

# OIL COMPANIES TESTING GEOTHERMAL IN NORTH DAKOTA

The Bakken geological formation is located in North Dakota, Montana, and Canada. This oil source has been exploited in North Dakota — one that has seen an expansion due to fracking and horizontal drilling, which took off starting in about 2000. By 2010, hundreds of thousands of barrels of oils were being produced per day there. Estimates about how much is in the entire Bakken formation have ranged up to hundreds of billions of barrels. However, most of it can't be extracted with current technologies.



Extraction can use an enormous amount of water. A recent *Bloomberg* [article](#) stated that US oil drillers utilize about 25 billion gallons of water each year. The Bakken site in North Dakota uses far less, but enough that oil companies there are going to test a system to convert their wastewater to electricity. About 7 barrels of very hot water is generated for each barrel of oil they extract. Rather than doing nothing with it, they

want to use geothermal technology to convert the heat to electricity. The MOL Group and Continental Resources — two companies that work in oil extraction — are preparing to test out such systems.

The potential upside would probably not be considered to be huge, but it has been estimated that a 250 kilowatt geothermal generator at a well could generate about \$100,000 in electricity each year. On paper, such a generator over a 10-year period could create about \$1 million worth of electricity, so an oil production company could save some money while doing business.

Will Gosnold, a researcher at the University of North Dakota, said, “We can have distributed power throughout the oil patch.”

Some might say the project sounds like greenwashing, because the main outcome is still the production of a fossil fuel and the extraction processes waste huge amounts of water. The oil extraction also might be contaminating land and water supplies. All of these concerns are valid.

At this point, the oil companies involved appear to be attempting to take advantage of a waste product to help them save money, and that is a valid approach too. It’s not your typical cleantech story, but it’s an interesting one I thought was worth covering.

Source : <http://cleantechnica.com/2015/04/24/oil-companies-testing-geothermal-north-dakota/>