



## Nevada Site Office News

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### **Groundwater Results Support Computer Model**

Sampling results from a new groundwater characterization well on the Nevada Test Site support the U.S. Department of Energy's computer model predictions that tritium is present in this remote location of the site. The ER-20-7 well, located on the site's Pahute Mesa, shows tritium levels that exceed safe drinking water standards. However, this water is not accessible by the public and does not present a public health concern.

The tritium detected is a result of historic underground nuclear testing dating back to the mid-1960s. "We expected to see these detectable levels of tritium," according to Bill Wilborn, the Federal Sub-Project Director responsible for the drilling campaign and groundwater characterization strategy. "The State of Nevada Division of Environmental Protection was notified of the tritium detection and a state approved fluid management plan has been implemented."

The ER-20-7 well is the first of nine new groundwater characterization wells being drilled on and near Pahute Mesa over a three-year period. The next two wells will be drilled in July and August of 2009 and will be located in remote locations on the Nevada Test Site and the Nevada Test and Training Range in areas not accessible to the public. The computer models predict radioactive contaminants should also be detected at these well sites.

This drilling campaign is the latest effort in a long-term characterization program to better define the location and extent of groundwater contamination resulting from underground nuclear tests. In addition, sampling of the groundwater at numerous wells on and off the Nevada Test Site is regularly conducted to ensure the safety of the drinking water supply. To date, sampling results have detected no contamination in the groundwater off the Nevada Test Site.

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**BACKGROUND:**

Tritium is a radioactive element that is used in nuclear weapons. It is the first radioactive material scientists will detect because it readily bonds itself to water. Tritium has a “half-life” of a little less than 13 years. That means that half of the radioactivity will go away, or decay, in that time period. Of the radioactivity that remains, half will decay in another 13-year time period. The process continues until it decays to levels below detectable limits.