

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF090618\  
 Data File : VF060197.D  
 Acq On : 6 Sep 2018 11:45  
 Operator : VA/AP  
 Sample : VSTDIC005  
 Misc : 5.00g/5mL/MSVOA F/SOIL  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VSTDIC005

Manual Integrations  
 APPROVED

apatel  
 9/7/2018 11:53:24 AM

Quant Time: Sep 07 10:33:04 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F090618S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Sep 07 01:56:36 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.03  | 168  | 178188   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.75  | 114  | 245977   | 50.00 | ug/l  | -0.01    |
| 63) Chlorobenzene-d5       | 9.90  | 117  | 258809   | 50.00 | ug/l  | -0.01    |
| 72) 1,4-Dichlorobenzene-d4 | 12.62 | 152  | 168072   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |      |        |       |
|---------------------------|--------|-----|----------|------|--------|-------|
| 33) 1,2-Dichloroethane-d4 | 5.01   | 65  | 14886    | 4.81 | ug/l   | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =    | 9.62%  |       |
| 35) Dibromofluoromethane  | 4.28   | 113 | 12367    | 5.15 | ug/l   | -0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 10.30% |       |
| 50) Toluene-d8            | 7.70   | 98  | 30127    | 5.04 | ug/l   | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =    | 10.08% |       |
| 62) 4-Bromofluorobenzene  | 11.50  | 95  | 18813    | 5.56 | ug/l   | 0.00  |
| Spiked Amount             | 50.000 |     | Recovery | =    | 11.12% |       |

## Target Compounds

|                               |      |     |        |       |        | Qvalue |
|-------------------------------|------|-----|--------|-------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.96 | 85  | 18396m | 5.64  | ug/l   |        |
| 3) Chloromethane              | 1.08 | 50  | 10667  | 5.95  | ug/l # | 84     |
| 4) Vinyl Chloride             | 1.13 | 62  | 6440   | 4.73  | ug/l   | 92     |
| 5) Bromomethane               | 1.32 | 94  | 7615   | 6.20  | ug/l   | 85     |
| 6) Chloroethane               | 1.40 | 64  | 4314   | 4.86  | ug/l   | 95     |
| 7) Trichlorofluoromethane     | 1.48 | 101 | 19193  | 5.00  | ug/l   | 88     |
| 8) Diethyl Ether              | 1.70 | 74  | 2987   | 5.23  | ug/l   | 98     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.86 | 101 | 9244   | 4.90  | ug/l   | 97     |
| 10) Methyl Iodide             | 1.93 | 142 | 9343   | 5.66  | ug/l # | 97     |
| 11) Tert butyl alcohol        | 2.69 | 59  | 4632   | 33.71 | ug/l # | 84     |
| 12) 1,1-Dichloroethene        | 1.83 | 96  | 6910   | 5.44  | ug/l   | 97     |
| 13) Acrolein                  | 2.10 | 56  | 2470   | 33.89 | ug/l # | 73     |
| 14) Allyl chloride            | 2.18 | 41  | 10016  | 5.25  | ug/l # | 97     |
| 15) Acrylonitrile             | 3.08 | 53  | 7307   | 31.21 | ug/l # | 77     |
| 16) Acetone                   | 2.33 | 43  | 21283  | 31.60 | ug/l   | 95     |
| 17) Carbon Disulfide          | 1.84 | 76  | 16366  | 4.41  | ug/l # | 79     |
| 18) Methyl Acetate            | 2.46 | 43  | 6026m  | 5.53  | ug/l   |        |
| 19) Methyl tert-butyl Ether   | 2.53 | 73  | 21692  | 5.17  | ug/l   | 92     |
| 20) Methylene Chloride        | 2.27 | 84  | 14768  | 7.27  | ug/l   | 97     |
| 21) trans-1,2-Dichloroethene  | 2.41 | 96  | 6041   | 4.67  | ug/l # | 91     |
| 22) Diisopropyl ether         | 2.93 | 45  | 25004  | 5.22  | ug/l # | 96     |
| 23) Vinyl Acetate             | 3.33 | 43  | 26825  | 16.01 | ug/l   | 97     |
| 24) 1,1-Dichloroethane        | 3.00 | 63  | 15497  | 4.98  | ug/l # | 95     |
| 25) 2-Butanone                | 4.50 | 43  | 24183  | 28.20 | ug/l # | 82     |
| 26) 2,2-Dichloropropane       | 3.74 | 77  | 14865  | 3.94  | ug/l   | 84     |
| 27) cis-1,2-Dichloroethene    | 3.63 | 96  | 7966   | 4.75  | ug/l   | 80     |
| 28) Bromochloromethane        | 3.88 | 49  | 5451   | 5.19  | ug/l   | 85     |
| 29) Tetrahydrofuran           | 4.24 | 42  | 8238   | 28.85 | ug/l   | 97     |
| 30) Chloroform                | 4.03 | 83  | 22435  | 4.88  | ug/l   | 98     |
| 31) Cyclohexane               | 3.85 | 56  | 9898   | 4.71  | ug/l   | 96     |
| 32) 1,1,1-Trichloroethane     | 4.26 | 97  | 21988  | 4.82  | ug/l   | 94     |
| 36) 1,1-Dichloropropene       | 4.44 | 75  | 14243  | 4.99  | ug/l   | 94     |
| 37) Ethyl Acetate             | 4.28 | 43  | 10467  | 6.66  | ug/l # | 69     |
| 38) Carbon Tetrachloride      | 4.17 | 117 | 19292  | 4.83  | ug/l   | 93     |

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 Acq On : 6 Sep 2018 11:45  
 Operator : VA/AP  
 Sample : VSTDIC005  
 Misc : 5.00g/5mL/MSVOA F/SOIL  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleID :  
 VSTDIC005

Manual Integrations  
 APPROVED

apatel  
 9/7/2018 11:53:24 AM

Quant Time: Sep 07 10:33:04 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F090618S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Sep 07 01:56:36 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-------|--------|----------|
| 39) Methylcyclohexane          | 5.61  | 83   | 12430    | 5.15  | ug/l   | 98       |
| 40) Benzene                    | 4.80  | 78   | 26203    | 5.16  | ug/l # | 84       |
| 41) Methacrylonitrile          | 4.91  | 41   | 3932     | 5.28  | ug/l   | 94       |
| 42) 1,2-Dichloroethane         | 5.10  | 62   | 18319    | 4.91  | ug/l   | 96       |
| 43) Isopropyl Acetate          | 7.10  | 43   | 8745     | 5.19  | ug/l # | 100      |
| 44) Trichloroethene            | 5.66  | 130  | 11689    | 5.59  | ug/l   | 87       |
| 45) 1,2-Dichloropropane        | 6.40  | 63   | 7373     | 5.08  | ug/l # | 83       |
| 46) Dibromomethane             | 6.25  | 93   | 5681     | 4.38  | ug/l   | 92       |
| 47) Bromodichloromethane       | 6.54  | 83   | 16301    | 4.65  | ug/l # | 84       |
| 48) Methyl methacrylate        | 6.87  | 41   | 6665     | 5.00  | ug/l   | 96       |
| 49) 1,4-Dioxane                | 6.91  | 88   | 678m     | 22.53 | ug/l   |          |
| 51) 4-Methyl-2-Pentanone       | 8.39  | 43   | 42930    | 28.70 | ug/l   | 100      |
| 52) Toluene                    | 7.77  | 92   | 22192    | 5.63  | ug/l   | 93       |
| 53) t-1,3-Dichloropropene      | 8.41  | 75   | 12577    | 4.30  | ug/l   | 98       |
| 54) cis-1,3-Dichloropropene    | 7.45  | 75   | 13581    | 4.52  | ug/l   | 84       |
| 55) 1,1,2-Trichloroethane      | 8.63  | 97   | 8317     | 5.62  | ug/l   | 91       |
| 56) Ethyl methacrylate         | 8.76  | 69   | 7911     | 4.75  | ug/l   | 90       |
| 57) 1,3-Dichloropropane        | 8.99  | 76   | 12443    | 4.77  | ug/l # | 86       |
| 58) 2-Chloroethyl Vinyl ether  | 7.77  | 63   | 4533     | 25.51 | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.63  | 43   | 38141    | 33.86 | ug/l   | 98       |
| 60) Dibromochloromethane       | 8.86  | 129  | 10944    | 4.49  | ug/l   | 86       |
| 61) 1,2-Dibromoethane          | 9.12  | 107  | 7967     | 4.51  | ug/l   | 84       |
| 64) Tetrachloroethene          | 8.30  | 164  | 18212    | 6.05  | ug/l # | 81       |
| 65) Chlorobenzene              | 9.93  | 112  | 28726    | 5.39  | ug/l   | 95       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.06 | 131  | 11927    | 5.07  | ug/l   | 82       |
| 67) Ethyl Benzene              | 10.03 | 91   | 51830    | 5.24  | ug/l   | 94       |
| 68) m/p-Xylenes                | 10.26 | 106  | 35660    | 10.76 | ug/l   | 94       |
| 69) o-Xylene                   | 10.82 | 106  | 17496    | 4.92  | ug/l   | 71       |
| 70) Styrene                    | 10.90 | 104  | 26491    | 4.92  | ug/l   | 93       |
| 71) Bromoform                  | 10.88 | 173  | 5699     | 4.15  | ug/l # | 94       |
| 73) Isopropylbenzene           | 11.22 | 105  | 57340    | 4.95  | ug/l   | 97       |
| 74) N-amyl acetate             | 11.46 | 43   | 8095     | 4.20  | ug/l # | 87       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.78 | 83   | 8259     | 4.74  | ug/l   | 96       |
| 76) 1,2,3-Trichloropropane     | 11.88 | 75   | 9605     | 5.22  | ug/l   | 80       |
| 77) Bromobenzene               | 11.59 | 156  | 15177    | 5.02  | ug/l   | 96       |
| 78) n-propylbenzene            | 11.68 | 91   | 72199    | 5.22  | ug/l   | 97       |
| 79) 2-Chlorotoluene            | 11.81 | 91   | 44410    | 5.31  | ug/l   | 98       |
| 80) 1,3,5-Trimethylbenzene     | 11.90 | 105  | 51246    | 5.02  | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 11.95 | 75   | 1203     | 2.02  | ug/l # | 70       |
| 82) 4-Chlorotoluene            | 11.98 | 91   | 48362    | 5.21  | ug/l   | 98       |
| 83) tert-Butylbenzene          | 12.21 | 119  | 44984    | 4.86  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 12.28 | 105  | 51719    | 4.97  | ug/l   | 92       |
| 85) sec-Butylbenzene           | 12.39 | 105  | 66200    | 5.21  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 12.53 | 119  | 58038    | 5.11  | ug/l   | 97       |
| 87) 1,3-Dichlorobenzene        | 12.55 | 146  | 31516    | 5.72  | ug/l   | 99       |
| 88) 1,4-Dichlorobenzene        | 12.64 | 146  | 28983    | 5.33  | ug/l   | 97       |
| 89) n-Butylbenzene             | 12.91 | 91   | 52372    | 4.78  | ug/l   | 98       |
| 90) Hexachloroethane           | 12.99 | 117  | 11084    | 4.80  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene        | 13.02 | 146  | 26794    | 5.10  | ug/l   | 95       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.71 | 75   | 1743     | 3.93  | ug/l   | 90       |

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Acq On : 6 Sep 2018 11:45  
Operator : VA/AP  
Sample : VSTDICC005  
Misc : 5.00g/5mL/MSVOA F/SOIL  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
VSTDICC005

Manual Integrations  
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apatel  
9/7/2018 11:53:24 AM

Quant Time: Sep 07 10:33:04 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F090618S.M  
Quant Title : SW846 8260  
QLast Update : Fri Sep 07 01:56:36 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units  | Dev(Min) |
|----------------------------|-------|------|----------|------|--------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.26 | 180  | 19576    | 4.83 | ug/l   | 98       |
| 94) Hexachlorobutadiene    | 14.25 | 225  | 14278    | 4.92 | ug/l   | 99       |
| 95) Naphthalene            | 14.52 | 128  | 28571    | 5.04 | ug/l # | 96       |
| 96) 1,2,3-Trichlorobenzene | 14.66 | 180  | 17617    | 4.64 | ug/l   | 98       |

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

