

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF072418\  
 Data File : VF059641.D  
 Acq On : 24 Jul 2018 19:49  
 Operator : VA/AP  
 Sample : VSTDICV050  
 Misc : 5.00µ/5mL/MSVOA F/SOIL  
 ALS Vial : 90 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VICVVF072418

Manual Integrations  
 APPROVED

apatel  
 7/25/2018 2:32:26 PM

Quant Time: Jul 25 02:36:27 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F072418S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jul 25 02:29:31 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.02  | 168  | 256057   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.75  | 114  | 365990   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.90  | 117  | 322152   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.62 | 152  | 203329   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 5.01   | 65  | 174299   | 48.85 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.70%  |      |
| 35) Dibromofluoromethane  | 4.28   | 113 | 158710   | 48.18 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.36%  |      |
| 50) Toluene-d8            | 7.70   | 98  | 406963   | 50.69 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 101.38% |      |
| 62) 4-Bromofluorobenzene  | 11.50  | 95  | 199892   | 48.46 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 96.92%  |      |

## Target Compounds

|                               |      |     |         |         |        | Qvalue |
|-------------------------------|------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.98 | 85  | 136475  | 45.527  | ug/l   | 94     |
| 3) Chloromethane              | 1.08 | 50  | 75864   | 51.452  | ug/l   | 99     |
| 4) Vinyl Chloride             | 1.15 | 62  | 85042   | 51.379  | ug/l   | 92     |
| 5) Bromomethane               | 1.33 | 94  | 59360   | 49.332  | ug/l   | 99     |
| 6) Chloroethane               | 1.42 | 64  | 49107   | 49.334  | ug/l   | 94     |
| 7) Trichlorofluoromethane     | 1.53 | 101 | 211235m | 47.026  | ug/l   |        |
| 8) Diethyl Ether              | 1.69 | 74  | 29341   | 46.913  | ug/l   | 89     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.89 | 101 | 116174  | 54.756  | ug/l   | 93     |
| 10) Methyl Iodide             | 1.92 | 142 | 176789  | 47.785  | ug/l   | 95     |
| 11) Tert butyl alcohol        | 2.67 | 59  | 34606   | 260.459 | ug/l   | 95     |
| 12) 1,1-Dichloroethene        | 1.84 | 96  | 88899   | 53.673  | ug/l   | 83     |
| 13) Acrolein                  | 2.08 | 56  | 18194   | 279.295 | ug/l   | 93     |
| 14) Allyl chloride            | 2.18 | 41  | 145042  | 47.763  | ug/l   | 94     |
| 15) Acrylonitrile             | 3.06 | 53  | 54376   | 237.762 | ug/l # | 83     |
| 16) Acetone                   | 2.33 | 43  | 110871  | 208.835 | ug/l   | 95     |
| 17) Carbon Disulfide          | 1.83 | 76  | 218646  | 52.812  | ug/l   | 98     |
| 18) Methyl Acetate            | 2.44 | 43  | 45829   | 53.752  | ug/l   | 99     |
| 19) Methyl tert-butyl Ether   | 2.53 | 73  | 217201  | 47.028  | ug/l   | 98     |
| 20) Methylene Chloride        | 2.26 | 84  | 78151   | 52.705  | ug/l   | 98     |
| 21) trans-1,2-Dichloroethene  | 2.40 | 96  | 91008   | 49.465  | ug/l   | 98     |
| 22) Diisopropyl ether         | 2.92 | 45  | 290665  | 49.903  | ug/l   | 97     |
| 23) Vinyl Acetate             | 3.32 | 43  | 672146  | 250.149 | ug/l # | 96     |
| 24) 1,1-Dichloroethane        | 2.98 | 63  | 197662  | 47.704  | ug/l   | 99     |
| 25) 2-Butanone                | 4.49 | 43  | 155311  | 240.540 | ug/l   | 94     |
| 26) 2,2-Dichloropropane       | 3.74 | 77  | 154089  | 51.264  | ug/l   | 96     |
| 27) cis-1,2-Dichloroethene    | 3.62 | 96  | 108679  | 48.265  | ug/l   | 97     |
| 28) Bromochloromethane        | 3.87 | 49  | 66907   | 50.880  | ug/l   | 99     |
| 29) Tetrahydrofuran           | 4.24 | 42  | 61956   | 267.147 | ug/l   | 97     |
| 30) Chloroform                | 4.02 | 83  | 273572  | 47.590  | ug/l   | 96     |
| 31) Cyclohexane               | 3.85 | 56  | 122831  | 50.927  | ug/l   | 96     |
| 32) 1,1,1-Trichloroethane     | 4.26 | 97  | 220741  | 45.058  | ug/l   | 93     |
| 36) 1,1-Dichloropropene       | 4.44 | 75  | 178219  | 47.528  | ug/l   | 97     |
| 37) Ethyl Acetate             | 4.27 | 43  | 65071   | 50.684  | ug/l # | 74     |
| 38) Carbon Tetrachloride      | 4.15 | 117 | 237435  | 45.885  | ug/l   | 93     |

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 ALS Vial : 90 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
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apatel  
 7/25/2018 2:32:26 PM

Quant Time: Jul 25 02:36:27 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F072418S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jul 25 02:29:31 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.62  | 83   | 147312   | 48.438  | ug/l   | 90       |
| 40) Benzene                    | 4.80  | 78   | 333214   | 48.039  | ug/l   | 99       |
| 41) Methacrylonitrile          | 4.91  | 41   | 31395    | 44.761  | ug/l   | 97       |
| 42) 1,2-Dichloroethane         | 5.10  | 62   | 187297   | 45.569  | ug/l   | 96       |
| 43) Isopropyl Acetate          | 7.09  | 43   | 77183    | 46.802  | ug/l # | 93       |
| 44) Trichloroethene            | 5.66  | 130  | 126497   | 49.409  | ug/l   | 98       |
| 45) 1,2-Dichloropropane        | 6.39  | 63   | 82639    | 47.056  | ug/l   | 97       |
| 46) Dibromomethane             | 6.24  | 93   | 66663    | 44.939  | ug/l   | 96       |
| 47) Bromodichloromethane       | 6.53  | 83   | 198807   | 45.837  | ug/l   | 94       |
| 48) Methyl methacrylate        | 6.86  | 41   | 54997    | 45.302  | ug/l   | 95       |
| 49) 1,4-Dioxane                | 6.85  | 88   | 8412     | 900.444 | ug/l # | 71       |
| 51) 4-Methyl-2-Pentanone       | 8.40  | 43   | 289177   | 238.580 | ug/l   | 100      |
| 52) Toluene                    | 7.77  | 92   | 231133   | 51.722  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 8.42  | 75   | 155250   | 44.920  | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene    | 7.44  | 75   | 173181   | 47.404  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 8.62  | 97   | 74977    | 48.479  | ug/l   | 94       |
| 56) Ethyl methacrylate         | 8.75  | 69   | 75266    | 45.527  | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 8.99  | 76   | 121570   | 45.913  | ug/l   | 100      |
| 58) 2-Chloroethyl Vinyl ether  | 7.77  | 63   | 46340    | 218.374 | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.62  | 43   | 227341   | 245.611 | ug/l   | 94       |
| 60) Dibromochloromethane       | 8.85  | 129  | 132487   | 46.332  | ug/l   | 93       |
| 61) 1,2-Dibromoethane          | 9.13  | 107  | 84286    | 44.631  | ug/l   | 95       |
| 64) Tetrachloroethene          | 8.30  | 164  | 131578   | 51.544  | ug/l   | 94       |
| 65) Chlorobenzene              | 9.92  | 112  | 287427   | 48.158  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.06 | 131  | 132980   | 48.064  | ug/l   | 94       |
| 67) Ethyl Benzene              | 10.03 | 91   | 545886   | 50.897  | ug/l   | 100      |
| 68) m/p-Xylenes                | 10.26 | 106  | 374370   | 97.693  | ug/l   | 99       |
| 69) o-Xylene                   | 10.82 | 106  | 207123   | 50.774  | ug/l   | 94       |
| 70) Styrene                    | 10.89 | 104  | 292624   | 49.672  | ug/l   | 99       |
| 71) Bromoform                  | 10.88 | 173  | 78098    | 50.141  | ug/l # | 91       |
| 73) Isopropylbenzene           | 11.22 | 105  | 672890   | 52.656  | ug/l   | 98       |
| 74) N-amyl acetate             | 11.45 | 43   | 152340   | 55.597  | ug/l   | 93       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.78 | 83   | 95416    | 49.305  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 11.88 | 75   | 79801    | 49.924  | ug/l   | 87       |
| 77) Bromobenzene               | 11.59 | 156  | 156179   | 49.958  | ug/l   | 93       |
| 78) n-propylbenzene            | 11.68 | 91   | 747866   | 49.165  | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 11.81 | 91   | 445616   | 48.675  | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene     | 11.91 | 105  | 557755   | 49.128  | ug/l   | 96       |
| 81) trans-1,4-Dichloro-2-buten | 11.94 | 75   | 50855    | 51.687  | ug/l # | 79       |
| 82) 4-Chlorotoluene            | 11.98 | 91   | 474568   | 48.578  | ug/l   | 97       |
| 83) tert-Butylbenzene          | 12.21 | 119  | 568239   | 49.645  | ug/l   | 96       |
| 84) 1,2,4-Trimethylbenzene     | 12.28 | 105  | 576787   | 49.499  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 12.38 | 105  | 735848   | 48.220  | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 12.54 | 119  | 647274   | 48.723  | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 12.55 | 146  | 295750   | 54.537  | ug/l   | 95       |
| 88) 1,4-Dichlorobenzene        | 12.63 | 146  | 290328   | 47.901  | ug/l   | 97       |
| 89) n-Butylbenzene             | 12.91 | 91   | 622723   | 54.554  | ug/l   | 98       |
| 90) Hexachloroethane           | 12.99 | 117  | 160160   | 49.421  | ug/l # | 1        |
| 91) 1,2-Dichlorobenzene        | 13.01 | 146  | 283304   | 48.496  | ug/l   | 96       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.71 | 75   | 25042    | 50.182  | ug/l   | 98       |

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ALS Vial : 90 Sample Multiplier: 1

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apatel  
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Quant Title : SW846 8260  
QLast Update : Wed Jul 25 02:29:31 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.26 | 180  | 226284   | 54.920 | ug/l  | 100      |
| 94) Hexachlorobutadiene    | 14.25 | 225  | 167938   | 49.762 | ug/l  | 93       |
| 95) Naphthalene            | 14.52 | 128  | 377681   | 52.176 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.67 | 180  | 213573   | 51.747 | ug/l  | 99       |

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

