

CITY OF HOUSTON
Department of Health & Human Services
Bureau of Laboratory Services
North Environmental Laboratory
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COLLECTION OF DRINKING WATER SAMPLES AND TREATMENT OF WELLS

Water Samples

The North Environmental Lab accepts and tests samples of well water intended for human consumption. These samples must be submitted in sterile treated bottles supplied by the City of Houston Health Department, Harris County Health Department, the Texas Department of Health, Texas Commission on Environmental Quality (TCEQ), or your local health authority.

Water samples are accepted from 8:00 am to 4:00 pm Monday through Friday.

Water samples are not accepted on Saturdays, Sundays, or holidays. Samples received on these days, and samples more than **30 hours** old when received will not be tested. We do not recommend that samples be mailed to the lab. Samples that are submitted by mail may not arrive within the **30 hour** time limit or during the Monday - Friday work week. Mailed samples are also likely to break or leak in transit.

Water is tested for the presence of coliform bacteria only. The fee for water testing is **\$16.50 per bottle**. Payment by **check, money order, Visa, Mastercard, or Discover only** must accompany the sample. No cash will be accepted.

Collecting the Water Sample

Select a cold water faucet. Remove any screen or other attachment to the faucet, and let the water run for 3 to 5 minutes. Remove the cap from the sample bottle without touching the inside of the cap or the bottle. Fill the bottle above the 100 ml mark within 1/4 inch of the top. Samples with less than 100 mls of water will not be tested. Do not rinse out or overflow the bottle; it contains a chemical used to neutralize chlorine. Replace the cap carefully and tighten. If the sample has excessive chlorine, it is not suitable for analysis. Another sample and an additional \$16.50 will have to be submitted.

Deliver the sample and form to the laboratory the same day it is collected or refrigerate and deliver it the next day, within **30 hours** of the time of collection.

Fill out the laboratory form, giving complete return address, phone number, county,

date, time of collection, and other information requested; print this information using **black** waterproof ink. A separate form must be filled out for **each** sample bottle.

Public systems required to submit water sample(s) monthly must indicate their TCEQ issued water system identification number and sample type (distribution, raw, etc.) in the proper places in the form. This is the only way in which the system will be credited with the sample by the TCEQ.

Laboratory Reports

We cannot telephone all test results to you; however we will attempt to contact you if your sample is unsatisfactory or was found to have coliform organisms. You may call the Laboratory for your results @ 281.233.2563.

Reports are mailed to the address you write on the form. You should receive your report within 5 to 7 days. If your report does not arrive within 2 weeks, please contact the Laboratory by telephone @ 281.233.2563.

To locate a report we must have:

- (1) The sample number that was given to you when the sample was submitted.
- or
- (2) The date the sample was submitted AND
- (3) The name of the return addressee exactly the way it was written on the form.

Interpretation of Results

If coliform organisms are **not found**, the water is bacteriologically safe to use at the time of sampling. If "total" coliforms organisms are **found**, the sample contains bacteria commonly found in runoff or surface water. If E.coli organisms are found, the sample contains bacteria commonly found in sewage, which could include other disease producing bacteria. Any water well found to have coliform organisms should be disinfected according to the directions below or treated by a well service company. Water in which either total coliforms or E. coli is found should not be used for drinking, bathing, brushing teeth, cleaning wounds, or washing food which is to be eaten raw. It is advisable to use bottled water until the water supply is reported to be safe to use. However, contaminated water may be boiled for a minimum of 5 minutes before use.

For questions concerning "Repeat" sampling for public systems receiving a coliform positive report, please contact the TCEQ @ 512.239.4691

Well Disinfection

Well disinfection is necessary in the following circumstances:

1. When coliform "found" (total or E. coli) results are obtained from a water well sample.
2. When any work is done to the plumbing or well system.
3. When a well or the surrounding area has been flooded.

Note: Check to make sure the well is pumping clear water before chlorinating. If the water is turbid, run it until it is clear before chlorinating.

1. Locate the wellhead and remove the access plug or bolt so that the area within the well casing is exposed.
2. Using a funnel, pour in an appropriate amount of liquid chlorine bleach (Clorox, Purex, etc.)

½ to 1 gallon of bleach per 100 ft. of well depth is the recommended approximate dosage. Greater amounts are recommended for excessively cloudy water or for hand-dug wells.

3. Using the nearest faucet to the well and a garden hose, allow water to run through the funnel into the well for two or three hours. This will circulate the chlorinated well water and improve the germ-killing action by allowing all fittings and equipment in the well to be exposed to the chlorine solution.
4. After the well water has circulated for a while, the garden hose and funnel may be removed and the access plug replaced. The disinfection process should be extended throughout the entire plumbing system.
5. To disinfect the remainder of the plumbing system, turn on the next available faucet and allow it to run until the bleach odor can be detected, then turn it off. Repeat this step throughout the plumbing system at each faucet, including 1 hot water faucet. Flush each toilet. Then, allow the chlorinated water to remain in the plumbing system over night, or for 24 hours if possible. During this time, the water should not be used for drinking, bathing, or cooking.
6. After disinfecting the well and plumbing system, flush all faucets until the bleach odor can no longer be detected and the water is clear of any debris or color. Flush outside faucets first - you do not want to flood the septic system.
7. Submit another bacteriological sample to determine if the disinfection process was successful.

Keep in mind that a single disinfection may not be sufficient. Certain well systems, particularly shallow wells, hand-dug wells, wells in fissured areas and old wells, are more vulnerable to contamination. Water from these types of systems should be checked by periodically submitting samples for bacteriological analysis. Continuous disinfection equipment should be considered for any water well with repeated samples positive for coliform organisms.

For further information, call the TCEQ @ 512.239.4691 or Harris County Public Health and Environmental Services @ 713.439.6260. For inquiries about water supplied by the City of Houston, call Public Works & Engineering, Water Quality @ 713.842.4000.

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