

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL020620\
 Data File : VL034611.D
 Acq On : 6 Feb 2020 22:58
 Operator : SY/AP
 Sample : L1435-07
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-7

Quant Time: Feb 10 09:48:02 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	927571	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.21	114	1914087	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.15	117	1865960	10.00	ppbv	0.04

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.49	95	1645311	10.43	ppbv	0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.30%

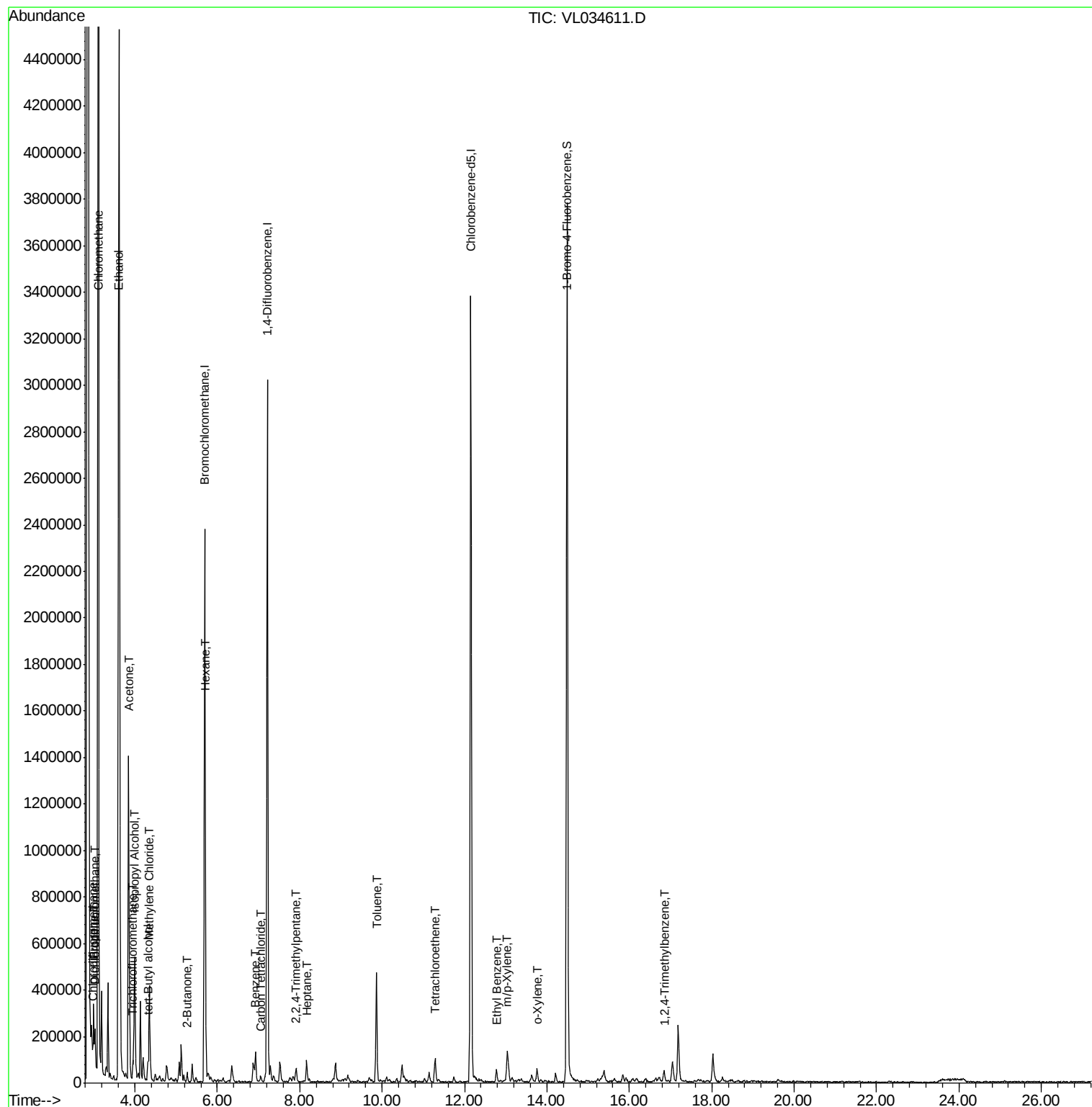
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.03	85	101107	0.495	ppbv	93
3) Chlorodifluoromethane	2.97	51	34425m	0.307	ppbv	
4) Chloromethane	3.12	50	35332	0.515	ppbv	97
9) Propene	3.00	41	51658m	1.184	ppbv	
10) Heptane	8.17	43	27253m	0.248	ppbv	
11) Trichlorofluoromethane	3.95	101	44834	0.242	ppbv #	81
13) Ethanol	3.61	45	5851219	500.569	ppbv	94
15) Acetone	3.84	43	1401347	10.279	ppbv	99
17) tert-Butyl alcohol	4.32	59	32687m	0.326	ppbv	
19) Isopropyl Alcohol	3.99	45	598127m	7.518	ppbv	
20) Methylene Chloride	4.35	84	125604	2.420	ppbv	96
26) Hexane	5.71	57	94666	1.024	ppbv	80
34) 2-Butanone	5.27	43	38214	0.275	ppbv	96
35) Carbon Tetrachloride	7.05	117	12342m	0.067	ppbv	
36) Benzene	6.92	78	86843	0.510	ppbv	96
44) 2,2,4-Trimethylpentane	7.92	57	34605m	0.112	ppbv	
52) Tetrachloroethene	11.28	164	21288m	0.311	ppbv	
53) Toluene	9.86	91	313246	1.675	ppbv	100
58) Ethyl Benzene	12.79	91	41854m	0.168	ppbv	
59) m/p-Xylene	13.03	91	131596m	0.596	ppbv	
60) o-Xylene	13.76	91	38901m	0.175	ppbv	
74) 1,2,4-Trimethylbenzene	16.84	105	30085m	0.114	ppbv	

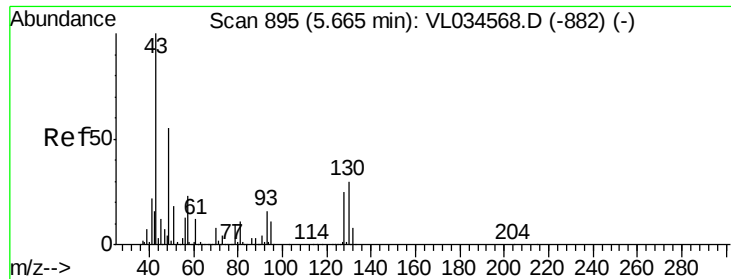
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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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# 903

Delta R.T. 0.03 min

Lab File: VL034611.D

Acq: 6 Feb 2020 22:58

Instrument :

MSVOA_L

ClientSampled :

IA-7

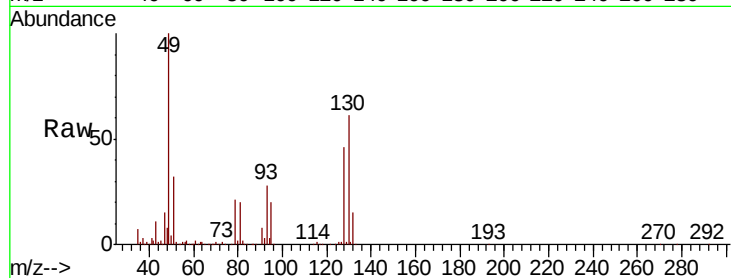
Tot Ion: 49 Resp: 927571

Ion Ratio Lower Upper

49 100

128 46.0 22.7 68.1

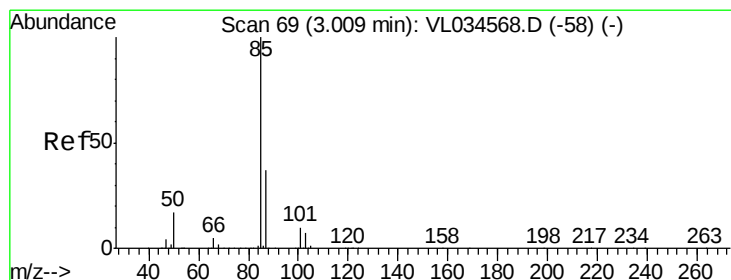
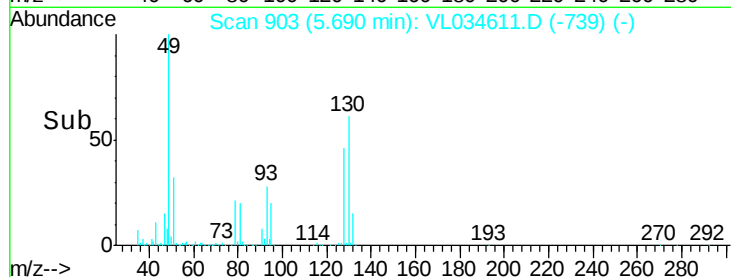
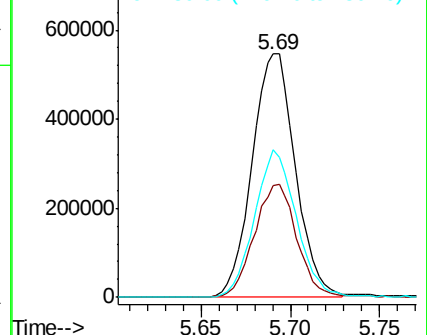
130 58.9 28.6 85.8



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: 0.495 ppbv

RT: 3.03 min Scan# 76

Delta R.T. 0.02 min

Lab File: VL034611.D

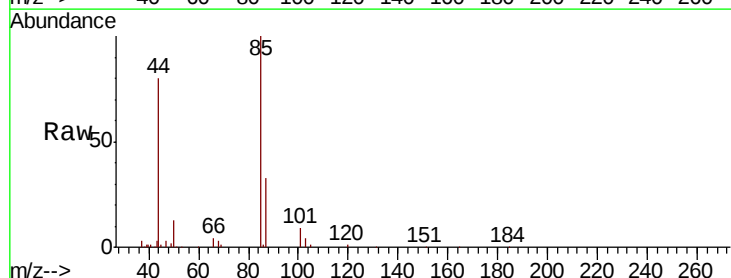
Acq: 6 Feb 2020 22:58

Tgt Ion: 85 Resp: 101107

Ion Ratio Lower Upper

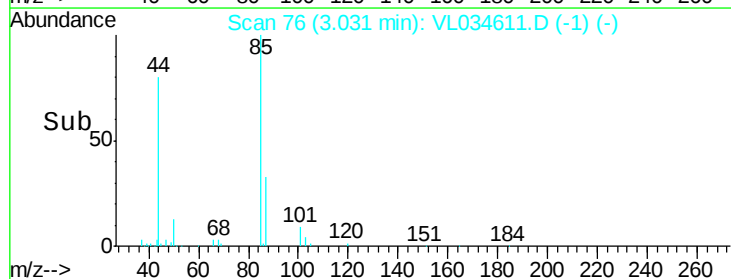
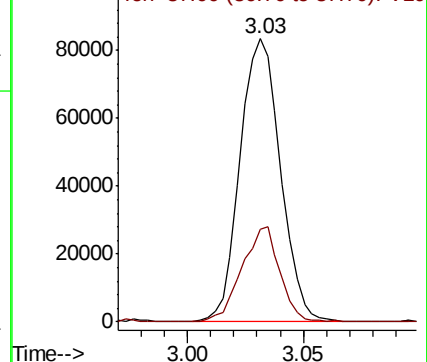
85 100

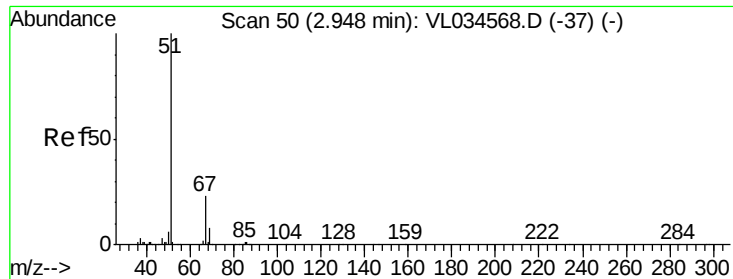
87 32.8 29.5 44.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.307 ppbv

RT: 2.97 min Scan# 58

Delta R.T. 0.03 min

Lab File: VL034611.D

Acq: 6 Feb 2020 22:58

Instrument :

MSVOA_L

ClientSampled :

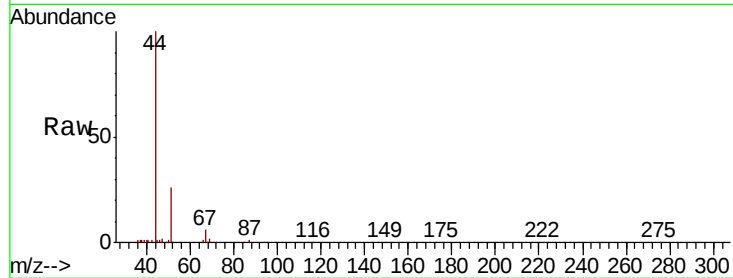
IA-7

Tot Ion: 51 Resp: 34425

Ion Ratio Lower Upper

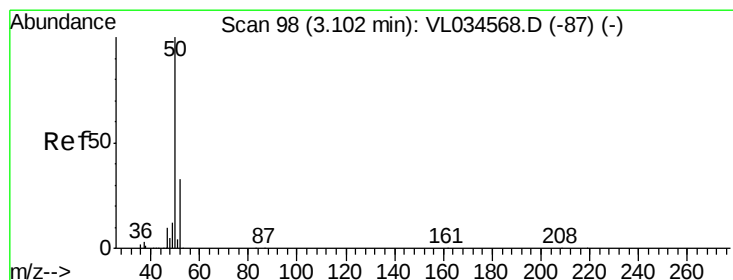
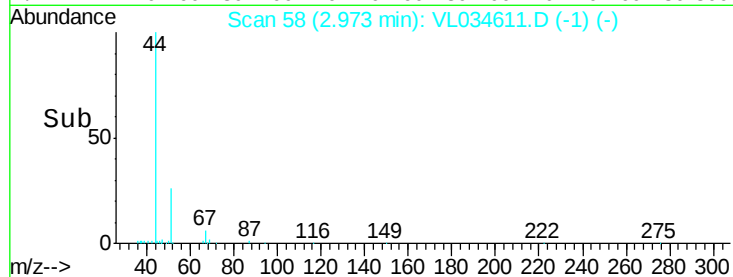
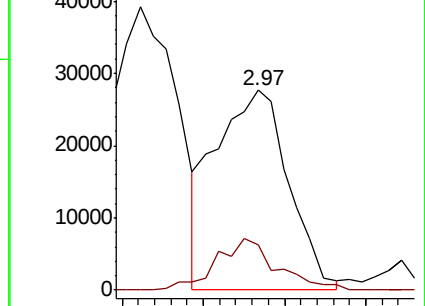
51 100

67 21.4 17.8 26.8



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.515 ppbv

RT: 3.12 min Scan# 105

Delta R.T. 0.02 min

Lab File: VL034611.D

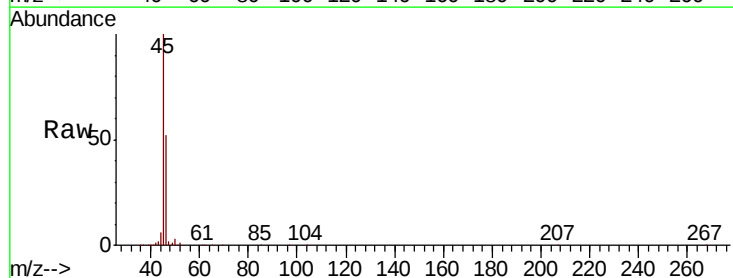
Acq: 6 Feb 2020 22:58

Tgt Ion: 50 Resp: 35332

Ion Ratio Lower Upper

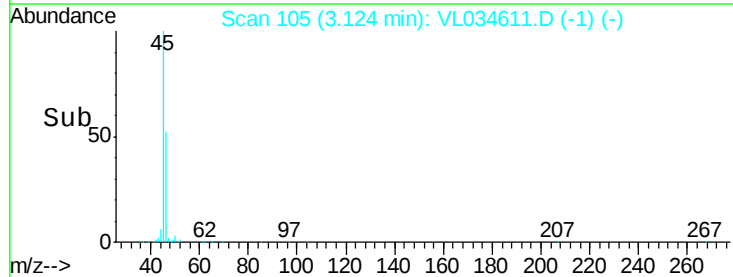
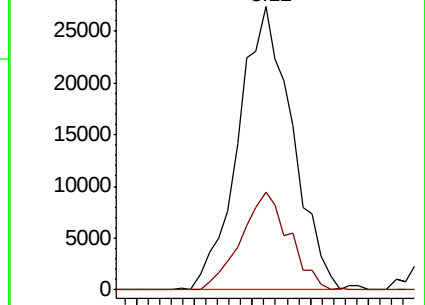
50 100

52 34.8 26.6 39.8



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.184 ppbv m

RT: 3.00 min Scan# 67

Delta R.T. 0.03 min

Lab File: VL034611.D

Acq: 6 Feb 2020 22:58

Instrument :

MSVOA_L

ClientSampleId :

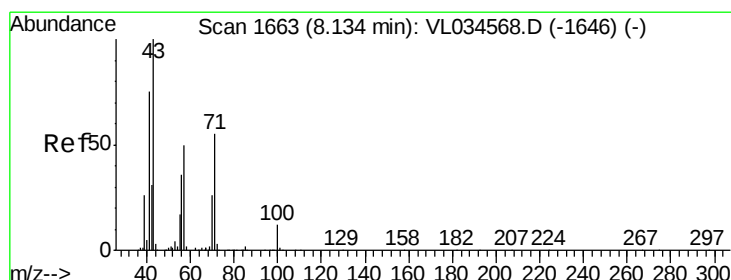
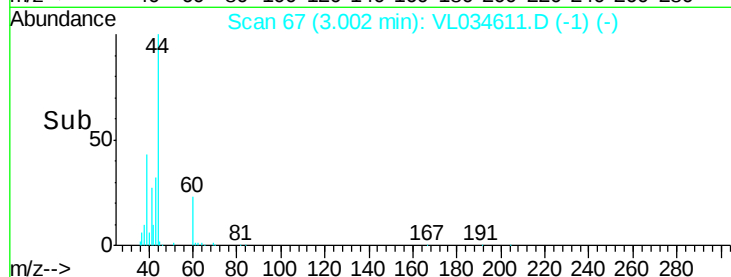
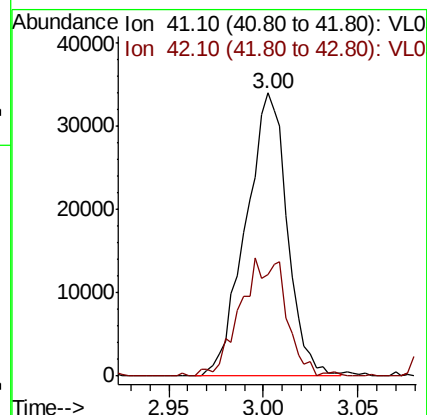
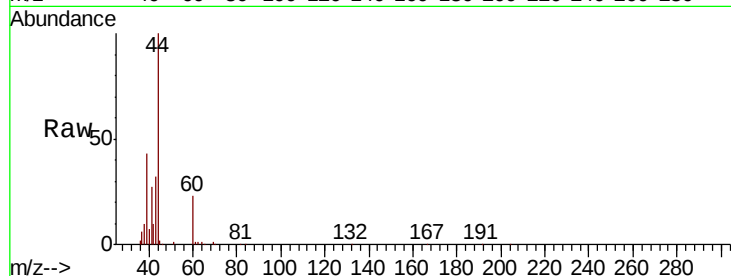
IA-7

Tot Ion: 41 Resp: 51658

Ion Ratio Lower Upper

41 100

42 108.2 57.0 85.4#



#10

Heptane

Concen: 0.248 ppbv m

RT: 8.17 min Scan# 1674

Delta R.T. 0.04 min

Lab File: VL034611.D

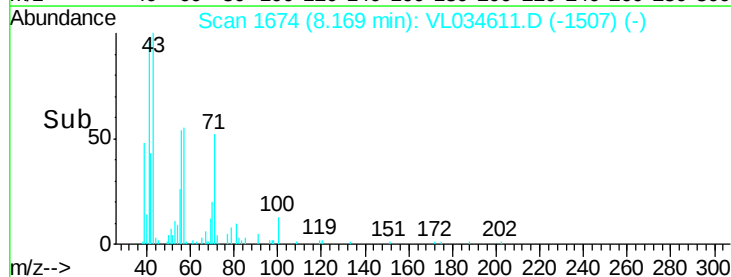
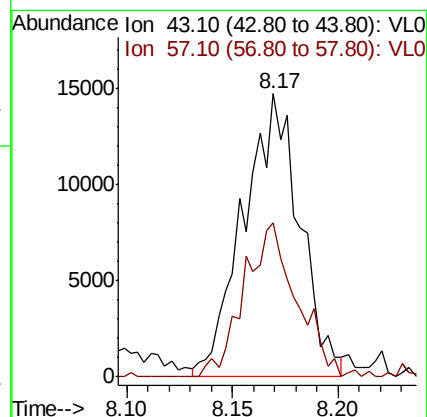
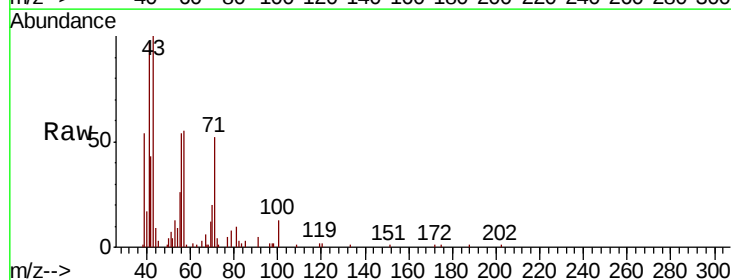
Acq: 6 Feb 2020 22:58

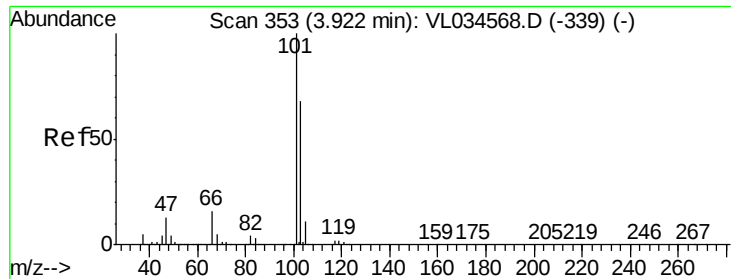
Tgt Ion: 43 Resp: 27253

Ion Ratio Lower Upper

43 100

57 51.1 41.2 61.8

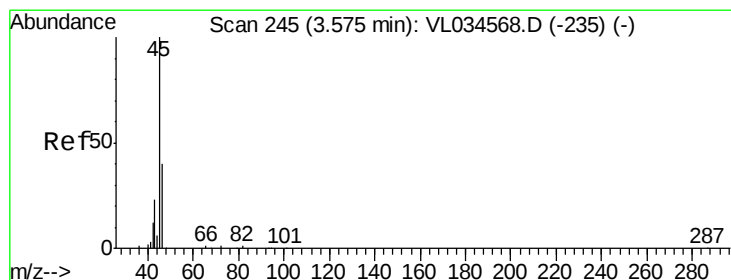
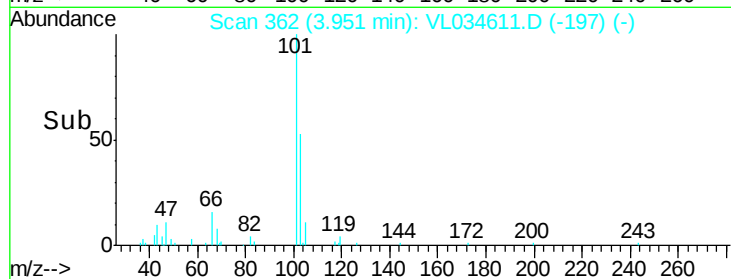
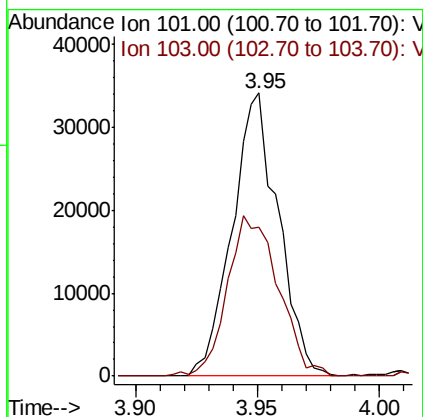
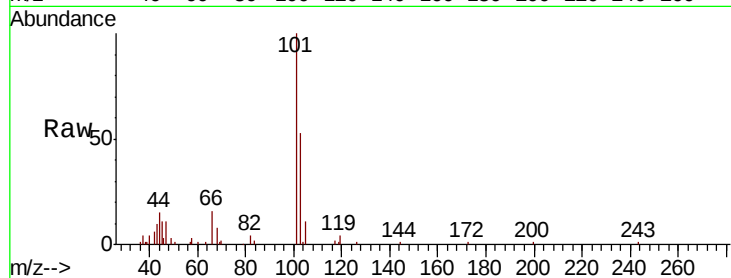




#11
 Trichlorofluoromethane
 Concen: 0.242 ppbv
 RT: 3.95 min Scan# 362
 Delta R.T. 0.03 min
 Lab File: VL034611.D
 Acq: 6 Feb 2020 22:58

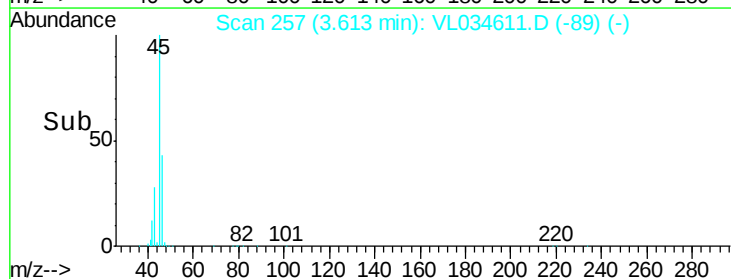
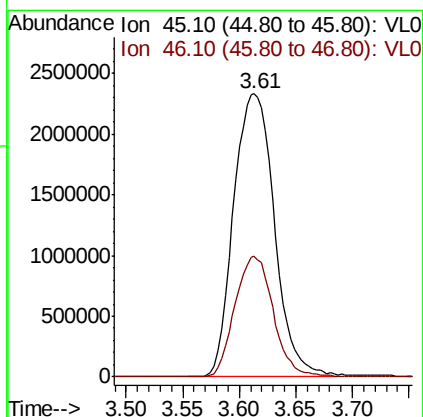
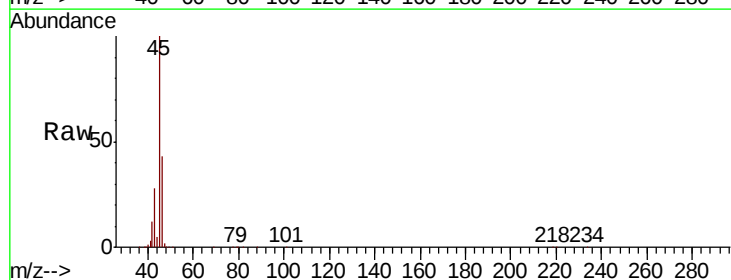
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-7

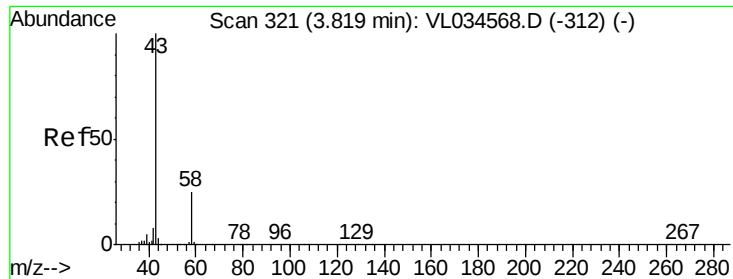
Tot Ion:101 Resp: 44834
 Ion Ratio Lower Upper
 101 100
 103 52.8 54.4 81.6#



#13
 Ethanol
 Concen: 500.569 ppbv
 RT: 3.61 min Scan# 257
 Delta R.T. 0.04 min
 Lab File: VL034611.D
 Acq: 6 Feb 2020 22:58

Tgt Ion: 45 Resp: 5851219
 Ion Ratio Lower Upper
 45 100
 46 40.4 14.8 59.2





#15

Acetone

Concen: 10.279 ppbv

RT: 3.84 min Scan# 329

Delta R.T. 0.03 min

Lab File: VL034611.D

Acq: 6 Feb 2020 22:58

Instrument :

MSVOA_L

ClientSampleId :

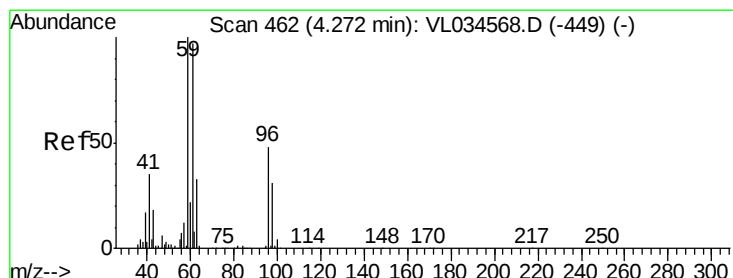
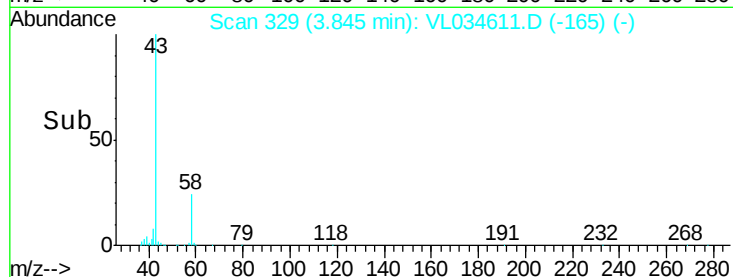
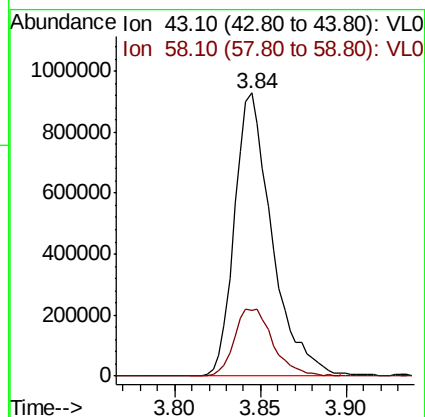
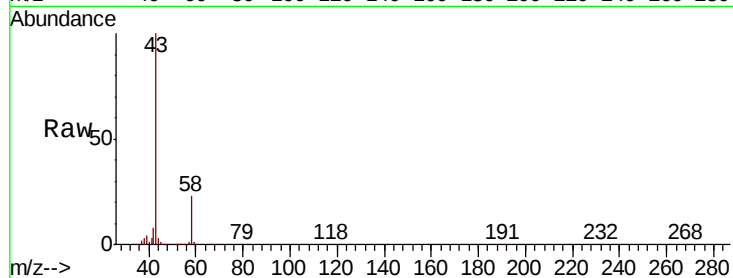
IA-7

Tot Ion: 43 Resp: 1401347

Ion Ratio Lower Upper

43 100

58 24.9 20.3 30.5



#17

tert-Butyl alcohol

Concen: 0.326 ppbv m

RT: 4.32 min Scan# 476

Delta R.T. 0.05 min

Lab File: VL034611.D

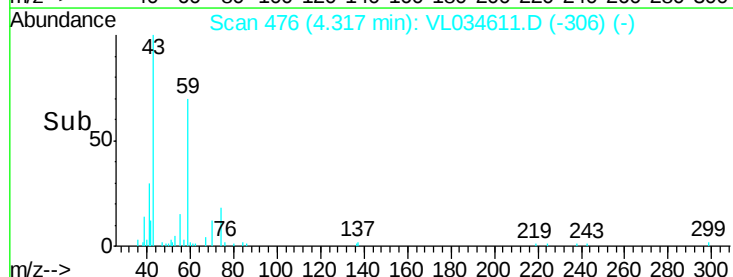
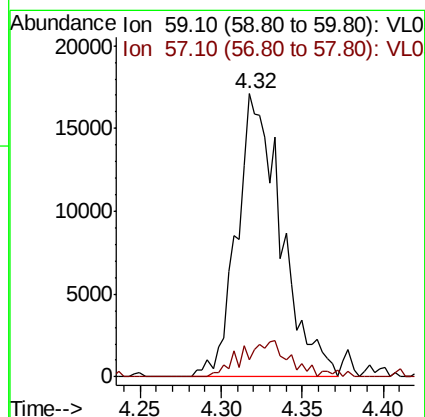
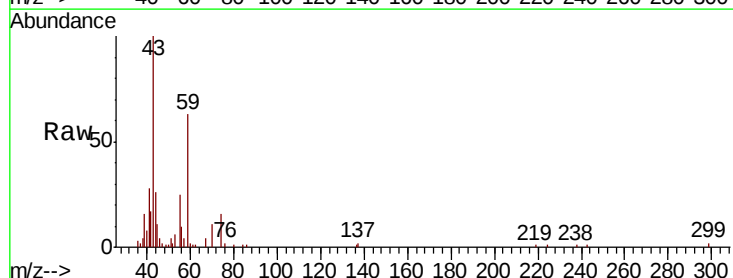
Acq: 6 Feb 2020 22:58

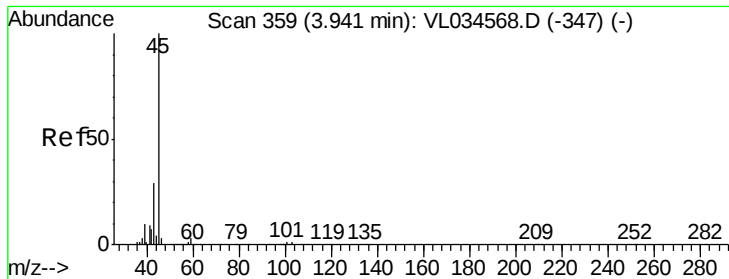
Tgt Ion: 59 Resp: 32687

Ion Ratio Lower Upper

59 100

57 0.0 8.7 13.1#





#19

Isopropyl Alcohol

Concen: 7.518 ppbv m

RT: 3.99 min Scan# 374

Delta R.T. 0.05 min

Lab File: VL034611.D

Acq: 6 Feb 2020 22:58

Instrument :

MSVOA_L

ClientSampleId :

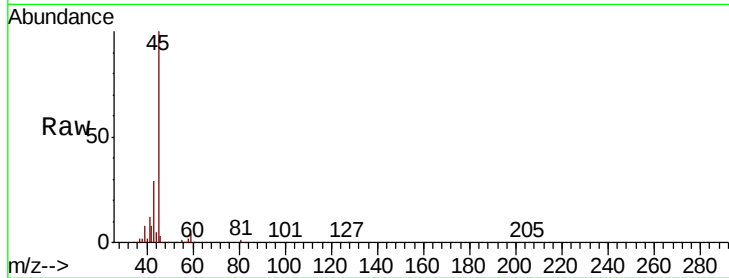
IA-7

Tot Ion: 45 Resp: 598127

Ion Ratio Lower Upper

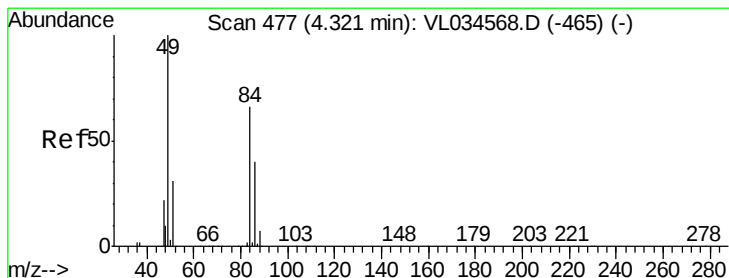
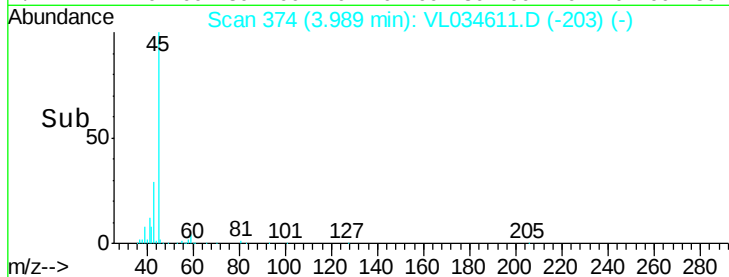
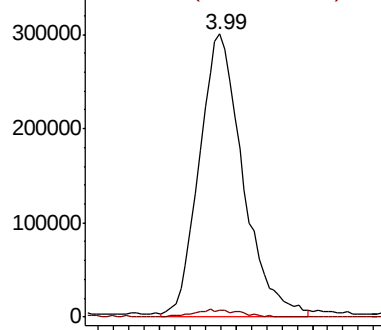
45 100

58 0.0 1.7 2.5#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 2.420 ppbv

RT: 4.35 min Scan# 486

Delta R.T. 0.03 min

Lab File: VL034611.D

Acq: 6 Feb 2020 22:58

Tgt Ion: 84 Resp: 125604

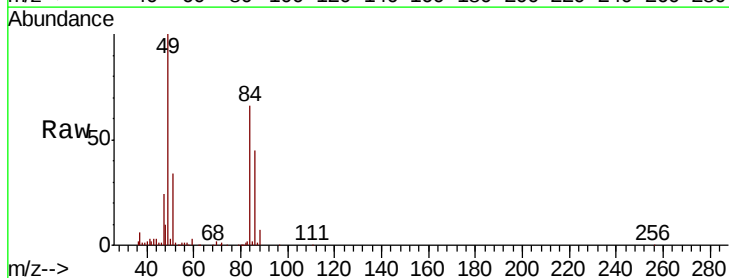
Ion Ratio Lower Upper

84 100

49 149.9 122.4 183.6

51 50.1 38.6 57.8

86 68.0 49.0 73.6

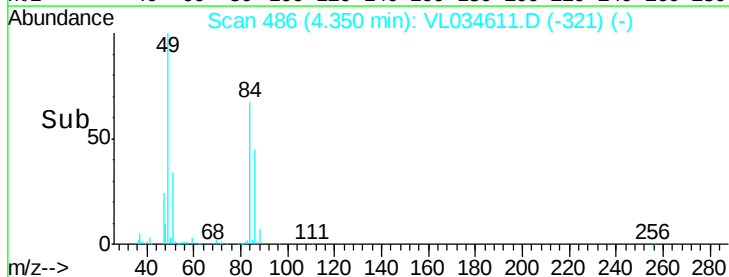
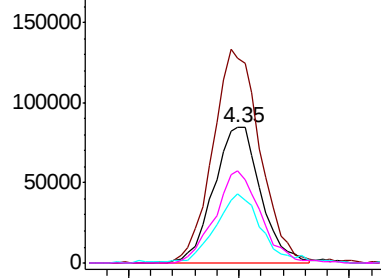


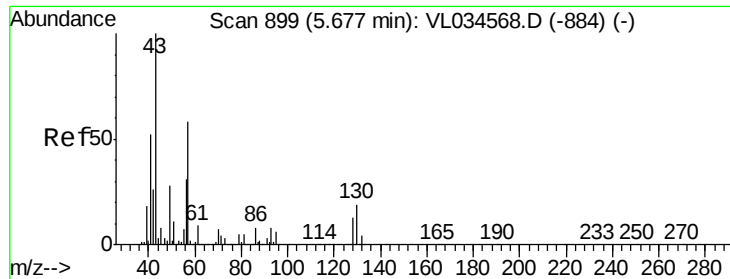
Abundance Ion 84.00 (83.70 to 84.70): VL0

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

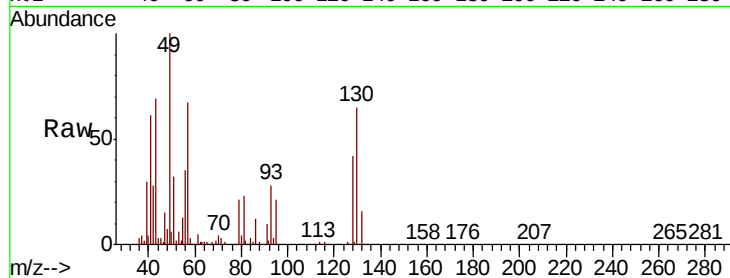




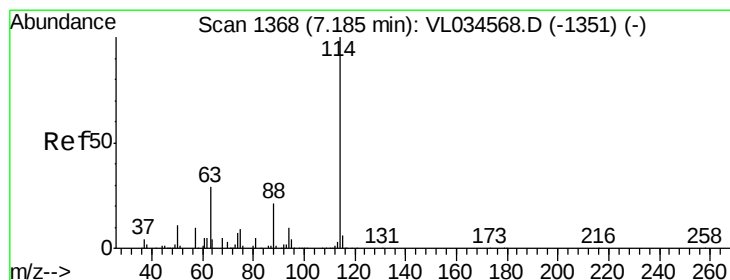
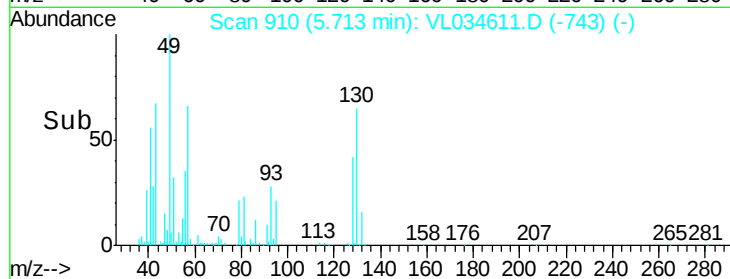
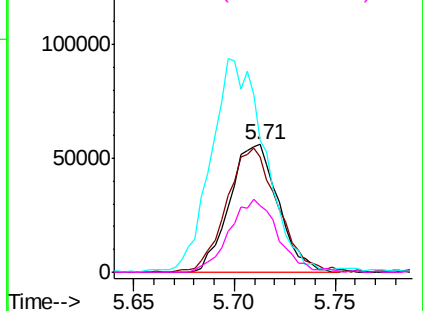
#26
Hexane
Concen: 1.024 ppbv
RT: 5.71 min Scan# 910
Delta R.T. 0.04 min
Lab File: VL034611.D
Acq: 6 Feb 2020 22:58

Instrument :
MSVOA_L
ClientSampleId :
IA-7

Tot Ion:	57	Resp:	94666
Ion	Ratio	Lower	Upper
57	100		
41	103.2	76.2	114.2
43	189.9	189.9	284.9
56	57.2	43.6	65.4

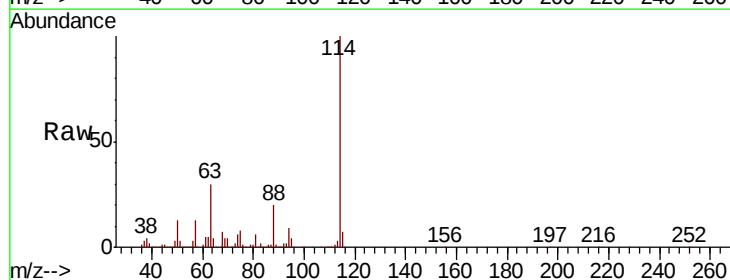


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

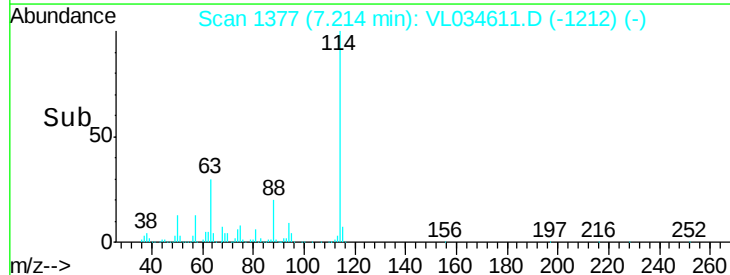
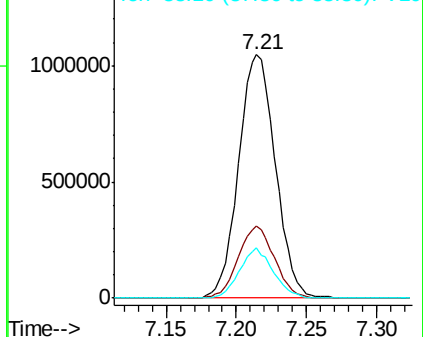


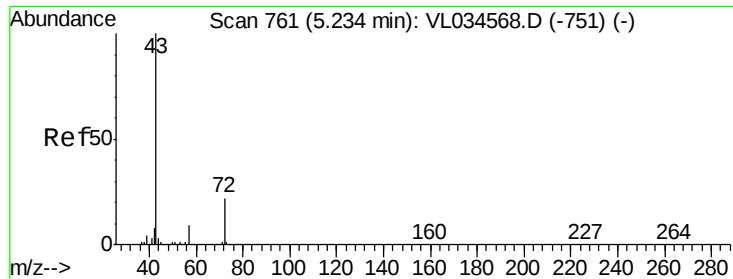
#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.21 min Scan# 1377
Delta R.T. 0.03 min
Lab File: VL034611.D
Acq: 6 Feb 2020 22:58

Tgt Ion:	114	Resp:	1914087
Ion	Ratio	Lower	Upper
114	100		
63	29.4	24.1	36.1
88	18.9	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

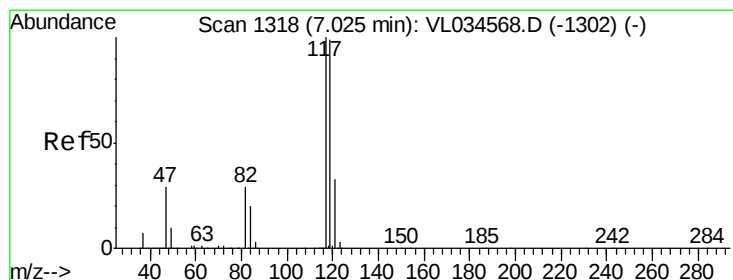
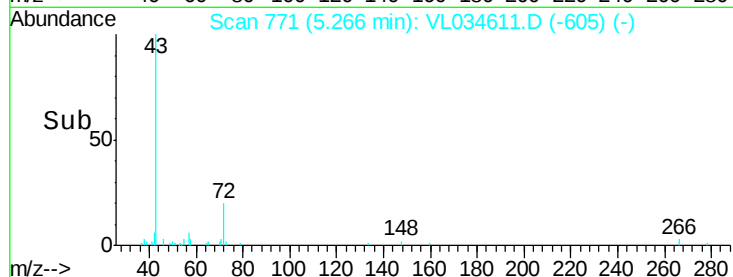
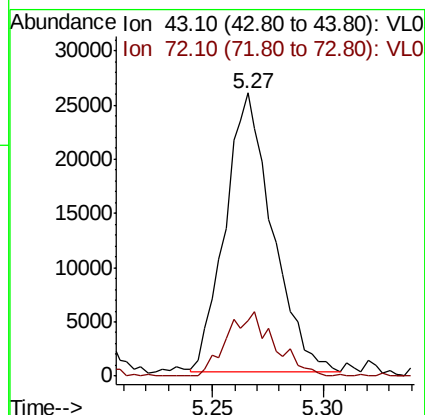
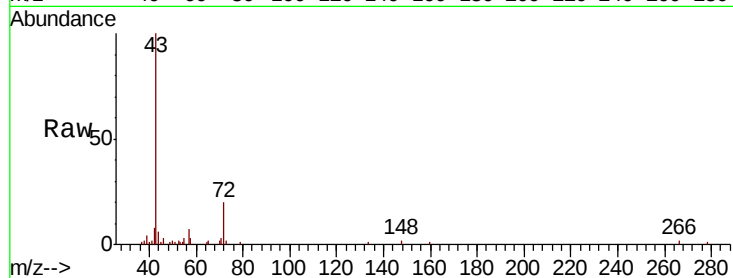




#34
2-Butanone
Concen: 0.275 ppbv
RT: 5.27 min Scan# 771
Delta R.T. 0.03 min
Lab File: VL034611.D
Acq: 6 Feb 2020 22:58

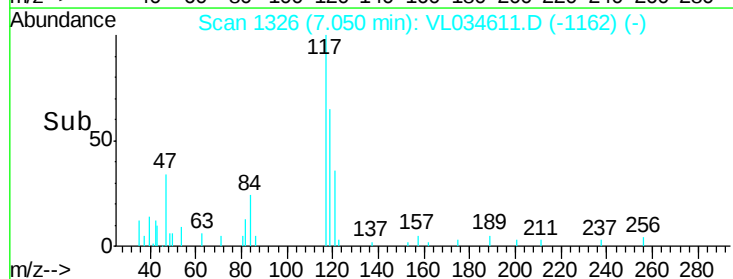
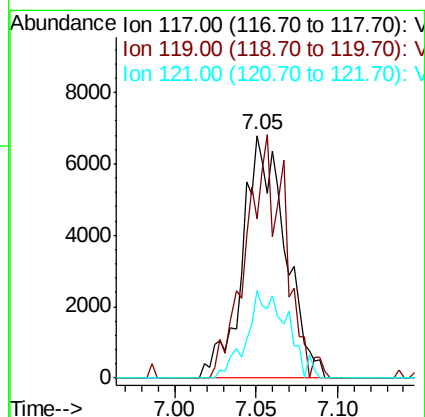
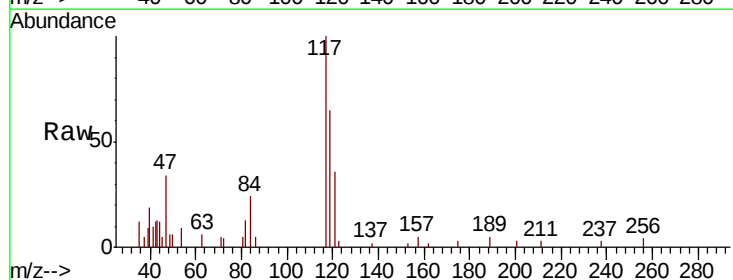
Instrument :
MSVOA_L
ClientSampleId :
IA-7

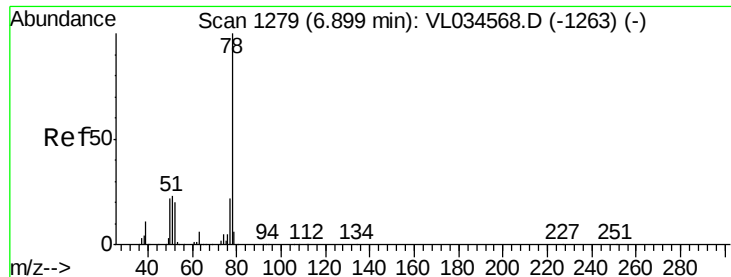
Tot Ion: 43 Resp: 38214
Ion Ratio Lower Upper
43 100
72 23.2 17.2 25.8



#35
Carbon Tetrachloride
Concen: 0.067 ppbv m
RT: 7.05 min Scan# 1326
Delta R.T. 0.03 min
Lab File: VL034611.D
Acq: 6 Feb 2020 22:58

Tgt Ion: 117 Resp: 12342
Ion Ratio Lower Upper
117 100
119 65.5 79.5 119.3#
121 36.1 26.2 39.2





#36

Benzene

Concen: 0.510 ppbv

RT: 6.92 min Scan# 1287

Delta R.T. 0.03 min

Lab File: VL034611.D

Acq: 6 Feb 2020 22:58

Instrument :

MSVOA_L

ClientSampleId :

IA-7

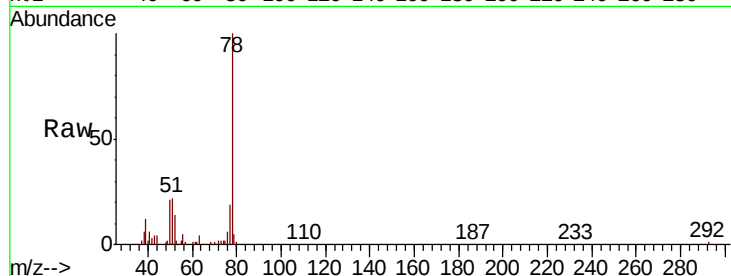
Tot Ion: 78 Resp: 86843

Ion Ratio Lower Upper

78 100

77 18.7 17.3 25.9

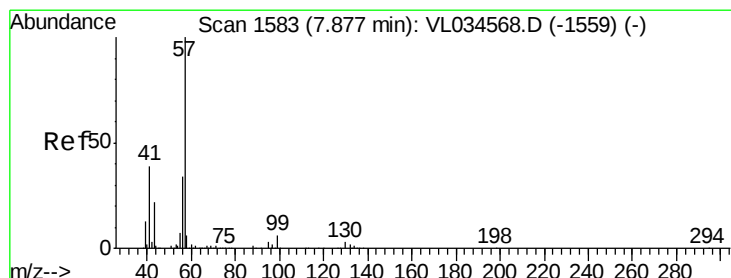
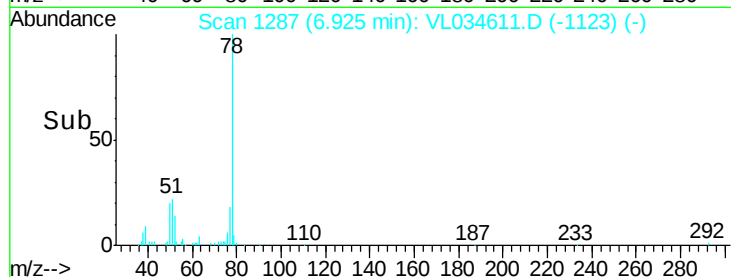
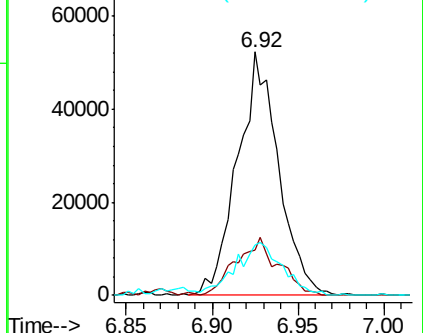
50 20.9 17.4 26.2



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



#44

2,2,4-Trimethylpentane

Concen: 0.112 ppbv m

RT: 7.92 min Scan# 1596

Delta R.T. 0.04 min

Lab File: VL034611.D

Acq: 6 Feb 2020 22:58

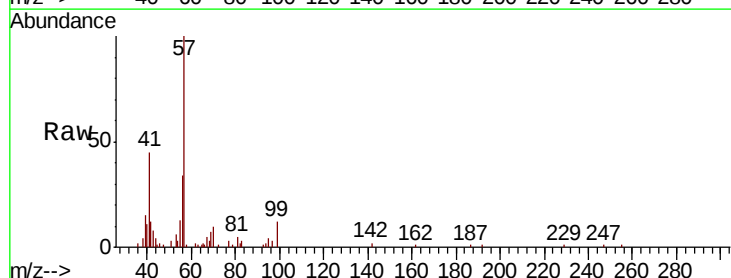
Tgt Ion: 57 Resp: 34605

Ion Ratio Lower Upper

57 100

41 0.0 28.9 43.3#

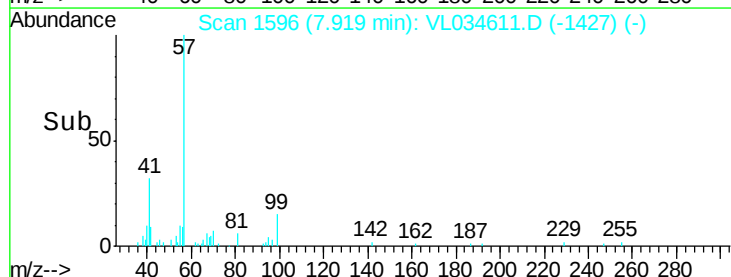
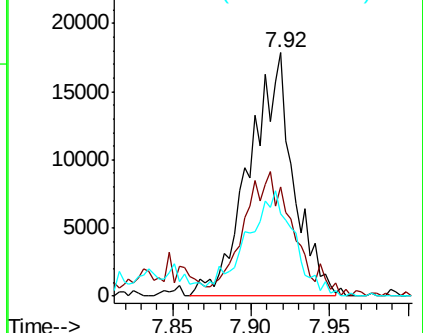
56 0.0 25.5 38.3#

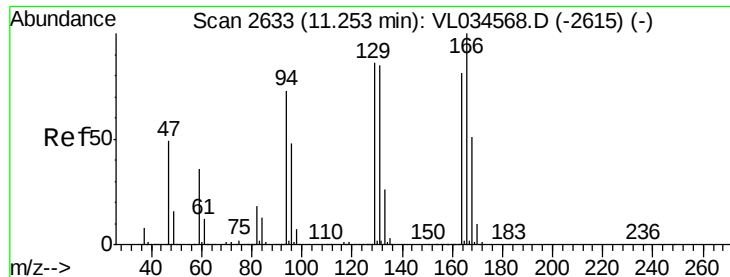


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#52

Tetrachloroethene

Concen: 0.311 ppbv m

RT: 11.28 min Scan# 2643

Delta R.T. 0.03 min

Lab File: VL034611.D

Acq: 6 Feb 2020 22:58

Instrument :

MSVOA_L

ClientSampled :

IA-7

Tot Ion:164 Resp: 21288

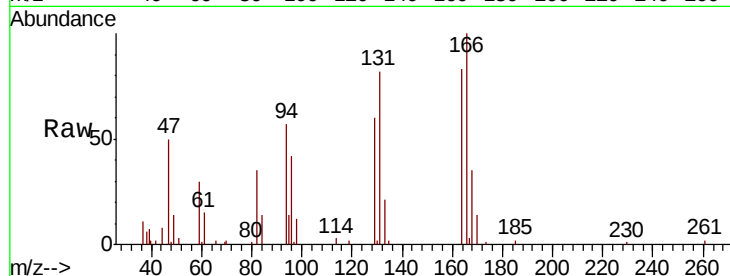
Ion Ratio Lower Upper

164 100

166 120.0 99.0 148.4

129 72.4 85.3 127.9#

131 98.1 84.2 126.2

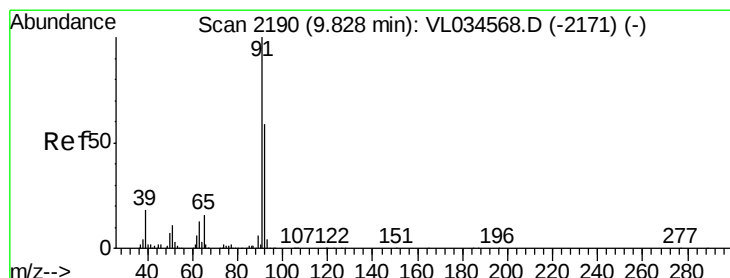
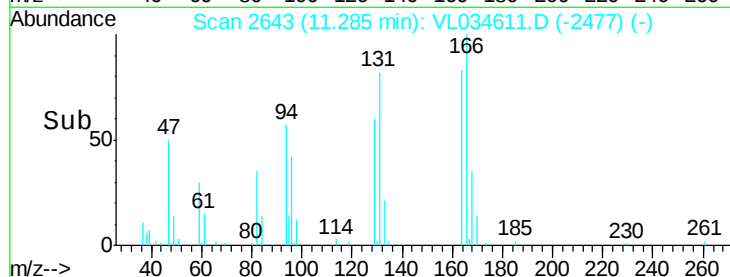
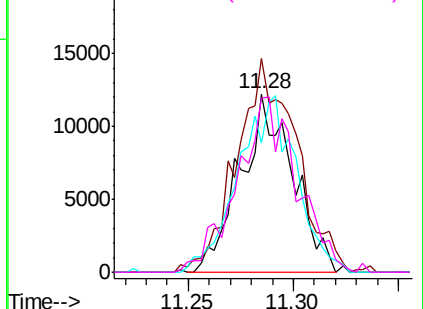


Abundance Ion 163.90 (163.60 to 164.60): V

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: 1.675 ppbv

RT: 9.86 min Scan# 2201

Delta R.T. 0.04 min

Lab File: VL034611.D

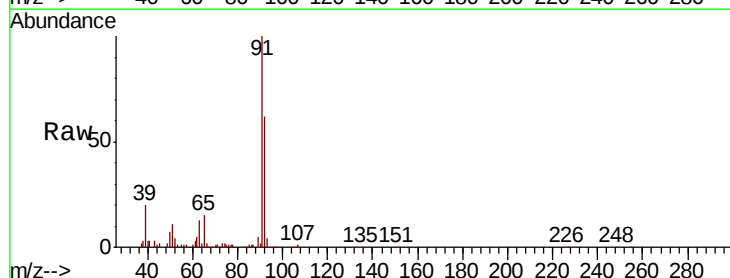
Acq: 6 Feb 2020 22:58

Tgt Ion: 91 Resp: 313246

Ion Ratio Lower Upper

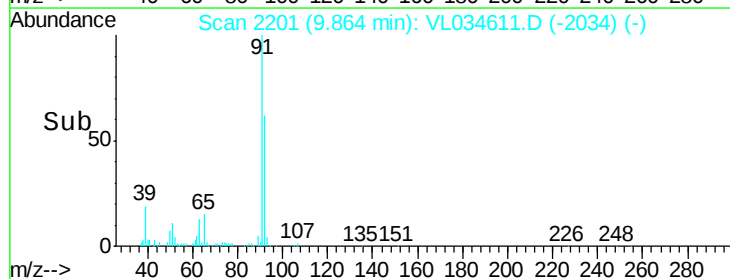
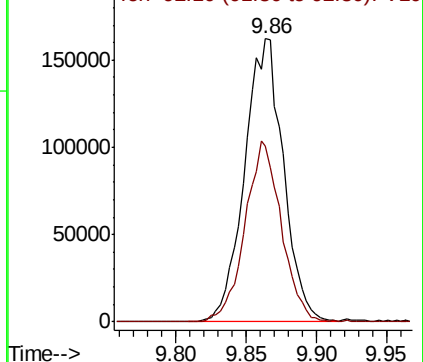
91 100

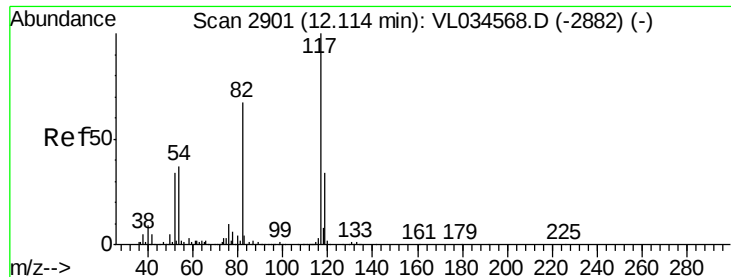
92 60.0 48.2 72.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

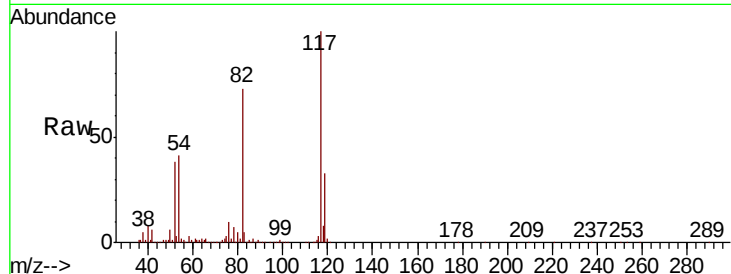




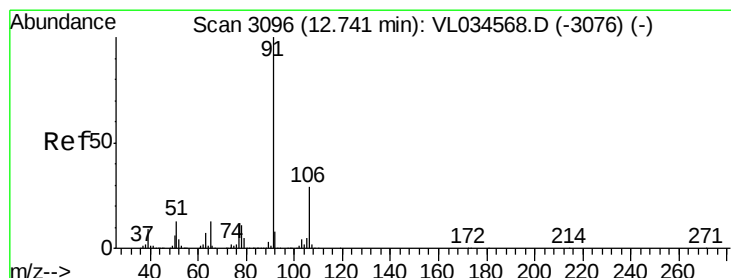
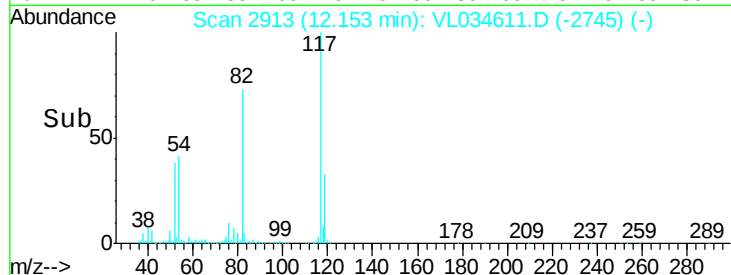
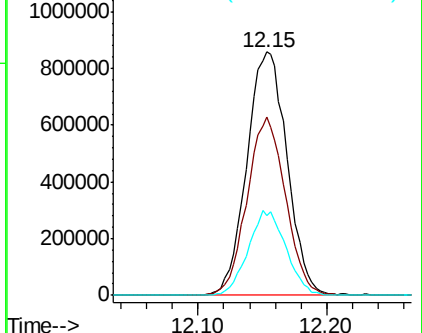
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.15 min Scan# 2913
Delta R.T. 0.04 min
Lab File: VL034611.D
Acq: 6 Feb 2020 22:58

Instrument :
MSVOA_L
ClientSampleId :
IA-7

Tot Ion:117 Resp: 1865960
Ion Ratio Lower Upper
117 100
82 70.4 54.2 81.4
119 33.1 26.1 39.1

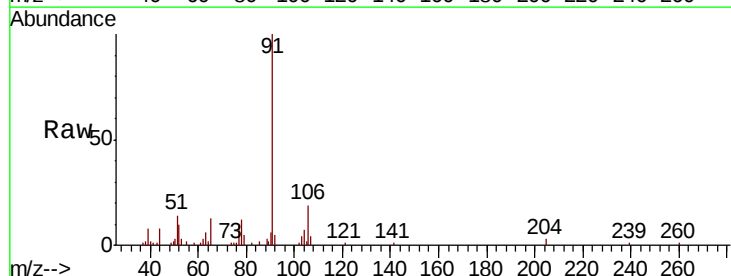


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

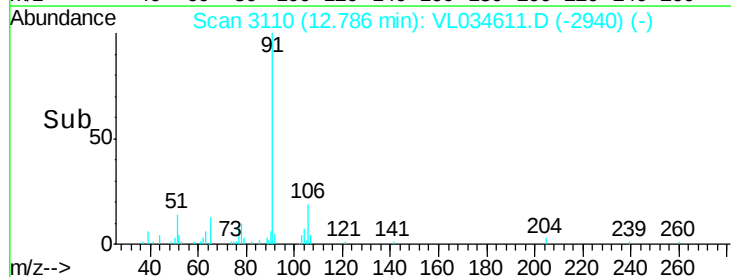
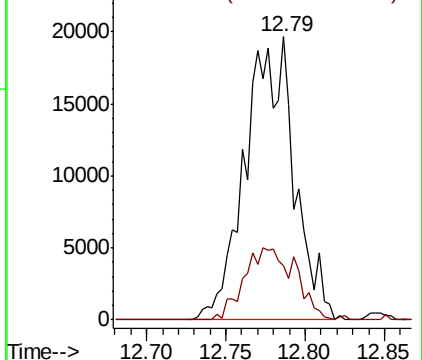


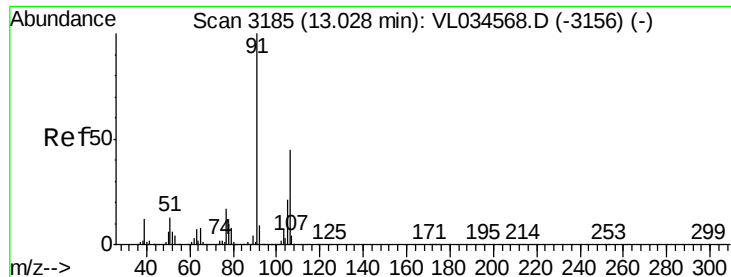
#58
Ethyl Benzene
Concen: 0.168 ppbv m
RT: 12.79 min Scan# 3110
Delta R.T. 0.04 min
Lab File: VL034611.D
Acq: 6 Feb 2020 22:58

Tgt Ion: 91 Resp: 41854
Ion Ratio Lower Upper
91 100
106 19.1 23.3 34.9#



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





#59

m/p-Xylene

Concen: 0.596 ppbv m

RT: 13.03 min Scan# 3187

Delta R.T. 0.01 min

Lab File: VL034611.D

Acq: 6 Feb 2020 22:58

Instrument :

MSVOA_L

ClientSampleId :

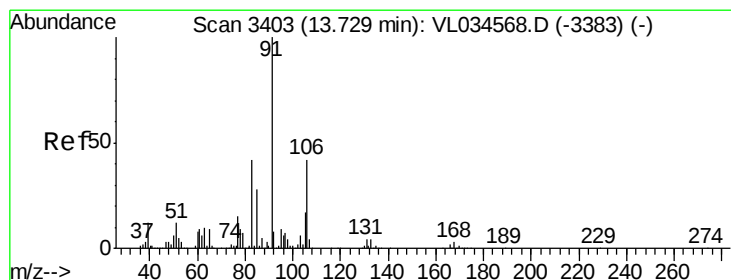
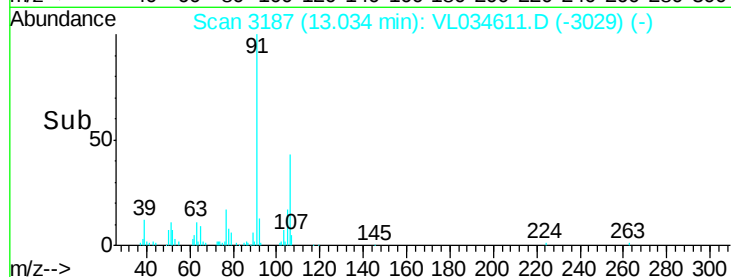
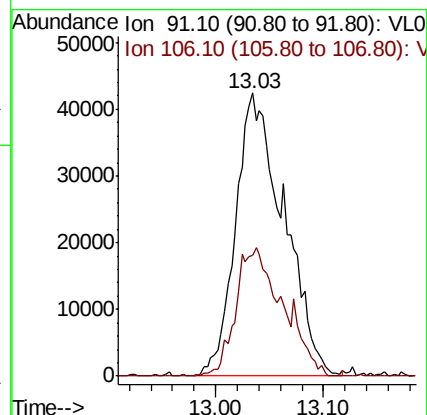
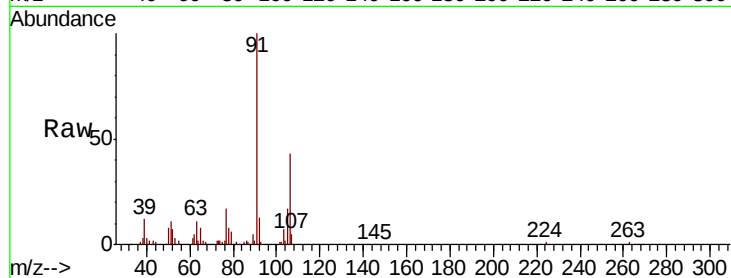
IA-7

Tot Ion: 91 Resp: 131596

Ion Ratio Lower Upper

91 100

106 0.0 35.3 52.9#



#60

o-Xylene

Concen: 0.175 ppbv m

RT: 13.76 min Scan# 3414

Delta R.T. 0.04 min

Lab File: VL034611.D

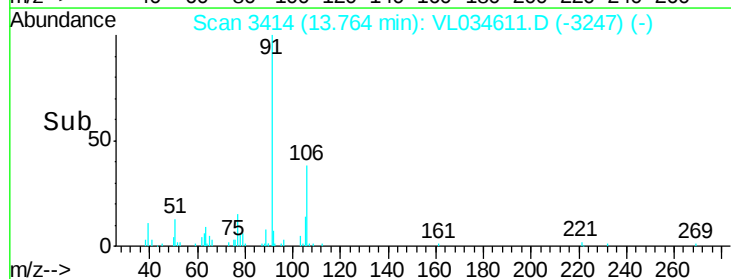
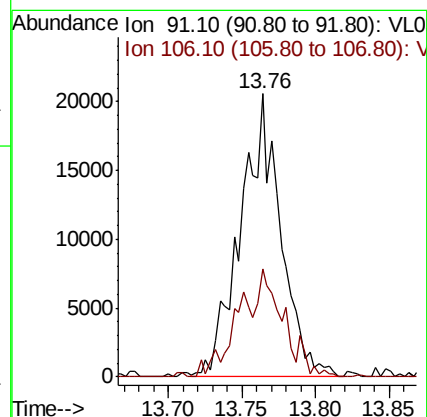
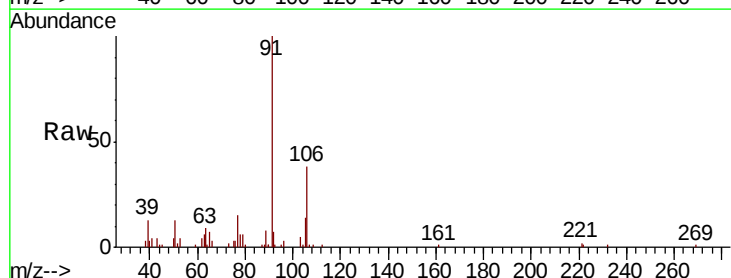
Acq: 6 Feb 2020 22:58

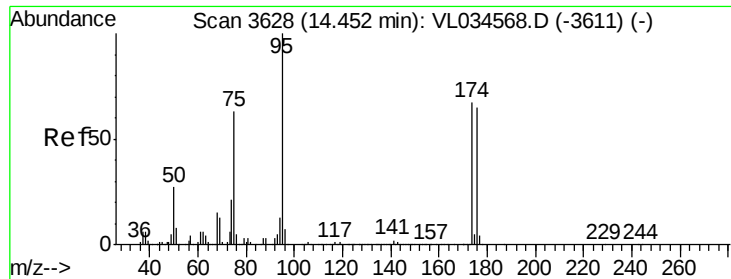
Tgt Ion: 91 Resp: 38901

Ion Ratio Lower Upper

91 100

106 0.0 21.6 65.0#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.433 ppbv

RT: 14.49 min Scan# 3640

Delta R.T. 0.04 min

Lab File: VL034611.D

Acq: 6 Feb 2020 22:58

Instrument :

MSVOA_L

ClientSampled :

IA-7

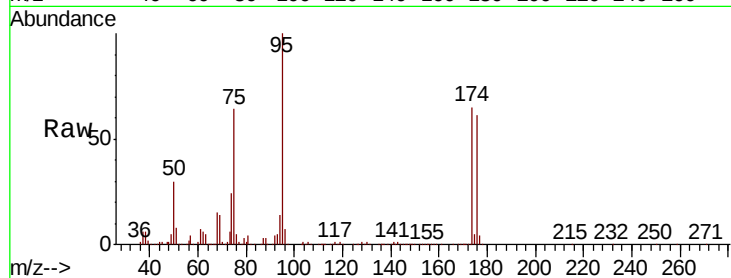
Tot Ion: 95 Resp: 1645311

Ion Ratio Lower Upper

95 100

174 63.9 52.3 78.5

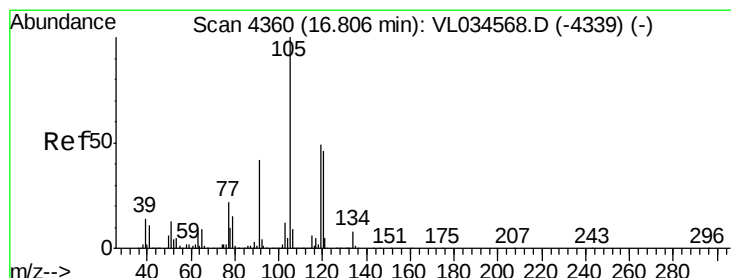
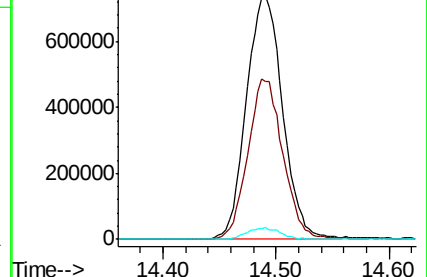
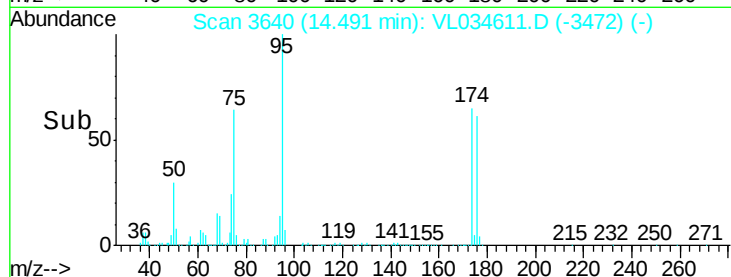
175 4.5 3.8 5.6



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



#74

1,2,4-Trimethylbenzene

Concen: 0.114 ppbv m

RT: 16.84 min Scan# 4370

Delta R.T. 0.03 min

Lab File: VL034611.D

Acq: 6 Feb 2020 22:58

Tgt Ion: 105 Resp: 30085

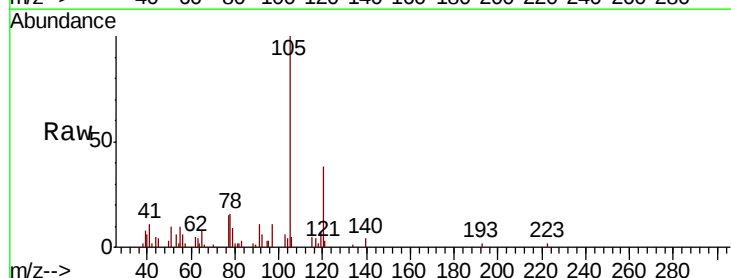
Ion Ratio Lower Upper

105 100

120 38.2 37.1 55.7

91 11.3 34.3 51.5#

77 14.7 17.5 26.3#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

