

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN102220\  
 Data File : VN064259.D  
 Acq On : 22 Oct 2020 18:54  
 Operator : JC/MD  
 Sample : L4214-08 5.0PPB LOO  
 Misc : 5.00mL/MSVOA N/WATER  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 LOQ-WATER-02-QT4-2020

Manual Integrations  
 APPROVED

MMDadoda  
 10/23/2020 3:24:05 PM

Quant Time: Oct 23 01:37:42 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA N\METHODS\624N102020W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Oct 22 16:07:21 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 7.15  | 128  | 44113    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 8.55  | 114  | 258270   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 11.38 | 117  | 224632   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |          |
|---------------------------|--------|-------|----------|----------|------|----------|
| 27) 1,2-Dichloroethane-d4 | 7.99   | 65    | 127296   | 35.25    | ug/l | 0.00     |
| Spiked Amount             | 30.000 | Range | 91 - 110 | Recovery | =    | 117.50%# |
| 60) 4-Bromofluorobenzene  | 12.38  | 95    | 120838   | 30.02    | ug/l | 0.00     |
| Spiked Amount             | 30.000 | Range | 63 - 112 | Recovery | =    | 100.07%  |
| 63) Toluene-d8            | 10.06  | 98    | 311995   | 30.68    | ug/l | 0.00     |
| Spiked Amount             | 30.000 | Range | 91 - 112 | Recovery | =    | 102.27%  |

## Target Compounds

|                               |      |     |        |               | Ovalue |
|-------------------------------|------|-----|--------|---------------|--------|
| 2) Dichlorodifluoromethane    | 1.83 | 85  | 12125  | 4.006 ug/l    | 84     |
| 3) Chloromethane              | 2.04 | 50  | 14192  | 4.576 ug/l    | 98     |
| 4) Vinyl Chloride             | 2.16 | 62  | 14000  | 4.588 ug/l    | 92     |
| 5) Bromomethane               | 2.54 | 94  | 9980   | 5.467 ug/l    | 89     |
| 6) Chloroethane               | 2.68 | 64  | 8721   | 4.907 ug/l    | 94     |
| 7) Trichlorofluoromethane     | 2.98 | 101 | 25532  | 5.212 ug/l    | 88     |
| 8) Diethyl Ether              | 3.38 | 74  | 7695   | 4.627 ug/l    | 80     |
| 9) 1,1,2-Trichlorotrifluoroet | 3.72 | 101 | 13978  | 5.407 ug/l    | 81     |
| 10) 1,1-Dichloroethene        | 3.70 | 96  | 12392  | 4.923 ug/l    | 92     |
| 11) Methyl Iodide             | 3.91 | 142 | 14677  | 4.045 ug/l #  | 85     |
| 12) Methyl Acetate            | 4.28 | 43  | 14821  | 5.586 ug/l #  | 86     |
| 13) Acrolein                  | 3.57 | 56  | 5835   | 20.115 ug/l # | 1      |
| 14) Acrylonitrile             | 4.94 | 53  | 24187  | 22.623 ug/l # | 66     |
| 15) Acetone                   | 3.78 | 58  | 8081   | 27.995 ug/l   | 96     |
| 16) Carbon Disulfide          | 4.01 | 76  | 33561  | 4.662 ug/l    | 98     |
| 17) Allyl chloride            | 4.28 | 41  | 22760m | 4.863 ug/l    |        |
| 18) Methylene Chloride        | 4.51 | 84  | 15715m | 5.459 ug/l    |        |
| 19) trans-1,2-Dichloroethene  | 4.99 | 96  | 13135  | 4.837 ug/l    | 91     |
| 20) Diisopropyl ether         | 5.90 | 45  | 46852  | 5.417 ug/l    | 99     |
| 21) 1,1-Dichloroethane        | 5.80 | 63  | 27061  | 5.125 ug/l    | 96     |
| 22) cis-1,2-Dichloroethene    | 6.78 | 96  | 16663  | 5.250 ug/l #  | 58     |
| 23) tert-Butyl Alcohol        | 4.74 | 59  | 13167m | 26.628 ug/l   |        |
| 24) Methyl tert-Butyl Ether   | 4.99 | 73  | 43573  | 5.239 ug/l #  | 74     |
| 25) Chloroform                | 7.33 | 83  | 28410m | 5.178 ug/l    |        |
| 26) Cyclohexane               | 7.61 | 56  | 20282  | 4.844 ug/l #  | 86     |
| 29) 1,1-Dichloropropene       | 7.75 | 75  | 20304  | 4.734 ug/l    | 98     |
| 30) 2-Butanone                | 6.79 | 43  | 45608  | 25.786 ug/l # | 80     |
| 31) 2,2-Dichloropropane       | 6.77 | 77  | 25664  | 4.713 ug/l #  | 76     |
| 32) 1,1,1-Trichloroethane     | 7.52 | 97  | 28169  | 5.154 ug/l    | 97     |
| 33) Carbon Tetrachloride      | 7.73 | 117 | 23906  | 4.798 ug/l    | 95     |
| 34) Benzene                   | 8.00 | 78  | 59267  | 4.962 ug/l #  | 68     |
| 35) Methacrylonitrile         | 7.13 | 41  | 10389  | 5.355 ug/l    | 89     |
| 36) 1,2-Dichloroethane        | 8.09 | 62  | 27206  | 5.632 ug/l #  | 80     |
| 37) Trichloroethene           | 8.80 | 130 | 16589  | 5.045 ug/l    | 94     |
| 38) Methylcyclohexane         | 9.05 | 83  | 19630  | 4.785 ug/l    | 98     |
| 39) 1,2-Dichloropropane       | 9.08 | 63  | 16125  | 5.059 ug/l    | 95     |
| 40) Dibromomethane            | 9.17 | 93  | 11005  | 4.962 ug/l    | 97     |

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 QLast Update : Thu Oct 22 16:07:21 2020  
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| Internal Standards             | R.T.  | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|---------|--------|----------|
| 41) Bromodichloromethane       | 9.37  | 83   | 23495    | 4.895   | ug/l   | 97       |
| 42) Vinyl Acetate              | 5.85  | 43   | 210473   | 25.065  | ug/l   | 99       |
| 43) Ethyl Acetate              | 6.88  | 43   | 17416    | 4.508   | ug/l # | 86       |
| 44) Isopropyl Acetate          | 8.12  | 43   | 37302    | 5.030   | ug/l   | 92       |
| 45) 1,4-Dioxane                | 9.16  | 88   | 4686     | 108.035 | ug/l   | 93       |
| 46) Methyl methacrylate        | 9.17  | 41   | 17403    | 4.946   | ug/l   | 97       |
| 47) n-amyl Acetate             | 12.05 | 43   | 29588    | 4.497   | ug/l   | 99       |
| 48) t-1,3-Dichloropropene      | 10.35 | 75   | 26123    | 4.826   | ug/l   | 93       |
| 49) cis-1,3-Dichloropropene    | 9.81  | 75   | 25629    | 4.582   | ug/l   | 95       |
| 50) 1,1,2-Trichloroethane      | 10.53 | 97   | 14474    | 4.872   | ug/l   | 96       |
| 51) Ethyl methacrylate         | 10.40 | 69   | 21289    | 4.531   | ug/l   | 93       |
| 52) 1,3-Dichloropropane        | 10.68 | 76   | 26288    | 5.132   | ug/l   | 97       |
| 53) Dibromochloromethane       | 10.87 | 129  | 17180    | 4.594   | ug/l   | 99       |
| 54) 1,2-Dibromoethane          | 10.97 | 107  | 15058    | 4.768   | ug/l   | 96       |
| 55) 2-Chloroethyl vinyl ether  | 9.66  | 63   | 56034    | 24.267  | ug/l   | 98       |
| 56) Bromoform                  | 12.10 | 173  | 11284    | 4.333   | ug/l   | 94       |
| 58) 4-Methyl-2-Pentanone       | 9.95  | 43   | 97416    | 25.592  | ug/l   | 99       |
| 59) 2-Hexanone                 | 10.72 | 43   | 70732    | 25.030  | ug/l   | 99       |
| 61) Tetrachloroethene          | 10.60 | 164  | 16082    | 5.311   | ug/l   | 97       |
| 62) Toluene                    | 10.13 | 91   | 64600    | 5.030   | ug/l   | 97       |
| 64) Chlorobenzene              | 11.41 | 112  | 39937    | 4.994   | ug/l   | 96       |
| 65) 1,1,1,2-Tetrachloroethane  | 11.48 | 131  | 16156    | 5.156   | ug/l   | 95       |
| 66) Ethyl Benzene              | 11.48 | 91   | 71460    | 4.840   | ug/l   | 98       |
| 67) m/p-Xylenes                | 11.59 | 106  | 53081    | 9.667   | ug/l   | 99       |
| 68) o-Xylene                   | 11.92 | 106  | 26131    | 4.904   | ug/l   | 98       |
| 69) Styrene                    | 11.94 | 104  | 40627    | 4.507   | ug/l   | 95       |
| 70) Isopropylbenzene           | 12.23 | 105  | 69229    | 4.919   | ug/l   | 96       |
| 71) 1,1,2,2-Tetrachloroethane  | 12.48 | 83   | 19329    | 5.012   | ug/l   | 98       |
| 72) 1,2,3-Trichloropropane     | 12.53 | 75   | 19185m   | 4.767   | ug/l   |          |
| 73) Bromobenzene               | 12.50 | 156  | 16911    | 4.983   | ug/l   | 91       |
| 74) n-propylbenzene            | 12.57 | 91   | 75198    | 4.682   | ug/l   | 99       |
| 75) 2-Chlorotoluene            | 12.65 | 91   | 51706    | 5.200   | ug/l   | 99       |
| 76) 1,3,5-Trimethylbenzene     | 12.71 | 105  | 56392    | 4.709   | ug/l   | 96       |
| 77) t-1,4-Dichloro-2-butene    | 12.28 | 75   | 7414     | 4.712   | ug/l   | 92       |
| 78) 4-Chlorotoluene            | 12.75 | 91   | 48211    | 4.636   | ug/l   | 100      |
| 79) tert-butylbenzene          | 12.97 | 119  | 47449    | 4.847   | ug/l   | 96       |
| 80) 1,2,4-Trimethylbenzene     | 13.01 | 105  | 55703    | 4.582   | ug/l   | 100      |
| 81) sec-Butylbenzene           | 13.14 | 105  | 58950    | 4.628   | ug/l   | 97       |
| 82) p-Isopropyltoluene         | 13.26 | 119  | 54775    | 4.646   | ug/l   | 98       |
| 83) 1,3-Dichlorobenzene        | 13.26 | 146  | 27458    | 4.514   | ug/l   | 98       |
| 84) 1,4-Dichlorobenzene        | 13.34 | 146  | 27725    | 4.553   | ug/l   | 98       |
| 85) n-Butylbenzene             | 13.59 | 91   | 44766    | 4.278   | ug/l   | 97       |
| 86) Hexachloroethane           | 13.85 | 117  | 9058     | 4.463   | ug/l   | 92       |
| 87) 1,2-Dichlorobenzene        | 13.63 | 146  | 26316    | 4.436   | ug/l   | 98       |
| 88) 1,2-Dibromo-3-Chloropropan | 14.24 | 75   | 4950     | 5.068   | ug/l # | 84       |
| 89) 1,2,4-Trichlorobenzene     | 14.88 | 180  | 13975    | 3.923   | ug/l   | 99       |
| 90) Hexachlorobutadiene        | 14.98 | 225  | 8086     | 4.478   | ug/l   | 94       |
| 91) Naphthalene                | 15.10 | 128  | 38986    | 3.610   | ug/l   | 97       |
| 92) 1,2,3-Trichlorobenzene     | 15.28 | 180  | 12907    | 3.789   | ug/l   | 95       |

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

