

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX041819\  
 Data File : VX009044.D  
 Acq On : 18 Apr 2019 15:21  
 Operator : JC/SP  
 Sample : K2449-10  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 15 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 DUP-0511-190415

Quant Time: Apr 19 01:37:57 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X041519W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Apr 17 06:47:58 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 247639   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 402688   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 345629   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 142891   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 6.06   | 65  | 166192   | 47.62 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.24% |      |
| 35) Dibromofluoromethane  | 5.50   | 113 | 121567   | 47.04 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.08% |      |
| 50) Toluene-d8            | 8.71   | 98  | 497803   | 48.30 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.60% |      |
| 62) 4-Bromofluorobenzene  | 11.13  | 95  | 163150   | 44.84 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 89.68% |      |

## Target Compounds

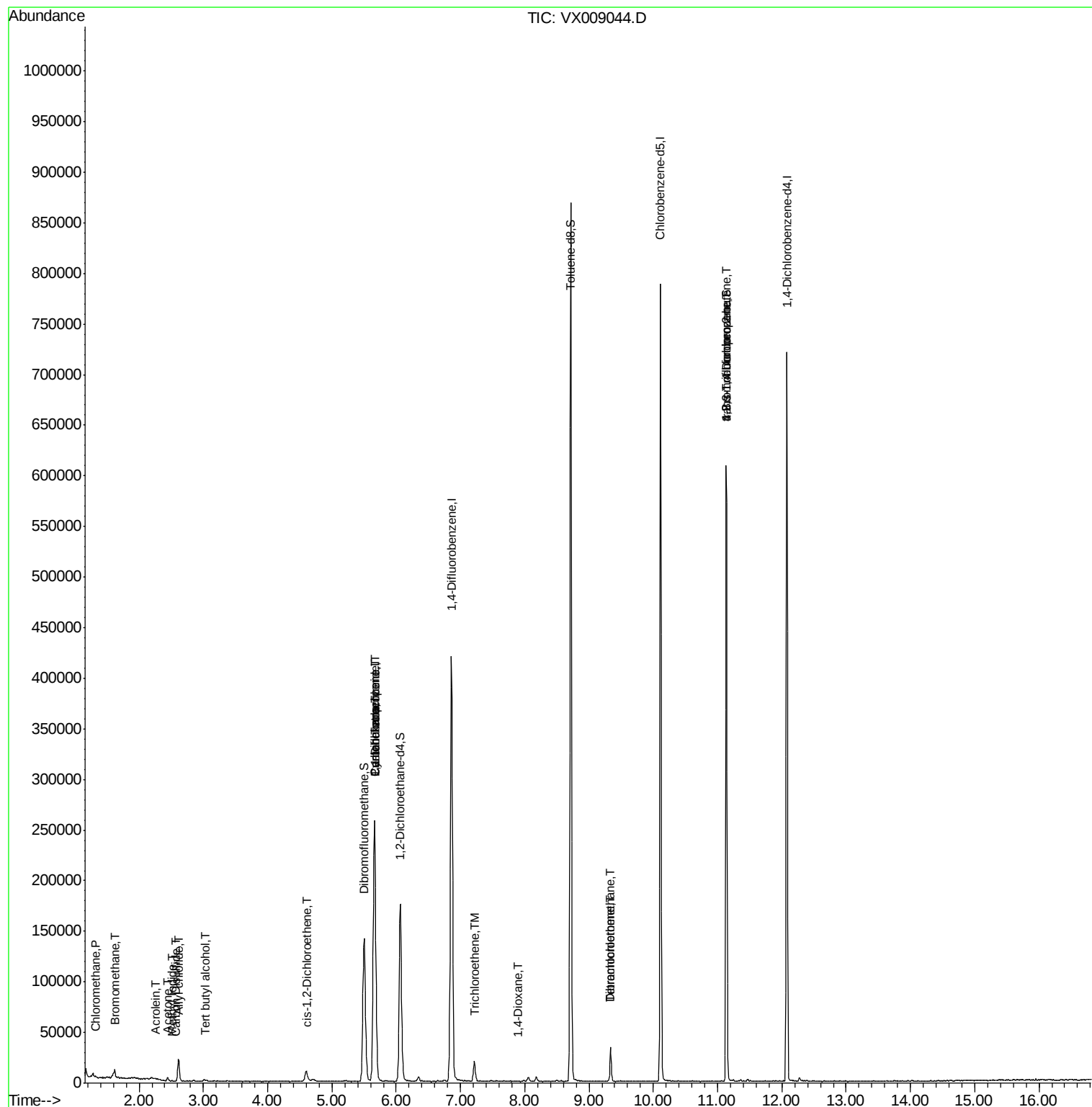
|                                |       |     |       |           |        | Qvalue |
|--------------------------------|-------|-----|-------|-----------|--------|--------|
| 3) Chloromethane               | 1.33  | 50  | 1058  | 0.302     | ug/l   | 95     |
| 5) Bromomethane                | 1.62  | 94  | 148   | 3.912     | ug/l # | 66     |
| 10) Methyl Iodide              | 2.53  | 142 | 254   | 4.498     | ug/l # | 66     |
| 11) Tert butyl alcohol         | 3.03  | 59  | 1490  | 1.923     | ug/l # | 93     |
| 13) Acrolein                   | 2.25  | 56  | 134   | 0.200     | ug/l # | 62     |
| 14) Allyl chloride             | 2.61  | 41  | 2700  | 0.466     | ug/l # | 68     |
| 16) Acetone                    | 2.45  | 43  | 3272  | 1.808     | ug/l   | 99     |
| 17) Carbon Disulfide           | 2.57  | 76  | 686   | 1.338     | ug/l # | 35     |
| 27) cis-1,2-Dichloroethene     | 4.60  | 96  | 6676  | 2.076     | ug/l   | 87     |
| 28) Bromochloromethane         | 5.05  | 49  | 26    | Below Cal | #      | 21     |
| 31) Cyclohexane                | 5.67  | 56  | 5625  | 1.012     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.67  | 75  | 19946 | 4.789     | ug/l # | 50     |
| 38) Carbon Tetrachloride       | 5.67  | 117 | 24166 | 6.845     | ug/l # | 16     |
| 44) Trichloroethene            | 7.21  | 130 | 7394  | 2.456     | ug/l   | 97     |
| 49) 1,4-Dioxane                | 7.88  | 88  | 20    | 0.250     | ug/l # | 1      |
| 60) Dibromochloromethane       | 9.34  | 129 | 6001  | 2.146     | ug/l # | 10     |
| 64) Tetrachloroethene          | 9.34  | 164 | 6435  | 2.451     | ug/l   | 94     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75  | 83032 | 23.797    | ug/l # | 33     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75  | 83032 | 61.095    | ug/l # | 10     |

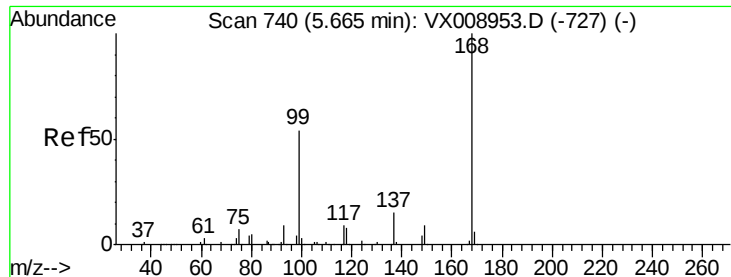
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX041819\  
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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X041519W.M  
Quant Title : SW846 8260  
QLast Update : Wed Apr 17 06:47:58 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: VX009044.D

Acq: 18 Apr 2019 15:21

Instrument :

MSVOA\_X

ClientSampleId :

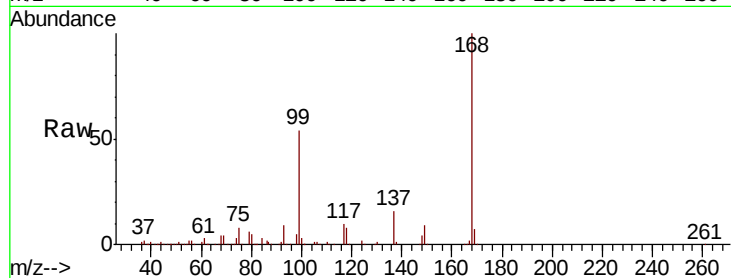
DUP-0511-190415

Tot Ion:168 Resp: 247639

Ion Ratio Lower Upper

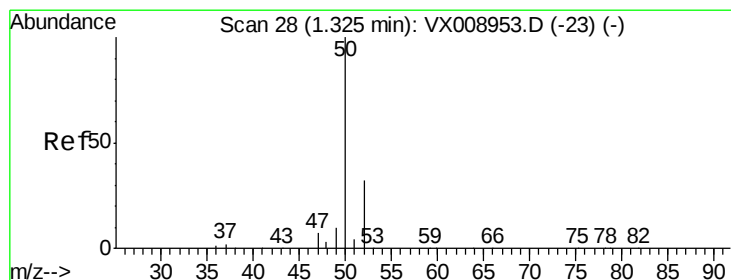
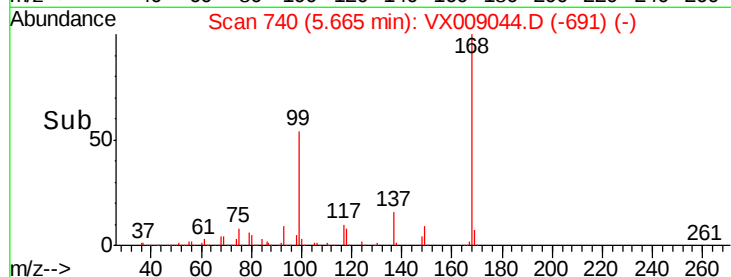
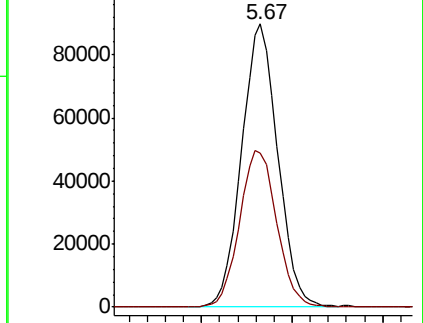
168 100

99 54.3 43.0 64.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#3

Chloromethane

Concen: 0.302 ug/l

RT: 1.33 min Scan# 29

Delta R.T. 0.01 min

Lab File: VX009044.D

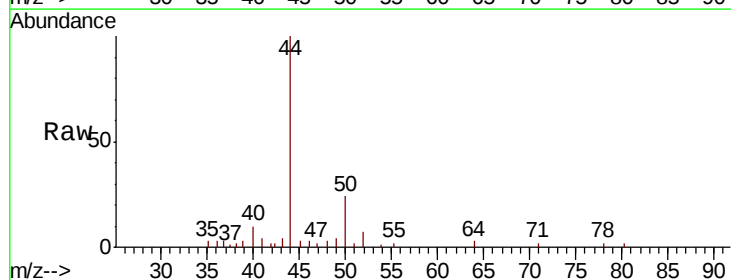
Acq: 18 Apr 2019 15:21

Tgt Ion: 50 Resp: 1058

Ion Ratio Lower Upper

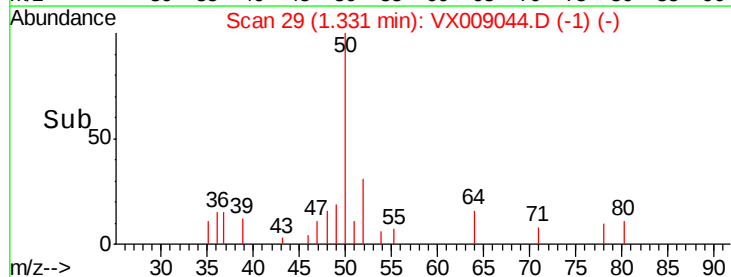
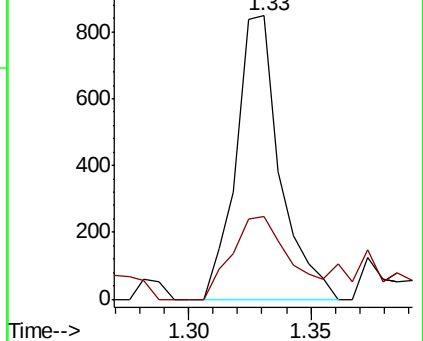
50 100

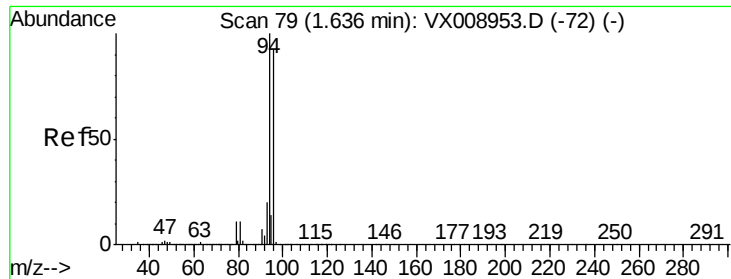
52 29.2 25.5 38.3



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0





#5

Bromomethane

Concen: 3.912 ug/l

RT: 1.62 min Scan# 77

Delta R.T. -0.01 min

Lab File: VX009044.D

Acq: 18 Apr 2019 15:21

Instrument :

MSVOA\_X

ClientSampleId :

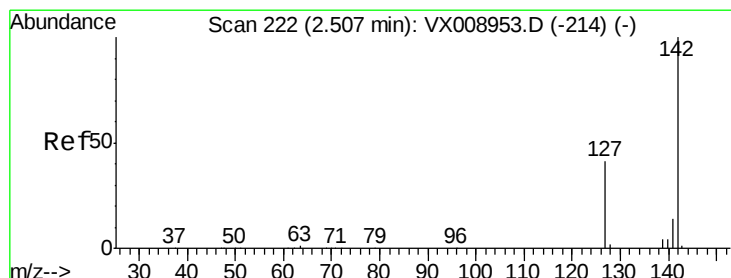
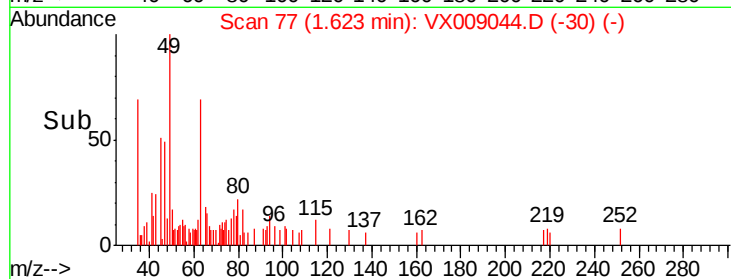
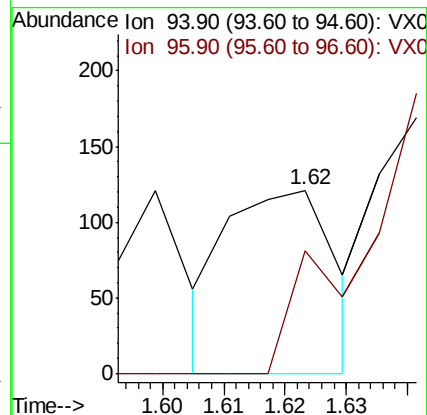
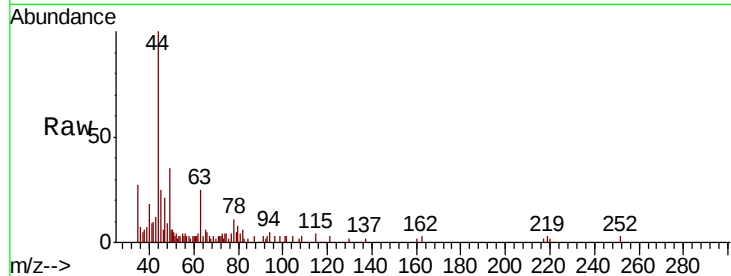
DUP-0511-190415

Tot Ion: 94 Resp: 148

Ion Ratio Lower Upper

94 100

96 124.6 73.9 110.9#



#10

Methyl Iodide

Concen: 4.498 ug/l

RT: 2.53 min Scan# 225

Delta R.T. 0.02 min

Lab File: VX009044.D

Acq: 18 Apr 2019 15:21

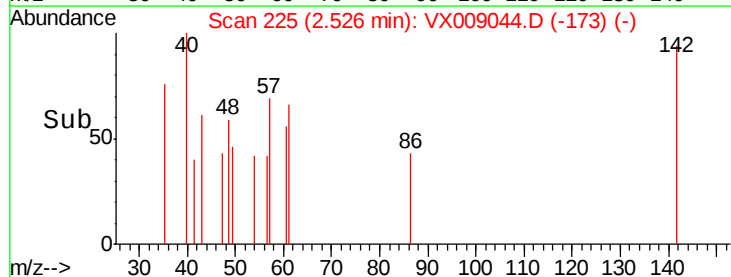
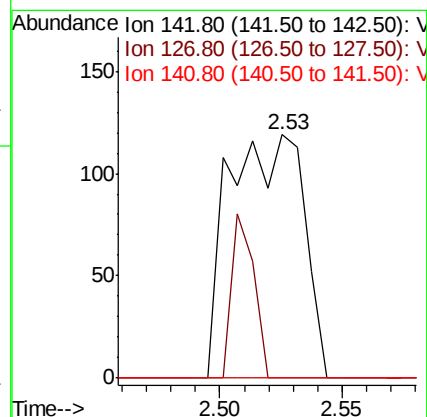
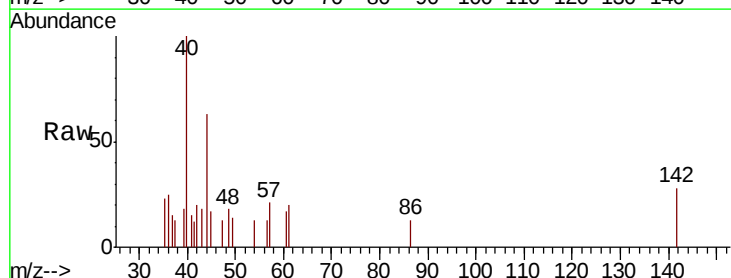
Tgt Ion: 142 Resp: 254

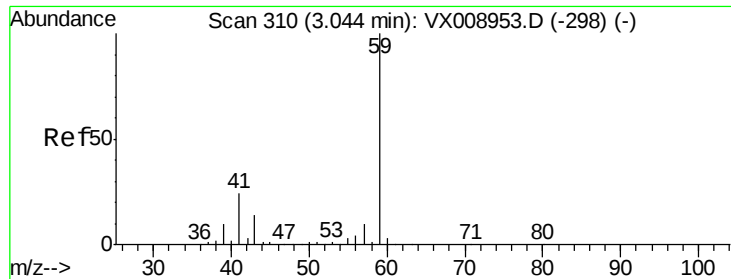
Ion Ratio Lower Upper

142 100

127 19.7 32.8 49.2#

141 0.0 11.4 17.2#



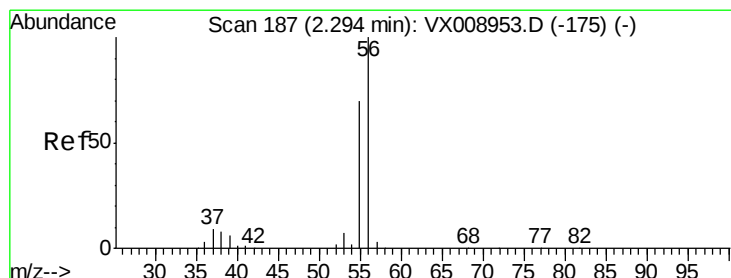
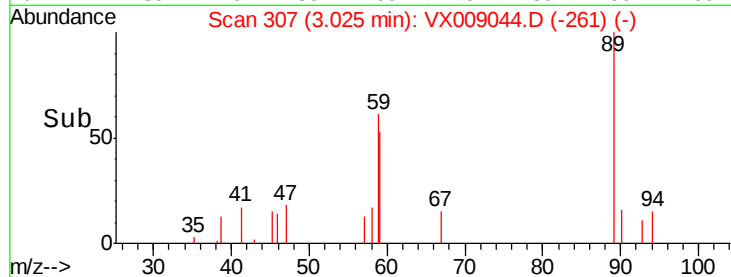
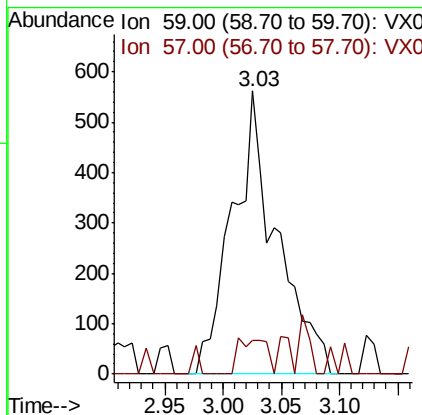
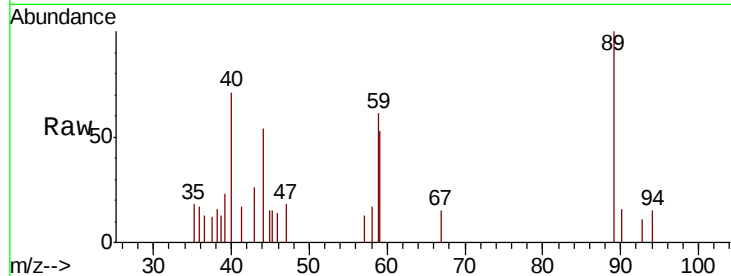


#11

Tert butyl alcohol  
 Concen: 1.923 ug/l  
 RT: 3.03 min Scan# 307  
 Delta R.T. -0.02 min  
 Lab File: VX009044.D  
 Acq: 18 Apr 2019 15:21

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 DUP-0511-190415

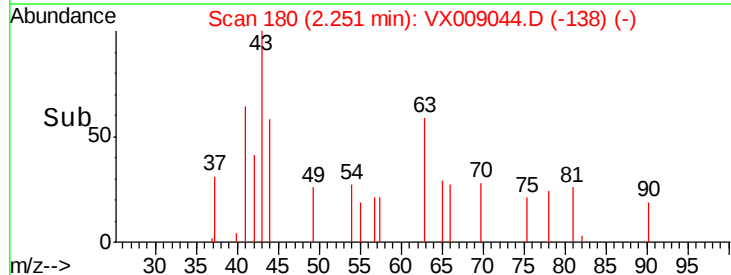
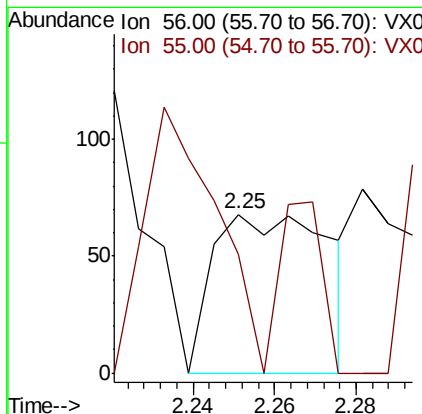
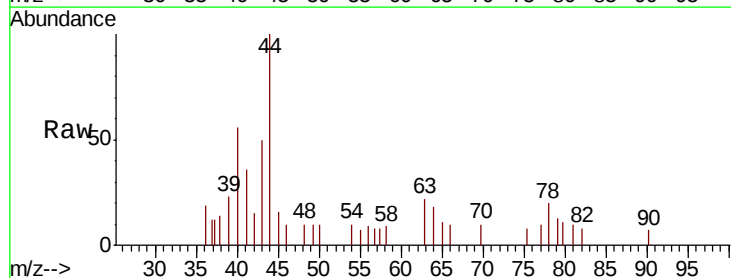
Tot Ion: 59 Resp: 1490  
 Ion Ratio Lower Upper  
 59 100  
 57 7.9 8.4 12.6#

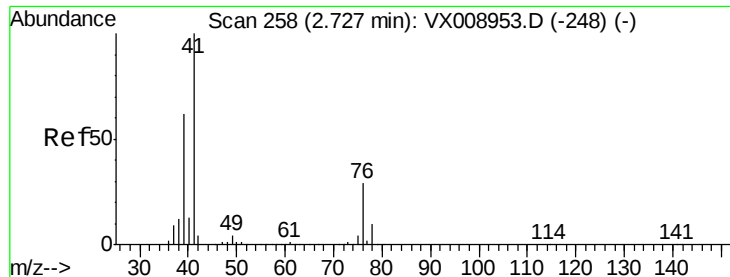


#13

Acrolein  
 Concen: 0.200 ug/l  
 RT: 2.25 min Scan# 180  
 Delta R.T. -0.04 min  
 Lab File: VX009044.D  
 Acq: 18 Apr 2019 15:21

Tgt Ion: 56 Resp: 134  
 Ion Ratio Lower Upper  
 56 100  
 55 39.6 56.6 84.8#





#14

Allvl chloride

Concen: 0.466 ug/l

RT: 2.61 min Scan# 239

Delta R.T. -0.12 min

Lab File: VX009044.D

Acq: 18 Apr 2019 15:21

Instrument :

MSVOA\_X

ClientSampleId :

DUP-0511-190415

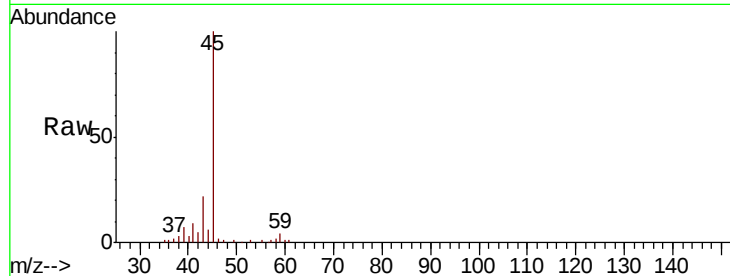
Tot Ion: 41 Resp: 2700

Ion Ratio Lower Upper

41 100

39 74.9 46.7 70.1#

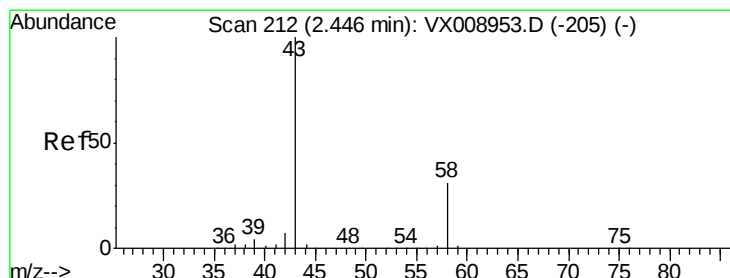
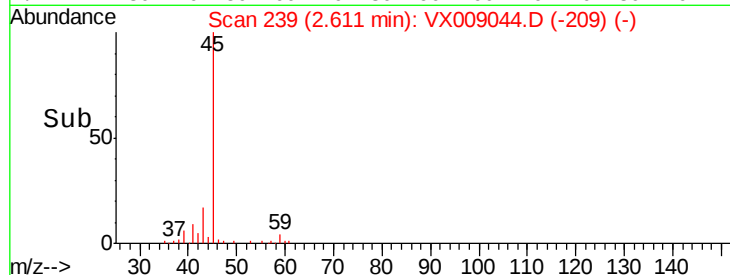
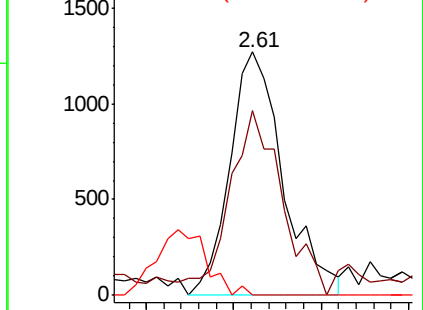
76 0.0 22.0 33.0#



Abundance Ion 41.00 (40.70 to 41.70): VX0

Ion 39.00 (38.70 to 39.70): VX0

Ion 75.90 (75.60 to 76.60): VX0



#16

Acetone

Concen: 1.808 ug/l

RT: 2.45 min Scan# 212

Delta R.T. -0.00 min

Lab File: VX009044.D

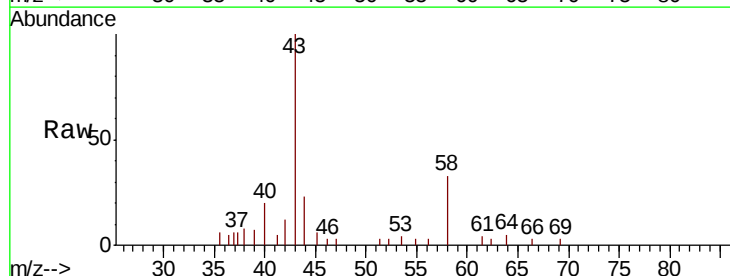
Acq: 18 Apr 2019 15:21

Tgt Ion: 43 Resp: 3272

Ion Ratio Lower Upper

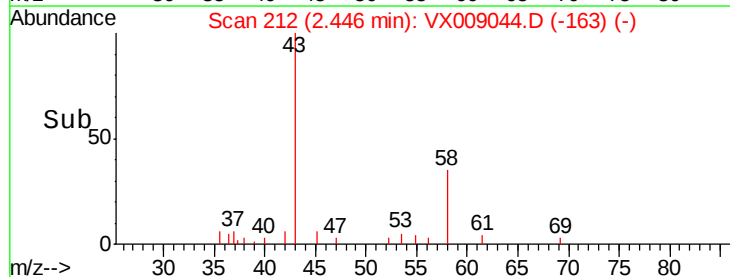
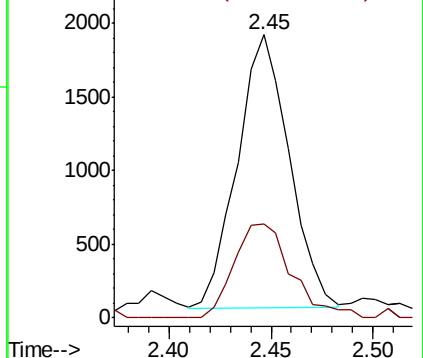
43 100

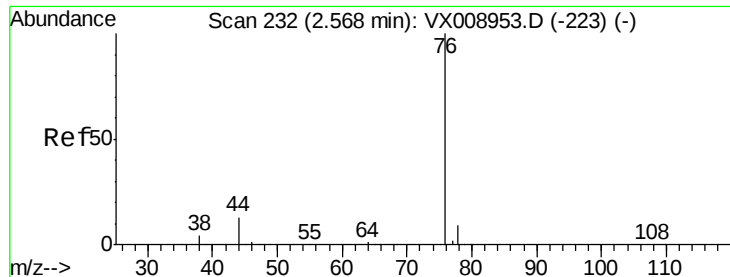
58 31.4 24.8 37.2



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0





#17

Carbon Disulfide

Concen: 1.338 ug/l

RT: 2.57 min Scan# 232

Delta R.T. 0.00 min

Lab File: VX009044.D

Acq: 18 Apr 2019 15:21

Instrument :

MSVOA\_X

ClientSampleId :

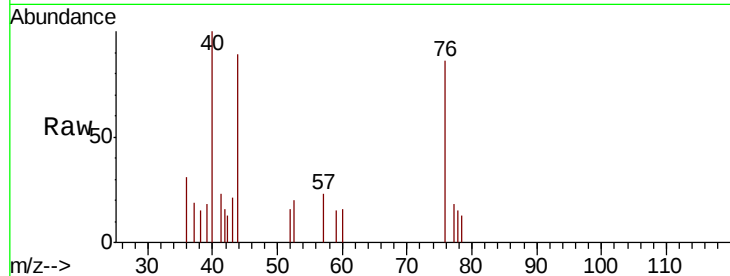
DUP-0511-190415

Tot Ion: 76 Resp: 686

Ion Ratio Lower Upper

76 100

78 32.6 7.2 10.8#



Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0

2.57

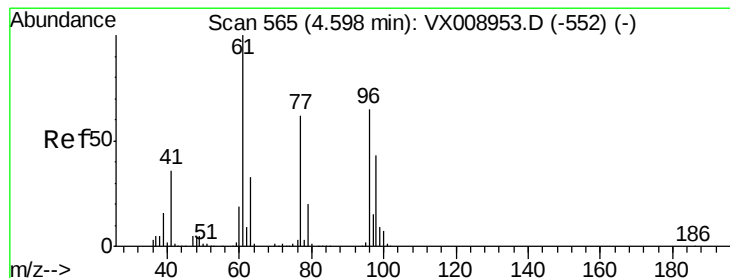
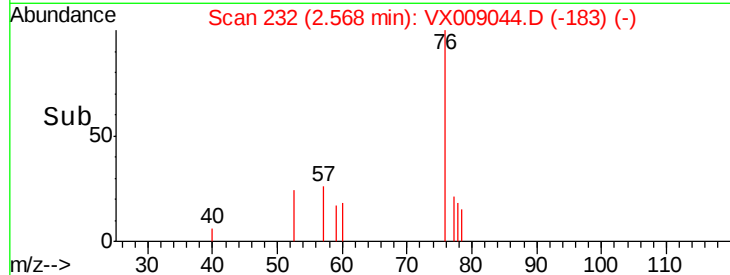
300

200

100

0

Time-->



#27

cis-1,2-Dichloroethene

Concen: 2.076 ug/l

RT: 4.60 min Scan# 566

Delta R.T. 0.01 min

Lab File: VX009044.D

Acq: 18 Apr 2019 15:21

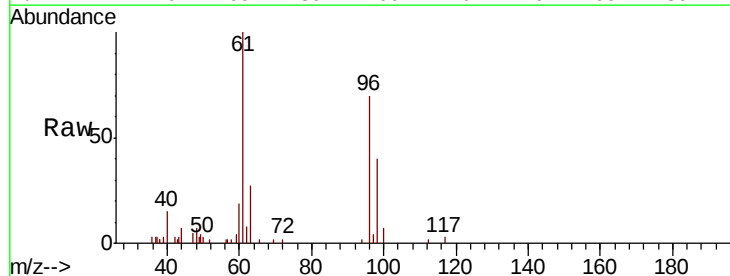
Tgt Ion: 96 Resp: 6676

Ion Ratio Lower Upper

96 100

61 140.5 0.0 322.0

98 60.3 0.0 128.4



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

4000

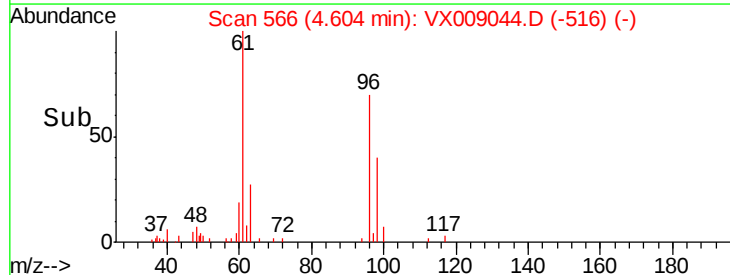
3000

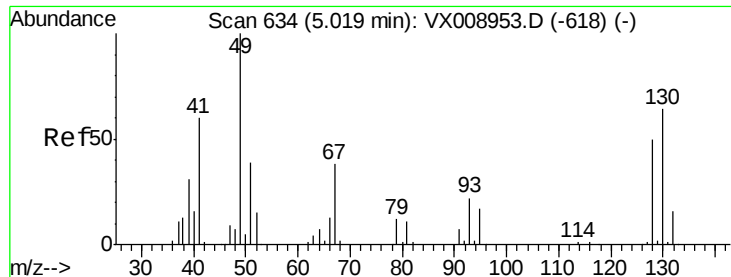
2000

1000

0

Time-->





#28

Bromochloromethane

Concen: Below Cal

RT: 5.05 min Scan# 639

Delta R.T. 0.03 min

Lab File: VX009044.D

Acq: 18 Apr 2019 15:21

Instrument :

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ClientSampleId :

DUP-0511-190415

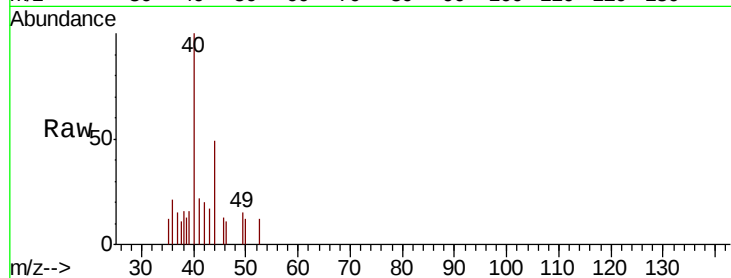
Tot Ion: 49 Resp: 26

Ion Ratio Lower Upper

49 100

129 0.0 0.0 3.6

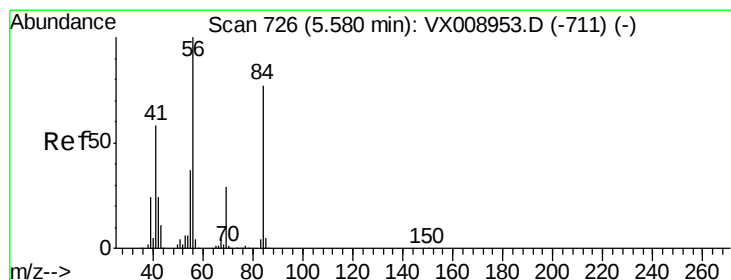
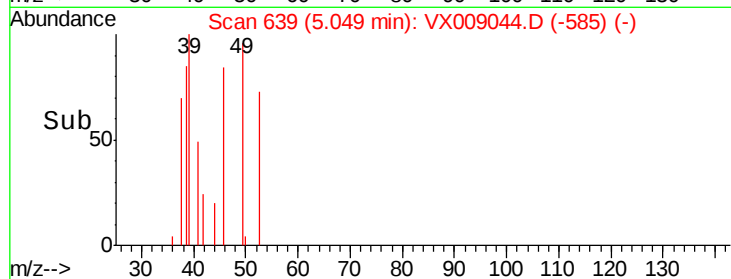
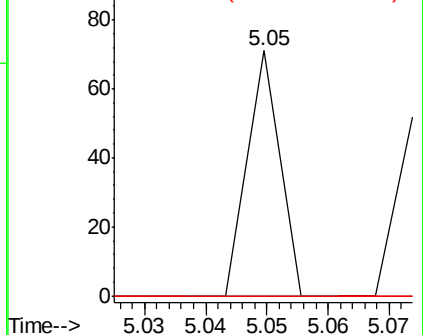
130 0.0 50.4 75.6#



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: 1.012 ug/l

RT: 5.67 min Scan# 740

Delta R.T. 0.09 min

Lab File: VX009044.D

Acq: 18 Apr 2019 15:21

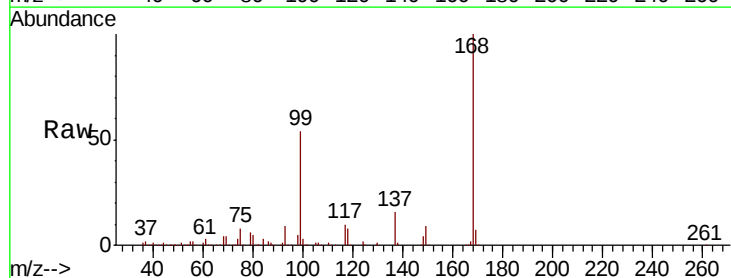
Tgt Ion: 56 Resp: 5625

Ion Ratio Lower Upper

56 100

69 174.9 23.3 34.9#

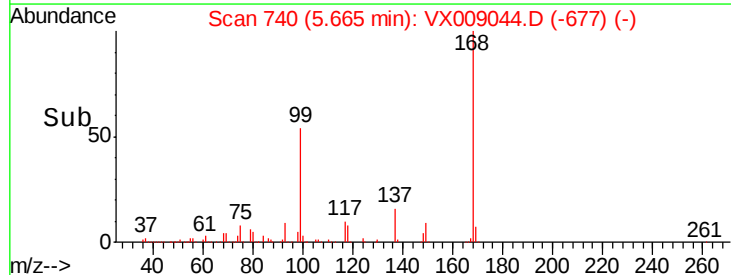
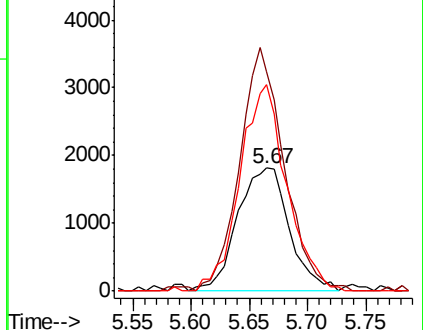
84 167.7 61.7 92.5#

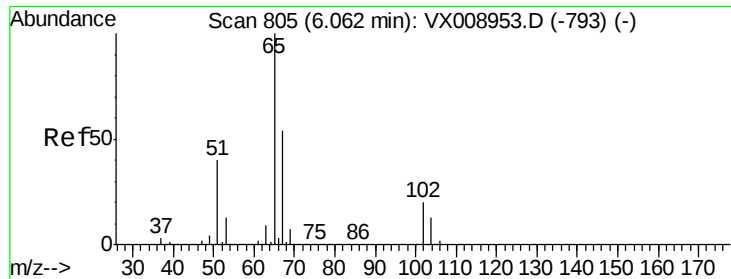


Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 84.00 (83.70 to 84.70): VX0





#33

1,2-Dichloroethane-d4

Concen: 47.620 ug/l

RT: 6.06 min Scan# 805

Delta R.T. -0.00 min

Lab File: VX009044.D

Acq: 18 Apr 2019 15:21

Instrument :

MSVOA\_X

ClientSampleId :

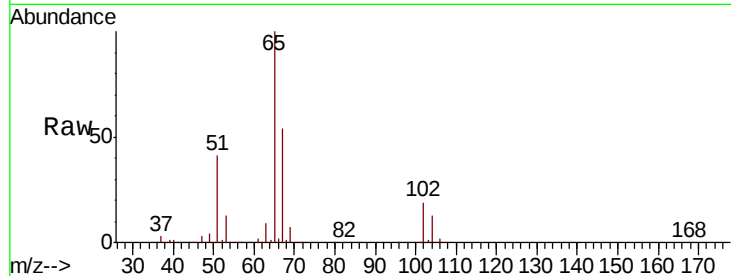
DUP-0511-190415

Tot Ion: 65 Resp: 166192

Ion Ratio Lower Upper

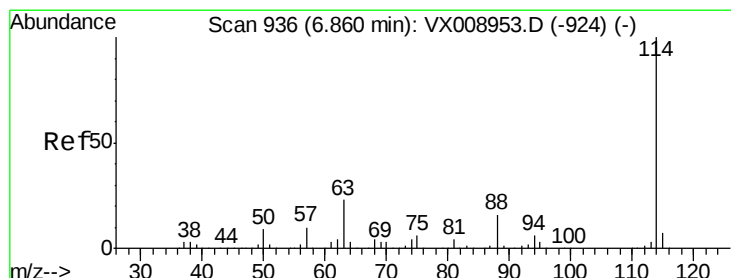
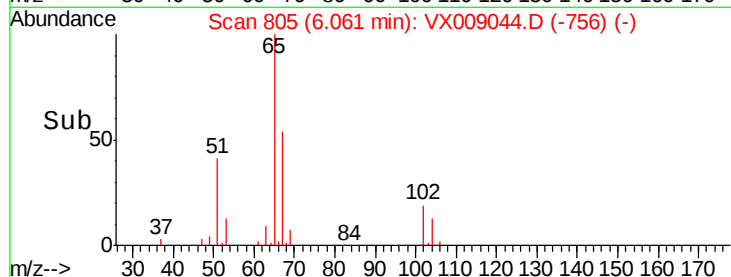
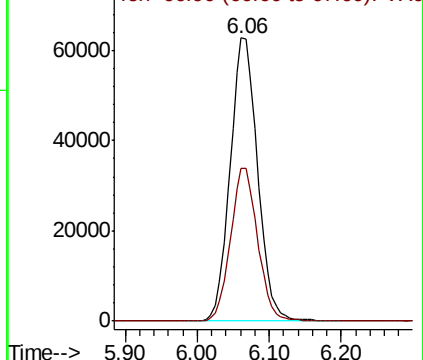
65 100

67 53.5 0.0 108.6



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: VX009044.D

Acq: 18 Apr 2019 15:21

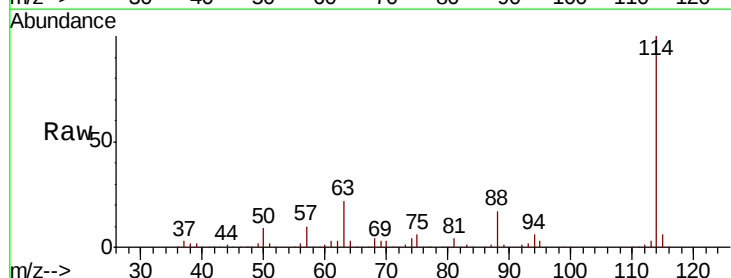
Tgt Ion: 114 Resp: 402688

Ion Ratio Lower Upper

114 100

63 22.5 0.0 46.0

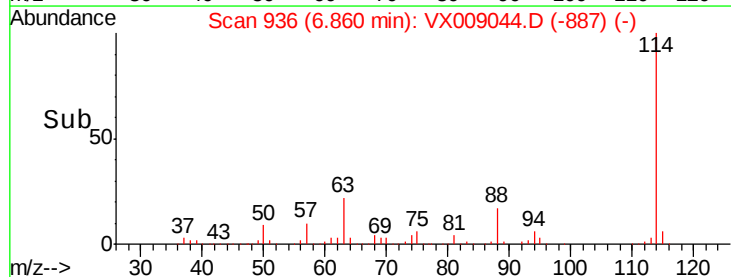
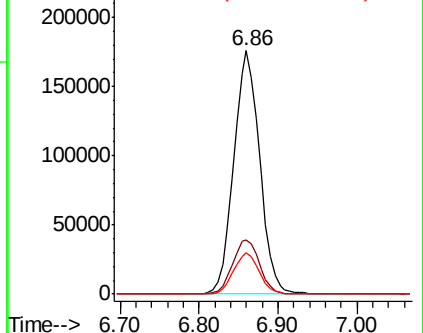
88 17.1 0.0 32.6

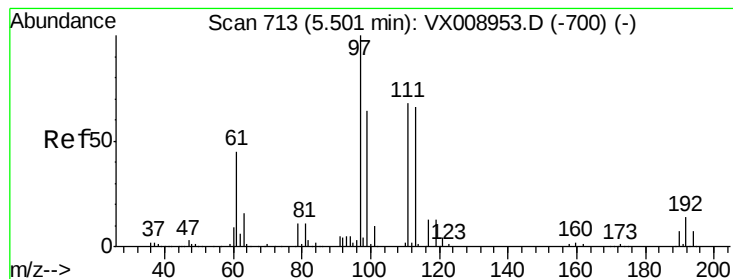


Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0





#35

Dibromofluoromethane

Concen: 47.040 ug/l

RT: 5.50 min Scan# 713

Delta R.T. -0.00 min

Lab File: VX009044.D

Acq: 18 Apr 2019 15:21

Instrument :

MSVOA\_X

ClientSampleId :

DUP-0511-190415

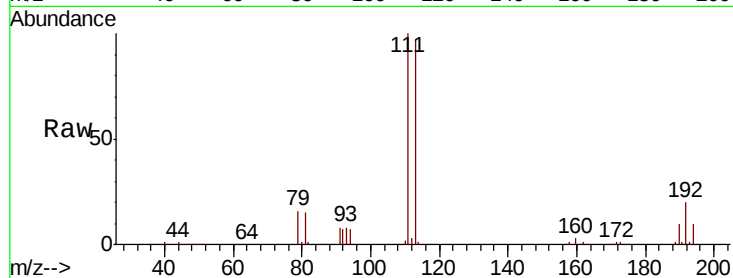
Tot Ion:113 Resp: 121567

Ion Ratio Lower Upper

113 100

111 103.1 82.9 124.3

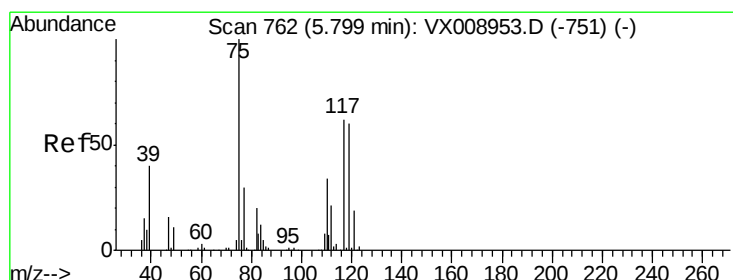
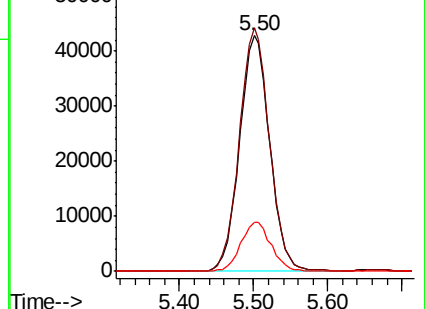
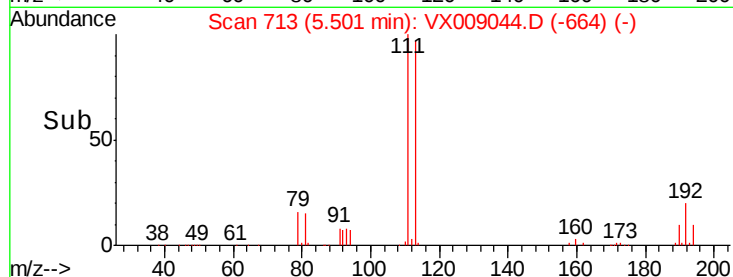
192 21.1 17.4 26.0



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: 4.789 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.13 min

Lab File: VX009044.D

Acq: 18 Apr 2019 15:21

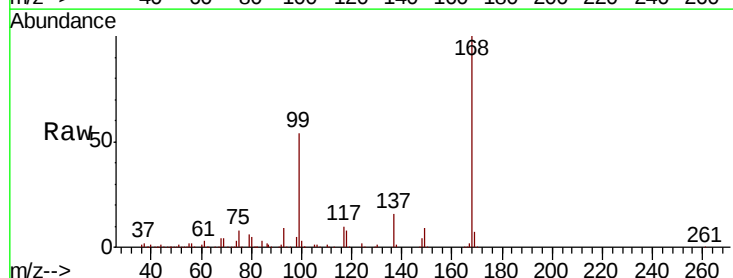
Tgt Ion: 75 Resp: 19946

Ion Ratio Lower Upper

75 100

110 8.8 16.9 50.7#

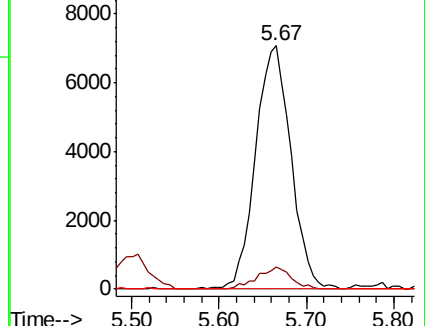
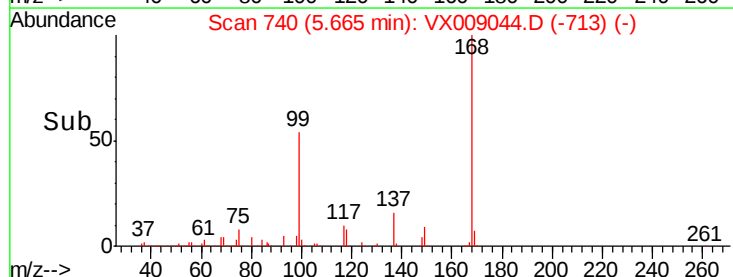
77 0.0 25.0 37.4#

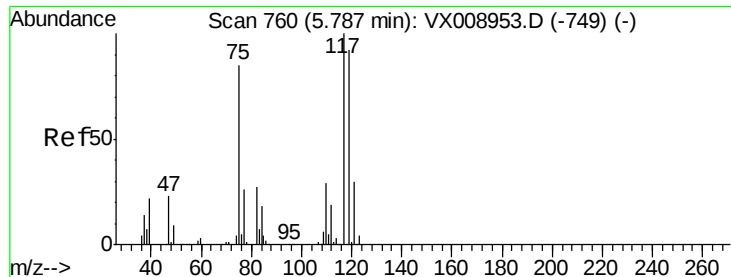


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 6.845 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.12 min

Lab File: VX009044.D

Acq: 18 Apr 2019 15:21

Instrument :

MSVOA\_X

ClientSampleId :

DUP-0511-190415

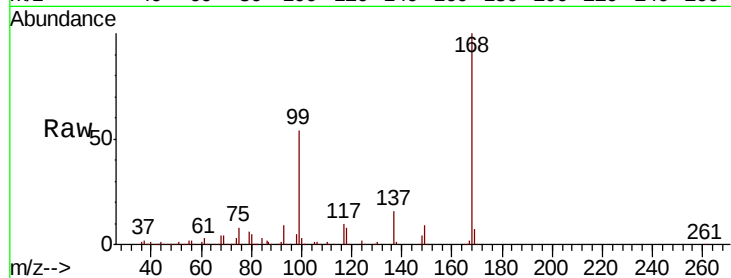
Tot Ion:117 Resp: 24166

Ion Ratio Lower Upper

117 100

119 3.4 73.8 110.8#

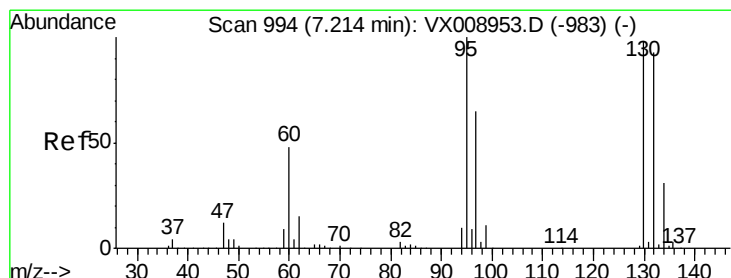
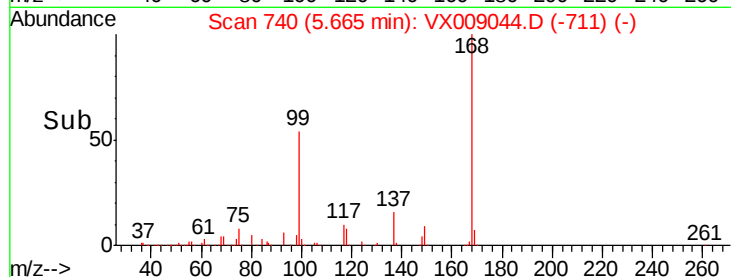
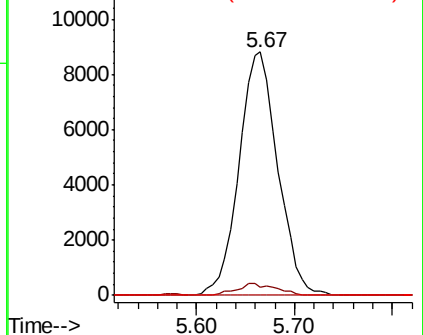
121 0.0 23.6 35.4#



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: 2.456 ug/l

RT: 7.21 min Scan# 994

Delta R.T. -0.00 min

Lab File: VX009044.D

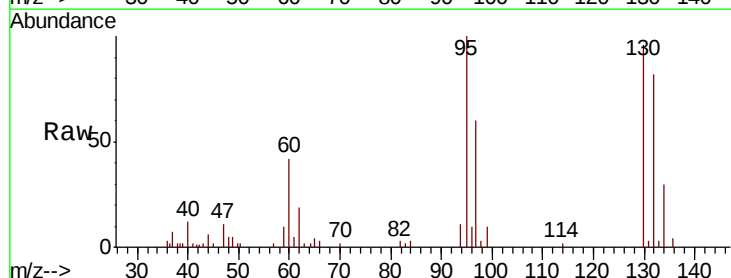
Acq: 18 Apr 2019 15:21

Tgt Ion:130 Resp: 7394

Ion Ratio Lower Upper

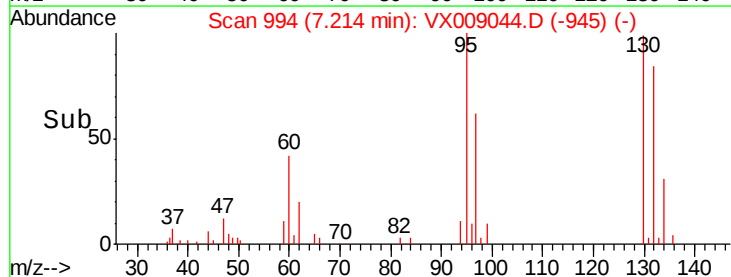
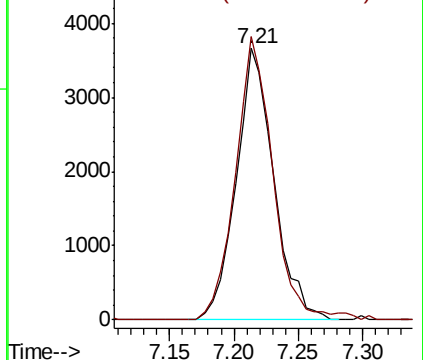
130 100

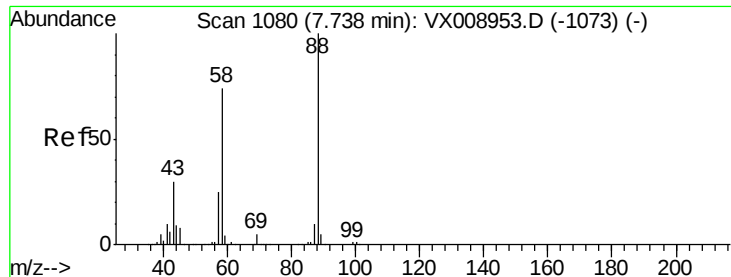
95 104.2 0.0 203.2



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0

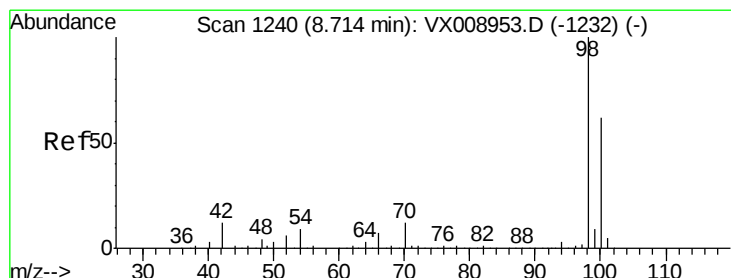
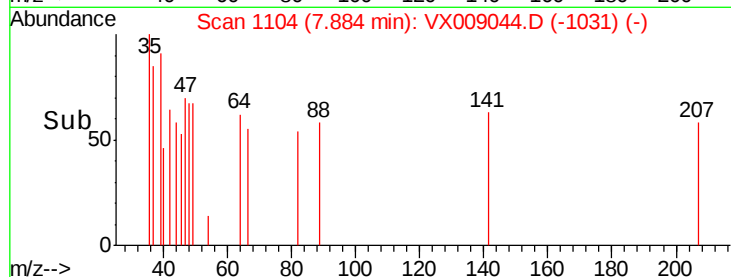
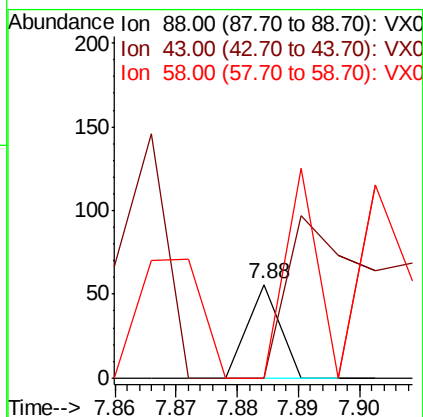
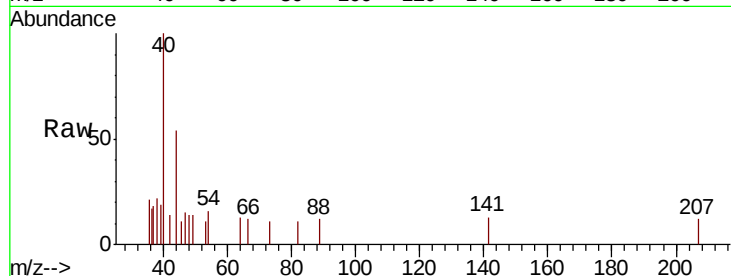




#49  
1,4-Dioxane  
Concen: 0.250 ug/l  
RT: 7.88 min Scan# 1104  
Delta R.T. 0.15 min  
Lab File: VX009044.D  
Acq: 18 Apr 2019 15:21

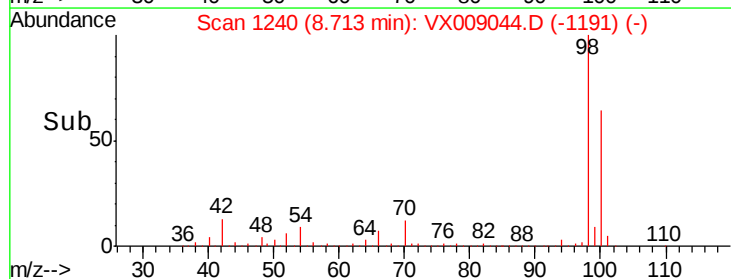
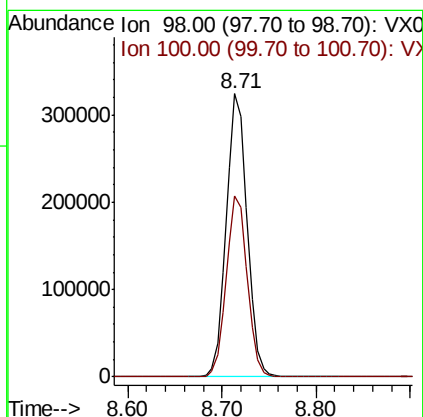
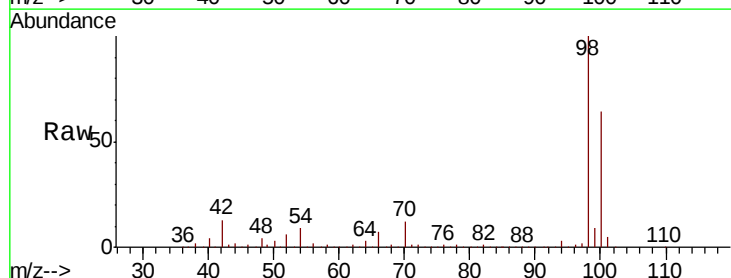
Instrument :  
MSVOA\_X  
ClientSampleId :  
DUP-0511-190415

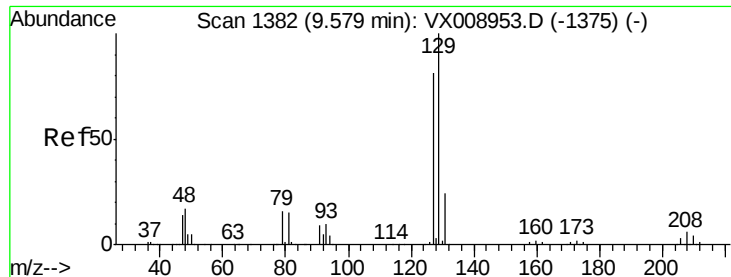
Tot Ion: 88 Resp: 20  
Ion Ratio Lower Upper  
88 100  
43 430.0 29.3 43.9#  
58 230.0 62.6 93.8#



#50  
Toluene-d8  
Concen: 48.300 ug/l  
RT: 8.71 min Scan# 1240  
Delta R.T. -0.00 min  
Lab File: VX009044.D  
Acq: 18 Apr 2019 15:21

Tgt Ion: 98 Resp: 497803  
Ion Ratio Lower Upper  
98 100  
100 64.4 51.4 77.2

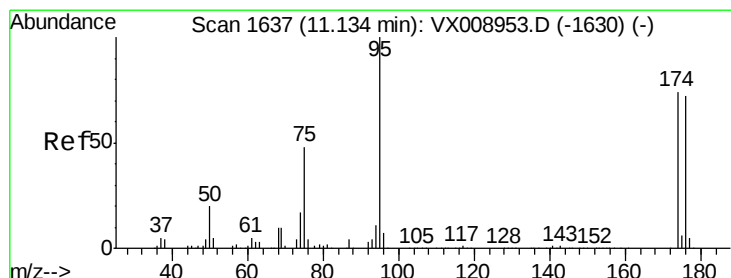
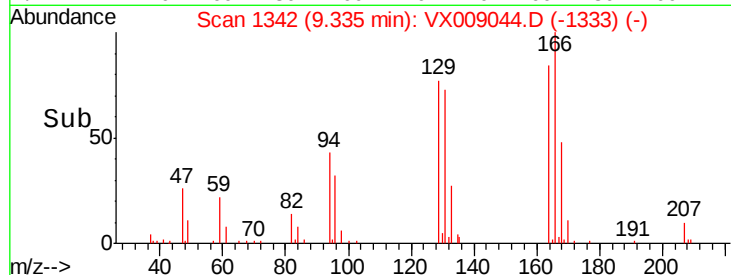
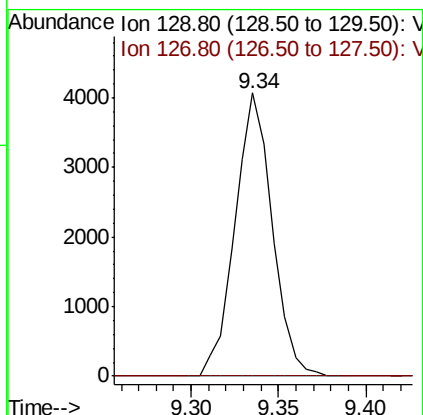
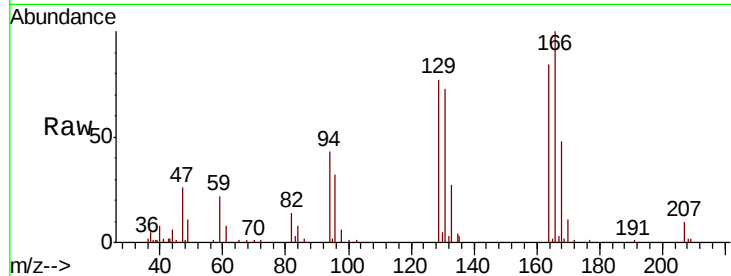




#60  
 Dibromochloromethane  
 Concen: 2.146 ug/l  
 RT: 9.34 min Scan# 1342  
 Delta R.T. -0.24 min  
 Lab File: VX009044.D  
 Acq: 18 Apr 2019 15:21

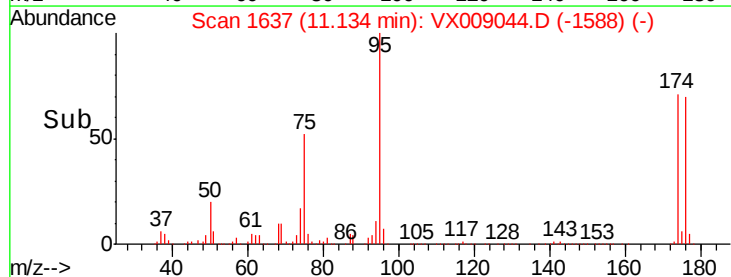
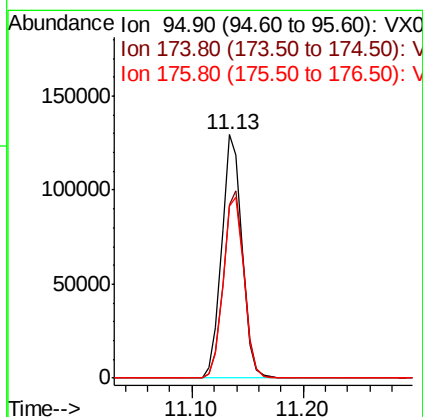
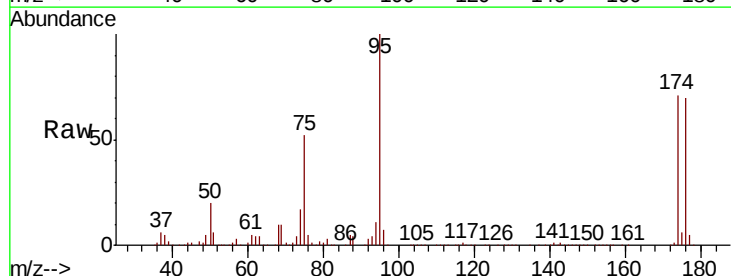
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 DUP-0511-190415

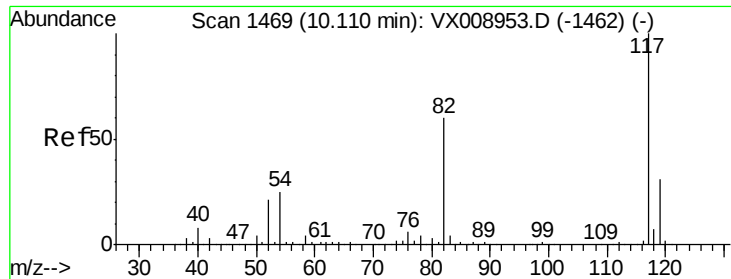
Tot Ion:129 Resp: 6001  
 Ion Ratio Lower Upper  
 129 100  
 127 0.0 39.1 117.2#



#62  
 4-Bromofluorobenzene  
 Concen: 44.843 ug/l  
 RT: 11.13 min Scan# 1637  
 Delta R.T. -0.00 min  
 Lab File: VX009044.D  
 Acq: 18 Apr 2019 15:21

Tgt Ion: 95 Resp: 163150  
 Ion Ratio Lower Upper  
 95 100  
 174 78.0 0.0 159.6  
 176 75.8 0.0 154.8

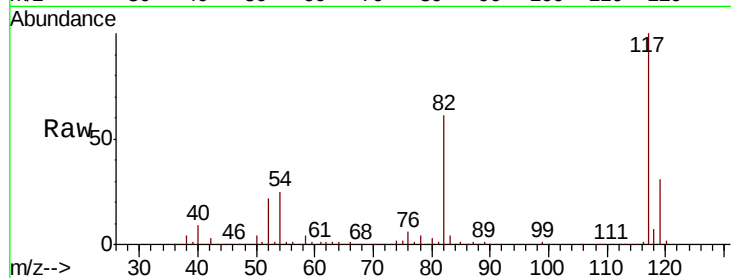




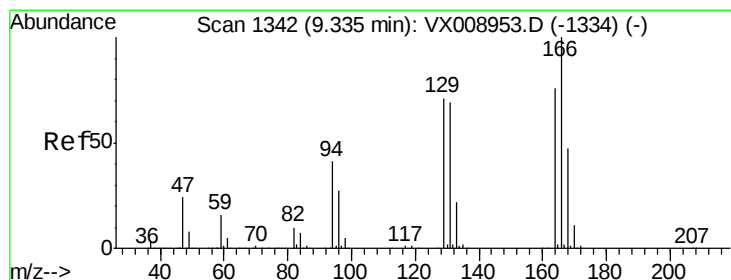
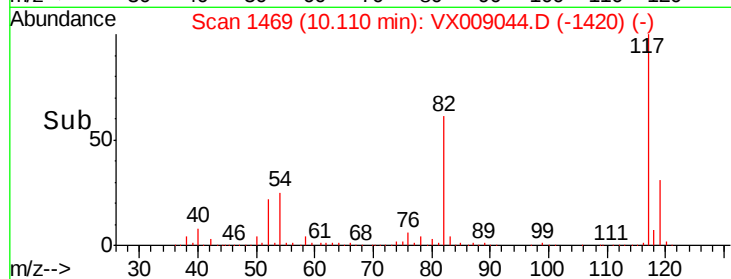
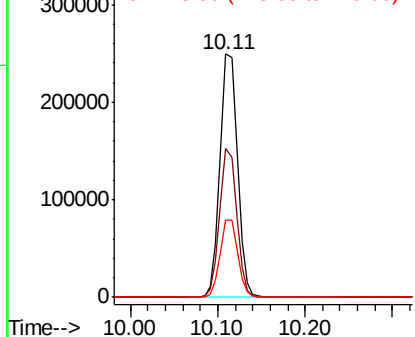
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1469  
Delta R.T. -0.00 min  
Lab File: VX009044.D  
Acq: 18 Apr 2019 15:21

Instrument :  
MSVOA\_X  
ClientSampleId :  
DUP-0511-190415

Tot Ion:117 Resp: 345629  
Ion Ratio Lower Upper  
117 100  
82 61.0 48.2 72.4  
119 31.5 25.0 37.6



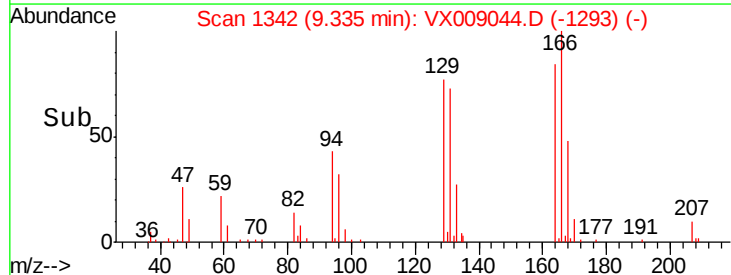
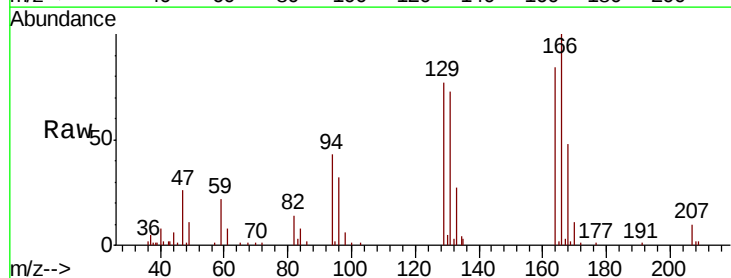
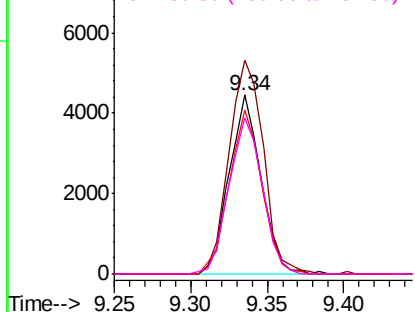
Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VX0  
Ion 118.90 (118.60 to 119.60): V

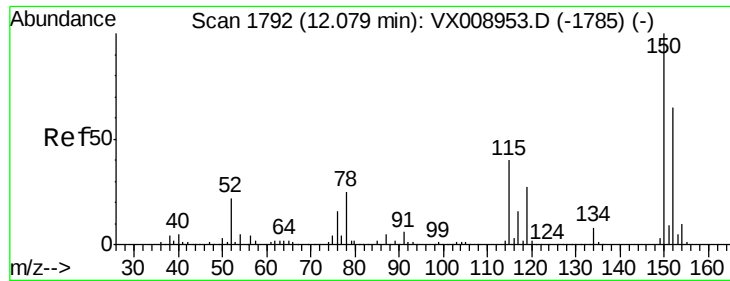


#64  
Tetrachloroethene  
Concen: 2.451 ug/l  
RT: 9.34 min Scan# 1342  
Delta R.T. -0.00 min  
Lab File: VX009044.D  
Acq: 18 Apr 2019 15:21

Tgt Ion:164 Resp: 6435  
Ion Ratio Lower Upper  
164 100  
166 119.3 105.0 157.4  
129 91.4 74.2 111.4  
131 87.3 72.2 108.2

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: VX009044.D

Acq: 18 Apr 2019 15:21

Instrument :

MSVOA\_X

ClientSampleId :

DUP-0511-190415

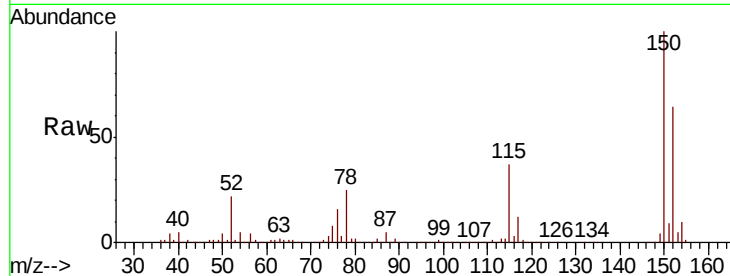
Tot Ion:152 Resp: 142891

Ion Ratio Lower Upper

152 100

115 59.5 41.4 124.2

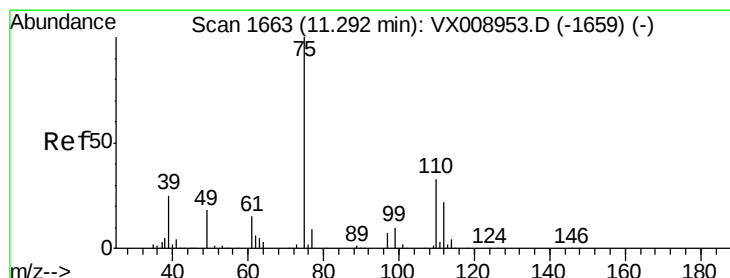
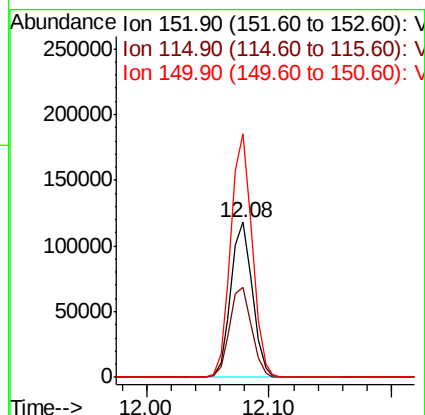
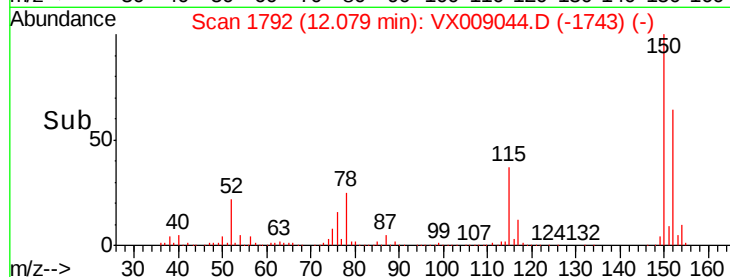
150 155.9 0.0 349.8



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: 23.797 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX009044.D

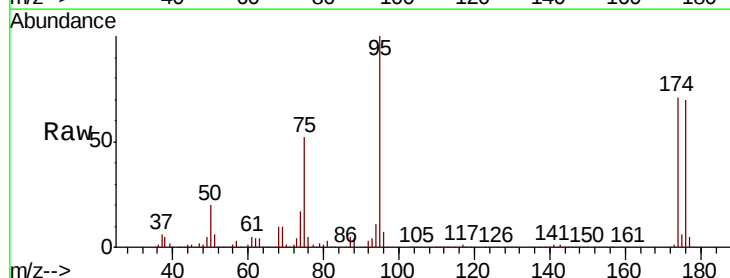
Acq: 18 Apr 2019 15:21

Tgt Ion: 75 Resp: 83032

Ion Ratio Lower Upper

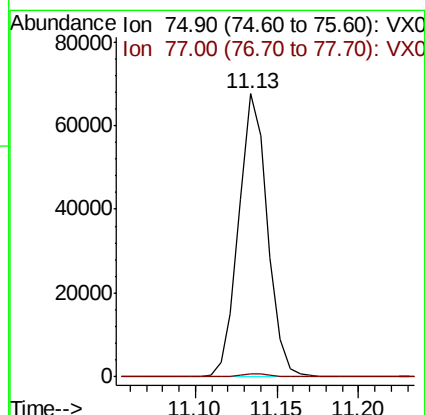
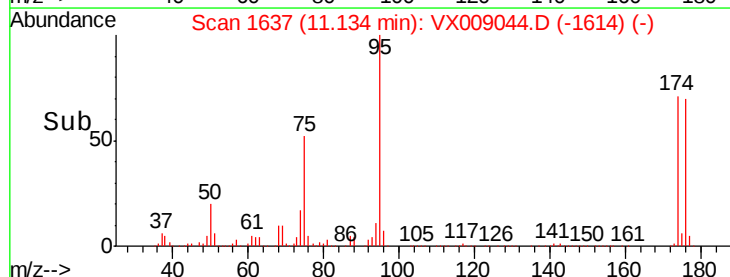
75 100

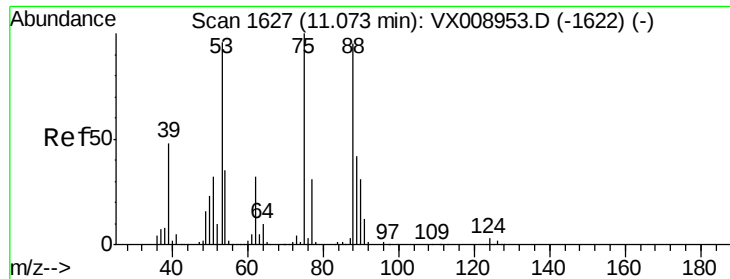
77 1.3 22.7 68.0#



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: 61.095 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX009044.D

Acq: 18 Apr 2019 15:21

Instrument :

MSVOA\_X

ClientSampleId :

DUP-0511-190415

Tot Ion: 75 Resp: 83032

Ion Ratio Lower Upper

75 100

53 0.0 78.2 117.4#

89 0.0 36.0 54.0#

