

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL081219\  
 Data File : VL034118.D  
 Acq On : 13 Aug 2019 9:33  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 VSTDCCC010EC

Manual Integrations  
 APPROVED

MMDadoda  
 8/16/2019 8:54:47 AM

Quant Time: Aug 13 10:12:04 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL080519AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Mon Aug 0  
 QLast Update : Mon Aug 05 17:09:48 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.72  | 49   | 1080085  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.25  | 114  | 2061765  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.18 | 117  | 2297681m | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.52  | 95    | 1816782  | 9.75     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 97.50% |

| Target Compounds               |      |     |         |        | Ovalue    |
|--------------------------------|------|-----|---------|--------|-----------|
| 2) Dichlorodifluoromethane     | 3.05 | 85  | 1086267 | 8.172  | ppbv 99   |
| 3) Chlorodifluoromethane       | 2.99 | 51  | 1147687 | 9.189  | ppbv 98   |
| 4) Chloromethane               | 3.14 | 50  | 720044  | 8.942  | ppbv 99   |
| 5) Vinyl Chloride              | 3.26 | 62  | 644527  | 9.085  | ppbv 96   |
| 6) Bromomethane                | 3.48 | 94  | 331274  | 9.036  | ppbv 99   |
| 7) Chloroethane                | 3.57 | 64  | 228692  | 8.604  | ppbv 97   |
| 8) Dichlorotetrafluoroethane   | 3.19 | 85  | 1329368 | 8.669  | ppbv 90   |
| 9) Propene                     | 3.01 | 41  | 637592  | 8.659  | ppbv 99   |
| 10) Heptane                    | 8.20 | 43  | 1651193 | 8.669  | ppbv 99   |
| 11) Trichlorofluoromethane     | 3.97 | 101 | 1362408 | 8.645  | ppbv 97   |
| 12) 1,1,2-Trichlorotrifluoroet | 4.51 | 101 | 927460  | 8.340  | ppbv 91   |
| 13) Ethanol                    | 3.62 | 45  | 123958  | 5.974  | ppbv 99   |
| 14) Bromoethene                | 3.75 | 108 | 405314  | 8.162  | ppbv 97   |
| 15) Acetone                    | 3.87 | 43  | 1186968 | 7.690  | ppbv 100  |
| 16) 1,3-Butadiene              | 3.33 | 39  | 641275  | 8.544  | ppbv 100  |
| 17) tert-Butyl alcohol         | 4.32 | 59  | 930065  | 6.458  | ppbv 99   |
| 18) 1,1-Dichloroethene         | 4.31 | 96  | 433343  | 8.239  | ppbv 98   |
| 19) Isopropyl Alcohol          | 3.99 | 45  | 910444  | 7.576  | ppbv # 46 |
| 20) Methylene Chloride         | 4.37 | 84  | 382372  | 8.261  | ppbv 95   |
| 21) Allyl Chloride             | 4.44 | 41  | 869915  | 8.143  | ppbv 98   |
| 22) trans-1,2-Dichloroethene   | 4.92 | 96  | 424943  | 8.315  | ppbv 96   |
| 23) Vinyl Acetate              | 5.11 | 43  | 2137553 | 8.353  | ppbv 99   |
| 24) 1,1-Dichloroethane         | 5.05 | 63  | 1365343 | 8.967  | ppbv 100  |
| 25) Ethyl Acetate              | 5.72 | 43  | 2509607 | 8.267  | ppbv 100  |
| 26) Hexane                     | 5.74 | 57  | 1081974 | 8.408  | ppbv 99   |
| 27) Carbon Disulfide           | 4.58 | 76  | 1172798 | 8.645  | ppbv 99   |
| 28) Methyl tert-Butyl Ether    | 5.07 | 73  | 1702306 | 7.911  | ppbv 98   |
| 29) Chloroform                 | 5.80 | 83  | 1575112 | 9.005  | ppbv 97   |
| 30) Cyclohexane                | 7.20 | 84  | 889535  | 8.751  | ppbv 99   |
| 31) cis-1,2-Dichloroethene     | 5.60 | 61  | 1173062 | 9.229  | ppbv 94   |
| 32) 1,1,1-Trichloroethane      | 6.57 | 97  | 1477593 | 8.535  | ppbv 96   |
| 34) 2-Butanone                 | 5.29 | 43  | 1794646 | 9.363  | ppbv 98   |
| 35) Carbon Tetrachloride       | 7.08 | 117 | 1415156 | 8.943  | ppbv 98   |
| 36) Benzene                    | 6.96 | 78  | 2165343 | 9.240  | ppbv 99   |
| 37) 1,2-Dichloroethane         | 6.37 | 62  | 1318534 | 10.458 | ppbv 98   |
| 38) Trichloroethene            | 7.91 | 130 | 690585  | 7.609  | ppbv 94   |
| 39) 1,2-Dichloropropane        | 7.69 | 63  | 931124  | 9.847  | ppbv 98   |
| 40) 1,4-Dioxane                | 7.91 | 88  | 313472  | 8.786  | ppbv # 94 |
| 41) Tetrahydrofuran            | 6.10 | 42  | 1125731 | 9.547  | ppbv 99   |
| 42) Bromodichloromethane       | 7.87 | 83  | 1733317 | 9.806  | ppbv 100  |
| 43) Methyl Methacrylate        | 8.09 | 69  | 926055  | 9.634  | ppbv 97   |

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|-------------------------------|-------|------|----------|--------|--------|----------|
| -----                         |       |      |          |        |        |          |
| 44) 2,2,4-Trimethylpentane    | 7.94  | 57   | 3733757  | 8.899  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.36  | 75   | 1180736  | 9.690  | ppbv   | 99       |
| 46) cis-1,3-Dichloropropene   | 8.78  | 75   | 1350058  | 9.601  | ppbv   | 96       |
| 47) 1,1,2-Trichloroethane     | 9.57  | 97   | 837398m  | 9.264  | ppbv   |          |
| 48) Dibromochloromethane      | 10.40 | 129  | 1329362  | 9.172  | ppbv   | 99       |
| 49) Bromoform                 | 13.15 | 173  | 1138023  | 8.781  | ppbv   | 98       |
| 50) 4-Methyl-2-Pentanone      | 8.82  | 43   | 2644892  | 9.066  | ppbv   | 100      |
| 51) 2-Hexanone                | 10.22 | 43   | 2297208  | 9.370  | ppbv # | 100      |
| 52) Tetrachloroethene         | 11.32 | 164  | 690782   | 7.633  | ppbv   | 94       |
| 53) Toluene                   | 9.89  | 91   | 2401106  | 8.879  | ppbv   | 97       |
| 54) 1,2-Dibromoethane         | 10.70 | 107  | 1264838  | 9.236  | ppbv   | 99       |
| 56) 1,1,1,2-Tetrachloroethane | 12.22 | 131  | 830248   | 7.904  | ppbv   | 97       |
| 57) Chlorobenzene             | 12.25 | 112  | 1631252  | 7.884  | ppbv   | 95       |
| 58) Ethyl Benzene             | 12.81 | 91   | 3186240  | 8.247  | ppbv   | 98       |
| 59) m/p-Xylene                | 13.09 | 91   | 5043118m | 16.261 | ppbv   |          |
| 60) o-Xylene                  | 13.79 | 91   | 2473411  | 7.981  | ppbv   | 97       |
| 61) Styrene                   | 13.63 | 104  | 1990182  | 8.090  | ppbv   | 97       |
| 62) Isopropylbenzene          | 14.77 | 105  | 3246385  | 7.803  | ppbv   | 99       |
| 63) 1,1,2,2-Tetrachloroethane | 13.78 | 83   | 1821159  | 8.135  | ppbv   | 99       |
| 64) n-propylbenzene           | 15.67 | 120  | 854842   | 7.774  | ppbv   | 86       |
| 65) tert-Butylbenzene         | 16.85 | 119  | 2714862  | 7.326  | ppbv   | 93       |
| 66) Benzyl Chloride           | 17.10 | 91   | 1389224  | 6.773  | ppbv   | 95       |
| 67) sec-Butylbenzene          | 17.40 | 105  | 3940450  | 7.534  | ppbv   | 98       |
| 69) p-Isopropyltoluene        | 17.76 | 119  | 3198139  | 7.414  | ppbv   | 98       |
| 70) n-Butylbenzene            | 18.66 | 91   | 3624068  | 7.788  | ppbv   | 98       |
| 71) 2-Chlorotoluene           | 15.56 | 91   | 2708826  | 8.098  | ppbv   | 97       |
| 72) 4-Ethyltoluene            | 15.94 | 105  | 2887237  | 7.915  | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.10 | 105  | 2755337  | 7.852  | ppbv   | 95       |
| 74) 1,2,4-Trimethylbenzene    | 16.87 | 105  | 2727257  | 7.471  | ppbv   | 95       |
| 75) 1,3-Dichlorobenzene       | 17.11 | 146  | 1537583  | 7.520  | ppbv   | 98       |
| 76) 1,4-Dichlorobenzene       | 17.25 | 146  | 1599078  | 7.654  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 17.93 | 146  | 1540552  | 7.643  | ppbv   | 98       |
| 78) Hexachloro-1,3-Butadiene  | 23.49 | 225  | 1232961  | 7.716  | ppbv   | 99       |
| 79) Naphthalene               | 22.34 | 128  | 2783893  | 7.343  | ppbv   | 99       |
| 80) Naphthalene, 2-methyl-    | 25.07 | 142  | 1468945  | 12.355 | ppbv   | 97       |
| 81) 1,2,4-Trichlorobenzene    | 22.06 | 180  | 1488411m | 7.072  | ppbv   |          |
| -----                         |       |      |          |        |        |          |

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

