The following disinfection process should be used when your well water has been tested and *coliform bacteria* were found to be present. This disinfection process treats only biological contaminants, not chemical or mineral contaminants such as nitrate.

1. **CALCULATE THE AMOUNT OF CHLORINE BLEACH NEEDED**
   - Find your well's depth and distance to the static water level on your well drilling report.
   - You can measure the distance to the static water level yourself by unscrewing the well vent “gooseneck” and lowering a long string with a cork attached to it into the well shaft. Lower the string down until the cork reaches the water and floats (you will be able to feel the change in the string tension). Mark the string at the top of the well casing before pulling it up. Next, measure from the cork to your mark. The distance from the cork to the mark is the distance to the static water level.
   - Subtract the distance to the static water level from the well depth (on your well log) to find the water depth in your well.
   - Find your well's diameter (in inches) on your well drilling report or measure across the top of the well casing. Use the table below to find the volume per lineal foot for you well's diameter.
   - Multiply the water depth by the volume per lineal foot.
   - Divide by 1,000.

<table>
<thead>
<tr>
<th>Well Diameter</th>
<th>Volume Per Lineal Foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>4”</td>
<td>0.7 gallons</td>
</tr>
<tr>
<td>6”</td>
<td>1.5 gallons</td>
</tr>
<tr>
<td>8”</td>
<td>2.6 gallons</td>
</tr>
<tr>
<td>12”</td>
<td>5.9 gallons</td>
</tr>
<tr>
<td>24”</td>
<td>23.0 gallons</td>
</tr>
<tr>
<td>36”</td>
<td>52.0 gallons</td>
</tr>
<tr>
<td>48”</td>
<td>94.0 gallons</td>
</tr>
<tr>
<td>60”</td>
<td>147.0 gallons</td>
</tr>
<tr>
<td>72”</td>
<td>211.0 gallons</td>
</tr>
</tbody>
</table>

- The resulting figure is the number of gallons of household liquid bleach needed to disinfect your well.

\[
\text{Water Depth (ft)} \times \text{Volume Per Lineal Foot (gal)} ÷ 1,000 = \text{Gallons of Bleach Needed}
\]

- To find the number of cups, multiply your figure for gallons by 16. This is the number of cups of bleach you need to disinfect your well.

\[
\text{Bleach Needed (gal)} \times 16 = \text{Cups Of Bleach Needed}
\]

2. **POUR BLEACH SOLUTION INTO WELL**

   First, dilute the amount of bleach you measured out with three to five gallons of water. This is to prevent the contact of straight bleach with the inside of your well casing when you pour it in. Unscrew the “gooseneck” well vent, and pour the bleach solution into the vent hole. You can use a funnel and length of hose to make this easier. If it is not possible to insert the hose into the vent hole, remove the well cap to pour the bleach in.

3. **RECIRCULATE BLEACH WATER TO WASH DOWN WELL CASING**

   If possible, recirculate the chlorinated water back into the well casing to wash down the inside of the upper well. Attach a garden hose to the outside faucet nearest to your well, and run the hose back to your well head. Turn on the faucet and wash down the inner well casing for 5 – 10 minutes.

4. **RUN CHLORINATED WATER INTO SYSTEM**

   Run the chlorinated water throughout your entire cold water system. Turn on every cold water tap (inside and outside the house) one at a time and let the water run until you smell chlorine, then turn it off.

5. **WAIT FOR DISINFECTION**

   Allow the chlorinated water to sit in the system for at least 8 - 10 hours.

6. **RUN CHLORINATED WATER OUT OF SYSTEM**

   For homes with an onsite septic system, first run the water out through an outside tap until you no
longer smell bleach. This is to keep excessive bleach from harming your septic system. Make sure the chlorinated water does not flow into creeks, streams or where fish or vegetation can be harmed. Keep the water running until you no longer smell chlorine. The small amount of chlorinated water that does go into the septic system from inside faucets will not harm the system. NOTE: To avoid damaging clothes, it is advised to not wash colored clothes until you have first washed a load of whites, or run the washing machine empty for one regular cycle.

7. WAIT AND RETEST THE SYSTEM
After clearing the chlorinated water from the taps, use the system as normal for a week. After 3-7 days, submit another water sample for testing. NOTE: You may need to repeat this process several times to disinfect a new well. Also, be aware that the chlorine may disturb built up minerals in your pipes and temporarily discolor your water. This discoloration should disappear soon after the chlorine is flushed out of your water system.

If you have any questions please contact:

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MASON COUNTY
PUBLIC HEALTH

FIGURE 1 - ADDING BLEACH SOLUTION TO THE WELL