Western UP Regional Public Health Laboratory ··· Western UP Health Department
540 Depot St, Hancock, MI 49930 ··· 906-482-7382 x150 ··· regionallab@wuphd.org
EGLE Certified Drinking Water Laboratory #: 9185

Water Sample Collection for Total Coliform/E. Coli Testing in Drinking Water

Collecting a sample for drinking water analysis involves more than turning on the faucet and filling a bottle. Since water samples are easily contaminated, proper sampling protocols are essential to ensuring reliable and accurate results. Please read the instructions to familiarize yourself with each step prior to collecting your sample.

Step 1 – Preparation:

1. The Laboratory will provide the collection containers required for each test requested. Samples not collected in laboratory-provided containers will be rejected.
2. Your sample bottle contains a powder known as Sodium Thiosulfate, a preservative to neutralize chlorine. The manufacturer does not list any environmental or health hazards associated with the amount of preservative contained in your sample bottle.
3. Do not rinse the sample container before collecting the sample. The powder or tablet inside the sample container is necessary to preserve the sample and must remain in the container.
4. It is important to keep the bottle free from contamination. If the sample container is accidentally contaminated, please discard and pick up a new container prior to collection.
5. To decrease the likelihood of external bacterial contamination, wear latex gloves when collecting samples. If gloves are not available, wash your hands as thoroughly as possible with soap and hot water and avoid touching the inside of the bottle or cap.
6. Use a water-resistant marker or pen for labeling your sample.
7. Standard Methods for the Examination of Water and Wastewater recommends keeping drinking water samples to be tested for Total Colifoms/E. Coli bacteria below 50 degrees.

Step 2 - Find the proper sampling location:

1. Collect the sample from the faucet closest to your water source but before any treatment devices (including water softeners).
2. Remove any devices that are attached to the faucet, including aerators, screens, strainers, hoses and purification devices. These devices can harbor bacteria which can contaminate your sample.
3. Use only cold water. Open tap fully and let the water run for 3 minutes to clear the line.
4. Turn off the water and disinfect the opening and outside of the faucet with bleach or alcohol.
5. Open tap fully and let water run for 3 to 5 minutes to rinse any foreign material that may have been dislodged and to ensure no residual chlorine or alcohol remains from disinfection.
6. To prevent splashing when acquiring a sample, adjust the water flow to produce a slow steady stream.

Step 3 - Sample carefully:

Important Tips – To avoid sample contamination, do not touch the inside of the sample container or the inside of the lid.

1. Fill the sample container to a level between the line and neck of the bottle. Do not underfill.
2. Leave 1 inch of air space from the top to facilitate mixing.
3. Replace the cap immediately and securely to prevent contamination and leakage.
4. Label your sample with the site, date/time of collection that correlates with the information on your submission form.
5. Keep samples away from direct sunlight by placing them inside the included envelope.

Step 4 – Keep it cool:

Important Tip – Under no circumstances should the sample be allowed to freeze or subjected to extreme heat. This will kill any bacteria and give a false reading. Samples with evidence of exposure to extreme temperatures will be rejected by the laboratory. You are encouraged to keep samples to be tested for Total Colifoms/E. Coli samples below 50 degrees.

1. If you plan to submit water sample to the laboratory more than 3 hours after collection, the sample(s) can be stored in a refrigerator until transported to the laboratory.

Step 5 - Get it to the lab quickly:

Important Tip – Samples to be tested for Total Colifoms/E. Coli should be received at the laboratory as soon as possible after collection, but preferably within 24 hours. *Samples received at the laboratory* ***more than 30 hours after collection will be rejected for testing.***

1. Complete your portion of the Chain of Custody form completely. Incomplete forms may result in testing delays and sample rejection.
2. If your water is chlorinated, please indicate this on your form.

Laboratory Details

Laboratory Hours:

Samples for bacterial testing are accepted on Monday through Friday, between the hours of 8:30 am and 3:00 pm. The lab is closed on weekends and holidays. Results are typically available within 24 hours, however samples delivered to the lab on Friday will not receive notification of results until the following Monday.

Result Notification:

- In the event of positive results, you will receive a phone call from the laboratory, followed by an email of the result report.
- Negative results will be emailed, without phone notification.
- Bacterial analysis of drinking water samples includes tests for total coliforms and E. coli. Your report will note if either indicator was identified in your drinking water sample.

  Total Coliform: Present or Absent
  Escherichia coli: Present or Absent

  A **negative report (Absent)** indicates that Total Coliform organisms and E. coli have not been found. This means the water is bacterially suitable for consumption but does not characterize other constituents that may be present in drinking water.

  A **positive report (Present)** indicates that Total Coliform organisms and/or E. coli have been found, which means the water may be unsafe and the system needs to be disinfected.

If your report form is positive for Coliform or E. Coli organisms, please call the Environmental Health Division of the Western UP Health Department at 906-482-7382 x119 for guidance on mitigation.

Rejected or Invalidated Samples – If your sample is rejected for temperature, contamination, or issues within the laboratory, you will be notified of the rejection and encouraged to submit a new sample.