

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD121718\  
 Data File : VD060591.D  
 Acq On : 17 Dec 2018 10:58  
 Operator : VA/AP  
 Sample : VSTDCCC050  
 Misc : 5.00g/5ml/MSVOA D/SOIL  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

apatel  
 12/18/2018 3:30:50 PM

Quant Time: Dec 18 13:01:22 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D120518S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Dec 06 01:49:20 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 6.43  | 168  | 1630681  | 50.00 | ug/l  | 0.01     |
| 34) 1,4-Difluorobenzene    | 7.47  | 114  | 2285176  | 50.00 | ug/l  | 0.01     |
| 63) Chlorobenzene-d5       | 11.30 | 117  | 1814323  | 50.00 | ug/l  | 0.02     |
| 72) 1,4-Dichlorobenzene-d4 | 13.38 | 152  | 925238   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 6.82   | 65  | 559942   | 48.45 | ug/l   | 0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.90% |      |
| 35) Dibromofluoromethane  | 6.35   | 113 | 831228   | 49.52 | ug/l   | 0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.04% |      |
| 50) Toluene-d8            | 9.48   | 98  | 2387274  | 49.15 | ug/l   | 0.02 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.30% |      |
| 62) 4-Bromofluorobenzene  | 12.44  | 95  | 833267   | 47.94 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.88% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.62 | 85  | 804747  | 52.186  | ug/l | 96     |
| 3) Chloromethane              | 1.79 | 50  | 821931  | 49.058  | ug/l | 97     |
| 4) Vinyl Chloride             | 1.89 | 62  | 697755  | 52.182  | ug/l | 99     |
| 5) Bromomethane               | 2.18 | 94  | 178255  | 53.287  | ug/l | 95     |
| 6) Chloroethane               | 2.29 | 64  | 226278  | 52.986  | ug/l | 97     |
| 7) Trichlorofluoromethane     | 2.55 | 101 | 852939  | 55.243  | ug/l | 100    |
| 8) Diethyl Ether              | 2.86 | 74  | 145164  | 54.433  | ug/l | 88     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.13 | 101 | 539917  | 53.895  | ug/l | 98     |
| 10) Methyl Iodide             | 3.28 | 142 | 615574  | 52.568  | ug/l | 98     |
| 11) Tert butyl alcohol        | 4.00 | 59  | 119253  | 253.959 | ug/l | 95     |
| 12) 1,1-Dichloroethene        | 3.11 | 96  | 437129  | 53.631  | ug/l | 96     |
| 13) Acrolein                  | 3.02 | 56  | 118577  | 231.100 | ug/l | 92     |
| 14) Allyl chloride            | 3.57 | 41  | 812615  | 52.548  | ug/l | 96     |
| 15) Acrylonitrile             | 4.12 | 53  | 707034  | 265.175 | ug/l | 98     |
| 16) Acetone                   | 3.20 | 43  | 539842  | 291.384 | ug/l | 98     |
| 17) Carbon Disulfide          | 3.35 | 76  | 1363560 | 51.503  | ug/l | 100    |
| 18) Methyl Acetate            | 3.59 | 43  | 227111  | 51.579  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 4.16 | 73  | 1224292 | 54.165  | ug/l | 99     |
| 20) Methylene Chloride        | 3.76 | 84  | 913191  | 54.043  | ug/l | 97     |
| 21) trans-1,2-Dichloroethene  | 4.14 | 96  | 960163  | 54.156  | ug/l | 98     |
| 22) Diisopropyl ether         | 4.89 | 45  | 2951650 | 53.161  | ug/l | 98     |
| 23) Vinyl Acetate             | 4.84 | 43  | 7405524 | 269.203 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 4.79 | 63  | 1552337 | 53.818  | ug/l | 100    |
| 25) 2-Butanone                | 5.66 | 43  | 1046269 | 287.043 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 5.63 | 77  | 1285928 | 57.710  | ug/l | 98     |
| 27) cis-1,2-Dichloroethene    | 5.63 | 96  | 997089  | 55.311  | ug/l | 98     |
| 28) Bromochloromethane        | 5.96 | 49  | 618026  | 48.368  | ug/l | 99     |
| 29) Tetrahydrofuran           | 5.98 | 42  | 553364  | 268.093 | ug/l | 99     |
| 30) Chloroform                | 6.14 | 83  | 1612917 | 55.504  | ug/l | 98     |
| 31) Cyclohexane               | 6.40 | 56  | 1408147 | 57.679  | ug/l | 96     |
| 32) 1,1,1-Trichloroethane     | 6.32 | 97  | 1330144 | 55.679  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 6.55 | 75  | 1207706 | 54.067  | ug/l | 99     |
| 37) Ethyl Acetate             | 5.73 | 43  | 527308  | 54.433  | ug/l | 99     |
| 38) Carbon Tetrachloride      | 6.53 | 117 | 1099597 | 54.834  | ug/l | 100    |

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 ClientSampleID :  
 VSTDCCC050

Manual Integrations  
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apatel  
 12/18/2018 3:30:50 PM

Quant Time: Dec 18 13:01:22 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D120518S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Dec 06 01:49:20 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|-------|------|----------|----------|-------|----------|
| 39) Methylcyclohexane          | 8.07  | 83   | 1389250  | 54.557   | ug/l  | 98       |
| 40) Benzene                    | 6.83  | 78   | 3192649  | 55.926   | ug/l  | 99       |
| 41) Methacrylonitrile          | 5.96  | 41   | 326110m  | 62.448   | ug/l  |          |
| 42) 1,2-Dichloroethane         | 6.92  | 62   | 789073   | 54.363   | ug/l  | 100      |
| 43) Isopropyl Acetate          | 8.37  | 43   | 656940   | 54.936   | ug/l  | 99       |
| 44) Trichloroethene            | 7.77  | 130  | 965576   | 56.597   | ug/l  | 97       |
| 45) 1,2-Dichloropropane        | 8.13  | 63   | 778421   | 55.133   | ug/l  | 100      |
| 46) Dibromomethane             | 8.24  | 93   | 443353   | 54.349   | ug/l  | 99       |
| 47) Bromodichloromethane       | 8.52  | 83   | 1097703  | 56.712   | ug/l  | 99       |
| 48) Methyl methacrylate        | 8.27  | 41   | 388853   | 54.956   | ug/l  | 98       |
| 49) 1,4-Dioxane                | 8.25  | 88   | 70502    | 1099.386 | ug/l  | 96       |
| 51) 4-Methyl-2-Pentanone       | 9.37  | 43   | 2088917  | 280.823  | ug/l  | 99       |
| 52) Toluene                    | 9.57  | 92   | 1957416  | 54.859   | ug/l  | 100      |
| 53) t-1,3-Dichloropropene      | 9.95  | 75   | 919064   | 57.787   | ug/l  | 100      |
| 54) cis-1,3-Dichloropropene    | 9.13  | 75   | 1183127  | 56.619   | ug/l  | 100      |
| 55) 1,1,2-Trichloroethane      | 10.20 | 97   | 516870   | 52.018   | ug/l  | 99       |
| 56) Ethyl methacrylate         | 10.05 | 69   | 519764   | 57.799   | ug/l  | 95       |
| 57) 1,3-Dichloropropane        | 10.40 | 76   | 844135   | 54.956   | ug/l  | 99       |
| 58) 2-Chloroethyl Vinyl ether  | 8.95  | 63   | 1412906  | 262.587  | ug/l  | 98       |
| 59) 2-Hexanone                 | 10.51 | 43   | 1550813  | 298.269  | ug/l  | 99       |
| 60) Dibromochloromethane       | 10.65 | 129  | 718288   | 57.818   | ug/l  | 99       |
| 61) 1,2-Dibromoethane          | 10.77 | 107  | 548379   | 54.154   | ug/l  | 98       |
| 64) Tetrachloroethene          | 10.27 | 164  | 878314   | 54.671   | ug/l  | 97       |
| 65) Chlorobenzene              | 11.33 | 112  | 2107432  | 54.905   | ug/l  | 100      |
| 66) 1,1,1,2-Tetrachloroethane  | 11.43 | 131  | 682152   | 55.139   | ug/l  | 99       |
| 67) Ethyl Benzene              | 11.44 | 91   | 3489468  | 53.298   | ug/l  | 98       |
| 68) m/p-Xylenes                | 11.58 | 106  | 2549958  | 105.279  | ug/l  | 99       |
| 69) o-Xylene                   | 11.95 | 106  | 1227030  | 53.158   | ug/l  | 99       |
| 70) Styrene                    | 11.97 | 104  | 1975250  | 53.312   | ug/l  | 100      |
| 71) Bromoform                  | 12.13 | 173  | 466447   | 56.513   | ug/l  | 97       |
| 73) Isopropylbenzene           | 12.29 | 105  | 3362377  | 51.355   | ug/l  | 99       |
| 74) N-amyl acetate             | 12.15 | 43   | 857480   | 54.190   | ug/l  | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.57 | 83   | 564134   | 53.820   | ug/l  | 100      |
| 76) 1,2,3-Trichloropropane     | 12.61 | 75   | 561241   | 53.536   | ug/l  | 99       |
| 77) Bromobenzene               | 12.55 | 156  | 937778   | 54.490   | ug/l  | 94       |
| 78) n-propylbenzene            | 12.65 | 91   | 4330908  | 52.328   | ug/l  | 99       |
| 79) 2-Chlorotoluene            | 12.72 | 91   | 2381169  | 53.020   | ug/l  | 99       |
| 80) 1,3,5-Trimethylbenzene     | 12.81 | 105  | 2606771  | 52.105   | ug/l  | 98       |
| 81) trans-1,4-Dichloro-2-buten | 12.36 | 75   | 163749   | 56.004   | ug/l  | 97       |
| 82) 4-Chlorotoluene            | 12.82 | 91   | 2582989  | 51.208   | ug/l  | 92       |
| 83) tert-Butylbenzene          | 13.06 | 119  | 3098507  | 55.237   | ug/l  | 94       |
| 84) 1,2,4-Trimethylbenzene     | 13.10 | 105  | 2718540  | 52.479   | ug/l  | 99       |
| 85) sec-Butylbenzene           | 13.23 | 105  | 3775193  | 53.997   | ug/l  | 97       |
| 86) p-Isopropyltoluene         | 13.35 | 119  | 2970863  | 53.604   | ug/l  | 97       |
| 87) 1,3-Dichlorobenzene        | 13.32 | 146  | 1599376  | 51.327   | ug/l  | 96       |
| 88) 1,4-Dichlorobenzene        | 13.40 | 146  | 1595129  | 52.182   | ug/l  | 96       |
| 89) n-Butylbenzene             | 13.66 | 91   | 3078052  | 57.904   | ug/l  | 99       |
| 90) Hexachloroethane           | 13.87 | 117  | 777319   | 55.939   | ug/l  | 85       |
| 91) 1,2-Dichlorobenzene        | 13.68 | 146  | 1347383  | 52.911   | ug/l  | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.24 | 75   | 70666    | 55.640   | ug/l  | 78       |

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| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.80 | 180  | 1095738  | 55.044 | ug/l  | 97       |
| 94) Hexachlorobutadiene    | 14.89 | 225  | 833102   | 56.723 | ug/l  | 98       |
| 95) Naphthalene            | 14.97 | 128  | 1317520  | 55.634 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.12 | 180  | 856338   | 53.988 | ug/l  | 97       |

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

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