

CAROLE KEETON RYLANDER, *CHAIRMAN*
BARRY WILLIAMSON, *COMMISSIONER*
CHARLES R. MATTHEWS, *COMMISSIONER*



LINDIL C. FOWLER, JR., *GENERAL COUNSEL*
LARRY BORELLA, *ASST. DIRECTOR*
OIL & GAS SECTION

RAILROAD COMMISSION OF TEXAS OFFICE OF GENERAL COUNSEL

OIL AND GAS DOCKET NO. 10-0210155

APPLICATION OF RIO PETROLEUM, INC. PURSUANT TO THE MINERAL INTEREST POOLING ACT, FOR THE ESTABLISHMENT OF THE POWELL D-3 MIPA UNIT, LATHEM (CANYON GRANITE WASH) FIELD, HARTLEY COUNTY, TEXAS.

RULE 37 CASE NO. 0210331

APPLICATION OF RIO PETROLEUM, INC. FOR A RULE 37 AND RULE 38 EXCEPTION TO DRILL WELL NO. 2, POWELL "D" UNIT, LATHEM (CANYON GRANITE WASH) FIELD, HARTLEY COUNTY, TEXAS.

OIL AND GAS DOCKET NO. 10-0210156

APPLICATION OF RIO PETROLEUM, INC. PURSUANT TO THE MINERAL INTEREST POOLING ACT, FOR THE ESTABLISHMENT OF THE POWELL B-2 MIPA UNIT, LATHEM (CANYON GRANITE WASH) FIELD, HARTLEY COUNTY, TEXAS.

RULE 37 CASE NO. 0210332

APPLICATION OF RIO PETROLEUM, INC. FOR A RULE 37 AND RULE 38 EXCEPTION TO DRILL WELL NO. 2, POWELL "B" UNIT, LATHEM (CANYON GRANITE WASH) FIELD, HARTLEY COUNTY, TEXAS.

APPEARANCES:

REPRESENTING:

FOR APPLICANT:

Frank Douglass
John Soule
Barrett Pierce
John Mitchell
C. Ronald Platt
Tom Douglass
William Knebusch
Joe Morris

Rio Petroleum, Inc.

FOR PROTESTANT:

Tim George	Exxon Corporation
Duane Sackett	
James Williams	
James Hyatt	
Robert Dreyling	
Curtis O'Rear	Dunigan Operating Company
Edward Haye	Janice Haye

PROCEDURAL HISTORY

DATE APPLICATION FILED:	October 3, 1995
NOTICE OF HEARING:	October 9, 1995
HEARING DATE:	December 6,7,8, 1995
TRANSCRIPT RECEIVED:	December 22, 1995
RECORD CLOSED:	January 26, 1996
PFD CIRCULATION DATE:	April 29, 1996
HEARD BY:	Jeffrey T. Pender, Hearings Examiner Thomas H. Richter, Technical Examiner

STATEMENT OF THE CASE

Rio Petroleum Inc., ("Rio"), a lessee in acreage adjoining the proration unit for the Exxon Powell B-1 well in the Lathem (Canyon Granite Wash) Field ("subject field"), has made an application under the Mineral Interest Pooling Act to compel the establishment of an 80-acre pooled unit in that field. Rio also proposes to pool acreage adjacent to Exxon's Powell D-1 and D-2 wells to form an 80-acre unit, also in the Lathem (Canyon Granite Wash) Field (see attached plats). In the alternative, Rio proposes a 120-acre unit in the Powell "B" area and a 144.95 acre unit in the "D" area.

In order to qualify for Commission approval, a MIPA applicant must demonstrate that:

1. The subject reservoir was discovered and produced before March 8, 1961.
2. There are two or more separately owned tracts of land that are embraced in a common reservoir of oil or gas for which the Commission has established temporary or permanent field rules.
3. There are separately owned interests in oil and gas within an existing or proposed proration unit in the common reservoir.
4. A fair and reasonable offer to pool has been made by the applicant.

5. Only acreage which, at the time of the order, reasonably appears to lie within the productive limits of the field, will be pooled.

Rio is also applying for Rule 37/38 exceptions to drill an additional well on each of the proposed units conditioned on the approval of the MIPA applications.

Exxon Corporation ("Exxon"), Janice Haye ("Haye") and Dunigan Operating Company ("Dunigan") protest the applications of Rio because they believe that the acreage that Rio proposes to pool is not productive in the subject field.

RIO'S EVIDENCE

The acreage in dispute lies in the west half of the east half of Section 107 ("disputed area"). According to the most recent productive limits filings made by the protestant, Exxon, a large portion of the disputed area is productive in the subject field. Rio claims that because there is no new evidence to refute the productive limits configuration submitted by Exxon in 1990 that it is entitled to rely on those filings for the purposes of these applications.

Mr. Platt, Rio's consulting engineer, presented a structure map of the top of the Granite Wash. He testified that it was constructed by "making modifications to the Exxon, November '88 structure map to make it conform with their [Exxon's] later productive limits." Based on his Granite Wash structure map and historical production data, Mr. Platt estimates that there has been a 14 foot rise in the oil-water contact from (-2454) to (-2440), since the field was discovered. This estimate appears reasonable considering that there is a 19 foot difference at the top of the Granite Wash between the Exxon Powell C-2, which was unproductive when drilled and the Exxon Powell D-2, the lowest productive well in the field.

Mr. Mitchell, a petroleum engineer for Rio, also presented his own independent interpretation of the structure on the top Granite Wash (Rio Exh. 60). His interpretation is similar to Mr. Platt's interpretation.

Rio's geologist, Mr. Knebush, testified that the reservoir is a late Pennsylvanian-Missourian aged fan delta system. The fan systems developed in response to local uplift and erosion on the flanks of the Dalhart Basin. He presented several structural cross sections and stratigraphic sections depicting the facies change from granite wash, as seen at the Exxon Powell B-1 location, to much finer grained sedimentation further east at the Raydon Exploration Langhorne No. 1.

HAYE'S EVIDENCE

Mr. Haye does not believe that Rio's interpretation of the structure at the top of the Granite Wash in the disputed area (Rio Exhibit 59) is correct in that Rio projects the current oil-water contact at least 1000 feet too far to the west. He does not believe that the contouring is reasonable or supported by the available dip meter and stratigraphic data.

Mr. Haye concluded from his study of the dip meter data and formation top picks that there was a down-to-the-east fault just east of the Powell B-1 Well (see Haye Exhibit 7). The fault extends south where it intersects the Exxon Lee Hill well. The presence of a fault down dropping the disputed area would make it less likely that it contains any productive acreage, according to Mr. Haye.

Mr. Haye presented two possible interpretations of the structure at the top of the Granite Wash Porosity; one showing the 25-50 foot, down-to-the-east fault trending northeast-southwest (Haye Exhibit 11) and one interpretation without the fault (Haye Exhibit 12), both leading to the conclusion that there is no significant productive acreage in the disputed area. Mr. Haye did not rely on any seismic data in concluding that there was a fault.

EXXON'S EVIDENCE

Exxon does not believe that Rio's geologic interpretation of the disputed area is correct. Mr. Sackett, Exxon's geologist, presented an integrated structural and stratigraphic interpretation of the field using cores, dip meter data and logs to determine the sequence stratigraphy and structural configuration in the field area.

Mr. Sackett produced several stratigraphic cross-sections (Exxon Exhibits 6,8 and 9) suggesting that the granite wash found in the Standard Lathem 1-5 (1/2 mile east of the field) is actually an older granite wash deposited much earlier than the granite wash in the field proper.

Mr. Sackett contoured the top of the porosity in the Granite Wash with and without dip meter data (Exxon's Exhibits 13 and 11, respectively). He claims that a northeast-southwest fault is needed to make a better fit with the dip meter data. With or without incorporating a fault, only an insignificantly small portion of the disputed area appears productive on Mr. Sackett's maps. Another map depicting the water cut throughout the field in September, 1995 shows that if there were any hydrocarbons in the subject field in the disputed area, they have most likely watered out.

Mr. Williams, a consulting geophysicist, presented Exxon's interpretation of the seismic data over the field. He identified a north-northeast, south-southwest trending fault

on six seismic lines across the field in basically the same position as mapped by Mr. Hays. The fault is relatively small as seen on dip lines 18 and 90. The fault appears to be the result of a drag fold and fault system triggered by normal faulting in the underlying Mississippian section (see Hays Exhibit 7-C).

Mr. Hyatt, a petroleum engineer with Exxon, presented the results of his study suggesting that the original oil-water contact has moved up 13 feet since the field was discovered. This result is consistent with Mr. Platt's estimate of 14 feet.

EXAMINER'S OPINION

The examiners believe that Rio has not carried its burden to show that the disputed area is productive in the Canyon Granite Wash. The structure maps presented by Rio's engineers, Mr. Platt (Rio Exhibit 12) and Mr. Mitchell (Rio Exhibit 59) are not credible.

According to his own testimony, Mr. Platt knew that his Granite Wash structure map (Rio Exhibit 13) was contoured incorrectly. From his own review of the logs, he picked the top of the granite Wash in the Raydon Langhorne #1 at (-2507). Yet, Mr. Platt contoured the well location 53 feet higher at (-2454). By doing so, he was able to "pull" more productive contours over onto the disputed area. Mr. Platt committed the same error with respect to the other dry hole on section 107, the Exxon Powell C-2. The 54 foot difference between Mr. Platt's personal pick and how he actually contoured the well location, again, enabled him to pull more productive contours over onto the disputed area.

Mr. Mitchell's map on the top Granite Wash suffers from a different problem. Although Mitchell's picks are more in line with the picks that Mr. Platt personally ascribes to, his contouring is misleading. As Exxon pointed out in its Closing Statement, by leaving out five, 10-foot contours between the (-2454) contour (the "original oil-water contact") and the two dry holes (the Exxon Powell C-2 and the Raydon Langhorne), Rio has been able to give the impression that productive contours extend onto the disputed area.

Mr. Sackett's Top of Granite Wash Porosity maps suggest that there is insignificant productive acreage, if any, in the disputed area. His maps incorporate an integrated structural/stratigraphic interpretation, dip meter data (Exxon Exhibit 13 only), core data and seismic. Mr. Sackett's contouring is accurate and does not violate any relevant geological principles. His Current Net Pay (Exxon Exhibit 13) map, which is based on his faulted Top Porosity map, predicts that at best, there are a few productive acres in the southwest quarter of the northeast quarter of section 107. The examiners calculate approximately 1 1/2 acres. However, based on Mr. Sackett's September, 1995 Water Cut map (Exxon Exhibit 20), any acreage in that area will be 80 to 100 percent water saturated.

All evidence considered, the examiners believe that the structure at the top of the productive zone in the Canyon Granite Wash is as depicted on Exxon Exhibit 13. Accordingly, there is no productive acreage in the disputed area. Moreover, because the Rule 37 applications were conditioned on the approval of the MIPA applications, if the Commission agrees that the MIPA applications should be denied, Rio's Rule 37 applications are moot.

FINDINGS OF FACT

1. Notice of hearing on the applications of Rio Petroleum Inc. ("Rio"), under the Mineral Interest Pooling Act ("MIPA"), to create the Powell D-3 MIPA Unit and the Powell B-2 MIPA Unit in the Lathem (Canyon Granite Wash) Field ("subject field") was sent by first class mail to all interest owners in the proposed units on October 13, 1995 and on November 13, 1995. Notice of hearing on the MIPA applications was also accomplished by publication in a newspaper of general circulation on October 13, 20, 27 and November 3, 1995 in the Dalhart Daily Texan. Notice of hearing in the companion Rule 37/38 applications for the Powell "D" MIPA Unit Well #3 and the Powell "B" MIPA Unit Well #2, Docket Nos. 0210331 and 0210332, were sent by first class mail on October 26, 1995 and November 21, 1995 to all designated operators, lessees of tracts that have no designated operator and all unleased mineral interest owners for each adjacent tract and each tract within 660' of the proposed well.
2. The acreage in the east half of section 107, Block 48, H. & T.C. RR. Co. Survey, does not reasonably appear to lie within the productive limits of the subject field.
 - a. There is no evidence, other than Exxon's March 1, 1990 certification, to suggest that the productive acreage in the subject field extends into the east half of section 107.
 - b. Rio's structure maps, upon which it bases its conclusion that the east half of section 107 is productive in the subject field, are based on the unsupported assumption that the productive limits are as Exxon certified in 1990.
 - c. Rio's structure maps at the Top of the Granite Wash (Rio Exhibits 12 and 59) lack credibility.
 - d. Dip meter, core and seismic data presented by Mr. Haye and Exxon confirm the presence of a fault that down drops the east half of section 107.
 - e. The structure at the top of the porosity in the subject field is as depicted on Exxon Exhibit 13.
3. Rio has made its Rule 37/38 applications contingent on the approval of the associated MIPA applications.

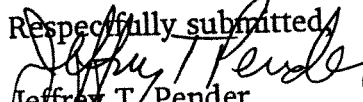
CONCLUSIONS OF LAW

1. Proper notice of hearing was timely given to all persons legally entitled to notice.
2. All things have occurred and/or have been done to give the Commission jurisdiction to decide this matter.
3. Rio did not bear its burden to show that a portion of the acreage in the east half of section 107 reasonably appears to lie within the productive limits of the subject field, as required by Tex. Nat. Res. Code §102.018 (Vernon 1993)(the Mineral Interest Pooling Act).
4. Rio is not entitled to pooling authority under the Mineral Interest Pooling Act.
5. The applications in Rule 37 Case Nos. 0210331 and 0210332 are moot.

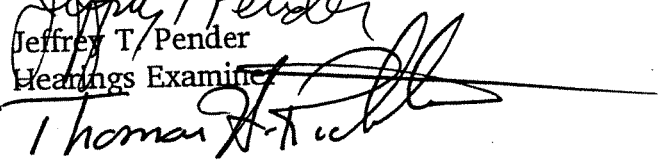
RECOMMENDATION

The examiner's recommend that the above findings and conclusions be adopted and that the applications of Rio Petroleum Inc., be denied.

Respectfully submitted,


Jeffrey T. Pender

Hearings Examiner


Thomas H. Richter P.E.
Technical Examiner

JTP/bjw