



3 Basic steps in Hydraulic Fracturing (fracking)

*Source: US Department of Energy

1. **Drill:** A well is drilled nearly 2 miles down, then curves at the bottom to run into the Bakken formation.
2. **Protect:** Cement and steel casings are inserted to guard against seepage from the pipe into groundwater.
3. **Fracture and Flow:** Fracking compound fluid is pumped under high pressure down the well and into the rock to the end of the pipe, fracturing the rock in stages to release the oil.

Fracking compound Ingredients:

Fresh Water – 80.5%

Proppant – 19.0%

- Natural Quartz sand and ceramic beads prop open fractures in the rock so oil can flow more freely.

Chemicals – 0.5%

- Additives such as Acids (swimming pool cleaner), Petroleum distillates (Make-up remover), and Isopropanol (glass cleaner) inhibit bacterial growth, minimize friction, and increase viscosity.