



ANR-790-2.2.4

ALABAMA A & M AND AUBURN UNIVERSITIES

Water Testing Which Tests Should You Request?

Testing water for every contaminant is possible but very expensive and not necessary. If your water source is private, you should test regularly for contaminants which can cause adverse health effects.

If your water supply is public, you may only need to test if someone in your family becomes ill or if the taste, odor, or color of your water changes.

Private Water Supplies: Routine Testing

Even if your private water supply is safe and pure, regular testing for a few indicators of contamination is valuable because it establishes a record of water quality. This record helps to identify changes in the supply, contamination of the water source, or deterioration of the water system. Good records of water quality are also important should you need to prove that your water has been contaminated by some outside activity such as mining or waste disposal.

Annual tests for household water supplies should include tests for total coliform bacteria, nitrate, pH, and total dissolved solids.

Private Water Supplies: Testing For Suspected Contamination

Water tests are especially important if the supply is threatened by nearby activities. Good records prior to contamination will be needed to prove that the supply was damaged. Table 1 presents situations that may affect a water supply and useful laboratory tests to monitor for potential contamination.

Testing For Nuisance Water Contamination

While nuisance contaminants in water may not present a health hazard, the water may not be satisfactory for all uses. Common complaints about nuisance water include staining of fixtures and fabrics, off-

Table 1. Activities That Can Cause Health-Threatening Contamination And Appropriate Tests.

If You Suspect Or Observe:	Request These Tests:
Intensive agriculture	Volatile organic chemical (VOC) scan of chemicals used in the area, coliform bacteria, nitrate, and pH.
Livestock facilities	Total dissolved solids (TDS), coliform bacteria, nitrate, and phosphorus.
Waste water systems: lagoons, septic systems, sludge, etc.	Coliform bacteria, fecal streptococcus, nitrate, ammonia, TDS, chlorides, sodium.
Mining: coal and other minerals	Chloride, sodium, pH, heavy metals, corrosion index, acidity, sulfate, TDS.
Oil or gas: test holes, wells, abandoned wells, buried storage tanks, operational or abandoned gas station	Chloride, hydrocarbons, oil, oil components, sodium, TDS, VOC scan.
Dump, junkyard, landfill	VOC scan, heavy metals, acidity, ammonia, oil components.
Industrial site, factory, or dry cleaning operation	VOC scan of chemicals used, produced, or stored on the site (such as gasoline components and cleaning solvents), pH, chloride, sulfate, and metals.

Source: Powell 1990.

Table 2. Nuisance Indicators And Appropriate Tests.

If You Suspect Or Observe:	Request These Tests:
Stained fixtures and clothes: red or brown black green or blue	Iron Manganese Copper
Reddish-brown slime	Iron bacteria
Off-color appearance to water: cloudy black brown or yellow	Turbidity Hydrogen sulfide, manganese Iron, tannic acid
Unusual taste and odor: rotten egg metallic salty septic, musty, earthy alkali gasoline or oil soapy	Hydrogen sulfide pH, corrosive index, iron, zinc, copper, lead Total dissolved solids (TDS), chloride Total coliform bacteria, methane pH, TDS Hydrocarbon scan Surfactants
Corrosion of pipes or plumbing	pH, lead, iron, manganese, copper
Low pressure or plugging of pipes and fixtures	TDS (hardness)
Rapid wearing of water faucets	pH and filterable solids; if pH is less than 7.5, test for alkalinity, lead, copper, zinc

Source: Powell 1990.

color appearance, unusual taste or odor, deposits, and pitting of metals. Testing can identify particular problems and help you select water treatment equipment. Table 2 presents appropriate tests for specific water quality indicators.

Summary

The tests you request depend on whether your water source is public or private. Private systems should be routinely checked for contaminants which can cause health problems. While public water supply systems are routinely tested for these contaminants, individual homeowners may need to test for nuisance contamination if the taste, odor, or color of their

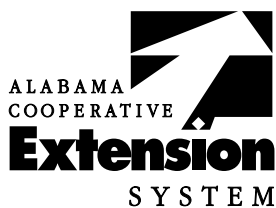
water changes. Call individual laboratories for costs of specific tests that you desire.

References

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For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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