

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN102620\  
 Data File : VN064308.D  
 Acq On : 26 Oct 2020 17:29  
 Operator : JC/MD  
 Sample : VSTDICC150  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 VSTDICC150

Manual Integrations  
 APPROVED

MMDadoda  
 10/27/2020 2:21:11 PM

Quant Time: Oct 26 17:49:52 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N102620W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Mon Oct 26 16:34:22 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.15  | 128  | 51165    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.55  | 114  | 279625   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.38 | 117  | 261606   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 7.98   | 65    | 129662   | 28.84    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 91 - 110 | Recovery | =    | 96.13%  |
| 60) 4-Bromofluorobenzene  | 12.38  | 95    | 139907   | 30.05    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 63 - 112 | Recovery | =    | 100.17% |
| 63) Toluene-d8            | 10.06  | 98    | 341603   | 29.26    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 91 - 112 | Recovery | =    | 97.53%  |

## Target Compounds

|                               |      |     |         |         | Ovalue     |
|-------------------------------|------|-----|---------|---------|------------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 629183  | 186.003 | ug/l 93    |
| 3) Chloromethane              | 2.04 | 50  | 598887  | 172.133 | ug/l 99    |
| 4) Vinyl Chloride             | 2.16 | 62  | 575660  | 164.233 | ug/l 100   |
| 5) Bromomethane               | 2.50 | 94  | 344650  | 151.516 | ug/l 91    |
| 6) Chloroethane               | 2.65 | 64  | 315969  | 155.329 | ug/l 96    |
| 7) Trichlorofluoromethane     | 2.97 | 101 | 854821  | 145.897 | ug/l 91    |
| 8) Diethyl Ether              | 3.37 | 74  | 286819  | 149.183 | ug/l 98    |
| 9) 1,1,2-Trichlorotrifluoroet | 3.71 | 101 | 432061  | 149.628 | ug/l 99    |
| 10) 1,1-Dichloroethene        | 3.69 | 96  | 433485  | 155.775 | ug/l 99    |
| 11) Methyl Iodide             | 3.91 | 142 | 661079  | 164.801 | ug/l 97    |
| 12) Methyl Acetate            | 4.27 | 43  | 521160  | 157.995 | ug/l 97    |
| 13) Acrolein                  | 3.56 | 56  | 182189  | 697.836 | ug/l 99    |
| 14) Acrylonitrile             | 4.93 | 53  | 1184420 | 904.241 | ug/l 99    |
| 15) Acetone                   | 3.77 | 58  | 293268  | 732.090 | ug/l 97    |
| 16) Carbon Disulfide          | 4.01 | 76  | 1296968 | 160.375 | ug/l 98    |
| 17) Allyl chloride            | 4.27 | 41  | 868545  | 162.576 | ug/l 96    |
| 18) Methylene Chloride        | 4.50 | 84  | 495081  | 151.030 | ug/l 97    |
| 19) trans-1,2-Dichloroethene  | 4.98 | 96  | 474177  | 152.026 | ug/l 95    |
| 20) Diisopropyl ether         | 5.90 | 45  | 1708894 | 165.975 | ug/l 92    |
| 21) 1,1-Dichloroethane        | 5.79 | 63  | 929435  | 153.288 | ug/l 99    |
| 22) cis-1,2-Dichloroethene    | 6.78 | 96  | 540868  | 149.452 | ug/l 97    |
| 23) tert-Butyl Alcohol        | 4.74 | 59  | 512540  | 853.336 | ug/l # 100 |
| 24) Methyl tert-Butyl Ether   | 4.99 | 73  | 1623192 | 163.776 | ug/l 97    |
| 25) Chloroform                | 7.33 | 83  | 960200  | 146.639 | ug/l 94    |
| 26) Cyclohexane               | 7.61 | 56  | 782612  | 165.563 | ug/l # 98  |
| 29) 1,1-Dichloropropene       | 7.75 | 75  | 730039  | 154.376 | ug/l 98    |
| 30) 2-Butanone                | 6.78 | 43  | 1717808 | 812.793 | ug/l # 97  |
| 31) 2,2-Dichloropropane       | 6.78 | 77  | 858371m | 146.043 | ug/l       |
| 32) 1,1,1-Trichloroethane     | 7.53 | 97  | 929893  | 153.785 | ug/l 98    |
| 33) Carbon Tetrachloride      | 7.73 | 117 | 840573  | 154.931 | ug/l 96    |
| 34) Benzene                   | 8.00 | 78  | 2003046 | 154.765 | ug/l # 86  |
| 35) Methacrylonitrile         | 7.12 | 41  | 345275  | 162.381 | ug/l 97    |
| 36) 1,2-Dichloroethane        | 8.08 | 62  | 844643  | 150.844 | ug/l # 91  |
| 37) Trichloroethene           | 8.80 | 130 | 544611  | 154.196 | ug/l 94    |
| 38) Methylcyclohexane         | 9.05 | 83  | 716935  | 164.953 | ug/l 99    |
| 39) 1,2-Dichloropropane       | 9.08 | 63  | 536379  | 153.809 | ug/l 97    |
| 40) Dibromomethane            | 9.17 | 93  | 368695  | 152.796 | ug/l 98    |

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 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Mon Oct 26 16:34:22 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|----------|--------|----------|
| -----                          |       |      |          |          |        |          |
| 41) Bromodichloromethane       | 9.37  | 83   | 809206   | 154.888  | ug/l   | 99       |
| 42) Vinyl Acetate              | 5.84  | 43   | 7461170  | 802.610  | ug/l   | 100      |
| 43) Ethyl Acetate              | 6.88  | 43   | 724365   | 161.858  | ug/l # | 71       |
| 44) Isopropyl Acetate          | 8.13  | 43   | 1290886  | 161.417  | ug/l # | 87       |
| 45) 1,4-Dioxane                | 9.17  | 88   | 196945   | 3820.023 | ug/l   | 97       |
| 46) Methyl methacrylate        | 9.16  | 41   | 642899   | 165.381  | ug/l   | 97       |
| 47) n-amyl Acetate             | 12.05 | 43   | 1180373  | 170.423  | ug/l   | 100      |
| 48) t-1,3-Dichloropropene      | 10.35 | 75   | 916817   | 156.157  | ug/l   | 97       |
| 49) cis-1,3-Dichloropropene    | 9.81  | 75   | 936364   | 154.217  | ug/l   | 98       |
| 50) 1,1,2-Trichloroethane      | 10.53 | 97   | 499535   | 154.872  | ug/l   | 94       |
| 51) Ethyl methacrylate         | 10.40 | 69   | 813794   | 163.916  | ug/l   | 94       |
| 52) 1,3-Dichloropropane        | 10.68 | 76   | 877899   | 154.905  | ug/l   | 98       |
| 53) Dibromochloromethane       | 10.87 | 129  | 642232   | 160.674  | ug/l   | 99       |
| 54) 1,2-Dibromoethane          | 10.98 | 107  | 541963   | 157.145  | ug/l   | 99       |
| 55) 2-Chloroethyl vinyl ether  | 9.66  | 63   | 2047386  | 792.131  | ug/l   | 99       |
| 56) Bromoform                  | 12.10 | 173  | 463108   | 162.196  | ug/l # | 96       |
| 58) 4-Methyl-2-Pentanone       | 9.95  | 43   | 3667820  | 813.432  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.72 | 43   | 2752665  | 811.028  | ug/l   | 99       |
| 61) Tetrachloroethene          | 10.60 | 164  | 521625   | 147.125  | ug/l   | 97       |
| 62) Toluene                    | 10.12 | 91   | 2236085  | 152.849  | ug/l   | 99       |
| 64) Chlorobenzene              | 11.41 | 112  | 1386679  | 153.536  | ug/l   | 97       |
| 65) 1,1,1,2-Tetrachloroethane  | 11.48 | 131  | 548121   | 151.186  | ug/l   | 95       |
| 66) Ethyl Benzene              | 11.48 | 91   | 2519007  | 149.573  | ug/l   | 95       |
| 67) m/p-Xylenes                | 11.60 | 106  | 1897335  | 306.208  | ug/l   | 92       |
| 68) o-Xylene                   | 11.92 | 106  | 923860   | 153.422  | ug/l   | 96       |
| 69) Styrene                    | 11.94 | 104  | 1592767  | 158.350  | ug/l   | 97       |
| 70) Isopropylbenzene           | 12.22 | 105  | 2424803  | 151.698  | ug/l   | 97       |
| 71) 1,1,2,2-Tetrachloroethane  | 12.48 | 83   | 701059   | 160.085  | ug/l   | 99       |
| 72) 1,2,3-Trichloropropane     | 12.53 | 75   | 695388m  | 150.967  | ug/l   |          |
| 73) Bromobenzene               | 12.50 | 156  | 605914   | 155.587  | ug/l   | 97       |
| 74) n-propylbenzene            | 12.57 | 91   | 2793611  | 153.053  | ug/l   | 99       |
| 75) 2-Chlorotoluene            | 12.65 | 91   | 1729638  | 152.023  | ug/l   | 97       |
| 76) 1,3,5-Trimethylbenzene     | 12.71 | 105  | 2091974  | 154.527  | ug/l   | 97       |
| 77) t-1,4-Dichloro-2-butene    | 12.27 | 75   | 295227   | 167.508  | ug/l   | 95       |
| 78) 4-Chlorotoluene            | 12.75 | 91   | 1839033  | 155.876  | ug/l   | 99       |
| 79) tert-butylbenzene          | 12.97 | 119  | 1701134  | 154.380  | ug/l   | 96       |
| 80) 1,2,4-Trimethylbenzene     | 13.01 | 105  | 2102002  | 152.853  | ug/l   | 98       |
| 81) sec-Butylbenzene           | 13.14 | 105  | 2181767  | 152.697  | ug/l   | 99       |
| 82) p-Isopropyltoluene         | 13.26 | 119  | 2036849  | 155.329  | ug/l   | 98       |
| 83) 1,3-Dichlorobenzene        | 13.26 | 146  | 1093400  | 160.227  | ug/l   | 97       |
| 84) 1,4-Dichlorobenzene        | 13.34 | 146  | 1089552  | 157.263  | ug/l   | 98       |
| 85) n-Butylbenzene             | 13.59 | 91   | 1785823  | 155.796  | ug/l   | 98       |
| 86) Hexachloroethane           | 13.85 | 117  | 399524   | 175.980  | ug/l   | 100      |
| 87) 1,2-Dichlorobenzene        | 13.63 | 146  | 1055455  | 157.877  | ug/l   | 100      |
| 88) 1,2-Dibromo-3-Chloropropan | 14.24 | 75   | 185313   | 173.051  | ug/l   | 95       |
| 89) 1,2,4-Trichlorobenzene     | 14.88 | 180  | 627186   | 166.056  | ug/l   | 99       |
| 90) Hexachlorobutadiene        | 14.98 | 225  | 308918   | 150.089  | ug/l   | 95       |
| 91) Naphthalene                | 15.10 | 128  | 1938905  | 173.198  | ug/l   | 99       |
| 92) 1,2,3-Trichlorobenzene     | 15.28 | 180  | 610406   | 168.293  | ug/l   | 99       |
| -----                          |       |      |          |          |        |          |

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

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