

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX050319\  
 Data File : VX009329.D  
 Acq On : 03 May 2019 22:53  
 Operator : JC/SP  
 Sample : K2687-09  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 31 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 SS052MW718-190502

Quant Time: May 04 00:51:12 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X042919W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Apr 30 07:03:50 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 198140   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 319469   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 279985   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 121299   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 6.06   | 65  | 131583   | 48.65 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.30% |      |
| 35) Dibromofluoromethane  | 5.50   | 113 | 97190    | 48.39 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.78% |      |
| 50) Toluene-d8            | 8.71   | 98  | 399806   | 49.31 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.62% |      |
| 62) 4-Bromofluorobenzene  | 11.13  | 95  | 132961   | 45.13 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 90.26% |      |

## Target Compounds

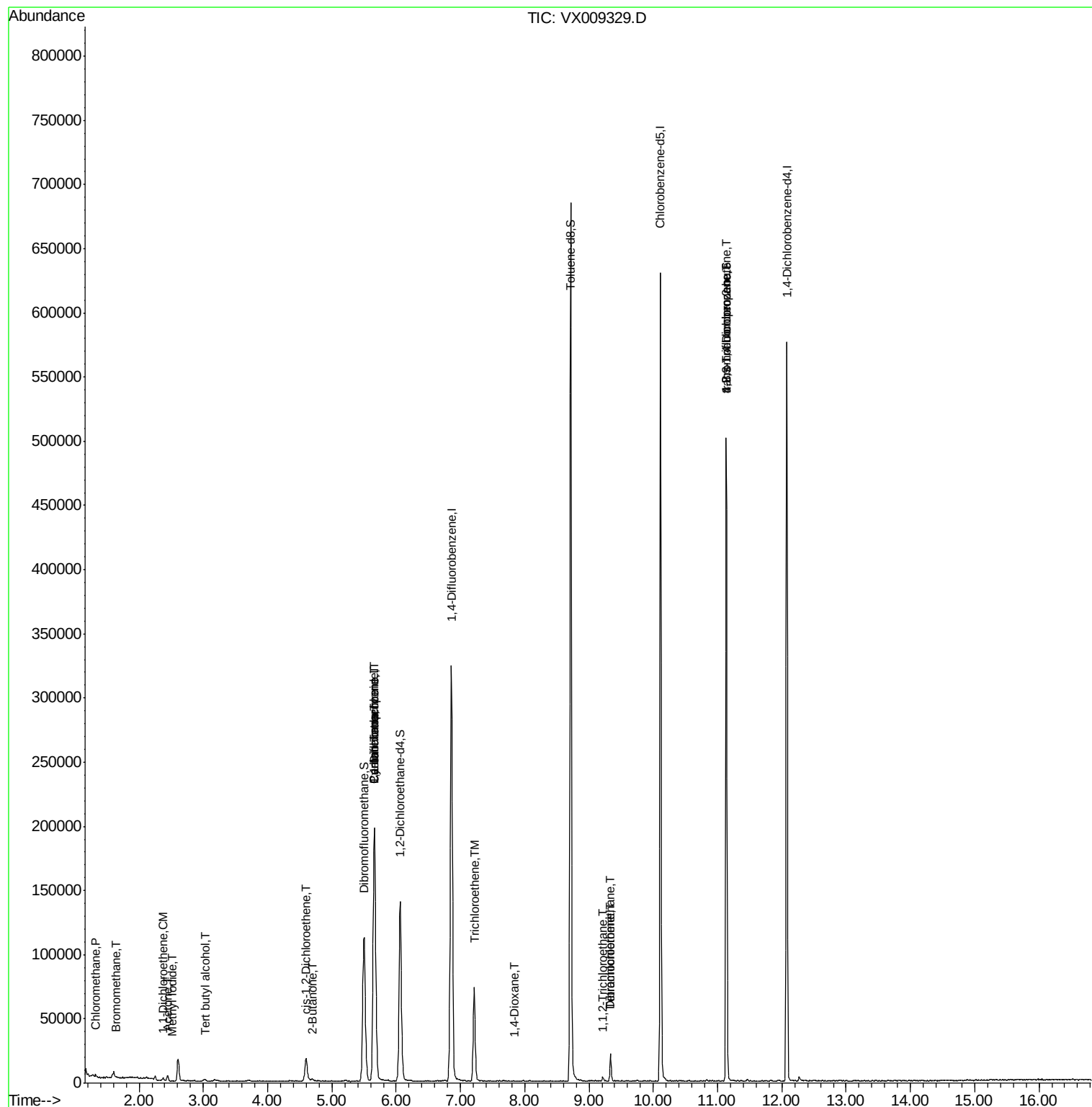
|                                |       |     |       |           |        | Qvalue |
|--------------------------------|-------|-----|-------|-----------|--------|--------|
| 3) Chloromethane               | 1.32  | 50  | 1345  | 0.540     | ug/l # | 80     |
| 5) Bromomethane                | 1.64  | 94  | 307   | 0.210     | ug/l   | 89     |
| 10) Methyl Iodide              | 2.53  | 142 | 81    | 4.628     | ug/l # | 70     |
| 11) Tert butyl alcohol         | 3.03  | 59  | 840   | 1.342     | ug/l # | 83     |
| 12) 1,1-Dichloroethene         | 2.37  | 96  | 641   | 0.345     | ug/l   | 89     |
| 16) Acetone                    | 2.44  | 43  | 4721  | 3.250     | ug/l   | 92     |
| 25) 2-Butanone                 | 4.69  | 43  | 646   | 0.286     | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene     | 4.60  | 96  | 11367 | 4.723     | ug/l   | 86     |
| 28) Bromochloromethane         | 5.01  | 49  | 43    | Below Cal | #      | 20     |
| 31) Cyclohexane                | 5.67  | 56  | 4073  | 1.019     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.66  | 75  | 15190 | 5.116     | ug/l # | 50     |
| 38) Carbon Tetrachloride       | 5.66  | 117 | 18513 | 6.863     | ug/l # | 17     |
| 44) Trichloroethene            | 7.21  | 130 | 27825 | 12.527    | ug/l   | 98     |
| 49) 1,4-Dioxane                | 7.84  | 88  | 21    | 0.315     | ug/l # | 20     |
| 55) 1,1,2-Trichloroethane      | 9.22  | 97  | 803   | 0.352     | ug/l   | 92     |
| 60) Dibromochloromethane       | 9.34  | 129 | 3796  | 1.706     | ug/l # | 11     |
| 64) Tetrachloroethene          | 9.34  | 164 | 3888  | 2.024     | ug/l # | 79     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75  | 67395 | 23.952    | ug/l # | 34     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75  | 67395 | 61.286    | ug/l # | 10     |

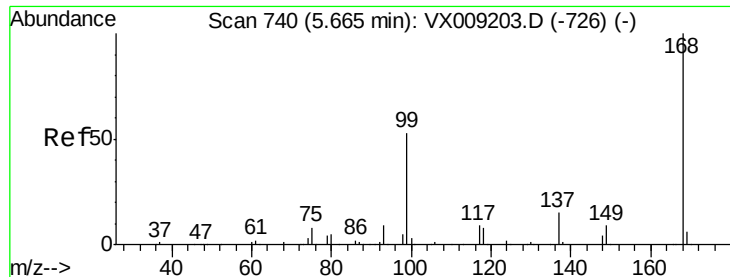
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: May 04 00:51:12 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X042919W.M  
Quant Title : SW846 8260  
QLast Update : Tue Apr 30 07:03:50 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 740

Delta R.T. 0.00 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

Instrument :

MSVOA\_X

ClientSampleId :

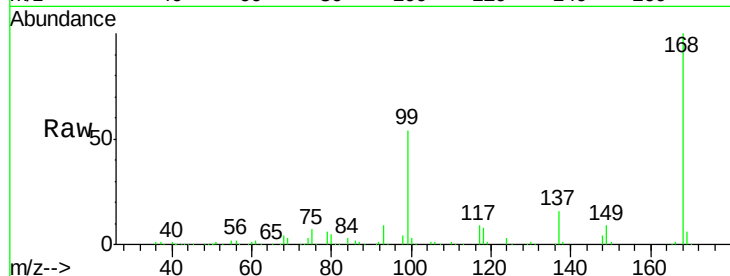
SS052MW718-190502

Tot Ion:168 Resp: 198140

Ion Ratio Lower Upper

168 100

99 54.1 42.3 63.5



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

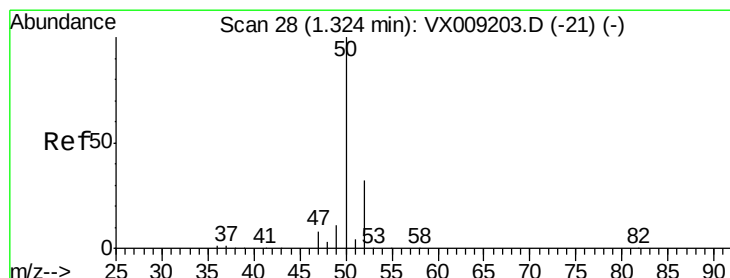
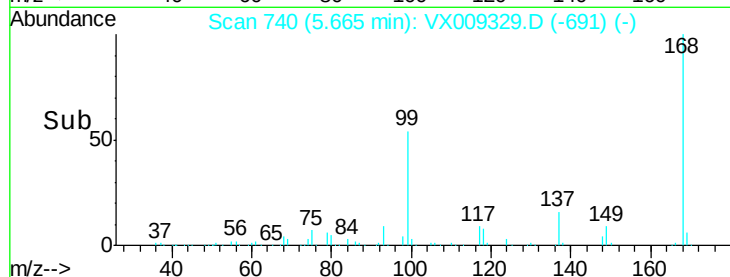
60000

40000

20000

0

Time--> 5.50 5.60 5.70 5.80



#3

Chloromethane

Concen: 0.540 ug/l

RT: 1.32 min Scan# 28

Delta R.T. 0.00 min

Lab File: VX009329.D

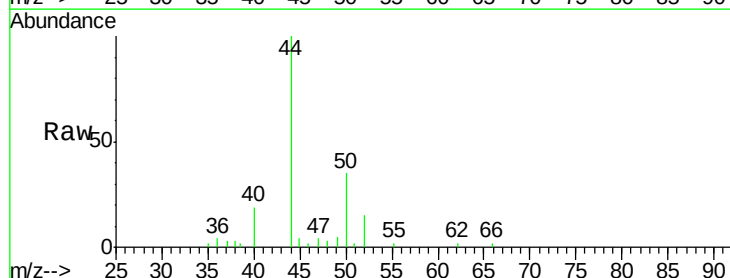
Acq: 03 May 2019 22:53

Tgt Ion: 50 Resp: 1345

Ion Ratio Lower Upper

50 100

52 43.4 25.9 38.9#



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0

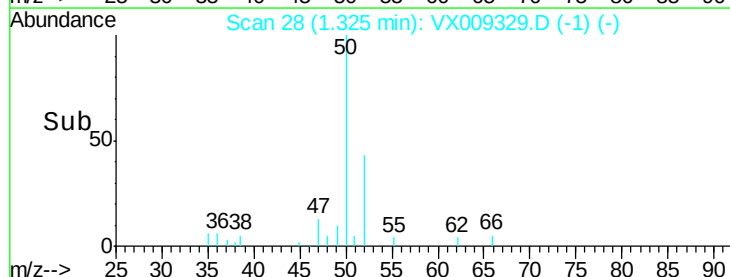
1.32

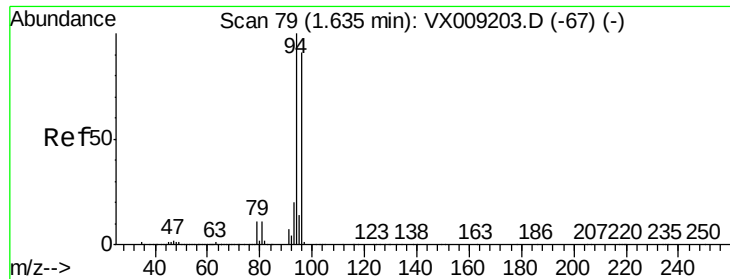
1000

500

0

Time--> 1.25 1.30 1.35





#5

Bromomethane

Concen: 0.210 ug/l

RT: 1.64 min Scan# 80

Delta R.T. 0.01 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

Instrument :

MSVOA\_X

ClientSampleId :

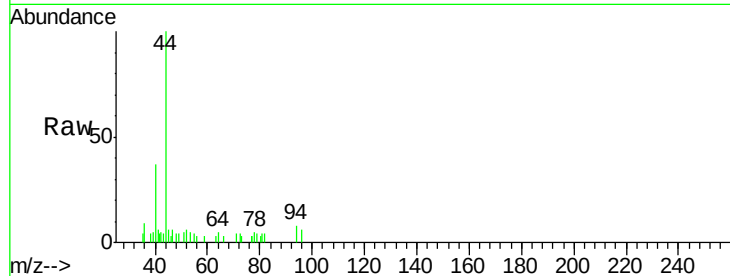
SS052MW718-190502

Tot Ion: 94 Resp: 307

Ion Ratio Lower Upper

94 100

96 80.5 73.0 109.6



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

1.64

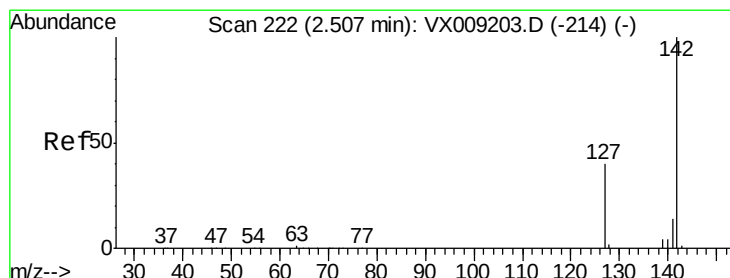
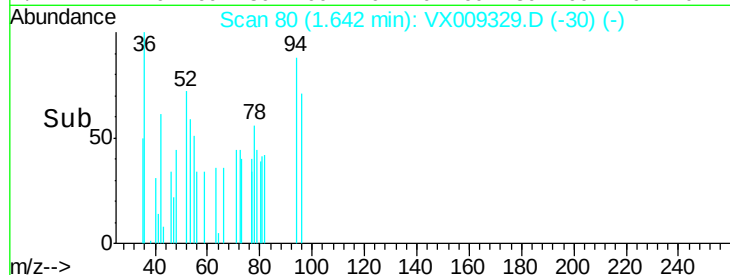
100

50

0

1.60 1.65 1.70

Time-->



#10

Methyl Iodide

Concen: 4.628 ug/l

RT: 2.53 min Scan# 225

Delta R.T. 0.02 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

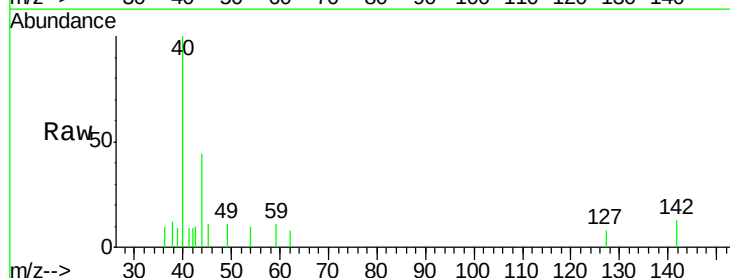
Tgt Ion: 142 Resp: 81

Ion Ratio Lower Upper

142 100

127 23.5 32.7 49.1#

141 0.0 11.5 17.3#



Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V

2.53

80

60

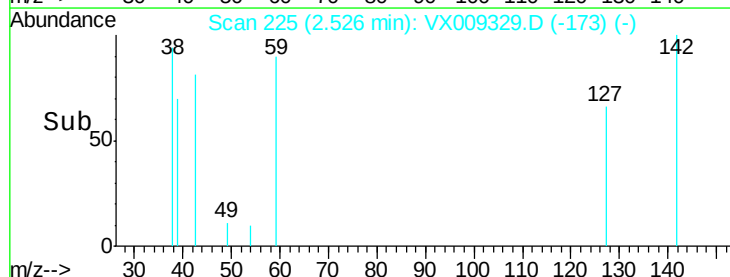
40

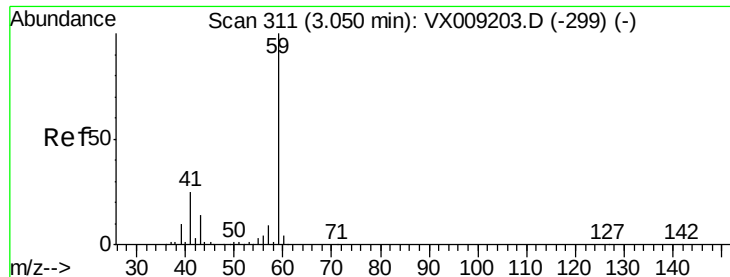
20

0

2.50 2.52 2.54

Time-->

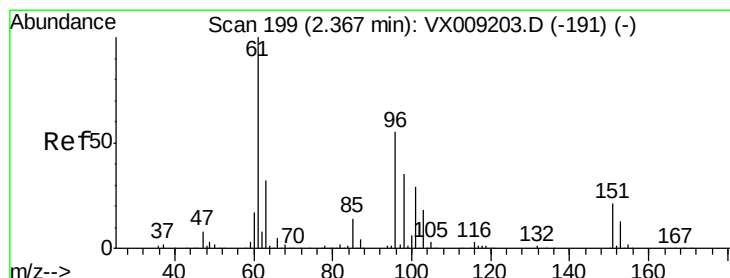
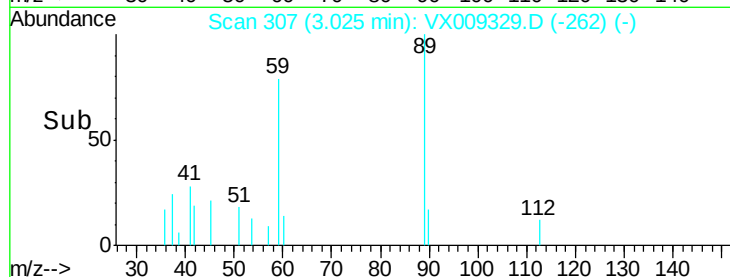
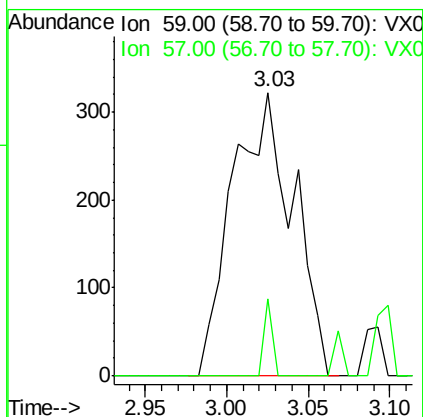
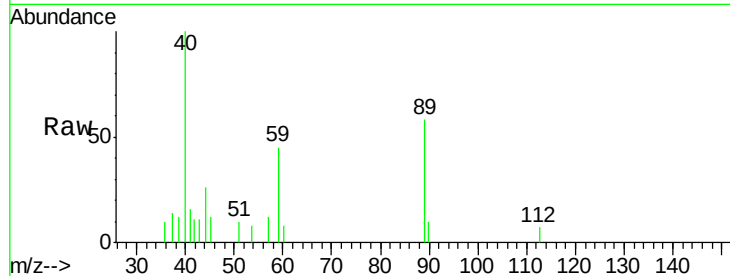




#11  
Tert butyl alcohol  
Concen: 1.342 ug/l  
RT: 3.03 min Scan# 307  
Delta R.T. -0.02 min  
Lab File: VX009329.D  
Acq: 03 May 2019 22:53

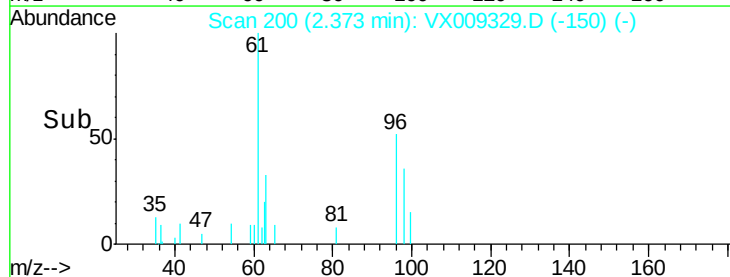
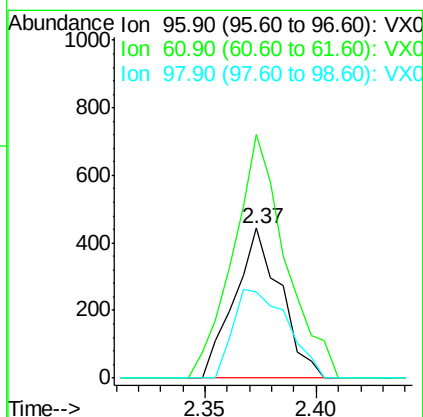
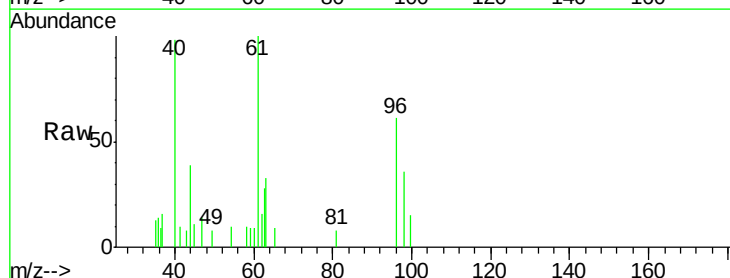
Instrument :  
MSVOA\_X  
ClientSampleId :  
SS052MW718-190502

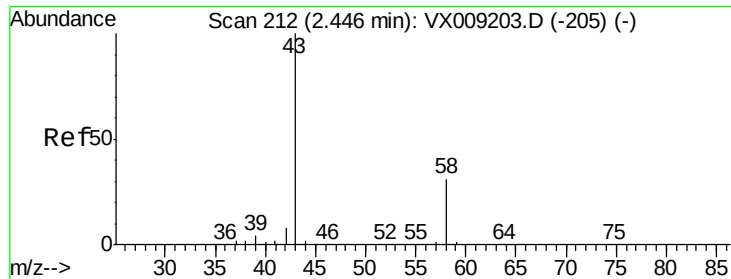
Tot Ion: 59 Resp: 840  
Ion Ratio Lower Upper  
59 100  
57 3.8 8.2 12.2#



#12  
1,1-Dichloroethene  
Concen: 0.345 ug/l  
RT: 2.37 min Scan# 200  
Delta R.T. 0.01 min  
Lab File: VX009329.D  
Acq: 03 May 2019 22:53

Tgt Ion: 96 Resp: 641  
Ion Ratio Lower Upper  
96 100  
61 162.8 144.3 216.5  
98 57.8 50.3 75.5





#16

Acetone

Concen: 3.250 ug/l

RT: 2.44 min Scan# 211

Delta R.T. -0.01 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

Instrument :

MSVOA\_X

ClientSampleId :

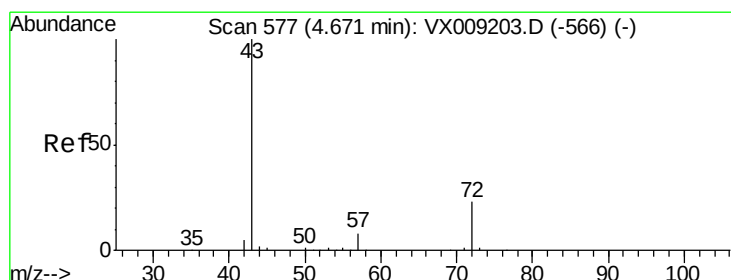
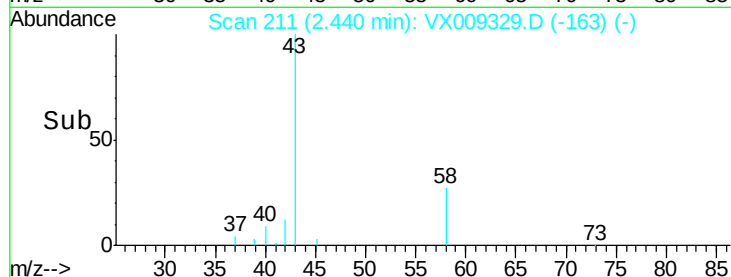
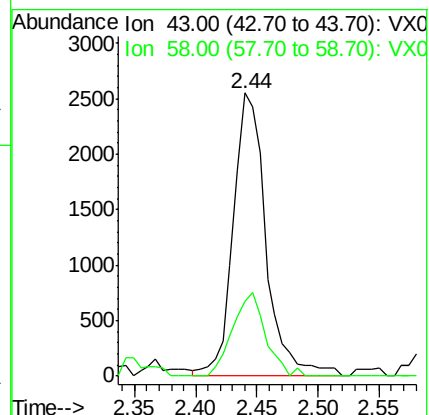
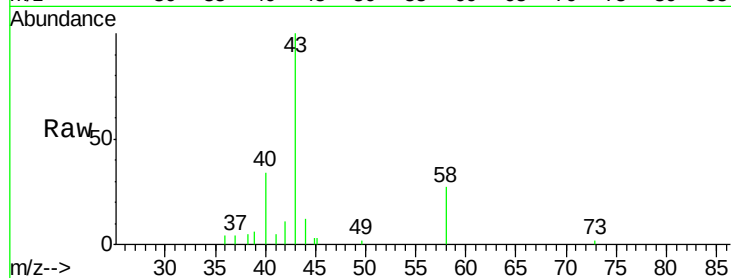
SS052MW718-190502

Tot Ion: 43 Resp: 4721

Ion Ratio Lower Upper

43 100

58 26.5 24.9 37.3



#25

2-Butanone

Concen: 0.286 ug/l

RT: 4.69 min Scan# 580

Delta R.T. 0.02 min

Lab File: VX009329.D

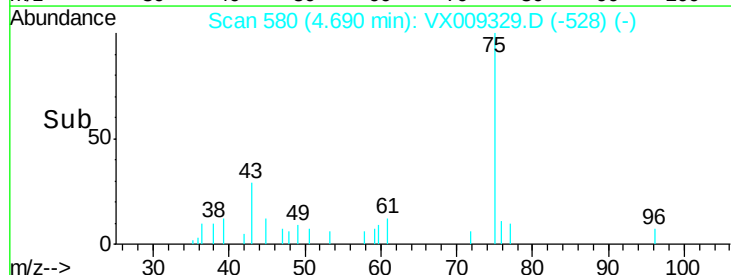
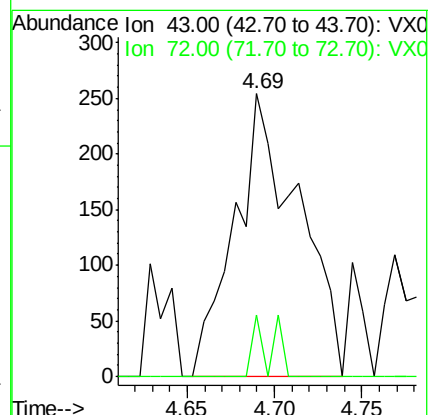
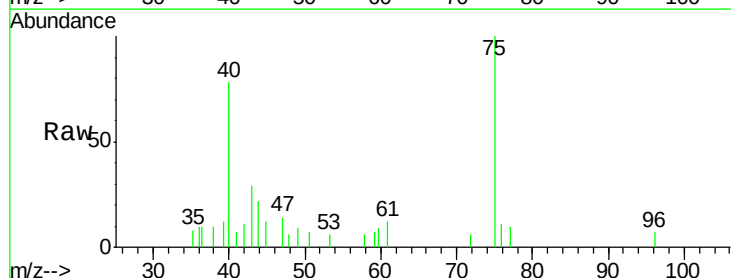
Acq: 03 May 2019 22:53

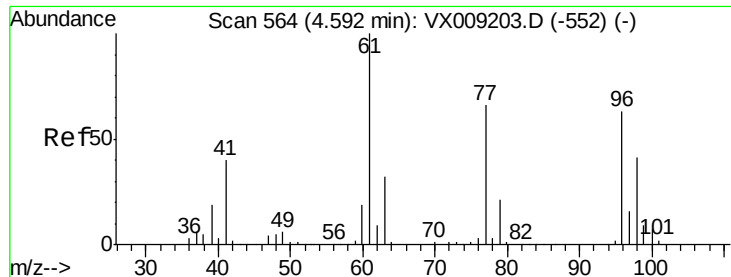
Tgt Ion: 43 Resp: 646

Ion Ratio Lower Upper

43 100

72 21.7 18.2 27.2



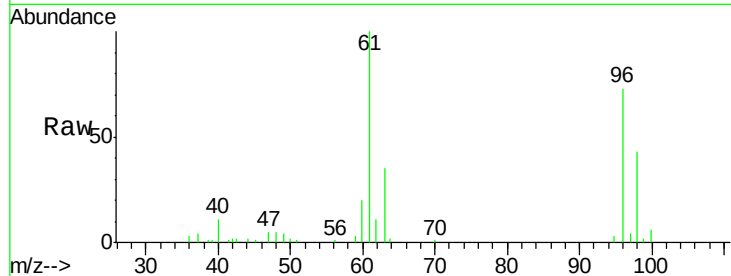


#27

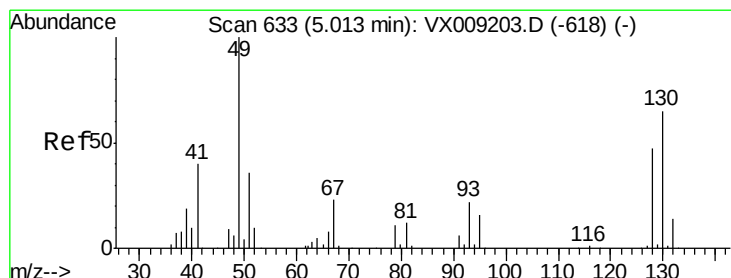
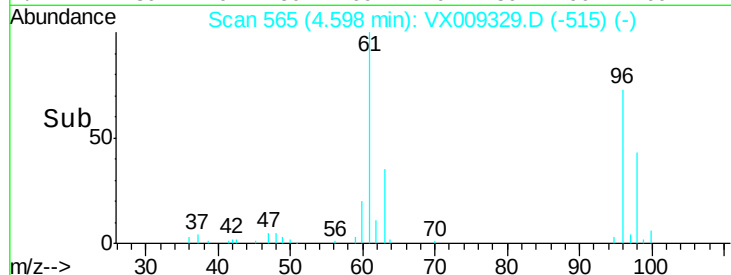
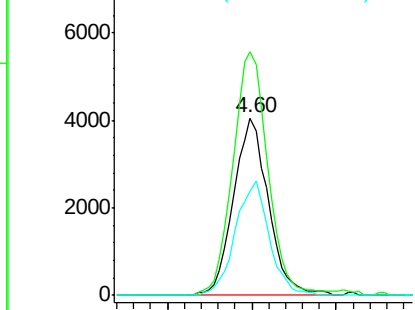
cis-1,2-Dichloroethene  
Concen: 4.723 ug/l  
RT: 4.60 min Scan# 565  
Delta R.T. 0.01 min  
Lab File: VX009329.D  
Acq: 03 May 2019 22:53

Instrument :  
MSVOA\_X  
ClientSampleId :  
SS052MW718-190502

Tot Ion: 96 Resp: 11367  
Ion Ratio Lower Upper  
96 100  
61 137.5 0.0 324.0  
98 62.5 0.0 130.4



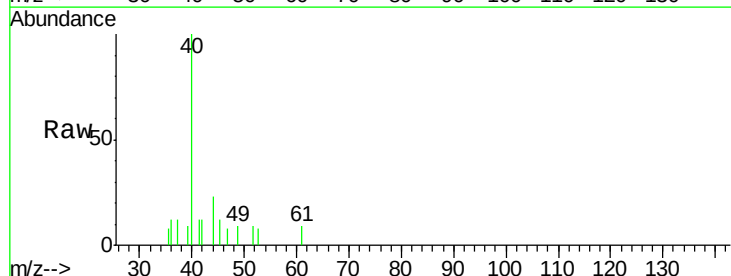
Abundance Ion 95.90 (95.60 to 96.60): VX0  
Ion 60.90 (60.60 to 61.60): VX0  
Ion 97.90 (97.60 to 98.60): VX0



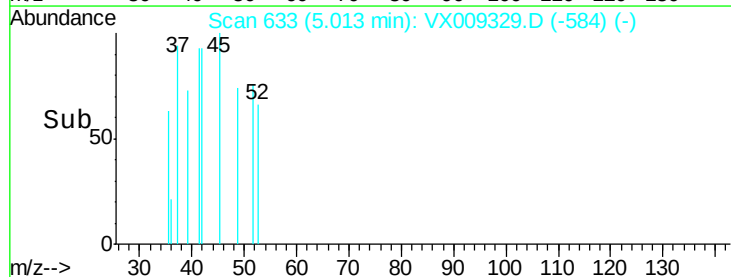
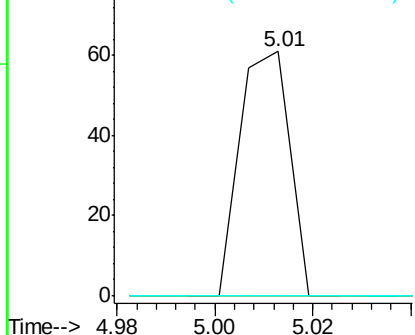
#28

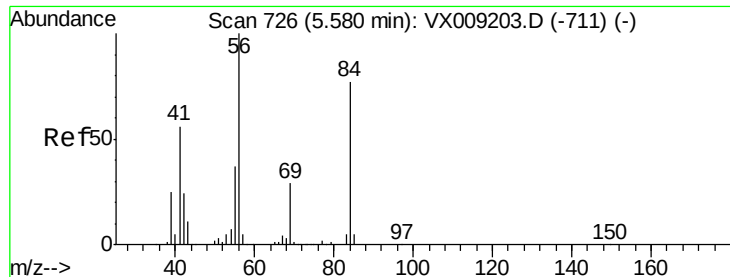
Bromochloromethane  
Concen: Below Cal  
RT: 5.01 min Scan# 633  
Delta R.T. 0.00 min  
Lab File: VX009329.D  
Acq: 03 May 2019 22:53

Tgt Ion: 49 Resp: 43  
Ion Ratio Lower Upper  
49 100  
129 0.0 0.0 3.8  
130 0.0 51.2 76.8#



Abundance Ion 48.90 (48.60 to 49.60): VX0  
Ion 128.80 (128.50 to 129.50): V  
Ion 129.80 (129.50 to 130.50): V

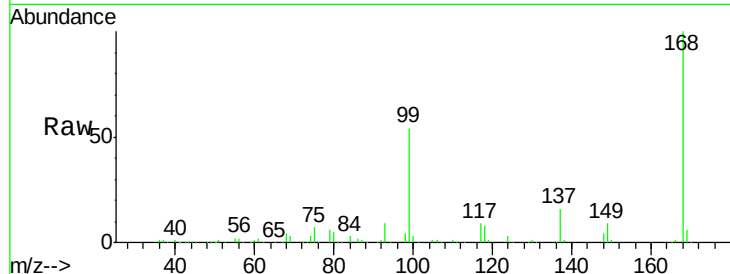




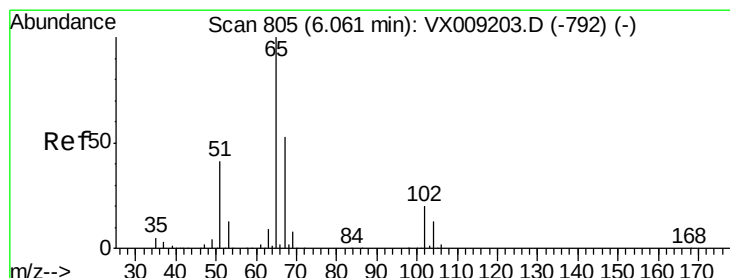
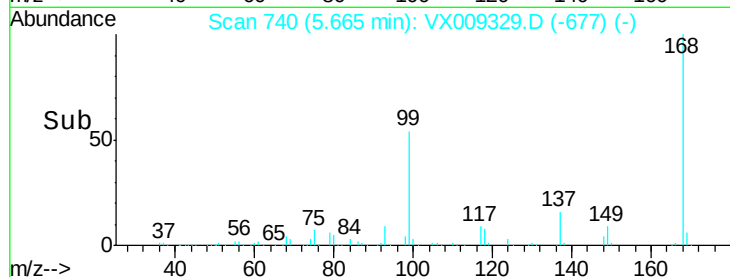
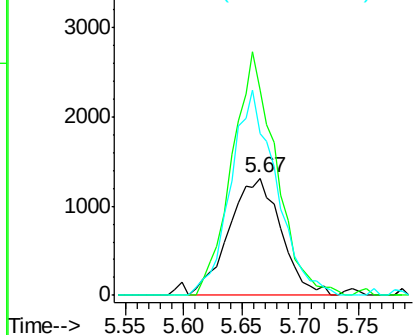
#31  
Cyclohexane  
Concen: 1.019 ug/l  
RT: 5.67 min Scan# 740  
Delta R.T. 0.09 min  
Lab File: VX009329.D  
Acq: 03 May 2019 22:53

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Tot Ion: 56 Resp: 4073  
Ion Ratio Lower Upper  
56 100  
69 175.5 23.4 35.0#  
84 137.5 61.9 92.9#

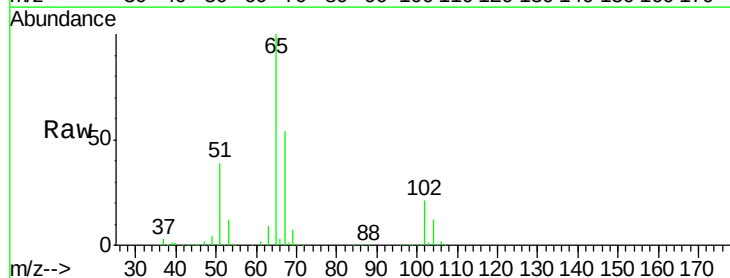


Abundance Ion 56.00 (55.70 to 56.70): VX0  
Ion 69.00 (68.70 to 69.70): VX0  
Ion 84.00 (83.70 to 84.70): VX0

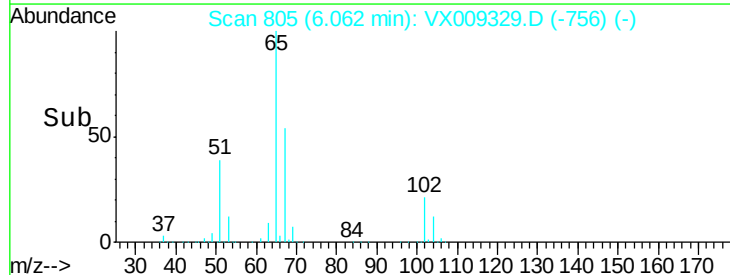
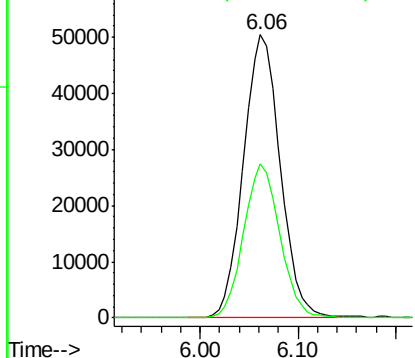


#33  
1,2-Dichloroethane-d4  
Concen: 48.647 ug/l  
RT: 6.06 min Scan# 805  
Delta R.T. 0.00 min  
Lab File: VX009329.D  
Acq: 03 May 2019 22:53

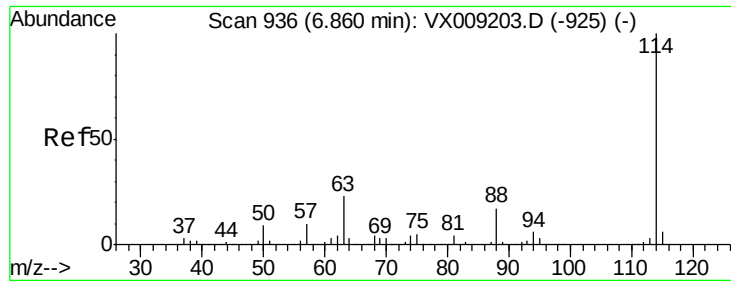
Tgt Ion: 65 Resp: 131583  
Ion Ratio Lower Upper  
65 100  
67 53.8 0.0 106.6



Abundance Ion 64.90 (64.60 to 65.60): VX0  
Ion 66.90 (66.60 to 67.60): VX0



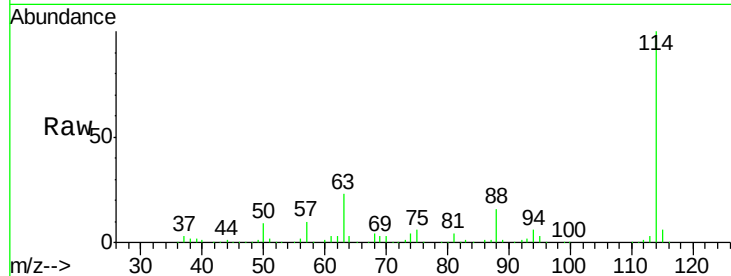




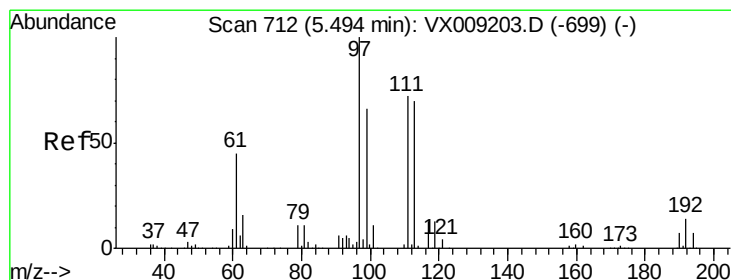
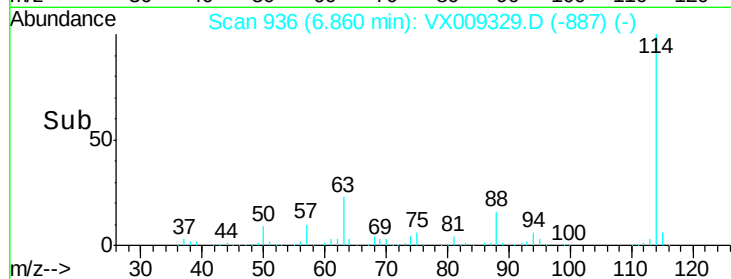
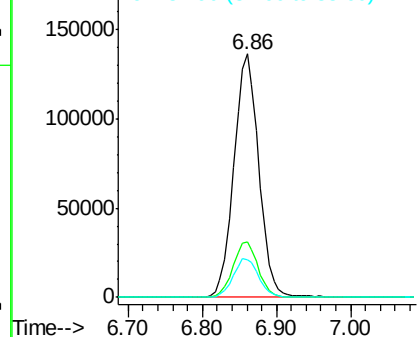
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.86 min Scan# 936  
 Delta R.T. 0.00 min  
 Lab File: VX009329.D  
 Acq: 03 May 2019 22:53

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 SS052MW718-190502

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 22.6  | 0.0   | 45.6  |
| 88      | 15.6  | 0.0   | 33.2  |

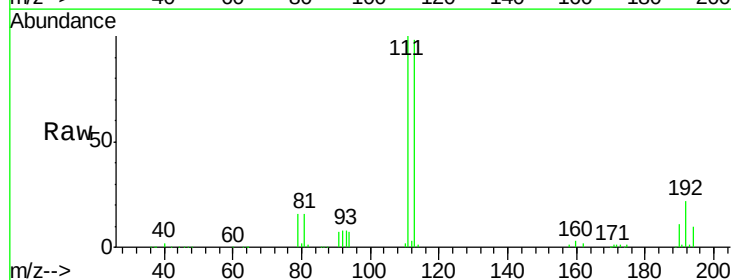


Abundance Ion 113.90 (113.60 to 114.60): V

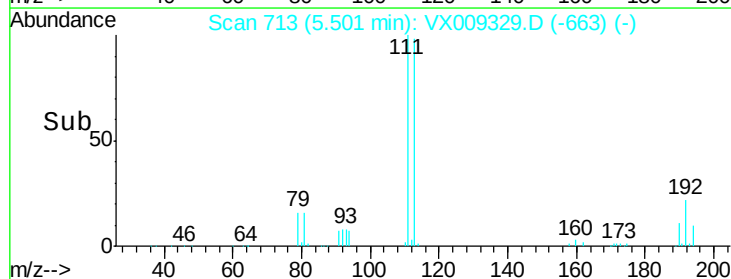
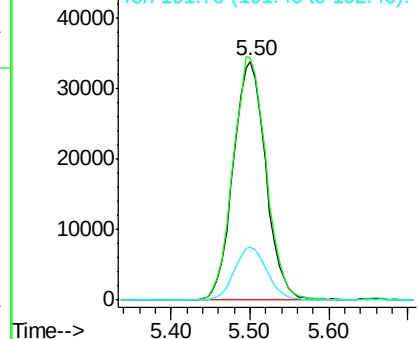


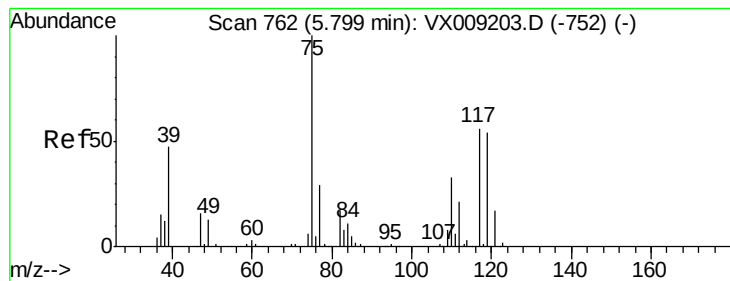
#35  
 Dibromofluoromethane  
 Concen: 48.394 ug/l  
 RT: 5.50 min Scan# 713  
 Delta R.T. 0.01 min  
 Lab File: VX009329.D  
 Acq: 03 May 2019 22:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 103.2 | 82.8  | 124.2 |
| 192     | 22.0  | 17.0  | 25.6  |



Abundance Ion 112.80 (112.50 to 113.50): V





#36

1,1-Dichloropropene

Concen: 5.116 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.14 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

Instrument :

MSVOA\_X

ClientSampleId :

SS052MW718-190502

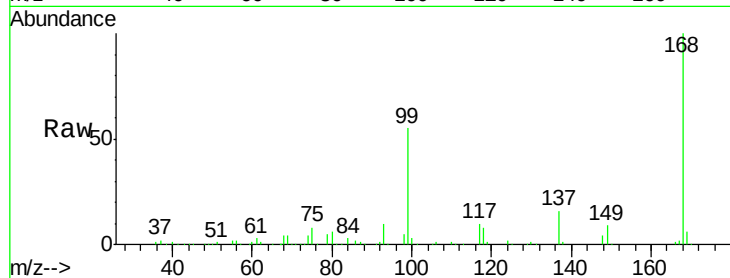
Tot Ion: 75 Resp: 15190

Ion Ratio Lower Upper

75 100

110 8.6 16.9 50.6#

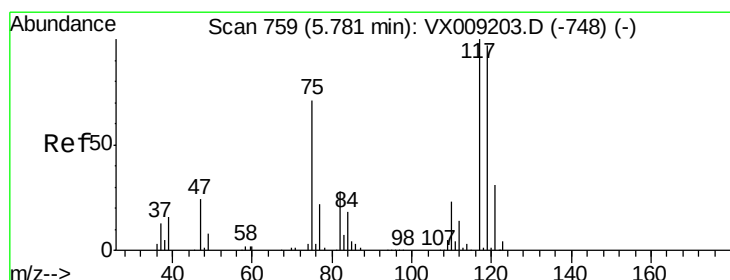
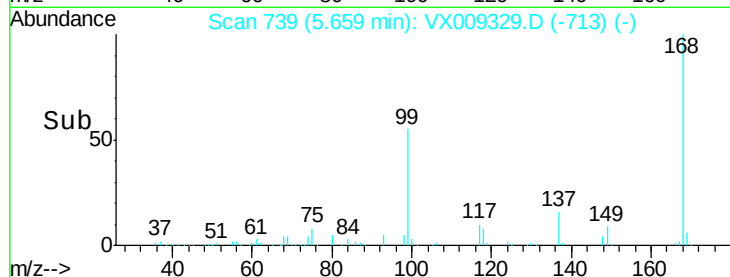
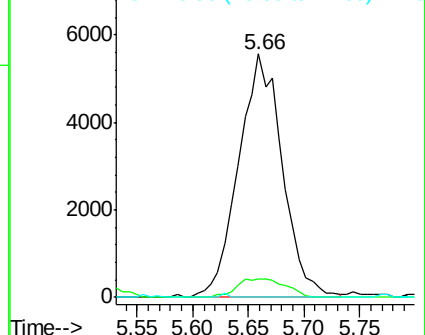
77 0.0 24.8 37.2#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0



#38

Carbon Tetrachloride

Concen: 6.863 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.12 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

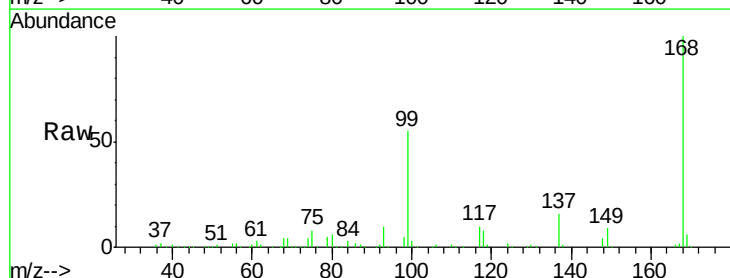
Tgt Ion: 117 Resp: 18513

Ion Ratio Lower Upper

117 100

119 6.4 77.5 116.3#

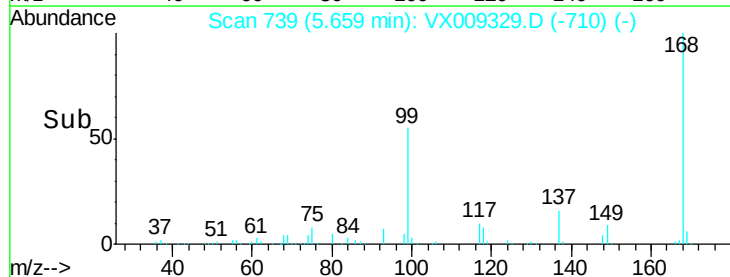
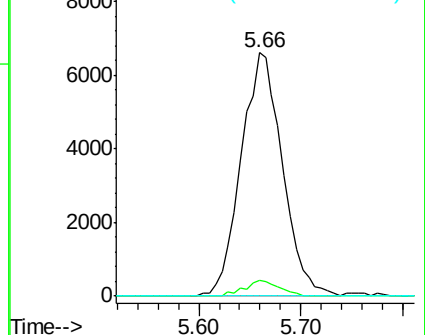
121 0.0 24.7 37.1#

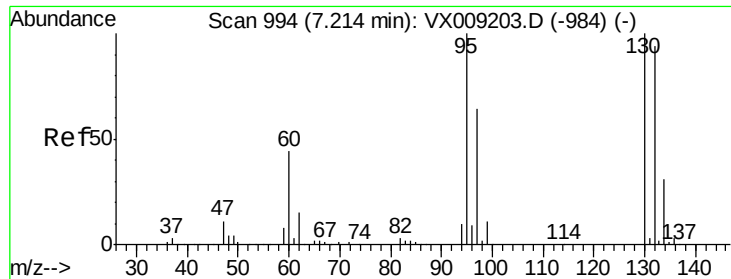


Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V





#44

Trichloroethene

Concen: 12.527 ug/l

RT: 7.21 min Scan# 994

Delta R.T. 0.00 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

Instrument :

MSVOA\_X

ClientSampleId :

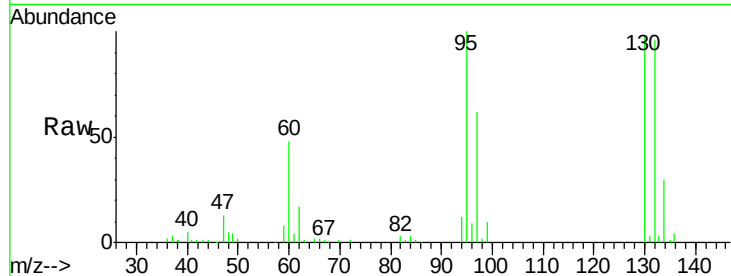
SS052MW718-190502

Tot Ion:130 Resp: 27825

Ion Ratio Lower Upper

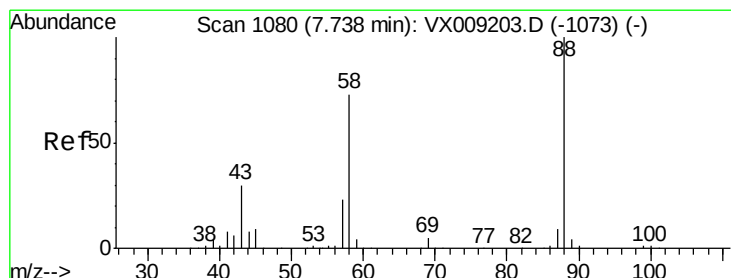
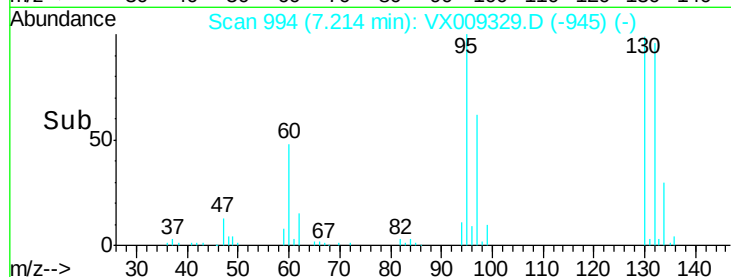
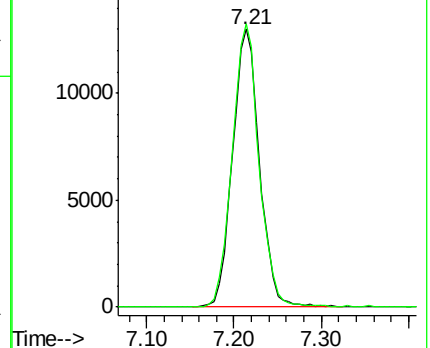
130 100

95 101.9 0.0 199.2



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0



#49

1,4-Dioxane

Concen: 0.315 ug/l

RT: 7.84 min Scan# 1097

Delta R.T. 0.10 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

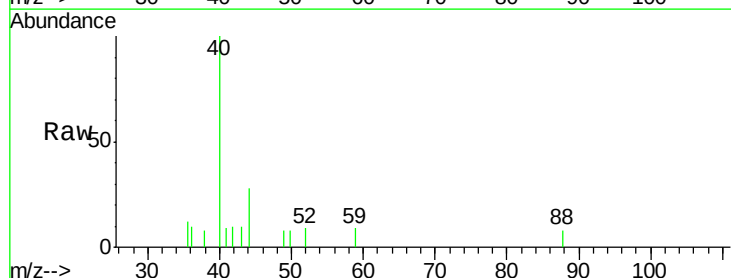
Tgt Ion: 88 Resp: 21

Ion Ratio Lower Upper

88 100

43 0.0 28.6 42.8#

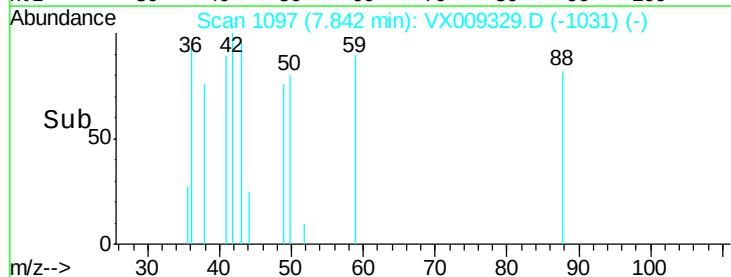
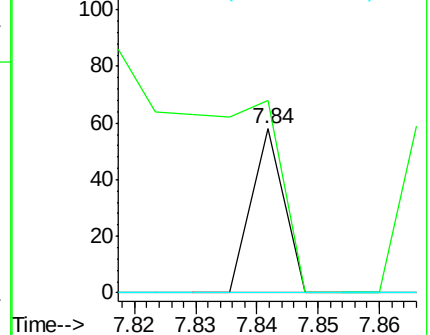
58 0.0 61.7 92.5#

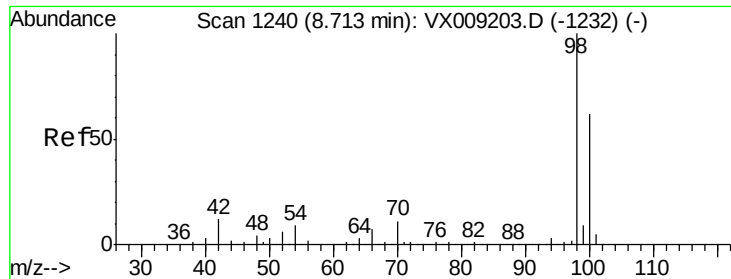


Abundance Ion 88.00 (87.70 to 88.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0





#50

Toluene-d8

Concen: 49.310 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. 0.00 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

Instrument :

MSVOA\_X

ClientSampleId :

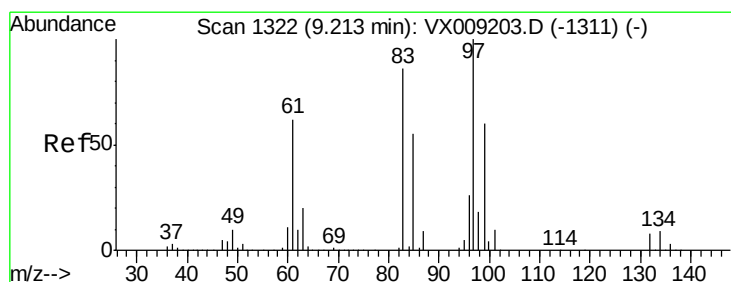
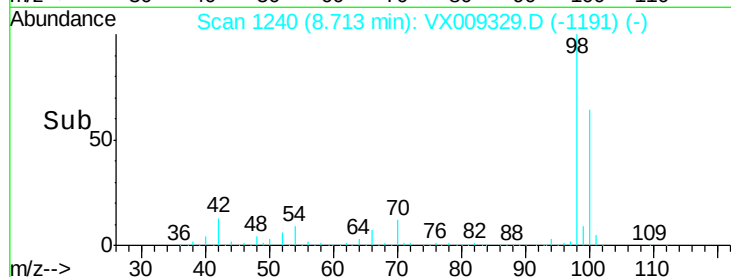
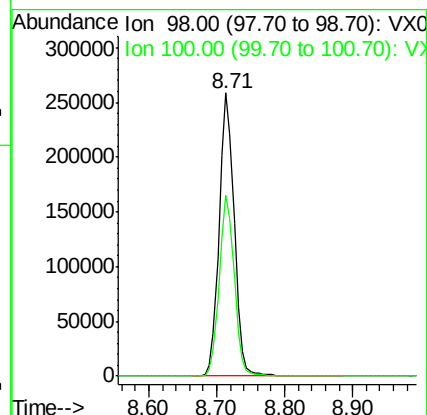
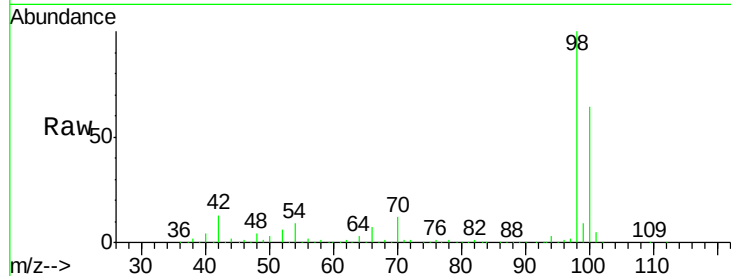
SS052MW718-190502

Tot Ion: 98 Resp: 399806

Ion Ratio Lower Upper

98 100

100 64.1 51.2 76.8



#55

1,1,2-Trichloroethane

Concen: 0.352 ug/l

RT: 9.22 min Scan# 1323

Delta R.T. 0.01 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

Tgt Ion: 97 Resp: 803

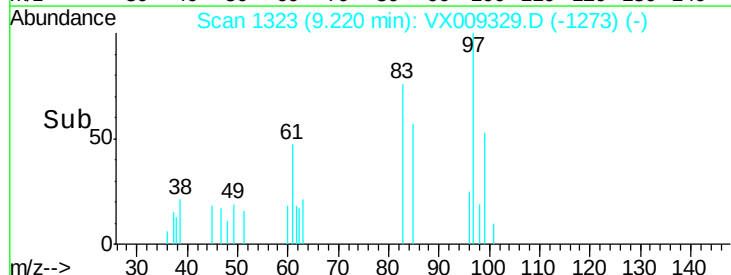
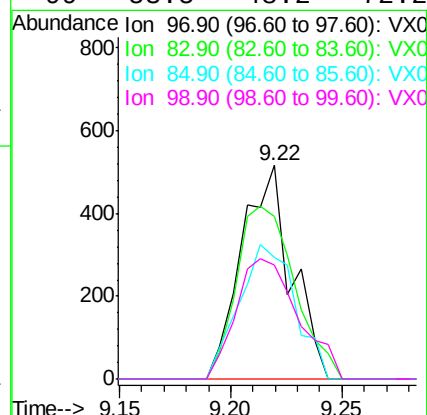
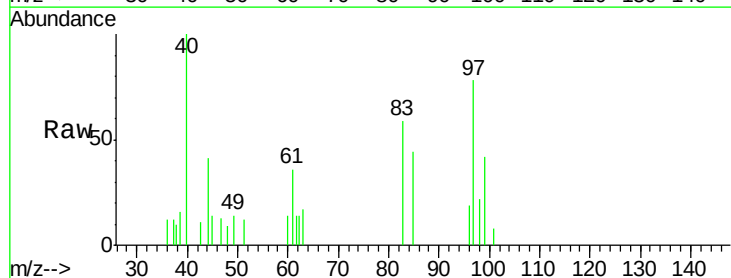
Ion Ratio Lower Upper

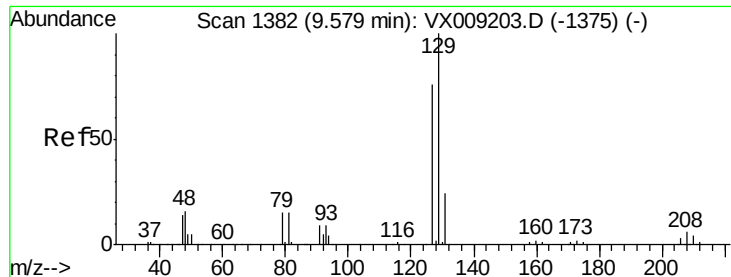
97 100

83 76.4 68.9 103.3

85 57.2 43.8 65.6

99 53.5 48.2 72.2





#60

Dibromochloromethane

Concen: 1.706 ug/l

RT: 9.34 min Scan# 1342

Delta R.T. -0.24 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

Instrument :

MSVOA\_X

ClientSampleId :

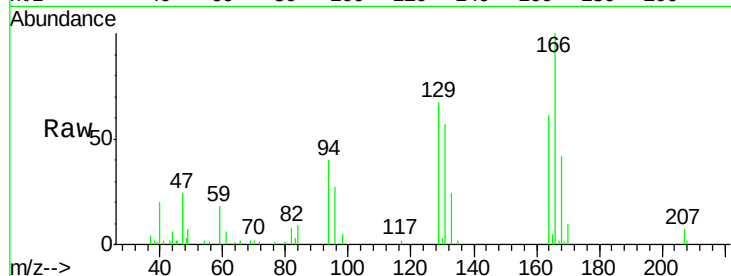
SS052MW718-190502

Tot Ion:129 Resp: 3796

Ion Ratio Lower Upper

129 100

127 0.0 38.4 115.1#



Abundance Ion 128.80 (128.50 to 129.50): V

Ion 126.80 (126.50 to 127.50): V

9.34

2500

2000

1500

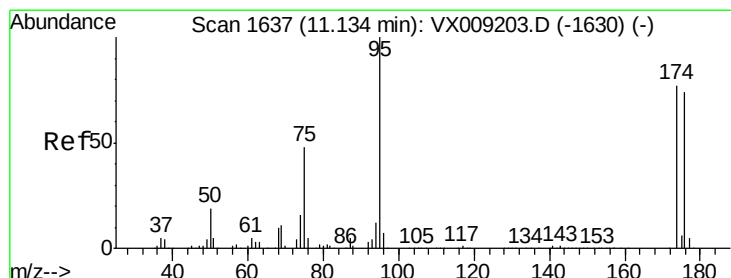
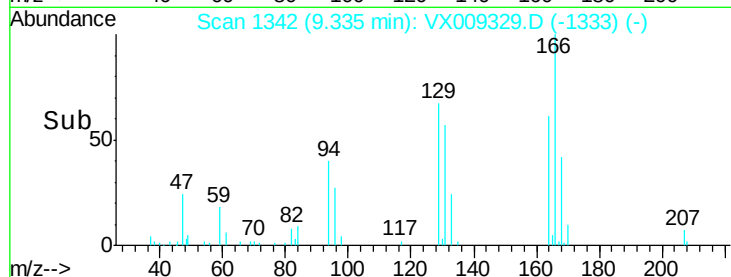
1000

500

0

Time-->

9.30 9.35 9.40



#62

4-Bromofluorobenzene

Concen: 45.130 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.00 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

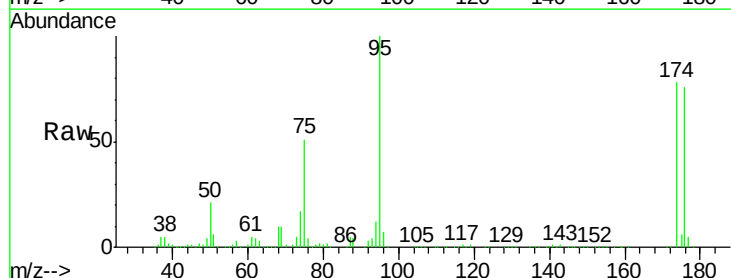
Tgt Ion: 95 Resp: 132961

Ion Ratio Lower Upper

95 100

174 82.2 0.0 161.6

176 80.3 0.0 159.2



Abundance Ion 94.90 (94.60 to 95.60): VX0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

11.13

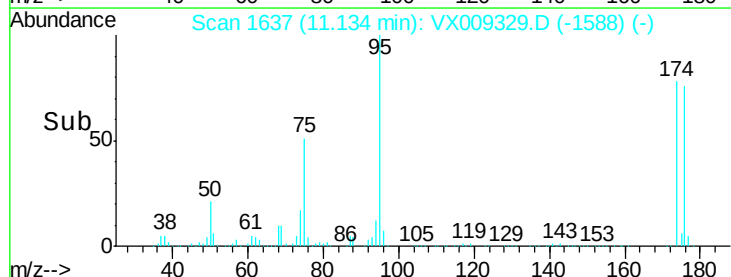
100000

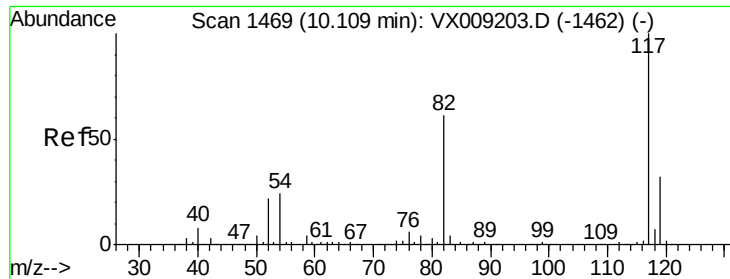
50000

0

Time-->

11.10 11.20

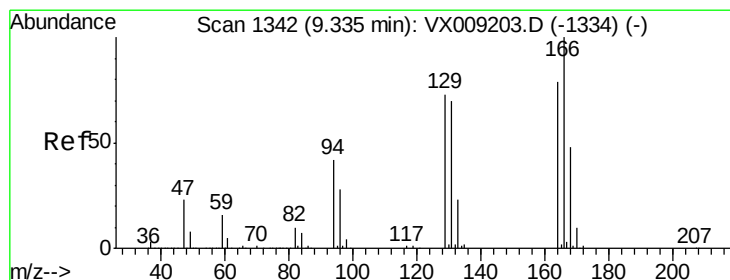
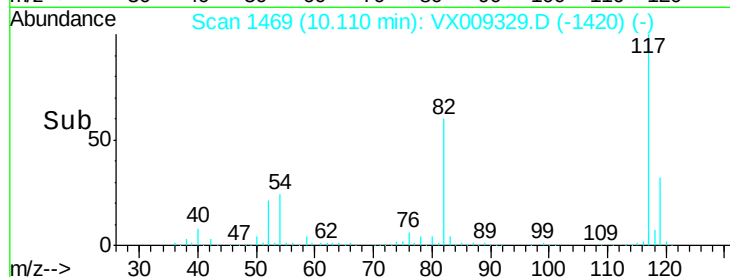
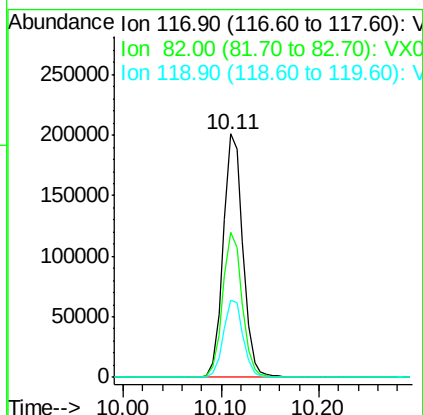
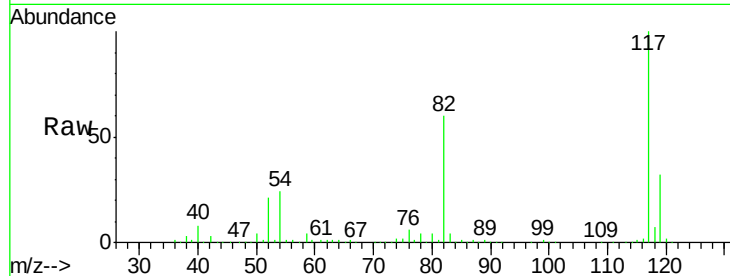




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1469  
Delta R.T. 0.00 min  
Lab File: VX009329.D  
Acq: 03 May 2019 22:53

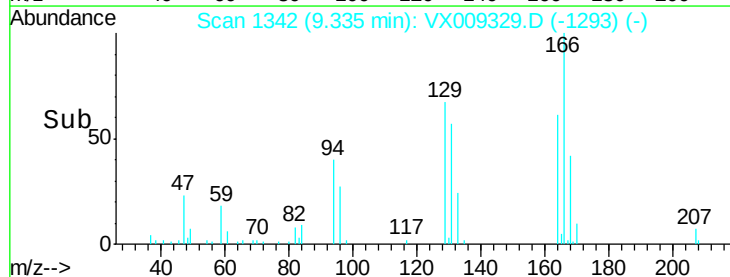
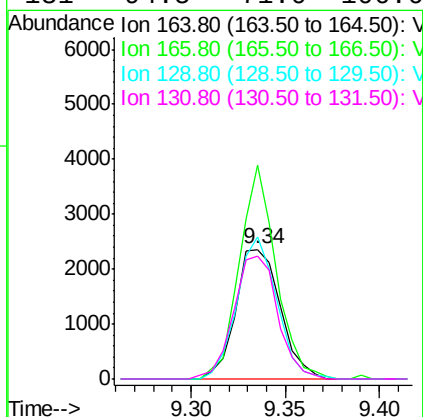
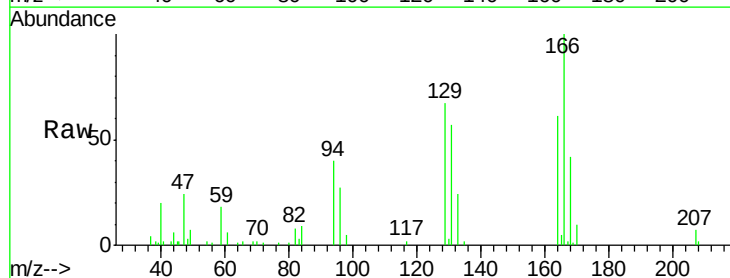
Instrument :  
MSVOA\_X  
ClientSampleId :  
SS052MW718-190502

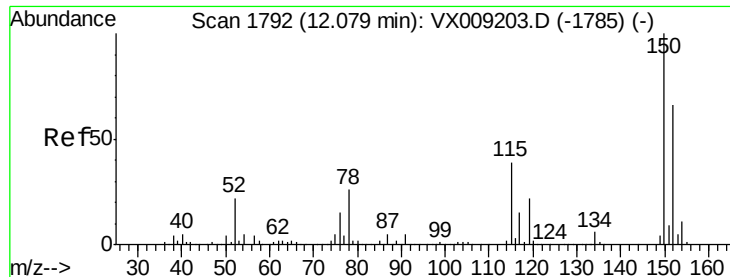
Tot Ion:117 Resp: 279985  
Ion Ratio Lower Upper  
117 100  
82 59.8 48.8 73.2  
119 31.7 25.8 38.6



#64  
Tetrachloroethene  
Concen: 2.024 ug/l  
RT: 9.34 min Scan# 1342  
Delta R.T. 0.00 min  
Lab File: VX009329.D  
Acq: 03 May 2019 22:53

Tgt Ion:164 Resp: 3888  
Ion Ratio Lower Upper  
164 100  
166 164.4 101.2 151.8#  
129 109.4 74.3 111.5  
131 94.5 71.0 106.6





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.08 min Scan# 1792

Delta R.T. 0.00 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

Instrument :

MSVOA\_X

ClientSampleId :

SS052MW718-190502

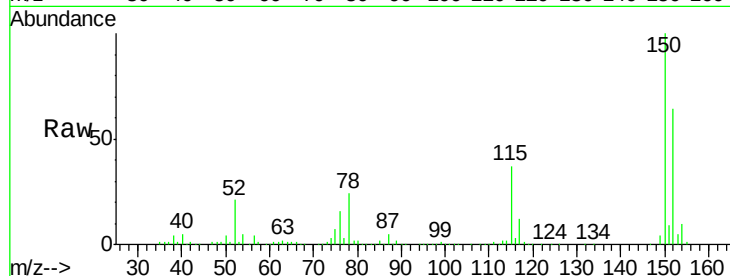
Tot Ion:152 Resp: 121299

Ion Ratio Lower Upper

152 100

115 58.6 41.2 123.6

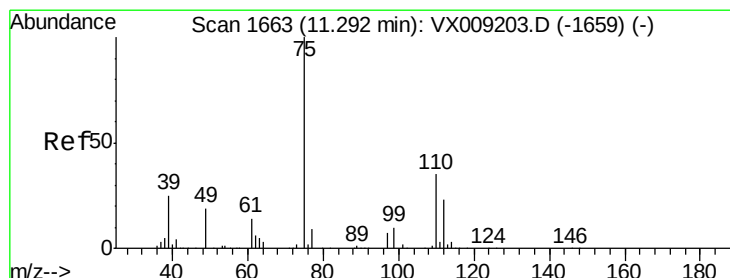
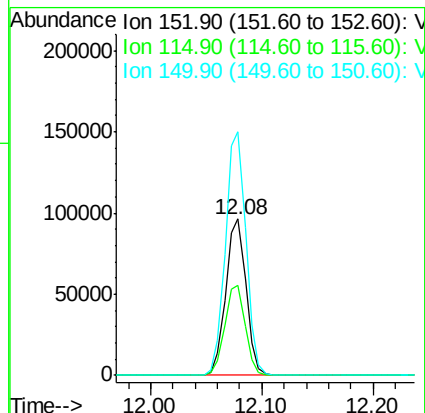
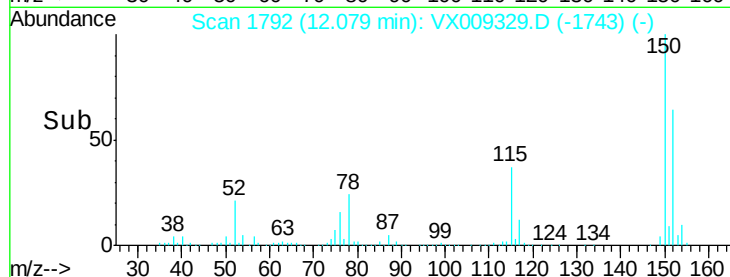
150 157.8 0.0 346.4



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 23.952 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX009329.D

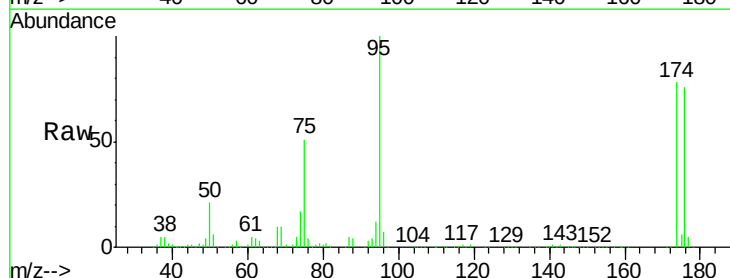
Acq: 03 May 2019 22:53

Tgt Ion: 75 Resp: 67395

Ion Ratio Lower Upper

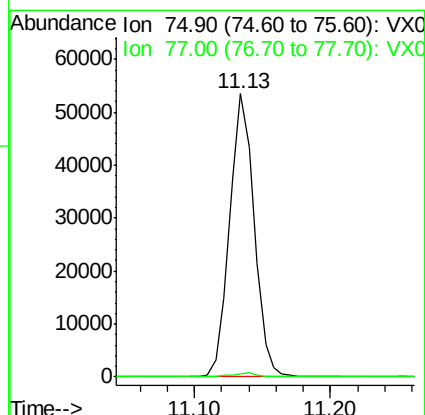
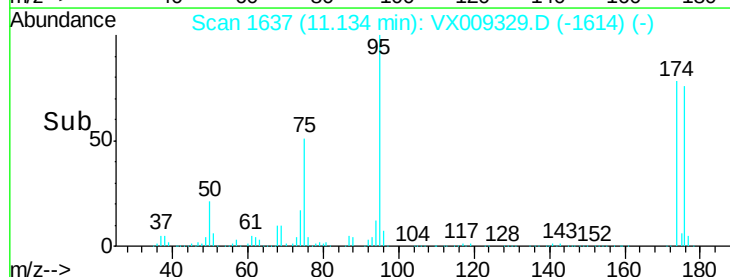
75 100

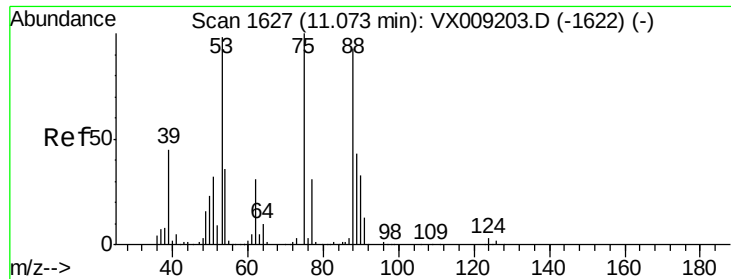
77 1.3 22.1 66.1#



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: 61.286 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX009329.D

Acq: 03 May 2019 22:53

Instrument :

MSVOA\_X

ClientSampleId :

SS052MW718-190502

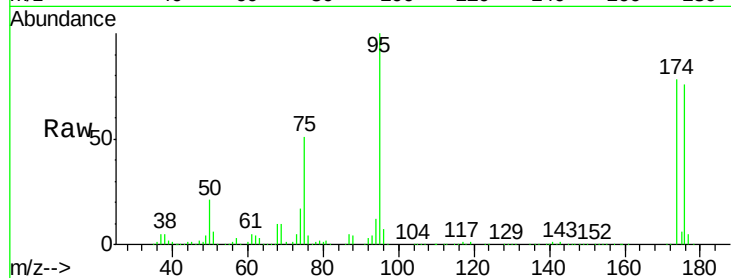
Tot Ion: 75 Resp: 67395

Ion Ratio Lower Upper

75 100

53 0.1 79.0 118.6#

89 0.0 34.7 52.1#



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

