



**MONTGOMERY
& ANDREWS**
LAW FIRM

J. SCOTT HALL

Office: (505) 986-2646

Email: shall@montand.com

Reply To: Santa Fe Office

www.montand.com

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April 13, 2012

Ms. Jami Bailey, Director
NM Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87501

Hand-Delivered

Re: NMOCD Case No. 14539: Application of Energen Resources Corporation for Approval of a Pilot Project, Unorthodox Well Locations and for Exception From Rule 19.15.15.11 NMAC to Determine Proper Well Densities for Pictured Cliffs Formation Wells in Portions of the Gavilan, Tapacito and South Blanco-Pictured Cliffs Pools, Rio Arriba County, New Mexico. Order No. R-13347-A (March 3, 2011)

Dear Ms. Bailey:

On August 3, 2010, Energen Resources Corporation applied to the Division for approval of a pilot project to determine proper well densities for Pictured Cliffs formation wells in portions of the Gavilan-Pictured Cliffs pool, the Tapacito-Pictured Cliffs pool and the South Blanco-Pictured Cliffs pool in Rio Arriba County. Following a hearing on September 2, 2010 before Examiner Warnell, the Division entered Order No. R-13347 approving of the pilot project on January 11, 2011. Subsequently, Burlington Resources Oil & Gas Company sought certain amendments to the Order and by agreement of the parties, the Division entered Order No. R-13347-A on March 3, 2011. A copy of Order No. R-13347A is enclosed for your convenience.

The Division authorized Energen to recomplete eight existing Mesaverde formation wells in the Pictured Cliffs formation and operate them as infill wells in identified spacing units for two years. Within six months of the completion of the pilot project study, Energen is to apply for another hearing to provide its data from the study, its overall findings and recommendations for well densities for Pictured Cliffs wells. Order No. R-13347-A, Conclusion ¶ 2 (March 3, 2011).

REPLY TO:

325 Paseo de Peralta
Santa Fe, New Mexico 87501
Telephone (505) 982-3873 • Fax (505) 982-4289

Post Office Box 2307
Santa Fe, New Mexico 87504-2307

6301 Indian School Road NE, Suite 400
Albuquerque, New Mexico 87110
Telephone (505) 884-4200 • Fax (505) 888-8929

Post Office Box 36210
Albuquerque, New Mexico 87176-6210

Ms. Jami Bailey, Director
April 13, 2012
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While the pilot project study remains ongoing, Energen has requested that the Division be provided with an interim report of its efforts. Accordingly, enclosed is a copy of Energen's internal memorandum dated March 20, 2012 from Mr. Zachary Van Voast (petroleum engineer) and Mr. Don Lehman (geologist). Also enclosed is a map outlining the Pictured Cliffs pools in the Jicarilla Area.

Energen anticipates providing the Division with a follow-up report on completion of the study in accordance with the provisions of Order No. R-13347-A.

Thank you.

Very truly yours,



J. Scott Hall

Enclosure

cc: Terry Warnell, NMOCD Santa Fe w/enc., via hand-delivery
Charlie Perrin, NMOCD Aztec w/enc., via regular mail
Jim Lovato, BLM Farmington w/enc., via regular mail
Dixon Sandoval, Jicarilla Apache Nation, Dulce, NM w/enc., via regular mail
W. Thomas Kellahin, Esq. w/enc., via e-mail
Dave Poage, Energen Farmington w/enc., via e-mail
Don Lehman, Energen Birmingham w/enc., via e-mail
Bryan Lewis, Energen Birmingham w/enc., via e-mail
Rusty Cook, Esq., Energen Birmingham w/enc., via e-mail

367863

From: Zachary Van Voast
Don Lehman

To: Ray Maldonado
Gene Cash
Ron Tisdale

RE: Update and Status Report to NMOCD
80-ac Pictured Cliffs in-fill pilots approved January 2011
Rio Arriba Co., NM
Case No. 14539
Order No. R-13347-A

Date: 3/20/2012

The wells listed below were approved by the NMOCD for 80-ac Pictured Cliffs pilots in January of 2011. Seven of these wells were successfully recompleted as Pictured Cliffs pay-adds and commingled with existing Mesaverde production. The Jicarilla 96 #5A had casing integrity issues and a decision was made not to recomplete in the Pictured Cliffs in this wellbore. The casing was repaired and the existing Mesaverde completion was put back on production. We did however find another candidate, the Jicarilla 95 #1B; a 160-ac replacement well for the Jicarilla 95 #9 (P&A'd in 1991) and therefore did not require NMOCD approval. Since the Jicarilla 95 #9 produced about .55 BCF from the 160-ac block before it was P&A'd, we thought the Jicarilla 95 #1B would serve as a similar candidate as an 80-ac pilot well. We obtained bottom hole pressure data in all the wells using DFIT falloff test data obtained from tandem bottom hole pressure gauges. P* for these wells ranged from 292 psi to 1270 psi. Peak average monthly production usually in the first or second months ranged from 125 mcf to 750 mcf. Overall, the eight well pay-add program seems to be economically successful with an average pay-add cost of approximately \$210,000. At this time it is too early to accurately determine EUR's or if there will be production interference with the parent well in the same 160-ac block. An index map is attached that shows the location of the eight pay-add wells.

Energen Resources will report back to the OCD in early 2013 with updated status on these wells and further recommendation.

NW/4 Section 23, T-27-N, R-3-W
Gavilan-Pictured Cliffs Pool
Jicarilla 94 Well No. 5C (API No. 3003927671)
Location: SW/4 NW/4

NW/4 Section 11, T-26-N, R-3-W
(Pictured Cliffs not completed due to casing problems)
Gavilan-Pictured Cliffs Pool
Jicarilla 96 Well No. 5A (API No. 3003921238)
Location: NW/4 NW/4

SE/4 Section 19, T-26-N, R-3-W
Tapacito-Pictured Cliffs Pool
Jicarilla 98 Well No. 2B (API No. 3003927308)
Location: NE/4 SE/4

SW/4 Section 20, T-26-N, R-3-W
Tapacito-Pictured Cliffs Pool
Jicarilla 98 Well No. 3B (API No. 3003926915)
Location NE/4 SW/4

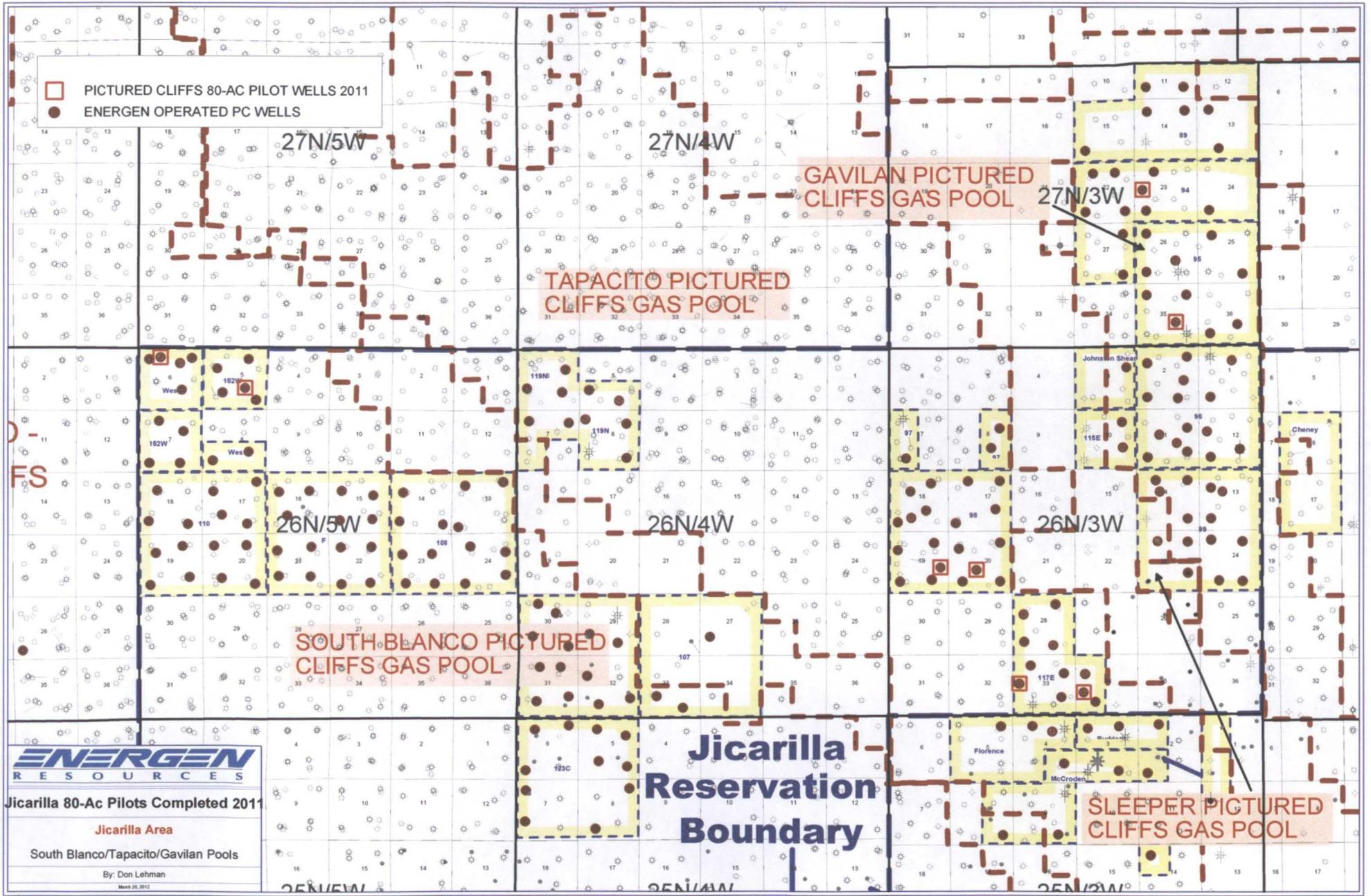
NW/4 Section 33, T-26-N, R-3-W
Tapacito-Pictured Cliffs Pool
Jicarilla 117E Well No. 9B (API No. 3003929295)
Location SW/4 NW/4

SW/4 Section 34, T-26-N, R-3-W
Tapacito-Pictured Cliffs Pool
Jicarilla 117E Well No. 3B (API No. 3003929296)
Location NW/4 SW/4

SE/4 Section 5, T-26-N, R-5-W
South Blanco-Pictured Cliffs Pool
Jicarilla 152W Well No. 2M (API No. 3003926575)
Location NW/4 SE/4

NW/4 Section 6, T-26-N, R-5-W
South Blanco-Pictured Cliffs Pool
Jicarilla West Well No. 9M (API No. 3003926306)
Location NE/4 NW/4

SE/4 Section 35, T-27-N, R-3-W
(160-acre Pictured Cliffs replacement well for Jicarilla 95 #9)
Gavilan-Pictured Cliffs Pool
Jicarilla 95 Well No. 1B (API No. 3003926309)



PICTURED CLIFFS 80-AC PILOT WELLS 2011
 ENERGEN OPERATED PC WELLS

27N/5W

27N/4W

GAVILAN PICTURED CLIFFS GAS POOL

27N/3W

TAPACITO PICTURED CLIFFS GAS POOL

26N/5W

26N/4W

26N/3W

SOUTH BLANCO PICTURED CLIFFS GAS POOL

**Jicarilla
Reservation
Boundary**

SLEEPER PICTURED CLIFFS GAS POOL



Jicarilla 80-Ac Pilots Completed 2011

Jicarilla Area

South Blanco/Tapacito/Gavilan Pools

By: Don Lehman

March 26, 2012

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

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

**CASE NO. 14539
ORDER NO. R-13347-A**

**APPLICATION OF ENERGEN RESOURCES
CORPORATION FOR APPROVAL OF A
PILOT PROJECT, UNORTHODOX OIL
WELL LOCATIONS, AND FOR EXCEPTION
FROM RULE 19.15.15.11 NMAC TO
DETERMINE PROPER WELL DENSITIES
FOR PICTURED CLIFFS FORMATION
WELLS IN PORTIONS OF THE GAVILAN,
TAPACITO AND SOUTH BLANCO-
PICTURED CLIFFS POOLS, RIO ARRIBA
COUNTY, NEW MEXICO.**

AMENDED ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on September 2, 2010, at Santa Fe, New Mexico, before Examiner Terry Warnell.

On the 11th day of January, 2011, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, entered Order No. R-13347

On January 21, 2011, Burlington Resources Oil & Gas, LP "Burlington" filed a Motion to Reopen and Amend Order No. R-13347. On January 24, 2011, the Applicant, Energen Resources Corporation "Energen," filed its Response.

On January 26, 2011, Burlington and Energen have advised the Division that they reached an agreement for the entry of a stipulated amended order.

NOW, on this 3rd day of March, 2011, the Division Director, having considered the recommendations of the Examiner to approve this stipulated amended order.

FINDS THAT:

(1) Due notice has been given, and the Division has jurisdiction of the subject matter of this case.

(2) This case was consolidated for purposes of hearing with Case No. 12857 (Reopened). However, since the two cases involve different agendas, separate orders are being issued.

(3) Energen Resources Corporation ("Energen" or "applicant") seeks approval for the establishment of an eight-well infill pilot project program to determine proper well densities for the Pictured Cliffs formation in portions of the Gavilan-Pictured Cliffs Pool (77360), the Tapacito-Pictured Cliffs Pool (85920) and the South Blanco-Pictured Cliffs Pool (72439) in Rio Arriba County, New Mexico.

(4) Applicant further seeks an exception to the well density development limitations applicable to each of the referenced pools. The proposed eight infill wells and lands comprising the pilot project study area are as follows:

NW/4 Section 23, T27N, R3W

Gavilan-Pictured Cliffs Pool

Jicarilla 94 Well No. 5C (API No. 30-039-27671)

Location: SW/4 NW/4

NW/4 Section 11, T26N, R3W

Gavilan-Pictured Cliffs Pool

Jicarilla 96 Well No. 5A (API No. 30-039-21238)

Location: NW/4 NW/4

SE/4 Section 19, T26N, R3W

Tapacito-Pictured Cliffs Pool

Jicarilla 98 Well No. 2B (API No. 30-039-27308)

Location: NE/4 SE/4

SW/4 Section 20, T26N, R3W

Tapacito-Pictured Cliffs Pool

Jicarilla 98 Well No. 3B (API No. 30-039-26915)

Location: NE/4 SW/4

NW/4 Section 33, T26N, R3W

Tapacito-Pictured Cliffs Pool

Jicarilla 117E Well No. 9B (API No. 30-039-29295)

Location: SW/4 NW/4

SW/4 Section 34, T26N, R3W

Tapacito-Pictured Cliffs Pool

Jicarilla 117E Well No. 3B (API No. 30-039-29296)

Location: NW/4 SW/4

SE/4 Section 5, T26N, R5W

South Blanco-Pictured Cliffs Pool

Jicarilla 152W Well No. 2M (API No. 30-039-26575)

Location: NW/4 SE/4

NW/4 Section 6, T26N, R5W

South Blanco-Pictured Cliffs Pool

Jicarilla West Well No. 9M (API No. 30-039-26306)

Location: NE/4 NW/4

(5) In addition, Applicant seeks approval pursuant to Rule 19.15.15.13 of unorthodox well locations for four of the referenced wells:

Jicarilla 94 Well No. 5C 2540FNL, 680FWL, Section 23, T27N, R3W

Jicarilla 98 Well No. 2B 2200FSL, 660FEL, Section 19, T26N, R3W

Jicarilla 98 Well No. 3B 1980FSL, 2350FWL, Section 20, T26N, R3W

Jicarilla 117E Well No. 9B 2515FNL, 5654FWL, Section 33, T26N, R3W

(6) The Gavilan-Pictured Cliffs Pool is an "unprorated gas pool" not subject to the Division's statewide rules entitled "Gas Proration and Allocation" (Part 21). This pool is currently governed by Division Rules 15.10.C and 15.11.C, which provide for 160-acre spacing units, require wells to be no closer than 660 feet to the outer boundary of their assigned units nor closer than 10 feet to any quarter-quarter section line or subdivision inner boundary, and preclude the drilling, recompletion, and production of a second gas well within a single 160-acre gas spacing unit.

(7) Both the South Blanco-Pictured Cliffs and Tapacito-Pictured Cliffs Pools are prorated gas pools and are therefore subject to the Division's statewide rules (Part 21). Both pools are developed on standard 160-acre spacing units with wells no closer than 660 feet to the outer boundary of their assigned units nor closer than 10 feet to any quarter-quarter section line or subdivision inner boundary. While the pool rules governing both pools (see Division Order No. R-8170, as amended) do not specifically restrict the number of wells per unit, neither do they specifically permit additional wells.

(8) Applicant appeared at the hearing with counsel and presented land and geologic testimony as follows:

(a) Each of the 160-acre units is owned by Energen and ownership is identical in all pools.

(b) It is not economic to drill new wells to recover the incremental

reserves out of the Pictured Cliffs.

(c) Volumetric analysis suggests that increasing well density to two wells per 160-acre spacing unit would recover additional reserves and that the current one well per 160-acre unit density rule may result in a low percentage of the gas in place being produced.

(9) Burlington Resources Oil and Gas Company LP appeared with counsel and presented evidence including a witness and exhibits. While Burlington stated that it was neither for nor against the approval of these eight new pilot wells, it did want Energen to follow the criteria of the original pilot.

(10) Except for Energen Resources Corporation, the applicant, and Burlington Resources Oil & Gas Company, LP no other party appeared at the hearing.

(11) Burlington concluded that the majority of available data suggests infilling of the Pictured Cliffs formation across the basin is not appropriate at that time.

(12) It is appropriate for the Division to adopt some of the same protocols that were used in the original Pictured Cliffs Pilot Project as set forth in Order No. R-11848.

(13) This Pilot Project is intended to:

- (a) accumulate comprehensive technical data for study and reservoir simulation, (including reservoir pressure);
- (b) accurately determine formation water saturations;
- (c) and make an estimation of original gas-in-place and remaining reserves

(14) The pilot program is authorized for a period of two years from the date of this Order. Within six (6) months of completion of the pilot Project, Energen shall apply to the Division to re-open this case for an Examiner's hearing to provide their data, overall findings and well density recommendations to the Division.

(15) The granting of this application will afford the Applicant the opportunity to gather additional data and examine various geologic and engineering factors to determine proper well density and well locations for all Pictured Cliffs Gas Pools and formations. Use of the data from the pilot project could ultimately result in the recovery of additional gas reserves that may not otherwise be recovered. Granting this application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The application of Energen Resources Corporation to conduct an eight-well infill pilot study program in the Pictured Cliffs formation as described in Finding four (4) of this Order in Rio Arriba County, New Mexico is hereby approved, subject to the declaratory paragraph (2) below.

(2) The pilot program is authorized for a period of two years from the date of this Amended Order. Within six (6) months of completion of the pilot Project, Energen shall apply to the Division to re-open this case for an Examiner's hearing to provide their data, overall findings and well density recommendations to the Division.

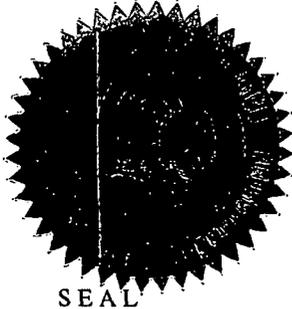
(3) The unorthodox location of Applicant's proposed four wells, as described in Finding five (5) of this Order, is approved.

(4) The applicant is further authorized to commingle oil and gas production from the Blanco-Mesaverde Gas Pool with production from the Gavilan-Pictured Cliffs and Tapacito-Pictured Cliffs Gas Pools (in accordance with Rule 19.15.12.1 I.C(2) NMAC), in those wells one through six described in finding paragraph 4 of this order. In addition, applicant is authorized to commingle production from the Blanco-Mesaverde Gas Pool, the South Blanco-Pictured Cliffs Gas Pool and the Basin-Dakota Gas Pool in wells seven and eight described in finding paragraph 4.

(5) The operator shall notify the Aztec District Office of the Division upon implementation of commingling operations.

(6) Jurisdiction of this case 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


DANIEL SANCHEZ
Acting Director