

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110420\
 Data File : VL035846.D
 Acq On : 5 Nov 2020 00:01
 Operator : SY/AP
 Sample : L4220-01DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 05 02:58:52 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov 04 02:40:06 2020
 QLast Update : Wed Nov 04 02:40:06 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	776470	10.00	ppbv	-0.03
33) 1,4-Difluorobenzene	7.14	114	3412484	10.00	ppbv	-0.04
55) Chlorobenzene-d5	12.05	117	3100037	10.00	ppbv	-0.05

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.38	95	2197996	9.98	ppbv	-0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.80%

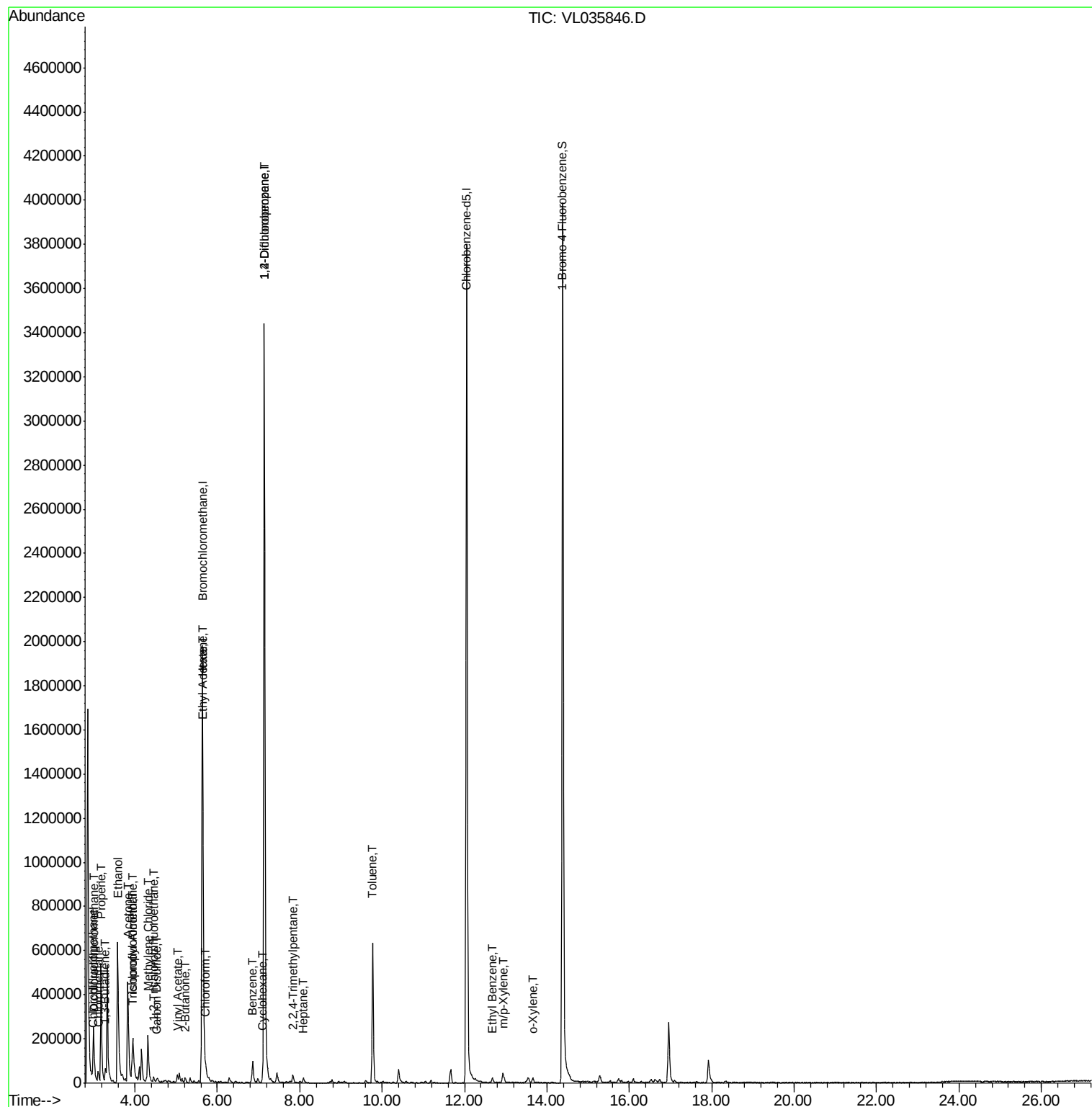
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	31486	0.215	ppbv	97
3) Chlorodifluoromethane	2.96	51	53187	0.572	ppbv #	80
4) Chloromethane	3.11	50	29771	0.659	ppbv	93
9) Propene	3.18	41	179483	5.274	ppbv	94
10) Heptane	8.09	43	4393	0.047	ppbv #	19
11) Trichlorofluoromethane	3.92	101	47879	0.261	ppbv	96
12) 1,1,2-Trichlorotrifluoroet	4.46	101	11246	0.082	ppbv	99
13) Ethanol	3.58	45	910000	123.250	ppbv	94
15) Acetone	3.82	43	574416	6.920	ppbv	98
16) 1,3-Butadiene	3.29	39	20256	0.567	ppbv #	60
19) Isopropyl Alcohol	3.95	45	265286	5.200	ppbv #	94
20) Methylene Chloride	4.31	84	114072	1.952	ppbv	94
23) Vinyl Acetate	5.04	43	9555	0.082	ppbv #	81
25) Ethyl Acetate	5.66	43	97006	0.593	ppbv #	80
26) Hexane	5.65	57	134151	1.487	ppbv #	51
27) Carbon Disulfide	4.53	76	16210	0.120	ppbv #	79
29) Chloroform	5.72	83	25678	0.145	ppbv	93
30) Cyclohexane	7.09	84	3467	0.035	ppbv #	6
34) 2-Butanone	5.22	43	25954	0.234	ppbv #	88
36) Benzene	6.86	78	98081	0.387	ppbv	92
39) 1,2-Dichloropropane	7.14	63	619282	7.250	ppbv #	30
44) 2,2,4-Trimethylpentane	7.83	57	28596	0.085	ppbv #	75
53) Toluene	9.77	91	579788	1.894	ppbv	98
58) Ethyl Benzene	12.68	91	21793	0.058	ppbv	88
59) m/p-Xylene	12.93	91	46196	0.145	ppbv	96
60) o-Xylene	13.65	91	17670	0.057	ppbv	98

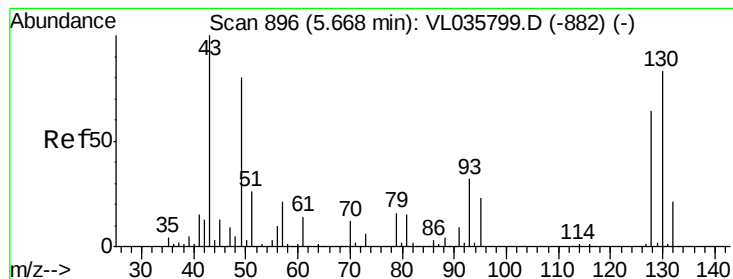
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed Nov 04 02:40:06 2020
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 886

Delta R.T. -0.03 min

Lab File: VL035846.D

Acq: 5 Nov 2020 00:01

Instrument :

MSVOA_L

ClientSampleId :

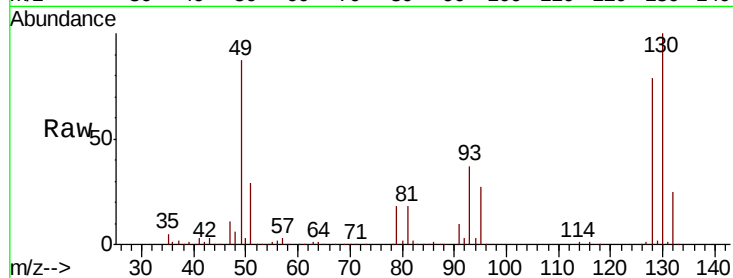
Tot Ion: 49 Resp: 776470

Ion Ratio Lower Upper

49 100

128 89.7 41.5 124.6

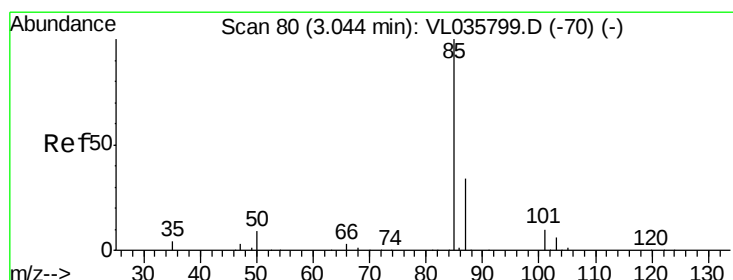
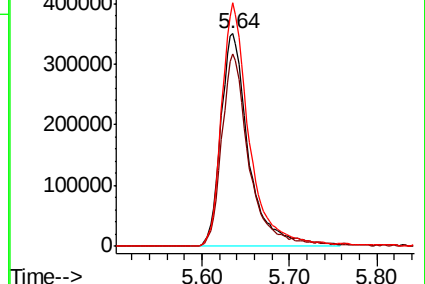
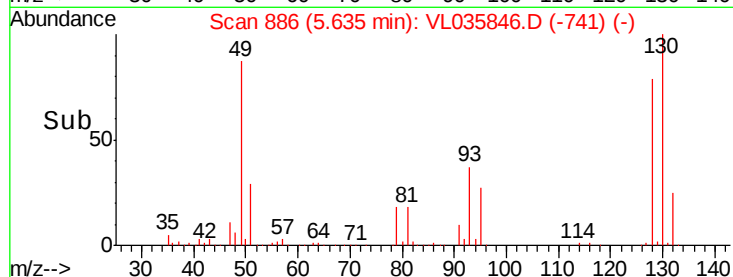
130 114.8 53.7 161.1



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: 0.215 ppbv

RT: 3.02 min Scan# 73

Delta R.T. -0.02 min

Lab File: VL035846.D

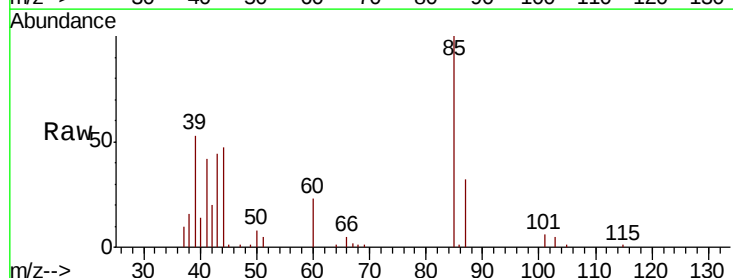
Acq: 5 Nov 2020 00:01

Tgt Ion: 85 Resp: 31486

Ion Ratio Lower Upper

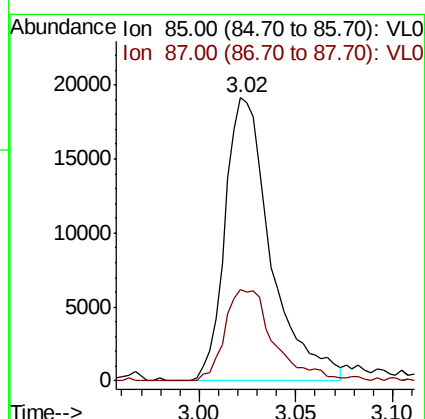
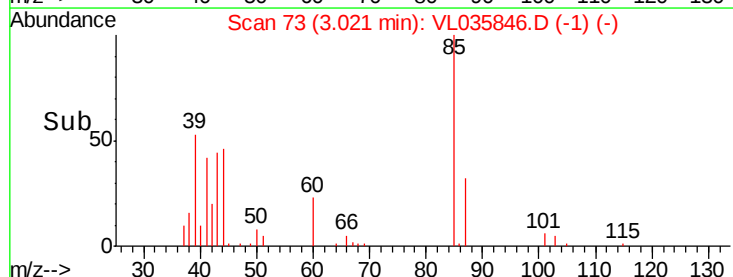
85 100

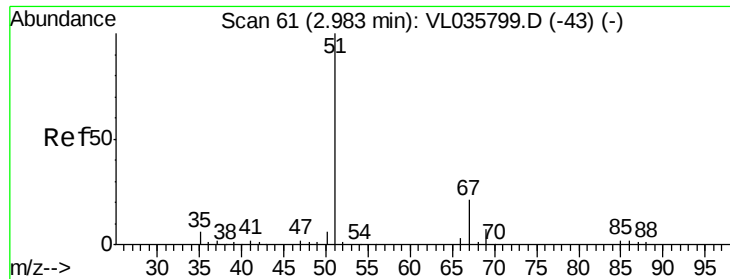
87 32.1 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.572 ppbv

RT: 2.96 min Scan# 54

Delta R.T. -0.02 min

Lab File: VL035846.D

Acq: 5 Nov 2020 00:01

Instrument :

MSVOA_L

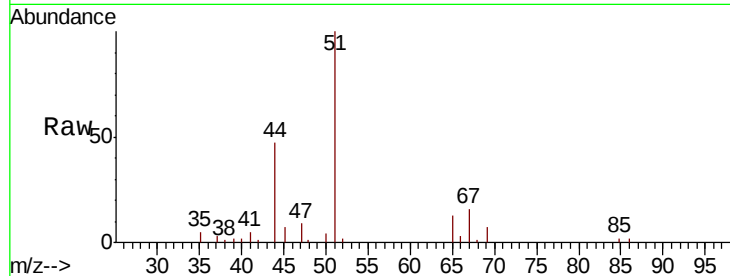
ClientSampled :

Tot Ion: 51 Resp: 53187

Ion Ratio Lower Upper

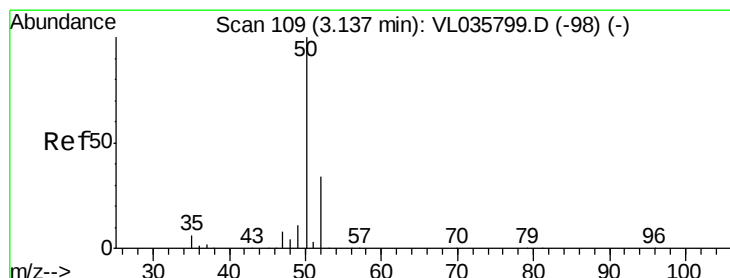
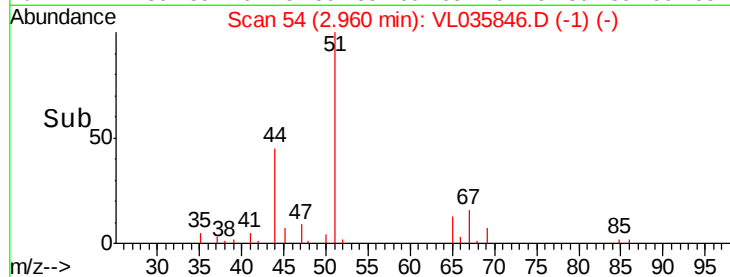
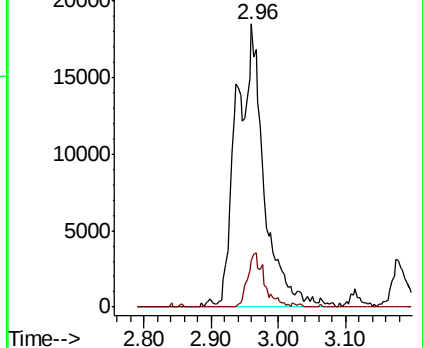
51 100

67 11.9 17.0 25.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.659 ppbv

RT: 3.11 min Scan# 102

Delta R.T. -0.02 min

Lab File: VL035846.D

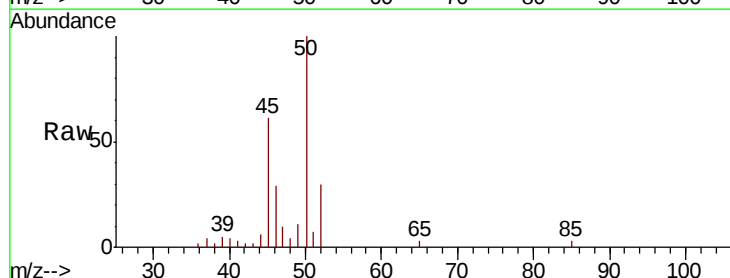
Acq: 5 Nov 2020 00:01

Tgt Ion: 50 Resp: 29771

Ion Ratio Lower Upper

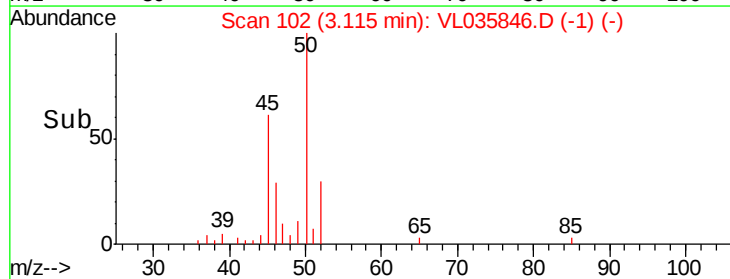
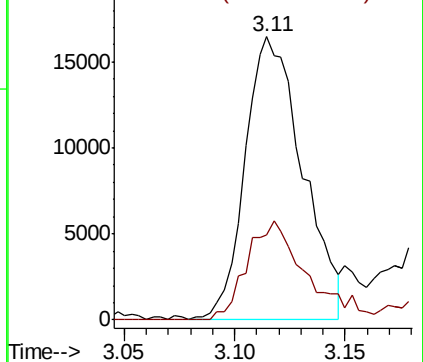
50 100

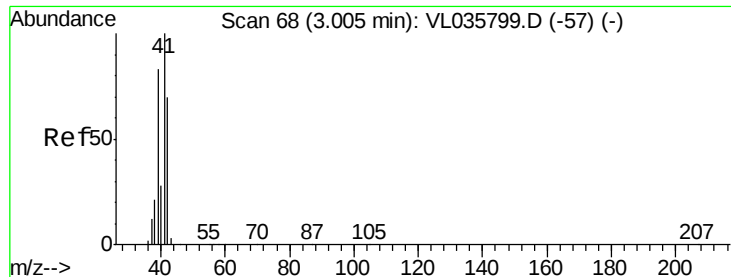
52 29.9 27.1 40.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 5.274 ppbv

RT: 3.18 min Scan# 122

Delta R.T. 0.17 min

Lab File: VL035846.D

Acq: 5 Nov 2020 00:01

Instrument :

MSVOA_L

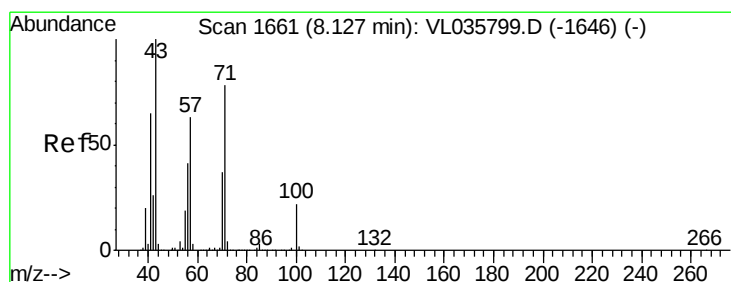
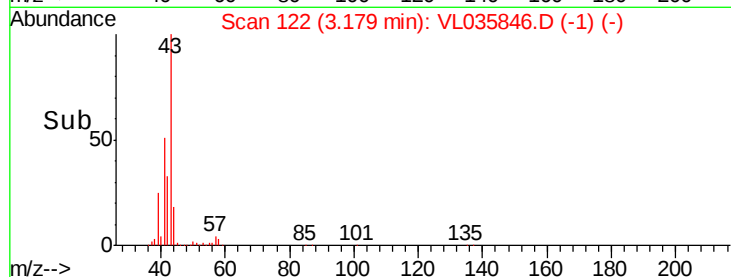
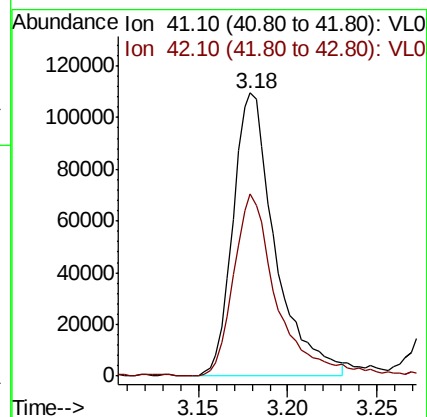
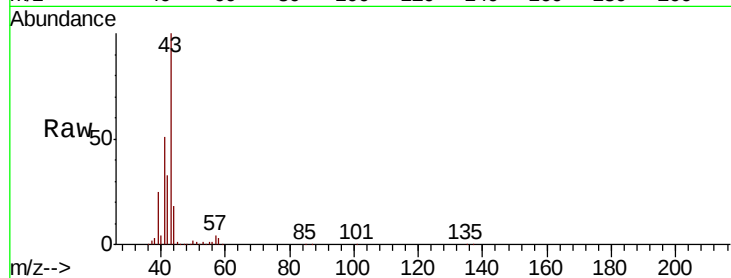
ClientSampleId :

Tot Ion: 41 Resp: 179483

Ion Ratio Lower Upper

41 100

42 65.4 56.2 84.4



#10

Heptane

Concen: 0.047 ppbv

RT: 8.09 min Scan# 1648

Delta R.T. -0.04 min

Lab File: VL035846.D

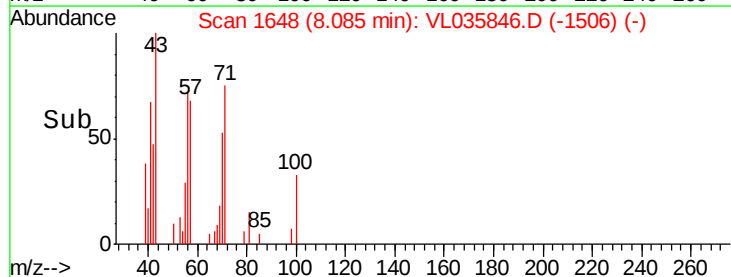
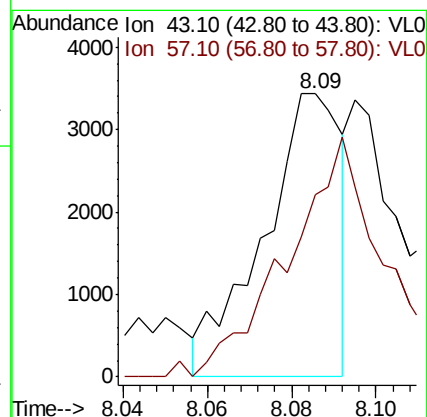
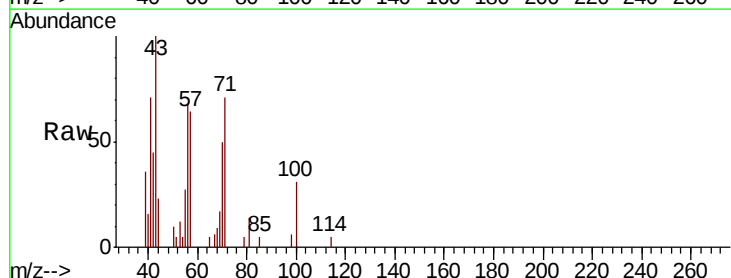
Acq: 5 Nov 2020 00:01

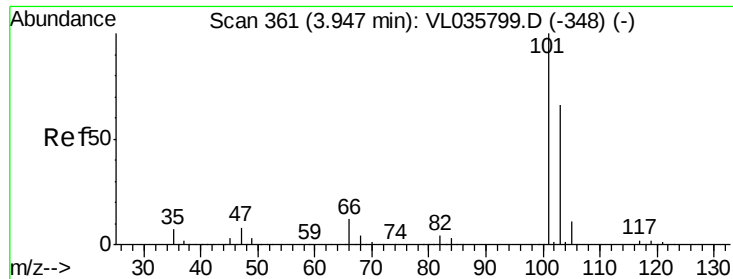
Tgt Ion: 43 Resp: 4393

Ion Ratio Lower Upper

43 100

57 0.0 50.0 75.0#

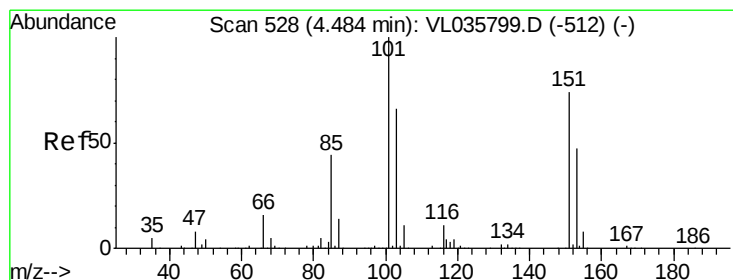
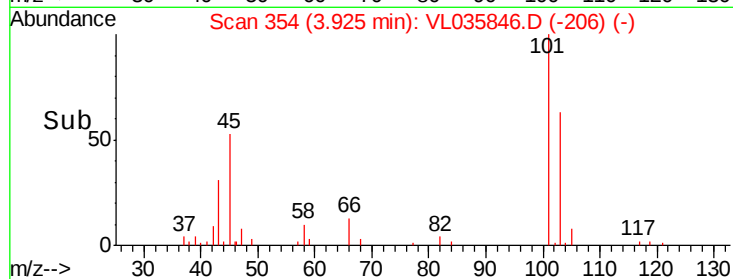
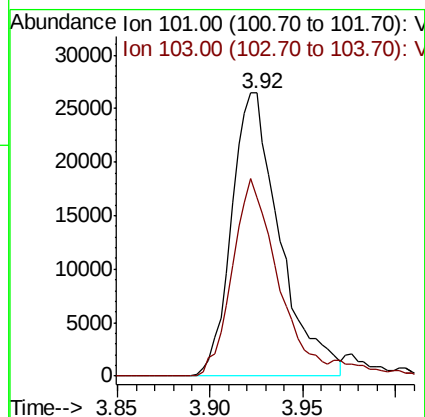
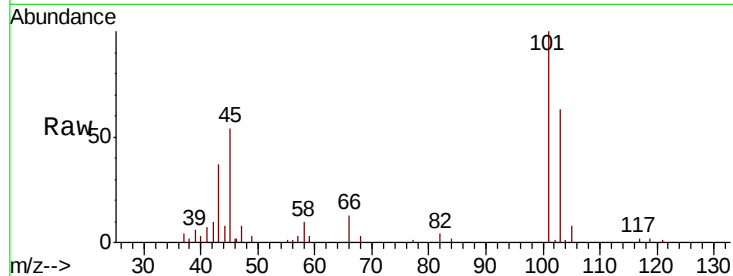




#11
 Trichlorofluoromethane
 Concen: 0.261 ppbv
 RT: 3.92 min Scan# 354
 Delta R.T. -0.02 min
 Lab File: VL035846.D
 Acq: 5 Nov 2020 00:01

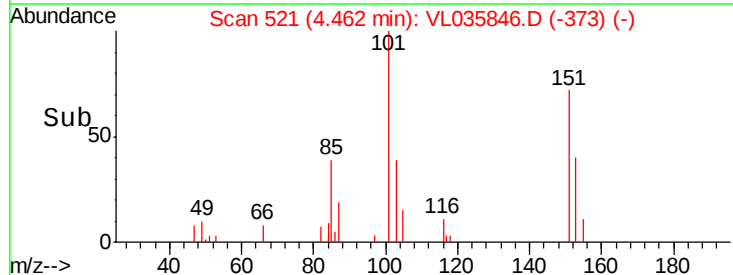
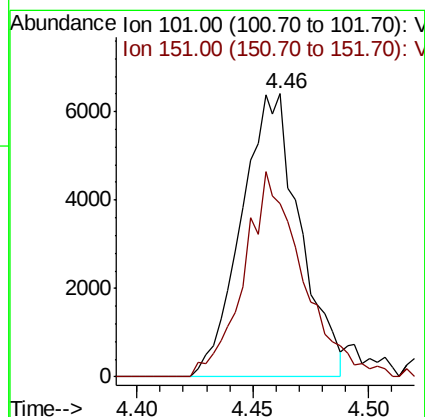
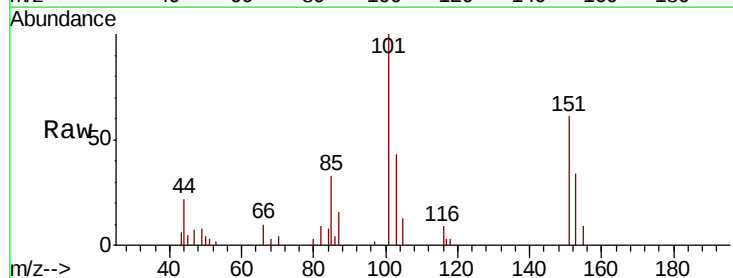
Instrument :
 MSVOA_L
 ClientSampleId :

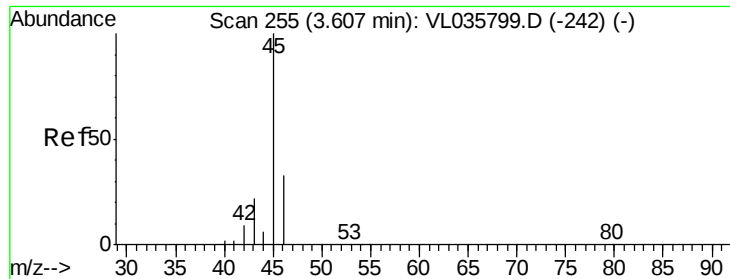
Tot Ion:101 Resp: 47879
 Ion Ratio Lower Upper
 101 100
 103 63.2 53.0 79.4



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.082 ppbv
 RT: 4.46 min Scan# 521
 Delta R.T. -0.02 min
 Lab File: VL035846.D
 Acq: 5 Nov 2020 00:01

Tgt Ion:101 Resp: 11246
 Ion Ratio Lower Upper
 101 100
 151 72.7 58.9 88.3





#13

Ethanol

Concen: 123.250 ppbv

RT: 3.58 min Scan# 247

Delta R.T. -0.03 min

Lab File: VL035846.D

Acq: 5 Nov 2020 00:01

Instrument :

MSVOA_L

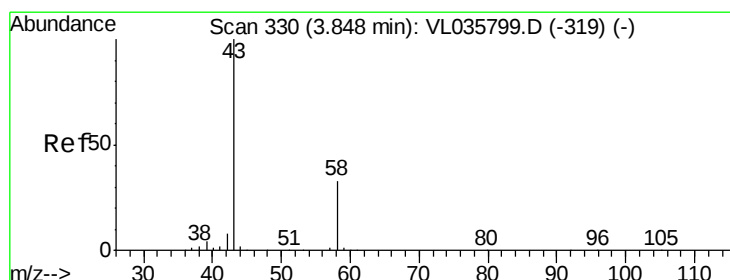
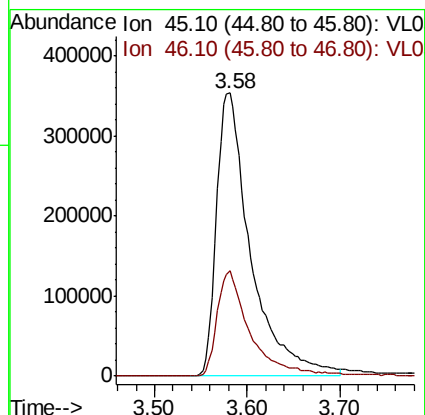
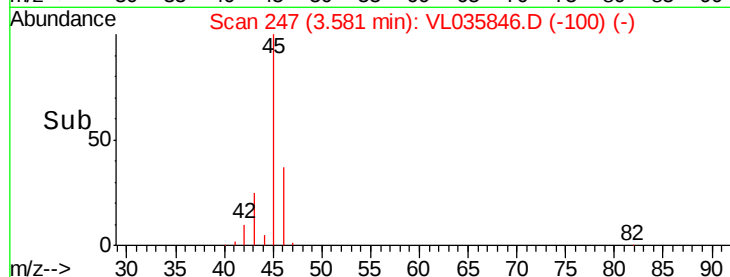
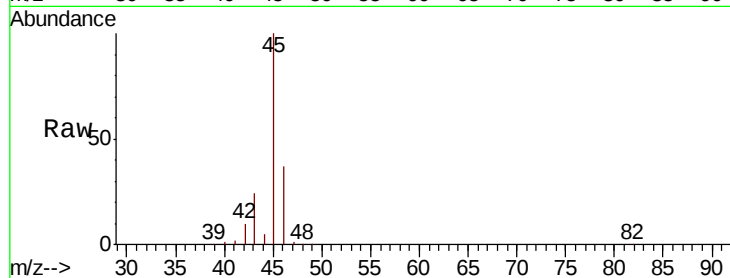
ClientSampleId :

Tot Ion: 45 Resp: 910000

Ion Ratio Lower Upper

45 100

46 36.5 16.1 64.5



#15

Acetone

Concen: 6.920 ppbv

RT: 3.82 min Scan# 322

Delta R.T. -0.03 min

Lab File: VL035846.D

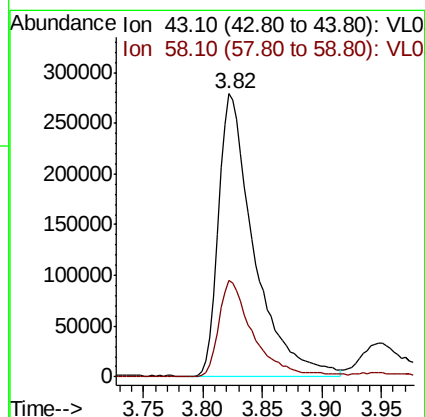
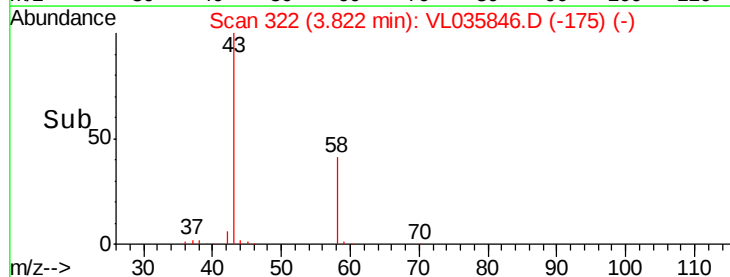
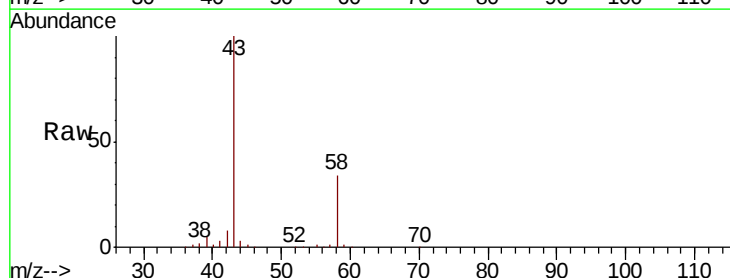
Acq: 5 Nov 2020 00:01

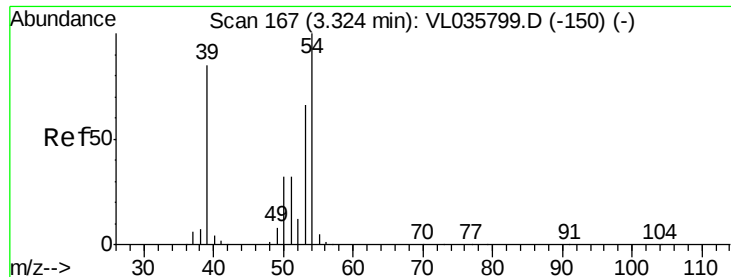
Tgt Ion: 43 Resp: 574416

Ion Ratio Lower Upper

43 100

58 33.3 27.5 41.3

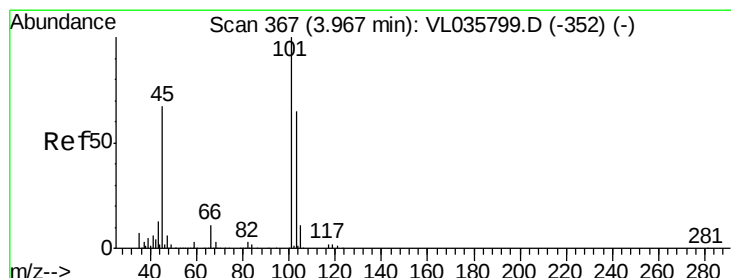
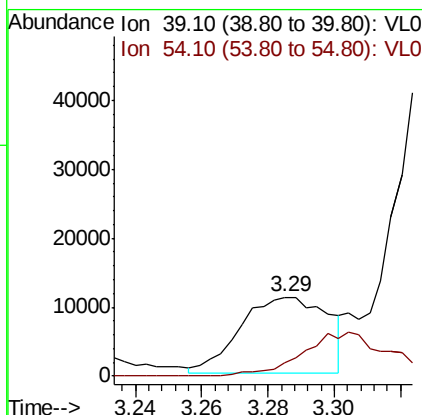
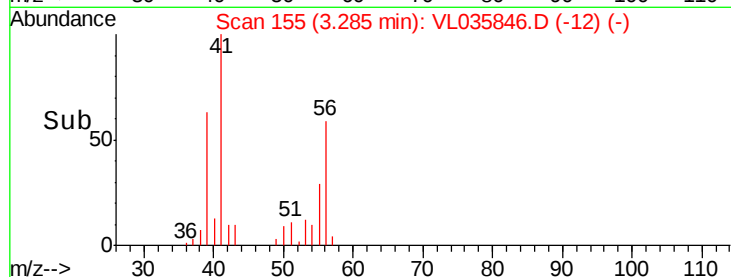
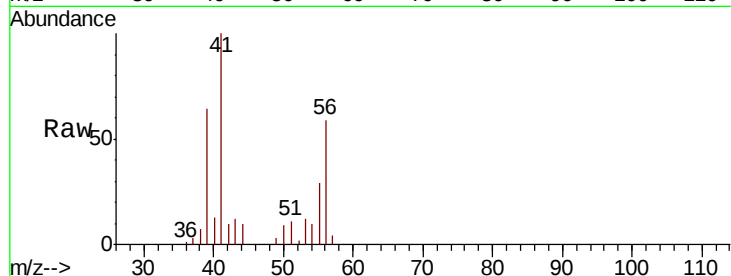




#16
 1,3-Butadiene
 Concen: 0.567 ppbv
 RT: 3.29 min Scan# 155
 Delta R.T. -0.04 min
 Lab File: VL035846.D
 Acq: 5 Nov 2020 00:01

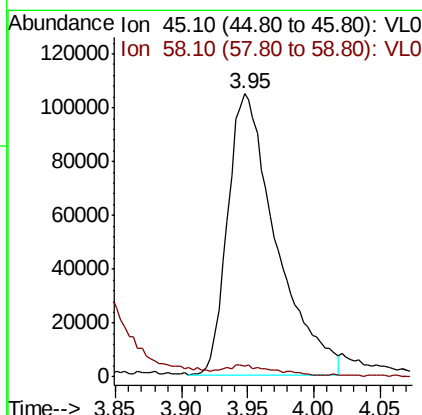
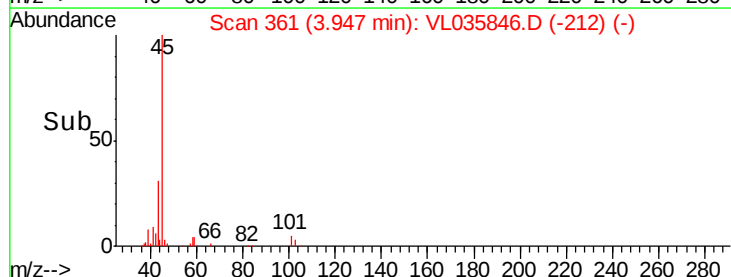
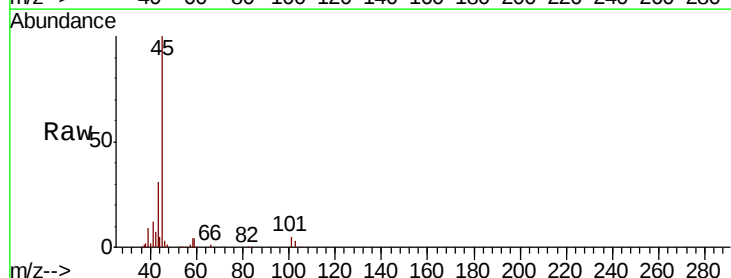
Instrument :
 MSVOA_L
 ClientSampled :

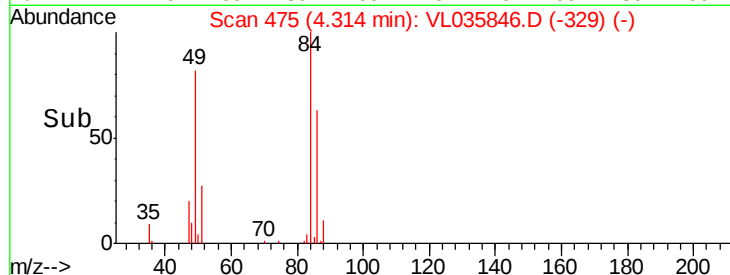
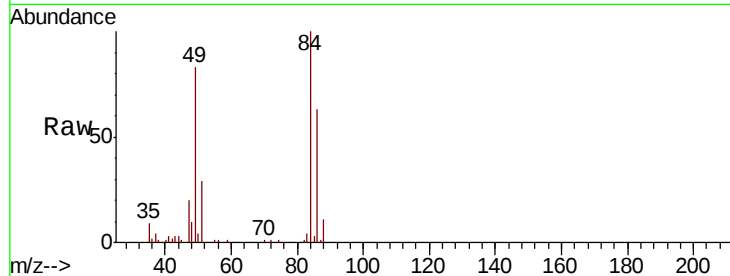
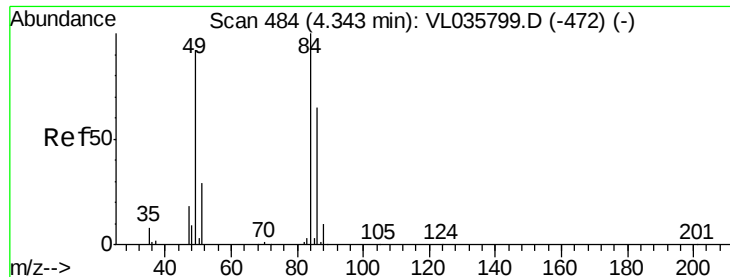
Tot Ion: 39 Resp: 20256
 Ion Ratio Lower Upper
 39 100
 54 67.4 87.1 130.7#



#19
 Isopropyl Alcohol
 Concen: 5.200 ppbv
 RT: 3.95 min Scan# 361
 Delta R.T. -0.02 min
 Lab File: VL035846.D
 Acq: 5 Nov 2020 00:01

Tgt Ion: 45 Resp: 265286
 Ion Ratio Lower Upper
 45 100
 58 5.1 2.6 3.8#

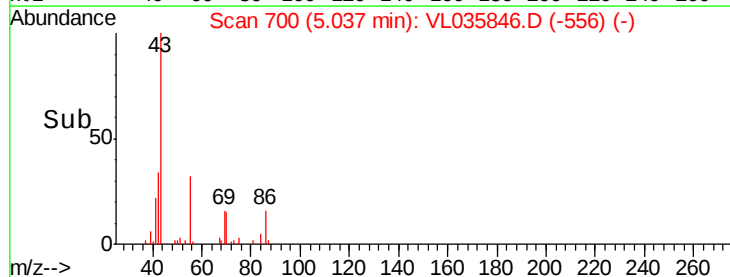
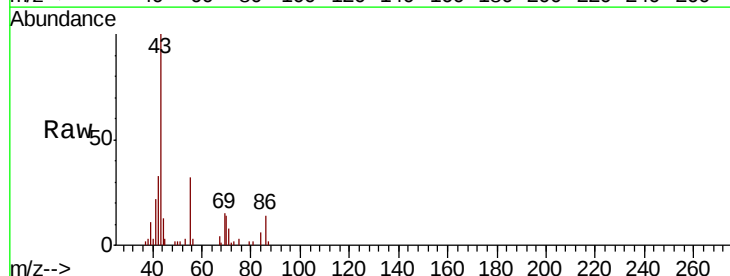
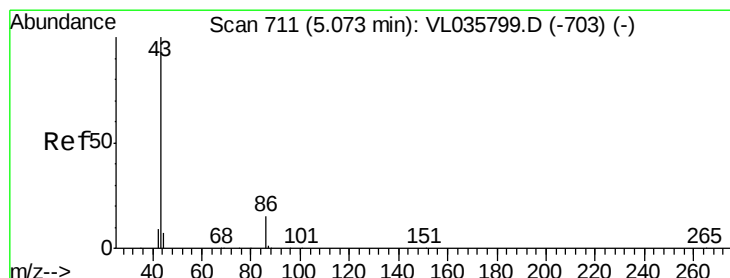
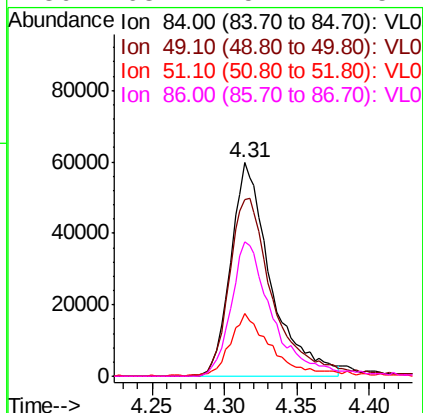




#20
Methvlene Chloride
Concen: 1.952 ppbv
RT: 4.31 min Scan# 475
Delta R.T. -0.03 min
Lab File: VL035846.D
Acq: 5 Nov 2020 00:01

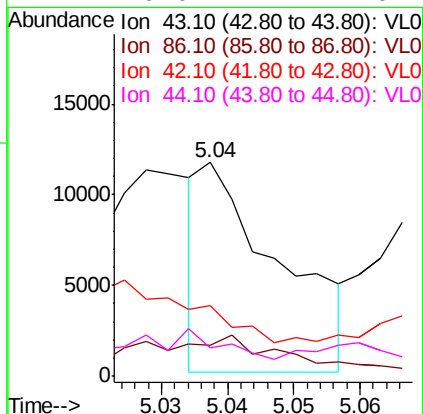
Instrument :
MSVOA_L
ClientSampleId :

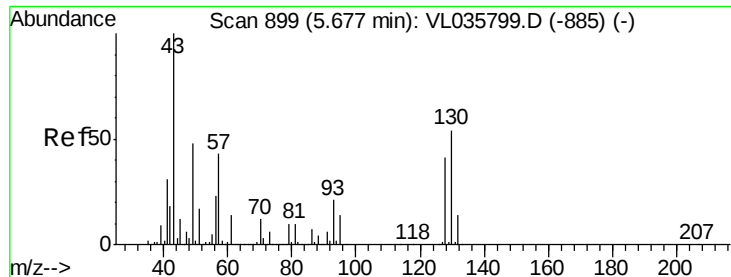
Tot Ion:	84	Resp:	114072
Ion	Ratio	Lower	Upper
84	100		
49	82.8	73.8	110.8
51	28.9	23.0	34.4
86	63.2	52.1	78.1



#23
Vinyl Acetate
Concen: 0.082 ppbv
RT: 5.04 min Scan# 700
Delta R.T. -0.04 min
Lab File: VL035846.D
Acq: 5 Nov 2020 00:01

Tgt Ion:	43	Resp:	9555
Ion	Ratio	Lower	Upper
43	100		
86	14.1	9.8	14.6
42	24.2	8.1	12.1#
44	0.0	4.2	6.4#

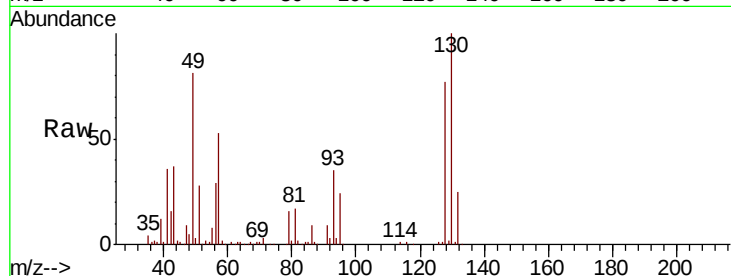




#25
Ethyl Acetate
Concen: 0.593 ppbv
RT: 5.66 min Scan# 893
Delta R.T. -0.02 min
Lab File: VL035846.D
Acq: 5 Nov 2020 00:01

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	43	Resp:	97006
Ion	Ratio	Lower	Upper
43	100		
45	3.9	8.5	12.7#
61	3.7	10.7	16.1#
70	4.4	8.6	12.8#



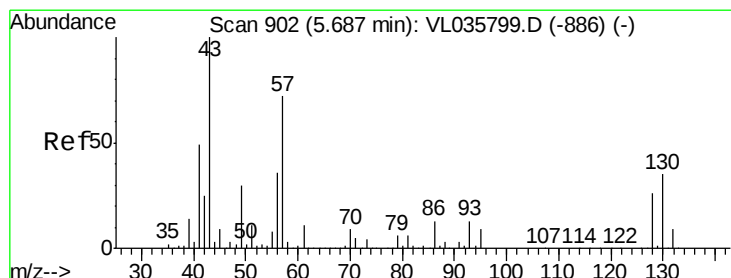
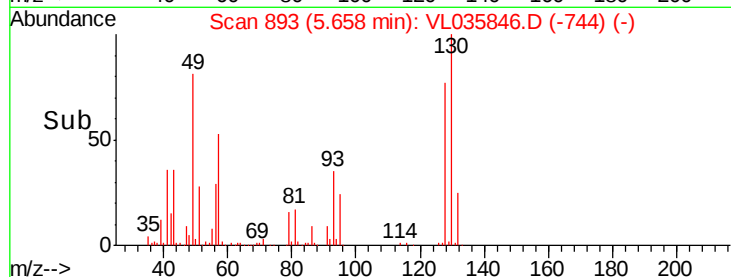
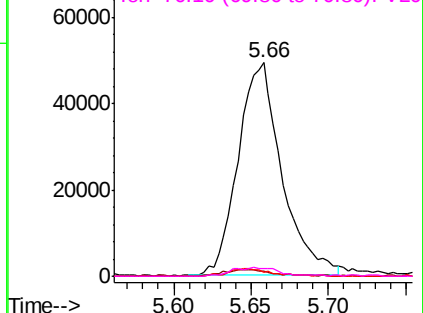
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

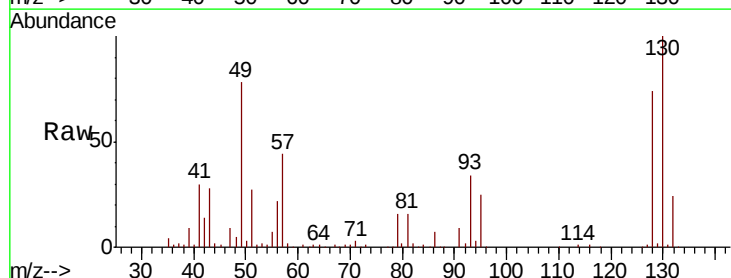
Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26
Hexane
Concen: 1.487 ppbv
RT: 5.65 min Scan# 892
Delta R.T. -0.03 min
Lab File: VL035846.D
Acq: 5 Nov 2020 00:01

Tgt Ion:	57	Resp:	134151
Ion	Ratio	Lower	Upper
57	100		
41	77.6	58.9	88.3
43	75.1	150.2	225.2#
56	58.1	42.4	63.6



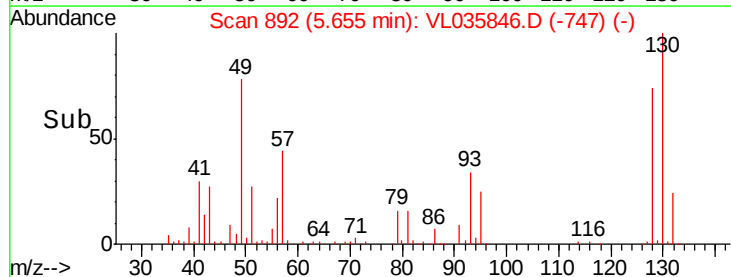
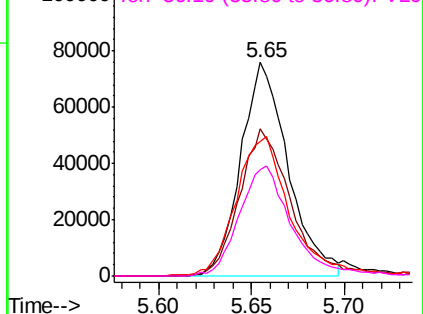
Abundance

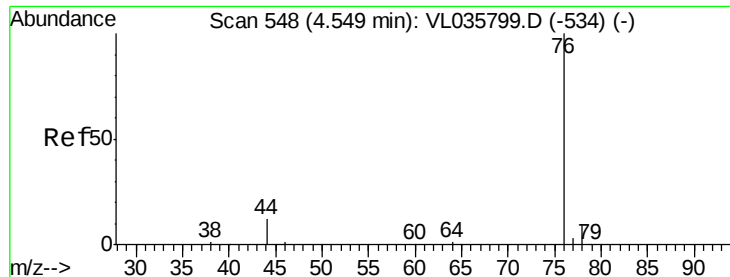
Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#27

Carbon Disulfide

Concen: 0.120 ppbv

RT: 4.53 min Scan# 541

Delta R.T. -0.02 min

Lab File: VL035846.D

Acq: 5 Nov 2020 00:01

Instrument :

MSVOA_L

ClientSampled :

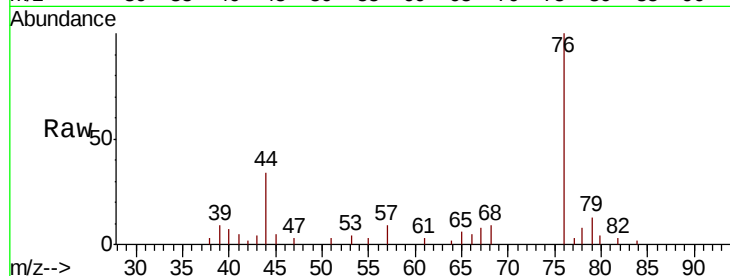
Tot Ion: 76 Resp: 16210

Ion Ratio Lower Upper

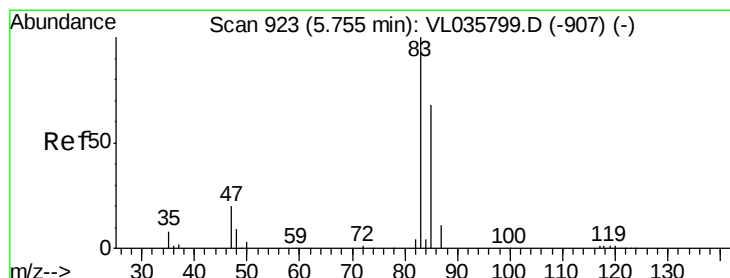
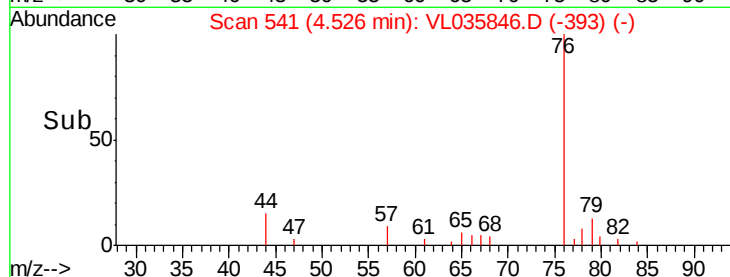
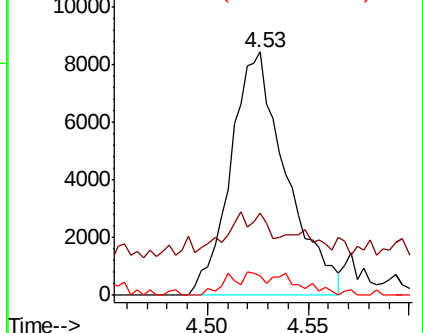
76 100

44 26.6 9.9 14.9#

78 11.3 8.1 12.1



Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0



#29

Chloroform

Concen: 0.145 ppbv

RT: 5.72 min Scan# 912

Delta R.T. -0.04 min

Lab File: VL035846.D

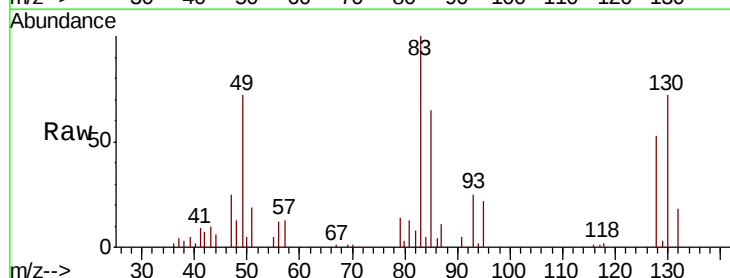
Acq: 5 Nov 2020 00:01

Tgt Ion: 83 Resp: 25678

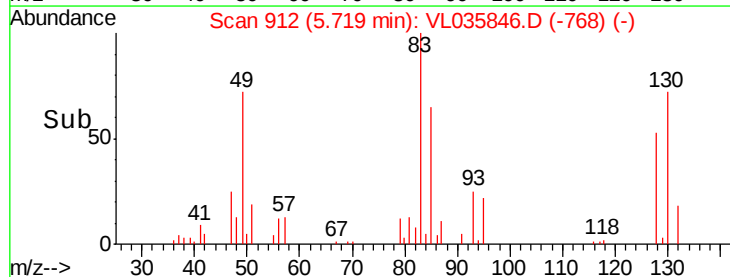
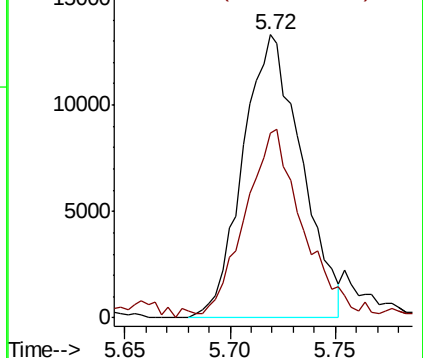
Ion Ratio Lower Upper

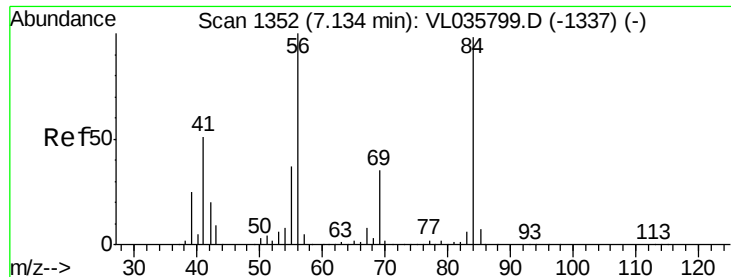
83 100

85 62.8 54.6 81.8



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

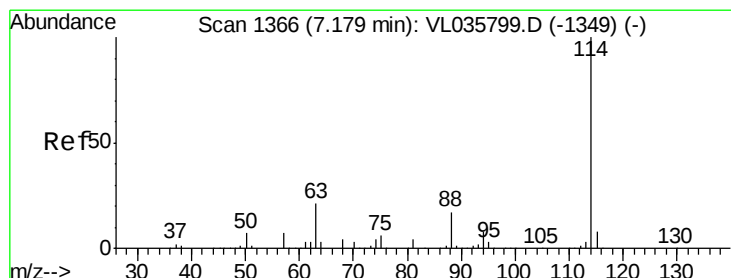
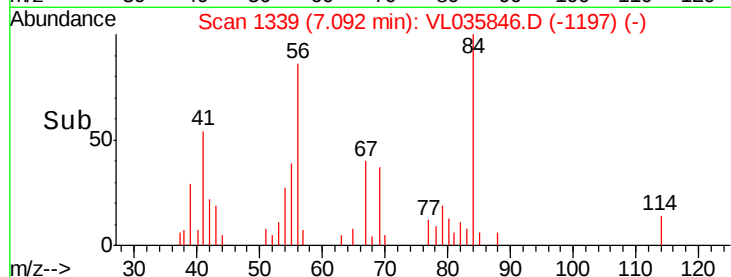
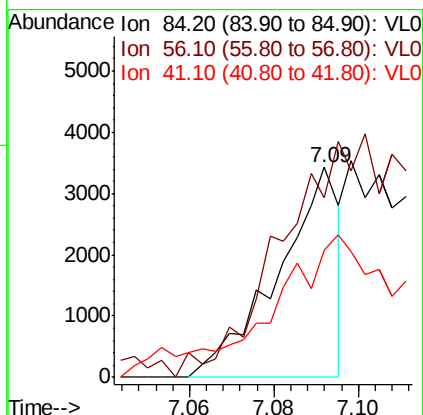
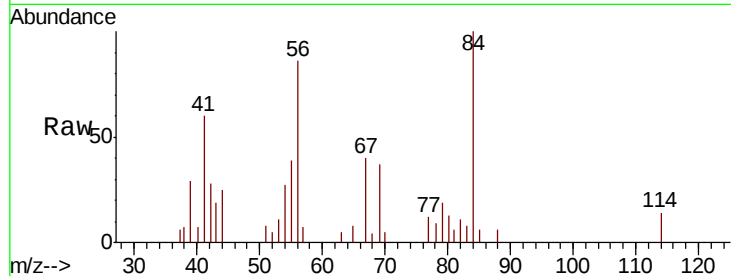




#30
Cvclohexane
Concen: 0.035 ppbv
RT: 7.09 min Scan# 1339
Delta R.T. -0.04 min
Lab File: VL035846.D
Acq: 5 Nov 2020 00:01

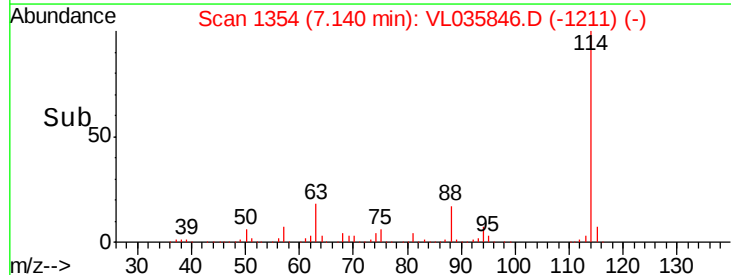
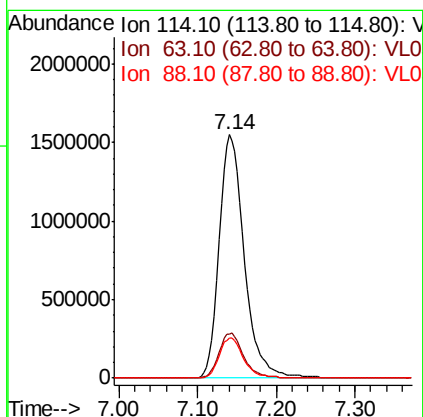
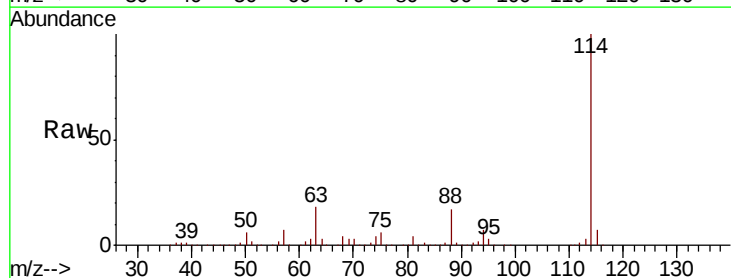
Instrument :
MSVOA_L
ClientSampleId :

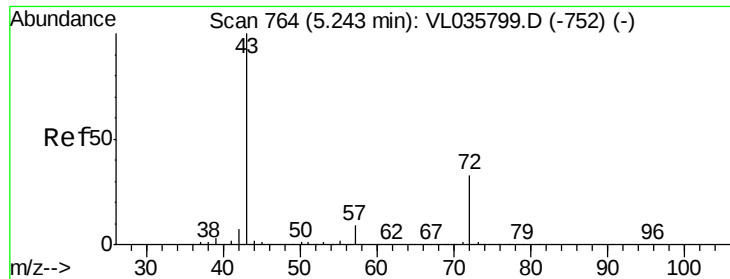
Tot Ion: 84 Resp: 3467
Ion Ratio Lower Upper
84 100
56 0.0 86.4 129.6#
41 0.0 42.1 63.1#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.14 min Scan# 1354
Delta R.T. -0.04 min
Lab File: VL035846.D
Acq: 5 Nov 2020 00:01

Tgt Ion: 114 Resp: 3412484
Ion Ratio Lower Upper
114 100
63 18.3 16.1 24.1
88 16.3 13.7 20.5

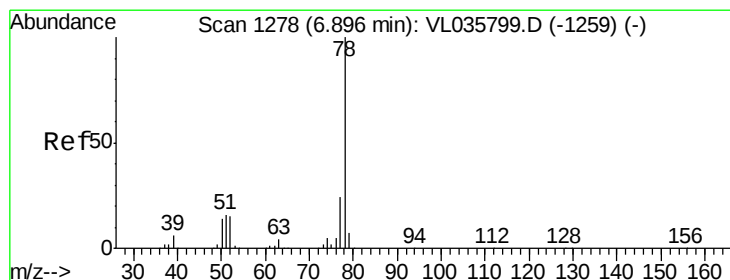
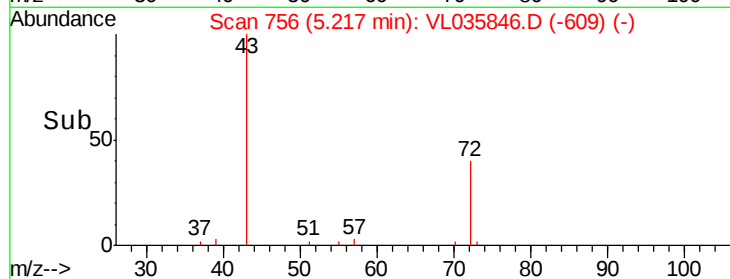
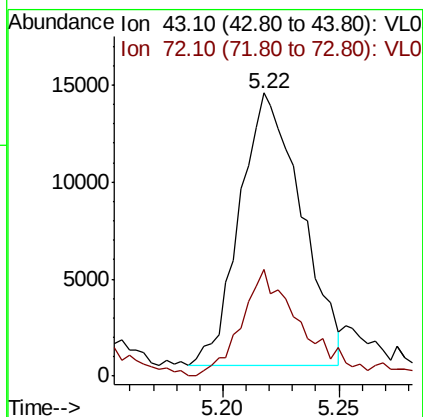
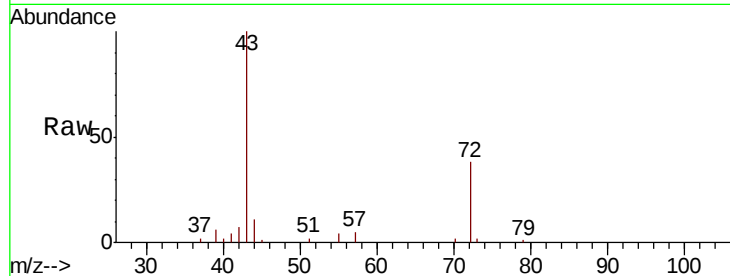




#34
 2-Butanone
 Concen: 0.234 ppbv
 RT: 5.22 min Scan# 756
 Delta R.T. -0.03 min
 Lab File: VL035846.D
 Acq: 5 Nov 2020 00:01

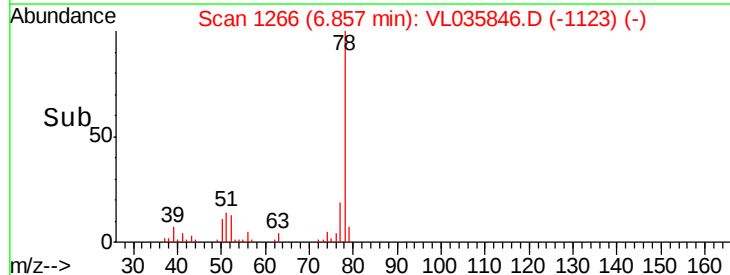
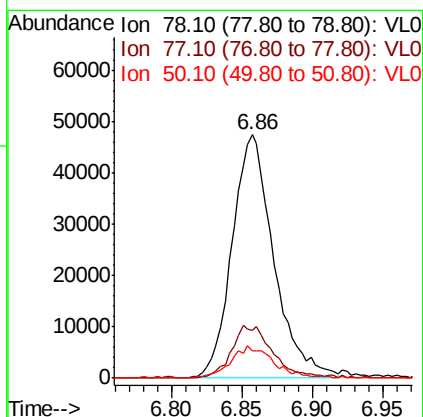
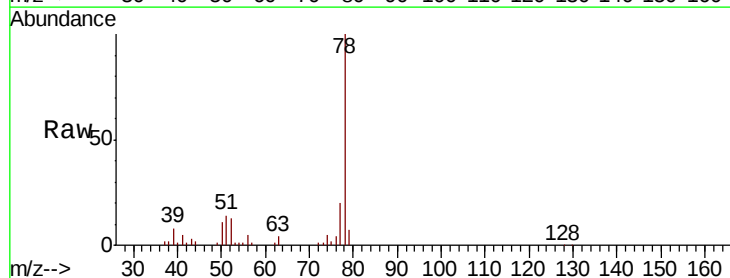
Instrument :
 MSVOA_L
 ClientSampleId :

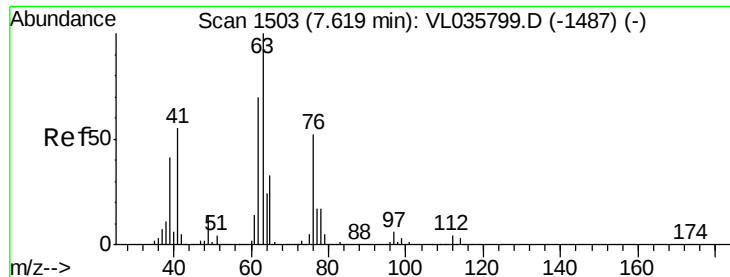
Tot Ion: 43 Resp: 25954
 Ion Ratio Lower Upper
 43 100
 72 40.1 26.5 39.7#



#36
 Benzene
 Concen: 0.387 ppbv
 RT: 6.86 min Scan# 1266
 Delta R.T. -0.04 min
 Lab File: VL035846.D
 Acq: 5 Nov 2020 00:01

Tgt Ion: 78 Resp: 98081
 Ion Ratio Lower Upper
 78 100
 77 19.9 19.3 28.9
 50 11.4 11.4 17.2





#39

1,2-Dichloropropane

Concen: 7.250 ppbv

RT: 7.14 min Scan# 1355

Delta R.T. -0.48 min

Lab File: VL035846.D

Acq: 5 Nov 2020 00:01

Instrument :

MSVOA_L

ClientSampleId :

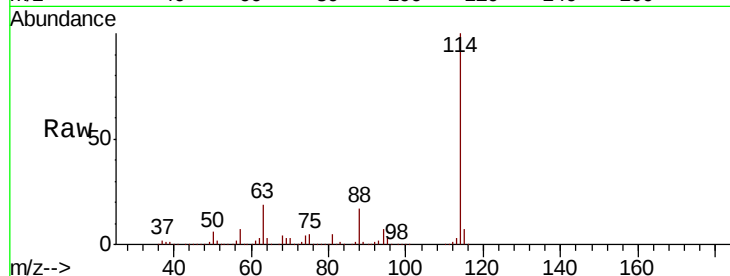
Tot Ion: 63 Resp: 619282

Ion Ratio Lower Upper

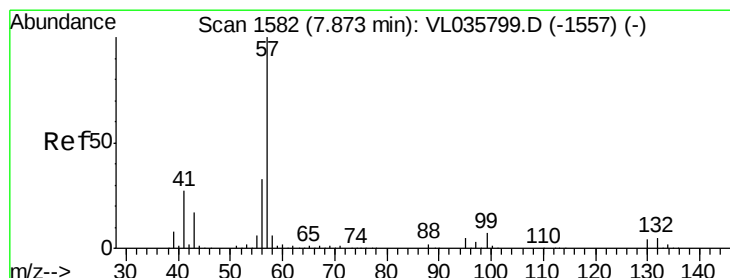
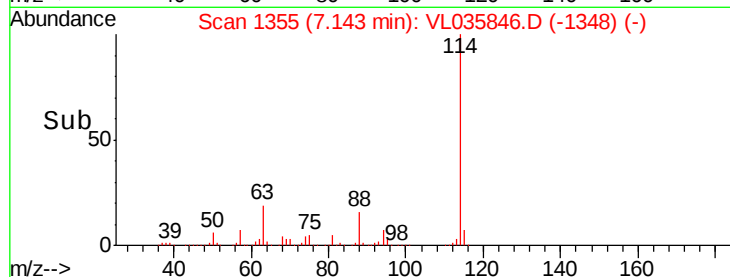
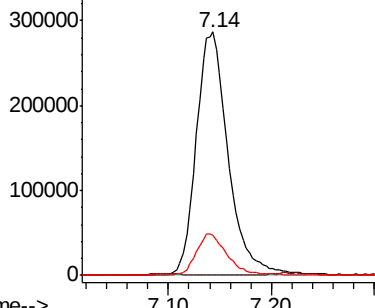
63 100

41 0.0 43.8 65.6#

62 16.3 56.2 84.2#



Abundance Ion 63.10 (62.80 to 63.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 62.10 (61.80 to 62.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.085 ppbv

RT: 7.83 min Scan# 1570

Delta R.T. -0.04 min

Lab File: VL035846.D

Acq: 5 Nov 2020 00:01

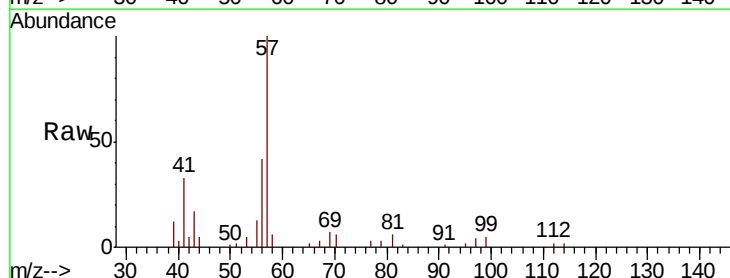
Tgt Ion: 57 Resp: 28596

Ion Ratio Lower Upper

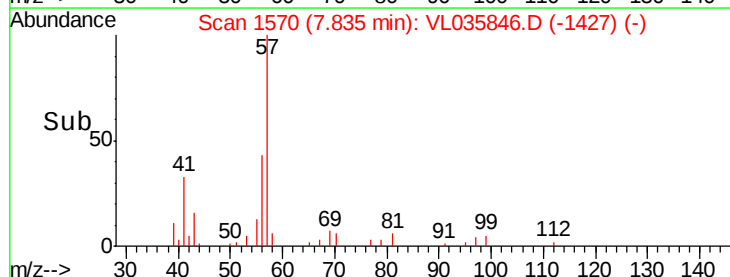
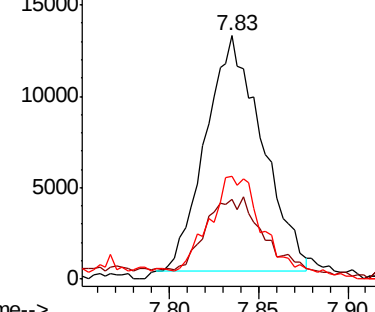
57 100

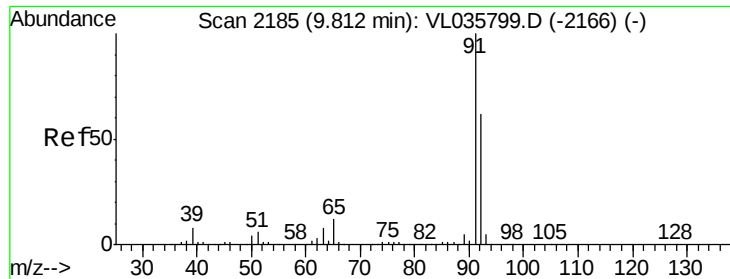
41 40.4 21.0 31.4#

56 44.7 25.4 38.0#



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





#53

Toluene

Concen: 1.894 ppbv

RT: 9.77 min Scan# 2173

Delta R.T. -0.04 min

Lab File: VL035846.D

Acq: 5 Nov 2020 00:01

Instrument :

MSVOA_L

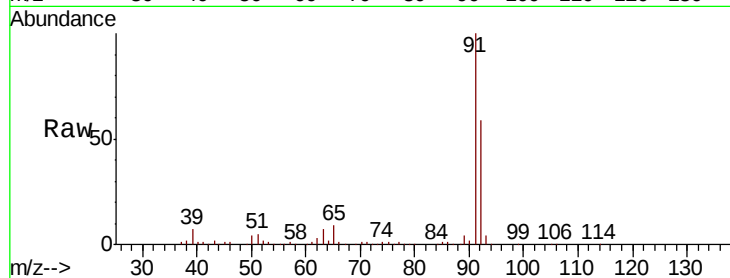
ClientSampleId :

Tot Ion: 91 Resp: 579788

Ion Ratio Lower Upper

91 100

92 60.4 49.8 74.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

9.77

300000

250000

200000

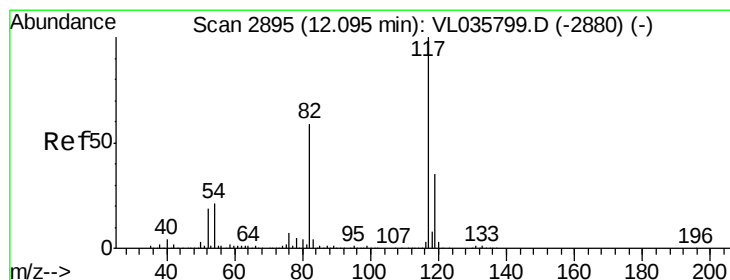
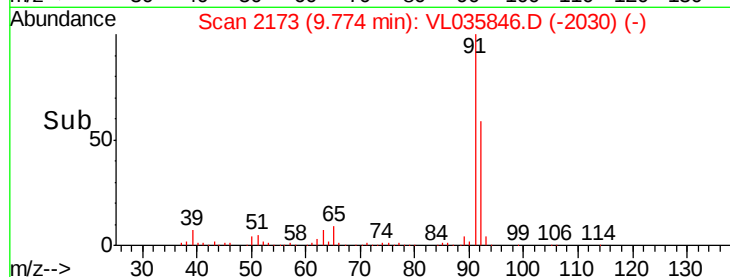
150000

100000

50000

0

Time-->



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.05 min Scan# 2881

Delta R.T. -0.05 min

Lab File: VL035846.D

Acq: 5 Nov 2020 00:01

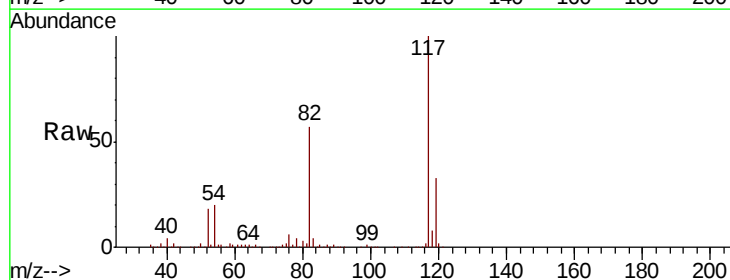
Tgt Ion: 117 Resp: 3100037

Ion Ratio Lower Upper

117 100

82 56.5 50.6 76.0

119 34.0 52.6 78.8#



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

12.05

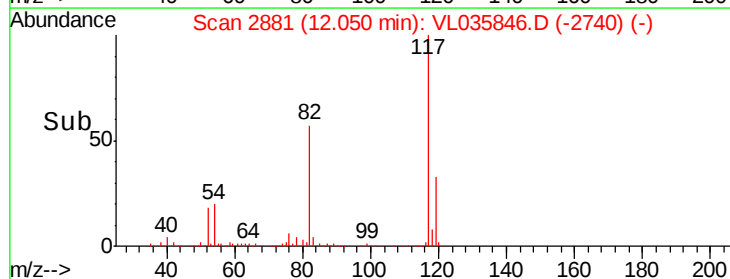
1500000

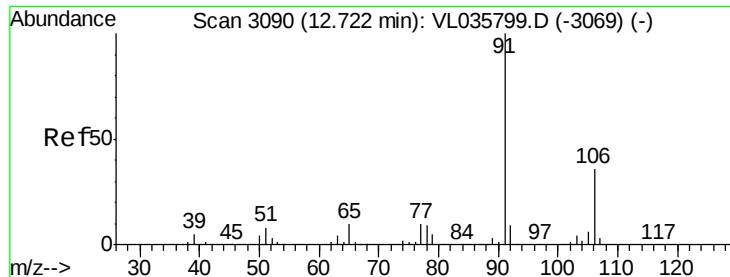
1000000

500000

0

Time-->





#58

Ethyl Benzene

Concen: 0.058 ppbv

RT: 12.68 min Scan# 3076

Delta R.T. -0.05 min

Lab File: VL035846.D

Acq: 5 Nov 2020 00:01

Instrument :

MSVOA_L

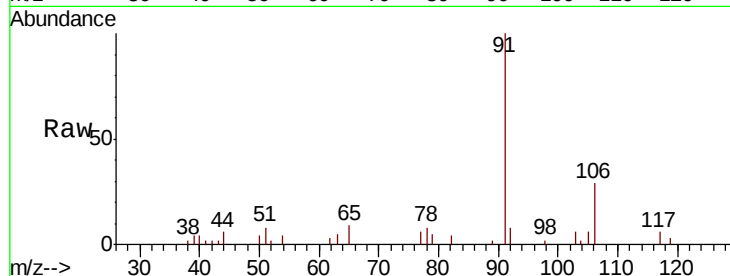
ClientSampled :

Tot Ion: 91 Resp: 21793

Ion Ratio Lower Upper

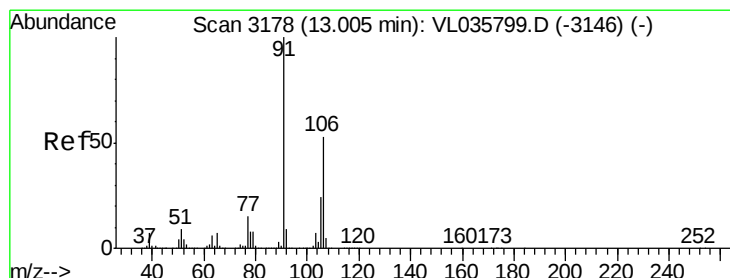
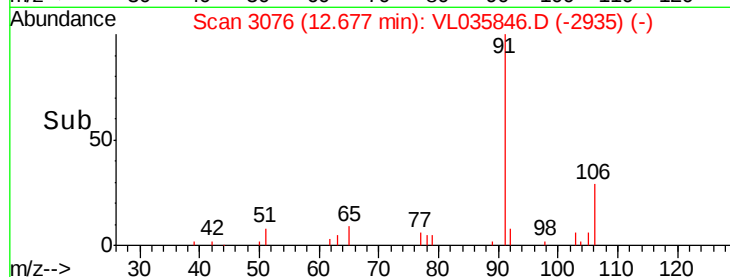
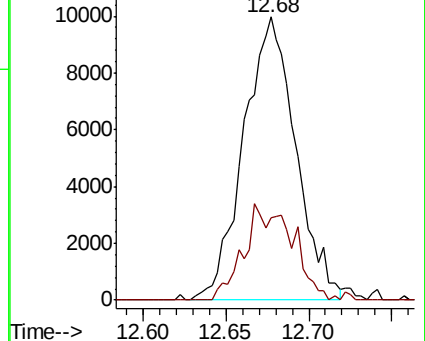
91 100

106 29.0 28.6 43.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.145 ppbv

RT: 12.93 min Scan# 3156

Delta R.T. -0.07 min

Lab File: VL035846.D

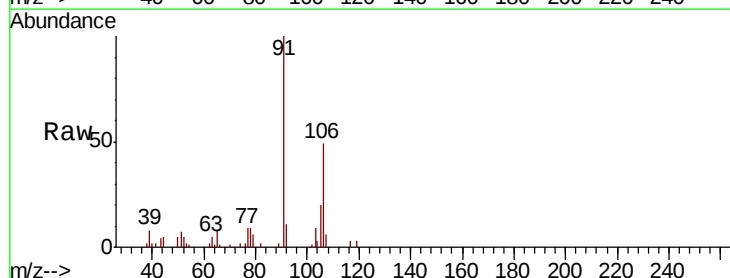
Acq: 5 Nov 2020 00:01

Tgt Ion: 91 Resp: 46196

Ion Ratio Lower Upper

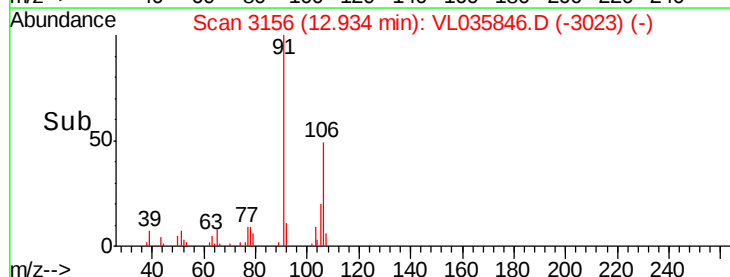
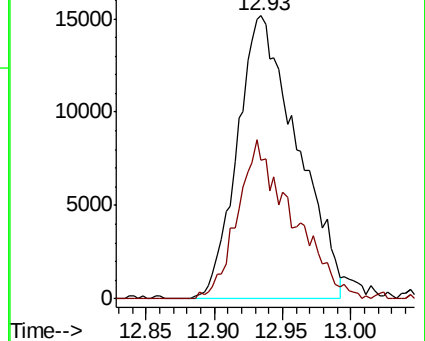
91 100

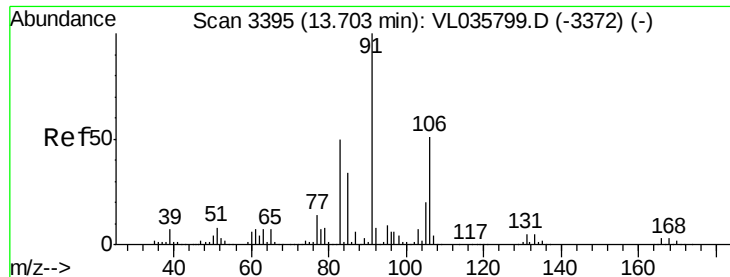
106 52.0 39.5 59.3



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

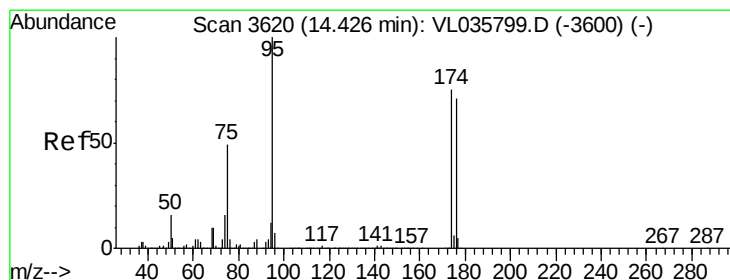
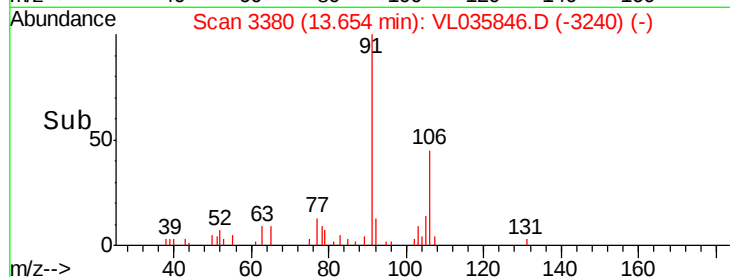
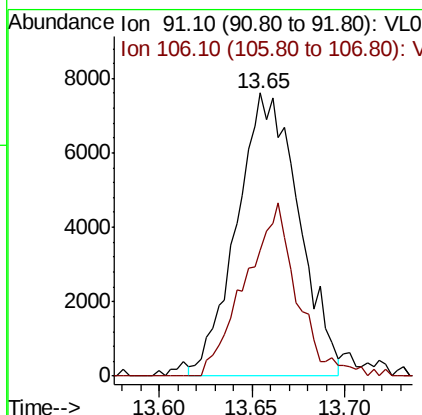
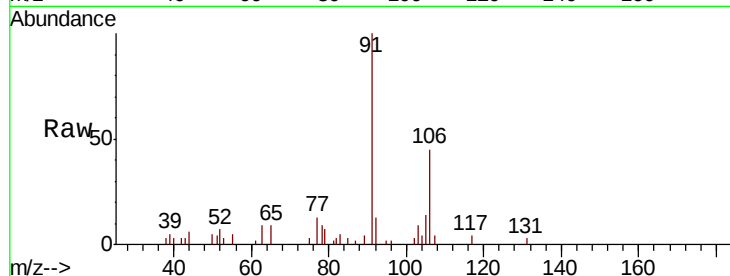




#60
o-Xylene
Concen: 0.057 ppbv
RT: 13.65 min Scan# 3380
Delta R.T. -0.05 min
Lab File: VL035846.D
Acq: 5 Nov 2020 00:01

Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 91 Resp: 17670
Ion Ratio Lower Upper
91 100
106 51.2 24.8 74.4



#68
1-Bromo-4-Fluorobenzene
Concen: 9.980 ppbv
RT: 14.38 min Scan# 3607
Delta R.T. -0.04 min
Lab File: VL035846.D
Acq: 5 Nov 2020 00:01

Tgt Ion: 95 Resp: 2197996
Ion Ratio Lower Upper
95 100
174 79.7 59.8 89.6
175 5.4 4.3 6.5

