INTERPRETATION OF BACTERIOLOGICAL WATER ANALYSIS REPORT

Bacteriological quality of drinking water is determined by analyzing for coliform organisms. These bacteria occur naturally in soil. Although coliform bacteria normally do not cause illness, they should not be present in drinking water. Fecal coliform bacteria, however, are a specific family of bacteria in the coliform group and are found in the intestinal tracts of man and animals. Certain bacteria in this family are associated with gastrointestinal illness and their presence in water is an indication of possible sewage contamination in the water. Laboratory results are reported as PRESENT or ABSENT and/or as Most Probable Number per 100 milliliters (MPN/100 ml) in a 100-milliliter water sample. The laboratory reports may be interpreted as follows:

<table>
<thead>
<tr>
<th>Result</th>
<th>Contamination</th>
<th>Water can be considered:</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL COLIFORM ABSENT</td>
<td>None</td>
<td>Safe</td>
</tr>
<tr>
<td>TOTAL COLIFORM PRESENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FECAL COLIFORM ABSENT</td>
<td>Definite</td>
<td>Possibly unsafe to drink</td>
</tr>
<tr>
<td>TOTAL COLIFORM PRESENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FECAL COLIFORM PRESENT</td>
<td>Definite</td>
<td>Unsafe to drink</td>
</tr>
</tbody>
</table>

If your laboratory analysis report has a result of PRESENT or an MPN/100 ml of 1.1 or greater, the cause may be one or more of the following:

- Well newly constructed but not properly disinfected
- Unprotected or dirty storage tank
- Sediment at the bottom of the well or spring
- Insects, dust, birds contaminating the water
- Surface water seeping in
- Dead animal in the well, spring, or storage tank
- Well head subject to flooding
- Inadequate sanitary seal at well head (pump base, piping or electrical cable opening not sealed)
- Lack of, or inadequate annular seal around well casing
- Cross-connections in plumbing system
- Well too close to sources of contamination (septic tank, seepage pit/leach field, animal corrals, etc.)
- Pump primed with impure water
- “Dead end” water lines
- Well casing damaged or deteriorated
- Well casing perforated too high