

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX110619\  
 Data File : VX013339.D  
 Acq On : 06 Nov 2019 13:04  
 Operator : JC/SP  
 Sample : K5713-01  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Nov 07 02:14:57 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X103119W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Nov 02 07:06:38 2019  
 Response via : Initial Calibration

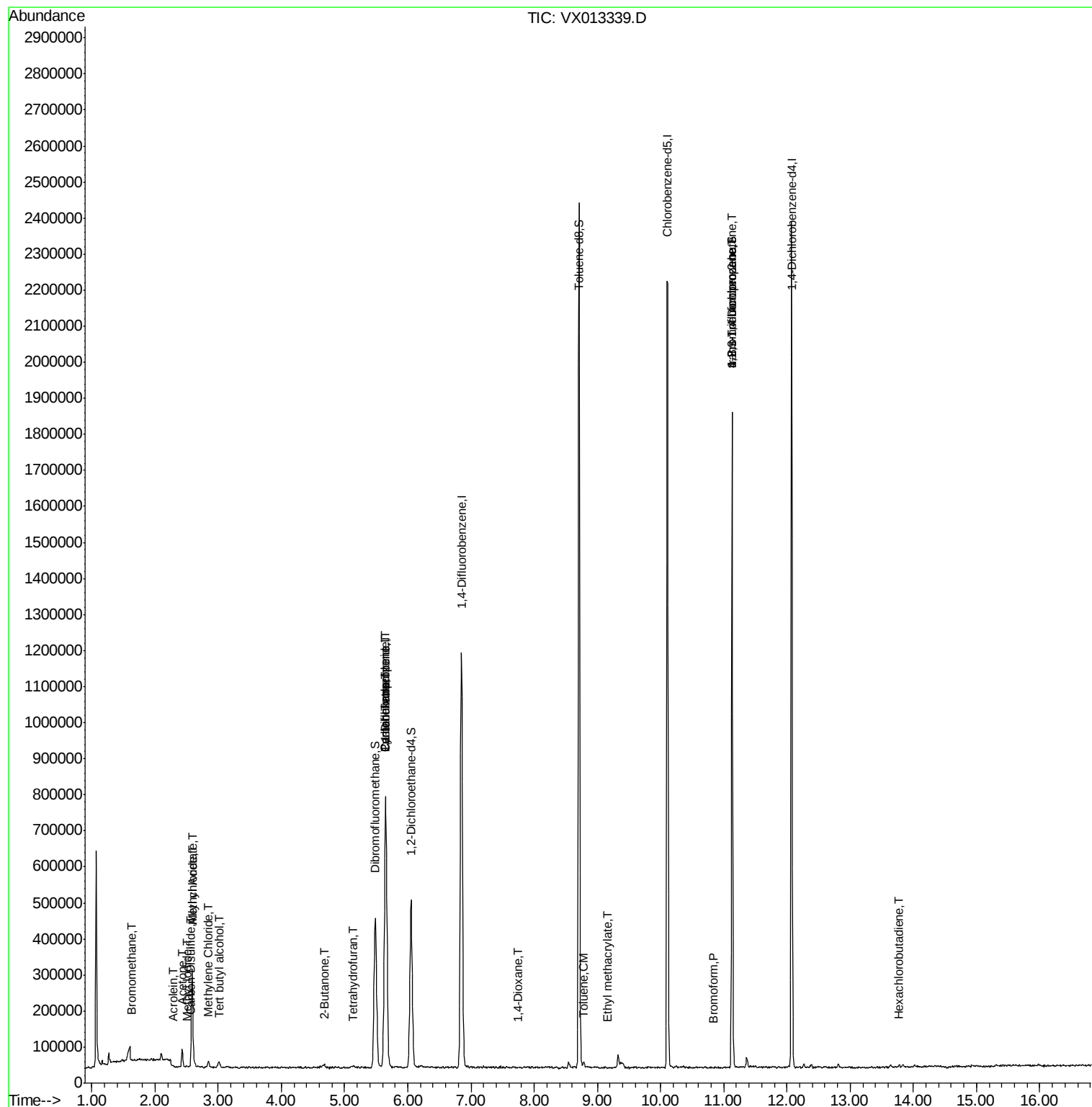
| Internal Standards             | R.T.   | QIon | Response | Conc      | Units   | Dev(Min) |
|--------------------------------|--------|------|----------|-----------|---------|----------|
| 1) Pentafluorobenzene          | 5.65   | 168  | 780484   | 50.00     | ug/l    | 0.00     |
| 34) 1,4-Difluorobenzene        | 6.85   | 114  | 1190991  | 50.00     | ug/l    | 0.00     |
| 63) Chlorobenzene-d5           | 10.11  | 117  | 1047433  | 50.00     | ug/l    | 0.00     |
| 72) 1,4-Dichlorobenzene-d4     | 12.07  | 152  | 483298   | 50.00     | ug/l    | 0.00     |
| System Monitoring Compounds    |        |      |          |           |         |          |
| 33) 1,2-Dichloroethane-d4      | 6.05   | 65   | 430177   | 46.52     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 93.04%  |          |
| 35) Dibromofluoromethane       | 5.48   | 113  | 359262   | 48.09     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 96.18%  |          |
| 50) Toluene-d8                 | 8.71   | 98   | 1420713  | 50.45     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 100.90% |          |
| 62) 4-Bromofluorobenzene       | 11.13  | 95   | 470892   | 46.33     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 92.66%  |          |
| Target Compounds               |        |      |          |           |         |          |
|                                |        |      |          |           | Qvalue  |          |
| 5) Bromomethane                | 1.64   | 94   | 2447     | 0.316     | ug/l    | 81       |
| 6) Chloroethane                | 1.76   | 64   | 939      | Below Cal |         | 92       |
| 10) Methyl Iodide              | 2.51   | 142  | 2260     | 0.250     | ug/l #  | 92       |
| 11) Tert butyl alcohol         | 3.02   | 59   | 14486    | 5.944     | ug/l    | 95       |
| 13) Acrolein                   | 2.28   | 56   | 377      | 0.285     | ug/l #  | 1        |
| 14) Allyl chloride             | 2.59   | 41   | 25398    | 1.952     | ug/l #  | 68       |
| 16) Acetone                    | 2.43   | 43   | 55323    | 11.995    | ug/l    | 97       |
| 17) Carbon Disulfide           | 2.56   | 76   | 5564     | 0.290     | ug/l #  | 89       |
| 18) Methyl Acetate             | 2.59   | 43   | 66931    | 5.257     | ug/l #  | 53       |
| 20) Methylene Chloride         | 2.84   | 84   | 9520     | 1.117     | ug/l    | 97       |
| 25) 2-Butanone                 | 4.68   | 43   | 6178     | 0.913     | ug/l    | 95       |
| 29) Tetrahydrofuran            | 5.13   | 42   | 3686     | 0.884     | ug/l #  | 49       |
| 31) Cyclohexane                | 5.65   | 56   | 12920    | 1.022     | ug/l #  | 1        |
| 36) 1,1-Dichloropropene        | 5.64   | 75   | 51185    | 5.010     | ug/l #  | 41       |
| 38) Carbon Tetrachloride       | 5.65   | 117  | 66176    | 6.623     | ug/l #  | 17       |
| 49) 1,4-Dioxane                | 7.75   | 88   | 311      | 1.384     | ug/l #  | 1        |
| 52) Toluene                    | 8.78   | 92   | 4652     | 0.236     | ug/l    | 81       |
| 56) Ethyl methacrylate         | 9.17   | 69   | 124      | 1.572     | ug/l #  | 1        |
| 71) Bromoform                  | 10.85  | 173  | 641      | 3.286     | ug/l #  | 28       |
| 76) 1,2,3-Trichloropropane     | 11.13  | 75   | 237265   | 24.170    | ug/l #  | 34       |
| 81) trans-1,4-Dichloro-2-buten | 11.13  | 75   | 237265   | 62.214    | ug/l #  | 9        |
| 94) Hexachlorobutadiene        | 13.78  | 225  | 1690     | 0.325     | ug/l    | 90       |

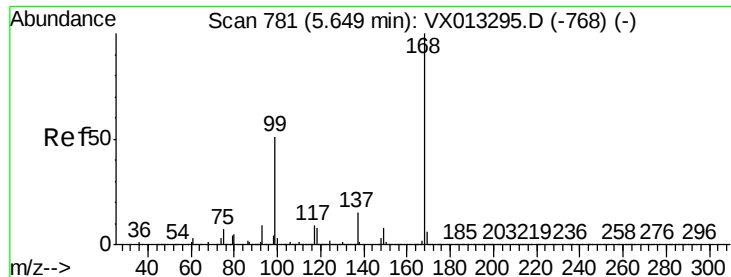
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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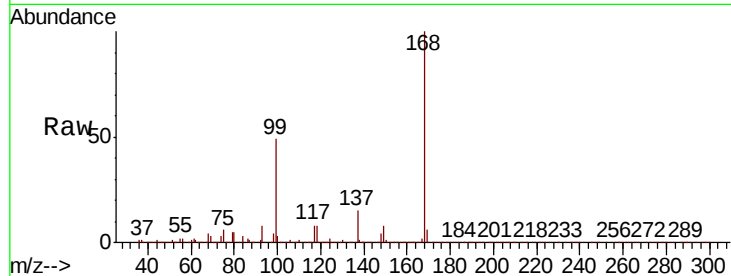


#1

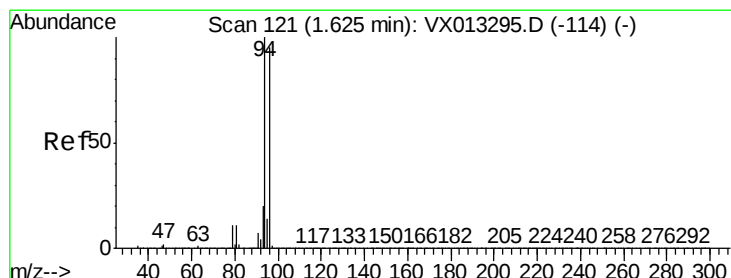
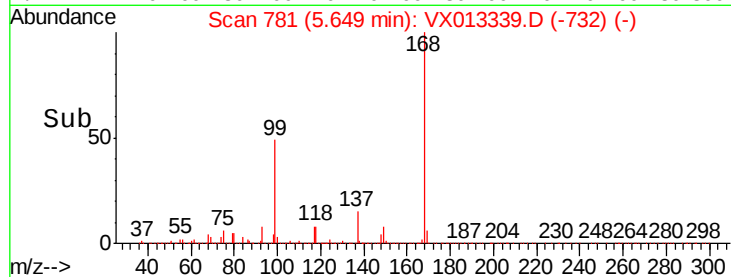
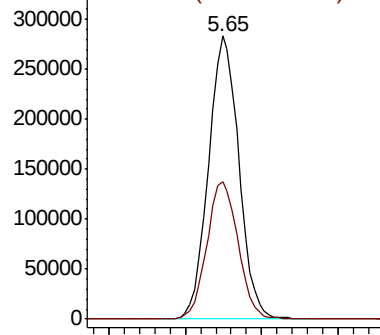
Pentafluorobenzene  
 Concen: 50.000 ug/l  
 RT: 5.65 min Scan# 781  
 Delta R.T. 0.00 min  
 Lab File: VX013339.D  
 Acq: 06 Nov 2019 13:04

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Tot Ion:168 Resp: 780484  
 Ion Ratio Lower Upper  
 168 100  
 99 48.7 40.8 61.2



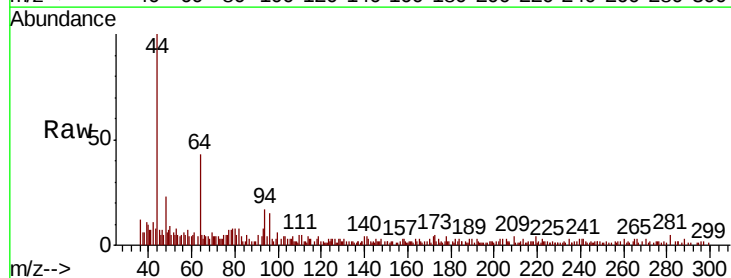
Abundance Ion 167.90 (167.60 to 168.60): V  
 Ion 98.90 (98.60 to 99.60): VX0



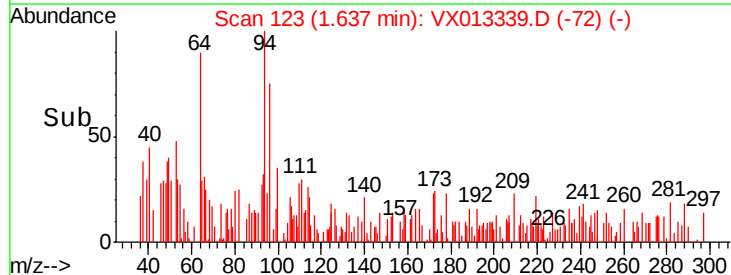
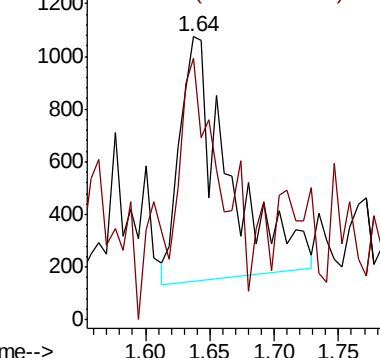
#5

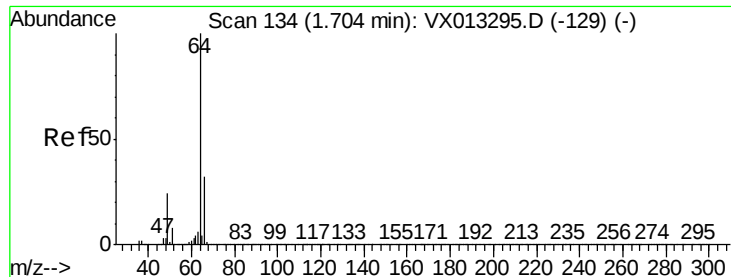
Bromomethane  
 Concen: 0.316 ug/l  
 RT: 1.64 min Scan# 123  
 Delta R.T. 0.01 min  
 Lab File: VX013339.D  
 Acq: 06 Nov 2019 13:04

Tgt Ion: 94 Resp: 2447  
 Ion Ratio Lower Upper  
 94 100  
 96 76.6 75.8 113.8



Abundance Ion 93.90 (93.60 to 94.60): VX0  
 Ion 95.90 (95.60 to 96.60): VX0





#6

Chloroethane

Concen: Below Cal

RT: 1.76 min Scan# 143

Delta R.T. 0.05 min

Lab File: VX013339.D

Acq: 06 Nov 2019 13:04

Instrument :

MSVOA\_X

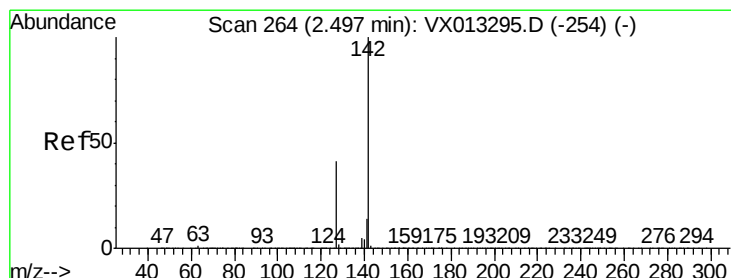
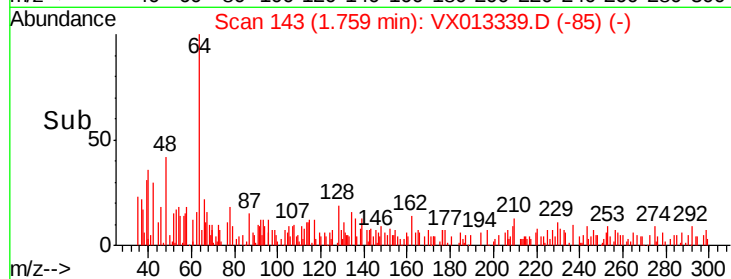
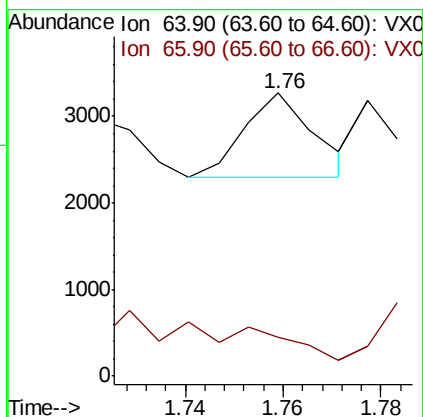
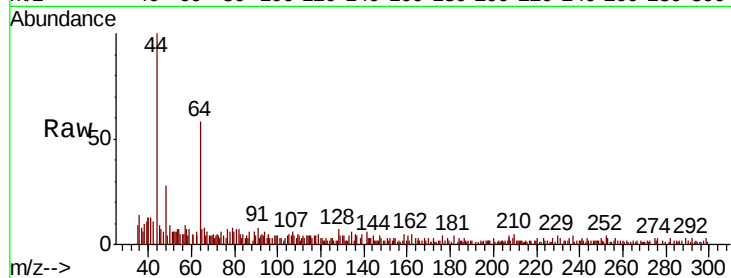
ClientSampleId :

Tot Ion: 64 Resp: 939

Ion Ratio Lower Upper

64 100

66 27.7 25.6 38.4



#10

Methyl Iodide

Concen: 0.250 ug/l

RT: 2.51 min Scan# 266

Delta R.T. 0.01 min

Lab File: VX013339.D

Acq: 06 Nov 2019 13:04

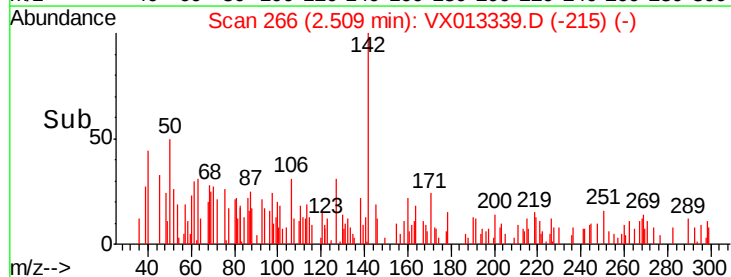
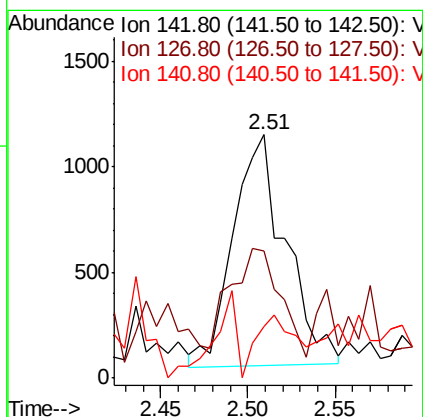
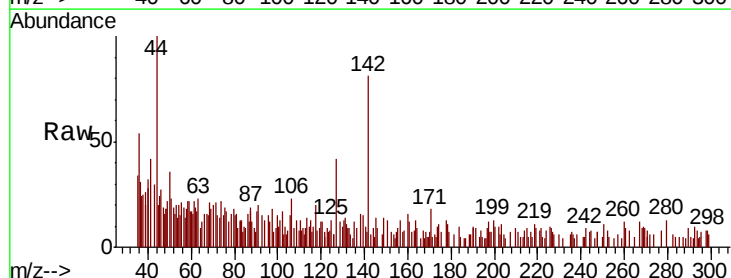
Tgt Ion: 142 Resp: 2260

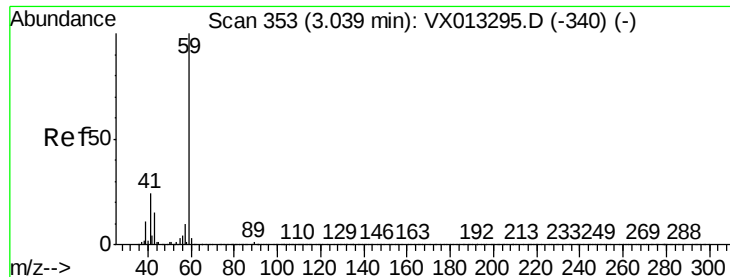
Ion Ratio Lower Upper

142 100

127 44.6 32.6 49.0

141 20.6 11.6 17.4#



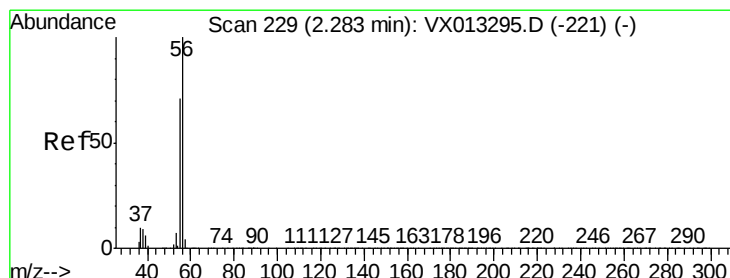
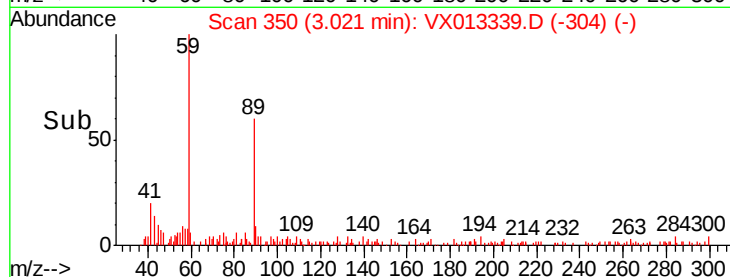
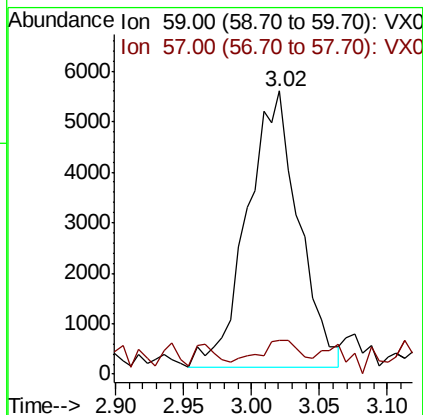
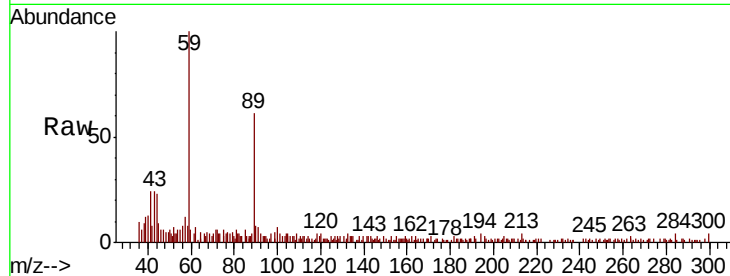


#11

Tert butyl alcohol  
Concen: 5.944 ug/l  
RT: 3.02 min Scan# 350  
Delta R.T. -0.02 min  
Lab File: VX013339.D  
Acq: 06 Nov 2019 13:04

Instrument :  
MSVOA\_X  
ClientSampled :

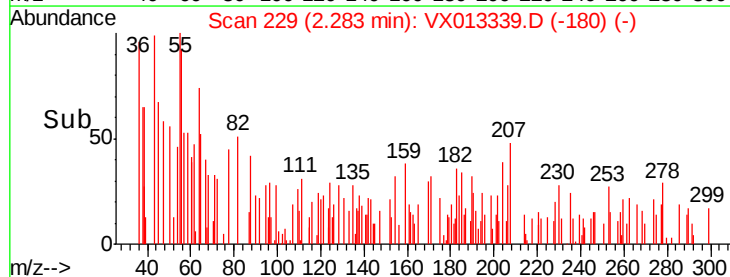
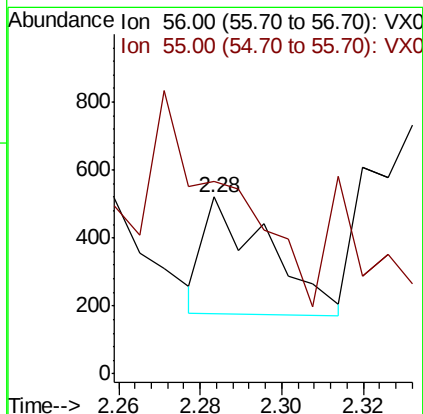
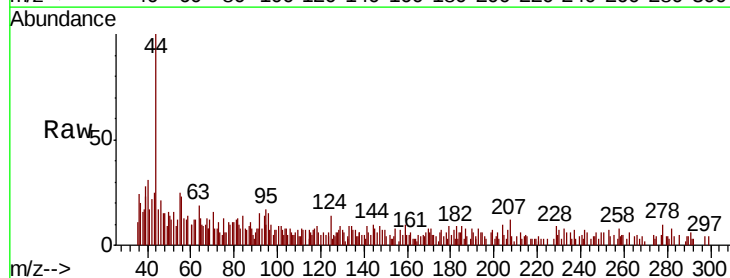
Tot Ion: 59 Resp: 14486  
Ion Ratio Lower Upper  
59 100  
57 8.1 8.0 12.0

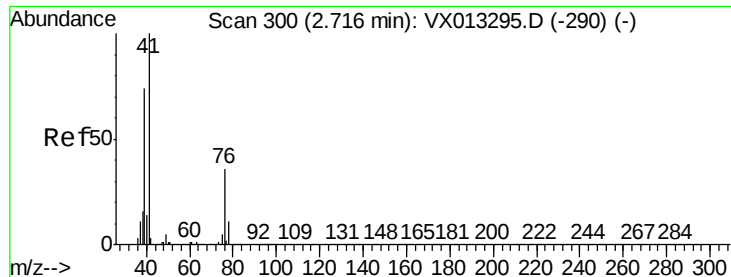


#13

Acrolein  
Concen: 0.285 ug/l  
RT: 2.28 min Scan# 229  
Delta R.T. 0.00 min  
Lab File: VX013339.D  
Acq: 06 Nov 2019 13:04

Tgt Ion: 56 Resp: 377  
Ion Ratio Lower Upper  
56 100  
55 206.9 57.4 86.0#





#14

Allvl chloride

Concen: 1.952 ug/l

RT: 2.59 min Scan# 279

Delta R.T. -0.13 min

Lab File: VX013339.D

Acq: 06 Nov 2019 13:04

Instrument :

MSVOA\_X

ClientSampleId :

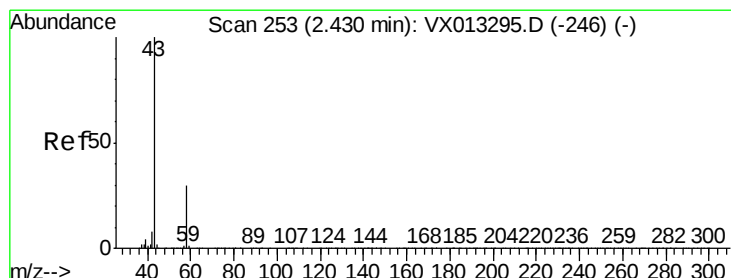
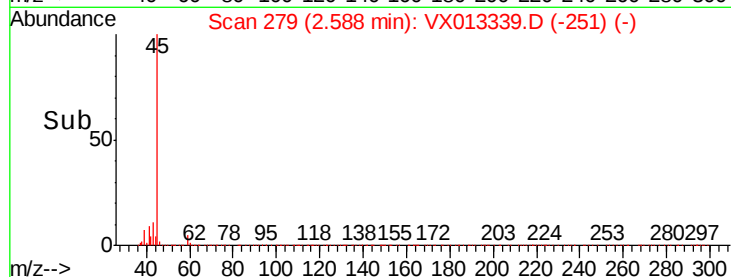
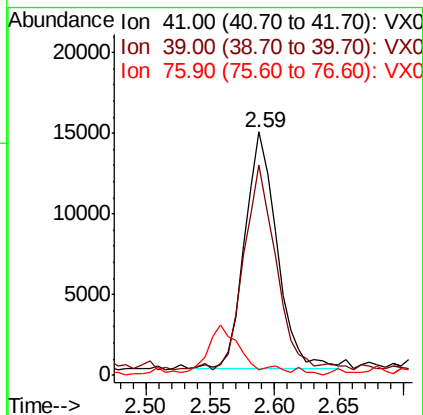
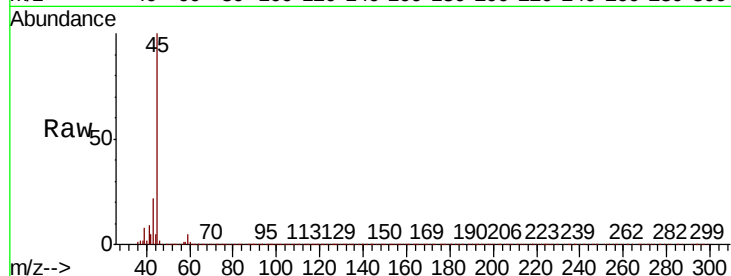
Tot Ion: 41 Resp: 25398

Ion Ratio Lower Upper

41 100

39 86.3 55.8 83.8#

76 0.0 26.4 39.6#



#16

Acetone

Concen: 11.995 ug/l

RT: 2.43 min Scan# 253

Delta R.T. 0.00 min

Lab File: VX013339.D

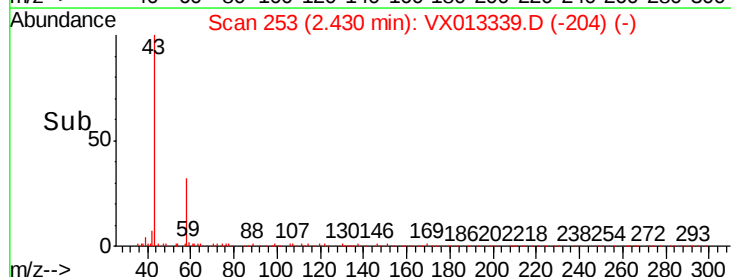
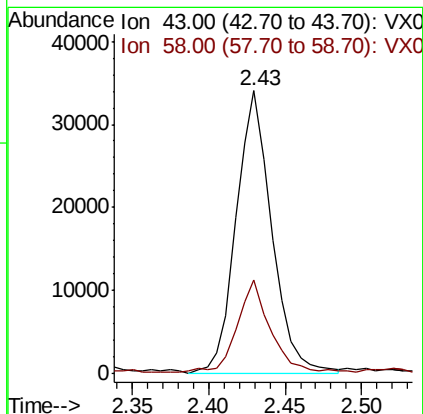
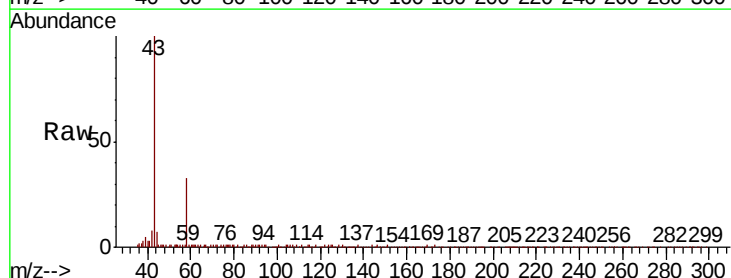
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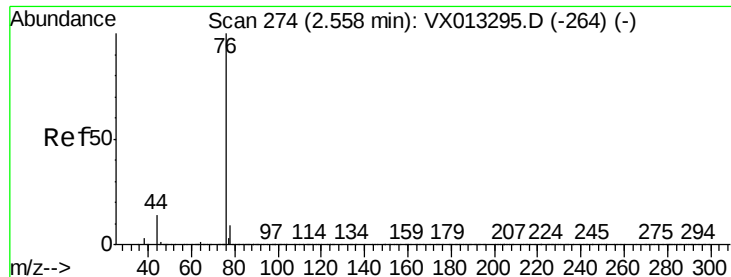
Tgt Ion: 43 Resp: 55323

Ion Ratio Lower Upper

43 100

58 32.1 24.3 36.5





#17

Carbon Disulfide

Concen: 0.290 ug/l

RT: 2.56 min Scan# 274

Delta R.T. 0.00 min

Lab File: VX013339.D

Acq: 06 Nov 2019 13:04

Instrument :

MSVOA\_X

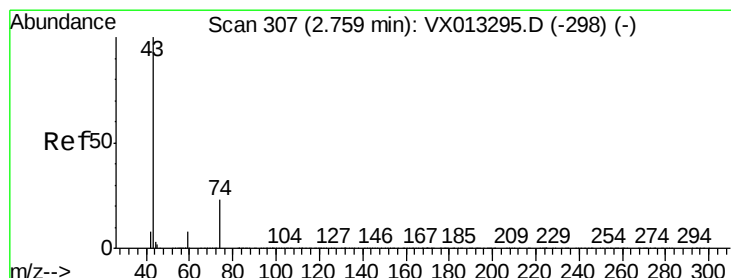
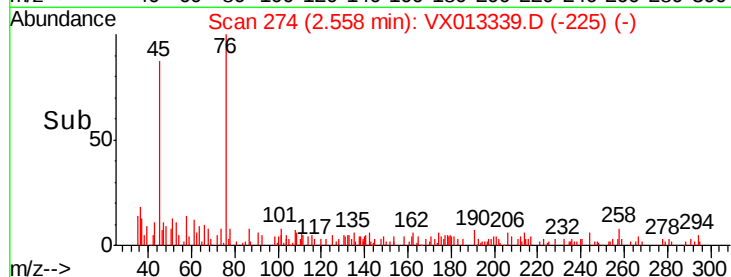
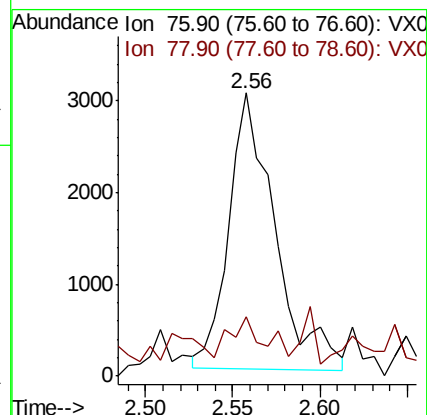
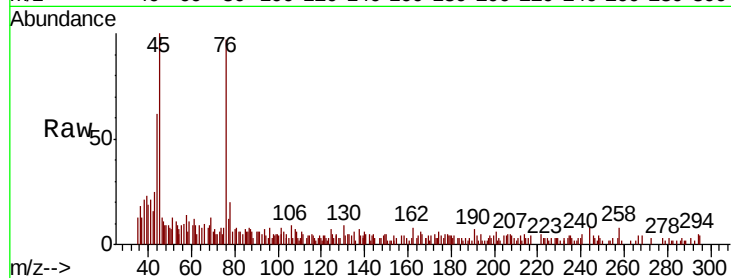
ClientSampleId :

Tot Ion: 76 Resp: 5564

Ion Ratio Lower Upper

76 100

78 12.8 7.0 10.6#



#18

Methyl Acetate

Concen: 5.257 ug/l

RT: 2.59 min Scan# 279

Delta R.T. -0.17 min

Lab File: VX013339.D

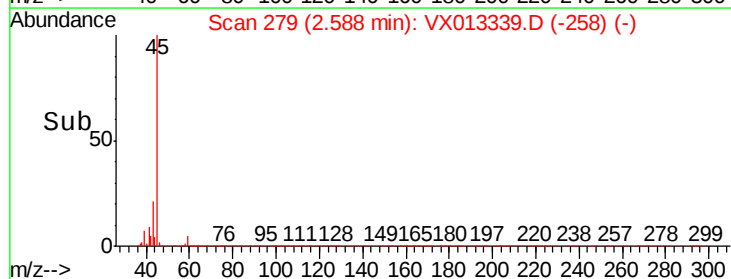
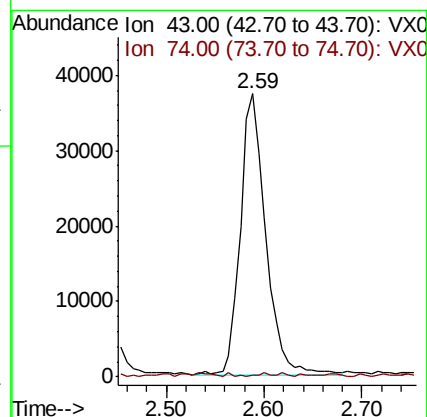
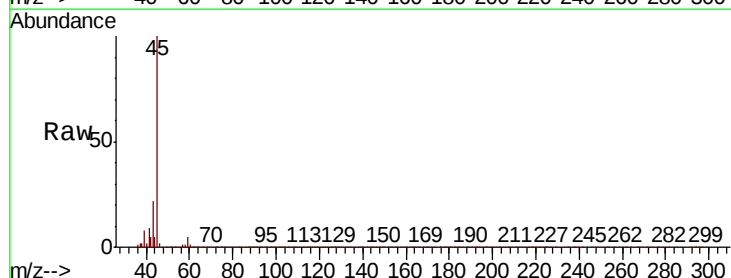
Acq: 06 Nov 2019 13:04

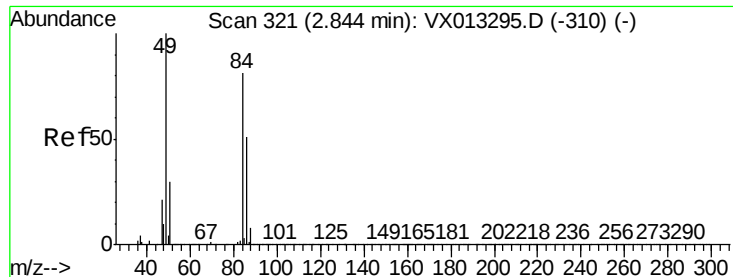
Tgt Ion: 43 Resp: 66931

Ion Ratio Lower Upper

43 100

74 0.8 19.0 28.6#

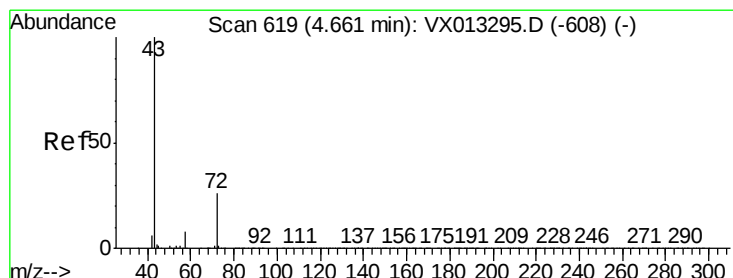
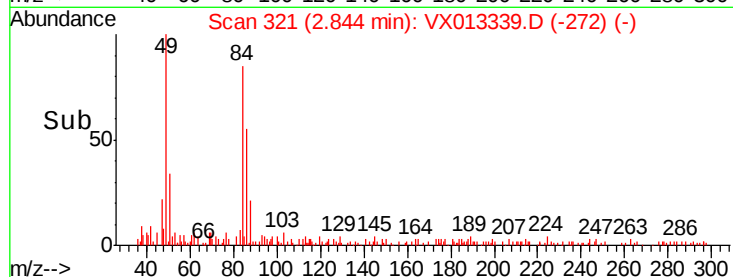
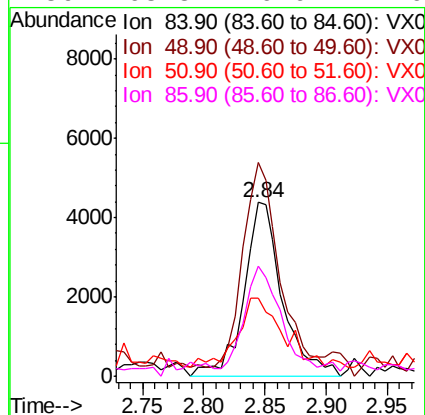
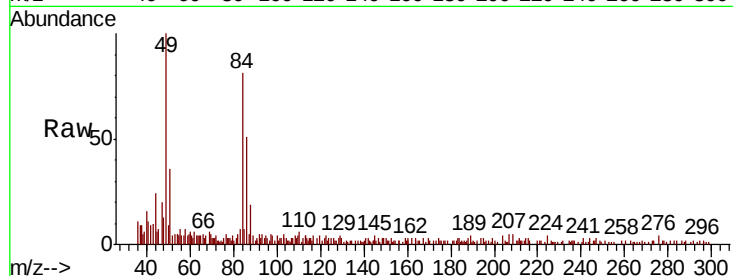




#20  
Methvlene Chloride  
Concen: 1.117 ug/l  
RT: 2.84 min Scan# 321  
Delta R.T. 0.00 min  
Lab File: VX013339.D  
Acq: 06 Nov 2019 13:04

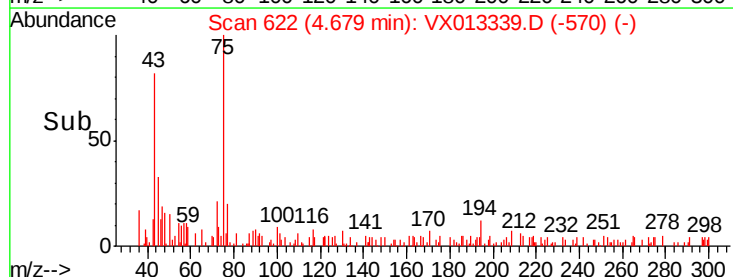
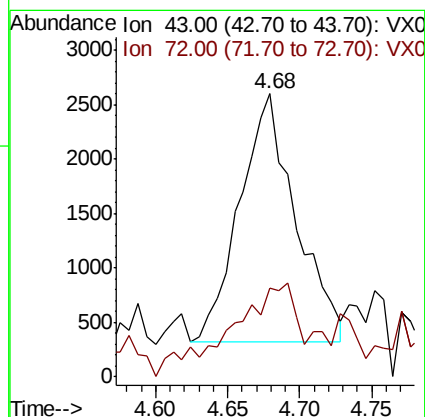
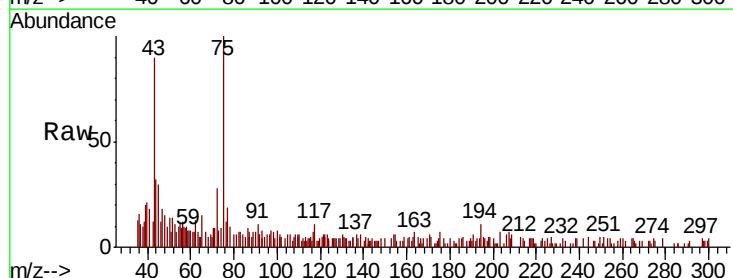
Instrument :  
MSVOA\_X  
ClientSampleId :

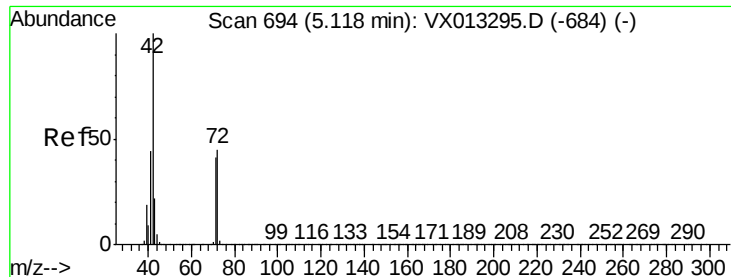
Tot Ion: 84 Resp: 9520  
Ion Ratio Lower Upper  
84 100  
49 125.2 98.2 147.4  
51 42.1 29.9 44.9  
86 63.8 49.9 74.9



#25  
2-Butanone  
Concen: 0.913 ug/l  
RT: 4.68 min Scan# 622  
Delta R.T. 0.02 min  
Lab File: VX013339.D  
Acq: 06 Nov 2019 13:04

Tgt Ion: 43 Resp: 6178  
Ion Ratio Lower Upper  
43 100  
72 23.7 21.0 31.6

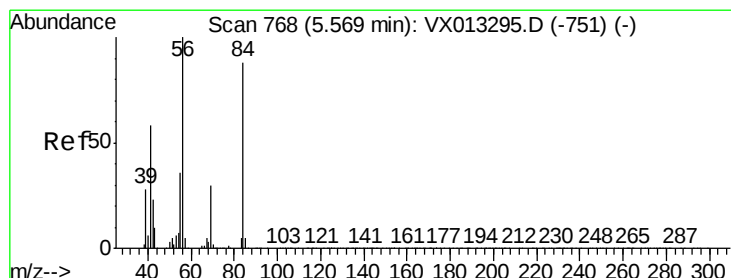
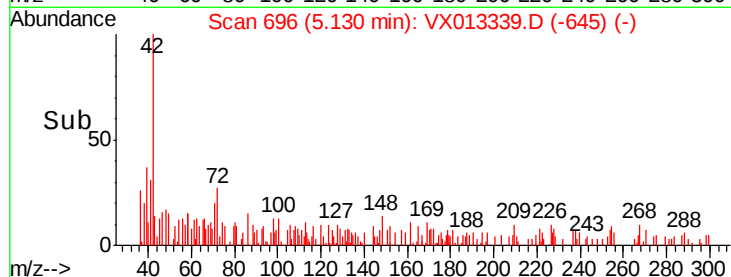
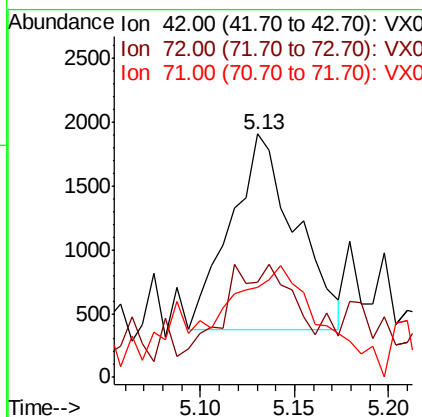
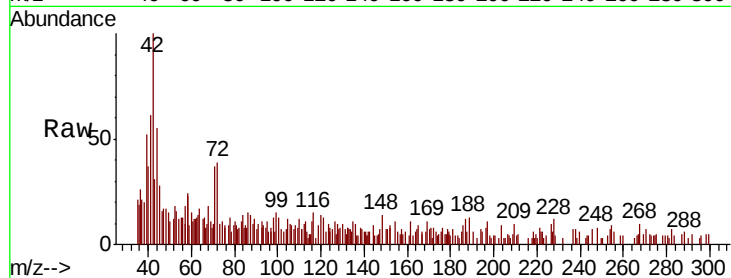




#29  
Tetrahydrofuran  
Concen: 0.884 ug/l  
RT: 5.13 min Scan# 696  
Delta R.T. 0.01 min  
Lab File: VX013339.D  
Acq: 06 Nov 2019 13:04

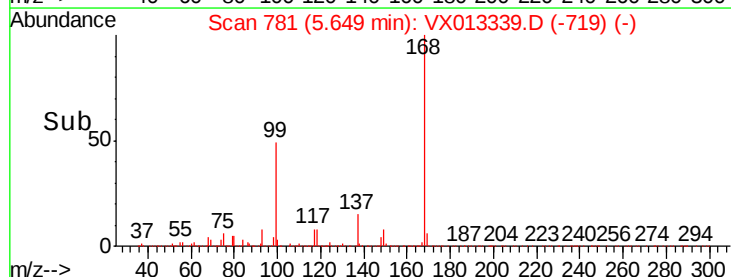
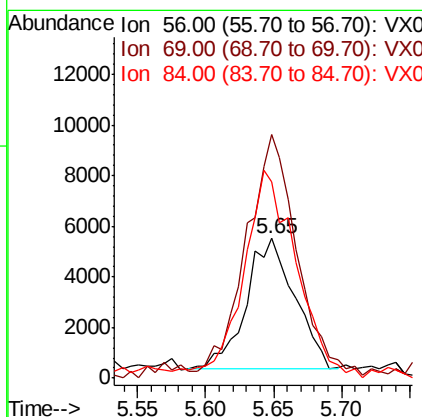
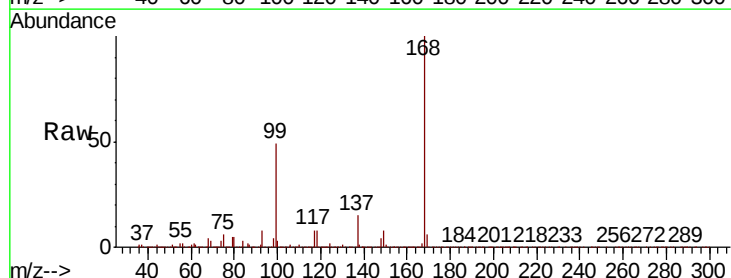
Instrument :  
MSVOA\_X  
ClientSampled :

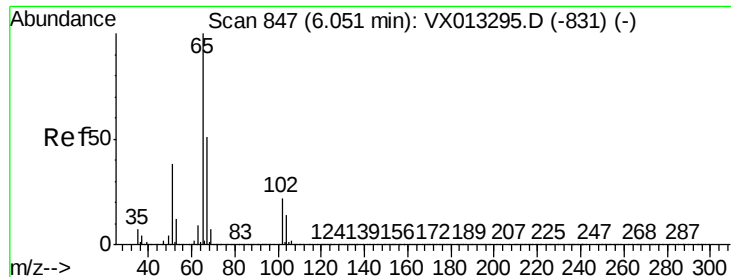
Tot Ion: 42 Resp: 3686  
Ion Ratio Lower Upper  
42 100  
72 21.0 35.8 53.8#  
71 0.0 33.4 50.0#



#31  
Cyclohexane  
Concen: 1.022 ug/l  
RT: 5.65 min Scan# 781  
Delta R.T. 0.08 min  
Lab File: VX013339.D  
Acq: 06 Nov 2019 13:04

Tgt Ion: 56 Resp: 12920  
Ion Ratio Lower Upper  
56 100  
69 181.1 23.7 35.5#  
84 143.1 70.6 105.8#

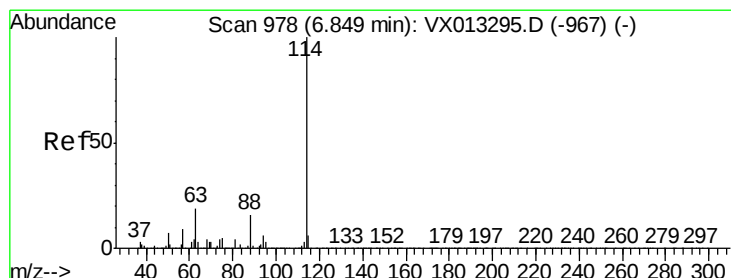
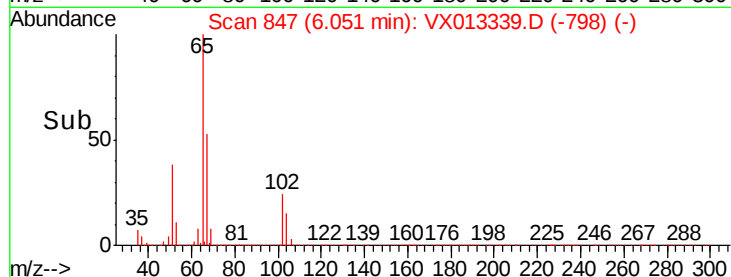
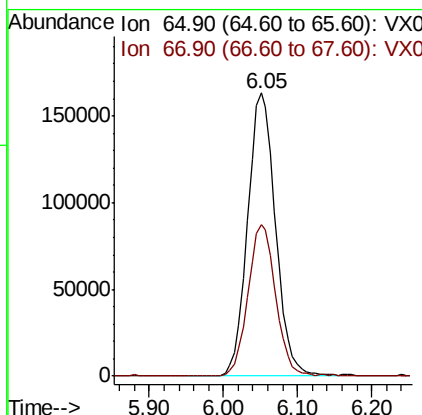
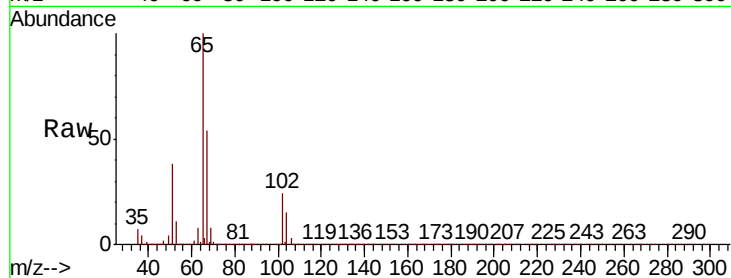




#33  
 1,2-Dichloroethane-d4  
 Concen: 46.524 ug/l  
 RT: 6.05 min Scan# 847  
 Delta R.T. 0.00 min  
 Lab File: VX013339.D  
 Acq: 06 Nov 2019 13:04

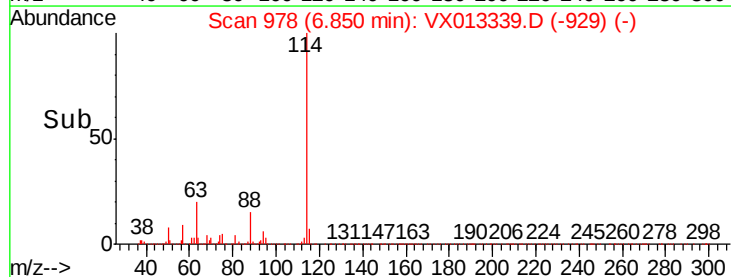
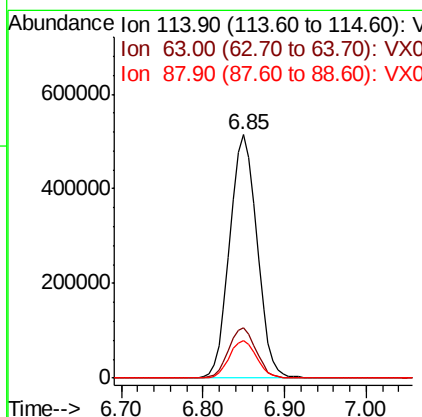
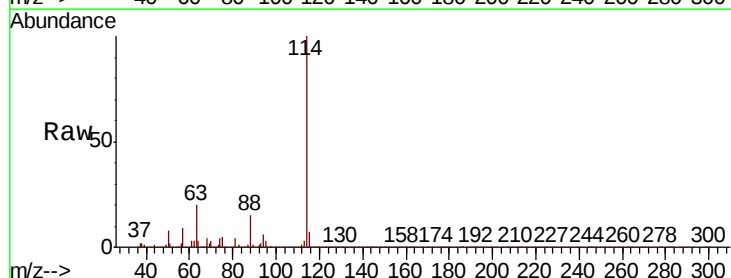
Instrument :  
 MSVOA\_X  
 ClientSampleId :

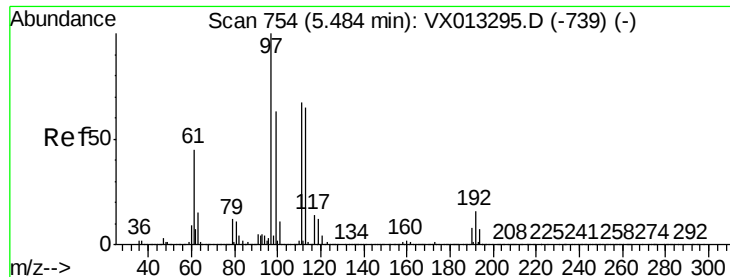
Tot Ion: 65 Resp: 430177  
 Ion Ratio Lower Upper  
 65 100  
 67 52.7 0.0 104.2



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.85 min Scan# 978  
 Delta R.T. 0.00 min  
 Lab File: VX013339.D  
 Acq: 06 Nov 2019 13:04

Tgt Ion: 114 Resp: 1190991  
 Ion Ratio Lower Upper  
 114 100  
 63 20.4 0.0 38.4  
 88 15.3 0.0 32.2





#35

Dibromofluoromethane

Concen: 48.094 ug/l

RT: 5.48 min Scan# 754

Delta R.T. 0.00 min

Lab File: VX013339.D

Acq: 06 Nov 2019 13:04

Instrument :  
MSVOA\_X  
ClientSampleId :

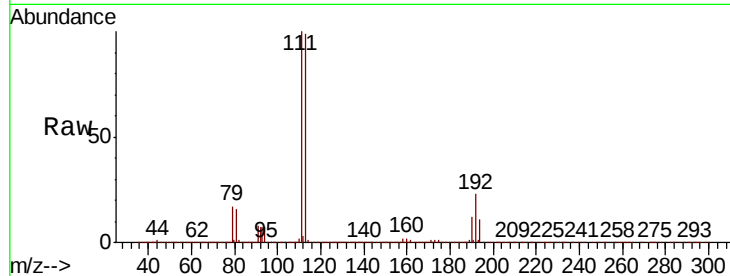
Tot Ion:113 Resp: 359262

Ion Ratio Lower Upper

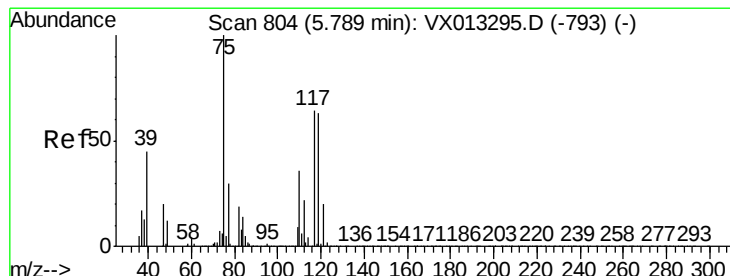
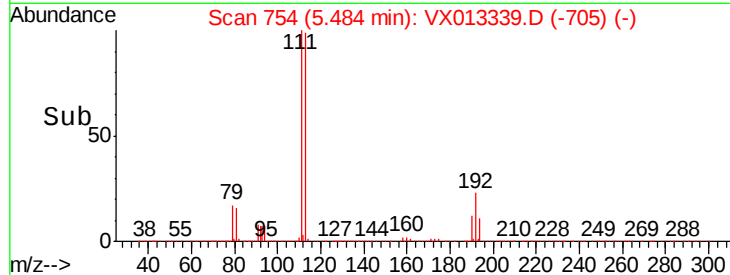
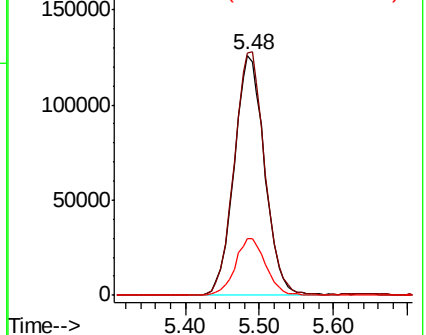
113 100

111 102.1 81.9 122.9

192 23.9 19.1 28.7



Abundance Ion 112.80 (112.50 to 113.50): V  
Ion 110.80 (110.50 to 111.50): V  
Ion 191.70 (191.40 to 192.40): V



#36

1,1-Dichloropropene

Concen: 5.010 ug/l

RT: 5.64 min Scan# 780

Delta R.T. -0.15 min

Lab File: VX013339.D

Acq: 06 Nov 2019 13:04

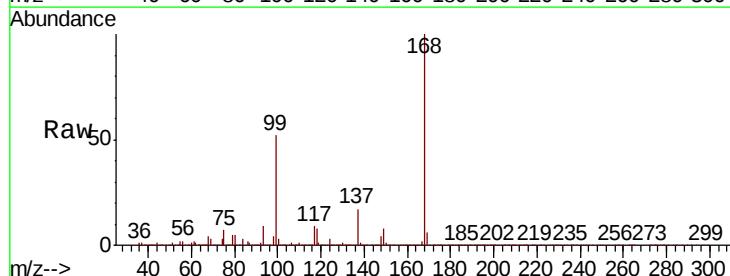
Tgt Ion: 75 Resp: 51185

Ion Ratio Lower Upper

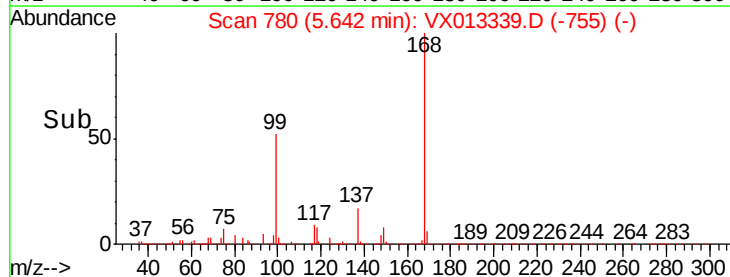
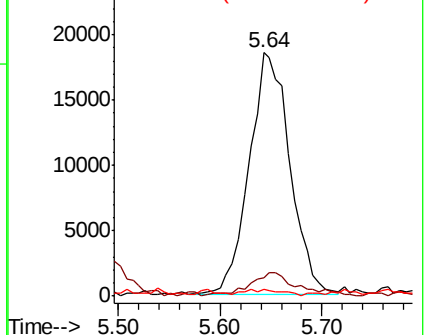
75 100

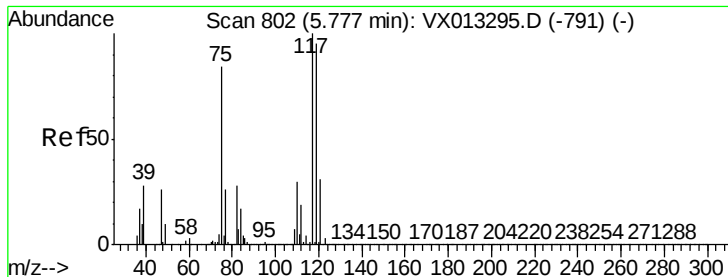
110 0.0 18.1 54.1#

77 0.6 25.0 37.4#



Abundance Ion 74.90 (74.60 to 75.60): VX0  
Ion 109.90 (109.60 to 110.60): V  
Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 6.623 ug/l

RT: 5.65 min Scan# 781

Delta R.T. -0.13 min

Lab File: VX013339.D

Acq: 06 Nov 2019 13:04

Instrument :

MSVOA\_X

ClientSampled :

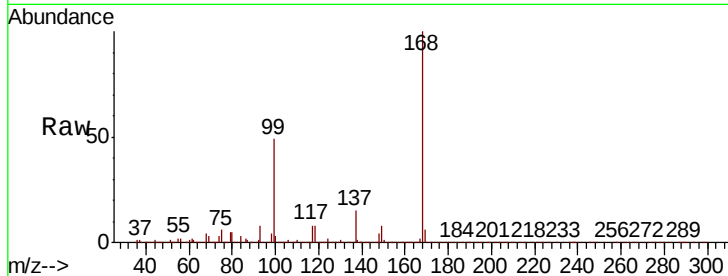
Tot Ion:117 Resp: 66176

Ion Ratio Lower Upper

117 100

119 6.1 76.1 114.1#

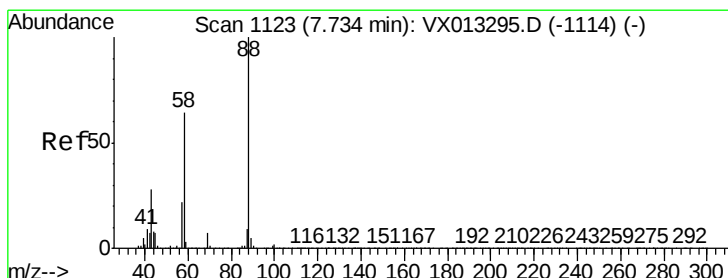
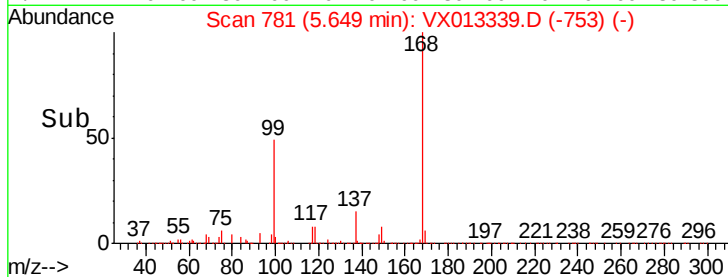
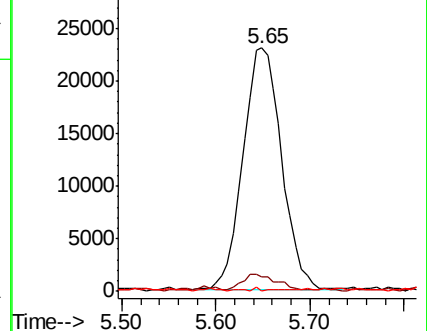
121 0.2 24.6 37.0#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#49

1,4-Dioxane

Concen: 1.384 ug/l

RT: 7.75 min Scan# 1126

Delta R.T. 0.02 min

Lab File: VX013339.D

Acq: 06 Nov 2019 13:04

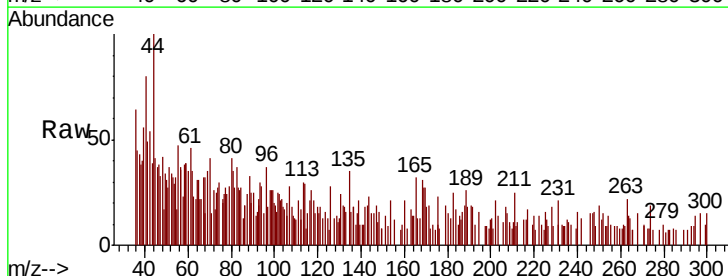
Tgt Ion: 88 Resp: 311

Ion Ratio Lower Upper

88 100

43 0.0 26.6 39.8#

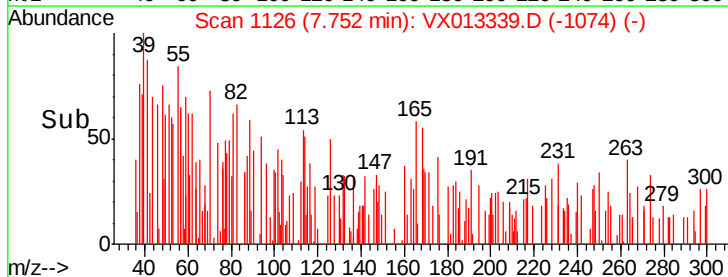
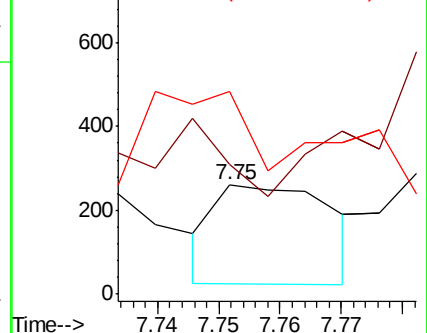
58 292.0 55.0 82.6#

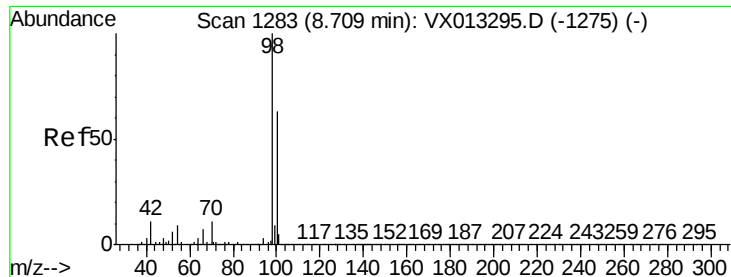


Abundance Ion 88.00 (87.70 to 88.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

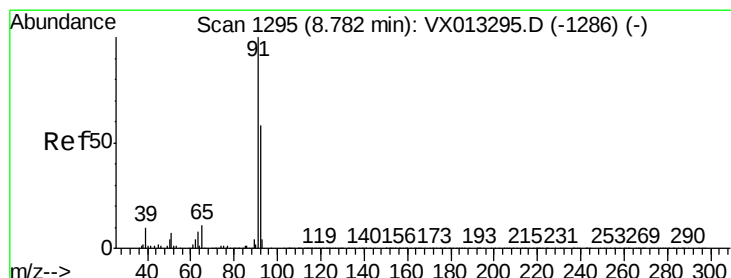
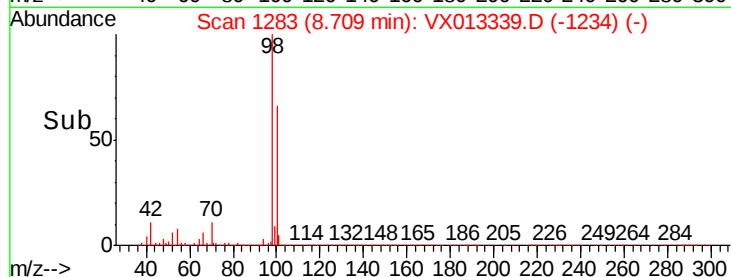
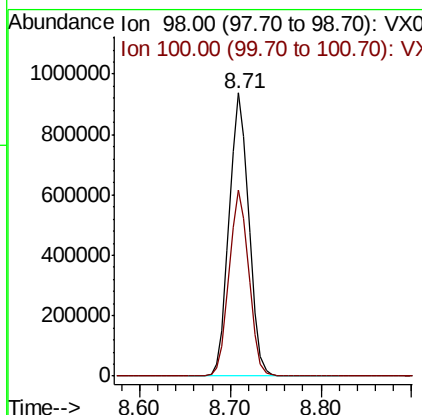
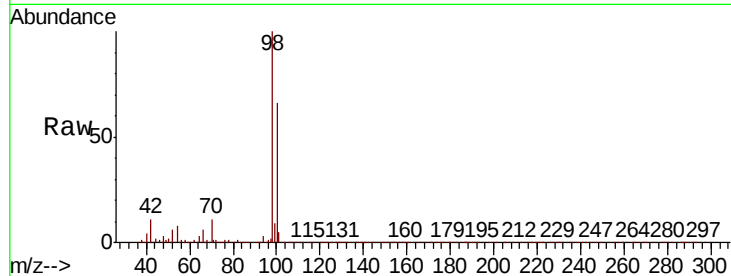




#50  
Toluene-d8  
Concen: 50.449 ug/l  
RT: 8.71 min Scan# 1283  
Delta R.T. 0.00 min  
Lab File: VX013339.D  
Acq: 06 Nov 2019 13:04

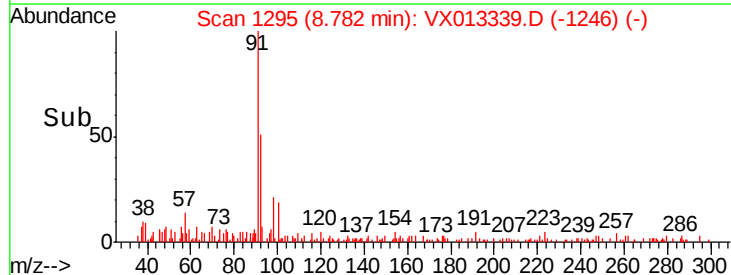
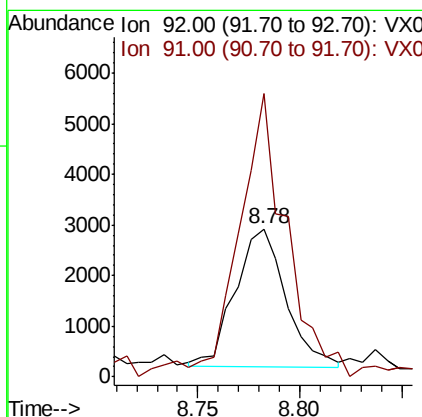
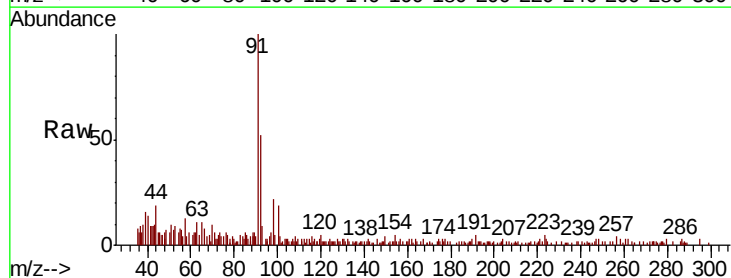
Instrument :  
MSVOA\_X  
ClientSampleId :

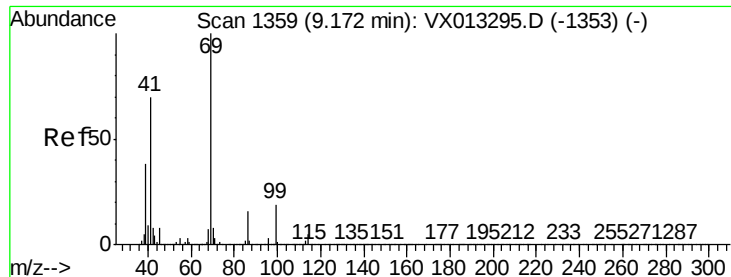
Tot Ion: 98 Resp: 1420713  
Ion Ratio Lower Upper  
98 100  
100 65.3 52.2 78.2



#52  
Toluene  
Concen: 0.236 ug/l  
RT: 8.78 min Scan# 1295  
Delta R.T. 0.00 min  
Lab File: VX013339.D  
Acq: 06 Nov 2019 13:04

Tgt Ion: 92 Resp: 4652  
Ion Ratio Lower Upper  
92 100  
91 198.7 138.0 207.0





#56

Ethyl methacrylate

Concen: 1.572 ug/l

RT: 9.17 min Scan# 1359

Delta R.T. 0.00 min

Lab File: VX013339.D

Acq: 06 Nov 2019 13:04

Instrument :  
MSVOA\_X  
ClientSampled :

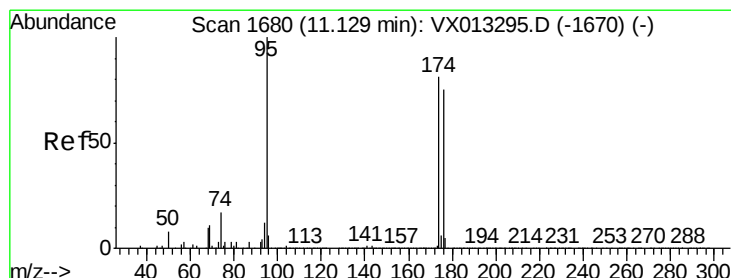
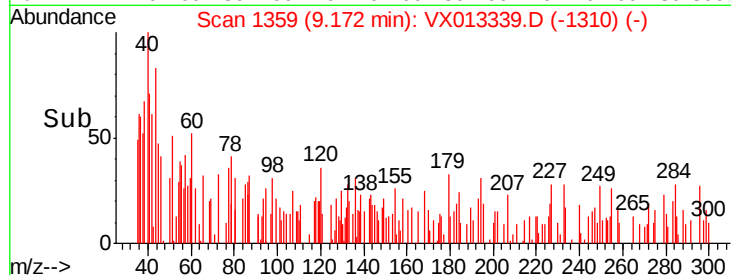
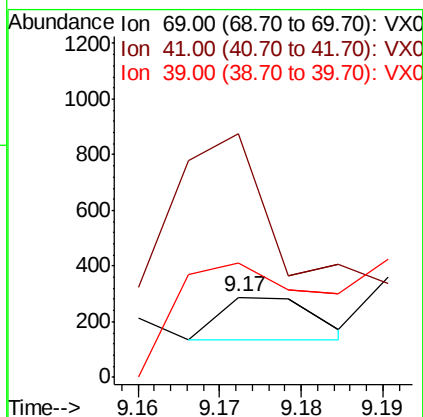
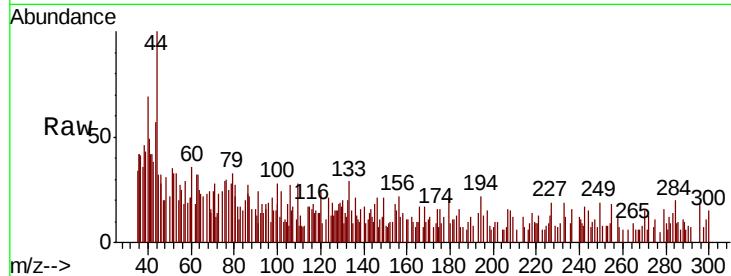
Tot Ion: 69 Resp: 124

Ion Ratio Lower Upper

69 100

41 449.2 56.2 84.2#

39 412.1 31.1 46.7#



#62

4-Bromofluorobenzene

Concen: 46.331 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. 0.00 min

Lab File: VX013339.D

Acq: 06 Nov 2019 13:04

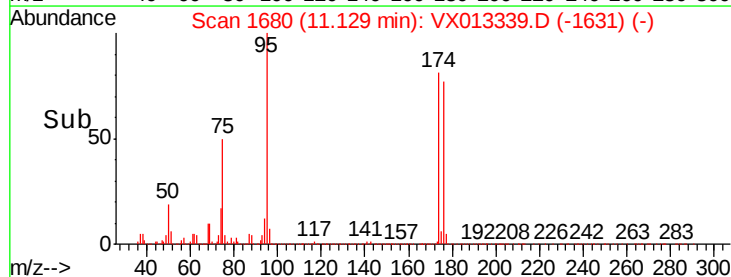
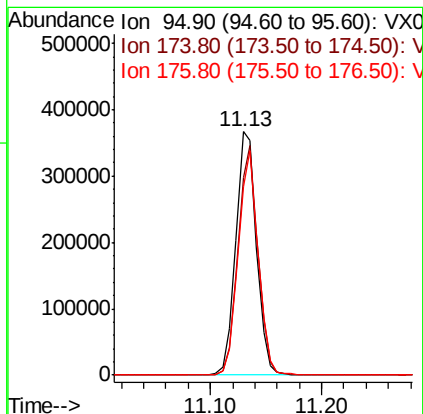
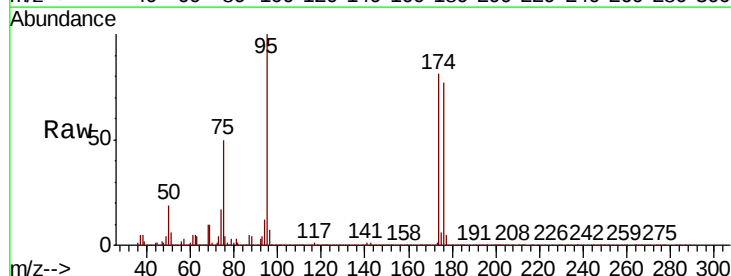
Tgt Ion: 95 Resp: 470892

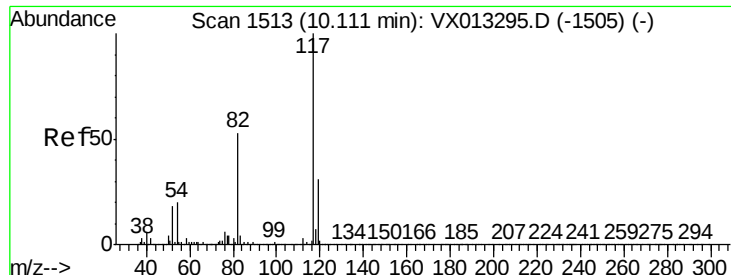
Ion Ratio Lower Upper

95 100

174 91.1 0.0 179.8

176 88.9 0.0 173.0

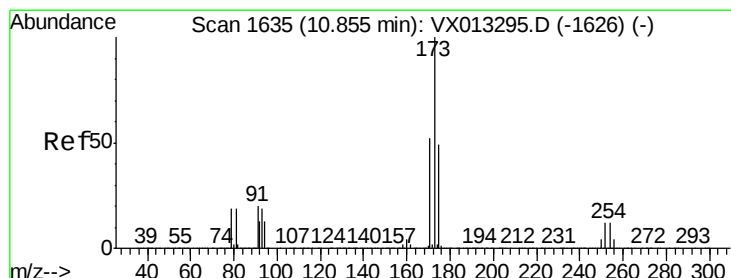
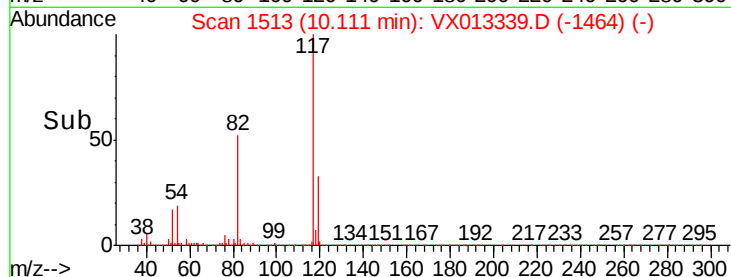
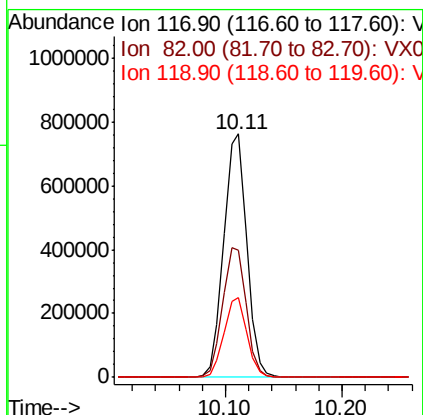
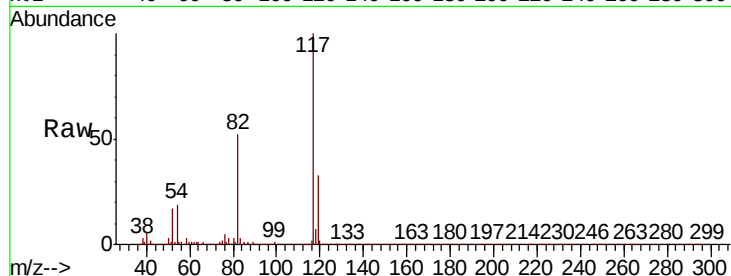




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1513  
Delta R.T. 0.00 min  
Lab File: VX013339.D  
Acq: 06 Nov 2019 13:04

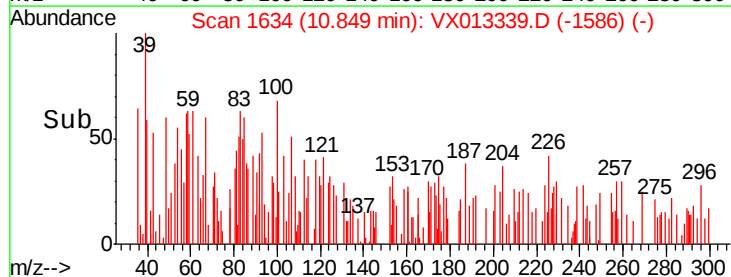
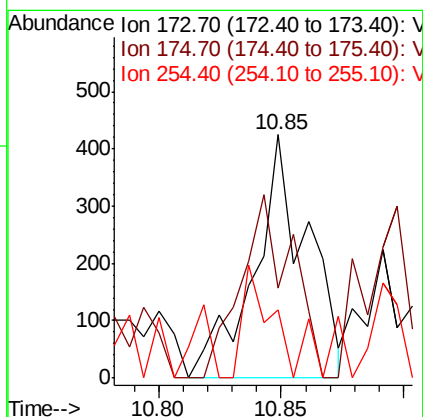
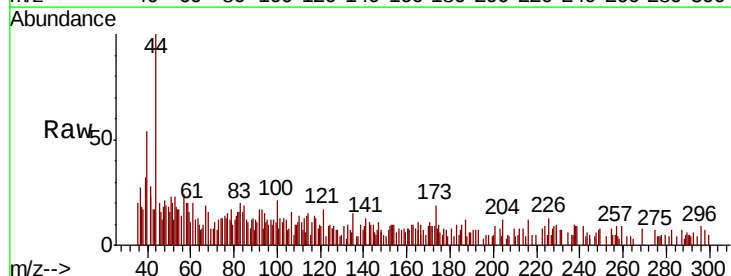
Instrument :  
MSVOA\_X  
ClientSampleId :

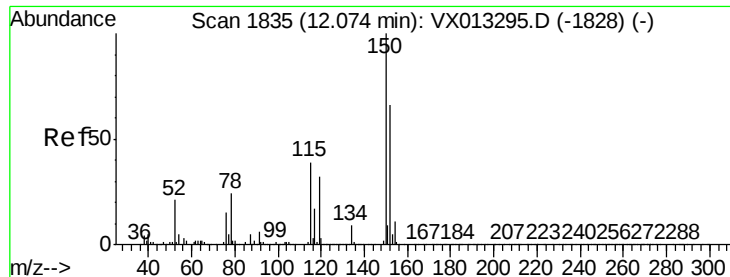
Tot Ion:117 Resp: 1047433  
Ion Ratio Lower Upper  
117 100  
82 52.2 42.6 64.0  
119 32.6 24.8 37.2



#71  
Bromoform  
Concen: 3.286 ug/l  
RT: 10.85 min Scan# 1634  
Delta R.T. -0.01 min  
Lab File: VX013339.D  
Acq: 06 Nov 2019 13:04

Tgt Ion:173 Resp: 641  
Ion Ratio Lower Upper  
173 100  
175 0.0 24.8 74.4#  
254 23.6 0.2 0.2#





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.07 min Scan# 1835

Delta R.T. 0.00 min

Lab File: VX013339.D

Acq: 06 Nov 2019 13:04

Instrument :

MSVOA\_X

ClientSampleId :

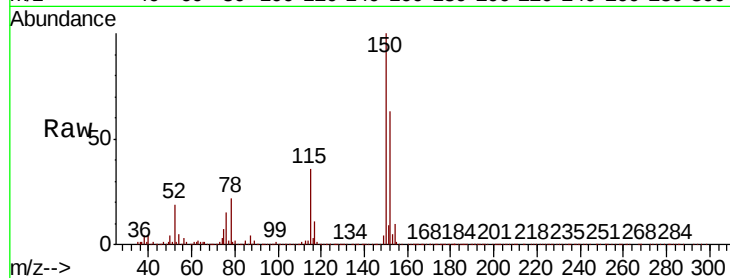
Tot Ion:152 Resp: 483298

Ion Ratio Lower Upper

152 100

115 55.6 39.5 118.3

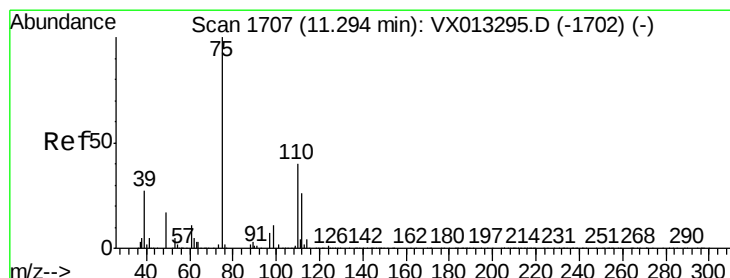
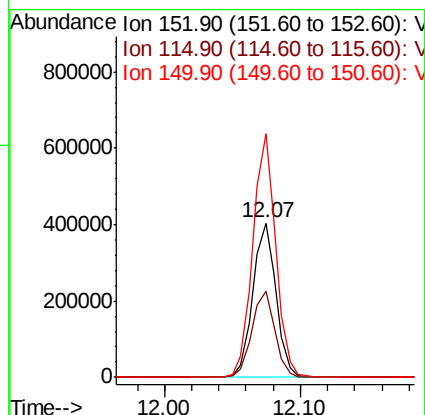
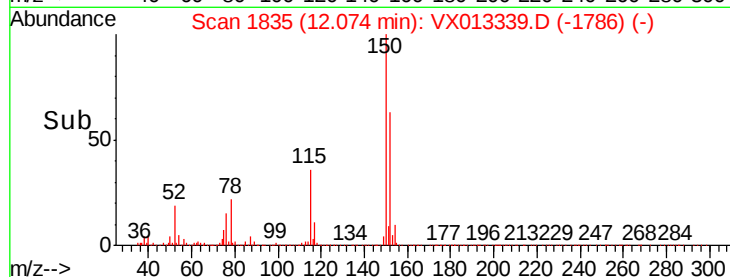
150 155.8 0.0 344.4



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 24.170 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. -0.16 min

Lab File: VX013339.D

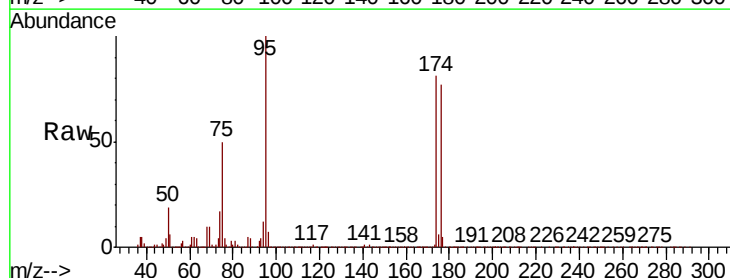
Acq: 06 Nov 2019 13:04

Tgt Ion: 75 Resp: 237265

Ion Ratio Lower Upper

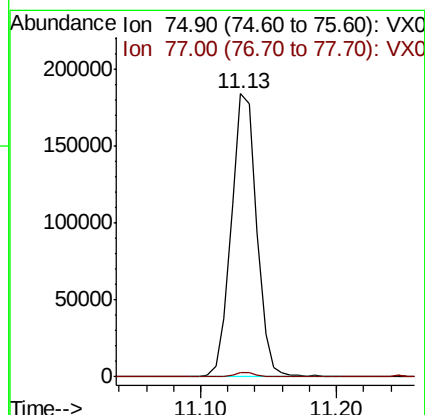
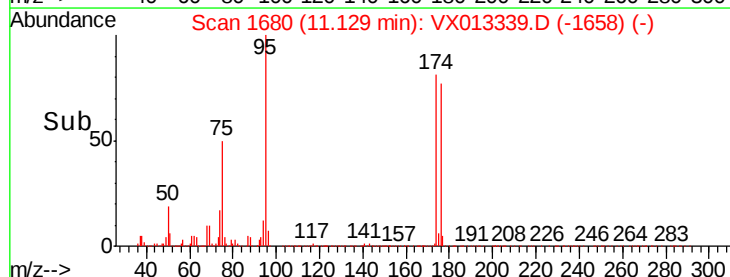
75 100

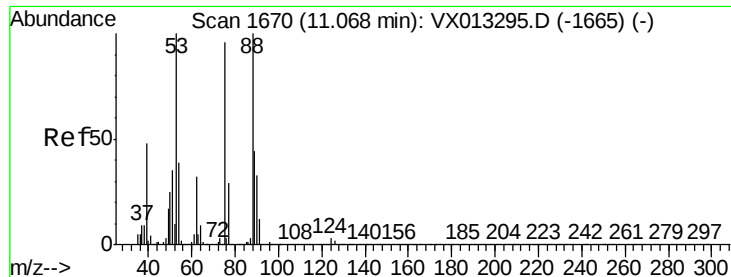
77 1.5 22.3 66.8#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0





#81

trans-1,4-Dichloro-2-butene

Concen: 62.214 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. 0.06 min

Lab File: VX013339.D

Acq: 06 Nov 2019 13:04

Instrument :

MSVOA\_X

ClientSampleId :

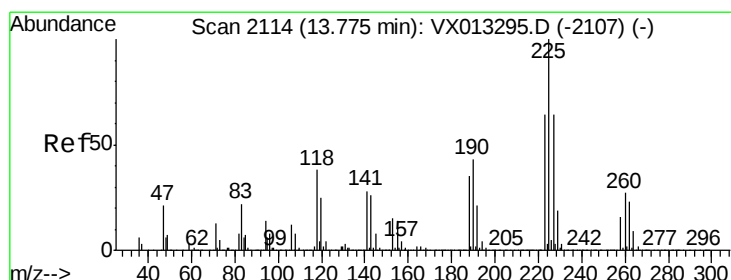
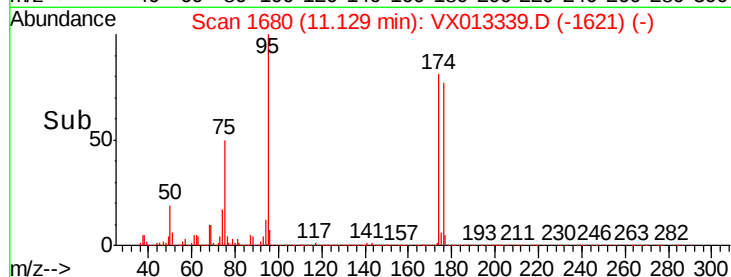
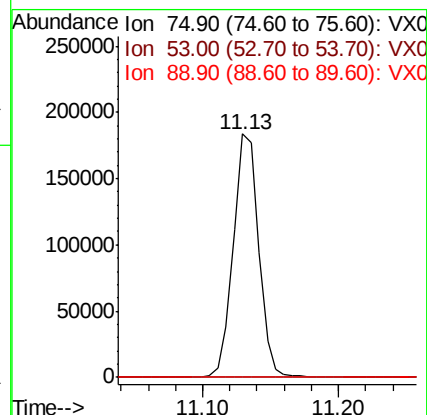
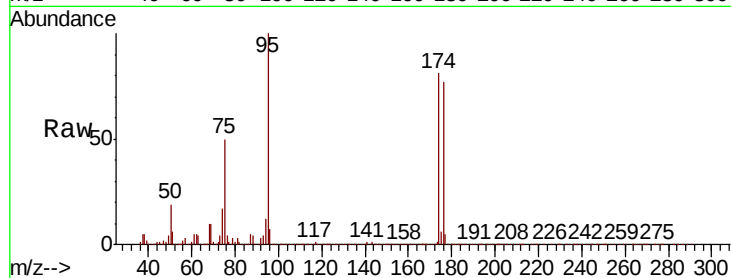
Tot Ion: 75 Resp: 237265

Ion Ratio Lower Upper

75 100

53 0.0 81.0 121.6#

89 0.1 36.0 54.0#



#94

Hexachlorobutadiene

Concen: 0.325 ug/l

RT: 13.78 min Scan# 2115

Delta R.T. 0.01 min

Lab File: VX013339.D

Acq: 06 Nov 2019 13:04

Tgt Ion: 225 Resp: 1690

Ion Ratio Lower Upper

225 100

223 60.3 31.9 95.7

227 52.3 31.9 95.9

