

Features**Crude Prices Will Govern Bakken Recovery**

613 words

20 March 2017

The Oil Daily

TOILDA

English

(c) 2017 Energy Intelligence Group. All rights reserved.

Although the Bakken formation in North Dakota and Montana is a more mature play than its Permian counterpart, researchers from the Bureau of Economic Geology at the University of Texas at Austin say the play still has plenty of oil in its future.

Presenting at the Hart Energy Dug Conference in Denver, Scott Tinker, the bureau's director, and Research Scientist Svetlana Ikonnikova, revealed a new study that said the play still has more than 15 billion barrels of recoverable oil in place when studying wells drilled in 2015.

According to North Dakota's Department of Mineral Resources, the Bakken and Three Forks formations have produced just over 1.5 billion bbls in total through 2015.

However, Ikonnikova said that recoverable number is greater today given advancements in technology and completion techniques within the Bakken.

"Our analysis requires the wells to have at least 12 months of production," Ikonnikova told Oil Daily. "If we were to calculate everything again today the numbers would be much higher."

Whiting Petroleum has been incorporating higher sand volumes, more entry points and diverter technology into their Bakken completions.

Chief Executive Jim Volker said the company completed three new wells in February using 9 million pounds of proppant, with all three wells on the Loomer pad posting initial production rates over 3,500 barrels of oil equivalent per day.

Hess Corporation, another Bakken operator, is taking it one step further by leveraging big data and analytics to drive higher production from its wells.

For security and efficiency purposes, Hess migrated its data to the cloud through Amazon last year, which contains information on every well drilled in the Bakken, including those of its competitors.

"What that has allowed us to do is substantially improve our understanding of what really drives the performance of a Bakken well and also how can we match that performance of what's predicted verses actual," Chief Operating Officer Greg Hill told the conference.

Overall, Ikonnikova and her team estimated total oil-in-place in the Bakken and Three Forks formations at 217 billion bbls, which comes in about 10 billion bbls fewer than the Eagle Ford Shale in South Texas, which the bureau published a study on last year (OD Sep.15'16).

About 122 billion bbls of the total resource potential are located in the upper and lower Bakken, Ikonnikova said.

Overall, the study said 100,000 drilling locations are still available in the Williston.

Jack Stark, chief operating officer of Continental Resources, agrees that the Bakken still has abundant resource potential, but whether it can be recovered ultimately depends on the oil price and how it will govern rig additions.

"From a production standpoint, I don't think you turn production around as quickly as people think it may," Stark said.

Excluding drilled but uncompleted wells (DUCs), Stark said it would take 100 rigs in the Bakken to bring production back up to its 1.2 million b/d levels seen in 2014, which he views as an unrealistic scenario (OD Feb.16'17).

At a more believable 50 rig scenario during 2017, with the inclusion of about 80% of the field's DUC count, production is forecasted to jump up to about 1.1 million b/d in early 2018 before tapering off.

Latest information from rig data provider Baker Hughes showed the Williston Basin (Bakken) had 42 oil rigs operating as of the latest week (related).

"In the end, it isn't that the resources aren't there," Stark said. "It's about the pace at which it's being drilled, and the pace is really driven by price."

Tyler Webb, Houston

Document TOILDA0020170325ed3k00004