NEWS RELEASE
January 29, 2013

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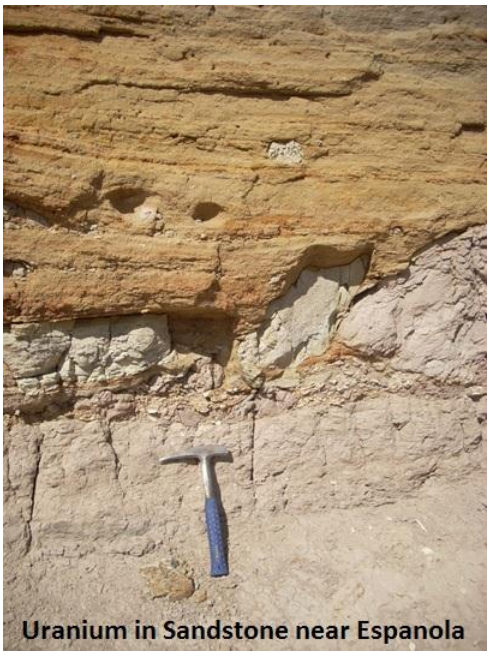
Environment Department Clarifies Differences Between Uranium Isotopes
Uranium in Santa Fe-Española Area Well Water is Naturally Occurring

(Santa Fe, NM) – Geologists have known for decades that the sandstones near Santa Fe and Española contain uranium. The yellow and brown mineral coatings on sand grains will kick a Geiger counter but are not rich enough to be mined at the present time. Most water wells in the area contain detectable uranium. More than 200 private and public wells contain uranium in excess of the drinking water health standard of 30 parts-per-billion (ppb), and some wells contain hundreds of ppb. The primary health concern of uranium in drinking water is kidney toxicity.


Uranium in Sandstone near Espanola

Los Alamos National Laboratory (LANL) sits west of the Santa Fe-Española area, west of the Rio Grande. A New Mexico Environment Department (NMED) investigation in 1995 concluded that the uranium in rocks and groundwater east of the Rio Grande, in the Santa Fe-Española area, was naturally occurring and did not come from LANL. These findings have been confirmed by a second study by NMED, LANL, and three water-quality businesses in Santa Fe.

One way to distinguish between natural and manmade uranium (U) is by testing for its different isotopes. U-234, U-235 and U-238 are naturally occurring isotopes. U-236 is a manmade isotope that does not occur in nature. The ratios of natural isotopes, and the presence or absence of U-236, can be used to fingerprint sources of uranium.

NMED sampled 52 wells located east of the Rio Grande in 1995, and detected uranium concentrations up to 920 ppb. The well waters contained U-234 to U-238 ratios that were consistent with natural geologic uranium.

NMED, LANL, Good Water Company, Environmental Geochemistry LLC, and Indepth Water Testing recently completed a more detailed isotope study that was funded in part by the New Mexico Small Business Assistance Program. Thirteen water wells, from Santa Fe north into Española, were sampled and analyzed by the New Mexico Scientific Laboratory Division and by two different labs at LANL. There was close agreement on test results between the three labs. Uranium concentrations ranged from 9 ppb to 776 ppb. Ratios of U-234 to U-238 were similar to the naturally occurring ratios detected in the 1995 NMED study. Ratios of U-235 to U-238 also were consistent with natural geologic sources. Manmade U-236 was not detected in any sample.

By contrast, shallow groundwater impacted by historical LANL waste discharges contains maximum uranium concentrations of less than 10 ppb, sometimes with an enriched ratio of U-235 to U-238 and detectable U-236.

"Given the abundance of uranium in sandstones and granites in this region, it comes as no surprise that the uranium in groundwater is natural," said NMED Secretary Dave Martin. "But natural uranium at high levels in drinking water can pose a health risk."

The New Mexico Institute of Mining and Mineral Technology has mapped more than 87 areas in New Mexico where the rocks contain uranium deposits http://geoinfo.nmt.edu/staff/mclemore/documents/07-111_18.pdf. "We know that some well waters in Dona Ana County, Grants-Gallup, Santa Fe-Española, and Tucumcari-San Jon contain uranium," Martin said. "If you live in one of these areas, and use a private domestic well, we recommend that you test your water for uranium."

NMED does not have the laboratory resources to test well water for uranium on demand. But you can arrange for your own testing, through a local laboratory or water purification company, to determine if your water contains high uranium and, if so, what treatment options are available. Laboratories certified by NMED to perform drinking water testing are listed at this location http://www.nmenv.state.nm.us/dwb/sampling/CertifiedLabs.htm.

If your drinking water is supplied by a public water system, your water has already been tested, and you can find out what the uranium concentration is from the NMED Drinking Water Watch website https://eidea.nmenv.state.nm.us/DWW/.

The N.M. Department of Health and NMED have published a Fact Sheet on uranium and human health. http://nmhealth.org/eheb/documents/Uranium_Fact_Sheet_DOH_ED_03.22.pdf

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