

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX041919\  
 Data File : VX009070.D  
 Acq On : 19 Apr 2019 15:07  
 Operator : JC/SP  
 Sample : K2449-15DL 10X  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 SS037MW301-190416DL

Quant Time: Apr 20 00:38:51 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  | 237386   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 387523   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 331278   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 139376   | 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   | 161530   | 48.28 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.56% |          |
| 35) Dibromofluoromethane    | 5.50  | 113  | 117740   | 47.34 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.68% |          |
| 50) Toluene-d8              | 8.71  | 98   | 478006   | 48.19 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.38% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 156509   | 44.70 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 89.40% |          |

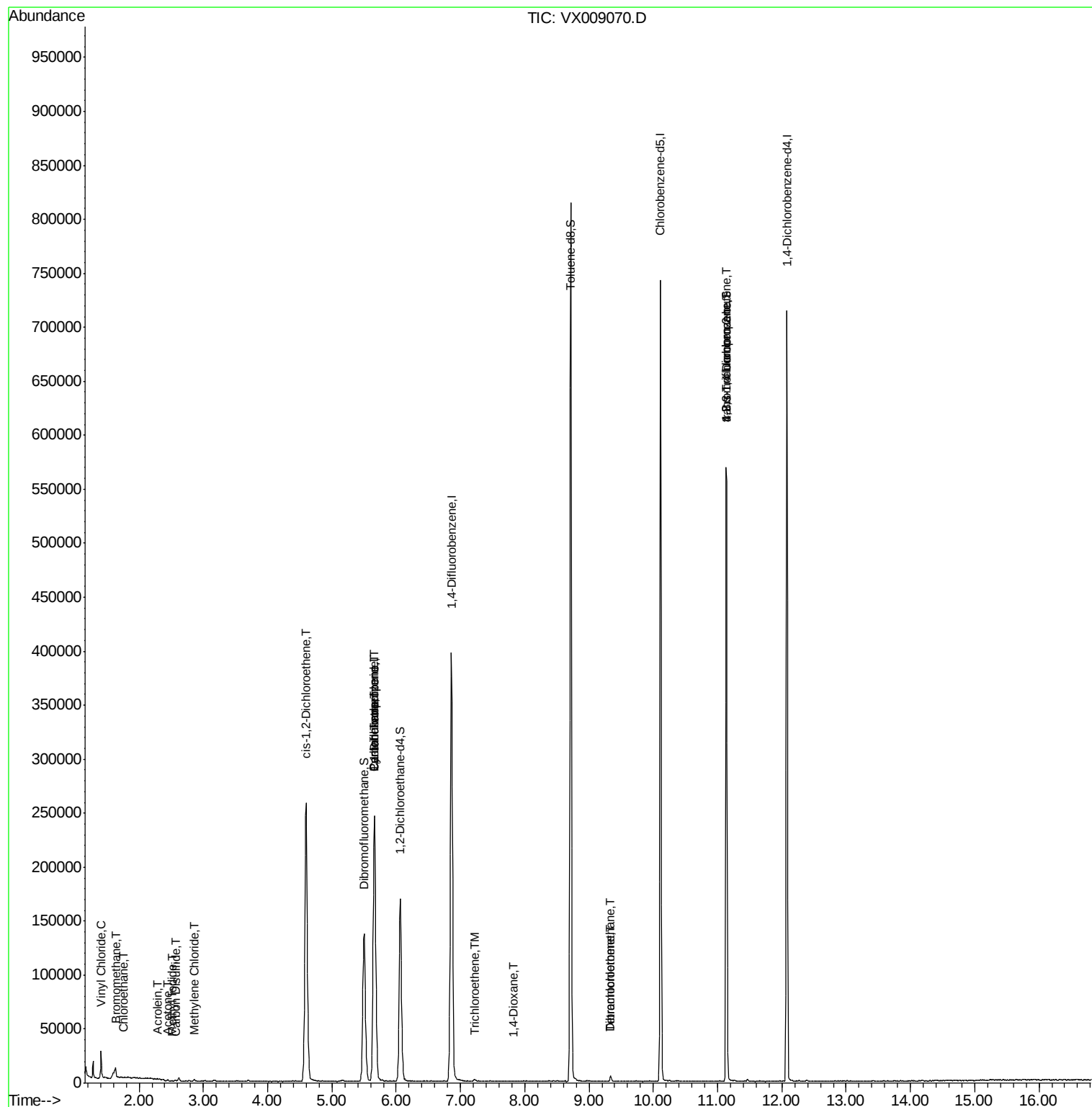
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 4) Vinyl Chloride              | 1.41  | 62   | 17562    | 5.375     | ug/l   | 99     |
| 5) Bromomethane                | 1.64  | 94   | 685      | 4.157     | ug/l # | 79     |
| 6) Chloroethane                | 1.76  | 64   | 1882     | 0.980     | ug/l # | 86     |
| 10) Methyl Iodide              | 2.52  | 142  | 118      | 4.455     | ug/l # | 67     |
| 13) Acrolein                   | 2.29  | 56   | 255      | 0.397     | ug/l # | 14     |
| 16) Acetone                    | 2.45  | 43   | 1141     | 0.658     | ug/l   | 97     |
| 17) Carbon Disulfide           | 2.57  | 76   | 641      | 1.336     | ug/l # | 75     |
| 20) Methylene Chloride         | 2.86  | 84   | 786      | 0.265     | ug/l # | 73     |
| 27) cis-1,2-Dichloroethene     | 4.60  | 96   | 158227   | 51.325    | ug/l   | 90     |
| 28) Bromochloromethane         | 5.03  | 49   | 41       | Below Cal | #      | 21     |
| 31) Cyclohexane                | 5.65  | 56   | 5382     | 1.010     | ug/l # | 15     |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 19338    | 4.825     | ug/l # | 50     |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 22805    | 6.712     | ug/l # | 18     |
| 44) Trichloroethene            | 7.21  | 130  | 683      | 0.236     | ug/l   | 85     |
| 49) 1,4-Dioxane                | 7.82  | 88   | 19       | 0.247     | ug/l # | 1      |
| 60) Dibromochloromethane       | 9.34  | 129  | 823      | 0.306     | ug/l # | 10     |
| 64) Tetrachloroethene          | 9.34  | 164  | 864      | 0.343     | ug/l # | 74     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 80086    | 23.532    | ug/l # | 33     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 80086    | 60.413    | ug/l # | 11     |

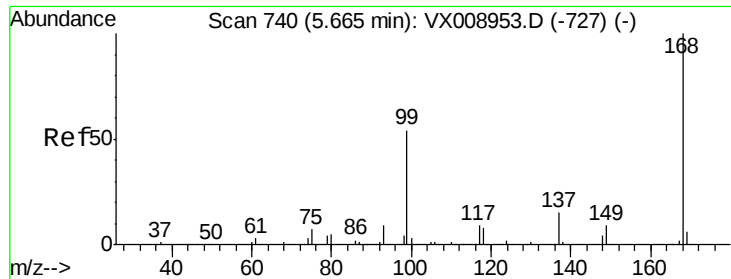
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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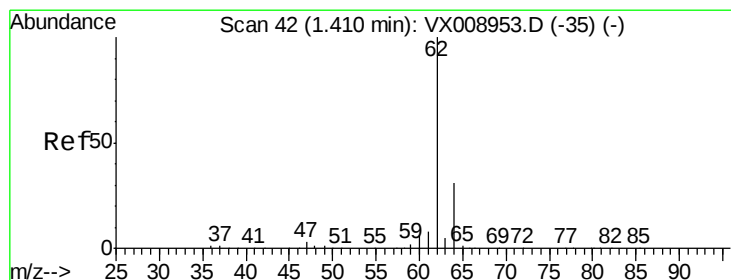
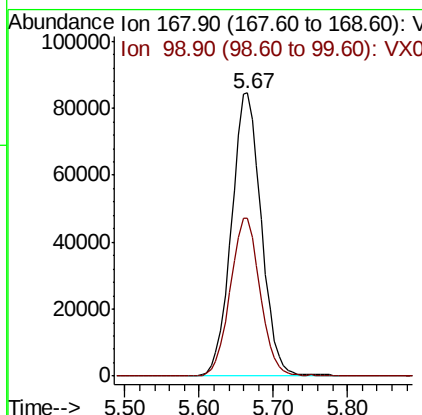
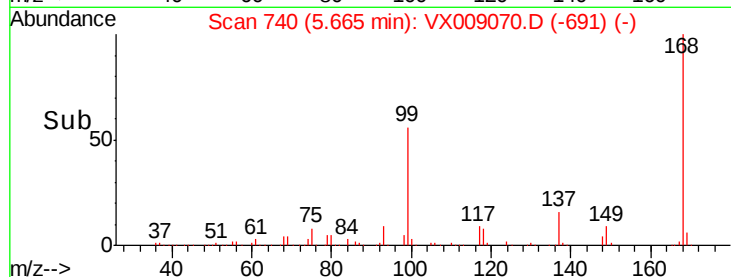
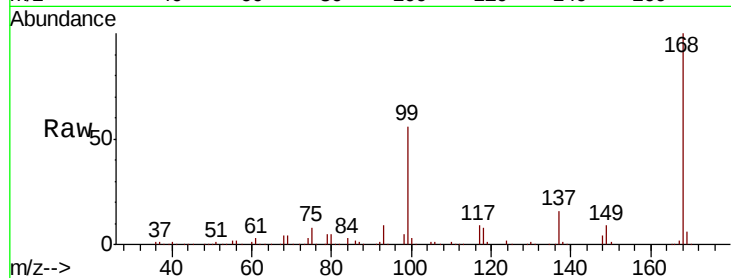




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.67 min Scan# 740  
Delta R.T. -0.00 min  
Lab File: VX009070.D  
Acq: 19 Apr 2019 15:07

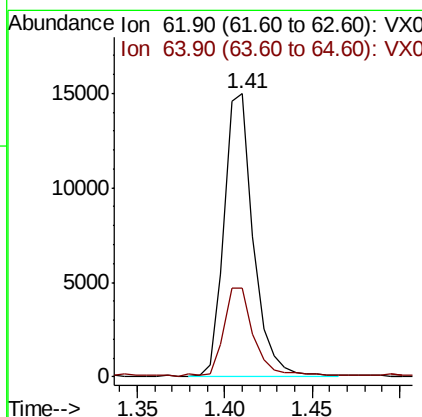
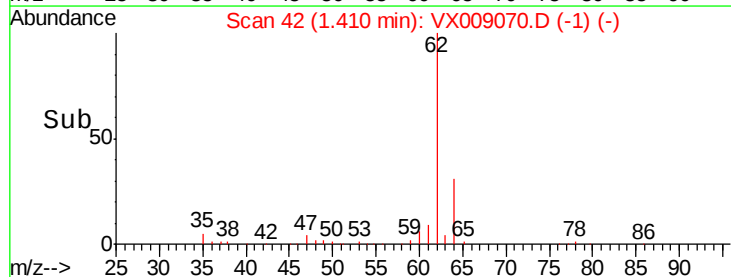
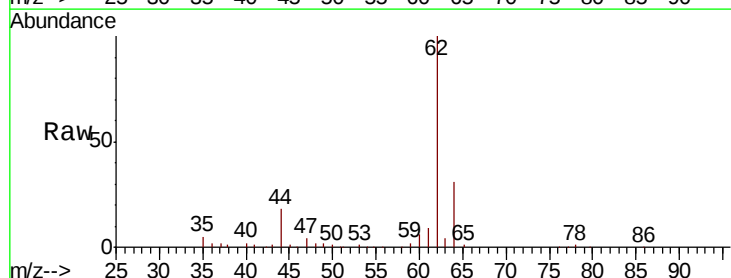
Instrument :  
MSVOA\_X  
ClientSampleId :  
SS037MW301-190416DL

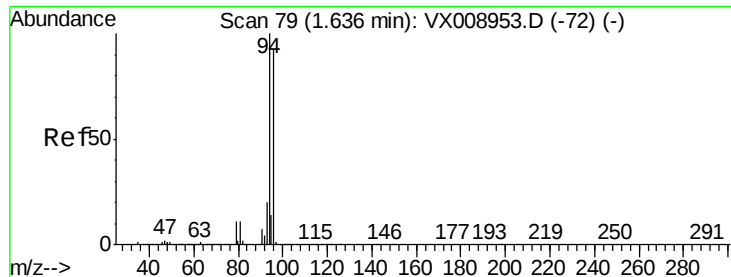
Tot Ion:168 Resp: 237386  
Ion Ratio Lower Upper  
168 100  
99 55.6 43.0 64.6



#4  
Vinyl Chloride  
Concen: 5.375 ug/l  
RT: 1.41 min Scan# 42  
Delta R.T. -0.00 min  
Lab File: VX009070.D  
Acq: 19 Apr 2019 15:07

Tgt Ion: 62 Resp: 17562  
Ion Ratio Lower Upper  
62 100  
64 30.8 25.0 37.4





#5

Bromomethane

Concen: 4.157 ug/l

RT: 1.64 min Scan# 80

Delta R.T. 0.01 min

Lab File: VX009070.D

Acq: 19 Apr 2019 15:07

Instrument :

MSVOA\_X

ClientSampleId :

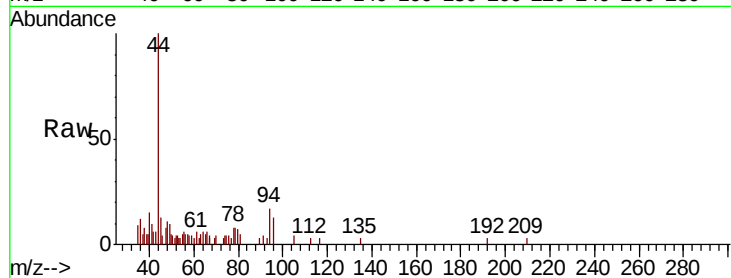
SS037MW301-190416DL

Tot Ion: 94 Resp: 685

Ion Ratio Lower Upper

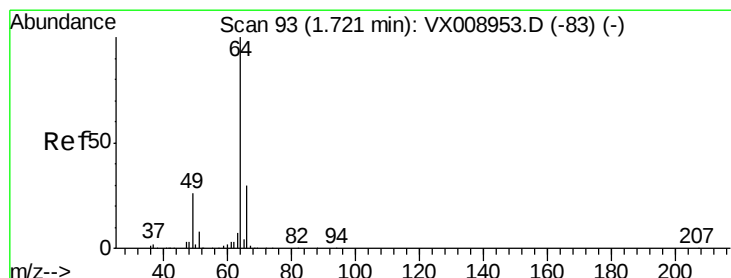
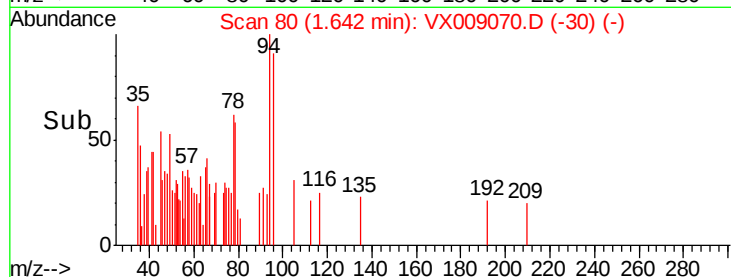
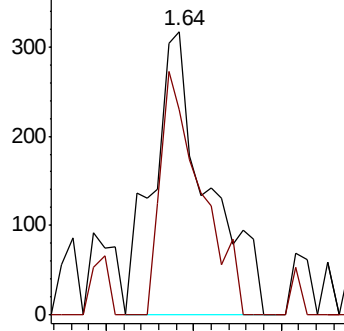
94 100

96 72.6 73.9 110.9#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0



#6

Chloroethane

Concen: 0.980 ug/l

RT: 1.76 min Scan# 99

Delta R.T. 0.04 min

Lab File: VX009070.D

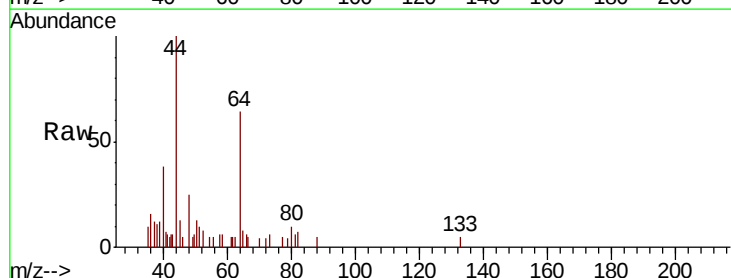
Acq: 19 Apr 2019 15:07

Tgt Ion: 64 Resp: 1882

Ion Ratio Lower Upper

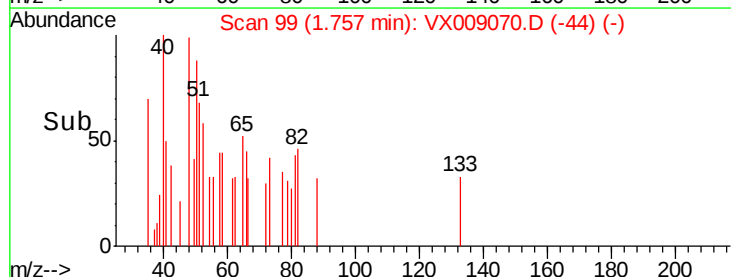
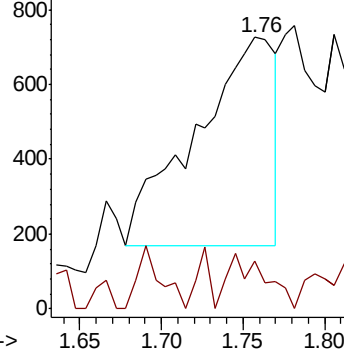
64 100

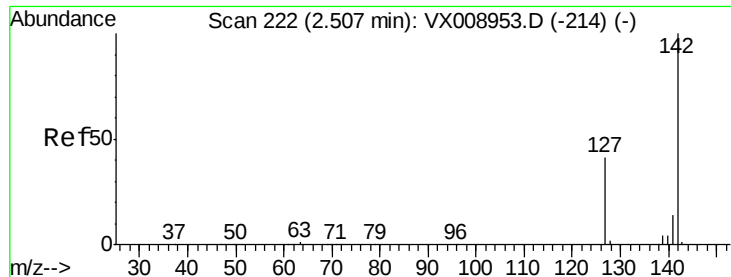
66 22.7 24.2 36.2#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0

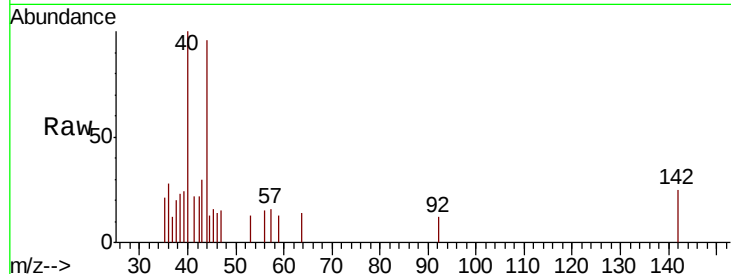




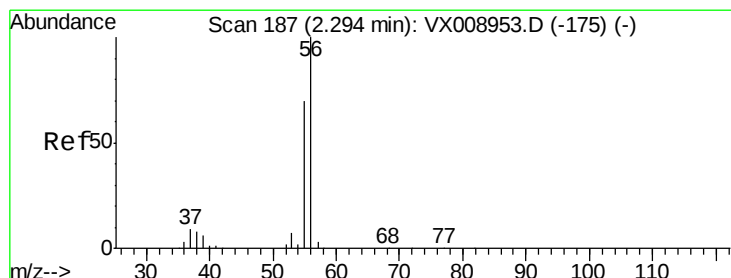
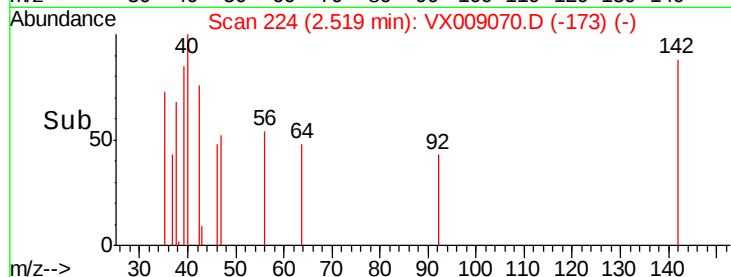
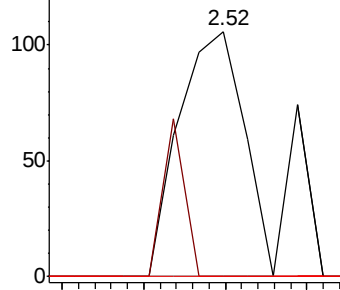
#10  
Methvl Iodide  
Concen: 4.455 ug/l  
RT: 2.52 min Scan# 224  
Delta R.T. 0.01 min  
Lab File: VX009070.D  
Acq: 19 Apr 2019 15:07

Instrument :  
MSVOA\_X  
ClientSampleId :  
SS037MW301-190416DL

Tot Ion:142 Resp: 118  
Ion Ratio Lower Upper  
142 100  
127 21.2 32.8 49.2#  
141 0.0 11.4 17.2#

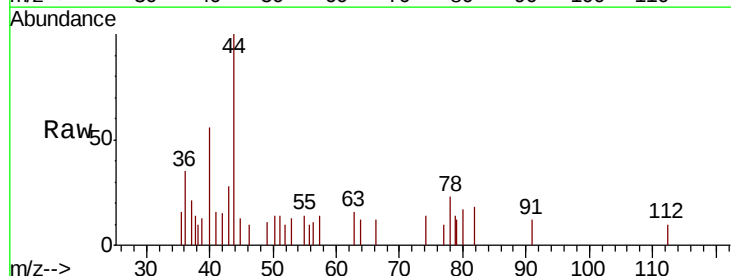


Abundance Ion 141.80 (141.50 to 142.50): V  
Ion 126.80 (126.50 to 127.50): V  
Ion 140.80 (140.50 to 141.50): V

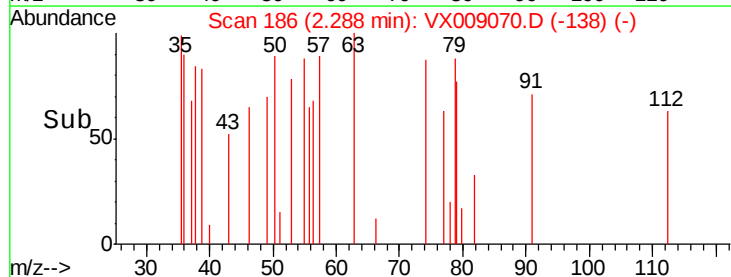
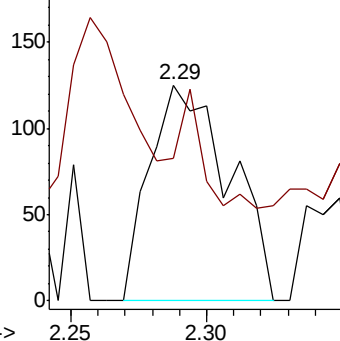


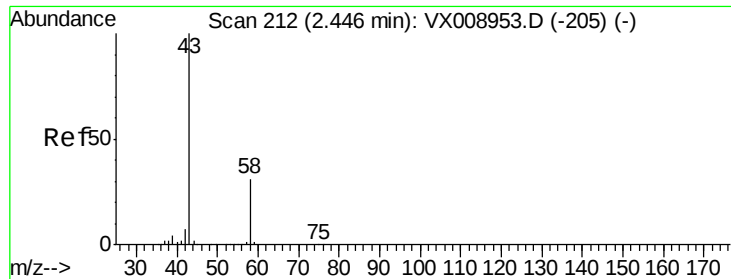
#13  
Acrolein  
Concen: 0.397 ug/l  
RT: 2.29 min Scan# 186  
Delta R.T. -0.01 min  
Lab File: VX009070.D  
Acq: 19 Apr 2019 15:07

Tgt Ion: 56 Resp: 255  
Ion Ratio Lower Upper  
56 100  
55 0.0 56.6 84.8#



Abundance Ion 56.00 (55.70 to 56.70): VX0  
Ion 55.00 (54.70 to 55.70): VX0





#16

Acetone

Concen: 0.658 ug/l

RT: 2.45 min Scan# 212

Delta R.T. -0.00 min

Lab File: VX009070.D

Acq: 19 Apr 2019 15:07

Instrument :

MSVOA\_X

ClientSampleId :

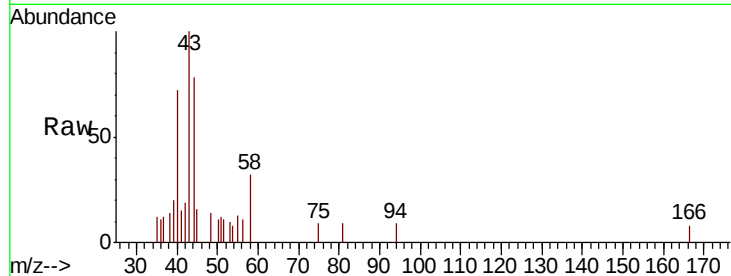
SS037MW301-190416DL

Tot Ion: 43 Resp: 1141

Ion Ratio Lower Upper

43 100

58 32.4 24.8 37.2



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

2.45

600

400

200

0

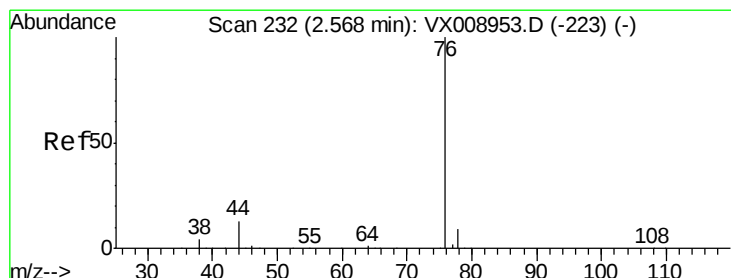
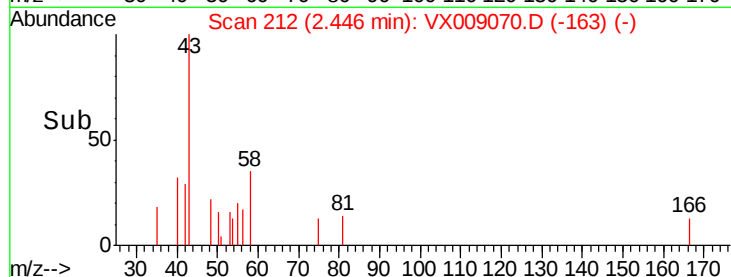
2.35

2.40

2.45

2.50

Time-->



#17

Carbon Disulfide

Concen: 1.336 ug/l

RT: 2.57 min Scan# 232

Delta R.T. 0.00 min

Lab File: VX009070.D

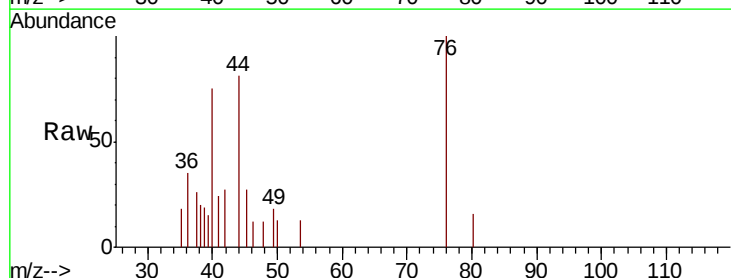
Acq: 19 Apr 2019 15:07

Tgt Ion: 76 Resp: 641

Ion Ratio Lower Upper

76 100

78 0.0 7.2 10.8#



Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0

500

400

300

200

100

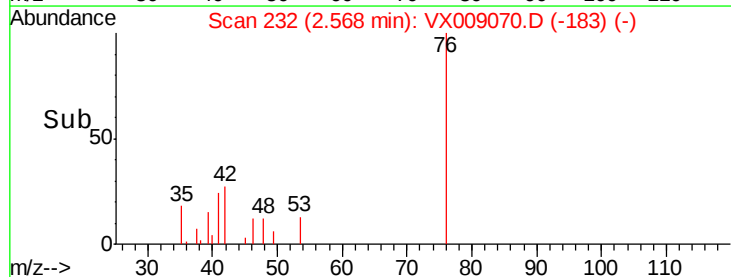
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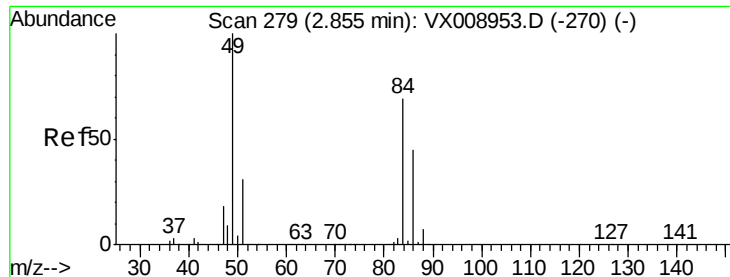
2.55

2.57

2.60

Time-->

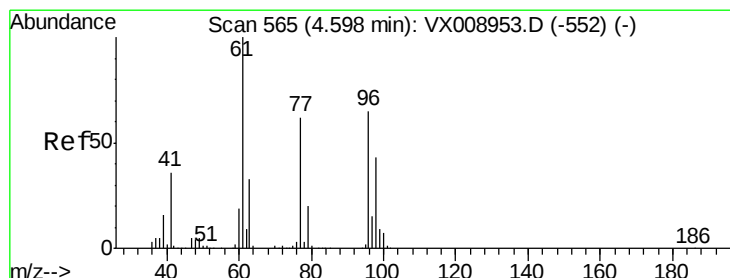
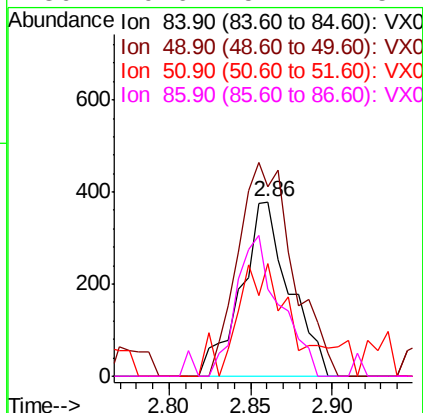
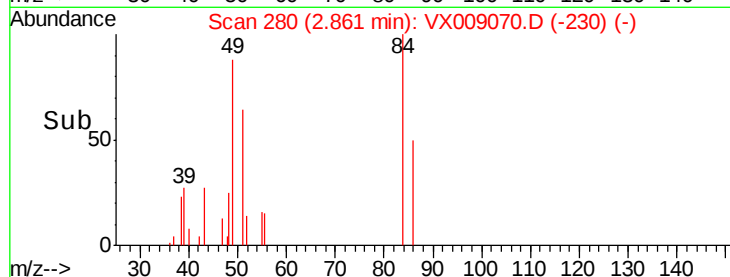
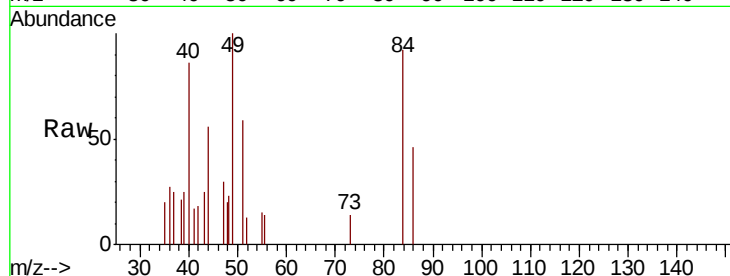




#20  
Methylene Chloride  
Concen: 0.265 ug/l  
RT: 2.86 min Scan# 280  
Delta R.T. 0.01 min  
Lab File: VX009070.D  
Acq: 19 Apr 2019 15:07

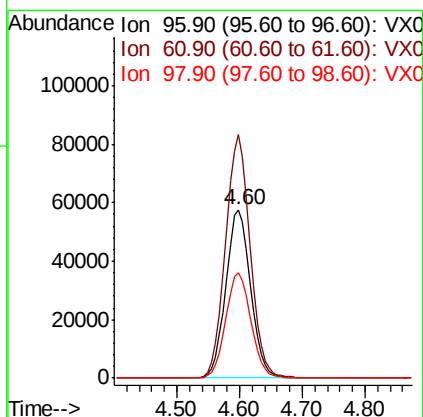
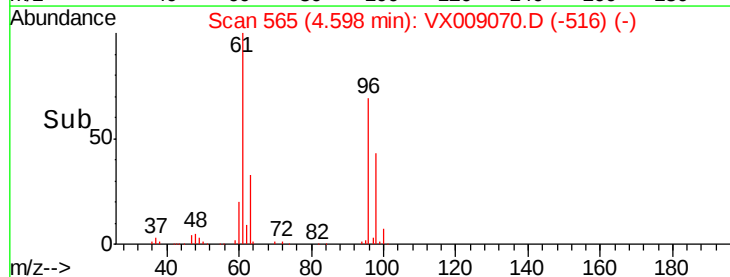
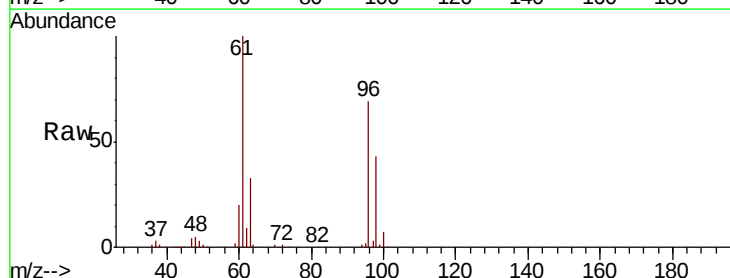
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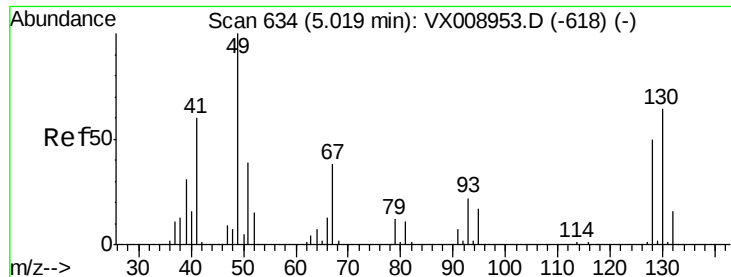
Tot Ion: 84 Resp: 786  
Ion Ratio Lower Upper  
84 100  
49 108.4 115.4 173.0#  
51 64.4 35.8 53.6#  
86 49.6 52.1 78.1#



#27  
cis-1,2-Dichloroethene  
Concen: 51.325 ug/l  
RT: 4.60 min Scan# 565  
Delta R.T. -0.00 min  
Lab File: VX009070.D  
Acq: 19 Apr 2019 15:07

Tgt Ion: 96 Resp: 158227  
Ion Ratio Lower Upper  
96 100  
61 143.2 0.0 322.0  
98 63.4 0.0 128.4





#28

Bromochloromethane

Concen: Below Cal

RT: 5.03 min Scan# 636

Delta R.T. 0.01 min

Lab File: VX009070.D

Acq: 19 Apr 2019 15:07

Instrument :

MSVOA\_X

ClientSampleId :

SS037MW301-190416DL

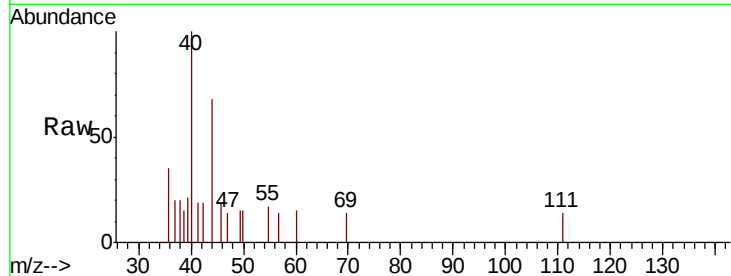
Tot Ion: 49 Resp: 41

Ion Ratio Lower Upper

49 100

129 0.0 0.0 3.6

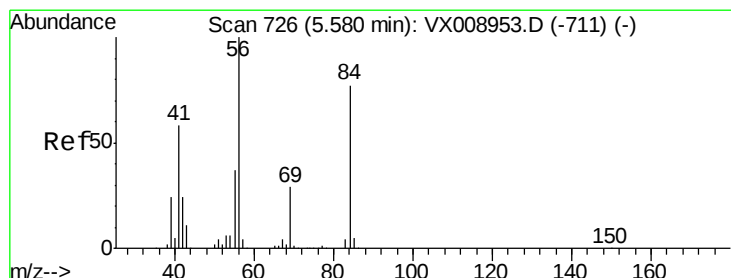
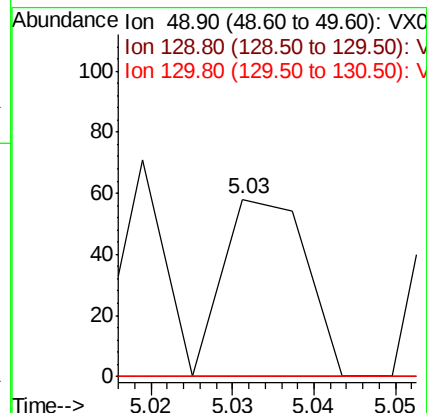
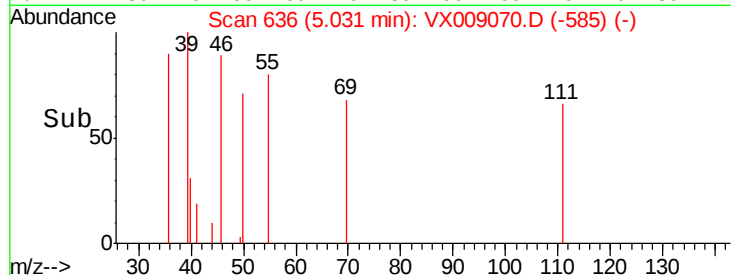
130 0.0 50.4 75.6#



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: 1.010 ug/l

RT: 5.65 min Scan# 738

Delta R.T. 0.07 min

Lab File: VX009070.D

Acq: 19 Apr 2019 15:07

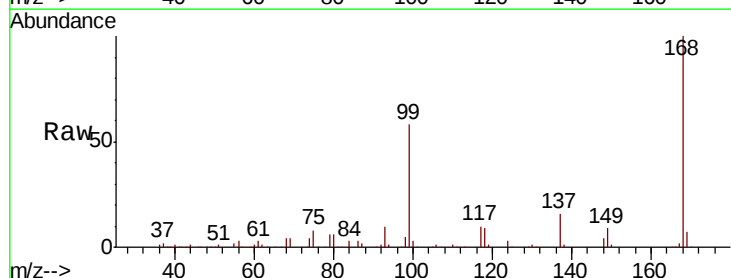
Tgt Ion: 56 Resp: 5382

Ion Ratio Lower Upper

56 100

69 148.1 23.3 34.9#

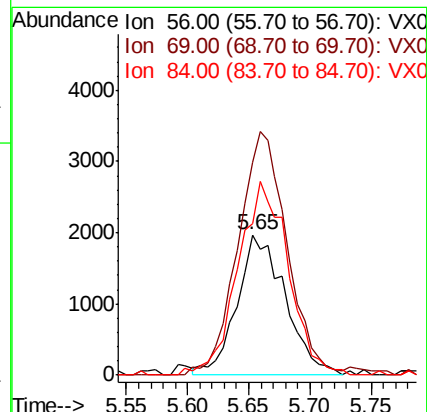
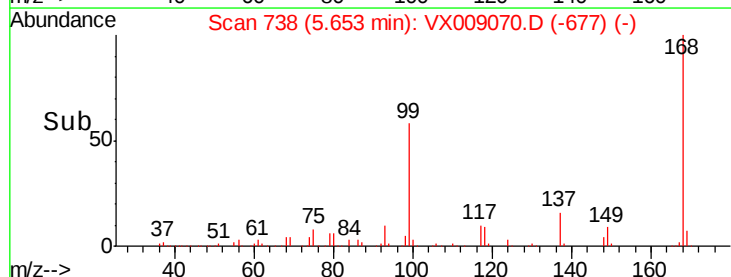
84 105.4 61.7 92.5#

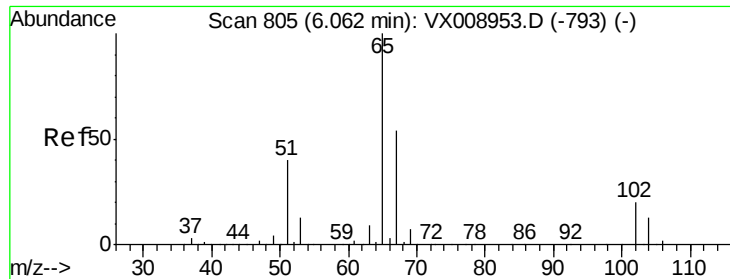


Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 84.00 (83.70 to 84.70): VX0





#33

1,2-Dichloroethane-d4

Concen: 48.284 ug/l

RT: 6.06 min Scan# 805

Delta R.T. -0.00 min

Lab File: VX009070.D

Acq: 19 Apr 2019 15:07

Instrument :

MSVOA\_X

ClientSampleId :

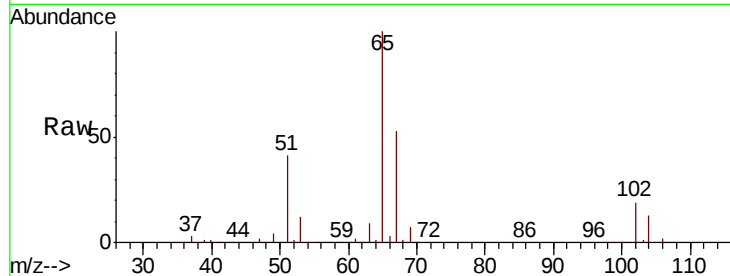
SS037MW301-190416DL

Tot Ion: 65 Resp: 161530

Ion Ratio Lower Upper

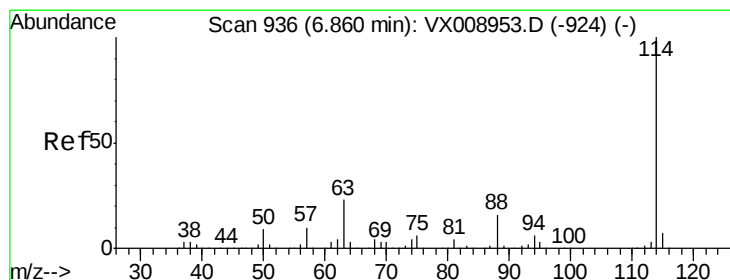
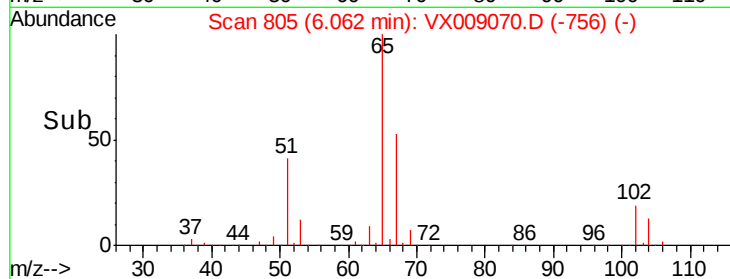
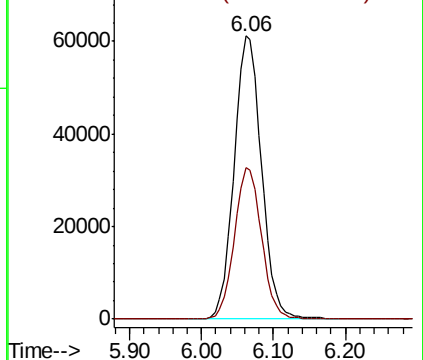
65 100

67 53.1 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: VX009070.D

Acq: 19 Apr 2019 15:07

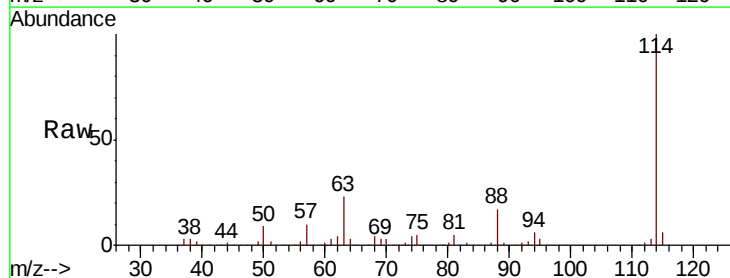
Tgt Ion: 114 Resp: 387523

Ion Ratio Lower Upper

114 100

63 23.5 0.0 46.0

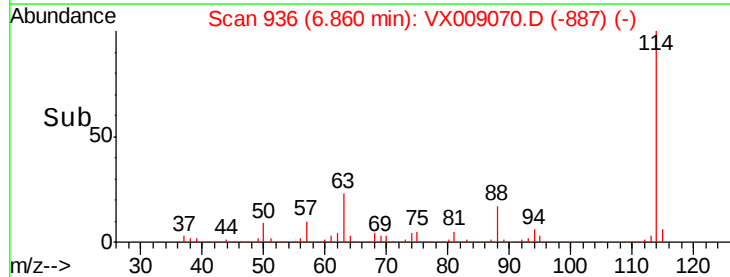
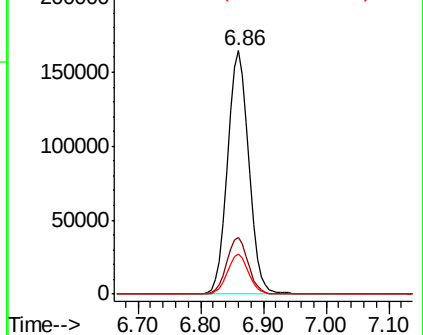
88 16.6 0.0 32.6

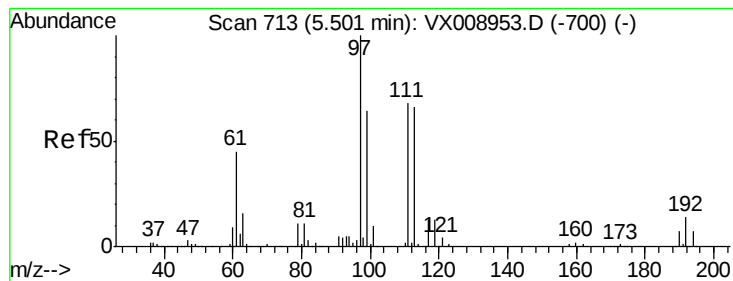


Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0





#35

Dibromofluoromethane

Concen: 47.342 ug/l

RT: 5.50 min Scan# 713

Delta R.T. -0.00 min

Lab File: VX009070.D

Acq: 19 Apr 2019 15:07

Instrument :

MSVOA\_X

ClientSampleId :

SS037MW301-190416DL

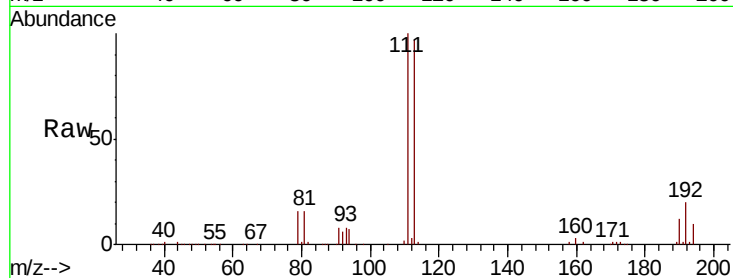
Tot Ion:113 Resp: 117740

Ion Ratio Lower Upper

113 100

111 102.6 82.9 124.3

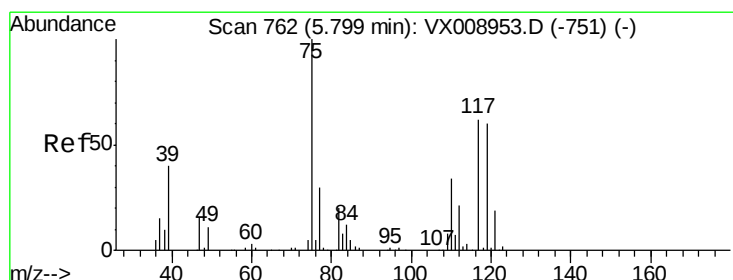
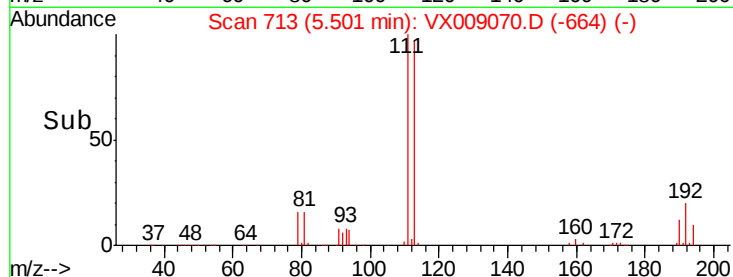
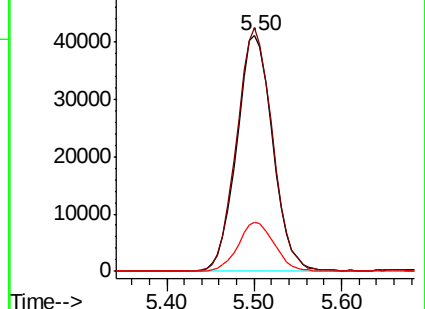
192 21.0 17.4 26.0



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: 4.825 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.13 min

Lab File: VX009070.D

Acq: 19 Apr 2019 15:07

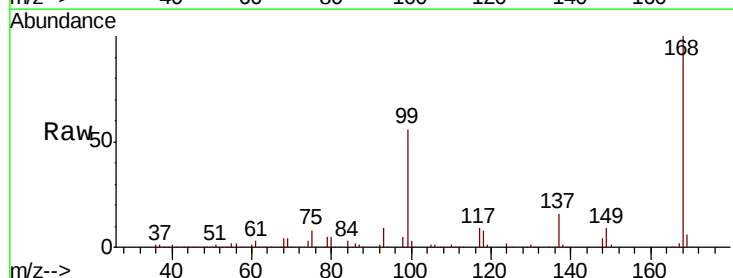
Tgt Ion: 75 Resp: 19338

Ion Ratio Lower Upper

75 100

110 8.2 16.9 50.7#

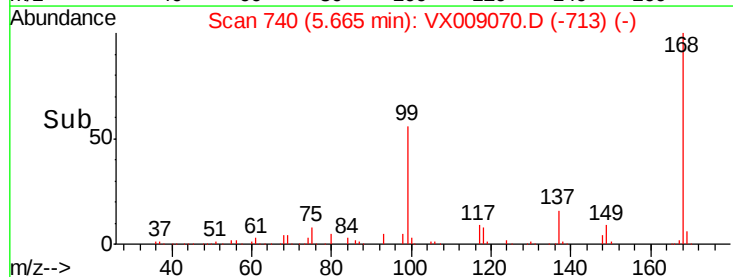
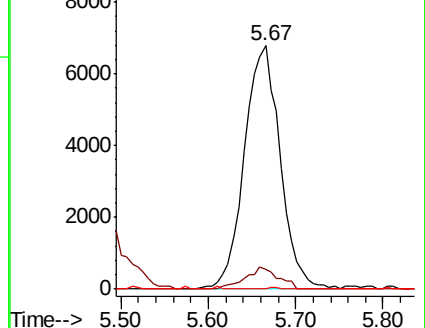
77 0.2 25.0 37.4#

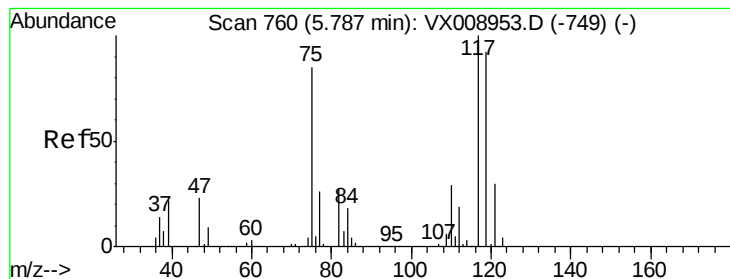


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 6.712 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.12 min

Lab File: VX009070.D

Acq: 19 Apr 2019 15:07

Instrument :

MSVOA\_X

ClientSampleId :

SS037MW301-190416DL

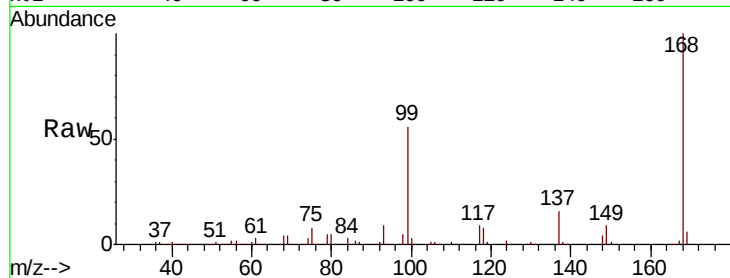
Tot Ion:117 Resp: 22805

Ion Ratio Lower Upper

117 100

119 5.8 73.8 110.8#

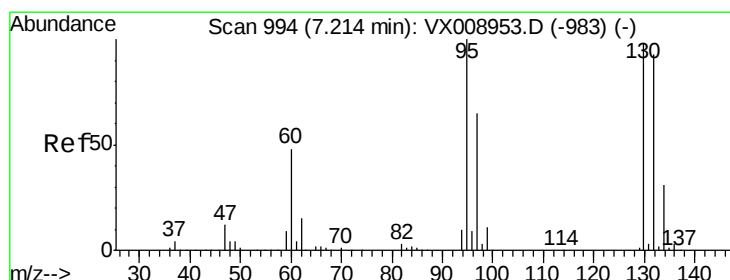
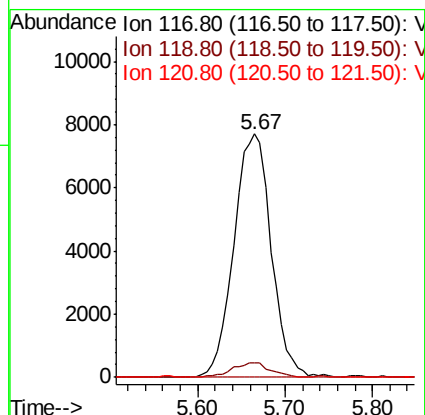
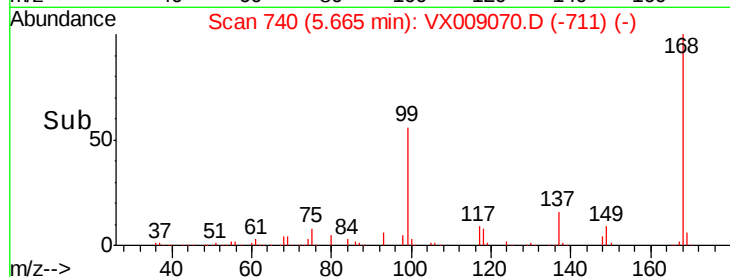
121 0.0 23.6 35.4#



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: 0.236 ug/l

RT: 7.21 min Scan# 993

Delta R.T. -0.01 min

Lab File: VX009070.D

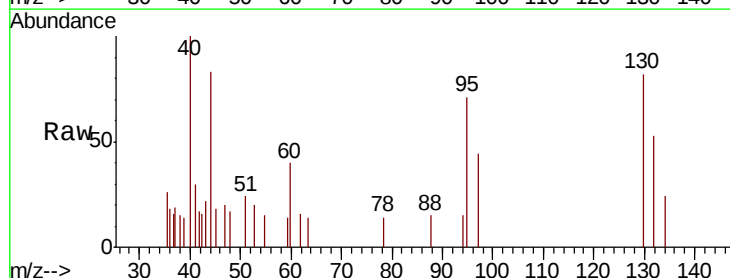
Acq: 19 Apr 2019 15:07

Tgt Ion:130 Resp: 683

Ion Ratio Lower Upper

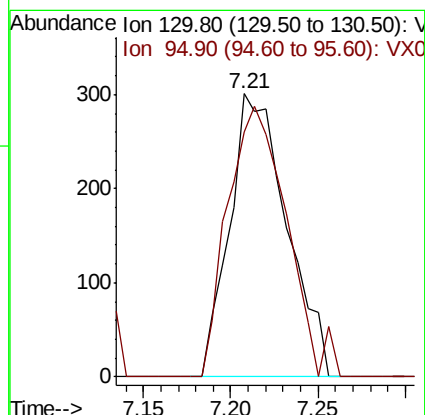
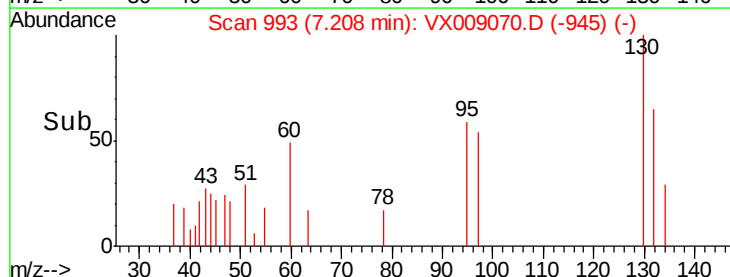
130 100

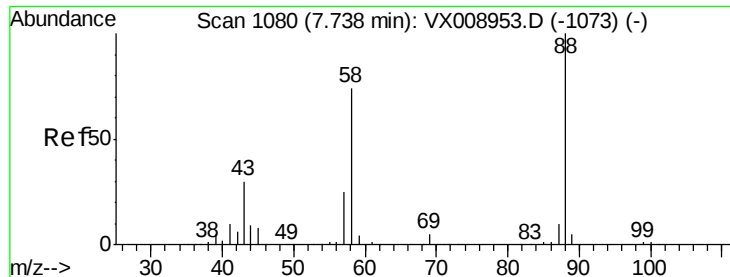
95 86.7 0.0 203.2



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0





#49

1,4-Dioxane

Concen: 0.247 ug/l

RT: 7.82 min Scan# 1093

Delta R.T. 0.08 min

Lab File: VX009070.D

Acq: 19 Apr 2019 15:07

Instrument :

MSVOA\_X

ClientSampleId :

SS037MW301-190416DL

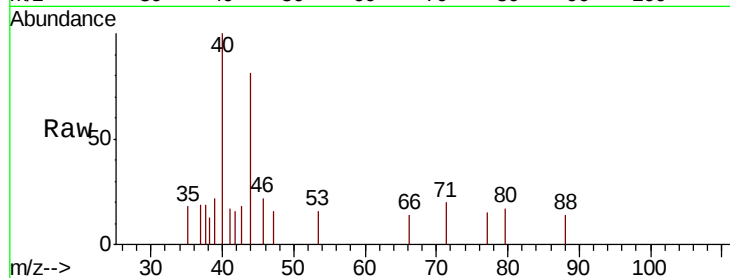
Tot Ion: 88 Resp: 19

Ion Ratio Lower Upper

88 100

43 210.5 29.3 43.9#

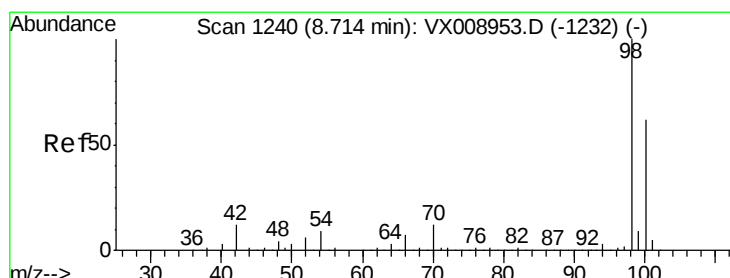
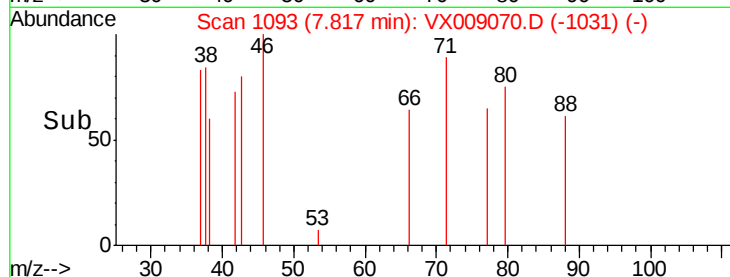
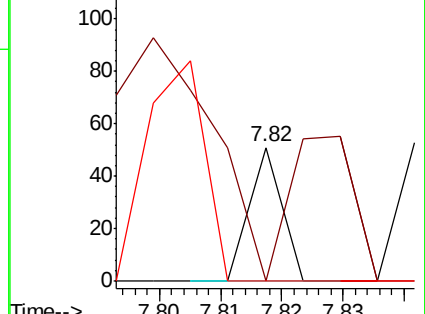
58 0.0 62.6 93.8#



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: 48.194 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. -0.00 min

Lab File: VX009070.D

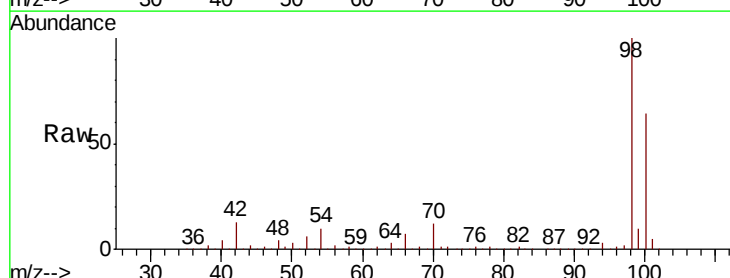
Acq: 19 Apr 2019 15:07

Tgt Ion: 98 Resp: 478006

Ion Ratio Lower Upper

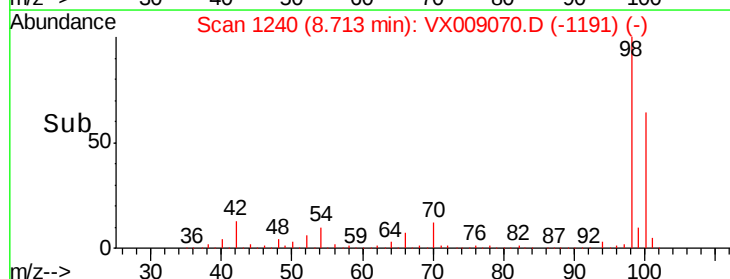
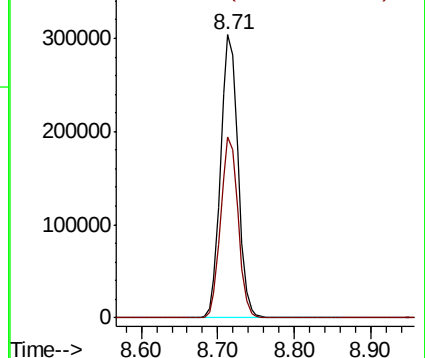
98 100

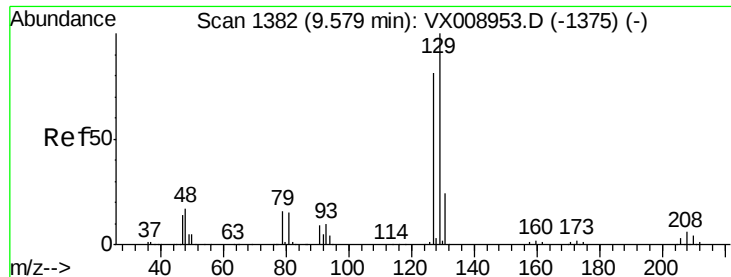
100 63.8 51.4 77.2



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): V





#60

Dibromochloromethane

Concen: 0.306 ug/l

RT: 9.34 min Scan# 1342

Delta R.T. -0.24 min

Lab File: VX009070.D

Acq: 19 Apr 2019 15:07

Instrument :

MSVOA\_X

ClientSampleId :

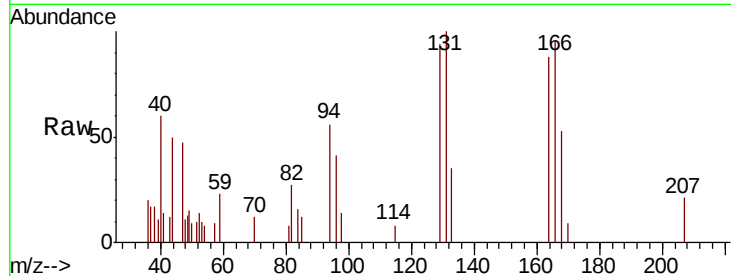
SS037MW301-190416DL

Tot Ion:129 Resp: 823

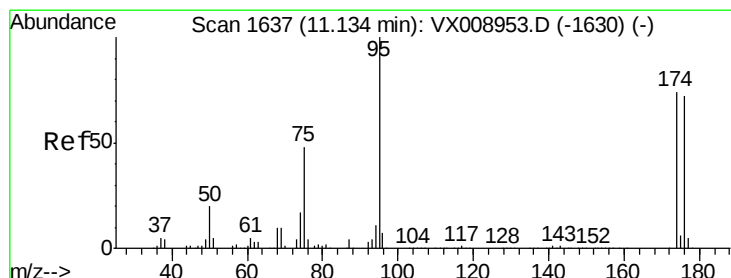
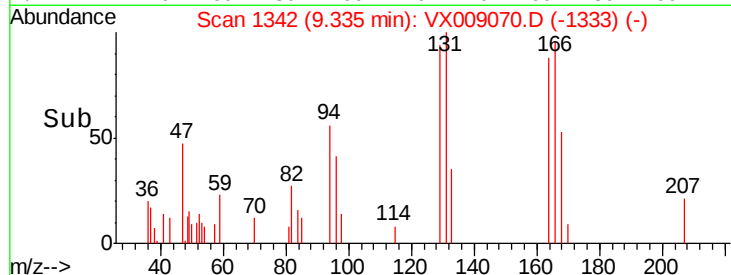
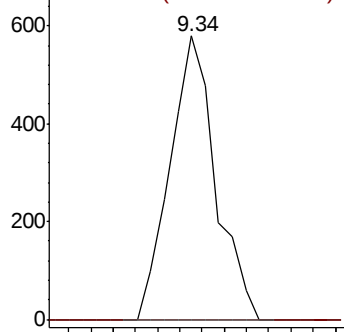
Ion Ratio Lower Upper

129 100

127 0.0 39.1 117.2#



Abundance Ion 128.80 (128.50 to 129.50): V



#62

4-Bromofluorobenzene

Concen: 44.701 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.00 min

Lab File: VX009070.D

Acq: 19 Apr 2019 15:07

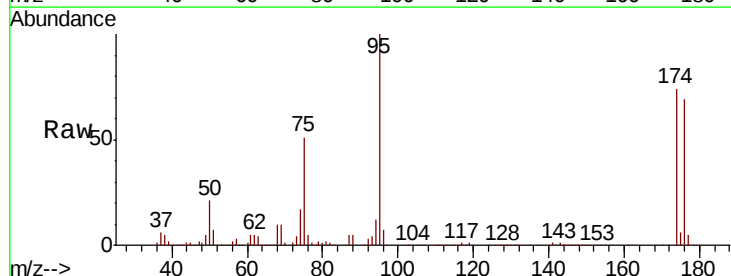
Tgt Ion: 95 Resp: 156509

Ion Ratio Lower Upper

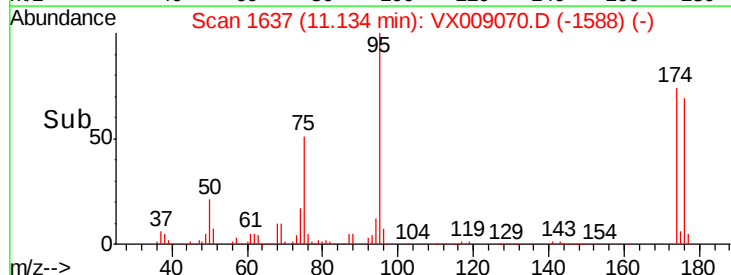
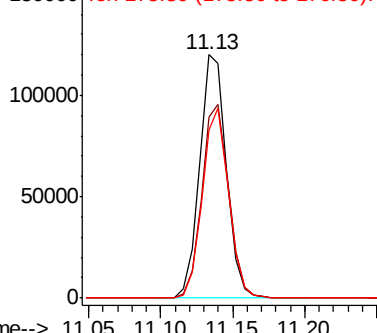
95 100

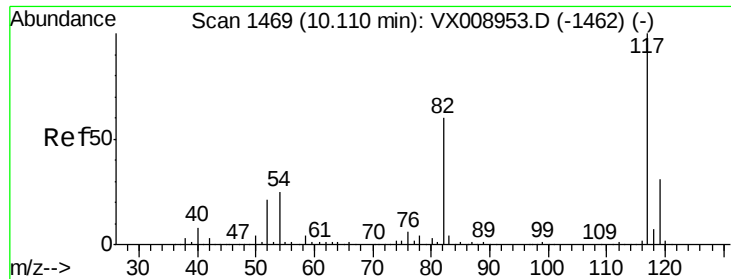
174 79.8 0.0 159.6

176 76.6 0.0 154.8



Abundance Ion 94.90 (94.60 to 95.60): VX0

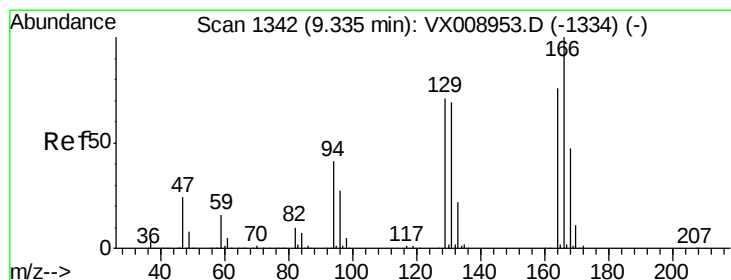
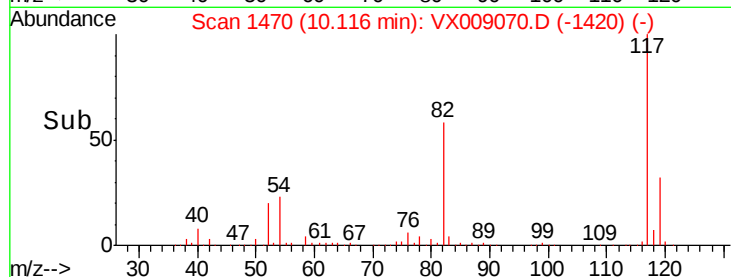
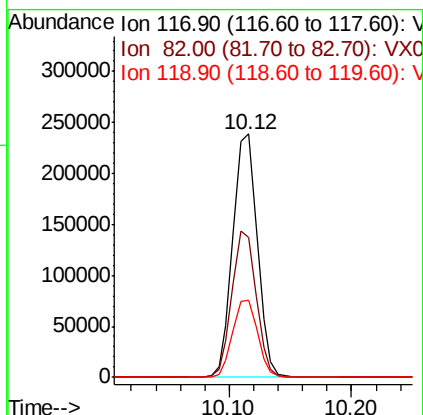
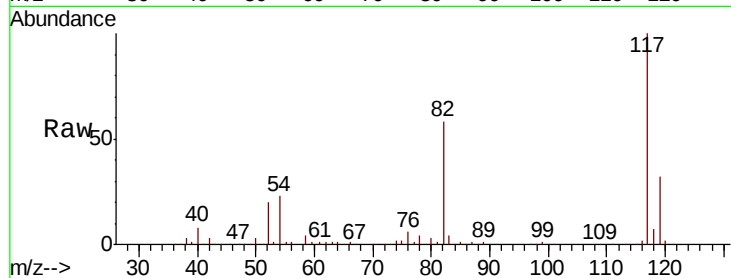




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.12 min Scan# 1470  
Delta R.T. 0.01 min  
Lab File: VX009070.D  
Acq: 19 Apr 2019 15:07

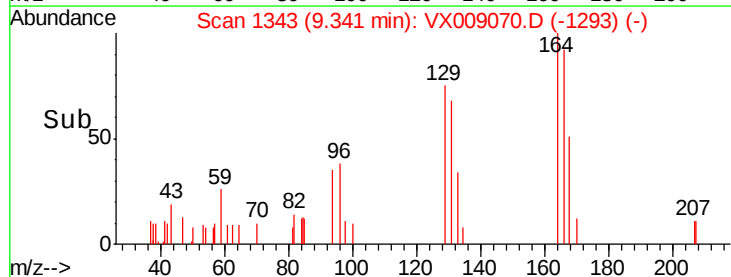
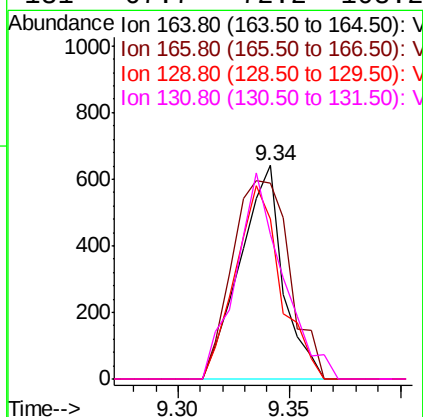
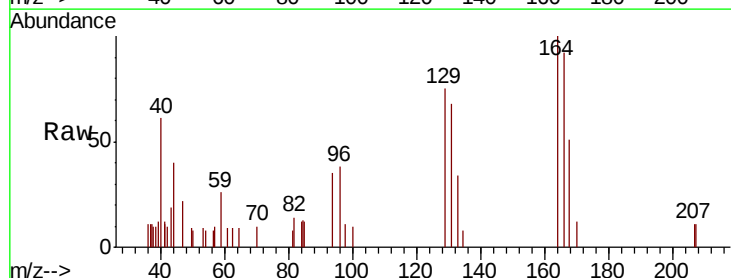
Instrument :  
MSVOA\_X  
ClientSampleId :  
SS037MW301-190416DL

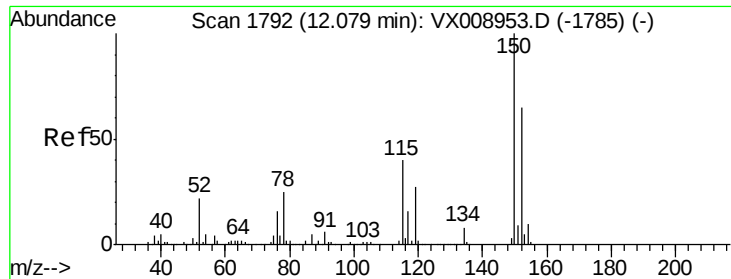
Tot Ion:117 Resp: 331278  
Ion Ratio Lower Upper  
117 100  
82 57.6 48.2 72.4  
119 31.9 25.0 37.6



#64  
Tetrachloroethene  
Concen: 0.343 ug/l  
RT: 9.34 min Scan# 1343  
Delta R.T. 0.01 min  
Lab File: VX009070.D  
Acq: 19 Apr 2019 15:07

Tgt Ion:164 Resp: 864  
Ion Ratio Lower Upper  
164 100  
166 92.0 105.0 157.4#  
129 74.7 74.2 111.4  
131 67.7 72.2 108.2#



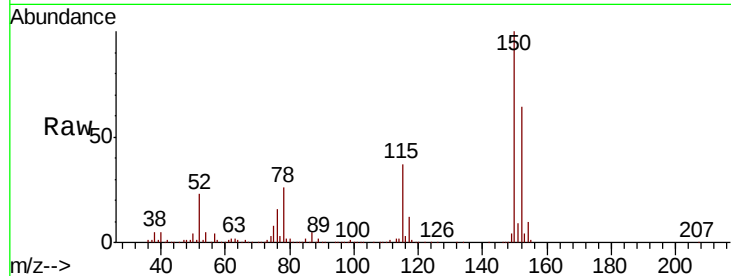


#72

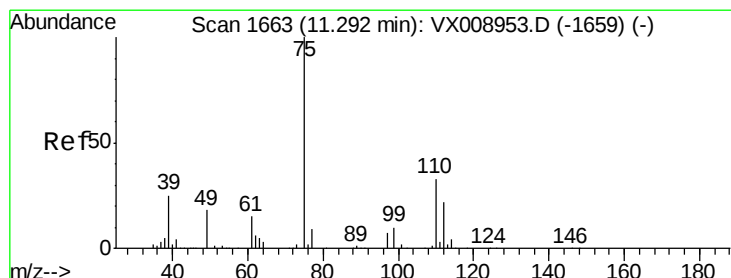
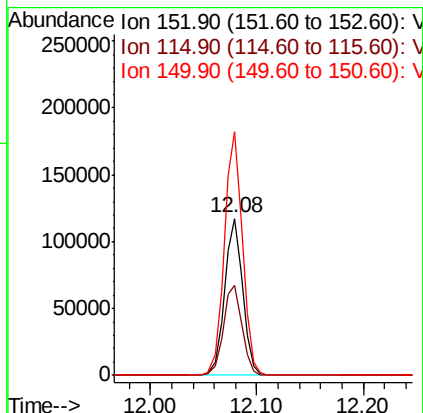
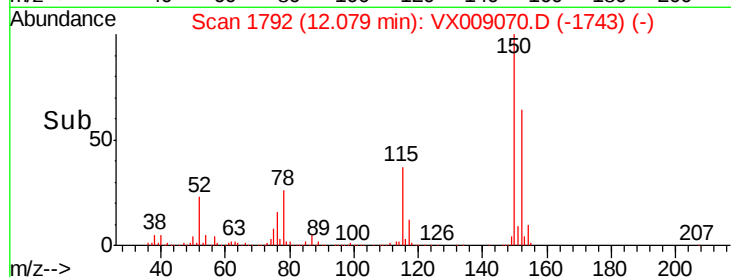
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.08 min Scan# 1792  
Delta R.T. -0.00 min  
Lab File: VX009070.D  
Acq: 19 Apr 2019 15:07

Instrument :  
MSVOA\_X  
ClientSampleId :  
SS037MW301-190416DL

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 58.9  | 41.4  | 124.2 |
| 150     | 155.5 | 0.0   | 349.8 |



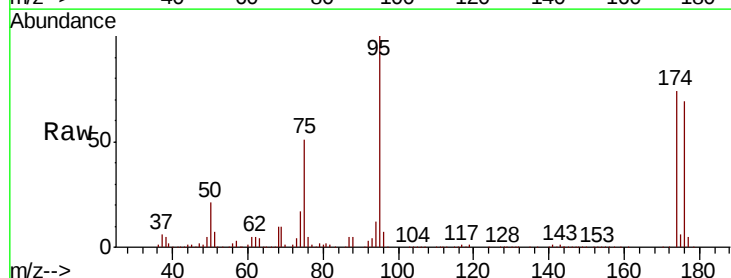
Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V



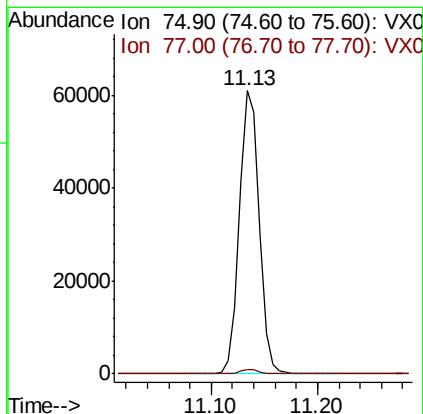
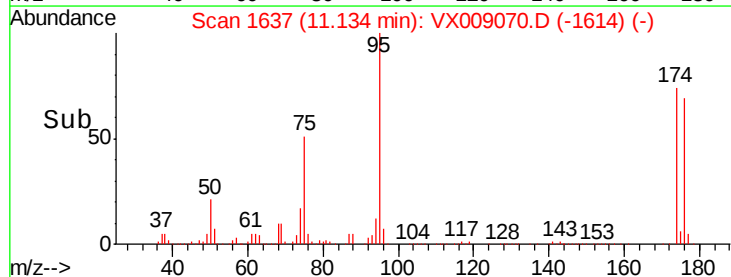
#76

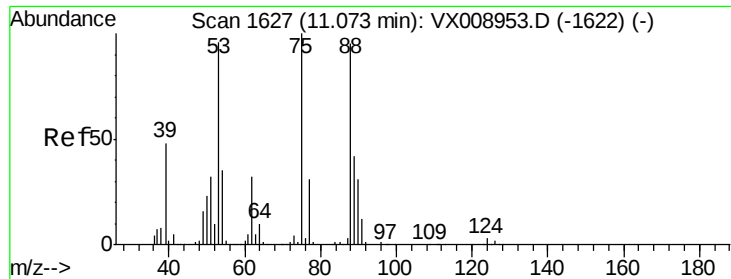
1,2,3-Trichloropropane  
Concen: 23.532 ug/l  
RT: 11.13 min Scan# 1637  
Delta R.T. -0.16 min  
Lab File: VX009070.D  
Acq: 19 Apr 2019 15:07

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 77      | 1.5   | 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: 60.413 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX009070.D

Acq: 19 Apr 2019 15:07

Instrument :

MSVOA\_X

ClientSampleId :

SS037MW301-190416DL

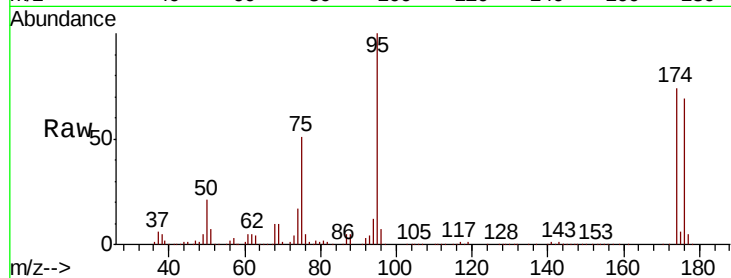
Tot Ion: 75 Resp: 80086

Ion Ratio Lower Upper

75 100

53 0.1 78.2 117.4#

89 0.0 36.0 54.0#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0

