

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF010219\  
 Data File : VF061249.D  
 Acq On : 2 Jan 2019 12:45  
 Operator : VA/AP  
 Sample : VF0102SBSD01  
 Misc : 5.00g/5mL/MSVOA-F/SOIL  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VF0102SBSD01

Manual Integrations  
 APPROVED

MMDadoda  
 1/3/2019 3:08:22 PM

Quant Time: Jan 02 15:08:09 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F121918S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Dec 20 00:56:59 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.86  | 168  | 202648   | 50.00 | ug/l  | -0.01    |
| 34) 1,4-Difluorobenzene    | 5.59  | 114  | 338704   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.77  | 117  | 318468   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.54 | 152  | 156503   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |       |
|---------------------------|--------|-----|----------|-------|---------|-------|
| 33) 1,2-Dichloroethane-d4 | 4.83   | 65  | 122430   | 46.97 | ug/l    | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 93.94%  |       |
| 35) Dibromofluoromethane  | 4.10   | 113 | 138762   | 51.14 | ug/l    | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.28% |       |
| 50) Toluene-d8            | 7.54   | 98  | 363699   | 47.30 | ug/l    | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.60%  |       |
| 62) 4-Bromofluorobenzene  | 11.40  | 95  | 166808   | 47.06 | ug/l    | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 94.12%  |       |

## Target Compounds

|                               |      |     |        |         |        | Qvalue |
|-------------------------------|------|-----|--------|---------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.96 | 85  | 79684  | 17.689  | ug/l   | 99     |
| 3) Chloromethane              | 1.10 | 50  | 55099  | 21.353  | ug/l   | 97     |
| 4) Vinyl Chloride             | 1.14 | 62  | 50345  | 21.032  | ug/l   | 93     |
| 5) Bromomethane               | 1.33 | 94  | 35750  | 21.532  | ug/l   | 100    |
| 6) Chloroethane               | 1.38 | 64  | 22422  | 20.329  | ug/l   | 90     |
| 7) Trichlorofluoromethane     | 1.48 | 101 | 96669  | 21.151  | ug/l   | 98     |
| 8) Diethyl Ether              | 1.63 | 74  | 14661  | 23.425  | ug/l   | 79     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.81 | 101 | 49123  | 20.729  | ug/l   | 94     |
| 10) Methyl Iodide             | 1.89 | 142 | 75871m | 20.311  | ug/l   |        |
| 11) Tert butyl alcohol        | 2.56 | 59  | 11307  | 107.503 | ug/l # | 93     |
| 12) 1,1-Dichloroethene        | 1.78 | 96  | 38493  | 21.549  | ug/l   | 87     |
| 13) Acrolein                  | 2.00 | 56  | 8603   | 113.195 | ug/l   | 87     |
| 14) Allyl chloride            | 2.09 | 41  | 59883  | 32.213  | ug/l   | 92     |
| 15) Acrylonitrile             | 2.93 | 53  | 31784  | 130.683 | ug/l   | 96     |
| 16) Acetone                   | 2.23 | 43  | 58944  | 113.126 | ug/l # | 88     |
| 17) Carbon Disulfide          | 1.82 | 76  | 107718 | 19.954  | ug/l # | 92     |
| 18) Methyl Acetate            | 2.34 | 43  | 21442  | 19.890  | ug/l   | 99     |
| 19) Methyl tert-butyl Ether   | 2.42 | 73  | 85027  | 21.444  | ug/l   | 99     |
| 20) Methylene Chloride        | 2.22 | 84  | 44333m | 24.319  | ug/l   |        |
| 21) trans-1,2-Dichloroethene  | 2.30 | 96  | 39361  | 20.601  | ug/l   | 91     |
| 22) Diisopropyl ether         | 2.80 | 45  | 144934 | 23.406  | ug/l   | 93     |
| 23) Vinyl Acetate             | 3.18 | 43  | 330709 | 115.768 | ug/l   | 99     |
| 24) 1,1-Dichloroethane        | 2.87 | 63  | 82042  | 22.361  | ug/l   | 99     |
| 25) 2-Butanone                | 4.33 | 43  | 102282 | 121.038 | ug/l   | 98     |
| 26) 2,2-Dichloropropane       | 3.60 | 77  | 52016  | 24.705  | ug/l   | 92     |
| 27) cis-1,2-Dichloroethene    | 3.47 | 96  | 60219  | 20.588  | ug/l   | 100    |
| 28) Bromochloromethane        | 3.71 | 49  | 40449  | 21.728  | ug/l   | 88     |
| 29) Tetrahydrofuran           | 4.05 | 42  | 48991  | 142.440 | ug/l   | 95     |
| 30) Chloroform                | 3.85 | 83  | 113438 | 20.620  | ug/l   | 99     |
| 31) Cyclohexane               | 3.68 | 56  | 85362  | 22.422  | ug/l   | 97     |
| 32) 1,1,1-Trichloroethane     | 4.09 | 97  | 85063  | 25.797  | ug/l   | 95     |
| 36) 1,1-Dichloropropene       | 4.27 | 75  | 82710  | 20.231  | ug/l   | 96     |
| 37) Ethyl Acetate             | 4.10 | 43  | 42091  | 24.223  | ug/l # | 82     |
| 38) Carbon Tetrachloride      | 3.98 | 117 | 76400  | 24.538  | ug/l   | 95     |

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 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VF0102SBSD01

Manual Integrations  
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MMDadoda  
 1/3/2019 3:08:22 PM

Quant Time: Jan 02 15:08:09 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F121918S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Dec 20 00:56:59 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.44  | 83   | 89587    | 24.425  | ug/l   | 95       |
| 40) Benzene                    | 4.62  | 78   | 192190   | 21.859  | ug/l   | 93       |
| 41) Methacrylonitrile          | 4.74  | 41   | 21816    | 25.267  | ug/l   | 94       |
| 42) 1,2-Dichloroethane         | 4.93  | 62   | 66389    | 19.877  | ug/l   | 98       |
| 43) Isopropyl Acetate          | 6.95  | 43   | 44844    | 22.716  | ug/l   | 95       |
| 44) Trichloroethene            | 5.49  | 130  | 61847    | 22.312  | ug/l   | 93       |
| 45) 1,2-Dichloropropane        | 6.23  | 63   | 52298    | 21.863  | ug/l   | 92       |
| 46) Dibromomethane             | 6.08  | 93   | 33038    | 21.295  | ug/l   | 97       |
| 47) Bromodichloromethane       | 6.38  | 83   | 85624    | 21.241  | ug/l   | 94       |
| 48) Methyl methacrylate        | 6.70  | 41   | 30661    | 22.248  | ug/l   | 96       |
| 49) 1,4-Dioxane                | 6.70  | 88   | 4173     | 417.317 | ug/l # | 75       |
| 51) 4-Methyl-2-Pentanone       | 8.25  | 43   | 152749   | 112.824 | ug/l   | 96       |
| 52) Toluene                    | 7.62  | 92   | 128033   | 21.999  | ug/l   | 92       |
| 53) t-1,3-Dichloropropene      | 8.27  | 75   | 68954    | 21.204  | ug/l   | 93       |
| 54) cis-1,3-Dichloropropene    | 7.29  | 75   | 91280    | 22.365  | ug/l   | 99       |
| 55) 1,1,2-Trichloroethane      | 8.48  | 97   | 37144    | 21.289  | ug/l   | 99       |
| 56) Ethyl methacrylate         | 8.62  | 69   | 44422    | 23.529  | ug/l   | 96       |
| 57) 1,3-Dichloropropane        | 8.84  | 76   | 64220    | 20.351  | ug/l   | 97       |
| 58) 2-Chloroethyl Vinyl ether  | 7.28  | 63   | 26515    | 73.127  | ug/l   | 97       |
| 59) 2-Hexanone                 | 9.48  | 43   | 125673   | 128.357 | ug/l   | 96       |
| 60) Dibromochloromethane       | 8.71  | 129  | 51916    | 20.758  | ug/l   | 93       |
| 61) 1,2-Dibromoethane          | 8.98  | 107  | 40934    | 21.968  | ug/l   | 91       |
| 64) Tetrachloroethene          | 8.14  | 164  | 52627    | 21.482  | ug/l   | 95       |
| 65) Chlorobenzene              | 9.79  | 112  | 143024   | 21.739  | ug/l   | 94       |
| 66) 1,1,1,2-Tetrachloroethane  | 9.92  | 131  | 58556    | 21.779  | ug/l   | 95       |
| 67) Ethyl Benzene              | 9.89  | 91   | 267172   | 22.290  | ug/l   | 98       |
| 68) m/p-Xylenes                | 10.13 | 106  | 188953   | 44.796  | ug/l   | 99       |
| 69) o-Xylene                   | 10.71 | 106  | 100909   | 21.570  | ug/l   | 90       |
| 70) Styrene                    | 10.78 | 104  | 148393   | 23.437  | ug/l   | 99       |
| 71) Bromoform                  | 10.77 | 173  | 29199    | 23.474  | ug/l # | 98       |
| 73) Isopropylbenzene           | 11.11 | 105  | 309242   | 22.929  | ug/l   | 96       |
| 74) N-amyl acetate             | 11.37 | 43   | 75268    | 25.137  | ug/l   | 99       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.68 | 83   | 53693    | 23.988  | ug/l   | 94       |
| 76) 1,2,3-Trichloropropane     | 11.78 | 75   | 35438    | 21.274  | ug/l   | 99       |
| 77) Bromobenzene               | 11.49 | 156  | 66262    | 22.824  | ug/l   | 86       |
| 78) n-propylbenzene            | 11.59 | 91   | 352407   | 20.133  | ug/l   | 97       |
| 79) 2-Chlorotoluene            | 11.71 | 91   | 209449   | 22.639  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene     | 11.81 | 105  | 248446   | 22.372  | ug/l   | 94       |
| 81) trans-1,4-Dichloro-2-buten | 11.86 | 75   | 17082m   | 23.864  | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.89 | 91   | 209995   | 21.941  | ug/l   | 100      |
| 83) tert-Butylbenzene          | 12.12 | 119  | 254425   | 22.264  | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene     | 12.20 | 105  | 247429   | 22.343  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 12.30 | 105  | 332929   | 22.325  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 12.45 | 119  | 291767   | 23.570  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 12.46 | 146  | 126405   | 23.868  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 12.55 | 146  | 117762   | 22.090  | ug/l   | 95       |
| 89) n-Butylbenzene             | 12.84 | 91   | 296703   | 20.987  | ug/l   | 95       |
| 90) Hexachloroethane           | 12.91 | 117  | 67428    | 22.047  | ug/l   | 90       |
| 91) 1,2-Dichlorobenzene        | 12.94 | 146  | 110057   | 21.205  | ug/l   | 95       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.64 | 75   | 8529     | 20.765  | ug/l   | 84       |

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Sample : VF0102SBSD01  
Misc : 5.00g/5mL/MSVOA-F/SOIL  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
VF0102SBSD01

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MMDadoda  
1/3/2019 3:08:22 PM

Quant Time: Jan 02 15:08:09 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F121918S.M  
Quant Title : SW846 8260  
QLast Update : Thu Dec 20 00:56:59 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|----------------------------|-------|------|----------|--------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.19 | 180  | 82778    | 22.489 | ug/l  | 96       |
| 94) Hexachlorobutadiene    | 14.18 | 225  | 52520    | 22.403 | ug/l  | 96       |
| 95) Naphthalene            | 14.45 | 128  | 147369   | 21.925 | ug/l  | 97       |
| 96) 1,2,3-Trichlorobenzene | 14.59 | 180  | 75362    | 22.147 | ug/l  | 97       |

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

