



WATER TESTING

To provide the correct equipment for any water demand or use, whether it is for Public Health Authority, Point of Entry for household use, or high purity applications, two things must be considered:

1. What does the Water Analysis indicate?
2. What quality of water will be required at point of use?

A water analysis will reveal many facts about the water being tested. In fact, the list of minerals and other compounds that may be in the water sample are too numerous to list; therefore, only a small list is presented here representing the most common issues we see:

Calcium	Ca+	Bi-Carbonate	HCO ₃ ⁻
Magnesium	Mg+	Sulphate	SO ₄ ⁻
Sodium	Na+	Chloride	Cl-
Potassium	K+	Fluoride	F-
Barium	Ba+	Nitrate	NO ₃ ⁻
Iron	Fe++		
Hydrogen Sulfide	H ₂ S		
Silica	SiO ₂		
pH			
Total Dissolved Solids	(TDS)		
Total Suspended Solids	(TSS)		

If you were to draw a glass of water from the tap, smell it then drink it, would you be able tell much about the water? —Most likely not; maybe taste and odor, and color but these will give you no indication of but a few contaminants.

Further assessment of the water supply is required to determine the type of contaminants and methods of treatment required to provide the water quality desired by the end user.

Regardless of where, or how, an analysis is performed, it is important that care is taken regarding how the samples prepared for shipment to a lab.

1. Secure a 16oz polypropylene container with screw on top, If it is not new, soak in hot water to sterilize
2. Run water from sample point for 2 minutes
3. Rinse the container with the sample water
4. Fill the bottle to top so NO air space is left (You will need to slow the water flow as the container nears full to allow you to fill the bottle completely).
5. Close top tightly and seal around the cap with tape
6. Record information regarding the sample
 - a. Time sample taken
 - b. Source of sample
 - c. Color of sample
 - d. Odor if any
 - e. Taste (if reported by end user)
 - f. Appearance of sample (debris, cloudy, air bubbles)

Most applications involving home applications and some industrial applications do not require a “Complete Analysis”.

Proper treatment methods is a matter of judgment based on know-how, experience, requirements of the water being used and level of level of experience of the individual maintaining the equipment (i.e. Homeowner, maintenance man, service tech).