

**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

**APPLICATION OF YATES PETROLEUM CORPORATION CASE NO. 12128
FOR EXTENSION OF THE VERTICAL LIMITS OF THE
SAND SPRINGS-ATOKA GAS POOL AND SPECIAL POOL
RULES, LEA COUNTY, NEW MEXICO.**

**APPLICATION OF YATES PETROLEUM CORPORATION CASE NO. 12130
FOR AN UNORTHODOX GAS WELL LOCATION TO
ACCOMMODATE THE REORIENTATION OF ACREAGE
FOR GEOLOGIC REASONS, LEA COUNTY, NEW MEXICO.**

Order No. R-11164

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on April 1, 1999, at Santa Fe, New Mexico, before Examiner Mark W. Ashley.

NOW, on this *16th* day of April, 1999, 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) Division Cases No. 12128 and 12130 were consolidated at the time of the hearing for the purpose of testimony.
- (3) The applicant, Yates Petroleum Corporation ("Yates"), is owner and operator of the Sand Spring "ASU" State Well No. 1 (**API No. 30-025-29843**), located 330 feet from the North line and 1650 feet from the West line (Unit C) of Section 11, Township 11 South,

Range 35 East, NMPM, Lea County, New Mexico. It was drilled in 1987 to a total depth of 10,575 feet to test the Strawn formation for oil, tested dry and was subsequently plugged and abandoned.

(4) By Division Administrative Order NSL-4128, dated September 2, 1998, Yates received authorization to reenter this well at an unorthodox gas well location and deepen it to an approximate depth of 12,200 feet in order to test the Undesignated Sand Springs-Atoka Gas Pool within a standard 320-acre gas spacing and proration unit comprising the N/2 of Section 11.

(5) On September 30, 1998 Yates reentered this well and deepened it to a total depth of 13,318 feet.

(6) On November 24, 1998 Yates perforated from 12,110 feet to 12,188 feet within the Morrow formation. NSL-4128-A was approved on February 5, 1999 for the Morrow gas completion.

(7) Yates seeks an order:

- (a) reorienting the spacing and proration unit dedicated to this well from a N/2 spacing unit to a W/2 spacing unit in Section 11;
- (b) approving an unorthodox gas well location 330 feet from the North line and 1650 feet from the West line of Section 11;
- (c) extending the vertical limits of the Sand Springs-Atoka Gas Pool to include the Morrow formation; and
- (d) adopting Special Pool Rules for the new pool including provisions for one infill well on each standard spacing and proration unit.

(8) By Order No. R-8946 issued in Case No. 9687, dated June 9, 1989 and made effective July 1, 1989, the Division created and defined the Sand Springs-Atoka Gas Pool for the production of gas from the Atoka formation. The horizontal limits for this pool as currently designated include the following lands in Lea County, New Mexico:

TOWNSHIP 11 SOUTH, RANGE 34 EAST, NMPM

Section 1: Lots 1, 2, 3 and 4 and S/2
Section 2: S/2.

(9) Currently the Sand Springs-Atoka Gas Pool is governed by the Division's

statewide rules, which provide for 320-acre spacing and proration units with wells to be located no closer than 1650 feet from the nearest end boundary, nor closer than 660 feet from the nearest side boundary, nor closer than 330 feet to any quarter-quarter section or subdivision inner boundary. In addition, Division rules and/or policy currently generally prohibit the drilling of additional gas wells within standard proration units in non-prorated gas pools.

(10) Yates testified that the reorientation of the N/2 spacing unit to the W/2 spacing unit in Section 11 is necessary for geologic reasons. The reorientation of this unit will enable Yates to drill or recompleat an additional well in the NE/4 of Section 11 to the Atoka and Morrow formations.

(11) The Yates Lagarto AMZ State Well No. 1 (**API No. 30-025-01820**) in Section 1 and the Yates Tenneco ADP State Well No. 1 (**API No. 30-025-25762**) in Section 2, Township 11 South, Range 34 East, NMPM are the only producers within the Sand Springs-Atoka Gas Pool.

(12) Yates presented testimony indicating that the Lagarto AMZ State Well No. 1 and the Tenneco ADP State Well No. 1 currently drain 179 acres and 158 acres respectively. Additionally, Yates testified that based on reservoir information from the two producing wells, the gas reserves within the Sand Springs-Atoka Gas Pool are not being efficiently and effectively drained on 320-acre spacing, and that one infill well per 320-acre spacing unit should be allowed.

(13) In order to efficiently and effectively drain the gas reserves within the Sand Springs-Atoka Gas Pool, special pool rules for one infill well on each standard 320-acre gas spacing and proration unit in the pool should be allowed. The infill well should be located in the quarter section not containing the initial well and located according to the Division's statewide rules.

(14) Providing for one infill well on each 320-acre spacing unit eliminates the need to reorient the N/2 spacing unit to a W/2 spacing unit in order to drill or recompleat an additional well in the NE/4 quarter. This portion of Yates' application should therefore be denied.

(15) Further, the need for approval of an unorthodox well location for the Sand Spring "ASU" State Well No. 1 in the W/2 spacing unit has been eliminated. This portion of Yates' application should therefore also be denied.

(16) Yates testified that the vertical limits of the Sand Springs-Atoka Gas Pool should be extended to cover the interval from the base of the Strawn formation to the top of

the Mississippian formation (Atoka and Morrow formations) and be designated the Sand Springs-Atoka Morrow Gas Pool.

(17) Yates further testified that the lithologic characteristics of the Atoka and Morrow formations are very similar and almost impossible to distinguish and should therefore be combined as one common source of supply.

(18) No offset operator and/or interest owner appeared at the hearing in opposition to this application.

(19) The vertical limits of the Sand Springs-Atoka Gas Pool should be expanded to include the Morrow formation, and the expanded pool should be designated the Sand Springs-Atoka Morrow Gas Pool.

IT IS THEREFORE ORDERED THAT:

(1) The Yates Petroleum Corporation ("Yates") request for authorization to reorient the spacing and proration unit dedicated to the Sand Spring "ASU" State Well No. 1 from a N/2 spacing unit to a W/2 spacing unit in Section 11 is denied.

(2) Yates' request for approval of an unorthodox gas well location for the W/2 spacing unit 330 feet from the North line and 1650 feet from the West line (Unit C) of Section 11 for the Sand Spring "ASU" State Well No. 1 is denied.

(3) The vertical limits of the Sand Springs-Atoka Gas Pool are extended to include the interval from the base of the Strawn formation to the top of the Mississippian formation (Atoka and Morrow formations) and that pool is redesignated the Sand Springs-Atoka Morrow Gas Pool.

(4) Special Rules governing operations within the Sand Springs-Atoka Morrow Gas Pool are hereby adopted as follows:

**SPECIAL RULES
FOR THE
SAND SPRINGS-ATOKA MORROW GAS POOL**

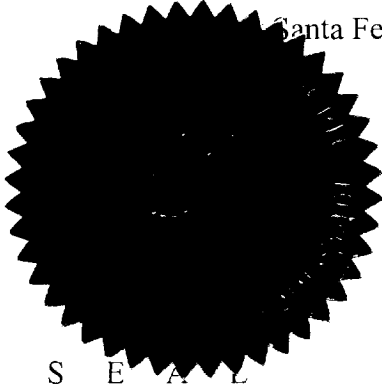
RULE 1. Only one infill well completed or recompleted on each standard 320-acre gas spacing and proration unit in the pool shall be allowed. The infill well shall be located in the quarter section not containing the initial well and located pursuant to the Division's statewide rules.

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(5) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.



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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Lori Wrotenberg
LORI WROTENBERY
Director