

Blue Thumb Groundwater Screening Events of 2024

§319(h), C9-996100-22, Project 8, Output 8.3

Although surface water monitoring remains the focus of Blue Thumb volunteer monitoring efforts, interest in groundwater quality has grown across the state due to many factors ranging from drought conditions to concern for impact from oil and gas activities. Blue Thumb staff members provide sample bottles, instructions for taking samples, and information on groundwater protection to conservation districts. The districts promote the events and provide this information to interested citizens. Districts are also responsible for recruiting volunteers to perform the groundwater screening. Blue Thumb staff members train the volunteers and oversee the screening efforts.

Groundwater screenings test alkalinity, sulfate, chloride, nitrate and pH. Data from groundwater screenings is presented to the well owner from the context of safety of their water supply, potential sources of any contamination observed, and precautions to help protect their well. Information about threatened or polluted wells is provided to the Conservation District that can then help the landowner hunt down likely sources and recommend protective BMPs. These analyses are screenings, so anytime the results suggest cause for concern the well owner is encouraged to contact the Oklahoma Department of Environmental Quality about having the well officially tested. Because these are qualitative screenings only, information is filed in BT records but not entered into the OCCWQ database.

Conservation districts are encouraged to offer an educational activity along with the screening event. This can occur when people bring in their samples, when they pick up their results, or at another point near the time of the screening. Blue Thumb is always available to assist and often helps facilitate such events. At a minimum, people who come in for a sample bottle receive information on groundwater protection and a visit is made with their local conservation district.

Groundwater screenings that have taken place in the 2024 reporting period are:

Blaine County Conservation District, November 29, 2023

29 samples tested (6 volunteers x 4 hours each)

**OWON (Oklahoma Well Owners Network) collected 21 samples for E. coli screening*

Harper County Conservation District, March 13, 2024

26 samples tested (17 volunteers x 3 hours each)

**OWON collected 12 samples for E. coli screening*

Creek County Conservation District, September 24, 2024

23 samples tested (5 volunteers x 3 hours each)

Data information for the tests will be included in the Blue Thumb Final Report for 2024.