

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\  
 Data File : VX006668.D  
 Acq On : 20 Dec 2018 11:47  
 Operator : JC/MD  
 Sample : J6474-01DL 10X  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 S49-0492DL

Quant Time: Dec 21 03:29:07 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X121818W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 19 15:20:58 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 651827   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 1025913  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 946978   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 460839   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.07  | 65   | 353301   | 50.29 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.58% |          |
| 35) Dibromofluoromethane    | 5.50  | 113  | 306744   | 47.28 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.56%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 1216860  | 49.75 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.50%  |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 438622   | 48.97 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.94%  |          |

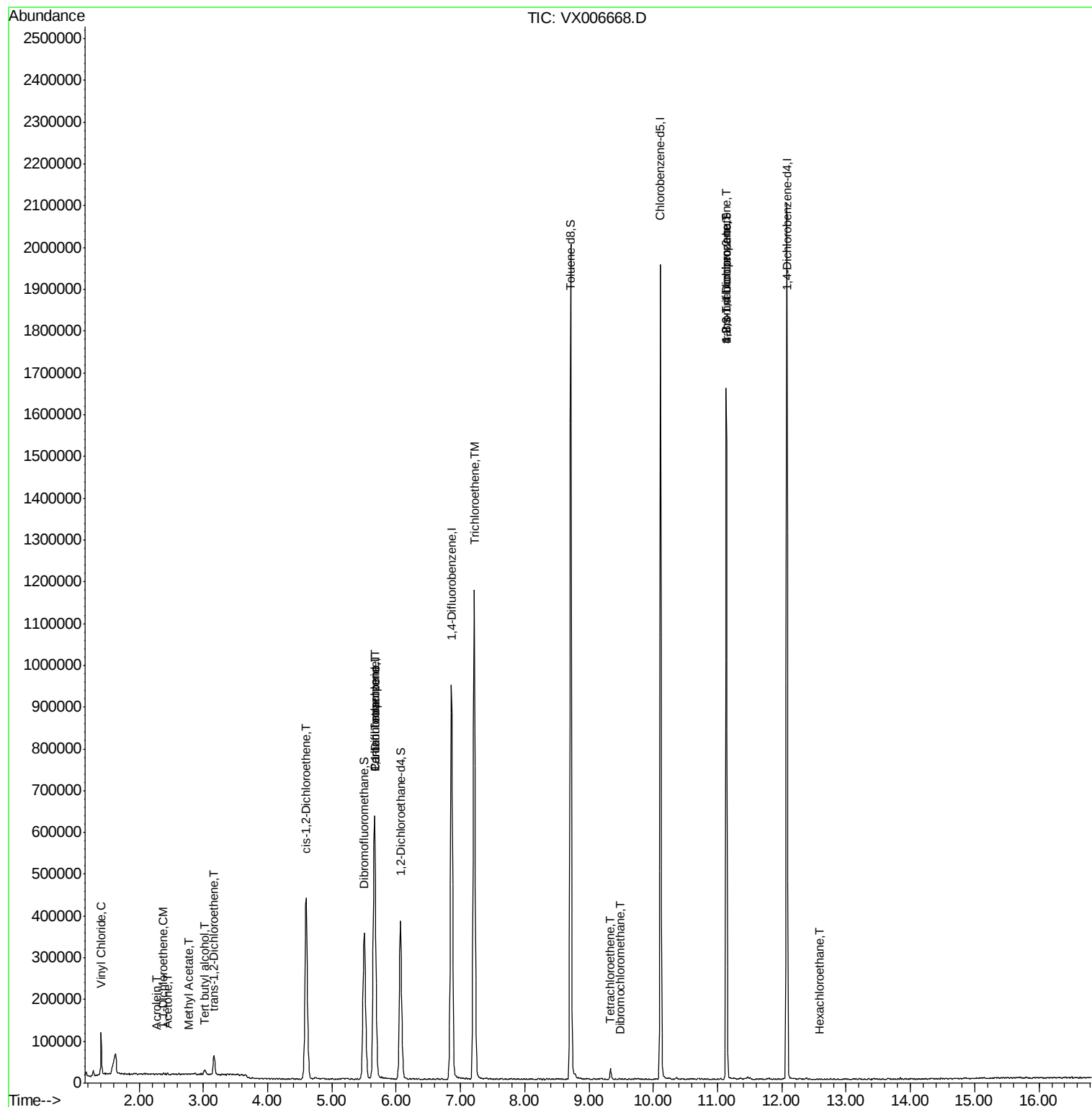
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 4) Vinyl Chloride              | 1.41  | 62   | 61121    | 9.109     | ug/l   | 97     |
| 5) Bromomethane                | 1.64  | 94   | 1075     | Below Cal | #      | 80     |
| 11) Tert butyl alcohol         | 3.01  | 59   | 7511     | 4.791     | ug/l # | 72     |
| 12) 1,1-Dichloroethene         | 2.37  | 96   | 1244     | 0.214     | ug/l # | 84     |
| 13) Acrolein                   | 2.28  | 56   | 603      | 0.570     | ug/l # | 48     |
| 16) Acetone                    | 2.45  | 43   | 1060     | 0.328     | ug/l # | 78     |
| 18) Methyl Acetate             | 2.78  | 43   | 1989     | 0.210     | ug/l # | 87     |
| 21) trans-1,2-Dichloroethene   | 3.17  | 96   | 19940    | 3.090     | ug/l   | 97     |
| 27) cis-1,2-Dichloroethene     | 4.60  | 96   | 296909   | 41.703    | ug/l   | 91     |
| 28) Bromochloromethane         | 5.04  | 49   | 183      | Below Cal | #      | 17     |
| 36) 1,1-Dichloropropene        | 5.66  | 75   | 45331    | 5.335     | ug/l # | 40     |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 60000    | 7.266     | ug/l # | 14     |
| 44) Trichloroethene            | 7.21  | 130  | 475280   | 60.799    | ug/l   | 95     |
| 49) 1,4-Dioxane                | 7.76  | 88   | 135      | Below Cal | #      | 1      |
| 60) Dibromochloromethane       | 9.49  | 129  | 139      | 2.343     | ug/l # | 10     |
| 64) Tetrachloroethene          | 9.33  | 164  | 5314     | 0.709     | ug/l # | 85     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 209325   | 24.442    | ug/l # | 40     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 209325   | 72.319    | ug/l # | 10     |
| 90) Hexachloroethane           | 12.59 | 117  | 57       | 3.305     | ug/l # | 43     |

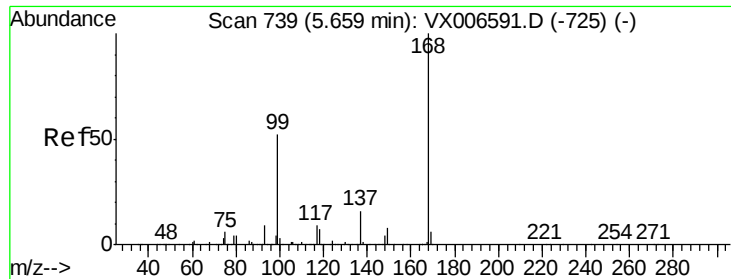
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Dec 21 03:29:07 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X121818W.M  
Quant Title : SW846 8260  
QLast Update : Wed Dec 19 15:20:58 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 740

Delta R.T. 0.01 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

Instrument :

MSVOA\_X

ClientSampleId :

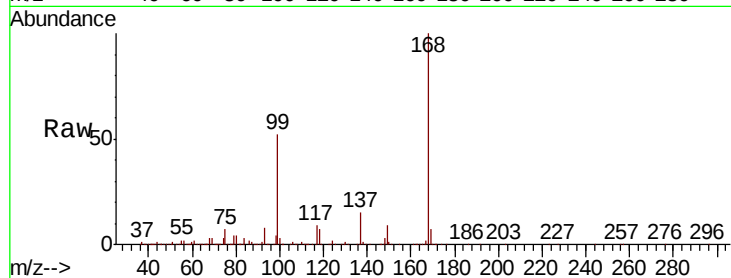
S49-0492DL

Tot Ion:168 Resp: 651827

Ion Ratio Lower Upper

168 100

99 52.3 41.8 62.8



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

250000

200000

150000

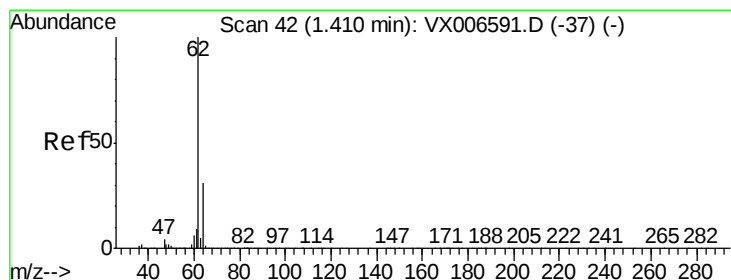
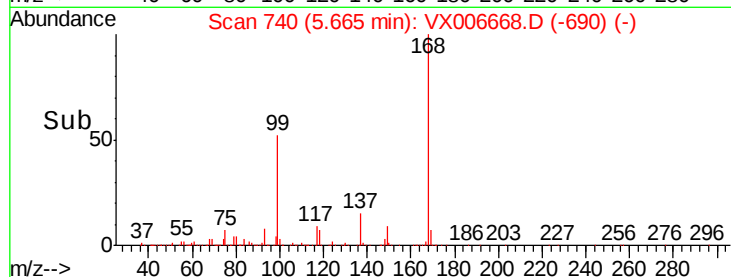
100000

50000

0

Time-->

5.50 5.60 5.70 5.80



#4

Vinyl Chloride

Concen: 9.109 ug/l

RT: 1.41 min Scan# 42

Delta R.T. -0.00 min

Lab File: VX006668.D

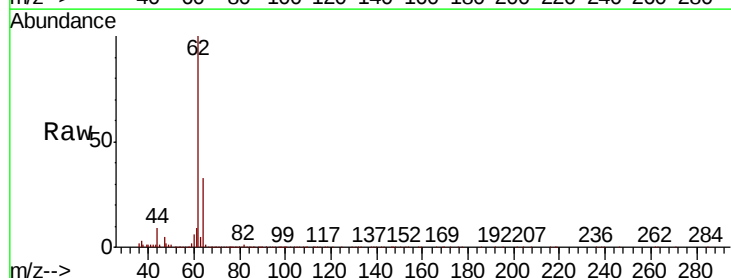
Acq: 20 Dec 2018 11:47

Tgt Ion: 62 Resp: 61121

Ion Ratio Lower Upper

62 100

64 32.9 25.1 37.7



Abundance Ion 61.90 (61.60 to 62.60): VX0

Ion 63.90 (63.60 to 64.60): VX0

1.41

60000

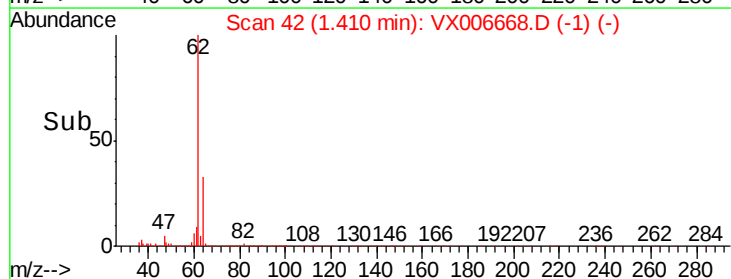
40000

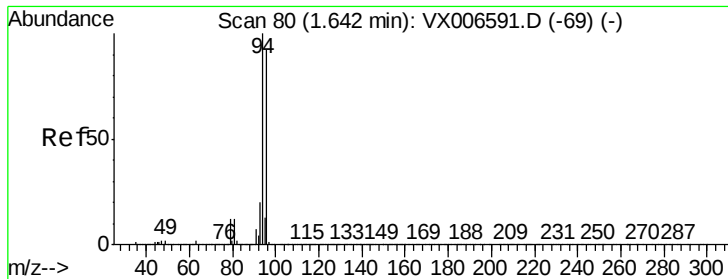
20000

0

Time-->

1.35 1.40 1.45





#5

Bromomethane

Concen: Below Cal

RT: 1.64 min Scan# 79

Delta R.T. -0.01 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

Instrument :

MSVOA\_X

ClientSampled :

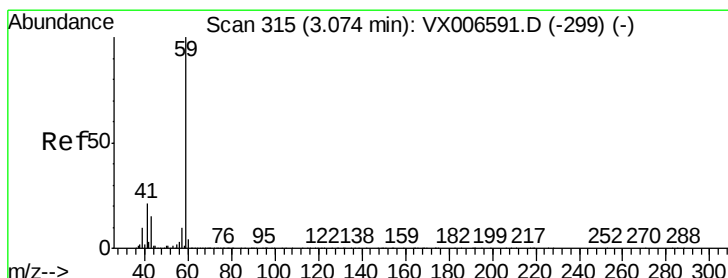
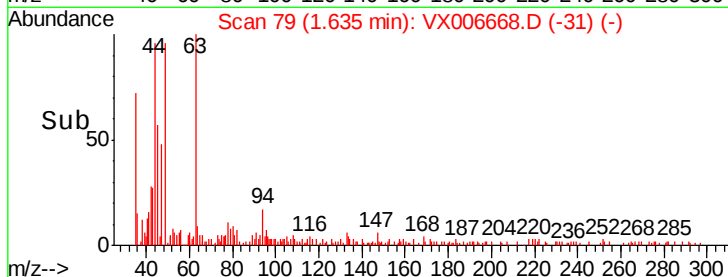
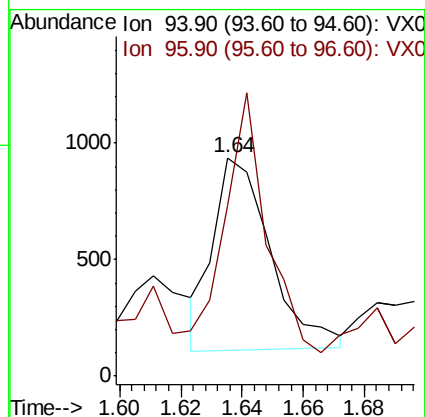
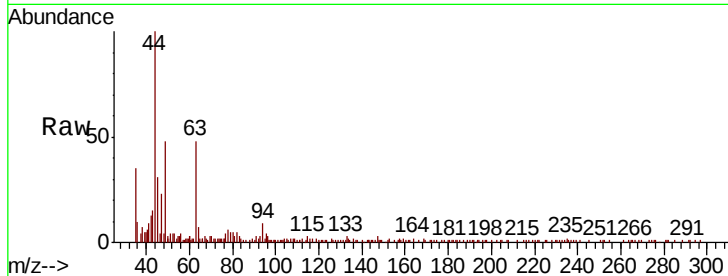
S49-0492DL

Tot Ion: 94 Resp: 1075

Ion Ratio Lower Upper

94 100

96 72.3 73.4 110.2#



#11

Tert butyl alcohol

Concen: 4.791 ug/l

RT: 3.01 min Scan# 305

Delta R.T. -0.06 min

Lab File: VX006668.D

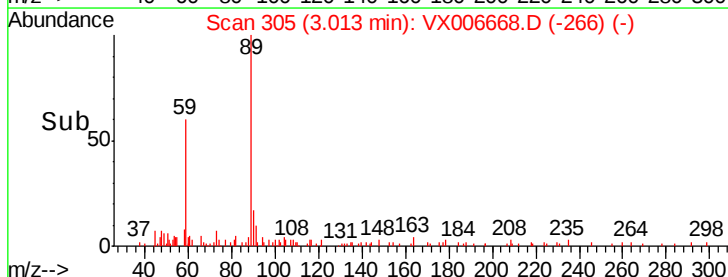
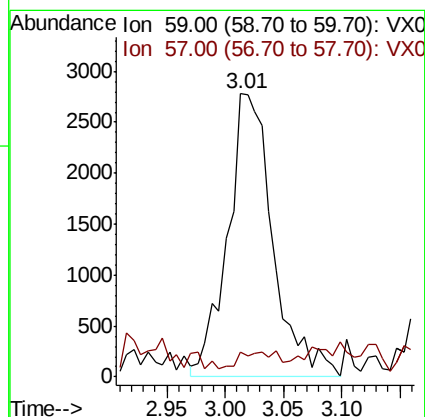
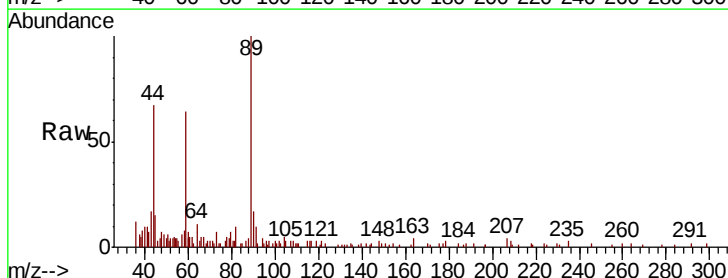
Acq: 20 Dec 2018 11:47

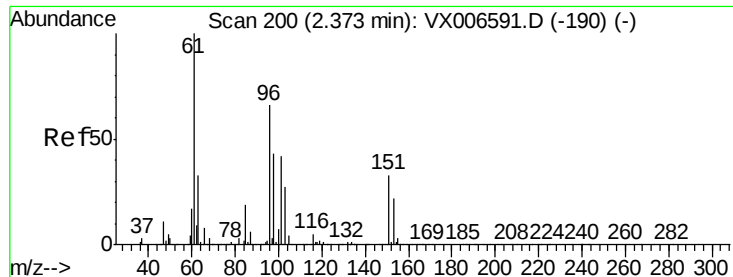
Tgt Ion: 59 Resp: 7511

Ion Ratio Lower Upper

59 100

57 0.0 8.5 12.7#





#12

1,1-Dichloroethene

Concen: 0.214 ug/l

RT: 2.37 min Scan# 200

Delta R.T. -0.00 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

Instrument :

MSVOA\_X

ClientSampled :

S49-0492DL

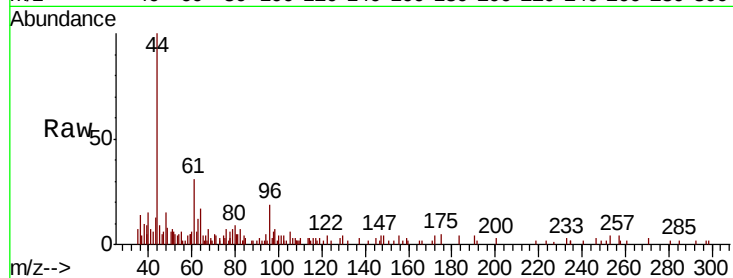
Tot Ion: 96 Resp: 1244

Ion Ratio Lower Upper

96 100

61 142.6 121.4 182.2

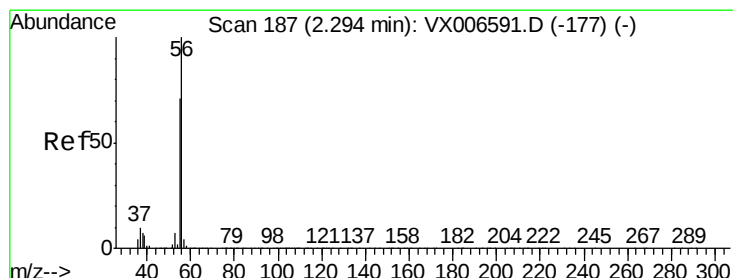
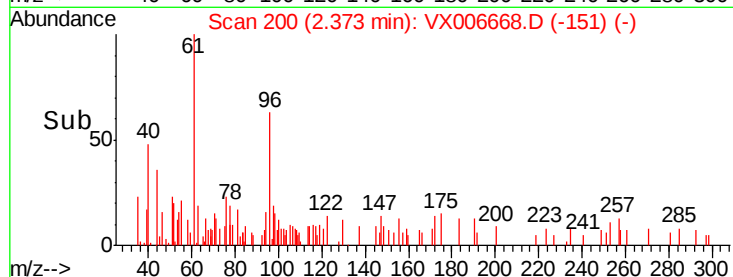
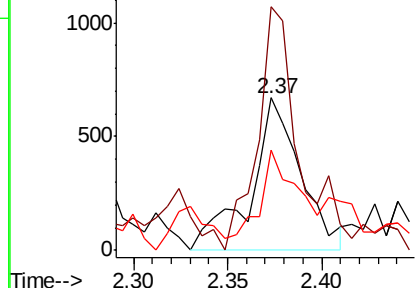
98 36.8 51.9 77.9#



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



#13

Acrolein

Concen: 0.570 ug/l

RT: 2.28 min Scan# 185

Delta R.T. -0.01 min

Lab File: VX006668.D

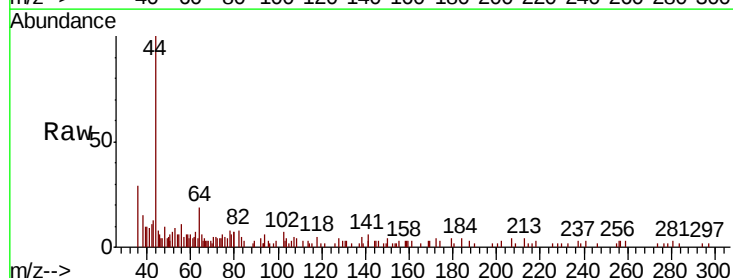
Acq: 20 Dec 2018 11:47

Tgt Ion: 56 Resp: 603

Ion Ratio Lower Upper

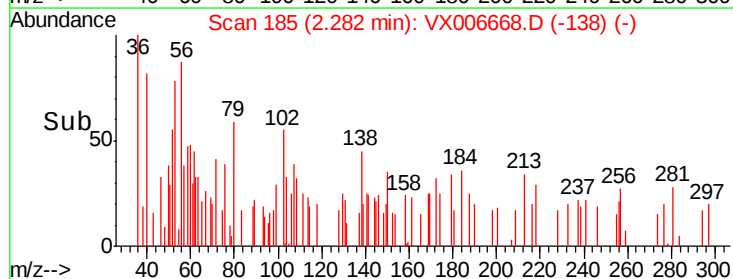
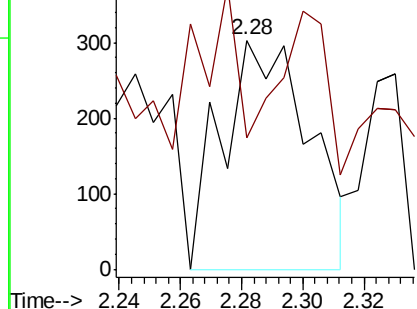
56 100

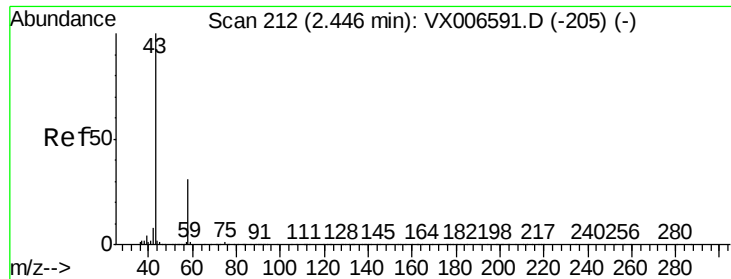
55 29.4 58.2 87.4#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 55.00 (54.70 to 55.70): VX0

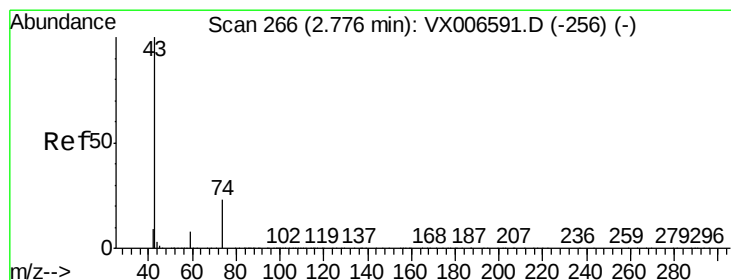
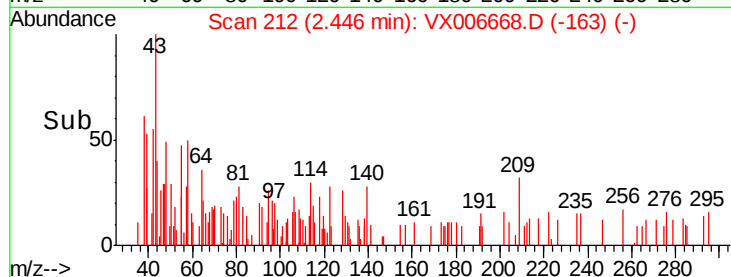
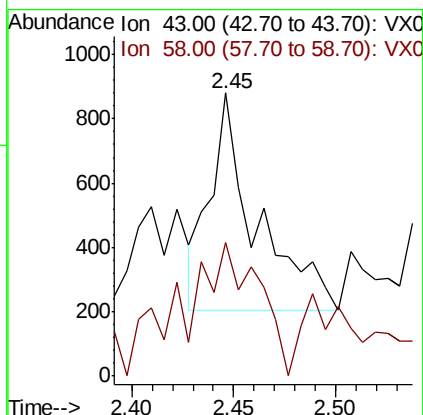
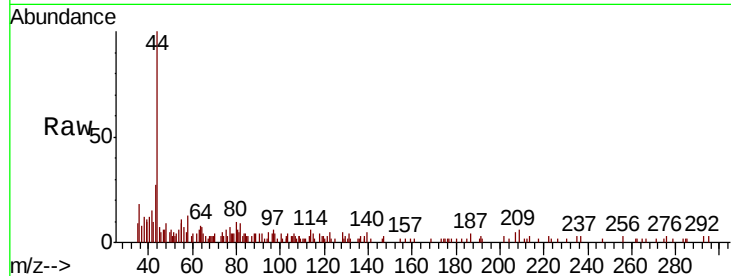




#16  
Acetone  
Concen: 0.328 ug/l  
RT: 2.45 min Scan# 212  
Delta R.T. -0.00 min  
Lab File: VX006668.D  
Acq: 20 Dec 2018 11:47

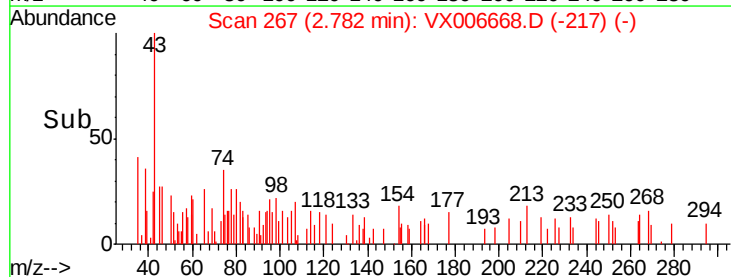
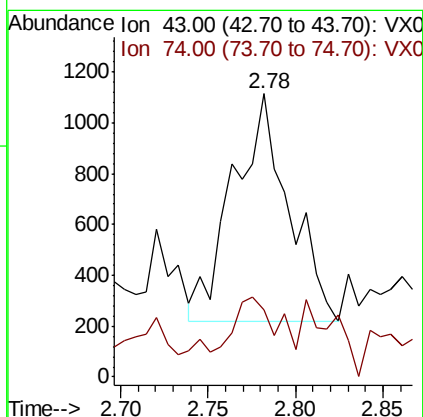
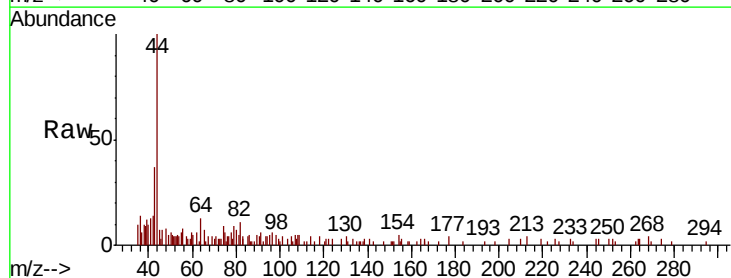
Instrument :  
MSVOA\_X  
ClientSampled :  
S49-0492DL

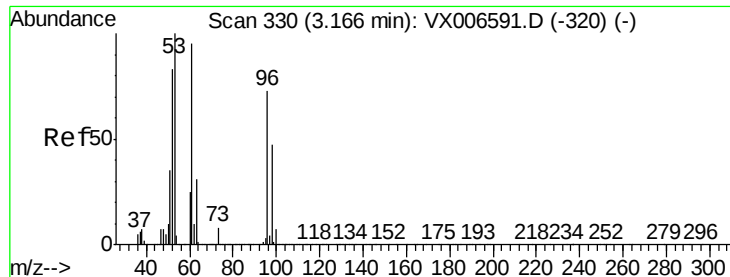
Tot Ion: 43 Resp: 1060  
Ion Ratio Lower Upper  
43 100  
58 19.0 25.0 37.6#



#18  
Methyl Acetate  
Concen: 0.210 ug/l  
RT: 2.78 min Scan# 267  
Delta R.T. 0.01 min  
Lab File: VX006668.D  
Acq: 20 Dec 2018 11:47

Tgt Ion: 43 Resp: 1989  
Ion Ratio Lower Upper  
43 100  
74 16.8 18.6 28.0#





#21

trans-1,2-Dichloroethene

Concen: 3.090 ug/l

RT: 3.17 min Scan# 330

Delta R.T. -0.00 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

Instrument :

MSVOA\_X

ClientSampleId :

S49-0492DL

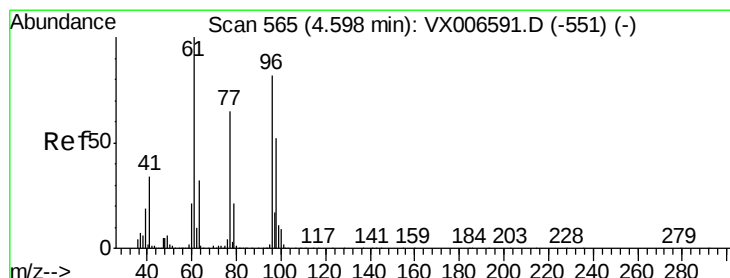
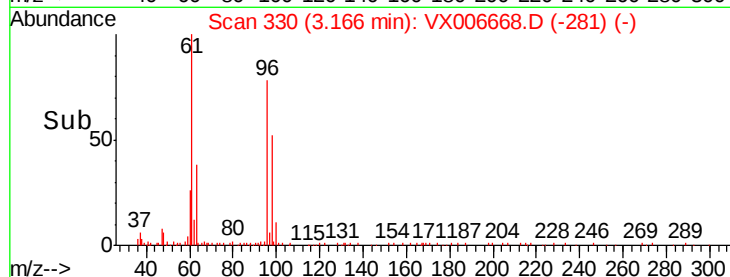
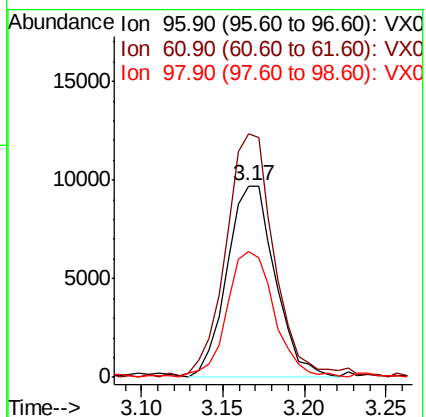
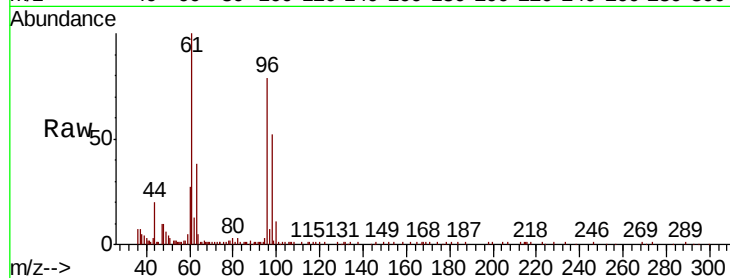
Tot Ion: 96 Resp: 19940

Ion Ratio Lower Upper

96 100

61 125.0 103.7 155.5

98 64.9 51.0 76.6



#27

cis-1,2-Dichloroethene

Concen: 41.703 ug/l

RT: 4.60 min Scan# 565

Delta R.T. -0.00 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

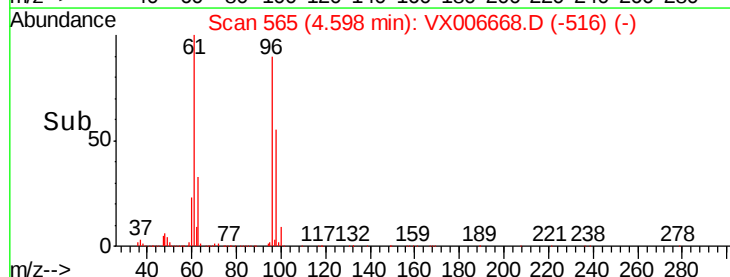
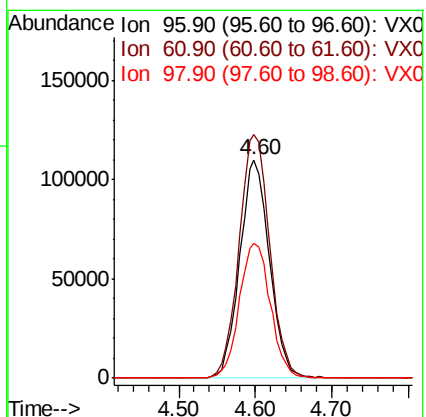
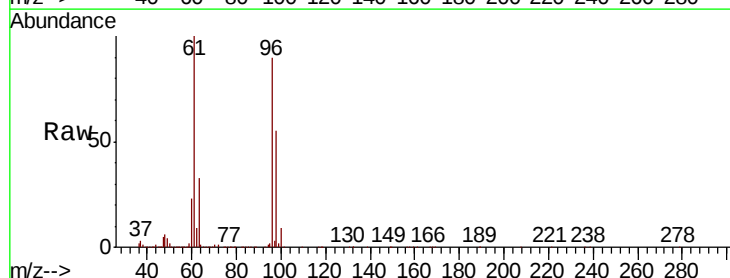
Tgt Ion: 96 Resp: 296909

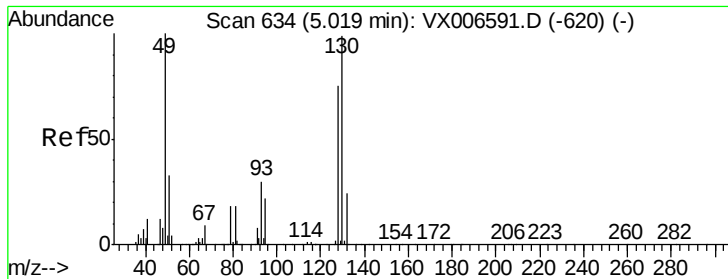
Ion Ratio Lower Upper

96 100

61 114.7 0.0 258.6

98 64.4 0.0 132.0





#28

Bromochloromethane

Concen: Below Cal

RT: 5.04 min Scan# 638

Delta R.T. 0.02 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

Instrument :

MSVOA\_X

ClientSampleId :

S49-0492DL

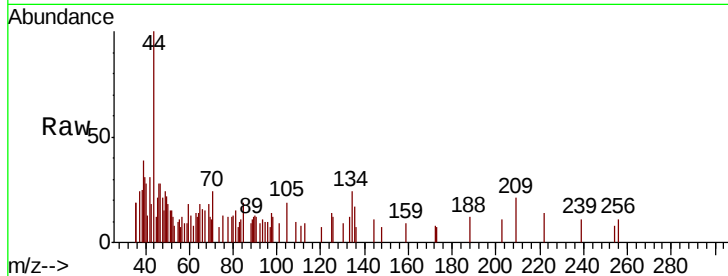
Tot Ion: 49 Resp: 183

Ion Ratio Lower Upper

49 100

129 0.0 0.0 5.4

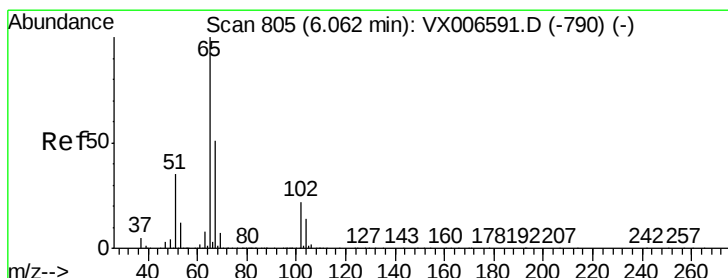
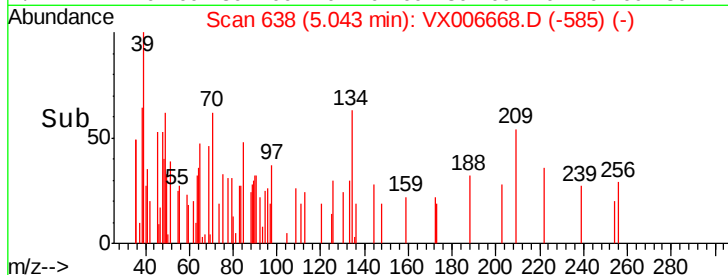
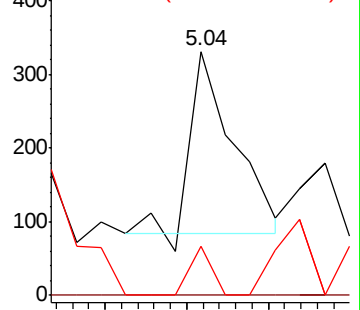
130 13.7 77.7 116.5#



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



#33

1,2-Dichloroethane-d4

Concen: 50.291 ug/l

RT: 6.07 min Scan# 806

Delta R.T. 0.01 min

Lab File: VX006668.D

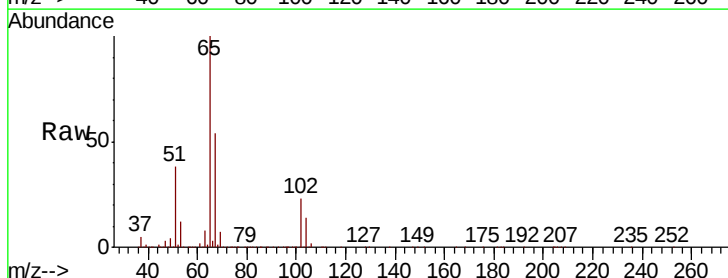
Acq: 20 Dec 2018 11:47

Tgt Ion: 65 Resp: 353301

Ion Ratio Lower Upper

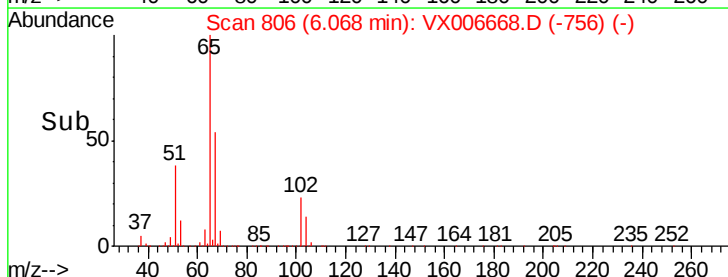
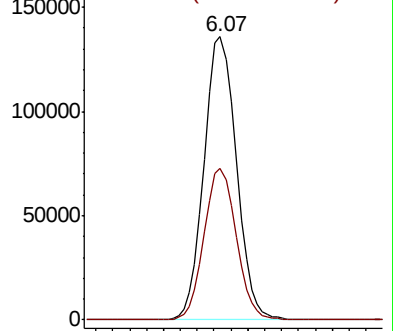
65 100

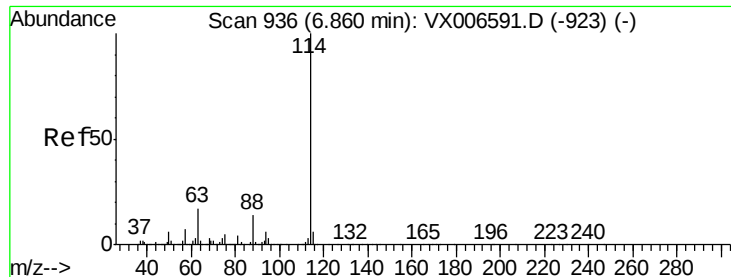
67 53.4 0.0 105.0



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: VX006668.D

Acq: 20 Dec 2018 11:47

Instrument :

MSVOA\_X

ClientSampled :

S49-0492DL

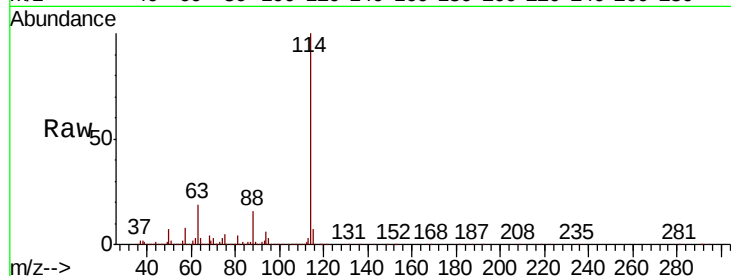
Tot Ion:114 Resp: 1025913

Ion Ratio Lower Upper

114 100

63 18.7 0.0 34.8

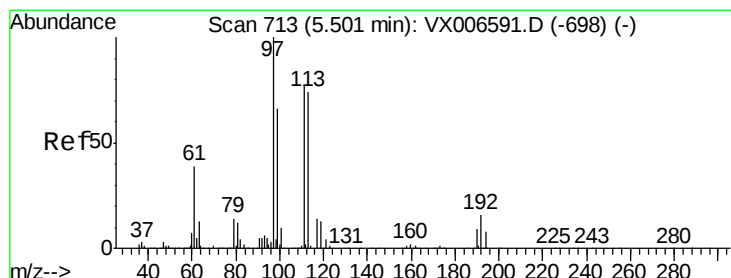
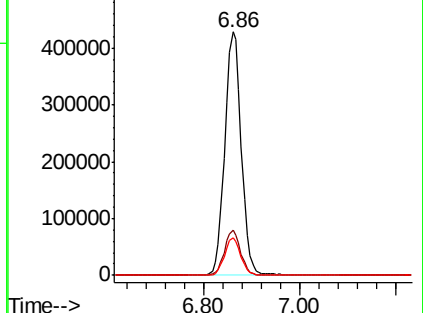
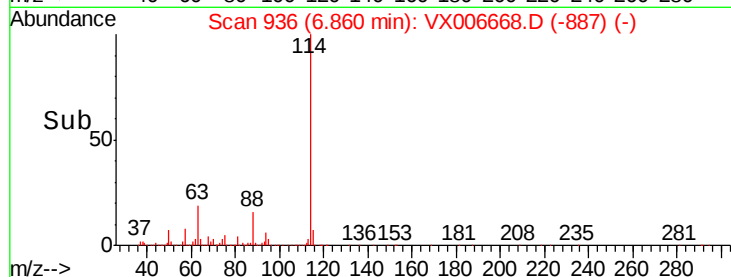
88 15.6 0.0 28.8



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: 47.281 ug/l

RT: 5.50 min Scan# 713

Delta R.T. -0.00 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

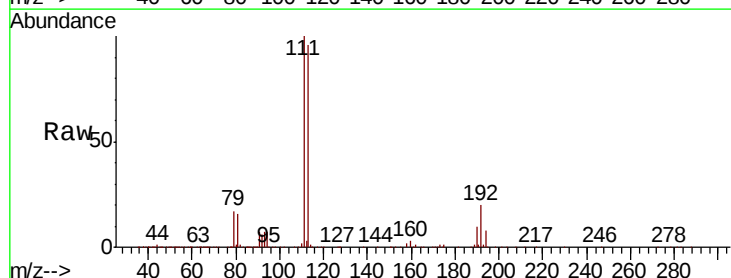
Tgt Ion:113 Resp: 306744

Ion Ratio Lower Upper

113 100

111 101.7 81.6 122.4

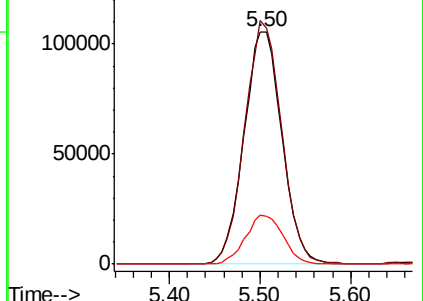
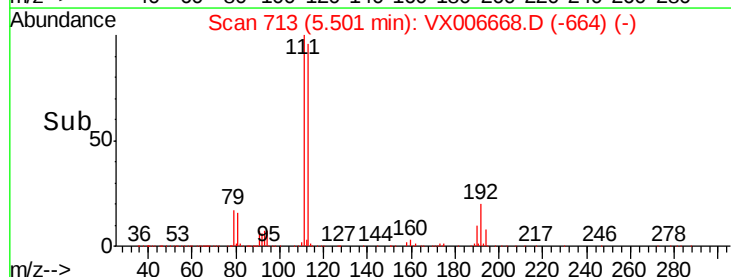
192 21.0 16.7 25.1

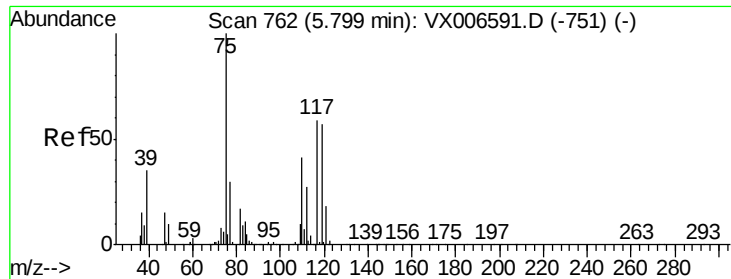


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

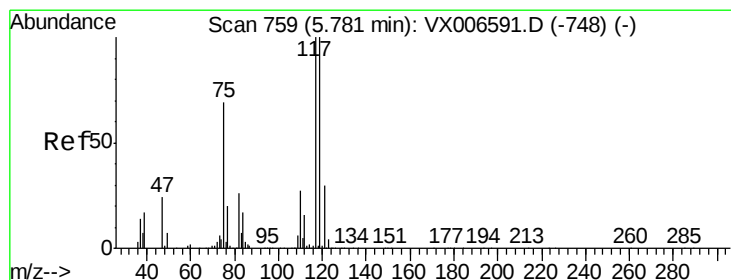
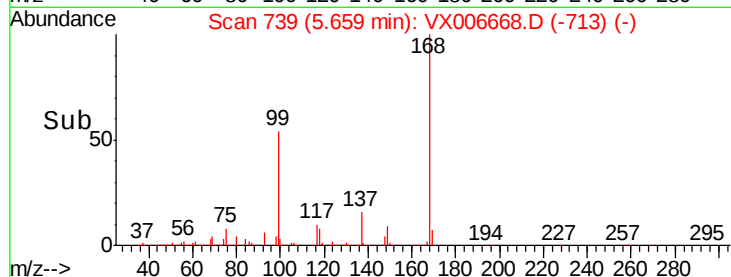
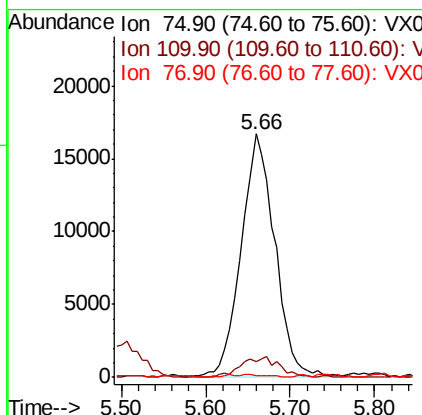
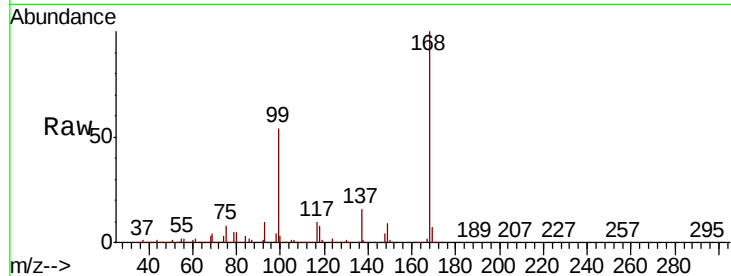




#36  
 1,1-Dichloropropene  
 Concen: 5.335 ug/l  
 RT: 5.66 min Scan# 739  
 Delta R.T. -0.14 min  
 Lab File: VX006668.D  
 Acq: 20 Dec 2018 11:47

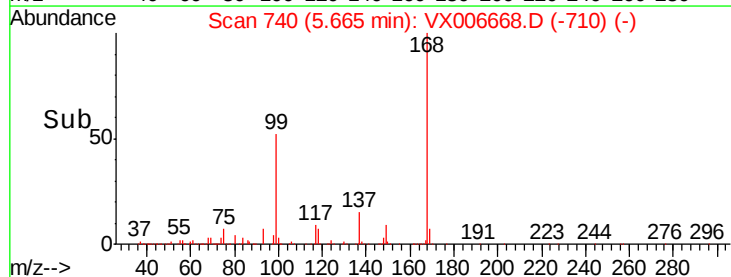
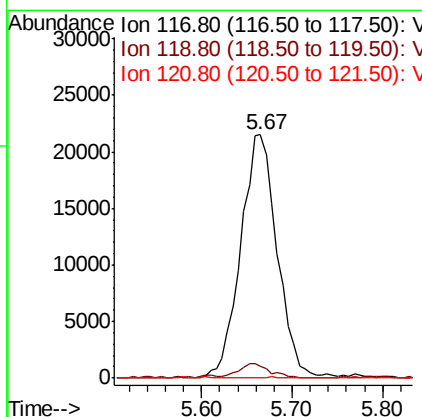
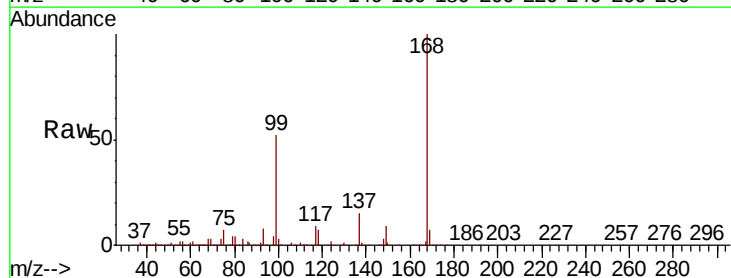
Instrument :  
 MSVOA\_X  
 ClientSampleID :  
 S49-0492DL

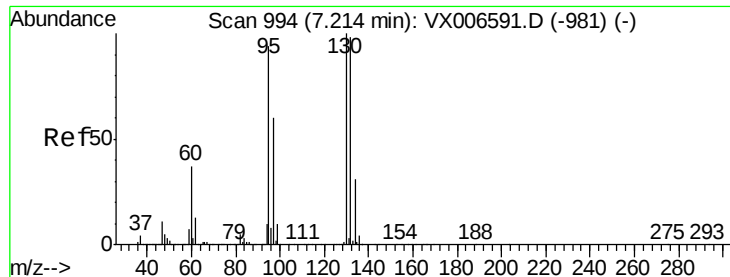
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 0.0   | 20.2  | 60.5# |
| 77      | 1.4   | 24.8  | 37.2# |



#38  
 Carbon Tetrachloride  
 Concen: 7.266 ug/l  
 RT: 5.67 min Scan# 740  
 Delta R.T. -0.12 min  
 Lab File: VX006668.D  
 Acq: 20 Dec 2018 11:47

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 4.9   | 79.4  | 119.2# |
| 121     | 0.0   | 24.0  | 36.0#  |





#44

Trichloroethene

Concen: 60.799 ug/l

RT: 7.21 min Scan# 994

Delta R.T. -0.00 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

Instrument :

MSVOA\_X

ClientSampled :

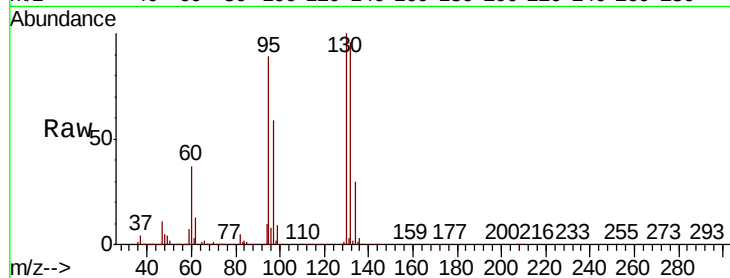
S49-0492DL

Tot Ion:130 Resp: 475280

Ion Ratio Lower Upper

130 100

95 88.8 0.0 187.0



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0

7.21

250000

200000

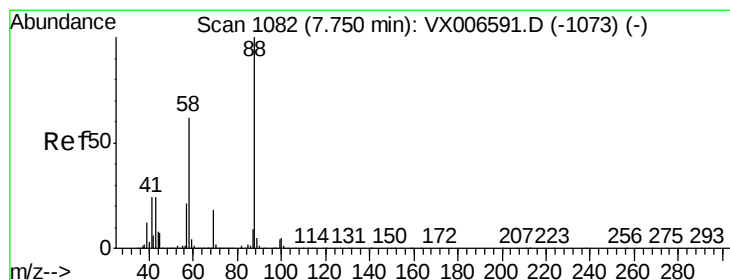
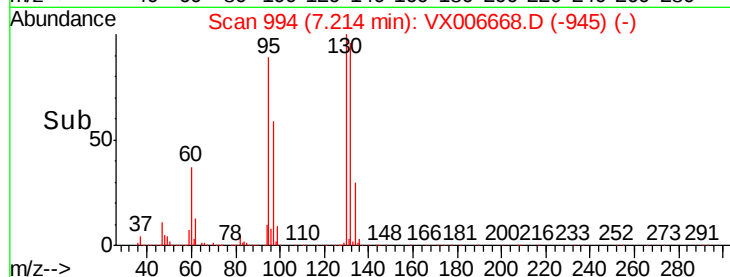
150000

100000

50000

0

Time-->



#49

1,4-Dioxane

Concen: Below Cal

RT: 7.76 min Scan# 1083

Delta R.T. 0.01 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

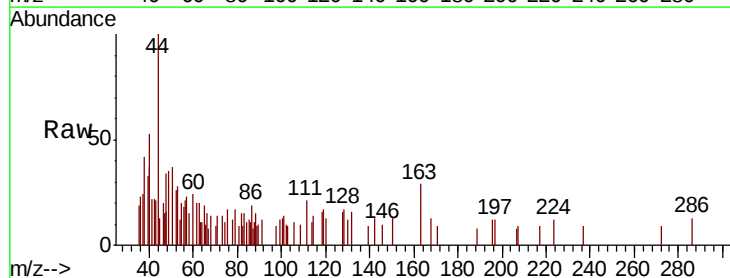
Tgt Ion: 88 Resp: 135

Ion Ratio Lower Upper

88 100

43 351.9 22.2 33.4#

58 236.3 51.0 76.4#



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

500

400

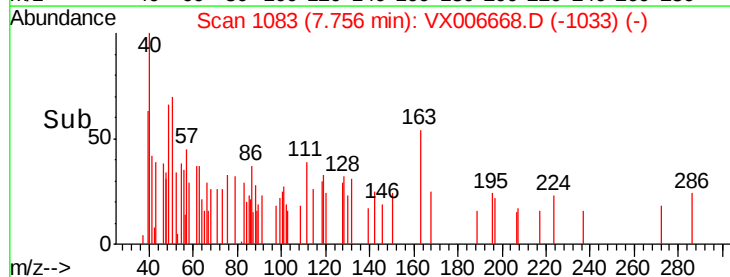
300

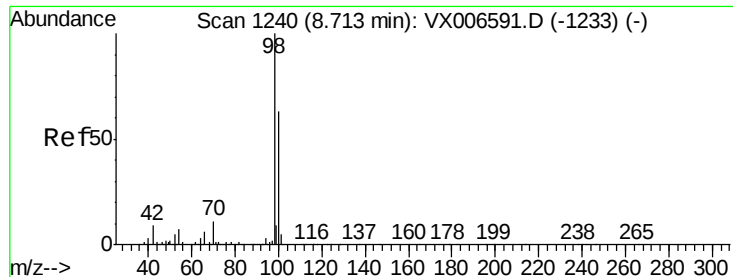
200

100

0

Time-->





#50

Toluene-d8

Concen: 49.751 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. -0.00 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

Instrument :

MSVOA\_X

ClientSampleId :

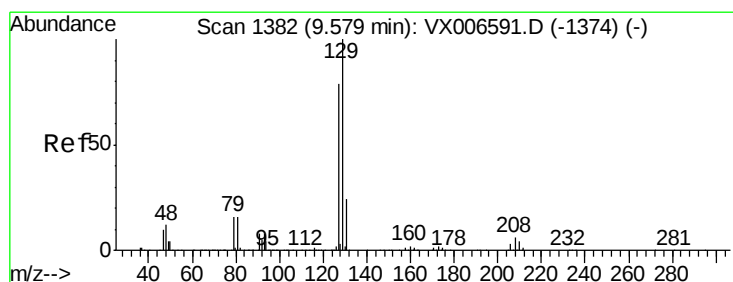
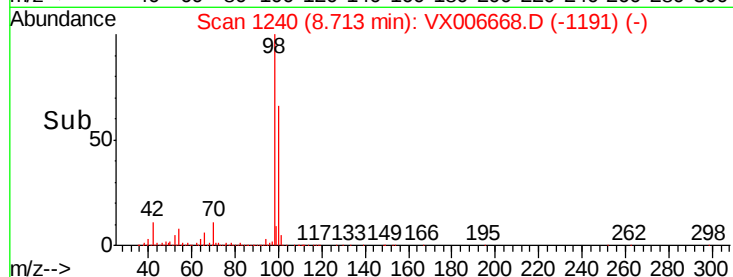
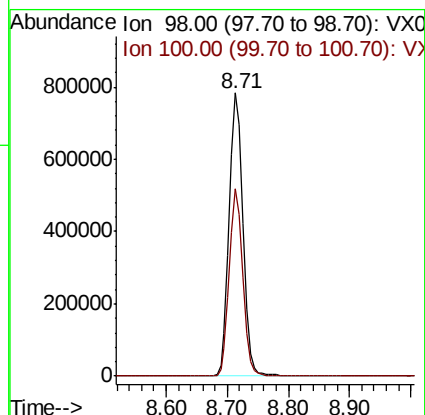
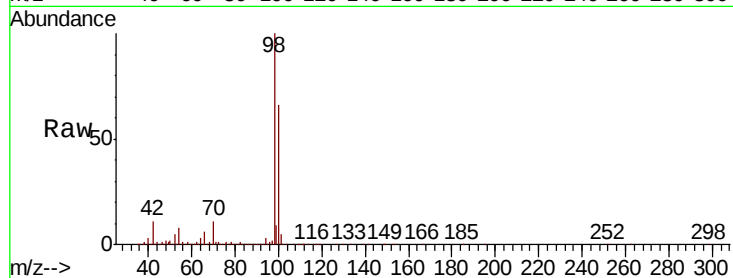
S49-0492DL

Tot Ion: 98 Resp: 1216860

Ion Ratio Lower Upper

98 100

100 64.9 52.0 78.0



#60

Dibromochloromethane

Concen: 2.343 ug/l

RT: 9.49 min Scan# 1367

Delta R.T. -0.09 min

Lab File: VX006668.D

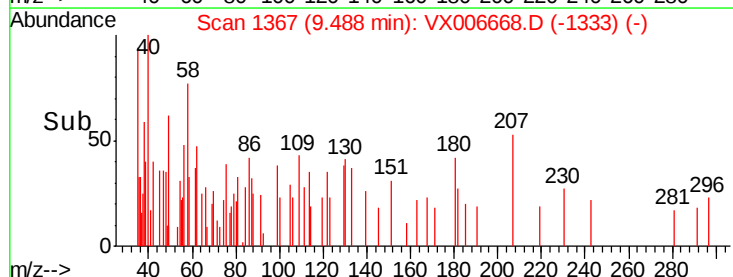
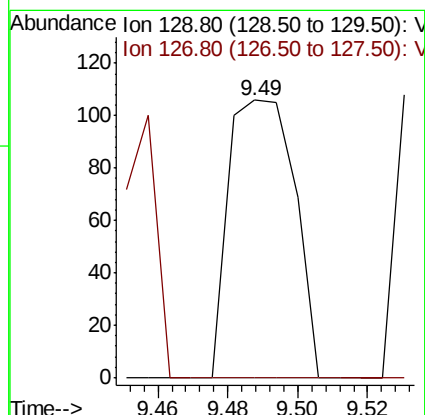
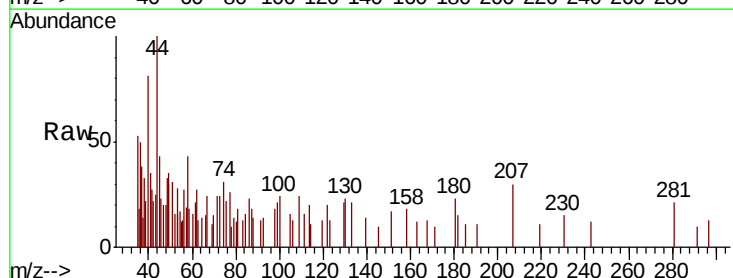
Acq: 20 Dec 2018 11:47

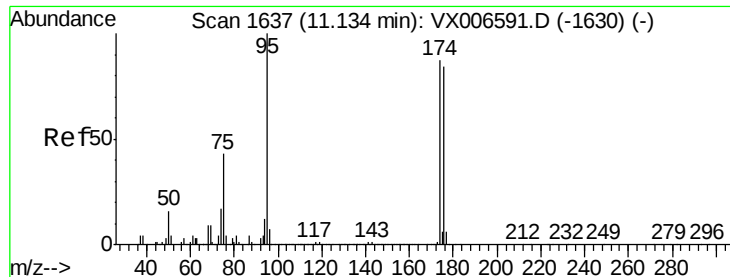
Tgt Ion:129 Resp: 139

Ion Ratio Lower Upper

129 100

127 0.0 39.3 117.8#





#62

4-Bromofluorobenzene

Concen: 48.965 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.00 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

Instrument :

MSVOA\_X

ClientSampled :

S49-0492DL

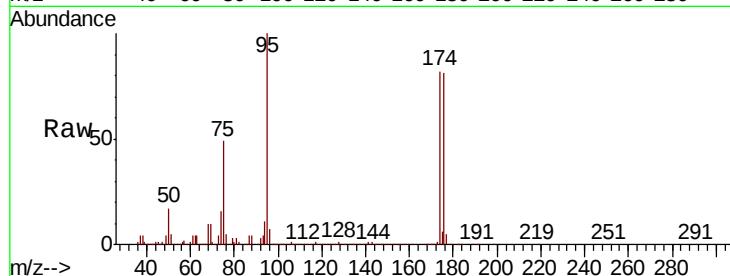
Tot Ion: 95 Resp: 438622

Ion Ratio Lower Upper

95 100

174 88.3 0.0 182.2

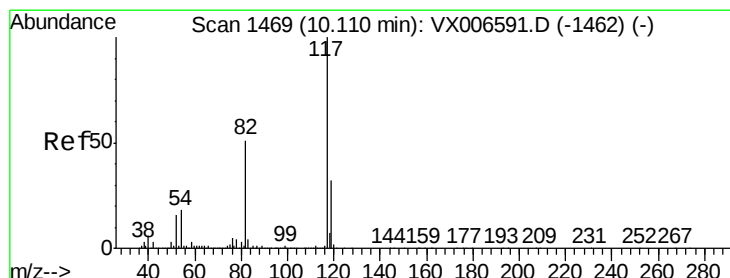
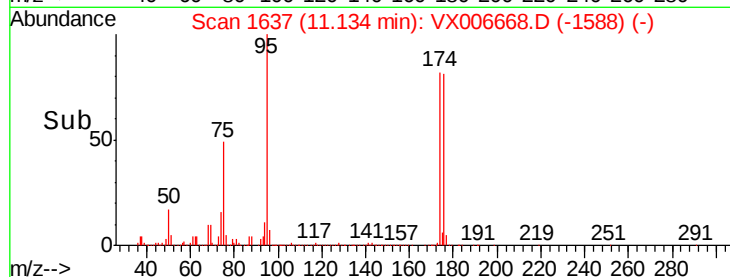
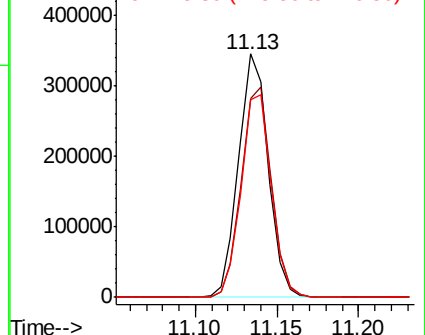
176 85.4 0.0 178.8



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: 10.11 min Scan# 1469

Delta R.T. -0.00 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

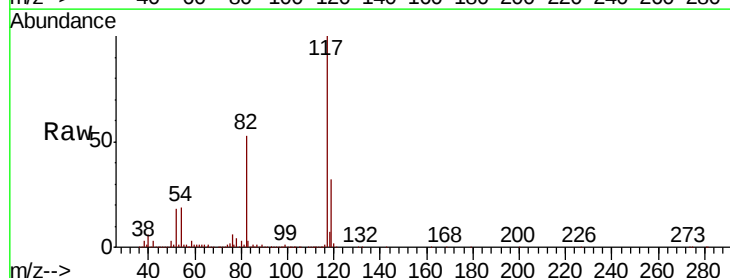
Tgt Ion: 117 Resp: 946978

Ion Ratio Lower Upper

117 100

82 52.9 41.0 61.6

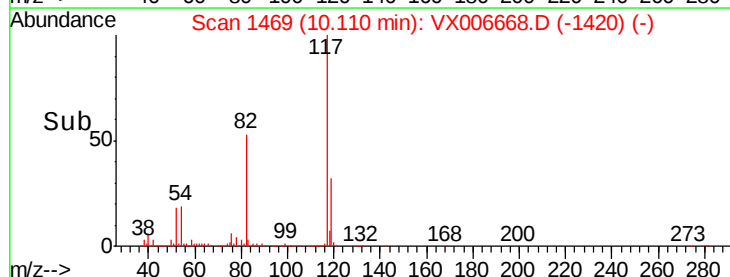
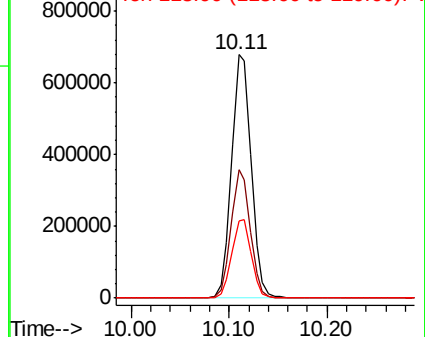
119 31.9 25.4 38.0

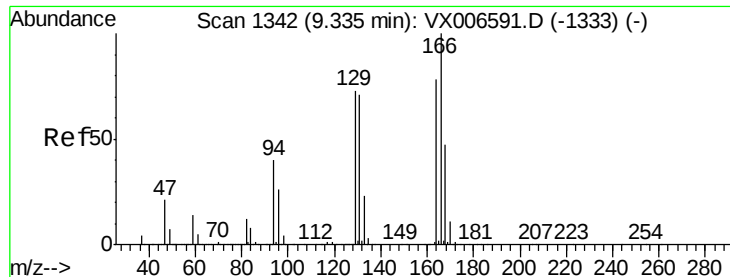


Abundance Ion 116.90 (116.60 to 117.60): V

Ion 82.00 (81.70 to 82.70): VX0

Ion 118.90 (118.60 to 119.60): V





#64

Tetrachloroethene

Concen: 0.709 ug/l

RT: 9.33 min Scan# 1341

Delta R.T. -0.01 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

Instrument :

MSVOA\_X

ClientSampleID :

S49-0492DL

Tot Ion:164 Resp: 5314

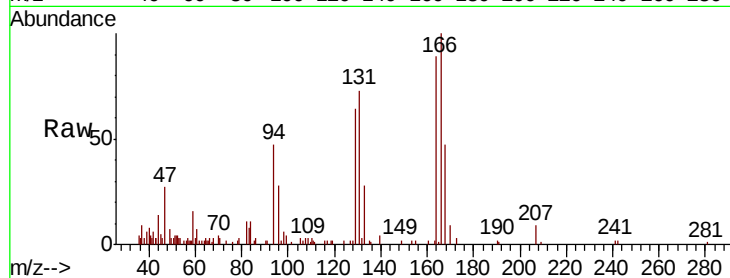
Ion Ratio Lower Upper

164 100

166 112.7 102.5 153.7

129 72.2 75.1 112.7#

131 82.7 72.7 109.1

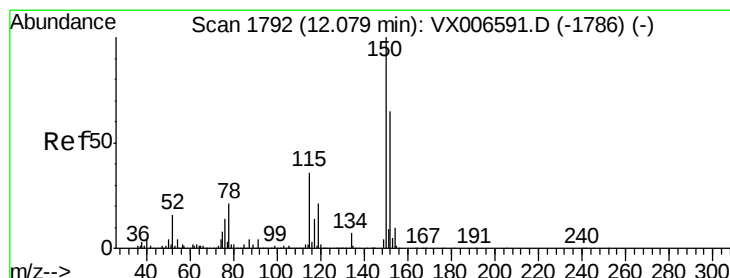
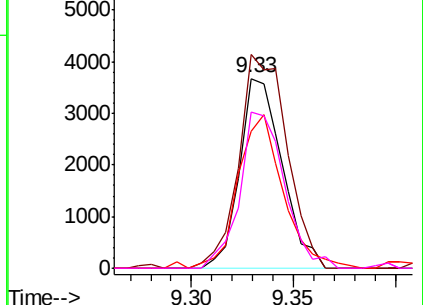
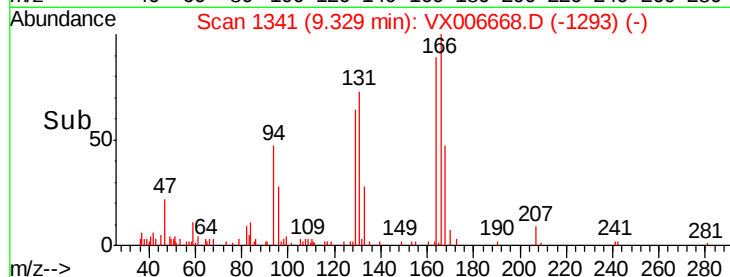


Abundance Ion 163.80 (163.50 to 164.50): V

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: VX006668.D

Acq: 20 Dec 2018 11:47

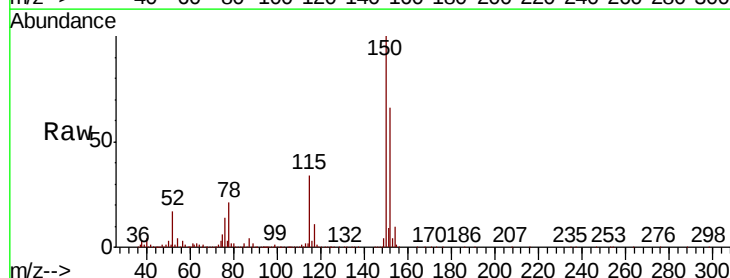
Tgt Ion:152 Resp: 460839

Ion Ratio Lower Upper

152 100

115 55.5 39.1 117.2

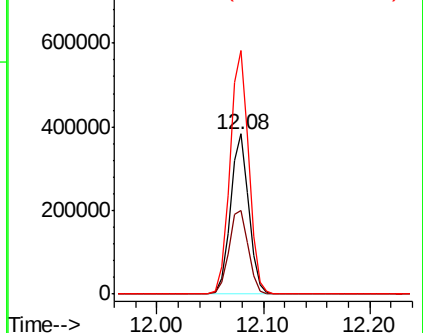
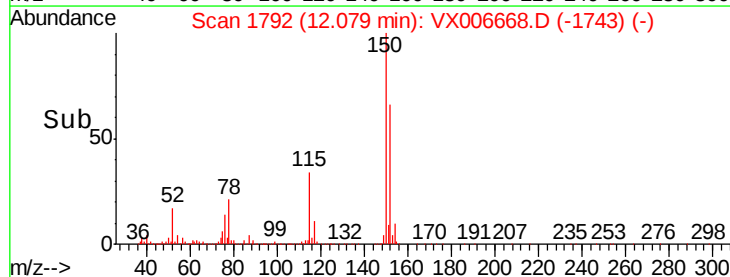
150 155.7 0.0 344.8

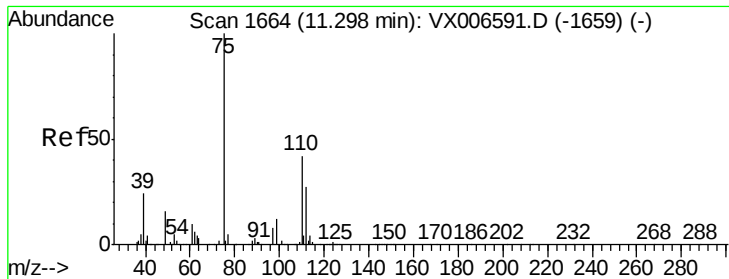


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V





#76

1,2,3-Trichloropropane

Concen: 24.442 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

Instrument :

MSVOA\_X

ClientSampleId :

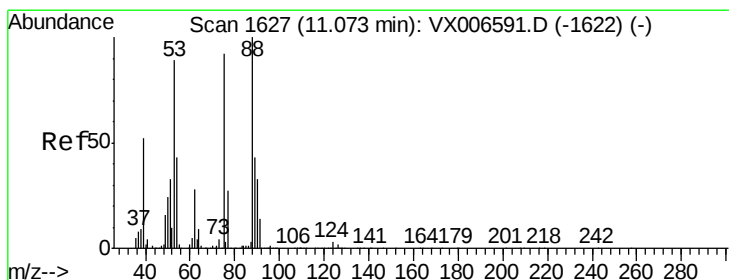
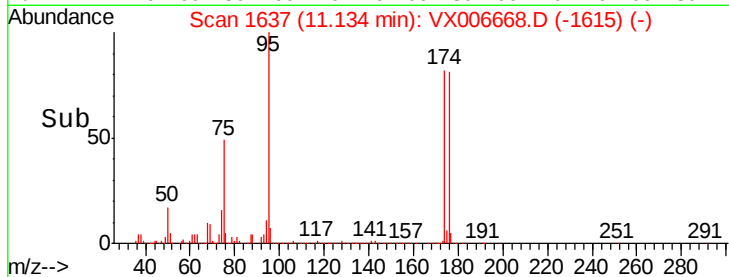
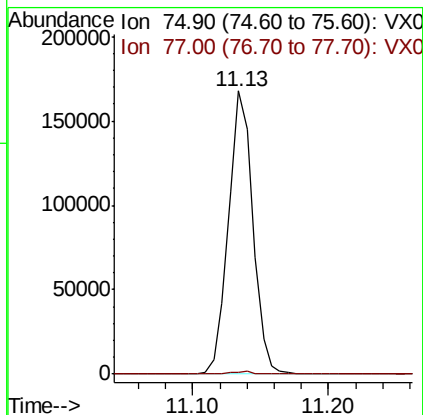
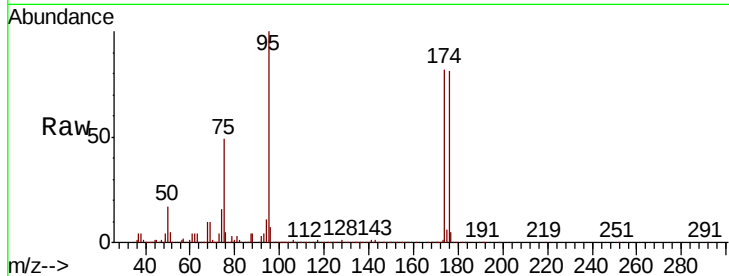
S49-0492DL

Tot Ion: 75 Resp: 209325

Ion Ratio Lower Upper

75 100

77 1.1 18.5 55.5#



#81

trans-1,4-Dichloro-2-butene

Concen: 72.319 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

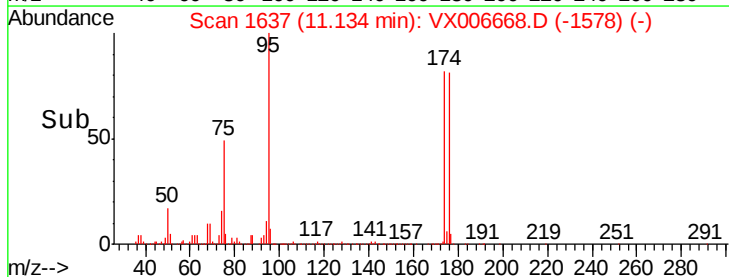
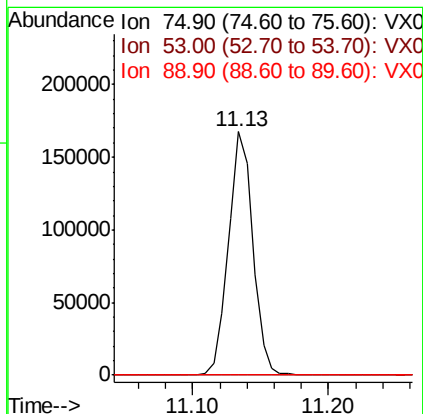
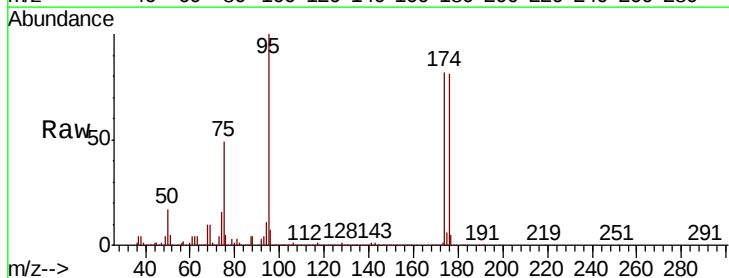
Tgt Ion: 75 Resp: 209325

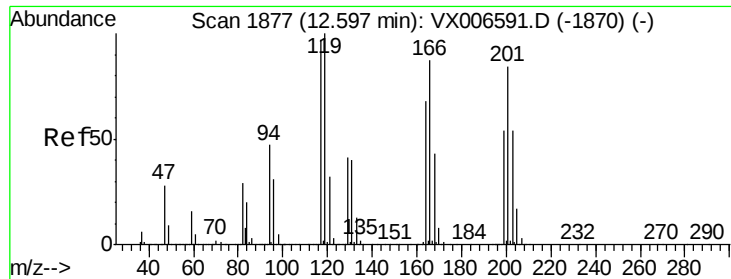
Ion Ratio Lower Upper

75 100

53 0.0 79.7 119.5#

89 0.1 38.0 57.0#





#90

Hexachloroethane

Concen: 3.305 ug/l

RT: 12.59 min Scan# 1876

Delta R.T. -0.01 min

Lab File: VX006668.D

Acq: 20 Dec 2018 11:47

Instrument :

MSVOA\_X

ClientSampleId :

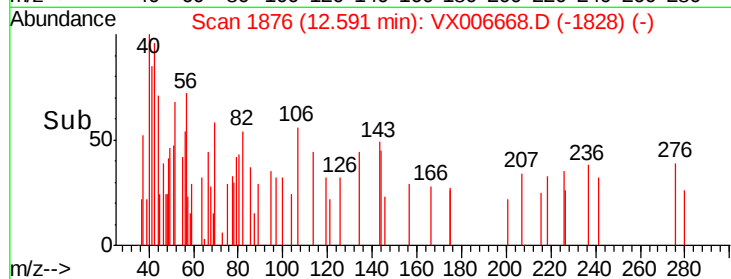
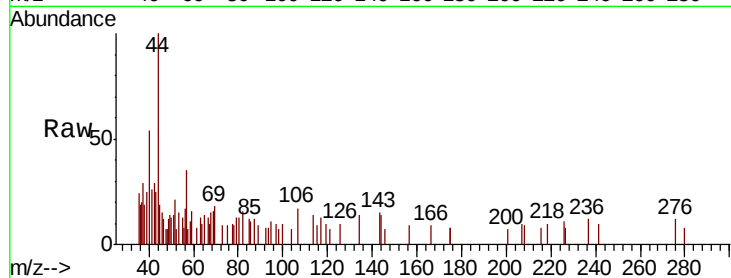
S49-0492DL

Tot Ion:117 Resp: 57

Ion Ratio Lower Upper

117 100

201 33.3 42.9 128.7#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 200.70 (200.40 to 201.40): V

