

BEFORE THE INDUSTRIAL COMMISSION  
OF THE STATE OF NORTH DAKOTA

CASE NO. 19792  
ORDER NO. 22099

IN THE MATTER OF A HEARING CALLED ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF SM ENERGY CO. FOR AN ORDER AMENDING THE APPLICABLE ORDERS FOR THE AMBROSE, WEST AMBROSE, AND COLGAN-BAKKEN POOLS (1) TO ALLOW UP TO EIGHT HORIZONTAL WELLS TO BE DRILLED ON SOME OR ALL OF THE 1280-ACRE SPACING UNITS WITHIN SAID POOLS; (2) TO ESTABLISH TWENTY-TWO OVERLAPPING 2560-ACRE SPACING UNITS IN ONE OR MORE OF SAID POOLS AND ALLOW ONE OR MORE HORIZONTAL WELLS TO BE DRILLED THEREON, SAID OVERLAPPING SPACING UNITS DESCRIBED AS SECTIONS 16, 17, 20, AND 21; SECTIONS 17, 18, 19, AND 20; SECTIONS 28, 29, 32, AND 33; SECTIONS 29, 30, 31, AND 32, T.163N., R.99W.; SECTIONS 18 AND 19, T.163N., R.99W. AND SECTIONS 13 AND 24, T.163N., R.100W.; SECTIONS 30 AND 31, T.163N., R.99W. AND SECTIONS 25 AND 36, T.163N., R.100W.; SECTIONS 1, 2, 11, AND 12; SECTIONS 2, 3, 10, AND 11; SECTIONS 3, 4, 9, AND 10; SECTIONS 4, 5, 8, AND 9; SECTIONS 5, 6, 7, AND 8; SECTIONS 13, 14, 23, AND 24; SECTIONS 14, 15, 22, AND 23; SECTIONS 15, 16, 21, AND 22; SECTIONS 16, 17, 20, AND 21; SECTIONS 17, 18, 19, AND 20; SECTIONS 25, 26, 35, AND 36; SECTIONS 26, 27, 34, AND 35; SECTIONS 27, 28, 33, AND 34, T.163N., R.100W.; SECTIONS 18 AND 19, T.163N., R.100W. AND SECTIONS 13 AND 24, T.163N., R.101W.; SECTIONS 13, 14, 23, AND 24; AND SECTIONS 14, 15, 22, AND 23, T.163N., R.101W.; DIVIDE COUNTY, ND; AND (3) GRANTING SUCH OTHER RELIEF AS MAY BE APPROPRIATE.

ORDER OF THE COMMISSION

THE COMMISSION FINDS:

- (1) This cause came on for hearing at 9:00 a.m. on the 27th day of March, 2013.
- (2) The witnesses for SM Energy Company (SM Energy) provided telephonic testimony in this matter pursuant to North Dakota Administrative Code (NDAC) Section 43-02-03-88.2. Telephonic Communication Affidavits were received on April 8, 2013; therefore, such testimony may be considered evidence.
- (3) SM Energy made application to the Commission for an order amending the applicable orders for the Ambrose, West Ambrose, and Colgan-Bakken Pools to allow up to eight horizontal wells to be drilled on some or all of the 1280-acre spacing units within said pools; to establish twenty-two overlapping 2560-acre spacing units in one or more of said pools and allow one or more horizontal wells to be drilled thereon, said overlapping spacing units described as Sections 13, 14, 23, and 24; Sections 14, 15, 22, and 23, Township 163 North, Range 101 West; Sections 13 and 24, Township 163 North, Range 101 West and Sections 18 and 19, Township 163 North, Range 100 West; Sections 1, 2, 11, and 12; Sections 2, 3, 10, and 11; Sections 3, 4, 9, and 10; Sections 4, 5, 8, and 9; Sections 5, 6, 7, and 8; Sections 13, 14, 23, and 24; Sections 14, 15, 22, and 23; Sections 15, 16, 21, and 22; Sections 16, 17, 20, and 21; Sections 17, 18, 19, and 20; Sections 25, 26, 35, and 36; Sections 26, 27, 34, and 35; Sections 27, 28, 33, and 34, Township 163 North, Range 100 West; Sections 13 and 24, Township 163 North, Range 100 West and Sections 18 and 19, Township 163 North, Range 99 West; Sections 25 and 36, Township 163 North, Range 100 West and Sections 30 and 31, Township 163 North, Range 99 West; Sections 16, 17, 20, and 21; Sections 17, 18, 19, and 20; Sections 28, 29, 32, and 33; and Sections 29, 30, 31, and 32, Township 163 North, Range 99 West, Divide County, North Dakota; and granting such other relief as may be appropriate.
- (4) Order No. 21817 entered in Case No. 19515, the most recent spacing order for the Colgan-Bakken Pool, established temporary spacing for the development of Zone I at up to four horizontal wells per 800 acres, Zones II and III at up to four horizontal wells per 1280 acres, and Zone IV at one horizontal well per 1600 acres.
- (5) Order No. 20827 entered in Case No. 18451, the most recent spacing order for the West Ambrose-Bakken Pool, established proper spacing for the development of Zone I at one horizontal well per 800 acres, Zone II at one horizontal well per 1280 acres, Zone III at up to four horizontal wells per 1280 acres, Zone IV at up to seven horizontal wells per 1280 acres, Zone V at one horizontal well per 1600 acres, and Zone VI at a minimum of four horizontal wells, up to twelve horizontal wells, per 2080 acres.
- (6) Order No. 20561 entered in Case No. 18292, the most recent spacing order for the Ambrose-Bakken Pool, established proper spacing for the development of Zone I at one horizontal well per 640 acres, Zone II at up to three horizontal wells per 640 acres, Zone III at one horizontal well per 800 acres, Zone IV at up to seven horizontal wells per 800 acres, Zones V and VI at one horizontal well per 1280 acres, Zone VII at up to three horizontal wells per 1280 acres, Zone VIII at up to four horizontal wells per 1280 acres, Zone IX at up to seven horizontal wells per 1280 acres, Zone X at a minimum of four horizontal wells, up to twelve horizontal wells, per 2080 acres, and Zone XI at up to thirteen horizontal wells per 2560 acres.

(7) SM Energy operates the following standup 1280-acre spacing units in Zone II in the Colgan-Bakken Pool: Sections 13 and 24; Sections 14 and 23; Sections 15 and 22, Township 163 North, Range 101 West; Sections 5 and 8; Sections 6 and 7; Sections 17 and 20; and Sections 18 and 19, Township 163 North, Range 100 West, Divide County, North Dakota.

(8) SM Energy operates the following standup 1280-acre spacing units in Zone III in the West Ambrose-Bakken Pool: Sections 1 and 12; Sections 2 and 11; Sections 3 and 10; Sections 4 and 9; Sections 13 and 24; Sections 14 and 23; Sections 15 and 22; Sections 16 and 21; Sections 26 and 35; Sections 27 and 34; Sections 28 and 33, Township 163 North, Range 100 West; and Sections 18 and 19, Township 163 North, Range 99 West, Divide County, North Dakota.

(9) SM Energy operates the following standup 1280-acre spacing unit in Zone IV in the West Ambrose-Bakken Pool: Sections 25 and 36, Township 163 North, Range 100 West, Divide County, North Dakota.

(10) SM Energy operates the following standup 1280-acre spacing units in Zone VIII in the Ambrose-Bakken Pool: Sections 16 and 21; Sections 17 and 20; Sections 28 and 33; Sections 29 and 32; and Sections 30 and 31, Township 163 North, Range 99 West, Divide County, North Dakota. Said lands comprise Zone VIII in its entirety.

(11) SM Energy's idealized development plan for each standup 1280-acre spacing unit described in paragraphs (7), (8), (9), and (10) above is to drill seven horizontal wells approximately 660 feet apart parallel to the long axis of the spacing unit, four in the middle member of the Bakken Formation alternating with three in the upper Three Forks Formation. Utilization of horizontal drilling technology as proposed would result in the wells being completed at a location or locations not in compliance with current applicable spacing orders for the Colgan, West Ambrose, or Ambrose-Bakken Pools. The horizontal well design proposed may be preliminary and could be changed for various reasons which is permissible as long as the horizontal well design still justifies the spacing unit.

(12) SM Energy's general idealized development plan for each 2560-acre spacing unit described as Sections 13, 14, 23, and 24; Sections 14, 15, 22, and 23, Township 163 North, Range 101 West; Sections 13 and 24, Township 163 North, Range 101 West and Sections 18 and 19, Township 163 North, Range 100 West; Sections 1, 2, 11, and 12; Sections 2, 3, 10, and 11; Sections 3, 4, 9, and 10; Sections 4, 5, 8, and 9; Sections 5, 6, 7, and 8; Sections 13, 14, 23, and 24; Sections 14, 15, 22, and 23; Sections 15, 16, 21, and 22; Sections 16, 17, 20, and 21; Sections 17, 18, 19, and 20; Sections 25, 26, 35, and 36; Sections 26, 27, 34, and 35; Sections 27, 28, 33, and 34, Township 163 North, Range 100 West; Sections 13 and 24, Township 163 North, Range 100 West and Sections 18 and 19, Township 163 North, Range 99 West; Sections 25 and 36, Township 163 North, Range 100 West and Sections 30 and 31, Township 163 North, Range 99 West; Sections 16, 17, 20, and 21; Sections 17, 18, 19, and 20; Sections 28, 29, 32, and 33; and Sections 29, 30, 31, and 32, Township 163 North, Range 99 West, Divide County, North Dakota, is to drill a horizontal well (lease-line well) in the upper Three Forks Formation down the north-south section lines between the corresponding standup 1280-acre spacing units. Utilization of horizontal drilling technology as proposed would result in the wells being completed at a location or locations not in compliance with current applicable spacing orders for the Colgan, West Ambrose, or Ambrose-Bakken Pools. The

horizontal well design proposed may be preliminary and could be changed for various reasons which is permissible as long as the horizontal well design still justifies the spacing unit.

(13) In 2560-acre spacing units for section line horizontal wells, which necessarily overlap into two fields, the Commission should establish the 2560-acre spacing unit in the first field alphabetically.

(14) SM Energy requested that Three Forks Formation lease-line horizontal wells in the proposed 2560-acre spacing units be located in a 400-foot corridor and middle member Bakken Formation lease-line horizontal wells in the proposed 2560-acre spacing units be located in an 800-foot corridor; with the exception of the two 2560-acre spacing units described as Sections 1, 2, 11, and 12, Township 163 North, Range 100 West; and Sections 17, 18, 19, and 20, Township 163 North, Range 99 West, Divide County, North Dakota, where they requested an 800-foot corridor for a Three Forks Formation lease-line well.

(15) Murex Petroleum Corporation (Murex) appeared at the hearing in opposition to the 400-foot and 800-foot corridors, instead suggesting a 200-foot corridor for a lease-line well.

(16) SM Energy testified they have not drilled any horizontal wells in the middle member of the Bakken Formation in the Colgan, West Ambrose, or Ambrose-Bakken Pools although there have been several drilled in the area. The majority of the development has been in the upper Three Forks Formation. Both SM Energy and Murex agreed the economic viability of horizontal wells in the middle member of the Bakken Formation in this area is uncertain.

(17) SM Energy requested up to two horizontal lease-line wells per 2560-acre spacing unit to allow flexibility to drill middle member Bakken Formation lease-line wells if found economic.

(18) SM Energy testified their development goal is to space the laterals equidistant, with 1200 to 1300 feet between laterals in the same zone and consequently approximately 600 feet between adjacent laterals in separate zones. SM Energy testified this development scenario is based upon reservoir performance and micro-seismic information and believe it will allow them to properly manage the reservoirs and drainage between laterals. SM Energy stated their goal of laterals spaced equidistant will require locating of Three Forks Formation lease-line wells in Sections 1 and 12, Township 163 North, Range 100 West; and Sections 17 and 20, Township 163 North, Range 99 West, Divide County, North Dakota, up to 400 feet off the adjacent section line.

(19) Murex's leasehold interest in Sections 1 and 12, Township 163 North, Range 100 West; and Sections 2 and 11, Township 163 North, Range 100 West, Divide County, North Dakota, is 9.3848% and 0.1%, respectively.

(20) SM Energy testified they believe the fracture half-length is 600 to 700 feet in their fracture stimulated wells and they have seen pressure and fluid communication between wells during fracture stimulation. SM Energy and Murex agreed that fracture growth is likely preferential towards lower pressure in the reservoir. SM Energy believes preferential fracture growth in one direction because laterals in the same zone are too closely spaced will result in under-stimulated reservoir in the opposite direction resulting in bypassed reserves, and they desire to stimulate as much of the reservoir as possible.

(21) SM Energy testified they have only seen minor interference between laterals greater than 1100 feet apart and would not likely drill wells less than 1000 feet apart, since they believe it would cause waste.

(22) Murex believes the majority of reserves in a horizontal well located 400 feet from the interior north-south section lines in a 2560-acre spacing unit will come from the 1280-acre spacing unit in which it is located and that such a well should be an exception location well. Murex believes the closer the lateral is to the interior north-south section lines in a 2560-acre spacing unit, the more likely it is to drain reserves equally from both standup 1280-acre spacing units.

(23) SM Energy agreed a horizontal lease-line well located in a 200-foot corridor better protects correlative rights but would not drill said well where it does not meet their goal of spacing the laterals equidistant, with 1200 to 1300 feet between laterals in the same zone.

(24) Murex does not believe a horizontal well located 400 feet from the interior north-south section lines in a 2560-acre spacing unit protects correlative rights.

(25) Murex testified it is premature to consider middle member Bakken Formation wells as lease-line wells.

(26) The Commission agrees that middle member Bakken Formation wells should not be allowed as lease-line wells until their economic viability is established.

(27) The Commission believes that lease-line wells should be located approximately on the section lines with some allowance for local reservoir conditions and existing Bakken Pool wells. Current setback requirements in Bakken Pools for standup 1280-acre spacing units require a 500-foot setback from the east and west boundaries, leaving a minimum 1000-foot window between adjacent horizontal wells in adjacent spacing units. The purpose of a lease-line horizontal well is to recover the reserves from this 1000-foot window without unfairly encroaching on an existing horizontal well completed in a 1280-acre spacing unit or unfairly encroaching on the mineral or leasehold interest if the acreage is undeveloped or underdeveloped.

(28) The Commission must balance its duty to prevent waste and its duty to protect correlative rights. The Commission must weigh all factors and then issue a decision which best protects the correlative rights of all interested parties.

(29) The Commission understands not all development on both sides of a north-south lease-line will be symmetrical in all cases therefore the Commission should allow this lease-line development to take place within a 500-foot corridor to best protect the correlative rights of all interested parties.

(30) The Commission understands SM Energy's goal of equidistant spacing between laterals but was provided insufficient evidence detailing fracture geometry and interference that would justify a horizontal lease-line well in a 2560-acre spacing unit being as far as 400 feet from the interior north-south section lines while still protecting the correlative rights of all interested parties.

(31) Establishment of the proposed 2560-acre spacing units with one horizontal well allowed in the Three Forks Formation will prevent waste, avoid the drilling of unnecessary wells, and best protect the correlative rights of all interested parties.

(32) If SM Energy's activities are successful, greater ultimate recovery of oil and gas from the pool will be achieved which will prevent waste and the drilling of unnecessary wells in a manner which will not have a detrimental effect on correlative rights.

**IT IS THEREFORE ORDERED:**

(1) Sections 13 and 24; Sections 14 and 23; Sections 15 and 22, Township 163 North, Range 101 West; Sections 5 and 8; Sections 6 and 7; Sections 17 and 20; and Sections 18 and 19, Township 163 North, Range 100 West, Divide County, North Dakota, are hereby established as standup 1280-acre spacing units for the exclusive purpose of drilling up to seven horizontal wells within each said spacing unit within the Colgan-Bakken Pool and Zone III is hereby redefined to include said spacing units. Existing and future vertical and directional wells drilled within the spacing units herein established shall not be subject to this order.

(2) Sections 1 and 12; Sections 2 and 11; Sections 3 and 10; Sections 4 and 9; Sections 13 and 24; Sections 14 and 23; Sections 15 and 22; Sections 16 and 21; Sections 26 and 35; Sections 27 and 34; Sections 28 and 33, Township 163 North, Range 100 West; and Sections 18 and 19, Township 163 North, Range 99 West, Divide County, North Dakota, are hereby established as standup 1280-acre spacing units for the exclusive purpose of drilling up to seven horizontal wells within each said spacing unit within the West Ambrose-Bakken Pool and Zone IV is hereby extended to include said spacing units. Existing and future vertical and directional wells drilled within the spacing units herein established shall not be subject to this order.

(3) Sections 16 and 21; Sections 17 and 20; Sections 28 and 33; Sections 29 and 32; and Sections 30 and 31, Township 163 North, Range 99 West, Divide County, North Dakota, are hereby established as standup 1280-acre spacing units for the exclusive purpose of drilling up to seven horizontal wells within each said spacing unit within the Ambrose-Bakken Pool and Zone VII is hereby redefined to include said spacing units. Existing and future vertical and directional wells drilled within the spacing units herein established shall not be subject to this order.

(4) Sections 13, 14, 23, and 24; Sections 14, 15, 22, and 23, Township 163 North, Range 101 West; Sections 13 and 24, Township 163 North, Range 101 West and Sections 18 and 19, Township 163 North, Range 100 West; Sections 4\*, 5, 8, and 9\*; Sections 5, 6, 7, and 8; Sections 16\*, 17, 20, and 21\*; and Sections 17, 18, 19, and 20; Township 163 North, Range 100 West, Divide County, North Dakota, are hereby established as 2560-acre spacing units for the exclusive purpose of drilling one horizontal well within each said spacing unit within the Colgan-Bakken Pool and Zone VII is hereby created to include said spacing units. Existing and future vertical and directional wells drilled within the spacing units herein established shall not be subject to this order.

\*Sections 4, 9, 16, and 21 are within the West Ambrose Field.

(5) Sections 1, 2, 11, and 12; Sections 2, 3, 10, and 11; Sections 3, 4, 9, and 10; Sections 13, 14, 23, and 24; Sections 14, 15, 22, and 23; Sections 15, 16, 21, and 22; Sections 25, 26, 35, and 36; Sections 26, 27, 34, and 35; Sections 27, 28, 33, and 34, Township 163 North, Range 100 West; and

Sections 13 and 24, Township 163 North, Range 100 West and Sections 18 and 19, Township 163 North, Range 99 West, Divide County, North Dakota, are hereby established as 2560-acre spacing units for the exclusive purpose of drilling one horizontal well within each said spacing unit within the West Ambrose-Bakken Pool and Zone VII is hereby created to include said spacing units. Existing and future vertical and directional wells drilled within the spacing units herein established shall not be subject to this order.

(6) Sections 25\* and 36\*, Township 163 North, Range 100 West and Sections 30 and 31, Township 163 North, Range 99 West; Sections 16, 17, 20, and 21; Sections 17, 18\*, 19\*, and 20; Sections 28, 29, 32, and 33; and Sections 29, 30, 31, and 32, Township 163 North, Range 99 West, Divide County, North Dakota, are hereby established as 2560-acre spacing units for the exclusive purpose of drilling one horizontal well within each said spacing unit within the Ambrose-Bakken Pool and Zone IX is hereby redefined to include said spacing units. Existing and future vertical and directional wells drilled within the spacing units herein established shall not be subject to this order.

\*Sections 25, 36, 18, and 19 are within the West Ambrose Field.

(7) Provisions established herein for the Colgan-Bakken Pool are for the exclusive purpose of drilling horizontal wells. Existing and future vertical and directional wells drilled within the area defined in paragraph (8) below shall not be subject to this order.

(8) The Colgan Field is hereby defined as the following described tracts of land in Divide County, North Dakota:

TOWNSHIP 164 NORTH, RANGE 101 WEST, 5TH PM  
ALL OF SECTIONS 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 AND 36,

TOWNSHIP 164 NORTH, RANGE 100 WEST, 5TH PM  
ALL OF SECTIONS 29, 30, 31 AND 32,

TOWNSHIP 163 NORTH, RANGE 101 WEST, 5TH PM  
ALL OF SECTIONS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23 AND 24,

TOWNSHIP 163 NORTH, RANGE 100 WEST, 5TH PM  
ALL OF SECTIONS 5, 6, 7, 8, 17, 18, 19 AND 20.

(9) The Colgan-Bakken Pool is hereby redefined as the following described tracts of land in Divide County, North Dakota:

ZONE I (8/800H-STANDUP)

TOWNSHIP 164 NORTH, RANGE 101 WEST, 5TH PM  
ALL OF SECTIONS 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 AND 36.

ZONE II (4/1280H-LAYDOWN)

TOWNSHIP 163 NORTH, RANGE 101 WEST, 5TH PM  
ALL OF SECTIONS 7 AND 8.

ZONE III (7/1280H-STANDUP)

TOWNSHIP 163 NORTH, RANGE 101 WEST, 5TH PM  
ALL OF SECTIONS 13, 14, 15, 22, 23 AND 24,

TOWNSHIP 163 NORTH, RANGE 100 WEST, 5TH PM  
ALL OF SECTIONS 5, 6, 7, 8, 17, 18, 19 AND 20.

ZONE IV (8/1280H-STANDUP)

TOWNSHIP 163 NORTH, RANGE 101 WEST, 5TH PM  
ALL OF SECTIONS 1, 2, 3, 4, 9, 10, 11, 12, 16 AND 21.

ZONE V (8/1280H-LAYDOWN)

TOWNSHIP 163 NORTH, RANGE 101 WEST, 5TH PM  
ALL OF SECTIONS 5 AND 6.

ZONE VI (1600H-LAYDOWN)

TOWNSHIP 164 NORTH, RANGE 100 WEST, 5TH PM  
ALL OF SECTIONS 29, 30, 31 AND 32.

ZONE VII (2560H)

TOWNSHIP 163 NORTH, RANGE 101 WEST, 5TH PM  
ALL OF SECTIONS 13, 14, 15, 22, 23 AND 24,

TOWNSHIP 163 NORTH, RANGE 100 WEST, 5TH PM  
ALL OF SECTIONS 4\*, 5, 6, 7, 8, 9\*, 16\*, 17, 18, 19, 20 AND 21\*.

\*Sections 4, 9, 16, and 21 are within the West Ambrose Field.

(10) The Colgan-Bakken Pool is hereby defined as that accumulation of oil and gas found in the interval from 50 feet above the top of the Bakken Formation to 100 feet below the top of the Three Forks Formation within the limits of the field as set forth above, with an exception as noted in Zone VII below.

(11) The temporary spacing for the development of Zone I in the Colgan-Bakken Pool is hereby set at up to eight horizontal wells per standup 800-acre spacing unit.

(12) All portions of the well bore not isolated by cement of any horizontal well in Zone I in the Colgan-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment when calculating the bottom hole location in a horizontal well need not be considered.



(13) Sections 25 and 36; Sections 26 and 35; Sections 27 and 34; Sections 28 and 33; Sections 29 and 32; and Sections 30 and 31, Township 164 North, Range 101 West, Divide County, North Dakota, are hereby designated standup 800-acre spacing units in Zone I in the Colgan-Bakken Pool.

(14) Spacing units hereafter created in Zone I in the Colgan-Bakken Pool shall be standup spacing units designated by the Commission.

(15) Zone I in the Colgan-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(16) The temporary spacing for the development of Zone II in the Colgan-Bakken Pool is hereby set at up to four horizontal wells per laydown 1280-acre spacing unit.

(17) All portions of the well bore not isolated by cement of any horizontal well in Zone II in the Colgan-Bakken Pool shall be no closer than 500 feet to the north or south boundary and 200 feet to the east or west boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment when calculating the bottom hole location in a horizontal well need not be considered.

(18) Sections 7 and 8, Township 163 North, Range 101 West, Divide County, North Dakota, are hereby designated a laydown 1280-acre spacing unit in Zone II in the Colgan-Bakken Pool.

(19) Spacing units hereafter created in Zone II in the Colgan-Bakken Pool shall be laydown spacing units consisting of two adjacent governmental sections.

(20) Zone II in the Colgan-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(21) The temporary spacing for the development of Zone III in the Colgan-Bakken Pool is hereby set at up to seven horizontal wells per standup 1280-acre spacing unit.

(22) All portions of the well bore not isolated by cement of any horizontal well in Zone III in the Colgan-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment when calculating the bottom hole location in a horizontal well need not be considered.

(23) Sections 13 and 24; Sections 14 and 23; Sections 15 and 22, Township 163 North, Range 101 West; Sections 5 and 8; Sections 6 and 7; Sections 17 and 20; and Sections 18 and 19, Township 163 North, Range 100 West, Divide County, North Dakota, are hereby designated standup 1280-acre spacing units in Zone III in the Colgan-Bakken Pool.

(24) Spacing units hereafter created in Zone III in the Colgan-Bakken Pool shall be standup spacing units consisting of two adjacent governmental sections.

(25) Sections 13, 14, 23, and 24; Sections 14, 15, 22, and 23, Township 163 North, Range 101 West; Sections 13 and 24, Township 163 North, Range 101 West and Sections 18 and 19, Township 163 North, Range 100 West; Sections 4\*, 5, 8, and 9\*; Sections 5, 6, 7, and 8; Sections 16\*, 17, 20, and 21\*; and Sections 17, 18, 19, and 20, Township 163 North, Range 100 West, Divide County, North Dakota, are also designated 2560-acre spacing units in Zone VII in the Colgan-Bakken Pool.

\*Sections 4, 9, 16, and 21 are within the West Ambrose Field.

(26) Zone III in the Colgan-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(27) The temporary spacing for the development of Zone IV in the Colgan-Bakken Pool is hereby set at up to eight horizontal wells per standup 1280-acre spacing unit.

(28) All portions of the well bore not isolated by cement of any horizontal well in Zone IV in the Colgan-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment when calculating the bottom hole location in a horizontal well need not be considered.

(29) Sections 1 and 12; Sections 2 and 11; Sections 3 and 10; Sections 4 and 9; and Sections 16 and 21, Township 163 North, Range 101 West, Divide County, North Dakota, are hereby designated standup 1280-acre spacing units in Zone IV in the Colgan-Bakken Pool.

(30) Spacing units hereafter created in Zone IV in the Colgan-Bakken Pool shall be standup spacing units consisting of two adjacent governmental sections.

(31) Zone IV in the Colgan-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(32) The temporary spacing for the development of Zone V in the Colgan-Bakken Pool is hereby set at up to eight horizontal wells per laydown 1280-acre spacing unit.

(33) All portions of the well bore not isolated by cement of any horizontal well in Zone V in the Colgan-Bakken Pool shall be no closer than 500 feet to the north or south boundary and 200 feet to the east or west boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment when calculating the bottom hole location in a horizontal well need not be considered.

(34) Sections 5 and 6, Township 163 North, Range 101 West, Divide County, North Dakota, are hereby designated a laydown 1280-acre spacing unit in Zone V in the Colgan-Bakken Pool.

(35) Spacing units hereafter created in Zone V in the Colgan-Bakken Pool shall be laydown spacing units consisting of two adjacent governmental sections.

(36) Zone V in the Colgan-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(37) The temporary spacing for the development of Zone VI in the Colgan-Bakken Pool is hereby set at one horizontal well per laydown 1600-acre spacing unit.

(38) All portions of the well bore not isolated by cement of any horizontal well in Zone VI in the Colgan-Bakken Pool shall be no closer than 500 feet to the north or south boundary and 200 feet to the east or west boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment need not be considered except when deemed necessary by the Director.

(39) Sections 29, 30, 31, and 32, Township 164 North, Range 100 West, Divide County, North Dakota, are hereby designated a laydown 1600-acre spacing unit in Zone VI in the Colgan-Bakken Pool.

(40) Spacing units hereafter created in Zone VI in the Colgan-Bakken Pool shall be laydown spacing units designated by the Commission.

(41) Zone VI in the Colgan-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(42) The proper spacing for the development of Zone VII in the Colgan-Bakken Pool is hereby set at one horizontal well per 2560-acre spacing unit.

(43) All portions of the well bore not isolated by cement of any horizontal well in Zone VII in the Colgan-Bakken Pool shall be located approximately down the north-south axis and no closer than 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment need not be considered except when deemed necessary by the Director.

(44) The Colgan-Bakken Pool in Zone VII is hereby defined as that accumulation of oil and gas found in the interval from the base of the Bakken Formation to 100 feet below the top of the Three Forks Formation.

(45) Sections 13, 14, 23, and 24; Sections 14, 15, 22, and 23, Township 163 North, Range 101 West; Sections 13 and 24, Township 163 North, Range 101 West and Sections 18 and 19, Township 163 North, Range 100 West; Sections 4\*, 5, 8, and 9\*; Sections 5, 6, 7, and 8; Sections 16\*, 17, 20, and 21\*; and Sections 17, 18, 19, and 20, Township 163 North, Range 100 West, Divide County, North Dakota, are hereby designated 2560-acre spacing units in Zone VII in the Colgan-Bakken Pool.

\*Sections 4, 9, 16, and 21 are within the West Ambrose Field.

(46) Spacing units hereafter created in Zone VII in the Colgan-Bakken Pool shall consist of four adjacent governmental sections designated by the Commission.

(47) Sections 13 and 24; Sections 14 and 23; Sections 15 and 22, Township 163 North, Range 101 West; Sections 5 and 8; Sections 6 and 7; Sections 17 and 20; and Sections 18 and 19, Township 163 North, Range 100 West, Divide County, North Dakota, are also designated standup 1280-acre spacing units in Zone III in the Colgan-Bakken Pool.

(48) Sections 4 and 9; and Sections 16 and 21, Township 163 North, Range 100 West, Divide County, North Dakota, are also designated standup 1280-acre spacing units in the West Ambrose-Bakken Pool.

(49) Sections 3, 4, 9, and 10; and Sections 15, 16, 21, and 22, Township 163 North, Range 100 West, Divide County, North Dakota, are also designated 2560-acre spacing units in the West Ambrose-Bakken Pool.

(50) Zone VII in the Colgan-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(51) The operator of any horizontally drilled well in the Colgan-Bakken Pool shall cause to be made a directional survey of the well bore. The directional survey contractor shall file a certified survey with the Commission within 30 days after completion of the well in accordance with NDAC Section 43-02-03-25. The survey shall be of sufficient quality to enable the Commission to determine the entire completion location of the well and its terminus.

(52) The Director is hereby authorized to exercise continuing jurisdiction to determine whether any well proposed or drilled upon any spacing unit herein established has justified the creation of such unit, to require amendments or modifications to the permit to drill for such well, and to deny a permit to drill in the event a well is proposed to be drilled in a manner inconsistent with the evidence that justified the spacing requirements in the Colgan-Bakken Pool.

(53) The Commission shall have continuing jurisdiction in this matter and specifically reserves the authority, upon its own motion or the motion of any interested party, to: (1) review the spacing requirements for the Colgan-Bakken Pool; (2) determine whether the separate zones of spacing established herein are warranted; and (3) make such further amendments or modifications to the spacing requirements for the Colgan-Bakken Pool as the Commission deems appropriate.

(54) No well shall be drilled or produced in the Colgan-Bakken Pool, as defined herein, except in conformity with the regulations above without special order of the Commission after due notice and hearing.

(55) The following rules concerning the casing, tubing and equipping of wells shall apply to the subsequent drilling and operation of wells in the Colgan-Bakken Pool:

- (a) The surface casing shall consist of new or reconditioned pipe that has been previously tested to 1000 pounds per square inch. The casing shall be set and cemented at a point not less than 50 feet below the base of the Fox Hills Formation. Sufficient cement shall be used to fill the annular space outside the pipe to the surface of the ground, or the bottom of the cellar, and sufficient scratchers and centralizers shall be used to assure a good cement job. Cement shall be allowed to stand a minimum of 12 hours before drilling the plug or initiating tests. The quality of cement shall conform to the standards provided under NDAC Section 43-02-03-21. After cementing, the casing shall be tested by application of pump pressure of at least 1500 pounds per square inch. If, at the end of 30 minutes this pressure has dropped 150 pounds per square inch or more, the casing shall be repaired. Thereafter, the casing shall again be tested in the

same manner. Further work shall not proceed until a satisfactory test has been obtained;

- (b) The producing or oil string shall consist of new or reconditioned pipe that has been previously tested to 2000 pounds per square inch. Casing shall be set and cemented at a point not higher than the top of the producing formation, or at a point approved by the Director. Sufficient cement shall be used and applied in such a manner as to protect and isolate all formations containing oil and/or gas, protect the pipe through salt sections encountered, and isolate the Dakota-Lakota Series. The cement shall be allowed to stand a minimum of 15 hours before drilling the plug or initiating tests. The quality of cement shall conform to the standards provided under NDAC Section 43-02-03-21. After cementing, the casing shall be tested by application of pump pressure of at least 1500 pounds per square inch. If, at the end of 30 minutes this pressure has dropped 150 pounds per square inch or more, the casing shall be repaired. Thereafter, the casing shall again be tested in the same manner. Further work shall not proceed until a satisfactory test has been obtained;
- (c) All well-head fittings and connections shall have a working pressure in excess of that to which they are expected to be subjected; and,
- (d) All wells shall be equipped with tubing; a tubing packer must also be utilized in flowing wells unless a waiver is obtained from the Director after demonstrating the casing will not be subjected to excessive pressure or corrosion; all tubing shall be of sufficient internal diameter to allow the passage of a bottom hole pressure gauge for the purpose of obtaining bottom hole pressure measurements.

(56) The gas-oil ratio of all wells not connected to a gas gathering system shall be measured annually during the month of May. The reservoir pressure shall be measured in any well completed in the Colgan-Bakken Pool if deemed necessary by the Director. Drill stem test pressures are acceptable for determining reservoir pressure. Pressure measurements shall be made at or adjusted to a subsea datum of 5550 feet. All gas-oil ratio and reservoir pressure determinations shall be made by methods approved by the Director and reported to the Director within 15 days following the end of the month in which they are determined. The Director is authorized to waive these requirements if the necessity therefore can be demonstrated to his satisfaction. All additional gas-oil ratio and reservoir pressure determinations conducted on any well, but not specially required herein, shall be reported to the Director within 15 days following the end of the month in which they are determined.

(57) No salt water, drilling mud, crude oil, or waste oil shall be stored in pits in this field, except in an emergency, and approved by the Director.

(58) For the purposes of division of production to owners of interests in spacing units established by this order, and proven productive prior to the date hereof, this order shall be retroactive to the date of first production.

(59) All wells completed in the Colgan-Bakken Pool shall be allowed to produce at a maximum efficient rate through September 30, 2013.

(60) After September 30, 2013, all wells in the Colgan-Bakken Pool shall be allowed to produce at a maximum efficient rate for a period of 60 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, oil production from such wells shall not exceed an average of 200 barrels per day for a period of 60 days; after that, oil production from such wells shall not exceed an average of 150 barrels per day for a period of 60 days, thereafter, oil production from such wells shall not exceed an average of 100 barrels of oil per day; if and when such wells are connected to a gas gathering and processing facility the foregoing restrictions shall be removed, and the wells shall be allowed to produce at a maximum efficient rate. The Director is authorized to issue an administrative order allowing unrestricted production at a maximum efficient rate for a period not to exceed 120 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, if the necessity therefor can be demonstrated to his satisfaction.

(61) If the flaring of gas produced with crude oil from the Colgan-Bakken Pool causes, or threatens to cause, degradation of ambient air quality, production from the pool shall be further restricted.

(62) This portion of this order shall cover all of the Colgan-Bakken Pool, common source of supply of crude oil and/or natural gas as herein defined, and continues in full force and effect until further order of the Commission. If the Colgan-Bakken Pool is still producing, the proper spacing for the pool will be considered by the Commission on or before its regularly scheduled hearing date in January, 2014. If, however, the Colgan-Bakken Pool is no longer producing when the proper spacing is to be considered, the Commission, at its own discretion, may refrain from scheduling a proper spacing hearing and may, without further notice, enter an order dismissing the proper spacing matter.

(63) Provisions established herein for the West Ambrose-Bakken Pool are for the exclusive purpose of drilling horizontal wells. Existing and future vertical and directional wells drilled within the area defined in paragraph (64) below shall not be subject to this order.

(64) The West Ambrose Field is hereby defined as the following described tracts of land in Divide County, North Dakota:

TOWNSHIP 164 NORTH, RANGE 100 WEST, 5TH PM  
ALL OF SECTIONS 25, 26, 27, 28, 33, 34, 35 AND 36,

TOWNSHIP 164 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 30 AND 31,

TOWNSHIP 163 NORTH, RANGE 100 WEST, 5TH PM  
ALL OF SECTIONS 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35 AND 36,

TOWNSHIP 163 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 6, 7, 18 AND 19,

TOWNSHIP 162 NORTH, RANGE 100 WEST, 5TH PM

ALL OF SECTIONS 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 AND 36.

(65) The West Ambrose-Bakken Pool is hereby redefined as the following described tracts of land in Divide County, North Dakota:

ZONE I (800H-STANDUP)

TOWNSHIP 164 NORTH, RANGE 99 WEST, 5TH PM

ALL OF SECTIONS 30 AND 31.

ZONE II (1280H-STANDUP)

TOWNSHIP 163 NORTH, RANGE 99 WEST, 5TH PM

ALL OF SECTIONS 6 AND 7,

TOWNSHIP 162 NORTH, RANGE 100 WEST, 5TH PM

ALL OF SECTIONS 3, 4, 9, 10, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 AND 36.

ZONE III (4/1280H-STANDUP)

TOWNSHIP 162 NORTH, RANGE 100 WEST, 5TH PM

ALL OF SECTIONS 1, 2, 11 AND 12.

ZONE IV (7/1280H-STANDUP)

TOWNSHIP 163 NORTH, RANGE 100 WEST, 5TH PM

ALL OF SECTIONS 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35 AND 36,

TOWNSHIP 163 NORTH, RANGE 99 WEST, 5TH PM

ALL OF SECTIONS 18 AND 19.

ZONE V (1600H-LAYDOWN)

TOWNSHIP 164 NORTH, RANGE 100 WEST, 5TH PM

ALL OF SECTIONS 25, 26, 27, 28, 33, 34, 35 AND 36.

ZONE VI (4-12/2080H-STANDUP)

TOWNSHIP 164 NORTH, RANGE 99 WEST, 5TH PM

ALL OF SECTIONS 30 AND 31,

TOWNSHIP 163 NORTH, RANGE 99 WEST, 5TH PM

ALL OF SECTIONS 6 AND 7.

ZONE VII (2560H)

TOWNSHIP 163 NORTH, RANGE 100 WEST, 5TH PM

ALL OF SECTIONS 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35 AND 36,

TOWNSHIP 163 NORTH, RANGE 99 WEST, 5TH PM

ALL OF SECTIONS 18 AND 19.

(66) The West Ambrose-Bakken Pool is hereby defined as that accumulation of oil and gas found in the interval from 50 feet above the top of the Bakken Formation to 100 feet below the top of the Three Forks Formation within the limits of the field as set forth above, with an exception as noted in Zone VII below.

(67) The proper spacing for the development of Zone I in the West Ambrose-Bakken Pool is hereby set at one horizontal well per standup 800-acre spacing unit.

(68) All portions of the well bore not isolated by cement of any horizontal well in Zone I in the West Ambrose-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment need not be considered except when deemed necessary by the Director.

(69) Sections 30 and 31, Township 164 North, Range 99 West, Divide County, North Dakota, are hereby designated a standup 800-acre spacing unit in Zone I in the West Ambrose-Bakken Pool.

(70) Spacing units hereafter created in Zone I in the West Ambrose-Bakken Pool shall be standup spacing units designated by the Commission.

(71) Sections 30 and 31, Township 164 North, Range 99 West and Sections 6 and 7, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated a standup 2080-acre spacing unit in Zone VI in the West Ambrose-Bakken Pool.

(72) Zone I in the West Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(73) The proper spacing for the development of Zone II in the West Ambrose-Bakken Pool is hereby set at one horizontal well per standup 1280-acre spacing unit.

(74) All portions of the well bore not isolated by cement of any horizontal well in Zone II in the West Ambrose-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment need not be considered except when deemed necessary by the Director.

(75) Sections 6 and 7, Township 163 North, Range 99 West; Sections 3 and 10; Sections 4 and 9; Sections 13 and 24; Sections 14 and 23; Sections 15 and 22; Sections 16 and 21; Sections 17



and 20; Sections 18 and 19; Sections 25 and 36; Sections 26 and 35; Sections 27 and 34; Sections 28 and 33; Sections 29 and 32; and Sections 30 and 31, Township 162 North, Range 100 West, Divide County, North Dakota, are hereby designated standup 1280-acre spacing units in Zone II in the West Ambrose-Bakken Pool.

(76) Spacing units hereafter created in Zone II in the West Ambrose-Bakken Pool shall be standup spacing units consisting of two adjacent governmental sections.

(77) Sections 30 and 31, Township 164 North, Range 99 West and Sections 6 and 7, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated a standup 2080-acre spacing unit in Zone VI in the West Ambrose-Bakken Pool.

(78) Zone II in the West Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(79) The proper spacing for the development of Zone III in the West Ambrose-Bakken Pool is hereby set at up to four horizontal wells per standup 1280-acre spacing unit.

(80) All portions of the well bore not isolated by cement of any horizontal well in Zone III in the West Ambrose-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment when calculating the bottom hole location in a horizontal well need not be considered.

(81) Sections 1 and 12; and Sections 2 and 11, Township 162 North, Range 100 West, Divide County, North Dakota, are hereby designated standup 1280-acre spacing units in Zone III in the West Ambrose-Bakken Pool.

(82) Spacing units hereafter created in Zone III in the West Ambrose-Bakken Pool shall be standup spacing units consisting of two adjacent governmental sections.

(83) Zone III in the West Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(84) The proper spacing for the development of Zone IV in the West Ambrose-Bakken Pool is hereby set at up to seven horizontal wells per standup 1280-acre spacing unit.

(85) All portions of the well bore not isolated by cement of any horizontal well in Zone IV in the West Ambrose-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment when calculating the bottom hole location in a horizontal well need not be considered.

(86) Sections 1 and 12; Sections 2 and 11; Sections 3 and 10; Sections 4 and 9; Sections 13 and 24; Sections 14 and 23; Sections 15 and 22; Sections 16 and 21; Sections 25 and 36; Sections 26 and 35; Sections 27 and 34; Sections 28 and 33, Township 163 North, Range 100 West; and Sections 18 and 19, Township 163 North, Range 99 West, Divide County, North Dakota, are hereby designated standup 1280-acre spacing units in Zone IV in the West Ambrose-Bakken Pool.

(87) Spacing units hereafter created in Zone IV in the West Ambrose-Bakken Pool shall be standup spacing units consisting of two adjacent governmental sections.

(88) Sections 1, 2, 11, and 12; Sections 2, 3, 10, and 11; Sections 3, 4, 9, and 10; Sections 13, 14, 23, and 24; Sections 14, 15, 22, and 23; Sections 15, 16, 21, and 22; Sections 25, 26, 35, and 36; Sections 26, 27, 34, and 35; Sections 27, 28, 33, and 34, Township 163 North, Range 100 West; and Sections 13 and 24, Township 163 North, Range 100 West and Sections 18 and 19, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated 2560-acre spacing units in Zone VII in the West Ambrose-Bakken Pool.

(89) Sections 4\*, 5, 8, and 9\*; and Sections 16\*, 17, 20, and 21\*, Township 163 North, Range 100 West, Divide County, North Dakota, are also designated 2560-acre spacing units in the Colgan-Bakken Pool.

\*Sections 4, 9, 16, and 21 are within the West Ambrose Field.

(90) Sections 17, 18\*\*, 19\*\*, and 20, Township 163 North, Range 99 West; and Sections 25\*\* and 36\*\*, Township 163 North, Range 100 West and Sections 30 and 31, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated 2560-acre spacing units in the Ambrose-Bakken Pool.

\*\*Sections 18, 19, 25, and 36 are within the West Ambrose Field.

(91) Zone IV in the West Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(92) The proper spacing for the development of Zone V in the West Ambrose-Bakken Pool is hereby set at one horizontal well per laydown 1600-acre spacing unit.

(93) All portions of the well bore not isolated by cement of any horizontal well in Zone V in the West Ambrose-Bakken Pool shall be no closer than 500 feet to the north or south boundary and 200 feet to the east or west boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment need not be considered except when deemed necessary by the Director.

(94) Sections 25, 26, 35, and 36; and Sections 27, 28, 33, and 34, Township 164 North, Range 100 West, Divide County, North Dakota, are hereby designated laydown 1600-acre spacing units in Zone V in the West Ambrose-Bakken Pool.

(95) Spacing units hereafter created in Zone V in the West Ambrose-Bakken Pool shall be laydown spacing units designated by the Commission.

(96) Zone V in the West Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(97) The proper spacing for the development of Zone VI in the West Ambrose-Bakken Pool is hereby set at a minimum of four horizontal wells, up to twelve horizontal wells, per standup 2080-acre spacing unit.

(98) All portions of the well bore not isolated by cement of any horizontal well in Zone VI in the West Ambrose-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment when calculating the bottom hole location in a horizontal well need not be considered.

(99) Sections 30 and 31, Township 164 North, Range 99 West and Sections 6 and 7, Township 163 North, Range 99 West, Divide County, North Dakota, are hereby designated a standup 2080-acre spacing unit in Zone VI in the West Ambrose-Bakken Pool.

(100) A mirror offset horizontal well to the Nomad #0607-5H well (File No. 22988) shall be drilled and completed in the standup 2080-acre spacing unit in Sections 30 and 31, Township 164 North, Range 99 West, Divide County, North Dakota, and a mirror offset horizontal well to the Nomad #6-7-163-99H well (File No. 21579) shall be drilled and completed in the standup 800-acre spacing unit in Sections 30 and 31, Township 164 North, Range 99 West, Divide County, North Dakota, within twelve months of completing the Nomad #0607-5H well. If these conditions are not met, the Commission shall schedule the matter for consideration to reduce the size of the spacing unit.

(101) Spacing units hereafter created in Zone VI in the West Ambrose-Bakken Pool shall be standup spacing units designated by the Commission.

(102) Sections 30 and 31, Township 164 North, Range 99 West, Divide County, North Dakota, are also designated a standup 800-acre spacing unit in Zone I in the West Ambrose-Bakken Pool.

(103) Sections 6 and 7, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated a standup 1280-acre spacing unit in Zone II in the West Ambrose-Bakken Pool.

(104) Zone VI in the West Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(105) The proper spacing for the development of Zone VII in the West Ambrose-Bakken Pool is hereby set at one horizontal well per 2560-acre spacing unit.

(106) All portions of the well bore not isolated by cement of any horizontal well in Zone VII in the West Ambrose-Bakken Pool shall be located approximately down the north-south axis and no closer than 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment need not be considered except when deemed necessary by the Director.

(107) The West Ambrose-Bakken Pool in Zone VII is hereby defined as that accumulation of oil and gas found in the interval from the base of the Bakken Formation to 100 feet below the top of the Three Forks Formation.

(108) Sections 1, 2, 11, and 12; Sections 2, 3, 10, and 11; Sections 3, 4, 9, and 10; Sections 13, 14, 23, and 24; Sections 14, 15, 22, and 23; Sections 15, 16, 21, and 22; Sections 25, 26, 35, and 36; Sections 26, 27, 34, and 35; Sections 27, 28, 33, and 34, Township 163 North, Range 100 West; and Sections 13 and 24, Township 163 North, Range 100 West and Sections 18 and 19, Township 163 North, Range 99 West, Divide County, North Dakota, are hereby designated 2560-acre spacing units in Zone VII in the West Ambrose-Bakken Pool.

(109) Spacing units hereafter created in Zone VII in the West Ambrose-Bakken Pool shall consist of four adjacent governmental sections designated by the Commission.

(110) Sections 1 and 12; Sections 2 and 11; Sections 3 and 10; Sections 4 and 9; Sections 13 and 24; Sections 14 and 23; Sections 15 and 22; Sections 16 and 21; Sections 25 and 36; Sections 26 and 35; Sections 27 and 34; Sections 28 and 33, Township 163 North, Range 100 West; and Sections 18 and 19, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated standup 1280-acre spacing units in Zone IV in the West Ambrose-Bakken Pool.

(111) Sections 4\*, 5, 8, and 9\*; and Sections 16\*, 17, 20, and 21\*, Township 163 North, Range 100 West, Divide County, North Dakota, are also designated 2560-acre spacing units in the Colgan-Bakken Pool.

\*Sections 4, 9, 16, and 21 are within the West Ambrose Field.

(112) Sections 17, 18\*\*, 19\*\*, and 20; and Sections 25\*\* and 36\*\*, Township 163 North, Range 100 West and Sections 30 and 31, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated 2560-acre spacing units in the Ambrose-Bakken Pool.

\*\*Sections 18, 19, 25, and 36 are within the West Ambrose Field.

(113) Zone VII in the West Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(114) The operator of any horizontally drilled well in the West Ambrose-Bakken Pool shall cause to be made a directional survey of the well bore. The directional survey contractor shall file a certified survey with the Commission within 30 days after completion of the well in accordance with NDAC Section 43-02-03-25. The survey shall be of sufficient quality to enable the Commission to determine the entire completion location of the well and its terminus.

(115) The Director is hereby authorized to exercise continuing jurisdiction to determine whether any well proposed or drilled upon any spacing unit herein established has justified the creation of such unit, to require amendments or modifications to the permit to drill for such well, and to deny a permit to drill in the event a well is proposed to be drilled in a manner inconsistent with the evidence that justified the spacing requirements in the West Ambrose-Bakken Pool.

(116) The Commission shall have continuing jurisdiction in this matter and specifically reserves the authority, upon its own motion or the motion of any interested party, to: (1) review the spacing requirements for the West Ambrose-Bakken Pool; (2) determine whether the separate zones of spacing established herein are warranted; and, (3) make such further amendments or modifications to the spacing requirements for the West Ambrose-Bakken Pool as the Commission deems appropriate.

(117) No well shall be drilled or produced in the West Ambrose-Bakken Pool, as defined herein, except in conformity with the regulations above without special order of the Commission after due notice and hearing.

(118) The following rules concerning the casing, tubing and equipping of wells shall apply to the subsequent drilling and operation of wells in the West Ambrose-Bakken Pool:

- (a) The surface casing shall consist of new or reconditioned pipe that has been previously tested to 1000 pounds per square inch. The casing shall be set and cemented at a point not less than 50 feet below the base of the Fox Hills Formation. Sufficient cement shall be used to fill the annular space outside the pipe to the surface of the ground, or the bottom of the cellar, and sufficient scratchers and centralizers shall be used to assure a good cement job. Cement shall be allowed to stand a minimum of 12 hours before drilling the plug or initiating tests. The quality of cement shall conform to the standards provided under NDAC Section 43-02-03-21. After cementing, the casing shall be tested by application of pump pressure of at least 1500 pounds per square inch. If, at the end of 30 minutes this pressure has dropped 150 pounds per square inch or more, the casing shall be repaired. Thereafter, the casing shall again be tested in the same manner. Further work shall not proceed until a satisfactory test has been obtained;
- (b) The producing or oil string shall consist of new or reconditioned pipe that has been previously tested to 2000 pounds per square inch. Casing shall be set and cemented at a point not higher than the top of the producing formation, or at a point approved by the Director. Sufficient cement shall be used and applied in such a manner as to protect and isolate all formations containing oil and/or gas, protect the pipe through salt sections encountered, and isolate the Dakota-Lakota Series. The cement shall be allowed to stand a minimum of 15 hours before drilling the plug or initiating tests. The quality of cement shall conform to the standards provided under NDAC Section 43-02-03-21. After cementing, the casing shall be tested by application of pump pressure of at least 1500 pounds per square inch. If, at the end of 30 minutes this pressure has dropped 150 pounds per square inch or more, the casing shall be repaired. Thereafter, the casing shall again be tested in the same manner. Further work shall not proceed until a satisfactory test has been obtained;
- (c) All well-head fittings and connections shall have a working pressure in excess of that to which they are expected to be subjected; and,
- (d) All wells shall be equipped with tubing; a tubing packer must also be utilized in flowing wells unless a waiver is obtained from the Director after demonstrating the casing will not be subjected to excessive pressure or corrosion; all tubing shall be of

sufficient internal diameter to allow the passage of a bottom hole pressure gauge for the purpose of obtaining bottom hole pressure measurements.

(119) The gas-oil ratio of all wells not connected to a gas gathering system shall be measured annually during the month of May. The reservoir pressure shall be measured in any well completed in the West Ambrose-Bakken Pool if deemed necessary by the Director. Drill stem test pressures are acceptable for determining reservoir pressure. Pressure measurements shall be made at or adjusted to a subsea datum of 5600 feet. All gas-oil ratio and reservoir pressure determinations shall be made by methods approved by the Director and reported to the Director within 15 days following the end of the month in which they are determined. The Director is authorized to waive these requirements if the necessity therefore can be demonstrated to his satisfaction. All additional gas-oil ratio and reservoir pressure determinations conducted on any well, but not specially required herein, shall be reported to the Director within 15 days following the end of the month in which they are determined.

(120) No salt water, drilling mud, crude oil, or waste oil shall be stored in pits in this field, except in an emergency, and approved by the Director.

(121) All wells completed in the West Ambrose-Bakken Pool shall be allowed to produce at a maximum efficient rate through September 30, 2013.

(122) After September 30, 2013, all wells in the West Ambrose-Bakken Pool shall be allowed to produce at a maximum efficient rate for a period of 60 days commencing on the first day oil is produced through wellhead equipment into tanks from the ultimate producing interval after casing has been run; after that, oil production from such wells shall not exceed an average of 200 barrels per day for a period of 60 days; after that, oil production from such wells shall not exceed an average of 150 barrels per day for a period of 60 days, thereafter, oil production from such wells shall not exceed an average of 100 barrels of oil per day; if and when such wells are connected to a gas gathering and processing facility the foregoing restrictions shall be removed, and the wells shall be allowed to produce at a maximum efficient rate. The Director is authorized to issue an administrative order allowing unrestricted production at a maximum efficient rate for a period not to exceed 120 days, commencing on the first day oil is produced through wellhead equipment into tanks from the ultimate producing interval after casing has been run, if the necessity therefor can be demonstrated to his satisfaction.

(123) If the flaring of gas produced with crude oil from the West Ambrose-Bakken Pool causes, or threatens to cause, degradation of ambient air quality, production from the pool shall be further restricted.

(124) This portion of this order shall cover all of the West Ambrose-Bakken Pool, common source of supply of crude oil and/or natural gas as herein defined, and shall continue in full force and effect until further order of the Commission or until the last well in the pool has been plugged and abandoned.

(125) Provisions established herein for the Ambrose-Bakken Pool are for the exclusive purpose of drilling horizontal wells. Existing and future vertical and directional wells drilled within the area defined in paragraph (126) below shall not be subject to this order.

(126) The Ambrose Field is hereby defined as the following described tracts of land in Divide County, North Dakota:

TOWNSHIP 164 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 25, 26, 27, 28, 29, 32, 33, 34, 35 AND 36,

TOWNSHIP 164 NORTH, RANGE 98 WEST, 5TH PM  
ALL OF SECTIONS 30 AND 31,

TOWNSHIP 163 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 AND 36,

TOWNSHIP 163 NORTH, RANGE 98 WEST, 5TH PM  
ALL OF SECTIONS 6, 7, 18, 19, 30 AND 31,

TOWNSHIP 162 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 1 THROUGH 36, INCLUSIVE,

TOWNSHIP 162 NORTH, RANGE 98 WEST, 5TH PM  
ALL OF SECTIONS 6, 7, 18, 19, 30 AND 31.

(127) The Ambrose-Bakken Pool is hereby redefined as the following described tracts of land in Divide County, North Dakota:

ZONE I (640H)

TOWNSHIP 163 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 26, 27, 34 AND 35,

TOWNSHIP 163 NORTH, RANGE 98 WEST, 5TH PM  
ALL OF SECTIONS 30 AND 31,

TOWNSHIP 162 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 2, 3, 10, 11, 13, 14, 15, 22, 23, 24, 25 AND 36.

ZONE II (3/640H)

TOWNSHIP 162 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 4, 5, 8 AND 9.

ZONE III (800H-STANDUP)

TOWNSHIP 164 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 25, 26, 27, 28, 29, 32, 33, 34, 35 AND 36.

ZONE IV (7/800H-STANDUP)

TOWNSHIP 164 NORTH, RANGE 98 WEST, 5TH PM  
ALL OF SECTIONS 30 AND 31.

ZONE V (1280H-STANDUP)

TOWNSHIP 163 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 23, 24, 25 AND 36.

ZONE VI (1280H-LAYDOWN-OVERLAPPING 640S)

TOWNSHIP 162 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 4 AND 5.

ZONE VII (7/1280H-STANDUP)

TOWNSHIP 163 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 15, 16, 17, 20, 21, 22, 28, 29, 30, 31, 32 AND 33,

TOWNSHIP 163 NORTH, RANGE 98 WEST, 5TH PM  
ALL OF SECTIONS 6, 7, 18 AND 19,

TOWNSHIP 162 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 1, 6, 7, 12, 16, 17, 18, 19, 20, 21, 26, 27, 28, 29, 30, 31, 32, 33, 34 AND 35,

TOWNSHIP 162 NORTH, RANGE 98 WEST, 5TH PM  
ALL OF SECTIONS 6, 7, 18, 19, 30 AND 31.

ZONE VIII (4-12/2080H-STANDUP)

TOWNSHIP 164 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 25, 26, 27, 28, 29, 32, 33, 34, 35 AND 36,

TOWNSHIP 163 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 1, 2, 3, 4, 5, 8, 9, 10, 11 AND 12.

ZONE IX (2560H)

TOWNSHIP 163 NORTH, RANGE 100 WEST, 5TH PM  
ALL OF SECTIONS 25\* AND 36\*,

TOWNSHIP 163 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 16, 17, 18\*, 19\*, 20, 21, 28, 29, 30, 31, 32 AND 33.

\*Sections 25, 36, 18, and 19 are within the West Ambrose Field.



ZONE X (13/2560H-STANDUP)

TOWNSHIP 163 NORTH, RANGE 99 WEST, 5TH PM  
ALL OF SECTIONS 13, 14, 23, 24, 25, 26, 35 AND 36.

(128) The Ambrose-Bakken Pool is hereby defined as that accumulation of oil and gas found in the interval from 50 feet above the top of the Bakken Formation to 100 feet below the top of the Three Forks Formation within the limits of the field as set forth above, with an exception as noted in Zone IX below.

(129) The proper spacing for the development of Zone I in the Ambrose-Bakken Pool is hereby set at one horizontal well per 640-acre spacing unit.

(130) All portions of the well bore not isolated by cement of any horizontal well in Zone I in the Ambrose-Bakken Pool shall be no closer than 500 feet to the boundary of the spacing unit the lateral is most nearly parallel to and 200 feet to the boundary of the spacing unit the lateral is most nearly perpendicular to. Measurement inaccuracies in the directional survey equipment need not be considered except when deemed necessary by the Director.

(131) Spacing units hereafter created in Zone I in the Ambrose-Bakken Pool shall consist of a governmental section.

(132) Sections 14, 23, 26, and 35, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated a standup 2560-acre spacing unit in Zone X in the Ambrose-Bakken Pool.

(133) Zone I in the Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(134) The proper spacing for the development of Zone II in the Ambrose-Bakken Pool is hereby set at up to three horizontal wells per 640-acre spacing unit.

(135) All portions of the well bore not isolated by cement of any horizontal well in Zone II in the Ambrose-Bakken Pool shall be no closer than 500 feet to the boundary of the spacing unit the lateral is most nearly parallel to and 200 feet to the boundary of the spacing unit the lateral is most nearly perpendicular to. Measurement inaccuracies in the directional survey equipment when calculating the bottom hole location in a horizontal well need not be considered.

(136) Spacing units hereafter created in Zone II in the Ambrose-Bakken Pool shall consist of a governmental section.

(137) Sections 4 and 5, Township 162 North, Range 99 West, Divide County, North Dakota, are also designated a laydown 1280-acre spacing unit in Zone VI in the Ambrose-Bakken Pool.

(138) Zone II in the Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(139) The proper spacing for the development of Zone III in the Ambrose-Bakken Pool is hereby set at one horizontal well per standup 800-acre spacing unit.

(140) All portions of the well bore not isolated by cement of any horizontal well in Zone III in the Ambrose-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment need not be considered except when deemed necessary by the Director.

(141) Sections 25 and 36; Sections 26 and 35; Sections 27 and 34; Sections 28 and 33; and Sections 29 and 32, Township 164 North, Range 99 West, Divide County, North Dakota, are hereby designated standup 800-acre spacing units in Zone III in the Ambrose-Bakken Pool.

(142) Spacing units hereafter created in Zone III in the Ambrose-Bakken Pool shall be standup spacing units designated by the Commission.

(143) Sections 25 and 36, Township 164 North, Range 99 West and Sections 1 and 12, Township 163 North, Range 99 West; Sections 26 and 35, Township 164 North, Range 99 West and Sections 2 and 11, Township 163 North, Range 99 West; Sections 27 and 34, Township 164 North, Range 99 West and Sections 3 and 10, Township 163 North, Range 99 West; Sections 28 and 33, Township 164 North, Range 99 West and Sections 4 and 9, Township 163 North, Range 99 West; and Sections 29 and 32, Township 164 North, Range 99 West and Sections 5 and 8, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated standup 2080-acre spacing units in Zone VIII in the Ambrose-Bakken Pool.

(144) Zone III in the Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(145) The proper spacing for the development of Zone IV in the Ambrose-Bakken Pool is hereby set at up to seven horizontal wells per standup 800-acre spacing unit.

(146) All portions of the well bore not isolated by cement of any horizontal well in Zone IV in the Ambrose-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment when calculating the bottom hole location in a horizontal well need not be considered.

(147) Sections 30 and 31, Township 164 North, Range 98 West, Divide County, North Dakota, are hereby designated a standup 800-acre spacing unit in Zone IV in the Ambrose-Bakken Pool.

(148) Spacing units hereafter created in Zone IV in the Ambrose-Bakken Pool shall be standup spacing units designated by the Commission.

(149) Zone IV in the Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(150) The proper spacing for the development of Zone V in the Ambrose-Bakken Pool is hereby set at one horizontal well per standup 1280-acre spacing unit.

(151) All portions of the well bore not isolated by cement of any horizontal well in Zone V in the Ambrose-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment need not be considered except when deemed necessary by the Director.

(152) Sections 1 and 12; Sections 2 and 11; Sections 3 and 10; Sections 4 and 9; Sections 5 and 8; Sections 13 and 24; Sections 14 and 23; and Sections 25 and 36, Township 163 North, Range 99 West, Divide County, North Dakota, are hereby designated standup 1280-acre spacing units in Zone V in the Ambrose-Bakken Pool.

(153) Spacing units hereafter created in Zone V in the Ambrose-Bakken Pool shall be standup spacing units consisting of two adjacent governmental sections.

(154) Sections 25 and 36, Township 164 North, Range 99 West and Sections 1 and 12, Township 163 North, Range 99 West; Sections 26 and 35, Township 164 North, Range 99 West and Sections 2 and 11, Township 163 North, Range 99 West; Sections 27 and 34, Township 164 North, Range 99 West and Sections 3 and 10, Township 163 North, Range 99 West; Sections 28 and 33, Township 164 North, Range 99 West and Sections 4 and 9, Township 163 North, Range 99 West; and Sections 29 and 32, Township 164 North, Range 99 West and Sections 5 and 8, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated standup 2080-acre spacing units in Zone VIII in the Ambrose-Bakken Pool.

(155) Sections 13, 24, 25, and 36; and Sections 14, 23, 26, and 35, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated standup 2560-acre spacing units in Zone X in the Ambrose-Bakken Pool.

(156) Zone V in the Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(157) The proper spacing for the development of Zone VI in the Ambrose-Bakken Pool is hereby set at one horizontal well per laydown 1280-acre spacing unit.

(158) All portions of the well bore not isolated by cement of any horizontal well in Zone VI in the Ambrose-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment need not be considered except when deemed necessary by the Director.

(159) Sections 4 and 5, Township 162 North, Range 99 West, Divide County, North Dakota, are hereby designated a laydown 1280-acre spacing unit in Zone VI in the Ambrose-Bakken Pool.

(160) Spacing units hereafter created in Zone VI in the Ambrose-Bakken Pool shall be laydown spacing units consisting of two adjacent governmental sections which overlap 640-acre spacing units.

(161) Section 4; and Section 5, Township 162 North, Range 99 West, Divide County, North Dakota, are also designated 640-acre spacing units in Zone II in the Ambrose-Bakken Pool.

(162) Zone VI in the Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(163) The proper spacing for the development of Zone VII in the Ambrose-Bakken Pool is hereby set at up to seven horizontal wells per standup 1280-acre spacing unit.

(164) All portions of the well bore not isolated by cement of any horizontal well in Zone VII in the Ambrose-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment when calculating the bottom hole location in a horizontal well need not be considered.

(165) Sections 15 and 22; Sections 16 and 21; Sections 17 and 20; Sections 28 and 33; Sections 29 and 32; Sections 30 and 31, Township 163 North, Range 99 West; Sections 6 and 7; Sections 18 and 19, Township 163 North, Range 98 West; Sections 1 and 12; Sections 6 and 7; Sections 16 and 21; Sections 17 and 20; Sections 18 and 19; Sections 26 and 35; Sections 27 and 34; Sections 28 and 33; Sections 29 and 32; Sections 30 and 31, Township 162 North, Range 99 West; Sections 6 and 7; Sections 18 and 19; and Sections 30 and 31, Township 162 North, Range 98 West, Divide County, North Dakota, are hereby designated standup 1280-acre spacing units in Zone VII in the Ambrose-Bakken Pool.

(166) Spacing units hereafter created in Zone VII in the Ambrose-Bakken Pool shall be standup spacing units consisting of two adjacent governmental sections.

(167) Sections 16, 17, 20, and 21; Sections 17, 18\*, 19\*, and 20; Sections 28, 29, 32, and 33; Sections 29, 30, 31, and 32, Township 163 North, Range 99 West; and Sections 25\* and 36\*, Township 163 North, Range 100 West and Sections 30 and 31, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated 2560-acre spacing units in Zone IX in the Ambrose-Bakken Pool.

\*Sections 18, 19, 25, and 36 are within the West Ambrose Field.

(168) Zone VII in the Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(169) The proper spacing for the development of Zone VIII in the Ambrose-Bakken Pool is hereby set at a minimum of four horizontal wells, up to twelve horizontal wells, per standup 2080-acre spacing unit.

(170) All portions of the well bore not isolated by cement of any horizontal well in Zone VIII in the Ambrose-Bakken Pool shall be no closer than 500 feet to the east or west boundary

and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment when calculating the bottom hole location in a horizontal well need not be considered.

(171) Sections 25 and 36, Township 164 North, Range 99 West and Sections 1 and 12, Township 163 North, Range 99 West; Sections 26 and 35, Township 164 North, Range 99 West and Sections 2 and 11, Township 163 North, Range 99 West; Sections 27 and 34, Township 164 North, Range 99 West and Sections 3 and 10, Township 163 North, Range 99 West; Sections 28 and 33, Township 164 North, Range 99 West and Sections 4 and 9, Township 163 North, Range 99 West; and Sections 29 and 32, Township 164 North, Range 99 West and Sections 5 and 8, Township 163 North, Range 99 West, Divide County, North Dakota, are hereby designated standup 2080-acre spacing units in Zone VIII in the Ambrose-Bakken Pool.

(172) A mirror offset horizontal well to the Le Mans #11-2-163-99H well (File No. 20341) shall be drilled and completed in the standup 800-acre spacing unit described as Sections 26 and 35, Township 164 North, Range 99 West; Divide County, North Dakota; a mirror offset horizontal well to the Biscayne #0310-04TFH well (File No. 21363) shall be drilled and completed in the standup 800-acre spacing unit described as Sections 27 and 34, Township 164 North, Range 99 West; Divide County, North Dakota; a mirror offset horizontal well to the Skyline #4-9-163-99H well (File No. 20646) shall be drilled and completed in the standup 800-acre spacing unit described as Sections 28 and 33, Township 164 North, Range 99 West; Divide County, North Dakota; and a mirror offset horizontal well to the Thomte #8-5-163-99H well (File No. 20837) shall be drilled and completed in the standup 800-acre spacing unit described as Sections 29 and 32, Township 164 North, Range 99 West, Divide County, North Dakota, within twelve months of completing the first horizontal well in each respective standup 2080-acre spacing unit. A minimum of four horizontal wells shall be drilled and completed within each proposed standup 2080-acre spacing unit within twenty-four months from when the first horizontal well is completed in each respective standup 2080-acre spacing unit. If these conditions are not met, the Commission shall schedule the matter for consideration to reduce the size of the spacing unit.

(173) Spacing units hereafter created in Zone VIII in the Ambrose-Bakken Pool shall be standup spacing units designated by the Commission.

(174) Sections 25 and 36; Sections 26 and 35; Sections 27 and 34; Sections 28 and 33; and Sections 29 and 32, Township 164 North, Range 99 West, Divide County, North Dakota, are also designated standup 800-acre spacing units in Zone III in the Ambrose-Bakken Pool.

(175) Sections 1 and 12; Sections 2 and 11; Sections 3 and 10; Sections 4 and 9; and Sections 5 and 8, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated standup 1280-acre spacing units in Zone V in the Ambrose-Bakken Pool.

(176) Zone VIII in the Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(177) The proper spacing for the development of Zone IX in the Ambrose-Bakken Pool is hereby set at one horizontal well per 2560-acre spacing unit.

(178) All portions of the well bore not isolated by cement of any horizontal well in Zone IX in the Ambrose-Bakken Pool shall be located approximately down the north-south axis and no closer than 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment need not be considered except when deemed necessary by the Director.

(179) The Ambrose-Bakken Pool in Zone IX is hereby defined as that accumulation of oil and gas found in the interval from the base of the Bakken Formation to 100 feet below the top of the Three Forks Formation.

(180) Sections 16, 17, 20, and 21; Sections 17, 18\*, 19\*, and 20; Sections 28, 29, 32, and 33; Sections 29, 30, 31, and 32, Township 163 North, Range 99 West; and Sections 25\* and 36\*, Township 163 North, Range 100 West and Sections 30 and 31, Township 163 North, Range 99 West, Divide County, North Dakota, are hereby designated 2560-acre spacing units in Zone IX in the Ambrose-Bakken Pool.

\*Sections 18, 19, 25, and 36 are within the West Ambrose Field.

(181) Spacing units hereafter created in Zone IX in the Ambrose-Bakken Pool shall consist of four adjacent governmental sections designated by the Commission.

(182) Sections 16 and 21; Sections 17 and 20; Sections 28 and 33; Sections 29 and 32; and Sections 30 and 31, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated standup 1280-acre spacing units in Zone VII in the Ambrose-Bakken Pool.

(183) Sections 25 and 36, Township 163 North, Range 100 West; and Sections 18 and 19, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated standup 1280-acre spacing units in the West Ambrose-Bakken Pool.

(184) Sections 25, 26, 35, and 36, Township 163 North, Range 100 West; and Sections 13 and 24, Township 163 North, Range 100 West and Sections 18 and 19, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated 2560-acre spacing units in the West Ambrose-Bakken Pool.

(185) Zone IX in the Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(186) The proper spacing for the development of Zone X in the Ambrose-Bakken Pool is hereby set at up to thirteen horizontal wells per standup 2560-acre spacing unit.

(187) All portions of the well bore not isolated by cement of any horizontal well in Zone X in the Ambrose-Bakken Pool shall be no closer than 500 feet to the east or west boundary and 200 feet to the north or south boundary of the spacing unit. Measurement inaccuracies in the directional survey equipment when calculating the bottom hole location in a horizontal well need not be considered.

(188) Sections 13, 24, 25, and 36; and Sections 14, 23, 26, and 35, Township 163 North, Range 99 West, Divide County, North Dakota, are hereby designated standup 2560-acre spacing units in Zone X in the Ambrose-Bakken Pool.

(189) Spacing units hereafter created in Zone X in the Ambrose-Bakken Pool shall be standup spacing units consisting of four adjacent governmental sections.

(190) Section 26; and Section 35, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated 640-acre spacing units in Zone I in the Ambrose-Bakken Pool.

(191) Sections 13 and 24; Sections 14 and 23; and Sections 25 and 36, Township 163 North, Range 99 West, Divide County, North Dakota, are also designated standup 1280-acre spacing units in Zone V in the Ambrose-Bakken Pool.

(192) Zone X in the Ambrose-Bakken Pool shall not be extended except by further order of the Commission after due notice and hearing.

(193) The operator of any horizontally drilled well in the Ambrose-Bakken Pool shall cause to be made a directional survey of the well bore. The directional survey contractor shall file a certified survey with the Commission within 30 days after completion of the well in accordance with NDAC Section 43-02-03-25. The survey shall be of sufficient quality to enable the Commission to determine the entire completion location of the well and its terminus.

(194) The Director is hereby authorized to exercise continuing jurisdiction to determine whether any well proposed or drilled upon any spacing unit herein established has justified the creation of such unit, to require amendments or modifications to the permit to drill for such well, and to deny a permit to drill in the event a well is proposed to be drilled in a manner inconsistent with the evidence that justified the spacing requirements in the Ambrose-Bakken Pool.

(195) The Commission shall have continuing jurisdiction in this matter and specifically reserves the authority, upon its own motion or the motion of any interested party, to: (1) review the spacing requirements for the Ambrose-Bakken Pool; (2) determine whether the separate zones of spacing established herein are warranted; and (3) make such further amendments or modifications to the spacing requirements for the Ambrose-Bakken Pool as the Commission deems appropriate.

(196) No well shall be drilled or produced in the Ambrose-Bakken Pool, as defined herein, except in conformity with the regulations above without special order of the Commission after due notice and hearing.

(197) The following rules concerning the casing, tubing and equipping of wells shall apply to the subsequent drilling and operation of wells in the Ambrose-Bakken Pool:

- (a) The surface casing shall consist of new or reconditioned pipe that has been previously tested to 1000 pounds per square inch. The casing shall be set and cemented at a point not less than 50 feet below the base of the Fox Hills Formation. Sufficient cement shall be used to fill the annular space outside the pipe to the surface of the ground, or the bottom of the cellar, and sufficient scratchers and centralizers

shall be used to assure a good cement job. Cement shall be allowed to stand a minimum of 12 hours before drilling the plug or initiating tests. The quality of cement shall conform to the standards provided under NDAC Section 43-02-03-21. After cementing, the casing shall be tested by application of pump pressure of at least 1500 pounds per square inch. If, at the end of 30 minutes this pressure has dropped 150 pounds per square inch or more, the casing shall be repaired. Thereafter, the casing shall again be tested in the same manner. Further work shall not proceed until a satisfactory test has been obtained;

(b) The producing or oil string shall consist of new or reconditioned pipe that has been previously tested to 2000 pounds per square inch. Casing shall be set and cemented at a point not higher than the top of the producing formation, or at a point approved by the Director. Sufficient cement shall be used and applied in such a manner as to protect and isolate all formations containing oil and/or gas, protect the pipe through salt sections encountered, and isolate the Dakota-Lakota Series. The cement shall be allowed to stand a minimum of 15 hours before drilling the plug or initiating tests. The quality of cement shall conform to the standards provided under NDAC Section 43-02-03-21. After cementing, the casing shall be tested by application of pump pressure of at least 1500 pounds per square inch. If, at the end of 30 minutes this pressure has dropped 150 pounds per square inch or more, the casing shall be repaired. Thereafter, the casing shall again be tested in the same manner. Further work shall not proceed until a satisfactory test has been obtained;

(c) All well-head fittings and connections shall have a working pressure in excess of that to which they are expected to be subjected; and,

(d) All wells shall be equipped with tubing; a tubing packer must also be utilized in flowing wells unless a waiver is obtained from the Director after demonstrating the casing will not be subjected to excessive pressure or corrosion; all tubing shall be of sufficient internal diameter to allow the passage of a bottom hole pressure gauge for the purpose of obtaining bottom hole pressure measurements.

(198) The gas-oil ratio of all wells not connected to a gas gathering system shall be measured annually during the month of May. The reservoir pressure shall be measured in any well completed in the Ambrose-Bakken Pool if deemed necessary by the Director. Drill stem test pressures are acceptable for determining reservoir pressure. Pressure measurements shall be made at or adjusted to a subsea datum of 5740 feet. All gas-oil ratio and reservoir pressure determinations shall be made by methods approved by the Director and reported to the Director within 15 days following the end of the month in which they are determined. The Director is authorized to waive these requirements if the necessity therefore can be demonstrated to his satisfaction. All additional gas-oil ratio and reservoir pressure determinations conducted on any well, but not specially required herein, shall be reported to the Director within 15 days following the end of the month in which they are determined.

(199) No salt water, drilling mud, crude oil, or waste oil shall be stored in pits in this field, except in an emergency, and approved by the Director.



(200) All wells in the Ambrose-Bakken Pool shall be allowed to produce at a maximum efficient rate through September 30, 2013.

(201) After September 30, 2013, all wells in the Ambrose-Bakken Pool shall be allowed to produce at a maximum efficient rate for a period of 60 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, oil production from such wells shall not exceed an average of 200 barrels per day for a period of 60 days; after that, oil production from such wells shall not exceed an average of 150 barrels per day for a period of 60 days, thereafter, oil production from such wells shall not exceed an average of 100 barrels of oil per day; if and when such wells are connected to a gas gathering and processing facility the foregoing restrictions shall be removed, and the wells shall be allowed to produce at a maximum efficient rate. The Director is authorized to issue an administrative order allowing unrestricted production at a maximum efficient rate for a period not to exceed 120 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, if the necessity therefor can be demonstrated to his satisfaction.

(202) If the flaring of gas produced with crude oil from the Ambrose-Bakken Pool causes, or threatens to cause, degradation of ambient air quality, production from the pool shall be further restricted.

(203) This portion of this order shall cover all of the Ambrose-Bakken Pool, common source of supply of crude oil and/or natural gas as herein defined, and continues in full force and effect until further order of the Commission or until the last well in the pool has been plugged and abandoned.

Dated this 5th day of July, 2013.

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA

By the Director, on behalf of the Commission

/s/ Lynn D. Helms, Director

SFN 5729

STATE OF NORTH DAKOTA

AFFIDAVIT OF MAILING

COUNTY OF BURLEIGH

I, Belinda Dickson, being duly sworn upon oath, depose and say: That on the 19th day of July, 2013 enclosed in separate envelopes true and correct copies of the attached Order No. 22099 of the North Dakota Industrial Commission, and deposited the same with the United States Postal Service in Bismarck, North Dakota, with postage thereon fully paid, directed to the following persons by the Industrial Commission in Case No. 19792:

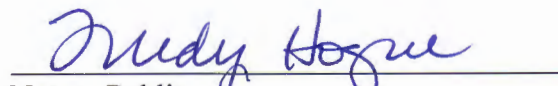
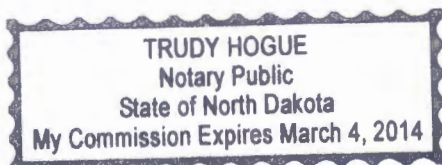
JOHN MORRISON  
CROWLEY FLECK PLLP  
PO BOX 2798  
BISMARCK ND 58502

LAWRENCE BENDER  
FREDRIKSON & BYRON  
PO BOX 1855  
BISMARCK ND 58502



Belinda Dickson  
Oil & Gas Division

On this 19th day of July, 2013 before me personally appeared Belinda Dickson to me known as the person described in and who executed the foregoing instrument and acknowledged that she executed the same as her free act and deed.



Notary Public  
State of North Dakota, County of Burleigh

**Kadrmass, Bethany R.**

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**From:** Lisa Herberholz <lherberholz@crowleyfleck.com>  
**Sent:** Monday, April 08, 2013 1:22 PM  
**To:** Hicks, Bruce E.  
**Cc:** Kadrmass, Bethany R.  
**Subject:** Telephonic Affidavits  
**Attachments:** SM - Bachman Telephonic Aff 19792.pdf; SM - Heringer Telephonic Aff 19792.pdf; SM - Hill Telephonic Aff 19792.pdf

Attached please find telephonic affidavits in Case No. 19792. Thank you.

Lisa

CROWLEY | FLECK PLLP  
ATTORNEYS

*Lisa Herberholz*

Administrative Assistant  
Crowley Fleck PLLP  
400 East Broadway Avenue, Suite 600  
P.O. Box 2798  
Bismarck, ND 58502  
Direct 701.224.7538  
Fax 701.222.4853  
✉ [lherberholz@crowleyfleck.com](mailto:lherberholz@crowleyfleck.com)

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**TELEPHONIC COMMUNICATION AFFIDAVIT**

**Industrial Commission of North Dakota**

**Oil and Gas Division**

**600 East Boulevard, Dept. 405**

**Bismarck, ND 58505-0840**

This affidavit is made to comply with North Dakota Administrative Code Section 43-02-03-88.2.

I, Garth Hill, do hereby confirm that I presented testimony under oath in North Dakota Industrial Commission Case Number 19792 on March 27, 2013. My testimony was presented by telephone from (406) 869-8752, SM Energy, 550 North 31<sup>st</sup> Street, Suite 500, Billings, Montana, 59103-7168.

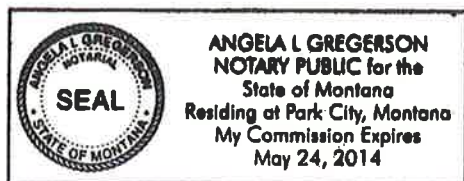


(Affiant's Signature)

STATE OF MONTANA                    )  
  ) ss.  
COUNTY OF YELLOWSTONE        )

On April 8<sup>th</sup>, 2013, Garth Hill, known to me to be the person described in and who executed the foregoing instrument, personally appeared before me and acknowledged that he executed the same as a free act and deed.

( S E A L )



Angela L. Gregerson  
Notary Public  
State of Montana, County of Stillwater ~~Yellowstone~~  
My Commission Expires: May 24, 2014

**TELEPHONIC COMMUNICATION AFFIDAVIT**

**Industrial Commission of North Dakota**

**Oil and Gas Division**

**600 East Boulevard, Dept. 405**

**Bismarck, ND 58505-0840**

This affidavit is made to comply with North Dakota Administrative Code Section 43-02-03-88.2.

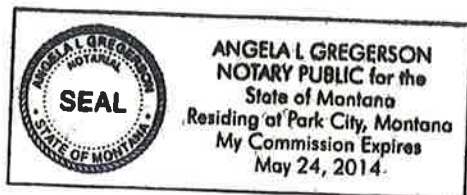
I, Shawn Heringer, do hereby confirm that I presented testimony under oath in North Dakota Industrial Commission Case Number 19792 on March 27, 2013. My testimony was presented by telephone from (406) 869-8752, SM Energy, 550 North 31<sup>st</sup> Street, Suite 500, Billings, Montana, 59103-7168.

Shawn C. Heringer  
(Affiant's Signature)

STATE OF MONTANA                    )  
  ) ss.  
COUNTY OF YELLOWSTONE        )

On April 8<sup>th</sup>, 2013, Shawn Heringer, known to me to be the person described in and who executed the foregoing instrument, personally appeared before me and acknowledged that he executed the same as a free act and deed.

( S E A L )



Angela L. Gregerson  
Notary Public  
State of Montana, County of Stillwater ~~Yellowstone~~  
My Commission Expires: May 24, 2014

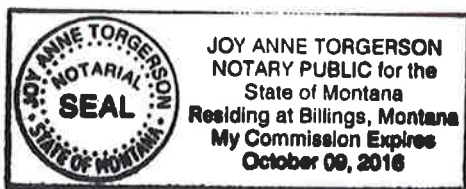
**Bismarck, ND 58505-0840**

I, Bob Bachman, do hereby confirm that I presented testimony under oath in North Dakota Industrial Commission Case Number 19792 on March 27, 2013. My testimony was presented by telephone from (406) 869-8752, SM Energy, 550 North 31<sup>st</sup> Street, Suite 500, Billings, Montana, 59103-7168.

STATE OF MONTANA )  
 ) ss.  
COUNTY OF YELLOWSTONE )

On April 08, 2013, Bob Bachman, known to me to be the person described in and who executed the foregoing instrument, personally appeared before me and acknowledged that he executed the same as a free act and deed.

( S E A L )



By Anne Torgerson  
Notary Public  
State of Montana, County of Yellowstone  
My Commission Expires: October 09, 2016

# **MUREX PETROLEUM CORPORATION**

**515 N. Sam Houston Pkwy E. Ste. 485**

**Houston, TX 77060**

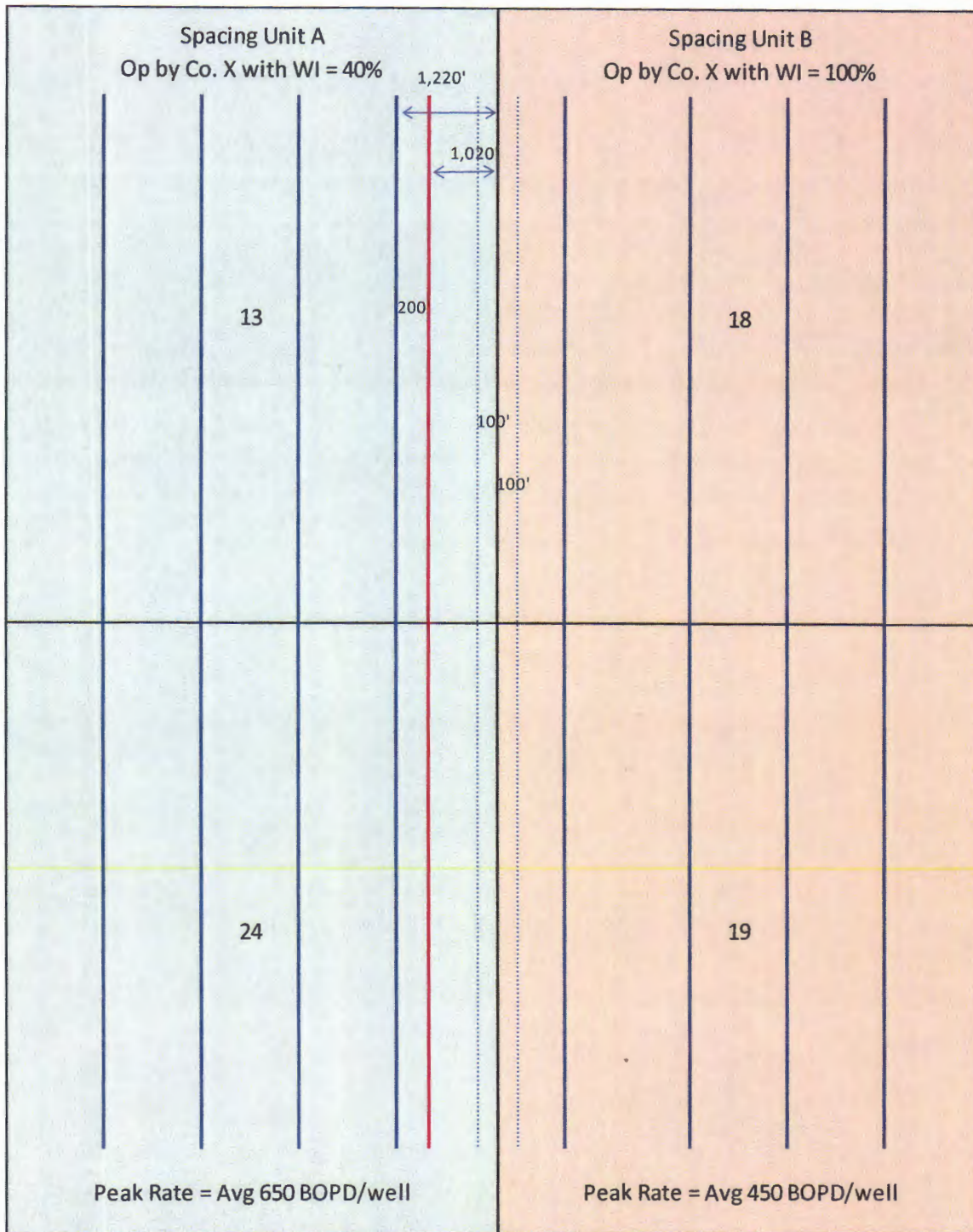
**(281) 590-3313**

**CASE NO. 19792**

**Proposed Correlative Rights Protection  
When drilling lease line wells on 2560 Spacing Units**

**Before the  
North Dakota Industrial Commission  
March 27<sup>th</sup>, 2013**





After the Establishment of the 2,560 Acre Unit:

Company X now has a WI of 70% instead of 40% on a well drilled > 1,000' into their lower WI 1280

**Red Line = Well that could be drilled by Company X with no maximum distance from lease line**

Dotted Line = 100' boundary from Section Line

**PROPOSED PROVISION IN THE ORDER - Section Line well must stay within 100' of the section line on either side - 200' window**

**Exhibit #1**

DATE 3-27-13 CASE NO. 1792  
 Introduced By Murex  
 Exhibit 1  
 Identified By Kemp







# **BEFORE THE NORTH DAKOTA INDUSTRIAL COMMISSION**

**CASE NO. 19792**

**Application of SM Energy Co. for amending the applicable orders for the Ambrose, West Ambrose, and Colgan-Bakken Pools (1) to allow up to eight horizontal wells to be drilled on some or all of the 1280-acre spacing units within said pools; (2) to establish twenty-two overlapping 2560-acre spacing units in one or more of said pools and allow one or more horizontal wells to be drilled thereon, said overlapping spacing units described as Sections 16, 17, 20 and 21; Sections 17, 18, 19 and 20; Sections 28, 29, 32 and 33; Sections 29, 30, 31 and 32, T.163N., R.99W.; Sections 18 and 19, T.163N., R.99W., and Sections 13 and 24, T.163N., R.100W.; and Sections 30 and 31, T.163N., R.99W., and Sections 25 and 36, T.163N., R.100W.; Sections 1, 2, 11 and 12; Sections 2, 3, 10 and 11; Sections 3, 4, 9, and 10; Sections 4, 5, 8 and 9; Sections 5, 6, 7 and 8; Sections 13, 14, 23 and 24; Sections 14, 15, 22 and 23; Sections 15, 16, 21 and 22; Sections 16, 17, 20 and 21; Sections 17, 18, 19 and 20; Sections 25, 26, 35 and 36; Sections 26, 27, 34 and 35; Sections 27, 28, 33 and 34, T.163N., R.100W.; Sections 18 and 19, T.163N., R.100W., and Sections 13 and 24, T.163N., R.101W.; and Sections 13, 14, 23 and 24; and Sections 14, 15, 22 and 23, T.163N., R.101W.; Divide County, ND; and (3) granting such other relief as may be appropriate.**

**March 27, 2013**

**SM ENERGY COMPANY**



## **CASE NO. 19792**

### **INDEX**

<b>Exhibit A</b>	<b>Spacing Unit Map #1</b>
<b>Exhibit A1</b>	<b>Spacing Unit Map #2</b>
<b>Exhibit A2</b>	<b>Spacing Unit Ownership (12 pages)</b>
<b>Exhibit B</b>	<b>Structure Map</b>
<b>Exhibit C</b>	<b>Isopach Map</b>
<b>Exhibit D</b>	<b>Proposed Lease Line Wells Map</b>
<b>Exhibit D1</b>	<b>Three Forks Wells Only Map</b>
<b>Exhibit D2</b>	<b>All Possible Wells Map</b>
<b>Exhibit E</b>	<b>Example – Three Forks Well Spacing</b>
<b>Exhibit E1</b>	<b>Example – All Proposed Wells Equally Spaced</b>
<b>Exhibit F</b>	<b>Type Log</b>
<b>Exhibit G</b>	<b>Production Type Curve</b>
<b>Exhibit H</b>	<b>Bakken Reservoir Data &amp; Volumetrics</b>
<b>Attachments:</b>	
	<b>– Example Wellbore Schematic Roese 4-29H (1 page)</b>



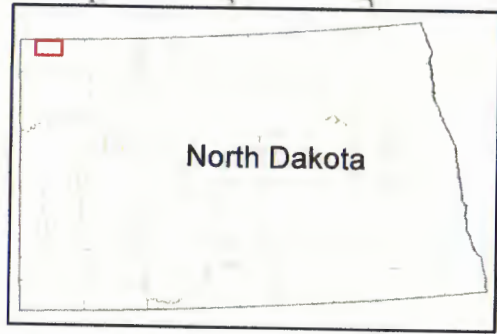
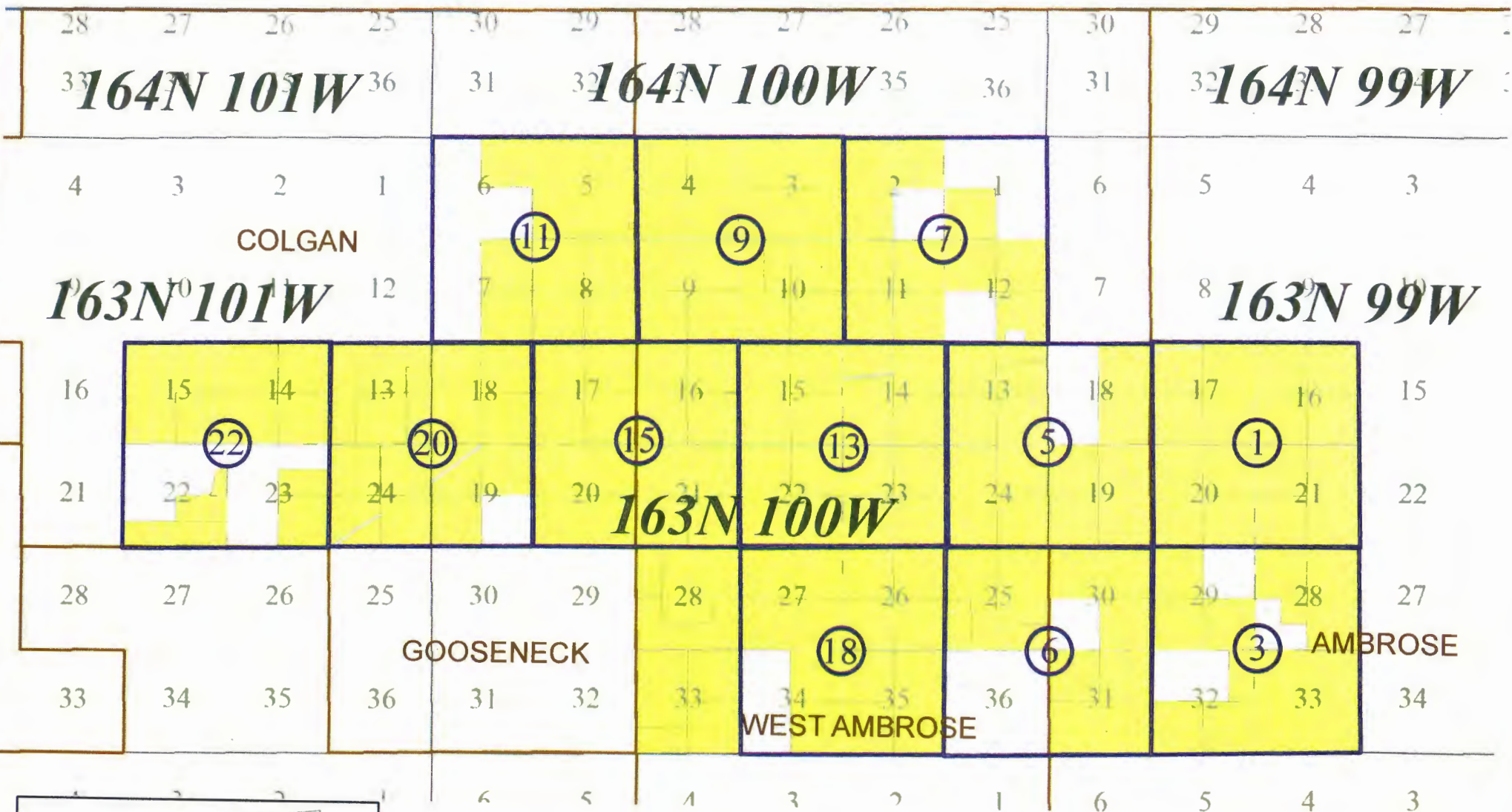


EXHIBIT A  
 Spacing Unit Map #1  
 Divide County, ND  
 NDIC CASE NO. 19792  
 March 27, 2013

INDUSTRIAL COMMISSION  
 STATE OF NORTH DAKOTA  
 DATE 3-27-13 CASE NO. 19792  
 Introduced By SM Energy  
 Exhibit A  
 Identified By Heringer



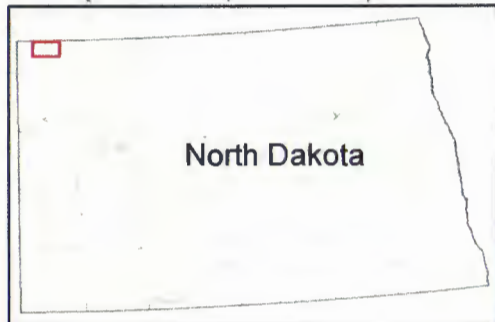
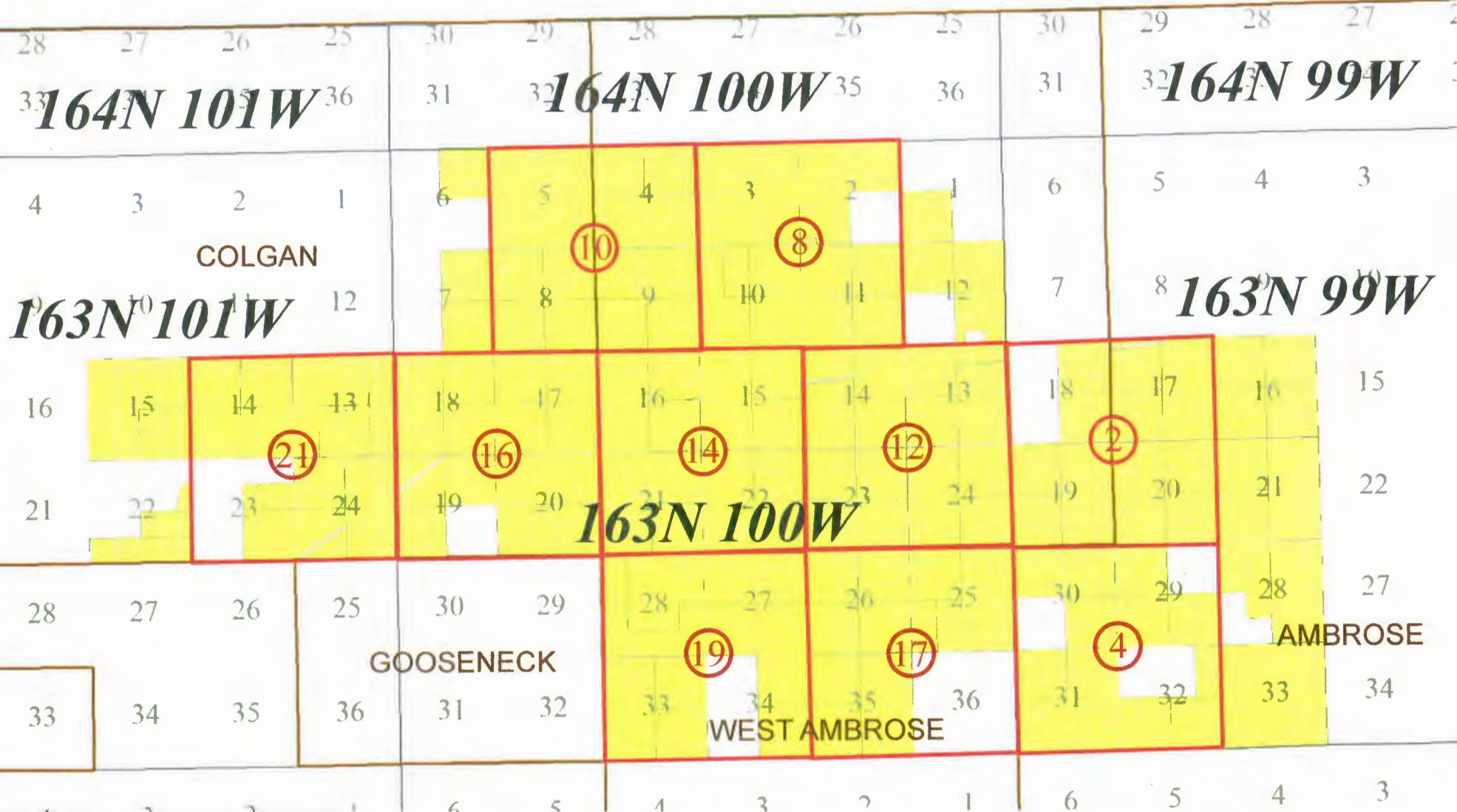


EXHIBIT A1  
Spacing Unit Map #2  
Divide County, ND  
NDIC CASE NO. 19792  
March 27, 2013

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
Introduced By SM Energy  
Exhibit A1  
Identified By H. Bringer





EXHIBIT A2  
Spacing Unit Ownership  
Divide County, ND

NDIC CASE NO. 19792  
March 27, 2013



<b>1 Summary Ownership:</b>					
<b>T163N-R99W</b>		<b>T163N-R99W</b>		<b>T163N-R99W</b>	
<b>SECS. 16, 17, 20, 21</b>		<b>SECS. 16 &amp; 21</b>		<b>SECS. 17 &amp; 20</b>	
<b>2560 Acre Unit</b>		<b>1280 Acre Unit</b>		<b>1280 Acre Unit</b>	
<b>WI OWNER</b>	<b>GWI</b>	<b>WI OWNER</b>	<b>GWI</b>	<b>WI OWNER</b>	<b>GWI</b>
SM Energy Company	79.4435%	SM Energy Company	76.9097%	SM Energy Company	81.9772%
Armstrong Oil & Gas, Inc.	11.4614%	Armstrong Oil & Gas, Inc.	18.7500%	Armstrong Oil & Gas, Inc.	4.1729%
Samson Resources Company	1.7609%	David S. and Jennifer Gjovig, as JT	2.0833%	Samson Resources Company	3.5219%
Baytex Energy USA Ltd	1.2578%	Balance Non-Op Owners	2.2569%	Baytex Energy USA Ltd	2.5156%
Marcin Production, LLC	0.7813%		100.0000%	Marcin Production, LLC	1.5625%
Wolf Energy, LLC	0.3906%			Wolf Energy, LLC	0.7813%
Benjamin Fliginger	0.3906%			Benjamin Fliginger	0.7813%
Balance Non-Op Owners	4.5138%			Balance Non-Op Owners	4.6875%
	100.0000%				100.0000%

<b>2 Summary Ownership:</b>					
<b>T163N-R99W</b>		<b>T163N-R99W</b>		<b>T163N-R99W</b>	
<b>SECS. 17, 18, 19, 20</b>		<b>SECS. 17 &amp; 20</b>		<b>SECS. 18 &amp; 19</b>	
<b>2546.32 Acre Unit</b>		<b>1280 Acre Unit</b>		<b>1266.32 Acre Unit</b>	
<b>WI OWNER</b>	<b>GWI</b>	<b>WI OWNER</b>	<b>GWI</b>	<b>WI OWNER</b>	<b>GWI</b>
SM Energy Company	73.6400%	SM Energy Company	81.9772%	SM Energy Company	65.2127%
Pride Energy Company	4.6578%	Armstrong Oil & Gas, Inc.	4.1729%	Whiting Oil and Gas Corp.	12.9997%
Armstrong Oil & Gas, Inc.	2.0977%	Samson Resources Company	3.5219%	Pride Energy Company	9.3659%
Samson Resources Company	3.3899%	Baytex Energy USA Ltd	2.5156%	Samson Resources Company	3.2566%
Whiting Oil and Gas Corp.	6.4649%	Marcin Production, LLC	1.5625%	Baytex Energy USA Ltd	2.3261%
Baytex Energy USA Ltd	2.4214%	Wolf Energy, LLC	0.7813%	The Pfanensteil Company, LLC	2.7341%
The Pfanensteil Company, LLC	1.3597%	Benjamin Fliginger	0.7813%	Durango Production Corp.	1.0462%
Williston Hunter, Inc.	0.6457%	Williston Hunter, Inc.	0.6708%	Balance Non-Op Owners	3.0587%
Durango Production Corp.	0.5203%	Balance Non-Op Owners	4.0166%		100.0000%
Balance Non-Op Owners	4.8026%		100.0000%		
	100.0000%				

2560 Spacing Unit #'s 1, 3, 5, 6, 7, 9, 11, 13, 15, 18, 20, & 22 Location = See Exhibit A Map #1

2560 Spacing Unit #'s 2, 4, 8, 10, 12, 14, 16, 17, 19, & 21 Location = See Exhibit A1 Map #2

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
Introduced By A-1  
Exhibit A2-1  
Identified By Heringer

<b>3</b> Summary Ownership:					
<b>T163N-R99W</b>			<b>T163N-R99W</b>		
<b>SECS. 28, 29, 32, 33</b>			<b>SECS. 28 &amp; 33</b>		
<b>2560 Acre Unit</b>			<b>1280 Acre Unit</b>		
<b>WI OWNER</b>	<b>GWI</b>		<b>WI OWNER</b>	<b>GWI</b>	
SM Energy Company	55.3250%		SM Energy Company	56.1361%	
Samson Resources Company	22.1261%		Samson Resources Company	20.3721%	
Northern Oil & Gas Inc.	4.5906%		Northern Oil & Gas Inc.	9.1813%	
Armstrong Resources, LLC	2.3438%		Armstrong Resources, LLC	4.6875%	
Williston Hunter, Inc.	4.2145%		Williston Hunter, Inc.	3.8804%	
Bakken Hunter, LLC	9.3388%		Bakken Hunter, LLC	1.6202%	
David L. Goldal	0.7813%		David L. Goldal	1.5625%	
Petro-Sentinel LLC	0.4042%		Petro-Sentinel LLC	0.8084%	
Ashwood Resources, LLC	0.2930%		Ashwood Resources, LLC	0.5859%	
Balance Non-Op Owners	0.5828%		Balance Non-Op Owners	1.1656%	
	100.0000%			100.0000%	

<b>4</b> Summary Ownership:					
<b>T163N-R99W</b>			<b>T163N-R99W</b>		
<b>SECS. 29, 30, 31, 32</b>			<b>SECS. 30 &amp; 31</b>		
<b>2550.64 Acre Unit</b>			<b>1270.64 Acre Unit</b>		
<b>WI OWNER</b>	<b>GWI</b>		<b>WI OWNER</b>	<b>GWI</b>	
SM Energy Company	64.7656%		SM Energy Company	75.0929%	
Samson Resources Company	15.2311%		Samson Resources Company	6.5183%	
MBI Oil & Gas LLC	11.0992%		MBI Oil & Gas LLC	5.0973%	
Bakken Hunter, LLC	4.6021%		Bakken Hunter, LLC	4.6559%	
Stewart Geological Inc.	1.8668%		Stewart Geological Inc.	3.7474%	
Northern Oil & Gas Inc.	1.5055%		Northern Oil & Gas Inc.	3.0220%	
Williston Hunter, Inc.	0.6185%		Williston Hunter, Inc.	1.2416%	
Marcin Production LLC	0.3111%		Marcin Production LLC	0.6246%	
	100.0000%			100.0000%	

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA

DATE 3-27-13 CASE NO. 19792

Introduced By SM Energy

Exhibit A2-2

Identified By Hringer

2560 Spacing Unit #'s 1, 3, 5, 6, 7, 9, 11, 13, 15, 18, 20, & 22 Location = See Exhibit A Map #1

2560 Spacing Unit #'s 2, 4, 8, 10, 12, 14, 16, 17, 19, & 21 Location = See Exhibit A1 Map #2

EXHIBIT A2  
Spacing Unit Ownership  
Divide County, ND

NDIC CASE NO. 19792  
March 27, 2013



<b>5 Summary Ownership:</b>					
<b>Secs. 18 &amp; 19 -T163N-R99W</b>			<b>T163N-R99W</b>		
<b>Secs. 13 &amp; 24 -T163N-R100W</b>			<b>SECS. 18 &amp; 19</b>		
<b>2546.32 Acre Unit</b>			<b>1266.32 Acre Unit</b>		
<b>WI OWNER</b>	<b>GW</b>		<b>WI OWNER</b>	<b>GW</b>	
SM Energy Company	76.7355%		SM Energy Company	65.2127%	
Whiting Oil and Gas Corp.	6.4649%		Whiting Oil and Gas Corp.	12.9997%	
Pride Energy Company	4.6578%		Pride Energy Company	9.3659%	
Samson Resources Company	2.0162%		Samson Resources Company	3.2566%	
The Pfanensteil Company, LLC	1.3597%		Baytex Energy USA Ltd	2.3261%	
Baytex Energy USA LTD	1.4401%		The Pfanensteil Company, LLC	2.7341%	
J. Hiram Moore, LTD	0.5289%		Durango Production Corp.	1.0462%	
Durango Production Corp.	0.5203%		Balance Non-Op Owners	3.0587%	
Shanon D. Gjovig	0.4073%			100.0000%	
Markham Gjovig	0.4073%				
Geralyn Johnson	0.4073%				
Rory Gjovig	0.4073%				
Timothy Gjovig	0.4073%				
David Gjovig	0.4073%				
Murex Petroleum Corporation	0.3943%				
Balance Non-Op Owners	3.4387%				
	100.0000%				
			<b>T163N-R100W</b>		
			<b>SECS. 13 &amp; 24</b>		
			<b>1280 Acre Unit</b>		
			<b>WI OWNER</b>	<b>GW</b>	
			SM Energy Company	88.1352%	
			J. Hiram Moore, LTD	1.0521%	
			G4, LLC	0.4754%	
			Geronimo Holding Corporation	0.4754%	
			Shanon D. Gjovig	0.8102%	
			Markham Gjovig	0.8102%	
			Geralyn Johnson	0.8102%	
			Rory Gjovig	0.8102%	
			Timothy Gjovig	0.8102%	
			David Gjovig	0.8102%	
			Samson Resources Company	0.7891%	
			Murex Petroleum Corporation	0.7844%	
			Balance Non-Op Owners	3.4275%	
				100.0000%	

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
Introduced By SM Energy  
Exhibit A2-3  
Identified By Heringer

2560 Spacing Unit #'s 1, 3, 5, 6, 7, 9, 11, 13, 15, 18, 20, & 22 Location = See Exhibit A Map #1

2560 Spacing Unit #'s 2, 4, 8, 10, 12, 14, 16, 17, 19, & 21 Location = See Exhibit A1 Map #2



<b>6 Summary Ownership:</b>		<b>T163N-R99W</b>		<b>T163N-R100W</b>	
<b>Secs. 30 &amp; 31 -T163N-R99W</b>		<b>Secs. 30 &amp; 31</b>		<b>SECS. 25 &amp; 36</b>	
<b>2550.64 Acre Unit:</b>		<b>1270.64 Acre Unit</b>		<b>1280 Acre Unit</b>	
<b>WI OWNER</b>	<b>GWI</b>	<b>WI OWNER</b>	<b>GWI</b>	<b>WI OWNER</b>	<b>GWI</b>
SM Energy Company	59.1748%	SM Energy Company	75.0929%	SM Energy Company	43.3731%
Samson Resources Company	18.0975%	Samson Resources Company	6.5183%	Samson Resources	29.5920%
MBI Oil & Gas LLC	2.5393%	MBI Oil & Gas LLC	5.0973%	Bakken Hunter, LLC	21.1371%
Bakken Hunter, LLC	12.9268%	Bakken Hunter, LLC	4.6559%	Williston Hunter, Inc.	5.6366%
Stewart Geological Inc.	1.8668%	Stewart Geological Inc.	3.7474%	Paul Ebeltoft	0.1157%
Northern Oil & Gas Inc.	1.5055%	Northern Oil & Gas Inc.	3.0220%	Randal Sickler	0.1157%
Williston Hunter, Inc.	3.4472%	Williston Hunter, Inc.	1.2416%	Murex Petroleum Corp.	0.0298%
Marcin Production LLC	0.3111%	Marcin Production LLC	0.6246%		100.0000%
Paul Ebeltoft	0.0581%		100.0000%		
Randal Sickler	0.0581%				
Murex Petroleum Corp.	0.0149%				
	100.0000%				

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
Introduced By SM Energy  
Exhibit A2-4  
Identified By Heringer

2560 Spacing Unit #'s 1, 3, 5, 6, 7, 9, 11, 13, 15, 18, 20, & 22 Location = See Exhibit A Map #1

2560 Spacing Unit #'s 2, 4, 8, 10, 12, 14, 16, 17, 19, & 21 Location = See Exhibit A1 Map #2

<b>7</b> Summary Ownership: <b>T163N-R100W</b> <b>SECS. 1, 2, 11, 12</b> <b>2561.92 Acre Unit</b>			<b>T163N-R100W</b> <b>SECS. 1 &amp; 12</b> <b>1280.80 Acre Unit</b>		<b>T163N-R100W</b> <b>SECS. 2 &amp; 11</b> <b>1281.12 Acre Unit</b>	
<b>WI OWNER</b>			<b>WI OWNER</b>			<b>GWI</b>
SM Energy Company	57.1659%		SM Energy Company	30.5934%	SM Energy Company	83.7317%
Crescent Point Energy U.S. Corp.	8.4523%		Crescent Point Energy U.S. Corp.	16.9066%	Samson Resources Company	6.5568%
American Eagle Energy Corporation	5.7684%		American Eagle Energy Corporation	11.3353%	Bakken Hunter, LLC	4.6834%
NextEra Energy Gas Producing, LLC	5.6669%		NextEra Energy Gas Producing, LLC	11.3353%	Williston Hunter, Inc.	1.2489%
Murex Petroleum Corporation	4.7490%		Murex Petroleum Corporation	9.3848%	J. Hiram Moore, Ltd, et al.	1.0928%
Davis Exploration, LLC	3.0787%		Davis Exploration, LLC	6.1583%	Balance Non-Op Owners	2.6864%
Samson Resources Company	4.2337%		Samson Resources Company	1.9101%		100.0000%
Bakken Hunter, LLC	3.0241%		Bakken Hunter, LLC	1.3644%		
MBI Oil & Gas, LLC	0.5353%		MBI Oil & Gas, LLC, et al.	1.0708%		
Balance Non-Op Owners	7.3256%		Balance Non-Op Owners	9.9411%		
	100.0000%			100.0000%		

<b>8</b> Summary Ownership: <b>T163N-R100W</b> <b>SECS. 2, 3, 10, 11</b> <b>2561.12 Acre Unit</b>			<b>T163N-R100W</b> <b>SECS. 2 &amp; 11</b> <b>1281.12 Acre Unit</b>		<b>T163N-R100W</b> <b>SECS. 3 &amp; 10</b> <b>1280 Acre Unit</b>	
<b>WI OWNER</b>			<b>WI OWNER</b>			<b>GWI</b>
SM Energy Company	71.2436%		SM Energy Company	83.7317%	SM Energy Company	58.7445%
Samson Resources Company	4.9187%		Samson Resources Company	6.5568%	Crescent Point Energy U.S. Corp.	22.5141%
Crescent Point Energy U.S. Corp.	11.2521%		Bakken Hunter, LLC	4.6834%	Richard Gallegos	6.2461%
Bakken Hunter, LLC	3.5133%		Williston Hunter, Inc.	1.2489%	American Eagle Energy Corp.	4.0631%
American Eagle Energy Corp.	2.1322%		J. Hiram Moore, Ltd	1.0928%	Samson Resources Company	3.2792%
Richard Gallegos	3.1217%		Balance Non-Op Owners	2.6864%	Bakken Hunter, LLC	2.3423%
Balance Non-Op Owners	3.8184%			100.0000%	Rich Slagle Minerals Trust	1.5615%
	100.0000%				Balance Non-Op Owners	1.2492%
						100.0000%

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA

2560 Spacing Unit #'s 1, 3, 5, 6, 7, 9, 11, 13, 15, 18, 20, & 22 Location = See Exhibit A Map #1  
2560 Spacing Unit #'s 2, 4, 8, 10, 12, 14, 16, 17, 19, & 21 Location = See Exhibit A1 Map #2

DATE 3-27-13 CASE NO. 19792  
Introduced By SM Energy  
Exhibit A2-5  
Identified By Heringer



9

**Summary Ownership:**

**T163N-R100W**  
**SECS. 3, 4, 9, 10**  
**2561.04 Acre Unit**

WI OWNER	GW
SM Energy Company	66.7304%
Crescent Point Energy U.S. Corp.	14.3762%
American Eagle Energy Corporation	4.9839%
NextEra Energy Gas Production	2.9531%
Missouri River Royalty Corporation	0.9454%
PEC Minerals, LLC	0.7834%
MBI Oil and Gas, LLC	0.5355%
Balance Non-Op Owners	8.6922%
	100.0000%

**T163N-R100W**  
**SECS. 3 & 10**  
**1280 Acre Unit**

WI OWNER	GW
SM Energy Company	58.7445%
Crescent Point Energy U.S. Corp.	22.5141%
Richard Gallegos	6.2461%
American Eagle Energy Corp.	4.0631%
Samson Resources Company	3.2792%
Bakken Hunter, LLC	2.3423%
Rich Slagle Minerals Trust	1.5615%
Balance Non-Op Owners	1.2492%
	100.0000%

**T163N-R100W**  
**SECS. 4 & 9**  
**1281.04 Acre Unit**

WI OWNER	GW
SM Energy Company	74.7098%
Crescent Point Energy U.S. Corp.	6.2449%
American Eagle Energy Corporation	5.9039%
NextEra Energy Gas Production	5.9039%
Missouri River Royalty Corporation	1.8900%
PEC Minerals, LLC	1.5661%
MBI Oil and Gas, LLC	1.0706%
Balance Non-Op Owners	2.7109%
	100.0000%

10

**Summary Ownership:**

**T163N-R100W**  
**SECS. 4, 5, 8, 9**  
**2561.6 Acre Unit**

WI OWNER	GW
SM Energy Company	81.5885%
Crescent Point Energy U.S. Corp.	3.1231%
American Eagle Energy Corporation	3.7235%
NextEra Energy Gas Production	3.7235%
Northern Oil & Gas, Inc.	1.5420%
Missouri River Royalty Corporation	0.9452%
PEC Minerals, LLC	0.7832%
MBI Oil and Gas, LLC	0.5354%
Balance Non-Op Owners	4.0357%
	100.0000%

**T163N-R100W**  
**SECS. 4 & 9**  
**1281.04 Acre Unit**

WI OWNER	GW
SM Energy Company	74.7098%
Crescent Point Energy U.S. Corp.	6.2449%
American Eagle Energy Corporation	5.9039%
NextEra Energy Gas Production	5.9039%
Missouri River Royalty Corporation	1.8900%
PEC Minerals, LLC	1.5661%
MBI Oil and Gas, LLC	1.0706%
Balance Non-Op Owners	2.7109%
	100.0000%

**T163N-R100W**  
**SECS. 5 & 8**  
**1280.56 Acre Unit**

WI OWNER	GW
SM Energy Company	88.4698%
Murex Petroleum Corporation	5.3611%
Northern Oil & Gas, Inc.	3.0846%
NextEra Energy Gas Producing, LLC	1.5423%
American Eagle Energy Corporation	1.5423%
	100.0000%

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA

DATE 3-27-13 CASE NO. 19792

Introduced By SM Energy

Exhibit A2-6

Identified By Hevinger

2560 Spacing Unit #'s 1, 3, 5, 6, 7, 9, 11, 13, 15, 18, 20, & 22 Location = See Exhibit A Map #1

2560 Spacing Unit #'s 2, 4, 8, 10, 12, 14, 16, 17, 19, & 21 Location = See Exhibit A1 Map #2

EXHIBIT A2  
Spacing Unit Ownership  
Divide County, ND

NDIC CASE NO. 19792  
March 27, 2013



<b>11</b> Summary Ownership:		<b>T163N-R100W</b>		<b>T163N-R100W</b>	
<b>T163N-R100W</b>		<b>SECS. 5 &amp; 8</b>		<b>SECS. 6 &amp; 7</b>	
<b>2425.96 Acre Unit</b>		<b>1280.56 Acre unit</b>		<b>1244.4 Acre Unit</b>	
<b>WI OWNER</b>	<b>GW</b>	<b>WI OWNER</b>	<b>GW</b>	<b>WI OWNER</b>	<b>GW</b>
SM Energy Company	60.2576%	SM Energy Company	88.4698%	SM Energy Company	31.2256%
American Eagle Energy Corporation	9.9099%	Murex Petroleum Corporation	5.3611%	American Eagle Energy Corporation	18.5206%
NextEra Energy Gas Producing, LLC	9.9099%	Northern Oil & Gas, Inc.	3.0846%	NextEra Energy Gas Producing, LLC	18.5206%
Denbury Onshore, LLC	3.1684%	NextEra Energy Gas Producing, LLC	1.5423%	Denbury Onshore, LLC	6.4288%
Prima Exploration, Inc.	3.0627%	American Eagle Energy Corporation	1.5423%	Prima Exploration, Inc.	6.2145%
Crescent Point Energy U.S. Corp.	2.8515%		100.0000%	Mountain Production Company	0.2143%
Murex Petroleum Corporation	5.2797%			MBI Oil & Gas, LLC	6.4288%
Balance Non-Op Owners	5.5604%			Crescent Point Energy U.S. Corp.	5.7859%
	100.0000%			Murex Petroleum Corporation	5.1960%
				Balance Non-Op Owners	1.4650%
					100.0000%

<b>12</b> Summary Ownership:		<b>T163N-R100W</b>		<b>T163N-R100W</b>	
<b>T163N-R100W</b>		<b>SECS. 13 &amp; 24</b>		<b>SECS. 14 &amp; 23</b>	
<b>2560 Acre Unit</b>		<b>1280 Acre unit</b>		<b>1280 Acre Unit</b>	
<b>WI OWNER</b>	<b>GW</b>	<b>WI OWNER</b>	<b>GW</b>	<b>WI OWNER</b>	<b>GW</b>
SM Energy Company	84.9941%	SM Energy Company	88.1352%	SM Energy Company	81.8530%
Mountainview Energy, Inc.	1.6257%	J. Hiram Moore, LTD	1.0521%	Samson Resources Company	3.2813%
Northern Oil & Gas, Inc.	0.9609%	G4, LLC	0.4754%	Mountainview Energy, Inc.	3.2515%
J. Hiram Moore, LTD	0.5260%	Geronimo Holding Corporation	0.4754%	Murex Petroleum Corporation	2.0013%
Divide Resources, LLC	0.5419%	Shanon D. Gjovig	0.8102%	Northern Oil & Gas, Inc.	1.9219%
Donald Opsata Trust	0.4427%	Markham Gjovig	0.8102%	Divide Resources, LLC	1.0838%
Marion Opsata Moyer Trust	0.4427%	Geralyn Johnson	0.8102%	G4, LLC	0.9523%
G4, LLC	0.7139%	Rory Gjovig	0.8102%	Geronimo Holdings Corporation	0.9523%
Geronimo Holding Corporation	0.7139%	Timothy Gjovig	0.8102%	Balance Non-Op Owners	4.7026%
Balance Non-Op Owners	9.0382%	David Gjovig	0.8102%		
	100.0000%	Samson Resources Company	0.7891%		
		Murex Petroleum Corporation	0.7844%		
		Balance Non-Op Owners	3.4275%		
			100.0000%		

2560 Spacing Unit #'s 1, 3, 5, 6, 7, 9, 11, 13, 15, 18, 20, & 22 Location = See Exhibit A Map #1

2560 Spacing Unit #'s 2, 4, 8, 10, 12, 14, 16, 17, 19, & 21 Location = See Exhibit A1 Map #2

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
Introduced By SM Energy  
Exhibit A2-7  
Identified By Herlinger



<b>13</b> Summary Ownership:					
<b>T163N-R100W</b>			<b>T163N-R100W</b>		
<b>SECS. 14, 15, 22, 23</b>			<b>SECS. 14 &amp; 23</b>		
<b>2560 Acre Unit</b>			<b>1280 Acre Unit</b>		
<b>WI OWNER</b>	<b>GW</b>		<b>WI OWNER</b>	<b>GW</b>	
SM Energy Company	88.7398%		SM Energy Company	81.8530%	
Samson Resources Company	1.6406%		Samson Resources Company	3.2813%	
Mountainview Energy, Inc.	1.6258%		Mountainview Energy, Inc.	3.2515%	
Murex Petroleum Corporation	1.0006%		Murex Petroleum Corporation	2.0013%	
Northern Oil & Gas, Inc.	0.9609%		Northern Oil & Gas, Inc.	1.9219%	
Divide Resources, LLC	0.5419%		Divide Resources, LLC	1.0838%	
J. Hiram Moore, Ltd	0.5261%		G4, LLC	0.9523%	
G4, LLC	0.7145%		Geronimo Holdings Corporation	0.9523%	
Geronimo Holdings Corporation	0.7145%		Balance Non-Op Owners	4.7026%	
Balance Non-Op Owners	3.5354%			100.0000%	
	100.0000%				

<b>14</b> Summary Ownership:					
<b>T163N-R100W</b>			<b>T163N-R100W</b>		
<b>SECS. 15, 16, 21, 22</b>			<b>SECS. 15 &amp; 22</b>		
<b>2560 Acre Unit</b>			<b>1280 Acre Unit</b>		
<b>WI OWNER</b>	<b>GW</b>		<b>WI OWNER</b>	<b>GW</b>	
SM Energy Company	91.3258%		SM Energy Company	95.6266%	
Crescent Point Energy U.S. Corp.	5.8388%		J. Hiram Moore, Ltd	1.0521%	
American Eagle Energy Corp.	0.6488%		G4, LLC	0.4766%	
J. Hiram Moore, Ltd	0.5260%		Geronimo Holding Corporation	0.4766%	
G4, a North Dakota LLC	0.2383%		MHM Resources, LP	0.4509%	
Geronimo Holding Corporation	0.2383%		Chevron U.S.A. Inc.	0.3307%	
MHM Resources, LP	0.2254%		Balance Non-Op Owners	1.5867%	
Chevron U.S.A. Inc.	0.1653%			100.0000%	
Balance Non-Op Owners	0.7933%				
	100.0000%				

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
Introduced By SM Energy  
Exhibit A2-8  
Identified By Heringer

EXHIBIT A2  
Spacing Unit Ownership  
Divide County, ND

NDIC CASE NO. 19792  
March 27, 2013



15

Summary Ownership:		T163N-R100W		T163N-R100W		T163N-R100W	
SECS. 16, 17, 20, 21		SECS. 16 & 21		SECS. 16 & 21		SECS. 17 & 20	
2560 Acre Unit		1280 Acre Unit		1280 Acre Unit		1280 Acre Unit	
WI OWNER		GWI		WI OWNER		GWI	
SM Energy Company		92.6105%		SM Energy Company		87.0250%	
Crescent Point Energy U.S. Corp.		5.8388%		Crescent Point Energy U.S. Corp.		11.6775%	
American Eagle Energy Corp.		0.6488%		American Eagle Energy Corp.		1.2975%	
G-4, LLC Oil Partners		0.4510%				100.0000%	
Geronimo Holding Corporation		0.4510%					
		100.0000%					



EXHIBIT A2  
Spacing Unit Ownership  
Divide County, ND

NDIC CASE NO. 19792  
March 27, 2013



<b>17</b> Summary Ownership:		T163N-R100W		T163N-R100W	
T163N-R100W		SECS. 25 & 36		SECS. 26 & 35	
Secs. 25, 26, 35, 36		1280 Acre Unit		1280 Acre Unit	
2560 Acre Unit					
<b>WI OWNER</b>	<b>GWI</b>	<b>WI OWNER</b>	<b>GWI</b>	<b>WI OWNER</b>	<b>GWI</b>
SM Energy Company	71.6865%	SM Energy Company	43.3731%	SM Energy Company	100.0000%
Samson Resources	14.7960%	Samson Resources	29.5920%		
Bakken Hunter, LLC	10.5686%	Bakken Hunter, LLC	21.1371%		
Williston Hunter, Inc.	2.8183%	Williston Hunter, Inc.	5.6366%		
Balance Non-Op Owners	0.1306%	Balance Non-Op Owners	0.2612%		
	100.0000%		100.0000%		

<b>18</b> Summary Ownership:		T163N-R100W		T163N-R100W	
T163N-R100W		SECS. 26 & 35		SECS. 27 & 34	
SECS. 26, 27, 34, 35		1280 Acre Unit		1280 Acre Unit	
2560 Acre Unit					
<b>WI OWNER</b>	<b>GWI</b>	<b>WI OWNER</b>	<b>GWI</b>	<b>WI OWNER</b>	<b>GWI</b>
SM Energy Company	87.5000%	SM Energy Company	100.0000%	SM Energy Company	75.0000%
Crescent Point Energy U.S. Corp.	12.5000%			Crescent Point Energy U.S. Corp.	25.0000%
	100.0000%				100.0000%

<b>19</b> Summary Ownership:		T163N-R100W		T163N-R100W	
T163N-R100W		SECS. 27 & 34		SECS. 28 & 33	
SECS. 27, 28, 33, 34		1280 Acre Unit		1280 Acre Unit	
2560 Acre Unit					
<b>WI OWNER</b>	<b>GWI</b>	<b>WI OWNER</b>	<b>GWI</b>	<b>WI OWNER</b>	<b>GWI</b>
SM Energy Company	86.8750%	SM Energy Company	75.0000%	SM Energy Company	98.7500%
Crescent Point Energy U.S. Corp.	12.5000%	Crescent Point Energy U.S. Corp.	25.0000%	Linda Muma	0.6250%
Linda Muma	0.3125%		100.0000%	Phyllis E. Nelson	0.2344%
Phyllis E. Nelson	0.1172%			Balance Non-Op Owners	0.3906%
Balance Non-Op Owners	0.1953%				100.0000%
	100.0000%				

2560 Spacing Unit #'s 1, 3, 5, 6, 7, 9, 11, 13, 15, 18, 20, & 22 Location = See Exhibit A Map #1

2560 Spacing Unit #'s 2, 4, 8, 10, 12, 14, 16, 17, 19, & 21 Location = See Exhibit A1 Map #2

Produced By SM Energy  
Exhibit A2-10  
Identified By Heringer

20

**Summary Ownership:**

**Secs. 18 & 19 -T163N-R100W**  
**Secs. 13 & 24 -T163N-R101W**  
**2529.04 Acre Unit**

**T163N-R100W**  
**SECS. 18 & 19**  
**1249.04 Acre Unit**

**T163N-R101W**  
**SECS. 13 & 24**  
**1280 Acre Unit**

WI OWNER	GW
SM Energy Company	60.6932%
Crescent Point Energy U.S. Corp.	18.4256%
Murex Petroleum Corporation	4.4594%
Whiting Petroleum Corporation	2.3724%
American Eagle Energy Corp.	3.9550%
NextEra Energy Gas Production	3.5970%
Wallace and Virginia Herrieds	0.7117%
Northern Oil & Gas, Inc.	1.5816%
Pride Energy Company	1.1862%
Durango Production Corporation	1.1862%
Balance Non-Op Owners	1.8315%
	100.0000%

WI OWNER	GW
SM Energy Company	58.3599%
Crescent Point Energy U.S. Corp.	12.0467%
Murex Petroleum Corporation	7.2502%
Whiting Petroleum Corporation	4.8037%
American Eagle Energy Corp.	3.8717%
NextEra Energy Gas Production	3.8717%
Geronimo Holding Corporation	0.7438%
Northern Oil & Gas, Inc.	3.2025%
Pride Energy Company	2.4019%
Durango Production Corporation	2.4019%
Balance Non-Op Owners	1.0461%
	100.0000%

WI OWNER	GW
SM Energy Company	62.9700%
Crescent Point Energy U.S. Corp.	24.6501%
American Eagle Energy Corp.	4.0363%
NextEra Energy Gas Production	3.3290%
Murex Petroleum Corporation	1.7361%
Wallace and Virginia Herrieds	1.4063%
Balance Non-Op Owners	1.8722%
	100.0000%

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA

DATE 3-27-13 CASE NO. 19792

21

**Summary Ownership:**

**T163N-R101W**  
**SECS. 13, 14, 23, 24**  
**2560 Acre Unit**

**T163N-R101W**  
**SECS. 13 & 24**  
**1280 Acre Unit**

**T163N-R101W**  
**SECS. 14 & 23**  
**1280 Acre Unit**

WI OWNER	GW
SM Energy Company	49.6653%
Murex Petroleum Corporation	17.7734%
Crescent Point Energy U.S. Corp.	15.1083%
NextEra Energy Gas Producing, LLC	4.8003%
American Eagle Energy Corporation	3.5861%
AMZG, Inc.	1.5679%
American Standard Energy Corp.	1.5625%
J. Hiram Moore, Ltd	1.0938%
Balance Non-Op Owners	4.8423%
	100.0000%

WI OWNER	GW
SM Energy Company	62.9700%
Crescent Point Energy U.S. Corp.	24.6501%
American Eagle Energy Corp.	4.0363%
NextEra Energy Gas Production	3.3290%
Murex Petroleum Corporation	1.7361%
Wallace and Virginia Herrieds	1.4063%
Balance Non-Op Owners	1.8722%
	100.0000%

WI OWNER	GW
SM Energy Company	36.3607%
Murex Petroleum Corporation	33.8108%
Crescent Point Energy U.S. Corp.	5.5664%
NextEra Energy Gas Producing, LLC	6.2717%
American Eagle Energy Corporation	3.1359%
AMZG, Inc.	3.1359%
American Standard Energy Corp.	3.1250%
J. Hiram Moore, Ltd	2.1875%
Cody Oil & Gas Corp.	1.1979%
AP Assets, LLC	1.2500%
MBI Oil & Gas, LLC	1.2500%
Balance Non-Op Owners	2.7083%
	100.0000%

Introduced By SM Energy  
Exhibit A2-11  
Identified By Heringer



22

**Summary Ownership:**

**T163N-R101W**

**SECS. 14, 15, 22, 23**

**2560 Acre Unit**

**T163N-R101W**

**SECS. 14 & 23**

**1280 Acre Unit**

**T163N-R101W**

**SECS. 15 & 22**

**1280 Acre Unit**

**WI OWNER**

**GWI**

SM Energy Company	62.2858%
Murex Petroleum Corporation	16.9054%
Crescent Point Energy U.S. Corp.	2.7832%
NextEra Energy Gas Producing, LLC	3.1359%
Missouri River Royalty Corporation	3.1250%
American Eagle Energy Corporation	1.5679%
AMZG, Inc.	1.5679%
American Standard Energy Corp.	1.5625%
Northern Energy Corporation	1.5625%
J. Hiram Moore, Ltd	1.0938%
Cody Oil & Gas Corp.	0.5990%
AP Assets, LLC	0.6250%
MBI Oil & Gas, LLC	0.6250%
Balance Non-Op Owners	2.5612%
	100.0000%

**WI OWNER**

**GWI**

SM Energy Company	36.3607%
Murex Petroleum Corporation	33.8108%
Crescent Point Energy U.S. Corp.	5.5664%
NextEra Energy Gas Producing, LLC	6.2717%
American Eagle Energy Corporation	3.1359%
AMZG, Inc.	3.1359%
American Standard Energy Corp.	3.1250%
J. Hiram Moore, Ltd	2.1875%
Cody Oil & Gas Corp.	1.1979%
AP Assets, LLC	1.2500%
MBI Oil & Gas, LLC	1.2500%
Balance Non-Op Owners	2.7083%
	100.0000%

**WI OWNER**

**GWI**

SM Energy Company	88.2110%
Missouri River Royalty Corporation	6.2500%
Northern Energy Corporation	3.1250%
Puckett Investment Company	0.8516%
Balance Non-Op Owners	1.5625%
	100.0000%

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA

DATE 3-27-13 CASE NO. 19792

Produced By SM Energy

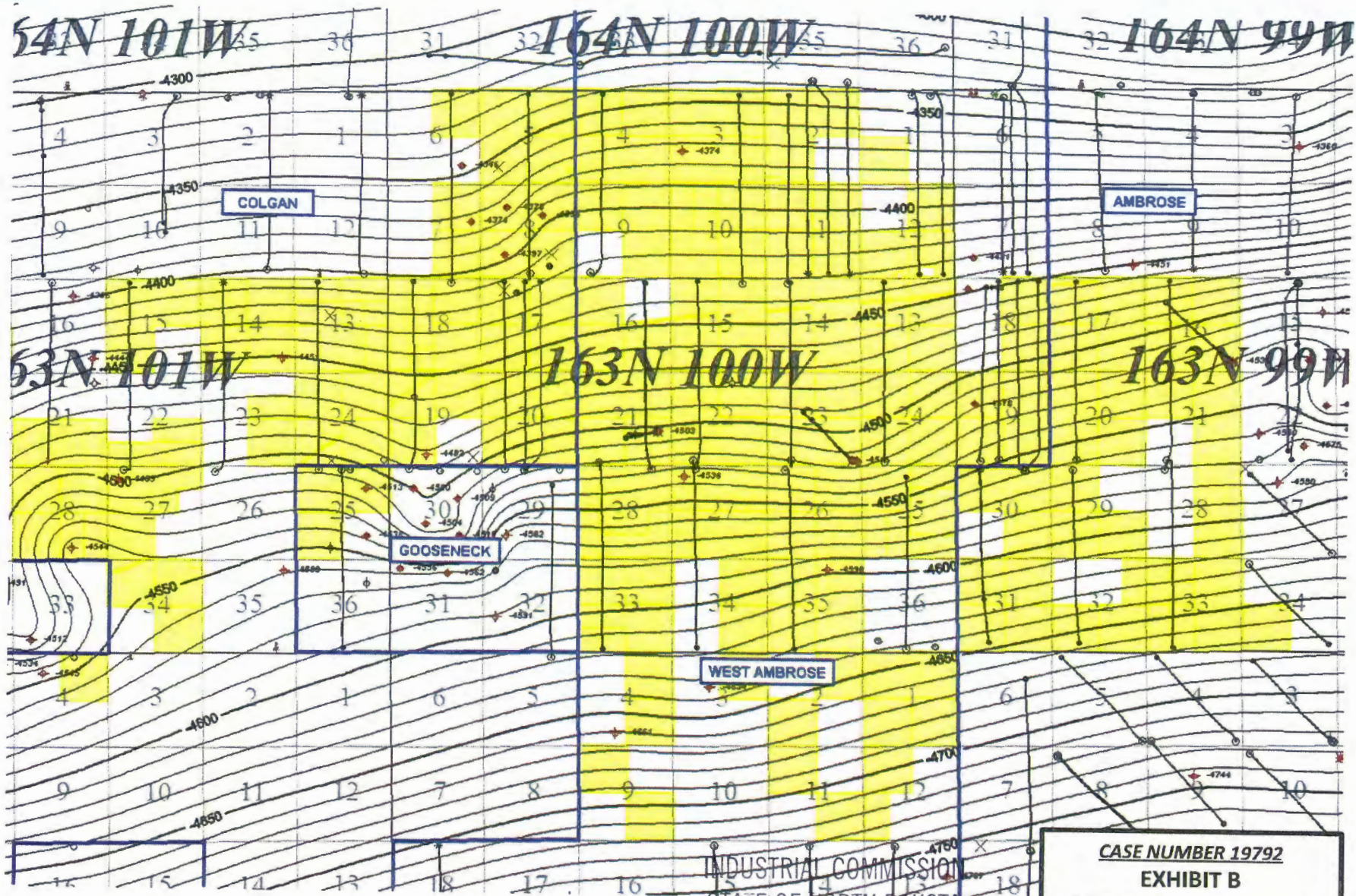
Exhibit A2-12

Identified By Hringer

2560 Spacing Unit #'s 1, 3, 5, 6, 7, 9, 11, 13, 15, 18, 20, & 22 Location = See Exhibit A Map #1

2560 Spacing Unit #'s 2, 4, 8, 10, 12, 14, 16, 17, 19, & 21 Location = See Exhibit A1 Map #2





INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA

DATE 3-27-13 CASE NO. 19792

Introduced By SM Energy

Exhibit B

Identified By Bachman

**CASE NUMBER 19792**

**EXHIBIT B**

**STRUCTURE: TOP BASE**

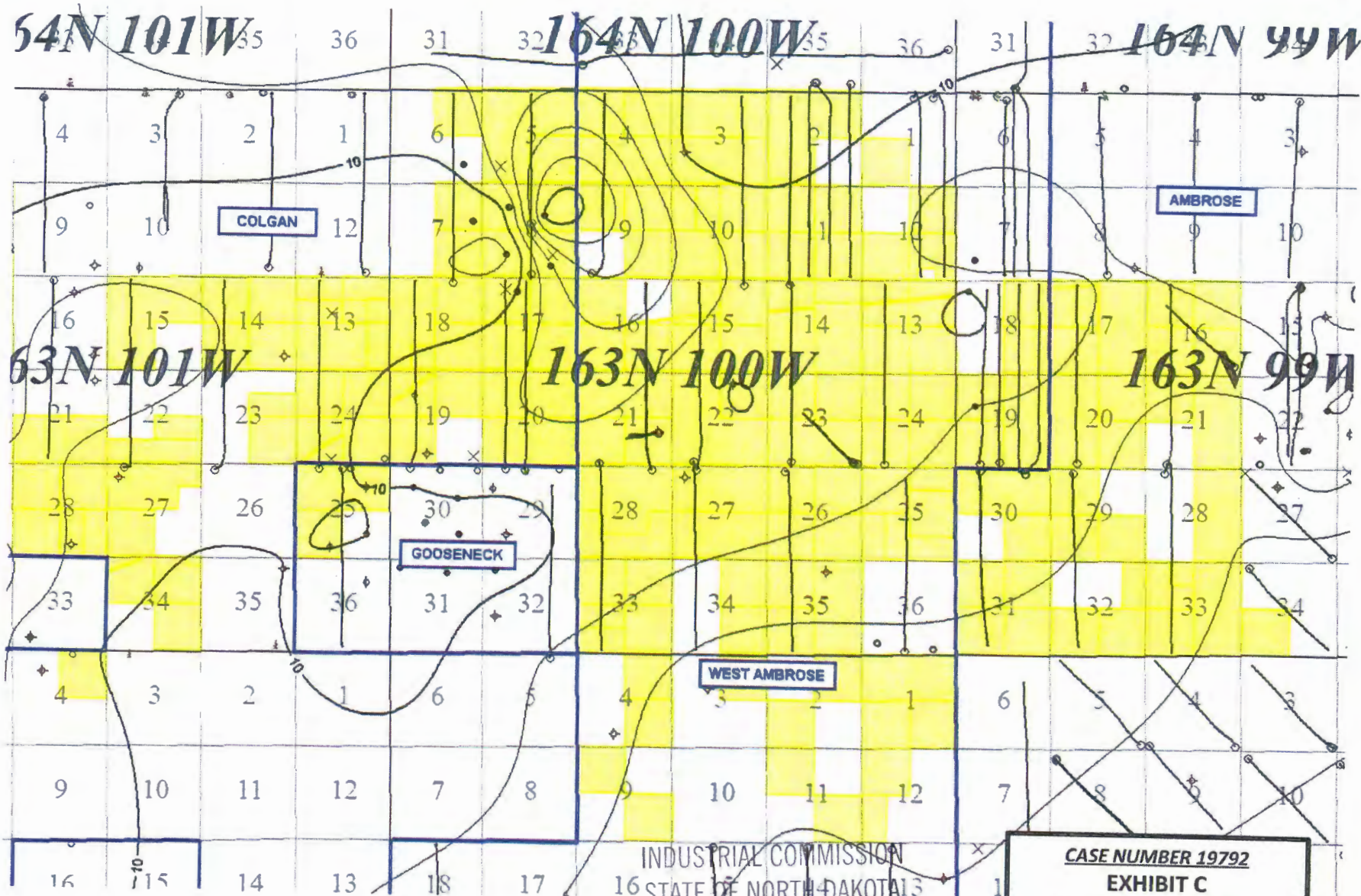
**LAST SALT**

**C.I. = 10 FEET**

3/27/13

RLB





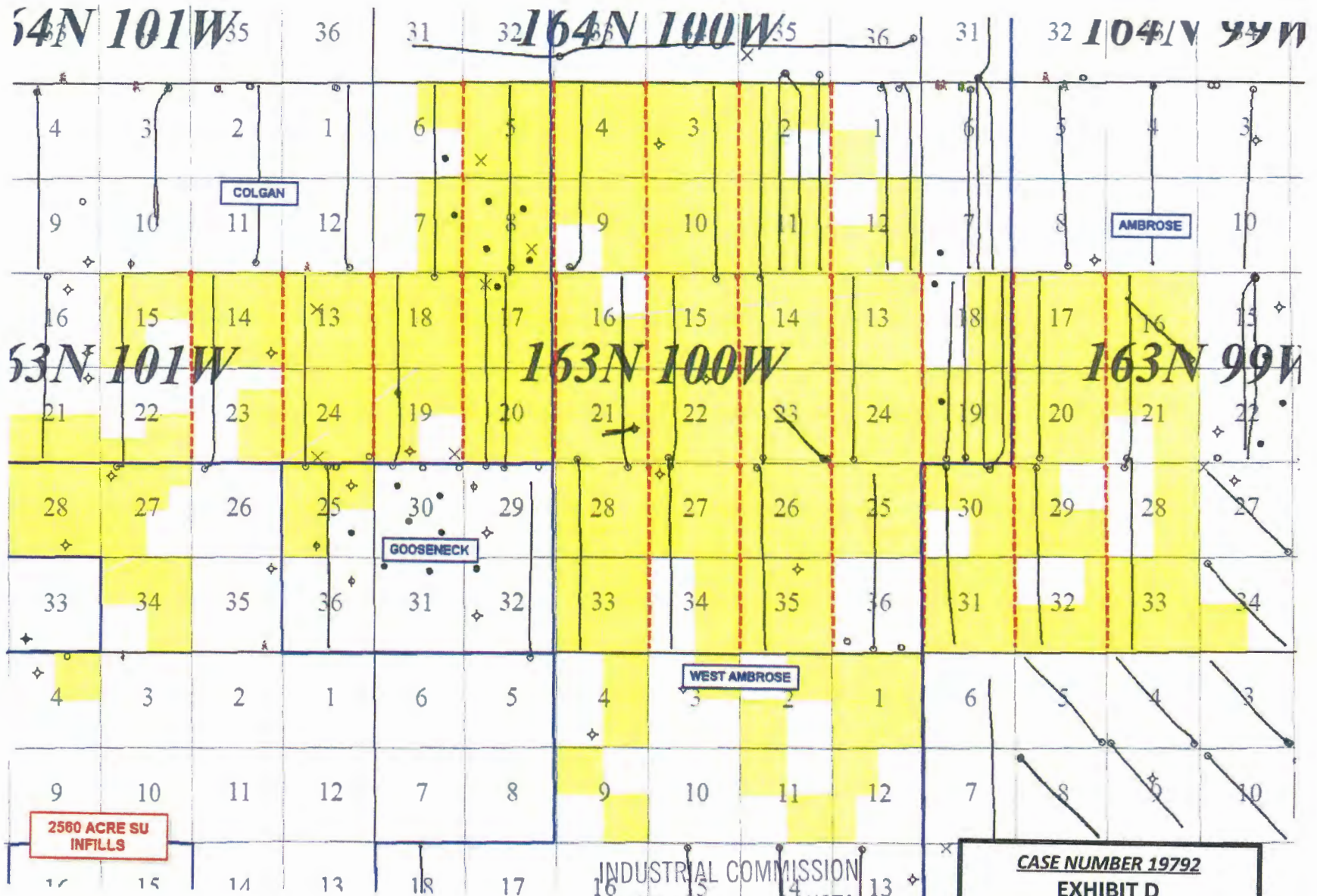
INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
Introduced By SM Energy  
Exhibit C  
Submitted By Bachman

**CASE NUMBER 19792**  
**EXHIBIT C**  
**UPPER THREE FORKS**  
**GROSS ISOPACH**  
C.I. = 2 FEET

3/27/13

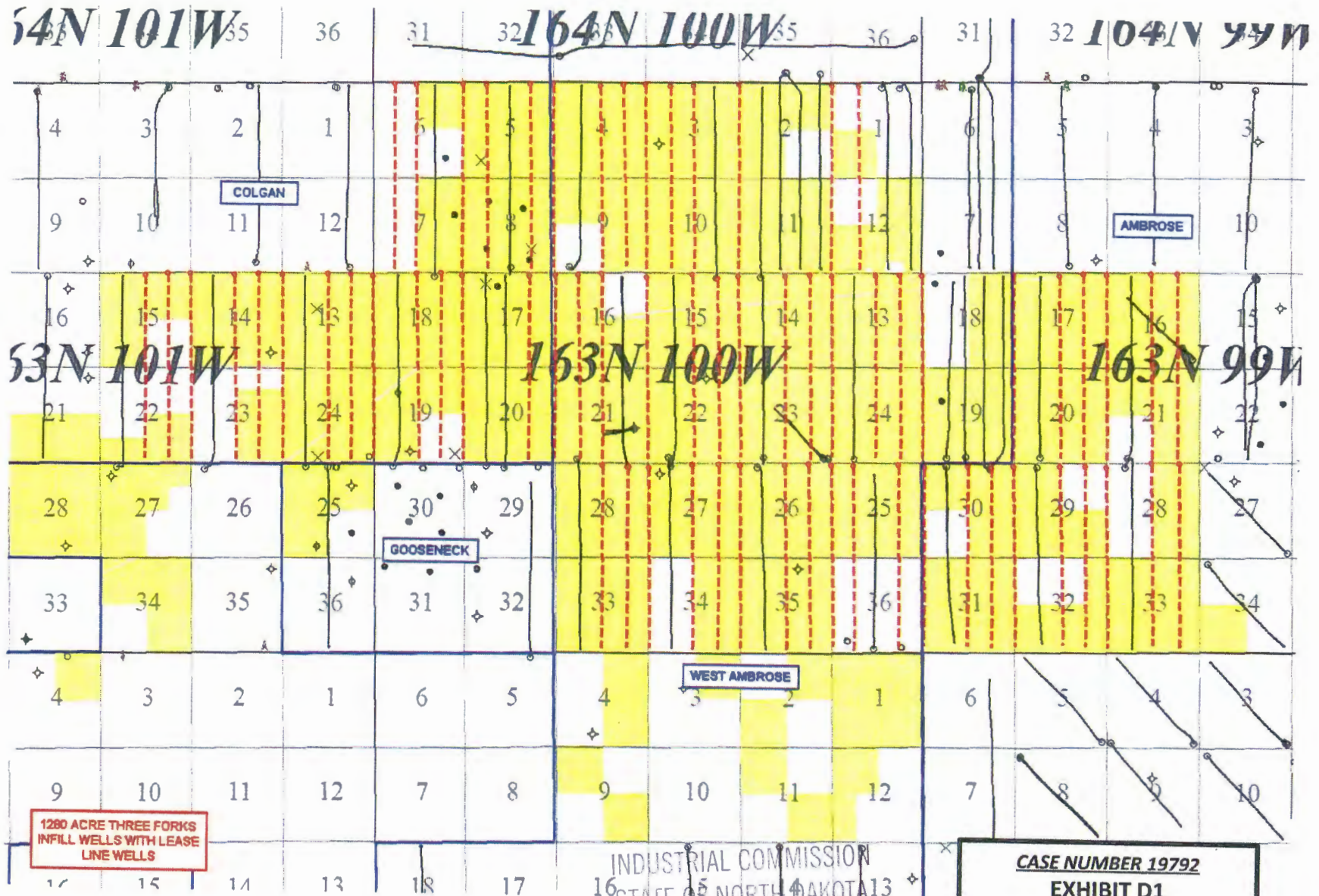
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INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
Introduced By SM Energy  
Exhibit D  
Identified By Bochman

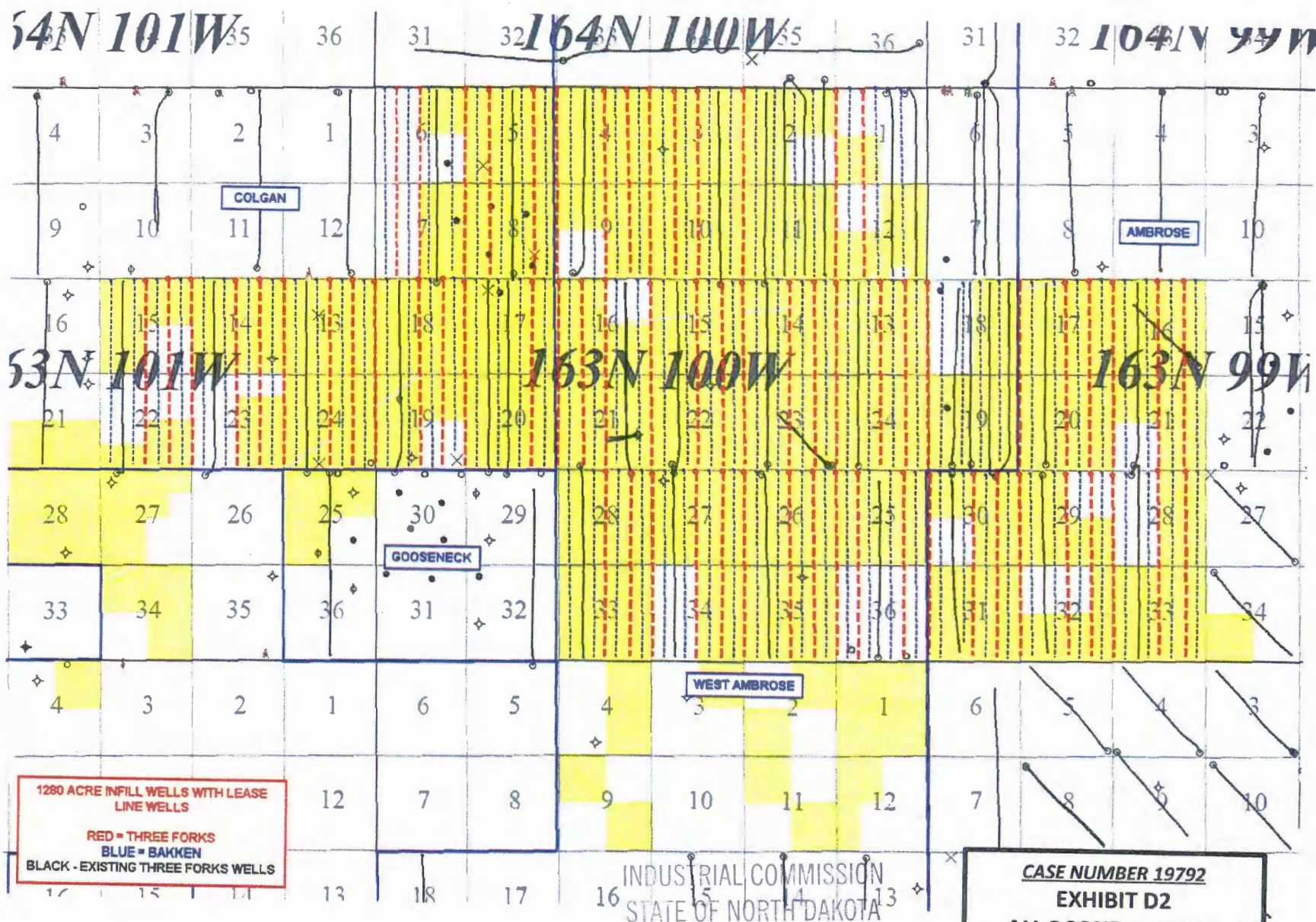
CASE NUMBER 19792  
EXHIBIT D  
PROPOSED LEASE LINE  
WELLS  
3/27/13 RLB



INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
introduced By SM Energy  
Exhibit D1  
Identified By Bachman

**CASE NUMBER 19792**  
**EXHIBIT D1**  
**THREE FORKS WELLS**  
**ONLY**  
3/27/13 RLB

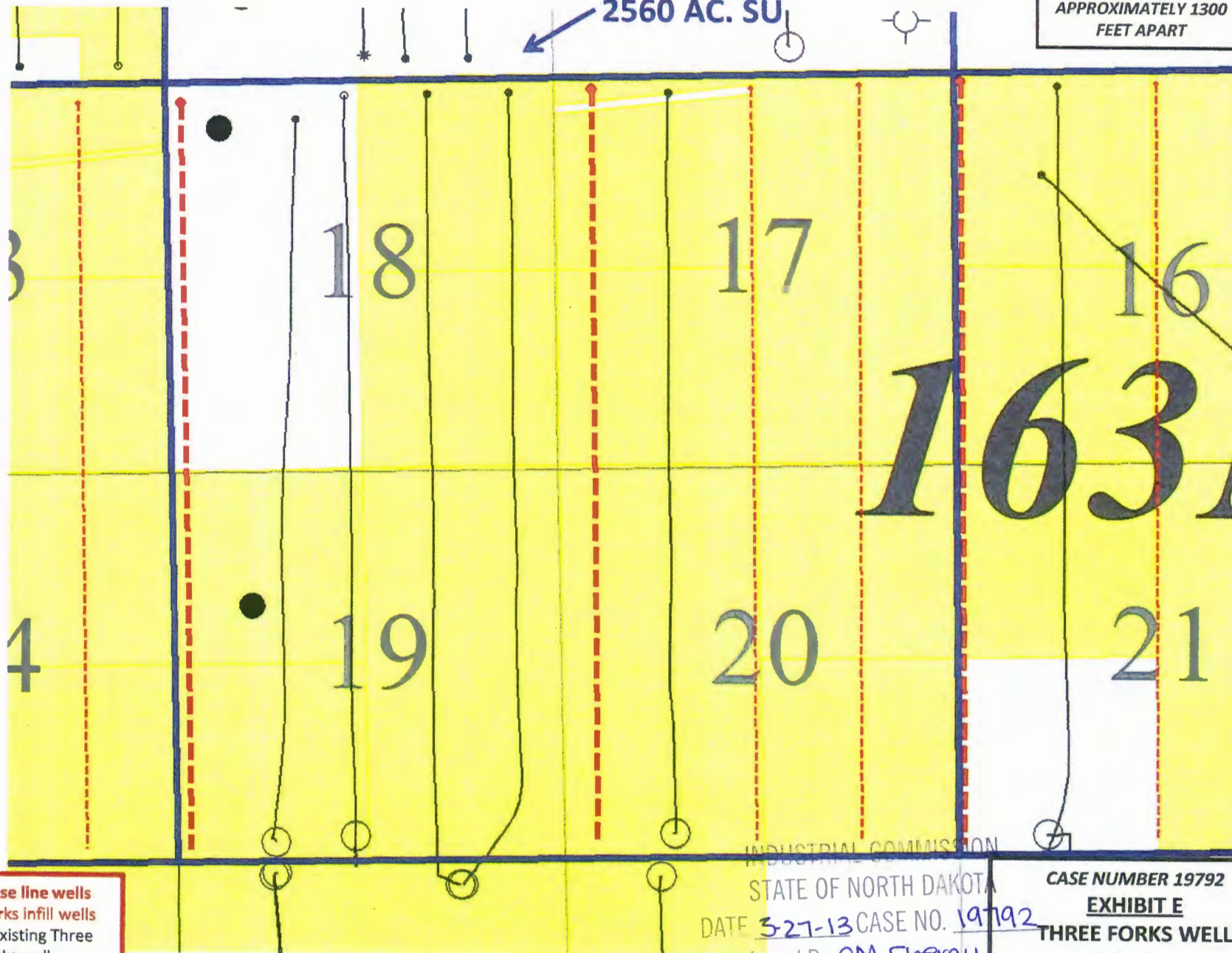




INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
Introduced By SM Energy  
Exhibit D2  
Identified By Bachman

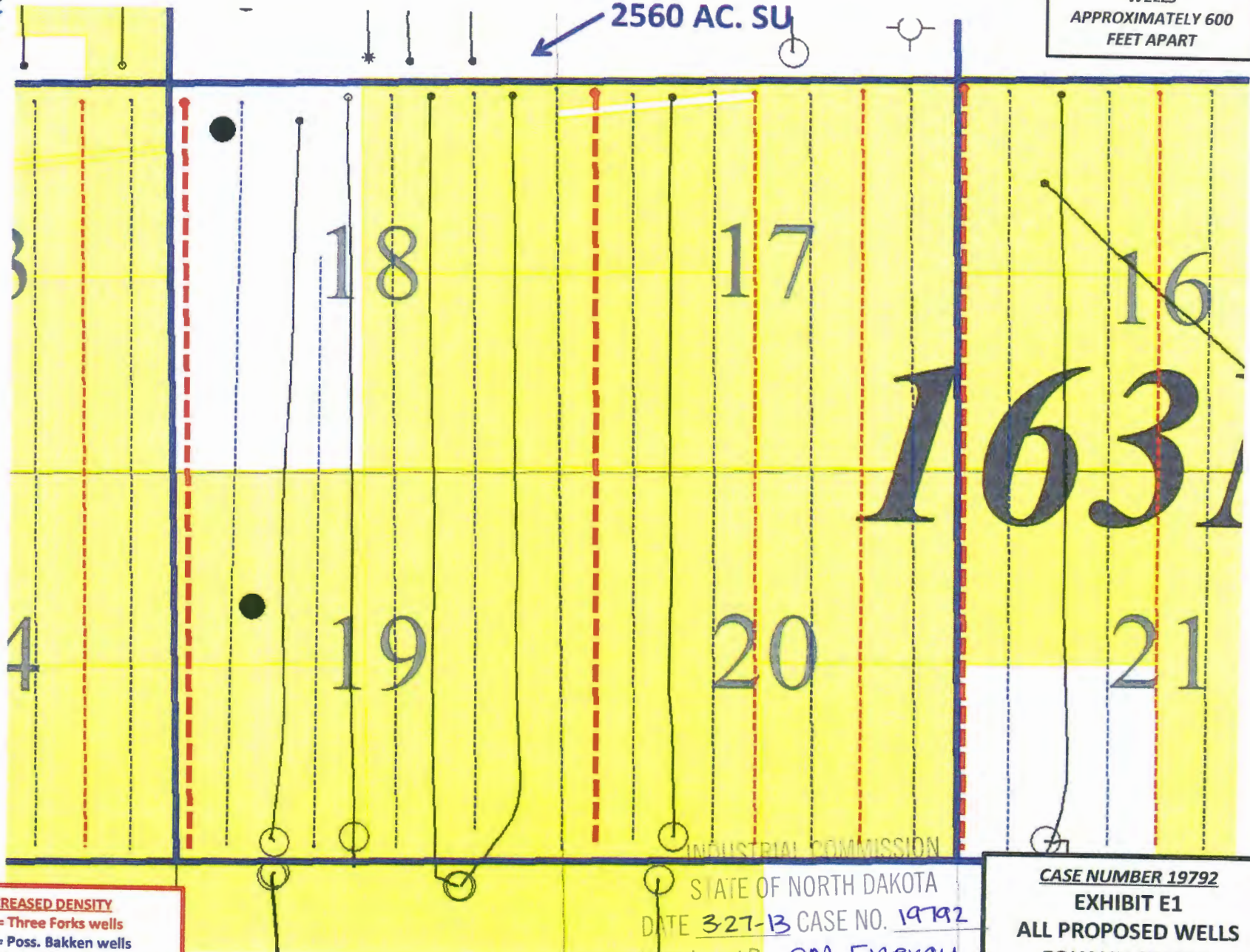
**CASE NUMBER 19792**  
**EXHIBIT D2**  
**ALL POSSIBLE WELLS**  
3/27/13 RLB





STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
Introduced By SM Energy  
Exhibit E  
Identified By Bachman

CASE NUMBER 19792  
EXHIBIT E  
THREE FORKS WELL  
SPACING  
3/27/13

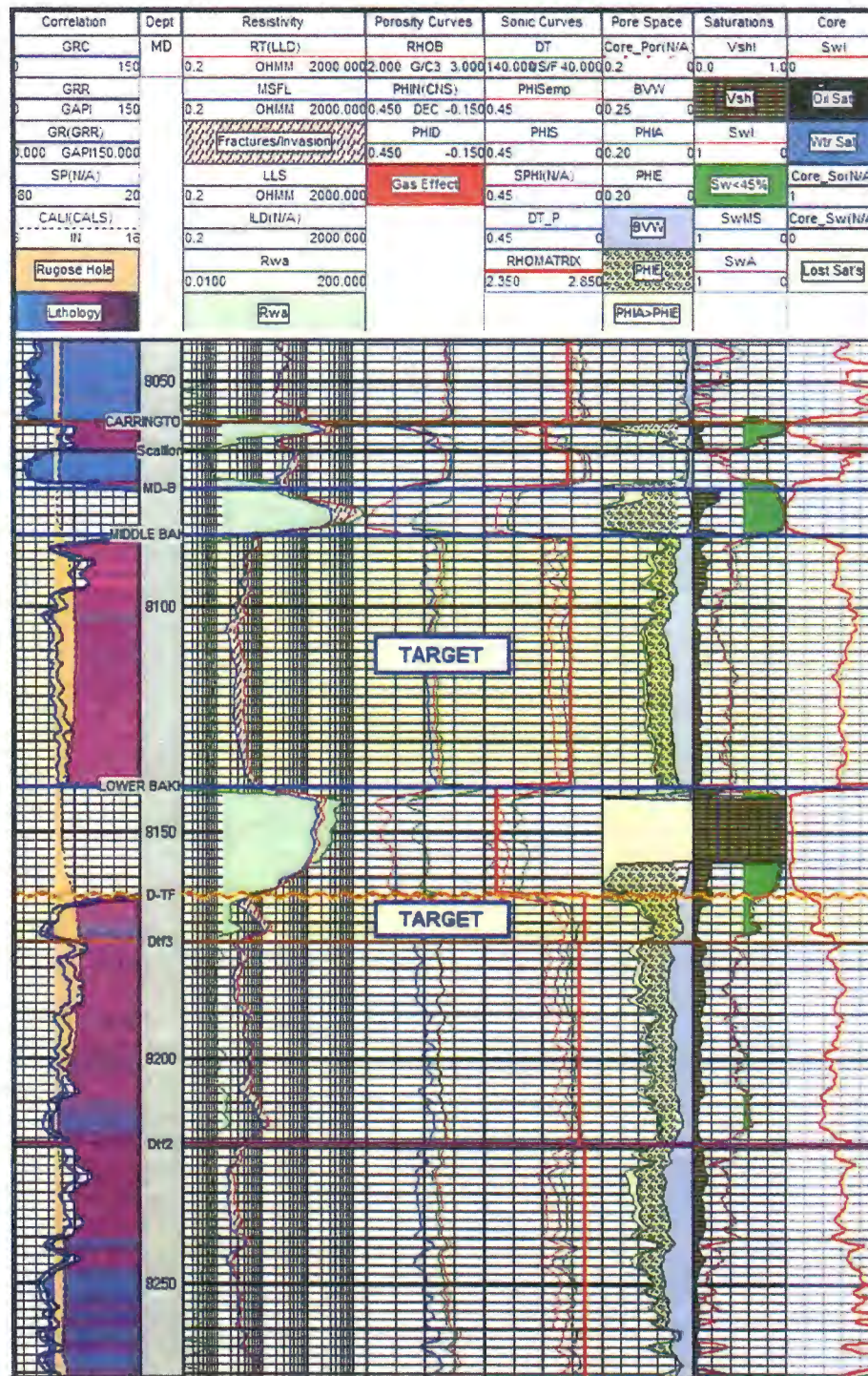


**INCREASED DENSITY**  
RED = Three Forks wells  
BLUE = Poss. Bakken wells  
BLACK = Existing Three Forks wells

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
Introduced By SM Energy  
Exhibit E1  
Identified By Bachman

**CASE NUMBER 19792**  
**EXHIBIT E1**  
**ALL PROPOSED WELLS**  
**EQUALLY SPACED**  
3/27/13 RLB





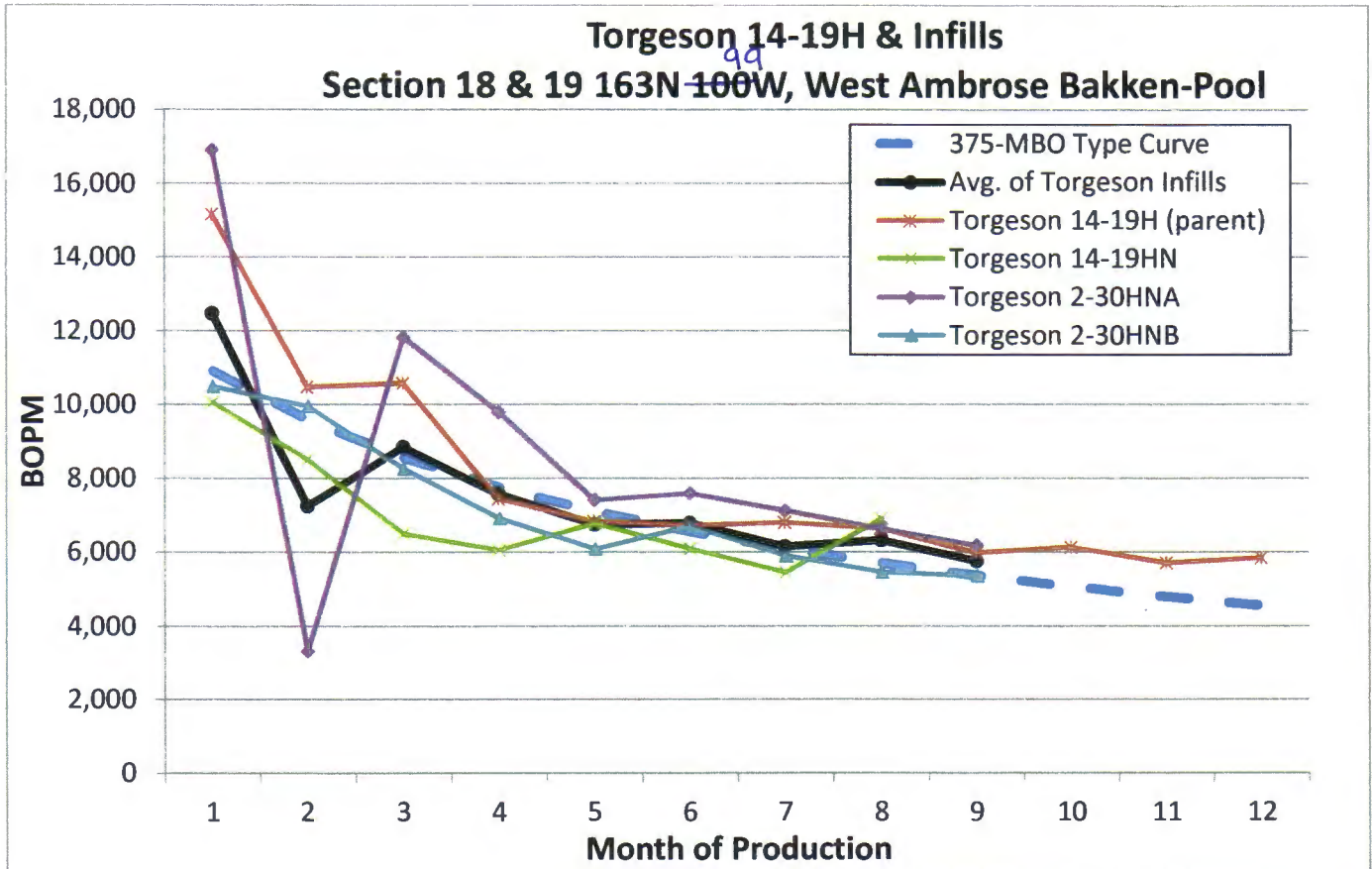
INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
Introduced By SM Energy  
Exhibit F  
Identified By Bachman

**CASE NUMBER 19792**  
**EXHIBIT F**  
**TYPE LOG**

3/27/13

RLB

NDIC CASE 19792  
EXHIBIT G  
Ambrose, West Ambrose, and Colgan-Bakken Pools  
Amend Field Rules  
Divide County, ND



Early infill well production compared to parent-well production in Sections 18 & 19, 163N <sup>99</sup>100W. The Torgeson wells have an average inter-well distance of approximately 1,100'. The average performance of the infills exceeds the 375 MBO-type curve, which indicates that wells spaced 1,100 – 1,400' apart (320-acre spacing) should be economic.

INDUSTRIAL COMMISSION  
STATE OF NORTH DAKOTA  
DATE 3-27-13 CASE NO. 19792  
Reviewed By SM Energy  
Exhibit G  
Identified By Hill



**NDIC CASE 19792**  
**EXHIBIT H**  
**Ambrose, West Ambrose, and Colgan-Bakken Pools**  
**Amend Field Rules**  
**Divide County, ND**

Estimated Reservoir Data, and Volumetrics		
Reservoir	Three Forks	Bakken
Porosity	8%	7%
Oil Saturation	70%	50%
Net Pay Thickness	12 feet	55 feet
Drainage Area	1280 acres	1280 acres
Oil FVF	1.3 RB/STB	1.3 RB/STB
OOIP	5.13 MMBO	14.70 MMBO
Recovery Factor	7.3%, single well	1.8%, single well
Initial GOR	550 SCF/BBL	550 SCF/BBL
Recoverable Reserves	375 MBO, single well	300 MBO, single well

Typical Single-Well Economic Data	Three Forks	Bakken
D&C Investment	\$7,000,000	\$7,000,000
Base OPEX	\$8,700/month	\$8,700/month
30 Day IP	360 BOPD	350 BOPD
Ultimate Recovery	375 MBO	300 MBO
Oil Price (Effective)	\$80/bbl	\$80/bbl
Gas Price (Escalates)	\$3.00/MMBTU	\$3.00/MMBTU
ROR	42%	25%
Payout (Undiscounted)	2.1 Years	3.1 Years

**Gas Sales**

SM has signed a gas purchase agreement with ONEOK for gas gathering in this area. ONEOK is currently constructing gathering lines and well connections. All SM-operated wells in the Ambrose, West Ambrose, and Colgan Fields should be connected to gas sales by September 1, 2013.

**Attachments**

-Example wellbore schematic (Roese 4-29H)

INDUSTRIAL COMMISSION  
 STATE OF NORTH DAKOTA  
 DATE 3-27-13 CASE NO. 19792  
 PREPARED BY SM Energy  
 WITNESSED BY H  
 CERTIFIED BY Hill



WELL: Roese 4-29H FIELD: Colgan  
LOCATION: 220' FNL, 1280' FWL, NWNW Sec. 29, T163N, R100W, Divide Co., ND  
Latitude: 48.923091667; Longitude: -103.70115

ACCTG #: 31916 API NO: 33-023-00696-00-00  
NDIC #: 20549

ELEVATION: KB: 2,236' STATUS: POW - AL  
GL: 2,212' H2S: 0.19%

SPUD DATE: 05/23/11 CMP DATE: 8/4/2011  
ROTARY TD: 18,535' PBTD: 18,470' (FC)

WELLHEAD: TCM 11"-3M x 7 1/16" - 5M

SURF CSG: 33 jts of 9-5/8", 36#, J-55 LT&C set at 1,347'. Cmt'd to surface w/ 509 sx  
(13-1/2" Borehole). Full returns and 45 bbls cement to surface.

PROD CSG: 214 jts of 7", 29/32#, HCL-80, LT&C set at 8,416'. Stage tool at 6,870'.  
Cmt'd w/ 837 sx (TOC @ 930').

LINER: 4-1/2", 11.6#, P-110, LT&C (BT&C in curve to first frac port) csg set at 18,520'.  
Liner Top set at 7,633'.  
See Schematic for placement of 19 swell packers and 20 frac port subs.

OPEN HOLE: Original 6" Lateral--Three Forks: 8,416' - 18,535'

Casing Detail		Date Run: 6/3/11
Size/Grade/Description	Run Depth	
7", 29#, HCL-80, LT&C	6243'	
7", 32#, HCL-80, LT&C	6870'	
Stage Tool	6873'	
7", 29#, HCL-80, LT&C	8416'	

Rods/Pump		Date Run: 9/23/11
Size/Grade/Description	Length	
1-1/2"x40" Polish rod	40'	
119 - 1" S87 rods	2975'	
121 - 7/8" S87 rods	3025'	
48 - 3/4" S87 rods	1200'	
8 - 1-1/2" K bar w/7 Patcos	218'	
2.25"x4" THM plunger	4'	

Tubing Detail		Date Run: 9/22/11
Size/Grade/Description	Depth (Top)	
239 jts 2-7/8" L-80 tubing		
2-7/8"x4' L-80 tubing sub		
2-1/4"x36" THM pump barrel		
2-7/8" SSMSN	7487'	
7" TAC Wthfrd w/reg slips	7488'	
3"x19.25" Wthfrd Desander		
2 jts 2-7/8" L-80 tubing		
2-7/8" bull plug		
EOT	7574'	

Lift Type: Rod Lift  
Pump Unit: Rotaflex 1100-500-306  
SPM x SL: 3.34 SPM x 306"

Last Dyno Date: 5/24/12  
Pump Effic. = 92%  
PIP = 384 psi

Updated: 10/11/2011 By: Danny Green

Three Forks Top  
at 8,302' MD; 8,123' TVD  
19 Swell Packers at 8,908'; 9,378'; 9,841'; 10,354';  
10,868'; 11,381'; 11,899'; 12,406'; 12,917'; 13,428';  
13,941'; 14,429'; 14,928'; 15,443'; 15,961'; 16,476';  
16,990'; 17,507'; 18,010'

TD 6" Hole at  
18,535' MD; 8,048' TVD  
90.43° Inc, 0.63° Az

7", 29/32# at 8,416'  
(8,132' TVD, 88.37° Inc)

20 Frac Port Subs at 8,679'; 9,149'; 9,619'; 10,124'; 10,638'; 11,150'; 11,671'; 12,183'; 12,692';  
13,200'; 13,717'; 14,217'; 14,703'; 15,212'; 15,732'; 16,248'; 16,765'; 17,249'; 17,787'; 18,244'

4-1/2" Liner at  
18,520' MD

DATE 327-13 CASE NO. 19792

Produced By SM Energy

Exhibit #

Identified By Hill

BEFORE THE INDUSTRIAL COMMISSION  
OF THE STATE OF NORTH DAKOTA



**APPLICATION**

Application of SM Energy Company for an )  
amending the applicable orders for the )  
Ambrose-Bakken, West Ambrose-Bakken, )  
and Colgan-Bakken pools (1) to allow up to )  
8 horizontal wells to be drilled on some or )  
all of the 1280-acre spacing units within said )  
pools; (2) to establish 22 overlapping 2560- )  
acre spacing units in one or more of said )  
pools and allow one or more horizontal wells )  
to be drilled thereon, said overlapping )  
spacing units described as all of Sections )  
16,17, 20 and 21, Sections 17, 18, 19, and )  
20, Sections 28, 29, 32 and 33, Sections 29, )  
30, 31 and 32, T. 163 N., R. 99 W.; all of )  
Sections 18 and 19, T. 163 N., R. 99 W., and )  
13 and 24, T. 163 N., R. 100 W. and all of )  
Sections 30 and 31, T. 163 N., R. 99 W. and )  
25 and 36, T. 163 N., R. 100 W.; all of )  
Sections 1, 2, 11 and 12, Sections 2, 3, 10 )  
and 11, Sections 3, 4, 9, and 10, Sections 4, )  
5, 8 and 9, Sections 5, 6, 7, 8, and ~~9~~ )  
Sections 13, 14, 23 and 24, Sections 14, 15, )  
22 and 23, Sections 15, 16, 21 and 22, )  
Sections 16, 17, 20 and 21, Sections 17, 18, )  
19 and 20, Sections 25, 26, 35 and 36, )  
Sections 26, 27, 34 and 35, Sections 27, 28, )  
33 and 34, T. 163 N., R. 100 W.; all of )  
Sections 18 and 19, T. 163 N., R. 100 W. )  
and 13 and 24, T. 163 N., R. 101 W.; and all )  
of Sections 13, 14, 23 and 24 and Sections )  
14, 15, 22 and 23, T. 163 N., R. 101 W., all )  
in Divide County, ND; and (3) granting )  
such other relief as may be appropriate. )

COMES NOW the applicant, SM Energy Company, and respectfully alleges as follows:

1. It is the owner of an interest in the oil and gas leasehold estate underlying all or portions of Sections 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32 and 33, Township 163 North, Range 99 West; Sections 1 through 28 and 33 through 36, Township 163 North, Range 100

West, and Sections 13, 14, 15, 22 and 23, Township 163 North, Range 101 West, Divide County, North Dakota.

2. Said Sections 16, 17, 20, 21, 28, 29, 32 and 33, Township 163 North, Range 99 West are included within the Ambrose Field. Sections 18 and 19, Township 163 North, Range 99 West and Sections 1 – 4, 9 – 12, 14 – 16, 21 – 24, 25 – 58, and 33 – 36, Township 163 North, Range 100 West, are included within the West Ambrose Field. The remaining lands are all included within the Colgan field. All of the lands are spaced on the basis of 1280-acres, predominantly with up to 4 wells per spacing unit, in either the Ambrose –Bakken pool, the West Ambrose-Bakken pool, or the Colgan-Bakken pool.

3. Applicant believes that additional wells are required to adequately and efficiently drain the existing 1280-acre spacing units and therefore requests that up to 8 wells be authorized on each existing spacing unit.

4. Applicant also believes that additional wells between existing 1280-acre spacing units are necessary and asks that the Commission establish a series of overlapping 2560-acre spacing units consisting of Sections 16, 17, 20 and 21, Sections 17, 18, 19, and 20, Sections 28, 29, 32 and 33, Sections 29, 30, 31 and 32, T. 163 N., R. 99 W.; all of Sections 18 and 19, T. 163 N., R. 99 W., and 13 and 24, T. 163 N., R. 100 W. and all of Sections 30 and 31, T. 163 N., R. 99 W. and 25 and 36, T. 163 N., R. 100 W.; all of Sections 1, 2, 11 and 12, Sections 2, 3, 10 and 11, Sections 3, 4, 9, and 10, Sections 4, 5, 8 and 9, Sections 5, 6, 7, 8, and 9, Sections 13, 14, 23 and 24, Sections 14, 15, 22 and 23, Sections 15, 16, 21 and 22, Sections 16, 17, 20 and 21, Sections 17, 18, 19 and 20, Sections 25, 26, 35 and 36, Sections 26, 27, 34 and 35, Sections 27, 28, 33 and 34, T. 163 N., R. 100 W.; all of Sections 18 and 19, T. 163 N., R. 100 W. and 13 and 24, T. 163 N., R. 101 W.; and all of Sections 13, 14, 23 and 24 and Sections 14, 15, 22 and 23, T. 163 N., R. 101 W., and authorize one or more horizontal wells to be drilled on each such overlapping spacing unit.

5. In applicant's opinion, such will prevent waste, protect correlative rights, and prevent the drilling of unnecessary wells.



6. Applicant requests that it be allowed to present testimony by telephone pursuant to Section 43-02-03-88.2 of the North Dakota Administrative Code.

WHEREFORE, applicant respectfully requests that this matter be set for hearing at the regularly scheduled hearings in March, 2013 and that thereafter the Commission enter its order granting the relief requested.

Dated this 25<sup>th</sup> day of February, 2013.

SM ENERGY COMPANY

CROWLEY FLECK PLLP  
Attorneys for the Applicant  
Suite 600, 400 East Broadway  
P.O. Box 2798  
Bismarck, ND 58502

By:   
JOHN W. MORRISON

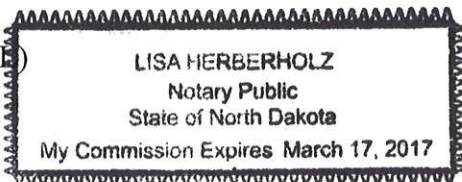
STATE OF NORTH DAKOTA     )  
  ) ss.  
COUNTY OF BURLEIGH     )

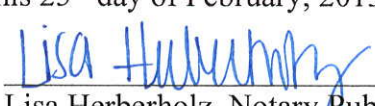
John W. Morrison, being first duly sworn on oath, deposes and says that he is the attorney for the applicant herein named, that he has read the above and foregoing application, knows the contents thereof, and that the same is true to the best of this affiant's knowledge, information and belief.

  
JOHN W. MORRISON

Subscribed and sworn to before me this 25<sup>th</sup> day of February, 2013.

(SEAL)



  
Lisa Herberholz, Notary Public  
Burleigh County, North Dakota  
My Commission Expires:

CROWLEY | FLECK PLLP  
ATTORNEYS

John W. Morrison  
400 East Broadway, Suite 600  
P.O. Box 2798  
Bismarck, ND 58502-2798  
Office: 701.223.6585  
Direct: 701.224.7534  
jmorrison@crowleyfleck.com

February 25, 2013

Mr. Bruce Hicks  
Oil & Gas Division  
ND INDUSTRIAL COMMISSION  
600 E. Blvd. Ave., Dept. 405  
Bismarck, ND 58505-0840



**In re: SM Energy Company Application**

Dear Mr. Hicks:

Please find enclosed for filing one application for the March, 2013 regular docket.

Thank you.

Very truly yours,

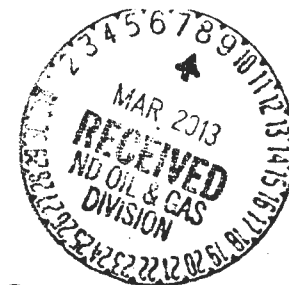


John W. Morrison

lh  
enc.

cc (via e-mail w/enc.): Shawn Heringer





# Affidavit of Publication

State of North Dakota, County of Divide, ss:  
I, Cecile L. Krimm, being first duly sworn, on my oath, say that I am the publisher of The Journal,  
a weekly newspaper of general circulation and official newspaper of Divide County, State of North  
Dakota, published in the city of Crosby, ND, and that the advertisement headed

**NOTICE OF HEARING N.D. INDUSTRIAL COMMISSION OIL AND GAS DIVISION**  
a printed copy of which is here attached, was published in The Journal on the following date:

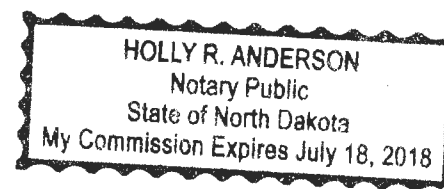
March 6, 2013 .....257 lines @ .63 = \$161.91

**TOTAL CHARGE** .....\$161.91

Signed Cecile L. Krimm  
Cecile L. Krimm, Publisher

Subscribed and sworn to before me March 6, 2013

Holly R. Anderson  
Notary Public, State of North Dakota



## NOTICE OF HEARING N.D. INDUSTRIAL COMMISSION OIL AND GAS DIVISION

The North Dakota Industrial Commission will hold a public hearing at 9:00 a.m. Wednesday, March 27, 2013, at the N.D. Oil & Gas Division, 1000 East Calgary Ave., Bismarck, N. D. At the hearing the Commission will receive testimony and exhibits. Persons with any interest in the cases listed below, take notice.

**PERSONS WITH DISABILITIES:** If at the hearing you need special facilities or assistance, contact the Oil and Gas Division at 701-328-8038 by Thursday, March 14, 2013.

STATE OF NORTH DAKOTA  
TO:

Case No. 19792: Application of SM Energy Co. for an amending the applicable orders for the Ambrose, West Ambrose, and Colgan-Bakken Pools (1) to allow up to eight horizontal wells to be drilled on some or all of the 1280-acre spacing units within said pools; (2) to establish twenty-two overlapping 2560-acre spacing units in one or more of said pools and allow one or more horizontal wells to be drilled thereon, said overlapping spacing units described as Sections 16, 17, 20 and 21; Sections 17, 18, 19 and 20; Sections 28, 29, 32 and 33; Sections 29, 30, 31 and 32; T.163N., R.99W.; Sections 18 and 19; T.163N., R.99W.; and Sections 13 and 24; T.163N., R.100W.; and Sections 30 and 31; T.163N., R.99W., and Sections 25 and 36; T.163N., R.100W.; Sections 1, 2, 11 and 12; Sections 2, 3, 10 and 11; Sections 3, 4, 9, and 10; Sections 4, 5, 8 and 9; Sections 5, 6, 7 and 8; Sections 13, 14, 23 and 24; Sections 14, 15, 22 and 23; Sections 15, 16, 21 and 22; Sections 16, 17, 20 and 21; Sections 17, 18, 19 and 20; Sections 25, 26, 35 and 36; Sections 26, 27, 34 and 35; Sections 27, 28, 33 and 34; T.163N., R.100W.; Sections 18 and 19; T.163N., R.100W., and Sections 13 and 24; T.163N., R.101W.; and Sections 13, 14, 23 and 24; and Sections 14, 15, 22 and 23; T.163N., R.101W.; Divide County, ND; and (3) granting such other relief as may be appropriate.

Case No. 19794: Application of Murex Petroleum Corp. to consider the temporary spacing to develop an oil and/or gas pool discovered by the Lori Ann #4-9H well located in Lot 2 of Section 4, T.161N., R.101W., Divide County, ND, define the limits of the field, and enact such special field rules as may be necessary.

Case No. 19823: Application of

Hess Corp. for an order pursuant to NDAC 43-02-03-88.1 authorizing the flaring of gas produced from the AV-Kimball-162-95-1102H-1 well, SWSE, Section 11, T.162N., R.95W., Divide County, ND, pursuant to the provisions of NDCC 38-08-06.4, and such other relief as is appropriate.

Case No. 19844: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 3 and 10; T.162N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19845: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 4 and 9; T.162N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is appropriate.

Case No. 19846: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 5 and 8; T.162N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is appropriate.

Case No. 19847: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 15 and 22; T.162N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19848: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 16 and 21; T.162N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19849: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 17 and 20; T.162N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19850: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 18 and 19; T.162N., R.101W., Divide County,

ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19851: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 27 and 34; T.162N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19852: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 28 and 33; T.162N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19853: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 29 and 32; T.162N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19854: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 30 and 31; T.162N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19855: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 1 and 12; T.161N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19856: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 2 and 11; T.161N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19857: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 3 and 10; T.161N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19858: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 4 and 9; T.161N., R.101W., Divide County,

ND, as provided by NDCC 38-08-08, and such other relief as is appropriate.

Case No. 19859: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 5 and 8; T.161N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is appropriate.

Case No. 19860: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 13 and 24; T.161N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19861: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 14 and 23; T.161N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19862: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 15 and 22; T.161N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19863: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 17 and 20; T.161N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19864: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 26 and 35; T.161N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Case No. 19865: Application of Murex Petroleum Corp. for an order pursuant to NDAC 43-02-03-88.1 pooling all interests in a spacing unit described as Sections 27 and 34; T.161N., R.101W., Divide County, ND, as provided by NDCC 38-08-08, and such other relief as is

Signed by,  
Jack Dalrymple, Governor  
Chairman, ND Industrial  
(3-6)

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#### Affidavit of Publication

State of North Dakota ) SS County of Burleigh  
Before me, a Notary Public for the State of North Dakota  
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and that the publication(s) were made through the  
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3/6 Signed Carrie Hunt  
sworn and subscribed to before me this 15th  
day of March 20 13  
Notary Public in and for the State of North Dakota

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# **NOTICE OF HEARING** **N.D. INDUSTRIAL COMMISSION** **OIL AND GAS DIVISION**

The North Dakota Industrial Commission will hold a public hearing at 9:00 a.m. Wednesday, March 27, 2013, at the N.D. Oil & Gas Division, 1000 East Calgary Ave., Bismarck, N.D. At the hearing the Commission will receive testimony and exhibits. Persons with any interest in the cases listed below, take notice.

**PERSONS WITH DISABILITIES:** If at the hearing you need special facilities or assistance, contact the Oil and Gas Division at 701-328-8038 by Thursday, March 14, 2013.

## **STATE OF NORTH DAKOTA TO:**

Case No. 19790: Proper spacing for the development of the Willow Creek-Bakken Pool, McKenzie and Williams Counties, ND, redefine the field limits, and enact such special field rules as may be necessary. Continental Resources, Inc.; Oasis Petroleum North America LLC

Case No. 19791: Proper spacing for the development of the Baker-Bakken Pool, McKenzie and Williams Counties, ND, redefine the field limits, and enact such special field rules as may be necessary. Oasis Petroleum North America LLC; Slawson Exploration Co., Inc.; SM Energy Co.

Case No. 19792: Application of SM Energy Co. for an amending the applicable orders for the Ambrose, West Ambrose, and Colgan-Bakken Pools (1) to allow up to eight horizontal wells to be drilled on some or all of the 1280-acre spacing units within said pools; (2) to establish twenty-two overlapping 2560-acre spacing units in one or more of said pools and allow one or more horizontal wells to be drilled thereon, said overlapping spacing units described as Sections 16, 17, 20 and 21; Sections 17, 18, 19 and 20; Sections 28, 29, 32 and 33; Sections 29, 30, 31 and 32; T.163N., R.99W.; Sections 18 and 19, T.163N., R.99W., and Sections 13 and 24, T.163N., R.100W.; and Sections 30 and 31, T.163N., R.99W., and Sections 25 and 36, T.163N., R.100W.; Sections 1, 2, 11 and 12; Sections 2, 3, 10 and 11; Sections 3, 4, 9, and 10; Sections 4, 5, 8 and 9; Sections 5, 6, 7 and 8; Sections 13, 14, 23 and 24; Sections 14, 15, 22 and 23; Sections 15, 16, 21 and 22; Sections 16, 17, 20 and 21; Sections 17, 18, 19 and 20; Sections 25, 26, 35 and 36; Sections 26, 27, 34 and 35; Sections 27, 28, 33 and 34, T.163N., R.100W.; Sections 18 and 19, T.163N., R.100W., and Sections 13 and 24, T.163N., R.101W.; and Sections 13, 14, 23 and 24; and Sections 14, 15, 22 and 23, T.163N., R.101W.; Divide County, ND; and (3) granting such other relief as may be appropriate.

Case No. 19793: Proper spacing for the development of the Rawson-Bakken Pool, McKenzie County, ND, redefine the field limits, and enact such special field rules as may be necessary. Murex Petroleum Corp.; Petro-Hunt, L.L.C.; Triangle USA Petroleum Corp.; Zenergy, Inc.

Case No. 19794: Application of Murex Petroleum Corp. to consider the temporary spacing to develop an oil and/or gas pool discovered by the Lori Ann #4-9H well located in Lot 2 of Section 4, T.161N., R.101W., Divide County, ND, define the limits of the field, and enact such special field rules as may be necessary.

Case No. 19583: (Continued) Application of Petro-Hunt, L.L.C. for an order amending the applicable orders for the Charlson-Bakken Pool and the Keene-Bakken/Three Forks Pool to establish one overlapping

2560-acre spacing unit consisting of Sections 20, 21, 28 and 29, T.153N., R.95W., McKenzie County, ND, and authorize one additional horizontal well to be drilled on such overlapping 2560-acre spacing unit and such other relief as is appropriate.

Case No. 19408: (Continued) Application of Petro-Hunt, L.L.C. for an order amending the applicable orders for the Phelps Bay-Bakken Pool, the Charlson-Bakken Pool and the Keene-Bakken/Three Forks Pool to establish three overlapping 2560-acre spacing units consisting of Sections 13, 14, 23 and 24; Sections 14, 15, 22 and 23, T.153N., R.95W.; and Sections 18 and 19, T.153N., R.95W. and 13 and 24, T.153N., R.96W., McKenzie County, ND, and authorize one additional horizontal well to be drilled on each such overlapping 2560-acre spacing unit and such other relief as is appropriate.

Case No. 19408: (Continued) Application of Petro-Hunt, L.L.C. for an order amending the applicable orders for the Charlson-Bakken Pool, McKenzie and Williams Counties, ND, to alter the definition of the stratigraphic limits of the pool and such other and such other relief as is appropriate.

Case No. 14935: (Continued) Application of Hess Corp. for an order suspending, and after hearing revoking, a permit issued to Continental Resources, Inc. for the drilling of the Foster #1-28H well on a drilling unit consisting of Sections 28 and 33, T.153N., R.99W., Williams and McKenzie Counties, ND; and such other relief as is appropriate.

Case No. 19795: Application of Hess Corp. for an order extending the outline and amending the applicable orders for the White Earth-Bakken Pool to include Section 11, T.157N., R.94W., within the field and to establish a 1280-acre spacing unit consisting of Sections 2 and 11, T.157N., R.94W., Mountrail County, ND, and authorize up to six horizontal wells to be drilled on such spacing unit, and such other relief as is appropriate.

Case No. 19796: Application of Hess Corp. for an order amending the applicable orders for the Manitou-Bakken and Big Butte-Bakken Pools to establish two overlapping 2560-acre spacing units consisting of Sections 15, 16, 21 and 22; and Sections 16, 17, 20 and 21, T.156N., R.94W., Mountrail County, ND, for the purpose of drilling one or more horizontal wells between the existing 1280-acre spacing units; and such other relief as is appropriate.

Case No. 19797: Application of Hess Corp. for an order amending the applicable orders for the Truxa-Bakken Pool to establish six overlapping 2560-acre spacing units consisting of Sections 3, 4, 9 and 10; Sections 5, 6, 7 and 8; Sections 17, 18, 19 and 20; and Sections 29, 30, 31 and 32, T.154N., R.98W., Williams County, ND and Sections 14, 15, 22 and 23, T.153N., R.98W., Williams and McKenzie Counties; and Sections 17, 18, 19 and 20, T.153N., R.98W., Williams County, for the purpose of drilling one or more horizontal wells between the existing 1280-acre spacing units; and such other relief as is appropriate.

Case No. 19798: Application of Hess Corp. for an order amending the applicable orders for the Westberg-Bakken Pool to establish an overlapping 2560-acre spacing unit consisting of Sections 17, 18, 19, and 20, T.152N., R.96W., McKenzie County, ND, for the purpose of drilling one or more horizontal wells between the existing 1280-acre spacing units; and such other relief as is appropriate.

Case No. 19799: Application of Hess Corp. for an order amending the applicable orders for the Hawkeye-Bakken Pool to establish an overlapping 2560-acre spacing unit consisting of Sections 16, 17, 20, and 21, T.152N., R.95W., McKenzie County, ND, for the purpose of drilling one or more horizontal wells between the existing 1280-acre spacing units; and such other relief as is appropriate.

Case No. 19800: Application of Hess Corp. for an order amending the applicable orders for the Hawkeye-Bakken Pool to establish two overlapping 2560-acre spacing units consisting of Sections 28, 29, 32 and 33; and Sections 27, 28, 33 and 34, T.152N., R.95W., McKenzie County, ND, for the purpose of drilling one or more horizontal wells between the existing 1280-acre spacing units; and such other relief as is appropriate.

Case No. 19801: Application of Hess Corp. for an order amending the applicable orders for the Blue Butte-Bakken Pool to establish an overlapping 2560-acre spacing unit consisting of Sections 5 and 6, T.150N., R.95W., and Sections 31 and 32, T.151N., R.95W., McKenzie County, ND, for the purpose of drilling one or more horizontal wells between the existing 1280-acre spacing units; and such other relief as is appropriate.

Case No. 19802: Application of Hess Corp. for an order amending the applicable orders for the Timber Creek-Bakken and South Tobacco Garden-Bakken Pools to establish an overlapping 2560-acre spacing unit consisting of Sections 30 and 31, T.150N., R.99W., and Sections 25 and 36, T.150N., R.100W., McKenzie County, ND, for the purpose of drilling one or more horizontal wells between the existing 1280-acre spacing units; and such other relief as is appropriate.

Case No. 19803: Application of Hess Corp. for an order amending the applicable orders for the Cherry Creek-Bakken Pool or such other pool as may be established by the Commission to establish two overlapping 2560-acre spacing units consisting of Sections 1, 2, 11 and 12; and Sections 13, 14, 23 and 24, T.149N., R.99W., McKenzie County, ND, for the purpose of drilling one or more horizontal wells between the existing 1280-acre spacing units; and such other relief as is appropriate.

Case No. 19804: Application of Hess Corp. for an order amending the applicable orders for the Sather Lake-Bakken Pool, McKenzie County, ND, to allow all wells to produce oil at an unrestricted rate and flare gas produced in association therewith until December 31, 2013, or such other time as may be established by the Commission, and such other relief as is appropriate.

Case No. 19805: Application of OXY USA Inc. for an order amending the applicable orders for the Snow-Bakken Pool to extend the field outline to include Sections 13 and 36, T.142N., R.98W., Billings County, ND; establishing 1280-acre spacing units consisting of Sections 13 and 24; and Sections 25 and 36; and allowing up to six horizontal wells to be drilled on each such spacing unit and such other relief as is appropriate.

Case No. 19806: Application of OXY USA, Inc., to amend the applicable orders for the Murphy Creek-Bakken Pool, Dunn County, ND, to amend the stratigraphic limits for the pool to include from 50 feet above the top of the upper Bakken shale to the top of the Birdbear Formation, and such other relief as is appropriate.

Case No. 19807: Application of OXY USA, Inc. for an order amending the applicable orders to allow wells completed in the Cabernet-Bakken Pool, Dunn County, ND, to produce at a maximum efficient rate and flare gas produced in association with oil until December 31, 2013, and such other relief as is appropriate.

Case No. 19808: Application of OXY USA, Inc. for an order amending the applicable orders to allow wells completed in the Crooked Creek-Bakken Pool, Dunn County, ND, to produce at a maximum efficient rate and flare gas produced in association with oil until December 31, 2013, and such other relief as is appropriate.

Case No. 19809: Application of OXY USA, Inc. for an order amending the applicable orders to allow wells completed in the Hungry Man Butte-Bakken Pool, Billings County, ND, to produce at a maximum efficient rate and flare gas produced in association with oil until December 31, 2013, and such other relief as is appropriate.

Case No. 19810: Application of OXY USA, Inc. for an order amending the applicable orders to allow wells completed in the Little Knife-Bakken Pool, Billings, Dunn and McKenzie Counties, ND, to produce at a maximum efficient rate and flare gas produced in association with oil until December 31, 2013, and such other relief as is appropriate.

Case No. 19811: Application of OXY USA, Inc. for an order amending the applicable orders to allow wells completed in the Manning-Bakken Pool, Dunn County, ND, to produce at a maximum efficient rate and flare gas produced in association with oil until December 31, 2013, and such other

Case No. 19812: Application of OXY USA, Inc. for an order amending the applicable orders to allow wells completed in the Russian Creek-Bakken Pool, Dunn County, ND, to produce at a maximum efficient rate and flare gas produced in association with oil until December 31, 2013, and such other relief as is appropriate.

Case No. 19813: Application of OXY USA, Inc. for an order amending the applicable orders to allow wells completed in the Saddle Butte-Bakken Pool, Billings County, ND, to produce at a maximum efficient rate and flare gas produced in association with oil until December 31, 2013, and such other relief as is appropriate.

Case No. 19814: Application of OXY USA, Inc. for an order amending the applicable orders to allow wells completed in the Simon Butte-Bakken Pool, Dunn County, ND, to produce at a maximum efficient rate and flare gas produced in association with oil until December 31, 2013, and such other relief as is appropriate.

Case No. 19815: Application of OXY USA, Inc. for an order amending the applicable orders to allow wells completed in the St. Anthony-Bakken Pool, Dunn County, ND, to produce at a maximum efficient rate and flare gas produced in association with oil until December 31, 2013, and such other relief as is appropriate.

Case No. 19816: Application of OXY USA, Inc. for an order amending the applicable orders to allow wells completed in the Willmen-Bakken Pool, Billings and Dunn Counties, ND, to produce at a maximum efficient rate and flare gas produced in association with oil until December 31, 2013, and such other relief as is appropriate.

Case No. 19817: Application of Kodiak Oil & Gas (USA) Inc. for an order amending the applicable orders for the Poe-Bakken Pool to designate a 2560-acre spacing unit consisting of Sections 5 and 6, T.151N., R.99W., and Sections 31 and 32, T.152N., R.99W., McKenzie County, ND and authorize up to two horizontal wells to be drilled on such spacing unit, eliminating any tool error requirement; and such other relief as is appropriate.

Case No. 19818: Application of Kodiak Oil & Gas (USA) Inc. for an order amending the applicable orders for the Moccasin Creek-Bakken Pool to (i) authorize up to three wells to be drilled on the 320-acre spacing units consisting of the E/2 and W/2 of Section 34, T.148N., R.93W., and the W/2 of Section 2 and E/2 of Section 3, T.147N., R.93W.; (ii) establish two overlapping 640-acre spacing units consisting of all of Section 34, T.148N., R.93W., and the W/2 of Section 2 and E/2 of Section 3, T.147N., R.93W., for the purpose of drilling two or more horizontal wells between the existing 320-acre spacing units; (iii) authorize up to eight horizontal wells to be drilled on 1280-acre spacing units described as Sections 26 and 27; and Sections 28 and 33, T.148N., R.93W.; and Sections 2 and 11, T.147N., R.93W.; (iv) authorize up to six horizontal wells to be drilled on a 1280-acre spacing unit described as Sections 3 and 10, T.147N., R.93W., Dunn County, ND; and (v) granting such other and further relief as may be appropriate.

Case No. 19819: Application of Marathon Oil Co. for an order amending the applicable orders for the Bailey-Bakken Pool to establish two overlapping 2560-acre spacing units consisting of Sections 16, 17, 20, and 21; and Sections 17, 18, 19, and 20, T.146N., R.94W., Dunn County, ND, for the purpose of drilling one or more horizontal wells between the existing 1280-acre spacing units; and such other relief as is appropriate.

Case No. 19820: Application of Marathon Oil Co. for an order amending the applicable orders for the Bailey-Bakken Pool to establish an overlapping 2560-acre spacing unit consisting of Sections 16, 17, 20, and 21, T.146N., R.93W., Dunn County, ND, for the purpose of drilling one or more horizontal wells between the existing 1280-acre spacing units; and such other relief as is appropriate.

as provided by NDCC § 38-08-08, and other relief as is appropriate.

Re No. 19871: Application of Kodiak Oil & Gas (USA) Inc. for an order pursuant to AC § 43 02-03-88.1 pooling all interests spacing unit described as Sections 17 20, T.159N., R.97W., Corinth-Bakken, Williams County, ND, as provided by

Case No. 19872: Application of Petro-Hunt, LLC for an order amending the applicable orders for the Elm Tree-Bakken Pool, McKenzie and Mountrail Counties, ND, to authorize up to seven horizontal wells to be drilled on each 1280-acre spacing unit within the pool, and such other relief as is appropriate.

Case No. 19873: Application of Petro-Hunt, LLC for an order amending the applicable orders for the Charlson-Bakken Pool, McKenzie, Mountrail and Williams Counties, ND, to authorize up to seven horizontal wells to be drilled on each 640-acre and 1280-acre spacing unit within the pool, and such other relief as is appropriate.

Case No. 19874: Application of Petro-Hunt, LLC for an order pursuant to NDAC § 43 02-03-88.1 pooling all interests in a spacing unit described as Sections 1 and 12, T.153N., R.95W., and Sections 6 and 7, T.153N., R.94W., Charlson-Bakken Pool, McKenzie County, ND, as provided by NDCC § 38-08-08, and such other relief as is appropriate.

Case No. 19875: Application of Petro-Hunt, LLC for an order pursuant to NDAC § 43 02-03-88.1 pooling all interests in a spacing unit described as Section 18, T.153N., R.95W., Charlson-Bakken Pool, McKenzie County, ND, as provided by NDCC § 38-08-08, and such other relief as is appropriate.

Case No. 19876: Application of Whiting Oil and Gas Corp., for an order amending the applicable orders for the Sanish-Bakken Pool, to authorize the drilling of up to 10 horizontal wells on a spacing unit described as Sections 1 and 2, T.153N., R.93W., Mountrail County, ND, and such other relief as is appropriate.

Case No. 19877: Application of OXY USA Inc. for an order pursuant to NDAC § 43 02-03-88.1 pooling all interests in a spacing unit described as Sections 18 and 19, T.143N., R.97W., Crooked Creek-Bakken Pool, Dunn County, ND, as provided by NDCC § 38-08-08, and such other relief as is appropriate.

Case No. 19878: Application of OXY USA Inc. for an order pursuant to NDAC § 43 02-03-88.1 pooling all interests in a spacing unit described as Sections 27 and 34, T.143N., R.97W., Willmen-Bakken Pool, Dunn County, ND, as provided by NDCC § 38-08-08, and such other relief as is appropriate.

Case No. 19879: Application of Sequel Energy, LLC for an order allowing production from the Hay Draw-Red River, Hay Draw-Birdbear and Hay Draw-Duperow Pools to be commingled in the well bore of the Hay Draw #32-33 well, located in the SWNE of Section 33, T.147N., R.102W., McKenzie County, ND, and such other relief as is appropriate.

Signed by,  
Jack Dalrymple, Governor  
Chairman, ND Industrial Commission  
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