

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX073020\  
 Data File : VX017680.D  
 Acq On : 30 Jul 2020 13:40  
 Operator : JC/SP  
 Sample : L3514-06  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 PK-101

Quant Time: Jul 31 05:33:54 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

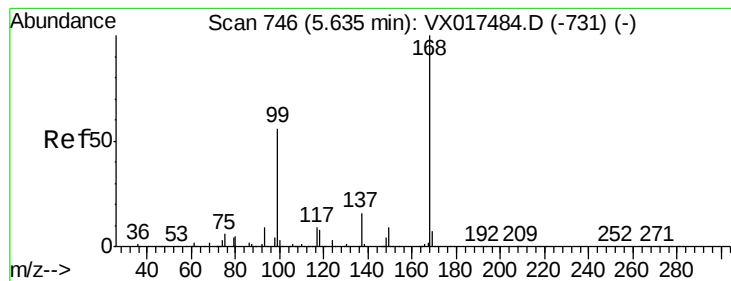
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.63  | 168  | 476267   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.84  | 114  | 766590   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 825512   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 426432   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.04  | 65   | 325596   | 53.22 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 106.44% |          |
| 35) Dibromofluoromethane    | 5.47  | 113  | 266375   | 51.96 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.92% |          |
| 50) Toluene-d8              | 8.70  | 98   | 947954   | 51.25 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 102.50% |          |
| 62) 4-Bromofluorobenzene    | 11.12 | 95   | 422415   | 57.07 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 114.14% |          |

| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 2) Dichlorodifluoromethane     | 1.18  | 85   | 610      | Below Cal | #      | 42     |
| 3) Chloromethane               | 1.32  | 50   | 1647     | 0.645     | ug/l # | 53     |
| 4) Vinyl Chloride              | 1.39  | 62   | 1592     | 0.266     | ug/l # | 54     |
| 5) Bromomethane                | 1.61  | 94   | 274      | Below Cal | #      | 3      |
| 6) Chloroethane                | 1.70  | 64   | 208      | Below Cal | #      | 44     |
| 8) Diethyl Ether               | 2.18  | 74   | 2100     | Below Cal |        | 95     |
| 11) Tert butyl alcohol         | 3.01  | 59   | 2002     | 1.553     | ug/l # | 62     |
| 13) Acrolein                   | 2.25  | 56   | 384      | 4.532     | ug/l # | 60     |
| 15) Acrylonitrile              | 3.12  | 53   | 864      | 0.310     | ug/l # | 28     |
| 16) Acetone                    | 2.42  | 43   | 2792     | 1.037     | ug/l   | 93     |
| 18) Methyl Acetate             | 2.74  | 43   | 1464     | 0.231     | ug/l # | 66     |
| 19) Methyl tert-butyl Ether    | 3.18  | 73   | 5726     | 0.336     | ug/l # | 84     |
| 20) Methylene Chloride         | 2.84  | 84   | 1784     | Below Cal | #      | 70     |
| 24) 1,1-Dichloroethane         | 3.67  | 63   | 2741     | 0.290     | ug/l # | 50     |
| 29) Tetrahydrofuran            | 5.10  | 42   | 2460     | 1.038     | ug/l # | 59     |
| 31) Cyclohexane                | 5.63  | 56   | 9836     | 1.304     | ug/l # | 16     |
| 36) 1,1-Dichloropropene        | 5.63  | 75   | 34439    | 4.684     | ug/l # | 41     |
| 38) Carbon Tetrachloride       | 5.63  | 117  | 48254    | 5.405     | ug/l # | 17     |
| 49) 1,4-Dioxane                | 7.72  | 88   | 1699     | 13.469    | ug/l # | 93     |
| 65) Chlorobenzene              | 10.12 | 112  | 34822    | 1.949     | ug/l   | 96     |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75   | 215424   | 24.558    | ug/l # | 34     |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75   | 215424   | 61.882    | ug/l # | 12     |
| 91) 1,2-Dichlorobenzene        | 12.38 | 146  | 3343     | 0.242     | ug/l   | 96     |
| 92) 1,2-Dibromo-3-Chloropropan | 12.97 | 75   | 421      | 2.731     | ug/l # | 28     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.63 min Scan# 746

Delta R.T. -0.00 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

Instrument :

MSVOA\_X

ClientSampleId :

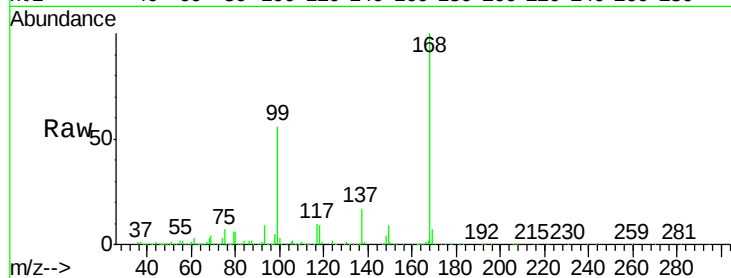
PK-10I

Tot Ion:168 Resp: 476267

Ion Ratio Lower Upper

168 100

99 55.5 43.4 65.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.63

150000

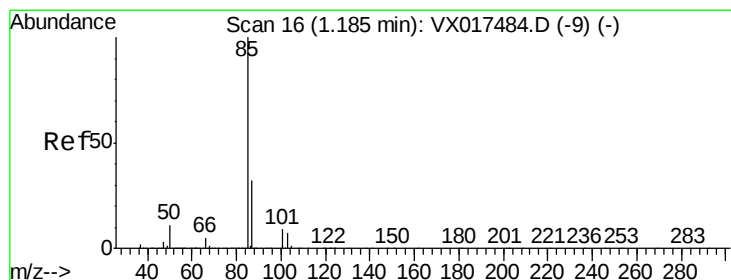
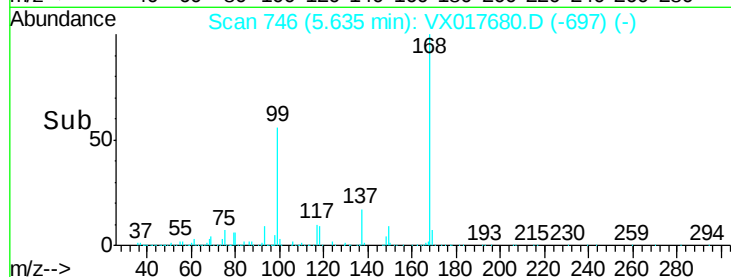
100000

50000

0

Time-->

5.50 5.60 5.70



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 1.18 min Scan# 15

Delta R.T. -0.01 min

Lab File: VX017680.D

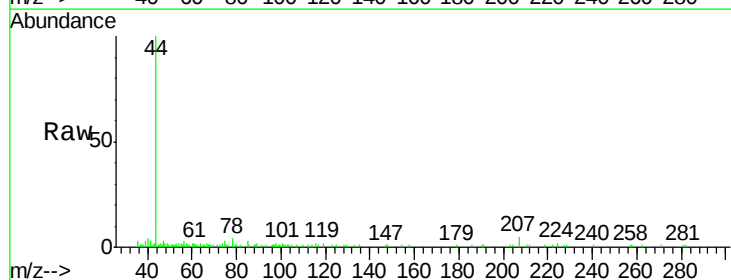
Acq: 30 Jul 2020 13:40

Tgt Ion: 85 Resp: 610

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

500

400

300

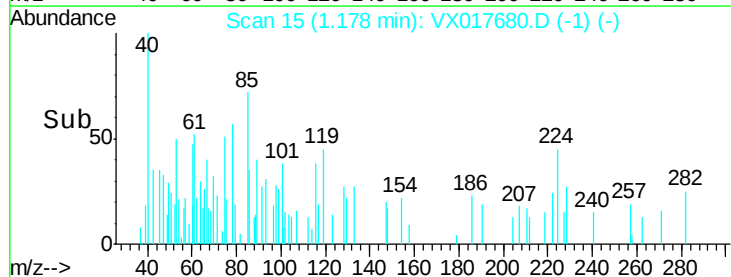
200

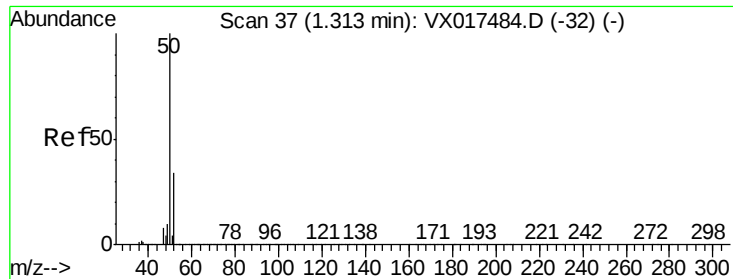
100

0

Time-->

1.16 1.18 1.20 1.22





#3

Chloromethane

Concen: 0.645 ug/l

RT: 1.32 min Scan# 38

Delta R.T. 0.01 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

Instrument :

MSVOA\_X

ClientSampleId :

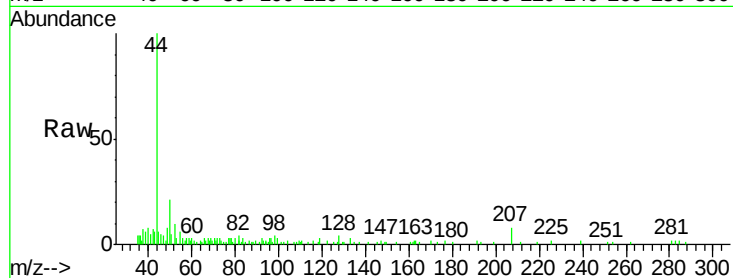
PK-10I

Tot Ion: 50 Resp: 1647

Ion Ratio Lower Upper

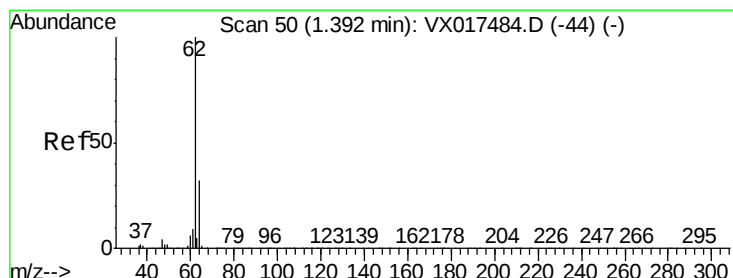
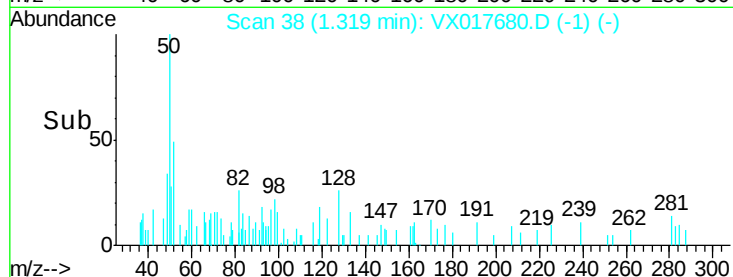
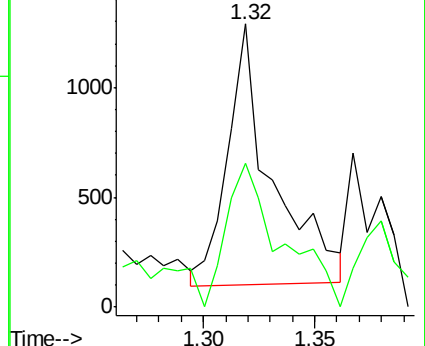
50 100

52 58.5 25.9 38.9#



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0



#4

Vinyl Chloride

Concen: 0.266 ug/l

RT: 1.39 min Scan# 50

Delta R.T. -0.00 min

Lab File: VX017680.D

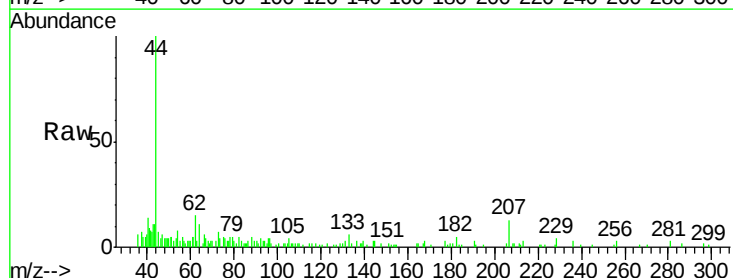
Acq: 30 Jul 2020 13:40

Tgt Ion: 62 Resp: 1592

Ion Ratio Lower Upper

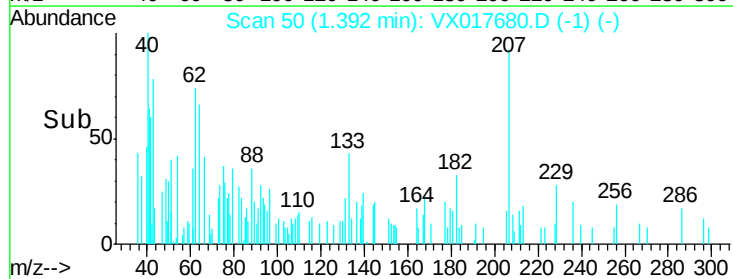
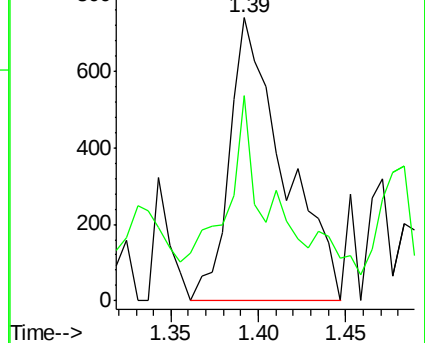
62 100

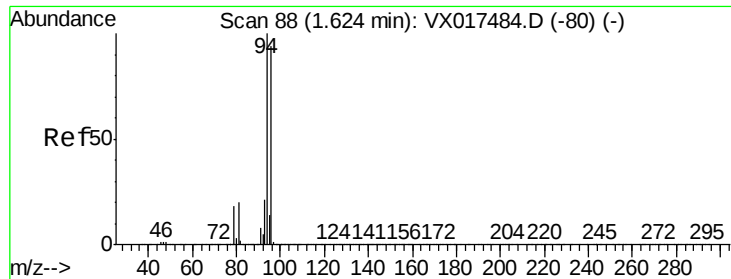
64 57.0 25.2 37.8#



Abundance Ion 61.90 (61.60 to 62.60): VX0

Ion 63.90 (63.60 to 64.60): VX0





#5

Bromomethane

Concen: Below Cal

RT: 1.61 min Scan# 85

Delta R.T. -0.02 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

Instrument :

MSVOA\_X

ClientSampled :

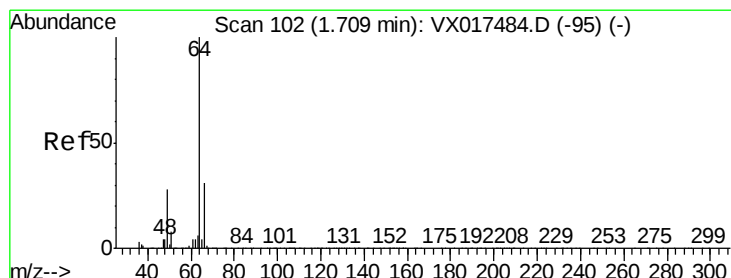
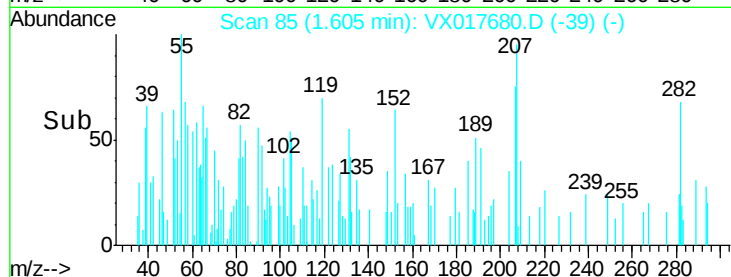
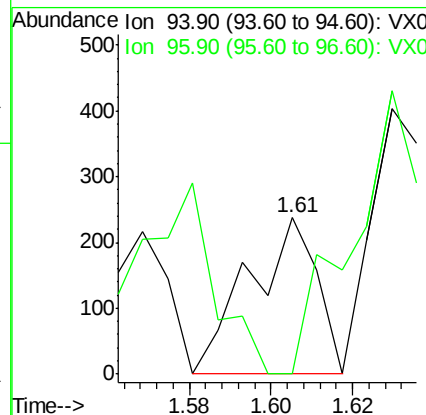
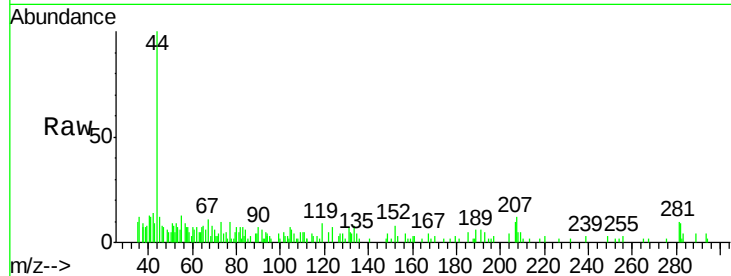
PK-10I

Tot Ion: 94 Resp: 274

Ion Ratio Lower Upper

94 100

96 0.0 74.1 111.1#



#6

Chloroethane

Concen: Below Cal

RT: 1.70 min Scan# 101

Delta R.T. -0.01 min

Lab File: VX017680.D

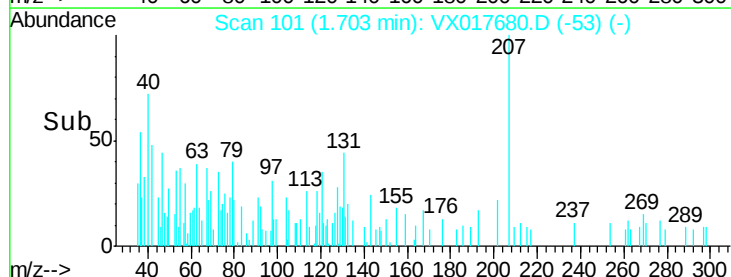
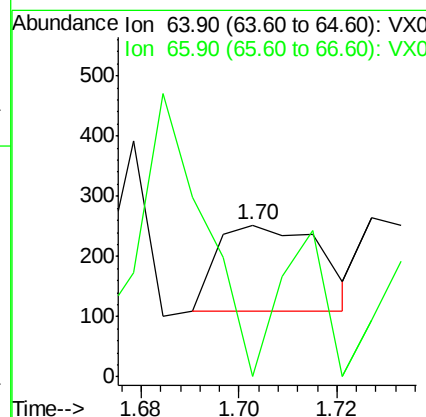
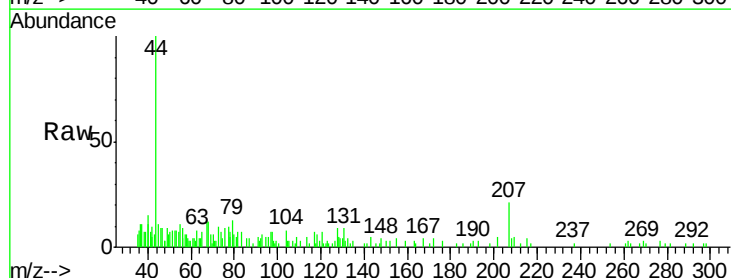
Acq: 30 Jul 2020 13:40

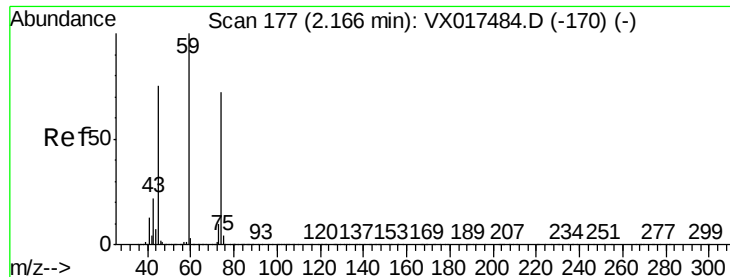
Tgt Ion: 64 Resp: 208

Ion Ratio Lower Upper

64 100

66 0.0 24.9 37.3#





#8

Diethyl Ether

Concen: Below Cal

RT: 2.18 min Scan# 179

Delta R.T. 0.01 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

Instrument :

MSVOA\_X

ClientSampleId :

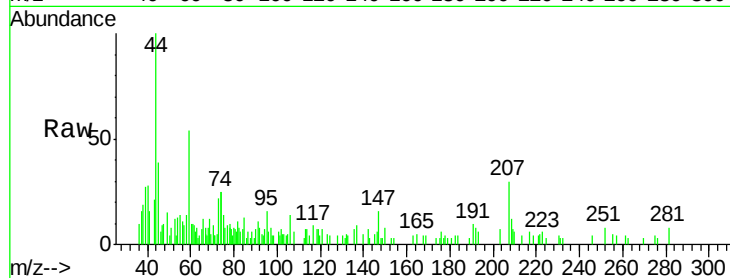
PK-10I

Tot Ion: 74 Resp: 2100

Ion Ratio Lower Upper

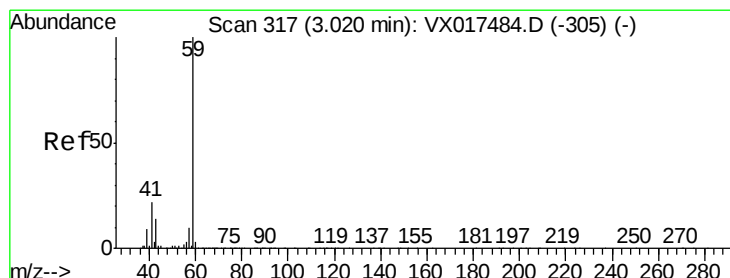
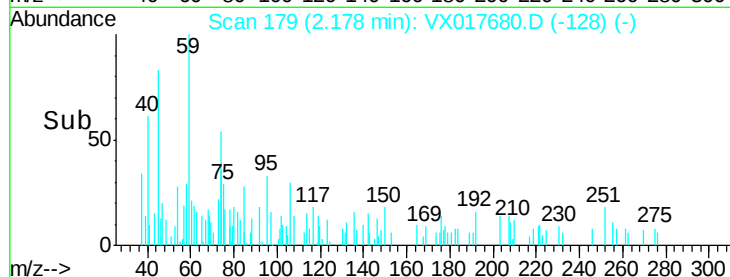
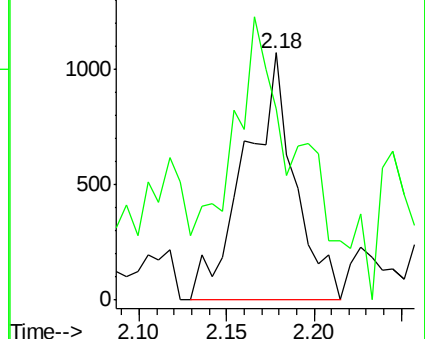
74 100

45 106.3 50.8 152.5



Abundance Ion 74.00 (73.70 to 74.70): VX0

Ion 45.00 (44.70 to 45.70): VX0



#11

Tert butyl alcohol

Concen: 1.553 ug/l

RT: 3.01 min Scan# 315

Delta R.T. -0.01 min

Lab File: VX017680.D

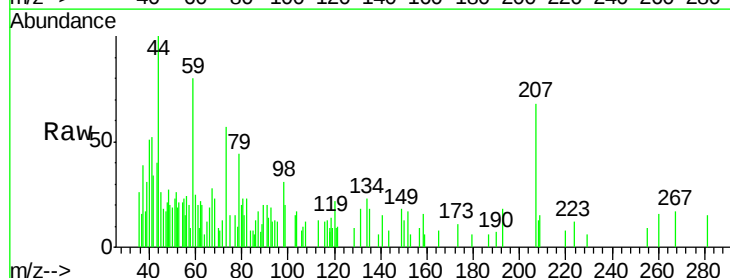
Acq: 30 Jul 2020 13:40

Tgt Ion: 59 Resp: 2002

Ion Ratio Lower Upper

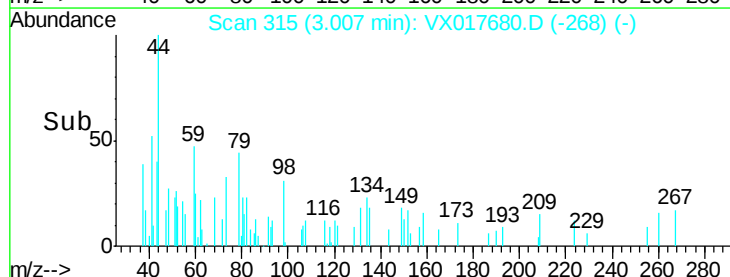
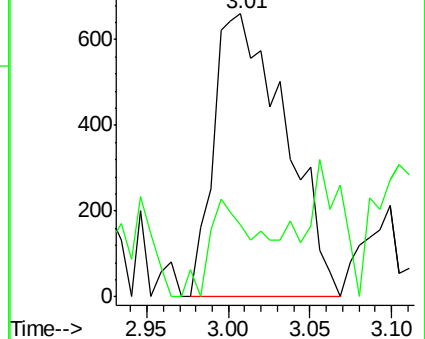
59 100

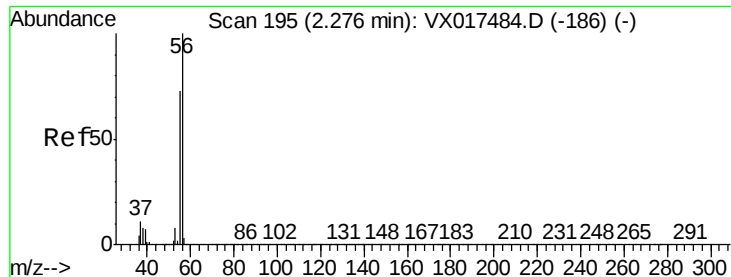
57 25.0 8.6 12.8#



Abundance Ion 59.00 (58.70 to 59.70): VX0

Ion 57.00 (56.70 to 57.70): VX0





#13

Acrolein

Concen: 4.532 ug/l

RT: 2.25 min Scan# 191

Delta R.T. -0.02 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

Instrument :

MSVOA\_X

ClientSampled :

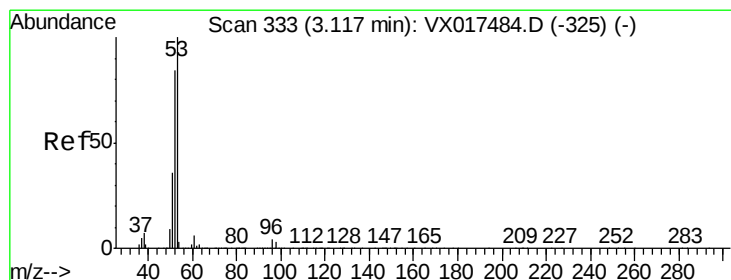
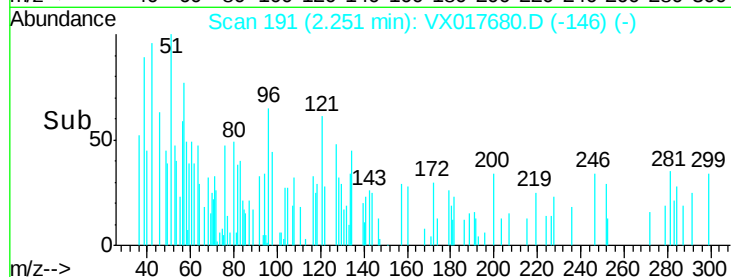
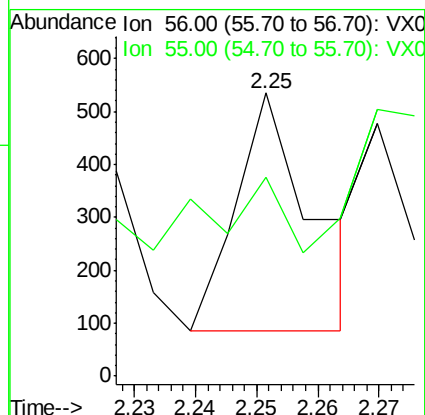
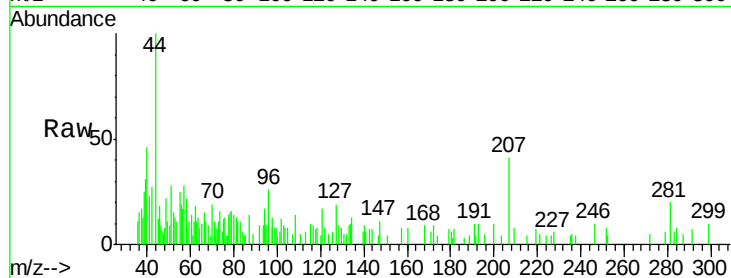
PK-10I

Tot Ion: 56 Resp: 384

Ion Ratio Lower Upper

56 100

55 38.3 57.4 86.2#



#15

Acrylonitrile

Concen: 0.310 ug/l

RT: 3.12 min Scan# 334

Delta R.T. 0.01 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

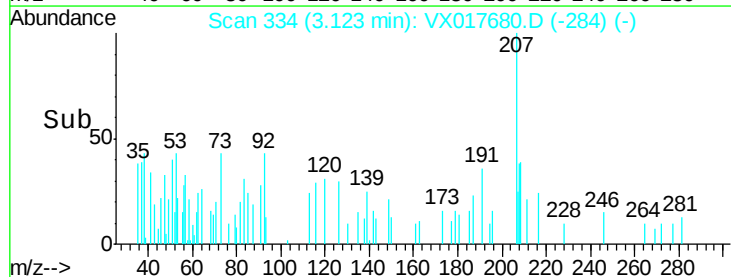
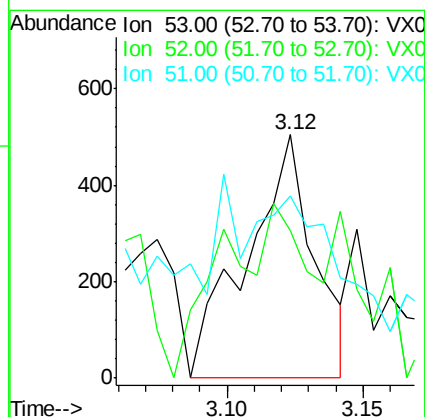
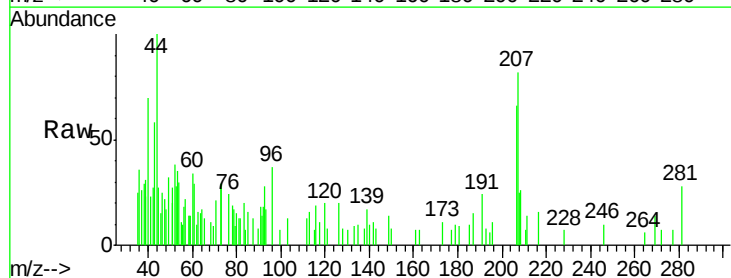
Tgt Ion: 53 Resp: 864

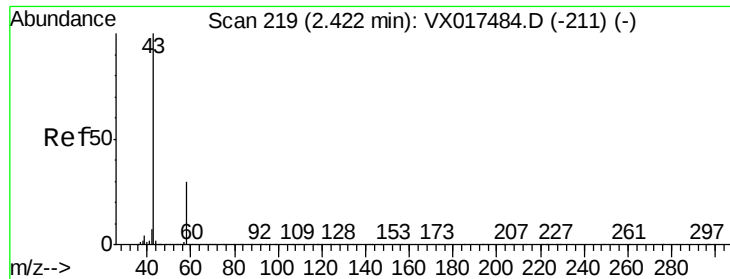
Ion Ratio Lower Upper

53 100

52 14.0 66.6 99.8#

51 0.0 29.4 44.2#

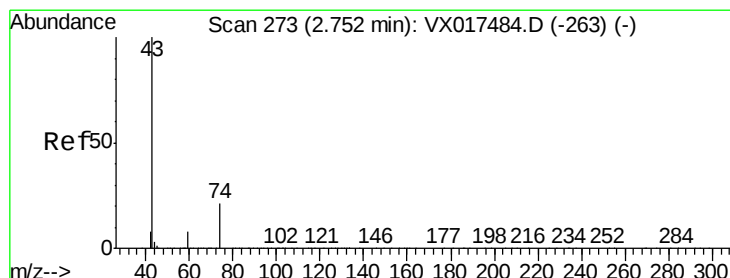
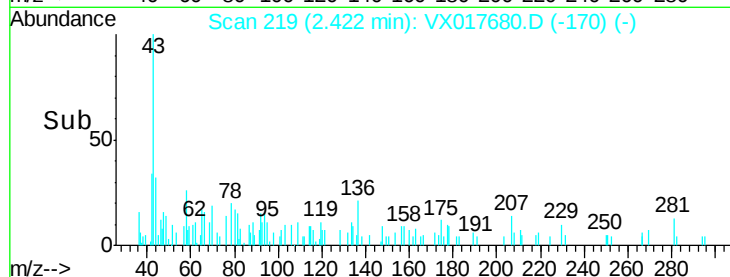
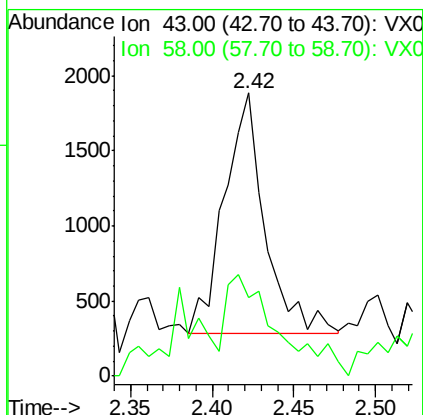
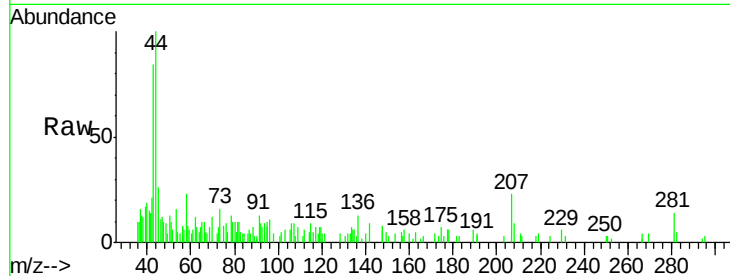




#16  
Acetone  
Concen: 1.037 ug/l  
RT: 2.42 min Scan# 219  
Delta R.T. -0.00 min  
Lab File: VX017680.D  
Acq: 30 Jul 2020 13:40

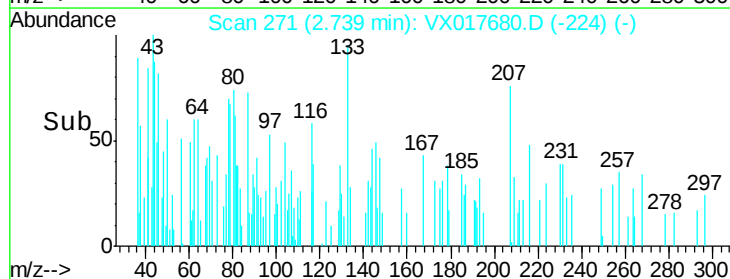
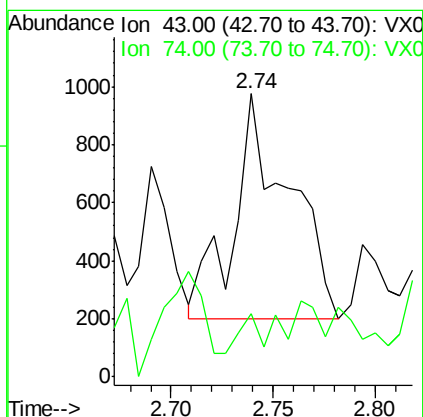
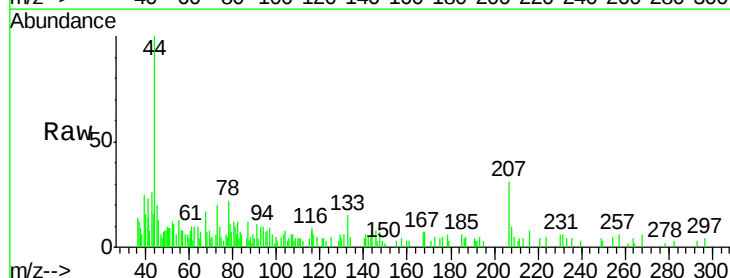
Instrument :  
MSVOA\_X  
ClientSampleId :  
PK-101

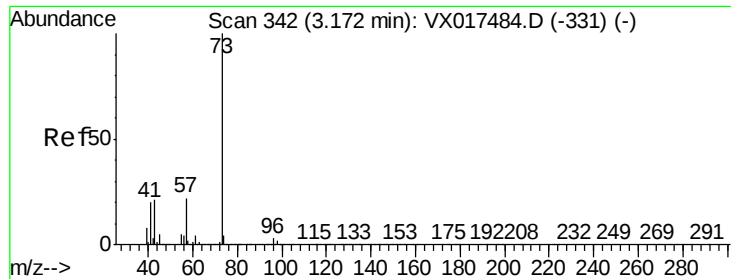
Tot Ion: 43 Resp: 2792  
Ion Ratio Lower Upper  
43 100  
58 26.3 24.2 36.4



#18  
Methyl Acetate  
Concen: 0.231 ug/l  
RT: 2.74 min Scan# 271  
Delta R.T. -0.01 min  
Lab File: VX017680.D  
Acq: 30 Jul 2020 13:40

Tgt Ion: 43 Resp: 1464  
Ion Ratio Lower Upper  
43 100  
74 5.6 17.5 26.3#



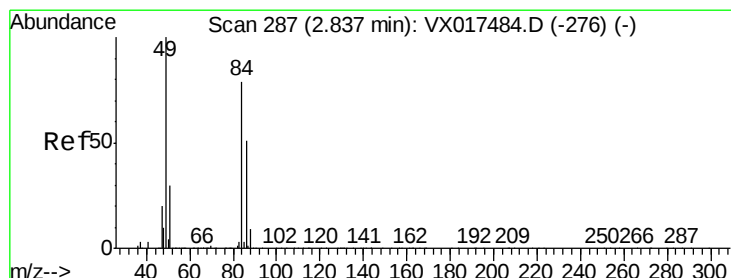
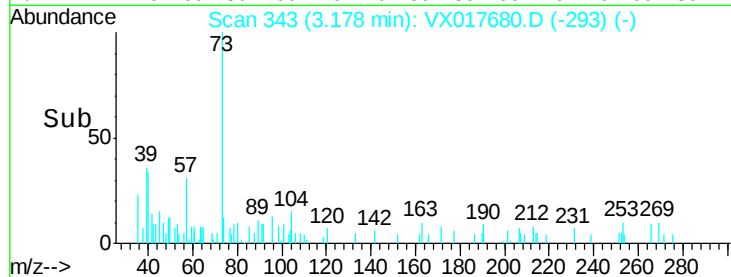
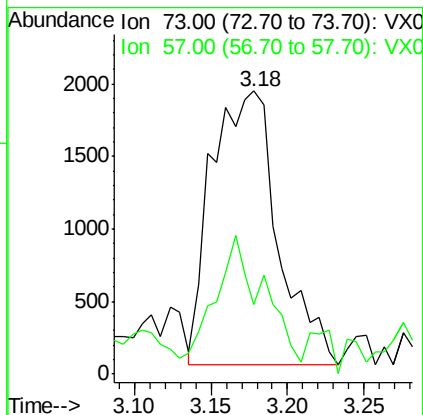
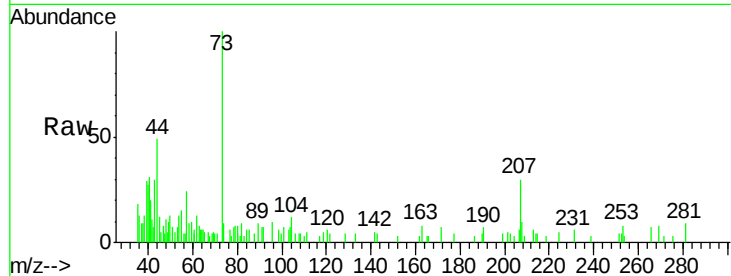


#19

Methyl tert-butyl Ether  
 Concen: 0.336 ug/l  
 RT: 3.18 min Scan# 343  
 Delta R.T. 0.01 min  
 Lab File: VX017680.D  
 Acq: 30 Jul 2020 13:40

Instrument :  
 MSVOA\_X  
 ClientSampled :  
 PK-101

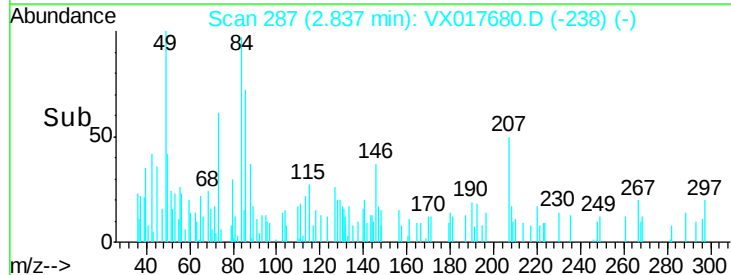
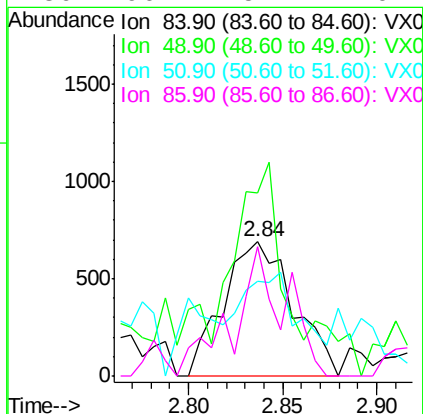
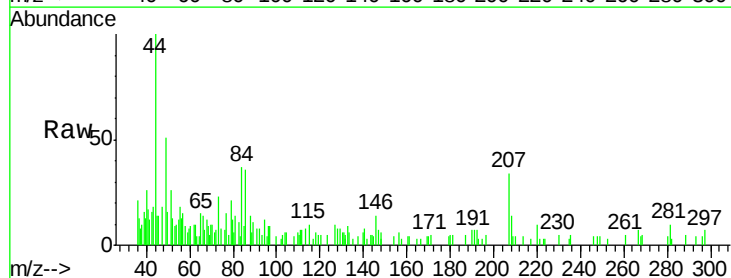
Tot Ion: 73 Resp: 5726  
 Ion Ratio Lower Upper  
 73 100  
 57 13.9 17.0 25.4#

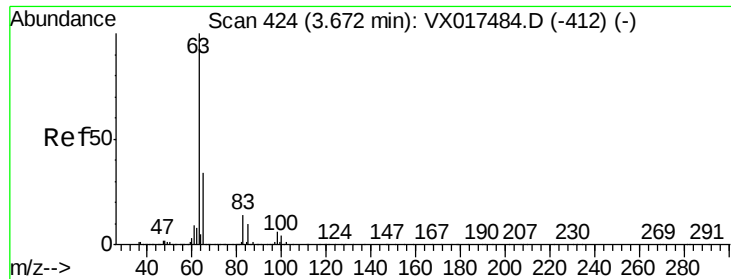


#20

Methylene Chloride  
 Concen: Below Cal  
 RT: 2.84 min Scan# 287  
 Delta R.T. 0.00 min  
 Lab File: VX017680.D  
 Acq: 30 Jul 2020 13:40

Tgt Ion: 84 Resp: 1784  
 Ion Ratio Lower Upper  
 84 100  
 49 153.8 100.3 150.5#  
 51 20.3 30.5 45.7#  
 86 96.4 51.1 76.7#





#24

1,1-Dichloroethane

Concen: 0.290 ug/l

RT: 3.67 min Scan# 424

Delta R.T. -0.00 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

Instrument :

MSVOA\_X

ClientSampleId :

PK-10I

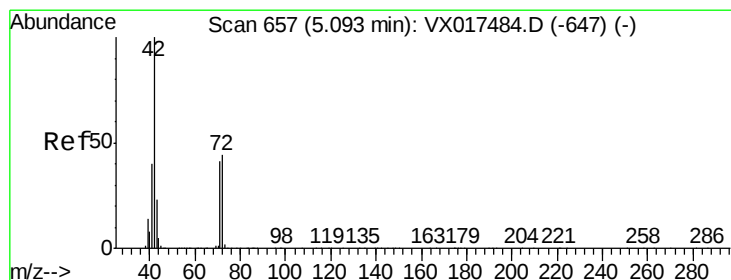
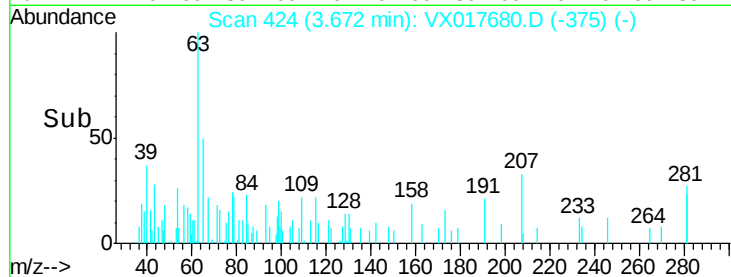
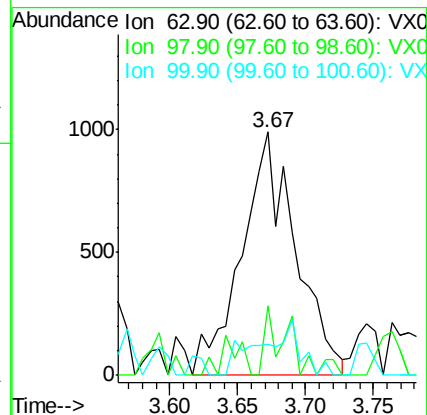
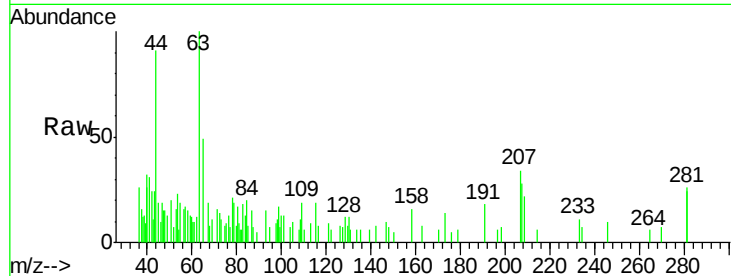
Tot Ion: 63 Resp: 2741

Ion Ratio Lower Upper

63 100

98 28.4 3.4 10.1#

100 12.8 1.9 5.7#



#29

Tetrahydrofuran

Concen: 1.038 ug/l

RT: 5.10 min Scan# 659

Delta R.T. 0.01 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

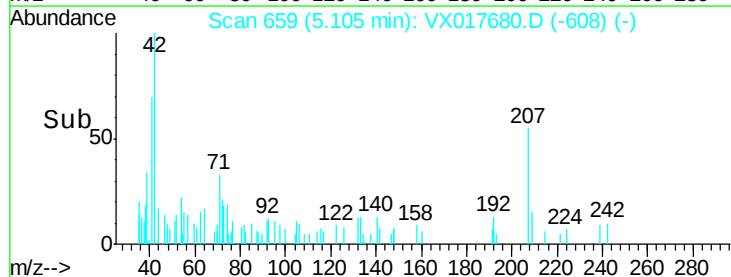
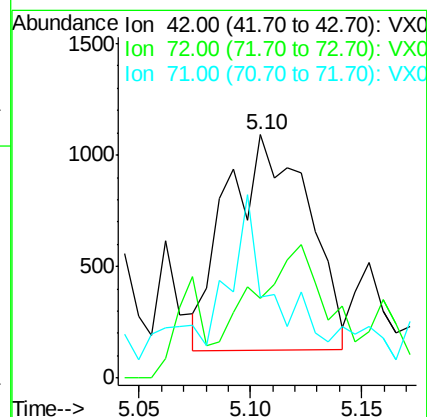
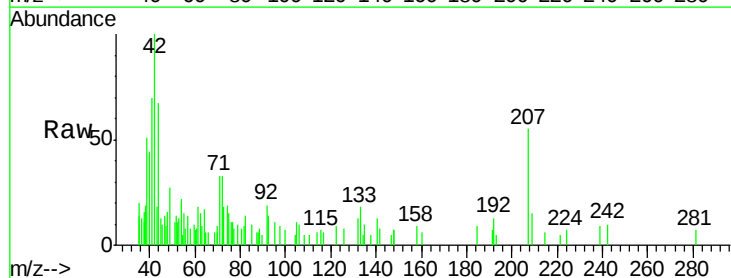
Tgt Ion: 42 Resp: 2460

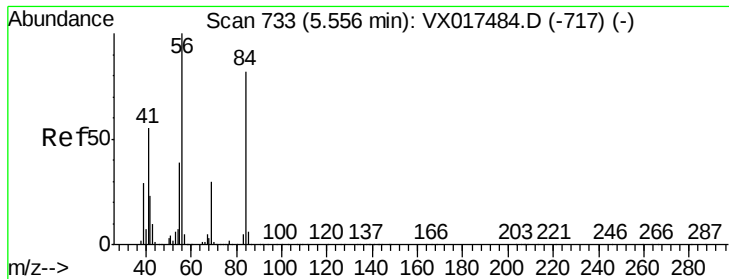
Ion Ratio Lower Upper

42 100

72 0.0 35.5 53.3#

71 48.7 33.0 49.4





#31

Cyclohexane

Concen: 1.304 ug/l

RT: 5.63 min Scan# 745

Delta R.T. 0.07 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

Instrument :

MSVOA\_X

ClientSampled :

PK-10I

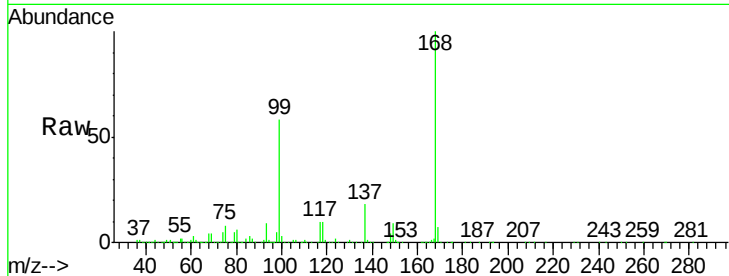
Tot Ion: 56 Resp: 9836

Ion Ratio Lower Upper

56 100

69 169.7 24.2 36.4#

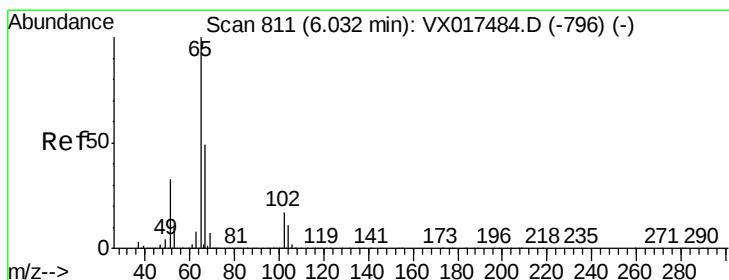
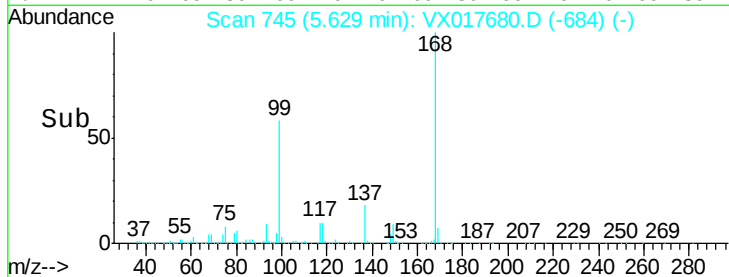
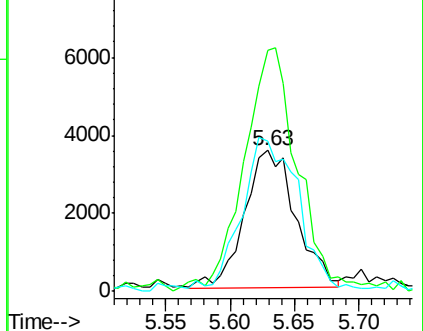
84 108.4 69.0 103.6#



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



#33

1,2-Dichloroethane-d4

Concen: 53.221 ug/l

RT: 6.04 min Scan# 812

Delta R.T. 0.01 min

Lab File: VX017680.D

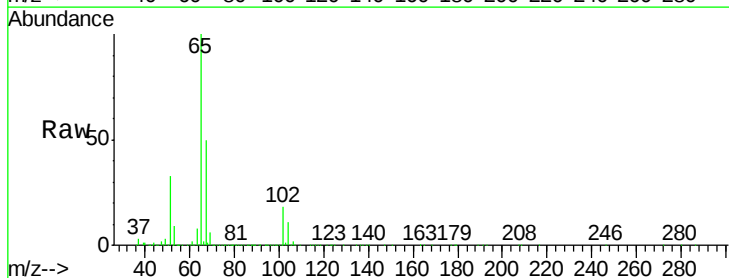
Acq: 30 Jul 2020 13:40

Tgt Ion: 65 Resp: 325596

Ion Ratio Lower Upper

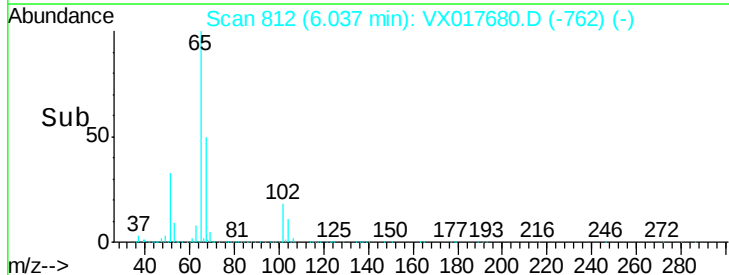
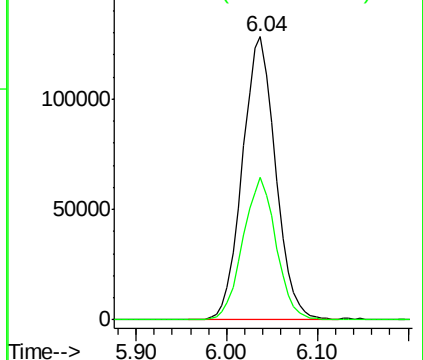
65 100

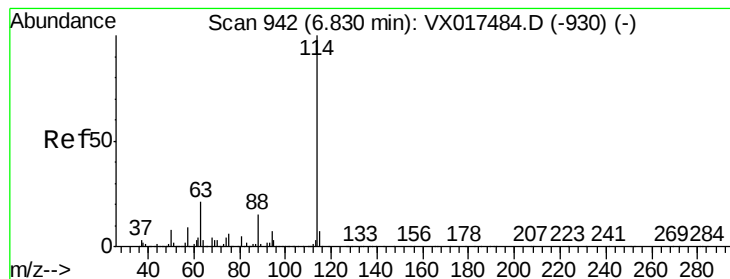
67 50.1 0.0 102.8



Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.84 min Scan# 943

Delta R.T. 0.01 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

Instrument :

MSVOA\_X

ClientSampleId :

PK-10I

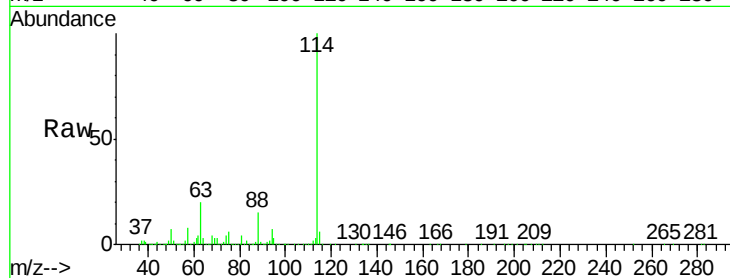
Tot Ion:114 Resp: 766590

Ion Ratio Lower Upper

114 100

63 20.4 0.0 40.6

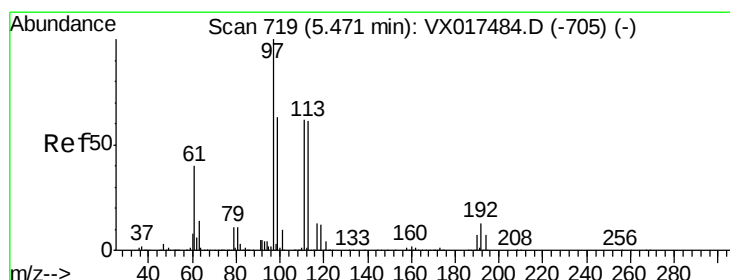
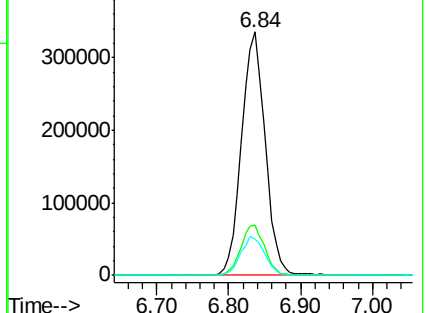
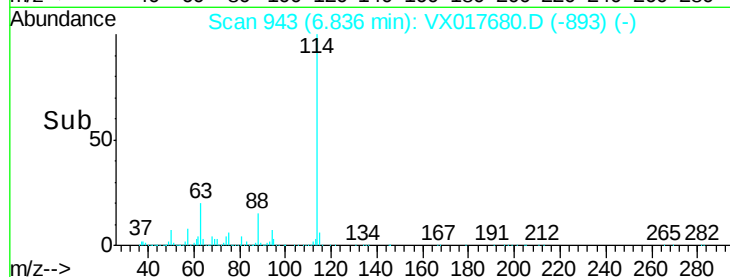
88 14.8 0.0 33.4



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: 51.955 ug/l

RT: 5.47 min Scan# 719

Delta R.T. -0.00 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

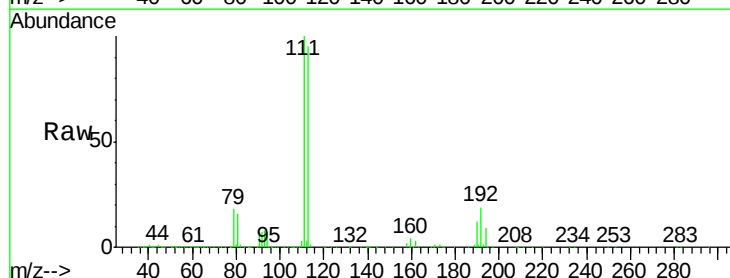
Tgt Ion:113 Resp: 266375

Ion Ratio Lower Upper

113 100

111 104.1 80.7 121.1

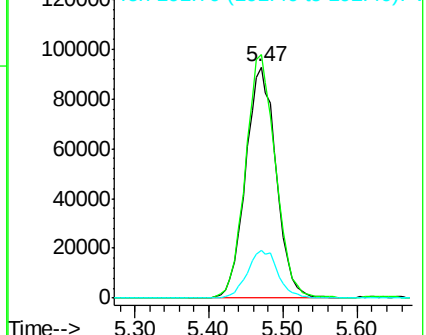
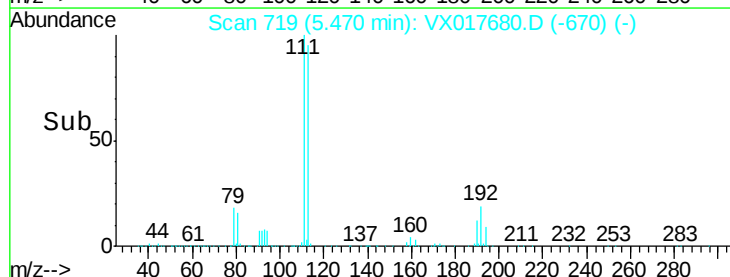
192 21.0 16.9 25.3

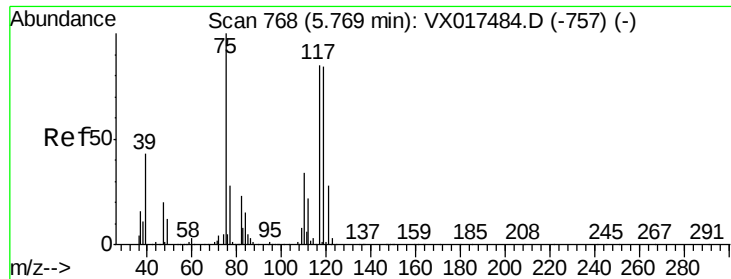


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V





#36

1,1-Dichloropropene

Concen: 4.684 ug/l

RT: 5.63 min Scan# 745

Delta R.T. -0.14 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

Instrument :

MSVOA\_X

ClientSampleId :

PK-10I

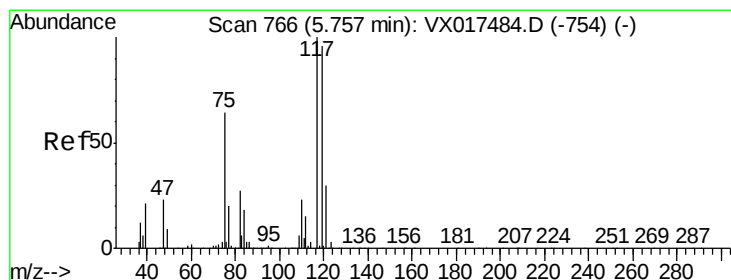
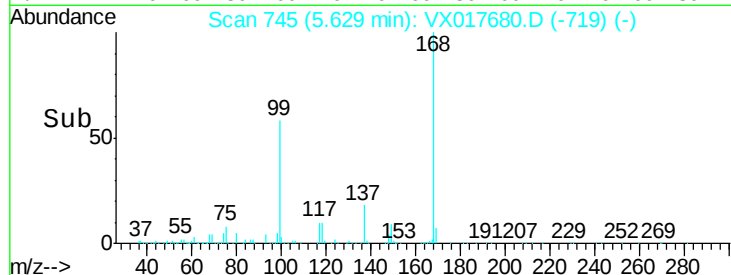
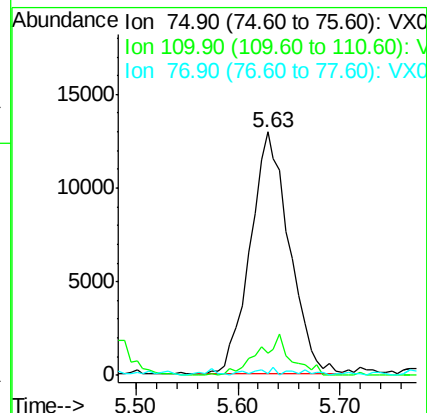
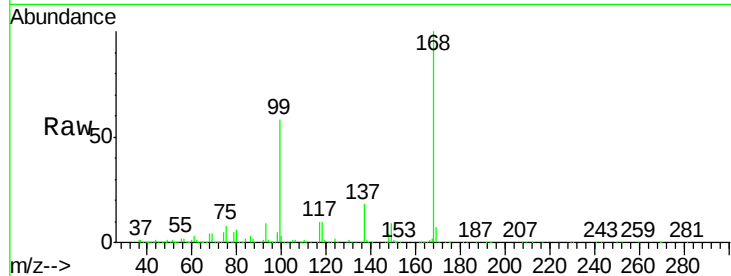
Tot Ion: 75 Resp: 34439

Ion Ratio Lower Upper

75 100

110 0.0 18.1 54.3#

77 0.3 24.6 37.0#



#38

Carbon Tetrachloride

Concen: 5.405 ug/l

RT: 5.63 min Scan# 746

Delta R.T. -0.12 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

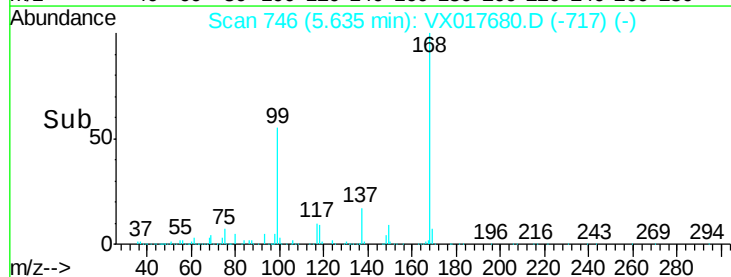
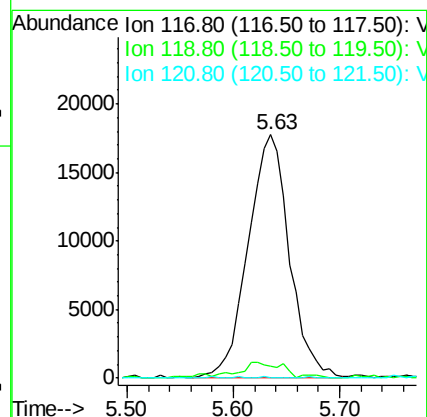
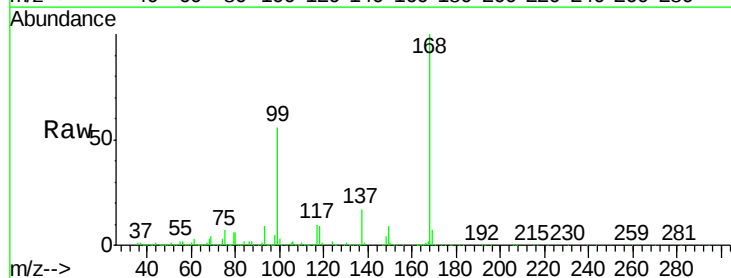
Tgt Ion:117 Resp: 48254

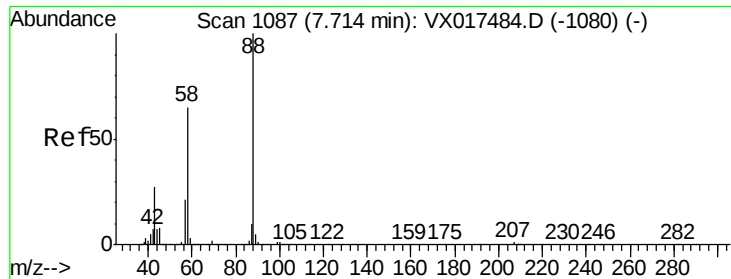
Ion Ratio Lower Upper

117 100

119 5.0 75.4 113.0#

121 0.0 24.3 36.5#





#49

1,4-Dioxane

Concen: 13.469 ug/l

RT: 7.72 min Scan# 1088

Delta R.T. 0.01 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

Instrument :

MSVOA\_X

ClientSampled :

PK-101

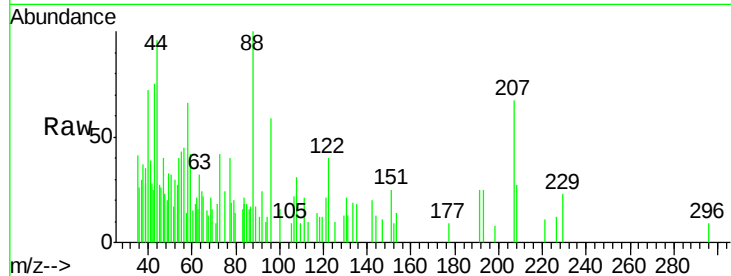
Tot Ion: 88 Resp: 1699

Ion Ratio Lower Upper

88 100

43 22.1 27.8 41.6#

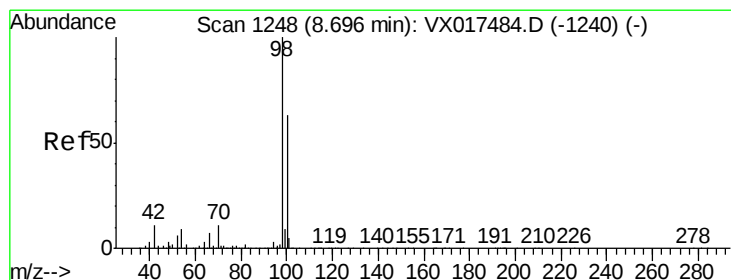
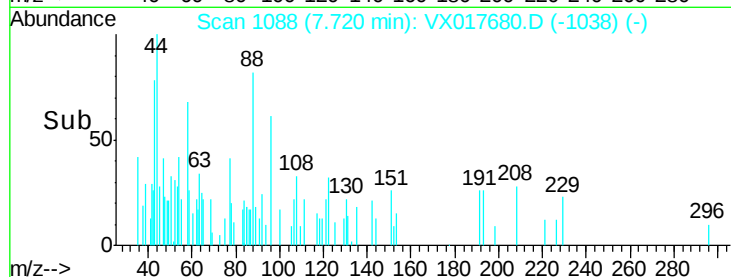
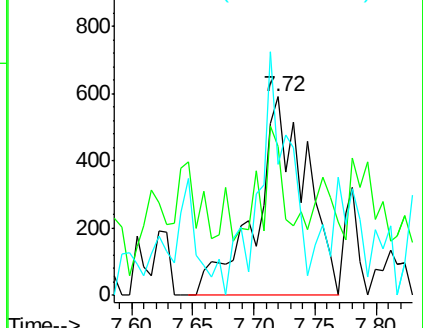
58 73.3 58.3 87.5



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: 51.253 ug/l

RT: 8.70 min Scan# 1248

Delta R.T. -0.00 min

Lab File: VX017680.D

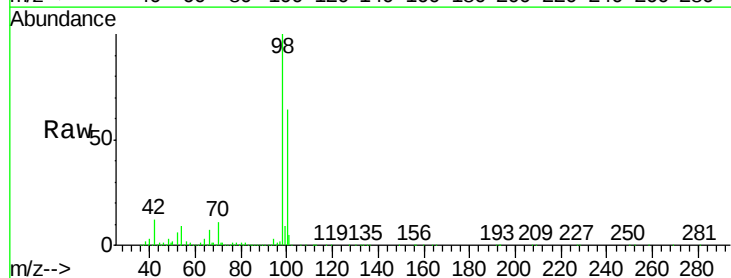
Acq: 30 Jul 2020 13:40

Tgt Ion: 98 Resp: 947954

Ion Ratio Lower Upper

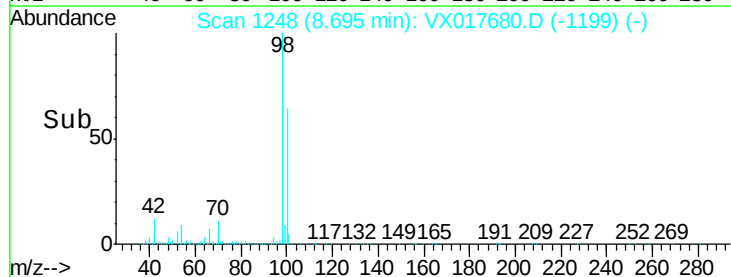
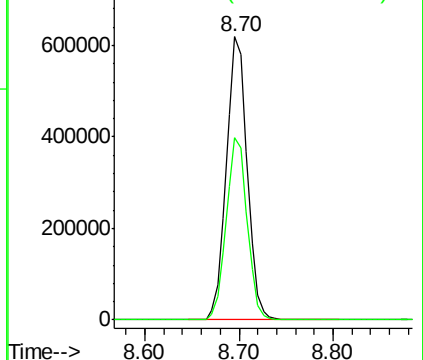
98 100

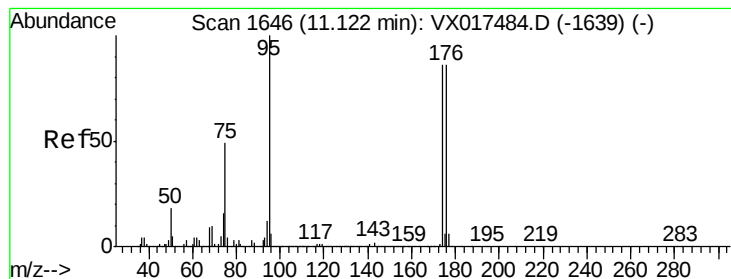
100 64.7 52.3 78.5



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): VX0





#62

4-Bromofluorobenzene

Concen: 57.068 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.00 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

Instrument :

MSVOA\_X

ClientSampleId :

PK-10I

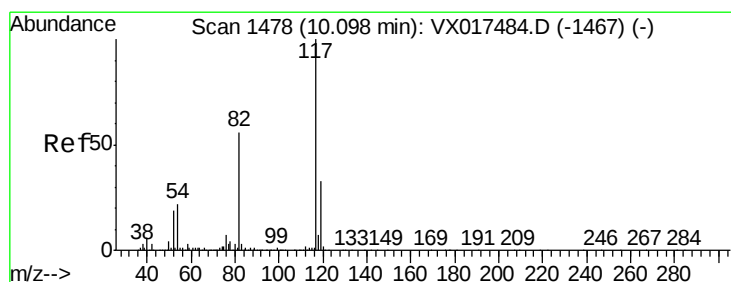
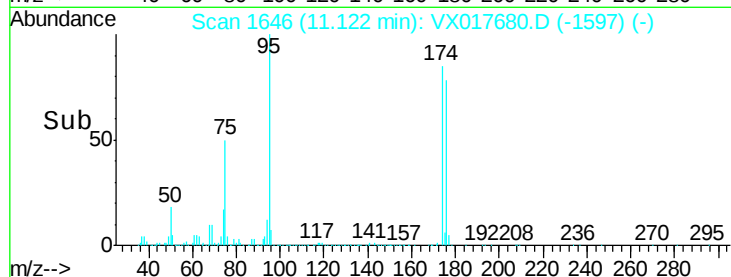
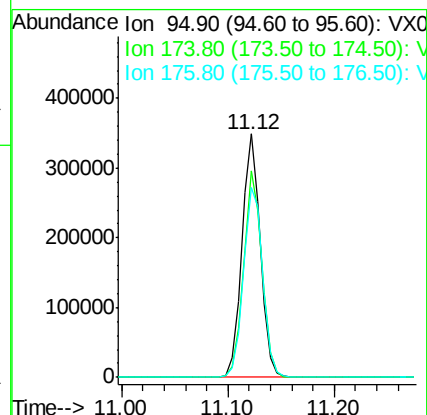
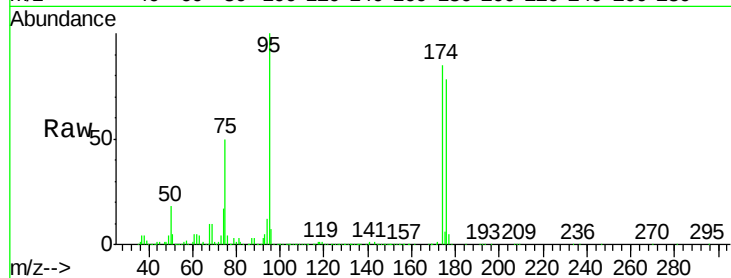
Tot Ion: 95 Resp: 422415

Ion Ratio Lower Upper

95 100

174 84.4 0.0 169.0

176 81.7 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: VX017680.D

Acq: 30 Jul 2020 13:40

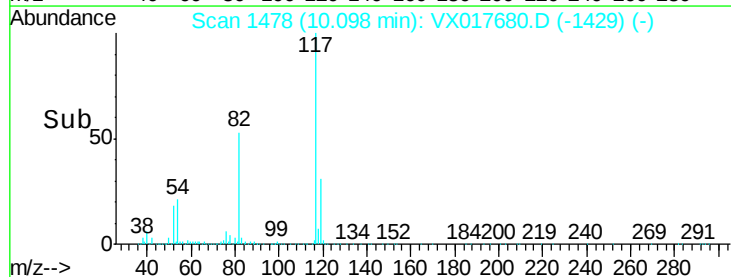
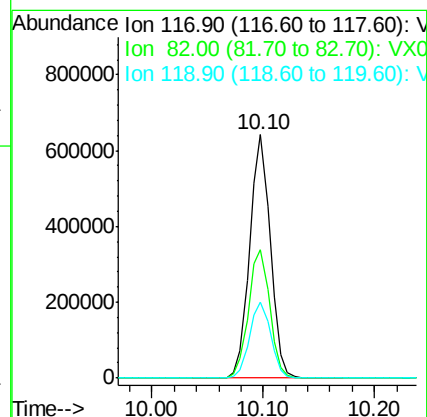
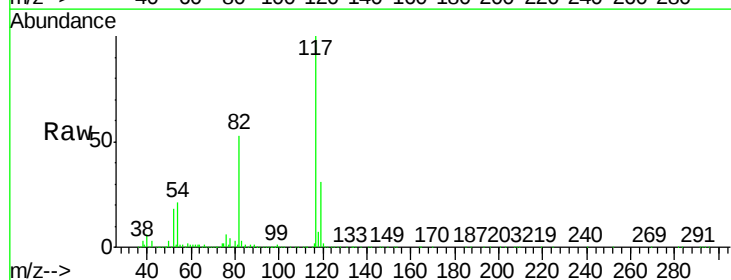
Tgt Ion: 117 Resp: 825512

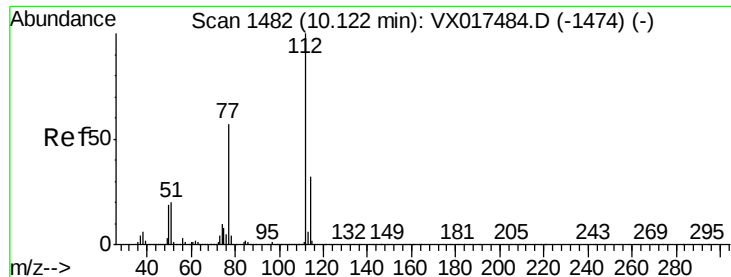
Ion Ratio Lower Upper

117 100

82 52.6 44.0 66.0

119 31.1 25.4 38.0

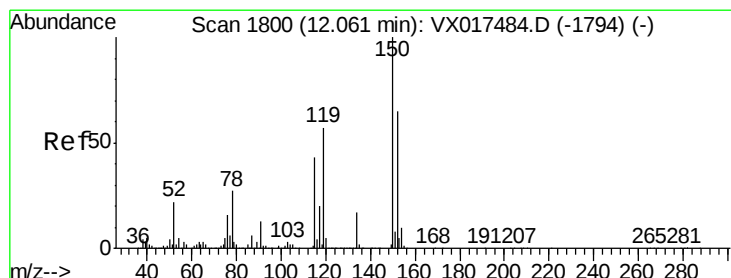
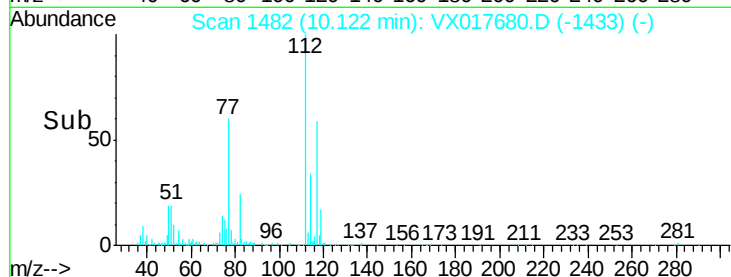
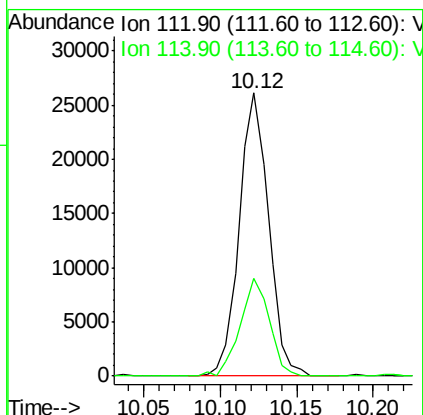
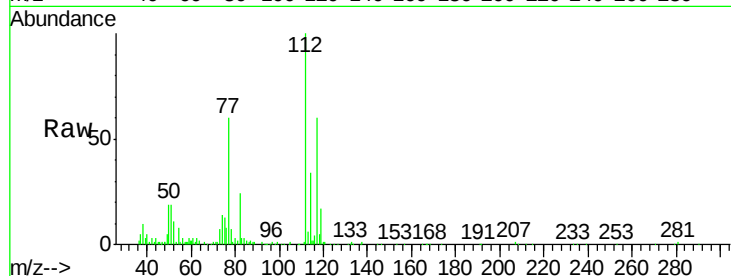




#65  
Chlorobenzene  
Concen: 1.949 ug/l  
RT: 10.12 min Scan# 1482  
Delta R.T. -0.00 min  
Lab File: VX017680.D  
Acq: 30 Jul 2020 13:40

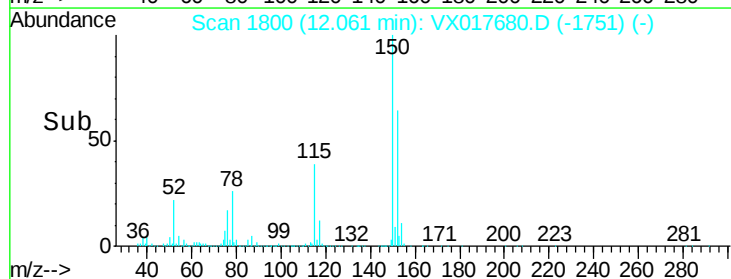
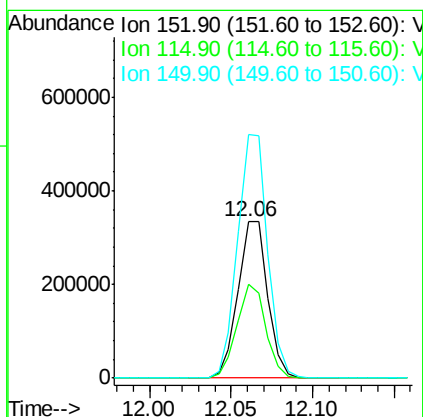
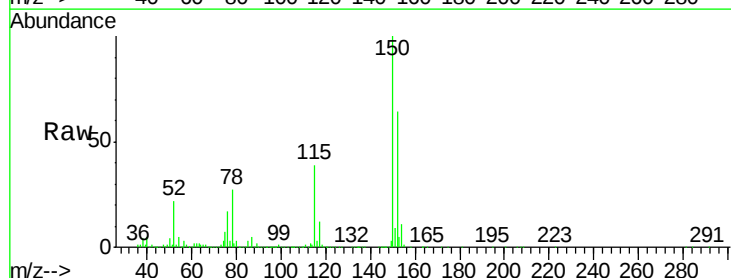
Instrument :  
MSVOA\_X  
ClientSampleId :  
PK-10I

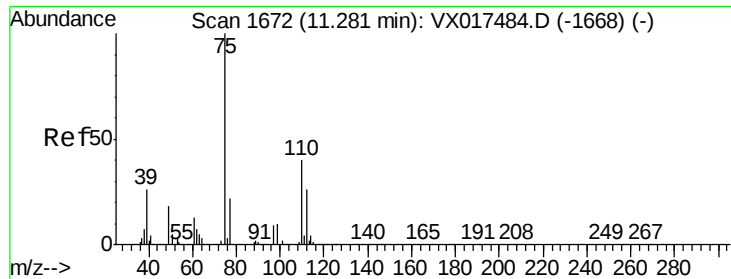
Tot Ion:112 Resp: 34822  
Ion Ratio Lower Upper  
112 100  
114 34.5 25.7 38.5



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.06 min Scan# 1800  
Delta R.T. -0.00 min  
Lab File: VX017680.D  
Acq: 30 Jul 2020 13:40

Tgt Ion:152 Resp: 426432  
Ion Ratio Lower Upper  
152 100  
115 57.9 65.5 196.6#  
150 156.5 0.0 412.6





#76

1,2,3-Trichloropropane

Concen: 24.558 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.16 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

Instrument :

MSVOA\_X

ClientSampleId :

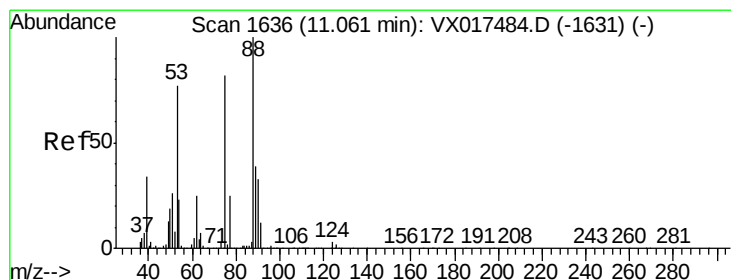
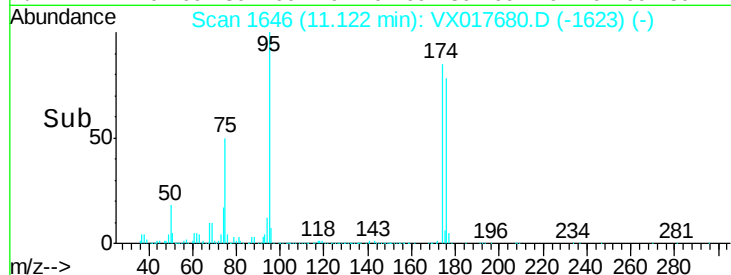
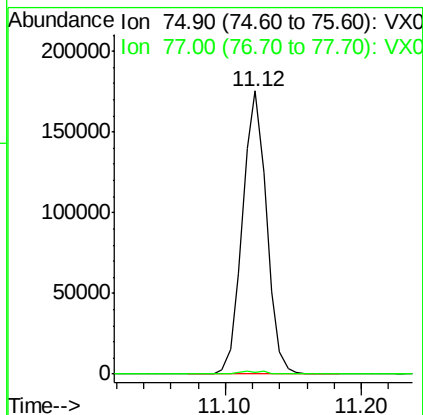
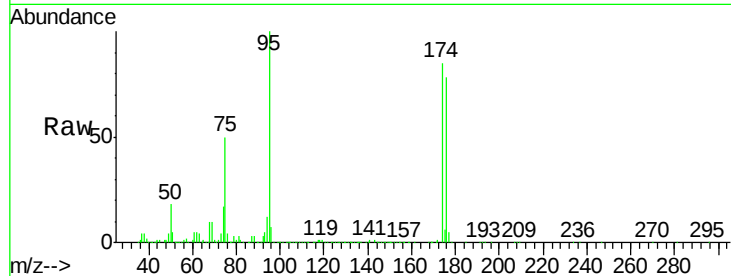
PK-10I

Tot Ion: 75 Resp: 215424

Ion Ratio Lower Upper

75 100

77 1.3 21.8 65.3#



#81

trans-1,4-Dichloro-2-butene

Concen: 61.882 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. 0.06 min

Lab File: VX017680.D

Acq: 30 Jul 2020 13:40

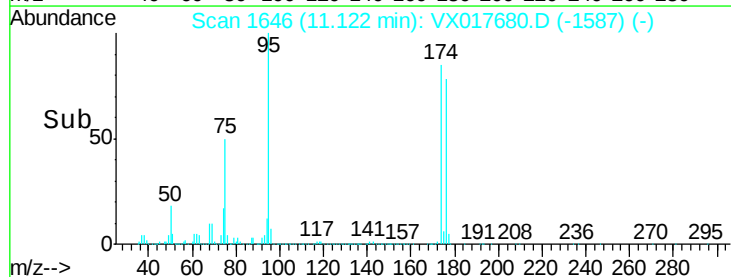
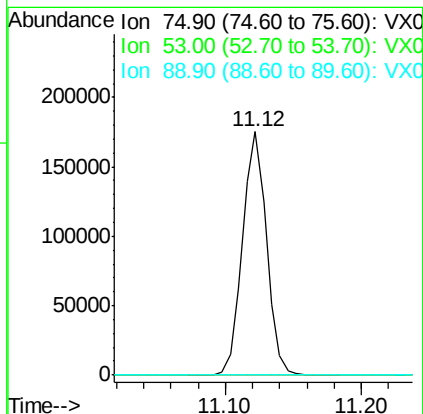
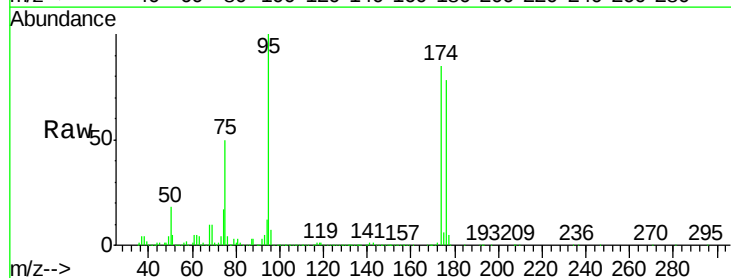
Tgt Ion: 75 Resp: 215424

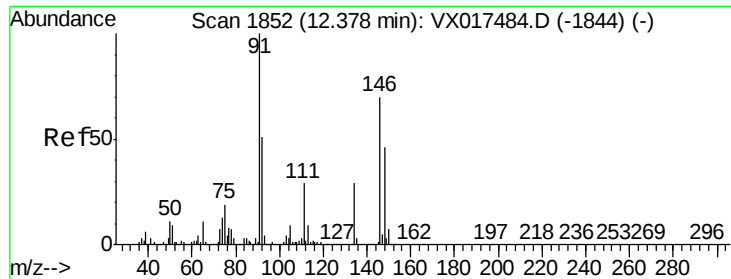
Ion Ratio Lower Upper

75 100

53 0.3 75.9 113.9#

89 0.1 37.8 56.6#

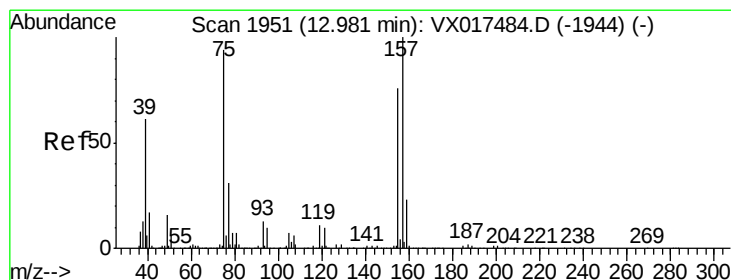
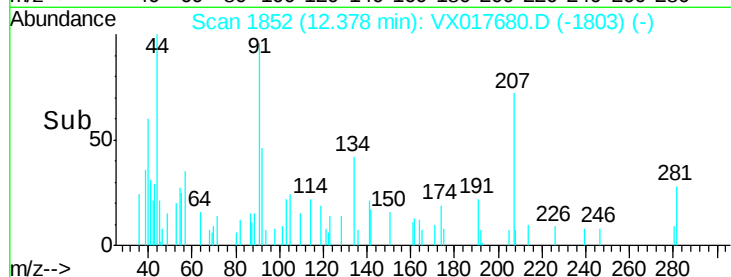
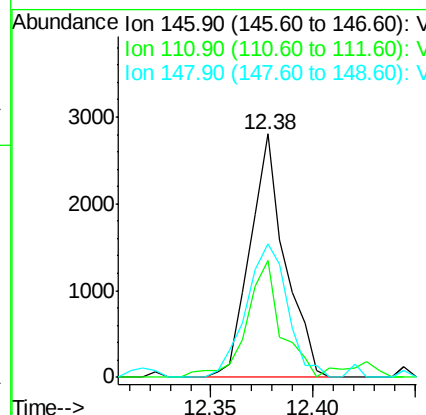
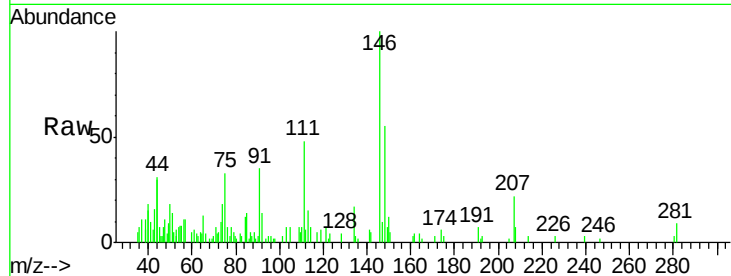




#91  
 1,2-Dichlorobenzene  
 Concen: 0.242 ug/l  
 RT: 12.38 min Scan# 1852  
 Delta R.T. -0.00 min  
 Lab File: VX017680.D  
 Acq: 30 Jul 2020 13:40

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 PK-101

Tot Ion:146 Resp: 3343  
 Ion Ratio Lower Upper  
 146 100  
 111 47.2 20.9 62.8  
 148 64.9 32.8 98.4



#92  
 1,2-Dibromo-3-Chloropropane  
 Concen: 2.731 ug/l  
 RT: 12.97 min Scan# 1949  
 Delta R.T. -0.01 min  
 Lab File: VX017680.D  
 Acq: 30 Jul 2020 13:40

Tgt Ion: 75 Resp: 421  
 Ion Ratio Lower Upper  
 75 100  
 155 31.4 42.3 126.8#  
 157 21.4 54.3 162.9#

