
* KEY ISSUES: CONFISCATION *
* Existing Wellbore plug-back *
* No regular location *
* Oil not recoverable by existing wells *
* *
* FINAL ORDER: R37 GRANTED *

PROPOSAL FOR DECISION
RULE 37 CASE No. 0212772
DISTRICT 2

APPLICATION OF HENRY L. HORADAM FOR AN EXCEPTION TO STATEWIDE RULE 37 TO DRILL
ITS WELL NO. 1, HORADAM BROS. LEASE, HORADAM (2200 MIOCENE) AND WILDCAT FIELDS,
VICTORIA COUNTY, TEXAS.

APPEARANCES:

REPRESENTING:

APPLICANT -

George C. Neale, Attorney
Rick Johnston, Petroleum Engineer
Zach Anderson, Landman

Henry L. Horadam

PROTESTANT -

Lloyd Muennink, Attorney
Shain McCaig, President

Merrimac Energy Corp.

PROCEDURAL HISTORY

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| Application Filed: | June 19, 1996 |
| Notice of Hearing: | October 9, 1996 |
| Hearing Held: | November 1, 1996 |
| PFD Circulated | February 19, 1997 |
| Heard by: | Colin K. Lineberry, Hearings Examiner Margaret Allen, Technical Examiner |

STATEMENT OF THE CASE

Henry L. Horadam ("Horadam" or "applicant") seeks an exception to Statewide Rule 37 to plugback its Well No. 1 on the Horadam Bros. Lease to the Horadam (2200 Miocene)¹ and Wildcat Fields. The application is protested by Merrimac Energy Corp. ("Merrimac" or "protestant"). The Horadam (2200 Miocene) and Wildcat field rules mandate spacing of 467 feet from lease lines and 1200 feet between wells. The Horadam Bros. Lease contains sufficient acreage to comply with applicable density requirements.²

Well No. 1 will be the only well on the 195 acre Horadam Bros. Lease in the subject field. Well No. 1, the existing well bore that applicant proposes to plugback, is only 330 feet from the nearest lease lines. Accordingly, exceptions pursuant to Statewide Rule 37 to the Horadam (2200 Miocene) Field Rules and the Statewide spacing rule applicable to the Wildcat Field are necessary.

The hearing in this docket was held on November 1, 1996. The applicant presented two witnesses in support of its case. Protestant Merrimac cross-examined applicant's witnesses and presented its own testimony and exhibits.

APPLICANT'S EVIDENCE

The Horadam Bros. Lease took its size and shape on October 18, 1944 when the Horadam brothers purchased the surface and mineral rights to the tract. The existing Well No. 1 on the Horadam Bros. Lease (the "subject well"), which applicant proposes to plugback to the Horadam (2200 Miocene) Field³, was drilled to the Aloe (Catahoula) Field in 1985. The Horadam Bros. Lease is an irregular shape and, as a result, there is not a location on the lease that complies with the lease-

¹ Applicant actually applied for the Aloe (2200) Field based on protestant's report to the Commission that its Henry Heinrich No. 2 Well was completed in that field. All of applicant's mapping, geological, and engineering evidence concerned the reservoir in which the Henry Heinrich No. 2 is completed. After the close of the hearing, protestant obtained a new field designation and transferred the Henry Heinrich No. 2 from the Aloe (2200) to the Horadam (2200 Miocene). The physical reservoir and the evidence concerning that reservoir are, of course, not changed by this change in nomenclature. Accordingly, throughout this PFD and in the accompanying order, the reservoir is referred to by its newly bestowed name rather than the Aloe (2200) field designation that was used on the W-2 and throughout the hearing.

² Both the Wildcat and the originally applied-for Aloe (2200) Field prescribe 40 acre density and applicant designated 40 acres on its W-2. The field rules obtained by protestant Merrimac after the close of the hearing for the new Horadam (2200 Miocene) prescribe a density of 120 acres. As the W-2 reflects that the Horadam Bros. Lease contains 195 acres, applicant has sufficient acreage even under the newly adopted rules.

³ The discovery date for the new Horadam (2200 Miocene) Field is February 16, 1996. The originally applied-for Aloe (2200) Field was discovered September 15, 1951.

line distance requirements for the applied-for fields. The "U"-shaped Horadam Bros. Lease wraps around three sides of the Henry Heinrich Lease which is operated by protestant Merrimac.

In 1988, five acres from the Horadam Bros. Lease were pooled with five acres from adjoining Henry Heinrich Lease to drill the Heinrich-Horadam No. 1 well. The Form P-12 filed at that time indicates that the Heinrich-Horadam Unit was formed to drill for the Aloe (Catahoula) Field. In 1996, Merrimac completed Well No. 2 on its Henry Heinrich Lease as a gas well in the Horadam (2200 Miocene) Field.⁴ The reservoir appears to have both a peripheral and a bottom water-drive.

Using the log for the subject well and the logs from 8 wells in the immediate vicinity, applicant's engineer prepared a net pay isopach map of the reservoir at issue. The engineer also prepared structural cross sections from the logs and determined that the pay sands for the reservoir are structurally highest in the subject well. Using parameters reported by protestant Merrimac for its Henry Heinrich No. 2 Well (the only other well in the reservoir), log analysis, and the net pay isopach, applicant calculated original recoverable gas in place for the entire reservoir as 158 mmcf and original recoverable gas in place under the subject lease as 62 mmcf. Accounting for reported production from protestant's Henry Heinrich No. 2 reduces the recoverable reserves in the reservoir to approximately 138 mmcf and the recoverable reserves under applicant's lease to about 60 mmcf. These reserves cannot be recovered by any existing well.⁵ Applicant also presented evidence that, because the existing well is at the highest point on the structure, it will recover 2.2 mmcf of "attic gas" that cannot be recovered by any more regularly located well on its lease.

Applicant estimated the cost of drilling and completing a new well at \$65,000. Applicant also estimated that it would take two years to recover the reserves under its lease and that two years operating expenses would total \$21,600. Using a constant figure of \$1.70 per mcf, applicant estimated the value of reserves under the subject lease as approximately \$85,000.

PROTESTANT MERRIMAC'S EVIDENCE & POSITION

Protestant Merrimac pointed out that five of the 40 acres assigned to the subject well were part of the pooled unit formed to drill the Heinrich-Horadam No. 1, which was drilled to the Aloe (Catahoula) Field. Protestant Merrimac asserts that applicant is precluded from assigning those five acres to the subject well unless it first obtains an exception to Statewide Rule 38(d)(3). Protestant criticized applicant's failure to present a structure map and offered its own structure map. By protestant's interpretation, applicant could gain a slightly better structural position by moving its well slightly to the north (i.e. **closer** to the lease line between applicant and protestant). Finally, Protestant alleged that Horadam's application is defective because the target hydrocarbon accumulation is not properly considered part of the Aloe (2200) Field, but should be given a new

⁴ As discussed in footnote 1, the well was originally reported as completed in the Aloe (2200) Field, but applicant has since had the reservoir re-designated as the Horadam (2200 Miocene) Field.

⁵ The only other existing well in the subject field, the Henry Heinrich No. 2, had declined to approximately 25 mcf per day with increasing water production at the time of the hearing.

field designation. Merrimac's president acknowledged that the applied-for well will be in the same reservoir as Merrimac's Henry Heinrich No. 2, but testified that he now believes that Merrimac erred when it reported that well to the Commission as being completed in the Aloe (2200) Field.⁶

EXAMINERS' OPINION

Exceptions to Statewide Rule 37 may be granted to prevent waste or to protect correlative rights/prevent confiscation. Applicant claimed entitlement to a well based on both waste and confiscation.

As a result of its irregular shape, there is no regular location on the Horadam Bros. Lease. The tract is not a voluntary subdivision and is entitled to protection against confiscation because it took its present size and shape prior to the February 1996 discovery of the Horadam (2200 Miocene) Field. The examiners believe that the tract took its size and shape in 1944 for purposes of voluntary subdivision analysis and that the filing in county courthouse records of a pooling declaration covering five acres of the lease in 1989 does not affect that date. Even if filing the pooling declaration was considered a new subdivision of the tract, this event was in 1989, still long before the discovery of the subject field. Similarly, applicant is not precluded from including the five acres in the lease designated to the Commission for the applied-for plugback. The 1989 pooling of the five acres with five acres from the Henry Heinrich Lease was designated to the Commission as being for the Aloe (Catahoula) Field, not the Horadam (2200 Miocene) Field. Since none of the acreage was ever pooled for the Horadam (2200 Miocene) Field it is not necessary that the commission designated unit be dissolved. In short, no exception to Statewide Rule 38(d)(3) is necessary for the proposed re-completion.

To obtain an exception to Statewide Rule 37 to prevent confiscation, the applicant must show that: 1) It is not possible for the applicant to recover its fair share of minerals under its tract from regular locations; and, 2) that the proposed irregular location is reasonable. Because the Horadam Bros. Lease is a legal subdivision entitled to protection from confiscation and there is not regular location on the lease, the first requirement for an exception has been met - applicant cannot recover its fair share from a regular location. The remaining issue is whether the proposed location is reasonable.

The proposed location is approximately centered between the north-west and south-east lines of the leg of the U-shaped lease that overlies the subject reservoir. See plat attached as Ex. A. The location could be moved to a "more regular" location approximately 150 feet to the south-west of the applied-for location. This more regular location would be a regular distance from the northern most lease line but would still be irregular to two lease lines.

The evidence established that the applied-for location was at the apex of the structure and, because this is a water drive reservoir, moving to this more regular, structurally lower, location

⁶ As discussed in footnote no. 1 above, subsequent to the hearing protestant did have the reservoir re-designated as the Horadam (2200 Miocene).

would result in the waste of 2.2 mmcf of attic gas. The applied-for location is closer to the protestant than the more regular location. The protestant itself, however, suggested an alternate location even closer to its lease - indicating that the protestant does not consider the applied-for location to be excessively close to its lease. Applicant also established that no existing well completed in the Horadam (2200 Miocene) Field could recover the 60 mmcf of gas under the Horadam Bros. Lease and that it would not be economic for applicant to drill a new well at a more regular location to recover the reserves under its tract. Drilling, completion and operation of a new well would cost an estimated \$86,600 and the estimated value of the reserves under applicant's lease is approximately \$85,000. It is undisputed that the existing wellbore that applicant proposes to recomplete in the Horadam (2200 Miocene) Field was drilled in good faith more than ten years ago as a commercial producer in a different formation.

This case involves an unusual set of circumstances: there are no regular locations on the legally subdivided tract; the only "more regular" alternate locations are only slightly more regular than the proposed location; no existing well can recover the reserves under the applicant's lease; requiring a more regular location will result in the waste of gas, and a new well cannot be economically drilled to produce the reserves. Given these circumstances, the examiners believe that the applied-for location and use of the existing wellbore, which was drilled in good faith, is reasonable and that applicant should be granted the applied-for permit to prevent confiscation.

Although the amount of gas that would be wasted was not substantial (2.2 mmcf), applicant also argued that it was entitled to a permit based on waste and its existing wellbore under the authority of *Exxon v. Railroad Commission*, 571 S.W.2d 497 (Tex. 1978). The examiners find it unnecessary to address this claim since the applicant has demonstrated its right to the applied-for permit based on its confiscation theory.

The examiners recommend adoption of the following proposed findings of fact and conclusions of law:

FINDINGS OF FACT

1. Notice of the hearing was given at least 10 days prior to the hearing to all designated operators, lessees of record for tracts that have no designated operator, and 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. Henry L. Horadam ("applicant") has applied on Form W-1 for a permit to plugback and produce Well No. 1 on the Horadam Bros. Lease. Well No. 1 is located 330 feet from the south-east line and 330 feet from the north-east line of the lease, and 330 feet from the south-east line and 11800 feet from the northerly north-east line of the Jose maria Hernandez Survey, Abstract A-59, Victoria County, Texas. Applicant has applied to plugback Well No. 1 to the Aloe (2200) and Wildcat Fields. The application is protested by Merrimac Energy Corp. ("protestant").

3. The hydrocarbon accumulation denominated as the Aloe (2200) Field on applicant's W-1 has been re-designated by the Commission as the Horadam (2200 Miocene) Field.
4. The Horadam (2200 Miocene) and Wildcat Fields both have field rules requiring spacing of 467 feet from lease lines and 1200 feet between wells. The field rules for the Horadam (2200 Miocene) Field further specify a density pattern of 120 acres per well.
5. Applicant's irregular, U-shaped Horadam Bros. Lease contains 195 acres and there are not any other wells on the lease permitted for or drilled to the applied-for fields.
6. Due to its irregular shape, there is not a location on the Horadam Bros. Lease that complies with the spacing requirements of the applicable field rules.
7. The Horadam Bros. Lease took its present size and shape in 1944.
8. The Horadam (2200 Miocene) Field was discovered on February 16, 1996.
9. The formation designated as the Horadam (2200 Miocene) Field is a water drive gas reservoir.
10. A more regular location on the Horadam Bros. Lease would be structurally lower than the applied-for location and would result in the waste of some of the gas in the Horadam (2200 Miocene) Field.
11. There are approximately 60 mmcf of remaining recoverable gas in the Horadam (2200 Miocene) Field under the applicant's Horadam Bros. Lease.
12. No existing well completed in the Horadam (2200 Miocene) will produce the reserves in the Horadam (2200 Miocene) Field.
13. The existing Horadam Bros. No. 1 well was drilled in 1985, completed, and produced from the Aloe (Catahoula) Field.
14. A new well cannot be economically drilled to produce the reserves in the Horadam (2200 Miocene) Lease under the Horadam Bros. Lease.
 - a. Drilling and completion of a new well to the Horadam (2200 Miocene) Field and the operational costs of producing the reserves under the Horadam Bros. Lease would total more than \$86,000.
 - b. The current recoverable Horadam (2200 Miocene) Field reserves under the Horadam Bros. Lease have a value of approximately \$85,000.

CONCLUSIONS OF LAW

1. Proper notice of hearing was timely given to all persons legally entitled to notice.
2. All things have occurred or have been done that are necessary to give the Commission jurisdiction to decide this matter.
3. The mineral interest owners of the Horadam Bros. Lease are entitled to a reasonable opportunity to recover their fair share of hydrocarbons in the applied-for fields underlying the Horadam Bros. Lease.
4. An exception pursuant to Statewide Rule 37 to the Horadam (2200 Miocene) and Wildcat Field rules regarding well spacing is necessary to permit the plugback and completion of the Horadam Bros. No. 1 Well in the applied-for fields.
5. There is not a potential well location on the Horadam Bros. Lease that complies with the spacing requirements of the applied-for fields.
6. The Horadam Bros. Lease is not a voluntary subdivision.
7. The applied-for location is reasonable.
8. Approval of the requested permit to drill a well at the proposed location is necessary to prevent confiscation of gas from the Horadam (2200 Miocene) and Wildcat Fields currently in place under the Horadam Bros. Lease.

RECOMMENDATION

The examiners recommend that the subject application be approved in accordance with the attached final order.

Respectfully submitted,

Colin K. Lineberry
Hearings Examiner

Margaret Allen
Technical Examiner