

STATE OF SOUTH DAKOTA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
BOARD OF MINERALS AND ENVIRONMENT

IN THE MATTER OF THE PETITION OF LUFF EXPLORATION COMPANY, DENVER, COLORADO, TO AMEND BOARD ORDER NOS. 9-1993, 14-1995, 6-2014, AND ANY OTHER APPLICABLE ORDERS FOR THE CLARKSON RANCH FIELD TO ESTABLISH A 960-ACRE SPACING UNIT CONSISTING OF THE SW/4 OF SECTION 13, THE SE/4 OF SECTION 14, THE E/2 OF SECTION 23, AND THE W/2 OF SECTION 24, ALL IN TOWNSHIP 22 NORTH, RANGE 4 EAST, HARDING COUNTY, SOUTH DAKOTA, AND AUTHORIZE THE DRILLING OF A HORIZONTAL WELL TO BE COMPLETED IN THE RED RIVER "B" ZONE AT ANY LOCATION NOT CLOSER THAN 500 FEET TO THE BOUNDARY OF SAID SPACING UNIT AND WITH REDUCED INTER-WELL DISTANCE REQUIREMENTS FROM OTHER WELLS CAPABLE OF PRODUCING FROM THE RED RIVER "B" ZONE; TO EXPAND THE OUTLINE OF THE CLARKSON RANCH FIELD TO INCLUDE ALL SAID LANDS; TO AUTHORIZE THE ISSUANCE OF A PERMIT FOR SUCH HORIZONTAL WELL; AND FOR OTHER RELIEF AS THE BOARD DEEMS APPROPRIATE.

OIL AND GAS
CASE NO. 7-2017

ORDER

SECRETARY'S ORDER UNDER SDCL 45-9-74

A Petition ("Petition") of Luff Exploration Company ("Luff") was submitted to the South Dakota Board of Minerals and Environment ("Board") on November 27, 2017. The Board prepared and published a Notice of Opportunity for Hearing ("Notice") and Luff caused a copy of the Petition and the Notice to be served by mail or personally on each party affected by the petition. No petitions to intervene were filed in accordance with the Notice. Therefore, pursuant to South Dakota Codified Laws (SDCL) 45-9-74, SDCL 45-9-20 through 29, and Administrative

Rules of South Dakota (ARSD) 74:12:02:06, and based upon Luff's Petition and the supporting documents filed by Luff, the Secretary makes and enters the following order:

Luff represents the owners of interests in the oil and gas leasehold estate underlying all or portions of the Southwest Quarter of Section 13, the Southeast Quarter of Section 14, the East Half of Section 23, and the West Half of Section 24, all in Township 22 North, Range 4 East of the Black Hills Meridian, Harding County, South Dakota.

Pursuant to Order No. 9-1993, Section 24 was included in the Clarkson Ranch Field and spaced for vertical drilling. Pursuant to Order No. 14-1995, Section 24 was spaced for horizontal drilling in the Red River "B" zone on the basis of 640-acres. Pursuant to Order No. 6-2014, the boundaries of the Clarkson Ranch Field were amended to include the South Half of Section 13, and a 960-acre spacing unit was established for horizontal drilling in the Red River "B" zone. The Clarkson Ranch N-13H well was drilled by Luff on said 960-acre spacing unit, in a northwest to southeast orientation.

The Southeast Quarter of Section 14 and the East Half of Section 23 are currently not included within any field. Evidence submitted by Luff indicates that the Southwest Quarter of Section 13, the Southeast Quarter of Section 14, the East Half of Section 23, and the West Half of Section 24 are part of the same common source of supply.

Luff desires to drill an additional horizontal well in the Red River "B" zone to the west of, and parallel to, the existing Clarkson Ranch N-13H well. The proposed 960-acre spacing unit for the new well, consisting of the Southwest Quarter of Section 13, the Southeast Quarter of Section 14, the East Half of Section 23, and the West Half of Section 24, accommodates the wellbore planned by Luff and is also consistent with other spacing orders in the area.

Luff proposes to drill the new horizontal well less than 1320 feet away from the Clarkson Ranch N-13H well, and less than 660 feet from the boundary of the proposed spacing unit. Establishing the proposed spacing unit with boundary setbacks of 500 feet and no minimum inter-well distance will enable Luff to drill the well at the optimal location and thereby maximize the recovery of hydrocarbons.

Such a spacing unit, as described above, is not smaller than the maximum area that can be efficiently and economically drained by the proposed well and the size, shape and location of the spacing unit will result in the efficient and economic development of the pool as a whole.

IT IS THEREFORE ORDERED

A. The Southeast Quarter of Section 14 and the East Half of Section 23, both in Township 22 North, Range 4 East are hereby included in the Clarkson Ranch Field.

B. A spacing unit consisting of all of the Southwest Quarter of Section 13, the Southeast Quarter of Section 14, the East Half of Section 23, and the West Half of Section 24, all in Township 22 North, Range 4 East is hereby established in the Clarkson Ranch Field.

C. One horizontal well is authorized to be drilled on this spacing unit in the Red River "B" zone, with the wellbore located not closer than 500 feet to the spacing unit boundary, and with no mandatory minimum distance between this well and the existing Clarkson Ranch N-13H well.

D. This order amends prior orders concerning the above-described land, including without limitation Order Nos. 9-1993, 14-1995, and 6-2014. Because only the Red River "B" zone is included in this order, this order does not affect the Red River "C" and "D" zone spacing in the area.

E. That all portions of previous orders of the Board, if any, which are not amended by this Order shall remain in full force and effect until further order of the Board or Secretary.

F. That upon filing all required further information and forms with the Department of Environment and Natural Resources, drilling permits may be issued for the vertical well on the spacing unit established above.

Dated and signed this 12th day of January 2018.



Steven M. Pirner
Secretary
Department of Environment and Natural Resources