

# Well Testing

## When Should You Test Your Well Water?

There are no federal or state regulations that cover water quality in private wells, so homeowners have the sole responsibility to ensure the quality is safe for household use. The following situations indicate when you might need to test your well water.

- ◆ If you are buying a home on property with a private well (required by some lending institutions)
- ◆ If there are any changes to the taste, color or odor of the water
- ◆ After repairs are made to the well
- ◆ If floodwaters or runoff have washed over the wellhead
- ◆ If members of the household experience recurring gastrointestinal illnesses
- ◆ Annually to monitor water quality over time

## What Should You Test For?

Laboratory testing is the only sure means to detect contaminants in your water. The following tests, if analyzed yearly, will give you a general idea about the quality of your water.

- ◆ Coliform bacteria
- ◆ Nitrate/nitrite
- ◆ pH
- ◆ Total dissolved solids or hardness (as calcium carbonate)

Both nitrates and coliform bacteria in drinking water can cause health problems. High levels of nitrates can cause a potentially fatal condition in infants called methemoglobinemia or blue baby syndrome. This condition reduces the ability of blood to

transport oxygen to the body, resulting in a blue color to the skin. The maximum drinking water standard for nitrates (as nitrate-nitrogen) is 10 parts per million (ppm).

The test for coliform bacteria is an indicator of the microbiological quality of water. A positive coliform test means that your water may be contaminated with other harmful microorganisms that can cause illness.



Tests for pH and total dissolved solids measure water qualities that can affect color, taste or odor. The standard for pH is between 6.5 and 8.5 Standard Units. Outside that range, water is too corrosive.

Water with elevated levels of total dissolved solids can make the water taste bad, leave scale deposits on faucets, and reduce the effectiveness of soaps and detergents.

If you live near agricultural areas, you might consider testing for pesticides. Near mining operations, test for metals such as mercury, cadmium, or copper. If your home was built before 1986, and if plumbing fixtures have not been updated, consider testing for lead. If your property is near a drycleaners or automotive shop, test for Volatile Organic Chemicals.

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## Where Can You Go for Water Tests?

Water samples can be analyzed by a [State-Certified Private Laboratory](#) or by the Colorado Department of Public Health and Environment's (CDPHE) [Laboratory Services Division](#). When you view the CDPHE web page, click on the link to Private Customer Fee List to see costs for individual water tests and well testing packages.

## How Are Samples Collected?

When you place an order with a laboratory, they will send you specially prepared bottles with instructions on how to collect water samples.

**Follow all directions carefully to ensure accurate results.** Not all sampling instructions will be the same, but here are a few recommendations to keep in mind when collecting water samples.

- ◆ Remove aerator from the faucet
- ◆ Flush the cold water line for a minute or two
- ◆ **NOTE: If sampling for lead, DO NOT FLUSH THE LINE.** Lead samples need to be collected after water has been sitting in pipes for at least 6 hours
- ◆ To avoid contamination when collecting samples for coliform bacteria, do not touch the lip of the bottle or the cap, and don't place the cap face down on any surface
- ◆ Fill out the laboratory's Chain of Custody form
- ◆ Keep samples cool and return to the laboratory within the recommended timeframe



## The Lab Report Came Back, What Do the Results Mean?

After the laboratory has analyzed the samples, they will send you a copy of the results. If you do not understand the test results, be sure to call the laboratory for a clear explanation. Colorado State University's online [Water Quality Interpretation Tool](#) is an excellent interactive tool that offers information on individual contaminants including possible health effects, sources of the contaminant, best methods to treat the water and links to further information.

## Additional Questions?

For additional questions, contact Tri-County Health Department at 720-200-1670.

