

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX062520\  
 Data File : VX016952.D  
 Acq On : 25 Jun 2020 14:12  
 Operator : JC/SP  
 Sample : VSTDIC150  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDIC150

Manual Integrations  
 APPROVED

MMDadoda  
 6/26/2020 3:33:57 PM

Quant Time: Jun 26 09:03:08 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X062520W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Jun 26 08:49:19 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 4.98  | 128  | 39813    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 6.83  | 114  | 218274   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 10.10 | 117  | 206450   | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 6.03   | 65    | 93477    | 30.17    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 100.57% |
| 60) 4-Bromofluorobenzene  | 11.12  | 95    | 106395   | 30.90    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 103.00% |
| 63) Toluene-d8            | 8.70   | 98    | 269186   | 29.58    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 98.60%  |

## Target Compounds

|                               |      |     |         |          | Ovalue    |
|-------------------------------|------|-----|---------|----------|-----------|
| 2) Dichlorodifluoromethane    | 1.18 | 85  | 322526  | 166.593  | ug/l 97   |
| 3) Chloromethane              | 1.31 | 50  | 379133  | 144.409  | ug/l 100  |
| 4) Vinyl Chloride             | 1.39 | 62  | 388450  | 145.087  | ug/l 95   |
| 5) Bromomethane               | 1.62 | 94  | 242096  | 125.583  | ug/l 98   |
| 6) Chloroethane               | 1.70 | 64  | 254391  | 147.323  | ug/l 99   |
| 7) Trichlorofluoromethane     | 1.91 | 101 | 638186  | 146.567  | ug/l 98   |
| 8) Diethyl Ether              | 2.17 | 74  | 232507  | 146.752  | ug/l 99   |
| 9) 1,1,2-Trichlorotrifluoroet | 2.36 | 101 | 324886  | 140.587  | ug/l 98   |
| 10) 1,1-Dichloroethene        | 2.35 | 96  | 331735  | 145.550  | ug/l 93   |
| 11) Methyl Iodide             | 2.49 | 142 | 510574  | 167.775  | ug/l 98   |
| 12) Methyl Acetate            | 2.75 | 43  | 427040  | 148.538  | ug/l 99   |
| 13) Acrolein                  | 2.28 | 56  | 357444  | 787.932  | ug/l 100  |
| 14) Acrylonitrile             | 3.12 | 53  | 1026648 | 753.965  | ug/l 99   |
| 15) Acetone                   | 2.42 | 58  | 260939  | 740.498  | ug/l 100  |
| 16) Carbon Disulfide          | 2.54 | 76  | 1031230 | 143.927  | ug/l 99   |
| 17) Allyl chloride            | 2.70 | 41  | 638030  | 149.539  | ug/l 99   |
| 18) Methylene Chloride        | 2.83 | 84  | 386975  | 140.964  | ug/l 97   |
| 19) trans-1,2-Dichloroethene  | 3.14 | 96  | 378691  | 146.643  | ug/l 99   |
| 20) Diisopropyl ether         | 3.82 | 45  | 1290026 | 151.289  | ug/l 97   |
| 21) 1,1-Dichloroethane        | 3.67 | 63  | 690631  | 146.887  | ug/l 99   |
| 22) cis-1,2-Dichloroethene    | 4.57 | 96  | 430378  | 149.689  | ug/l 98   |
| 23) tert-Butyl Alcohol        | 3.03 | 59  | 452826  | 2837.071 | ug/l 100  |
| 24) Methyl tert-Butyl Ether   | 3.17 | 73  | 1232361 | 151.429  | ug/l 99   |
| 25) Chloroform                | 5.18 | 83  | 704385  | 147.760  | ug/l 99   |
| 26) Cyclohexane               | 5.55 | 56  | 599656  | 146.204  | ug/l # 96 |
| 29) 1,1-Dichloropropene       | 5.77 | 75  | 530421  | 149.171  | ug/l 99   |
| 30) 2-Butanone                | 4.64 | 43  | 1423758 | 768.180  | ug/l 100  |
| 31) 2,2-Dichloropropane       | 4.56 | 77  | 595158  | 145.945  | ug/l 98   |
| 32) 1,1,1-Trichloroethane     | 5.46 | 97  | 643510  | 149.564  | ug/l 98   |
| 33) Carbon Tetrachloride      | 5.76 | 117 | 571940  | 149.893  | ug/l 97   |
| 34) Benzene                   | 6.11 | 78  | 1541929 | 148.927  | ug/l 98   |
| 35) Methacrylonitrile         | 5.01 | 41  | 313258  | 153.147  | ug/l 97   |
| 36) 1,2-Dichloroethane        | 6.17 | 62  | 582299  | 146.849  | ug/l 98   |
| 37) Trichloroethene           | 7.19 | 130 | 417460  | 147.764  | ug/l 95   |
| 38) Methylcyclohexane         | 7.44 | 83  | 605869  | 149.620  | ug/l 100  |
| 39) 1,2-Dichloropropane       | 7.49 | 63  | 399693  | 148.178  | ug/l 97   |
| 40) Dibromomethane            | 7.64 | 93  | 278956  | 150.053  | ug/l 99   |

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 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 6 Sample Multiplier: 1

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 6/26/2020 3:33:57 PM

Quant Time: Jun 26 09:03:08 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X062520W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Jun 26 08:49:19 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|-------|------|----------|----------|-------|----------|
| 41) Bromodichloromethane       | 7.88  | 83   | 582303   | 151.264  | ug/l  | 94       |
| 42) Vinyl Acetate              | 3.79  | 43   | 5769833  | 772.515  | ug/l  | 100      |
| 43) Ethyl Acetate              | 4.80  | 43   | 582605   | 152.140  | ug/l  | 99       |
| 44) Isopropyl Acetate          | 6.42  | 43   | 977712   | 154.504  | ug/l  | 99       |
| 45) 1,4-Dioxane                | 7.71  | 88   | 194748   | 3050.546 | ug/l  | 97       |
| 46) Methyl methacrylate        | 7.74  | 41   | 470700   | 160.732  | ug/l  | 96       |
| 47) n-amyl Acetate             | 10.88 | 43   | 906002   | 161.976  | ug/l  | 98       |
| 48) t-1,3-Dichloropropene      | 9.02  | 75   | 664003   | 156.001  | ug/l  | 97       |
| 49) cis-1,3-Dichloropropene    | 8.42  | 75   | 682448   | 152.562  | ug/l  | 99       |
| 50) 1,1,2-Trichloroethane      | 9.20  | 97   | 390606   | 150.551  | ug/l  | 98       |
| 51) Ethyl methacrylate         | 9.16  | 69   | 654065   | 164.267  | ug/l  | 97       |
| 52) 1,3-Dichloropropane        | 9.35  | 76   | 666668   | 149.666  | ug/l  | 98       |
| 53) Dibromochloromethane       | 9.57  | 129  | 465270   | 156.023  | ug/l  | 99       |
| 54) 1,2-Dibromoethane          | 9.65  | 107  | 421133   | 152.967  | ug/l  | 100      |
| 55) 2-Chloroethyl vinyl ether  | 8.29  | 63   | 1634128  | 779.894  | ug/l  | 100      |
| 56) Bromoform                  | 10.84 | 173  | 347201   | 164.019  | ug/l  | 99       |
| 58) 4-Methyl-2-Pentanone       | 8.62  | 43   | 2928928  | 770.190  | ug/l  | 99       |
| 59) 2-Hexanone                 | 9.48  | 43   | 2198700  | 774.701  | ug/l  | 99       |
| 61) Tetrachloroethene          | 9.32  | 164  | 372441   | 141.459  | ug/l  | 96       |
| 62) Toluene                    | 8.77  | 91   | 1650790  | 146.193  | ug/l  | 99       |
| 64) Chlorobenzene              | 10.12 | 112  | 1059770  | 149.806  | ug/l  | 100      |
| 65) 1,1,1,2-Tetrachloroethane  | 10.21 | 131  | 403322   | 151.444  | ug/l  | 100      |
| 66) Ethyl Benzene              | 10.24 | 91   | 1886067  | 150.620  | ug/l  | 99       |
| 67) m/p-Xylenes                | 10.34 | 106  | 1440723  | 304.995  | ug/l  | 98       |
| 68) o-Xylene                   | 10.68 | 106  | 699778   | 154.219  | ug/l  | 99       |
| 69) Styrene                    | 10.70 | 104  | 1245992  | 160.372  | ug/l  | 98       |
| 70) Isopropylbenzene           | 11.00 | 105  | 1900025  | 154.384  | ug/l  | 99       |
| 71) 1,1,2,2-Tetrachloroethane  | 11.26 | 83   | 576956   | 152.646  | ug/l  | 98       |
| 72) 1,2,3-Trichloropropane     | 11.28 | 75   | 529105m  | 145.770  | ug/l  |          |
| 73) Bromobenzene               | 11.24 | 156  | 473609   | 152.479  | ug/l  | 98       |
| 74) n-propylbenzene            | 11.35 | 91   | 2239013  | 153.222  | ug/l  | 100      |
| 75) 2-Chlorotoluene            | 11.41 | 91   | 1296378  | 152.136  | ug/l  | 100      |
| 76) 1,3,5-Trimethylbenzene     | 11.49 | 105  | 1600912  | 154.971  | ug/l  | 99       |
| 77) t-1,4-Dichloro-2-butene    | 11.06 | 75   | 231184   | 157.163  | ug/l  | 97       |
| 78) 4-Chlorotoluene            | 11.49 | 91   | 1551443  | 153.773  | ug/l  | 97       |
| 79) tert-butylbenzene          | 11.76 | 119  | 1543217  | 155.941  | ug/l  | 99       |
| 80) 1,2,4-Trimethylbenzene     | 11.79 | 105  | 1590109  | 153.322  | ug/l  | 99       |
| 81) sec-Butylbenzene           | 11.93 | 105  | 1835645  | 153.204  | ug/l  | 99       |
| 82) p-Isopropyltoluene         | 12.05 | 119  | 1653652  | 152.854  | ug/l  | 100      |
| 83) 1,3-Dichlorobenzene        | 12.01 | 146  | 826700   | 148.523  | ug/l  | 99       |
| 84) 1,4-Dichlorobenzene        | 12.08 | 146  | 852331   | 152.404  | ug/l  | 99       |
| 85) n-Butylbenzene             | 12.37 | 91   | 1569950  | 156.780  | ug/l  | 99       |
| 86) Hexachloroethane           | 12.58 | 117  | 331680   | 156.661  | ug/l  | 99       |
| 87) 1,2-Dichlorobenzene        | 12.38 | 146  | 790989   | 151.825  | ug/l  | 99       |
| 88) 1,2-Dibromo-3-Chloropropan | 12.98 | 75   | 134337   | 156.216  | ug/l  | 96       |
| 89) 1,2,4-Trichlorobenzene     | 13.63 | 180  | 555297   | 157.982  | ug/l  | 94       |
| 90) Hexachlorobutadiene        | 13.77 | 225  | 199649   | 149.314  | ug/l  | 98       |
| 91) Naphthalene                | 13.82 | 128  | 1804308  | 156.607  | ug/l  | 100      |
| 92) 1,2,3-Trichlorobenzene     | 14.01 | 180  | 521502   | 152.033  | ug/l  | 95       |

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

