

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD  
GROUNDWATER TESTING**

(No.)

**CODE 355**

### **DEFINITION**

Testing the physical, biological, and chemical quality of groundwater from a water well or spring.

### **PURPOSE**

This practice is applied to determine the quality of a groundwater supply with respect to its intended use.

### **CONDITIONS WHERE PRACTICE APPLIES**

This standard applies to groundwater from a production well or spring used for agricultural or wildlife purposes.

This practice does not apply to monitoring wells installed to sample, monitor, or test groundwater quality parameters related to contamination associated with waste management systems.

### **CRITERIA**

Select the parameters for testing consistent with the intended use or concerns identified with the well or spring.

Use sampling and testing procedures that comply with the Environmental Protection Agency's "Manual of Methods for Chemical Analysis of Water and Wastes."

### **CONSIDERATIONS**

Consider using a computerized total farm record keeping system for ease of data input, analysis, and retrieval of testing results.

### **PLANS AND SPECIFICATIONS**

Prepare plans and specifications for groundwater testing that describe the

requirements for applying the practice to achieve the intended purpose. Include the following:

1. Document the location and depth of supply.
2. Document aquifer characteristics, geology, and history of site relative to sources of potential contamination, such as surface water, septic systems, chemical storage facilities, landfills, roads, animal waste storage or treatment facilities, or naturally occurring sources of contamination.
3. Document the construction method used to install the well or spring development.
4. Include a description of the collection process, storing, transporting, and testing samples; and the reporting of test results.

### **OPERATION AND MAINTENANCE**

Maintain the water test records for the design life of the well or spring. Include the following items as part of the water test records:

- Sample site location by ground coordinates, such as by Global Positioning System (GPS), or other suitable method
- Name and title of person who collected sample(s)
- Planned use of the water
- Depth interval where sample was taken
- Date and time of water sampling
- Type of sampler and volume of sample
- Standard collection procedure used
- Date of water quality analyses
- Name and address of laboratory that performed analyses

- Parameters tested
- Schedule of additional testing, if required by the applicable water quality standard
- Records to evaluate trends and the effects of any remedial actions to produce water of quality suitable for the intended purpose
- Observations of well or spring condition at time of sampling
- Installation date of well or spring development
- Other records as required by regulations

## **REFERENCES**

U.S. Environmental Protection Agency, Mar. 1983. "Manual of Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79/020, Office of Research and Development, Washington, DC 20460, 552 p.