New Report Shows Some Private Wells in Connecticut Test High for Naturally Occurring Arsenic, Uranium

A report published today by the U.S. Geological Survey, in cooperation with the Connecticut Department of Public Health (DPH), reveals that water from some private wells across the state has registered high levels of Arsenic and Uranium.

As part of the joint research project, DPH, with the help of local health officials, collected and analyzed water samples from 674 private wells in Connecticut. The lab results indicated that seven percent of the private well samples tested for Arsenic or Uranium at levels higher than Maximum Contaminant Levels, which are regulated in public water supplies and newly constructed private wells under Connecticut law.

These results were then examined by USGS Scientists, who compared the water sample collection sites in relation to geologic information in those areas.

“During our research, we discovered there was more Arsenic and Uranium in private wells than was previously known,” said Sarah Flanagan, USGS Hydrologist.

While high levels of Arsenic and Uranium were discovered across the state, the USGS found there were specific areas of high concentrations in wells that correlated with certain types of bedrock. This data indicated higher levels were associated with 81 different types of bedrock in Connecticut; however, bedrock type alone was not always predictive of higher or lower concentrations.

“For example, some major bedrock categories that had generally low levels of contamination, also had a few isolated wells with high concentrations of Arsenic or Uranium,” said Sarah Flanagan, USGS Hydrologist and lead author of the study.

The results of this study reaffirm DPH’s previous recommendation that private well owners in Connecticut should test their wells for naturally occurring Arsenic and Uranium.

“Our study shows that any private well in Connecticut has the potential to have elevated Arsenic or Uranium,” said Ryan Tetreault, DPH Private Well Program supervisor. “Private well owners should have their well tested at least once for these contaminants.”
Arsenic and Uranium are metals that can be found naturally in bedrock around the world. Sometimes, water from wells drilled into bedrock aquifers can contain Arsenic or Uranium that has leached out of the bedrock. Arsenic exposure has been related to many adverse health outcomes and can increase the risk of certain cancers. It also may be a risk factor for a developing fetus, and can affect child intellectual function. Naturally occurring Uranium can have adverse effects on the kidneys, but does not have high levels of radioactivity and is not considered a significant cancer risk.

According to DPH, routine testing required for private wells does not usually include testing for Arsenic and Uranium. It is up to private well owners to have their well tested for these contaminants. Potential homeowners may also ask for such testing when purchasing a home with a private well. Local health departments have the authority to require testing for arsenic and uranium for new wells if they have reason to believe there is a problem in their jurisdiction.

To read the full study, click here.

More information about private well testing in Connecticut can be obtained from the Connecticut Department of Public Health, by clicking here.