

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF041619\  
 Data File : VF062174.D  
 Acq On : 16 Apr 2019 13:14  
 Operator : FY/SY  
 Sample : VSTDICC100  
 Misc : 5.00g/5mL/MSVOA F/SOIL  
 ALS Vial : 8 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VSTDICC100

Manual Integrations  
 APPROVED

MMDadoda  
 4/17/2019 11:50:32 AM

Quant Time: Apr 17 07:51:11 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F041619S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Apr 17 07:22:58 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.05  | 168  | 441525   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.77  | 114  | 691559   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.91  | 117  | 575270   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.61 | 152  | 275571   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |        |         |      |
|---------------------------|--------|-----|----------|--------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 5.03   | 65  | 404035   | 101.58 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 203.16% |      |
| 35) Dibromofluoromethane  | 4.31   | 113 | 522805   | 95.84  | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 191.68% |      |
| 50) Toluene-d8            | 7.72   | 98  | 1528397  | 95.88  | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 191.76% |      |
| 62) 4-Bromofluorobenzene  | 11.50  | 95  | 607640   | 96.52  | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 193.04% |      |

## Target Compounds

|                               |      |     |         |         |      | Qvalue |
|-------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane    | 1.00 | 85  | 567009  | 87.374  | ug/l | 99     |
| 3) Chloromethane              | 1.14 | 50  | 636858  | 91.301  | ug/l | 96     |
| 4) Vinyl Chloride             | 1.19 | 62  | 550056  | 90.069  | ug/l | 98     |
| 5) Bromomethane               | 1.38 | 94  | 338810  | 86.438  | ug/l | 96     |
| 6) Chloroethane               | 1.44 | 64  | 258564  | 89.488  | ug/l | 98     |
| 7) Trichlorofluoromethane     | 1.55 | 101 | 651196  | 89.413  | ug/l | 99     |
| 8) Diethyl Ether              | 1.71 | 74  | 135815  | 92.437  | ug/l | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.90 | 101 | 424498  | 89.046  | ug/l | 98     |
| 10) Methyl Iodide             | 1.97 | 142 | 799520  | 89.972  | ug/l | 99     |
| 11) Tert butyl alcohol        | 2.69 | 59  | 100962  | 457.898 | ug/l | 94     |
| 12) 1,1-Dichloroethene        | 1.86 | 96  | 417330  | 86.082  | ug/l | 98     |
| 14) Allvl chloride            | 2.20 | 41  | 732785  | 100.381 | ug/l | 97     |
| 15) Acrylonitrile             | 3.08 | 53  | 339716  | 418.435 | ug/l | 99     |
| 16) Acetone                   | 2.34 | 43  | 381280  | 425.134 | ug/l | 98     |
| 17) Carbon Disulfide          | 1.91 | 76  | 1228398 | 89.094  | ug/l | 100    |
| 18) Methyl Acetate            | 2.46 | 43  | 157155  | 73.857  | ug/l | 99     |
| 19) Methyl tert-butyl Ether   | 2.55 | 73  | 728622  | 90.354  | ug/l | 99     |
| 20) Methylene Chloride        | 2.32 | 84  | 388975  | 75.697  | ug/l | 99     |
| 21) trans-1,2-Dichloroethene  | 2.42 | 96  | 416757  | 89.846  | ug/l | 95     |
| 22) Diisopropyl ether         | 2.93 | 45  | 1236529 | 91.127  | ug/l | 99     |
| 23) Vinyl Acetate             | 3.35 | 43  | 3047282 | 450.204 | ug/l | 98     |
| 24) 1,1-Dichloroethane        | 3.01 | 63  | 680298  | 90.030  | ug/l | 100    |
| 25) 2-Butanone                | 4.52 | 43  | 856371  | 444.373 | ug/l | 99     |
| 26) 2,2-Dichloropropane       | 3.78 | 77  | 345742  | 86.989  | ug/l | 96     |
| 27) cis-1,2-Dichloroethene    | 3.64 | 96  | 540657  | 87.807  | ug/l | 96     |
| 28) Bromochloromethane        | 3.90 | 49  | 350497  | 96.868  | ug/l | 93     |
| 29) Tetrahydrofuran           | 4.27 | 42  | 349188  | 407.497 | ug/l | 96     |
| 30) Chloroform                | 4.05 | 83  | 841844  | 89.611  | ug/l | 100    |
| 31) Cyclohexane               | 3.88 | 56  | 830858  | 85.177  | ug/l | 99     |
| 32) 1,1,1-Trichloroethane     | 4.30 | 97  | 578052  | 90.236  | ug/l | 99     |
| 36) 1,1-Dichloropropene       | 4.47 | 75  | 669156  | 87.088  | ug/l | 98     |
| 37) Ethyl Acetate             | 4.30 | 43  | 294945  | 83.306  | ug/l | 97     |
| 38) Carbon Tetrachloride      | 4.19 | 117 | 630676m | 93.848  | ug/l |        |
| 39) Methylcyclohexane         | 5.64 | 83  | 848890  | 88.161  | ug/l | 99     |

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Quant Time: Apr 17 07:51:11 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F041619S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Apr 17 07:22:58 2019  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| 40) Benzene                    | 4.83  | 78   | 1776837  | 87.544   | ug/l   | 99       |
| 41) Methacrylonitrile          | 4.94  | 41   | 180897   | 85.035   | ug/l   | 98       |
| 42) 1,2-Dichloroethane         | 5.12  | 62   | 442003   | 86.043   | ug/l   | 98       |
| 43) Isopropyl Acetate          | 7.11  | 43   | 374197   | 90.943   | ug/l # | 97       |
| 44) Trichloroethene            | 5.68  | 130  | 473947   | 87.243   | ug/l   | 100      |
| 45) 1,2-Dichloropropane        | 6.40  | 63   | 442737   | 88.918   | ug/l   | 95       |
| 46) Dibromomethane             | 6.26  | 93   | 268572   | 89.449   | ug/l   | 98       |
| 47) Bromodichloromethane       | 6.55  | 83   | 598770   | 88.026   | ug/l   | 98       |
| 48) Methyl methacrylate        | 6.88  | 41   | 234149   | 87.425   | ug/l   | 95       |
| 49) 1,4-Dioxane                | 6.87  | 88   | 32222    | 1543.887 | ug/l   | 93       |
| 51) 4-Methyl-2-Pentanone       | 8.41  | 43   | 1332734  | 422.802  | ug/l   | 95       |
| 52) Toluene                    | 7.78  | 92   | 1053140  | 88.326   | ug/l   | 95       |
| 53) t-1,3-Dichloropropene      | 8.43  | 75   | 533962   | 90.626   | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene    | 7.46  | 75   | 648494   | 86.557   | ug/l   | 97       |
| 55) 1,1,2-Trichloroethane      | 8.63  | 97   | 310865   | 91.031   | ug/l   | 97       |
| 56) Ethyl methacrylate         | 8.76  | 69   | 360426   | 88.760   | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 9.00  | 76   | 493526   | 87.907   | ug/l   | 96       |
| 58) 2-Chloroethyl Vinyl ether  | 7.45  | 63   | 493426   | 471.618  | ug/l   | 95       |
| 59) 2-Hexanone                 | 9.62  | 43   | 850533   | 423.974  | ug/l   | 99       |
| 60) Dibromochloromethane       | 8.86  | 129  | 418963   | 89.168   | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 9.13  | 107  | 334496   | 91.554   | ug/l   | 98       |
| 64) Tetrachloroethene          | 8.31  | 164  | 404194   | 86.026   | ug/l   | 99       |
| 65) Chlorobenzene              | 9.93  | 112  | 1065014  | 88.995   | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.06 | 131  | 421775   | 85.370   | ug/l   | 98       |
| 67) Ethyl Benzene              | 10.03 | 91   | 1858535  | 83.781   | ug/l   | 96       |
| 68) m/p-Xylenes                | 10.26 | 106  | 1399968  | 171.404  | ug/l   | 88       |
| 69) o-Xylene                   | 10.82 | 106  | 763016   | 86.302   | ug/l   | 92       |
| 70) Stvrene                    | 10.89 | 104  | 1076705  | 83.776   | ug/l   | 98       |
| 71) Bromoform                  | 10.88 | 173  | 226070   | 87.377   | ug/l # | 96       |
| 73) Isopropylbenzene           | 11.21 | 105  | 1956645  | 82.418   | ug/l   | 95       |
| 74) N-amyl acetate             | 11.45 | 43   | 509493   | 82.336   | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.77 | 83   | 373525   | 88.323   | ug/l   | 99       |
| 76) 1,2,3-Trichloropropane     | 11.87 | 75   | 254679   | 88.876   | ug/l   | 93       |
| 77) Bromobenzene               | 11.58 | 156  | 443571   | 89.841   | ug/l   | 93       |
| 78) n-propylbenzene            | 11.67 | 91   | 2190142  | 81.161   | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 11.80 | 91   | 1347391  | 84.707   | ug/l   | 95       |
| 80) 1,3,5-Trimethylbenzene     | 11.89 | 105  | 1583368  | 79.968   | ug/l   | 93       |
| 81) trans-1,4-Dichloro-2-buten | 11.94 | 75   | 133481m  | 86.565   | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.97 | 91   | 1313766  | 84.280   | ug/l   | 94       |
| 83) tert-Butylbenzene          | 12.20 | 119  | 1584047  | 80.568   | ug/l   | 96       |
| 84) 1,2,4-Trimethylbenzene     | 12.27 | 105  | 1536506  | 79.961   | ug/l   | 93       |
| 85) sec-Butylbenzene           | 12.37 | 105  | 2121496  | 82.059   | ug/l   | 93       |
| 86) p-Isopropyltoluene         | 12.52 | 119  | 1789976  | 81.270   | ug/l   | 96       |
| 87) 1,3-Dichlorobenzene        | 12.54 | 146  | 770446   | 85.291   | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 12.62 | 146  | 749592   | 85.111   | ug/l   | 94       |
| 89) n-Butylbenzene             | 12.90 | 91   | 1734332  | 78.675   | ug/l   | 95       |
| 90) Hexachloroethane           | 12.97 | 117  | 465272   | 86.239   | ug/l   | 87       |
| 91) 1,2-Dichlorobenzene        | 13.00 | 146  | 730881   | 84.311   | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.69 | 75   | 69384    | 91.093   | ug/l   | 86       |
| 93) 1,2,4-Trichlorobenzene     | 14.24 | 180  | 557573   | 85.640   | ug/l   | 97       |

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Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 94) Hexachlorobutadiene    | 14.23 | 225  | 386348   | 91.054 | ug/l  | 99       |
| 95) Naphthalene            | 14.50 | 128  | 1066810  | 93.787 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.64 | 180  | 549785   | 90.636 | ug/l  | 97       |

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

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