

Data Path : \\74.0.250.170\TERASTORAGE\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL102519\  
 Data File : VL034359.D  
 Acq On : 25 Oct 2019 10:14  
 Operator : SY/AP  
 Sample : VSTDCCC010  
 Misc : 400ml/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDCCC010

Manual Integrations  
 APPROVED

MMDadoda  
 10/31/2019 2:12:44 AM

Quant Time: Oct 25 23:49:30 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL101619AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct 1  
 QLast Update : Thu Oct 17 05:12:37 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.68  | 49   | 900332   | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.21  | 114  | 1928239  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.15 | 117  | 1958807m | 10.00 | ppbv  | 0.00     |

## System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.48  | 95    | 1634832  | 9.85     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 98.50% |

## Target Compounds

|                                |      |     |         |        |        | Qvalue |
|--------------------------------|------|-----|---------|--------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.02 | 85  | 1605192 | 10.342 | ppbv   | 99     |
| 3) Chlorodifluoromethane       | 2.96 | 51  | 953390  | 9.035  | ppbv   | 100    |
| 4) Chloromethane               | 3.12 | 50  | 585349  | 9.377  | ppbv   | 98     |
| 5) Vinyl Chloride              | 3.23 | 62  | 545149  | 9.159  | ppbv   | 99     |
| 6) Bromomethane                | 3.45 | 94  | 286672  | 9.836  | ppbv   | 97     |
| 7) Chloroethane                | 3.54 | 64  | 204175  | 9.747  | ppbv   | 99     |
| 8) Dichlorotetrafluoroethane   | 3.17 | 85  | 1267653 | 9.425  | ppbv   | 98     |
| 9) Propene                     | 2.98 | 41  | 468143  | 10.007 | ppbv   | 99     |
| 10) Heptane                    | 8.16 | 43  | 1198789 | 9.985  | ppbv   | 99     |
| 11) Trichlorofluoromethane     | 3.94 | 101 | 1385858 | 9.404  | ppbv   | 96     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.48 | 101 | 928979  | 9.622  | ppbv   | 98     |
| 13) Ethanol                    | 3.59 | 45  | 78765   | 7.520  | ppbv   | 98     |
| 14) Bromoethene                | 3.73 | 108 | 401020  | 10.550 | ppbv   | 98     |
| 15) Acetone                    | 3.84 | 43  | 1026872 | 7.974  | ppbv   | 100    |
| 16) 1,3-Butadiene              | 3.31 | 39  | 515981  | 9.861  | ppbv   | 100    |
| 17) tert-Butyl alcohol         | 4.29 | 59  | 746924  | 9.088  | ppbv   | 100    |
| 18) 1,1-Dichloroethene         | 4.28 | 96  | 429383  | 10.158 | ppbv   | 95     |
| 19) Isopropyl Alcohol          | 3.96 | 45  | 586589  | 8.165  | ppbv   | 100    |
| 20) Methylene Chloride         | 4.34 | 84  | 380337  | 8.170  | ppbv   | 94     |
| 21) Allyl Chloride             | 4.41 | 41  | 721033  | 10.128 | ppbv   | 99     |
| 22) trans-1,2-Dichloroethene   | 4.89 | 96  | 438378  | 10.397 | ppbv   | 99     |
| 23) Vinyl Acetate              | 5.08 | 43  | 1559814 | 9.699  | ppbv # | 98     |
| 24) 1,1-Dichloroethane         | 5.02 | 63  | 1129613 | 9.464  | ppbv   | 99     |
| 25) Ethyl Acetate              | 5.69 | 43  | 2036507 | 9.367  | ppbv   | 99     |
| 26) Hexane                     | 5.70 | 57  | 894776  | 9.656  | ppbv   | 97     |
| 27) Carbon Disulfide           | 4.55 | 76  | 1071913 | 11.142 | ppbv   | 98     |
| 28) Methyl tert-Butyl Ether    | 5.04 | 73  | 1532138 | 10.925 | ppbv   | 98     |
| 29) Chloroform                 | 5.77 | 83  | 1417806 | 9.672  | ppbv   | 96     |
| 30) Cyclohexane                | 7.16 | 84  | 730600  | 10.720 | ppbv   | 94     |
| 31) cis-1,2-Dichloroethene     | 5.56 | 61  | 964099  | 10.251 | ppbv   | 99     |
| 32) 1,1,1-Trichloroethane      | 6.54 | 97  | 1386095 | 9.724  | ppbv   | 98     |
| 34) 2-Butanone                 | 5.25 | 43  | 1374300 | 8.720  | ppbv   | 98     |
| 35) Carbon Tetrachloride       | 7.05 | 117 | 1374695 | 8.185  | ppbv   | 98     |
| 36) Benzene                    | 6.92 | 78  | 1750074 | 9.459  | ppbv   | 96     |
| 37) 1,2-Dichloroethane         | 6.33 | 62  | 1162885 | 8.434  | ppbv # | 97     |
| 38) Trichloroethene            | 7.87 | 130 | 666015  | 8.971  | ppbv   | 97     |
| 39) 1,2-Dichloropropane        | 7.65 | 63  | 727702  | 9.135  | ppbv   | 95     |
| 40) 1,4-Dioxane                | 7.87 | 88  | 234431  | 8.374  | ppbv   | 71     |
| 41) Tetrahydrofuran            | 6.06 | 42  | 809324  | 9.253  | ppbv   | 96     |
| 42) Bromodichloromethane       | 7.83 | 83  | 1551688 | 9.188  | ppbv   | 99     |
| 43) Methyl Methacrylate        | 8.05 | 69  | 735361  | 9.610  | ppbv   | 94     |

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 QLast Update : Thu Oct 17 05:12:37 2019  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.90  | 57   | 3016764  | 8.810  | ppbv   | 99       |
| 45) t-1,3-Dichloropropene     | 9.33  | 75   | 978428   | 10.495 | ppbv   | 98       |
| 46) cis-1,3-Dichloropropene   | 8.75  | 75   | 1109161  | 10.356 | ppbv   | 99       |
| 47) 1,1,2-Trichloroethane     | 9.53  | 97   | 721623   | 8.943  | ppbv   | 97       |
| 48) Dibromochloromethane      | 10.36 | 129  | 1262363  | 9.537  | ppbv   | 98       |
| 49) Bromoform                 | 13.11 | 173  | 1109134  | 9.456  | ppbv   | 100      |
| 50) 4-Methyl-2-Pentanone      | 8.78  | 43   | 2044136  | 9.060  | ppbv   | 99       |
| 51) 2-Hexanone                | 10.18 | 43   | 1720190  | 9.300  | ppbv # | 98       |
| 52) Tetrachloroethene         | 11.28 | 164  | 659688   | 9.097  | ppbv   | 96       |
| 53) Toluene                   | 9.85  | 91   | 2024263  | 9.915  | ppbv   | 100      |
| 54) 1,2-Dibromoethane         | 10.67 | 107  | 1099379  | 9.192  | ppbv   | 97       |
| 56) 1,1,1,2-Tetrachloroethane | 12.19 | 131  | 817252   | 9.053  | ppbv # | 59       |
| 57) Chlorobenzene             | 12.20 | 112  | 1498026  | 9.167  | ppbv   | 98       |
| 58) Ethyl Benzene             | 12.77 | 91   | 2771471  | 10.121 | ppbv   | 97       |
| 59) m/p-Xylene                | 13.05 | 91   | 4527866m | 19.085 | ppbv   |          |
| 60) o-Xylene                  | 13.75 | 91   | 2246656  | 9.510  | ppbv   | 98       |
| 61) Styrene                   | 13.59 | 104  | 1705317  | 10.253 | ppbv   | 99       |
| 62) Isopropylbenzene          | 14.73 | 105  | 2954311  | 9.473  | ppbv   | 100      |
| 63) 1,1,2,2-Tetrachloroethane | 13.74 | 83   | 1520968  | 8.012  | ppbv   | 100      |
| 64) n-propylbenzene           | 15.63 | 120  | 766066   | 9.572  | ppbv   | 98       |
| 65) tert-Butylbenzene         | 16.81 | 119  | 2571021  | 9.302  | ppbv   | 99       |
| 66) Benzyl Chloride           | 17.06 | 91   | 1017674  | 9.322  | ppbv   | 100      |
| 67) sec-Butylbenzene          | 17.37 | 105  | 3571713  | 9.183  | ppbv   | 98       |
| 69) p-Isopropyltoluene        | 17.73 | 119  | 2956420  | 9.323  | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.62 | 91   | 3166427  | 9.177  | ppbv   | 98       |
| 71) 2-Chlorotoluene           | 15.52 | 91   | 2322443  | 9.604  | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 15.91 | 105  | 2594508  | 9.770  | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.07 | 105  | 2464625  | 9.367  | ppbv   | 99       |
| 74) 1,2,4-Trimethylbenzene    | 16.83 | 105  | 2499947  | 9.111  | ppbv   | 97       |
| 75) 1,3-Dichlorobenzene       | 17.07 | 146  | 1425565  | 8.653  | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.21 | 146  | 1426682  | 8.866  | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 17.89 | 146  | 1390148m | 8.607  | ppbv   |          |
| 78) Hexachloro-1,3-Butadiene  | 23.45 | 225  | 1358068  | 10.165 | ppbv   | 99       |
| 79) Naphthalene               | 22.29 | 128  | 2487772  | 12.412 | ppbv   | 99       |
| 80) Naphthalene,2-methyl-     | 25.04 | 142  | 1240758  | 21.415 | ppbv   | 96       |
| 81) 1,2,4-Trichlorobenzene    | 22.02 | 180  | 1452424  | 11.094 | ppbv   | 98       |

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

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