

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF070718\  
 Data File : VF059472.D  
 Acq On : 7 Jul 2018 3:00  
 Operator : VA/AP  
 Sample : VSTDIC020  
 Misc : 5.03g/5mL/MSVOA-F/SOIL  
 ALS Vial : 28 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VSTDIC020

Manual Integrations  
 APPROVED

apatel  
 7/9/2018 9:34:19 AM

Quant Time: Jul 07 06:24:07 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F070718S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Jul 07 05:43:52 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.00  | 168  | 220301   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.73  | 114  | 323070   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.88  | 117  | 342843   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.61 | 152  | 232351   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 4.98   | 65  | 80448    | 26.35 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 52.70% |      |
| 35) Dibromofluoromethane  | 4.26   | 113 | 65593    | 26.33 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 52.66% |      |
| 50) Toluene-d8            | 7.68   | 98  | 157231   | 25.67 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 51.34% |      |
| 62) 4-Bromofluorobenzene  | 11.49  | 95  | 90997    | 26.29 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 52.58% |      |

## Target Compounds

|                               |      |     |        |        |        | Qvalue |
|-------------------------------|------|-----|--------|--------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.97 | 85  | 63131  | 28.46  | ug/l   | 99     |
| 3) Chloromethane              | 1.08 | 50  | 30490  | 21.90  | ug/l   | 94     |
| 4) Vinyl Chloride             | 1.14 | 62  | 32968  | 24.02  | ug/l   | 94     |
| 5) Bromomethane               | 1.33 | 94  | 29430  | 31.37  | ug/l   | 89     |
| 6) Chloroethane               | 1.42 | 64  | 18275  | 26.26  | ug/l   | 96     |
| 7) Trichlorofluoromethane     | 1.48 | 101 | 70524m | 25.00  | ug/l   |        |
| 8) Diethyl Ether              | 1.69 | 74  | 13589  | 19.65  | ug/l   | 71     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.88 | 101 | 40338  | 25.06  | ug/l   | 97     |
| 10) Methyl Iodide             | 1.94 | 142 | 73350  | 25.17  | ug/l   | 93     |
| 11) Tert butyl alcohol        | 2.67 | 59  | 15887  | 83.81  | ug/l # | 84     |
| 12) 1,1-Dichloroethene        | 1.84 | 96  | 33167  | 24.26  | ug/l   | 96     |
| 13) Acrolein                  | 2.08 | 56  | 13770  | 122.33 | ug/l   | 96     |
| 14) Allyl chloride            | 2.17 | 41  | 60232  | 24.18  | ug/l   | 92     |
| 15) Acrylonitrile             | 3.05 | 53  | 29470  | 88.96  | ug/l   | 98     |
| 16) Acetone                   | 2.32 | 43  | 56079  | 74.68  | ug/l # | 90     |
| 17) Carbon Disulfide          | 1.86 | 76  | 90568  | 27.79  | ug/l   | 97     |
| 18) Methyl Acetate            | 2.43 | 43  | 27516  | 18.52  | ug/l   | 94     |
| 19) Methyl tert-butyl Ether   | 2.52 | 73  | 114955 | 23.15  | ug/l   | 95     |
| 20) Methylene Chloride        | 2.29 | 84  | 36655m | 16.97  | ug/l   |        |
| 21) trans-1,2-Dichloroethene  | 2.39 | 96  | 37165  | 25.61  | ug/l   | 90     |
| 22) Diisopropyl ether         | 2.90 | 45  | 127646 | 23.37  | ug/l   | 100    |
| 23) Vinyl Acetate             | 3.31 | 43  | 368918 | 106.94 | ug/l   | 97     |
| 24) 1,1-Dichloroethane        | 2.97 | 63  | 88019  | 25.45  | ug/l   | 99     |
| 25) 2-Butanone                | 4.47 | 43  | 78234  | 86.46  | ug/l   | 99     |
| 26) 2,2-Dichloropropane       | 3.73 | 77  | 50483  | 21.80  | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene    | 3.60 | 96  | 45345  | 21.31  | ug/l   | 96     |
| 28) Bromochloromethane        | 3.85 | 49  | 35780  | 23.87  | ug/l   | 87     |
| 29) Tetrahydrofuran           | 4.23 | 42  | 38493  | 96.45  | ug/l   | 96     |
| 30) Chloroform                | 4.00 | 83  | 121702 | 24.32  | ug/l   | 88     |
| 31) Cyclohexane               | 3.83 | 56  | 50715  | 22.69  | ug/l   | 93     |
| 32) 1,1,1-Trichloroethane     | 4.24 | 97  | 96928  | 26.30  | ug/l   | 92     |
| 36) 1,1-Dichloropropene       | 4.42 | 75  | 72862  | 24.71  | ug/l   | 93     |
| 37) Ethyl Acetate             | 4.26 | 43  | 43503  | 21.79  | ug/l # | 74     |
| 38) Carbon Tetrachloride      | 4.13 | 117 | 103634 | 27.30  | ug/l   | 96     |

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 Quant Title : SW846 8260  
 QLast Update : Sat Jul 07 05:43:52 2018  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|--------|--------|----------|
| 39) Methylcyclohexane          | 5.59  | 83   | 58643    | 22.42  | ug/l   | 96       |
| 40) Benzene                    | 4.78  | 78   | 135583   | 21.37  | ug/l   | 100      |
| 41) Methacrylonitrile          | 4.89  | 41   | 17115    | 17.75  | ug/l # | 79       |
| 42) 1,2-Dichloroethane         | 5.08  | 62   | 104905   | 27.16  | ug/l   | 99       |
| 43) Isopropyl Acetate          | 7.07  | 43   | 47144    | 20.13  | ug/l # | 94       |
| 44) Trichloroethene            | 5.64  | 130  | 54690    | 24.58  | ug/l   | 94       |
| 45) 1,2-Dichloropropane        | 6.36  | 63   | 40417    | 22.37  | ug/l   | 91       |
| 46) Dibromomethane             | 6.22  | 93   | 35616    | 22.37  | ug/l   | 91       |
| 47) Bromodichloromethane       | 6.51  | 83   | 96501    | 24.90  | ug/l   | 96       |
| 48) Methyl methacrylate        | 6.84  | 41   | 31001    | 19.44  | ug/l   | 91       |
| 49) 1,4-Dioxane                | 6.84  | 88   | 3119     | 324.57 | ug/l   | 94       |
| 51) 4-Methyl-2-Pentanone       | 8.38  | 43   | 174609   | 100.02 | ug/l   | 99       |
| 52) Toluene                    | 7.74  | 92   | 104845   | 21.93  | ug/l   | 98       |
| 53) t-1,3-Dichloropropene      | 8.40  | 75   | 81224    | 23.15  | ug/l   | 100      |
| 54) cis-1,3-Dichloropropene    | 7.42  | 75   | 82789    | 22.03  | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 8.60  | 97   | 39551    | 21.44  | ug/l   | 94       |
| 56) Ethyl methacrylate         | 8.73  | 69   | 44599    | 19.86  | ug/l   | 94       |
| 57) 1,3-Dichloropropane        | 8.97  | 76   | 69330    | 21.90  | ug/l   | 96       |
| 58) 2-Chloroethyl Vinyl ether  | 7.74  | 63   | 22964    | 129.62 | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.60  | 43   | 137081   | 95.22  | ug/l   | 96       |
| 60) Dibromochloromethane       | 8.83  | 129  | 67121    | 23.33  | ug/l   | 95       |
| 61) 1,2-Dibromoethane          | 9.10  | 107  | 48769    | 21.73  | ug/l   | 97       |
| 64) Tetrachloroethene          | 8.27  | 164  | 61799    | 26.27  | ug/l   | 96       |
| 65) Chlorobenzene              | 9.91  | 112  | 138878   | 21.39  | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.04 | 131  | 63824    | 22.56  | ug/l   | 99       |
| 67) Ethyl Benzene              | 10.00 | 91   | 251525   | 22.74  | ug/l   | 100      |
| 68) m/p-Xylenes                | 10.24 | 106  | 177827   | 45.51  | ug/l   | 99       |
| 69) o-Xylene                   | 10.80 | 106  | 94110    | 21.58  | ug/l   | 96       |
| 70) Styrene                    | 10.88 | 104  | 149922   | 22.54  | ug/l   | 95       |
| 71) Bromoform                  | 10.86 | 173  | 44087    | 22.84  | ug/l # | 98       |
| 73) Isopropylbenzene           | 11.20 | 105  | 293105   | 21.19  | ug/l   | 100      |
| 74) N-amyl acetate             | 11.44 | 43   | 91376    | 18.70  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.77 | 83   | 66562    | 19.54  | ug/l   | 93       |
| 76) 1,2,3-Trichloropropane     | 11.86 | 75   | 51390    | 19.66  | ug/l   | 93       |
| 77) Bromobenzene               | 11.57 | 156  | 79046    | 20.77  | ug/l   | 100      |
| 78) n-propylbenzene            | 11.67 | 91   | 364860   | 21.98  | ug/l   | 98       |
| 79) 2-Chlorotoluene            | 11.79 | 91   | 218573   | 21.47  | ug/l   | 99       |
| 80) 1,3,5-Trimethylbenzene     | 11.89 | 105  | 264253   | 21.67  | ug/l   | 97       |
| 81) trans-1,4-Dichloro-2-buten | 11.93 | 75   | 28199    | 18.61  | ug/l   | 92       |
| 82) 4-Chlorotoluene            | 11.96 | 91   | 231757   | 21.47  | ug/l   | 99       |
| 83) tert-Butylbenzene          | 12.19 | 119  | 263323   | 21.83  | ug/l   | 99       |
| 84) 1,2,4-Trimethylbenzene     | 12.27 | 105  | 281372   | 22.10  | ug/l   | 99       |
| 85) sec-Butylbenzene           | 12.37 | 105  | 345799   | 21.49  | ug/l   | 99       |
| 86) p-Isopropyltoluene         | 12.52 | 119  | 313417   | 23.15  | ug/l   | 98       |
| 87) 1,3-Dichlorobenzene        | 12.54 | 146  | 157636   | 22.27  | ug/l   | 97       |
| 88) 1,4-Dichlorobenzene        | 12.62 | 146  | 149316   | 21.71  | ug/l   | 98       |
| 89) n-Butylbenzene             | 12.90 | 91   | 307205   | 22.35  | ug/l   | 98       |
| 90) Hexachloroethane           | 12.98 | 117  | 77425    | 22.88  | ug/l   | 98       |
| 91) 1,2-Dichlorobenzene        | 13.00 | 146  | 155937   | 22.50  | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.70 | 75   | 15241    | 19.73  | ug/l   | 89       |

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QLast Update : Sat Jul 07 05:43:52 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.25 | 180  | 117309   | 22.79 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 14.24 | 225  | 72969    | 24.72 | ug/l  | 96       |
| 95) Naphthalene            | 14.51 | 128  | 223989   | 20.78 | ug/l  | 98       |
| 96) 1,2,3-Trichlorobenzene | 14.64 | 180  | 112576   | 22.97 | ug/l  | 98       |

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

