



## City Of Brantford Water System

### SCADA Data - Monthly Averages

June 2021

<i>Water Treatment Plant</i>			
Source	Parameter	Units	Monthly Average
Grand River	Flow Rate	ML/d	41.49
Brantford POE	Flow Rate	ML/d	37.34
Grand River	Turbidity	NTU	8.16
Filter 1	Turbidity	NTU	0.040
Filter 2	Turbidity	NTU	0.039
Filter 3	Turbidity	NTU	0.041
Filter 4	Turbidity	NTU	0.046
Filter 5	Turbidity	NTU	0.043
Filter 6	Turbidity	NTU	0.050
Filter 7	Turbidity	NTU	0.050
Filter 8	Turbidity	NTU	0.048
Brantford POE	Turbidity	NTU	0.061
CCC Effluent	Log Removal		25.59
Brantford POE	Combined Chlorine	mg/L	2.65
Brantford POE	Pressure	psi	97.22

<i>Distribution System</i>			
Source	Parameter	Units	Monthly Average
Tollgate Reservoir	Total Chlorine	mg/L	2.01
Park Rd. Reservoir	Total Chlorine	mg/L	1.86
Northwest Reservoir	Total Chlorine	mg/L	2.40
Albion St. Booster	Pressure	psi	90.60
Tollgate Reservoir	Pressure	psi	59.44
Park Rd. Reservoir	Pressure	psi	78.93
Northwest Reservoir	Pressure	psi	84.34
Bell Lane	Pressure	psi	50.67
Fifth Ave	Pressure	psi	O.O.S
Lawren Harris	Pressure	psi	64.61
St. Andrews	Pressure	psi	91.34
Empy St.	Pressure	psi	82.38

#### **Definitions:**

**SCADA** - Supervisory Control and Data Acquisition

**O.O.S** - Out of Service

**CCC** - Chlorine Contact Chambers

**Log Removal** – a shorthand term for  $\log_{10}$  removal, used in reference to the physical-chemical treatment of water to remove, kill, or inactivate pathogenic organisms.

**Combined Chlorine** - The concentration of residual chlorine that is combined with ammonia (NH<sub>3</sub>), organic nitrogen, or both in water as chloramine, yet is still available to oxidize organic matter and act as a disinfectant. Combined chlorine can be accurately estimated as the difference between the measured total chlorine and measure or known free chlorine residual.



## City Of Brantford Water System

### Treatment Operators Analysis

June 2021

Source	Parameter	Units	MAC	AO/OG	Minimum	Maximum	Average
Grand River	Ammonia	mg/L			0.05	0.22	0.13
Brantford POE	Ammonia	mg/L			0.21	0.45	0.35
Grand River	True Colour	PtCo			13.0	25.0	18.6
Brantford POE	True Colour	PtCo		5	0.0	2.0	0.3
Brantford POE	Aluminum	mg/L		0.100	0.039	0.142	0.075
Grand River	UV254				0.131	0.160	0.144
Brantford POE	UV254				0.032	0.048	0.038
Brantford POE	Fluoride	mg/L	1.50		0.330	0.740	0.640
Brantford POE	Free chlorine	mg/L			0.10	0.10	0.10
Brantford POE	Combined Chlorine	mg/L	3.00		2.50	2.90	2.68
Brantford POE	Total Chlorine	mg/L			2.60	3.00	2.78

**MAC** - Maximum Acceptable Concentration

**AO/OG** - Aesthetic Objective/Operational Guideline

**Combined Chlorine** - The concentration of residual chlorine that is combined with ammonia (NH<sub>3</sub>), organic nitrogen, or both in water as chloramine, yet is still available to oxidize organic matter and act as a disinfectant. Combined chlorine can be accurately estimated as the difference between the measured total chlorine and measure or known free chlorine residual.