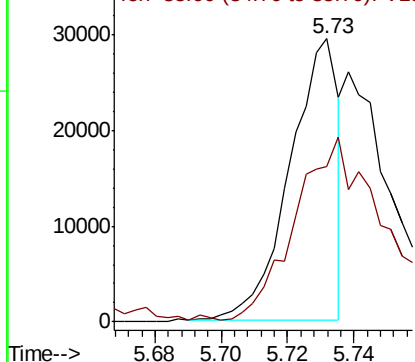


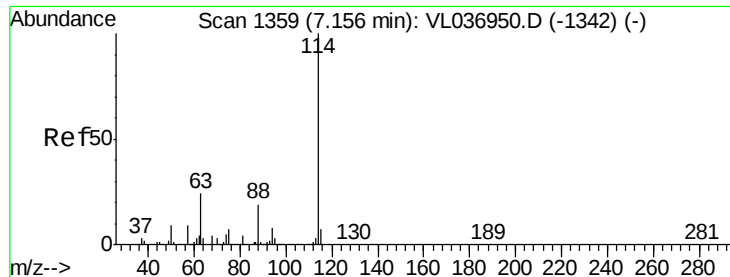
#29
Chloroform
Concen: 0.121 ppbv
RT: 5.73 min Scan# 916
Delta R.T. -0.00 min
Lab File: VL037088.D
Acq: 2 Jun 2021 2:54

Tgt Ion: 83 Resp: 29784
Ion Ratio Lower Upper
83 100
85 54.8 51.1 76.7



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0

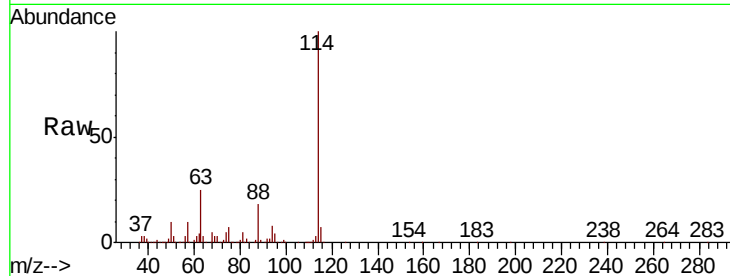




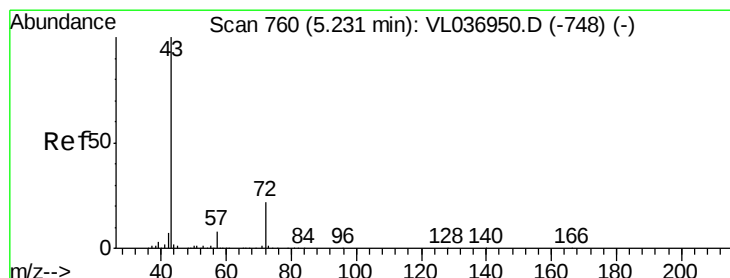
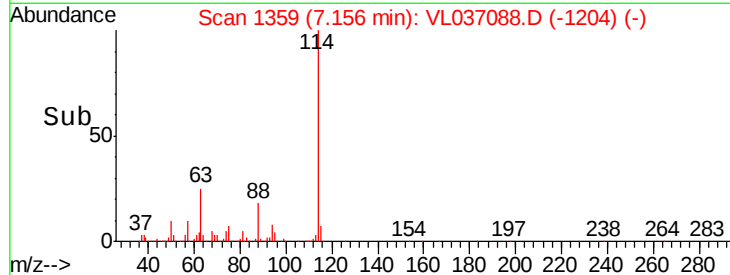
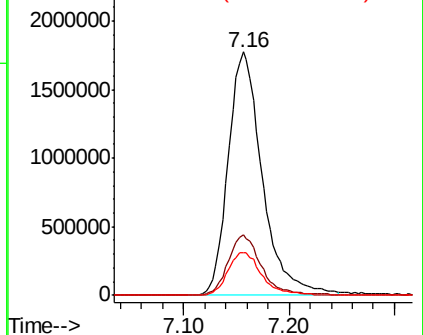
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1359
 Delta R.T. -0.00 min
 Lab File: VL037088.D
 Acq: 2 Jun 2021 2:54

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 3982133
 Ion Ratio Lower Upper
 114 100
 63 24.3 19.6 29.4
 88 18.0 14.6 21.8

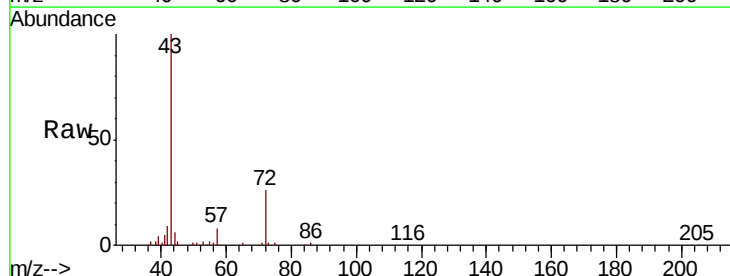


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

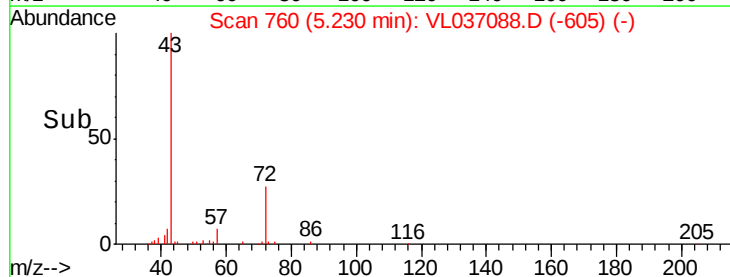
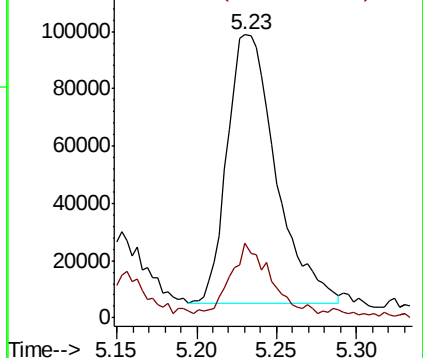


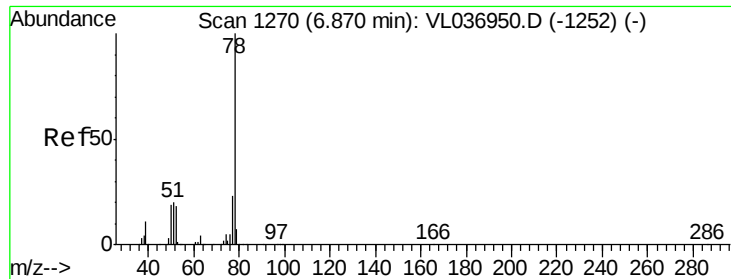
#34
 2-Butanone
 Concen: 1.341 ppbv
 RT: 5.23 min Scan# 760
 Delta R.T. -0.00 min
 Lab File: VL037088.D
 Acq: 2 Jun 2021 2:54

Tgt Ion: 43 Resp: 194430
 Ion Ratio Lower Upper
 43 100
 72 28.0 19.0 28.4



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0

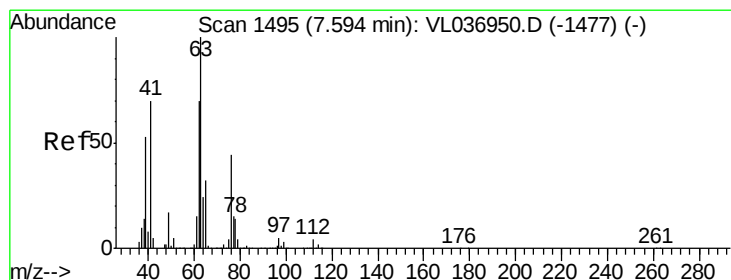
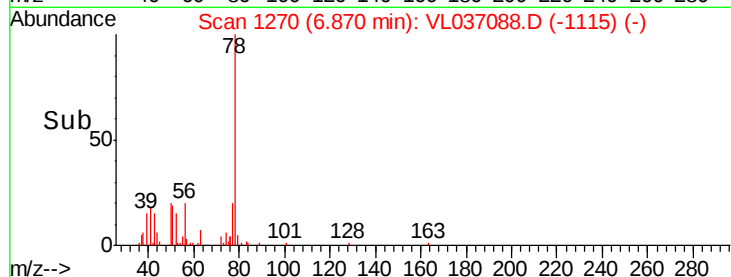
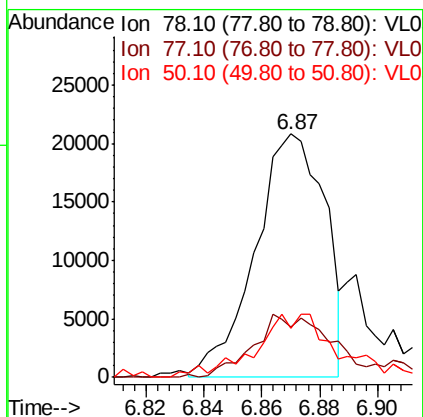
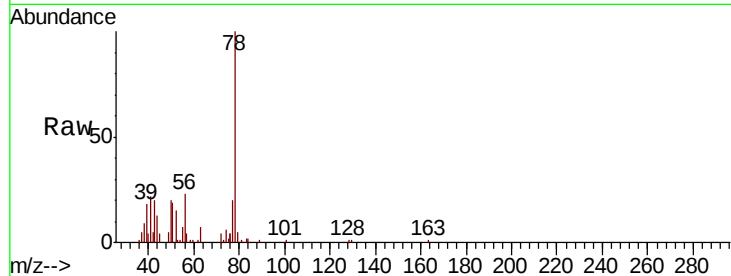




#36
Benzene
Concen: 0.101 ppbv
RT: 6.87 min Scan# 1270
Delta R.T. -0.00 min
Lab File: VL037088.D
Acq: 2 Jun 2021 2:54

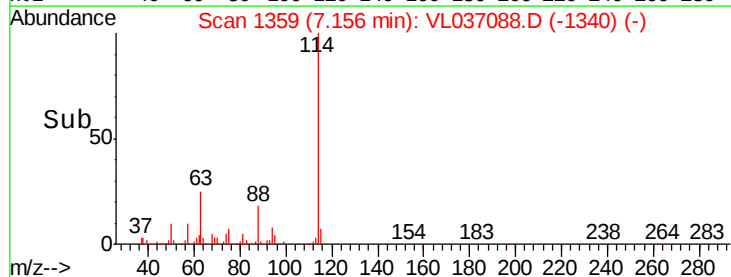
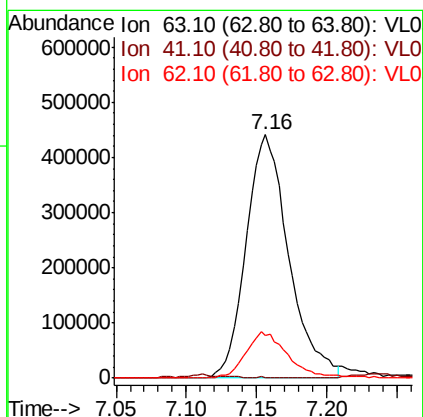
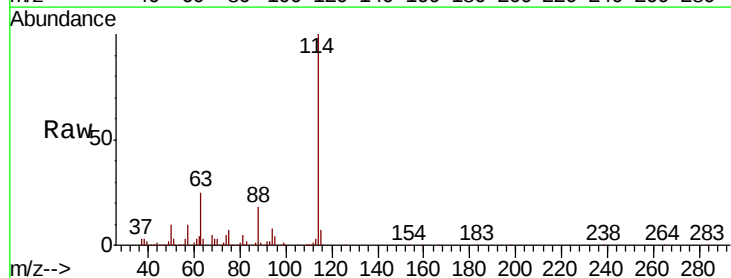
Instrument :
MSVOA_L
ClientSampled :

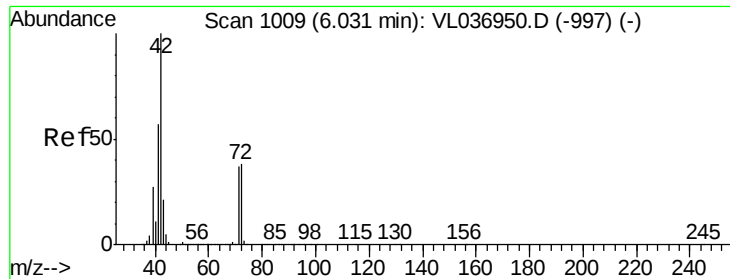
Tot Ion: 78 Resp: 34784
Ion Ratio Lower Upper
78 100
77 19.5 18.6 28.0
50 15.9 15.0 22.4



#39
1,2-Dichloropropane
Concen: 7.075 ppbv
RT: 7.16 min Scan# 1359
Delta R.T. -0.44 min
Lab File: VL037088.D
Acq: 2 Jun 2021 2:54

Tgt Ion: 63 Resp: 934785
Ion Ratio Lower Upper
63 100
41 0.0 55.7 83.5#
62 17.8 56.2 84.4#





#41

Tetrahydrofuran

Concen: 0.108 ppbv

RT: 6.06 min Scan# 1017

Delta R.T. 0.03 min

Lab File: VL037088.D

Acq: 2 Jun 2021 2:54

Instrument :

MSVOA_L

ClientSampleId :

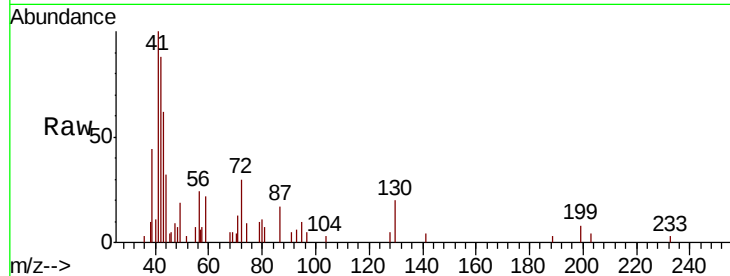
Tot Ion: 42 Resp: 8928

Ion Ratio Lower Upper

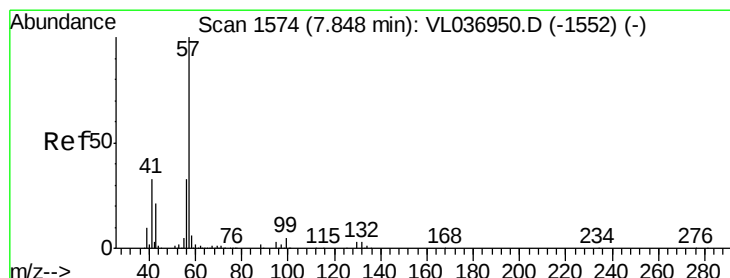
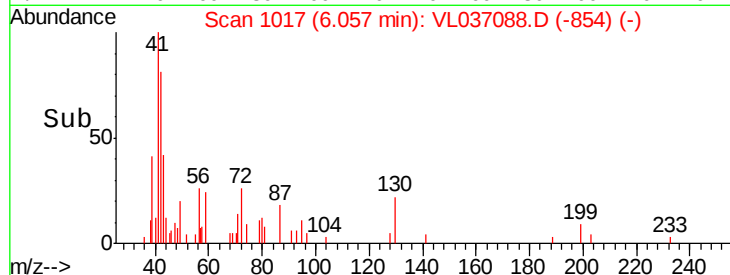
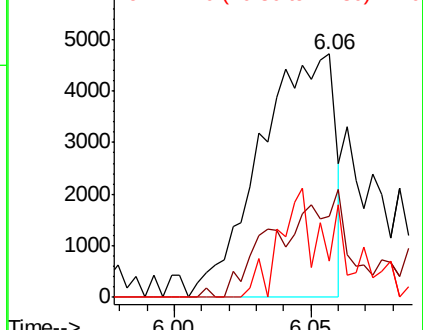
42 100

72 51.0 31.4 47.2#

71 35.1 30.4 45.6



Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.051 ppbv

RT: 7.85 min Scan# 1576

Delta R.T. 0.01 min

Lab File: VL037088.D

Acq: 2 Jun 2021 2:54

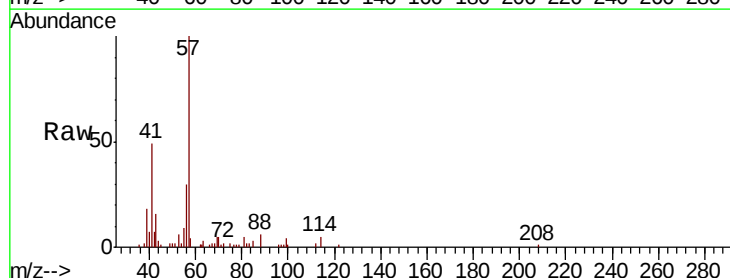
Tgt Ion: 57 Resp: 29916

Ion Ratio Lower Upper

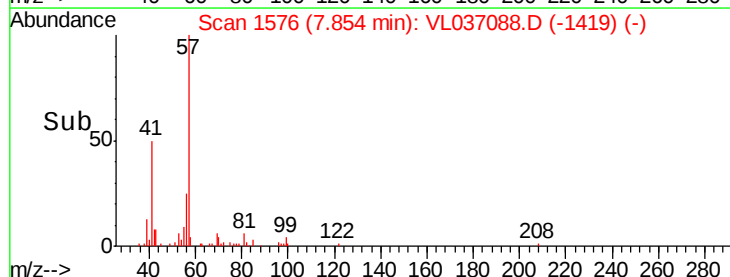
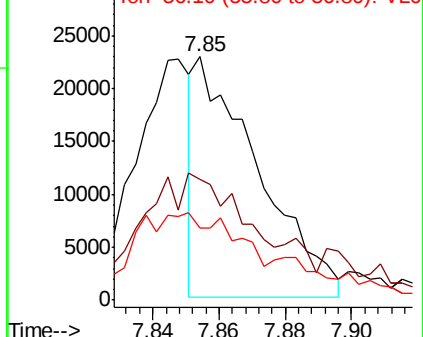
57 100

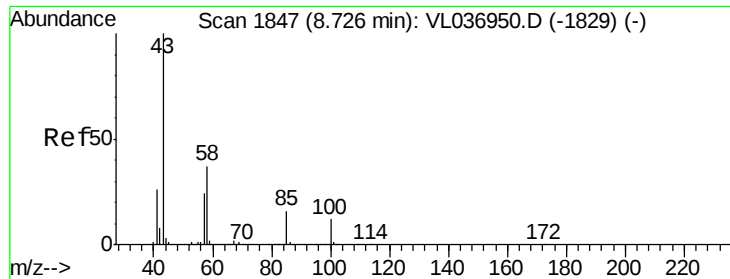
41 126.5 27.0 40.4#

56 87.9 25.4 38.2#



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

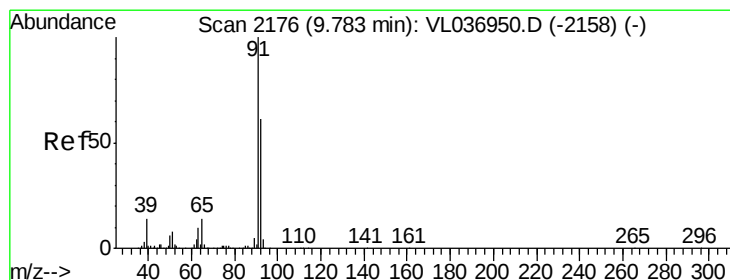
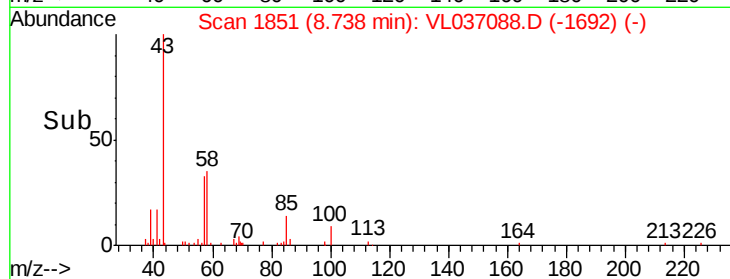
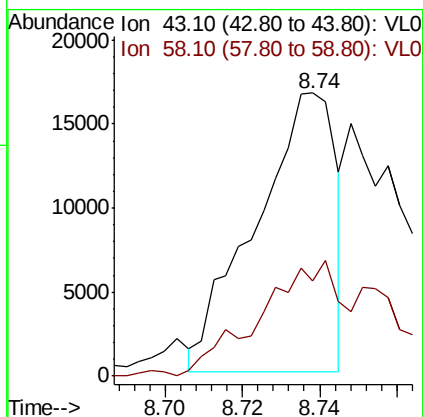
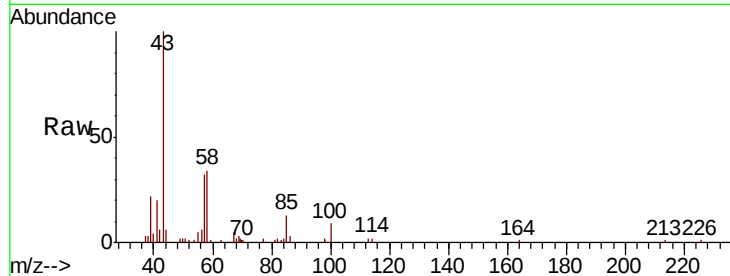




#50
4-Methyl-2-Pentanone
Concen: 0.100 ppbv
RT: 8.74 min Scan# 1851
Delta R.T. 0.01 min
Lab File: VL037088.D
Acq: 2 Jun 2021 2:54

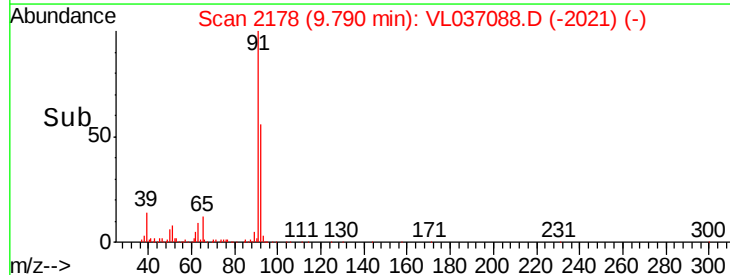
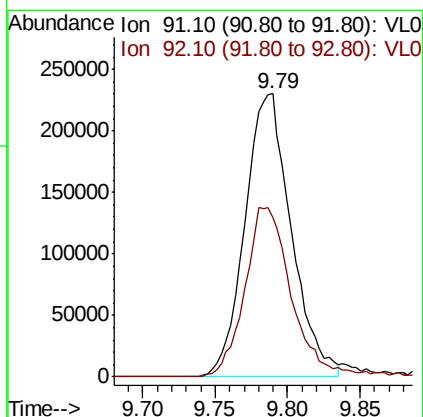
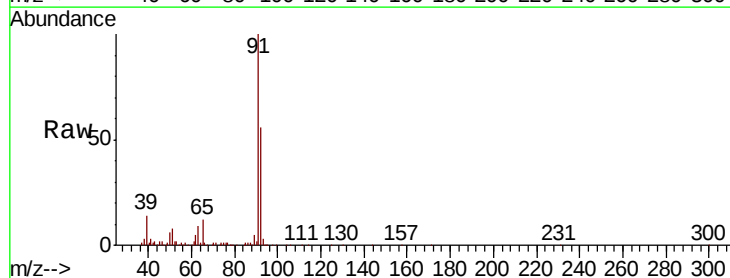
Instrument :
MSVOA_L
ClientSampleId :

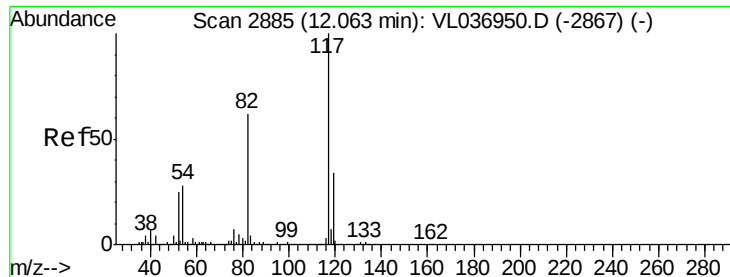
Tot Ion: 43 Resp: 23867
Ion Ratio Lower Upper
43 100
58 81.7 29.4 44.2#



#53
Toluene
Concen: 1.254 ppbv
RT: 9.79 min Scan# 2178
Delta R.T. 0.01 min
Lab File: VL037088.D
Acq: 2 Jun 2021 2:54

Tgt Ion: 91 Resp: 511733
Ion Ratio Lower Upper
91 100
92 61.8 49.5 74.3

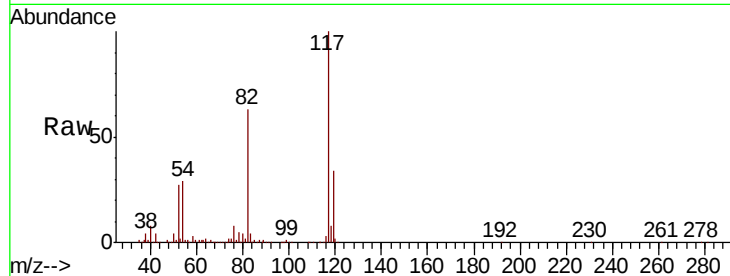




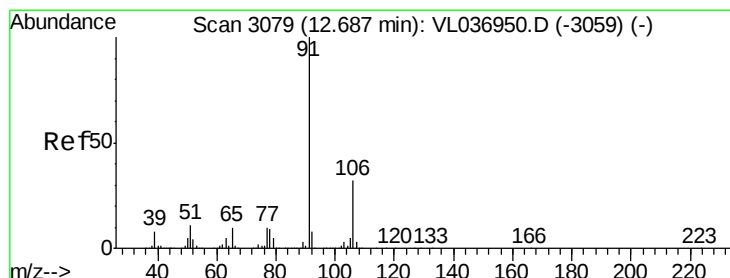
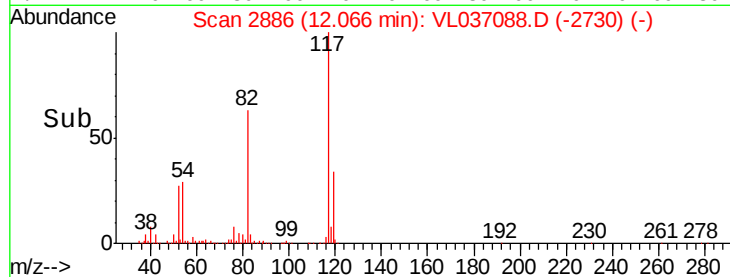
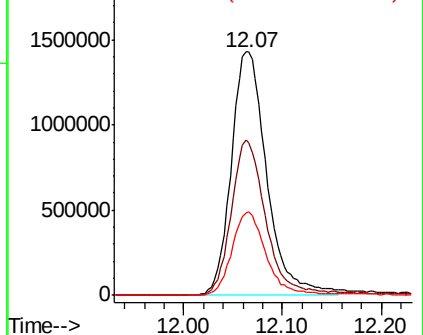
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.07 min Scan# 2886
Delta R.T. 0.00 min
Lab File: VL037088.D
Acq: 2 Jun 2021 2:54

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:117 Resp: 3583135
Ion Ratio Lower Upper
117 100
82 63.1 52.6 79.0
119 34.1 46.6 70.0#

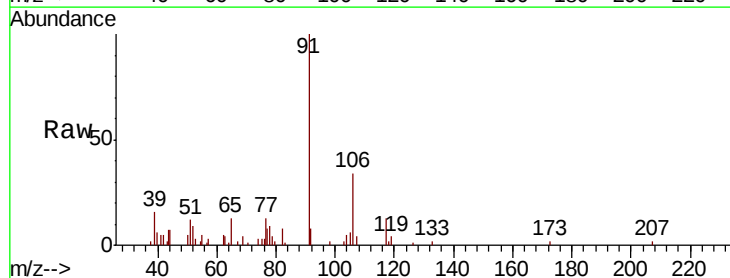


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

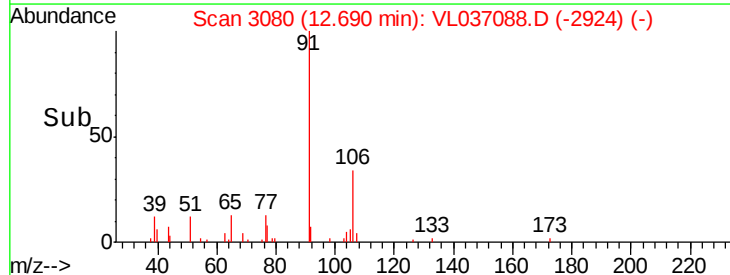
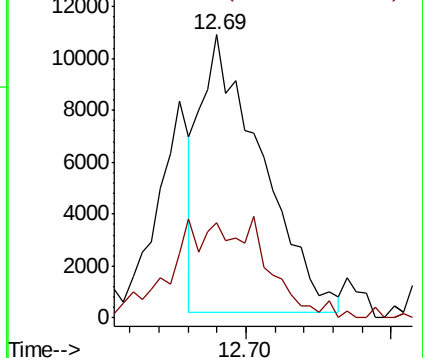


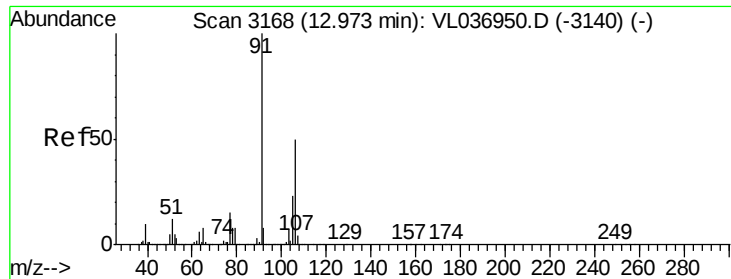
#58
Ethyl Benzene
Concen: 0.031 ppbv
RT: 12.69 min Scan# 3080
Delta R.T. 0.00 min
Lab File: VL037088.D
Acq: 2 Jun 2021 2:54

Tgt Ion: 91 Resp: 15733
Ion Ratio Lower Upper
91 100
106 36.3 25.6 38.4



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





#59

m/p-Xylene

Concen: 0.033 ppbv

RT: 12.97 min Scan# 3168

Delta R.T. -0.00 min

Lab File: VL037088.D

Acq: 2 Jun 2021 2:54

Instrument :

MSVOA_L

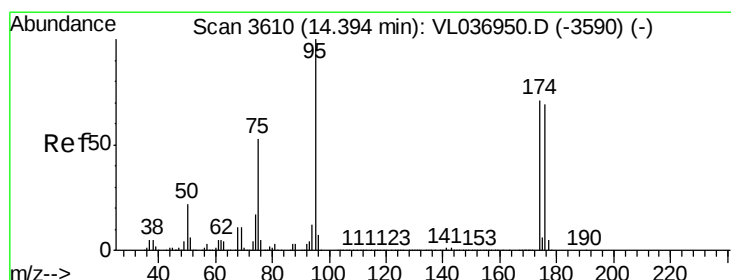
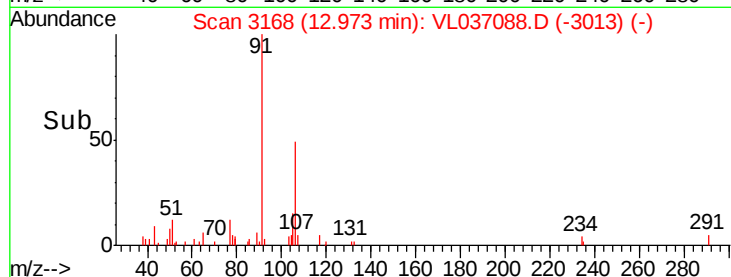
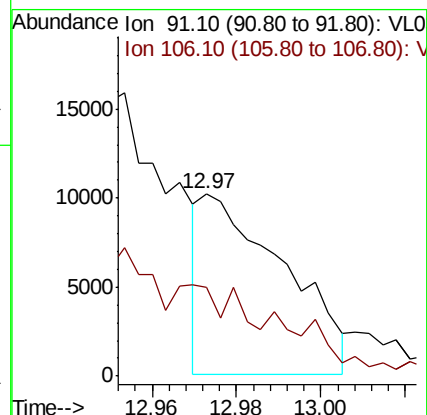
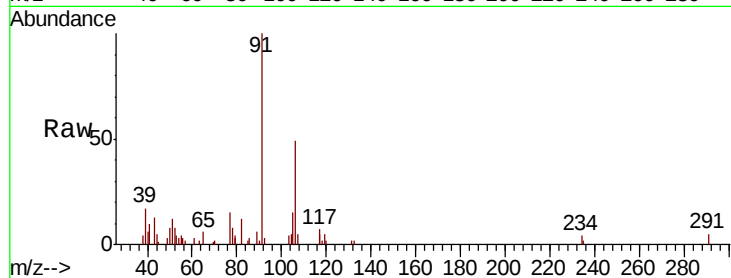
ClientSampleId :

Tot Ion: 91 Resp: 13794

Ion Ratio Lower Upper

91 100

106 0.0 37.4 56.2#



#68

1-Bromo-4-Fluorobenzene

Concen: 9.779 ppbv

RT: 14.40 min Scan# 3611

Delta R.T. 0.00 min

Lab File: VL037088.D

Acq: 2 Jun 2021 2:54

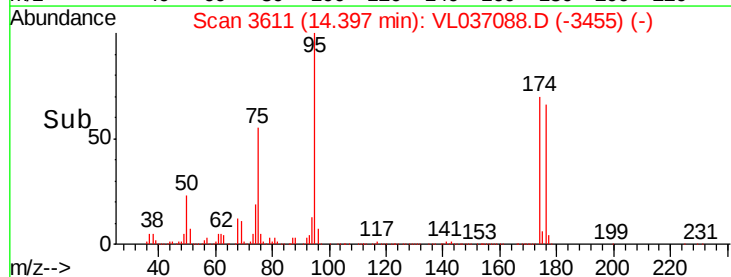
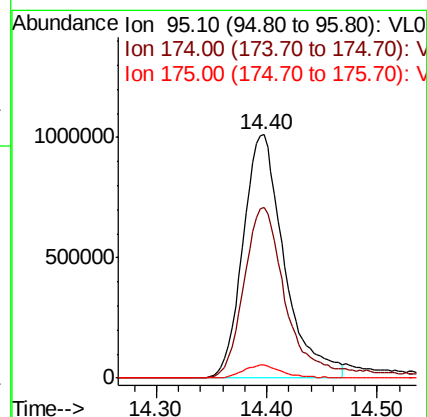
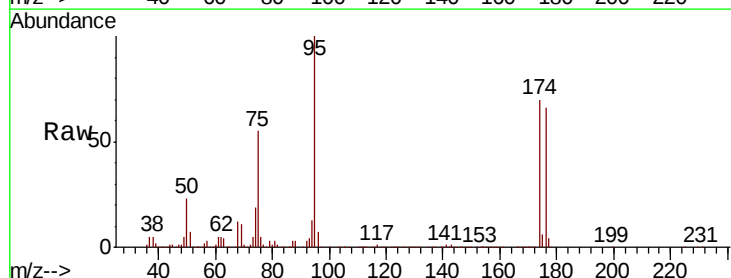
Tgt Ion: 95 Resp: 2632349

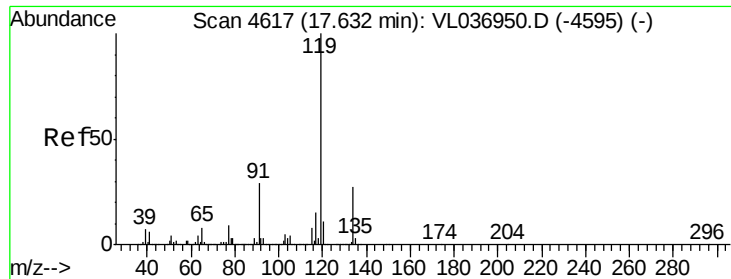
Ion Ratio Lower Upper

95 100

174 75.8 58.4 87.6

175 5.3 4.4 6.6





#69
 p-Isopropyltoluene
 Concen: 0.041 ppbv
 RT: 17.64 min Scan# 4618
 Delta R.T. 0.00 min
 Lab File: VL037088.D
 Acq: 2 Jun 2021 2:54

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion	Ratio	Lower	Upper
119	100		
134	57.8	21.2	31.8#
91	70.7	22.2	33.4#

