Director's Cut

Lynn Helms NDIC Department of Mineral Resources

Oil Production

October 36,304,687 barrels = 1,171,119 barrels/day November 35,289,413 barrels = 1,176,314 barrels/day (preliminary)(all-time high was Dec 2014 at 1,227,483 barrels/day) 1,119,379 barrels per day or 95% from Bakken and Three Forks 56,934 barrels per day or 5% from legacy conventional pools

Gas Production

October 51,364,187 MCF = 1,656,909 MCF/day November 50,039,809 MCF = 1,667,994 MCF/day (preliminary)(NEW all-time high)

Producing Wells

October 13,190 November 13,077 (preliminary)(all-time high was October 2015 13,190) 10,655 wells or 81% are now unconventional Bakken – Three forks wells 2,422 wells or 19% produce from legacy conventional pools

Permitting

October 152 drilling and 1 seismic November 125 drilling and 0 seismic December 95 drilling and 0 seismic (all time high was 370 in 10/2012)

ND Sweet Crude Price¹

October \$34.37/barrel November \$32.16/barrel December \$27.57/barrel Today's \$20.00/barrel (lowest since March 2002)(all-time high was \$136.29 7/3/2008)

Rig Count

October 65 November 64 December 64 Today's rig count is 49 (lowest since August 2009 when it was 45)(all-time high was 218 on 5/29/2012)

¹ Pricing Source: <u>Flint Hills Resources</u>

The statewide rig count is down 78% from the high and in the five most active counties rig count is down as follows:

Divide	-77% (high was 3/2013)
Dunn	-74% (high was 6/2012)
McKenzie	-72% (high was 1/2014)
Mountrail	-88% (high was 6/2011)
Williams	-88% (high was 10/2014)

Comments:

The drilling rig count decreased 1 from October to November, held steady from November to December, and decreased 15 so far this month. Operators are now committed to run fewer rigs as oil prices continue to fall. The number of well completions fell sharply from 43(final) in October to 26(preliminary) in November. Oil price weakness is now anticipated to last through this year and is the main reason for the continued slow-down. There were no significant precipitation events, 5 days with wind speeds in excess of 35 mph (too high for completion work), and no days with temperatures below -10F.

Over 97% of drilling now targets the Bakken and Three Forks formations.

At the end of November there were an estimated 969 wells waiting on completion services², only 6 less than at the end of October.

Crude oil take away capacity depends on rail deliveries to coastal refineries to remain adequate.

The drop in oil price associated with anticipation of lifting sanctions on Iran and a weaker economy in China is leading to further cuts in the drilling rig count. Utilization rate for rigs capable of 20,000+ feet is about 35% and for shallow well rigs (7,000 feet or less) about 20%.

Drilling permit activity declined October through November then fell further in December as operators continued to position themselves for low 2016 price scenarios. Operators have a significant permit inventory should a return to the drilling price point occur in the next 12 months.

² Disclaimer: The number of wells waiting on 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.

Rigs actively drilling on federal surface in the Dakota Prairie Grasslands is down to 0.

Activity on the Fort Berthold Reservation is as follows: 11 drilling rigs (2 on fee lands and 9 on trust lands) 199,962 barrels of oil per day (124,161 from trust lands & 75,802 from fee lands) 1,417 active wells (966 on trust lands & 451 on fee lands) 141 wells waiting on completion 536 approved drilling permits (333 on trust lands & 203 on fee lands) 1,823 additional potential future wells (1,302 on trust lands & 521 on fee lands)

Seismic activity is limited to 4 micro-seismic arrays for monitoring and optimizing hydraulic fracturing. There are 4 surveys active/recording, 0 remediating, 0 suspended, and 1 permitted.

North Dakota leasing activity is limited to renewals and top leases in the Bakken - Three Forks area.

US natural gas storage is now 14.67% above the five-year average indicating stable to lower prices in the future. North Dakota shallow gas exploration could be economic at future gas prices, but is not at the current price. The operator of the exploration well (file 27235) in Emmons County has received Temporary Abandoned status on 8/31/15 and cancelled all other permits in the area. The well 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 up \$0.45 to \$2.10/MCF. This results in a current oil to gas price ratio of 9.5 to 1. The percentage of gas flared was up slightly to 16%. The Tioga gas plant was down to 71% of capacity. Even though the expansion of gas gathering from south of Lake Sakakawea was approved, the approval came too late for the 2015 construction season, resulting in a 1 year delay. The November Bakken capture percentage was 85% with the daily volume of gas flared from October to November up 29 MMCFD. The historical high flared percent was 36% in 09/2011. Gas capture statistics are as follows: Statewide 84% Statewide Bakken 85% Non-FBIR Bakken 85% FBIR Bakken 86% Trust FBIR Bakken 85% Fee FBIR 87% 77% January 1, 2015 through March 31, 2016 80% April 1, 2016 through October 31, 2016 85% November 1, 2016 through October 31, 2018 88% November 1, 2018 through October 31, 2020 91% beginning November 1, 2020

The North Dakota Legislature passed HB1432 which sets up a council to address Clean Water Act, Safe Drinking Water Act, Clean Air Act, and Endangered Species Act issues:

BIA has published a new final rule to update the process for obtaining rights of way on Indian land. The rule was published 11/19/15 and becomes effective 12/21/15. The final rule can be found <u>here</u>.

ND is reviewing the rule to determine if it will adversely impact state jurisdiction and may need to file for an injunction or stay.

BLM has published a new final rule to revise Onshore Order 4. The proposed rule would replace Onshore Oil and Gas Order Number 4 (Order 4), which sets minimum standards for the measurement of oil. Order 4 has not been updated since 1989, and does not reflect modern industry practices or standards. The proposed rule may be viewed online at www.regulations.gov Comments on the proposed rule were due December 14, 2015. NDIC comments can be found <u>here</u>.

BLM released a proposed rule on 10/2/15 to update and replace its regulations (Onshore order 5) governing the measurement of natural gas produced from onshore Federal and Indian leases. The requirements contained in the proposed rule reflect advances in measurement technology and critical updates in industry standards and practices. It also responds directly to concerns from the Government Accountability Office (GAO), the Department of the Interior's Office of Inspector General, and Secretary's Subcommittee on Royalty Management, that the BLM's existing rules do not provide adequate assurance that gas production on public and Indian lands is being accounted for in a way that ensures that all royalties are accurately tracked and paid. The proposed rule that would replace Onshore Order 5 may be viewed online at www.blm.gov. Comments on the proposed rule were due December 14, 2015. NDIC comments can be found here.

BLM is continuing the process of new venting and flaring regulations. The information from public and tribal sessions in Denver, Albuquerque, Dickinson, and Washington, DC can be viewed <u>here</u>. <u>NDIC comments</u>

BLM revised final regulations for hydraulic fracturing on federal and Indian lands were published in the CFR on 3/26/15 and they were scheduled to go into effect 6/24/15. North Dakota, Colorado, Utah, Wyoming, Western Energy Alliance, and IPAA filed for a preliminary injunction to prevent the rules going into effect until the case is settled. Following a lengthy hearing in Casper, Wyoming on Aug 23, the court issued a stay on the rules. On 9/30/15 the court granted the preliminary injunction, preventing the rules from being enforced until litigation on the rule is final. Injunction applicants have filed motions regarding the BLM administrative record. Interveners who support the BLM rule have filed motions for appeal. The court denied BLM's motion to split the case and expedite briefing on BLM authority to regulate hydraulic fracturing. The court ordered BLM to serve the

complete administrative record on or before 1/19/16. NDIC comments can be found <u>here</u>.

BLM has published a new final rule to revise Onshore Order 3. The proposed rule would change the way federal production is measured and allocated for calculation of royalties, require a federal Application for Permit to Drill (APD) even for state and private wells in a federal unit or communitized area (CA), and revise the situations in which downhole commingling of production from different leaseholds would be allowed. Comments on the proposed rule were due December 14, 2015. NDIC comments can be found <u>here</u>.

BLM has published the North Dakota Greater Sage-Grouse Proposed Resource Management Plan Amendment and Final EIS. Information on the plan and EIS can be found <u>here</u>:

EPA On October 26, 2015 a coalition of environmental organizations filed a 60 day legal notice with the U.S. Environmental Protection Agency demanding more regulation of drilling and fracking waste. The groups are the Environmental Integrity Project, Natural Resources Defense Council, Earthworks, Responsible Drilling Alliance, San Juan Citizens Alliance, West Virginia Surface Owners Rights Organization, and the Center for Health, Environment and Justice. The groups are calling on EPA to comply with its long-overdue obligations to update waste disposal rules such as instituting stricter controls for underground injection wells, banning the practice of spreading fracking wastewater onto roads or fields, and requiring landfills and ponds that receive drilling and fracking waste to be built with adequate liners and structural integrity to prevent spills and leaks into groundwater and streams. ND is monitoring federal court docket activity and intends to intervene to prevent a sue and settle situation that would adversely impact state regulatory jurisdiction.

EPA on October 18, 2015, EPA proposed a suite of requirements to help combat climate change, reduce air pollution that harms public health, and provide greater certainty about Clean Air Act permitting requirements for the oil and natural gas industry.

The proposed actions are:

o Proposed New Source Performance Standards – Docket ID number EPA-HQ-OAR-2010-0505. NDIC comments can be found <u>here</u>.

o Draft Control Techniques Guidelines – Docket ID number: EPA-HQ-OAR-2015-0216. NDIC comments can be found <u>here</u>

o Proposed Source Determination Rule – Docket ID number: EPA-HQ-OAR-2013-0685. NDIC comments can be found <u>here</u>.

o Proposed Federal Implementation Plan for Implementing Minor New Source Review Permitting in Indian Country – Docket ID number: EPA-HQ-OAR-2014-0606. NDIC comments can be found <u>here</u>. **EPA** published an advanced notice of proposed rule-making to seek comments 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. NDIC comments can be viewed <u>here</u>.

EPA Administrator, Gina McCarthy, and the Assistant Secretary of the Army (Civil Works), Jo Ellen Darcy, signed the "Waters of the United States" final rule on 05/27/2015. The final rule was published in the Federal Register Aug 29, 2015 and became effective in 37 states on October 28, 2015. North Dakota, Alaska, Arizona, Arkansas, Colorado, Idaho, Missouri, Montana, Nebraska, New Mexico, Nevada, South Dakota, and Wyoming filed a lawsuit in U.S. District Court, claiming the final rule would harm states as regulators of the waters and lands. On October 27th Federal District Judge Erickson granted a preliminary injunction preventing enforcement of the rule in the 13 states. The North Dakota case will now be subject to appeal, but no schedule has been set at this time. NDIC comments can be viewed at here.

Texas, Mississippi and Louisiana filed a joint complaint in the U.S. District Court for the Southern District of Texas, charging that the rule is unconstitutional. Ohio and Michigan filed a complaint in the U.S. District Court for the Southern District of Ohio, alleging that the expansion of jurisdiction includes dry land. Georgia and eight other states (Alabama, Florida, Kansas, Kentucky, South Carolina, Utah, West Virginia and Wisconsin) filed suit in the U.S. District Court for the Southern District of Georgia, asking the court to vacate the rule and block its enforcement by injunction. On 10/9/15 the United States Court Of Appeals for the Sixth Circuit granted a nationwide stay of the WOTUS rule pending jurisdiction determinations.

USFWS has made a decision to list the Dakota Skipper and Powershiek 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.