

\*\*\*\*\*  
\* KEY ISSUES: \_\_\_\_\_ \*  
\* \_\_\_\_\_ \*  
\* \_\_\_\_\_ \*  
\* \_\_\_\_\_ \*  
\* FINAL ORDER: SEE FINAL ORDER \*  
\*\*\*\*\*

**RULE 37 CASE NO. 0209149**

---

**APPLICATION OF BARRETT RESOURCES CORPORATION FOR A RULE 37 EXCEPTION TO DRILL ITS ANGELA LEASE, WELL NO. 1 IN THE MORRISON RANCH (MORROW LO.), MORRISON RANCH (MORROW UP.), MORRISON RANCH (MORROW UP. 9470) AND WILDCAT FIELDS, ROBERTS COUNTY, TEXAS**

---

**APPEARANCES:**

**FOR APPLICANT:**

Philip F. Patman, attorney  
Eric D. Sutton  
Steve Zemkowski  
D. Keith Dudley

**APPLICANT:**

Barrett Resources Corporation

**FOR PROTESTANT:**

Ray Langenberg, Attorney  
William Struta  
Ron F. Crowell  
Paul C. Braun

**PROTESTANT:**

Medallion Production

**PROCEDURAL HISTORY**

**DATE APPLICATION FILED:** June 13, 1995  
**DATE OF HEARING:** August 2, 1995  
**HEARD BY:** Barbara Epstein, Hearings Examiner  
Doug Johnson, Technical Examiner  
**TRANSCRIPT RECEIVED:** August 21, 1995  
**DATE CIRCULATED:** October 10, 1995  
**STATUS:** Protested

**STATEMENT OF THE CASE**

Barrett Resources Corporation ("Barrett") seeks an exception to Statewide Rule 37 for its Angela Lease, Well No. 1 in the Morrison Ranch (Morrow Lo.), Morrison Ranch (Morrow Up.), Morrison Ranch (Morrow Up. 9470) and Wildcat Fields, Roberts County, Texas. The proposed well would be located 467' from the nearest lease line, while field rules require 1320' to lease line spacing. The application is protested by Medallion Production, ("Medallion") an offsetting operator to the north.

**DISCUSSION OF THE EVIDENCE**

Barrett's target zone, the Morrison Ranch (Morrow Lo.) Field was discovered in 1963 at an approximate depth of 10,390 feet and it is now in late stage of depletion. A total of 18 wells have been completed in the field; 13 are still producing, 4 have been plugged, and 1 is shut-in. Cumulative production from the field has been approximately 27.2 BCF. Medallion operates one well, Barrett does not yet have a well in the field. The current average deliverability of the producing wells is 273 MCFD. There are 4 wells with deliverabilities less than 100 MCFD and only 1 well with a deliverability greater than 1,000 MCFD.

Barrett and Medallion have created nearly identical geologic maps of the Lower Morrow in the vicinity of the subject tract. Both parties show that the target sand, the first Lower Morrow, is productive in the northeastern triangular half of Section 185, on which the applicant's lease is located. There are no wells on Section 185, but there is at least one well on four of the five adjacent productive sections, operated by other companies. The closest offsetting well is Medallion's Killebrew Well No. 1184 in Section 184, completed in March, 1995 at a regular location. Another offsetting well is the Midgard Energy Company Mary T. Morrison -L- Well No. 3, completed in April, 1995.

Both parties determined the gross acre-feet of reservoir underlying section 185 from their net pay isopach maps; Barrett put the volume at 662 acre-feet, Medallion at 915 acre-feet. Each side then used the gross rock volume and the other pertinent petrophysical parameters of porosity, water saturation, and reservoir pressure to estimate the recoverable gas in place (RGIP) beneath Section 185. Barrett estimated the RGIP at 523 MMCF (Exh. 9) while Medallion's estimate is 221 MMCF. The principal reason Barrett's estimate is more than twice Medallion's estimate is because Barrett used a higher reservoir pressure than Medallion did.

Applicant's Case

The proposed well will be the first well on the Angela Lease in the Morrison Ranch (Morrow Lo.) Field. Barrett argues that it needs to drill at the proposed location to have a reasonable opportunity to successfully recover its fair share of hydrocarbons underlying its tract and adequately compete with existing wells that are offsetting and currently draining its tract. A well at a regular location would be too close to the feather edge of the reservoir and therefore would be unduly risky.

The greater assurance of a successful completion at the proposed location is also necessary because of the depleted nature of the field.

Barrett placed the strongest emphasis of its justification for the proposed location on its isopach map showing that the location is in the middle of the thickest part of the target sand under its tract. Barrett optimistically hopes that the average reservoir pressure beneath Section 185 is in the neighborhood of 4,000 psi, but concedes that the pressure could be lower which would only make the thinner pay section less attractive.

Barrett did not present any evidence regarding the Morrison Ranch (Morrow Up.), Morrison Ranch (Morrow Up. 9470) or Wildcat Fields in this application.

#### Protestant's Case

Medallion argues that Barrett can drill a well at a regular location and have a reasonable opportunity to recover its share of gas under Section 185. The most recent pressure data from the wells closest to the proposed location supports Medallion's estimated current bottom hole pressure of approximately 2100 psi, almost two-thirds less than the original pressure of 5856 psi..

Medallion points out that two wells northwest of the proposed location that were completed with 1 foot of net pay (see Sections 189 and 195) have already produced far in excess of 221 MMCF. Both these wells were completed in 1965 when the reservoir was still relatively undepleted. One of the wells has produced over 1 BCF the other has produced over 385 MMCF. This shows that wells with very thin pay sections have recovered significant quantities of gas. The problem is that Barrett is now attempting to make a completion in a depleted reservoir.

On cross-examination, Medallion acknowledged that it had offered to purchase Barrett's lease, but only if a 467' from lease line location was obtained. Barrett contended at the hearing that based on such negotiations, Medallion actually agreed with its geological interpretation supporting the need for a Rule 37 exception to recover the gas under the Angela lease.

#### **EXAMINERS' OPINION**

It is the examiners' opinion that this application should be granted for the Morrison Ranch (Lo.) Field only to prevent confiscation. The examiners recommend that the application be denied for all other applied-for fields because the applicant did not present any evidence regarding the necessity for an exception in those fields.

Approval of this application in the Morrison Ranch (Morrow Lo.) Field is very straightforward, given that this well will be Barrett's first well in the Morrison Ranch (Morrow Lo.) Field on the lease, the field is depleted and Barrett is currently being drained by Medallion's

offsetting production. Both parties' maps also show the thickest estimated pay at the proposed location. Based on the evidence in the record and the testimony that indicates that Medallion viewed a 467' from lease line location as reasonable, the examiners do not find Medallion's argument credible that a regular location will provide Barrett with a reasonable opportunity to recover its share of hydrocarbons underlying its tract. Nor is Medallion's argument that productive wells were drilled with just one foot of pay persuasive since those wells were drilled thirty years ago, before the field was depleted.

Based on the evidence introduced into the record and the testimony presented at the hearing, the examiners make the following findings of fact and conclusions of law.

### **FINDINGS OF FACT**

1. At least ten days notice was given to all designated operators, all lessees of record for tracts with no designated operator, and all owners of record of unleased mineral interests, for each adjacent tract and each tract nearer to the well than the prescribed minimum lease-line spacing distance.
2. An exception to Statewide Rule 37 is required because the proposed well will be located 467' from the north and east lease lines and field rules require a well to be located at least 1320' from lease lines.
3. Field rules for the Morrison Ranch (Morrow Lo.), Morrison Ranch (Morrow Up.), Morrison Ranch (Morrow Up. 9470) and Wildcat Fields are:  
  
Morrison Ranch (Morrow Lo.)-1320'/2640'/640 acres density.  
Morrison Ranch (Morrow Up.)-1320'/2640 '640 acres density.  
Morrison Ranch (Morrow Up. 9470)-933'/ 1867'/160 acres density.  
Wildcat-467'/1200'/ 40 acres density.
4. The proposed well will be the applicant's first well on the 640 acre Angela Lease and the principal target is the Morrison Ranch (Lo.) Field.
5. A well cannot be drilled at a regular location on the Angela lease because the Morrison Ranch (Lo.) Field is already depleted and a regular location would place the well too close to the feather edge of the reservoir.
6. The Angela Lease is currently being drained by offset production form the Medallion lease on Section No 184.
7. There are an estimated 221 to 523 MMCF of remaining recoverable gas reserves under the Angela Lease.

8. The proposed location for the Morrison Ranch (Morrow Lo.) Field is reasonable because it will afford the applicant an opportunity to recover its share of hydrocarbons underlying its tract.
9. The applicant did not present any evidence regarding the need for a Rule 37 exception for the Morrison Ranch (Morrow Up.), Morrison Ranch (Morrow Up. 9470) or Wildcat Fields for the Angela Lease.

**CONCLUSIONS OF LAW**

1. Proper notice was given to all persons legally entitled to notice of this hearing.
2. All things have been done or have occurred to give the Railroad Commission jurisdiction to decide this matter.
3. The applicant did not meet its burden of proof to show that an exception to Rule 37 for the Morrison Ranch (Morrow Up.), Morrison Ranch (Morrow Up. 9470) or Wildcat Fields is reasonable and necessary to prevent confiscation.
4. The proposed well in the Morrison Ranch (Morrow Lo.) Field is reasonable and necessary to afford the applicant an opportunity to recover its share of hydrocarbons underlying its tract, thereby preventing confiscation.

**RECOMMENDATION**

The examiners recommend that the above findings and conclusions be adopted and this exception to Statewide Rule 37 be **APPROVED** for the Morrison Ranch (Morrow Lo.) Field and **DENIED** for the Morrison Ranch (Morrow Up.), Morrison Ranch (Morrow Up. 9470) or Wildcat Fields.

Respectfully submitted,

---

Barbara Epstein  
Hearings Examiner

---

Doug Johnson  
Technical Examiner