

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\WV101320\  
 Data File : VW016886.D  
 Acq On : 12 Oct 2020 17:01  
 Operator : SY/VA  
 Sample : L4214-03 4PPBMDL  
 Misc : 5.00G/5ML/MSVOA W/SOIL  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 MDL-SOIL-03-QT4-2020

Quant Time: Oct 12 23:34:03 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W101020S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Oct 12 23:31:06 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 365037   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 562790   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 505538   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 254402   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 171111   | 57.63 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 115.26% |      |
| 35) Dibromofluoromethane  | 7.89   | 113 | 180599   | 52.36 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.72% |      |
| 50) Toluene-d8            | 10.33  | 98  | 678250   | 52.44 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.88% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 242884   | 54.46 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 108.92% |      |

## Target Compounds

|                               |      |     |       |        |        | Qvalue |
|-------------------------------|------|-----|-------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 2.01 | 85  | 9390  | 4.716  | ug/l   | 96     |
| 3) Chloromethane              | 2.21 | 50  | 10251 | 4.696  | ug/l   | 100    |
| 4) Vinyl Chloride             | 2.36 | 62  | 14552 | 4.610  | ug/l   | 100    |
| 5) Bromomethane               | 2.78 | 94  | 11210 | 4.624  | ug/l   | 93     |
| 6) Chloroethane               | 2.93 | 64  | 8899  | 4.430  | ug/l # | 85     |
| 7) Trichlorofluoromethane     | 3.26 | 101 | 7663  | 3.334  | ug/l   | 99     |
| 8) Diethyl Ether              | 3.68 | 74  | 6909  | 4.813  | ug/l   | 95     |
| 9) 1,1,2-Trichlorotrifluoroet | 4.07 | 101 | 14441 | 4.666  | ug/l   | 98     |
| 10) Methyl Iodide             | 4.28 | 142 | 22717 | 4.591  | ug/l   | 98     |
| 11) Tert butyl alcohol        | 5.16 | 59  | 6348  | 43.747 | ug/l # | 94     |
| 12) 1,1-Dichloroethene        | 4.06 | 96  | 14258 | 4.667  | ug/l   | 89     |
| 13) Acrolein                  | 3.90 | 56  | 4280  | 21.817 | ug/l   | 93     |
| 14) Allyl chloride            | 4.67 | 41  | 16518 | 4.517  | ug/l   | 99     |
| 15) Acrylonitrile             | 5.37 | 53  | 11770 | 24.631 | ug/l   | 96     |
| 16) Acetone                   | 4.13 | 43  | 12317 | 25.613 | ug/l   | 95     |
| 17) Carbon Disulfide          | 4.39 | 76  | 35978 | 4.427  | ug/l   | 98     |
| 18) Methyl Acetate            | 4.68 | 43  | 5978  | 5.420  | ug/l   | 98     |
| 19) Methyl tert-butyl Ether   | 5.43 | 73  | 15669 | 4.759  | ug/l # | 89     |
| 20) Methylene Chloride        | 4.92 | 84  | 26444 | 6.939  | ug/l   | 97     |
| 21) trans-1,2-Dichloroethene  | 5.43 | 96  | 16186 | 4.720  | ug/l   | 92     |
| 22) Diisopropyl ether         | 6.32 | 45  | 31160 | 4.689  | ug/l   | 95     |
| 23) Vinyl Acetate             | 6.26 | 43  | 97712 | 22.946 | ug/l   | 98     |
| 24) 1,1-Dichloroethane        | 6.22 | 63  | 25641 | 4.866  | ug/l   | 100    |
| 25) 2-Butanone                | 7.18 | 43  | 17460 | 27.234 | ug/l   | 99     |
| 26) 2,2-Dichloropropane       | 7.16 | 77  | 17312 | 5.369  | ug/l   | 92     |
| 27) cis-1,2-Dichloroethene    | 7.17 | 96  | 17796 | 4.845  | ug/l   | 94     |
| 28) Bromochloromethane        | 7.52 | 49  | 9975  | 4.729  | ug/l   | 99     |
| 29) Tetrahydrofuran           | 7.54 | 42  | 9424  | 26.243 | ug/l   | 98     |
| 30) Chloroform                | 7.68 | 83  | 27542 | 4.808  | ug/l   | 91     |
| 31) Cyclohexane               | 7.95 | 56  | 25279 | 5.624  | ug/l # | 79     |
| 32) 1,1,1-Trichloroethane     | 7.88 | 97  | 22196 | 4.593  | ug/l   | 95     |
| 36) 1,1-Dichloropropene       | 8.09 | 75  | 21903 | 4.502  | ug/l   | 99     |
| 37) Ethyl Acetate             | 7.26 | 43  | 7112  | 4.474  | ug/l   | 97     |
| 38) Carbon Tetrachloride      | 8.07 | 117 | 21846 | 4.319  | ug/l   | 86     |

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Quant Time: Oct 12 23:34:03 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W101020S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Oct 12 23:31:06 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.34  | 83   | 23624    | 4.258   | ug/l   | 99       |
| 40) Benzene                    | 8.32  | 78   | 62155    | 4.585   | ug/l   | 100      |
| 41) Methacrylonitrile          | 7.49  | 41   | 3880     | 4.119   | ug/l   | 95       |
| 42) 1,2-Dichloroethane         | 8.40  | 62   | 17038    | 4.595   | ug/l   | 97       |
| 43) Isopropyl Acetate          | 8.43  | 43   | 13888    | 4.561   | ug/l   | 99       |
| 44) Trichloroethene            | 9.10  | 130  | 18212    | 4.340   | ug/l   | 91       |
| 45) 1,2-Dichloropropane        | 9.37  | 63   | 14109    | 4.564   | ug/l   | 97       |
| 46) Dibromomethane             | 9.46  | 93   | 7894     | 4.464   | ug/l   | 95       |
| 47) Bromodichloromethane       | 9.65  | 83   | 19553    | 4.447   | ug/l   | 99       |
| 48) Methyl methacrylate        | 9.44  | 41   | 6142     | 4.377   | ug/l   | 95       |
| 49) 1,4-Dioxane                | 9.45  | 88   | 1944     | 95.581  | ug/l # | 84       |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 36903    | 23.955  | ug/l   | 98       |
| 52) Toluene                    | 10.39 | 92   | 40378    | 4.506   | ug/l   | 97       |
| 53) t-1,3-Dichloropropene      | 10.61 | 75   | 17152    | 4.285   | ug/l   | 96       |
| 54) cis-1,3-Dichloropropene    | 10.07 | 75   | 21047    | 4.305   | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.79 | 97   | 12040    | 4.784   | ug/l   | 93       |
| 56) Ethyl methacrylate         | 10.65 | 69   | 12049    | 4.401   | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 10.93 | 76   | 19409    | 4.661   | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether  | 9.93  | 63   | 30692    | 20.229  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.98 | 43   | 22768    | 22.338  | ug/l   | 99       |
| 60) Dibromochloromethane       | 11.13 | 129  | 13663    | 4.426   | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.24 | 107  | 11383    | 4.567   | ug/l   | 97       |
| 64) Tetrachloroethene          | 10.87 | 164  | 16539    | 4.592   | ug/l   | 94       |
| 65) Chlorobenzene              | 11.66 | 112  | 45078    | 4.546   | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.73 | 131  | 15094    | 4.304   | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.73 | 91   | 74786    | 4.328   | ug/l   | 97       |
| 68) m/p-Xylenes                | 11.84 | 106  | 58380    | 8.687   | ug/l   | 100      |
| 69) o-Xylene                   | 12.17 | 106  | 27377    | 4.439   | ug/l   | 98       |
| 70) Styrene                    | 12.18 | 104  | 43452    | 4.234   | ug/l   | 100      |
| 71) Bromoform                  | 12.35 | 173  | 7094     | 4.030   | ug/l # | 96       |
| 73) Isopropylbenzene           | 12.46 | 105  | 73825    | 4.366   | ug/l   | 99       |
| 74) N-amyl acetate             | 12.27 | 43   | 11806    | 4.347   | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.71 | 83   | 12873    | 4.852   | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane     | 12.77 | 75   | 14968    | 7.885   | ug/l   | 31       |
| 77) Bromobenzene               | 12.75 | 156  | 19783    | 4.733   | ug/l   | 98       |
| 78) n-propylbenzene            | 12.80 | 91   | 84946    | 4.356   | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 12.90 | 91   | 49807    | 4.477   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.94 | 105  | 62142    | 4.385   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75   | 117264   | 166.044 | ug/l # | 11       |
| 82) 4-Chlorotoluene            | 12.99 | 91   | 52320    | 4.556   | ug/l   | 99       |
| 83) tert-Butylbenzene          | 13.21 | 119  | 53727    | 4.365   | ug/l   | 98       |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105  | 62149    | 4.401   | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.38 | 105  | 74460    | 4.346   | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.50 | 119  | 69926    | 4.383   | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 13.50 | 146  | 36642    | 4.533   | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 13.58 | 146  | 38094    | 4.782   | ug/l   | 94       |
| 89) n-Butylbenzene             | 13.82 | 91   | 61334    | 4.268   | ug/l   | 99       |
| 90) Hexachloroethane           | 14.09 | 117  | 10117    | 4.110   | ug/l   | 96       |
| 91) 1,2-Dichlorobenzene        | 13.87 | 146  | 33183    | 4.758   | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.48 | 75   | 1962     | 4.829   | ug/l   | 92       |

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Sample : L4214-03 4PPBMDL  
Misc : 5.00G/5ML/MSVOA W/SOIL  
ALS Vial : 7 Sample Multiplier: 1

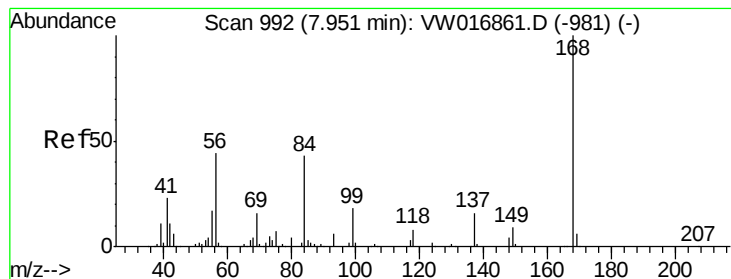
Instrument :  
MSVOA\_W  
ClientSampleId :  
MDL-SOIL-03-QT4-2020

Quant Time: Oct 12 23:34:03 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W101020S.M  
Quant Title : SW846 8260  
QLast Update : Mon Oct 12 23:31:06 2020  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.13 | 180  | 21355    | 4.438 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.24 | 225  | 14655    | 4.698 | ug/l  | 95       |
| 95) Naphthalene            | 15.36 | 128  | 33633    | 4.301 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.56 | 180  | 20061    | 4.792 | ug/l  | 92       |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 992

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

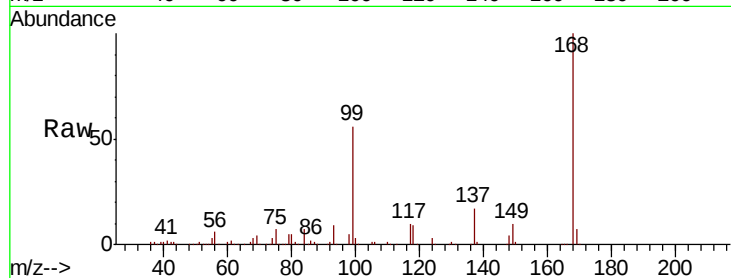
MDL-SOIL-03-QT4-2020

Tot Ion:168 Resp: 365037

Ion Ratio Lower Upper

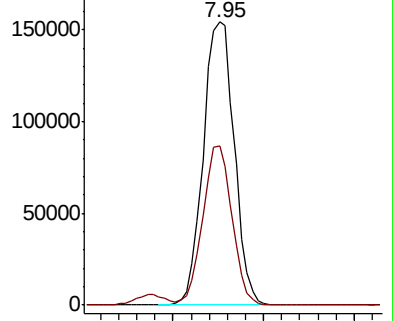
168 100

99 56.0 40.7 61.1

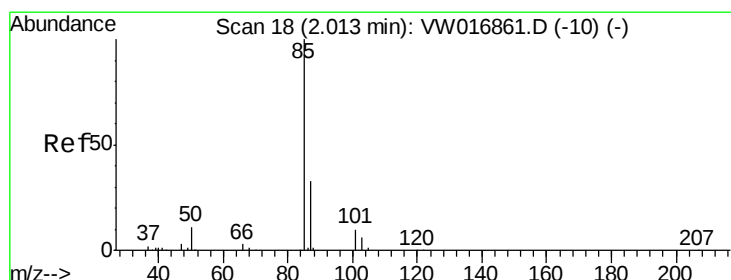
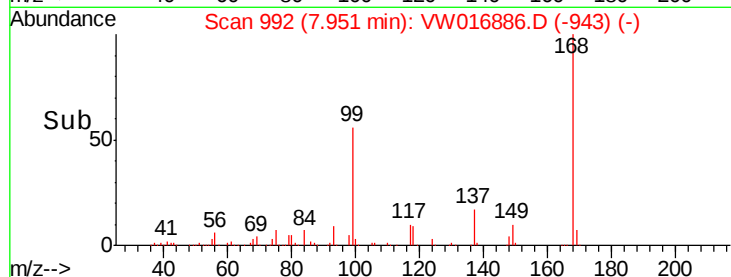


Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW



Time-->



#2

Dichlorodifluoromethane

Concen: 4.716 ug/l

RT: 2.01 min Scan# 17

Delta R.T. -0.01 min

Lab File: VW016886.D

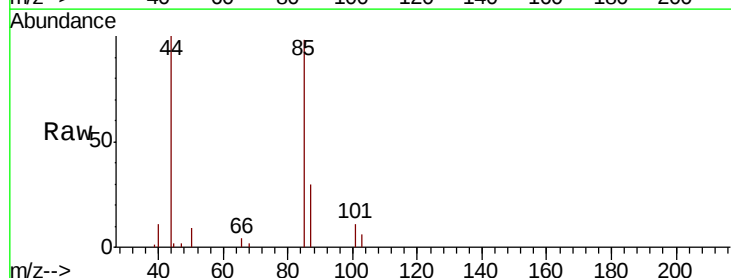
Acq: 12 Oct 2020 17:01

Tgt Ion: 85 Resp: 9390

Ion Ratio Lower Upper

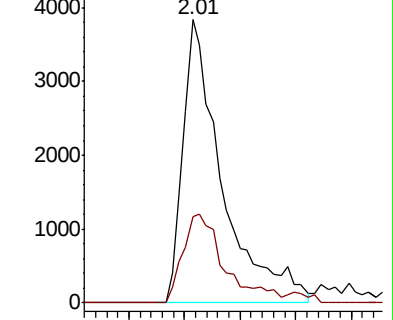
85 100

87 30.3 16.3 48.9

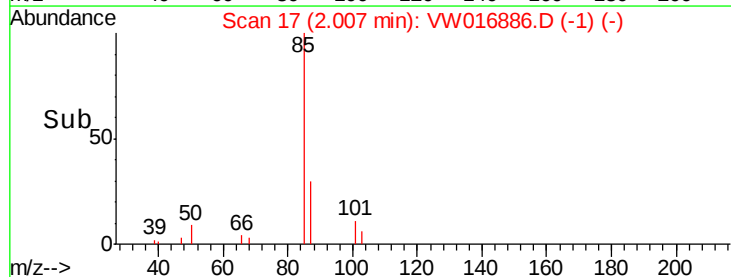


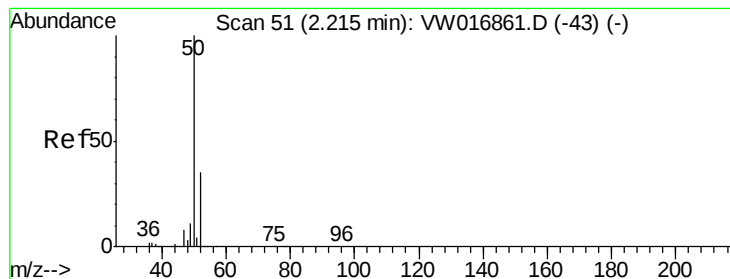
Abundance Ion 84.90 (84.60 to 85.60): VW

Ion 86.90 (86.60 to 87.60): VW



Time-->





#3

Chloromethane

Concen: 4.696 ug/l

RT: 2.21 min Scan# 51

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

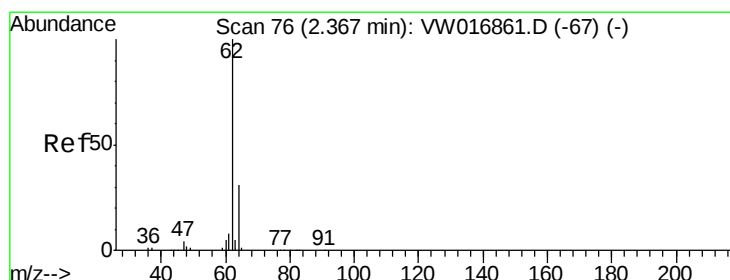
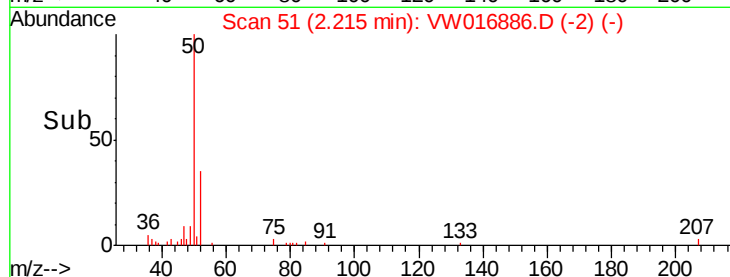
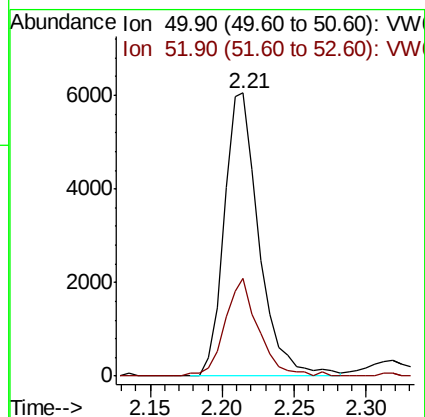
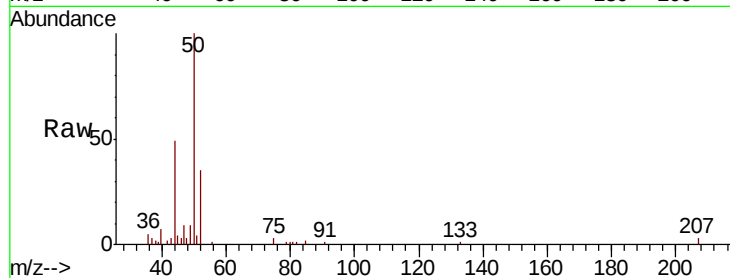
MDL-SOIL-03-QT4-2020

Tot Ion: 50 Resp: 10251

Ion Ratio Lower Upper

50 100

52 34.8 27.6 41.4



#4

Vinyl Chloride

Concen: 4.610 ug/l

RT: 2.36 min Scan# 75

Delta R.T. -0.01 min

Lab File: VW016886.D

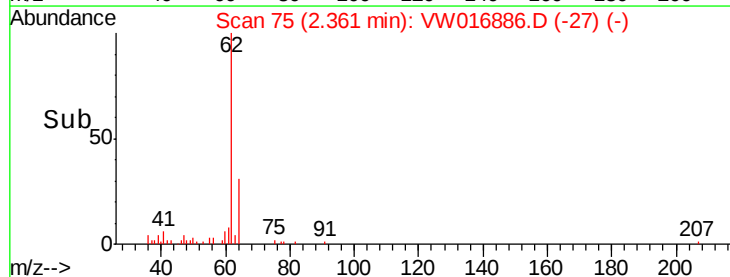
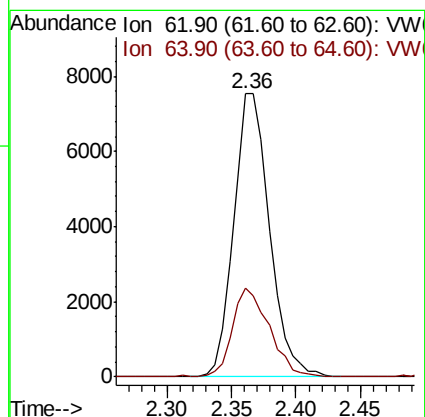
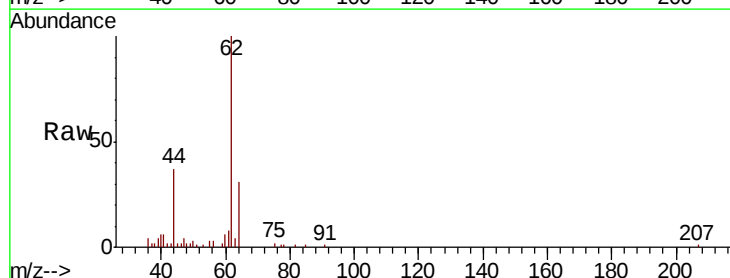
Acq: 12 Oct 2020 17:01

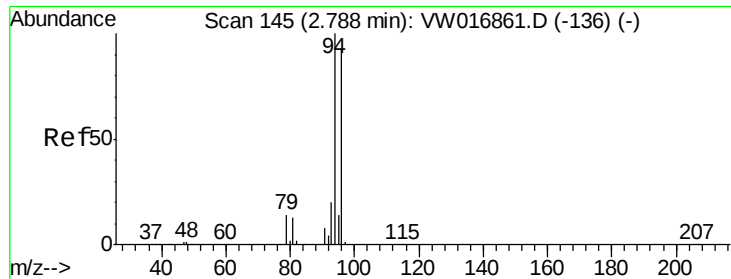
Tgt Ion: 62 Resp: 14552

Ion Ratio Lower Upper

62 100

64 31.2 25.0 37.4





#5

Bromomethane

Concen: 4.624 ug/l

RT: 2.78 min Scan# 143

Delta R.T. -0.01 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

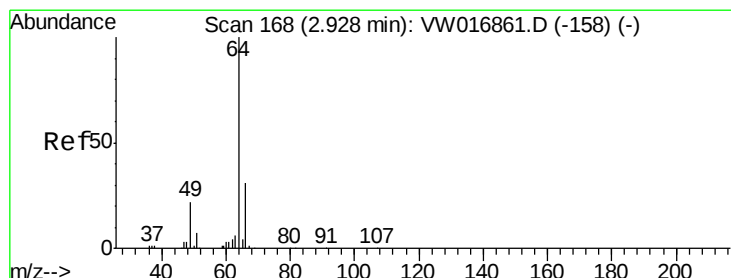
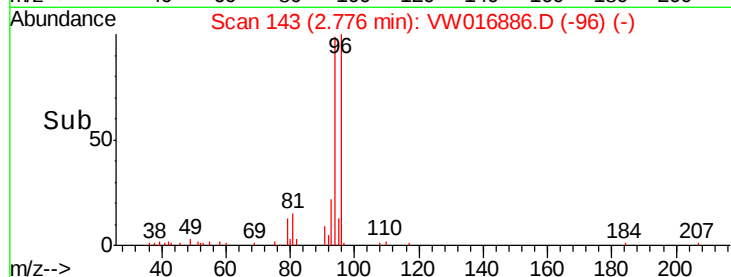
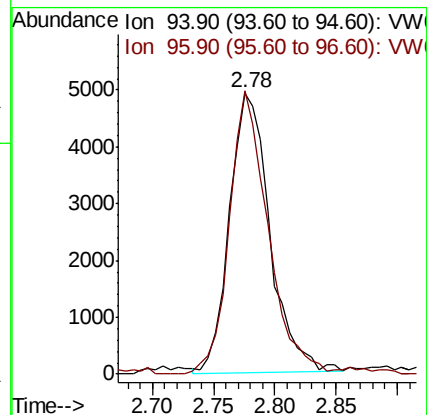
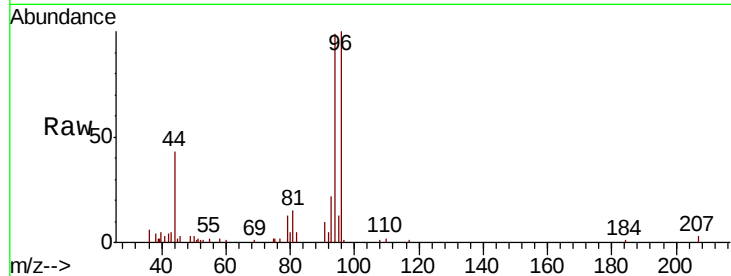
MDL-SOIL-03-QT4-2020

Tot Ion: 94 Resp: 11210

Ion Ratio Lower Upper

94 100

96 100.6 74.7 112.1



#6

Chloroethane

Concen: 4.430 ug/l

RT: 2.93 min Scan# 168

Delta R.T. 0.00 min

Lab File: VW016886.D

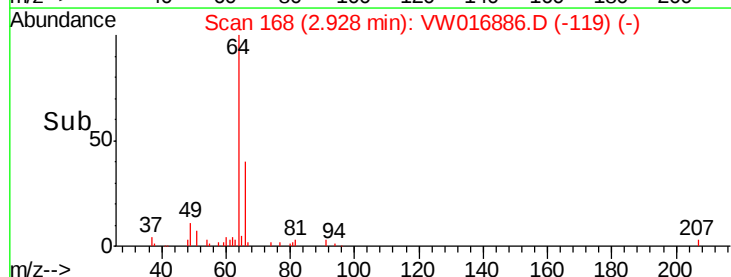
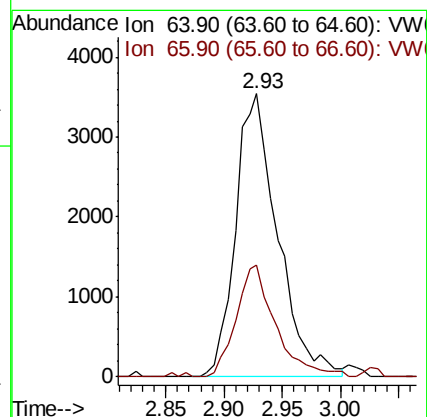
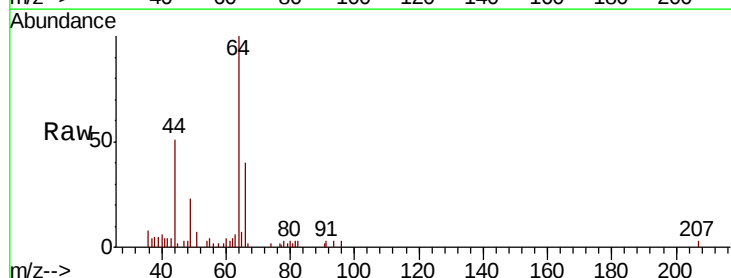
Acq: 12 Oct 2020 17:01

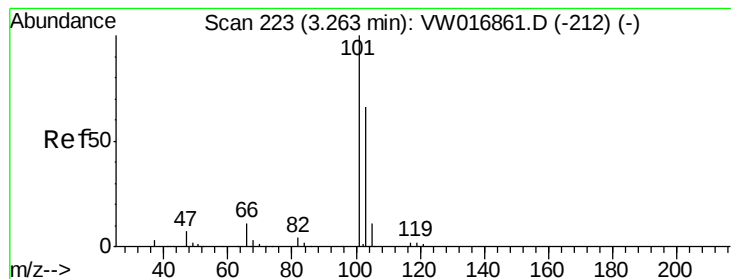
Tgt Ion: 64 Resp: 8899

Ion Ratio Lower Upper

64 100

66 39.5 25.0 37.6#



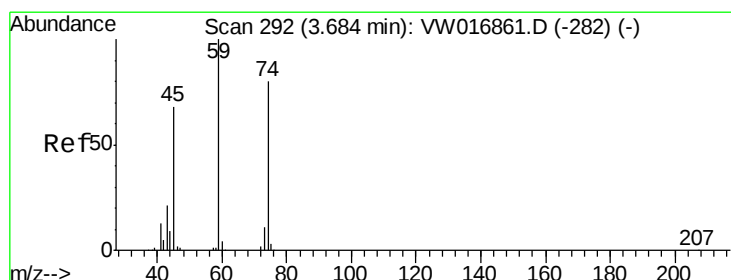
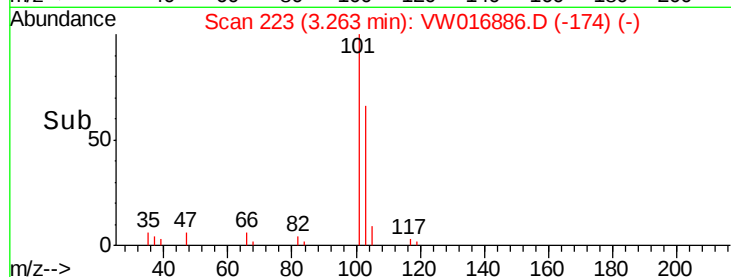
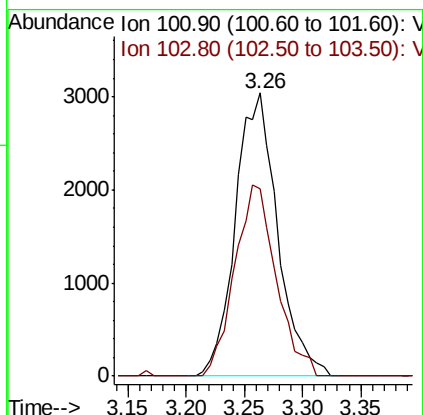
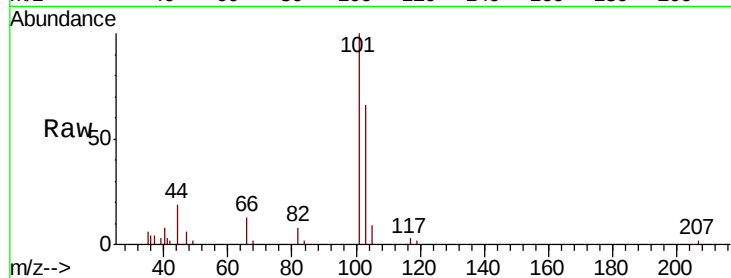


#7

Trichlorofluoromethane  
 Concen: 3.334 ug/l  
 RT: 3.26 min Scan# 223  
 Delta R.T. 0.00 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

Instrument :  
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 ClientSampleId :  
 MDL-SOIL-03-QT4-2020

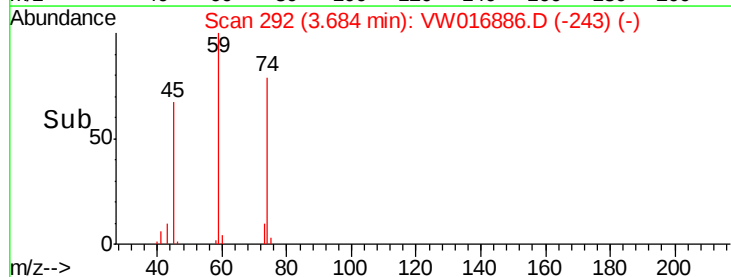
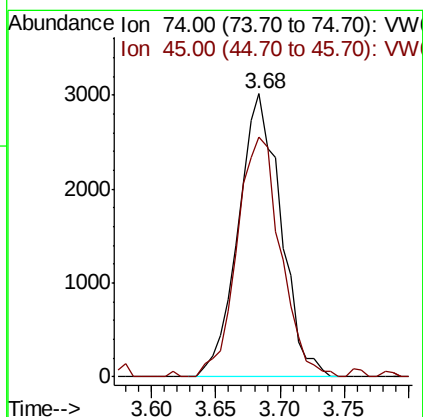
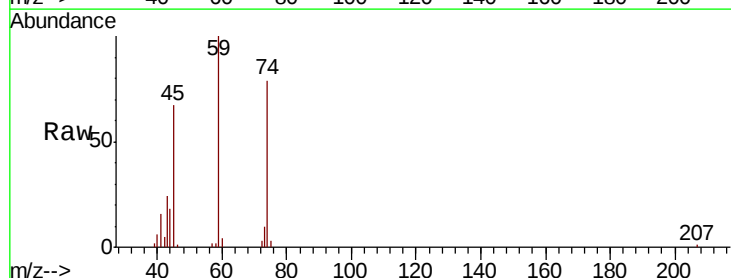
Tot Ion:101 Resp: 7663  
 Ion Ratio Lower Upper  
 101 100  
 103 66.4 52.6 79.0

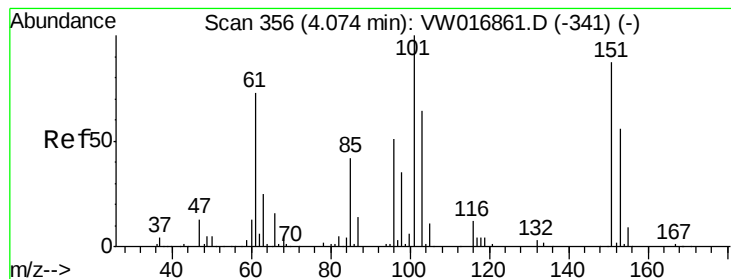


#8

Diethyl Ether  
 Concen: 4.813 ug/l  
 RT: 3.68 min Scan# 292  
 Delta R.T. 0.00 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

Tgt Ion: 74 Resp: 6909  
 Ion Ratio Lower Upper  
 74 100  
 45 87.0 41.1 123.4





#9

1,1,2-Trichlorotrifluoroethane

Concen: 4.666 ug/l

RT: 4.07 min Scan# 355

Delta R.T. -0.01 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

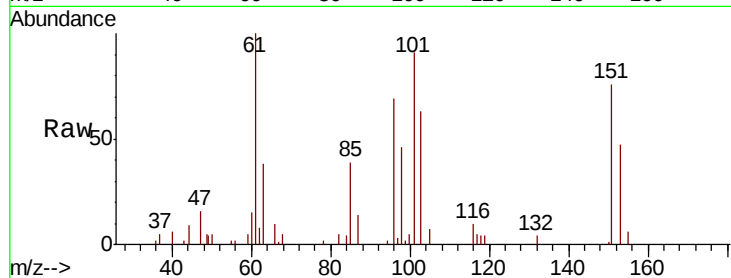
Tot Ion:101 Resp: 14441

Ion Ratio Lower Upper

101 100

85 41.0 33.2 49.8

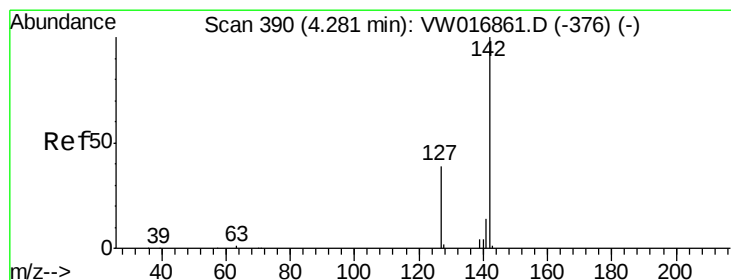
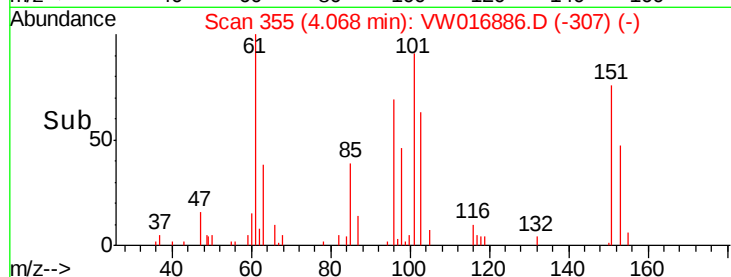
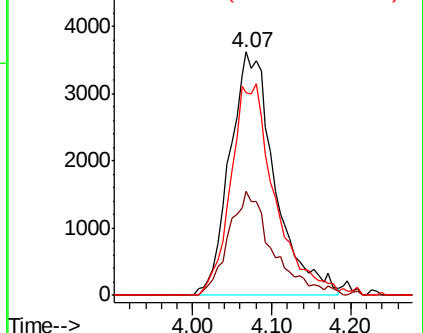
151 85.3 66.6 100.0



Abundance Ion 100.90 (100.60 to 101.60): V

Ion 84.90 (84.60 to 85.60): VW

Ion 150.80 (150.50 to 151.50): V



#10

Methyl Iodide

Concen: 4.591 ug/l

RT: 4.28 min Scan# 390

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

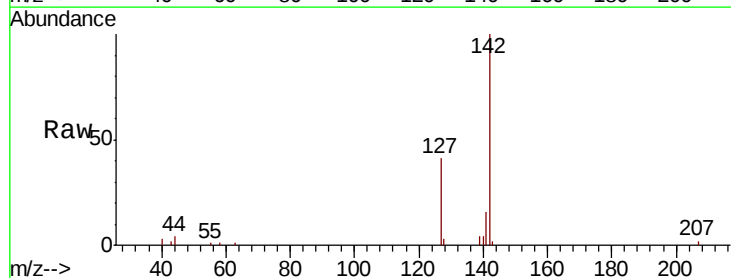
Tgt Ion:142 Resp: 22717

Ion Ratio Lower Upper

142 100

127 41.7 32.4 48.6

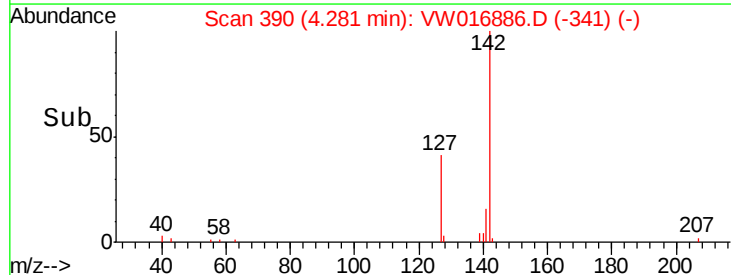
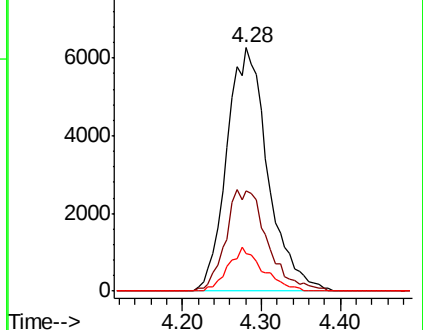
141 15.1 11.4 17.0

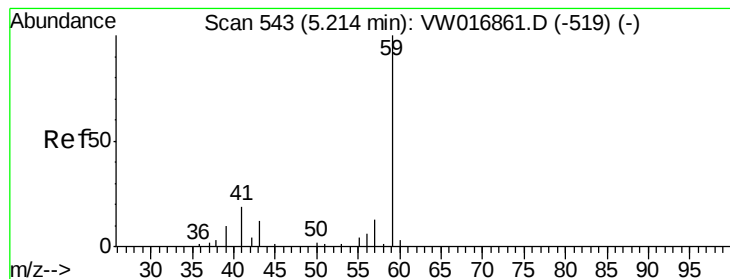


Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V



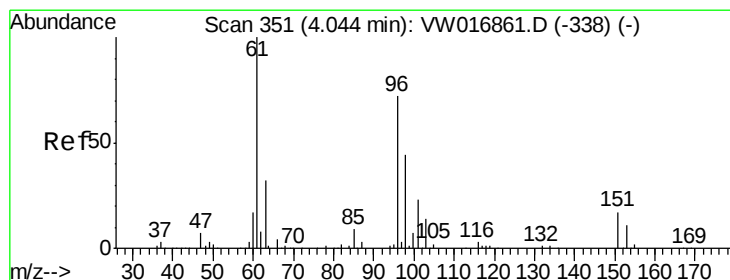
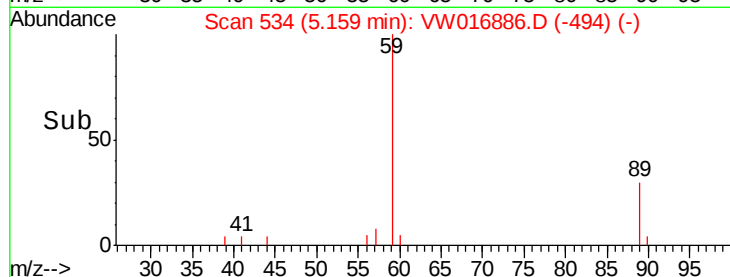
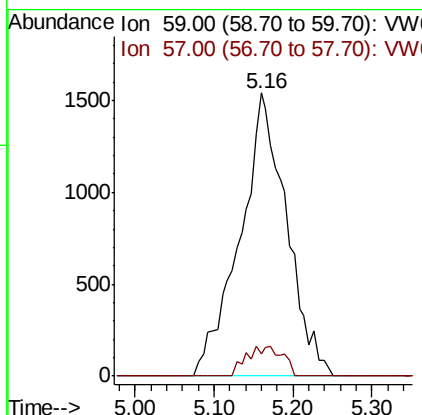
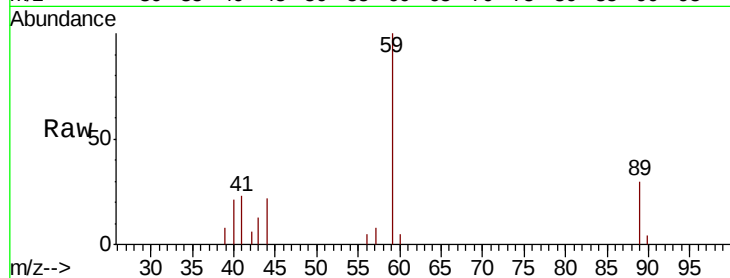


#11

Tert butyl alcohol  
 Concen: 43.747 ug/l  
 RT: 5.16 min Scan# 534  
 Delta R.T. -0.05 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 MDL-SOIL-03-QT4-2020

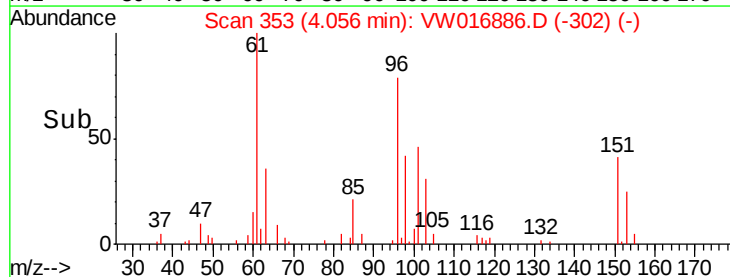
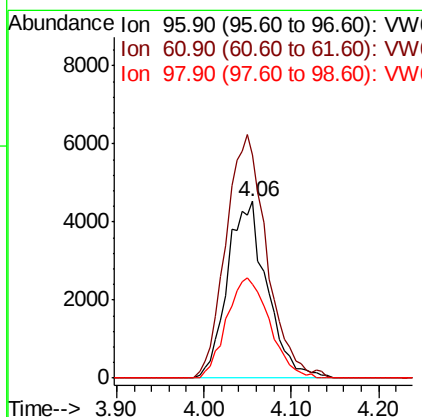
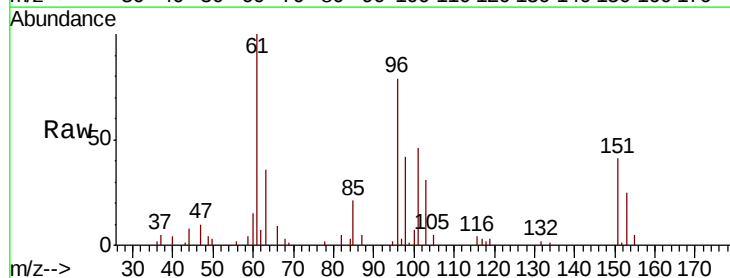
Tot Ion: 59 Resp: 6348  
 Ion Ratio Lower Upper  
 59 100  
 57 8.1 4.7 7.1#

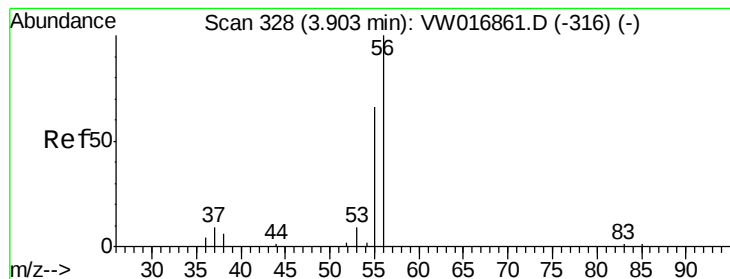


#12

1,1-Dichloroethene  
 Concen: 4.667 ug/l  
 RT: 4.06 min Scan# 353  
 Delta R.T. 0.01 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

Tgt Ion: 96 Resp: 14258  
 Ion Ratio Lower Upper  
 96 100  
 61 126.5 111.7 167.5  
 98 53.1 49.0 73.4





#13

Acrolein

Concen: 21.817 ug/l

RT: 3.90 min Scan# 327

Delta R.T. -0.01 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

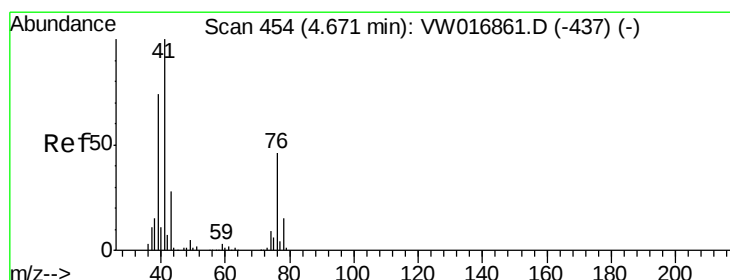
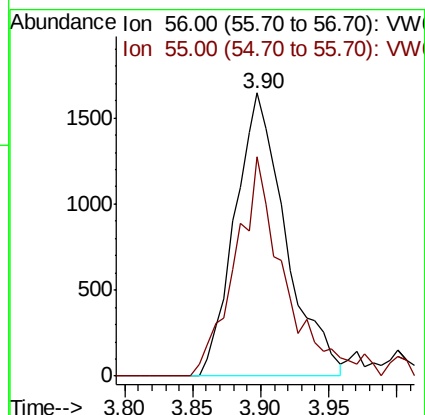
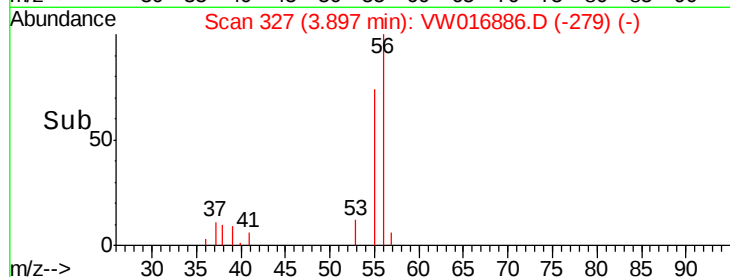
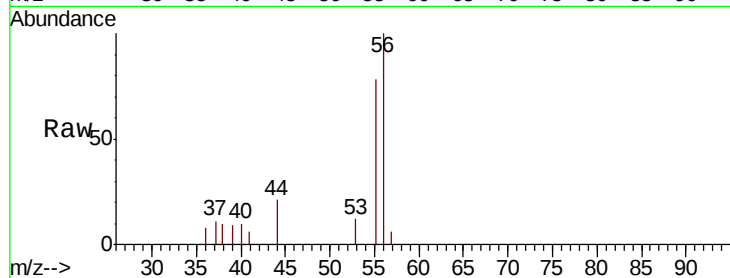
MDL-SOIL-03-QT4-2020

Tot Ion: 56 Resp: 4280

Ion Ratio Lower Upper

56 100

55 76.0 55.9 83.9



#14

Allyl chloride

Concen: 4.517 ug/l

RT: 4.67 min Scan# 454

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

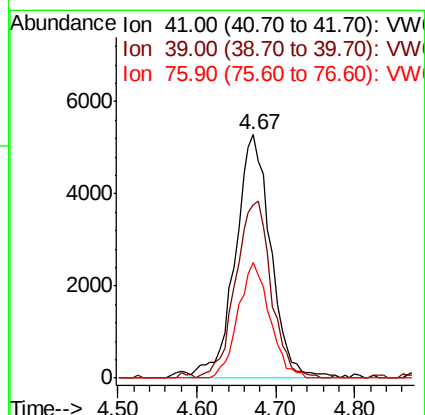
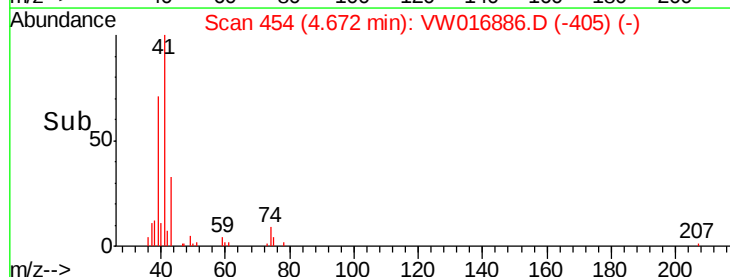
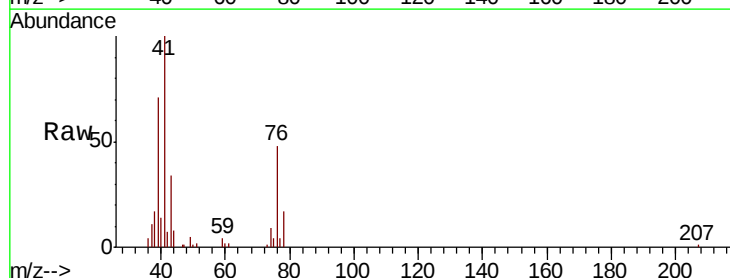
Tgt Ion: 41 Resp: 16518

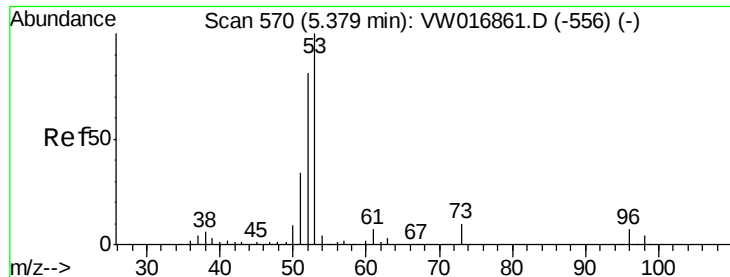
Ion Ratio Lower Upper

41 100

39 72.8 57.8 86.8

76 42.3 35.1 52.7





#15

Acrylonitrile

Concen: 24.631 ug/l

RT: 5.37 min Scan# 569

Delta R.T. -0.01 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

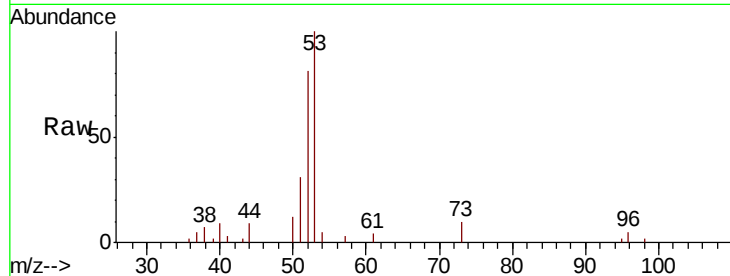
Tot Ion: 53 Resp: 11770

Ion Ratio Lower Upper

53 100

52 84.7 65.0 97.4

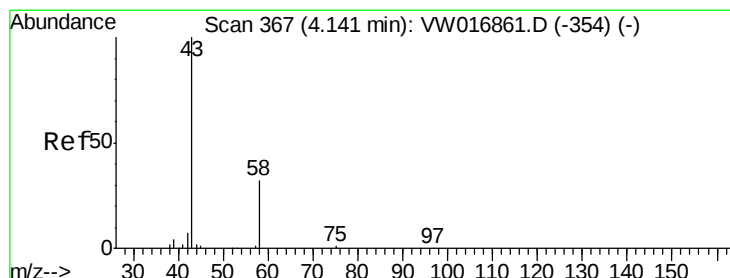
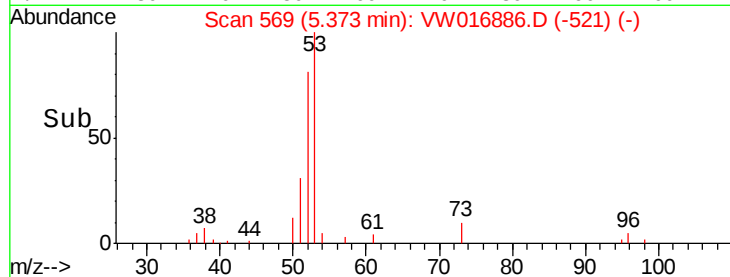
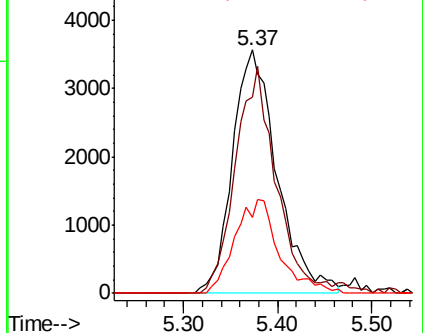
51 38.0 29.1 43.7



Abundance Ion 53.00 (52.70 to 53.70): VW

Ion 52.00 (51.70 to 52.70): VW

Ion 51.00 (50.70 to 51.70): VW



#16

Acetone

Concen: 25.613 ug/l

RT: 4.13 min Scan# 365

Delta R.T. -0.01 min

Lab File: VW016886.D

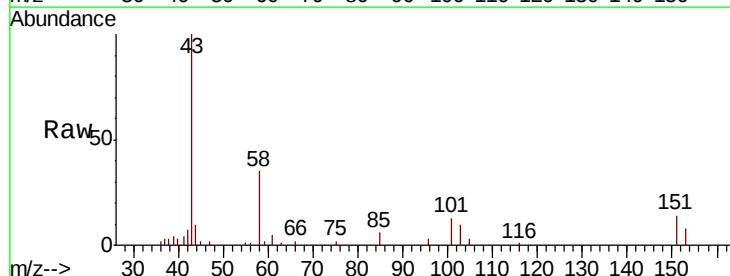
Acq: 12 Oct 2020 17:01

Tgt Ion: 43 Resp: 12317

Ion Ratio Lower Upper

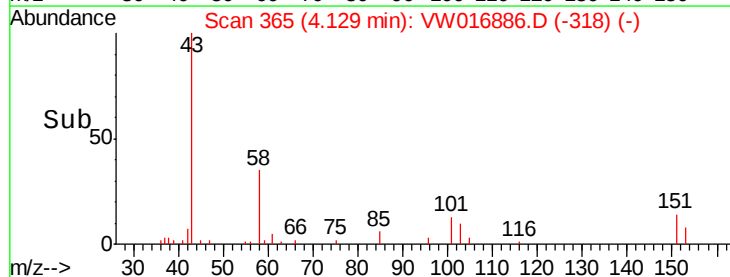
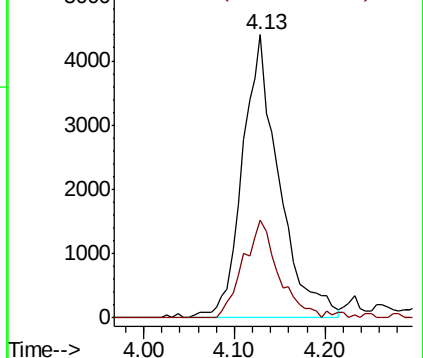
43 100

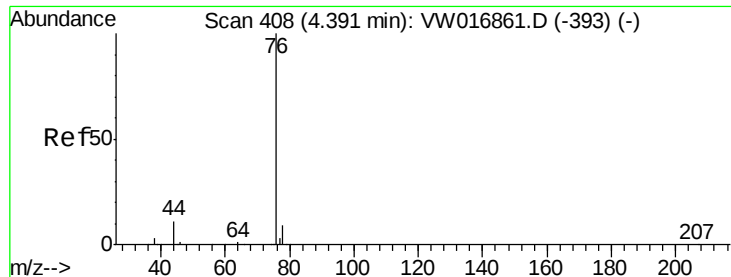
58 34.7 25.7 38.5



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 58.00 (57.70 to 58.70): VW





#17

Carbon Disulfide

Concen: 4.427 ug/l

RT: 4.39 min Scan# 408

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

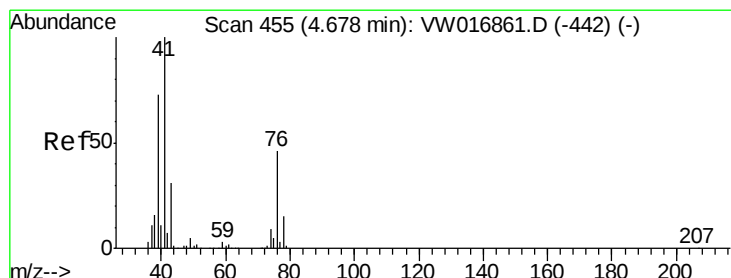
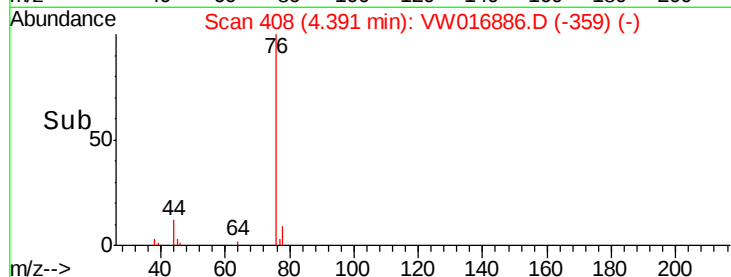
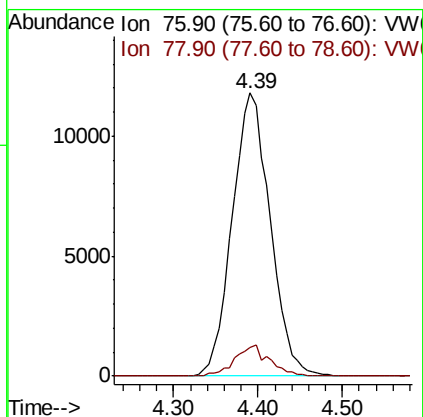
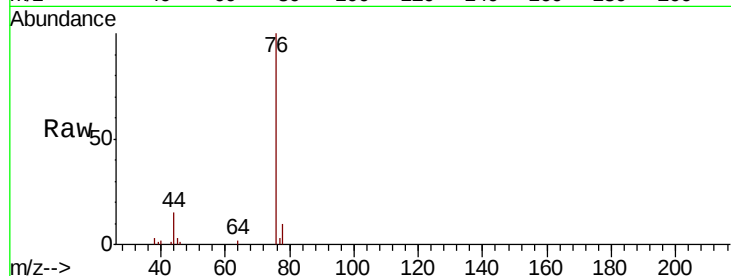
MDL-SOIL-03-QT4-2020

Tot Ion: 76 Resp: 35978

Ion Ratio Lower Upper

76 100

78 10.1 7.4 11.2



#18

Methyl Acetate

Concen: 5.420 ug/l

RT: 4.68 min Scan# 455

Delta R.T. 0.00 min

Lab File: VW016886.D

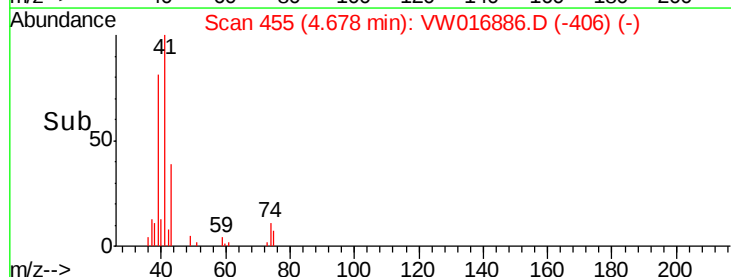
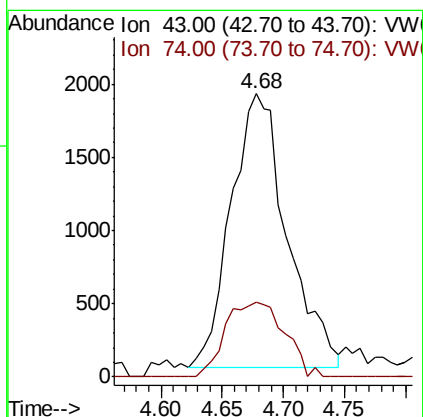
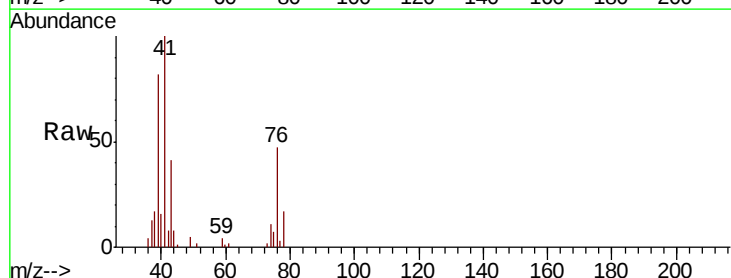
Acq: 12 Oct 2020 17:01

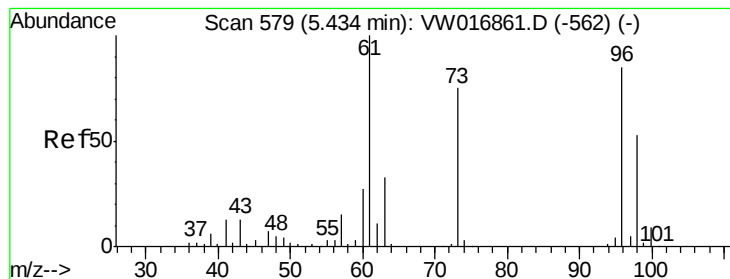
Tgt Ion: 43 Resp: 5978

Ion Ratio Lower Upper

43 100

74 28.8 23.8 35.6





#19

Methyl tert-butyl Ether

Concen: 4.759 ug/l

RT: 5.43 min Scan# 579

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

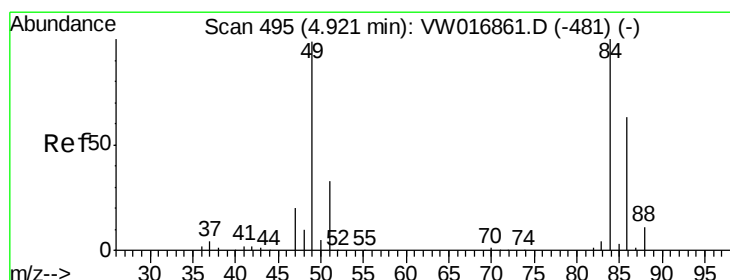
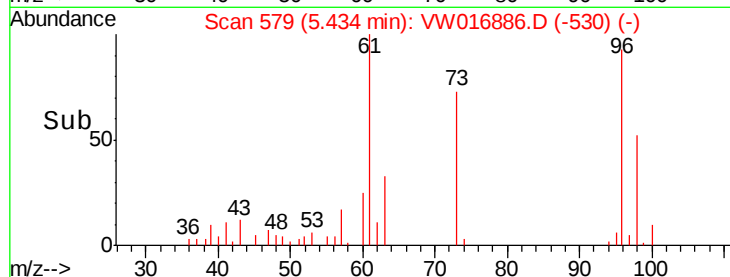
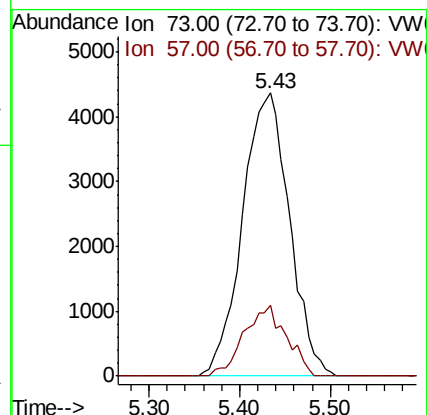
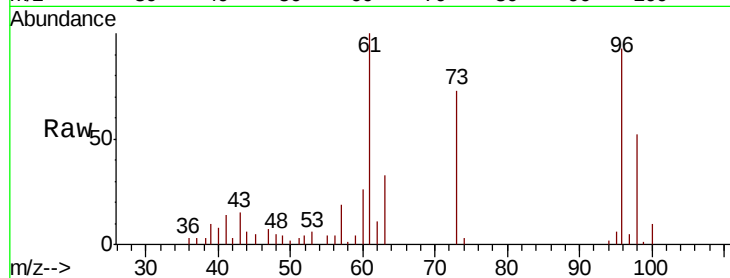
MDL-SOIL-03-QT4-2020

Tot Ion: 73 Resp: 15669

Ion Ratio Lower Upper

73 100

57 25.2 16.1 24.1#



#20

Methylene Chloride

Concen: 6.939 ug/l

RT: 4.92 min Scan# 495

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Tgt Ion: 84 Resp: 26444

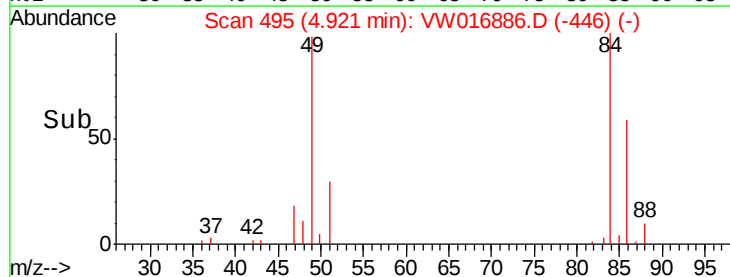
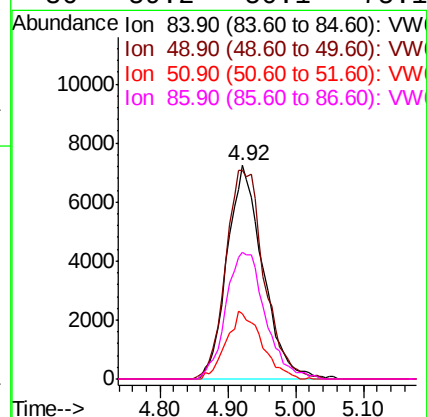
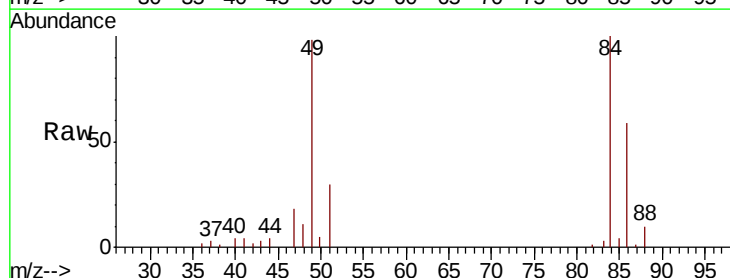
Ion Ratio Lower Upper

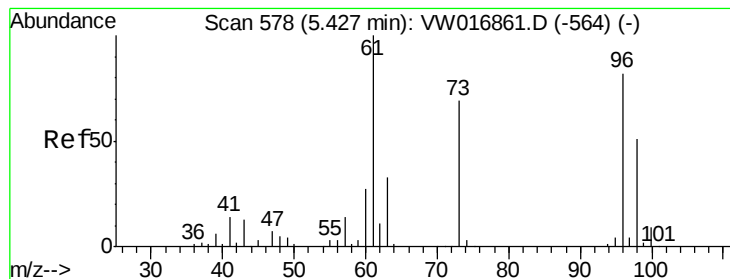
84 100

49 97.9 79.0 118.6

51 30.3 26.1 39.1

86 59.2 50.1 75.1





#21

trans-1,2-Dichloroethene

Concen: 4.720 ug/l

RT: 5.43 min Scan# 578

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

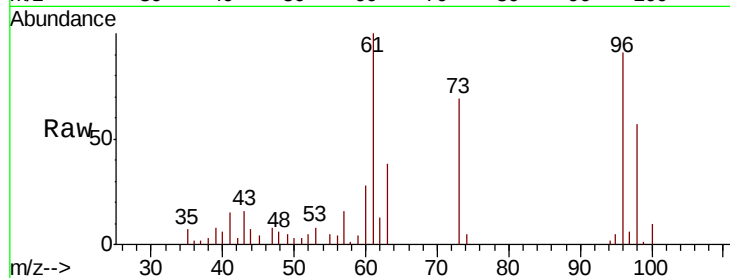
Tot Ion: 96 Resp: 16186

Ion Ratio Lower Upper

96 100

61 109.7 97.4 146.0

98 63.0 49.4 74.0

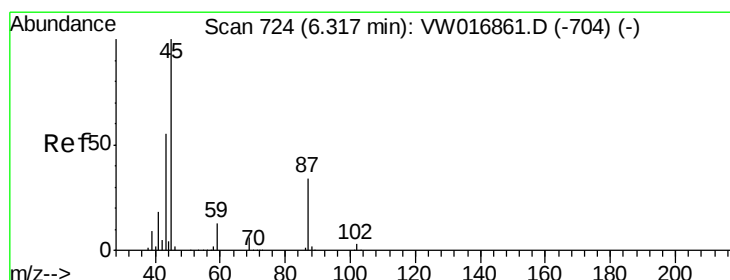
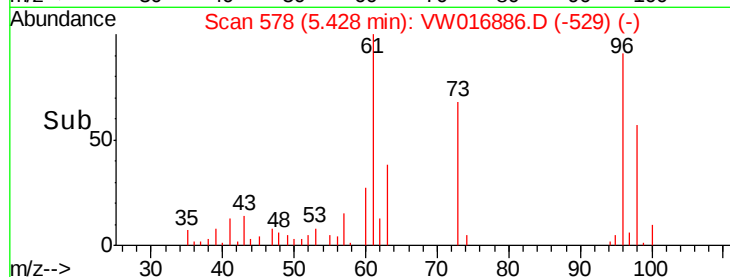
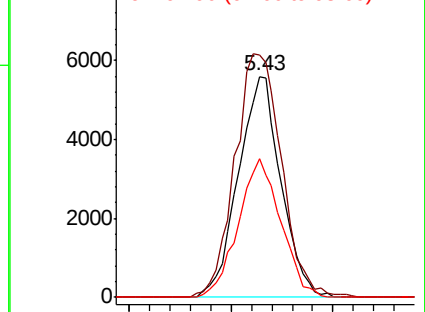


Abundance

Ion 95.90 (95.60 to 96.60): VW

Ion 60.90 (60.60 to 61.60): VW

Ion 97.90 (97.60 to 98.60): VW



#22

Diisopropyl ether

Concen: 4.689 ug/l

RT: 6.32 min Scan# 724

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Tgt Ion: 45 Resp: 31160

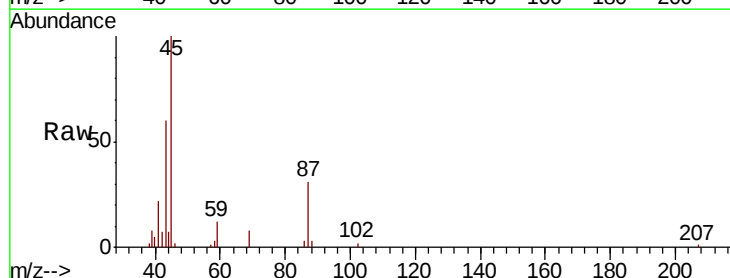
Ion Ratio Lower Upper

45 100

43 57.9 43.8 65.8

87 30.8 27.6 41.4

59 11.8 10.8 16.2



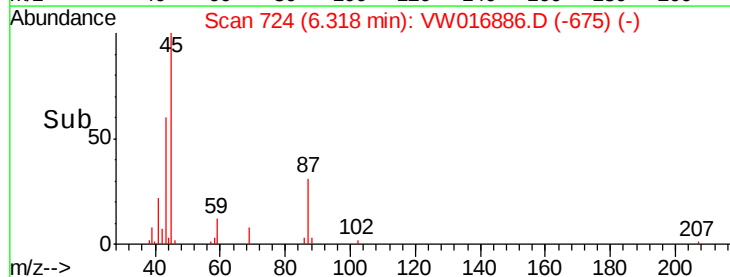
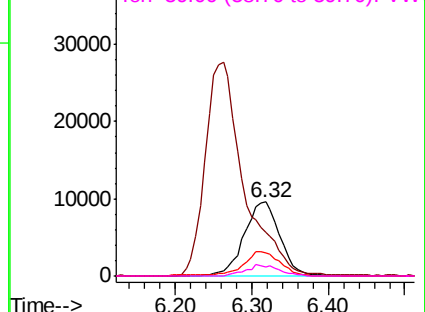
Abundance

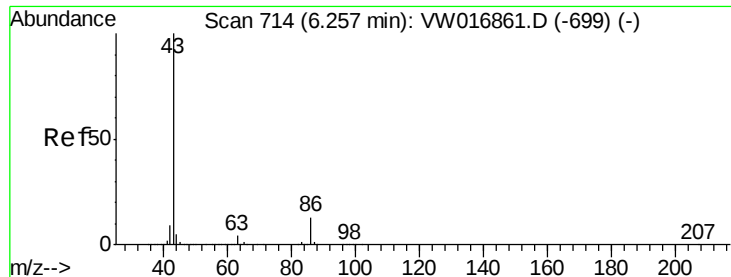
Ion 45.00 (44.70 to 45.70): VW

Ion 43.00 (42.70 to 43.70): VW

Ion 87.00 (86.70 to 87.70): VW

Ion 59.00 (58.70 to 59.70): VW





#23

Vinyl Acetate

Concen: 22.946 ug/l

RT: 6.26 min Scan# 715

Delta R.T. 0.01 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

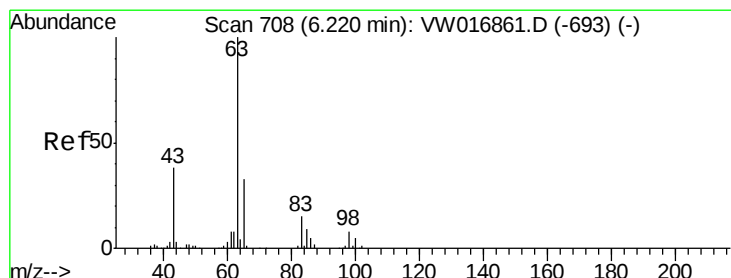
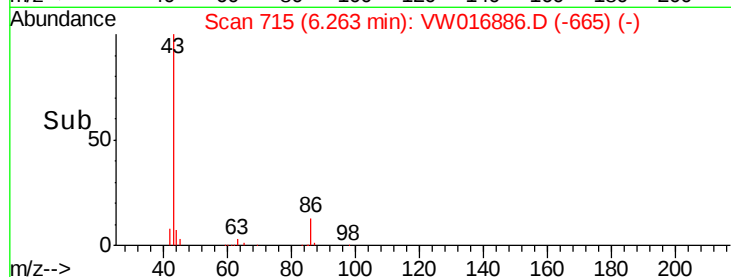
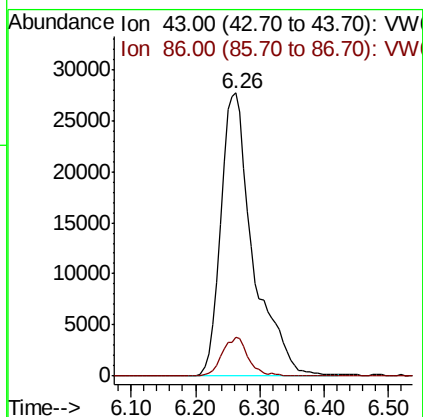
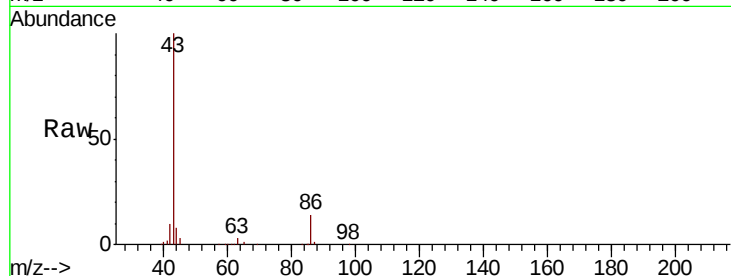
MDL-SOIL-03-QT4-2020

Tot Ion: 43 Resp: 97712

Ion Ratio Lower Upper

43 100

86 13.6 10.2 15.4



#24

1,1-Dichloroethane

Concen: 4.866 ug/l

RT: 6.22 min Scan# 708

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

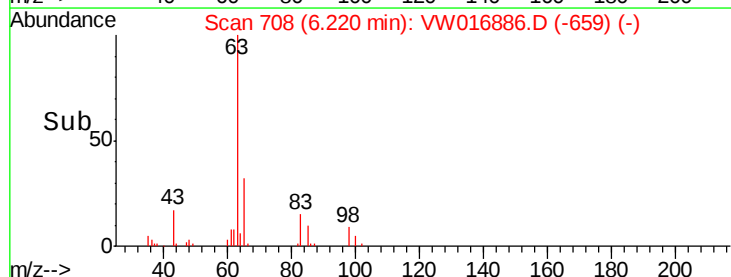
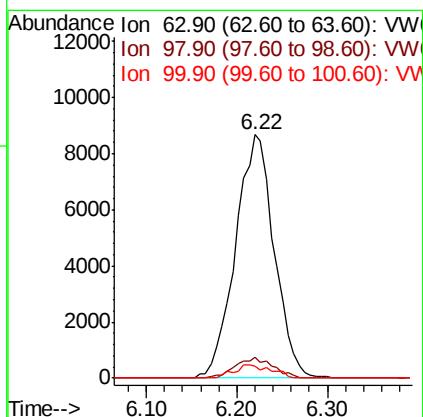
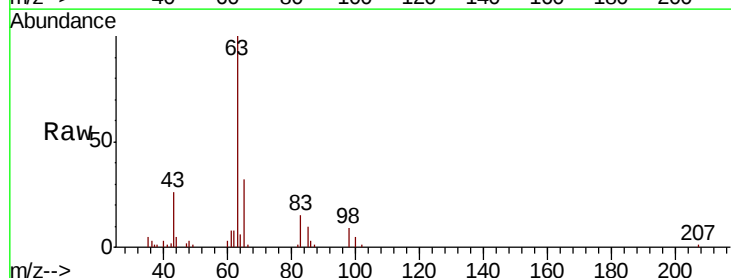
Tgt Ion: 63 Resp: 25641

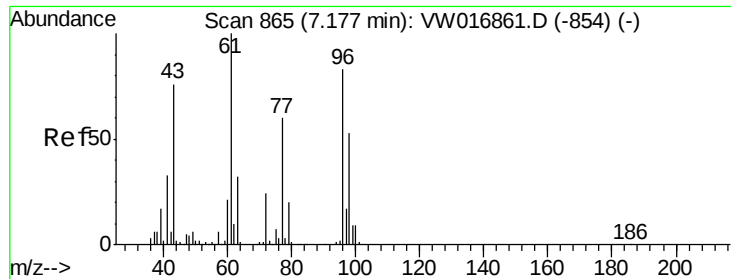
Ion Ratio Lower Upper

63 100

98 8.6 4.2 12.6

100 5.1 2.6 7.8





#25

2-Butanone

Concen: 27.234 ug/l

RT: 7.18 min Scan# 865

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

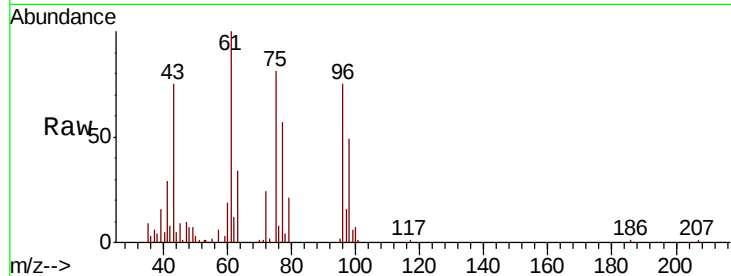
MDL-SOIL-03-QT4-2020

Tot Ion: 43 Resp: 17460

Ion Ratio Lower Upper

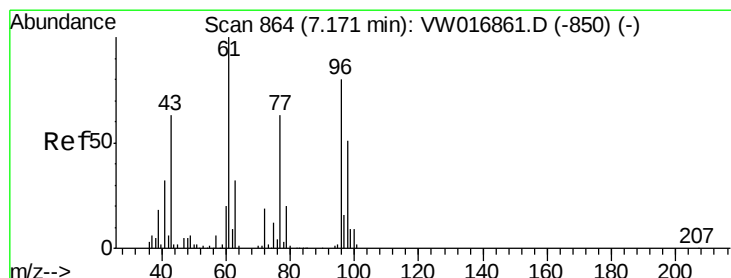
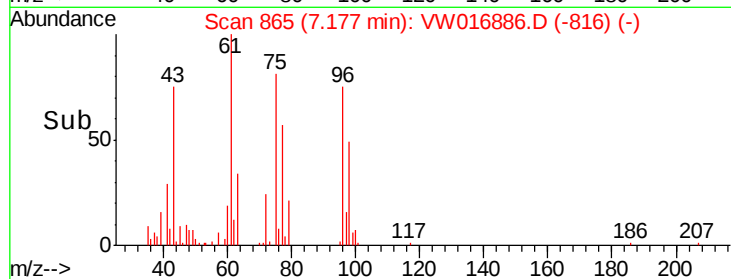
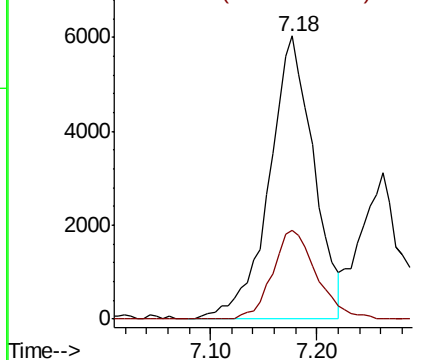
43 100

72 31.5 25.4 38.2



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 72.00 (71.70 to 72.70): VW



#26

2,2-Dichloropropane

Concen: 5.369 ug/l

RT: 7.16 min Scan# 863

Delta R.T. -0.01 min

Lab File: VW016886.D

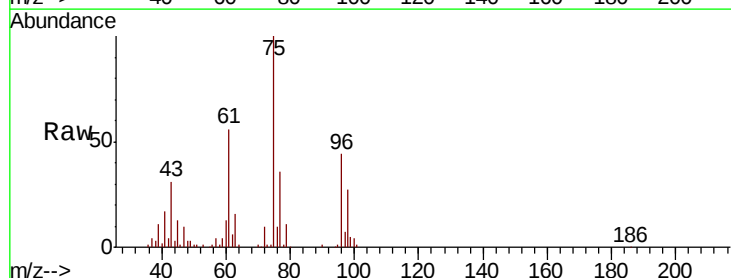
Acq: 12 Oct 2020 17:01

Tgt Ion: 77 Resp: 17312

Ion Ratio Lower Upper

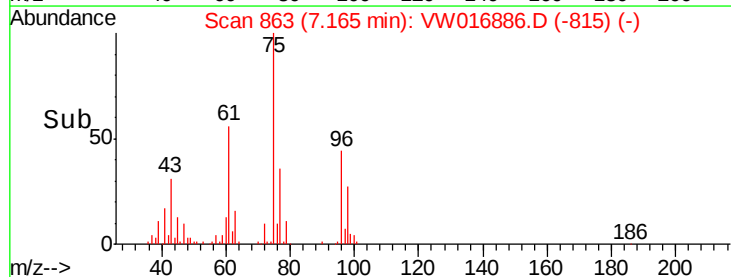
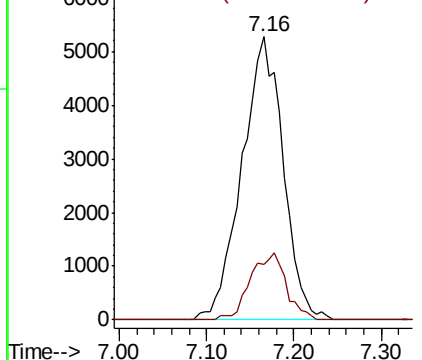
77 100

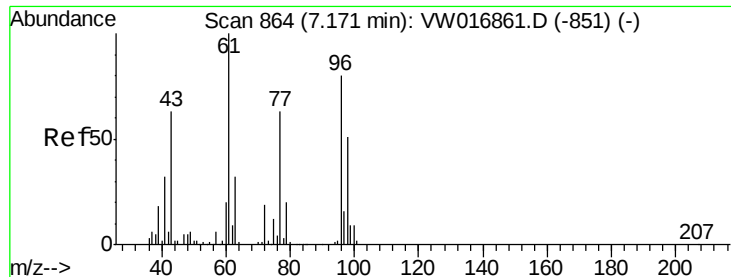
97 20.7 12.4 37.4



Abundance Ion 76.90 (76.60 to 77.60): VW

Ion 96.90 (96.60 to 97.60): VW





#27

cis-1,2-Dichloroethene

Concen: 4.845 ug/l

RT: 7.17 min Scan# 864

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

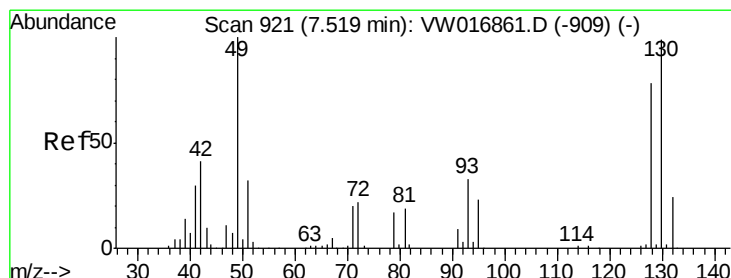
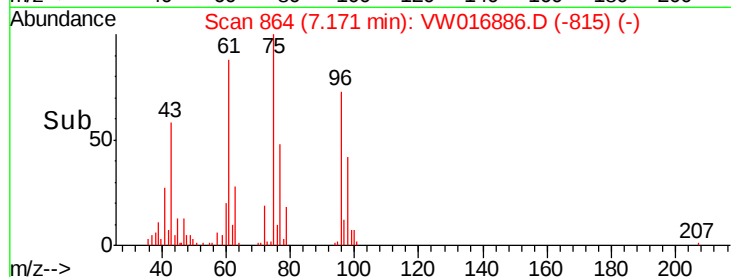
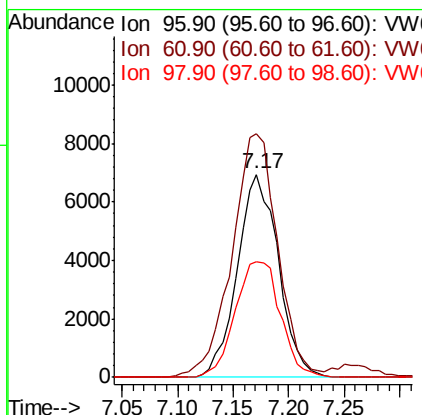
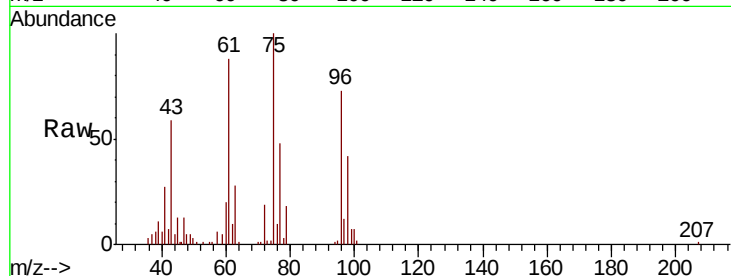
Tot Ion: 96 Resp: 17796

Ion Ratio Lower Upper

96 100

61 133.5 0.0 249.6

98 62.9 0.0 129.4



#28

Bromochloromethane

Concen: 4.729 ug/l

RT: 7.52 min Scan# 921

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

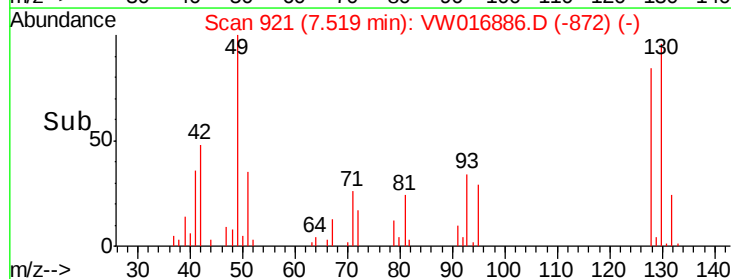
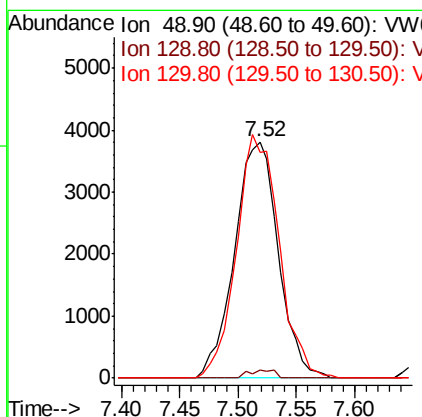
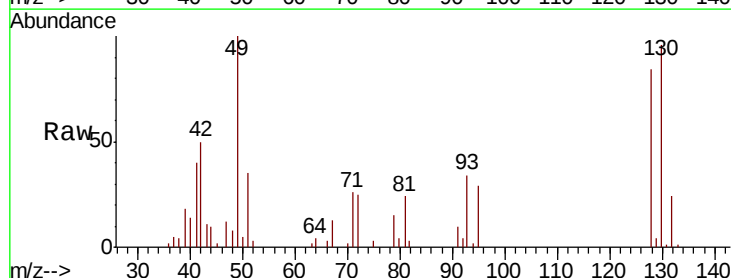
Tgt Ion: 49 Resp: 9975

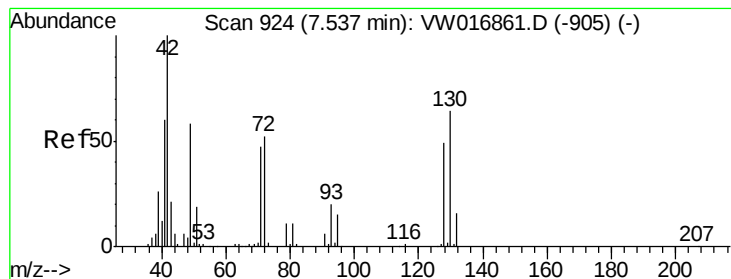
Ion Ratio Lower Upper

49 100

129 2.1 0.0 4.8

130 100.4 81.3 121.9





#29

Tetrahydrofuran

Concen: 26.243 ug/l

RT: 7.54 min Scan# 924

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

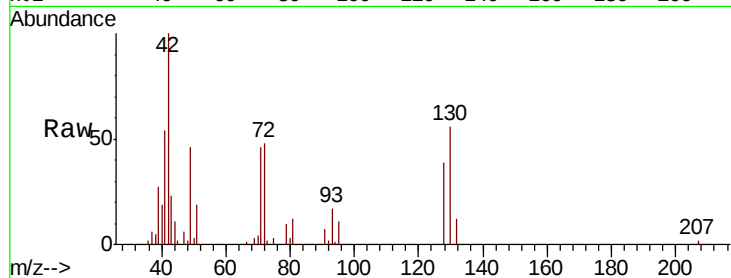
Tot Ion: 42 Resp: 9424

Ion Ratio Lower Upper

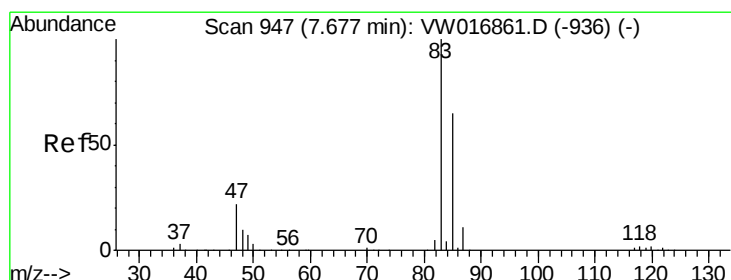
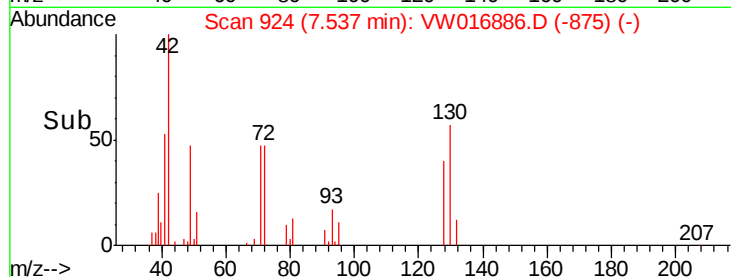
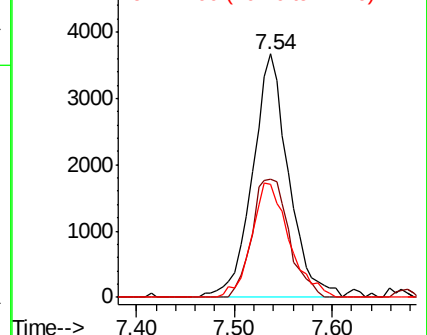
42 100

72 50.3 42.0 63.0

71 49.0 39.0 58.6



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



#30

Chloroform

Concen: 4.808 ug/l

RT: 7.68 min Scan# 947

Delta R.T. 0.00 min

Lab File: VW016886.D

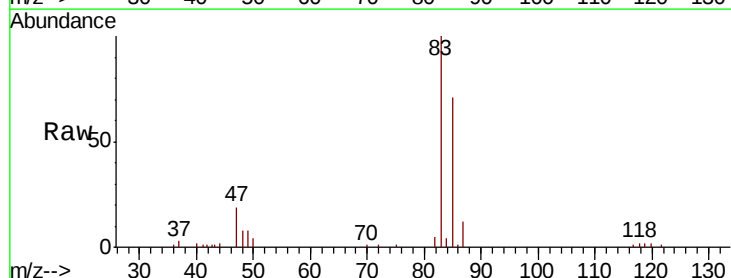
Acq: 12 Oct 2020 17:01

Tgt Ion: 83 Resp: 27542

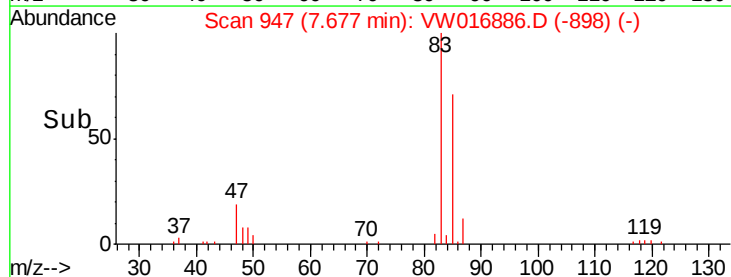
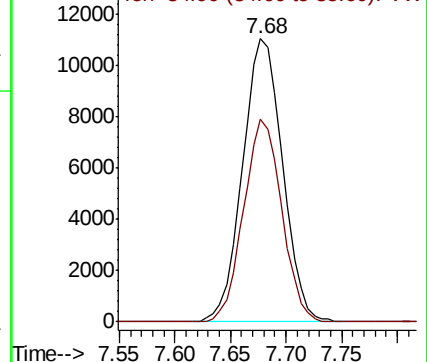
Ion Ratio Lower Upper

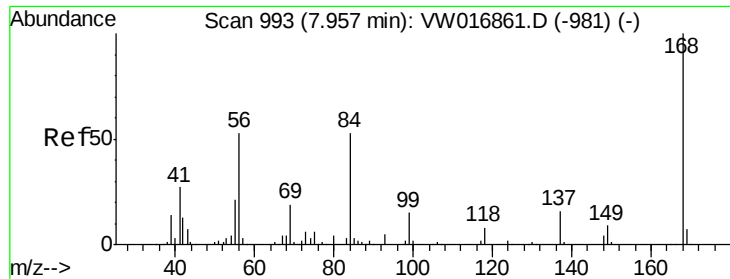
83 100

85 71.5 51.7 77.5



Abundance Ion 82.90 (82.60 to 83.60): VW  
Ion 84.90 (84.60 to 85.60): VW

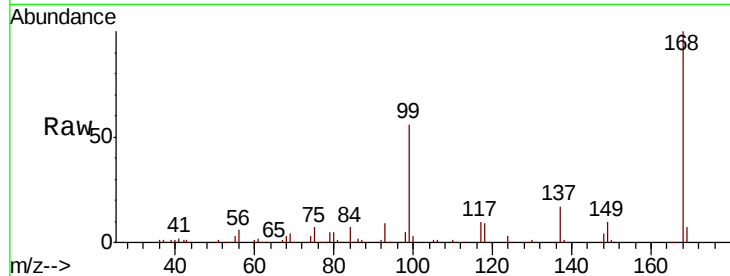




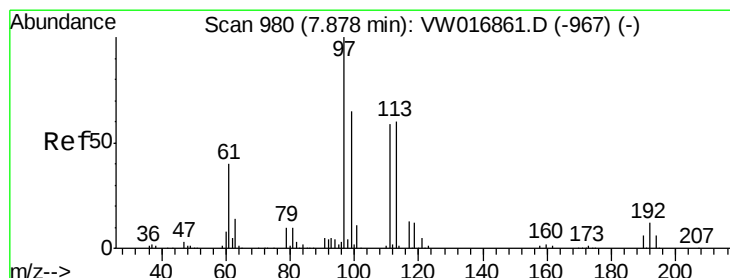
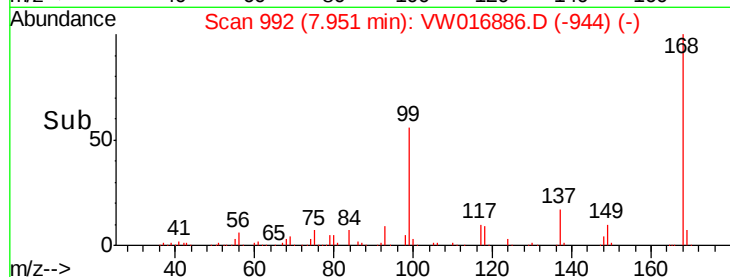
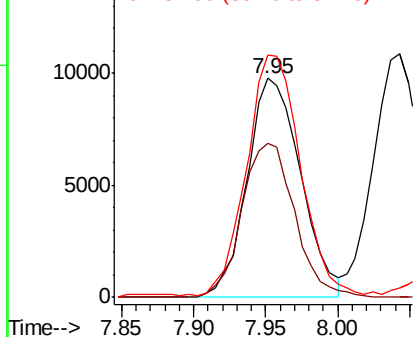
#31  
Cyclohexane  
Concen: 5.624 ug/l  
RT: 7.95 min Scan# 992  
Delta R.T. -0.01 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

Instrument :  
MSVOA\_W  
ClientSampleId :  
MDL-SOIL-03-QT4-2020

Tot Ion: 56 Resp: 25279  
Ion Ratio Lower Upper  
56 100  
69 70.4 29.3 43.9#  
84 108.9 80.5 120.7

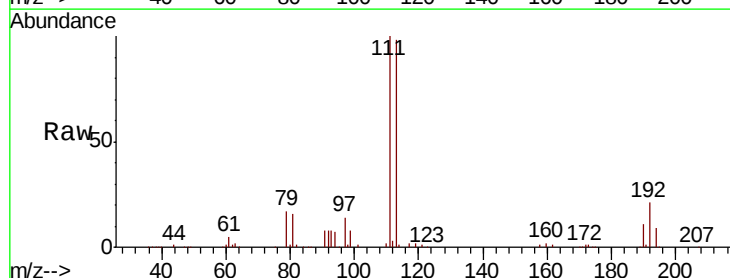


Abundance Ion 56.00 (55.70 to 56.70): VW  
Ion 69.00 (68.70 to 69.70): VW  
Ion 84.00 (83.70 to 84.70): VW

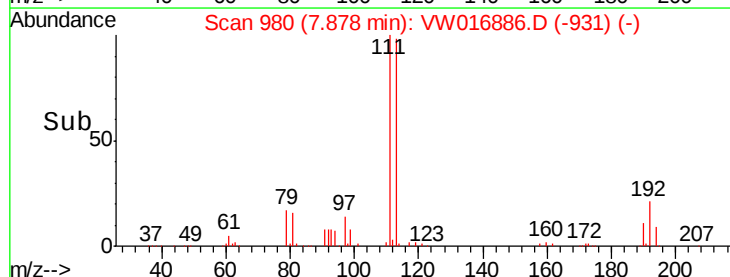
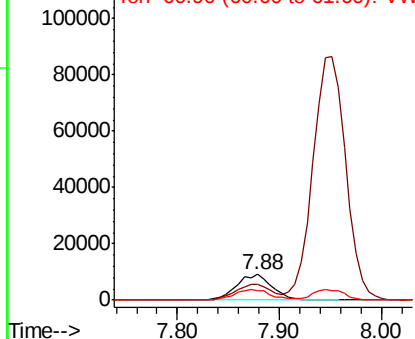


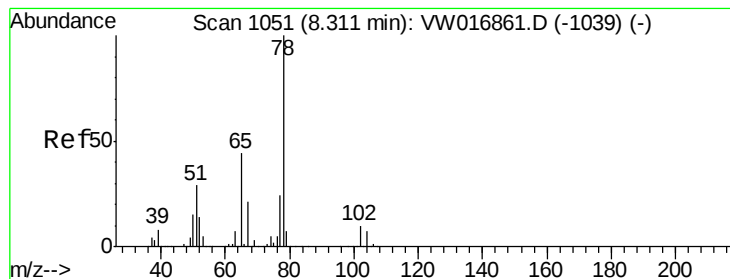
#32  
1,1,1-Trichloroethane  
Concen: 4.593 ug/l  
RT: 7.88 min Scan# 980  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

Tgt Ion: 97 Resp: 22196  
Ion Ratio Lower Upper  
97 100  
99 61.2 52.4 78.6  
61 41.9 31.9 47.9



Abundance Ion 96.90 (96.60 to 97.60): VW  
Ion 98.90 (98.60 to 99.60): VW  
Ion 60.90 (60.60 to 61.60): VW





#33

1,2-Dichloroethane-d4

Concen: 57.628 ug/l

RT: 8.31 min Scan# 1051

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

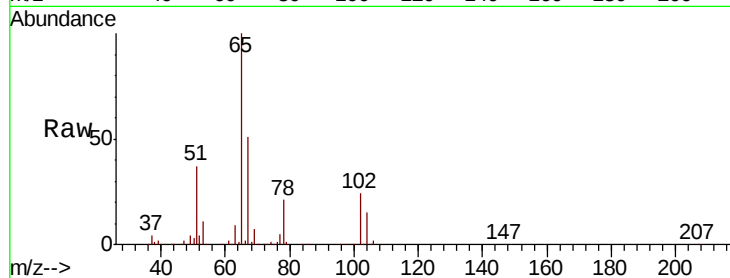
MDL-SOIL-03-QT4-2020

Tot Ion: 65 Resp: 171111

Ion Ratio Lower Upper

65 100

67 52.7 0.0 103.8



Abundance Ion 64.90 (64.60 to 65.60): VW

Ion 66.90 (66.60 to 67.60): VW

8.31

80000

60000

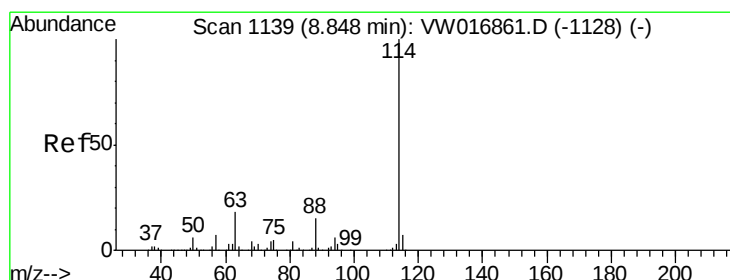
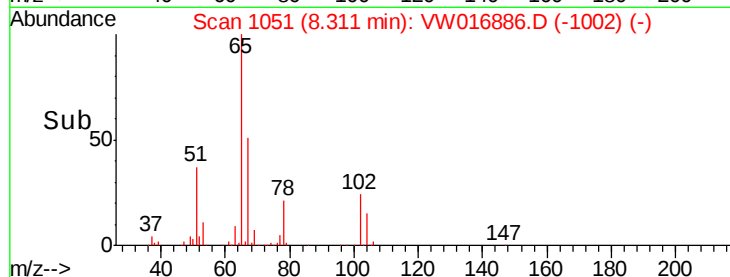
40000

20000

0

8.20 8.25 8.30 8.35 8.40

Time-->



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.84 min Scan# 1138

Delta R.T. -0.01 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

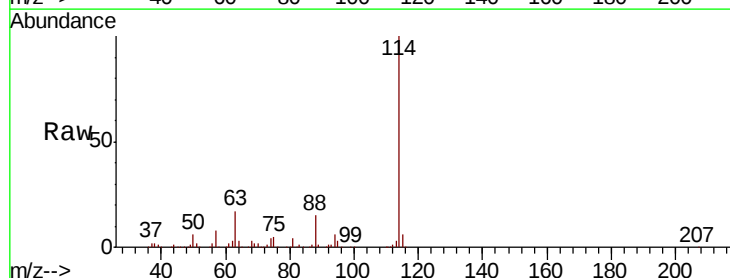
Tgt Ion: 114 Resp: 562790

Ion Ratio Lower Upper

114 100

63 17.5 0.0 35.6

88 14.6 0.0 30.4



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VW

Ion 87.90 (87.60 to 88.60): VW

8.84

400000

300000

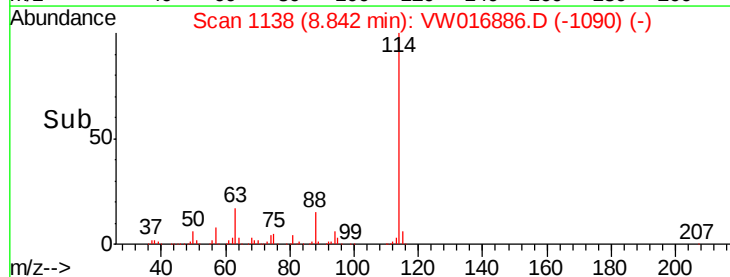
200000

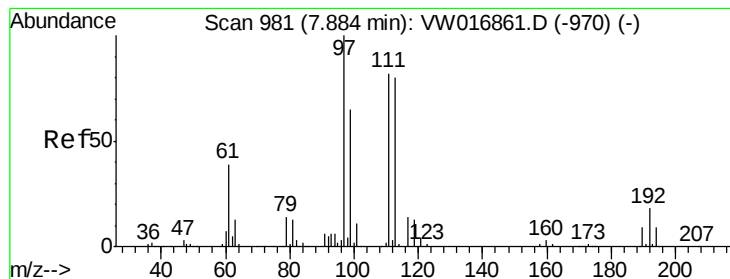
100000

0

8.70 8.80 8.90 9.00

Time-->





#35

Dibromofluoromethane

Concen: 52.356 ug/l

RT: 7.89 min Scan# 982

Delta R.T. 0.01 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

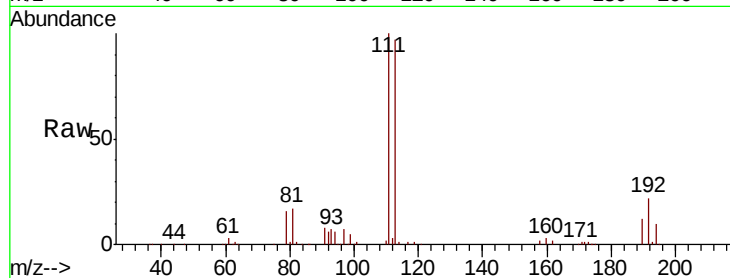
Tot Ion:113 Resp: 180599

Ion Ratio Lower Upper

113 100

111 102.8 81.4 122.2

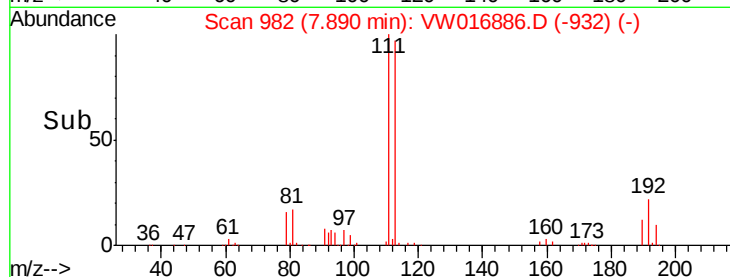
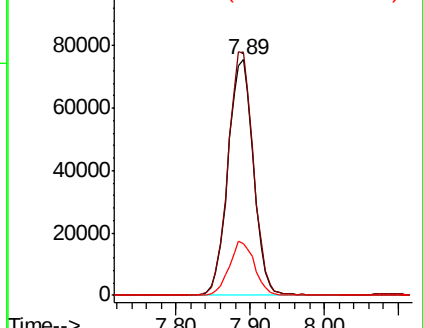
192 22.7 17.8 26.8



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: 4.502 ug/l

RT: 8.09 min Scan# 1014

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

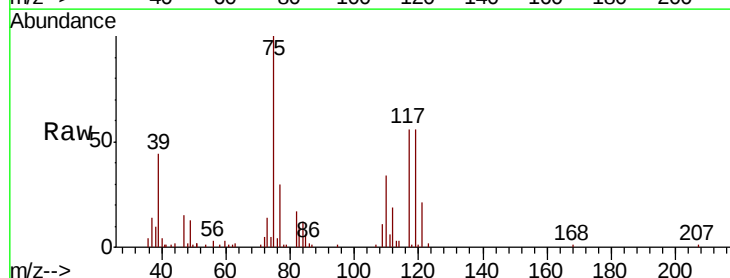
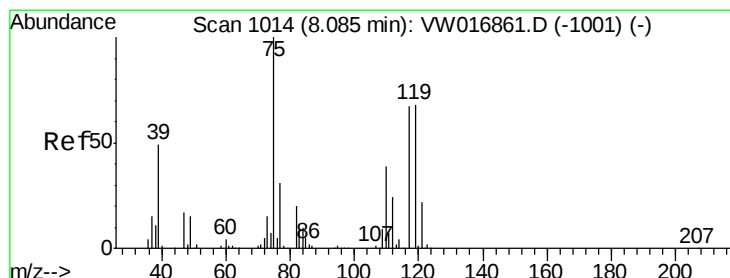
Tgt Ion: 75 Resp: 21903

Ion Ratio Lower Upper

75 100

110 39.2 19.3 57.9

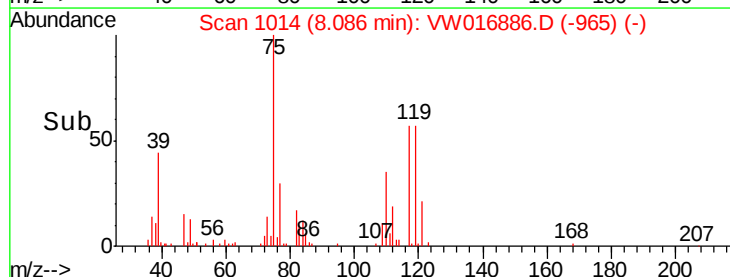
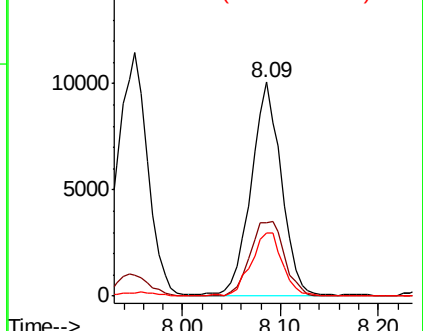
77 30.4 25.0 37.6

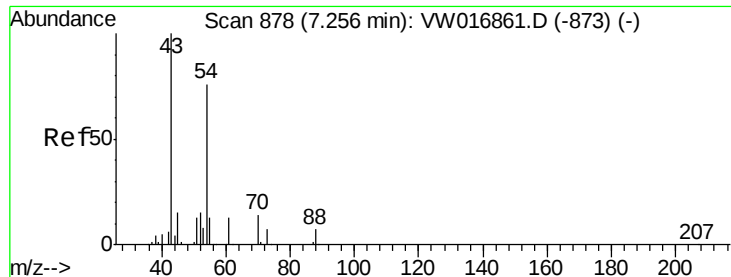


Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VW

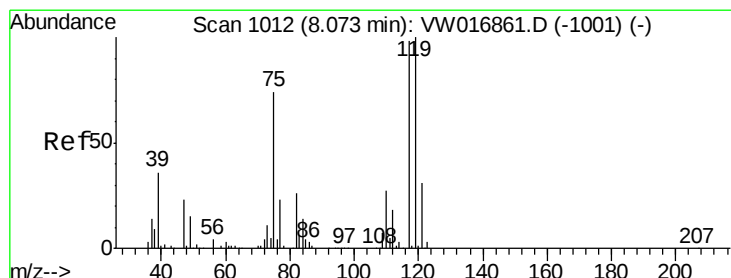
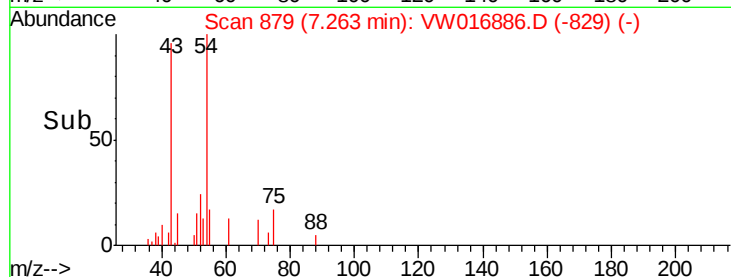
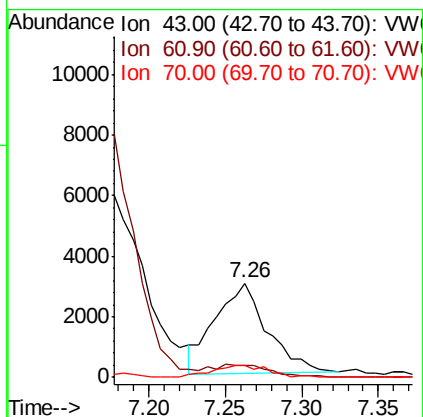
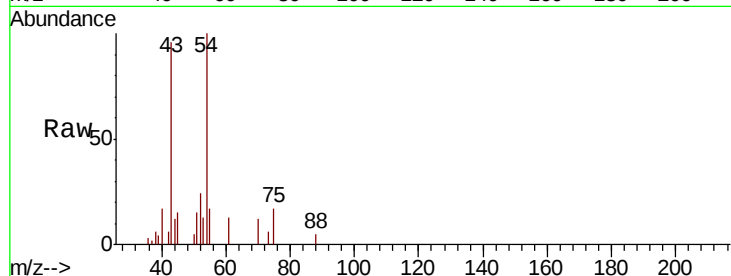




#37  
Ethyl Acetate  
Concen: 4.474 ug/l  
RT: 7.26 min Scan# 879  
Delta R.T. 0.01 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

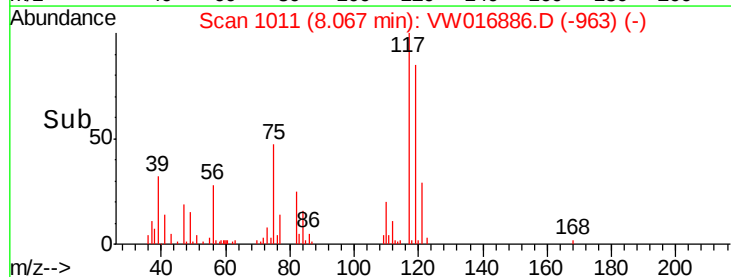
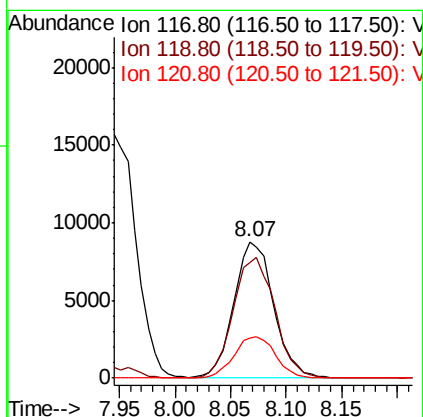
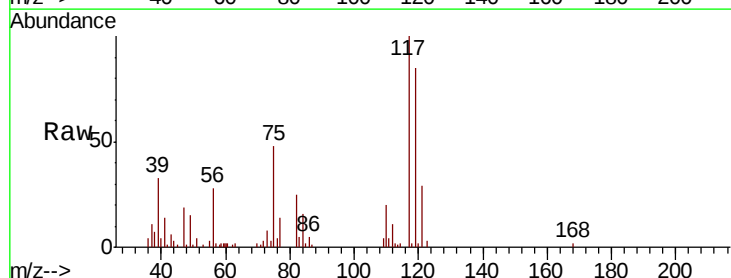
Instrument :  
MSVOA\_W  
ClientSampleId :  
MDL-SOIL-03-QT4-2020

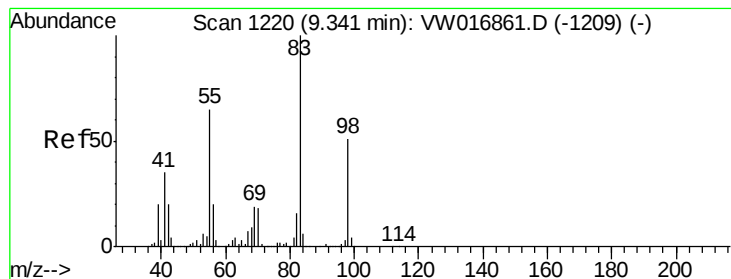
Tot Ion: 43 Resp: 7112  
Ion Ratio Lower Upper  
43 100  
61 16.2 12.0 18.0  
70 13.9 9.9 14.9



#38  
Carbon Tetrachloride  
Concen: 4.319 ug/l  
RT: 8.07 min Scan# 1011  
Delta R.T. -0.01 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

Tgt Ion: 117 Resp: 21846  
Ion Ratio Lower Upper  
117 100  
119 84.9 81.6 122.4  
121 29.5 25.7 38.5





#39

Methvlcvclohexane

Concen: 4.258 ug/l

RT: 9.34 min Scan# 1220

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

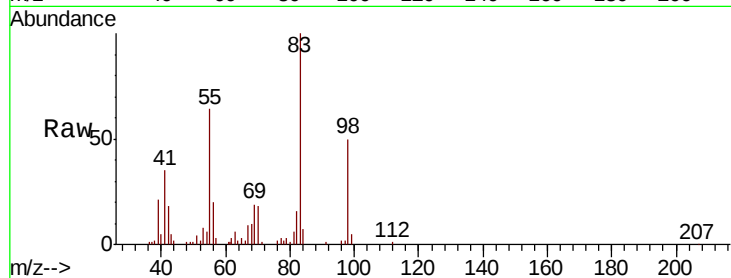
Tot Ion: 83 Resp: 23624

Ion Ratio Lower Upper

83 100

55 64.0 51.7 77.5

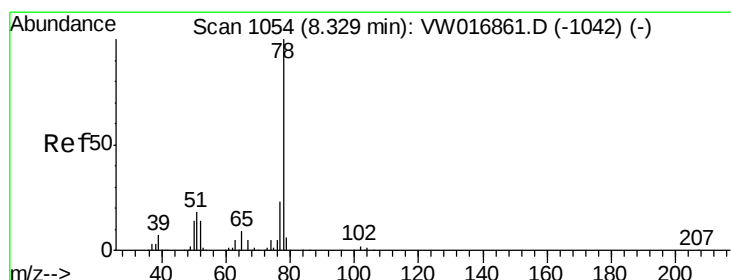
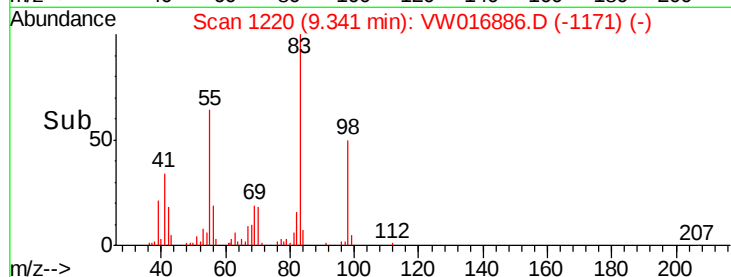
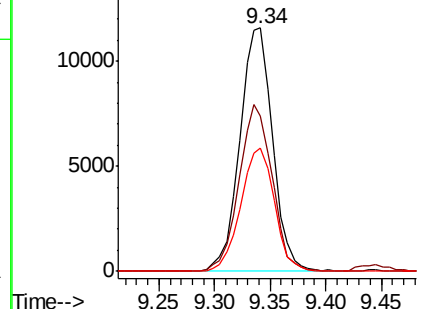
98 50.4 41.0 61.4



Abundance Ion 83.00 (82.70 to 83.70): VW

Ion 55.00 (54.70 to 55.70): VW

Ion 98.00 (97.70 to 98.70): VW



#40

Benzene

Concen: 4.585 ug/l

RT: 8.32 min Scan# 1053

Delta R.T. -0.01 min

Lab File: VW016886.D

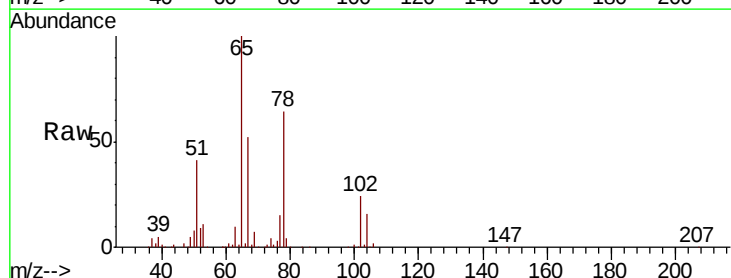
Acq: 12 Oct 2020 17:01

Tgt Ion: 78 Resp: 62155

Ion Ratio Lower Upper

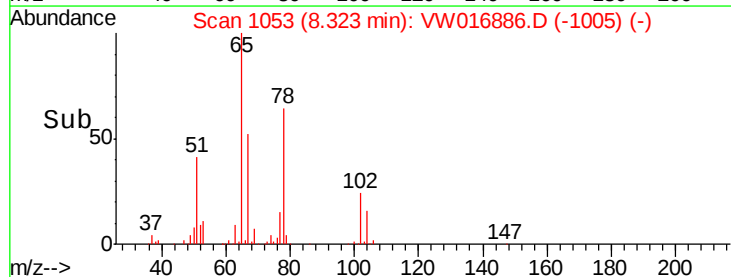
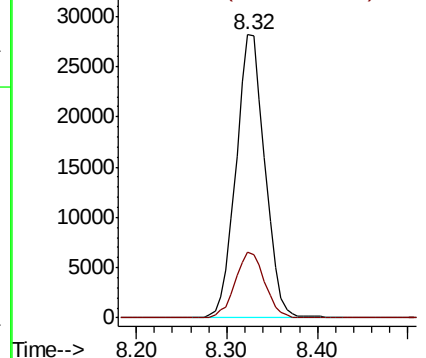
78 100

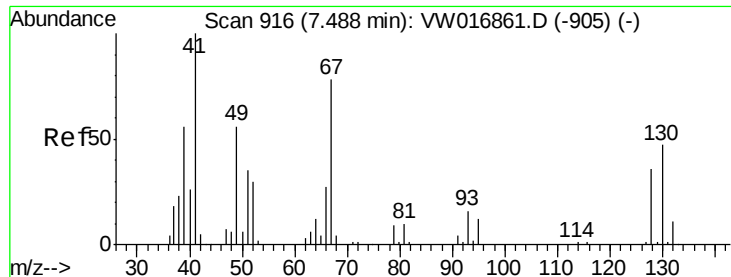
77 23.2 18.5 27.7



Abundance Ion 78.00 (77.70 to 78.70): VW

Ion 77.00 (76.70 to 77.70): VW

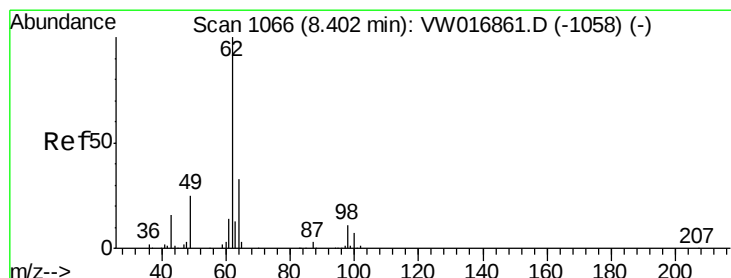
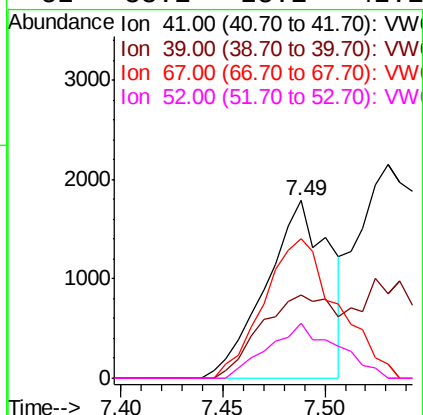
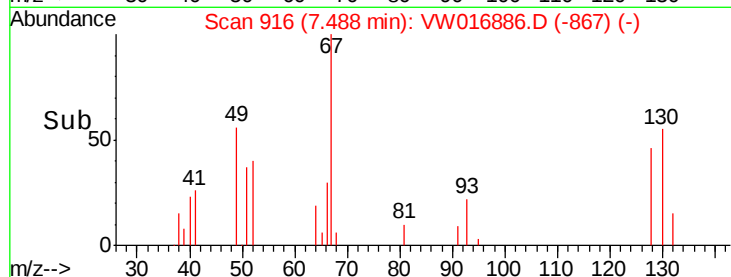
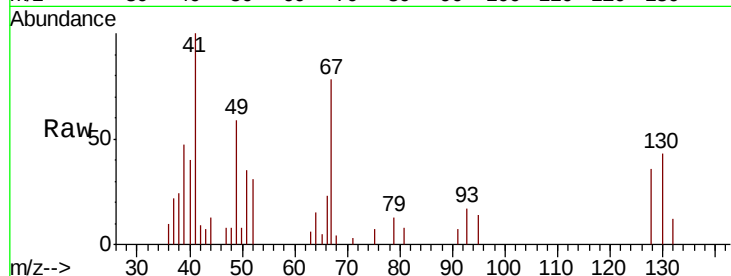




#41  
Methacrylonitrile  
Concen: 4.119 ug/l  
RT: 7.49 min Scan# 916  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

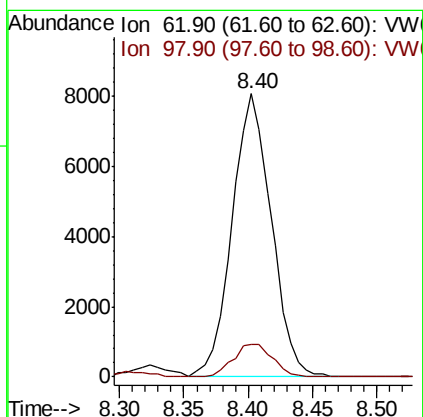
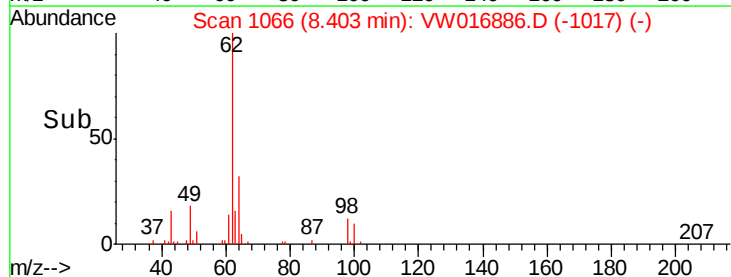
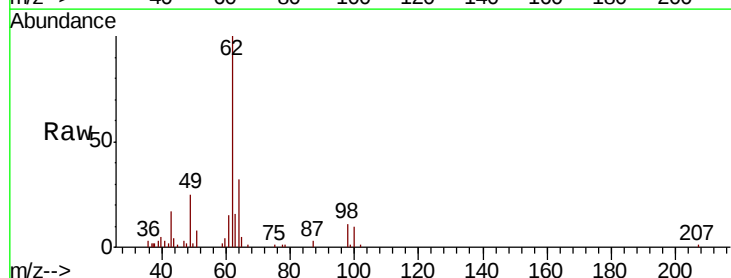
Instrument :  
MSVOA\_W  
ClientSampleId :  
MDL-SOIL-03-QT4-2020

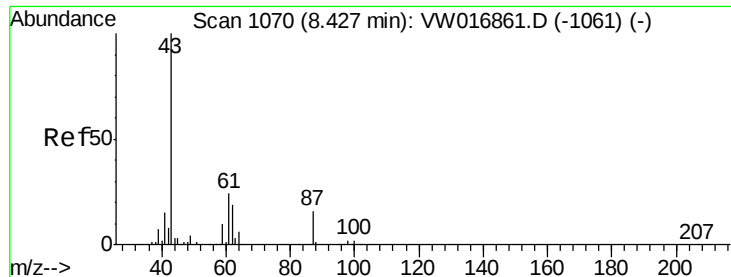
Tot Ion: 41 Resp: 3880  
Ion Ratio Lower Upper  
41 100  
39 53.9 47.0 70.6  
67 90.7 68.6 102.8  
52 33.1 28.1 42.1



#42  
1,2-Dichloroethane  
Concen: 4.595 ug/l  
RT: 8.40 min Scan# 1066  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

Tgt Ion: 62 Resp: 17038  
Ion Ratio Lower Upper  
62 100  
98 11.7 0.0 21.0





#43

Isopropyl Acetate

Concen: 4.561 ug/l

RT: 8.43 min Scan# 1070

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

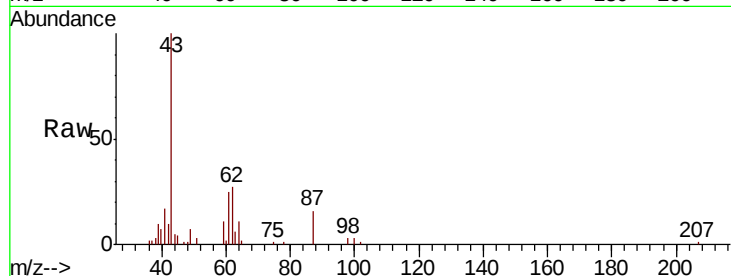
Tot Ion: 43 Resp: 13888

Ion Ratio Lower Upper

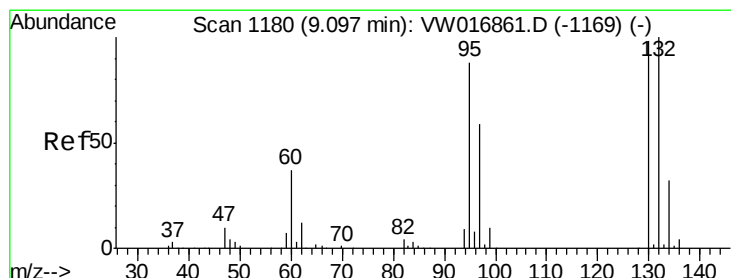
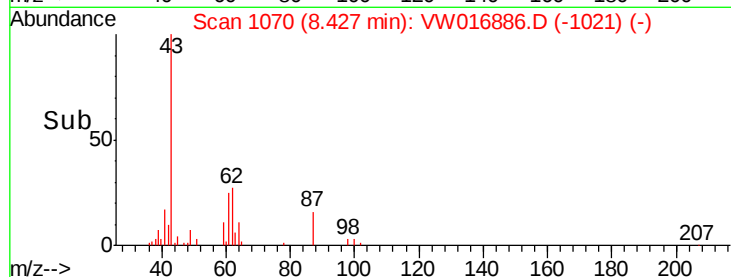
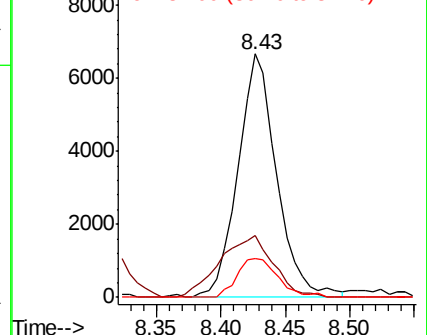
43 100

61 35.4 27.5 41.3

87 16.7 13.6 20.4



Abundance Ion 43.00 (42.70 to 43.70): VW  
Ion 61.00 (60.70 to 61.70): VW  
Ion 87.00 (86.70 to 87.70): VW



#44

Trichloroethene

Concen: 4.340 ug/l

RT: 9.10 min Scan# 1180

Delta R.T. 0.00 min

Lab File: VW016886.D

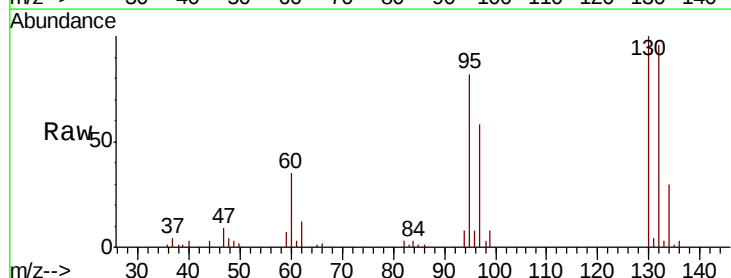
Acq: 12 Oct 2020 17:01

Tgt Ion: 130 Resp: 18212

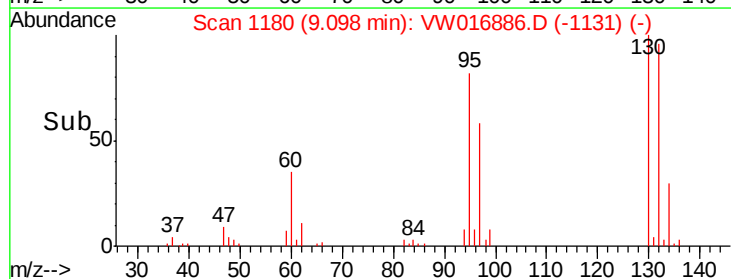
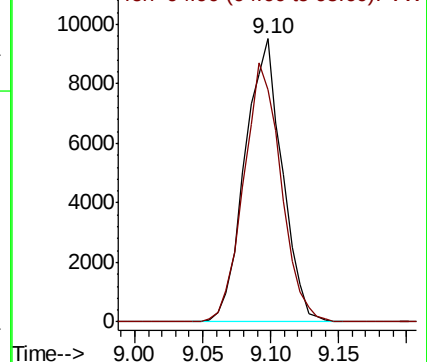
Ion Ratio Lower Upper

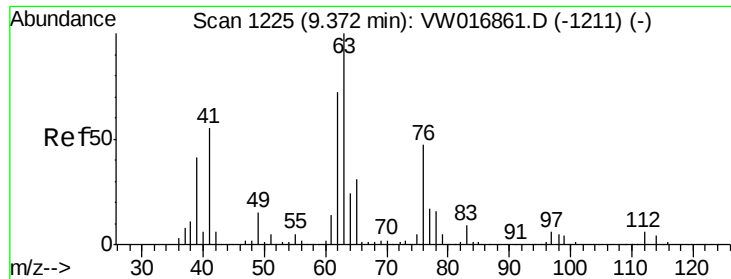
130 100

95 81.9 0.0 180.2



Abundance Ion 129.80 (129.50 to 130.50): V  
Ion 94.90 (94.60 to 95.60): VW

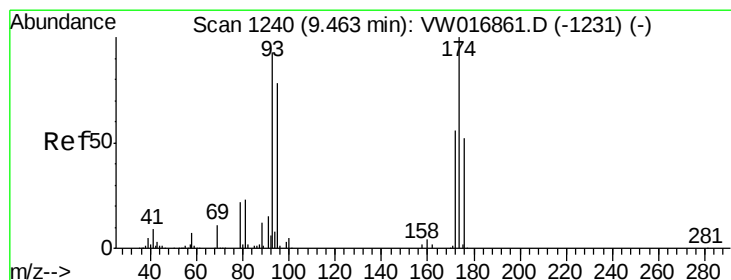
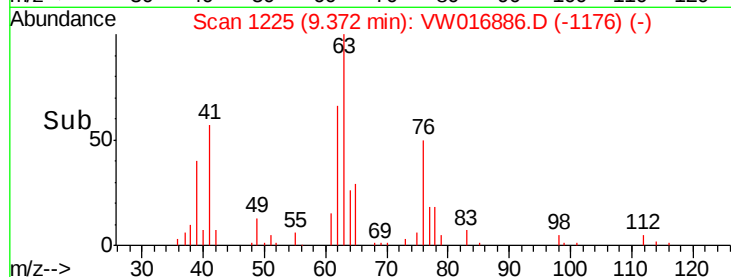
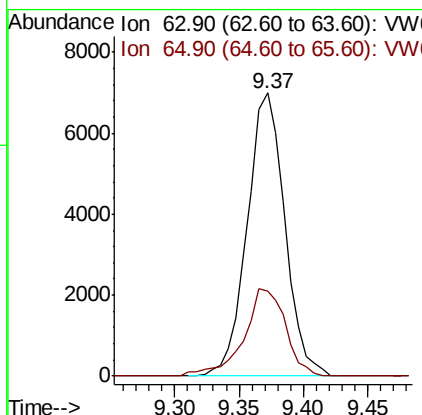
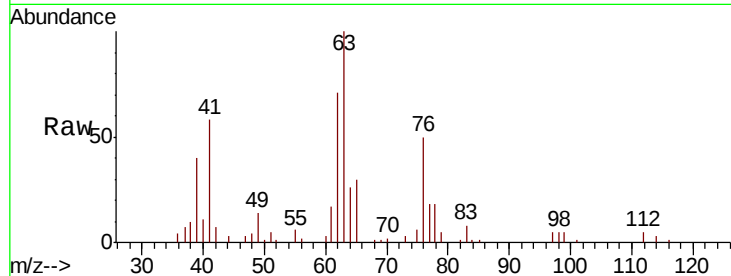




#45  
 1,2-Dichloropropane  
 Concen: 4.564 ug/l  
 RT: 9.37 min Scan# 1225  
 Delta R.T. 0.00 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

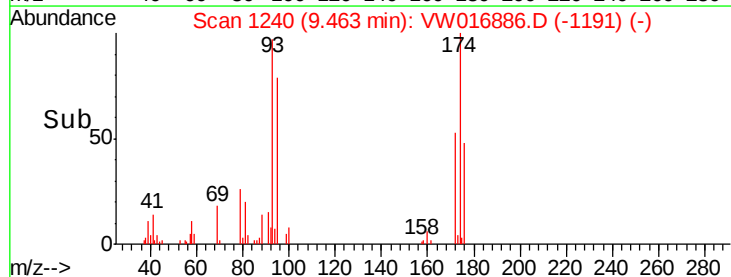
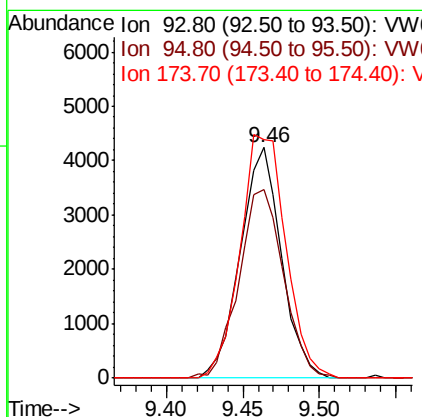
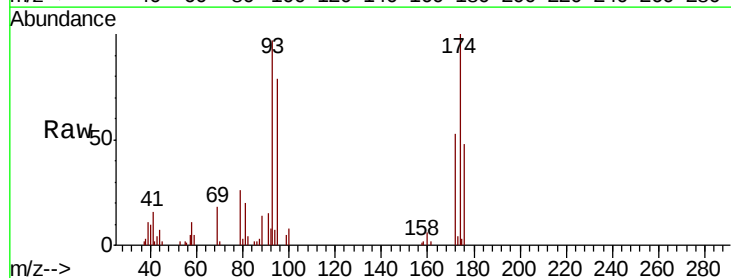
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 MDL-SOIL-03-QT4-2020

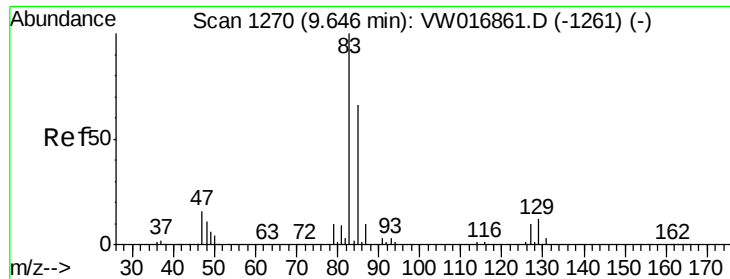
Tot Ion: 63 Resp: 14109  
 Ion Ratio Lower Upper  
 63 100  
 65 29.8 25.1 37.7



#46  
 Dibromomethane  
 Concen: 4.464 ug/l  
 RT: 9.46 min Scan# 1240  
 Delta R.T. 0.00 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

Tgt Ion: 93 Resp: 7894  
 Ion Ratio Lower Upper  
 93 100  
 95 89.0 66.5 99.7  
 174 118.1 91.0 136.6





#47

Bromodichloromethane

Concen: 4.447 ug/l

RT: 9.65 min Scan# 1270

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

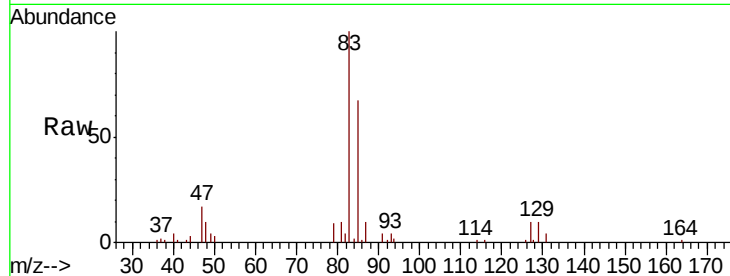
Tot Ion: 83 Resp: 19553

Ion Ratio Lower Upper

83 100

85 67.0 52.7 79.1

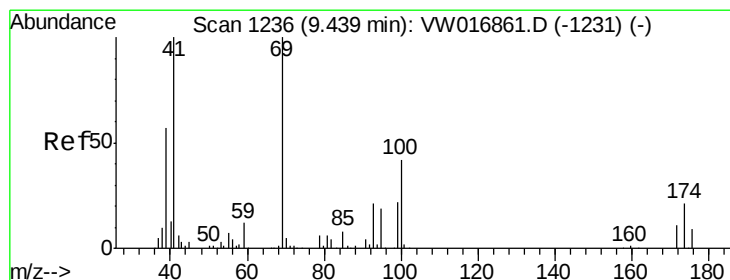
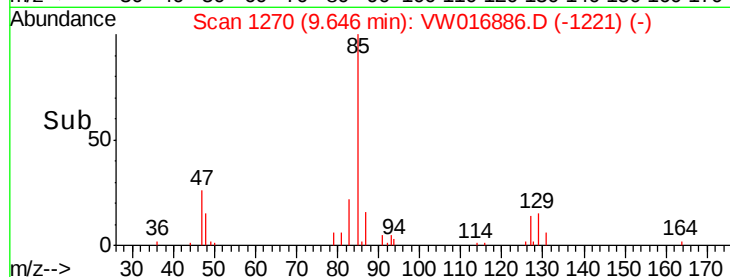
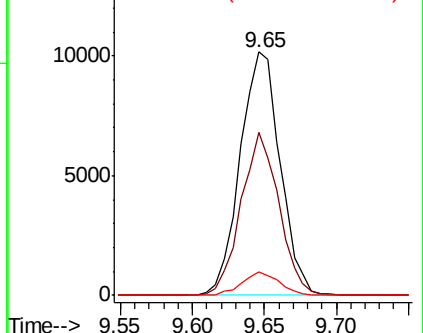
127 9.6 7.8 11.6



Abundance Ion 82.90 (82.60 to 83.60): VW

Ion 84.90 (84.60 to 85.60): VW

Ion 126.80 (126.50 to 127.50): VW



#48

Methyl methacrylate

Concen: 4.377 ug/l

RT: 9.44 min Scan# 1236

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

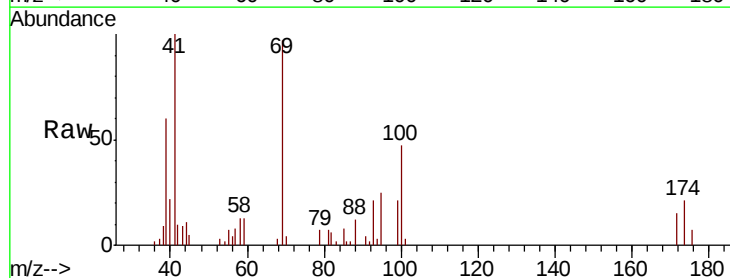
Tgt Ion: 41 Resp: 6142

Ion Ratio Lower Upper

41 100

69 107.4 83.5 125.3

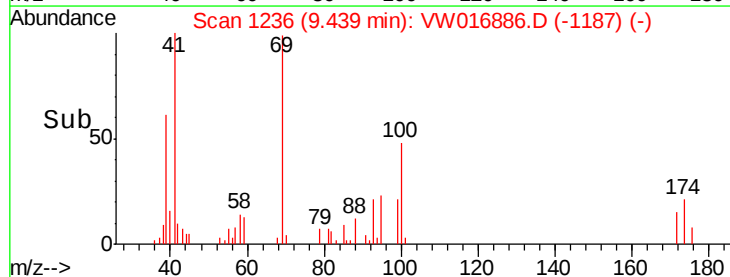
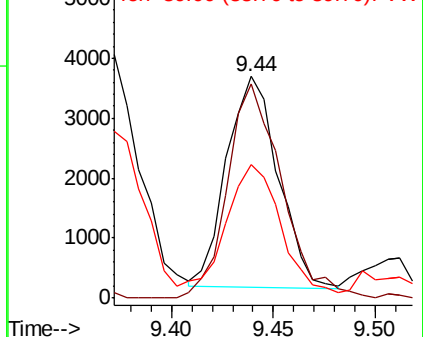
39 70.9 50.9 76.3

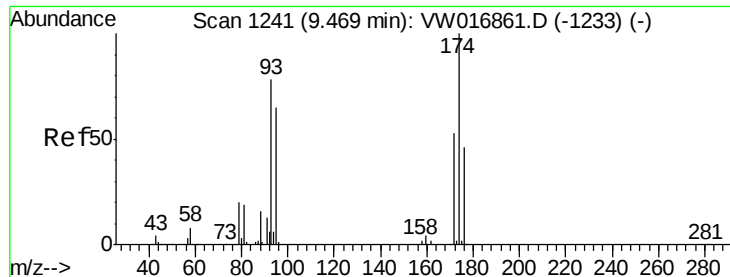


Abundance Ion 41.00 (40.70 to 41.70): VW

Ion 69.00 (68.70 to 69.70): VW

Ion 39.00 (38.70 to 39.70): VW





#49

1,4-Dioxane

Concen: 95.581 ug/l

RT: 9.45 min Scan# 1238

Delta R.T. -0.02 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

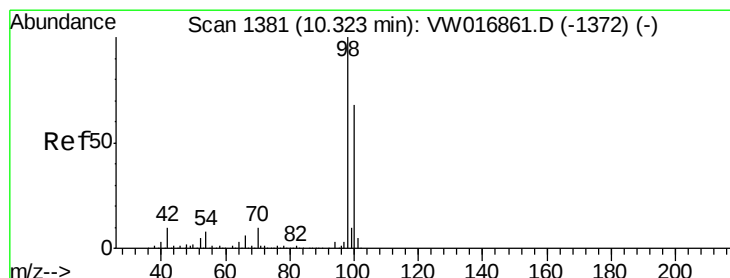
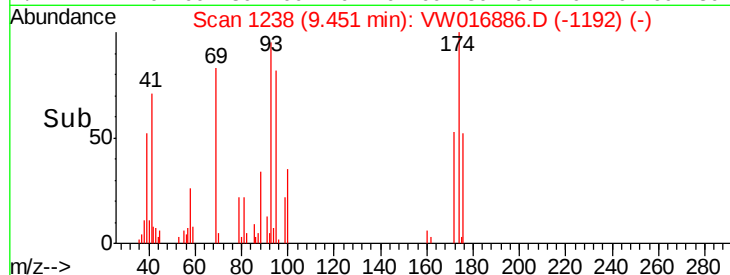
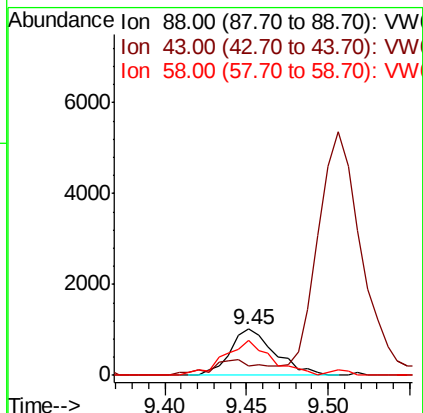
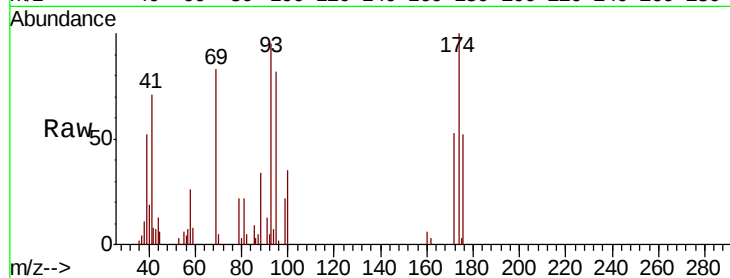
Tot Ion: 88 Resp: 1944

Ion Ratio Lower Upper

88 100

43 36.0 0.0 0.0#

58 80.2 54.0 81.0



#50

Toluene-d8

Concen: 52.440 ug/l

RT: 10.33 min Scan# 1382

Delta R.T. 0.01 min

Lab File: VW016886.D

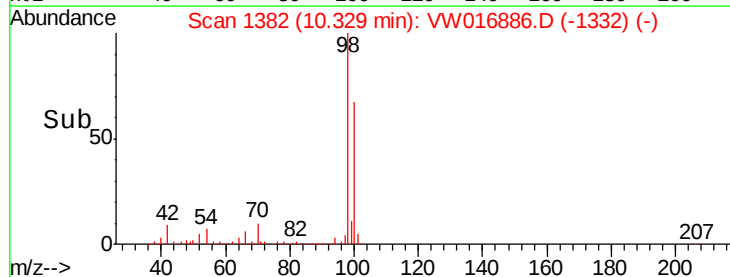
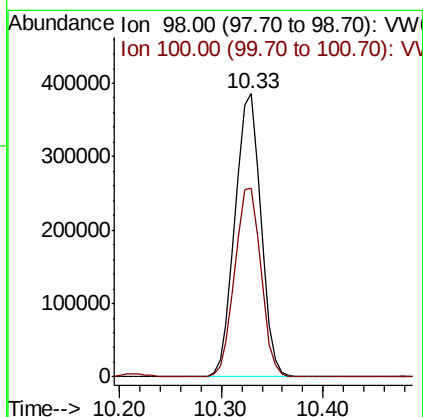
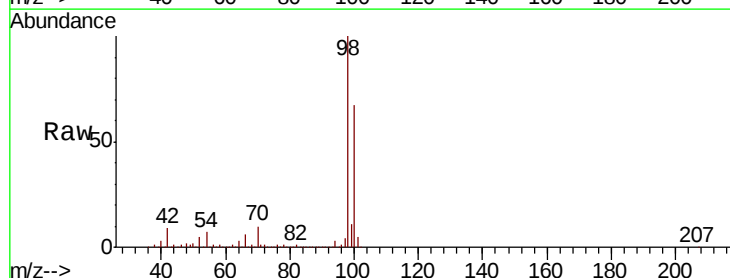
Acq: 12 Oct 2020 17:01

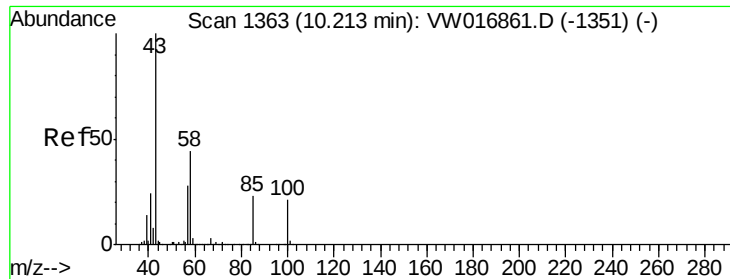
Tgt Ion: 98 Resp: 678250

Ion Ratio Lower Upper

98 100

100 67.5 53.3 79.9





#51

4-Methyl-2-Pentanone

Concen: 23.955 ug/l

RT: 10.21 min Scan# 1363

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

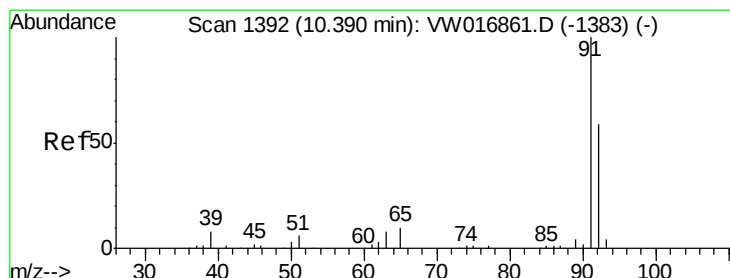
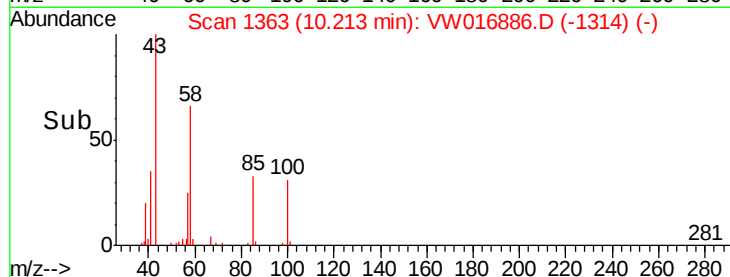
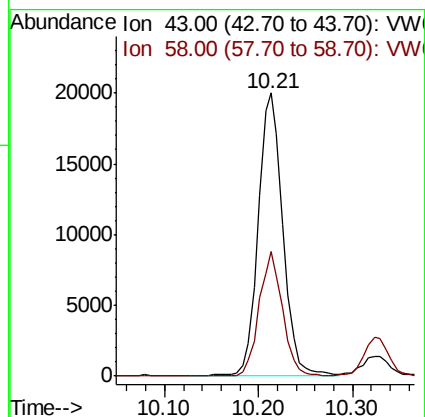
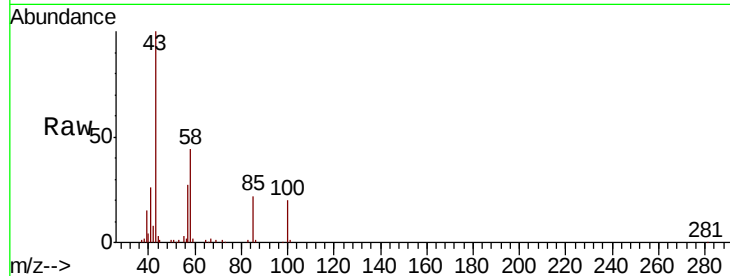
MDL-SOIL-03-QT4-2020

Tot Ion: 43 Resp: 36903

Ion Ratio Lower Upper

43 100

58 42.0 34.7 52.1



#52

Toluene

Concen: 4.506 ug/l

RT: 10.39 min Scan# 1392

Delta R.T. 0.00 min

Lab File: VW016886.D

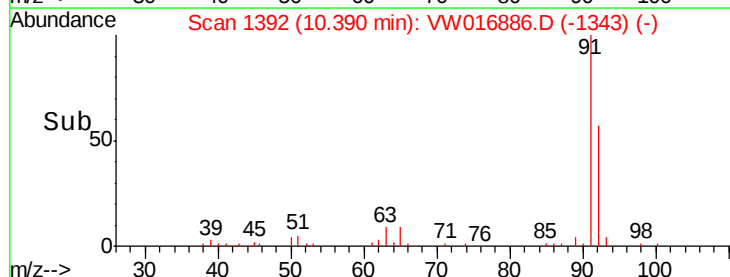
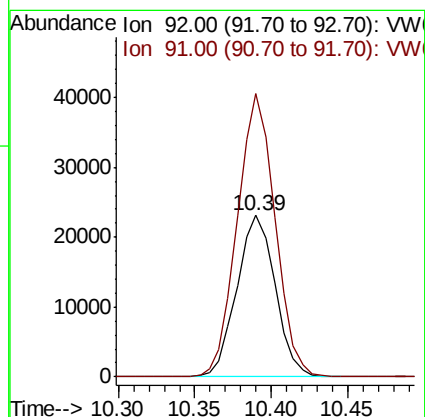
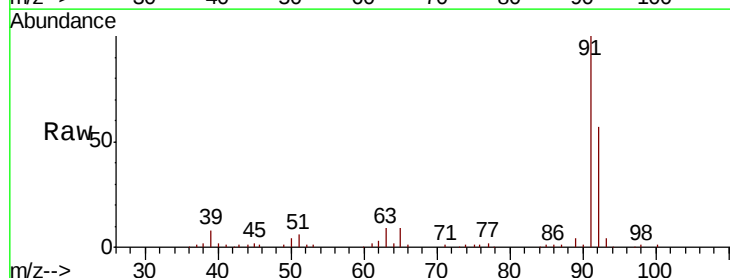
Acq: 12 Oct 2020 17:01

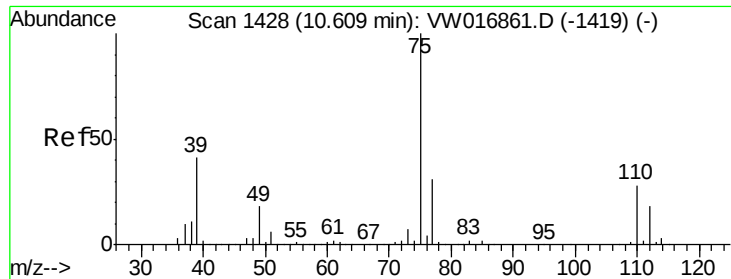
Tgt Ion: 92 Resp: 40378

Ion Ratio Lower Upper

92 100

91 173.1 134.7 202.1

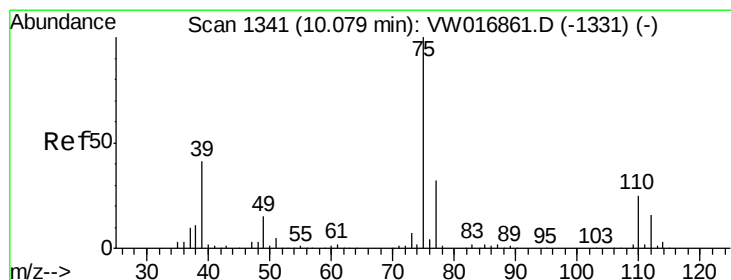
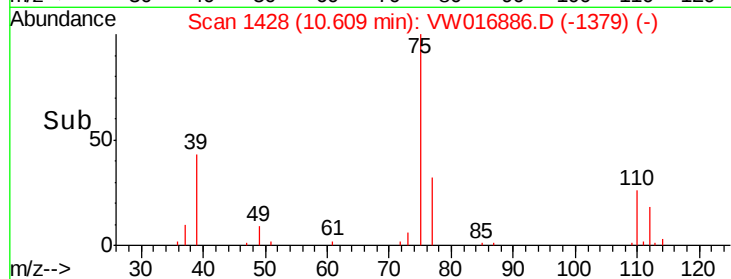
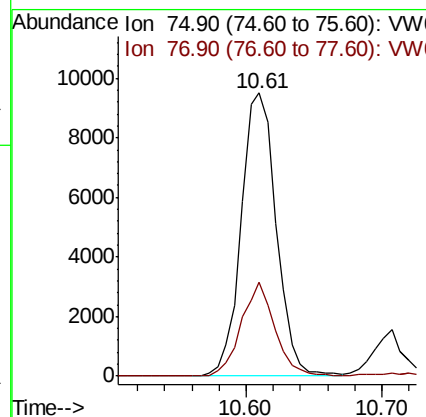
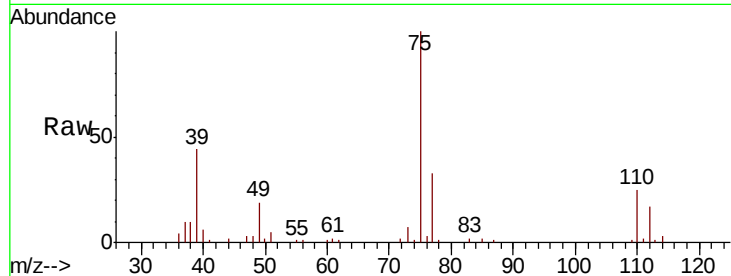




#53  
t-1,3-Dichloropropene  
Concen: 4.285 ug/l  
RT: 10.61 min Scan# 1428  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

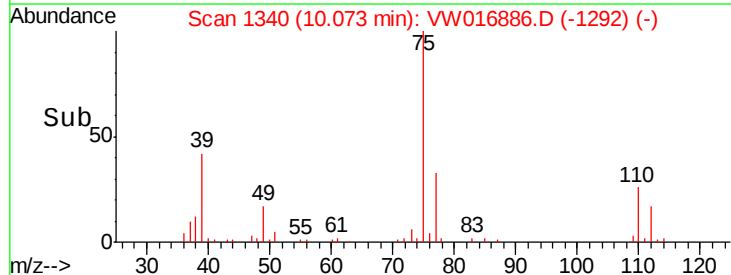
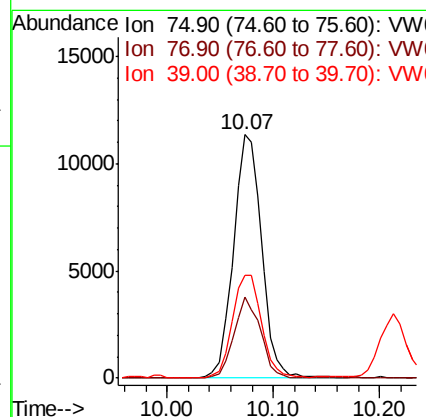
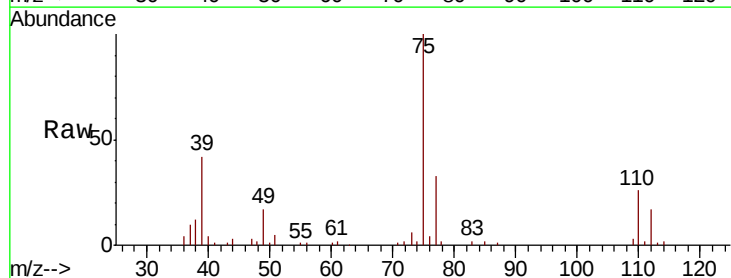
Instrument :  
MSVOA\_W  
ClientSampleId :  
MDL-SOIL-03-QT4-2020

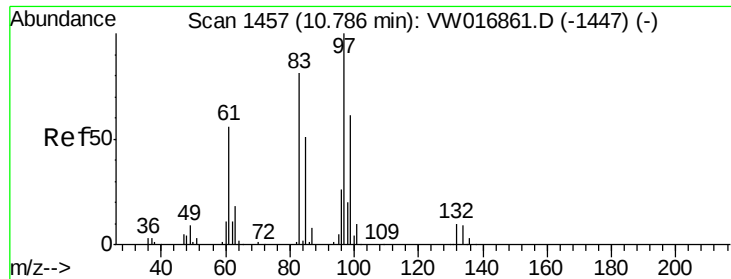
Tot Ion: 75 Resp: 17152  
Ion Ratio Lower Upper  
75 100  
77 33.0 24.8 37.2



#54  
cis-1,3-Dichloropropene  
Concen: 4.305 ug/l  
RT: 10.07 min Scan# 1340  
Delta R.T. -0.01 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

Tgt Ion: 75 Resp: 21047  
Ion Ratio Lower Upper  
75 100  
77 33.3 25.8 38.6  
39 42.4 32.9 49.3





#55

1,1,2-Trichloroethane

Concen: 4.784 ug/l

RT: 10.79 min Scan# 1458

Delta R.T. 0.01 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

Tot Ion: 97 Resp: 12040

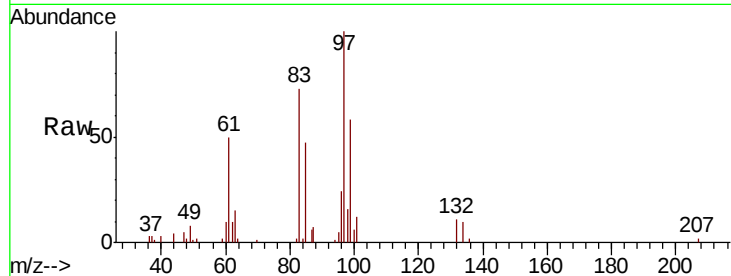
Ion Ratio Lower Upper

97 100

83 72.6 64.6 97.0

85 47.1 40.6 61.0

99 58.2 49.0 73.6

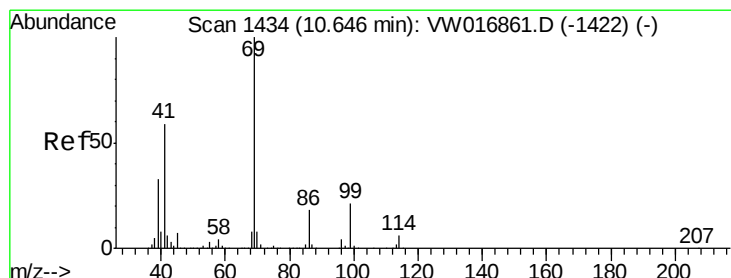
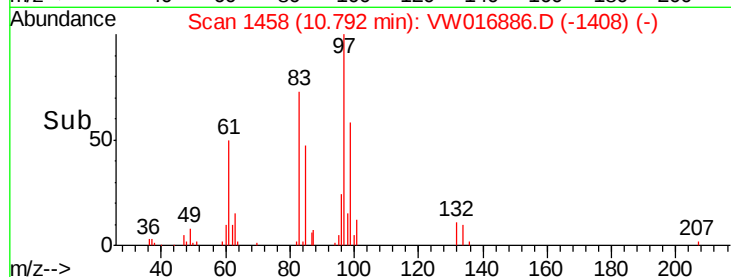
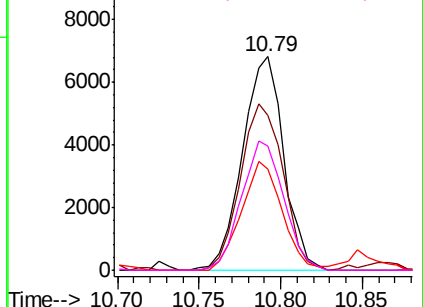


Abundance Ion 96.90 (96.60 to 97.60): VW

Ion 82.90 (82.60 to 83.60): VW

Ion 84.90 (84.60 to 85.60): VW

Ion 98.90 (98.60 to 99.60): VW



#56

Ethyl methacrylate

Concen: 4.401 ug/l

RT: 10.65 min Scan# 1434

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

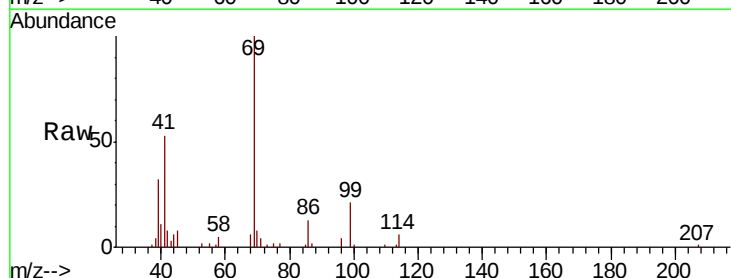
Tgt Ion: 69 Resp: 12049

Ion Ratio Lower Upper

69 100

41 60.6 46.3 69.5

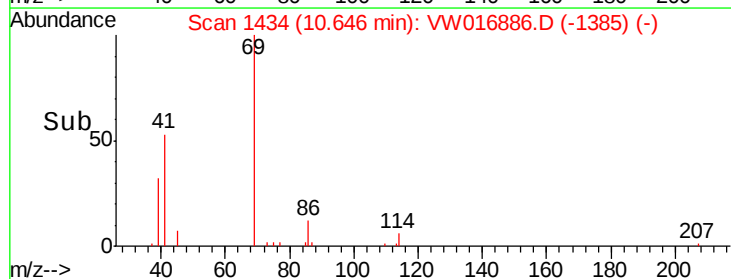
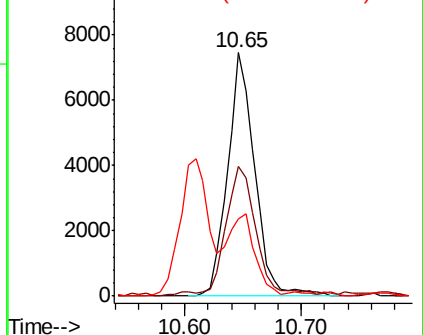
39 32.8 25.9 38.9

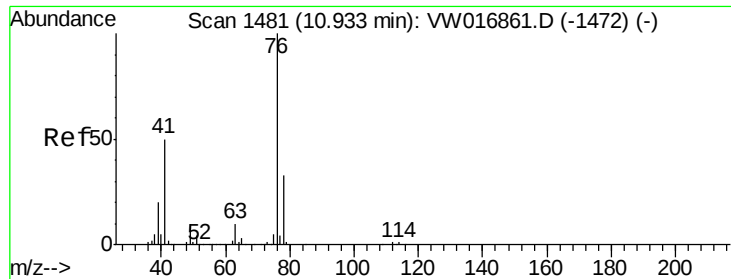


Abundance Ion 69.00 (68.70 to 69.70): VW

Ion 41.00 (40.70 to 41.70): VW

Ion 39.00 (38.70 to 39.70): VW

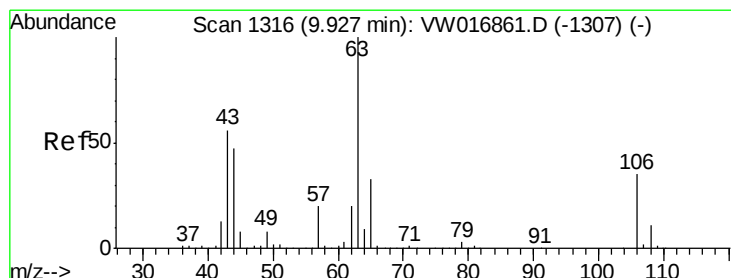
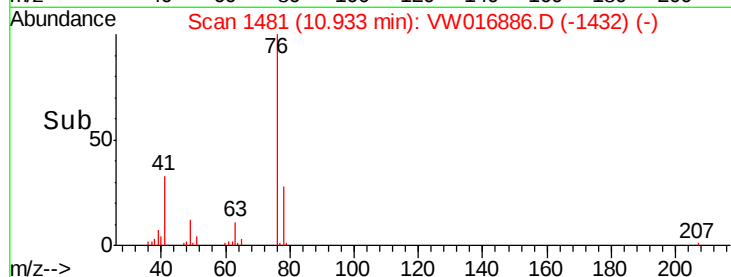
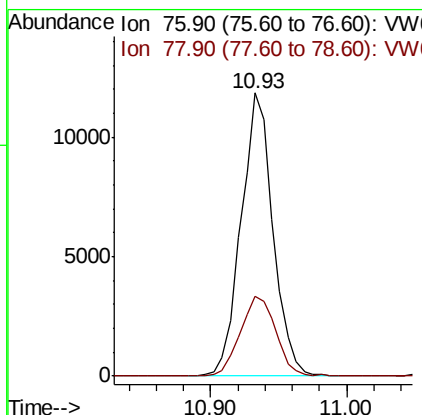
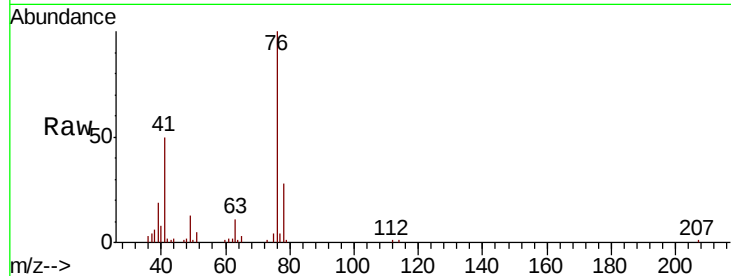




#57  
 1,3-Dichloropropane  
 Concen: 4.661 ug/l  
 RT: 10.93 min Scan# 1481  
 Delta R.T. 0.00 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

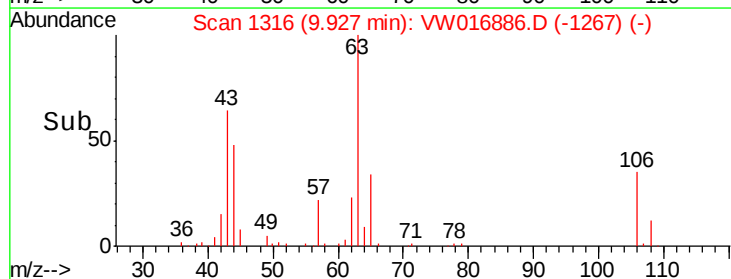
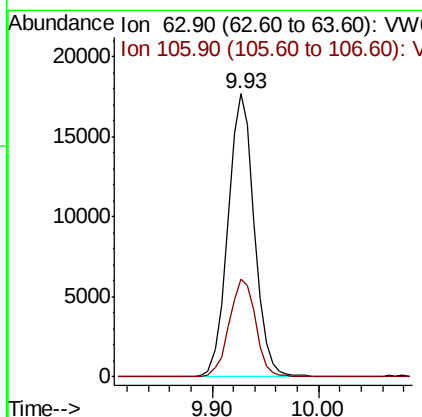
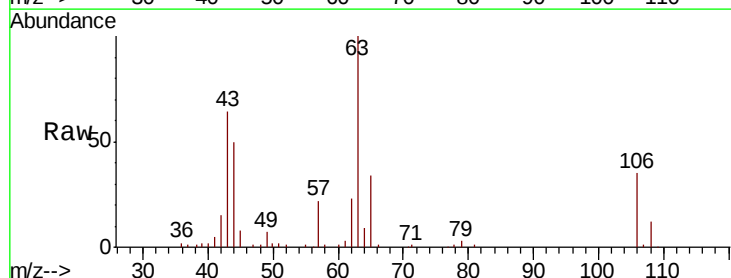
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 MDL-SOIL-03-QT4-2020

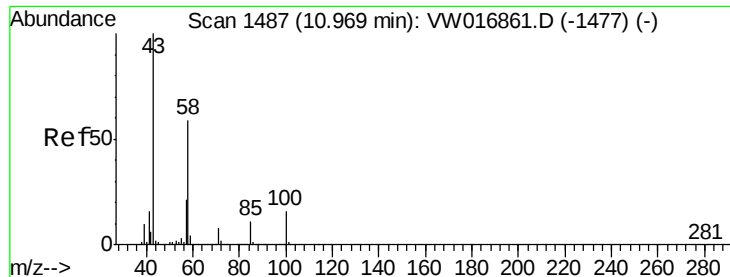
Tot Ion: 76 Resp: 19409  
 Ion Ratio Lower Upper  
 76 100  
 78 31.1 26.0 39.0



#58  
 2-Chloroethyl Vinyl ether  
 Concen: 20.229 ug/l  
 RT: 9.93 min Scan# 1316  
 Delta R.T. 0.00 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

Tgt Ion: 63 Resp: 30692  
 Ion Ratio Lower Upper  
 63 100  
 106 34.5 27.0 40.4

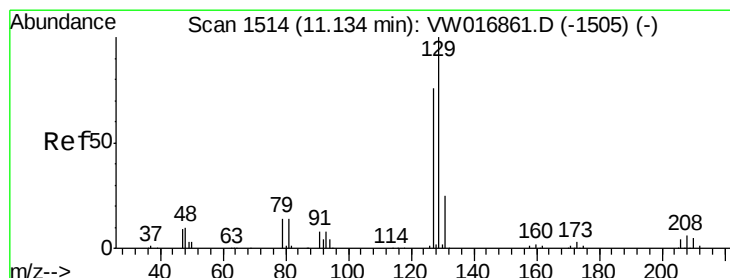
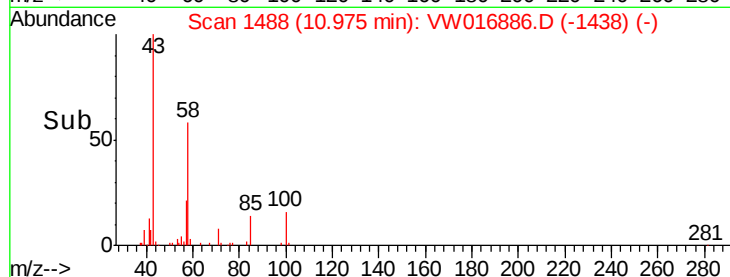
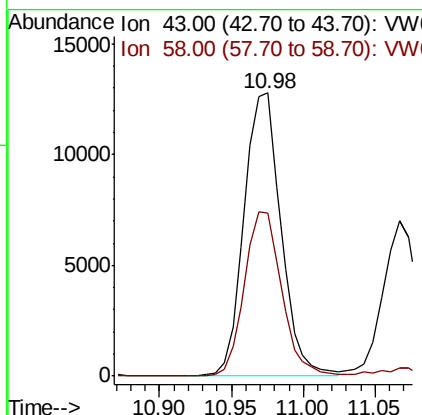
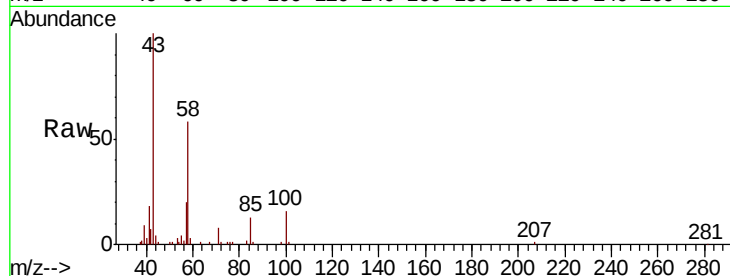




#59  
2-Hexanone  
Concen: 22.338 ug/l  
RT: 10.98 min Scan# 1488  
Delta R.T. 0.01 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

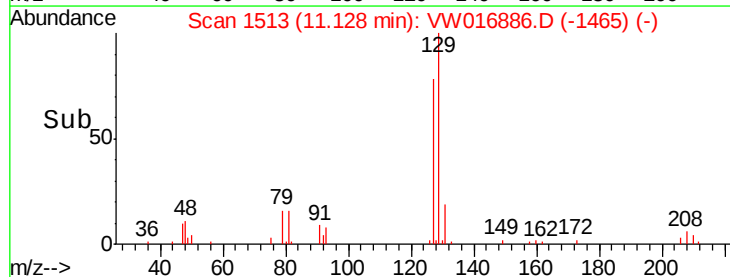
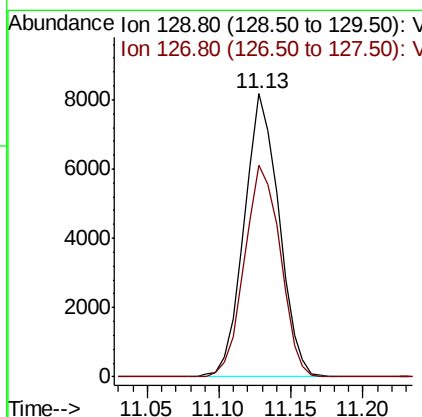
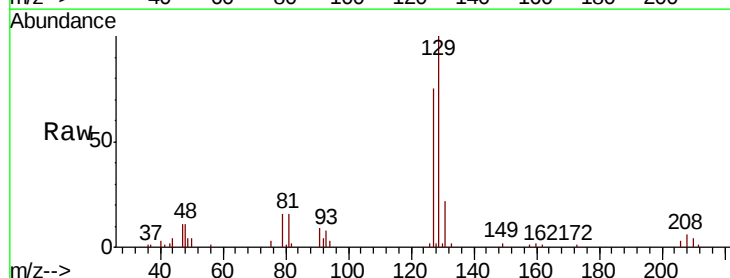
Instrument :  
MSVOA\_W  
ClientSampleId :  
MDL-SOIL-03-QT4-2020

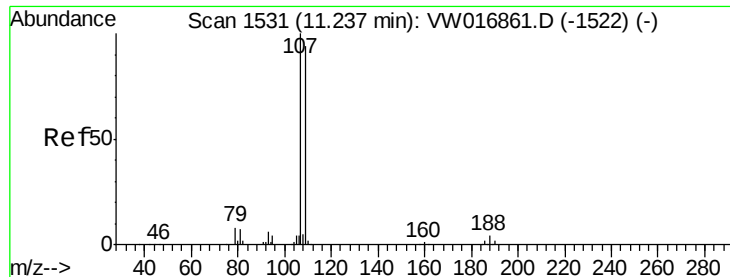
Tot Ion: 43 Resp: 22768  
Ion Ratio Lower Upper  
43 100  
58 58.5 29.5 88.5



#60  
Dibromochloromethane  
Concen: 4.426 ug/l  
RT: 11.13 min Scan# 1513  
Delta R.T. -0.01 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

Tgt Ion: 129 Resp: 13663  
Ion Ratio Lower Upper  
129 100  
127 76.9 38.9 116.6

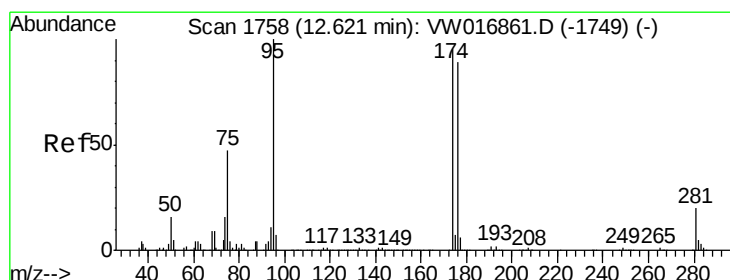
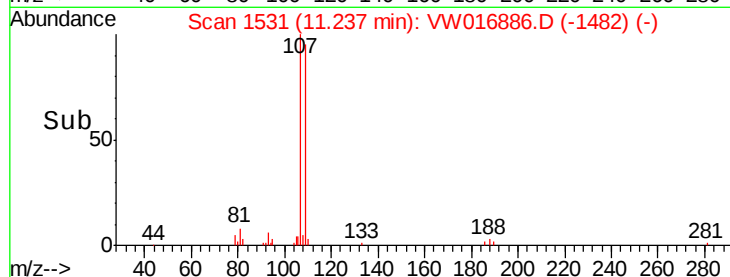
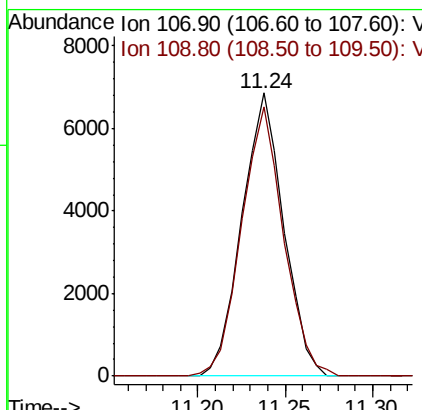
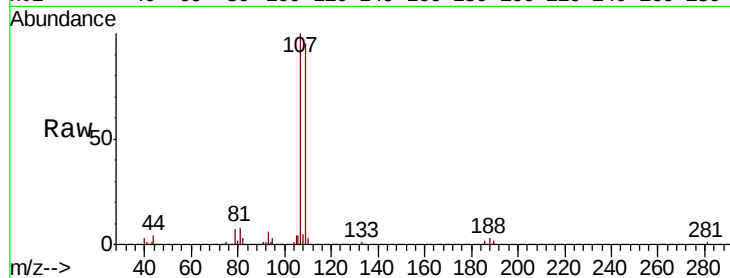




#61  
 1,2-Dibromoethane  
 Concen: 4.567 ug/l  
 RT: 11.24 min Scan# 1531  
 Delta R.T. 0.00 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

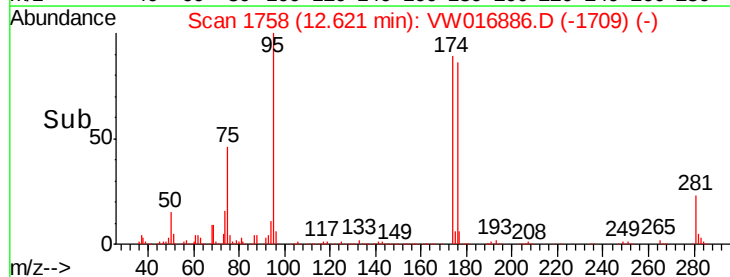
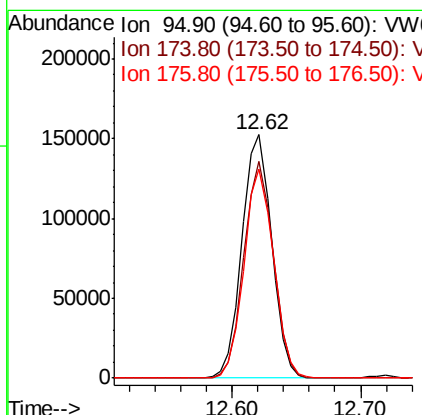
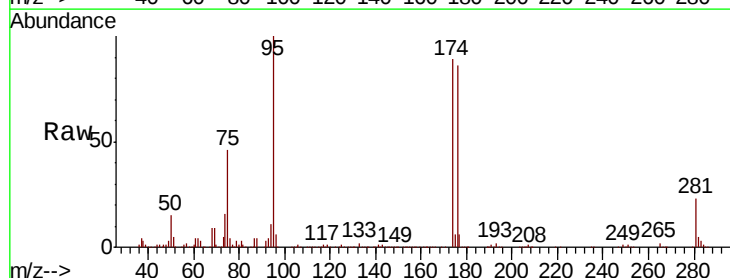
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 MDL-SOIL-03-QT4-2020

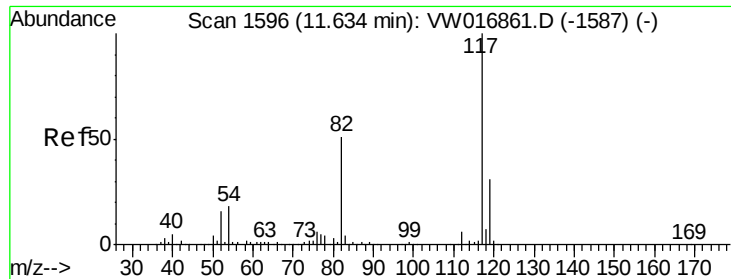
Tot Ion: 107 Resp: 11383  
 Ion Ratio Lower Upper  
 107 100  
 109 96.1 74.7 112.1



#62  
 4-Bromofluorobenzene  
 Concen: 54.457 ug/l  
 RT: 12.62 min Scan# 1758  
 Delta R.T. 0.00 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

Tgt Ion: 95 Resp: 242884  
 Ion Ratio Lower Upper  
 95 100  
 174 88.2 0.0 180.6  
 176 85.4 0.0 177.6

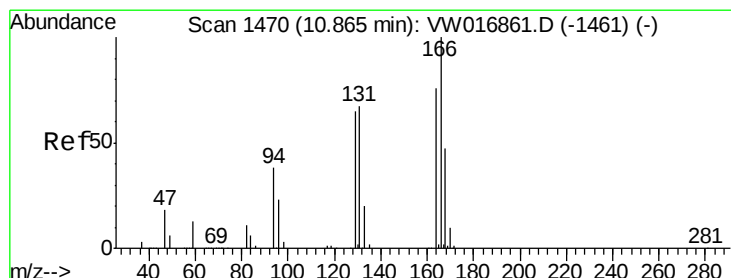
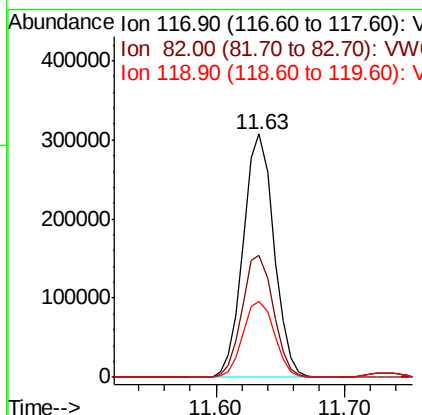
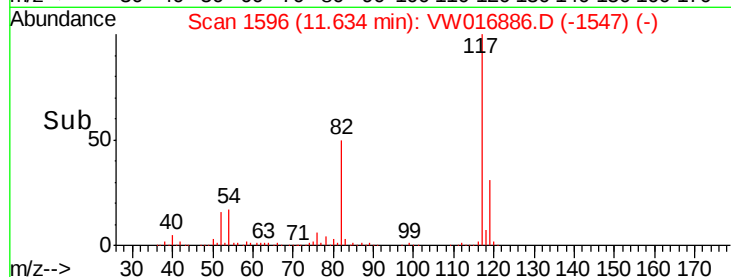
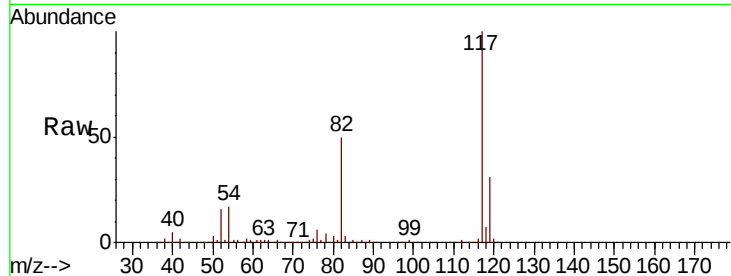




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1596  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

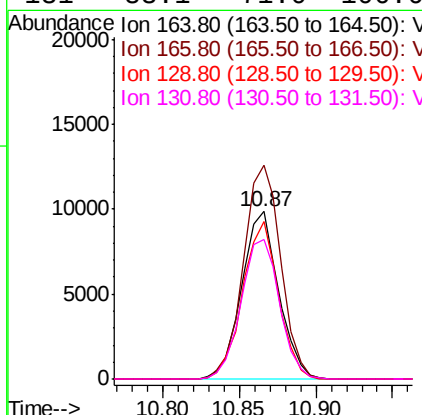
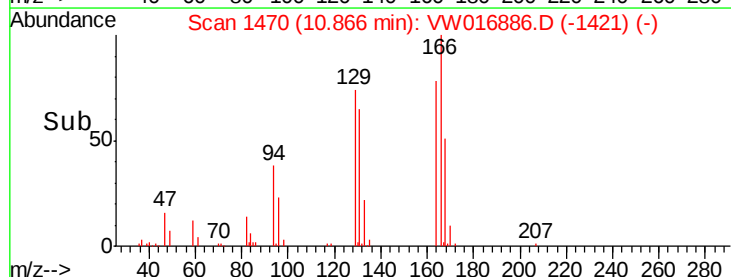
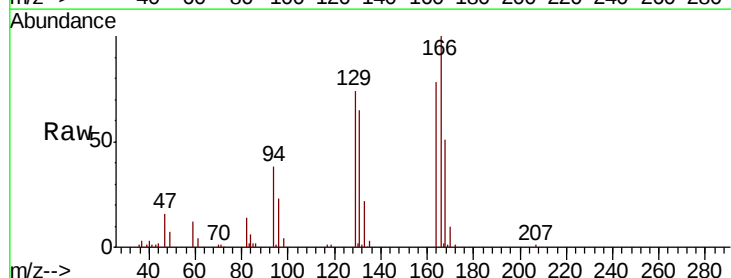
Instrument :  
MSVOA\_W  
ClientSampleId :  
MDL-SOIL-03-QT4-2020

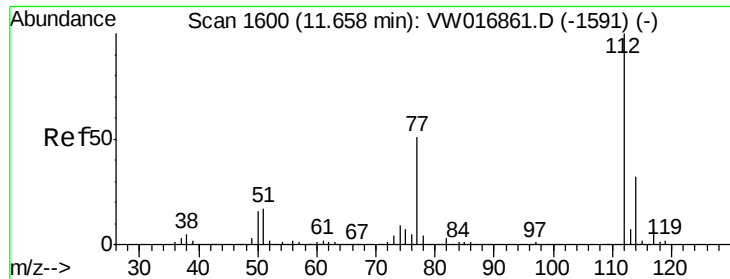
Tot Ion:117 Resp: 505538  
Ion Ratio Lower Upper  
117 100  
82 49.9 40.7 61.1  
119 31.4 25.0 37.4



#64  
Tetrachloroethene  
Concen: 4.592 ug/l  
RT: 10.87 min Scan# 1470  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

Tgt Ion:164 Resp: 16539  
Ion Ratio Lower Upper  
164 100  
166 127.7 105.3 157.9  
129 94.0 68.8 103.2  
131 83.1 71.0 106.6

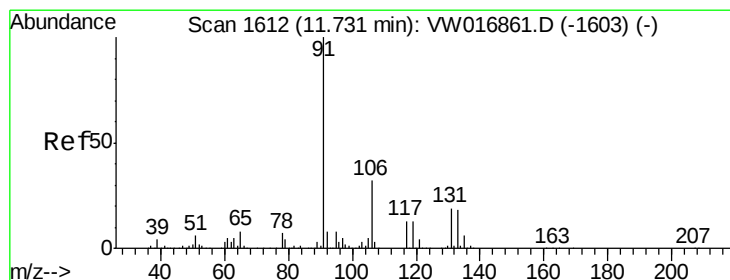
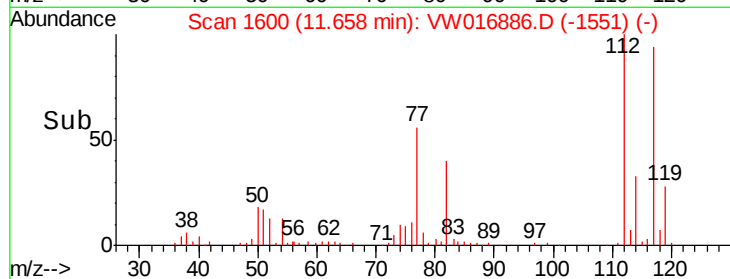
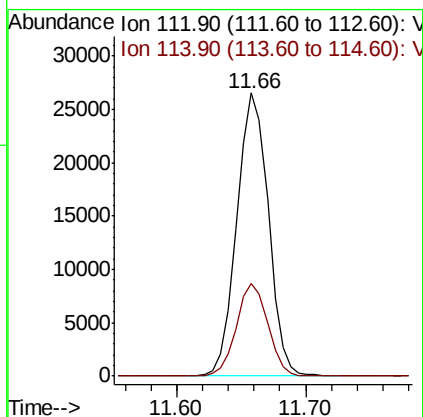
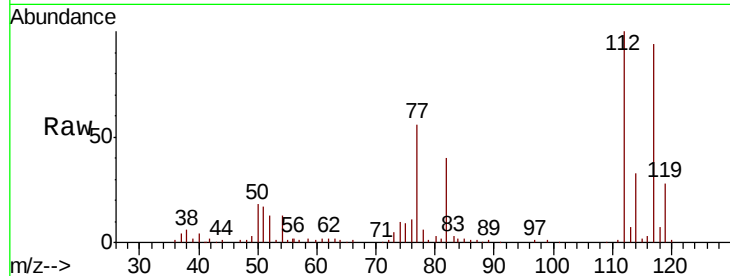




#65  
Chlorobenzene  
Concen: 4.546 ug/l  
RT: 11.66 min Scan# 1600  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

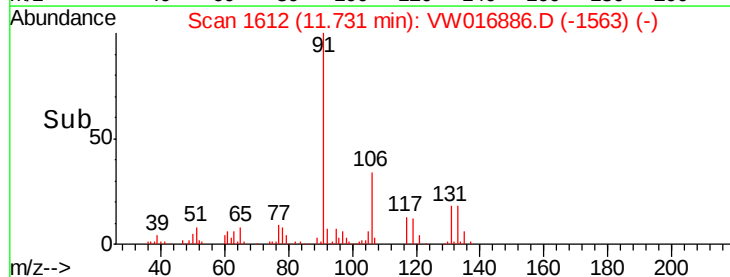
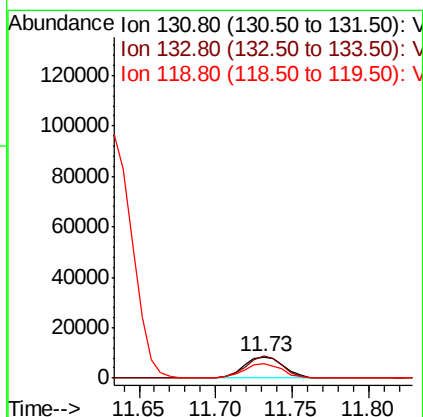
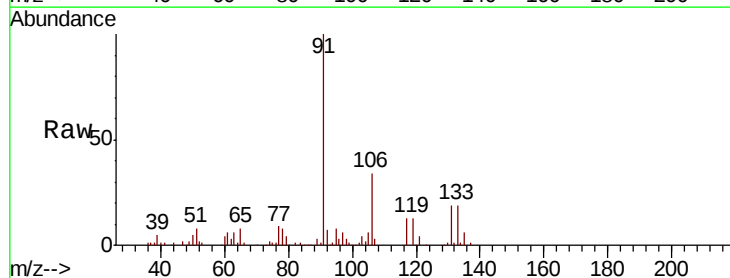
Instrument :  
MSVOA\_W  
ClientSampleId :  
MDL-SOIL-03-QT4-2020

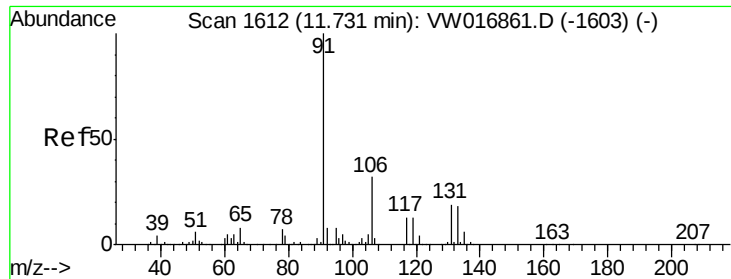
Tot Ion:112 Resp: 45078  
Ion Ratio Lower Upper  
112 100  
114 32.9 25.3 37.9



#66  
1,1,1,2-Tetrachloroethane  
Concen: 4.304 ug/l  
RT: 11.73 min Scan# 1612  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

Tgt Ion:131 Resp: 15094  
Ion Ratio Lower Upper  
131 100  
133 96.5 48.1 144.3  
119 67.1 32.5 97.4

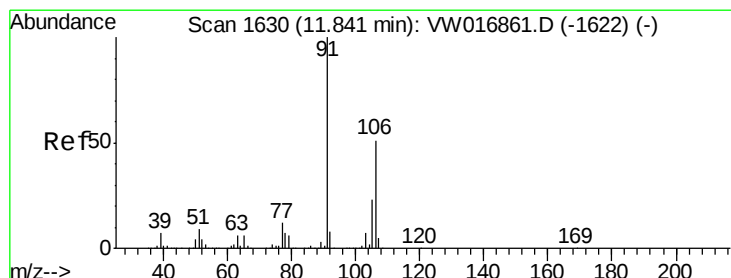
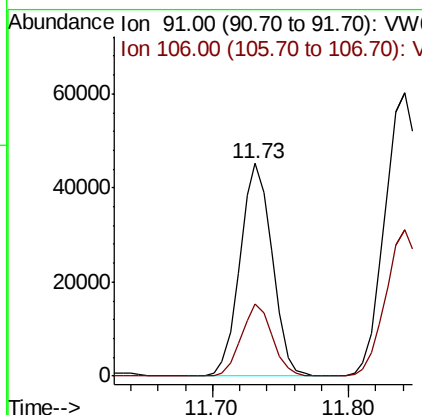
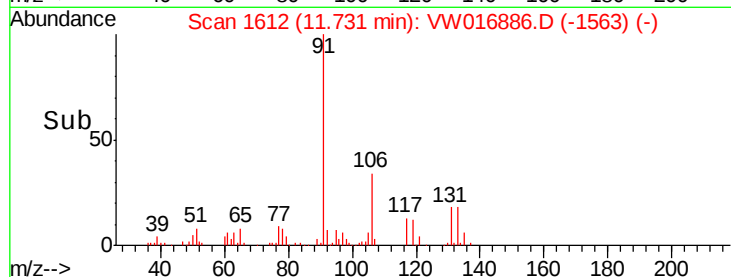
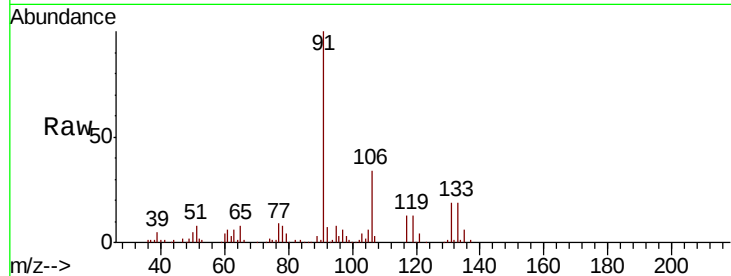




#67  
Ethyl Benzene  
Concen: 4.328 ug/l  
RT: 11.73 min Scan# 1612  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

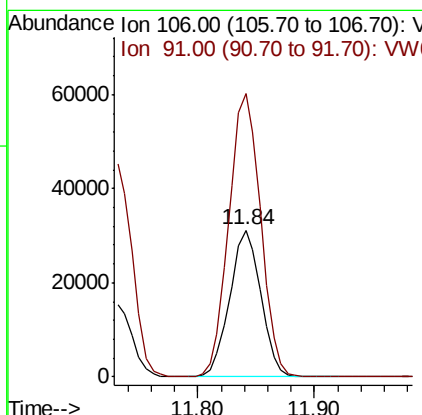
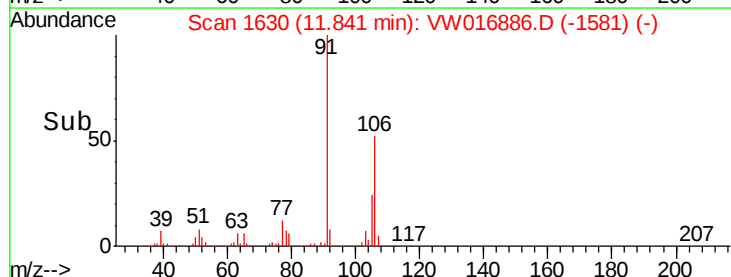
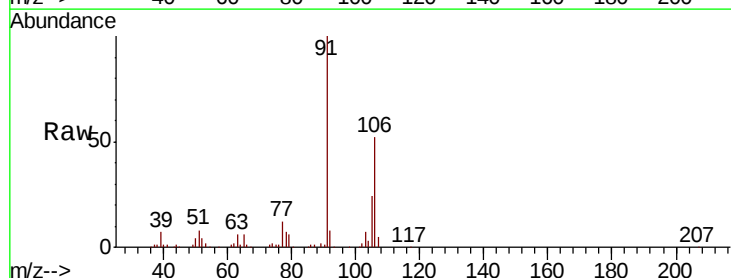
Instrument :  
MSVOA\_W  
ClientSampleId :  
MDL-SOIL-03-QT4-2020

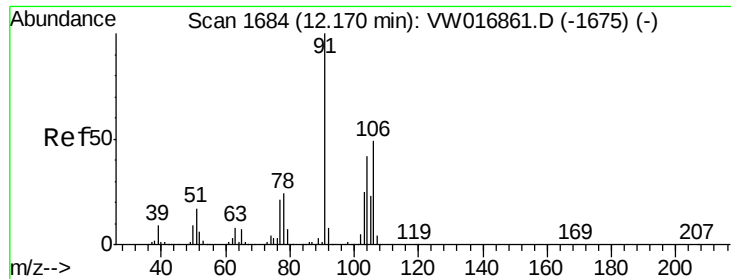
Tot Ion: 91 Resp: 74786  
Ion Ratio Lower Upper  
91 100  
106 33.9 25.9 38.9



#68  
m/p-Xylenes  
Concen: 8.687 ug/l  
RT: 11.84 min Scan# 1630  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

Tgt Ion: 106 Resp: 58380  
Ion Ratio Lower Upper  
106 100  
91 196.2 157.4 236.0

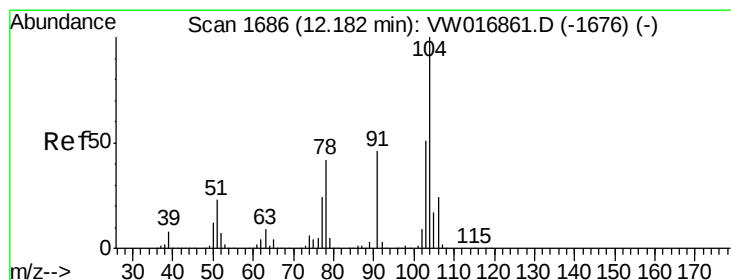
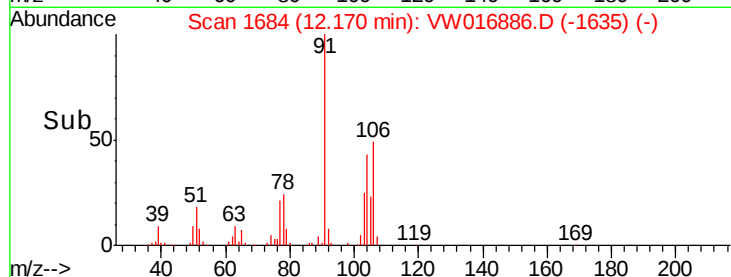
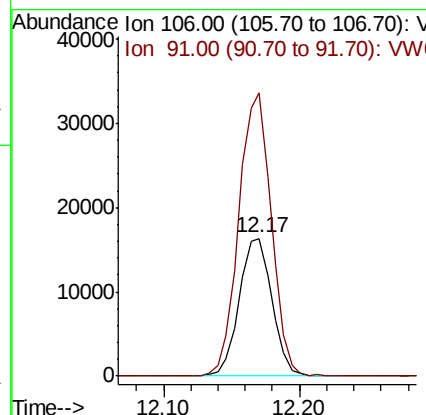
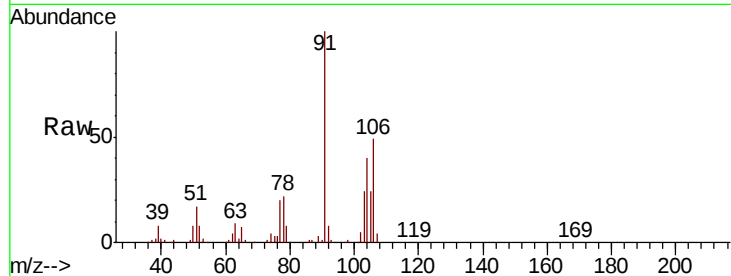




#69  
o-Xylene  
Concen: 4.439 ug/l  
RT: 12.17 min Scan# 1684  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

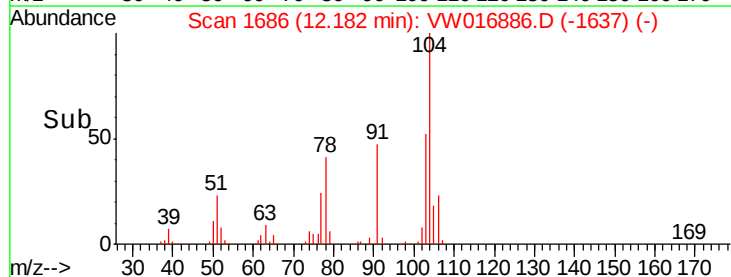
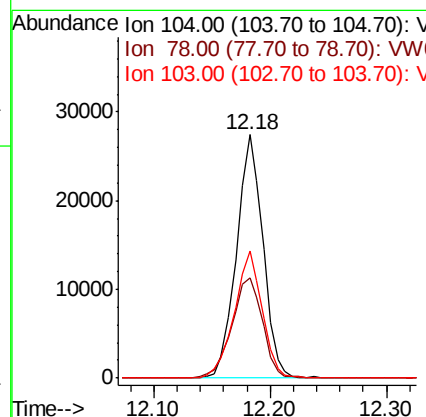
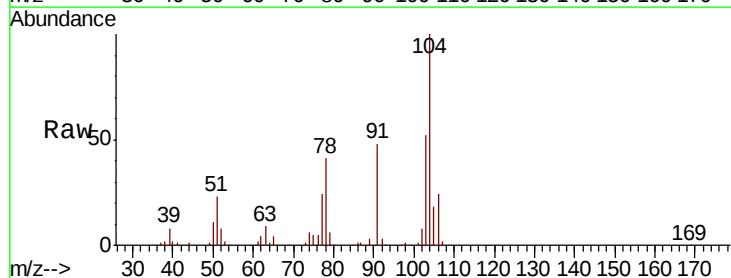
Instrument :  
MSVOA\_W  
ClientSampleId :  
MDL-SOIL-03-QT4-2020

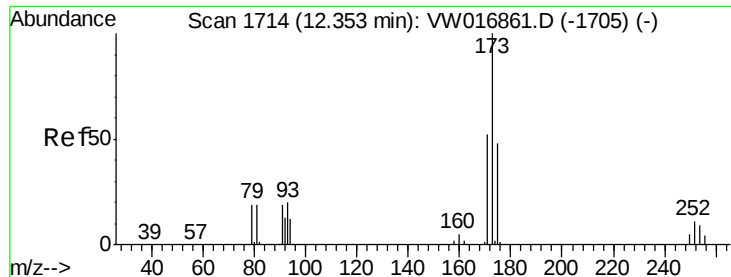
Tot Ion:106 Resp: 27377  
Ion Ratio Lower Upper  
106 100  
91 205.0 103.6 310.9



#70  
Styrene  
Concen: 4.234 ug/l  
RT: 12.18 min Scan# 1686  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

Tgt Ion:104 Resp: 43452  
Ion Ratio Lower Upper  
104 100  
78 47.6 37.6 56.4  
103 54.6 43.6 65.4





#71

Bromoform

Concen: 4.030 ug/l

RT: 12.35 min Scan# 1714

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

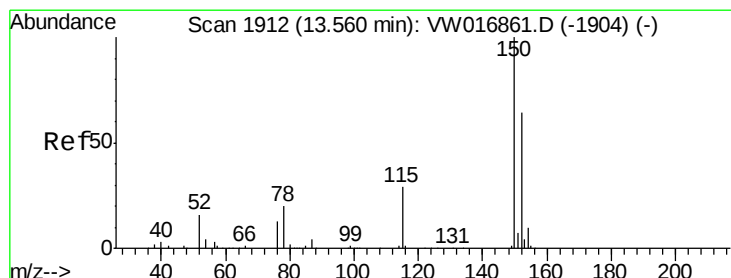
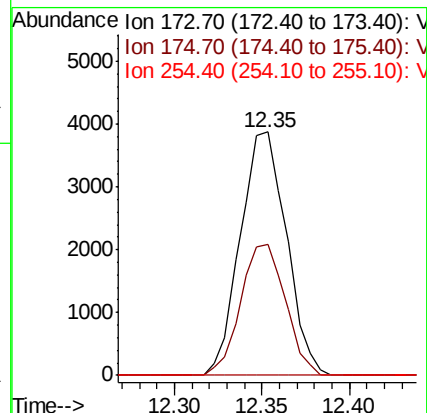
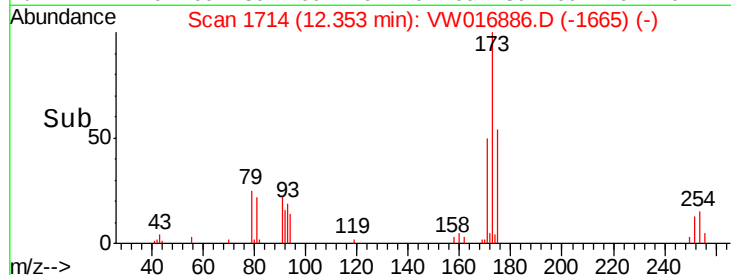
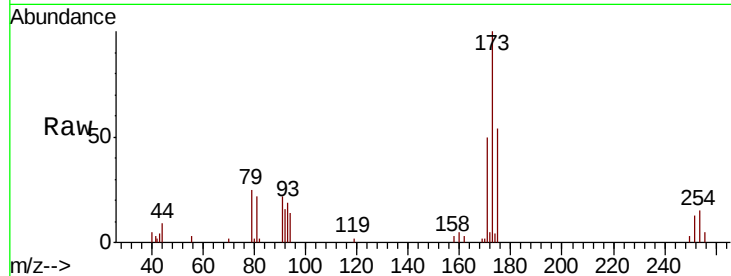
Tot Ion:173 Resp: 7094

Ion Ratio Lower Upper

173 100

175 52.4 24.7 74.1

254 0.0 0.1 0.1#



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.56 min Scan# 1912

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

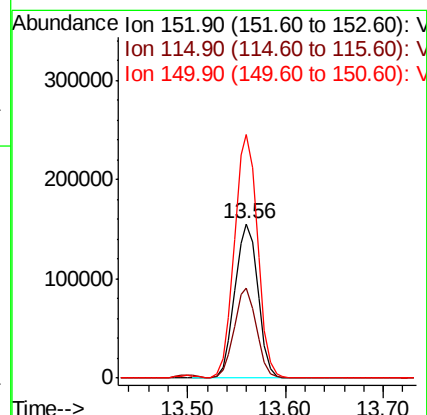
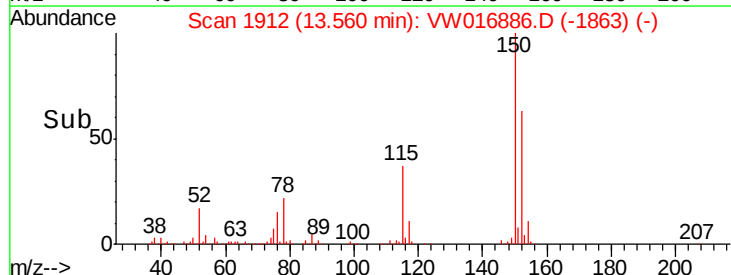
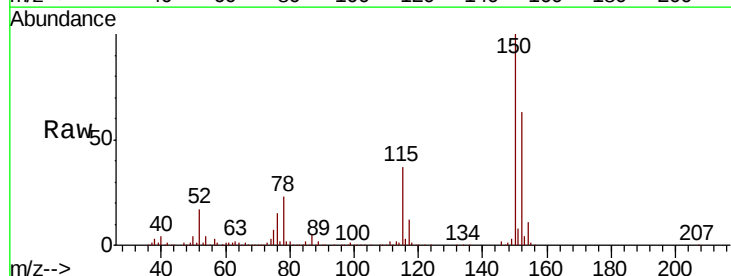
Tgt Ion:152 Resp: 254402

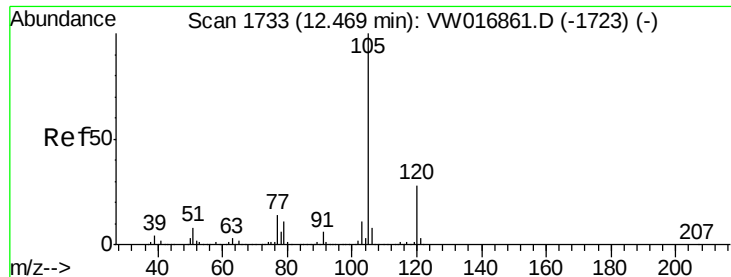
Ion Ratio Lower Upper

152 100

115 56.4 27.9 83.7

150 157.8 0.0 344.0





#73

Isopropylbenzene

Concen: 4.366 ug/l

RT: 12.46 min Scan# 1732

Delta R.T. -0.01 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

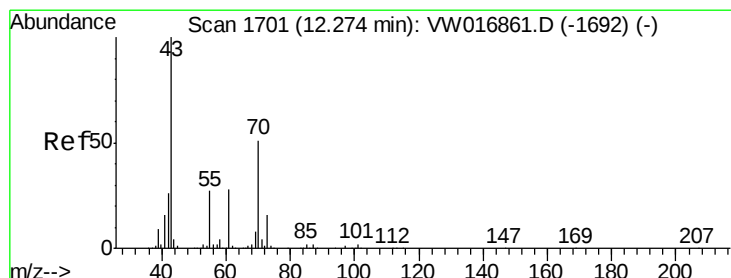
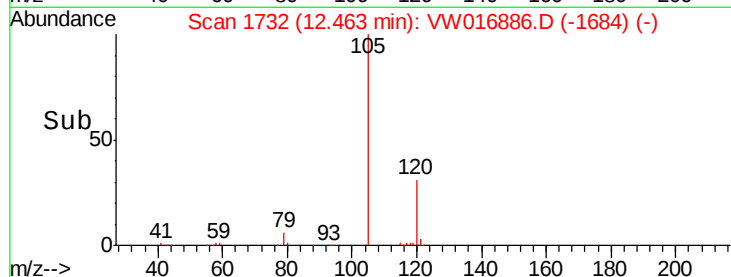
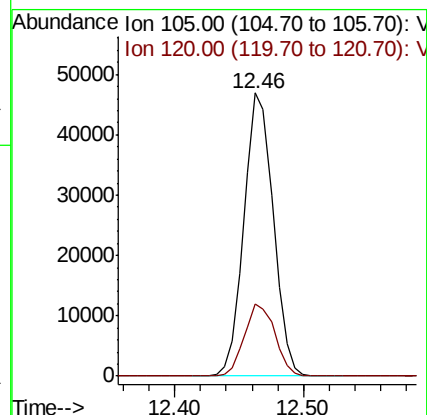
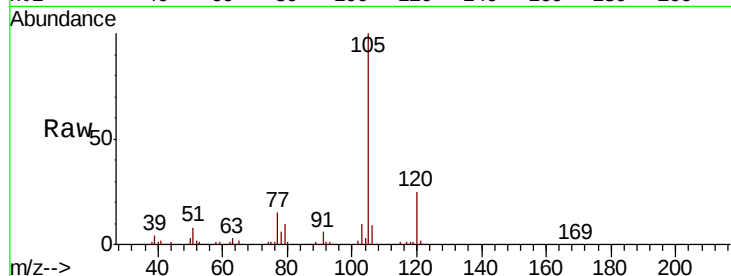
MDL-SOIL-03-QT4-2020

Tot Ion:105 Resp: 73825

Ion Ratio Lower Upper

105 100

120 26.3 13.6 40.7



#74

N-ethyl acetate

Concen: 4.347 ug/l

RT: 12.27 min Scan# 1701

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Tgt Ion: 43 Resp: 11806

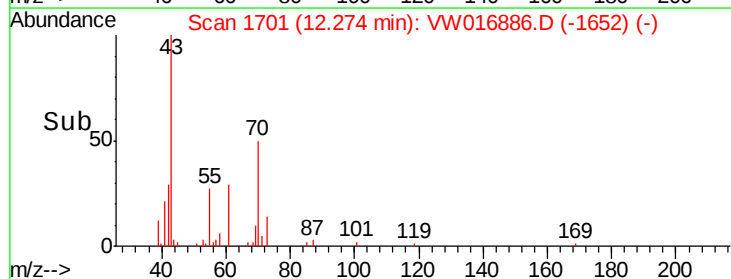
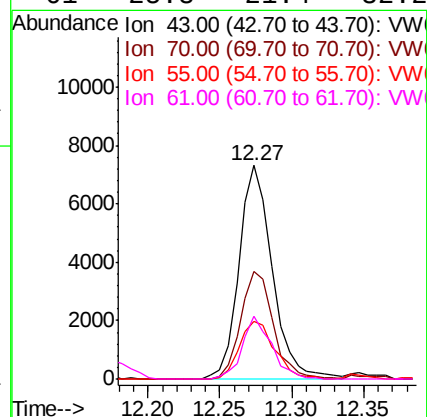
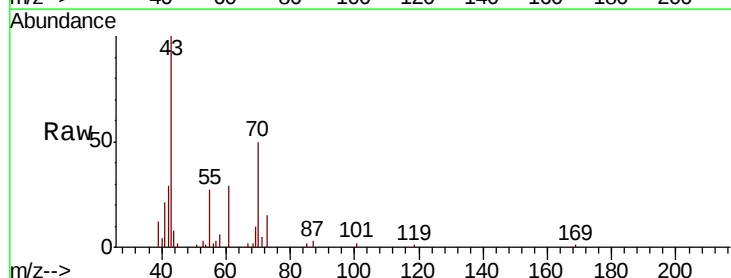
Ion Ratio Lower Upper

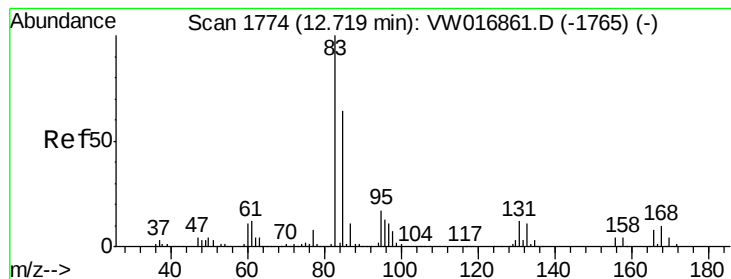
43 100

70 49.3 40.2 60.4

55 28.7 21.4 32.0

61 25.8 21.4 32.2





#75

1,1,2,2-Tetrachloroethane

Concen: 4.852 ug/l

RT: 12.71 min Scan# 1773

Delta R.T. -0.01 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

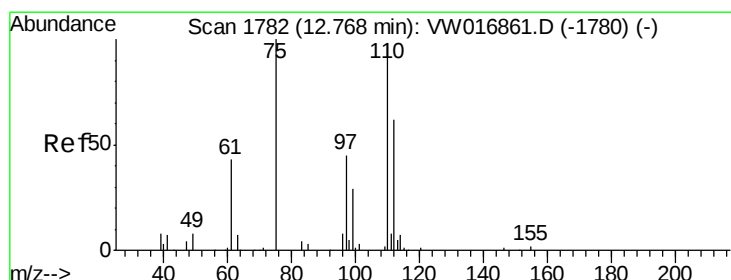
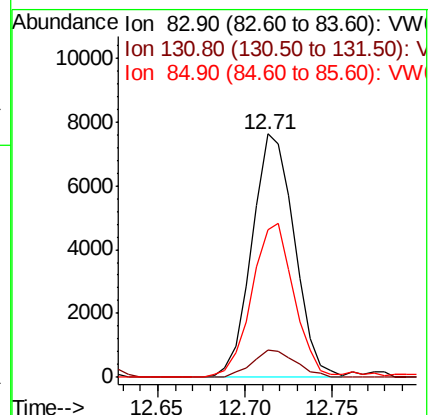
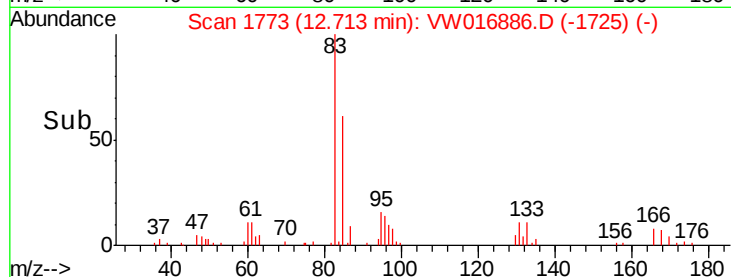
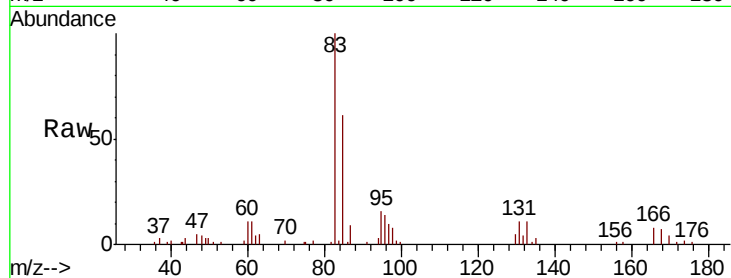
Tot Ion: 83 Resp: 12873

Ion Ratio Lower Upper

83 100

131 11.5 6.1 18.3

85 62.6 32.7 98.1



#76

1,2,3-Trichloropropane

Concen: 7.885 ug/l

RT: 12.77 min Scan# 1782

Delta R.T. 0.00 min

Lab File: VW016886.D

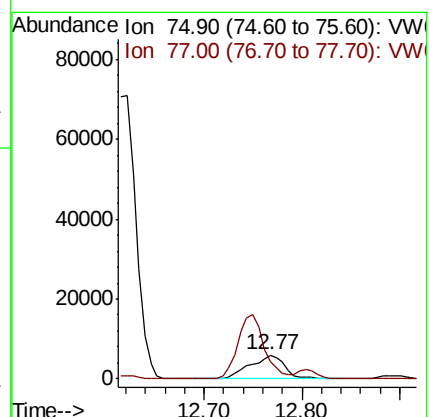
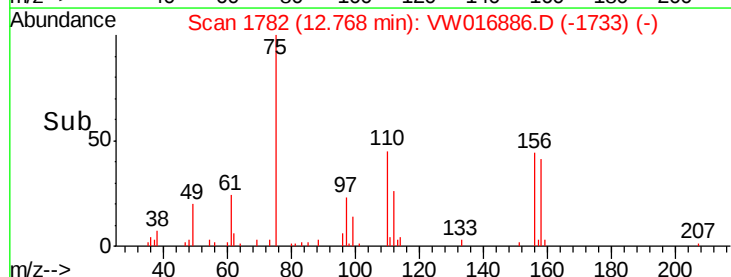
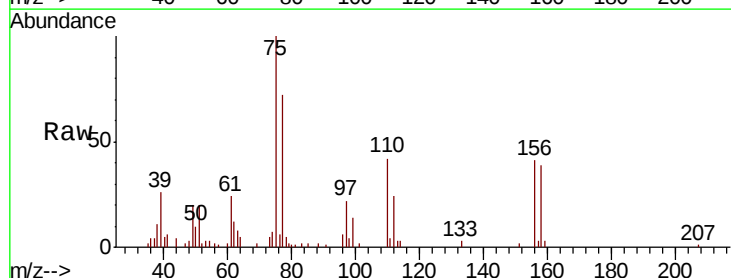
Acq: 12 Oct 2020 17:01

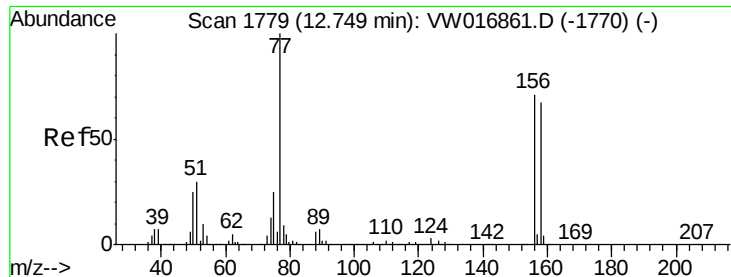
Tgt Ion: 75 Resp: 14968

Ion Ratio Lower Upper

75 100

77 206.1 178.8 536.3





#77

Bromobenzene

Concen: 4.733 ug/l

RT: 12.75 min Scan# 1779

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

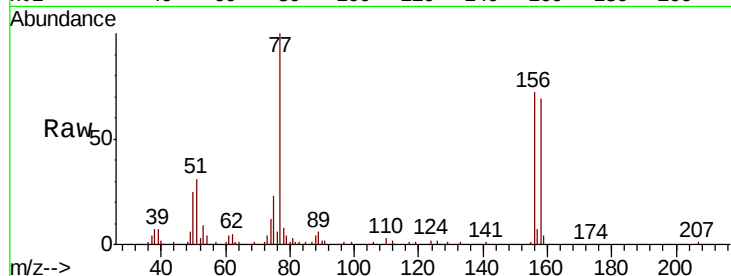
Tot Ion:156 Resp: 19783

Ion Ratio Lower Upper

156 100

77 155.9 79.0 237.2

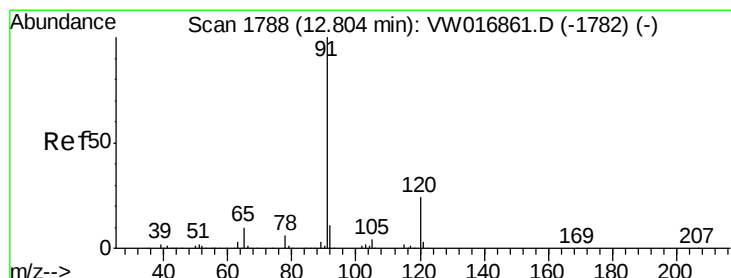
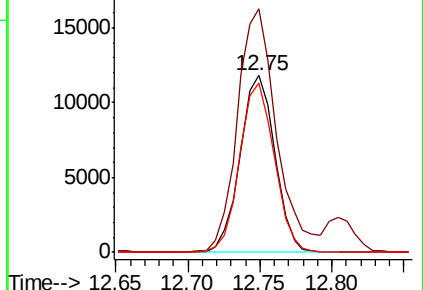
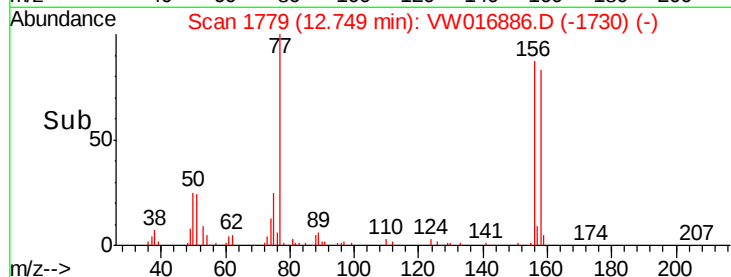
158 95.5 47.0 141.2



Abundance Ion 155.80 (155.50 to 156.50): V

Ion 77.00 (76.70 to 77.70): VW

Ion 157.80 (157.50 to 158.50): V



#78

n-propylbenzene

Concen: 4.356 ug/l

RT: 12.80 min Scan# 1788

Delta R.T. 0.00 min

Lab File: VW016886.D

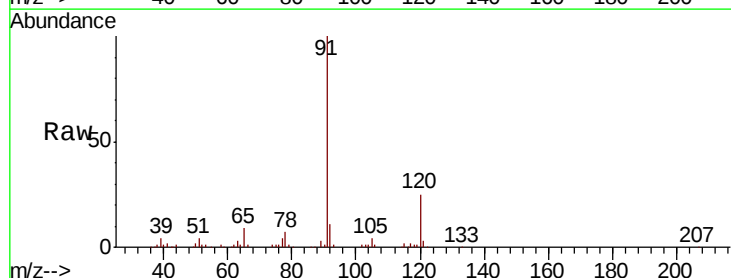
Acq: 12 Oct 2020 17:01

Tgt Ion: 91 Resp: 84946

Ion Ratio Lower Upper

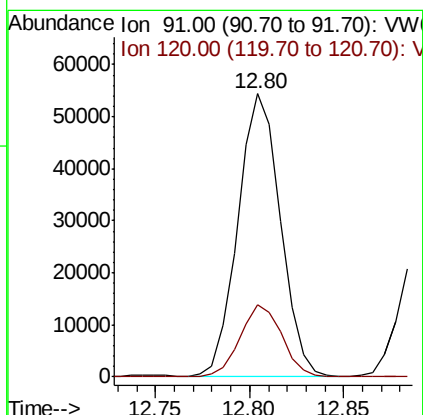
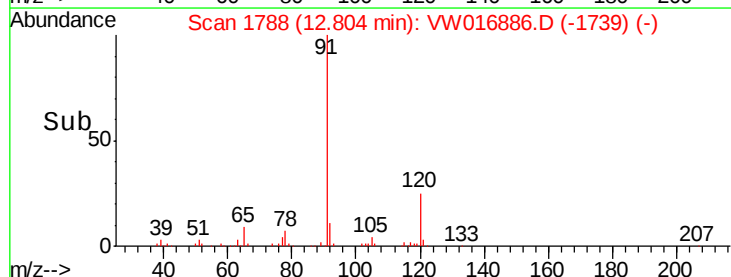
91 100

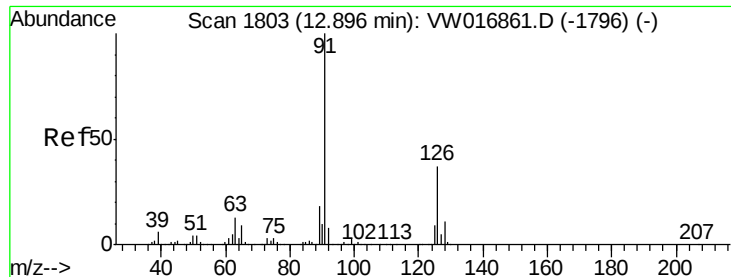
120 24.9 12.0 36.1



Abundance Ion 91.00 (90.70 to 91.70): VW

Ion 120.00 (119.70 to 120.70): V





#79

2-Chlorotoluene

Concen: 4.477 ug/l

RT: 12.90 min Scan# 1803

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

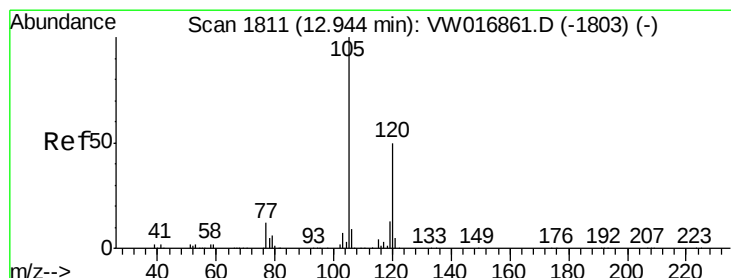
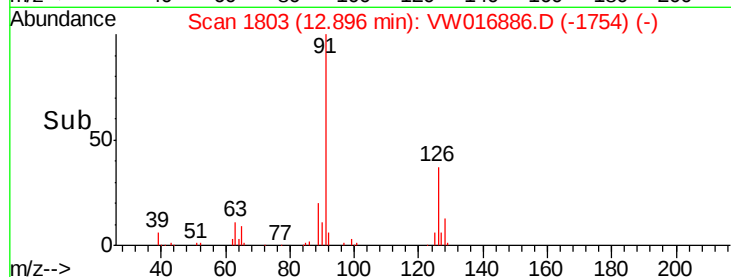
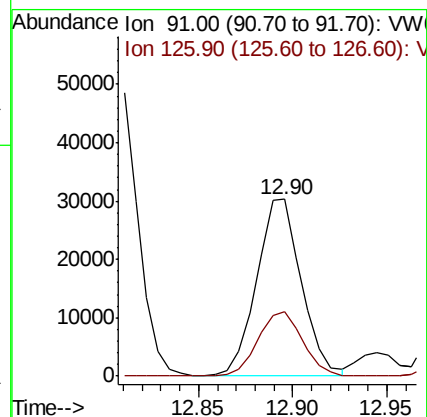
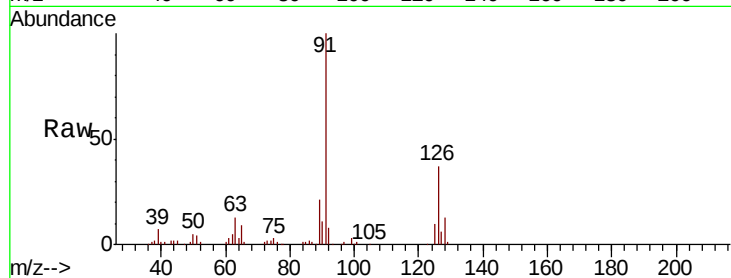
MDL-SOIL-03-QT4-2020

Tot Ion: 91 Resp: 49807

Ion Ratio Lower Upper

91 100

126 36.3 17.9 53.8



#80

1,3,5-Trimethylbenzene

Concen: 4.385 ug/l

RT: 12.94 min Scan# 1811

Delta R.T. 0.00 min

Lab File: VW016886.D

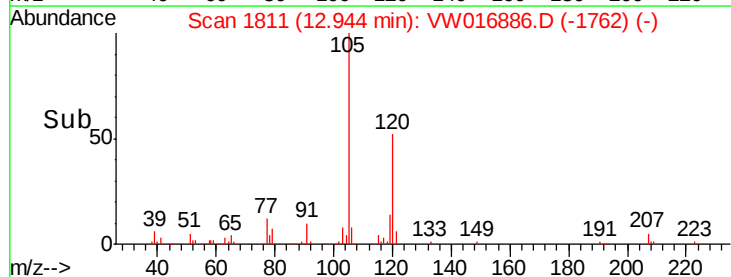
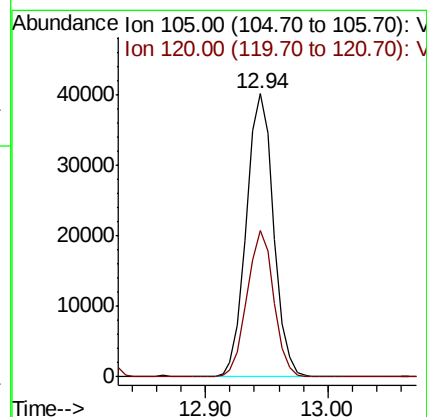
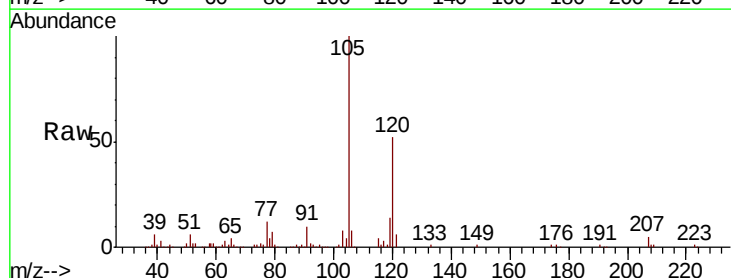
Acq: 12 Oct 2020 17:01

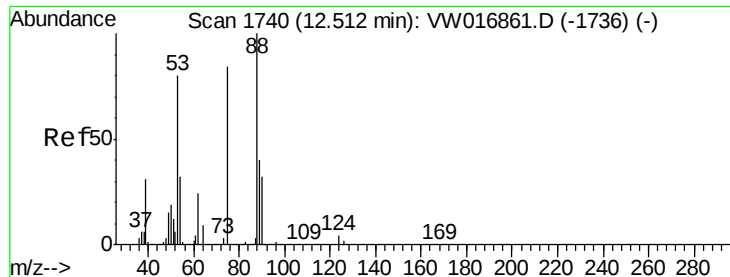
Tgt Ion:105 Resp: 62142

Ion Ratio Lower Upper

105 100

120 50.7 24.9 74.8





#81

trans-1,4-Dichloro-2-butene

Concen: 166.044 ug/l

RT: 12.62 min Scan# 1758

Delta R.T. 0.11 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

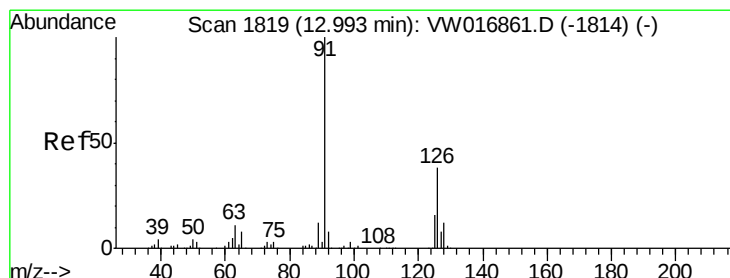
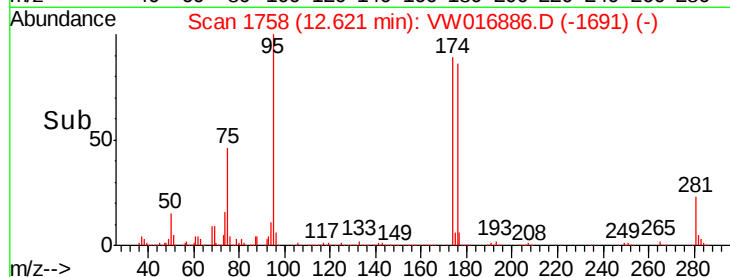
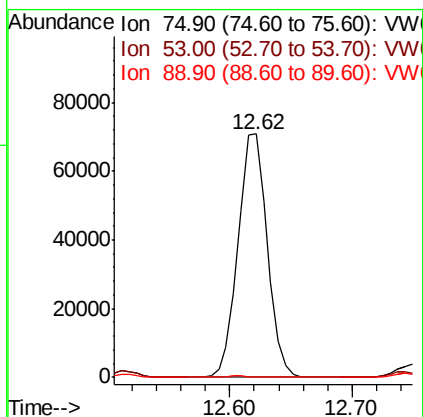
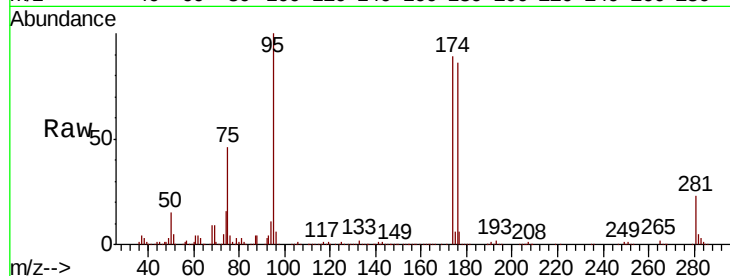
Tot Ion: 75 Resp: 117264

Ion Ratio Lower Upper

75 100

53 0.0 77.0 115.4#

89 0.4 38.7 58.1#



#82

4-Chlorotoluene

Concen: 4.556 ug/l

RT: 12.99 min Scan# 1819

Delta R.T. 0.00 min

Lab File: VW016886.D

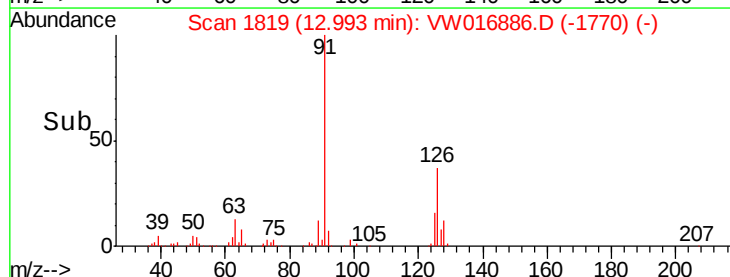
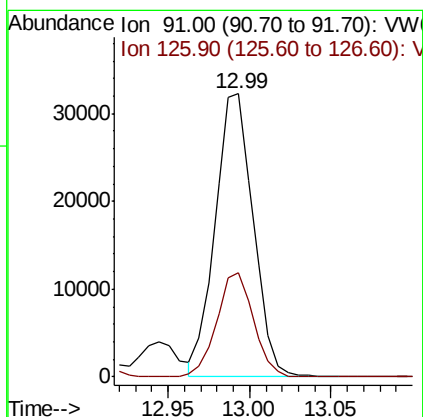
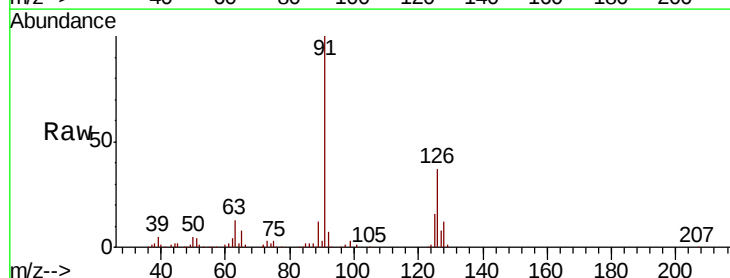
Acq: 12 Oct 2020 17:01

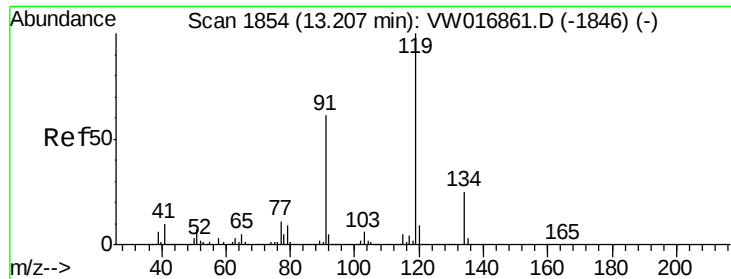
Tgt Ion: 91 Resp: 52320

Ion Ratio Lower Upper

91 100

126 35.7 18.1 54.3

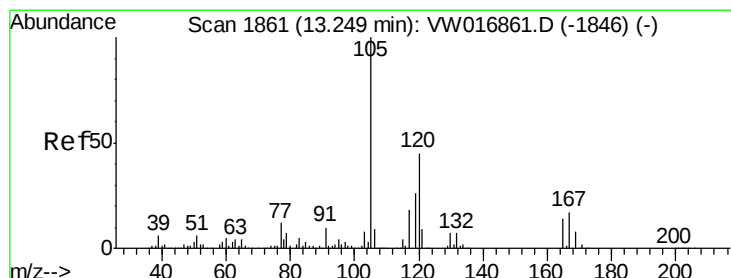
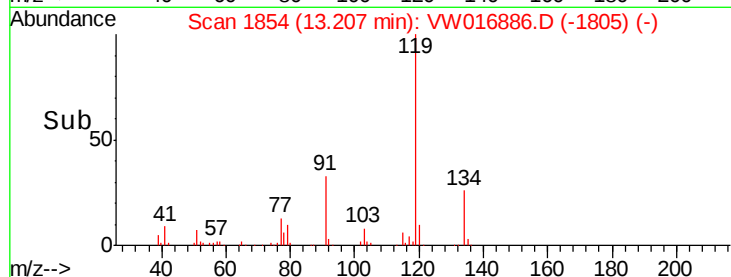
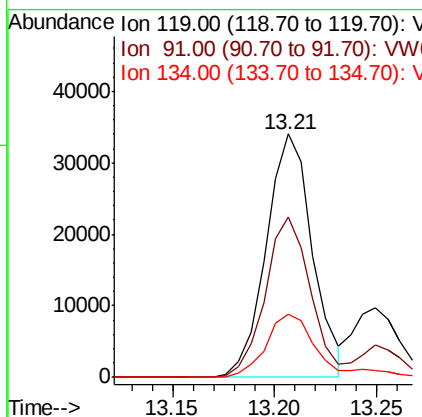
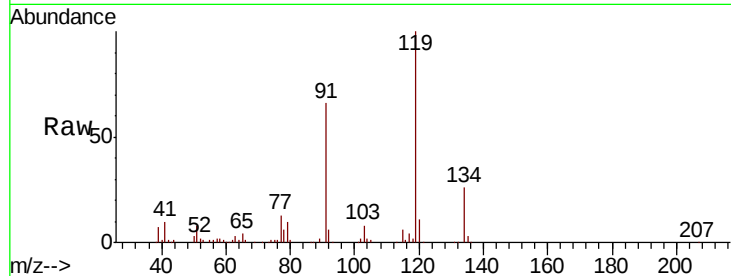




#83  
tert-Butylbenzene  
Concen: 4.365 ug/l  
RT: 13.21 min Scan# 1854  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

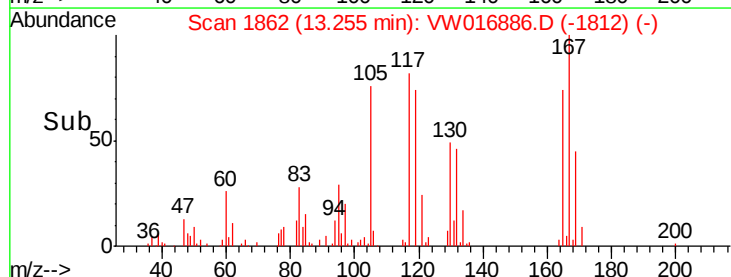
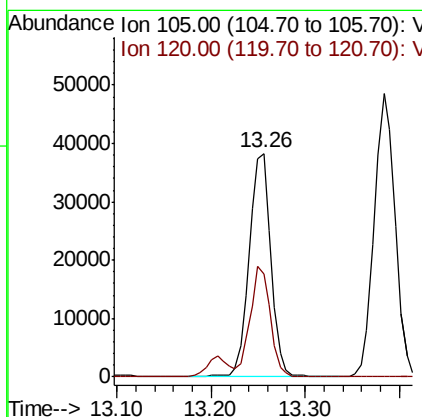
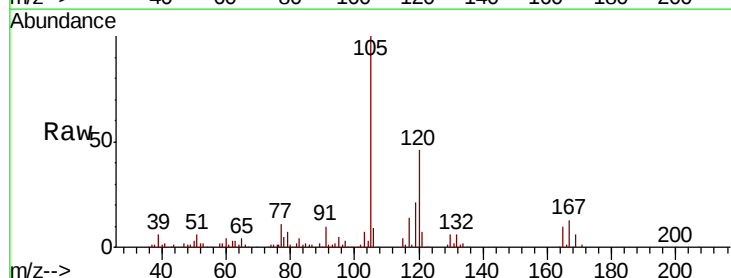
Instrument :  
MSVOA\_W  
ClientSampleId :  
MDL-SOIL-03-QT4-2020

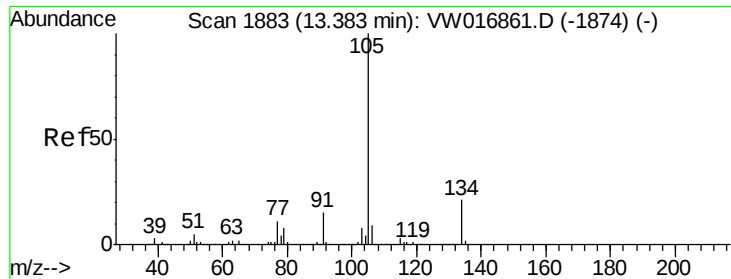
Tot Ion:119 Resp: 53727  
Ion Ratio Lower Upper  
119 100  
91 64.1 31.3 93.9  
134 26.8 14.0 42.0



#84  
1,2,4-Trimethylbenzene  
Concen: 4.401 ug/l  
RT: 13.26 min Scan# 1862  
Delta R.T. 0.01 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

Tgt Ion:105 Resp: 62149  
Ion Ratio Lower Upper  
105 100  
120 46.0 23.4 70.0





#85

sec-Butylbenzene

Concen: 4.346 ug/l

RT: 13.38 min Scan# 1883

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

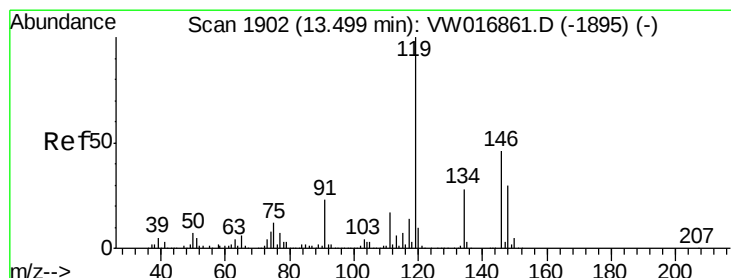
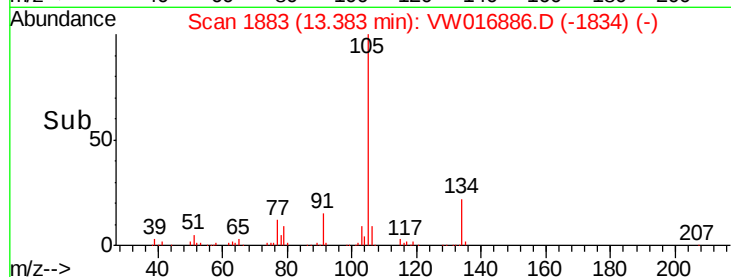
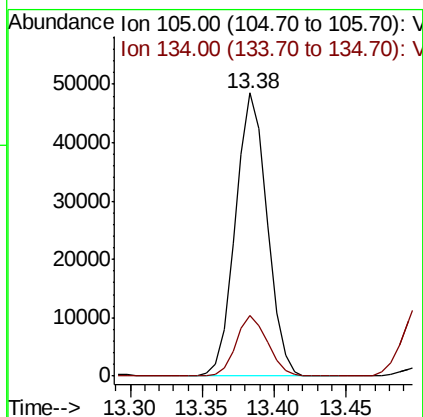
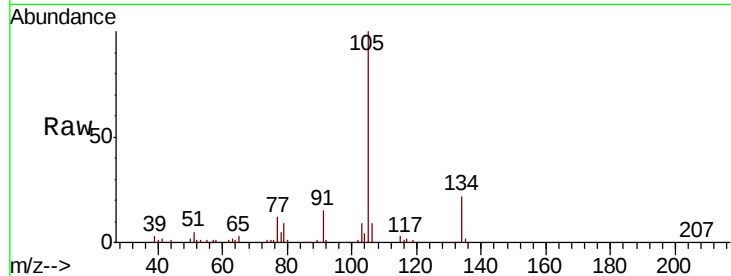
MDL-SOIL-03-QT4-2020

Tot Ion:105 Resp: 74460

Ion Ratio Lower Upper

105 100

134 21.2 10.6 31.8



#86

p-Isopropyltoluene

Concen: 4.383 ug/l

RT: 13.50 min Scan# 1902

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

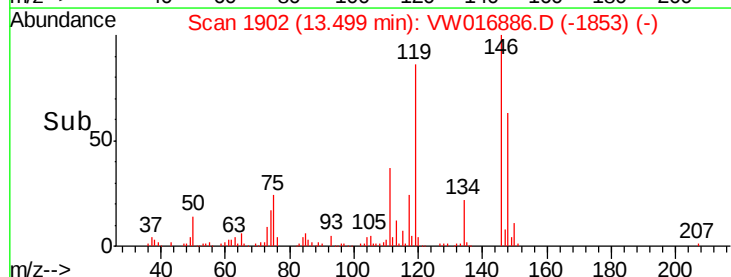
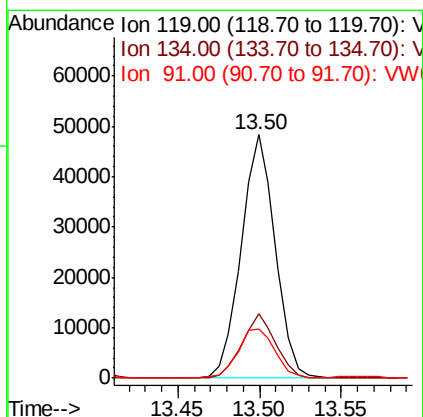
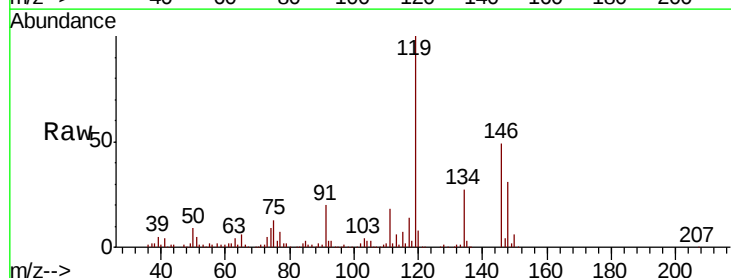
Tgt Ion:119 Resp: 69926

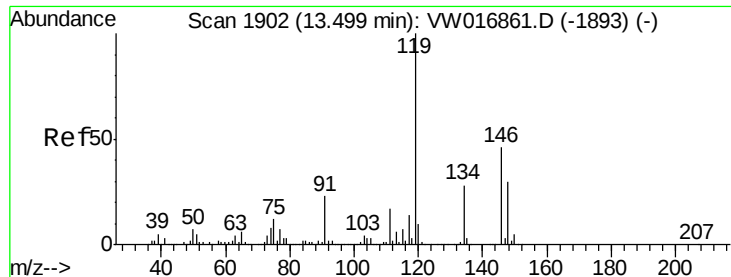
Ion Ratio Lower Upper

119 100

134 26.1 13.8 41.3

91 22.2 11.3 33.9

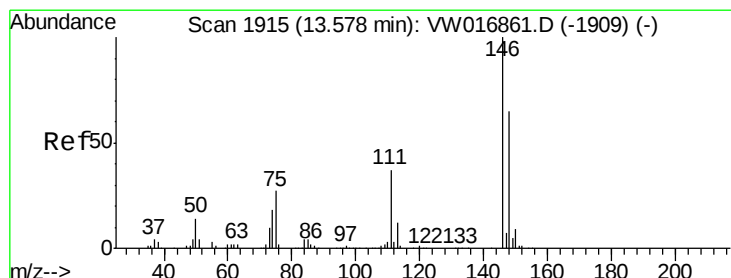
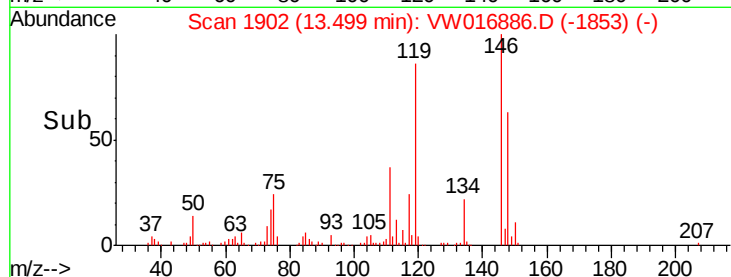
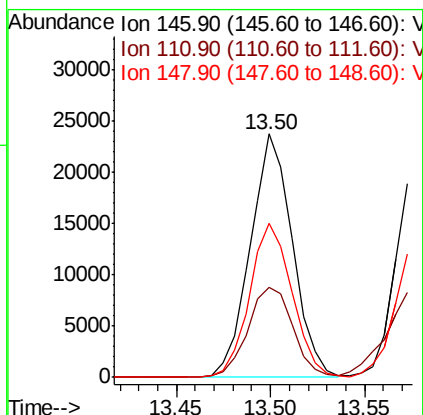
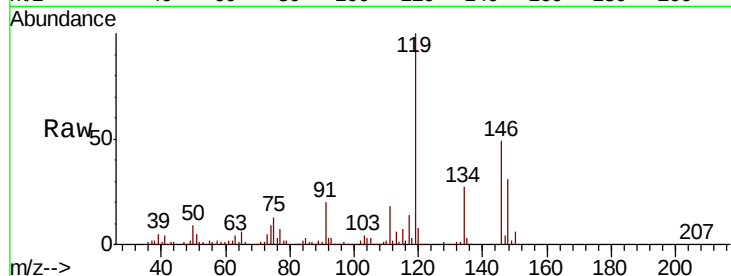




#87  
 1,3-Dichlorobenzene  
 Concen: 4.533 ug/l  
 RT: 13.50 min Scan# 1902  
 Delta R.T. 0.00 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

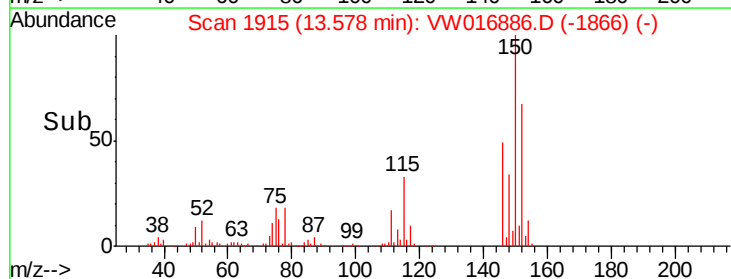
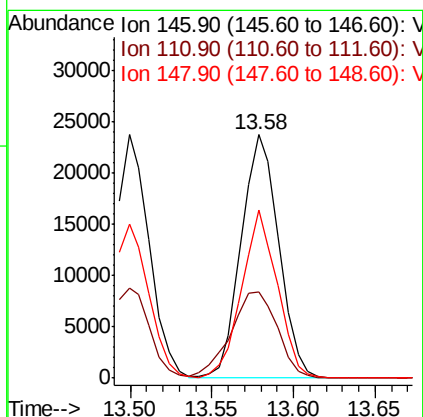
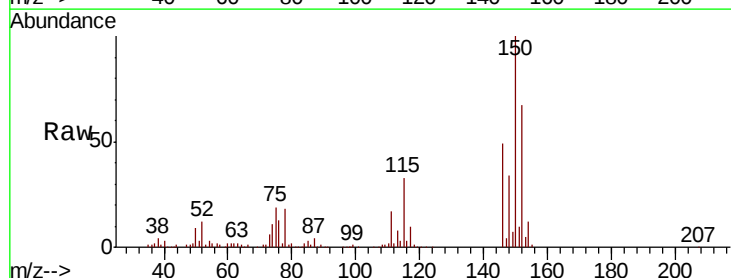
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 MDL-SOIL-03-QT4-2020

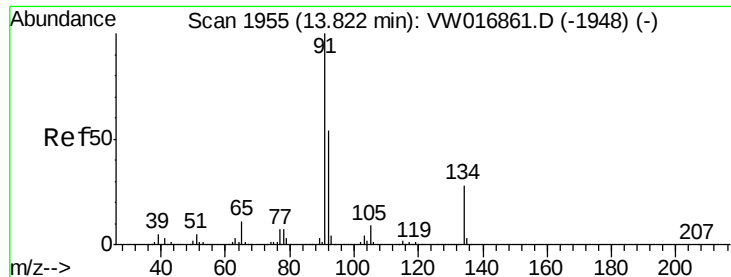
Tot Ion:146 Resp: 36642  
 Ion Ratio Lower Upper  
 146 100  
 111 39.7 19.1 57.5  
 148 64.1 32.5 97.4



#88  
 1,4-Dichlorobenzene  
 Concen: 4.782 ug/l  
 RT: 13.58 min Scan# 1915  
 Delta R.T. 0.00 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

Tgt Ion:146 Resp: 38094  
 Ion Ratio Lower Upper  
 146 100  
 111 43.8 18.5 55.5  
 148 65.6 31.8 95.4





#89

n-Butylbenzene

Concen: 4.268 ug/l

RT: 13.82 min Scan# 1955

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

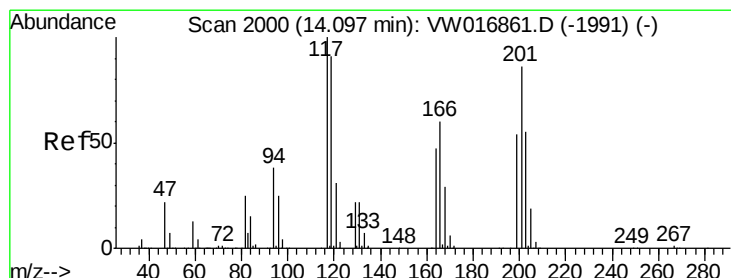
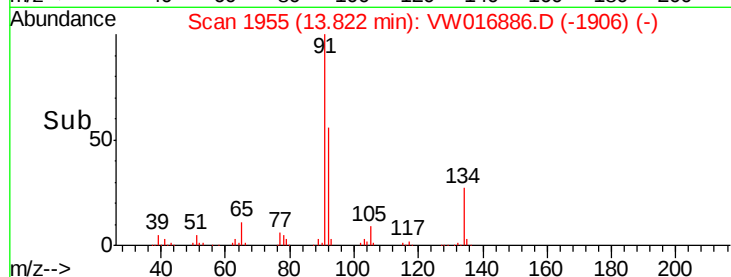
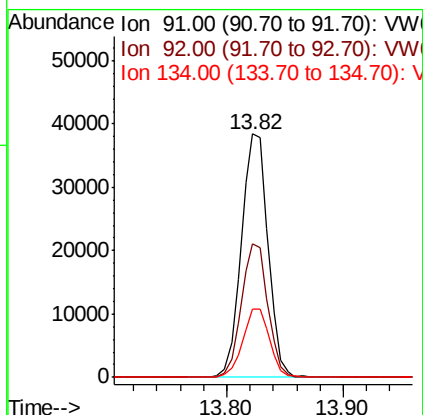
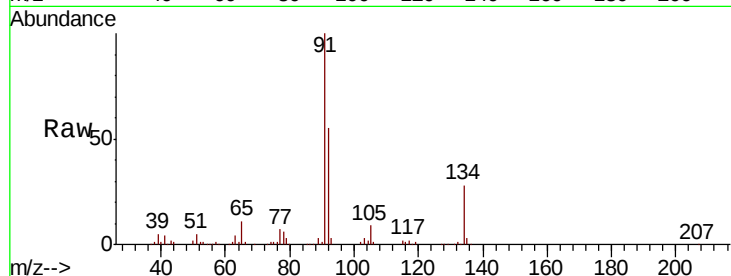
Tot Ion: 91 Resp: 61334

Ion Ratio Lower Upper

91 100

92 54.3 26.6 79.7

134 28.4 14.3 42.9



#90

Hexachloroethane

Concen: 4.110 ug/l

RT: 14.09 min Scan# 1999

Delta R.T. -0.01 min

Lab File: VW016886.D

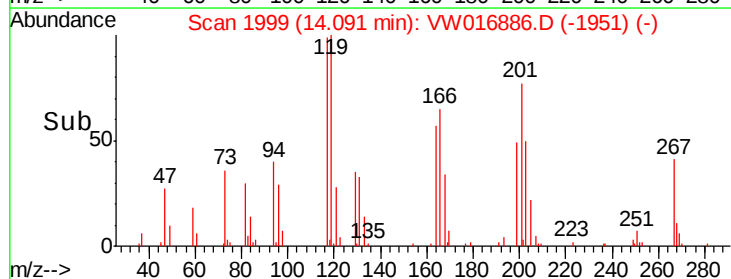
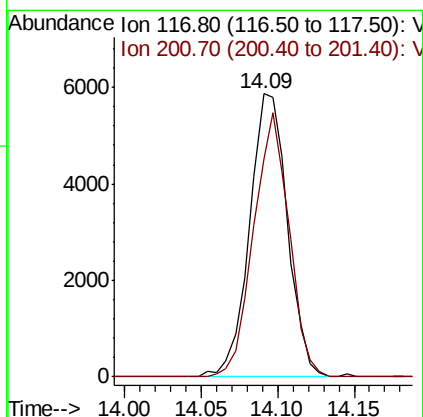
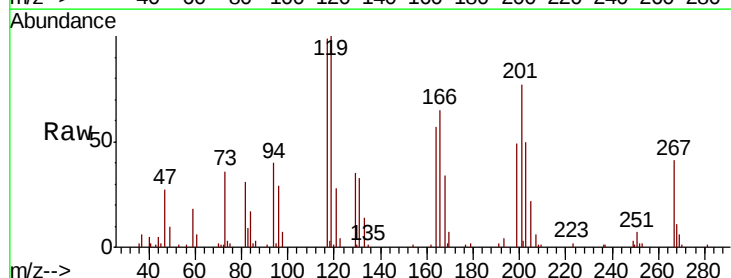
Acq: 12 Oct 2020 17:01

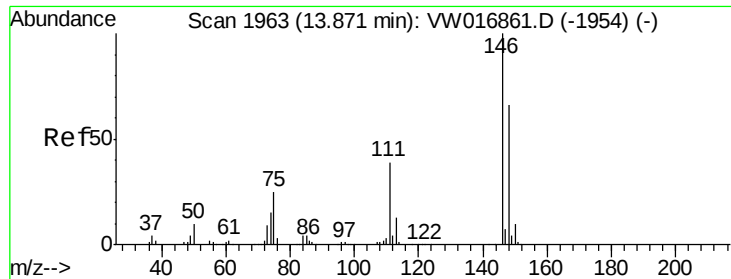
Tgt Ion: 117 Resp: 10117

Ion Ratio Lower Upper

117 100

201 87.3 41.9 125.7





#91

1,2-Dichlorobenzene

Concen: 4.758 ug/l

RT: 13.87 min Scan# 1963

Delta R.T. 0.00 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

Instrument :

MSVOA\_W

ClientSampleId :

MDL-SOIL-03-QT4-2020

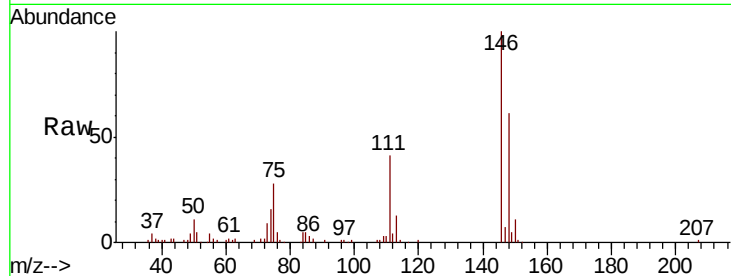
Tot Ion:146 Resp: 33183

Ion Ratio Lower Upper

146 100

111 41.2 20.1 60.3

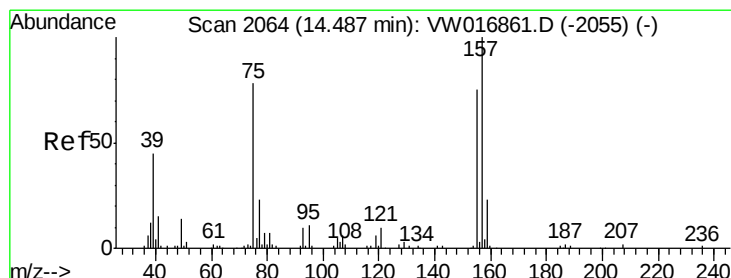
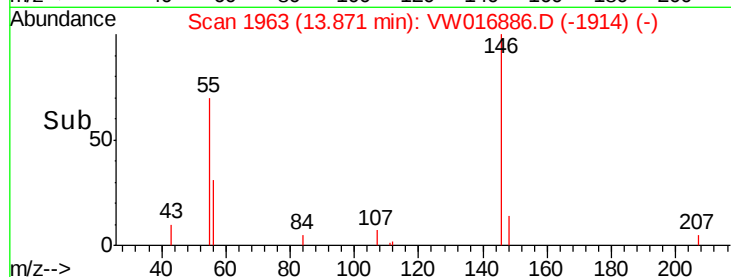
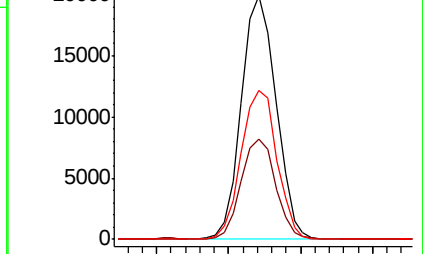
148 62.9 33.1 99.3



Abundance Ion 145.90 (145.60 to 146.60): V

Ion 110.90 (110.60 to 111.60): V

Ion 147.90 (147.60 to 148.60): V



#92

1,2-Dibromo-3-Chloropropane

Concen: 4.829 ug/l

RT: 14.48 min Scan# 2063

Delta R.T. -0.01 min

Lab File: VW016886.D

Acq: 12 Oct 2020 17:01

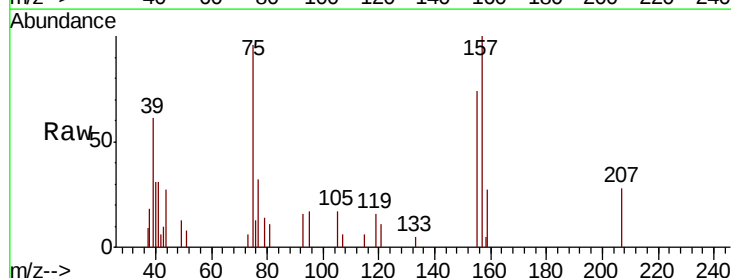
Tgt Ion: 75 Resp: 1962

Ion Ratio Lower Upper

75 100

155 87.5 47.6 142.8

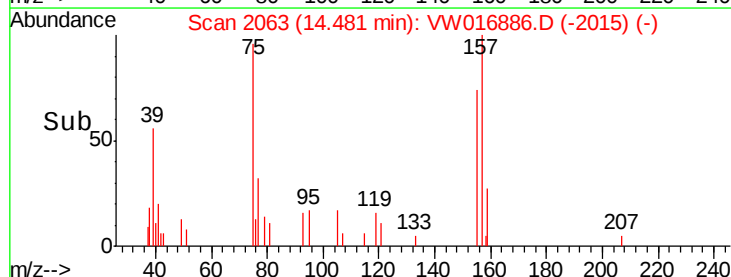
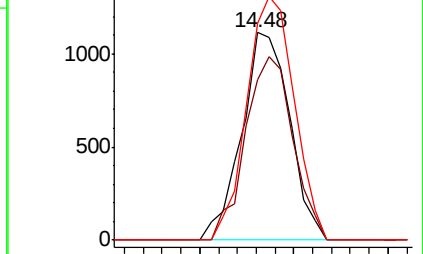
157 115.8 62.2 186.6

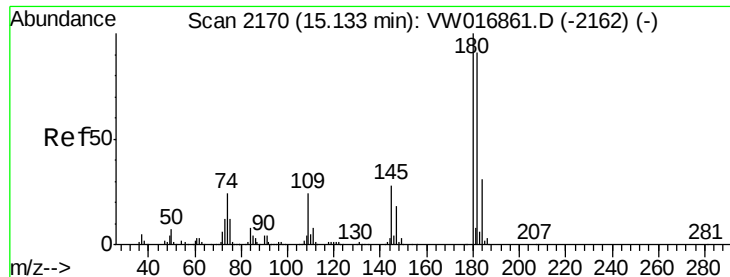


Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 154.80 (154.50 to 155.50): V

Ion 156.80 (156.50 to 157.50): V

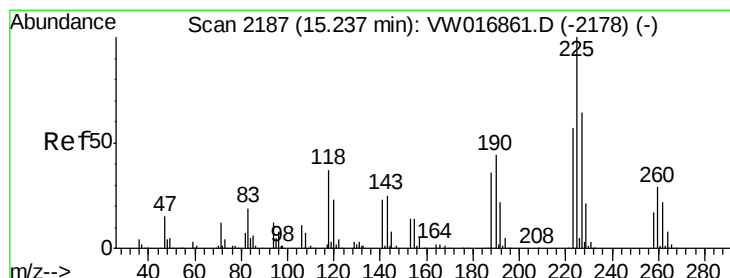
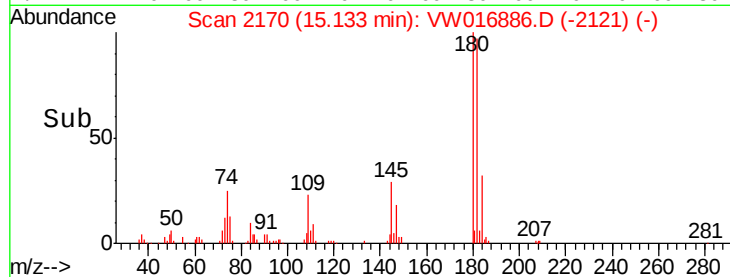
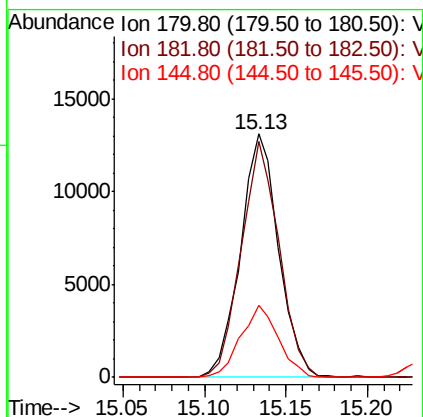
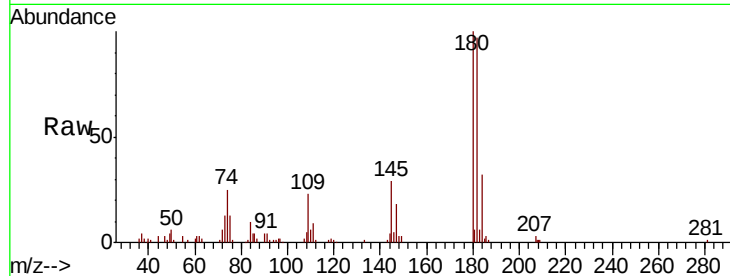




#93  
 1,2,4-Trichlorobenzene  
 Concen: 4.438 ug/l  
 RT: 15.13 min Scan# 2170  
 Delta R.T. 0.00 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

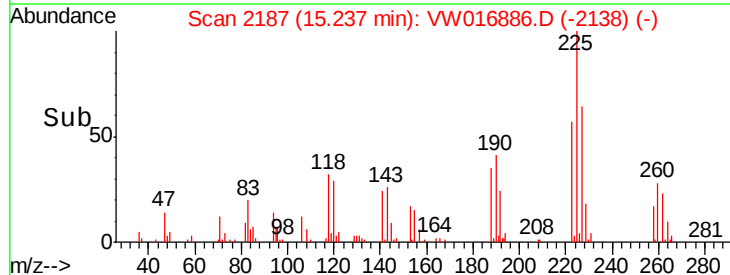
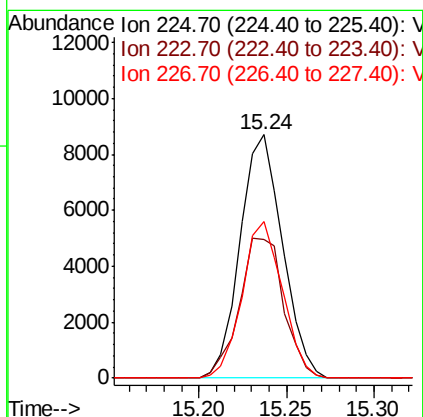
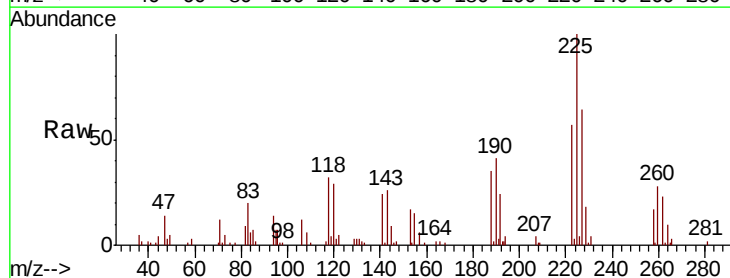
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 MDL-SOIL-03-QT4-2020

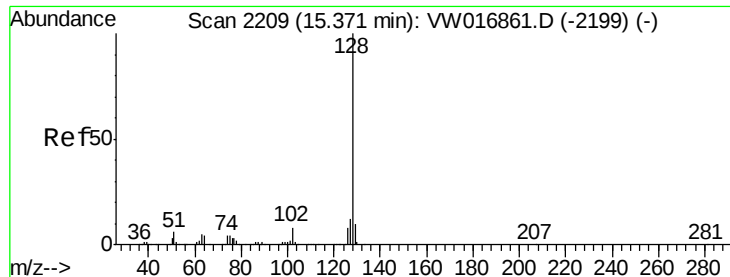
Tot Ion:180 Resp: 21355  
 Ion Ratio Lower Upper  
 180 100  
 182 95.6 48.3 144.9  
 145 29.0 14.9 44.5



#94  
 Hexachlorobutadiene  
 Concen: 4.698 ug/l  
 RT: 15.24 min Scan# 2187  
 Delta R.T. 0.00 min  
 Lab File: VW016886.D  
 Acq: 12 Oct 2020 17:01

Tgt Ion:225 Resp: 14655  
 Ion Ratio Lower Upper  
 225 100  
 223 60.1 31.9 95.7  
 227 61.2 33.0 99.0

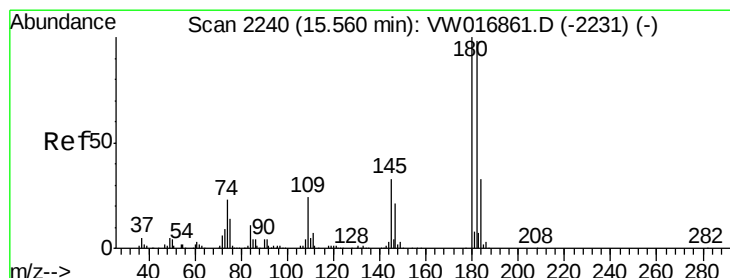
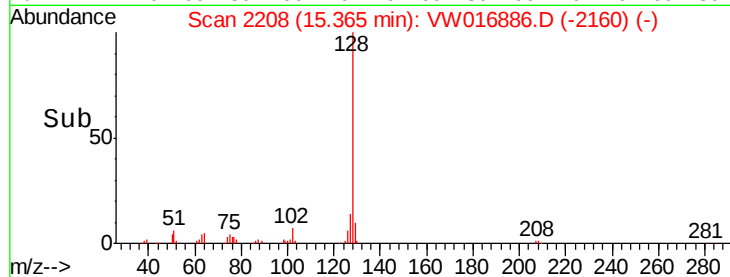
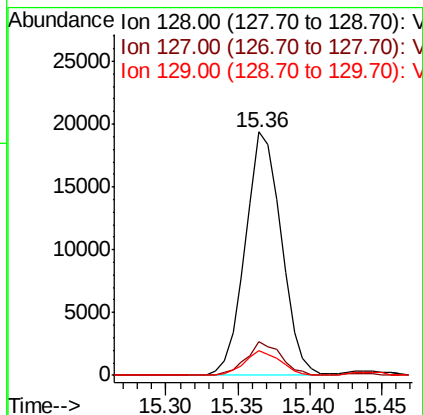
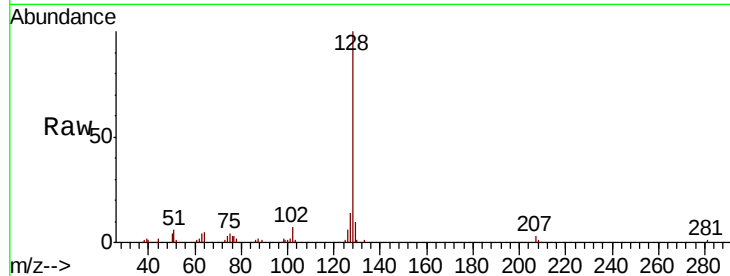




#95  
Naphthalene  
Concen: 4.301 ug/l  
RT: 15.36 min Scan# 2208  
Delta R.T. -0.01 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

Instrument :  
MSVOA\_W  
ClientSampleId :  
MDL-SOIL-03-QT4-2020

Tot Ion:128 Resp: 33633  
Ion Ratio Lower Upper  
128 100  
127 13.4 10.4 15.6  
129 10.0 8.6 12.8



#96  
1,2,3-Trichlorobenzene  
Concen: 4.792 ug/l  
RT: 15.56 min Scan# 2240  
Delta R.T. 0.00 min  
Lab File: VW016886.D  
Acq: 12 Oct 2020 17:01

Tgt Ion:180 Resp: 20061  
Ion Ratio Lower Upper  
180 100  
182 89.9 49.4 148.2  
145 30.7 16.3 48.9

