

**RECORD OF DATA FOR THE YEAR 2023  
PLANT EFFLUENT WATER ANALYSIS**

PARTS PER MILLION

<u>CHEMICAL ELEMENT</u>	<u>SYMBOL</u>	<u>MAXIMUM</u>	<u>MINIMUM</u>	<u>AVERAGE</u>
Silica	SiO <sub>2</sub>	11.5	4.9	7.9
Aluminum	Al	0.17	<0.01	0.03
Calcium	Ca	41.1	23.1	29.9
Magnesium	Mg	4.9	0.5	3.0
Sulfate	SO <sub>4</sub>	29.9	24.9	26.6
Chloride	Cl	44.7	20.4	32.7
Iron	Fe	<0.01	<0.01	<0.01
Manganese	Mn	<0.01	<0.01	<0.01
Fluoride	F	0.96	0.48	0.73
Sodium	Na	26.1	12.8	19.7
Total Alkalinity		86	38	55
Total Hardness (EDTA)		129	66	90
Total Residue		202	134	166
Hydrogen Ion Concentration	pH	9.27	8.55	9.06
Combined Chlorine Residual	NH <sub>2</sub> Cl	4.7	1.2	3.9
Phosphate	PO <sub>4</sub>	0.86	0.56	0.78
Nitrate	NO <sub>3</sub> -N	1.33	0.17	0.71

Submitted by: Matthew Sullivan  
Water Quality Lab Manager  
Minneapolis Water Treatment & Distribution Services Division  
4300 Marshall Street NE  
Minneapolis, Minnesota 55421-2598