

City of Detroit
Water and Sewerage Department
Laboratory Analysis of Water Samples Collected at
Water Works Park Plant
March 14, 2011

| Parameter | Formula | Units | Raw | Tap | MCL | Sec.Std | MDL |
|-------------------------------|---------|-----------|--------|--------|-------------|----------|-------|
| Turbidity | | NTU | 3.80 | 0.06 | 0.3/95% (1) | | |
| Total Solids | | mg/L | 159 | 162 | | 500 | 10 |
| Total Dissolved Solids | | mg/L | 140 | 131 | | 500 | 10 |
| Aluminum | Al | mg/L | 0.220 | 0.139 | | 0.05-0.2 | 0.005 |
| Iron | Fe | mg/L | 0.142 | <0.050 | | 0.3 | 0.005 |
| Copper | Cu | mg/L | <0.002 | 0.004 | 1.3 | | 0.002 |
| Magnesium | Mg | mg/L | 8.42 | 8.66 | | | 0.5 |
| Calcium | Ca | mg/L | 30.1 | 29.7 | | | 0.1 |
| Sodium | Na | mg/L | 6.28 | 6.26 | | 20 (2) | 0.1 |
| Potassium | K | mg/L | 1.22 | 1.15 | | | 0.1 |
| Manganese | Mn | mg/L | <0.002 | <0.002 | | 0.05 | 0.002 |
| Zinc | Zn | mg/L | <0.1 | <0.1 | | 5 | 0.1 |
| Silica | SiO2 | mg/L | 1.03 | 1.3 | | | 0.4 |
| Sulfate | SO4 | mg/L | 29.1 | 31.2 | | | |
| Chloride | Cl- | mg/L | 10.5 | 11.5 | | 250 | 5 |
| Phosphorus | P | mg/L | <0.05 | 0.32 | | | 0.05 |
| Free Carbon Dioxide | CO2 | mg/L | 2.4 | 5.5 | | | |
| Total Hardness (3), (4), (5) | | mg/L | 112 | 113 | | | |
| Total Alkalinity (3) | | mg/L | 93 | 86 | | | |
| Carbonate Alkalinity (3) | | mg/L | 0 | 0 | | | |
| Bi-Carbonate Alkalinity (3) | | mg/L | 93 | 86 | | | |
| Non-Carbonate Hardness (3) | | mg/L | 19 | 27 | | | |
| Chemical Oxygen Demand | | mg/L | 4.0 | 4.0 | | | 2 |
| Dissolved Oxygen | | mg/L | 14.5 | 17.1 | | | |
| Ammonia Nitrogen | NH3-N | mg/L | <0.1 | <0.1 | | | 0.1 |
| Organic Nitrogen | | mg/L | 0.2 | 0.1 | | | 0.1 |
| Nitrite Nitrogen | NO2-N | mg/L | <0.1 | <0.1 | 1 | | 0.1 |
| Nitrate Nitrogen | NO3-N | mg/L | 0.61 | 0.55 | 10 | 10 | 0.1 |
| Fluoride | F | mg/L | 0.1 | 0.9 | 4 | | 0.5 |
| pH | | | 7.89 | 7.49 | 6.5-8.5 | 6.5-8.5 | |
| Specific Conductance @ 25 oC. | | micromhos | 249 | 249 | | | |
| Temperature | | °C | 7.7 | 8.3 | | | |

| Legend | Notes: |
|-----------------------------------|--|
| MCL: Maximum Contaminant Level | (1) Turbidity must not exceed 0.3 NTU in 95% of daily samples in any month |
| Sec.Std: Secondary Standard | (2) EPA Guidance Level |
| NTU: Nephelometric Turbidity Unit | (3) As Calcium Carbonate |
| mg/l: Milligram Per Liter | mg/l is equivalent to part per million (ppm) |
| MDL: Method Detection Limit | (4) By Titration |
| <: Less than | (5) Tap Water Hardness in Grains per Gallon 6.55 GPG |
| AE: Analytical Error | (6) Reported results are below the low calibration standard but above the instrument |
| IV: Invalid Sample | detection limit. |

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