

page Natural Resources Chairman's 3 view from downtown Williston

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Exshaw/Alberta Bakken update



Operators are shy about their plans as probing continues in the Exshaw/Bakken of Southern Alberta and Northwestern Montana. The jury's still out on the best way to drill and complete wells in the play. See story this page.

Saskatchewan treads softly

The Saskatchewan government is taking a measured view of the 2013-14 fiscal year in forecasting prices, volumes and royalties from its primarily crude from sources that include the Bakken and Lower Shaunavon.

It anticipates combined average output of 470,685 barrels per day for the year starting April 1, a marginal gain from 469,041 bpd in 2012-13, with royalties growing C\$119 million to C\$1.44 billion. The province does not provide a breakdown by play type.

The volume increase is largely attributed to an average wellhead price forecast of C\$75.29 per barrel, up C\$6 from the previous year and is tied to the government's West Texas Intermediate forecast of US\$92.84 per barrel for the upcoming budget year compared with US\$91.76 in 2012-13.

Narrower price spread

Some good news for producers is also contained in the province's expectation of a narrower light-heavy price spread and a reduced exchange rate for the Canadian dollar against

see SASKATCHEWAN page 15

Facing the music: Stock thumped as cash-strapped GMX seeks ways to turn firm around

Financially troubled GMX Resources Inc. said it might have to seek bankruptcy protection should management fail to reach a "consensual alternative" with creditors for restructuring its stretched balance sheet.

The Oklahoma-based E&P independent, which entered the Bakken in 2011 with a plan to boost the oil portion of its natural gas-heavy portfolio, conceded unspecified "liquidity" or cash "needs" in a March 18 notice to the U.S. Securities and Exchange Commission, SEC.

"If we are not able to implement a consensual alternative for restructuring our balance sheet, or in order for us to implement a financial alternative, we may voluntarily seek protection under the U.S. Bankruptcy Code," according to the SEC notice.

GMX also said in the notice that because it was focused on discussions with lenders and finding solutions, it was unable to file its required annual 10-K financial report with

That means GMX shareholders have no access to vital financial information detailing how the company performed in the 2012 fourth quarter and how the quarter affected fullyear 2012 results.

see GMX TROUBLES page 16

MOVING HYDROCARBONS

Keystone fight turns icy

Sutter delivers body check; Democrats back XL, including Alaska's Begich

By GARY PARK

For Petroleum News Bakken

ny doubt that Keystone XL has become a cause célèbre was officially ended March 26 when it entered the upper echelon of the National Hockey League.

The Los Angeles Kings made the traditional White House visit to be hailed BARACK OBAMA and lauded by President Barack Obama for winning the Stanley Cup last season.

And notoriously gruff Kings' coach Darryl Sutter, who owns a 3,000-acre ranch in central Alberta, seized the chance to deliver a sharp body check to Obama. Some might have said he was guilty of high-sticking.

For the record, Sutter is "absolutely" in favor of



the pipeline and made his case to the president.

"How can we not want to keep North American (self-sufficient in energy)? Why does the border have to separate that?" he said before the encounter. "It doesn't make sense.'

In the political arena, where Alberta Premier Alison Redford made her fourth Keystone XL selling mission to Washington, D.C., this year, there was

also a heavy dose of symbolism when U.S. senators voted 62 to 37 on March 22 to endorse the

The 17 Democratic Senators backing the Keystone XL included Alaska's Mark Begich.

see **KEYSTONE FIGHT** page 16

GEOLOGY & ECONOMICS

Hush over all the Exshaw

Operators shy about plans as probing continues in Alberta/Montana play

By GARY PARK

For Petroleum News Bakken

inding the best way to apply horizontal drilling and hydraulic fracturing poses the greatest challenge to producers trying to get a handle on how to commercially exploit rocks in the Exshaw/Bakken of Southern Alberta.

For all of the companies, including several majors, that have been active in the play, none has yet to proclaim a conclusive breakthrough, although some have hinted at encouraging results over the past three years.

But the drumbeat of optimism in 2011 has gone quiet over the past year, since people like Jon Noad, Murphy Oil's exploration manager in

"The jury's still out a little bit on the best way to drill into these rocks."

-Jon Noad, Murphy Oil's exploration manager in Canada

Canada, told a conference last year that several companies were still trying to unlock the formation's secrets after drilling 25 wells at a cost of C\$7 million to C\$12 million each.

"There's been a decent amount of investment into this reservoir," he said. "There's a variety of sediments which you're going to have to target (with the new techniques).

see EXSHAW PLANS page 14

COMPANY UPDATE

Living up to its name

PetroShale continues targeting Upper Bakken source rock, active in acquisitions

By MIKE ELLERD

For Petroleum News Bakken

enver-based PetroShale (US) Inc. recently said that it, along with its operating partners, continues to drill and evaluate the Upper Bakken source rock in the Mondak play in eastern Montana, and is hoping to begin drilling in the North Dakota segment of JOHN FAIR Mondak in second quarter. Most of the

oil produced in the Williston Basin's Bakken petroleum system comes from the Middle Bakken member, a dolomite reservoir, which is thought to contain oil from the Upper Bakken shale.

In a March 28 interview with Petroleum News Bakken, PetroShale President John Fair says the



company, a subsidiary of Calgary-based PetroShale Inc., will remain active in acquisitions and development in the Williston Basin in the coming year.

Per a prepared statement, the company will "continue to implement our strategy of exploiting the assets in our inventory with a focus of adding strategic acquisitions resulting in a very active 2013. The relationship with Slawson Exploration is also providing the compa-

ny with unique opportunities for acquisitions in the Williston Bakken, which it intends to exploit as financial market conditions permit."

Slawson, the operator of almost all of

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GOVERNMENT

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ND Senate Natural Resources Chairman Stanley Lyson talks about oil and gas issues from legislative and Williston perspectives

By MIKE ELLERD

For Petroleum News Bakken

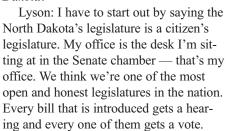
s a member of the Senate Natural Resources committee in the North Dakota legislature since 2003, and as chairman since 2005, Stanley Lyson is no stranger to the legislative process. Neither is he a stranger to the impacts that oil and gas development can have on local communities, being from and representing the city of Williston. In Williston, Lyson was a police officer for 15 years, a parole office for five years, and was the Sheriff of Williams County for more than 20 years.

Lyson spoke with Petroleum News Bakken on March 27 about his experiences with the legislative process and some of the oil and gas-related legislation in the current North Dakota legislative assembly.

Role of the legislative committee

Petroleum News Bakken: As chairman of the Senate Natural Resources committee, you have seen numerous oil and gasrelated bills come to your committee, some of which have

passed and some of which haven't. What are your thoughts on the role your committee is playing in addressing oil and gasrelated issues facing North Dakota?



When a bill gets a committee hearing, anyone can testify in front of the committee to support or oppose the bill. The committees really dig into the details of the bills to see if a bill should get a do pass or a do not pass recommendation. Bills then go from the committee to the Senate floor for a full Senate vote, and we can tell the Senate what we learned about the bill in committee. That's how we work in North Dakota — we're very

I can tell you that the testimonies were great on some of them and we were able to look at the bills in detail and diagnose any problems and come out with a good, firm stand on them. But some of the bills were, for lack of a better word, very personal bills and didn't resonate well with members of the committee, nor did they resonate well with the members of the full Senate on the floor. So sometimes a bill comes in that looks good on its face, but you have to understand what the testimony was in committee to make a decision.

One bill that dealt with setbacks came out with a do not pass recommendation. In the testimony on that bill, and we had quite a few people testify, the most important issue STANLEY LYSON that came out was



that people are afraid of fires from flaring. So we contacted the fire departments in three counties where there is flaring, and we came up with one fire caused by flaring and that didn't even burn an acre. And the bill came out of McKenzie County and there wasn't a fire there. So when you look at that, it's a personal thing.

But, I have to say there are a lot of people who don't like flaring and I'm one of them. I don't like the way they glow at night, I don't like the scenery of them in our state. But we also have to understand that the flaring will go down as we get pipelines to these places to take care of

> that gas. And that's happening on a daily basis here and we're working very hard to get the flaring down. And it's going to happen.

Petroleum News Bakken: North Dakota differs from

Montana in that bills can get killed in committees and never make it to the floor of the House or the Senate, but that does not appear to be the case in North Dakota.

Lyson: Absolutely, we cannot kill anything in the committee. We can only make a recommendation on the floor. And I think that makes us unique, and that's what I mean when I say we're a really open legislature.

Landowner mediation

Petroleum News Bakken: Bills have been introduced that address the issues between landowners and mineral rights owners. Since you represent a district in the very heart of the Bakken play, what are your thoughts these issues?

Lyson: When we run into a situation in North Dakota where the landowner and the mineral owner are in a dispute, we have a committee in the Ag department that can step in and mediate such disputes. And there are no legislators on that committee. Now, not everybody is pleased with it. You know as well as I do that if you got two or three people disgusted about something, you're probably going to have at least one person that's not going to go away happy. But that's the way of life — we don't always get what we want.

Petroleum News Bakken: You're right

in the middle of the oil boom. What do you see as some of the more pressing issues that landowners are having with the oil and gas development?

Lyson: It used to be the location of the well, but mediation has helped. When people call me about an issue, I tell them to go to the company and explain to them why you don't want that well there. I was involved in one of these situations where a person called me and said the company wouldn't talk to him. So I called the oil company, got the people together and they found a location for the well that was better for both.

Tax incentives

Petroleum News Bakken: One of the bills you introduced this session was SB 2309, which would have provided an extraction tax exemption for certain refined oils based on the crack spread. The Senate Taxation committee voted a do not pass recommendation for this bill, and the bill was subsequently defeated by the full Senate. What would have been the benefits of the bill had it passed, and what do you think about it not passing?

Lyson: I've been around here for a long time, so I don't spend a lot of time thinking about something passing or not passing because that's just the way the legislature works. I don't get hurt over these things.

But on the bill, we would like to see this (oil) thing stick around and benefit the whole state for many years, and I felt, and I think the other sponsors did too, that this would be one way to give the oil companies a break and say "North Dakota's a good place to do business." That was our thought. But we didn't pre-

Petroleum News Bakken: That leads into the next question, which is about SB 2336, Senator Cook's bill. That bill had a number of provisions in it, including addressing the stripper well issue, but it also included a reduction in the oil extraction tax. The bill received a lot of attention, and it came as somewhat of a surprise when it was defeated in the House after passing the Senate. What are your thoughts on that bill?

Lyson: I normally never speak about what happens in the other house because that's their business over there, but we felt really bad about that one. We thought it was an excellent bill. But that's what happens when you have two houses – that's what makes it good because if we

"My district is the city of Williston and I live right in town. Our community has almost doubled in the last three years. It's not like the old home town anymore." -North Dakota state Senator Stanley Lyson

slip up with something here they can take care of it over there and vice versa. You get fairly thick-skinned and you don't take things personally.

Issues specific to Williston

Petroleum News Bakken: Being from Williston, you live right in the middle of one of the most highly impacted oil and gas counties in the state. In your opinion, what are most important issues facing your constituents, and are they being addressed in the legislature?

Lyson: My district is the city of Williston, and I live right in town. Our community has almost doubled in the last three years. It's not like the old home town anymore. Before the temporary west bypass was completed, the count of trucks going through Williston was 10,200something a day. So if you think people were upset about that, you're right. Almost all of our roads were built for tonand-a-half trucks, and now we have semis on them all day long.

We're putting in a lot of money this year for road infrastructure. To give you some ideas, this session we're putting in \$4.2 billion for infrastructure in the oil counties. When an area is growing as fast as we are, we need this kind of money in the oil areas to help us with the infrastructure. Another thing, we're putting in is \$1.1 billion for K through 12 education in the oil producing counties.

Petroleum News Bakken: Do you have any other comments on your role and the legislature's role in dealing with oil and gas issues in North Dakota?

The only other thing I can say is that this industry is here and it's going to be here for a long time. Let's work together as communities and businesses and so on, to make our communities as strong as we can make them. Nothing ever comes out of a fight that we won't let go of — we can't continue to fight, fight, fight. We have to sit down and negotiate things out. I don't know how else I can put it because that's what we really need to do.

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Starting with the next edition, Petroleum News Bakken will be printed in Princeton, Minnesota, not Anchorage, Alaska.

The reason for the change is the lengthy amount of time it takes the newspaper to reach subscribers in North Dakota when mailed from Alaska. Mail service to other states and provinces in Canada was slower than expected, but delivery time to North Dakota was unacceptable.

The closest printer to North Dakota that met Petroleum News Bakken's requirements was in central Minnesota.

The newspaper, which always carries a Sunday date, will still be available online two days earlier, on Fridays.

Subscription and delivery related questions can be directed to Clinton Lasley at clasley@petroleumnewsbakken.com.



COMPANY UPDATE

Abraxas looks to control spending, ops

Selling most of its non-operated Bakken/Three Forks acreage to get firmer grip on Williston Basin capital expenditures, operations

By RAY TYSON

Petroleum News Bakken

braxas Petroleum Corp. said it has decided to sell most of its non-operated Bakken and Three Forks assets, because it wants a tighter grip on its business in the Williston Basin.

"We like to be in better control of our capital expenditures plus overall operations," explained Robert L.G. Watson, Abraxas' chairman and chief executive officer.

Watson told analysts in a March 15 conference call that Abraxas was going to open a data room within a week to sell about 14,300 net acres in North Dakota and Montana with daily production of roughly 300-to 500 barrels of oil equivalent.

"The initial interest ... has been very strong," Watson said, noting that bids are expected toward the end of April to early May with a close in late May or early June.

"I want to emphasize this is not a fire sale," he added. "If we don't get our value, we will not sell.'

Of Abraxas' 159,930 net acres at yearend 2011, about 20,835 were in the Williston Basin.

Some acreage already sold

San Antonio, Texas-based Abraxas sold a portion of its non-core Oklahoma and Louisiana properties, as well as scattered royalty interests in North Dakota and Montana, at the March Oil and Gas

Proved reserves at year-end 2012 stood at 30.1 million boe, a net increase of 84,000 boe over yearend 2011 proved reserves of 29.3 million boe.

Clearinghouse Auction. Combined, the properties sold for \$2.9 million.

The remainder of the company's Oklahoma properties and additional North Dakota royalty interests are scheduled for a Clearinghouse auction in May.

E-Spectrum Advisors of Dallas, Texas, is leading the marketing process for Abraxas' non-operated Bakken and Three Forks properties.

Abraxas said it would use proceeds from the various sales and redeploy them to core operating areas, primarily in the Bakken-Three Forks and Eagle Ford shale in south Texas.

Additionally, the company plans to spend an estimated \$70 million on capital projects in 2013, with about 68 percent earmarked for the Bakken-Three Forks and 27 percent for the Eagle Ford. The remainder will target conventional oil plays in the Permian Basin region and in the province of Alberta, Canada.

Delays in production

Abraxas reported overall production average of 3,926 boe per day for full-year 2012, compared to 3,484 boe per day for 2011, and 4,147 boe per day for the three months ending 2012, versus 3,749 boe per day for the same period in 2011.

"We're certainly disappointed in the production level, but we also understand that our industry is prone to delays beyond our control, such as weather and mechanical issues," Watson said.

Bad weather this winter caused delays in well completions in the Williston Basin, and plant issues in the Eagle Ford forced the company to flare natural gas.

"The good news is those delays have been rectified," Watson said. "February and March production levels are very pleasing."

Watson took issue with "comments" he's heard regarding Abraxas' "relatively flat" production over the past three years. On an oil equivalent basis, he said, the company's more coveted liquids production actually increased 65 percent, as its natural gas output decreased at about the same rate due to natural declines.

"We've spent all of our money in the last three years on liquids projects, while we've neglected our gas projects," Watson explained. "But that doesn't mean they're not substantial. They are. They're just not a priority for us at this point in time with gas prices where they are."

High-volume wells

However, now that Abraxas is bringing on high-volume oil wells in the Bakken and Eagle Ford, he said, "we've now overcome this offset phenomenon, and we're seeing

Even though production in the first quarter of 2013 will be "a bit lower" than anticipated because of well completion and plant issues in January, the company said it is sticking to it its full-year guidance of 4,900-5,200 boe per day.

significant overall production growth."

Even though production in the first quarter of 2013 will be "a bit lower" than anticipated because of well completion and plant issues in January, the company said it is sticking to it its full-year guidance of 4,900-5,200 boe per day. That would indicate a year-over-year increase of 20-28 per-

Proved reserves at year-end 2012 stood at 30.1 million boe, a net increase of 84,000 boe over year-end 2011 proved reserves of 29.3 million boe. However, while overall reserves increased 3 percent, the oil portion grew 30 percent year-over-year, the compa-

Meanwhile, Abraxas reported a fullyear 2012 net income loss of \$18.8 million on revenue of \$68.5 million, compared to net income of \$13.7 million on revenue of \$64.6 million for 2011. Adjusted net income, excluding property impairments and other non-cash items, was \$400,000 for 2012 versus \$6.3 million for 2011. ●

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DRILLING & COMPLETION

Fidelity to drill max 90 wells in Mountrail

Files NDIC permit applications asking for up to 90 wells in three fields targeting both the Bakken and Three Forks formations

By MIKE ELLERD

For Petroleum News Bakken

Fidelity Exploration and Production Co. filed applications with the North Dakota Industrial Commission in March seeking permission to drill up to a maximum total of 90 wells targeting both the Bakken and Three Forks formations in three separate fields in Mountrail County. Most of these 90 wells are infill wells.

In the Alger field in west-central Mountrail County, Fidelity is looking to drill up to 10 wells, two on an existing 640-acre unit and eight on two 1,280-acre units, all of which will have short laterals in the range of 4,000 feet.

Initial production rates, IPs, for Bakken wells in the Alger field are estimated at 450 barrels of oil per day. IPs for the Three Forks wells are estimated at 310 bopd. Bakken and Three Forks estimated ultimate recoveries, EURs, are projected at 250,000 barrels of oil and 150 million cubic feet of gas for both the Bakken and Three Forks wells. These EURs result in a gas-to-oil ratio, GOR, of 600 standard cubic feet per stock tank barrel.

Fidelity estimates the Alger field's Bakken and Three Forks wells will cost approximately \$6.1 million each, and expects a return on investment, ROI, of 1.95 on the Bakken wells and 1.92 on the Three Forks wells.

Stanley field drilling

Fidelity is seeking permission to drill a maximum total of 43 wells in spacing units ranging in size from 640 acres to 2,560 acres in the Stanley field in central Mountrail County. Some of the Stanley field wells will be completed with short laterals of approximately 4,000 feet. Others will be completed with mid laterals of approximately 6,000 feet or with long laterals of approximately 8,000 feet, depending on how the wells are configured in a given spacing unit.

Short, mid and long lateral IPs for the Bakken wells are estimated at 450, 650 and 850 bopd, respectively, while the short, mid and long lateral IPs for the Three Forks wells are estimated at 240, 260 and 280 bopd, respectively. Bakken EURs for the short, mid and long lateral wells are 259,000, 314,000 and 365,000 barrels of oil, respectively. The corresponding EURs for the Three Forks wells are 216,000, 242,000 and 268,000 barrels of oil, respectively. Natural gas EURs range from a low of 132 million cubic feet for short lateral Three Forks wells to a high of 208 million cubic feet for long lateral Bakken wells. GORs for the Bakken wells range from 570 to 587 standard cubic feet per stock tank barrel. The GORs for the Three Forks wells range from 611 to 615 standard cubic feet per stock tank barrel.

The company estimates drilling costs for the short, mid and long lateral wells in both the Bakken and Three Forks formations at approximately \$6.1 million, \$7.3 million and \$8 million each, respectively. Fidelity estimates ROIs for the Bakken wells at between 2.04 and 2.30 and between 1.53 and 1.62 for the Three Forks wells.

Sanish field wells

In the Sanish field in southwest Mountrail County, Fidelity is seeking permission to drill up to 37 new wells on spacing units ranging from 640 to 2,560 acres

Other NDIC infill drilling apps

Fidelity isn't the only company looking to increase well density in the Bakken petroleum system. EOG Resources, XTO Energy, Murex Petroleum, Liberty Resources, Sinclair Oil and Gas, Slawson Exploration, Kodiak Oil and Gas and GMX Resources all filed applications with the North Dakota Industrial Commission in March seeking permission to drill numerous new wells on existing spacing units where one or more wells have been drilled and tested.

The applications are for multiple fields in McKenzie, Mountrail and Williams counties.

EOG in McKenzie County

EOG Resources is seeking permission from NDIC to install a maximum of 46 new wells in the Squaw Creek field in far eastern McKenzie County where the Houston-based independent is planning to target not only the Middle Bakken, but also the first and second benches of the Three Forks formation. Six wells will be drilled on each of two existing 320-acre spacing units, seven wells will be drilled on each of two existing 640-acre units, and five wells will be drilled on each of four other existing 640-acre units.

For the 320-acre case, EOG reports EURs for two existing wells in the Squaw Creek field of 630,000 barrels of oil and 630 million cubic feet of gas for a GOR of 1,000 standard cubic feet per stock tank barrel. For the combination of one additional Bakken well, one well in the first bench of the Three Forks and two wells in the second bench, the company is estimating total EURs of 1,080,000 barrels of oil and 1.08 billion cubic feet of gas for a total GOR of 1,000 standard cubic feet per stock tank barrel. The company reports an ROI of 3.25 on the two existing wells and an estimated ROI of 2.79 for the scenario of one Bakken and three Three Forks wells.

XTO in McKenzie and Williams counties

Houston-based XTO Energy is asking NDIC for permission to install up to seven wells on each of four existing 1,280-acre spacing units in the Charlson field in northeast McKenzie and far southeast Williams counties for a maximum total of 28 wells. In the Elk field in northwest McKenzie County, XTO also wants to drill up to eight wells on two existing 1,280-acre units. All together, the company is looking to drill a maximum total of 44 wells in these two fields.

In both fields, XTO plans to target the Bakken and Three Forks formations. Well economics for the area of operations in the Charlson field provided to the commission by XTO indicate EURs of 400,000 barrels of oil and 480 million cubic feet of gas for a GOR of 1,200 standard cubic feet per stock tank barrel. Likewise, the company reports EURs for the target area in the Elk field of 400,000 barrels of oil and 200 mil-

lion cubic feet of gas for a GOR of 500 standard cubic feet per stock tank barrel. In the Charlson field, the company expects to complete Middle Bakken wells with 30 frack stages and between 20 and 24 frack stages for the Three Forks wells. Expected frack stages were not provided for the Elk field wells. Wells are expected to cost \$8.5 million each. XTO is anticipating ROIs of 2.5 and 2.45 for the Charlson and Elk field wells, respectively

Murex and Liberty in Williams County

Murex Petroleum of Houston filed an application asking the commission to allow up to eight horizontal Bakken pool wells be drilled in each of five existing 1,280-acre spacing units in the West Bank field in southeast Williams County for a maximum total of 40 wells. Murex reports recoverable reserves for the wells at 417,615 barrels of oil and 639 million cubic feet of gas for a GOR of 1,530 standard cubic feet per stock tank barrel. The company estimates a drilling cost per well of \$8.7 million. Murex currently has 11 wells on active status in the West Bank field with another permitted.

Denver-based Liberty Resources is applying for permits to drill a total of eight wells on an existing 1,280-acre spacing unit in the Cow Creek field in southwest Williams County that will target both the Middle Bakken and the Three Forks formations with two-mile laterals. Liberty presently has a Middle Bakken well on the spacing unit. For reservoir properties and economics, the company reports an IP of 950 bopd and EURs of 511,000 barrels of oil and 20.6 million cubic feet of gas for a GOR of 849 standard cubic feet per stock tank barrel. Liberty reports an estimated ROI for this venture of 1.6.

Sinclair and Slawson in Mountrail County

In the Robinson Lake field in southern Mountrail County, Utah-based Sinclair Oil and Gas submitted an application to drill two additional Middle Bakken wells in an existing 1,280-acre unit that presently has two producing wells. Sinclair reports that the two producing wells, Sinclair State 1-36H and Sinclair State 2-36H, have IPs of 175 and 600 bopd, oil EURs of 80,000 and 200,000 barrels, and gas EURs of 80 million and 220 million cubic feet, respectively. Sinclair projects oil IPs for the two additional wells of 1,000 bopd, EURs of 340,000 barrels of oil and 345 million cubic feet of gas for a GOR of 1,015 standard cubic feet per stock tank barrel. Sinclair estimates drilling costs at \$9.2 million per wells and an ROI of 2.21 per well.

In the Parshall field, also in southern Mountrail County, Wichita-based Slawson Exploration is asking to drill a total of six wells on an existing 1,280-acre spacing unit where the wells will target both the Middle Bakken member and the

see INFILL DRILLING page 7











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LAND & LEASING

Anschutz pulls out of Blackfeet, keeps 5 wells

By MIKE ELLERD

For Petroleum News Bakken

nschutz Exploration is pulling out of the Blackfeet Reservation on the Rocky Mountain Front in northwest Montana, where it has been exploring for more than 10 years. In a prepared statement, Anschutz said it notified the Blackfeet Tribal Business Council on March 18 of the company's decision to cease its Blackfeet operations.

The Denver-based, privately held company drilled 14 exploratory wells on the 600,000 acres it held on the western third of the reservation, where it "analyzed multiple hydrocarbon-bearing reservoirs," Anschutz said in its statement, which was first reported March 19 in the Fairfield Sun Times.

"Drilling and testing has located some resources, but not enough to support further exploration or development investment," Anschutz said.

The company worked with multiple stakeholders on the reservation, including the federal government, the Blackfeet Tribal Business Council, regulatory agencies of the Tribe and allottees and private fee owners in order access land and explore formations at multiple depths, primarily targeting Upper Cretaceous reservoirs - reportedly the Cretaceous Cone Member of the Marias River Shale.

The Division of Energy and Mineral Development, part of the U.S. Department of Interior's Indian Affairs, played an important role in negotiating favorable contact terms between Anschutz and the Blackfeet Tribe; terms that included supplying crucial seismic to evaluate the petroleum potential of the reservation.

In the end, however, the company decided to move on.

Holding onto 5 producing wells

According to a March 20 article in the Missoulian, Anschutz operates and will continue to operate, about five wells on the reservation, but will surrender all other leases.

"We appreciate the commitment that everyone has made to work for success on this large project; however, there are other projects in our company that require our attention," said Anschutz Chairman and Chief Executive Christopher Hunt.

The company also plans to reclaim all drilling sites and access roads for wells that are not producing.

Anschutz, like some of the other

with varying-length laterals. Short, mid and

long lateral IPs for the Bakken wells in the

Sanish field are estimated at 375, 550 and

650 bopd, and the corresponding EURs are

229,000, 272,000 and 329,000 barrels of

Three Forks wells are 244, 260 and 280

bopd, and the corresponding EURs are

216,000, 242,000 and 268,000 barrels of

between 134 million and 191 million cubic

feet per day, with corresponding GORs

ranging from 577 to 581 standard cubic feet

The Bakken natural gas EURs range

IPs for the short, mid and long lateral

continued from page 5

oil, respectively.

FIDELITY WELLS

On March 21, the Associated Press reported Blackfeet tribal officials indicated they were trying to put together an agreement with Canadian companies to take over Anschutz's leases. The identities of the Canadian firms were not disclosed.

explorers in the area, is strictly an exploration company. It tends to prove-up acreage, and then bring in larger E&P firms to develop and produce them, such as in December 2010 when it sold its principal Dunn County, North Dakota acreage position in the Williston Basin to Oxy USA for \$1.4 billion, after a successful Bakken and Mission Canyon exploration program that began in 2004.

On March 21, the Associated Press reported Blackfeet tribal officials indicated they were trying to put together an agreement with Canadian companies to take over Anschutz's leases. The identities of the Canadian firms were not disclosed.

Proximity to Glacier National Park

Not everyone on the Blackfeet Reservation is sad to see Anschutz go.

On March 21 the Denver Post reported that Jack Gladstone, a Blackfeet Nation member and a member of the Blackfeet Headwaters Alliance, said that he is glad Anschutz's exploration has ended, so that the reservation lands will retain their wilderness character. According to the Post, Gladstone made it clear that he was not assailing Anschutz, but that he simply felt there was an unreasonable risk to the reservation's water and added that "waters are ultimately more important than oil."

Because the west side of the Blackfeet Reservation borders Glacier National Park, all of the acreage that Anschutz held on the reservation was in shadow of the park. Per the Missoulian article, park officials have had concerns about potential environmental effects that Anschutz's oil and gas operations on the reservation would have on the park.

As reported by the Denver Post on March 20, in a letter to the Bureau of Indian Affairs sent in February, acting Glacier National Park Superintendent Kym Hall said that although the park understands and appreciates the potential economic benefits that oil and gas development could bring to the Blackfeet Tribe, the park would like to see that develop-

Estimated drilling costs for the Sanish field wells are same as those for the Stanley field wells. ROIs for the Bakken wells in the Sanish field are estimated at between 1.77 and 2.04. The Three Forks ROIs range between 1.57 and 1.62.

About Fidelity

Fidelity Exploration and Production is owned by MDU Resources Group of Bismarck. Most of Fidelity's activity is focused in the Rocky Mountain region, which includes North Dakota, Montana, Wyoming, Colorado and Utah. The company also has operations in Texas and Louisiana. In the Bakken, MDU Resources holds approximately 127,000 acres in Mountrail and Stark counties in western North Dakota and in Richland County in eastern Montana.

Contact Mike Ellerd

ment "done in such a way that park resources and the traditional homeland of the Blackfeet are not harmed."

Xanterra takes some heat

In February, the Missoulian reported that Xanterra Parks and Resorts Inc., which is not only the largest national park concessionaire in the country but is also owned by Anschutz Corp., was on the short list to be Glacier National Park's next concessionaire. While the National Park Service is prohibited from disclosing the identities of firms submitting bids for the concessions contract, according to the Missoulian, Xanterra was among the prospective concessioners on a site visit to the park in September.

Whether or not Xanterra is a contender to be Glacier's next concessionaire is uncertain.

However, since the Missoulian article appeared in February, an online petition has appeared opposing Xanterra as a potential contender.

That petition has received the endorsement of Sen. Shannon Augare of Browning, who represents most of the Blackfeet Reservation in the Montana legislature.

Contact Mike Ellerd at mellerd@petroleumnewsbakken.com

continued from page 5

INFILL DRILLING

Three Forks formation. The Bakken wells will be completed with lateral lengths of approximately 6,800 feet; the Three Forks wells will have 10,500-foot laterals. Well economics reported by Slawson indicate Bakken EURs of 500,000 barrels of oil and 250 million cubic feet of gas for a GOR of 500 standard cubic feet per stock tank barrel. EURs for the Three Forks are 550,000 barrels of oil and 275 million cubic feet of gas with a GOR of 500 standard cubic feet per stock tank barrel. Slawson expects undiscounted ROIs of 5.07 for the Bakken wells and 3.56 for the Three Forks wells.

Other applications

Several other operators submitted applications to increase well density. However, those applications did not contain well economic information.

GMX Resources submitted an application with NDIC to drill up to seven horizontal wells on each of the company's 1,280-acre spacing units in the Ranch Creek field in McKenzie County. The number of 1,280-acre units the company has in the Ranch Creek field was not specified in its application.

In Moccasin Creek field in Dunn County, Kodiak Oil and Gas is looking to drill up to three wells on four 320-acre units, up to eight wells on three 1,280-acre units, and up to six wells on another 1,280-

Petro-Hunt is looking to install up to seven wells on each of its 1,280-acre spacing units in the Elm Tree field in McKenzie and Mountrail counties. The company is also asking permission to install up to seven wells on each of the company's 640-acre and 1,280-acre units in the Charlson field in McKenzie, Mountrail and Williams coun-

Whiting Oil and Gas is seeking permission to drill up to 10 wells on a 1,280-acre spacing unit in the Sanish field in Mountrail

WPX Energy Williston is looking to drill up to eight wells on a 1,280-acre spacing unit in the Heart Butte field in Dunn

SM Energy is asking permission to drill up to eight wells on some or all of its 1,280acre spacing units in the Ambrose, West Ambrose and Colgon fields in Divide

-MIKE ELLERD

Contact Mike Ellerd at mellerd@petroleumnewsbakken.com

Flatirons infilling in Madison pool

Flatirons Resources LLC of Denver submitted an application to the North Dakota Industrial Commission in March requesting permission in drill up to three wells in the Madison pool on a 640-acre spacing unit in the Lake Darling field in southern Renville County.

The wells would be completed to a depth of approximately 6,100 feet with 2,000-foot open-hole laterals into the Bluell dolomite/limestone member of the Mission Canyon formation of the Madison group.

Flatirons reports an estimated ultimate recovery, or EUR, per well for this prospect of 134,000 barrels of oil and 134 million cubic feet of gas.

An existing well in the spacing unit with a 3,300-foot lateral that went into production in June 2005 had an IP rate of 25 barrels of oil per day and through February 2013 that well has produced a total of 79,765 barrels of oil.

The company estimates a total income per well of \$5.55 million and an estimated total investment per well at \$1.8 million for return on investment of 3.08.

-MIKE ELLERD



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per stock tank barrel. Natural gas IPs and GORs for the Three Forks wells in the Sanish field are the same as those for the Stanley field.

at mellerd@petroleumnewsbakken.com

DRILLING & COMPLETION

SM, Hess lead with 38 2,560-acre apps

Operator requests for new spacing units in North Dakota range from 640 to 2,560 acres — all the way from Burke to Billings counties

By MIKE ELLERD

For Petroleum News Bakken

SM Energy and Hess led in the number of new spacing unit applications that

the North Dakota Industrial Commission is considering in March. Combined, the two companies are asking the commission to create a total of 38 new overlapping 2,560-acre spacing units in Divide, McKenzie,

Mountrail and Williams counties.

In the Ambrose, West Ambrose and Colgon-Bakken pools in Divide County, SM is requesting that the commission create 22 overlapping 2,560-acre spacing units and allow the company to drill one or more horizontal wells in each of the new overlapping units.

Hess also submitted applications asking NDIC to establish overlapping 2,560-acre spacing units, and is seeking 16 such units in McKenzie, Mountrail and Williams counties. Hess wants to drill one or more horizontal wells between existing 1,280-acre units. The new overlapping 2,560-acre units are in the Manitou, Big Butte, Traux, Westberg, Hawkeye, Blue Buttes, Timber Creek, South Tobacco Garden and Cherry Creek-Bakken pools.

NATURAL GAS

March North Dakota flaring requests

March requests to the North Dakota Industrial Commission for continued flaring of natural gas beyond the standard 60 days were submitted by several operators for wells in Billings, Burke, Divide, Dunn, McKenzie and Mountrail counties. Requests from OXY USA are for the period through Dec. 31. All others were for an indefinite period of time pending installation of gas gathering infrastructure.

In Divide County, Baytex Energy, Crescent Point Energy, Samson Resources and American Eagle Energy all submitted applications to the commission seeking permission to flare gas from wells that either are or will be producing in the Ambrose, West Ambrose and Colgan-Bakken pools.

Hess is also seeking permission to flare from two wells in the Forthun and Larson-Bakken pools in Burke County, and from two wells in the Clear Water-Bakken pool in Mountrail County. Hess also asked permission to flare from a single producing well in the Baukol Noonal-Bakken pool in Divide County.

OXY is requesting approval to flare gas from its wells in the Cabernet, Crooked Creek, Manning, Russian Creek, Simon Butte and St. Anthony-Bakken pools in Dunn County, as well as in the Hungry Man Butte, Little Knife and Saddle Butte-Bakken pool in Billings County.

OXY is also seeking permission to flare gas from its wells in the Willmen-Bakken pool that straddles Billings and Dunn counties.

XTO Energy wants permission from the commission to flare gas in the Bard Den-Bakken pool in McKenzie County where it has one producing well and has plans to drill more wells.

In Mountrail County, Slawson Exploration is asking for permission to flare gas from wells that are or will be producing in the Alger-Bakken pool.

—MIKE ELLERD

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Other 2,560-acre applications

In the Phelps Bay, Charlson and Keene-Bakken pools in McKenzie County, Petro-Hunt is asking the commission to establish four overlapping 2,560-acre units and allow the company to drill one additional horizontal well across the common boundary between two existing 1,280-acre units in each new 2,560-acre unit.

Sequel Energy is asking NDIC establish a 2,560-acre unit in the Pierre Creek-Bakken pool in McKenzie County and allow up to six horizontal wells to be drilled in that unit.

In Dunn County, Marathon Oil is asking that three overlapping 2,560-acre spacing units be established from existing 1,280-acre units in the Bailey-Bakken pool and that it be allowed to drill one or more horizontal wells between the existing 1,280-acre units

Kodiak Oil and Gas is requesting the creation of a 2,560-acre unit in the Poe-Bakken pool in McKenzie where it wants to drill up to two wells in that unit.

Smaller spacing requests

Arsenal Energy submitted an application requesting that six new 1,280-acre units be created in the Northeast Foothills-Bakken pool in Burke County, and asked permission to drill up to four wells in each of the six new units for a total of up to 24 wells.

Continental Resources is asking for the creation of four 1,280-acre units in June,

Kimberly, Baukol Noonan and/or Noonan-Bakken pools in Divide County where it wants to drill one horizontal well in each.

True Oil is asking the commission to designate a 1,600-acre unit in the Red Wing Creek and Bowline-Bakken pools in McKenzie County and that the company be allowed to drill up to seven wells in that spacing unit.

In the White Earth-Bakken pool in Mountrail County, Hess is asking the commission to establish one 1,280-acre spacing unit and allow the company to drill six horizontal wells in that unit.

Peregrine Petroleum Partners is seeking the establishment of a new 1,280-acre unit in the Covered Bridge-Bakken pool in McKenzie County where it wants to drill two wells.

Slawson Exploration is requesting the commission create one overlapping 1,280-acre unit in the Sanish-Bakken pool in Mountrail County and that it be allowed to drill up to four wells on that unit.

Arsenal submitted an application for the establishment of one new 1,280-acre unit in the Stanley-Bakken poo in Mountrail County and for permission to drill up to three wells in that unit.

In the Moccasin Creek-Bakken pool in Dunn County, Kodiak is asking the commission to establish two overlapping 640-acre spacing units and allow the company to drill two or more horizontal wells between the existing 320-acre units.

QEP Energy is asking the commission to modify existing spacing units to allow the company to more efficiently access resources in two sections that are effectively submerged under Lake Sakakawea in the Heart Butte-Bakken pool in Dunn County.

Farther south

In the Snow Bakken-pool in Billings County, OXY is asking the commission to establish two new 1,280-acre units where it wants to drill up to six horizontal wells in each.

In Stark County, Continental is requesting the establishment of one overlapping 1,280-acre spacing unit in the Dutch Henry Butte-Bakken pool and is asking permission to drill up to four horizontal wells. ●

Contact Mike Ellerd
at mellerd@petroleumnewsbakken.com





Bakken BAKKEN Stats

Montana oil activity report, March 15-21

Abbreviations & parameters

With a few exceptions, such as the Heath shale play in the central part of the state, the Montana weekly oil activity report includes horizontal well activity in the Bakken petroleum system in the eastern/northeastern part of the state within the Williston Basin. It also includes what is referred to as the South Alberta Bakken fairway in northwestern/west-central Montana, which is at least 175 miles long (north-south) and 50 miles wide (east-west), extending from southern Alberta, where the formation is generally referred to as the Exshaw, southwards through Montana's Glacier, Toole, Pondera, Teton and Lewis & Clark counties. The Southern Alberta Bakken, under evaluation by several oil companies, is not part of the Williston Basin.

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

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
TD: total depth

COMPILED BY DARRYL L. FLOWERS

For Petroleum News Bakken

New locations — horizontal wells

In Dawson County's Gas City field, Denbury Onshore LLC has been approved for the Unit 41-28. The Red River formation well is located at NE NE 28-14N-55E (484 FNL/891 FEL) and has a proposed depth of 9,200 feet.

In Richland County, Continental Resources Inc. was green lighted for four wells. The Snow 1-13H has an SHL at NW NE 13-23N-54E (280 FNL/1980 FEL) and a PBHL of 19,864 feet at SW SE 24-23N-54E (200 FSL/1980 FEL); the Cotesworth 1-20H has an SHL at NW NE 20-23N-52E (310 FNL/1925 FEL) and a PBHL of 13,623 feet at SW SE 20-23N-52E (200 FSL/1980 FEL); the Ingersoll 1-34H has an SHL at SE SW 34-23N-52E (270 FSL/2080 FWL) and a PBHL of 13,948 feet at NE NW 34-23N-52E (200 FNL/1980 FWL); and the Lucille 3-27H which has an SHL at SE SW 27-23N-55E (310 FSL/2350 FWL) and a PBHL of 20,048 feet at NE NW 22-23N-55E (200 FNL/1980 FWL). All the Continental wells target the Bakken for-

Re-issued locations

In Richland County, Continental Resources Inc. was green lighted for four wells, all targeting the Bakken formation: the Katherine 2-15H, with an SHL at SE SE 15-25N-55E (240 FSL/800 FEL) and a PBHL of 19,560 feet at NE NE 10-25N-55E (660 FNL/800 FEL); the Custer 1-7H, with an SHL at NE NW 18-27N-54E (508 FNL/2125 FWL) and a PBHL of 19,852 feet at NE NW 6-27N-54E (200 FNL/1980 FWL); the Washburn 1-18H, with an SHL at NE NW 18-27N-54E (547 FNL/2096 FWL) and a PBHL of 18,947 feet at SE SW 19-27N-54E (200 FSL/1980 FWL) and the Alex 1-7H, with an SHL at SE SW 7-26N-55E (260 FSL/1620 FWL) and a PBHL of 19,776 feet at NE NW 6-26N-55E (200 FNL/1980 FWL).

Completions

Whiting Oil and Gas Corp. reported the completion of two Richland County wells, both tapping the Bakken formation

The Lone Butte Patricia 24-25 1H has an SHL at NE NE 24-25N-56E (495 FNL/652 FEL) and a BHL of 19,606 feet at SE SE 25-25N-56E (665 FSL/646 FEL). The well reported an IP) of 356 BOPD, 288 MCFPD and 1,554 BWPD.

The Mahlen 24-32H, with an SHL at SE SW 32-26N-57E (220 FSL/1690 FWL) and a BHL of 20,250 feet at NE NW 29-26N-57E (247 FNL/1953 FWL) turned in an IP of 388 BOPD, 449 MCFPD and 1,625 BWPD.

XTO Energy Inc. reported the completion of the Headington 43X-23B, a

Richland County well with an SHL at NE SE 23-26N-52E (2423 FSL/300 FEL) and a BHL of 18,643 feet at NW SW 22-26N-52E (2091 FSL/255 FWL). The well reported an IP of 222 BOPD, 67 MCFPD and 140 BWPD. The Headington taps the

Bakken formation.

In Roosevelt County, Oasis Petroleum North America LLC brought in the Tana 2759 43-7H. The Bakken formation well turned in an IP of 962 BOPD, 848 MCFPD and 2,735 BWPD. ●

Did you know?

One factor making resource plays attractive is that production comes more quickly. In the Eagle Ford, 40 percent of (technically recoverable) reserves are produced in the first year; in the Bakken it's 30 percent; and from Alaska's conventional reservoirs, it's 10 percent.

SOURCE: ECONOMIST BARRY PULLIAM, ECON ONE RESEARCH, 2013

Bakken oil producers January 2013

January .	2013		
Company	BDP*		
1 Continental Resources, Inc.	67,341.1		
2 Hess Corporation	66,782.3	30 Sinclair Oil and Gas Company	1,938.0
3 Whiting Oil and Gas Corporation	64,385.8	31 Cornerstone Natural Resources, LLC	1,486.9
4 Brigham Oil & Gas, LP (Statoil)	44,671.3	32 American Eagle Energy Corporation	1,233.9
5 EOG Resources, Inc.	43,947.6	33 Arsenal Energy USA, Inc.	713.6
6 XTO Energy Inc. (ExxonMobil)	32,445.5	34 GMX Resources, Inc.	594.8
7 Marathon Oil Company	30,680.7	35 Sequel Energy, LLC	580.0
8 Petro-Hunt, LLC	23,897.4	36 True Oil, LLC	503.9
9 Kodiak Oil & Gas (USA), Inc.	23,067.0	37 Abraxas Petroleum Corp	397.4
10 Slawson Exploration Company, Inc.	20,759.3	38 Windsor Energy Group, LLC	231.1
11 Burlington Resources (ConocoPhillips)	20,375.0	39 Gadeco, LLC	192.0
12 Oasis Petroleum North America LLC	19,565.7	40 Resource Drilling, LLC	161.3
13 QEP Energy Company	17,615.3	41 Resolute Natural Resources Company, LLC	148.8
14 Oxy USA, Inc.	15,416.1	42 Legacy Reserves Operating LP	110.8
15 WPX Energy Williston, LLC	14,713.1	43 Prima Exploration, Inc.	109.5
16 SM Energy Company	13,292.7	44 SHD Oil & Gas, LLC	92.4
17 Newfield Production Company	10,503.6	45 Texakota, Inc.	38.7
18 Enerplus Resources USA Corporation	9,864.7	46 Petro Havester Operating Company, LLC	36.9
19 Hunt Oil Company	9,235.7	47 Peregrine Petroleum Partners, LTD	17.3
20 Zenergy, Inc.	8,799.1	48 Pride Energy, An Oklahoma General Partne	rship 16.2
21 Zavanna, LLC	8,367.6	49 Sundance Energy, Inc.	15.4
22 Murex Petroleum Corporation	8,064.2	50 Jettison, Inc.	15.3
23 Fidelity Exploration & Production (MDU)	7,523.0		
24 Samson Resources Company (KKR & Co.)	6,486.6		
25 Crescent Point Energy US Corp.	3,611.2	*Barrels of oil per day	
26 Baytex Energy USA Ltd	3,259.8	Numbers derived from the preliminary January 2013 Oil & Production Report published by the North Dakota State In	dustrial
27 Triangle USA Petroleum Corporation	3,203.9	Commission, Department of Minerals, Oil and Gas Division the oil produced by wells operated by these companies; it identify the percentage of Bakken petroleum system oil (in	does not ncluding
28 Liberty Resources, LLC	2,915.3	Three Forks) that is owned by the company or its partners, differ from what the company reports.	so it may
29 G3 Operating LLC (Halcon Resources Corn.)	2 801 5		

Subscribe at:

29 G3 Operating, LLC (Halcon Resources Corp.) 2,891.5

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IPs for ND Bakken wells

March 16 — March 25. 2013

This chart contains initial production rates, or IPs, for active wells that were filed as completed with the state of North Dakota from March 16 to March 25. 2013 in the Bakken petroleum system, which includes formations such as the Bakken, Three Forks and Birdbear. The completed wells that are missing either haven't been tested or were awarded tight-hole status, so the IP rate is not yet available. This chart also contains a section with active wells that were released from tight-hole status during the same period, March 16 to March 25. The information was assembled by Petroleum News Bakken from daily activity reports from the North Dakota Industrial Commission's Department of Minerals, Oil and Gas Division, website and other sources. The name of the well operator is as it appears in state records, with the loss of an occasional Inc., LLC or Corporation. Some of the companies, or their Bakken assets, have been acquired by others. In those cases, the current owner is in parenthesis, such as ExxonMobil in parenthesis behind XTO Energy

LEGEND

The well operator's name is on the upper line, followed by individual wells with data in this order: NDIC file number; well name; field; location; spacing; county; wellbore type; total depth; IP test date; IP oil flow rate. (IP stands for initial production; in this chart it's the first 24 hours of oil production.)

IPs for completed North Dakota wells

Abraxas Petroleum

21994; Ravin 26-35-2H; Alger; LOT2 2-149N-97W; 2SEC; Mountrail; horizontal; 20,012; 1/29/2013; 1,207 bbl

Bakken Hunter

24732; BH HZ 35-26-164-97 3S; Crosby; SWSE 35-164N-97W; 2SEC; Divide; horizontal; 13,200; 3/14/2013; 376 bbl

Bringham Oil and Gas (Statoil)

23089; Jarold 25-36 1H; Todd; NENW 25-155N-101W; 2SEC; Williams; horizontal; 12,105; 1/23/2013; 3,164 bbl

23090; Jarold 25-36 2TF; Todd; NENW 25-155N-101W; 2SEC; Williams; horizontal; 20,260; 1/27/2013; 2,118 bbl

22266; Panzer 22-23 #2TFH; Alger; SWSW 22-155N-92W; Mountrail; horizontal; 20,012; 1/29/2013; 1,207 bbl

Burlington Resources (ConocoPhillips)

23263; Mesa Verde 44-22TFH; Clear Creek; SESE 22-152N-96W; 2SEC; McKenzie; horizontal; 20,140; 3/1/2013; 2,978 bbl

Continental Resources

23346; Fenster 2-11H; Hamlet; NENE 14-160N-96W; 4SEC; Divide; horizontal; 18,868; 2/26/2013; 359 bbl

23347; Fenster 3-11H; Hamlet; NENE 14-160N-96W; 4SEC; Divide; horizontal; 19,587; 2/26/2013; 425 bbl

21982; Florida 2-11H; Camp; SENE 14-152N- 100W; 4SEC; McKenzie; horizontal; 23,579; 2/22/2013; 706 bbl

21516; Lawrence 4-13H; North Tioga; SESW 12-159N-95W; 2SEC; Williams; horizontal; 19,700; 1/19/2013; 762 bbl

20163; EN-Johnson A-155-94- 2932H-1; Alkali Creek; SESW 20-155N-94W; 2SEC; Mountrail; horizontal; 21,118; 2/22/2013; 795 bbl

Marathon Oil

22846; Diamond A 34-21TFH; Bailey; NENE 28-146N-94W; 2SEC; Dunn; horizontal; 21,175; 2/19/2013; 1,081 bbl

22844; Diamond A 44-21TFH; Bailey; NENE 28-146N-94W; 2SEC; Dunn; horizontal; 20,625; 2/19/2013; 1,600

Oasis Petroleum

23462; Elery H 5200 44-20T; Camp; SESE 20-152N-100W; 2SEC; McKenzie; horizontal; 20,850; 2/1/2013; 3,054

23475: RJ Titus 6093 42-20H: Gros Ventre: SESW 20-160N-93W: 2SEC: Burke: horizontal: 19.459: 2/14/2013: 554 bbl

Top 10 Bakken wells by IP rate

23101; MHA 1-06-32H-150-92; Dunn; 17,777 bbl

Burlington Resources (ConocoPhillips)

23261; Mesa Verde 34-22TFH; McKenzie; 3,880 bbl

Oasis Petroleum

22740; Larry 5301 44-12B; McKenzie; 3,863 bbl

Brigham Oil and Gas (Statoil)

23320; Porter 35-26 #2; McKenzie; 3,611 bbl 23089; Jarold 25-36 1H; Williams; 3,164 bbl

Oasis Petroleum

23462; Elery H 5200 44-20T; McKenzie; 3,054 bbl

Burlington Resources (ConocoPhillips)

21057; Hilman 31-29H; McKenzie; 2,982 bbl 23263; Mesa Verde 44-22TFH; McKenzie; 2,978 bbl

Whiting Oil and Gas

24242: Fladeland 14-33H: Mountrail: 2.971 bbl

Burlington Resources (ConocoPhillips)

23249; Lovaas 11-1TFH; McKenzie; 2,946 bbl

Note: This chart contains initial production rates, or IPs, from the adjacent IP chart for active wells that were filed as completed with the state of North Dakota from March 16 to March 25, 2013 in the Bakken petroleum system, as well as active wells that were released from tight-hole status during the same period. The well operator's name is on the upper line, followed by individual wells the NDIC file number; well name; county and IP oil flow rate in barrels of oil.

QEP Energy

23101; MHA 1-06-32H-150-92; Heart Butte; NESE 6-149N-92W; ICO; Dunn; horizontal; 2/25/2013; 17,777 bbl

23099; MHA 2-06-32H-150-92; Heart Butte; NESE 6-149N-92W; ICO; Dunn; horizontal: 2/21/2013: 1.994 bbl

23100; MHA 3-06-32H-150-92; Heart Butte; NESE 6-149N-92W; ICO; Dunn; horizontal; 2/23/2013; 1,922 bbl

23102; MHA 4-06-31H-150-92; Heart Butte; NWSE 6-149N-92W; ICO; Dunn; horizontal; 2/27/2013; 1,966 bbl

23098; MHA 4-06-32H-150-92; Heart Butte; NESE 6-149N-92W; ICO; Dunn; horizontal; 2/19/2013; 1,203 bbl

22560; Fort Berthold 148-94-21A-20-1H; Eagle Nest; SENE 21-148N-94W; 2SEC; Dunn; horizontal; 20,900; 2/13/2013; 846 bbl

22249; Magnum 2-36-25H; Baker; SESE 36-153N-101W; 2SEC; McKenzie; horizontal; 20,728; 2/15/2013; 752 bbl

Whiting Oil and Gas

24242; Fladeland 14-33H; Sanish; SWSW 33-153N-91W; 2SEC; Mountrail; horizontal; n/a; 2/8/2013; 2,971 bbl

22831; Roggenbuck 34-24TFH; Sanish; SWSE 24-153N-93W; 2SEC; Mountrail; horizontal; 19,128; 2/6/2013; 1,095 bbl

XTO Energy (ExxonMobil)

23403; Fbir Smith 11X-10A; Heart Butte; NWNW 10-149N-92W; 2SEC; Dunn; horizontal; 19,968; 1/30/2013; 2,148 bbl

IPs for ND wells released from tight-hole status

American Eagle Energy

23465; Haagenson 3-2-163-101; Colgan; NENW 2-163N-101W; 2SEC; Divide; horizontal; 17,778; 12/5/2012; 851 bbl

23504; Megan 14-12-163-101; Colgan; SESW 12-163N-101W; 2SEC; Divide; horizontal; 18,190; 12/22/2012; 864 bbl

Baytex Energy

22601; Karlgaard 22-15-160-98H 1PB; Skabo; SWSE 22-160N-98W; 2SEC; Dunn; horizontal; 19,200; 10/18/2012: 176 bbl

22602; Karlgaard 27-34-160-98 1XP; Skabo; SESE 22-160N-98W; 2SEC; Divide; horizontal; 19,200; 10/9/2012; 207 bbl

22744; M Johnson 35-26-162-98H 1PB; Whiteaker; SWSE 35-162N-98W; 2SEC; Divide; horizontal; 18,266; 11/21/2012; 276 bbl

To see the IPs for ND Bakken wells chart in its entirety, please visit: http://bit.ly/YLEeNq

Bakken producers' stock prices Closing prices as of March 27, along with those from previous Wednesday

Company	Exchange	Symbol	Closing price	Previous Wed
Abraxas Petroleum Corp.	NASDAQ	AXAS	\$2.29	\$2.34
American Eagle Energy Corp.	AMZG	OTC	\$2.00	\$1.78
Arsenal Energy USA, Inc.	TSE	AEI	\$.48	\$0.48
Baytex Energy Corp.	NYSE	BTE	\$42.27	\$42.65
Brigham Exploration Co. (Statoil)	NYSE	STO	\$24.40	\$24.21
Burlington Resources Co. (ConocoPhillips)	NYSE	COP	\$60.38	\$60.44
Continental Resources, Inc.	NYSE	CLR	\$87.56	\$89.15
Crescent Point Energy Corp.	TSE	CPG	\$38.36	\$39.65
Enerplus Resources USA Corp.	NYSE	ERF	\$14.73	\$14.75
EOG Resources, Inc.	NYSE	EOG	\$128.20	\$124.24
Fidelity Exploration and Production (MDU)	NYSE	MDU	\$24.54	\$24.84
G3 Operating LLC (Halcon Resources Corp.)	NYSE	HK	\$7.79	\$6.88
GMX Resources, Inc.	NYSE	GMXR	\$2.45	\$2.93
Hess Corp.	NYSE	HES	\$72.03	\$69.90
Kodiak Oil and Gas (USA), Inc.	NYSE	KOG	\$9.26	\$9.15
Legacy Reserves Operating LP	NASDAQ	LGCY	\$27.27	\$26.43
Liberty Resources, LLC	LBY	ASX	\$.06	\$.05
Marathon Oil Co.	NYSE	MRO	\$34.01	\$34.60
Newfield Production Co.	NYSE	NFX	\$22.38	\$23.38
Oasis Petroleum Inc.	NYSE	OAS	\$38.46	\$37.30
OXY USA (Occidental Petroleum Corp.)	NYSE	OXY	\$78.13	\$78.63
QEP Energy Co.	NYSE	QEP	\$31.65	\$31.86
Resolute (Resolute Energy Corp.)	NYSE	REN	\$11.41	\$11.14
Samson Resources Co. (KKR & Co.)	NYSE	KKR	\$19.34	\$19.29
SM Energy Co.	NYSE	SM	\$59.22	\$57.37
Sundance Energy, Inc.	SEA	ASX	\$1.09	\$1.04
Triangle USA Petroleum Corp.	NYSE	TPLM	\$6.77	\$6.84
Whiting Oil and Gas Corp.	NYSE	WLL	\$50.84	\$50.63
WPX Energy Inc.	NYSE	WPX	\$16.24	\$16.46
XTO Energy Inc. (ExxonMobil)	NYSE	XOM	\$90.58	\$88.63

Bakken Looking for a rig report?

Drilling Ahead at www.drillingahead.com/USARigReport offers a U.S. Drilling Rig Report that includes Montana.

North Dakota

The best list for North Dakota is updated daily by the North Dakota Oil and Gas Division at www.dmr.nd.gov/oilgas/riglist.asp

Saskatchewan

Weekly drilling activity report from the government of Saskatchewan: www.economy.gov.sk.ca/Daily-Well-Bulletin-Weekly-Drilling-Reports

Manitoba

Weekly drilling activity report from the government of Manitoba: www.manitoba.ca/iem/petroleum/wwar/index.html



MOVING HYDROCARBONS

Basin Transload connecting to Tesoro pipe

Pipeline deal between Global and Tesoro Logistics augments rail transport of Bakken and other crude to East Coast destinations

By MIKE ELLERD

For Petroleum News Bakken

lobal Partners says it has entered into an agreement with Tesoro Logistics where Tesoro will build and

operate a new seven mile-long crude oil pipeline connecting Tesoro's High Plains pipeline at its Lignite station to Global Partners' Basin Transload facility Columbus, North Dakota. The deal, announced March 26, will enhance the movement of mid-continent crude oil to destinations on the East Coast.



The Basin Transload facility in ERIC SLIFKA Burke County, a facility in which

Global Partners purchased a controlling interest in a deal that was finalized in February, has a rail loading component that is served by Canadian Pacific railroad, along with a truck offloading component with 100,000 barrels of storage capacity. The new 10-inch Lignite pipeline will have the capacity to deliver 62,000 barrels of oil per day to the Columbus facility from Tesoro's pipeline infrastructure, including its gathering system in Burke.

The pipeline is expected to be in service in the third

Slifka says the pipeline will augment the volume of crude currently being transported from the wellhead by truck to its Columbus storage facility, and will also make the Columbus facility available to a broader area of the region that may not be accessible by truck. "This agreement increases our efficiency to gather and move price-advantaged crude from the midcontinent to East Coast refining markets."

quarter of this year.

"Strategic expansion of our crude gathering system is a key component of the rail logistics strategy we are deploying across our assets in the mid-continent region," said Global Partners President and Chief Executive Officer Eric Slifka in a formal statement. "Our agreement with Tesoro Logistics is an important step toward that objective. The pipeline connection will tie our Columbus location directly to the Tesoro High Plains Pipeline System."

Slifka says the pipeline will augment the volume of crude currently being transported from the wellhead by truck to its Columbus storage facility, and will also make the Columbus facility available to a broader area of the region that may not be accessible by truck. "This agreement increases our efficiency to gather and move priceadvantaged crude from the mid-continent to East Coast refining markets."

The Tesoro High Plains pipeline system consists of approximately 700 miles of pipeline and associated storage capacity along with about 45,000 bopd of truckbased gathering capability. The system's trunk line extends from the Canadian border near Portal south into McKenzie County and then southeast to the Tesoro refinery in Mandan,

In early January, Global Partners and Phillips 66 announced a five-year contract under which Global Partners will deliver approximately 50,000 bpd of crude oil to the Phillips 66 Bayway, New Jersey refinery via Canadian Pacific trains.

In addition to the Columbus facility, Global Partners has a second Basin Transload rail loading facility at Beulah in Mercer County that is served by Burlington Northern Santa Fe. Combined, the two Basin Transload facilities have 160,000 bond of rail loading capacity. Global Partners and its customers are currently moving approximately 120,000 bopd out of the Williston Basin. •

Contact Mike Ellerd at mellerd@petroleumnewsbakken.com

COLUMN

Newsmakers: Hamm, Dalrymple, Hunt & more

By RAY TYSON

Petroleum News Bakken

ational media speculation is running rampant over possible outcomes of a pending divorce between Continental Resources founder and Chairman HAROLD HAMM and his second wife of a quarter century, SUE ANN HAMM.

Hamm's estimated \$11.3 billion personal fortune and

control of one of America's fastest growing companies are said to be at stake. Hamm directly controls 126.3 million shares, or 68 percent, of the big Oklahoma-based E&P independent and more through family trusts.

Continental, founded in 1967, played a key role in the discovery and development of North Dakota's massive Bakken petroleum system. Today, the company is the largest leaseholder and a leading producer in the region.



HAROLD HAMM

Harold Hamm, 67, confirmed the pending divorce in a March 21 statement, noting that a "petition for divorce" was pending in the District Court of Oklahoma County.

"This private matter has not and is not anticipated to have any impact or effect on the company's business or operations," according to the statement.

Whether the Hamms signed a prenuptial agreement was not clear, according to Reuters, which said in a lengthy article that legal analysts who reviewed court filings concluded that without one, the case could lead to a record-breaking financial settlement. One outcome under Oklahoma law could be a split of Harold Hamm's controlling interest in Continental, Reuters said.

The Hamms were married in April 1988 and have two adult children. Harold Hamm has three children from a prior marriage that ended in divorce in 1987.

Sue Ann Hamm, 56, a former executive at Continental, filed for divorce on May 19, 2012, according to Oklahoma court records. Documents in the case are sealed. But in a March 7, 2013, filing, she alleges that her husband "was having an affair" that she found out about in 2010, Reuters wrote.

The Hamms have a history of marital discord. In 1998, Harold Hamm filed for divorce demanding that Sue Ann undergo a psychological evaluation. He later withdrew the divorce petition. In 2005, Sue Ann filed for divorce, but that case also was dropped.

According to Harold Hamm, the couple "actually sepa-

People Talk

rated in the fall of 2005 and have lived separate lives ever since," Reuters noted, citing from a court document.

Dill nominated for QEP board

Spectra Energy executive JULIE A. DILL was nominated by QEP Resources to stand for election to the board

"Julie's more than 30 years of experience in the energy sector, her strong financial background, and her operational and commercial expertise will bring valuable knowledge to our board, the company and our shareholders," said CHUCK STANLEY, QEP's chairman, president and chief executive officer.

Dill is currently group vice president of strategy for Spectra Energy, and president and chief executive officer of Spectra Energy Partners LP, the \$4 billion market capitalization master limited partnership formed by Spectra

Before assuming her current roles in January 2012, Dill served as president of Union Gas Ltd., Spectra Energy's major Canadian natural gas utility company.

Dill's previous positions include: group executive of investor relations and chief communications officer for Duke Energy; senior vice president of planning and finance, chief financial officer, and executive vice president, Asia Pacific, Duke Energy International; and several leadership positions with Royal Dutch Shell.

Dignitaries pour into Dickinson for refinery groundbreaking

A truckload of politicians and business leaders rolled into Dickinson, N.D., March 26 to pay homage to what will become the first oil refinery to be built in the continental United States since 1976.

On hand for groundbreaking of the 20,000 barrel per day Dakota Prairie Refinery were GOV. JACK **DALRYMPLE** and North Dakota



JACK DALRYMPLE

U.S. Sens JOHN HOEVEN and HEIDI HEITKAMP, along with more than 100 state, local and industry leaders.

"This is a \$300 million investment coming into the Dickinson area and it gives us an opportunity to use our own Bakken crude oil right here in our state," Dalrymple

The refinery, targeted for completion in 2014, will specialize in refining diesel fuel and will sit on a 318acre site four miles of west of Dickinson. It is projected to create 100 full-time jobs.

MDU Resources and Indianabased Calumet Specialty Products are partnering to make the facility a reality. Much of the Bakken oil will be delivered to the refinery by pipeline.

The last major refinery built in the Lower 48 states began operating in 1977 in Garyville, La.

Hunt regains billionaire status on Bakken oil





JOHN HOEVEN

who along with his brother, NELSON BUNKER HUNT, went bankrupt three decades ago trying to corner the U.S.

silver market, is once again a billionaire, this time on Bakken crude, according to Bloomberg Business Week. Hunt and his brother accumulated more than 195 million ounces of silver in the 1970s, or about 60 percent of

the U.S. market. By early 1980, their stake was valued at more than \$9 billion. But the Hunts' position collapsed when silver prices

dropped 80 percent over a few weeks in March 1980, or 33 years ago last week, on what traders called Silver Thursday. The crash sent the Texas brothers into bankrupt-

Last October, William Herbert Hunt sold 43 percent of his North Dakota petroleum assets owned by his closely held Petro-Hunt LLC for \$1.45 billion to Houston-based Halcon Resources Corp. The deal, consisting of \$700 million in cash and \$750 million in stock, also made Hunt Halcon's biggest shareholder, boosting his net worth to \$4.2 billion, according to the Bloomberg Billionaires Index, the business magazine said.

The Hunt assets sold to Halcon included 81,000 net acres in the Bakken and Three Forks formations in Williams, Mountrail, McKenzie and Dunn counties. Average daily net production from the acreage is about 10,500 barrels of oil equivalent and proved reserves of 42.4 million boe. ●

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PETROSHALE

PetroShale's assets in the Williston Basin, is a privately held family company and the tenth largest producer of crude in North Dakota in January. Slawson executives seldom comment on company operations, but instead allow their partners, such as PetroShale and Northern Oil and Gas, to do so.

In September, PetroShale said Slawson had successfully tested four stimulated wells in the Upper Bakken shale in the Mondak play. Two of those wells had 24-hour initial production rates, IPs, of 476 and 296 barrels of oil per day flowing. The two others had on-pump IP rates of 312 and 316 bopd.

As reported in October by Petroleum News Bakken, production from those Upper Bakken wells was 98 percent oil.

Then in early March, PetroShale announced results of two additional Upper Bakken Mondak wells, one which Slawson operates and the other operated by Fidelity Exploration and Production.

The Slawson well came in with a 24-hour IP rate of 299 bopd, while the Fidelity-operated well had a 24-hour IP rate of 498 bopd. The latter is the highest IP rate that PetroShale has seen thus far in its Upper Bakken wells.

In addition, PetroShale and Slawson have another well that was completed in January and is currently in flowback testing. The partnership also has two additional Mondak wells, one of which is waiting on completion and the other is being fracked.

Estimated ultimate recoveries for these wells are expected to be available by summer.

Fair said that because the wells are in the shale, they have a decline curve different from typical Middle Bakken wells. He said more time is needed to understand them because the curves drop some, but then "they go pretty flat."

More natural fracturing on North Dakota side

The Mondak play extends across the border from Montana into McKenzie County, N.D., where approximately 75 percent of PetroShale and Slawson's area of mutual interest is in Montana. The remaining 25 percent is in North Dakota.

Fair said it was on that North Dakota side that Slawson drilled what he calls

very prolific, un-stimulated wells between 1994 and 2007. Fair believes there is more natural fracturing on the North Dakota side of the Mondak and said "we're very anxious to get going in North Dakota," adding "we're just waiting to get some permits."

He said he hopes to be drilling on that side of the Mondak in the second quarter.

Upper Bakken wells fracked with fewer stages

All of PetroShale's spacing units in the Mondak are 640 acres. The wells are typically drilled to a depth of approximately 10,500 feet with laterals ranging from approximately 4,000 to 4,500 feet.

Fair said the Upper Bakken wells generally have fewer frack stages than is typical for Middle Bakken wells. Specifically, Upper Bakken wells are fracked with fewer stages using smaller frack volumes and less proppant because the formation is thinner, typically only four to six feet, and the "pay zone" is only approximately 30 feet, he said. "The bigger fracks don't seem to do any better."

Looking to the rest of 2013, Fair said the key in the Mondak will be experimenting with some two-mile laterals, but he added that two-mile laterals are "tricky" to drill in the shale because bits can get stuck in the shale beyond one mile. Instead, he said, PetroShale and Slawson are looking to drill dual one-mile laterals from a single vertical bore-hole and then frack the laterals individually. He said Slawson has been experimenting with dual laterals, and that the costs are "very encouraging," averaging in the range of \$7 million to \$8 million for a dual one-mile lateral, which amounts to \$3 million to \$4 million per lateral.

One rig this year

PetroShale and Slawson will operate only one rig this year, Fair said, and that rig will probably be shared with other companies throughout the year.

"We're going slow right now until we get this figured out. We've got a few wells that are pretty good and a few wells that aren't, and we're still tweaking it."

He said "it's a prolifically oily basin, and with new technology and creative ideas, I think we're going to just keep seeing more interesting plays like Mondak, like the upper shale."

Mondak Red River prospect

PetroShale is not only exploring the

Upper Bakken in the Mondak play but is also looking at the Red River prospect in that play.

Fair said the company has just finished a 3-D seismic shoot in that formation, and while the data processing is not finished, he said he will be surprised if the results don't indicate some good opportunities.

He added that PetroShale and Slawson are tentatively planning to start drilling that prospect this summer.

Other North Dakota interests

In October PetroShale purchased working interest in additional acreage in North Dakota; specifically in 48 producing wells in Mountrail County, most of which are operated by Slawson.

The wells have proved reserves of 172,527 barrels of oil equivalent, the company said, with production approximately 91 percent oil. ●

Editor's note: See related Petroleum News Bakken story, "Slawson's upper shale project yields Northern Oil's highest IRR," at www.petroleumnewsbakken.com/pnads/293937087.shtml.

Contact Mike Ellerd at mellerd@petroleumnewsbakken.com



EXSHAW PLANS

"The jury's still out a little bit on the best way to drill into these rocks," Noad said, suggesting that the reason many of the wells are non-commercial is tied to how they are completed, what kind of pressure has been applied to break the rocks open, what methods have been used to hold them open and where the wells have been targeted.

He said that of the other tight oil plays in Alberta which have been described as new are more accurately newly accessed plays that have been known for generations.

Early stages of development

In addition to the Alberta Exshaw/Bakken, Noad said many of Western Canada's tight oil plays are still in the early stages of development.

The tight and shale oil revolution has spread across Western Canada, embraced by the success of the Cardium and Vikings plays, raising questions about what plays will be next in the production line-up, with the Exshaw/Bakken competing for attention among a formidable list that includes Duvernay, Muskwa, Nordegg, Second White Specks, Swan Hills, Beaverhill Lake and the Central Mackenzie Valley's Canol shale in the Northwest Territories.

The monetary promise of these prospects has puts pressure on operators to assess the economic viability of the assets



as early in the exploratory stages as possible and decide where the best bets exist.

Scrutinizing the geological potential, appropriate drilling and completion techniques and the most current well results will help determine the long-term produc-

tion capability of the plays and whether they will be economically viable to exploit.

Multiple Exshaw operators

Canadian-side Exshaw shale operators

noted in a report by Scotia Capital include Crescent Point Energy, Canadian Natural Resources, Encana, Nexen, ExxonMobil, Murphy Oil, Shell Canada, Penn West Petroleum, Argosy Energy, Blacksteel

see EXSHAW PLANS page 15



Oil Patch Bits



Larson Electronics releases instant ON security light

Larson Electronics Magnalight said March 20 that it has released the WAL-TSL-300W-LED LED tower security light. Modeled after the successful motal halida light socies, the LED version of this

after the successful metal halide light series, the LED version of this amiable security light features "instant on" and hot restrike capabilities.

Designed to deliver all the power of its 1500 watt metal halide sibling, this 300 watt LED security light continues to offer the operator the ability to easily pan and tilt the light beam as needed. The light is mounted to the top of a wall or tower deck and operators in prisons or military installations can use the light to identify issues up to 1000 feet away. While the metal halide models had to "warm up," these LED lights are on immediately when the light is energized. Until now, only high wattage incandescent turned on instantly, however, those bulbs get very hot and require constant replacement. The WAL-TSL-300W-LED tower security light is a modern alternative that produces light that exceeds the output of metal halide in distance, color correctness, intensity and longevity. For more information visit www.Magnalight.com.



Bakken Players

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SASKATCHEWAN

its U.S. counterpart.

The government said it expects the light-heavy blend differential to average 17.9 percent in 2013-14, down from 20.4 percent in 2012-13.

Although forecasting a 25 percent year-over-year rise in natural gas wellhead prices to C\$3.07 per Gigajoule, the government predicts output will slide to 337 million cubic feet per day 123.1 from 405 million cubic feet per day in 2012-13 in what it views as a continuing soft gas price market.

Government sales of exploration land are forecast to generate C\$111.4 million, up C\$22.5 million from the current budget year.

—GARY PARK

Contact Gary Park through publisher@petroleumnews.com

continued from page 14

EXSHAW PLANS

Energy, Bowood Energy (which is involved in a deal with Legacy Oil + Gas), DeeThree Exploration, Pace Oil & Gas (which is working on a merger with AvenEx and Charger Energy to form Spyglass Resources) and privately held Petro-Spirit Resources.

Companies developing the play in the United States include privately owned Anschutz Exploration, Newfield Exploration, Rosetta Resources, Abraxas Petroleum, Arkanova Energy, American Eagle, Compton Petroleum, Mountainview Energy, Passport Energy, Primary Petroleum and Stone Energy.

Specific current references to activities planned for the Exshaw/Bakken on company websites and in the latest capital program announcements are sparse.

'Excellent source rock'

"The Exshaw formation in Alberta and northern Montana is a dark, organic-rich shale, an excellent source rock that has produced much of the oil found in conventional reservoirs in Alberta," Brad Hayes, president of Petrel Robertson Consulting, told a conference.

He said it is the same age as the Bakken shale in the Williston Basin of North Dakota and Saskatchewan and has many of the same properties, with the exception of two key attributes of the Bakken that have yet to show up in the Exshaw.

Hayes said the distinguishing characteristics of the Bakken are a low permeability sandstone or siltstone bed in the middle that is a prospective tight oil reservoir and a target for horizontal drilling and, secondly, a tight siltstone in parts of the Exshaw that suggests overpressuring to the west, although the industry has yet to demonstrate that these factors are as well developed or extensive as in the

He said the best methods of drilling and completion may vary as the reservoir conditions vary.

"We can't tell yet whether the Exshaw will be as good as the Bakken," Hayes said in suggesting that early signs point to a more difficult reservoir that will not be as productive.

He said the lands have largely been tied up by experienced companies, but, unlike the big flow rates reported from the Duvernay, there have been few conclusive disclosures of positive results.

Hayes predicted that while companies will continue to experiment and assess the pace may slow until bigger rewards are realized.

Differing views

Rick Morgan, senior exploration analyst with Canadian Discovery, noted that Murphy has posted success by placing wells in central Alberta's Wabamun/Big Valley rather than the Exshaw, targeting the sweet spots.

He said production and test results by

Murphy, DeeThree and privately owned TORC Oil & Gas suggest the Alberta/Montana Exshaw "may have some substance," but it will need another year or so to see whether it stacks up against the Bakken in the Williston Basin.

Shell has been active on its 60,000 acres in the vicinity of Del Bonita in southern Alberta as it embarks on exploring the potential of the Bakken frontier light, tight oil play.

But a company spokesman emphasized that a "commercial operation must be economically viable, environmentally responsible and socially sustainable."

Legacy Chief Executive Officer Trent Yanko said the Alberta Bakken has the attributes of a light oil resource play, but remains in the embryonic stage.

He said the industry has shown signs of converging on a solution, with a number of Legacy's competitors yielding "very good well results. I think it got overheated initially. People have high expectations, but it was something that has never been tried before so it takes a little while."

Yanko said Legacy wants to give the Bowood shareholders a chance to realize the potential they put in the play.

He envisions "multiple play types and multiple zones. It's all for light oil. A lot of it appears to be over-pressurized."

Accumulating reserves

Legacy, seen as a skilled strategist, is accumulating reserves at an impressive rate while it tests drilling and completion practices in the Turner Valley end of the Bakken play in pursuit of optimizing both production rates and capital costs.

The company said drilling to date has targeted infill locations testing areas of varying water cut, reservoir pressure, proximity to water injection and three different stratigraphic horizons.

It expects Turner Valley horizontal wells to produce at stable, low decline rates based on the production profile demonstrated by both the previously drilled wells, which have logged 64,000 barrels of oil equivalent in 14 months, 60,000 boe in 10 months and 33,000 boe in less than four months, with production trending higher.

The company's overall proved plus probable reserves were evaluated at 94.16 million boe on Dec. 31, up from 87.99 million boe a year earlier, equating to a reserve life index of 14.8 years based on average production at the end of 2012. Production last year averaged 16,301 boe per day, up 29 percent from a year earlier and is forecast to reach 17,900 boe per day this year.

Legacy is also gathering a bank of knowledge and technical skill in Spearfish in Manitoba and North Dakota, North Dakota's Bottineau County and various Bakken plays on the Saskatchewan/Manitoba border as it follows a course of leveraging technology.

For those tracking the more adventurous operators in the southern Bakken, Legacy should be on their list. ●

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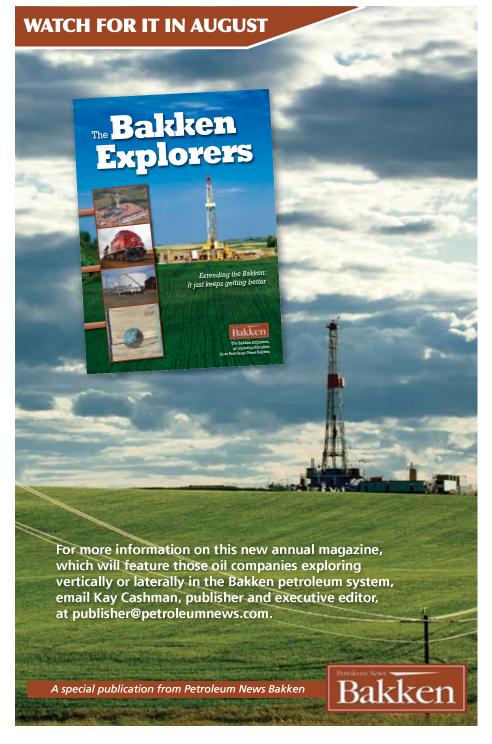
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GMX TROUBLES

Hints of trouble ahead

But shareholders did receive a strong hint on March 4 and again on March 11 that GMX was headed into troubled waters.

On March 4, GMX issued a press release saying the New York Stock Exchange had notified the company that it was no longer in compliance with a NYSE listing standard for its stock, because the company's total market capitalization was less than \$50 million over 30 consecutive trading days. Yahoo Finance reported GMX's market cap at about \$16 million on March 26.

GMX said it was given 45 days from receipt of the notice to submit a plan to the NYSE demonstrating how it intends to comply with continued listing standards within 18 months. The NYSE's Listings and Compliance Committee will then review the business plan for final disposition

Subject to SEC monitoring

In the event the committee accepts the business plan, GMX will be subject to

quarterly monitoring to ensure it's in compliance with its own plan. The company's stock would continue to trade on the exchange during the 18 months, provided it complies with listing standards.

"In the event the committee does not accept the business plan, the company will be subject to suspension by NYSE and delisting procedures," GMX said.

Then on March 11, GMX's board of directors chose to suspend payment of quarterly dividends on outstanding shares of its 9.25 percent Series B Cumulative Preferred Stock until further notice, including the dividend payable on April 1. Management said it took the action "in order to preserve capital and improve liquidity."

GMX stock tumbles

Actually, a review of GMX's quarterly financial reports filed with the SEC last year prior to the fourth quarter clearly shows a company operating on thin ice. And this is reflected in the company's stock price, which tumbled from around \$7 a share in late December to \$2.60 a share at market close on March 26.

GMX has reported continuing losses and a rising debt-to-equity ratio on a quarter over quarter basis.

Stockholder equity also has turned negative since the second quarter of 2012, and long-term debt stands at \$380 million as of the third quarter of 2012.

Operating cash flow for the first nine months of last year is also eroding the balance sheet, although it turned slightly positive for the 2012 third quarter.

Cash on the decline

Moreover, GMX's cash resources have declined significantly, dropping from \$107 million in the fourth quarter of 2011 down to \$18 million in the third quarter of 2012.

Though GMX is actively increasing its oil production, the company's big natural gas stake, on top of weak gas prices, has certainly contributed to its financial problems. Of the company's roughly 5,400 barrels of oil equivalent production per day, just 15 percent is oil (liquids) and the rest is natural gas.

GMX should benefit from the recent rise in U.S. natural gas prices, up nearly 20 percent since the 2012 third quarter. And the upward trend is expected to continue, at least in the short term.

"However, this cannot be the solution for GMX's problems," market analyst Seeking Alpha wrote in a column about GMX's financial woes. "The company needs a concrete strategy that will generate cash."

GMX working with Chatham

It also was announced recently that GMX is working with Chatham Asset Management on restructuring its balance sheet in light of its current liquidity and cash needs.

"This is not the solution for GMX's problems either," Seeking Alpha continued. "These treatments are like aspirins to a patient who suffers from cancer."

Prior to 2011, GMX focused on gas development in East Texas, including the Cotton Valley Sands layer in the Schuler formation and the Upper, Middle and Haynesville-Lower Bossier layers of the Bossier formation, in the Sabine Uplift of the Carthage, North Field primarily located in the Harrison and Panola counties. The company would later sell its Cotton Valley assets.

In 2010, the company said it made a "strategic" decision to expand into basins with liquids potential, in an effort to diversify its significant concentration in natural gas.

In the first half of 2011, GMX acquired positions in over 75,000 undeveloped net acres in the Williston Basin of North Dakota and Montana targeting the Bakken and Three Forks formations, and in the Denver Julesburg Basin of Wyoming targeting the emerging Niobrara formation.

—RAY TYSON

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KEYSTONE FIGHT

Vote as 'chest thumping'

The vote was brushed off by Jamie Henn, a spokesman for 350.org, which heads a coalition challenging Obama's credibility on climate change. He described the vote as "chest thumping that tells us a lot about who has been bought off by dirty energy money."

California Democrat Barbara Boxer lost her amendment to examine the ramifications of Keystone XL further by a 66 to 33 vote.

She said there is "real climate destruction" associated with shipping crude bitumen from the Alberta oil sands, which represents the bulk of Keystone's planned vol-

Boxer said many questions remain unanswered, including how much of Keystone's crude would be exported from the United States, how much steel for the pipe would be manufactured in the U.S. and whether U.S. national security interests would be undermined by opting for carbonheavy oil imports.

Opposition funding

The anti-Keystone forces have been promised tens of millions of dollars to wage their campaign by California billionaire Tom Steyer, who ended his active role at hedge fund Farallon Capital last October to become a full-time political activist, rating climate change as the gravest threat facing humanity.

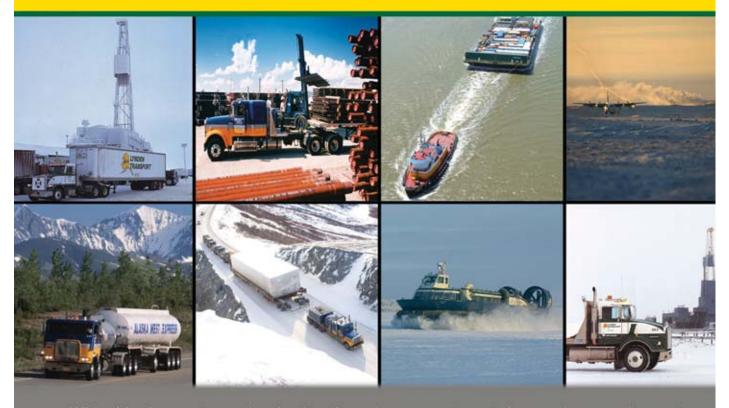
Steyer has launched his crusade by targeting Steve Lynch, a Democratic congressman who is seeking his party's nomination for the Massachusetts U.S. Senate seat vacated by John Kerry.

"Billionaires won't shove me around," Lynch wrote in the Boston Globe, spurning Steyer's "high noon" deadline on March 22 to withdraw his backing for Keystone. ●

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