

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL050119\  
 Data File : VL033615.D  
 Acq On : 1 May 2019 12:34  
 Operator : SY/AP  
 Sample : VSTDIC002  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC002

Manual Integrations  
 APPROVED

MMDadoda  
 5/2/2019 4:03:49 PM

Quant Time: May 02 05:04:00 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050119AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu May 02 05:04:00 2019  
 QLast Update : Thu May 02 04:03:11 2019  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.75  | 49   | 1142919  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.28  | 114  | 2737153  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.23 | 117  | 2924255  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.57  | 95    | 2277243  | 10.15    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.50% |

| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.06 | 85   | 247457   | 1.437 | ppbv   | 98     |
| 3) Chlorodifluoromethane       | 3.00 | 51   | 288746m  | 1.974 | ppbv   |        |
| 4) Chloromethane               | 3.16 | 50   | 156404   | 2.101 | ppbv   | 100    |
| 5) Vinyl Chloride              | 3.28 | 62   | 154040   | 1.973 | ppbv   | 97     |
| 6) Bromomethane                | 3.51 | 94   | 95535    | 2.079 | ppbv   | 91     |
| 7) Chloroethane                | 3.59 | 64   | 52914    | 2.033 | ppbv   | 100    |
| 8) Dichlorotetrafluoroethane   | 3.21 | 85   | 397460   | 2.121 | ppbv   | 99     |
| 9) Propene                     | 3.02 | 41   | 31095    | 0.795 | ppbv   | 94     |
| 10) Heptane                    | 8.23 | 43   | 313681   | 2.168 | ppbv   | 99     |
| 11) Trichlorofluoromethane     | 3.99 | 101  | 398171   | 1.945 | ppbv   | 99     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.54 | 101  | 271804   | 1.936 | ppbv   | 100    |
| 13) Ethanol                    | 3.64 | 45   | 34283    | 1.932 | ppbv   | 96     |
| 14) Bromoethene                | 3.78 | 108  | 119640   | 2.076 | ppbv   | 98     |
| 15) Acetone                    | 3.89 | 43   | 286659   | 2.060 | ppbv   | 97     |
| 16) 1,3-Butadiene              | 3.35 | 39   | 130637   | 2.086 | ppbv   | 100    |
| 17) tert-Butyl alcohol         | 4.35 | 59   | 233723   | 1.945 | ppbv   | 100    |
| 18) 1,1-Dichloroethene         | 4.34 | 96   | 119368   | 1.956 | ppbv   | 97     |
| 19) Isopropyl Alcohol          | 4.01 | 45   | 180324   | 1.888 | ppbv # | 97     |
| 20) Methylene Chloride         | 4.40 | 84   | 104666   | 1.930 | ppbv   | 98     |
| 21) Allyl Chloride             | 4.47 | 41   | 167978   | 1.919 | ppbv   | 100    |
| 22) trans-1,2-Dichloroethene   | 4.95 | 96   | 111294   | 1.862 | ppbv   | 95     |
| 23) Vinyl Acetate              | 5.14 | 43   | 431837   | 2.087 | ppbv   | 99     |
| 24) 1,1-Dichloroethane         | 5.08 | 63   | 323247   | 2.098 | ppbv   | 98     |
| 25) Ethyl Acetate              | 5.76 | 43   | 565444   | 2.141 | ppbv   | 99     |
| 26) Hexane                     | 5.77 | 57   | 238326   | 2.143 | ppbv   | 96     |
| 27) Carbon Disulfide           | 4.61 | 76   | 254444   | 1.889 | ppbv # | 94     |
| 28) Methyl tert-Butyl Ether    | 5.11 | 73   | 405712   | 2.164 | ppbv   | 99     |
| 29) Chloroform                 | 5.84 | 83   | 426531   | 2.093 | ppbv   | 98     |
| 30) Cyclohexane                | 7.24 | 84   | 204593   | 2.122 | ppbv   | 87     |
| 31) cis-1,2-Dichloroethene     | 5.63 | 61   | 238653   | 2.126 | ppbv   | 96     |
| 32) 1,1,1-Trichloroethane      | 6.61 | 97   | 434006   | 2.033 | ppbv   | 99     |
| 34) 2-Butanone                 | 5.32 | 43   | 374347   | 2.228 | ppbv   | 98     |
| 35) Carbon Tetrachloride       | 7.12 | 117  | 449906   | 2.075 | ppbv   | 96     |
| 36) Benzene                    | 6.99 | 78   | 504987   | 2.165 | ppbv   | 99     |
| 37) 1,2-Dichloroethane         | 6.40 | 62   | 326575   | 2.107 | ppbv   | 99     |
| 38) Trichloroethene            | 7.95 | 130  | 202896   | 2.172 | ppbv   | 97     |
| 39) 1,2-Dichloropropane        | 7.72 | 63   | 188097   | 2.139 | ppbv   | 90     |
| 40) 1,4-Dioxane                | 7.95 | 88   | 73304    | 2.052 | ppbv   | 74     |
| 41) Tetrahydrofuran            | 6.15 | 42   | 193505   | 2.156 | ppbv   | 98     |
| 42) Bromodichloromethane       | 7.90 | 83   | 445136   | 2.122 | ppbv   | 97     |
| 43) Methyl Methacrylate        | 8.12 | 69   | 191143   | 2.164 | ppbv   | 100    |

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| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 7.98  | 57   | 876824   | 2.157 | ppbv   | 98       |
| 45) t-1,3-Dichloropropene     | 9.40  | 75   | 234114   | 1.996 | ppbv   | 97       |
| 46) cis-1,3-Dichloropropene   | 8.82  | 75   | 274771   | 2.077 | ppbv   | 95       |
| 47) 1,1,2-Trichloroethane     | 9.61  | 97   | 216369   | 1.886 | ppbv   | 98       |
| 48) Dibromochloromethane      | 10.44 | 129  | 349625   | 1.801 | ppbv   | 99       |
| 49) Bromoform                 | 13.19 | 173  | 312460   | 2.101 | ppbv   | 99       |
| 50) 4-Methyl-2-Pentanone      | 8.86  | 43   | 581661   | 2.209 | ppbv   | 98       |
| 51) 2-Hexanone                | 10.26 | 43   | 446505   | 1.931 | ppbv # | 97       |
| 52) Tetrachloroethene         | 11.36 | 164  | 189621   | 2.115 | ppbv   | 98       |
| 53) Toluene                   | 9.93  | 91   | 576774   | 1.960 | ppbv   | 99       |
| 54) 1,2-Dibromoethane         | 10.74 | 107  | 324900   | 2.060 | ppbv   | 98       |
| 56) 1,1,1,2-Tetrachloroethane | 12.27 | 131  | 264695   | 2.073 | ppbv # | 1        |
| 57) Chlorobenzene             | 12.29 | 112  | 474550   | 2.087 | ppbv   | 99       |
| 58) Ethyl Benzene             | 12.85 | 91   | 795113   | 2.336 | ppbv   | 93       |
| 59) m/p-Xylene                | 13.14 | 91   | 1362084m | 4.630 | ppbv   |          |
| 60) o-Xylene                  | 13.84 | 91   | 689965   | 2.334 | ppbv   | 98       |
| 61) Styrene                   | 13.67 | 104  | 471255   | 2.329 | ppbv   | 98       |
| 62) Isopropylbenzene          | 14.81 | 105  | 913183   | 2.311 | ppbv   | 98       |
| 63) 1,1,2,2-Tetrachloroethane | 13.82 | 83   | 495523   | 2.140 | ppbv   | 98       |
| 64) n-propylbenzene           | 15.71 | 120  | 239558   | 2.337 | ppbv   | 92       |
| 65) tert-Butylbenzene         | 16.89 | 119  | 909180   | 2.460 | ppbv   | 98       |
| 66) Benzyl Chloride           | 17.15 | 91   | 386095   | 2.300 | ppbv   | 99       |
| 67) sec-Butylbenzene          | 17.45 | 105  | 1294944  | 2.495 | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.80 | 119  | 1097223  | 2.541 | ppbv   | 99       |
| 70) n-Butylbenzene            | 18.70 | 91   | 1207311  | 2.570 | ppbv   | 98       |
| 71) 2-Chlorotoluene           | 15.61 | 91   | 691781   | 2.340 | ppbv   | 99       |
| 72) 4-Ethyltoluene            | 15.99 | 105  | 801573   | 2.379 | ppbv   | 99       |
| 73) 1,3,5-Trimethylbenzene    | 16.15 | 105  | 779081   | 2.352 | ppbv   | 99       |
| 74) 1,2,4-Trimethylbenzene    | 16.91 | 105  | 889047   | 2.409 | ppbv   | 96       |
| 75) 1,3-Dichlorobenzene       | 17.15 | 146  | 548446   | 2.387 | ppbv   | 99       |
| 76) 1,4-Dichlorobenzene       | 17.30 | 146  | 533953   | 2.436 | ppbv   | 99       |
| 77) 1,2-Dichlorobenzene       | 17.98 | 146  | 529681   | 2.474 | ppbv   | 100      |
| 78) Hexachloro-1,3-Butadiene  | 23.53 | 225  | 353074   | 2.163 | ppbv   | 100      |
| 79) Naphthalene               | 22.40 | 128  | 814954   | 2.389 | ppbv   | 95       |
| 80) Naphthalene, 2-methyl-    | 25.10 | 142  | 383251   | 2.590 | ppbv   | 99       |
| 81) 1,2,4-Trichlorobenzene    | 22.12 | 180  | 456968   | 2.313 | ppbv   | 99       |

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

