

## Analysis Descriptions for Well Water Tests

Alkalinity	Alkalinity is a measure of the water's acid neutralizing capacity. Alkalinity can be modified by treatment such as the use of a water softener. Waters with high alkalinity may cause scale build-up. Low alkalinity may be corrosive to plumbing.
Calcium	There are no standards or human health concerns associated with high calcium level. Calcium contributes to water hardness, which may decrease detergent efficiency and contribute to mineral build-up in plumbing.
Chloride	There are no standards or health concerns associated with chloride in drinking water. High levels of chloride results in poor tasting water. EPA has identified a SMCL concentration of over 250 mg/L above, which chloride can be expected to impart a 'salt' taste to drinking water.
Escherichia Coli / Total Coliform (EC/TC)	The presence of E. coli or coliform may indicate contamination that can cause nausea, headaches, diarrhea, and other symptoms. The MCLG is zero. Coliforms are bacteria naturally found in the environment.
Fluoride	The MCL for fluoride is 4 mg/L. High levels of fluoride may influence bone disease (pain and tenderness of the bones) and children may get mottled teeth.
Hardness	Hardness is a measure of the capacity of water to dissolve soap. There are no standards or health concerns, although very hard water may decrease detergent efficiency and result in mineral build-up in plumbing.
Iron	Iron is not considered a health concern. The SMCL for iron is 0.3 mg/L, based on staining and taste considerations.
Magnesium	The SMCL for magnesium is 50 mg/L. Magnesium contributes to water hardness, which may decrease detergent efficiency and mineral build-up in plumbing.
Manganese	Manganese is not considered a major health concern. The SMCL for manganese is 50 µg/L, based on staining and taste considerations. Although manganese is an essential nutrient at low doses, some studies have shown that chronic exposure to high does may be harmful.
Nitrate	The MCL for nitrate is 10 mg/L. High nitrate concentration may cause methemoglobinemia (blue baby syndrome) or diuresis. High nitrate concentration may indicate contamination in agricultural area.
pH	Both basic (pH > 9) and acidic (pH < 5) waters negative affect reproduction and other biological processes. Sediments release toxicants in acidic waters. Low pH may contribute to excessive pipeline corrosion.
Potassium	There are no standards or human health concerns associated with potassium levels in drinking water. Potassium contributes to water hardness, which may decrease detergent efficiency and mineral build-up in plumbing.
Sodium	There is no limitation on sodium in drinking water, except as associated with TDS. Consumption of high sodium water previously thought to be associated with high blood pressure.
Sodium Adsorption Rate (SAR)	Sodium adsorption rate, as determined by the concentrations of solids dissolved in the water, is a measure of the suitability of water for use in agricultural irrigation. <a href="http://mytapscore.com">Sodium Adsorption Ratio, Irrigation, and Soil Health – SimpleLab Tap Score (mytapscore.com)</a>
Specific Conductance (SC)	Specific conductance is a measure of the water's ability to conduct electricity and an indicator of total dissolved solid concentration. There are no specific limitations or health concerns.
Sulfate	The SMCL for sulfate is 250 mg/L. Consumption of high sulfate water can have a laxative effect and bitter taste.
Total Dissolved Solids (TDS)	It represents total dissolved minerals in water. The SMCL for total dissolved solids is 500 mg/L.

**MCL:** Maximum Contamination Level in drinking water set by US EPA for public health.

**MCLG:** Maximum Contamination Level Goal in drinking water set by US EPA for public health.

**SMCL:** Secondary Maximum Contamination Level in drinking water set by US EPA for public health. Non-enforceable guideline.