Dear Homeowner,

On November 2, 2017 I obtained a water sample from an exterior tap at your home. The sample was submitted to ALS Environmental Laboratories in Waterloo, Ontario for analysis of the Potability Package suite of parameters.

The laboratory Certificate of Analysis (C of A) is attached for your reference. I have provided some information below to help you review and understand the information it contains.

Pages 2-3 of the C of A are organized into columns, as follows:

- **Sample Details/Analyte:** The chemical parameters that were analyzed
- **Result:** The measured concentrations of the parameters
- **Qualifier:** Laboratory information pertaining to the analyses
- **D.L.:** The minimum concentration of each parameter that can be measured
- **Units:** Units of measurement for each analysis
- **Analyzed:** Date of analysis
- **Guideline Limits:** The Ontario Drinking Water Standards (ODWS) criteria limits. Please note that some parameters do not have an ODWS criteria limit.

  Guideline Limit #1 reflects Maximum Acceptable Concentrations (MAC) for health-related parameters.

  Guideline Limit #2 reflects Aesthetic Objectives (AO) for parameters related to taste, appearance, smell, etc.; and Operational Guidelines (OG) for parameters related to treatment system operation.

The remainder of the pages in the C of A are related to laboratory quality control and internal procedures.

The ODWS Technical Support document (which describes the parameters in detail) can be found here:

http://govdocs.ourontario.ca/node/24486

Looking through the C of A, there are exceedances of the following Aesthetic Objectives/Operational Guidelines:

- Total Dissolved Solids
- Hardness

These parameters are not health-related – Aesthetic Objectives and Operational Guidelines generally pertain to the appearance, taste, smell, and characteristics (e.g. staining of fixtures) of the water. The exceedances your water exhibits can typically be mitigated with conventional water treatment systems such as water softeners and mechanical/charcoal filters.

The Maximum Acceptable Concentration (MAC) for Sodium is exceeded; however, this parameter relates only to persons on sodium restricted diets. The Aesthetic Objective (AO) for sodium is not exceeded.

The measured concentration of Nitrate is slightly elevated (3.71 mg/L); however it is well below the Maximum Acceptable Concentration (MAC) of 10 mg/L.

There is a measured exceedance of the Maximum Acceptable Concentration (MAC) for Total Coliforms. Anything above zero (0) is considered a health risk by the Ministry of the Environment, Conservation, and Parks (MECP), and is an early warning signal that there may be a problem with your water supply, possibly through surface water contamination. The exceedance of Total Coliforms is a potentially serious issue. It is advisable to investigate the issue further to determine the source of the Coliform bacteria, and to take precautions regarding your drinking water until the issue is resolved.

Treatment systems such as ultraviolet (UV) filters can be effective in mitigating bacterial contamination; however, preventing contamination is highly preferable over treatment of contamination.

You may want to contact the local Simcoe Muskoka District Health Unit (SMDHU) or Ontario Public Health Laboratory for guidance on how to proceed with this issue, and you should not drink the water untreated until you have resolved the issue

Information on Canadian Drinking Water Guidelines regarding Total Coliforms can be found here:

https://www.canada.ca/en/health-canada/services/publications/healthy-living/guidelines-canadian-drinking-water-quality-guideline-technical-document-total-coliforms.html

If you have any questions regarding your water chemistry analysis, please feel free to contact me directly.

Sincerely,

Chris F Helmer, B.Sc., P.Geo.
Senior Hydrogeologist
MECP Licensed Well Contractor
905-550-0969
chrishelmer@hydrog.ca
www.hydrog.ca