

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX072920\  
 Data File : VX017669.D  
 Acq On : 29 Jul 2020 14:21  
 Operator : JC/SP  
 Sample : L3489-16  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Jul 30 04:36:03 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X072320W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jul 24 05:48:09 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.62  | 168  | 527171   | 50.00 | ug/l  | -0.01    |
| 34) 1,4-Difluorobenzene    | 6.83  | 114  | 863454   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 876196   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 454783   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.03  | 65   | 353685   | 52.23 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 104.46% |          |
| 35) Dibromofluoromethane    | 5.46  | 113  | 299048   | 51.78 | ug/l    | -0.01    |
| Spiked Amount               |       |      | Recovery | =     | 103.56% |          |
| 50) Toluene-d8              | 8.70  | 98   | 1063366  | 51.04 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 102.08% |          |
| 62) 4-Bromofluorobenzene    | 11.12 | 95   | 423487   | 50.79 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.58% |          |

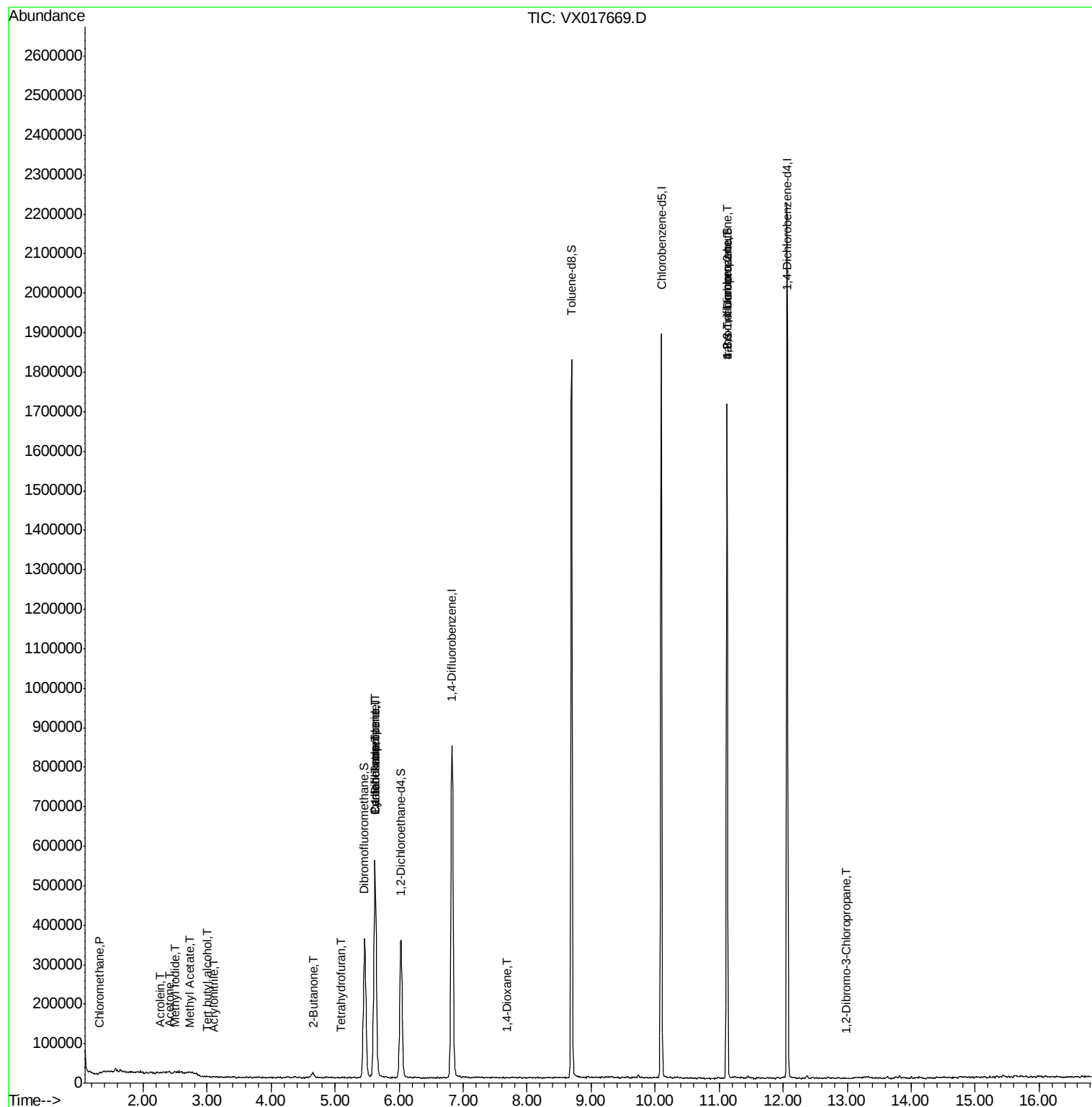
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 2) Dichlorodifluoromethane     | 1.18  | 85   | 401      | Below Cal | #      | 42     |
| 3) Chloromethane               | 1.32  | 50   | 1798     | 0.641     | ug/l # | 75     |
| 5) Bromomethane                | 1.64  | 94   | 2838     | Below Cal | #      | 68     |
| 6) Chloroethane                | 1.72  | 64   | 262      | Below Cal | #      | 78     |
| 8) Diethyl Ether               | 2.11  | 74   | 236      | Below Cal |        | 82     |
| 10) Methyl Iodide              | 2.50  | 142  | 3443     | 0.470     | ug/l # | 72     |
| 11) Tert butyl alcohol         | 3.01  | 59   | 559      | 0.392     | ug/l # | 1      |
| 13) Acrolein                   | 2.27  | 56   | 923      | 4.982     | ug/l # | 14     |
| 15) Acrylonitrile              | 3.11  | 53   | 1077     | 0.349     | ug/l # | 56     |
| 16) Acetone                    | 2.42  | 43   | 998      | 0.335     | ug/l # | 44     |
| 18) Methyl Acetate             | 2.73  | 43   | 2004     | 0.285     | ug/l # | 61     |
| 20) Methylene Chloride         | 2.83  | 84   | 3543     | Below Cal | #      | 68     |
| 25) 2-Butanone                 | 4.65  | 43   | 2134     | 0.504     | ug/l # | 74     |
| 29) Tetrahydrofuran            | 5.09  | 42   | 961      | 0.366     | ug/l # | 78     |
| 31) Cyclohexane                | 5.63  | 56   | 11383    | 1.363     | ug/l # | 13     |
| 36) 1,1-Dichloropropene        | 5.63  | 75   | 39139    | 4.726     | ug/l # | 41     |
| 38) Carbon Tetrachloride       | 5.63  | 117  | 52097    | 5.180     | ug/l # | 19     |
| 49) 1,4-Dioxane                | 7.69  | 88   | 147      | 1.035     | ug/l # | 1      |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75   | 217026   | 23.199    | ug/l # | 35     |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75   | 217026   | 58.456    | ug/l # | 11     |
| 92) 1,2-Dibromo-3-Chloropropan | 12.98 | 75   | 281      | 2.673     | ug/l # | 18     |

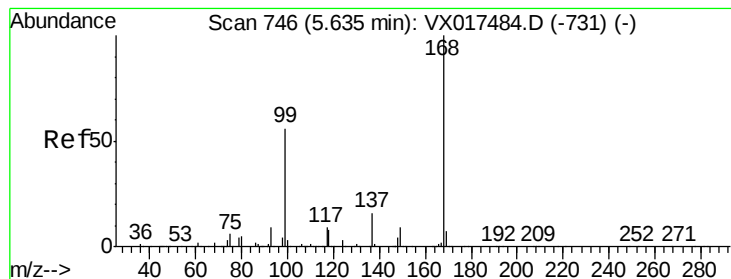
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX072920\  
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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X072320W.M  
Quant Title : SW846 8260  
QLast Update : Fri Jul 24 05:48:09 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.62 min Scan# 744

Delta R.T. -0.01 min

Lab File: VX017669.D

Acq: 29 Jul 2020 14:21

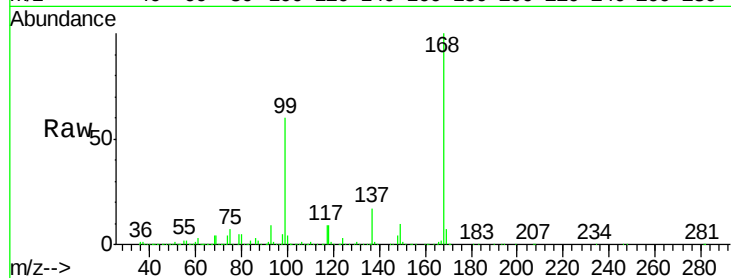
Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion:168 Resp: 527171

Ion Ratio Lower Upper

168 100

99 59.6 43.4 65.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.62

200000

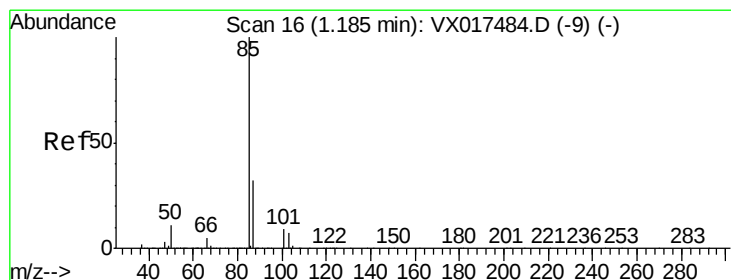
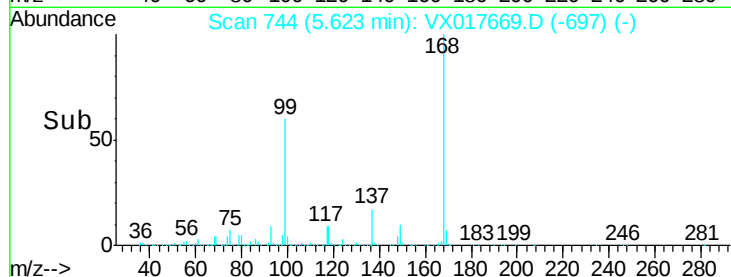
150000

100000

50000

0

Time-->



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 1.18 min Scan# 16

Delta R.T. 0.00 min

Lab File: VX017669.D

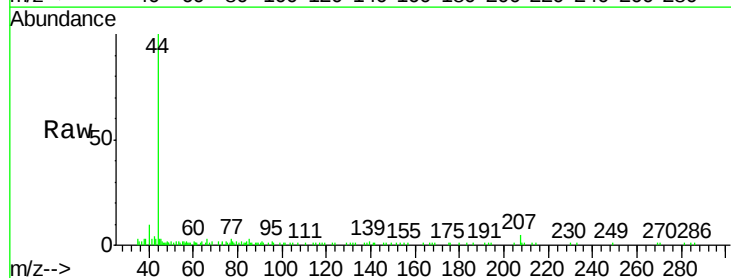
Acq: 29 Jul 2020 14:21

Tgt Ion: 85 Resp: 401

Ion Ratio Lower Upper

85 100

87 0.0 16.1 48.3#



Abundance Ion 84.90 (84.60 to 85.60): VX0

Ion 86.90 (86.60 to 87.60): VX0

1.18

400

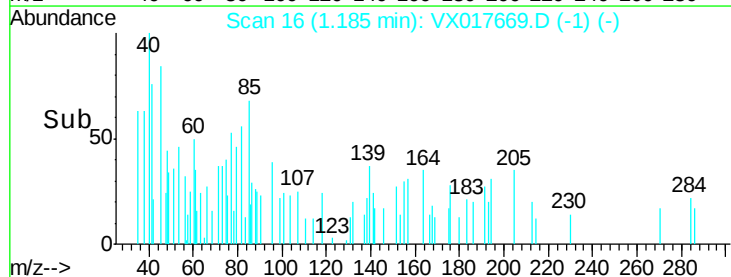
300

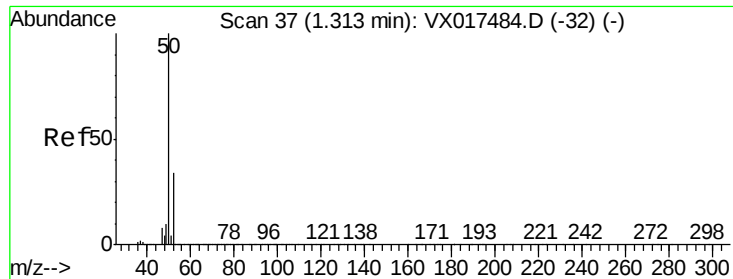
200

100

0

Time-->





#3

Chloromethane

Concen: 0.641 ug/l

RT: 1.32 min Scan# 38

Delta R.T. 0.01 min

Lab File: VX017669.D

Acq: 29 Jul 2020 14:21

Instrument :

MSVOA\_X

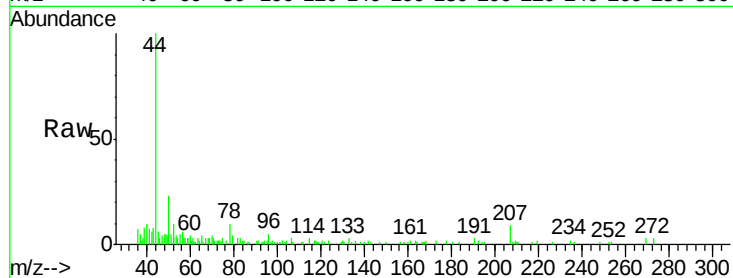
ClientSampleId :

Tot Ion: 50 Resp: 1798

Ion Ratio Lower Upper

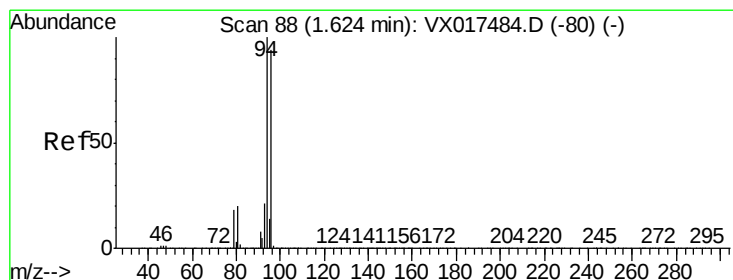
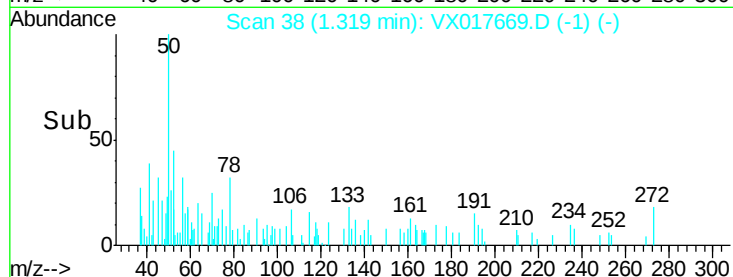
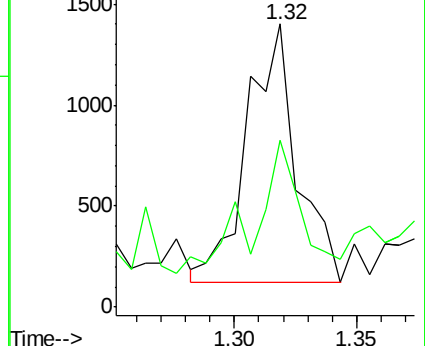
50 100

52 46.2 25.9 38.9#



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0



#5

Bromomethane

Concen: Below Cal

RT: 1.64 min Scan# 90

Delta R.T. 0.01 min

Lab File: VX017669.D

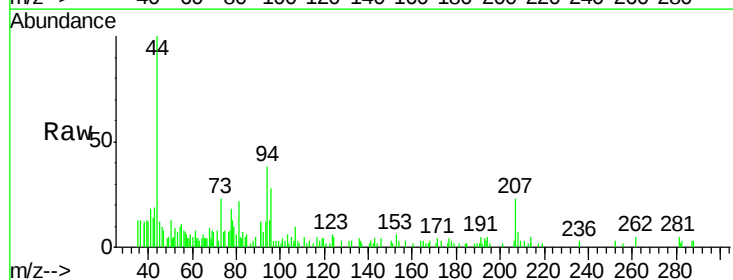
Acq: 29 Jul 2020 14:21

Tgt Ion: 94 Resp: 2838

Ion Ratio Lower Upper

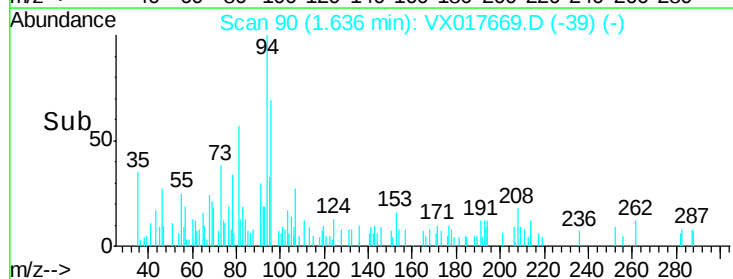
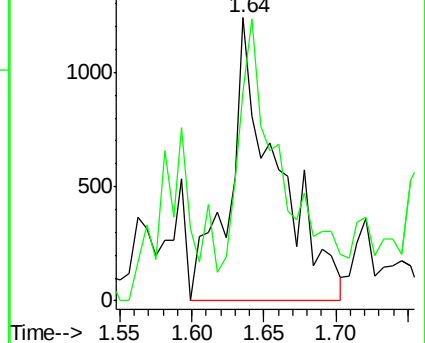
94 100

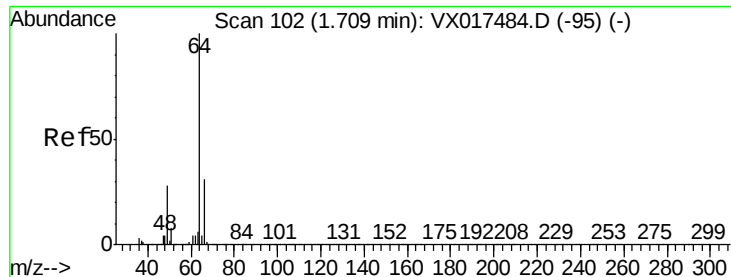
96 62.4 74.1 111.1#



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: 1.72 min Scan# 103

Delta R.T. 0.01 min

Lab File: VX017669.D

Acq: 29 Jul 2020 14:21

Instrument :

MSVOA\_X

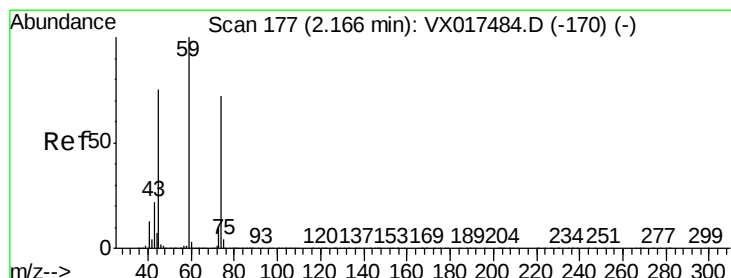
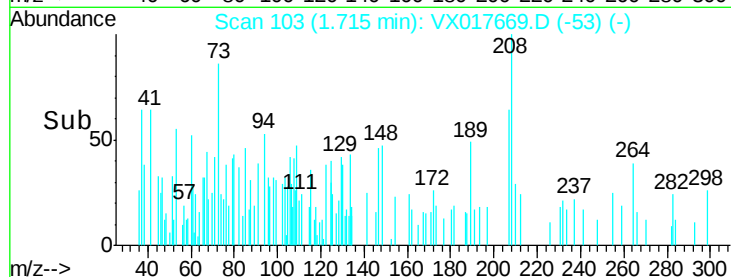
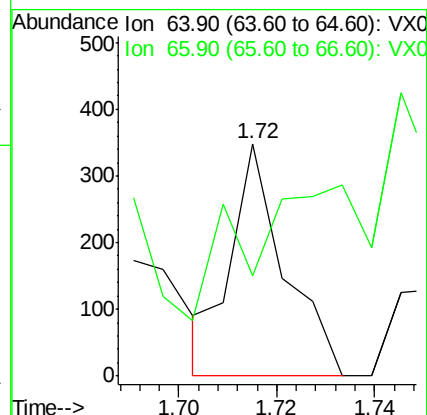
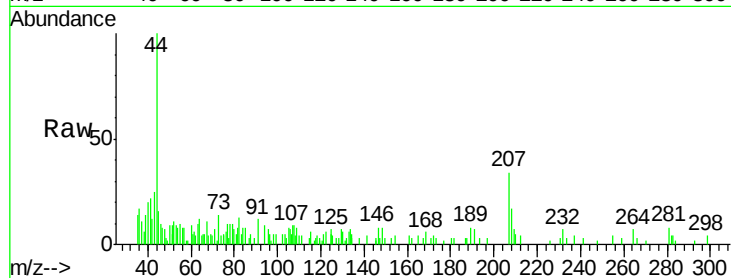
ClientSampled :

Tot Ion: 64 Resp: 262

Ion Ratio Lower Upper

64 100

66 19.3 24.9 37.3#



#8

Diethyl Ether

Concen: Below Cal

RT: 2.11 min Scan# 168

Delta R.T. -0.05 min

Lab File: VX017669.D

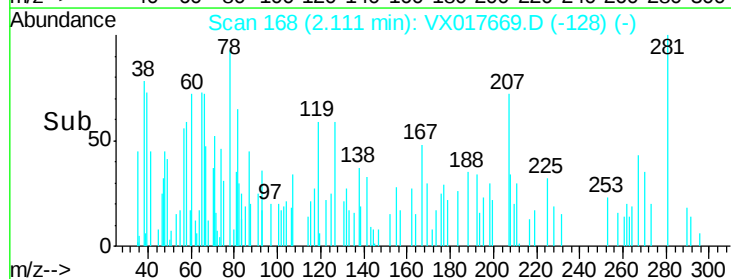
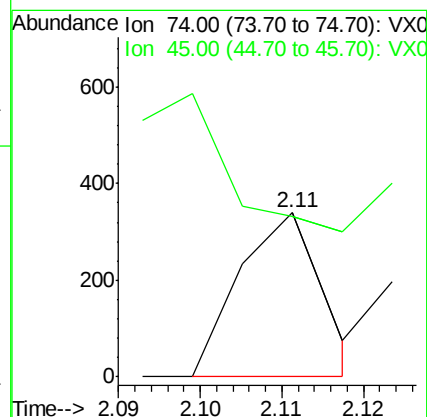
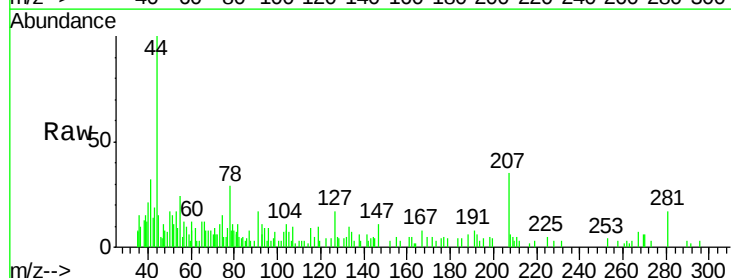
Acq: 29 Jul 2020 14:21

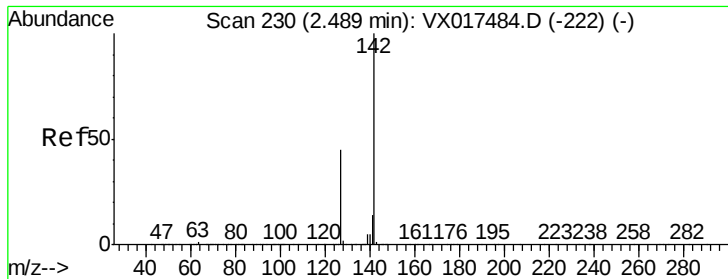
Tgt Ion: 74 Resp: 236

Ion Ratio Lower Upper

74 100

45 120.3 50.8 152.5

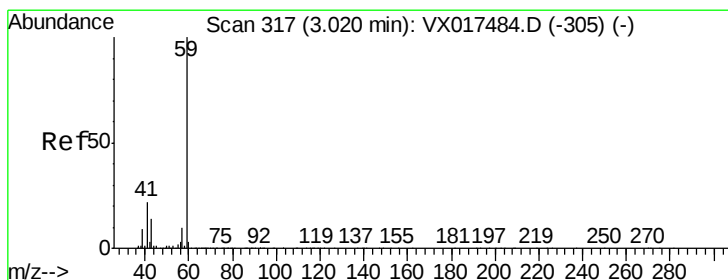
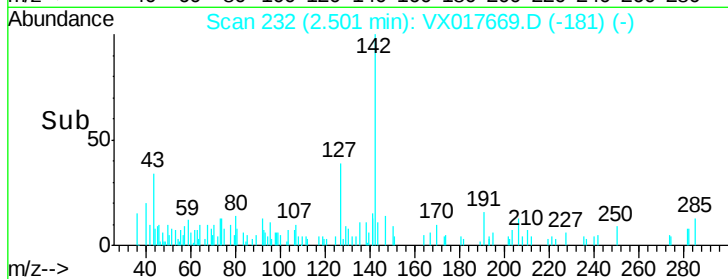
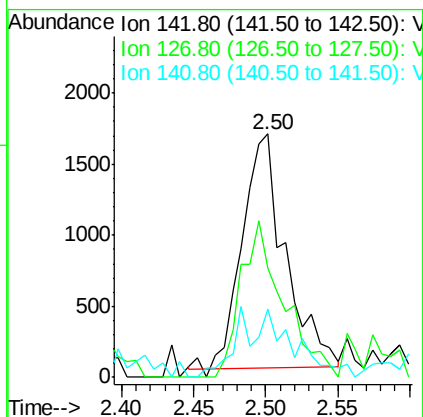
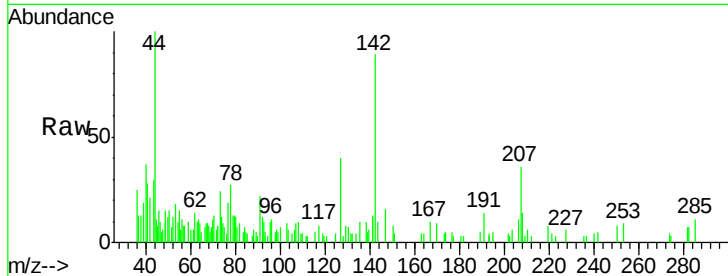




#10  
Methyl Iodide  
Concen: 0.470 ug/l  
RT: 2.50 min Scan# 232  
Delta R.T. 0.01 min  
Lab File: VX017669.D  
Acq: 29 Jul 2020 14:21

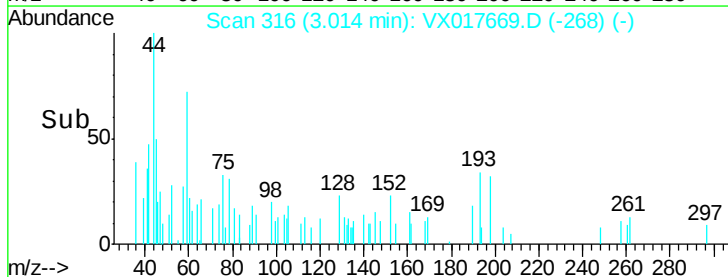
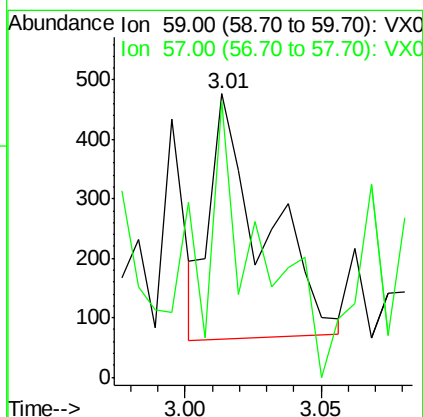
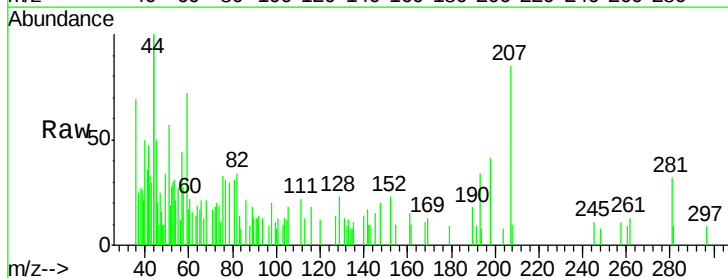
Instrument :  
MSVOA\_X  
ClientSampled :

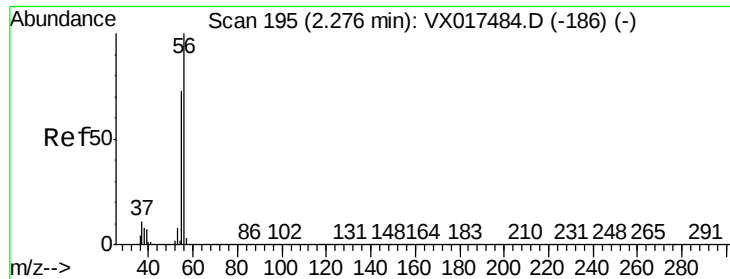
Tot Ion:142 Resp: 3443  
Ion Ratio Lower Upper  
142 100  
127 65.6 35.9 53.9#  
141 21.0 11.4 17.0#



#11  
Tert butyl alcohol  
Concen: 0.392 ug/l  
RT: 3.01 min Scan# 316  
Delta R.T. -0.01 min  
Lab File: VX017669.D  
Acq: 29 Jul 2020 14:21

Tgt Ion: 59 Resp: 559  
Ion Ratio Lower Upper  
59 100  
57 115.6 8.6 12.8#





#13

Acrolein

Concen: 4.982 ug/l

RT: 2.27 min Scan# 194

Delta R.T. -0.01 min

Lab File: VX017669.D

Acq: 29 Jul 2020 14:21

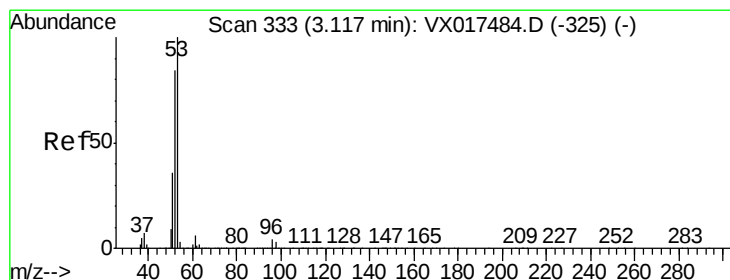
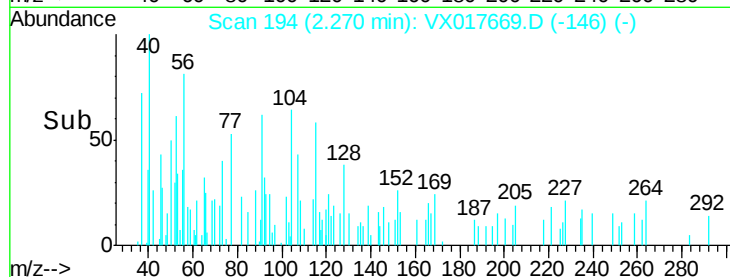
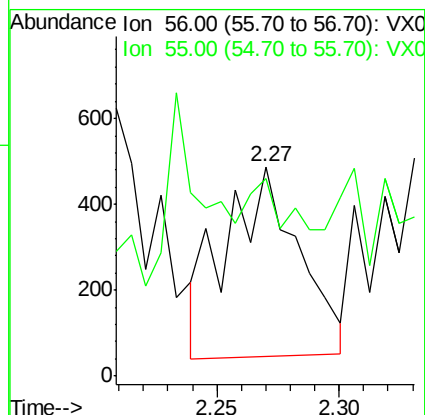
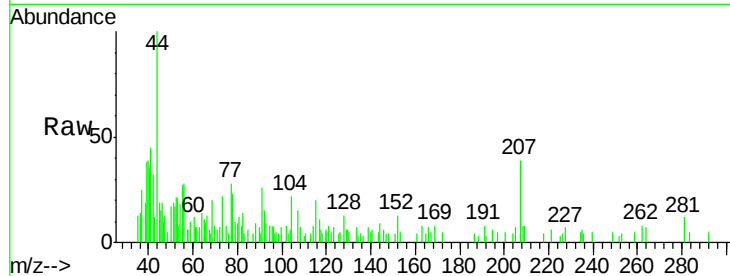
Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion: 56 Resp: 923

Ion Ratio Lower Upper

56 100

55 0.0 57.4 86.2#



#15

Acrylonitrile

Concen: 0.349 ug/l

RT: 3.11 min Scan# 332

Delta R.T. -0.01 min

Lab File: VX017669.D

Acq: 29 Jul 2020 14:21

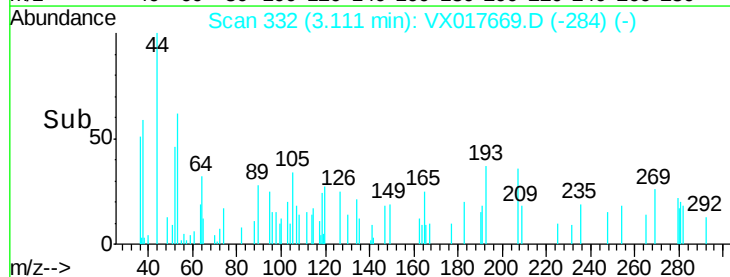
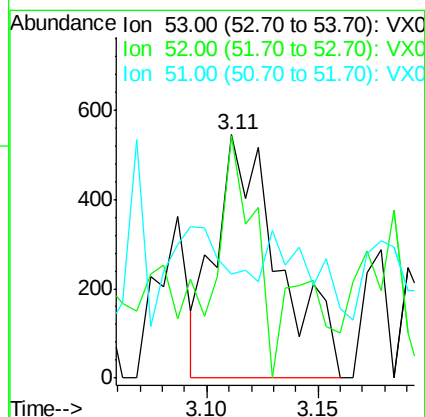
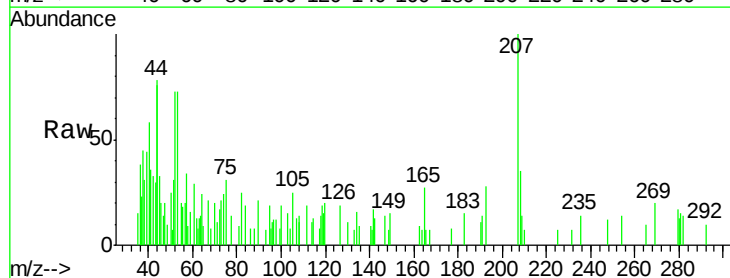
Tgt Ion: 53 Resp: 1077

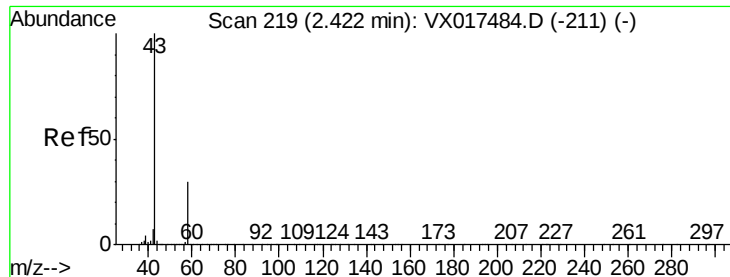
Ion Ratio Lower Upper

53 100

52 50.8 66.6 99.8#

51 0.0 29.4 44.2#





#16

Acetone

Concen: 0.335 ug/l

RT: 2.42 min Scan# 219

Delta R.T. -0.00 min

Lab File: VX017669.D

Acq: 29 Jul 2020 14:21

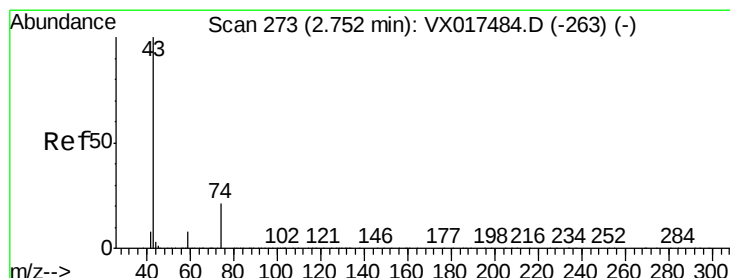
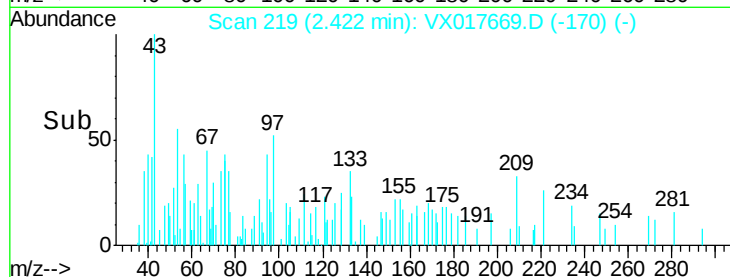
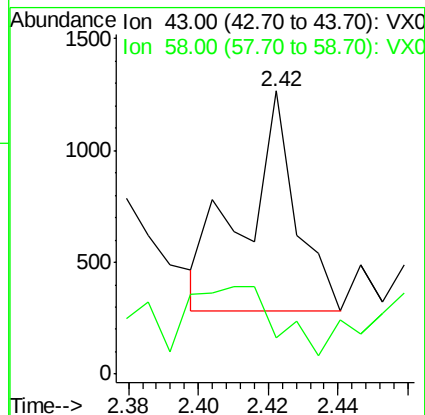
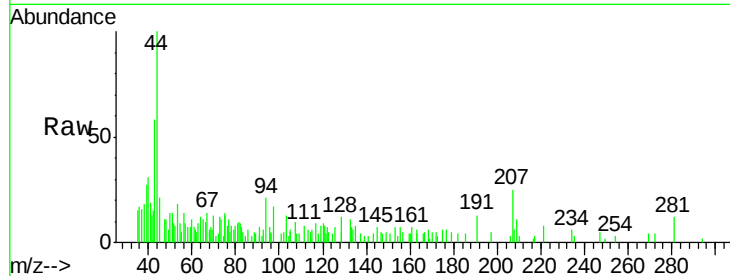
Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion: 43 Resp: 998

Ion Ratio Lower Upper

43 100

58 0.0 24.2 36.4#



#18

Methyl Acetate

Concen: 0.285 ug/l

RT: 2.73 min Scan# 270

Delta R.T. -0.02 min

Lab File: VX017669.D

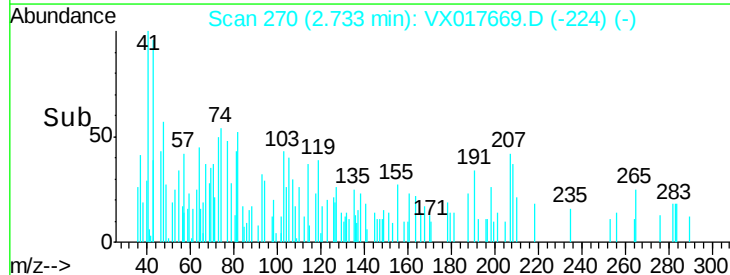
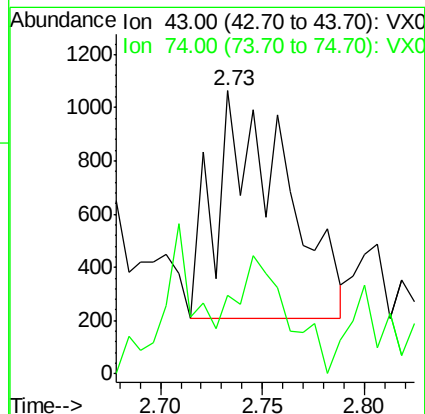
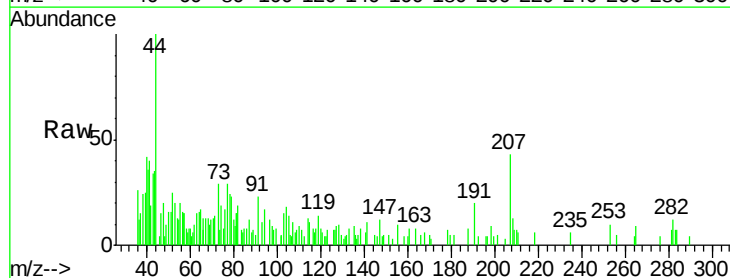
Acq: 29 Jul 2020 14:21

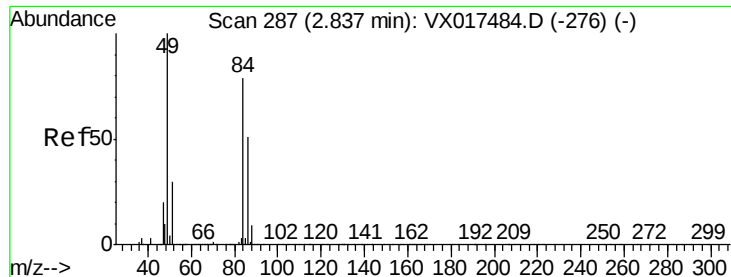
Tgt Ion: 43 Resp: 2004

Ion Ratio Lower Upper

43 100

74 40.3 17.5 26.3#

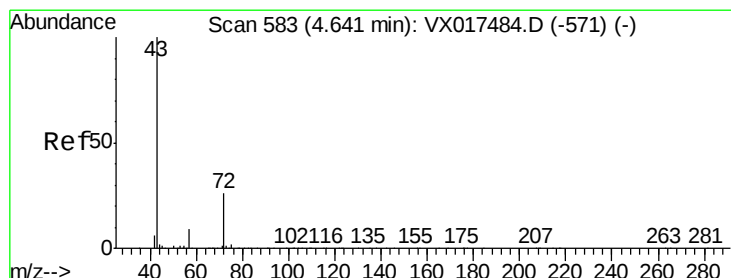
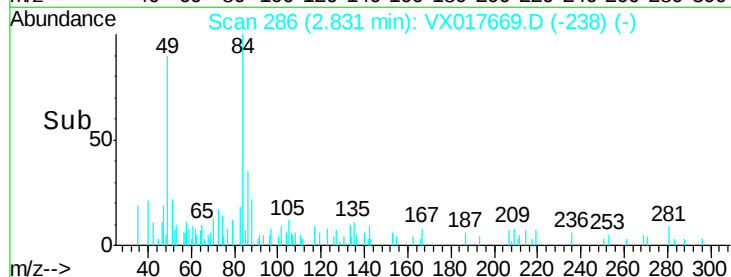
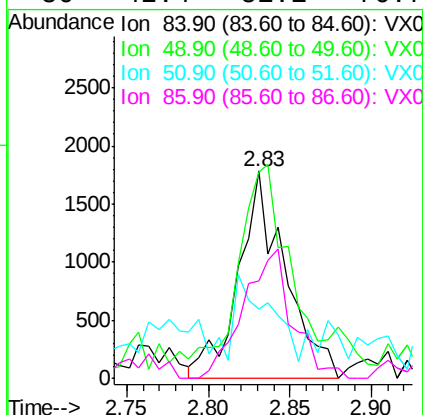
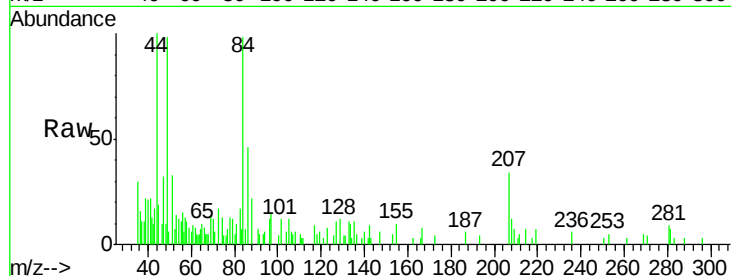




#20  
Methvlene Chloride  
Concen: Below Cal  
RT: 2.83 min Scan# 286  
Delta R.T. -0.01 min  
Lab File: VX017669.D  
Acq: 29 Jul 2020 14:21

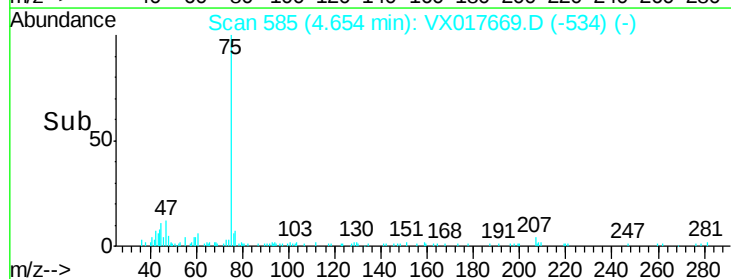
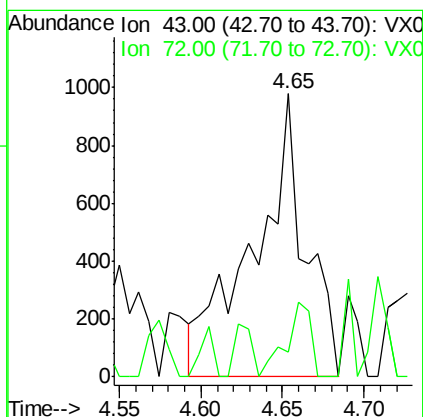
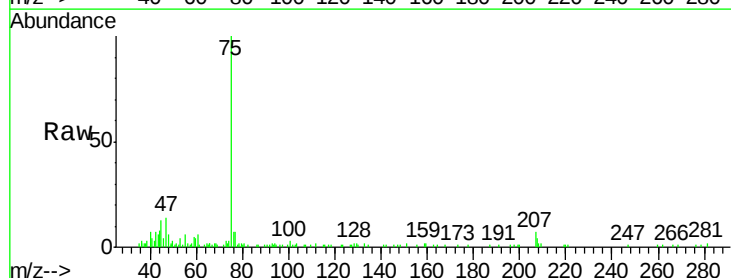
Instrument :  
MSVOA\_X  
ClientSampled :

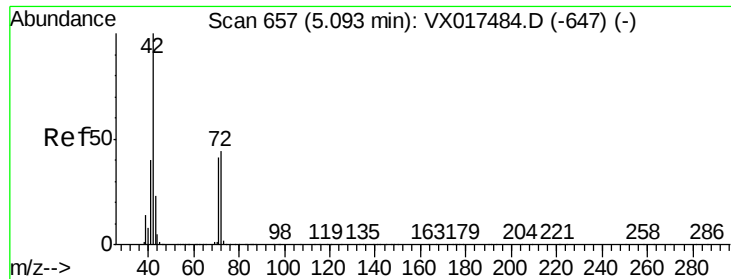
Tot Ion: 84 Resp: 3543  
Ion Ratio Lower Upper  
84 100  
49 90.3 100.3 150.5#  
51 12.5 30.5 45.7#  
86 42.4 51.1 76.7#



#25  
2-Butanone  
Concen: 0.504 ug/l  
RT: 4.65 min Scan# 585  
Delta R.T. 0.01 min  
Lab File: VX017669.D  
Acq: 29 Jul 2020 14:21

Tgt Ion: 43 Resp: 2134  
Ion Ratio Lower Upper  
43 100  
72 10.8 19.0 28.4#

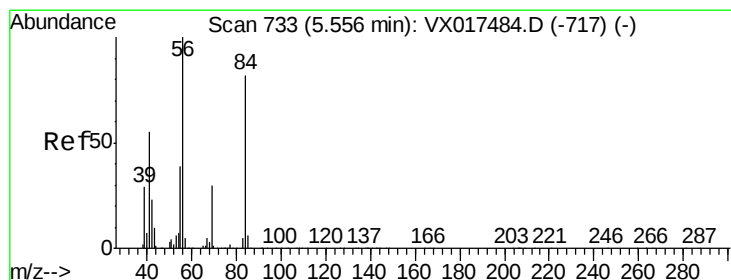
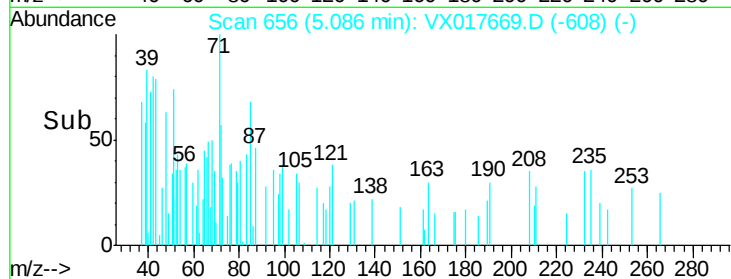
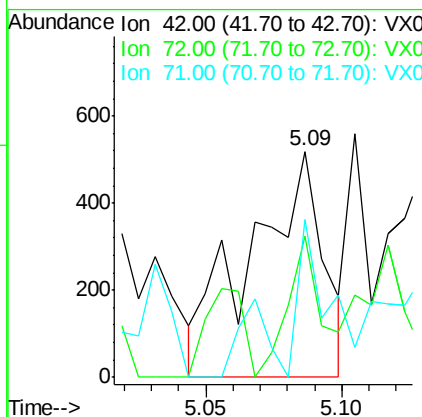
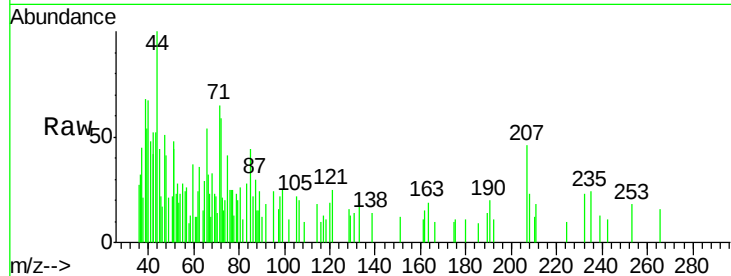




#29  
Tetrahydrofuran  
Concen: 0.366 ug/l  
RT: 5.09 min Scan# 656  
Delta R.T. -0.01 min  
Lab File: VX017669.D  
Acq: 29 Jul 2020 14:21

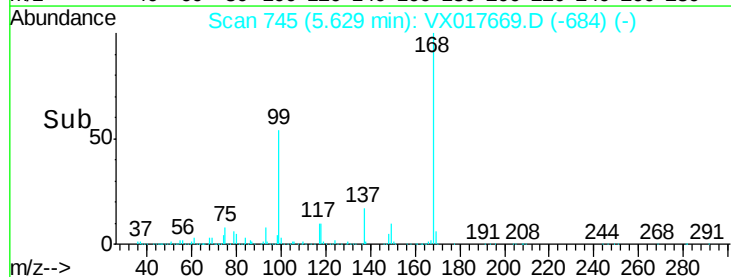
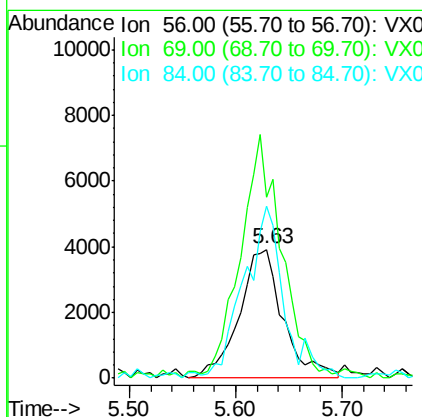
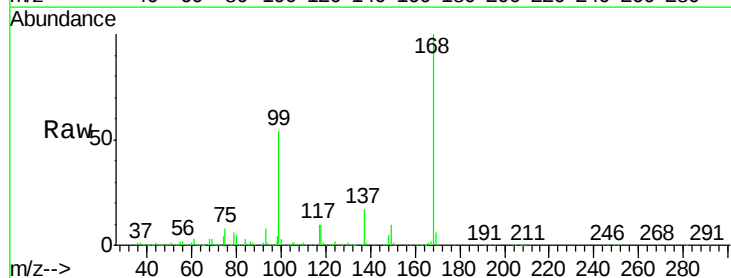
Instrument :  
MSVOA\_X  
ClientSampled :

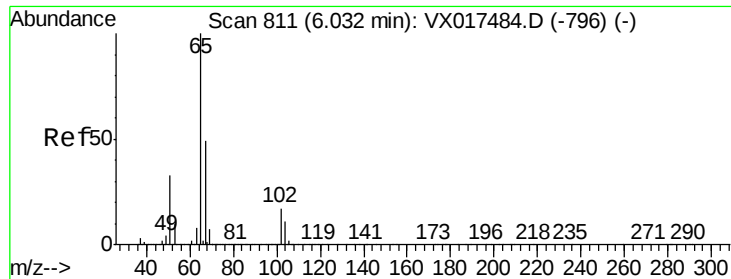
Tot Ion: 42 Resp: 961  
Ion Ratio Lower Upper  
42 100  
72 29.2 35.5 53.3#  
71 28.7 33.0 49.4#



#31  
Cyclohexane  
Concen: 1.363 ug/l  
RT: 5.63 min Scan# 745  
Delta R.T. 0.07 min  
Lab File: VX017669.D  
Acq: 29 Jul 2020 14:21

Tgt Ion: 56 Resp: 11383  
Ion Ratio Lower Upper  
56 100  
69 135.6 24.2 36.4#  
84 131.3 69.0 103.6#

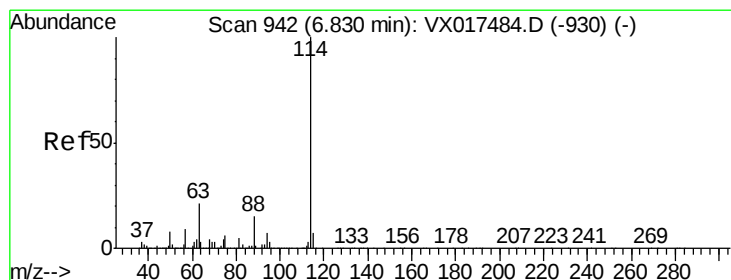
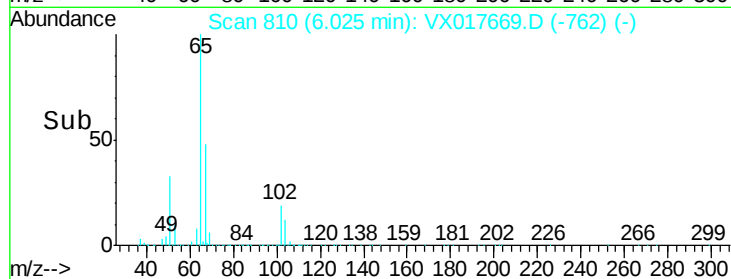
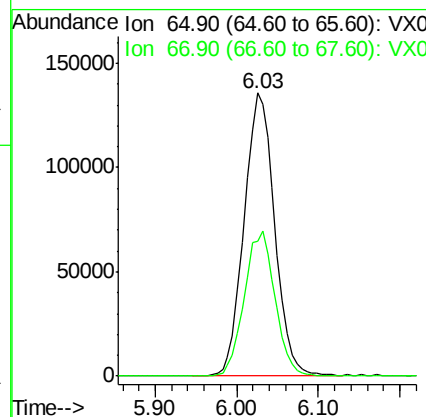
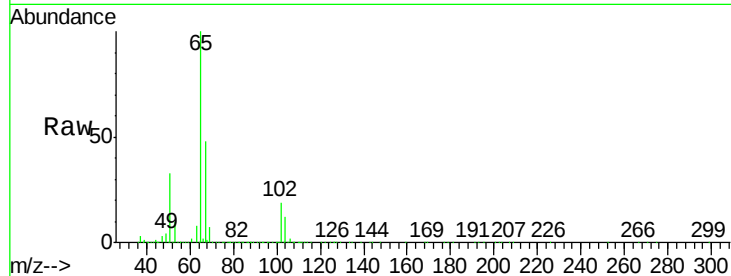




#33  
 1,2-Dichloroethane-d4  
 Concen: 52.230 ug/l  
 RT: 6.03 min Scan# 810  
 Delta R.T. -0.01 min  
 Lab File: VX017669.D  
 Acq: 29 Jul 2020 14:21

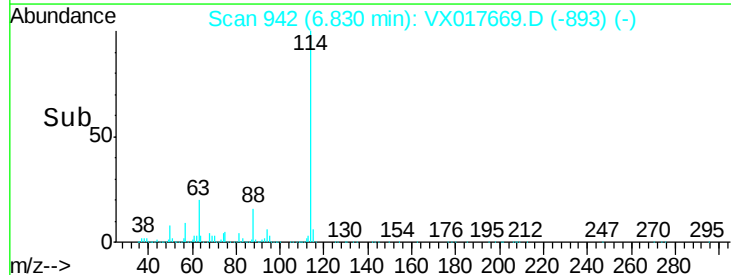
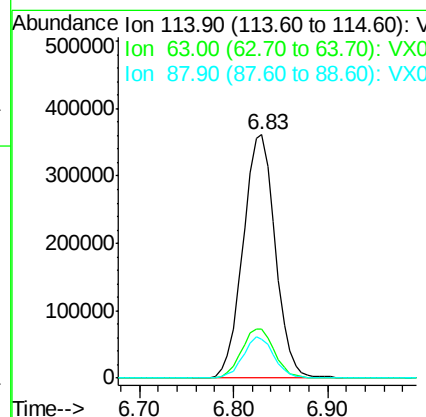
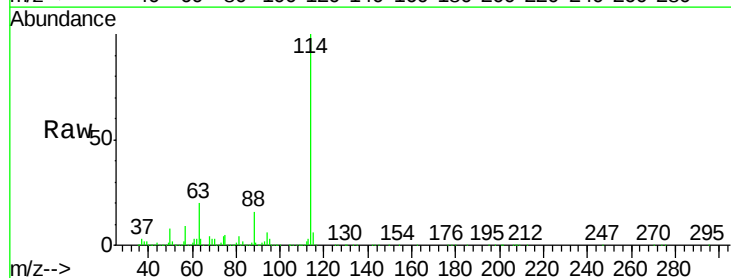
Instrument :  
 MSVOA\_X  
 ClientSampleId :

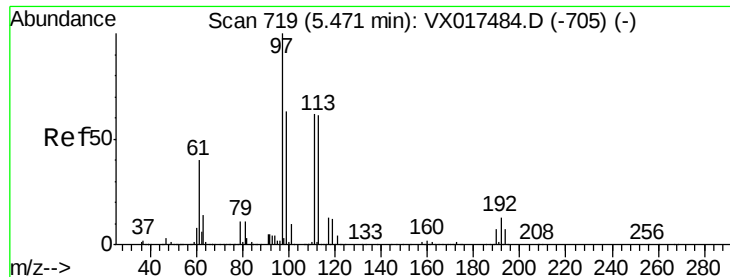
Tot Ion: 65 Resp: 353685  
 Ion Ratio Lower Upper  
 65 100  
 67 51.5 0.0 102.8



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.83 min Scan# 942  
 Delta R.T. -0.00 min  
 Lab File: VX017669.D  
 Acq: 29 Jul 2020 14:21

Tgt Ion: 114 Resp: 863454  
 Ion Ratio Lower Upper  
 114 100  
 63 20.3 0.0 40.6  
 88 16.0 0.0 33.4





#35

Dibromofluoromethane

Concen: 51.785 ug/l

RT: 5.46 min Scan# 717

Delta R.T. -0.01 min

Lab File: VX017669.D

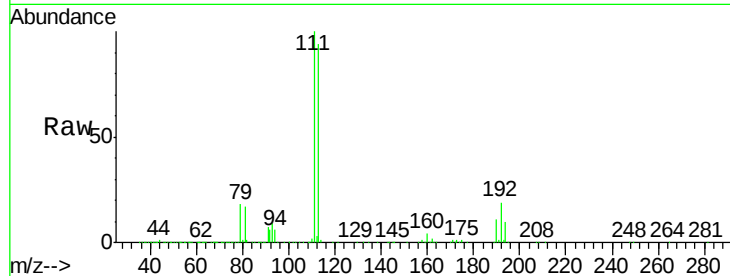
Acq: 29 Jul 2020 14:21

Instrument :

MSVOA\_X

ClientSampled :

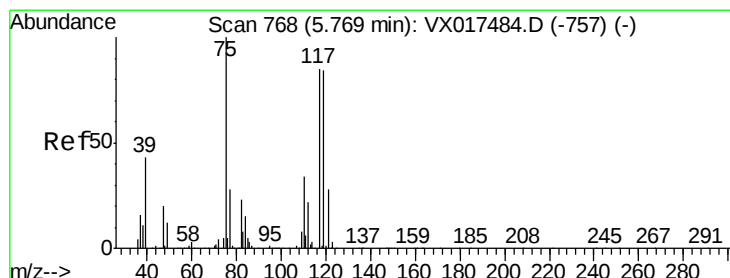
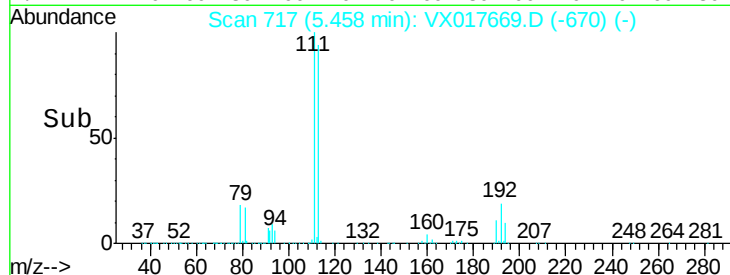
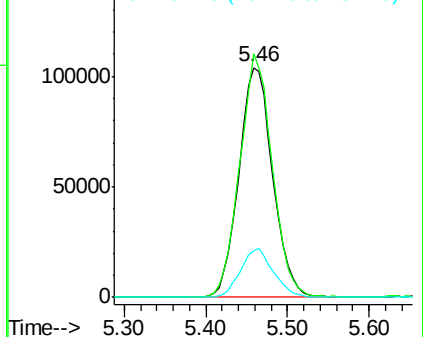
|             |       |            |
|-------------|-------|------------|
| Tot Ion:113 | Resp: | 299048     |
| Ion Ratio   | Lower | Upper      |
| 113         | 100   |            |
| 111         | 102.1 | 80.7 121.1 |
| 192         | 20.7  | 16.9 25.3  |



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: 4.726 ug/l

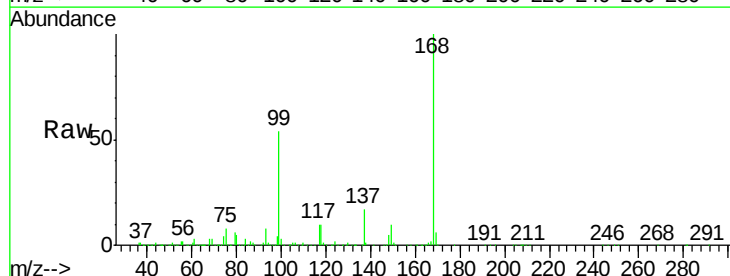
RT: 5.63 min Scan# 745

Delta R.T. -0.14 min

Lab File: VX017669.D

Acq: 29 Jul 2020 14:21

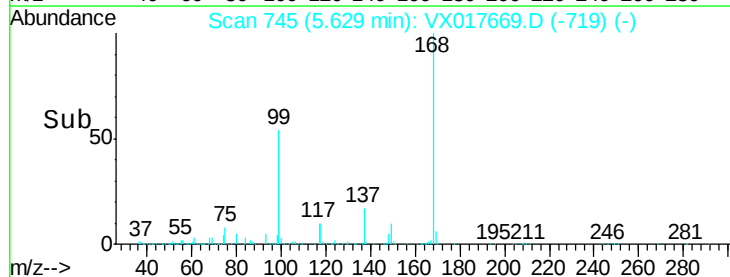
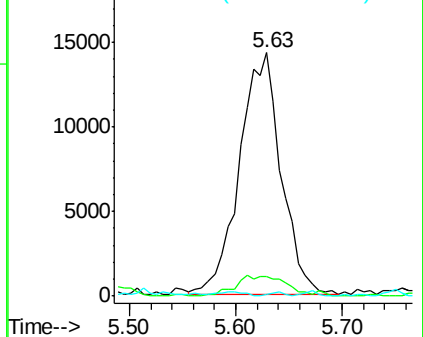
|             |       |            |
|-------------|-------|------------|
| Tgt Ion: 75 | Resp: | 39139      |
| Ion Ratio   | Lower | Upper      |
| 75          | 100   |            |
| 110         | 0.0   | 18.1 54.3# |
| 77          | 0.6   | 24.6 37.0# |

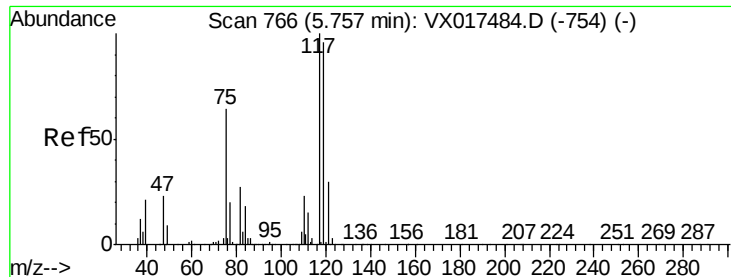


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 5.180 ug/l

RT: 5.63 min Scan# 745

Delta R.T. -0.13 min

Lab File: VX017669.D

Acq: 29 Jul 2020 14:21

Instrument :

MSVOA\_X

ClientSampleId :

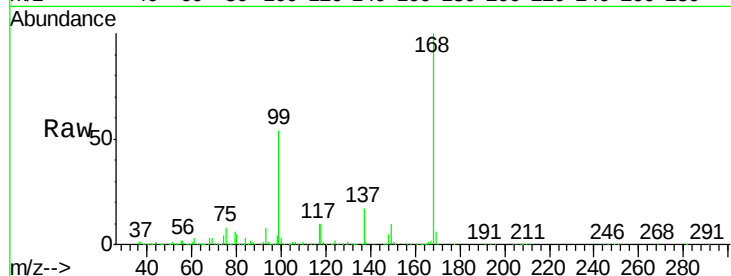
Tot Ion:117 Resp: 52097

Ion Ratio Lower Upper

117 100

119 7.4 75.4 113.0#

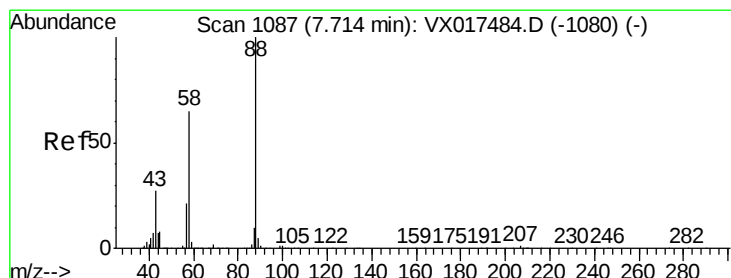
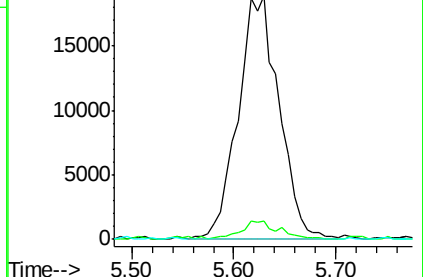
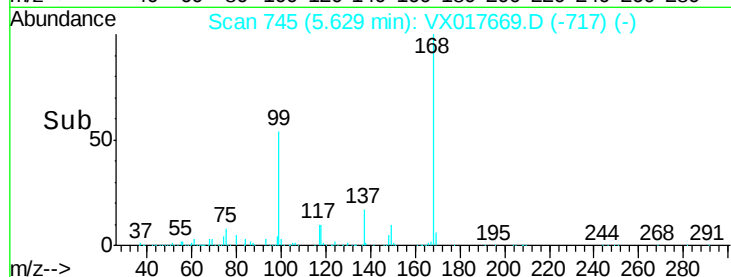
121 0.0 24.3 36.5#



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: 1.035 ug/l

RT: 7.69 min Scan# 1083

Delta R.T. -0.02 min

Lab File: VX017669.D

Acq: 29 Jul 2020 14:21

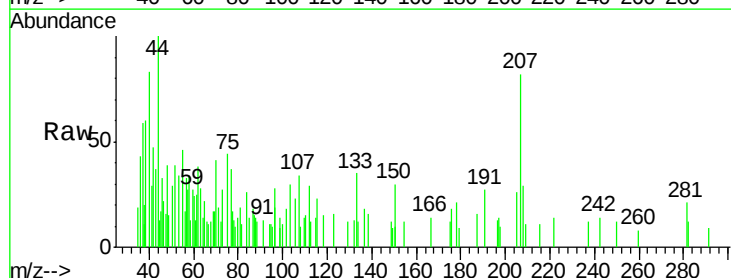
Tgt Ion: 88 Resp: 147

Ion Ratio Lower Upper

88 100

43 0.0 27.8 41.6#

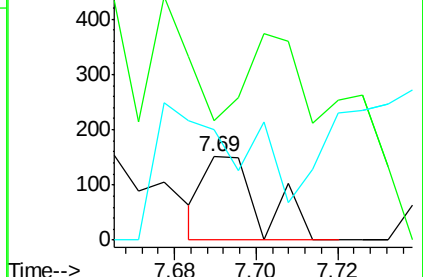
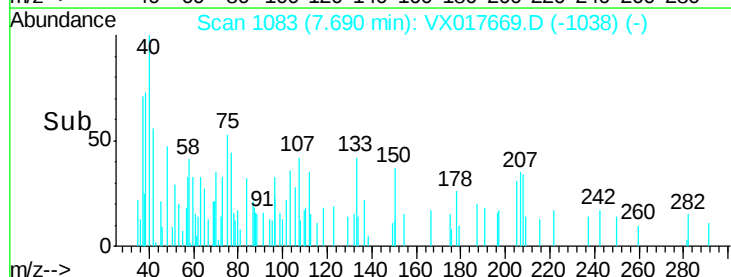
58 266.7 58.3 87.5#

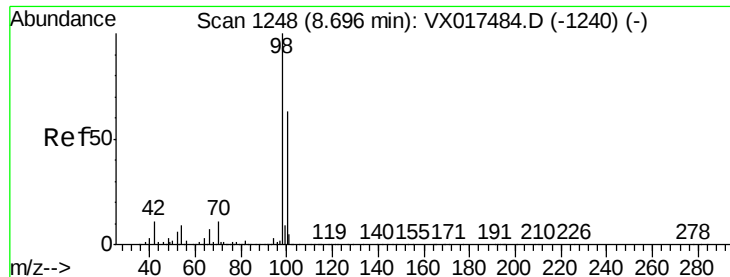


Abundance Ion 88.00 (87.70 to 88.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0





#50

Toluene-d8

Concen: 51.043 ug/l

RT: 8.70 min Scan# 1248

Delta R.T. -0.00 min

Lab File: VX017669.D

Acq: 29 Jul 2020 14:21

Instrument :

MSVOA\_X

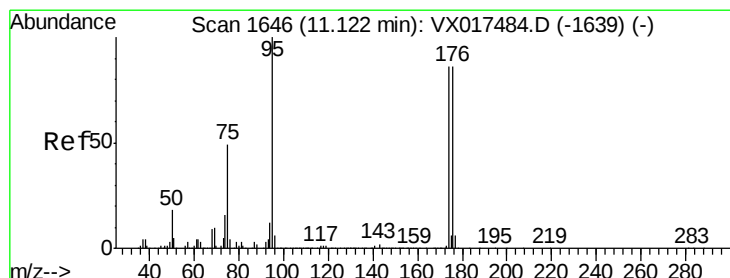
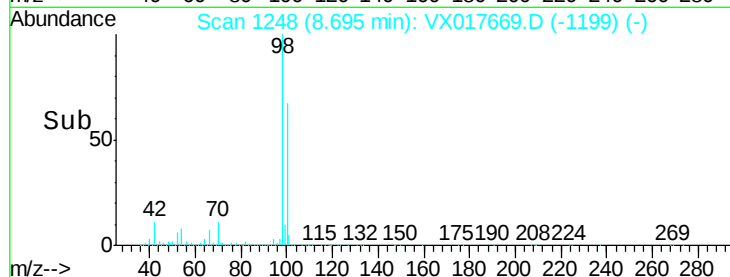
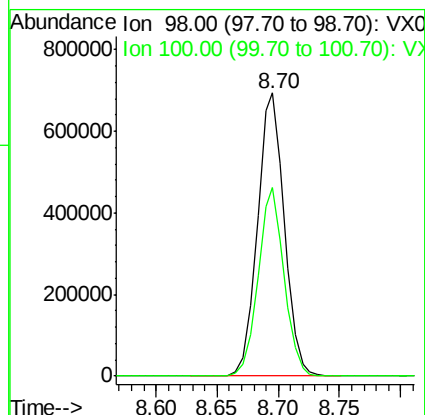
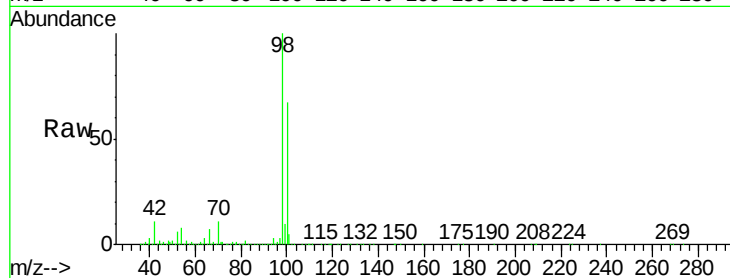
ClientSampleId :

Tot Ion: 98 Resp: 1063366

Ion Ratio Lower Upper

98 100

100 64.4 52.3 78.5



#62

4-Bromofluorobenzene

Concen: 50.795 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.00 min

Lab File: VX017669.D

Acq: 29 Jul 2020 14:21

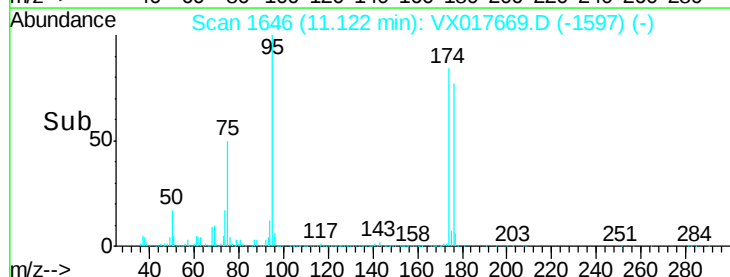
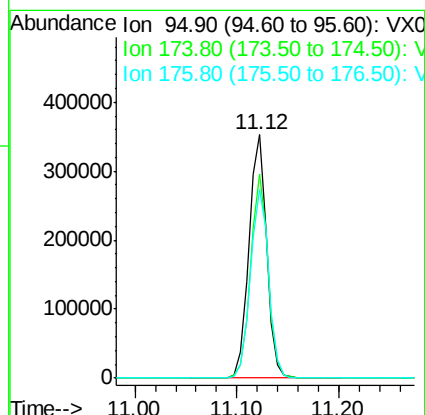
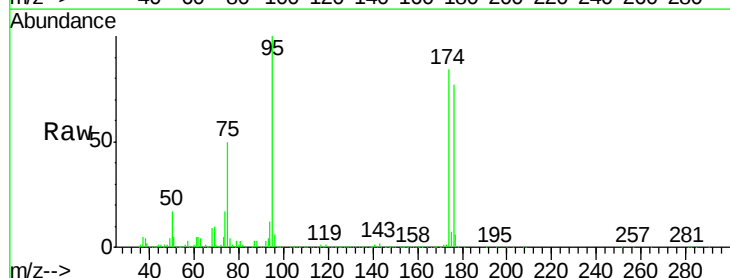
Tgt Ion: 95 Resp: 423487

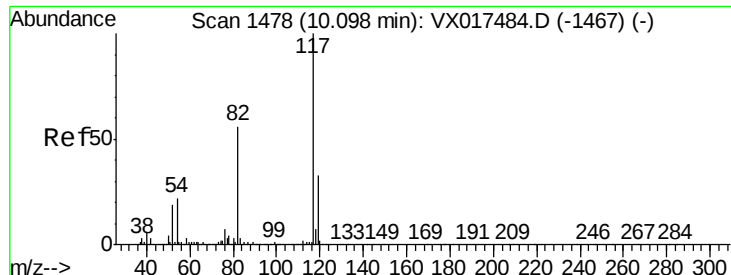
Ion Ratio Lower Upper

95 100

174 82.8 0.0 169.0

176 80.2 0.0 161.0

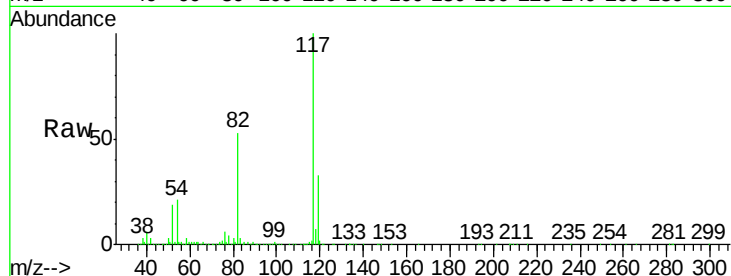




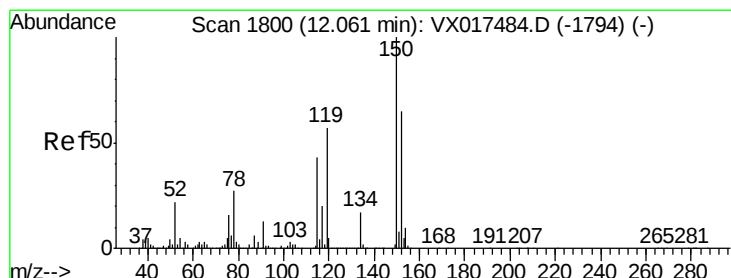
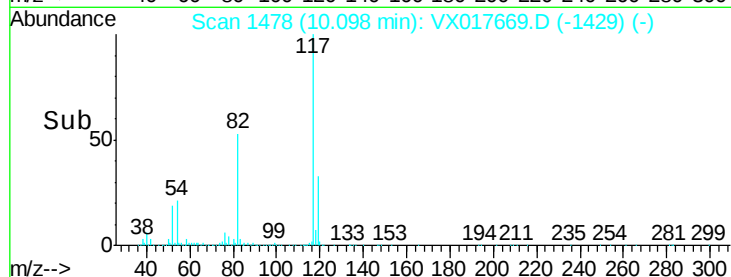
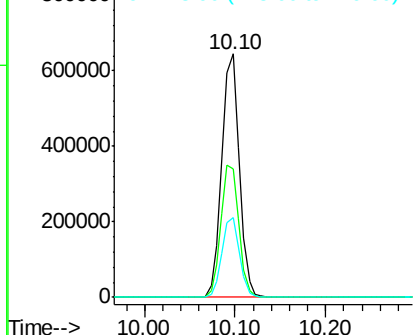
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.10 min Scan# 1478  
Delta R.T. -0.00 min  
Lab File: VX017669.D  
Acq: 29 Jul 2020 14:21

Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion:117 Resp: 876196  
Ion Ratio Lower Upper  
117 100  
82 52.6 44.0 66.0  
119 32.8 25.4 38.0

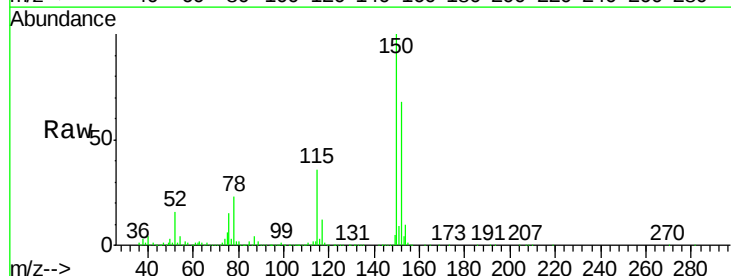


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): V  
Ion 118.90 (118.60 to 119.60): V

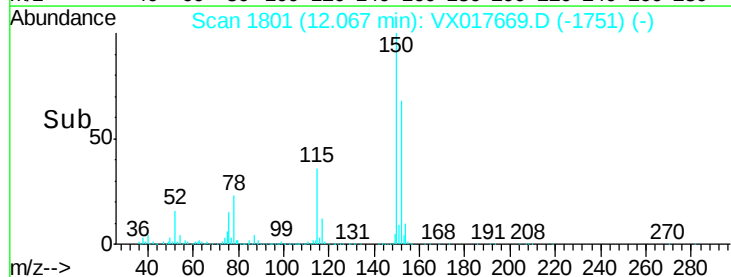
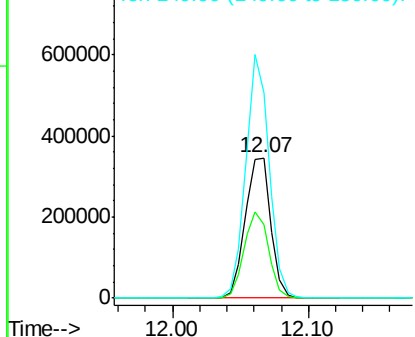


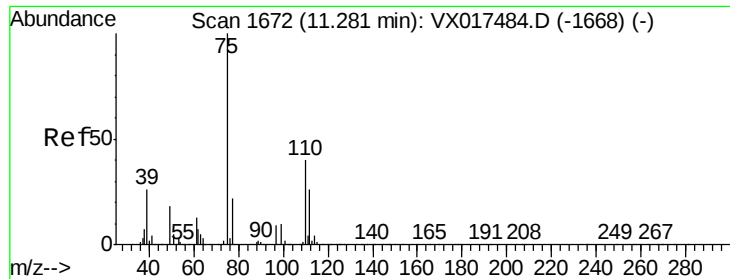
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.07 min Scan# 1801  
Delta R.T. 0.01 min  
Lab File: VX017669.D  
Acq: 29 Jul 2020 14:21

Tgt Ion:152 Resp: 454783  
Ion Ratio Lower Upper  
152 100  
115 58.9 65.5 196.6#  
150 158.8 0.0 412.6



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

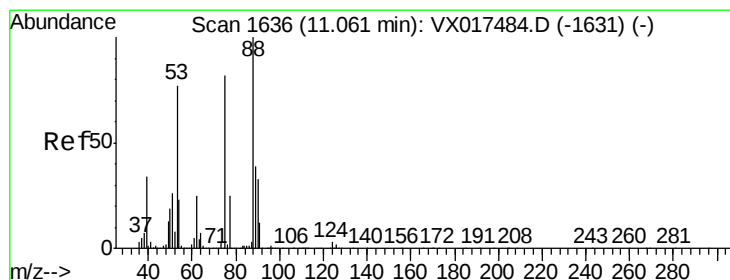
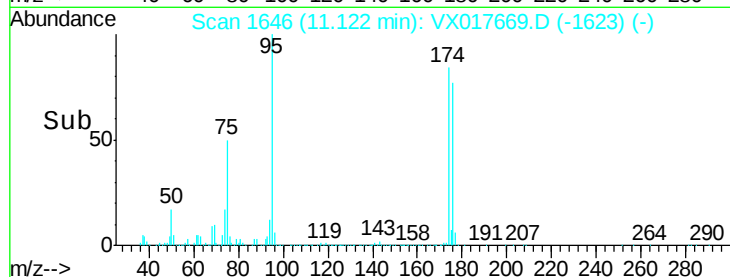
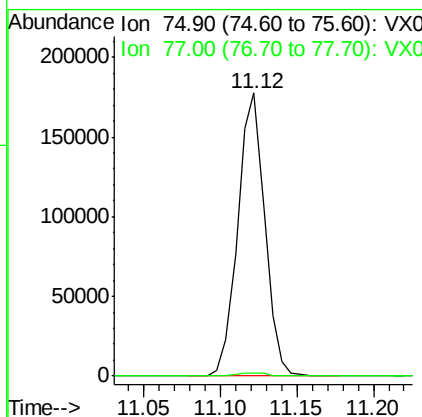
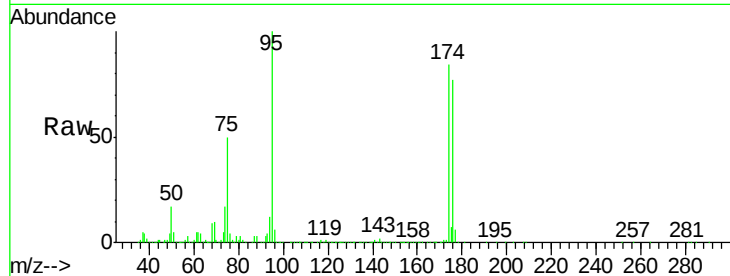




#76  
 1,2,3-Trichloropropane  
 Concen: 23.199 ug/l  
 RT: 11.12 min Scan# 1646  
 Delta R.T. -0.16 min  
 Lab File: VX017669.D  
 Acq: 29 Jul 2020 14:21

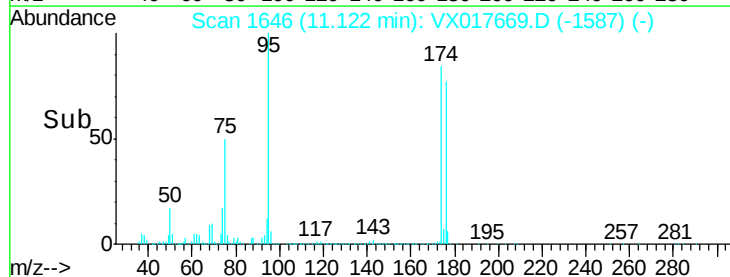
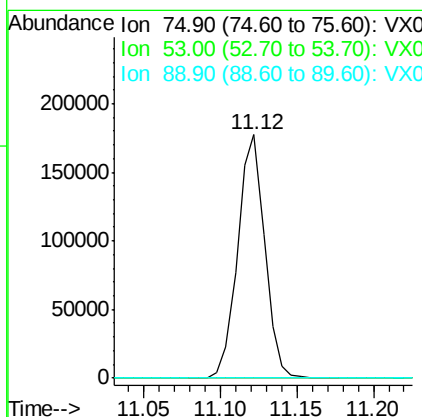
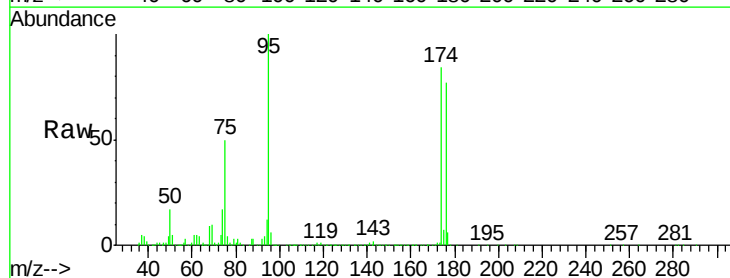
Instrument :  
 MSVOA\_X  
 ClientSampleId :

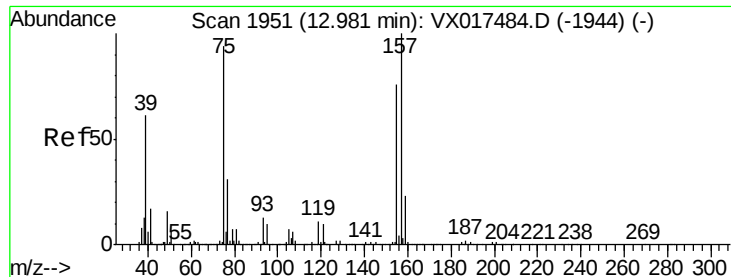
Tot Ion: 75 Resp: 217026  
 Ion Ratio Lower Upper  
 75 100  
 77 1.5 21.8 65.3#



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 58.456 ug/l  
 RT: 11.12 min Scan# 1646  
 Delta R.T. 0.06 min  
 Lab File: VX017669.D  
 Acq: 29 Jul 2020 14:21

Tgt Ion: 75 Resp: 217026  
 Ion Ratio Lower Upper  
 75 100  
 53 0.2 75.9 113.9#  
 89 0.0 37.8 56.6#





#92  
 1,2-Dibromo-3-Chloropropane  
 Concen: 2.673 ug/l  
 RT: 12.98 min Scan# 1951  
 Delta R.T. 0.00 min  
 Lab File: VX017669.D  
 Acq: 29 Jul 2020 14:21

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Tot Ion: 75 Resp: 281  
 Ion Ratio Lower Upper  
 75 100  
 155 0.0 42.3 126.8#  
 157 31.0 54.3 162.9#

