

Entered August 7, 1981  
JLR

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 7086  
Order No. R-6746

APPLICATION OF BLACKWOOD &  
NICHOLS CO., LTD. FOR DESIG-  
NATION OF A TIGHT FORMATION,  
SAN JUAN AND RIO ARRIBA  
COUNTIES, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on June 3, 1981,  
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

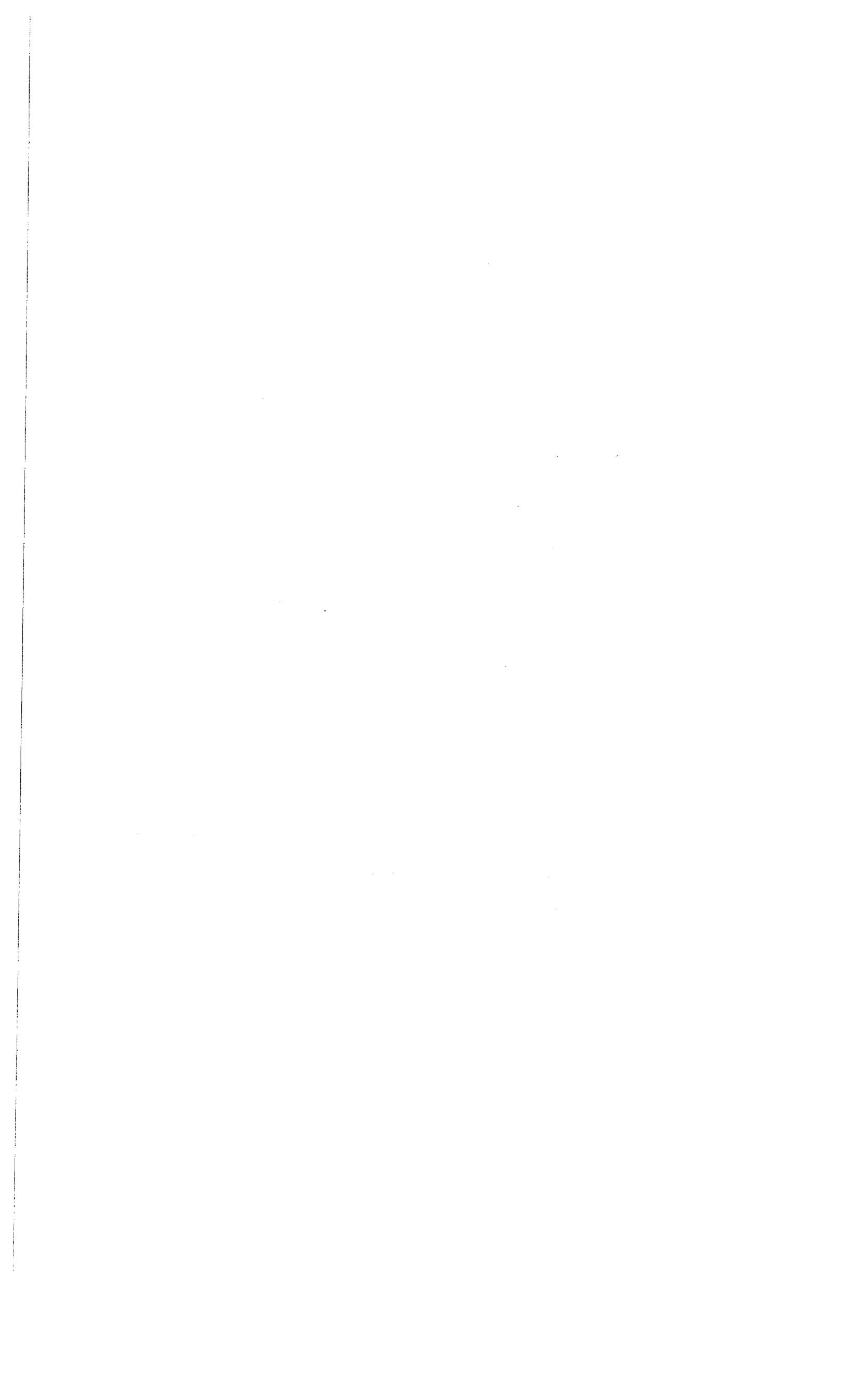
NOW, on this 7th day of August, 1981, the Division  
Director, having considered the testimony, the record, and the  
recommendations of the Examiner, and being fully advised in the  
premises,

FINDS:

(1) That due public notice having been given as required  
by law, the Division has jurisdiction of this cause and the  
subject matter thereof.

(2) That the applicant, Blackwood & Nichols Co., Ltd.,  
requests that the Division in accordance with Section 107 of the  
Natural Gas Policy Act, and 18 C.F.R. §271.703 recommend to the  
Federal Energy Regulatory Commission that the Pictured Cliffs  
formation underlying the following lands situated in San Juan  
and Rio Arriba Counties, New Mexico, hereinafter referred to as  
the Pictured Cliffs formation, be designated as a tight forma-  
tion in said Federal Energy Regulatory Commission's regulations:

TOWNSHIP 30 NORTH, RANGE 7 WEST, NMPM  
Sections 2 through 21: All  
Section 22: W/2 W/2  
Section 29: N/2



TOWNSHIP 30 NORTH, RANGE 8 WEST, NMPM

Section 1: All  
Section 12: All  
Section 13: All  
Section 24: All

TOWNSHIP 31 NORTH, RANGE 6 WEST, NMPM

Section 6: Lots 8, 9, 10, 11, and  
S/2  
Section 7: All  
Sections 18 through 20: All  
Section 30: All

TOWNSHIP 31 NORTH, RANGE 7 WEST, NMPM

Section 1: Lots 5, 6, 7, 8, and S/2  
Sections 9 through 16: All  
Sections 19 through 36: All

TOWNSHIP 31 NORTH, RANGE 8 WEST, NMPM

Section 25: All  
Section 36: All

(3) That the applicant did not present evidence relative to the following described acreage and it should be excluded from consideration for tight formation recommendation:

TOWNSHIP 30 NORTH, RANGE 7 WEST, NMPM

Sections 11 through 15: All  
Section 16: E/2  
Section 22: W/2 W/2

TOWNSHIP 31 NORTH, RANGE 7 WEST, NMPM

Section 9: N/2  
Section 10: N/2

(4) That the Pictured Cliffs formation underlies the above described lands; that the formation consists of shales, coal seams and sandstone lenses, about 150 feet thick, composed of fine to medium grained, well sorted, angular to subrounded sand, composed mainly of quartz with some ferromagnesium minerals and glauconite cemented with calcite and bentonite; that the top of such formation is found at an average depth of 3200 feet below the surface of the area set out in Finding No. (2) above; and that the thickness of such formation is from 150 to 250 feet within said area.

(5) That the type section for the Pictured Cliffs formation for the proposed tight formation designation is found at a depth

of from approximately 3230 feet to 3360 feet on the Laserlog dated July 30, 1978 from the Northeast Blanco Unit Well No. 17-A located in Unit D of Section 9, Township 30 North, Range 10 West, San Juan and Rio Arriba Counties, New Mexico.

(6) That the following described wells produce natural gas from the Pictured Cliffs formation within the proposed area:

Northeast Blanco Unit Well #202            NE/4, Section 11, T-31-N,  
R-7-W, San Juan County,  
New Mexico

Northeast Blanco Unit Well #204            SW/4, Section 1, T-31-N,  
R-7-W, San Juan County,  
New Mexico

(7) That the Pictured Cliffs formation underlying the above described lands has been penetrated by several other wells, none of which produce natural gas in commercial quantities from the Pictured Cliffs formation.

(8) That the evidence presented in this case demonstrated that no well formerly or currently completed in the Pictured Cliffs formation within the proposed area exhibited permeability, gas productivity, or crude oil productivity in excess of the following parameters:

- (a) average in situ gas permeability throughout the pay section of 0.1 millidarcy; and
- (b) stabilized production rates, without stimulation, against atmospheric pressure, as found in the table set out in 18 C.F.R. §271.703(c)(2)(B) of the regulations; and
- (c) production of more than five barrels of crude oil per day.

(9) That based on analysis of available data from existing wells within the proposed area and utilizing generally and customarily accepted petroleum engineering techniques and measurements:

- (a) The estimated average in situ gas permeability throughout the pay section of the Pictured Cliffs formation is expected to be 0.1 millidarcy or less; and



- (b) The stabilized production rate, against atmospheric pressure, of wells completed for production in the Pictured Cliffs formation, without stimulation, is not expected to exceed production levels determined by reference to well depth, as found in the table set out in 18 C.F.R. §271.703(c)(2)(B) of the regulations; and
- (c) No well drilled into the formation is expected to produce, without stimulation, more than five barrels of crude oil per day.

(10) That within the proposed area there is a recognized aquifer being the Ojo Alamo, found at depths of from 500 feet to 1100 feet or approximately 1500 to 2100 feet above the Pictured Cliffs formation.

(11) That existing State of New Mexico and Federal Regulations relating to casing and cementing of wells will assure that development of the Pictured Cliffs formation will not adversely affect said aquifers.

(12) That the Pictured Cliffs formation within the proposed area should be recommended to the Federal Energy Regulatory Commission for designation as a tight formation.

IT IS THEREFORE ORDERED:

(1) That it be and hereby is recommended to the Federal Energy Regulatory Commission pursuant to Section 107 of the Natural Gas Policy Act of 1978, and 18 C.F.R. §271.703 of the regulations that the Pictured Cliffs formation underlying the following described lands in San Juan and Rio Arriba Counties, New Mexico, be designated as a tight formation:

TOWNSHIP 30 NORTH, RANGE 7 WEST, NMPM  
Sections 2 through 10: All  
Section 16: W/2  
Sections 17 through 21: All  
Section 29: N/2

TOWNSHIP 30 NORTH, RANGE 8 WEST, NMPM  
Section 1: All  
Sections 12 and 13: All  
Section 24: All

TOWNSHIP 31 NORTH, RANGE 6 WEST, NMPM  
Section 6: Lots 8, 9, 10, 11, and  
S/2  
Section 7: All  
Sections 18 through 20: All  
Section 30: All

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TOWNSHIP 31 NORTH, RANGE 7 WEST, NMPM

Section 1: Lots 5, 6, 7, 8, and S/2

Section 9: S/2

Section 10: S/2

Sections 11 through 16: All

Sections 19 through 36: All

TOWNSHIP 31 NORTH, RANGE 8 WEST, NMPM

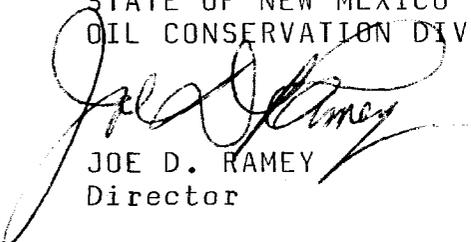
Section 25: All

Section 36: All

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



JOE D. RAMEY  
Director

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