

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX041020\  
 Data File : VX015611.D  
 Acq On : 10 Apr 2020 11:18  
 Operator : JC/SP  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC020

Manual Integrations  
 APPROVED

apatel  
 4/13/2020 1:23:54 PM

Quant Time: Apr 11 00:48:44 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X032520W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Mar 26 02:31:53 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 4.98  | 128  | 201664   | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 6.83  | 114  | 1104275  | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 10.10 | 117  | 1009046  | 30.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |       |          |          |      |         |
|---------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4 | 6.03   | 65    | 473359   | 30.04    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 50 - 169 | Recovery | =    | 100.13% |
| 60) 4-Bromofluorobenzene  | 11.12  | 95    | 517415   | 29.96    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 56 - 143 | Recovery | =    | 99.87%  |
| 63) Toluene-d8            | 8.70   | 98    | 1296665  | 30.25    | ug/l | 0.00    |
| Spiked Amount             | 30.000 | Range | 66 - 137 | Recovery | =    | 100.83% |

## Target Compounds

|                               |      |     |         |         | Ovalue     |
|-------------------------------|------|-----|---------|---------|------------|
| 2) Dichlorodifluoromethane    | 1.19 | 85  | 168529  | 17.500  | ug/l 98    |
| 3) Chloromethane              | 1.31 | 50  | 209524  | 17.629  | ug/l 99    |
| 4) Vinyl Chloride             | 1.39 | 62  | 212956  | 18.625  | ug/l 98    |
| 5) Bromomethane               | 1.63 | 94  | 133693  | 21.964  | ug/l 99    |
| 6) Chloroethane               | 1.72 | 64  | 139278  | 19.525  | ug/l 97    |
| 7) Trichlorofluoromethane     | 1.92 | 101 | 313509  | 19.186  | ug/l 94    |
| 8) Diethyl Ether              | 2.17 | 74  | 125242  | 19.921  | ug/l 99    |
| 9) 1,1,2-Trichlorotrifluoroet | 2.37 | 101 | 204988  | 18.962  | ug/l 99    |
| 10) 1,1-Dichloroethene        | 2.36 | 96  | 198347  | 18.063  | ug/l 93    |
| 11) Methyl Iodide             | 2.49 | 142 | 249212  | 17.078  | ug/l 100   |
| 12) Methyl Acetate            | 2.75 | 43  | 293963  | 18.295  | ug/l 97    |
| 13) Acrolein                  | 2.27 | 56  | 227254  | 108.721 | ug/l 95    |
| 14) Acrylonitrile             | 3.11 | 53  | 633991  | 92.164  | ug/l 99    |
| 15) Acetone                   | 2.42 | 58  | 236820  | 135.390 | ug/l 87    |
| 16) Carbon Disulfide          | 2.55 | 76  | 555707  | 17.312  | ug/l 99    |
| 17) Allyl chloride            | 2.71 | 41  | 438659  | 17.694  | ug/l 97    |
| 18) Methylene Chloride        | 2.83 | 84  | 233196  | 18.915  | ug/l 97    |
| 19) trans-1,2-Dichloroethene  | 3.14 | 96  | 222199  | 18.706  | ug/l 96    |
| 20) Diisopropyl ether         | 3.83 | 45  | 844080  | 18.983  | ug/l 92    |
| 21) 1,1-Dichloroethane        | 3.67 | 63  | 426086  | 18.772  | ug/l 98    |
| 22) cis-1,2-Dichloroethene    | 4.56 | 96  | 255766  | 18.691  | ug/l 99    |
| 23) tert-Butyl Alcohol        | 3.00 | 59  | 262275  | 77.514  | ug/l # 100 |
| 24) Methyl tert-Butyl Ether   | 3.17 | 73  | 769715  | 18.880  | ug/l 100   |
| 25) Chloroform                | 5.18 | 83  | 424080  | 18.902  | ug/l 99    |
| 26) Cyclohexane               | 5.55 | 56  | 391666  | 18.061  | ug/l # 99  |
| 29) 1,1-Dichloropropene       | 5.77 | 75  | 322960  | 19.466  | ug/l 99    |
| 30) 2-Butanone                | 4.63 | 43  | 1067406 | 107.325 | ug/l 99    |
| 31) 2,2-Dichloropropane       | 4.55 | 77  | 392493  | 19.659  | ug/l 98    |
| 32) 1,1,1-Trichloroethane     | 5.47 | 97  | 385023  | 19.021  | ug/l 98    |
| 33) Carbon Tetrachloride      | 5.75 | 117 | 348137  | 18.873  | ug/l 96    |
| 34) Benzene                   | 6.11 | 78  | 920237  | 19.245  | ug/l 99    |
| 35) Methacrylonitrile         | 5.00 | 41  | 210332  | 18.650  | ug/l 97    |
| 36) 1,2-Dichloroethane        | 6.16 | 62  | 373253  | 20.201  | ug/l 99    |
| 37) Trichloroethene           | 7.19 | 130 | 259158  | 19.249  | ug/l 94    |
| 38) Methylcyclohexane         | 7.44 | 83  | 386599  | 19.008  | ug/l 99    |
| 39) 1,2-Dichloropropane       | 7.49 | 63  | 241639  | 18.814  | ug/l 97    |
| 40) Dibromomethane            | 7.64 | 93  | 163851  | 19.167  | ug/l 98    |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX041020\  
 Data File : VX015611.D  
 Acq On : 10 Apr 2020 11:18  
 Operator : JC/SP  
 Sample : VSTDCCC020  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 VSTDCCC020

Manual Integrations  
 APPROVED

apatel  
 4/13/2020 1:23:54 PM

Quant Time: Apr 11 00:48:44 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X032520W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Mar 26 02:31:53 2020  
 Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 41) Bromodichloromethane       | 7.87  | 83   | 342147   | 18.416  | ug/l  | 99       |
| 42) Vinyl Acetate              | 3.78  | 43   | 3737999  | 99.194  | ug/l  | 100      |
| 43) Ethyl Acetate              | 4.80  | 43   | 376745   | 17.415  | ug/l  | 96       |
| 44) Isopropyl Acetate          | 6.41  | 43   | 642262   | 18.447  | ug/l  | 100      |
| 45) 1,4-Dioxane                | 7.71  | 88   | 99887    | 311.431 | ug/l  | 98       |
| 46) Methyl methacrylate        | 7.75  | 41   | 322717   | 18.575  | ug/l  | 97       |
| 47) n-amyl Acetate             | 10.88 | 43   | 551548   | 18.373  | ug/l  | 98       |
| 48) t-1,3-Dichloropropene      | 9.03  | 75   | 395767   | 18.453  | ug/l  | 99       |
| 49) cis-1,3-Dichloropropene    | 8.42  | 75   | 414258   | 18.713  | ug/l  | 99       |
| 50) 1,1,2-Trichloroethane      | 9.20  | 97   | 236770   | 19.300  | ug/l  | 97       |
| 51) Ethyl methacrylate         | 9.16  | 69   | 389020   | 18.437  | ug/l  | 97       |
| 52) 1,3-Dichloropropane        | 9.36  | 76   | 417499   | 19.703  | ug/l  | 99       |
| 53) Dibromochloromethane       | 9.56  | 129  | 273507   | 18.085  | ug/l  | 99       |
| 54) 1,2-Dibromoethane          | 9.65  | 107  | 251223   | 19.084  | ug/l  | 98       |
| 55) 2-Chloroethyl vinyl ether  | 8.29  | 63   | 999735   | 100.321 | ug/l  | 99       |
| 56) Bromoform                  | 10.84 | 173  | 216294   | 17.394  | ug/l  | 100      |
| 58) 4-Methyl-2-Pentanone       | 8.62  | 43   | 1854963  | 96.053  | ug/l  | 100      |
| 59) 2-Hexanone                 | 9.47  | 43   | 1472670  | 100.238 | ug/l  | 99       |
| 61) Tetrachloroethene          | 9.32  | 164  | 251553   | 19.395  | ug/l  | 96       |
| 62) Toluene                    | 8.76  | 91   | 999540   | 19.557  | ug/l  | 99       |
| 64) Chlorobenzene              | 10.12 | 112  | 641242   | 19.514  | ug/l  | 98       |
| 65) 1,1,1,2-Tetrachloroethane  | 10.21 | 131  | 250980   | 18.691  | ug/l  | 99       |
| 66) Ethyl Benzene              | 10.24 | 91   | 1152244  | 19.735  | ug/l  | 99       |
| 67) m/p-Xylenes                | 10.34 | 106  | 871412   | 39.432  | ug/l  | 97       |
| 68) o-Xylene                   | 10.68 | 106  | 419942   | 19.441  | ug/l  | 99       |
| 69) Styrene                    | 10.70 | 104  | 731162   | 19.429  | ug/l  | 99       |
| 70) Isopropylbenzene           | 11.00 | 105  | 1145074  | 19.997  | ug/l  | 98       |
| 71) 1,1,2,2-Tetrachloroethane  | 11.25 | 83   | 353470   | 19.045  | ug/l  | 100      |
| 72) 1,2,3-Trichloropropane     | 11.28 | 75   | 330803m  | 19.049  | ug/l  |          |
| 73) Bromobenzene               | 11.24 | 156  | 299070   | 19.456  | ug/l  | 96       |
| 74) n-propylbenzene            | 11.34 | 91   | 1307500  | 19.907  | ug/l  | 99       |
| 75) 2-Chlorotoluene            | 11.40 | 91   | 777983   | 19.475  | ug/l  | 99       |
| 76) 1,3,5-Trimethylbenzene     | 11.49 | 105  | 978559   | 19.900  | ug/l  | 99       |
| 77) t-1,4-Dichloro-2-butene    | 11.06 | 75   | 123581   | 16.513  | ug/l  | 89       |
| 78) 4-Chlorotoluene            | 11.50 | 91   | 926510   | 20.048  | ug/l  | 99       |
| 79) tert-butylbenzene          | 11.76 | 119  | 948896   | 19.307  | ug/l  | 99       |
| 80) 1,2,4-Trimethylbenzene     | 11.79 | 105  | 977796   | 19.629  | ug/l  | 99       |
| 81) sec-Butylbenzene           | 11.93 | 105  | 1115180  | 19.780  | ug/l  | 100      |
| 82) p-Isopropyltoluene         | 12.05 | 119  | 1061844  | 19.983  | ug/l  | 99       |
| 83) 1,3-Dichlorobenzene        | 12.01 | 146  | 534854   | 19.351  | ug/l  | 99       |
| 84) 1,4-Dichlorobenzene        | 12.08 | 146  | 555875   | 20.153  | ug/l  | 99       |
| 85) n-Butylbenzene             | 12.37 | 91   | 935505   | 19.752  | ug/l  | 100      |
| 86) Hexachloroethane           | 12.58 | 117  | 175477   | 17.086  | ug/l  | 97       |
| 87) 1,2-Dichlorobenzene        | 12.38 | 146  | 516876   | 19.168  | ug/l  | 99       |
| 88) 1,2-Dibromo-3-Chloropropan | 12.98 | 75   | 85339    | 17.457  | ug/l  | 98       |
| 89) 1,2,4-Trichlorobenzene     | 13.63 | 180  | 414333   | 19.074  | ug/l  | 98       |
| 90) Hexachlorobutadiene        | 13.77 | 225  | 192397   | 16.813  | ug/l  | 97       |
| 91) Naphthalene                | 13.82 | 128  | 1203243  | 19.129  | ug/l  | 100      |
| 92) 1,2,3-Trichlorobenzene     | 14.01 | 180  | 402392   | 18.647  | ug/l  | 99       |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX041020\  
Data File : VX015611.D  
Acq On : 10 Apr 2020 11:18  
Operator : JC/SP  
Sample : VSTDCCC020  
Misc : 5.0mL/MSVOA X/WATER  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
VSTDCCC020

Manual Integrations  
APPROVED

apatel  
4/13/2020 1:23:54 PM

Quant Time: Apr 11 00:48:44 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X032520W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Thu Mar 26 02:31:53 2020  
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|--------------------|------|------|----------|------|-------|----------|
|--------------------|------|------|----------|------|-------|----------|

-----

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

