

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF081618\  
 Data File : VF059972.D  
 Acq On : 16 Aug 2018 21:03  
 Operator : VA/AP  
 Sample : VSTDIC075  
 Misc : 5.00µ/5mL/MSVOA F/SOIL  
 ALS Vial : 36 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 VSTDIC075

Manual Integrations  
 APPROVED

apatel  
 8/17/2018 11:24:25 AM

Quant Time: Aug 17 04:59:23 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F081618S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Aug 17 04:39:04 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.04  | 168  | 121407   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.76  | 114  | 176570   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.92  | 117  | 186762   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.63 | 152  | 134174   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 5.02   | 65  | 199867   | 90.36 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 180.72% |      |
| 35) Dibromofluoromethane  | 4.30   | 113 | 132483   | 73.84 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 147.68% |      |
| 50) Toluene-d8            | 7.72   | 98  | 289379   | 74.11 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 148.22% |      |
| 62) 4-Bromofluorobenzene  | 11.51  | 95  | 183096   | 82.80 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 165.60% |      |

## Target Compounds

|                               |      |     |        |        |      | Qvalue |
|-------------------------------|------|-----|--------|--------|------|--------|
| 2) Dichlorodifluoromethane    | 0.95 | 85  | 153663 | 83.81  | ug/l | 98     |
| 3) Chloromethane              | 1.07 | 50  | 66662  | 85.25  | ug/l | 98     |
| 4) Vinyl Chloride             | 1.12 | 62  | 89381  | 96.56  | ug/l | 97     |
| 5) Bromomethane               | 1.32 | 94  | 81183  | 96.94  | ug/l | 96     |
| 6) Chloroethane               | 1.39 | 64  | 46474  | 79.37  | ug/l | 98     |
| 7) Trichlorofluoromethane     | 1.47 | 101 | 192426 | 73.17  | ug/l | 98     |
| 8) Diethyl Ether              | 1.70 | 74  | 47665  | 120.91 | ug/l | 99     |
| 9) 1,1,2-Trichlorotrifluoroet | 1.85 | 101 | 122531 | 90.00  | ug/l | 98     |
| 10) Methyl Iodide             | 1.92 | 142 | 163862 | 80.61  | ug/l | 95     |
| 11) Tert butyl alcohol        | 2.70 | 59  | 77450  | 758.30 | ug/l | 97     |
| 12) 1,1-Dichloroethene        | 1.82 | 96  | 87118  | 88.77  | ug/l | 99     |
| 13) Acrolein                  | 2.09 | 56  | 39434  | 743.64 | ug/l | 95     |
| 14) Allyl chloride            | 2.19 | 41  | 141291 | 96.53  | ug/l | 99     |
| 15) Acrylonitrile             | 3.07 | 53  | 122884 | 776.79 | ug/l | 95     |
| 16) Acetone                   | 2.34 | 43  | 338995 | 666.55 | ug/l | 98     |
| 17) Carbon Disulfide          | 1.83 | 76  | 263154 | 99.31  | ug/l | 100    |
| 18) Methyl Acetate            | 2.45 | 43  | 125954 | 159.10 | ug/l | 96     |
| 19) Methyl tert-butyl Ether   | 2.54 | 73  | 320855 | 106.38 | ug/l | 98     |
| 20) Methylene Chloride        | 2.27 | 84  | 95075  | 83.22  | ug/l | 90     |
| 21) trans-1,2-Dichloroethene  | 2.41 | 96  | 86737  | 89.09  | ug/l | 90     |
| 22) Diisopropyl ether         | 2.93 | 45  | 328865 | 97.70  | ug/l | 97     |
| 23) Vinyl Acetate             | 3.33 | 43  | 797274 | 491.20 | ug/l | 100    |
| 24) 1,1-Dichloroethane        | 3.00 | 63  | 211125 | 89.80  | ug/l | 98     |
| 25) 2-Butanone                | 4.51 | 43  | 279163 | 584.30 | ug/l | 100    |
| 26) 2,2-Dichloropropane       | 3.75 | 77  | 203624 | 124.32 | ug/l | 99     |
| 27) cis-1,2-Dichloroethene    | 3.63 | 96  | 86151  | 82.50  | ug/l | 95     |
| 28) Bromochloromethane        | 3.89 | 49  | 61436  | 74.49  | ug/l | 93     |
| 29) Tetrahydrofuran           | 4.26 | 42  | 106231 | 633.14 | ug/l | 98     |
| 30) Chloroform                | 4.04 | 83  | 245326 | 79.14  | ug/l | 99     |
| 31) Cyclohexane               | 3.85 | 56  | 90412  | 81.55  | ug/l | 94     |
| 32) 1,1,1-Trichloroethane     | 4.28 | 97  | 233150 | 88.94  | ug/l | 95     |
| 36) 1,1-Dichloropropene       | 4.45 | 75  | 139689 | 71.42  | ug/l | 99     |
| 37) Ethyl Acetate             | 4.30 | 43  | 112675 | 118.02 | ug/l | 87     |
| 38) Carbon Tetrachloride      | 4.17 | 117 | 204502 | 64.40  | ug/l | 93     |

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| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 5.62  | 83   | 102057   | 71.92   | ug/l   | 96       |
| 40) Benzene                    | 4.81  | 78   | 236823   | 72.04   | ug/l   | 97       |
| 41) Methacrylonitrile          | 4.93  | 41   | 53815    | 118.42  | ug/l   | 93       |
| 42) 1,2-Dichloroethane         | 5.11  | 62   | 237733   | 87.90   | ug/l   | 98       |
| 43) Isopropyl Acetate          | 7.11  | 43   | 132506   | 127.08  | ug/l # | 95       |
| 44) Trichloroethene            | 5.68  | 130  | 91714    | 71.96   | ug/l   | 93       |
| 45) 1,2-Dichloropropane        | 6.40  | 63   | 73096    | 81.96   | ug/l   | 100      |
| 46) Dibromomethane             | 6.26  | 93   | 85837    | 94.98   | ug/l   | 98       |
| 47) Bromodichloromethane       | 6.55  | 83   | 207647   | 81.86   | ug/l   | 97       |
| 48) Methyl methacrylate        | 6.88  | 41   | 94012    | 122.75  | ug/l   | 96       |
| 49) 1,4-Dioxane                | 6.87  | 88   | 18433    | 2981.86 | ug/l   | 93       |
| 51) 4-Methyl-2-Pentanone       | 8.41  | 43   | 578626   | 584.10  | ug/l   | 99       |
| 52) Toluene                    | 7.78  | 92   | 180271   | 73.24   | ug/l   | 100      |
| 53) t-1,3-Dichloropropene      | 8.44  | 75   | 176380   | 83.75   | ug/l   | 94       |
| 54) cis-1,3-Dichloropropene    | 7.46  | 75   | 174123   | 87.37   | ug/l   | 96       |
| 55) 1,1,2-Trichloroethane      | 8.64  | 97   | 86249    | 96.84   | ug/l   | 97       |
| 56) Ethyl methacrylate         | 8.76  | 69   | 112025   | 112.48  | ug/l   | 97       |
| 57) 1,3-Dichloropropane        | 9.01  | 76   | 156681   | 96.03   | ug/l   | 94       |
| 58) 2-Chloroethyl Vinyl ether  | 7.77  | 63   | 44868    | 369.70  | ug/l   | 100      |
| 59) 2-Hexanone                 | 9.64  | 43   | 475107   | 638.05  | ug/l   | 95       |
| 60) Dibromochloromethane       | 8.87  | 129  | 160954   | 93.09   | ug/l   | 98       |
| 61) 1,2-Dibromoethane          | 9.14  | 107  | 118961   | 105.55  | ug/l   | 99       |
| 64) Tetrachloroethene          | 8.31  | 164  | 103136   | 71.11   | ug/l   | 98       |
| 65) Chlorobenzene              | 9.94  | 112  | 263662   | 73.16   | ug/l   | 98       |
| 66) 1,1,1,2-Tetrachloroethane  | 10.07 | 131  | 125942   | 72.45   | ug/l   | 98       |
| 67) Ethyl Benzene              | 10.04 | 91   | 472002   | 73.95   | ug/l   | 98       |
| 68) m/p-Xylenes                | 10.28 | 106  | 324033   | 150.65  | ug/l   | 95       |
| 69) o-Xylene                   | 10.83 | 106  | 179380   | 76.93   | ug/l   | 95       |
| 70) Styrene                    | 10.91 | 104  | 278696   | 79.66   | ug/l   | 99       |
| 71) Bromoform                  | 10.89 | 173  | 115321   | 100.50  | ug/l   | 93       |
| 73) Isopropylbenzene           | 11.23 | 105  | 569896   | 68.70   | ug/l   | 100      |
| 74) N-amyl acetate             | 11.46 | 43   | 215378   | 107.12  | ug/l   | 98       |
| 75) 1,1,2,2-Tetrachloroethane  | 11.79 | 83   | 134912   | 89.82   | ug/l   | 97       |
| 76) 1,2,3-Trichloropropane     | 11.89 | 75   | 123997   | 95.20   | ug/l   | 97       |
| 77) Bromobenzene               | 11.60 | 156  | 165366   | 74.64   | ug/l   | 92       |
| 78) n-propylbenzene            | 11.69 | 91   | 660337   | 67.53   | ug/l   | 100      |
| 79) 2-Chlorotoluene            | 11.82 | 91   | 413945   | 67.35   | ug/l   | 96       |
| 80) 1,3,5-Trimethylbenzene     | 11.91 | 105  | 505121   | 65.33   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 11.96 | 75   | 56271m   | 103.29  | ug/l   |          |
| 82) 4-Chlorotoluene            | 11.99 | 91   | 476312   | 70.03   | ug/l   | 96       |
| 83) tert-Butylbenzene          | 12.22 | 119  | 495903   | 65.52   | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene     | 12.29 | 105  | 523171   | 67.31   | ug/l   | 98       |
| 85) sec-Butylbenzene           | 12.39 | 105  | 630105   | 65.43   | ug/l   | 100      |
| 86) p-Isopropyltoluene         | 12.55 | 119  | 564569   | 66.31   | ug/l   | 99       |
| 87) 1,3-Dichlorobenzene        | 12.56 | 146  | 288055   | 68.92   | ug/l   | 96       |
| 88) 1,4-Dichlorobenzene        | 12.64 | 146  | 296900   | 72.35   | ug/l   | 97       |
| 89) n-Butylbenzene             | 12.92 | 91   | 549381   | 66.68   | ug/l   | 99       |
| 90) Hexachloroethane           | 13.00 | 117  | 130038   | 62.27   | ug/l   | 93       |
| 91) 1,2-Dichlorobenzene        | 13.02 | 146  | 289522   | 70.65   | ug/l   | 97       |
| 92) 1,2-Dibromo-3-Chloropropan | 13.72 | 75   | 48714    | 115.01  | ug/l   | 94       |

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|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 14.27 | 180  | 237303   | 72.92 | ug/l  | 98       |
| 94) Hexachlorobutadiene    | 14.26 | 225  | 147223   | 64.44 | ug/l  | 97       |
| 95) Naphthalene            | 14.53 | 128  | 503082   | 92.13 | ug/l  | 100      |
| 96) 1,2,3-Trichlorobenzene | 14.67 | 180  | 239311   | 76.46 | ug/l  | 99       |

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

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