

BEFORE THE INDUSTRIAL COMMISSION
OF THE STATE OF NORTH DAKOTA

CASE NO. 22058
(CONTINUED)
ORDER NO. 24665

IN THE MATTER OF A HEARING CALLED ON
A MOTION OF THE COMMISSION TO
CONSIDER AMENDING THE CURRENT
BAKKEN, BAKKEN/THREE FORKS, AND/OR
THREE FORKS POOL FIELD RULES TO
RESTRICT OIL PRODUCTION AND/OR
IMPOSE SUCH PROVISIONS AS DEEMED
APPROPRIATE TO REDUCE THE AMOUNT OF
FLARED GAS.

ORDER OF THE COMMISSION

THE COMMISSION FINDS:

- (1) This cause originally came on for hearing at 9:00 a.m. on the 22nd day of April, 2014.
- (2) North Dakota Industrial Commission (Commission) Order No. 24392, signed May 14, 2014 continued the decision in this matter for an additional ninety days.
- (3) This hearing was called on a motion of the Commission to consider amending the current Bakken, Bakken/Three Forks, and/or Three Forks Pool field rules to restrict oil production and/or impose such provisions as deemed appropriate to reduce the amount of flared gas.

This special hearing was scheduled to address the Commission's newly-adopted policy on reducing gas flaring. The policy goals were to reduce the flared volume of gas, reduce the number of wells flaring, and reduce the duration of flaring from wells.

Action items to reach the policy goals included requiring Gas Capture Plans for increased density, temporary spacing, and proper spacing cases; requiring Gas Capture Plans for all applications for a permit to drill; schedule semi-annual meetings with midstream gas gathering companies to gauge the effect of Gas Capture Plans, production curtailments, contracts, and service interruptions; dedicate information technology resources to develop a web-based pipeline incident report form to better assess right-of-way issues; direct the Pipeline Authority to track flaring on/off the Fort Berthold Indian Reservation and report capture status versus goals; and docket this hearing to review and revise Bakken, Bakken/Three Forks, and/or Three Forks Pool rules governing production curtailment.

(4) Prior to the hearing, the Commission indicated it was seeking testimony of technical nature for input on the following:

- a. Length of time wells should be allowed to produce at maximum while flaring?
- b. What production rate restrictions are appropriate for wells connected to gas gathering or beneficial uses?
- c. What types of administrative approval of exemptions from production restrictions are appropriate?
- d. What consideration should be given to ambient air quality regarding production rates or restrictions?
- e. Should production rates and restrictions be adjusted for well economics and percentage of gas captured by well site, field-pool, region or operator?
- f. Should production rates for wells not connected to gas gathering or beneficial uses be reduced in stages or set at a low rate after payout?

Written comments were allowed no later than 5:00 p.m., Monday, April 21, 2014.

(5) The Commission received written comments from Toby Schweitzer of Bakken Frontier LLC, Caleb Young employed in the oil and gas industry, Srinu Raghavan of Navi Reliance Group LLC, Gary Preszler of the North Dakota Chapter of the National Association of Royalty Owners, Alexis Brinkman of the North Dakota Petroleum Council, Roger Kelley of Continental Resources Inc. representing the Domestic Energy Producers Alliance, Tex Hall of the Mandan Hidatsa and Arikara Nation, Gordon Vaskey of Zavanna LLC, Taylor Reid of Oasis Petroleum North America LLC, Kenneth Klanika of Statoil Oil and Gas LP, Danette Welsh of ONEOK Inc., Dominic Spencer of Triangle USA Petroleum Corporation, Andrew Logan of Ceres, Mark Borla of SM Energy Company, Lisa Casarez a member of the Fort Berthold Indian Reservation, Adam Bishop of Hunt Oil Company, Abby Sharp and Kimberly Croll of Caliber Midstream Partners LP, Mark Wald of Blaise Energy, Jeremy Conger of WPX Energy Williston LLC, James Kennedy of Fidelity Exploration & Production Company, Ralph Castille of ConocoPhillips Company, Jeff Herman of Petro-Hunt LLC, Joel Noyes of Hess Corporation, Don Morrison of the Dakota Resource Council, Brent Miller of Whiting Oil and Gas Corporation, Stephanie Chase of the Environmental Law & Policy Center, and Wessel Nel of Hatch Ltd.

The following concerned land/royalty owners also submitted written comments: Tim Stroh and Eugene Bardal.

The following concerned citizens also submitted written comments: Wally Stephens, Peggy Klein, Al Coen, Susan and Paul Bultsma, Carol Nelson, Lyle and Susan Best, Pete and Vawnita Best, Galen Grote, Norma Stenslie, Joletta Bird Bear, James Stewart, Corinne L., Shelly Ventsch, Candance Kraft, Rose Veeder, Cedar Gillette, and Curtis Bardal.

(6) The Commission received oral comments at the hearing from Lyle Best a landowner near Watford City, Ron Ness of the North Dakota Petroleum Council, Brad Aman of Continental Resources Inc., Roger Kelley of Continental Resources Inc. representing the Domestic Energy Producers Alliance, Jeremy Conger of WPX Energy Williston LLC, Brent Miller of Whiting Oil and Gas Corporation, Danette Welsh of ONEOK Inc., Brian Cebull of GUIT LLC, Ralph Castille of ConocoPhillips Company, Theodora Bird Bear of the Dakota Resource Council, Scott Skokos of the Dakota Resource Council, Lance Langford of Statoil Oil & Gas LP, Tony Lucero of

Enerplus Resources USA Corporation, Tom Wheeler of Northwest Landowners Association, Mark Borla of SM Energy Company, Bryant Winn of Petro-Hunt LLC, Dan Grossman of the Environmental Defense Fund, Jerrold Mayer of Zavanna LLC, Walter Breidenstein of Gas Technologies, Wayde Schafer of the Sierra Club, Andy Peterson of the Greater North Dakota Chamber, Toby Schweitzer of Bakken Frontier LLC, Carey Doyle of the Mandan Hidatsa and Arikara Nation, and William McCabe of Missouri River Resources.

(7) Having allowed all interested persons an opportunity to be heard and having heard, reviewed, and considered all testimony and evidence presented, the Commission makes the following conclusions. Much of the testimony was relevant, but did not address the six topics on which the Commission sought testimony.

(8) The typical Bakken, Bakken/Three Forks, and/or Three Forks Pool is defined as that accumulation of oil and gas found in the interval from 50 feet above the Bakken Formation to above the top of the Birdbear Formation within the limits of any given field. To ease confusion, the Pool will collectively be hereinafter referred to as the Bakken Pool.

(9) Development of Bakken Pools in North Dakota is currently ongoing and encompasses over 15,000 square miles of land. Total gas plant capacity in North Dakota exceeds total gas production in the state although many bottlenecks exist in the current gas gathering infrastructure due to the high liquid content of the gas, the prolific volumes of oil and gas during initial production, increasing pipeline pressure that requires installation of additional compressors, and in some cases undersized pipe. Most operators are prudently attempting to connect their wells to a gas gathering system, but due to many aforementioned constraints in the gas gathering systems, much of the gas is not processed.

(10) Bakken Pools producing in North Dakota are oil reservoirs and gas is produced in association with the oil at the wellhead as a by-product of oil production. The value of the oil produced far exceeds the value of any gas produced in association with the oil.

(11) Leasehold interests in some Bakken Pool spacing units are not yet held by production. The initial horizontal well drilled in such spacing units should be allowed to produce at its maximum efficient rate, regardless if the well is connected to a gas gathering system. Allowing such wells to produce at a maximum efficient rate will allow valuable information to be obtained in order to make decisions with regard to future wells and infrastructure requirements in the spacing unit.

(12) Some Bakken Pool spacing units are being developed where the operator is aware that the existing gas gathering infrastructure is insufficient to allow surplus gas to be processed through the gas gathering system. In instances where significant amounts of surplus gas is flared due to the insufficient collection system, production should be restricted unless significant amounts of surplus gas is captured for beneficial consumption, or utilized in a value-added process.

(13) Some Bakken Pools could have up to five separate horizontal targets, resulting in as many as twenty-eight wells within the same spacing unit.

(14) Various time frames for maximum efficient rates were suggested. North Dakota's production of Bakken Pool associated gas is typically associated with an unusually high

temperature, pressure, and liquid content. Initial production decline is also very rapid, due to the highly fractured nature of the completion interval.

(15) The Commission believes the North Dakota Petroleum Council's Flaring Task Force's targets of capturing 74% of the gas by October 1, 2014; 77% by January 1, 2015; 85% by January 1, 2016; and 90% by October 1, 2020 with potential for 95% capture are attainable and should be adopted as gas capture goals by the Commission. The restrictions imposed by this order will strive to meet such goals.

(16) Production restrictions imposed by the Commission will constitute force majeure in most producer/gas gatherer contracts and excuse parties from performing certain parts of the contract while production restrictions are imposed.

(17) Delineation drilling activity versus multi-well development requires separate and unique solutions.

(18) Pipeline construction across rough topography or around surface waters causes delays in connecting wells to a gas gathering system.

(19) Flexibility is required due to surface landowner, tribal, and federal government right-of-way delays; temporary midstream down-time for system upgrades and maintenance; federal regulatory restrictions or delays; safety issues; delayed access to electrical power; and possible reservoir damage.

(20) Well payout and economics should not be used to determine production restrictions.

(21) Some well site value-added processes that utilize the surplus gas in a beneficial manner are economic.

(22) Commission production records indicate the majority of gas flared in North Dakota is from wells already connected to a gas gathering system. Such wells should not be excluded from gas capture goals adopted by the Commission.

(23) Some flared gas contains components that if improperly combusted could cause air quality degradation and health issues.

(24) On the Fort Berthold Indian Reservation, many Bakken Pools are also within the jurisdiction of the Mandan Hidatsa and Arikara (MHA) Nation and Bureau of Land Management (BLM). In some cases, companies must comply with MHA Nation, BLM, and Commission rules. The Commission should work with federal and tribal authorities to ensure that restrictions imposed herein provide clarity and protection of correlative rights for the oil and gas companies operating in the respective jurisdictions.

(25) The production allowances and restrictions imposed herein will provide for the effective and efficient recovery of oil from the Bakken Pool, encourage rapid development, avoid the drilling of unnecessary wells, and prevent waste in a manner that will protect correlative rights.

IT IS THEREFORE ORDERED:

(1) All Commission orders allowing wells completed in a Bakken, Bakken/Three Forks, and/or Three Forks Pool to produce at a maximum efficient rate shall remain in full force and effect through September 30, 2014. All wells completed in a Bakken, Bakken/Three Forks, and/or Three Forks Pool are hereafter allowed to produce at a maximum efficient rate through September 30, 2014. After September 30, 2014, the gas capture from all existing wells shall be evaluated and oil production from all existing and future wells shall not exceed the production allowances herein.

(2) The first horizontal well completed in a Bakken, Bakken/Three Forks, and/or Three Forks Pool non-overlapping spacing unit shall be allowed to produce at a maximum efficient rate.

(3) All wells completed in a Bakken, Bakken/Three Forks, and/or Three Forks Pool that have received an exemption to North Dakota Century Code Section 38-08-06.4 shall be allowed to produce at a maximum efficient rate.

(4) All infill horizontal wells, including overlapping spacing units, completed in a Bakken, Bakken/Three Forks, and/or Three Forks Pool, shall be allowed to produce at a maximum efficient rate for a period of 90 days commencing on the first day oil is produced through well-head equipment into tanks from the ultimate producing interval after casing has been run; after that, such wells shall be allowed to continue to produce at a maximum efficient rate if the well or operator meets or exceeds the Commission approved gas capture goals. The gas capture percentage shall be calculated by summing monthly gas sold plus monthly gas used on lease plus monthly gas processed in a Commission approved beneficial manner, divided by the total monthly volume of associated gas produced by the operator. The operator is allowed to remove the initial 14 days of flowback gas in the total monthly volume calculation. The Commission will accept compliance with the gas capture goals by well, field, county, or statewide by operator. If such gas capture percentage is not attained at maximum efficient rate, the well(s) shall be restricted to 200 barrels of oil per day if at least 60% of the monthly volume of associated gas produced from the well is captured, otherwise oil production from such wells shall not exceed 100 barrels of oil per day.

The Commission will recognize the following as surplus gas being utilized in a beneficial manner:

- a. Equipped with an electrical generator that consumes surplus gas from the well;
- b. Equipped with a system that intakes the surplus gas and natural gas liquids volume from the well for beneficial consumption by means of compression to liquid for use as fuel, transport to a processing facility, production of petrochemicals or fertilizer, conversion to liquid fuels, separating and collecting the propane and heavier hydrocarbons; and
- c. Equipped with other value-added processes as approved by the Director which reduce the volume or intensity of the flare by more than 60%.

(5) If the flaring of gas produced with crude oil from a Bakken, Bakken/Three Forks, and/or Three Forks Pool is determined by the North Dakota Department of Health as causing a

violation of the North Dakota Air Pollution Control Rules (North Dakota Administrative Code Article 33-15), production from the respective pool may be further restricted.

- (6) This order shall remain in full force and effect until further order of the Commission.

Dated this 1st day of July, 2014.

INDUSTRIAL COMMISSION
STATE OF NORTH DAKOTA

/s/ Jack Dalrymple, Governor

/s/ Wayne Stenehjem, Attorney General

/s/ Doug Goehring, Agriculture Commissioner