

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX041319\  
 Data File : VX008945.D  
 Acq On : 13 Apr 2019 20:26  
 Operator : JC/SP  
 Sample : K2385-15  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Apr 14 04:17:14 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X040319W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Apr 04 04:47:41 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.66  | 168  | 195091   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 309076   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 263707   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 106998   | 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   | 125889   | 44.24 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 88.48% |          |
| 35) Dibromofluoromethane    | 5.50  | 113  | 93046    | 47.09 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.18% |          |
| 50) Toluene-d8              | 8.71  | 98   | 386756   | 49.15 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.30% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 124236   | 44.53 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 89.06% |          |

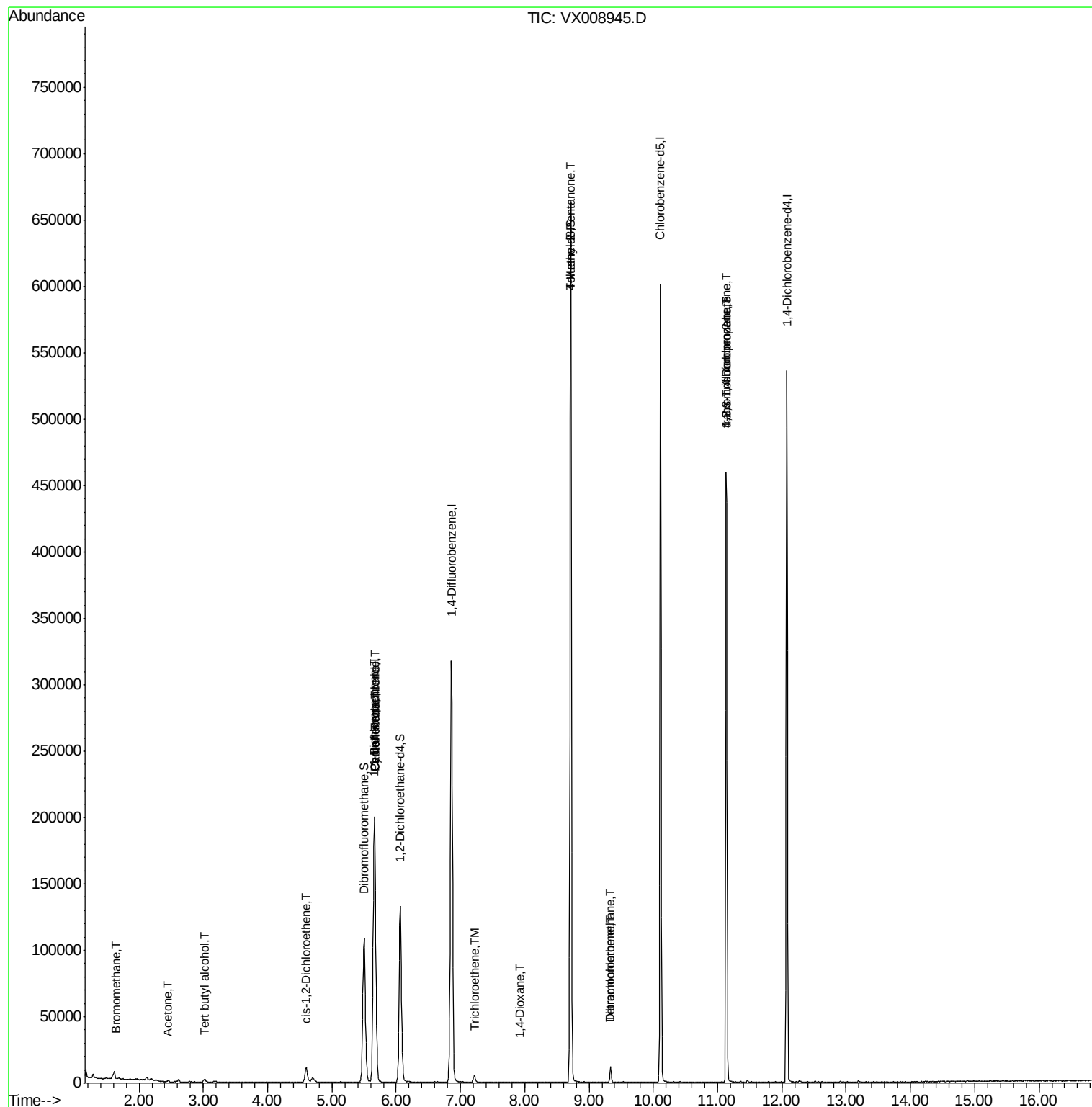
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 3) Chloromethane               | 1.33  | 50   | 178      | Below Cal | #      | 59     |
| 5) Bromomethane                | 1.65  | 94   | 110      | 1.956     | ug/l # | 65     |
| 6) Chloroethane                | 1.71  | 64   | 21       | Below Cal | #      | 43     |
| 11) Tert butyl alcohol         | 3.02  | 59   | 1456     | 2.186     | ug/l # | 72     |
| 16) Acetone                    | 2.45  | 43   | 971      | 0.592     | ug/l   | 96     |
| 17) Carbon Disulfide           | 2.57  | 76   | 368      | Below Cal | #      | 75     |
| 27) cis-1,2-Dichloroethene     | 4.60  | 96   | 6784     | 2.419     | ug/l   | 87     |
| 28) Bromochloromethane         | 5.00  | 49   | 46       | Below Cal | #      | 22     |
| 31) Cyclohexane                | 5.66  | 56   | 4052     | 0.824     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.65  | 75   | 15149    | 4.484     | ug/l # | 51     |
| 38) Carbon Tetrachloride       | 5.66  | 117  | 18826    | 6.733     | ug/l # | 17     |
| 44) Trichloroethene            | 7.21  | 130  | 1933     | 0.825     | ug/l   | 92     |
| 49) 1,4-Dioxane                | 7.93  | 88   | 19       | 0.284     | ug/l # | 1      |
| 51) 4-Methyl-2-Pentanone       | 8.71  | 43   | 2019     | 0.444     | ug/l # | 1      |
| 60) Dibromochloromethane       | 9.34  | 129  | 2044     | 0.911     | ug/l # | 11     |
| 64) Tetrachloroethene          | 9.34  | 164  | 2246     | 1.150     | ug/l   | 90     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 62999    | 21.433    | ug/l # | 34     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 62999    | 59.081    | ug/l # | 9      |

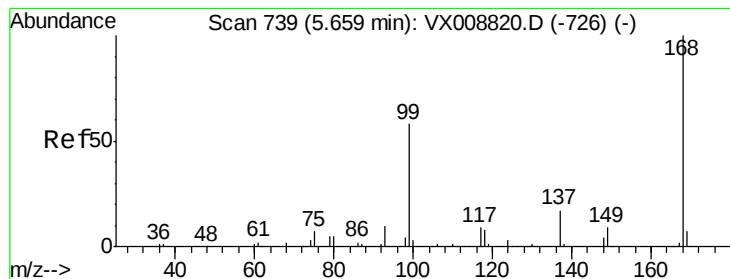
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX041319\  
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Quant Time: Apr 14 04:17:14 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X040319W.M  
Quant Title : SW846 8260  
QLast Update : Thu Apr 04 04:47:41 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.66 min Scan# 740

Delta R.T. 0.01 min

Lab File: VX008945.D

Acq: 13 Apr 2019 20:26

Instrument :

MSVOA\_X

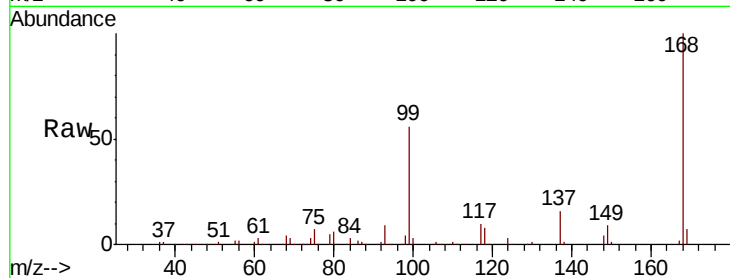
ClientSampleId :

Tot Ion:168 Resp: 195091

Ion Ratio Lower Upper

168 100

99 56.0 46.7 70.1



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.66

80000

60000

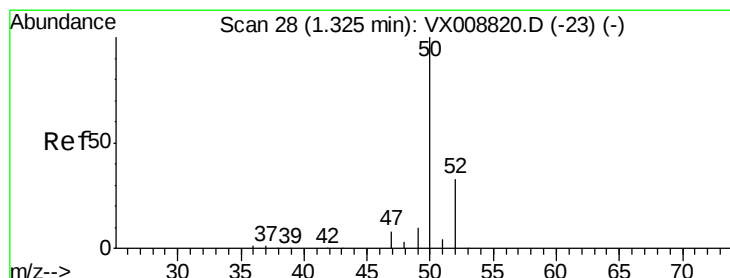
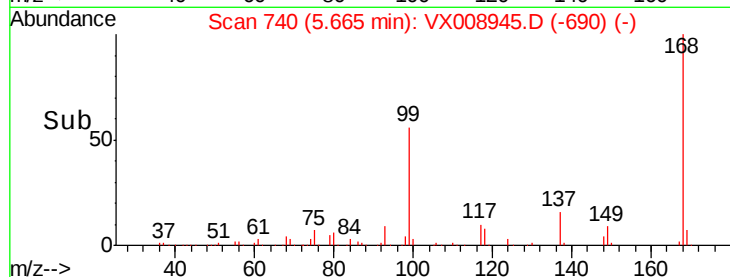
40000

20000

0

Time-->

5.50 5.60 5.70 5.80 5.90



#3

Chloromethane

Concen: Below Cal

RT: 1.33 min Scan# 29

Delta R.T. 0.01 min

Lab File: VX008945.D

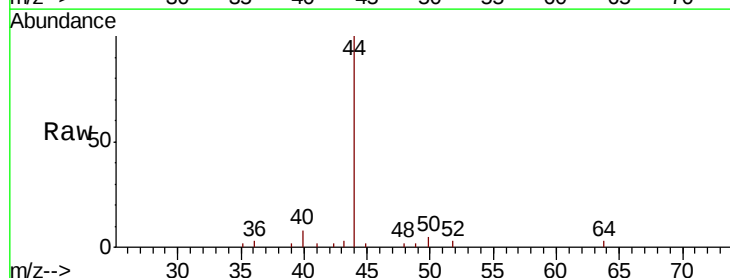
Acq: 13 Apr 2019 20:26

Tgt Ion: 50 Resp: 178

Ion Ratio Lower Upper

50 100

52 55.1 25.8 38.8#



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0

1.33

150

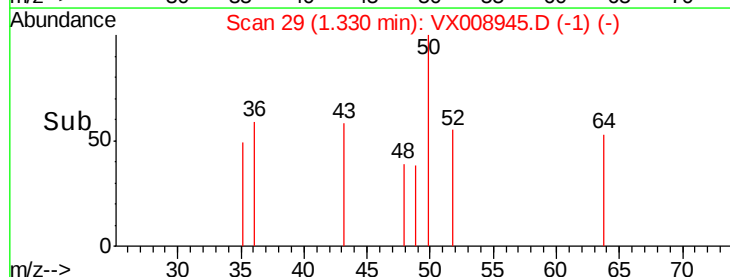
100

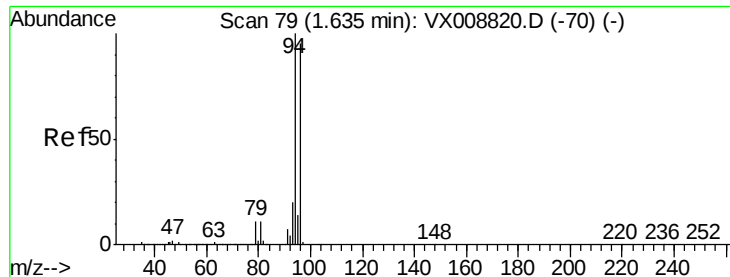
50

0

Time-->

1.30 1.32 1.34 1.36





#5

Bromomethane

Concen: 1.956 ug/l

RT: 1.65 min Scan# 81

Delta R.T. 0.01 min

Lab File: VX008945.D

Acq: 13 Apr 2019 20:26

Instrument :

MSVOA\_X

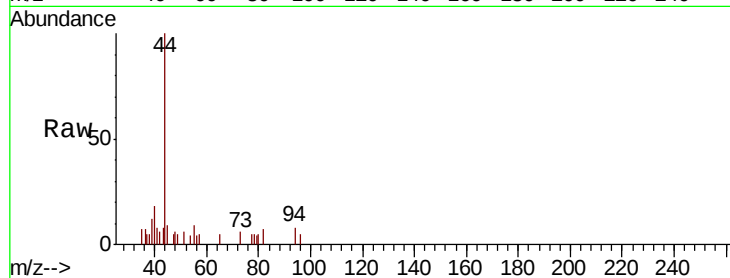
ClientSampled :

Tot Ion: 94 Resp: 110

Ion Ratio Lower Upper

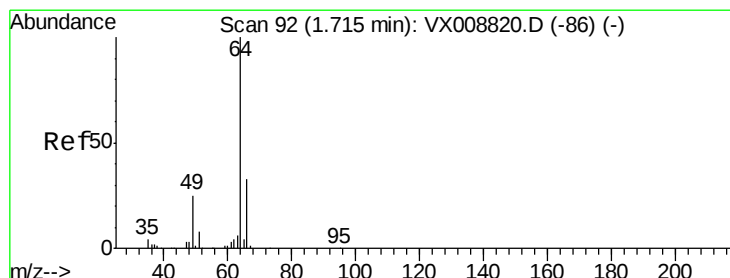
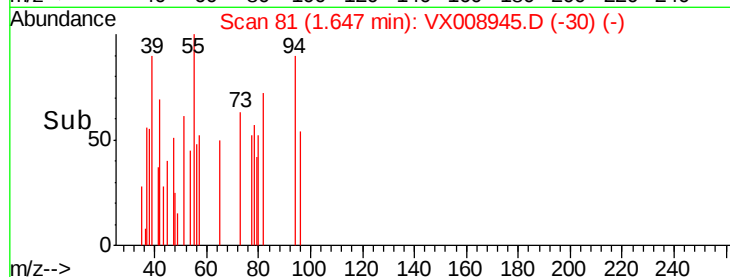
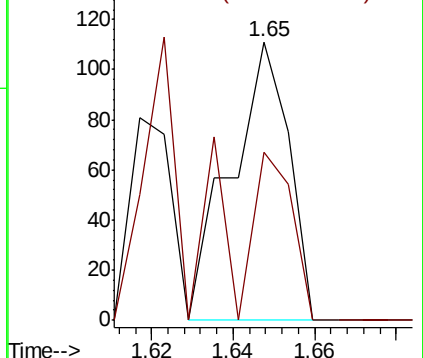
94 100

96 60.4 75.2 112.8#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0



#6

Chloroethane

Concen: Below Cal

RT: 1.71 min Scan# 92

Delta R.T. 0.00 min

Lab File: VX008945.D

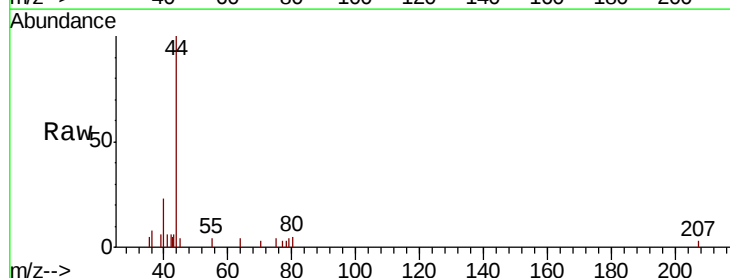
Acq: 13 Apr 2019 20:26

Tgt Ion: 64 Resp: 21

Ion Ratio Lower Upper

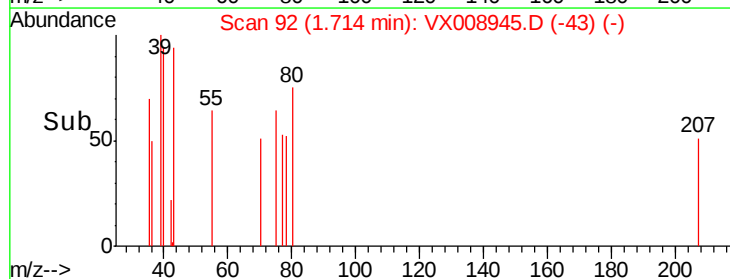
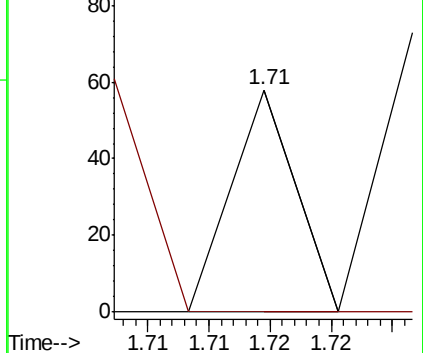
64 100

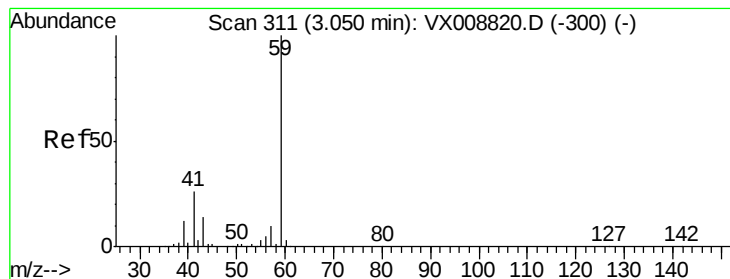
66 0.0 25.4 38.0#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0



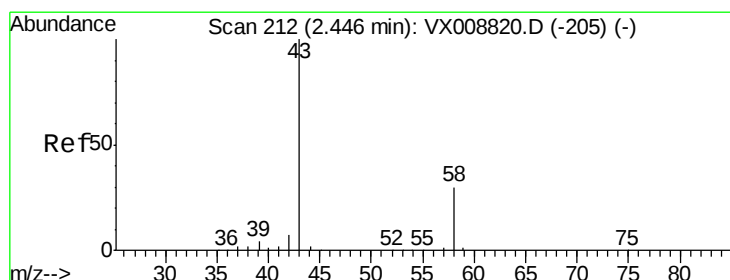
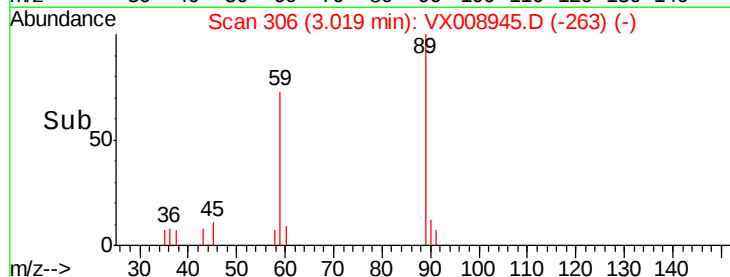
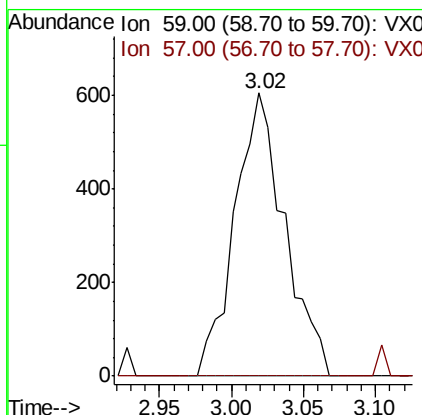
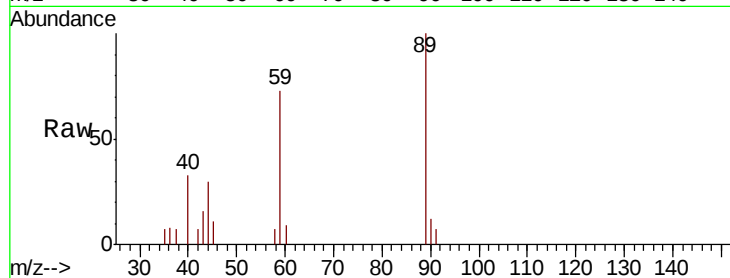


#11

Tert butvl alcohol  
 Concen: 2.186 ug/l  
 RT: 3.02 min Scan# 306  
 Delta R.T. -0.04 min  
 Lab File: VX008945.D  
 Acq: 13 Apr 2019 20:26

Instrument :  
 MSVOA\_X  
 ClientSampleId :

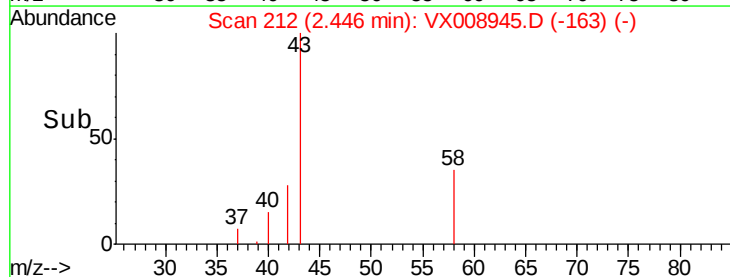
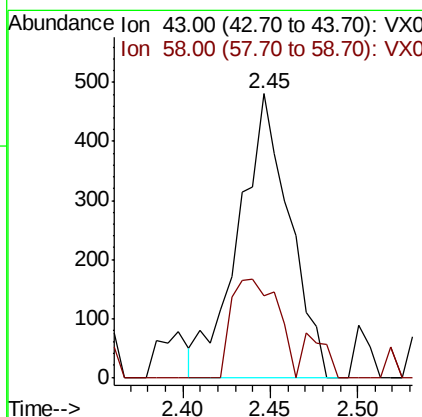
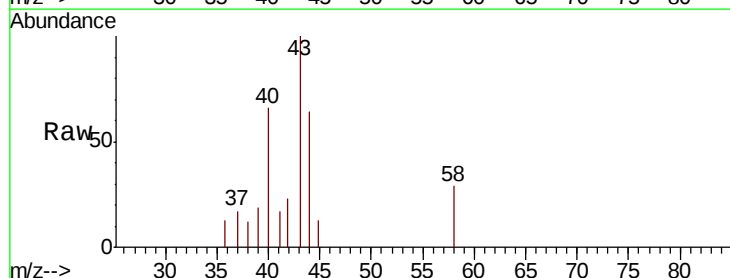
Tot Ion: 59 Resp: 1456  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 8.3 12.5#

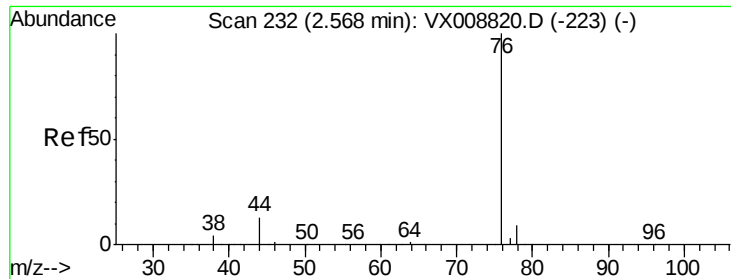


#16

Acetone  
 Concen: 0.592 ug/l  
 RT: 2.45 min Scan# 212  
 Delta R.T. -0.00 min  
 Lab File: VX008945.D  
 Acq: 13 Apr 2019 20:26

Tgt Ion: 43 Resp: 971  
 Ion Ratio Lower Upper  
 43 100  
 58 28.7 24.8 37.2

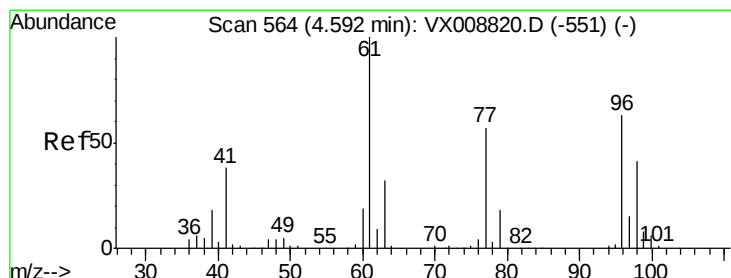
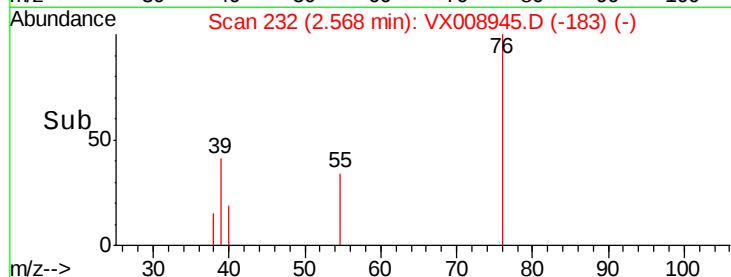
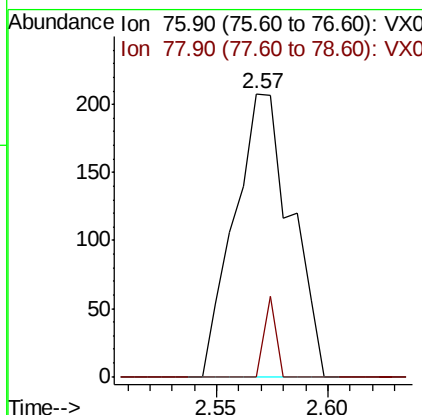
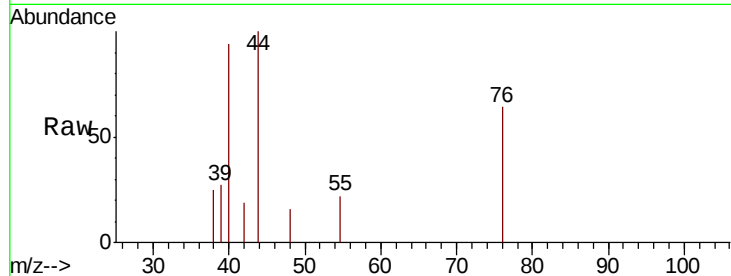




#17  
Carbon Disulfide  
Concen: Below Cal  
RT: 2.57 min Scan# 232  
Delta R.T. -0.00 min  
Lab File: VX008945.D  
Acq: 13 Apr 2019 20:26

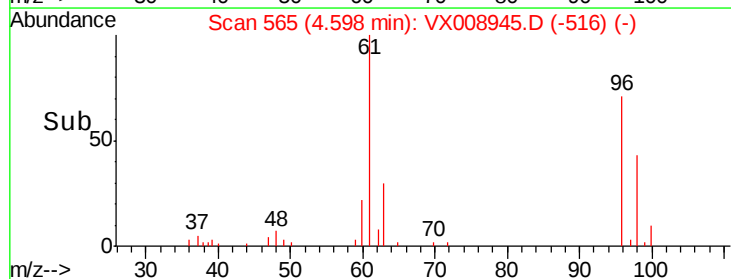
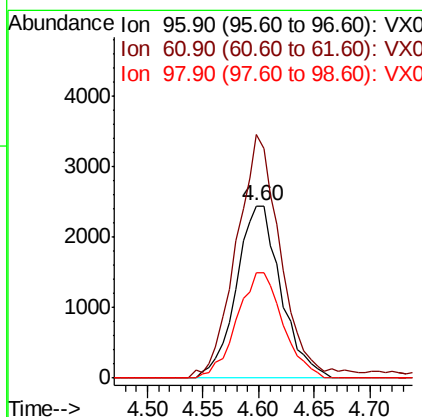
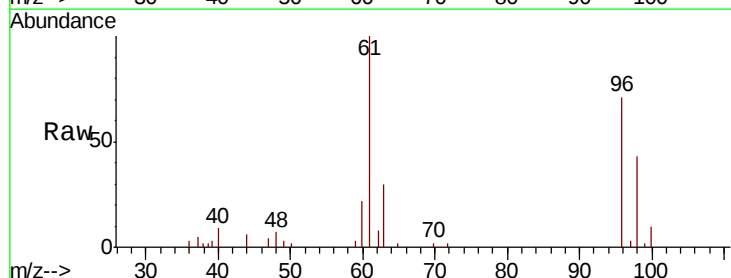
Instrument :  
MSVOA\_X  
ClientSampleId :

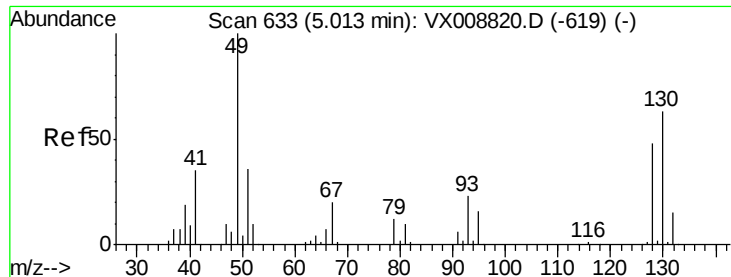
Tot Ion: 76 Resp: 368  
Ion Ratio Lower Upper  
76 100  
78 0.0 7.1 10.7#



#27  
cis-1,2-Dichloroethene  
Concen: 2.419 ug/l  
RT: 4.60 min Scan# 565  
Delta R.T. -0.00 min  
Lab File: VX008945.D  
Acq: 13 Apr 2019 20:26

Tgt Ion: 96 Resp: 6784  
Ion Ratio Lower Upper  
96 100  
61 141.0 0.0 327.6  
98 62.8 0.0 128.6





#28

Bromochloromethane

Concen: Below Cal

RT: 5.00 min Scan# 631

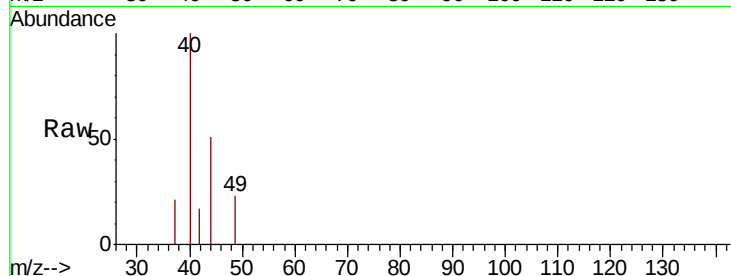
Delta R.T. -0.02 min

Lab File: VX008945.D

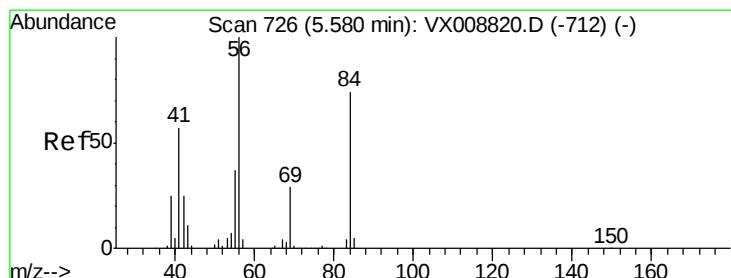
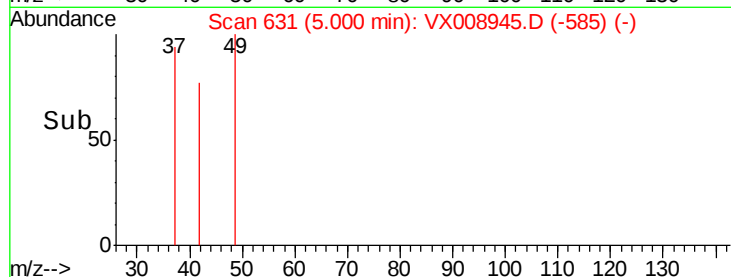
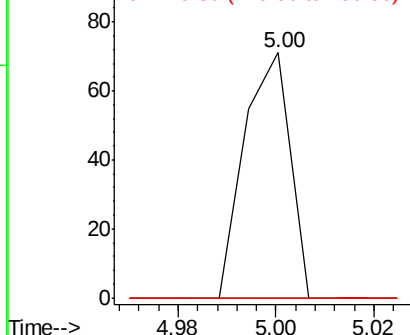
Acq: 13 Apr 2019 20:26

Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion: 49 Resp: 46  
Ion Ratio Lower Upper  
49 100  
129 0.0 0.0 3.6  
130 0.0 49.3 73.9#



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: 0.824 ug/l

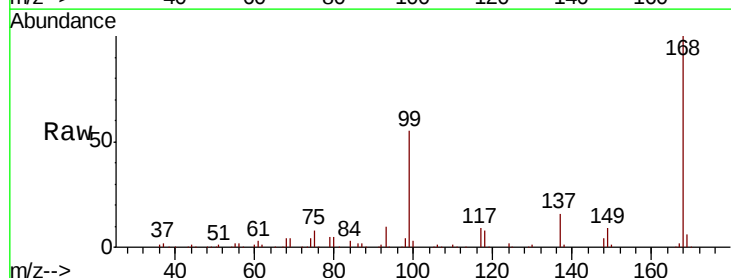
RT: 5.66 min Scan# 739

Delta R.T. 0.08 min

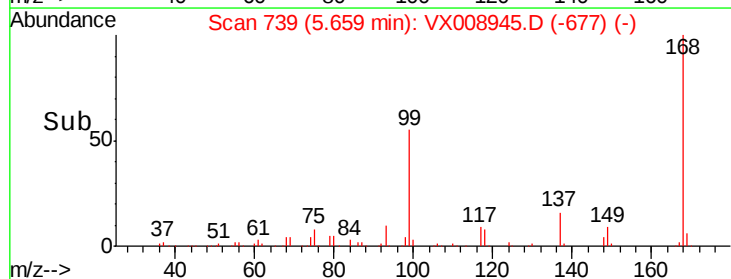
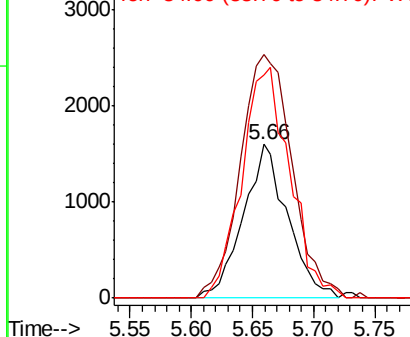
Lab File: VX008945.D

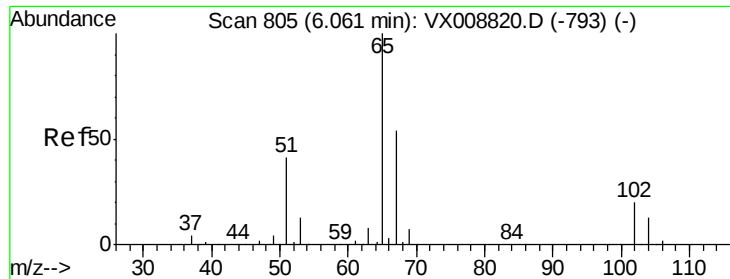
Acq: 13 Apr 2019 20:26

Tgt Ion: 56 Resp: 4052  
Ion Ratio Lower Upper  
56 100  
69 158.4 22.6 33.8#  
84 145.0 59.3 88.9#



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

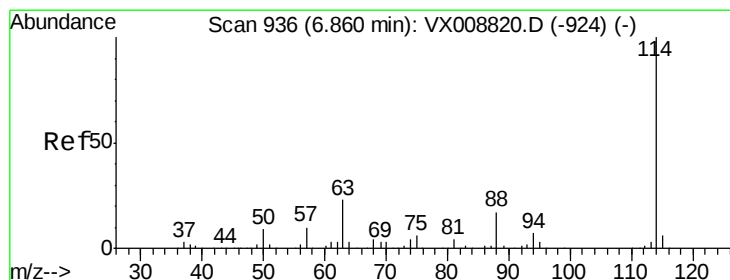
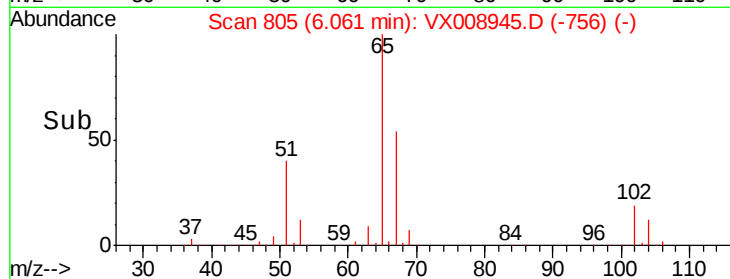
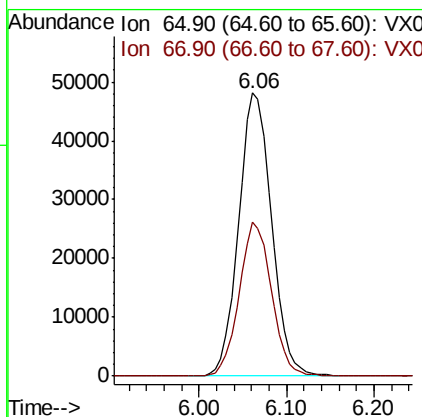
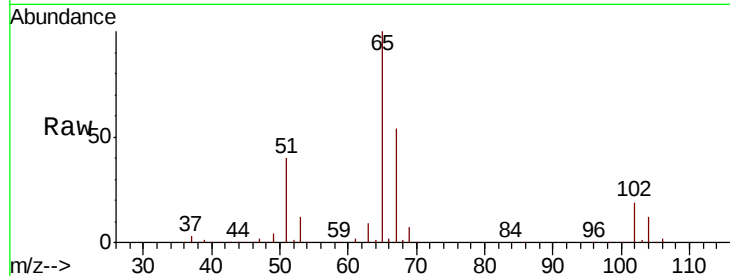




#33  
 1,2-Dichloroethane-d4  
 Concen: 44.241 ug/l  
 RT: 6.06 min Scan# 805  
 Delta R.T. -0.00 min  
 Lab File: VX008945.D  
 Acq: 13 Apr 2019 20:26

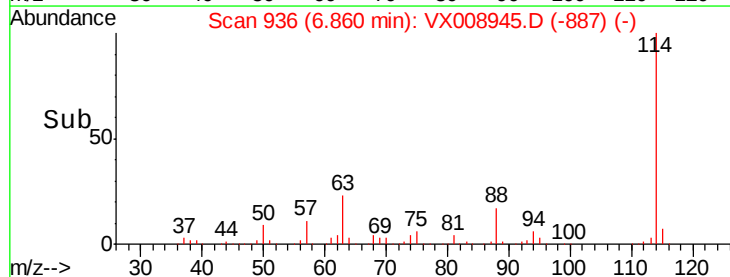
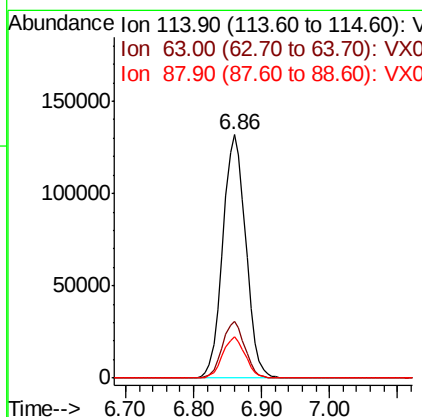
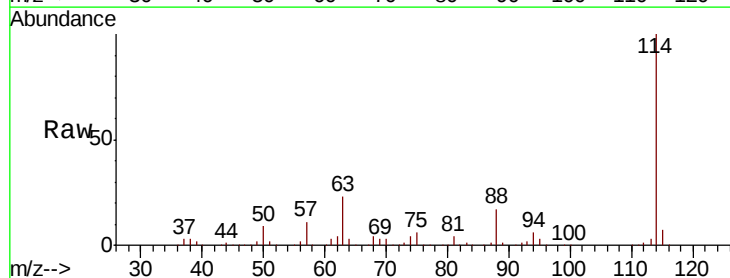
Instrument :  
 MSVOA\_X  
 ClientSampled :

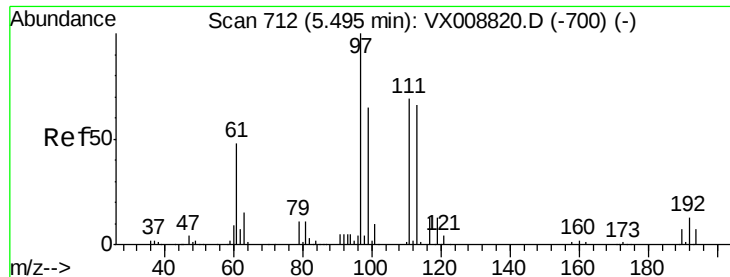
Tot Ion: 65 Resp: 125889  
 Ion Ratio Lower Upper  
 65 100  
 67 53.5 0.0 107.2



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.86 min Scan# 936  
 Delta R.T. -0.00 min  
 Lab File: VX008945.D  
 Acq: 13 Apr 2019 20:26

Tgt Ion: 114 Resp: 309076  
 Ion Ratio Lower Upper  
 114 100  
 63 23.1 0.0 47.2  
 88 16.9 0.0 34.0





#35

Dibromofluoromethane

Concen: 47.085 ug/l

RT: 5.50 min Scan# 713

Delta R.T. -0.00 min

Lab File: VX008945.D

Acq: 13 Apr 2019 20:26

Instrument :

MSVOA\_X

ClientSampleId :

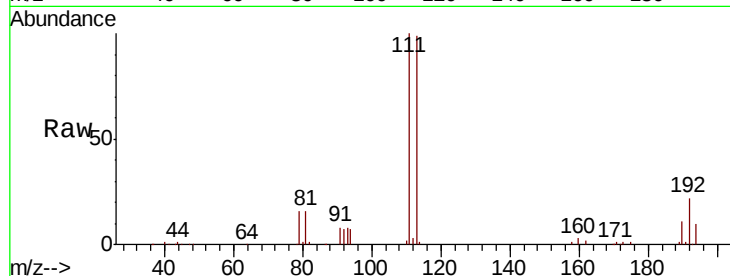
Tot Ion:113 Resp: 93046

Ion Ratio Lower Upper

113 100

111 101.7 83.4 125.2

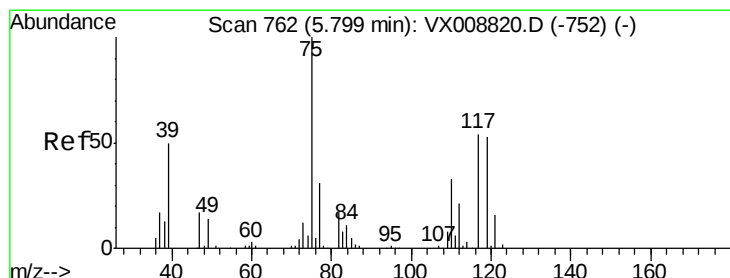
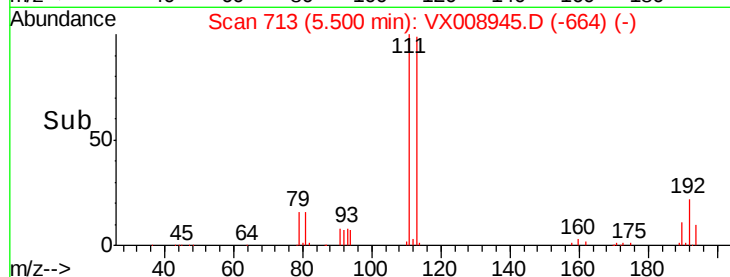
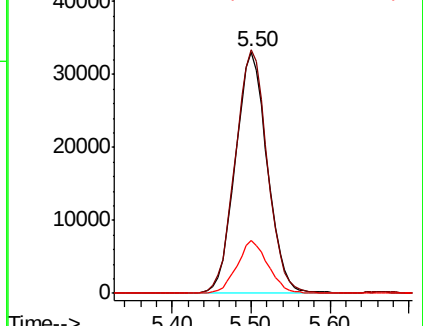
192 21.3 16.1 24.1



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: 4.484 ug/l

RT: 5.65 min Scan# 738

Delta R.T. -0.15 min

Lab File: VX008945.D

Acq: 13 Apr 2019 20:26

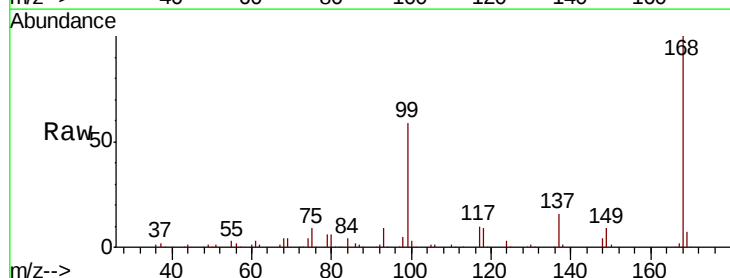
Tgt Ion: 75 Resp: 15149

Ion Ratio Lower Upper

75 100

110 8.6 16.4 49.2#

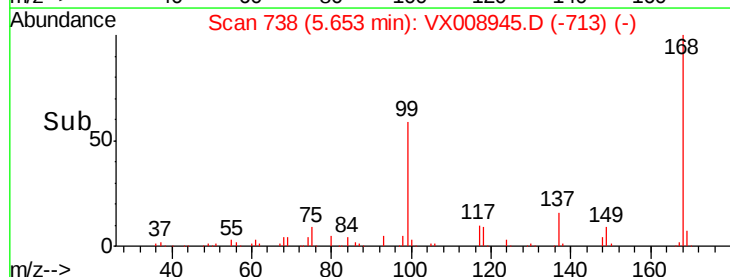
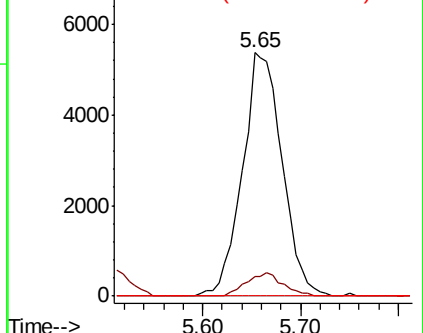
77 0.0 24.7 37.1#

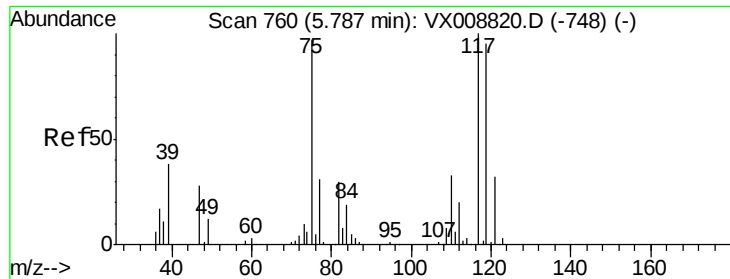


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 6.733 ug/l

RT: 5.66 min Scan# 740

Delta R.T. -0.12 min

Lab File: VX008945.D

Acq: 13 Apr 2019 20:26

Instrument :

MSVOA\_X

ClientSampleId :

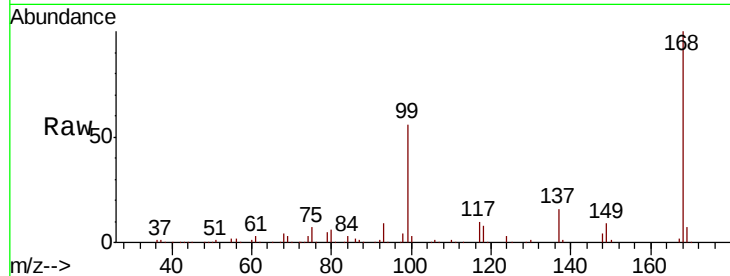
Tot Ion:117 Resp: 18826

Ion Ratio Lower Upper

117 100

119 5.0 75.0 112.6#

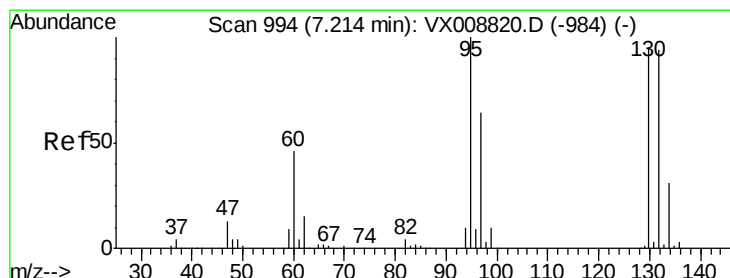
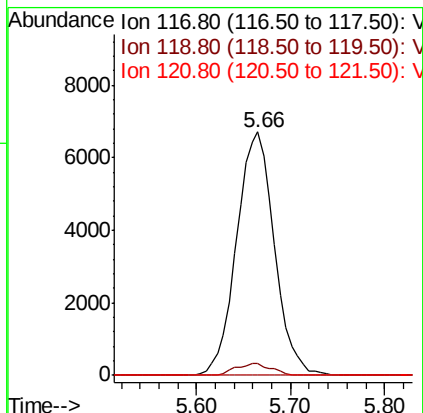
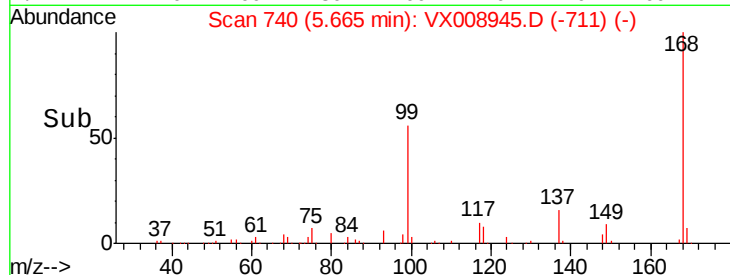
121 0.0 24.3 36.5#



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: 0.825 ug/l

RT: 7.21 min Scan# 994

Delta R.T. -0.00 min

Lab File: VX008945.D

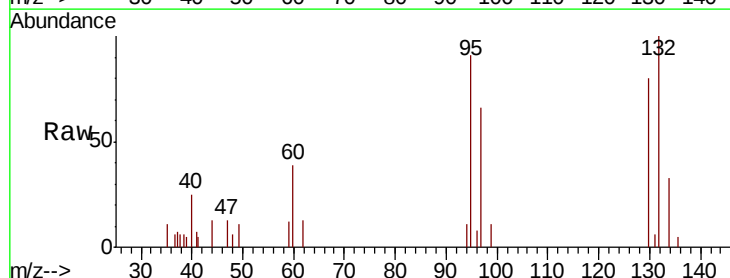
Acq: 13 Apr 2019 20:26

Tgt Ion:130 Resp: 1933

Ion Ratio Lower Upper

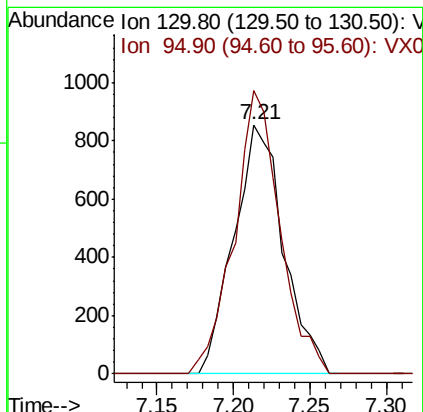
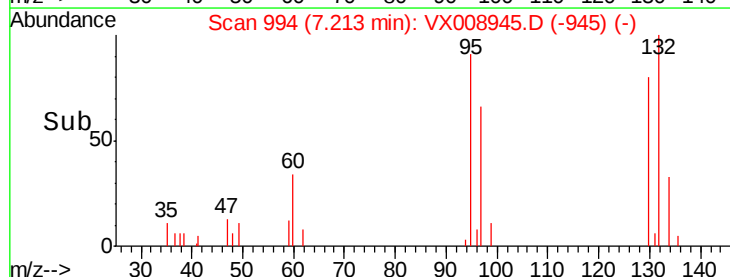
130 100

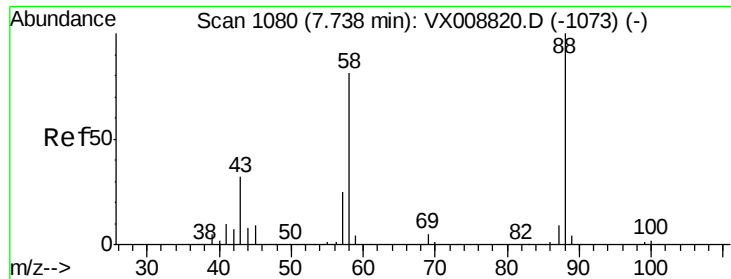
95 113.6 0.0 209.8



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0





#49

1,4-Dioxane

Concen: 0.284 ug/l

RT: 7.93 min Scan# 1112

Delta R.T. 0.19 min

Lab File: VX008945.D

Acq: 13 Apr 2019 20:26

Instrument :

MSVOA\_X

ClientSampled :

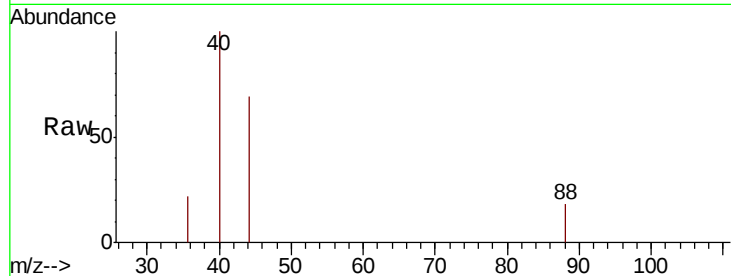
Tot Ion: 88 Resp: 19

Ion Ratio Lower Upper

88 100

43 221.1 28.6 43.0#

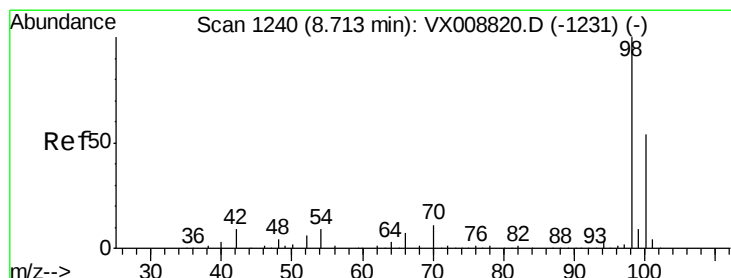
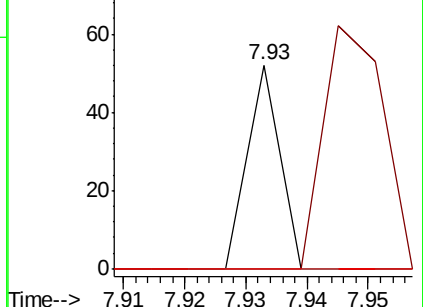
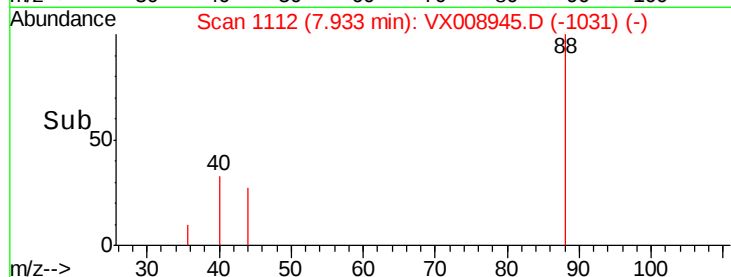
58 0.0 62.2 93.2#



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: 49.153 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. -0.00 min

Lab File: VX008945.D

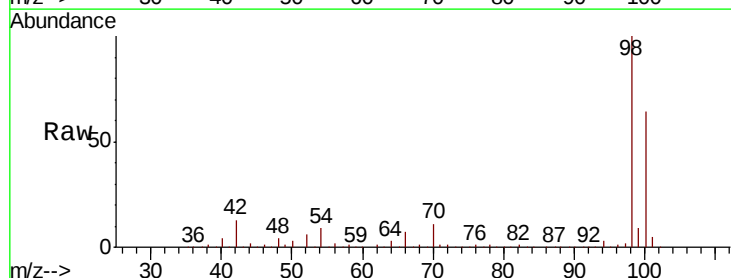
Acq: 13 Apr 2019 20:26

Tgt Ion: 98 Resp: 386756

Ion Ratio Lower Upper

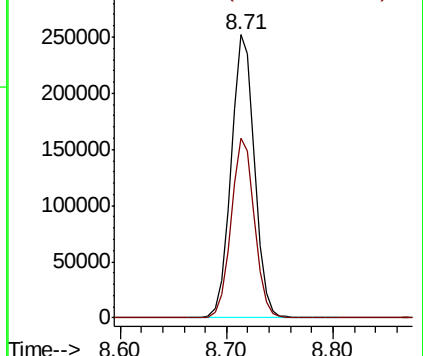
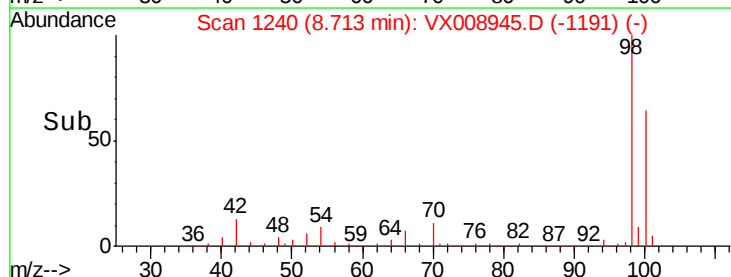
98 100

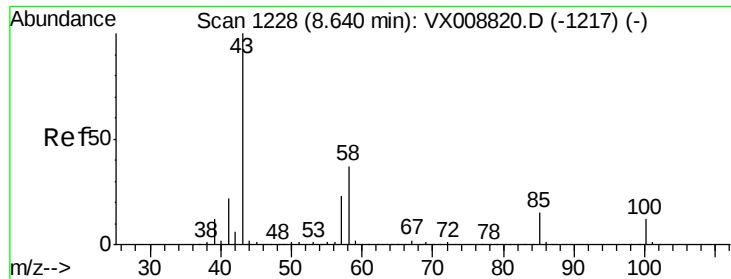
100 63.5 51.4 77.0



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): V





#51

4-Methyl-2-Pentanone

Concen: 0.444 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. 0.07 min

Lab File: VX008945.D

Acq: 13 Apr 2019 20:26

Instrument :

MSVOA\_X

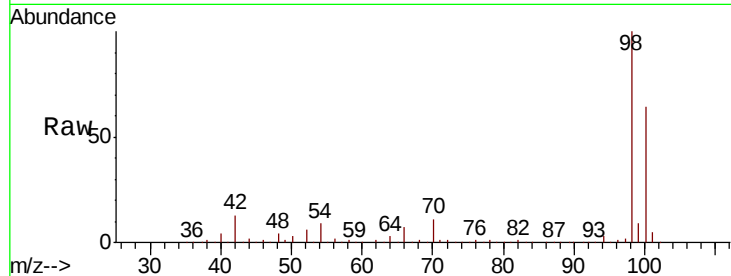
ClientSampled :

Tot Ion: 43 Resp: 2019

Ion Ratio Lower Upper

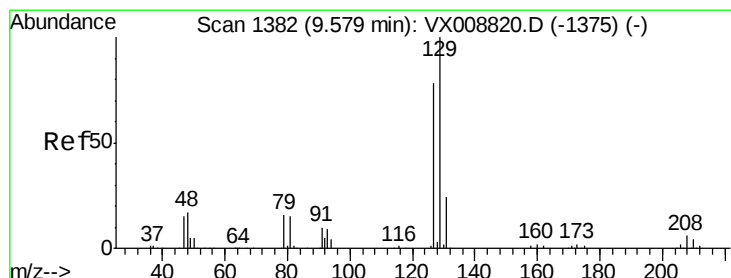
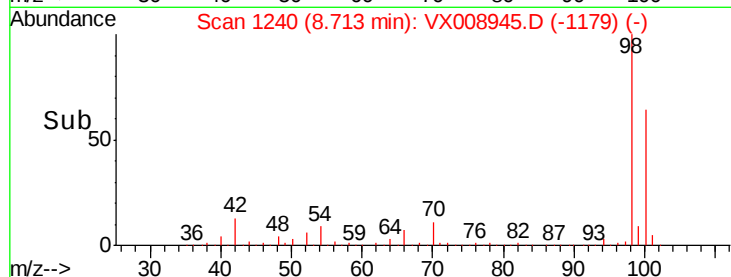
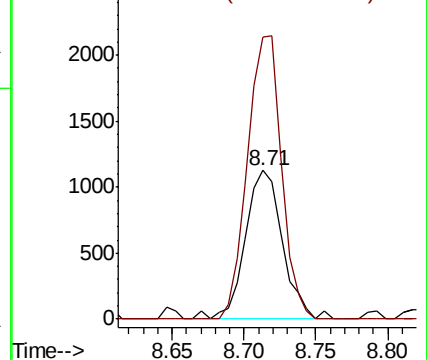
43 100

58 173.6 29.5 44.3#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0



#60

Dibromochloromethane

Concen: 0.911 ug/l

RT: 9.34 min Scan# 1342

Delta R.T. -0.24 min

Lab File: VX008945.D

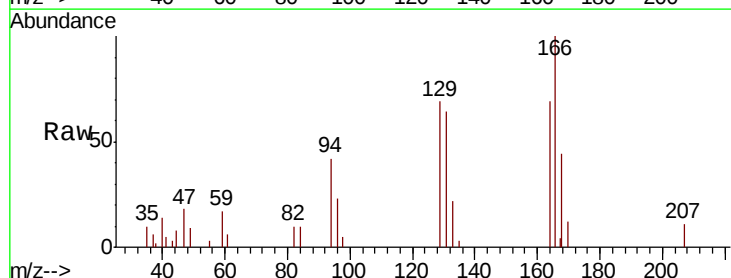
Acq: 13 Apr 2019 20:26

Tgt Ion: 129 Resp: 2044

Ion Ratio Lower Upper

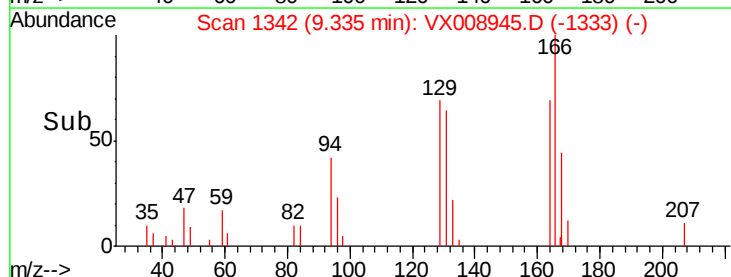
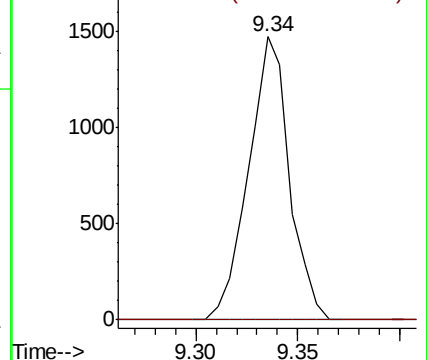
129 100

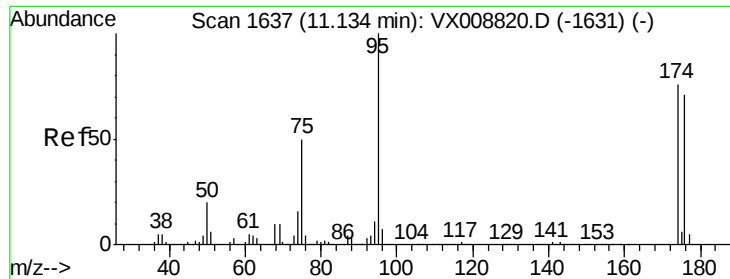
127 0.0 38.5 115.3#



Abundance Ion 128.80 (128.50 to 129.50): V

Ion 126.80 (126.50 to 127.50): V





#62

4-Bromofluorobenzene

Concen: 44.525 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.00 min

Lab File: VX008945.D

Acq: 13 Apr 2019 20:26

Instrument :

MSVOA\_X

ClientSampleId :

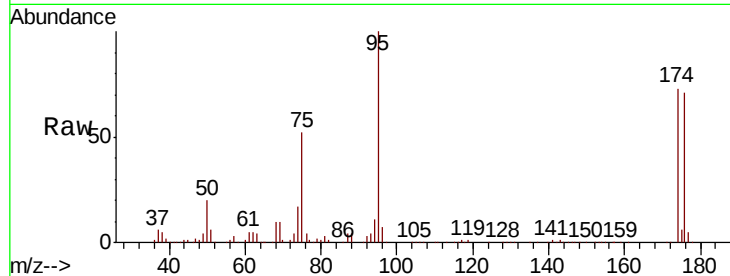
Tot Ion: 95 Resp: 124236

Ion Ratio Lower Upper

95 100

174 79.3 0.0 151.8

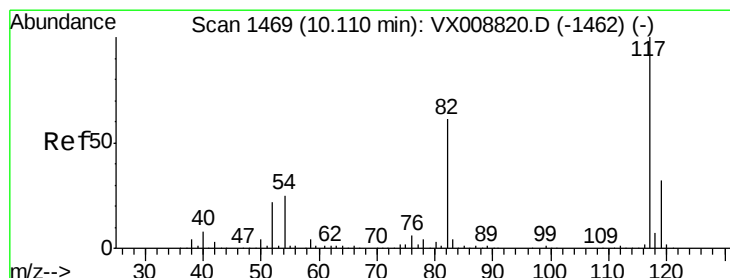
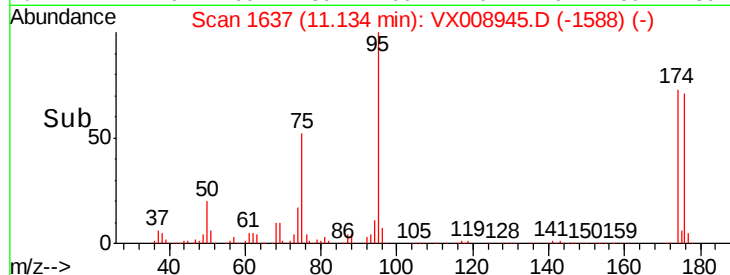
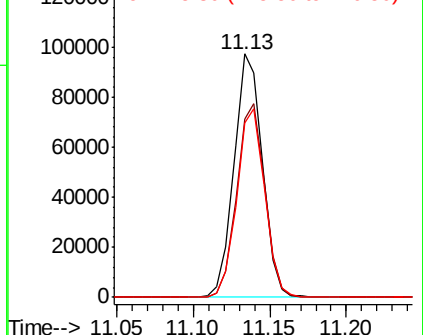
176 76.8 0.0 145.8



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



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.12 min Scan# 1470

Delta R.T. 0.01 min

Lab File: VX008945.D

Acq: 13 Apr 2019 20:26

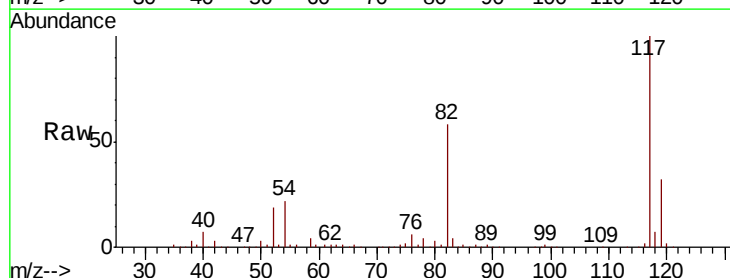
Tgt Ion: 117 Resp: 263707

Ion Ratio Lower Upper

117 100

82 57.9 49.6 74.4

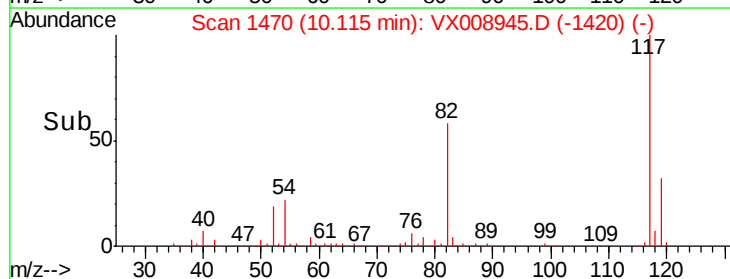
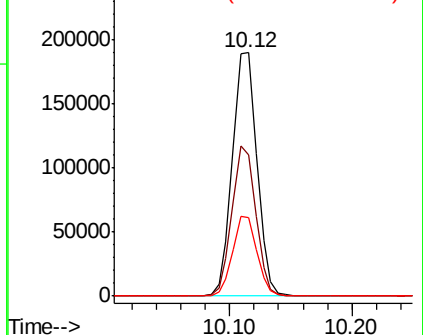
119 32.4 25.0 37.4

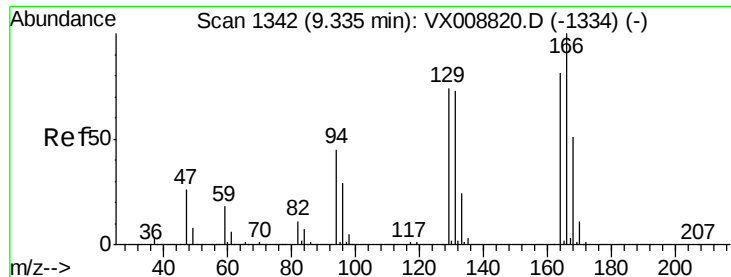


Abundance Ion 116.90 (116.60 to 117.60): V

Ion 82.00 (81.70 to 82.70): VX0

Ion 118.90 (118.60 to 119.60): V

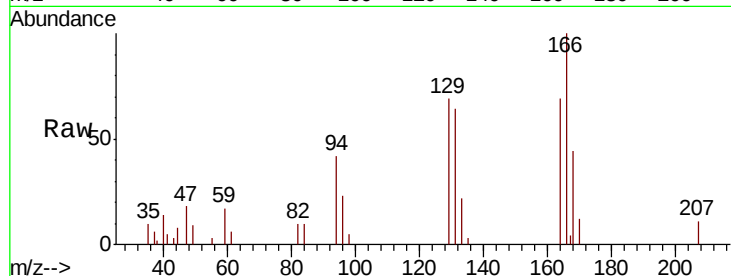




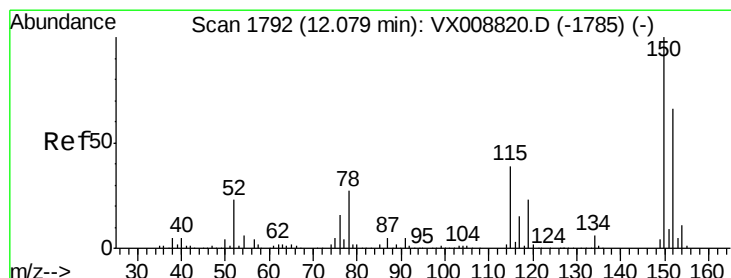
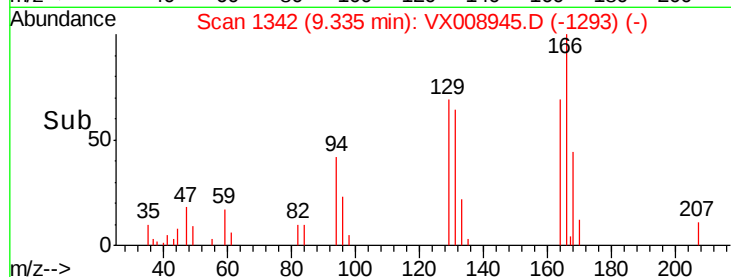
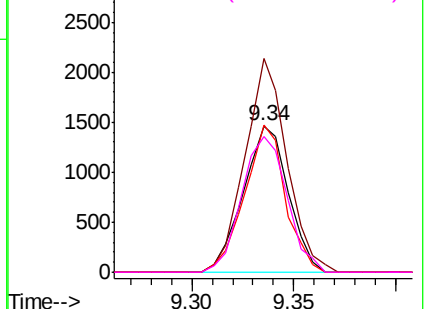
#64  
Tetrachloroethene  
Concen: 1.150 ug/l  
RT: 9.34 min Scan# 1342  
Delta R.T. -0.00 min  
Lab File: VX008945.D  
Acq: 13 Apr 2019 20:26

Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion:164 Resp: 2246  
Ion Ratio Lower Upper  
164 100  
166 145.9 101.0 151.6  
129 100.5 75.8 113.8  
131 93.1 71.8 107.8

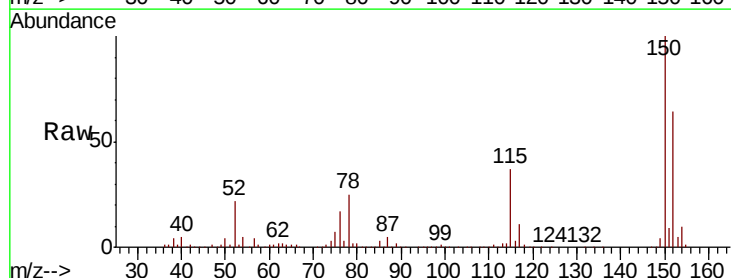


Abundance Ion 163.80 (163.50 to 164.50): V  
Ion 165.80 (165.50 to 166.50): V  
Ion 128.80 (128.50 to 129.50): V  
Ion 130.80 (130.50 to 131.50): V

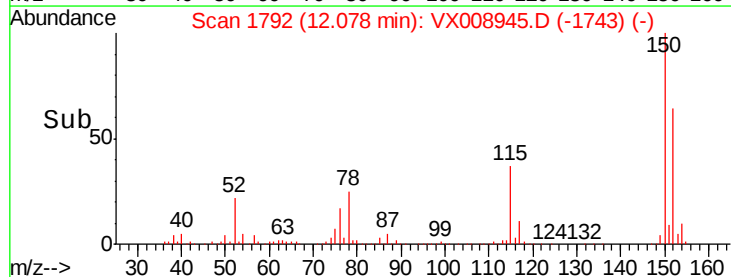
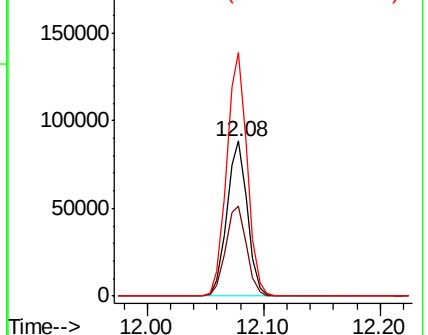


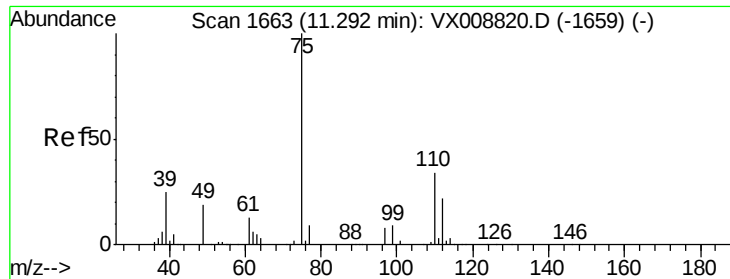
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.08 min Scan# 1792  
Delta R.T. -0.00 min  
Lab File: VX008945.D  
Acq: 13 Apr 2019 20:26

Tgt Ion:152 Resp: 106998  
Ion Ratio Lower Upper  
152 100  
115 59.3 43.5 130.5  
150 157.8 0.0 348.8



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

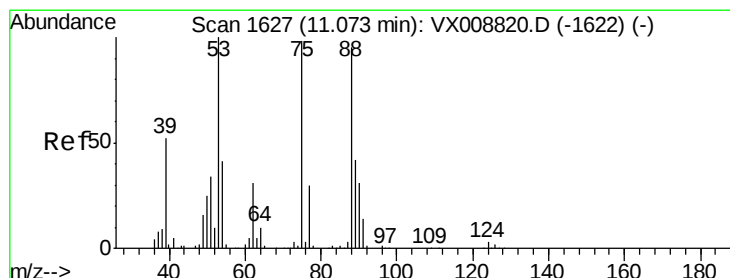
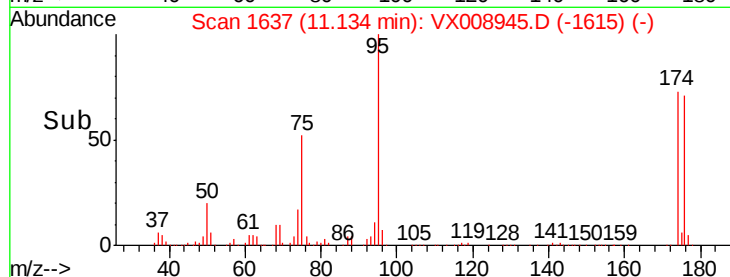
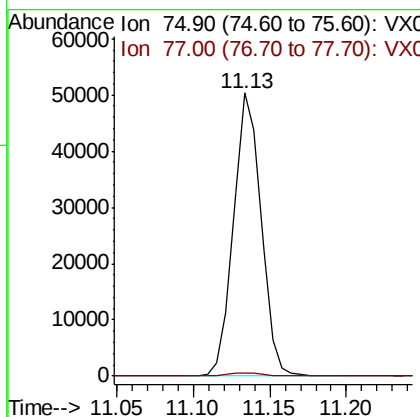
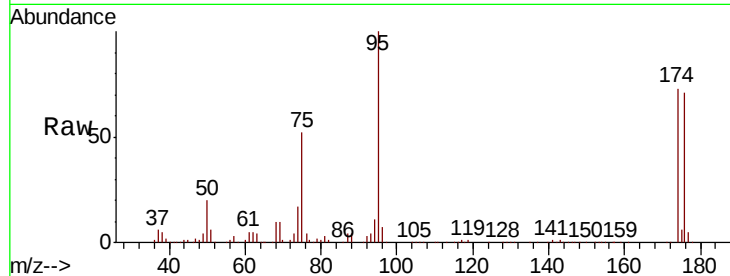




#76  
 1,2,3-Trichloropropane  
 Concen: 21.433 ug/l  
 RT: 11.13 min Scan# 1637  
 Delta R.T. -0.16 min  
 Lab File: VX008945.D  
 Acq: 13 Apr 2019 20:26

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Tot Ion: 75 Resp: 62999  
 Ion Ratio Lower Upper  
 75 100  
 77 1.3 22.3 66.8#



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 59.081 ug/l  
 RT: 11.13 min Scan# 1637  
 Delta R.T. 0.06 min  
 Lab File: VX008945.D  
 Acq: 13 Apr 2019 20:26

Tgt Ion: 75 Resp: 62999  
 Ion Ratio Lower Upper  
 75 100  
 53 0.0 81.3 121.9#  
 89 0.0 35.6 53.4#

