Coliform bacteria: Coliform bacteria are used as indicators of microbial contamination. Coliform itself is not necessarily dangerous but it can be a sign of other problems with the water. We do a presence/absence test for this constituent.

E. Coli: If the water is positive for Coliform, we check for E. Coli. E. coli is a dangerous bacterium that can cause serious and potentially life-threatening illness in humans.

Total Dissolved Solids and Conductivity: Checks the content of mainly mineral constituents dissolved from rocks and soil. Conductivity is based on the dissolved solids content of water. Dissolved solids have a standard of 1,000 mg/l while conductivity has none, Methods of removal: distillation, reverse osmosis.

pH: This is the concentration of hydrogen ions. An acceptable pH for drinking water is ≥7.0. Low pH can dissolve iron in plumbing and produce a 'red water' problem.

Nitrate: Elevated levels can be attributed to fertilizers, sludge, refuse leachate, decaying organic matter and industrial discharges. Nitrate plus nitrite has a standard of 10 mg/l. High levels can cause methemoglobinemia (blue baby) and should not be used in feeding. It can also encourage the growth of algae and other organisms, giving the water a bad taste and odor. Methods of removal: an ion exchange, ion exchange, reverse osmosis.

Sulfate: From dissolved rock and soil containing gypsum, iron sulfides, and other sulfur compounds. The standard is 300 mg/l. High levels can give water a bitter taste and rotten egg smell, cause diarrhea, and with calcium form scales in boilers. Methods of removal: ion exchange.

Iron (Fe): An essential element for the human metabolism, the standard is 0.3 mg/l. Excessive amounts can lead to gastrointestinal irritation, iron deposition in skin and vital organs, and will stain laundry and utensils a reddish-brown color, cause an unpleasant taste, and favor the growth of iron bacteria. Methods of removal: ion exchange, reverse osmosis, distillation and filtration or chlorination.

Chlorides: High levels, in combination with sodium, can give drinking water a salty taste and may increase corrosiveness. The standard is 300 mg/l. Methods of removal: distillation and reverse osmosis.

Hardness: No standard set, but hard water can form scales in boilers and hot water heaters, and deposits scales on bath tubs. Methods of removal: electrodialysis, ion exchange, reverse osmosis, water softener.