

# Potential oil play in eastern Wyoming excites industry

By DUSTIN BLEIZEFFER - Star-Tribune energy reporter | Posted: Wednesday, March 17, 2010 8:30 am

After more than a year of gloom in Wyoming's oil and gas industry, there's optimistic chatter of a potential oil boom in eastern Wyoming.

The talk centers on a couple of successful pilot wells targeting formations known to have vast amounts of oil and sour, over-pressurized natural gas. For decades, these formations in eastern Wyoming remained technically unrecoverable.

But with national oil prices expected to average more than \$80 per barrel through 2010 and average \$85 in 2011, and huge leaps in drilling and completion technologies, there's a rush on mineral leasing from Cheyenne to north of Douglas.

"Landmen are more active in southeast portions of the state that haven't seen oil and gas activity in a long time," said Wyoming Oil and Gas Conservation Commission supervisor Tom Doll.

Places including Goshen and Platte counties -- among Wyoming's poorest -- could see some significant drilling activity for the first time in decades, Doll said.

Oklahoma-based Chesapeake Energy reported impressive yields from its Wagonhound 23-1H well near the North Platte River just west of Douglas, drilling horizontally for thousands of feet in Frontier sandstone.

EOG Resources Inc. reportedly found initial success with its own horizontal pilot well in the Niobrara shale just south of the Wyoming-Colorado border near Cheyenne.

Historically, the Frontier and Niobrara formations have yielded only marginal results, according to local geologists.

But the players testing the Frontier and Niobrara formations are using some of the same new drilling and completion technologies responsible for unlocking huge shale gas reserves in the Bakken in Montana and North Dakota, the Haynesville in Louisiana and east Texas, the Barnett in north Texas and the Marcellus spanning areas of Ohio, Pennsylvania and New York.

In Wyoming, it appears operators may target the Frontier and Niobrara formations mostly for oil, according to geologist Jimmy Goolsby of Goolsby, Finley & Associates.

Goolsby said the new drilling and completion technology "changes things significantly."

"These have changed the world, I really believe," Goolsby added.

Earlier this month, officials from Chesapeake Energy told the Wyoming Oil and Gas Conservation Commission the company plans to launch an intensive drilling program this year that would likely include setting up a shop in Casper and spending up to \$10 million per month.

"Chesapeake was very upbeat about coming to Wyoming," Doll said. "They said they're looking for real estate in the Casper area. That would mean their people would be living in Converse and Natrona counties, and we'd be seeing a long-term commitment."

Chesapeake did not respond to several inquiries from the Star-Tribune. But according to documents submitted by Chesapeake to the commission, the company has already acquired some 600,000 lease acres in the Powder River Basin, and it expects to drill 16 new wells per year.

Chesapeake is the second largest gas producer in the U.S., and the most active driller in the nation with 120 operated rigs, according to documents it submitted to the commission. About 90 percent of Chesapeake's operated wells are horizontals.

Chesapeake is a major player in the Haynesville, Barnett and Marcellus shale gas plays.

Much of the mineral leasing activity in eastern Wyoming is targeting private mineral estate, which means operators can avoid lengthy environmental permitting requirements. However, operators are also targeting some federal minerals.

In recent months EOG Resources has filed "notice of staking" at the Bureau of Land Management's Buffalo Field Office for some 33 potential oil wells in the southern Powder River Basin.

In the BLM Casper Field Office, there are 16 pending applications for permits to drill and two staking notices among operators Scarlett Energy, Chesapeake, Jack L. Grynberg, Blackhills Exploration, Yates Petroleum, Kaiser Francis Oil Co., Southwest Production, EOG Resources and Strachen Exploration.

After decades of decline, Wyoming's oil production first turned around in 2005 with the help of several carbon dioxide flooding projects and about 12.8 million barrels of condensate, or light crude, production associated with deep natural gas wells.

In fact, there's still a strong demand among Wyoming oil operators for CO2 supply contracts so they can pump the greenhouse gas into old oil fields, sweeping large volumes of oil left behind from primary production methods.

"There continues to be very high interest in CO2 oil flooding in Wyoming -- even more than before," said Lon Whitman of the University of Wyoming's Enhanced Oil Recovery Institute.

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