

# THE FACTS ABOUT HYDRAULIC FRACTURING

**DID YOU KNOW?**

*Production of the state's shale gas deposits will help lower Ohio's natural gas costs to consumers and grow our economy?*

## The Facts about "Fracking"

- Hydraulic fracturing has been used safely in more than 1 million U.S. wells.
- The first commercial fracking well was drilled more than 60 years ago in Oklahoma.
- Hydraulic fracturing has been used for more than 40 years in Ohio to stimulate oil and gas well production.
- Since 1990, more than 15,000 Ohio wells have used hydraulic fracturing. During that time the Division of Mineral Resources Management has conducted a number of water well investigation complaints – **none** of the investigations revealed problems due to hydraulic fracturing.

## What is Hydraulic Fracturing?

The fracking process enables energy companies to tap into natural gas-rich shale such as the Marcellus and Utica deposits in Ohio.

This allows natural gas trapped deep in the earth to be released and captured for use in our homes, businesses, and as an alternative fuel for some cars.

## How deep is a shale gas well?

5,000 to 8,000 feet down (that's more than 1.5 miles, and thousands of feet below freshwater aquifers).

## How and why is shale fractured?

After a well is drilled and secured, a mixture that is approximately 98 percent sand and water, with a small amount of chemical additives, is injected at a very high pressure to fracture the shale. The sand keeps the fractured shale open and serves as a conduit for extracting the natural gas.

## Can hydraulic fracturing fluid rise to the surface?

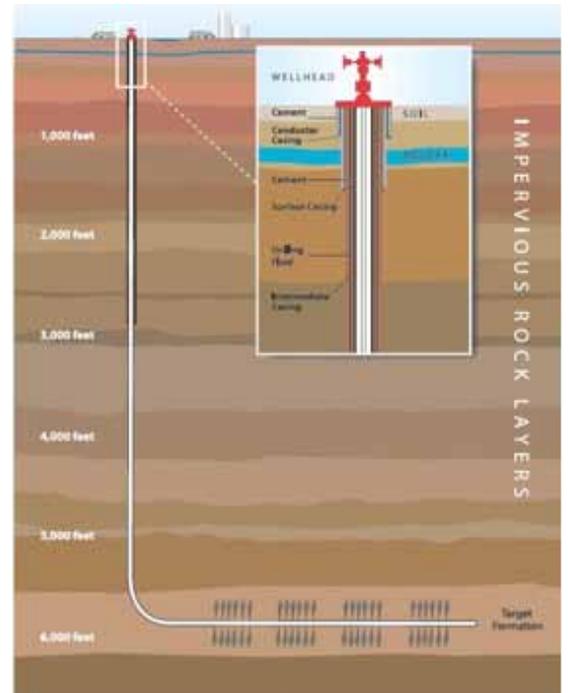
No. Geologically speaking, the bedrock between the fracked site and the surface is so dense that it makes it impossible for frack fluid to travel upward thousands of feet, or between rock formations and into freshwater aquifers.

## How much natural gas is currently being produced in Ohio through traditional drilling?

In 2009, more than 88 billion cubic feet of natural gas was produced in Ohio. That's enough natural gas to heat more than 1 million Ohio homes and businesses each year. Nearly 100 percent of the natural gas produced in Ohio is used right here at home.

Ohio recently received a positive endorsement of its hydraulic fracturing program by the non-profit, multi-stakeholder organization, the State Review of Oil & Natural Gas Environmental Regulations, Inc. The report went on to commend the ODNR for its role in revising Ohio's oil and gas laws.

The U.S. Environmental Protection Agency, the Ground Water Protection Council, and the Interstate Oil and Gas Compact Commission\* all have found hydraulic fracturing nonthreatening to the environment or public health. U.S. EPA is conducting another study to evaluate potential impacts of hydraulic fracturing on drinking water and groundwater.



## Additional Resources

### **Dept. Natural Resources:**

[www.ohiodnr.com](http://www.ohiodnr.com)

### **Ohio EPA:**

[www.epa.ohio.gov.us](http://www.epa.ohio.gov.us)

### **Penn State Marcellus Center:**

[www.marcellus.psu.edu](http://www.marcellus.psu.edu)

### **Frac Focus:**

[www.fracfocus.org](http://www.fracfocus.org)



\*U.S. EPA, 2004 study; GWPC, 2009 report; IOGCC, 2002 study