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F	INAL	ORDER:	R37	EXCEPTION	APPROVED
t			AT	ALTERNATE	LOCATION
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APPLICATION OF ZACHRY EXPLORATION, INC. FOR A RULE 37 EXCEPTION TO DRILL ITS RANCHO BLANCO CORP. LEASE, WELL NO. 2, BASHARA-HERFORD (7300) AND WILDCAT FIELDS, WEBB COUNTY, TEXAS

#### **APPEARANCES:**

FOR APPLICANT: APPLICANT:

Ana Maria Marsland Zachry Exploration, Inc.

Timothy L. Hildenbrand

Peter Bommer

FOR PROTESTANT: PROTESTANT:

Tim George Chevron U.S.A., Inc.

Eric Hoin Kevin C. Scott

## REVISED PROPOSAL FOR DECISION

## **PROCEDURAL HISTORY**

**DATE APPLICATION FILED:** June 14, 1995 **DATE OF HEARING:** July 17, 1995

**HEARD BY:** Barbara Epstein, Hearings Examiner

James Irwin, P.E., Technical Examiner

**TRANSCRIPT DATE:** August 11, 1995 **DATE CIRCULATED:** September 27, 1995

STATUS: Protested

# **STATEMENT OF THE CASE**

Zachry Exploration, Inc. ("Zachry") seeks an exception to Statewide Rule 37 for its 40 acre Rancho Blanco Corporation Lease, Well No. 2, Bashara-Herford (7300) and Wildcat Fields, Webb County, Texas, a tract of regular size and shape. At the hearing, Zachry withdrew its request for a permit to complete the well in the Wildcat Field. The proposed well would be located 98 feet from the northeast lease line while field rules for the Bashara-Herford (7300) Field require 467 feet lease line spacing. The application is protested by Chevron U.S.A., Inc. ("Chevron"), who contends that the applicant can either drill a well at a regular location or at a less irregular location than the applied-for 98 feet from lease line location.

#### DISCUSSION OF THE EVIDENCE

The Bashara-Herford (7300) Field is a non-associated multi-sand stratigraphic gas reservoir discovered in July 1986. The field is subject to statewide spacing and density rules. There are no special rules; however the correlative interval is recognized as the interval from the top of the Lobo 1 through the Lobo 6 sands. Production allocation is based on 100% deliverability.

Zachry's 3-D seismic data (Exhibits 8 through 9) and its resulting sub-surface structural interpretation (Exhibits 10 and 12) show that the Lobo 1 is faulted out under the 40 acre Rancho Blanco Lease. Only the Lobo 3 and Lobo 6 sands are considered productive under Zachry's subject lease. The structure map (with contours drawn on top of the Lobo 3 sand) show 3 productive acres under Zachry's 40 acre lease. (Exhibit 12)

The structure map of the Lobo 6 sand shows 14 productive acres under the Zachry lease (Exhibit 10).

Zachry asserts that it is entitled to a first well for the field, citing <u>Atlantic Refining v. Railroad Commission of Texas</u> 330 S.W.2d 494 (Tex Civ. App. 1959) for the proposition that despite the amount of gas that might be recovered by the well, the Commission must grant a permit for a first well to prevent confiscation so long as a well is not an illegal subdivision, which is not the case here.

Additionally, Zachry asserts that the proposed well must be drilled 98' from the northeast lease line boundary in order to have a reasonable opportunity to complete the proposed well in both the estimated three acres of the Lobo 3 productive area as well as in the estimated fourteen acres of the Lobo 6 productive area. Zachry plans a fracture stimulation of both the Lobo 3 and 6 intervals and acknowledged that the induced fracture might extend beyond the lease line since stimulation procedures for wells in the area are typically designed so that the induced fracture propagates 200' beyond the wellbore.

To bolster its argument for a location 98 feet from the lease line, Zachry cited <u>Benz-Stoddard v. Aluminum Co. of America</u>, 368 S.W.2d 94, 98 (Tex. 1963), for its holding that the Commission may grant permits for each separate reservoir underlying a tract to prevent confiscation and then control the rate of flow to prevent an applicant from obtaining any unfair advantage over offsetting operators caused by the location of such a well.

Chevron did not dispute Zachry's seismic data or its concomitant structural interpretations. Chevron argued that a regular location could be drilled in a productive wedge beneath the fault shown on Zachry's own map. Alternatively, Chevron contended that a less irregular location exists 150' further west of the proposed location. Chevron contended that a completion in the Lobo 3 sand is not necessary to afford Zachry an opportunity to recover its share of hydrocarbons from the Bashara-Herford (7300) Field because Zachry can recover more than its share of hydrocarbons underlying its tract in the Bashara-Herford (7300) Field by completing a well in the Lobo 6 sand alone.

Chevron argued that the <u>Benz-Stoddard</u> case contemplated granting permits for each vertically separated reservoir as if each completion were a separate well. Chevron asserts that this application involves one designated field with recognized zones, which remain one Railroad Commission designated field. Consequently, Chevron believes that Zachry is only entitled to locate a well to recover its share of hydrocarbons underlying the designated field and not from each zone.

## **EXAMINERS' OPINION**

It is the examiners' opinion that this application should be granted at an alternate location to allow Zachry to drill a first well in the applied-for field, affording it an opportunity to recover its share of hydrocarbons under its tract to prevent confiscation.

The examiners believe that the <u>Benz-Stoddard</u> case does not support Zachry's theory that it is entitled to a permit for a particular location to produce from each zone in a designated field, in this instance, the Lobo 3 and Lobo 6 in the Bashara-Herford (7300) Field. The examiners agree that Zachry is entitled to recover its share of hydrocarbons underlying its tract in each designated Commission field, the "vertically separated gas reservoirs" referred to in <u>Benz-Stoddard</u>. However, the present application is not analogous to the <u>Benz-Stoddard</u> case.

In the <u>Benz-Stoddard</u> Court of Appeals case, the court alluded to fifty-two separate and distinct reservoirs in the field recognized by the Commission. In the field rules established by the Commission for the Applying Fields (All Reservoirs) in Jackson and Calhoun Counties, effective January, 1961, the Commission stated that:

...each of the hereinafter named reservoirs be and the same are hereby recognized as established separate <u>fields</u>, [emphasis added] and the following field designations shall be used henceforth on Commission records and reports for the wells completed in the various reservoirs of the Applying Fields, Calhoun and Jackson Counties, Texas.

Unlike the Applying Fields, the Bashara-Hereford (7300) Field is a single Commission designated field. For the Commission to evaluate this application to allow Zachry to complete a well in both the Lobo 3 and Lobo 6 reservoirs, it would have to recognize the Lobo 3 and Lobo 6 as separate fields. If Zachry believes that the Lobo 3 and Lobo 6 are separate fields, it can ask the Commission to recognize them as such.

In this application, Zachry asserted that it needed a location to produce from both the Lobo 3 and Lobo 6 sands to recover its share of hydrocarbons under its tract. Zachry's Exhibit No. 12 shows 1.23 BCF of gas were originally in place under its Rancho Blanco lease acreage. Zachry testified that 75% of the gas in place was recoverable and that its anticipated share of reserves under its lease was 0.922 BCF. On cross examination, Zachry's witness conceded that its estimate was based on original conditions before the Chevron wells were completed in the BMT "C" fault block. However, Zachry countered that it did not believe that production from the Chevron wells 34 and 38 had yet caused any gas reserve depletion/pressure drop under its lease. Chevron did not refute this assertion.

Zachry's engineering witness presented two economic evaluations (Exhibits 13 and 14) to illustrate expected production, assuming its "fair share" reserves were recovered over an anticipated four year project life. The examiners note that the "expected" recoverable reserves shown on Exhibits 13 and 14 which equal .0922 BCF are presumed to be equal to the "fair share" reserves. (Tr. p.107) Zachry's presumed ultimate recovery assumes that production from the proposed well at its requested location will produce an average of 1.46 MMSCF/D during its first year. Additionally, an "arbitrary" decline of 10% per year is assumed although the analogous offset Chevron 34 well has not produced long enough to determine what decline rate may reasonably be expected. The examiners note that the 1.46 MMSCF/D initial producing rate together with the 10% per year production decline rate seem conservative. It appears that these figures were arbitrarily selected to cause the expected recoverable reserves to equal the fair share reserves.

The examiners also note that the Chevron Well No. 34 produced 9 MMSCF/D in March of 1995 after its initial completion in November 1994. The well averaged 7.7 MMSCF/D in April 1995. According to Zachry's Exhibit 11, net pay in the Chevron Well No. 34 in the Lobo 6 sand accounted for 28% of the 166' of total pay in the Lobo 1, 3 and Lobo 6 sands. From that data, it can be calculated that 28% of the 7.7 MMSCF/D or 9 MMSCF/D production rates was contributed by the Lobo 6 sand only at the offset Chevron 34 well's location. A calculation shows that the Lobo 6 may reasonably be expected to produce at a daily rate ranging from 2.16 to 2.52 MMSCF during its first 6 months.

The examiners believe that Zachry's well at a less irregular location 200' southwest of the northeast lease line and 650' southeast of the northwest lease line will afford the applicant a reasonable opportunity to recover its 0.922 BCF of share of reserves underlying its tract in the applied-for field from the Lobo 6 sand only. The examiners note that a Lobo 6 completion at an initial producing rate of 2.5 MMSCF/D will recover over 0.9 BCF during its first producing year. The examiners also note that the recommended less irregular location places the well nearly 200 feet equidistant from the nearest lease line to the northeast and the major fault to the southwest. This provides Zachry ample opportunity to avoid the fault and still fracture stimulate the proposed well in a manner consistent with other area wells while not crossing the lease line 200' away.

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 than the prescribed minimum lease-line spacing distance to the applied-for well.
- 2. An exception to Statewide Rule 37 is required because the proposed well would be located 98 feet from the northeast lease line and field rules require a well to be located 467 feet from the lease line.
- 3. Field rules for the Bashara-Herford (7300) Field are:
  - 467'/ 1200'/ 40 acre density.
- 4. The Bashara-Herford (7300) Field is a commission-designated field regulated under statewide rules.
- 5. The proposed well will be the first well on this tract in the Bashara-Herford (7300) Field.
- 6. A well cannot be drilled at a regular location on the Rancho Blanco Lease because the reservoir would likely be faulted out.
- 7. There are an estimated 0.92 bcf of recoverable gas reserves remaining under the Rancho Blanco Lease in the applied-for field.
- 8. The applied-for location is unreasonable because less irregular locations are available on the Rancho Blanco Lease which will allow the applicant an opportunity to recover its share of remaining reserves underlying the tract.
- 9. A well drilled at an alternate location 200' southwest from the northeast lease line and 650' southeast of the northwest lease line will provide the applicant a reasonable opportunity to recover its remaining 0.92 BCF of gas reserves underlying the Rancho Blanco lease.
- 10. An alternate location is reasonable because it will allow the applicant an opportunity to recover its share of gas underlying its tract and minimize the likelihood of off-lease drainage.

## **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. A well at the proposed location is not reasonable because it is not necessary to afford the applicant a reasonable opportunity to recover its share of hydrocarbons underlying its tract.
- 4. A well at an alternate location 200' southwest from the northeast lease line and 650' southeast of the northwest lease line 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 at an alternate location 200' southwest from the northeast lease line and 650' southeast of the northwest lease line**.

Respectfully submitted,

Barbara Epstein Hearings Examiner

James Irwin, P.E. Technical Examiner

BAE/bw