

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN021021\  
 Data File : VN065806.D  
 Acq On : 10 Feb 2021 19:40  
 Operator : JC/MD  
 Sample : VSTDCCC020  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDCCC020EC

Manual Integrations  
 APPROVED

MMDadoda  
 2/11/2021 1:17:54 PM

Quant Time: Feb 11 01:35:23 2021  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N020321W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Wed Feb 03 14:50:04 2021  
 Response via : Initial Calibration

| Compound                     | R.T.           | QIon | Response   | Conc   | Units  | Dev(Min) |
|------------------------------|----------------|------|------------|--------|--------|----------|
| -----                        |                |      |            |        |        |          |
| Internal Standards           |                |      |            |        |        |          |
| 1) Bromochloromethane        | 7.148          | 128  | 24598      | 30.00  | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene      | 8.550          | 114  | 133976     | 30.00  | ug/l   | 0.00     |
| 57) Chlorobenzene-d5         | 11.376         | 117  | 119989     | 30.00  | ug/l   | 0.00     |
|                              |                |      |            |        |        |          |
| System Monitoring Compounds  |                |      |            |        |        |          |
| 27) 1,2-Dichloroethane-d4    | 7.987          | 65   | 47166      | 27.64  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 110 |      | Recovery = | 92.13% |        |          |
| 60) 4-Bromofluorobenzene     | 12.373         | 95   | 57879      | 29.65  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 63 - 112 |      | Recovery = | 98.83% |        |          |
| 63) Toluene-d8               | 10.058         | 98   | 172922     | 29.98  | ug/l   | 0.00     |
| Spiked Amount 30.000         | Range 91 - 112 |      | Recovery = | 99.93% |        |          |
|                              |                |      |            |        |        |          |
| Target Compounds             |                |      |            |        |        | Qvalue   |
| 2) Dichlorodifluoromethane   | 1.836          | 85   | 27453      | 18.68  | ug/l   | 93       |
| 3) Chloromethane             | 2.039          | 50   | 36159      | 16.78  | ug/l   | 98       |
| 4) Vinyl Chloride            | 2.168          | 62   | 38190      | 17.92  | ug/l   | 99       |
| 5) Bromomethane              | 2.541          | 94   | 21819      | 17.16  | ug/l   | 99       |
| 6) Chloroethane              | 2.682          | 64   | 21209      | 17.24  | ug/l   | 97       |
| 7) Trichlorofluoromethane    | 2.994          | 101  | 41567      | 18.81  | ug/l   | 97       |
| 8) Diethyl Ether             | 3.380          | 74   | 17782      | 17.55  | ug/l   | 98       |
| 9) 1,1,2-Trichlorotrifluo... | 3.714          | 101  | 25245      | 18.69  | ug/l   | 94       |
| 10) 1,1-Dichloroethene       | 3.692          | 96   | 26772      | 18.61  | ug/l   | 98       |
| 11) Methyl Iodide            | 3.904          | 142  | 28832      | 14.23  | ug/l   | 95       |
| 12) Methyl Acetate           | 4.280          | 43   | 26216      | 15.05  | ug/l   | 96       |
| 13) Acrolein                 | 3.570          | 56   | 16941      | 72.42  | ug/l   | 99       |
| 14) Acrylonitrile            | 4.936          | 53   | 60724      | 78.43  | ug/l   | 98       |
| 15) Acetone                  | 3.779          | 58   | 16074      | 67.85  | ug/l   | 91       |
| 16) Carbon Disulfide         | 4.004          | 76   | 74862      | 16.59  | ug/l   | 100      |
| 17) Allyl chloride           | 4.270          | 41   | 39408      | 14.44  | ug/l   | 95       |
| 18) Methylene Chloride       | 4.499          | 84   | 29732      | 17.54  | ug/l   | 95       |
| 19) trans-1,2-Dichloroethene | 4.984          | 96   | 27339      | 17.38  | ug/l   | 94       |
| 20) Diisopropyl ether        | 5.907          | 45   | 87604      | 15.91  | ug/l   | 96       |
| 21) 1,1-Dichloroethane       | 5.798          | 63   | 50998      | 16.78  | ug/l   | 98       |
| 22) cis-1,2-Dichloroethene   | 6.782          | 96   | 32205      | 17.82  | ug/l   | 98       |
| 23) tert-Butyl Alcohol       | 4.756          | 59   | 18639      | 67.29  | ug/l # | 100      |
| 24) Methyl tert-Butyl Ether  | 5.000          | 73   | 80491      | 16.74  | ug/l # | 78       |
| 25) Chloroform               | 7.331          | 83   | 47424      | 17.20  | ug/l   | 99       |
| 26) Cyclohexane              | 7.608          | 56   | 46785      | 16.46  | ug/l # | 91       |
| 29) 1,1-Dichloropropene      | 7.749          | 75   | 37499      | 17.33  | ug/l   | 99       |
| 30) 2-Butanone               | 6.798          | 43   | 69122      | 71.37  | ug/l   | 99       |
| 31) 2,2-Dichloropropane      | 6.775          | 77   | 36078      | 15.93  | ug/l   | 99       |
| 32) 1,1,1-Trichloroethane    | 7.528          | 97   | 39402      | 18.36  | ug/l   | 97       |
| 33) Carbon Tetrachloride     | 7.730          | 117  | 31434      | 17.73  | ug/l   | 99       |
| 34) Benzene                  | 8.000          | 78   | 121680     | 18.21  | ug/l   | 96       |
| 35) Methacrylonitrile        | 7.126          | 41   | 14034      | 13.79  | ug/l   | 99       |
| 36) 1,2-Dichloroethane       | 8.084          | 62   | 35906      | 17.89  | ug/l   | 98       |
| 37) Trichloroethene          | 8.798          | 130  | 31997      | 19.83  | ug/l   | 96       |
| 38) Methylcyclohexane        | 9.042          | 83   | 44345      | 17.29  | ug/l   | 98       |
| 39) 1,2-Dichloropropane      | 9.084          | 63   | 31706      | 17.46  | ug/l   | 97       |
| 40) Dibromomethane           | 9.171          | 93   | 18588      | 18.06  | ug/l   | 87       |
| 41) Bromodichloromethane     | 9.367          | 83   | 35977      | 17.26  | ug/l   | 99       |
| 42) Vinyl Acetate            | 5.846          | 43   | 327313     | 77.16  | ug/l   | 100      |

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Manual Integrations  
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MMDadoda  
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Quant Time: Feb 11 01:35:23 2021  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N020321W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Wed Feb 03 14:50:04 2021  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|--------|------|----------|--------|--------|----------|
| 43) Ethyl Acetate             | 6.891  | 43   | 27911    | 14.07  | ug/l   | 92       |
| 44) Isopropyl Acetate         | 8.129  | 43   | 51840    | 15.11  | ug/l   | 96       |
| 45) 1,4-Dioxane               | 9.167  | 88   | 8974     | 315.44 | ug/l   | 92       |
| 46) Methyl methacrylate       | 9.164  | 41   | 25368    | 15.43  | ug/l   | 96       |
| 47) n-amyl Acetate            | 12.042 | 43   | 42909    | 14.95  | ug/l   | 99       |
| 48) t-1,3-Dichloropropene     | 10.351 | 75   | 39603    | 16.08  | ug/l   | 99       |
| 49) cis-1,3-Dichloropropene   | 9.804  | 75   | 46759    | 16.76  | ug/l   | 95       |
| 50) 1,1,2-Trichloroethane     | 10.531 | 97   | 28105    | 18.66  | ug/l   | 94       |
| 51) Ethyl methacrylate        | 10.399 | 69   | 40591    | 16.74  | ug/l   | 96       |
| 52) 1,3-Dichloropropane       | 10.675 | 76   | 48782    | 18.09  | ug/l   | 99       |
| 53) Dibromochloromethane      | 10.871 | 129  | 26566    | 17.41  | ug/l   | 98       |
| 54) 1,2-Dibromoethane         | 10.974 | 107  | 28283    | 18.74  | ug/l   | 97       |
| 55) 2-Chloroethyl vinyl ether | 9.662  | 63   | 89713    | 83.25  | ug/l   | 98       |
| 56) Bromoform                 | 12.096 | 173  | 16288    | 16.90  | ug/l # | 96       |
| 58) 4-Methyl-2-Pentanone      | 9.952  | 43   | 156107   | 78.33  | ug/l   | 98       |
| 59) 2-Hexanone                | 10.720 | 43   | 106523   | 74.67  | ug/l   | 97       |
| 61) Tetrachloroethene         | 10.598 | 164  | 31001    | 19.62  | ug/l   | 92       |
| 62) Toluene                   | 10.122 | 91   | 128712   | 18.35  | ug/l   | 98       |
| 64) Chlorobenzene             | 11.402 | 112  | 77668    | 18.76  | ug/l   | 100      |
| 65) 1,1,1,2-Tetrachloroethane | 11.476 | 131  | 26826    | 18.64  | ug/l   | 97       |
| 66) Ethyl Benzene             | 11.479 | 91   | 136142   | 18.13  | ug/l   | 99       |
| 67) m/p-Xylenes               | 11.592 | 106  | 103781   | 37.11  | ug/l   | 99       |
| 68) o-Xylene                  | 11.916 | 106  | 50939    | 18.71  | ug/l   | 100      |
| 69) Styrene                   | 11.936 | 104  | 81044    | 18.41  | ug/l   | 99       |
| 70) Isopropylbenzene          | 12.219 | 105  | 129162   | 18.47  | ug/l   | 99       |
| 71) 1,1,2,2-Tetrachloroethane | 12.473 | 83   | 37473    | 18.26  | ug/l   | 99       |
| 72) 1,2,3-Trichloropropane    | 12.524 | 75   | 34779m   | 17.30  | ug/l   |          |
| 73) Bromobenzene              | 12.495 | 156  | 30702    | 19.48  | ug/l   | 82       |
| 74) n-propylbenzene           | 12.560 | 91   | 146413   | 18.11  | ug/l   | 96       |
| 75) 2-Chlorotoluene           | 12.643 | 91   | 88621    | 18.09  | ug/l   | 95       |
| 76) 1,3,5-Trimethylbenzene    | 12.704 | 105  | 109526   | 18.70  | ug/l   | 99       |
| 77) t-1,4-Dichloro-2-butene   | 12.270 | 75   | 9398     | 11.97  | ug/l   | 99       |
| 78) 4-Chlorotoluene           | 12.743 | 91   | 88766    | 18.22  | ug/l   | 97       |
| 79) tert-butylbenzene         | 12.965 | 119  | 93249    | 19.28  | ug/l   | 99       |
| 80) 1,2,4-Trimethylbenzene    | 13.010 | 105  | 109612   | 18.70  | ug/l   | 98       |
| 81) sec-Butylbenzene          | 13.141 | 105  | 120221   | 18.61  | ug/l   | 97       |
| 82) p-Isopropyltoluene        | 13.257 | 119  | 107581   | 18.70  | ug/l   | 99       |
| 83) 1,3-Dichlorobenzene       | 13.254 | 146  | 53626    | 19.45  | ug/l   | 97       |
| 84) 1,4-Dichlorobenzene       | 13.334 | 146  | 50666    | 18.74  | ug/l   | 97       |
| 85) n-Butylbenzene            | 13.585 | 91   | 86992    | 17.33  | ug/l   | 98       |
| 86) Hexachloroethane          | 13.842 | 117  | 15584    | 15.61  | ug/l   | 76       |
| 87) 1,2-Dichlorobenzene       | 13.624 | 146  | 53546    | 19.43  | ug/l   | 97       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.241 | 75   | 5685     | 14.37  | ug/l   | 89       |
| 89) 1,2,4-Trichlorobenzene    | 14.878 | 180  | 24999    | 17.40  | ug/l   | 100      |
| 90) Hexachlorobutadiene       | 14.974 | 225  | 13217    | 20.28  | ug/l   | 97       |
| 91) Naphthalene               | 15.100 | 128  | 77092    | 16.76  | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene    | 15.276 | 180  | 27675    | 19.20  | ug/l   | 97       |

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

