Recommended Procedure for Disinfection of Wells

Prior to Disinfection: Inspect the well for structural integrity. The well should have a tight-fitting concrete or steel cover. The casing usually should extend to the bottom of the well. All cracks and openings which might allow contamination to enter the well should be sealed.

Disinfection of a Well: The disinfectant used in this procedure is produced by adding liquid chlorine bleach to your well water. Typically, liquid chlorine bleach is available in 5 1/4% to 6 1/2% strengths. Do not use bleach with “additives” such as “fresh scent”.

1. Roughly calculate the volume of water in the well. (7.5 gallons per cubic foot)
   - 6 inch diameter wells = 1.5 gallons per foot of water in the well
   - 36 inch diameter wells = 53 gallons per foot of water in the well
2. Add 1 gallon of liquid bleach to each 1000 gallons of water in the well or use the following table.
   (Adding a bit too much bleach is not a problem.)

<table>
<thead>
<tr>
<th>Depth of water / Ounces of Bleach</th>
<th>6 Inch Wells</th>
<th>36 Inch Wells</th>
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</thead>
<tbody>
<tr>
<td>10 ft. / 2 oz.</td>
<td>100 ft / 19 oz.</td>
<td>1 ft. / 7 oz.</td>
</tr>
<tr>
<td>25 ft. / 5 oz.</td>
<td>150 ft / 28 oz.</td>
<td>2 ft. / 13 oz.</td>
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<tr>
<td>50 ft. / 10 oz.</td>
<td>200 ft / 38 oz.</td>
<td>3 ft. / 20 oz.</td>
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<tr>
<td>75 ft. / 14 oz.</td>
<td>250 ft / 48 oz.</td>
<td>4 ft. / 27 oz.</td>
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Note: Should your water system have a large amount of storage (more than one or two pressure tanks) additional chlorine must be added to the system at a rate of 1 gallon of bleach for every 1000 gallons of storage.

3. Pour the required quantity of bleach into the well. This may be simplified and more effective by mixing the bleach in a clean container with approximately 2 parts water for each 1 part of bleach.
4. Mix the bleach and well water thoroughly. One way to do this is to run water from a nearby faucet and hose directly back down into the well. Circulate this water until you smell the chlorine running from the hose and make certain to wash down the inside surfaces of the well with the chlorinated well water.
5. Draw water out of every faucet in the system until you can smell a strong chlorine odor in the water.
6. Allow chlorinated water to stand in the well and all the pipes in the system for not less than 12 hours.
7. Clear the well of the chlorine by running the water though an outside faucet. Do not do this flushing procedure into plumbing connected to your septic tank.

After following this procedure and allowing the water to become completely free of chlorine, a coliform bacteria sample should be taken. Generally the chlorine will disappear in 7 days for a drilled well and 14 days for a dug well. If this additional testing still indicates the presence of coliform bacteria, the above disinfection procedure may need to be repeated.

Bacteriological Quality Monitoring: The best way to insure continued presence of satisfactory water is to regularly sample and test the water for the coliform bacteria. The following is a recommended schedule for sampling:

- Drilled wells - One sample per twelve months
- Dug wells - One sample per three months

If testing indicates that an intermittent or ongoing contamination problem exists, you should attempt to identify the source of the problem and take corrective action. Contact this office if you have any questions.