

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070919\  
 Data File : VX010751.D  
 Acq On : 09 Jul 2019 15:24  
 Operator : JC/SP  
 Sample : K3691-05  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 WP022RW358-190704

Quant Time: Jul 10 02:11:12 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X061919W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jun 20 03:31:56 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 220138   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 344748   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 316161   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 146170   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response   | Conc    | Units | Dev(Min) |
|-----------------------------|-------|------|------------|---------|-------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.06  | 65   | 111274     | 53.91   | ug/l  | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery = | 107.82% |       |          |
| 35) Dibromofluoromethane    | 5.50  | 113  | 104810     | 49.69   | ug/l  | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery = | 99.38%  |       |          |
| 50) Toluene-d8              | 8.71  | 98   | 409858     | 50.79   | ug/l  | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery = | 101.58% |       |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 137837     | 47.31   | ug/l  | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery = | 94.62%  |       |          |

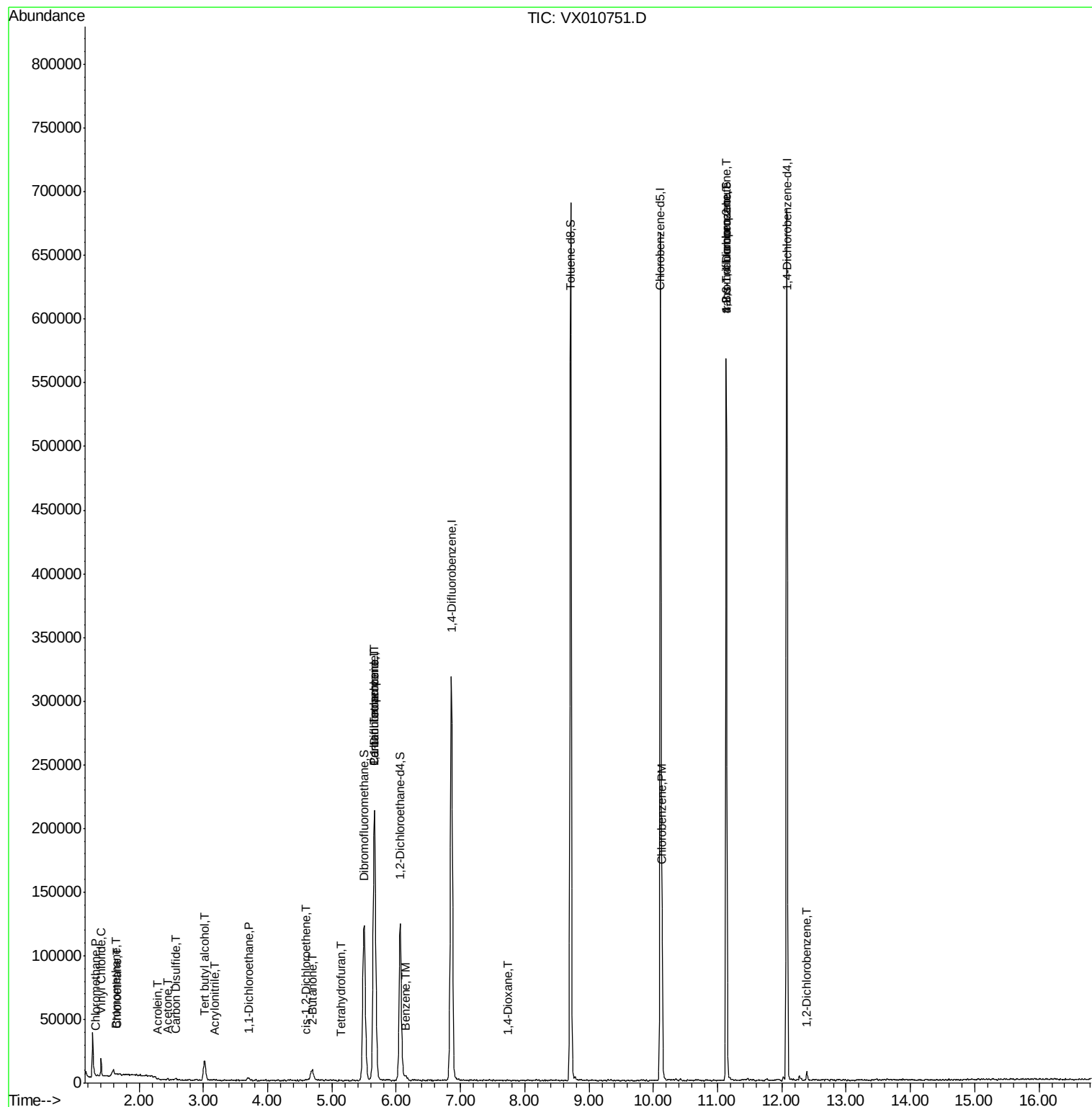
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 3) Chloromethane               | 1.33  | 50   | 521      | 0.292  | ug/l # | 40     |
| 4) Vinyl Chloride              | 1.41  | 62   | 9353     | 4.792  | ug/l   | 97     |
| 5) Bromomethane                | 1.65  | 94   | 243      | 0.256  | ug/l # | 48     |
| 6) Chloroethane                | 1.67  | 64   | 301      | 0.261  | ug/l # | 81     |
| 11) Tert butyl alcohol         | 3.01  | 59   | 9556     | 17.694 | ug/l # | 75     |
| 13) Acrolein                   | 2.29  | 56   | 113      | 0.315  | ug/l # | 1      |
| 15) Acrylonitrile              | 3.17  | 53   | 303      | 0.283  | ug/l # | 46     |
| 16) Acetone                    | 2.45  | 43   | 1737     | 1.679  | ug/l   | 92     |
| 17) Carbon Disulfide           | 2.57  | 76   | 1476     | 0.288  | ug/l # | 53     |
| 24) 1,1-Dichloroethane         | 3.70  | 63   | 2231     | 0.681  | ug/l # | 80     |
| 25) 2-Butanone                 | 4.70  | 43   | 1075     | 0.708  | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene     | 4.60  | 96   | 530      | 0.223  | ug/l   | 63     |
| 29) Tetrahydrofuran            | 5.14  | 42   | 260      | 0.277  | ug/l # | 41     |
| 36) 1,1-Dichloropropene        | 5.66  | 75   | 14315    | 5.225  | ug/l # | 48     |
| 38) Carbon Tetrachloride       | 5.66  | 117  | 20182    | 6.803  | ug/l # | 14     |
| 40) Benzene                    | 6.14  | 78   | 3925     | 0.460  | ug/l   | 97     |
| 49) 1,4-Dioxane                | 7.74  | 88   | 38       | 0.609  | ug/l # | 1      |
| 65) Chlorobenzene              | 10.14 | 112  | 48670    | 7.583  | ug/l   | 98     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 68397    | 25.678 | ug/l # | 33     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 68397    | 59.905 | ug/l # | 16     |
| 91) 1,2-Dichlorobenzene        | 12.39 | 146  | 1611     | 0.336  | ug/l   | 95     |

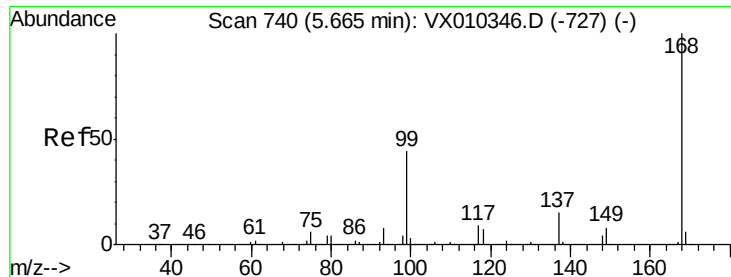
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Thu Jun 20 03:31:56 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: VX010751.D

Acq: 09 Jul 2019 15:24

Instrument :

MSVOA\_X

ClientSampleId :

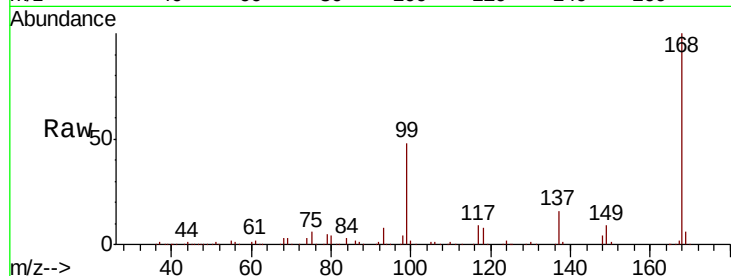
WP022RW358-190704

Tot Ion:168 Resp: 220138

Ion Ratio Lower Upper

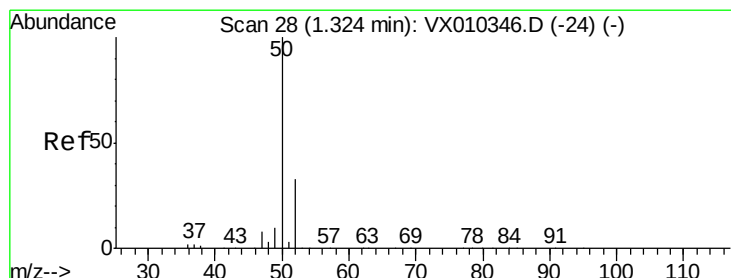
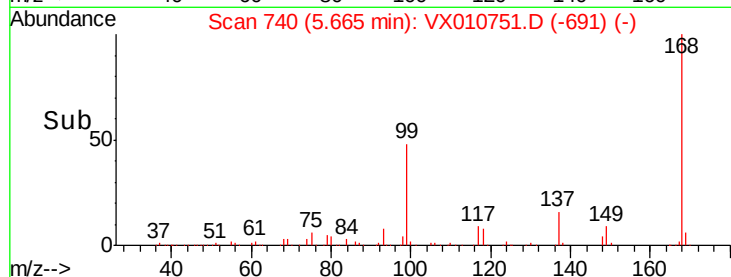
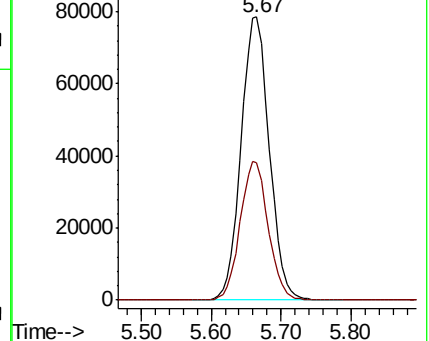
168 100

99 48.4 35.5 53.3



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#3

Chloromethane

Concen: 0.292 ug/l

RT: 1.33 min Scan# 29

Delta R.T. 0.01 min

Lab File: VX010751.D

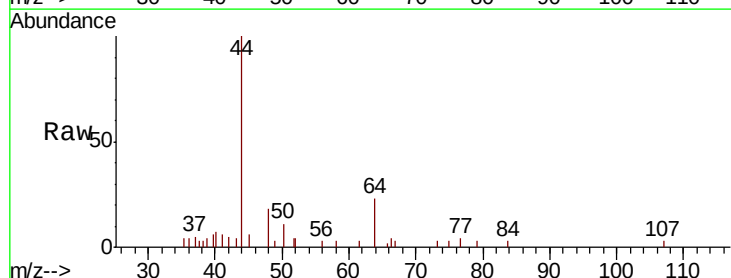
Acq: 09 Jul 2019 15:24

Tgt Ion: 50 Resp: 521

Ion Ratio Lower Upper

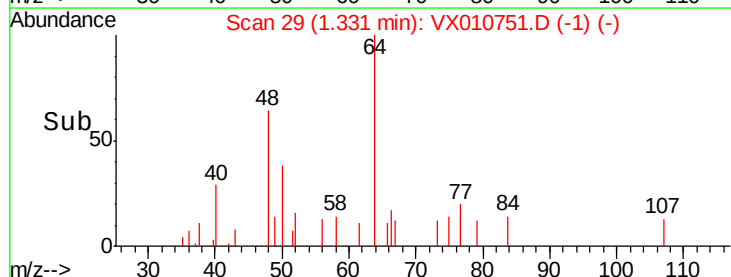
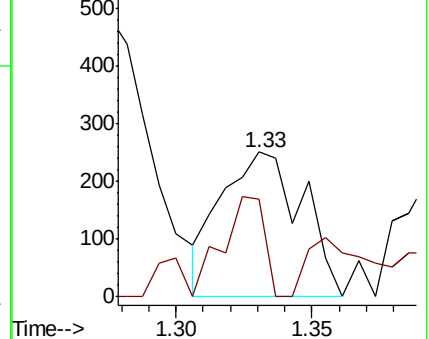
50 100

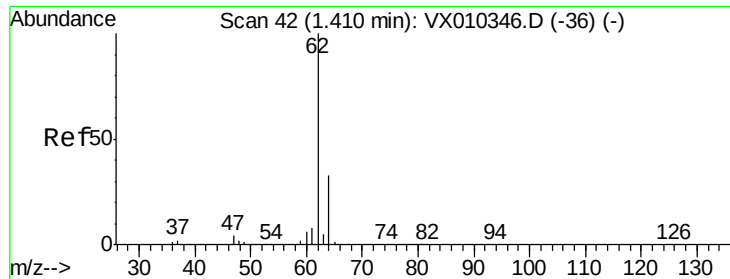
52 66.9 26.5 39.7#



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0





#4

Vinyl Chloride

Concen: 4.792 ug/l

RT: 1.41 min Scan# 42

Delta R.T. 0.00 min

Lab File: VX010751.D

Acq: 09 Jul 2019 15:24

Instrument :

MSVOA\_X

ClientSampleId :

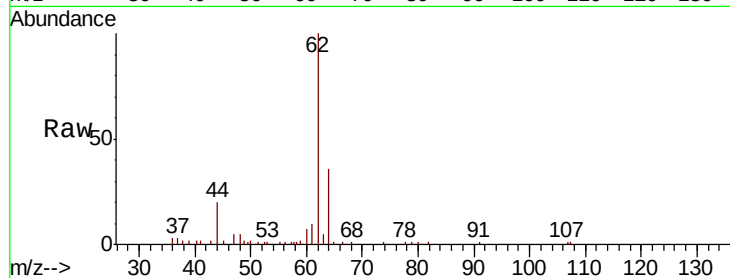
WP022RW358-190704

Tot Ion: 62 Resp: 9353

Ion Ratio Lower Upper

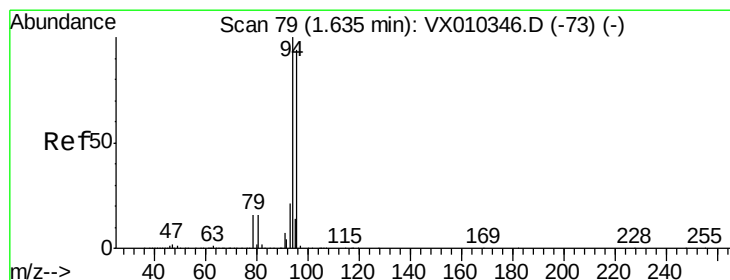
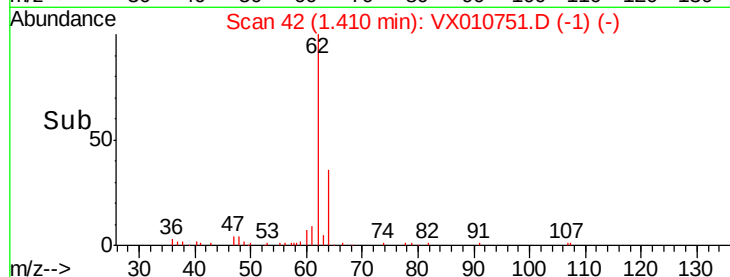
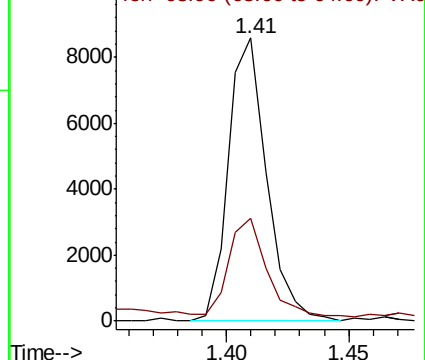
62 100

64 34.3 26.2 39.4



Abundance Ion 61.90 (61.60 to 62.60): VX0

Ion 63.90 (63.60 to 64.60): VX0



#5

Bromomethane

Concen: 0.256 ug/l

RT: 1.65 min Scan# 82

Delta R.T. 0.02 min

Lab File: VX010751.D

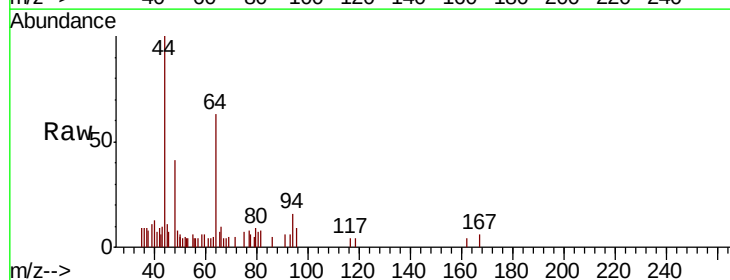
Acq: 09 Jul 2019 15:24

Tgt Ion: 94 Resp: 243

Ion Ratio Lower Upper

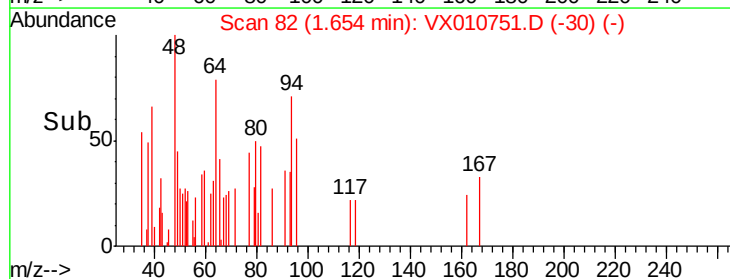
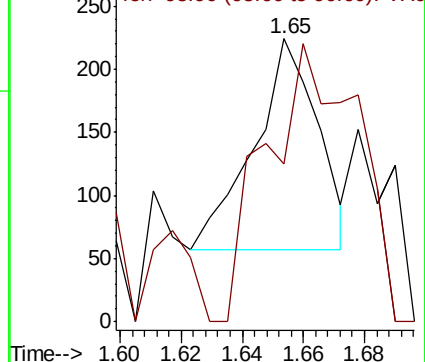
94 100

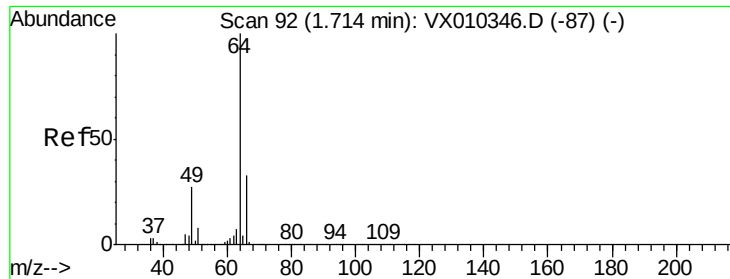
96 44.3 75.5 113.3#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0





#6

Chloroethane

Concen: 0.261 ug/l

RT: 1.67 min Scan# 84

Delta R.T. -0.05 min

Lab File: VX010751.D

Acq: 09 Jul 2019 15:24

Instrument :

MSVOA\_X

ClientSampleId :

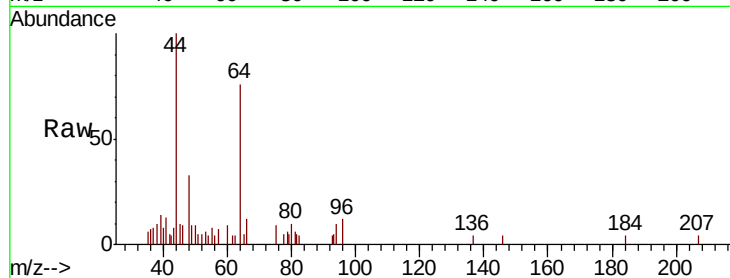
WP022RW358-190704

Tot Ion: 64 Resp: 301

Ion Ratio Lower Upper

64 100

66 22.5 26.6 40.0#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0

1.67

1200

1000

800

600

400

200

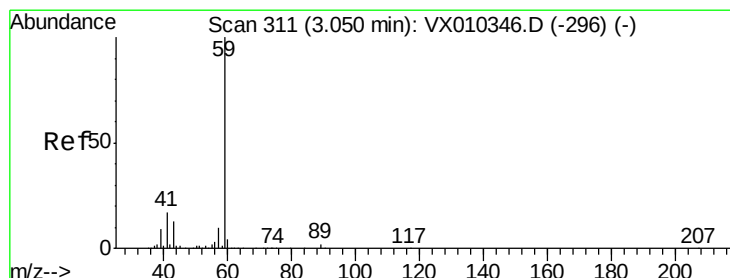
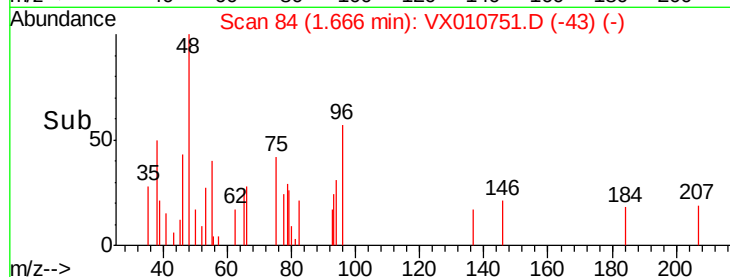
0

1.64

1.66

1.68

Time-->



#11

Tert butyl alcohol

Concen: 17.694 ug/l

RT: 3.01 min Scan# 305

Delta R.T. -0.04 min

Lab File: VX010751.D

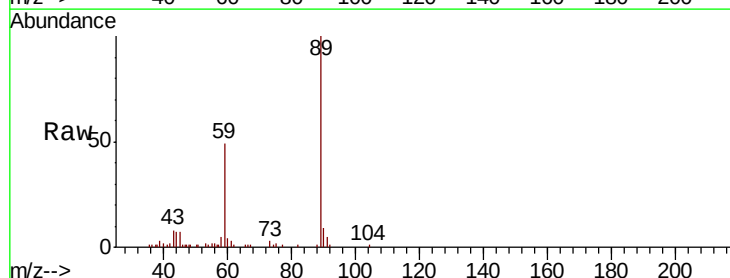
Acq: 09 Jul 2019 15:24

Tgt Ion: 59 Resp: 9556

Ion Ratio Lower Upper

59 100

57 0.5 7.7 11.5#



Abundance Ion 59.00 (58.70 to 59.70): VX0

Ion 57.00 (56.70 to 57.70): VX0

3.01

4000

3000

2000

1000

0

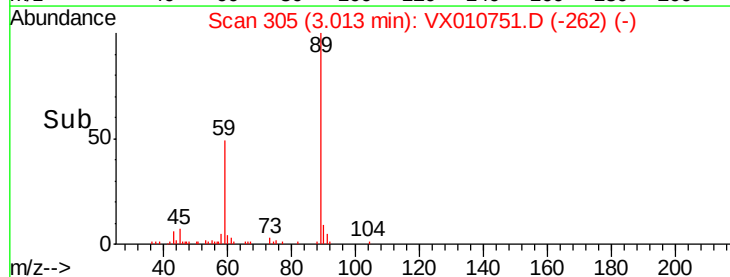
2.90

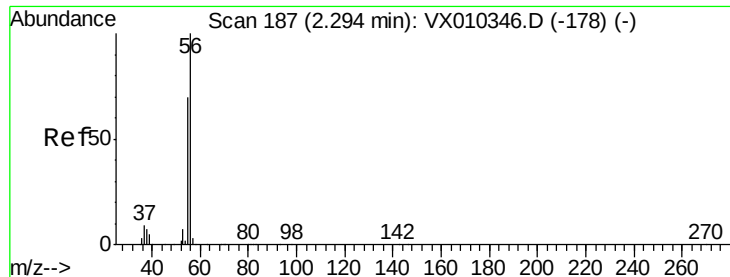
3.00

3.10

3.20

Time-->





#13

Acrolein

Concen: 0.315 ug/l

RT: 2.29 min Scan# 187

Delta R.T. 0.00 min

Lab File: VX010751.D

Acq: 09 Jul 2019 15:24

Instrument :

MSVOA\_X

ClientSampleId :

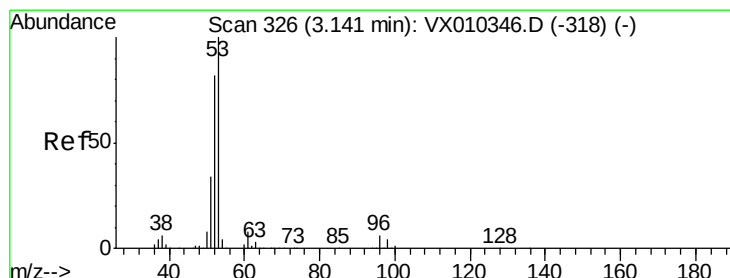
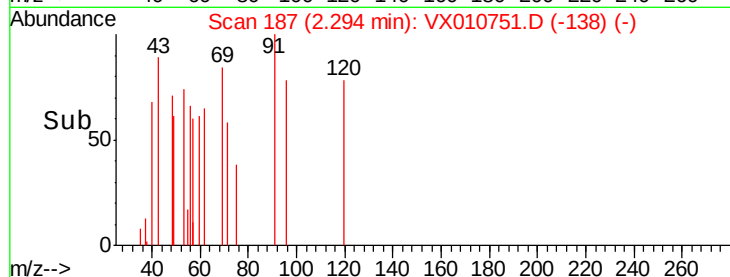
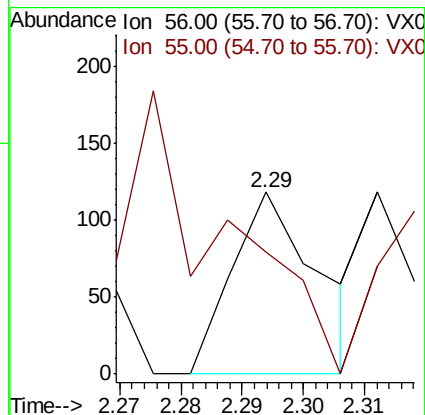
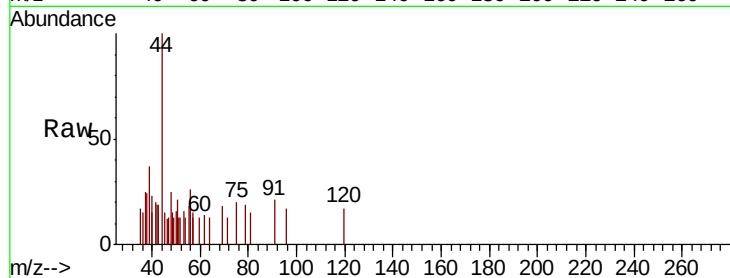
WP022RW358-190704

Tot Ion: 56 Resp: 113

Ion Ratio Lower Upper

56 100

55 157.5 56.9 85.3#



#15

Acrylonitrile

Concen: 0.283 ug/l

RT: 3.17 min Scan# 330

Delta R.T. 0.02 min

Lab File: VX010751.D

Acq: 09 Jul 2019 15:24

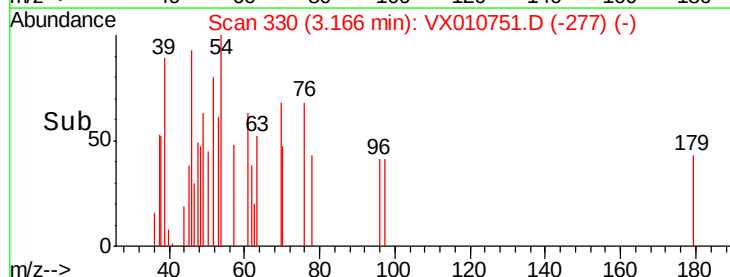
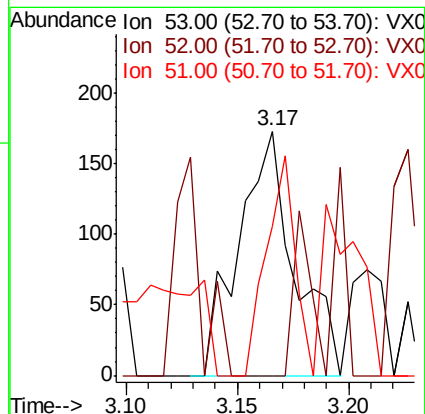
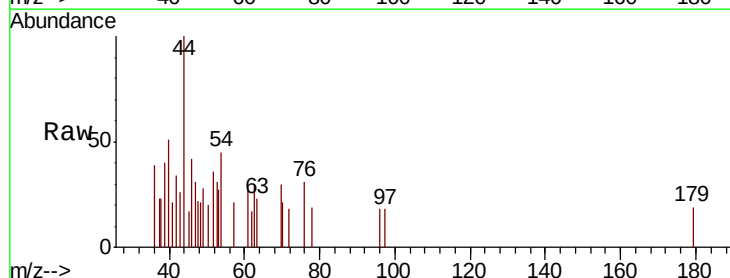
Tgt Ion: 53 Resp: 303

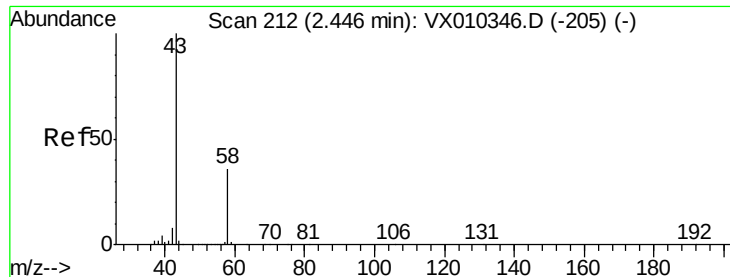
Ion Ratio Lower Upper

53 100

52 20.8 65.5 98.3#

51 46.5 28.2 42.4#





#16

Acetone

Concen: 1.679 ug/l

RT: 2.45 min Scan# 212

Delta R.T. 0.00 min

Lab File: VX010751.D

Acq: 09 Jul 2019 15:24

Instrument :

MSVOA\_X

ClientSampleId :

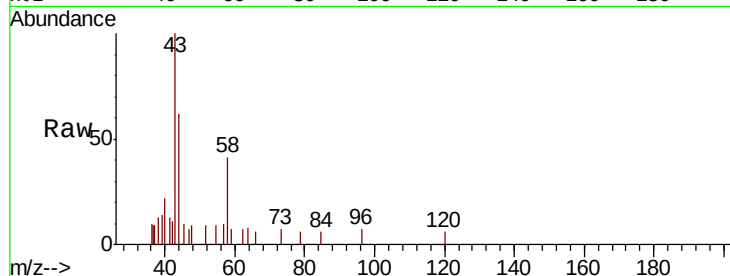
WP022RW358-190704

Tot Ion: 43 Resp: 1737

Ion Ratio Lower Upper

43 100

58 40.8 28.9 43.3



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

2.45

800

600

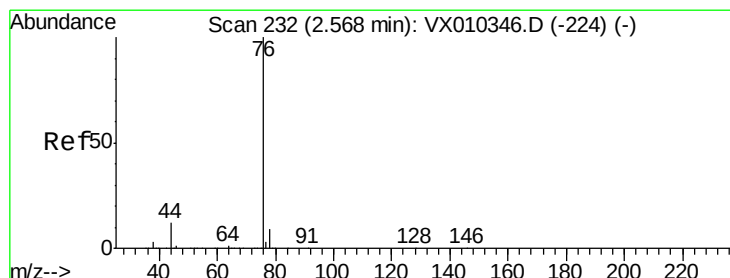
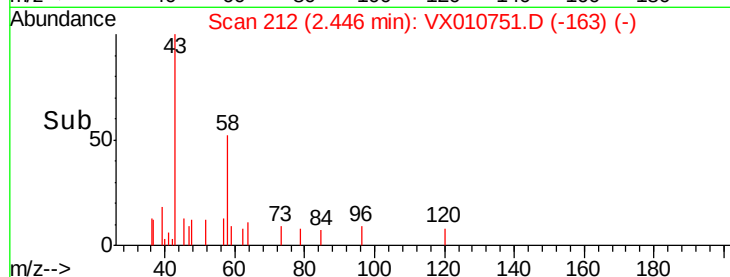
400

200

0

2.40 2.45 2.50

Time-->



#17

Carbon Disulfide

Concen: 0.288 ug/l

RT: 2.57 min Scan# 232

Delta R.T. 0.00 min

Lab File: VX010751.D

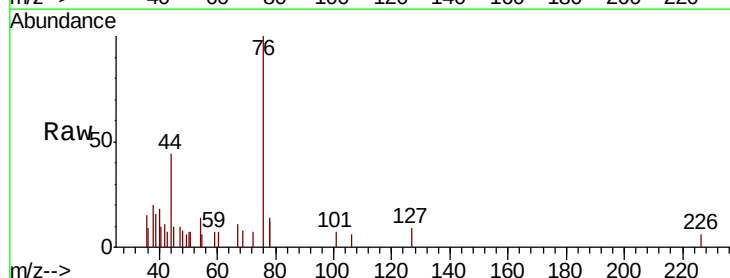
Acq: 09 Jul 2019 15:24

Tgt Ion: 76 Resp: 1476

Ion Ratio Lower Upper

76 100

78 26.0 7.3 10.9#



Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0

2.57

800

600

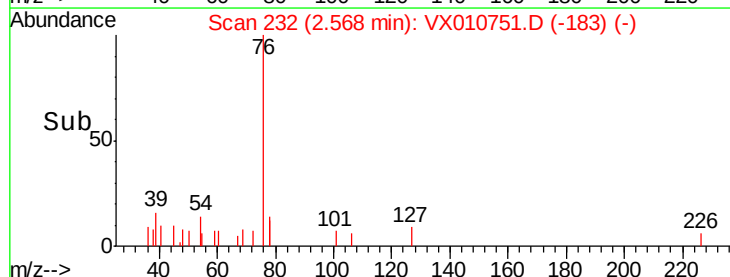
400

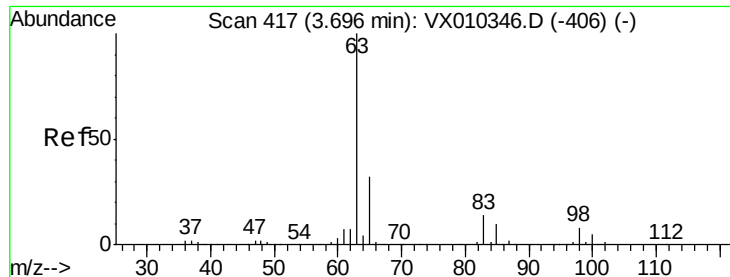
200

0

2.50 2.55 2.60

Time-->





#24

1,1-Dichloroethane

Concen: 0.681 ug/l

RT: 3.70 min Scan# 418

Delta R.T. 0.01 min

Lab File: VX010751.D

Acq: 09 Jul 2019 15:24

Instrument :

MSVOA\_X

ClientSampleId :

WP022RW358-190704

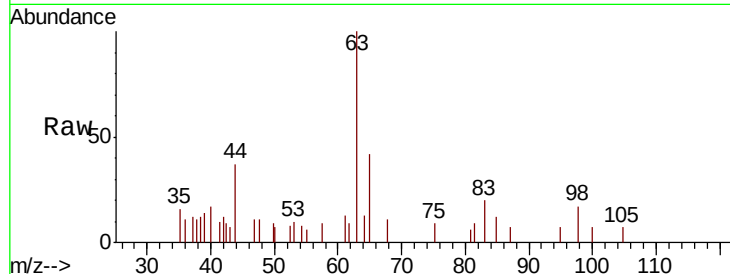
Tot Ion: 63 Resp: 2231

Ion Ratio Lower Upper

63 100

98 17.4 3.9 11.7#

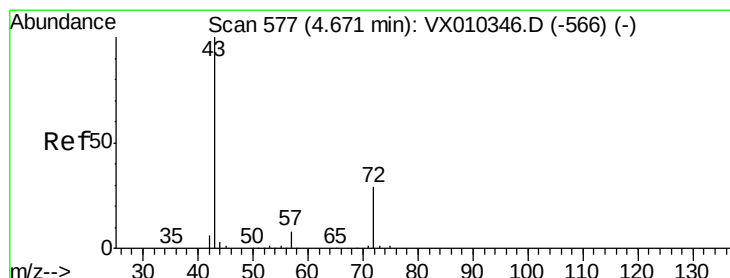
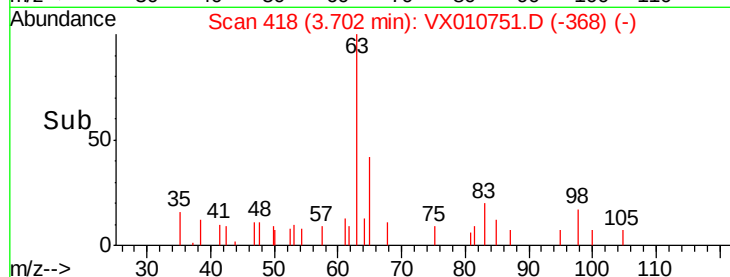
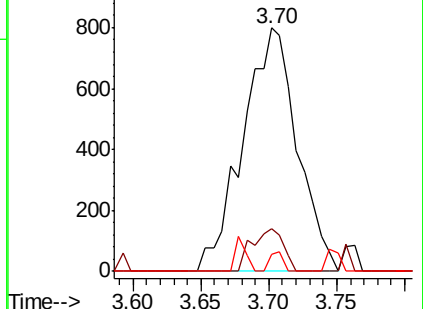
100 7.0 2.4 7.1



Abundance Ion 62.90 (62.60 to 63.60): VX0

Ion 97.90 (97.60 to 98.60): VX0

Ion 99.90 (99.60 to 100.60): VX0



#25

2-Butanone

Concen: 0.708 ug/l

RT: 4.70 min Scan# 581

Delta R.T. 0.02 min

Lab File: VX010751.D

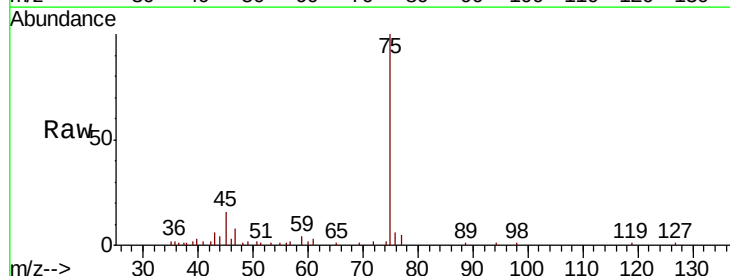
Acq: 09 Jul 2019 15:24

Tgt Ion: 43 Resp: 1075

Ion Ratio Lower Upper

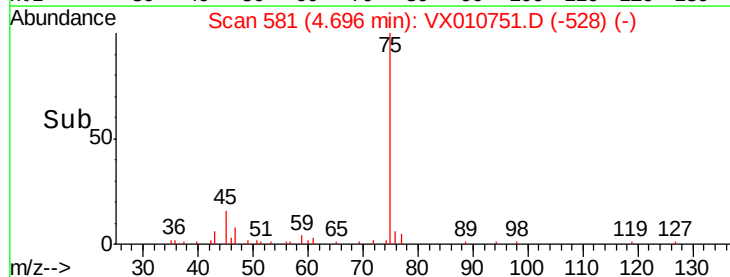
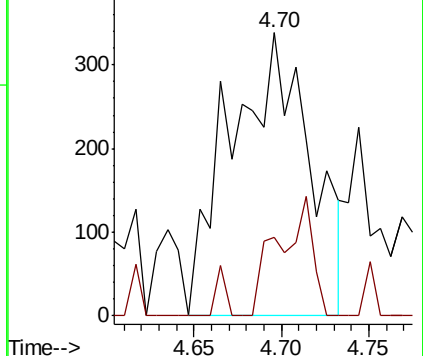
43 100

72 27.8 23.3 34.9

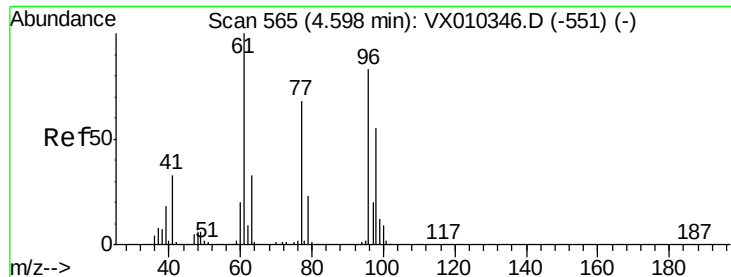


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 72.00 (71.70 to 72.70): VX0





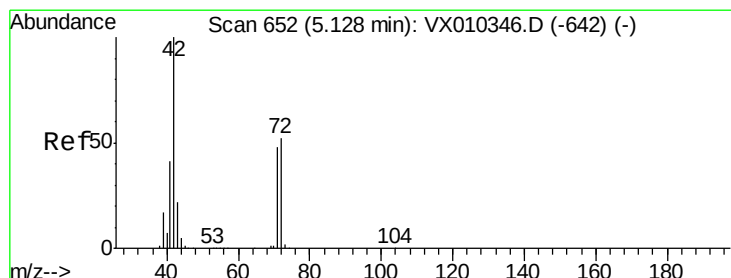
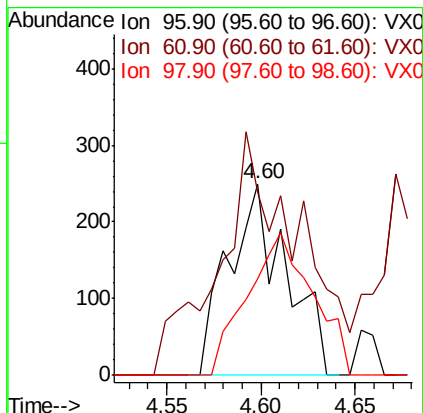
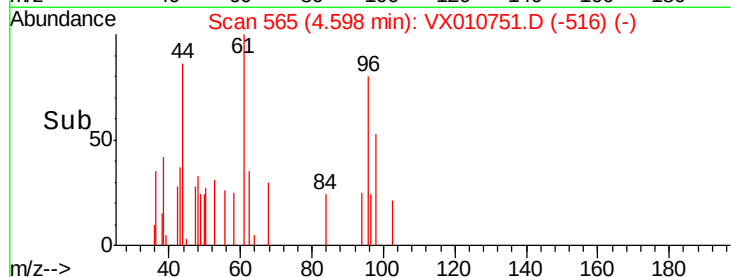
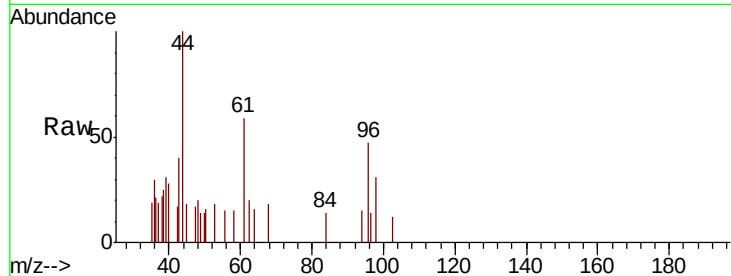


#27

cis-1,2-Dichloroethene  
Concen: 0.223 ug/l  
RT: 4.60 min Scan# 565  
Delta R.T. 0.00 min  
Lab File: VX010751.D  
Acq: 09 Jul 2019 15:24

Instrument :  
MSVOA\_X  
ClientSampleId :  
WP022RW358-190704

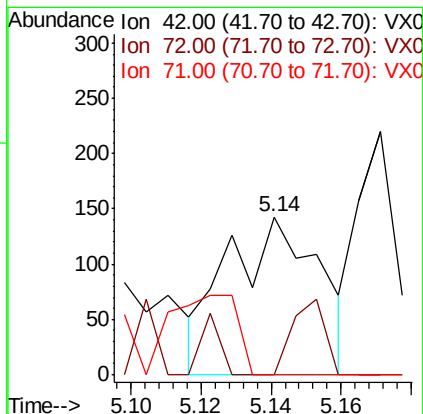
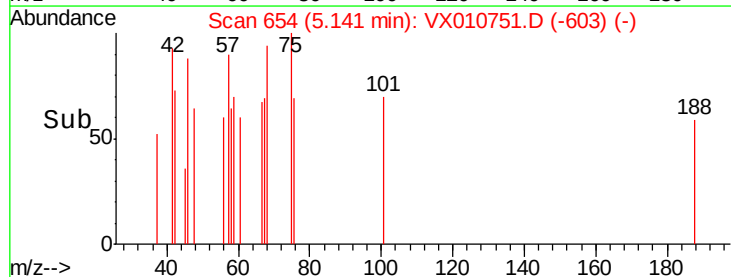
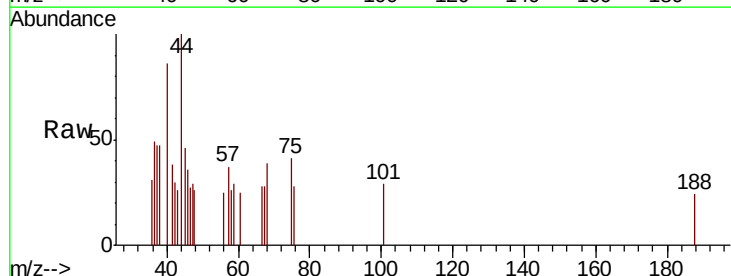
Tot Ion: 96 Resp: 530  
Ion Ratio Lower Upper  
96 100  
61 174.5 0.0 251.8  
98 84.3 0.0 129.4

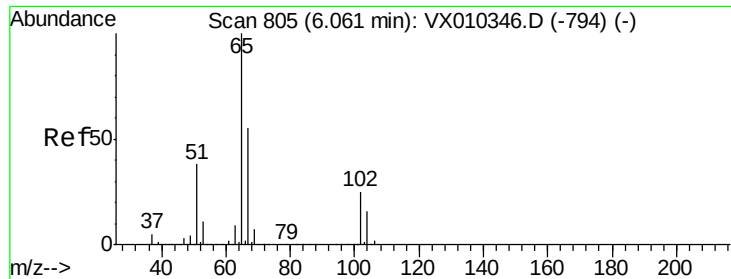


#29

Tetrahydrofuran  
Concen: 0.277 ug/l  
RT: 5.14 min Scan# 654  
Delta R.T. 0.01 min  
Lab File: VX010751.D  
Acq: 09 Jul 2019 15:24

Tgt Ion: 42 Resp: 260  
Ion Ratio Lower Upper  
42 100  
72 16.9 40.6 60.8#  
71 0.0 37.8 56.8#





#33

1,2-Dichloroethane-d4

Concen: 53.911 ug/l

RT: 6.06 min Scan# 805

Delta R.T. 0.00 min

Lab File: VX010751.D

Acq: 09 Jul 2019 15:24

Instrument :

MSVOA\_X

ClientSampleId :

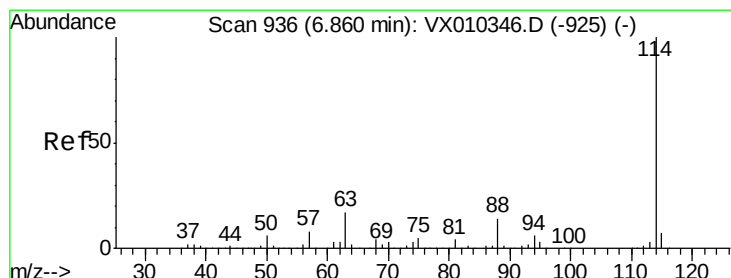
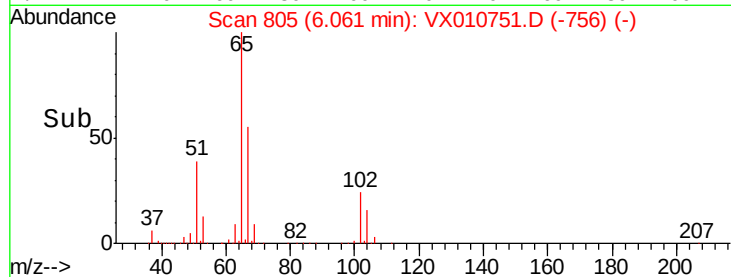
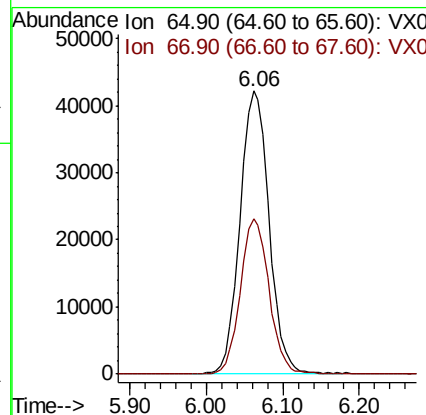
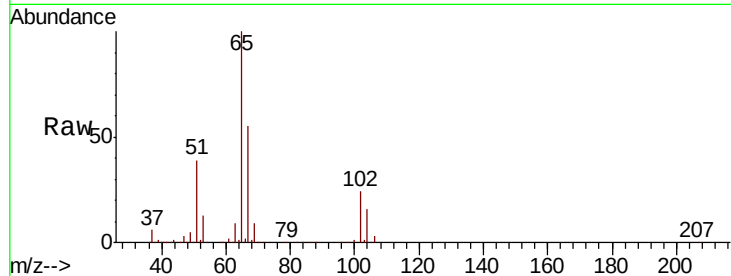
WP022RW358-190704

Tot Ion: 65 Resp: 111274

Ion Ratio Lower Upper

65 100

67 54.6 0.0 110.2



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.86 min Scan# 936

Delta R.T. 0.00 min

Lab File: VX010751.D

Acq: 09 Jul 2019 15:24

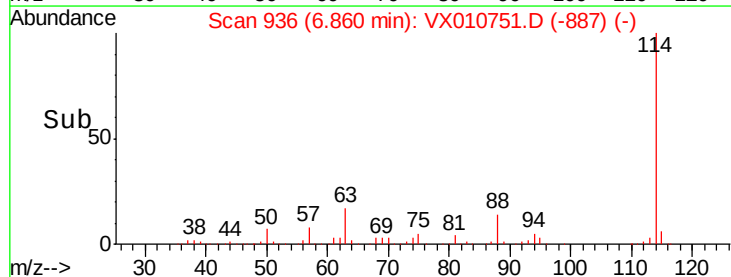
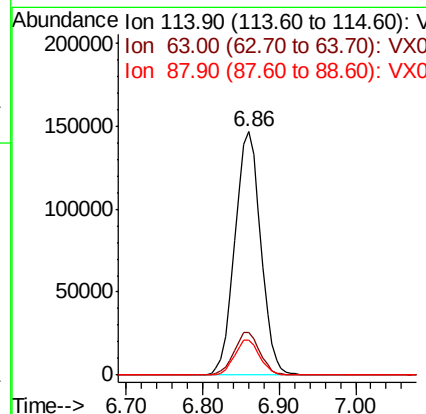
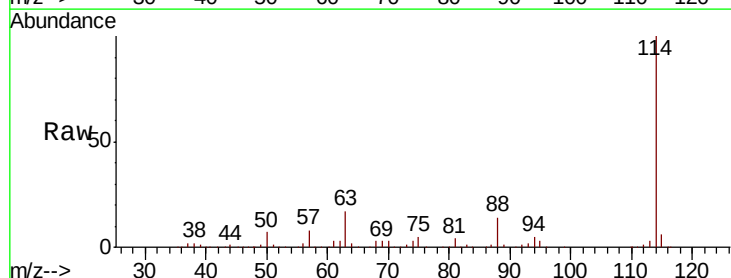
Tgt Ion: 114 Resp: 344748

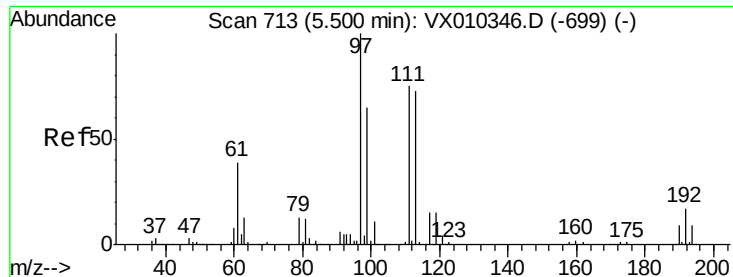
Ion Ratio Lower Upper

114 100

63 17.4 0.0 33.8

88 14.2 0.0 27.6

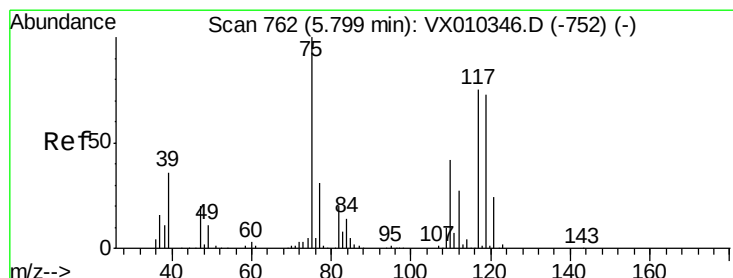
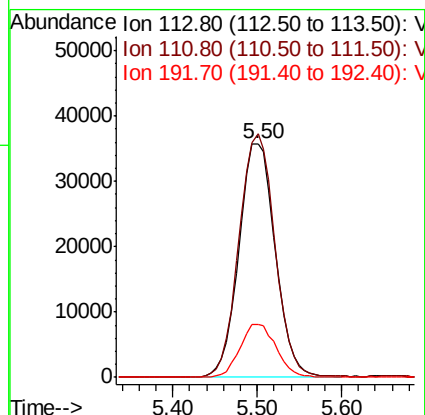
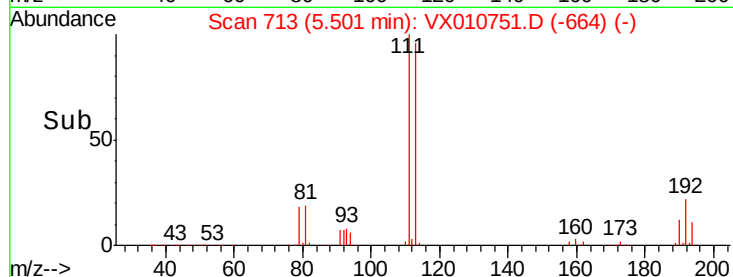
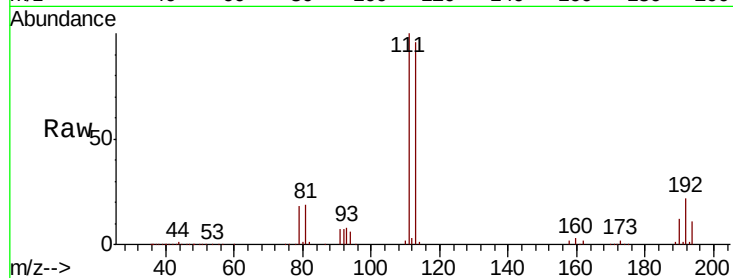




#35  
 Dibromofluoromethane  
 Concen: 49.690 ug/l  
 RT: 5.50 min Scan# 713  
 Delta R.T. 0.00 min  
 Lab File: VX010751.D  
 Acq: 09 Jul 2019 15:24

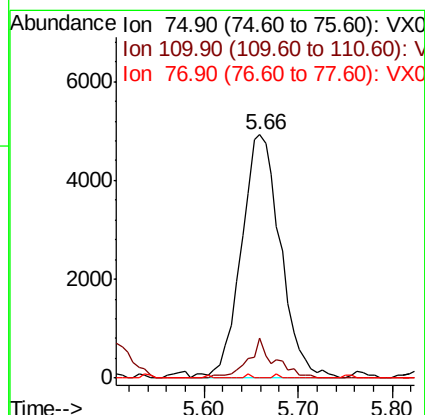
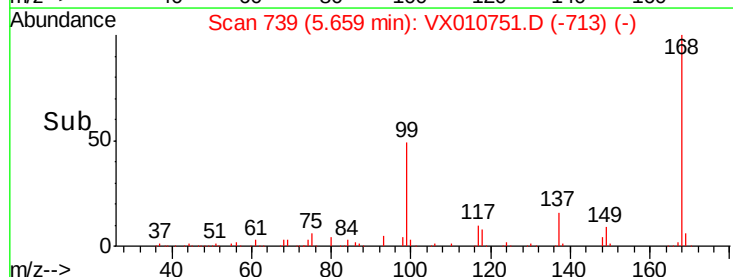
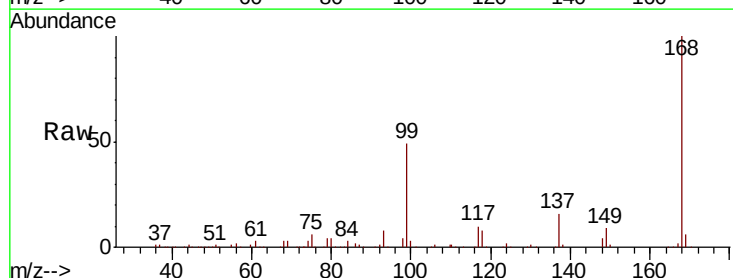
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 WP022RW358-190704

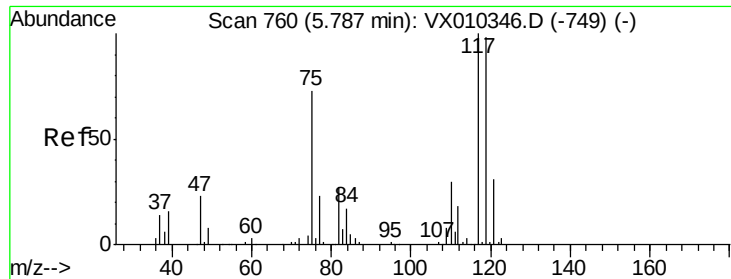
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 103.0 | 81.2  | 121.8 |
| 192     | 22.6  | 18.6  | 27.8  |



#36  
 1,1-Dichloropropene  
 Concen: 5.225 ug/l  
 RT: 5.66 min Scan# 739  
 Delta R.T. -0.14 min  
 Lab File: VX010751.D  
 Acq: 09 Jul 2019 15:24

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 11.2  | 20.8  | 62.2# |
| 77      | 0.2   | 25.4  | 38.0# |





#38

Carbon Tetrachloride

Concen: 6.803 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.13 min

Lab File: VX010751.D

Acq: 09 Jul 2019 15:24

Instrument :

MSVOA\_X

ClientSampleId :

WP022RW358-190704

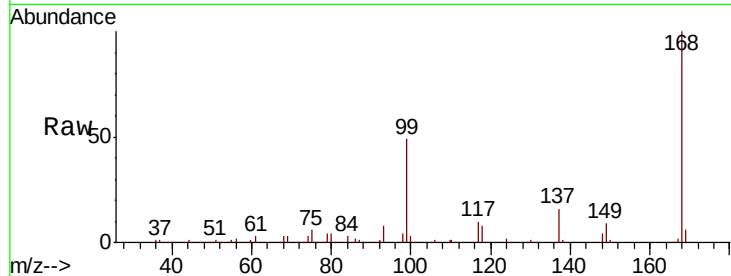
Tot Ion:117 Resp: 20182

Ion Ratio Lower Upper

117 100

119 3.4 78.2 117.4#

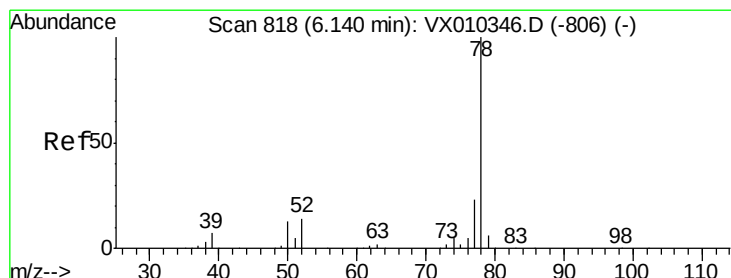
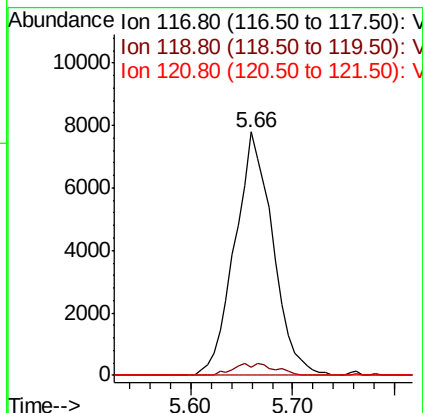
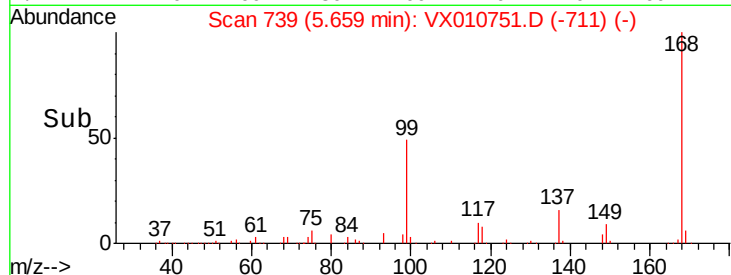
121 0.0 24.7 37.1#



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



#40

Benzene

Concen: 0.460 ug/l

RT: 6.14 min Scan# 818

Delta R.T. 0.00 min

Lab File: VX010751.D

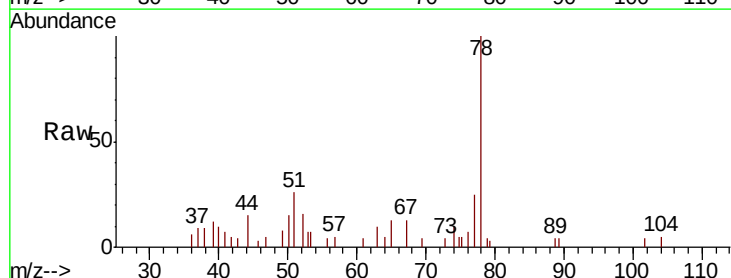
Acq: 09 Jul 2019 15:24

Tgt Ion: 78 Resp: 3925

Ion Ratio Lower Upper

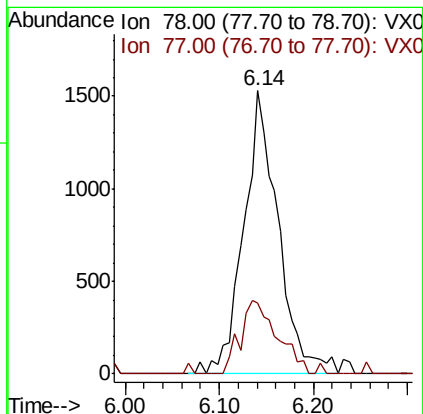
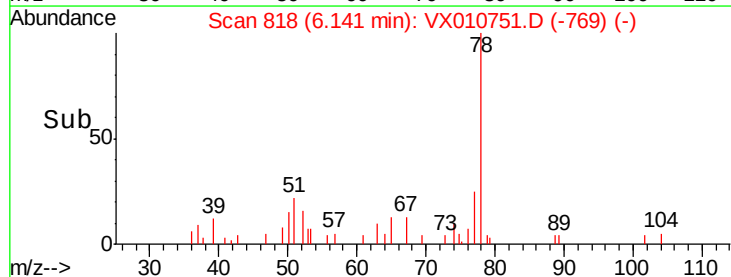
78 100

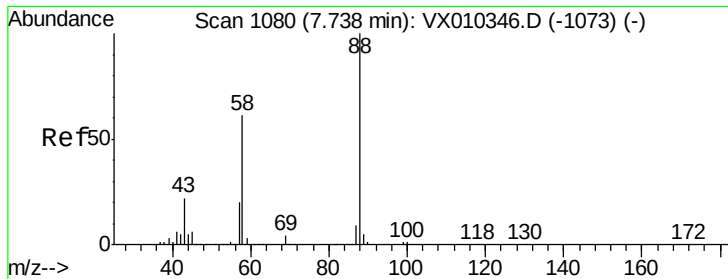
77 25.0 18.6 28.0



Abundance Ion 78.00 (77.70 to 78.70): VX0

Ion 77.00 (76.70 to 77.70): VX0

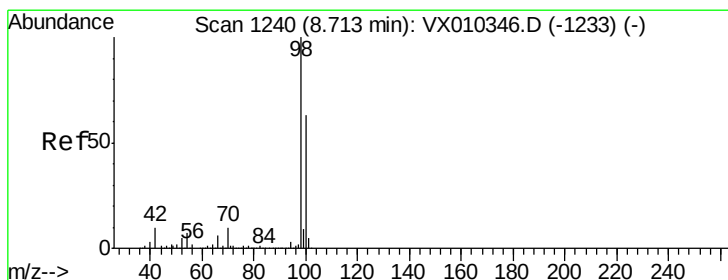
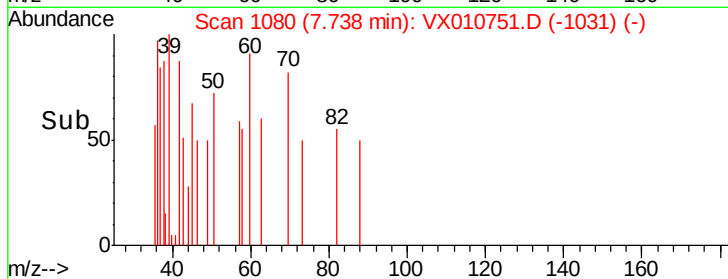
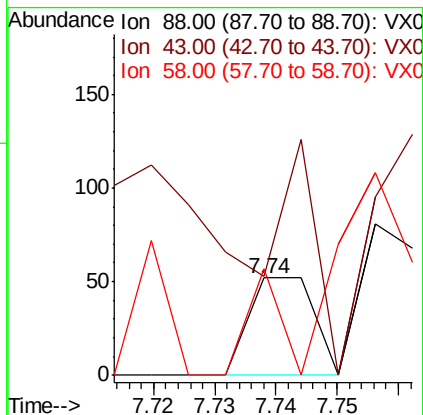
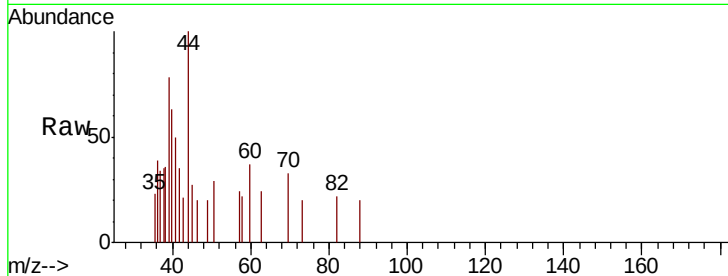




#49  
1,4-Dioxane  
Concen: 0.609 ug/l  
RT: 7.74 min Scan# 1080  
Delta R.T. 0.00 min  
Lab File: VX010751.D  
Acq: 09 Jul 2019 15:24

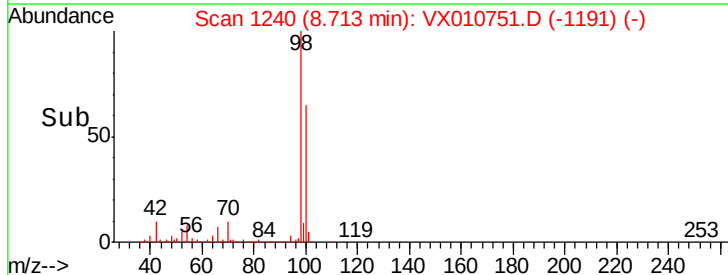
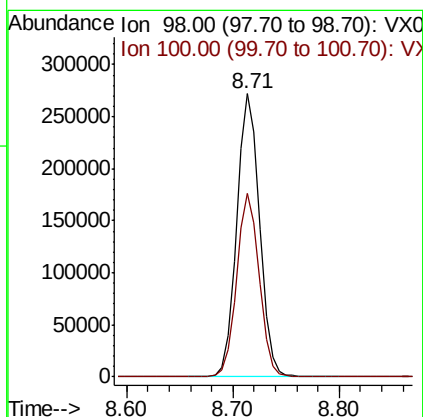
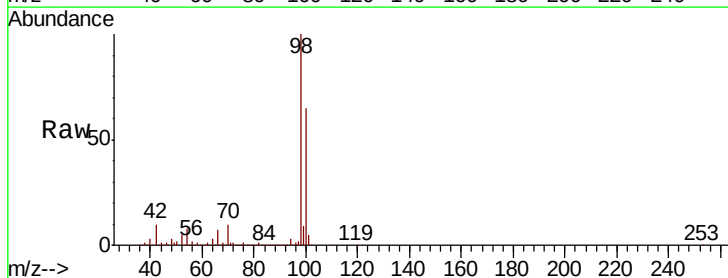
Instrument :  
MSVOA\_X  
ClientSampleId :  
WP022RW358-190704

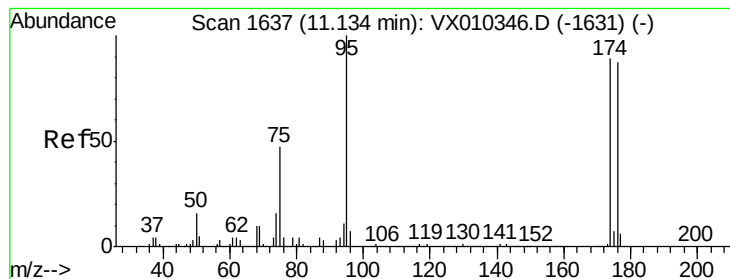
Tot Ion: 88 Resp: 38  
Ion Ratio Lower Upper  
88 100  
43 494.7 20.2 30.2#  
58 68.4 49.5 74.3



#50  
Toluene-d8  
Concen: 50.789 ug/l  
RT: 8.71 min Scan# 1240  
Delta R.T. 0.00 min  
Lab File: VX010751.D  
Acq: 09 Jul 2019 15:24

Tgt Ion: 98 Resp: 409858  
Ion Ratio Lower Upper  
98 100  
100 63.9 51.6 77.4





#62

4-Bromofluorobenzene

Concen: 47.311 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.00 min

Lab File: VX010751.D

Acq: 09 Jul 2019 15:24

Instrument :

MSVOA\_X

ClientSampleId :

WP022RW358-190704

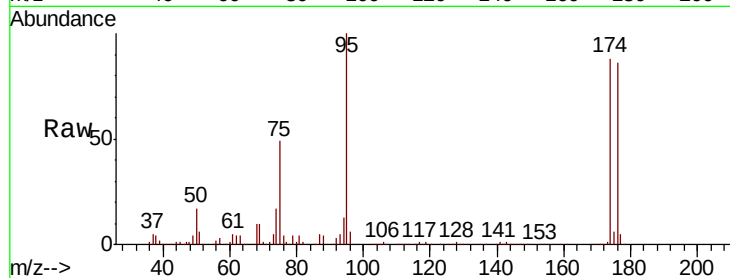
Tot Ion: 95 Resp: 137837

Ion Ratio Lower Upper

95 100

174 94.0 0.0 187.6

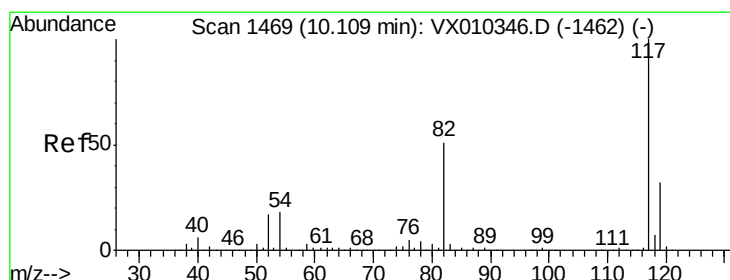
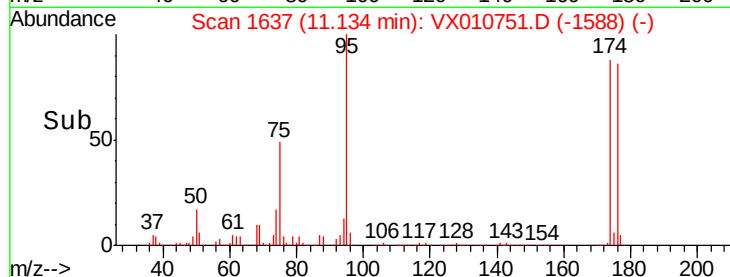
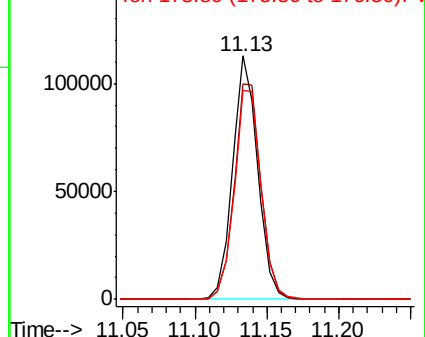
176 92.0 0.0 184.0



Abundance Ion 94.90 (94.60 to 95.60): VX010751.D (-1588) (-)

Ion 173.80 (173.50 to 174.50): VX010751.D (-1588) (-)

Ion 175.80 (175.50 to 176.50): VX010751.D (-1588) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.11 min Scan# 1469

Delta R.T. 0.00 min

Lab File: VX010751.D

Acq: 09 Jul 2019 15:24

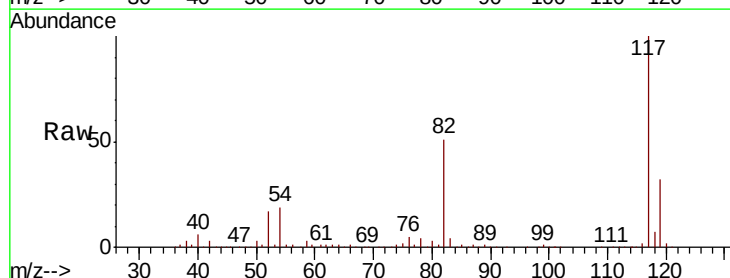
Tgt Ion: 117 Resp: 316161

Ion Ratio Lower Upper

117 100

82 51.5 41.2 61.8

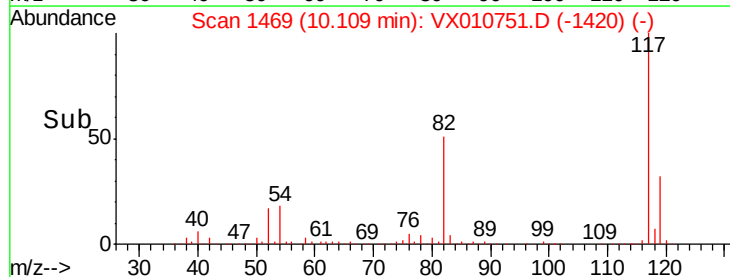
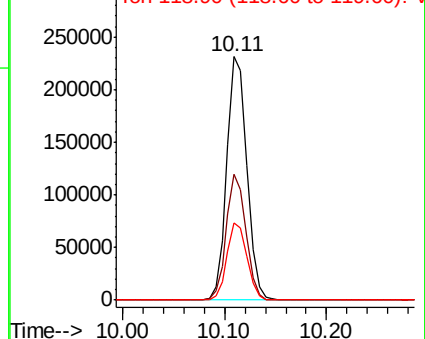
119 31.7 25.5 38.3

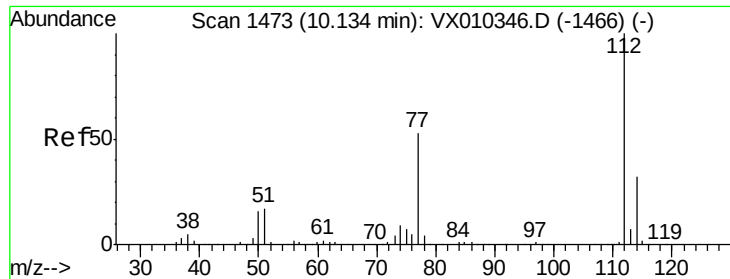


Abundance Ion 116.90 (116.60 to 117.60): VX010751.D (-1420) (-)

Ion 82.00 (81.70 to 82.70): VX010751.D (-1420) (-)

Ion 118.90 (118.60 to 119.60): VX010751.D (-1420) (-)

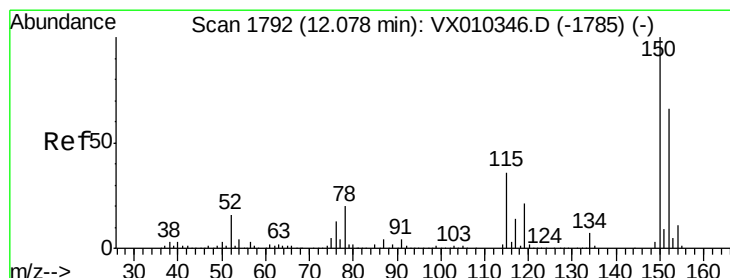
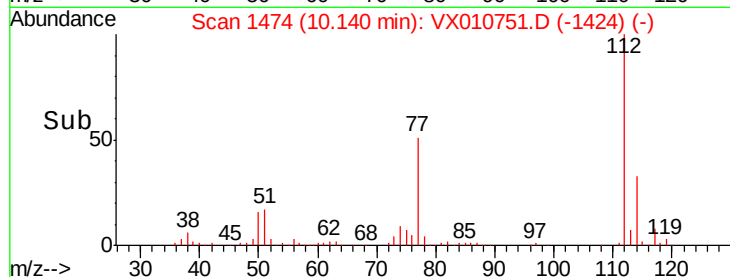
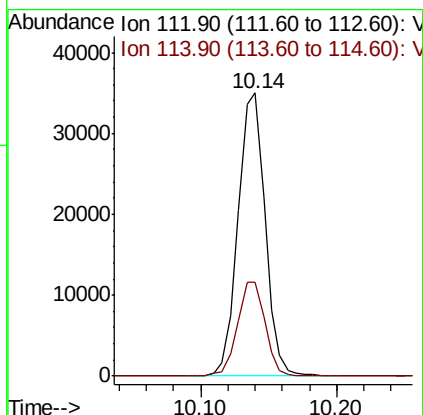
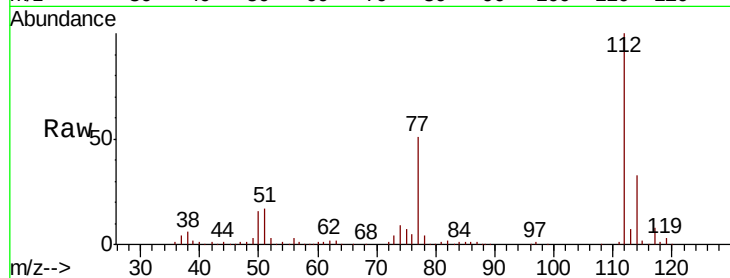




#65  
Chlorobenzene  
Concen: 7.583 ug/l  
RT: 10.14 min Scan# 1474  
Delta R.T. 0.01 min  
Lab File: VX010751.D  
Acq: 09 Jul 2019 15:24

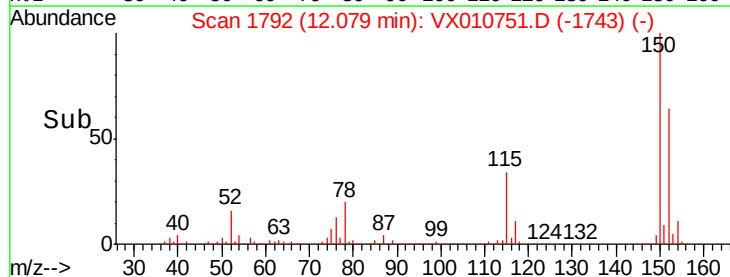
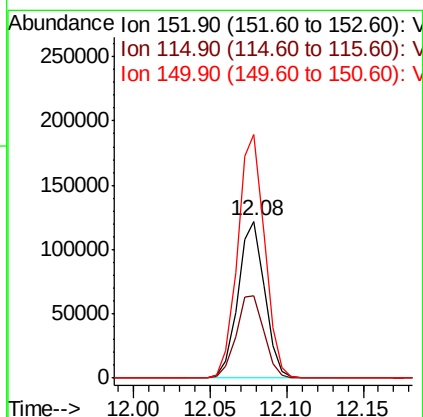
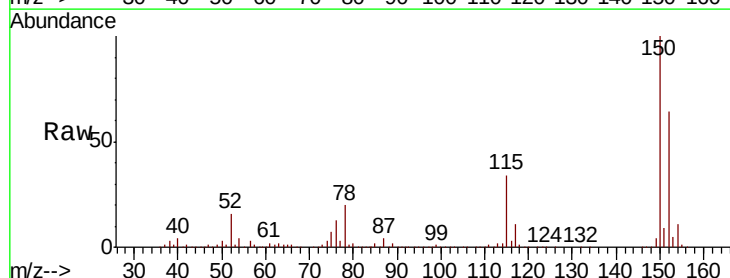
Instrument :  
MSVOA\_X  
ClientSampleId :  
WP022RW358-190704

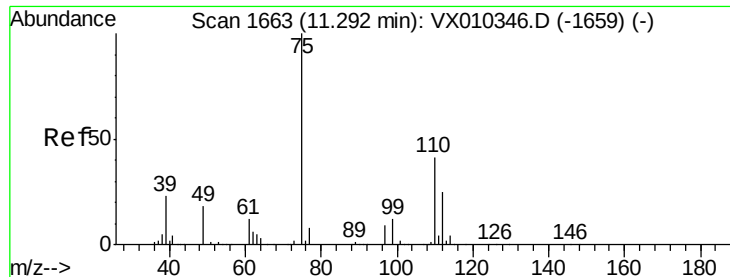
Tot Ion:112 Resp: 48670  
Ion Ratio Lower Upper  
112 100  
114 33.1 25.4 38.2



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.08 min Scan# 1792  
Delta R.T. 0.00 min  
Lab File: VX010751.D  
Acq: 09 Jul 2019 15:24

Tgt Ion:152 Resp: 146170  
Ion Ratio Lower Upper  
152 100  
115 55.4 38.6 115.7  
150 158.0 0.0 347.4

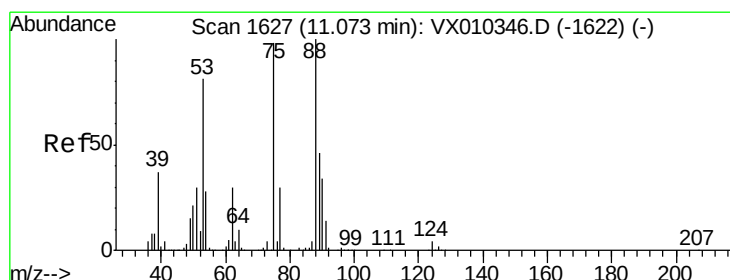
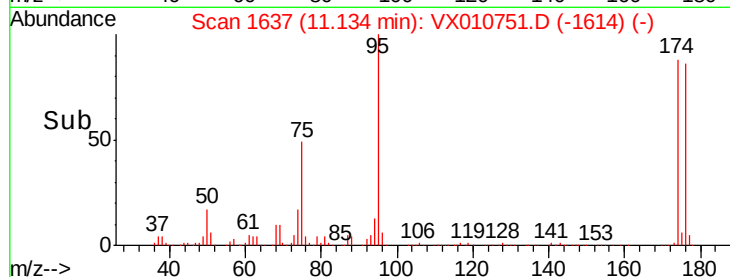
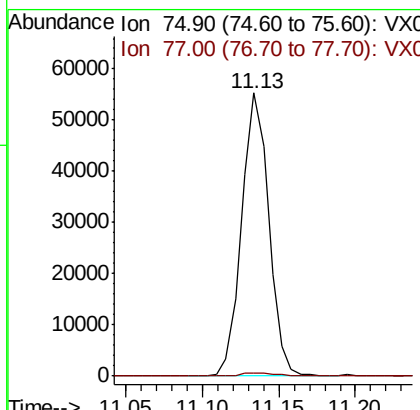
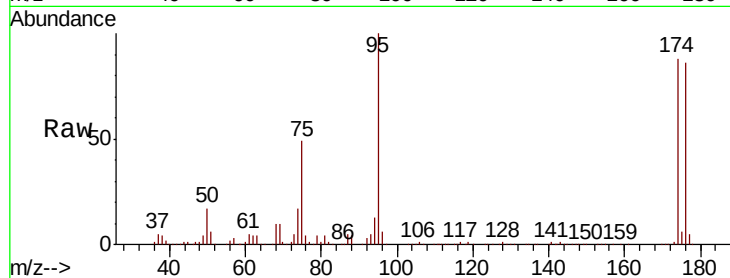




#76  
 1,2,3-Trichloropropane  
 Concen: 25.678 ug/l  
 RT: 11.13 min Scan# 1637  
 Delta R.T. -0.16 min  
 Lab File: VX010751.D  
 Acq: 09 Jul 2019 15:24

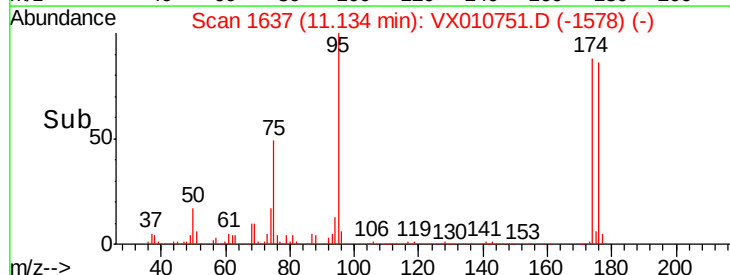
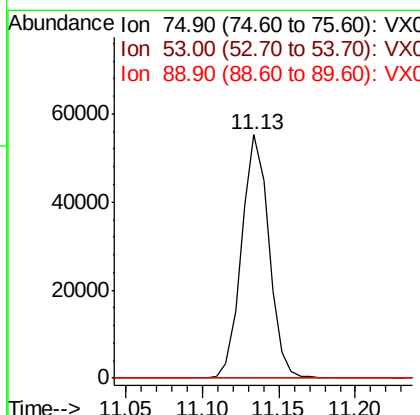
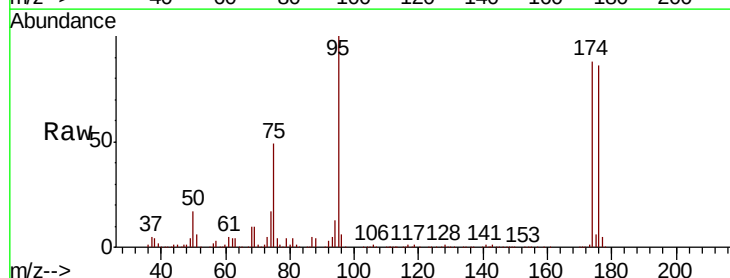
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 WP022RW358-190704

Tot Ion: 75 Resp: 68397  
 Ion Ratio Lower Upper  
 75 100  
 77 1.4 22.6 67.8#

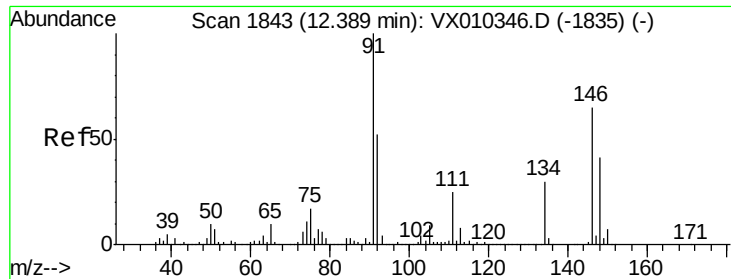


#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 59.905 ug/l  
 RT: 11.13 min Scan# 1637  
 Delta R.T. 0.06 min  
 Lab File: VX010751.D  
 Acq: 09 Jul 2019 15:24

Tgt Ion: 75 Resp: 68397  
 Ion Ratio Lower Upper  
 75 100  
 53 0.2 66.1 99.1#  
 89 0.0 37.8 56.6#







#91  
 1,2-Dichlorobenzene  
 Concen: 0.336 ug/l  
 RT: 12.39 min Scan# 1843  
 Delta R.T. 0.00 min  
 Lab File: VX010751.D  
 Acq: 09 Jul 2019 15:24

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 WP022RW358-190704

Tot Ion:146 Resp: 1611  
 Ion Ratio Lower Upper  
 146 100  
 111 42.7 19.2 57.6  
 148 60.6 32.0 96.0

