Petroleum news
BAKKEN

page 10 Statoil running 18 rigs in Bakken, goal 100% recycled water for fracking

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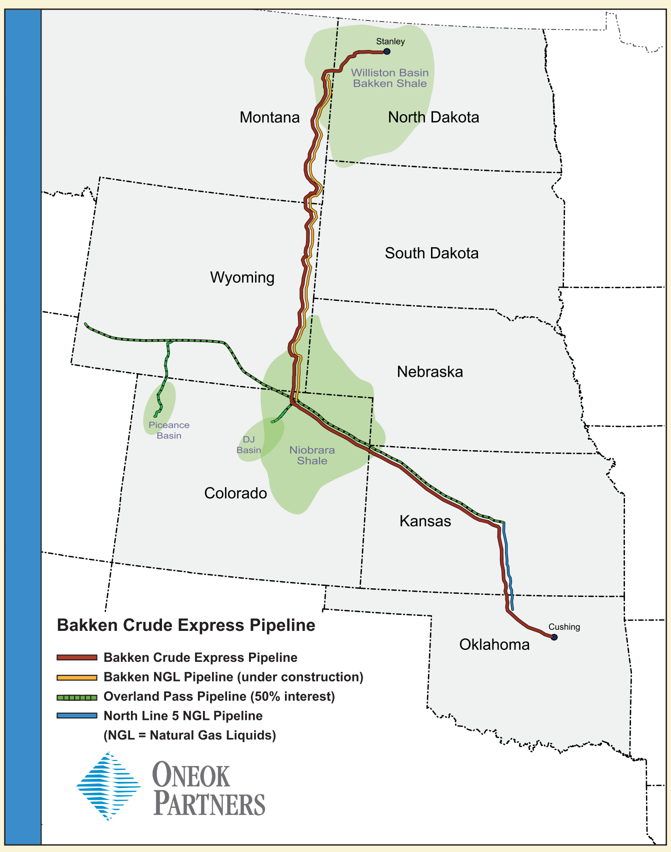
Bakken Express pipeline scuttled



Despite a "robust outlook for crude supply growth" in the Williston Basin's Bakken petroleum system, Oneok "did not receive sufficient long-term commitments" from shippers under the "terms it needed to construct the Bakken Crude Express Pipeline," company President Terry K. Spencer said. See full story on page 5 of this issue.

Saddle Butte out: Targa buys Williston Basin infrastructure

Houston-based midstream Targa Resources Partners recently announced that it has entered into an agreement with Colorado-based Saddle Butte Pipeline to purchase 100 percent of Saddle Butte's Williston Basin crude oil pipeline and terminal system as well as its natural gas gathering and processing operations for $950 million.

Saddle Butte was formed in 2009 as a privately held, full service midstream company that provided crude oil, natural gas, natural gas liquids and produced water services in the Williston Basin.

Its assets are all in McKenzie, Dunn and Mountrail counties of North Dakota, and include the two Saddle Butte terminals, one at Johnsons Corner Terminal, which delivers to Bridger Pipeline's Four Bears line, and the other at Alexander, which

see **TARGA DEAL** *page 20*

Oxy's Williston Basin unit absorbed by Mid-Continent

Joseph R. DeDominic, president and general manager of Occidental Petroleum's Williston business unit, left the company in November to take a position with Eagle Ford player Sanchez Energy as its senior vice president and chief operating officer.

"With Joe's departure, our Williston business unit has been absorbed into our Mid-Continent business unit," Nancy Turner, Oxy's director of communications and public affairs, told Petroleum News Bakken Nov. 28.

The Mid-Continent business unit's president and general manager, Ron Brokmeyer, is based in Houston, she said.

DeDominic "led the acquisition and growth of Oxy's Bakken and Three Forks assets in North Dakota," Sanchez said Nov. 28.

Oxy is currently running five rigs in Dunn County, N.D., up from four rigs in October. The Los Angeles-based major once

see **OXY UNIT** *page 18*

NATURAL GAS

ND's gas woes

State says might take until end of decade to resolve flaring problem

By RAY TYSON
Petroleum News Bakken

Finding a solution to North Dakota's ballooning gas-flaring problem will require a "very difficult balancing act" that could take until the end of the decade to work out.

"We have to balance the ability to build gathering systems against the waste that takes place with flaring," Lynn Helms, director of the state's Department of Mineral Resources, said in a Nov. 20 Webcast.


LYNN HELMS

"So we're looking at toward the end of this decade before we really get this flaring dynamic under control."

Gas production continues to increase at a faster rate than the more desirable crude oil, setting yet another production record in September at 793,546 thousand cubic feet, mcf, per day. Average oil output for the month was 728,494 barrels per day, also a record.

Bakken's mounting gas volumes

By the time oil production reaches 1 million barrels per day, projected to occur in 2013 or 2014, the associated gas will amount to around 2 billion cubic feet per day, a huge volume that has state regulators concerned.

see **GAS WOES** *page 19*

PRODUCTION & RECOVERY

Confident if prices slump

Helms: ND production could be sustained with just 50 rigs, 550 new wells per year

By RAY TYSON
Petroleum News Bakken

North Dakota oil production could be sustained at current record levels even if "the worst of worst happens," such as a major downturn in commodity prices, said Lynn Helms, director of the state's Department of Mineral Resources.

Helms said in a Nov. 20 Webcast that it would take only about 50 drilling rigs, or just over a quarter of the current fleet, and around 550 new wells per year to keep production at current levels of around 730,000 barrels per day. Currently, nearly 200 wells are being added per month alone.

Helms noted that the five top producing counties in North Dakota would be able to sustain their rig counts should oil prices drop well below $50 a barrel.

Moreover, even if drilling came to halt outside the five leading counties, he said, there still would be about 140 rigs left in the state operating at 10,000-15,000 barrels per day, "from now until we see a price recovery."

"So we are very confident that we can sustain current production even under some pretty (difficult) scenarios," Helms said.

Helms sees 3-5% growth rate

But "our best guess" is that North Dakota oil

see **ND PRODUCTION** *page 18*

FINANCE & ECONOMY

US to surpass S. Arabia?

Mark Papa says it's just 'a whole lot of talk;' David Roberts, 'I don't see it'

By KAY CASHMAN
Petroleum News Bakken

Recent predictions by the International Energy Agency that U.S. oil production will rise by 3.3 million barrels per day over the next five years to 11.4 million bpd, making the U.S. the biggest oil producer in the world around 2017, met with strong disbelief by two oil company executives.


MARK PAPA


DAVID ROBERTS JR.

EOG Resources and Marathon Oil are both top producers in the country's two strongest tight oil plays; in fact, EOG was a leader in U.S. shale gas and then tight oil well design and development. IEA shows tight oil as driving the increase in U.S. oil production.

Although EOG Chairman and Chief Executive Officer Mark Papa did not specifically mention IEA in a Nov. 28 presentation, he did explain his own company's projections of an increase of just 2 million barrels of oil a day from new U.S. tight and shale oil production by 2015, which the U.S. Energy Information Administration forecast in June as a

see **US PRODUCTION** *page 12*

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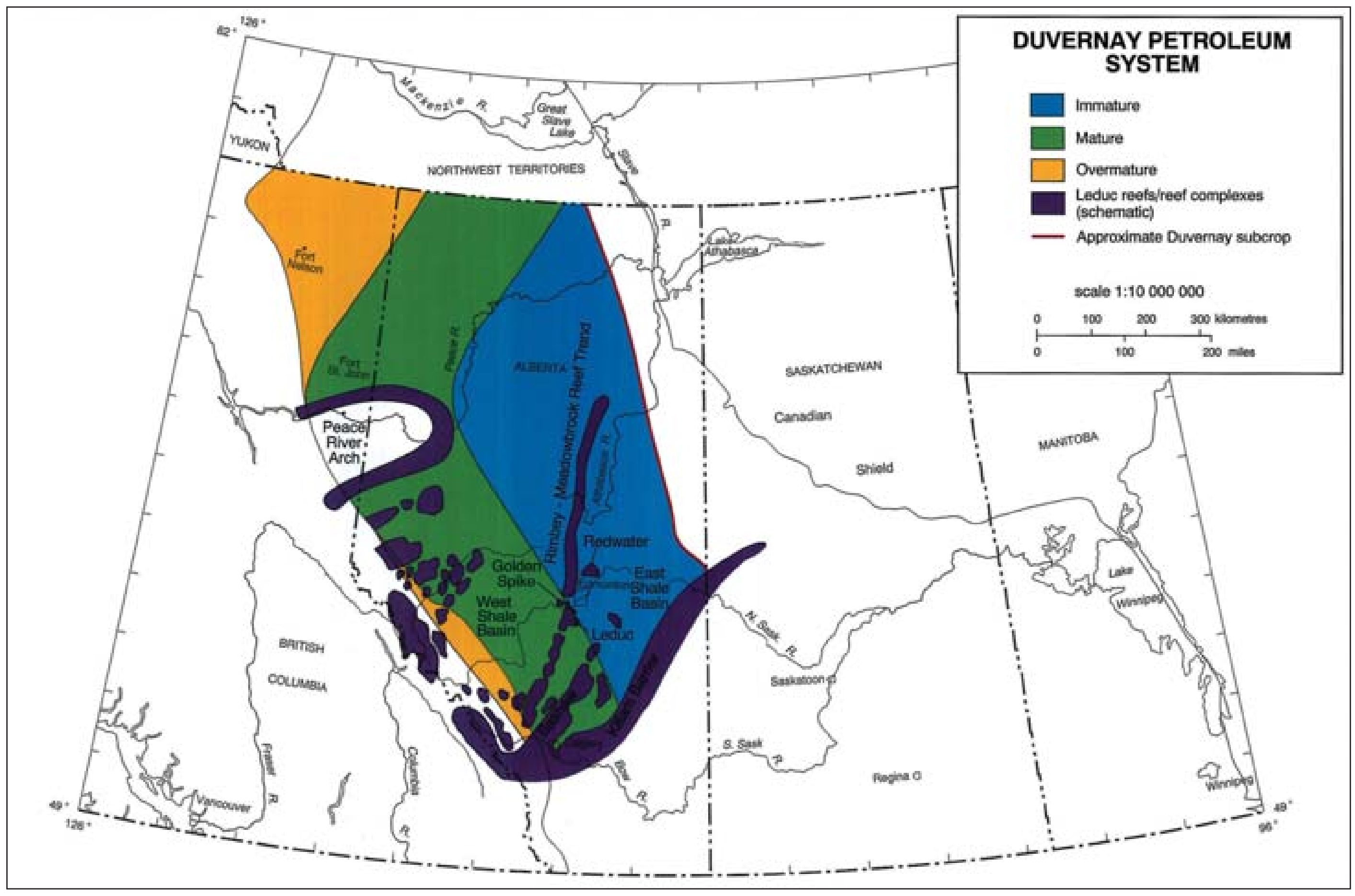
Duvernay on born-again road

'Immature play' needs another 2, 3 years to determine NGL content of gas, establish economics; jury still out on Eage Ford match

By GARY PARK

For Petroleum News Bakken



The fledgling Duvernay shale play spanning 50,000 square miles of the source rock which provided the launching pad for Alberta's petroleum industry in 1947 until light oil output went into decline in the 1970s has gained renewed strength from an industry study, along with the established benefits of horizontal drilling and multi-stage fracturing.

Early results from a joint effort by Ziff Energy Group and Gas Processing Management Inc., GPMI, pointed to possible production from the southern Duvernay of 600 million cubic feet per day by 2020, which Bill Gwozd, vice president of gas services at Ziff, estimated could account for only 15-20 percent of total output from all formations within the north Duvernay study area, which is centered on the Kaybob area.

In contrast, he said total production from the adjoining Montney study area is about 80 percent from the Montney zone and 20 percent from other formations.

The final conclusions of the Ziff-GPMI study of the south Duvernay covering natural gas and natural gas liquids supply and infrastructure will be released in January.

Ample gas-processing capacity

GPMI principal Bill Armstrong told a Gas Processing Association of Canada conference that there is ample gas-processing capacity in the targeted growth areas of western Alberta and northeast British Columbia, although much was built for sour gas which has been declining for many years and would have to be modified.

In their studies, Ziff and GPMI have impressed on producers the need to cooperate with each other and midstream companies to use existing capacity rather than building new infrastructure.

Armstrong said sour gas production has been "relatively flat" since 2000, while sweet gas has leveled off after growing from 2000 to 2008.

What the joint research shows is that there will be a growth ramp-up of gas within the south Duvernay and Montney to 2020, but whether production from the north Duvernay will be sweet or marginally sour remains an unknown, he said.

To those who suggest the targeted south Duvernay production is on the conservative side, given robust forecasts of how big the play might be and the investment of C$4 billion over the past three years in securing exploration land, plus billions more in acquisitions and joint-ventures, Ziff countered that he believes the forecast is "realistic."

"I'm very comfortable and supportive of the economics," he said.

Duvernay still 'immature'

Armstrong said the Duvernay is still an "immature play" and production is only in its infancy.

The question of how quickly it will be developed and establish its economic threshold will be influenced by the natural gas liquids content of the gas, along with the trend in gas and NGL prices, he said.

Wellington West Capital Markets has projected that the addition of liquids to the production stream from the Duvernay can realize gas prices of C$8 per thousand cubic feet equivalent.

Armstrong suggested production will not ramp up until operators are able to evaluate the economics of the play — a process that could take two or three years.

He does not expect production from the north Duvernay will reach 300 million cubic feet per day until about 2015.

Whether the Duvernay will ever match or surpass the Eagle Ford will take as long as the industry needs to drill, complete and tie-in wells in numbers that match the Texas play.

BMO Capital Markets said that of the 50,000 square miles of Alberta covered by the Duvernay, about 7,500 square miles is in the liquids-rich gas window where reported recoveries range comfortably from 75 to 150 barrels per 1,000 mcf of gas and, according to Encana and Talisman Energy have reached 300 barrels.

see **DUVERNAY SHALE** page 4

CORRECTION

3,300 tcf in Alberta shale/siltstone resources

It was incorrectly reported in the Nov. 18 issue of Petroleum News Bakken that a new study by the Geological Survey of Alberta and the Alberta Energy Resources Conservation Board estimated the province's shale/siltstone resources could ultimately yield 3.3 trillion cubic feet of natural gas. The number should have been 3,300 tcf. The article was titled, "Alberta opens door on huge resources; formations on parallel with Bakken, say agencies."

continued from page 4

DUVERNAY SHALE

Domestic, foreign interest

Although early exploration results are being kept under wraps, the formation has attracted a swarm of domestic and foreign companies, many of them on the prowl for natural gas assets to feed prospective LNG projects and high liquids content to carry them through early development.

The biggest surprise was ExxonMobil's C$3.1 billion bid for Celtic Exploration, due to close by Dec. 31, including 104,000 acres in the Duvernay and 545,000 acres in the adjoining Montney siltstone formation.

Others with sizeable stakes in the Duvernay are Encana, Talisman Energy, Canadian Natural Resources, Sinopec, ConocoPhillips, Apache and Trilogy Energy.

One of the first to release its 2013 capital spending, Trilogy has earmarked C$175 million for the Duvernay and Montney oil and liquids-rich plays and C$150 million to drill, complete and tie-in 40 Montney oil wells.

A joint study by the Geological Survey of Alberta and Alberta's Energy Resources Conservation Board generated numbers that "fall in line, more or less, with many of the other shales, whether it's Eagle Ford or Marcellus," said Andrew Beaton, one of the co-authors.

The major focus was on the Duvernay, Muskwa and Montney formations, although the Montney (which crosses the provincial border into British Columbia) is not strictly regarded as a "shale" target because it is dominated by siltstone.

In the high-low estimates for the Duvernay, the report lists 353 trillion cubic feet-540 tcf of gas, 44.1 billion-82.9 billion barrels of oil and 75 billion-16.3 billion barrels of NGLs.

The authors caution that the numbers represent an "endowment of hydrocarbons" and that geological and engineering constraints as well as economic, social and environmental considerations will ultimately determine the volumes that will be recovered.

In Alberta, no less than 15 formations have the potential for shale- and/or siltstone-hosted formations, which the report said "point to the great potential size of the resource, which can contribute to economic benefits and energy security for Alberta." ●

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● MOVING HYDROCARBONS

Bakken Express pipeline scuttled

Oneok opts to halt plans for its oil line to Cushing due to lack of interest from shippers; Kringstad blames pricing market

By MIKE ELLERD
For Petroleum News Bakken

Oneok Partners said on Nov. 27 that it did not receive sufficient long-term commitments from potential shippers during its open season for the proposed Bakken Express crude pipeline, and as a result the company has decided not to proceed with the project.

The Bakken Express was to be a 1,300 mile long crude oil pipeline running from multiple gathering points in the Bakken play in North Dakota and Montana and extending to Cushing, Okla. The pipeline would have had an initial capacity of 200,000 barrels per day. Oneok put the cost of building the crude oil pipeline at between $1.5 billion and $1.8 billion.

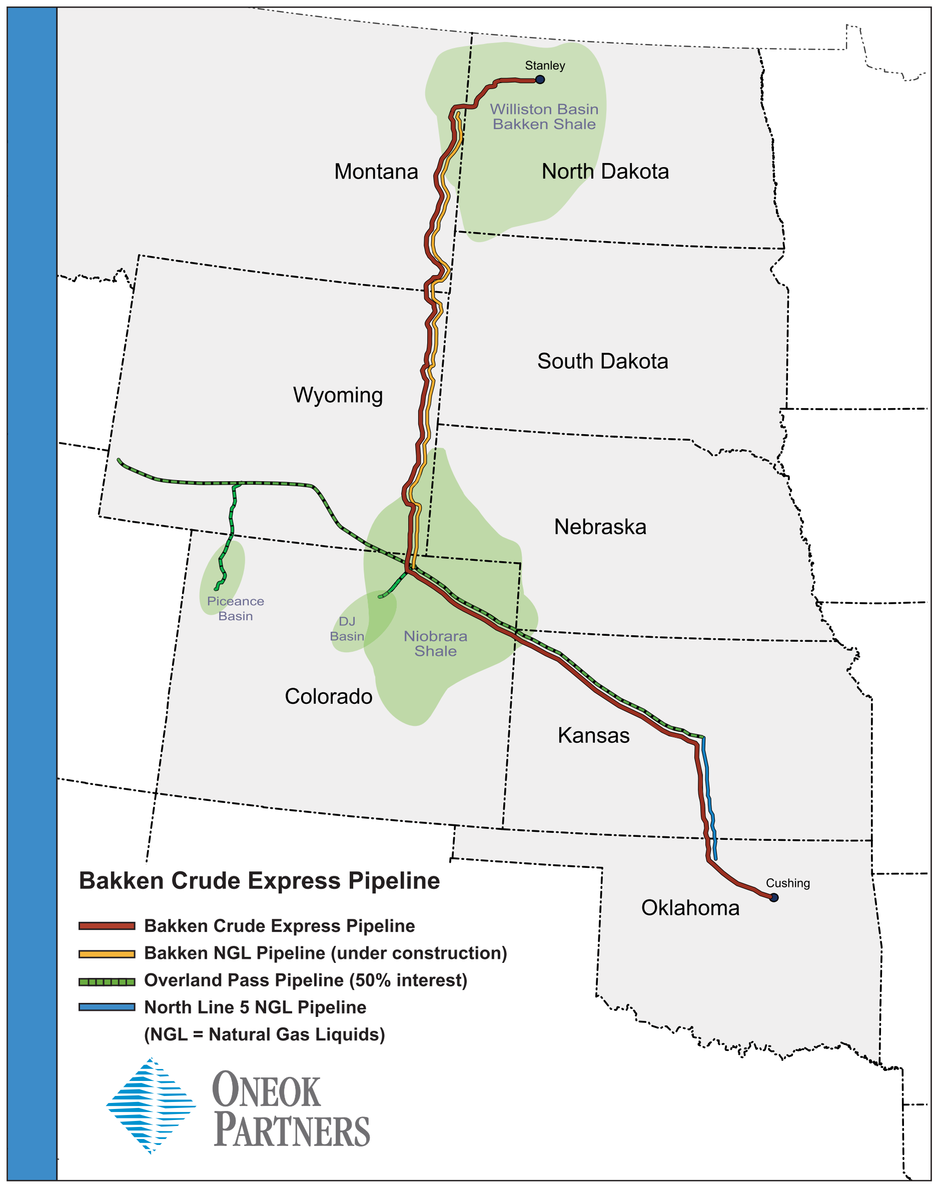
TERRY SPENCER

Oneok first announced its plans for the Bakken Express pipeline in April, and announced the open season in September. The open season ran from Sept. 21 to Nov. 20. Oneok was looking to begin construction on the Bakken Express in early 2014 and expected it would be completed by mid-2015.

Oneok's view

"Despite the robust outlook for crude oil supply growth in the Williston Basin in the Bakken Shale, we did not receive sufficient long-term commitments under the terms we needed to construct the Bakken Crude Express Pipeline," Oneok Partners President Terry K. Spencer said Nov. 27.

Brad Borror of Oneok told Petroleum News Bakken that there are uncertainties in the market and short-term versus long-term options are a factor for shippers. He said even with continued robust outlook for crude supply growth in the Williston Basin, shippers have shown a reluctance to make long-term commitments to a pipeline terminating in Cushing.



As an example, Borror said, shipping oil to the east and west coasts via rail currently makes good economic sense for producers, as opposed to committing to Cushing. In addition, he said, at current production levels there is sufficient rail capacity to handle transport to those areas. And rail, he said, is showing the ability to react quickly to the market and is offering much shorter commitment terms than pipelines require. Without a sense of urgency, Borror said, the market seems to be taking a wait-and-see attitude on where to commit long-term production.

"With estimates for crude oil production exceeding a million barrels a day over the next few years, there will be a need for pipeline takeaway capacity out of the Bakken. We still believe that the efficiency and reliability of pipelines will provide the best long-term solution for Bakken crude oil transportation needs," Borror said.

As to considering another possible crude pipeline venture in the future, he said the company would evaluate that situation as it would any other potential investment.

"Despite the robust outlook for crude oil supply growth in the Williston Basin in the Bakken Shale, we did not receive sufficient long-term commitments under the terms we needed to construct the Bakken Crude Express Pipeline."
—Oneok Partners President Terry K. Spencer

Justin Kringstad's take

North Dakota Pipeline Authority Director Justin Kringstad told Petroleum News Bakken that the Pipeline Authority "has been supportive of Oneok's Bakken Crude Express Pipeline, but given the current North American pricing market, it is not difficult to see why shippers may have been hesitant to sign up for long-term commitments. The entire industry right now is working hard to better understand the current and future transportation dynamics for Bakken crude oil. This is an exciting time and place for the transportation industry with many more opportunities ahead."

Still a Bakken player

"Although we have decided not to proceed with this project, we still have $4.2 billion to $4.8 billion of announced natural gas and natural gas liquids projects under way, many of which are in the Bakken Shale," Oneok's Spencer said. "Additionally, the partnership has a $2 billion-plus backlog of unannounced growth projects."

Oneok is currently operating its Garden Creek I gas plant near Williston and its Stateline I natural gas processing plant near Watford City. The company is finishing construction of its Stateline II plant, and that plant is scheduled to go online in the first quarter 2013. In September, Oneok submitted a permit application to the North Dakota Public Service Commission for construction of its Garden Creek II plant to be located adjacent to the Garden Creek I plant. The

see **BAKKEN EXPRESS** page 7

● MOVING HYDROCARBONS

Enbridge under more fire

High Prairie Pipeline files second FERC complaint against Enbridge; others also complaining to FERC about Enbridge

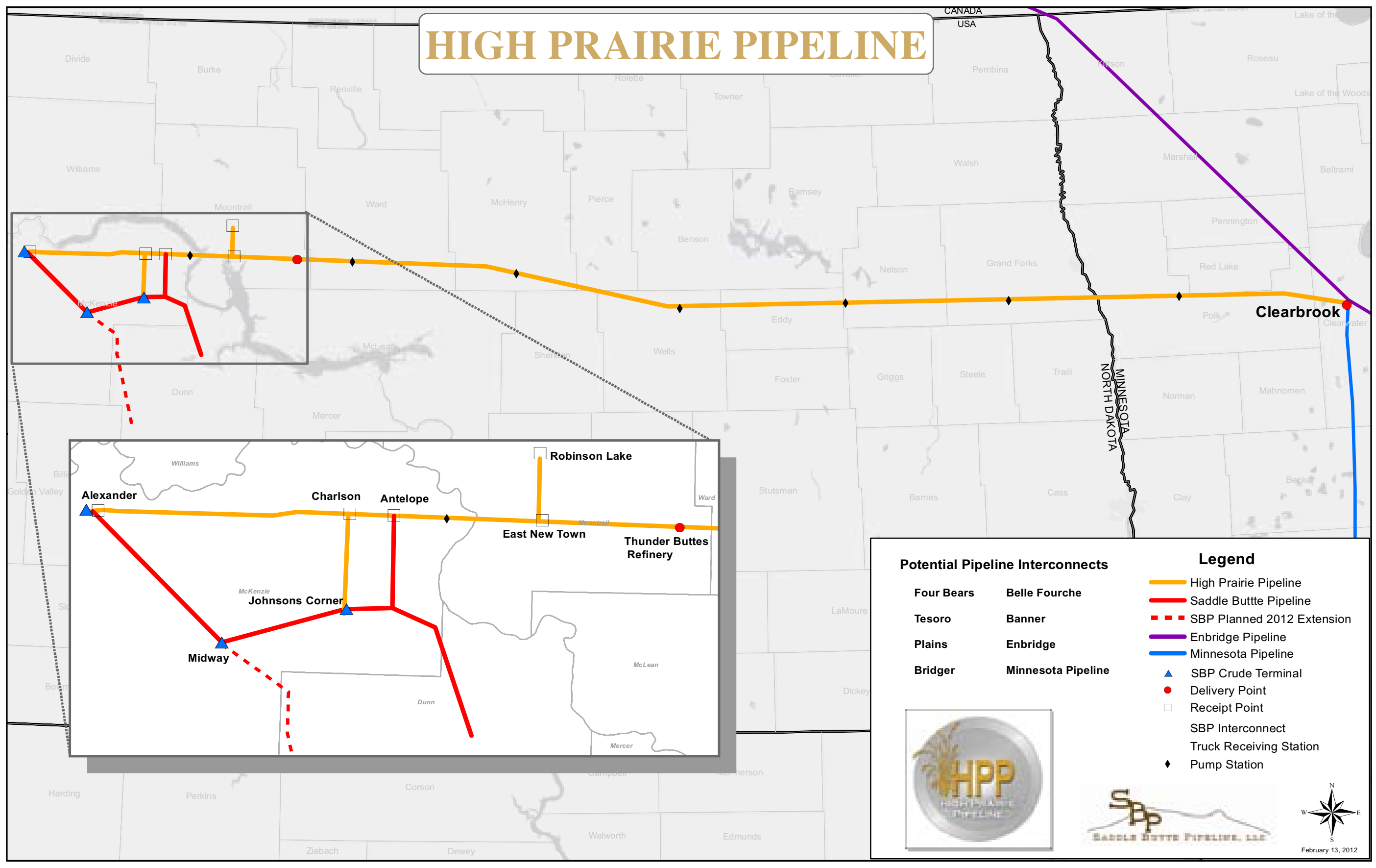
By **MIKE ELLERD**

For Petroleum News Bakken

On Nov. 27, High Prairie Pipeline filed a second complaint with the Federal Energy Regulatory Commission against Canadian pipeline giant Enbridge, this time alleging that Enbridge's proposed Sandpiper pipeline, planned to run from the Bakken in North Dakota to Superior, Wis., would eliminate Clearbrook, Minn., as a receipt point for the proposed High Prairie Pipeline and would add some 200 miles to the route getting Bakken crude to a U.S. mainline system.

Enbridge's Sandpiper pipeline would have a capacity of approximately 225,000 barrels of oil per day, and if approved, the pipeline would go into service in late 2015 or early 2016. The route has not been finalized as yet, but preliminary plans have it running from the Beaver Lodge area in Williams County due east some 600 miles to Superior.

The High Prairie pipeline is proposed to run approximately 450 miles from Alexander in McKenzie County to Clearbrook. High Prairie would have a capacity of 120,000 barrels with approximately 500,000 barrels of operational storage and was initially scheduled to go into service in the fourth quarter of 2013.



The latest complaint

In its Nov. 27 filing, High Prairie said the Sandpiper Project would be "a significant step in the wrong direction. Enbridge ND has provided no justification for its proposal to eliminate shippers' option, including High Prairie shippers, to utilize the interconnection at Clearbrook and the far less expensive Enbridge Energy capacity that already exists between Clearbrook and Superior. Rather, the relocation/elimination of Clearbrook as an interconnect point appears to be a coordinated effort by Enbridge Energy and Enbridge ND to limit shippers' transportation options and control access to pipeline infrastructure critical to the continued growth and development of the Bakken."

High Prairie went on to say that Enbridge should retain the existing interconnection at Clearbrook and grant non-discriminatory access to its pipelines at Clearbrook to High Prairie ... based on reasonable, just and non-discriminatory terms.

High Prairie went on to say that Enbridge should retain the existing interconnection at Clearbrook and grant non-discriminatory access to its pipelines at Clearbrook to High Prairie as well as to any other shippers requesting interconnection based on reasonable, just and non-discriminatory terms.

"Absent such conditions," the Nov. 27 High Prairie complaint states, "the Sandpiper Project would unjustly and unreasonably balkanize the pipeline system, as opposed to providing shippers with enhanced optionality and competitive alternatives. Access to Enbridge Energy's mainline at Clearbrook would be cut-off, and all of Enbridge Energy's lower-cost capacity between Clearbrook and Superior would be dedicated exclusively to the use of shippers utilizing upstream facilities of Enbridge Energy in Canada."

The High Prairie complaint continued, saying that shippers moving on Enbridge pipelines upstream of Clearbrook, or on High Prairie's pipeline project to Clearbrook, would lose the right to use any portion of the lower cost capacity between Clearbrook and Superior on Enbridge's mainline.

The High Prairie complaint goes on to say that if the capacity of Enbridge pipeline between Clearbrook and Superior would ever become constrained or temporarily shut down due to operational issues, shippers would not have the ability to shift barrels to the Enbridge mainline at Clearbrook. "There is no legitimate basis for eliminating the Clearbrook interconnection that can be squared with the requirements of the ICA. Such a balkanization of the pipeline system is unwarranted, unjust, unreasonable, and unduly discriminatory."

see **ENBRIDGE COMPLAINT** page 14

MOVING HYDROCARBONS

Bakken oil by rail to Philadelphia area

Enbridge unit strikes deal with Canopy Prospecting creating Eddystone Rail, one of largest connections from North Dakota play

By GARY PARK

For Petroleum News Bakken

A rail unit of Calgary-based Enbridge has struck a deal with Canopy Prospecting to deliver Bakken and other light sweet crude to Philadelphia-area refineries establishing one of the largest connections from the North Dakota play to a refinery.

The agreement involving Enbridge Rail will create Eddystone Rail Co. to jointly develop a unit-train facility and related local pipeline infrastructure near Philadelphia.

The objective is to handle 80,000 barrels per day in the third quarter of 2013, with hopes of expanding to 160,000 bpd for subsequent transport by barge or pipeline to nearby refineries as early as mid-2014.

Enbridge will own 75 percent of the joint venture and serve as operator during construction and operation of the facility.

The total estimated capital cost is about $68 million.

Jim Klingsporn, an analyst with Bentek, said the 160,000 bpd target could grow to 500,000 bpd if regional idled capacity comes back online.

John Auers, senior vice president of Turner Mason & Co., told Platts the East Coast market can absorb more than 800,000 bpd of Bakken volumes, forecasting that by the end of 2013 Bakken rail deliveries could average 100,000-150,000 bpd.

He suggested the likely refining targets for cheap, light sweet crude are Philadelphia Energy Solutions 330,000 bpd refinery in Philadelphia and Monro Energy's 185,000 bpd facility in Trainer, Pa.

Upping Bakken inputs

Philadelphia Energy Solutions said in September it initially hoped to rely on Midcontinent crudes for about 55 percent of its capacity in coming years, gradually building Bakken inputs from 20,000 bpd to 140,000-180,000 bpd, using a high-speed rail unloader to move oil from trains.

Project scope includes leasing portions of Exelon Generation's Eddystone power generation facility and reconfiguring existing track to accommodate 120 car unit-trains, installing crude offloading equipment, refurbishing an existing 200,000 barrel tank and upgrading an existing barge loading facility.

Additional storage and pipelines connecting Eddystone to Philadelphia area refineries are under development.

Jack Galloway, president of Canopy, said Eddystone Rail will be the "largest unit-train facility able to receive North Dakota Bakken and other light sweet crudes direct-

see RAIL CONNECTION page 14

GOVERNMENT

North Dakota's cut of oil royalties from state land increasing

North Dakota has reaped more than $1.1 billion since 2007 thanks to oil drilling activity — an especially impressive tally considering about 90 percent of the state is privately owned.

In the western North Dakota oil fields, state-owned land is leased for drilling, with government coffers seeing a share of royalty income from producing wells. Records show almost two-thirds of the state's 1.2 million acres in the region either has a well or one likely will be drilled within five years.

The state's public schools benefit the most from these lease auctions and royalty payments, and the Legislature can also tap the funds for special projects.

In the past year, royalty income has overtaken lease revenue as producers drill more wells to hold rights to the land, said Lance Gaebe, state Department of Trust Lands commissioner.

For the fiscal year that ended in July, 2,089 oil-producing wells were on state land — a nearly five-fold increase from just four years before — and state Land Department records show North Dakota received a record $192.1 million in royalty revenue. The state's cut from producing wells now is pegged at more than $20 million monthly and will likely grow as production increases.

Lease revenue, however, is dropping as the pool of state-owned parcels shrink in the oil rich Bakken and Three Forks formations. So-called bonus bids are a one-time, payment-per-acre bid to determine who earns the right to hold the state lease. Successful bidders also pay rent of $1 per acre per year for the right to hold the lease for up to five years without production.

One-third in western counties not leased

A record $294 million was bid in fiscal 2010 for rights to drill on state lands, or more than four times what North Dakota earned that year in oil royalties, records show. Last fiscal year, the state only collected $125.4 million in bids.

Oil has doubled the trust fund that benefits North Dakota's schools to $2.2 billion, Gaebe said. "That's money for today's generations and future generations for education."

Other royalties and lease proceeds are paid toward a trust fund that the Legislature can use for special projects, including infrastructure improvements.

The state owns about 1.2 million acres, or about 1,925 square miles, in 17 of western North Dakota's oil-producing counties. State data show about one-third of the land is leased, one-third is leased and has producing oil wells and the remainder have yet to be leased.

—JAMES MACPHERSON, The Associated Press

continued from page 5

BAKKEN EXPRESS

Garden Creek II plant is not scheduled to come online until the third quarter of 2014.

In addition, Oneok is constructing its Bakken NGL pipeline that will extend from the North Dakota gas plants south into northern Colorado and connect with the Overland Pass pipeline. Construction on that pipeline is nearly complete, and the line is scheduled to go into service in the first part of 2013.

Oneok has also recently completed updates to its Sidney, Mont., rail facility. Its Divide County, N.D., gas gathering system is scheduled to be completed in the third quarter 2013.

"While we are disappointed with the results of the open season, we remain committed to serving Williston Basin producers for their natural gas, natural gas liquids and crude-oil infrastructure needs," Spencer said. "We still believe the Bakken Crude Express has a competitive advantage over other competing projects due to its proximity to the route of our Bakken NGL Pipeline currently under construction and other Oneok Partners natural gas liquids pipeline corridors."

In his comments to Petroleum News Bakken, Pipeline Authority Director Kringstad said "Regardless of the outcome of the crude oil pipeline, Oneok is the largest gathering and processing company in the Williston Basin and I am very encouraged by their continued commitment to invest in additional North Dakota assets." ●

Contact Mike Ellerd at mellerd@petroleumnewsbakken.com

● DRILLING & COMPLETION

Montana weekly oil activity reports, Nov. 9-Nov. 22

COMPILED By DARRYL L. FLOWERS

For Petroleum News Bakken

With a few exceptions, such as the Heath shale play, the Montana weekly oil activity report includes Bakken petroleum system horizontal well activity in the eastern and northeastern part of the state in the Williston Basin. It also includes the so-called Exshaw/Southern Alberta 'Bakken' in northwestern Montana, outside of the Williston Basin.

Following are the abbreviations used in the report and what they mean.

Abbreviations & parameters

BHL: bottomhole location
BOPD: barrels of oil per day
BWPD: barrels of water per day
IP: initial production
MCFPD: thousand cubic feet per day
PBHL: probable bottomhole location
SHL: surface hole location

Week of 11/9 to 11/15

New locations: horizontal wells

Five wells were permitted in Richland County, all targeting the Bakken Formation. Three of the wells will fly the Fidelity Exploration & Production Co. banner: the Martha1 11-19H-18, with an SHL at NW NW 19-22N-57E (382 FNL/765 FWL) and a PBHL of 15,490 feet at NW NW 18-22N-57E (250 FNL/765 FWL); the Wyman1 11-19H, with an SHL at NW NW 19-22N-57E (382 FNL/715 FWL) and a PBHL of 14,839 feet at SW SW 19-22N-57E (250 FSL/715 FWL) and the Wyman3 11-35H, with an SHL at NW NW 35-22N-57E (265 FNL/698 FWL) and a PBHL of 14,865 feet at SW SW 35-22N-57E (250 FSL/698 FWL).

Brigham Oil & Gas LP was green lighted for the Berry 21-28 1H with an SHL at NE NW 21-26N-59E (614 FNL/2331 FWL) and a PBHL of 20,015 feet at SE SW 28-26N-59E (250 FSL/1740 FWL).

Continental Resources Inc. was approved for the Charlie 1-5H, with an SHL at SW SW 5-25N-54E (725 FSL/200 FWL) and a PBHL of 19,505 feet at SE SE 4-25N-54E (660 FSL/200 FEL).

In Roosevelt County, three wells were permitted, all in the Bakken Formation.

Two of the wells bear the Oasis Petroleum North America LLC logo: the Ma 2758 41-11B, with an SHL at SW SW 11-27N-58E (390 FSL/600 FWL) and a PBHL of 20,610 feet at SW SW 23-27N-59E (250 FSL/550 FWL) and the Chokecherry 2758 11-10B, with an SHL at NW NW 10-27N-58E (550 FNL/155 FWL) and a PBHL of 20,178 feet at NE NE 11-27N-58E (550 FNL/250 FEL).

Continental Resources Inc. won approval for the Langdon 1-19H, with an SHL at SE SW 19-29N-58E (230 FSL/1550 FWL) and a PBHL of 20,183 feet at NE NW 18-29N-58E (200 FNL/1980 FWL).

In Sheridan County, TAQA North USA Inc. was OK'd for two wells: the Krowen 14-5H East, with an SHL at SW NW 14-37N-57E (1400 FNL/320 FWL) and a PBHL of 11,943 feet at SE NE 14-37N-57E (1980 FNL/680 FEL) and the Krowen 14-5H West, with an SHL at SW NW 14-37N-57E (1350 FNL/320 FWL) and a PBHL of 12,445 at SW NW 15-37N-57E (1845 FNL/680 FWL). Both wells target the Bakken Formation.

Re-issued locations

In Richland County, EOG Resources Inc. took two permits: the Anna 3-03H, with an SHL at NW SW 3-25N-53E (2050 FSL/920 FWL) and a PBHL of 15,939 feet at SW NW 34-26N-53E (1700 FNL/700 FWL) and the Candee 3-05H, which has an SHL at NW SW 5-25N-53E (2219 FSL/1025 FWL) and a PBHL of 15,470 feet at SW NW 32-26N-53E (1830 FNL/700 FWL). Both wells will bore into the Bakken Formation.

Week of 11/16 to 11/22

New locations: horizontal wells

In Richland County, Continental Resources Inc. was green lighted for two wells, both targeting the Bakken Formation: the Babka Federal 2-12H, with an SHL at SE SE 12-24N-52E (335 FSL/750 FEL) and a PBHL of 15,663 feet at E2 E2 1-24N-52E (200 FNL/750 FEL) and the Duval Federal 1-8H, with an SHL at SW SE 8-26N-55E (475 FSL/1555 FEL) and a PBHL of 19,839 feet at NW NE 5-26N-55E (200 FNL/1980 FEL).

In Roosevelt County, EOG Resources Inc. was approved for the Star Coulee 3-1720H, with an SHL at NW NE 17-27N-58E (200 FNL/1575 FEL) and a PBHL of 20,164 feet at SW SE 20-27N-58E (200 FSL/1800 FEL). The target is the Bakken Formation.

Re-issued locations

In Richland County, Slawson Exploration Co. Inc. was issued a permit for the Dag 1-8H. The Dag's SHL is at SW SW 8-21N-59E (200 FSL/675 FWL), with a PBHL of 14,522 feet at NW NW 8-21N-59E (700 FNL/735 FWL). The target is the Bakken Formation.

Completions

In Richland County, three wells were reported as complete. Continental Resources Inc. reported the completion of the Shevlin 1-20H, with an SHL at NW NE 20-23N-55E (527 FNL/2115 FEL) and a BHL of 19,730 feet at SW SE 29-23N-55E (203 FSL/1984 FEL). The Bakken Formation well turned in an IP of 334 BOPD; 224 MCFPD and 388 BWPD.

Fidelity Exploration & Production Co. reported the completion of the Klose 8-17H, a Bakken Formation well with an SHL at NW NE 8-22N-57E (306 FNL/2086 FEL) and a BHL of 19,713 feet at SW SE 17-22N-57E (599 FSL/2164 FEL). The reported IP was 271 BOPD; 82 MCFPD and 402 BWPD. ●

Darryl L. Flowers, a contributor to Petroleum News Bakken, is the publisher of the Sun Times in Fairfield, Mont., www.fairfieldsun-times.com, and can be reached at publisher@fairfieldsuntimes.com.

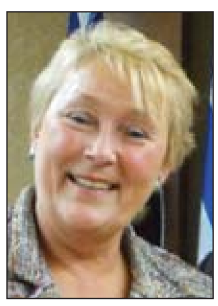
● MOVING HYDROCARBONS

Alberta finds friends in the east

By GARY PARK
For Petroleum News Bakken

With British Columbia Premier Christy Clark resolutely sticking to her environmental and economic demands before endorsing the movement of Alberta oil sands crude to the Pacific Coast for shipment to Asia, Alberta Premier Alison Redford is finding allies elsewhere to support a truly national pipeline network to Eastern Canada.

ALISON REDFORD



PAULINE MAROIS

To the surprise of many, Redford found support from the least likely sector on Nov. 25 when newly elected Quebec Premier Pauline Marois — frequently a harsh critics of the oil sands — said she was ready to study the benefits of shipping crude from the Bakken and Alberta to refineries in her province.

After a sideline meeting at a summit of provincial premiers in Halifax, Nova Scotia, they announced plans to strike working groups to explore the benefits of such a network.

"We have agreed that there is some very good opportunity for us to exchange technical information around economic development, the environment and the development of resources so that we can have an informed conversation," Redford said.

"I think what is really important is that we have acknowledged that there might be an opportunity. We are not concluding what those might be, but we are sharing some very important information."

Evaluation done soon

Marois said the evaluation will be completed before she visits Alberta some time after Christmas "to see if it's advantageous for both sides to have Alberta oil refined in Quebec."

Redford and New Brunswick Premier David Alward have already endorsed the idea of sending Alberta crude through Quebec to the 300,000 barrels per day Irving Oil refinery at Saint John, New Brunswick.

With Alberta crude production increasingly rapidly, Redford has been pushing for a national energy policy to get Alberta to new markets through pipelines or other means.

But Clark has resisted plans by Enbridge and Kinder Morgan to ship diluted bitumen to Asia through Kitimat and Vancouver, respectively.

Others look for energy security

Manitoba Premier Greg Selinger welcomed any attempts to build energy security in Canada by shipping domestic crude to Eastern and Atlantic provinces, where refineries are tied to about 500,000 bpd of imported Brent-priced crude.

Prince Edward Island Premier Robert Ghiz said oil produced in Canada should be used in Canada.

"We just want to talk," he said. "We're not saying we're going to see this happen overnight."

Nova Scotia Premier Darrell Dexter said an expanded pipeline from Western Canada could benefit Canada's entire Atlantic region.

"I would not argue against it. I think it's important for us to develop it," he said.

Redford said that changing the source of crude might allow Quebec to benefit from cheaper oil — a prospect that has seen Marois shift from resistance to opening her province to crude from the oil sands to conceding that there could be potential employment benefits, including in Quebec's petrochemical sector.

"If we continue down this path, it's important that each side comes out a winner," she said.

Two large refineries

Quebec has two large refineries — Suncor Energy's 130,000 bpd plant in Montreal and Valero Energy's 265,000 bpd facility in Quebec City.

Enbridge is also working on a reversal of its Line 9 to allow Bakken and Alberta crude to flow into Quebec, starting at 300,000 bpd and possibly increasing to 340,000 bpd, while TransCanada is exploring the possibility of converting part of its natural gas pipeline into Eastern Canada.

Canada's Natural Resources Minister Joe Oliver said he was encouraged by Marois' open dialogue with Redford and other provincial leaders.

He said reversing the flow of Enbridge's Line 9 would create jobs in Quebec and could lower prices at the gas pumps.

Bob Schulz, a business professor at the University of Calgary, said that although activists deride oil sands output as "dirty oil," not many people wonder whether the gasoline sourced from Venezuela, Nigeria or Iraq is cleaner than Alberta oil or whether those countries have a better record of lowering greenhouse gas emissions. ●

Contact Gary Park through publisher@petroleumnews.com

● COMPANY UPDATE

Canadian juniors update operations

Calgary-based Arsenal Energy, Painted Pony, working Bakken on either side of border, Arsenal in North Dakota, Painted in Canada

By GARY PARK
For Petroleum News Bakken

Arsenal Energy and Painted Pony, two Calgary-based juniors involved in the Bakken formation on either side of the Canada-U.S. line, reported active third quarters.

Arsenal, which operates in the United States under its wholly owned subsidiary Arsenal Energy USA, partly credited an increase in its total production for the three months to 3,694 barrels of oil equivalent per day from 2,185 boe per day a year earlier to full quarter production from second quarter completions of its North Dakota Bakken wells.

It also participated in drilling six (1.1 net) Bakken horizontal wells during the reporting period, with two of the new wells and one old well fractured and placed on production.

The Amundson well (20.31 percent working interest) averaged 945 barrels per day over 20 days and the Sundts well (11.72 percent working interest) averaged 1,360 bpd over six days. The Moen well (20.31 percent working interest) had produced for two years unstimulated. When it was fractured output doubled to 200 bpd.

Arsenal said the remaining wells are in various stages of completion and all have yielded results so far that are indicative of type wells.

The company currently has an interest in nine (1.1 net) Bakken wells in various stages of drilling or completion and anticipated that most will be on production by year-end, which should see Arsenal exit 2012 at about 4,000 boe per day.

Painted Pony said it continues to focus on development drilling of its Bakken light oil projects in southeastern Saskatchewan, principally at Flat Lake.

During the third quarter, the company participated in five (3.6 net) wells at Flat Lake, of which four (2.6 net) have been completed and placed on production. In the current quarter three (2.3 net) additional wells are scheduled for completion.

In Alberta, Painted Pony has started drilling its second 100 percent working interest exploratory well at Wimborne, targeting a new Viking light oil play. Results are expected by year-end.

A third Viking exploratory well (100 percent working interest), situated on a new play in the Corbett area, is also scheduled for drilling late in November.

In northeast British Columbia, the company has started completion and extended production testing on two new 100 percent working interest Montney wells, with results expected by year-end.

Painted Pony estimates its third-quarter sales volumes at 6,300 boe per day, weighted 77 percent to gas, with October production averaging 7,000 boe per day, weighted 75 percent to gas. ●

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● COMPANY UPDATE

Statoil doubles output, passes 50,000 bpd

With 2,020 people and 18 rigs operating in the Williston Basin, Statoil striving for 100% recycled water for fracking in future

By MIKE ELLERD

For Petroleum News Bakken

"Statoil is truly excited to be in North Dakota," Torstein Hole, the company's senior vice president for U.S. onshore operations, said in a keynote address Nov. 19. "Just over a year ago we entered the Bakken when we acquired Brigham Exploration, and it's been a very rewarding experience, both personally and professionally."

Hole told attendees of the sixth annual Great Plains and EmPower ND Energy Expo at Bismarck State College that the Norwegian-based international oil giant has just passed 50,000 barrels of oil equivalent per day, doubling its Bakken petroleum system production in the year since it acquired Brigham Exploration in 2010, and he said things are going very well.

"Onshore is a core part of Statoil's strategy, and will represent the major part of our long-term ambition as well," Hole said. "Statoil's ambition in North America is to produce 500,000 barrels a day in 2020. And we are close to 200,000 now. So this is a big growth in front of us, and my responsibility, which is onshore U.S., will probably have about 60 percent of that."

TORSTEIN HOLE

"We are a long-term player," Hole told the conference. "We are a solid company. We want to survive in the long-term, and we want to 'put stone on stone' as we say in Norway. And we have a history of developing new technology to enhance recovery, to improve safety, and to reduce the footprint of our industry. And these will be priorities for all of our work in the Bakken going forward."

He said all of Statoil's experience will be applied to its Bakken assets. "We have a commitment to health, safety and the environment, and to sustainable development of our business."

Statoil currently has about 20 employees in Williston and plans to double that number next year. But in addition, Hole said his company contracts approximately 2,000 service sector employees in the basin. "We know that we are dependent on the service industry. We want to have a close cooperation with the service industry as well," he said.

"Statoil knows that it takes constant adaptation and learning to be successful in the longer-term, and that this will also benefit the service sector that comes along with the industry so that they can, together with us, develop their own companies and bring value to the area. So I am confident that the past has equipped us with a solid foundation for moving forward."

Statoil in brief

Statoil is an international energy company with approximately 21,000 employees and operations in 36 countries, although the company's largest activities are in Norway. It is the largest operator on the Norwegian continental shelf. It has corporate offices in both Oslo and Stavanger.

COURTESY STATOIL

Statoil thinks "it is very important to be part of the local community, and we have therefore taken the initiative to form a local industry collaboration in Williston. We call it Energy Outreach Williston, and you can see the participating companies on this slide," Torstein Hole, the company's senior vice president for U.S. onshore operations, said in a keynote address Nov. 19. "And with that we want to engage the broader industry and local authorities and organizations in a collaboration for a positive local development in Williston. We talked about this some months ago when we visited Bismarck and the Governor's office, and now we have formed it and started it. I am really pleased with this. I have great expectation to the results of this," he said.

The government of Norway has a 67 percent ownership interest in Statoil, and that interest is managed by the Norwegian Ministry of Petroleum and Energy.

The company has both onshore and offshore operations in North America with main offices in Houston and Calgary. Onshore operations include the Bakken as well as the Marcellus and Eagle Ford plays.

Statoil expanded its footprint into the Williston Basin with its acquisition of Brigham Exploration in 2010. Within the basin the company now holds more than 375,000 net acres in North Dakota and Montana, with potential production from both the Bakken and Three Forks formations. It is currently operating 18 drill rigs in the Williston Basin.

North Dakota and global production

Providing some perspective on what North Dakota can expect in terms of production, Hole said the state is currently producing more than 728,000 bpd and will eventually produce 1 million bpd. That, he said, is twice as much as Statoil produces internationally outside of Norway. In Norway, he said, Statoil produces about 1.8 million bpd, but noted that it took a long time to reach that level of production.

North Dakota, Hole said, has been producing oil for more than 60 years, but it was not until recently that the state's potential was fully appreciated. The successful combination of horizontal drilling and hydraulic fracturing, he said, "has really catapulted the development of the oil industry in this state. It's a fantastic development and it has changed the whole mindset of our energy reality."

Referring to the recent International Energy Agency world energy outlook report, Hole said "the world energy outlook summarizes the situation by saying 'the global energy map is changing with potentially far reaching consequences for energy markets and trade. It is being redrawn by the resurgence of oil and gas production in the United States.' It's not often you see that kind of statement from International Energy Agency; they tend to be careful in their comments."

He went on to say that U.S. Department of Energy has reported that oil production in the U.S. is at an 18 year high, and imports are at a 20 year low. The U.S., he said, met 83 percent of its energy needs in the first six months of 2012. Going forward, he said, the IEA estimates that some $50 trillion will be required in upstream investment between now and 2035, and almost 30 percent of that investment will be in North America. That 30 percent of $50 trillion, Hole said, it "quite a lot of investment, and that's quite a lot of jobs as well."

Hole said North Dakota is "forging the frontier of this new era." The production rise, which began approximately five years ago, he said, has been impressive and has "grabbed the attention of both companies and governments all around the world."

Building a path forward with ND

Next Hole gave his thoughts on how Statoil can work with North Dakota to build a sustainable path forward.

First, he said the key to a sustainable path forward is a sensible policy and regulatory framework. And a good

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STATOIL

framework, he said, can achieve a lot of goals and will provide increased prosperity and economic growth for the individuals, for the companies, and for the states and the federal government.

In addition, he said, a sound regulatory framework will give stable and secure energy supplies, and such a framework can also provide for environmental stewardship and conservation. North Dakota, he said, has developed a comprehensive approach to energy and Statoil believes that North Dakota has and can continue to lead by example in this area.

The keys to achieving a proper policy framework, Hole continued, include a rational dialogue between all the stakeholders. He said that all sides of an argument need to be heard and that policy discussions are open and inclusive. "We need frequent communication and engagement. We need fact-based and informed basis for policy making and for decisions." He said it is important for the oil and gas industry to have a predictable landscape for decision making and stability.

And at the local level, Hole said promoting sustainable operations in communities is "paramount," and said infrastructure development, environmental protection and local community engagement are critical to achieving Statoil's goals.

Infrastructure and environmental protection

On infrastructure development, Hole said, the bigger things like houses, hospitals, roads and schools are all extremely important, but a company's operations are also important. He said Brigham Exploration made "great decisions" to start building out the pipeline infrastructure so that now Statoil has more than 700 miles of pipelines for oil, gas, fresh water and sea water in its area of operations, and he said the company will be completing that pipeline infrastructure the next year. "We are building salt water disposal wells, and we are building terminals so that we can ship the oil out both by rail and hopefully by pipeline in the future," he said, "and this is extremely important for the local community as well."

> *"We are building salt water disposal wells, and we are building terminals so that we can ship the oil out both by rail and hopefully by pipeline in the future."* **—Torstein Hole, Statoil senior vice president for U.S. onshore operations**

Hole said benefits of this infrastructure include reducing emissions from operations, reducing flaring, reducing truck traffic and recycling frack water. Statoil has tested fracking with 50/50 recycled water and fresh water, and he said the company is striving toward full recycling in the future. Hole said that a single well requires some 4,000 truck trips over its lifetime, and with the pipeline system in place, Statoil can reduce trucking substantially. Statoil is also working to eliminate oil-based mud, and is substituting diesel with gas in drill rigs and hopes to do the same in fracking operations.

Hole emphasized the importance of getting this infrastructure in place in the early stages of development.

"I'm not talking for my own company here because we are already close to completing the whole area of pipeline system, but we see that there is need for more. There is a need that all the operators go ahead and do the same. And I think that the more the state can do to incentivize this the better it will be for the local community."

"Statoil," he said, "humbly recommends the State of North Dakota to consider ways to encourage more development of gathering pipelines, to incentivize the beneficial use of natural gas which will limit flaring and give possibilities for follow on investments and jobs beyond the pure production of oil and gas."

Community engagement

It is very important to be part of the local community, Hole said, and Statoil has taken the initiative "to form a local industry collaboration in Williston." With that initiative, he said, Statoil wants to engage the broader industry and local authorities and organizations in collaboration for positive local development in Williston.

Hole also discussed the importance of distributing additional revenues to impacted communities so that they can catch up with the necessary community infrastructure development, which he said, lays the basis for an even broader economic progress going forward. "Infrastructure is always important for economic progress, and it will go way beyond the needs of the oil and gas sector."

Similarities with Norway

Being a Norwegian-based company in North Dakota, Hole told the conference, makes the experience of being in North Dakota special.

"North Dakota claims a higher percentage of Norwegian descendents that any other state in the U.S., and the cultural ties are clearly strong. So each visit I'm struck by how proud the North Dakotans are of their heritage and it's very hard for Norwegians not to feel welcome here. So I thank you for that."

Hole said over the past year he has noticed common values shared between Statoil and North Dakota, such as hard work, honesty, and the mentality for coping with challenges and seeing challenges as opportunities and not as problems.

"I find respect for land, for neighbors and for communities," he said.

In addition, Hole noted similarities in the industry landscape between North Dakota and Norway. Historically, he said, Norwegians were farmers and fishermen, and those ways of life have been maintained as important parts of the economic landscape beside the development of manufacturing industries and oil and gas in Norway.

"Coexistence of the offshore industry and the Norwegian fisheries has been a prerequisite for the oil and gas sector in Norway. And we have proved that it's truly possible."

In North Dakota, he said, that same type of coexistence between farming and oil production is necessary, and that cooperation between the sectors and with all important stakeholders is key to the success of the community.

"It is fantastic to come here and be part of the energy transformation and we are very proud of being able to contribute to the state development in North Dakota and the other states where we have activities," Hole told the conference.

"I moved to the U.S. just a couple of weeks before Statoil acquired Brigham Exploration, and I live in Houston," Although Texas is very different, Hole said, it's not been too difficult for him to familiarize himself with that state.

"It's a place where people are proud and independent and friendly, and they know how wealth is created. And by the way I find many of the same attitudes here in North Dakota."

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North Dakota well operator transfers Oct.18-Nov. 26

Oct. 19, 2012
From: Reeder Operating LLC
To: Vecta Oil & Gas Ltd.
#17751 - Gary Neshem 34-1, NENE 34-156N-86W, Ward Co.

Oct. 29, 2012
From: Ronald M. Sannes
To: Triangle USA Petroleum Corp.
#11473 - Tenneco State 1-25, NWSW 30-153N-101W, McKenzie Co.
#11027 - State of North Dakota B 1, SWSW 36-152N-102W, McKenzie Co.
#10330 - Lee 43-8 1, NESE 8-151N-101W, McKenzie Co.
#09479 - Heggen 2, SWSW 13-150N-101W, McKenzie Co.
#09328 - Berge-FLB 1-24, NENW 24-150N-101W, McKenzie Co.
#09029 - Heggen 1, SWSE 13-150N-101W, McKenzie Co.
#08973 - Jennie Hanson 27-11, NWNW 27-152N-102W, McKenzie Co.
#08706 - Berge C 1, NWSW 14-150N-101W, McKenzie Co.

From: Ranch Oil Co.
To: Peregrine Petroleum Partners Ltd.
#13479 - Stensrud 1, NWNE 15-146N-102W, McKenzie Co.
#13344 - Flat Top Butte Fed. COM. 100% 2, SWNW 30-146N-101W, McKenzie Co.
#13281 - Trotter 1, SWSE 31-146N-101W, McKenzie Co.
#13105 - MOI Flat Top Butte 44-35H, SESE 35-146N-101W, McKenzie Co.
#12886 - Connell 24-27H, SESW 27-144N-102W, Billings Co.

Nov. 5, 2012
From: Liberty Resources LLC
To: Zavanna LLC
#14637 – Jefrey 33-33, NWSE 33-155N-100W, Williams Co.
#14771 – Shae 21-33, NENW 33-155N-100W, Williams Co.

From: Burnett Energy Inc.
To: Zavanna LLC
#11980 - L. M. Stenehjem 2, SWNE 10-151N-100W, McKenzie Co.

From: Prima Exploration Inc.
To: Continental Resources Inc.
#12284 - Ella Many Ribs 2-B, NENW 21-152N-94W, McKenzie Co.
#01987 - Woodrow Star "A"1, SWSE 21-152N-94W, McKenzie Co.
#01509 - Kate Hopkins 1, SWNE 21-152N-94W, McKenzie Co.
#01306 - Ella Many Ribs A-1, SWSW 21-152N-94W, McKenzie Co.

Nov. 6, 2012
From: Denbury Onshore LLC
To: Encore Energy Partners Operating LLC
#06992 – Federal 5-33A, SWNW 33-143N-100W, Billings Co.

Nov. 7, 2012
From: North Plains Energy LLC
To: XTO Energy Inc.
#23104 – Hartsoch 15-35-1H, SWSE 35-157N-96W, Williams Co.

Nov. 8, 2012
From: Upton Resources USA Inc.
To: Williston Exploration LLC
#15126 - Davis Creek 1-28H, SWSW 28-139N-100W, Billings Co.
#15024 – Tracy Mountain Federal 10-1H, NENE 10-138N-101W, Billings Co.
#15100 - Tracy Mountain Federal 12-2, NWSW 2-138N-101W, Billings Co.
#16010 - Federal 13-2H, NWSW 2-138N-101W, Billings Co.
#12078 - Sun10-7, NWSE 7-138N-99W, Stark CO.
#14878 - Upton Et Al S. Fryburg 2, SESW 6-138N-100W, Billings Co.
#14994 - Tracy Mountain Fryburg 3-1H, SESE 3-138N-101W, Billings Co.
#15053 - Tracy Mountain Federal 3-2H, SESE 3-138N-101W, Billings Co.
#15087 – Davis Creek 1-32H, SWSW 32-139N-100W, Billings Co.
#14770 - Tracy Mountain Federal 10-3, NWSE 3-138N-101W, Billings Co.
#15116 – Rocky Hill 1-7H, SWSW 7-138N-99W, Stark Co.
#15120 - Davis Creek 2-32H, NESE 32-139N-100W, Billings Co.
#15198 - Davis Creek 2-8H, NENW 8-138N-100W, Billings Co.
#15209 - Federal 2-13, NESE 13-138N-102W, Billings Co.
#15261 - Federal 3-13H, NESW 13-138N-102W, Billings Co.
#15283 – Rocky Hill 1-6H, SESW 6-138N-99W, Stark CO.
#15305 - Rocky Hill 1-18H, NWSW 18-138N-99W, Stark CO.
#16450 – Davis Creek 1-27H, SWSW 27-139N-100W, Billings Co.
#16526 - Tracy Mountain Federal 1-18H, NESE 13-138N-102W, Billings Co.
#90098 – Davis Creek SWD 1, NESE 32-139N-100W, Billings Co.

From: Eland Energy Inc.
To: Ulmer Energy LLC
#11578 - Habermeyer 33-13 1, NWSE 13-153N-102W, Williams Co.

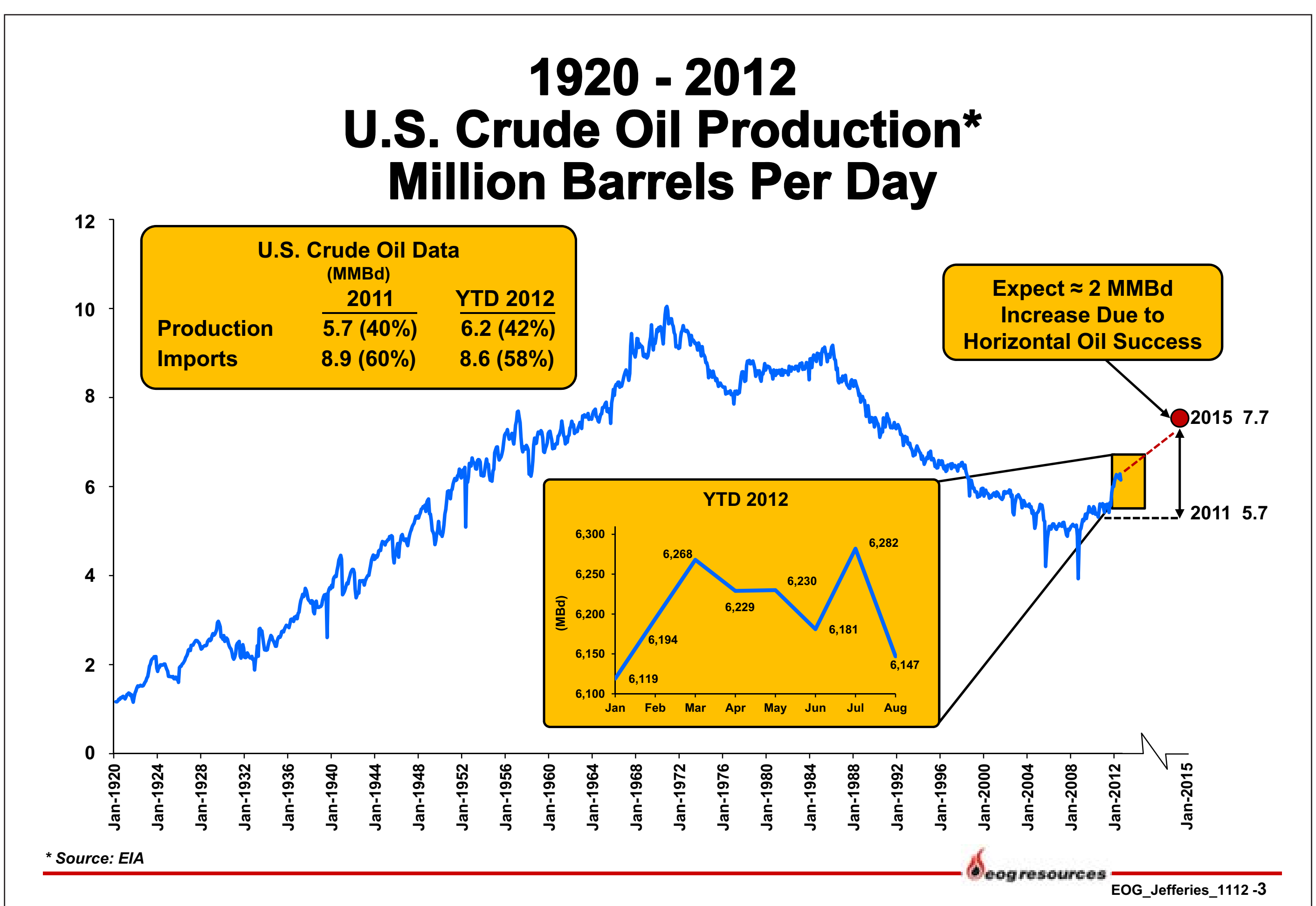
From: Ulmer Energy LLC
To: Williston Exploration LLC
#10385 - Cameron 1-20, NESW 20-139N-102W, Billings Co.

Nov. 16, 2012
From: CCS Midstream Services LLC
To: Tervita LLC
#01156 - KT Enterprises 24-19 SWD, SENE 19-152N-95W, McKenzie Co.
#09081 - KT Enterprises 33-23 SWD, NESE 23-152N-96W, McKenzie Co.
#90189 - CCS Midstream Services SWD 1-18, SWSW 18-152N-101W, McKenzie Co.

From: Marathon Oil Co.
To: Resolute Natural Resources Company LLC
#19718 - Forest USA 14-2H, SWSW 2-147N-98W, McKenzie Co.

Legend
Status; wellbore type; pool (perforations); date completed; IP, initial production rate in barrels per day; CO, cumulative oil production in barrels.

Note: There were no well operator transfers Nov. 17 through Nov. 26.



continued from page 1

US PRODUCTION

high case scenario.

Marathon Oil's Executive Vice President and COO David Roberts called IEA's outlook as "stunningly strong" relative to what the "physics of this industry suggests."

"The IEA, they're very bright people," Roberts said, "but I don't see it. Some of the stuff that they put out in terms of this country matching Saudi Arabia ... I mean I don't see it, and I'm in most of these basins across the United States."

EOG numbers based on EIA data

"Our projection is over the four-year period from 2011 to 2015," Papa said, pointing to a chart containing actual U.S. daily oil production from 1920 through January 2012 that came from the EIA.

"U.S. oil volumes are going to grow by 2 million barrels a day from shale oil and we stand by that. There are some other outfits that are predicting much higher numbers but as kind of proof that we are on the right track take a look at that center yellow box," which he said contained EIA oil production data.

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STATOIL

Statoil's philosophy

"Statoil just celebrated our 40th birthday," Hole said, turning his attention to Statoil's history and philosophy as a company. Building on the bonds that link Norway and North Dakota, Hole said it's important to understand how Statoil and the Norwegian oil and gas sector developed.

Statoil was formed by the Norwegian government 40 years ago, but at the same time, he said, international oil companies were invited in to take part in the development of the industry. The evolvement of the oil and gas industry in Norway, he said, has been characterized by a stable and predictable framework provided by the government.

Competition between the companies in a free market, coupled with close cooperation between the companies involved, is a balance that Hole believes is a key to the successes seen on the Norwegian continental shelf.

"Over 40 years it's not always been smooth, of course, but the experience has helped shape the company and provided benefits to Norway." Today, Hole said, the Norwegian oil industry accounts for 25 percent of the country's income.

"We want to be a long-term partner in North Dakota. Much like American companies were part of the boom period we saw in Norway a couple of decades ago, and they are still there," he said. ●

Contact Mike Ellerd at mellerd@petroleumnewsbakken.com

● NATURAL GAS

Gas to fertilizer getting closer

Startup N-Flex gets $1 million NDIC grant, joins Beowulf Energy, moves forward to address flaring and generate ammonia

By MIKE ELLERD
For Petroleum News Bakken

In its Nov. 20 meeting, the North Dakota Industrial Commission approved a $1 million grant to N-Flex, a startup technology company that developed a wellhead process which generates anhydrous ammonia from methane. The grant will be used to build and implement several mobile pilot units intended to move from well to well converting methane into fertilizer to be sold to North Dakota farmers.

Less than a week later, on Nov. 26, Maryland-based Beowulf Energy said it had acquired the rights to the N-Flex technology. Beowulf is a private equity firm focused on the acquisition, development, construction and operation of energy infrastructure worldwide. Beowulf is based in Easton, Md., but has offices in Colorado, Montana, New York as well as Turkey and Trinidad.

In a Nov. 26 press release, Beowulf founder and Chief Executive Officer Paul Prager said, "Beowulf recognizes the importance of distributed ammonia production and sees N-Flex's approach as the leading technology to convert gas to liquids to benefit both energy and agricultural markets."

In an interview with Petroleum News Bakken, N-Flex founder Neil Cohn said that getting N-Flex off the ground is a capital intensive venture with mobile processing units costing several million dollars each to build. He said he simply didn't have the resources to put the equity together that he needed to get the technology developed. With a background in commodities and finance, Cohn said he went to the best energy investor he knew, that being Beowulf, and got the backing he needed.

Beowulf is a private equity firm that builds infrastructure, Cohn told Petroleum News Bakken. "These guys go out there and build their own power plants and pipelines around the world. They're a serious energy infrastructure shop." N-Flex as an entity will continue to exist, but it will now be a Beowulf company and Cohn will continue developing the N-Flex technology as part of Beowulf.

Applying the technology

The mobile units are ideal for two situations, according to Cohn. One is where gas gathering infrastructure is available but has an interim period between when the well begins producing and when it is connected to the gathering system. The other is at remote sites where gas gathering infrastructure is not feasible and the units can be operated on a longer-term basis. Addressing the needs of stranded or underused resources, Cohn said, is something the N-Flex technology accomplishes very well.

In addition to the smaller mobile processing units, Cohn said that he is looking into building larger, modular units that will have a much larger capacity and will be designed for larger-scale agriculture and industrial consumption.

Potential benefits

In a Nov. 20 monthly press conference, North Dakota Oil and Gas Division Director Lynn Helms said flaring of natural gas in North Dakota continues to be a problem, and said it may not be until the end of the decade before the flaring issue is completely under control (see full story on page 1). He welcomes the N-Flex technology and hopes it will help reduce flaring.


COURTESY N-FLEX
N-Flex founder Neil Cohn

Additionally, Helms said that in talking to farmers around the state, he has learned that anhydrous ammonia prices are at an all-time high, and the farmers are "welcoming this with open arms."

In its Nov. 26 press release, Beowulf said that 40 percent of the domestic anhydrous ammonia production capability has been dismantled over the past decade when natural gas prices were rising, and the U.S. has now become a major importer of anhydrous ammonia. According to Cohn, over 70 percent of the fertilizer used in the U.S. is currently imported.

Another benefit, Cohn says, is the stress that the technology takes off the transportation infrastructure because the fertilizer is produced locally in areas where it is needed and doesn't need to be brought into the state by rail or truck.

In addition, Cohn said he is getting unsolicited support from environmental organizations that see the technology as a very positive solution to the flaring problem, as well as providing a benefit to the agricultural community.

"This is a situation where the Bakken is clearly going to lead the entire market," Cohn said. "It is an issue you're going to see spread way outside of the Williston Basin, and a lot of the credit will go to the government of the State of North Dakota." For North Dakota, he said, natural gas that would otherwise be flared can be converted into an upgraded, value-added product for the state.

ND Ag Commissioner's view

North Dakota Agriculture Commissioner Doug Goehring, who is also a member of the Industrial Commission along with Governor Jack Dalrymple and Attorney General Wayne Stenehjem, said in an interview with Petroleum News Bakken that he has a dual role in considering the N-Flex grant, looking at both the flaring issue as well as high fertilizer cost in the state.

On the industrial side, Goehring said, "Our ability to address the flaring issue is crucial. We understand it, we know that the EPA certainly has their eye on it, and we know the public views it as a wasted resource. It's an opportunity to hook up to that wellhead, start converting, adding value, reduce flaring, and allow that infrastructure to catch up."

Goehring also views the N-Flex technology as having long-term benefits in remote areas where connecting to a gathering system is difficult. He said as Bakken petroleum system wells continue to produce gas over their lifetimes, larger modular processing units can be connected to and process gas from such remote wells.

On the agricultural side, Goehring said

see N-FLEX FUNDING page 14

MERGERS & ACQUISITIONS

Magnum Hunter builds on Williston assets

Magnum Hunter Resources subsidiary Bakken Hunter has agreed to acquire existing wells and about 20,000 net Williston Basin lease acres in Divide County, N.D., from Samson Resources Co. for $30 million in cash, Magnum Hunter said Nov. 26.

Magnum Hunter currently owns about a 47.5 percent working interest in the properties, and upon closing will have varied working ownership interests up to about 100 percent.

The company will become operator of that portion of the acquired properties which is currently being operated by Samson. In addition to the acreage being acquired, the company is also acquiring about 310,000 barrels of oil equivalent of proved developed producing reserves and roughly 192 net boe of production per day.

Upon closing, Magnum Hunter will own about 180,000 net acres in the basin.

The transaction is expected to close on or about Dec. 20, with an effective date of Aug. 1. The purchase price is subject to customary adjustments, to take into account the effective date of the transaction.

Glenn Dawson, president of Magnum Hunter's Williston Hunter Inc. division, said the acquisition of Samson' central Divide County assets will result in Williston Hunter becoming a Three Forks Sanish-Bakken operator in North Dakota along the border of Canada, which he said has been a primary goal of the company.

"We anticipate our initial drilling operations in this area will commence in the first quarter of 2013 utilizing one-mile horizontal lateral drilling and completion technology similar to our successful cost-effective strategy deployed in the Tableland field in Saskatchewan this past year," he said.

In the Tableland field, Williston Hunter's drilling and completion costs have aver-

see MAGNUM HUNTER page 17

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ENBRIDGE COMPLAINT

High Prairie filed its first complaint with FERC in June alleging that Enbridge was refusing to support the High Prairie project. In its June FERC filing, High Prairie said Enbridge had spare capacity on its pipeline and has an obligation as a common carrier to provide non-discriminatory service.

As Petroleum News Bakken reported in early July, Enbridge denied the complaint, saying it offered "several reasonable alternatives" to High Prairie. At the time, Greg Ward, an attorney for High Prairie, told Toronto's Globe and Mail that Enbridge had backed out of an earlier agreement to allow the interconnection because it expects increased demand for pipeline capacity from oil sands producers. Ward said then that Enbridge was using its monopoly power to take advantage of the lucrative long-haul business from Alberta.

Other complaints against Enbridge

Later, on Nov. 29, the Minneapolis Star Tribune reported that two Minnesota refiners are not pleased with a surcharge that Enbridge is proposing on Bakken crude piped into Minnesota to pay for the Sandpiper project.

The Star Tribune reported that the owners of refineries in Rosemount and St. Paul Park, Minn., rely in part on Bakken crude and told FERC they oppose the deal, maintaining that a surcharge of $1.45 per barrel would be imposed by Enbridge on Bakken crude, whether the crude is transported on the Sandpiper or not. The Minnesota refiners also expressed concern that the Sandpiper pipeline may not be fully utilized as other pipelines are built and rail transport capacity increases.

In May, PBF Energy, of Parsippany, N.J., which operates a 170,000 barrel per day refinery near Toledo, Ohio, also filed a complaint against Enbridge with FERC claiming Enbridge had shown "undue and unjust preference for shippers and users of heavy crude" over users of light crude. Enbridge rejected PBF's complaint. ●

Contact Mike Ellerd at mellerd@petroleumnewsbakken.com

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RAIL CONNECTION

ly into Philadelphia area refineries.

"At 1 million bpd, the region is second only to Houston in the concentration of light sweet crude refining capacity. Eddystone will be the first to provide access directly to those refineries from a rail facility," he said.

Enbridge expansion

In early 2013 Enbridge's Bakken Expansion Program will add 200,000 bpd of increased export pipeline capacity from the Bakken — 80,000 bpd into Berthold and 120,000 bpd into Cromer, Manitoba — raising Enbridge's handling capacity from North Dakota to 475,000 bpd.

Stephen Wuori, Enbridge's president of liquids pipelines, said rail is the "fastest way to provide increased export capacity out of the Bakken."

Klingsporn said Enbridge's motivation is likely economic, noting that even after a $20 per barrel transportation fee for rail to the East Coast, Bakken crude is still about $17 a barrel cheaper than Brent.

PBF Energy Chief Executive Officer Tom Nimbley said recently that the new crude fields in the United States and Canada are game changers for East Coast refineries.

His company is ramping up rail facilities at its 190,000 bpd Delaware City refinery to switch its crude slate to North American crude oils and away from Brent-based crudes.

PBD was railing 20,000 bpd of Western Canadian heavy and Bakken light crudes into Delaware City about mid-summer and is working to increase its rail offloading capacity to 110,000 bpd by January. ●

Contact Gary Park through publisher@petroleumnews.com

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N-FLEX FUNDING

that because most of the fertilizer used in the U.S. is imported, getting that fertilizer into the upper Midwest requires that it is either transported by rail or on barges up the Mississippi. But barge transport, he said, only gets the fertilizer as close as Iowa. "And when you think about it," he said, "what's the carbon footprint of that fertilizer?"

The N-Flex process, Goehring says, takes raw gas right at the wellhead and generates an added-value product in the form of fertilizer that can be used by farmers in an area that is otherwise fertilizer deficient.

"This is a great way to utilize that resource," Goehring said. "Here we can produce it in our own backyard. We generate royalties for the mineral owners, revenue for the oil companies, and taxes for the state which we can turn around and put back into infrastructure and other public needs."

Next steps

Cohn told Petroleum News Bakken that the final engineering phase is done, and the manufacturing phase is next. The pilot test units are being built in Germany, although Cohn said he has found a manufacturer in the U.S. capable of fabricating the process units and N-Flex is gearing up to eventually have as much manufacturing as possible done in the U.S. once his program ramps up.

Now with the backing he needs, Cohn said he will finalize arrangements with one or more operators with whom he has been negotiating, and together they will select a couple of final locations for the pilot program. He said he is not sure exactly how many units will initially be deployed, but because of economy of scale, he would like to start with at least three rather than one or two.

In terms of schedule, Cohn said he is pushing to get the first units operating in North Dakota in a year, but he said it could take up to 18 months. Lynn Helms added that the units could possibly be producing anhydrous ammonia in time for the fall 2013 fertilizer application.

NDIC's role

As Petroleum News Bakken reported in Sept. 2012, N-Flex had approached the Industrial Commission in August seeking $1.1 million to help fund the pilot program. At that time the Commission put a decision on hold pending further review of the proposal.

Helms said the Commission had concerns about the research project funding mechanism when it postponed its decision in August. The Commission at that point asked for a technical review from the Bank of North Dakota and the Department of Commerce to look at the research financing program, and the borrowing and venture capital program. The Commission wanted to make sure that the process was fiscally sound.

Following those technical reviews, Doug Goehring said the Commission was satisfied with the results. The $1 million grant to N-Flex, according to Helms, is one of the largest grants ever approved by the Commission.

Cohn said he is extremely grateful to the North Dakota Industrial Commission, not only for the funding, but also for the strong show of support that comes with the grant and the signal it sends out to the operators and the markets that this technology is something the Commission supports and wants to see go forward. ●

Contact Mike Ellerd at mellerd@petroleumnewsbakken.com

● COMPANY UPDATE

Oasis having 'tremendous' year

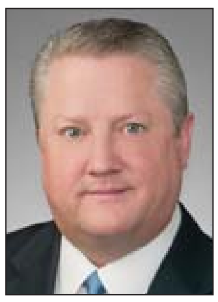
Bakken-focused independent sees third quarter production and producing wells up, price differentials and well costs down

By MIKE ELLERD

For Petroleum News Bakken

Oasis Petroleum had third-quarter 2012 Williston Basin production of 24,257 barrels of equivalent per day, a 19 percent increase over the 20,353 boe per day it produced in the second quarter, and a 109 percent increase over its 11,583 boe average daily production in the third quarter of 2011. Of the 24,257 third-quarter boe, 93 percent was oil.

The company also said in its November third-quarter release that it completed and brought into production 34 gross operated Williston Basin wells in the third quarter, increasing its total for the year to 86 wells. This increase moves Oasis closer to its 2012 goal of 112 wells, and brings its total number of producing Bakken and Three Forks wells to approximately 200.



THOMAS NUSZ

The company's average price differential relative to West Texas Intermediate crude oil index prices was 9.4 percent in the third quarter of 2012, down from 11.7 percent in the second quarter of 2012, and down from 14.5 percent in the first quarter.

Oasis also saw a decline in its weighted average well cost to $9 million, down $1.5 million from the first half 2012 average of $10.5 million.

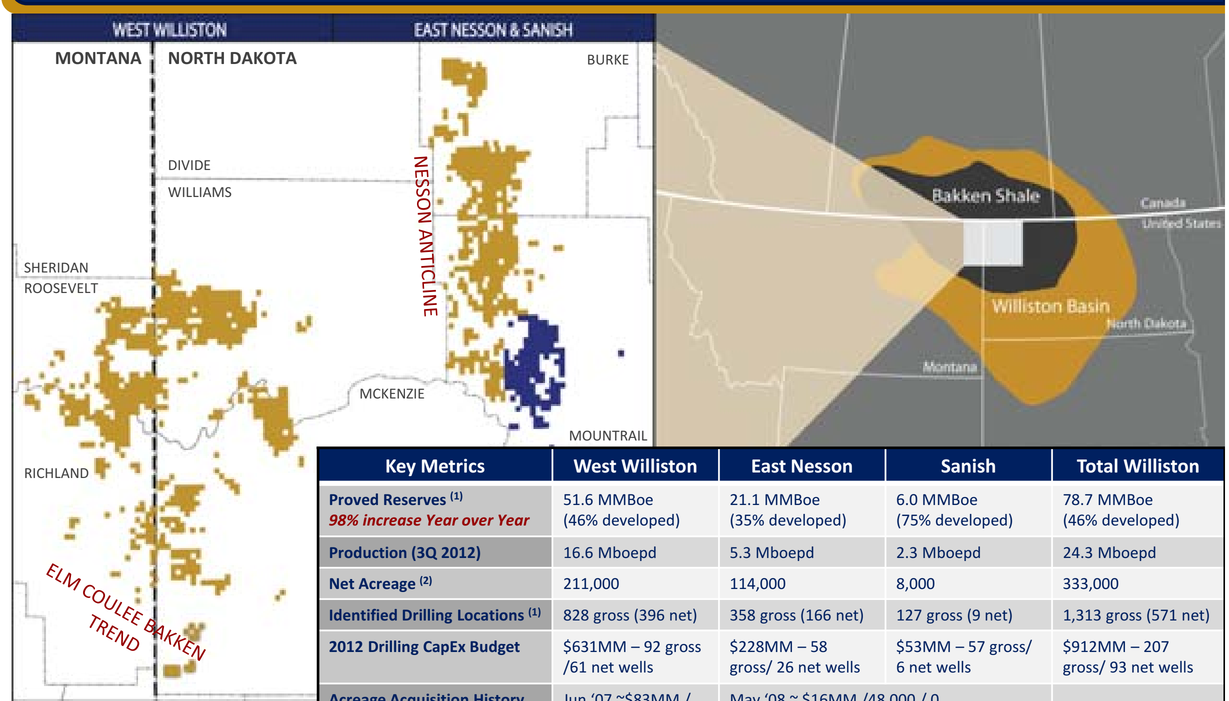
"We've had a tremendous year thus far," said Chairman and Chief Executive Officer Thomas Nusz in a Nov. 8 conference call. "This has been a year where Oasis has differentiated itself from its peers, and we're proud of what the team has done across all fronts. This year, we're putting in a strong foundation with more efficient operations, lower well cost, improved uptime and optimized price realizations. We also continue to rapidly grow the company, while maintaining a strong conservative balance sheet. We believe we're focused on the right things and have the right people in place to execute on our plan."

Bakken operations

Oasis currently holds approximately 333,000 net acres in the Williston Basin, and is focused in three core areas: the West Williston in Montana's Roosevelt and Richland counties and North Dakota's Williams and McKenzie counties; the East Nesson, in North Dakota's Burke and Mountrail counties; and the Sanish, south east of the East Nesson in southwest Mountrail County, N.D.

see OASIS page 16

Large, Concentrated Acreage Blocks



Key Metrics	West Williston	East Nesson	Sanish	Total Williston
Proved Reserves (1) *98% increase Year over Year*	51.6 MMBoe (46% developed)	21.1 MMBoe (35% developed)	6.0 MMBoe (75% developed)	78.7 MMBoe (46% developed)
Production (3Q 2012)	16.6 Mboepd	5.3 Mboepd	2.3 Mboepd	24.3 Mboepd
Net Acreage (2)	211,000	114,000	8,000	333,000
Identified Drilling Locations (1)	828 gross (396 net)	358 gross (166 net)	127 gross (9 net)	1,313 gross (571 net)
2012 Drilling CapEx Budget	$631MM – 92 gross /61 net wells	$228MM – 58 gross/ 26 net wells	$53MM – 57 gross/ 6 net wells	$912MM – 207 gross/ 93 net wells
Acreage Acquisition History (Date - Price / Net Acres / Boepd - then current)	Jun '07 ~$83MM / 175,000 / 1,000 4Q 10 ~ $82MM / 26,700 / 500	May '08 ~ $16MM /48,000 / 0 Jun '09 ~ $27MM / 37,000 / 800 Sep '09 ~ $11MM / 46,000 / 300		

Acreage primarily operated by Oasis
Oasis acreage operated by third parties (Sanish)

(1) As of 12/31/11
(2) As of 9/30/12

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OASIS

Going into 2012, Oasis had identified a total of 1,313 gross well locations these core areas.

During the Nov. 8 conference call, Chief Operating Officer Taylor Reid said holding acreage by production has been a company focus in 2012, and he expects to have 260,000 acres held by production by year's end.

Reid also said the company's land team has acquired new acreage around its core areas, approximately 60 percent of which is on the east side of its holdings in what Oasis calls the Cottonwood area where it is exploring Three Forks potential. Initial results from the Three Forks are encouraging, Reid said. Two of the Cottonwood Three Forks wells have been producing for about two months and early results show estimated ultimate recoveries in the 400,000-plus boe range.

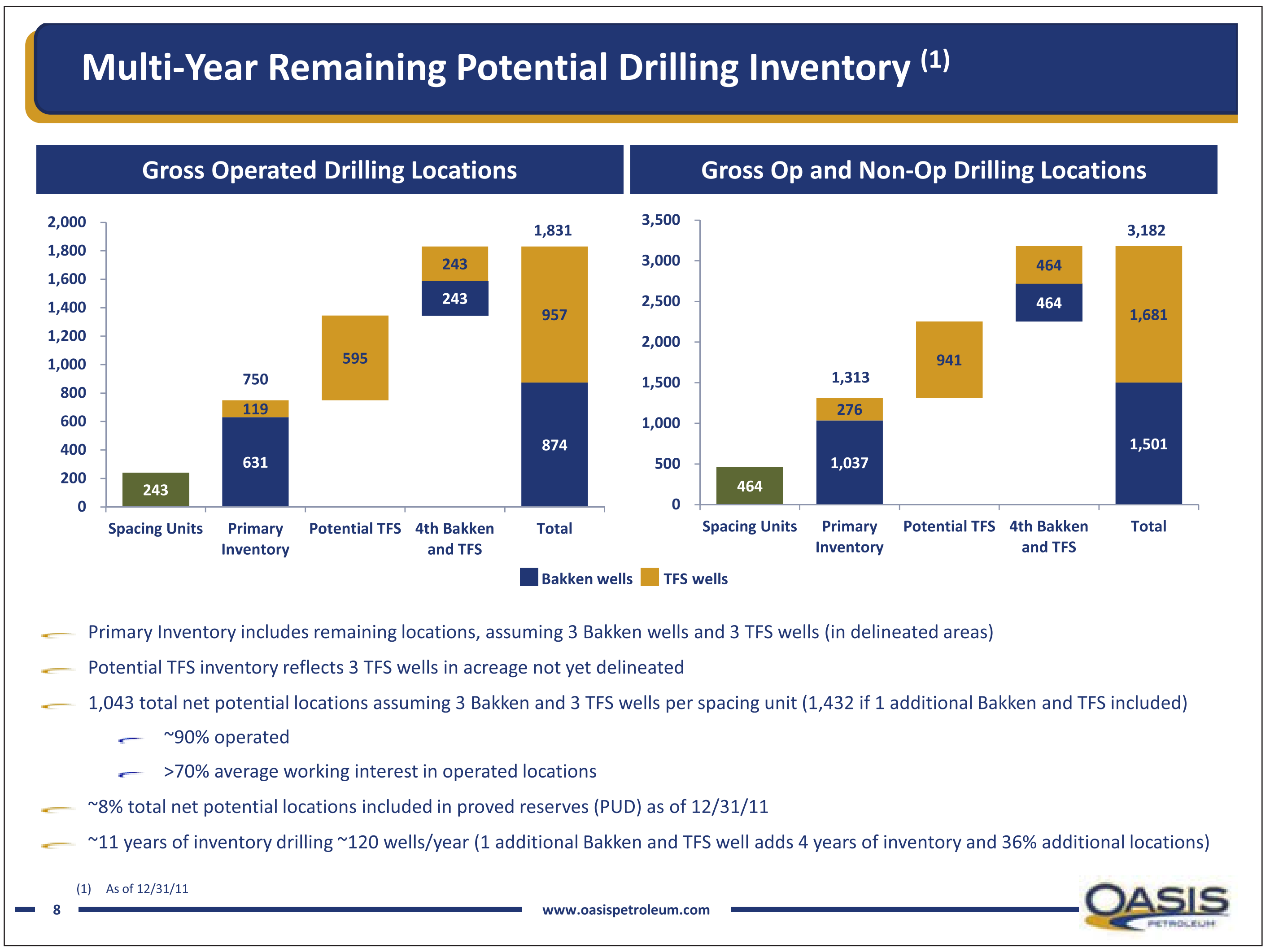
Another area where Oasis is exploring the Three Forks is its Red Bank area in its West Williston core. Here results from a Three Forks well show an early EUR of more than 450,000 boe.

"These Three Forks tests are obviously important to understand our inventory, but are also important from an operational standpoint so that we can design our infill patterns to efficiently drain reserves and not over capitalize our program," Reid said in the Nov. 8 conference call.

In terms of gas production, Reid said Oasis currently has approximately 85 percent of its wells connected to sales, with the majority of the company's gas production going to Highland Partners and Bear Tracker Energy. He said the last major area yet to be connected to gas infrastructure is the company's North Cottonwood acreage where Bear Tracker is currently building a gathering system. Some Cottonwood area wells, Reid said, are already connected to that Bear Tracker system, and the remaining wells should be connected in the first quarter of 2013.

Oasis Well Services

Also in 2012, Oasis developed a field services initiative through its subsidiary Oasis Well Services. OWS began fracking operations in March and over the third quarter averaged 100 frack stages per month. OWS has resulted in $13 million capital savings, and Reid expects OWS will be able to handle 40 to 50 percent of the company's frack jobs in its nine rig program in the coming months. Oasis expects to save an estimated $500,000 per gross well through OWS.



Driving down costs

Nusz said drilling and completion costs had "increased dramatically" throughout 2011 and into early 2012. Although costs leveled off to an average of approximately $10.5 million per well through the first half of 2012, this average, Nusz said, was approaching what Oasis considered to be its "critical threshold" of approximately $11 million per well.

"With the initial focus that the team placed on controlling costs, we were one of the first players in the basin to force our costs to roll over and start heading down," Nusz said in the Nov. 8 call. "On our last call in August, we spoke about driving our cost down to $8.8 million by the end of the year. While our operations team over-delivered and has already met the year-end target, our wells now, on average, cost $8.8 million to drill and complete, and that's not including the benefit of Oasis Well Services. Just looking at our operated, drilling and completion capital in the third quarter, OWS was able to reduce our average well cost across our entire operating program by about $300,000 per well, driving our weighted average well cost to $9 million for the quarter."

Nusz said he does not think an average well cost of $8.8 million is the "floor," and said the Oasis team will continue to explore ways to increase efficiency and to optimize completion designs. "Just adding the incremental 5 percent to 10 percent savings for multiple wells drilled on pads next year, we believe we can get cost to $8.5 million or less."

In addition to lowering drilling costs, Reid said the company is also driving down drilling days and fracking cycle times. He said the company now drills wells in 23 days, and that the company recently set a new "pacesetter mark of 15 days for a 10,000-foot lateral well." Reid added that Oasis is fracking 36-stage wells in less than five days, and that it recently fracked at 28-stage well 37 hours with a hybrid sleeve system.

Another cost-saving Oasis initiative is its salt water disposal or SWD program in the West Williston and East Nesson core areas, which the company expanded this year. According to Reid, as of Sept. 30, Oasis was handing approximately 35 percent of its operated water production through its SWD system, and he said he expects that volume to increase to 50 percent by the end of the year. Reid said the company's SWD system has reduced costs and he expects to see a reduction in lease operated expenses related to water disposal through the remainder of the year with even more reduction in 2013.

Price differentials

Nusz said in the Nov. 8 conference call that the company's marketing subsidiary, Oasis Petroleum Marketing, has made great efforts to ensure that the company has been able to move all of its Williston Basin oil to premium markets. OPM's efforts, Nusz said, "have allowed us to deliver some of the best differentials in the basin, even when you add the marketing and transportation cost of $1.23 per barrel of equivalent to our differentials." Chief Financial Officer Michael Lou said the company expects the downward trajectory to continue.

Moving forward

Nusz also said in the Nov. 8 call that as the company moves into next year, "we will be focused on transitioning to full development mode, capital and operating efficiencies and increased realization of the benefits of our robust infrastructure build out. Clearly Oasis has come a long way since we posted 5,500 barrels of equivalent per day in our first full quarter as a public company 2 years ago. We have since grown by 340 percent, up to 24,257 barrels of equivalent per day in the third quarter of 2012 and have raised our volume guidance for the year."

Oasis is a Houston-based independent focused on the acquisition and development of unconventional oil and natural gas resources, primarily in the Williston Basin. The company's approximately 330,000 net Williston Basin acres are concentrated in far eastern Montana and far western North Dakota. The company's Bakken play is 88 percent oil weighted. ●

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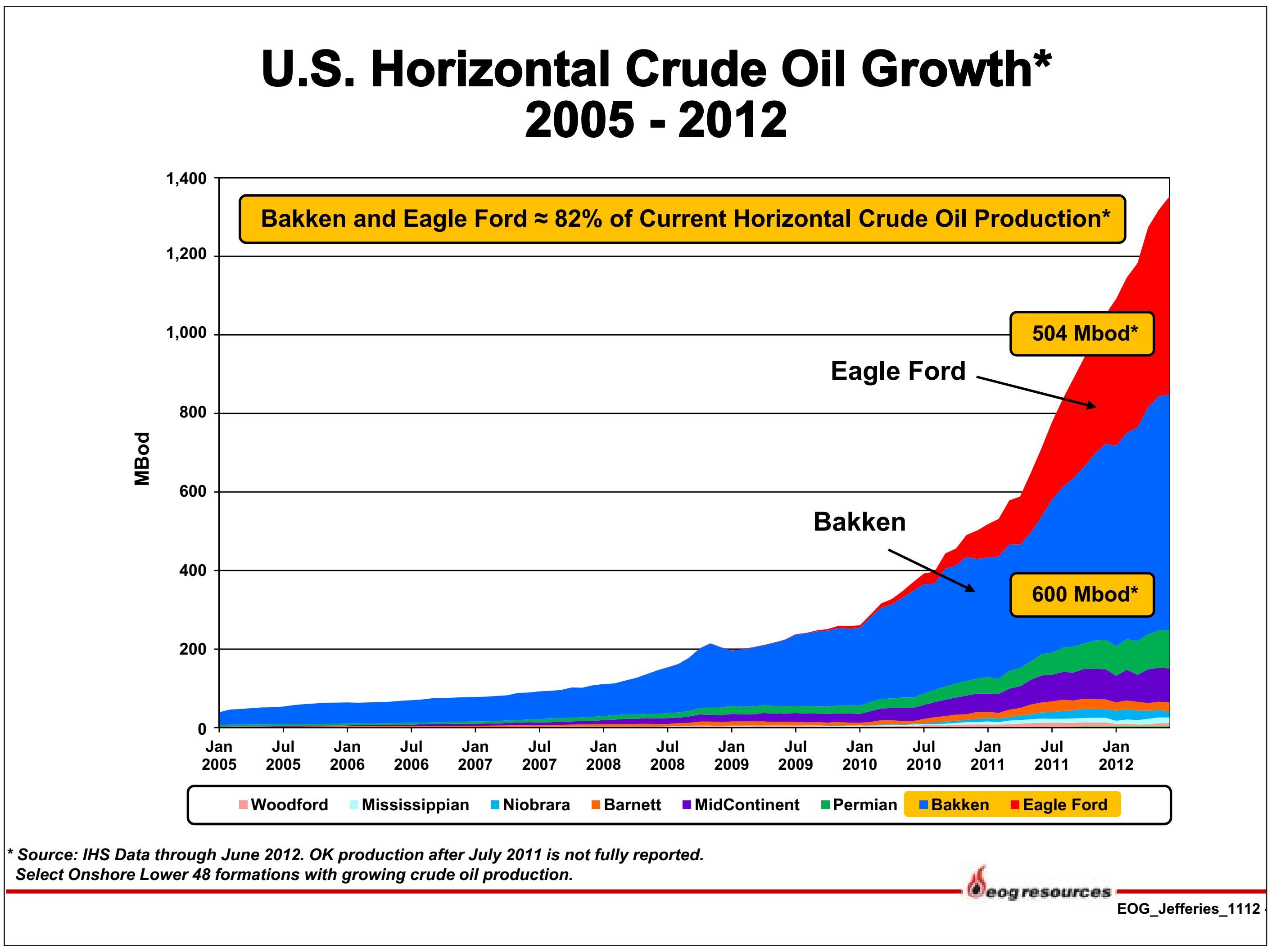
US PRODUCTION



"This is government data. … January through August, total U.S. oil growth. … (It's) essentially zero," Papa said. "Let me repeat that. January through August, this year, the EIA has reported total U.S. oil growth was essentially zero," with January oil production at 6.119 million barrels a day and August output at 6.147 million barrels a day.

"Now think: Every E&P company in the entire industry is saying, 'we're growing oil volumes in the U.S.' … Everybody is saying that. And the net result … for the first eight months of this year has been zero growth," Papa said.

Bakken, Eagle Ford produce 85%

So, "where's the growth coming from over this four-year period?" he asked, pointing to the next chart, U.S. Horizontal Crude Growth 2005-2012.

"It's coming from only two plays, and it's two plays EOG found, and two plays that EOG has major positions in," Papa said.

"One is the Eagle Ford, which is the red. We're the dominant player (there) … and the second one is the Bakken, which is more of a mature play. We're not the biggest player in the Bakken but we are a very big player; that's the blue one."

He described the rest of the plays on the chart as "contributory … but negligible."

"The third play," he said was "the Permian — that's the Wolfcamp, the Leonard and everything else," noting there had "been lots of press" about the Permian Basin, "lots of ink, but it's not that big in size."

Some of the other plays have had lots of "sell-side ink," he said citing as an "example" the Mississippian Lime.

"The Mississippian is the second one from the bottom. You need a magnifying glass to see it on that chart. The Woodford is another that you need a magnifying glass to see. But think of how many companies are saying the future of their oil growth is those kinds of plays," Papa said. "Well, on a national basis they are insignificant. They are not going to take off and go up to the right based on our assessments. There's a whole lot of talk about a whole lot plays that basically have zero significance, in our opinion. It's a lot of PR is what it is."

The plays that make a difference, the Bakken and Eagle Ford, are the black oil not the combo plays, he said, reminding the audience that EOG is "the industry leader in horizontal oil plays by a 2 to 1 margin." (Marathon is one of EOG's peers in horizontal well plays.)

Saudi Arabia would 'throw back' our best well

When asked whether he thought IEA's predictions were "way off," Roberts seemed reluctant to further criticize the Paris-based agency which advises 28 countries on energy.

"Let's be serious," he replied. "Saudi Arabia and Iraq have the best geology in the world. We focus on a 6,000 barrel a day well and think it's the best well in the world. They'd probably throw that one back."

Roberts thinks there is "a lot of work" the two Middle Eastern countries can do to maintain and grow their production rates.

"I think the U.S. basins are very good but ... let's use the Bakken as an example. It's a basin that today produces 700,000 barrels a day, and there are a lot of people that speculate that that number could be 2 million or better over time;" something Roberts finds "really hard … to imagine … because I know how this business works."

In tight oil plays, he said, typically the best wells are drilled first.

"We have a lot of intensity around these plays, drive production really strongly, and so what we're seeing is a lot of the areas are going to be weaker. In down-spacing you typically don't get the response that you get from the initial wells," Roberts said.

"I hope they're right," Roberts said of the IEA. "And I do think we are closer to energy security in this country than we've ever been before," although he said he worries about words like "energy independence."

"Because I think that suggests something that's a little bit harder to reach." ●

Contact Kay Cashman at publisher@petroleumnews.com

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MAGNUM HUNTER

aged $3.4 million for laterals completed with 25 to 30 frack stages with cemented liners and pressure-pumped down coil tubing, he said, noting that recent flowbacks generated an initial daily oil production rate of 500- to 750 barrels and an average 30-day rate of 250-300 barrels.

"Due to the low cost of these wells, our economic returns are outstanding," Dawson said. "When the casing head gas from these properties currently being flared is eventually tied into a new gas gathering system in 2013, our ultimate economics will further improve."

—PETROLEUM NEWS BAKKEN

Oil Patch Bits

Ebeltoft Sickler Lawyers announces due-diligence group

Jennifer Grosz, partner in the Bakken-area law firm of Ebeltoft, Sickler, Kolling, Grosz, Bouray PLLC said Nov. 22 that the firm is announcing the formation of its business due-diligence team. "We have organized our Dickinson, North Dakota-based law firm to provide efficient and cost-effective corporate performance audits and fixed-price due-diligence and closing services anywhere in the Bakken play," said Grosz.

JENNIFER GROSZ

Notching her first mega-sale closing in 2010, Grosz was shocked that many oilfield businesses lose track of the basics. "The press of day-to-day business and the need to keep costs under control is so extreme that even critical organizational issues get put on the back burner," Grosz explained. "Untended-to business details can cause big problems, shipwrecking a sale of the entire business when surprises are discovered after a letter of intent to purchase is signed," Grosz told Petroleum News. "The billion-dollar companies can take care of themselves, but businesses with EBITDA-based values of $10-$150 million are where the most balls are dropped. These businesses are right in our services wheelhouse," said Grosz.

Building strong partnerships with accounting firms, merger and acquisition advisors and business brokers, Grosz and her personal planning, transactional and real estate lawyers within Ebeltoft Sickler Lawyers have become the "go-to-lawyers" for small to mid-value business sales transactions. "By forming a practice team in the firm, we are building on that strength," Grosz stated. For more information please contact Jennifer Grosz, senior level lawyer 701-225-LAWS (5297).

Tractor & Equipment Co. plans expansion with purchase

Tractor & Equipment Co. said Nov. 8 that it has purchased 50 acres of property in the Bakken Industrial Park north of Williston on Highway 2. The property will be the future home to a full service T&E The Cat Rental Store rental center providing machinery, electrical power generation, air compression and mobile air-conditioning rentals.

"T&E The Cat Rental Store already has the largest equipment rental fleet in the Bakken,

see **OIL PATCH BITS** *page 19*

Bakken Players

continued from page 1

ND PRODUCTION

production will continue to increase at a 3-to 5 percent monthly clip, reaching or surpassing 800,000 barrels per day sometime in next year's first quarter, Helms said.

"It's a certainty that we are going to build production to that point," he added. "And if things go right, we'll go to over a million barrels per day. But we can't build a budget on everything going right."

North Dakota oil production hit a record high of 728,494 bpd in September, according to the state's most recent monthly production report. That compares to 701,409 bpd produced in August.

"September weather was great for drilling and hydraulic fracturing resulting in a 4 percent oil production rate increase from August to September," Helms noted in his monthly Director's Cut report.

Natural gas, which represents roughly 6 percent of production, also set a new record in September, increasing to an average 793,548 thousand cubic feet, mcf, per day compared to 762,361 mcf per day in August.

Wells increase to 7,798

The number of producing wells also increased in September to 7,798, also a new record.

Drilling permits rocketed to 370 in October versus 273 in September and 260 in August. The dramatic increase in drilling activity was said to be necessary to accommodate more multi-well pads and the need to build locations before winter weather sets in. In fact, the department increased staff to handle the extra permitting load.

"Our goal was to make sure that we had (about) 200 rigs operating with 1,400 permits in front of them, so they all had enough locations to get through the first of June of next year," Helms explained.

The price of Bakken sweet crude averaged $87.00 per barrel in October, $84.98 per barrel in September, and $80.65 per barrel in August. On Nov. 20, the price was $80.75 per barrel, while the all-time high reached $136.29 per barrel on July 3, 2008.

Fewer rigs, more production

Surprisingly, North Dakota achieved record production with fewer drilling rigs and reductions in company spending. Rapidly escalating well costs consumed budgets faster than many companies anticipated, Helms explained, and uncertainty over future federal policies on hydraulic fracturing is impacting capital investment decisions. More than 95 percent of drilling still targets the unconventional Bakken and Three Forks formations.

"Because well costs increased so rapidly in 2012, they (companies) actually had to scale back drilling and fracturing at the end of the year just to come in on target," Helms said.

Rig count drops to 188

The rig count for October averaged 188 compared to 190 in September and 198 in August. On Nov. 20, the day of the Webcast, the count stood at 187 rigs, while the all time high was 218 rigs on May 29, 2012.

Utilization for rigs capable of drilling 20,000 feet or more was reported stable at about 90 percent. But for shallow well rigs that drill to 7,000 feet or less, utilization remains at about 60 percent

Helms attributed the production increases with fewer rigs largely to drilling efficiencies.

"We are able to add wells at (the same) or faster pace because of drilling efficiencies that come into the system," he said.

"So I guess the good news is that even at that slower place and spending less money, we're seeing record production increases. We continue to do more with less." ●

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OXY UNIT

had as many as 14 rigs working the Bakken play after it first entered the Williston Basin in 2010. But once its leases were secured by drilling, high well costs and unsatisfactory oil price differentials led to a reduction in capital spending in the basin by the company.

In an October third-quarter earnings conference call Stephen Chazen, Oxy's chief executive officer and president, said the issue of "product price" was "at least partially on its way to resolution," leaving the need for "large-scale reductions" in the cost of wells before the company would consider boosting investment in the play.

Per State of North Dakota records, in September Oxy was the 16th largest producer of oil from the Bakken petroleum system, which includes the Three Forks formation, outputting 11,629 barrels of oil per day from the wells it operates.

—KAY CASHMAN

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GAS WOES

"If we are flaring 5-to 10 percent of that, that's going to be equal to all the gas we produced in the first five years of the 21st Century," Helms noted.

Additions to pipeline gathering and processing capacity are said to be helping, but the percentage of gas flared rose to 30 percent in October. In comparison, oil companies flared 23.5 percent of their natural gas in December 2010, up from 13.7 percent the year before. The historical high was 36 percent in September 2011.

"Even though we're seeing a lot of build out of infrastructure … we are still very much in a struggle to reduce flaring in the state," Helms said. "This is going to be a hard problem to solve."

Flaring exemptions on rise

However, because of the relative slowness in expanding the gas-gathering and processing system, he added, the state is getting a "tremendous" number of operator requests for variances and exemptions from regulations governing flaring.

Drillers can now flare natural gas for one year without paying taxes or royalties. After one year, companies must either connect to a gathering line, an electrical generator, or apply for an exemption. The exemption would allow an operator to not pay taxes and royalties should connection or an electrical generator be deemed economically infeasible.

Helms said the biggest problem in expanding the gathering system is acquiring rights of way or easements across private property to lay pipelines.

Helms said that strict adherence to North Dakota's production restrictions in the current infrastructure environment could potentially reduce the profit on Bakken-Three Forks wells by 25 percent.

"For investors that's probably too severe and would very (likely) reduce the economics and impact the number of people that we have working, the rig count, and all those sorts of things," he said. "At the same time, we have to look at the waste issue," Helms said.

Oil outweighs gas

However, the economic reality is that gas makes up just 6 percent of the energy and a paltry 3 percent of the income derived from Bakken-Three Forks production, while the more desirable oil makes up well over 90 percent of the pie.

"We're seeking that balance — the difficulty in building up the gathering systems and getting easements against the economic waste, against the resource waste and energy waste, against having a severe economic impact," Helms explained.

He said for now, the state has opted to allow more flaring because strict application of the regulation "would negatively impact the profit of the Bakken well by as much as 25 percent … in an environment where they (operators) can't get a gathering system."

The oil and gas industry is reportedly investing more than $3 billion in infrastructure to capture the natural gas.

Most land in private ownership

Helms said the biggest problem in expanding the gathering system is acquiring rights of way or easements across private property to lay pipelines. In North Dakota, 82 percent of the land is privately owned, he said.

"It's a long process of a half-dozen right-of-way negotiators coming to a house and asking for more and more and more of their land," he said.

That's because today's agreements generally call for one pipeline per "exclusive" easement, "so they begin to take up a lot of their land," Helms noted, adding that lawmakers are looking at possibly replacing the current practice with multiple use corridors, where several pipelines and a power line would occupy the same easement.

Flared gas alternatives

The state has looked at a number of possible uses for the gas that is currently being flared, including the conversion to anhydrous ammonia fertilizer. (See related story, page 13)

Previously investments were made for research into electrical generation, and compression of natural gas for use as fuel or transport to a processing facility.

Future projects may include use of flared gas to produce petrochemicals, conversion of flared gas to liquid fuels, and removal of natural gas liquids from flared gas.

"It is hoped the legislature will consider tax exemptions and royalty certainty to provide incentives for beneficial uses like the above," Helms said in his monthly Director's Cut report. ●

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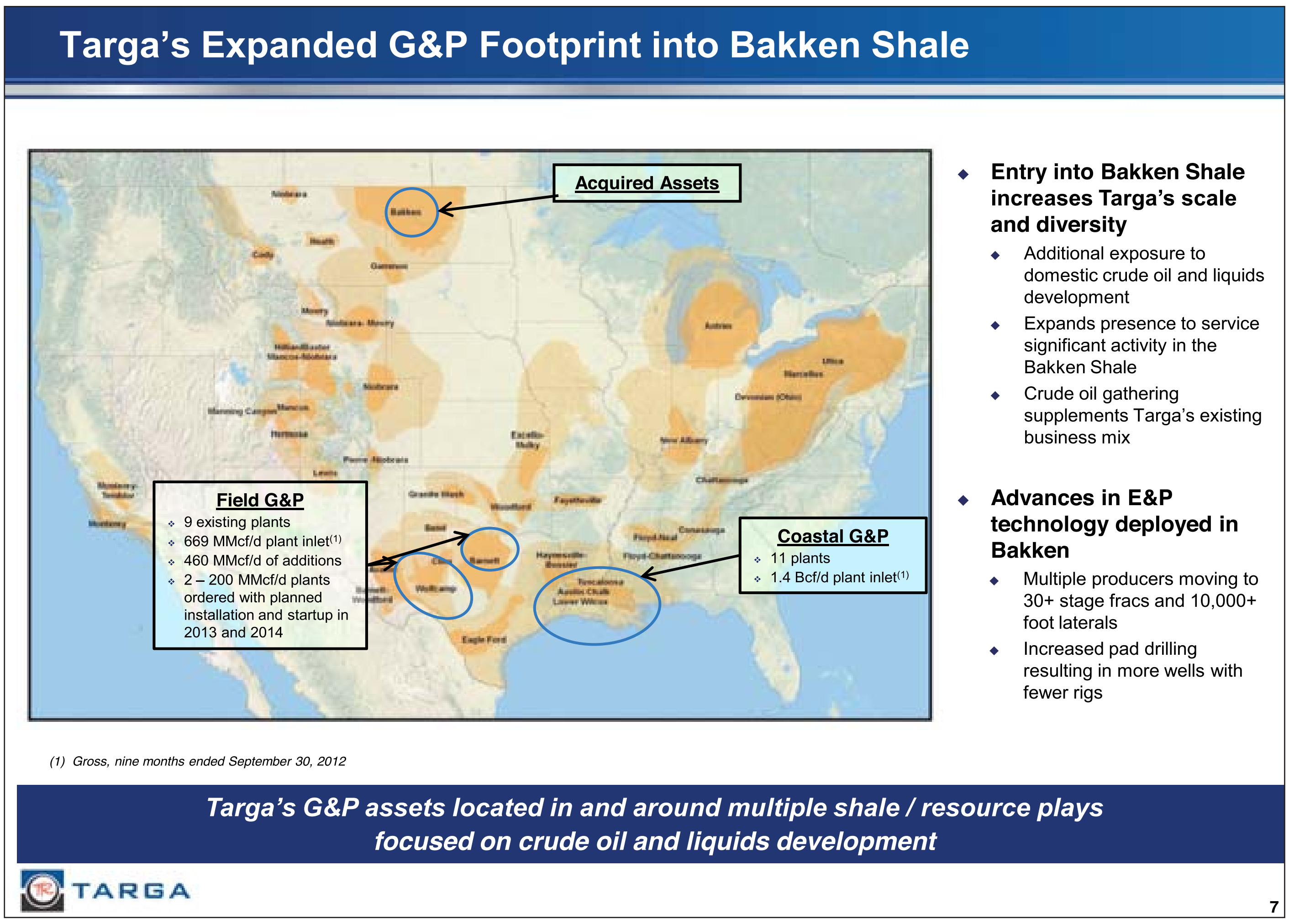
OIL PATCH BITS

and this investment will allow us to provide truly unrivaled local support to our rental customers," said Troy Hickey, vice president of sales and marketing. "When our new facility opens mid-2013, we will greatly increase our overall rental capacity in western North Dakota and eastern Montana, adding approximately 40,000 square feet with 12 full-service bays and other supporting areas for the rental business." T&E will continue to operate its sales, parts, and service operations at its current Williston facility at 14078 West Front Street.

Since becoming an authorized Caterpillar Dealer in 1929, Tractor & Equipment Co. has grown from its roots in Sidney, Mont., to a multi-store operation servicing 44 counties in western North Dakota, central and eastern Montana, and northern Wyoming. T&E operates seven facilities in six cities under the names Tractor & Equipment Co., T&E The Cat Rental Store and T&E Power Systems. Tractor & Equipment Co. offers Caterpillar and other preferred brand equipment and power systems sales, parts, service and rentals for the construction, petroleum, mining, agricultural, governmental, electric power, on-highway and industrial markets. For more information, please visit www.tractorandequipment.com.



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TARGA DEAL

delivers to Enbridge. Johnsons Corner had an initial storage capacity of 20,000 barrels but is being expanded to 40,000 barrels. Alexander has a storage capacity of 30,000 barrels.

With the Johnsons Corner expansion, Targa will have a combined crude oil operational storage capacity of 70,000 barrels.

Also included in the deal are approximately 155 miles of crude oil pipelines, including a trunk line running from the Fort Berthold reservation to Johnsons Corner and Alexander terminals, and approximately 95 miles of natural gas gathering pipelines. The Little Missouri gas processing plant south of Watford City is also included. The Little Missouri plant had an initial capacity of 25,000 cubic feet per day, but is currently being expanded to 40,000 cubic feet per day.

According to Targa, the Williston Basin operations are backed by producer dedications under long-term contracts that include approximately 260,000 acres of crude oil production and over 100,000 acres of natural gas production.

Targa said it expects growth capital expenditures of more than $250 million will be required in 2013 to support system expansions necessary to meet producer activity.

"This acquisition of a major, strategic midstream business complements our extensive portfolio of midstream assets, extends our footprint to the very attractive Bakken Shale play, further diversifies our business with the addition of crude oil gathering, and adds significant long-term growth in fee-based revenues," said Targa Resources Partnership Chief Executive Officer Joe Bob Perkins. "We are very excited to expand our geographic footprint into one of the most important oil producing basins in the country. The visible, long-term growth potential of this business complements our attractive portfolio of ongoing and future organic growth projects and enhances the partnership's longer term distribution growth."

Saddle Butte's subsidiary High Prairie Pipeline is a proposed 16-inch crude pipeline running from Alexander approximately 450 miles east to Clearbrook, Minn., where it was to connect with Enbridge. However, as Petroleum News Bakken reported in June, High Prairie has stated that Enbridge is refusing the Clearbrook interconnection. High Prairie filed one complaint with the Federal Energy Regulatory Commission in June and another in late November.

Targa Resources Partners LP is indirectly owned by parent company Targa Resources Corp., and is involved in gathering, compressing, treating, processing and selling natural gas and storing, fractionating, treating, transporting and selling natural gas liquids and NGL products. The partnership owns an extensive network of integrated gathering pipelines and gas processing plants and currently operates along the Louisiana Gulf Coast and in the Permian and Fort Worth basins.

Additionally, the partnership has NGL logistics and marketing assets located primarily at Mont Belvieu and Galena Park near Houston, as well as in Lake Charles, La. It also has terminals and transportation assets in Texas, Louisiana, the upper Midwest and eastern U.S., and a few as far west as Arizona, California and Washington state.

Prior to the Saddle Butte assets acquisition, Targa Resource Partners did not have assets in the Williston Basin.

—MIKE ELLERD

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