

## TYPICAL WATER CHEMISTRY ANALYSIS REPORT

Chemical Parameter	Units	Typical Distribution System	Maximum Acceptable Concentration (MAC) or Aesthetic Objective (AO) (Health Canada)	MAC or AO <sup>1</sup>
<b>Alkalinity Total</b> – the capacity of water to neutralize acids	mg/L	124.04	---	
<b>Barium</b> – occurs naturally and is produced by industry	mg/L	0.58	1.0	MAC
<b>Cadmium</b> – present in solder and as an impurity in galvanized pipe	mg/L	< 0.005	0.005	MAC
<b>Calcium</b> – this mineral helps produce “hard” water	mg/L	31.12	---	
<b>Chloride</b> – found in road salts and chemical industry effluents	mg/L	14.04	≤250	AO
<b>Chromium</b> – natural metallic element	mg/L	< 0.05	0.05	MAC
<b>Copper</b> – can stain laundry when level is above Health Advisory Limit	mg/L	<0.02	≤1.0	MAC
<b>Iron</b> – can cause staining in laundry and plumbing	mg/L	< 0.1	≤0.3	AO
<b>Lead</b> – can be found in older plumbing fixtures, and in solder	mg/L	<0.002	0.01	MAC
<b>Magnesium</b> – along with calcium, contributes to forming “hard” water	mg/L	18.51	---	
<b>Manganese</b> – metal; can cause laundry and plumbing to stain	mg/L	< 0.020	≤0.05	AO
<b>Nickel</b> – metallic element used in alloys, electroplated protective coatings and alkaline storage batteries	mg/L	< 0.05	---	
<b>Nitrate-N</b> – naturally occurring ions, used in inorganic fertilizers	mg/L	3.49	10.0	MAC
<b>pH</b> – measure of acidity or causticity	pH units	8.0	6.5-8.5	AO
<b>Phosphorus</b> – essential chemical element and nutrient for all life forms	mg/L	0.04	---	
<b>Potassium</b> – seventh most abundant element in the earth’s crust	mg/L	1.53	---	
<b>Sodium</b> – sixth most abundant element in the earth’s crust	mg/L	8.10	≤200 <sup>2</sup>	AO
<b>Sulfate</b> – used extensively in the chemical industry; also occurs naturally	mg/L	7.58	≤500	AO
<b>Zinc</b> – found in some plumbing fixtures and galvanized metal	mg/L	<0.02	≤5.0	AO
<b>Total Hardness</b> – caused by dissolved minerals	mg/L	152	≤200 <sup>3</sup>	

<sup>1</sup> MAC relates to a health-based guideline and AO is based on aesthetic considerations. The parameters without numeric guidelines indicate that current data indicates it does not pose a health risk or aesthetic problem at levels generally found in drinking water in Canada.

<sup>2</sup> The ≤200 mg/L for sodium is the aesthetic objective (AO) level and is below what would be considered a health hazard. According to the *Guidelines for Canadian Drinking Water Quality*, a sodium concentration of 175 to 185 mg/L would provide an offensive taste to drinking water. An acceptable limit for sodium depends on a person’s allowable daily intake. If you are on a low sodium diet, see your physician or appropriate health authority

<sup>3</sup> Public acceptance of hardness varies considerably. Hardness levels between 80 and 100 mg/L (as CaCO<sub>3</sub>) are generally considered acceptable; levels greater than 200 mg/L are considered poor, but can be tolerated; those in excess of 500 mg/L are normally considered unacceptable.