

## TESTING YOUR WELL WATER

### Conduct regular tests

Every year	Total coliform bacteria
Every three years	pH levels & TDS*

### Tests for specific problems

<i>Symptom</i>	<i>Test for</i>
Gastro-intestinal illness	Coliform bacteria
Cloudy / colored water	Detergents
Orange / black stains	Iron, manganese
Soap has no lather / white residue	Hardness
Water tastes salty	Chloride, sodium, TDS*
Odor of gas / fuel	VOCs**
Pin hole leaks / blue stains	pH, copper, lead

### Tests for nearby land uses of concern

<i>Nearby landuse</i>	<i>Test for</i>
Agricultural operations	Nitrate, coliform bacteria, pesticides
Coal mining	pH, iron, manganese
Gas drilling	Sodium, chloride, barium
Dump, landfill, factory	Metals, VOCs**
Heavily salted roadways	Sodium, chloride, TDS*

TDS\* = Total dissolved solids  
VOC\*\* = Volatile organic compound



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## WHAT DO MY TEST RESULTS MEAN?

The results of your water quality test will tell you the level of each of the tested substances that were found in your water supply.

Comparing your results to federal EPA drinking water standards for public water systems will help you to determine if water problems are present. While the presence of some contaminants may be hazardous to your health, others may just be a nuisance.

For additional information on safe drinking water standards, specific contaminants, and caring for your well, please visit:

[www.wellwater.bse.vt.edu/  
resources.php](http://www.wellwater.bse.vt.edu/resources.php)



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## TEN TIPS FOR

# Managing your private well water supply



Ensure the safety of your water supply and the health of your family by following these simple guidelines.

# YOUR GUIDE TO SAFE WELL WATER

1

**Make sure your well is properly constructed.** Well casing should be 12" above ground, with a sanitary, sealed well cap or secure concrete cover to prevent contamination from insects and surface water. Unsure about your well construction? Visit [www.wellwater.bse.vt.edu/wellcheck](http://www.wellwater.bse.vt.edu/wellcheck) for more information.

2

The **ground should slope away** from your well to prevent surface water from pooling around the casing, which can cause contamination and damage your system.

3

Ensure your well is at least **100 feet away from potential contamination sources**, such as chemical storage, oil tanks, and septic tanks. If you have a septic tank, have it pumped regularly.

4

Keep the area around your well **clean and accessible**. Make sure the area is free of debris, paint, motor oil, pesticides and fertilizers. Do not dump waste near your well or near sinkholes, as this may contaminate your water supply.

5

**Have your water tested** once a year for total coliform bacteria, which will give an indication whether there is a likelihood of more dangerous bacteria present that could potentially cause illness. Every three years, test for pH, total dissolved solids (TDS), nitrate, and other contaminants of local concern.

6

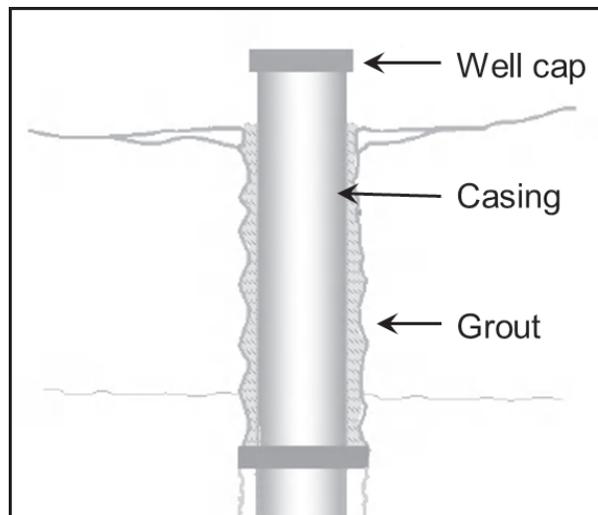
All water tests should be conducted by a **certified lab**. After you receive the results, compare them to the drinking water standards for public systems by the EPA, which serve as good guidelines for private systems.

7

**Inspect your well annually** for any cracks, holes, or corrosion. Ensure your well cap is secure. Every 3 years, or if you suspect a problem, have your well inspected by a licensed well drilling contractor with a Water Well and Pump (WWP) classification. For a list of contractors who provide well inspections, visit [wellwater.bse.vt.edu/wellcheck](http://wellwater.bse.vt.edu/wellcheck).

8

**Keep careful records** of your well installation, maintenance, inspections, and all water tests.



9

If a well on your property is no longer in use, **have it properly abandoned** by a licensed well contractor. Wells that are left unsealed or improperly abandoned can serve as a direct pathway for surface water to enter the groundwater supply, causing contamination. Remember: groundwater is a shared resource!

10

If you have a spring instead of a well, **make sure the spring box is sealed to prevent contamination**. Springs are very susceptible to contamination, so be sure to test your spring every year for coliform bacteria. Continuous treatment for bacteria is often required to ensure spring water is safe to drink.

*[left] Drilled well schematic*



*[right] Bored well [top] and drilled well [bottom] with proper casing and secure well cap*

