

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX101218\  
 Data File : VX005316.D  
 Acq On : 13 Oct 2018 02:17  
 Operator : JC/MD  
 Sample : J5393-11DL 50X  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 39 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 RE137-640FT-20181009DL

Quant Time: Oct 13 04:08:46 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X101218W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Oct 12 11:28:43 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 268260   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 380360   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 341865   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 165830   | 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   | 153709   | 51.63 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.26% |          |
| 35) Dibromofluoromethane    | 5.50  | 113  | 122933   | 48.80 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.60%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 460112   | 53.20 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 106.40% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 148589   | 45.73 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 91.46%  |          |

| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 5) Bromomethane                | 1.64  | 94   | 730      | 0.999     | ug/l # | 70     |
| 6) Chloroethane                | 1.68  | 64   | 87       | 0.378     | ug/l # | 44     |
| 9) 1,1,2-Trichlorotrifluoroet  | 2.39  | 101  | 1622     | 0.684     | ug/l   | 95     |
| 10) Methyl Iodide              | 2.51  | 142  | 322      | 2.606     | ug/l # | 66     |
| 11) Tert butyl alcohol         | 3.02  | 59   | 1585     | 1.887     | ug/l # | 76     |
| 12) 1,1-Dichloroethene         | 2.37  | 96   | 510      | 0.217     | ug/l # | 69     |
| 13) Acrolein                   | 2.30  | 56   | 19       | Below Cal | #      | 1      |
| 16) Acetone                    | 2.45  | 43   | 1531     | 0.889     | ug/l   | 92     |
| 20) Methylene Chloride         | 2.86  | 84   | 2475     | Below Cal |        | 91     |
| 29) Tetrahydrofuran            | 5.17  | 42   | 527      | 0.328     | ug/l # | 59     |
| 31) Cyclohexane                | 5.66  | 56   | 4772     | 1.166     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 18464    | 5.012     | ug/l # | 49     |
| 38) Carbon Tetrachloride       | 5.66  | 117  | 23646    | 6.388     | ug/l # | 16     |
| 39) Methylcyclohexane          | 7.21  | 83   | 1464     | 0.367     | ug/l # | 1      |
| 44) Trichloroethene            | 7.21  | 130  | 118346   | 41.842    | ug/l   | 94     |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 74395    | 23.128    | ug/l # | 37     |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 74395    | 70.275    | ug/l # | 10     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 740

Delta R.T. 0.00 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

Instrument :

MSVOA\_X

ClientSampleId :

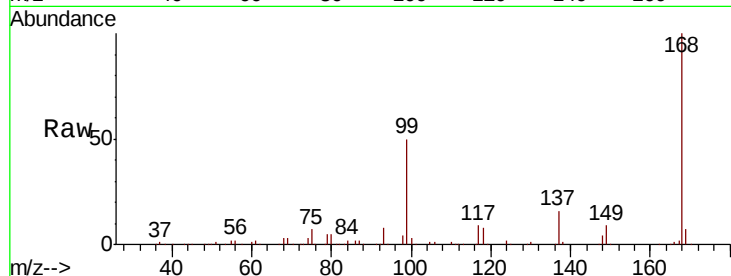
RE137-640FT-20181009DL

Tot Ion:168 Resp: 268260

Ion Ratio Lower Upper

168 100

99 49.9 39.9 59.9



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

100000

80000

60000

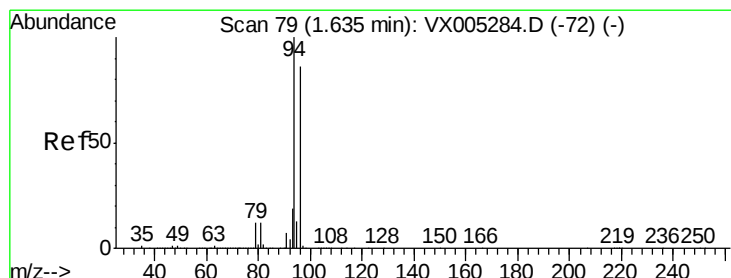
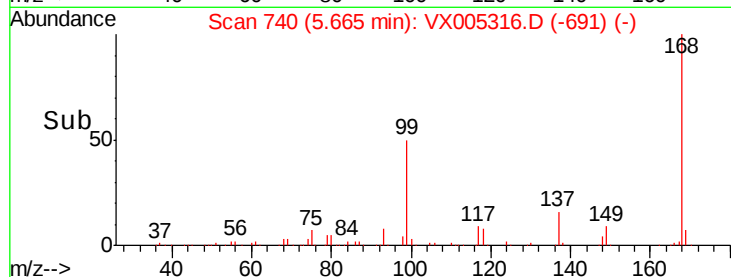
40000

20000

0

Time-->

5.50 5.60 5.70 5.80 5.90



#5

Bromomethane

Concen: 0.999 ug/l

RT: 1.64 min Scan# 80

Delta R.T. 0.01 min

Lab File: VX005316.D

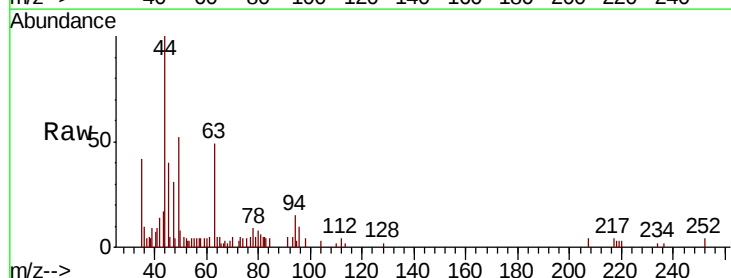
Acq: 13 Oct 2018 02:17

Tgt Ion: 94 Resp: 730

Ion Ratio Lower Upper

94 100

96 64.7 74.5 111.7#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

1.64

500

400

300

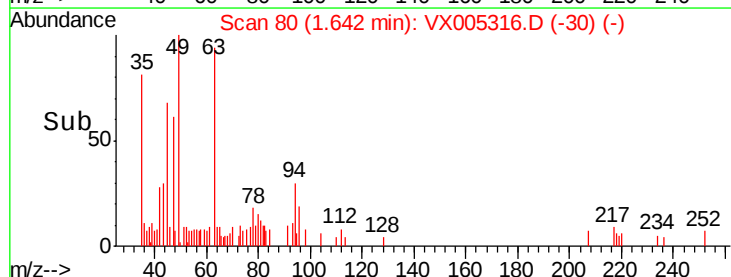
200

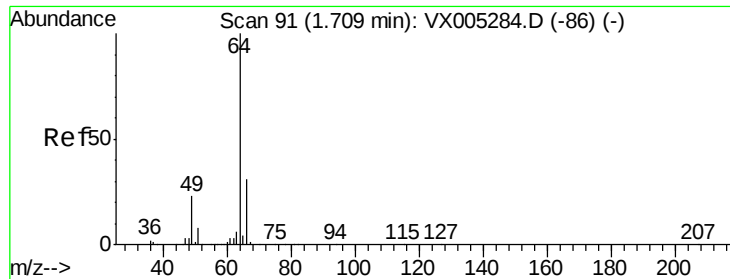
100

0

Time-->

1.55 1.60 1.65 1.70





#6

Chloroethane

Concen: 0.378 ug/l

RT: 1.68 min Scan# 87

Delta R.T. -0.02 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

Instrument :

MSVOA\_X

ClientSampleId :

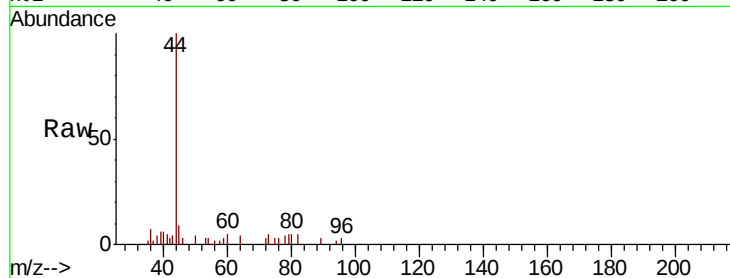
RE137-640FT-20181009DL

Tot Ion: 64 Resp: 87

Ion Ratio Lower Upper

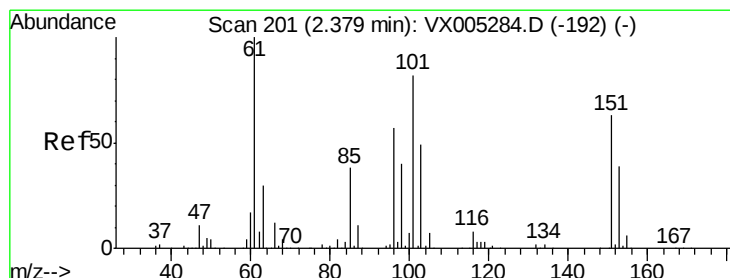
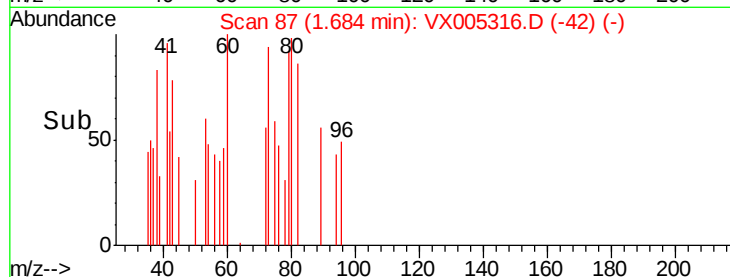
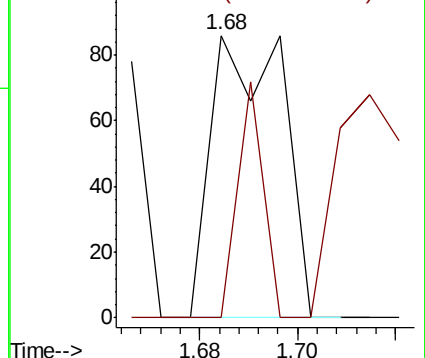
64 100

66 0.0 24.6 36.8#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0



#9

1,1,2-Trichlorotrifluoroethane

Concen: 0.684 ug/l

RT: 2.39 min Scan# 202

Delta R.T. 0.01 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

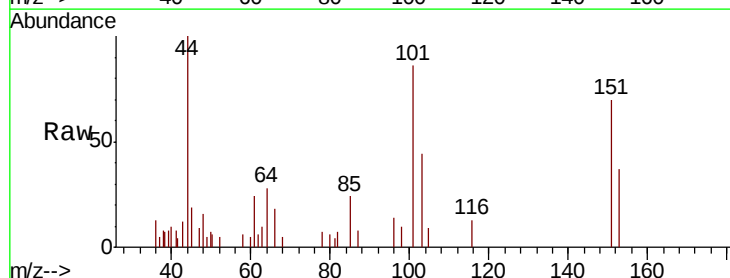
Tgt Ion: 101 Resp: 1622

Ion Ratio Lower Upper

101 100

85 48.9 34.2 51.4

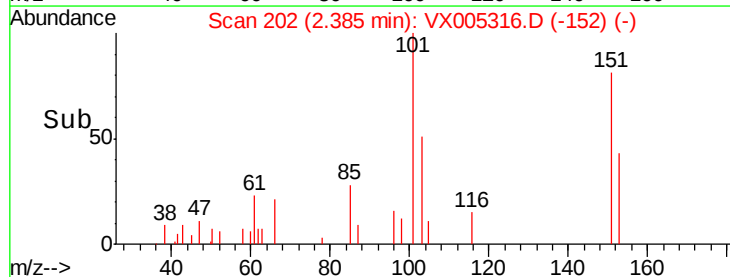
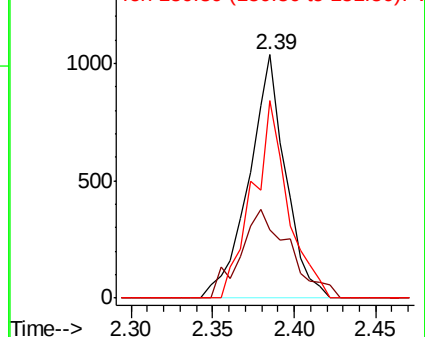
151 78.4 65.0 97.6

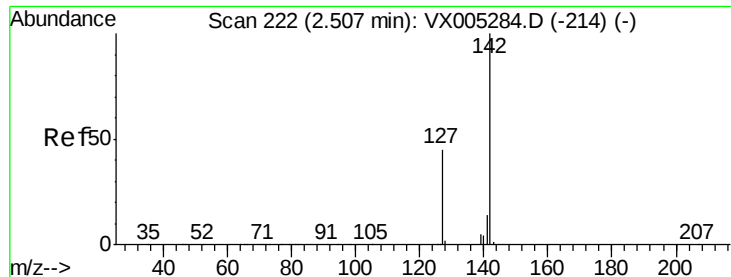


Abundance Ion 100.90 (100.60 to 101.60): V

Ion 84.90 (84.60 to 85.60): VX0

Ion 150.80 (150.50 to 151.50): V

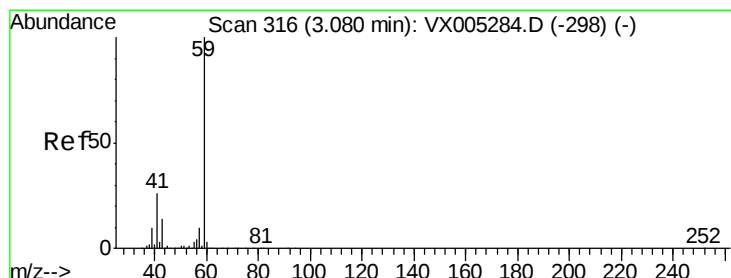
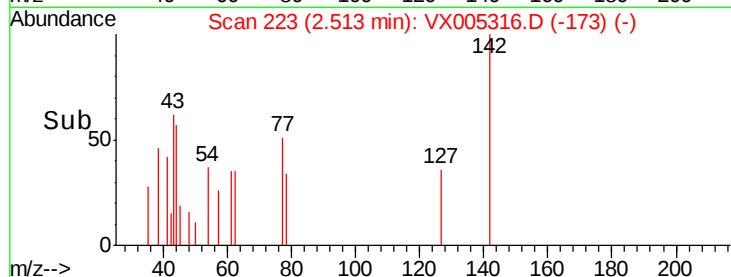
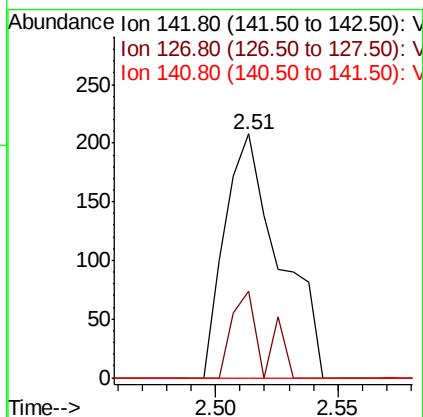
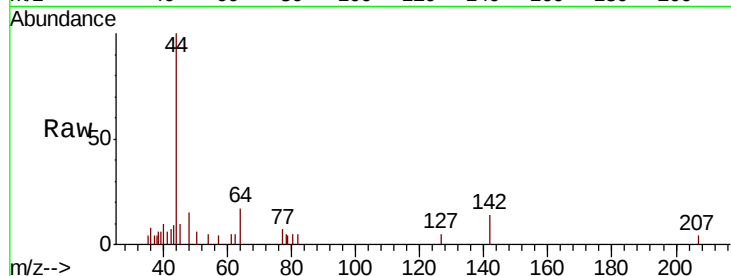




#10  
Methvl Iodide  
Concen: 2.606 ug/l  
RT: 2.51 min Scan# 223  
Delta R.T. 0.01 min  
Lab File: VX005316.D  
Acq: 13 Oct 2018 02:17

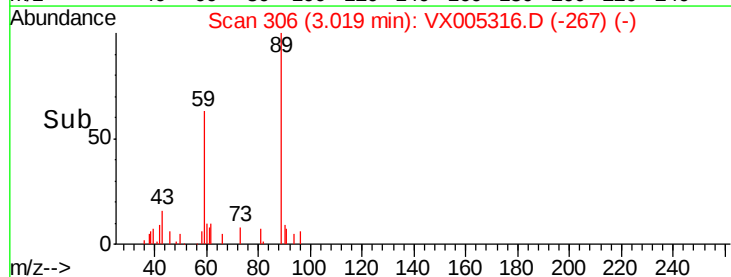
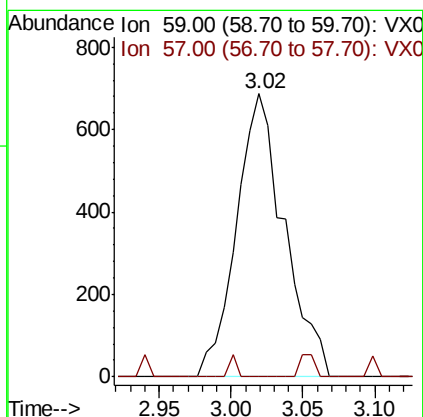
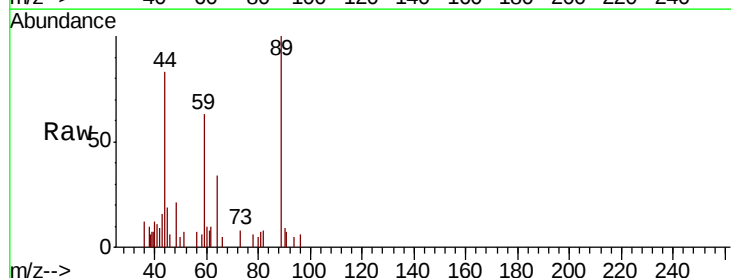
Instrument :  
MSVOA\_X  
ClientSampleId :  
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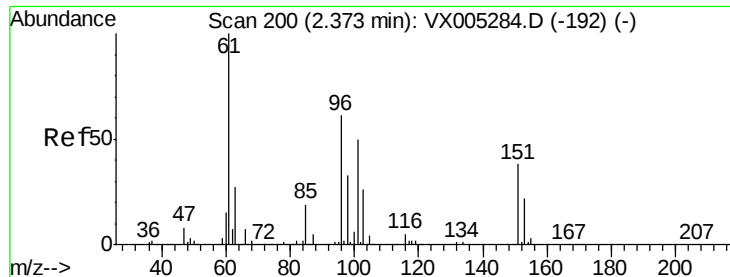
Tot Ion:142 Resp: 322  
Ion Ratio Lower Upper  
142 100  
127 20.5 33.8 50.6#  
141 0.0 11.4 17.0#



#11  
Tert butyl alcohol  
Concen: 1.887 ug/l  
RT: 3.02 min Scan# 306  
Delta R.T. -0.06 min  
Lab File: VX005316.D  
Acq: 13 Oct 2018 02:17

Tgt Ion: 59 Resp: 1585  
Ion Ratio Lower Upper  
59 100  
57 1.3 8.2 12.4#

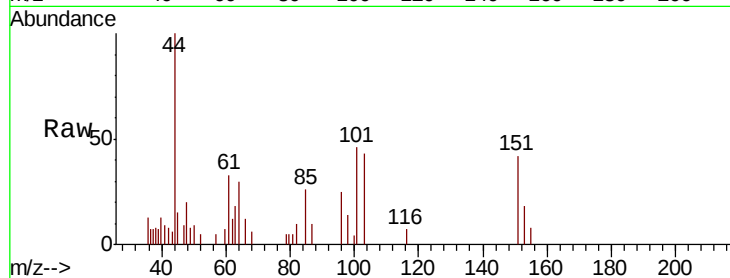




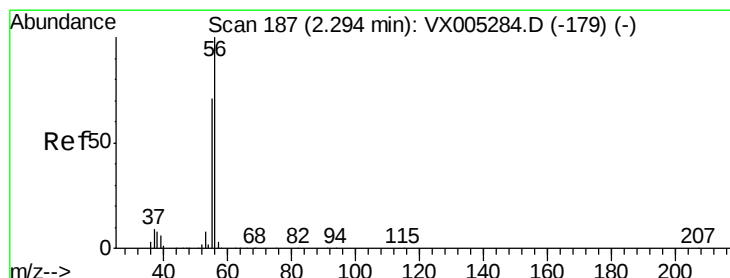
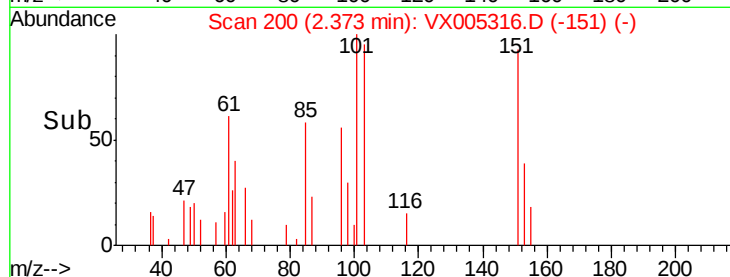
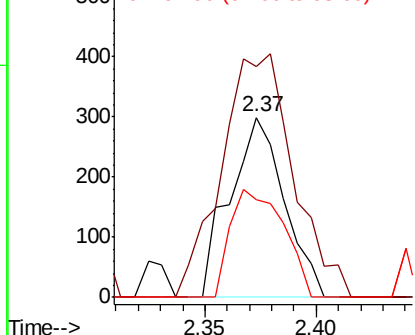
#12  
 1,1-Dichloroethene  
 Concen: 0.217 ug/l  
 RT: 2.37 min Scan# 200  
 Delta R.T. 0.00 min  
 Lab File: VX005316.D  
 Acq: 13 Oct 2018 02:17

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 RE137-640FT-20181009DL

Tot Ion: 96 Resp: 510  
 Ion Ratio Lower Upper  
 96 100  
 61 111.0 128.8 193.2#  
 98 54.2 52.2 78.2

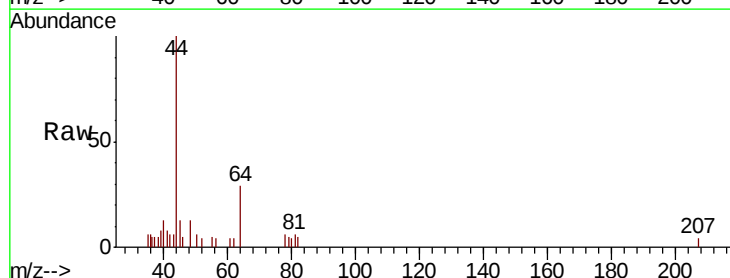


Abundance Ion 95.90 (95.60 to 96.60): VX0  
 Ion 60.90 (60.60 to 61.60): VX0  
 Ion 97.90 (97.60 to 98.60): VX0

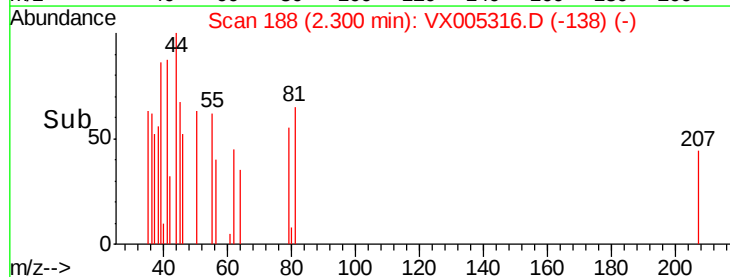
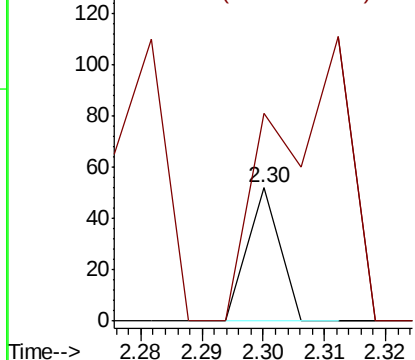


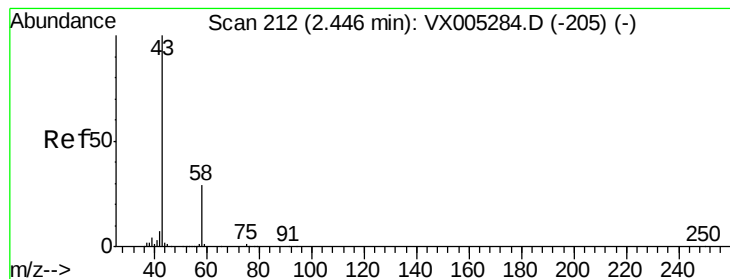
#13  
 Acrolein  
 Concen: Below Cal  
 RT: 2.30 min Scan# 188  
 Delta R.T. 0.01 min  
 Lab File: VX005316.D  
 Acq: 13 Oct 2018 02:17

Tgt Ion: 56 Resp: 19  
 Ion Ratio Lower Upper  
 56 100  
 55 484.2 54.7 82.1#



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





#16

Acetone

Concen: 0.889 ug/l

RT: 2.45 min Scan# 212

Delta R.T. 0.00 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

Instrument :

MSVOA\_X

ClientSampleId :

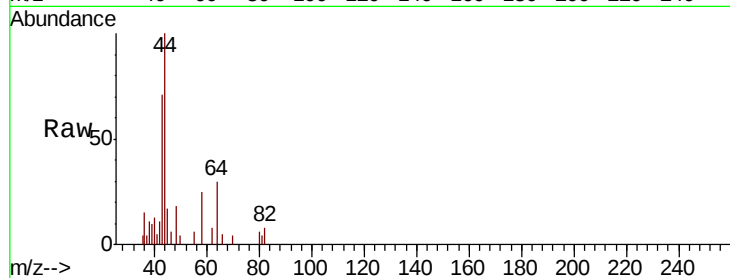
RE137-640FT-20181009DL

Tot Ion: 43 Resp: 1531

Ion Ratio Lower Upper

43 100

58 37.4 26.2 39.4



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

2.45

1000

800

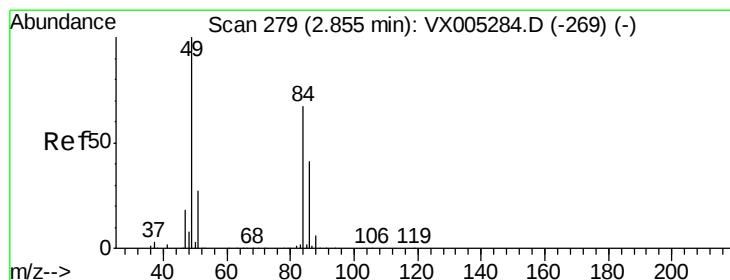
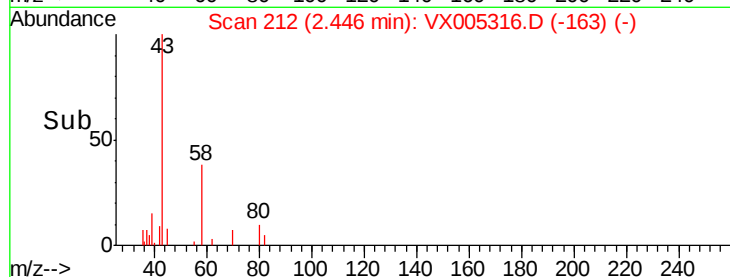
600

400

200

0

Time-->



#20

Methylene Chloride

Concen: Below Cal

RT: 2.86 min Scan# 280

Delta R.T. 0.01 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

Tgt Ion: 84 Resp: 2475

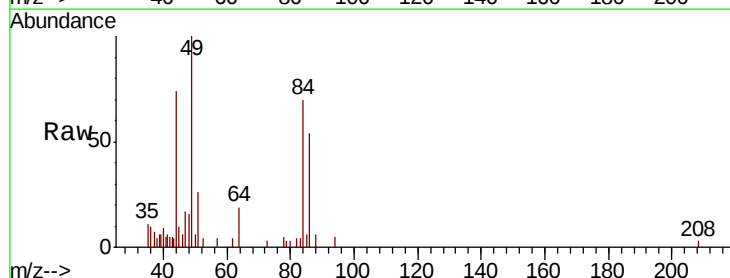
Ion Ratio Lower Upper

84 100

49 136.8 101.2 151.8

51 37.1 29.5 44.3

86 76.7 52.3 78.5



Abundance Ion 83.90 (83.60 to 84.60): VX0

Ion 48.90 (48.60 to 49.60): VX0

Ion 50.90 (50.60 to 51.60): VX0

Ion 85.90 (85.60 to 86.60): VX0

2500

2000

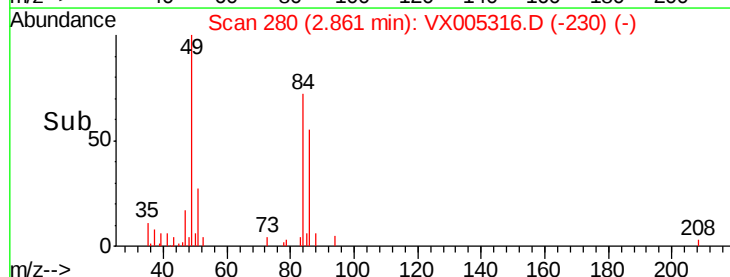
1500

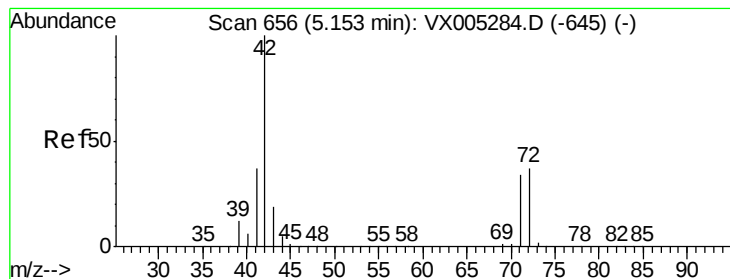
1000

500

0

Time-->





#29

Tetrahydrofuran

Concen: 0.328 ug/l

RT: 5.17 min Scan# 659

Delta R.T. 0.02 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

Instrument :

MSVOA\_X

ClientSampleId :

RE137-640FT-20181009DL

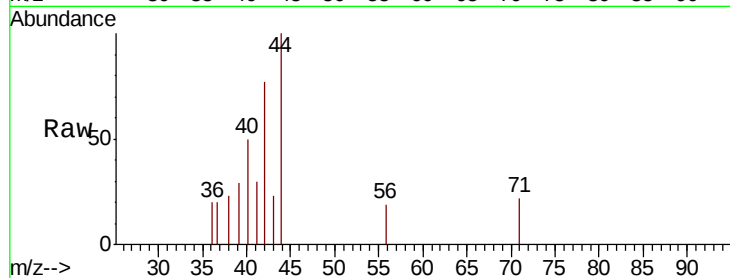
Tot Ion: 42 Resp: 527

Ion Ratio Lower Upper

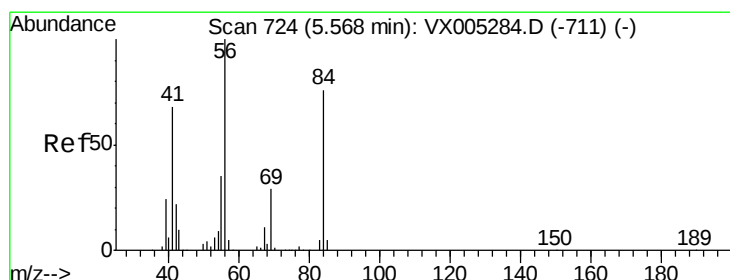
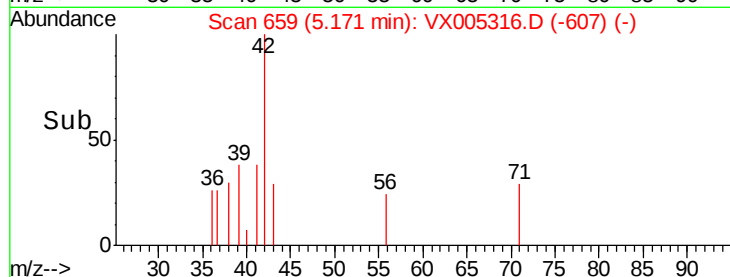
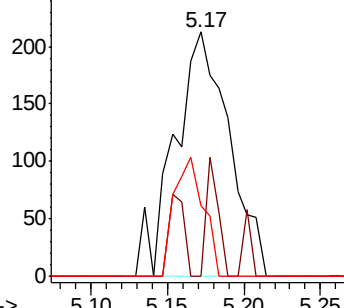
42 100

72 11.2 37.4 56.0#

71 26.0 34.5 51.7#



Abundance Ion 42.00 (41.70 to 42.70): VX0  
Ion 72.00 (71.70 to 72.70): VX0  
Ion 71.00 (70.70 to 71.70): VX0



#31

Cyclohexane

Concen: 1.166 ug/l

RT: 5.66 min Scan# 739

Delta R.T. 0.09 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

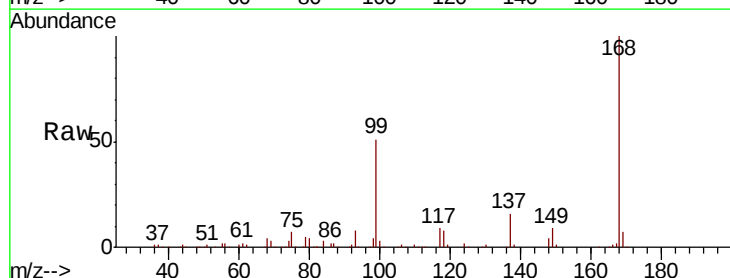
Tgt Ion: 56 Resp: 4772

Ion Ratio Lower Upper

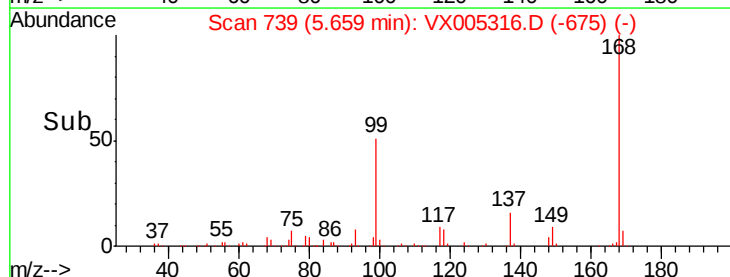
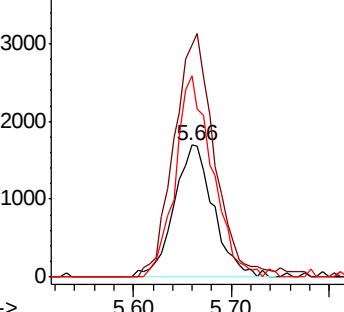
56 100

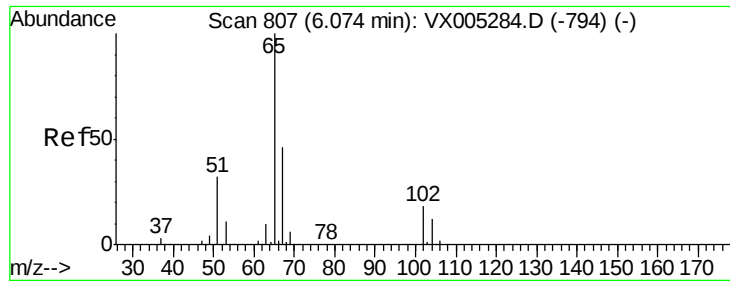
69 175.7 25.4 38.2#

84 152.3 71.4 107.2#



Abundance Ion 56.00 (55.70 to 56.70): VX0  
Ion 69.00 (68.70 to 69.70): VX0  
Ion 84.00 (83.70 to 84.70): VX0





#33

1,2-Dichloroethane-d4

Concen: 51.627 ug/l

RT: 6.07 min Scan# 806

Delta R.T. -0.01 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

Instrument :

MSVOA\_X

ClientSampleId :

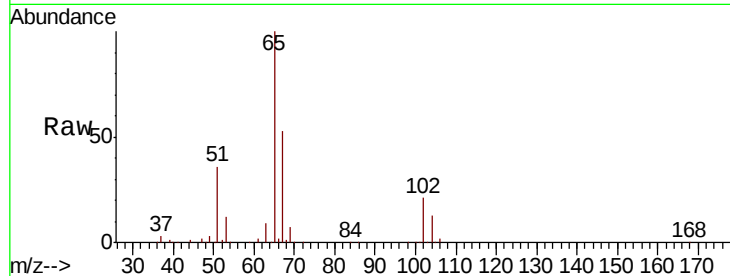
RE137-640FT-20181009DL

Tot Ion: 65 Resp: 153709

Ion Ratio Lower Upper

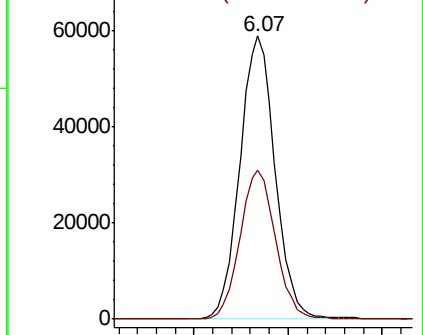
65 100

67 53.4 0.0 106.8

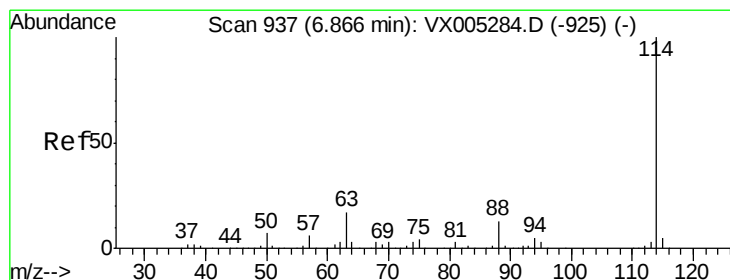
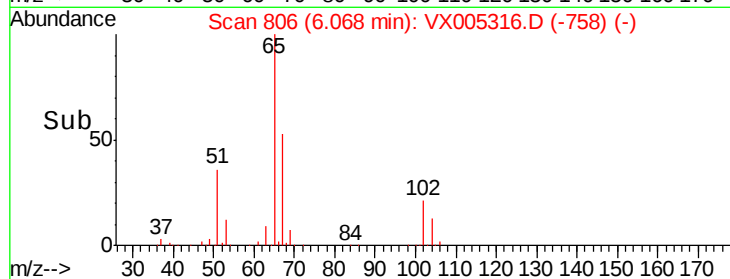


Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0



Time-->



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.86 min Scan# 936

Delta R.T. -0.01 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

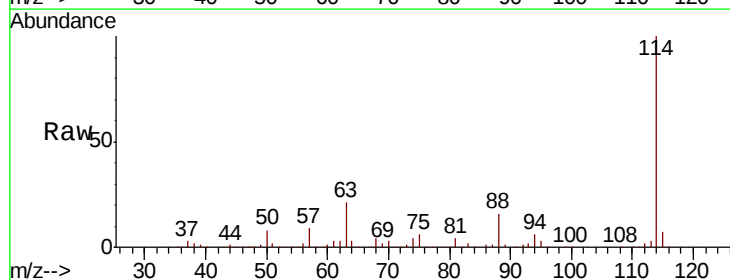
Tgt Ion: 114 Resp: 380360

Ion Ratio Lower Upper

114 100

63 20.5 0.0 39.0

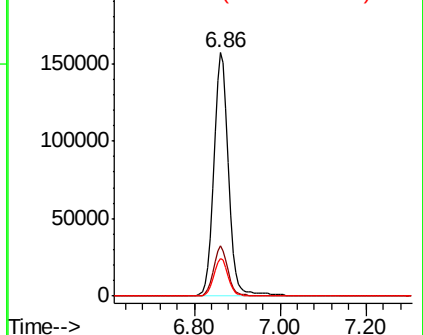
88 15.5 0.0 30.4



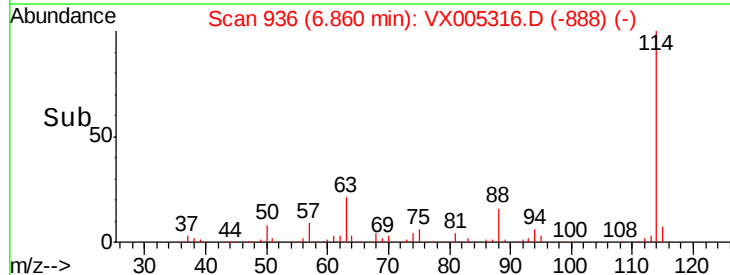
Abundance Ion 113.90 (113.60 to 114.60): V

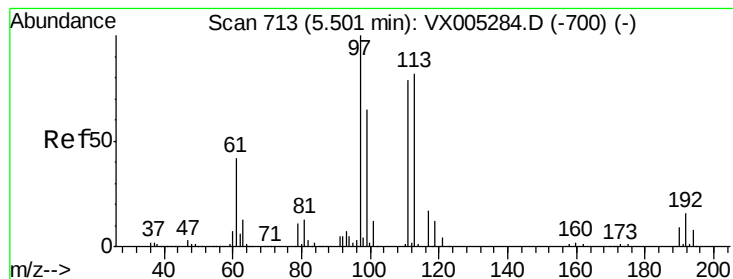
Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0



Time-->





#35

Dibromofluoromethane

Concen: 48.798 ug/l

RT: 5.50 min Scan# 713

Delta R.T. 0.00 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

Instrument :

MSVOA\_X

ClientSampleId :

RE137-640FT-20181009DL

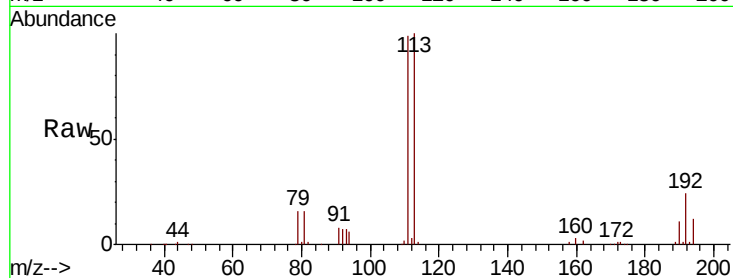
Tot Ion:113 Resp: 122933

Ion Ratio Lower Upper

113 100

111 102.5 82.4 123.6

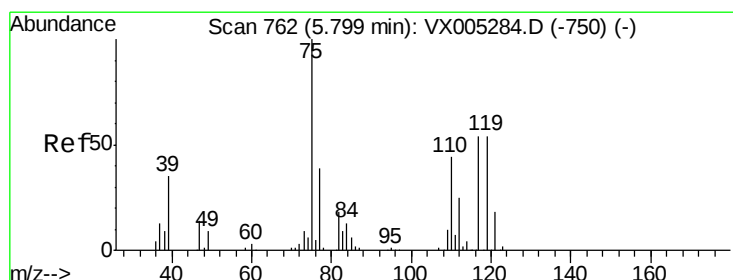
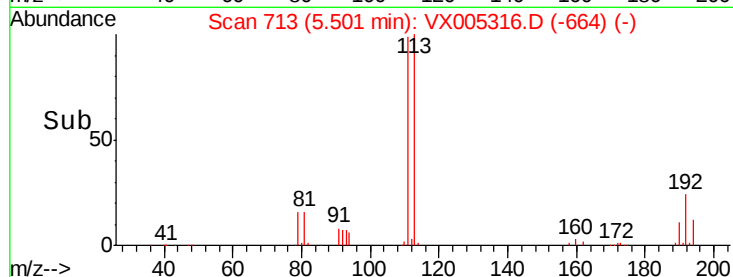
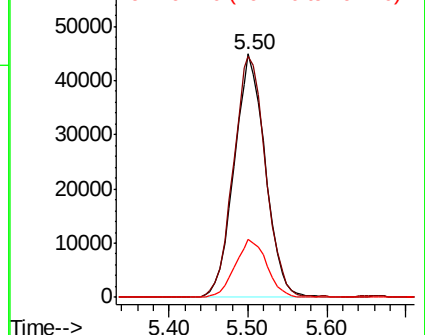
192 24.3 19.4 29.2



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: 5.012 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.13 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

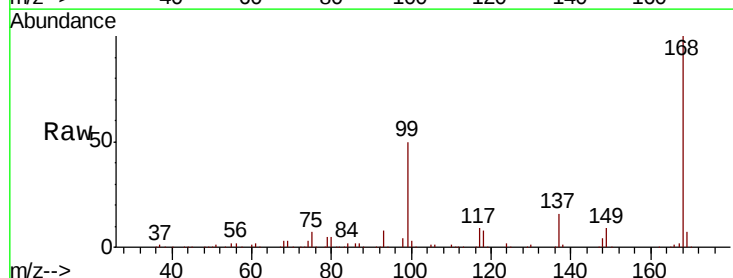
Tgt Ion: 75 Resp: 18464

Ion Ratio Lower Upper

75 100

110 8.6 18.0 54.0#

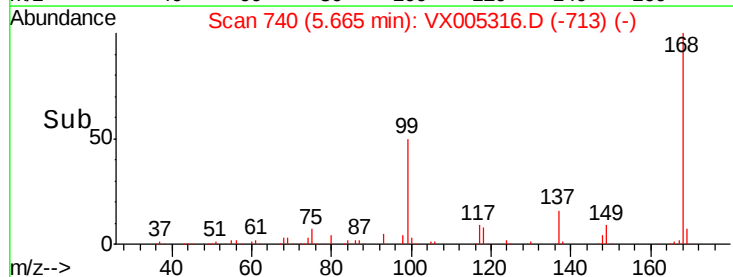
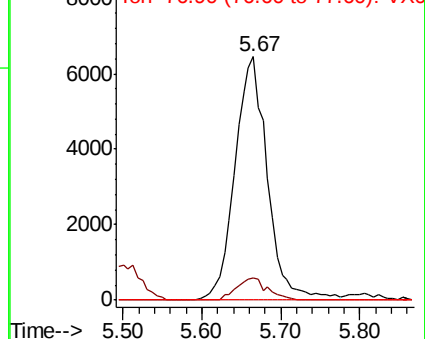
77 0.0 24.6 36.8#

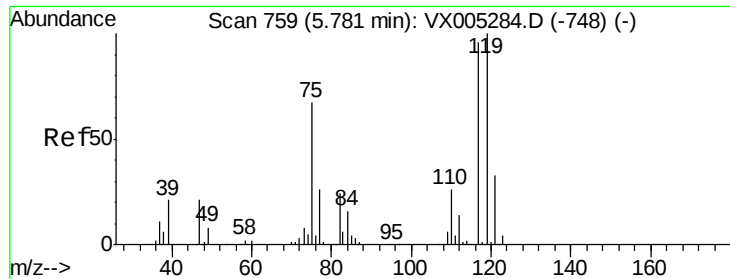


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 6.388 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.12 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

Instrument :

MSVOA\_X

ClientSampleId :

RE137-640FT-20181009DL

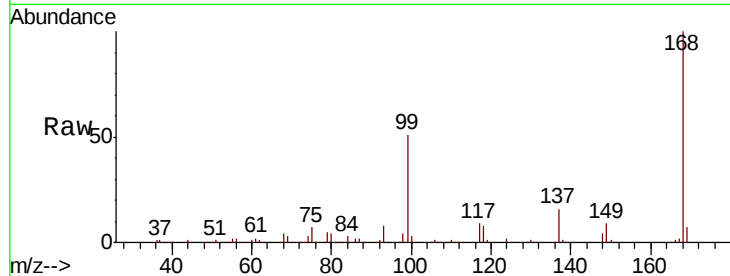
Tot Ion:117 Resp: 23646

Ion Ratio Lower Upper

117 100

119 6.5 78.8 118.2#

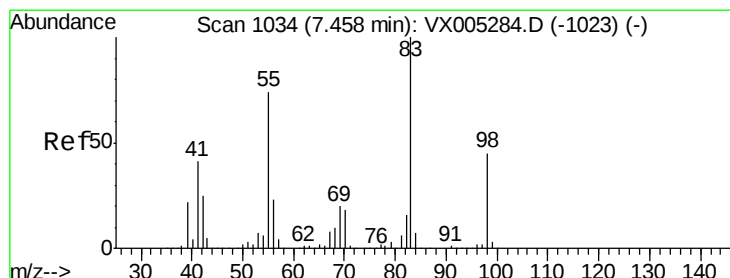
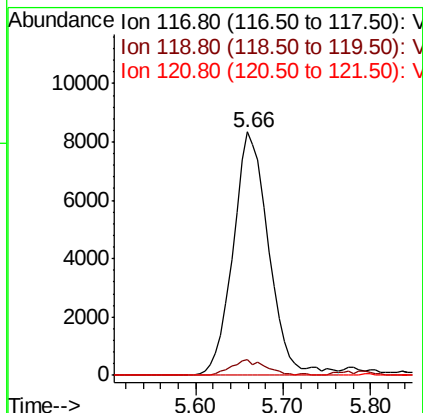
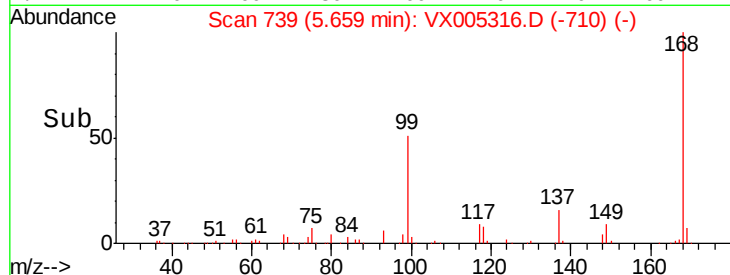
121 0.0 24.9 37.3#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#39

Methylcyclohexane

Concen: 0.367 ug/l

RT: 7.21 min Scan# 993

Delta R.T. -0.25 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

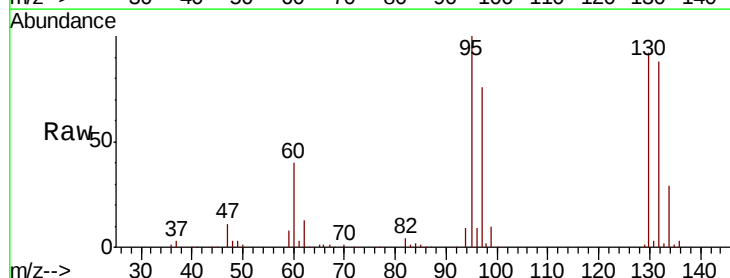
Tgt Ion: 83 Resp: 1464

Ion Ratio Lower Upper

83 100

55 0.0 61.0 91.4#

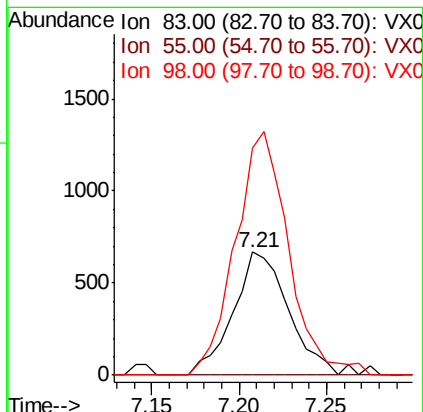
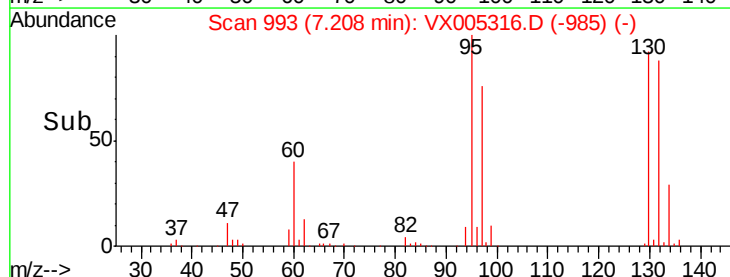
98 184.4 39.6 59.4#

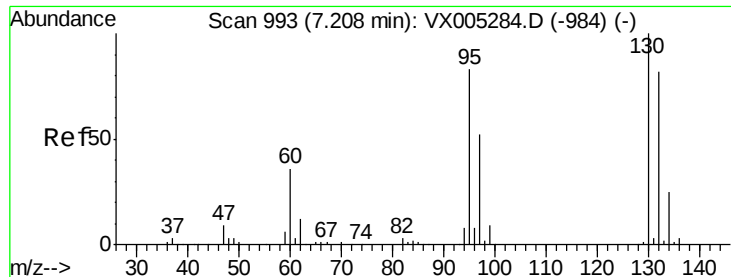


Abundance Ion 83.00 (82.70 to 83.70): VX0

Ion 55.00 (54.70 to 55.70): VX0

Ion 98.00 (97.70 to 98.70): VX0





#44

Trichloroethene

Concen: 41.842 ug/l

RT: 7.21 min Scan# 994

Delta R.T. 0.01 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

Instrument :

MSVOA\_X

ClientSampleId :

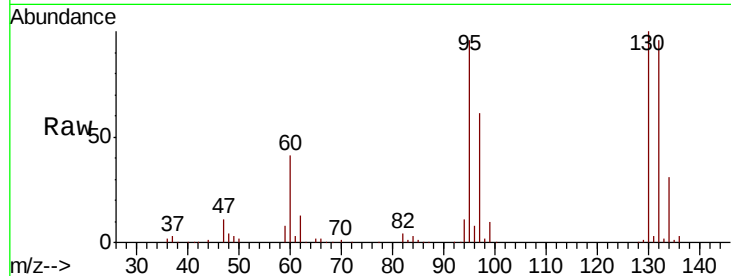
RE137-640FT-20181009DL

Tot Ion:130 Resp: 118346

Ion Ratio Lower Upper

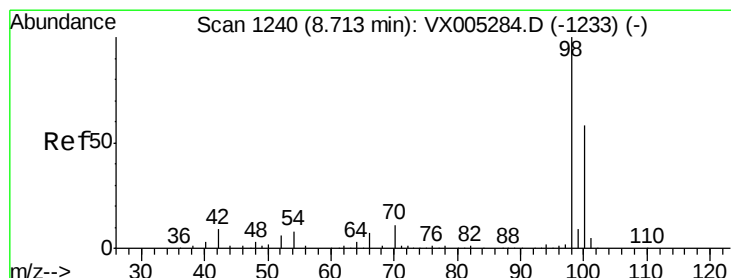
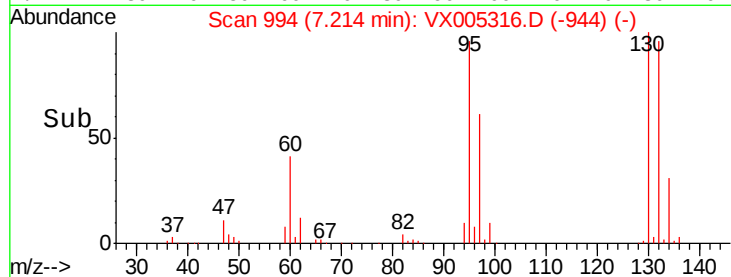
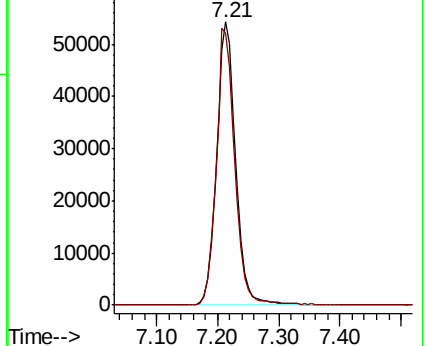
130 100

95 96.2 0.0 181.6



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0



#50

Toluene-d8

Concen: 53.200 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. 0.00 min

Lab File: VX005316.D

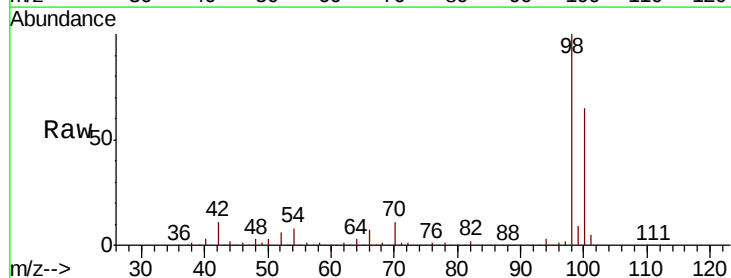
Acq: 13 Oct 2018 02:17

Tgt Ion: 98 Resp: 460112

Ion Ratio Lower Upper

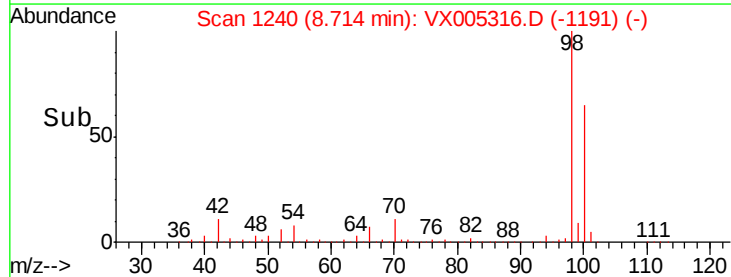
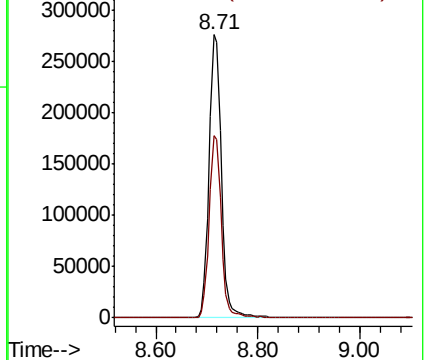
98 100

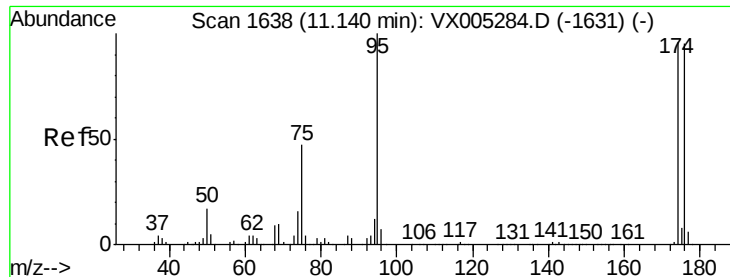
100 63.7 52.9 79.3



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): V





#62

4-Bromofluorobenzene

Concen: 45.734 ug/l

RT: 11.14 min Scan# 1638

Delta R.T. 0.00 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

Instrument :

MSVOA\_X

ClientSampleId :

RE137-640FT-20181009DL

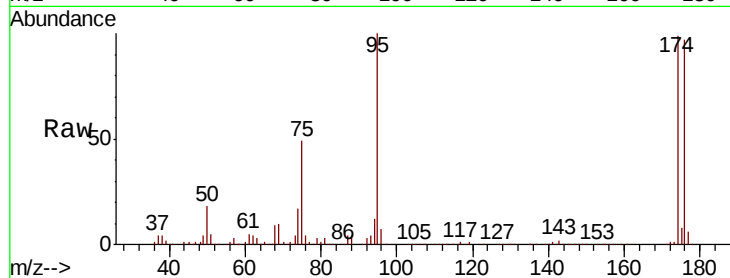
Tot Ion: 95 Resp: 148589

Ion Ratio Lower Upper

95 100

174 96.2 0.0 185.2

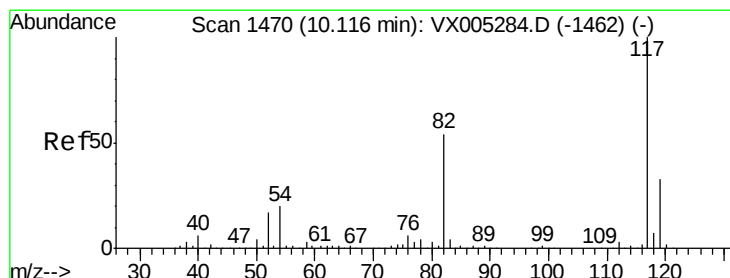
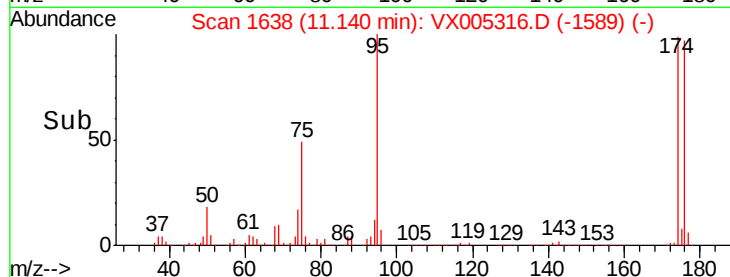
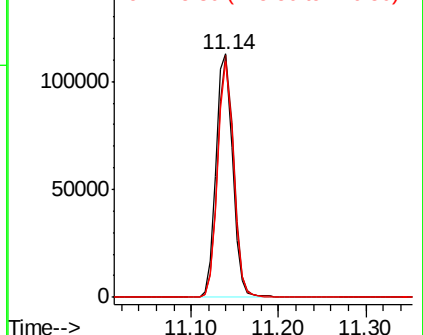
176 92.6 0.0 178.6



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: 10.12 min Scan# 1470

Delta R.T. 0.00 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

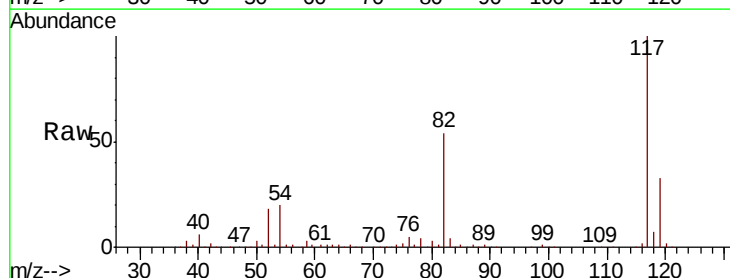
Tgt Ion: 117 Resp: 341865

Ion Ratio Lower Upper

117 100

82 53.6 47.8 71.6

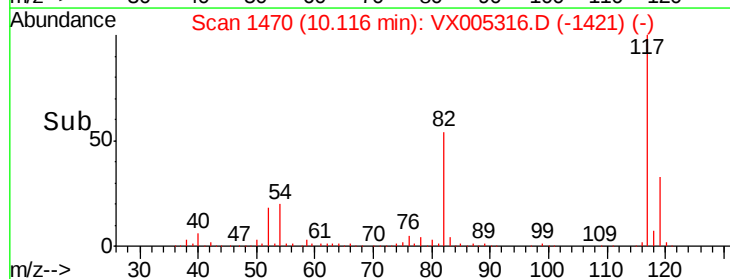
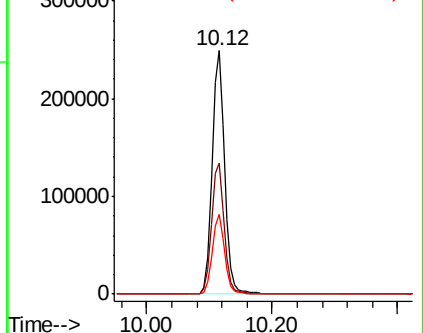
119 32.6 29.3 43.9

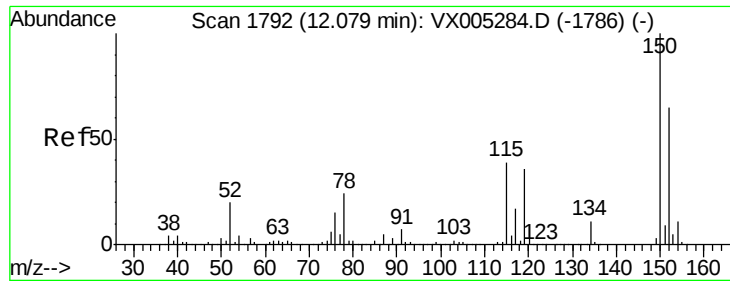


Abundance Ion 116.90 (116.60 to 117.60): V

Ion 82.00 (81.70 to 82.70): VX0

Ion 118.90 (118.60 to 119.60): V





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.08 min Scan# 1792

Delta R.T. 0.00 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

Instrument :

MSVOA\_X

ClientSampleId :

RE137-640FT-20181009DL

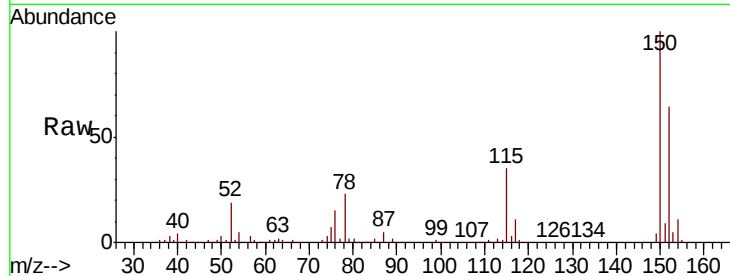
Tot Ion:152 Resp: 165830

Ion Ratio Lower Upper

152 100

115 55.1 39.0 117.0

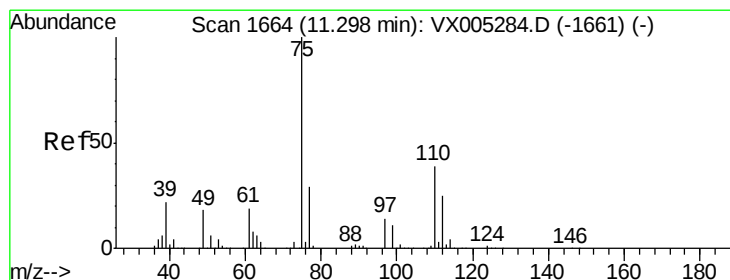
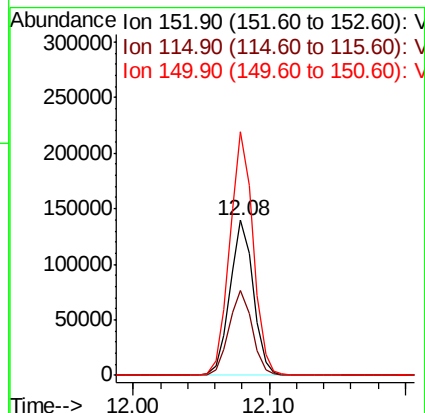
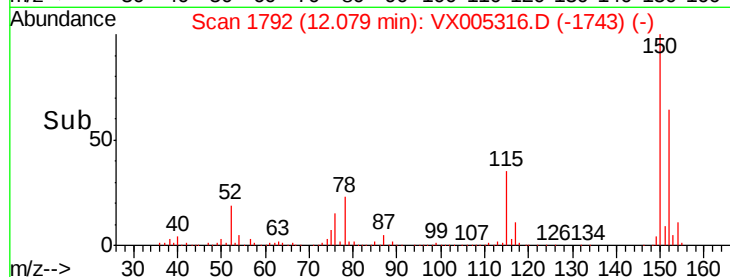
150 156.9 0.0 351.0



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 23.128 ug/l

RT: 11.14 min Scan# 1638

Delta R.T. -0.16 min

Lab File: VX005316.D

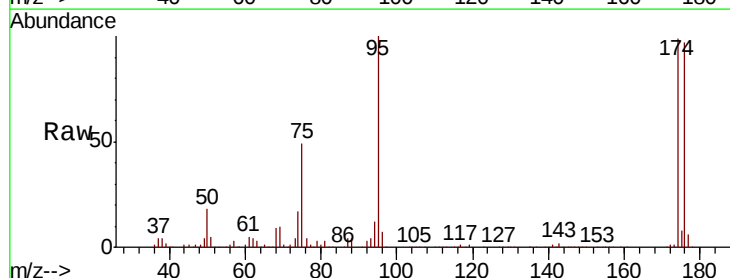
Acq: 13 Oct 2018 02:17

Tgt Ion: 75 Resp: 74395

Ion Ratio Lower Upper

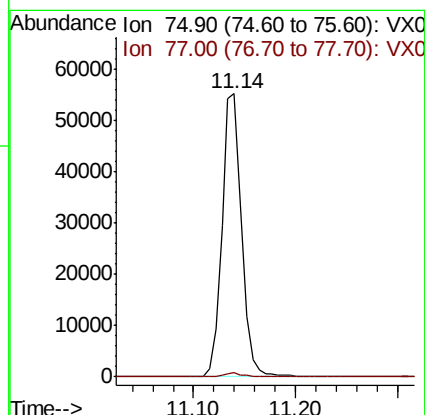
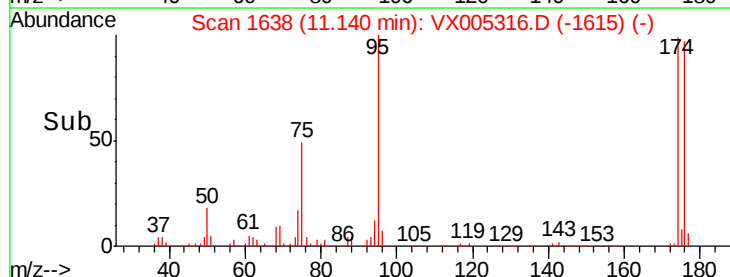
75 100

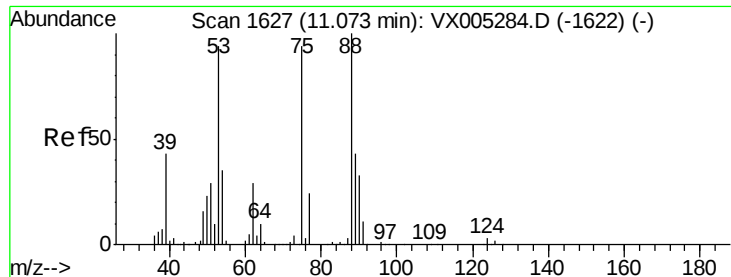
77 1.4 20.2 60.6#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0





#81

trans-1,4-Dichloro-2-butene

Concen: 70.275 ug/l

RT: 11.14 min Scan# 1638

Delta R.T. 0.07 min

Lab File: VX005316.D

Acq: 13 Oct 2018 02:17

Instrument :

MSVOA\_X

ClientSampleId :

RE137-640FT-20181009DL

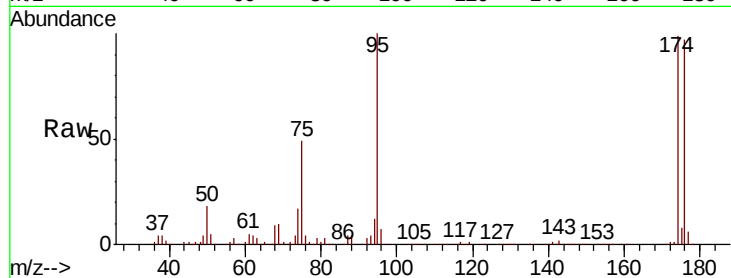
Tot Ion: 75 Resp: 74395

Ion Ratio Lower Upper

75 100

53 0.2 80.1 120.1#

89 0.0 37.2 55.8#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0

