

TEXAS DEPARTMENT OF LICENSING & REGULATION

Water Well Driller/Pump Installer Program

P.O. Box 12157 • Austin, Texas 78711 • (512) 463-7880 • (800) 803-9202 • fax (512) 463-8616

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PRIVATE WELL DISINFECTION

Occasionally well water can become contaminated with disease causing microorganisms. These “waterborne” infectious diseases include typhoid, cholera, dysentery, and many others. These illnesses are caused by microorganisms in the intestines of infected people and animals, which may not always appear to be sick. Water supplies can become contaminated when feces (bodily wastes) are not properly disposed of, and seep into underground water.

Disease producing microorganisms can be very difficult to detect in water samples, but coli form bacteria can be easily detected. “Coli form bacteria” are a group of microorganisms that normally do not cause disease, but are found in the intestinal tract of all warm-blooded animals. When coli forms are detected in water, it indicates possible contamination from human or animal feces. Immediate action should then be taken to eliminate the contamination and disinfect the water system.

If a doctor suggests that gastric cramps or chronic diarrhea may have been caused by contaminated water, well disinfection should be performed immediately. Water samples should be submitted for analysis prior to disinfection. Recently constructed or repaired wells must be disinfected to prevent bacterial growth in the well and in the plumbing system.

Well Disinfection

1. Locate the wellhead and remove an access plug (figure1) or bolt so that the area within the well casing is exposed.
2. Use a funnel to pour the appropriate amount of liquid chlorine bleach into the well. See the table below for amount of chlorine bleach required.

Chlorine Bleach Dosage Table for Well Disinfection

| Well Depth | Gallons of Bleach |
|---------------------|---------------------|
| Less than 100 ft. | ½ to 1 gallon |
| 100 to 200 ft. | 1 to 1-½ gallons |
| 200 to 300 ft. | 2 gallons |
| 300 ft. and greater | 2-½ gallons or more |

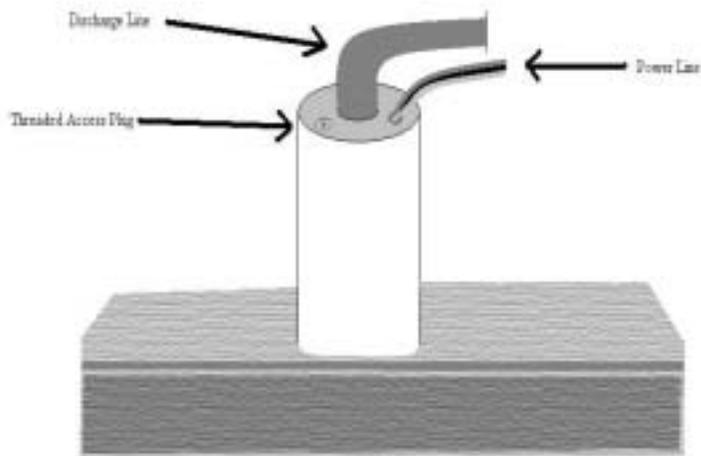
These dosages are approximate. Greater amounts are recommended for excessively cloudy water or for hand-dug wells.

3. Using a nearby faucet and a garden hose, allow the water to run through the funnel into the well for two to 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 may be removed and the access plug replaced. The disinfection process should then 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 process until every faucet has been disinfected. Allow the chlorinated

water to remain in the plumbing system overnight, or for 24 hours if possible. During this time, the water should not be used for drinking or cooking.

6. After disinfecting the well and the plumbing system, flush all of the faucets until the bleach odor disappears and the water is clear of any debris or color. Flush the outside faucets first to avoid chlorinating the septic system.
7. Resubmit another sample to determine if the system has been successfully disinfected.

Figure 1.



Public Health Laboratories Sample containers may be obtained and returned for analysis from the public health laboratories listed here. Contact the laboratory for hours of operation and cost information.

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| Abilene-Taylor County Public Health District 2241 South 19th Abilene, Texas 79605 915/692-5600 | City of Amarillo Department of Health P.O. Box 19714001 S. Osage Street Amarillo, Texas 79186 806/342-1549 |
| Angelina Neches River Authority 210 Lufkin Ave. P.O. Box 387 Lufkin, TX 75902-0387 409/632-7795 | Brazoria County Health Department 434 E. Mulberry Angleton, Texas 77515 409/864-1484 |
| Brazos County Health Department 201 N. Texas Avenue Bryan, Texas 77803-5317 409/361-4440 | Corpus Christi-Nueces County Public Health District P.O. Box 97271702 Horne Road Corpus Christi, Texas 78469 361/851-7214 |
| El Paso County Health District 222 South Campbell El Paso, Texas 79901 915/543-3536 | Galveston County Health District P.O. 939, 1207 Oak Street LaMarque, Texas 77568 409/938-7221 Ext. 449 |
| Greenville-Hunt County Health Department Courthouse, Room 402 2500 Lee Street Greenville, Texas 75401 903/408-4140 | Houston Health and Human Services 1115 S. Braeswood Houston, Texas 77030 713/558-3400 |
| Laredo City Health Department P.O. Box 23372600 Cedar Street Laredo, Texas 78041 956/723-2051 Ext.259 | Lower Colorado River Authority 3600 Lake Austin Blvd. P.O. Box 220 Austin, Texas 78767 512/473-3322 |
| Lubbock City Health Department P.O. Box 25481902 Texas Avenue Lubbock, Texas 79405 806/775-2908 | Midland Health Department 3303 W. Illinois Space 22 Midland, Texas 79703 915/681-7613 |
| Nova Biologicals, Inc. 1775 E. Loop 336 Suites 4 & 5 Conroe, Texas 77303 936/756-5333 | Paris-Lamar County Health Department P.O. Box 938740 South West 6th Street Paris, Texas 75460 903/785-4561 |
| Port Arthur City Health Department P.O. Box A431 Beaumont Avenue Port Arthur, Texas 77641 409/983-8830 | City of San Angelo Water Treatment Plant Laboratory 1324 Metcalfe St. San Angelo, Texas 76903 915/481-2722 |

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| <p>San Antonio Metropolitan Health District 332 West Commerce San Antonio, Texas 78205 210/207-8820</p> | <p>Smith County Public Health Department P.O. Box 209815 N. Broadway 75710 Tyler, Texas 75710-0209 903/535-0090</p> |
| <p>South Texas Hospital 1301 Rangerville Rd. P.O. Box 592 Harlingen, TX 78551 956/423-3420</p> | <p>Sweetwater-Nolan County Health Department P.O. Box 458301 E. 12th Street Sweetwater, Texas 79556 915/235-5463</p> |
| <p>Tarrant County Public Health Department 1800 University Drive Fort Worth, Texas 76107 817/871-7249</p> | <p>Texarkana Water Utilities Lab 2700 New Boston Rd. P.O. Box 2008 Texarkana, TX 75501 903/798-3800</p> |
| <p>Texas Department of Health 1100 West 49th Street Austin, Texas 78756 512/458-7591 Trinity River Authority Northern Division 6500 W. Singleton Blvd. P.O. Box 531196 Grand Prairie, TX 75212 972/263-2251</p> | <p>Trinity River Authority Lake Livingston Project FM 1988 - P.O. Box 360 Livingston, TX 77351 936/365-2292 Victoria County Health Department 107 W. River Street P.O. Box 2350 Victoria, Texas 77902 361/578-6281 Ext. 41</p> |
| <p>Waco-McLennan County Health District 225 West Waco Drive Waco, Texas 76707 254/750-5471</p> | <p>Wichita Falls-Wichita County Health Department 1700 Third Street Wichita Falls, Texas 76301 940/761-7873</p> |