

# Director's Cut

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Nov Oil 35,647,735 barrels = 1,188,258 barrels/day  
Dec Oil 38,047,667 barrels = 1,227,344 barrels/day (preliminary)(NEW all-time high)  
1,163,352 barrels per day or 95% from Bakken and Three Forks  
63,992 barrels per day or 5% from legacy conventional pools

Nov Gas 42,932,815 MCF = 1,431,094 MCF/day  
Dec Gas 46,763,810 MCF = 1,508,510 MCF/day (preliminary)(New all-time high)

Nov Producing Wells = 11,951  
Dec Producing Wells = 12,124 (preliminary)(NEW all-time high)  
8,826 wells or 73% are now unconventional Bakken – Three forks wells  
3,298 wells or 27% produce from legacy conventional pools

Nov Permitting: 235 drilling and 1 seismic  
Dec Permitting: 251 drilling and 0 seismic  
Jan Permitting: 246 drilling and 0 seismic (all time high was 370 in 10/2012)

Nov Sweet Crude Price = \$60.61/barrel  
Dec Sweet Crude Price = \$40.74/barrel  
Jan Sweet Crude Price = \$31.41/barrel  
Today Sweet Crude Price = \$34.50/barrel (lowest since February 2009) (all-time high was \$136.29 7/3/2008)

Nov rig count 188  
Dec rig count 181  
Jan rig count 160  
Today's rig count is 137 (lowest since July 2010)(all-time high was 218 on 5/29/2012)  
The statewide rig count is down 37% from the high and in the five most active counties rig count is down as follows:  
Divide -62% (high was 3/2013)  
Dunn -45% (high was 6/2012)  
McKenzie -28% (high was 1/2014)  
Mountrail -41% (high was 6/2011)  
Williams -40% (high was 10/2014)

## Comments:

The drilling rig count dropped 7 from November to December, 21 more from December to January, and has since fallen 23 more from January to today. The number of well completions increased from 48(final) in November to 173(preliminary) in December. Oil

price is by far the biggest driver behind the slow-down, with operators reporting postponed completion work to avoid high initial oil production at very low prices and to achieve NDIC gas capture goals. There were no major precipitation events, only 3 days with wind speeds in excess of 35 mph (too high for completion work), and 2 days with temperatures below -10F.

Over 95% of drilling still targets the Bakken and Three Forks formations.

Completions outpaced drilling in December. At the end of December there were an estimated 750 wells<sup>1</sup> waiting on completion services, a decrease of 25.

Crude oil take away capacity is expected to remain adequate as long as rail deliveries to coastal refineries keep growing.

Rig count in the Williston Basin has fallen rapidly. Utilization rate for rigs capable of 20,000+ feet is about 70%, and for shallow well rigs (7,000 feet or less) less than 50%.

Drilling permit activity increased in December as operators began positioning themselves for various 2015 budget scenarios.

The number of rigs actively drilling on federal surface in the Dakota Prairie Grasslands is unchanged at 0.

Activity on the Fort Berthold Reservation is as follows

21 drilling rigs (13 on fee lands and 8 on trust lands)

371,440 barrels of oil per day (148,886 from trust lands & 222,554 from fee lands)

1,400 active wells (1,059 on trust lands & 341 on fee lands)

165 wells waiting on completion

359 approved drilling permits (227 on trust lands & 132 on fee lands)

1,968 additional potential future wells (1,209 on trust lands & 759 on fee lands)

Seismic activity is in the mid-winter slow down with 5 surveys active/recording, 0 remediating, 0 suspended, and 0 permitted. There are now 4 buried micro-seismic arrays in North Dakota for monitoring and optimizing hydraulic fracturing.

North Dakota leasing activity is very low, consisting mostly of renewals and top leases in the Bakken - Three Forks area.

US natural gas storage is now 0.5% below the five-year average indicating weak prices in the future. North Dakota shallow gas exploration could be economic at future gas prices.

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<sup>1</sup> Disclaimer: The number of completions is an estimate on the part of the director based on idle well count and a typical five year average. Neither the State of North Dakota, nor any agency officer, or employee of the State of North Dakota warrants the accuracy or reliability of this product and shall not be held responsible for any losses caused by this product. Portions of the information may be incorrect or out of date. Any person or entity that relies on any information obtained from this product does so at his or her own risk.

As you are aware the exploration well in Emmons County is no longer on confidential status as of 12/23/14. The well has not been completed yet, but appears to contain 2 pay sections totaling about 80 feet thick with very good gas shows.

The price of natural gas delivered to Northern Border at Watford City is down \$0.26 to \$2.44/MCF. This results in a current oil to gas price ratio of 14 to 1. The percentage of gas flared decreased to 24%. The Tioga gas plant increased to 76% of full capacity, but expansion of gas gathering from south of Lake Sakakawea is still delayed. The December capture percentage was 76% with the daily volume of gas flared from November to December increasing just 2.1 MMCFD. The historical high flared percent was 36% in 09/2011.

Gas capture statistics are as follows:

Statewide 76%

Statewide Bakken 76%

Non-FBIR Bakken 76%

FBIR Bakken 77%

Trust FBIR Bakken 78%

Fee FBIR 75%

October 2014 capture target =74%

January 2015 capture target =77%

BLM revised final regulations for hydraulic fracturing on federal and Indian lands were sent to the White House Office of Management and Budget for interagency review on Dec 26 and Department of Interior continues to be committed to their goal of issuing a final rule soon. After initial publication in 2012, BLM received over 177,000 comments and withdrew the rule. A new proposed rule was published in the federal register on 5/24/2013 and the comment period ended 8/23/2013. This time BLM received over 1.2 million comments. Thanks to all who provided comments in support of a “states first” policy.

BLM has started the process of new venting and flaring regulations with input sessions in Denver, Albuquerque, Dickinson, and Washington, DC.

EPA published an advanced notice of proposed rule-making to seek comment on the information that should be reported or disclosed for hydraulic fracturing chemical substances and mixtures and the mechanism for obtaining this information. The proposed rule-making is in response to a petition from Earthjustice and 114 other groups who are opposed to the use of the GWPC-IOGCC FracFocus website process of chemical disclosure and any type of trade secret protection for hydraulic fracturing fluid mixtures. These groups are requesting EPA regulation of chemical disclosure under the federal Toxic Substances Control Act. Thanks to all who provided comments in support of a “states first” policy.

The comment period for the EPA and USACOE proposed rule redefining “Waters of the United States” ended 11/14/14. The North Dakota Legislature is working on this issue through HB 1432 and HR3009.

The Obama administration officials announced a plan under which the oil and gas industry would have to cut methane emissions by 40 to 45 percent below 2012 levels by 2025. U.S. EPA will issue new regulations this summer under the Clean Air Act, and a final rule would be in place in 2016. EPA's rulemaking will be done under Section 111(b) of the Clean Air Act, which allows regulation of new sources along the oil and gas supply chain. So the new regulations would apply to new and modified pieces of equipment only and would leave older pieces of equipment unregulated. In North Dakota the Clean Air Act is enforced by the Department of Health. Please monitor future Director's cuts for information on the status and how to comment on the proposed rule.

The USFWS has made a decision to list the Dakota Skipper and Poweshiek Skipperling to receive protection under the Endangered Species Act. Additional potential listing of concern are the Rufa Red Knot, Sprague's Pipit, Greater Sage Grouse, Monarch Butterfly, Sturgeon Chub, and Sicklefin Chub.