



Minneapolis Water Works

Monthly Plant Effluent Water Analysis for: July 2017

Physical and Chemical Water Quality

	<u>Plant Effluent Average Value</u>
Temperature, River Water Average (°C)	27.8
Total Organic Carbon (ppm* as C)	4.12
Total Dissolved Solids (ppm)	195
Turbidity (NTU)	0.08
Alkalinity-Total (ppm as CaCO ₃)	46
Ammonia Nitrogen (ppm as N)	0.87
Chlorine Residual (ppm Cl as Cl ₂)	3.7
Fluoride-F (ppm as F)	0.69
pH	9.03
Nitrate - NO ₃ (ppm as N)	0.64
Nitrite - NO ₂ (ppm as N)	<0.015
Phosphate-PO ₄ (ppm as PO ₄)	0.93
Sulfate - SO ₄ (ppm as SO ₄)	28.9
Total Hardness (grains per gallon) EDTA method	4.53
Total Hardness (ppm as CaCO ₃) EDTA method	78

Chemical Water Quality - Inorganic Metals

	<u>Plant Effluent Average Value</u>
<u>Chemical Element</u>	
Aluminum-Al (ppm as Al)	0.03
Arsenic-As (ppm as As)	Not Detected
Cadmium-Cd (ppm as Cd)	Not Detected
Calcium-Ca (ppm as Ca)	31.9
Chloride-Cl (ppm as Cl)	29.2
Chromium (ppm as Cr)	<0.01
Copper-Cu (ppm as Cu)	<0.01
Iron-Fe (ppm as Fe)	Not Detected
Lead-Pb (ppm as Pb)	Not Detected
Magnesium-Mg (ppm as Mg)	1.64
Manganese-Mn (ppm as Mn)	<0.01
Silica-Si (ppm as Si)	7.94
Sodium-Na (ppm as Na)	15.5
Zinc-Zn (ppm as Zn)	Not Detected

*ppm = parts per million