



Five facts about Hydraulic Fracturing

Hydraulic fracturing is a process for producing oil and natural gas. Once a well is drilled to a targeted formation, a mixture of water, sand and a small amount of chemicals are injected into the sealed well and pressurized. The pressure creates and enhances existing fractures in the formation; the sand holds the fractures open once the pressure is relieved, allowing oil and gas to flow to the wellbore to be produced.

1. **Fracturing has not been shown to hurt Michigan's environment.** This process has been in regular use by the gas and oil industry in Michigan since 1952. More than 12,000 wells have been fractured in this state, and regulators have seen no instances of adverse environmental impacts. Like most industries, the oil and gas industry in Michigan historically has been responsible for some surface spills and transmission pipeline leaks around the state. But none of the incidents have anything to do with the fracturing process.
2. **There is no "New" fracturing.** Some groups claim there is a threat from "new" fracturing. The fact is fracturing is a process. While companies recently have been targeting formations deeper underground (and further from the water table), and the jobs are bigger (reducing surface disturbance from multiple well heads), the fracturing process – injection of water, sand and .05% of chemicals to a formation under pressure – is exactly the same from a regulatory standpoint.
3. **Michigan has a great fracking regulatory program.** The DEQ's regulation of oil and gas development has evolved over decades, just as the technologies for developing gas and oil have developed. The program is reviewed regularly. It focuses on three key aspects:
 - A. **Water Use:** Applicants use the state's Water Withdrawal Assessment Tool (WWAT) before the well is permitted for fracturing. If the proposed water withdrawal is ultimately deemed likely to create an adverse resource impact, it is not approved.
 - B. **Well Construction:** Operators prepare their wells according to strict, regulated, and inspected standards. They are required to test-pressurize before they fracture and during the process to assure the integrity of the well.
 - C. **Used Water Management:** The water injected in a fracturing job mixes with brines and hydrocarbons layered deep underground, and returns to the surface with targeted gas and oil reserves. This "flowback" water is managed carefully – stored in steel tanks and taken away for disposal at deep injection wells.
4. **Michigan is Michigan.** Groups interested in proposing a ban on oil and gas development talk a lot about alleged problems from fracturing in "other states." Michigan has unique geology. And Michigan DEQ has seasoned teams of geologists who understand that geology and have been working to keep oil and gas development from harming our environment for decades.
5. **DEQ is committed to continued environmental protection.** The DEQ is charged with protecting Michigan's air, land and water by regulating processes that could impact the environment. The state's oil and gas regulators are a highly skilled team of committed professionals working in every county, personally inspecting operations and holding industry operators accountable. Their track record on hydraulic fracturing speaks volumes about an important fact: we take our mission seriously, and we do a good job as regulators. Hydraulic fracturing only seems new. Most people do not realize Michigan is a top-20 producer of oil and gas. Overall, our domestic energy production has had a very minimal impact on the environment. And that is a sign of effective regulation.

Want to learn more about Michigan's regulation of gas and oil production?

Go to: Michigan.gov/deq Or [Youtube.com/DEQ](https://www.youtube.com/DEQ)
