



### Getting connected



VERN WHITTEN PHOTOGRAPHY

Crews lay gathering pipe to additional wells on a Hess pad in the Robinson Lake field in western Mountrail County, North Dakota in late September.

### Tesoro Logistics buying QEP's field service, midstream assets

QEP Resources and Tesoro Corp. announced on Oct. 19 that QEP is selling its wholly owned subsidiary QEP Field Services to Tesoro Logistics in a deal valued at \$2.5 billion that includes QEP's 58 percent ownership in QEP Midstream Partners.

The assets include QEP Midstream's Williston Basin gathering system in western McLean County, along with QEP Midstream and QEP Field Services gathering and processing assets in the Green River, Uinta and Vermillion basins in Wyoming, Utah and Colorado.

In an Oct. 20 conference call, Tesoro Corp. President and Chief Executive Officer Greg Goff said the assets include more than 2,000 miles of crude oil and natural gas gathering and

see **TESORO BUY** page 14

### Statoil CEO leaves to join BG Group

Statoil has lost its Chief Executive Officer Helge Lund to London-based BG Group, filling the United Kingdom's third largest oil and gas producer's leadership void.

Lund led the Norwegian oil giant for 10 years and will start at BG Group in March. His departure from Statoil, announced on Oct. 15, was immediate, and BG is eager to have one of the industry's most seasoned executives take the driver's seat. BG was led by Frank Chapman prior to his retirement in 2012. His successor Chris Finlayson only stayed with BG for a little over a year.

see **LUND DEPARTURE** page 14

### EPA rolling out frack studies

The highly anticipated draft report that could set the stage for hydraulic fracturing regulations is expected to be released in March 2015.

Officials from the U.S. Environmental Protection Agency, EPA, told state regulators at the Interstate Oil and Gas Compact Commission's, IOGCC, annual conference in Columbus, Ohio, on Oct. 20 that it will roll out a series of peer-reviewed papers about the potential impacts of fracking on drinking water. EPA has been working on the study since 2010 when it was directed by Congress to investigate fracking and its effects

see **FRACK STUDIES** page 6



HELGE LUND

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LYNN HELMS

MAXINE HERR

### NATURAL GAS

## More gas gains

Zavanna planning ND processing plant as October flaring apps dwindle

By **MAXINE HERR**

For Petroleum News Bakken

Meeting gas capture targets is taking center stage for many oil and gas operators in North Dakota, and one small operator in the Williston Basin chose to tap into a venture to tackle the flaring challenge.

As part of its strategy, Denver-based Bakken operator Zavanna LLC has developed a joint venture with Flatirons Field Services to build a 45 million cubic feet per day gas processing plant seven miles northeast of Williston.



RON NESS

North Dakota Petroleum Council President Ron Ness said the plant is a good example of how companies are working to reduce flaring.

"Hopefully they will be able to connect other operators up there," Ness said. "Every one of those (gas plants) is obviously a big help."

Flatirons Field Services, a midstream company also based in Denver, was formed in 2012 by founders of the former Western Gas Resources which serviced North Dakota when vertical wells were being drilled in the state.

see **GAS GAINS** page 13

### DRILLING & COMPLETION

## ND DSU apps double

North Dakota operators ask for 126 total drill spacing units in October

By **MIKE ELLERD**

Petroleum News Bakken

While industry analysts speculate on exactly how falling crude oil prices will affect production in the Bakken, Williston Basin operators nearly doubled the number of new drill spacing units, DSUs, they requested from the North Dakota Industrial Commission in October.

In September, the commission received applications seeking the creation of 67 spacing units. In hearings scheduled for Oct. 29 and 30 in Bismarck, the commission will consider applications seeking the creation of 126 DSUs.

With the exception of six DSUs that Petro

Harvester is seeking for Madison formation production in Burke County, the remaining 120 spacing units are for Bakken system production and are clustered in the four traditional Bakken counties of Divide, Dunn, McKenzie and Mountrail with a few in McLean and Stark counties (see map and chart).

Of the 126 spacing units operators are seeking, all but 17 are for overlapping DSUs to allow drilling across section lines of the smaller component spacing units. The spacing units for new development range in size from 390 to 1,280 acres and the overlapping DSUs range in size from 1,280 to 5,120 acres.

The number of wells that operators want to drill

see **DSU APPS** page 15

### MOVING HYDROCARBONS

## DOT-111 litigation risks

Lawsuits seeking to ban tank cars could stall Bakken infrastructure development

By **GARY PARK**

For Petroleum News Bakken

Lawsuits putting the squeeze on the U.S. Department of Transportation, DOT, to ban the use of aging DOT-111 rail cars could spread to impact the demand for Bakken crude, says a U.S. legal specialist on energy transportation.

The litigation by three environmental groups may signal their intention to "increasingly target non-railroad midstream and crude end-users under state law," said Alex Obrecht, a lawyer with the U.S. firm of BakerHostetler, writing in Mondaq, a Canadian business briefing of global legal analysis.



ALEX OBRECHT

That, in turn, could "stall new infrastructure development," with negative consequences for the Bakken, he said.

Obrecht said that regardless of the potential merits of the lawsuits, one theme rings clear: "Players in the Bakken will continue to spend time and money overcoming logistical as well as legal obstacles to transporting their product to market."

On the national level, he said, DOT will require more stringent mechanical and safety standards for tank cars carrying crude oil, leaving only one uncertainty: When will the more strin-

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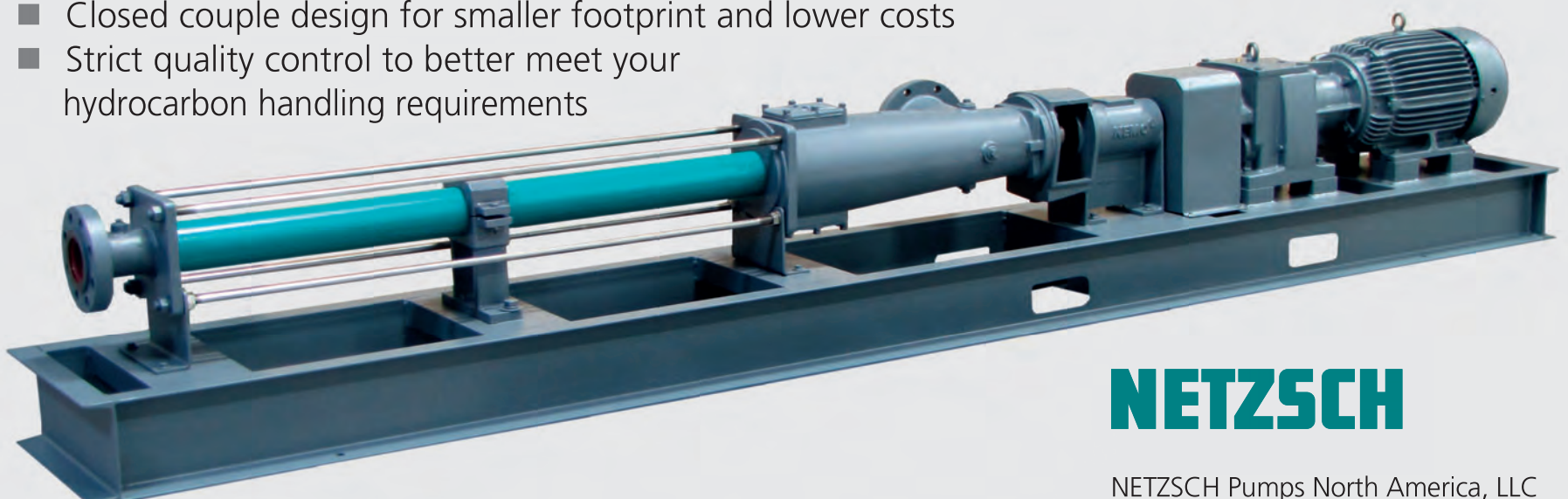
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Development of cutting edge technology turns challenges into opportunities for innovative companies serving the Williston Basin

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• LAND & LEASING

# No interest in speculative O&G tracts

Most Montana tracts get no bids in BLM October oil and gas lease auction with only 6,390 of 14,988 nominated acres finding homes

By MIKE ELLERD

Petroleum News Bakken

Of the 28 tracts totaling 14,988 acres nominated in Montana and North Dakota for the Bureau of Land Management Montana/Dakotas office's Oct. 21 oil and gas lease auction, only 12 tracts totaling 6,390 acres were leased with no apparent interest in the more speculative tracts in Montana.

Five of the 28 nominated tracts were in Golden Valley County, North Dakota, and all five of those were leased. The remaining 23 nominated tracts were scattered from northeast to southwest Montana, and only seven of those attracted bids. (A map showing the locations of all nominated tracts can be found in the Sept. 7 edition of Petroleum News Bakken.)

Among the 16 tracts totaling 8,598 acres not getting any bids in the auction, 11 were in southwest Montana in Beaverhead, Gallatin, Madison and Park counties. Of the other five tracts not receiving bids, two were in Prairie County in eastern Montana and three were in Yellowstone County in central Montana. However, two other Yellowstone County tracts nominated for the auction did receive bids, albeit low with \$2 per acre securing those two leases.

## High bids and bidders

The highest lease price in the Oct. 21 auction was \$410 per acre that Herco LLC of Billings, Montana, paid for a 40-acre lease in far northeast Roosevelt County near the North Dakota border west of Williston. The next highest bid was \$290 per acre that Diamond Resources of Williston paid for a 1,760-acre lease in

**Among the 16 tracts totaling 8,598 acres receiving no bids in the auction, 11 were in Beaverhead, Gallatin, Madison and Park counties, all in southwest Montana**

Golden Valley County, North Dakota. That was the largest tract leased in the auction and brought a total of \$510,400, the highest total amount paid for any lease in the auction.

Irish Oil and gas of Bismarck and Kkrep LLC of Billings jointly paid \$120 per acre for a 320-acre lease in Golden Valley County. All other successful bids in the auction were less than \$100 per acre.

Successful bidders on the other Golden Valley County, North Dakota, tracts were Nisku Royalty of Billings and Davis Exploration of Stockbridge, Georgia.

The two tracts leased in Yellowstone

County went to Cove Canyon Grasslands of Clancy, Montana, and DeCa Resources USA LLC of Calgary, Alberta.

The remaining four tracts leased in Montana were in Powder River County in southeast Montana near the Wyoming border. Successful bids on those tracts ranged from \$2 to \$10 per acre and were leased by Zone Exploration of Billings, Briscoe Petroleum of Sheridan, Wyoming, and JP Furlong Co. of Bismarck.

## Numbers and perspectives

The 6,309 acres leased in the October auction brought in a total of \$674,266 for an average of \$105 per acre. That is the third-lowest total acreage leased in Montana/Dakotas BLM auctions over the last six years and well below the six-year average of 30,472 acres.

The total October auction proceeds of \$674,266 marks the second lowest total over that same period and is also far below

the six-year average of just over \$15 million per auction.

The \$105 per acre average in the October auction is also below the six-year average of \$494 per acre. The lowest average over the last six years was \$23 per acre in the June 2009 auction.

The highest average price per acre over the last six years of Montana/Dakotas lease auctions was \$7,742 in the January auction. That auction offered only 2,261 acres in 45 tracts for an average tract size of just 50 acres. The auction was limited to North Dakota and most of the tracts were in Dunn, McKenzie, Mountrail and Williams counties. That auction saw a record high per-acre bid of \$34,000 paid for a 152-acre tract in the Van Hook Peninsula in southwest Mountrail County. ●

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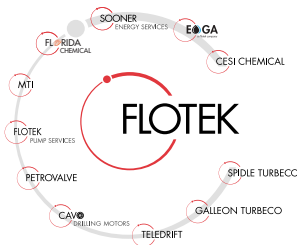


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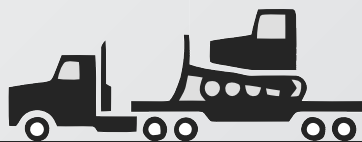
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## MOVING HYDROCARBONS

# Energy East project hitting obstacles

*TransCanada rejects criticism from Quebec's largest gas utility as public opposition mounts stalling progress on export terminal*

By GARY PARK

For Petroleum News Bakken

TransCanada's Energy East pipeline, designed to ship oil sands and Bakken crude across Canada and possibly by tanker to Europe, is now facing the same fix as all similar projects.

Once seen as the best hope of finding a clear path to Canadian government approval, the C\$11 billion plan to ship 1.1 million barrels per day out of Western Canada to refineries in Ontario, Quebec and New Brunswick and two export terminals is now facing two stumbling blocks.

The head of Gaz Metro, Quebec's largest gas utility, and a combination of the Quebec government and the environmental movement are lining up against Energy East as TransCanada prepares to file a regulatory application within a few weeks.

The project involves converting one of TransCanada's six main natural gas pipelines to carry crude, but the company was accused this month by Gaz Metro Chief Executive Officer Sophie Brochu of fumbling its efforts to gain support in Central Canada.

She told the Globe and Mail that gas customers in Quebec and Eastern Ontario need commitments that their access to gas at the same price that they now pay will not be compromised.

Brochu said instead that TransCanada is asking those customers to "subsidize oil shippers and I don't believe this is in the best interests of Canada."

TransCanada rejected that criticism, insisting that any reduction in its current gas volumes, which open the way for a pipeline conversion, reflects shrinking demand for Canadian gas in the United States.

Karl Johannson, the company's executive vice president of gas pipelines, said gas customers should actually benefit once underutilized gas pipeline space is removed from TransCanada's network.

Ontario's Union Gas and Enbridge Gas Distribution both insist that all gas capacity on a 250-mile section of pipeline within Ontario is needed.

Brochu said all of the gas distributors in Central Canada will pressure the National Energy Board to build a new oil pipeline



SOPHIE BROCHU



KARL JOHANNSON

over that section, leaving the gas connection intact.

Johannson countered that there is far more gas capacity than the domestic market needs after years when Central Canada's utilities have been able to use surplus pipeline space to negotiate better deals.

### Promoted as market outlet

Prime Minister Stephen Harper and premiers in most of Canada's 10 provinces have promoted Energy East as a nation-building exercise that will provide market outlets for potentially stranded crude in the Bakken formation of Saskatchewan and Manitoba and Alberta's oil sands and tight oil plays.

In Quebec public opposition is mounting to Energy East, stalling a provincial government decision to allow TransCanada to resume exploratory and drilling work for an export terminal at Cacouna on the St. Lawrence River, despite the lifting of a temporary court injunction on Oct. 15.

TransCanada has a work schedule that it hopes to complete before ice closes the river down.

The injunction was issued after several Quebec-based environmental groups argued that a certificate was granted to TransCanada without proper consideration of the impact on beluga whales that congregate in the area to nurse their newborn where numbers have dwindled to about 880 today from 10,000 a century ago.

TransCanada said it had voluntarily expanded the exclusion zone for marine mammals before receiving a notice of non-compliance and has followed all of the proper procedures. ●

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Petroleum News Bakken • Vol. 3, No. 28 • Week of October 26, 2014



Published weekly. Address: 5441 Old Seward, #3, Anchorage, AK 99518  
(Please mail ALL correspondence to: P.O. Box 231647 Anchorage, AK 99523-1647)  
Subscription prices in U.S. — \$98.00 1 year, \$176.00 2 years • Canada — \$185.95 1 year, \$334.95 2 years  
Overseas (sent air mail) — \$220.00 1 year, \$396.00 2 years  
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TECHNOLOGY & ECONOMICS

# Proposing power, plants and propellant

Development of cutting edge technology turns challenges into opportunities for innovative companies serving the Williston Basin

By **MAXINE HERR**

For *Petroleum News Bakken*

Advancements in technology have repeatedly stimulated the success of the Bakken.

From horizontal drilling that maximizes oil recovery to proposed plastic plants that capture value from the gas stream, innovation is driving the industry.

The Great Plains and EmPower Energy Conference held in Bismarck on Oct. 14 included a panel of technology companies that have found solutions for Bakken challenges.

*“This has sparked for us opportunities and projects we’re now working on in Egypt and Australia and Poland. So it’s definitely transferrable and some very global relevant things are happening in North Dakota.”*  
—Philip Fusacchia, GE oil and gas program manager

Last year, Gov. Jack Dalrymple challenged General Electric, GE, to bring natural gas infrastructure to the state to help reduce flaring. The company’s “CNG in a Box” which is being used by Statoil to capture natural gas through a mobile onsite unit and convert it to fuel for trucks and equipment has proven successful so the company is branching out with the idea. It has developed compressed natural gas, CNG, engines for drill rigs and has built a dual-use CNG fuel station in Tioga to service fleet vehicles.

“What we see with building these localized gas networks is that it creates the infrastructure, the adoption, and the market for natural gas and it’s definitely done in a sustainable way,” said GE Oil and Gas Program Manager Philip Fusacchia.

GE has manufactured gas engines that are operating on 15 rigs in the nation. A dozen are utilized in the Marcellus play but Fusacchia said the company is actively working on a project to deploy a set in the Bakken in the first part of 2015. He said the engines would help meet gas capture targets by using one-fifth of the gas that is currently being flared.

Meanwhile, a multi-use CNG station in Tioga is expected to service rigs while also providing fueling for 150 fleet vehicles.

“Think about rig activity,” he said. “It

comes and goes, but we’re going to be driving vehicles around here for quite some time.”

Fusacchia said the company has discovered that these designs are also applicable around the world.

“This has sparked for us opportunities and projects we’re now working on in Egypt and Australia and Poland,” Fusacchia said. “So it’s definitely transferrable and some very global relevant things are happening in North Dakota.”

## Water-free fracturing

Jeremy Dockter of Expansion Energy explained how his company’s small, mobile liquid natural gas, LNG, plants and waterless, methane-based fracturing and enhanced oil recovery technology may provide value for its industry partners. The small-scale LNG plants offer a solution to flaring on well sites, but also could alleviate bottlenecks along gathering lines by converting gas to LNG and sending it to market. Its methane-based fracturing is done almost exclusively without water through a process that uses natural gas from nearby wells, or from the targeted formation itself, as a fracturing fluid. The system converts the gas to a dense form — just before it becomes LNG — that can be pumped down the well to fracture the rock.

“Because we’re not using water ... then that’s just that much less disposal water to get rid of at the end of the process,” Dockter said.

The lack of water equates to lower costs and eliminates some truck traffic, he added.

## Applying missile technology

ATK, a missiles production company, is currently deploying its own fracturing technology within the industry. It is not entirely waterless, but only requires about 1,000 feet of fluid. The process involves deploying propellant, which looks like giant rubber erasers, into tubes to stimulate the rock and generate large amounts of gas to crack the rock. By breaking apart the formation, it also creates its own proppant to hold the rock open for hydrocarbons to flow.

“We do not have to generate all the pressure from the surface ... to stimulate the rock,” said ATK’s John Arrell. Instead, the propellant carrier is positioned across a particular zone the operator wants to stimulate and then the propellant is burned which generates gas. Arrell said it utilizes

the same equipment and infrastructure currently used for hydraulic fracturing because the propellant has the same function, but the process can control the gas generated. The technology is currently used in oil, gas and geothermal wells in three different applications: to stimulate existing wells to revive them; in conjunction with hydraulic fracturing by using the propellant first and following with hydraulic fracturing; and is also used in lieu of hydraulic fracturing. Arrell explained that the process can be custom

designed for an individual well, too. Applying its aerospace experience, ATK offered a similar system to NASA when it sent a shuttle to space. Arrell said NASA requested a propellant and device to follow a particular trace, and oil and gas operators could do the same.

“We use that technology, design criteria, and that model in a stimulation tool that we can bring to this market,” Arrell said. ●

Contact Maxine Herr at maxine606@msn.com

## MOVING HYDROCARBONS

### Crestwood to load 1,000th train at COLT hub

Crestwood Midstream’s COLT crude-by-rail hub in south-central Williams County is expected to load its 1,000th unit train by the end of October. In an October operational update, the Houston-based midstream company said the COLT hub loaded an average of approximately 117,000 barrels per day in the third quarter, an increase of 5 percent over second quarter loadings. Crestwood is also completing an expansion that will allow for the scheduling and loading of one full additional unit train per day.

In Crestwood’s other Williston Basin activities, its Arrow crude gathering system reached a peak daily throughput rate of 70,000 bpd in September. The Arrow system gathers crude oil and natural gas on the Fort Berthold Indian Reservation in northern Dunn and eastern McKenzie counties. Crestwood is currently expanding the capacity of the Arrow system.

For its combined Williston Basin operations, including the company’s COLT connector pipeline that ties the COLT hub to the Dry Fork terminal at Beaver Lodge and its Bakken crude oil trucking operations, Crestwood’s September crude oil volumes averaged 260,000 bpd. And for the third quarter, Crestwood’s throughput volumes were up 7 percent.

—PETROLEUM NEWS BAKKEN

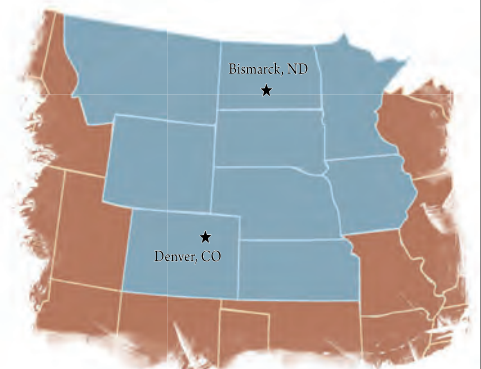


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continued from page 1

## FRACK STUDIES

on water resources in some oil and gas producing states. Already, nine papers related to the study are published on the agency's website and EPA will include them in its comprehensive draft assessment in March. Initially EPA had expected to release the draft report by the end of 2014 with a final report in 2016.

The published papers include reviews of case studies and existing data about reported incidents or possible water contamination from publicly available information and producers. Several additional papers are expected including an analysis of 39,000 FracFocus well disclosures. FracFocus, a voluntary registry of the chemicals used in fracking, began in August 2011 and environmental groups have concerns that due to trade secret protections within the registry, some companies may be using chemicals that

could affect public safety. The groups submitted a petition to EPA to implement new rules, but Scott Anderson of the Environmental Defense Fund, EDF, said EPA misunderstood the environmental organization's request because the advanced notice of proposed rulemaking on chemical disclosure did not fit EDF's petition.

"Their petition was only asking that the manufacturers of hydraulic fracturing chemicals test the health impacts and that the notice of proposed rulemaking went way beyond that to, conceptually, EPA even setting up its own version of FracFocus," North Dakota Department of Mineral Resources Director Lynn Helms told Petroleum News Bakken following the conference.

But an unnamed EPA official told Natural Gas Intelligence's Shale Daily that peer-reviewed papers need to reflect that there is continuing improvement and changes to FracFocus, and particularly that water is the most frequently reported

base fluid. "Almost 700 unique chemicals were identified," the official said. "The interesting thing about these are the chemicals per disclosure were less than one percent of the total mass that was used for the frack job."

Ground Water Protection Council Executive Director Mike Paque said FracFocus had recently met with numerous companies, state regulators and environmental organizations to discuss a new system that would discourage confidential reporting. If the group can agree on a better approach, FracFocus could soon cut the number of confidential disclosures in half, Paque told NGI Shale Daily. Of the 39,000 disclosures that EPA analyzed, only about 11 percent were reported as "confidential business information."

### Two phases of EPA study

Helms explained that EPA actually has two phases of its hydraulic fracturing study. The investigation of hydraulic fracturing's effects on drinking water is the second phase. The first was a retrospective phase that reviewed four sites in the U.S. where there was a probable release of hydraulic fracturing chemicals. One of those sites was a well in Dunn County two miles southwest of Killdeer which in 2011 experienced a blowout when a casing ruptured. While the well intersects the Killdeer aquifer, multiple samples showed no impacts to groundwater or surface water.

"If in a case like that we're not seeing contamination, that speaks volumes about the safety of how we do hydraulic fracturing," Helms said. The study was due at the end of 2012 but the EPA now hopes to publish it by the end of November.

"Either phase could lead to a proposal to change the Safe Drinking Water Act or

to propose rules governing hydraulic fracturing," Helms said.

### Analyzing spill data

EPA also did an analysis of public data collected from 11 states including North Dakota, but the data did not provide any information on significant impacts of the spills.

"As it turns out, spills databases — just like the EPA's spill database — don't capture necessarily what caused the spill, just that there was an incident, it happened, it was responded to and everything's taken care of now, which is the kind of message you want to get," the unidentified EPA official told Daily Shale. As EPA reviewed the spill reports, it found it was "very difficult to figure out what was hydraulic fracturing and what was not. When we did find things that we thought were related to hydraulic fracturing, we actually talked to every one of these states and made sure they agreed. Where they disagreed, we took it off the list and moved forward."

The most common fluid spilled was flowback and produced water, and spills were typically caused by human error or equipment failures. The official said that 36,000 general spills were reported in the 11 states between January 2006 and April 2012, and only 450 spills — or less than 1 percent — were related to unconventional oil and gas development. In addition, those spill reports showed that more than half of the incidents released less than 1,000 gallons of fluid which is considered low-volume.

Helms said his office is in the process of setting up a meeting with EPA in order to review the draft report, particularly the section about the Dunn County well.

—MAXINE HERR

Contact Maxine Herr  
at maxine606@msn.com

## ENVIRONMENT & SAFETY

### Well leak contained in McKenzie County

A well four miles northwest of Watford City in McKenzie County leaked 650 barrels of oil and 520 barrels of brine due to a mechanical failure at the wellhead. The well began leaking the afternoon of Oct. 16; XTO Energy had the well under control by 6:30 p.m. on Oct. 18. The fluid was mostly contained on the well site, but an undetermined amount of mist did reach surrounding areas. North Dakota Department of Mineral Resources, DMR, spokeswoman Alison Ritter said inspectors are on site to determine the extent and impact of the mist spray. Oil and water was being recovered into tanks and methane gas was also reportedly leaking but without immediate health and safety risks, Ritter said.

XTO Energy reported the release from its Loomer 41X-4C well which averaged about 486 barrels of daily oil production and 202 barrels of water per day in August, the latest available data from DMR. The North Dakota Department of Health is also on site working with XTO Energy, environmental remediation crews and local responders.

—MAXINE HERR

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# Petroleum **BAKKEN Stats**

• BAKKEN COMMENTARY

## QEP takes top ND IP; permitting remains brisk

**MIKE ELLERD**

*Petroleum News Bakken*

One of QEP Energy's wells in the Grail field in far eastern McKenzie County came in with the top 24-hour initial production, IP, reported for the week of Oct. 14-20 at 2,599 barrels of oil (see map on this page and charts and charts on pages 8 and 10). North Dakota Department of Mineral Resources data indicate there are currently 82 active and 48 confidential oil wells in the Grail field, all of which are QEP-operated wells. The DMR database shows another 14 wells being drilled with 10 more permitted, also all operated by QEP.

Marathon Oil had the second highest IP reported for the week at 2,208 barrels from a well in the Reunion Bay field in the Van Hook Peninsula in southwest Mountrail County. Marathon also had the No. 9 IP at 1,749 barrels from a well in the Chimney Butte field in Dunn County.

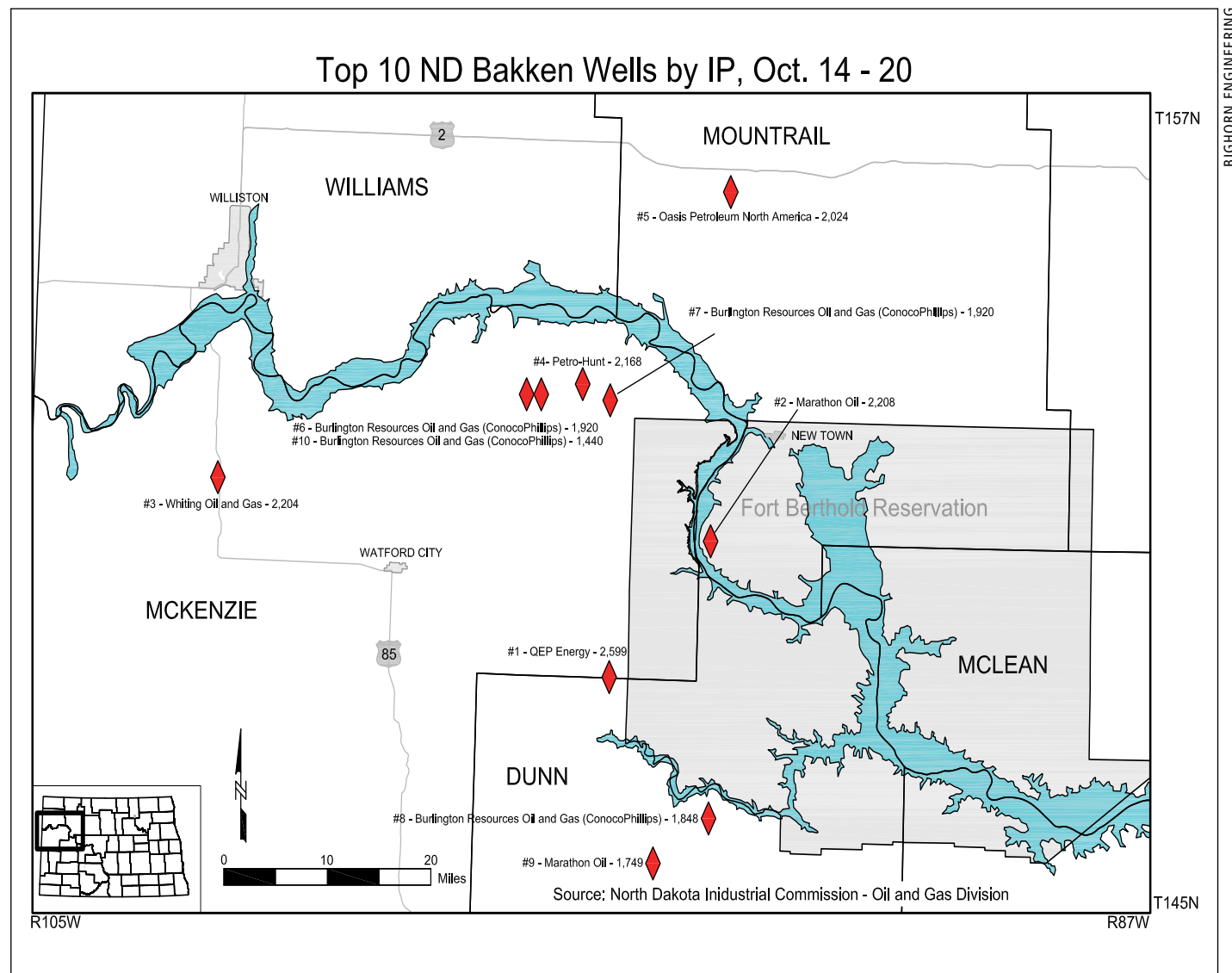
The No. 3 IP came from a Whiting Oil and Gas well in the Lonesome field in McKenzie County at 2,204 barrels. A Petro-Hunt well in the Charlson field, also in McKenzie County, came in at No. 4 with 2,168 barrels.

ConocoPhillips subsidiary Burlington Resources had the Nos. 6, 7, 8 and 10 IPs, which ranged from 1,440 to 1,920 barrels from wells in the Keene and Hawkeye fields in McKenzie County and the Corral Creek field in Dunn County.

Over the state line in eastern Montana three completions were reported between Sept. 27 and Oct. 17, all Continental Resources wells targeting the Bakken system in Richland County (see page 11). IPs for those three wells ranged from 580 to 674 barrels.

### Permit activity

In North Dakota, 76 well permits were issued for the week ending Oct. 20, near-



ly on par with the 78 permits issued the previous week (see page 9). At 11, Continental Resources was issued the most permits with six in Dunn County, three in Williams County and two in Mountrail County. Behind Continental was Hess, filing as Hess Bakken Investments II, which received nine permits, five in Williams County and four in Mountrail. Kodiak Oil and Gas was issued eight permits all in Williams County.

As with previous weeks, McKenzie County received the most permits at 21 which were issued to seven different operators, the most, six, going to Emerald Oil. Behind McKenzie County were Dunn at 18 permits, Mountrail at 17 and Williams at 16. Permits were also issued for Divide, Golden Valley and Stark counties.

Other operators receiving North Dakota permits were SM Energy, Marathon, Oxy USA, QEP Energy, WPX

Energy, EOG Resources, SHD Oil and Gas, Triangle, XTO Energy and Petro-Hunt.

In Montana, seven new well locations were permitted between Sept. 27 and Oct. 17, all for Bakken wells and all in Richland and Roosevelt counties (page 11). Those permits were issued to Continental, Oasis, Slawson, Triangle and Whiting. ●

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# IPs for ND Bakken wells

Oct. 14-20, 2014

This chart contains initial production rates, or IPs, for active wells that were filed as completed with the state of North Dakota from Oct. 14-20, 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, Oct. 14-20. 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](mailto:alindly@petroleumnewsbakken.com)

County (Co.) abbreviations are as follows — BIL: Billings, BOT: Bottineau, BOW: Bowman, BRK: Burke, DIV: Divide, DUN: Dunn, GV: Golden Valley, MCH: McHenry, MCK: McKenzie, MCL: McLean, MER: Mercer, MNT: Mountrail, REN: Renville, SLP: Slope, STK: Stark, WRD: Ward, WIL: Williams

## IPs for completed North Dakota wells

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)
<b>Burlington Resources Oil and Gas (ConocoPhillips)</b>												
27579	Sequoia 31-4MBH	Hawkeye	LOT8 4-152-95	2SEC	MCK	Bakken	horz.	21,622'	9/11/14	1,920	3,015	408
<b>EOG Resources</b>												
26779	Mandaree 17-05H	Squaw Creek	LOT3 5-149-94	SEC	MCK	Bakken	horz.	15,205'	10/2/14	1,014	1,815	1,501
<b>HRC Operating (Halcon Resources)</b>												
26341	Miller 157-101-12D-1-3H	Otter	SESE 12-157-101	2SEC	WIL	Bakken	horz.	19,837'	9/26/14	659	1,614	2,529
<b>Oasis Petroleum North America</b>												
26179	Clementine 5693 44-35T	Alger	SESE 35-156-93	2SEC	MNT	Bakken	horz.	20,200'	4/11/14	2,024	1,716	5,202
<b>Petro-Hunt</b>												
26265	Van Hise Trust 153-95-28D-21-4H	Charlson	SESE 28-153-95	2SEC	MCK	Bakken	horz.	20,471'	9/29/14	2,168	3,724	662
27202	Watterud 160-95-11D-2-1H	Stoneview	NENE 14-160-95	4SEC	DIV	Bakken	horz.	19,853'	9/25/14	661	730	1,664
27199	Watterud 160-95-11D-2-2H	Stoneview	NENE 14-160-95	4SEC	DIV	Bakken	horz.	19,595'	9/20/14	345	160	1,170
27201	Watterud 160-95-14A-23-1H	Stoneview	NENE 14-160-95	4SEC	DIV	Bakken	horz.	19,040'	9/20/14	607	415	1,937

## IPs for ND wells released from confidential status

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)
<b>American Eagle Energy</b>												
27904	Richard 2-13N-163-101	Colgan	NWNE 13-163-101	2SEC	DIV	Bakken	horz.	18,523'	7/11/14	214	65	287
<b>Burlington Resources Oil and Gas (ConocoPhillips)</b>												
27147	Arches 14-35TFH	Keene	SWSW 35-153-96	2SEC	MCK	Bakken/T.F.	horz.	20,410'	8/10/14	1,440	2,214	552
27753	CCU Olympian 44-35MBH	Corral Creek	SESE 35-147-94	U	DUN	Bakken	horz.	20,560'	9/5/14	1,848	1,236	1,320
27148	Old Arches 14-35MBH ULW	Keene	SWSW 35-153-96	4SEC	MCK	Bakken/T.F.	horz.	20,425'	8/5/14	1,920	2,986	432
<b>Fidelity Exploration and Production (MDU)</b>												
25833	Weiler 21-16H	Heart River	SWSE 21-139-97	2SEC	STK	Bakken	horz.	19,780'	5/14/14	457	229	461
<b>Hess Bakken Investments II</b>												
27795	AN-Evenson- 152-95-1003H-6	Antelope	SWSW 10-152-95	N/A	MCK	Sanish	horz.	N/A	N/A	N/A	N/A	N/A
27796	AN-Evenson- 152-95-1003H-7	Antelope	SWSW 10-152-95	N/A	MCK	Sanish	horz.	N/A	N/A	N/A	N/A	N/A
27504	BB-Budahn A- 150-95-0403H-7	Blue Buttes	SESE 5-150-95	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
27503	BB-Budahn A- 150-95-0403H-8	Blue Buttes	SESE 5-150-95	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
27502	BB-Budahn A- 150-95-0403H-9	Blue Buttes	SESE 5-150-95	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
27501	BB-Budahn A- 150-95-0403H-10	Blue Buttes	SESE 5-150-95	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
27680	EN-Pederson-LW- 154-94-0408H-1	Alkali Creek	SESW 33-155-94	N/A	MNT	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
<b>Marathon Oil</b>												
27151	Glisar 14-32TFH	Reunion Bay	SWSW 32-151-93	2SEC	MNT	Bakken	horz.	20,594'	8/21/14	2,208	2,036	1,636
27558	Samann 34-24H	Chimney Butte	SWSE 24-146-95	2SEC	DUN	Bakken	horz.	20,877'	7/14/14	1,749	1,505	2,573
<b>Newfield Production</b>												
27733	Fleck 150-100-12-1-2H	Sandrock	SESW 12-150-100	2SEC	MCK	Bakken	horz.	21,608'	8/7/14	770	1,378	724
27732	Fleck 150-100-12-1-3H	Sandrock	SESW 12-150-100	2SEC	MCK	Bakken	horz.	20,936'	8/10/14	854	1,550	726
27731	Fleck 150-100-12-1-4H	Sandrock	SESW 12-150-100	2SEC	MCK	Bakken	horz.	21,734'	8/11/14	1,415	1,395	918
<b>Petro-Hunt</b>												
27918	USA 153-95-48-9-1HS	Charlson	LOT4 4-153-95	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
<b>QEP Energy</b>												
26304	Veeder 4-27-34BH	Grail	SESW 34-149-95	2SEC	MCK	Bakken	horz.	21,855'	5/30/14	2,599	3,859	2,244
<b>Samson Resources (KKR &amp; Co.)</b>												
27986	Matador 2734-7H	Ambrose	NENE 27-163-99	2SEC	DIV	Bakken	horz.	17,745'	7/2/14	171	16	397
<b>SM Energy</b>												
27768	Luella 13-35H	Camp	SWSW 35-152-100	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
27767	Todd 13X-35H	Camp	SWSW 35-152-100	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
27769	Tracy 13-35H	Camp	SWSW 35-152-100	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
<b>Statoil Oil and Gas</b>												
27809	Maston 34-27 #6H	Banks	SESW 34-153-98	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
27824	Maston 34-27 #7TFH	Banks	SESW 34-153-98	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A
<b>Whiting Oil and Gas</b>												
26443	Ellison Creek Federal 21-1PH	Morgan Draw	LOT3 1-143-103	2SEC	GV	Bakken	horz.	21,697'	4/24/14	908	491	672
27018	Gajewski 31-18H	Lonesome	NWNE 18-151-101	N/A	MCK	Bakken	horz.	N/A	N/A	N/A	N/A	N/A





# North Dakota oil permit activity

Oct. 14-20, 2014

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
<b>Divide Co.</b>									
<b>SM Energy</b>									
Karlberg 14-12HN	SESW 12-161-99	373'FSL and 2,112'FWL	Garnet	N/A*	conf.	2,102'	29738	33-023-01286	10/17/14
Karlberg 14-12HS	SESW 12-161-99	325'FSL and 2,101'FWL	Burg	Bakken	horz.	2,104'	29739	33-023-01287	10/17/14
<b>Dunn Co.</b>									
<b>Continental Resources</b>									
Cuskelly 3-7H1	NWNE 7-146-96	375'FNL and 2,210'FEL	Rattlesnake	Bakken	horz.	2,620'	29710	33-025-02700	10/15/14
Cuskelly 4-7H	NWNE 7-146-96	375'FNL and 2,165'FEL	Rattlesnake	Bakken	horz.	2,621'	29709	33-025-02699	10/15/14
Cuskelly 5-7H2	NWNE 7-146-96	375'FNL and 2,120'FEL	Rattlesnake	Bakken	horz.	2,622'	29708	33-025-02698	10/15/14
Thorvald 3-6H1	NWNE 7-146-96	375'FNL and 2,500'FEL	Rattlesnake	Bakken	horz.	2,618'	29713	33-025-02703	10/15/14
Thorvald 4-6H	NWNE 7-146-96	375'FNL and 2,455'FEL	Rattlesnake	Bakken	horz.	2,617'	29712	33-025-02702	10/15/14
Thorvald 5-6H2	NWNE 7-146-96	375'FNL and 2,410'FEL	Rattlesnake	Bakken	horz.	2,617'	29711	33-025-02701	10/15/14
<b>Marathon Oil</b>									
Cross 24-8H	NENW 17-144-95	303'FNL and 2,404'FWL	Murphy Creek	N/A*	conf.	2,315'	29707	33-025-02697	10/15/14
Litvin 21-17H	NENW 17-144-95	353'FNL and 2,404'FWL	Murphy Creek	N/A*	conf.	2,319'	29706	33-025-02696	10/15/14
<b>Oxy USA (Occidental Petroleum)</b>									
State Dvorak A 3-16-21H-142-96 L	NWNW 16-142-96	335'FNL and 780'FWL	Manning	Bakken	horz.	2,445'	29724	33-025-02710	10/15/14
State Dvorak A 4-16-21H-142-96	NWNW 16-142-96	335'FNL and 820'FWL	Manning	Bakken	horz.	2,449'	29723	33-025-02709	10/15/14
State Dvorak A 5-16-21H-142-96	NWNW 16-142-96	335'FNL and 860'FWL	Manning	Bakken	horz.	2,462'	29722	33-025-02708	10/15/14
<b>QEP Energy</b>									
MHA 6-06-01H-149-92	LOT4 5-149-91	608'FNL and 833'FWL	Heart Butte	Bakken	horz.	2,010'	29715	33-025-02705	10/15/14
MHA 6-32-29H-150-91	LOT4 5-149-91	597'FNL and 856'FWL	Heart Butte	Bakken	horz.	2,009'	29716	33-025-02706	10/15/14
MHA 8-06-01H-149-92	LOT4 5-149-91	618'FNL and 810'FWL	Heart Butte	Bakken	horz.	2,009'	29714	33-025-02704	10/15/14
MHA 8-32-29H-150-91	LOT4 5-149-91	587'FNL and 878'FWL	Heart Butte	Bakken	horz.	2,006'	29717	33-025-02707	10/15/14
<b>WPX Energy Williston</b>									
Wells 32-29HD	SWSE 32-150-93	381'FSL and 1,660'FEL	Reunion Bay	N/A*	conf.	2,258'	29736	33-025-02712	10/16/14
Wells 32-29HY	SWSE 32-150-93	331'FSL and 1,660'FEL	Reunion Bay	N/A*	conf.	2,256'	29737	33-025-02713	10/16/14
Wells 32-29HZ	SWSE 32-150-93	431'FSL and 1,660'FEL	Reunion Bay	N/A*	conf.	2,257'	29735	33-025-02711	10/16/14
<b>Golden Valley Co.</b>									
<b>Whiting Oil and Gas</b>									
Rojic 22-9	SESW 9-140-104	1463'FNL and 1,484'FWL	Wildcat	N/A	conf.	2,797'	29720	33-033-00352	10/15/14
<b>McKenzie Co.</b>									
<b>Emerald Oil</b>									
Coleman 3-16-21H	SWSE 9-148N-102W	610'FSL and 2,373'FEL	Boxcar Butte	Bakken	horz.	2,422'	29701	33-053-06378	10/14/14
Coleman 4-16-21H	SWSE 9-148N-102W	610'FSL and 2,323'FEL	Boxcar Butte	Bakken	horz.	2,421'	29700	33-053-06377	10/14/14
Coleman 5-16-21H	SESE 9-148-102	235'FSL and 270'FEL	Boxcar Butte	Bakken	horz.	2,420'	29704	33-053-06381	10/14/14
Mortimer Duke 1-9-4H	SESE 9-148-102	710'FSL and 2,323'FEL	Boxcar Butte	Bakken	horz.	2,423'	29699	33-053-06376	10/14/14
Mortimer Duke 2-9-4H	SESE 9-148-102	335'FSL and 320'FEL	Boxcar Butte	Bakken	horz.	2,418'	29702	33-053-06379	10/14/14
Mortimer Duke 3-9-4H	SESE 9-148-102	335'FSL and 270'FEL	Boxcar Butte	Bakken	horz.	2,420'	29703	33-053-06380	10/14/14
<b>EOG Resources</b>									
West Clark 06-01M	LOT2 1-151-95	1,445'FNL and 1,249'FWL	Clarks Creek	Duperow	vert.	2,221'	29679	33-053-06369	10/15/14
<b>QEP Energy</b>									
P. Levang 1-14TH	SESE 11-150-95	327'FSL and 553'FEL	Grail	Bakken	horz.	2,252'	29749	33-053-06391	10/20/14
<b>SHD Oil and Gas</b>									
Avalanche 36-14-MB2	LOT3 36-151-95	2,452'FSL and 286'FWL	Clarks Creek	N/A*	conf.	2,323'	29755	33-053-06395	10/20/14
Avalanche 36-15-TF1	LOT3 36-151-95	2,454'FSL and 316'FWL	Clarks Creek	N/A*	conf.	2,325'	29754	33-053-06394	10/20/14
Avalanche 36-16-MB2	LOT3 36-151-95	2,456'FSL and 346'FWL	Clarks Creek	N/A*	conf.	2,325'	29753	33-053-06393	10/20/14
Avalanche 36-17-TF2	LOT3 36-151-95	2,133'FSL and 307'FWL	Clarks Creek	N/A*	conf.	2,332'	29752	33-053-06392	10/20/14
<b>Triangle USA Petroleum</b>									
Anderson 148-100-7-6-2H	SESE 7-148-100	370'FSL and 1,070'FEL	Buffalow Wallow	Bakken	horz.	2,229'	29718	33-053-06382	10/15/14
Anderson 148-100-7-6-3H	SESE 7-148-100	370'FSL and 1,020'FEL	Buffalow Wallow	Bakken	horz.	2,229'	29719	33-053-06383	10/15/14
Anderson 148-100-7-6-9TFH	SESE 7-148-100	370'FSL and 970'FEL	Buffalow Wallow	Bakken	horz.	2,229'	29721	33-053-06384	10/15/14
<b>Whiting Oil and Gas</b>									
Eide 41-13-3H	NENE 13-150-100	440'FNL and 650'FEL	Timber Creek	Bakken	horz.	2,267'	29726	33-053-06386	10/16/14
Eide 41-13-4H	NENE 13-150-100	440'FNL and 680'FEL	Timber Creek	Bakken	horz.	2,267'	29725	33-053-06385	10/16/14
Eide 41-13HU	NENE 13-150-100	440'FNL and 620'FEL	S. Tobacco Garden	Bakken	horz.	2,267'	29727	33-053-06387	10/16/14
<b>XTO Energy (ExxonMobil)</b>									
Eckert 41X-6C	LOT1 6-152-101	412'FNL and 488'FEL	Indian Hill	N/A*	conf.	2,196'	29732	33-053-06388	10/16/14
Eckert 41X-6D	LOT1 6-152-101	412'FNL and 428'FEL	Indian Hill	N/A*	conf.	2,195'	29734	33-053-06390	10/16/14
Eckert 41X-6G	LOT1 6-152-101	412'FNL and 458'FEL	Indian Hill	N/A*	conf.	2,195'	29733	33-053-06389	10/16/14
<b>Mountrail Co.</b>									
<b>Continental Resources</b>									
Margaurite 5-15H1	NWNW 15-153-93	325'FNL and 315'FWL	Sanish	Bakken	horz.	2,173'	29750	33-061-03364	10/20/14
Margaurite Federal 4-15H	NWNW 15-153-93	325'FNL and 360'FWL	Sanish	Bakken	horz.	2,173'	29751	33-061-03365	10/20/14



**ND PERMITS** *continued from page 9*

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

Well Name	Location	Footages	Field	Geologic Target	Wellbore Type	Elev.	NDIC No.	API No.	NDIC date
<b>Hess Bakken Investments II</b>									
EN-Weyrauch B- 154-93-3031H-9	SWSW 19-154-93	498'FSL and 1,075'FWL	Robinson Lake	N/A*	conf.	2,249'	29728	33-061-03354	10/16/14
EN-Weyrauch B- 154-93-3031H-10	SWSW 19-154-93	531'FSL and 1,075'FWL	Robinson Lake	N/A*	conf.	2,249'	29729	33-061-03355	10/16/14
EN-Weyrauch B- 154-93-3031H-11	SWSW 19-154-93	564'FSL and 1,075'FWL	Robinson Lake	N/A*	conf.	2,249'	29730	33-061-03356	10/16/14
EN-Weyrauch B- LW-154-93-3031H-1	SWSW 19-154-93	597'FSL and 1,075'FWL	Alkali Creek	N/A*	conf.	2,249'	29731	33-061-03357	10/16/14
<b>Marathon Oil</b>									
Anna Packinaeu USA 21-3TFH	LOT3 3-150-93	405'FNL and 2,255'FWL	Reunion Bay	N/A*	conf.	2,114'	29756	33-061-03366	10/20/14
Halvorson 34-34TFH	LOT3 3-150-93	405'FNL and 2,387'FWL	Reunion Bay	N/A*	conf.	2,111'	29760	33-061-03370	10/20/14
Packinaeu USA 21-3H	LOT3 3-150-93	405'FNL and 2,288'FWL	Reunion Bay	N/A*	conf.	2,114'	29757	33-061-03367	10/20/14
Stevenson 24-34TFH	LOT3 3-150-93	405'FNL and 2,321'FWL	Reunion Bay	N/A*	conf.	2,111'	29758	33-061-03368	10/20/14
Steinhaus 24-34H	LOT3 3-150-93	405'FNL and 2,354'FWL	Reunion Bay	N/A*	conf.	2,111'	29759	33-061-03369	10/20/14
<b>Oasis Petroleum North America</b>									
State 5792 41-15 8T	SWSW 15-157-92	880'FSL and 252'FWL	Cottonwood	Bakken	horz.	2,217'	29741	33-061-03359	10/17/14
State 5792 41-15 9T2	SWSW 15-157-92	847'FSL and 252'FWL	Cottonwood	Bakken	horz.	2,218'	29742	33-061-03360	10/17/14
State 5792 41-15 10B	SWSW 15-157-92	814'FSL and 252'FWL	Cottonwood	Bakken	horz.	2,218'	29743	33-061-03361	10/17/14
State 5792 41-15 11T	SWSW 15-157-92	514'FSL and 292'FWL	Cottonwood	Bakken	horz.	2,218'	29744	33-061-03362	10/17/14
State 5792 41-15 12B	SWSW 15-157-92	481'FSL and 292'FWL	Cottonwood	Bakken	horz.	2,218'	29745	33-061-03363	10/17/14
<b>Petro-Hunt</b>									
Hoiby 158-94-4B-3-2H	LOT4 4-158-94	755'FNL and 263'FWL	Powers Lake	N/A*	conf.	2,383'	29740	33-061-03358	10/17/14
<b>Stark Co.</b>									
<b>Armstrong Operating</b>									
Dickinson City 1-16	SENE 17-139-96	1,700'FNL and 300'FEL	Wildcat	N/A	conf.	2,439'	29705	33-089-00860	10/14/14
<b>Williams Co.</b>									
<b>Continental Resources</b>									
Helena 5-7H1	SESW 7-155-98	250'FSL and 2,128'FWL	Brooklyn	Bakken	horz.	2,189'	29748	33-105-03816	10/17/14
Helena 6-7H	SESW 7-155-98	250'FSL and 2,173'FWL	Brooklyn	N/A*	conf.	2,189'	29747	33-105-03815	10/17/14
Helena 7-7H1	SESW 7-155-98	250'FSL and 2,218'FWL	Brooklyn	Bakken	horz.	2,190'	29746	33-105-03814	10/17/14
<b>Hess Bakken Investments II</b>									
SC-Bingeman- 154-98-0904H-2	SWSW 10-154-98	555'FSL and 301'FWL	Truax	N/A*	conf.	2,252'	29686	33-105-03801	10/14/14
SC-Bingeman- 154-98-0904H-3	SWSW 10-154-98	588'FSL and 301'FWL	Truax	N/A*	conf.	2,254'	29687	33-105-03802	10/14/14
SC-Bingeman- 154-98-0904H-4	SWSW 10-154-98	621'FSL and 301'FWL	Truax	N/A*	conf.	2,256'	29688	33-105-03803	10/14/14
SC-Bingeman- 154-98-0904H-5	SWSW 10-154-98	654'FSL and 301'FWL	Truax	N/A*	conf.	2,259'	29689	33-105-03804	10/14/14
SC-Bingeman- 154-98-0904H-6	SWSW 10-154-98	687'FSL and 301'FWL	Truax	N/A*	conf.	2,262'	29690	33-105-03805	10/14/14
<b>Kodiak Oil and Gas</b>									
P Bibler 155-99-16-31-7-16H	SESE 31-155-99	925'FSL and 985'FEL	Stockyard Creek	Bakken	horz.	2,206'	29697	33-105-03812	10/14/14
P Bibler 155-99-16-31-7-16H3	SESE 31-155-99	925'FSL and 1,015'FEL	Stockyard Creek	Bakken	horz.	2,207'	29698	33-105-03813	10/14/14
P Bibler 155-99-16-31-7-16H3A	SESE 31-155-99	925'FSL and 955'FEL	Stockyard Creek	Bakken	horz.	2,204'	29696	33-105-03811	10/14/14
P Bibler 155-99-16-31-8-13H	SESE 31-155-99	925'FSL and 925'FEL	Stockyard Creek	Bakken	horz.	2,209'	29695	33-105-03810	10/14/14
P Bibler 155-99-16-31-30-1H	SESE 31-155-99	1,325'FSL and 955'FEL	Epping	Bakken	horz.	2,214'	29693	33-105-03808	10/14/14
P Bibler 155-99-16-31-30-2H	SESE 31-155-99	1,325'FSL and 1,015'FEL	Epping	Bakken	horz.	2,210'	29694	33-105-03809	10/14/14
P Bibler 155-99-16-31-30-1H3A	SESE 31-155-99	1,325'FSL and 925'FEL	Epping	Bakken	horz.	2,215'	29691	33-105-03806	10/14/14
P Bibler 155-99-16-31-30-1H3	SESE 31-155-99	1,325'FSL and 985'FEL	Epping	Bakken	horz.	2,212'	29692	33-105-03807	10/14/14

see ND PERMITS page 11



**ND weekly county permit totals**  
*Oct. 14-20*

County	Permits issued	Permits issued for confidential wells	Permits renewed	Location resurveys authorized
Divide	2	1	0	2
Dunn	18	5	0	0
Golden Valley	1	1	0	0
McKenzie	21	7	0	0
Mountrail	17	10	1	0
Stark	1	1	0	0
Williams	16	6	0	1
<b>Totals</b>	<b>76</b>	<b>31</b>	<b>1</b>	<b>3</b>



**Top 10 Bakken wells by IP rate**  
*Oct. 14-20*

<b>QEP Energy</b>				
26304	Veeder 4-27-34BH	Grail	MCK	2,599
<b>Marathon Oil</b>				
27151	Glisar 14-32TFH	Reunion Bay	MNT	2,208
<b>Whiting Oil and Gas</b>				
27019	Gajewski 31-18-2H	Lonesome	MCK	2,204
<b>Petro-Hunt</b>				
26265	Van Hise Trust 153-95-28D-21-4H	Charlson	MCK	2,168
<b>Oasis Petroleum North America</b>				
26179	Clementine 5693 44-35T	Alger	MNT	2,024
<b>Burlington Resources Oil and Gas (ConocoPhillips)</b>				
27148	Old Arches 14-35MBH ULW	Keene	MCK	1,920
27579	Sequoia 31-4MBH	Hawkeye	MCK	1,920
27753	CCU Olympian 44-35MBH	Corral Creek	DUN	1,848
<b>Marathon Oil</b>				
27558	Samann 34-24H	Chimney Butte	DUN	1,749
<b>Burlington Resources Oil and Gas (ConocoPhillips)</b>				
27147	Arches 14-35TFH	Keene	MCK	1,440

Note: This chart contains initial production rates, or IPs, from the adjacent IP chart for active wells that were filed as completed with the state of North Dakota from Oct. 14-20, 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; the NDIC file number; well name; field; county; IP oil flow rate in barrels of oil.

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# Montana well permits and completions

Sept. 27–Oct. 17, 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

**Hill HSL;** Wildcat; NENE 32-24N-56E; 334'FNL and 185'FEL; N/A; SESE 5-23N-56E; 200'FSL and 0'FEL; 20,240'; N/A; N/A; N/A; Bakken; Richland; 10/1/2014; N/A

### Oasis Petroleum North America

**Amazing Grace Fed 2759 41-11 4B;** Wildcat;

SWSW 11-27N-59E; 250'FSL and 653'FWL; N/A; NENW 2-27N-59E; 200'FNL and 1,420'FWL; 20,585'; N/A; N/A; N/A; Bakken; Roosevelt; 10/2/2014; N/A  
**Amazing Grace Fed 2759 41-11 6BX;** Wildcat; SWSW 11-27N-59E; 250'FSL and 587'FWL; N/A; NWNW 2-27N-59E; 200'FNL and 0'FWL; 20,522'; N/A; N/A; N/A; Bakken; Roosevelt; 10/1/2014; N/A

### Slawson Exploration

**Cobra 2-7-8H;** Wildcat; NWNW 7-25N-54E; 1,320'FNL and 265'FWL; N/A; NENE 8-25N-54E; 750

## LEGEND

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

FNL and 250'FEL; 19,564'; N/A; N/A; N/A; Bakken; Richland; 9/29/2014; N/A

### Triangle USA Petroleum

**Torgerson 30-59 21-16-1H;** Wildcat; SESE 21-30N-59E; 305'FSL and 1,519'FEL; N/A; NENW 16-30N-59E; 250'FNL and 1,890'FEL; 20,162'; N/A; N/A; N/A; Bakken; Roosevelt; 10/2/2014; N/A

### Whiting Oil and Gas

**Buxbaum 21-5-2H;** Wildcat; NENW 5-24N-60E; 260'FNL and 1,730'FWL; N/A; SESW 17-24N-60E; 240'FSL and 1,980'FWL; 21,750'; N/A; N/A; N/A; Bakken; Richland; 10/9/2014; N/A  
**Buxbaum 21-5-3H;** Wildcat; NENW 5-24N-60E; 260'FNL and 1,775'FWL; N/A; SESE 17-24N-60E; 240'FSL and 660'FEL; 22,164'; N/A; N/A; N/A; Bakken; Richland; 10/9/2014; N/A

## Reissued locations

### Enerplus Resources

**Porky-Harold 9-13-HSU;** Wildcat; SWSW 9-24N-54E;

275'FSL and 400'FWL; N/A; NE 5-24N-54E; 671'FNL and 1,001'FEL; 15,925'; N/A; N/A; N/A; Bakken; Richland; 10/2/2014; N/A

## Permit modifications/correction

### Oasis Petroleum North America

**Paul Byron 2758 14-24-3T;** Wildcat; NENE 24-27N-58E; 255'FNL and 1,133'FEL; N/A; NENE 12-27N-58E; 200'FNL and 1,200'FEL; 20,714'; N/A; N/A; N/A; Three Forks; Roosevelt; 9/30/2014; N/A

## Completions

### Continental Resources

**Charlotte Federal 3-11H;** Wildcat; NWNW 11-25N-52E; 260'FNL and 2,390'FEL; N/A; N/A; N/A; N/A; SWSE 14-25N-52E; 238'FSL and 2,190'FEL; 18,978'; Bakken; Richland; 3/31/2014; 580 bbl  
**Mona 1-29H;** Wildcat; NESE 29-26N-54E; 1,980'FSL and 270'FEL; N/A; N/A; N/A; N/A; NESW 30-26N-54E; 1,951'FSL and 2,061'FWL; 17,572'; Bakken; SW 30-26N-54E; 1,969'FSL and 230'FWL; 19,404'; Bakken; Richland; 4/8/2014; 674 bbl  
**Whiteman 1-14H;** Wildcat; SESW 14-24N-52E; 240'FSL and 2,055'FWL; N/A; N/A; N/A; N/A; NENW 14-24N-52E; 231'FNL and 1,978'FWL; 13,567'; Bakken; Richland; 4/1/2014; 623 bbl

—Ashley Lindly | alindly@petroleumnewsbakken.com

## ND PERMITS continued from page 10

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 renewed

Well Name	Location	Footages	Field	Geologic Target	Wellbore Type	Elev.	NDIC No.	API No.	NDIC date
<b>Mountrail Co.</b>									
<b>Whiting Oil and Gas</b>									
Abraham 12-9	SWNW 9-142-105	1,750'FNL and 660'FWL	Wildcat	N/A	conf.	2,601'	26730	33-033-00346	10/14/14

To view this chart in its entirety, please visit: <http://bit.ly/1FCLHX4>



## Looking for a rig report?

### North Dakota

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

### Saskatchewan

Weekly drilling activity report from the government of Saskatchewan: [www.economy.gov.sk.ca/Daily-Well-Bulletin-Weekly-Drilling-Reports](http://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](http://www.manitoba.ca/iem/petroleum/wwar/index.html)



PHOTO COURTESY CONTINENTAL RESOURCES



## Bakken producers' stock prices

Closing prices as of Oct. 22 along with those from previous Wednesday

Company	Exchange	Symbol	Closing price	Previous Wed.
Abraxas Petroleum Corporation	NASDAQ	AXAS	\$3.92	\$3.62
American Eagle Energy Corporation	NYSE	AMZG	\$2.32	\$2.60
Arsenal Energy USA, Inc.	TSE	AEI	\$6.13	\$6.87
Baytex Energy USA Ltd.	NYSE	BTE	\$31.34	\$30.46
Burlington Resources Co., LP (ConocoPhillips)	NYSE	COP	\$69.44	\$66.24
Continental Resources, Inc.	NYSE	CLR	\$55.81	\$53.85
Crescent Point Energy US Corporation	TSE	CPG	\$37.11	\$35.31
Denbury Onshore, LLC	NYSE	DNR	\$12.28	\$12.10
Emerald Oil, Inc.	NYSEMKT	EOX	\$3.45	\$3.43
Enerplus Resources USA Corporation	NYSE	ERF	\$14.88	\$14.53
EOG Resources, Inc.	NYSE	EOG	\$92.07	\$88.24
Fidelity Exploration & Production (MDU)	NYSE	MDU	\$27.00	\$25.94
Halcon Resources	NYSE	HK	\$2.97	\$2.71
Hess Corporation	NYSE	HES	\$80.00	\$76.33
Kodiak Oil and Gas (USA), Inc.	NYSE	KOG	\$10.63	\$10.04
Legacy Reserves Operating LP	NASDAQ	LGCY	\$22.79	\$20.08
Marathon Oil Company	NYSE	MRO	\$34.03	\$32.75
Mountain Divide, LLC (Mountainview Energy)	CVE	MVV.V	\$0.30	\$0.35
Newfield Production Company	NYSE	NFX	\$28.17	\$26.00
Northern Oil and Gas	NYSE	NOG	\$10.58	\$11.01
Oasis Petroleum North America	NYSE	OAS	\$30.24	\$29.66
Oxy USA, Inc. (Occidental Petroleum)	NYSE	OXY	\$89.70	\$82.25
PetroShale Inc.	CVE P	SH	\$2.24	\$2.23
QEP Energy Company	YSE	QEP	\$23.67	\$21.85
Resolute Natural Resources Company, LLC	NYSE	REN	\$3.52	\$3.85
Samson Resources Company (KKR & Co)	NYSE	KKR	\$21.37	\$19.94
SM Energy Company	NYSE	SM	\$59.25	\$56.67
Statoil Oil and Gas LP	NYSE	STO	\$23.38	\$23.42
Triangle USA Petroleum Corporation	NYSE	TPLM	\$8.02	\$8.49
Whiting Oil and Gas Corporation	NYSE	WLL	\$60.78	\$57.25
WPX Energy Williston, LLC	NYSE	WPX	\$18.29	\$17.50
XTO Energy, Inc. (ExxonMobil)	NYSE	XOM	\$93.13	\$90.26



## ● DRILLING &amp; COMPLETION

# October ND infill apps steady with September

By MIKE ELLERD

Petroleum News Bakken

North Dakota operators filed applications for drilling additional wells on more than 65 existing drill spacing units in October with requested densities as high as 18 wells per 1,280-acre unit (see table, page 13). That level of activity is generally consistent with the infill applications filed in September.

The spacing units in the infill drilling applications are spread across six northwestern North Dakota counties, but most are in Dunn, McKenzie and Mountrail counties (see map).

All but one of the infill applications are for Bakken petroleum system development, the exception being a request by Petro Harvester to drill up to two Madison pool wells on a 320-acre DSU in Burke County.

Among the operators planning the most activity is Oxy USA which is seeking authorization to drill up to 14 wells on each of 11 separate 1,280-acre DSUs, all in the Murphy Creek field in Dunn County. XTO Energy is looking to drill from 10 to 12 wells on existing 1,280s in McKenzie and Williams counties and up to 10 wells on a 960-acre DSU in the Tioga field in Williams County.

Enerplus Energy wants to drill up to seven wells on each of five existing 1,280s and up to four wells on two 320-acre DSUs in the Eagle Nest field in

see **INFILL APPS** page 13

October 2014 North Dakota Industrial Commission Additional Well Applications

Applicant	Wells per Unit <sup>A</sup>	Acres per Unit	Acres per Well	Units <sup>B</sup>	Field	County <sup>C</sup>	Pool <sup>D</sup>
Continental Resources, Inc.	Multiple	2,560	NA	1	Pershing	MCK	BKN
Continental Resources, Inc.	14	1,280	91	1	Murphy Creek	DUN	BKN
Continental Resources, Inc.	7	1,280	183	1	Pleasant Valley	WIL	BKN
Continental Resources, Inc.	7	1,280	183	1	Big Meadow	WIL	BKN
Continental Resources, Inc.	7	1,280	183	1	Ukrania	BIL	BKN
Continental Resources, Inc.	14	1,280	91	Multiple	Little Knife	BIL, DUN, MCK	BKN
Continental Resources, Inc.	28	2,560	91	Multiple	Little Knife	BIL, DUN, MCK	BKN
Emerald Oil, Inc.	7	1,280	183	1	Moline	MCK	BKN
Enerplus Resources (U.S.A.) Inc.	4	320	80	2	Eagle Nest	DUN, MCK	BKN
Enerplus Resources (U.S.A.) Inc.	7	1,280	183	5	Eagle Nest	DUN, MCK	BKN
Hunt Oil Co.	4	640	160	2	Parshall	MNT	BKN
Hunt Oil Co.	7	640	91	2	Parshall	MNT	BKN
Hunt Oil Co.	6	640	107	1	Parshall	MNT	BKN
Marathon Oil Co.	8	1,280	160	2	Reunion Bay	MNT	BKN
Marathon Oil Co.	9	1,280	142	1	Reunion Bay	MNT	BKN
Newfield Production Co.	8	1,280	160	1	Westberg	MCK	BKN
Newfield Production Co.	7	1,280	183	1	Westberg	MCK	BKN
Oasis Petroleum North America LLC	16	1,280	80	1	Camp	MCK	BKN
Oasis Petroleum North America LLC	18	1,280	71	1	Elidah	MCK	BKN
Oxy USA Inc.	14	1,280	91	11	Murphy Creek	DUN	BKN
Petro Harvester Operating Co., LLC	2	320	160	1	Portal	BRK	MAD
Petro-Hunt, L.L.C.	5	1,280	256	1	Little Knife	DUN	BKN
QEP Energy Co.	5	Multiple	NA	Multiple	Grail	MCK	BKN
QEP Energy Co.	9	1,920	213	1	Deep Water Creek Bay	MCL	BKN
QEP Energy Co.	3	1,280	427	1	Blue Buttes	MCK	BKN
SM Energy Co.	11	1,280	116	4	Indian Hill, Hardscrabble and Elk	MCK, WIL	BKN
SM Energy Co.	11	1,280	116	1	Camp and Indian Hill	MCK	BKN
SM Energy Co.	11	1,280	116	2	Siverston	MCK	BKN
Triangle USA Petroleum Corp.	12	1,280	107	1	Spring Creek	MCK	BKN
Triangle USA Petroleum Corp.	12	1,280	107	1	Elk	MCK	BKN
Triangle USA Petroleum Corp.	12	1,280	107	4	Antelope Creek	MCK	BKN
XTO Energy Inc.	10	1,280	128	1	Lindahl	WIL	BKN
XTO Energy Inc.	10	960	96	1	Tioga	WIL	BKN
XTO Energy Inc.	12	1,280	107	8	North Fork	MCK	BKN
XTO Energy Inc.	12	1,280	107	2	Garden	MCK	BKN
XTO Energy Inc.	12	1,280	107	1	Blue Buttes	MCK	BKN

A: Represents the maximum number of wells requested for a given spacing unit

B: Multiple = some or all units within designated spacing unit zones

C: BRK = Burke, DIV = Divide, DUN = Dunn, MCK = McKenzie, MNT = Mountrail

D: BKN = Bakken, MAD = Madison, SAN = Sanish

NA: Not applicable

## MOVING HYDROCARBONS

### Pony Express in full commercial service

Tallgrass Energy's conversion and expansion of the Pony Express pipeline is complete, the line has been filled and Tallgrass now offers crude oil transport service from Guernsey, Wyoming, to Cushing, Oklahoma.

The 690-mile pipeline provides 230,000 barrels per day of capacity out of Guernsey under a joint tariff with Belle Fourche Pipeline Co. Tallgrass plans to add transport under a joint tariff with Hiland Partners on that company's Double H pipeline at some point in the fourth quarter.

In late September, Tallgrass announced it was pursuing a potential expansion of the Pony Express to receipt points in the Denver-Julesburg Basin and the Niobrara and Codell plays in Colorado and Wyoming. In addition, Tallgrass is pursuing expansion at Guernsey to accommodate increasing Powder River Basin production and to receive additional Bakken crude. The company is in discussions with prospective shippers and if it receives sufficient commitments, it said it will hold an open season sometime in late 2014.

Tallgrass acquired the Pony Express, which originally was a natural gas pipeline running between Guernsey and Lincoln County, Kansas, from Kinder Morgan in 2012. As part of the conversion and expansion, Tallgrass constructed a 260-mile extension from Lincoln County to Cushing.

—PETROLEUM NEWS BAKKEN

## PEOPLE TALK

### WPX reorganizes senior leadership

WPX Energy is reorganizing its senior leadership team with several personnel moves designed to assist in executing a new long-term vision and business strategy.

One new hire, a promotion and an interim appointment comprise the changes reported Oct. 15.

Rick Muncrief, WPX president and chief executive officer, said the moves reflect the company's focus on operational performance, technical excellence and margin expansion.

"Our organizational capacity is essential to our plan," he said. "We have dynamic talent at WPX that's hungry to move quickly, show leadership and try new things. It's how we learn and improve our economic returns."

Oil field veteran Clay M. Gaspar is joining the company, effective Oct. 27, as senior vice president of operations and resource development.

"We're happy to welcome Clay to WPX," Muncrief said. "He's an impressive addition who has a track record for successful leadership and execution."

Gaspar has worked for Newfield Exploration, Anadarko Petroleum and Mewbourne Oil in a number of technical and leadership roles. He holds a bache-

see **PEOPLE TALK** page 13

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## GAS GAINS

“With all the different activity going on now, there’s an even greater need for midstream infrastructure and they’re looking to get back into that,” Flatiron’s Nick Noppinger told Petroleum News Bakken.

This is Flatiron’s first project in the Bakken and the company expects the plant to be operational by December. Capacity could expand beyond 45 million cubic feet per day based on Zavanna’s processing needs.

As Petroleum News Bakken reported in the Oct. 19 edition, Zavanna is an anchor customer for ARM Midstream’s planned Williston Basin crude oil gathering system. In August, Zavanna ranked 24th among the top 50 Bakken oil producers in North Dakota for operated, non-confidential wells with an average output of 6,410 barrels per day according to the latest data available from the North Dakota Department of Mineral Resources.

### Focusing on solutions

Ness said oil and gas companies are racing to get their wells connected and add compression while others are looking into remote capture units.

“They’re doing a lot with their gas capture plans and strategies of how to drill and complete these wells,” he said. “We haven’t had anybody call in a crazy panic, so most of them are putting together their strategy and plan and it remains to

**“We haven’t had anybody call in a crazy panic, so most of them are putting together their strategy and plan and it remains to be seen what October (data) will look like.”**

**—Ron Ness, North Dakota Petroleum Council**

be seen what October (data) will look like.”

The North Dakota Industrial Commission, NDIC, determined it would no longer allow exemptions to gas flaring from Bakken and Three Forks wells beyond Oct. 1 in an effort to ensure that operators met the statewide 74 percent gas capture target on that date. As such, flaring applications to the commission that will be heard on Oct. 29 and 30 are minimal and down substantially from the number of applications filed prior to the new policy.

Denver-based Luff Exploration is asking the commission to authorize the flaring of produced gas from its State Miller horizontal well which targets the Red River formation in the State Line field of Bowman County. The well is not currently connected to a gas gathering system and the company has deemed connection to be uneconomically feasible now and in the future. In the latest data available from the state’s Department of Mineral Resources, the well produced just over 1,100 barrels of oil in August and flared 414,000 cubic feet of natural gas. Because the well does not target the Bakken or Three Forks, it is not subject to

new production restriction field rules set by the NDIC to minimize flaring.

### Continued cases

Continued on the hearing docket from an original scheduled hearing on April 23, 2014, the commission wants to determine the volume and value of the gas flared by Gadeco LLC in violation of North Dakota Century Code on its 25-36H Golden well in the Epping field of Williams County. In March, the commission had denied Gadeco’s application for an exemption from paying taxes and royalties on flared gas from that well. Gadeco had filed for a continuance of the case in May and again in June to give the company time to review additional information that had been submitted to NDIC by private parties.

Statoil is also expected to appear before the commission in a case continued from September’s hearing regarding reconsideration from the commission to authorize flaring on its Williston well in Catwalk field of Williams County. Statoil contends that connecting the isolated Bakken well to gathering infrastructure is infeasible and there is not a market for the gas at the site. In August, the well averaged about 41 barrels of oil per day. According to the new field rules implemented by NDIC, infill wells proven never to be economic to connect to a gas facility — many that produce less than 100 barrels of oil per day — are not subject to production restrictions. ●

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## PEOPLE TALK

lor’s degree in petroleum engineering from Texas A&M University and a master’s degree in petroleum and geosciences engineering from The University of Texas.

Bryan K. Guderian, a member of WPX’s existing leadership team is taking on a newly created role of senior vice president of business development. His responsibilities include acquisitions and

divestitures, land and land administration. In addition, he will oversee WPX’s international operations until the company completes its announced exit from its Apco interests.

Guderian began his career as a landman and has a bachelor’s degree in petroleum land management from the University of Oklahoma.

Steven G. Natali, senior vice president of exploration, has opted to leave WPX, effective Oct. 31. Bob Revella, the company’s vice president of geosciences, will oversee exploration on an interim basis

until a successor is appointed.

The rest of the Tulsa-based company’s senior leadership will continue to serve in their current roles. In addition to Muncrief, Gaspar and Guderian, WPX’s leadership team includes Dennis C. Cameron, Michael R. Fiser, Marcia M. MacLeod and J. Kevin Vann. In July, Vann was appointed chief financial officer.

—ROSE RAGSDALE

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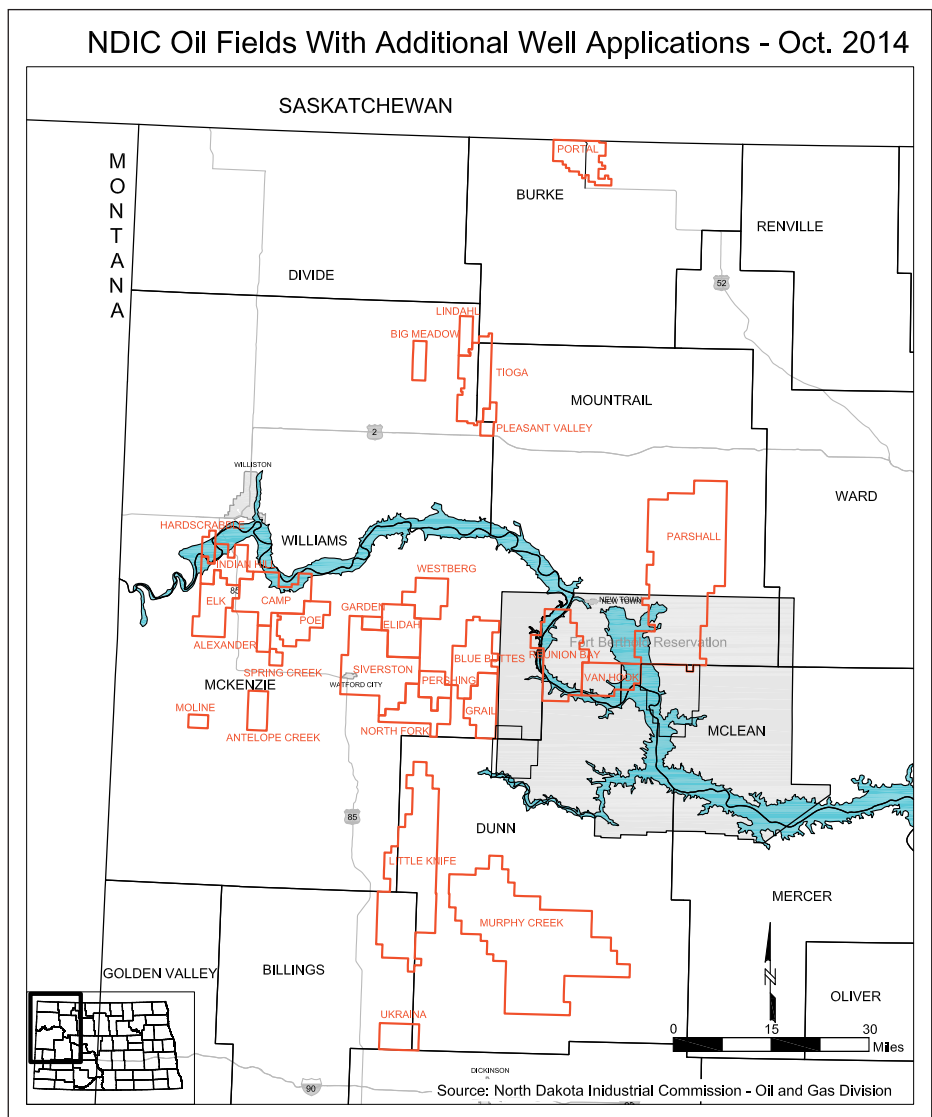
## INFILL APPS

northern Dunn and northeastern McKenzie counties. SM Energy is looking to drill up to 11 wells on each of seven 1,280s across multiple fields in McKenzie and Williams County. Triangle Petroleum is asking for authorization to drill up to 12 wells on six 1,280s in McKenzie County. And among applications filed by Continental Resources are two seeking up to 14 wells on multiple 1,280s and up to 28 wells on multiple 2,560s in Little Knife field that spans portions of Billings, Dunn and McKenzie counties (see map).

Oasis Petroleum is seeking the highest well density with an application to drill up to 18 wells on an existing 1,280 in the Elidah field in McKenzie County. Oasis also wants to drill up to 16 wells on a 1,280 in the nearby Camp field.

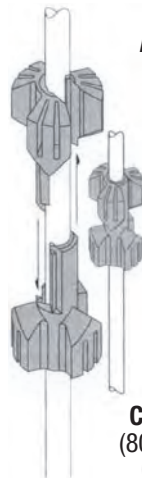
Other operators filing applications are Emerald Oil, Hunt Oil, Marathon Oil, Newfield Production, Petro Hunt and QEP Energy. The applications will be considered by the North Dakota Industrial Commission during hearings in Bismarck on Oct. 29 and 30. ●

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## LUND DEPARTURE

"I could have continued for a period, but there is a time for everything. Renewal is important, both for Statoil and for me," Lund said in a statement. "I came to the conclusion that the time was right for a change. I have both the motivation and energy to take on a new leadership challenge, and found this opportunity to be the right one."

Analysts at Bernstein Research call the decision "a great appointment from BG" as Lund will provide experience in deep-water and gas markets which fit BG well.

Lund had been CEO at Statoil since 2004 and oversaw Statoil's merger with Norsk Hydro's oil and gas assets, reinforcing the company's domination of Norway's petroleum industry. Under his leadership, Statoil expanded abroad including its entry into the Williston Basin with the acquisition of Brigham Exploration Co. for \$4.4 billion in 2011.

In the latest data available from the North Dakota Department of Mineral Resources, Statoil ranked eighth among the top 50 Bakken oil producers in the state in August for operated, non-confidential wells with an average daily output of 55,191 barrels. North Dakota

Petroleum Council President Ron Ness told Petroleum News Bakken that he has met Lund several times and had even hoped to obtain him as a keynote speaker for the Williston Basin Petroleum Conference.

"He was a great guy, and certainly understood the Bakken asset very well and was very integral in it," Ness said.

Until March, Lund will be at Statoil's disposal as the company seeks a replacement, but Eldar Saetre will become acting president and CEO. Saetre has been a member of Statoil's corporate executive committee since 2003, served as executive vice president and chief financial

officer until 2010 and most recently as executive vice president of the marketing, processing and renewable energy business area. Saetre's top priority is safe and efficient operations, he said in a statement, but the company also recognizes that the industry faces great challenges.

"We are in the midst of executing on a comprehensive improvement agenda to strengthen our competitiveness," Saetre said. "This is necessary for Statoil's long term opportunities and value creation."

—MAXINE HERR

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## LITIGATION RISKS

gent standards be required?

Obrecht said the lawsuits, filed by the Sierra Club, Earthjustice and ForestEthics, add to the list of challenges facing Bakken producers and midstream companies, who already face transportation woes related to inadequate pipeline structure, railroad capacity, tank car supply, rail accidents and new regulations.

### The complaints

Obrecht noted that Sierra filed two law-

suits in September challenging different aspects of CBR transportation: First, on the national level, seeking to stop the transportation of crude in "allegedly outdated and safe tank cars" and, secondly, at the state level accusing a local agency of "illegally permitting a rail-to-truck facility."

He said the challenge asking for an "emergency order prohibiting the shipment of Bakken crude" on older DOT-111 cars, and arguing the cars pose an "imminent hazard," trailed behind earlier developments.

The DOT, through the Pipeline and Hazardous Materials Safety Administration and the Federal Railroad

Administration, has already addressed "many" of the concerns raised in the suit, Obrecht said.

The petitioners, in their Sept. 11 filing with the United States Court of Appeals for the 9th Circuit, pressured the court to order the DOT to act on a Rail Car Petition, arguing the DOT had taken an unreasonable amount of time to respond.

The 9th Circuit denied the request for an expedited decision, but ordered the DOT to propose a timeline — likely in early 2015 — to the Rail Car Petition.

The second lawsuit targets a permit to transfer crude oil from trains to trucks issued to Inter-State Oil Co., a fuel and

lubricants distributor located outside of Sacramento, California.

In that suit, the Sierra Club asked the court to revoke Inter-State's permit and declare a violation of the California Environmental Quality Act, which Obrecht said was not the first legal challenge of its kind.

He said a San Francisco Superior Court judge recently dismissed a similar suit against a Kinder Morgan facility outside of Richmond, California, on timeliness grounds. ●

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continued from page 1

## TESORO BUY

transmission pipe with more than 54,000 barrels per day of crude throughput capacity and more than 2.9 billion cubic feet per day of gas throughput capacity.

"Within the basins the acquired asset served, we see over \$400 million of high-return capital projects over the next few years," Goff said. "These investments reflect the growing needs of the core producers drilling programs in the Vermillion and Uinta basins. We believe we will find additional opportunities as we offer a full suite of crude oil and natural gas logistics capabilities to producers, particularly in the Bakken."

In the Williston Basin, Tesoro Logistics operates its High Plains pipeline system that includes the High Plains pipeline, the Connolly gathering system and Bakken

Area Storage Hub. That entire system provides service from Richey in eastern Montana where the system connects with Bridger Pipeline, to Lignite in northern Burke County where the system connects with Enbridge. In addition, Tesoro Corp. operates its 71,000 barrels per day refinery at Mandan, which is also served by the High Plains system.

### QEP's take

On the QEP side, the company said the decision to sell the midstream assets came as part of an ongoing review of strategic alternatives. Chairman, President and CEO Chuck Stanley said proceeds from the sale will be deployed through various avenues in the company, including reducing debt, returning capital to shareholders and capital investments in the company's "premier" exploration and production, E&P, assets.

"Post-closing, QEP will emerge as a more competitive and financially strong

independent E&P company with assets in two of North America's most prolific crude oil provinces, the Williston and Permian Basins, and low-cost, high quality natural gas properties in the Rocky Mountains and in northwest Louisiana," Stanley said in an Oct 19 press release.

QEP's Williston Basin operations are focused in its Fort Berthold area in southern Mountrail, northern Dunn and eastern McLean counties, and in its South Antelope area mainly in far eastern McKenzie County. In August, the latest month for which production data are available from the North Dakota Department of Mineral Resources, QEP ranked as the state's 12th largest Bakken oil producer averaging 40,258 bpd for operated, non-confidential wells.

—MIKE ELLERD

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October 2014 North Dakota Industrial Commission Drill Spacing Unit Applications

Applicant	Units	Acres	Type <sup>A</sup>	Wells	Field	County <sup>B</sup>	Pool <sup>C</sup>
American Eagle Energy Corp.	2	1,280	N	Up to eight	Skjermo	DIV	BKN
Burlington Resources Oil & Gas Co. LP	5	2,560	O	One or more	Murphy Creek and Fayette	DUN	BKN
Burlington Resources Oil & Gas Co. LP	1	1,280	N	One or more	Murphy Creek and Fayette	DUN	BKN
Continental Resources, Inc.	5	2,560	O	One	Brooklyn	WIL	BKN
Continental Resources, Inc.	2	5,120	O	Up to two	Brooklyn	WIL	BKN
Continental Resources, Inc.	5	1,920	N	Up to seven	Baukol Noonan and/or Noonan	DIV	BKN
Continental Resources, Inc.	2	2,560	O	One	Dollar Joe	WIL	BKN
Continental Resources, Inc.	1	5,120	O	Up to two	Dollar Joe	WIL	BKN
Continental Resources, Inc.	1	1,920	O	Up to seven	Kimberly and/or Baukol Noonan	DIV	BKN
Continental Resources, Inc.	2	1,920	O	Up to seven	Baukol Noonan	DIV	BKN
Emerald Oil, Inc.	2	1,280	N	Up to seven	Winter Butte, Moline and /or Sheep Butte	MCK	BKN
Emerald Oil, Inc.	2	1,280	N	Up to seven	Boxcar Butte, South Boxcar Butte and/or Burning Mine	MCK	BKN
EOG Resources, Inc.	2	960	N	Multiple	Clarks Creek	MCK	BKN
EOG Resources, Inc.	4	1,920	O	Multiple	Parshall	MNT	BKN
EOG Resources, Inc.	2	3,840	O	Multiple	Parshall	MNT	BKN
Fidelity Exploration & Production Co.	1	2,560	O	One	Heart River	STK	BKN
Hunt Oil Co.	1	1,280	N	Multiple	Parshall	MCK	BKN
Hunt Oil Co.	1	1,280	N	Up to three	Parshall	MCK	BKN
Kodiak Oil & Gas (USA)	2	2,560	O	Up to two	East Fork	WIL	BKN
Newfield Production Co.	1	1,280	N	One	Sand Creek	MCK	BKN
Oasis Petroleum North America LLC	2	2,560	O	One or more	Cottonwood and Enget Lake	MNT	BKN
Oxy USA Inc.	12	2,560	O	Up to two	Murphy Creek	DUN	BKN
Oxy USA Inc.	1	2,560	O	Up to two	Manning	DUN	BKN
Petro Harvester Operating Co., LLC	2	640 <sup>D</sup>	N	Up to four	Flaxton	BRK	MAD
Petro Harvester Operating Co., LLC	2	640 <sup>D</sup>	N	Up to two	Lignite and Rennie Lake	BRK	MAD
Petro Harvester Operating Co., LLC	2	390 <sup>E</sup>	N	Up to two	Portal	BRK	MAD
Peregrine Petroleum Partners, Ltd.	1	1,280	O	Up to three	Buckhorn	BIL	BKN
QEP Energy Co.	1	1,920	O	One or more	Deep Water Creek Bay	MCL	BKN
Slawson Exploration Co., Inc.	1	2,560	O	Up to two	Reunion Bay and/or Big Bend	MCK, MNT	BKN
Slawson Exploration Co., Inc.	1	2,560	O	One	Reunion Bay and/or Big Bend	MCK, MNT	BKN
Slawson Exploration Co., Inc.	1	1,280	O	One	Reunion Bay and/or Big Bend	MCK, MNT	BKN
Statoil Oil and Gas LP	5	2,560	O	One	Ragged Butte	MCK	BKN
Statoil Oil and Gas LP	5	2,560	O	One	Alexander	MCK	BKN
Statoil Oil and Gas LP	4	2,560	O	One	Poe	MCK	BKN
Statoil Oil and Gas LP	2	2,560	O	One	Patent Gate	MCK	BKN
Statoil Oil and Gas LP	1	2,560	O	One	Camp	MCK	BKN
Triangle USA Petroleum Corp.	3	2,560	O	Multiple	Elk	MCK	BKN
Triangle USA Petroleum Corp.	1	3,484	O	Up to 14	Eightmile	WIL, MCK	BKN
Triangle USA Petroleum Corp.	1	3,840	O	Up to 14	Eightmile	WIL, MCK	BKN
Whiting Oil and Gas Corp.	22	2,560	O	One	Sanish	MCK, MNT	BKN
WPX Energy Williston, LLC	1	2,560	O	One	Squaw Creek	MCK	BKN
WPX Energy Williston, LLC	1	2,560	O	One	Antelope	MCK	SAN
WPX Energy Williston, LLC	1	2,560	O	One	Reunion Bay	DUN, MNT	BKN
WPX Energy Williston, LLC	1	1,920	O	Up to eight	Van Hook	MCL	BKN
XTO Energy Inc.	3	2,560	O	Up to two	Eightmile	WIL	BKN
XTO Energy Inc.	1	1,280	O	Multiple	Charlson	MCK, WIL	BKN
XTO Energy Inc.	2	1,920	O	Multiple	Charlson	MCK, WIL	BKN
XTO Energy Inc.	1	1,920	O	Up to two	Lindahl, McGregor and/or Tioga	WIL	BKN
XTO Energy Inc.	1	640	N	Up to four	Eightmile	WIL	BKN
<b>Total October DSUs</b>	<b>126</b>						

A: N = New, O = Overlapping

B: BIL = Billings, BRK = Burke, DIV = Divide, DUN = Dunn, MCK = McKenzie, MCL = McLean, MNT = Mountrail, STK = Stark

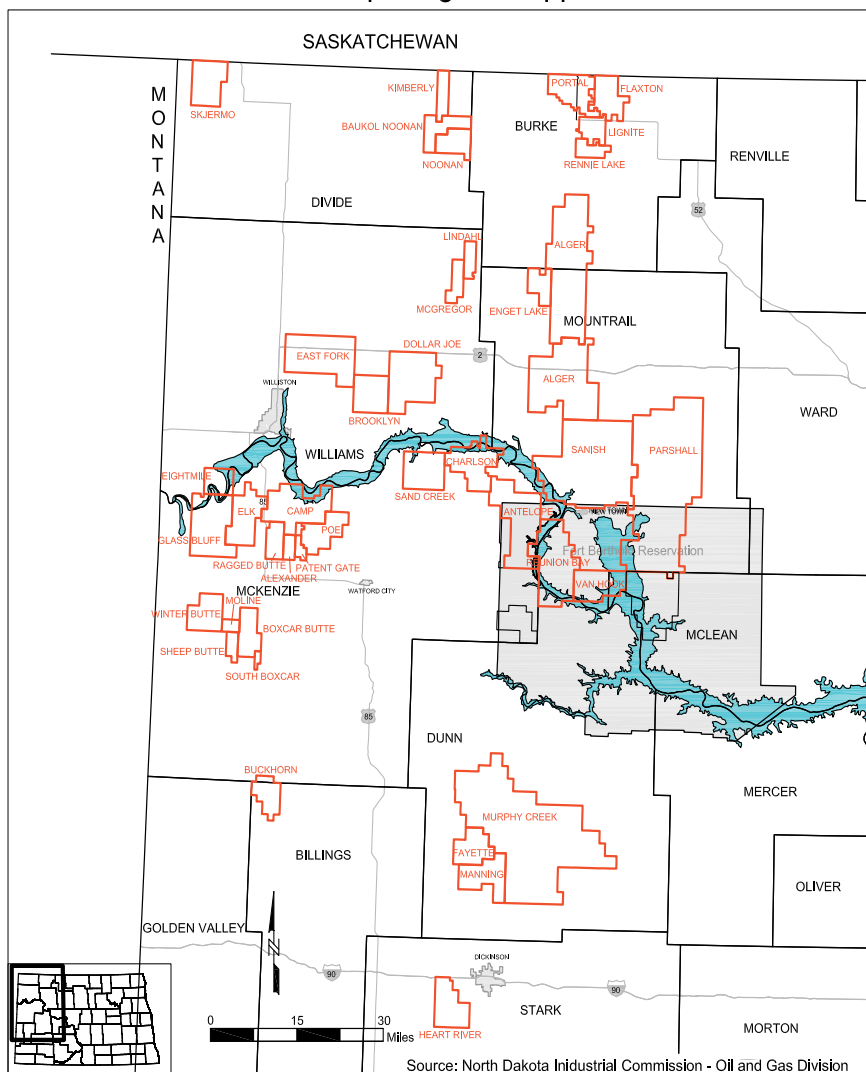
C: BKN = Bakken, MAD = Madison, SAN = Sanish

D: As an alternative Petro Harvester proposes two 1,280s with up to two wells.

E: As an alternative Petro Harvester proposes a 780-acre unit with one well. The units involve a short section on the Canadian border.

BIGHORN ENGINEERING

NDIC Oil Fields With Spacing Unit Applications - Oct. 2014



continued from page 1

DSU APPS

on the spacing units range from one to 14; however, several applications don't specify the number of wells requested but instead simply ask for authorization to drill multiple wells.

Leading in the number of DSUs requested is Whiting Petroleum, filing as Whiting Oil and Gas Corp., which is asking the commission to create 22 overlapping 2,560s, all in the Sanish field, most of which lies in southwest Mountrail County with a portion extending under Lake Sakakawea into northeast McKenzie County (see map).

Right behind Whiting is Continental Resources which filed applications asking for 13 overlapping and five new development spacing units across multiple fields in

Williams and Divide counties and ranging in size from 1,920 to 5,120 acres.

Statoil Oil and Gas is asking for 17 overlapping 2,560s in five fields in McKenzie County, and Oxy USA wants 13 overlapping 2,560s in two fields in Dunn County.

American Eagle, Burlington Resources, Emerald Oil, EOG Resources, Fidelity Exploration, Hunt, Kodiak, Newfield, Oasis, Peregrine, QEP, Slawson, Triangle, WPX and XTO all filed applications seeking Bakken system spacing units ranging in size from 640 to 3,840 acres.

The six DSUs that Petro Harvester is asking for in Burke County range in size from 390 to 640 acres, although in its applications the company suggested alternative spacing unit sizes but still maintain the same number of wells per total acreage (see table). ●

Contact Mike Ellerd at mellerd.pnb@gmail.com



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