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March 18, 2004

VIA HAND DELIVERY



MAR 18 2004

Michael E. Stogner, Hearing Examiner
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, NM 87505

Re: <u>Case 13222</u>: Application of Yates Petroleum Corporation for pool creation and the adoption of Special Pool Rules, Eddy County, New Mexico.

Dear Mr. Stogner:

Pursuant to your request, enclosed is the proposed Order of Yates Petroleum Corporation in the above-referenced case and our Hearing Brief. I have also provided you with copies of these documents by e-mail.

If you need additional information from Yates to assist with your consideration of this application, please advise.

Very truly yours

William F. Carr

Enclosures

cc: David Boneau

Yates Petroleum Corporation

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:

NOMENCLATURE	
CASE NO. 13222	
ORDER NO. R-	

APPLICATION OF YATES PETROLEUM CORPORATION FOR POOL CREATION AND THE ADOPTION OF SPECIAL POOL RULES, EDDY COUNTY, NEW MEXICO.

YATES PETROLEUM CORPORATION'S PROPOSED ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 on March 4, 2004, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this ____ day of March, 2004, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

- (1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.
- (2) The applicant, Yates Petroleum Corporation ("Yates"), seeks the creation of a new pool for the production of hydrocarbons from the Abo formation underlying the N/2 of Section 36, Township 21 South, Range 21 East, NMPM, Eddy County, New Mexico, as the result of the discovery of natural gas in Yates' Duvel "BCD" State Well No. 1 ("Duvel Well"), located at a standard gas well location 710 feet from the North line and 1980 feet from the West line (Unit C) of said Section 36. This well was completed on December 22, 2003 and produces natural gas from the Abo formations through perforations from 3580 feet to 3850 feet.
- (3) Yates further seeks to establish special pool rules and regulations for this new Abo pool on a temporary basis, including provisions for:
 - (a) 320-acre spacing and proration units, comprising any two contiguous quarter sections of a single section being a legal subdivision of the U. S. Public Lands Survey;

- (b) wells to be located no closer than 660 feet to the outer boundary of the quarter section on which the well is located and no closer than 10 feet to any quarter-quarter section line or subdivision inner boundary;
- (c) an infill well on each 320-acre unit provided that the well is located in the quarter section of the 320-acre unit not containing the initial well and no closer than 660 feet to the outer boundary of the quarter section and no closer than 10 feet to any quarter-quarter section line or subdivision inner boundary; and
- (d) The Division-designated operator for the infill well to be the same operator designated by the Division for the original well on the spacing unit.
- (4) The oil and gas leases in this area are predominantly owned by the Yates and related companies (Yates Exhibit 4) and no lease is schedule to expire in the near future. The proposed Temporary Pool Rules and Regulations for this pool are not proposed for the purpose of holding acreage. Testimony of Boneau.
- (5) The Abo formation under the N/2 of said Section 36 is currently developed under statewide rules that provide for 160-acre spacing units and the NW/4 of Section 36 is dedicated to the Duvel Well.
- (6) Abo production is found on the shelf edge running northeast-southwest through this area. The closest Abo production to the Duvel Well is from the seven marginal Abo producing wells in the Siegrest Draw Pool that is located approximately 14 miles to the north northeast. *Yates Exhibit 1*.
- (7) Gas shows from mud logs on five wells in the area that demonstrates the potential for Abo production from six sections surrounding the Duvel well. *Yates Exhibits 7 and 8*.
 - (8) The evidence presented by Yates shows:
 - (a) To efficiently produce the reserves from the Abo formation in the Duvel "BCD" State Well No. 1, Abo production must be commingled with production from the Cisco and Pennsylvanian formations.
 - (b) The Cisco and Pennsylvanian formations are developed on 320-acre spacing units with a pre-approved infill wells -- or an effective spacing pattern of one well per each 160-acre tract. *Testimony of Boneau*.

- (c) Many 320-acre spacing units for wells drilled to the Cisco and Pennsylvanian formations do not contain an infill well. See, Yates Exhibit 3.
- (d) In deep gas spacing units on which no infill well has been drilled, the correlative rights of each working interest owner in the 160-acre tract that does not contain an infill well are impaired for:
 - (i) it pays its shares of the costs of the deep gas well, shares in deep gas production, but is denied it share of the Abo production even if reserves are being drained from the acreage where it owns own Abo rights, and
 - (ii) it may not be able to economically drill an Abo well on the 160-acre tract that does not contain an infill well because it may not have the opportunity to make an economic well by commingling Abo production with Cisco and Pennsylvanian production since these deep gas zones may have different ownership (See, Yates Exhibits 9 and 10).
- (9) The adoption of Special Pool Rules and Regulations on a temporary basis that provide for 320-acre Abo formation gas well spacing units with pre-approved infill wells in the quarter section not containing the original well, will assure that the interest owners who own Abo rights and pay for the wells that produce these Abo rights will also receive their just and equitable share of the reserves from the pool thereby protecting correlative rights.
- (10) No offset operator or interest owner appeared at the hearing in opposition to Yates' proposal.
- (11) The evidence presented demonstrates that the Duvel "BCD" State Well No. 1 has discovered a new common source of supply in the upper Abo formation.
- (12) A new pool for the production of gas from the upper Abo formation should be created and designated the Box Canyon-Abo Gas Pool, with vertical limits comprising depths from the top of the Abo formation to the top of the Permo-Pennsylvanian formation, corresponding to the depths from 3415 feet to 4758 feet subsurface in the Litho-Density Compensated Neutron Log dated November 10, 2003 for the Duvel "BCD" State Com Well No. 1.
- (13) The data from the Duvel Well is not sufficient to determine how to best develop the reserves from this Abo Pool.

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- (14) Establishment of special spacing rules on a temporary basis will enable Yates to obtain engineering and production data on this new Abo pool to determine the proper well density to efficiently produce the reserves from this reservoir, will protect correlative rights.
- (15) In order to prevent waste and protect correlative rights, temporary special pool rules and regulations should be established for the Box Canyon-Abo Gas Pool.
- (16) These temporary pool rules should provide for 320-acre spacing and proration units and that wells in the pool should be located no closer than 660 feet to any boundary of a spacing and proration unit, and no closer than 10 feet to any Quarter-quarter- section line or subdivision inner boundary.
- (17) The data currently available demonstrates that approval of Yates' request for 320-acre spacing for the Box Canyon-Abo Gas Pool will not reduce the ultimate recovery of gas from the reservoir and is necessary to protect correlative rights while data is acquired on the reservoir.
- (18) The special pool rules for the Box Canyon-Abo Gas Pool established by this order should remain in effect for a temporary period of two years in order to allow operators in the pool the opportunity to obtain engineering and production data to support the permanent adoption of these rules.
- (19) This case should be re-opened at an examiner hearing in April, 2006, at which time operators in the Box Canyon-Abo Gas Pool should appear to show cause why the temporary rules established by this order should not be rescinded.

IT IS THEREFORE ORDERED THAT:

(1) Pursuant to the application of Yates Petroleum Corporation., a new pool in Eddy County, New Mexico, classified as a gas pool for Abo production is hereby created and designated the *Box Canyon-Abo Gas Pool*, with vertical limits comprising depths from the top of the top of the Abo formation to the top of the Permo-Pennsylvanian formation, corresponding to the depths from 3415 feet to 4758 feet subsurface in the Litho-Density Compensated Neutron Log dated November 10, 2003 for the Duvel "BCD" State Com. Well No. 1 (API No. 30-015-32983), located 710 feet from the North line and 1980 feet from the West line (Unit C) of Section 36, Township 21 South, Range 21 East, NMPM, Eddy County, New Mexico, and horizontal limits comprising the following-described area:

TOWNSHIP 21 SOUTH, RANGE 21 EAST, NMPM Section 36: N/2.

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(2) The temporary special rules for the Box Canyon-Abo Gas Pool are hereby promulgated as follows:

TEMPORARY SPECIAL RULES AND REGULATIONS FOR THE BOX CANYON-ABO GAS POOL

- **RULE 1**: Each well completed or recompleted in the Box Canyon-Abo Gas Pool or in the Abo formation within one mile thereof, and not nearer to or within the limits of another Abo pool, shall be spaced, drilled, operated and produced in accordance with these special rules.
- **<u>RULE 2</u>**: Each well shall be located on a standard unit containing 320 acres, more or less, consisting of a governmental quarter section.
- **RULE 3**: The Division Director may grant an exception to the requirements of Rule 2 above without notice and hearing when an application has been duly filed under the provisions of Division Rule 104.D (2).
- **RULE 4**: Each well shall be located no closer than 660 feet to the outer boundary of a spacing and proration unit nor closer than 10 feet to any interior quarter-quarter section line or subdivision inner boundary, provided however there is no more than one well per quarter section.
- <u>RULE 5</u>: The Division Director may grant an exception to the requirements of Rule 4 without hearing when an application has been duly filed under the provisions of Division Rule 104.F.

IT IS FURTHER ORDERED THAT:

- (3) The location of any well presently drilling to or completed in the Box Canyon-Abo Gas Pool or in the lower Abo formation within one mile thereof is hereby approved. The operator of any well having an unorthodox location shall notify the Division's Artesia District Office in writing of the name and location of the well within 20 days from the date of this order.
- (4) Existing gas wells in the Box Canyon-Abo Gas Pool shall have dedicated thereto 320 acres in accordance with the foregoing pool rules; or, existing gas wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 320 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable.

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- (5) Unless called earlier by the motion of the Division, this case shall be reopened at an examiner hearing in April, 2006, at which time the operator(s) in the subject pool should be prepared to appear and show cause why the temporary special pool rules for the Box Canyon-Abo Gas Pool should not be rescinded and the pool not be developed on statewide 160-acre spacing.
- (6) Jurisdiction is hereby 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

Director			

SEAL

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:

> NOMENCLATURE CASE NO. 13222

APPLICATION OF YATES PETROLEUM CORPORATION FOR POOL CREATION AND THE ADOPTION OF SPECIAL POOL RULES, EDDY COUNTY, NEW MEXICO.

HEARING BRIEF

In this case Yates Petroleum Corporation ("Yates") seeks an order creating a new pool for production from the Abo formation and the adoption of Temporary Special Rules for the pool identical to the Division's General Rules governing deep gas. These rules provide for (i) 320-acre spacing units, (ii) an infill well in the quarter section not containing the original well, and (iii) wells location requirements that require wells to be located no closer than 660 feet from the outer boundary of the dedicated spacing unit. The purpose of this request is to provide for the orderly development of this new Abo reservoir, and to protect correlative rights by assuring that the persons who own the oil and gas rights, and pay for the development of this reservoir, receive their just and equitable share of the recoverable reserves from the pool.

BACKGROUND:

Yates drilled the Duvel "BCD" State Com. Well No. 1 ("the Duvel Well") as a wildcat well at a standard gas well location in Unit C of Section 36, Township 21 South, Range 21 East, NMPM, Eddy County, New Mexico. This well was initially drilled to the Pennsylvanian formation but Yates has completed it as a commercial gas

well in the Abo formation with a spacing unit consisting of the NW/4 os Section 36.

The Yates lease in the NE/4 os Section 36 expired as a result of the Abo Completion.

The Duvel Well is located along a shelf edge shown on Yates' Regional Structure Map. Yates Exhibit No. 1. While data from mud logs show that there is the potential for other Abo production in this area, this is the only well producing from this common source of supply.

ARGUMENT:

The evidence presented established that to efficiently produce the reserves from the Abo formation in the Duvel Well, Abo production must be commingled with production from the Cisco and Pennsylvanian formations. While the Abo is developed under rules that provide for 160-acre spacing units, the Cisco and Pennsylvanian formations are developed on 320-acre spacing units with a pre-approved infill wells -- or an effective spacing pattern of one well per each 160-acre tract. There is no requirement in Division rules that an infill well must be drilled on each 320-acre unit. The result is deep gas spacing units on which no infill well has been drilled.

In these situations, the correlative rights of each working interest owner in the 160-acre tract that does not contain an infill well are impaired for, although they pay their share of the costs of the deep gas well and share in deep gas production, they are denied a share of the Abo production – even if reserves are being drained from the acreage where it owns own Abo rights.

The correlative rights of these interest owners in the Abo formation are also impaired for they may not be able to economically drill an Abo well on the 160-acre tract that does not contain a deep gas infill well because they do not have the opportunity to commingle Abo

production with the deep gas Cisco and Pennsylvanian production that is already dedicated to another well. See, Yates Exhibits 9 and 10.

The Oil and Gas Act directs the Oil Conservation Division to prevent waste of oil and natural gas and to protect correlative rights. NMSA 1978, § 70-2-11 (1935). To protect correlative rights, the Division must afford to each owner in a pool the opportunity to produce, without waste, its just and equitable share of the reserves from the pool.¹

The Division is empowered "to fix the spacing of wells." NMSA 1978, § 70-2-12 (2) (10). The adoption of well spacing rules is the primary regulatory tool used by the Division to meet its duty to protect correlative rights. *See*, B. Kramer and P. Martin, *The Law of Pooling and Unitization* § 5.02 (1996). The Division has adopted general well spacing rules that govern the development of oil and gas pools in this state. However, where the general rules fail to protect correlative rights, the general rules are amended or Special Pool Rules are adopted.

A spacing unit is typically the area that can be effectively drained by one well. See, Rutter & Wilbanks Corp. v. Oil Conservation Com., 87 N.M. 286, 532 P.2d 582 (N.M. 1975). Historically, in New Mexico deep gas formations and/or pools were developed on 320 acre spacing units. However, the Division has broad power to carry out the general purposes of the Oil and Gas Act whether or not specifically enumerated therein (NMSA 1978, § 70-2-11 (1935) and it has adopted statewide spacing rules for deep gas that are not based on the area that can be

¹ Correlative Rights are defined by the Oil and Gas Act as "...the opportunity afforded, so far as it is practicable to do so, to the owner of each property in a pool to produce without waste his just and equitable share of the oil or gas or both in the pool, being an amount, so far as practicably can be obtained without waste, substantially in the proportion that the quantity of recoverable oil or gas or both under the property bears to the total recoverable oil or gas or both in the pool and for such purpose to use his just and equitable share of the reservoir energy:" NMSA 1978, § 70-2-33.H (1935).

drained by a single well. In 1999, the Commission amended the general spacing rules for deep gas pools to authorize an infill well on each 320-acre spacing and proration unit. Order No. R-11231, August 12, 1999. In so doing, the Commission honored engineering data that showed the deep gas wells could effectively drain 160 acres instead of the 320 acre unit previously assigned to the well. However, the Commission did not down space these pools because reducing the size of existing units would play havoc with the underlying ownership of deep gas reserves and would impair correlative rights.

The result of this rule change is that deep gas is developed on 320-acre spacing units -even though wells in these formations will only drain 160 acres. These rules were not changed
to hold acreage.² These rules were changed to assure fairness to the owners in deep gas units and
to protect correlative rights.

The issue presented in this case is the result of this regulatory scheme, some formations are developed on 320-acre units and others on 160-acre units – but the wells in each formation drain 160-acres. Yates' proposal is not designed to hold acreage. It has but one purpose - it is fair. It will assure that correlative rights are protected.

CONCLUSION:

Current Division Rules recognize that deep gas wells that produce from the Cisco and the Upper Pennsylvanian formations drain 160 acres. Current rules also recognize that Abo wells drain 160 acres. Yates proposes to drill wells in this area and commingle in the wellbore production form the Abo, Cisco and Upper Pennsylvanian formations and seeks the adoption of

² Yates testified that the purpose of this proposal is not to hold acreage. No Yates lease will be held by the adoption of the proposed temporary rules. In the past, certain tracts in this area have not been developed and the Yates leases to these properties expired. However, Yates has obtained new leases on these tracts.

temporary rules for the Abo formation that are identical to the rules for the Cisco and Upper Pennsylvanian formations.³

Approval of the requested special spacing rules on a temporary basis will enable Yates to obtain additional data on this new Abo pool to determine how to efficiently produce the reserves from this formation and, while doing so, assure that those who own and pay for this development will share the recovered reserves.

The proposed rules are fair. Under these rules correlative rights will be protected. That is all this case is about.

Respectfully submitted,

HOLLAND & HART, LLP

William & Carr

ATTORNEYS FOR YATES PETROLEUM CORPORATION

³ Expansion of the Permo Pennsylvanian formation was suggested as a possible solution to the dilemma. However, it seems more appropriate to adopt temporary rules than to adjust the geology of the subject formations.