

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX070620\  
 Data File : VX017179.D  
 Acq On : 06 Jul 2020 19:27  
 Operator : JC/SP  
 Sample : L3159-12  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 17BR-20200629

Quant Time: Jul 07 06:53:11 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X062920W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Jun 29 17:10:38 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.63  | 168  | 267932   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.84  | 114  | 450893   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 461893   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 261641   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.03   | 65  | 171518   | 51.93 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.86% |      |
| 35) Dibromofluoromethane  | 5.46   | 113 | 146062   | 51.21 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.42% |      |
| 50) Toluene-d8            | 8.70   | 98  | 541421   | 51.33 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.66% |      |
| 62) 4-Bromofluorobenzene  | 11.12  | 95  | 232317   | 56.35 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 112.70% |      |

## Target Compounds

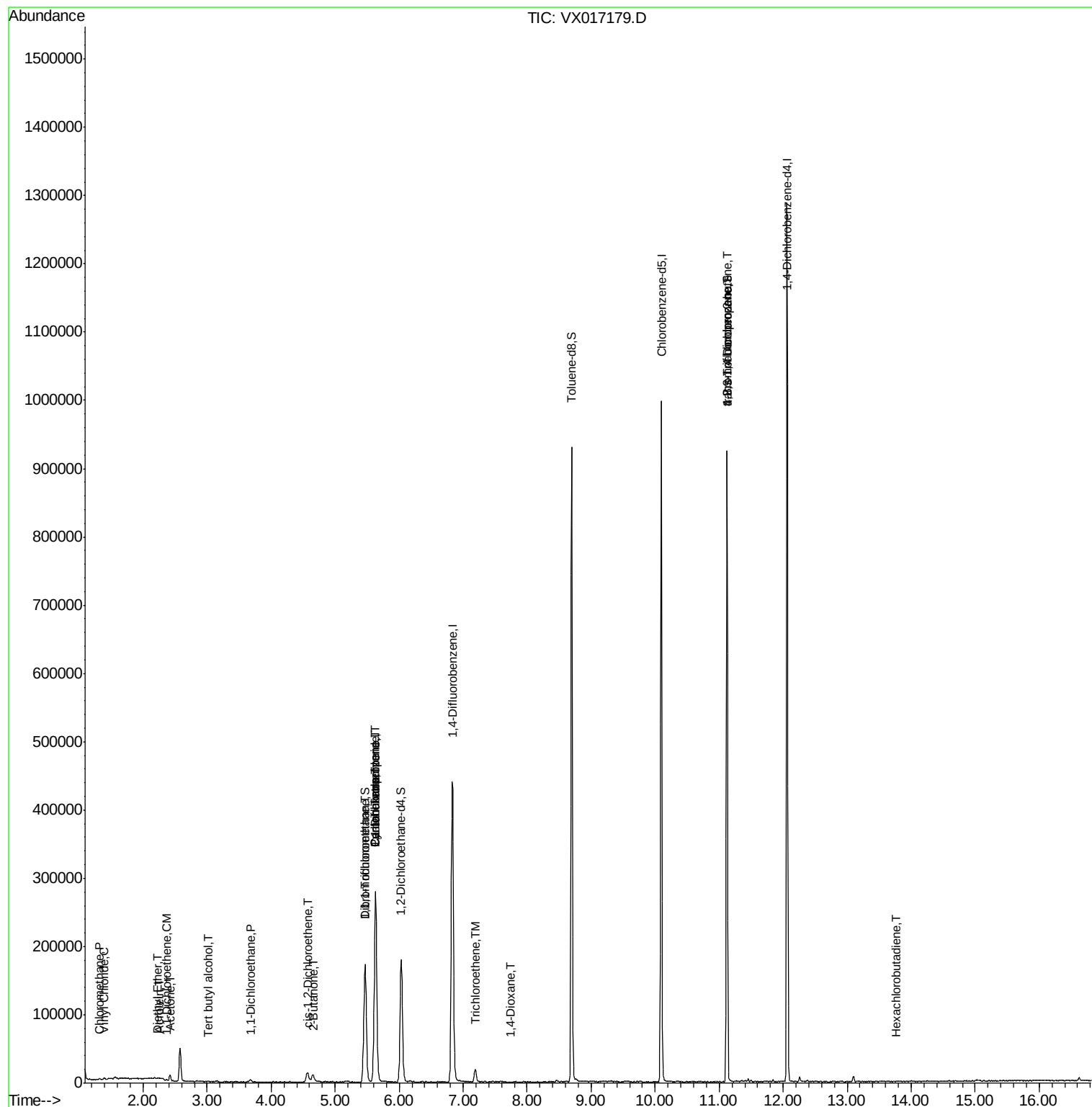
|                                |       |     |        |           | Qvalue |    |
|--------------------------------|-------|-----|--------|-----------|--------|----|
| 3) Chloromethane               | 1.31  | 50  | 991    | 0.316     | ug/l   | 98 |
| 4) Vinyl Chloride              | 1.39  | 62  | 947    | 0.325     | ug/l # | 87 |
| 8) Diethyl Ether               | 2.23  | 74  | 69     | 0.413     | ug/l   | 99 |
| 11) Tert butyl alcohol         | 3.01  | 59  | 332    | 0.527     | ug/l # | 63 |
| 12) 1,1-Dichloroethene         | 2.36  | 96  | 886    | 0.334     | ug/l # | 51 |
| 13) Acrolein                   | 2.26  | 56  | 248    | 0.658     | ug/l # | 68 |
| 16) Acetone                    | 2.42  | 43  | 10076  | 8.154     | ug/l   | 90 |
| 20) Methylene Chloride         | 2.84  | 84  | 558    | Below Cal | #      | 64 |
| 24) 1,1-Dichloroethane         | 3.68  | 63  | 3298   | 0.639     | ug/l # | 93 |
| 25) 2-Butanone                 | 4.66  | 43  | 1692   | 0.822     | ug/l # | 70 |
| 27) cis-1,2-Dichloroethene     | 4.57  | 96  | 9184   | 2.755     | ug/l   | 87 |
| 31) Cyclohexane                | 5.63  | 56  | 5499   | 1.233     | ug/l # | 13 |
| 32) 1,1,1-Trichloroethane      | 5.47  | 97  | 4169   | 0.856     | ug/l # | 50 |
| 36) 1,1-Dichloropropene        | 5.63  | 75  | 19110  | 4.484     | ug/l # | 51 |
| 38) Carbon Tetrachloride       | 5.62  | 117 | 26267  | 5.596     | ug/l # | 17 |
| 44) Trichloroethene            | 7.19  | 130 | 7114   | 1.760     | ug/l   | 91 |
| 49) 1,4-Dioxane                | 7.74  | 88  | 26     | 0.336     | ug/l # | 1  |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75  | 113640 | 22.087    | ug/l # | 37 |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75  | 113640 | 57.198    | ug/l # | 13 |
| 88) 1,4-Dichlorobenzene        | 12.08 | 146 | 672    | Below Cal | #      | 1  |
| 94) Hexachlorobutadiene        | 13.76 | 225 | 50     | 0.868     | ug/l # | 41 |

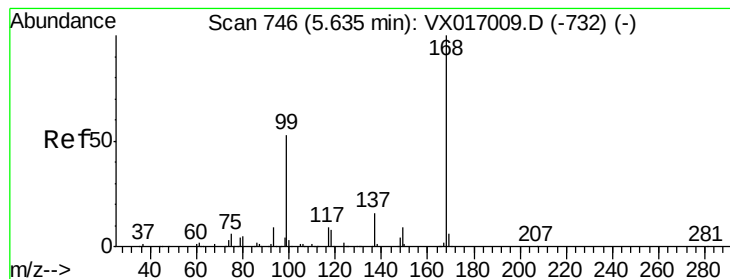
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX070620\  
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Instrument :  
MSVOA\_X  
ClientSampled :  
17BR-20200629

Quant Time: Jul 07 06:53:11 2020  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X062920W.M  
Quant Title : SW846 8260  
QLast Update : Mon Jun 29 17:10:38 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.63 min Scan# 745

Delta R.T. -0.01 min

Lab File: VX017179.D

Acq: 06 Jul 2020 19:27

Instrument :

MSVOA\_X

ClientSampleId :

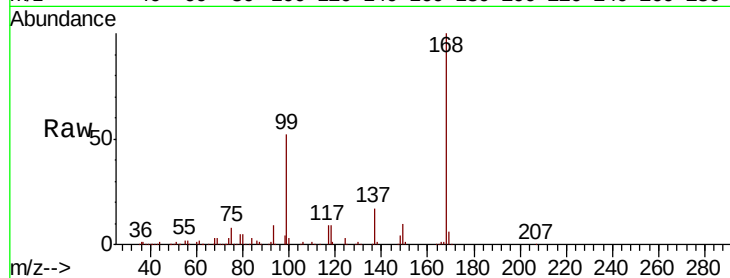
17BR-20200629

Tot Ion:168 Resp: 267932

Ion Ratio Lower Upper

168 100

99 52.5 42.6 64.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.63

100000

80000

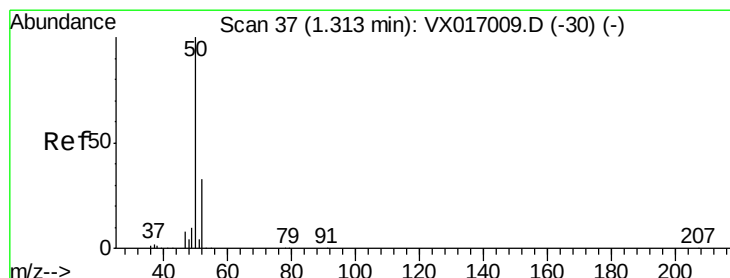
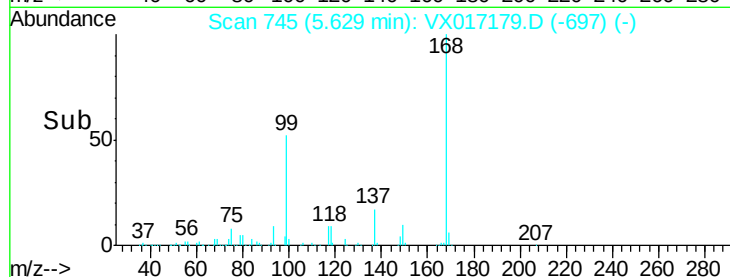
60000

40000

20000

0

Time-->



#3

Chloromethane

Concen: 0.316 ug/l

RT: 1.31 min Scan# 37

Delta R.T. -0.00 min

Lab File: VX017179.D

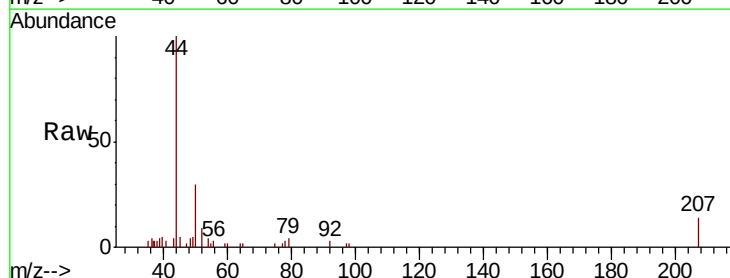
Acq: 06 Jul 2020 19:27

Tgt Ion: 50 Resp: 991

Ion Ratio Lower Upper

50 100

52 31.5 26.1 39.1



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0

1.31

1000

800

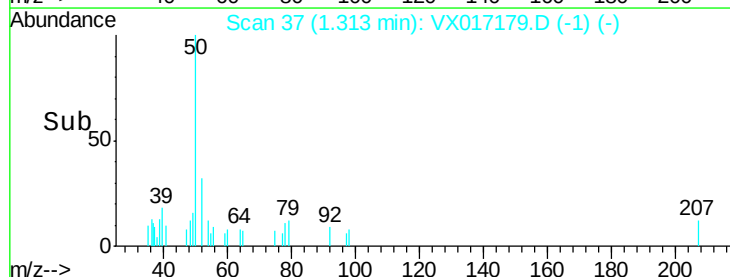
600

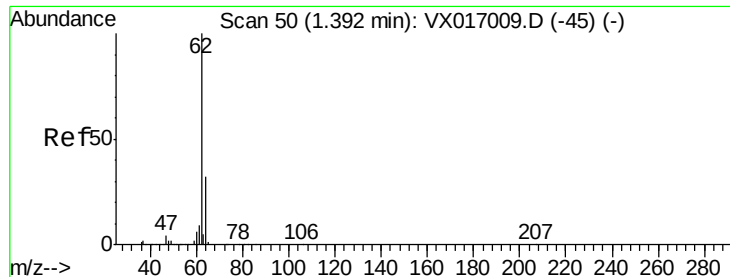
400

200

0

Time-->





#4

Vinyl Chloride

Concen: 0.325 ug/l

RT: 1.39 min Scan# 50

Delta R.T. -0.00 min

Lab File: VX017179.D

Acq: 06 Jul 2020 19:27

Instrument :

MSVOA\_X

ClientSampleId :

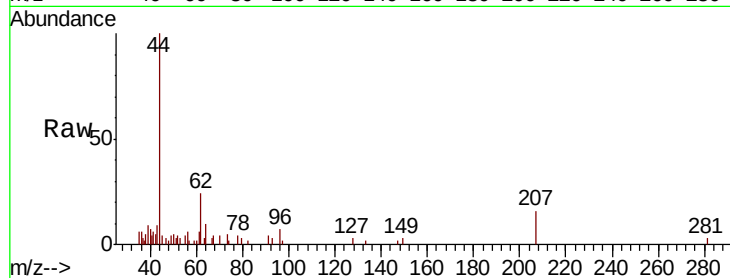
17BR-20200629

Tot Ion: 62 Resp: 947

Ion Ratio Lower Upper

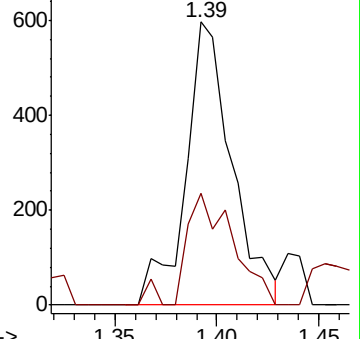
62 100

64 39.7 25.9 38.9#

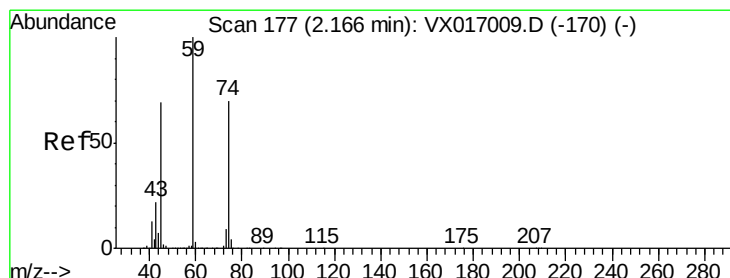
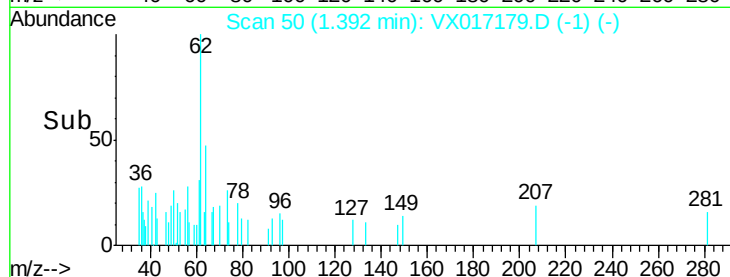


Abundance Ion 61.90 (61.60 to 62.60): VX0

Ion 63.90 (63.60 to 64.60): VX0



Time-->



#8

Diethyl Ether

Concen: 0.413 ug/l

RT: 2.23 min Scan# 188

Delta R.T. 0.07 min

Lab File: VX017179.D

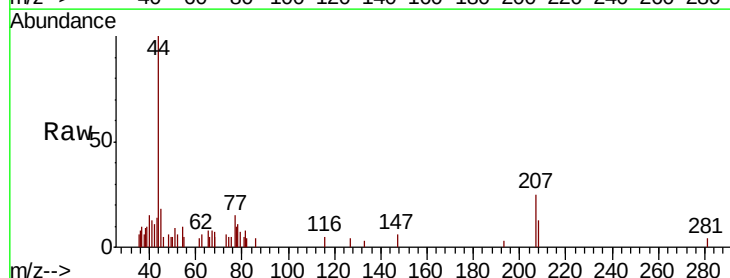
Acq: 06 Jul 2020 19:27

Tgt Ion: 74 Resp: 69

Ion Ratio Lower Upper

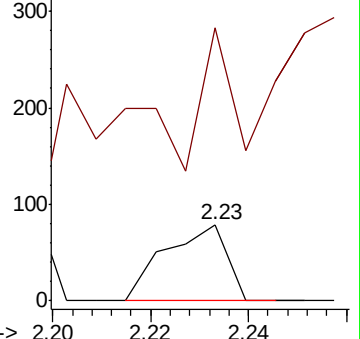
74 100

45 100.0 49.8 149.3

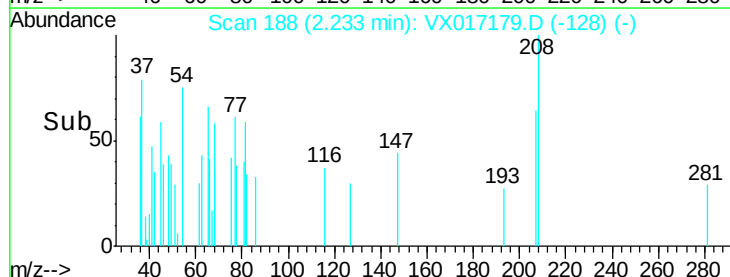


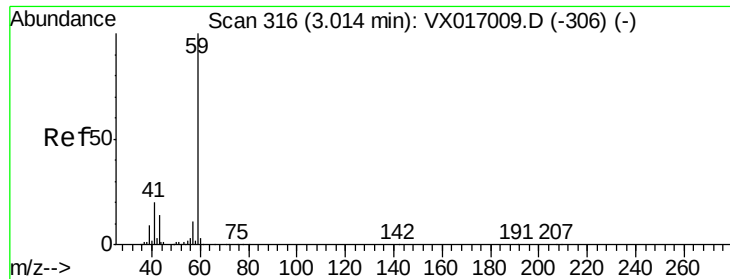
Abundance Ion 74.00 (73.70 to 74.70): VX0

Ion 45.00 (44.70 to 45.70): VX0



Time-->

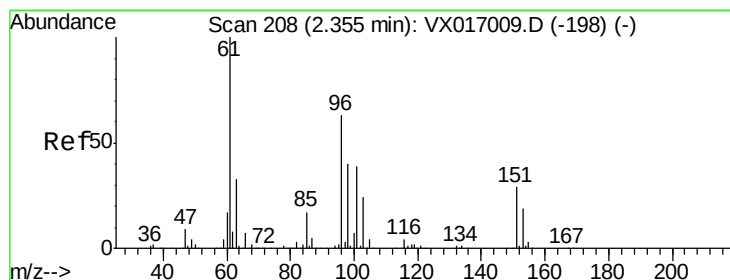
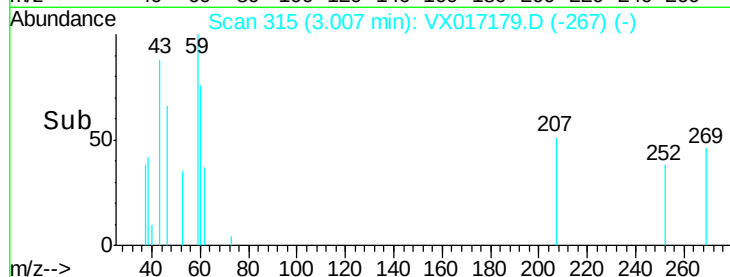
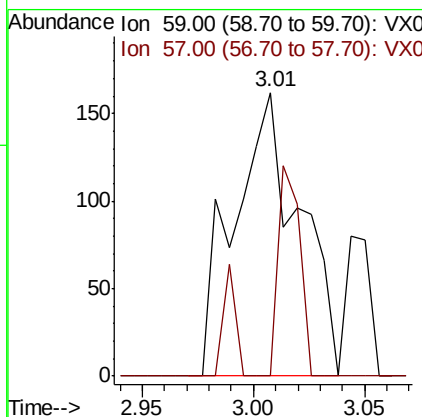
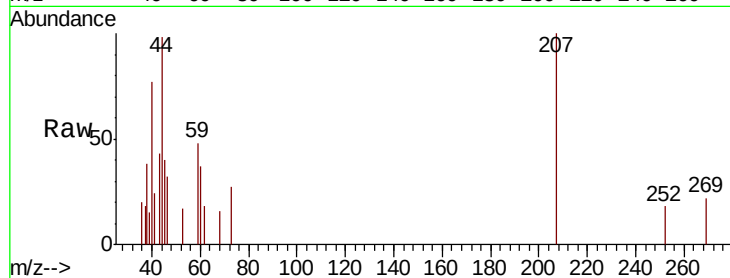




#11  
Tert butyl alcohol  
Concen: 0.527 ug/l  
RT: 3.01 min Scan# 315  
Delta R.T. -0.01 min  
Lab File: VX017179.D  
Acq: 06 Jul 2020 19:27

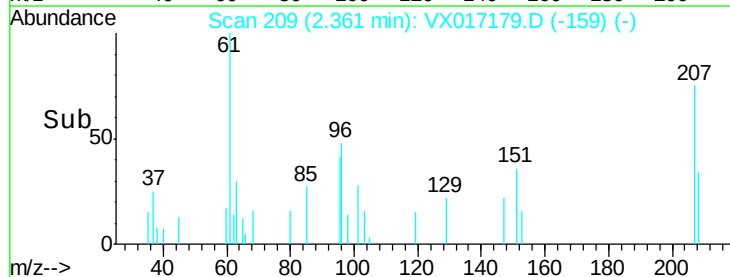
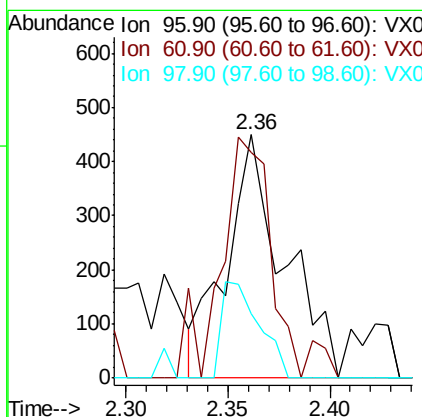
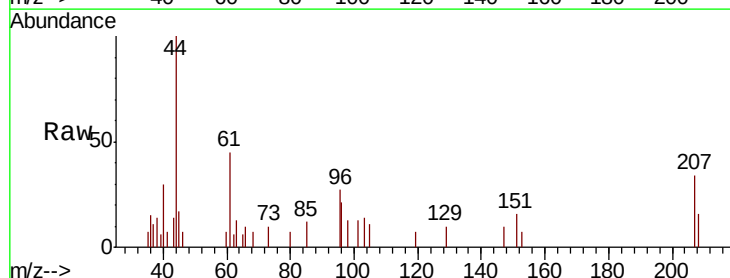
Instrument :  
MSVOA\_X  
ClientSampleId :  
17BR-20200629

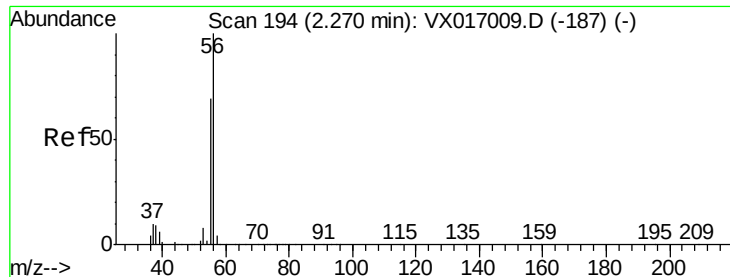
Tot Ion: 59 Resp: 332  
Ion Ratio Lower Upper  
59 100  
57 24.1 8.2 12.2#



#12  
1,1-Dichloroethene  
Concen: 0.334 ug/l  
RT: 2.36 min Scan# 209  
Delta R.T. 0.01 min  
Lab File: VX017179.D  
Acq: 06 Jul 2020 19:27

Tgt Ion: 96 Resp: 886  
Ion Ratio Lower Upper  
96 100  
61 92.9 126.3 189.5#  
98 26.2 51.0 76.6#





#13

Acrolein

Concen: 0.658 ug/l

RT: 2.26 min Scan# 193

Delta R.T. -0.01 min

Lab File: VX017179.D

Acq: 06 Jul 2020 19:27

Instrument :

MSVOA\_X

ClientSampleId :

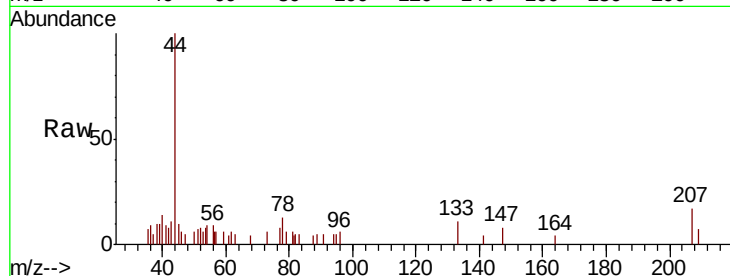
17BR-20200629

Tot Ion: 56 Resp: 248

Ion Ratio Lower Upper

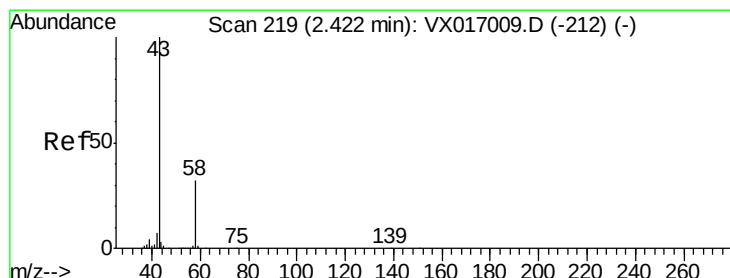
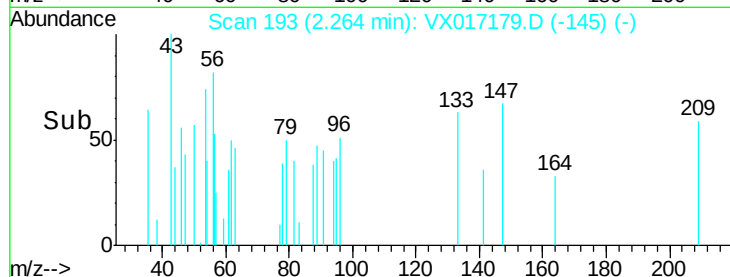
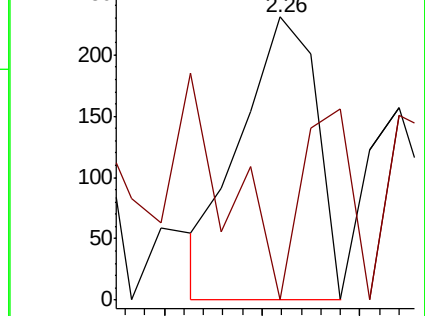
56 100

55 43.5 55.7 83.5#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 55.00 (54.70 to 55.70): VX0



#16

Acetone

Concen: 8.154 ug/l

RT: 2.42 min Scan# 218

Delta R.T. -0.01 min

Lab File: VX017179.D

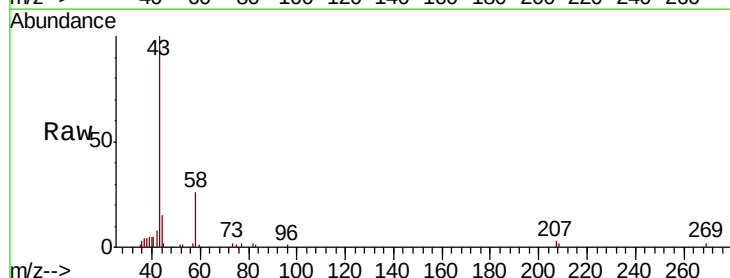
Acq: 06 Jul 2020 19:27

Tgt Ion: 43 Resp: 10076

Ion Ratio Lower Upper

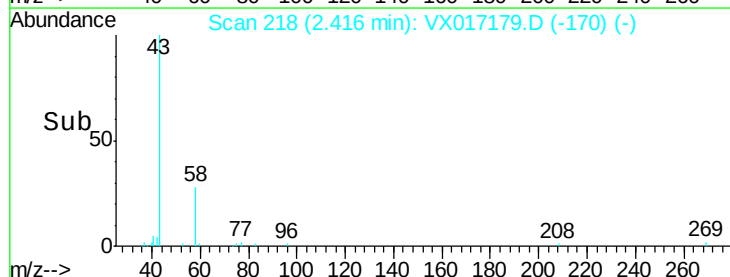
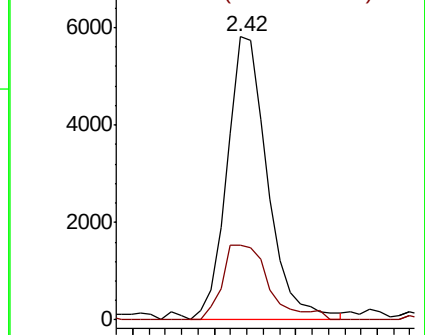
43 100

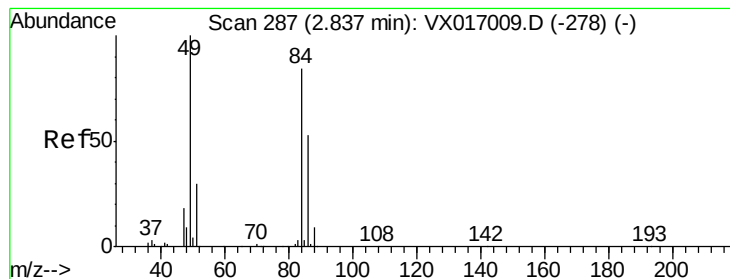
58 26.4 25.7 38.5



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0





#20

Methylene Chloride

Concen: Below Cal

RT: 2.84 min Scan# 287

Delta R.T. 0.00 min

Lab File: VX017179.D

Acq: 06 Jul 2020 19:27

Instrument :

MSVOA\_X

ClientSampleId :

17BR-20200629

Tot Ion: 84 Resp: 558

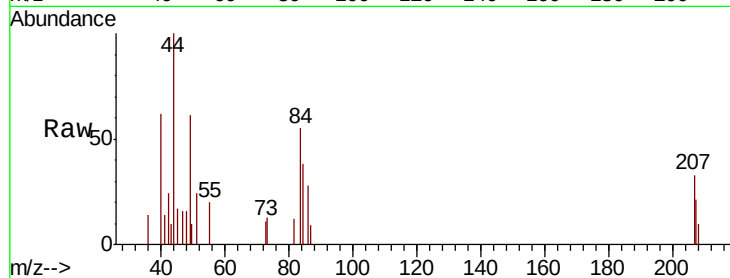
Ion Ratio Lower Upper

84 100

49 76.0 94.7 142.1#

51 25.9 28.6 42.8#

86 29.9 50.5 75.7#

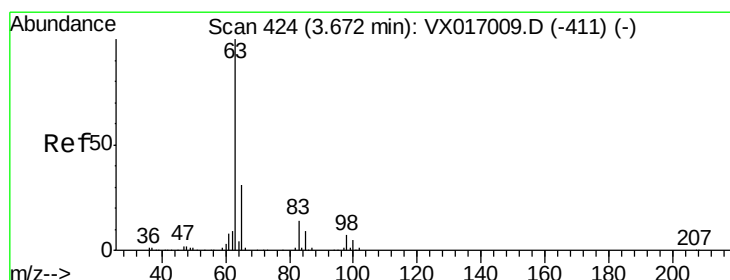
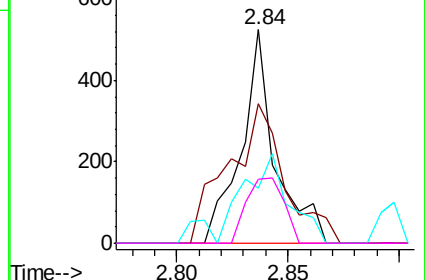
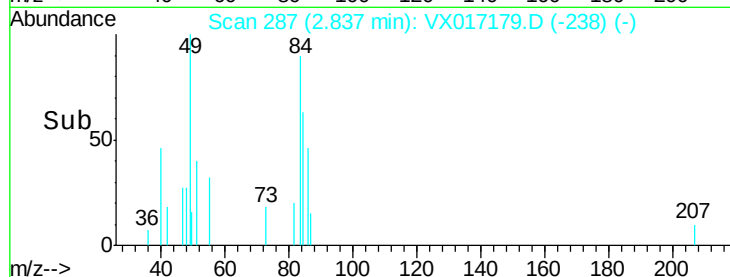


Abundance Ion 83.90 (83.60 to 84.60): VX0

Ion 48.90 (48.60 to 49.60): VX0

Ion 50.90 (50.60 to 51.60): VX0

Ion 85.90 (85.60 to 86.60): VX0



#24

1,1-Dichloroethane

Concen: 0.639 ug/l

RT: 3.68 min Scan# 425

Delta R.T. 0.01 min

Lab File: VX017179.D

Acq: 06 Jul 2020 19:27

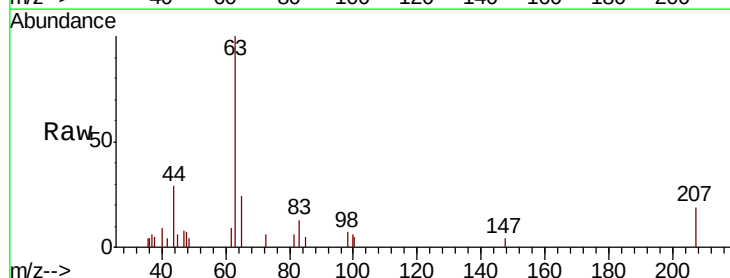
Tgt Ion: 63 Resp: 3298

Ion Ratio Lower Upper

63 100

98 7.0 3.6 10.8

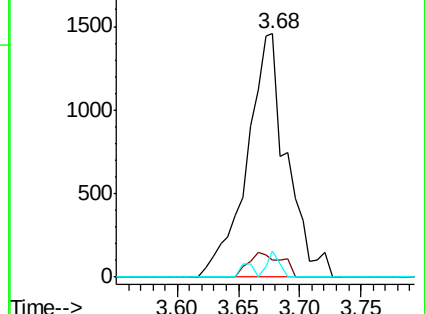
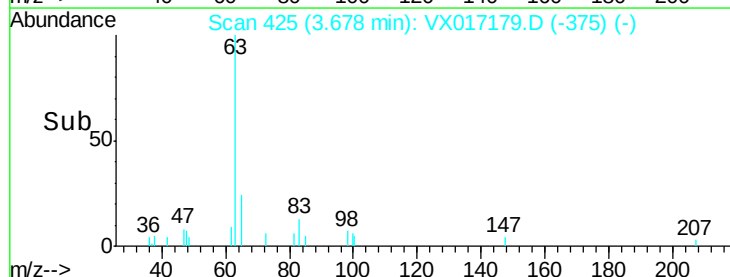
100 10.6 2.4 7.1#

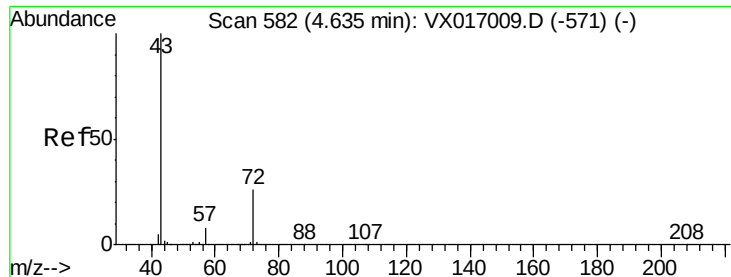


Abundance Ion 62.90 (62.60 to 63.60): VX0

Ion 97.90 (97.60 to 98.60): VX0

Ion 99.90 (99.60 to 100.60): VX0

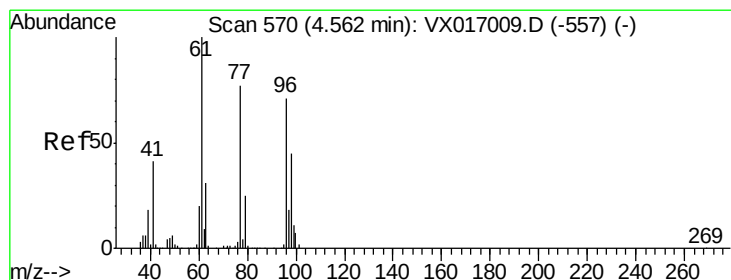
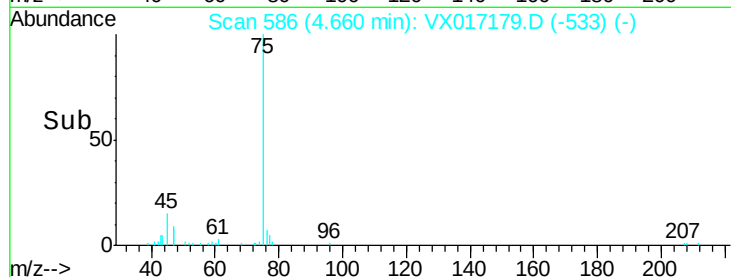
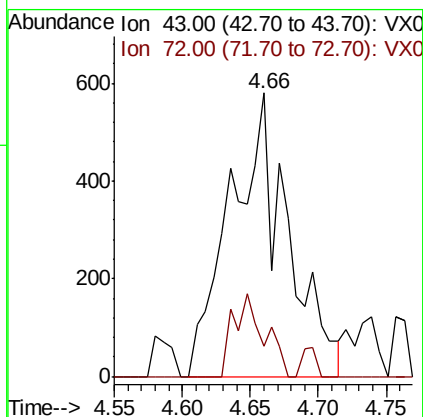
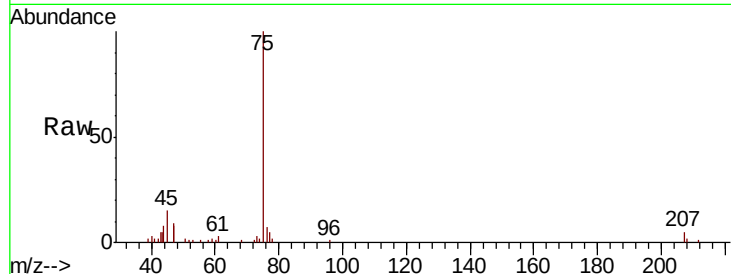




#25  
 2-Butanone  
 Concen: 0.822 ug/l  
 RT: 4.66 min Scan# 586  
 Delta R.T. 0.02 min  
 Lab File: VX017179.D  
 Acq: 06 Jul 2020 19:27

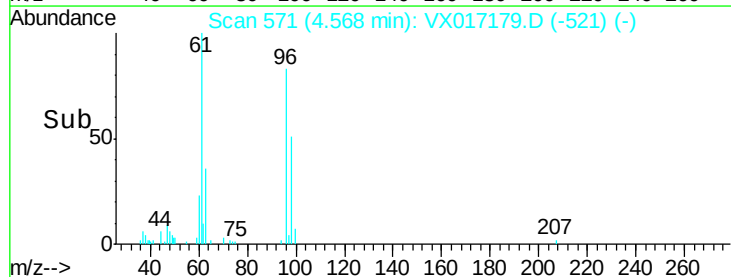
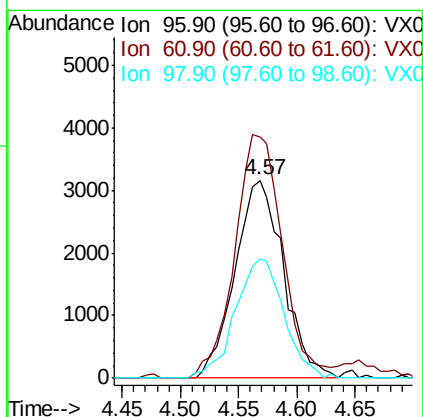
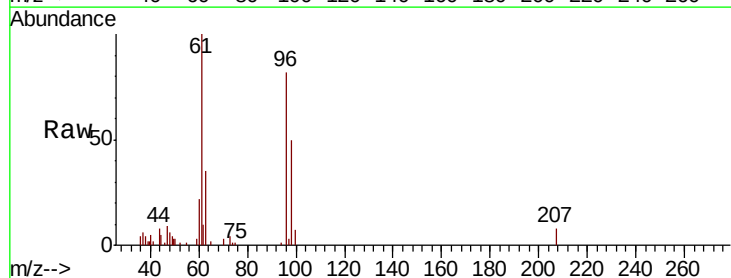
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 17BR-20200629

Tot Ion: 43 Resp: 1692  
 Ion Ratio Lower Upper  
 43 100  
 72 10.5 20.8 31.2#

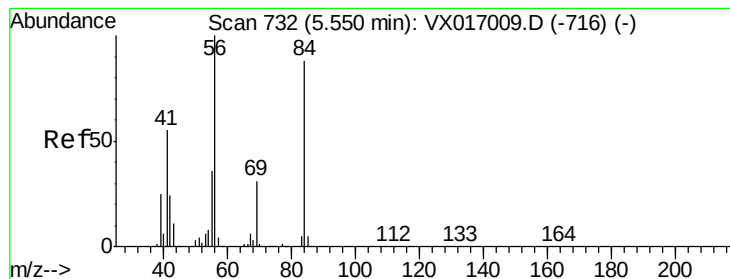


#27  
 cis-1,2-Dichloroethene  
 Concen: 2.755 ug/l  
 RT: 4.57 min Scan# 571  
 Delta R.T. 0.01 min  
 Lab File: VX017179.D  
 Acq: 06 Jul 2020 19:27

Tgt Ion: 96 Resp: 9184  
 Ion Ratio Lower Upper  
 96 100  
 61 120.9 0.0 282.8  
 98 60.4 0.0 127.6







#31

Cyclohexane

Concen: 1.233 ug/l

RT: 5.63 min Scan# 745

Delta R.T. 0.08 min

Lab File: VX017179.D

Acq: 06 Jul 2020 19:27

Instrument :

MSVOA\_X

ClientSampleId :

17BR-20200629

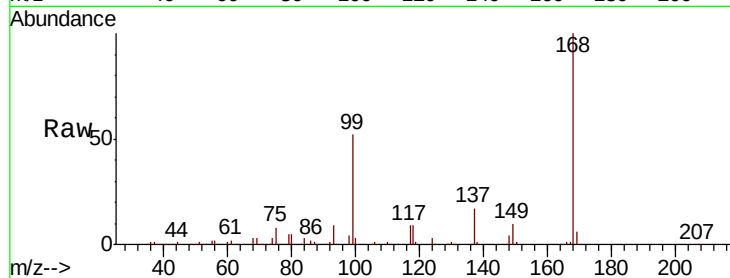
Tot Ion: 56 Resp: 5499

Ion Ratio Lower Upper

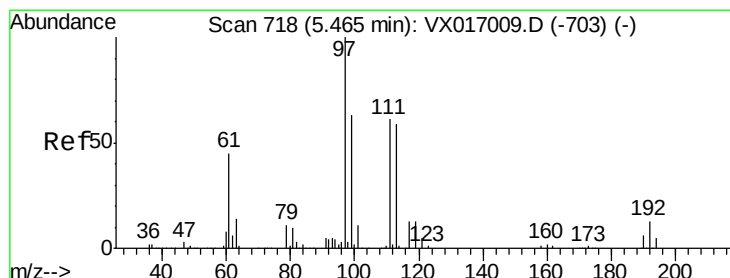
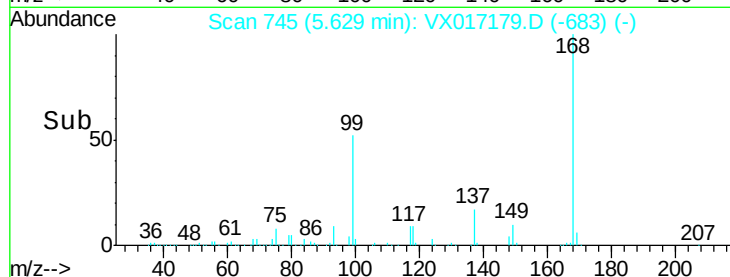
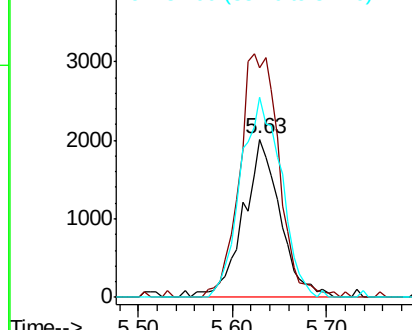
56 100

69 145.5 25.0 37.4#

84 126.3 69.1 103.7#



Abundance Ion 56.00 (55.70 to 56.70): VX0  
Ion 69.00 (68.70 to 69.70): VX0  
Ion 84.00 (83.70 to 84.70): VX0



#32

1,1,1-Trichloroethane

Concen: 0.856 ug/l

RT: 5.47 min Scan# 719

Delta R.T. 0.01 min

Lab File: VX017179.D

Acq: 06 Jul 2020 19:27

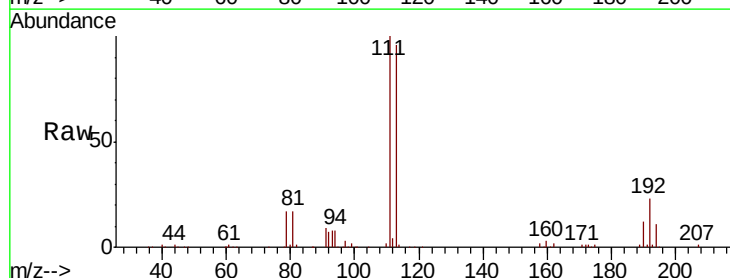
Tgt Ion: 97 Resp: 4169

Ion Ratio Lower Upper

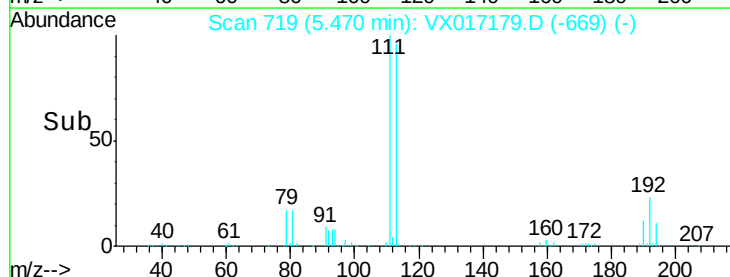
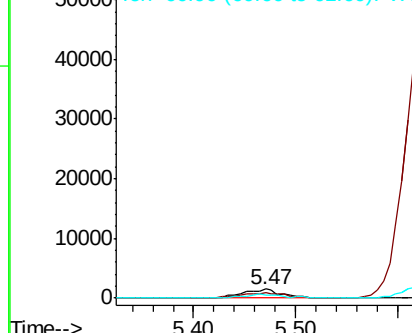
97 100

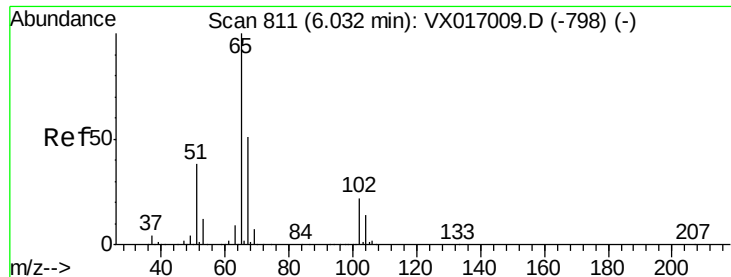
99 0.0 50.8 76.2#

61 43.4 33.7 50.5



Abundance Ion 96.90 (96.60 to 97.60): VX0  
Ion 98.90 (98.60 to 99.60): VX0  
Ion 60.90 (60.60 to 61.60): VX0

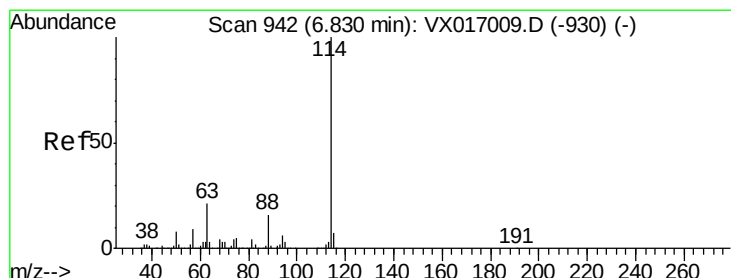
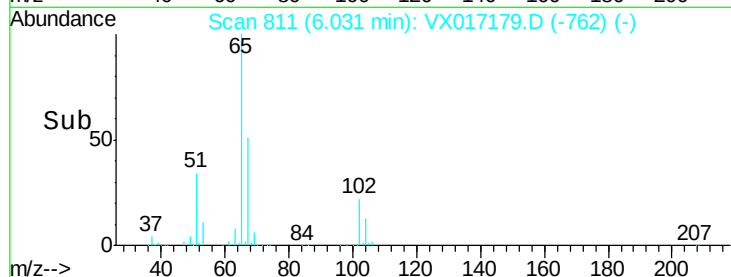
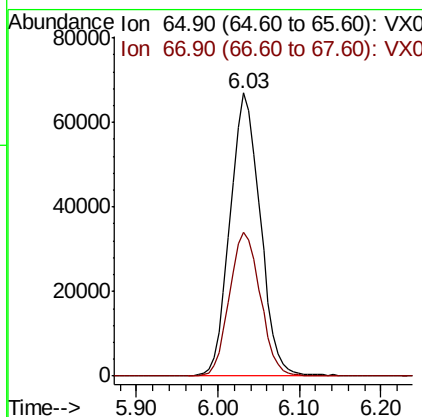
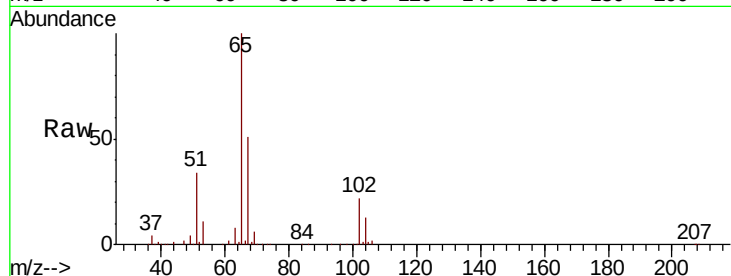




#33  
 1,2-Dichloroethane-d4  
 Concen: 51.927 ug/l  
 RT: 6.03 min Scan# 811  
 Delta R.T. -0.00 min  
 Lab File: VX017179.D  
 Acq: 06 Jul 2020 19:27

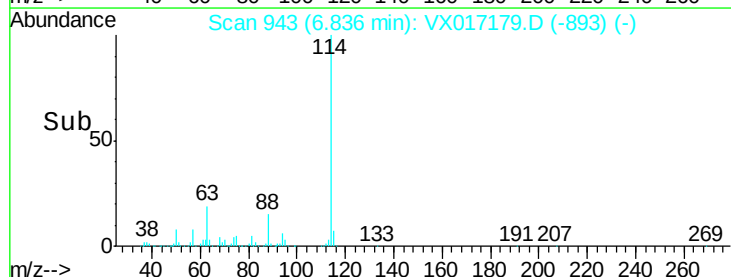
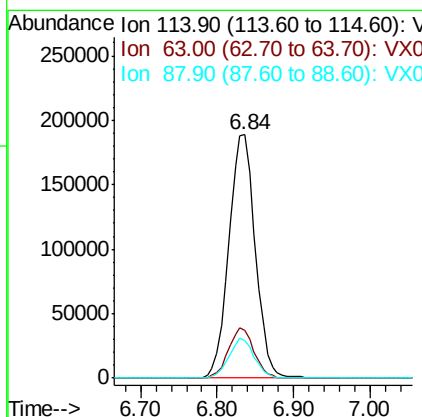
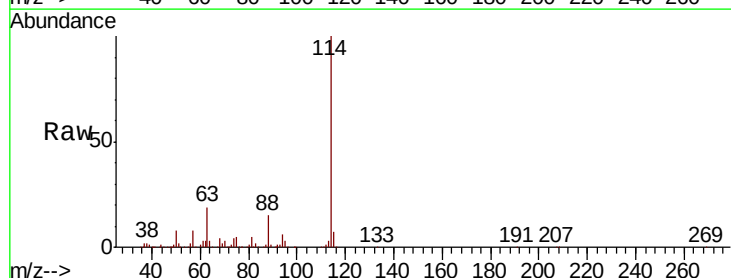
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 17BR-20200629

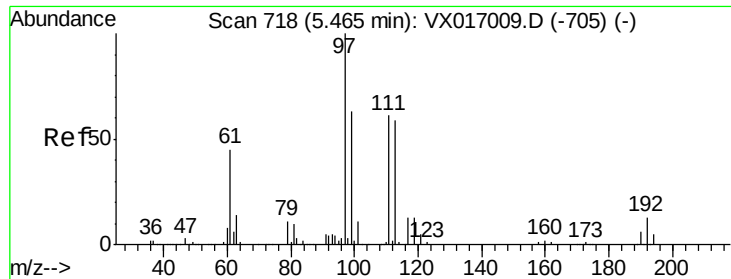
Tot Ion: 65 Resp: 171518  
 Ion Ratio Lower Upper  
 65 100  
 67 52.1 0.0 103.8



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.84 min Scan# 943  
 Delta R.T. 0.01 min  
 Lab File: VX017179.D  
 Acq: 06 Jul 2020 19:27

Tgt Ion: 114 Resp: 450893  
 Ion Ratio Lower Upper  
 114 100  
 63 19.4 0.0 41.4  
 88 15.3 0.0 32.4

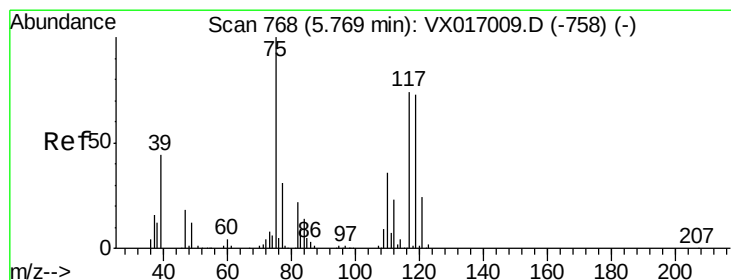
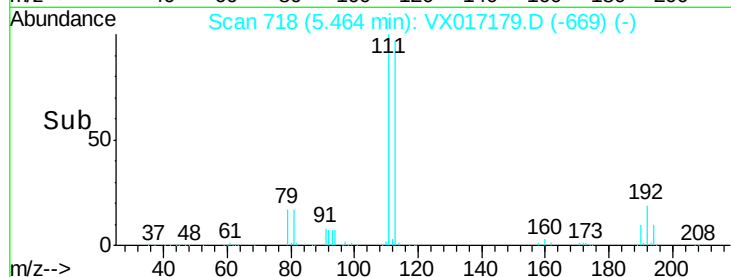
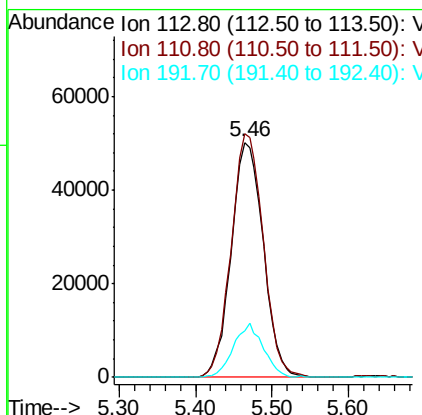
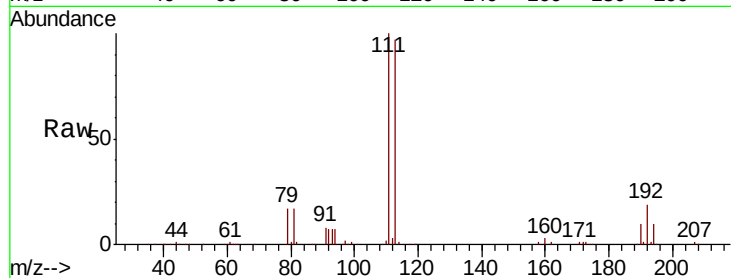




#35  
 Dibromofluoromethane  
 Concen: 51.210 ug/l  
 RT: 5.46 min Scan# 718  
 Delta R.T. -0.00 min  
 Lab File: VX017179.D  
 Acq: 06 Jul 2020 19:27

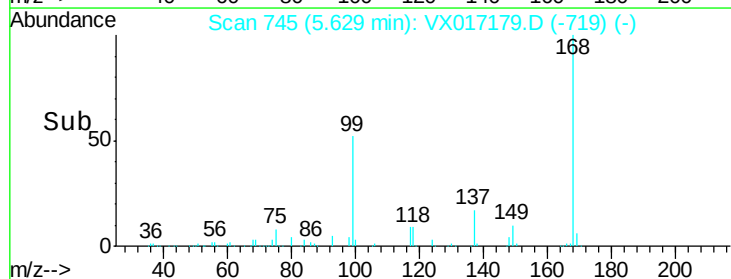
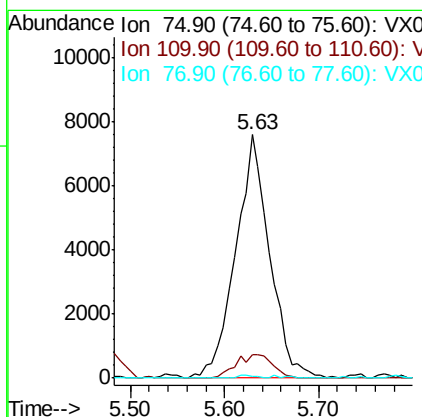
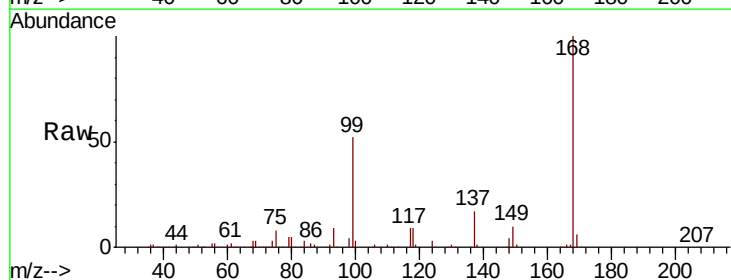
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 17BR-20200629

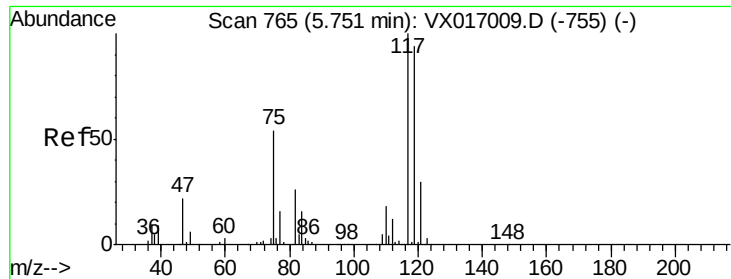
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 103.0 | 81.9  | 122.9 |
| 192     | 21.4  | 16.7  | 25.1  |



#36  
 1,1-Dichloropropene  
 Concen: 4.484 ug/l  
 RT: 5.63 min Scan# 745  
 Delta R.T. -0.14 min  
 Lab File: VX017179.D  
 Acq: 06 Jul 2020 19:27

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 10.4  | 18.1  | 54.1# |
| 77      | 0.6   | 24.6  | 37.0# |





#38

Carbon Tetrachloride

Concen: 5.596 ug/l

RT: 5.62 min Scan# 744

Delta R.T. -0.13 min

Lab File: VX017179.D

Acq: 06 Jul 2020 19:27

Instrument :

MSVOA\_X

ClientSampleId :

17BR-20200629

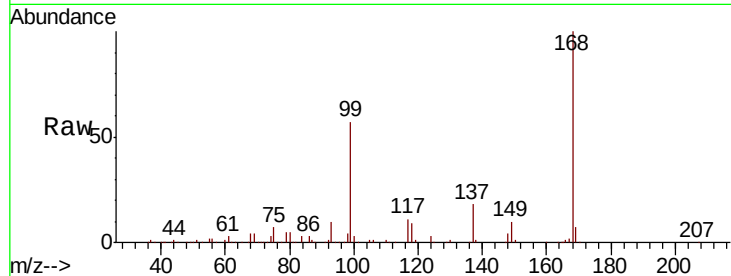
Tot Ion:117 Resp: 26267

Ion Ratio Lower Upper

117 100

119 4.9 75.4 113.0#

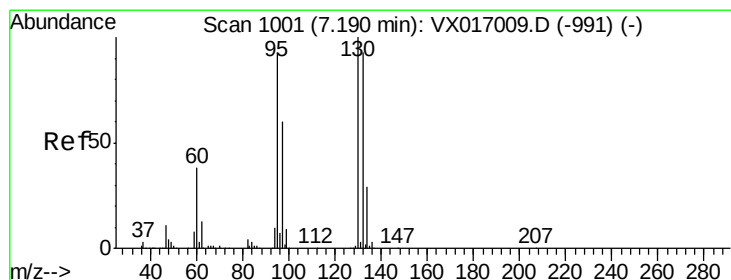
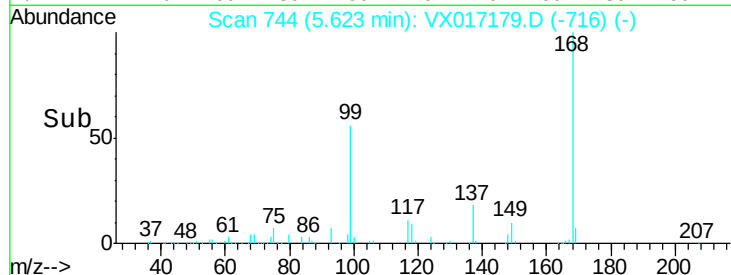
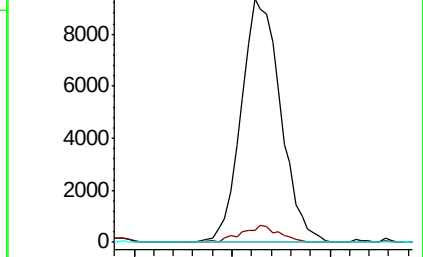
121 0.0 23.8 35.6#



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



#44

Trichloroethene

Concen: 1.760 ug/l

RT: 7.19 min Scan# 1001

Delta R.T. 0.00 min

Lab File: VX017179.D

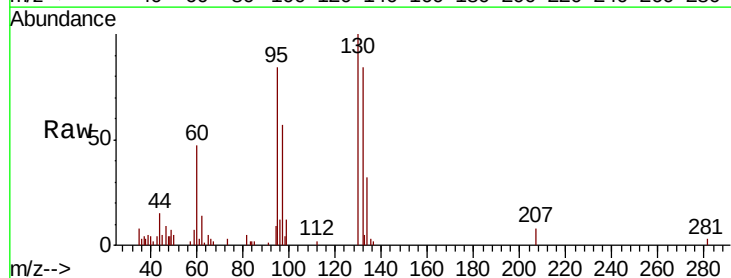
Acq: 06 Jul 2020 19:27

Tgt Ion:130 Resp: 7114

Ion Ratio Lower Upper

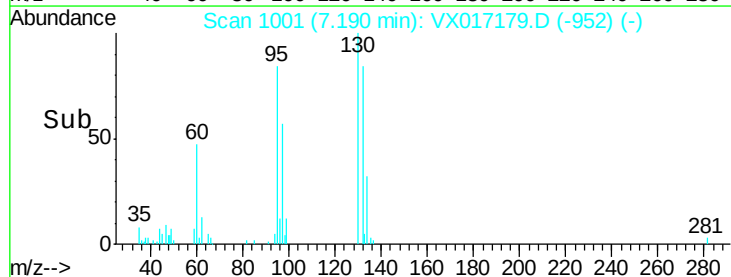
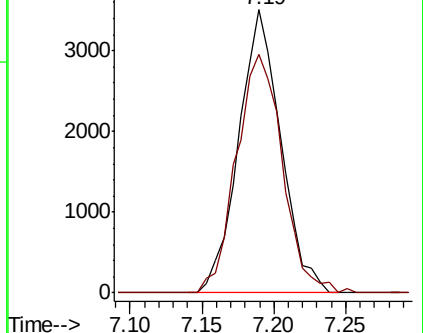
130 100

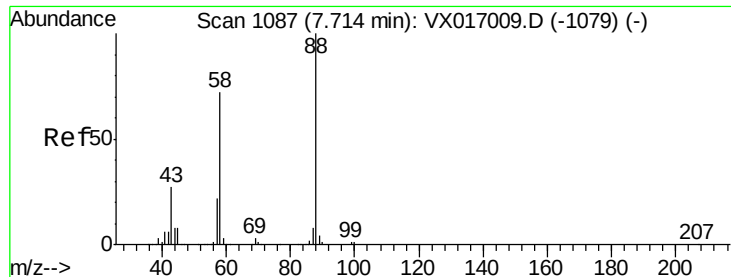
95 84.2 0.0 185.0



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0

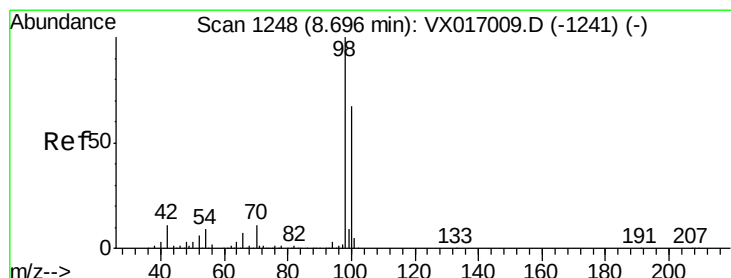
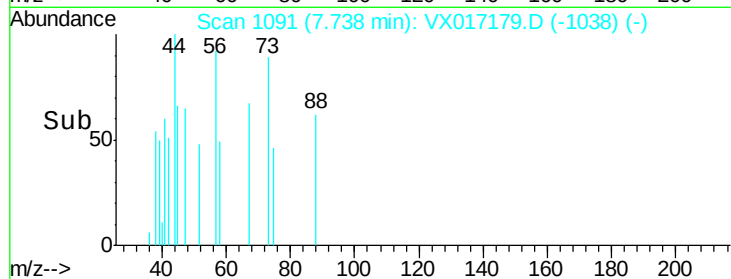
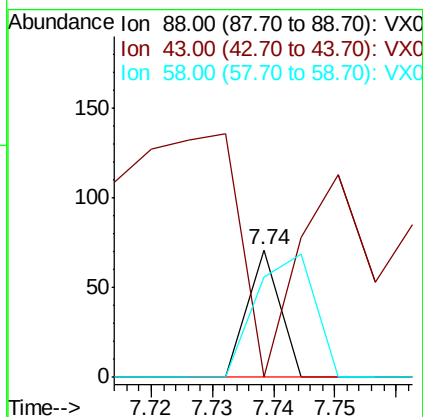
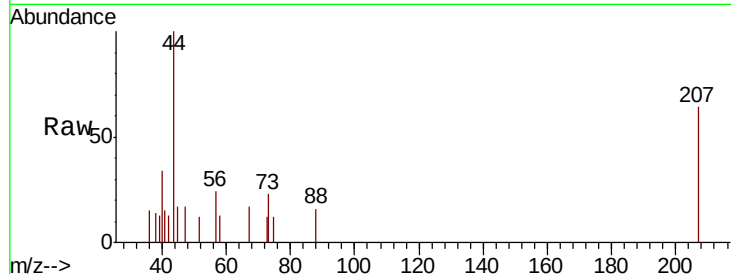




#49  
1,4-Dioxane  
Concen: 0.336 ug/l  
RT: 7.74 min Scan# 1091  
Delta R.T. 0.02 min  
Lab File: VX017179.D  
Acq: 06 Jul 2020 19:27

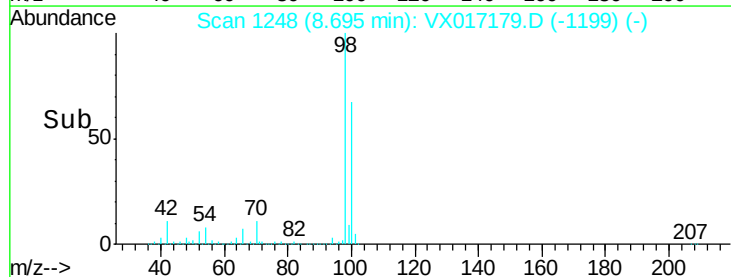
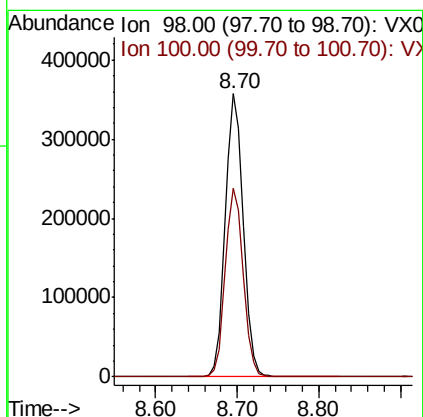
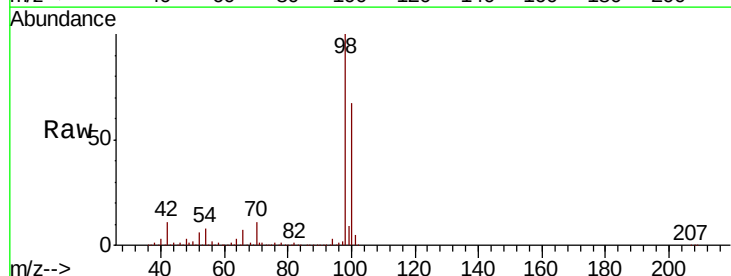
Instrument :  
MSVOA\_X  
ClientSampleId :  
17BR-20200629

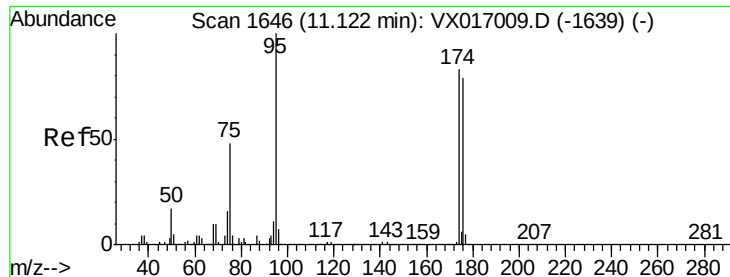
| Tot Ion   | 88    | Resp  | 26    |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 88        | 100   |       |       |
| 43        | 465.4 | 25.8  | 38.8# |
| 58        | 176.9 | 54.8  | 82.2# |



#50  
Toluene-d8  
Concen: 51.335 ug/l  
RT: 8.70 min Scan# 1248  
Delta R.T. -0.00 min  
Lab File: VX017179.D  
Acq: 06 Jul 2020 19:27

| Tgt Ion   | 98    | Resp  | 541421 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 98        | 100   |       |        |
| 100       | 66.7  | 53.8  | 80.6   |





#62

4-Bromofluorobenzene

Concen: 56.348 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.00 min

Lab File: VX017179.D

Acq: 06 Jul 2020 19:27

Instrument :

MSVOA\_X

ClientSampleId :

17BR-20200629

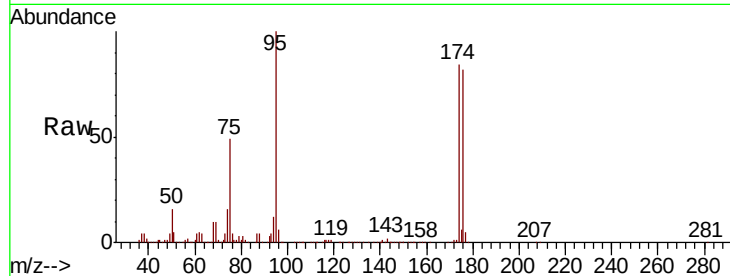
Tot Ion: 95 Resp: 232317

Ion Ratio Lower Upper

95 100

174 84.0 0.0 164.0

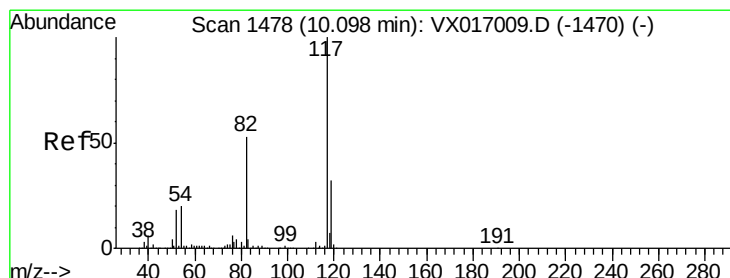
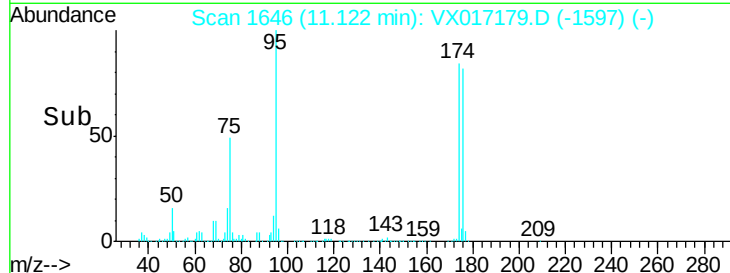
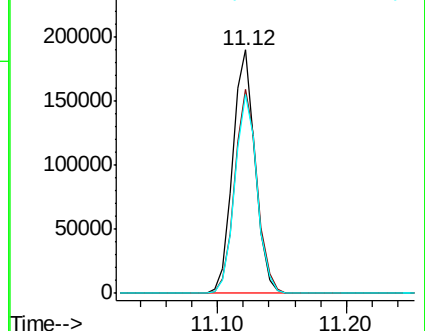
176 81.3 0.0 157.6



Abundance Ion 94.90 (94.60 to 95.60): VX017179.D (-1597) (-)

Ion 173.80 (173.50 to 174.50): VX017179.D (-1597) (-)

Ion 175.80 (175.50 to 176.50): VX017179.D (-1597) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.10 min Scan# 1478

Delta R.T. -0.00 min

Lab File: VX017179.D

Acq: 06 Jul 2020 19:27

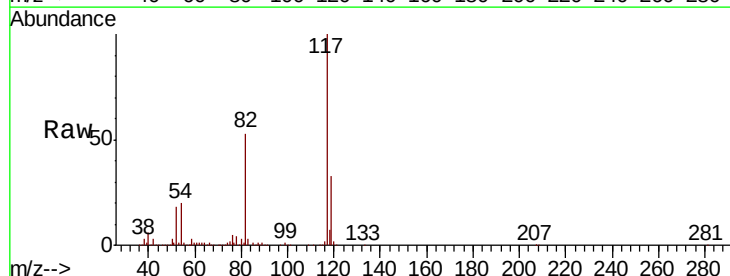
Tgt Ion: 117 Resp: 461893

Ion Ratio Lower Upper

117 100

82 52.6 42.6 63.8

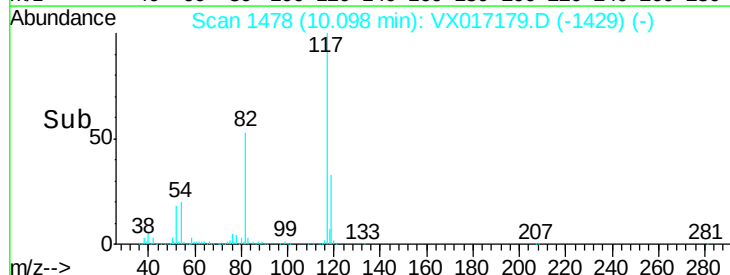
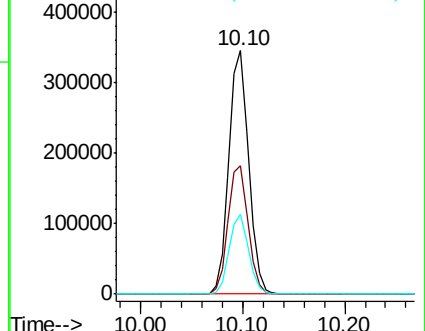
119 32.9 25.4 38.2

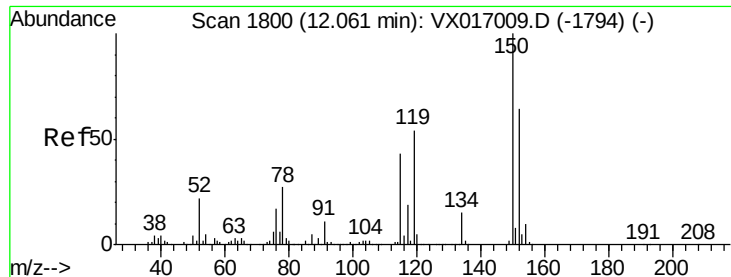


Abundance Ion 116.90 (116.60 to 117.60): VX017179.D (-1429) (-)

Ion 82.00 (81.70 to 82.70): VX017179.D (-1429) (-)

Ion 118.90 (118.60 to 119.60): VX017179.D (-1429) (-)





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.06 min Scan# 1800

Delta R.T. -0.00 min

Lab File: VX017179.D

Acq: 06 Jul 2020 19:27

Instrument :

MSVOA\_X

ClientSampleId :

17BR-20200629

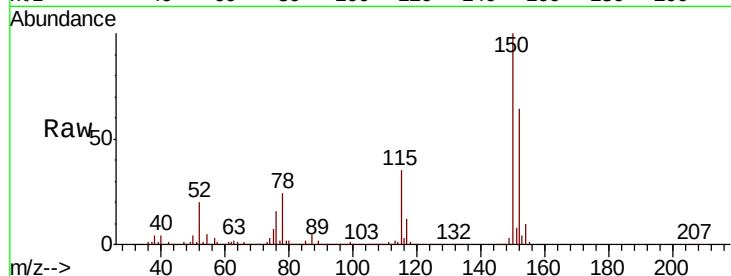
Tot Ion:152 Resp: 261641

Ion Ratio Lower Upper

152 100

115 55.7 40.9 122.7

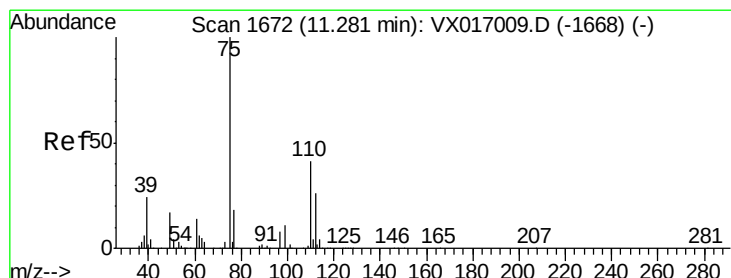
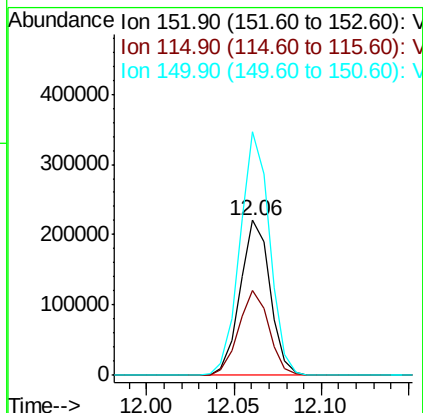
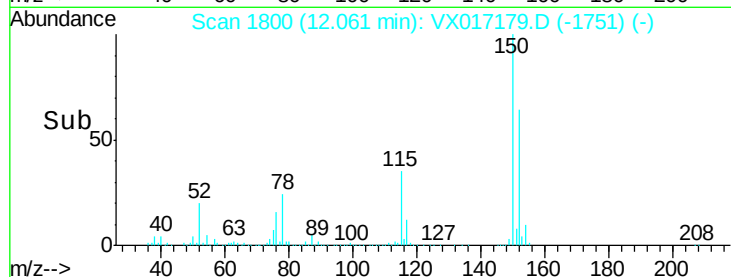
150 156.3 0.0 351.6



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: 22.087 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.16 min

Lab File: VX017179.D

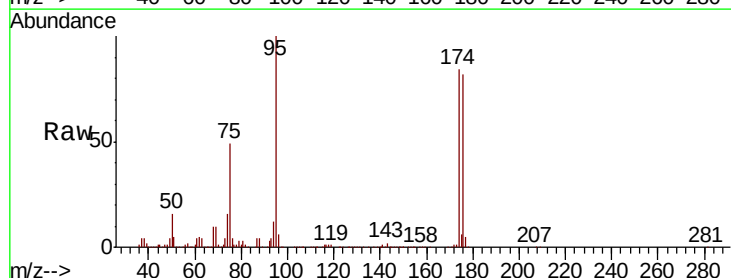
Acq: 06 Jul 2020 19:27

Tgt Ion: 75 Resp: 113640

Ion Ratio Lower Upper

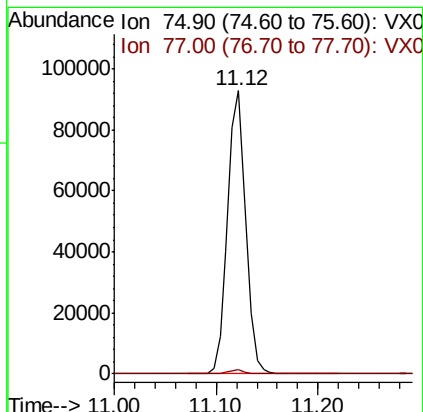
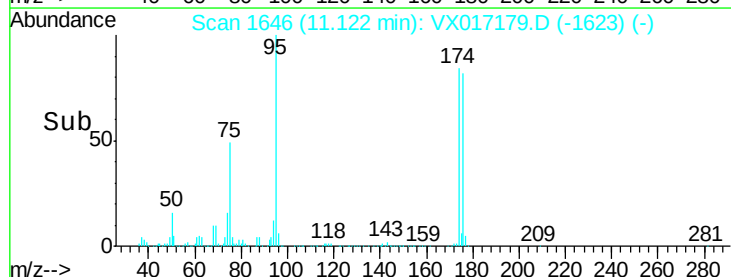
75 100

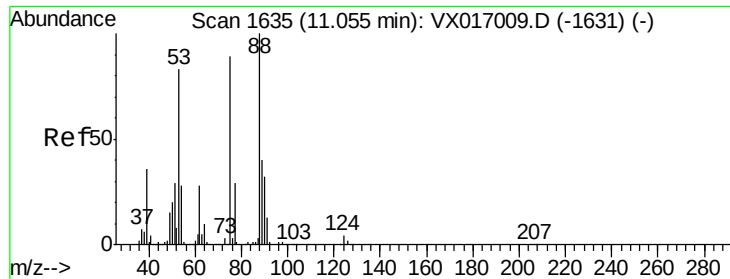
77 1.5 20.2 60.6#



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: 57.198 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. 0.07 min

Lab File: VX017179.D

Acq: 06 Jul 2020 19:27

Instrument :

MSVOA\_X

ClientSampleId :

17BR-20200629

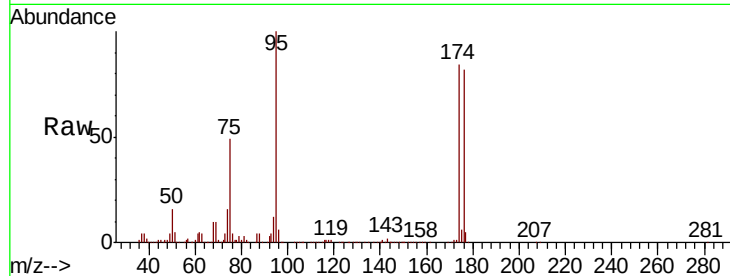
Tot Ion: 75 Resp: 113640

Ion Ratio Lower Upper

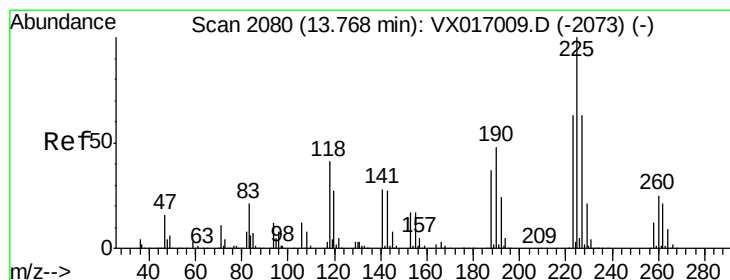
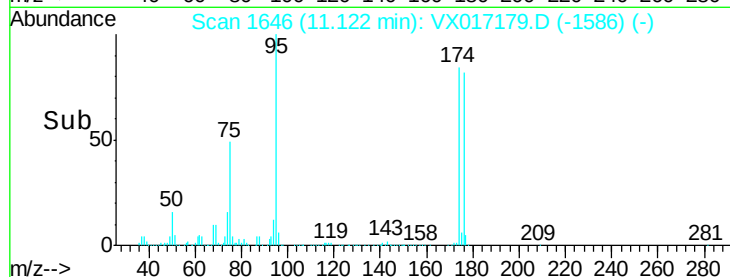
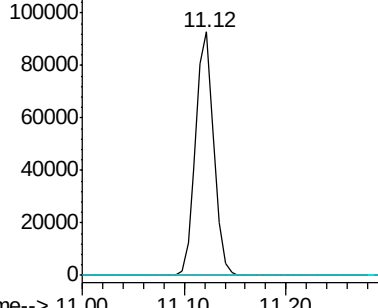
75 100

53 0.2 72.4 108.6#

89 0.1 37.0 55.4#



Abundance Ion 74.90 (74.60 to 75.60): VX0  
Ion 53.00 (52.70 to 53.70): VX0  
Ion 88.90 (88.60 to 89.60): VX0



#94

Hexachlorobutadiene

Concen: 0.868 ug/l

RT: 13.76 min Scan# 2079

Delta R.T. -0.01 min

Lab File: VX017179.D

Acq: 06 Jul 2020 19:27

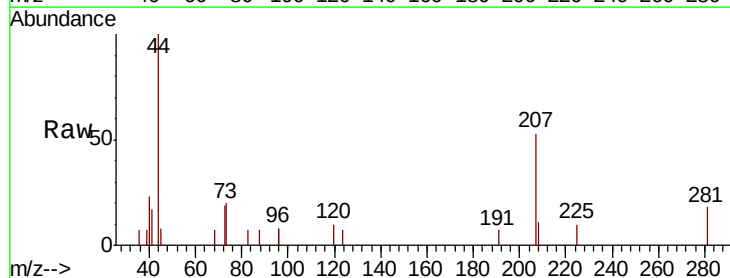
Tgt Ion: 225 Resp: 50

Ion Ratio Lower Upper

225 100

223 0.0 32.5 97.5#

227 38.0 33.1 99.2



Abundance Ion 224.70 (224.40 to 225.40): V  
Ion 222.70 (222.40 to 223.40): V  
Ion 226.70 (226.40 to 227.40): V

