

# Frack that!

## Santa Barbara County balks at an oil company's use of hydraulic fracturing techniques without its permission

**Jeremy Thomas, Santa Maria Sun, 5-26-11**

It's a controversial drilling practice, recently linked to groundwater contamination in natural gas operations. County officials contend it was performed in a Northern Santa Barbara County oil field without their permission.

Hydraulic fracturing, more commonly known as "fracking," allows oil companies to access oil and gas reserves previously unreachable by traditional methods. Highly pressurized liquid is injected thousands of feet below the Earth's surface, causing mini-fissures in the rock bed and forcing deep deposits of oil and gas to escape to where it can be collected.

According to Doug Anthony, deputy director of the Santa Barbara County Energy Department, Denver-based oil company Venoco Inc. admitted it employed the technique months ago in the county, hydrofracking up to 10,000 feet underground on two oil wells in the Careaga Canyon field. The field is located along Highway 135, west of Los Alamos and between highways 1 and 101.

Anthony said he first learned of the operations in February after finding out Venoco had been blocked from using the same technique to drill exploratory wells in Monterey County. After asking around the industry, Anthony confirmed rumors the company had engaged in fracking locally with the state's Division of Oil, Gas, and Geothermal Resources (DOGGR), which regulates oil drilling under the water table.

According to Anthony, Venoco was obligated to let the county know it would be performing the operations beforehand; he said he was "disappointed" to learn they'd done so without the county's knowledge.

"We know they did it, and we know they shouldn't have done it without proper permits," Anthony said.

As a result of the discovery, Anthony said county energy officials have already developed a more detailed supplemental application to ensure oil companies fully divulge their extraction techniques in the future. He's currently preparing a report for the county's Board of Supervisors, which is scheduled to discuss the issue at its June 7 meeting.

The briefing was initiated by 3rd District Supervisor Doreen Farr, who discovered what Venoco was up to after receiving complaints from a nearby rancher about oil drilling operations going on late into the night. Farr alerted county staffers to investigate whether any new permits had been applied for or issued.

They hadn't.

"From a process standpoint, it's always important that everybody, and certainly the oil industry, goes through the proper permitting path for whatever they need to do," Farr said. "Protecting public health and safety is our primary job, and when we hear something like this is going on, it's very important to bring it to the board and the public's attention and sort out what's happening."

The practice of hydrofracking has come under fire of late. A 2010 documentary titled *Gasland* depicted residents living near fracked natural

gas wells lighting their tap water on fire. On

May 9, Duke University scientists published the first research paper linking fracking for natural gas to methane contamination in drinking water.

The fluid used in the process is a blend of water, sand, and a laundry list of toxic chemicals that help hold the fissures open and help the oil flow better. The liquid is proprietary and considered a confidential trade secret. It's also exempt from scrutiny by the U.S. Environmental Protection Agency under Safe Water Drinking Act regulations, a result of the 2005 Energy Bill signed by former President George W. Bush.

Venoco representative Bruce Carter, in a letter to Anthony, described in vague terms the chemicals the company adds to the water to make the fluid. It's a bunch of buffers, cross-linkers, surfactants, and a polymer containing a gelling agent, made up of 60 to 70 percent "petroleum distillate blend," according to Baker Hughes, the fluid's supplier.

Supervisor Farr said local property owners and Los Alamos residents have become increasingly concerned about the potential for the recent fracking operations to contaminate the area's groundwater supply, a possibility Farr said is "of great concern to everybody."

"Where they're doing this, in the Los Alamos Valley, is over the Los Alamos groundwater basin, which is not only the water for all the surrounding farms and ranches, but for the community of Los Alamos and Vandenberg Air Force Base," Farr said. "Potentially, there could be some very widespread impacts if this is not handled correctly."

In a letter to the county, Venoco disclosed the water it used for the procedures was "extracted from an underground aquifer via a single private well," sparking further concern.

"We're also worried that what Venoco did in this case, and where they were out of sorts with their permit, was they used fresh groundwater," County Energy's Anthony said. "To do that, we require a more discretionary permit. They won't be able to do it anymore unless they pursue that permit."

Mike Edwards, Venoco's vice president of Corporate and Investor Relations, wouldn't address specific details of the fracking operations, but did say the company believes it's in full compliance with all county and state regulations.

According to Don Drysdale, spokesman for the Department of Conservation, the state's Division of Oil, Gas, and Geothermal Resources doesn't issue permits for fracking, doesn't know when it's being done, and also doesn't require oil companies to notify the agency when it occurs. Drysdale added Venoco has had three violations of its drilling permits since 2007, but that the company is currently in full compliance at the state level.

The two hydrofracked wells at Careaga Canyon are currently active, and according to Venoco's Edwards, each reached a final depth of between 8,000 and 10,000 feet. The wells are located in the Monterey shale geological formation, the source-rock for most of Southern California's oil deposits, which amounts to a total of 37 billion barrels. Venoco produced about 800 barrels of oil from the Santa Maria Basin in March, Edwards said.

The Monterey shale formation has been a productive oil source for more than 100 years, but due to a low recovery rate in the past, the formation remains largely untapped. However, recent technologies like hydrofracking, combined with higher oil prices, have renewed oil companies' interest in the formation, Edwards said.

In fact, Venoco has shifted half of its annual budget in 2011 to tapping Monterey shale, according to company documents, and if done successfully, the company plans to drill 50 wells and invest \$180 million on operations in the

zone in 2012. In addition to its onshore sites, Venoco operates two offshore oil platforms in the Santa Barbara Channel: Platform Holly and Platform Gail.