

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN061020\  
 Data File : VN061730.D  
 Acq On : 10 Jun 2020 10:54  
 Operator : JC/MD  
 Sample : VSTDICCC020  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICCC020

Manual Integrations  
 APPROVED

MMDadoda  
 6/11/2020 12:44:28 PM

Quant Time: Jun 10 12:15:09 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N061020W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Wed Jun 10 11:59:42 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.15  | 128  | 72791    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.55  | 114  | 384663   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.38 | 117  | 360753   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |        |
|---------------------------|--------|-------|----------|----------|------|--------|
| 27) 1,2-Dichloroethane-d4 | 7.99   | 65    | 135115   | 22.18    | ug/l | 0.00   |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 73.93% |
| 60) 4-Bromofluorobenzene  | 12.37  | 95    | 157109   | 26.14    | ug/l | 0.00   |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 87.13% |
| 63) Toluene-d8            | 10.06  | 98    | 466988   | 28.37    | ug/l | 0.00   |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 94.57% |

## Target Compounds

|                               |      |     |        |        | Ovalue     |
|-------------------------------|------|-----|--------|--------|------------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 57331  | 17.604 | ug/l 100   |
| 3) Chloromethane              | 2.03 | 50  | 70885  | 12.828 | ug/l 100   |
| 4) Vinyl Chloride             | 2.16 | 62  | 96680  | 13.030 | ug/l 100   |
| 5) Bromomethane               | 2.54 | 94  | 64865  | 16.475 | ug/l 100   |
| 6) Chloroethane               | 2.67 | 64  | 66776  | 13.299 | ug/l 100   |
| 7) Trichlorofluoromethane     | 2.98 | 101 | 150124 | 17.821 | ug/l 100   |
| 8) Diethyl Ether              | 3.37 | 74  | 41006  | 15.563 | ug/l 100   |
| 9) 1,1,2-Trichlorotrifluoroet | 3.72 | 101 | 67568  | 18.557 | ug/l 100   |
| 10) 1,1-Dichloroethene        | 3.70 | 96  | 66438  | 17.467 | ug/l 100   |
| 11) Methyl Iodide             | 3.91 | 142 | 91834  | 21.153 | ug/l 100   |
| 12) Methyl Acetate            | 4.28 | 43  | 50952  | 11.797 | ug/l 100   |
| 13) Acrolein                  | 3.57 | 56  | 32759  | 45.928 | ug/l 100   |
| 14) Acrylonitrile             | 4.93 | 53  | 131645 | 64.474 | ug/l 100   |
| 15) Acetone                   | 3.78 | 58  | 41965  | 82.266 | ug/l 100   |
| 16) Carbon Disulfide          | 4.01 | 76  | 163922 | 16.033 | ug/l 100   |
| 17) Allyl chloride            | 4.28 | 41  | 78975  | 11.171 | ug/l 100   |
| 18) Methylene Chloride        | 4.50 | 84  | 75514  | 16.494 | ug/l 100   |
| 19) trans-1,2-Dichloroethene  | 4.99 | 96  | 73536  | 16.358 | ug/l 100   |
| 20) Diisopropyl ether         | 5.90 | 45  | 177445 | 10.814 | ug/l 100   |
| 21) 1,1-Dichloroethane        | 5.80 | 63  | 119925 | 13.562 | ug/l 100   |
| 22) cis-1,2-Dichloroethene    | 6.78 | 96  | 83582  | 16.036 | ug/l 100   |
| 23) tert-Butyl Alcohol        | 4.73 | 59  | 49872  | 74.835 | ug/l # 100 |
| 24) Methyl tert-Butyl Ether   | 4.99 | 73  | 204106 | 13.818 | ug/l 100   |
| 25) Chloroform                | 7.33 | 83  | 132774 | 15.161 | ug/l 100   |
| 26) Cyclohexane               | 7.61 | 56  | 91816  | 11.172 | ug/l # 100 |
| 29) 1,1-Dichloropropene       | 7.75 | 75  | 96127  | 15.095 | ug/l 100   |
| 30) 2-Butanone                | 6.78 | 43  | 164835 | 63.238 | ug/l 100   |
| 31) 2,2-Dichloropropane       | 6.78 | 77  | 111728 | 14.990 | ug/l 100   |
| 32) 1,1,1-Trichloroethane     | 7.53 | 97  | 121354 | 16.651 | ug/l 100   |
| 33) Carbon Tetrachloride      | 7.73 | 117 | 96103  | 17.011 | ug/l 100   |
| 34) Benzene                   | 8.00 | 78  | 299008 | 16.372 | ug/l 100   |
| 35) Methacrylonitrile         | 7.14 | 41  | 35105m | 14.021 | ug/l 100   |
| 36) 1,2-Dichloroethane        | 8.08 | 62  | 93888  | 13.804 | ug/l 100   |
| 37) Trichloroethene           | 8.80 | 130 | 92112  | 19.579 | ug/l 100   |
| 38) Methylcyclohexane         | 9.05 | 83  | 107777 | 14.230 | ug/l 100   |
| 39) 1,2-Dichloropropane       | 9.08 | 63  | 69895  | 14.308 | ug/l 100   |
| 40) Dibromomethane            | 9.17 | 93  | 52757  | 16.803 | ug/l 100   |

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|--------------------------------|-------|------|----------|---------|-------|----------|
| 41) Bromodichloromethane       | 9.37  | 83   | 106489   | 15.884  | ug/l  | 100      |
| 42) Vinyl Acetate              | 5.84  | 43   | 683142   | 55.890  | ug/l  | 100      |
| 43) Ethyl Acetate              | 6.88  | 43   | 60015    | 11.138  | ug/l  | 100      |
| 44) Isopropyl Acetate          | 8.12  | 43   | 117952   | 11.103  | ug/l  | 100      |
| 45) 1,4-Dioxane                | 9.17  | 88   | 23427    | 474.559 | ug/l  | 100      |
| 46) Methyl methacrylate        | 9.17  | 41   | 48471    | 9.822   | ug/l  | 100      |
| 47) n-amyl Acetate             | 12.05 | 43   | 91534    | 9.756   | ug/l  | 100      |
| 48) t-1,3-Dichloropropene      | 10.35 | 75   | 106749   | 13.813  | ug/l  | 100      |
| 49) cis-1,3-Dichloropropene    | 9.81  | 75   | 119925   | 14.514  | ug/l  | 100      |
| 50) 1,1,2-Trichloroethane      | 10.53 | 97   | 74847    | 17.169  | ug/l  | 100      |
| 51) Ethyl methacrylate         | 10.40 | 69   | 93604    | 13.111  | ug/l  | 100      |
| 52) 1,3-Dichloropropane        | 10.68 | 76   | 119224   | 15.443  | ug/l  | 100      |
| 53) Dibromochloromethane       | 10.87 | 129  | 87810    | 18.151  | ug/l  | 100      |
| 54) 1,2-Dibromoethane          | 10.98 | 107  | 78877    | 17.490  | ug/l  | 100      |
| 55) 2-Chloroethyl vinyl ether  | 9.66  | 63   | 164307   | 53.291  | ug/l  | 100      |
| 56) Bromoform                  | 12.10 | 173  | 58450    | 18.900  | ug/l  | 100      |
| 58) 4-Methyl-2-Pentanone       | 9.95  | 43   | 336189   | 56.631  | ug/l  | 100      |
| 59) 2-Hexanone                 | 10.72 | 43   | 240491   | 57.179  | ug/l  | 100      |
| 61) Tetrachloroethene          | 10.60 | 164  | 103240   | 22.119  | ug/l  | 100      |
| 62) Toluene                    | 10.12 | 91   | 338149   | 16.713  | ug/l  | 100      |
| 64) Chlorobenzene              | 11.41 | 112  | 212959   | 17.562  | ug/l  | 100      |
| 65) 1,1,1,2-Tetrachloroethane  | 11.48 | 131  | 80470    | 18.057  | ug/l  | 100      |
| 66) Ethyl Benzene              | 11.48 | 91   | 358678   | 15.609  | ug/l  | 100      |
| 67) m/p-Xylenes                | 11.60 | 106  | 286508   | 33.303  | ug/l  | 100      |
| 68) o-Xylene                   | 11.92 | 106  | 136176   | 16.641  | ug/l  | 100      |
| 69) Styrene                    | 11.94 | 104  | 222095   | 15.811  | ug/l  | 100      |
| 70) Isopropylbenzene           | 12.22 | 105  | 355733   | 16.086  | ug/l  | 100      |
| 71) 1,1,2,2-Tetrachloroethane  | 12.48 | 83   | 94516    | 15.657  | ug/l  | 100      |
| 72) 1,2,3-Trichloropropane     | 12.53 | 75   | 88945m   | 15.596  | ug/l  | 100      |
| 73) Bromobenzene               | 12.50 | 156  | 94491    | 19.622  | ug/l  | 100      |
| 74) n-propylbenzene            | 12.57 | 91   | 403680   | 15.466  | ug/l  | 100      |
| 75) 2-Chlorotoluene            | 12.65 | 91   | 234059   | 15.644  | ug/l  | 100      |
| 76) 1,3,5-Trimethylbenzene     | 12.71 | 105  | 295259   | 15.935  | ug/l  | 100      |
| 77) t-1,4-Dichloro-2-butene    | 12.27 | 75   | 31397    | 13.331  | ug/l  | 100      |
| 78) 4-Chlorotoluene            | 12.75 | 91   | 243914   | 15.534  | ug/l  | 100      |
| 79) tert-butylbenzene          | 12.97 | 119  | 250683   | 16.247  | ug/l  | 100      |
| 80) 1,2,4-Trimethylbenzene     | 13.01 | 105  | 298069   | 16.046  | ug/l  | 100      |
| 81) sec-Butylbenzene           | 13.15 | 105  | 331420   | 15.699  | ug/l  | 100      |
| 82) p-Isopropyltoluene         | 13.26 | 119  | 303396   | 15.886  | ug/l  | 100      |
| 83) 1,3-Dichlorobenzene        | 13.26 | 146  | 168248   | 18.906  | ug/l  | 100      |
| 84) 1,4-Dichlorobenzene        | 13.34 | 146  | 163941   | 18.716  | ug/l  | 100      |
| 85) n-Butylbenzene             | 13.59 | 91   | 245878   | 14.178  | ug/l  | 100      |
| 86) Hexachloroethane           | 13.85 | 117  | 37552    | 14.249  | ug/l  | 100      |
| 87) 1,2-Dichlorobenzene        | 13.63 | 146  | 163442   | 19.392  | ug/l  | 100      |
| 88) 1,2-Dibromo-3-Chloropropan | 14.25 | 75   | 17020    | 13.634  | ug/l  | 100      |
| 89) 1,2,4-Trichlorobenzene     | 14.88 | 180  | 89647    | 18.675  | ug/l  | 100      |
| 90) Hexachlorobutadiene        | 14.98 | 225  | 41221    | 20.503  | ug/l  | 100      |
| 91) Naphthalene                | 15.10 | 128  | 245692   | 16.607  | ug/l  | 100      |
| 92) 1,2,3-Trichlorobenzene     | 15.28 | 180  | 90162    | 19.179  | ug/l  | 100      |

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

