

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_F\DATA\VF121918\  
 Data File : VF061093.D  
 Acq On : 19 Dec 2018 19:05  
 Operator : VA/AP  
 Sample : J6464-04  
 Misc : 5.00g/5mL/MSVOA-F/SOIL  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VB16202

Quant Time: Dec 20 02:24:49 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F121918S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Dec 20 00:56:59 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.88  | 168  | 6900     | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.61  | 114  | 9763     | 50.00 | ug/l  | 0.02     |
| 63) Chlorobenzene-d5       | 9.78  | 117  | 5625     | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.56 | 152  | 1129     | 50.00 | ug/l  | 0.02     |

|                             |        |     |          |       |        |       |
|-----------------------------|--------|-----|----------|-------|--------|-------|
| System Monitoring Compounds |        |     |          |       |        |       |
| 33) 1,2-Dichloroethane-d4   | 4.85   | 65  | 1085     | 12.23 | ug/l   | 0.00  |
| Spiked Amount               | 50.000 |     | Recovery | =     | 24.46% |       |
| 35) Dibromofluoromethane    | 4.10   | 113 | 2188     | 27.98 | ug/l   | -0.01 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 55.96% |       |
| 50) Toluene-d8              | 7.56   | 98  | 6106     | 27.55 | ug/l   | 0.00  |
| Spiked Amount               | 50.000 |     | Recovery | =     | 55.10% |       |
| 62) 4-Bromofluorobenzene    | 11.41  | 95  | 1590     | 15.56 | ug/l   | 0.00  |
| Spiked Amount               | 50.000 |     | Recovery | =     | 31.12% |       |

| Target Compounds              |       |     |     |           |        | Qvalue |
|-------------------------------|-------|-----|-----|-----------|--------|--------|
| 3) Chloromethane              | 1.13  | 50  | 249 | 2.834     | ug/l # | 42     |
| 4) Vinyl Chloride             | 1.18  | 62  | 94  | 1.153     | ug/l # | 37     |
| 5) Bromomethane               | 1.33  | 94  | 231 | 4.086     | ug/l # | 3      |
| 6) Chloroethane               | 1.49  | 64  | 220 | 5.858     | ug/l # | 41     |
| 8) Diethyl Ether              | 1.46  | 74  | 105 | 4.927     | ug/l   | 67     |
| 11) Tert butyl alcohol        | 2.51  | 59  | 111 | 30.995    | ug/l # | 1      |
| 12) 1,1-Dichloroethene        | 1.76  | 96  | 299 | 4.916     | ug/l # | 1      |
| 13) Acrolein                  | 1.99  | 56  | 367 | 141.819   | ug/l   | 90     |
| 14) Allyl chloride            | 2.09  | 41  | 347 | 5.482     | ug/l # | 67     |
| 15) Acrylonitrile             | 2.95  | 53  | 546 | 65.932    | ug/l # | 37     |
| 16) Acetone                   | 2.25  | 43  | 560 | 31.565    | ug/l   | 98     |
| 18) Methyl Acetate            | 2.35  | 43  | 457 | 12.451    | ug/l # | 66     |
| 19) Methyl tert-butyl Ether   | 2.44  | 73  | 156 | 1.155     | ug/l # | 59     |
| 20) Methylene Chloride        | 2.32  | 84  | 71  | Below Cal | #      | 1      |
| 22) Diisopropyl ether         | 2.78  | 45  | 363 | 1.722     | ug/l # | 1      |
| 23) Vinyl Acetate             | 3.20  | 43  | 258 | 2.653     | ug/l # | 78     |
| 25) 2-Butanone                | 4.37  | 43  | 174 | 6.047     | ug/l # | 57     |
| 27) cis-1,2-Dichloroethene    | 3.43  | 96  | 139 | 1.396     | ug/l   | 1      |
| 29) Tetrahydrofuran           | 4.06  | 42  | 98  | 8.368     | ug/l # | 37     |
| 31) Cyclohexane               | 3.70  | 56  | 149 | 1.149     | ug/l # | 13     |
| 37) Ethyl Acetate             | 4.12  | 43  | 166 | 2.971     | ug/l # | 21     |
| 41) Methacrylonitrile         | 4.78  | 41  | 244 | 9.804     | ug/l # | 27     |
| 43) Isopropyl Acetate         | 6.97  | 43  | 249 | 4.376     | ug/l # | 45     |
| 45) 1,2-Dichloropropane       | 6.29  | 63  | 137 | 1.987     | ug/l # | 44     |
| 48) Methyl methacrylate       | 6.73  | 41  | 65  | 1.636     | ug/l # | 9      |
| 51) 4-Methyl-2-Pentanone      | 8.27  | 43  | 112 | 2.870     | ug/l # | 38     |
| 52) Toluene                   | 7.62  | 92  | 252 | 1.502     | ug/l   | 87     |
| 55) 1,1,2-Trichloroethane     | 8.55  | 97  | 67  | 1.332     | ug/l # | 12     |
| 56) Ethyl methacrylate        | 8.60  | 69  | 69  | 1.268     | ug/l # | 1      |
| 58) 2-Chloroethyl Vinyl ether | 7.35  | 63  | 79  | 7.559     | ug/l # | 50     |
| 59) 2-Hexanone                | 9.54  | 43  | 172 | 6.095     | ug/l # | 27     |
| 61) 1,2-Dibromoethane         | 9.01  | 107 | 60  | 1.117     | ug/l # | 4      |
| 74) N-amyl acetate            | 11.35 | 43  | 308 | 14.259    | ug/l # | 46     |
| 75) 1,1,2,2-Tetrachloroethane | 11.82 | 83  | 63  | 3.902     | ug/l # | 23     |

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Quant Title : SW846 8260  
QLast Update : Thu Dec 20 00:56:59 2018  
Response via : Initial Calibration

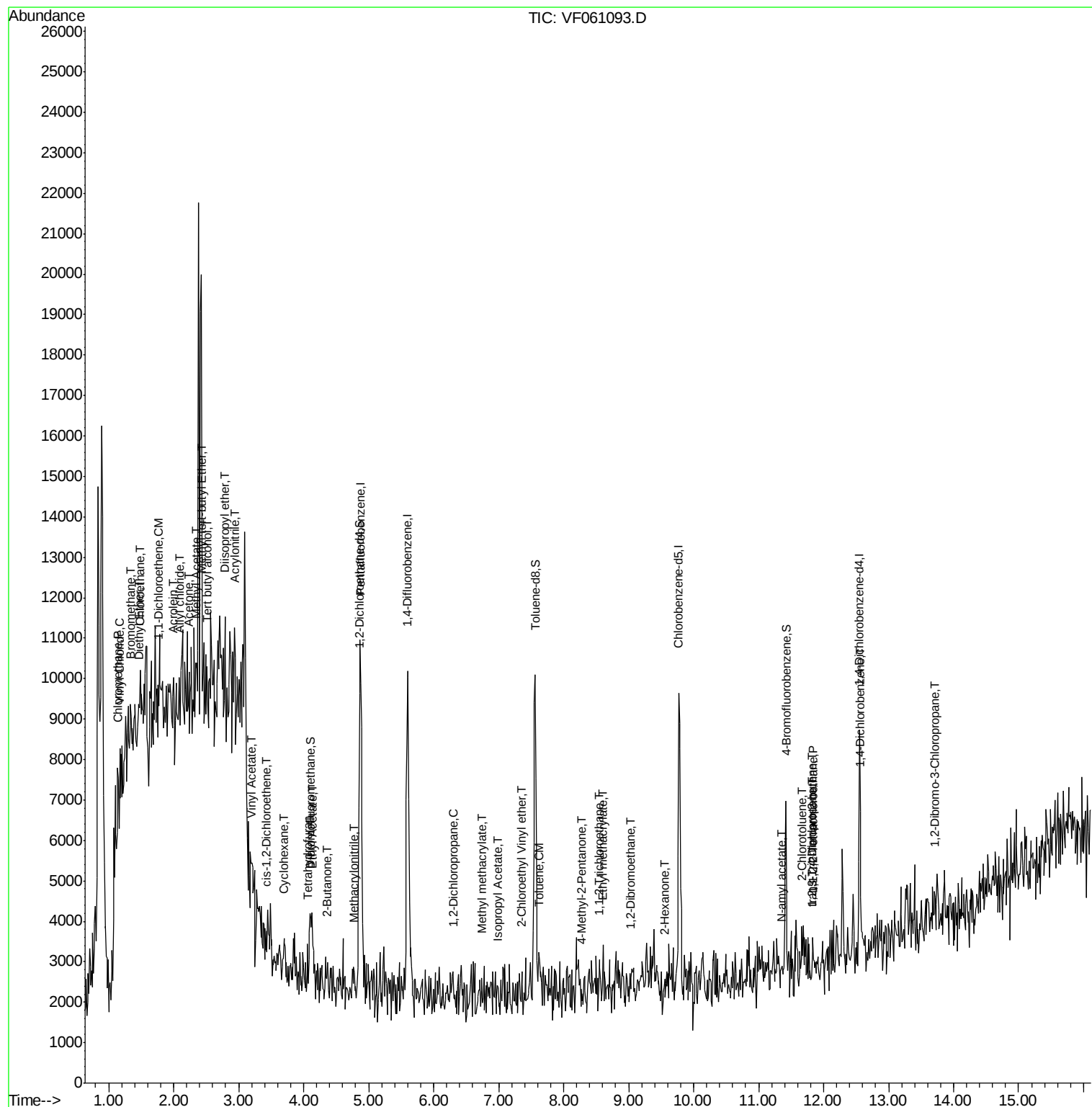
| Internal Standards             | R.T.  | QIon | Response | Conc      | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-----------|--------|----------|
| 76) 1,2,3-Trichloropropane     | 11.81 | 75   | 62       | 5.159     | ug/l # | 39       |
| 79) 2-Chlorotoluene            | 11.66 | 91   | 137      | 2.053     | ug/l # | 42       |
| 81) trans-1,4-Dichloro-2-buten | 11.81 | 75   | 62       | 12.007    | ug/l # | 11       |
| 87) 1,3-Dichlorobenzene        | 12.57 | 146  | 63       | Below Cal | #      | 25       |
| 88) 1,4-Dichlorobenzene        | 12.57 | 146  | 63       | 1.638     | ug/l # | 25       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.71 | 75   | 70       | 23.624    | ug/l # | 2        |

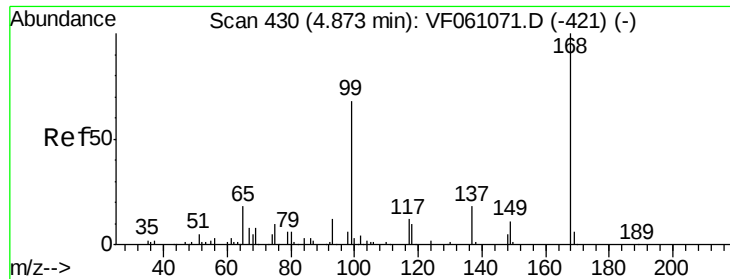
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.88 min Scan# 431

Delta R.T. 0.01 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :

MSVOA\_F

ClientSampleId :

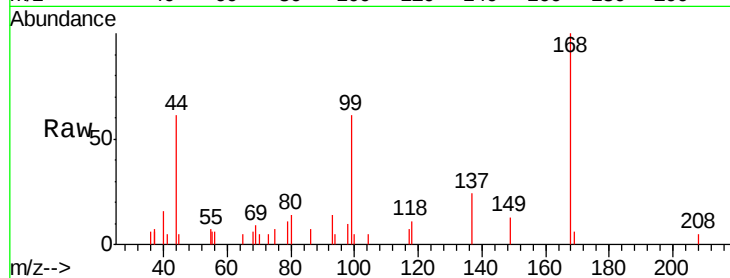
VB16202

Tgt Ion:168 Resp: 6900

Ion Ratio Lower Upper

168 100

99 60.9 54.4 81.6



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

4.88

2500

2000

1500

1000

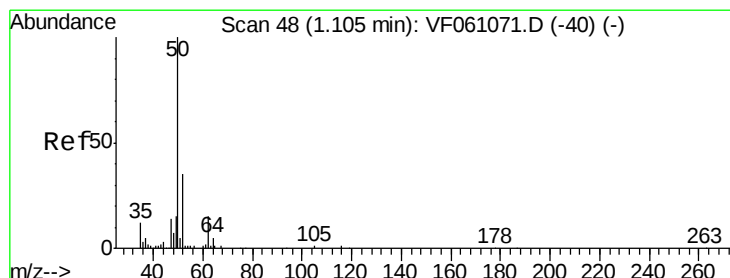
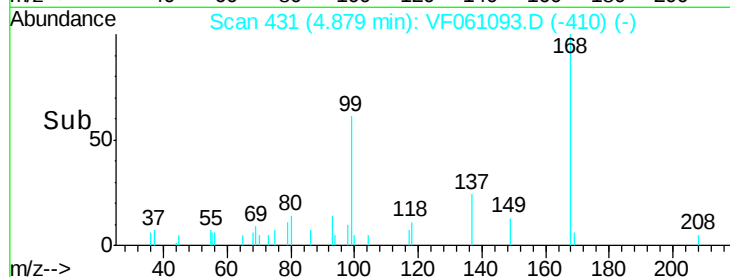
500

0

4.80

4.90

Time-->



#3

Chloromethane

Concen: 2.834 ug/l

RT: 1.13 min Scan# 51

Delta R.T. 0.03 min

Lab File: VF061093.D

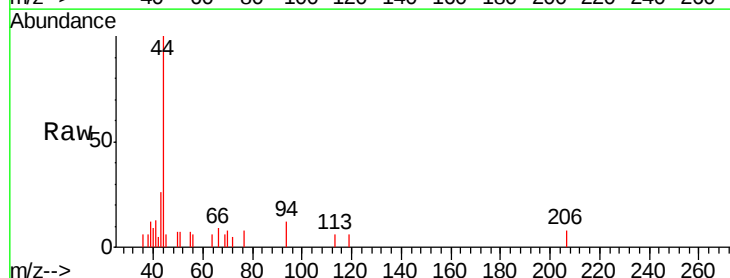
Acq: 19 Dec 2018 19:05

Tgt Ion: 50 Resp: 249

Ion Ratio Lower Upper

50 100

52 0.0 26.3 39.5#



Abundance Ion 50.00 (49.70 to 50.70): VF0

Ion 52.00 (51.70 to 52.70): VF0

300

250

200

150

100

50

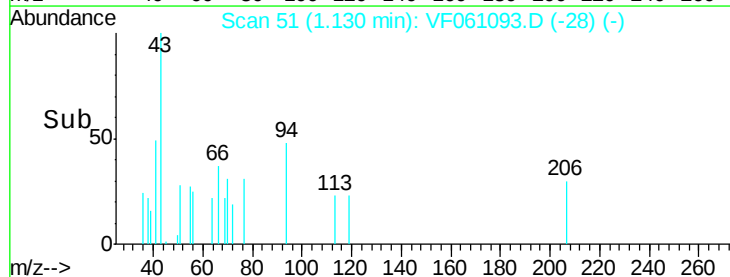
0

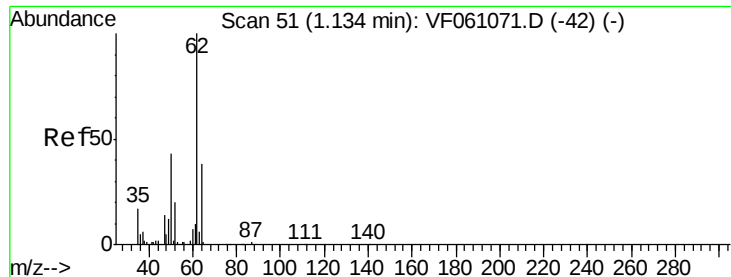
1.05

1.10

1.15

Time-->





#4

Vinyl Chloride

Concen: 1.153 ug/l

RT: 1.18 min Scan# 56

Delta R.T. 0.05 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :

MSVOA\_F

ClientSampleId :

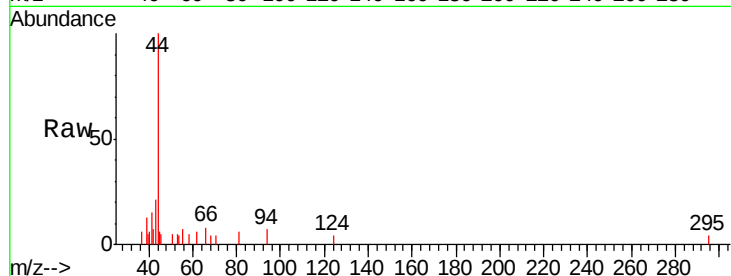
VB16202

Tgt Ion: 62 Resp: 94

Ion Ratio Lower Upper

62 100

64 0.0 30.4 45.6#



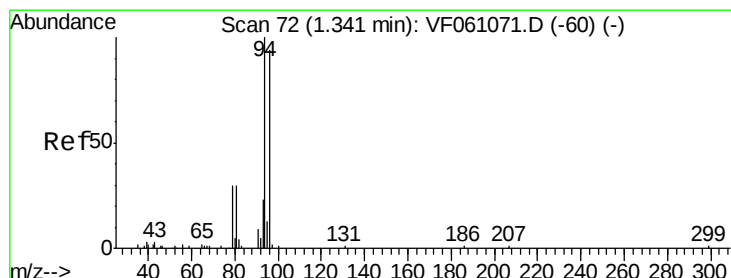
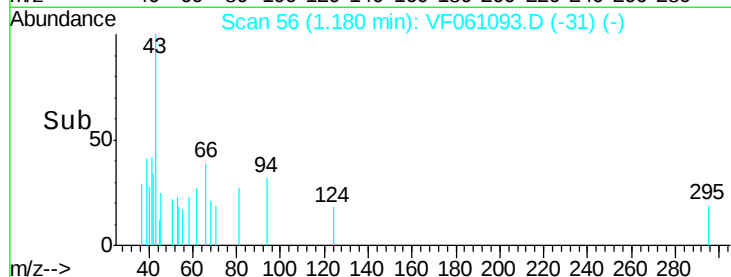
Abundance Ion 62.00 (61.70 to 62.70): VF0

Ion 64.00 (63.70 to 64.70): VF0

1.18

1.16 1.18 1.20

Time-->



#5

Bromomethane

Concen: 4.086 ug/l

RT: 1.33 min Scan# 71

Delta R.T. -0.01 min

Lab File: VF061093.D

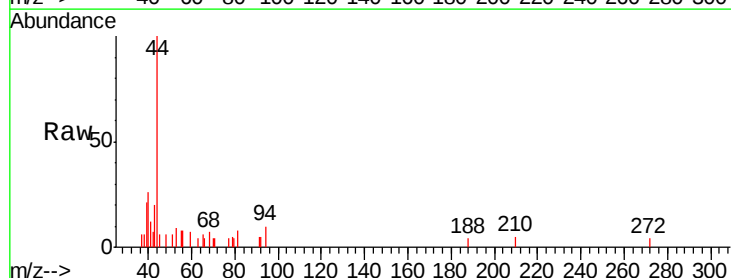
Acq: 19 Dec 2018 19:05

Tgt Ion: 94 Resp: 231

Ion Ratio Lower Upper

94 100

96 0.0 74.4 111.6#



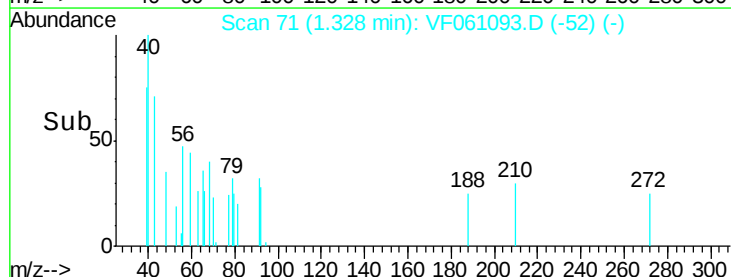
Abundance Ion 94.00 (93.70 to 94.70): VF0

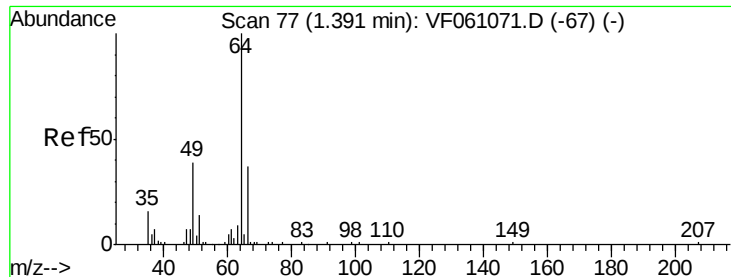
Ion 96.00 (95.70 to 96.70): VF0

1.33

1.30 1.32 1.34

Time-->





#6

Chloroethane

Concen: 5.858 ug/l

RT: 1.49 min Scan# 87

Delta R.T. 0.09 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :

MSVOA\_F

ClientSampleId :

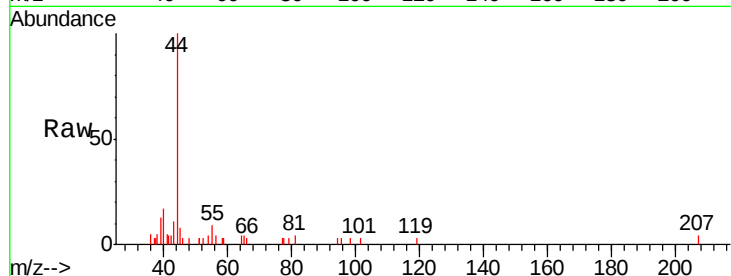
VB16202

Tgt Ion: 64 Resp: 220

Ion Ratio Lower Upper

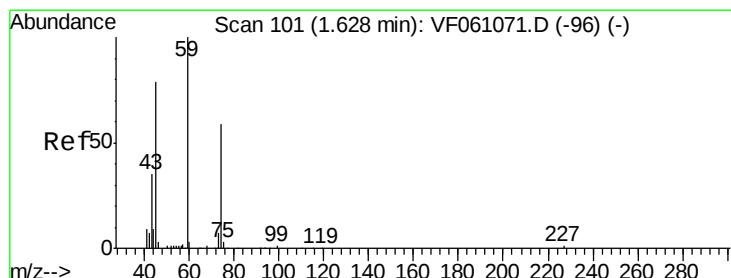
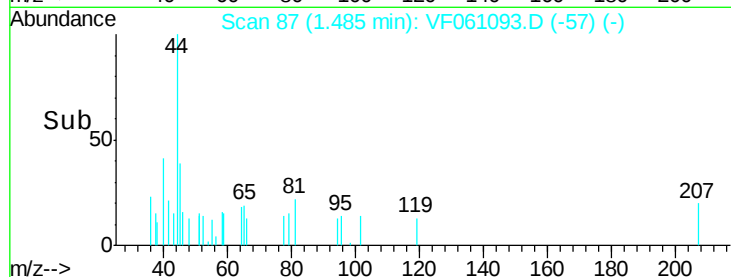
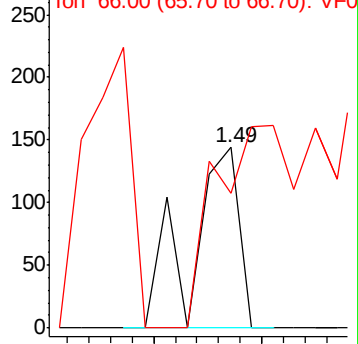
64 100

66 74.3 30.9 46.3#



Abundance Ion 64.00 (63.70 to 64.70): VF0

Ion 66.00 (65.70 to 66.70): VF0



#8

Diethyl Ether

Concen: 4.927 ug/l

RT: 1.46 min Scan# 84

Delta R.T. -0.17 min

Lab File: VF061093.D

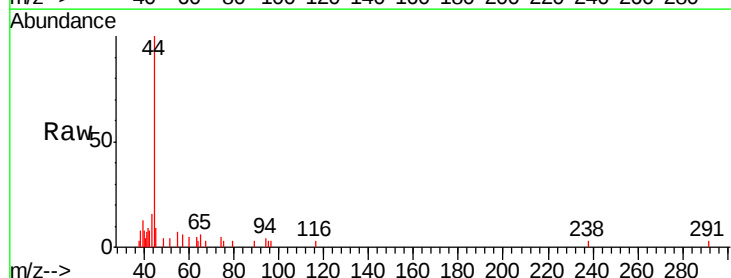
Acq: 19 Dec 2018 19:05

Tgt Ion: 74 Resp: 105

Ion Ratio Lower Upper

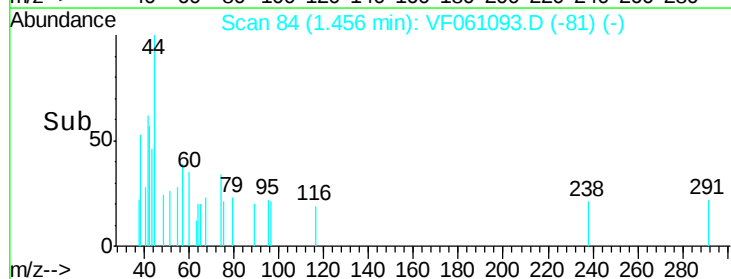
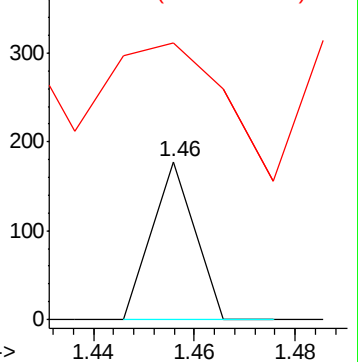
74 100

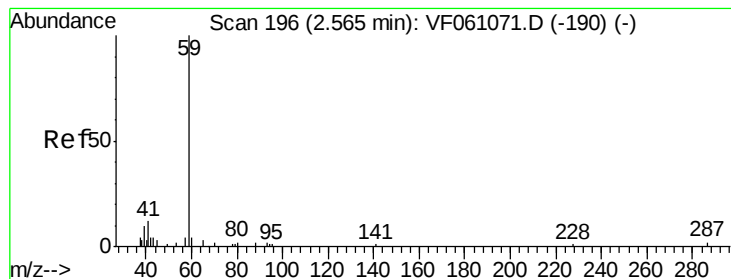
45 174.7 67.8 203.4



Abundance Ion 74.00 (73.70 to 74.70): VF0

Ion 45.00 (44.70 to 45.70): VF0





#11

Tert butyl alcohol

Concen: 30.995 ug/l

RT: 2.51 min Scan# 191

Delta R.T. -0.05 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :

MSVOA\_F

ClientSampleId :

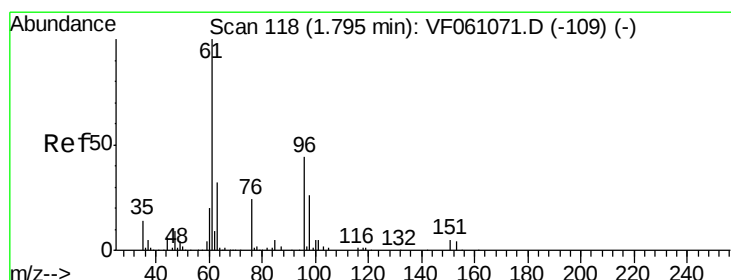
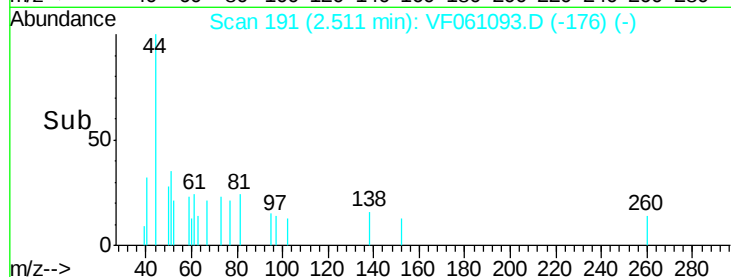
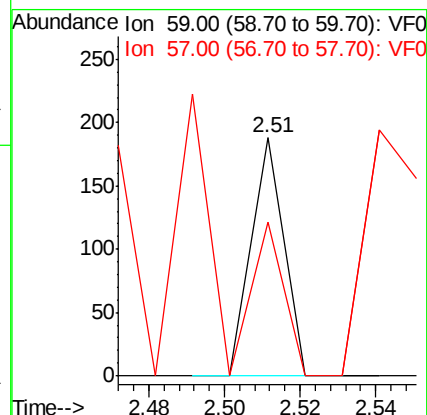
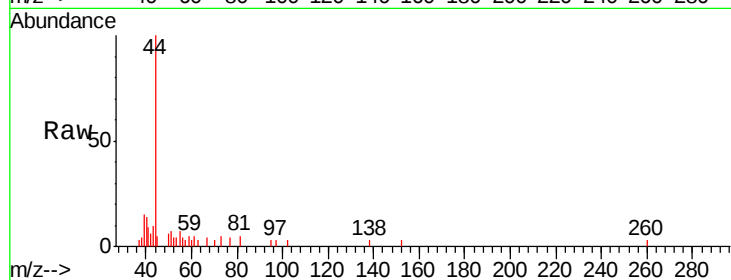
VB16202

Tgt Ion: 59 Resp: 111

Ion Ratio Lower Upper

59 100

57 64.4 11.5 17.3#



#12

1,1-Dichloroethene

Concen: 4.916 ug/l

RT: 1.76 min Scan# 115

Delta R.T. -0.03 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

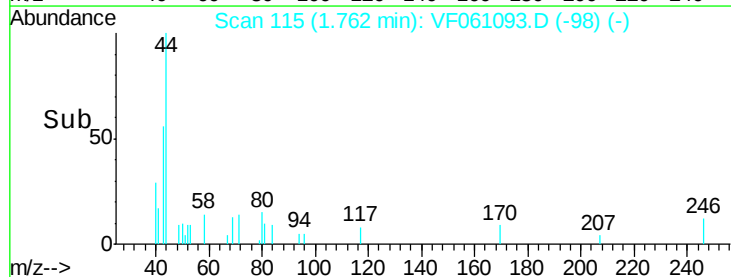
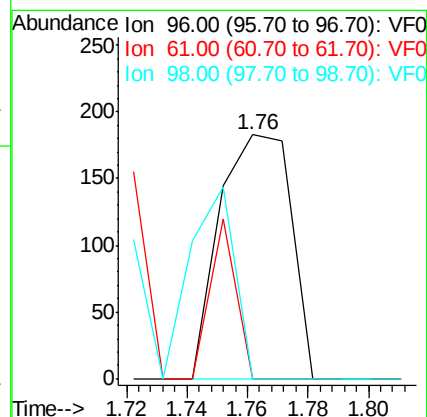
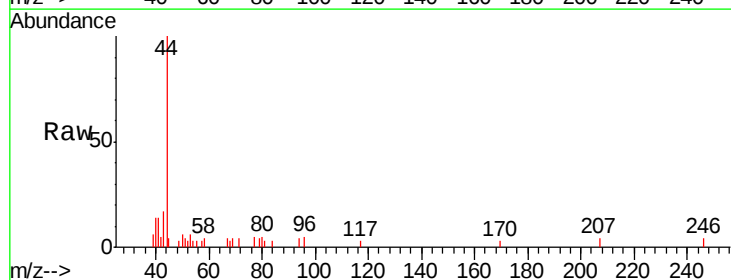
Tgt Ion: 96 Resp: 299

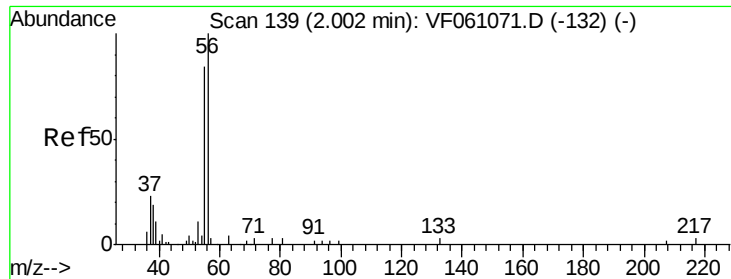
Ion Ratio Lower Upper

96 100

61 0.0 182.0 273.0#

98 0.0 46.5 69.7#





#13

Acrolein

Concen: 141.819 ug/l

RT: 1.99 min Scan# 138

Delta R.T. -0.01 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :

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ClientSampleId :

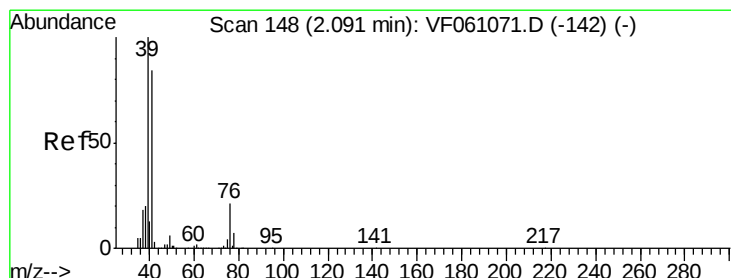
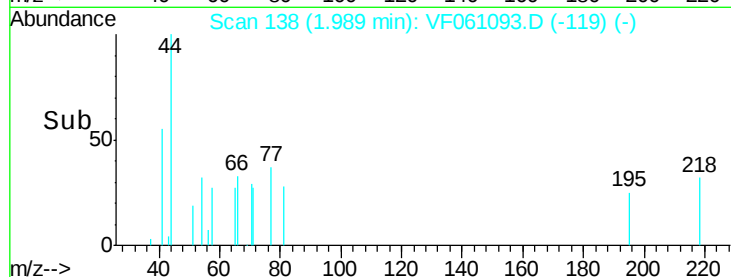
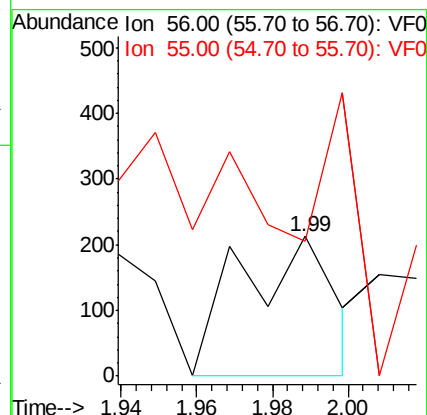
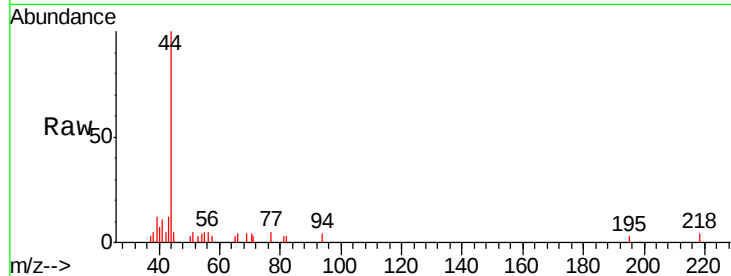
VB16202

Tgt Ion: 56 Resp: 367

Ion Ratio Lower Upper

56 100

55 96.7 70.2 105.2



#14

Allyl chloride

Concen: 5.482 ug/l

RT: 2.09 min Scan# 148

Delta R.T. -0.00 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

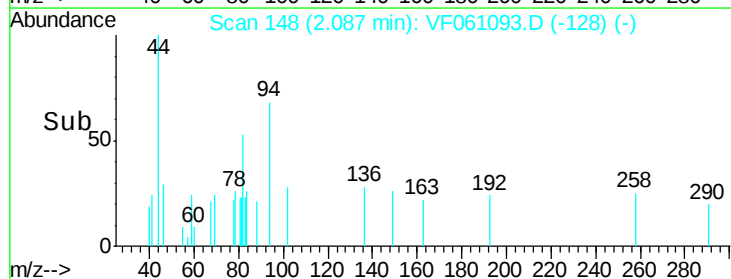
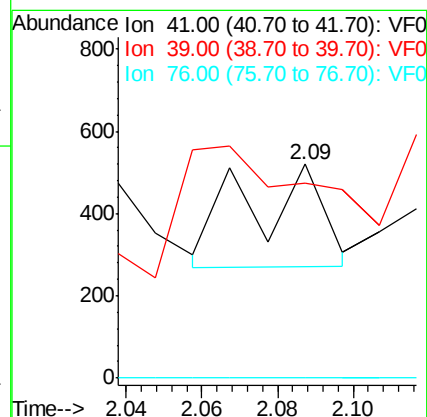
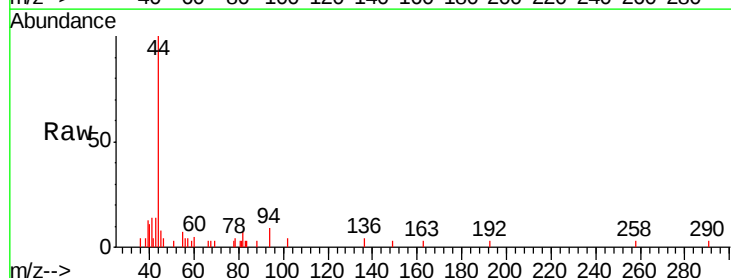
Tgt Ion: 41 Resp: 347

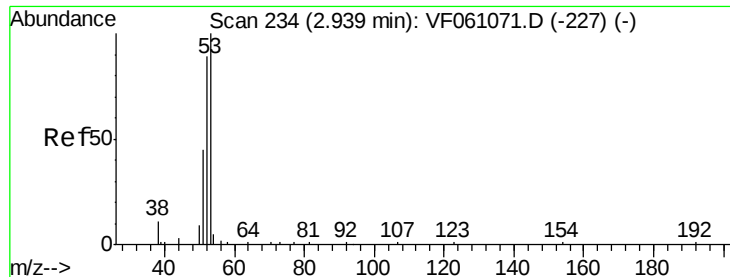
Ion Ratio Lower Upper

41 100

39 91.2 96.4 144.6#

76 0.0 25.4 38.0#





#15

Acrylonitrile

Concen: 65.932 ug/l

RT: 2.95 min Scan# 235

Delta R.T. 0.01 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

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ClientSampleId :

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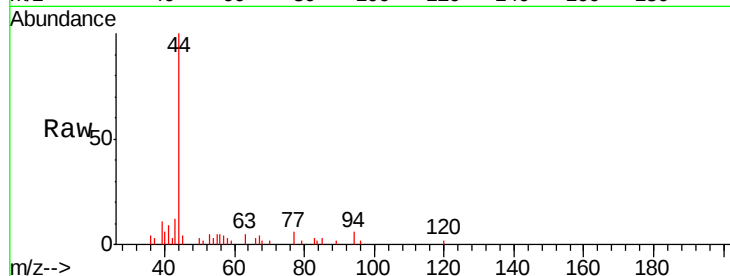
Tgt Ion: 53 Resp: 546

Ion Ratio Lower Upper

53 100

52 0.0 71.3 106.9#

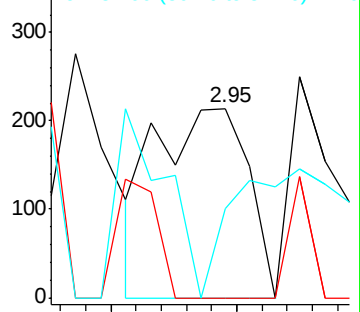
51 46.7 36.8 55.2



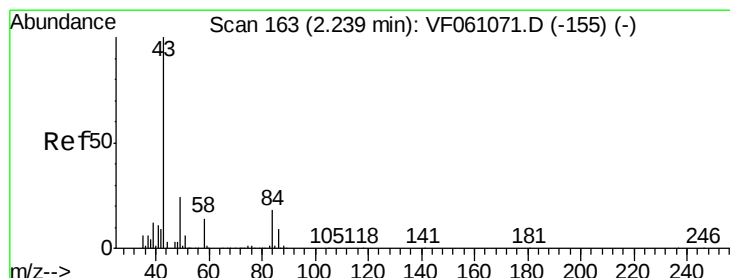
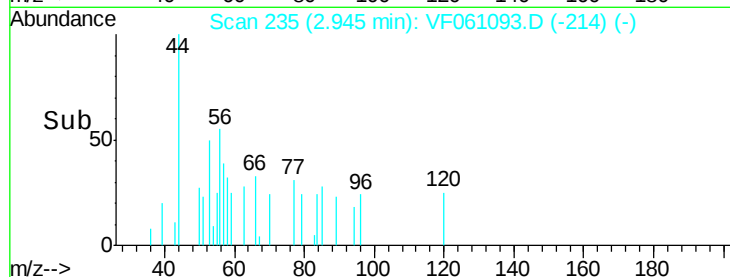
Abundance Ion 53.00 (52.70 to 53.70): VF0

Ion 52.00 (51.70 to 52.70): VF0

Ion 51.00 (50.70 to 51.70): VF0



Time-->



#16

Acetone

Concen: 31.565 ug/l

RT: 2.25 min Scan# 164

Delta R.T. 0.01 min

Lab File: VF061093.D

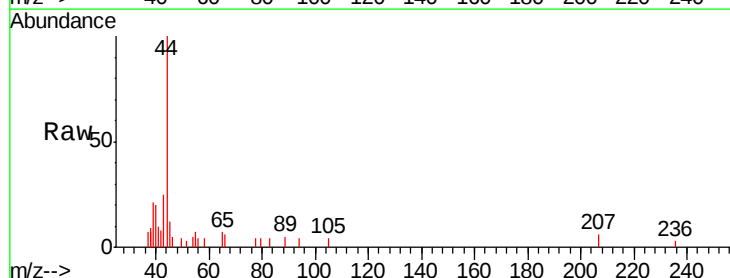
Acq: 19 Dec 2018 19:05

Tgt Ion: 43 Resp: 560

Ion Ratio Lower Upper

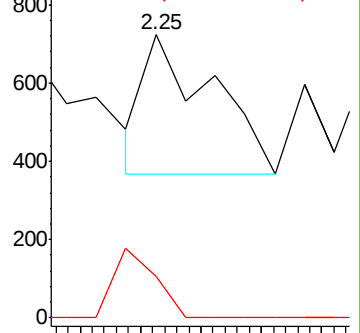
43 100

58 14.8 11.1 16.7

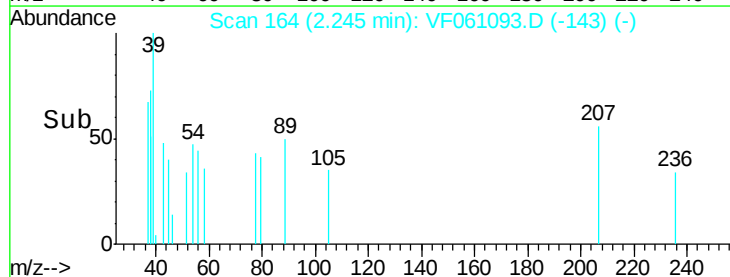


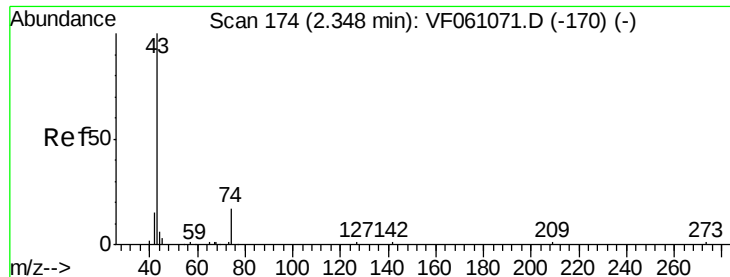
Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



Time-->

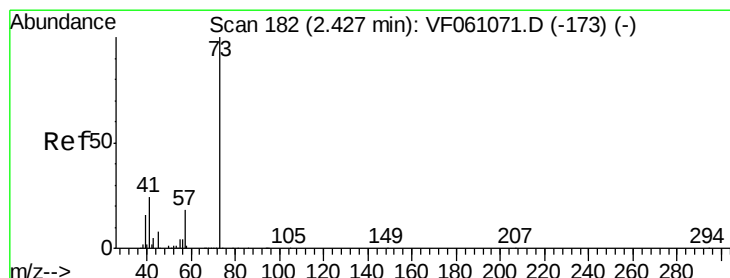
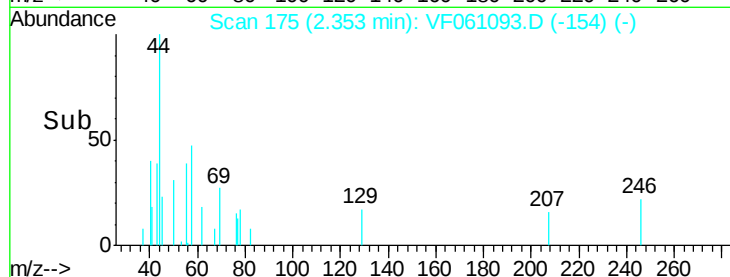
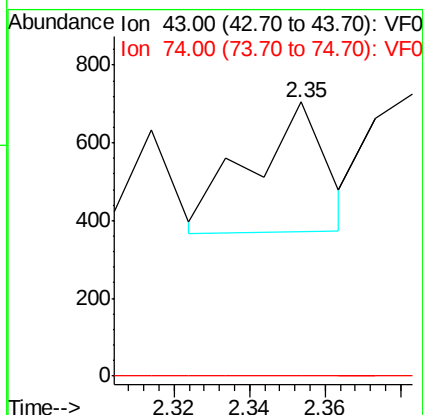
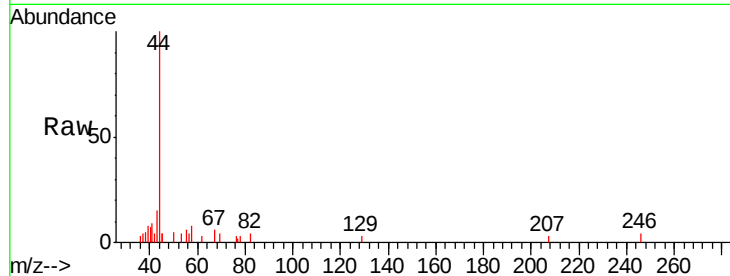




#18  
Methyl Acetate  
Concen: 12.451 ug/l  
RT: 2.35 min Scan# 175  
Delta R.T. 0.01 min  
Lab File: VF061093.D  
Acq: 19 Dec 2018 19:05

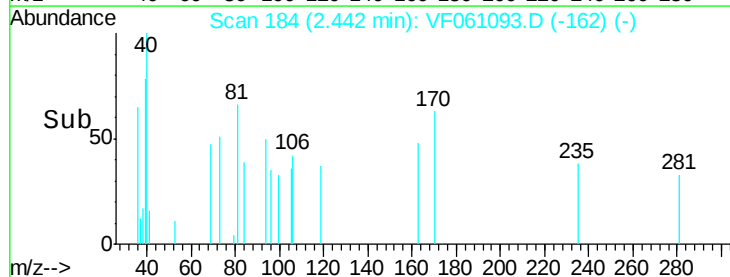
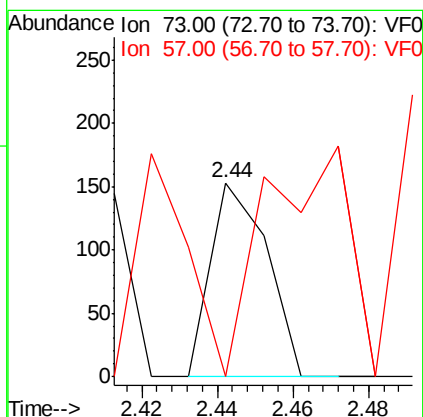
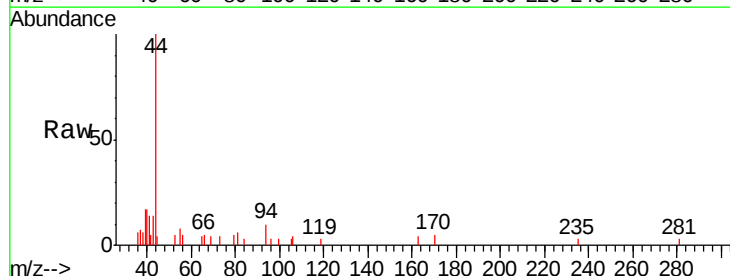
Instrument :  
MSVOA\_F  
ClientSampleId :  
VB16202

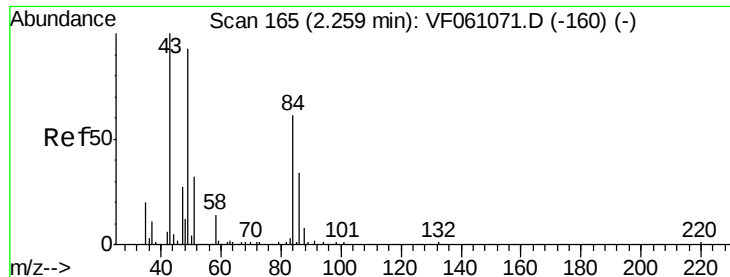
Tgt Ion: 43 Resp: 457  
Ion Ratio Lower Upper  
43 100  
74 0.0 11.0 16.6#



#19  
Methyl tert-butyl Ether  
Concen: 1.155 ug/l  
RT: 2.44 min Scan# 184  
Delta R.T. 0.02 min  
Lab File: VF061093.D  
Acq: 19 Dec 2018 19:05

Tgt Ion: 73 Resp: 156  
Ion Ratio Lower Upper  
73 100  
57 0.0 14.5 21.7#





#20

Methylene Chloride

Concen: Below Cal

RT: 2.32 min Scan# 172

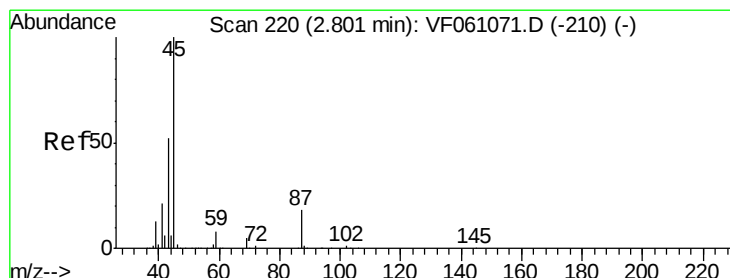
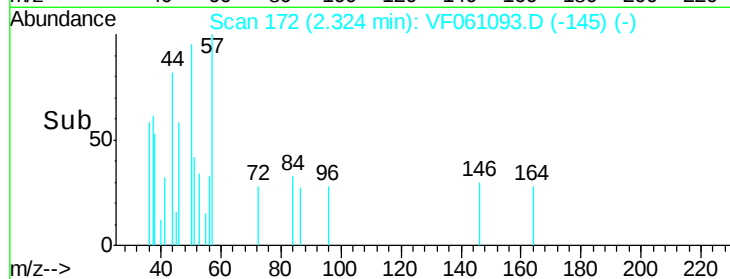
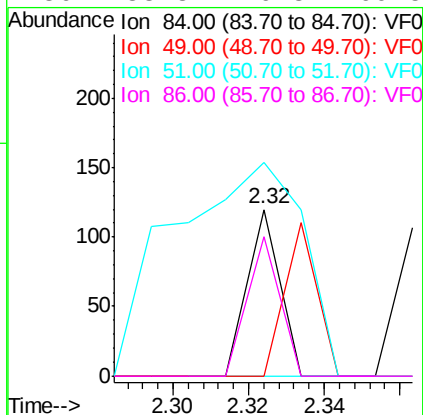
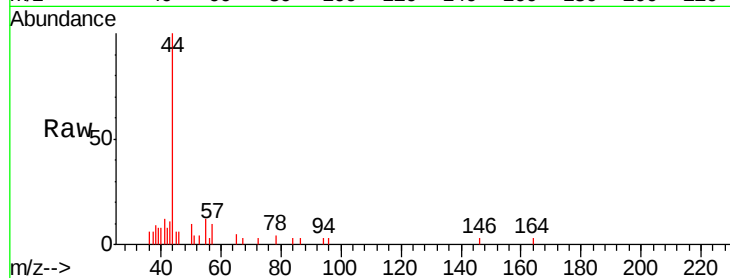
Delta R.T. 0.07 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :  
MSVOA\_F  
ClientSampleId :  
VB16202

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 84    | Resp: | 71     |
| Ion      | Ratio | Lower | Upper  |
| 84       | 100   |       |        |
| 49       | 0.0   | 129.4 | 194.2# |
| 51       | 128.3 | 44.0  | 66.0#  |
| 86       | 83.3  | 46.3  | 69.5#  |



#22

Diisopropyl ether

Concen: 1.722 ug/l

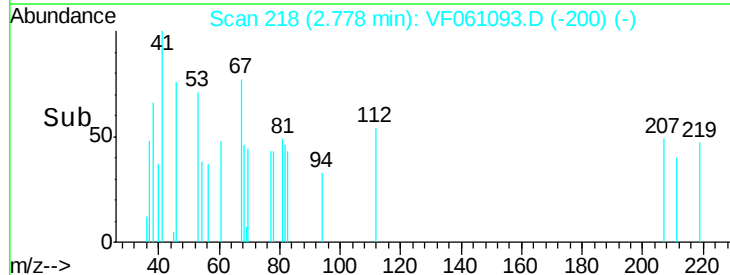
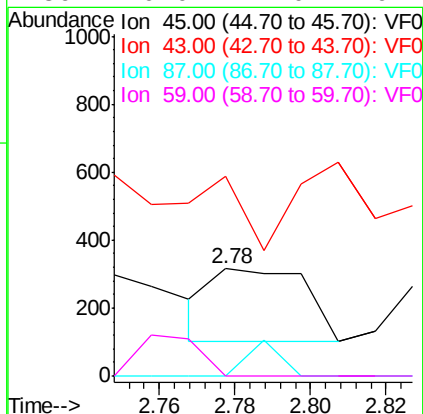
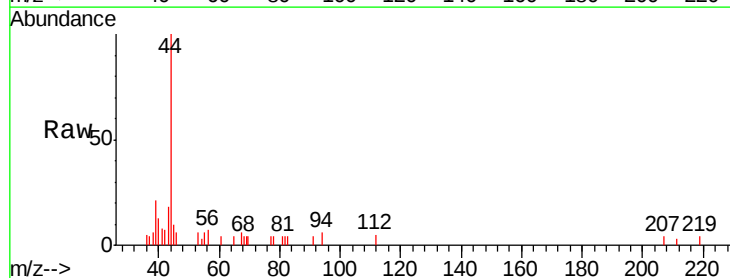
RT: 2.78 min Scan# 218

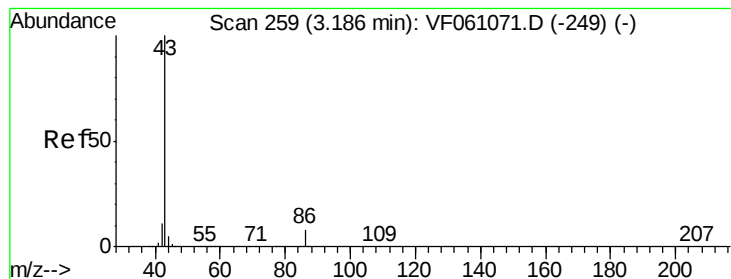
Delta R.T. -0.02 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 45    | Resp: | 363   |
| Ion      | Ratio | Lower | Upper |
| 45       | 100   |       |       |
| 43       | 186.0 | 42.2  | 63.2# |
| 87       | 0.0   | 14.6  | 22.0# |
| 59       | 0.0   | 7.0   | 10.4# |





#23

Vinyl Acetate

Concen: 2.653 ug/l

RT: 3.20 min Scan# 261

Delta R.T. 0.02 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :

MSVOA\_F

ClientSampleId :

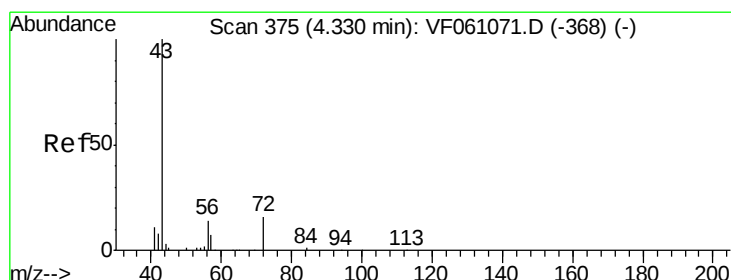
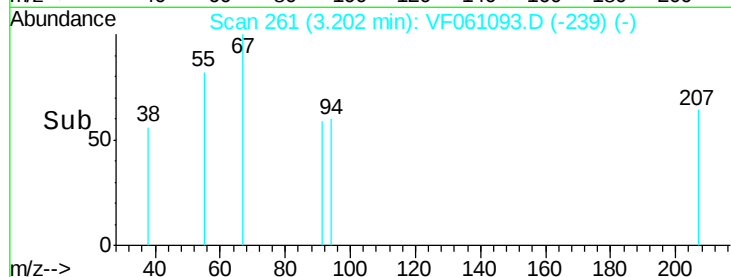
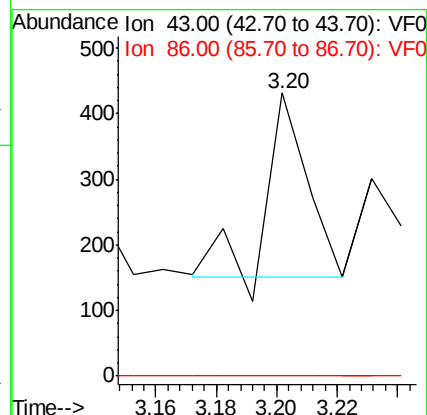
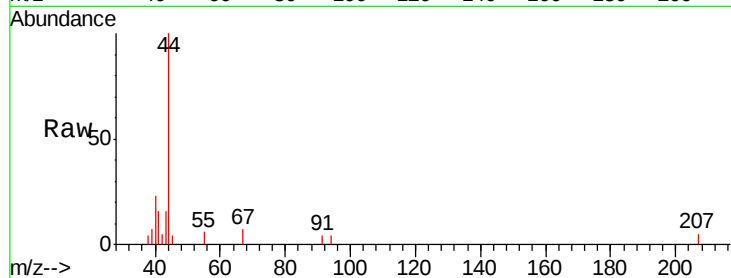
VB16202

Tgt Ion: 43 Resp: 258

Ion Ratio Lower Upper

43 100

86 0.0 6.3 9.5#



#25

2-Butanone

Concen: 6.047 ug/l

RT: 4.37 min Scan# 379

Delta R.T. 0.04 min

Lab File: VF061093.D

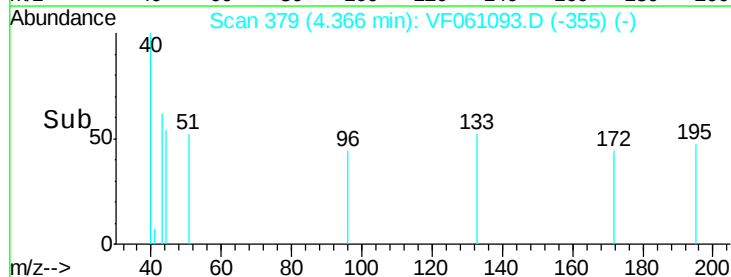
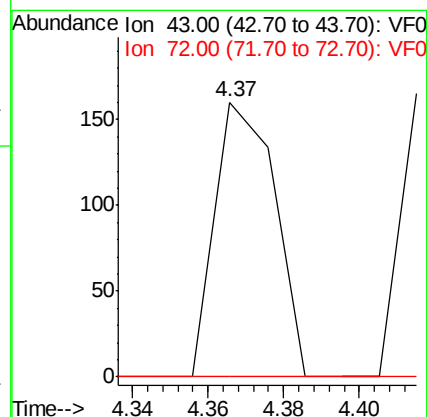
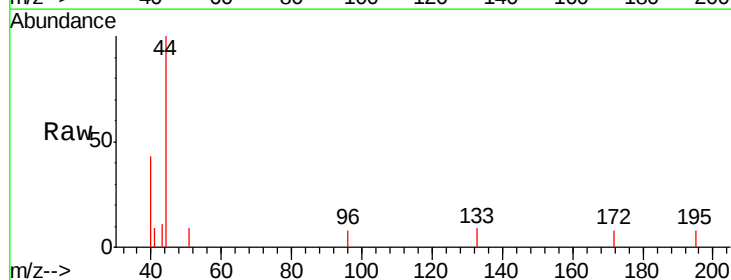
Acq: 19 Dec 2018 19:05

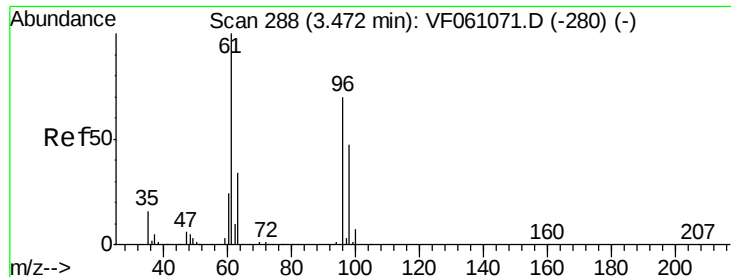
Tgt Ion: 43 Resp: 174

Ion Ratio Lower Upper

43 100

72 0.0 15.6 23.4#



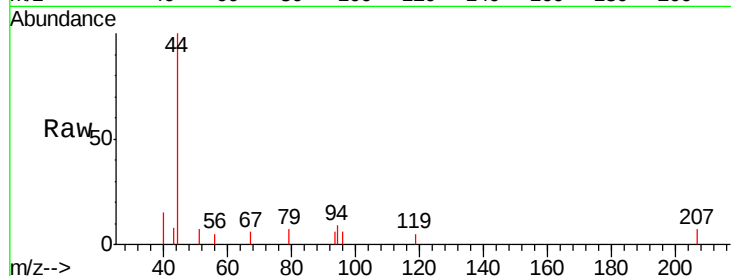


#27

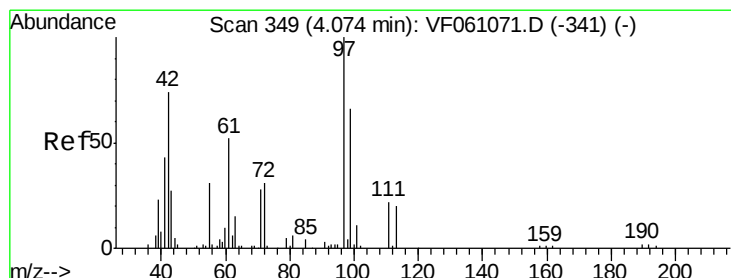
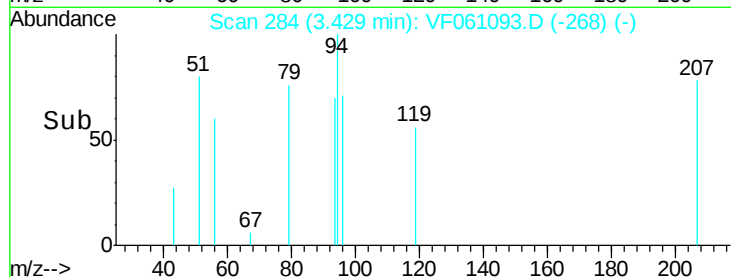
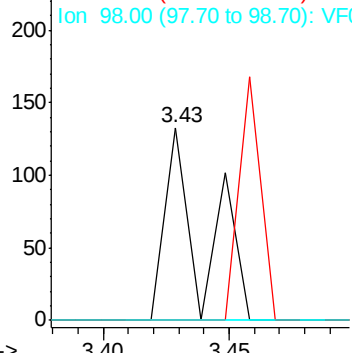
cis-1,2-Dichloroethene  
Concen: 1.396 ug/l  
RT: 3.43 min Scan# 284  
Delta R.T. -0.04 min  
Lab File: VF061093.D  
Acq: 19 Dec 2018 19:05

Instrument :  
MSVOA\_F  
ClientSampleId :  
VB16202

Tgt Ion: 96 Resp: 139  
Ion Ratio Lower Upper  
96 100  
61 0.0 0.0 287.8  
98 0.0 0.0 134.2



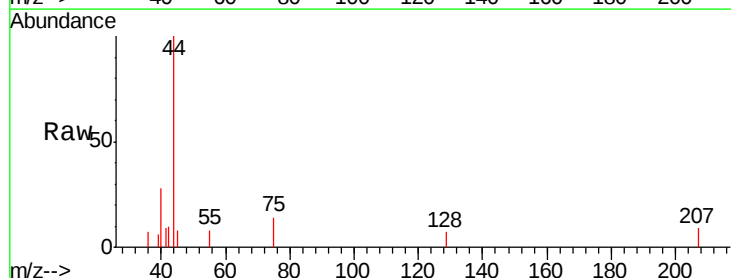
Abundance Ion 96.00 (95.70 to 96.70): VF0  
Ion 61.00 (60.70 to 61.70): VF0  
Ion 98.00 (97.70 to 98.70): VF0



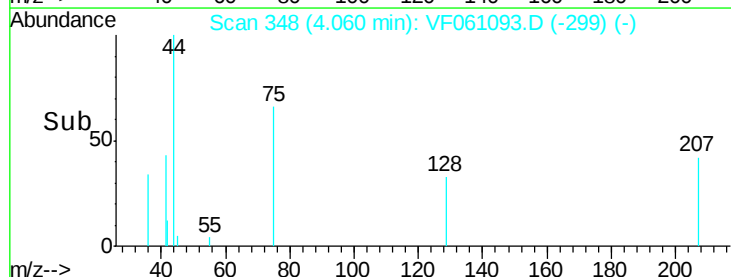
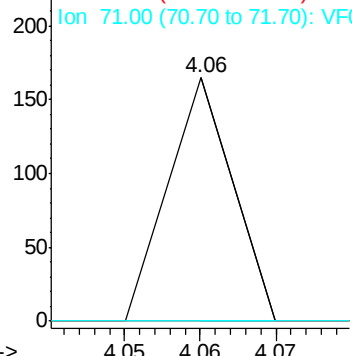
#29

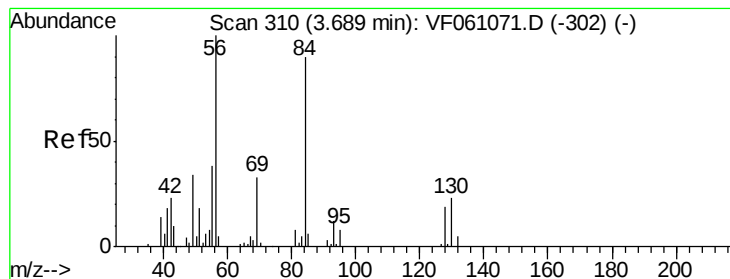
Tetrahydrofuran  
Concen: 8.368 ug/l  
RT: 4.06 min Scan# 348  
Delta R.T. -0.01 min  
Lab File: VF061093.D  
Acq: 19 Dec 2018 19:05

Tgt Ion: 42 Resp: 98  
Ion Ratio Lower Upper  
42 100  
72 0.0 31.8 47.8#  
71 0.0 29.7 44.5#



Abundance Ion 42.00 (41.70 to 42.70): VF0  
Ion 72.00 (71.70 to 72.70): VF0  
Ion 71.00 (70.70 to 71.70): VF0





#31

Cyclohexane

Concen: 1.149 ug/l

RT: 3.70 min Scan# 312

Delta R.T. 0.02 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :

MSVOA\_F

ClientSampleId :

VB16202

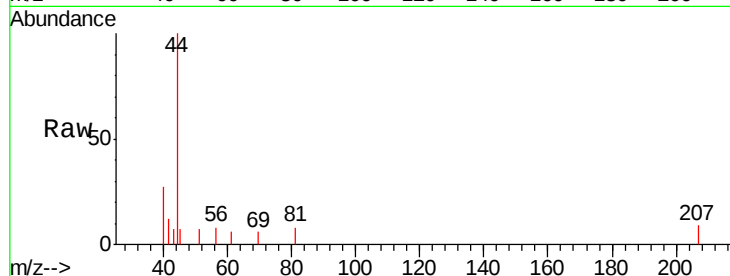
Tgt Ion: 56 Resp: 149

Ion Ratio Lower Upper

56 100

69 68.7 26.0 39.0#

84 0.0 71.4 107.2#



Abundance Ion 56.00 (55.70 to 56.70): VF0

Ion 69.00 (68.70 to 69.70): VF0

Ion 84.00 (83.70 to 84.70): VF0

200

150

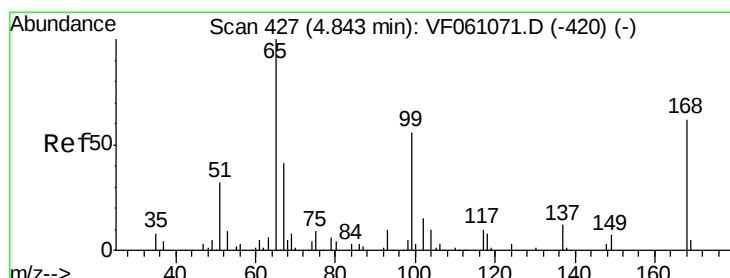
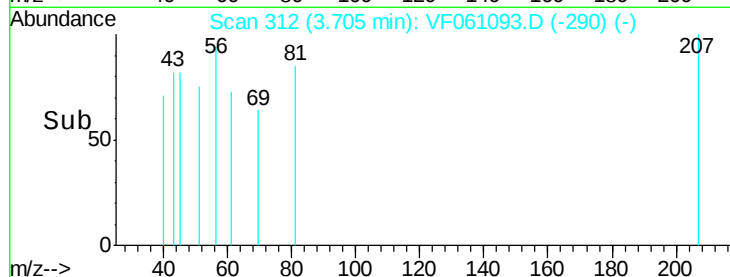
100

50

0

3.66 3.68 3.70 3.72 3.74

Time-->



#33

1,2-Dichloroethane-d4

Concen: 12.226 ug/l

RT: 4.85 min Scan# 428

Delta R.T. 0.01 min

Lab File: VF061093.D

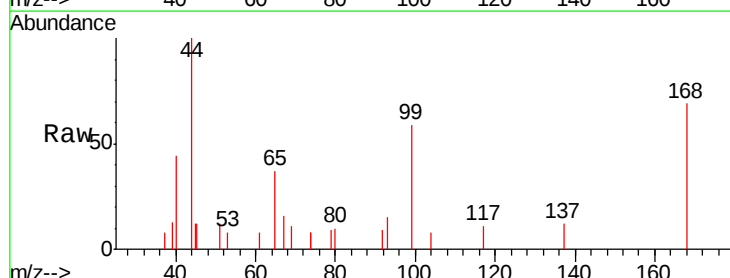
Acq: 19 Dec 2018 19:05

Tgt Ion: 65 Resp: 1085

Ion Ratio Lower Upper

65 100

67 44.7 0.0 94.6



Abundance Ion 65.00 (64.70 to 65.70): VF0

Ion 67.00 (66.70 to 67.70): VF0

600

500

400

300

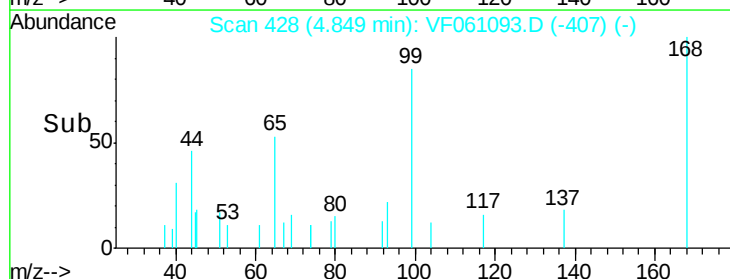
200

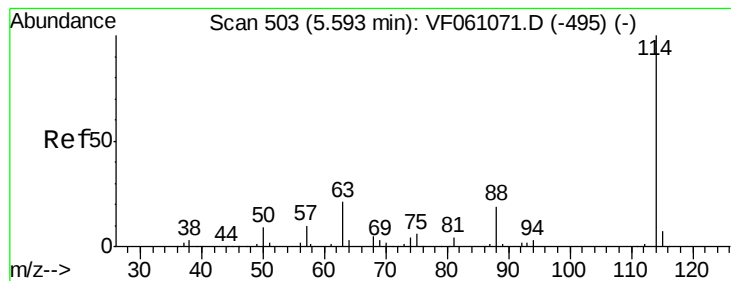
100

0

4.80 4.85 4.90

Time-->





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.61 min Scan# 505

Delta R.T. 0.02 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :

MSVOA\_F

ClientSampleId :

VB16202

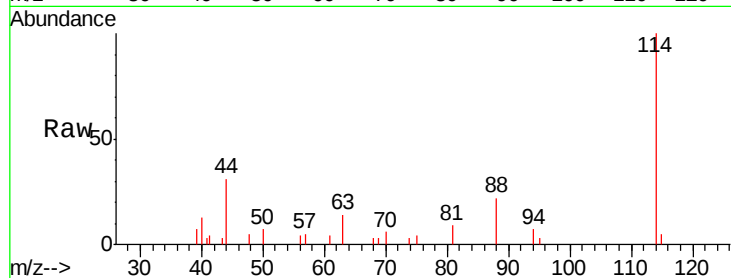
Tgt Ion:114 Resp: 9763

Ion Ratio Lower Upper

114 100

63 13.9 0.0 41.6

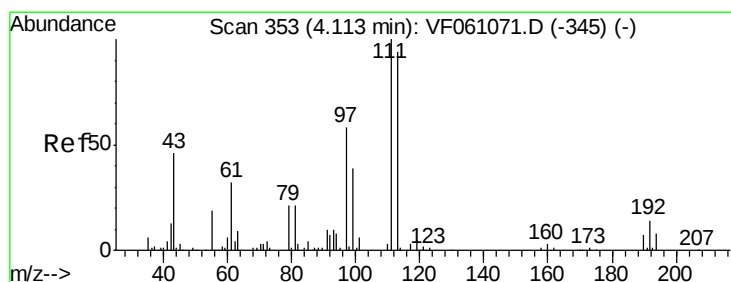
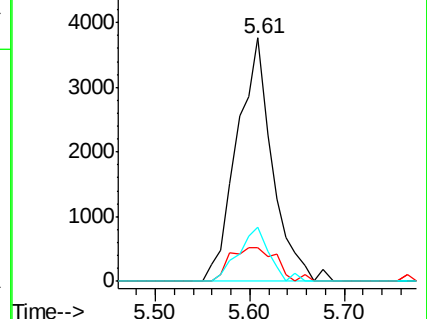
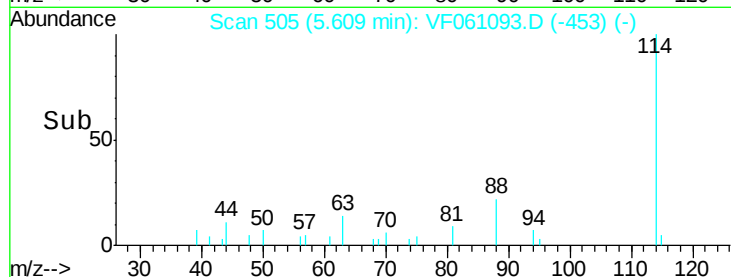
88 22.3 0.0 38.0



Abundance Ion 114.00 (113.70 to 114.70): V

Ion 63.00 (62.70 to 63.70): VF0

Ion 88.00 (87.70 to 88.70): VF0



#35

Dibromofluoromethane

Concen: 27.977 ug/l

RT: 4.10 min Scan# 352

Delta R.T. -0.01 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

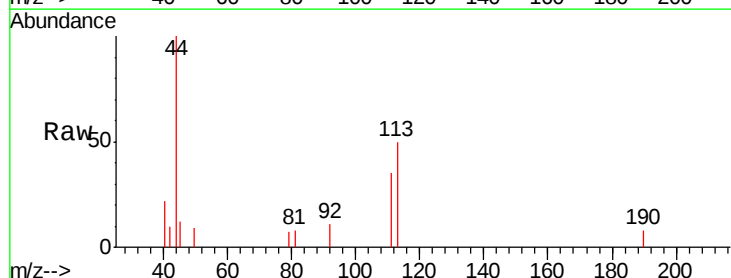
Tgt Ion:113 Resp: 2188

Ion Ratio Lower Upper

113 100

111 69.5 85.2 127.8#

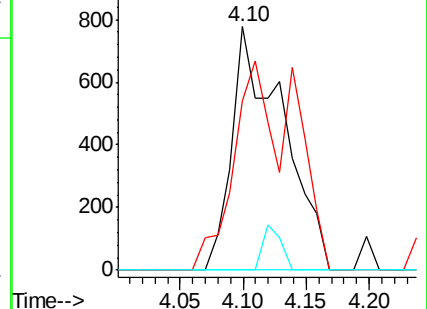
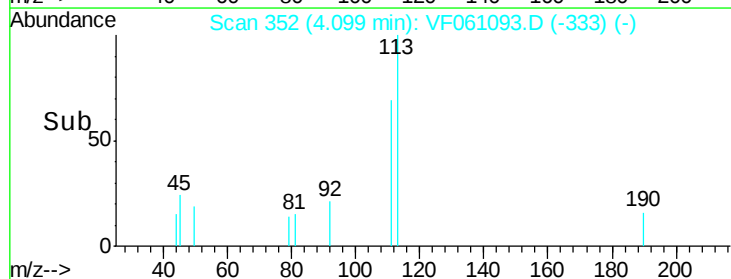
192 0.0 12.8 19.2#

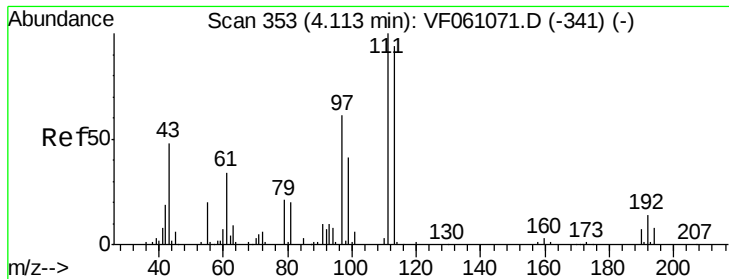


Abundance Ion 113.00 (112.70 to 113.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 192.00 (191.70 to 192.70): V

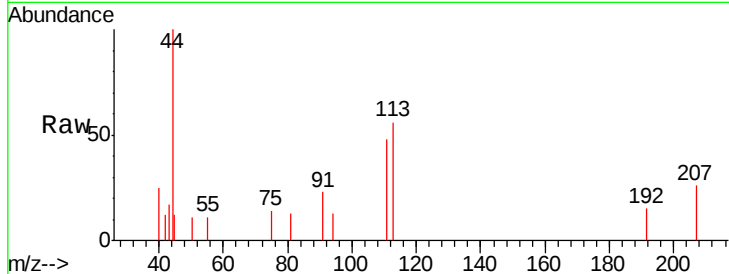




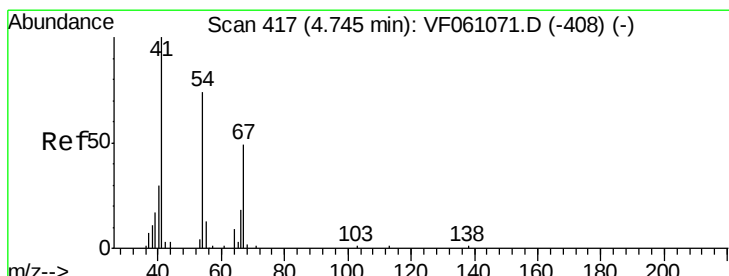
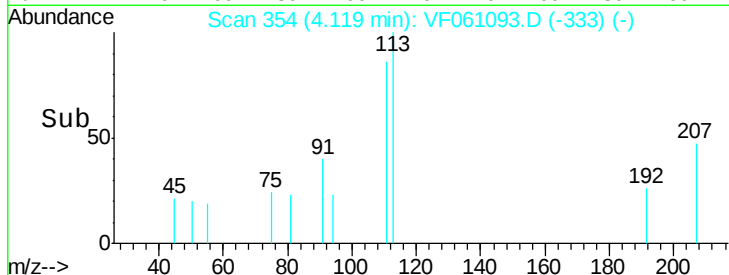
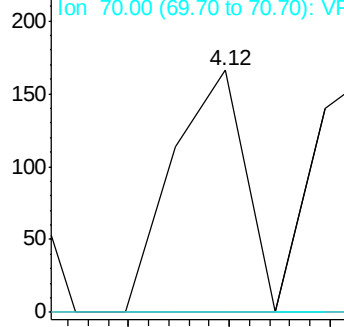
#37  
Ethyl Acetate  
Concen: 2.971 ug/l  
RT: 4.12 min Scan# 354  
Delta R.T. 0.01 min  
Lab File: VF061093.D  
Acq: 19 Dec 2018 19:05

Instrument :  
MSVOA\_F  
ClientSampleId :  
VB16202

Tgt Ion: 43 Resp: 166  
Ion Ratio Lower Upper  
43 100  
61 0.0 56.6 84.8#  
70 0.0 6.3 9.5#

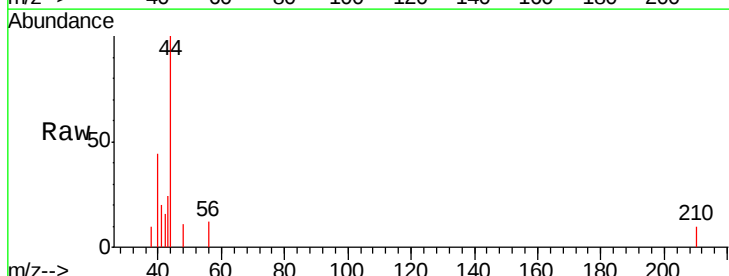


Abundance Ion 43.00 (42.70 to 43.70): VF0  
Ion 61.00 (60.70 to 61.70): VF0  
Ion 70.00 (69.70 to 70.70): VF0

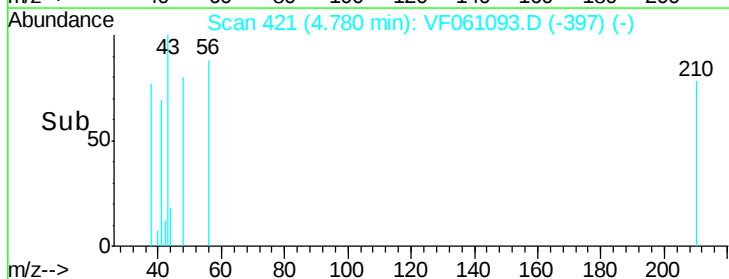
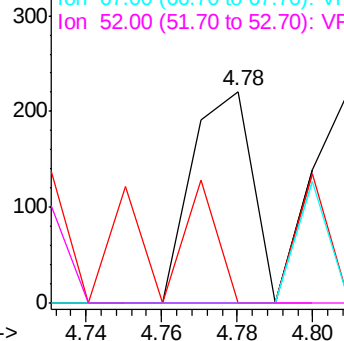


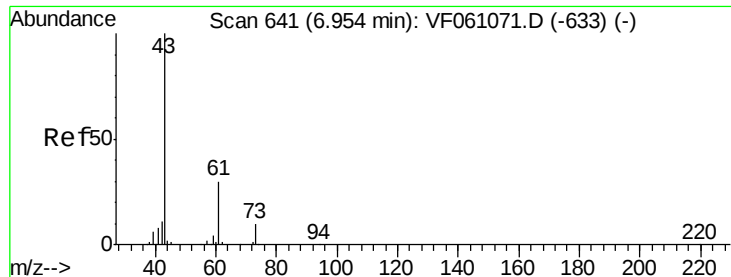
#41  
Methacrylonitrile  
Concen: 9.804 ug/l  
RT: 4.78 min Scan# 421  
Delta R.T. 0.04 min  
Lab File: VF061093.D  
Acq: 19 Dec 2018 19:05

Tgt Ion: 41 Resp: 244  
Ion Ratio Lower Upper  
41 100  
39 0.0 45.7 68.5#  
67 0.0 38.9 58.3#  
52 0.0 35.2 52.8#



Abundance Ion 41.00 (40.70 to 41.70): VF0  
Ion 39.00 (38.70 to 39.70): VF0  
Ion 67.00 (66.70 to 67.70): VF0  
Ion 52.00 (51.70 to 52.70): VF0





#43

Isopropyl Acetate

Concen: 4.376 ug/l

RT: 6.97 min Scan# 643

Delta R.T. 0.02 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

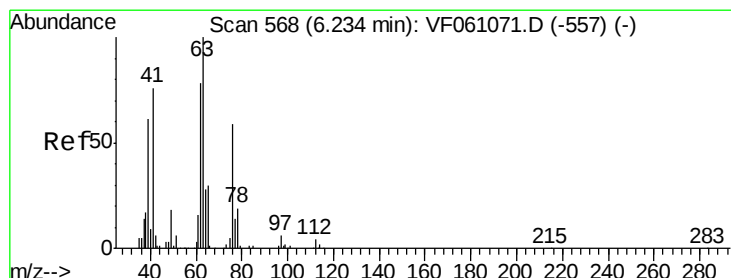
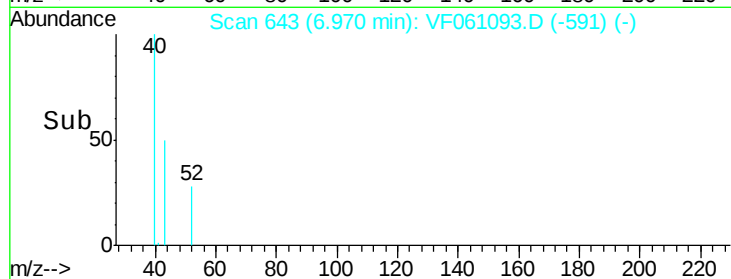
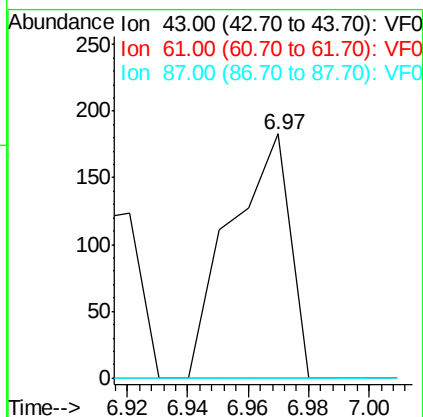
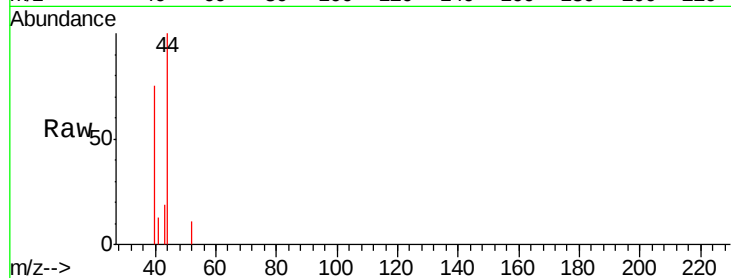
Instrument :

MSVOA\_F

ClientSampleId :

VB16202

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 249   |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 0.0   | 23.8  | 35.8# |
| 87       | 0.0   | 0.0   | 0.0   |



#45

1,2-Dichloropropane

Concen: 1.987 ug/l

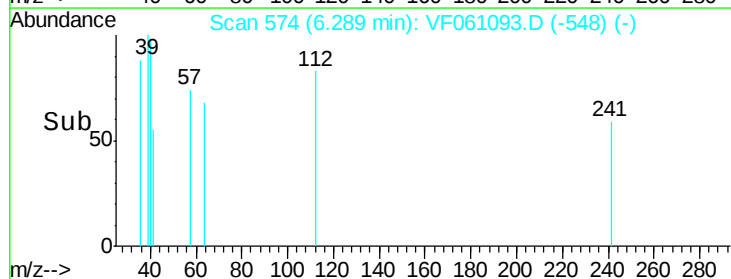
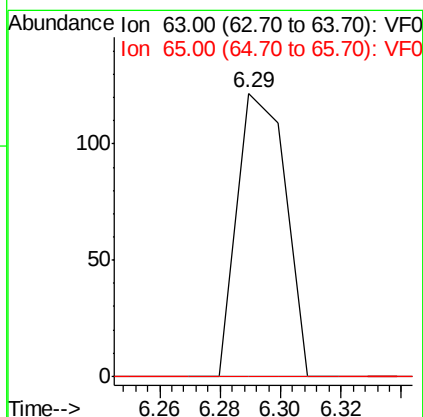
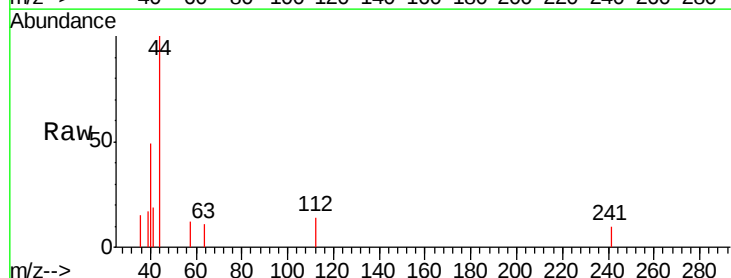
RT: 6.29 min Scan# 574

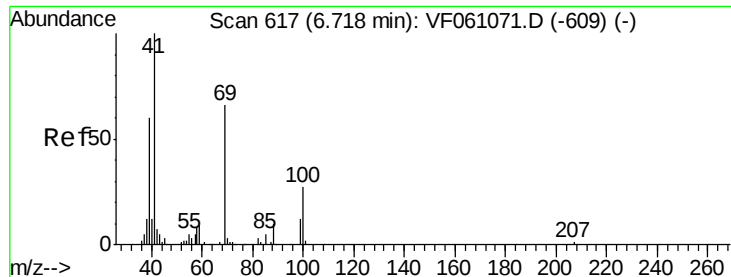
Delta R.T. 0.06 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 63    | Resp: | 137   |
| Ion      | Ratio | Lower | Upper |
| 63       | 100   |       |       |
| 65       | 0.0   | 24.4  | 36.6# |





#48

Methyl methacrylate

Concen: 1.636 ug/l

RT: 6.73 min Scan# 619

Delta R.T. 0.02 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :

MSVOA\_F

ClientSampleId :

VB16202

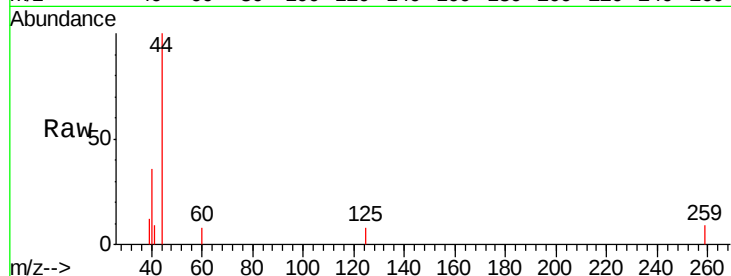
Tgt Ion: 41 Resp: 65

Ion Ratio Lower Upper

41 100

69 0.0 52.7 79.1#

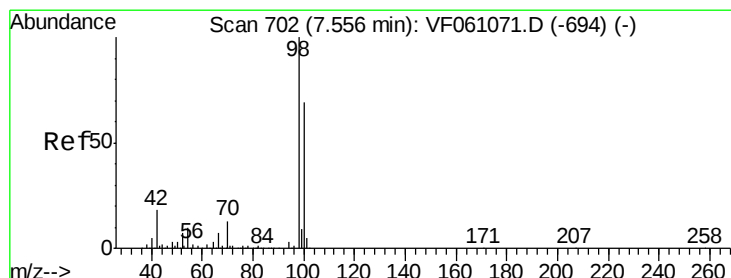
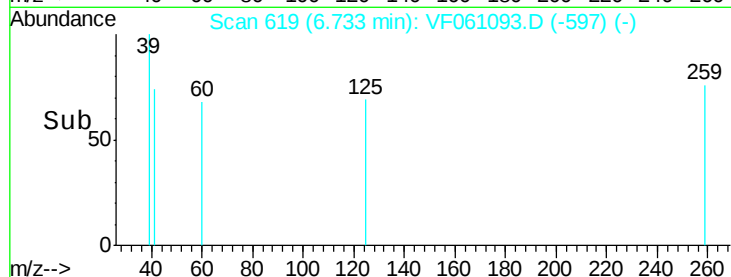
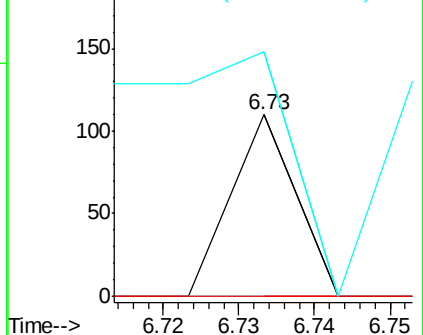
39 134.5 47.8 71.6#



Abundance Ion 41.00 (40.70 to 41.70): VF0

Ion 69.00 (68.70 to 69.70): VF0

Ion 39.00 (38.70 to 39.70): VF0



#50

Toluene-d8

Concen: 27.550 ug/l

RT: 7.56 min Scan# 703

Delta R.T. 0.01 min

Lab File: VF061093.D

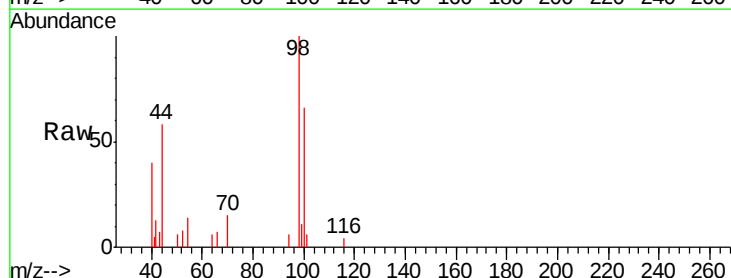
Acq: 19 Dec 2018 19:05

Tgt Ion: 98 Resp: 6106

Ion Ratio Lower Upper

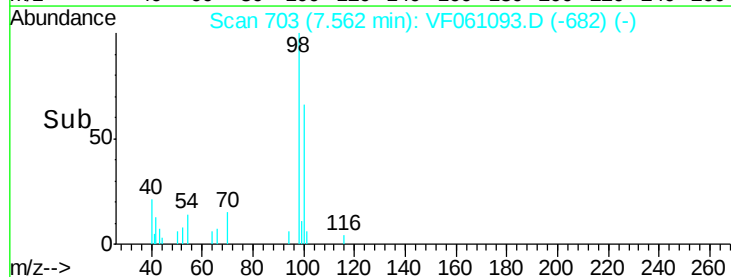
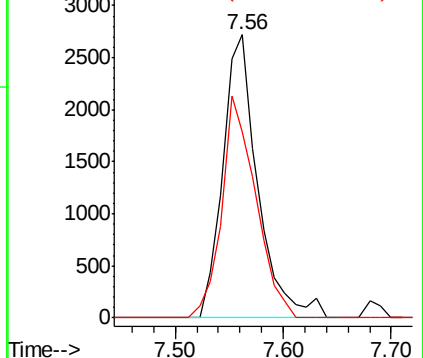
98 100

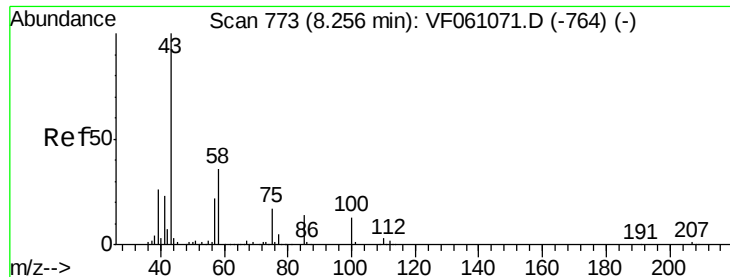
100 65.8 55.3 82.9



Abundance Ion 98.00 (97.70 to 98.70): VF0

Ion 100.00 (99.70 to 100.70): VF0





#51

4-Methyl-2-Pentanone

Concen: 2.870 ug/l

RT: 8.27 min Scan# 775

Delta R.T. 0.02 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :

MSVOA\_F

ClientSampleId :

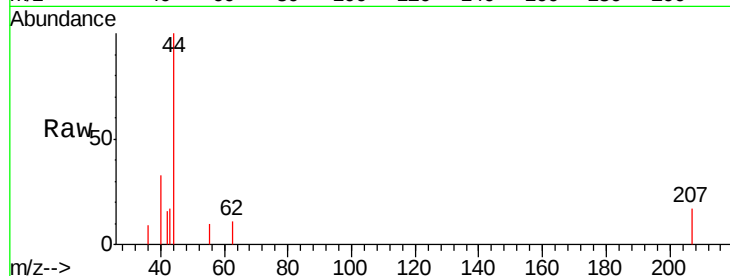
VB16202

Tgt Ion: 43 Resp: 112

Ion Ratio Lower Upper

43 100

58 0.0 29.1 43.7#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

8.27

200

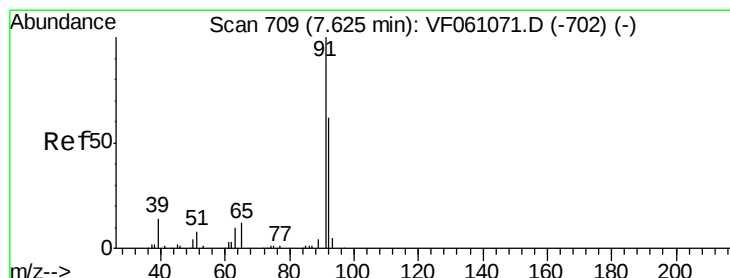
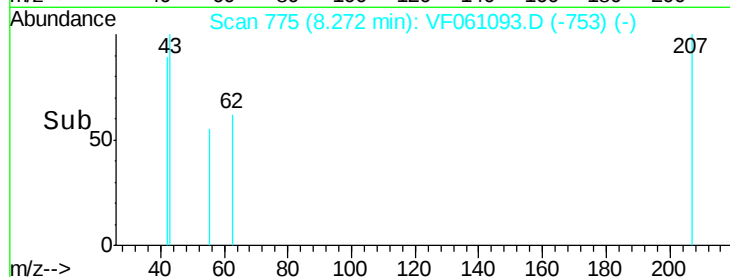
150

100

50

0

Time--> 8.24 8.26 8.28



#52

Toluene

Concen: 1.502 ug/l

RT: 7.62 min Scan# 709

Delta R.T. -0.00 min

Lab File: VF061093.D

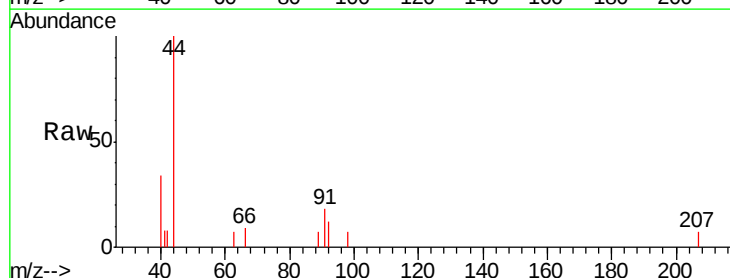
Acq: 19 Dec 2018 19:05

Tgt Ion: 92 Resp: 252

Ion Ratio Lower Upper

92 100

91 143.2 128.8 193.2



Abundance Ion 92.00 (91.70 to 92.70): VF0

Ion 91.00 (90.70 to 91.70): VF0

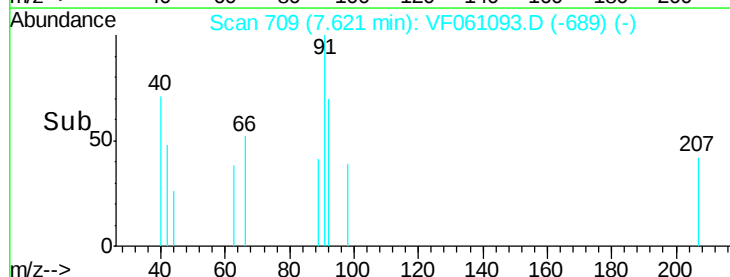
300

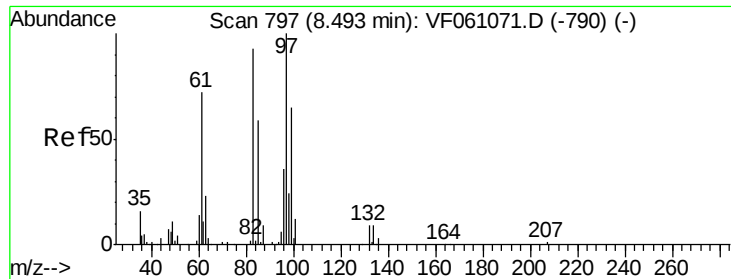
200

100

0

Time--> 7.60 7.65





#55

1,1,2-Trichloroethane

Concen: 1.332 ug/l

RT: 8.55 min Scan# 803

Delta R.T. 0.06 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

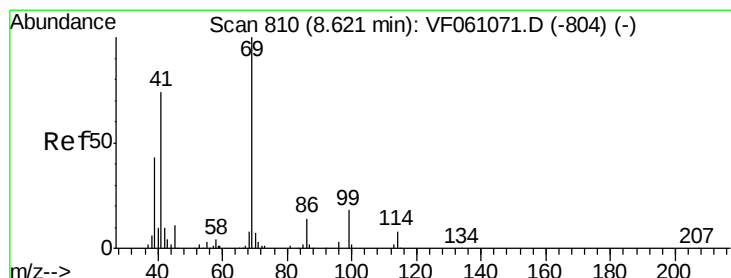
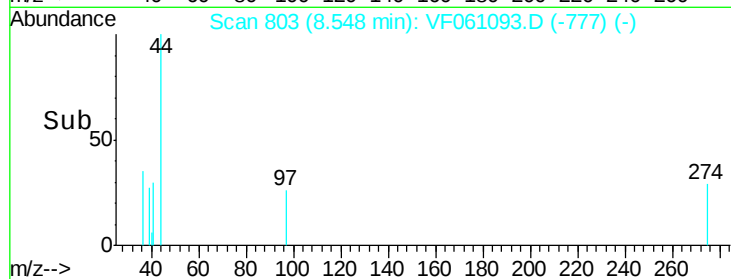
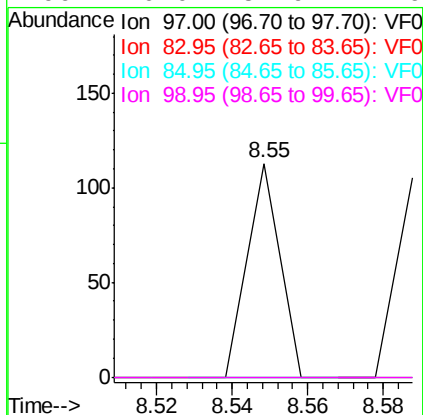
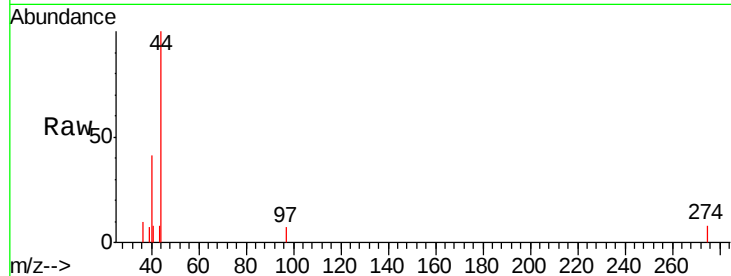
Instrument :

MSVOA\_F

ClientSampleId :

VB16202

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 97    | Resp: | 67     |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 83       | 0.0   | 75.0  | 112.4# |
| 85       | 0.0   | 47.5  | 71.3#  |
| 99       | 0.0   | 51.9  | 77.9#  |



#56

Ethyl methacrylate

Concen: 1.268 ug/l

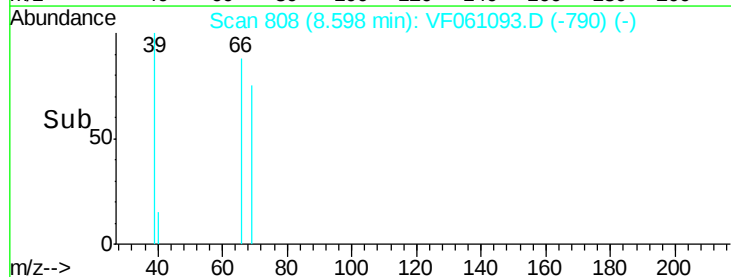
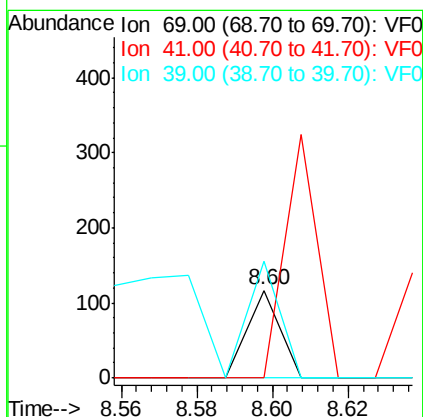
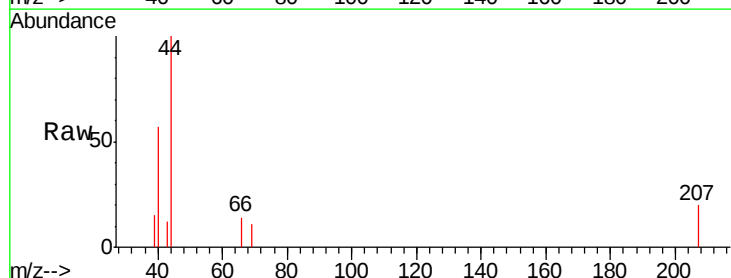
RT: 8.60 min Scan# 808

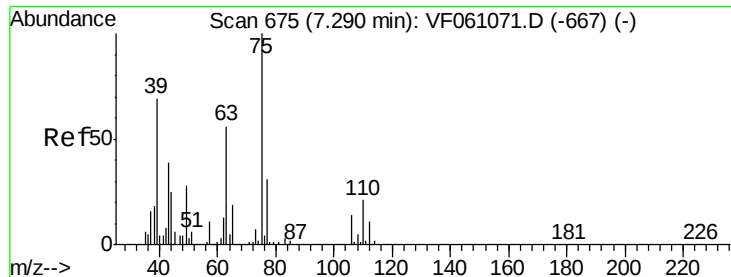
Delta R.T. -0.02 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 69    | Resp: | 69    |
| Ion      | Ratio | Lower | Upper |
| 69       | 100   |       |       |
| 41       | 0.0   | 59.7  | 89.5# |
| 39       | 133.3 | 35.0  | 52.6# |

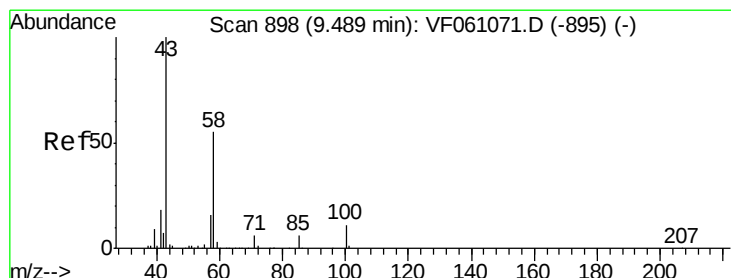
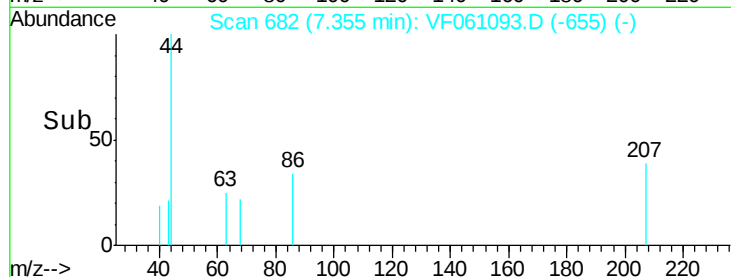
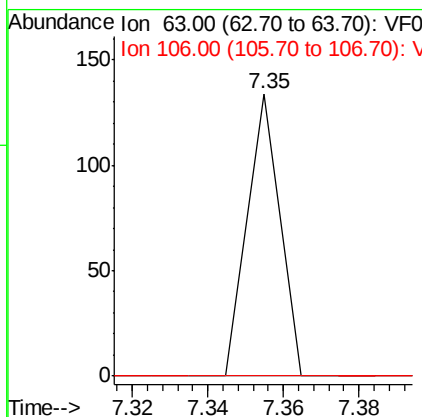
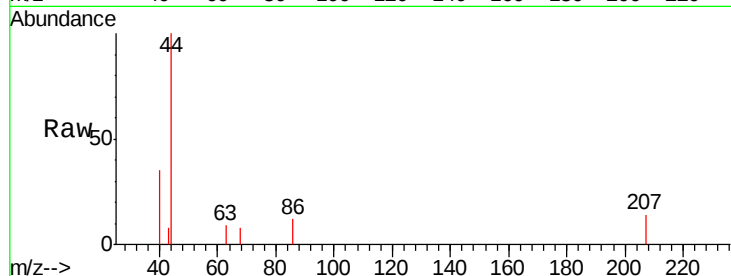




#58  
 2-Chloroethyl Vinyl ether  
 Concen: 7.559 ug/l  
 RT: 7.35 min Scan# 682  
 Delta R.T. 0.07 min  
 Lab File: VF061093.D  
 Acq: 19 Dec 2018 19:05

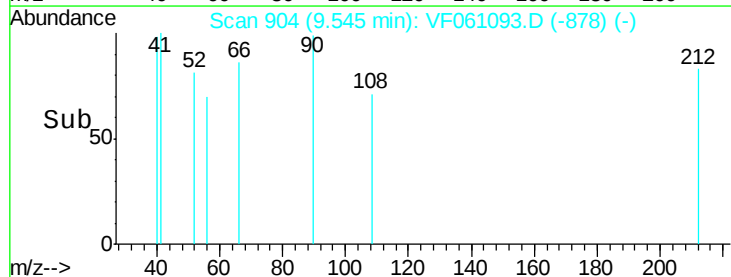
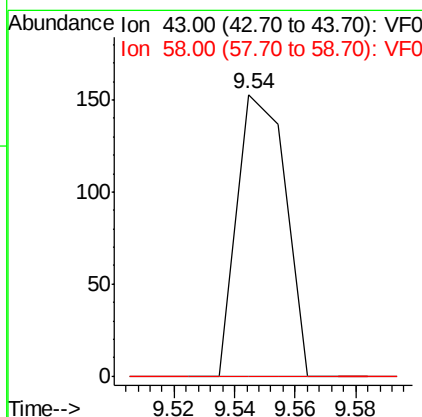
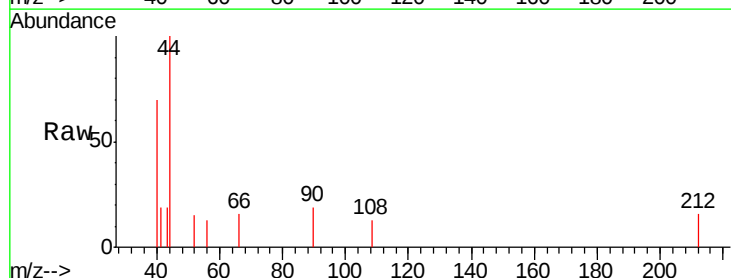
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VB16202

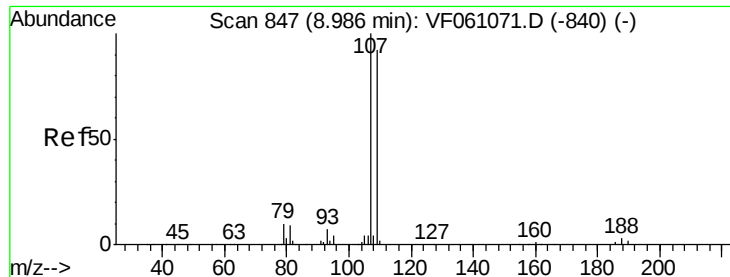
Tgt Ion: 63 Resp: 79  
 Ion Ratio Lower Upper  
 63 100  
 106 0.0 19.8 29.8#



#59  
 2-Hexanone  
 Concen: 6.095 ug/l  
 RT: 9.54 min Scan# 904  
 Delta R.T. 0.06 min  
 Lab File: VF061093.D  
 Acq: 19 Dec 2018 19:05

Tgt Ion: 43 Resp: 172  
 Ion Ratio Lower Upper  
 43 100  
 58 0.0 25.1 75.2#





#61

1,2-Dibromoethane

Concen: 1.117 ug/l

RT: 9.01 min Scan# 850

Delta R.T. 0.03 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :

MSVOA\_F

ClientSampleId :

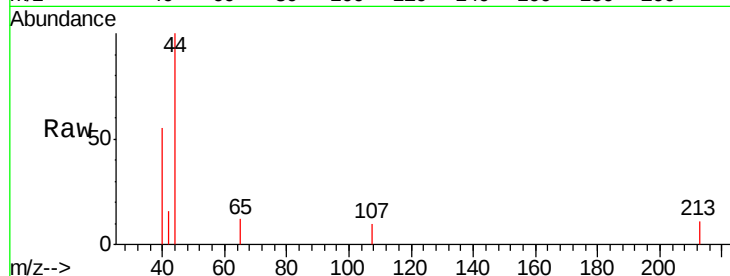
VB16202

Tgt Ion: 107 Resp: 60

Ion Ratio Lower Upper

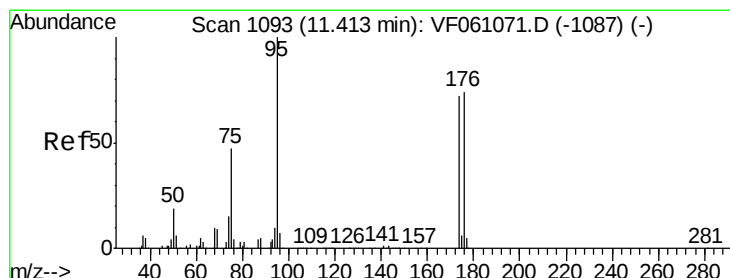
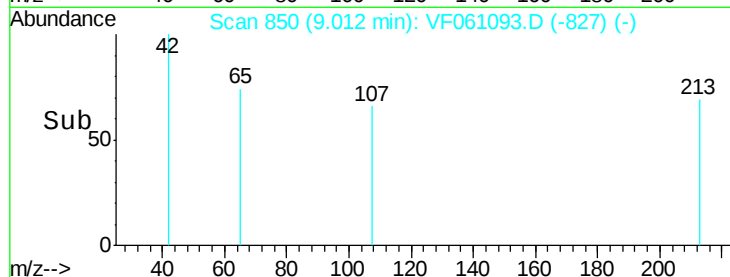
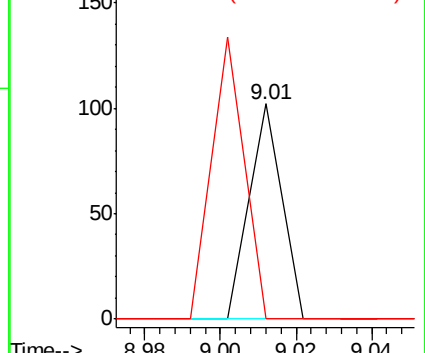
107 100

109 0.0 73.7 110.5#



Abundance Ion 107.00 (106.70 to 107.70): V

Ion 109.00 (108.70 to 109.70): V



#62

4-Bromofluorobenzene

Concen: 15.562 ug/l

RT: 11.41 min Scan# 1093

Delta R.T. -0.00 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

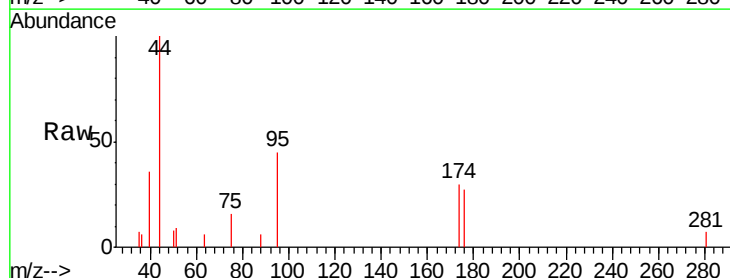
Tgt Ion: 95 Resp: 1590

Ion Ratio Lower Upper

95 100

174 68.0 0.0 143.8

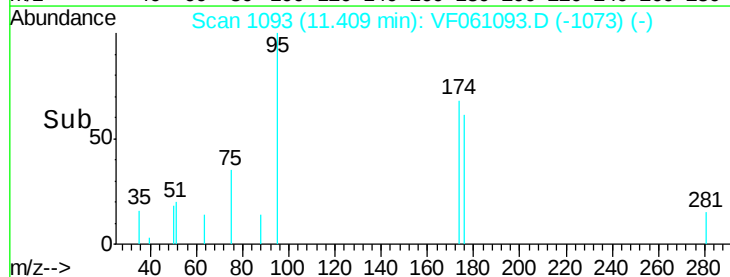
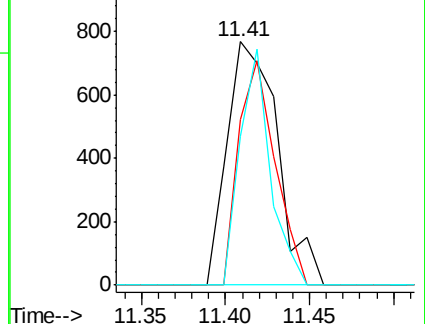
176 61.1 0.0 147.6

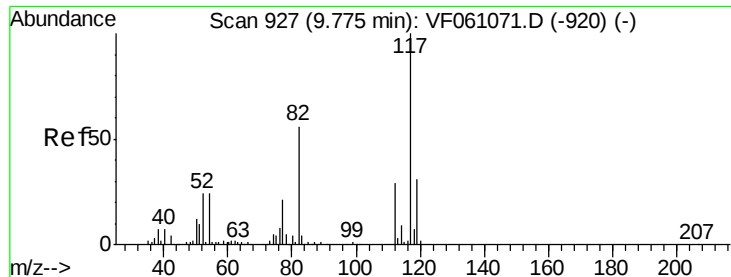


Abundance Ion 95.00 (94.70 to 95.70): VF0

Ion 174.00 (173.70 to 174.70): V

Ion 176.00 (175.70 to 176.70): V

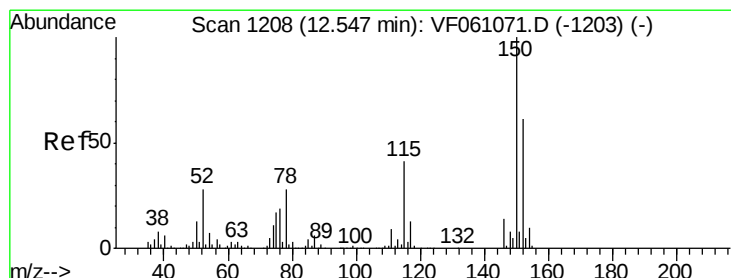
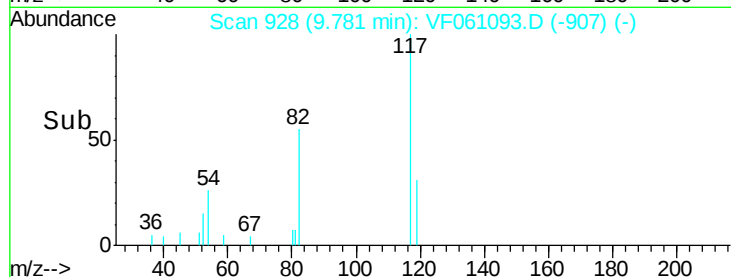
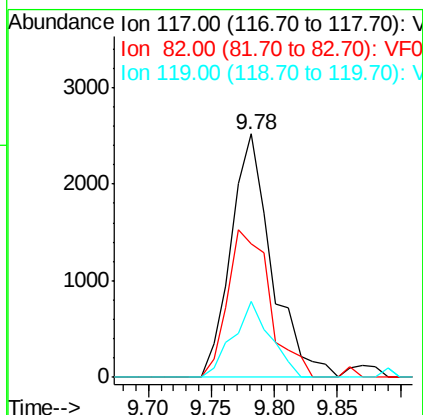
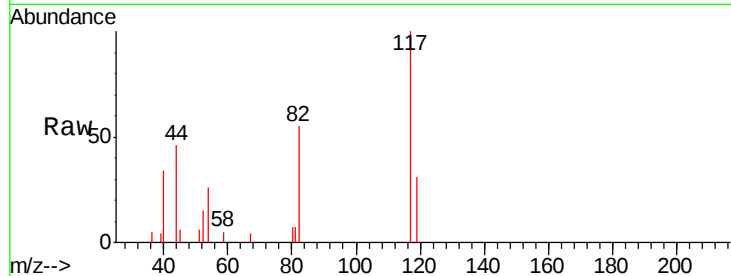




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.78 min Scan# 928  
Delta R.T. 0.01 min  
Lab File: VF061093.D  
Acq: 19 Dec 2018 19:05

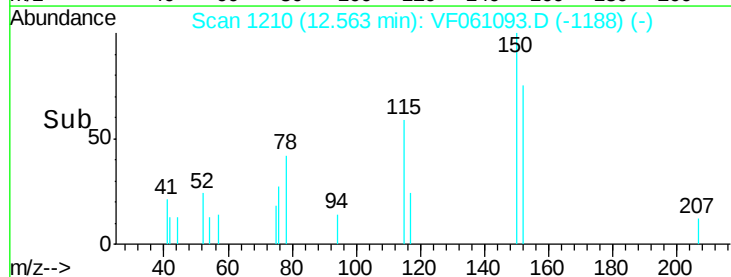
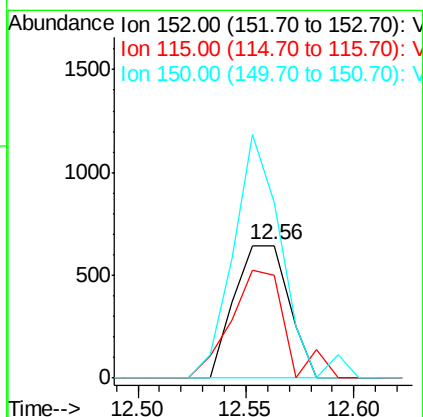
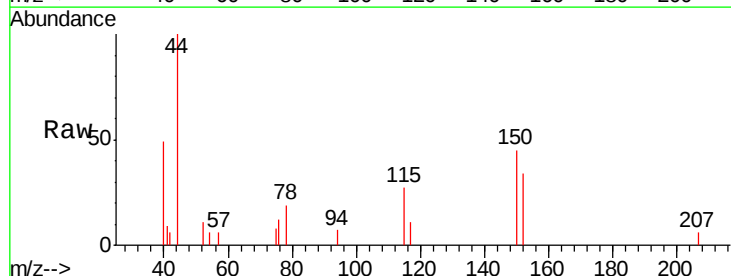
Instrument :  
MSVOA\_F  
ClientSampleId :  
VB16202

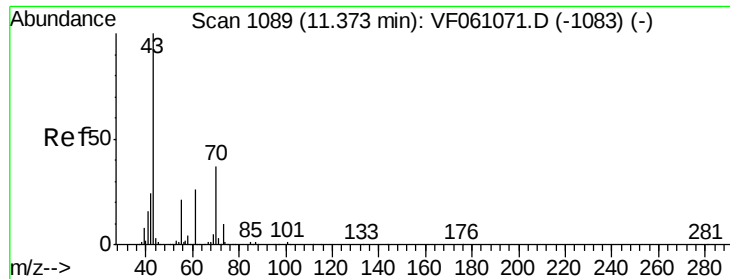
Tgt Ion:117 Resp: 5625  
Ion Ratio Lower Upper  
117 100  
82 54.9 45.0 67.4  
119 31.1 24.8 37.2



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.56 min Scan# 1210  
Delta R.T. 0.02 min  
Lab File: VF061093.D  
Acq: 19 Dec 2018 19:05

Tgt Ion:152 Resp: 1129  
Ion Ratio Lower Upper  
152 100  
115 78.1 33.3 99.9  
150 133.3 0.0 328.2

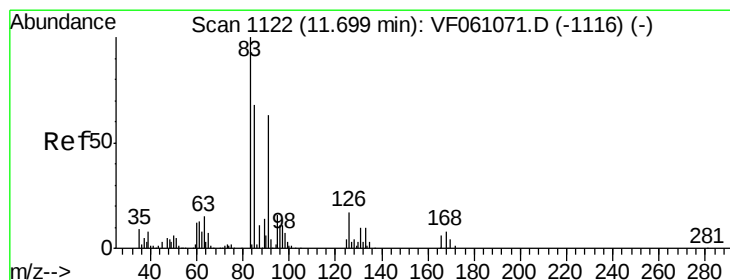
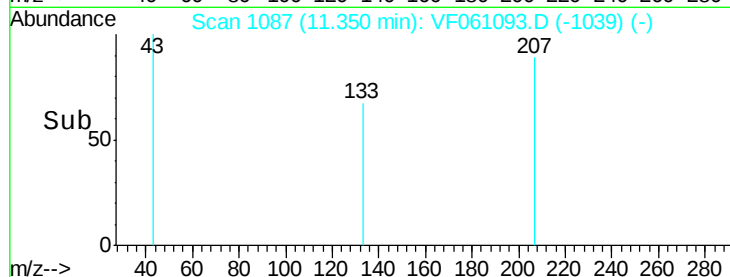
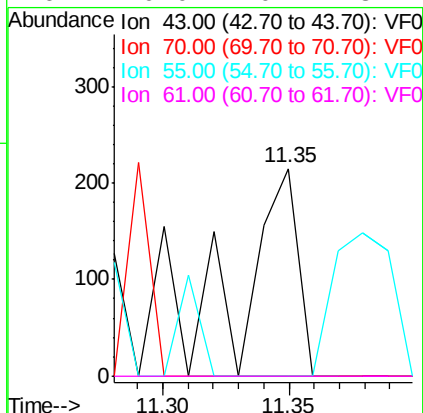
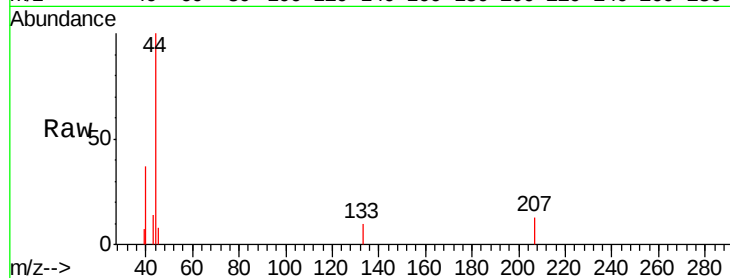




#74  
N-ethyl acetate  
Concen: 14.259 ug/l  
RT: 11.35 min Scan# 1087  
Delta R.T. -0.02 min  
Lab File: VF061093.D  
Acq: 19 Dec 2018 19:05

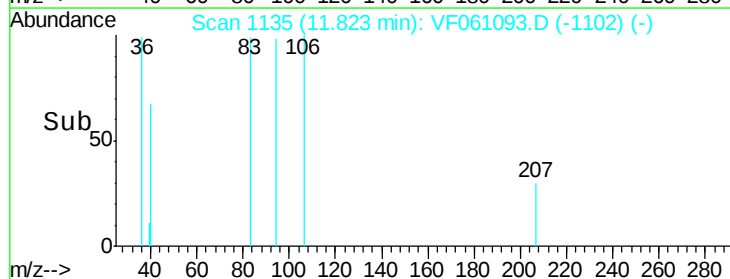
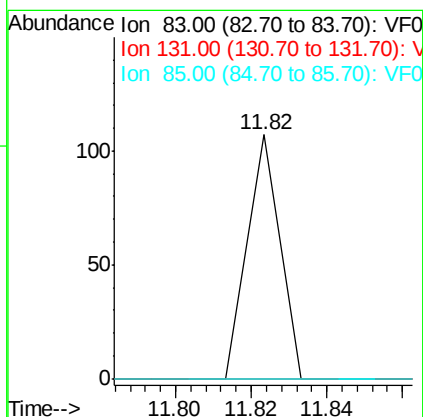
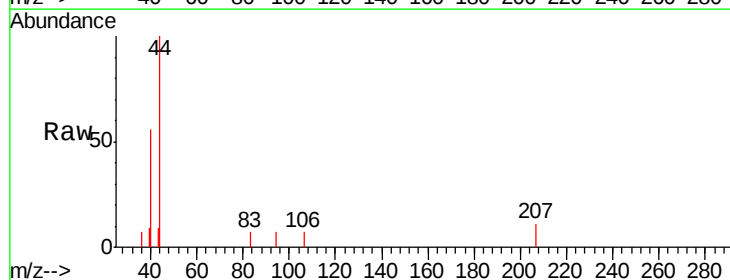
Instrument :  
MSVOA\_F  
ClientSampleID :  
VB16202

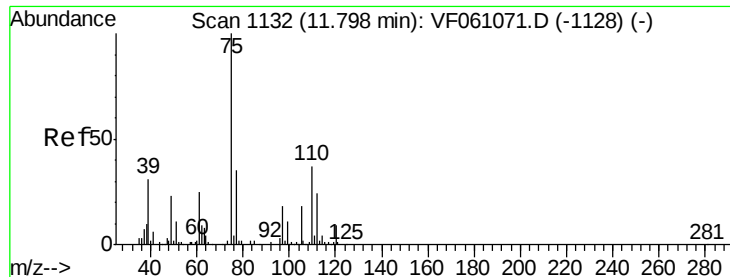
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 308   |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 70       | 0.0   | 29.2  | 43.8# |
| 55       | 0.0   | 16.5  | 24.7# |
| 61       | 0.0   | 20.7  | 31.1# |



#75  
1,1,2,2-Tetrachloroethane  
Concen: 3.902 ug/l  
RT: 11.82 min Scan# 1135  
Delta R.T. 0.12 min  
Lab File: VF061093.D  
Acq: 19 Dec 2018 19:05

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 63     |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 131      | 0.0   | 4.8   | 14.3#  |
| 85       | 0.0   | 33.9  | 101.6# |

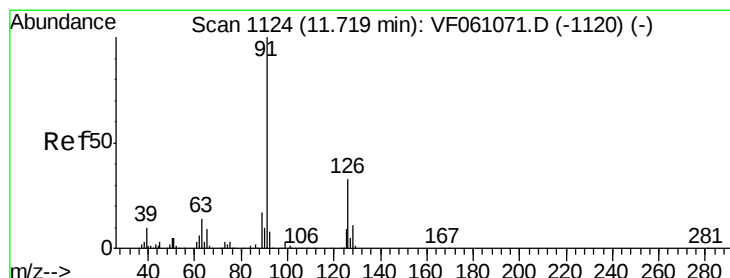
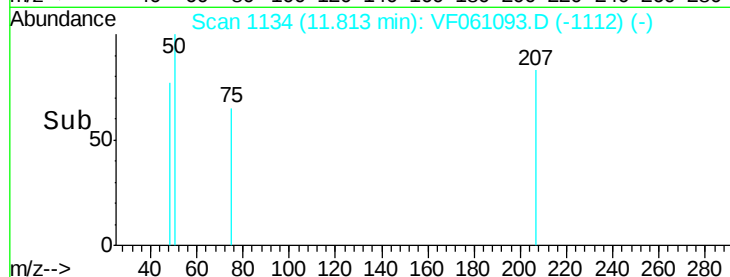
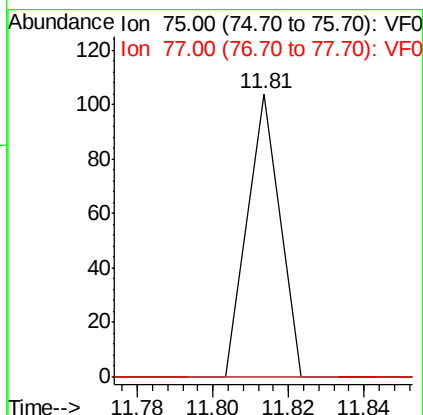
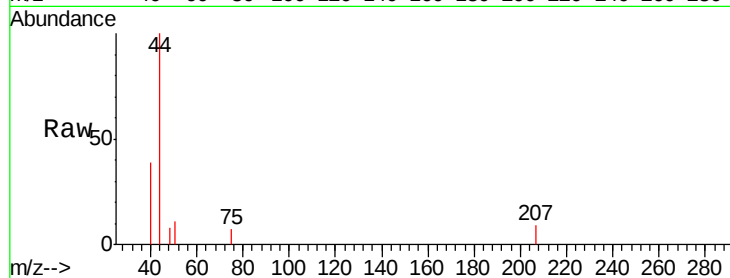




#76  
 1,2,3-Trichloropropane  
 Concen: 5.159 ug/l  
 RT: 11.81 min Scan# 1134  
 Delta R.T. 0.02 min  
 Lab File: VF061093.D  
 Acq: 19 Dec 2018 19:05

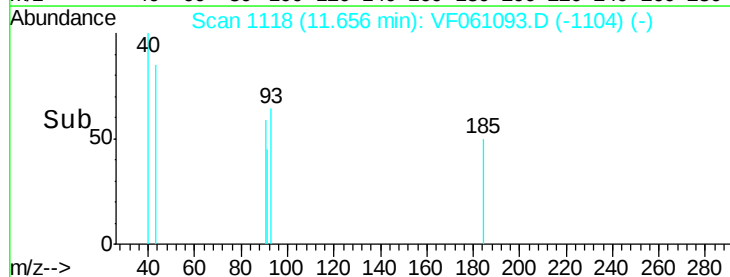
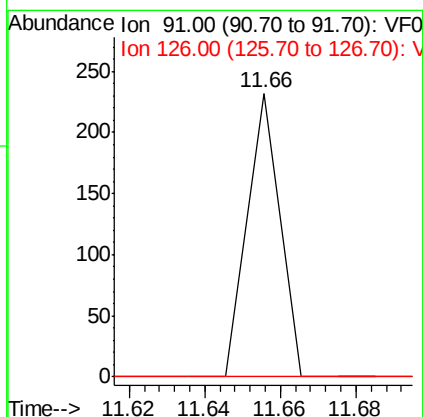
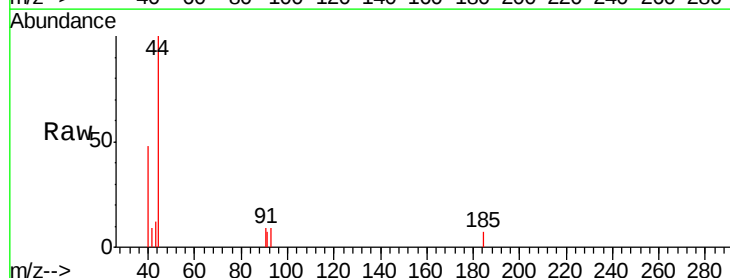
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VB16202

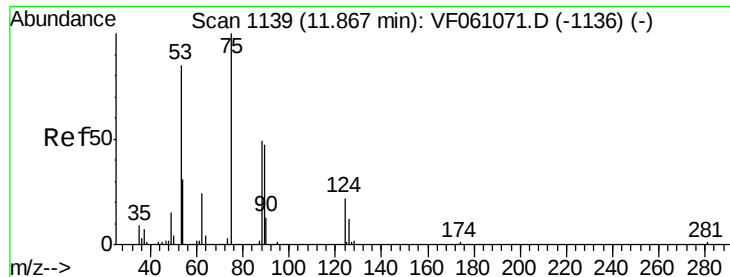
Tgt Ion: 75 Resp: 62  
 Ion Ratio Lower Upper  
 75 100  
 77 0.0 17.6 52.9#



#79  
 2-Chlorotoluene  
 Concen: 2.053 ug/l  
 RT: 11.66 min Scan# 1118  
 Delta R.T. -0.06 min  
 Lab File: VF061093.D  
 Acq: 19 Dec 2018 19:05

Tgt Ion: 91 Resp: 137  
 Ion Ratio Lower Upper  
 91 100  
 126 0.0 16.4 49.1#





#81

trans-1,4-Dichloro-2-butene

Concen: 12.007 ug/l

RT: 11.81 min Scan# 1134

Delta R.T. -0.05 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :

MSVOA\_F

ClientSampleId :

VB16202

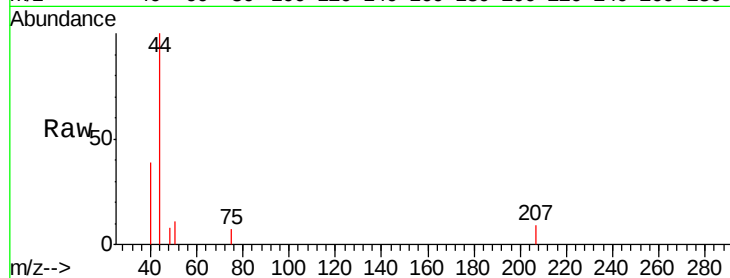
Tgt Ion: 75 Resp: 62

Ion Ratio Lower Upper

75 100

53 0.0 74.1 111.1#

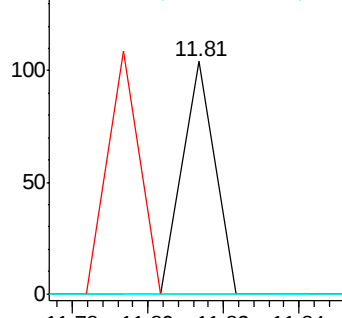
89 0.0 42.6 64.0#



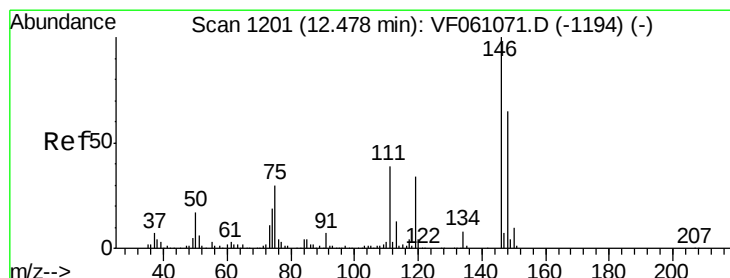
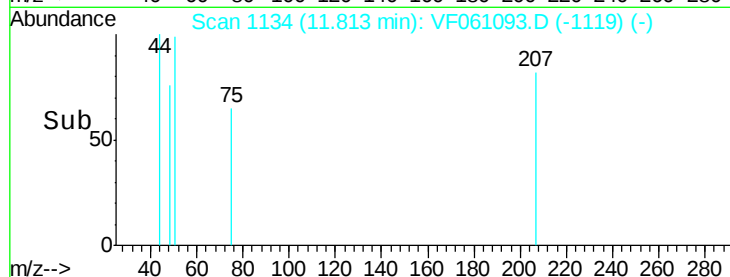
Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 53.00 (52.70 to 53.70): VF0

Ion 89.00 (88.70 to 89.70): VF0



Time-->



#87

1,3-Dichlorobenzene

Concen: Below Cal

RT: 12.57 min Scan# 1211

Delta R.T. 0.09 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

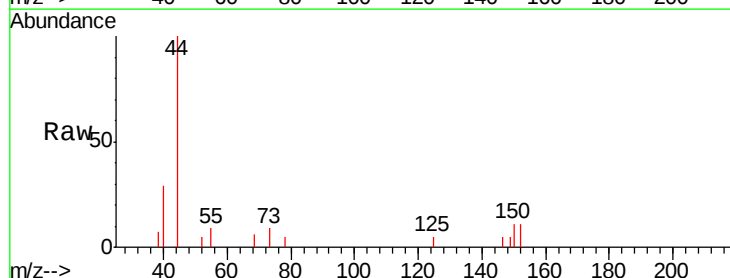
Tgt Ion: 146 Resp: 63

Ion Ratio Lower Upper

146 100

111 0.0 19.3 57.9#

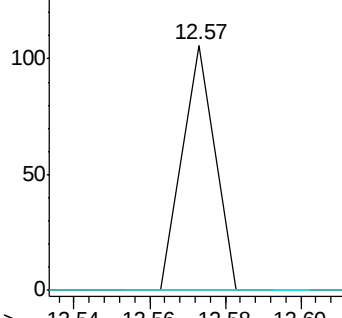
148 0.0 32.4 97.2#



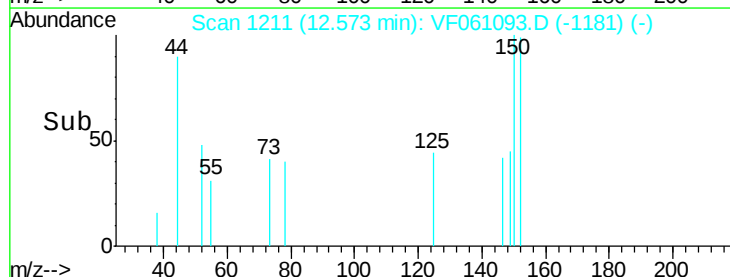
Abundance Ion 146.00 (145.70 to 146.70): V

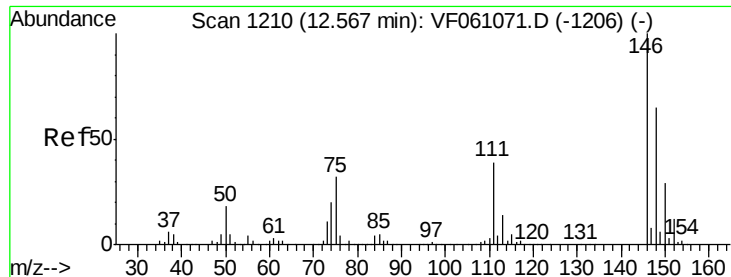
Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



Time-->





#88

1,4-Dichlorobenzene

Concen: 1.638 ug/l

RT: 12.57 min Scan# 1211

Delta R.T. 0.01 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

Instrument :

MSVOA\_F

ClientSampled :

VB16202

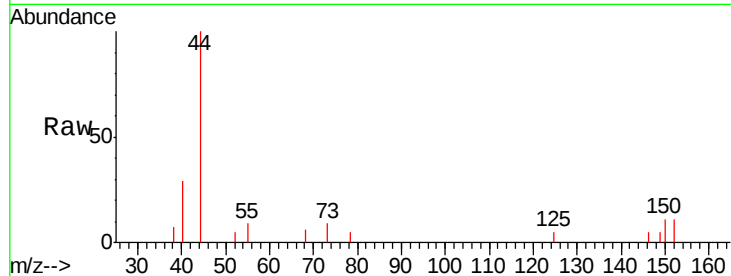
Tgt Ion: 146 Resp: 63

Ion Ratio Lower Upper

146 100

111 0.0 19.4 58.4#

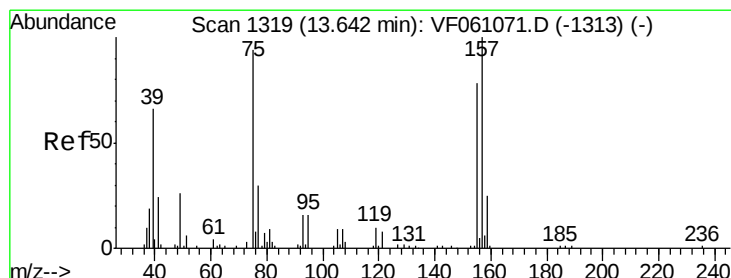
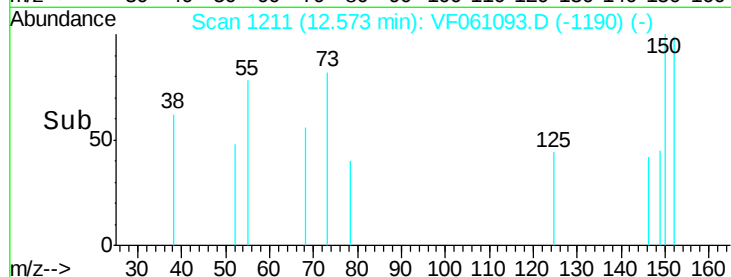
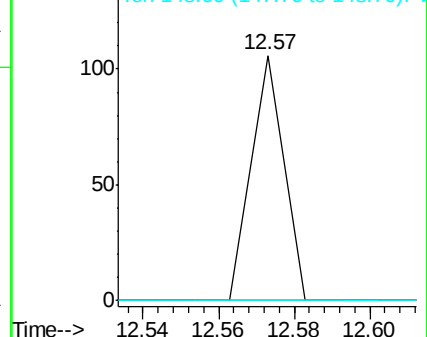
148 0.0 32.4 97.0#



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#92

1,2-Dibromo-3-Chloropropane

Concen: 23.624 ug/l

RT: 13.71 min Scan# 1326

Delta R.T. 0.07 min

Lab File: VF061093.D

Acq: 19 Dec 2018 19:05

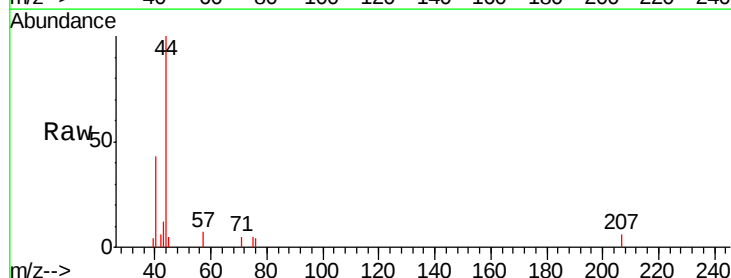
Tgt Ion: 75 Resp: 70

Ion Ratio Lower Upper

75 100

155 0.0 41.5 124.5#

157 0.0 53.2 159.6#



Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V

