

Dimock, PA Groundwater Health Consultation: Summary of Private Well Sampling Results and Recommendations May 2016



This fact sheet tells you about methane gas and other chemicals found in private well water in the Dimock, Pennsylvania area. It also lists actions residents can take to protect their health.

In 2012, the Agency for Toxic Substance (ATSDR) began reviewing information about groundwater and sampling data from the Dimock area at the request of residents and the U.S. Environmental Protection Agency (EPA). ATSDR then prepared a [report](#) with our findings. The report also has recommendations to protect the health and safety of Dimock residents.

What are ATSDR's public health conclusions about the EPA sampling data?

ATSDR found that some chemicals found in private water wells at this site are a concern. Levels in 27 private water wells were high enough to affect health. Chemicals detected above health-based comparison levels include arsenic, cadmium, copper, iron, lead, lithium, manganese, potassium, and sodium. 4-chlorophenyl-phenyl ether was also detected in private water wells; however, there is not enough information on the toxicology of this chemical to determine its potential for adverse health effects.

Methane levels in 17 private water wells could be a physical hazard. Methane gas can build up in poorly ventilated areas and cause a fire or explosion.

ATSDR concluded that for these and other private water wells, levels were high enough to make the water unsuitable for drinking.

Appendix B of ATSDR's report for the Dimock Groundwater Site lists the chemicals of potential health concern that were found in a sample of specific private water wells tested by EPA in 2012.

What are ATSDR recommendations for private well owners in the site area?

- All private well owners should regularly test their drinking water for unsafe chemicals. The Penn State Extension Program has a specific gas/oil water testing package and offers well water testing at low costs. The Penn State Extension lab testing website is <http://agsci.psu.edu/aasl/water-testing/drinking-water-testing>. You can call the Susquehanna County Penn State Extension office at 570-278-1158 for information on their private water well testing.
- Carefully consider the information about your well water quality. Then decide if and how you need to treat your water. Also consider the operation and maintenance of water treatment systems installed on your private water well.
- The Penn State Extension Program and the Master Well Owner Network have experts who can help you make decisions about appropriate water treatment and long-term water treatment system operation and maintenance.
- Check your water for signs of methane (bubbly water).
- Install a gas detector to check for methane levels in the air in your home.

- Take these steps if you have high levels of methane in your private well water:
 - » Ventilate the rooms in your home where you use a lot of water.
 - » Ventilate your well head.
 - » Keep open flames away from your well head and areas in your home where you use a lot of water.
 - » Consider installing a water treatment system to remove dissolved methane in your well water before it enters your home.

More recommendations on how to reduce exposure to contaminants are available in the health consultation.

What other recommendations did ATSDR make?

- In addition to routine private well water quality monitoring and maintenance by private well users, ATSDR recommends additional sampling for groundwater characterization purposes in the Dimock site area by (or under the supervision of) the appropriate regulatory agency.
- ATSDR recommends public health agencies continue to provide health education to community members to support protective health actions.
 - » In 2012, ATSDR participated in EPA's meetings with Dimock residents in their homes to review their individual residential well water results.
 - » ATSDR will continue to work with appropriate regulatory and public health agencies and community members to share information with the Dimock community about the public health implications of residential well water quality in the area.

How reliable are ATSDR's findings?

For its analysis, ATSDR used the best information available, which included EPA 2012 sampling data collected during a pause in natural gas well completion activities (e.g., hydraulic fracturing) in the site area. Natural gas drilling and completion activities have started again in the area. Residents have raised new concerns about changes in drinking water quality since gas well completions have resumed.

The levels of current exposures among Dimock residents to chemicals in their well water is uncertain. We do not have the information to clearly say whether a resident is drinking treated or untreated groundwater, or whether water treatment was successful or remains effective.

Additional limitations to ATSDR's findings are noted in the report.

Who can I contact for more information?

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ATSDR's Dimock, PA Groundwater Health Consultation is available at <http://www.atsdr.cdc.gov/hac/pha/HCPHA.asp?State=PA>.

The Agency for Toxic Substances and Disease Registry is a federal public health agency of the U.S. Department of Health and Human Services. ATSDR promotes healthy and safe environments that prevent harmful exposures to toxic substances. To learn more about ATSDR, visit www.atsdr.cdc.gov.