

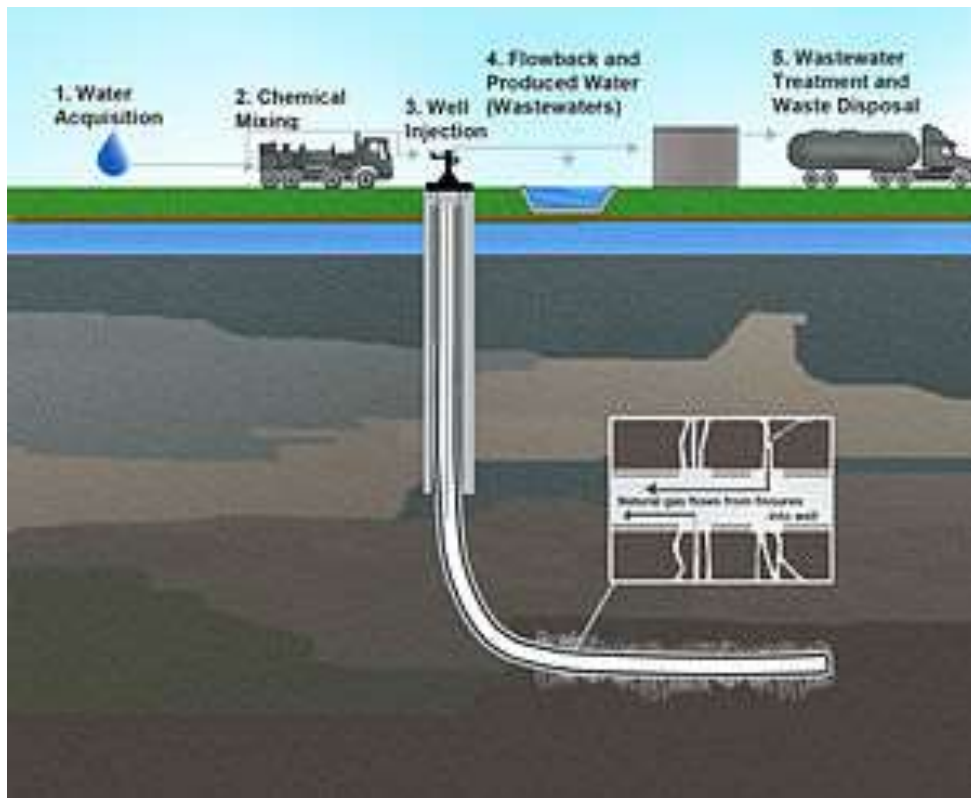
# STUDENT READING 1

## Fracking in North Dakota

Hydraulic fracturing, also known as fracking, is a method of oil and natural gas extraction that involves injecting fluid into subterranean rock formations at high pressure. According to the U.S. Energy Information Administration (EIA), there were approximately 23,000 hydraulically fractured wells in the United States in 2000. In 2015, the United States contained approximately 300,000 hydraulically fractured wells, which accounted for 67 percent of U.S. natural gas production and 51 percent of U.S. crude oil production.

Oil and natural gas production in North Dakota is concentrated in western North Dakota in the Bakken and Three Forks formations, which are located in the Williston Basin. The basin spans portions of North Dakota, South Dakota, Montana, and two Canadian provinces (Manitoba and Saskatchewan). According to the North Dakota Department of Mineral Resources, there were 11,681 wells that were hydraulically fractured as of May 2017. In 2015, there were 10,619 active wells stimulated with hydraulic fracturing, and production from hydraulically fractured wells accounted for 95.7 percent of oil and gas production in the state.

### Fracking Background



*An overview of the fracking process*

Hydraulic fracturing, also known as fracking, is a method of oil and natural gas extraction. The process involves injecting fluid into subterranean rock formations at high pressure. The high-pressure fluid produces a fracture network that allows crude oil and natural gas inside dense rocks to flow into a wellbore and be extracted at the surface. The fluid (known as frac fluid) contains between 98 percent and 99.5 percent water and sand; between 0.5 percent and 2 percent of the fluid is composed of chemical additives, which are used to stop the growth of microorganisms, prevent well casing corrosion, increase the rate at which the fluid is injected, and reduce pressure, among other uses.

As of 2015, thirty-one states produced crude oil and 33 states produced natural gas. States have primary regulatory authority over fracking and regulate the location and spacing of wells, drilling methods, lining of wells, the process of fracking itself, plugging wells, waste disposal, and site reclamation. In some states, environmental regulatory agencies regulate fracking; in others, fracking is regulated by oil and gas commissions.

While states have primary regulatory authority over fracking, oil and gas operators must meet requirements in the following federal environmental and public health laws, among others:

- The Clean Air Act, which regulates air pollutants emitted during oil and gas production
- The Clean Water Act, which regulates all pollution discharges into surface waters and requires oil and gas operators to obtain permits to discharge produced water—fluids used during fracking as well as water that occurs naturally in oil or gas-bearing formations—into surface water.
- The Comprehensive Environmental Response, Compensation and Liability Act, which requires oil and gas operators to report the release of hazardous substances during oil and operations and allows the EPA to investigate hazardous substance releases and require operators to restore areas affected by hazardous spills.

*Adapted from:*

*Ballotpedia. (n.d.). Fracking in North Dakota. Retrieved March 4, 2022, from [https://ballotpedia.org/Fracking\\_in\\_North\\_Dakota](https://ballotpedia.org/Fracking_in_North_Dakota)*

