

Director's Cut

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Oil Production

May 32,457,086 barrels = 1,047,003 barrels/day
June 30,797,518 barrels = 1,026,584 barrels/day (preliminary)(all-time high was Dec 2014 at 1,227,483 barrels/day)
973,864 barrels per day or 95% from Bakken and Three Forks
52,720 barrels per day or 5% from legacy conventional pools

Gas Production

May 50,949,416 MCF = 1,643,530 MCF/day
June 49,860,740 MCF = 1,662,025 MCF/day (preliminary)(all-time high was March 2016 at 1,709,945 MCFD)

Producing Wells

May 13,171
June 13,239 (preliminary)(all-time high)
11,129 wells or 84% are now unconventional Bakken – Three forks wells
2,110 wells or 16% produce from legacy conventional pools

Permitting

May 42 drilling and 0 seismic
June 65 drilling and 0 seismic
July 86 drilling and 0 seismic (all time high was 370 in 10/2012)

ND Sweet Crude Price¹

May \$33.74/barrel
June \$38.75/barrel
July \$35.57/barrel
Today \$32.25/barrel (all-time high was \$136.29 7/3/2008)

Rig Count

May 27
June 28
July 31

¹ Pricing Source: [Flint Hills Resources](#)

Today's rig count is 34 (all-time high was 218 on 5/29/2012)

The statewide rig count is down 84% from the high and in the five most active counties rig count is down as follows:

Divide -92% (high was 3/2013)

Dunn -74% (high was 6/2012)

McKenzie -80% (high was 1/2014)

Mountrail -93% (high was 6/2011)

Williams -94% (high was 10/2014)

Comments:

The drilling rig count increased one from May to June, then increased three from June to July, and increased 3 more from July to today. Operators remain committed to running the minimum number of rigs while oil prices remain below \$60/barrel WTI. The number of well completions was almost unchanged from 45(final) in May to 44(preliminary) in June. Oil price weakness is the primary reason for the slow-down and is now anticipated to last into at least the third quarter of this year and perhaps into the second quarter of 2017. There was 1 significant precipitation event, 15 days with wind speeds in excess of 35 mph (too high for completion work), and no days with temperatures below -10F.

Over 98% of drilling now targets the Bakken and Three Forks formations.

Estimated wells waiting on completion² is 887, down 44 from the end of May to the end of June.

Estimated inactive well count³ is 1,486, down 98 from the end of May to the end of June.

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

² 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.

³ Includes all well types on IA and AB statuses.

IA= Inactive shut in >3 months and <12 months

AB= Abandoned (Shut in >12 months)

Low oil price associated with lifting of sanctions on Iran, a weaker economy in China, and the Brexit are expected to lead to continued low drilling rig count. Utilization rate for rigs capable of 20,000+ feet is 25-30% and for shallow well rigs (7,000 feet or less) 15-20%.

Drilling permit activity decreased from May to June increased sharply in June as operators begin to position themselves for higher oil prices in 2017. Operators have a significant permit inventory should a return to the drilling price point occur in the next 12 months.

Rigs actively drilling on federal surface in the Dakota Prairie Grasslands remain at 0.

Activity on the Fort Berthold Reservation is as follows:

6 drilling rigs (0 on fee lands and 6 on trust lands)

166,432 barrels of oil per day (99,785 from trust lands & 66,647 from fee lands)

1,474 active wells (1,015 on trust lands & 459 on fee lands)

168 wells waiting on completion

525 approved drilling permits (334 on trust lands & 191 on fee lands)

1,766 additional potential future wells (1,253 on trust lands & 513 on fee lands)

Seismic activity is unchanged. There are 4 surveys active, 0 recording and 0 NDIC reclamation projects, 0 remediating, 2 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 15.3% above the five-year average indicating continued low 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 down \$0.03 to \$2.41/MCF. This results in a current oil to gas price ratio of 13 to 1. The percentage of gas flared decreased to 9.8%. The Tioga gas plant operated at 81% of capacity. The expansion of gas gathering from south of Lake Sakakawea has experienced approval delays resulting in start-up now anticipated in January 2017. The June Bakken capture percentage was 91% with the daily volume of gas flared from May to June down 16.5 MMCFD. The historical high flared percent was 36% in 09/2011.

Gas capture statistics are as follows:

Statewide 90%

Statewide Bakken 91%

Non-FBIR Bakken 92%

FBIR Bakken 87%

Trust FBIR Bakken 86%
 Fee FBIR 91%

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 became effective 12/21/15. The final rule can be found at <https://www.federalregister.gov/articles/2015/11/19/2015-28548/rights-of-way-on-indian-land>. On June 11, 2016, the Western Energy Alliance filed a complaint and motion for a temporary restraining order and/or a preliminary injunction. On June 19, 2016, the US District court for the District of North Dakota issued an order denying the motion for a preliminary injunction.

BLM has published a proposed 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 can be viewed online at www.regulations.gov. Comments on the proposed rule were due June 14, 2015. NDIC comments can be found at <http://www.nd.gov/ndic/ic-press/BLM-Comments-OnshoreOrder4.pdf>

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 June be viewed online at www.blm.gov. Comments on the proposed rule were due June 14, 2015. NDIC comments can be found at <http://www.nd.gov/ndic/ic-press/BLM-Comments-1004-AE17.pdf>

BLM released a proposed rule on 1/22/16 to update and replace its regulations on venting and flaring of natural gas. The information from public and tribal sessions in Denver, Albuquerque, Dickinson, and Washington, DC can be viewed at http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/public_events_on_oil.html. NDIC comments can be found at <http://www.nd.gov/ndic/ic-press/BLM-comments-140509.pdf>.

Comments on the proposed rule were due June 22, 2016. NDIC comments can be found at <http://www.nd.gov/ndic/ic-press/dmr-blm-43CFR.pdf>

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. The 10th Circuit Court of Appeals issued an order 3/10/16 denying the industry alternative motion for a stay. On 6/21/16 the court found the rule to be unlawful and ordered it set aside. The plaintiffs filed a motion with the US Court of Appeals for the Tenth Circuit to dismiss the appeal of the preliminary injunction. The Department of Justice on behalf of the BLM and the intervening environmental groups plan to appeal the decision on the rule and oppose the motion to dismiss the appeal of the preliminary injunction. NDIC comments on the rule can be found at <http://www.nd.gov/ndic/ic-press/BLM-comments-120625.pdf>

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 June 14, 2015. NDIC comments can be found at <http://www.nd.gov/ndic/ic-press/BLM-Comments-OnshoreOrder3.pdf>

BLM has published the North Dakota Greater Sage-Grouse Proposed Resource Management Plan Amendment and Final EIS. **NDIC is evaluating whether the state needs to intervene in the lawsuit filed by Western Energy Alliance challenging the final plan.** Information on the plan and EIS can be found at the following web addresses: <https://www.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage¤tPageId=48797>

EPA Yesterday, August 11, 2016 EPA's Scientific Advisory Board completed their peer review of the Agency's June 2015 draft of the Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources. The review can be found at [https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebReportsLastMonthBOARD/BB6910FEC10C01A18525800C00647104/\\$File/EPA-SAB-16-005+Unsigned.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebReportsLastMonthBOARD/BB6910FEC10C01A18525800C00647104/$File/EPA-SAB-16-005+Unsigned.pdf) EPA will use the SAB's final comments and suggestions, along with relevant literature published since the release of the draft assessment, and public comments received by the Agency, to revise and finalize the assessment. **The NDIC is evaluating the potential impacts of the peer review to determine if any action is appropriate.** NDIC comments on the EPA Assessment can be found at <http://www.nd.gov/ndic/ic-press/DMR-EPA-HydraulicFractureComments.pdf>

EPA On May 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. On June 4, 2016 the same environmental groups filed suit against the EPA in the federal district court for the District of Columbia. The Plaintiffs Allege that EPA "has failed to meet its nondiscretionary duty" under the federal Resource Conservation and Recovery Act (RCRA) to review and revise the RCRA Subtitle D solid waste regulations for O&G wastes every three years and that EPA last completed such a review in 1988 and that EPA has failed to review or revise the guidelines for state solid waste plans since 1981.

Plaintiffs want to force EPA to do two things-

1. Issue more stringent regulations for managing and disposing of O&G wastes, including on issues such as open-air pits and impoundments used for storing O&G wastewater, underground injection wells, and the transportation of O&G wastes by truck or pipeline.
2. Make the state solid waste plan guidelines more stringent and comprehensive.

The document filed in the suit can be found at <http://environmentalintegrity.org/wp-content/uploads/2016-05-04-RCRA-OG-Wastes-Deadline-Suit-Complaint-FILED.pdf>

On June 30, 2016 North Dakota filed motions to intervene in order to prevent a sue and settle situation that would adversely impact state regulatory jurisdiction and to dismiss the case. Motions to Intervene were also filed by the Texas Railroad Commission, American Petroleum Institute, Independent Petroleum Association of America, and the association of Texas oil and gas producer/royalty owners (TIPRO). The court has granted the US government's request for an extension of time until September 5 to file its consolidated opposition to the three pending motions to intervene. North Dakota will have until September 23 to file a reply.

EPA Prime Minister Justin Trudeau and President Barack Obama announced Thursday 3/10/16 their two countries will work together to reduce methane emissions from the oil and gas sector by 40 to 45 per cent below 2012 levels by 2025. On June 3, 2016 the proposed "Information Collection Effort for Oil and Gas Facilities" was published in the Federal Register on June 3, 2016. The notice and supporting statement along with the operator survey and facility survey can be found at <https://www3.epa.gov/airquality/oilandgas/actions.html>. Comments on the proposed information collection were due August 2, 2016. **NDIC comments can be found** at <http://www.nd.gov/ndic/ic-press/dmr-epa-comments2016-0204.pdf>

EPA On June 3, 2016 the final rule proposing a suite of changes to Clean Air Act permitting requirements for new and modified emissions sources in the oil and natural gas industry was published in the Federal Register. **On June 29, 2016 the NDIC decided to file a Petition for Review with the US Appeals Court for the District of**

Columbia to defend the state’s sovereign jurisdiction over oil and gas regulation. Thirteen other states have joined this effort.

The proposed actions and NDIC comments are as follows:

- o Proposed New Source Performance Standards – Docket ID number EPA-HQ-OAR-2010-0505. NDIC comments can be found at <http://www.nd.gov/ndic/ic-press/EPA-HQ-OAR-2010-0505.pdf>
- o Draft Control Techniques Guidelines – Docket ID number: EPA-HQ-OAR-2015-0216. NDIC comments can be found at <http://www.nd.gov/ndic/ic-press/EPA-HQ-OAR-2015-0216.pdf>
- o Proposed Source Determination Rule – Docket ID number: EPA-HQ-OAR-2013-0685. NDIC comments can be found at <http://www.nd.gov/ndic/ic-press/EPA-HQ-OAR-2013-0685.pdf>
- 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 at <http://www.nd.gov/ndic/ic-press/EPA-HQ-OAR-2014-0606.pdf>

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 at <http://www.nd.gov/ndic/ic-press/DMR-frac714.pdf>

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 May 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 May 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 <http://www.nd.gov/ndic/ic-press/WOTUS-comments.pdf>

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.

USFWS has published a new final rule to revise Management of Non-Federal Oil and Gas Rights. Key components of the proposed rule include: A permitting process for new operations; A permitting process for well plugging and reclamation for all operations; Information requirements for particular types of operations; Operating standards so that both the Service and the operator can readily identify what standards apply to particular operations; Fees for new access beyond that held as part of the operator's oil and gas right; Financial assurance (bonding); Penalty provisions; Clarification that the process for authorizing access to non-Federal oil and gas properties in Alaska will continue to be controlled by 43 CFR part 36, which implements provisions of the Alaska National Interest Lands Conservation Act; and Codification of some existing agency policies and practices. The proposed rule June be viewed online at <http://www.fws.gov/policy/library/2015/2015-30977.html> comments on the proposed rule were due June 9, 2016. NDIC comments can be found at <http://www.nd.gov/ndic/ic-press/DMR-FWS-0086.pdf> On June 28, 2016 USFWS published the handbook for implementing the rule. On July 11, 2016 Congressman Cramer successfully included a prohibition on funding for the US Fish and Wildlife Service Management of Non-Federal Oil and Gas rule in the House Interior and Environment Appropriations bill which has a number of other provisions prohibiting this Administration from infringing on State's rights. **The NDIC is evaluating the impacts of rule and handbook to determine if legal action is appropriate.**

Updated breakeven prices for second quarter 2016 well cost and price levels are as follows:

	2Q 2016	August-16	June-16	Wells
August-16	Breakeven	August-16	June-16	NC
\$42	WTI \$/BO	Rigs		
Billings	\$47*	0	627	5
Bottineau-Renville	+\$100	0	1,033	2
Bowman-Slope	+\$100	0	540	0
Burke	\$83	1	628	2
Divide	\$86	1	802	48
Dunn	\$16	10	1,933	128
Golden Valley	\$78*	1	102	1
McKenzie	\$24	15	4,028	351
McLean	\$29*	0	59	7
Mountrail	\$38	3	2,635	190
Stark	\$29	0	277	4
Williams	\$23	3	2,427	149
Statewide	\$26	34	15,130	887

* Information from previous quarter, too little data to calculate new value