

Contaminants

Coliform (including E. coli):

- **What it means:** Coliform indicates your well is vulnerable to contamination; E. coli means fecal contamination and a risk for illness.
- **Health risks:** E. coli exposure can cause nausea, vomiting, fever, and diarrhea.
- **Testing:** Test private wells every year, and if water changes in taste, color, or smell.
- **If present:** Stop using water for drinking, cooking, brushing teeth, or baby care. Boil water for at least 1 minute or use bottled water; disinfect the well and retest.
- **Treatment Options:** Well disinfection by a licensed well professional; shock chlorination; correction of well construction issues.

Nitrate:

- **What it means:** Naturally occurring but can rise from fertilizers, septic systems, or manure. High levels can cause blue baby syndrome and may increase risks of birth defects, thyroid disease, and certain cancers.
- **Testing:** Test private wells annually
- **Safety limit:** 10 mg/L
- **If high (≥ 10 mg/L):** Avoid using water for drinking, cooking, or formula. Use safe alternatives such as bottled water, retest, and consider installing a certified treatment device or drilling a new well.
- **Treatment Options:** Reverse osmosis

Arsenic:

- **What it means:** Naturally occurring in Wisconsin groundwater. Long-term exposure increases risks of cancers, nervous system effects, skin/nail changes, and developmental impacts in children.
- **Testing:** Test private wells 5 years or annually if arsenic was previously present.
- **Safety limit:** 10 μ g/L
- **If high (≥ 10 μ g/L):** Avoid using the water for drinking, cooking, or baby formula. Use bottled water; consider installing a certified treatment device or drilling a new well.
- **Treatment Options:** Reverse osmosis

Lead:

- **What it means:** Lead typically enters water from plumbing materials (pipes, solder, fixtures). There is no safe level of lead exposure.
- **Health risks:** Can harm brain development in children and cause heart, kidney, and nervous system problems in adults.
- **Testing:** Test private wells every 5 years and before pregnancy or infant use.
- **If present:** Run cold tap water for 2–3 minutes before drinking; use only cold water for drinking or cooking; clean faucet screens monthly; replace lead plumbing materials when possible; consider installing a certified treatment device.
- **Treatment Options:** Carbon filtration or Reverse osmosis

Manganese:

- **What it means:** Naturally occurring mineral. Essential in small amounts but can affect health if levels are high. Often causes brown or black water or staining of fixtures and laundry.
- **Health risks:** High levels ($>300\text{ }\mu\text{g/L}$) may impact the nervous system, kidneys, and reproductive health, especially in infants and older adults.
- **Testing:** Test private wells if water is discolored (brown/black), staining, or has a metallic taste/odor.
- **If high ($\geq 300\text{ }\mu\text{g/L}$):** Sensitive individuals (over 50, infants under 6 months) should avoid drinking or cooking with the water. Consider installing a certified treatment device.
- **Treatment Options:** Water softener

Testing & Resources

Always use a Wisconsin-certified lab for accurate results.

- The La Crosse County Health Department's Laboratory is Wisconsin-certified.

For Help Understanding Testing Results, see the DNR's "Be Well Informed" Tool [Understanding My Laboratory Results – Natural Resources Institute](#)

For information on treatment devices, see [Water Treatment Devices for Private Well Contaminants](#)

For Further Information on Contaminants:

- [Contaminants | Wisconsin DNR](#)
- [Drinking Water: Private Wells | Wisconsin Department of Health Services](#)