

Data Path : Z:\VOASRV\HPCHEM1\MSVOA Y\DATA\VY040820\  
 Data File : VY002244.D  
 Acq On : 08 Apr 2020 11:26  
 Operator : SY/MD  
 Sample : VSTDIC005  
 Misc : 5.00G/5ML/MSVOA Y/SOIL  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_Y  
 ClientSampleId :  
 VSTDIC005

Manual Integrations  
 APPROVED

MMDadoda  
 4/9/2020 11:31:38 AM

Quant Time: Apr 08 15:06:08 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_Y\METHODS\82Y040820S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Apr 08 14:44:38 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.81  | 168  | 157309   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.71  | 114  | 282376   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.50 | 117  | 254139   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.44 | 152  | 117786   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |      |        |      |
|---------------------------|--------|-----|----------|------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 8.16   | 65  | 9744     | 5.57 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 11.14% |      |
| 35) Dibromofluoromethane  | 7.74   | 113 | 8659     | 5.15 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 10.30% |      |
| 50) Toluene-d8            | 10.19  | 98  | 36988    | 5.26 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 10.52% |      |
| 62) 4-Bromofluorobenzene  | 12.49  | 95  | 12512    | 5.39 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =    | 10.78% |      |

## Target Compounds

|                               |      |     |        |        | Qvalue    |
|-------------------------------|------|-----|--------|--------|-----------|
| 2) Dichlorodifluoromethane    | 1.91 | 85  | 8164   | 5.135  | ug/l 89   |
| 3) Chloromethane              | 2.12 | 50  | 10183  | 5.089  | ug/l 99   |
| 4) Vinyl Chloride             | 2.26 | 62  | 11187  | 5.253  | ug/l 97   |
| 5) Bromomethane               | 2.66 | 94  | 7359   | 5.595  | ug/l 98   |
| 6) Chloroethane               | 2.81 | 64  | 6052   | 4.927  | ug/l # 85 |
| 7) Trichlorofluoromethane     | 3.15 | 101 | 15298  | 5.562  | ug/l 97   |
| 8) Diethyl Ether              | 3.55 | 74  | 6059   | 5.182  | ug/l 100  |
| 9) 1,1,2-Trichlorotrifluoroet | 3.92 | 101 | 10096  | 5.404  | ug/l 97   |
| 10) Methyl Iodide             | 4.11 | 142 | 9395   | 4.326  | ug/l 99   |
| 11) Tert butyl alcohol        | 4.97 | 59  | 8618   | 37.445 | ug/l # 90 |
| 12) 1,1-Dichloroethene        | 3.90 | 96  | 9935   | 5.230  | ug/l 93   |
| 13) Acrolein                  | 3.74 | 56  | 5962   | 26.432 | ug/l 97   |
| 14) Allyl chloride            | 4.50 | 41  | 16356  | 5.332  | ug/l 98   |
| 15) Acrylonitrile             | 5.19 | 53  | 15481  | 25.890 | ug/l 99   |
| 16) Acetone                   | 3.97 | 43  | 12772  | 27.720 | ug/l 92   |
| 17) Carbon Disulfide          | 4.22 | 76  | 32702  | 5.184  | ug/l # 94 |
| 18) Methyl Acetate            | 4.49 | 43  | 7760   | 5.430  | ug/l 94   |
| 19) Methyl tert-butyl Ether   | 5.25 | 73  | 25607  | 5.128  | ug/l 92   |
| 20) Methylene Chloride        | 4.75 | 84  | 13600  | 6.005  | ug/l 99   |
| 21) trans-1,2-Dichloroethene  | 5.24 | 96  | 11236  | 5.270  | ug/l 95   |
| 22) Diisopropyl ether         | 6.14 | 45  | 32310  | 5.234  | ug/l 95   |
| 23) Vinyl Acetate             | 6.08 | 43  | 101653 | 25.842 | ug/l 98   |
| 24) 1,1-Dichloroethane        | 6.04 | 63  | 18269  | 5.203  | ug/l 100  |
| 25) 2-Butanone                | 7.02 | 43  | 20276  | 27.807 | ug/l 99   |
| 26) 2,2-Dichloropropane       | 7.00 | 77  | 17073  | 5.813  | ug/l 92   |
| 27) cis-1,2-Dichloroethene    | 7.00 | 96  | 12132  | 5.220  | ug/l 98   |
| 28) Bromochloromethane        | 7.35 | 49  | 8008   | 5.284  | ug/l # 94 |
| 29) Tetrahydrofuran           | 7.38 | 42  | 12922  | 26.809 | ug/l 97   |
| 30) Chloroform                | 7.53 | 83  | 16969  | 5.127  | ug/l 97   |
| 31) Cyclohexane               | 7.81 | 56  | 21690  | 5.885  | ug/l # 67 |
| 32) 1,1,1-Trichloroethane     | 7.72 | 97  | 13811  | 5.013  | ug/l 93   |
| 36) 1,1-Dichloropropene       | 7.94 | 75  | 14433  | 5.189  | ug/l 98   |
| 37) Ethyl Acetate             | 7.10 | 43  | 8429   | 5.305  | ug/l 98   |
| 38) Carbon Tetrachloride      | 7.93 | 117 | 12505  | 5.256  | ug/l 95   |

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 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 39) Methylcyclohexane          | 9.20  | 83   | 20521    | 5.424   | ug/l   | 90       |
| 40) Benzene                    | 8.18  | 78   | 43354    | 5.138   | ug/l   | 96       |
| 41) Methacrylonitrile          | 7.35  | 41   | 5571     | 5.307   | ug/l # | 100      |
| 42) 1,2-Dichloroethane         | 8.25  | 62   | 10801    | 5.167   | ug/l   | 98       |
| 43) Isopropyl Acetate          | 8.29  | 43   | 15149    | 5.228   | ug/l   | 98       |
| 44) Trichloroethene            | 8.95  | 130  | 13088    | 5.275   | ug/l   | 94       |
| 45) 1,2-Dichloropropane        | 9.23  | 63   | 10638    | 5.081   | ug/l   | 90       |
| 46) Dibromomethane             | 9.32  | 93   | 5630     | 5.143   | ug/l   | 97       |
| 47) Bromodichloromethane       | 9.51  | 83   | 12393    | 4.934   | ug/l   | 97       |
| 48) Methyl methacrylate        | 9.31  | 41   | 7090     | 5.456   | ug/l   | 96       |
| 49) 1,4-Dioxane                | 9.32  | 88   | 1551     | 100.156 | ug/l # | 85       |
| 51) 4-Methyl-2-Pentanone       | 10.08 | 43   | 39725    | 26.307  | ug/l   | 98       |
| 52) Toluene                    | 10.25 | 92   | 26133    | 5.139   | ug/l   | 97       |
| 53) t-1,3-Dichloropropene      | 10.47 | 75   | 13309    | 4.863   | ug/l   | 99       |
| 54) cis-1,3-Dichloropropene    | 9.94  | 75   | 16037    | 4.874   | ug/l   | 98       |
| 55) 1,1,2-Trichloroethane      | 10.66 | 97   | 8212     | 5.124   | ug/l   | 99       |
| 56) Ethyl methacrylate         | 10.52 | 69   | 11199    | 4.896   | ug/l   | 98       |
| 57) 1,3-Dichloropropane        | 10.80 | 76   | 14397    | 5.110   | ug/l   | 97       |
| 58) 2-Chloroethyl Vinyl ether  | 9.80  | 63   | 32788    | 27.679  | ug/l   | 98       |
| 59) 2-Hexanone                 | 10.85 | 43   | 27656    | 26.389  | ug/l   | 97       |
| 60) Dibromochloromethane       | 11.00 | 129  | 8314     | 4.865   | ug/l   | 97       |
| 61) 1,2-Dibromoethane          | 11.10 | 107  | 7770     | 5.092   | ug/l   | 98       |
| 64) Tetrachloroethene          | 10.73 | 164  | 13672    | 5.321   | ug/l   | 96       |
| 65) Chlorobenzene              | 11.53 | 112  | 27367    | 5.180   | ug/l   | 97       |
| 66) 1,1,1,2-Tetrachloroethane  | 11.60 | 131  | 8630     | 4.948   | ug/l   | 97       |
| 67) Ethyl Benzene              | 11.60 | 91   | 49793    | 5.149   | ug/l   | 97       |
| 68) m/p-Xylenes                | 11.71 | 106  | 37948    | 10.476  | ug/l   | 99       |
| 69) o-Xylene                   | 12.04 | 106  | 17797    | 5.233   | ug/l   | 96       |
| 70) Styrene                    | 12.05 | 104  | 30038    | 5.091   | ug/l   | 97       |
| 71) Bromoform                  | 12.22 | 173  | 4372     | 4.609   | ug/l # | 91       |
| 73) Isopropylbenzene           | 12.34 | 105  | 46932    | 5.072   | ug/l   | 99       |
| 74) N-amyl acetate             | 12.15 | 43   | 13283    | 5.057   | ug/l   | 95       |
| 75) 1,1,2,2-Tetrachloroethane  | 12.59 | 83   | 5239     | 4.680   | ug/l   | 98       |
| 76) 1,2,3-Trichloropropane     | 12.64 | 75   | 6192m    | 2.624   | ug/l   |          |
| 77) Bromobenzene               | 12.62 | 156  | 10005    | 4.914   | ug/l   | 92       |
| 78) n-propylbenzene            | 12.68 | 91   | 60258    | 5.236   | ug/l   | 99       |
| 79) 2-Chlorotoluene            | 12.77 | 91   | 32220    | 5.152   | ug/l   | 100      |
| 80) 1,3,5-Trimethylbenzene     | 12.82 | 105  | 39285    | 5.133   | ug/l   | 99       |
| 81) trans-1,4-Dichloro-2-buten | 12.39 | 75   | 3279     | 4.663   | ug/l   | 87       |
| 82) 4-Chlorotoluene            | 12.86 | 91   | 34949    | 5.332   | ug/l   | 97       |
| 83) tert-Butylbenzene          | 13.08 | 119  | 34029    | 5.309   | ug/l   | 97       |
| 84) 1,2,4-Trimethylbenzene     | 13.13 | 105  | 38863    | 5.086   | ug/l   | 98       |
| 85) sec-Butylbenzene           | 13.26 | 105  | 51969    | 5.442   | ug/l   | 98       |
| 86) p-Isopropyltoluene         | 13.38 | 119  | 42937    | 5.224   | ug/l   | 97       |
| 87) 1,3-Dichlorobenzene        | 13.38 | 146  | 21112    | 5.351   | ug/l   | 98       |
| 88) 1,4-Dichlorobenzene        | 13.45 | 146  | 21264    | 5.309   | ug/l   | 94       |
| 89) n-Butylbenzene             | 13.70 | 91   | 45436    | 5.393   | ug/l   | 98       |
| 90) Hexachloroethane           | 13.97 | 117  | 8183     | 5.225   | ug/l   | 97       |
| 91) 1,2-Dichlorobenzene        | 13.75 | 146  | 18240    | 5.088   | ug/l   | 98       |
| 92) 1,2-Dibromo-3-Chloropropan | 14.36 | 75   | 1459     | 5.388   | ug/l   | 89       |

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|----------------------------|-------|------|----------|-------|-------|----------|
| 93) 1,2,4-Trichlorobenzene | 15.02 | 180  | 13238    | 5.649 | ug/l  | 99       |
| 94) Hexachlorobutadiene    | 15.12 | 225  | 6368     | 5.395 | ug/l  | 96       |
| 95) Naphthalene            | 15.25 | 128  | 26329    | 5.132 | ug/l  | 99       |
| 96) 1,2,3-Trichlorobenzene | 15.44 | 180  | 11542    | 5.672 | ug/l  | 98       |

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

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