

Data Path : Z:\VOASRV\HPCHEM1\MSVOA Y\DATA\VY121919\  
 Data File : VY001014.D  
 Acq On : 19 Dec 2019 17:25  
 Operator : SY/MD  
 Sample : VSTDCCC050  
 Misc : 5.00G/5ML/MSVOA Y/SOIL  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_Y  
 ClientSampleId :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

MMDadoda  
 12/20/2019 10:37:11 AM

Quant Time: Dec 20 04:20:12 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_Y\METHODS\82Y112719S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Nov 27 12:40:47 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.80  | 168  | 257396   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.69  | 114  | 454218   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.49 | 117  | 409110   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.42 | 152  | 189416   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.14   | 65  | 137319   | 50.21 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.42% |      |
| 35) Dibromofluoromethane  | 7.73   | 113 | 132499   | 50.05 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.10% |      |
| 50) Toluene-d8            | 10.17  | 98  | 539875   | 51.01 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.02% |      |
| 62) 4-Bromofluorobenzene  | 12.47  | 95  | 186154   | 46.84 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 93.68%  |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.90 | 85  | 105438  | 38.053  | ug/l | 93     |
| 3) Chloromethane              | 2.12 | 50  | 143959  | 42.149  | ug/l | 100    |
| 4) Vinyl Chloride             | 2.25 | 62  | 146630  | 43.561  | ug/l | 98     |
| 5) Bromomethane               | 2.65 | 94  | 94615   | 46.293  | ug/l | 92     |
| 6) Chloroethane               | 2.79 | 64  | 93537   | 45.322  | ug/l | 98     |
| 7) Trichlorofluoromethane     | 3.13 | 101 | 211089  | 45.758  | ug/l | 97     |
| 8) Diethyl Ether              | 3.53 | 74  | 93939   | 54.104  | ug/l | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.90 | 101 | 141938  | 49.824  | ug/l | 99     |
| 10) Methyl Iodide             | 4.09 | 142 | 191467  | 53.382  | ug/l | 97     |
| 11) Tert butyl alcohol        | 4.97 | 59  | 74950   | 272.380 | ug/l | 100    |
| 12) 1,1-Dichloroethene        | 3.88 | 96  | 140413  | 49.753  | ug/l | 92     |
| 13) Acrolein                  | 3.73 | 56  | 69498   | 256.396 | ug/l | 98     |
| 14) Allyl chloride            | 4.49 | 41  | 242611  | 50.135  | ug/l | 96     |
| 15) Acrylonitrile             | 5.18 | 53  | 261331  | 291.482 | ug/l | 98     |
| 16) Acetone                   | 3.96 | 43  | 168903  | 269.204 | ug/l | 100    |
| 17) Carbon Disulfide          | 4.20 | 76  | 405680  | 44.445  | ug/l | 100    |
| 18) Methyl Acetate            | 4.48 | 43  | 151962  | 57.925  | ug/l | 97     |
| 19) Methyl tert-butyl Ether   | 5.22 | 73  | 421124  | 55.873  | ug/l | 97     |
| 20) Methylene Chloride        | 4.72 | 84  | 172216  | 52.072  | ug/l | 99     |
| 21) trans-1,2-Dichloroethene  | 5.22 | 96  | 162814  | 50.756  | ug/l | 98     |
| 22) Diisopropyl ether         | 6.13 | 45  | 528938  | 53.181  | ug/l | 99     |
| 23) Vinyl Acetate             | 6.07 | 43  | 1654760 | 273.674 | ug/l | 96     |
| 24) 1,1-Dichloroethane        | 6.02 | 63  | 289944  | 52.892  | ug/l | 96     |
| 25) 2-Butanone                | 6.99 | 43  | 310073  | 267.533 | ug/l | 96     |
| 26) 2,2-Dichloropropane       | 6.99 | 77  | 222864  | 48.304  | ug/l | 98     |
| 27) cis-1,2-Dichloroethene    | 6.99 | 96  | 185983  | 53.637  | ug/l | 97     |
| 28) Bromochloromethane        | 7.34 | 49  | 121465  | 60.013  | ug/l | 96     |
| 29) Tetrahydrofuran           | 7.35 | 42  | 220981  | 287.728 | ug/l | 99     |
| 30) Chloroform                | 7.51 | 83  | 274870  | 49.984  | ug/l | 94     |
| 31) Cyclohexane               | 7.79 | 56  | 266299  | 45.857  | ug/l | 97     |
| 32) 1,1,1-Trichloroethane     | 7.71 | 97  | 227820  | 50.170  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 7.93 | 75  | 221755  | 49.101  | ug/l | 100    |
| 37) Ethyl Acetate             | 7.08 | 43  | 142947  | 54.816  | ug/l | 100    |
| 38) Carbon Tetrachloride      | 7.91 | 117 | 195586  | 48.628  | ug/l | 96     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA Y\DATA\VY121919\  
 Data File : VY001014.D  
 Acq On : 19 Dec 2019 17:25  
 Operator : SY/MD  
 Sample : VSTDCCC050  
 Misc : 5.00G/5ML/MSVOA Y/SOIL  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_Y  
 ClientSampleID :  
 VSTDCCC050EC

Manual Integrations  
 APPROVED

MMDadoda  
 12/20/2019 10:37:11 AM

Quant Time: Dec 20 04:20:12 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_Y\METHODS\82Y112719S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Nov 27 12:40:47 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 39) Methylcyclohexane          | 9.18  | 83   | 282647   | 47.237   | ug/l   | 97       |
| 40) Benzene                    | 8.17  | 78   | 683355   | 51.946   | ug/l   | 97       |
| 41) Methacrylonitrile          | 7.33  | 41   | 74304m   | 54.061   | ug/l   |          |
| 42) 1,2-Dichloroethane         | 8.24  | 62   | 172521   | 49.866   | ug/l   | 98       |
| 43) Isopropyl Acetate          | 8.28  | 43   | 263714   | 53.663   | ug/l   | 99       |
| 44) Trichloroethene            | 8.94  | 130  | 174213   | 51.529   | ug/l   | 94       |
| 45) 1,2-Dichloropropane        | 9.22  | 63   | 180152   | 54.519   | ug/l   | 99       |
| 46) Dibromomethane             | 9.31  | 93   | 95084    | 55.073   | ug/l   | 99       |
| 47) Bromodichloromethane       | 9.50  | 83   | 218713   | 53.926   | ug/l   | 100      |
| 48) Methyl methacrylate        | 9.30  | 41   | 112385   | 52.007   | ug/l   | 91       |
| 49) 1,4-Dioxane                | 9.30  | 88   | 29101    | 1189.585 | ug/l   | 96       |
| 51) 4-Methyl-2-Pentanone       | 10.07 | 43   | 704337   | 277.397  | ug/l   | 99       |
| 52) Toluene                    | 10.24 | 92   | 423892   | 52.042   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 10.46 | 75   | 237671   | 54.544   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.92  | 75   | 274343   | 53.265   | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane      | 10.64 | 97   | 140964   | 55.263   | ug/l   | 93       |
| 56) Ethyl methacrylate         | 10.50 | 69   | 207253   | 56.797   | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 10.78 | 76   | 244205   | 54.930   | ug/l   | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 9.78  | 63   | 381368   | 259.202  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.83 | 43   | 483093   | 261.106  | ug/l   | 97       |
| 60) Dibromochloromethane       | 10.98 | 129  | 150206   | 54.701   | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 11.08 | 107  | 133168   | 55.395   | ug/l   | 97       |
| 64) Tetrachloroethene          | 10.72 | 164  | 184556   | 51.923   | ug/l   | 95       |
| 65) Chlorobenzene              | 11.51 | 112  | 440264   | 51.772   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.58 | 131  | 153469   | 53.551   | ug/l   | 99       |
| 67) Ethyl Benzene              | 11.59 | 91   | 802652   | 50.680   | ug/l   | 97       |
| 68) m/p-Xylenes                | 11.70 | 106  | 601064   | 101.112  | ug/l   | 100      |
| 69) o-Xylene                   | 12.02 | 106  | 291980   | 52.678   | ug/l   | 96       |
| 70) Styrene                    | 12.04 | 104  | 501560   | 52.847   | ug/l   | 98       |
| 71) Bromoform                  | 12.20 | 173  | 89328    | 55.265   | ug/l # | 100      |
| 73) Isopropylbenzene           | 12.32 | 105  | 758577   | 50.298   | ug/l   | 99       |
| 74) N-amyl acetate             | 12.14 | 43   | 214377   | 51.069   | ug/l   | 97       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.58 | 83   | 162886   | 54.813   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 12.63 | 75   | 124846m  | 58.174   | ug/l   |          |
| 77) Bromobenzene               | 12.60 | 156  | 171671   | 52.512   | ug/l   | 99       |
| 78) n-propylbenzene            | 12.66 | 91   | 923553   | 50.152   | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.75 | 91   | 509799   | 50.111   | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.81 | 105  | 624602   | 50.019   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.38 | 75   | 59845    | 54.776   | ug/l   | 97       |
| 82) 4-Chlorotoluene            | 12.84 | 91   | 525840   | 50.169   | ug/l   | 98       |
| 83) tert-Butylbenzene          | 13.07 | 119  | 526635   | 50.162   | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 13.11 | 105  | 627573   | 50.233   | ug/l   | 99       |
| 85) sec-Butylbenzene           | 13.25 | 105  | 778348   | 50.977   | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 13.36 | 119  | 668973   | 50.373   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 13.36 | 146  | 322226   | 50.244   | ug/l   | 100      |
| 88) 1,4-Dichlorobenzene        | 13.44 | 146  | 325181   | 51.210   | ug/l   | 99       |
| 89) n-Butylbenzene             | 13.69 | 91   | 662162   | 49.315   | ug/l   | 99       |
| 90) Hexachloroethane           | 13.95 | 117  | 127057   | 51.936   | ug/l   | 99       |
| 91) 1,2-Dichlorobenzene        | 13.74 | 146  | 301837   | 52.324   | ug/l   | 99       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.35 | 75   | 25799    | 51.857   | ug/l   | 97       |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA Y\DATA\VY121919\  
Data File : VY001014.D  
Acq On : 19 Dec 2019 17:25  
Operator : SY/MD  
Sample : VSTDCCC050  
Misc : 5.00G/5ML/MSVOA Y/SOIL  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
VSTDCCC050EC

Manual Integrations  
APPROVED

MMDadoda  
12/20/2019 10:37:11 AM

Quant Time: Dec 20 04:20:12 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_Y\METHODS\82Y112719S.M  
Quant Title : SW846 8260  
QLast Update : Wed Nov 27 12:40:47 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.00 | 180  | 198150   | 50.763 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.11 | 225  | 95322    | 49.254 | ug/l  | 98       |
| 95) Naphthalene            | 15.23 | 128  | 479370   | 52.889 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 15.42 | 180  | 177353   | 50.866 | ug/l  | 99       |

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

Data Path : Z:\VOASRV\HPCHEM1\MSVOA Y\DATA\VY121919\  
Data File : VY001014.D  
Acq On : 19 Dec 2019 17:25  
Operator : SY/MD  
Sample : VSTDCCC050  
Misc : 5.00G/5ML/MSVOA Y/SOIL  
ALS Vial : 10 Sample Multiplier: 1

Instrument :  
MSVOA\_Y  
ClientSampleId :  
VSTDCCC050EC

Manual Integrations  
APPROVED

MMDadoda  
12/20/2019 10:37:11 AM

Quant Time: Dec 20 04:20:12 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_Y\METHODS\82Y112719S.M  
Quant Title : SW846 8260  
QLast Update : Wed Nov 27 12:40:47 2019  
Response via : Initial Calibration

