

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD122118\  
 Data File : VD060686.D  
 Acq On : 21 Dec 2018 16:18  
 Operator : VA/AP  
 Sample : J6482-01  
 Misc : 5.10q/5ml/MSVOA D/SOIL  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 R20-OS

Quant Time: Dec 21 22:26:04 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D122018S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Dec 21 17:37:47 2018  
 Response via : Initial Calibration

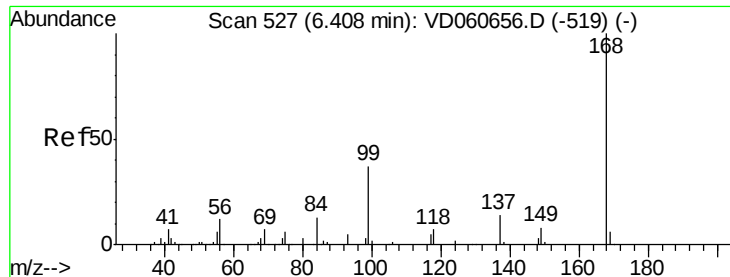
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 6.44  | 168  | 835092   | 50.00 | ug/l  | 0.04     |
| 34) 1,4-Difluorobenzene    | 7.48  | 114  | 1230157  | 50.00 | ug/l  | 0.04     |
| 63) Chlorobenzene-d5       | 11.30 | 117  | 622211   | 50.00 | ug/l  | 0.03     |
| 72) 1,4-Dichlorobenzene-d4 | 13.39 | 152  | 191964   | 50.00 | ug/l  | 0.02     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.82  | 65   | 323754   | 56.10 | ug/l    | 0.03     |
| Spiked Amount               |       |      | Recovery | =     | 112.20% |          |
| 35) Dibromofluoromethane    | 6.35  | 113  | 406647   | 45.16 | ug/l    | 0.03     |
| Spiked Amount               |       |      | Recovery | =     | 90.32%  |          |
| 50) Toluene-d8              | 9.48  | 98   | 656972   | 24.45 | ug/l    | 0.03     |
| Spiked Amount               |       |      | Recovery | =     | 48.90%  |          |
| 62) 4-Bromofluorobenzene    | 12.45 | 95   | 168318   | 17.89 | ug/l    | 0.03     |
| Spiked Amount               |       |      | Recovery | =     | 35.78%  |          |

| Target Compounds               | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|--------------------------------|-------|------|----------|---------|--------|--------|
| 11) Tert butyl alcohol         | 3.99  | 59   | 2422     | 10.042  | ug/l # | 74     |
| 16) Acetone                    | 3.19  | 43   | 20861    | 20.699  | ug/l   | 99     |
| 18) Methyl Acetate             | 3.59  | 43   | 20225    | 8.097   | ug/l # | 89     |
| 20) Methylene Chloride         | 3.76  | 84   | 44489    | 4.251   | ug/l   | 89     |
| 25) 2-Butanone                 | 5.65  | 43   | 5671     | 2.941   | ug/l # | 61     |
| 29) Tetrahydrofuran            | 6.38  | 42   | 8716     | 7.972   | ug/l # | 40     |
| 31) Cyclohexane                | 6.43  | 56   | 20514    | 1.407   | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 6.43  | 75   | 59689    | 4.712   | ug/l # | 46     |
| 38) Carbon Tetrachloride       | 6.43  | 117  | 65515    | 5.862   | ug/l # | 15     |
| 51) 4-Methyl-2-Pentanone       | 9.37  | 43   | 6480     | 1.556   | ug/l # | 86     |
| 68) m/p-Xylenes                | 11.59 | 106  | 17774    | 2.066   | ug/l   | 92     |
| 69) o-Xylene                   | 11.95 | 106  | 14850    | 1.819   | ug/l   | 95     |
| 76) 1,2,3-Trichloropropane     | 12.45 | 75   | 70771    | 32.382  | ug/l # | 44     |
| 81) trans-1,4-Dichloro-2-buten | 12.45 | 75   | 70771    | 117.190 | ug/l # | 13     |
| 95) Naphthalene                | 14.99 | 128  | 6440     | 1.282   | ug/l   | 97     |
| 96) 1,2,3-Trichlorobenzene     | 15.11 | 180  | 3853     | 1.166   | ug/l # | 22     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 6.44 min Scan# 530

Delta R.T. 0.04 min

Lab File: VD060686.D

Acq: 21 Dec 2018 16:18

Instrument :

MSVOA\_D

ClientSampleId :

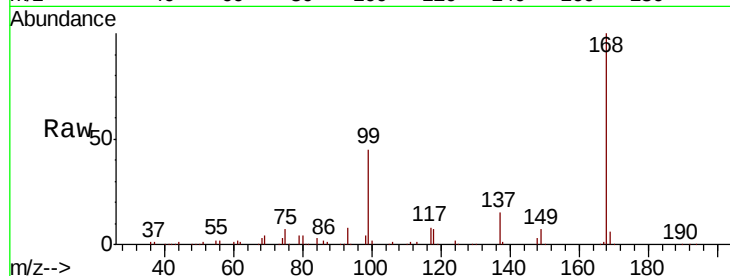
R20-OS

Tot Ion:168 Resp: 835092

Ion Ratio Lower Upper

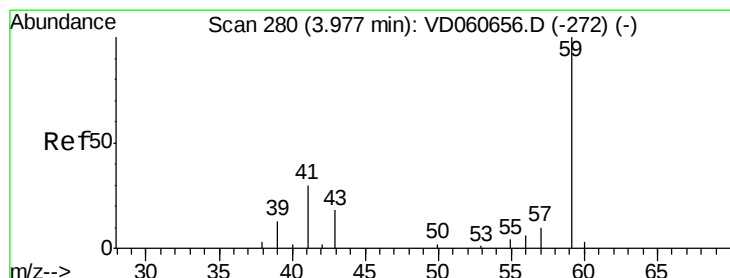
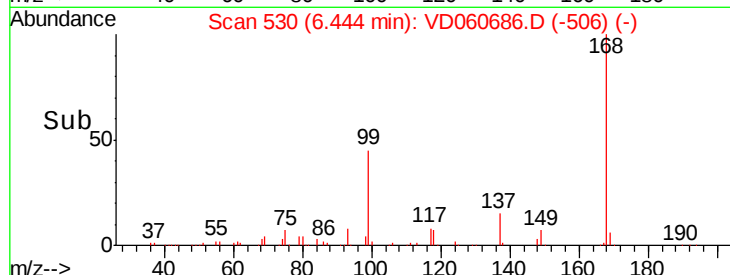
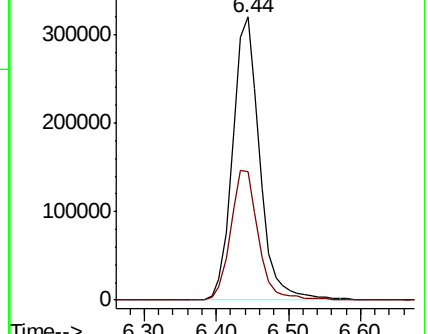
168 100

99 45.4 38.7 58.1



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC



#11

Tert butyl alcohol

Concen: 10.042 ug/l

RT: 3.99 min Scan# 281

Delta R.T. 0.02 min

Lab File: VD060686.D

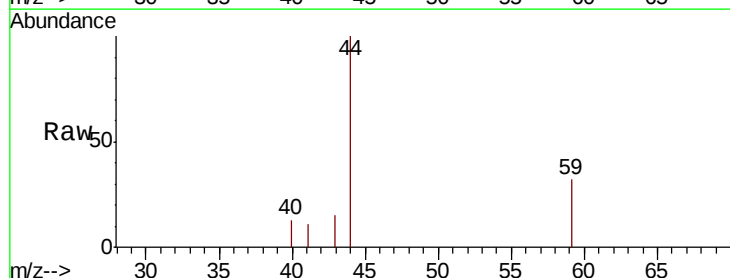
Acq: 21 Dec 2018 16:18

Tgt Ion: 59 Resp: 2422

Ion Ratio Lower Upper

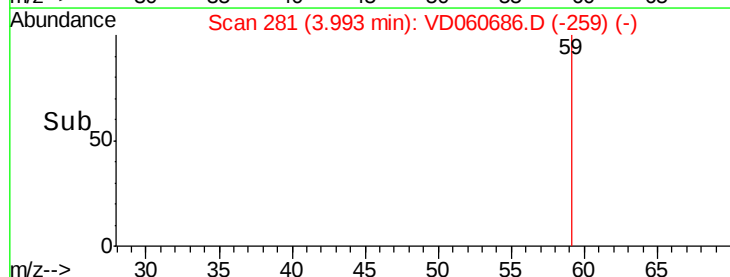
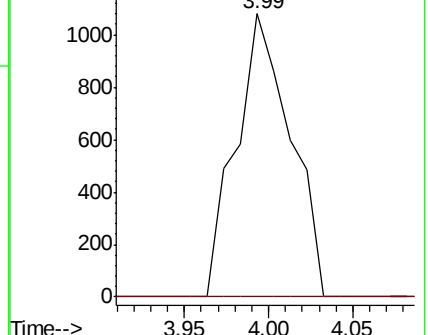
59 100

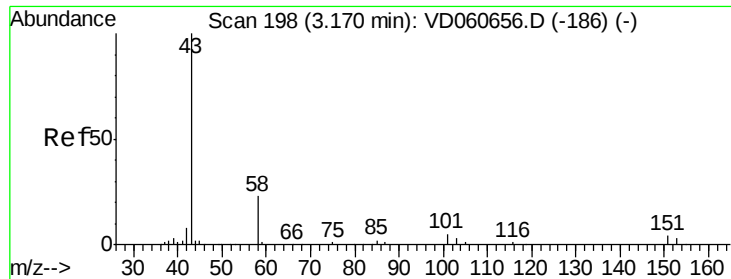
57 0.0 7.8 11.6#



Abundance Ion 58.95 (58.65 to 59.65): VDC

Ion 56.95 (56.65 to 57.65): VDC





#16

Acetone

Concen: 20.699 ug/l

RT: 3.19 min Scan# 199

Delta R.T. 0.02 min

Lab File: VD060686.D

Acq: 21 Dec 2018 16:18

Instrument :

MSVOA\_D

ClientSampleId :

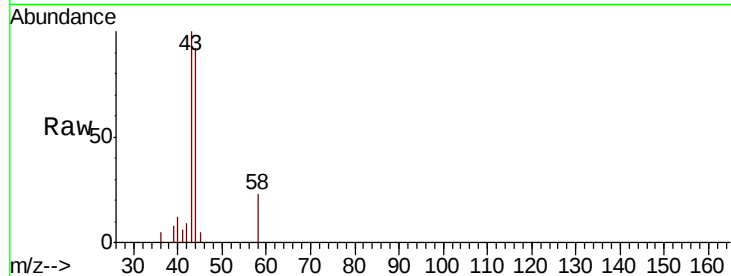
R20-OS

Tot Ion: 43 Resp: 20861

Ion Ratio Lower Upper

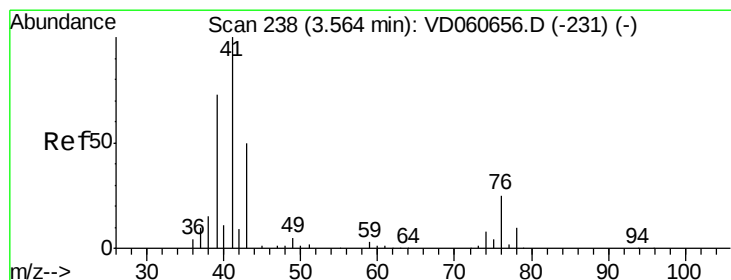
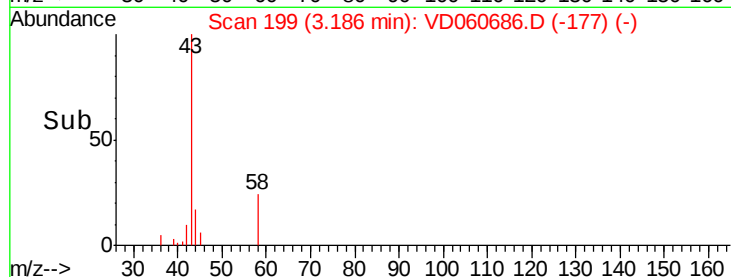
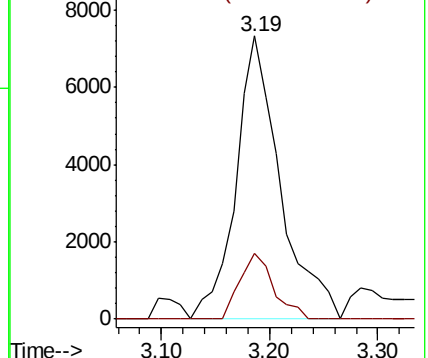
43 100

58 23.3 18.2 27.2



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC



#18

Methyl Acetate

Concen: 8.097 ug/l

RT: 3.59 min Scan# 240

Delta R.T. 0.03 min

Lab File: VD060686.D

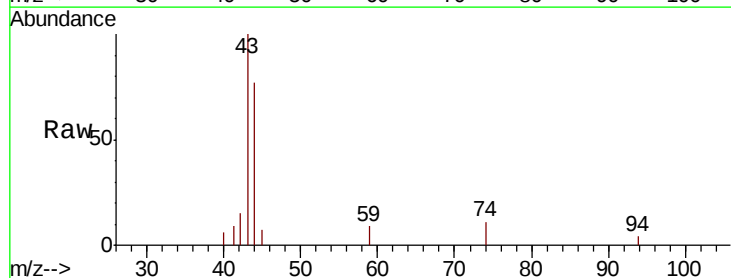
Acq: 21 Dec 2018 16:18

Tgt Ion: 43 Resp: 20225

Ion Ratio Lower Upper

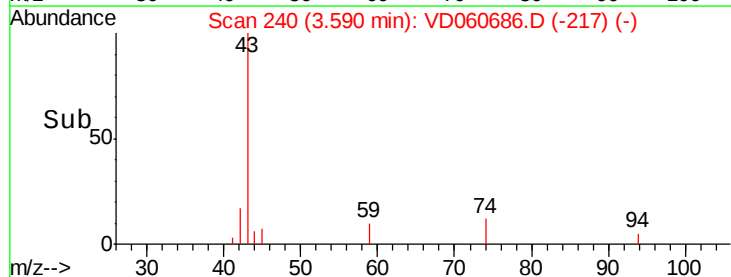
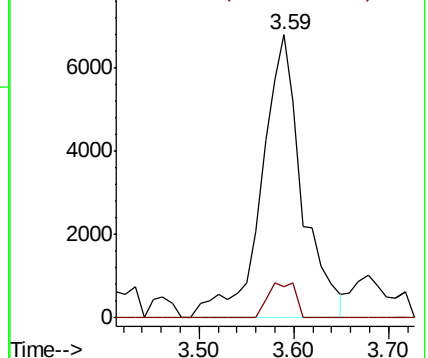
43 100

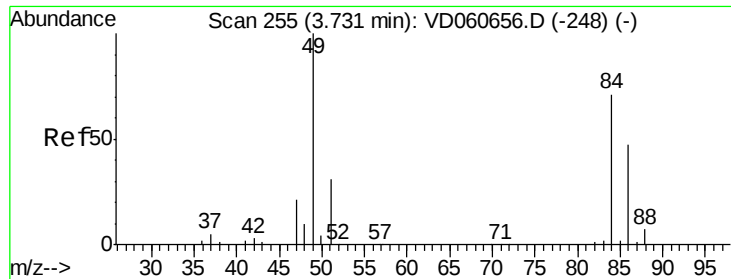
74 10.8 12.4 18.6#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 74.00 (73.70 to 74.70): VDC

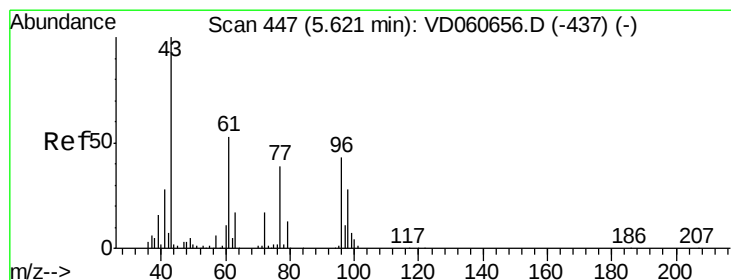
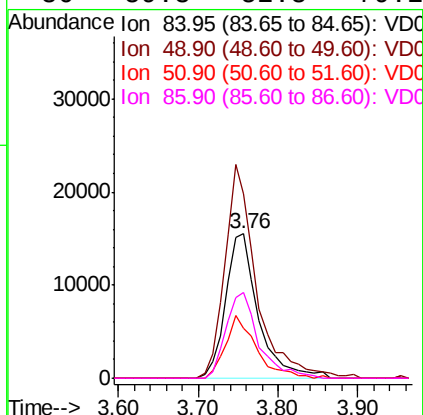
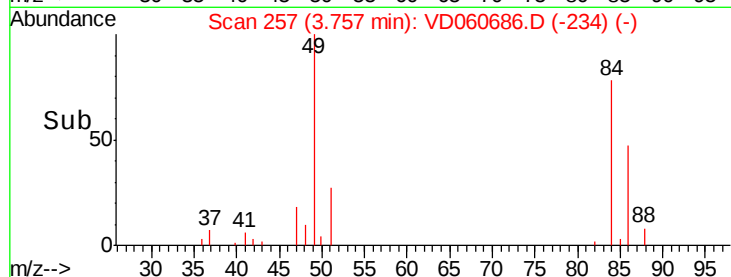
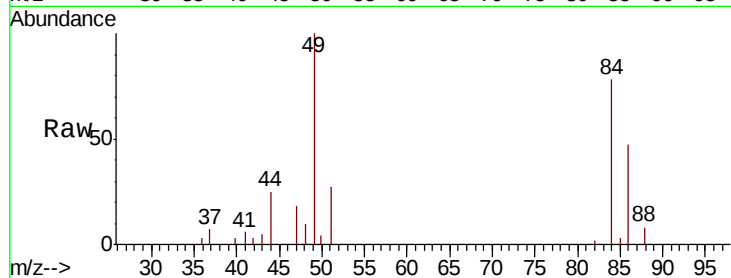




#20  
Methvlene Chloride  
Concen: 4.251 ug/l  
RT: 3.76 min Scan# 257  
Delta R.T. 0.03 min  
Lab File: VD060686.D  
Acq: 21 Dec 2018 16:18

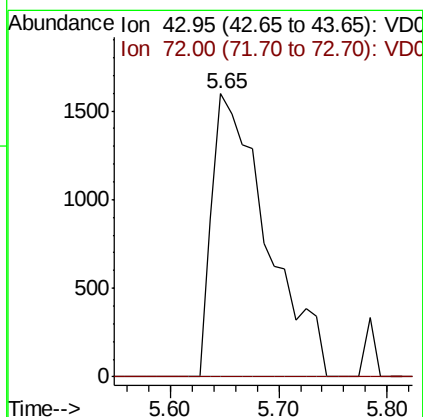
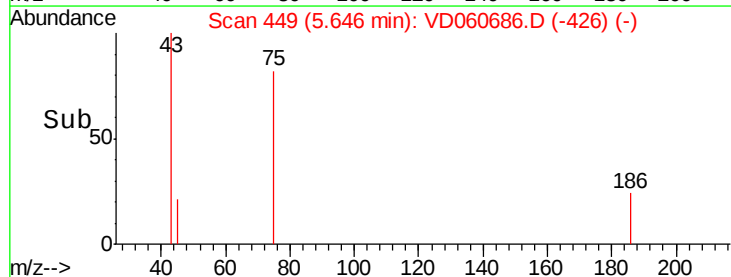
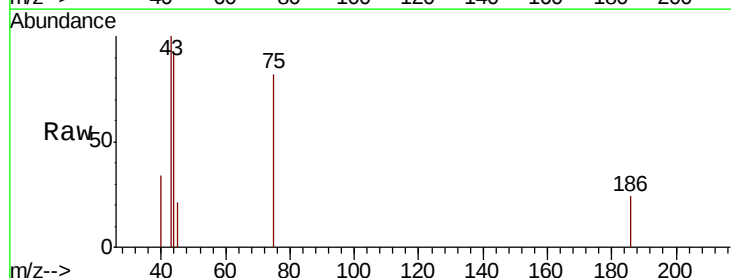
Instrument :  
MSVOA\_D  
ClientSampleId :  
R20-OS

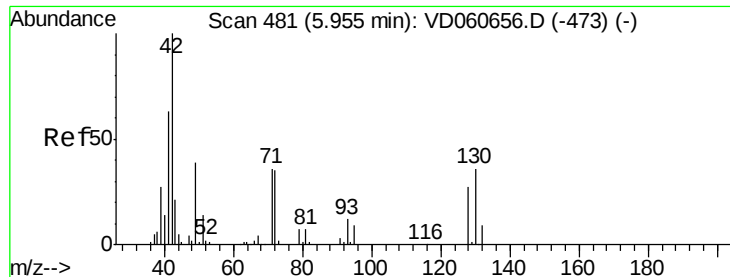
Tot Ion: 84 Resp: 44489  
Ion Ratio Lower Upper  
84 100  
49 127.9 113.6 170.4  
51 34.9 34.7 52.1  
86 59.8 52.8 79.2



#25  
2-Butanone  
Concen: 2.941 ug/l  
RT: 5.65 min Scan# 449  
Delta R.T. 0.03 min  
Lab File: VD060686.D  
Acq: 21 Dec 2018 16:18

Tgt Ion: 43 Resp: 5671  
Ion Ratio Lower Upper  
43 100  
72 0.0 13.7 20.5#

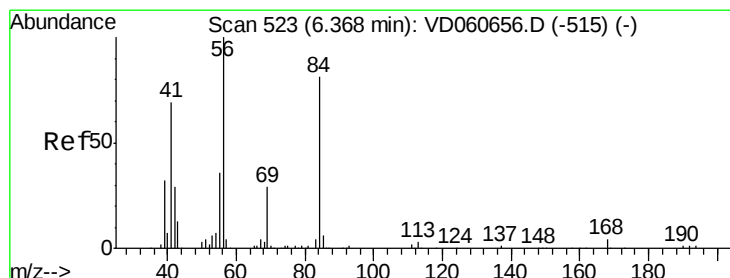
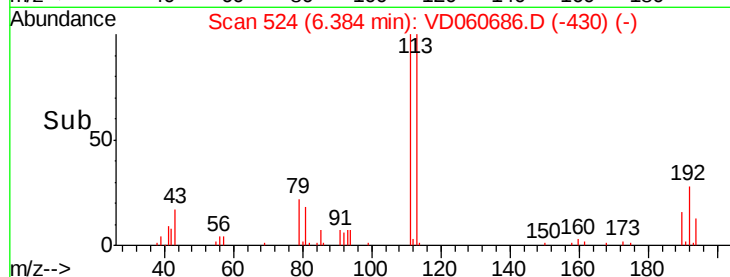
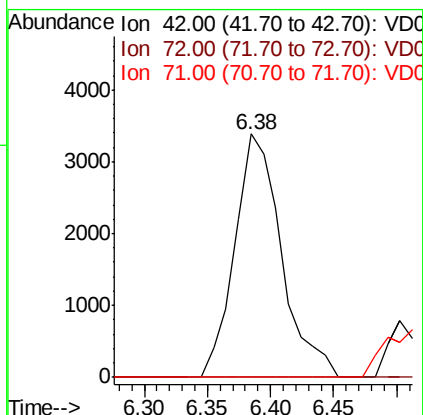
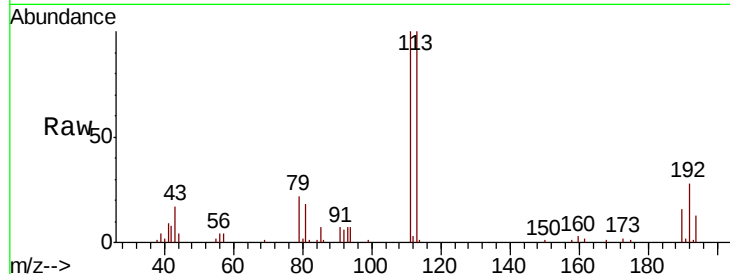




#29  
Tetrahydrofuran  
Concen: 7.972 ug/l  
RT: 6.38 min Scan# 524  
Delta R.T. 0.43 min  
Lab File: VD060686.D  
Acq: 21 Dec 2018 16:18

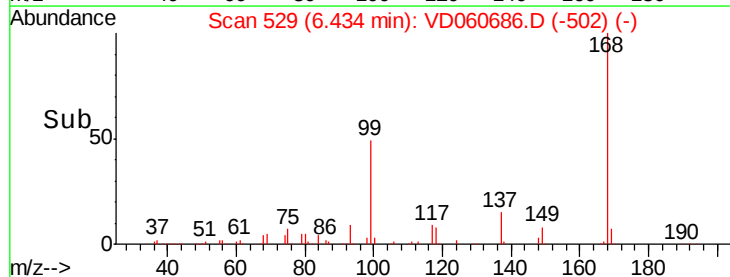
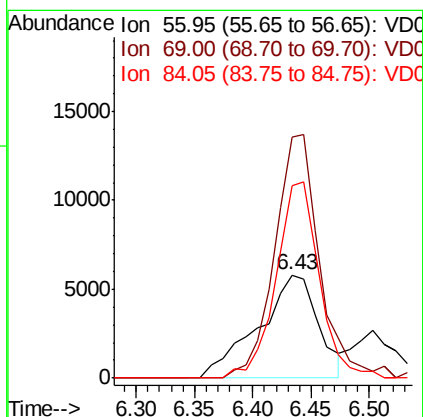
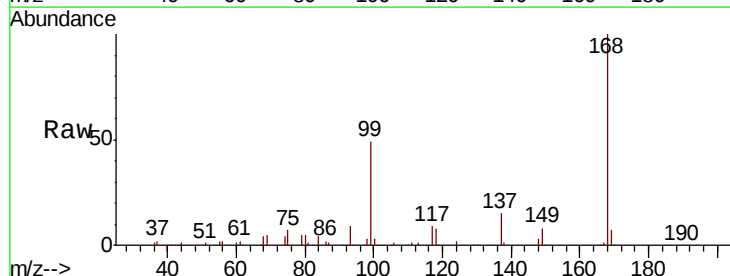
Instrument :  
MSVOA\_D  
ClientSampleId :  
R20-OS

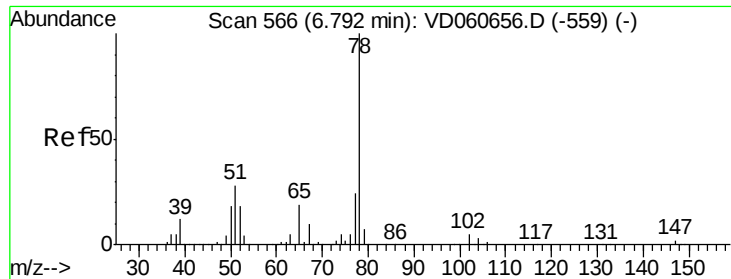
Tot Ion: 42 Resp: 8716  
Ion Ratio Lower Upper  
42 100  
72 0.0 28.0 42.0#  
71 0.0 27.0 40.6#



#31  
Cyclohexane  
Concen: 1.407 ug/l  
RT: 6.43 min Scan# 529  
Delta R.T. 0.07 min  
Lab File: VD060686.D  
Acq: 21 Dec 2018 16:18

Tgt Ion: 56 Resp: 20514  
Ion Ratio Lower Upper  
56 100  
69 234.8 23.6 35.4#  
84 187.5 65.8 98.6#





#33

1,2-Dichloroethane-d4

Concen: N.D. ug/l

RT: 6.82 min Scan# 568

Delta R.T. 0.03 min

Lab File: VD060686.D

Acq: 21 Dec 2018 16:18

Instrument :

MSVOA\_D

ClientSampleId :

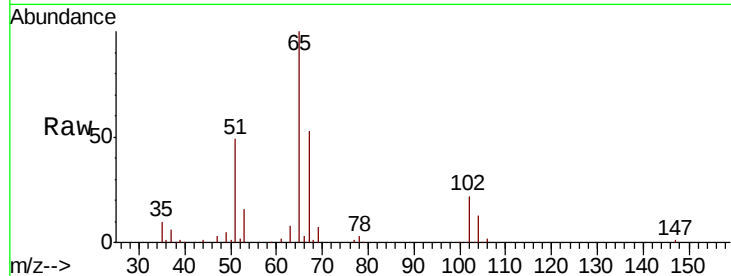
R20-OS

Tot Ion: 65 Resp: 323754

Ion Ratio Lower Upper

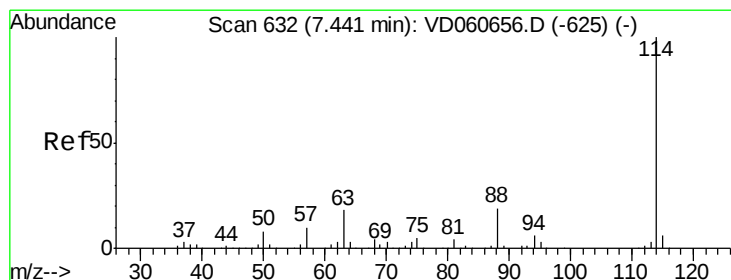
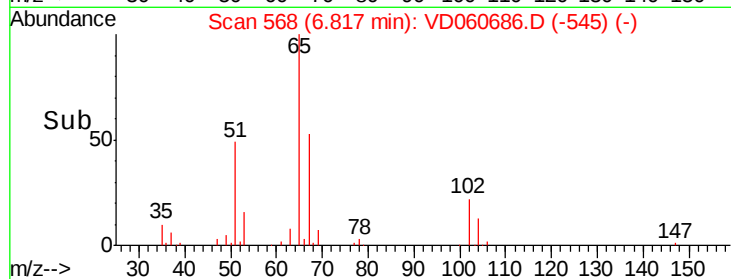
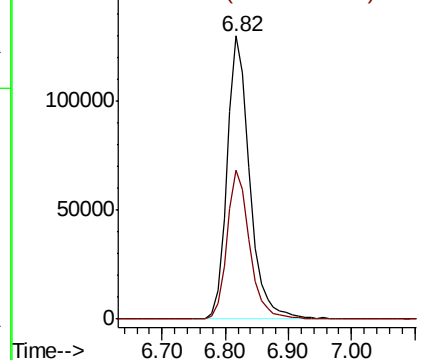
65 100

67 52.6 0.0 105.4



Abundance Ion 64.95 (64.65 to 65.65): VDC

Ion 66.90 (66.60 to 67.60): VDC



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 7.48 min Scan# 635

Delta R.T. 0.04 min

Lab File: VD060686.D

Acq: 21 Dec 2018 16:18

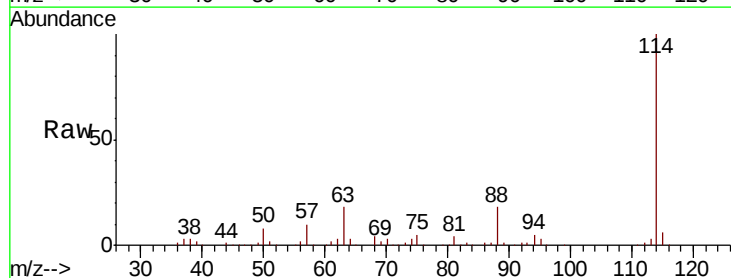
Tgt Ion: 114 Resp: 1230157

Ion Ratio Lower Upper

114 100

63 18.4 0.0 36.2

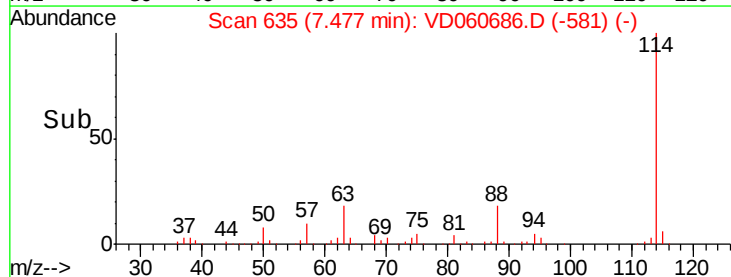
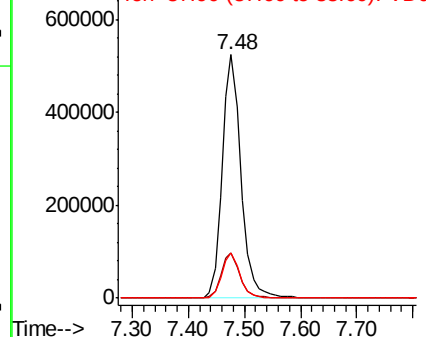
88 18.3 0.0 37.0

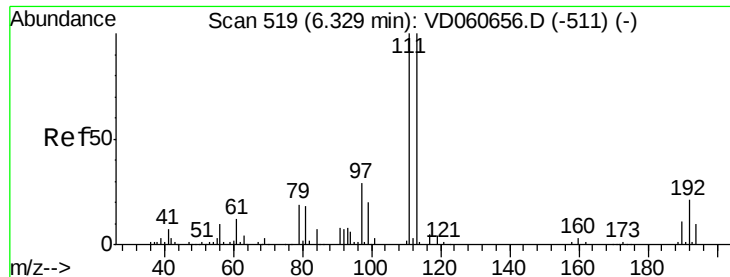


Abundance Ion 114.00 (113.70 to 114.70): V

Ion 62.95 (62.65 to 63.65): VDC

Ion 87.90 (87.60 to 88.60): VDC





#35

Dibromofluoromethane

Concen: 50.000 ug/l

RT: 6.35 min Scan# 521

Delta R.T. 0.03 min

Lab File: VD060686.D

Acq: 21 Dec 2018 16:18

Instrument :

MSVOA\_D

ClientSampleId :

R20-OS

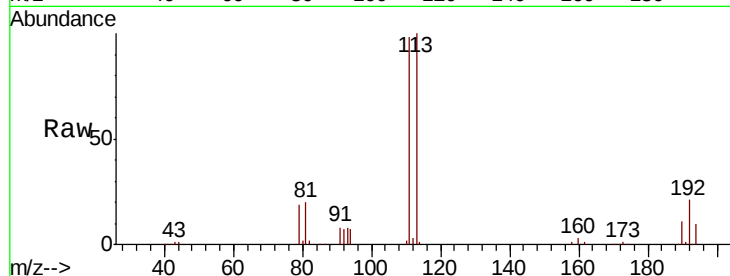
Tot Ion:113 Resp: 406647

Ion Ratio Lower Upper

113 100

111 98.4 80.0 120.0

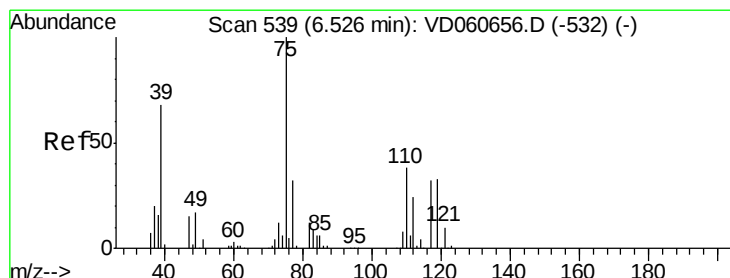
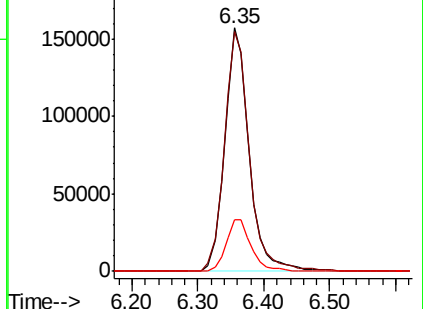
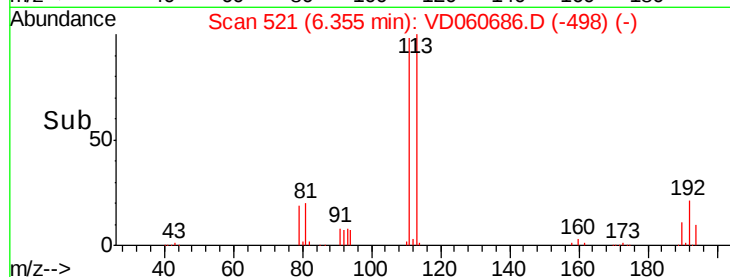
192 21.1 16.6 25.0



Abundance Ion 112.90 (112.60 to 113.60): V

Ion 110.90 (110.60 to 111.60): V

Ion 191.80 (191.50 to 192.50): V



#36

1,1-Dichloropropene

Concen: 4.712 ug/l

RT: 6.43 min Scan# 529

Delta R.T. -0.09 min

Lab File: VD060686.D

Acq: 21 Dec 2018 16:18

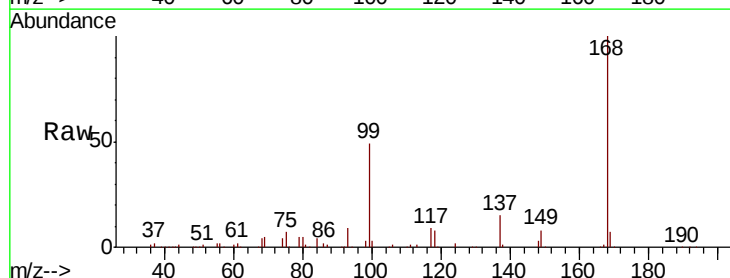
Tgt Ion: 75 Resp: 59689

Ion Ratio Lower Upper

75 100

110 6.4 18.9 56.7#

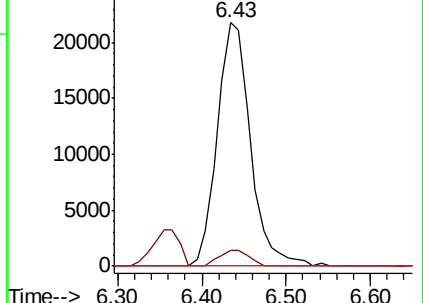
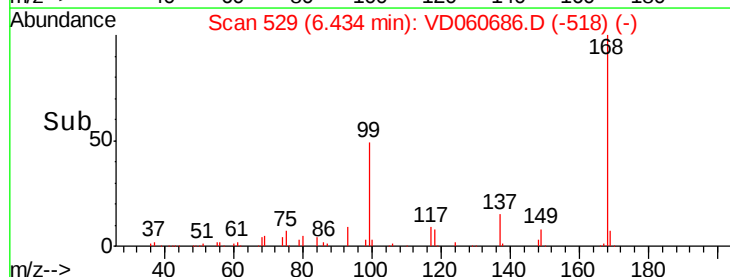
77 0.0 25.4 38.0#

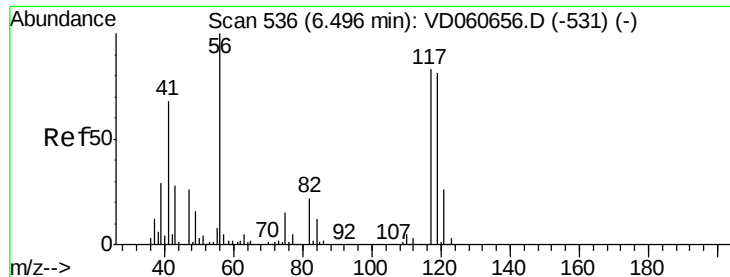


Abundance Ion 75.00 (74.70 to 75.70): V

Ion 109.90 (109.60 to 110.60): V

Ion 76.95 (76.65 to 77.65): V





#38

Carbon Tetrachloride

Concen: 5.862 ug/l

RT: 6.43 min Scan# 529

Delta R.T. -0.06 min

Lab File: VD060686.D

Acq: 21 Dec 2018 16:18

Instrument :

MSVOA\_D

ClientSampleId :

R20-OS

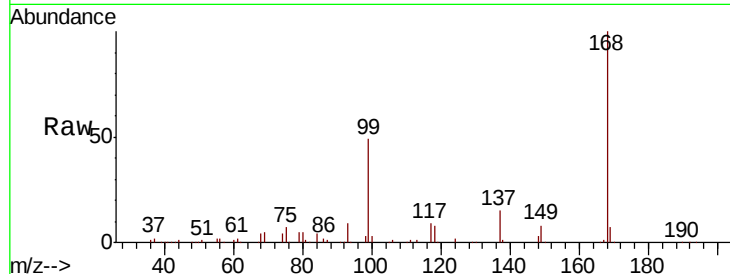
Tot Ion:117 Resp: 65515

Ion Ratio Lower Upper

117 100

119 4.6 77.0 115.4#

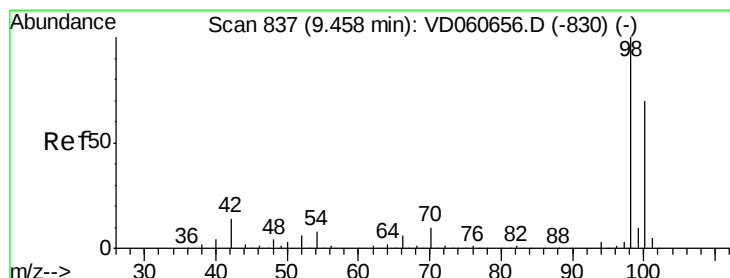
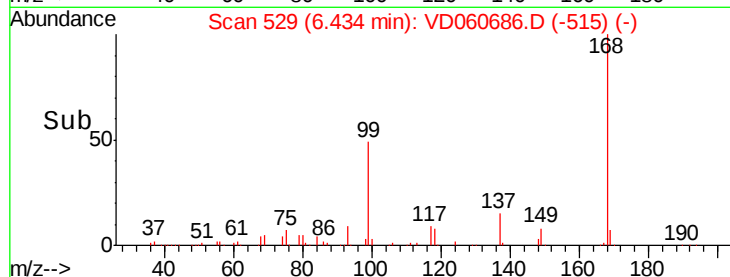
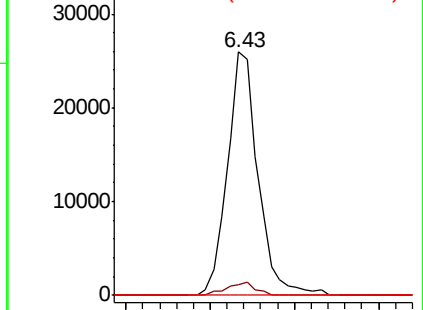
121 0.0 24.7 37.1#



Abundance Ion 116.85 (116.55 to 117.55): V

Ion 118.85 (118.55 to 119.55): V

Ion 120.85 (120.55 to 121.55): V



#50

Toluene-d8

Concen: N.D. ug/l

RT: 9.48 min Scan# 839

Delta R.T. 0.03 min

Lab File: VD060686.D

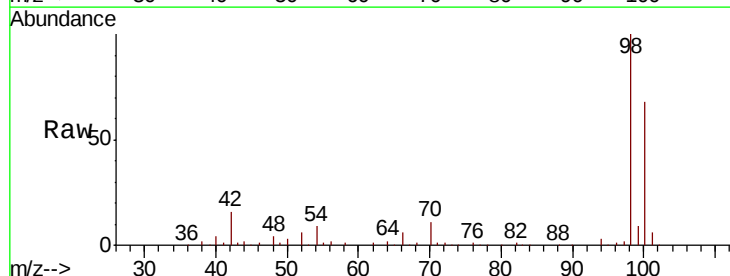
Acq: 21 Dec 2018 16:18

Tgt Ion: 98 Resp: 656972

Ion Ratio Lower Upper

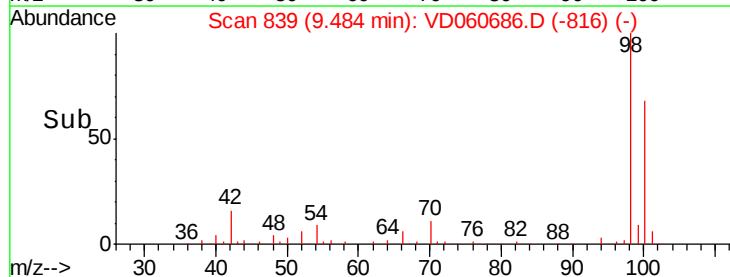
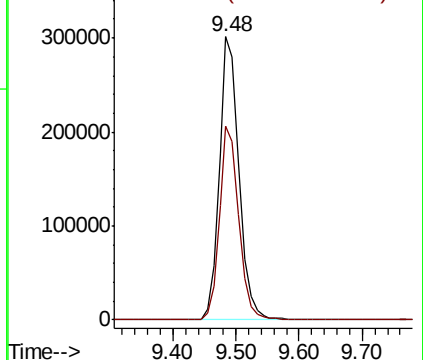
98 100

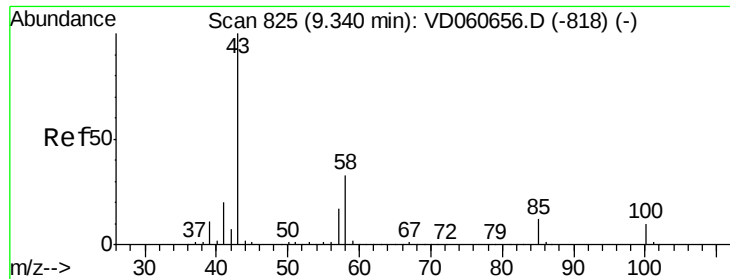
100 68.3 55.8 83.8



Abundance Ion 98.05 (97.75 to 98.75): V

Ion 100.05 (99.75 to 100.75): V





#51

4-Methyl-2-Pentanone

Concen: 1.556 ug/l

RT: 9.37 min Scan# 827

Delta R.T. 0.03 min

Lab File: VD060686.D

Acq: 21 Dec 2018 16:18

Instrument :

MSVOA\_D

ClientSampleID :

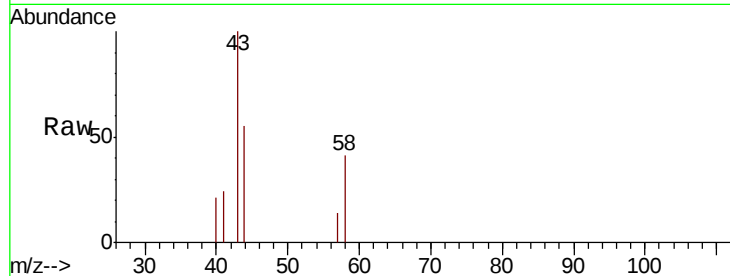
R20-OS

Tot Ion: 43 Resp: 6480

Ion Ratio Lower Upper

43 100

58 40.8 26.3 39.5#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC

9.37

2500

2000

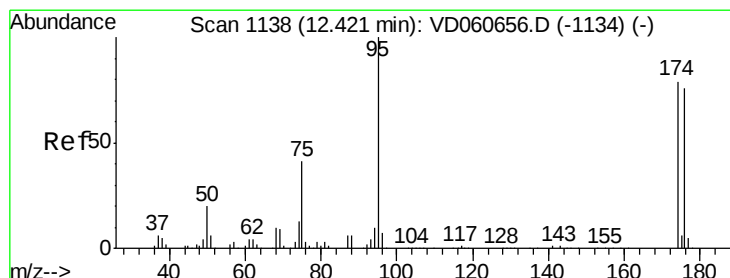
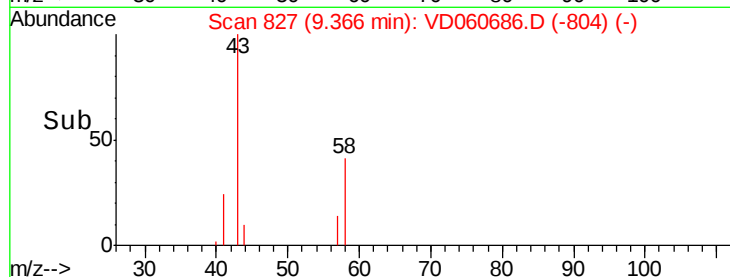
1500

1000

500

0

Time-->



#62

4-Bromofluorobenzene

Concen: N.D. ug/l

RT: 12.45 min Scan# 1140

Delta R.T. 0.03 min

Lab File: VD060686.D

Acq: 21 Dec 2018 16:18

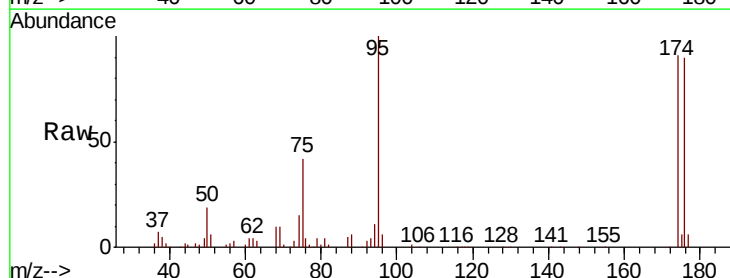
Tgt Ion: 95 Resp: 168318

Ion Ratio Lower Upper

95 100

174 90.7 0.0 158.2

176 90.4 0.0 152.4



Abundance Ion 95.00 (94.70 to 95.70): VDC

Ion 173.90 (173.60 to 174.60): V

Ion 175.90 (175.60 to 176.60): V

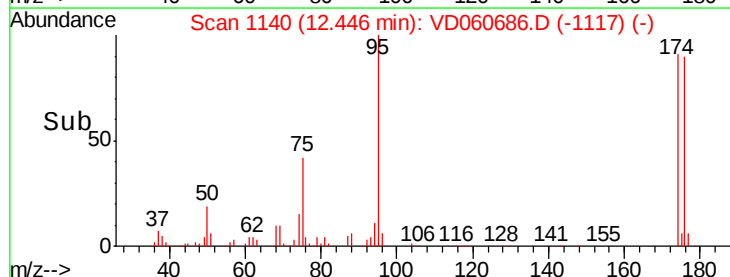
150000

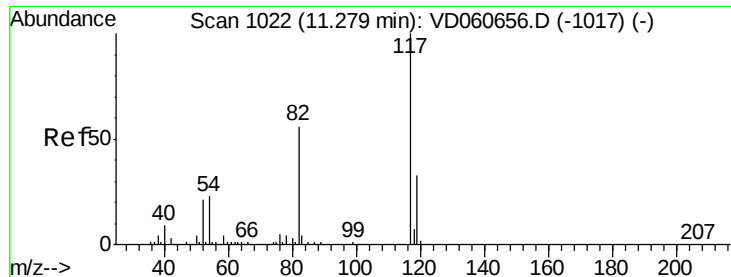
100000

50000

0

Time-->

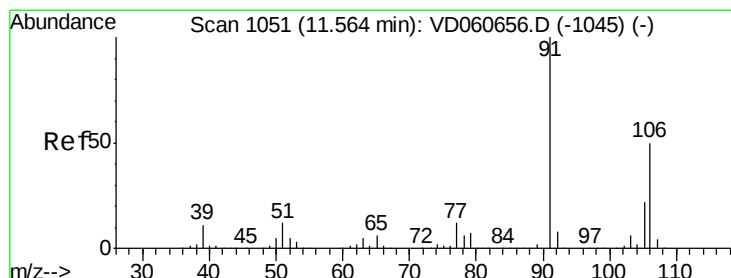
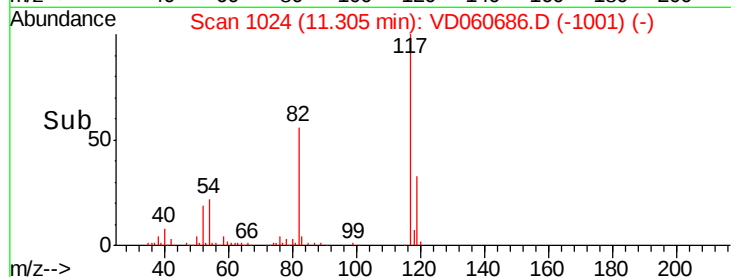
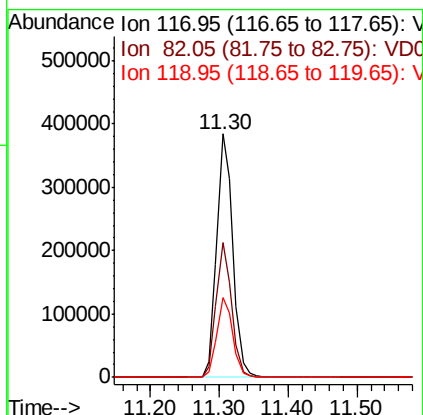
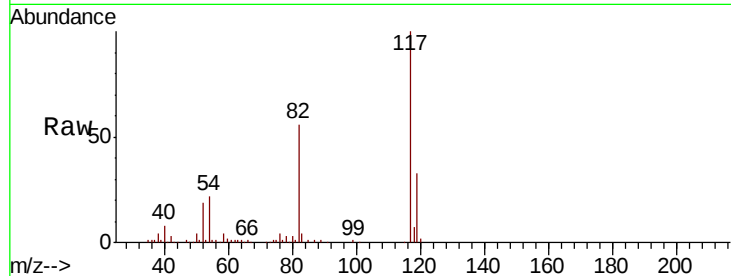




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.30 min Scan# 1024  
Delta R.T. 0.03 min  
Lab File: VD060686.D  
Acq: 21 Dec 2018 16:18

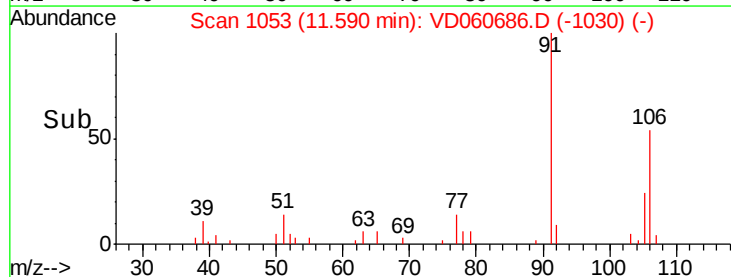
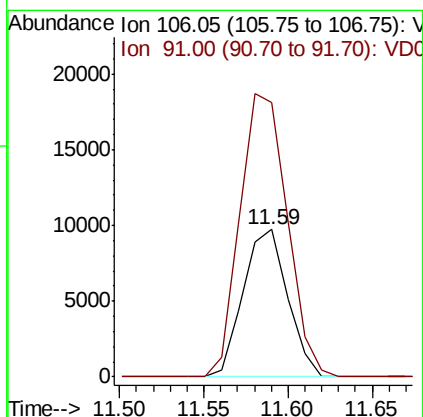
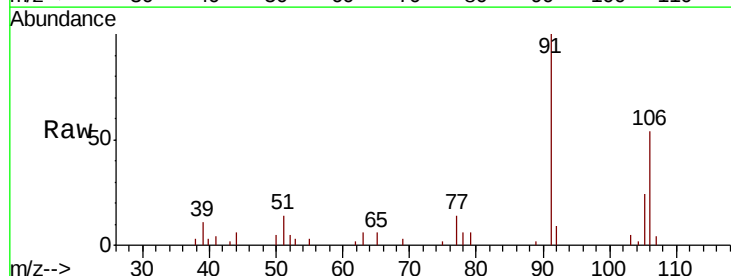
Instrument :  
MSVOA\_D  
ClientSampleId :  
R20-OS

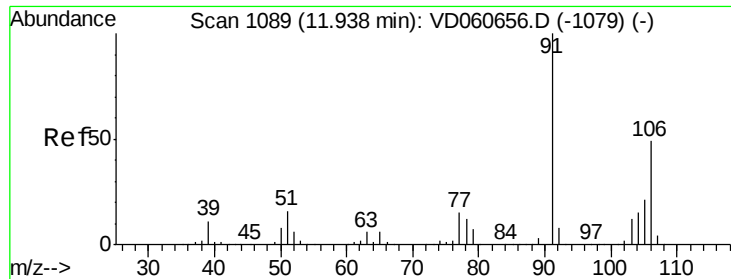
Tot Ion:117 Resp: 622211  
Ion Ratio Lower Upper  
117 100  
82 55.6 44.5 66.7  
119 32.7 26.3 39.5



#68  
m/p-Xylenes  
Concen: 2.066 ug/l  
RT: 11.59 min Scan# 1053  
Delta R.T. 0.03 min  
Lab File: VD060686.D  
Acq: 21 Dec 2018 16:18

Tgt Ion:106 Resp: 17774  
Ion Ratio Lower Upper  
106 100  
91 186.4 158.9 238.3

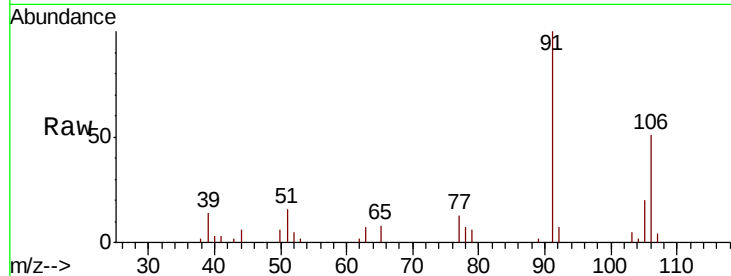




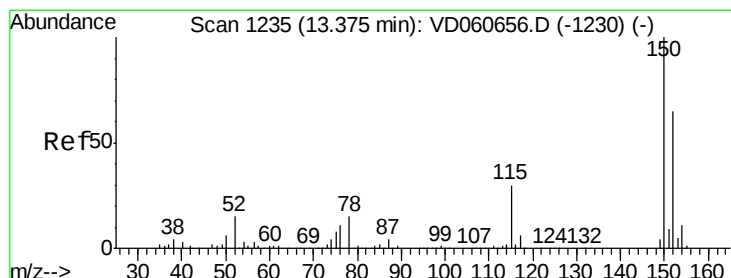
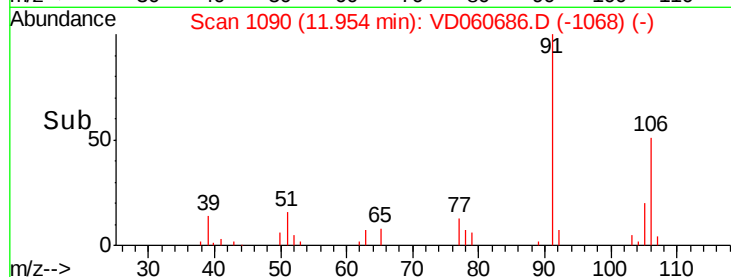
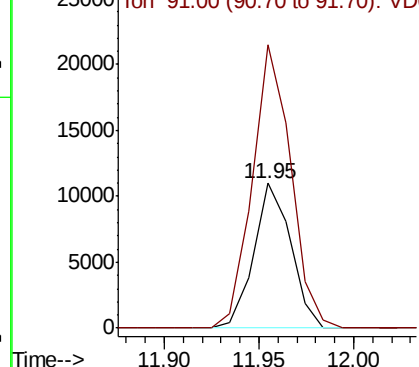
#69  
o-Xylene  
Concen: 1.819 ug/l  
RT: 11.95 min Scan# 1090  
Delta R.T. 0.02 min  
Lab File: VD060686.D  
Acq: 21 Dec 2018 16:18

Instrument :  
MSVOA\_D  
ClientSampleId :  
R20-OS

Tot Ion:106 Resp: 14850  
Ion Ratio Lower Upper  
106 100  
91 195.8 101.5 304.5

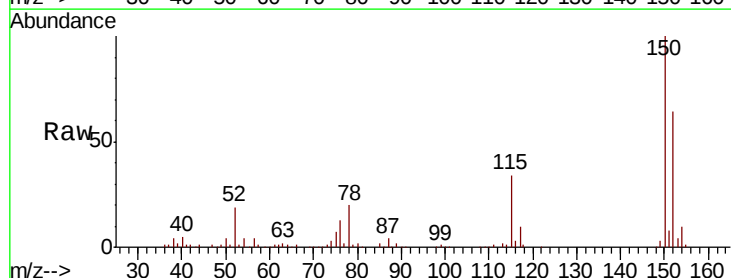


Abundance Ion 106.05 (105.75 to 106.75): V  
Ion 91.00 (90.70 to 91.70): V

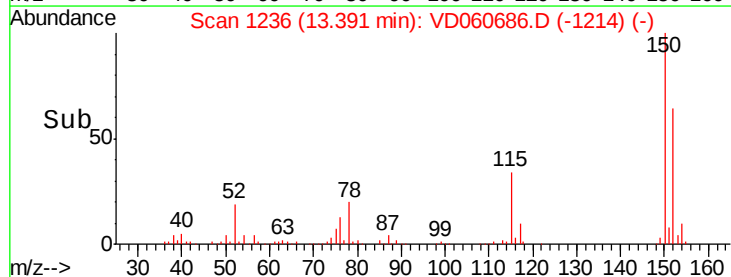
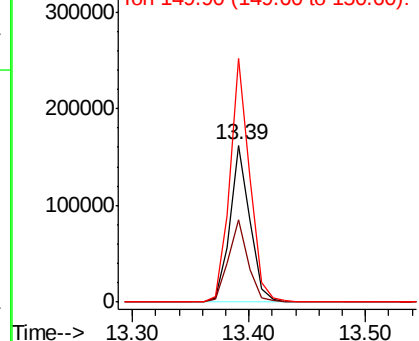


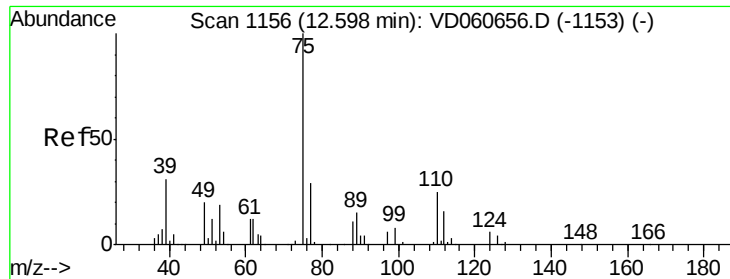
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.39 min Scan# 1236  
Delta R.T. 0.02 min  
Lab File: VD060686.D  
Acq: 21 Dec 2018 16:18

Tgt Ion:152 Resp: 191964  
Ion Ratio Lower Upper  
152 100  
115 52.4 24.1 72.3  
150 155.5 0.0 315.0



Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 115.00 (114.70 to 115.70): V  
Ion 149.90 (149.60 to 150.60): V





#76

1,2,3-Trichloropropane

Concen: 32.382 ug/l

RT: 12.45 min Scan# 1140

Delta R.T. -0.15 min

Lab File: VD060686.D

Acq: 21 Dec 2018 16:18

Instrument :

MSVOA\_D

ClientSampleId :

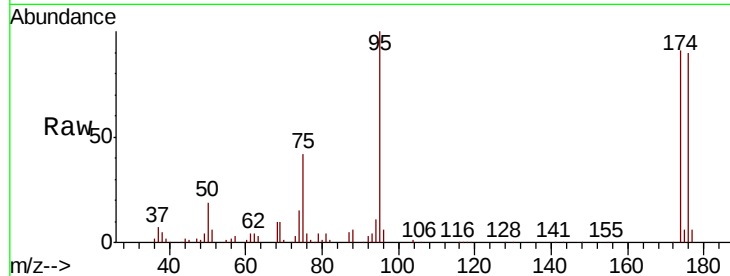
R20-OS

Tot Ion: 75 Resp: 70771

Ion Ratio Lower Upper

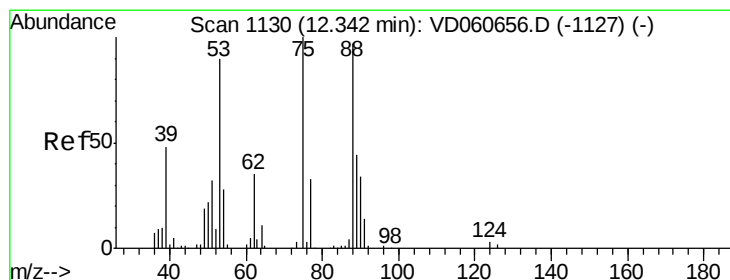
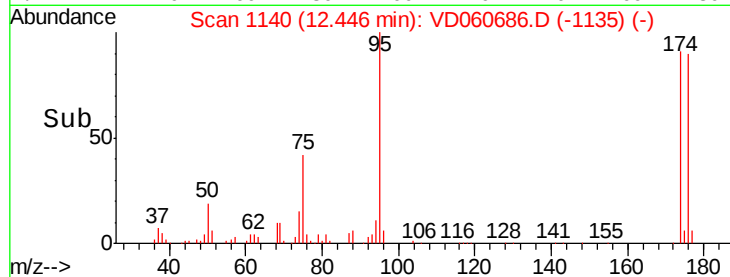
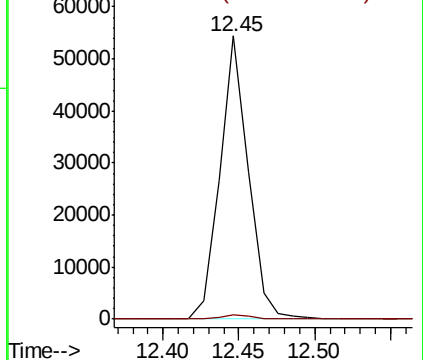
75 100

77 1.3 16.7 50.0#



Abundance Ion 75.00 (74.70 to 75.70): VDC

Ion 76.95 (76.65 to 77.65): VDC



#81

trans-1,4-Dichloro-2-butene

Concen: 117.190 ug/l

RT: 12.45 min Scan# 1140

Delta R.T. 0.10 min

Lab File: VD060686.D

Acq: 21 Dec 2018 16:18

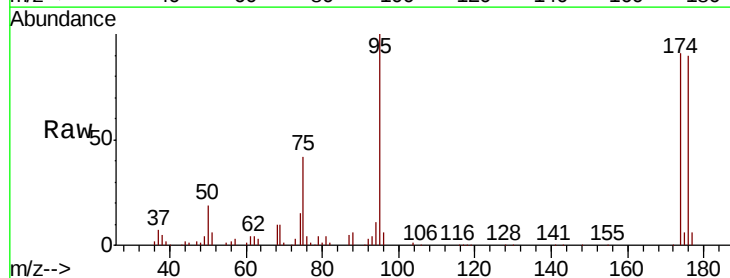
Tgt Ion: 75 Resp: 70771

Ion Ratio Lower Upper

75 100

53 0.0 72.1 108.1#

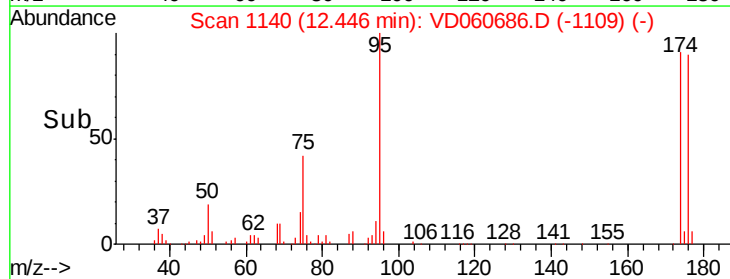
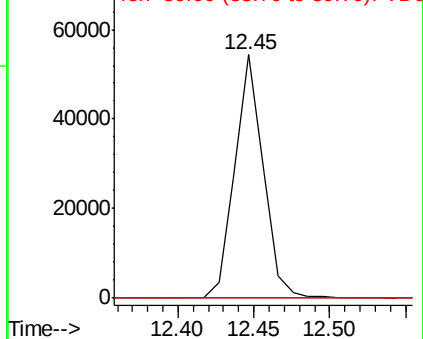
89 0.0 35.1 52.7#

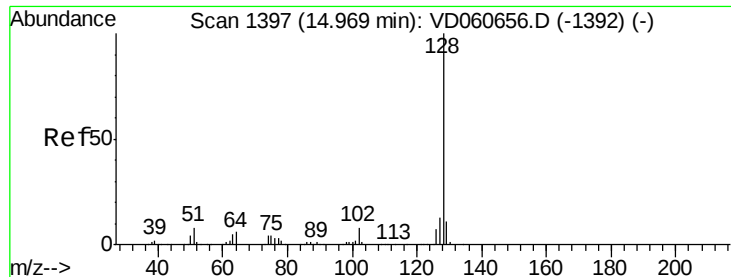


Abundance Ion 75.00 (74.70 to 75.70): VDC

Ion 53.00 (52.70 to 53.70): VDC

Ion 89.00 (88.70 to 89.70): VDC

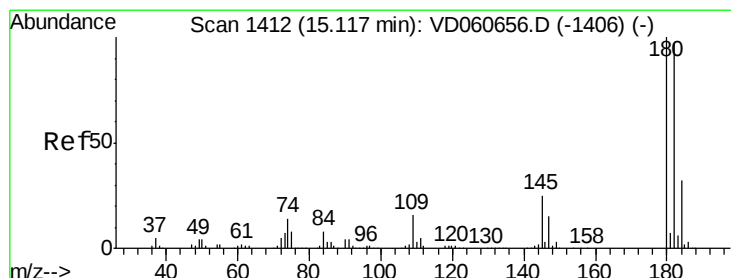
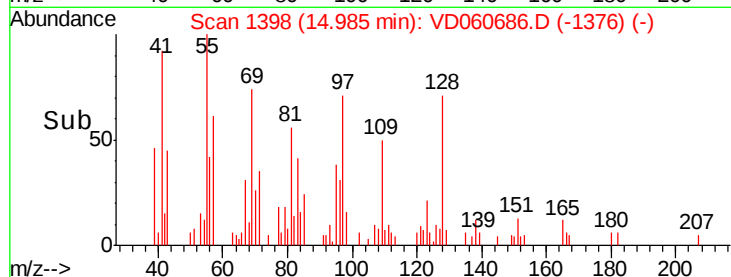
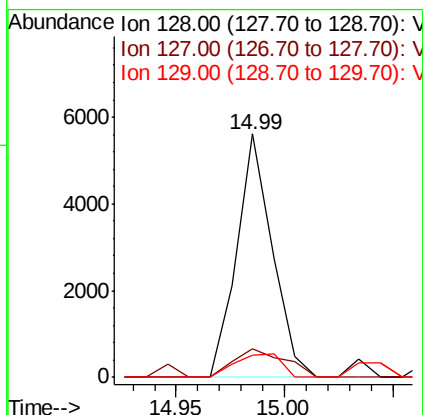
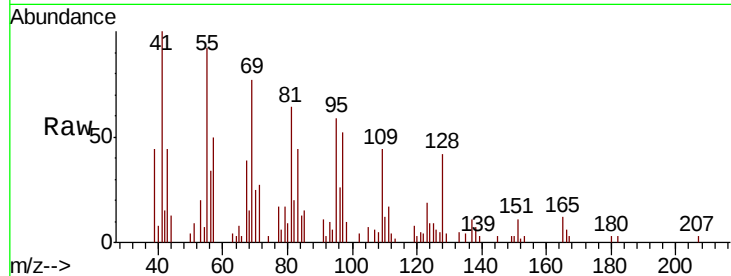




#95  
Naphthalene  
Concen: 1.282 ug/l  
RT: 14.99 min Scan# 1398  
Delta R.T. 0.02 min  
Lab File: VD060686.D  
Acq: 21 Dec 2018 16:18

Instrument :  
MSVOA\_D  
ClientSampleId :  
R20-OS

Tot Ion:128 Resp: 6440  
Ion Ratio Lower Upper  
128 100  
127 11.8 10.1 15.1  
129 9.3 8.6 13.0



#96  
1,2,3-Trichlorobenzene  
Concen: 1.166 ug/l  
RT: 15.11 min Scan# 1411  
Delta R.T. -0.00 min  
Lab File: VD060686.D  
Acq: 21 Dec 2018 16:18

Tgt Ion:180 Resp: 3853  
Ion Ratio Lower Upper  
180 100  
182 7.9 48.6 145.9#  
145 11.2 12.6 37.8#

