

page Whiting doubling densitieswith new technologies

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Fully operational



Hess Corp.'s Tioga natural gas processing plant looking west-southwest toward Tioga, North Dakota on June 29. The plant's capacity was increased from 115 million to 250 million cubic feet per day in an expansion that began in late November 2013. The plant went back into service in March and is now fully operational.

Energy Transfer Partners moves ahead on Bakken crude pipeline

Large capacity pipelines are changing the oil transportation landscape in North Dakota. Dallas-based Energy Transfer Partners, ETP, announced that it has already ordered the steel to begin construction of an approximately 1,100mile, 320,000 barrel per day crude oil pipeline to transport supplies from the Bakken/Three Forks production area to Patoka, Illinois, where it will then interconnect with ETP's existing 30-inch diameter Trunkline Pipeline, which is being converted from natural gas service to crude transportation. The pipeline is projected to be in service by the end of 2016 with the ability to expand capacity on demand. On June 24 at the Governor's Pipeline Summit, Enterprise Products Partners said it plans to build a 1,200-mile crude oil pipeline from the Bakken oil fields to Cushing, Oklahoma, and Enbridge is in the permitting stage for its 600-mile Sandpiper pipeline from western North Dakota to Clearbrook, Minnesota, and on to Superior, Wisconsin (see related story on page 5).

see ETP PIPELINE page 15

Legacy hooks Spearfish assets

Calgary-based Legacy Oil + Gas is pushing ahead with building its portfolio of resource plays.

• GOVERNMENT

Setting the rules

NDIC adopts production restriction regs to ensure flaring goals are met

By MAXINE HERR

For Petroleum News Bakken

S tate regulations to curb flaring just got some teeth.

The North Dakota Industrial Commission, NDIC, voted unanimously on new production restriction rules to reduce flared gas and meet a goal to capture at least 90 percent of the gas by 2020.

Lynn Helms, director of the state's Department of Mineral Resources, DMR, presented the commission with the proposed order at its monthly North Dakota looks at CBR oil conditioning

The North Dakota Industrial Commission plans to get involved in oil by rail regulations.

At its July 1 meeting, Department of Mineral Resources Director Lynn Helms asked the commission to consider following a similar model to what it used to develop the new field rules to curb flaring and hold a hearing to determine whether to condition, or separate the more volatile components, from

see OIL CONDITIONING page 16

Meeting capture demand

Three WB gas midstreamers assess their efforts to get ahead of gas production

By MIKE ELLERD

Petroleum News Bakken

s North Dakota continues to curb flaring of natural gas amid projections that the volume

of gas in the state to be captured will more than double by 2020 (see story this page), midstream companies in the state are working hard to



see FLARING REGS page 15

make sure the infrastructure will be there to meet the increasing supply. During the North Dakota Governor's Pipeline Summit on June 24, three of those gas midstreamers, Alliance Pipeline, Oneok

see GAS CAPTURE page 12

Quantifying ND's gas infrastructure needs

With the North Dakota Industrial Commission cracking down on how much flaring of natural gas it will tolerate, coupled with the state's ever-increasing oil and gas production, the volume of natural gas to be captured in the state continues to increase as midstream companies make efforts to keep up with that increasing capture demand (see story on page 1). That widening gap between what can be produced and what can be flared determines

In a stock-and-debt deal valued at about C\$225 million, it has scooped up privately held Corinthian Exploration and fattened its portfolio of light oil assets in North Dakota and northern Alberta in the process.

It said the transaction is expected to close in July, subject to various approvals.

The purchase price includes 20.1 million Legacy shares with a total value of C\$191 million, based on late-June trading on the Toronto Stock Exchange, and C\$34 million of Corinthian debt.

Legacy said in a statement it will acquire "high quality, high netback, light oil assets" concentrated in its North Dakota Spearfish core area and a "meaningful position" in the fastevolving Dunvegan light oil play in the Elmworth area of northwestern Alberta, incorporating "production, undeveloped land and drilling upside and owned and operated key facilities and infrastructure."

The company said that when the deal is completed it will consider alternatives for the Elmworth asset which could include disposition.

Legacy said holders of more than 91.4 percent of common shares of Corinthian have entered into agreements to endorse

see LEGACY DEAL page 15

MOVING HYDROCARBONS

Another look at XL CO2

Report finds oil sands imports don't necessarily increase US carbon emissions

By GARY PARK

For Petroleum News Bakken

One of the unwavering arguments used by opponents to bolster their case against Keystone XL — the project's contribution to carbon emissions — is being contested.

A report by consulting firm IHS Inc. said an increase in United States emissions as a result of increasing oil sands imports is not a given.

It found that the carbon intensity of crude oil consumed in the U.S. from 2005 to 2012 actually declined by 0.6 percent, regardless of a 75 percent rise in imports of oil sands and other Canadian heavy crudes to 2.1 million barrels per day from 1.2 million bpd.

The IHS conclusions mirror those of the U.S. State Department, which said last

year that Keystone XL's impact on climate would be minimal because the production would be transported by rail or other pipelines if XL was abandoned.

Over the same period, shipments of heavy crudes from Venezuela and Mexico fell, while consumption of tight oil from the North Dakota Bakken and Texas Eagle Ford plays surged to 1.8 million bpd from virtually zero, helping to displace imports of similar crudes from Africa (with

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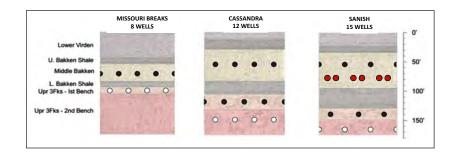
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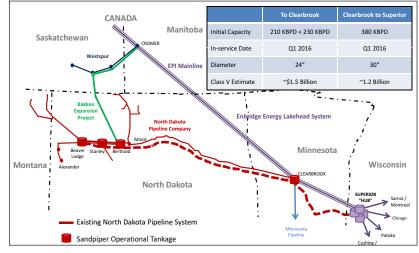
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Enbridge and Enterprise pipelines, coupled with True/Tallgrass JV and ETP, would up WB takeaway potential to 1.63M bpd

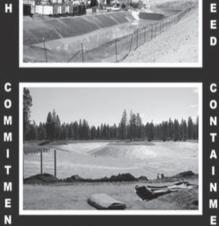




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Doubling densities with new technologies

With the Bakken serving as a testing ground, Whiting Oil and Gas is applying lessons learned to maximize potential in other plays

By MAXINE HERR

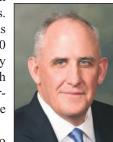
For Petroleum News Bakken

The hope of finding potential in additional oil plays has led Whiting Petroleum to try the unexpected.

As the third largest oil producer in the Bakken, Whiting is a "company on the move," said Senior Vice President Pete Hagist.

Hagist presented a company update at an energy conference on June 25, saying the company has developed a greater focus

on critical plays in the past two years. Production has increased to 100,000 barrels of oil per day across all plays, with a record 73,000 barrels coming from the Williston Basin.



"We continue to innovate on our com-

pletion technology,

adding reserves and recovery but also additional locations," Hagist said.

The company is focused on six fields in the Bakken, and Whiting is using what it has learned in these fields to further explore the area, although Hagist said exploration makes up only 5 percent of the company's capital budget.

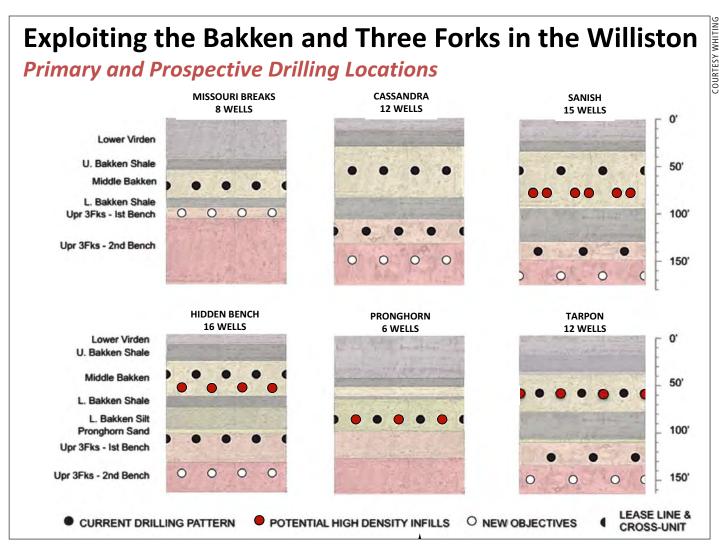
Overcoming cement concerns

Whiting is expanding in the Bakken with greater well density, doubling the number and finding more potential within the Three Forks formation. The company has more than a million gross acres of leasehold in the Williston Basin with nine areas of development scattered over the core of the Bakken.

"All of these areas are working," Hagist said, "and we have enhanced them in our completion methodologies."

Hagist said there had always been a concern about putting cement on the Bakken, so standard technique involved an uncemented liner. "Then we added the swell packers to give it some sort of isolation, but then we still had 300 feet of open hole behind that pipe," Hagist explained. "We always had a suspicion that when you pump a frack in that environment, it tends to dilute the energy of that frack, so you can imagine with that much open hole, you find a weak spot in the rock, you start to initiate a frack, and then you find another weak spot in the rock, and it breaks again."

Because of the concerns associated with



cemented liner gives us by far the most effective stimulation," Hagist said.

The process requires the operator to cement the liner into the ground, put one hole in the pipe, and then all the energy exits that one hole and Whiting gets the most extension on the frack.

"We tried to augment that by these perf clusters," he said. "So we put multiple stages of perf within a stage and we think that's helped also. So we're not only getting more extension of the fracture, but we're getting more fractures along the well bore."

The concept has yielded a 16 to 31 percent entry improvement, but because the company is not using cemented liners in every completion, Hagist said over time the percentage should rise.

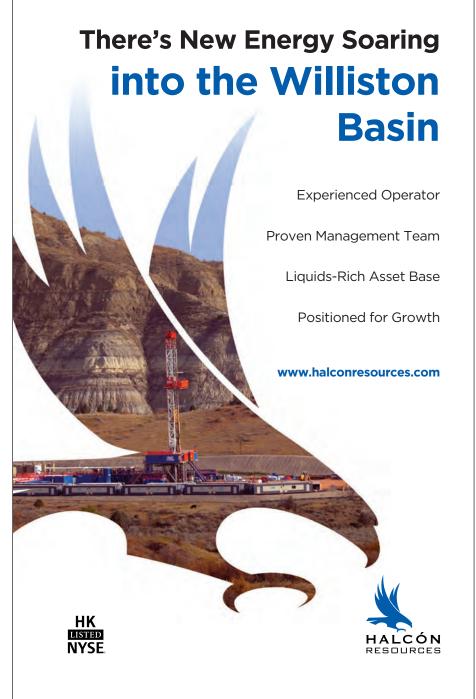
"The challenge is time," Hagist said. "Relative to sliding sleeves, we lost time — about six to seven days — where the sliding sleeve took two. So we continue to innovate on this."

It also takes six to nine months to convert the operation to the new technique. The assembly of the completion technology involves a 10- to 15-foot long outer sheath of steel with an internal sliding sleeve. When the sleeve is screwed into the casing string, it requires 30 stages since Whiting can use 30 sleeves in a string. They use coil to move the sleeve back and forth, obtaining the effectiveness of a cemented liner, but the speed of a sliding sleeve.

amount of capital, we can complete more wells faster, which means faster growth rate," Hagist said. "We haven't adopted this everywhere, but we've done five in

North Dakota and they work fine." By putting cement into the ground, Hagist said it provides a more focused frac-

see WHITING DENSITIES page 6



using cement, the company stayed with the traditional technique despite its pitfalls. However, Whiting chose to augment the technique with sliding sleeves. It allowed the operator to execute a multi-stage fracturing process in a very short period of time. It worked well for Whiting as it worked to drill and hold lease acreage. But two years ago, the company started experimenting with cemented liners, and "on an apples-to-apples basis, we think that a

"Where this becomes particularly important for us is when we're on pad-type operations in Colorado. For the same



COMMUNITY ISSUES

Hess Corporation donates \$5 million to UND for new laboratory complex

To help support educational opportunities at the University of North Dakota, UND, Hess Corp. made a sizeable donation to help construct a new Collaborative Energy Complex on June 26.

The complex will provide further oil and gas educational opportunities and

several laboratories including the Hess Innovation Lab, 3D Visualization and Reservoir Simulation Lab, and Drilling Simulation Lab. Hess donated \$5 million to the UND College of Engineering and Mines and the UND Alumni Association and Foundation. Gov. Jack Dalrymple announced a \$2.5 million match from the North Dakota Higher Education Challenge Fund, bringing the total impact of the Hess gift to \$7.5 million.

The complex will provide further oil and gas educational opportunities and several laboratories including the Hess Innovation Lab, 3D Visualization and Reservoir Simulation Lab, and Drilling Simulation Lab.

"This is an exciting day, not only for the

University of North Dakota, but for our entire state," Dalrymple said. "Thank you to Hess Corporation for this generous gift and for their continued investment in our communities and our educational system. This public-private partnership is a great example of how we can work together to continue to grow and strengthen our state and of how the North Dakota Higher Education Challenge Fund is help-ing to encourage philanthropy for our colleges and universities."

UND currently has pledges and commitments of \$11.8 million toward the \$15.5 million goal for the project. Dalrymple proposed funding for this matching grant fund in his 2013-15 executive budget, with the intent to stimulate the spirit of philanthropy for North Dakota's colleges and universities. The 2013 Legislature approved \$29 million for the fund. Every \$2 in eligible, private donations will be matched with \$1 in state funding.

The complex will be located on the southeast corner of campus and will feature more than 30,000 square feet of research/teaching labs and customized spaces for students and industry, a new home for the Petroleum Engineering and the Institute for Energy Studies programs, the Hess Innovation Lab for students to explore creative ways to solve global challenges facing the oil and energy industries, and a physical connection to the Harold Hamm School of Geology and Geological Engineering.

—MAXINE HERR

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LEGAL COLUMN

ND high court ruling gives HBP direction

Pugh clause severed lands on which well was no longer producing; dissent highlights 'undeveloped' as the operative word in lease

By JANNELLE STEGER COMBS

For Petroleum News Bakken

The North Dakota Supreme Court handed down a 4-1 ruling June 24 in the Tank v. Citation Oil & Gas Corp. matter. The opinion gave some amount of direction to industry as to the definition of "held by production" in North Dakota.

In 1982, George and Phyllis Tank executed a lease to Petro-Lewis Funds Inc. for property in McKenzie County in the south half and northwest quarter of Section 10, Township 151 North, Range 96 West. The lease had

JANNELLE STEGER COMBS

a three-year primary term, which was extended by a ratification, amending the lease to continue for an additional three years.

Production history

In May 1982, the Tank 3-10 well spud and produced until October 1996. In June 1998, the Tank 3-10R well spud and continues to produce to this day. Both wells are in the northwest quarter of Section 10. In June 1988, the Tank 13-10 well spud and produced until October 2008 and then intermittently produced until January 2012. This well was in the southwest quarter of Section 10.

In November 2008, the North Dakota Industrial Commission granted Petro-Hunt LLC a spacing unit which encompassed all of the lands on the original Tank lease, among others. In February 2010, the Jonsurd 151-96-3B-10-2H spud and is currently producing, as well as other wells.

In September 2011, Greggory C. Tank, who was the successor to George and Phyllis Tank, sued the operator and others seeking to cancel the lease to the extent it covered the southwest quarter due to the "Pugh clause" in the lease. Usually added to a lease as an addendum, a pugh clause provides that at the end of the primary term (typically five years), the lease will terminate as to any acreage outside of a production unit.

Pugh clause

The original lease had a pugh clause which provided, "if, at the end of the one year period from the end of the primary term hereof, this lease is maintained in full force and effect... this lease shall nevertheless expire as to all that part of the said lands not included in a producing unit unless operations for the drilling of a well have been conducted during such one-year period."

Further, the clause provided that the lease would be held "for subsequent and successive periods of one year by conducing (sic) additional drilling operations on undeveloped portions of said lands during each preceding one-year period."

The district court ruled the lease had expired under the pugh clause as to the southwest quarter. The defendants argued that the first sentence made the clause a "one-time only pugh clause." So it would only sever the non-producing lands on July 15, 1990, one year after the end of the primary term on July 15, 1989.

The district court and the Supreme Court both interpreted the clause as a whole and found that this pugh clause did sever the lease as to the non-producing lands in the southwest quarter.

Further the defendants requested that the court consider that the continuous drilling clause in the lease conflicted with the pugh clause in a way that they are irreconcilable and must be construed to hold the leases by production. The Supreme Court found that, unlike prior cases, this pugh clause clearly modified the drilling clause.

Colorful dissent

The dissenting opinion of Justice Dale Sandstrom is of note for several reasons. First, the color of the dissent is of interest. The opinion begins with,



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OVING HYDROCARBONS

Pipe projects would over double export capacity

Enbridge and Enterprise pipelines, coupled with True/Tallgrass JV and ETP, would up WB takeaway potential to 1.63M bpd

By MIKE ELLERD

Petroleum News Bakken

algary-based Enbridge and Houstonbased Enterprise Products Partners are working on crude oil pipeline projects that could increase takeaway capacity out of the Williston Basin by up to 570,000 barrels per day. Those two projects alone would nearly double the state's current pipeline takeaway capacity of approximately 620,000 bpd. (Although True companies' Belle Fourche joint venture

project with the Tallgrass Pony Express, which is expected to go into service in September, will



add another 100,000 bpd takeaway capacity this year.)

Both companies provided details on their projects during the North Dakota Governor's Pipeline Summit on June 24. Enbridge is in the permitting stages for its Sandpiper project, a 600-mile, 230,000 bpd pipeline that would run from Alexander in McKenzie County, North Dakota, to Clearbrook, Minnesota, and on to Superior, Wisconsin. Enterprise is in the planning stages for a 1,200-mile, 340,000 bpd pipeline beginning at Stanley in Mountrail

County, North Dakota, and extendsouth to ing Cushing, Oklahoma, with multiple receipt points along the way. Both companies are looking to have their pipelines in service in 2016, PAUL FISHER

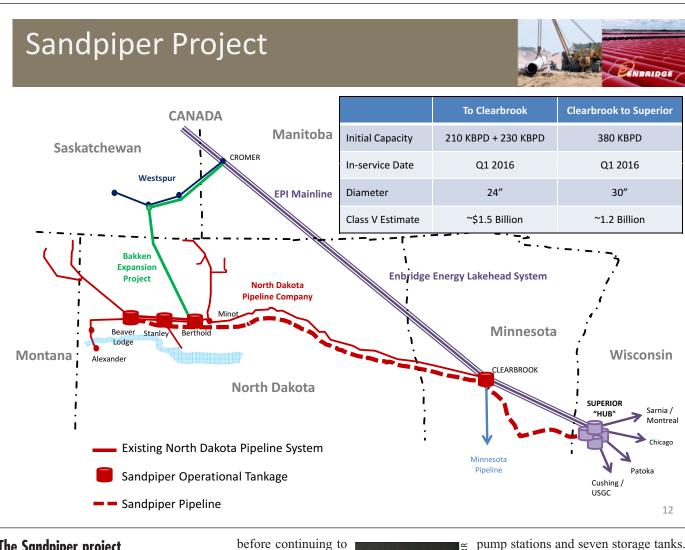


Enbridge in the first

quarter and Enterprise in the fourth quarter.

In addition, Energy Transfer Partners, ETP, announced on June 25 that it is putting in motion plans to build a 340,000 bpd crude export line from North Dakota to Patoka, Illinois (see story on page 1). That pipeline is also planned to go into service in late 2016. Those three projects, coupled with True's Belle Fourche Tallgrass JV, would boost North Dakota's crude oil pipeline export capacity to 1.63 million bpd, essentially a 2.5-fold increase in 2.5 years.

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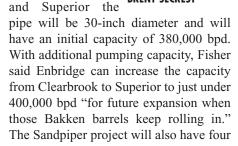


The Sandpiper project

Enbridge's Sandpiper project had a successful open season, has already received approval from the Federal Energy Regulatory Commission and is now in the state permitting stage. "So the Sandpiper project is actually a real project and although we haven't dug any dirt yet, we have spent over \$200 million on this project," said Paul Fisher, Enbridge's vice president for regional pipelines at the June 24 summit. The day following the summit, the North Dakota Public Service Commission gave its unanimous approval to the project.

Sandpiper will begin at Alexander in northwest McKenzie County and first run north into Williams County, then turn east to Beaver Lodge, Stanley and Berthold

Clearbrook and on Superior (see to map). Between Alexander and Clearbrook the 24inch pipeline will have 230,000 bpd capacity, but between Clearbrook **BRENT SECREST**



pump stations and seven storage tanks.

From Clearbrook, Bakken crude has multiple options on the Enbridge system. It can go south to Cushing and on to the Gulf Coast through the Enbridge-Enterprise joint venture Seaway pipeline. It can also go south to Patoka, Illinois. And it can go northeast to Sarnia, Ontario, and on to refining markets at Montreal.

Other Enbridge expansions

Enbridge has a number of other expansion projects in the works that ultimately increase capacity for Bakken crude. It is expanding its Line 61 from Superior to Flanagan, Illinois, by 800,000 barrels per

see PIPE PROJECTS page 6



LEGAL COLUMN

"The lynchpin of the majority opinion is the flawed premise that equates 'no longer producing' with 'undeveloped.' That's like saying a person who's had several children 'the old-fashioned way' but stops having sex is a virgin," Sandstrom opined.

The dissent focuses on the meaning of the term, "undeveloped." Because there was a producing well on the lands previously, Sandstrom concluded that the lands cannot qualify as "undeveloped." The Texas Community Bank of Raymore v. Chesapeake Exploration LLC 2013 case was used to highlight that pugh clauses operate at the expiration of the primary term or the conclusion of the continuous development program.

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COURTESY ENTERPRIS

continued from page 5 **PIPE PROJECTS**

day, its Flanagan South line to Cushing by 585,000 bpd, and with joint venture partner Enterprise is twinning the Seaway pipeline from Cushing to the Gulf Coast which will add 450,000 bpd capacity. The company's new Southern Access Extension pipeline will add 300,000 bpd capacity between Flanagan and Patoka, Illinois. And going east out of Flanagan, Enbridge's Line 6B replacement and expansion will increase capacity to Sarnia by 570,000 bpd and the Line 9 re-reversal will provide 300,000 bpd capacity between Sarnia and Montreal.

In addition, Enbridge put its Eddystone rail facility south of Philadelphia in service in April, which has an offloading capacity of 80,000 bpd. The Eddystone facility provides a direct destination for Bakken crude loaded at Enbridge's Fort Berthold rail facility at west of Minot.

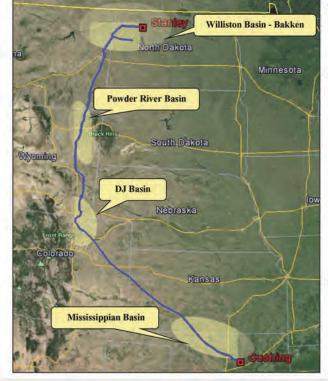
The Enterprise project

The idea for Enterprise Products Partners' project began when the company was approached to build the pipeline by "a large producer," according to Brent Secrest, Enterprise vice president for crude oil. Secrest said Enterprise and the producer "quickly settled on a route that fit us and essentially fit them."

With reversal of a number of crude oil pipelines that initially ran north from the Gulf Coast to Cushing, Secrest said there is no longer the bottleneck of crude oil at Cushing. He said now there is a "sucking sound" at Cushing. "It's purely fundamentals," he said. "There's not a lot of oil ... in Cushing."

The route begins at Stanley and runs

PROJECT OVERVIEW Connecting Producing Basins to the Market



 Enterprise proposes the development of a new build crude oil pipeline system from the Williston Basin to Cushing, OK

- The pipeline system would offer producers:
 - Pipeline access in the Williston, Powder River, DJ and Mississippian Basins
 - Significant optionality for connectivity in Cushing including access to multiple Gulf Coast markets
- The proposed pipeline system would transport five common stream grades of crude oil: Bakken Crude, Powder River Crude, DJ Crude, Rockies Intermediate Crude and Rockies Condensate

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west then south along the Montana-North tions at Stanley (500,000 barrels), Dakota border where a lateral will con-Johnsons Corner (200,000 barrels), nect from Johnsons Corner. The Powder River Basin (450,000 barrels), DJ Enterprise line will continue south with Basin (450,000 barrels) and Cushing (1.7 receipt points in the Powder River, DJ million barrels). Secrest said that will provide Enterprise with three days of operaand Mississippian basins, then on to Cushing (see map). Initially the pipeline tional storage on both the delivery and would have two intermediate pump stareceipts sides. "We've done this a few tions, but Secrest said the system's capactimes in the past — we think that's going ity is expandable up to 700,000 bpd with to be very important."

Secrest said Enterprise has a "fairly aggressive" schedule for the project,

allowing 28 to 30 months for construction to meet its fourth quarter 2016 in-service target. "I'll tell you that we've got boots on the ground looking at the right of way." He said "time is of the essence" to get the project completed before the winter of 2016. "But we have a strong history of execution on our side — Enterprise — in terms of getting projects built on time and on budget." ●

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Contact Mike Ellerd at mellerd.pnb@gmail.com

continued from page 3 WHITING DENSITIES

ture with the extension much like a cemented fracture would produce, and now it's just a matter of mechanical execution. He explained that with a standard cemented liner, it requires four trips in and out of the hole with tubing to move the plug and the packers, perforate, and run the fracturing job.

"That's four days. It's a very, very laborious process," he said. "Every trip into a hole this deep is seven hours."

Initially, Whiting was concerned about leaving the coil in the ground while executing the frack, but so far, the company has experienced no mechanical issues. That zero failure rate carries a great deal of significance.

"Trying to do this completion times

eight, if we have any kind of problem on a well — you can imagine on a pad that has the potential of 5,000 barrels a day — it ends up getting shut in for another 40 days," Hagist said. "So cycle time execution becomes very important for us."

Enterprise is planning for storage sta-

additional pumps.

When asked why other wells needed to be shut in to run each completion, Hagist explained that not shutting them in could result in blowing a well head off the top of a well.

"If we're producing those offsetting wells and we initiate one of these heavy frack jobs, with that kind of horsepower all that pressure can enter those offsetting well bores and do some real damage," Hagist said. "So you have to shut in those offsetting wells, let the pressure build up everything's static — and then execute those offsetting frack jobs. So you have to go through every one of the wells, finish them ... and bring the entire pad on at

once."

Whiting is doubling the number of wells in the Bakken with the belief that the play was initially "under-densified." In the Sanish, Whiting is adding well density horizontally and vertically, recognizing that the lower Bakken/Three Forks carries great potential (see diagram). The company plans to do more testing of the Three Forks benches this year and will move those wells into primary location status when Whiting is comfortable doing so.

Tapping into hot spots

Hagist said Colorado's Niobrara has been a "great exploration story" and is a prime example of how the company has applied what it has learned from the Bakken. He said the trend in Colorado is to focus on the "mining belt" that stretches through Colorado characterized by increased heat flow. "It can make the difference between oil flowing through the tight matrix and not," Hagist said. Whiting has identified this trend of hot spots in northeast Weld County, part of the Redtail area, where the company has accumulated more than 123 net acres and began drilling a year ago. With numerous well pads in operation, Hagist said Whiting is seeing consistent results. Its 3,300 primary locations in the Niobrara consist of 16 wells per spacing unit. Another 1,300 more locations are possible with further exploration. Whiting plans to overshoot the well density based on current proven density, but also because it wants to find the right answers sooner instead of having to go back into the areas and add wells to pads like it is doing in the Bakken. Whiting's highest interest is in the southern area of its leasehold where it is using a mix of wells and finding "the consistency of the wells is amazing."

20,000 barrels, so we're seeing excellent returns," Hagist said. "It's our highest return area over the Bakken. We did take some of our capital out of the Bakken for this and we'll probably even-load the two going forward."

Established Colorado infrastructure helps avoid flaring issues

Whiting's acreage is within the middle of the DJ Basin, which Hagist said is an old oil field with plenty of established infrastructure to transport oil and gas. Additionally, the company will tap into a new Tallgrass Energy Pony Express pipeline in January to send 25,000 barrels of oil a day to Cushing, Oklahoma. Sufficient gas gathering infrastructure also allows the company to capture the natural gas to avoid flaring.

"Colorado has very strict air emission regulations," Hagist said. "If you turn an oil well on and there is no place for the gas, you can't turn the well on." He said the Environmental Protection Agency likes what they see in Colorado so he suspects that will have implications for North Dakota and Texas. Hagist noted that though the industry average for flaring in North Dakota is quite high at 30 percent or more, Whiting is only flaring 10 percent (see related flaring regulations story on page 1). It also helps that Whiting is in the gas processing business. He said about 60 percent of the company's operations in North Dakota is third party gas processing. "It's a very profitable business but it's also a key enabler for us," he said. "If these regulations continue to clamp down, which we would expect, they really have no influence on us at all. So we're in great shape in terms of infrastructure." •

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Petroleum BAKKEN Stats

• BAKKEN COMMENTARY

For 2nd week Statoil, Oasis top ND, MT IP lists

By MIKE ELLERD

Petroleum News Bakken

For the second week in a row, Statoil wells came in with the week's top two reported 24-hour initial production, IP, volumes (page 11). A Statoil well in the Alexander field in north-central McKenzie County topped the list with an IP of 3,008 barrels, and another in the Todd field in south-central Williams County was No. 2 at 2,984 barrels. Those two wells had water cuts of 63 and 66 percent, respectively, excluding natural gas liquids.

XTO wells filled the Nos. 3 and 7 IP spots with two wells in the Haystack Butte field in far northwest Dunn County with IPs of 2,412 and 1,744 barrels. Those wells had water cuts of 36 and 51 percent.

A Halcon well in the Eagle Nest field in northern Dunn County came in fourth at 2,219 barrels with a water cut of 41 percent. Kodiak wells in the Epping field in south-central Williams County filled the Nos. 6 and 10 spots at 1,878 and 1,566 barrels, and had water cuts of 53 and 51 percent. In the No. 8 spot was a Burlington well in the Camel Butte field in northwest McKenzie County A Statoil well in the Alexander field in northcentral McKenzie County topped the list with an IP of 3,008 barrels, and another in the Todd field in south-central Williams County was No. 2 at 2,984 barrels.

at 1,643 barrels with a 28 percent water cut, and in the No. 9 spot was a Whiting well in the Sanish field in southern Mountrail County at 1,596 barrels with a 71 percent water cut.

A total of 39 IPs were reported for the week which ranged from the high of 3,008 to a low of 55 barrels and an average of 1,192 barrels (page 10). Last week 46 IPs were reported and ranged from the high of 3,106 barrels to a low of 58 barrels with an average of 1,115 barrels.

Montana IPs

In Montana, seven completions were reported with IPs. Oasis had the top IP with a Richland County well that produced 1,019 bpd and the second place IP with a Roosevelt County well at 703 bpd (this page). Oasis also

had another Richland County well with an IP of 565 bpd and another Roosevelt County well with an IP of 500 bpd. Whiting reported completion of a Richland County well with an IP of 554 bpd. Continental reported two completions with IPs, one in Roosevelt County at 423 bpd and one in Richland County at 333 bpd.

Permitting activity

A total of 49 oil and gas well permits were issued in North Dakota between June 17 and 23, which is down from the 60 permits issued the previous week (page 8). Like the previous week, most of the permits were issued in McKenzie County with 15 permits, followed by Mountrail with 14 permits.

In Montana, 15 new well locations were permitted, 13 in Richland County and two in Roosevelt County (this page), all for Bakken pool wells. The other new location permit was issued for a Lodgepole formation well in Wibaux County.

The map will be back

We apologize for not having our Top 10 North Dakota IP map this week. It will be back next week. ●

Petroleum BAKKEN May 23—June 26, 2014

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 IP: initial production | 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

New locations

Continental Resources

BR Carda 1-29HSL; Wildcat; NENE 29-25N-53E; 355'FNL and 325'FEL; N/A; SLSE 32-25N-53E; 200'FSL and 0'FEL; 19,381'; N/A; N/A; N/A; Bakken; Richland; 6/24/2014; N/A; N/A

Tammy 2-8H; Wildcat; SWSW 8-25N-55E; 305'FSL and 960'FWL; N/A; NWNW 5-25N-55E; 200'FNL and 660'FWL; 19,698'; Bakken; Richland; 6/24/2014; N/A; N/A

Whiting Oil and Gas

Malsam 14-18-1H; Wildcat; SWSW 18-24N-60E;

LEGEND

Well name; field; SHL location; SHL footages; PD; PBHL location; PBHL footages; PBHL depth; BHL location; BHL footages; BHL depth; pool; county; date approved; IP rate; BOPD

330'FSL and 2,595'FEL; N/A; NENW 16-30N-58E; 700'FNL and 2,637'FWL; 19,653'; N/A; N/A; N/A; Bakken; Roosevelt; 6/23/2014; N/A; N/A Donna 31X-15; Wildcat; NWNE 15-24N-56E; 304'FNL and 2,200'FEL; N/A; SWSE 22-24N-56E; 700'FSL and 2,642'FEL; 19,897'; N/A; N/A; N/A; Bakken; Richland; 6/16/2014; N/A; N/A

Shaw 44X-13; Wildcat; SESE 13-22N-59E; 366'FSL and 341'FEL); N/A; NESE 12-22N-59E; 1,948'FSL and 1,000'FEL; 17,067'; N/A; N/A; N/A; Bakken; Richland; 5/22/2014; N/A; N/A

Sonny 24X-16; Wildcat; SW 16-22N-59E; 1,141'FSL and 2,573'FWL; N/A; NWNE 9-22N-59E; 700'FNL and 2,640'FEL; 18,511'; N/A; N/A; N/A; Bakken; Richland; 5/29/2014; N/A; N/A

Vaira 31X-17; Wildcat; NWNE 17-24N-55E; 403'FNL and 2,359'FEL; N/A; SWSE 20-24N-55E; 700'FSL and 2,644'FEL; 19,300'; N/A; N/A; N/A; Bakken; Richland; 5/23/2014; N/A; N/A

Wilbur 34X-29; Wildcat; SW SE 29-24N-56E; 500'FSL and 2,373'FEL; N/A; NENW 20-24N-56E; 700'FNL and 2,649'FWL; 19,620'; N/A; N/A; N/A; Bakken; Richland; 6/16/2014; N/A; N/A

Permit modifications/corrections

Completions

Continental Resources

Fisher 1-29H; Wildcat; SWSE 29-27N-53E; 265'FSL and 1,990'FEL; N/A; N/A; N/A; N/A; NWSE 20-27N-53E; 3,046'FNL and 1,968'FEL; 15,797'; NWNE 20-27N-53E; 819'FNL and 2,010'FEL; 18,026'; NWNE 20-27N-53E; 230'FNL and 2,007'FEL; 18,615'; Bakken; Richland 12/5/2013; 691 bbl; 333 BOPD Jar 1-28H; Wildcat; NENW 28-28N-57E; 380'FNL and 2,125'FWL; N/A; N/A; N/A; N/A; SESW 33-28N-57E; 235'FSL and 2,003'FWL; 19,781'; Bakken; Roosevelt; 12/21/2013; 583 bbl; 423 BOPD

Oasis Petroleum North America

Freesia Federal 2658 13-11H; Wildcat; NWNE 11-26N-58E; 460'FSL and 1,780'FEL; N/A; NWNE 35-27N-58E; 254'FNL and 2,321'FEL; 20,950'; N/A; N/A; N/A; Bakken; Richland; 11/29/2013; 1,266 bbl; 1,019 BOPD Lonetree 2758 43-9H; Wildcat; SWSE 9-27N-58E; 190'FSL and 2,270'FEL; N/A; SWSE 21-27N-58E; 350'FSL and 2,270'FEL; 20,427'; N/A; N/A; N/A; Bakken; Roosevelt; 7/17/2013; N/A; N/A Matador Federal 2658 43-7H; Wildcat; SWSE 7-26N-58E; 390'FSL and 1,960'FEL; N/A; NENE 6-26N-58E; 375'FNL and 1,073'FEL; 19,915'; N/A; N/A; N/A; Bakken: Richland: 12/25/2013: 737 bbl: 565 BOPD Susie 2 2758 42-10Bb; Wildcat; SESW 10-27N-58E; 230'FSL and 2,200FWL; N/A; SESW 22-27N-58E; 340'FSL and 2,634'FWL; 20,500'; N/A; N/A; N/A; Bakken; Roosevelt; 10/25/2013; 1,276 bbl; 703 BOPD Susie 3 2758 42-10B; Wildcat; SESW 10-27N-58E; 460'FSL and 1,330'FWL; N/A; N/A; N/A; N/A; SWSW

7

465'FSL and 1,200'FWL; N/A; 6-24N-60E; 240'FNL and 660'FWL; 21,590'; N/A; N/A; N/A; Bakken; Richland; 6/16/2014; N/A; N/A

Malsam 14-18-2H; Wildcat; SWSW 18-24N-60E; 420'FSL and 1,200'FWL; N/A; 6-24N-60E; 240'FNL and 1,980'FWL; 21,746'; N/A; N/A; N/A; Bakken; Richland; 6/16/2014; N/A; N/A

Malsam 14-18-3H; Wildcat; SWSW 18-24N-60E; 375'FSL and 1,200'FWL; N/A; 6-24N-60E; 240'FNL and 1,980'FWL; 22,435'; N/A; N/A; N/A; Bakken; Richland;

Re-issued locations

Interstate Exploration

6/16/2014; N/A; N/A

6/16/2014: N/A: N/A

6/16/2014 N/A; N/A

Malsam 14-18-4H; Wildcat; SWSW 18-24N-60E;

660'FWI: 23.814': N/A: N/A: N/A: Bakken: Richland:

Miller 21-20-3H; Wildcat; NWNE 20-24N-60E;

294'FNL and 2,410'FWL; N/A; SESE 29-24N-60E;

240'FNL and 660'FWL; 20,284'; N/A; N/A; N/A; Bakken; Richland; 6/16/2014; N/A; N/A

1,999'FEL; N/A; SWSW 13-24N-59E; 240'FSL and

660'FWL; 23,259'; N/A; N/A; N/A; Bakken; Richland;

330'FSL and 1,200'FWL; N/A; 6-24N-60E; 240'FNL and

Young 31-1-1H; Wildcat; NE 1-24N-59E; 265'FNL and

Rieckhoff 16-1; SESE 17-14N-60E; 230'FSL and 1,000'FEL; N/A; NENE 17-14N-60E; 660'FNL and 1,000'FEL; 14,069'; N/A; N/A; N/A; Lodgepole; Wibaux; 6/23/2014; N/A; N/A

XTO Energy (ExxonMobil)

Barr State 34X-21; Wildcat; SWSE 21-30N-58E;

Oasis Petroleum North America

Grace Federal 2759 11-13 2B; Wildcat; NWNW 13-27N-59E; 160'FNL and 669'FWL; N/A; 1-27N-59E; 200'FNL and 660'FEL; 20,879'; N/A; N/A; N/A; Bakken; Roosevelt; 6/17/2014; N/A; N/A

Jimbo Federal 2759 11-13H; Wildcat; NWNW 13-27N-59E; 160'FNL and 636'FWL; N/A; SWSW 24-27N-59E; 200'FSL and 660'FWL; 20,496'; N/A; N/A; N/A; Bakken; Roosevelt; 6/17/2014; N/A; N/A 22-27N-58E; 349'FSL and 600'FWL; 20,830'; Bakken; Roosevelt; 10/14/2013; 1,115 bbl; 500 BOPD

Whiting Oil and Gas

Iversen Bros 31-1-1H; Wildcat; NWNE 1-25N-57E; 345'FNL and 2,080'FEL; N/A; SWSW 12-25N-57E; 271'FSL and 712'FWL; 21,400'; N/A; N/A; N/A; Bakken; Richland; 12/23/2013; 597 bbl; 554 BOPD

-Compiled by Ashley Lindly

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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

Permits issued									
Well Name	Location	Footages	Field	Geologic Target	Wellbore Type	Elev.	NDIC No.	API No.	NDIC date
Bottineau Co.						!		<u>.</u>	
Enduro Oper ating									
NSCU K-714-H1	SWSE 8-161-79	1,114'FSL and 1,563'FEL	Newburg	N/A**	conf.	1,479'	28731	33-009-02395	6/26/1
NSCU K-714-H2	SWSE 8-161-79	1,024'FSL and 1,734'FEL	Newburg	N/A**	conf.	1,478'	28732	33-009-02396	6/26/1
Burke Co.				-					
Cornerstone Natural Resources									
Huff C-3526 -6390	SWSE 35-163-90	439'FSL and 1,420'FEL	Wildcat	Bakken	horz.	1,916'	28707	33-013-01794	6/24/1
Divide Co.									
American Eagle Energy									
Lilly 16-35-164-102	SESE 35-164-102	250'FSL and 750'FEL	Skjermo	N/A*	conf.	2,219'	28706	33-023-01234	6/24/1
Lincoln State 15-36-164-102	SWSE 36-164-102	300'FSL and 1,485'FEL	Skjermo	N/A*	conf.	2,240'	-	33-023-01235	6/25/
Hunt Oil			0.1500			_,			
Smoky Butte 160-100-7-6H-1	NWNE 18-160-100	258'FNL and 2,340'FEL	Smoky Butte	N/A*	conf.	2,162'	28749	33-023-01237	6/30/1
Smoky Butte 160-100-18-19H-1	NWNE 18-160-100	363'FNL and 2,340'FEL	Smoky Butte	N/A*	conf.	2,163'	28748	33-023-01236	6/30/1
Smoky Butte 160-100-32-29H-1	SWSE 32-160-100	275'FSL and 1,801'FEL	Smoky Butte	N/A*	conf.	2,068'	28753	33-023-01238	6/30/1
Dunn Co.							-		
Marathon Oil									
Brink 24-20TFH	NWNE 29-146-93	426'FNL and 2,250'FEL	Bailey	N/A*	conf.	2,316'	28708	33-025-02596	6/24/1
Oxy USA (Occidental Petroleum)						_,			
Devlin Dukart 5-30-31H-143-95	SESW 19-143-95	510'FSL and 1,960'FWL	Manning	N/A*	conf.	2,260'	28729	33-025-02599	6/26/1
Devlin Dukart 6-30-31H-143-95	SESW 19-143-95	510'FSL and 2,000'FWL	Manning	N/A*	conf.	2,260'	28730	33-025-02600	6/26/*
WPX Energy									
Martin Fox 20-17HF	SESW 20-149-93	589'FSL and 2,139'FWL	Mandaree	N/A*	conf.	2,292'	28713	33-025-02598	6/24/
Martin Fox 20-17HW	SWSW 20-149-93	571'FSL and 2,185'FWL	Mandaree	N/A*	conf.	2,291'	28712	33-025-02597	6/24/*
McKenzie Co.									
Burlington Resources Oil and Gas	(ConocoPhillips)								
Harley 11-2MBH-R	LOT4 2-151-95	296'FNL and 503'FWL	Blue Buttes	N/A*	conf.	2,305'	28710	33-053-06 043	6/24/1
Harley 11-2TFH-R	LOT4 2-151-95	296'FNL and 458'FWL	Blue Buttes	N/A*	conf.	2,306'	28709	33-053-06042	6/24/1
Harley 21-2TFH-R	LOT4 2-151-95	296'FNL and 548'FWL	Blue Buttes	N/A*	conf.	2,305'	28711	33-053-06044	6/24/1
Continental Resources				1					
Durham 6-2H1	LOT1 2-151-99	330'FNL and 1,086'FEL	N. Tobacco Garden	N/A*	conf.	2,345'	28736	33-053-06 046	6/27/1
Durham 7-2H	LOT1 2-151-99	328'FNL and 1,041'FEL	N. Tobacco Garden	N/A*	conf.	2,347'	28735	33-053-06 045	6/27/1
Miramar 2-32H	SESE 32-152-102	465'FSL and 1,078'FEL	Elk	N/A*	conf.	2,284'	28750	33-053-06 053	6/30/1
Miramar 3-32H1	SESE 32-152-102	465'FSL and 1,123'FEL	Elk	N/A*	conf.	2,284'		33-053-06 054	6/30/1
Uhlman 1-7H	SWSE 7-152-99	345'FSL and 1,640'FEL	Banks	N/A*	conf.	2,089'	28737	33-053-06047	6/30/
Oasis Petroleum									
Kline Federal 5300 31-18 6B	LOT3 18-153-100	2,457'FSL and 238'FWL	Baker	Bakken	horz.	2,020'		33-053-06057	6/30/1
Kline Federal 5300 31-18 7T2	LOT3 18-153-100	2,490'FSL and 238'FWL	Baker	Bakken	horz.	2,018		33-053-06056	6/30/
Kline Federal 5300 31-18 8T Wade Federal 5300 41-30 9B	LOT3 18-153-100 LOT4 30-153-100	2,523'FSL and 238'FWL	Baker	Bakken	horz.	2,026'		33-053-06055 33-053-06051	6/30/1
	LU14 30-133-100	811'FSL and 280'FWL	Baker	Bakken	horz.	2,008	20/44	33-033-00051	0/2//
XTO Energy (ExxonMobil) Johnson 24X-31A	SESW 31-150-97	278'FSL and 1,893'FWL	Siverston	N/A*	conf.	2,162'	28741	33-053-06048	6/27/1
Johnson 24X-31E	SESW 31-150-97	302'FSL and 1,912'FWL	Siverston	N/A*	conf.	2,162	_	33-053-06049	6/27/
Johnson 24X-31F	SESW 31-150-97	349'FSL and 1,949'FWL	Siverston	N/A*	conf.	2,162			6/27/
Mountrail Co.		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-			,	1.10		
EOG Resources	NWNE 29-152-90	500'ENL and 2 250'EEL	Parshall	Rakkon	borz	1 022	20720	33_061_02179	6/26/
Parshall 28-2928H Parshall 29-2928H	NWNE 29-152-90	500'FNL and 2,350'FEL 500'FNL and 2,250'FEL	Parshall	Bakken Bakken	horz.	1,923' 1,922'	_	33-061-03178 33-061-03176	6/26/
Parshall 85-2928H	NWNE 29-152-90	500 FNL and 2,250 FEL	Parshall	Bakken	horz.	1,922		33-061-03176	6/26/
Parshall 86-2928H	NENW 29-152-90	625'FNL and 1,352'FWL	Parshall	Bakken	horz.	1,923			6/27/
Parshall 87-29H	NWNW 29-152-90	625'FNL and 1,302'FWL	Parshall	Bakken	horz.	1,923		33-061-03180	6/27/
Parshall 93-2827H	NWNW 28-152-90	500'FNL and 500'FWL	Parshall	Bakken	horz.	1,930'	_	33-061-03170	6/27/
Parshall 142-2928H	NWNE 29-152-90	500'FNL and 2,200'FEL	Parshall	Bakken	horz.	1,922'		33-061-03175	6/26/
Parshall 161-2928H	NENW 29-152-90	625'FNL and 1,402'FWL	Parshall	Bakken	horz.	1,931'	_	33-061-03182	6/27/
			1		1	ļ	ļ		1
Hess Bakken Investments II									
	SWSE 7-156-94	673'FSL and 1,606'FEL	Big Butte	N/A*	conf.	2,402'	28722	33-061-03174	6/25/
Hess Bakken Investments II EN-Neset-156-94-0706H-2 EN-Neset-156-94-0706H-3	SWSE 7-156-94 SWSE 7-156-94	673'FSL and 1,606'FEL 673'FSL and 1,639'FEL	Big Butte Big Butte	N/A*	conf.	2,402' 2,402'	_	33-061-03174 33-061-03173	6/25/ 6/25/

ND PERMITS continued from page 8

Well Name	Location	Footages	Field	Geologic Target	Wellbore Type	Elev.	NDIC No.	API No.	NDIC date
EN-Neset-156-94-0706H-4	SWSE 7-156-94	673'FSL and 1,672'FEL	Big Butte	N/A*	conf.	2,041'	28720	33-061-03172	6/25/14
EN-Neset-156-94-0706H-5	SWSE 7-156-94	673'FSL and 1,705'FEL	Big Butte	N/A*	conf.	2,400'	28719	33-061-03171	6/25/14
Statoil Oil and Gas					•				•
Brown 30-19 #7TFH	SWSE 30-156-93	519'FSL and 1,572'FEL	Alger	N/A*	conf.	2,324'	28733	33-061-03179	6/26/14
Uran SWD									
Stubstad SWD 1	SESW 6-152-92	559'FSL and 2,426'FWL	Sanish	N/A*	conf.	2,054'	90315	33-061-90 315	6/27/14
Williams Co.									
Hess Bakken Investments II									_
TI-Arlene Stone-157-95-2423H-1	NWSE 24-157-95	2181'FSL and 2,021'FEL	Tioga	N/A*	conf.	2,278'	28724	33-105-03591	6/26/14
TI-Arlene Stone-157-95-2423H-2	NWSE 24-157-95	2181'FSL and 1,988'FEL	Tioga	N/A*	conf.	2,277'	28723	33-105-03590	6/26/14
Hunt Oil									
Blue Ridge 157-95-2423H-1	LOT3 4-159-100	300'FNL and 1,980'FWL	Green Lake	N/A**	conf.	2,046'	28752	33-105-03594	6/30/14
Kodiak Oil and Gas			_						
P Johnson 153-98-1-6-7-16H	LOT1 6-153-98	429'FNL and 801'FEL	Truax	Bakken	horz.	2,172'	28715	33-105-03587	6/25/14
P Johnson 153-98-1-6-7-16H3	LOT1 6-153-98	429'FNL and 771'FEL	Truax	Bakken	horz.	2,199'	28716	33-105-03588	6/25/14
P Johnson 153-98-1-6-7-16HA	LOT1 6-153-98	429'FNL and 741'FEL	Truax	Bakken	horz.	2,202'	28717	33-105-03589	6/25/14
Liberty Resources (Kodiak Oil and C	Gas)								
Gohrick 158-95-17-8-6MBH	SESE 17-158-95	263'FSL and 960'FEL	McGregor	Bakken	horz.	2,443'	28734	33-105-03592	6/27/14
Statoil Oil and Gas									
Syverson 1-12 #8H	LOT3 1-155-100	320'FNL and 1,435'FWL	Stony Creek	N/A*	conf.	2,253'	28745	33-105-03593	6/27/14
		Permits c	ancelled						
Well Name	Location	Footages	Field	Geologic Target	Wellbore Type	Elev.	NDIC No.	API No.	NDIC date
Dunn Co.								1	
Oxy USA (Occidental Petroleum)									
Raphael Stroh 3-24-13H-143-97	SESW 24-143-97	315'FSL and 2,330'FWL	Fayette	Bakken	horz.	2,396'	26642	33-025-02302	6/24/14
Raphael Stroh 4-24-13H-143-97	SESW 24-143-97	315'FSL and 2,410'FWL	Fayette	Bakken	horz.	2,390'		33-025-02303	6/24/14
State 2-25-36H-143-97	NENW 25-143-97	350'FNL and 2,300'FWL	Fayette	Bakken	horz.	2,390'		33-025-02304	6/24/14
State 3-25-36H-143-97	NENW 25-143-97	350'FNL and 2,380'FWL	Fayette	Bakken	horz.	2,394'	26649	33-025-02 305	6/24/14
		Location re	esurveved	1			1	I	1
Well Name	Location	Footages	Field	Geologic	Wellbore	Elev.	NDIC No.	API No.	NDIC date
McKenzie Co.		TUULAYES	rietu	Target	Туре	LIEV.	110.		Juale
Continental Resources									
Antelope 2-23H	SESW 23-153-94	220'FSL and 1,505'FWL	Elm Tree	N/A*	conf.	2,160'	22821	33-053-04102	6/30/14

*Note - The geologic target for these wells was not listed in its well file because they are tight (confidential) holes, but the following fields produce from the Bakken pool; Alger, Banks, Bailey, Big Butte, Blue Buttes, Elk, Elm Tree, Mandaree, Manning, North Tobacco Garden, Sanish, Siverston, Skjermo, Stony Creek, and Tioga.

**Note - The geologic target for these wells was not listed in their well file because they are a tight (confidential) hole, but the Green Lake field produces from the Madison pool, and the Newburg field produces from the Spearfish/Charles pool.

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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

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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





This chart contains initial production rates, or IPs, for active wells that were filed as completed with the state of North Dakota from June 24-30, 2014 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, June 24-30. 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. 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

County (Co.) abbreviations are as follows – BRK: Burke, DIV: Divide, DUN: Dunn, MCK: McKenzie, MNT: Mountrail, STK: Stark, WIL: Williams

IDIC Io.	Vell Name	Field	Location	Spacing	Co.	Geologic Target	Wellbore Type	Total Depth	IP Test Date	IP Rate (bbl)	IP Nat. Gas (mcf)	IP Wa (bb
braxa	s Petroleum											
2995	Jore Federal 2-11-1H	North Fork	LOT2 2-149-97	2SEC	MCK	Bakken	horz.		6/2/14	1,160	1,252	609
2993	Jore Federal 2-11-2H	North Fork	LOT2 2-149-97	2SEC	MCK	Bakken	horz.	20,989'	6/2/14	790	1,081	69
urling	ton Resources Oil and Gas (Conoc	:oPhillips)		_				_				_
5092	Big Bend 21-2TFH	Camel Butte	LOT3 2-151-96	2SEC	MCK	Bakken	horz.	20,622'	6/7/14	1,643	2,923	64
ontine	ental Resources											
5108	Bonney 5-3H1	Jim Creek	SESW 3-145-96	2SEC	DUN	Bakken	horz.	20,995'	N/A	N/A	N/A	N/
6420	Montpelier 2-14H	Indian Hill	NWNE 14-153-101	2SEC	MCK	Bakken	horz.	20,167	N/A	N/A	N/A	N/
6191	Montpelier 3-14H1	Indian Hill	NWNE 14-153-101	2SEC	MCK	Bakken	horz.	20,345'	N/A	N/A	N/A	N/
6445	Vachal 4-27H	Alkali Creek	SWSE 22-154-94	2SEC	MNT	Bakken	horz.	21,050'	6/24/14	1,260	1,612	55
4842	Wahpeton 5-16H2	Banks	NENW 16-152-99	2SEC	MCK	Bakken	horz.	20,880'	N/A	N/A	N/A	N,
4844	Wahpeton 7-16H3	Banks	NENW 16-152-99	2SEC	MCK	Bakken	horz.	21,050'	N/A	N/A	N/A	N,
4808	Wahpeton 10-16H2	Banks	NWNE 16-152-99	2SEC	MCK	Bakken	horz.	20,980'	6/13/14	366	688	1,
	kken Investments II			_								_ ′
5698	AN-Evenson 152-95-0310H-5	Antelope	LOT3 3-152-95	2SEC	MCK	Sanish	horz.	21.316	6/2/14	1,056	1,662	10
5924	EN-Jeffrey A 155-94-2734H-5	Alkali Creek	SWSE 22-155-94	4SEC	MNT	Bakken	horz.		5/28/14	55	130	2
5841	EN-Leo- 154-94-2324H-2	Alkali Creek	NWNW 26-154-94	2SEC	MNT	Bakken	horz.	_	6/1/14	1,080	1,506	
5174 _	SC-5WX- 152-99-0310H-1	Banks	LOT2 3-152-99	2SEC	MCK	Bakken	horz.		6/5/14	1,324	2,221	26
_		Ddilks	1012 3-132-77	ZSEC	MCR	Darkell	11012.	21,404	0/ 3/ 14	1,324	2,221	_ 20
÷	Perating (Halcon Resources) Fort Berthold 148-95-27B-34-4H	Eagle Nest	NENW 27-148-95	2000	DUN	Paldras	borz	20 475	5/13/14	2 240	2,408	4
5207 odiak		Eagle Nest	INLINW 2/-140-73	2SEC	DON	Bakken	horz.	20,475	J/ 13/ 14	2,219	2,400	1,
_	Oil and Gas			2656	14/11	D 11	h a um	20.050	E /20 /4 4	4 070	4 4 4 4	2
564	P Peterson 155-99-3-15-22-13H3	Epping	NENW 15-155-99	2SEC	WIL	Bakken	horz.	-	5/20/14	1,878	1,164	2,
565	P Peterson 155-99-3-15-22-14H	Epping	NENW 15-155-99	2SEC	WIL	Bakken	horz.		5/20/14	1,516		_ 2,
566	P Peterson 155-99-3-15-22-14H3	Epping	NENW 15-155-99	2SEC	WIL	Bakken	horz.		5/20/14	1,271	1,829	2,
567	P Peterson 155-99-3-15-22-15H	Epping	NENW 15-155-99	2SEC	WIL	Bakken	horz.	21,000'	5/20/14	1,566	3,186	1,
urex	Petroleum			_		_		_		_		
5934	Stephanie Catherine 18-19H	Ambrose	NWNW 26-163-99	4SEC	DIV	Bakken	horz.	18,432'	11/20/13	723	1,029	2,
tatoil	Oil and Gas			_		_		_		_		
5646	Bill 14-23 4TFH	Parshall	SWSE 32-153-90	ICO	MNT	Bakken	horz.	21,101'	11/21/13	607	38	45
5644	Bill 14-23 6H	Alexander	NWNE 14-151-101	2SEC	MCK	Bakken	horz.	20,687'	5/27/14	3,008	3,558	5,
4183	Folvag 5-8 4TFH	Stony Creek	SESE 32-156-100	2SEC	WIL	Bakken	horz.	21,081'	5/27/14	1,949	1,632	7,
3091	Jarold 25-36 3TFH	Todd	NENE 25-155-101	2SEC	WIL	Bakken	horz.	20,325'	5/22/14	2,984	2,227	5,
/hiting	g Oil and Gas			_				_				
7026	Bartleson 44-1-2TFH	Sanish	SESE 1-152-93	SEC	MNT	Bakken	horz.	17,034	5/28/14	1,034	540	1,
7684	Uran 11-24-2H	Sanish	NWNW 24-153-92	2SEC	MNT	Bakken	horz.	14,450'	5/31/14	1,596	1,957	3,
TO En	ergy (ExxonMobil)							_		_		
5541	Clarence Federal 34X-7B	Haystack Butte	SWSE 7-148-97	2SEC	DUN	Bakken	horz.	20.543	5/26/14	736	1,150	1,
5540	Clarence Federal 34X-7C	Haystack Butte	SWSE 7-148-97	2SEC	DUN	Bakken	horz.		6/18/14	1,744	1,170	1,
5991	Clarence Federal 34X-7D	Haystack Butte	SWSE 7-148-97	2SEC	_	Bakken	horz.		6/5/14	1,437	2,213	1,
5990	Clarence Federal 34X-7H	Haystack Butte	SWSE 7-148-97	2SEC	DUN	Bakken	horz.	_	6/12/14	1,311	2,213	1,
	Inga Federal 41X-29C		NENE 29-148-97	_	DUN	-		_	5/11/14	-		-
5981	-	Haystack Butte		2SEC	_	Bakken	horz.	_		1,461	_	2,
979	Inga Federal 41X-29D	Haystack Butte	NENE 29-148-97	2SEC	DUN	Bakken	horz.	20,656	5/21/14	2,412	3,699	1,
		IPs for N	D wells released from	n confide	ential	status						
	Nell News	Field	Leasting	Sman	6-	Cocleria	Wellh	Tatal	ID To sh D sh		ID N. 1	10
DIC \ o.	Vell Name	Field	Location	Spacing	C0.	Geologic Target	Wellbore Type	Total Depth	IP Test Date	IP Rate (bbl)	IP Nat. Gas	IP W
											(mcf)	(b
urling	ton Resources Oil and Gas (Conoc	coPhillips)		_	_							_
083	Denali 44-33TFH	Johnson Corner	SWSE 33-151-96	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	Ν
962	Norman 11-4TFH ULW	Fancy Buttes	LOT4 4-150-96	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	Ν
ontine	ental Resources								_			
6479	Brogger 4-4H	Crazy Man Creek	LOT4 4-153-99	N/A	WIL	Bakken	horz.	N/A	N/A	N/A	N/A	Ν
5190	Montpelier 4-14H	Indian Hill	NWNE 14-153-101	N/A	MCK	-	horz.	N/A	N/A	N/A	N/A	N
5965	Rehak Federal 4-25H	Alkali Creek	NWNE 25-155-94	2SEC	MNT	Bakken	horz.	_	5/23/14	1,112	921	65
				-		-		_	5/28/14	-	1,113	1,
966	Rehak Federal 5-25H1	Alkalı (reek	NWNF /5-155-94			DAKKEN		/11 3 /11		977	1.1.2	
966	Rehak Federal 5-25H1	Alkali Creek	NWNE 25-155-94	2SEC	MNT	Bakken	horz.	20,520	J/20/14	955	1,113	

IPs for completed North Dakota wells

ND IP co	ontinued from page 10											
NDIC No.	Well Name	Field	Location	Spacing	Co.	Geologic Target	Wellbore Type	Total Depth	IP Test Date	IP Rate (bbl)	IP Nat. Gas (mcf)	IP Water (bbl)
Hess E	Bakken Investments II							_		_		-
26696	EN-Schroeder- 157-94-1102H-1	White Earth	NWNE 14-157-94	2SEC	MNT	Bakken	horz.	20,075'	5/7/14	396	529	326
26858	EN-State D- 154-93-2635H-8	Robinson Lake	NWNE 26-154-93	N/A	MNT	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
26859	EN-State D-154-93-2635H-9	Robinson Lake	NWNE 26-154-93	N/A	MNT	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
26497	GN-Ring- 158-98-1522H-1	Rainbow	SESE 10-158-98	N/A	WIL	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
26498	GN-Ringabeu- 158-98-1102H-1	Rainbow	SESE 10-158-98	N/A	WIL	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
26662	HA-Link 152-95-3526H-3	Hawkeye	SWSE 35-152-95	2SEC	MCK	Bakken	horz.	20,460'	6/4/14	872	1,317	166
26663	HA-Link 152-95-3526H-4	Hawkeye	SWSE 35-152-95	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
27021	HA-Nelson A- 152-95-3427H-6	Hawkeye	SWSW 34-152-95	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
Kodial	k Oil and Gas											
26424	P Manning 154-99-2-2-11-14H	Stockyard Creek	LOT2 2-154-99	N/A	WIL	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
26423	P Manning 154-99-2-2-11-15H3	Stockyard Creek	LOT2 2-154-99	N/A	WIL	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
Marat	hon Oil											
26729	Jakob 14-35TFH	Killdeer	SWSW 35-146-95	2SEC	DUN	Bakken	horz.	20,558	4/13/14	1,049	812	1,161
Oxy U	SA (Occidental Petroleum)											
26366	Keary Kadrmas 2-32-29H-142-96	Russian Creek	SESW 32-142-96	2SEC	DUN	Bakken	horz.	19,912'	12/22/13	143	32	1,975
25365	State Jaeger B 4-27-34H-144-97	Cabernet	SWSW 22-144-97	2SEC	DUN	Bakken	horz.	21,300'	12/24/13	545	398	2,863
25366	State Jaeger B 5-27-34H-144-97	Cabernet	SWSW 22-144-97	2SEC	DUN	Bakken	horz.	21,485	12/25/13	382	265	2,008
25367	State Jaeger B 6-27-34H-144-97	Cabernet	SWSW 22-144-97	2SEC	DUN	Bakken	horz.	21,590'	12/24/13	606	422	2,780
26096	State Jaeger B 7-27-34H-144-97	Cabernet	SESW 22-144-97	2SEC	DUN	Bakken	horz.	21,235	12/15/13	70	44	560
Petro-	Hunt									_		
25963	Syverson 156-99-30A-31-3H	East Fork	NENE 30-156-99	2SEC	WIL	Bakken	horz.	20,679'	5/27/14	987	1,310	2,094
Slawso	on Exploration											
27312	Nightmaker 4-8-17TFH	Big Bend	SWSW 5-152-91	N/A	MNT	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
SM En	ergy											
26851	Bonner 9X-12HA	Poe	NESE 12-151-100	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A

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Petroleum Top 10 Bakken wells by IP rate June 24—30, 2014

1				
Statoil	Oil and Gas			
25644	Bill 14-23 6H	Alexander	MCK	3,008
23091	Jarold 25-36 3TFH	Todd	WIL	2,984
XTO Er	ner gy (ExxonMobil)			
25979	Inga Federal 41X-29D	Haystack Butte	DUN	2,412
HRC O	perating (Halcon Resources)			
25207	Fort Berthold 148-95-27B-34-4H	Eagle Nest	DUN	2,219
Sta to il	Oil and Gas			
24183	Folvag 5-8 4TFH	Stony Creek	WIL	1,949
Kodiak	Oil and Gas			
26564	P Peterson 155-99-3-15-22-13H3	Epping	WIL	1,878
XTO Er	nergy (ExxonMobil)			
25540	Clarence Federal 34X-7C	Haystack Butte	DUN	1,744
Burling	gton Resources Oil and Gas (Conoc	oPhillips)		
26092	Big Bend 21-2TFH	Camel Butte	MCK	1,643
Whitin	g Oil and Gas			
27684	Uran 11-24-2H	Sanish	MNT	1,596
Kodiak	Oil and Gas			
26567	P Peterson 155-99-3-15-22-15H	Epping	WIL	1,566

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 June 24-30, 2014 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; Petroleum

Bakken producers' stock prices Closing prices as of July 1 along with those from previous Wednesday

American Eagle Energy CorporationNYSEAMZG\$6.09\$6.00Arsenal Energy USA, Inc.TSEAEI\$7.84\$7.92Baytex Energy USA LtdNYSEBTE\$46.06\$44.97Burlington Resources Co., LP (ConocoPhillips)NYSECOP\$86.11\$85.62Continental Resources, Inc.NYSECLR\$157.53\$1156.02Crescent Point Energy US CorporationTSECPG\$47.29\$46.37Denbury Onshore, LLCNYSEDNR\$18.31\$18.44Emerald Oil, Inc.NYSEERF\$25.18\$24.08EOG Resources, Inc.NYSEERF\$25.18\$24.08EOG Resources, Inc.NYSEMDU\$34.92\$33.98Halcon ResourcesNYSEHK\$7.42\$6.87Hess CorporationNYSEHK\$7.42\$6.87Hess CorporationNYSEHK\$7.42\$6.87Hess CorporationNYSEHK\$7.42\$6.87Hess CorporationNYSEHK\$7.42\$6.87Hoada Gas (USA), Inc.NYSEKOG\$14.28\$14.25Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Nverfield Production CompanyNYSENFX\$43.89\$43.70Northern Oil and GasNYSENGS\$16.49\$16.29Oasis Petroleum North AmericaNYSENOG\$16.49\$16.29Oas	Company	Exchange	Symbol	Closing price	Previous Wee
Arsenal Energy USA, Inc.TSEAEI\$7.84\$7.92Baytex Energy USA LtdNYSEBTE\$46.06\$44.97Burlington Resources Co., LP (ConocoPhillips)NYSECOP\$86.11\$85.62Continental Resources, Inc.NYSECLR\$157.53\$156.02Crescent Point Energy US CorporationTSECPG\$47.29\$46.37Denbury Onshore, LLCNYSEDNR\$18.31\$18.44Emerald Oil, Inc.NYSEMKTEOX\$7.66\$7.33Enerplus Resources USA CorporationNYSEERF\$25.18\$24.08EOG Resources, Inc.NYSEMDU\$34.92\$33.98Halcon ResourcesNYSEHK\$7.42\$6.87Hess CorporationNYSEHES\$99.61\$98.18Kodiak Oil and Gas (USA), Inc.NYSEKOG\$14.28\$14.25Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Marathon Oil CompanyNYSENFX\$43.89\$43.70Norther Oil and GasNYSENFX\$43.89\$43.70Norther Oil and GasNYSENFX\$43.89\$43.70Oasis Petrol	Abraxas Petroleum Corporation	NASDAQ	AXAS	\$6.28	\$5.84
Baytex Energy USA LtdNYSEBTE\$46.06\$44.97Burlington Resources Co., LP (ConocoPhillips)NYSECOP\$86.11\$85.62Continental Resources, Inc.NYSECLR\$157.53\$156.02Crescent Point Energy US CorporationTSECPG\$47.29\$46.37Denbury Onshore, LLCNYSEDNR\$18.31\$18.44Emerald Oil, Inc.NYSEMKTEOX\$7.66\$7.33Enerplus Resources USA CorporationNYSEERF\$25.18\$24.08EOG Resources, Inc.NYSEMDU\$34.92\$33.98Halcon ResourcesNYSEMDU\$34.92\$33.98Halcon ResourcesNYSEHK\$7.42\$6.87Hess CorporationNYSEHES\$99.61\$98.18Kodiak Oil and Gas (USA), Inc.NYSEKOG\$114.28\$14.25Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Marathon Oil CompanyNYSEMRO\$39.76\$39.71Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Newfield Production CompanyNYSENFX\$43.89\$43.70Norther Oil and GasNYSEOXY\$102.80\$16.29Oasis Petroleum North AmericaNYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSESM\$84.35<	American Eagle Energy Corporation	NYSE	AMZG	\$6.09	\$6.00
Burlington Resources Co., LP (ConocoPhillips) NYSE COP \$86.11 \$85.62 Continental Resources, Inc. NYSE CLR \$157.53 \$156.02 Crescent Point Energy US Corporation TSE CPG \$47.29 \$46.37 Denbury Onshore, LLC NYSE DNR \$18.31 \$18.44 Emerald Oil, Inc. NYSEMKT EOX \$7.66 \$7.33 Enerplus Resources USA Corporation NYSE ERF \$25.18 \$24.08 EOG Resources, Inc. NYSE EOG \$116.55 \$116.02 Fidelity Exploration & Production (MDU) NYSE MDU \$34.92 \$33.98 Halcon Resources NYSE HK \$7.42 \$6.87 Hess Corporation NYSE HES \$99.61 \$98.18 Kodiak Oil and Gas (USA), Inc. NYSE KOG \$14.28 \$14.25 Legacy Reserves Operating LP NASDAQ LGCY \$31.34 \$31.26 Marathon Oil Company NYSE MRO \$39.76 \$39.71 Mountain Divide, LLC (Mountainview Energy) CVE MVW.V \$0.48 \$0.49 Newfield Production Company NYSE NFX \$43.89 \$43.70 Northern Oil and Gas NYSE NFS \$16.49 \$16.29 Oasis Petroleum North America NYSE OAS \$55.94 \$53.10 Oxy USA, Inc. (Occidental Petroleum) NYSE OXY \$102.80 \$102.62 PetroShale Inc. CVE PSH \$1.40 \$1.39 QEP Energy Company (KKR & Co) NYSE KKR \$24.49 \$33.52 Resolute Natural Resources Company, LLC NYSE KKR \$24.49 \$33.52 Resolute Natural Resources Company, NYSE SM \$84.35 \$84.36 Samson Resources Company NYSE SM \$84.35 \$84.96 Statoil Oil and Gas CIPO NYSE TPLM \$11.76 \$11.88 Whiting Oil and Gas Corporation NYSE WILL \$80.62 \$79.48 WPX Energy Williston, LLC NYSE WPX \$23.56 \$23.14	Arsenal Energy USA, Inc.	TSE		\$7.84	\$7.92
Continental Resources, Inc.NYSECLR\$157.53\$156.02Crescent Point Energy US CorporationTSECPG\$47.29\$46.37Denbury Onshore, LLCNYSEDNR\$18.31\$18.44Emerald Oil, Inc.NYSEMKTEOX\$7.66\$7.33Enerplus Resources USA CorporationNYSEERF\$25.18\$24.08EOG Resources, Inc.NYSEEOG\$116.55\$116.02Fidelity Exploration & Production (MDU)NYSEMDU\$34.92\$33.98Halcon ResourcesNYSEHK\$7.42\$6.87Hess CorporationNYSEHKS\$99.61\$98.18Kodiak Oil and Gas (USA), Inc.NYSEKOG\$14.28\$14.25Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Newfield Production CompanyNYSENGG\$16.49\$16.29Oasis Petroleum North AmericaNYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSEKKR\$24.49\$23.62SM Energy CompanyNYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWYL\$20.56\$23.14			BTE	\$46.06	\$44.97
Crescent Point Energy US CorporationTSECPG\$47.29\$46.37Denbury Onshore, LLCNYSEDNR\$18.31\$18.44Emerald Oil, Inc.NYSEMKTEOX\$7.66\$7.33Enerplus Resources USA CorporationNYSEERF\$25.18\$24.08EOG Resources, Inc.NYSEEOG\$116.55\$116.02Fidelity Exploration & Production (MDU)NYSEMDU\$34.92\$33.98Halcon ResourcesNYSEHK\$7.42\$6.87Hess CorporationNYSEHES\$99.61\$98.18Kodiak Oil and Gas (USA), Inc.NYSEKOG\$14.28\$14.25Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Newfield Production CompanyNYSENFX\$43.89\$43.70Northern Oil and GasNYSENOG\$16.49\$16.29Oasis Petroleum North AmericaNYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSEKKR\$24.49\$23.62SM Energy CompanyNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWZ\$23.56\$23.14Whitin	Burlington Resources Co., LP (ConocoPhillips) NYSE	COP	\$86.11	\$85.62
Denbury Onshore, LLCNYSEDNR\$18.31\$18.44Emerald Oil, Inc.NYSEMKTEOX\$7.66\$7.33Enerplus Resources USA CorporationNYSEERF\$25.18\$24.08EOG Resources, Inc.NYSEEOG\$116.55\$116.02Fidelity Exploration & Production (MDU)NYSEMDU\$34.92\$33.98Halcon ResourcesNYSEHK\$7.42\$6.87Hess CorporationNYSEHES\$99.61\$98.18Kodiak Oil and Gas (USA), Inc.NYSEKOG\$14.28\$14.25Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Northern Oil and GasNYSENFX\$43.89\$43.70Oasis Petroleum North AmericaNYSEOAS\$55.94\$51.10Oxy USA, Inc. (Occidental Petroleum)NYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEKKR\$24.49\$23.62SM Energy CompanyNYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSEWILL\$80.62\$79.48Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14				\$157.53	\$156.02
Emerald Oil, Inc.NYSEMKTEOX\$7.66\$7.33Enerplus Resources USA CorporationNYSEERF\$25.18\$24.08EOG Resources, Inc.NYSEEOG\$116.55\$116.02Fidelity Exploration & Production (MDU)NYSEMDU\$34.92\$33.98Halcon ResourcesNYSEHK\$7.42\$6.87Hess CorporationNYSEHES\$99.61\$98.18Kodiak Oil and Gas (USA), Inc.NYSEKOG\$14.28\$14.25Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Marathon Oil CompanyNYSEMRO\$39.76\$39.71Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Newfield Production CompanyNYSENFX\$43.89\$43.70Northern Oil and GasNYSENSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Crescent Point Energy US Corporation	TSE	CPG	\$47.29	\$46.37
Enerplus Resources USA CorporationNYSEERF\$25.18\$24.08EOG Resources, Inc.NYSEEOG\$116.55\$116.02Fidelity Exploration & Production (MDU)NYSEMDU\$34.92\$33.98Halcon ResourcesNYSEHK\$7.42\$6.87Hess CorporationNYSEHES\$99.61\$98.18Kodiak Oil and Gas (USA), Inc.NYSEKOG\$14.28\$14.25Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Marathon Oil CompanyNYSEMRO\$39.76\$39.71Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Newfield Production CompanyNYSENFX\$43.89\$43.70Northern Oil and GasNYSENOG\$16.49\$16.29Oasis Petroleum North AmericaNYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEREN\$8.56\$8.36Samson Resources Company, LLCNYSESM\$44.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Denbury Onshore, LLC	NYSE	DNR	\$18.31	\$18.44
EOG Resources, Inc.NYSEEOG\$116.55\$116.02Fidelity Exploration & Production (MDU)NYSEMDU\$34.92\$33.98Halcon ResourcesNYSEHK\$7.42\$6.87Hess CorporationNYSEHES\$99.61\$98.18Kodiak Oil and Gas (USA), Inc.NYSEKOG\$14.28\$14.25Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Marathon Oil CompanyNYSEMRO\$39.76\$39.71Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Newfield Production CompanyNYSENFX\$43.89\$43.70Northern Oil and GasNYSENGG\$16.49\$16.29Oasis Petroleum North AmericaNYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14		NYSEMKT	EOX	\$7.66	\$7.33
Fidelity Exploration & Production (MDU)NYSEMDU\$34.92\$33.98Halcon ResourcesNYSEHK\$7.42\$6.87Hess CorporationNYSEHES\$99.61\$98.18Kodiak Oil and Gas (USA), Inc.NYSEKOG\$14.28\$14.25Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Marathon Oil CompanyNYSEMRO\$39.76\$39.71Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Newfield Production CompanyNYSENFX\$43.89\$43.70Northern Oil and GasNYSENOG\$16.49\$16.29Oasis Petroleum North AmericaNYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSEWPL\$10.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Enerplus Resources USA Corporation	NYSE	ERF	\$25.18	\$24.08
Halcon ResourcesNYSEHK\$7.42\$6.87Hess CorporationNYSEHES\$99.61\$98.18Kodiak Oil and Gas (USA), Inc.NYSEKOG\$14.28\$14.25Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Marathon Oil CompanyNYSEMRO\$39.76\$39.71Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Newfield Production CompanyNYSENFX\$43.89\$43.70Northern Oil and GasNYSENOG\$16.49\$16.29Oasis Petroleum North AmericaNYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	EOG Resources, Inc.	NYSE	EOG	\$116.55	\$116.02
Hess CorporationNYSEHES\$99.61\$98.18Kodiak Oil and Gas (USA), Inc.NYSEKOG\$14.28\$14.25Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Marathon Oil CompanyNYSEMRO\$39.76\$39.71Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Newfield Production CompanyNYSENFX\$43.89\$43.70Northern Oil and GasNYSENOG\$16.49\$16.29Oasis Petroleum North AmericaNYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSEWILL\$80.62\$79.48WHX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Fidelity Exploration & Production (MDU)	NYSE	MDU	\$34.92	\$33.98
Kodiak Oil and Gas (USA), Inc.NYSEKOG\$14.28\$14.25Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Marathon Oil CompanyNYSEMRO\$39.76\$39.71Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Newfield Production CompanyNYSENFX\$43.89\$43.70Northern Oil and GasNYSENFX\$43.89\$43.70Oasis Petroleum North AmericaNYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Halcon Resources	NYSE	HK	\$7.42	\$6.87
Legacy Reserves Operating LPNASDAQLGCY\$31.34\$31.26Marathon Oil CompanyNYSEMRO\$39.76\$39.71Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Newfield Production CompanyNYSENFX\$43.89\$43.70Northern Oil and GasNYSENFX\$43.89\$43.70Oasis Petroleum North AmericaNYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSEWILL\$80.62\$79.48Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Hess Corporation	NYSE	HES	\$99.61	\$98.18
Marathon Oil CompanyNYSEMRO\$39.76\$39.71Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Newfield Production CompanyNYSENFX\$43.89\$43.70Northern Oil and GasNYSENOG\$16.49\$16.29Oasis Petroleum North AmericaNYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Kodiak Oil and Gas (USA), Inc.	NYSE	KOG	\$14.28	\$14.25
Mountain Divide, LLC (Mountainview Energy)CVEMVW.V\$0.48\$0.49Newfield Production CompanyNYSENFX\$43.89\$43.70Northern Oil and GasNYSENOG\$16.49\$16.29Oasis Petroleum North AmericaNYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Legacy Reserves Operating LP	NASDAQ	LGCY	\$31.34	\$31.26
Newfield Production CompanyNYSENFX\$43.89\$43.70Northern Oil and GasNYSENOG\$16.49\$16.29Oasis Petroleum North AmericaNYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Marathon Oil Company	NYSE	MRO	\$39.76	\$39.71
Northern Oil and GasNYSENOG\$16.49\$16.29Oasis Petroleum North AmericaNYSEOAS\$55.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSEKKR\$24.49\$23.62SM Energy CompanyNYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Mountain Divide, LLC (Mountainview Energy) CVE	MVW.V	\$0.48	\$0.49
Oasis Petroleum North AmericaNYSEOAS\$75.94\$53.10Oxy USA, Inc. (Occidental Petroleum)NYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSEKKR\$24.49\$23.62SM Energy CompanyNYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Newfield Production Company	NYSE	NFX	\$43.89	\$43.70
Oxy USA, Inc. (Occidental Petroleum)NYSEOXY\$102.80\$102.62PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSEKKR\$24.49\$23.62SM Energy CompanyNYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Northern Oil and Gas	NYSE	NOG	\$16.49	\$16.29
PetroShale Inc.CVEPSH\$1.40\$1.39QEP Energy CompanyNYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSEKKR\$24.49\$23.62SM Energy CompanyNYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Oasis Petroleum North America	NYSE	OAS	\$55.94	\$53.10
QEP Energy CompanyNYSEQEP\$34.20\$33.52Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSEKKR\$24.49\$23.62SM Energy CompanyNYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Oxy USA, Inc. (Occidental Petroleum)	NYSE	OXY	\$102.80	\$102.62
Resolute Natural Resources Company, LLCNYSEREN\$8.56\$8.36Samson Resources Company (KKR & Co)NYSEKKR\$24.49\$23.62SM Energy CompanyNYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	PetroShale Inc.	CVE	PSH	\$1.40	\$1.39
Samson Resources Company (KKR & Co)NYSEKKR\$24.49\$23.62SM Energy CompanyNYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	QEP Energy Company	NYSE	QEP	\$34.20	\$33.52
SM Energy CompanyNYSESM\$84.35\$84.96Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Resolute Natural Resources Company, LLC	NYSE	REN	\$8.56	\$8.36
Statoil Oil and Gas LPNYSESTO\$31.01\$31.07Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Samson Resources Company (KKR & Co)	NYSE	KKR	\$24.49	\$23.62
Triangle USA Petroleum CorporationNYSETPLM\$11.76\$11.88Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	SM Energy Company	NYSE	SM	\$84.35	\$84.96
Whiting Oil and Gas CorporationNYSEWILL\$80.62\$79.48WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Statoil Oil and Gas LP	NYSE	STO	\$31.01	\$31.07
WPX Energy Williston, LLCNYSEWPX\$23.56\$23.14	Triangle USA Petroleum Corporation	NYSE	TPLM	\$11.76	\$11.88
	Whiting Oil and Gas Corporation	NYSE	WILL	\$80.62	\$79.48
XTO Energy, Inc. (ExxonMobil) NYSE XOM \$101.36 \$102.14	WPX Energy Williston, LLC	NYSE	WPX	\$23.56	\$23.14
	XTO Energy, Inc. (ExxonMobil)	NYSE	XOM	\$101.36	\$102.14

the NDIC file number; well name; field; county; IP oil flow rate in barrels of oil.



Co.	Issued	Ren.	Conf.	Total	Compl.	Conf. Compl.	Total
Bottineau	0	0	2	2	0	0	0
Burke	1	0	0	1	0	0	0
Divide	0	0	5	5	1	0	1
Dunn	0	0	5	5	8	0	8
McKenzie	4	0	11	15	11	0	11
Mountrail	8	0	6	14	6	0	6
Williams	4	0	4	8	6	0	6
		Per	mit totals	50	Compl	. totals	32



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continued from page 1 GAS CAPTURE

Partners and WBI Energy, gave assessments of how they are working to help the state deal with the growing demand on gas gathering, processing and exporting.

Alliance

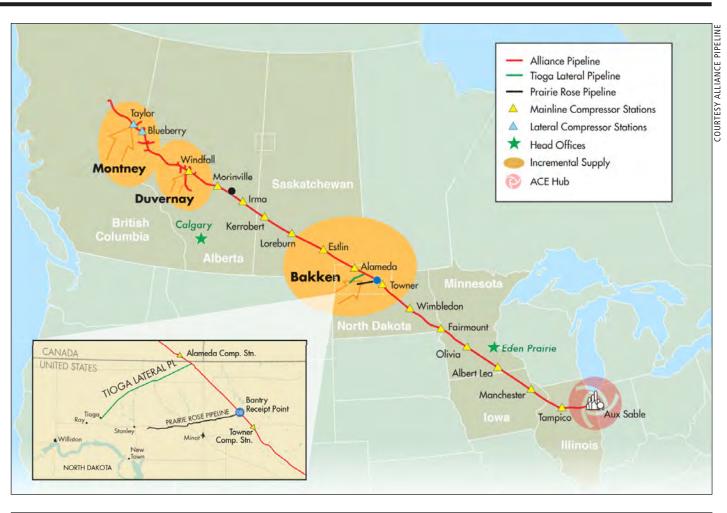
Tony Straquadine, manager of government affairs for Canadian-based Alliance Pipeline, described his company's natural gas pipeline, which extends from western Canada to Chicago, as a "2,500-mile long truck" that transports high density, energy-rich natural gas from eastern British Columbia, Alberta, Saskatchewan and the Bakken to the Midwest (see map). The gas transported in the Alliance system has the natural gas liquids still entrained in Hess Corporation donates \$5 million to UND for new laboratory complexthe gas stream, which Straquadine says makes the Alliance system a "pipeline within a pipeline."

Alliance's sister company, Aux Sable, has a gas processing plant in Chicago, which separates the natural gas liquids, NGLs, from the gas stream. "The Alliance pipeline is different," he said, adding that Alliance looks to more Bakken producers as a "one stop" solution for both their natural gas needs as well as natural gas liquids needs.

As an example of just how rich the gas is that the Alliance system transports, on the day before the summit, June 23, Straquadine said some 140,000 barrels of natural gas liquids were separated from the Alliance system gas stream at the Aux Sable plant, and 40,000 of those barrels came from the Bakken.

Straquadine said Alliance is entering into a re-contracting phase for the first time since the pipeline went into service in 2000 with a 15-year contract that expires on Dec. 1, 2015. "So we have new capacity that's available for contracting on its pipeline system." In addition, he said Alliance recently completed a filing with the National Energy Board in Canada "to redefine how we work with producers going to a much more industry-friendly or a 'skin-in-the-game' approach where pipelines will take risk on term and capacity with a fixed toll overall."

The Alliance mainline has two interconnections in North Dakota. The company's Tioga Lateral is an 80-mile pipeline running from Hess Corp.'s Tioga gas plant to Alliance's mainline in northern Renville County. That pipeline has a capacity of 126 million cubic feet, mmcf, per day and currently about half of that capacity is under contract with the balance of the capacity available. The second interconnection is with Aux Sable's Prairie Rose pipeline at Bantry in McHenry County. Straquadine said 80 mmcf of contracted natural gas are moving per day through Aux Sable's Prairie Rose pipeline into the Alliance mainline. In addition, Aux Sable has the capacity to bring another 40 mmcf per day into the Alliance system. Both the Tioga Lateral and the Prairie Rose systems are expandable with additional compression. "We have capacity to move about a quarter of the natural gas in North Dakota today on the existing systems. So 250 million of the 1 billion cubic feet that's produced in the state," Straquadine said. "We see production growing. We see opportunities to take more away. We can do some interesting things on our mainline pipe that's been in the ground for 14 years, adding



OKS - Growth Continues

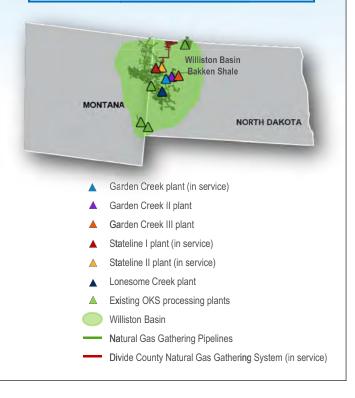
Lonesome Creek Investment

- Lonesome Creek plant
 - \$320-\$390 million
 - 200 MMcf/d natural gas processing facility, our largest in North Dakota
 - Expected to be completed in fourth quarter 2015
- Upgrades and expansions to existing infrastructure
 - \$230-\$290 million
- Supported by acreage dedications from producers



ONEOK

COURTESY





see GAS CAPTURE page 14

Been in the pipeline business in Montana and North Dakota for over 90 years.

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Engaged in gathering, storage, transportation and energy services activities.

Transmission (FERC Regulated)

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- 12 interconnecting points
- Storage (193 Bef working gas capacity)

Midstream

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- Dakota Prairie Refinery

continued from page 1

GAS DEMANDS

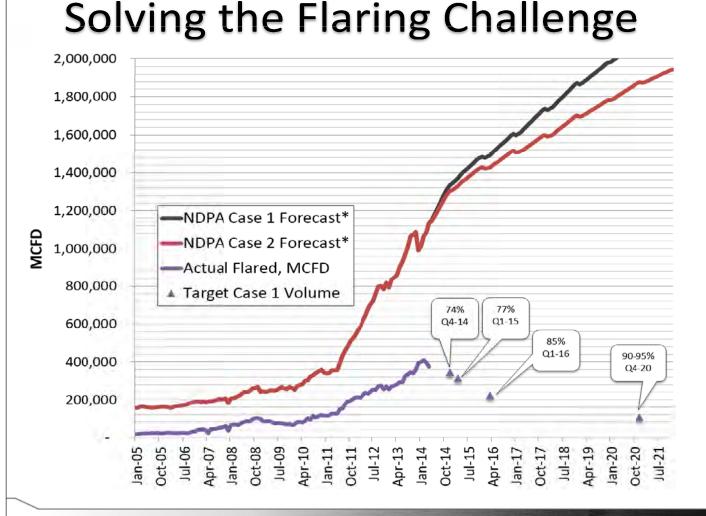
just how much gas midstreamers will have to capture as development of the Bakken petroleum system progresses. So what do those volumes look like in the future?

The North Dakota Pipeline Authority, NDPA, has estimated natural gas production in the state through 2030 based on two different assumptions for Bakken well drilling. At the same time, the Department of Mineral Resources, DMR, has set flaring targets in terms of the percent of all gas produced in the state through 2020. Combined, those allow for an estimate of the volume of natural gas that will have to be captured in the state through the end of the decade (see chart).

By the fourth quarter 2014, NDPA's estimates put natural gas production at approximately 1.31 billion cubic feet, bcf, per day. DMR's capture target for the fourth quarter is 74 percent, i.e., flaring is reduced to 26 percent. That puts the capture demand at approximately 0.97 bcf per day at the end of the current year.

Moving into 2015, DMR's capture target for the end of the first quarter is 77 percent (i.e., flaring is reduced to 23 percent). NDPA estimates gas production at between approximately 1.32 and 1.38 bcf per day for an average of approximately 1.35 bcf per day. At a 77 percent capture rate, that increases the volume of gas to be captured to approximately 1.04 bcf per day.

By the first quarter of 2016, NDPA estimates gas production at somewhere between approximately 1.44 and 1.48 bcf per day, for an average of approximately 1.46 bcf per day. DMR wants 85 percent of all gas captured by that time (i.e., flaring would be down to 15 percent). Thus, at the end of the first quarter 2016, approximately 1.26 bcf per day will have to be captured.



JJ Kringstad - North Dakota Pipeline Authority

Going out to the end of the decade, DMR is looking at a capture of between 90 and 95 percent (i.e., flaring would be reduced to 5 to 10 percent). NDPA's projections put gas production in 2020 at between approximately 1.88 and 2.28 bcf per day. At the low end, 1.88 bcf per day production results in a capture of 1.69 bcf per day at a capture rate of 90 percent and 1.79 bcf per day at a 95 percent capture rate.

In the high case scenario, production of

2.28 bcf per day and a 90 percent capture rate equates to a volume of approximately 2.05 bcf per day. In that scenario, the high capture rate of 95 percent puts the capture volume at approximately 2.17 bcf per day.

To put all of these numbers in perspective, in April, the latest month for which North Dakota gas statistics are currently available, the state produced approximately 1.13 bcf of natural gas per day, of which approximately 30 percent was flared. The remaining 70 percent, some 0.79 bcf per day, was captured. That is less than half the lowest estimated capture volume in 2020.

If the projections are accurate, the gas capture capacity in North Dakota will need to increase between approximately 0.90 and 1.38 bcf per day by 2020, or in terms of percentages, between 114 and 175 percent.

-MIKE ELLERD

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continued from page 1 XL CO2

Nigerian imports down 64 percent) and elsewhere that carried relatively higher carbon footprints.

The findings were partly based on a meeting last October in Washington, D.C., with the Alberta government's Department of Energy and major oil sands producers.

Kevin Born, a director of IHS Energy and leader of the firm's oil sands dialogue in Calgary, told the Financial Post that much has changed since 2005, with heavy crudes pushing out other heavy crudes that all operated in the same greenhouse gas intensity range.

The IHS conclusions mirror those of the U.S. State Department, which said last year that Keystone XL's impact on climate would be minimal because the production would be transported by rail or other pipelines if XL was abandoned. IHS estimated GHG emissions from the oil sands are 1 percent to 19 percent higher than the average crude consumed in the U.S. in 2012 based on a "wells-towheels" analysis, which includes combustion of fuels in vehicles. The report said that places the oil sands in the same range as 45 percent of all crude used as feedstock in U.S. refineries.

in the welding process that should not make an economic difference.

Reports have been circulating that the U.S. Pipeline and Hazardous Materials Safety Administration has required TransCanada to hire a third-party contractor of PHMSA's choosing and to adopt a quality management program. Those conditions would be in addition to the 57 that TransCanada agreed to three years ago.

TransCanada Chief Executive Officer Russ Girling has already hinted that XL's costs are likely to rise by several hundred million dollars from the current estimate of US\$5.4 billion to more than US\$6 billion.

"It will be a big number," he has told reporters. "We'll let people know once we get the go-ahead. But there's no sense in me re-estimating every few months."

The company has already spent



Extra safety measures

Separately, a Canadian analyst said that any extra safety conditions imposed on XL would not hurt the economics of the project.

Steven Paget, with FirstEnergy Capital, said that if TransCanada is required to take a "couple of extra steps" US\$2.5 billion on the pipeline, prompting FirstEnergy to suggest the final bill is likely to reach US\$6.9 billion.

Sonny Mottahed, chief executive officer and managing partner at Black Spruce Merchant Capital, doubted that even costs in that range would make XL less attractive than the rail alternative.

However, Laura Lau, senior vice president of the Toronto-based Brampton Group, said the biggest test of XL is the prospect of delay in issuing a Presidential Permit.

She said that if President Barack Obama pushes that decision beyond his term of office to January 2017, shippers may opt to go with TransCanada's proposed Energy East pipeline to Ontario, Quebec and Atlantic Canada.

-GARY PARK

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continued from page 12 **GAS CAPTURE**

compression to move more gas as the demand might be there."

Oneok

Unlike Alliance which moves the entire natural gas stream out of the basin before separating out the NGLs, Oneok Partners has a number of gas plants in the basin that separate the NGLs before the dry gas is exported. Oneok also has an NGL pipeline that exports the NGLs to the Midcontinent.

Oneok Vice President Kevin Burdick said flaring is a challenge and Oneok is stepping up to that challenge. "When you look at the growth that's occurring from a natural gas perspective, and you look at the flaring targets, that's a challenge. But we're stepping up to that challenge and we'll continue to work to achieve those targets and even beat those targets as we go forward. But it is staggering when you look at the volume of gas that has come online and we project will be coming online over the next several years. And that's going to require investment, and that's going to require continued investment both in gathering lines and in compression and in plant processing capabilities and in the takeaway also."

"We've been investing in the basin and we'll continue to do so," Burdick said, adding that over the last several years Oneok has invested more than \$3 billion on gathering infrastructure, processing infrastructure and NGL takeaway "to get products from the wellhead to the ultimate markets and create that value for the producer."

Oneok has six gas processing plants operating in the Williston Basin, three of which are in the Bakken region. Oneok has two more plants under construction, and a third in the planning stages. That brings to six the number of gas plants the Tulsabased midstreamer currently has on its Bakken roster. All of the Bakken plants have capacities of 100 mmcf per day except the one in the planning stage, which is the company's Lonesome Creek plant, and will have 200 mmcf per day capacity. When the Lonesome Creek plant goes online, Oneok will have approximately 800 mmcf per day of natural gas processing capability in the Williston Basin.

Oneok's Bakken NGL pipeline, which went into service in 2013, transports NGLs from processing plants in the Williston and Powder River basins to the Overland Pass pipeline in northern Colorado, which then sends the NGLs to the Midcontinent. Oneok is currently expanding the capacity of the Bakken NGL pipeline from 60,000 barrels per day to 135,000 bpd, and has plans for further expansion to 160,000 bpd in 2016.

Going forward, Oneok has an investment backlog of \$3 billion to \$4 billion and a "lengthy" backlog of unannounced growth projects, and the company is already looking at possible future investments beyond 2018. "We're not done," Burdick said. "As we have in the past, as we continue to look at those volume forecasts and you look at the acreage and the ... commitments we have with our producers, there's more out there. We've got, again, our Lonesome Creek facility coming online and as we have those commitments and the forecasts line up, we'll be out with other announcements."

WBI Energy

Rounding out the gas midstreamers presenting at the summit was Bismarck-based MDU Resources subsidiary WBI Energy, which Vice President Rob Johnson said has "been in the pipeline business in Montana and North Dakota for over 90 years."

WBI Energy has two major divisions, a midstream unit and a gas transmission unit. WBI Energy's midstream unit has operated facilities in Montana, Wyoming and Colorado and soon will have operations in Utah. The gas transmission unit has pipelines in North Dakota, Montana, Wyoming and South Dakota. In the Bakken, WBI Energy has an extensive gas transmission network with numerous producer receipt points and interstate pipeline interconnects through which it takes residue gas from a number of processing plants.

WBI Energy has been expanding its takeaway capacity. In 2010 the company was taking away approximately 100 mmcf per day, but by the end of 2014, the company expects to be taking away nearly 600 mmcf per day. And the company has plans for even more takeaway capacity with two current projects.

One of those projects is the company's Garden Creek expansion, which is a 15.5mile, 215 mmcf per day pipeline that will move more gas away from Oneok's Garden Creek II and III plants. That project is currently under construction and is expected to be in service in the first half of July. Combined with its existing Garden Creek pipeline, WBI Energy will have more than 350,000 mcf per day takeaway capacity from the Oneok Garden Creek plants.

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WBI Energy's other current project is its Dakota Pipeline, a 400 mmcf per day bidirectional pipeline that will run approximately 375 miles from the Bakken to connecting points on the Viking and Great Lakes interstate systems in Minnesota. Those two systems have a combined capacity of approximately 2.5 bcf per day and provide access to Midcontinent markets as well as Midcontinent storage. And storage, Johnson said, is an important factor for North Dakota gas production. "This gas moves each and every day," he said. "With the seasonality of the upper Midwest, in the wintertime there is plenty of demand to use this gas up - in the summer it needs a home. Storage provides that home."

The Dakota Pipeline will also have ethane straddle capacity if necessary. Johnson said the gas going into its system from Bakken plants currently contains about 20 percent ethane. With a straddle option, ethane could be extracted near Tioga and put into the Vantage pipeline that runs north to Nova Chemicals Corp.'s petrochemical processing in Alberta.

Johnson said WBI Energy is still working on shipper commitment, and if the project gets subscribed, he said WBI Energy will begin the FERC pre-filing work along with the final design and route determination as well as right-of-way, environmental and regulatory work, and community meetings. "Getting this thing out in front of the affected stakeholders will be key to this project on a go-forward basis." If all of that is successful, Johnson said, WBI Energy expects construction on compression locations would begin in 2016 and pipeline construction would begin in 2017 with service expected to begin in late 2017. ●

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continued from page 1 **ETP PIPELINE**

"It's very encouraging because we know crude oil production is going to continue to rise and having projects like these in development are going to be crucial for the long term development of this resource," Justin Kringstad of the North Dakota Pipeline Authority told Petroleum News Bakken.

Access to key markets

At the pipeline summit, Kringstad stressed the importance of building pipelines that can get the crude oil to key markets on the coasts. The mega pipelines will help do just that. With outlets at Patoka, the Bakken Pipeline will allow access to multiple pipeline markets in the Midwest and Gulf Coast, as well as by rail to the East Coast. ETP plans to develop a rail terminal facility in Illinois to access those eastern refineries.

ETP has secured long-term contracts from shippers sufficient to support the pipeline construction and the pipeline is expected to be in service by the end of 2016.

"The pipeline not only supports the continued growth and production on the Bakken area, but does so in a cost effective and environmentally responsible manner by reducing the current utilization of rail and truck transportation as the predominant alternative to moving Bakken crude oil volumes to major U.S. markets," the company said in a statement.

North Dakota pleased

"We are pleased that on the heels of the Governor's Pipeline Summit two companies announced their plans to build new pipelines capable of transporting substantial amounts of Bakken crude oil to outside markets," Gov. Jack Dalrymple said in an emailed statement to Petroleum News Bakken. "These projects are significant commitments to North Dakota and demonstrate where our state is heading in regards to pipeline development."

Kringstad said pipeline companies are constantly assessing production levels in the Bakken region in order to determine what additional products on the export side of the business are necessary.

"There are a lot of companies also looking at options for intrastate movement of crude oil just within the region itself," Kringstad said. "There is a high level of activity of companies looking at opportunities."

-MAXINE HERR

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continued from page 1 LEGACY DEAL

the transaction, while the board of Corinthian has unanimously approved the deal.

The acquisition includes current production of 2,800 barrels of oil equivalent (86 percent light oil and natural gas liquids, averaging 38 degree API), 11.9 million boe of proved plus probable reserves with a reserve life index of 11.6 years, 104,000 net acres of undeveloped land, 105 square miles of 3-D seismic, 320 gross, or 258.7 net drilling locations (75 percent unbooked) and an operating netback of \$47.50 per boe.

Net of undeveloped land and seismic, which carry an estimated value of C\$15.6

million, the transaction metrics for the long reserve life, high netback acquired production works out at a production price of C\$75,000 per boe, or C\$17.55 per boe of proved plus probable reserves.

From a strategic rationale standpoint, Legacy said the deal represents an ideal fit with its Spearfish holdings, with a portion of the lands joint with Legacy and the remainder located immediately adjacent to Legacy operated assets, as a result of which Legacy will become the "dominant player" in the area.

It said the play has benefited from "improved economics and capital efficiencies as a result of reduced capital costs and higher initial production rates and the recently reduced North Dakota severance tax." Legacy said it is now positioned to "drive additional efficiencies with significantly enhanced economies of scale," while its expanded operational footprint "will also accelerate implementation of waterflood in the play."

Once the transaction is closed, Legacy expects to raise its guidance for 2014 to an average 23,100 boe per day (88 percent oil and NGLs) and its exit rate to 27,350 boe per day (90 percent oil and NGLs), representing gains of 22 percent and 27 percent

respectively over 2013.

The anticipated hike in volumes and revenues from operations have allowed Legacy to raise its 2014 capital budget to C\$390 million, with operating and transportation costs expected to average C\$17.50 per boe.

-GARY PARK

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continued from page 1 FLARING REGS

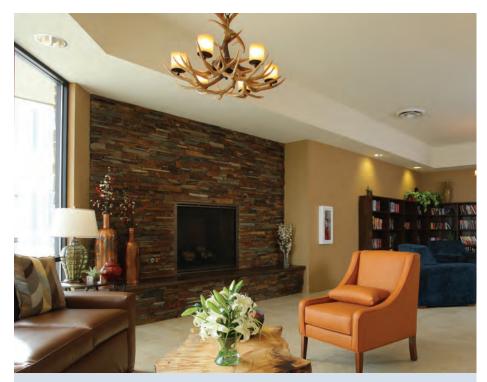
meeting on July 1. It imposes oil production restrictions if producers fail to meet the gas capture goals determined by the North Dakota Petroleum Council, NDPC, flaring task force. The first target is to capture 74 percent of the gas by Oct. 1. This date was chosen because Oneok's Garden Creek II plant is scheduled to be operational at that time, adding 100 million cubic feet of gas processing per day.

To meet that goal, the commission ruled to allow all infill horizontal wells within the Bakken and Three Forks pools to produce at a maximum efficient rate for 90 days. The first 14 days of flowback gas can be removed from the total monthly volume calculation. That leaves another 76 days for an operator to get connected to a gathering facility or utilize remote capture processes in order to hit the gas capture target. If unsuccessful, the operator will face production restrictions. If they can capture 60 percent of the gas through remote capture, then they can produce up to 200 barrels a day. But if they fail to employ that technology, they are restricted to 100 barrels a day until they implement a solution.

The order addresses the difference between wells in the delineation phase and those in full development. The first wells completed in the pool can produce at a maximum efficient rate indefinitely, but those flaring totals will count against the operator in its overall performance. The commission intends to review an operator's track record of getting wells connected before curtailing production on a well that may have special circumstances attached to it, such as poor topography that can impede construction. But even these areas will be subjected to finding well site solutions in order to solve their flaring problem. Allowing maximum production on the first well provides for critical evaluation to determine the accurate number of wells to drill and the needed infrastructure.

"A lot of 8-inch pipe was laid in the ground over the last few years because

see FLARING REGS page 16



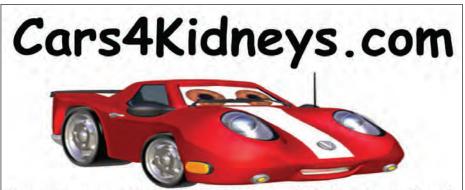
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continued from page 15 **FLARING REGS**

we didn't do this and now we found out it was too small," Helms explained, "and so we don't want to compound that error."

The only exception to the production restriction rule on infill wells are those proven to never be economic to connect to a gas facility. This applies to just over 1,000 wells and most of those produce less than 100 barrels of oil so restriction wouldn't be necessary anyway.

"I think the way this order rolls out, companies are going to have adequate time between today and Oct. 1 to secure those well site processes and increase gathering capacity," Helms said.

But NDPC President Ron Ness said the industry would have preferred a "toolbox option" that would allow operators not in compliance to be given greater opportunity to find gas capture solutions.

"This is, if you're not meeting the target, and you go into the penalty box, what's going to happen?" Ness said. "It's a big change. Typically this type of thing would take place over months and months and maybe legislative discussions, but they made a drastic change on how you're going to impose potential curtailment on production if you're not meeting those goals and that is a significant issue to operators."

Critical features

If the commission issues a directive to restrict production, it constitutes a force majeure on any contracts with a midstream company. This will allow the operator to use a temporary solution to process the gas until adequate gas capacity arrives at the well. This was an issue



North Dakota Industrial Commission, from left to right: Attorney General Wayne Stenehjem, Gov. Jack Dalrymple and Agriculture Commissioner Doug Goehring

for many operators at an April 22 flaring hearing. Hearing testimony also caused Helms to consider

air quality within the order, so now if the state Department of Health determines a well's flare violates air pollution control rules, then NDIC has the authority to restrict production to zero.

"I think that's a critical thing," Helms said. "But we do want it to be a case where the health department does an analysis and it is based on science."

Flaring on the Fort Berthold Indian Reservation is significantly higher than the rest of the state with percentages in the 40 percent range due to topography and right-of-way delays. DMR is working with the tribe so they can develop a similar resolution.

"It will be challenging in many ways, so I don't think the lands on Fort Berthold will come along as quickly as those off, but I do think we're going to have a cooperative effort."

Helms said the commission will be flexible with operators struggling to reduce flaring on the reservation if they are proving to be hitting gas capture targets on wells elsewhere. He said operators will be evaluated on a statewide, field-wide, well pad and well basis.

With gas capture goals spread over October through January 2016, Helms said the order is a continuous rollout of "increasing and tightening" flaring



"I think this order and its implications spread the pain pretty evenly." —Lynn Helms, ND Department of Mineral Resources

restrictions. With October production reported in December, the earliest restrictions could come is January. By then, the next goal — capturing 77 percent takes effect.

"I suspect if you bring the average (flaring percentage) down, there's going to be a couple producers out there that will feel the pinch and they're going to be scrambling," Gov. Jack Dalrymple said. "We don't know who those are but we'll find out. What we do here today, we're serious about it."

Helms noted not only will the flaring percentage go down, but a significant drop of volume flared should follow.

The new rules come exactly one month after a new requirement took effect for operators to submit a gas capture plan with each drilling permit outlining how they plan to capture the gas. Helms said the response to those plans indicate the industry understands what the commission is trying to accomplish.

"I think this order and its implications spread the pain pretty evenly," Helms said. \bullet

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continued from page 1 **OIL CONDITIONING**

Bakken crude oil prior to putting it on rail cars.

Helms said he's been meeting with officials from the U.S. Department of Energy as regulators are looking at a four-part solution to rail safety. Rail routing and maintenance along with rail car standards are federal issues, but emergency management planning and crude oil conditioning involve the state and local entities.

"(Oil conditioning) is in the Industrial Commission's purview ... we may want to follow up with a hearing to see whether our crude oil is conditioned properly for sale and transport," Helms told the commission. "The Department of Energy is researching this for the White House and you do have a role in this."

Currently, the NDIC does not have any standards regarding oil conditioning for transport.

"I think we do need to go there," Gov. Jack Dalrymple said. "The

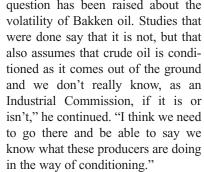




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The commission voted unanimously to allow Helms to proceed with the hearing process to ascertain practices of conditioning crude oil in North Dakota. Helms said a study by Turner Mason on best practices should be available later in July that could be presented at the hearing.

-MAXINE HERR

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