



page 4 PetroShale, Slawson proceeding with Stockyard Creek development

New rail loading facility online



VERN WHITTEN PHOTOGRAPHY

A Burlington Northern Santa Fe unit train loads at Enbridge's recently completed rail loading facility at its Berthold Station approximately 25 miles west of Minot in Ward County, North Dakota.

Whiting seeing impressive results with cemented liner fracks

Whiting Petroleum has been experimenting with completion techniques, and among the topics that Chairman and Chief Executive Officer James Volker talked about in his keynote address at the Independent Petroleum Association of America's Oil and Gas Investment Symposium conference in San Francisco on Sept. 30 was the successes his company has had with moving away from sliding sleeves and toward cemented liners in the southern Williston Basin.



JAMES VOLKER

Volker said that in the company's Western Williston Basin project area, which covers portions of McKenzie and Williams counties in North Dakota as well as portions of Richland and Roosevelt counties in Montana, company production is averaging approximately 1,200 barrels of oil equivalent per day. He said that is up from approximately

see LINER FRACKS page 15

Slawson infills Montana UBS as Elm Coulee development continues

Slawson Exploration filed an application with the Montana Board of Oil and Gas Conservation, which is on the board's Oct. 10 hearing docket, asking the board to make permanent one temporary 640-acre spacing unit and one temporary 1,280-acre unit in the Elm Coulee field in Richland County in order to produce oil and gas from upper Bakken shale wells that Slawson has on each unit. In Montana, wells are initially drilled on temporary spacing units, but after a well has produced for 90 days, the spacing unit must be made permanent.

Slawson has one well on each of the two spacing units. On the 640-acre unit, which is in the northwest area of Richland County, Slawson's Archer (Federal) 1-26H went on production in January 2013 and through August produced a total of 45,149 barrels of oil over a total of 170 days for a pumping day average of 266 barrels per day.

see SLAWSON MOVES page 14

Filing as Burlington Resources, ConocoPhillips submitted applications asking the board to create 13 separate 640-acre spacing units in the Elm Coulee field in Richland County.

DOWNSTREAM

Economics solid

Philadelphia refiner, ND's largest customer, completes phase 3 of rail project

By KAY CASHMAN

Petroleum News Bakken

North Dakota's largest customer for crude oil, a Pennsylvania refining complex, will soon be processing 190,000 barrels per day of light, sweet crude from the Bakken petroleum system, 160,000 bpd of which will be delivered by rail and 30,000 by barge.

The refiner, Philadelphia Energy Solutions, or PES, held a ribbon cutting ceremony Oct. 2 celebrating the completion of phase 3 of its rail unloading terminal upgrade, which involved a high-speed unloader to move oil from the rail cars.

"There are a couple of little tweaks we're working out, but we expect to be fully operational very soon," PES public affairs and communications

see RAIL PROJECT page 8



COURTESY PES

Oct. 2 ribbon cutting ceremony for phase 3 of PES' rail project: From left to right, Philadelphia Councilman Kenyatta Johnson; community member Lorraine Thomas; Pennsylvania Gov. Tom Corbett; PES CEO Phil Rinaldi; Local 10-1 USW President James Savage; Philadelphia Mayor Michael Nutter; Philadelphia Councilman David Oh; The Carlyle Group Managing Director and Global Head of External Affairs David Marchick.

GOVERNMENT

Lawmakers seek vision

Firms submit RFPs to assist ND lawmakers in developing long-term oil policy

By KAY CASHMAN

Petroleum News Bakken

A recent news report about North Dakota's oil tax being reviewed by the state legislature's interim Taxation Committee was only partly right: The production tax is being reviewed by an interim committee, but not the taxation group and the scope of the review goes far beyond taxes.

North Dakota Legislative Management, the 17 lawmakers that essentially conduct the work of the legislature between its biannual 80-day sessions, tasked the interim Energy Development and Transmission Committee with finding an independent consultant to conduct a study that will help North Dakota's lawmakers develop a "legislative vision" of

Two firms submitted proposals for conducting the (oil industry) study, Kadrmas, Lee & Jackson, or KLJ ...and The Louis Berger Group Inc.

"long-term policy issues" for the oil industry, including and "revenue and expenditures."

Two firms submitted proposals for conducting the study, Kadrmas, Lee & Jackson, or KLJ, a multi-disciplinary engineering and planning firm based in Bismarck, and The Louis Berger Group Inc., a Morristown, N.J.-based consulting firm that provides engineering, architecture, program and construction management, environmental planning, and econom-

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COMPANY UPDATE

100 percent pure ND play

Kodiak boasts 169% compound annual reserves growth rate; no more MT acreage

By STEVE SUTHERLIN

For Petroleum News Bakken

Fast-growing Kodiak Oil & Gas Corp. is a 100 percent North Dakota asset play; it has divested its Montana acreage and is now 100 percent invested in North Dakota.

"We are a pretty straightforward story, Bakken 100 percent: Everything we have is now North Dakota," said Lynn Peterson, Kodiak chairman, president and CEO in remarks during an Oct. 1 conference call. "We have divested everything we have had in Montana, so we are 100 percent North Dakota."

Peterson said Kodiak now has more than 190,000



LYNN PETERSON

net acres in the Williston Basin with seven company-operated drilling rigs active, as well as a 50 percent interest in another rig with ExxonMobil. He said Kodiak will continue to run seven rigs utilizing two full time completion crews through the rest of the year.

Kodiak will spend about \$1 billion on 100 wells in 2013, Peterson said, adding that in his opinion the company will meet the lower end of its production guidance of 30,000 to 34,000 barrels of oil equivalent per day on average for the year.

"Today, we are producing somewhere around

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COMPANY UPDATE

Project Area	Pro-Forma Post Acquisition #1 and #2							Total Unrisked Potential (Mmboe)	
	DSU Size (Acres)	Net Acres	Potential Wells per DSU ¹	Unrisked Potential Locations	NRI	NRI Wells	Per Well EUR (Mboe) ²		
Spyglass Proved	7	1,280	5,730	8	36	80%	29	545	15.6
Spyglass Proved	7	800	3,485	8	35	80%	28	360	10.0
Spyglass Unproved	18	1,280	9,675	8	60	80%	48	545	26.4
Spyglass Unproved	7	800	3,150	8	32	80%	25	360	9.1
Total Operated	39	22,040	163						61.1
Williston Non-Operated		12,350	8	77	80%	62	545		33.7
Total Potential		34,390		240					94.7

¹ Management estimates based on 4 Three Forks wells and 4 Middle Bakken wells per drilling spacing unit
² EUR based on assumptions from MHA 3rd party reserve report as of 6/11/2013

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COMPANY UPDATE

American Eagle closes on Divide deal

Denver independent also completes public stock offering as it turns focus on Spyglass Bakken and Three Forks development

By STEVE SUTHERLIN

For Petroleum News Bakken

Denver, Colo.-based American Eagle Energy Corp. said Oct. 7 that it has closed on the first part of a previously announced \$45 million acquisition in its Williston Basin Spyglass Project area in northwest Divide County. The company acquired 9,700 net acres in Spyglass with production of 750 barrels of oil equivalent per day.

The company financed the acquisition with \$40 million that was previously committed under a senior credit facility with Morgan Stanley and \$5 million from cash on hand. After closing, the total debt outstanding on the senior credit facility stood at \$108 million.

On the same day the company said it has completed the sale of 13,709,386 shares of its common stock to the public at \$1.70 per share for gross proceeds of \$23.3 million. Net proceeds to the company after deducting underwriting discounts, commissions and other expenses, were \$21.5 million.

American Eagle said it had cash on hand of \$30 million and shares outstanding of 68.8 million after the transaction.

Net proceeds of the offering were used to meet working capital requirements for the company to access additional funds under its Morgan Stanley credit facility, the company said, adding that net pro-

see AMERICAN EAGLE page 6

Prospect Area	Current					Acquisition #1			Acquisition #2		
	DSUs	DSU ¹ Acres	Gross Acres	Net Acres	AMZG WI	Acq. #1 Net Acres	Pro-Forma #1 Net Acres	AMZG WI	Acq. #2 Net Acres	Pro-Forma #1 & 2 Net Acres	AMZG WI
Spyglass - Proved	7	1,280	8,960	3,560	40%	1,085	4,645	52%	1,085	5,730	64%
Spyglass - Proved	7	800	5,600	2,325	42%	580	2,905	52%	580	3,485	62%
Spyglass - Proved	14		14,560	5,885	40%	1,665	7,550	52%	1,665	9,215	63%
Spyglass - Unproved	18	1,280	23,040	3,525	15%	3,075	6,600	29%	3,075	9,675	42%
Spyglass - Unproved	7	800	5,600	1,600	29%	775	2,375	42%	775	3,150	56%
Spyglass - Unproved	25		28,640	5,125	18%	3,850	8,975	31%	3,850	12,825	45%
Total Spyglass - Operated	39		43,200	11,010	25%	5,515	16,525	38%	5,515	22,040	51%
Non-Operated				4,850		3,750	8,600		3,750	12,350	
Total Spyglass				15,860		9,265	25,125		9,265	34,390	
Other Non-Core ²				12,000			12,000			12,000	
Total Net Acres				27,860			37,125			46,390	

¹ DSUs near Canadian border include partial section that average 800 acre drill spacing units

² Mostly Sheridan & Daniels Counties, MT and Saskatchewan, Canada

Pro-Forma Post Acquisition #1 and #2									
Project Area	DSUs	DSU Size (Acres)	Net Acres	Potential Wells per DSU ¹	Unrisked Potential Locations	NRI	Per Well EUR (Mboe) ²	Total Unrisked Potential (Mmboe)	
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MERGERS & ACQUISITIONS

Crestwood, Inergy finalize merger then acquire Arrow Midstream

The merger of Crestwood Midstream with a subsidiary of Inergy Midstream closed Oct. 7, completing the final step of three in the combination of Inergy and Crestwood. The newly combined entity has been named Crestwood Midstream Partners LP and is trading under the ticker symbol CMLP on the New York Stock Exchange.

Crestwood Chief Executive Officer Robert Phillips heads the combined company, which is headquartered in Houston.

The \$8 billion cash and stock deal was designed to tap demand for infrastructure services in North America's tight oil and gas plays, including the Marcellus, Utica, Bakken, Eagle Ford, Permian Basin, Powder River Basin Niobrara, Barnett, Fayetteville, Granite Wash, Haynesville and Monterey.

Crestwood's strategy is to "focus on high-growth, liquids-rich and crude oil basins where there is the greatest opportunity to cross-sell Crestwood's full suite of midstream services from gathering and processing to storage and transportation via trucks, rail and pipelines," the company said.

Crestwood's operations will be organized into two primary business units: natural gas, to include all gathering and processing, storage and transportation assets and operations, and a crude and liquids unit for all crude rail terminals, trucking and storage, and all natural gas liquids storage, trucking, logistics and marketing assets and operations.

In a separate transaction, Crestwood said Oct. 10 that it has entered into an agreement to acquire Arrow Midstream Holdings LLC, a privately owned midstream company that owns and operates crude oil, natural gas and water gathering systems on the Fort Berthold Indian Reservation in Dunn and McKenzie counties, N.D. The transaction is valued at approximately \$750 million.

The Arrow system consists of crude, natural gas and water gathering infrastructure with current capacity to handle approximately 50,000 barrels of crude, 15 million cubic feet of gas, and 8,500 barrels of water per day. In addition, the Arrow assets include multiple pipeline takeaway access points and a fully automated truck facility, both on a 23-acre central delivery point. Also included are a number saltwater disposal wells.

The transaction is expected to close in the fourth quarter. Upon closure, Crestwood will be one of the largest midstream providers in the Williston Basin and will service approximately 18 percent of current Bakken crude oil production.

—KAY CASHMAN

COMPANY UPDATE

PetroShale, Slawson developing Stockyard Creek project

First well on production, three more in the works; MJ/Angus Continental wells collectively averaging 523 boe per day

By MIKE ELLERD

Petroleum News Bakken

On Oct. 3, PetroShale Inc. released test results for a recently completed well in the company's Stockyard Creek joint venture with operator Slawson Exploration in south-central Williams County. That well, the Sail and Anchor 4-13-14HBK, which has a lateral of 6,375 feet, came in with an estimated 24-hour initial production, IP, rate of 1,533 barrels of oil equivalent.

Slawson and PetroShale have a second well in the project that has been drilled and is waiting on completion, a third currently being drilled, and a fourth that is expected to be spudded sometime in October. All three of those wells are on a common pad and all three are expected to be completed in December.

PetroShale is also planning to further develop its Stockyard Creek project, and PetroShale (US) Inc. President John Fair told Petroleum News Bakken that Slawson has a rig contracted to drill out a 17-to-18 well program in Stockyard Creek.

As Petroleum News Bakken reported in August, Australia-based Samson Oil and Gas sold half of its equity position in the Stockyard Creek project to PetroShale and Slawson with Slawson taking over as the operator. In the deal, PetroShale picked up 106 net leased acres in two overlapping 1,280-acre spacing units in the Stockyard Creek field with Slawson as the operator. PetroShale has a working interest of approximately 5.5 percent in the acreage.

MJ/Angus production

In May, PetroShale acquired working interests in 11 wells operated by Continental Resources in the Elm Tree and Alkali Creek fields in northeast McKenzie and southwest

"PetroShale continues to pursue our strategy of acquiring non-operated leases and portfolios in the best fields in the Williston Basin." —PetroShale (US) Inc. President John Fair

Mountrail counties in what PetroShale calls its MJ/Angus field. Collectively, those 11 wells have produced a total of 737,694 boe over a total of 1,411 days of production for an overall average of 523 boe per day. PetroShale's working interest in those 11 wells ranges from 0.77 to 2.6 percent.

Among those 11 wells is the Angus 2-9H2, a second bench Three Forks well that went on production in February, and has produced 130,091 boe over 156 days of production for an average of 834 boe per day.

PetroShale says it owns 53 net acres in two spacing units with infill potential in its MJ/Angus area. It also owns 52 net acres in six undeveloped spacing units in its MJ/Angus area.

PetroShale's business model

PetroShale says the Stockyard Creek and MJ/Angus areas exemplify the type of leases in which, as a nonoperator, it looks to acquire working interests. "PetroShale continues to pursue our strategy of acquiring nonoperated leases and portfolios in the best fields in the Williston Basin," Fair told Petroleum News Bakken. "We are very encouraged by the deal flow and quality of opportunities we are seeing. We have proven to be a very competitive buyer when the lease or portfolio is well located and has AFEs (authorizations for expenditure) in place."

PetroShale Inc. is not to be confused with Petroshale Energy LLC, the latter being an operator that has been active in exploring the Heath formation in central Montana. ●

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ASSOCIATIONS & AWARDS

API chapter seeking award nominations

The Williston Basin chapter of the American Petroleum Institute is seeking nominations for its second annual Achievement Awards to be presented during the chapter's annual banquet at Williston State College on Dec. 5. Three awards will be given, one for industry innovation, one for community service and one for outstanding achievement.

According to the Williston Basin API chapter, the Achievement Awards "celebrate the many positive contributions and accomplishments of the oil and gas industry throughout the Williston Basin. The awards highlight the achievements of companies and individuals whose tireless work, innovative solutions, varied business activities, and community involvement produce the energy and economic activity that fuel our communities and country."

More information on the awards and nomination forms are available on the chapter's website at <http://willistonapi.com/Banquet/2013-Achievement-Awards>. For those wishing to make a nomination but can't find the necessary time, the chapter will assist in completing the nominations form. The chapter can be contacted at awards@WillistonAPI.com.

—PETROLEUM NEWS BAKKEN

MOVING HYDROCARBONS

Rail industry prepares for next shipping wave

Analyst: Bakken likely to be followed by Permian, Niobrara, W. Canada, Mexico, as crude-by-rail expands across North America

By GARY PARK

For Petroleum News Bakken

The Bakken is being identified as the springboard for investors to spread ripples across North America as shipments of crude by rail take hold.

In a research note, Cowen and Co. analyst Jason Seidl said the Bakken has obviously been the main launching pad for the use of rail, with the Permian Basin in West Texas seen as the next big player, closely followed by Western Canada, Colorado's Niobrara Shale and possibly Mexico.

In Western Canada, where rail has a rapidly growing presence in the Saskatchewan Bakken region and the oil sands, the significant investment being made in rail capacity is both helping to get crude to critical markets while narrowing the price differential between Western Canadian, West Texas Intermediate and Brent crudes, James Cairns, vice president of petroleum and chemical products for Canadian National Railway, told a Calgary conference in late September.

He said total planned rail facilities will amount to more than 1 million barrels per day of Canadian takeaway capacity by 2014.

However, Cairns noted that projection assumes every facility will run at capacity and be using unit trains, the first of which is not scheduled to run from the Alberta oil sands until November when operating company Canexus will move 50,000 bpd, expandable to 100,000 bpd by the second half of 2014.

Most will be under contract

Gary Kubera, chief executive officer of privately owned Canexus, said about 70 to 80 percent of the expected unit-train capacity should be under contract by the end of 2013, but said the U.S. destinations are a confidential matter between shippers and customers.

Seidl said most of the significant next-phase U.S. rail developments beyond the Bakken will "happen in the next few years," while emphasizing that "it's all contingent on if we keep drilling."

Seidl, quoting one rail terminal operator, said the "precursor" of new participants in the rail movement is the volume of frack sand being provided for hydraulic fracturing of unconventional wells and that material is now being railed into the Permian.

The latest statistics from the

Association of American Railroads show that 511,340 railcars (equivalent to about 33 million barrels) carried crude and products in the first nine months of 2013, up 37.5 percent from a year ago.

However, traders have indicated that less attractive arbitrage opportunities for rail shipments drove some crude shippers back to pipelines earlier this year.

Drop projected in demand

Seidl said that demand for large tank cars to deliver light, sweet Bakken crude is "likely to experience a sharp drop in the near term, but we should see an increase in demand for tank cars in the Canadian crude service and Mexican Shale in the coming years."

He estimated that crude's share of rail's total cargo is likely to grow to 5 percent in the next few years from the current 2 percent, assuming a continued rise in crude production.

A Tudor Pickering and Holt note said a "combination of accelerated drilling and improving well results" will drive up production in the Permian to 3 million barrels per day in 2025 from 1.3 million bpd today.

Analysts at Turner, Mason and Co. and Wunderlich Securities said pipelines are being built or proposed to keep pace with Permian growth, but they warn that Gulf Coast refineries may soon have surplus crude, opening a door for rail to use its flexibility to ship crude to other markets.

Unloading facilities being built

John Auers, senior vice president at Turner, Mason, said California refiners have the potential to take up to 400,000 bpd of Permian crude, noting that many rail unloading facilities are under construction in the state.

He estimated that next year California refiners should be capable of unloading 330,000 bpd of railed crude.

Auers said the Niobrara has the ability to match the Permian in serving the U.S. West Coast, which is a positive signal to railroads.

Toby Kolstad, president of Oregon-based Rail Theory Forecasts, said Permian crude could also be railed to East Coast refineries.

He suggested the one constant, given how fast the Bakken emerged, will be "continued change." ●

Contact Gary Park through publisher@petroleumnews.com

LAND & LEASING

North Dakota Water Commission tract brings \$11,610 per acre

The five-year lease on a 40.09 net mineral acre tract (80 gross acres) in northwest McKenzie County that the North Dakota Water Commission offered in an online auction with EnergyNet in September brought in a high bid of \$11,610 per acre. The high bidder was Beall Investments of Collyville, Texas, which did not respond to a request from Petroleum News Bakken for comment on the lease.

The online bidding opened at 3 p.m. Sept. 11 and remained open until 3 p.m. Sept. 18. The opening bid of \$50 per acre came in at 3:11 p.m. Sept. 11, and the final bid of \$11,610 came in within the last minute of bidding on Sept. 18. Between opening and closing 11 different bidders submitted a total of 149 bids.

EnergyNet reported the tract was included in a 2,533.89-acre spacing unit on which Continental Resources submitted four authorizations for expenditure, AFEs, to drill and complete four wells on one of the sections in the spacing unit. North Dakota Department of Mineral Resources Oil and Gas Division records indicate that Continental currently has five wells on that section, four of which are the same wells identified by EnergyNet as having the AFEs. All five of the wells are on confidential status.

As Petroleum News Bakken reported in September, the Water Commission acquired the property along with the mineral rights in 1939. When it transferred the property in 1943 the commission kept a 50 percent interest in the mineral rights. While the commission kept the mineral rights, current commission personnel were not aware of the tract until it was brought to the commission's attention by oil company representatives.

The tract is part of an existing 2,560-acre spacing unit defined as Sections 4, 9, 16 and 21, Township 153 North, Range 101 West, and is adjacent to a 19.94-acre tract that the Mineral Management Division of North Dakota Department of Trust Lands included in its quarterly May 2013 lease auction which brought a record price of \$24,500 per acre. Diamond Resources of Williston was the successful bidder on that lease.

The Minerals Management Division assisted the Water Commission in preparing the tract for the online auction.

—MIKE ELLERD

When it transferred the property in 1943 the commission kept a 50 percent interest in the mineral rights. While the commission kept the mineral rights, current commission personnel were not aware of the tract until it was brought to the commission's attention by oil company representatives.

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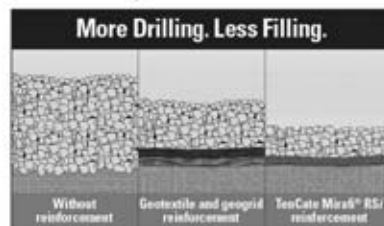


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COMPANY UPDATE

Apache abandoning Daniels County wells?

Petroleum News Bakken has learned that in September, Apache Corp. filed intents to abandon four of the five horizontal wells it drilled last year in Daniels County, Mont., with the Montana Board of Oil and Gas Conservation. Those four wells are the Haworth 17-8H-T, Haworth 18-7H-B, Lindley 19-9H-B, and Lindley 24-10H-T.

No production data from any of the four wells have been reported to the board. The wells were spud between August and October 2012.

The fifth and last well that Apache drilled in Daniels County is its Wescoe 34-7H-B, which was spud in December 2012. Board records indicate that well was temporarily abandoned in April. Likewise, no production data from it has been provided to the board.

As Petroleum News Bakken reported on Sept. 8, the board reissued drill permits for two proposed Apache wells in Daniels County in August, the Strong 4-1 and the Wescoe 35-8H-T. Those two permits are valid until February 2014.

The only other well that board records indicate Apache has in Daniels County is the Tong 1, a vertical well that was drilled in 1980 to test for oil in the Winnipeg formation. That well was dry and was abandoned in 1985.

Apache had come back into the county in 2012 with the hopes of finding and exploiting the western fringe of the Bakken petroleum system.

—PETROLEUM NEWS BAKKEN

MOVING HYDROCARBONS

New Town terminal set for late '13 opening

Dakota Plains Holdings Inc. said Oct. 7 that its Pioneer Terminal expansion project in New Town, N.D., remains on schedule for completion in late December.

"The Pioneer Terminal expansion will increase the throughput capacity nearly three-fold to 80,000 barrels of crude oil per day at a reduced operating cost," Dakota Plains Chairman and CEO Craig McKenzie said in a press release.

An agreement to receive oil has been executed, with first oil expected in late October, the Wayzata, Minn.-based firm said.

As part of an agreement with its JV partner World Fuel Services, Dakota Plains has begun the transition to assume management oversight of Pioneer Terminal operations, appointing James Tate vice president of operations. However, there still is third party involvement via Strobel Transport.

The \$50 million project, which is about 75 percent complete, consists of a double loop track that can accommodate two 120 rail car unit trains, 180,000 barrels of crude storage, a high-speed loading facility that can handle 10 rail cars simultaneously, and transfer stations to receive crude oil from local gathering pipelines and trucks.

The first gathering system pipeline has been connected to the Pioneer Terminal.

Scheduled to open in May with interim transloading expected to start in January, Dakota Plains also said construction continues on a \$15 million frack sand terminal the firm is jointly building in New Town with Unimin Corp.

—KAY CASHMAN

Scheduled to open in May with interim transloading expected to start in January, Dakota Plains also said construction continues on a \$15 million frack sand terminal the firm is jointly building in New Town with Unimin Corp.



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Spyglass - Well Economics

	High	Base	Low
EUR (Mboe)	720	535	360
PV-10 (\$MM)	\$13.6	\$8.7	\$3.7
IRR (%)	80%	52%	27%
Payback (Years)	0.7	1.2	2.2
Gross Well Costs (\$MM)	\$6.8		
1st Year Decline Rate	60%		
2nd Year Decline Rate	35%		
3rd Year Decline Rate	20%		
4th Year Decline Rate	15%		
5th Year Decline Rate	12%		
Long-Term Decline Rate	5%		

Assumptions: \$90 oil, \$8 differential, and \$8.00/BOE LOE.

"Typical" Williston Basin - Well Economics

	High	Base	Low
EUR (Mboe)	750	600	450
PV-10 (\$MM)	\$13.1	\$9.4	\$4.0
IRR (%)	68%	50%	26%
Payback (Years)	0.7	1.0	2.1
Gross Well Costs (\$MM)	\$9.5		
1st Year Decline Rate	70%		
2nd Year Decline Rate	50%		
3rd Year Decline Rate	30%		
4th Year Decline Rate	18%		
5th Year Decline Rate	12%		
Long-Term Decline Rate	5%		

Assumptions \$90 oil, \$8 differential, and \$8.00/BOE LOE.

continued from page 3

AMERICAN EAGLE

ceeds of the offering, along with remaining cash on hand and expected cash flow from operations, will be used for its capital budget, general corporate purposes, and working capital.

Spyglass

The Spyglass Project in Divide County, N.D., is the foundation for all activity and growth for American Eagle, the company said in a September update.

American Eagle said the project offers both near and long term growth because it is a large oil resource development play targeting both the Bakken and Three Forks formations.

Prior to the Oct. 7 acquisition American Eagle held 43,200 gross operated acres and 11,010 net acres in Divide County. Of the total, 5,885 net (14,560 gross) acres were considered proved acreage and 5,125 net (26,640 gross) acres were classified as unproved. American Eagle had a nonoperated position in 4,850 net acres in the Spyglass Project and 12,000 nonoperated net acres

The company financed the acquisition with \$40 million that was previously committed under a senior credit facility with Morgan Stanley and \$5 million from cash on hand. After closing, the total debt outstanding on the senior credit facility stood at \$108 million.

outside of Spyglass for a total of 15,860 net nonoperated acres.

Extensive mapping

American Eagle said its interest in the Spyglass area is based on extensive mapping of both the Bakken and Three Forks reservoirs and an exploration concept focusing on areas having the best overlapping reservoirs.

As a result, American Eagle said, its management team was instrumental in causing the first horizontal Bakken discovery well to be drilled in the Holter field by TriAxon in 2009. That led to a second Bakken discovery at Oungre and the beginning of a large scale development drilling program that American Eagle has mapped the entire Spyglass Project area in the U.S.

The company said the Bakken and Three Forks formations both are present at depths of about 8,000 feet versus depths of up to 11,000 feet in other parts of the basin, leading it to have lower drilling and completion costs.

American Eagle said competitors' wells targeting the Middle Bakken reservoir across the international border in Saskatchewan were largely drilled with 1 mile laterals with multiple wells per section — but because of the success of two-mile laterals in the U.S., the practice is becoming the new norm in Canada.

see **AMERICAN EAGLE** page 7

continued from page 1

OIL POLICY

ic development services.

The study was actually mandated by a bill passed in the most recent legislative session in early 2013, House Bill 1198, which tasked legislative management to “study the likely changes to oil industry practices, production, impacts and tax policy in the foreseeable future of North Dakota,” requiring the body to obtain the services of an independent consultant with “demonstrated insight into current and future production advances,” including enhanced oil recovery techniques, the “effects of mature production areas on state and local tax policy; future infrastructure needs; and environmental considerations.”

The North Dakota Legislative Council, which provides legislative management with assistance from its staff of attorneys, fiscal analysts, information technology, support, and library personnel, sent out a request for proposals, or RFP, on Sept. 10, looking for a consultant to complete the oil industry study by Aug. 29, 2014.

The consultant awarded the bid would be required to make “periodic written reports” to the energy committee on its tentative findings and recommendations.

In November of each (even-numbered) year between sessions, legislative management meets to consider the results of all committee work and may accept, reject or amend committee reports. Legislative management, currently headed by Sen. Ray Holmberg, then presents its recommendations, together with bills and resolutions necessary for implementation, to the assembly.

The late August deadline would give legislative management time to review the consultant’s study and the energy committee’s comments, and make oil policy recommendations to the North Dakota Legislative Assembly — the formal name of the state’s legislative body.

Holmberg will have final say on the oil and gas policy recommendations forwarded to the assembly.

To be considered Oct. 31

A review of the RFPs submitted by Kadmas, Lee & Jackson and The Louis Berger Group was initially scheduled for Oct. 14, but Timothy J. Dawson, counsel with legislative council and the person who issued the RFP, told Petroleum News Bakken Oct. 10 that he expected to resched-

ule that review to Oct. 31, so that the two companies might present their proposals directly to the energy committee.

The chairman of that committee, Sen. Rich Wardner, will select the winning bid, subject to the approval of Holmberg.

That award will likely occur within a few days after the presentations, Dawson said.

Per the RFP, the “expectation” is that the base proposal would be under \$125,000 and each level of additional analysis under \$50,000.”

As part of the study’s objective to help develop a long-term legislative vision for the oil industry, the study is “meant to provide answers to what would be the effects of changes in taxation, e.g. changes in rates and incentives; and whether the tax revenues collected would be adequate to meet expenditures, especially for infrastructure needs and environmental costs,” the RFP said.

Editor’s note: HB 1198 dealt primarily with oil extraction taxes and the state-tribal oil tax agreement, but also provided for income tax withholding for oil and gas royalty payments to nonresidents.

Contact Kay Cashman
at publisher@petroleumnews.com

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AMERICAN EAGLE

In August 2012, American Eagle spud its first Middle Bakken well, the Silas 3-2N which was a short lateral adjacent to the Canadian border. The well was stimulated and put on production in November 2012 at an average 30-day rate of 153 barrels of oil equivalent per day.

Spyglass Three Forks

American Eagle said the excellent Three Forks potential in the Spyglass area is the result of local enhanced reservoir quality adjacent to a thick mature Lower Bakken shale source rock along a geologic trend that includes all of the Spyglass Project area.

Three Forks drilling activity offsetting Spyglass was initiated by Samson Resources in 2006. At that time Samson was drilling short, one-mile laterals but that changed in 2010 when SM Energy completed the first two-mile Three Forks lateral in the area, American Eagle said, adding that two-mile laterals have

become the norm with greatly increased production rates due to improved stimulation technology resulting in longer lateral lengths.

The Three Forks two-mile laterals have mostly been drilled as stand-up 1,280-acre drilling units with one well per spacing unit, the company said.

In 2010 SM Energy completed three additional infill wells within the same 1,280-acre spacing unit. The average initial 30-day production rate of the three infill wells has been more than 450 boepd per well, American Eagle said. Within American Eagle’s project area SM Energy drilled a similar number of Three Forks infill wells in several of its spacing units and Samson Resources has begun drilling four Three Forks wells and four Middle Bakken wells within multiple spacing units previously designated for one well, American Eagle said.

American Eagle said it is an active working interest participant in many of the new SM Energy and Samson Resources wells. ●

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RAIL PROJECT

manager Cherice Corley told Petroleum News Bakken Oct. 8.

Phase 1, completed in April, allowed the refiner to take three unit trains per week; phase 2, finished in July, increased that to five unit trains a week; phase 3, which was the completion of the North Yard Rail Terminal and involved 5.6 miles of track on PES' site, allows the refiner to accept two unit trains per day, seven days a week. Each train has 120 cars and holds 80,000 barrels of oil.

"Once our rail yard is fully operational, our plan is to take half of our supply (330,000 bpd average) by rail from North Dakota," Corley said.

Williston Basin producer Statoil, she said, was a "regular supplier of Bakken crude" to PES.

According to North Dakota Industrial Commission records, Statoil operated wells that produced an average of 51,545 barrels of oil per day in July, the most recent

month released by the state. This number excludes all production from wells on confidential status.

At the ribbon cutting ceremony, which was attended and reported on by Reuters' reporter Sabina Zawadzki, PES CEO Philip Rinaldi said the company's investment in the rail project was to give the refiner increased access to lower-cost domestic crude supplies, including the Bakken, Texas' Permian Basin and Ohio's Utica shale play.

Bakken economics here to stay

"So, right now crude from the Bakken and North Dakota is a very good thing but, you know what, times change, and if the better crude starts moving down to the Utica, we can take it by rail. If it's in the Permian Basin, we can take it by rail. So we're connected everywhere and we don't get locked in," Rinaldi was quoted as saying in an Oct. 2 Reuters report.

When asked whether a diminishing spread between U.S. and Brent crude oil futures could make Bakken crude less attractive, Rinaldi said that while the spread

was an important indicator, "it really doesn't drive" the economics of the Bakken.

He said with a daily oil production of 850,000 bpd, North Dakota "crude has got to get to the market and the only really meaningful way it will get to the market is by rail. ... We will be by far the largest consumer of Bakken crude oil. I think those economics will stay because they're necessary to clear that area."

PES was formed in 2012 as a partnership between The Carlyle Group and Sunoco Inc., which is a subsidiary of the Energy Transfer Partners L.P. family of companies.

PES separated the combined refineries into separate business units and operates as a refining complex made up of the two domestic Pennsylvania refineries — Girard Point and Point Breeze.

It is the largest oil refining complex on the U.S. Eastern seaboard. ●

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continued from page 1

100% NORTH DAKOTA

36,000 to 38,000 boe per day; with our two completion crews going through the fourth quarter here we expect to exit the year north of 40,000 barrels," Peterson said.

Peterson said the company is continuing to work on reserves and it has seen large reserve increases over the course of the year.

169% compound growth

According to an October slide presentation Kodiak had pro forma proved reserves of 144 million boe on June 30, reflecting 86 percent crude oil. The company has experienced a 169 percent compound annual growth rate of its reserves since 2009, the company said.

Kodiak's Dunn County acreage is the company's premier acreage, Peterson said, with an estimated ultimate recovery per

"Today, we are producing somewhere around 36,000 to 38,000 boe per day; with our two completion crews going through the fourth quarter here we expect to exit the year north of 40,000 barrels." — Lynn Peterson, Kodiak chairman, president and CEO

well of 850,000 boe up to 1 million boe. The Koala, Smokey, and Polar areas in the middle of the Williston Basin follow with EUR profiles of as much as 850,000 boe, he said, adding that the wells there are performing "extremely well."

On the southwest edges of the Williston in Divide County, Kodiak has a smaller acreage position with EUR profiles of 350,000 boe to 450,000 boe, Peterson said.

Peterson said his best wells were in the Bakken formation but Kodiak had had some very good Three Forks formation

wells.

"Generally speaking, I think our Three Forks are a little bit inferior to our Bakken, and we have always spoken to that fact, but (we are) generally pleased. ..."

Peterson said the company had a limited number of Three Forks formation wells on its Dunn County acreage; some are competitive with Bakken formation wells.

"Clearly," he said, "One of the better wells is Three Forks."

Spaced down wells

Peterson said Kodiak's down spacing program was indicative of where the basin is headed.

"We chose to do two of these projects" he said. "We did one in our Polar area, just east of the city of Williston," adding that in the Middle Bakken formation, well spacing was 800 feet apart which allowed for six wells to be drilled in each of the 1,280-acre spacing units.

In the Three Forks formation, the company also employed an 800-foot horizontal separation, but with a twist — the wells were alternately drilled into the middle, and into the upper Three Forks.

Kodiak said earlier in 2013 that it had observed evidence of "communication" between Bakken wells during fracture stimulation and it revised its well-completion procedures to strengthen production of nearby wells and increase recoverable reserves.

Based on the observations Kodiak decided to temporarily shut down all producing wells within the immediate vicinity of new wells being completed, saying the gains outweighed the temporary production delays.

Convinced of communication

After completion of the two down spacing projects, Kodiak remains strongly con-

see 100% NORTH DAKOTA page 9

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100% NORTH DAKOTA

vinced of the communication effect between wells.

“Our interpretation of the Three Forks quite frankly is that, we believe that when we frack the well, and ... we are seeing communication (from the second bench) into the upper member. We look at this as kind of one large tank of oil,” he said. “I don’t believe it really differs from a lot of industry statements.

“There are some people that talk more of these being different benches, separate reservoirs; we don’t feel that way,” he said. “We don’t think it really matters at the end of the day, because you are going to need more wells to drain the same amount of oil.

“Again as I look at these down spacings, I think our entire team is excited, what we have seen,” Peterson said. “We have not seen a degradation of reserves here in our opinion at this point.”

Peterson said the company’s next pilot project will experiment with even tighter well spacing.

A series of four wells will be drilled from a pad — two wells in the Middle Bakken member, and two wells in the Three Forks. The wells will be spaced about 600 feet apart which may allow for seven wells to be drilled in each of the 1,280-acre spacing units.

“If we are successful and if it looks right, this would allow us to put a seventh well into each of these formations,” Peterson said.

Spending efficiently

Of the company’s \$1 billion capex plan, about 10 percent will be spent in the outlying Grizzly and Wildrose areas, Peterson said.

“The bulk of our money is going right into the heart of the play, principally in the Polar, Koala and Smokey areas, and again it’s a reflection of our two down spacing programs, where we did a 12-well program in each,” he said.

Peterson said the company has made great progress on reducing its average cost per well over the course of the year.

“As we entered the year where we are probably running \$10.5 million to \$11 million (per well), today I think that number is probably at \$9.5 million,” he said. “We certainly had our wells pushing down to the (\$9.2 million and \$9.3 million) number, and I think as we go through the fourth quarter our goal is to try to reach to the \$9 million type number.

“When we give you these numbers — these are full producing wells — that’s putting wells on production, so that includes our resurface facilities,” he said. “We use 100 percent ceramics and really 90 percent, 95 percent of our acreage, so again, it depicts the entire well costs.”

Peterson said the bulk of the well cost improvements were due to a reduction in average drilling days per well. Two years ago, drilling days per well averaged more than 30, he said, as compared to a number in the high teens presently.

“Our target is to get to 15 days per well,” he said. “Again, all these things will help us push these well costs down, closer to the \$9 million range.”

Peterson hopes to employ what the company has learned as it beefs up its acreage position in the Bakken. He said the company currently holds and is focused on obtaining quality acreage, rather than the sheer number of acres held.

“We have really challenged our team to buy and look for quality acreage.” ●

Contact Steve Sutherlin at stevepna@hotmail.com

Proved Reserve Summary 6/30/2013 Proved Reserves¹ and PV-10

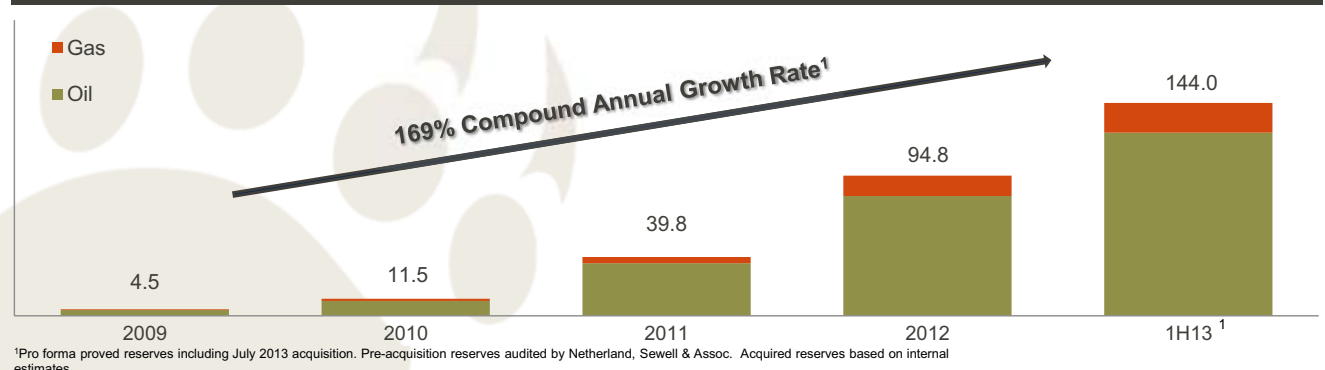


- Proved Reserves 86% Crude Oil

Kodiak Net Pro Forma Proved Reserves as of June 30, 2013

Reserve Category	Oil (MMbbls)	Gas (Bcf)	Total (MMboe)	SEC PV-10 (\$B)
Proved Developed Producing	57.6	57.1	67.1	\$2.1
Proved Undeveloped	66.3	63.5	76.9	1.1
Total Proved Reserves	123.9	120.7	144.0	\$3.2

Consistent Reserves Growth (MMBoe)



Bakken Long Lateral – 750 MBO

WTI (\$/bbl)	Differential (\$/bbl)	Well Cost (\$MM)	NPV-10 (\$MM)	IRR	Payout (months)
\$95	\$7	\$9.5	\$16.1	69%	12
85	7	9.5	13.2	56%	15
75	7	9.5	10.4	45%	19

Bakken Long Lateral – 850 MBO

WTI (\$/bbl)	Differential (\$/bbl)	Well Cost (\$MM)	NPV-10 (\$MM)	IRR	Payout (months)
\$95	\$7	\$9.5	\$19.5	84%	10
85	7	9.5	16.3	69%	12
75	7	9.5	13.1	56%	15

Bakken Long Lateral – 650 MBO

WTI (\$/bbl)	Differential (\$/bbl)	Well Cost (\$MM)	NPV-10 (\$MM)	IRR	Payout (months)
\$95	\$7	\$9.5	\$12.7	54%	15
85	7	9.5	10.2	44%	19
75	7	9.5	7.7	35%	24

Type Curve Assumptions

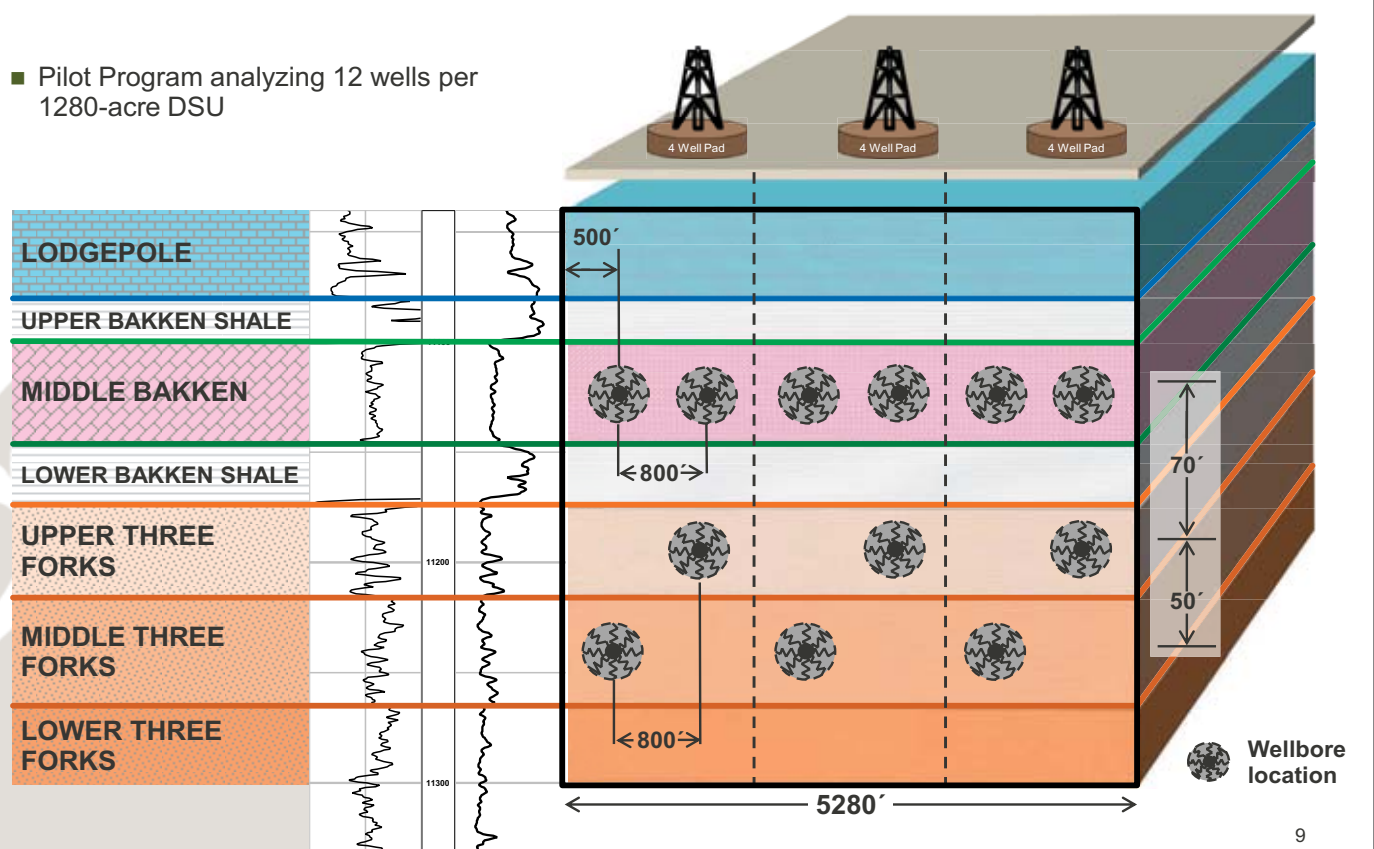
- Hyperbolic Exponent (B-Factor): 1.8
- Effective Day 1 Initial Decline (Tangent): 99.9%
- Effective Year 1 Initial Decline (Secant): 76.4%

Note: Based on management projections utilizing current cost and differential assumptions. Actual well results depicted on graphs are long lateral well completions normalized for non-producing days.

Polar & Smokey Pilot Projects: Reservoir Well Spacing Pattern



- Pilot Program analyzing 12 wells per 1280-acre DSU



Bakken BAKKEN Stats

Montana well permits and completions

September 27—October 3, 2013

Abbreviations & parameters

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

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

BHL: bottomhole location | **BOPD:** barrels of oil per day | **BWPD:** barrels of water per day
IP: initial production | **MCFPD:** thousand cubic feet per day | **PBHL:** probable bottomhole location
PD: proposed depth | **SHL:** surface hole location | **TD:** total depth

And public land survey system abbreviations:

FNL = from north line | **FEL** = from east line | **FSL** = from south line | **FWL** = from west line

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For Petroleum News Bakken

New locations

In Rosebud County, North Range Exploration LLC was issued a permit for the Oro Grande 1-19 at NE SW 19-11N-33E (2005 FSL/2244 FWL). The well will target the Heath formation at a PD of 5,000 feet.

Two permits were issued in Sheridan County. Omimex Canada Ltd. was approved to drill the Ostby 11-35 at NW NE 35-31N-58E (825 FNL/1517 FEL). The Ostby will target the Red River formation at a PD of 12,500 feet. Shakespeare Oil Co Inc. was green lighted for the State 1-25 at NE NE 25-36N-54E (320 FNL/710 FEL). With a PD of 10,600 feet, the well also aims for the Red River formation.

New locations—horizontal wells

In Fallon County's East Lookout Butte field, Denbury Onshore LLC received approval for two wells that will target the Red River formation. The ELOB 12-

35SH 860 has an SHL at SW NW 35-8N-60E (1550 FNL/450 FWL) and a PBHL of 13,491 feet at SE SW 34-8N-60E (500 FSL/2640 FWL). The ELOB 23-35SH 860 has an SHL at NE SW 35-8N-60E (1980 FSL/1980 FWL) and a PBHL of 15,074 feet at SW NE 4-7N-60E (2150 FNL/1980 FEL).

Three Bakken formation wells were approved in Richland County. Two of the wells will fly the XTO Energy Inc. banner: the P&Q Farms 21X-28D, with an SHL at NE NW 28-23N-59E (259 FNL/2386 FWL) and a PBHL of 21,025 feet at SE SE 33-23N-59E (250 FSL/550 FEL) and the P&Q Farms 21X-28BXC, with an SHL at NE NW 28-23N-59E (259 FNL/2326 FWL) and a PBHL of 20,081

There were four completions during the reporting period, all in Richland County. All four wells tap the Bakken formation. Oasis Petroleum ... for the Dianne Federal 2658 42-22H. The IP was reported as 1,184 BOPD. ... Continental Resources reported the completion of three wells. The Earl 3-25H ... turned in an IP of 321 BOPD. ... The Joseph 1-22H ... reported an IP of 190 BOPD. ... The Baird 1-34H has ... four laterals with ... an IP of 382 BOPD.

feet at SE SW 33-23N-59E (250 FSL/2840 FEL).

The third horizontal well approved in Richland County during the reporting period is Continental Resources Inc.'s David HSL, with an SHL at NW NW 17-25N-55E (260 FNL/265 FWL) and a PBHL of 19,712 feet at WL SW 20-25N-55E (200 FSL/0 FWL).

Re-issued locations

In Sheridan County, Epyon Oil Inc. was approved for the Bubba 3558 41-24H. The Bubba has an SHL at SW SW 24-35N-58E (250 FSL/250 FWL) and a PBHL of 15,831 feet at NE 24-35N-58E (250 FNL/550 FEL), targeting the Bakken formation.

Permit modifications/corrections

In Richland County, a permit modification or correction was issued to Slawson Exploration Company Inc. for the Dag 1-8-5H. The Dag has an SHL at SW SW 8-21N-59E (200 FSL/675 FWL) and a PBHL of 20,202 feet at NW NW 5-21N-59E (250 FNL/750 FWL).

Completions

There were four completions during the reporting period, all in Richland County. All four wells tap the Bakken formation.

Oasis Petroleum North America LLC filed a completion report for the Dianne Federal 2658 42-22H. The well has an SHL at SE SW 22-

26N-58E (200 FSL/1770 FWL) and a BHL of 20,250 feet at NE NW 15-26N-58E (250 FNL/1836 FWL). The IP was reported as 1,184 BOPD, 829 MCFPD and 3,196 BWPD.

Continental Resources Inc. reported the completion of three wells. The Earl 3-25H has an SHL at SW SE 25-23N-55E (190 FSL/2330 FEL) and a BHL of 20,023 feet at NE NW 24-23N-55E (234 FNL/2667 FEL). The Earl turned in an IP of 321 BOPD, 118 MCFPD and 48 BWPD. The Joseph 1-22H has an SHL at NW NE 22-23N-54E (225 FNL/1980 FEL) and a BHL of 14,289 feet at SW SE 22-23N-54E (690 FSL/2042 FEL) and reported an IP of 190 BOPD, 85 MCFPD and 235 BWPD. The Baird 1-34H has an SHL at NW NE 34-27N-53E (305 FNL/2300 FEL) and four laterals with BHLs of 9,692 feet at NW NE 34-27N-53E (1067 FNL/2263 FEL); 12,144 feet at NW SE 34-27N-53E (1768 FSL/2289 FEL); 14,462 feet at NW NE 3-26N-53E (545 FNL/1957 FEL); and 18,790 feet at SW SE 3-26N-53E (249 FSL/1958 FEL). The Baird reported an IP of 382 BOPD, 244 MCFPD and 198 BWPD.

Expired permits

In Richland County, the permit for the Mace 1-22H, operated by Slawson Exploration Company Inc. expired. The well location was SE SW 22-20N-60E (200 FSL/1600 FWL). The Mace was permitted to the Bakken formation. ●

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

Bakken

Bakken producers' stock prices

Closing prices as of Oct 9, along with those from previous Wednesday

Company	Exchange	Symbol	Closing price	Previous Wed.
Abraxas Petroleum Corp.	NASDAQ	AXAS	\$2.74	\$2.79
American Eagle Energy Corp.	AMZG	OTC	\$2.00	\$1.94
Arsenal Energy USA, Inc.	TSE	AEI	\$4.75	\$4.80
Baytex Energy Corp.	NYSE	BTE	\$39.47	\$40.95
Burlington Resources Co. (ConocoPhillips)	NYSE	COP	\$69.77	\$70.36
Continental Resources, Inc.	NYSE	CLR	\$107.13	\$111.03
Crescent Point Energy Corp.	TSE	CPG	\$38.15	\$38.76
Enerplus Resources USA Corp.	NYSE	ERF	\$16.02	\$16.52
EOG Resources, Inc.	NYSE	EOG	\$171.52	\$172.36
Fidelity Exploration and Production (MDU)	NYSE	MDU	\$27.58	\$27.92
GMX Resources, Inc.	PINK	GMXRQ	\$0.18	\$0.23
Hess Corp.	NYSE	HES	\$78.53	\$79.96
HRC Operating (Halcon Resources Corp.)	NYSE	HK	\$4.79	\$4.64
Kodiak Oil and Gas (USA), Inc.	NYSE	KOG	\$11.76	\$12.54
Legacy Reserves Operating LP	NASDAQ	LGCY	\$27.29	\$27.16
Marathon Oil Co.	NYSE	MRO	\$34.21	\$34.60
Newfield Production Co.	NYSE	NFX	\$28.16	\$27.88
Oasis Petroleum, Inc.	NYSE	OAS	\$49.70	\$50.51
Oxy USA (Occidental Petroleum Corp.)	NYSE	OXY	\$93.96	\$94.81
QEP Energy Co.	NYSE	QEP	\$28.28	\$28.17
Resolute (Resolute Energy Corp.)	NYSE	REN	\$8.96	\$8.81
Samson Resources Co. (KKR & Co.)	NYSE	KKR	\$19.94	\$21.14
SM Energy Co.	NYSE	SM	\$79.09	\$78.78
Statoil Oil and Gas LP	NYSE	STO	\$22.23	\$22.59
Sundance Energy, Inc.	SEA	ASX	\$1.00	\$1.01
Triangle USA Petroleum Corp.	NYSE	TPLM	\$9.88	\$10.30
Whiting Oil and Gas Corp.	NYSE	WLL	\$61.61	\$61.55
WPX Energy, Inc.	NYSE	WPX	\$18.91	\$19.54
XTO Energy, Inc. (ExxonMobil)	NYSE	XOM	\$85.16	\$87.08

Bakken

Looking for a rig report?

North Dakota

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

Saskatchewan

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

Manitoba

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



PHOTO COURTESY CONTINENTAL RESOURCES



IPs for ND Bakken wells

October 1—7, 2013

This chart contains initial production rates, or IPs, for active wells that were filed as completed with the state of North Dakota from Oct. 1 to Oct. 7, 2013 in the Bakken petroleum system, which includes formations such as the Bakken and Three Forks. The completed wells that did not have an available IP rate (N/A) likely haven't been tested or were awarded confidential (tight-hole) status by the North Dakota Industrial Commission's Department of Minerals. This chart also contains a section with active wells that were released from confidential status during the same period, Oct. 1 to Oct. 7. 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.

LEGEND

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

IPs for completed North Dakota wells

Burlington Resources Oil and Gas (ConocoPhillips)

22967; CCU Burner 21-26MBH; Corral Creek; NWNE 26-147N-95W; U; Dunn; Bakken; horizontal; 20,631; 8/21/2013; 2,242 bbl

Continental Resources

23608; Charlotte 5-22H; Banks; NENE 27-152N-99W; 4SEC; McKenzie; Bakken; horizontal; 21,622; 6/27/2013; 1,303 bbl

EOG Resources

24553; Van Hook 24-1415H; Parshall; SESW 14-152N-91W; 2SEC; Mountrail; Bakken; horizontal; 14,507; 7/23/2013; 502 bbl

Hess

23501; BB-Burk-151-95-0718H-4; Blue Buttes; NWNE 7-151N-95W; 2SEC; McKenzie; Bakken; horizontal; 20,839; 9/2/2013; 828 bbl

23502; BB-Burk-151-95-0718H-5; Blue Buttes; NWNE 7-151N-95W; 2SEC; McKenzie; Bakken; horizontal; 21,138; 9/6/2013; 1,035 bbl

24870; EN-Fretheim A 155-93-3334H-7; Robinson Lake; SESE 32-155N-93W; 4SEC; Mountrail; Bakken; horizontal; 21,186; 8/28/2013; 662 bbl

24443; EN-State B 155-93-1609H-4; Alger; SESE 16-155N-93W; 2SEC; Mountrail; Bakken; horizontal; 22,725; 9/5/2013; 831 bbl

24725; HA-Nelson 152-95-3328H-2; Hawkeye; SWSE 33-152N-95W; 2SECI McKenzie; Bakken; horizontal; 21,627; 9/8/2013; 1,400 bbl

24726; HA-Nelson 152-95-3328H-3; Hawkeye; SWSE 33-152N-95W; 2SEC; McKenzie; Bakken; horizontal; 21,140; 9/10/2013; 1,250 bbl

23184; SC-Tom 153-98-1514H-1; Truax; NWSW 15-153N-98W; 2SEC; Williams; Bakken; horizontal; 20,662; 8/29/2013; 680 bbl

23183; SC-Tom 153-98-1514H-2; Truax; NWSW 15-153N-98W; 2SEC; Williams; Bakken; horizontal; 20,319; 8/28/2013; 564 bbl

SM Energy

24403; Koester 3-26H; Siverston; NENW 26-150N-98W; 2SEC; McKenzie; Bakken; horizontal; 21,228; 8/8/2013; 1,045 bbl

24404; Koester 3X-26HA; Siverston; NENW 26-150N-98W; 2SEC; McKenzie; Bakken; horizontal; 21,418; 8/9/2013; 685 bbl

24402; Koester 3X-26HB; Siverston; NENW 26-150N-98W; 2SEC; McKenzie; Bakken; horizontal; 21,349; 8/8/2013; 858 bbl

Slawson Exploration

21453; Waterbond 2-27-34H; Van Hook; NENW 27-151N-92W; 2SEC; Mountrail; Bakken; horizontal; 18,986; 8/18/2013; 514 bbl

Statoil Oil and Gas

23437; M. Macklin 15-22 #2TFH; Cow Creek; NWNW 15-155N-101W; 2SEC; Williams; Bakken; horizontal; 20,470; 8/27/2013; 610 bbl

23946; Sanders 34-27 #2H; Ragged Butte; SWSE 34-151N-101W; 2SEC; McKenzie; Bakken; horizontal; 20,469; 9/3/2013; 2,747 bbl

23945; Sanders 34-27 #3TFH; Ragged Butte; SWSE 34-151N-101W; 2SEC; McKenzie; Bakken; horizontal; 20,622; 9/8/2013; 1,130 bbl

24085; Sax 25-36 3H; Banks; SWSW 36-153N-98W; 2SEC; McKenzie; Bakken; horizontal; 20,930; 9/4/2013; 3,243 bbl

24086; Sax 25-36 4TFH; Banks; SWSW 36-153N-98W; 2SEC; McKenzie; Bakken; horizontal; 21,004; 9/7/2013; 2,285 bbl

Whiting Oil and Gas

25384; Hartstrom 24-33H; Sanish; SESW 33-154N-91W; 2SEC; Mountrail; Bakken; horizontal; 17,600; N/A; N/A

25216; Littlefield 21-31TFH; Sanish; NENW 31-153N-91W; 2SEC; Mountrail; Bakken; horizontal; 18,710; 6/24/2013; 1,015 bbl

25554; Nesheim 13-24H; Sanish; NWNW 24-153N-91W; 2SEC; Mountrail; Bakken; horizontal; 19,300; 9/23/2013; 1,098 bbl

XTO Energy (ExxonMobil)

23655; Hegg 11-29SWH; Siverston; NWNW 29-150N-98W; 2SEC; McKenzie; Bakken; horizontal; 20,507; 8/31/2013; 2,021 bbl

23413; Hegg 21-29SH; Siverston; NENW 29-150N-98W; 2SEC; McKenzie; Bakken; horizontal; 20,816; 7/19/2013; 2,400 bbl

23787; Thorp Federal 11X28B; Little Knife; NWNW 28-148N-97W; 2SEC; Dunn; Bakken; horizontal; 21,496; 9/7/2013; 1,604 bbl

23788; Thorp Federal 11X-28F; Little Knife; NWNW 28-148N-97W; 2SEC; Dunn; Bakken; horizontal; 20,542; 8/30/2013; 1,905 bbl

IPs for ND wells released from confidential status

American Eagle Energy

24636; Axel 2-2N-163-101; Colgan; LOT2 2-163N-101W; 2SEC; Divide; Bakken; horizontal; 14,265; 7/16/2013; 275 bbl

Arsenal Energy

23759; John Paul 11-2H-155-91; Stanley; SESW 11-155N-91W; 2SEC; Mountrail; Bakken; horizontal; 19,470; 7/15/2013; 1,350 bbl

Burlington Resources Oil and Gas (ConocoPhillips)

24982; CCU Four Aces 44-21MBH; Corral Creek; SESE 21-147N-95W; N/A; Dunn; Bakken; horizontal; N/A; N/A; N/A

24981; CCU Four Aces 44-21TFH; Corral Creek; SESE 21-147N-95W; N/A; Dunn; Bakken; horizontal; N/A; N/A; N/A

24991; Cleo 31-1TFH; Croff; LOT2 1-149N-96W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A

24992; Cleo 41-1MBH; Croff; LOT2 1-149N-96W; 2SEC; McKenzie; Bakken; horizontal; 20,685; 9/16/2013; 2,736 bbl

Continental Resources

24935; Tangsrud 7-1H3; Hayland; LOT3 1-160N-96W; N/A; Divide; Bakken; horizontal; N/A; N/A; N/A

24936; Tangsrud 8-1H1; Hayland; LOT3 1-160N-96W; N/A; Divide; Bakken; horizontal; N/A; N/A; N/A

24837; Wahpeton 2-16H2; Banks; NENW 16-152N-99W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A

Top 10 Bakken wells by IP rate

Statoil Oil and Gas

24085; Sax 25-36 3H; Banks; McKenzie; 3,243 bbl

Zenergy (Oasis)

24702; Slagle 12-1HST; Camp; McKenzie; 3,000 bbl

Statoil Oil and Gas

23946; Sanders 34-27 #2H; Ragged Butte; McKenzie; 2,747 bbl

Burlington Resources Oil and Gas (ConocoPhillips)

24992; Cleo 41-1MBH; Croff; McKenzie; 2,736 bbl

EOG Resources

24337; Hawkeye 3-2413H; Antelope; McKenzie; 2,519 bbl

XTO Energy (ExxonMobil)

23413; Hegg 21-29SH; Siverston; McKenzie; 2,400 bbl

Statoil Oil and Gas

24086; Sax 25-36 4TFH; Banks; McKenzie; 2,285 bbl

WPX Energy

24461; Adam Good Bear 15-22HC; Van Hook; Mountrail; 2,254 bbl

Burlington Resources Oil and Gas (ConocoPhillips)

22967; CCU Burner 21-26MBH; Corral Creek; Dunn; 2,242 bbl

XTO Energy (ExxonMobil)

23655; Hegg 11-29SWH; Siverston; McKenzie; 2,021 bbl

Note: This chart contains initial production rates, or IPs, from the adjacent IP chart for active wells that were filed as completed with the state of North Dakota from Oct. 1-7, 2013 in the Bakken petroleum system, as well as active wells that were released from tight-hole (confidential) status during the same period. The well operator's name is on the upper line, followed by individual wells; the NDIC file number; well name; field; county; IP oil flow rate in barrels of oil.

24838; Wahpeton 3-16H3; Banks; NENW 16-152N-99W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A

EOG Resources

24337; Hawkeye 3-2413H; Antelope; SESE 24-152N-95W; 2SEC; McKenzie; Bakken; horizontal; 20,626; 5/17/2013; 2,519 bbl

21406; Liberty 25-0107H; Parshall; LOT3 1-151N-95W; ICO; Mountrail; Bakken; horizontal; 20,212; 4/26/2013; 1,355 bbl

22921; Liberty 106-0107H; Parshall; LOT3 1-151N-91W; ICO; Mountrail; Bakken; horizontal; 19,362; 5/1/2013; 60 bbl

22932; Redmond 28-2917H; Clear Water; NENW 27-157N-89W; 4SEC; Mountrail; Bakken; horizontal; 18,946; 4/30/2013; 334 bbl

Fidelity Exploration and Production (MDU)

24511; Irene 12-13H-24; Alger; SWNW 13-155N-92W; 2SEC; Mountrail; Bakken; horizontal; 16,029; 4/8/2013; 52 bbl

24052; Wayne 3-4-33H; Sanish; SESE 3-153N-92W; 4SEC; Mountrail; Bakken; horizontal; 22,739; 4/11/2013; 738 bbl

Hess

25031; EN-Sorenson A 154-94-0211H-3; Alkali Creek; SWSE 35-155N-94W; N/A; Mountrail; Bakken; horizontal; N/A; N/A; N/A

25030; EN-Sorenson A 154-94-0211H-4; Alkali Creek; SWSE 35-155N-94W; N/A; Mountrail; Bakken; horizontal; N/A; N/A; N/A

21857; LK-Esther-146-97-3328H-1; Little Knife; SESW 33-146N-97W; 2SEC; Dunn; Bakken; horizontal; 20,850; 8/14/2013; 590 bbl

23725; LK-Trotter-145-97-3625H-4; Little Knife; SESW 36-146N-97W; 2SEC; Dunn; Bakken; horizontal; 20,684; 8/7/2013; 766 bbl

HRC Operating (Halcon Resources)

24739; Fort Berthold 152-94-15B-22-5H; Antelope; NWNE 15-152N-94W; N/A; McKenzie; Sanish; horizontal; N/A; N/A; N/A

24738; Fort Berthold 152-94-15B-22-6H; Antelope; NWNE 15-152N-94W; N/A; McKenzie; Sanish; horizontal; N/A; N/A; N/A

24737; Fort Berthold 154-94-15A-22-7H; Antelope; NWNE 15-152N-94W; N/A; McKenzie; Sanish; horizontal; N/A; N/A; N/A

Hunt Oil

24673; Frazier 1-20-17H; Frazier; SESW 20-161N-97W; 2SEC; Divide; Bakken; horizontal; 18,691; 6/29/2013; 175 bbl

Marathon Oil

24011; Cummings 44-31TFH; Big Bend; LOT1 6-150N-92W; N/A; Mountrail; Bakken; horizontal; N/A; N/A; N/A

Oasis Petroleum

23981; Alder 6092 43-8H; Lucy; SWSE 8-160N-92W; 2SEC; Burke; Bakken; horizontal; 18,630; 4/7/2013; 514 bbl

Petro-Hunt

24580; State 158-91-16D-9-1H; Kittleson Slough; SWSE 16-158N-91W; 2SEC; Mountrail; Bakken; horizontal; 18,892; 6/28/2013; 305 bbl

QEP Energy

23096; MHA 1-06-05H-149-92; Heart Butte; SWSE 6-149N-92W; N/A; Dunn; Bakken; horizontal; N/A; N/A; N/A

SM Energy

24471; Rose 16-24HN; Colgan; SESE 24-163N-101W; 2SEC; Divide; Bakken; horizontal; 18,320; 7/10/2013; 608 bbl



North Dakota oil permit activity

October 1—7, 2013

LEGEND

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

Abbreviations

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

FNL = From North Line | FEL = From East Line
FSL = From South Line | FWL = From West Line

Billings Co.

Permits issued

GMX Resources

Little Missouri Federal 24-10-1H; SWSE 10-141N-100W; 572'FSL and 2,380'FWL; Whiskey Joe; N/A*; on confidential status; 2,750' ground; 24073; 33-007-01757; 10/2/2013

Burke Co.

Permits issued

Continental Resources

Cecelia 1-27H1; NWNW 27-161N-94W; 300'FNL and 1,415'FEL; Stoneview; N/A*; on confidential status; 2,400' ground; 26638; 33-013-01744; 10/1/2013

Cornerstone Natural Resources

Martinsen D-3427-6191; SESE 34-161N-91W; 253'FSL and 934'FEL; Little Butte; N/A*; on confidential status; 2,438' ground; 26670; 33-013-01745; 10/5/2013

Location resurveyed

Continental Resources

Elison 1-21H1; SESW 21-161N-94W; 600'FSL and 1,931'FWL; Stoneview; N/A*; on confidential status; 2,397' ground; 26257; 33-013-01732; 10/4/2013

Divide Co.

Permits issued

Murex Petroleum

Gary Lee 31-30H; SESW 31-161N-100W; 270'FSL and 2,400'FWL; Alexandria; Bakken; horizontal; 2,201' ground; 26475; 33-023-01105; 10/1/2013

Dunn Co.

Permits issued

HRC Operating (Halcon Resources)

Fort Berthold 147-94-3B-10-9TFH; NENW 3-147N-94W; 285'FNL and 1,510'FWL; McGregory Buttes; 2,305' ground; 26671; 33-025-02306; 10/5/2013

Oxy USA

Emil Veverka 3-17-20H-143-95; NENW 17-143N-95W; 300'FNL and 2,357'FWL; Murphy Creek; Bakken; horizontal; 2,234' ground; 26636; 33-025-02301; 10/1/2013

Raphael Stroh 3-24-13H-143-97; SESW 24-143N-97W; 315'FSL and 2,330'FWL; Fayette; Bakken; horizontal; 2,396' ground; 26642; 33-025-02302; 10/2/2013

Raphael Stroh 4-24-13H-143-97; SESW 24-143N-97W; 315'FSL and 2,410'FWL; Fayette; Bakken; horizontal; 2,390' ground; 26643; 33-025-02303; 10/2/2013

State 2-25-36H-143-97; NENW 25-143N-97W; 350'FNL and 2,300'FWL; Fayette; Bakken; horizontal; 2,397' ground; 26648; 33-025-02304; 10/3/2013

State 3-25-36H-143-97; NENW 25-143N-97W; 350'FNL and 2,380'FWL; Fayette; Bakken; horizontal; 2,394' ground; 26649; 33-025-02305; 10/3/2013

State Anderson 2-30-25H-143-97; SWNW 29-143N-97W; 1,390'FNL and 350'FWL; Little Knife; Bakken; horizontal; 2,539' ground; 26674; 33-025-02308; 10/5/2013

Steffan 2-29-28H-143-97; SWNW 29-143N-97W; 1,350'FNL and 350'FWL; Willmen; Bakken; horizontal; 2,539' ground; 26673; 33-025-02307; 10/5/2013

Permits renewed

Burlington Resources Oil and Gas (ConocoPhillips)

Franklin 44-36MBH; SESE 36-147N-97W; 235'FSL and 660'FEL; Little Knife; N/A*; on confidential status; 2,542' ground; 21708; 33-025-01505; 10/2/2013

Olympian 21-2H; NENW 2-146N-94W; 250'FNL and 1,620'FWL; Corral Creek; N/A*; on confidential status; 2,392' ground; 19954; 33-025-01221; 10/2/2013

Kodiak Oil and Gas

Moccasin Creek 14-11-2-4H3; SESW 11-147N-93W; 891'FSL and 1,582'FWL; Moccasin Creek; N/A*; on confidential status; 2,214' ground; 24058; 33-025-01906; 10/5/2013

McKenzie Co.

Permits issued

Emerald Oil

Dean Wormer 1-33-28H; SWSW 33-149N-102W; 350'FSL and 400'FWL; Moline; Bakken; horizontal; 2,394' ground; 26669; 33-053-05365; 10/5/2013

Dean Wormer 2-33-28H; SWSW 33-159N-102W; 350'FSL and 500'FWL; Moline; Bakken; horizontal; 2,396' ground; 26668; 33-053-05364; 10/5/2013

TY Webb 1-1-12H; SWSW 33-149N-102W; 350'FSL and 350'FWL; Sheep Butte; Bakken; horizontal; 2,394' ground; 26667; 33-053-05363; 10/4/2013

TY Webb 2-1-12H; SWSW 33-149N-102W; 350'FSL and 450'FWL; Sheep Butte; Bakken; horizontal; 2,395' ground; 26666; 33-053-05362; 10/4/2013

TY Webb 3-1-12H; SWSW 33-149N-102W; 350'FSL and 550'FWL; Sheep Butte; Bakken; horizontal; 2,397' ground; 26665; 33-053-05361; 10/4/2013

Hess

BW-Sharon- 2560-150-100-2536-3031H-1; NWNW 25-150N-100W; 680'FNL and 1,631'FEL; South Tobacco Garden; N/A*; on confidential status; 2,257' ground; 26672; 33-053-05366; 10/5/2013

HA-Link- 152-95-3526H-3; SWSE 35-152N-95W; 299'FSL and 1,822'FEL; Hawkeye; N/A*; on confidential status; 2,249' ground; 26662; 33-053-05358; 10/4/2013

HA-Link- 152-95-3526H-4; SWSE 35-152N-95W; 299'FSL and 1,789'FEL; Hawkeye; N/A*; on confidential status; 2,249' ground; 26663; 33-053-05359; 10/4/2013

HA-Link- 152-95-3526H-5; SWSE 35-152N-95W; 299'FSL and 1,756'FEL; Hawkeye; N/A*; on confidential status; 2,248' ground; 26664; 33-053-05360; 10/4/2013

Hunt Oil

Bear Butte 1-12-1H; NENW 13-148N-101W; 265'FNL and 1,415'FWL; Bear Butte; N/A*; on confidential status; 2,170' ground; 26637; 33-053-05348; 10/1/2013

SM Energy

Emma 13-7H; SWSW 7-151N-99W; 405'FSL and 375'FWL; Poe; N/A*; on confidential status; 2,288' ground; 26659; 33-053-05357; 10/3/2013

Hank 13X-7H; SWSW 7-151N-99W; 495'FSL and 275'FWL; Poe; N/A*; on confidential status; 2,289' ground; 26658; 33-053-05356; 10/3/2013

Statoil Oil and Gas

Stallion 33-28 #6H; SWSW 33-151N-101W; 410'FSL and 400'FWL; Ragged Butte; N/A*; on confidential status; 2,222' ground; 26657; 33-053-05355; 10/3/2013

Whiting Oil and Gas

Thurlow - Williams 11-18-2H; LOT1 18-151N-101W; 300'FNL and 1,005'FWL; Lonesome; Bakken; horizontal; 2,104' ground; 26654; 33-053-05354; 10/3/2013

XTO Energy (ExxonMobil)

Badlands Federal 21X-13E; NENW 13-149N-97W; 311'FNL and 1,562'FWL; North Fork; N/A*; on confidential status; 2,151' ground; 26639; 33-053-05349; 10/3/2013

Jan 14X-34A; SWSW 34-151N-98W; 425'FSL and 878'FWL; Siverston; N/A*; on confidential status; 2,023' ground; 26653; 33-053-05353; 10/3/2013

Jan 14X-34B; SWSW 34-151N-98W; 425'FSL and 938'FWL; Siverston; N/A*; on confidential status; 2,023' ground; 26652; 33-053-05352; 10/3/2013

Jan 14X-34E; SWSW 34-151N-98W; 425'FSL and 908'FWL; Siverston; N/A*; on confidential status; 2,023' ground; 26651; 33-053-05351; 10/3/2013

Jan 14X-34F; SWSW 34-151N-98W; 425'FSL and 968'FWL; Siverston; N/A*; on confidential status; 2,023' ground; 26650; 33-053-05350; 10/3/2013

Permits renewed

Kodiak Oil and Gas

Grizzly 147-103-16-21-16-1H; SESE 21-147N-103W; 225'FSL and 1,200'FEL; Mondak; N/A*; on confidential status; 2,197' ground; 23976; 33-053-04443; 10/2/2013

Petro-Hunt

State 154-94-31C-32-1H; LOT7 31-154N-94W; 450'FSL and 250'FWL; Charlson; N/A*; on confidential status; 2,034' ground; 24045; 33-053-04468; 10/5/2013

State 154-94-31C-32-2H; LOT7 31-154N-94W; 500'FSL and 250'FWL; Charlson; N/A*; on confidential status; 2,028' ground; 24046; 33-053-04469; 10/5/2013

State 154-94-31C-32-3H; LOT7 31-154N-94W; 550'FSL and 250'FWL; Charlson; N/A*; on confidential status; 2,031' ground; 24047; 33-053-04470; 10/5/2013

State 154-94-31C-32-4H; LOT7 31-154N-94W; 706'FSL and 356'FWL; Charlson; N/A*; on confidential status; 2,027' ground; 24049; 33-053-04472; 10/5/2013

State 154-94-31C-32-5H; LOT7 31-154N-94W; 653'FSL and 303'FWL; Charlson; N/A*; on confidential status; 2,029' ground; 24048; 33-053-04471; 10/5/2013

State 154-94-31C-32-6H; LOT7 31-154N-94W; 600'FSL and 250'FWL; Charlson; N/A*; on confidential status; 2,031' ground; 24050; 33-053-04473; 10/5/2013

Slawson Exploration

Wolverine Federal 3-31-30H; SWSE 31-153N-93W; 300'FSL and 2,350'FEL; Elm Tree; N/A*; on confidential status; 2,019' ground; 24020; 33-053-04458; 10/2/2013

Wolverine Federal 6-31-30TFH; SWSE 31-153N-93W; 325'FSL and 2,350'FEL; Elm Tree; N/A*; on confidential status; 2,019' ground; 24019; 33-053-04457; 10/2/2013

Wolverine Federal 7-31-30TFH; SWSE 31-153N-93W; 350'FSL and 2,350'FEL; Elm Tree; N/A*; on confidential status; 2,019' ground; 24018; 33-053-04456; 10/2/2013

Triangle USA Petroleum

Monson 152-102-35-26-1H; SESW 35-152N-102W; 425'FSL and 1,475'FWL; Elk; Bakken; horizontal; 2,218' ground; 23975; 33-053-04442; 10/2/2013

True Oil

Red Wing State 148-101-36-31-1H; NWSW 36-148N-101W; 2,560'FSL and 330'FWL; Red Wing Creek; Bakken; horizontal; 2,231' ground; 23927; 33-053-04434; 10/4/2013

Permits cancelled

Hunt Oil

Bear Butte 1-12-1HX; SWSW 12-148N-101W; 350'FSL and 1,066'FWL; Bear Butte; N/A*; on confidential status; 2,171' ground; 26493; 33-053-05289; 10/1/2013

see **ND PERMIT** page 13

WPX Energy

24461; Adam Good Bear 15-22HC; Van Hook; SWSE 10-150N-92W; 2SEC; Mountrail; Bakken; horizontal; 20,631; 8/29/2013; 2,254 bbl

XTO Energy (ExxonMobil)

20140; Mandal Federal 41X-29C; Haystack Butte; NENE 29-149N-97W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A

Zenergy (Oasis)

24702; Slagle 12-1HST; Camp; SESW 12-151N-101W; 2SEC; McKenzie; Bakken; horizontal; 20,536; 7/25/2013; 3,000 bbl

—Compiled by Ashley Lindly

continued from page 11

ND IP

Statoil Oil and Gas

24361; Knight 35-26 3TFH; Banks; SESE 35-153N-98W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A

24362; Knight 35-26 4H; Banks; SESE 35-153N-98W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A

23997; Margaret 5-8 #6H; Spring Creek; SESE 32-151N-100W; N/A; McKenzie; Bakken; horizontal; N/A; N/A; N/A

Whiting Oil and Gas

24721; Kostelecky 31-29PH; South Heart; NENE 29-140N-97W; 2SEC; Stark; Bakken; horizontal; 20,910; 4/11/2013; 985 bbl

23653; Marsh 14-9PH; Dutch Henry Butte; NWNW 16-140N-97W; 2SEC; Stark; Bakken; horizontal; 21,890; 4/10/2013; 745 bbl

Contact Ashley Lindly at
alindly@petroleumnewsbakken.com



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ND PERMIT

Mountrail Co.

Permits issued

EOG Resources

Austin 47-3130H; SENE 31-154N-90W; 1,900'FNL and 450'FEL; Parshall; Bakken; horizontal; 2,288' ground; 26641; 33-061-02758; 10/2/2013

Austin 48-3130H; SENE 31-154N-90W; 1,950'FNL and 450'FEL; Parshall; Bakken; horizontal; 2,287' ground; 26640; 33-061-02757; 10/2/2013

Burke 47-3130H; SENE 31-155N-90W; 450'FNL and 885'FEL; Stanley; Bakken; horizontal; 2,322' ground; 26647; 33-061-02762; 10/2/2013

Burke 46-3130H; SESE 31-155N-90W; 500'FNL and 885'FEL; Stanley; Bakken; horizontal; 2,323' ground; 26646; 33-061-02761; 10/2/2013

Burke 66-3130H; SESE 31-155N-90W; 550'FNL and 885'FEL; Stanley; Bakken; horizontal; 2,327' ground; 26645; 33-061-02760; 10/2/2013

Marathon Oil

Big Eagle USA 41-17TFH; NWNE 17-150N-92W; 365'FNL and 2,268'FEL; Van Hook; N/A*; on confidential status; 2,056; 26644; 33-061-02759; 10/2/2013

JWC 44-34H; SESE 34-151N-93W; 442'FSL and 548'FEL; Reunion Bay; N/A*; on confidential status; 2,112' ground; 26660; 33-061-02765; 10/4/2013

Statoil Oil and Gas

Ross-Alger 6-7 6H; LOT4 31-154N-92W; 351'FSL and 595'FWL; Alger; N/A*; on confidential status; 2,437' ground; 26655; 33-061-02763; 10/3/2013

Ross-Alger 6-7 7TFH; LOT4 31-156N-92W; 351'FSL and 625'FWL; Alger; N/A*; on confidential status; 2,437' ground; 26656; 33-061-02764; 10/3/2013

Williams Co.

Permits issued

Kodiak Oil and Gas

W Nystuen 159-98-1-30-18-1H3; NENE 30-159N-98W; 325'FNL and 915'FEL; Big Stone; N/A*; on confidential status; 2,264' ground; 26634; 33-105-03237; 10/1/2013

W Nystuen 159-98-1-30-31-16H; NENE 30-159N-98W; 325'FNL and 885'FEL; Big Stone; N/A*; on confidential status; 2,263' ground; 26635; 33-105-03238; 10/1/2013

Permits renewed

Crescent Point Energy

Cpeusc Holmes 8-5-158N-100W; SESW 8-158N-100W; 250'FSL and 2,030'FWL; Winner; N/A*; on confidential status; 1,710' ground; 24072; 33-105-02847; 10/5/2013

Cpeusc Narcisse 8-5-158N-99W; SWSE 8-158N-99W; 350'FSL and 1,800'FWL; Ellisville; N/A*; on confidential status; 2,080' ground; 24062; 33-105-02846; 10/5/2013

* Note - The geologic target for these wells was not listed in its well file because they are a tight (confidential) hole, but the following fields produce from the Bakken pool; Alger, Bear Butte, Big Stone, Charlson, Corral Creek, Ellisville, Elm Tree, Hawkeye, Little Knife, Moccasin Creek, Mondak, North Fork, Poe, Ragged Butte, Reunion Bay, Siverston, South Tobacco Garden, Stoneview, Van Hook, Winner.

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

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BAKKEN

OIL & GAS DIRECTORY

A semi-annual supplement



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SLAWSON MOVES

Slawson's Dirk (Federal) is on the 1,280-acre unit which is in far east-central Richland County near the North Dakota border. That well also went on production in January and through August and produced 17,323 barrels over 213 days for an average of 81 bpd.

In addition, Slawson submitted applications seeking permission to drill up to four additional horizontal Bakken/Three Forks wells on each of those two Richland County spacing units.

Slawson is also seeking permission from the board to produce Bakken formation oil and gas from its Python No. 3-4MLH well in the Elm Coulee field in

Richland County from locations that do not comply with setback requirements. That well went on production in July and through August the well produced 6,322 barrels over 18 pumping days for an average of 351 bpd.

ConocoPhillips

A number of other operators filed various oil and gas development applications that are on the board's Oct. 10 hearing docket including ConocoPhillips. Filing as Burlington Resources, ConocoPhillips submitted applications asking the board to create 13 separate 640-acre spacing units in the Elm Coulee field in Richland County. Burlington is also seeking permission from the board to drill one horizontal Bakken/Three Forks well on each

of the 13 units.

Burlington currently has two producing Bakken wells in the same township as the 13 spacing units identified in the application. The BR 11-1H 33 went on production in May 2007 and through August 2013 produced a total of 105,216 barrels over 2,164 days of pumping for an average of 49 bpd. The BR 41-3H 33 well went on production in July 2007 and has produced 72,497 barrels over 1,858 pumping days for an average of 39 bpd.

Continental Resources

Continental Resources is asking the board to make permanent 11 separate temporary Elm Coulee spacing units, 10 in Richland County and one in Roosevelt County. Continental has one producing

well on each. Those spacing units range in size from 640 acres to 2,560 acres.

Nine of the 10 Richland County wells went on production between June and July of 2013 and through August have had average daily production ranging from 78 to 236 bpd. The other Richland County well went on production in March 2013, and through August had average production of 196 bpd. The Roosevelt County well went on production in July and through August has produced an average of 234 bpd.

Three of the 11 requested spacing units are 2,560-acre overlapping units and Continental wants these units established for well drilled across the boundaries of 1,280-acre units.

Continental also submitted applications seeking permission to drill additional wells on existing permanent spacing units in Richland and Roosevelt counties. In Richland County, Continental is looking to drill up to three additional Bakken/Three Forks wells on each of six 640-acre spacing units, and up to three additional wells on each of six 1,280-acre units with an additional two wells on another 1,280-acre unit. In Roosevelt County, Continental wants to drill three additional wells on an existing 1,280.

Continental is also seeking authority to convert two Richland County wells to enhanced recovery wells.

see **SLAWSON MOVES** page 16



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Dr. Howard Reeve now certified with the NRCME

Trinity Health Occupational Medicine provider Dr. Howard Reeve recently completed all requirements necessary to become certified with the National Registry of Certified Medical Examiners. The NRCME is a list of examiners who have been trained, tested and certified to perform physical examinations for commercial motor vehicle drivers in interstate commerce.

Administered by the Department of Transportation and the Federal Motor Carrier Safety Administration, the Registry is a new program designed to make the nation's highways safer by requiring that all examiners performing physical examinations be trained and certified before May 21, 2014.

To maintain a listing on the National Registry, certified examiners must comply with training, testing and FMCSA administrative requirements, including refresher training every five years and certification testing every 10 years. More information on the NRCME can be found at <https://nationalregistry.fmcsa.dot.gov/NRPublicUI/home.seam>.

Dr. Reeve has performed DOT/CMV examinations and practiced occupational medicine for more than 20 years, making him one of the region's most experienced physicians in his field. In addition to providing DOT and non-DOT physicals, he performs pre-work screens, fit-for-duty exams, respirator fit tests, and travel or administrative and FAA flight physicals. He also cares for patients with work-related injuries.



DR. HOWARD REEVE

Bakken Players

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LINER FRACKS

800 boepd which was the average daily production before Whiting went to cemented liners in larger hydraulic fracturing jobs.

In some cases, Volker said, the results are even better. “It’s currently doing a little better than that, typically between 1,200 and 1,400 boe a day even in the far western portion of our acreage position where we’ve been bringing in wells in some cases as high as over 1,400 boe a day.”

Frack comparison studies

In a side-by-side comparison of two Pronghorn formation wells in Whiting’s Southern Williston Basin area, a well with an un-cemented completion had a 24-hour initial production, IP, rate of 884 boepd while the well with the cemented liner completion had a 24-hour IP of 1,348 boepd. Whiting’s Southern Basin area overlaps areas of southern McKenzie, northern Golden Valley, northern Billings, northeaster Stark and southwestern Dunn counties in western North Dakota.

In Whiting’s Missouri Breaks area in eastern Richland County, Mont., the company made another comparison with two wells that were fracked with nearly identical amounts of proppant, i.e., 3.6 million and 3.7 million pounds, and both wells had 30 frack stages. The well completed using the sliding sleeve method had a 30-day cumulative production total of 8,833 barrels whereas the well completed using the cemented liner and plug and perf method came in with a 30-day cumulative total of 16,815 barrels, nearly double that of the well with the sliding sleeve completion.

According to Montana Board of Oil and Gas Conservation records, both of the Missouri Breaks wells came on production in May 2013, and through August the sliding sleeve well produced 18,621 barrels of oil over 91 days of production for an average of 205 bpd while the cemented liner well produced 35,221 barrels over 105 production days for an average of 335 bpd.

Increasing frack stages

Whiting indicates that it is getting in the range of 40 stages per frack using cemented liners with plug and perf, versus 30 stages using swell packers with sliding sleeves.

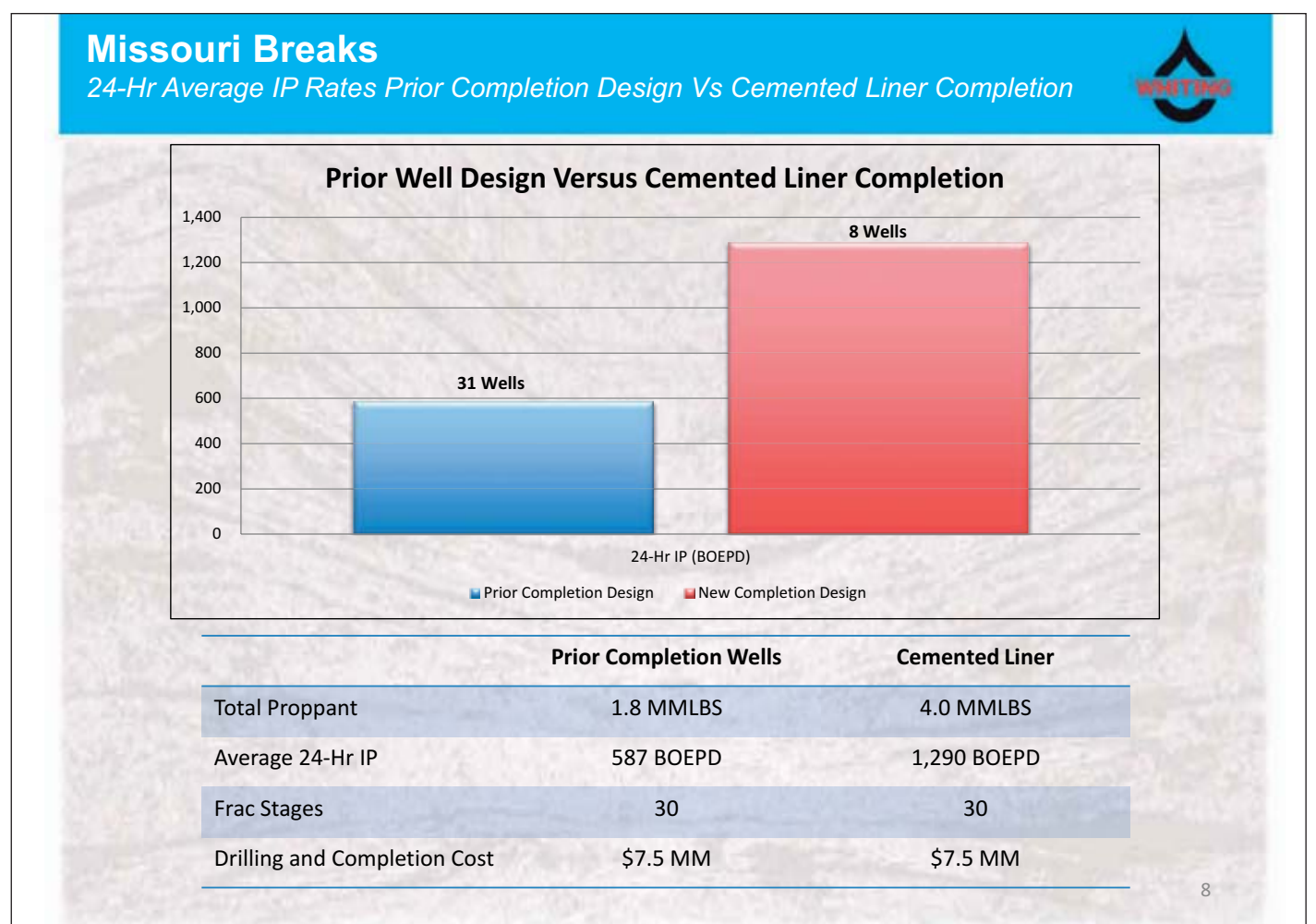
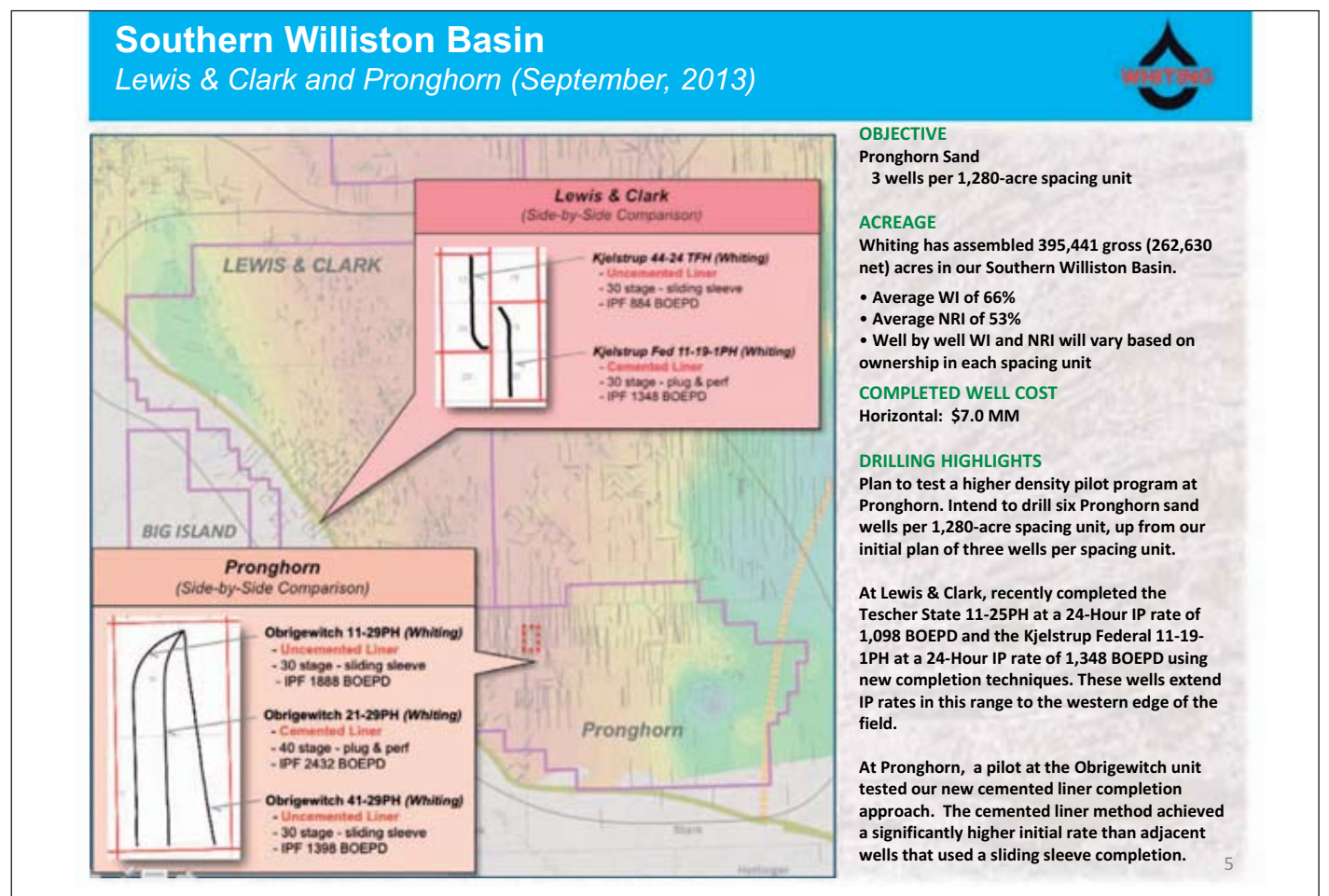
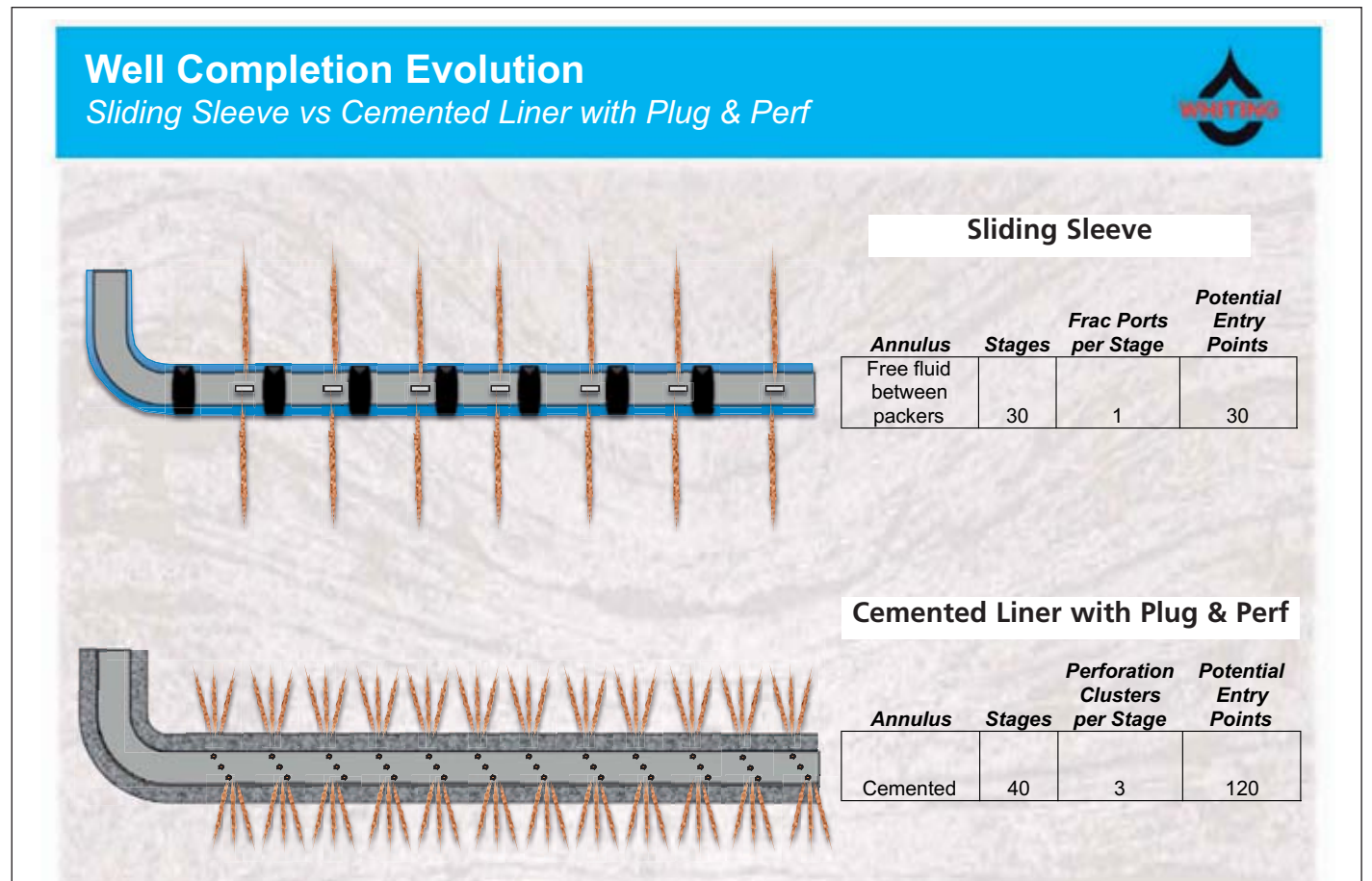
The cemented liner method results in three perforation clusters per stage compared to one frack port per stage with sliding sleeves. That increase in perforations, coupled with the increased number of stages, results in 120 potential entry points in a cemented liner lateral versus 30 entry points using sliding sleeves.

In the Southern Williston Basin area, Whiting reports fracking comparison results from wells in two separate spacing units that indicate the cemented liner method “achieved a significantly higher initial rate than adjacent wells that used a sliding sleeve completion.” Two wells completed with un-cemented liners and 30 stage fracks had 24-hour IPs of 1,398 and 1, 888 boepd, while a side-by-side comparison well completed with a cemented liner and 40 frack stages had a 24-hour IP of 2,432 boepd.

Increase proppant

The cemented liner method also allows Whiting to increase the mass of proppant in the fracturing operation. In the company’s Missouri Breaks project area, Whiting was able to increase the mass of

see LINER FRACKS page 16



continued from page 14

SLAWSON MOVES

Whiting Oil and Gas

Whiting Oil and Gas Corp. submitted an application to drill up to three additional horizontal Bakken/Three Forks wells on an existing 1,280-spacing unit in the Elm Coulee Northeast field in Richland County. Whiting currently has one Bakken formation well on that spacing unit, the Sundheim 21-27-1H which was pumped for 11 days in August producing at total of 7,871 barrels of oil for an average of 716 bpd.

In addition, Whiting submitted applications asking the board to create three 1,280-acre spacing units and one 1,920-acre unit, also in the Elm Coulee Northeast field and wants authority to drill one horizontal Bakken/Three Forks wells on each.

Whiting has four active wells in the area where it wants the four new spacing units created. The Weber 24-30-1H went on production in May 2013 and through August produced 35,221 barrels over 105 days of pumping for an average of 335 bpd. The Watts 42-21-1HR has been producing since September 2012 and has produced 45,403 barrels over 350 pumping

days for an average of 130 bpd. The Sundheim 21-3-1H has produced 11,881 barrels over 47 pumping days since going on production in July for an average of 253 bpd, and the Mullin 21-24-1H has been pumped for 91 days since going on production in May producing 18,621 barrels for an average of 205 bpd.

Oasis Petroleum

Oasis Petroleum is asking that the board make permanent two 1,280-acre spacing units, one in Roosevelt County and the other primarily in Roosevelt County, but a small portion extending north under the Missouri River into Richland County. Oasis has an existing well on each spacing unit, although no production data is available on the well in the spacing unit that extends into Richland County.

On the Roosevelt County spacing unit, the company's Betsy Federal No. 2758 24-29H well went on production in July 2012 and through August 2013 produced 74,736 barrels over 408 days of pumping for an average production of 183 bpd.

Oasis submitted an application seeking authority from the board to drill four additional horizontal Bakken/Three Forks wells on the same spacing unit as the Betsy Federal well, and one horizontal on the

second 1,280-acre unit.

Oasis is also asking the board to create a temporary 2,560-acre spacing unit in northern Roosevelt and southern Richland counties where it wants to drill two horizontal Bakken/Three Forks wells from a single pad.

Statoil

In Richland County, Statoil is asking the board to make permanent a temporary 2,560-acre spacing unit to allow production from two horizontal wells, the Sundheim 26-35 No. 1H and No. 2H wells. No production data are available for these two wells on the board's online database. Statoil also wants authority to drill five additional horizontal Bakken/Three Forks wells on the unit.

Keesun in Toole Co.

Farther west in Toole County in north-central Montana, Cut Bank, Mont.-based Keesun Corp. filed an application asking the board to create six 20-acre spacing units in the Rattlesnake Coulee field on which it wants to drill vertical wells to a maximum depth of 2,500 feet. Keesun wants to test for the presence of oil in all formations from the ground surface to the top of the Madison formation.

Keesun currently has two active vertical oil wells in the same township where it wants the six spacing units created, and both of those wells target the Sunburst formation. The State 13-16 well went on production in March 2013 and over 61 days of pumping has produced 1,098 barrels for an average of 18 bpd.

The Goeddertz 1-17 well was originally drilled by Wilco Properties in June 1969 but was not put on production. Phillips Petroleum Co. took over the well in 1977 and put it on production in January 1986. Through April 1987 the well produced 893 barrels over a total of 430 days of pumping for an average of 2 bpd. The well was plugged and abandoned in 1990, but in February 2013 it was reentered and put back on production by Keesun. Through April 2013 the well produced an additional 1,773 barrels over 39 pumping days for an average of 45 bpd.

In addition, Keesun submitted a separate application seeking authority to drill a second Sunburst formation well in the same section as the Goeddertz 1-17. Keesun also wants to drill two additional Sunburst formation wells in an adjacent section.

Other applications

In other applications on the board's October docket is a request by American Midwest Oil and Gas asking the board to vacate an existing order requiring 80-acre spacing units in East Kevin field in Toole County and revert the spacing back to 40-acre units for oil and gas production from the Nisku formation.

In a separate application, American Midwest is seeking authority from the board to drill Nisku formation test wells on 40-acre spacing units in the East Kevin Nisku field. The application was not seeking authority to drill specific wells, but simply requested the 40-acre spacing units for drilling at some point in the future.

Samson Resources is asking the board for a rule exception that would allow the company to recomple and produce its shut-in Sunmark Cursch Fee No. 1-R well in Roosevelt County. The well is a Red River formation well and Samson wants to recomple the well in the Duperow formation and comingle Red River and Duperow oil and gas.

Denbury Resources is seeking authority from the board to convert its Stony Mountain formation South Pine Unit 22-33 well in the Pine Field in Wibaux County into an enhanced recovery well. ●

Contact Mike Ellerd
at mellerd@bresnan.net

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LINER FRACKS

proppant from 1.8 million pounds using its prior completion design to 4 million pounds using the cemented liner method. Under the prior completion design, 31 of the company's Missouri Breaks wells had an average 24-hour IP of 587 boepd. Using the cemented sleeve method, eight Missouri Breaks wells had an average 24-hour IP of 1,290 boepd. All wells fracked with both methods had 30 frack stages.

Volker said Whiting is using even more proppant in other fracks, some as high as between 5 million and 6 million pounds of sand per frack. He said the combination of cemented liners and more proppant is the reason his company is now seeing the higher IPs "prior to the time that we went to cemented liners in bigger frack jobs."









—MIKE ELLERD

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