

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL020620\
 Data File : VL034606.D
 Acq On : 6 Feb 2020 19:33
 Operator : SY/AP
 Sample : L1435-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

Quant Time: Feb 07 08:15:50 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL013020AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Jan 30 17:16:44 2020
 QLast Update : Thu Jan 30 17:16:44 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.69	49	882579	10.00	ppbv	0.02
33) 1,4-Difluorobenzene	7.21	114	1832342	10.00	ppbv	0.02
55) Chlorobenzene-d5	12.15	117	1768902	10.00	ppbv	0.04

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.48	95	1568558	10.49	ppbv	0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.90%

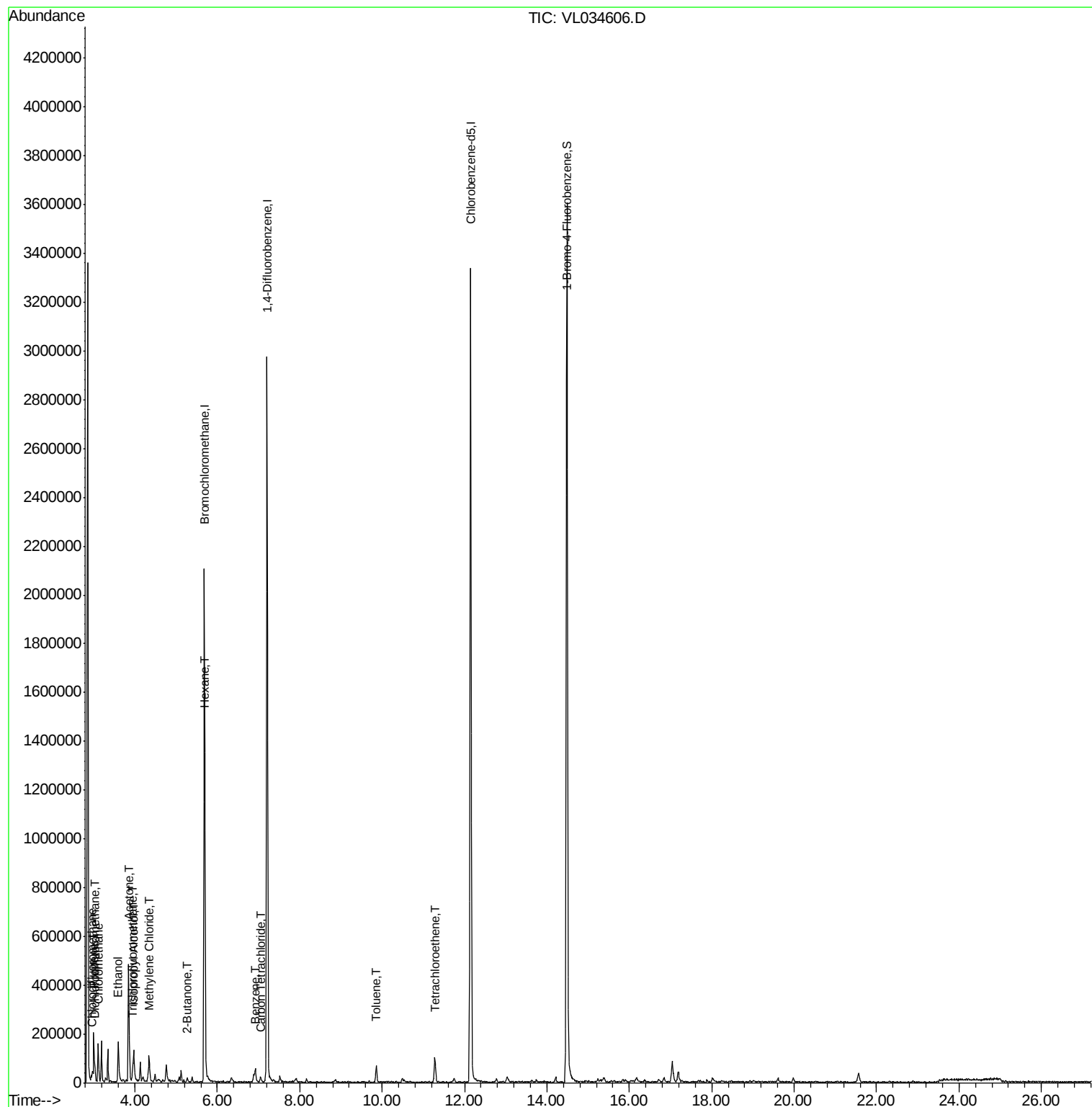
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.03	85	44814m	0.231	ppbv	
3) Chlorodifluoromethane	2.96	51	30294m	0.284	ppbv	
4) Chloromethane	3.12	50	30187	0.463	ppbv	92
9) Propene	3.00	41	35997	0.867	ppbv #	70
11) Trichlorofluoromethane	3.94	101	43507m	0.246	ppbv	
13) Ethanol	3.59	45	166525	14.972	ppbv	99
15) Acetone	3.84	43	473735	3.652	ppbv	100
19) Isopropyl Alcohol	3.97	45	110219	1.456	ppbv #	93
20) Methylene Chloride	4.35	84	33825	0.685	ppbv	96
26) Hexane	5.71	57	22418m	0.255	ppbv	
34) 2-Butanone	5.27	43	18014m	0.135	ppbv	
35) Carbon Tetrachloride	7.05	117	11694m	0.067	ppbv	
36) Benzene	6.92	78	31626m	0.194	ppbv	
52) Tetrachloroethene	11.28	164	21948m	0.335	ppbv	
53) Toluene	9.85	91	44360m	0.248	ppbv	

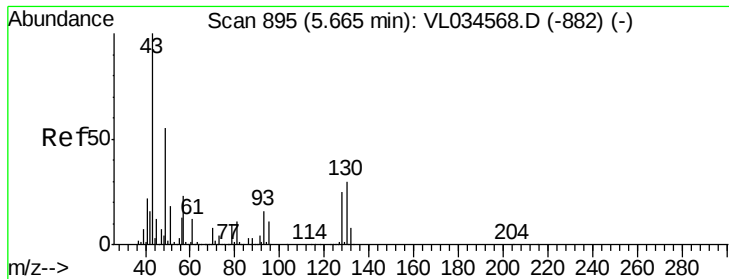
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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IA-2

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL013020AIR.M
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QLast Update : Thu Jan 30 17:16:44 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.69 min Scan# 902

Delta R.T. 0.02 min

Lab File: VL034606.D

Acq: 6 Feb 2020 19:33

Instrument :

MSVOA_L

ClientSampleId :

IA-2

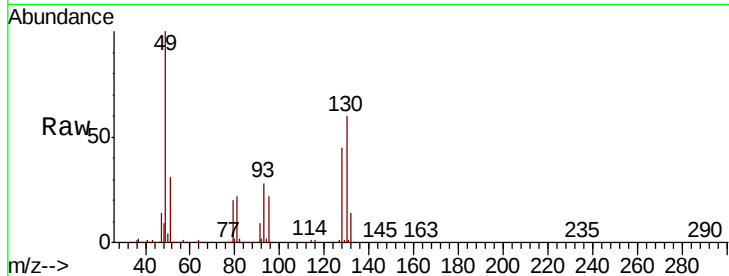
Tot Ion: 49 Resp: 882579

Ion Ratio Lower Upper

49 100

128 46.8 22.7 68.1

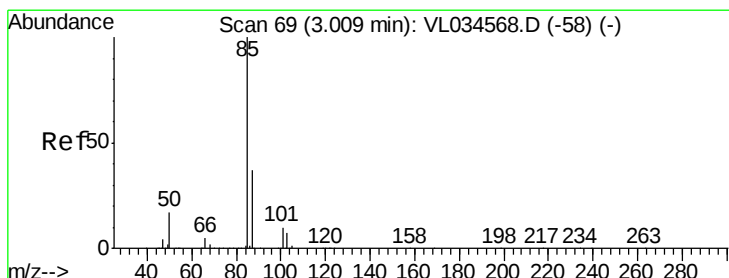
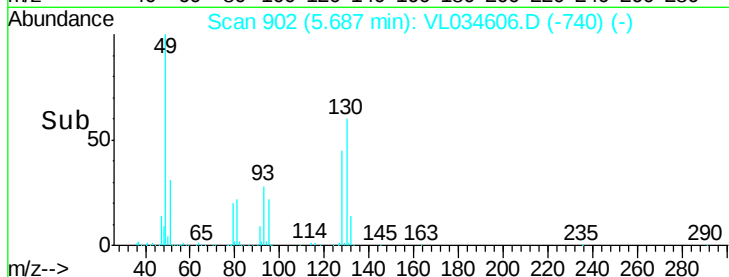
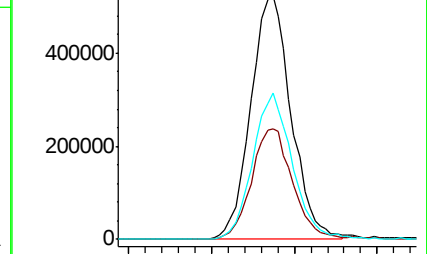
130 59.7 28.6 85.8



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: 0.231 ppbv m

RT: 3.03 min Scan# 75

Delta R.T. 0.02 min

Lab File: VL034606.D

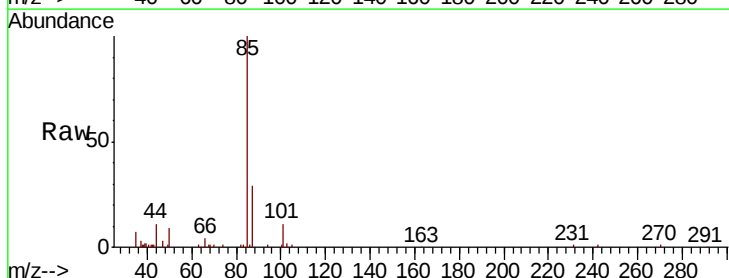
Acq: 6 Feb 2020 19:33

Tgt Ion: 85 Resp: 44814

Ion Ratio Lower Upper

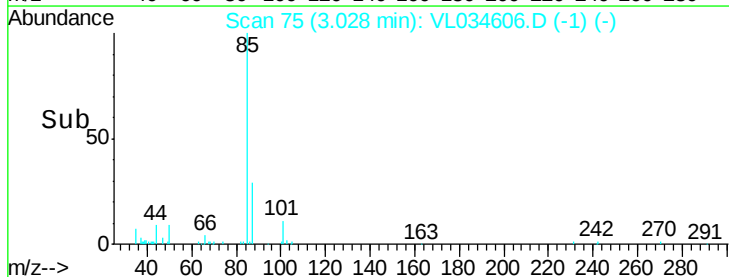
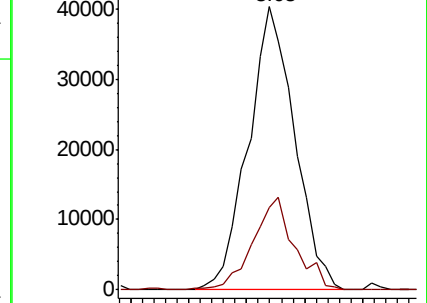
85 100

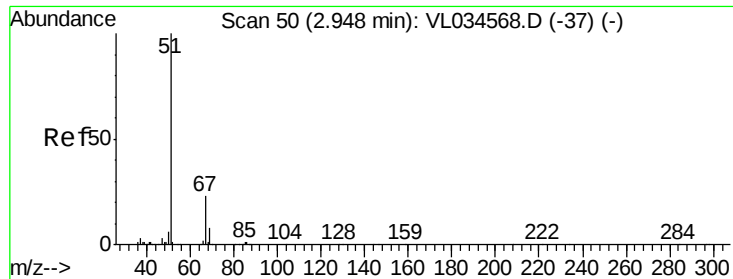
87 29.1 29.5 44.3#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.284 ppbv

RT: 2.96 min Scan# 55

Delta R.T. 0.02 min

Lab File: VL034606.D

Acq: 6 Feb 2020 19:33

Instrument :

MSVOA_L

ClientSampleId :

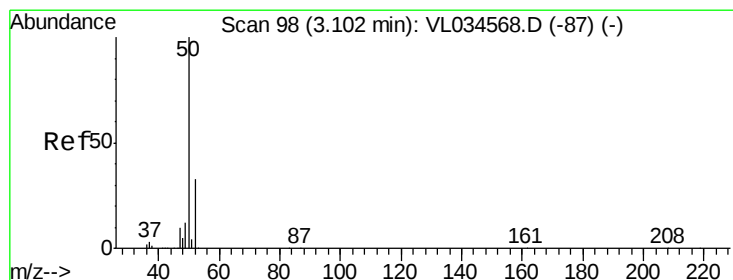
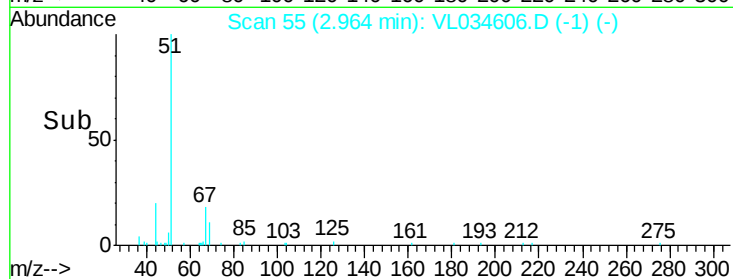
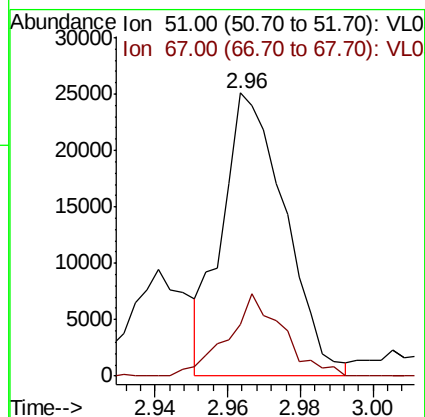
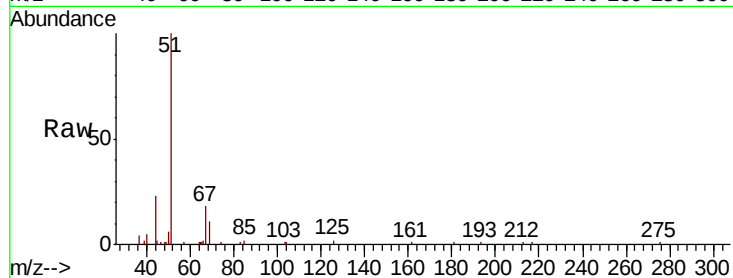
IA-2

Tot Ion: 51 Resp: 30294

Ion Ratio Lower Upper

51 100

67 1.8 17.8 26.8#



#4

Chloromethane

Concen: 0.463 ppbv

RT: 3.12 min Scan# 104

Delta R.T. 0.02 min

Lab File: VL034606.D

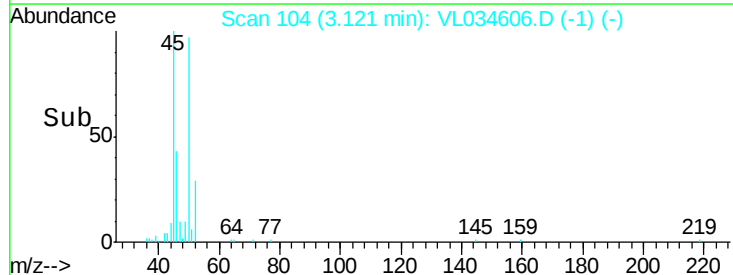
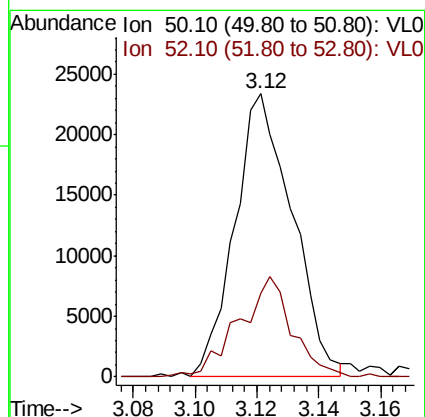
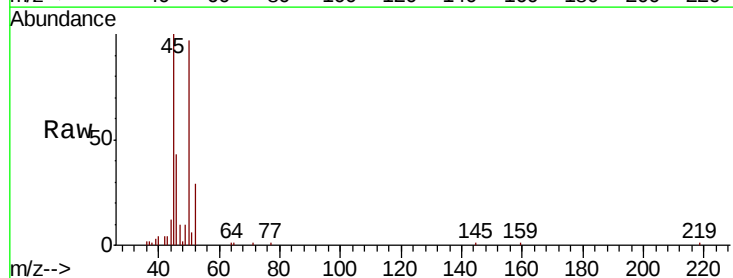
Acq: 6 Feb 2020 19:33

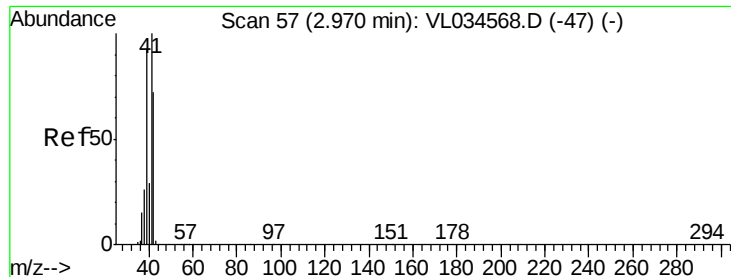
Tgt Ion: 50 Resp: 30187

Ion Ratio Lower Upper

50 100

52 28.6 26.6 39.8

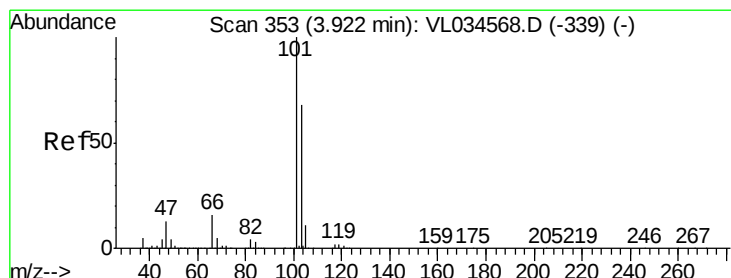
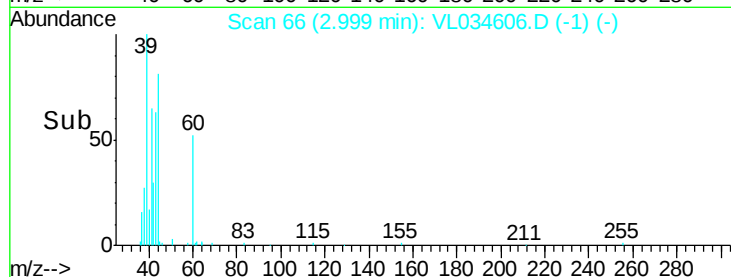
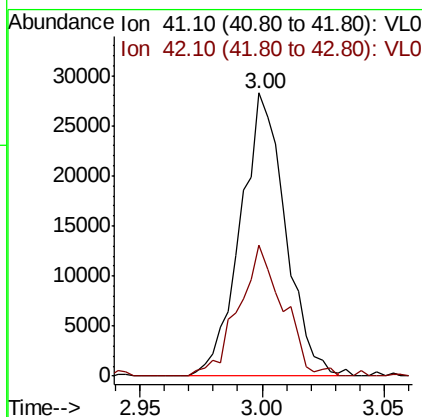
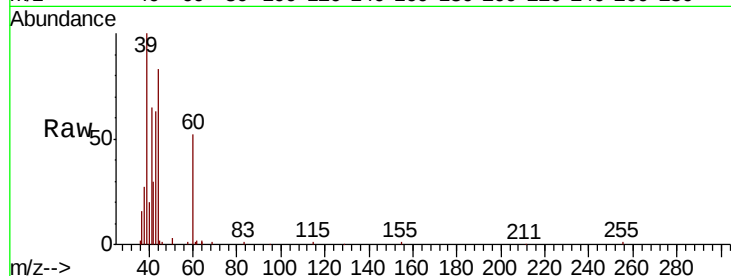




#9
 Propene
 Concen: 0.867 ppbv
 RT: 3.00 min Scan# 66
 Delta R.T. 0.03 min
 Lab File: VL034606.D
 Acq: 6 Feb 2020 19:33

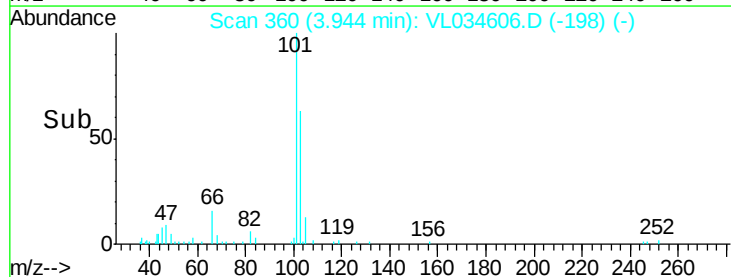
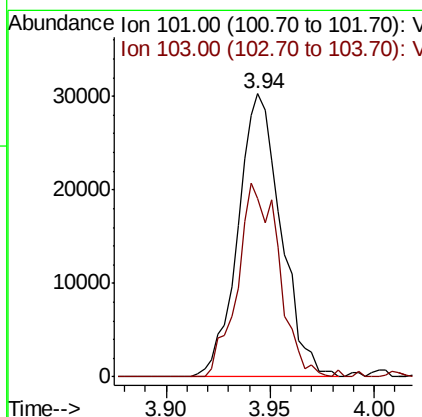
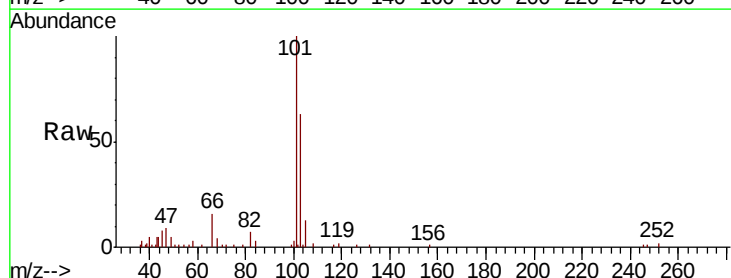
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

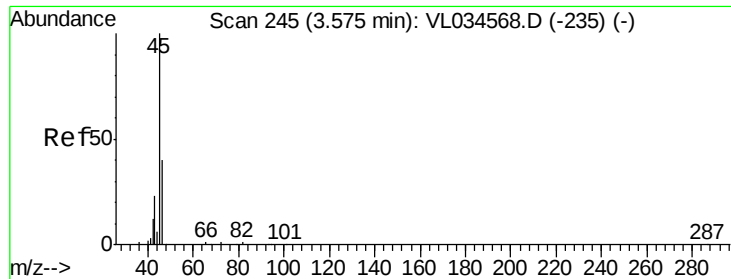
Tot Ion: 41 Resp: 35997
 Ion Ratio Lower Upper
 41 100
 42 46.8 57.0 85.4#



#11
 Trichlorofluoromethane
 Concen: 0.246 ppbv m
 RT: 3.94 min Scan# 360
 Delta R.T. 0.02 min
 Lab File: VL034606.D
 Acq: 6 Feb 2020 19:33

Tgt Ion: 101 Resp: 43507
 Ion Ratio Lower Upper
 101 100
 103 63.2 54.4 81.6





#13

Ethanol

Concen: 14.972 ppbv

RT: 3.59 min Scan# 251

Delta R.T. 0.02 min

Lab File: VL034606.D

Acq: 6 Feb 2020 19:33

Instrument :

MSVOA_L

ClientSampleId :

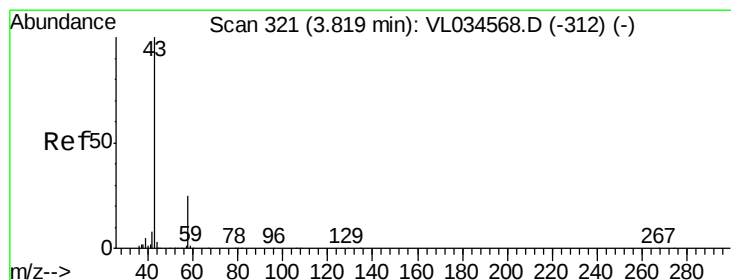
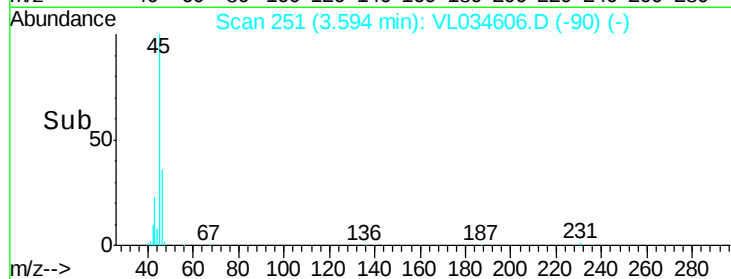
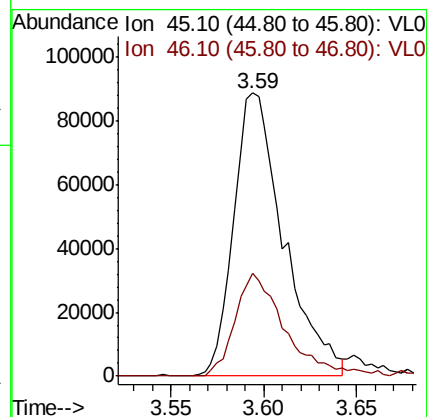
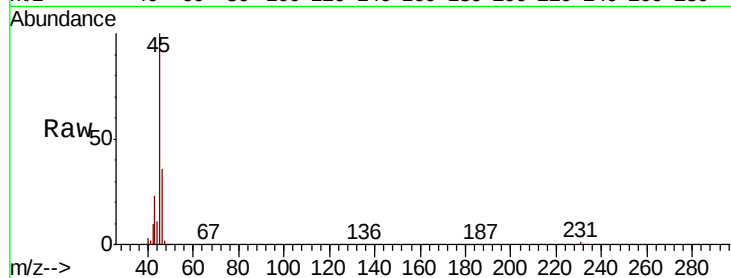
IA-2

Tot Ion: 45 Resp: 166525

Ion Ratio Lower Upper

45 100

46 36.2 14.8 59.2



#15

Acetone

Concen: 3.652 ppbv

RT: 3.84 min Scan# 329

Delta R.T. 0.03 min

Lab File: VL034606.D

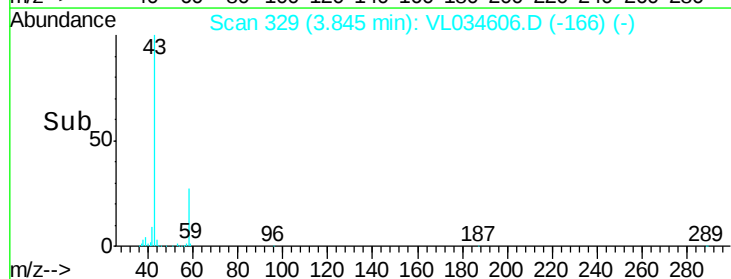
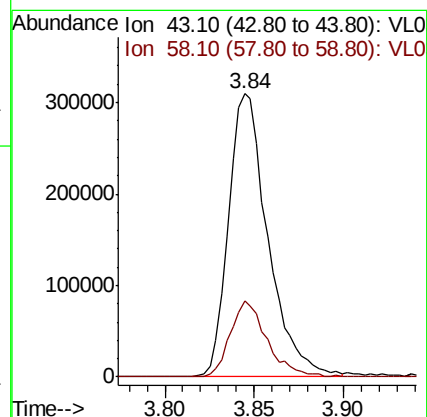
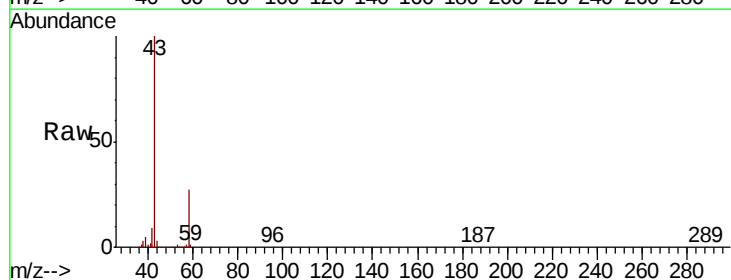
Acq: 6 Feb 2020 19:33

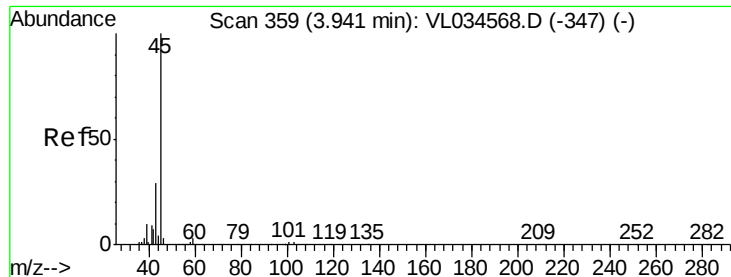
Tgt Ion: 43 Resp: 473735

Ion Ratio Lower Upper

43 100

58 25.5 20.3 30.5





#19

Isopropyl Alcohol

Concen: 1.456 ppbv

RT: 3.97 min Scan# 368

Delta R.T. 0.03 min

Lab File: VL034606.D

Acq: 6 Feb 2020 19:33

Instrument :

MSVOA_L

ClientSampleId :

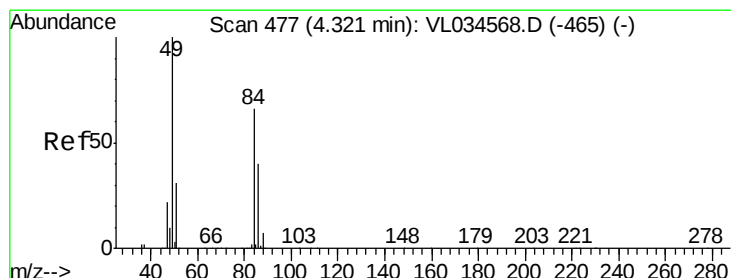
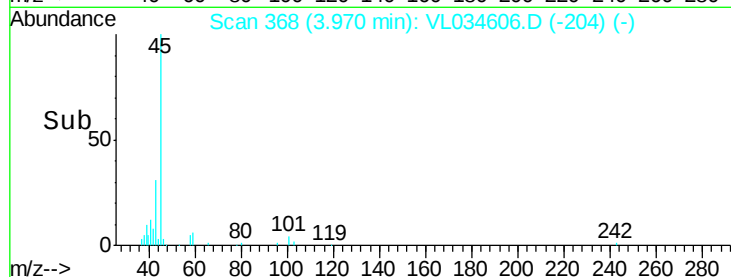
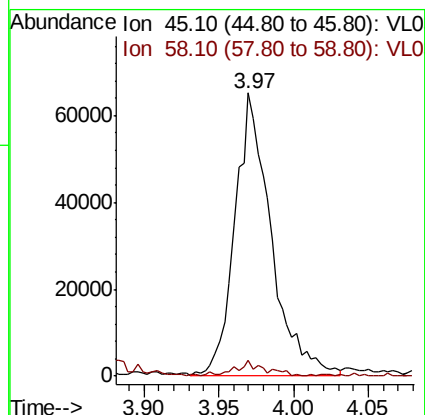
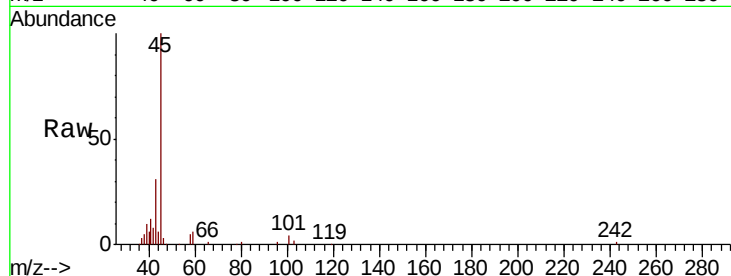
IA-2

Tot Ion: 45 Resp: 110219

Ion Ratio Lower Upper

45 100

58 4.7 1.7 2.5#



#20

Methylene Chloride

Concen: 0.685 ppbv

RT: 4.35 min Scan# 486

Delta R.T. 0.03 min

Lab File: VL034606.D

Acq: 6 Feb 2020 19:33

Tgt Ion: 84 Resp: 33825

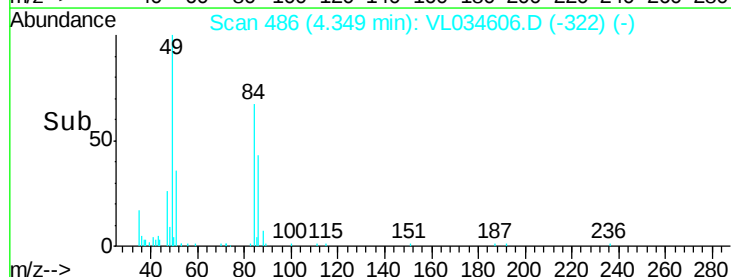
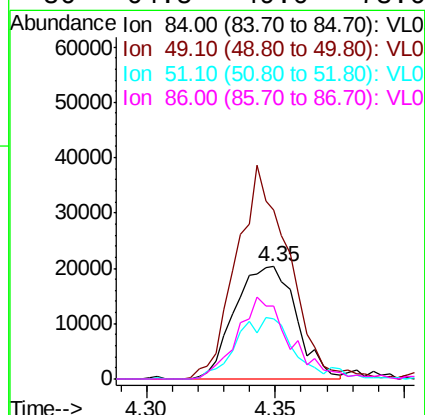
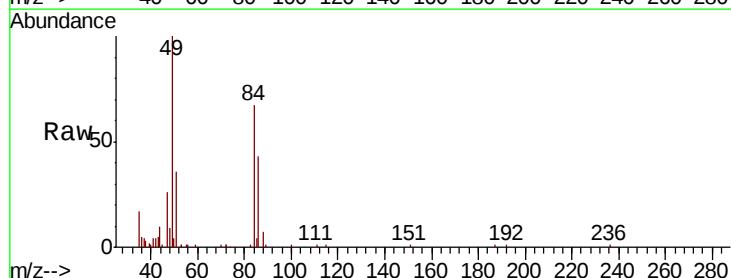
Ion Ratio Lower Upper

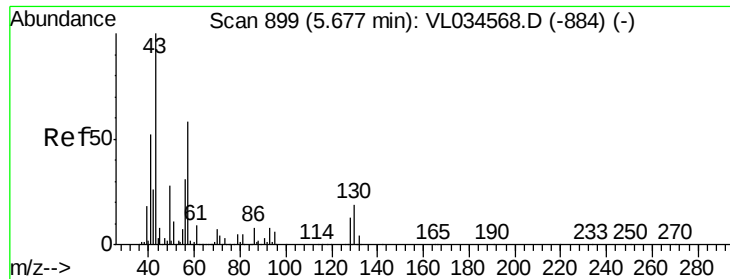
84 100

49 148.8 122.4 183.6

51 53.8 38.6 57.8

86 64.5 49.0 73.6

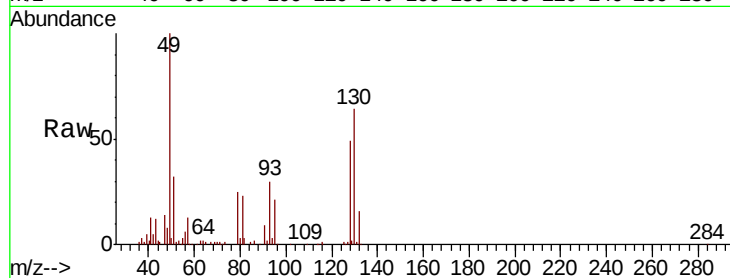




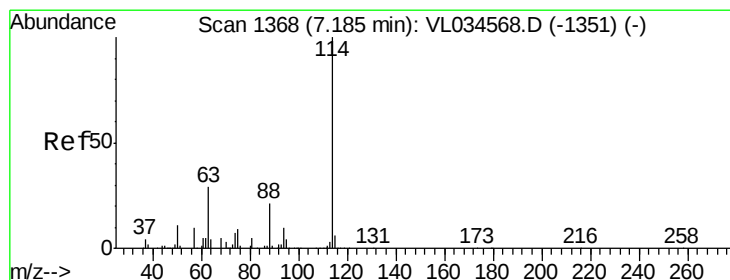
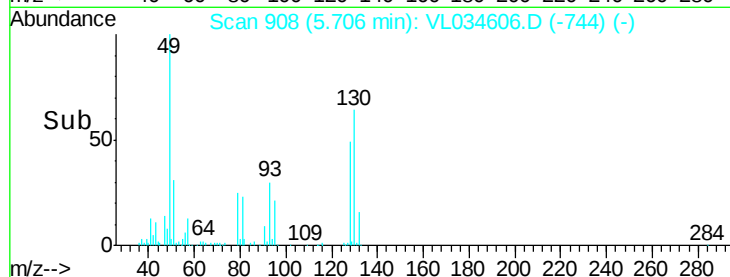
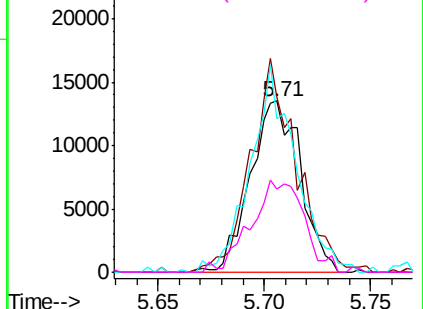
#26
Hexane
Concen: 0.255 ppbv m
RT: 5.71 min Scan# 908
Delta R.T. 0.03 min
Lab File: VL034606.D
Acq: 6 Feb 2020 19:33

Instrument :
MSVOA_L
ClientSampleId :
IA-2

Tot Ion: 57 Resp: 22418
Ion Ratio Lower Upper
57 100
41 114.0 76.2 114.2
43 109.9 189.9 284.9#
56 57.2 43.6 65.4

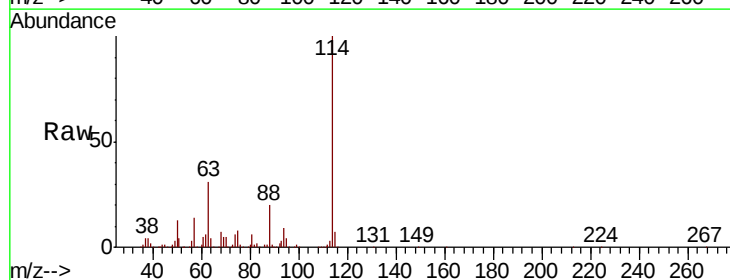


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

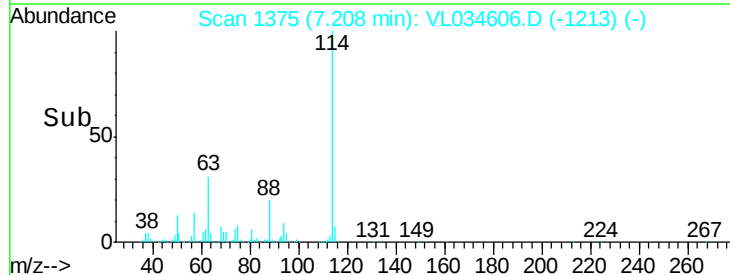
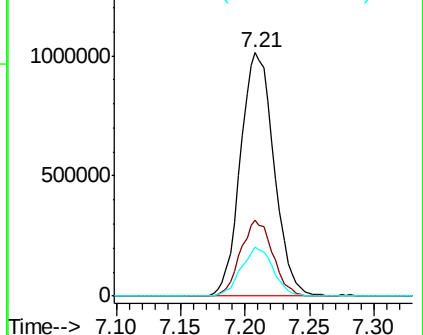


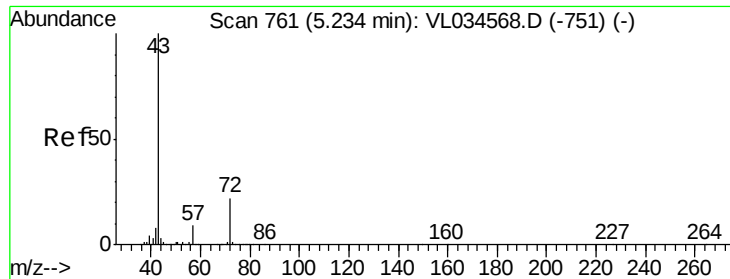
#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.21 min Scan# 1375
Delta R.T. 0.02 min
Lab File: VL034606.D
Acq: 6 Feb 2020 19:33

Tgt Ion:114 Resp: 1832342
Ion Ratio Lower Upper
114 100
63 30.3 24.1 36.1
88 19.2 15.9 23.9



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





#34

2-Butanone

Concen: 0.135 ppbv m

RT: 5.27 min Scan# 772

Delta R.T. 0.04 min

Lab File: VL034606.D

Acq: 6 Feb 2020 19:33

Instrument :

MSVOA_L

ClientSampled :

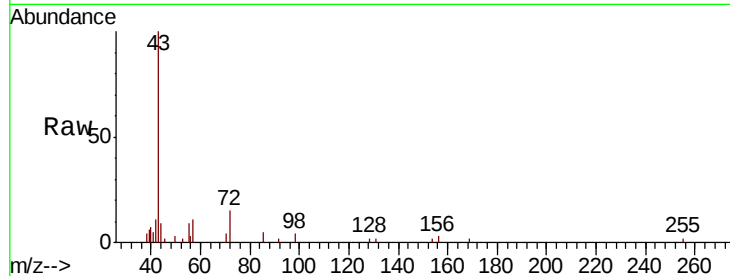
IA-2

Tot Ion: 43 Resp: 18014

Ion Ratio Lower Upper

43 100

72 21.2 17.2 25.8



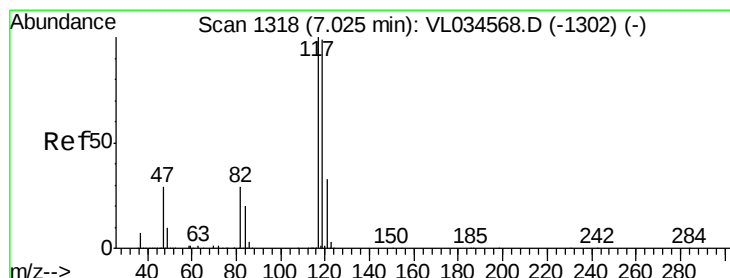
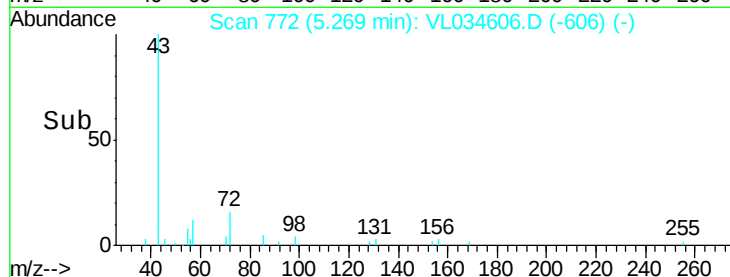
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

5.27

5.30

Time-->



#35

Carbon Tetrachloride

Concen: 0.067 ppbv m

RT: 7.05 min Scan# 1327

Delta R.T. 0.03 min

Lab File: VL034606.D

Acq: 6 Feb 2020 19:33

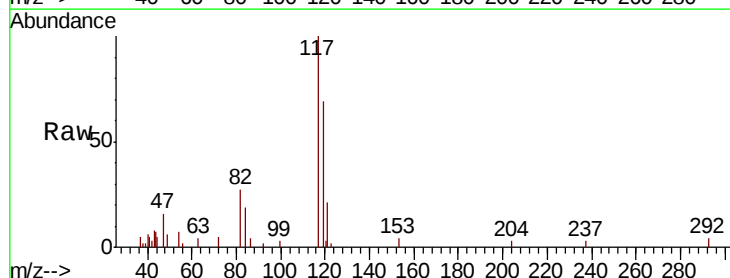
Tgt Ion: 117 Resp: 11694

Ion Ratio Lower Upper

117 100

119 68.9 79.5 119.3#

121 21.0 26.2 39.2#



Abundance Ion 117.00 (116.70 to 117.70): V

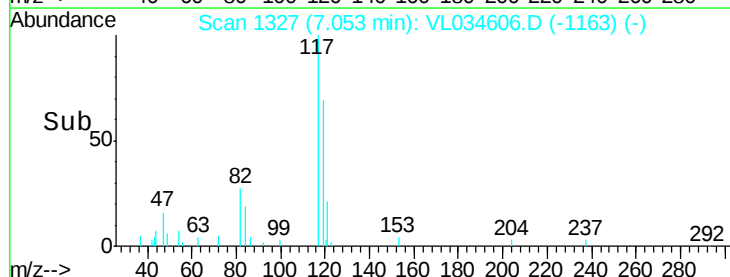
Ion 119.00 (118.70 to 119.70): V

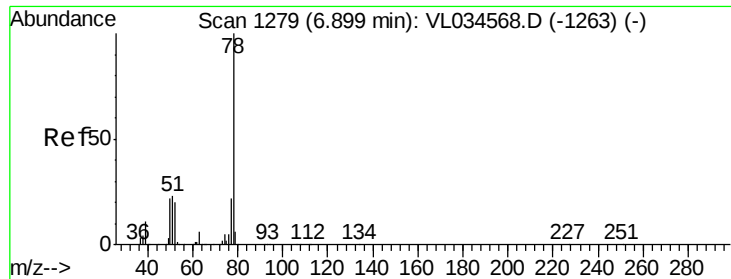
Ion 121.00 (120.70 to 121.70): V

7.05

7.10

Time-->





#36

Benzene

Concen: 0.194 ppbv m

RT: 6.92 min Scan# 1285

Delta R.T. 0.02 min

Lab File: VL034606.D

Acq: 6 Feb 2020 19:33

Instrument :

MSVOA_L

ClientSampleId :

IA-2

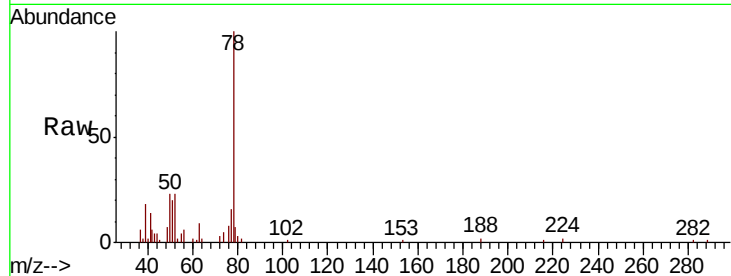
Tot Ion: 78 Resp: 31626

Ion Ratio Lower Upper

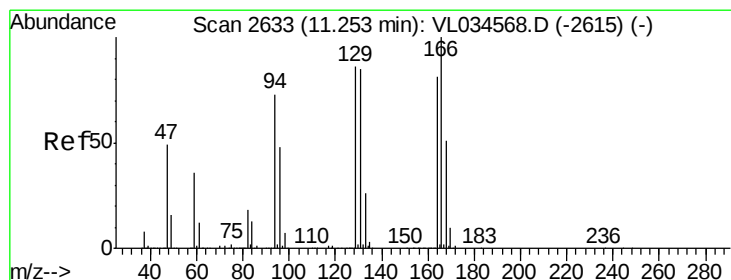
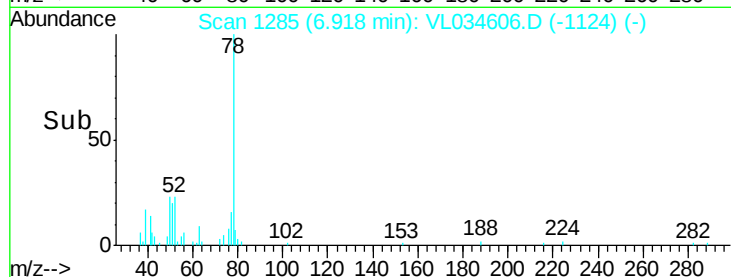
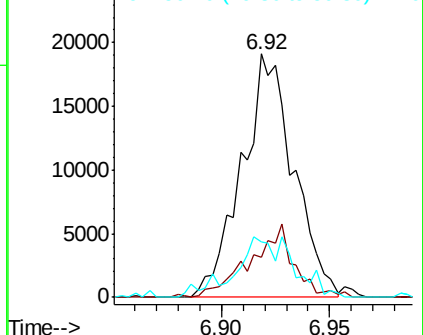
78 100

77 16.3 17.3 25.9#

50 22.6 17.4 26.2



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0



#52

Tetrachloroethene

Concen: 0.335 ppbv m

RT: 11.28 min Scan# 2641

Delta R.T. 0.03 min

Lab File: VL034606.D

Acq: 6 Feb 2020 19:33

Tgt Ion: 164 Resp: 21948

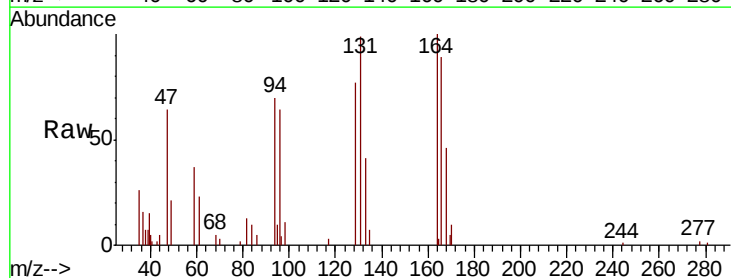
Ion Ratio Lower Upper

164 100

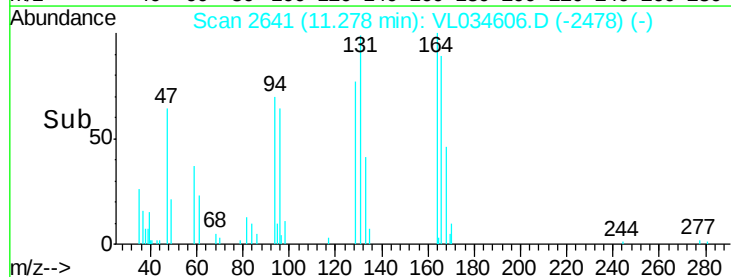
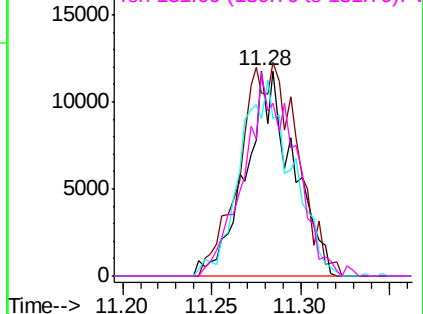
166 89.2 99.0 148.4#

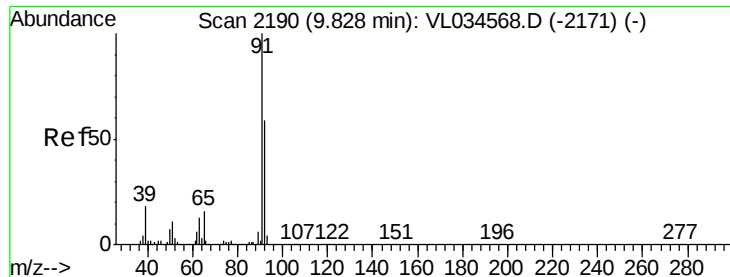
129 76.8 85.3 127.9#

131 99.4 84.2 126.2



Abundance Ion 163.90 (163.60 to 164.60): V
Ion 165.90 (165.60 to 166.60): V
Ion 129.00 (128.70 to 129.70): V
Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 0.248 ppbv m

RT: 9.85 min Scan# 2198

Delta R.T. 0.03 min

Lab File: VL034606.D

Acq: 6 Feb 2020 19:33

Instrument :

MSVOA_L

ClientSampled :

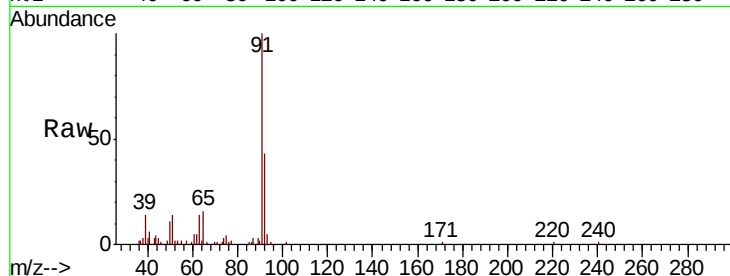
IA-2

Tot Ion: 91 Resp: 44360

Ion Ratio Lower Upper

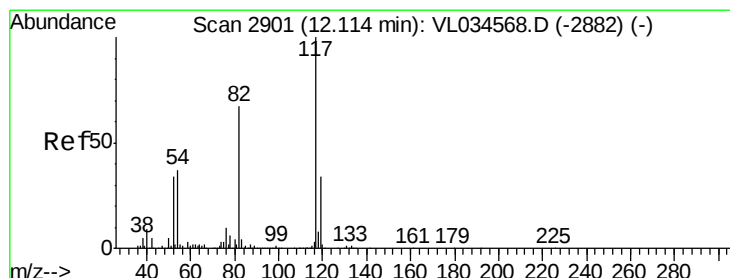
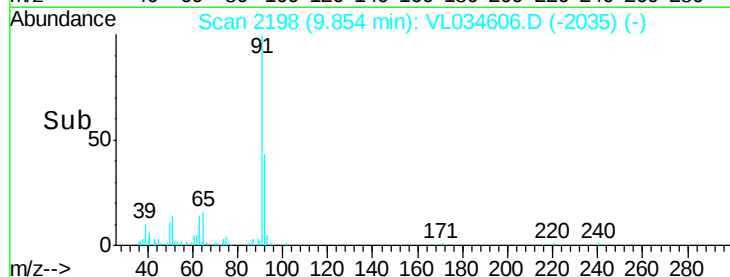
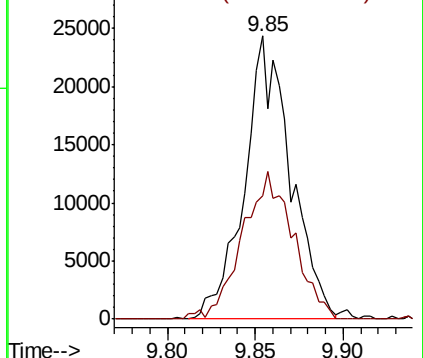
91 100

92 57.3 48.2 72.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.15 min Scan# 2912

Delta R.T. 0.04 min

Lab File: VL034606.D

Acq: 6 Feb 2020 19:33

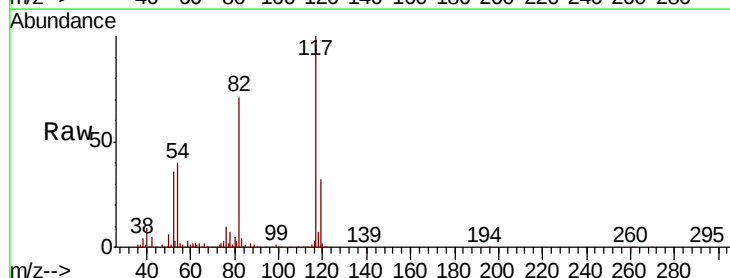
Tgt Ion: 117 Resp: 1768902

Ion Ratio Lower Upper

117 100

82 71.2 54.2 81.4

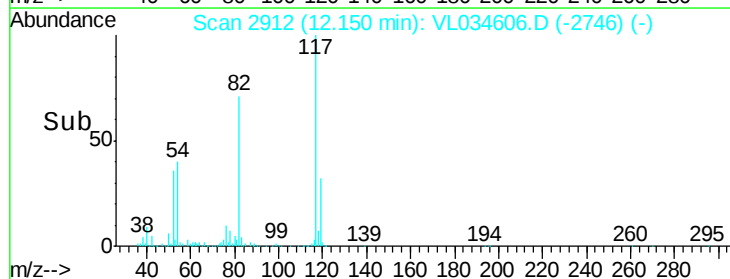
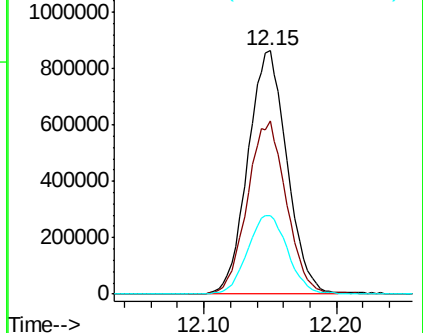
119 33.5 26.1 39.1

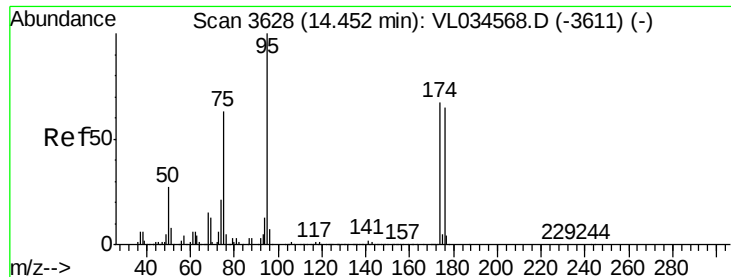


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 10.492 ppbv

RT: 14.48 min Scan# 3637

Delta R.T. 0.03 min

Lab File: VL034606.D

Acq: 6 Feb 2020 19:33

Instrument :

MSVOA_L

ClientSampleId :

IA-2

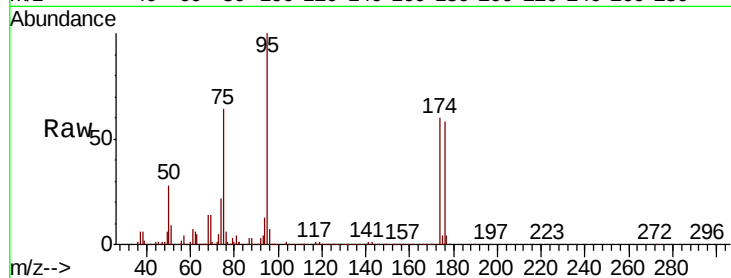
Tot Ion: 95 Resp: 1568558

Ion Ratio Lower Upper

95 100

174 63.2 52.3 78.5

175 4.6 3.8 5.6



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

