

Mineral Analysis

RESULTS EXPLAINED

Bandera County River Authority & Groundwater District is not a certified laboratory. We are able to offer basic bacteria and mineral testing for informational purposes only. The basic mineral analysis includes pH, specific conductivity, total dissolved solids (TDS), and total hardness as CaCO₃.

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pH

- Drinking water should have a pH between 6.5 and 8.5.
- The pH scale measures how acidic or alkaline a substance is. The scale ranges from 0 to 14.
 - A pH of 7 is neutral. A pH less than 7 is acidic, and a pH greater than 7 is basic.
 - Pure water is neutral, with a pH of 7.0

Conductivity

- The range for drinking water conductivity is typically between 500 - 1500 $\mu\text{S}/\text{cm}$.
- Drinking water conductivity measures how well water conducts electricity and indicates the amount of dissolved minerals in it.

Total Hardness

CaCO₃ - Calcium Carbonate

- Total water hardness is the amount of calcium and magnesium (the mineral content of limestone) in water,
- Water hardness categories
 - Soft: Less than 60 mg
 - Moderately hard: 61-120 mg
 - Hard: 121-180 mg
 - Very hard: More than 180 mg
- Hard water can cause scale buildup in pipes and kettles, which can reduce water flow and make clothes appear gray. Hard water can also make soap lather less and cause scum in the bath.

Total Dissolved Solids (TDS)

- TDS refers to the combined weight of all dissolved minerals and salts present in water, including calcium, magnesium, sodium, and chloride.
- TDS range is <1000 mg/L.
- High TDS levels can give water a salty or mineral taste, making it less palatable.
- Elevated TDS can lead to scale buildup on appliances and pipes due to mineral deposition.