



ANGELINA & NECHES RIVER AUTHORITY



Water Bacteria Test Instructions

You may choose to test your water for any of the following reasons:

- Annual testing
- Suspect contamination
- New well installation
- Existing well brought back into service
- Recent disinfection
- Previous sample unsuitable for analysis
- Real estate
- Or any other reason

Analysis Requested:

The analysis performed by the ANRA Environmental Laboratory test for the presence of both Total Coliform and *E. coli* bacteria. The presence of coliform bacteria indicates that the water is unsuitable to drink due to contamination. Two different tests are offered. Please select the test you would like to have performed on your sample.

- **Presence/Absence**
 - This test determines if Total Coliform and/or *E. coli* are present in a drinking water sample. Because the presence of even one coliform makes the water unsuitable for consumption, results are reported simply as Present or Absent.
 - This test would be selected if you are wanting to determine if your well water is suitable to drink.
- **Enumeration**
 - This test provides a count of the most probable number of *E. coli* coliforms present in a water sample.
 - This test is used to determine if the water is suitable for contact recreation, and is performed primarily on ponds, creeks, and pools, or when sewage contamination is suspected. This analysis would also be used to test irrigation water.

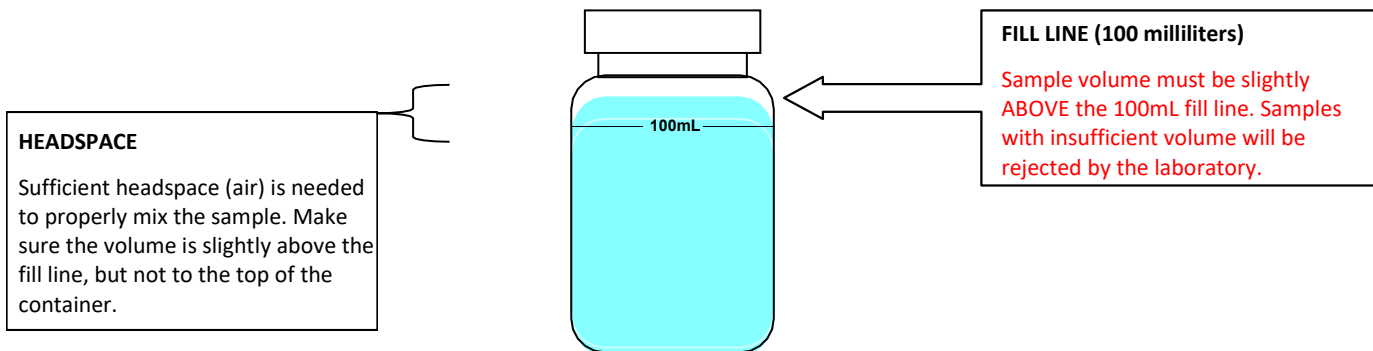
Unsuitable for Analysis:

If your sample doesn't meet the following required criteria, it may be rejected prior to analysis:

- Sample not received within 24 hours of collection for Presence/Absence or 6 hours for enumeration.
 - When possible, collect the sample the same day you will be bringing it to the lab.
- Quantity insufficient for analysis. **More than 100mL of sample is required.**
- If transported on ice: frozen samples or samples with ice in them will be rejected.
- If bottle is cracked or if the bottle seal was not removed before sample collection, sample will be rejected.
- Excessive chlorine present. Please flush the lines and recollect.
- Heavy Silt/Turbidity present. Cloudy sample could result from sediment in the sample or growth of non-harmful bacteria. Disinfect and flush the lines prior to recollecting the sample.
- Form incomplete/date discrepancy.
- There are several other reason, but the reasons listed above are the most common.

Proper Collection of Drinking Water Samples for Coliform Analysis

- **You must use the sample container provided by the laboratory. Please contact the laboratory to obtain a sample container prior to collecting your sample.** This container has been sterilized and contains a special chemical (in the form of a white powder) that is required for the test.
- Find a proper location to take a sample, preferably an outside faucet that does not leak. Remove any hoses (if present) prior to collecting the sample.
- If an inside faucet is used, remove any aerators or filtration systems (if present) prior to collecting the sample.
- Do not collect on windy or rainy days, as this could lead to contamination of the sample.
- Sterilize the faucet from which the sample is to be collected in order to eliminate any bacteria present on the faucet which may contaminate your sample. The faucet may be sterilized by using one of the following methods:
 - Use a swab with bleach to wipe the inside and outside of the faucet opening. Rinse the outside lip well with water.
 - Use a flame (such as a lighter) to sterilize the faucet. Do not use a match, as this could leave soot on the faucet which could contaminate the sample. This method should only be used on outside faucets, as inside faucets could be discolored or tarnished.
- Turn on the cold water, and allow the faucet to flow for 2 – 3 minutes in order to clear the line. Reduce the flow to a slow and steady stream to collect the sample.
- Remove the sterility seal from the sample container and discard. DO NOT remove the lid without removing the seal first. If the seal is not removed, and the lid is placed back on the bottle in a way that causes the seal to be pushed up under or threaded into the lid, the sample is likely to become cross-contaminated with whatever was on the outside of the seal.
- Remove the cap from the sample container, taking care not to touch the inside of the lid or the lip of the container.
- **DO NOT RINSE THE SAMPLE CONTAINER.** The bottle contains a powder that is required for the test.
- Fill the sample container only to the neck, above the fill line but not all the way to the top, and seal tightly.



- Complete the Chain of Custody form. Make sure that Collection Date and Collection Time are listed, as well as the email address where you would like your final report sent.
- Submit the sample to the Angelina & Neches River Authority Environmental Laboratory, located at 2901 N. John Redditt Dr., Lufkin, TX, **within 24 hours of collection for Presence/Absence or within 6 hours of collection for Enumeration. Samples are accepted Monday – Friday, 8:00 AM – 3:30PM. Please call if you need to drop off a sample after 3:30PM.**