Minneapolis Water Works
Monthly Plant Effluent Water Analysis for:
October 2018

Physical and Chemical Water Quality

	Plant Effluent Average Value
Temperature, River Water Average (°C)	10.5
Total Organic Carbon (ppm* as C)	5.19
Total Dissolved Solids (ppm)	151
Turbidity (NTU)	0.04
Alkalinity-Total (ppm as $CaCO_3$)	60
Ammonia Nitrogen (ppm as N)	0.87
Chlorine Residual (ppm Cl as Cl_2)	4.0
Fluoride-F (ppm as F)	0.78
pH	9.00
Nitrate - NO_3 (ppm as N)	1.36
Nitrite - NO_2 (ppm as N)	<0.015
Phosphate-PO_4 (ppm as PO_4)	0.86
Sulfate - SO_4 (ppm as SO_4)	21.3
Total Hardness (grains per gallon) EDTA method	5.78
Total Hardness (ppm as $CaCO_3$) EDTA method	99

Chemical Water Quality - Inorganic Metals

Chemical Element	Plant Effluent Average Value
Aluminum-Al (ppm as Al)	0.01
Arsenic-As (ppm as As)	Not Detected
Cadmium-Cd (ppm as Cd)	Not Detected
Calcium-Ca (ppm as Ca)	36.0
Chloride-Cl (ppm as Cl)	26.1
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)	1.79
Manganese-Mn (ppm as Mn)	<0.01
Sillca-Si (ppm as Si)	10.95
Sodium-Na (ppm as Na)	14.4
Zinc-Zn (ppm as Zn)	<0.01

*ppm = parts per million