

## DRINKING WATER BACTERIOLOGICAL ANALYSIS

This method is for collection of safe drinking water samples. Only samples collected in bottles supplied by the Christian County Health Department and in accordance with these instructions will be accepted.

This test is intended as a microbiological examination of water samples to determine sanitary quality. No chemical analyses will be performed. As pathogenic organisms (i.e. Giardia, hepatitis) are difficult to test for the U.S EPA recommends the testing of indicator species. This test will show if coliform or E-coli bacteria are present in your drinking water. Coliforms occur naturally in the intestines of humans and other animals as well as in surface water or topsoil. Their presence indicates contamination from one of these sources. E.coli bacteria are discharged in the feces of humans or of warm-blooded animals and their presence indicates recent fecal contamination of the water source. No count is done as the U.S EPA considers water unsafe for drinking if these organisms are present in any number. Christian County Health Department recommends at least twice yearly water sampling (fall and spring) to establish a baseline of information on the water supply as factors impacting the well and the groundwater may change seasonally and from year to year.

**Read and follow these instructions prior to collecting the sample.** Assemble all supplies needed for collection. Wash your hands thoroughly with soap and water. The sample should be taken from a smooth-nosed cold water tap if possible. Avoid collecting samples from leaking taps that allow water to flow over the outside of the tap or from frost-proof hydrants (8) or hot-cold mixing faucets (9), since it is not practical to disinfect these fixtures. Recommended locations for collection include *hose bibs located on the foundation wall, or a faucet near the pressure tank inside the house.*

- (1) Remove aeration devices and screens from faucets before sampling. Open the tap fully and let water run to waste for 2 or 3 minutes or until the service line has been thoroughly flushed.
- (2) Chemically disinfect the tap by thoroughly rinsing both the inside and outside of the tap with a solution made by mixing  $\frac{1}{4}$  ounce (1.5 teaspoons) of household bleach with one gallon of clean water. If tap cleanliness is questionable, provisions should be made to allow the solution to remain in contact with the tap for up to 15 minutes or to increase the strength of the solution to ensure adequate disinfection.
- (3) Flush the tap for an additional 2 or 3 minutes, and then reduce to a gentle flow to permit filling the bottle without splashing.
- (4) **DO NOT RINSE THE SAMPLING BOTTLE and KEEP BOTTLE CLOSED UNTIL IT IS TO BE FILLED.** The bottles contain a chlorine neutralizer that is present in liquid or crystalline form. They are sterile and ready for use. A loose cap does not affect sterility. **Bottles have a plastic seal which must be removed from the lid before use.**
- (5) Grasp the cap along the top edge and remove. **DO NOT TOUCH THE INSIDE OF THE CAP OR THE BOTTLE, AND DO NOT ATTEMPT TO CLEAN OR RINSE THE BOTTLE.**
- (6) Hold the bottle so that water entering it will not come in contact with your hands. Allow water to flow smoothly from the tap and **fill the bottle to the black line present on bottles (100 ml line).**
- (7) Replace cap on bottle and tighten securely.

**INFORMATION FORM:** Fill out a separate form for each water sample submitted. Supply all information requested on the form and return with the sample container. Write legibly. Be certain to write the date and time of collection, **SAMPLES WITH INCOMPLETE COLLECTION INFORMATION WILL NOT BE TESTED.**

**Return water sample to CCHD within 20 hours of time collected. Hours Are: 8:00-12:00 a.m. and 1:00-4:00 p.m. Monday through Thursday. Sample brought in by 4:00 pm will be set that day, and results will be available the next day at 4:00 pm. NO SAMPLES WILL BE ACCEPTED ON FRIDAY OR ON A DAY PRECEDING A HOLIDAY, as there will not be staff available the next day to read the results.**



Figure (1)



Figure (2)



Figure (3)



Figure (4)



Figure (5)



Figure (6)



Figure (7)



Do Not Use  
Frost Proof  
Hydrant (8)

Do Not Use  
Hot-Cold  
Mixing Faucet  
(9)

