




AEPHIN

Alberta Environmental and Public Health Information Network

Domestic Well Water Quality in Alberta

Technical Notes

Please see published Alberta Health Domestic Well Water Reports (AH, 2014b) for technical details and results and the Domestic Well Water Quality in Alberta - Fact Sheets (AH, 2014a) for definitions and interpretations. Aesthetic Objectives (AOs) and Maximum Acceptable Concentrations (MACs) are taken from Guidelines for Canadian Drinking Water Quality – Summary Table (Health Canada, 2024). Under each parameter with an  icon (tooltip), the “Health Considerations” section provides the basis for the MAC or other guideline derivations in drinking water only, and not for health effects that may occur at much higher concentrations. When the health effects are stated as “None,” this does not necessarily mean that a particular element or parameter does not have any known (adverse) health effect at much higher concentrations than the MAC and/or AO. When there is no Health Canada drinking water guideline, some WHO guidelines may be used for comparison only.

AOs and MACs are subject to change as Health Canada updates or generates new guidelines values from time to time for all parameters used in the domestic well water quality and any other water related data on the AEPHIN website. These values are only as recent as October 2024. **Please note that the new(er) Health Canada guidelines supersede the reported guidelines in the existing Alberta Health reports.**

References

[AH \(2014a\)](#). Domestic Well Water Quality in Alberta: Fact Sheets. Health System Accountability and Performance Division, Health Protection Branch, Alberta Health, Edmonton, Alberta.

[AH \(2014b\)](#). Domestic Well Water Quality in Alberta: 2002-2008 Characterization: Physical and Chemical Testing. Health System Accountability and Performance Division, Health Protection Branch, Alberta Health, Edmonton, Alberta.

[Health Canada \(2024\)](#). Guidelines for Canadian Drinking Water Quality – Summary Table. Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.

[WHO \(2022\)](#). Guidelines for drinking-water quality: Fourth edition incorporating the first and second addenda.

Terms

Median: In statistics and probability theory, the median is the number separating the higher half of a data sample, a population or a probability distribution, from the lower half. The median of a finite list of numbers can be found by arranging all the observations from lowest value to highest value and picking the middle one (e.g., the median of [3, 3, 5, 9, 11] is 5). If there is an even number of observations, then there is no single middle value; the median is then usually defined to be the mean of the two middle values (<http://en.wikipedia.org/wiki/Median>).

Mean: For a data set, the terms arithmetic mean, mathematical expectation and sometimes average are used synonymously to refer to a central value of a discrete set of numbers: specifically, the sum of the values divided by the number of values (<http://en.wikipedia.org/wiki/Mean>).