



BRUCE KING  
GOVERNOR

LARRY KEHOE  
SECRETARY

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

February 4, 1983

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Re: CASE NO. 7746  
ORDER NO. R-7200

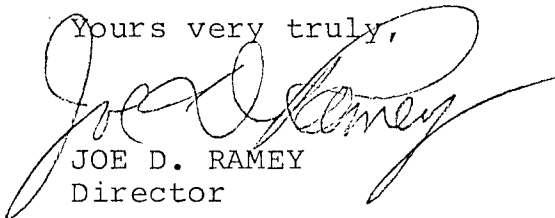
Applicant:

Four Corners Gas Producers  
Association

Dear Sir:

Enclosed herewith are two copies of the above-referenced  
Division order recently entered in the subject case.

Yours very truly,

  
JOE D. RAMEY  
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD   x    
Artesia OCD   x    
Aztec OCD   x  

Other \_\_\_\_\_  
\_\_\_\_\_

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. 7746  
Order No. R-7200

APPLICATION OF FOUR CORNERS GAS  
PRODUCERS ASSOCIATION FOR DESIGNATION  
OF A TIGHT FORMATION, RIO ARRIBA AND  
SANDOVAL COUNTIES, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 23, 1982, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 3rd day of February, 1983, 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, Four Corners Gas Producers Association, 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 those lands situated in Rio Arriba and Sandoval Counties, New Mexico, described on "Exhibit A" attached to this order and herein-after referred to as the Pictured Cliffs formation, be designated as a tight formation in said Federal Energy Regulatory Commission's regulations.

(3) That the Pictured Cliffs formation underlies all of the above-described lands; that the formation consists of marine siltstone, clay-filled deposits about 95 feet thick, consisting of near shore bars which are lenticular, ribbon-like deposits with limited areal extent; that better permeability is encountered on the crests of these near shore bars

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where the sands are better developed than the areas off the bar crests where the sands become siltier and more clay-filled; and that the top of such formations is found at an average depth of 2685 feet below the surface of the area set forth in "Exhibit A" attached to this order.

(4) That the type section for the Pictured Cliffs formation for the proposed tight formation designation is found at a depth of approximately 3046 feet to 3141 feet on the Induction Electric Log from the John E. Schalk, Cinco Diablos Well No. 6 located in Unit D of Section 14, Township 23 North, Range 4 West, Rio Arriba County, New Mexico.

(5) That the area for which a tight formation designation is sought is comprised of approximately 1464 proration units on which 466 Pictured Cliffs wells have been drilled of which 94 have been abandoned.

(6) That with less than one-third of the available gas spacing units being developed, the area proposed for designation may be characterized as one of low to moderate development.

(7) That approximately 60 gas wells have been completed in the proposed area since February 20, 1980, the date of promulgation of interim FERC rules on high-cost natural gas produced from tight formations.

(8) That at the average depth for the Pictured Cliffs formation in the proposed area, the maximum qualifying unstimulated production rate is 79 MCFD.

(9) That unstimulated natural production rates were available from seven producible wells completed after February 20, 1980.

(10) That one well had an unstimulated potential of 259 MCFD while the remainder averaged 16.5 MCFD.

(11) That core analyses were available on nine wells, two of which were drilled after February 20, 1980, within the proposed area.

(12) That one cored well was a dry hole and that data should not be used in determining average in situ permeability.

(13) That one well exhibited average laboratory permeability of 2.64 millidarcies.

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(14) That the remaining core derived in situ permeability averaged 0.011 millidarcies.

(15) That based on an 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 (2) (B) of the regulations; and
- (c) no well drilled into the Pictured Cliffs formation is expected to produce, without stimulation, more than five barrels of crude oil per day.

(16) That within the proposed area there is a recognized aquifer being the Ojo Alamo, located over 200 feet above the Pictured Cliffs formation.

(17) 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 the said aquifer.

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

IT IS THEREFORE ORDERED:

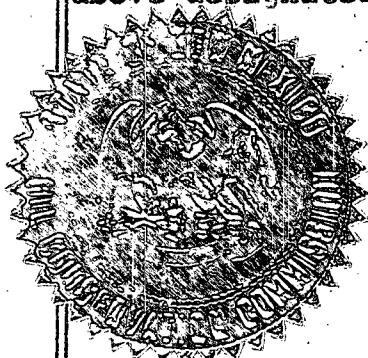
(1) That it be and hereby is recommended to the Federal Energy Regulatory Commission pursuant to Section 107 of the Natural Gas Policy Act of 1978, and 18 C.F.R. §271.703 of the regulations that the Pictured Cliffs formation underlying those lands in Rio Arriba and Sandoval Counties, New Mexico, as described on "Exhibit A" attached to this order, be designated as a tight formation.

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(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 herein-  
above designated.



STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

*Joe D. Ramey*  
JOE D. RAMEY  
Director

SEAL

fd/

Four Corners Gas Producers Association  
Five Lakes Canyon Tight Formation Area  
Rio Arriba and Sandoval Counties, New Mexico

TOWNSHIP 22 NORTH, RANGE 2 WEST, NMPM  
Sections 1 through 36: All

TOWNSHIP 22 NORTH, RANGE 3 WEST, NMPM  
Sections 1 through 36: All

TOWNSHIP 22 NORTH, RANGE 4 WEST, NMPM  
Sections 1 through 36: All

TOWNSHIP 22 NORTH, RANGE 5 WEST, NMPM  
Sections 1 through 36: All

TOWNSHIP 23 NORTH, RANGE 2 WEST, NMPM  
Sections 5 through 9: All  
Sections 16 through 21: All  
Sections 25 through 36: All

TOWNSHIP 23 NORTH, RANGE 3 WEST, NMPM  
Sections 1 through 36: All

TOWNSHIP 23 NORTH, RANGE 4 WEST, NMPM  
Sections 1 through 36: All

TOWNSHIP 23 NORTH, RANGE 5 WEST, NMPM  
Sections 1 through 36: All

TOWNSHIP 24 NORTH, RANGE 3 WEST, NMPM  
Sections 19 and 20: All  
Sections 29 through 32: All  
Section 33: W/2

TOWNSHIP 24 NORTH, RANGE 4 WEST, NMPM  
Sections 3 through 10: All  
Sections 13 through 36: All

TOWNSHIP 24 NORTH, RANGE 5 WEST, NMPM  
Sections 1 through 36: All

TOWNSHIP 25 NORTH, RANGE 4 WEST, NMPM  
Section 30: S/2  
Sections 31 and 32: All

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM  
Sections 15 through 23: All  
Section 24: S/2  
Sections 25 through 36: All

Containing a total of 234,240 acres, more or less.

Exhibit A  
Order No. R-7200