

EXPLANATION OF TESTING TERMS

1.) **Total Coliform Bacteria** - This is used as an indicator of contamination. While they are not known to cause disease, it is known that they are present in large numbers in feces and soil. If present in water, it is presumed that disease-causing organisms may also be present. The State of Connecticut **maximum allowable level** is 0/100 ml, <1.0 MPN/100ml or Absent depending on testing methodology.

2.) **HPC** - Heterotrophic Plate Count - Reported as Colony Forming Units. It is a measure of the total viable aerobic and facultative anaerobic bacteria in water. State of Connecticut **recommended maximum level** is 500 CFU/ml. (Colony Forming Units per Milliliter of Sample)

3.) **pH** - (Acidity/Alkalinity) Acid water can corrode copper pipes resulting in blue-green stains on white porcelain sinks. This may result in unacceptable elevated levels of metals, such as lead and copper. The EPA **recommended range** is 6.4 – 8.5 pH units.

4.) **Color** - A high color reading usually indicates the presence of iron or manganese in the water. The State of Connecticut **recommended maximum level** is 15 units.

5.) **Odor** - Caused by decaying vegetation deep in the ground and usually imparts a sulfur smell. Other odors could be metallic if the pH is low. Good well water should be free of odor. The State of Connecticut **recommended maximum level** is 2 units on a scale of 0 - 5.

6.) **Turbidity** - This is a measure of particulates in water and usually indicates the presence of iron or manganese. The State of Connecticut **recommended maximum level** is 5 NTU. (Nephelometer Turbidity Units)

7.) **Sulfate** - Sulfate occurs in almost all natural water. High concentrations of sulfate in drinking water result in transitory diarrhea. The USEPA is considering an MCLG and MCL of 400 mg/L sulfate to protect infants. The current SMCL for sulfate is 250 mg/L based upon aesthetic effects.

8.) **Alkalinity** - This is a measure of corrosiveness in water and interpretation must be made in comparison with hardness. There is not a recommended State of Connecticut level for this parameter.

9.) **Chloride** - This is the non-metallic portion of common salt. Levels above 30 mg/L may indicate undesirable high sodium levels, levels above 50 mg/L may appreciably increase corrosion rates, and levels above 250 mg/L impart a salty taste noticeable to most people. The State of Connecticut **recommended maximum level** is 250 mg/L.

10.) **Fluoride** – A Fluoride content of one milligram per liter has been found to reduce tooth decay. **Recommended optimum** is 1 mg/L. A level of 2 mg/L can cause tooth discoloration; and 4 mg/L is toxic.

11.) **Hardness** - This is a measure of the total calcium and magnesium in water. Waters over 100 mg/L are described as hard and levels over 250 mg/L are usually sufficiently high as to warrant treatment. The effect of hardness is to increase the amount of soap necessary to form suds with the water and staining of fixtures.

12.) **Ammonia-N** - This is the first breakdown product of organic matter. Levels above 0.05 mg/L may indicate bacterial activity or contamination. The State of Connecticut **recommended maximum level** is 0.05 mg/L.

13.) **Nitrite-N** - This is an intermediate breakdown product of organic matter. Levels above 0.005 mg/L may indicate bacterial activity or contamination. The State of Connecticut **maximum allowable level** is 1.0 mg/L.

14.) **Nitrate-N** - This is the final completely oxidized stage of nitrogen. Levels above 10.0 mg/L may be harmful to infants and this is the State of Connecticut **maximum allowable level**.

15.) **Iron** - This is a naturally occurring element. Levels above 0.3 mg/L may cause staining of laundry and porcelain fixtures. It also has a direct effect on the turbidity. The State of Connecticut **recommended maximum level** is 0.3 mg/L.

16.) **Manganese** - This is a naturally occurring element. Manganese imparts objectionable stains to laundry and plumbing fixtures and special means of removal by chemical treatment or pH adjustment may often be necessary. The State of Connecticut **recommended maximum level** is 0.05 mg/L.

17.) **Sodium** - This is the metallic portion of common salt found in most natural waters. High concentrations may be harmful for individuals on a low sodium diet. The State of Connecticut **recommended maximum level** is 28 mg/L.

18.) **Lead** - This is a highly toxic metal. Lead can increase blood pressure and interfere with hearing in adults. In children, lead can impair mental abilities. The State of Connecticut **maximum recommended level** is 0.015mg/L.

19) **Copper** - Copper is a nutritionally essential element. At high levels of exposure it causes gastrointestinal effects. The State of Connecticut **maximum recommended level** is 1.3 mg/L.

Exceeding Maximum Allowable level **IS** cause for rejection of the water supply. **Water is NOT POTABLE.**

Exceeding Recommended Level is **NOT** cause for rejection of the water supply. **Water IS POTABLE.**

Disclaimer: These definitions for tested parameters are generalized and/or simplified. Should more information be required, contact your local health department.