

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX103120\  
 Data File : VX019193.D  
 Acq On : 29 Oct 2020 17:18  
 Operator : JC/MD  
 Sample : L4470-01RE  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 BP-TB-20201015RE

Quant Time: Oct 30 04:02:37 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X102720W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Oct 27 13:55:07 2020  
 Response via : Initial Calibration

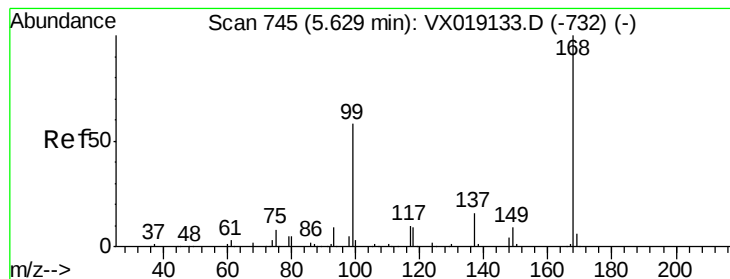
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.63  | 168  | 296499   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.83  | 114  | 514338   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 486082   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 243143   | 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   | 197650   | 51.69 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.38% |          |
| 35) Dibromofluoromethane    | 5.46  | 113  | 157238   | 48.67 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.34%  |          |
| 50) Toluene-d8              | 8.70  | 98   | 634180   | 52.07 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 104.14% |          |
| 62) 4-Bromofluorobenzene    | 11.12 | 95   | 245256   | 53.18 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 106.36% |          |

| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 5) Bromomethane                | 1.64  | 94   | 511      | 0.234  | ug/l   | 88     |
| 10) Methyl Iodide              | 2.49  | 142  | 778      | 6.585  | ug/l # | 95     |
| 11) Tert butyl alcohol         | 3.00  | 59   | 881      | 1.167  | ug/l # | 72     |
| 13) Acrolein                   | 2.28  | 56   | 249      | 6.369  | ug/l # | 44     |
| 15) Acrylonitrile              | 3.12  | 53   | 660      | 0.416  | ug/l   | 96     |
| 16) Acetone                    | 2.43  | 43   | 1114     | 0.845  | ug/l   | 94     |
| 17) Carbon Disulfide           | 2.56  | 76   | 2094     | 1.012  | ug/l # | 94     |
| 18) Methyl Acetate             | 2.75  | 43   | 822      | 0.256  | ug/l # | 57     |
| 20) Methylene Chloride         | 2.83  | 84   | 720      | 0.217  | ug/l # | 70     |
| 25) 2-Butanone                 | 4.64  | 43   | 545      | 0.262  | ug/l # | 44     |
| 29) Tetrahydrofuran            | 5.12  | 42   | 490      | 0.374  | ug/l # | 40     |
| 31) Cyclohexane                | 5.63  | 56   | 6608     | 1.367  | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.62  | 75   | 24753    | 5.212  | ug/l # | 48     |
| 38) Carbon Tetrachloride       | 5.63  | 117  | 30882    | 6.379  | ug/l # | 16     |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75   | 124720   | 24.843 | ug/l # | 36     |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75   | 124720   | 65.411 | ug/l # | 12     |
| 93) 1,2,4-Trichlorobenzene     | 13.63 | 180  | 1336     | 0.233  | ug/l   | 99     |
| 94) Hexachlorobutadiene        | 13.76 | 225  | 544      | 0.215  | ug/l   | 93     |
| 95) Naphthalene                | 13.82 | 128  | 3635     | 0.201  | ug/l   | 99     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.63 min Scan# 745

Delta R.T. 0.00 min

Lab File: VX019193.D

Acq: 29 Oct 2020 17:18

Instrument :

MSVOA\_X

ClientSampleId :

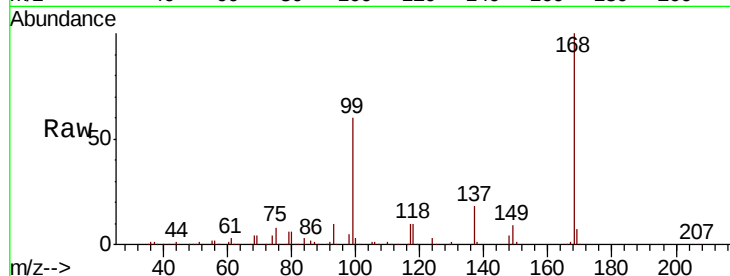
BP-TB-20201015RE

Tot Ion:168 Resp: 296499

Ion Ratio Lower Upper

168 100

99 60.5 46.6 69.8



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.63

120000

100000

80000

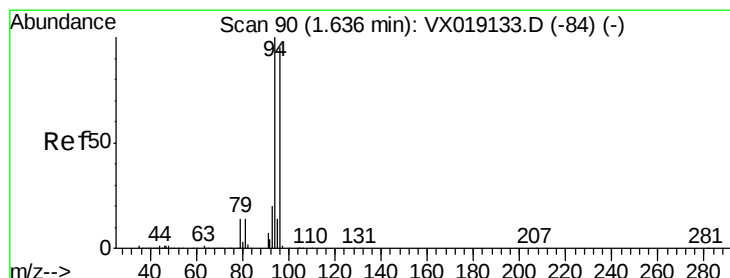
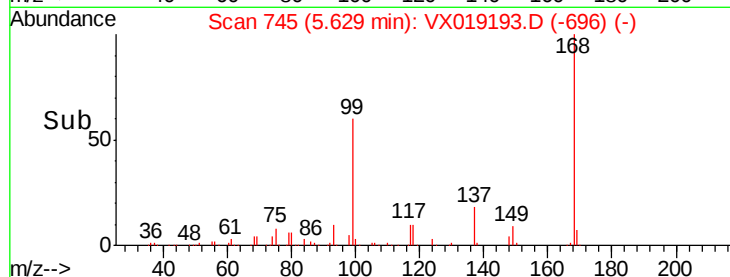
60000

40000

20000

0

Time-->



#5

Bromomethane

Concen: 0.234 ug/l

RT: 1.64 min Scan# 91

Delta R.T. 0.01 min

Lab File: VX019193.D

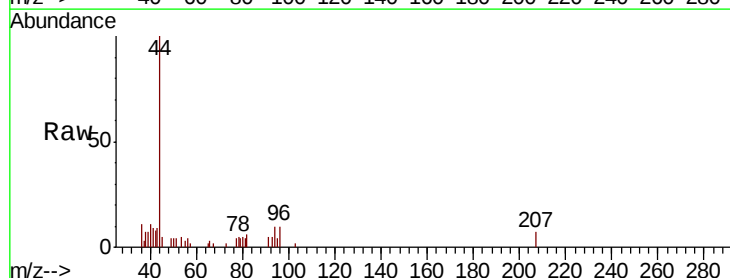
Acq: 29 Oct 2020 17:18

Tgt Ion: 94 Resp: 511

Ion Ratio Lower Upper

94 100

96 83.3 76.0 114.0



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

1.64

300

250

200

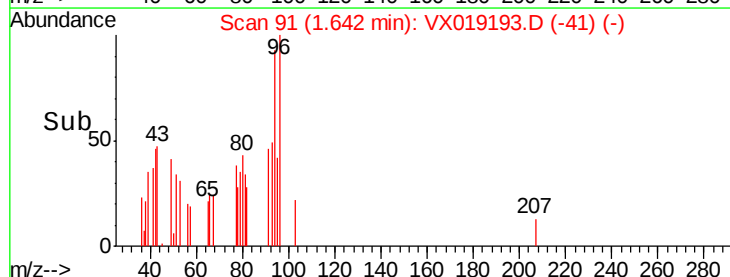
150

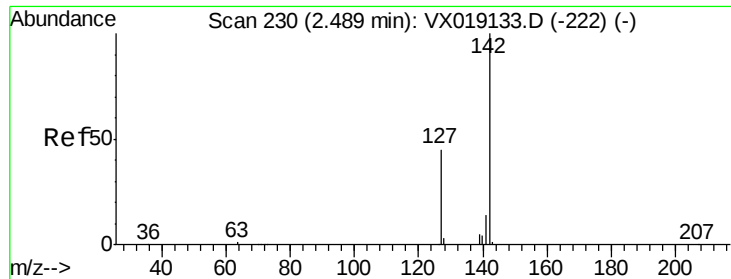
100

50

0

Time-->

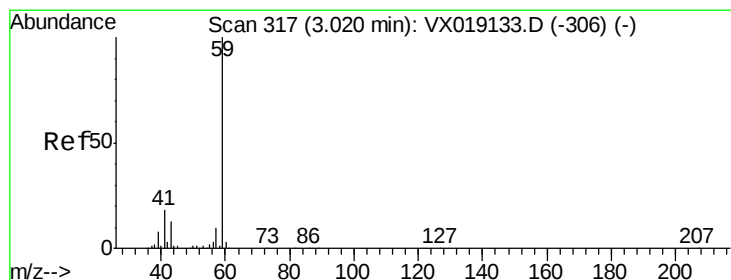
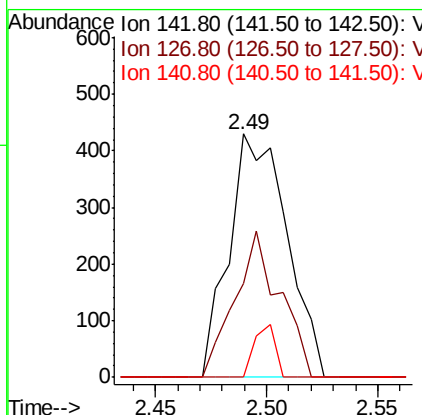
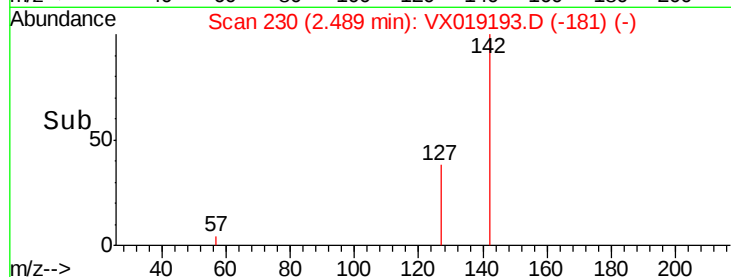
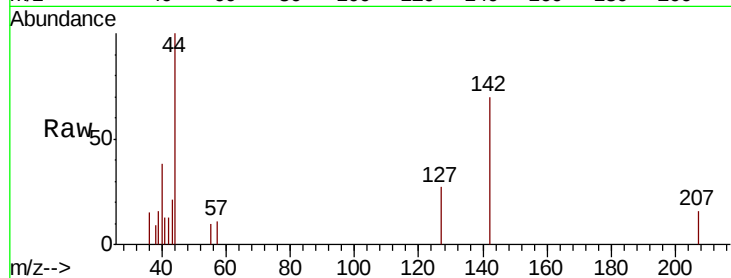




#10  
Methyl Iodide  
Concen: 6.585 ug/l  
RT: 2.49 min Scan# 230  
Delta R.T. 0.00 min  
Lab File: VX019133.D  
Acq: 29 Oct 2020 17:18

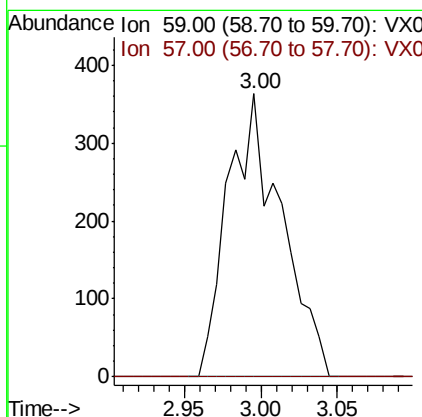
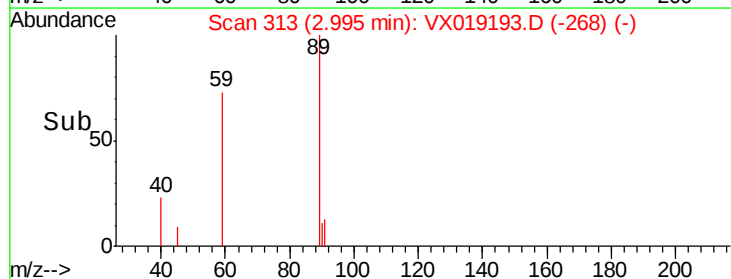
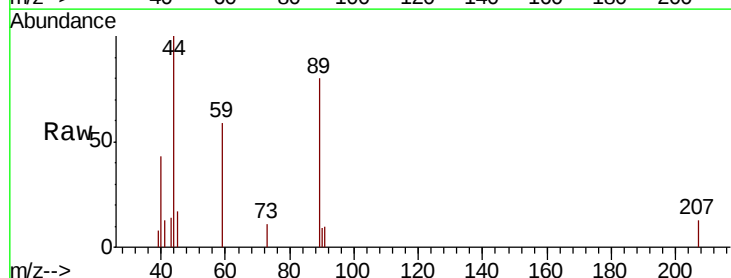
Instrument :  
MSVOA\_X  
ClientSampleId :  
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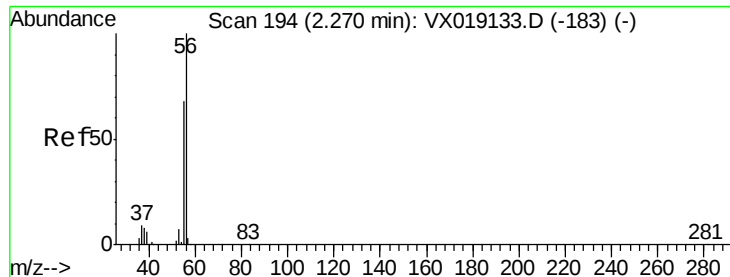
Tot Ion: 142 Resp: 778  
Ion Ratio Lower Upper  
142 100  
127 46.7 36.1 54.1  
141 7.8 11.3 16.9#



#11  
Tert butyl alcohol  
Concen: 1.167 ug/l  
RT: 3.00 min Scan# 313  
Delta R.T. -0.02 min  
Lab File: VX019133.D  
Acq: 29 Oct 2020 17:18

Tgt Ion: 59 Resp: 881  
Ion Ratio Lower Upper  
59 100  
57 0.0 8.4 12.6#

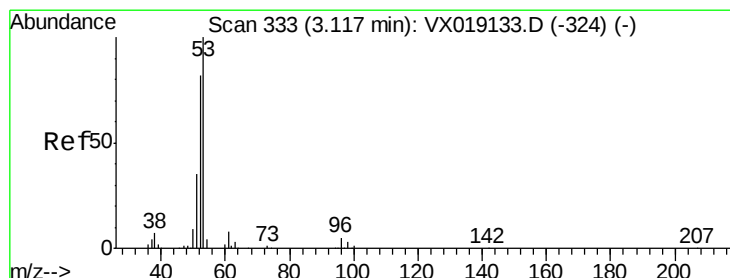
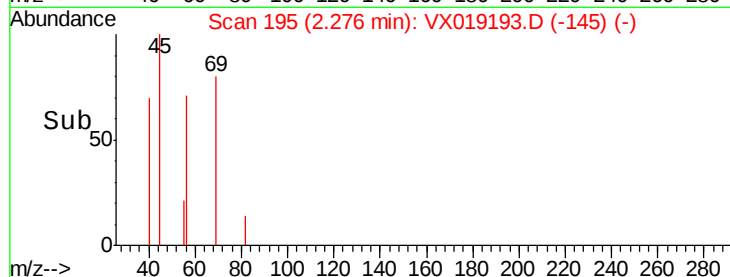
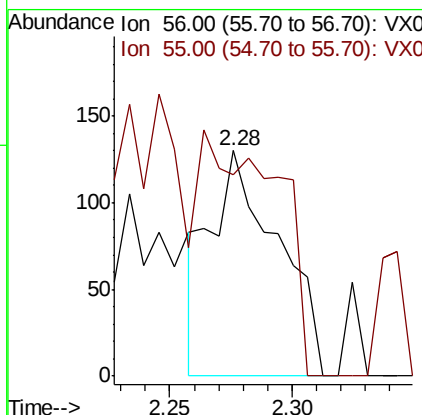
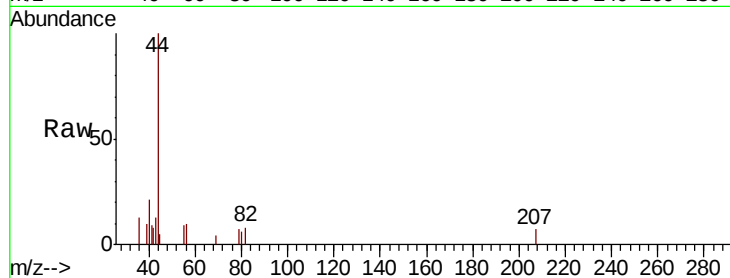




#13  
Acrolein  
Concen: 6.369 ug/l  
RT: 2.28 min Scan# 195  
Delta R.T. 0.01 min  
Lab File: VX019133.D  
Acq: 29 Oct 2020 17:18

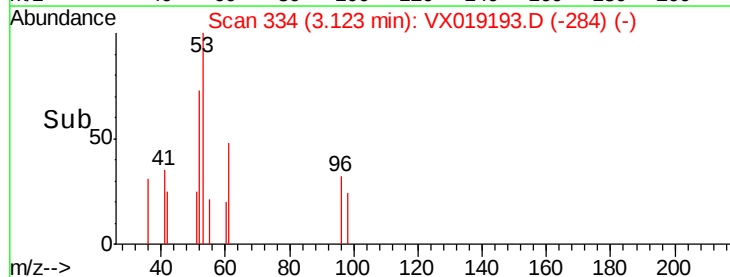
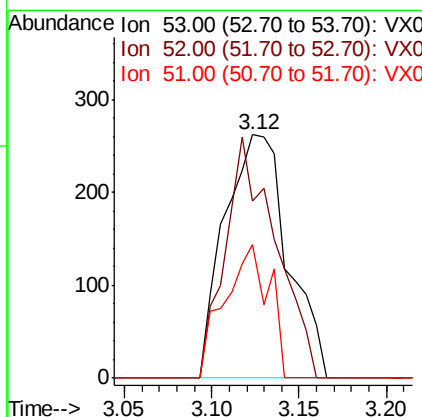
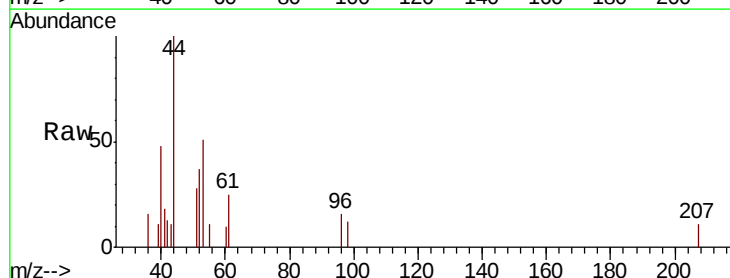
Instrument :  
MSVOA\_X  
ClientSampleId :  
BP-TB-20201015RE

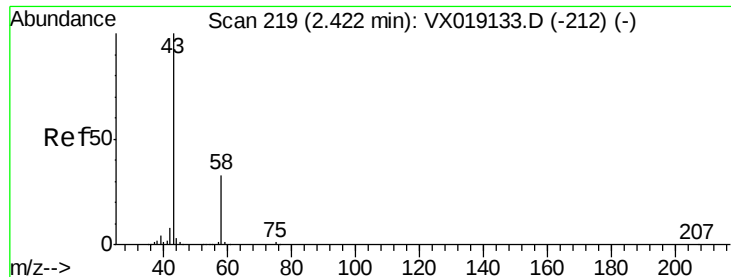
Tot Ion: 56 Resp: 249  
Ion Ratio Lower Upper  
56 100  
55 22.9 54.7 82.1#



#15  
Acrylonitrile  
Concen: 0.416 ug/l  
RT: 3.12 min Scan# 334  
Delta R.T. 0.01 min  
Lab File: VX019133.D  
Acq: 29 Oct 2020 17:18

Tgt Ion: 53 Resp: 660  
Ion Ratio Lower Upper  
53 100  
52 78.6 65.7 98.5  
51 38.9 28.4 42.6





#16

Acetone

Concen: 0.845 ug/l

RT: 2.43 min Scan# 220

Delta R.T. 0.01 min

Lab File: VX019193.D

Acq: 29 Oct 2020 17:18

Instrument :

MSVOA\_X

ClientSampleId :

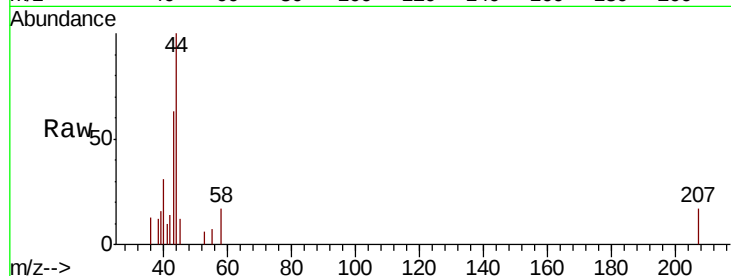
BP-TB-20201015RE

Tot Ion: 43 Resp: 1114

Ion Ratio Lower Upper

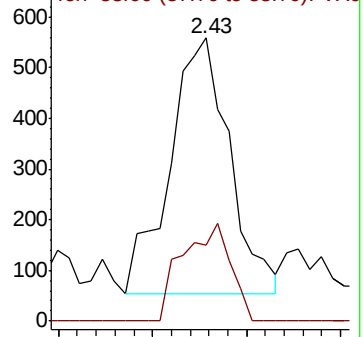
43 100

58 29.7 26.3 39.5

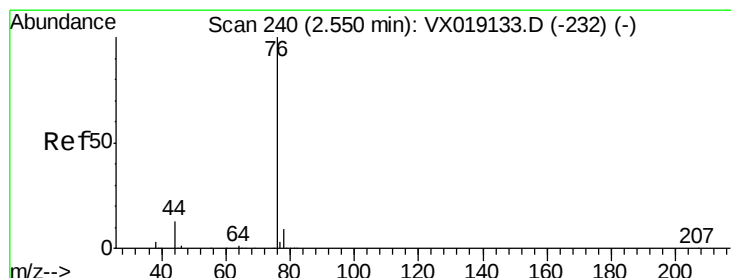
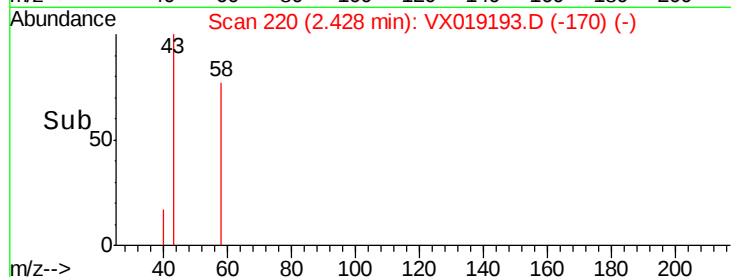


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0



Time--> 2.35 2.40 2.45



#17

Carbon Disulfide

Concen: 1.012 ug/l

RT: 2.56 min Scan# 241

Delta R.T. 0.01 min

Lab File: VX019193.D

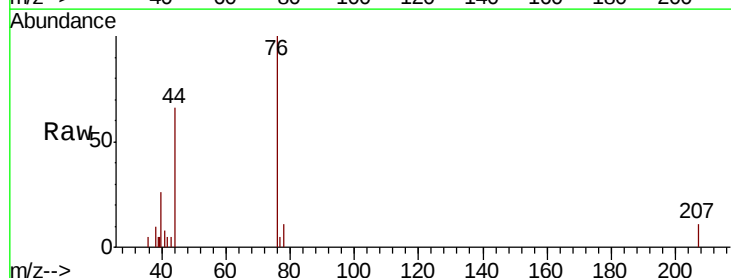
Acq: 29 Oct 2020 17:18

Tgt Ion: 76 Resp: 2094

Ion Ratio Lower Upper

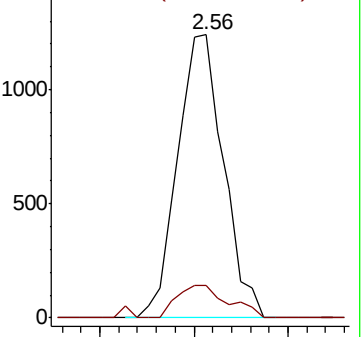
76 100

78 11.3 7.3 10.9#

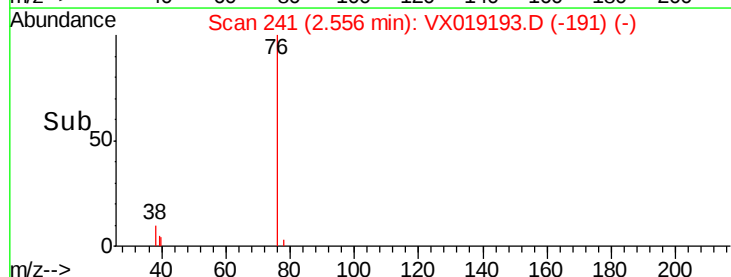


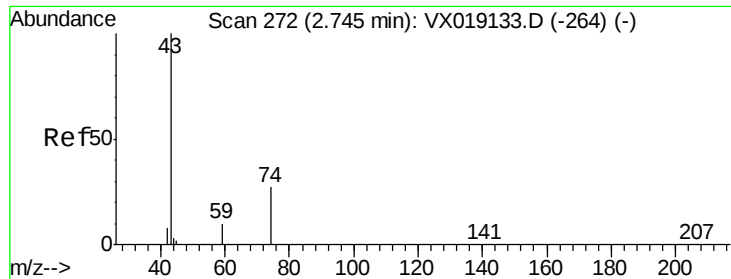
Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0



Time--> 2.50 2.55 2.60

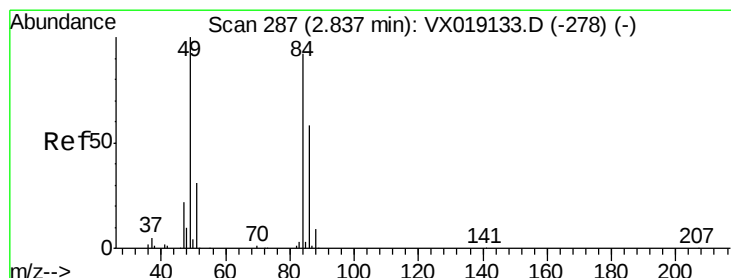
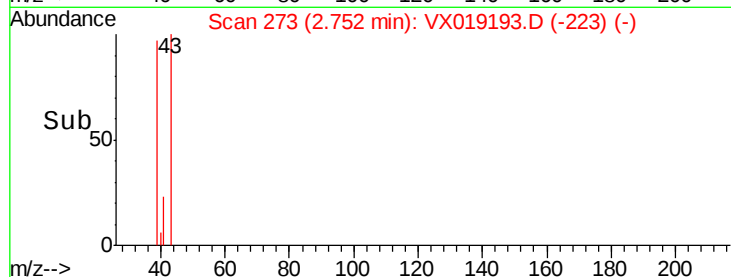
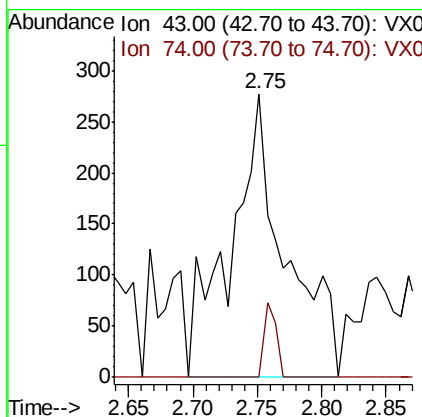
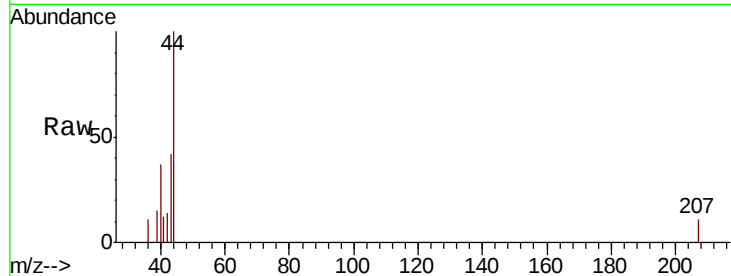




#18  
Methyl Acetate  
Concen: 0.256 ug/l  
RT: 2.75 min Scan# 273  
Delta R.T. 0.01 min  
Lab File: VX019133.D  
Acq: 29 Oct 2020 17:18

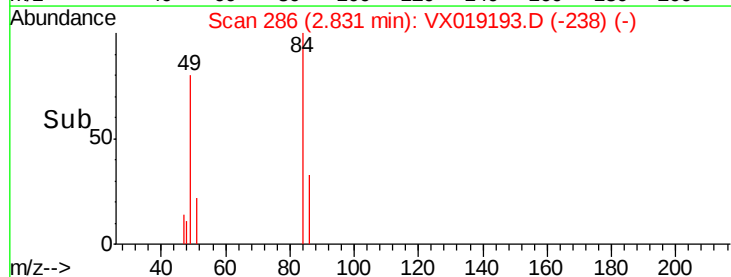
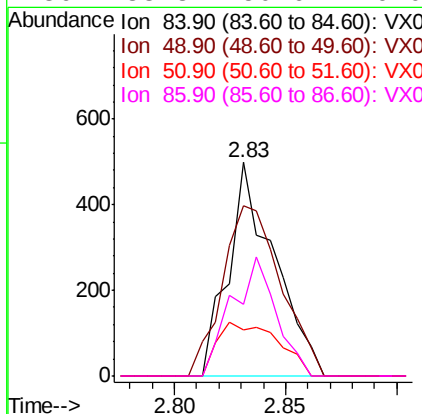
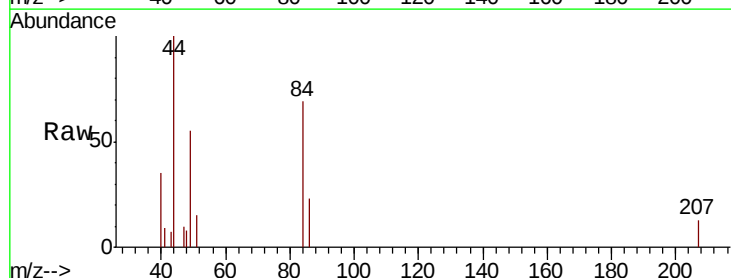
Instrument :  
MSVOA\_X  
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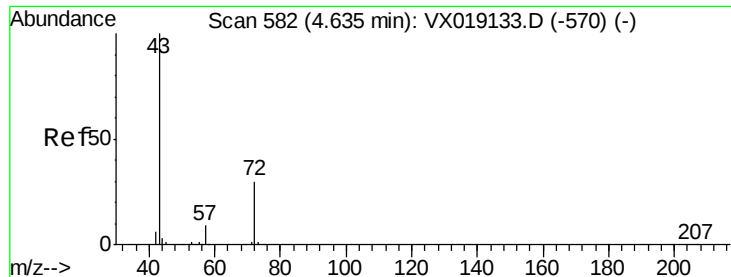
Tot Ion: 43 Resp: 822  
Ion Ratio Lower Upper  
43 100  
74 5.6 22.6 33.8#



#20  
Methylene Chloride  
Concen: 0.217 ug/l  
RT: 2.83 min Scan# 286  
Delta R.T. -0.01 min  
Lab File: VX019133.D  
Acq: 29 Oct 2020 17:18

Tgt Ion: 84 Resp: 720  
Ion Ratio Lower Upper  
84 100  
49 80.0 86.8 130.2#  
51 21.6 27.3 40.9#  
86 33.3 50.6 76.0#

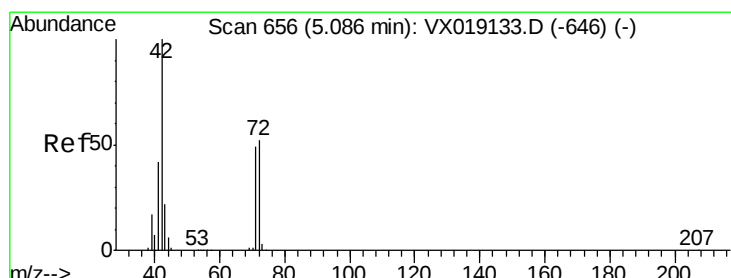
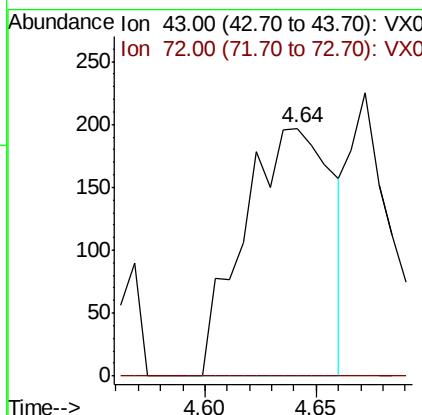
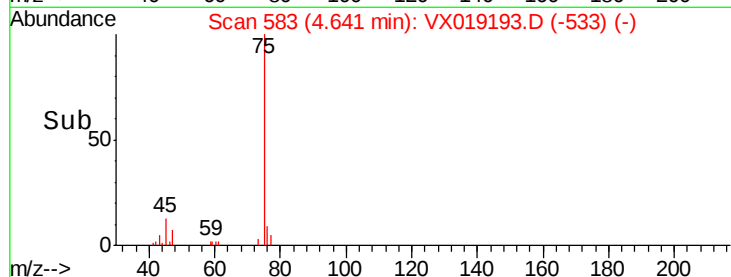
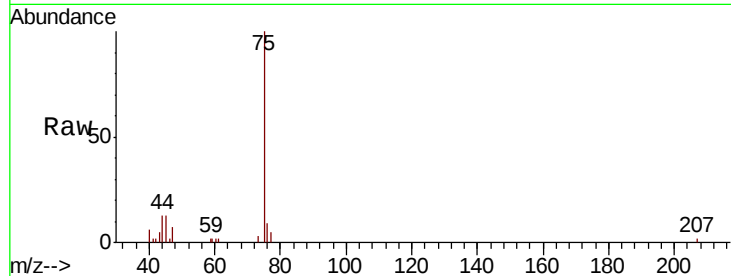




#25  
2-Butanone  
Concen: 0.262 ug/l  
RT: 4.64 min Scan# 583  
Delta R.T. 0.01 min  
Lab File: VX019133.D  
Acq: 29 Oct 2020 17:18

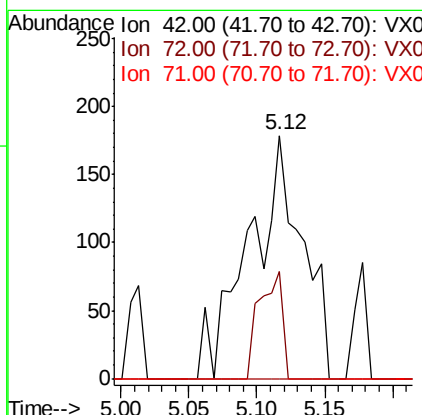
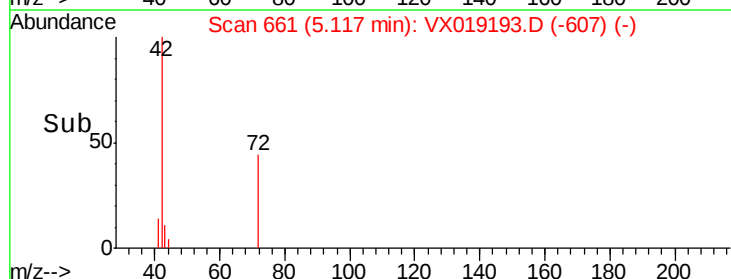
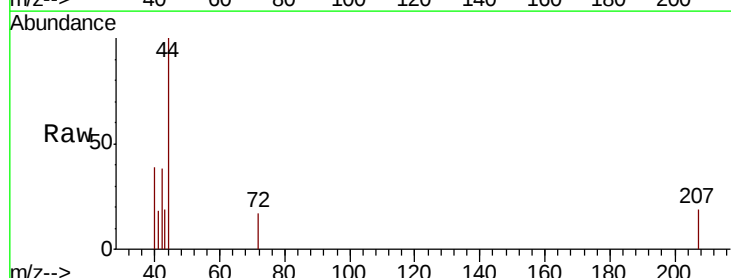
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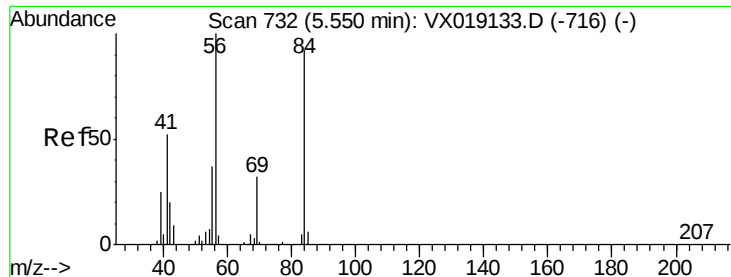
Tot Ion: 43 Resp: 545  
Ion Ratio Lower Upper  
43 100  
72 0.0 24.6 36.8#



#29  
Tetrahydrofuran  
Concen: 0.374 ug/l  
RT: 5.12 min Scan# 661  
Delta R.T. 0.03 min  
Lab File: VX019133.D  
Acq: 29 Oct 2020 17:18

Tgt Ion: 42 Resp: 490  
Ion Ratio Lower Upper  
42 100  
72 19.2 42.6 63.8#  
71 0.0 39.7 59.5#

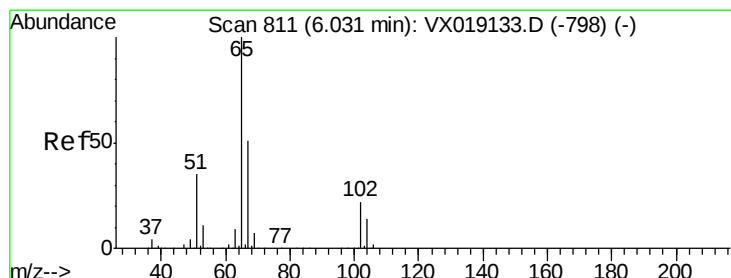
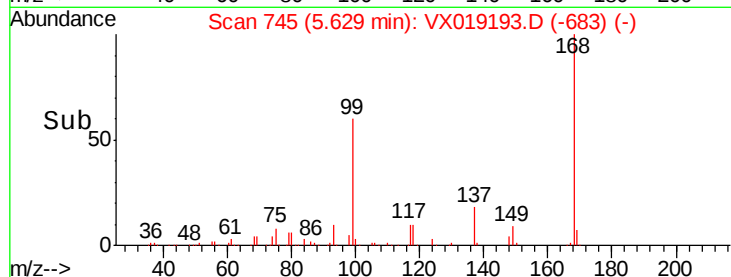
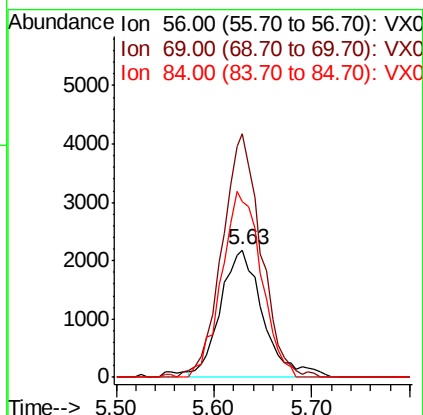
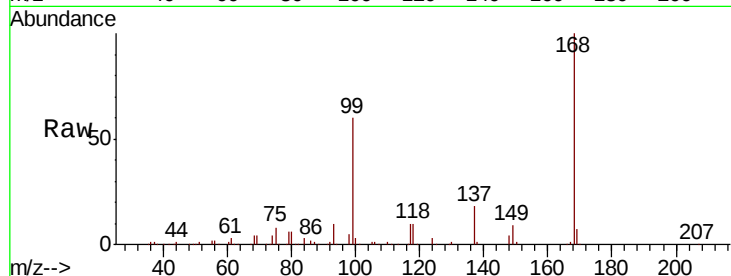




#31  
Cyclohexane  
Concen: 1.367 ug/l  
RT: 5.63 min Scan# 745  
Delta R.T. 0.08 min  
Lab File: VX019133.D  
Acq: 29 Oct 2020 17:18

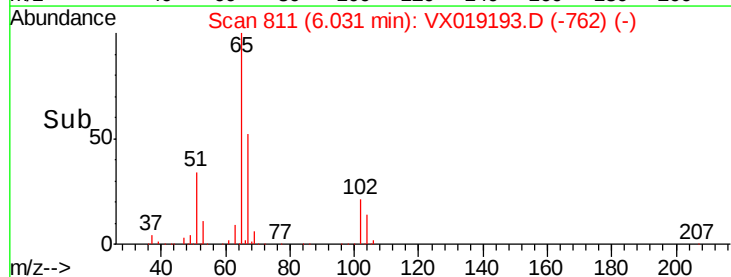
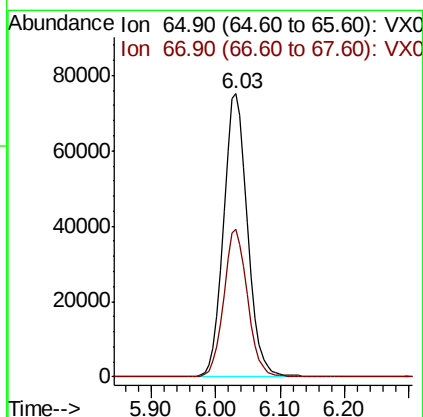
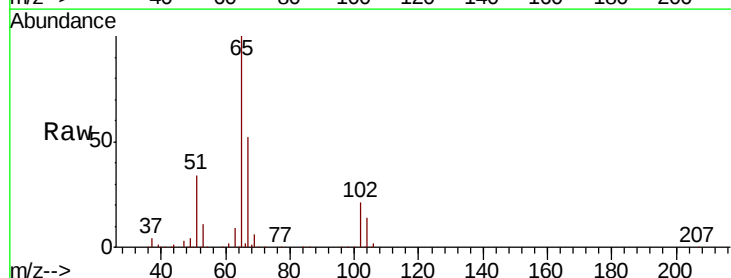
Instrument :  
MSVOA\_X  
ClientSampleId :  
BP-TB-20201015RE

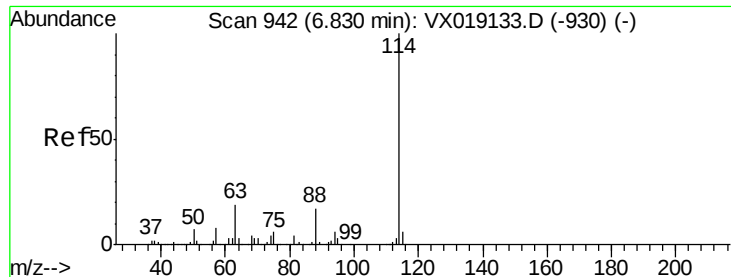
Tot Ion: 56 Resp: 6608  
Ion Ratio Lower Upper  
56 100  
69 190.8 25.9 38.9#  
84 137.4 73.4 110.2#



#33  
1,2-Dichloroethane-d4  
Concen: 51.691 ug/l  
RT: 6.03 min Scan# 811  
Delta R.T. 0.00 min  
Lab File: VX019133.D  
Acq: 29 Oct 2020 17:18

Tgt Ion: 65 Resp: 197650  
Ion Ratio Lower Upper  
65 100  
67 51.6 0.0 103.0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.83 min Scan# 942

Delta R.T. 0.00 min

Lab File: VX019193.D

Acq: 29 Oct 2020 17:18

Instrument :

MSVOA\_X

ClientSampleId :

BP-TB-20201015RE

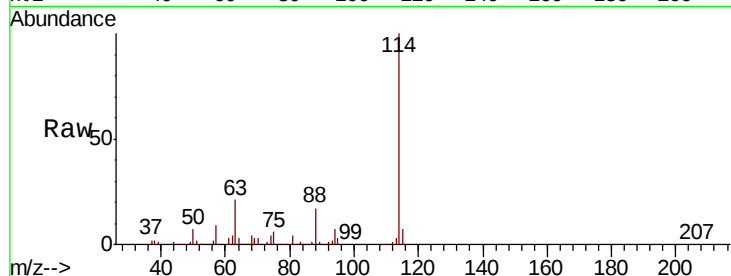
Tot Ion:114 Resp: 514338

Ion Ratio Lower Upper

114 100

63 21.0 0.0 38.8

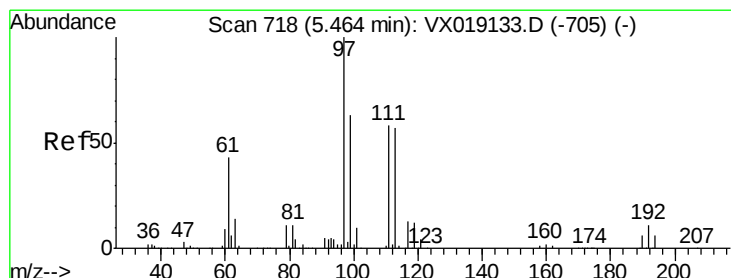
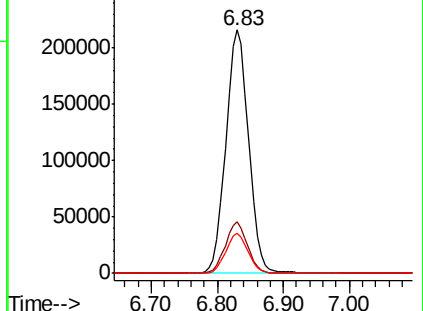
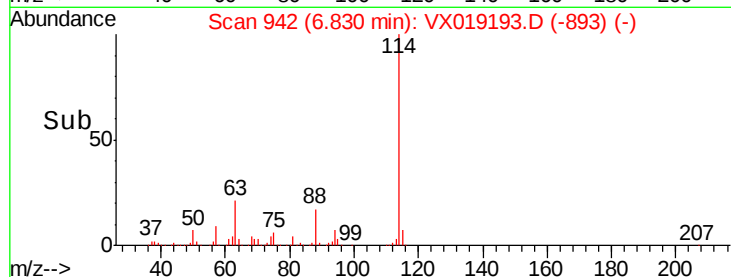
88 16.5 0.0 34.2



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0



#35

Dibromofluoromethane

Concen: 48.669 ug/l

RT: 5.46 min Scan# 718

Delta R.T. 0.00 min

Lab File: VX019193.D

Acq: 29 Oct 2020 17:18

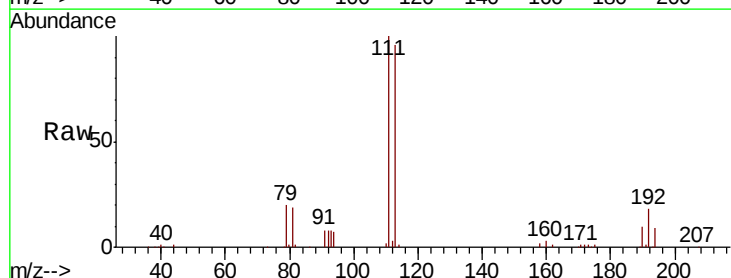
Tgt Ion:113 Resp: 157238

Ion Ratio Lower Upper

113 100

111 103.5 82.3 123.5

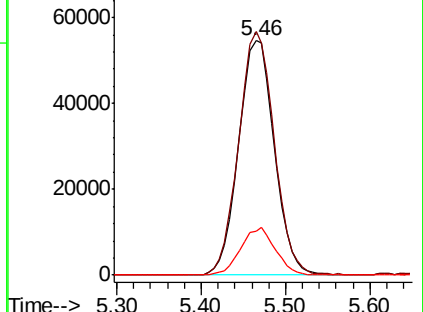
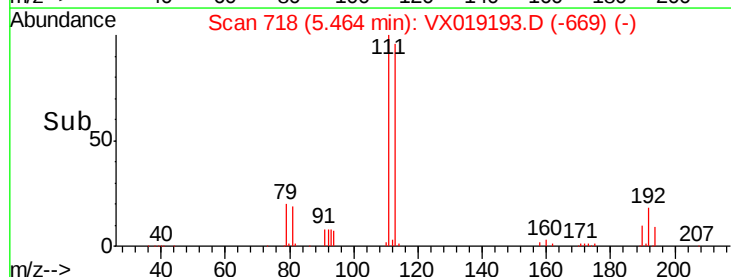
192 19.7 16.2 24.2

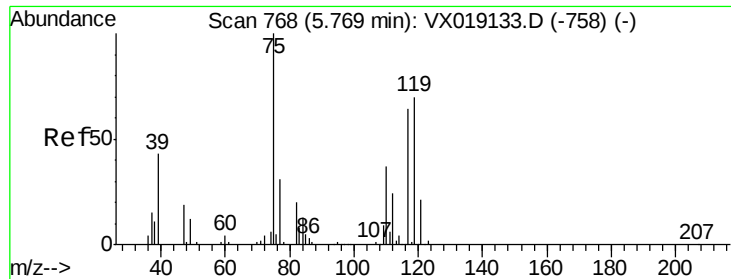


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V





#36

1,1-Dichloropropene

Concen: 5.212 ug/l

RT: 5.62 min Scan# 744

Delta R.T. -0.15 min

Lab File: VX019193.D

Acq: 29 Oct 2020 17:18

Instrument :

MSVOA\_X

ClientSampleId :

BP-TB-20201015RE

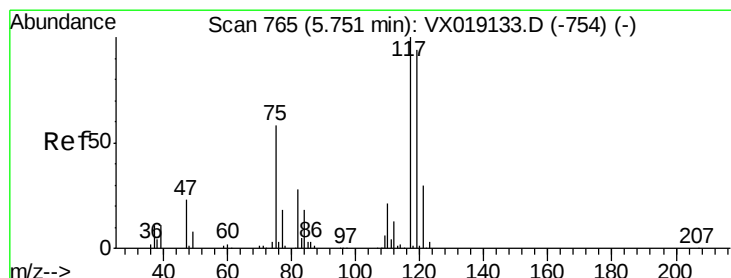
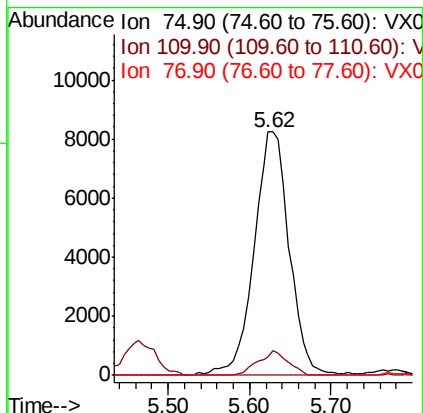
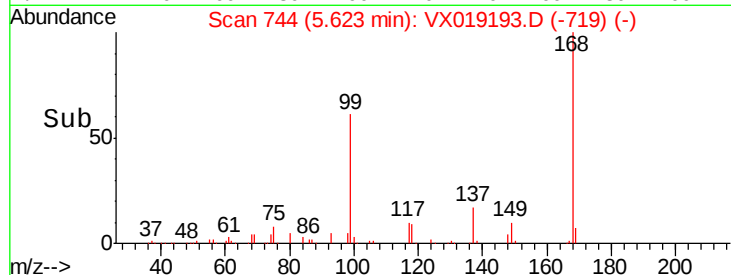
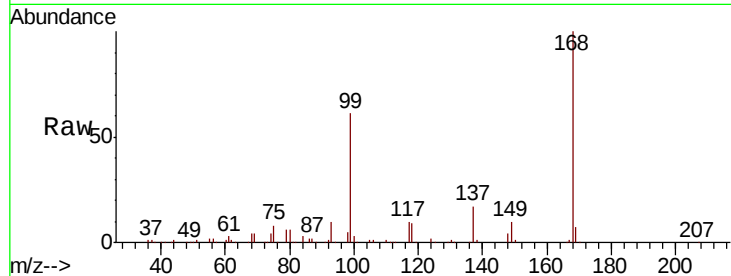
Tot Ion: 75 Resp: 24753

Ion Ratio Lower Upper

75 100

110 8.5 18.3 54.9#

77 0.0 24.9 37.3#



#38

Carbon Tetrachloride

Concen: 6.379 ug/l

RT: 5.63 min Scan# 745

Delta R.T. -0.12 min

Lab File: VX019193.D

Acq: 29 Oct 2020 17:18

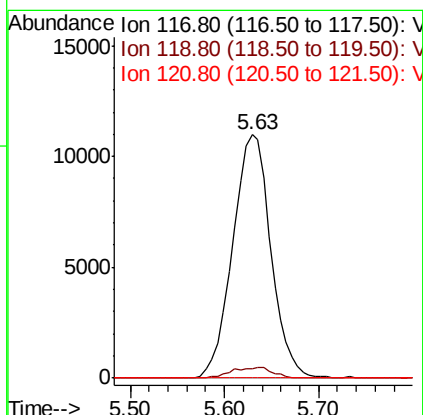
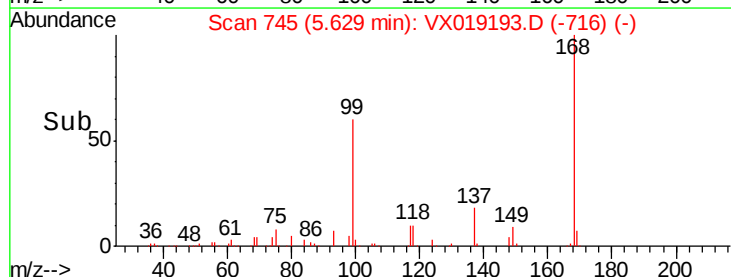
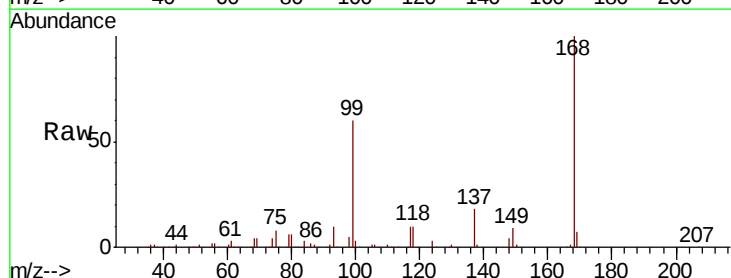
Tgt Ion: 117 Resp: 30882

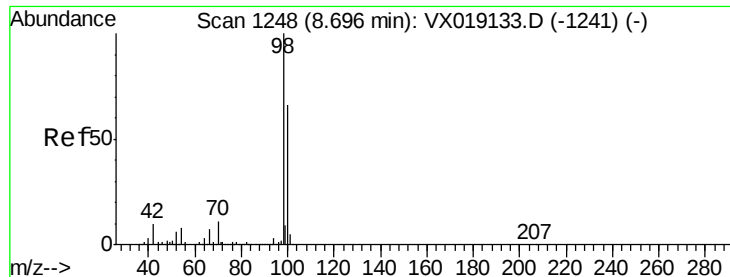
Ion Ratio Lower Upper

117 100

119 3.9 75.0 112.6#

121 0.0 23.9 35.9#





#50

Toluene-d8

Concen: 52.073 ug/l

RT: 8.70 min Scan# 1248

Delta R.T. 0.00 min

Lab File: VX019193.D

Acq: 29 Oct 2020 17:18

Instrument :

MSVOA\_X

ClientSampleId :

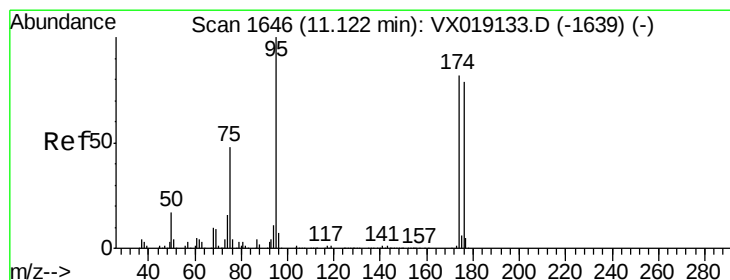
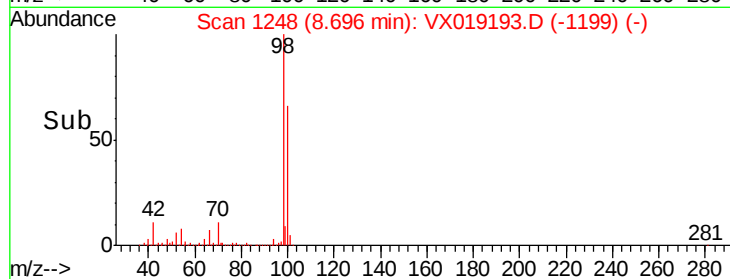
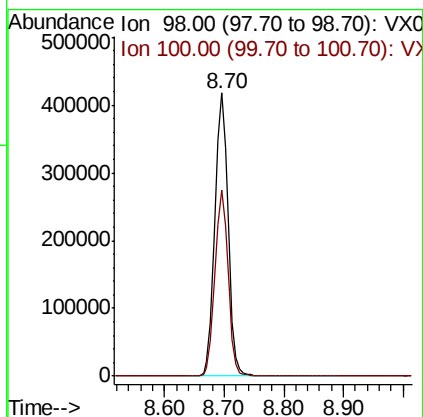
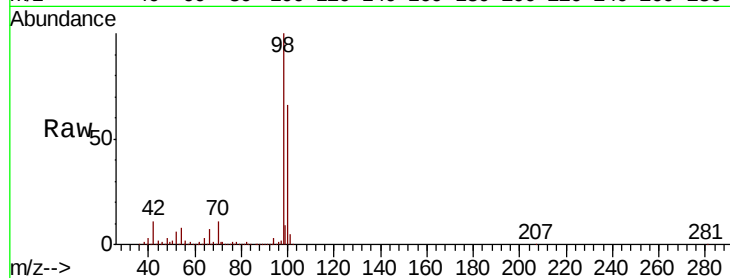
BP-TB-20201015RE

Tot Ion: 98 Resp: 634180

Ion Ratio Lower Upper

98 100

100 65.4 53.0 79.6



#62

4-Bromofluorobenzene

Concen: 53.176 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. 0.00 min

Lab File: VX019193.D

Acq: 29 Oct 2020 17:18

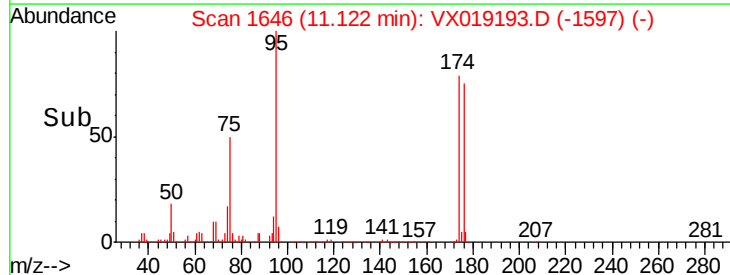
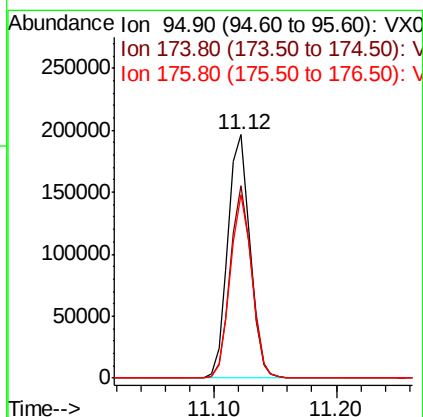
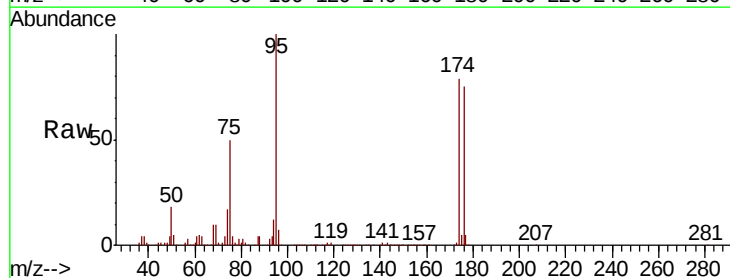
Tgt Ion: 95 Resp: 245256

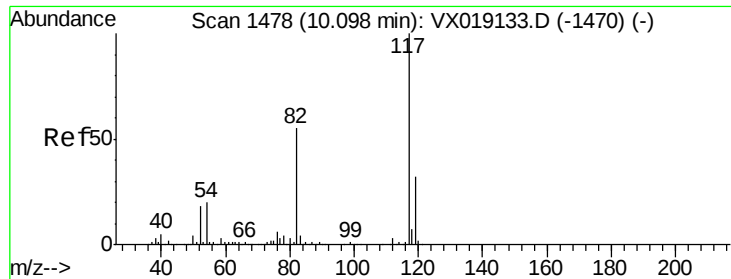
Ion Ratio Lower Upper

95 100

174 76.6 0.0 156.0

176 73.5 0.0 149.8

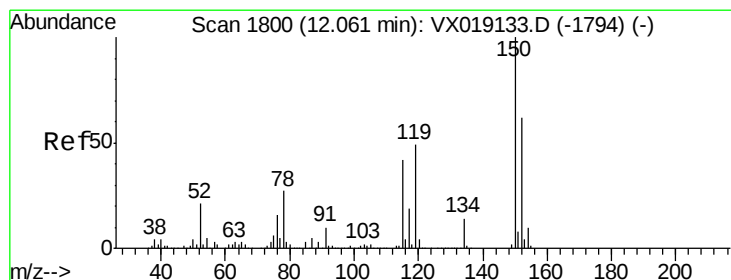
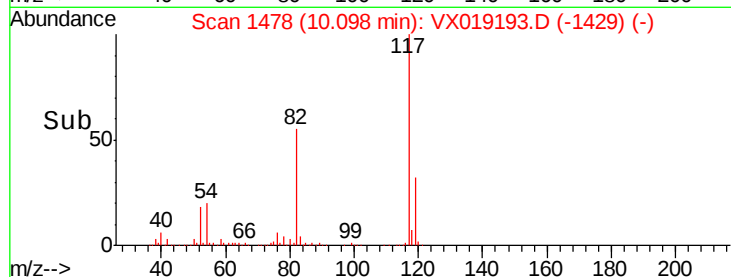
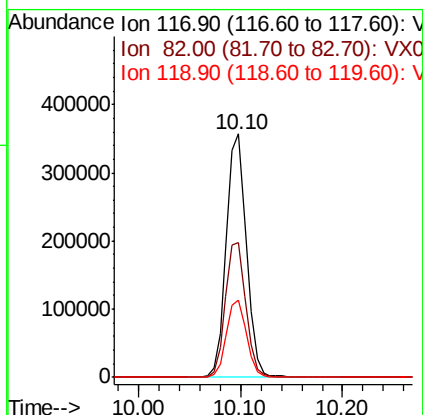
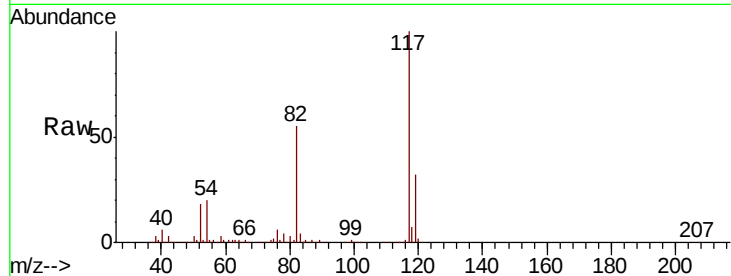




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.10 min Scan# 1478  
Delta R.T. 0.00 min  
Lab File: VX019133.D  
Acq: 29 Oct 2020 17:18

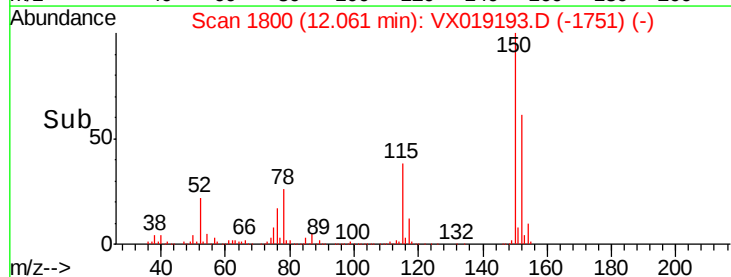
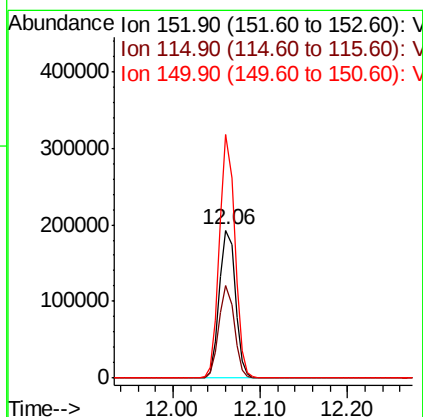
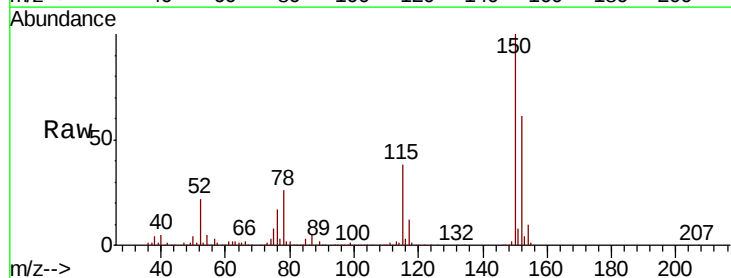
Instrument :  
MSVOA\_X  
ClientSampleId :  
BP-TB-20201015RE

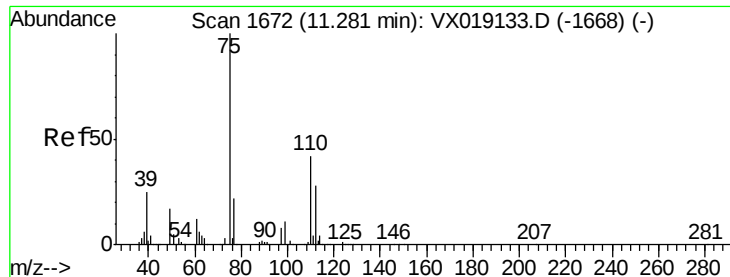
Tot Ion:117 Resp: 486082  
Ion Ratio Lower Upper  
117 100  
82 55.2 43.6 65.4  
119 31.8 25.5 38.3



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.06 min Scan# 1800  
Delta R.T. 0.00 min  
Lab File: VX019133.D  
Acq: 29 Oct 2020 17:18

Tgt Ion:152 Resp: 243143  
Ion Ratio Lower Upper  
152 100  
115 60.1 41.9 125.7  
150 157.8 0.0 347.8





#76

1,2,3-Trichloropropane

Concen: 24.843 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.16 min

Lab File: VX019193.D

Acq: 29 Oct 2020 17:18

Instrument :

MSVOA\_X

ClientSampleId :

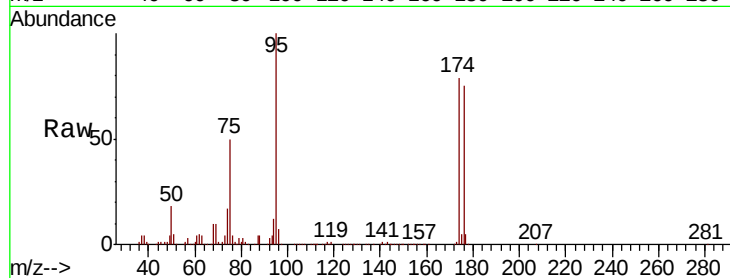
BP-TB-20201015RE

Tot Ion: 75 Resp: 124720

Ion Ratio Lower Upper

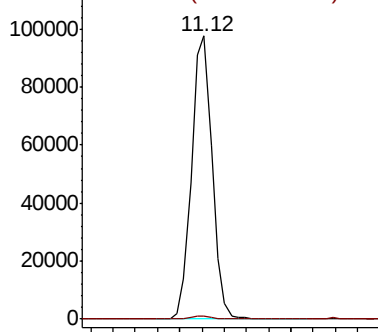
75 100

77 1.1 20.3 60.9#

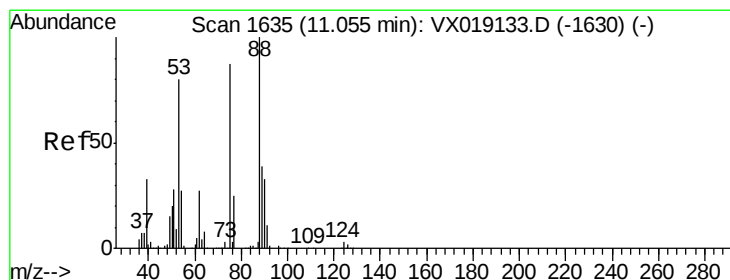
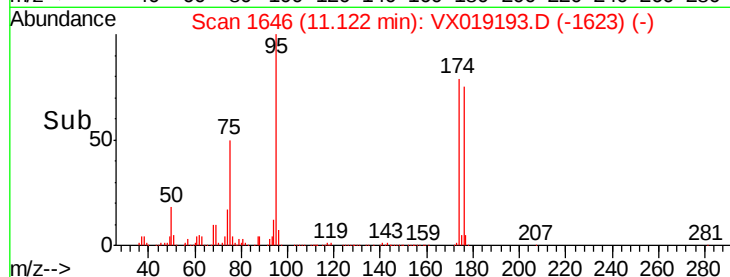


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0



Time-->



#81

trans-1,4-Dichloro-2-butene

Concen: 65.411 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. 0.07 min

Lab File: VX019193.D

Acq: 29 Oct 2020 17:18

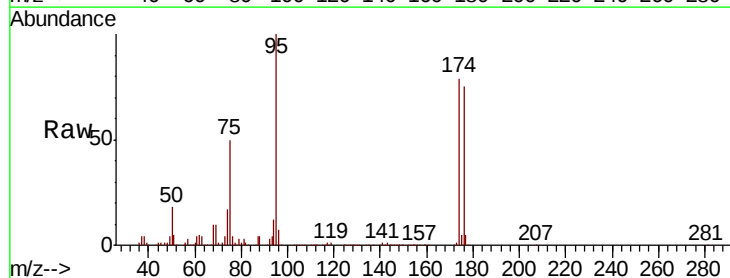
Tgt Ion: 75 Resp: 124720

Ion Ratio Lower Upper

75 100

53 0.0 73.3 109.9#

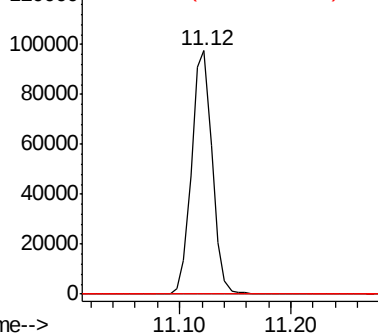
89 0.0 38.2 57.2#



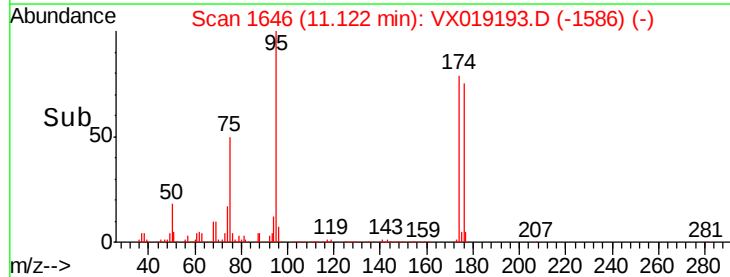
Abundance Ion 74.90 (74.60 to 75.60): VX0

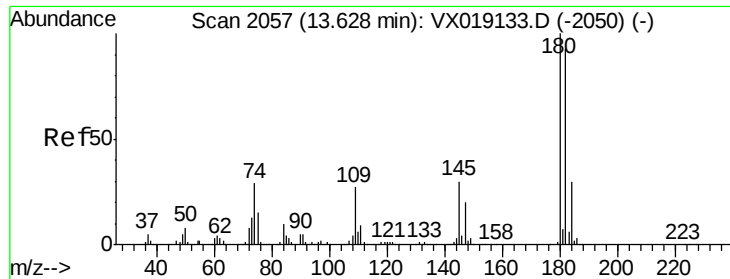
Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0



Time-->

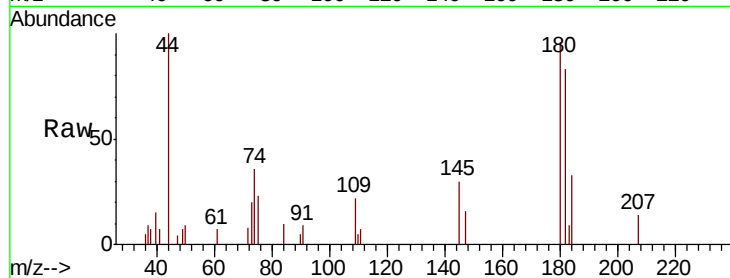




#93  
 1,2,4-Trichlorobenzene  
 Concen: 0.233 ug/l  
 RT: 13.63 min Scan# 2057  
 Delta R.T. 0.00 min  
 Lab File: VX019133.D  
 Acq: 29 Oct 2020 17:18

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 BP-TB-20201015RE

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 92.4  | 46.8  | 140.3 |
| 145     | 29.6  | 15.5  | 46.5  |

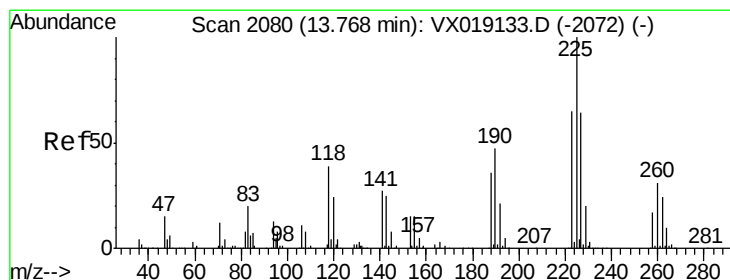
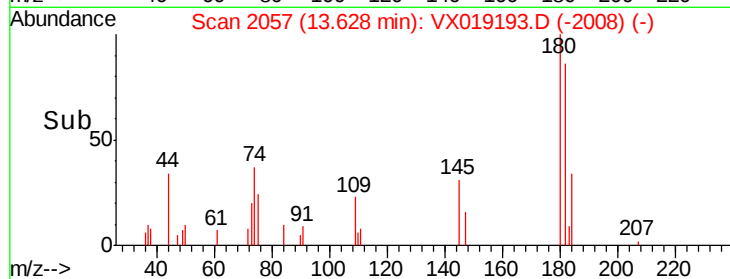
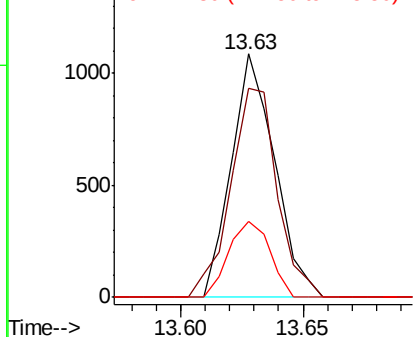


Abundance

Ion 179.80 (179.50 to 180.50): V

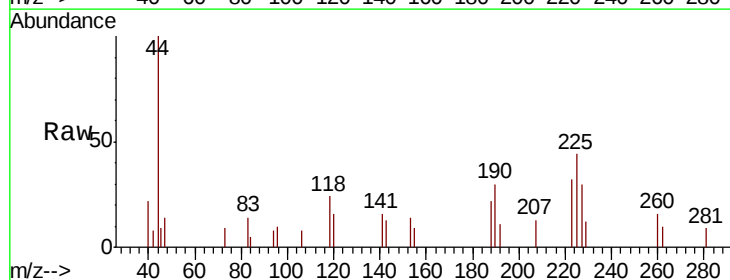
Ion 181.80 (181.50 to 182.50): V

Ion 144.80 (144.50 to 145.50): V



#94  
 Hexachlorobutadiene  
 Concen: 0.215 ug/l  
 RT: 13.76 min Scan# 2079  
 Delta R.T. -0.01 min  
 Lab File: VX019133.D  
 Acq: 29 Oct 2020 17:18

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 68.4  | 32.4  | 97.2  |
| 227     | 71.0  | 31.6  | 94.7  |

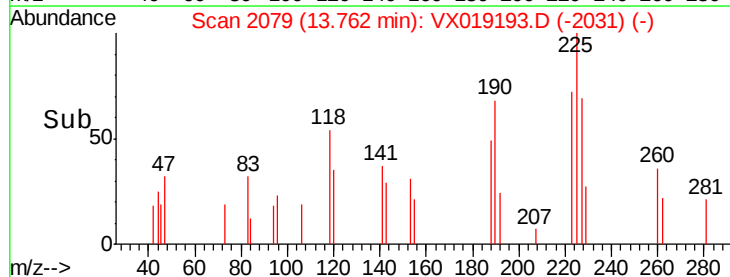
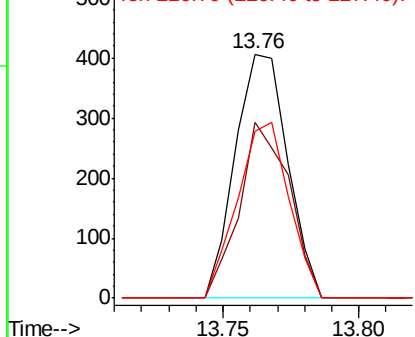


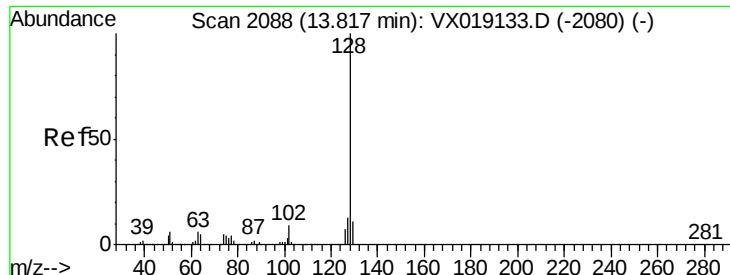
Abundance

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

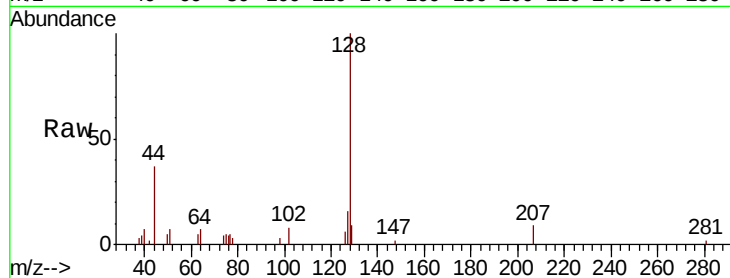




#95  
 Naphthalene  
 Concen: 0.201 ug/l  
 RT: 13.82 min Scan# 2089  
 Delta R.T. 0.01 min  
 Lab File: VX019193.D  
 Acq: 29 Oct 2020 17:18

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 BP-TB-20201015RE

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 12.9  | 10.3  | 15.5  |
| 129     | 9.7   | 8.6   | 13.0  |



Abundance

Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

