



Home Owner Water Testing Packages

Meridian Labs provides you with the peace of mind that comes with knowing that your home’s drinking water is free of harmful contaminants.

Our chemists have developed water testing packages that address residential and homeowner concerns. Whether your water comes from a private well or from a public water supply, Meridian has a water testing packages that will help you determine the water quality in your home.

HOUSEHOLD PACKAGE

Includes common constituents that can flavor or color your water, stain fixtures, or make you ill at high enough levels.



- | | |
|--------------|-------------------------------------|
| pH | Nitrate-Nitrogen |
| Calcium | Sodium |
| Conductivity | Sulfate |
| Chloride | Total Coliform & E. coli (Bacteria) |
| Iron | Total Hardness |
| Magnesium | Total Dissolved Solids (TDS) |
| Manganese | |

IRRIGATION PACKAGE

Includes parameters to determine suitability of well water for residential irrigation use.



- | | |
|--------------|-------------------------------|
| pH | Manganese |
| Boron | Nitrate-Nitrogen |
| Calcium | Sodium |
| Conductivity | % Sodium |
| Chloride | Sodium Absorption Ratio (SAR) |
| Iron | Sulfate |
| Magnesium | Total Dissolved Solids (TDS) |

BASIC PACKAGE

Minimum



- | | |
|------------------|-------------------------------------|
| Nitrate-Nitrogen | Total Coliform & E. coli (Bacteria) |
|------------------|-------------------------------------|

We can also test your water for common pesticides, herbicides, non-volatile & volatile petroleum hydrocarbons, and heavy metals.



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Home Owner Water Testing Packages, Continued...

HEAT PUMP PACKAGE

Useful in dealing with warranty issues.



| | |
|----------------------------|------------------------------|
| pH | Magnesium |
| Alkalinity | Manganese |
| Ammonia-Nitrogen | Nitrate-Nitrogen |
| Calcium | Ryzner Stability Index |
| Chloride | Sodium |
| Conductivity | Sulfate |
| Iron | Total Dissolved Solids (TDS) |
| Langelier Saturation Index | Total Hardness |
| | Total Suspended Solids (TSS) |

General Water Report Guidelines¹

pH: Normal range 6.5-8.5 with Reverse Osmosis/Distilled Water having a range of 5.0-6.0

Calcium and Magnesium: Cause the "Hardness" of the water.

Chloride: Levels above 250 mg/L may cause a "salty taste". Levels above 1000 mg/L are not recommended for livestock.

Electrical Conductivity: A measurement of the conductivity of the water. Typically, the higher the electrical conductivity of the water, the higher the dissolved salts/solids.

Iron: Levels above 0.3 mg/L may cause taste, odor and staining on fixtures and laundry.

Manganese: Levels above 0.05 mg/L may cause taste and black/grey staining on fixtures and laundry.

Nitrate-Nitrogen:

Levels between 0-10 mg/L are acceptable.

Levels between 20-40 mg/L may pose a risk to some livestock. Levels above 40 mg/L are not recommended for livestock.

Sodium: Levels above 100 mg/L are considered to be high. Water softeners recharged with sodium chloride (salt) increase the sodium level.

Sulfate: Levels above 250 mg/L may cause a mild taste and levels above 500 mg/L may cause diarrhea in both humans and livestock.

TDS-Total Dissolved Solids: Levels above 1000 mg/L may cause taste. Shortened water heater life may be caused by levels above 400 mg/L. Levels above 7000 mg/L are not recommended for livestock.

Total Hardness:

"Soft Water": 0-85 mg/L (0-5 grains/gallon)

"Moderately Hard Water": 85-150 mg/L (5-9 grains/gallon)

"Hard Water": 150-300 mg/L (9-18 grains/gallon)

"Very Hard Water": 300-500 mg/L (18-30 grains/gallon)

Levels above 2000 mg/L are not recommended for livestock.

Recommended Frequency²

Kansas Department of Health and Environment (KDHE) and K-State Research and Extension strongly recommend at least annual water tests for coliform bacteria and nitrate. However, a reliable indicator of safe water requires more frequent, quarterly testing.

Water should be tested for common impurities and nuisance contaminants every few years. Except for a few cases of gross contamination, they change slowly so a test every 3 to 5 years is adequate. These tests form a basis for comparison to detect possible contamination.

An annual water test for total coliform bacteria is the most important (the primary indicator) to evaluate safety of drinking water. Tests at least four times a year are required for a reliable indication of safe water.

A test for fecal coliform or E. coli bacteria is recommended any time total coliform bacteria are present. Finding fecal or E. coli bacteria means there is contamination from a human or animal fecal source. Pathogens can exist in the drinking water. Water must not be used for drinking, cooking, or washing without disinfection.

¹ Source: Michael H. Bradshaw, and G. Morgan Powell, Understanding your Water Test Report, Kansas State University, October 2004 Standard Methods for the Examination of Water and Wastewater, 18th edition, 1992

² "Recommended Water Tests for Private Wells", Kansas State University Agricultural Experiment Station and Cooperative Extension Service, MF-871, May 1999