

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF070218\  
 Data File : VF059383.D  
 Acq On : 2 Jul 2018 13:05  
 Operator : VA/AP  
 Sample : VSTDCCC050  
 Misc : 5.00g/5mL/MSVOA-F/SOIL  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VSTDCCC050

Manual Integrations  
 APPROVED

apatel  
 7/3/2018 10:34:26 AM

Quant Time: Jul 03 01:17:09 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F062518S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jun 26 08:45:17 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.03  | 168  | 272188   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.75  | 114  | 413604   | 50.00 | ug/l  | -0.01    |
| 63) Chlorobenzene-d5       | 9.90  | 117  | 423978   | 50.00 | ug/l  | -0.01    |
| 72) 1,4-Dichlorobenzene-d4 | 12.62 | 152  | 257416   | 50.00 | ug/l  | -0.01    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|--------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 5.00  | 65   | 168589   | 47.94  | ug/l   | -0.01    |
| Spiked Amount               |       |      |          | 50.000 |        |          |
|                             |       |      | Recovery | =      | 95.88% |          |
| 35) Dibromofluoromethane    | 4.28  | 113  | 142670   | 47.21  | ug/l   | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |        |          |
|                             |       |      | Recovery | =      | 94.42% |          |
| 50) Toluene-d8              | 7.69  | 98   | 349581   | 46.72  | ug/l   | -0.01    |
| Spiked Amount               |       |      |          | 50.000 |        |          |
|                             |       |      | Recovery | =      | 93.44% |          |
| 62) 4-Bromofluorobenzene    | 11.49 | 95   | 194348   | 46.05  | ug/l   | -0.01    |
| Spiked Amount               |       |      |          | 50.000 |        |          |
|                             |       |      | Recovery | =      | 92.10% |          |

| Target Compounds              | R.T. | QIon | Response | Conc   | Units | Qvalue |
|-------------------------------|------|------|----------|--------|-------|--------|
| 2) Dichlorodifluoromethane    | 0.98 | 85   | 110879   | 44.59  | ug/l  | 99     |
| 3) Chloromethane              | 1.08 | 50   | 67534    | 40.42  | ug/l  | 99     |
| 4) Vinyl Chloride             | 1.14 | 62   | 74899    | 45.55  | ug/l  | 98     |
| 5) Bromomethane               | 1.34 | 94   | 46282    | 50.27  | ug/l  | 99     |
| 6) Chloroethane               | 1.42 | 64   | 35596    | 42.98  | ug/l  | 94     |
| 7) Trichlorofluoromethane     | 1.48 | 101  | 171239m  | 52.66  | ug/l  |        |
| 8) Diethyl Ether              | 1.69 | 74   | 38974    | 46.74  | ug/l  | 92     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.89 | 101  | 82404    | 43.41  | ug/l  | 100    |
| 10) Methyl Iodide             | 1.96 | 142  | 151250   | 43.70  | ug/l  | 98     |
| 11) Tert butyl alcohol        | 2.67 | 59   | 60286    | 257.51 | ug/l  | 95     |
| 12) 1,1-Dichloroethene        | 1.85 | 96   | 77632    | 48.38  | ug/l  | 82     |
| 13) Acrolein                  | 2.08 | 56   | 34720    | 316.14 | ug/l  | 96     |
| 14) Allyl chloride            | 2.18 | 41   | 151916   | 50.43  | ug/l  | 93     |
| 15) Acrylonitrile             | 3.06 | 53   | 113070   | 274.26 | ug/l  | 97     |
| 16) Acetone                   | 2.32 | 43   | 270041   | 309.91 | ug/l  | 98     |
| 17) Carbon Disulfide          | 1.87 | 76   | 164902m  | 43.69  | ug/l  |        |
| 18) Methyl Acetate            | 2.44 | 43   | 96315    | 60.94  | ug/l  | 99     |
| 19) Methyl tert-butyl Ether   | 2.52 | 73   | 302481   | 50.53  | ug/l  | 93     |
| 20) Methylene Chloride        | 2.30 | 84   | 94425m   | 47.51  | ug/l  |        |
| 21) trans-1,2-Dichloroethene  | 2.40 | 96   | 79192    | 46.26  | ug/l  | 93     |
| 22) Diisopropyl ether         | 2.92 | 45   | 337060   | 50.53  | ug/l  | 97     |
| 23) Vinyl Acetate             | 3.31 | 43   | 1087589  | 256.01 | ug/l  | 98     |
| 24) 1,1-Dichloroethane        | 2.99 | 63   | 201185   | 48.64  | ug/l  | 100    |
| 25) 2-Butanone                | 4.49 | 43   | 303064   | 285.27 | ug/l  | 97     |
| 26) 2,2-Dichloropropane       | 3.74 | 77   | 143168   | 50.19  | ug/l  | 99     |
| 27) cis-1,2-Dichloroethene    | 3.62 | 96   | 123259   | 47.43  | ug/l  | 91     |
| 28) Bromochloromethane        | 3.86 | 49   | 81648    | 51.54  | ug/l  | 94     |
| 29) Tetrahydrofuran           | 4.23 | 42   | 125492   | 278.46 | ug/l  | 98     |
| 30) Chloroform                | 4.01 | 83   | 287667   | 48.05  | ug/l  | 97     |
| 31) Cyclohexane               | 3.84 | 56   | 122388   | 45.17  | ug/l  | 95     |
| 32) 1,1,1-Trichloroethane     | 4.26 | 97   | 206245   | 47.07  | ug/l  | 97     |
| 36) 1,1-Dichloropropene       | 4.43 | 75   | 178671   | 49.45  | ug/l  | 97     |
| 37) Ethyl Acetate             | 4.27 | 43   | 133933   | 58.19  | ug/l  | 91     |
| 38) Carbon Tetrachloride      | 4.15 | 117  | 246554   | 54.07  | ug/l  | 98     |

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 ALS Vial : 2 Sample Multiplier: 1

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Quant Time: Jul 03 01:17:09 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F062518S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jun 26 08:45:17 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.60  | 83   | 150215   | 46.92   | ug/l   | 95       |
| 40) Benzene                    | 4.79  | 78   | 372188   | 46.46   | ug/l   | 98       |
| 41) Methacrylonitrile          | 4.91  | 41   | 61730    | 50.09   | ug/l   | 98       |
| 42) 1,2-Dichloroethane         | 5.09  | 62   | 236605   | 50.54   | ug/l   | 99       |
| 43) Isopropyl Acetate          | 7.09  | 43   | 158840   | 52.78   | ug/l # | 96       |
| 44) Trichloroethene            | 5.65  | 130  | 128777   | 46.86   | ug/l   | 99       |
| 45) 1,2-Dichloropropane        | 6.39  | 63   | 114607   | 50.07   | ug/l   | 99       |
| 46) Dibromomethane             | 6.23  | 93   | 102203   | 51.45   | ug/l   | 95       |
| 47) Bromodichloromethane       | 6.52  | 83   | 249111   | 51.80   | ug/l   | 96       |
| 48) Methyl methacrylate        | 6.85  | 41   | 109058   | 54.07   | ug/l   | 93       |
| 49) 1,4-Dioxane                | 6.84  | 88   | 12993    | 1216.47 | ug/l   | 94       |
| 51) 4-Methyl-2-Pentanone       | 8.39  | 43   | 598979   | 268.64  | ug/l   | 100      |
| 52) Toluene                    | 7.76  | 92   | 278309   | 46.43   | ug/l   | 97       |
| 53) t-1,3-Dichloropropene      | 8.41  | 75   | 227581   | 51.92   | ug/l   | 97       |
| 54) cis-1,3-Dichloropropene    | 7.43  | 75   | 239573   | 50.32   | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 8.61  | 97   | 121541   | 52.22   | ug/l   | 95       |
| 56) Ethyl methacrylate         | 8.74  | 69   | 148799   | 51.61   | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 8.98  | 76   | 205852   | 51.57   | ug/l   | 98       |
| 58) 2-Chloroethyl Vinyl ether  | 7.76  | 63   | 52951    | 244.87  | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.61  | 43   | 479827   | 289.10  | ug/l   | 99       |
| 60) Dibromochloromethane       | 8.84  | 129  | 190782   | 53.09   | ug/l   | 94       |
| 61) 1,2-Dibromoethane          | 9.12  | 107  | 142567   | 50.51   | ug/l   | 98       |
| 64) Tetrachloroethene          | 8.29  | 164  | 127936   | 46.53   | ug/l   | 96       |
| 65) Chlorobenzene              | 9.92  | 112  | 371786   | 47.32   | ug/l   | 99       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.05 | 131  | 166730   | 49.07   | ug/l   | 98       |
| 67) Ethyl Benzene              | 10.02 | 91   | 633789   | 47.55   | ug/l   | 98       |
| 68) m/p-Xylenes                | 10.25 | 106  | 444775   | 93.76   | ug/l   | 97       |
| 69) o-Xylene                   | 10.81 | 106  | 257087   | 48.45   | ug/l   | 99       |
| 70) Styrene                    | 10.89 | 104  | 386801   | 47.86   | ug/l   | 98       |
| 71) Bromoform                  | 10.87 | 173  | 124297   | 53.37   | ug/l # | 97       |
| 73) Isopropylbenzene           | 11.22 | 105  | 726975   | 48.48   | ug/l   | 96       |
| 74) N-amyl acetate             | 11.45 | 43   | 280609   | 51.56   | ug/l   | 100      |
| 75) 1,1,2,2-Tetrachloroethane  | 11.77 | 83   | 194038   | 51.23   | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane     | 11.88 | 75   | 144335   | 50.52   | ug/l   | 99       |
| 77) Bromobenzene               | 11.58 | 156  | 203250   | 48.85   | ug/l   | 89       |
| 78) n-propylbenzene            | 11.67 | 91   | 821085   | 45.59   | ug/l   | 95       |
| 79) 2-Chlorotoluene            | 11.80 | 91   | 521049   | 47.35   | ug/l   | 97       |
| 80) 1,3,5-Trimethylbenzene     | 11.90 | 105  | 640166   | 48.73   | ug/l   | 96       |
| 81) trans-1,4-Dichloro-2-buten | 11.95 | 75   | 87828    | 51.65   | ug/l   | 97       |
| 82) 4-Chlorotoluene            | 11.97 | 91   | 561264   | 47.62   | ug/l   | 93       |
| 83) tert-Butylbenzene          | 12.20 | 119  | 632783   | 48.16   | ug/l   | 96       |
| 84) 1,2,4-Trimethylbenzene     | 12.27 | 105  | 657525   | 47.53   | ug/l   | 98       |
| 85) sec-Butylbenzene           | 12.38 | 105  | 834201   | 47.90   | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 12.53 | 119  | 695182   | 47.57   | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 12.55 | 146  | 339006   | 49.29   | ug/l   | 96       |
| 88) 1,4-Dichlorobenzene        | 12.64 | 146  | 354964   | 47.77   | ug/l   | 98       |
| 89) n-Butylbenzene             | 12.91 | 91   | 712646   | 48.03   | ug/l   | 98       |
| 90) Hexachloroethane           | 12.98 | 117  | 181180   | 49.74   | ug/l   | 80       |
| 91) 1,2-Dichlorobenzene        | 13.01 | 146  | 351845   | 46.58   | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.70 | 75   | 44177    | 52.62   | ug/l   | 68       |

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ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
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Manual Integrations  
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apatel  
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Quant Time: Jul 03 01:17:09 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F062518S.M  
Quant Title : SW846 8260  
QLast Update : Tue Jun 26 08:45:17 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.26 | 180  | 283798   | 50.81 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 14.25 | 225  | 171703   | 55.04 | ug/l  | 97       |
| 95) Naphthalene            | 14.52 | 128  | 629941   | 53.91 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 14.67 | 180  | 273563   | 51.71 | ug/l  | 98       |

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

