



FRACKING FOR OIL

Noble Energy plans extensive test drilling in Elko County

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Next growth possibility in U.S.

- ▶ 350,000 Net Acres Located in Elko County, N.E. Nevada
- ▶ Phased Pilot Test Program to Determine Viability
 - ▲ 5 – 8 vertical wells in 2013
 - ▲ Production results in less than 12 months

The infographic includes a geological cross-section showing 'Top of oil window', 'Palaeozoic strata', and 'Tertiary reservoir play'. It also features a map of Elko County with a '3D Acquisition' area highlighted in yellow and red, and an inset map showing the location within Nevada.

ELKO — Sitting in the heart of Gold Country, for the past year Elko County has heard a faint whisper of new riches underground: oil.

An oil discovery would presumably add to the area’s already robust economy and alter the cultural and physical landscape. But at the moment, oil resting in the rock is merely speculation. If crude oil’s down there, in all likelihood Houston-based Noble Energy Inc.

will be the first to strike it.

Noble finished 3D seismic exploration in 2012. For the next two years, the company plans to drill exploration wells around Tabor Flats, located west of Wells, according to a Bureau of Land Management memo. Initial production is slated for 2014.

The energy company also has exploration plans on patches of land within a 60-square mile location northwest of the Ruby Mountains.

The company has leases on public and private land in the county with a total 350,000 net acres in play, according to Noble. By 2020, the company expects to be at full production of 50,000 barrels of oil per day.

Exploratory wells would make use of a method — growing in popularity thus gaining attention nationally as of late — called hydraulic fracturing, or as it’s become known, “fracking.”

Fracking gives drillers access to oil or gas otherwise trapped deep in the ground by injecting a liquid solution of water, sand and chemicals into a well that at high pressure fractures the shale, allowing oil or gas to flow back through the hole.

“Most fluids are 99 percent fresh water or sand,” said Lowell Price, Nevada Division of Mineral’s oil, gas and geothermal project manager.

The Department of Minerals, in charge of administering well permits, said it usually takes up to 10 days to process a permit application but also keeps results confidential for six months after drilling begins. If Noble finds anything, it could be half a year before the larger populace knows the details.

Fracking is commonly done by boring a well deep below the waterline, Price said. Once at the necessary depth, drillers begin arcing the well until the line runs horizontally near oil or gas trapped in shale.

With a national focus on the burgeoning technique, fracking also carries with it a heft of controversy. Opponents say it contaminates groundwater and engenders earthquake activity.

For these reasons, during BLM's scoping period on the proposed exploration drills, conservationists voiced their concerns.

Nevada Wilderness Project, for example, asked the BLM to examine the project more rigorously by producing an environmental impact statement instead of an environmental assessment. According to the BLM's website, an EA is issued to determine if significant effects will result from an action while an EIS analyzes and discloses the effects.

"We're not against jobs or anything like that," said Craig Mortimore, Nevada Wilderness Project staff scientist. "We feel it's best to just make sure the stakeholders, those who use those areas to ranch, to hunt, all those downstream from Mary's River, are all fully aware of the potential consequences."

Nevada Wilderness Project filed a comment with the BLM and sent the same letter to the City of Wells and Elko County, which states, in part, "We believe that the environmental and social repercussions and possible geological implications of induced hydraulic fracturing technology (fracking) must be investigated in great detail before exploration through fracking can be permitted on public lands."

In the area, the BLM often partners with mining companies, but unlike gold exploration, Mortimore explained, unsuccessful oil and gas exploration still disturbs the environment to a similar degree that actual production does and warrants greater scrutiny.

"Unlike the simple drilling of a dry bore hole by a rig pulling out cuttings to determine presence or absence of mineral content, fracking, whether used to identify a resource or to exploit it, requires the on-site storage and injection of fluids, requires surface disturbances of comparatively similar scale and presents risks to human health," Nevada Wilderness Project's letter states.

Chemicals, which making up about a half a percent of the water solution used to crack shale, also have some critics skeptical of claims that fracking is harmless. Mortimore said he believes companies keep the chemical composition unknown under the guise of "trade secrets."

Others aren't as sure that fracking poses the reported risks. A causal relationship between fracking and contaminated freshwater aquifers has never been shown, according to Price. As a member of an interstate oil and gas commission, if real danger existed, he said, he'd be among the first to know. Wells are fortified with cement casings which contain chemicals, gas and oil in the well hole and out of the watershed.

"It's basically a common opinion among the regulators that hydraulic fracturing is a very safe process," he said.