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## Contaminant: pH (Acidic or Basic Water)

The term pH, despite its widespread use, is seldom understood. By scientific definition, pH is the reciprocal of the hydrogen ion concentration. By layman's definition it is the expression of whether water is acidic or basic (caustic).

pH is measured in a scale of 0 through 14, with 7 as the obvious mid-point or neutral point, as illustrated in the table below.



From observing the scale, one might conclude that 6.0 is just a "little more acidic" than neutral; but consider our scientific definition. Each time you descend one whole number (i.e. 7.0 to 6.0), the acidity of the solution is increased by a factor of 10. Thus, a pH of 4.0 is 1,000 times as acidic as a pH of 7.0. Conversely, a pH of 10.0 is 1,000 times more basic than a pH of 7.0.

Though our water's pH will never be extreme enough to harm us directly, high or low pH can lead to a number of poor and even dangerous conditions in water. Acidic or basic water can cause corrosion of plumbing, contributing to the presence of iron, copper, manganese, and other harmful minerals in your water.

### Testing Standards:

A pH of 7.0 is the ideal pH for any household water. RAdata measures the pH of your well water and evaluates the potential danger of a high or low pH depending to the circumstances for that particular sample.

## Treatment: Neutralizing Filter

Often water can be of high quality and low in buffering calcium minerals, but is high in dissolved carbon-dioxide gas, which can cause the low pH or acidity. Treatment is accomplished by neutralizing the water with the use of an automatic neutralizer. These water filter tanks are filled with a blend of calcium and magnesium carbonates made from naturally occurring minerals, which dissolve into the water, making it less corrosive.



## Care of Equipment

Neutralizing filter require periodic backwashing. As portions of the filter material is consumed in neutralizing acidity, additional filter material will need to be added periodically.

All water treatment equipment requires service. Whether removing a secondary standard like iron or manganese or killing coli form bacteria, the importance of proper maintenance can't be emphasized strongly enough.

When you receive the bill each month the cost of water is obvious if your source is a municipal supplier. The fact your water comes from a private well does not exclude the need for maintenance on a regular basis. While most home owners prefer a contracted service plan from Radata, appointments on an as needed basis are also available. RAdana has service programs that include salt deliveries. Where this periodic testing is included in the initial installation cost supplemental testing after the first year are the expense of the homeowner or can be included in the service contracts.

**Call Our Information Hotline: 1-800-723-6641**

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