IN THE MATTER OF THE PETITION OF
LUFF EXPLORATION COMPANY TO
AMEND BOARD ORDER NOS. 2-73A, 9-93,
14-95, 19-97, 27-08, AND ANY OTHER
APPLICABLE ORDERS FOR THE YELLOW
HAIR FIELD AND THE CLARKSON RANCH
FIELD TO ESTABLISH A 960-ACRE
SPACING UNIT FOR THE CLARKSON
RANCH FIELD CONSISTING OF THE S/2 OF
SECTION 13 AND ALL OF SECTION 24,
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.

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 March 25, 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 (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 owners of interests in the oil and gas leasehold estate in all or portions of the S/2 of Section 13 and all of Section 24, Township 22 North, Range 4 East, Harding County, South Dakota.

Pursuant to Order Nos. 2-73A, 19-97 and 27-08, the S/2 of Section 13 is included within the Yellow Hair Field and all of Section 13, together with all of Section 18 of the same township, currently constitutes a 1280-acre spacing unit for the Yellow Hair Field. Pursuant to Order No. 9-93, all of Section 24 is included within the Clarkson Ranch Field and is spaced for vertical drilling in the Red River pool on the basis of 320 acres. Pursuant to Order No. 14-95, all of Section 24 currently constitutes a 640-acre spacing unit for the Red River “B” pool with up to two horizontal wells allowed to be drilled on the spacing unit.

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.

Evidence submitted by Luff indicates the S/2 of Section 13 and all of Section 24 is likely to be productive of hydrocarbons from the same Red River “B” pool currently included within both the Yellow Hair Field and the Clarkson Ranch Field. However, the Travers 34-24 well in the SE/4 of Section 24 currently produces from the Red River “D” pool in the Clarkson Ranch Field and applicant therefore recommends that all of said lands be included in the Clarkson Ranch Field.

The 960-acre spacing unit recommended by Luff 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 Yellow Hair Field and the Clarkson Ranch Field is amended to include the S/2 of Section 13, Township 22 North, Range 4 East, Harding County, South Dakota in the Clarkson Ranch Field. A spacing unit consisting of the S/2 of Section 13 and all of Section 24 is hereby established in the Clarkson Ranch 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. This order amends prior orders concerning the above described land, including without limitation Order Nos. 2-73A, 9-93, 14-95, 19-97, and 27-08.

D. 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.

E. 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 28th day of July 2014.

[Signature]

Steven M. Pirner
Secretary
Department of Environment and Natural Resources