



# Private Well Information

A private water supply provides water for human consumption and consists of a system that has less than fifteen service connections and either (1) serves less than twenty-five individuals or (2) serves an average of twenty-five or more individuals daily for less than sixty days of the year. The term "private well" is typically used for a well that provides drinking water for a single family residence. Under Massachusetts General Law, (MGL Ch.111 s.122) local Boards of Health (BOHs) have primary jurisdiction over the regulation of private wells.

**Drilling:** As required by 313 CMR 3.00, only Massachusetts Registered Well Drillers are permitted to install wells in the Commonwealth. This includes all well construction types, for both potable and non-potable purposes. Upon installation of a well, a well driller is required to submit copies of the Well Completion Report to the local BOH and the MassDEP Well Driller Program. By contacting either office, you should be able to get a copy of your Well Completion Report, which contains well construction details and geologic descriptions.

## When should well water be tested?

While there is no state requirement to have well water tested (although there may be from a mortgage lender or local Board of Health), the Massachusetts Department of Environmental Protection (MassDEP) recommends that all homeowners with private wells test, and use a state certified laboratory. They also recommend that prospective homebuyers test the water in a home with a private well before purchase.

First contact your Board of Health to see if there are any specific water quality tests required by the local Private Well Regulation. You should test initially for all contaminants of concern, and then at a minimum of once every ten years (except for bacteria and nitrate/nitrite which should be sampled yearly), or as otherwise required by the local Board of Health. Some factors that could cause additional or more frequent testing:

- Heavily developed areas with land uses that handle hazardous chemicals.
- Recent well construction activities or repairs. MassDEP recommends taking a bacterial test after any well repair or pump or plumbing modification, but only after disinfection and substantial flushing of the water system.
- Contaminant concentrations above state or federal standards found in earlier testing.
- Noticeable variations in quality like a water quality change after a heavy rain, extended drought, or an unexplained change in a previously trouble-free well (i.e. funny taste, cloudy appearance, etc.).

When taking any sample, MassDEP recommends that it be taken after a heavy rainstorm. These events tend to highlight conditions of improper well construction or poor soil filtration.

## Where can the water get tested?

MassDEP recommends the use of a state certified analytical laboratory for all water quality testing. Local Private Well Regulations may specify the use of a state certified lab. A searchable list of MassDEP certified labs can be found at: <http://public.dep.state.ma.us/Labcert/Labcert.aspx>.

## Recommended Tests

The following tests provide only the most basic indicators of a well's water quality. These tests identify some of the common natural and man-made contaminants found in our state's well water. However, you should also consider nearby land uses to decide whether additional tests are appropriate for your well. It is not necessary to do all of the tests at one time.

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## Standard Analysis

This basic analysis covers the most common contaminants. Some of these contaminants pose health-related concerns, while others only affect aesthetics (taste and odor). *Arsenic, Chloride, Copper, Fluoride, Hardness, Iron, Lead, Manganese, pH, Sodium, Coliform Bacteria, Nitrate/Nitrite, Radon, Gross Alpha Screen, (bedrock wells only), VOCs.*

- **Radon:** Radon can be a well water problem in Massachusetts, especially in bedrock wells. Presently, there are no federal or state standards for radon in drinking water, only suggested action levels. [Note: If Radon levels are elevated in your well water, you should also consider checking your indoor radon levels.]
- **Gross Alpha Screen:** Radioactive minerals, such as radium and uranium, may be dissolved in well water. A Gross Alpha Screen is a simple test to judge whether further testing for specific radioactive minerals such as radium or uranium might be needed.
- **Volatile Organic Compounds (VOCs):** The most common VOCs come from gasoline compounds (such as MtBE and benzene) and industrial solvents (such as TCE). MtBE can be found in well water even in remote areas.

## Additional Tests

Circumstances relative to your well may require additional testing not described here. For instance, MassDEP does not recommend frequent testing for things like pesticides, herbicides, or synthetic organic compounds, mainly because of the high cost. However, such testing might be warranted if your water has elevated nitrite/nitrate concentrations or significant amounts of pesticide have been applied near the well. These less-routine tests may not be performed at all state certified laboratories.

## What the Tests Tell You

Results will reveal the level at which any of the tested substances were found in your water sample. The mere presence of these contaminants in well water does not necessarily imply that there is a problem. However, when levels exceed state or federal health standards, you should take steps to correct the situation. Several methods are available from commercial contractors to treat contaminated water.

## For More Information

As private wells in Massachusetts are regulated at the local level, you should first contact [your local Board of Health](#) for your town's private well testing requirements. For more information about private wells, including additional water quality testing recommendations, you should refer to the MassDEP Private Well Guidelines, which are available on the Drinking Water Program's [web page](#). Other information, such as the listing of state certified laboratories, can also be accessed through the web site.

For additional assistance, Massachusetts Department of Environmental Protection Drinking Water Program  
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