



Environmental
Analytical Laboratories



Residential Pricing Guide

Packages for Home and Cottage Owners, Acreages and Farms



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Well Water Potability

To ensure drinking water taken from well water (groundwater) sources is safe for human consumption, the water should be tested for potability on a regular basis. The Well Water Potability Package includes tests for **Total coliform bacteria**, **E. Coli** and **Nitrates**. The presence of coliform bacteria indicates the water is not safe for human consumption. *Canadian Guidelines for Drinking Water Quality* specify a maximum acceptable concentration of 45 mg/L for nitrates in drinking water.

Routine testing and maintenance of your well will help identify and prevent problems, enabling you to ensure the safety of your drinking water on an ongoing basis.

Well Water Potability Package **\$68**

- Includes: Total Coliform, E. Coli, Nitrates

Repeat Test After Positive Result **\$50**

- Includes: Total Coliform, E. Coli

Water Quality Assessment for Treatment Needs

Well water contains naturally occurring minerals, such as calcium, magnesium, sodium, potassium, chloride, sulfate, iron and manganese. Although these minerals are not hazardous to human health, they can affect water quality when present in high concentrations, resulting in hard water scaling, odour, colour and taste. Testing for these components will help determine the right treatment solution.

Water Quality Package, Basic **\$125**

- Includes: Calcium, Magnesium, Sodium, Potassium, Chloride, Sulfate, pH, Specific conductivity, Nitrate, Alkalinity, Bicarbonate, Carbonate, Total Hardness, Iron, Manganese, Hydroxide, Sum of Ions

Water Quality Package, Extensive **\$325**

- Includes: Calcium, Magnesium, Sodium, Potassium, Chloride, Sulfate, pH, Specific conductivity, Nitrate, Alkalinity, Bicarbonate, Carbonate, Hydroxide, Sum of ions, Total Hardness, Full ICP-MS metal scan (includes iron, manganese, heavy metals and other trace elements), Total Dissolved Solids, Fluoride, Silicon, Total Organic Carbon, Free Carbon Dioxide

Additional Water Testing for Treatment Needs

Tannins may enter the water supply through the process of vegetable matter degradation. This will cause the water to be amber in colour.

Tannin/Lignin	\$95
Total Organic Carbon	\$52

The primary reasons for reducing organic carbon in drinking water are not related to the toxicity of the organic carbon compounds, but to reducing the formation of trihalomethanes (THMs) following chlorination and avoiding the objectionable colour that arises when humic and fulvic acids are present at high levels.

Lead and Other Contaminants in Water

Leaching from plumbing (e.g., pipes, solder, brass fittings and lead service lines) can lead to elevated lead and copper concentrations in drinking water. Arsenic and uranium may be present in elevated levels from naturally occurring sources, such as erosion and weathering of rocks and soils. *Canadian Guidelines for Drinking Water Quality* specify maximum acceptable concentrations for lead (0.010 mg/L), arsenic (0.010 mg/L) and uranium (0.020 mg/L).

Lead	\$125
Copper	\$125
Arsenic	\$125
Uranium	\$125
Contaminants Package (Full trace metal scan)	\$200

Irrigation and Greenhouse Applications

Two major factors to consider when determining if water is suitable for irrigation or greenhouse use are salinity and the Sodium Adsorption Ratio (SAR). A plant's salt sensitivity is a function of many conditions, including salt type, soil conditions, water quality and climate. High SAR levels, meaning excess sodium relative to calcium and magnesium, can negatively impact soil structure by dispersing clay aggregates, which reduces soil permeability and aeration.

Greenhouse package \$195

- Includes: Calcium, Magnesium, Sodium, Potassium, Chloride, Sulfate, pH, Specific conductivity, Nitrate, Alkalinity, Bicarbonate, Carbonate, Total Hardness, Hydroxide, Sum of Ions, Boron, Copper, Phosphorus, Zinc, Iron, Manganese

Surface Water Quality for Livestock

Sulfate

Sulfate in livestock water should not exceed 1000 mg/L. Higher concentrations of sulfate can be tolerated, but loss in production should be anticipated. High levels of sulfate can cause diarrhea in young animals.

Salinity (Total Dissolved Solids)

The concentration of total dissolved solids (TDS) in water used for livestock should not exceed 3000 mg/L. Water with higher TDS concentrations can be used, but the type of livestock and their age must be considered.

Livestock Package, Basic \$68

- Includes: Sulfate/Salinity. Suitable for assessing common concerns in water used for livestock.

Livestock Package I \$125

- Includes: Calcium, Magnesium, Sodium, Potassium, Chloride, Sulfate, Sum of ions, pH, Specific conductivity, Nitrate, Alkalinity, Bicarbonate, Carbonate, Hydroxide, Total Hardness, Total Dissolved Solids, Fluoride. Suitable for assessing overall quality in water used for livestock.

Livestock Package II \$175

- Includes: ICP-MS metal scan, Mercury. Suitable for identifying potential contaminants in water for livestock

Livestock Package III \$668

- Includes: Phenoxy Herbicides, Pesticides and Neutral Herbicides. Suitable for identifying contamination of pesticides and herbicides in water used for livestock

Spray Water Suitability

Some surface and well waters may not be suitable to mix fungicides, herbicides and pesticides for use in sprayers. Unsuitable water can decrease the effectiveness of the chemical and cause plugging problems during application.

Spray Water Suitability Package \$198

- Includes: Calcium, Magnesium, Sodium, Potassium, Sum of Cations, pH, Specific conductivity, Alkalinity, Bicarbonate, Carbonate, Hydroxide, Total Hardness, Total Dissolved Solids, Iron