



SCHAEFER NEWS

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What's in the



In a past issue of "Schaefer News", we printed information about how a well is tested to determine its recovery rate. The recovery rate is defined as how many gallons of water per minute a well can produce. It is the best test to determine the strength of a well and whether it can provide the water you need. This article is on our web site at www.mhschaefer.com/wells&.htm.

In this issue we deal with another test. It is the one most often performed during a home inspection, the test for potability (is the water safe to drink or is there bacteria contamination?). We will discuss what should be done if bacteria contamination is found.

The simplest answer (and the one we recommend) if bacteria is found, is to call a well contractor and have the well chlorinated (shocked), and then re-test. If you are gifted with mechanical abilities above the average home owner, then we will explain the process of chlorination so you can do it yourself.

Contamination comes from different sources. The contamination may be in the water table itself, originating off site. This source is not always easy to find and chlorinating your system will not solve the problem. The contamination source must be located and eliminated or a water purification system will have to be installed. Installation of one of these systems can range from \$900 to \$2000.

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Chlorinating is usually effective if the contamination source is in the well, the well equipment or water pipes. To avoid going through the chlorination process needlessly, consider the following before testing: Bacteria can build up in the well equipment and pipes in an unoccupied home, due to the stagnation of the water. If this is the case, water should be flushed through the system for short intervals (about 10 minutes) for several hours, for a day or two before testing. This

may eliminate the bacteria that would not normally exist with someone living in the home maintaining a normal flow of water through the system.

If bacteria is found, the source of the contamination should be eliminated if possible. A professional well contractor can help because of their experience. Surface water run-off into a well head, a

mouse falling into the well and the location of the well close to septic systems and drains around the house are all possible sources of contamination. If your water is supplied by a spring, lake, hand-dug well or shallow well, install a water purification system because it will always be at greater risk for bacteria and cannot be cleaned by chlorinating.

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Chlorinating a Well System

SUPPLIES: You will need a pool chlorine test kit, a couple of gallons of bleach and a potable water hose.

First you need to find your well head. If it is buried, excavate and expose it. Then it should be extended above grade for accessibility for further maintenance (another reason for professional help).

Once you have located the well head, remove the cap and pour in one gallon of bleach. Now the bleach needs to be pumped through the entire well system including interior pipes. Adding bleach to your system can stir up sediment and rust, therefore you should remove all aerators and in-line sediment filters before flushing. Open all cold and hot water faucets and all hose bibs. Eventually you should be able to smell the bleach. If you do, stop the water. If you have not detected the bleach after running the water for about 30 minutes, add another gallon of bleach (give your well pump a short rest first). If you don't smell the bleach after the second gallon has had a chance to flush through the system, stop and call a professional. The aquifer in some areas runs so swiftly that the chlorine can be swept away before it has a chance to be pumped through the well system and this procedure will not work.

After you detect the chlorine odor at each fixture, you can shut them off. It is now time to clean the well casing and cap. Attach the potable water hose to a hose bib and spray the well cap and interior of the well casing for about a half hour. This will clean the casing above the static water level. Once this is done, replace the cap (and for

After the chlorine has been sitting in the system (overnight if possible), it must be flushed out. The supply to the water heater should be shut off and the water heater drained. Once the system has been properly flushed the water heater can be refilled. Connect a hose and begin flushing the system. Care should be taken so that the chlorine is not drained to an area that may damage plants or run into a septic system. This is where the pool test kit is needed. The water must be flushed until no chlorine is detected by the kit. One more good flushing through the interior fixtures is needed to flush the chlorine out of the interior pipes, well tank etc.

The type of well pump you have will determine some of the steps in flushing the system or how long you can run the water consistently. First the water itself must be monitored. Your well pump may be able to handle long pumping period; however, too much sediment can damage the equipment. If sediment is building in the water while you flush they system, give the well a rest. Jet pumps should be monitored to ensure they do not overheat.

Most modern submersible pumps can run continuously if the sediment is not excessive. Remember to call a professional if your not completely comfortable doing this work yourself because it may be less expensive in the long run, especially if you damage your equipment.

After the chlorinating process is complete, a new sample of water should be drawn and tested. If the sample is acceptable that's good but it should not be considered the end of the matter. Every home owner with a well should test their water periodically. Professional advise may differ, ranging from two to four times a year. Ultimately,

