

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF072318\  
 Data File : VF059612.D  
 Acq On : 23 Jul 2018 13:51  
 Operator : VA/AP  
 Sample : VSTDIC020  
 Misc : 5.00g/5mL/MSVOA F/SOIL  
 ALS Vial : 83 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VSTDIC020

Manual Integrations  
 APPROVED

apatel  
 7/24/2018 1:13:32 PM

Quant Time: Jul 23 14:57:59 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F072318S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Jul 23 14:54:57 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.03  | 168  | 227033   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.76  | 114  | 309097   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.91  | 117  | 317004   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.63 | 152  | 201541   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |       |
|---------------------------|--------|-----|----------|-------|--------|-------|
| 33) 1,2-Dichloroethane-d4 | 5.01   | 65  | 66151    | 18.43 | ug/l   | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =     | 36.86% |       |
| 35) Dibromofluoromethane  | 4.28   | 113 | 60349    | 22.23 | ug/l   | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =     | 44.46% |       |
| 50) Toluene-d8            | 7.70   | 98  | 151320   | 22.58 | ug/l   | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 45.16% |       |
| 62) 4-Bromofluorobenzene  | 11.50  | 95  | 104398   | 28.43 | ug/l   | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 56.86% |       |

## Target Compounds

|                               |      |     |        |        |        | Qvalue |
|-------------------------------|------|-----|--------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.98 | 85  | 59325  | 20.74  | ug/l   | 99     |
| 3) Chloromethane              | 1.08 | 50  | 28168  | 20.10  | ug/l   | 95     |
| 4) Vinyl Chloride             | 1.14 | 62  | 30333  | 20.04  | ug/l # | 79     |
| 5) Bromomethane               | 1.34 | 94  | 26880  | 22.04  | ug/l   | 99     |
| 6) Chloroethane               | 1.43 | 64  | 18894  | 21.92  | ug/l # | 84     |
| 7) Trichlorofluoromethane     | 1.48 | 101 | 82711m | 22.94  | ug/l   |        |
| 8) Diethyl Ether              | 1.70 | 74  | 12632  | 19.27  | ug/l   | 82     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.89 | 101 | 42825  | 22.80  | ug/l # | 89     |
| 10) Methyl Iodide             | 1.96 | 142 | 69832m | 21.99  | ug/l   |        |
| 11) Tert butyl alcohol        | 2.69 | 59  | 14574  | 94.12  | ug/l # | 94     |
| 12) 1,1-Dichloroethene        | 1.85 | 96  | 33306  | 20.02  | ug/l   | 94     |
| 13) Acrolein                  | 2.09 | 56  | 5625   | 76.74  | ug/l   | 84     |
| 14) Allyl chloride            | 2.19 | 41  | 61847  | 24.35  | ug/l   | 89     |
| 15) Acrylonitrile             | 3.06 | 53  | 22782  | 86.52  | ug/l   | 88     |
| 16) Acetone                   | 2.33 | 43  | 62976  | 104.60 | ug/l   | 99     |
| 17) Carbon Disulfide          | 1.86 | 76  | 91608m | 23.70  | ug/l   |        |
| 18) Methyl Acetate            | 2.44 | 43  | 17421  | 14.71  | ug/l # | 92     |
| 19) Methyl tert-butyl Ether   | 2.53 | 73  | 93121  | 18.64  | ug/l   | 100    |
| 20) Methylene Chloride        | 2.27 | 84  | 35717  | 18.88  | ug/l # | 79     |
| 21) trans-1,2-Dichloroethene  | 2.40 | 96  | 33686  | 20.28  | ug/l   | 95     |
| 22) Diisopropyl ether         | 2.92 | 45  | 107393 | 18.72  | ug/l # | 97     |
| 23) Vinyl Acetate             | 3.33 | 43  | 273682 | 89.33  | ug/l   | 98     |
| 24) 1,1-Dichloroethane        | 2.99 | 63  | 80863  | 21.51  | ug/l   | 99     |
| 25) 2-Butanone                | 4.50 | 43  | 63011  | 87.86  | ug/l # | 90     |
| 26) 2,2-Dichloropropane       | 3.75 | 77  | 68314  | 24.36  | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene    | 3.62 | 96  | 39893  | 21.59  | ug/l   | 92     |
| 28) Bromochloromethane        | 3.88 | 49  | 29143  | 19.35  | ug/l   | 98     |
| 29) Tetrahydrofuran           | 4.25 | 42  | 27294  | 88.47  | ug/l   | 95     |
| 30) Chloroform                | 4.03 | 83  | 111354 | 21.02  | ug/l   | 96     |
| 31) Cyclohexane               | 3.85 | 56  | 45353  | 21.76  | ug/l # | 87     |
| 32) 1,1,1-Trichloroethane     | 4.27 | 97  | 102370 | 24.44  | ug/l   | 95     |
| 36) 1,1-Dichloropropene       | 4.45 | 75  | 70332  | 22.59  | ug/l # | 91     |
| 37) Ethyl Acetate             | 4.28 | 43  | 30341  | 20.46  | ug/l   | 98     |
| 38) Carbon Tetrachloride      | 4.17 | 117 | 106804 | 24.33  | ug/l   | 96     |

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 ALS Vial : 83 Sample Multiplier: 1

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apatel  
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 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F072318S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Jul 23 14:54:57 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Methylcyclohexane          | 5.62  | 83   | 59342    | 24.32  | ug/l   | 95       |
| 40) Benzene                    | 4.81  | 78   | 127142   | 21.82  | ug/l   | 100      |
| 41) Methacrylonitrile          | 4.92  | 41   | 12453    | 16.31  | ug/l # | 81       |
| 42) 1,2-Dichloroethane         | 5.11  | 62   | 82729    | 20.78  | ug/l   | 100      |
| 43) Isopropyl Acetate          | 7.10  | 43   | 32500    | 16.94  | ug/l # | 93       |
| 44) Trichloroethene            | 5.66  | 130  | 49316    | 22.30  | ug/l   | 96       |
| 45) 1,2-Dichloropropane        | 6.39  | 63   | 33217    | 20.51  | ug/l   | 91       |
| 46) Dibromomethane             | 6.25  | 93   | 28102    | 20.34  | ug/l   | 92       |
| 47) Bromodichloromethane       | 6.54  | 83   | 83475    | 21.09  | ug/l # | 97       |
| 48) Methyl methacrylate        | 6.87  | 41   | 23260    | 16.59  | ug/l   | 94       |
| 49) 1,4-Dioxane                | 6.88  | 88   | 2977     | 380.23 | ug/l # | 90       |
| 51) 4-Methyl-2-Pentanone       | 8.40  | 43   | 123787   | 92.86  | ug/l   | 95       |
| 52) Toluene                    | 7.77  | 92   | 98227    | 22.52  | ug/l   | 99       |
| 53) t-1,3-Dichloropropene      | 8.43  | 75   | 72392    | 21.33  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 7.45  | 75   | 68359    | 19.93  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 8.63  | 97   | 30197    | 18.75  | ug/l   | 91       |
| 56) Ethyl methacrylate         | 8.75  | 69   | 33191    | 17.74  | ug/l   | 85       |
| 57) 1,3-Dichloropropane        | 9.00  | 76   | 56613    | 20.36  | ug/l   | 97       |
| 58) 2-Chloroethyl Vinyl ether  | 7.77  | 63   | 22509    | 121.47 | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.63  | 43   | 99171    | 93.34  | ug/l   | 99       |
| 60) Dibromochloromethane       | 8.86  | 129  | 55199    | 20.00  | ug/l   | 99       |
| 61) 1,2-Dibromoethane          | 9.13  | 107  | 36761    | 19.41  | ug/l   | 92       |
| 64) Tetrachloroethene          | 8.30  | 164  | 50963    | 21.08  | ug/l   | 91       |
| 65) Chlorobenzene              | 9.93  | 112  | 123052   | 20.45  | ug/l   | 93       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.06 | 131  | 54756    | 20.04  | ug/l   | 95       |
| 67) Ethyl Benzene              | 10.03 | 91   | 228817   | 21.35  | ug/l   | 97       |
| 68) m/p-Xylenes                | 10.26 | 106  | 160211   | 43.68  | ug/l   | 93       |
| 69) o-Xylene                   | 10.82 | 106  | 83064    | 20.57  | ug/l   | 96       |
| 70) Styrene                    | 10.90 | 104  | 126410   | 21.05  | ug/l   | 97       |
| 71) Bromoform                  | 10.89 | 173  | 33710    | 18.60  | ug/l   | 95       |
| 73) Isopropylbenzene           | 11.22 | 105  | 280797   | 21.73  | ug/l   | 100      |
| 74) N-amyl acetate             | 11.46 | 43   | 56319    | 16.33  | ug/l   | 96       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.79 | 83   | 43743    | 17.81  | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 11.88 | 75   | 38701    | 18.49  | ug/l   | 93       |
| 77) Bromobenzene               | 11.59 | 156  | 68946    | 19.72  | ug/l   | 90       |
| 78) n-propylbenzene            | 11.69 | 91   | 330144   | 21.56  | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 11.81 | 91   | 192504   | 20.73  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene     | 11.90 | 105  | 249797   | 22.07  | ug/l   | 94       |
| 81) trans-1,4-Dichloro-2-buten | 11.95 | 75   | 15879m   | 14.77  | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.98 | 91   | 216746   | 20.93  | ug/l   | 98       |
| 83) tert-Butylbenzene          | 12.21 | 119  | 238685   | 21.52  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 12.29 | 105  | 242729   | 20.92  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 12.39 | 105  | 310447   | 22.13  | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 12.54 | 119  | 287424   | 23.52  | ug/l   | 97       |
| 87) 1,3-Dichlorobenzene        | 12.56 | 146  | 134995   | 21.33  | ug/l   | 96       |
| 88) 1,4-Dichlorobenzene        | 12.64 | 146  | 126911   | 20.89  | ug/l   | 100      |
| 89) n-Butylbenzene             | 12.92 | 91   | 273296   | 23.64  | ug/l   | 98       |
| 90) Hexachloroethane           | 12.99 | 117  | 66745    | 22.41  | ug/l   | 94       |
| 91) 1,2-Dichlorobenzene        | 13.02 | 146  | 125747   | 21.05  | ug/l   | 94       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.71 | 75   | 10034    | 16.62  | ug/l   | 82       |

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ALS Vial : 83 Sample Multiplier: 1

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Quant Title : SW846 8260  
QLast Update : Mon Jul 23 14:54:57 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.26 | 180  | 93871    | 22.75 | ug/l  | 96       |
| 94) Hexachlorobutadiene    | 14.25 | 225  | 66377    | 26.41 | ug/l  | 95       |
| 95) Naphthalene            | 14.52 | 128  | 143124   | 19.18 | ug/l  | 96       |
| 96) 1,2,3-Trichlorobenzene | 14.66 | 180  | 84492    | 22.66 | ug/l  | 95       |

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

