



## Five facts about Hydraulic Fracturing

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Hydraulic fracturing is a process for producing oil and natural gas. Once a well is drilled to a targeted gas formation, a mixture of water, sand and a small amount of chemicals are injected and the well is sealed and pressurized. The pressure cracks rock layers in the formation, allowing oil and gas to escape. The sand holds the cracks open to ensure maximum recovery of the oil or gas.

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 gas and oil 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 gas and oil 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:** Developers use the state's Water Withdrawal Assessment Tool before the well is permitted for fracturing. If the proposed water withdrawal is likely to put a strain on local water supplies, it is not approved.
  - B. **Well Construction:** Developers prepare their wells according to strict, inspected standards, and they are required to test-pressurize them before they fracture to check 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 gas and oil 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. Our domestic energy production has had such a minimal impact on the environment. That is a sign of effective regulation.

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

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

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