Petroleum News
Bakken

page 3 Whiting Petroleum continues improving well efficiencies

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ALLIANCE PIPELINE

A roller cradle supports pipe in a horizontal drill pull-through during construction of Alliance's Tioga lateral pipeline.

Alliance and Hess connect via new Tioga natural gas lateral

On Oct. 29, Calgary-based Alliance Pipeline Chief Executive Officer Terrance Kutryk, along with North Dakota Gov. Jack Dalrymple, Hess Corp.'s North Dakota General Manager Steve McNally, and North Dakota Petroleum Council President Ron Ness, announced the completion of Alliance's 80-mile, 12-inch Tioga Lateral pipeline. That pipeline will carry up to 126 million cubic feet of rich natural gas from Hess Corp.'s gas processing plant near Tioga in eastern Williams County to Alliance's main pipeline near Sherwood just below the Canadian border in northern Renville County.

Alliance's main pipeline begins in the Western Canadian Sedimentary Basin in British Columbia and runs some 2,300 miles southeast through Alberta and Saskatchewan before entering North Dakota where it continues on to a Midcontinent mar-

see **NEW GAS LATERAL** *page 16*

Kodiak's third quarter results called 'transformational'

LYNN PETERSON

Bakken-focused Kodiak Oil & Gas Corp. reported average sales volumes of 35,400 barrels of oil equivalent per day for the third quarter 2013, a 123 percent increase over sales volumes of 15,900 boepd for the third quarter 2012, and a 54 percent increase over second quarter 2013 sales volumes of 23,200 boepd.

Crude oil accounted for 90 percent of third quarter 2013 sales volumes.

"We believe the third quarter of 2013 was a transformational quarter for Kodiak," said Lynn A. Peterson, Kodiak chairman and CEO. "In addition to accelerated growth in production and reserves, we successfully brought

see **KODIAK'S 3Q** *page 14*

Heavy oil-focused Baytex puts Bakken in its top three projects

JAMES BOWZER

Although Baytex Energy's major thrust is directed at its two big heavy oil operations in Western Canada, the Calgary-based intermediate producer includes its Bakken play in North Dakota in its top three projects, Chief Executive Officer Jim Bowzer told analysts Oct. 30.

He said returns from the Bakken, which averaged 3,400 barrels per day of production in the third quarter, are "relatively low compared to the other things we pour money into," but the project generates "solid rates of return," with

see **BAYTEX MOVES** *page 13*

NATURAL GAS

ND issues gas report

Momentum favoring more infrastructure but flaring challenges remain

By MIKE ELLERD

Petroleum News Bakken

JUSTIN KRINGSTAD

North Dakota Pipeline Authority Director Justin Kringstad released a report Oct. 21 detailing the current state of natural gas gathering infrastructure and related flaring as oil and natural gas production in the state continues to rise. The report concluded that "the momentum is shifting in favor of further expansion of natural gas gathering and processing," but added that "it is evident that reducing natural gas flaring to somewhere below 5 percent in North Dakota will take years to accomplish and the state and industry can expect several challenges along the way."

Furthermore, the report states that the building of all associated infrastructure such as crude oil, natural gas, water and electrical "is going to take a great deal of cooperation and patience between all stakeholders."

However, the report also states that North Dakota is positioned to become a global leader in oilfield development. "With much of the Bakken producing region previously undeveloped, this young oilfield can and should become the new industry standard by utilizing modern materials, technologies, and best practices."

A tool for decision makers

Kringstad told Petroleum News Bakken that while he regularly posts charts on natural gas pro-

see **NDPA REPORT** *page 15*

COMPANY UPDATE

Hess to test infilling

Bakken spacing down to 180 acres, TF to 210; rig count increasing from 17 to 20

By MIKE ELLERD

Petroleum News Bakken

GREGORY P. HILL

Hess Corp. has been talking about testing downspacing over the last year, and now North Dakota's second largest oil producer is planning to move that testing idea forward.

In an Oct. 30 earnings conference call, Hess President Gregory Hill said the company believes it is economically attractive to increase well density in the majority of its middle Bakken acreage from five wells to seven per 1,280-acre unit, and from four to six wells in the areas where the Three Forks is prospective.

Hill said the company's base design of five Bakken and four Three Forks wells per 1,280-acre unit has yielded effective well spacings of 250 acres for middle Bakken wells and 320 acres for Three Forks wells. The company's infill pilot program will reduce those well spacings to approximately 180 acres for Bakken wells and approximately 210 acres for Three Forks wells.

In the infill testing, Hess plans to install 17 well pads with the new spacing configuration over the next 12 months and then evaluate results. Hill said the company will then use those results to determine whether to move forward

see **HESS INFLLING** *page 13*

MOVING HYDROCARBONS

Room for improvement

Although statistics support rail safety, Canadian railroads see need to do better

By GARY PARK

For Petroleum News Bakken

CLAUDE MONGEAU

Canada's two big railroads — Canadian National and Canadian Pacific — like to roll out more statistics than a bank economist to shore up their public case that they operate safe, reliable services.

The one that gets used most often is based on a Railway Association of Canada claim that 99.9977 percent of dangerous goods reach their destination without incident.

In addition, the Transportation Safety Board of Canada reported 63 derailments in Canada in 2012, down from an annual average 107 over the previous five years, with the total through the first seven months of 2013 at 56.

Not that the companies are resting on their laurels, they're quick to reassure an increasingly uneasy outside world.

Claude Mongeau, chief executive officer of CN Rail, told analysts Oct. 22 that "we have to keep getting better."

But CN's positive spin on rail safety is a tough sell in the midst of its efforts to restore service on the east-west line between Edmonton and the British Columbia coast after a derailment of 13 cars carrying crude and LPG triggered a fire and explosion that forced the evacuation of 126 residents from the nearby hamlet of Gainford.

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Petroleum News Bakken

● COMPANY UPDATE

Whiting continues improving well efficiencies

Cemented wells coming in at slightly lower cost than un-cemented wells; strong drill bits cut drilling time in half

By MIKE ELLERD

Petroleum News Bakken

Despite losing some 7,500 barrels of oil equivalent per day of production through a second quarter divestiture, Whiting Petroleum saw its overall third quarter production nearly at par with second quarter production. That was a result of recent Williston Basin acquisitions, the application of cemented liner plug-and-perf fracking, and the use of strong drill bits that increase horizontal drilling efficiency.

In the company's Western Williston Basin prospects, 120,309 net (205,581 gross) acres extending across McKenzie and Williams counties, N.D., and Richland and Roosevelt counties, Mont., Whiting's third-quarter production averaged 13,710 barrels of oil equivalent per day, a 46 percent increase over its second quarter output of 9,385 boepd.

JAMES VOLKER

Whiting is also seeing positive results from infill wells in its Pronghorn field wells in its Southern Williston Basin prospects in Billings and Stark counties, N.D. In its Pronghorn downspacing, Whiting is drilling laterals approximately 600 to 700 feet apart, and reports 24-hour initial production, IP, rates for two such infill wells of 1,254 and 1,482 boepd. Both wells were completed with the cemented liner plug-and-perf method.

The company's third quarter production from its Southern Williston Basin prospect averaged 14,160 boepd, a 6 percent increase over second quarter output in that prospect of 13,325 boepd.

Whiting is also downspacing and using the new frack method in its Hidden Bench field in the Western Williston Basin prospect, and in its Sanish field in Mountrail County. Results on those downspacing tests are expected in the fourth quarter.

"Our new completion design using cemented liners and plug-and-perf technology is working throughout the Williston Basin. Initial results from our higher density drilling program at our Pronghorn prospect are very encouraging, and we expect results from our Sanish field and Hidden Bench prospect higher density drilling programs in the fourth quarter," Whiting Chairman and Chief Executive Officer James Volker said in an Oct. 23 press release.

Fracking results

As Petroleum News Bakken reported in September and again in October, Whiting has seen impressive results by moving from un-cemented sliding sleeve hydraulic fracturing to cemented liner plug-and-perf fracking. During the company's third quarter operating and financial conference call on Oct. 24, Volker said the new completion method is resulting in 24-hour IP rates that are 50 to 75 percent higher than the company saw with its prior completion method.

Overall, the average 24-hour IP using the cemented liner plug-and-perf method in five comparison wells averaged 1,966 boepd, a 64 percent increase over the 1,201 average 24-hour IP from seven comparison wells with un-cemented sliding sleeve completions (see slide).

Furthermore, Whiting has seen a slight decline in well costs with the new completion method. Specifically, the average authorization for expenditure, AFE, cost for comparison wells completed with the un-cemented sliding sleeve method is $7,806,557, whereas the average AFE for wells with cemented liner plug-and-perf completions is $7,777,940, an average savings of $28,617 (see slide).

Whiting has also been experimenting with various amounts of proppant in its Williston Basin fracks. During the Oct. 24 conference call, Whiting President and Chief Operating Officer James Brown said the company has used proppant masses as high as 8 million pounds but has found a "sweet spot" in the 4 million to 5 million pound range.

Reduced drilling time

Another factor contributing to

see WELL EFFICIENCIES page 13

Completion Costs Comparison Williston Basin

Well Costs Remain Flat with New Completion Design

WHITING

Field	Well Name	Liner Style	Completion	24-Hour IP (BOEPD)	AFE	AFE Date
Hidden Bench	Eide 41-13HR	Uncemented	Sliding Sleeve	2,715	$8,225,000	5/28/2013
Hidden Bench	Eide 41-13-2H	Cemented	Plug & Perf	3,795	$8,230,000	5/28/2013
Lewis & Clark	Kjelstrup 44-24 TFH	Uncemented	Sliding Sleeve	884	$7,907,350	10/11/2011
Lewis & Clark	Kjelstrup Fed 11-19-1PH (1)	Cemented	Plug & Perf	1,348	$8,947,700	5/14/2013
Missouri Breaks	Mullin 21-24-1H	Uncemented	Sliding Sleeve	481	$7,038,300	1/16/2013
Missouri Breaks	Weber 24-30-1H	Cemented	Plug & Perf	1,164	$6,998,900	1/8/2013
Missouri Breaks	Sundheim Fed 24-35-1H	Uncemented	Sliding Sleeve	563	$7,639,400	12/6/2012
Missouri Breaks	Barter 21-3H	Uncemented	Sliding Sleeve	476	$8,242,150	9/22/2011
Missouri Breaks	Sundheim 31-2-1H	Cemented	Plug & Perf	1,093	$6,954,700	1/24/2013
Pronghorn	Obrigewitch 11-29PH	Uncemented	Sliding Sleeve	1,888	$7,832,500	4/18/2013
Pronghorn	Obrigewitch 41-29PH	Uncemented	Sliding Sleeve	1,398	$7,761,200	4/18/2013
Pronghorn	Obrigewitch 21-29PH	Cemented	Plug & Perf	2,432	$7,758,400	4/18/2013
Uncemented Sliding Sleeve Average				**1,201**	**$7,806,557**	
Cemented Plug & Perf Average				**1,966**	**$7,777,940**	

(1) The Kjelstrup Fed 11-19-1PH was an exploration well on the western edge of the Lewis and Clark prospect. We project well costs below $8.0MM in this area when we transition to development wells.

● PEOPLE TALK

OmniTrax taps Manitoba MP for Canada

OmniTrax also hires new business development director for Canada unit; Dakota Plains nabs Tate to run expanded Pioneer Terminal

By ROSE RAGSDALE

For Petroleum News Bakken

People Talk

Mervin C. Tweed, a former member of Canada's Parliament from Manitoba, has been appointed president of OmniTrax Canada.

Tweed served as the MP for the Brandon-Souris riding for more than nine years. Before that, he was a member of the Legislative Assembly of Manitoba from 1995 to 2004, representing the constituency of Turtle Mountain. A former used car dealer educated at Brandon University, Tweed began his political career in municipal politics, serving as a councillor in the rural municipality of Brenda for five years.

Denver-based OmniTrax, through its affiliates, owns, operates and provides all stevedoring at the Port of Churchill, Canada's only Arctic deepwater port.

The port's Churchill Marine Fuel Terminal is the largest fuel terminal in the Arctic, providing petroleum products transfer, storage, and sales, as well as being a fuel supply point for the growing natural resource development projects occurring in the Canadian Arctic.

The port also has long served as a supply hub for the communities and industries of Manitoba, Saskatchewan and Alberta, handling a variety of break-bulk cargos and providing an export outlet for agricultural grains moving to more than 20 countries worldwide.

Rail service to the port is provided by another OmniTrax affiliate, The Hudson Bay Railway.

OmniTrax hopes to ship oil produced in North Dakota and Saskatchewan across northern Manitoba to the port of Churchill on Hudson's Bay. Tankers would then move the oil through sub-Arctic waters to North American refiners.

"Merv brings a terrific combination of business experience and government regulation knowledge to OmniTrax Canada," said OmniTrax CEO Kevin Shuba. "Merv's wealth of knowledge will take our operations in Canada to a whole new level ensuring exciting growth of our business and enhancing Canadian communities."

Lloyd Axworthy, Ph.D., chairman of the Churchill Gateway Development Corp. and president of the University of Winnipeg, also praised Tweed's ability to work across party lines to advance Canadian communities.

OmniTrax hires biz development director

TRENT WEBER ALSO HAS JOINED OmniTrax Canada as director of business development, reporting directly to Lenny Berz, vice president industrial development. Weber will be responsible for all commercial sales, marketing and account management for Hudson Bay Railway and Carlton Trail Railway Co. Originally from southern Saskatchewan, Weber attended the College of Agriculture at the University of Saskatchewan. His introduction to rail transportation as a summer scholarship student at the Canadian Wheat Board intrigued him, and he has been involved with railways ever since. Weber remained at the Canadian Wheat Board in the transportation division for three years and then moved on to work at Canadian Pacific Railway in numerous roles including port coordinator-Vancouver grain and as account manager responsible for Saskatchewan Wheat Pool, Paterson and Parrish & Heimbecker. Weber left CP to become director-transportation and marketing at the Inland Terminal Group where he ran the Winnipeg office and was responsible for outbound rail transportation and merchandising oats and malting barley for three producer-owned grain companies.

Dakota Plains nabs Tate to run terminal

JAMES TATE HAS BEEN APPOINTED vice president of operations of Dakota Plains Holdings Inc. and will oversee operations of the company's Pioneer crude terminal in Newtown, N.D., once a $50 million expansion project currently under way is fully commissioned. The expansion consists of a double loop track that can accommodate two 120 railcar-unit trains, 180,000 barrels of oil storage, a high-speed loading facility that can accommodate 10 rail cars simultaneously, and transfer stations to receive crude oil from local gathering pipelines and trucks. Construction of the $50 million project, launched in March, is scheduled for completion in late December.

Dakota Chairman and CEO Craig McKenzie said the expansion will increase crude throughput capacity at Pioneer Terminal by nearly three-fold to 80,000 barrels per day at a reduced operating cost.

Tate, who has more than 20 years of experience in the environmental and oilfield industries, joined Dakota Plains in September. He previously ran GeoLogic Energy Solutions Inc., his own oilfield environmental and asset-management firm in North Dakota. Tate served as an environmental analysis and area coordinator for Enbridge Pipeline (North Dakota) LLC from 2008 to 2012, and he was operations manager at Superior Environmental Corp. from 1999 to 2008. From 1992 to 1999, he worked for several consulting companies in the Chicago area and held positions ranging from senior project manager to remediation manager. Tate earned a bachelor's degree in geology from Illinois State University and formerly served in the U.S. Army. ●

Contact Rose Ragsdale at roseragsdale@gmail.com

MOVING HYDROCARBONS

BNSF boosts Montana jobs

BNSF Railway has opened a new economic development office in Montana that also holds out the hope of being a job creator.

The railroad said it is counting on hiring 250 employees to fill new and existing positions on top of the 2,200 it already has on its Montana payroll.

Vann Cunningham, BNSF's assistant vice president of economic development, said in a statement that the office will "significantly increase" the railroad's capacity to facilitate the delivery of Montana's "abundant natural resources" to world markets.

BNSF handles almost 2 million carloads in Montana annually, while its economic development push has created 41 new or expanded facilities and 320 jobs in the state since 2010. In addition, BNSF held a groundbreaking ceremony for a new logistics center in Sweetwater, Texas, that is aimed at the energy sector.

Due to open in summer 2014, the center is designed to meet the "growing supply-chain needs of a strong energy corridor across Texas" for commodities such as frack sand, aggregate, pipe, clay, barite and other drilling materials in the Permian Basin and Cline Shale.

—GARY PARK

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Kay Cashman	PUBLISHER & EXECUTIVE EDITOR
Mike Ellerd	EDITOR-IN-CHIEF
Ray Tyson	CONTRIBUTING WRITER
Gary Park	CONTRIBUTING WRITER (CANADA)
Eric Lidji	CONTRIBUTING WRITER
Rose Ragsdale	CONTRIBUTING WRITER
Steve Sutherlin	CONTRIBUTING WRITER
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Renee Garbutt	ADVERTISING ASSISTANT
Shane Lasley	IT CHIEF
Dee Cashman	RESEARCH ASSOCIATE

ADDRESS
P.O. Box 231647
Anchorage, AK 99523-1647

NEWS
MIKE ELLERD
406.551.0815
mellerd@bresnan.net

CIRCULATION
907.522.9469
circulation@petroleumnews.com

ADVERTISING
907.522.9469
mreeve@petroleumnews.com

FAX NUMBERS
SOUTH DAKOTA
713.658.0125
ALASKA
907.522.9583

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● EXPLORATION & EVALUATION

Alberta's Duvernay bristles with hope

Encouraging liquids results from big operators; Encana has 'clear light of sight' to commerciality; Chevron sees growth foundation

By GARY PARK

For Petroleum News Bakken

West-central Alberta's Duvernay — increasingly touted as the hottest emerging tight oil and shale gas play in Canada and possibly North America — has received another round of rave reviews from the highest levels.

Chevron and Encana, two of the largest leaseholders, have further stirred industry interest in the formation that the Alberta government's energy regulator has tentatively estimated has in-place resources of 61.7 billion barrels of oil and 443 trillion cubic feet of gas.

"Encouraging" is the operative word these companies have attached to their latest exploration results.

Brad Hayes, president of Petrel Robertson Consulting, said indications from the two companies of the Duvernay's evolution into a commercial-scale region are very positive.

"Clearly, the big players are getting results that meet or exceed their expectations, after having undertaken drilling and completion programs sufficient to optimize their operating procedures and produce results they feel are representative of what can be achieved in a full-scale development program," he said.

Hayes said the disclosures also underscore the focus of play development in the condensate-rich and volatile oil portions of the Duvernay play fairway.

He noted that operators are bypassing dry gas targets that are deeper in the basin. Nor are they systematically testing shallower, more oil-prone areas where gas and volatile components are scarcer and reservoir pressures are lower.

Hayes suggested that if Duvernay development is to pick up speed, the Alberta regulatory agency and operators must work hard to "optimize a planning and regulatory regime appropriate for unconventional hydrocarbons," thus maximizing economic benefits and minimizing environmental impacts, especially to water resources.

Leaseholder repositioning

Also under close watch is a move toward repositioning among leaseholders by offering joint-venture roles or assets sales to generate the cash infusions needed for development plans to proceed.

Athabasca Oil opened a data room to prospective in its 192,000 acres, with TD Securities estimating that up to 30 parties are interested in securing a 40 percent working interest.

Penn West Petroleum, involved in extensive cost-cutting under new leadership, has signaled it is looking to sell Duvernay acreage to reduce debt; Talisman Energy said it is open to a sale or joint-venture deal on its 155,000 acres; and China's Sinopec is ready to take on an equal partner in its 130,000 acres of Duvernay prospects and its Montney stake in British Columbia of about 170,000 acres.

Chevron ties wells to production

Even Chevron is taking a coy approach to its chances of partnerships or asset divestitures, with a spokesman offering a non-committal response.

"That's a fair question to pose, but it's not one that I can answer at this time," he said.

Chevron, which has a 100 percent working interest in 325,000 acres, said Oct. 25 that five of its initial 12 exploration wells have been tied into production in the northern Duvernay's Kaybob section.

It said liquids yield for the completed wells ranges from 30 percent to 70 percent, with initial production rates up to 7.5 million cubic feet per day of natural gas and condensate at 1,300 barrels per day.

Chevron Vice Chairman George Kirkland rated the early results as "encouraging ... this discovery creates a foundation for future growth in Canada."

He said well performance and condensate yields exceeded the company's hopes and strengthen future plans, which include transition to a two-rig program to "optimize well and completion design."

Focus on appraisal

Kent Robertson, speaking for Chevron's upstream team, said the company is unable to indicate at this time when the play might receive commercial status.

The company said it is now focused on an appraisal program which will be executed before full development.

The goals include optimizing well design, well-spacing requirements and completions design.

Chevron said it expects the Duvernay to follow a similar path to the Eagle Ford in Texas, which it said is "considerably more mature in its development cycle."

Encana wells also on production

Two days before the Chevron announcement, Encana, which has offered upbeat prospects for its 445,000 acres that are being explored in partnership with PetroChina's Phoenix Duvernay Gas, said 10 of its 12 completed horizontal wells that are on production have yielded condensate of 45 to 300 barrels per million cubic feet of gas.

Chief Operating Officer Mike McAlister told analysts "we have a clear line of sight to taking (the play) commercial and growing it into next year."

He said the latest well in the Simonette portion of Encana's Duvernay holdings produced 1,000 bpd.

Chief Executive Officer Doug Suttles, who is counting on the Duvernay being elevated over the next year to one of North America's five largest shale plays, told the analysts Encana is now working "quite hard" on ramping up, adding the "current forecast isn't fast enough."

He said the answer primarily lies in "finding a good midstream solution. So it's really tied up in a lot of our strategy work right now."

Suttles has estimated Encana's holdings contain "billions and billions of barrels of condensate."

see **DUVERNAY HOPE** *page 7*

● ENVIRONMENT & SAFETY

Tesoro recovers 4,300 spilled barrels

Replacement pipeline segment rerouted around spill site and tied in; passes hydrotest; entire 35 miles to be tested

By STEVE SUTHERLIN
For Petroleum News Bakken

Texas-based Tesoro Corp. said it has recovered 4,300 barrels of crude oil so far in its cleanup of a spill in northwestern North Dakota, estimated at 20,600 barrels of oil. The spill was discovered on Sept. 29 by a farmer harvesting wheat.

Tesoro said it has completed the tie-in of a 1,500-foot pipeline segment, rerouted around the impacted area in order to provide greater access for cleanup.

The company said it would not speculate on the cause of the leak because the matter is currently under investigation.

"We are waiting for final results from the independent lab for the portion of pipeline that was removed and sent for analysis. Tesoro said in an Oct. 28 statement.

Groundwater in the spill area appears to be clean.

"Results of our initial groundwater testing showed no evidence of hydrocarbon in groundwater at or neighboring the site," Tesoro said. "We will share these results with the North Dakota Department of Health and will continue to share with the Department of Health future groundwater testing results."

Restart plan

Tesoro said it was working with the Pipeline and Hazardous Materials Safety Administration on a restart plan. Before the line is restarted, the company said, it will conduct additional tests to ensure the integrity of the replaced 1,500-foot segment and the entire 35-mile section from Tioga to Black Slough.

Tesoro said it completed a hydrotest on the replaced segment, pressuring the line with fresh water for eight hours to ensure the pipeline meets the company's reliability requirements.

The company also completed investigation and repair digs to address anomalies detected during a September smart pig inspection of the entire 35-mile section of the line from Tioga to Black Slough.

Prior to restart, the company said it will perform a tightness test by holding pressure on the 35-mile section to verify soundness of the system.

Tesoro said it is upgrading the pipeline monitoring system.

"The entire 35-mile section, including the repaired portion, will have additional monitoring, including pressure sensors, flow monitoring and computational monitoring, which uses software to continually monitor pressure and flow data to detect patterns that might indicate a leak," Tesoro said.

The company said it would not speculate on the cause of the leak because the matter is currently under investigation.

First estimate low

A controlled burn — in coordination with area authorities — was performed on Sept.30 as an initial cleanup response, Tesoro said.

Tesoro said it learned of the spill on Sept. 29, and it notified authorities of a release of approximately 1,000 barrels, based upon initial visual inspection of the site.

After a thorough examination of the site spill characteristics including factors such as surface area, depth of soil impacted and soil porosity, Tesoro said it increased its estimated leak volume to 20,000 barrels and notified authorities on Oct. 8. It issued a press release on Oct.10.

Tesoro said the spilled crude is contained within an 8-acre area.

"It is contained vertically by a naturally occurring subsurface clay layer, and horizontally by interceptor trenches installed by Tesoro Logistics," the company said.

Tesoro said it will continue to contain and control the release while it more fully develops complete site remediation

see SPILL CLEANUP page 7

COMPANY UPDATE

Enerplus surpasses targets

Calgary-based Enerplus has affirmed its earlier third-quarter prediction of 18,000 barrels of oil equivalent per day from North Dakota's Fort Berthold region, up 19 percent from the previous quarter and achieving its 2013 exit rate forecast ahead of schedule.

Its U.S. operations have also continued to grow in the Marcellus region, where output averaged 83 million cubic feet per day in the latest quarter, 8 million cubic feet per day ahead of its expected exit level for 2013.

Based on these performances, Enerplus said it expects daily production will average 87,500 boe per day for the year, or a 7 percent increase for the year, representing 4 percent production growth per share.

For the nine months to Sept. 30, the company averaged 88,300 boe per day, beating the original full-year forecast of 85,000 boe per day.

The revised target, which estimates crude oil and liquids will account for 48 percent of output, assumes closure of a deal to sell 900 boe per day of non-core liquids production for C$105 million.

Enerplus said it remains on track with its original capital guidance of C$685 million.

—GARY PARK

● COMPANY UPDATE

Oxy 3Q production up as restructuring may split off California

By MIKE ELLERD

Petroleum News Bakken

As Occidental Petroleum looks to downsize by selling certain assets, including those in the Williston Basin, the company's third quarter production of 476,000 barrels of oil equivalent per day was an increase of 7,000 boepd over the second quarter according to data released Oct. 29.

Third quarter output was driven by production in California, the Permian Basin and the Williston Basin, Chief Financial Officer Cynthia Walker said in an Oct. 29 conference call. "For the first nine months of 2013, our domestic oil production has increased by 13,000 barrels per day," Walker said. "This is a 5 percent increase versus the same period in 2012."

Occidental, which operates as Oxy USA in the U.S., does not report its Williston Basin production separately but instead reports domestic production in three regional categories: California, Permian and "Mid-Continent and Other." Williston Basin production is included in that last category.

23% 'Mid-Continent and Other'

Of the 476,000 boepd third quarter output, 111,000 boepd or 23 percent was "Mid-Continent and Other" production, 212,000 boepd or 45 percent was from the Permian, and the remaining 153,000 boepd or 32 percent was from California.

That daily third quarter output breaks down to 267,000 barrels of oil, 79,000 barrels of natural gas liquids and 784 million cubic feet of natural gas or 130,000 barrels of oil equivalent based on a conversion of 6,000 British thermal units per barrel of oil. Consequently, Occidental's domestic output in the third quarter was 56 percent oil, 17 percent NGLs and 27 percent natural gas.

For the first three quarters of 2013, Oxy's domestic production averaged 475,000 boepd, up 13,000 boepd or nearly 3 percent over average daily production in the first three quarters of 2012. Most of that increase was the result of higher oil production. NGL production was also higher in 2013 compared to 2012 but was offset by a decrease in natural gas production.

When figuring in Occidental's foreign production in the Middle East and North Africa, total third quarter production averaged 767,000 boepd, up slightly from the 766,000 boepd output in the third quarter of 2012. Production averaged the same 767,000 boepd over the first three quarters of 2013, up from the 762,000 boepd average over the first three months of 2012.

Restructuring

As Petroleum News Bakken reported on Oct. 27, Occidental it is pursuing strategic alternatives as part of a streamlining effort that includes the trade and/or the sale of its domestic oil and gas interests in the Williston and Piceance basins in North Dakota and Colorado and in the Hugoton field in Oklahoma and Kansas. It is also looking to sell a minority interest in its Middle East and North Africa operations and a portion of its interest in Plains All American Pipeline.

In addition, in the Oct. 29 conference call, President and Chief Executive Officer Stephen Chazen indicated that Occidental is also looking at possibly splitting its California assets off into a separate company. At more thanS 2.1 million net acres, Occidental is the largest oil and gas mineral acreage holder in California. ●

Contact Mike Ellerd at mellerd@bresnan.net

DRILLING & COMPLETION

Little Creature curve cased

Samson Oil & Gas Ltd. of Perth, Western Australia, said the curved portion of the Little Creature 1-15-14H well was successfully drilled and landed in the Middle Bakken formation at 11,895 feet. A 7-inch intermediate casing string was set and cemented at 11,885 feet.

"Currently Frontier Rig 24 is drilling the 6-inch production hole at a depth of 13,254 feet representing the initial 1,359 feet of lateral," Samson said in an Oct. 28 operational advisory, adding that the lateral portion of the well bore is positioned in the Middle Bakken formation and will be drilled to a measured depth of approximately 19,668 feet.

The Little Creature well is in Samson's North Stockyard project, Williams County, N.D.

Blackdog next

Following the completion of THE Little Creature well, Samson said, the Frontier 24 rig will return to the Tofte 1 pad and drill the Blackdog 3-13-14H well.

The Blackdog 3-13-14H will be a middle Bakken lateral well which will follow the previously planned Swan trajectory — the infill location between the Rodney 1-14H well and the Sail and the Anchor 1-13-14HBK well, Samson said.

Workover operations on the Billabong 2-13-14HBK well will come to a temporary halt to accommodate mobilization of Frontier Rig 24 back on the pad to drill Blackdog 3-13-14H, Samson said. Workover operations are slated to continue to remove the drill pipe using the wash-over assembly method once drilling operations are complete.

Samson said the Key Energy Services Rig 370 successfully recovered eight joints of drill pipe since the company's last operational update, recovering so far 41 percent of the total pipe.

—STEVE SUTHERLIN

continued from page 6

SPILL CLEANUP

options. The options and their review with the landowner and North Dakota Department of Health are expected to be complete by early 2014, allowing implementation after the spring thaw, Tesoro said.

The company said it had no previous indication that a leak was likely to occur.

"We have no record of any prior incident on this segment of the pipeline system; our most recent internal inspection occurred in September 2013," Tesoro said. "We were awaiting results of the analysis of the 2013 inspection when the leak was reported." ●

Contact Steve Sutherlin at stevepna@hotmail.com

continued from page 6

DUVERNAY HOPE

He said Encana has almost finished the "science work" of understanding the rocks and is ready to embark on multi-well pads, targeting per well costs in the region at US$12 million.

Kaybob most attractive

A report by ITG Investment Research said the higher liquids portion of the southern gas condensate window in the Kaybob is the most attractive area based on its interpretation of geology and operator activity.

Duvernay merger and acquisition deals averaged about C$7,500 per acre over the past year, with prices peaking at about C$10,000, compared with US$15,000-US$25,000 over the past year, the ITG report said.

Ed Kallio, director of gas consulting with Ziff Energy, a division of HSB Solomon Associates, said that under current circumstances and based on yields producers can afford to make capital investments and "earn a decent rate of return. We are very bullish on the Duvernay."

Dirk Lever, managing director of institutional equity research with AltaCorp Capital, said the Chevron results raise concerns about liquids markets constraints, such as facilities, pipelines and processing, "then market saturation levels."

He said the market for liquids such as ethane and propane is "not limitless ... often we do not know when the limit is reached until it is."

Calgary-based investment dealer Peters & Co. in September attached a "very promising" label to the Duvernay, but forecast that service companies might need to invest C$1 billion in new equipment, projecting that 100 wells will be drilled this year — 80 percent in the Kaybob section — and up to 200 in 2014.

Peters forecast activity could grow to 600 wells a year, translating into demand for 60 rigs.

The major landholders in the Duvernay are Canadian Natural Resources 500,000 acres, Encana/Phoenix, Talisman, Chevron, Bonavista Energy 256,000 acres, Athabasca, Sinopec, PetroBakken 121,000 acres, ExxonMobil/Imperial Oil 110,000 acres and Husky 55,000 acres. ●

Contact Gary Park through publisher@petroleumnews.com

● COMPANY UPDATE

SM Energy maintains pace in Williston Basin

Company affirms Bakken as one of its three core plays, along with the Eagle Ford and the Permian Basin

By STEVE SUTHERLIN
For Petroleum News Bakken

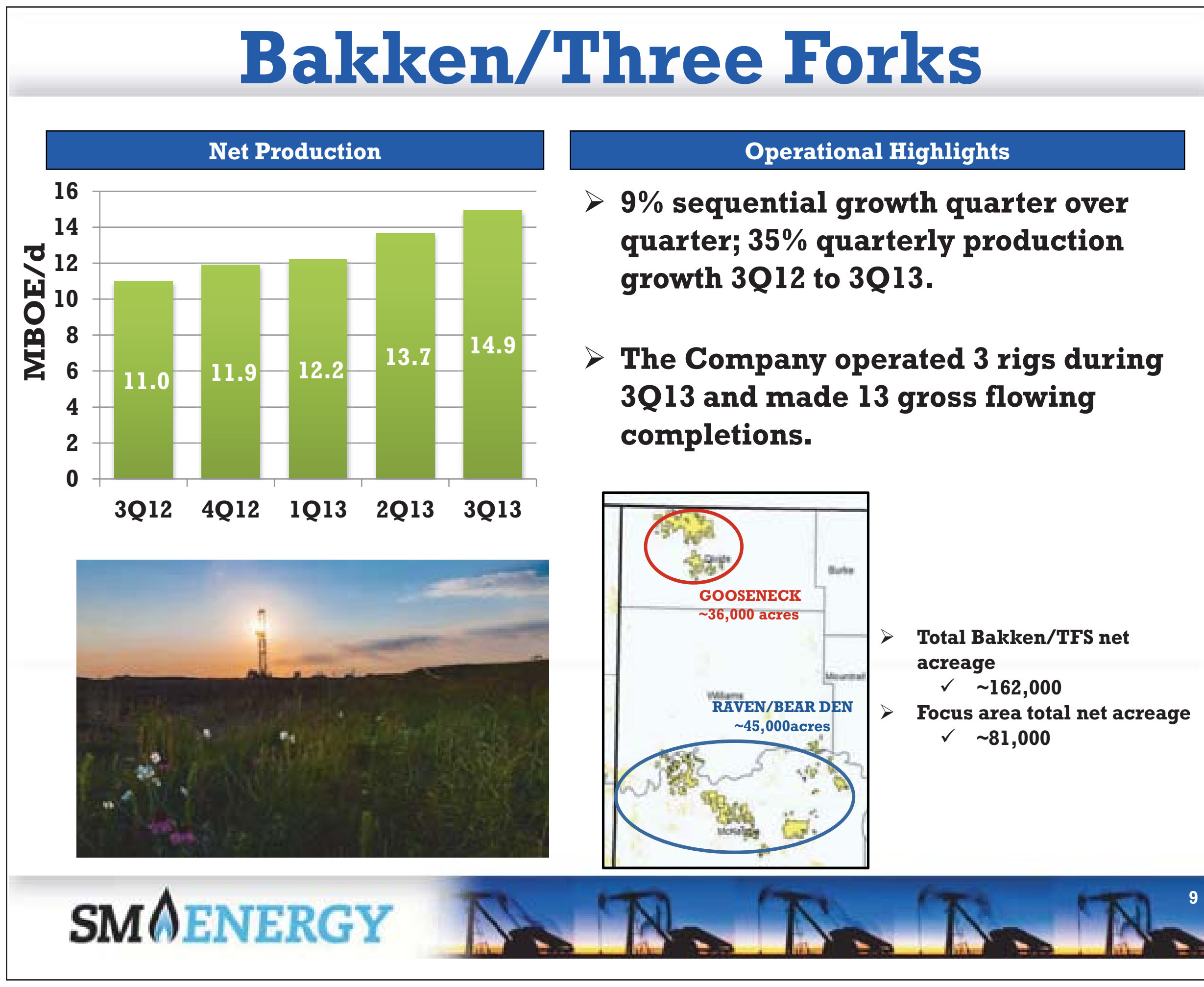
Third quarter average daily production for SM Energy in its Bakken/Three Forks program was 14,900 barrels of oil equivalent per day, a 9 percent sequential increase from the second quarter production of 13,700 boepd and a 35 percent increase from the third quarter of 2012.

During the third quarter, SM Energy made 13 gross flowing completions in its operated Bakken/Three Forks program. The company is targeting 40 gross flowing completions for the year; it completed 30 gross Bakken/Three Forks wells in 2012.

The company said in 2013 it continued to focus its drilling on the Bakken and Three Forks formations in its Raven/Bear Den and Gooseneck prospects in McKenzie, Williams and Divide Counties, N.D.

SM Energy said in an Oct. 30 conference call that it is maintaining its pace in the Bakken, while carefully assessing and adopting technological advances.

> *"We love the area and have no intention of exiting it."*
> **—SM Energy, regarding its Bakken/Three Forks program**



Technical renaissance

Citing a "technical renaissance" in the Bakken, the company says rapid technological advance is a powerful argument for not going too fast.

"Potential for adding value through this type of technological betterment through downspacing and better frack technique is one of the better reasons for moderation in your pace of development," the company said.

SM Energy says it was closely following its recent Kodiak Oil and Gas operated wells, and it was evaluating several spacing tests Kodiak was doing before making operational changes in the Bakken.

The company said it has a three rig program — consistent with the sort of inventory the company has in the region.

Earlier this year, SM Energy upgraded to more efficient drill rigs in its transition to pad drilling. In the second quarter it swapped out two older traditional contracted drill rigs for a more efficient walking drill rig, bringing its Bakken rig count to three. The company is actually seeing its average cost per well decrease as its transition to pad drilling continues, it said.

The company said it had solid assets in the Bakken that would get better over time. It has sold nonoperated assets to focus on core assets.

"Our operated acreage looks really good to us," the company says. "We love the area and have no intention of exiting it."

Company wide

SM Energy says its average daily production increased by 5 percent over the 131,800 boepd it produced in the second quarter of 2013. In the third quarter, SM Energy's reported production mix was 30 percent oil and condensate, 20 percent natural gas liquids, and 50 percent natural gas.

SM Energy reported its net income for the third quarter of 2013 was $70.7 million, or $1.04 per diluted share. This compares to a net loss of $38.3 million, or 58 cents per diluted share, for the same period of 2012.

Total operating revenues for the third quarter of 2013 were $613.1 million compared to $379 million for the same period of 2012, a 62 percent increase from period to period.

The company's 2013 capital investment forecast is $1.65 billion. Development costs alone are estimated at $1.24 billion. Approximately three-quarters of the $1.24 billion in development capital is earmarked for the Eagle Ford ($665 million) and Bakken/Three Forks ($295 million), with the remaining capital ($290 million) slated for the Permian Basin and other development.

In July, SM Energy put all of its Anadarko Basin properties up for sale — a total of approximately 56,000 net mineral acres — including the company's Granite Wash interests which are focused in western Oklahoma. In a July 10 press release, SM Energy put its Anadarko Basin production at slightly over 9,000 boepd — 75 percent of which is natural gas. That production represented approximately 8 percent of SM Energy's total production for the first quarter of 2013.

SM Energy said going forward its divestitures will position the company to focus on its three core areas. The company said the Bakken, Eagle Ford, and "now the Permian Basin," made up the legs of a "three-legged stool." ●

Contact Steve Sutherlin at stevepna@hotmail.com

BAKKEN Stats

Montana well permits and completions

October 18—24, 2013

Abbreviations & parameters

With a few exceptions, 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 the Heath play and 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
PD: proposed depth | **SHL:** surface hole location | **TD:** total depth

And public land survey system abbreviations:
FNL = from north line | **FEL** = from east line | **FSL** = from south line | **FWL** = from west line

COMPILED BY DARRYL L. FLOWERS
For Petroleum News Bakken

New locations—horizontal wells

In Richland County, Whiting Oil and Gas Corp. was approved for three Bakken formation wells. The Skov 31-28-2H has an SHL at NW NE 28-25N-59E (280 FNL/1635 FEL) and a PBHL of 20,624 feet at SE SW 33-25N-59E (240 FSL/1980 FWL). The Skov 31-28-3H has an SHL at NW NE 28-25N-59E (325 FNL/1635 FEL) and a PBHL of 20,215 feet at SW SE 33-25N-59E (240 FSL/1980 FEL). The Skov 31-28-4H has an SHL at NW NE 28-25N-59E (370 FNL/1635 FEL) and a PBHL of 20,323 feet at SE SE 33-25N-59E (240 FSL/660 FEL).

In Roosevelt County, Oasis Petroleum North America LLC has been green lighted to drill eight wells. The Sage Brush 2758 41-9 No. 3T, with an SHL at SW SW 9-27N-58E (200 FSL/1000 FWL) and a PBHL of 20,656 feet at SW SW 21-27N-58E (200 FSL/1272 FWL) will target the Three Forks formation.

The seven remaining Oasis wells will target the Bakken formation: the Sage Brush 2758, 41-9 No. 2B, with an SHL at SW SW 9-27N-58E (200 FSL/950 FWL) and a PBHL of 20,642 feet at SW SW 21-27N-58E (200 FSL/600 FWL); the Sage Brush 2758 41-9 No. 4B, with an SHL at SW SW 9-27N-58E (200 FSL/1050 FWL) and a PBHL of 20,850 feet at SE SW 21-27N-58E (200 FSL/1944 FWL); the Signal Butte Fed 2758 44-9 No. 2B, with an SHL at SE SE 9-27N-58E (160 FSL/520 FEL) and a PBHL of 20,201 feet at NE NE 4-27N-58E (200 FNL/600 FEL); the Signal Butte Fed 2758 44-9 No. 3B, with an SHL at SE SE 9-27N-58E (160 FSL/570 FEL) and a PBHL of 20,472 feet at NW NE 4-27N-58E (200 FNL/1447 FEL); the McCracken 2758 34-9 No. 3B, with an SHL at NE SE 9-27N-58E (1352 FSL/285 FEL) and a PBHL of 20,765 feet at NE SE 11-27N-58E (1979 FSL/200 FEL); the McCracken 2758 44-9 No. 4B, with an SHL at SE SE 9-27N-58E (1321 FSL/324 FEL) and a PBHL of 20,675 feet at SE SE 11-27N-58E (1290 FSL/200 FEL); and the McCracken 2758 21-10 No. 5B, with an SHL at SW NW 10-27N-58E (1655 FNL/330 FWL) and a PBHL of 20,011 feet at SE NE 11-27N-58E (1591 FNL/200 FEL).

In Richland County, a re-issued permit was approved for XTO Energy Inc. for the Vaira 31X-17. The Vaira has an SHL at NW NE 17-24N-55E (403 FNL/2359 FEL) and a PBHL of 19,300 feet at SW SE 20-24N-55E (700 FSL/2644 FEL), targeting the Bakken formation.

Completions

Continental Resources Inc. reported two completions of Bakken formation wells in Richland County. The Clayton-Rita HSU has an SHL at NE NE 19-23N-56E (290 FNL/227 FEL) and a BHL of 20,250 feet at SE SE 30-23N-56E (232 FSL/12 FEL). The Clayton-Rita reported an IP of 215 BOPD, 78 MCFPD and 110 BWPD. The Gidley 1-18H, with an SHL at SE SW 18-25N-52E (335 FSL/1980 FWL) and a BHL of 13,124 feet at NE NW 18-25N-52E (230 FNL/1962 FWL) reported an IP of 264 BOPD, 200 MCFPD and 330 BWPD. ●

Editor's note: Darryl L. Flowers, a contributor to Petroleum News Bakken, is the publisher of the Fairfield Sun Times in Fairfield, Mont., www.fairfieldsuntimes.com, and can be reached at publisher@fairfieldsuntimes.com. The information is derived from the online records of the Montana Board of Oil & Gas Conservation Commission.

BAKKEN STATS COMMENTARY

Continental top Montana Bakken operator; Kodiak moves to 6 in ND

Continental Resources was once again the largest producer of oil from the Bakken petroleum system in Montana in the latest month reported, August (see page 10). The daily average for the month was 50,311.45 barrels, with wells operated by Continental producing 17,615.5 barrels of that total. (The numbers do not include oil from wells on confidential status.)

Congratulations, Continental.

The next four largest producers by wells operated were Oasis with 6,944.3 barrels per day; XTO (ExxonMobil) at 6,388.03 bpd; Enerplus at 5,741.9 bpd; and Whiting at 3,329.7 bpd.

Kodiak moves up from 8 to 6

Page 10 also contains the latest well operator transfers in North Dakota, with 35 wells (on the same number of spacing units) being transferred from Liberty Resources to Kodiak Oil & Gas.

All 35 wells are horizontals, with 34 targeting the Bakken petroleum system and one drilled into the South Red River B zone.

The sale, which closed in July (see July 21 edition of Petroleum News Bakken), also included about 42,000 net leasehold acres in McKenzie and Williams counties, N.D., which was all of Liberty's Williston Basin acreage per its website.

August oil production (see Petroleum News Bakken's Oct. 20 edition) put Kodiak as the eighth largest Bakken producer in North Dakota by the amount of oil the wells it operates produce each day, but because the Liberty acquisition was retroactive to March, Kodiak's 33,917.94 bpd in August should have included Liberty's Bakken oil, 8,347.03 bpd, for a total of 42,264.97 bpd.

That would bump Kodiak up the ladder to the sixth largest producer by wells operated in North Dakota, ahead of Marathon and XTO.

Congratulations, Kodiak.

It appears Liberty, which no longer has any rigs under contract in North Dakota per the state's rig report, now carries only non-operated interests in Bakken wells in the state, but some of those wells are in rich areas of the play. (Trying to confirm this with Liberty, so stay tuned.)

Statoil takes top IP

And once again, a Statoil well reported the highest IP, or initial 24-hour production, for a Bakken well in North Dakota. See page 11 for the full chart.

—KAY CASHMAN

Bakken producers' stock prices

Closing prices as of Oct. 30, along with those from previous Wednesday

Company	Exchange	Symbol	Closing price	Previous Wed.
Abraxas Petroleum Corp.	NASDAQ	AXAS	$2.95	$3.03
American Eagle Energy Corp.	AMZG	OTC	$2.24	$2.10
Arsenal Energy USA, Inc.	TSE	AEI	$5.20	$5.00
Baytex Energy Corp.	NYSE	BTE	$41.48	$40.79
Burlington Resources Co. (ConocoPhillips)	NYSE	COP	$73.25	$72.39
Continental Resources, Inc.	NYSE	CLR	$114.56	$113.44
Crescent Point Energy Corp.	TSE	CPG	$40.20	$40.31
Enerplus Resources USA Corp.	NYSE	ERF	$17.08	$16.57
EOG Resources, Inc.	NYSE	EOG	$180.33	$178.44
Fidelity Exploration and Production (MDU)	NYSE	MDU	$29.83	$30.06
GMX Resources, Inc.	PINK	GMXRQ	$0.14	$0.23
Hess Corp.	NYSE	HES	$80.32	$81.92
HRC Operating (Halcon Resources Corp.)	NYSE	HK	$5.23	$5.13
Kodiak Oil and Gas (USA), Inc.	NYSE	KOG	$13.07	$12.80
Legacy Reserves Operating LP	NASDAQ	LGCY	$26.66	$28.92
Marathon Oil Co.	NYSE	MRO	$35.76	$34.85
Newfield Production Co.	NYSE	NFX	$30.56	$30.74
Oasis Petroleum, Inc.	NYSE	OAS	$53.78	$52.13
Oxy USA (Occidental Petroleum Corp.)	NYSE	OXY	$96.06	$95.66
QEP Energy Co.	NYSE	QEP	$33.05	$32.64
Resolute (Resolute Energy Corp.)	NYSE	REN	$9.31	$9.47
Samson Resources Co. (KKR & Co.)	NYSE	KKR	$22.96	$22.91
SM Energy Co.	NYSE	SM	$89.69	$83.08
Statoil Oil and Gas LP	NYSE	STO	$23.83	$23.39
Sundance Energy, Inc.	SEA	ASX	$1.10	$1.05
Triangle USA Petroleum Corp.	NYSE	TPLM	$10.35	$10.18
Whiting Oil and Gas Corp.	NYSE	WLL	$67.63	$63.24
WPX Energy, Inc.	NYSE	WPX	$22.74	$22.16
XTO Energy, Inc. (ExxonMobil)	NYSE	XOM	$88.81	$87.61

Looking for a rig report?

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

Petroleum News Bakken

Montana Bakken oil production by company

August 2013

The information below is derived from State of Montana production reports and separated out by company. Note this is oil produced by wells operated by these companies; it does not identify the percentage of Bakken petroleum system oil such as Three Forks, Bakken, Pronghorn, etc. that is actually owned by the company, so it might differ from what each company reports. It also does not include oil production from wells operated by others, in which these companies might hold an interest. The daily average was derived from dividing the total production by the number of days in August, excluding production from wells on confidential status. Note: TAQA North had not yet filed its August production information, so its July production is shown, as noted.

LEGEND
Field – pool – county – barrels of oil per month
Daily average in barrels of oil

The operator names used in this report are as they appear in State of Montana records, even though some of the companies or their Bakken system assets might have been purchased by other companies. When that is the case, the current owner's name is in parenthesis behind the owner of record. If any current owners are missing, please contact Ashley Lindly at alindly@petroleumnewsbakken.com.

Top 5 Montana Bakken oil producers
August 2013

Continental Resources	17,615.5
Oasis Petroleum	6,944.3
XTO Energy (ExxonMobil)	6,388.03
Enerplus	5,741.9
Whiting Oil and Gas	3,329.7

Total August 2013 Bakken oil production: 50,311.45 barrels per day

Abraxas (August 2013)

Elm Coulee	70
Lane	8
Sidney	0
Monthly total	78
Daily average	2.6

Armstrong Operating

Elm Coulee – Bakken – Richland	785
Daily average	26.16

Burlington Resources Oil and Gas (ConocoPhillips)

Elm Coulee – Bakken – Richland	33,890
Daily average	1,129.6

Charger Resources

Elm Coulee – Bakken – Richland	1,532
Daily average	51.06

Continental Resources

Elm Coulee – Bakken – Richland	510,501
Elm Coulee – Bakken – Roosevelt	5,764
Elm Coulee, Northeast – Bakken – Richland	8,542
Elm Coulee, Northeast – Bakken – Roosevelt	2,998
Elm Coulee, Northeast – Three Forks – Richland	661
Wildcat Richland – Bakken – Richland	0
Monthly total	528,466
Daily average	17,615.5

Denbury Onshore

Lookout Butte – Lodgepool – Fallon	77
Lookout Butte, East, Unit – Lodgepool – Fallon	0
Monthly total	77
Daily average	2.5

Earthstone Energy

Spring Lake, West – Bakken – Richland	73
Daily average	2.4

Enerplus Resources USA

Charlie Creek – Bakken – Richland	148
Elm Coulee – Bakken – Richland	170,897
Epworth – Bakken – Richland	172
Girard – Bakken – Richland	164
Mustang – Bakken – Richland	401
Putnam – Bakken – Richland	0
Spring Lake – Bakken – Richland	286
Three Buttes – Bakken – Richland	190
Monthly total	172,258
Daily average	5,741.9

EOG Resources

Elm Coulee – Bakken – Richland	23,836
Elm Coulee, Northeast – Bakken – Roosevelt	64,627
Wildcat Richland – Bakken – Richland	0
Monthly total	88,463
Daily average	2,948.7

Fidelity Exploration and Production (MDU)

Elm Coulee – Bakken – Richland	3,456
Elm Coulee – Three Forks – Richland	323
Monthly total	3,779
Daily average	125.9

HRC Operating (Halcon Resources)

Elm Coulee, Northeast – Bakken – Roosevelt	5,723
Daily average	190.7

Marathon Oil

Elm Coulee, Northeast – Bakken – Sheridan	6,485
Elm Coulee, Northeast – Three Forks – Sheridan	2,472
Monthly total	8,957
Daily average	298.5

MBI Oil and Gas

Elm Coulee, Northeast – Bakken – Richland	800
Daily total	26.6

McRae and Henry

Outlook – Mission Canyon, Bakken – Sheridan	0
Outlook – Nisku, Bakken – Sheridan	169
Monthly total	169
Daily average	5.6

Mountain Pacific General

Two Waters – Bakken – Richland	0
Daily average	0

Murex Petroleum (August 2013)

Girard – Bakken – Richland	96
Daily average	3.2

Newfield Production

Elm Coulee – Bakken – Richland	21,556
Comertown – Lodgepool – Sheridan	0
Monthly total	21,556
Daily average	718.5

Oasis Petroleum

Elm Coulee – Bakken – Richland	361
Elm Coulee, Northeast – Bakken – Richland	38,974
Elm Coulee, Northeast – Bakken – Roosevelt	0
Elm Coulee, Northeast – Bakken – Roosevelt	165,343
Elm Coulee, Northeast – Three Forks – Roosevelt	3,653
Monthly total	208,331
Daily average	6,944.3

Panther Energy

Elm Coulee, Northeast – Bakken – Richland	138
Daily average	4.6

Sagebrush Resources

Redstone – Bakken – Sheridan	126
Daily average	4.2

Samson Oil and Gas USA Montana

Elm Coulee, Northeast – Bakken – Roosevelt	0
Daily average	0

Samson Resources (KKR & Co)

Elm Coulee, Northeast – Bakken – Sheridan	1,459
Elm Coulee, Northeast – Three Forks – Sheridan	1,278
Monthly total	2,737
Daily average	91.2

Sinclair Oil and Gas

Elm Coulee – Bakken – Richland	1,392
Elm Coulee, Northeast – Bakken – Sheridan	2,806
Monthly total	4,198
Daily average	139.9

Slawson Exploration

Elm Coulee – Bakken – Richland	72,222
Elm Coulee, Northeast – Bakken – Roosevelt	6,095
Monthly total	78,317
Daily average	2,610.6

SM Energy

Brorson, South – Bakken – Richland	0
Brorson, South – Mission Canyon, Bakken – Richland	1,290
Elm Coulee – Bakken – Richland	22,698
Mustang – Bakken – Richland	92
Putnam – Mission Canyon, Bakken – Richland	113
Vaux – Mission Canyon, Bakken – Richland	788
Monthly total	24,981
Daily average	832.7

TAQA North USA (July 2013)

Flat Lake – Bakken – Sheridan	32,304
Johnson Lake – Bakken – Sheridan	0
Monthly total	32,304
Daily average	1,076.8

Whiting Oil and Gas

Elm Coulee – Bakken – Richland	229
Elm Coulee, Northeast – Bakken – Richland	92,212
Elm Coulee, Northeast – Three Forks – Richland	2,069
Elm Coulee, Northeast – Bakken – Roosevelt	1,538
Elm Coulee, Northeast – Three Forks – Roosevelt	3,052
Elm Coulee, Northeast – Three Forks – Sheridan	792
Monthly total	99,892
Daily average	3,329.7

XTO Energy (ExxonMobil)

Elm Coulee – Bakken – Richland	184,260
Elm Coulee, Northeast – Bakken – Roosevelt	7,381
Monthly total	191,641
Daily average	6,388.03

—Compiled by Ashley Lindly

Contact Ashley Lindly at alindly@petroleumnewsbakken.com

North Dakota well operator transfers

October 19—25, 2013

October 24, 2013

From: Liberty Resources LLC
To: Kodiak Oil & Gas (USA) INC.

#25242 - Nelson 156-100-17-20-11TFH; horizontal; South Red River B; Cedar Hills; 8/17/2002; 116 bbl; SWSE 8-156N-100W; Williams Co.
#24458 - Erickson 152-103-23-14-1H; horizontal; Bakken; Glass Bluff; 8/6/2013; 1573 bbl; NWNE 26-152N-103W; McKenzie Co.
#21197 - Jackman 156-100-18-19-1H; horizontal; Bakken; East Fork; 4/27/2012; 1100 bbl; NWNE 18-156N-100W; Williams Co.
#21198 - Berger 156-100-7-6-1H; horizontal; Bakken; East Fork; 4/11/2012; 1,091 bbl; NWNE 18-156N-100W; Williams Co.
#23651 - Helling 150-101-7-6-1H; horizontal; Bakken; Pronghorn; 3/7/2013; 820 bbl; SWSE 7-150N-101W; McKenzie Co.
#24394 - Anderson 152-103-28-33-1H; horizontal; Bakken; Glass; Buff; 5/14/2013; 399 bbl; SWSE 21-152N-103W; McKenzie Co.
#22068 - Sylte 156-101-15-22-1H; horizontal; Bakken; Tyrone; 6/20/2012; 567 bbl; NENW 15-156N-101W; Williams Co.
#25241 - Nelson 156-100-17-20-2H; horizontal; Bakken; East Fork; N/A; N/A; SWSE 8-156N-100W; Williams Co.
#22709 - Gullikson 152-103-31-30-1H; horizontal; Bakken; Glass Bluff; 10/15/2012; 733 bbl; SESW 31-152N-103W; McKenzie Co.
#25243 - Nelson 156-100-17-20-3H; horizontal; Bakken; East Fork; N/A; N/A; SWSE 8-156N-100W; Williams Co.
#25244 - Nelson 156-100-17-20-12TFH; horizontal; Bakken; East Fork; N/A; N/A; SWSE 8-156N-100W; Williams Co.
#23132 - Cavalli State 156-100-9-4-1H; horizontal; Bakken; East Fork; 9/25/2012; 948 bbl; SWSE 9-156N-100W; Williams Co.
#25255 - Cavalli State 156-100-9-4-11TFH; horizontal; Bakken; East Fork; 7/22/2013; 1,926 bbl; SWSE 9-156N-100W; Williams Co.
#24457 - Erickson 152-103-26-35-1H; horizontal; Bakken; Glass Bluff; 8/2/2013; 1,662 bbl; NWNE 26-152N-103W; McKenzie Co.
#22495 - Borrud 156-101-1-12-1H; horizontal; Bakken; Tyrone; 8/4/2012; 805 bbl; LOT3 1-156N-101W; Williams Co.
#21421 - Fritz 150-101-32-29-1H; horizontal; Bakken; Pronghorn; 5/18/2012; 648 bbl; SESW 32-150N-101W; McKenzie Co.
#22401 - Lukenbill 155-101-11-2-1H; horizontal; Bakken; Cow Creek; 9/17/2012; 876 bbl; SWSE 11-155N-101W; Williams Co.
#21481 - Cornabean 156-101-25-36-1H; horizontal; Bakken; Sanish; 1/20/2012; 1,150 bbl; SWSE 36-156N-101W; Williams Co.
#24336 - Moline 156-101-14-23-1H; horizontal; Bakken; Tyrone; 3/19/2013; 694 bbl; NENW 14-156N-101W; Williams Co.
#20736 - Jackman 156-100-11-2-1H; horizontal; Bakken; East Fork; 3/6/2013; 873 bbl; SESW 11-156N-100W; Williams Co.
#25032 - Erickson 152-103-26-35-2H; horizontal; Bakken; Glass Bluff; 8/1/2013; 2,244 bbl; NWNE 26-152N-103W; McKenzie Co.
#22067 - Sylte 156-101-10-3-1H; horizontal; Bakken; Tyrone; 6/10/2012; 758 bbl; NENW 15-156N-101W; Williams Co.
#24303 - Anderson 152-103-21-16-1H; horizontal; Bakken; Glass Bluff; 4/8/2013; 554 bbl; SWSE 21-152N-103W; McKenzie Co.
#22522 - Nelson 156-100-17-20-1H; horizontal; Bakken; East Fork; 8/26/2012; 522 bbl; SESW 8-156N-100W; Williams Co.

see WELL TRANSFERS page 11

Petroleum News Bakken

IPs for ND Bakken wells

October 22—28, 2013

This chart contains initial production rates, or IPs, for active wells that were filed as completed with the state of North Dakota from Oct. 22-28, 2013 in the Bakken petroleum system, which includes formations such as the Bakken and Three Forks. The completed wells that did not have an available IP rate (N/A) likely haven't been tested or were awarded confidential (tight-hole) status by the North Dakota Industrial Commission's Department of Minerals. This chart also contains a section with active wells that were released from confidential status during the same period, Oct. 22-28. Again, some IP rates were not available (N/A). . The information was assembled by Petroleum News Bakken from NDIC daily activity reports 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 because of space limitations. Some of the companies, or their Bakken petroleum system assets, have been acquired by others. s. In some of those cases, the current owner's name is in parenthesis behind the owner of record, such as ExxonMobil in parenthesis behind XTO Energy. If the chart is missing current owner's names, please contact Ashley Lindly at alindly@petroleumnewsbakken.com.

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; geologic target; 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

Burlington Resources Oil and Gas (ConocoPhillips)
24980; CCU Corral Creek 41-28MBH; Corral Creek; SESE 21-147N-95W; U; Dunn; Bakken; horizontal; 21,900; 10/19/2013; 2,894 bbl

Enerplus Resources USA
22665; Mustang 149-93-29A-32H TF; Mandaree; NENE 29-149N-93W; 2SEC; Dunn; Bakken; horizontal; 20,722; 9/28/2013; 1,352 bbl
22666; Pinto 149-93-29A-32H; Mandaree; NENE 29-149N-93W; 2SEC; Dunn; Bakken; horizontal; 20,628; 9/23/2013; 1,538 bbl

Hess
23512; EN-Fretheim S-154-93- 0805H-6; Robinson Lake; SESW 8-154N-93W; 2SEC; Mountrail; Bakken; horizontal; 20,690; 9/30/2013; 676 bbl
24442; EN-State B 155-93-1609H-5; Alger; SESE 16-155N-93W; 2SEC; Mountrail; Bakken; horizontal; 18,483; 9/16/2013; 537 bbl
24640; HA-Nelson 152-95-3328H-4; Hawkeye; SWSE 33-152N-95W; 2SEC; McKenzie; Bakken; horizontal; 20,649; 9/23/2013; 1,381 bbl
23182; SC-Tom 153-98-1514H-3; Truax; NWSW 15-153N-98W; 2SEC; Williams; Bakken; horizontal; 21,905; 9/17/2013; 818 bbl

Marathon Oil
24011; Cummings 44-31TFH; Big Bend; LOT1 6-150N-92W; 2SEC; Mountrail; Bakken; horizontal; 20,773; 8/18/2013; 1,092 bbl
25099; Jenson 34-11TFH; Reunion Bay; NWNE 14-151N-93W; 2SEC; Mountrail; Bakken; horizontal; 20,746; 8/22/2013; 1,274 bbl

QEP Energy
24946; Lawlar 1-5-8BH; Grail; LOT1 5-149N-95W; 2SEC; McKenzie; Bakken; horizontal; 20,920; 9/20/2013; 1,823 bbl
24947; Lawlar 2-5-8BH; Grail; LOT1 5-149N-95W; 2SEC; McKenzie; Bakken; horizontal; 21,015; 9/22/2013; 2,586 bbl
23097; MHA 2-06-31H-150-92; Heart Butte; SWSE 6-149N-92W; ICO; Dunn; Bakken; horizontal; 19,540; 9/9/2013; 2,512 bbl
23093; MHA 3-06-31H-150-92; Heart Butte; SWSE 6-149N-92W; ICO; Dunn; Bakken; horizontal; 20,467; 9/23/2013; 2,052 bbl
23095; MHA 5-06-05H-149-92; Heart Butte; SWSE 6-149N-92W; ICO; Dunn; Bakken; horizontal; 17,221; 9/13/2013; 2,045 bbl
24948; Patsy 1-29-32BH; Grail; LOT1 5-149N-95W; 2SEC; McKenzie; Bakken; horizontal; 21,093; 9/24/2013; 2,638 bbl
24949; Patsy 2-29-32-BH; Grail; LOT1 5-149N-95W; 2SEC; McKenzie; Bakken; horizontal; 21,124; 9/26/2013; 2,274 bbl

Statoil Oil and Gas
24088; Sax 25-36 6TFH; Banks; SWSW 36-153N-98W; 2SEC; McKenzie; Bakken; horizontal; 21,358; 9/17/2013; 2,762 bbl
24468; Viking 16-15 1H; Poe; NWNW 16-151N-100W; 2SEC; McKenzie; Bakken; horizontal; 20,830; 9/21/2013; 3,862 bbl

Triangle USA Petroleum
25521; Arnegard 150-100-23-14-1H; Timber Creek; SESW 23-150N-100W; 2SEC; McKenzie; Bakken; horizontal; 21,042; 10/8/2013; 611 bbl
25522; Arnegard 150-100-23-14-2H; Timber Creek; SESW 23-150N-100W; 2SEC; McKenzie; Bakken; horizontal; 20,899; 10/8/2013; 587 bbl
25458; Little Muddy 11H; Williston; NESE 6-154N-100W; 4SEC; Williams; Bakken; horizontal; 19,760; 10/21/2013; 631 bbl

Whiting Oil and Gas
25104; Rohde Federal 14-6TFX; Sanish; LOT7 6-153N-91W; ICO; Mountrail; Bakken; horizontal; 20,585; 9/14/2013; 620 bbl

IPs for ND wells released from confidential status

American Eagle Energy
25272; Lester 16-33-164-101; Colgan; SESE 33-164N-101W; N/A; Divide; Bakken; horizontal; N/A; N/A; N/A

Bakken Hunter
22253; Heron 22-15-163-96H; Bounty School; SESW 22-163N-96W; N/A; Divide; Bakken; horizontal; N/A; N/A; N/A

Burlington Resources Oil and Gas (ConocoPhillips)
23735; Bryce 11-5MBH; Westberg; LOT4 5-152N-96W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A
23734; Bryce 11-5TFH; Westberg; LOT4 5-152N-96W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A
25280; CCU William 34-20TFH; Corral Creek; NENW 29-147N-95W; U; Dunn; Bakken; horizontal; 22,630; 10/2/2013; 1,964 bbl
25237; Everglades 31-3TFH; Keene; LOT3 3-152N-96W; 2SEC; McKenzie;

Top 10 Bakken wells by IP rate

Statoil Oil and Gas
24468; Viking 16-15 1H; Poe; McKenzie; 3,862 bbl

Burlington Resources Oil and Gas (ConocoPhillips)
25237; Everglades 31-3TFH; Keene; McKenzie; 2,966 bbl
24980; CCU Corral Creek 41-28MBH; Corral Creek; Dunn; 2,894 bbl

Statoil Oil and Gas
24088; Sax 25-36 6TFH; Banks; McKenzie; 2,762 bbl

QEP Energy
24948; Patsy 1-29-32BH; Grail; McKenzie; 2,638 bbl

XTO Energy (ExxonMobil)
21253; Esther Federal 34X-28G; Lost Bridge; Dunn; 2,616 bbl

QEP Energy
24947; Lawlar 2-5-8BH; Grail; McKenzie; 2,586 bbl
23097; MHA 2-06-31H-150-92; Heart Butte; Dunn; 2,512 bbl
24949; Patsy 2-29-32-BH; Grail; McKenzie; 2,274 bbl

Marathon Oil
24012; Cummings USA 41-6H; Van Hook; Mountrail; 2,159 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 Oct. 22-28, 2013 in the Bakken petroleum system, as well as active wells that were released from tight- hole (confidential) 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; field; county; IP oil flow rate in barrels of oil.

Bakken; horizontal; 21,224; 9/14/2013; 2,966 bbl

Continental Resources
23784; Brandvik 3-25H; Corral Creek; NWNE 36-147N-96W; N/A; Dunn; Bakken; horizontal; N/A; N/A; N/A
23783; Brandvik 4-25H1; Corral Creek; NWNE 36-147N-96W; N/A; Dunn; Bakken; horizontal; N/A; N/A; N/A
25156; Columbus Federal 1-16H; Baker; NESE 16-153N-101W; 2SEC; McKenzie; Bakken; horizontal; 21,276; 7/19/2013; 673 bbl
24676; Jerol 3-27H; Lindahl; SWSW 22-159N-95W; 4SEC; Williams; Bakken; horizontal; 19,860; 9/14/2013; 481 bbl
24358; Mack 6-2H; Antelope; LOT1 2-152N-94W; SEC; McKenzie; Sanish; horizontal; 16,167; 8/12/2013; 206 bbl
24678; McGregor 3-22H; Lindahl; SWSW 22-159N-95W; 4SEC; Williams; Bakken; horizontal; 19,210; 8/2/2013; 407 bbl
24677; McGregor 4-22H; Lindahl; SWSW 22-159N-95W; 4SEC; Williams; Bakken; horizontal; 19,620; 9/9/2013; 362 bbl

EOG Resources
23065; Bear Den 20-1708H; Spotted Horn; SESE 17-150N-94W; 2SEC; McKenzie; Bakken; horizontal; 20,768; 6/4/2013; 282 bbl
24672; Van Hook 29-1113H; Parshall; NWNW 11-152N-91W; ICO; Mountrail; Bakken; horizontal; 20,927; 6/8/2013; 720 bbl
24671; Van Hook 30-1113H; Parshall; NWNW 11-152N-91W; ICO; Mountrail; Bakken; horizontal; 22,139; 6/8/2013; 871 bbl

HRC Operating (Halcon Resources)
26416; Erikson 157-101-24D-13-3H; Otter; NENE 25-157N-101W; N/A; Williams; Bakken; horizontal; N/A; N/A; N/A
24299; Fort Berthold 148-95-13A-24-3H; Eagle Nest; NWNE 13-148N-95W; N/A; Dunn; Bakken; horizontal; N/A; N/A; N/A
24298; Fort Berthold 148-95-13A-24-4H; Eagle Nest; NWNE 13-148N-95W; N/A; Dunn; Bakken; horizontal; N/A; N/A; N/A
24588; Rossland 157-101-22C-15-2H; Otter; SESW 22-157N-101W; 2SEC; Williams; Bakken; horizontal; 20,180; 6/22/2013; 978 bbl

Hunt Oil
25096; Alexandria 1-26-35H; Alexandria; NENW 26-161N-100W; 2SEC; Divide; Bakken; horizontal; 18,697; 7/29/2013; 250 bbl

Marathon Oil
24012; Cummings USA 41-6H; Van Hook; LOT1 6-150N-92W; 2SEC; Mountrail; Bakken; horizontal; 20,258; 8/14/2013; 2,159 bbl

Oasis Petroleum North America
24227; Nellie John Federal 5300 14-25B; Willow Creek; NENE 25-153N-100W; N/A; Williams; Bakken; horizontal; N/A; N/A; N/A

Oxy USA (Occidental Petroleum)
24717; Richard Longfellow 1-22-15H-142-98; Saddle Butte; SESW 22-142N-98W; 2SEC; Billings; Bakken; horizontal; 20,727; 5/1/2013; 103 bbl

Petro-Hunt
22492; Jonsrud 151-96-3A-10-5H; Clear Creek; LOT2 3-151N-96W; 2SEC; McKenzie; Bakken; horizontal; 20,525; 9/28/2013; 1,368 bbl
24149; Fort Berthold 148-94-27C-22-4H; McGregory Buttes; SWSW 27-148N-94W; N/A; Dunn; Bakken; horizontal; N/A; N/A; N/A
21997; Producers Corp 159-94-8A-17-3H; North Tioga; NWNE 8-159N-94W; N/A; Burke; Bakken; horizontal; N/A; N/A; N/A
25048; Sorenson 152-96-24D-13-7H; Union Center; SESE 24-152N-96W; 2SEC; McKenzie; Bakken; horizontal; 20,468; 8/5/2013; 1,759 bbl

Samson Resources (KKR & Co.)
22427; Flameback 21-16-162-96H; Juno; SWSE 21-162N-96W; N/A; Divide; Bakken; horizontal; N/A; N/A; N/A
22426; Flicker 28-33-162-96H; Juno; SWSE 21-162N-96W; N/A; Divide; Bakken; horizontal; N/A; N/A; N/A

Slawson Exploration
25317; Bandit 3-29H; Van Hook; NENW 29-152N-91W; SEC; Mountrail; Bakken; horizontal; 14,278; 7/24/2013; 329 bbl
25316; Mamba 3-20H; Van Hook; NENW 29-152N-91W; ICO; Mountrail; Bakken; horizontal; 15,207; 9/26/2013; 369 bbl
25501; Walleye Federal 2-12-11H; Sanish; LOT11 7-152N-92W; N/A; Mountrail; Bakken; horizontal; N/A; N/A; N/A

SM Energy
24751; Mosser 2-30HNB; Colgan; NWNE 30-163N-100W; 2SEC; Divide; Bakken; horizontal; 18,548; 8/28/2013; 374 bbl

Statoil Oil and Gas
24411; Broderson 30-31H; Banks; SESE 19-153N-97W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A
24413; Broderson 30-31 4TFH; Banks; SESE 19-153N-97W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A
24412; Garmann 19-18 3H; Banks; SESE 19-153N-97W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A

WPX Energy
22211; George Evans 14-23HC; Van Hook; SWSE 1-150N-92W; 2SEC; Mountrail; Bakken; horizontal; 20,510; 9/12/2013; 1,827 bbl
24954; Spotted Rabbit 14-23HW; Van Hook; NWNW 14-150N-92W; 2SEC; Mountrail; Bakken; horizontal; 20,604; 8/7/2013; 1,638 bbl

XTO Energy (ExxonMobil)
25383; Allie 31X-24H; Capa; NWNE 24-155N-95W; N/A; Williams; Bakken; horizontal; N/A; N/A; N/A
21253; Esther Federal 34X-28G; Lost Bridge; SWSE 28-148N-96W; 2SEC; Dunn; Bakken; horizontal; 20,807; 9/17/2013; 2,616 bbl
25325; Olson 34X-19D; Arnegard; SWSE 19-150N-100W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A
25327; Olson 34X-19G; Arnegard; SWSE 19-150N-100W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A
25326; Olson 34X-19H; Arnegard; SWSE 19-150N-100W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A
25369; Thaxton 24X-35A; West Capa; SESW 35-155N-97W; 2SEC; Williams; Bakken; horizontal; 20,231; 9/23/2013; 1,559 bbl
25368; Thaxton 24X-35E; West Capa; SESW 35-155N-97W; 2SEC; Williams; Bakken; horizontal; 20,482; 9/16/2013; 1,325 bbl
22515; Thaxton 24X-35F; West Capa; SESW 35-155N-97W; 2SEC; Williams; Bakken; horizontal; 20,056; 9/9/2013; 437 bbl

Zavanna
23901; Young 31-30 1H; Foreman Butte; SESE 31-151N-102W; 2SEC; McKenzie; Bakken; horizontal 20,650; 8/5/2013; 628 bbl

Zenergy (Oasis)
24239; Ranger 28-33HPNC; Foreman Butte; LOT2 21-150N-103W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A

—Compiled by Ashley Lindly

Contact Ashley Lindly at alindly@petroleumnewsbakken.com

continued from page 10

WELL TRANSFERS

#20748 - Lindy 156-100-10-3-1H; horizontal; Bakken; East Fork; 5/13/2012; 599 bbl; SWSE 10-156N-100W; Williams Co.
#21578 - Berger 156-101-9-4-1H; horizontal; Bakken; Tyrone; 7/19/2012; 470 bbl; SWSE 9-156N-101W; Williams Co.
#23201 - Lassey 152-103-27-34-1H; horizontal; Bakken; Glass Bluff; 11/9/2012; 1,029 bbl; NENW 27-152N-103W; McKenzie Co.
#23398 - Lassey 152-103-22-15-1H; horizontal; Bakken; Glass Bluff; 10/28/2012; 673 bbl; NENW 27-152N-103W; McKenzie Co.
#23423 - Northern 155-100-30-31-1H; horizontal; Bakken; Springbrook; 12/1/2012; 820 bbl; NWNE 30-155N-100W; Williams Co.
#21141 - Anna 156-100-8-5-1H; horizontal; Bakken; East Fork; 8/17/2012; 1,108 bbl; SESW 8-156N-100W; Williams Co.
#24097 - Dobias 152-103-32-29-1H; horizontal; Bakken; Glass Bluff; 7/13/2013; 681 bbl; SESW 32-152N-103W; McKenzie Co.
#21680 - Nygaard 150-101-28-33-1H; horizontal; Bakken; Pronghorn; 9/4/2012; 800 bbl; NWNE 28-150N-101W; McKenzie Co.
#24894 - Dobias 152-103-32-29-11TFH; horizontal; Bakken; Glass Bluff; 7/7/2013; 718 bbl; SESW 32-152N-103W; McKenzie Co.
#23534 - J. Garvin Jacobson 150-101-8-5-1H; horizontal; Bakken; Pronghorn; 2/12/2013; 589 bbl; SESW 8-150N-101W; McKenzie Co.
#23535 - J. Garvin Jacobson 150-101-17-20-1H; horizontal; Bakken; Pronghorn; 2/7/2013; 574 bbl; SESW 8-150N-101W; McKenzie Co.

From: Charger Resources, LLC
To: Triangle USA Petroleum Corporation
#10734 - Lee 8-32; vertical; Dakota; Ragged Butte; 7/23/1984; 162 bbl; SWNE 8-151N-101W; McKenzie Co.

October 25, 2013

From: Broschat Engineering & Management Services, Inc.
To: Jettison, Inc.
#06956 - State Of North Dakota 1-16; vertical; Duperow; Tree Top; 11/17/1979; 65 bbl; SESE 16-142N-100W; Billings Co.

Contact Ashley Lindly at alindly@petroleumnewsbakken.com

Petroleum News Bakken

North Dakota oil permit activity

October 22—28, 2013

LEGEND

The county name is on the upper line, the type of permit issued is on the second line, and company names are next, followed by individual wells with data in this order: well name; location; footages; field; geological target; well bore type; elevation; NDIC file number; API number; date permit shows on NDIC website

Abbreviations

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

FNL = From North Line | FEL = From East Line

FSL = From South Line | FWL = From West Line

Billings Co.

Permits issued

Continental Resources

Snider 1-21H1; SWSE 21-141N-98W; 350'FSL and 1,980'FEL; Ukraina; N/A*; on confidential status; 2610' ground; 26795; 33-007-01810; 10/22/2013

Bowman Co.

Permits cancelled

Fidelity Exploration and Production (MDU)

NDBIS022408B 2270; SESW 2-130N-107W; 1,203'FSL and 2,625'FWL; Cedar Creek; Pierre; vertical; 2,939' ground; 17927; 33-011-01386; 10/25/2013

NDBIS022408B 2275; SWNW 2-130N-107W; 1,405'FSL and 56'FWL; Cedar Creek; Pierre; vertical; 2,972' ground; 17928; 33-011-01387; 10/25/2013

NDBIS022410 2269; LOT3 10-130N-107W; 2,538'FSL and 1351'FWL; Cedar Creek; Pierre; vertical; 3,037' ground; 17926; 33-011-01385; 10/25/2013

Bottineau Co.

Seismic permit

Tesla Exploration

Haram 3-D; 163-76,77,78; 164-77,78; 34 sq.mi; 970241; 10/24/2013

Dunn Co.

Permits issued

WPX Energy

Wolf Chief 27-34HA; NENW 27-149N-93W; 393'FNL and 1,852'FWL; Mandaree; N/A*; on confidential status; 2,189' ground; 26834; 33-025-02331; 10/25/2013

Wolf Chief 27-34HB; NENW 27-149N-93W; 418'FNL and 1,949'FWL; Mandaree; N/A*; on confidential status; 2,189' ground; 26836; 33-025-02333; 10/25/2013

Wolf Chief 27-34HC; NENW 27-149N-93W; 437'FNL and 2,021'FWL; Mandaree; N/A*; on confidential status; 2,189' ground; 26837; 33-025-02334; 10/25/2013

Wolf Chief 27-34HD; NENW 27-149N-93W; 463'FNL and 2,118'FWL; Mandaree; N/A*; on confidential status; 2,189' ground; 26839; 33-025-02336; 10/25/2013

Wolf Chief 27-34HW; NENW 27-149N-93W; 405'FNL and 1,900'FWL; Mandaree; N/A*; on confidential status; 2,189' ground; 26835; 33-025-02332; 10/25/2013

Wolf Chief 27-34HZ; NENW 27-149N-93W; 450'FNL and 2,070'FWL; Mandaree; N/A*; on confidential status; 2,189' ground; 26838; 33-025-02331; 10/25/2013

Permits cancelled

Pertro-Hunt

Fort Berthold 148-94-27C-22-4H; SWSW 27-148N-94W; 220'FSL and 1,180'FWL; McGregory Buttes; Bakken; horizontal; 2,284' ground; 24149; 33-025-01937; 10/23/2013

McKenzie Co.

Permits issued

Hess

BB-Belquist- 150-95-1110H-3; NESE 11-150N-95W; 2,045'FSL and 745'FEL; Blue Buttes; N/A*; on confidential status; 2,260' ground; 26789; 33-053-05398; 10/22/2013

BB-Belquist- 150-95-1110H-4; NESE 11-150N-95W; 2,045'FSL and 712'FEL; Blue Buttes; N/A*; on confidential status; 2,263' ground; 26790; 33-053-05399; 10/22/2013

BB-Belquist- 150-95-1110H-5; NESE 11-150N-95W; 2,045'FSL and 679'FEL; Blue Buttes; N/A*; on confidential status; 2,267' ground; 26791; 33-053-05400; 10/22/2013

BB-Belquist- 150-95-1110H-6; NESE 11-150N-95W; 2,045'FSL and 646'FEL; Blue Buttes; N/A*; on confidential status; 2,271' ground; 26792; 33-053-05401; 10/22/2013

BB-Belquist- 150-95-1110H-7; NESE 11-150N-95W; 2,045'FSL and 613'FEL; Blue Buttes; N/A*; on confidential status; 2,275' ground; 26793; 33-053-05402; 10/22/2013

HA-Thompson- 152-95-2017H-6; SWSW 20-152N-95W; 628'FSL and 1,262'FWL; Hawkeye; N/A*; on confidential status; 2,443' ground; 26840; 33-053-05420; 10/25/2013

HRC Operating (Halcon Resources)

Fort Berthold 152-94-24D-013-5H; SWSE 24-152N-94W; 363'FSL and 1,881'FEL; Antelope; N/A**; on confidential status; 2,056' ground; 26798; 33-053-05405; 10/22/2013

Fort Berthold 152-94-24D-13-6H; SWSE 24-152N-94W; 383'FSL and 1,903'FEL; Antelope; N/A**; on confidential status; 2,057' ground; 26797; 33-053-05404; 10/22/2013

Fort Berthold 152-94-24D-13-7H; SWSE 24-152N-94W; 403'FSL and 1,926'FEL; Antelope; N/A**; on confidential status; 2,057' ground; 26796; 33-053-05403; 10/22/2013

Oasis Petroleum

Hysted 5200 14-30 3T2; NENE 30-152N-100W; 314'FNL and 320'FEL; Camp; Bakken; horizontal; 2,055' ground; 26833; 33-053-05419; 10/25/2013

Lefty 5200 14-30 4T2; NENE 30-152N-100W; 347'FNL and 320'FEL; Camp; Bakken; horizontal; 2,057' ground; 26832; 33-053-05418; 10/25/2013

SHD Oil and Gas

Bucky 13-36H; LOT3 36-151N-95W; 2,193'FSL and 303'FWL; Clarks Creek; N/A*; on confidential status; 2,332' ground; 26808; 33-053-05409; 10/23/2013

Luke 13-36H; LOT3 36-151N-95W; 2,342'FSL and 293'FWL; Clarks Creek; N/A*; on confidential status; 2,325' ground; 26811; 33-053-05412; 10/23/2013

Marc 13-36H; LOT3 36-151N-95W; 2,292'FSL and 296'FWL; Clarks Creek; N/A*; on confidential status; 2,327' ground; 26810; 33-053-05411; 10/23/2013

Mattie 13-36H; LOT3 36-151N-95W; 2,242'FSL and 300'FWL; Clarks Creek; N/A*; on confidential status; 2,330' ground; 26809; 33-053-05410; 10/23/2013

Sinclair Oil and Gas

Ersa Federal 2-4H; LOT2 4-148N-99W; 300'FNL and 1,920'FEL; Bully; N/*A; on confidential status; 2,338' ground; 26827; 33-053-05413; 10/24/2013

SM Energy

Bonner 9-12H; NESE 12-151N-100W; 2,245'FSL and 420'FEL; Poe; N/A*; on confidential status; 2,276' ground; 26852; 33-053-05426; 10/28/2013

Bonner 9X-12HA; NESE 12-151N-100W; 2,340'FSL and 420'FEL; Poe; N/A*; on confidential status; 2,280' ground; 26851; 33-053-05425; 10/28/2013

Bonner 9X-12HB; NESE 12-151N-100W; 2,150'FSL and 420'FEL; Poe; N/A*; on confidential status; 2,272' ground; 26853; 33-053-05427; 10/28/2013

QEP Energy

Otis 3-28-33BH; SESW 21-150N-95W; 462'FSL and 1,492'FWL; Grail; Bakken; horizontal; 2,332' ground; 26847; 33-053-05421; 10/28/2013

Otis 3-28-33TH; SESW 21-150N-95W; 462'FSL and 1,464'FWL; Grail; Bakken; horizontal; 2,332' ground; 26848; 33-053-05422; 10/28/2013

Otis 4-28-33BH; SESW 21-150N-95W; 462'FSL and 1,436'FWL; Grail; Bakken; horizontal; 2,332' ground; 26849; 33-053-05423; 10/28/2013

Otis 29-32-28- 33LL; SESW 21-150N-95W; 462'FSL and 1,408'FWL; Grail; Bakken; horizontal; 2,332' ground; 26850; 33-053-05424; 10/28/2013

Whiting Oil and Gas

Finsaas 34-9-3H; SWSE 9-150N-104W; 395'FSL and 1,520'FEL; Hay Creek; Bakken; horizontal; 1,888' ground; 26854; 33-053-05428; 10/28/2013

Finsaas 34-9-4H; SWSE 9-150N-104W; 425'FSL and 1,520'FEL; Hay Creek; Bakken; horizontal; 1,888' ground; 26855; 33-053-05429; 10/28/2013

XTO Energy (ExxonMobil)

Cole 44X-32C; SESE 32-150N-97W; 313'FSL and 133'FEL; Siverston; N/A*; on confidential status; 2,330' ground; 26803; 33-053-05407; 10/22/2013

Cole 44X-32G; SESE 32-150N-97W; 313'FSL and 133'FEL; Siverston; N/A*; on confidential status; 2,333' ground; 26802; 33-053-05406; 10/22/2013

Cole 44X-32H; SESE 32-150N-97W; 312'FSL and 103'FEL; Siverston; N/A*; on confidential status; 2,326' ground; 26804; 33-053-05408; 10/22/2013

Rolfson 14X-34A; SWSW 34-151N-98W; 569'FSL and 429'FWL; Siverston; N/A*; on confidential status; 2,023' ground; 26831; 33-053-05417; 10/24/2013

Rolfson 14X-34B; SWSW 34-151N-98W; 509'FSL and 428'FWL; Siverston; N/A*; on confidential status; 2,024' ground; 26829; 33-053-05415; 10/24/2013

Rolfson 14X-34E; SWSW 34-151N-98W; 539'FSL and 429'FWL; Siverston; N/A*; on confidential status; 2,024' ground; 26830; 33-053-05416; 10/24/2013

Rolfson 14X-34F; SWSW 34-151N-98W; 479'FSL and 428'FWL; Siverston; N/A*; on confidential status; 2,023' ground; 26828; 33-053-05414; 10/24/2013

Permits renewed

Triangle Petroleum

Triangle 150-101-36-25-7H; SESW 36-150N-101W; 500'FSL and 1,650'FWL; Rawson; Bakken; horizontal; 2,427' ground; 24277; 33-053-04945; 10/25/2013

Triangle 150-101-36-25-8H; SESW 36-150N-101W; 249'FSL and 1,600'FWL; Rawson; Bakken; horizontal; 2,433' ground; 24276; 33-053-04948; 10/25/2013

Location resurveyed

Hess

HA-Thompson 152-95-2017H-4; SWSW 20-152N-95W; 628'FSL and 1,196'FWL; Hawkeye; N/A*; on confidential; 2,444' ground; 25866; 33-053-05092; 10/24/2013

HA-Thompson 152-95-2017H-5; SWSW 20-152N-95W; 628'FSL and 1,229'FWL; Hawkeye; N/A*; on confidential; 2,443' ground; 25865; 33-053-05091; 10/24/2013

Mountrail Co.

Permits issued

Hess

EN-Hermanson- 2560-155-93-3502-3601H-2; NENW 35-155N-93W; 450'FNL and 2,311'FWL; Robinson Lake; N/A*; on confidential status; 2,404' ground; 26813; 33-061-02779; 10/23/2013

EN-Hermanson- 2560-155-93-3502-3601H-3; NENW 35-155N-93W; 450'FNL and 2,278'FWL; Robinson Lake; N/A*; on confidential status; 2,405' ground; 26812; 33-061-02778; 10/23/2013

EN-Hermanson- 2560-155-93-3502-3601H-4; NENW 35-155N-93W; 450'FNL and 2,245'FWL; Robinson Lake; N/A*; on confidential status; 2,405' ground; 26819; 33-061-02781; 10/24/2013

EN-Leo- 154-94-2324H-2; NWNW 26-154N-94W; 300'FNL and 375'FWL; Alkali Creek; N/A*; on confidential status; 2,064' ground; 26841; 33-061-02782; 10/25/2013

EN-Leo- 154-94-2324H-3; NWNW 26-154N-94W; 300'FNL and 325'FWL; Alkali Creek; N/A*; on confidential status; 2,064' ground; 26842; 33-061-02783; 10/25/2013

EN-Weyrauch- 154-93-1918H-9; SWSE 19-154N-93W; 609'FSL and 2,545'FEL; Robinson Lake; N/A*; on confidential status; 2,260' ground; 26846; 33-061-02784; 10/28/2013

Marathon Oil

Earl Pennington USA 44-33H; SESE 33-152N-93W; 275'FSL and 715'FEL; Reunion Bay; N/A*; on confidential status; 2,171' ground; 26807; 33-061-02777; 10/23/2013

Renn 41-4TFH; SESE 33-152N-93W; 275'FSL and 815'FEL; Reunion Bay; N/A*; on confidential status; 2,174' ground; 26805; 33-061-02775; 10/23/2013

Tollefson 41-4H; SESE 33-152N-93W; 275'FSL and 765'FEL; Reunion Bay; N/A*; on confidential status; 2,173' ground; 26806; 33-061-02776; 10/23/2013

Sinclair Oil and Gas

Martens 5-6XH; LOT1 6-154N-92W; 360'FNL and 225'FEL; Sanish; N/A*; on confidential status; 2,323' ground; 26814; 33-061-02780; 10/23/2013

Permits cancelled

Fidelity Exploration and Production (MDU)

Lostwood 21-28-27H; SESE 27-154N-92W; 134'FSL and 910'FEL; Sanish; Bakken; horizontal; 2,118' ground; 25711; 33-061-02586; 10/28/2013

Location resurveyed

Hess

EN-Weyrauch 154-93-1918H-8; SWSE 19-154N-93W; 609'FSL and 2,512'FEL; Robinson Lake; N/A*; on confidential status; 2,257' ground; 25294; 33-061-02491; 10/24/2013

Renville Co.

Permits issued

Enduro Operating

MRPSU 30-14; SWSW 30-162N-85W; 675'FSL and 667'FWL; Mouse River Park; N/A**; on confidential status; 1,773' ground; 26820; 33-075-01454; 10/24/2013

Slope Co.

Permits issued

Marathon Oil

Rundle Trust 21-29TH; NWNW 29-136N-99W; 300'FNL and 1,050'FWL; Wildcat; N/A; on confidential status; 2,723' ground; 26794; 33-087-00361; 10/22/2013

Williams Co.

Permits issued

Hess

SC-Tom- 153-98-1514H-4; NWSW 15-153N-98W; 1,815'FSL and 888'FWL; Truax; N/A*; on confidential status; 1,979' ground; 26799; 33-105-03272; 10/22/2013

SC-Tom- 153-98-1514H-5; NWSW 15-153N-98W; 1,817'FSL and 855'FWL; Truax; N/A*; on confidential status; 1,971' ground; 26800; 33-105-03273; 10/22/2013

SC-Tom- 153-98-1514H-6; NWSW 15-153N-98W; 1,815'FSL and 888'FWL; Truax; N/A*; on confidential status; 1,964' ground; 26799; 33-105-03272; 10/22/2013

HRC Operating (Halcon Resources)

Helstad 158-99-34C-27-2H; LOT4 3-157N-99W; 350'FNL and 1,230'FWL; Ellisville; Bakken; horizontal; 2,201' ground; 26815; 33-105-03275; 10/24/2013

Helstad 158-99-34C-27-3H; LOT4 3-157N-99W; 350'FNL and 1,290'FWL; Ellisville; Bakken; horizontal; 2,201' ground; 26817; 33-105-03277; 10/24/2013

Johnson 157-99-3B-10-2H; LOT4 3-157N-99W; 350'FNL and 1,260'FWL; Lone Tree Lake; Bakken; horizontal; 2,201' ground; 26816; 33-105-03276; 10/24/2013

Johnson 157-99-3B-10-3H; LOT4 3-157N-99W; 350'FNL and 1,320'FWL; Lone Tree Lake; Bakken; horizontal; 2,202' ground; 26818; 33-105-03278; 10/24/2013

Style Mineral Trust 157-101-25A-36-4H; NENE 25-157N-101W; 350'FNL and 1,090'FEL; Otter; Bakken; horizontal; 2,028' ground; 26824; 33-105-03282; 10/24/2013

Sequel Energy

Edna 14-7H-1819-15895-MB; LOT4 7-158N-95W; 300'FSL and 700'FWL; Temple; Bakken; horizontal; 2,422' ground; 26826; 33-105-03284; 10/24/2013

Yogi 14-7H-0607-15895-TF; LOT4 7-158N-95W; 300'FSL and 800'FWL; Temple; Bakken; horizontal; 2,427' ground; 26825; 33-105-03283; 10/24/2013

XTO Energy (ExxonMobil)

Boe State 31X-16C; NWNE 16-155N-96W; 455'FNL and 2,267'FEL; Beaver Lodge; N/A*; on confidential status; 2,096' ground; 26823; 33-105-03281; 10/24/2013

Boe State 31X-16D; NWNE 16-155N-96W; 455'FNL and 2,207'FEL; Beaver Lodge; N/A*; on confidential status; 2,096' ground; 26821; 33-105-03279; 10/24/2013

Boe State 31X-16H; NWNE 16-155N-96W; 455'FNL and 2,237'FEL; Beaver Lodge; N/A*; on confidential status; 2,096' ground; 26822; 33-105-03280; 10/24/2013

Roxy 21X-6A; LOT3 6-154N-96W; 293'FNL and 1,639'FWL; West Capa; N/A*; on confidential status; 1,913' ground; 26844; 33-105-03286; 10/28/2013

Roxy 21X-6E; LOT3 6-154N-96W; 293'FNL and 1,609'FWL; West Capa; N/A*; on confidential status; 1,913' ground; 26843; 33-105-03285; 10/28/2013

Roxy 21X-6F; LOT3 6-154N-96W; 293'FNL and 1,699'FWL; West Capa; N/A*; on confidential status; 1,913' ground; 26845; 33-105-03287; 10/28/2013

Permits renewed

Zenergy (Oasis)

Lake Trenton 33-28H; SESW 33-153N-102W; 225'FSL and 2,200'FWL; Eightmile; N/A*; on confidential status; 1,863' ground; 24296; 33-105-02876; 10/28/2013

** Note - The geologic target for these wells was not listed in its well file because they are a tight (confidential) hole, but the following fields produce from the Bakken pool; Alkali Creek, Beaver Lodge, Blue Buttes, Bully, Clarks Creek, Eightmile, Hawkeye, Mandaree, Poe, Reunion Bay, Robinson Lake, Sanish, Siverston, Truax, Ukraina, West Capa.*

*** Note - The geologic target for these wells was not listed in its well file because they are a tight (confidential) hole, but the Antelope field produces from the Sanish pool and the Mouse River Park field produces from the Madison pool.*

—Compiled by Ashley Lindly

Contact Ashley Lindly at alindly@petroleumnewsbakken.com

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BAYTEX MOVES

initial production rates "a little above the curve."

In an early indication of Baytex's planned capital spending for 2014, Bowzer said the Bakken will receive its share of the same expected 5 percent budget increase over this year's C$520 million, with the largest chunk going to heavy oil operations in northwest Alberta's Peace River and Lloydminster, which straddles the Alberta-Saskatchewan border. The budget details are scheduled to be announced Dec. 13.

The company reported that it drilled three gross (1.3 net) horizontal wells in the Bakken during the third quarter, and fracture stimulated four gross (2.3 net) wells, with its six operated wells on spacings of 1,280 acres establishing a 30-day peak production rate of about 470 bpd.

No Bakken changes planned

Bowzer said no changes are planned for the Bakken, which rates a "standard capital allocation" and is among the company's "most capital efficient projects."

Overall, Baytex achieved record quarterly production of 60,184 barrels of oil equivalent per day (89 percent oil and natural gas liquids), up 3 percent from the second quarter and almost 6,000 boe per day above a year earlier.

Peace River led the way at 26,000 boe per day, followed by Lloydminster at 19,000 boe per day, allowing Baytex to tighten its 2013 guidance range to 57,500-58,000 boe per day.

Two-thirds of capital spending so far this year went to drilling and completion.

Baytex has also been among the leading users of rail to ship crude, surging to 27,000 bpd in the third quarter from 7,500 bpd in the same period of 2012 and 15,000 bpd in the first half of 2013. It expects to average 23,000-24,000 bpd over the next few quarters.

Bowzer said that increases in PADD II refining capacity and pipeline expansions will mean there is less arbitrage room open for rail in 2014.

The company reported that funds from operations in the third quarter jumped to C$199.3 million from C$155.8 million a year earlier and C$456.9 million for the nine months to Sept. 30 from C$405.5 million in the same period of 2012. Year-over-year net income for the quarter rose to C$87.3 million from C$36.2 million.

—GARY PARK

Contact Gary Park through publisher@petroleumnews.com

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HESS INFILLING

with the tighter spacing on a larger scale.

Three Fork testing

Hess has been delineating the Three Forks since 2012, Hill said, and by the end of 2013 he expects the company to have about 140 Three Forks wells drilled and on production. That, he said, has "proved up" some 40 percent of the company's 550,000 to 600,000 core Bakken acres. Ultimately, Hill expects that some 60 to 65 percent of Hess's core acreage will be economic for Three Forks production.

Results on Three Forks testing have exceeded company expectations, Hill continued. "And in fact, our well results coupled with the publicly available production data show that our Three Forks acreage is among the best in the play." Hess's acreage blocks are concentrated in McKenzie, Mountrail and Williams counties.

The Three Forks testing, according to Hill, will also look at some of the deeper benches. "Regarding the benches, we do see several discrete thicker packages in certain areas of the field where we will plan to test whether or not more than one well in the Three Forks actually can deliver superior returns."

Hill said the existing well spacing configuration yields about 2,500 future drilling locations and an estimated recoverable resource of about 1 billion barrels. With the positive Three Forks results, Hill said the long-term guidance will go up and could go up further from infilling.

2014 Capex

Hill said while the company has not yet finalized its 2014 budget, this year Hess is running 14 rigs in the basin and is planning to increase that count to 17 in 2014, "and then if the seven and six works, assuming it does and we're confident it will, then you'll see us step the rig count up to 20 rigs the year after and potentially higher after that."

Hess Chief Financial Officer John Riley also cautioned that the company's 2014 budget is yet to be finalized, but said the capital expenditure for the Bakken will somewhere between $500 million and $600 million.

Third quarter results

Hess's third quarter Bakken production averaged 71,000 barrels of oil equivalent per day, an increase of 14 percent over the second quarter production. Hill said Hess's Bakken production is ramping up in the second half of 2013 as the company completes its transition to pad drilling.

However, Hill said the company will experience some downtime in the fourth quarter as it completes the expansion of its Tioga gas plant. That downtime is incorporated in the company's 2013 guidance of 64,000 to 70,000 boepd.

Hess brought 50 operated wells on production in the third quarter, 30 Middle Bakken and 20 Three Forks wells. Hill said Hess expects to bring 170 wells on production this year, two-thirds of which will be Middle Bakken wells and the other third targeting the Three Forks.

Hess's Tioga gas plant expansion is on schedule to begin commissioning at the end of 2013. That expansion will increase wet gas capacity 120 million to 220 million cubic feet per day (see related stories on page 1). ●

Contact Mike Ellerd at mellerd@bresnan.net

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WELL EFFICIENCIES

Whiting's low well costs is a reduction in drilling time, which the company has essentially cut in half. Volker told CNBC's Jim Cramer on Oct. 25 that through improved technology, Whiting has been able to cut the time required to drill a Bakken well to total depth, i.e., 10,000 feet vertically then 10,000 feet horizontally, from approximately 30 days to between 11 and 15 days.

Contributing to that reduced drilling time is the company's use of stronger drill bits. Volker said Whiting is now using strong drill bits to drill laterals, which often allows the company to drill the entire 10,000-foot horizontal wellbore with just one bit. "So we don't stop to have to come out of the hole to replace the drill bit. That has really been the major improvement in cutting down our drilling time."

Buying and selling

Whiting has been selling assets in certain prospects and focusing more on its Rocky Mountain operations, primarily in the Bakken and in its Redtail prospects in the Niobrara shale of the Denver-Julesburg basin, DJ, in Colorado.

As Petroleum News Bakken reported in September, Whiting picked up 17,282 net (39,310 gross) acres in and around the company's Missouri Breaks and Hidden Bench prospects in McKenzie and Williams counties, N.D., and in Richland and Roosevelt counties, Mont. Whiting said that acquisition increased its total Western Williston Basin acreage to 120,309 net (205,581 gross) acres and its total acreage throughout the Williston Basin, including Montana, to 729,732 net (1,188,934 gross) acres.

Whiting is selling 32,000 net acres of its Big Tex prospect in Pecos County, Texas, to a private buyer for $150.1 million. In an Oct. 23 press release, Volker said a portion of the proceeds from that sale "will further increase our liquidity to accelerate development of our high rate of return Williston Basin Bakken and DJ Basin Niobrara assets."

As Petroleum News Bakken reported in June, Whiting sold its enhanced oil recovery fields and related assets in the Postle and Northeast Hardesty fields, most of which are in the Oklahoma panhandle, to BreitBurn Energy Partners for just under $860 million. That deal closed in July.

"As a result of these actions, we have an exceptionally good balance sheet, which we're using to accelerate production and reserve growth at Redtail and in the Bakken," Volker said in the Oct. 24 conference call.

Whiting's total production

In addition to the Bakken and Niobrara plays, which are part of the company's Rocky Mountain region, Whiting also has operations in the Permian Basin, Gulf Coast and Midcontinent, as well as in Michigan. Combined, the company's third quarter production totaled 92,750 boepd, essentially flat with its second quarter production of 93,380 boepd but up 12 percent from the second quarter 2012 output of 82,615 boepd. Of the company's total output, 70 percent came from the Williston Basin.

For the first three quarters of 2013, Whiting produced an average of 91,770 boepd across all of it operations, up 13 percent over the 81,360 boepd output in the first three quarters of 2012.

According to North Dakota Department of Mineral Resources Oil and Gas Division records, Whiting ranked as the third largest oil producer in North Dakota in August with an average daily output of 68,833.5 barrels per day based on operated wells. That output does not include production from confidential wells. ●

Contact Mike Ellerd at mellerd@bresnan.net

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KODIAK'S 3Q

our two down-spacing pilot programs onto full production. We continue to be pleased with the initial well performance in each of these pilot programs."

During the third quarter of 2013, Kodiak said, it completed 29 gross (24.5 net) operated wells and participated in the completion of 37 gross (6.6 net) non-operated wells.

In the first nine months of 2013, Kodiak completed 74 gross (60.5 net) operated and 80 gross (13.2 net) non-operated wells.

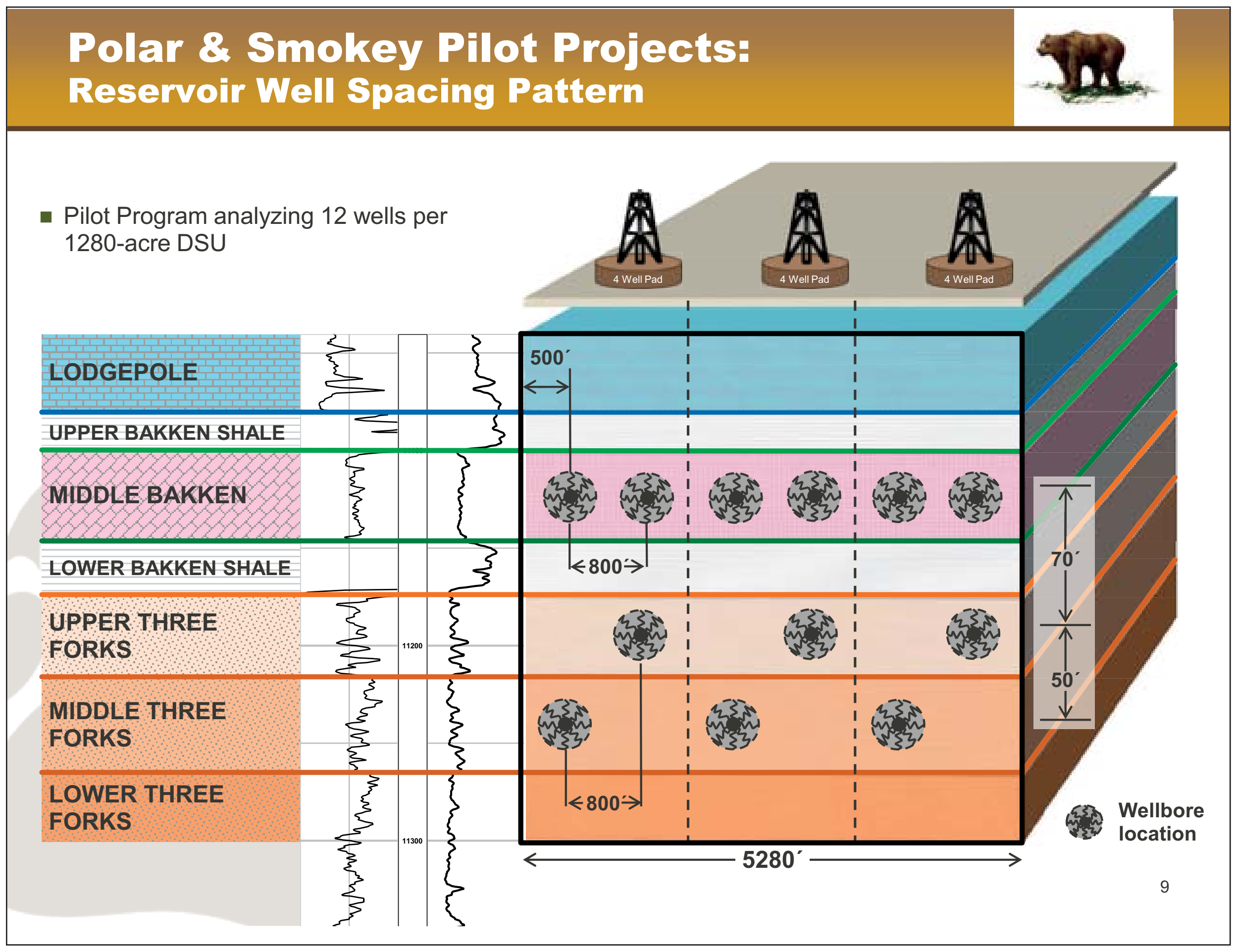
Kodiak said it currently operates seven drilling rigs and participates for an approximate 50 percent working interest in the drilling activity of one non-operated rig in its Dunn County area of mutual interest.

In addition, Kodiak said it participates for a minority working interest in numerous non-operated properties with other operators.

Its operated rigs are drilling in the following prospect areas: one rig operating in Dunn County, three rigs in the Polar project area in southern Williams County, one rig in each of the Smokey and Koala project areas in McKenzie County, and one rig in the Wildrose project area in northern Williams County, the company said.

Drilling operations continue to benefit from improved efficiencies resulting in decreased spud-to-rig-release drilling times, Kodiak said, adding that its drilling costs have continued to fall as a result of improved efficiencies, as well as from cost reductions across the full drilling spectrum.

"Our drilling program continues to see efficiency gains with fewer drilling days which when combined with lower third-party service costs and efficiency gains in our completion work, is helping to drive down our well costs," Peterson said.



100 percent ceramic

Kodiak has logged its decreased well cost while continuing its use of higher cost ceramic proppants.

"Our current completed and equipped well costs, using 100 percent ceramic proppants, are approximately $9.2 million to $9.5 million, which is down nearly 10 percent from well costs earlier this year," Peterson said. "With further movement to full-scale development drilling we anticipate that these well costs can be further reduced in the next 12

see **KODIAK'S 3Q** *page 16*

Oil Patch Bits

OFS Energy Fund completes asset acquisition of WT3

OFS Energy recently formed Terra Oilfield Services LLC in order to recapitalize WT3 LLC, a provider of water transfer and treatment services to the oil and gas industry. James Wingo and Stan Peach, WT3's co-owners will continue as TerraOFS' management team.

TerraOFS is a water transfer and fluids management company focused on providing critical services to the oil and gas industry primarily during the drilling and fracturing process.

"James and Stan are experts in their field, and they have assembled a reliable team to provide creative and reliable water solutions during critical phases of the frack process," said Jerad McMayon, partner of OFS. "TerraOFS' management has deep knowledge of drilling, completions and chemicals, and our fund is pleased to provide capital and other resources to help support TerraOFS' growth in those areas."

TerraOFS is a water transfer and fluids management company focused on providing critical services to the oil and gas industry primarily during the drilling and fracturing process. TerraOFS is headquartered in Conroe, Texas, and has operations in most major shale basins in North America.

Bakken Players

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NDPA REPORT

duction as well as capture and flaring on the Pipeline Authority's website, he felt it was time to include a narrative adding background to the graphics to help people better understand the issues.

"Obviously flaring has always been an important issue, but at the current time I think it was appropriate to have a fact-based report available for all interested parties to take a look at exactly what's happening so that decisions can be made based on the facts," Kringstad says. "I wanted it to be strictly as factual as possible and let the policy makers and industry make decisions from there."

Gathering challenges

The report details the production of natural gas in North Dakota and the challenges associated with gas gathering and processing infrastructure. As oil and associated natural gas production continue to increase month-on-month, the demand to build gas gathering infrastructure increases accordingly. In addition, there are also problems with existing gathering infrastructure, such as pipeline capacity and compression.

Because of those limitations, it is not uncommon for existing wells that are connected to gathering infrastructure to be knocked off the infrastructure and reverted to flaring when new high pressure wells come online. "It should be noted that simply connecting a well to a gas gathering system may not completely extinguish the flare if the pipeline system cannot handle all of the new production," the report states.

Another gathering challenge in North Dakota is the precipitation of natural gas liquids as the raw natural gas is transported from the wellhead to processing plants. As those liquids fall out of the gas stream, they pool at the bottom of the pipe. The process is exacerbated during North Dakota's cold winters resulting in a decrease in the volume of pipeline capacity.

More processing capacity

According to the Pipeline Authority's report, there are currently 20 gas processing plants in North Dakota with a combined capacity to process approximately 1 billion cubic feet of gas per day, but more processing capacity is in the works. Six new or expanded plants with approximately 450 million cubic feet of processing capacity are slated to come online in the next several years according to the report.

Hess Corp. recently completed an expansion of its Tioga processing plant, and Alliance Pipeline announced Oct. 29 the completion of its Tioga lateral pipeline that will run from the Hess plant and connect to Alliance's main transmission pipeline where it enters the U.S. from Saskatchewan near Sherwood in northern Renville County (see story on page 1).

Export capacity

Although flaring of natural gas in North Dakota is not directly related to interstate transmission pipeline capacity, having adequate takeaway capacity is another important issue in the state. "It should be noted that making a quantitative link between current flaring and interstate pipeline capacity is difficult; but nonetheless, ensuring North Dakota natural gas has an adequate means of moving to market over the long term is crucial."

The report indicates there are three primary interstate lines that transport North Dakota natural gas from the intrastate gathering systems to out-of-state markets: the Alliance, Northern Border and WBI Transmission pipelines. As the report states, the WBI Transmission pipeline transports gas on a regional basis while the Alliance and Northern Borders pipelines originate in Canada and run to the U.S. Midcontinent. North Dakota gas is picked up along the way.

A 2012 Pipeline Authority report found that competition for export capacity to Mid-Continent markets on the Alliance and Northern Border pipelines will increase as North Dakota gas production and capture increases. In response, WBI Energy is proposing to build a 400-mile gas transmission line from a point near Williston to eastern North Dakota and/or western Minnesota.

Economic assessment

The Pipeline Authority report also looked at the economic losses due to flaring using a crude oil price of $97.18 per barrel and a natural gas price of $8 per thousand cubic feet at the wellhead before the natural gas liquids are removed. The report indicates that in August 2013, 97.3 percent of total economic value of North Dakota natural gas was captured, i.e., only 2.7 percent of the economic value was lost due to flaring.

Likewise, the report found that in August, 92.8 percent of the energy content of the state's petroleum production was captured, with 7.2 percent lost due to flaring.

U.S. flaring

According to the Pipeline Authority report, less than 1 percent of all the natural gas produced in the U.S. is vented or flared on average. That is in comparison to North Dakota, which is currently flaring approximately 29 percent of the gas produced in the state.

However, the report states that the low percentage of overall U.S. flaring is the result of both an industrialized economy and "decades of building interstate natural gas pipelines that allows large volumes of production to be moved to areas of consumption." The report goes on to say that North Dakota is not immune to the same market forces that were responsible for the building of that nationwide infrastructure.

How to get the report

The report, the formal title of which is "North Dakota Natural Gas, A Detailed Look at Natural Gas Gathering," is available at the Pipeline Authority's website at www.northdakotapipelines.com. The report is in PDF format and is 19 pages long with numerous charts. ●

Contact Mike Ellerd at mellerd@bresnan.net

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RAIL SAFETY

Coming less than four months after 47 lives were snuffed out in the Quebec town of Lac-Megantic when a Montreal, Maine and Atlantic train derailed, the Gainford "incident" occurred two days after people in Sexsmith, Alberta, were evacuated when a CN train carrying ammonia derailed and a month after 17 cars on a CN train carrying petroleum, ethanol and chemicals left the tracks in Saskatchewan.

CP Rail also picked up a couple of blemishes in June from derailments in Calgary of trains carrying petroleum products.

Shipments planned to grow

Those events coincide with year-end 2014 forecasts by the Canadian Association of Petroleum Producers that 300,000 barrels per day of crude could be moved by rail in Canada, while shipments across North American are expected to reach 2 million bpd.

What troubles critics is the plan the rail industry has to grow its resource-related business.

CP Executive Vice President Jane O'Hagan told a third-quarter conference call that her company expects to increase its crude business by shipping more heavy grades from Western Canada as new loading terminals come into service.

"Over time we will see increasing volumes of heavy crude moving with different economics and drivers of demand than the lighter Bakken crude that we predominantly move today," she said.

O'Hagan noted that the heavier crudes are not as susceptible to shipping margin impacts from narrowing key benchmark price spreads, which have tightened this year, cutting into profitability margins for railing Bakken crude to coastal refining markets.

"We are seeing orders pick up in October as spreads have widened recently," she said. "Although we don't know how long this will persist, our crude market will always be a combination of the consistent term volumes and the opportunistic volumes that respond to the movement of spreads."

More sand will be shipped

CP Rail is also making plans to move more frack sand volumes which posted double-digit volume growth during the third quarter, O'Hagan said, without disclosing the actual volumes.

CN's Mongeau told analysts he is doubtful that the rural Alberta derailment will impact his company's insurance rates.

"I am hopeful that by the time we finish the year we may be, if not the leader in terms of safety, then we'll be one of the top railroads.

"We have more protection technology deployed, we have a very structured response, and at the end of the day the insurers look at facts in setting your premium.

"We have an unwavering commitment to operating a safe railroad," Mongeau said, arguing that CN's record of about two or three accidents every month along with the fact that about 10 percent of the 1 billion metric tons of commodities it handles each year is classified as dangerous "is quite remarkable."

He said it will be difficult to improve on that safety performance, but CN is pledged to "continue to improve." ●

Contact Gary Park through publisher@petroleumnews.com

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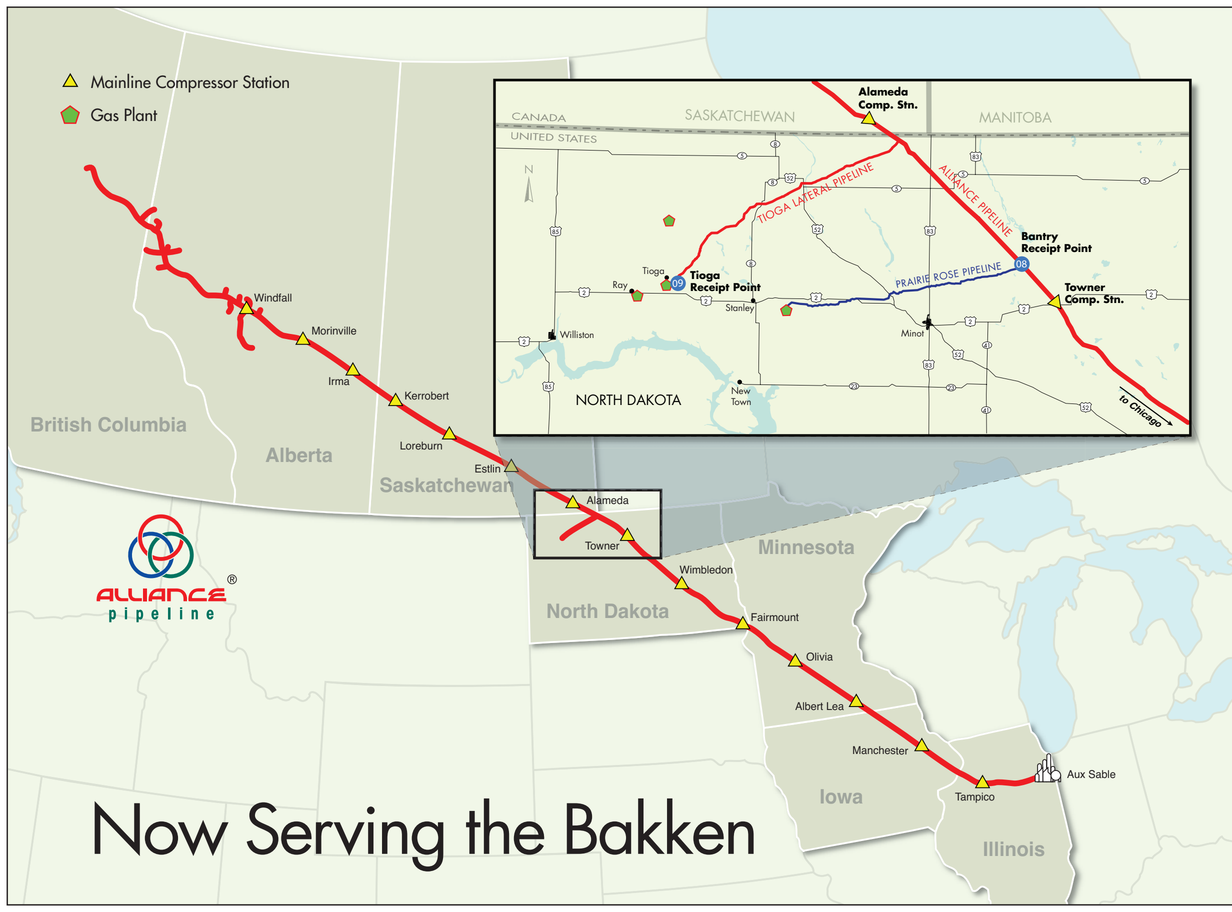
NEW GAS LATERAL

ket hub at Chicago with access to Aux Sable's natural gas liquids fractionation plant (see map).

The Alliance mainline has a capacity to transport approximately 1.6 billion cubic feet of natural gas per day. Connecting the Hess Tioga gas plant to the Alliance mainline will provide North Dakota gas producers with enhanced market access for their liquids-rich Bakken petroleum system natural gas. The pipeline is specifically designed to carry rich gas, i.e., gas with a high content of natural gas liquids such as ethane, propane and butane.



The anchor shipper

Alliance and Hess have an agreement under which Hess will move 61.5 million cubic feet of gas per day for 10 years, or about half of the pipeline's capacity, making Hess the anchor shipper. In an Oct. 29 press conference at the state capitol in Bismarck, Kutryk said Alliance is marketing the remaining capacity to other North Dakota gas producers.

Hess's Steve McNally said his company is proud to be the anchor shipper when the Tioga lateral's completion and commissioning was announced on Oct. 29. "Hess has been here since 1951. We've been a dedicated, responsible business partner with the state developing the resources and providing for the future of North Dakota," McNally said in the Oct. 29 press conference. "And from our perspective, anytime we can make available Bakken natural gas to other markets, that's good for Hess, naturally, it's good for the Alliance pipeline group, and it's also good for the State of North Dakota and America."

Alliance's Kutryk said the pipeline provides direct access to the "world class" Channahon Aux Sable NGL plant near Chicago, which, in turn, he said, provides access to competitive downstream markets for both the dry gas and the NGLs.

Another flaring tool

Kutryk said the timing of the pipeline is good because natural gas production in North Dakota is just breaking the 1 billion cubic feet per day mark. The new Tioga lateral along with Alliance's other pipelines play an important role in dealing with the state's flaring issue.

"We're very, very glad, as Alliance, to contribute to the efforts of Gov. Dalrymple and the North Dakota gas industry in their efforts to curb flaring," Kutryk said in the press conference. "We're also very honored to be participating in the state's newly established natural gas flaring task force. And it's for all these reasons that this pipeline represents a very valuable and new piece of energy infrastructure, not just for Alliance but for all of North Dakota."

In addition to adding value to one of the state's resources, Dalrymple also looks at the Tioga lateral pipeline in terms of how it can address flaring. "This state-of-the-art pipeline obviously is going to be extremely helpful in moving rich natural gas out of the highly productive region and into the marketplace — something that we continue to work on day after day, and we know this is how we capture the value of our natural gas and reduce flaring in western North Dakota," Dalrymple said in the Oct. 29 press conference.

North Dakota Petroleum Council President Ron Ness said the new Tioga lateral is not a "silver bullet" that will solve all of the flaring issues in one day, but instead is one of many projects that collectively address flaring. Ness added that the oil and gas industry through the Petroleum Council's flaring task force is heavily focused on addressing the flaring issue in North Dakota.

—MIKE ELLERD

Contact Mike Ellerd at mellerd@bresnan.net

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KODIAK'S 3Q

months."

Kodiak is scaling up its work force for the rest of 2013.

From late May to late August, Kodiak said it operated with two fulltime 24-hour-per-day completion crews — the second completion crew was released for the month of September and was brought back in early October.

The company plans to utilize two crews through the remainder of the year to complete 29 gross (21.5 net) operated wells during the fourth quarter.

Testing of 12 wells within a 1,280-acre drilling spacing unit continues in the Polar and Smokey operating areas, the company said. All wells in both project areas have been completed and are on production.

"Based upon early information gathered, we have not experienced circumstances that would indicate that the tighter well density (approximately 800 feet apart) has adversely impacted production," Peterson said.

The wells in the Polar area were drilled and completed simultaneously, while the wells in Smokey were drilled and completed in various quarters, in an attempt to evaluate the proper development of future drilling spacing units, Peterson said. The two pilot programs have tested well bore spacing of approximately 800 feet between wells (or roughly 210 acre drainage) in each of the two formations.

"We are currently drilling just to the east of our Polar project using a tighter 600-foot spacing which could potentially allow up to eight wells in the Middle Bakken formation and eight wells in the Three Forks," he said. "This type of spacing would equate to approximately 160-acre drainage for wells drilled in each of the formations."

"Assuming continued success in our down-spacing programs, we believe the results will help determine the optimal development program for the remainder of our drilling inventory," Peterson said.

Capital budget at $1 billion

The company estimates its full year capital budget to be $1 billion, drilling a total 100 net wells in 2013.

After assessing production volumes for the first nine months of 2013, taking into account a July 2013 acquisition along with closed trades, divestitures of properties, and acquisition of additional interests in operated drilling units, combined with the completion activity planned for the fourth quarter, Kodiak said it estimates its average daily production for the full-year 2013 will be approximately 30,000 boepd. This compares to 2012 full year production of 14,400 boepd.

Kodiak projects an exit rate for 2013 sales volumes of approximately 42,000 boepd.

"We also successfully closed and financed the purchase of additional Williston Basin assets that we are very excited to bring into the portfolio," Peterson said. "The team has made tremendous progress in a short time in integrating these assets."

"We are working diligently to high-grade the acquired assets by divesting or trading out of non-operated units and increasing our working interest in operated units," he said. "We continue to have success on this front and will look to a have a full summary of our transactions out to the market later this year."

—STEVE SUTHERLIN

Contact Steve Sutherlin at stevepna@hotmail.com