

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_X\DATA\VX082719\  
 Data File : VX011857.D  
 Acq On : 27 Aug 2019 18:01  
 Operator : JC/SP  
 Sample : K4493-24  
 Misc : 5.0mL/MSVOA\_X/WATER  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 T9-12-13-H-(0)

Quant Time: Aug 28 02:24:33 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082219W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Aug 23 01:48:12 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 404341   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 555781   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 498643   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 250370   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.06  | 65   | 204732   | 50.40 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.80% |          |
| 35) Dibromofluoromethane    | 5.49  | 113  | 174589   | 48.58 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.16%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 642000   | 51.21 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 102.42% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 238958   | 48.23 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.46%  |          |

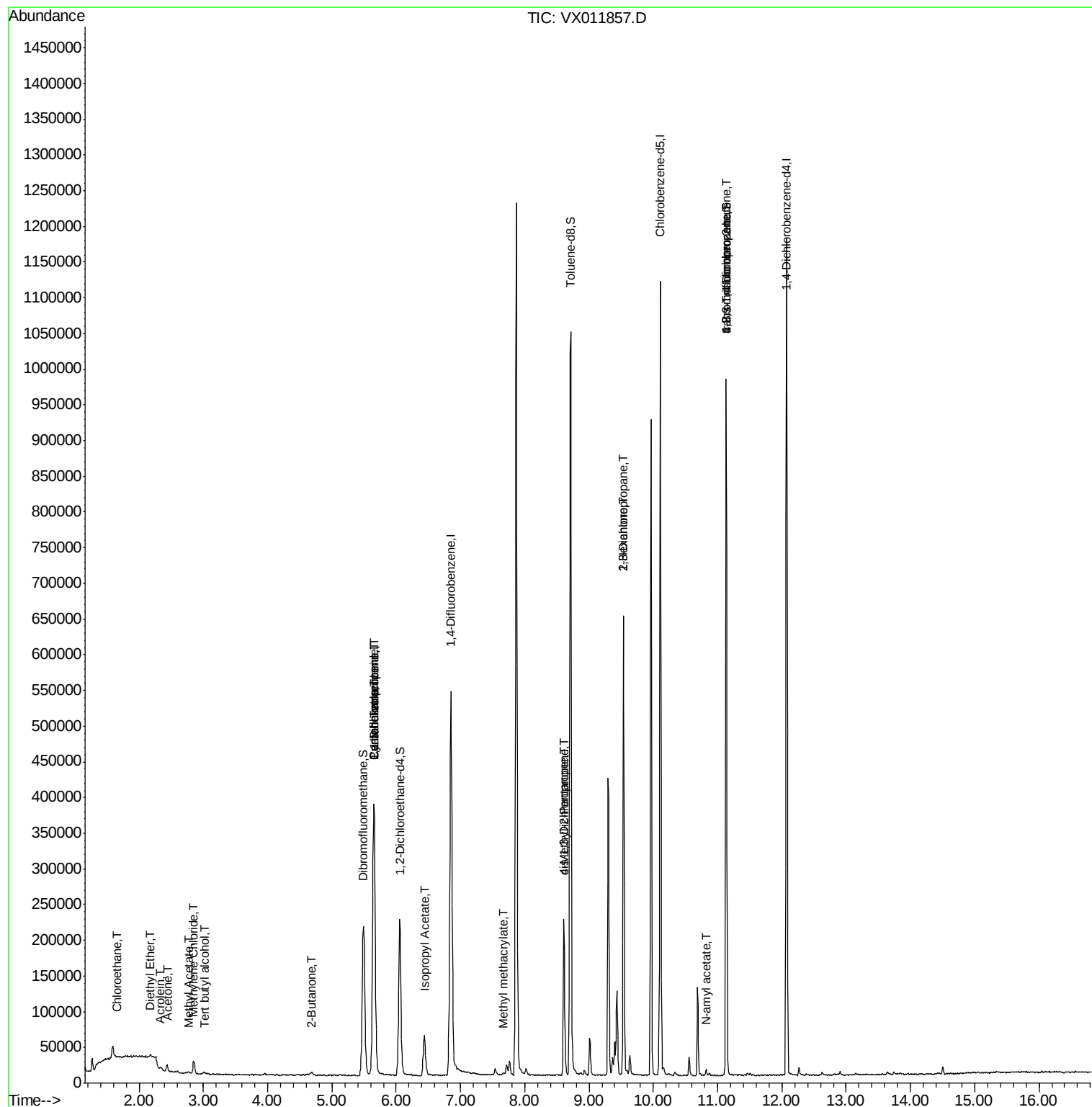
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 6) Chloroethane                | 1.65  | 64   | 405      | 0.209  | ug/l # | 58     |
| 8) Diethyl Ether               | 2.18  | 74   | 755      | 0.422  | ug/l   | 94     |
| 11) Tert butyl alcohol         | 3.01  | 59   | 2083     | 2.595  | ug/l # | 81     |
| 13) Acrolein                   | 2.32  | 56   | 178      | 0.574  | ug/l # | 16     |
| 16) Acetone                    | 2.43  | 43   | 10611    | 6.005  | ug/l   | 100    |
| 18) Methyl Acetate             | 2.77  | 43   | 3222     | 0.672  | ug/l # | 86     |
| 20) Methylene Chloride         | 2.85  | 84   | 7957     | 2.203  | ug/l # | 90     |
| 25) 2-Butanone                 | 4.68  | 43   | 1828     | 0.721  | ug/l # | 87     |
| 31) Cyclohexane                | 5.65  | 56   | 6806     | 1.363  | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.65  | 75   | 25487    | 5.848  | ug/l # | 51     |
| 38) Carbon Tetrachloride       | 5.65  | 117  | 34990    | 7.084  | ug/l # | 16     |
| 43) Isopropyl Acetate          | 6.44  | 43   | 79880    | 10.701 | ug/l   | 99     |
| 48) Methyl methacrylate        | 7.67  | 41   | 5326     | 1.434  | ug/l # | 15     |
| 51) 4-Methyl-2-Pentanone       | 8.61  | 43   | 78397    | 15.938 | ug/l # | 45     |
| 54) cis-1,3-Dichloropropene    | 8.61  | 75   | 36258    | 7.039  | ug/l # | 58     |
| 57) 1,3-Dichloropropane        | 9.54  | 76   | 5651     | 0.963  | ug/l # | 47     |
| 59) 2-Hexanone                 | 9.54  | 43   | 74874    | 19.832 | ug/l # | 49     |
| 74) N-amyl acetate             | 10.82 | 43   | 4271     | 0.731  | ug/l # | 50     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 118111   | 26.885 | ug/l # | 35     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 118111   | 81.079 | ug/l # | 11     |

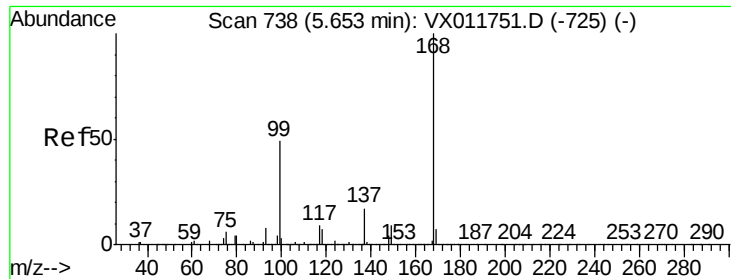
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Fri Aug 23 01:48:12 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.65 min Scan# 738

Delta R.T. -0.00 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

Instrument :

MSVOA\_X

ClientSampleId :

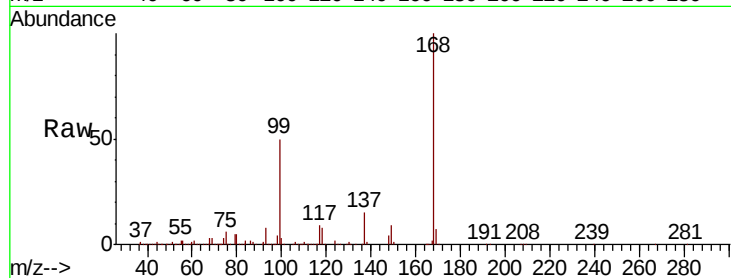
T9-12-13-H-(0)

Tgt Ion:168 Resp: 404341

Ion Ratio Lower Upper

168 100

99 49.5 39.4 59.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.65

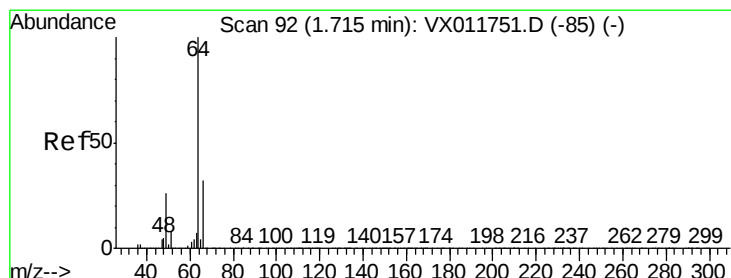
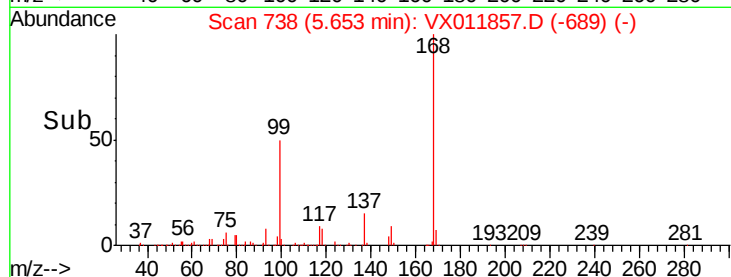
150000

100000

50000

0

Time-->



#6

Chloroethane

Concen: 0.209 ug/l

RT: 1.65 min Scan# 82

Delta R.T. -0.06 min

Lab File: VX011857.D

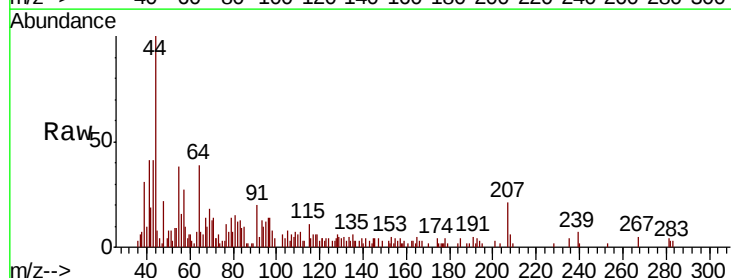
Acq: 27 Aug 2019 18:01

Tgt Ion: 64 Resp: 405

Ion Ratio Lower Upper

64 100

66 7.7 24.9 37.3#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0

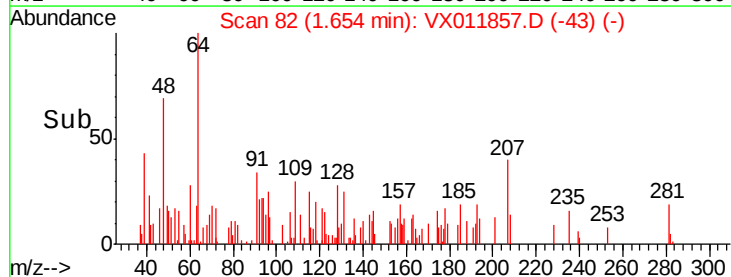
1.65

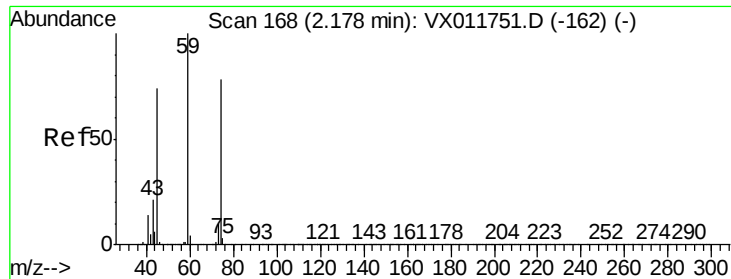
1000

500

0

Time-->





#8

Diethyl Ether

Concen: 0.422 ug/l

RT: 2.18 min Scan# 169

Delta R.T. 0.01 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

Instrument :

MSVOA\_X

ClientSampleId :

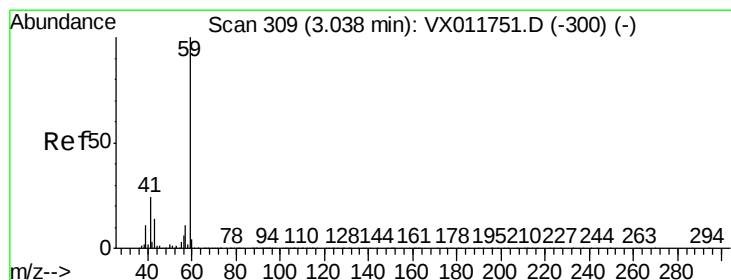
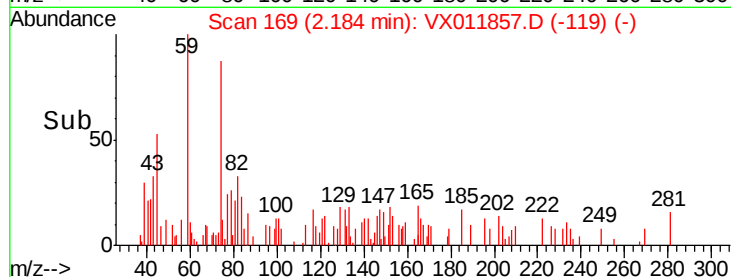
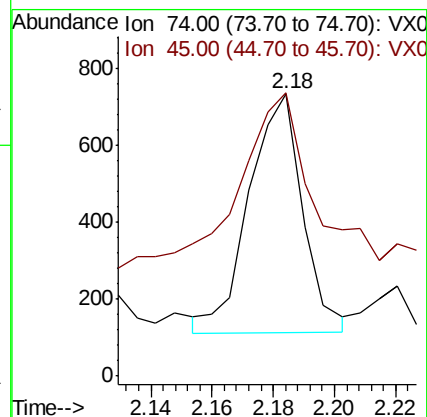
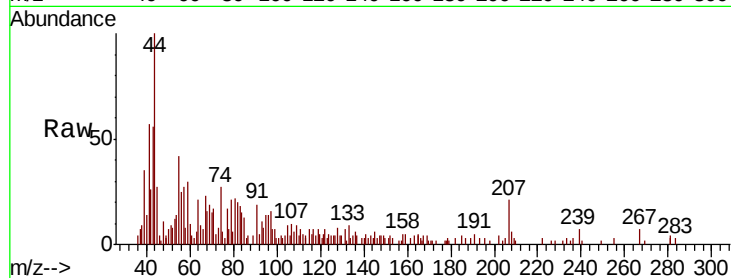
T9-12-13-H-(0)

Tgt Ion: 74 Resp: 755

Ion Ratio Lower Upper

74 100

45 87.8 46.7 140.0



#11

Tert butyl alcohol

Concen: 2.595 ug/l

RT: 3.01 min Scan# 304

Delta R.T. -0.03 min

Lab File: VX011857.D

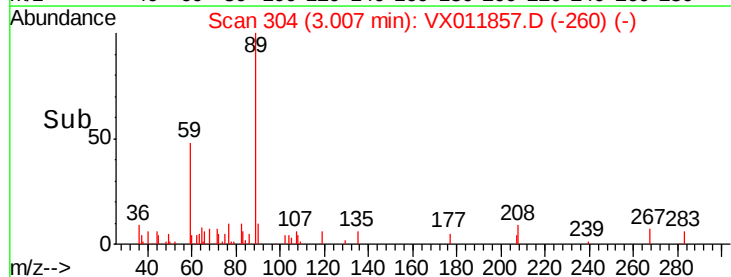
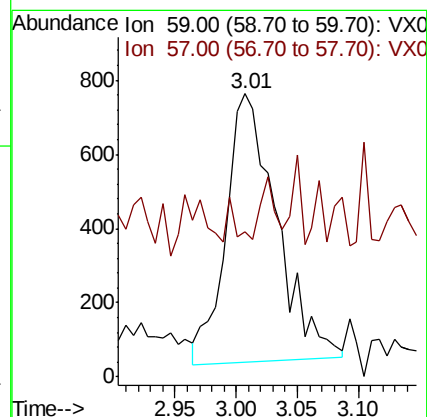
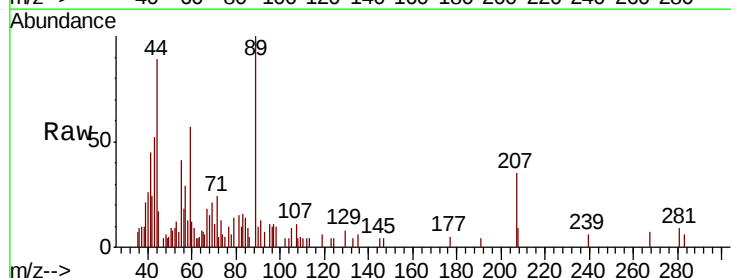
Acq: 27 Aug 2019 18:01

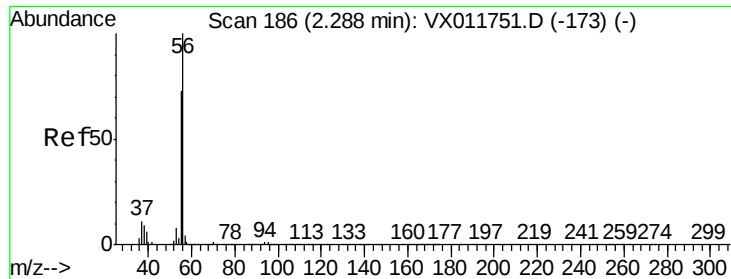
Tgt Ion: 59 Resp: 2083

Ion Ratio Lower Upper

59 100

57 3.2 8.4 12.6#





#13

Acrolein

Concen: 0.574 ug/l

RT: 2.32 min Scan# 191

Delta R.T. 0.03 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

Instrument :

MSVOA\_X

ClientSampleId :

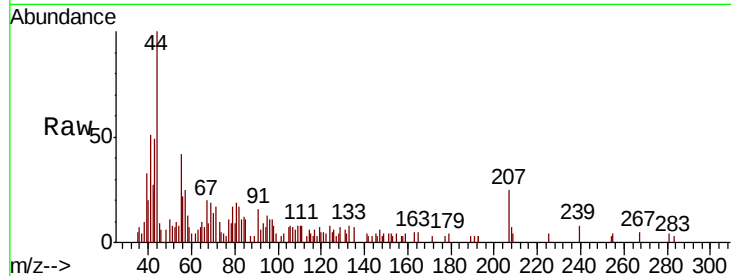
T9-12-13-H-(0)

Tgt Ion: 56 Resp: 178

Ion Ratio Lower Upper

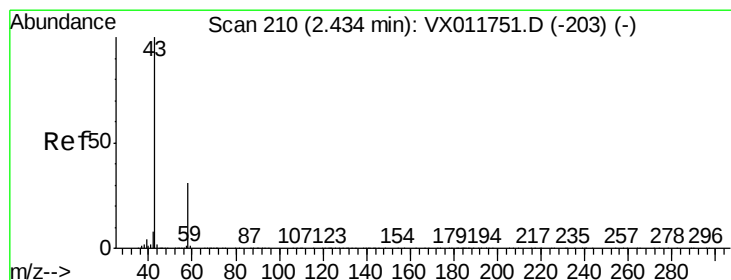
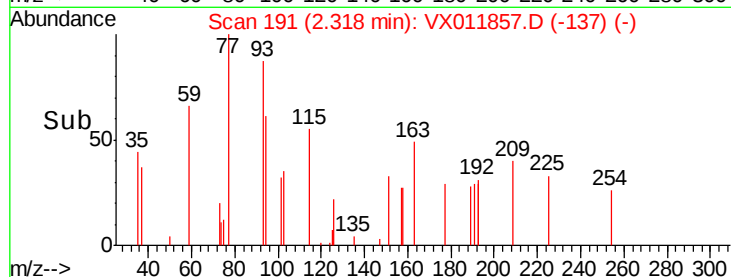
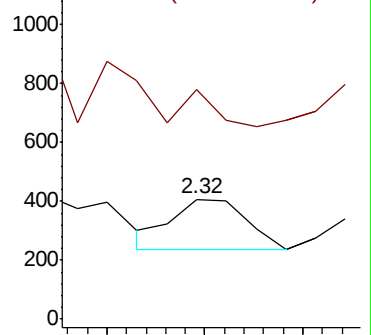
56 100

55 0.0 54.8 82.2#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 55.00 (54.70 to 55.70): VX0



#16

Acetone

Concen: 6.005 ug/l

RT: 2.43 min Scan# 210

Delta R.T. -0.00 min

Lab File: VX011857.D

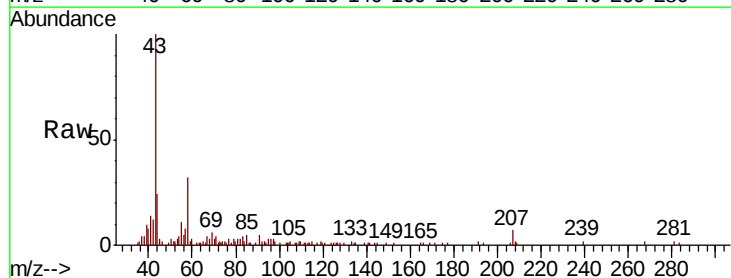
Acq: 27 Aug 2019 18:01

Tgt Ion: 43 Resp: 10611

Ion Ratio Lower Upper

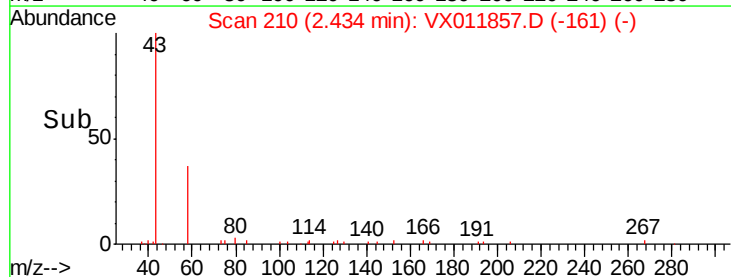
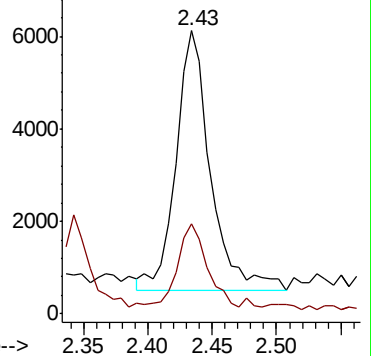
43 100

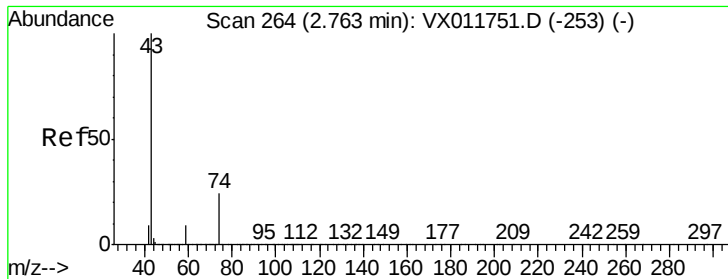
58 30.7 24.4 36.6



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

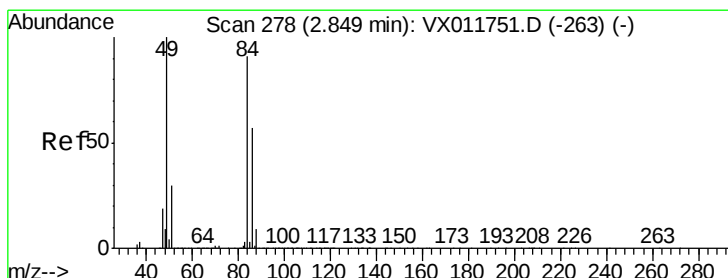
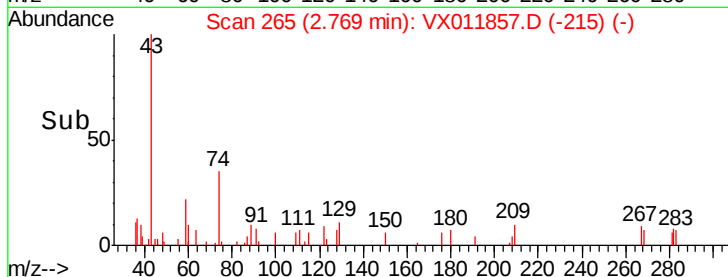
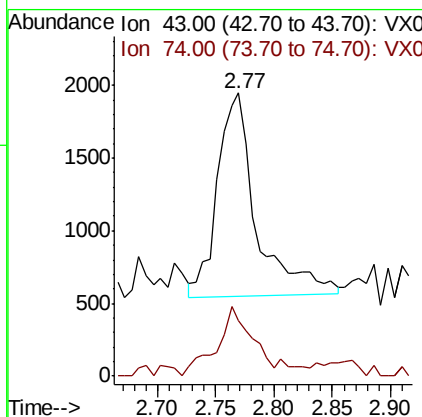
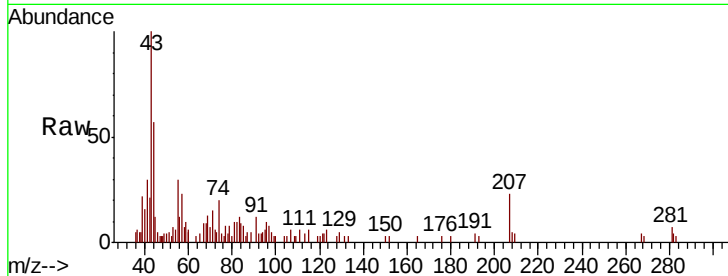




#18  
Methyl Acetate  
Concen: 0.672 ug/l  
RT: 2.77 min Scan# 265  
Delta R.T. 0.01 min  
Lab File: VX011857.D  
Acq: 27 Aug 2019 18:01

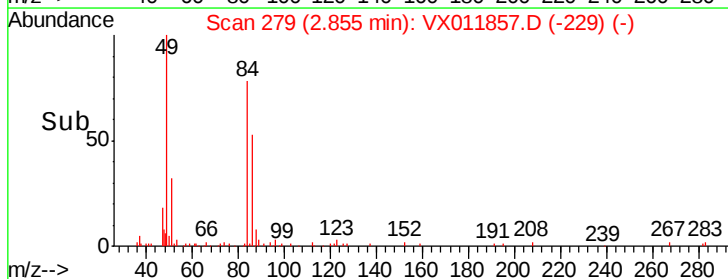
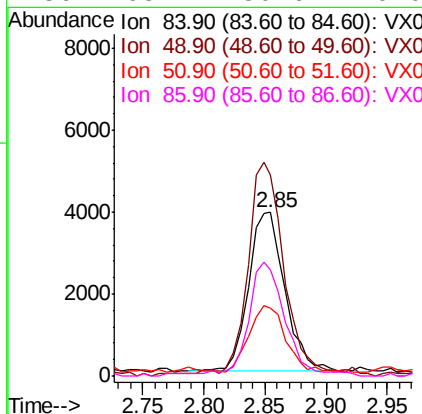
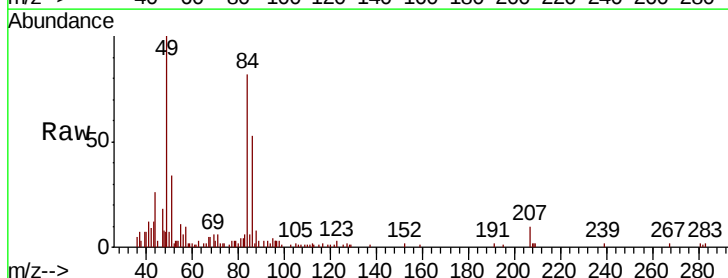
Instrument :  
MSVOA\_X  
ClientSampleId :  
T9-12-13-H-(0)

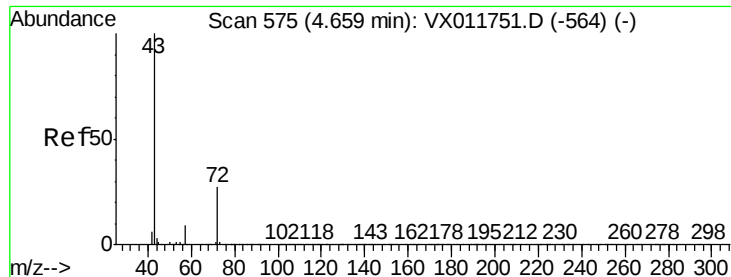
Tgt Ion: 43 Resp: 3222  
Ion Ratio Lower Upper  
43 100  
74 31.3 19.5 29.3#



#20  
Methylene Chloride  
Concen: 2.203 ug/l  
RT: 2.85 min Scan# 279  
Delta R.T. 0.01 min  
Lab File: VX011857.D  
Acq: 27 Aug 2019 18:01

Tgt Ion: 84 Resp: 7957  
Ion Ratio Lower Upper  
84 100  
49 124.8 88.3 132.5  
51 39.8 26.2 39.2#  
86 65.7 50.6 76.0





#25

2-Butanone

Concen: 0.721 ug/l

RT: 4.68 min Scan# 579

Delta R.T. 0.02 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

Instrument :

MSVOA\_X

ClientSampled :

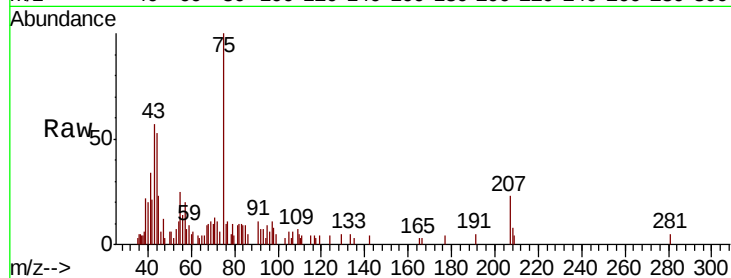
T9-12-13-H-(0)

Tgt Ion: 43 Resp: 1828

Ion Ratio Lower Upper

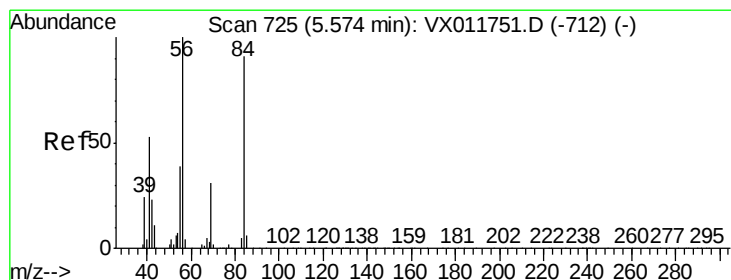
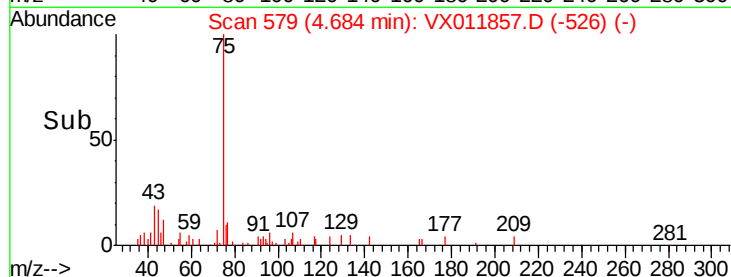
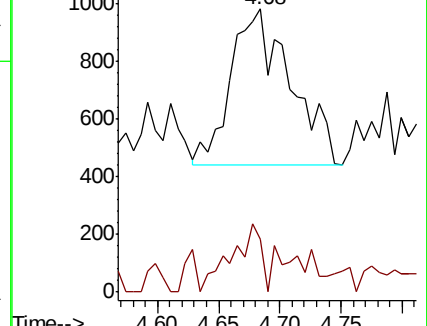
43 100

72 20.6 21.8 32.6#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 72.00 (71.70 to 72.70): VX0



#31

Cyclohexane

Concen: 1.363 ug/l

RT: 5.65 min Scan# 738

Delta R.T. 0.08 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

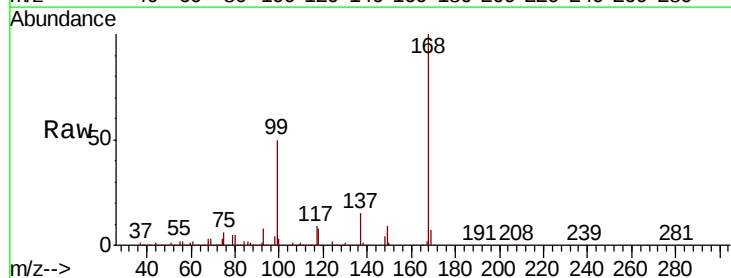
Tgt Ion: 56 Resp: 6806

Ion Ratio Lower Upper

56 100

69 186.6 24.5 36.7#

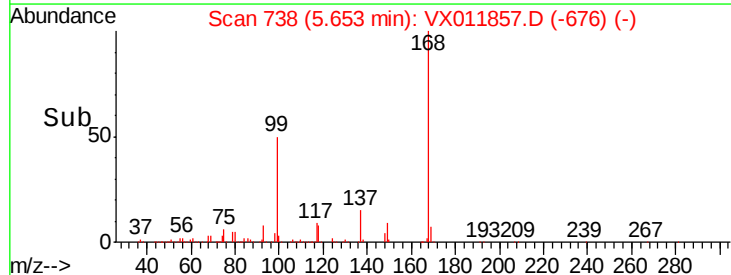
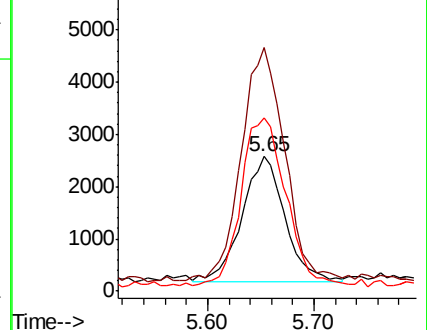
84 136.3 72.7 109.1#

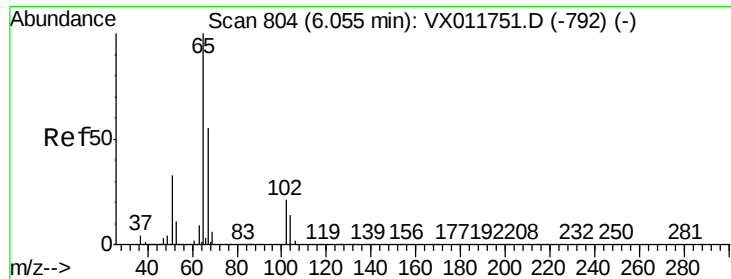


Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 84.00 (83.70 to 84.70): VX0





#33

1,2-Dichloroethane-d4

Concen: 50.404 ug/l

RT: 6.06 min Scan# 804

Delta R.T. -0.00 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

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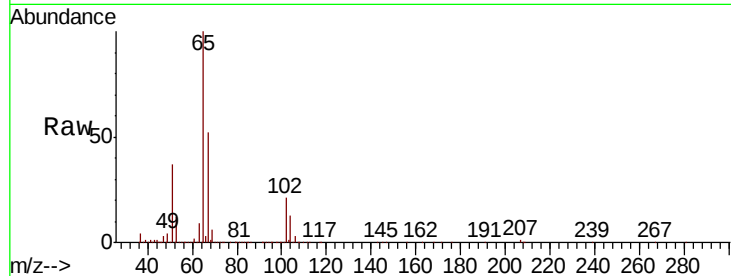
T9-12-13-H-(0)

Tgt Ion: 65 Resp: 204732

Ion Ratio Lower Upper

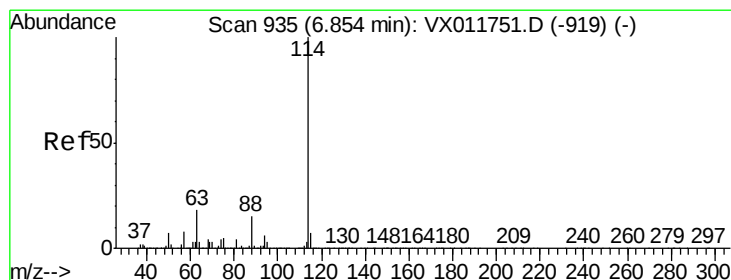
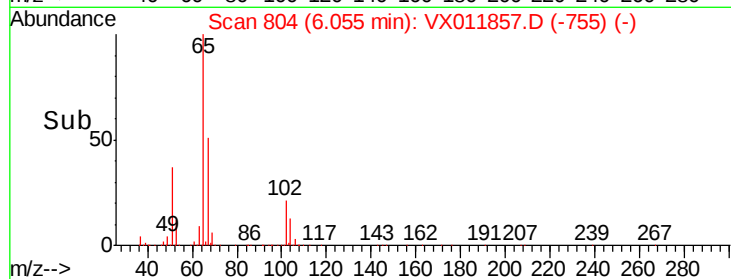
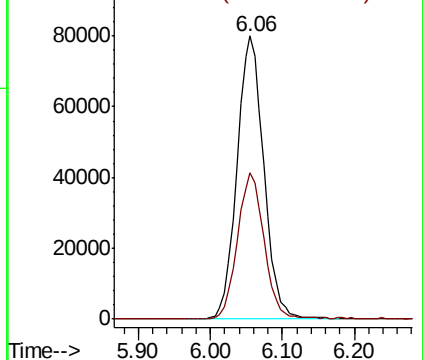
65 100

67 51.1 0.0 107.8



Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.85 min Scan# 935

Delta R.T. -0.00 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

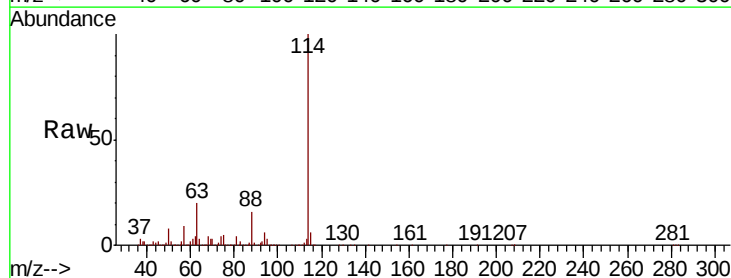
Tgt Ion: 114 Resp: 555781

Ion Ratio Lower Upper

114 100

63 20.0 0.0 36.8

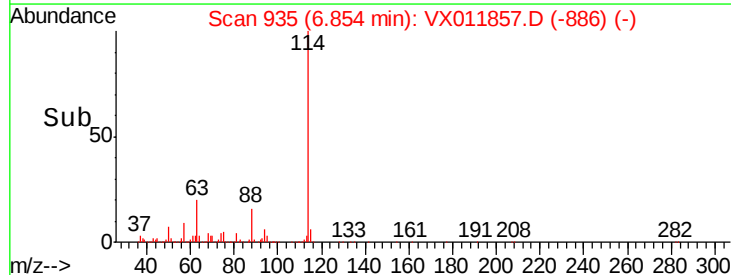
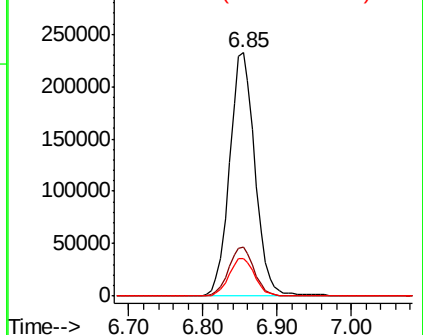
88 15.6 0.0 30.2

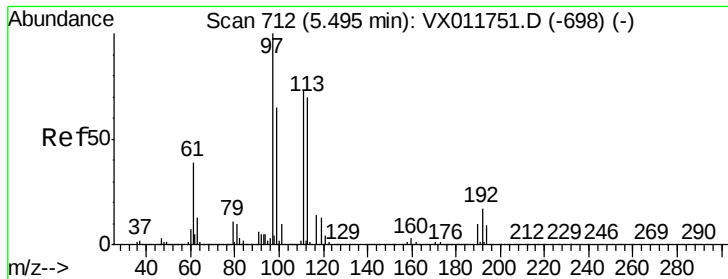


Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0





#35

Dibromofluoromethane

Concen: 48.579 ug/l

RT: 5.49 min Scan# 711

Delta R.T. -0.01 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

Instrument :

MSVOA\_X

ClientSampleId :

T9-12-13-H-(0)

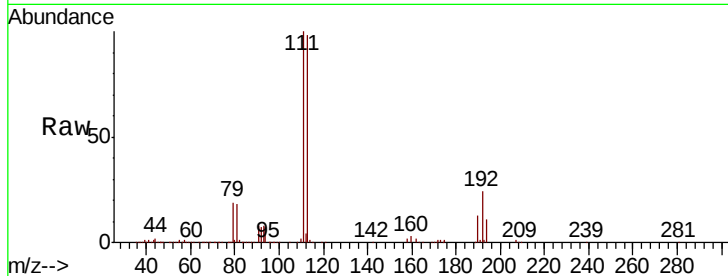
Tgt Ion:113 Resp: 174589

Ion Ratio Lower Upper

113 100

111 101.9 81.0 121.4

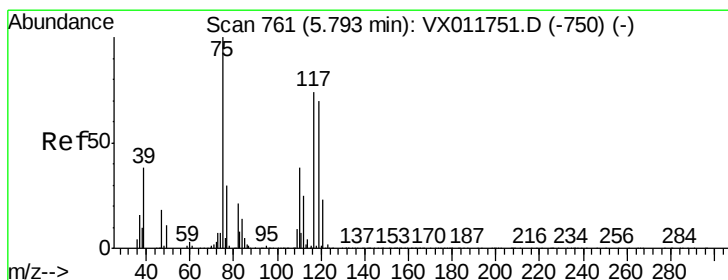
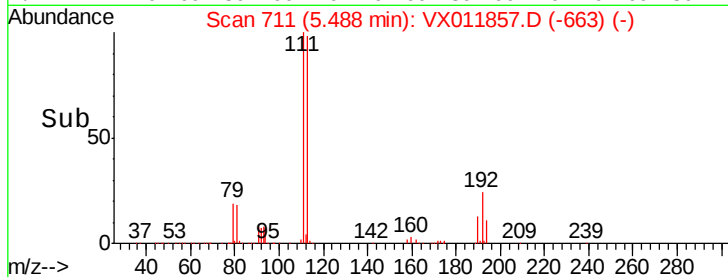
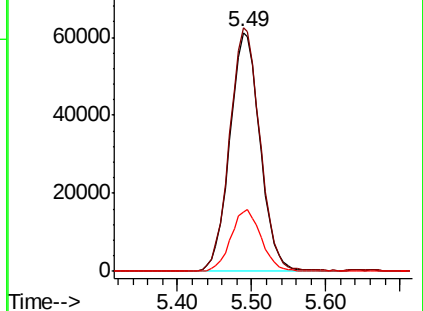
192 25.9 19.9 29.9



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: 5.848 ug/l

RT: 5.65 min Scan# 737

Delta R.T. -0.15 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

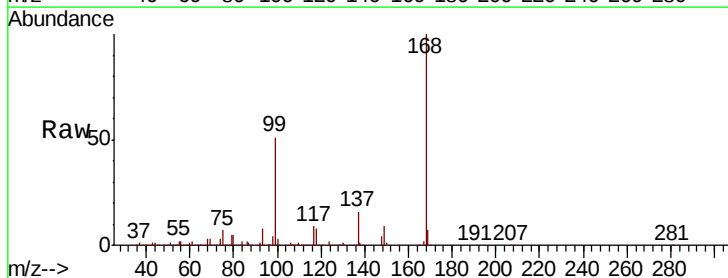
Tgt Ion: 75 Resp: 25487

Ion Ratio Lower Upper

75 100

110 12.1 19.0 57.0#

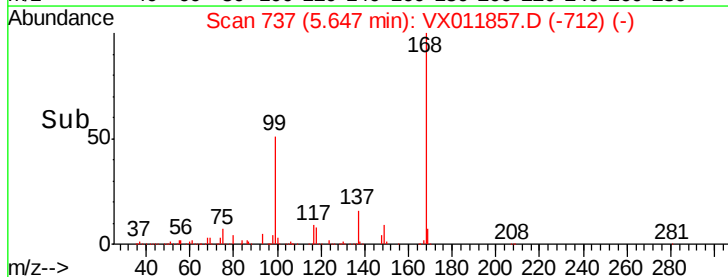
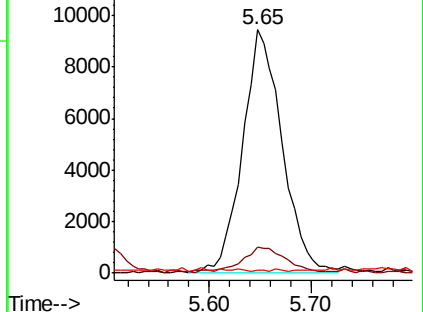
77 0.3 24.6 36.8#

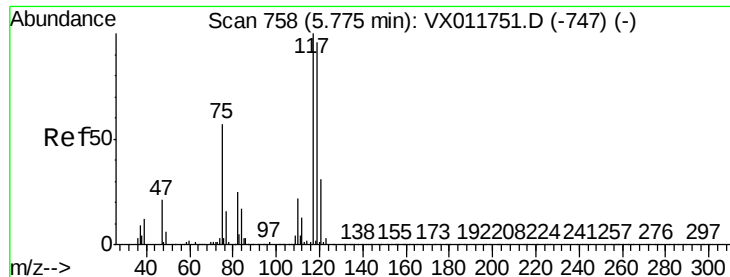


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 7.084 ug/l

RT: 5.65 min Scan# 738

Delta R.T. -0.12 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

Instrument :

MSVOA\_X

ClientSampleId :

T9-12-13-H-(0)

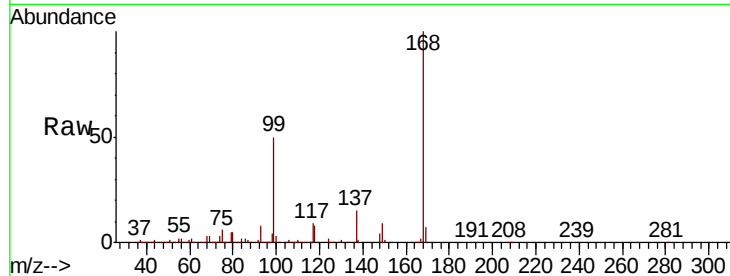
Tgt Ion:117 Resp: 34990

Ion Ratio Lower Upper

117 100

119 4.6 76.6 114.8#

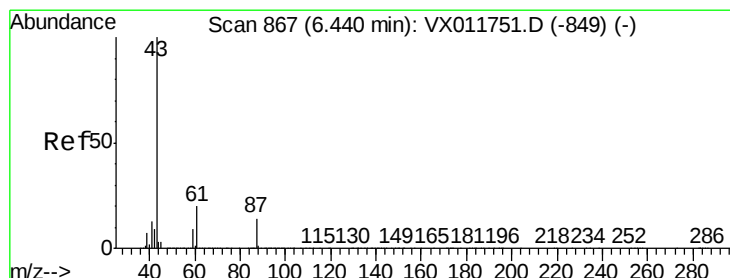
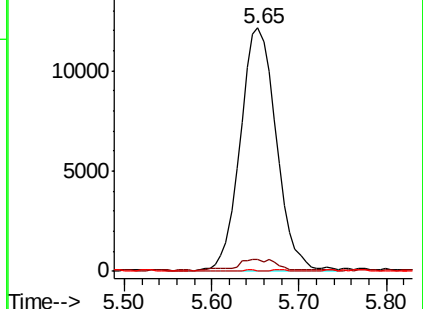
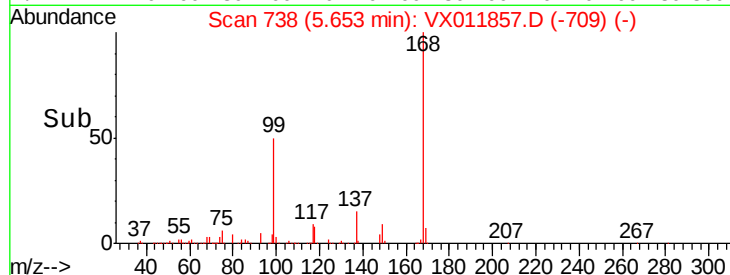
121 0.0 25.2 37.8#



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



#43

Isopropyl Acetate

Concen: 10.701 ug/l

RT: 6.44 min Scan# 867

Delta R.T. -0.00 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

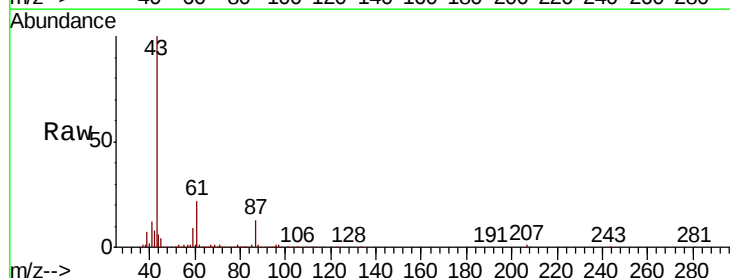
Tgt Ion: 43 Resp: 79880

Ion Ratio Lower Upper

43 100

61 20.5 16.2 24.2

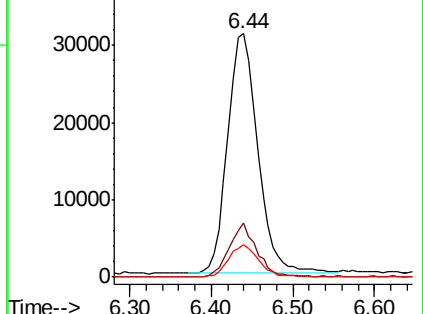
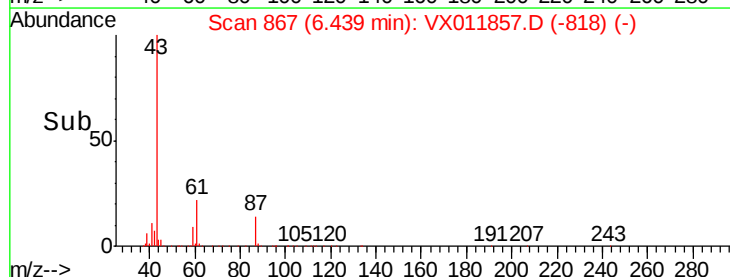
87 13.5 11.6 17.4

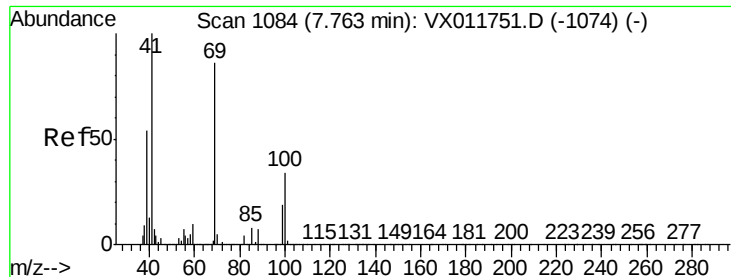


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 61.00 (60.70 to 61.70): VX0

Ion 87.00 (86.70 to 87.70): VX0





#48

Methyl methacrylate

Concen: 1.434 ug/l

RT: 7.67 min Scan# 1069

Delta R.T. -0.09 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

Instrument :

MSVOA\_X

ClientSampleId :

T9-12-13-H-(0)

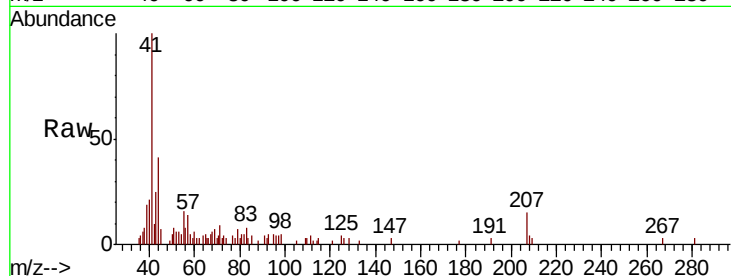
Tgt Ion: 41 Resp: 5326

Ion Ratio Lower Upper

41 100

69 2.9 69.4 104.2#

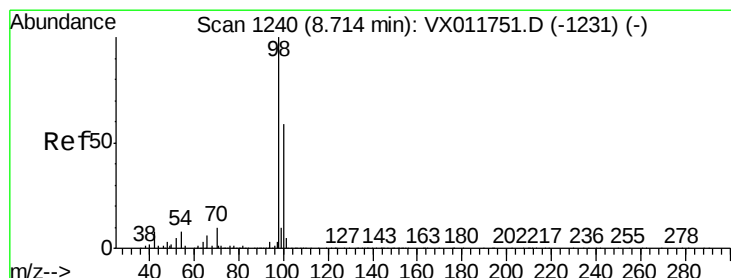
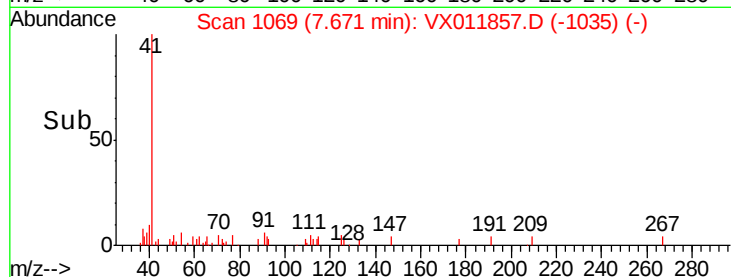
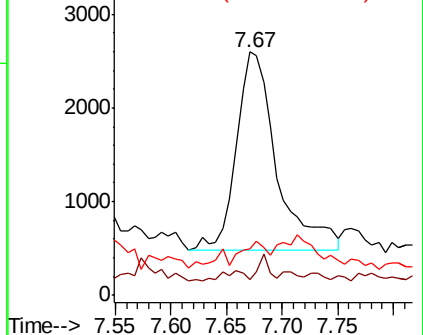
39 0.0 43.6 65.4#



Abundance Ion 41.00 (40.70 to 41.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 39.00 (38.70 to 39.70): VX0



#50

Toluene-d8

Concen: 51.214 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. -0.00 min

Lab File: VX011857.D

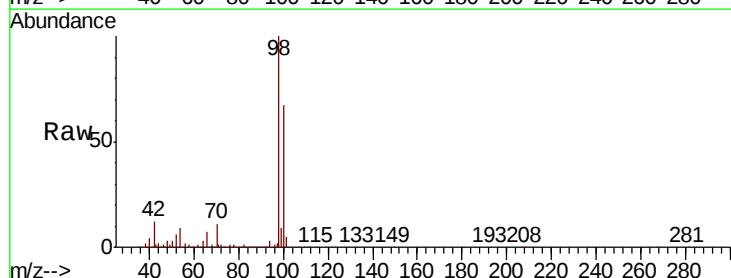
Acq: 27 Aug 2019 18:01

Tgt Ion: 98 Resp: 642000

Ion Ratio Lower Upper

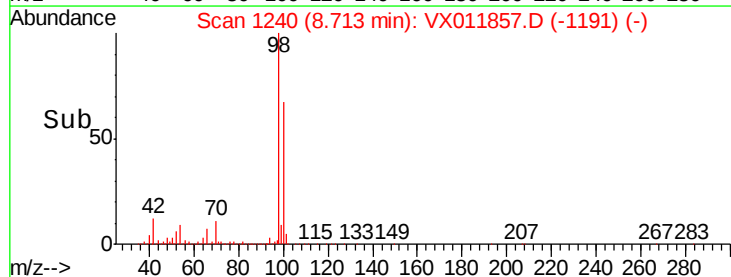
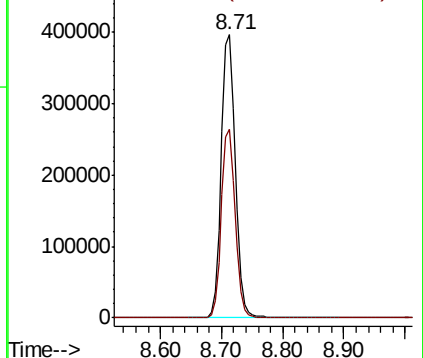
98 100

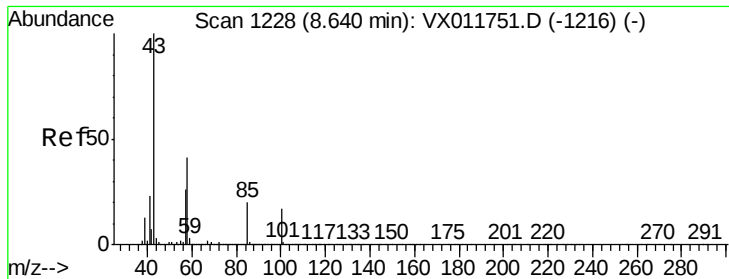
100 65.7 52.1 78.1



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): V





#51

4-Methyl-2-Pentanone

Concen: 15.938 ug/l

RT: 8.61 min Scan# 1223

Delta R.T. -0.03 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

Instrument :

MSVOA\_X

ClientSampleId :

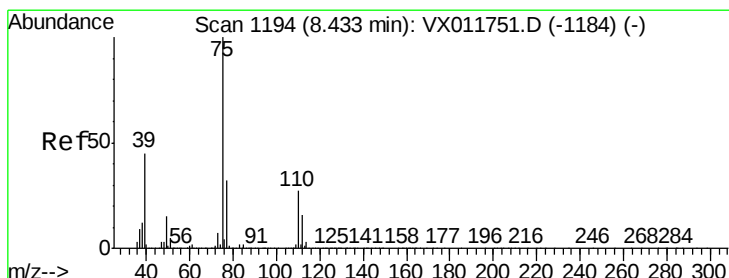
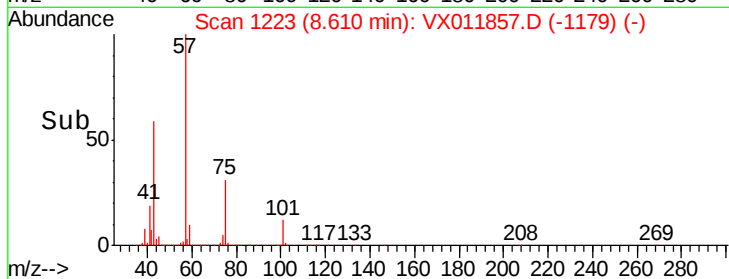
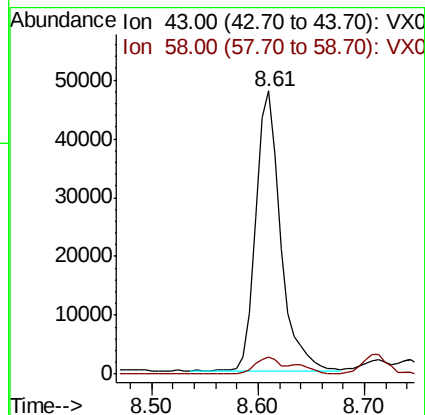
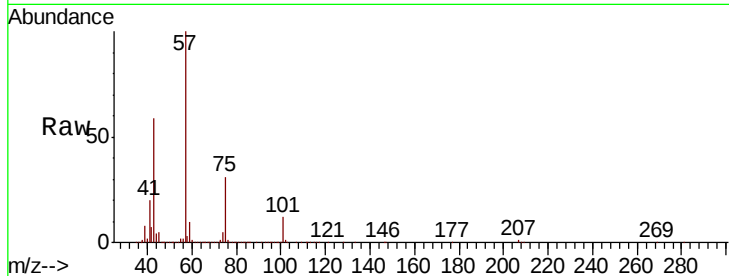
T9-12-13-H-(0)

Tgt Ion: 43 Resp: 78397

Ion Ratio Lower Upper

43 100

58 6.0 31.8 47.6#



#54

cis-1,3-Dichloropropene

Concen: 7.039 ug/l

RT: 8.61 min Scan# 1223

Delta R.T. 0.18 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

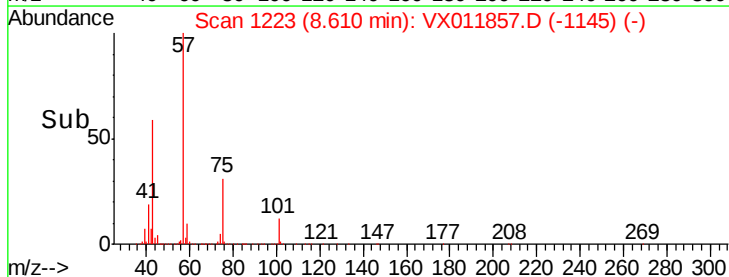
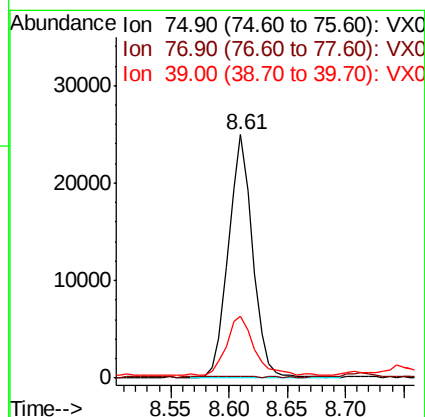
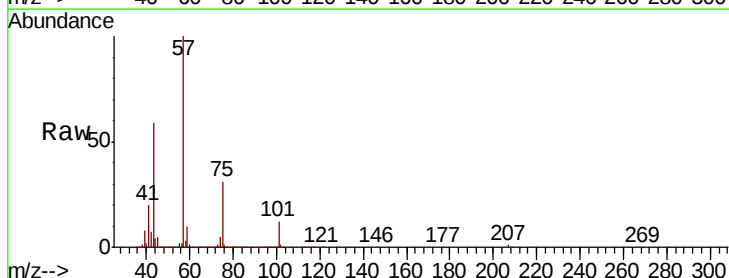
Tgt Ion: 75 Resp: 36258

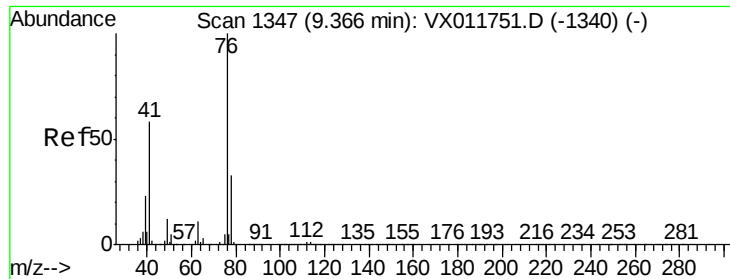
Ion Ratio Lower Upper

75 100

77 0.2 25.4 38.2#

39 24.1 36.2 54.4#





#57

1,3-Dichloropropane

Concen: 0.963 ug/l

RT: 9.54 min Scan# 1375

Delta R.T. 0.17 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

Instrument :

MSVOA\_X

ClientSampleId :

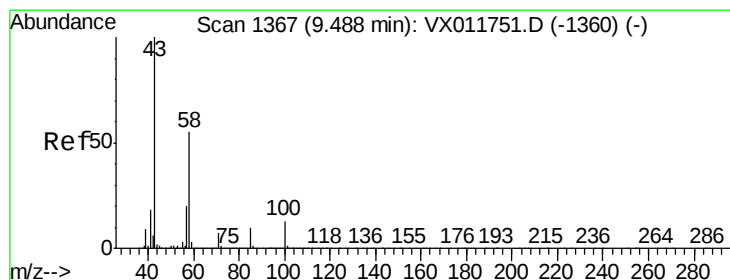
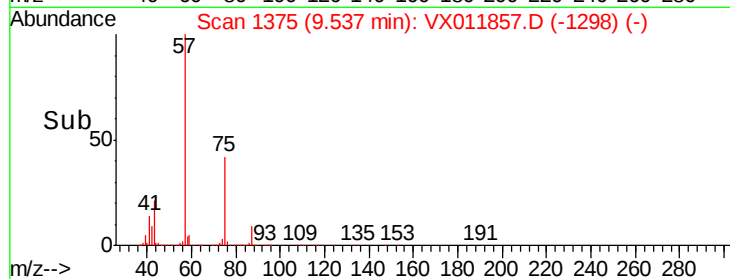
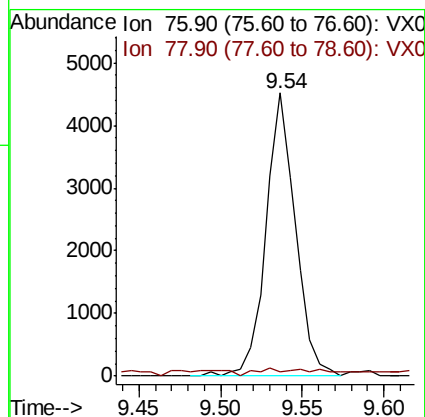
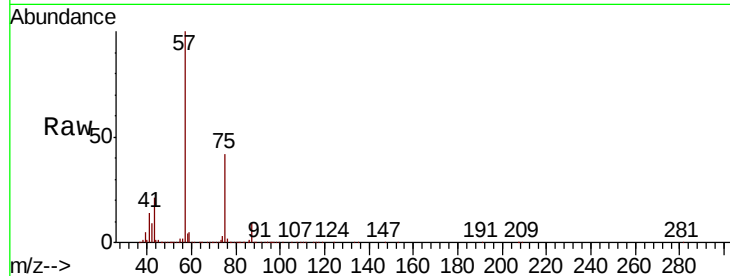
T9-12-13-H-(0)

Tgt Ion: 76 Resp: 5651

Ion Ratio Lower Upper

76 100

78 3.0 26.6 39.8#



#59

2-Hexanone

Concen: 19.832 ug/l

RT: 9.54 min Scan# 1375

Delta R.T. 0.05 min

Lab File: VX011857.D

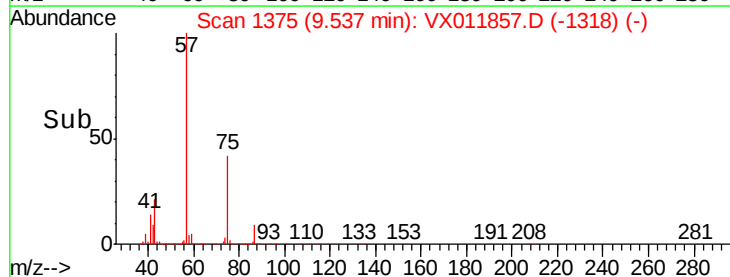
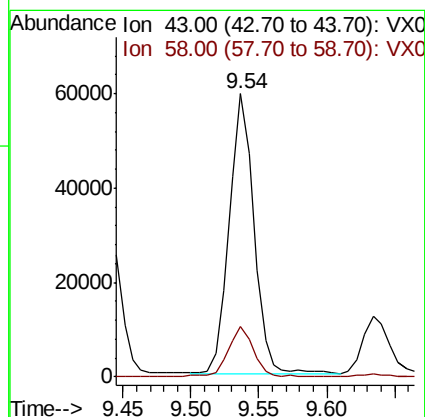
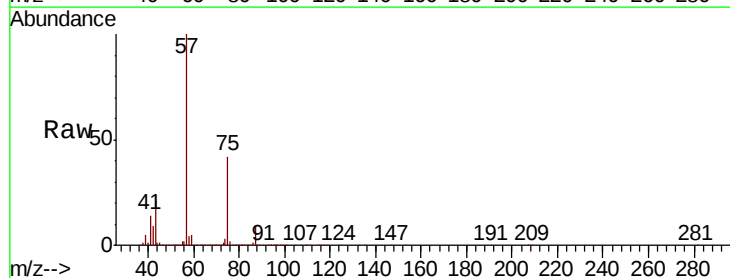
Acq: 27 Aug 2019 18:01

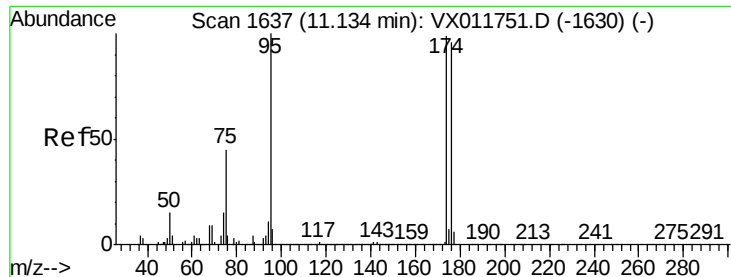
Tgt Ion: 43 Resp: 74874

Ion Ratio Lower Upper

43 100

58 18.2 27.7 83.1#

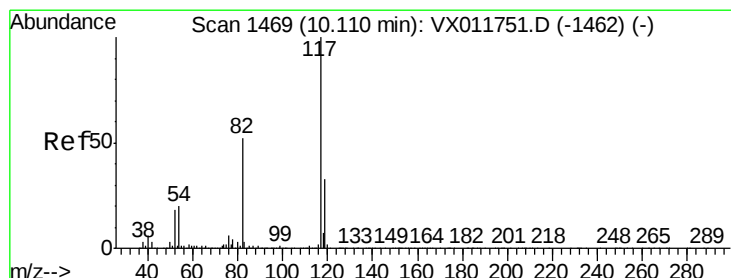
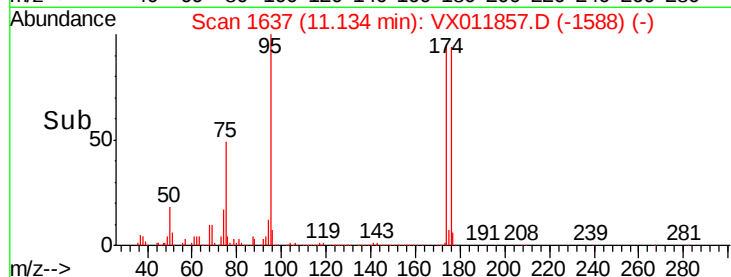
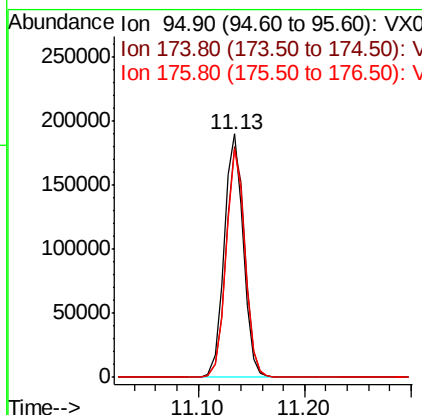
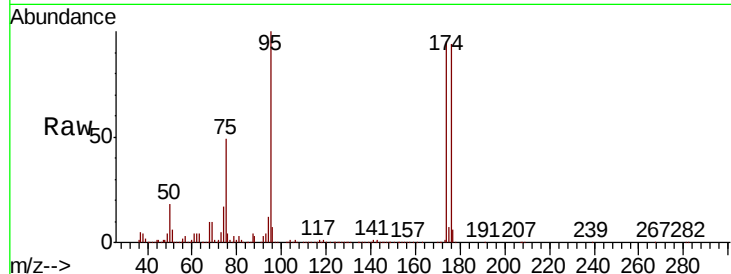




#62  
4-Bromofluorobenzene  
Concen: 48.227 ug/l  
RT: 11.13 min Scan# 1637  
Delta R.T. -0.00 min  
Lab File: VX011857.D  
Acq: 27 Aug 2019 18:01

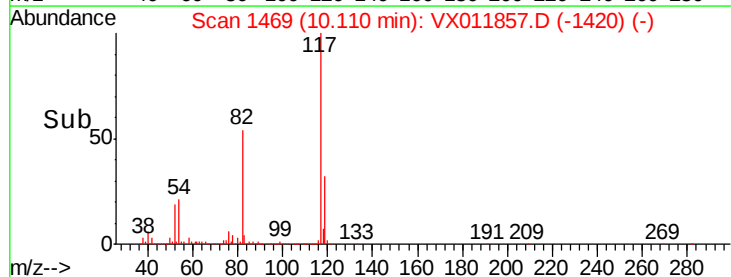
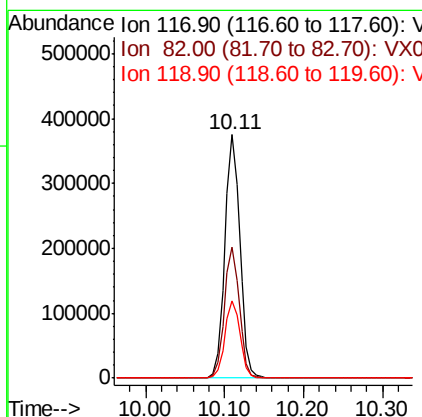
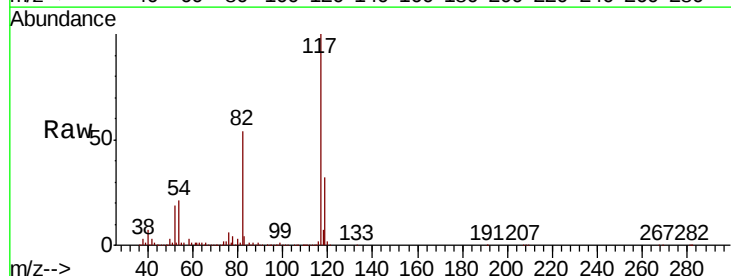
Instrument :  
MSVOA\_X  
ClientSampleId :  
T9-12-13-H-(0)

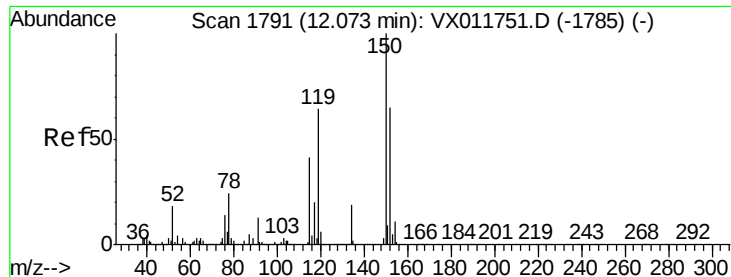
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 94.8  | 0.0   | 197.4 |
| 176     | 92.6  | 0.0   | 194.4 |



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1469  
Delta R.T. -0.00 min  
Lab File: VX011857.D  
Acq: 27 Aug 2019 18:01

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 53.8  | 41.7  | 62.5  |
| 119     | 31.9  | 26.2  | 39.2  |





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.07 min Scan# 1791

Delta R.T. -0.00 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

Instrument :

MSVOA\_X

ClientSampleId :

T9-12-13-H-(0)

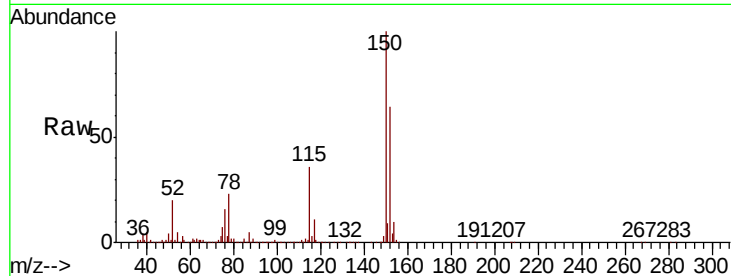
Tgt Ion:152 Resp: 250370

Ion Ratio Lower Upper

152 100

115 53.7 37.3 111.8

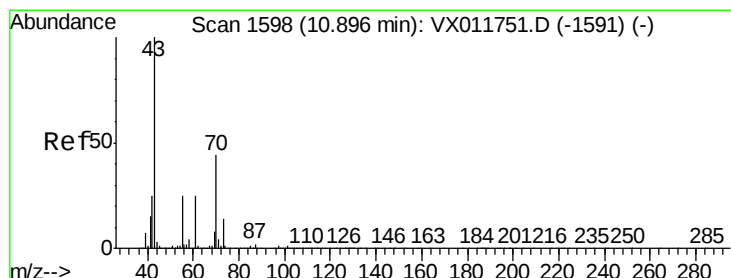
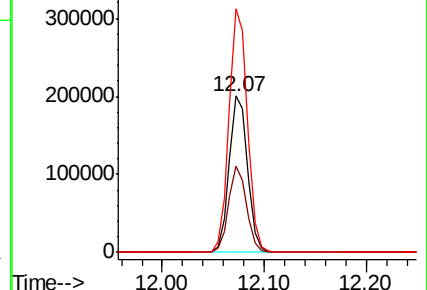
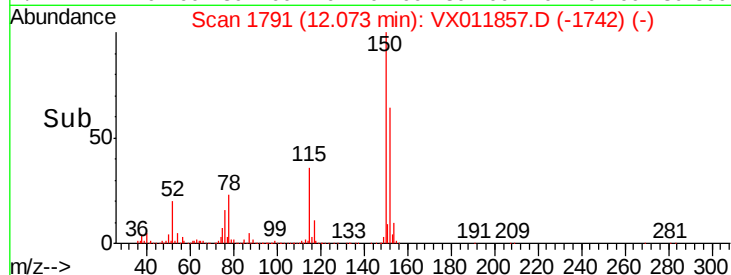
150 155.4 0.0 343.0



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



#74

N-amyl acetate

Concen: 0.731 ug/l

RT: 10.82 min Scan# 1586

Delta R.T. -0.07 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

Tgt Ion: 43 Resp: 4271

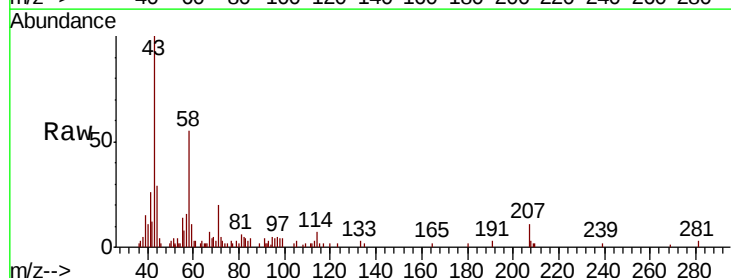
Ion Ratio Lower Upper

43 100

70 2.9 34.8 52.2#

55 11.2 19.5 29.3#

61 0.0 19.8 29.6#

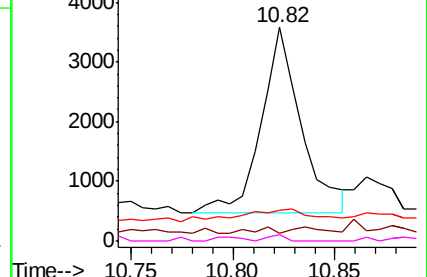
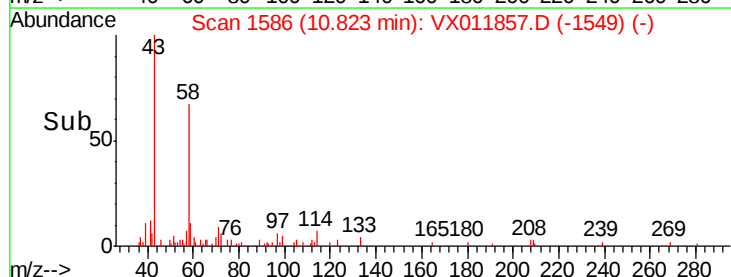


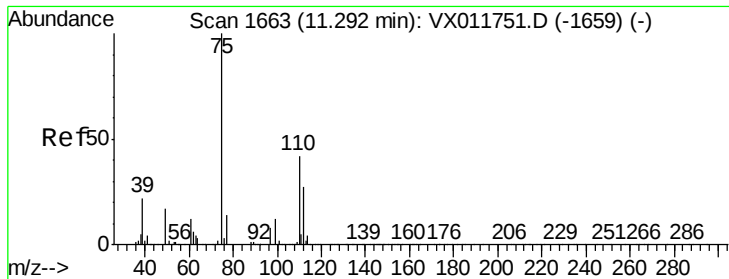
Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 70.00 (69.70 to 70.70): VX0

Ion 55.00 (54.70 to 55.70): VX0

Ion 61.00 (60.70 to 61.70): VX0





#76

1,2,3-Trichloropropane

Concen: 26.885 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

Instrument :

MSVOA\_X

ClientSampleId :

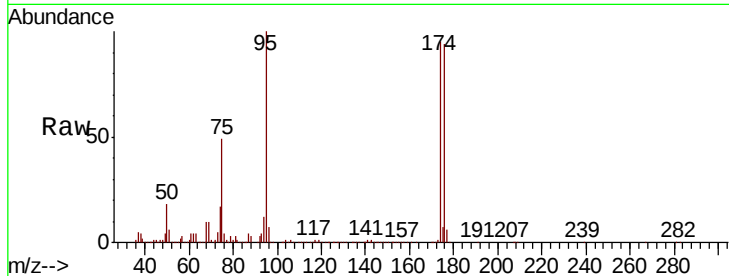
T9-12-13-H-(0)

Tgt Ion: 75 Resp: 118111

Ion Ratio Lower Upper

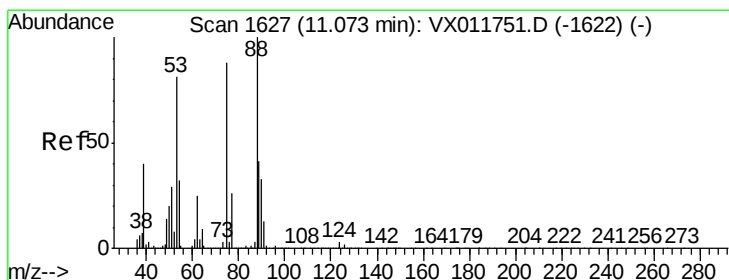
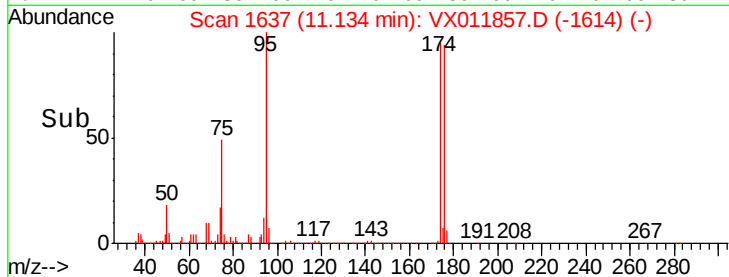
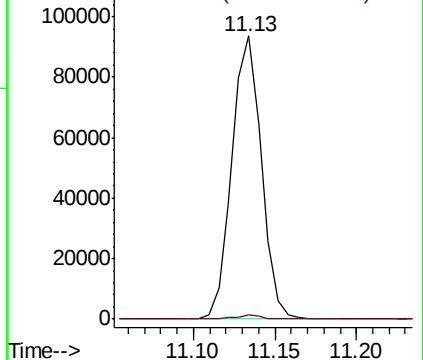
75 100

77 1.2 21.1 63.3#



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: 81.079 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX011857.D

Acq: 27 Aug 2019 18:01

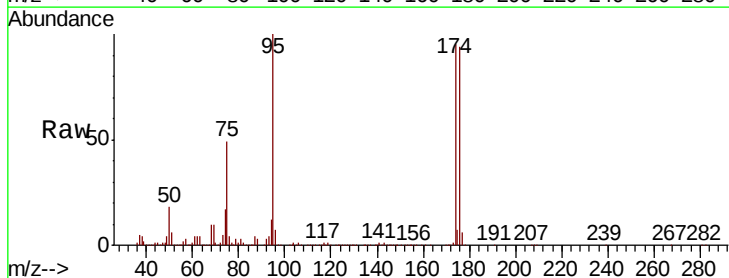
Tgt Ion: 75 Resp: 118111

Ion Ratio Lower Upper

75 100

53 0.0 77.1 115.7#

89 0.0 38.5 57.7#



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

