

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 TO AMEND BOARD ORDER NOS. 2, 2-78, 20-97, 2-10 AND ANY OTHER APPLICABLE ORDERS FOR THE BUFFALO FIELD TO VACATE AN EXISTING SPACING UNIT CONSISTING OF THE SW/4 OF SECTION 2, THE SE/4 OF SECTION 3, THE E/2 OF SECTION 10 AND THE W/2 OF SECTION 11, TOWNSHIP 22 NORTH, RANGE 4 EAST, HARDING COUNTY, SOUTH DAKOTA, AND INSTEAD ESTABLISH A 960-ACRE SPACING UNIT FOR THE BUFFALO FIELD CONSISTING OF THE W/2 OF SECTION 2, THE E/2 OF SECTION 3, THE NE/4 OF SECTION 10 AND THE NW/4 OF SECTION 11, TOWNSHIP 22 NORTH, RANGE 4 EAST, HARDING COUNTY, SOUTH DAKOTA, AND AUTHORIZE THE DRILLING OF A HORIZONTAL WELL WITH ONE OR MORE LATERALS IN THE RED RIVER "B" ZONE AT ANY LOCATION NOT CLOSER THAN 500 FEET TO THE BOUNDARY OF SAID SPACING UNIT; 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. 4-2014

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 February 27, 2014. 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 45-9-74, 45-9-20 through 29, and Administrative Rules of

South Dakota 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 owners of interests in the oil and gas leasehold estate in all or portions of the W/2 of Section 2, the E/2 of Section 3, the NE/4 of Section 10 and the NW/4 of Section 11, Township 22 North, Range 4 East, Harding County, South Dakota.

Pursuant to Order No. 2-10, the SW/4 of Section 2, the SE/4 of Sections 3, the E/2 of Section 10 and the W/2 of Section 11 constitute a 960-acre spacing unit for the Buffalo Field with up to three horizontal wells authorized to be drilled in the Red River "B" zone on such spacing unit. The NE/4 of Section 3 is also included within the Buffalo Field. The NW/4 of Section 2 is not currently included in any field established by order of the Board, but it is adjacent to the current outline of the Buffalo Field and evidence submitted by Luff indicates it is likely to be productive of hydrocarbons from the same Red River "B" pool currently included within the Buffalo Field.

Luff desires to drill a horizontal well in the Red River "B" Formation in a generally northwest/southeast orientation across the 960 acres included in the proposed spacing unit. The proposed spacing unit accommodates the wellbore planned by Luff and is also consistent with other spacing orders entered by the Board in the area.

Such a spacing unit 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 outline of the Buffalo Field is extended to include the NW/4 of Section 2, Township 22 North, Range 4 East, Harding County, South Dakota. The spacing unit established

by Order No. 2-10 consisting of the SW/4 of Section 2, the SE/4 of Section 3, the E/2 of Section 10 and the W/2 of Section 11, is vacated and a new spacing unit consisting of the W/2 of Section 2, the E/2 of Section 3, the NE/4 of Section 10 and the NW/4 of Section 11, Township 22 North, Range 4 East, is hereby established in the Buffalo Field.

B. A horizontal well with one or more laterals is allowed to be drilled on this spacing unit in the Red River "B" pool with any such laterals located not closer than 500 feet to the spacing unit boundary.

C. 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.

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

Dated and signed this 14th day of April 2014.

A handwritten signature in black ink, appearing to read 'S. Pirner', with a horizontal line extending to the right.

Steven M. Pirner
Secretary
Department of Environment and Natural Resources