

February 15, 2011

**Rule 37 Case No. 0267775**  
**District 09**

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**APPLICATION OF J-LYN OIL CO. FOR A RULE 37 EXCEPTION FOR THE BROWN HEIRS LEASE, WELL No. 1, BROWNCO (MISS. 5200), DIANE D. (CADDO), MARKLEY S. (MARBLE FALLS), LANGSTON-KLEINER (STRAWN) AND YOUNG COUNTY REGULAR FIELDS, YOUNG COUNTY, TEXAS.**

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**APPEARANCES:**

**FOR APPLICANT:**

Scott Brown, Partner  
James Harwell, Consultant and Geophysicist

**APPLICANT:**

J-Lyn Oil Co.  
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**FOR PROTESTANT:**

Jack Loftin, Landowner  
Craig Loftin, Hydraulic Engineer

**PROTESTANT:**

Jack Loftin  
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**PROPOSAL FOR DECISION**

**PROCEDURAL HISTORY**

**APPLICATION FILED:**

September 29, 2010

**NOTICE OF HEARING:**

November 10, 2010

**HEARD BY:**

Marshall Enquist - Hearings Examiner  
Andres Trevino - Technical Examiner

**HEARING DATE :**

December 9, 2010

**PFD CIRCULATION DATE:**

February 15, 2011

**STATEMENT OF THE CASE**

J-Lyn Oil Co. (“J-Lyn” or “Applicant”), seeks an exception to Statewide Rule 37 to drill its Well No. 1 on the 70.32 acre Brown Heirs Lease in several fields in Young County. The proposed well is at an irregular location 255 feet west of Protestant Jack Loftin’s tract but is regular to all other boundaries. (see Attachment I).

In Young County, County Regular field rules apply (see Attachment II), which have different spacing and density requirements according to depth. In this application, the County Regular applied-for fields are at such a depth that their rules are the same as the Statewide Rule. The Diane D. (Caddo) Field requires a minimum spacing of 467 feet from lease lines and 1200 feet between wells, on 40 acre density. The Markley, S. (Marble Falls) Field requires a minimum spacing distance of 467 feet from lease lines and 1200 feet between wells, on 40 acre density. The Brownco (Miss. 5200) Field, J-Lyn’s primary target, requires a minimum spacing distance of 467 feet from lease lines and 1200 feet between

wells, on 40 acre density. The Young County Regular Field, at the depth from 5,001 feet to 8,000 feet, requires a minimum spacing distance of 467 feet from lease lines and 1200 feet between wells, on 40 acre density. The exception in this application is the Langston-Kleiner (Strawn) Field which is on Special Rules requiring a minimum spacing distance of 330 feet from lease lines and 660 feet between wells, on 20 acre density.

Protestant Jack Loftin (“Loftin” or “Protestant”) is the adjacent land and mineral owner to the west. Loftin objects to the irregular location of J-Lyn’s proposed location, believing that it will drain the Loftin lands.

#### **J-LYN’S POSITION AND EVIDENCE**

In April of 2010, J-Lyn entered into a Seismic Agreement with Jack Loftin, and consequently conducted a seismic survey on 100 acres of land owned by Jack Loftin immediately to the west of the 70.32 acre Brown Heirs Tract. The seismic data showed the existence of a Mississippian reef on the Brown Heirs Lease, with the top of the structure almost entirely on the Brown Heirs Lease (see Attachment III). J-Lyn notes that the Mississippian reefs always have a very strong water drive and past production from wells on the periphery of this reef supports that assertion.

The structure map presented by J-Lyn is in good agreement with log data from several area wells which happen to have been drilled lower on the structure (see Attachment IV). Wesley Senkel drilled the Brown No. 1 in 1963, finding the top of the Mississippian at a depth of a -4123 feet. The well was tested in several fields, but none were productive and it was abandoned in 1964. 4-B Trust drilled the Brown No. 1-F in 1966 and found the top of the Mississippian at -4033. The well had an Initial Potential of 111 BOPD and produced 29,456 BO over 17 months. One year later, in 1967, 4-B Trust drilled the Loftin No. 2B about 100 feet west of the Loftin/Brown Heirs lease line, striking the top of the Mississippian at -4091 feet. The Loftin No. 2B had an Initial Potential of 43 BOPD and 92 BWPD. J-Lyn did not find production figures for the well while it was completed in the Mississippian, but notes that in 1968, the well was recompleted uphole in the Strawn where it made a good well which had an Initial Potential of 97 BOPD and produced over 74,000 BO from 1968 to 1986. J-Lyn’s application includes the Strawn but it believes the Loftin No. 2B to the west effectively drained the Strawn locally. J-Lyn’s expert witness, James Harwell, stated that he did not expect that the proposed well would recover any oil in the Strawn.

The last well completed in the area of this reef was the Brown No. 1, drilled by Piranha Production in 1984. It intercepted the top of the Mississippian at -4069 and was a marginal producer, with cumulative production of only 1,800 BO. J-Lyn believes the oil/water contact in the reef is presently in the vicinity of the Mississippian perforation in the 4-B Trust Brown No. 1-F at -4033. J-Lyn is not certain of the exact location of the oil/water contact because it does not know how strongly 4-B Trust “pulled” the Brown No. 1-F, which may have caused water coning.

J-Lyn is not certain whether the abrupt drop-off on the west side of the structure is due to a

nearly vertical rise of the structure on that side, or if the drop-off is evidence of a fault. In case the drop-off is due to a fault, J-Lyn believes its proposed well must try to stay away from the west side of the structure to avoid any smaller faults that might serve as conduits for saltwater and water out the well, but at the same time must be to the west of the 4-B Trust Brown No. 1-F to stay in the structure and above the oil-water contact. The 4-B Trust Brown No. 1-F scales out at nearly a regular lease line spacing distance (467 feet) from the Loftin/Brown lease line. J-Lyn believes a well at a regular location would recover none of the available reserves.

J-Lyn believes that its proposed location will give it an additional 17 feet of structure on the reef over a 22 acre area. J-Lyn assumed 6% porosity in the entire reef resulting in Original Oil In Place of 300,000 barrels. Of this, J-Lyn believes approximately 100,000 BO is recoverable due to the strong water drive. The 4-B Trust Brown No 1-F produced 29,000 BO, which would theoretically leave 71,000 recoverable BO. J-Lyn very conservatively estimates that it can recover at least 30,000 additional barrels of oil from its proposed location that could not be recovered by a well drilled at a regular location.

#### **LOFTIN'S POSITION AND EVIDENCE**

Jack Loftin entered into a Seismic Agreement with J-Lyn in good faith, believing that if the seismic showed the presence of hydrocarbons running across the common lease line, that J-Lyn would form a pooled unit so that both parties might benefit. Loftin does not believe that J-Lyn's seismic interpretation is necessarily correct and believes that he should participate in the well, thereby receiving compensation for drainage from his acreage. Loftin's position is that J-Lyn should drill its proposed well in a pooled unit with a 70/30 composition, that being 70% Brown Heirs acreage and 30% Loftin acreage. In this way, J-Lyn could drill a well at a regular location in all the requested fields and the present hearing would not have been necessary.

Due to his historical knowledge, Loftin is also concerned that J-Lyn's real intention is to complete its well in the Strawn. Loftin recalls that 4-B Trust completed the Loftin No. 2B with two casing strings, with rods in both strings. 4-B Trust produced both strings at the same time and the rods wore a hole in the casing of each string, thereby ruining the well. The Loftin No. 2B made 74,000 BO from the Strawn, but Loftin believes oil was left downhole when the well was ruined and that J-Lyn's proposed location will recover the remaining oil in the Strawn and drain his acreage.

#### **EXAMINERS' OPINION**

Although J-Lyn applied for a Rule 37 exception in several fields, it presented evidence only in regard to the Brownco (Miss. 5200) Field. J-Lyn did not provide any evidence [Original Oil In Place, Current Recoverable Reserves, etc.] regarding the applied-for Markley, S. (Marble Falls), Diane D. (Caddo), Langston-Kleiner (Strawn) and Young County Regular Fields. Of the several wells J-Lyn discussed in this application, none were shown to have produced from any fields other than the Brownco (Miss. 5200) and the Langston-Kleiner (Strawn) Fields. J-Lyn discounted the possibility that the Strawn

was producible, stating that it believed the Loftin No. 2B had likely caused local depletion of the Strawn.

Protection of a protestant's correlative rights requires that an applicant's Statewide Rule 37 exception for a named field must be based on waste or confiscation. Absent that foundation, the Commission may not grant the Statewide Rule 37 exception. Accordingly, the examiners recommend that J-Lyn's application be denied in the Markley, S. (Marble Falls), Diane D. (Caddo), Langston-Kleiner (Strawn) and Young County Regular Fields.

To establish entitlement to an exception to Rule 37 to prevent confiscation, an applicant must show that, absent the applied-for well, it will be denied a reasonable opportunity to recover its fair share of hydrocarbons currently in place under the lease, or its equivalent in kind. The applicant must satisfy a two-pronged test: 1.) the applicant must show that it will not be afforded a reasonable opportunity to recover its fair share of hydrocarbons currently in place by drilling a well at a regular location; and 2.) the applicant must show that the proposed irregular location is reasonable.

It is the basic right of every landowner or lessee to a fair and reasonable chance to recover the oil and gas under their property as recognized by the Texas Supreme Court in *Gulf Land Co. v. Atlantic Refining Co.*, 131 S.W.2d 73, 80 (Tex. 1939). Denial of that fair chance is confiscation within the meaning of Rule 37. *Id.*

Fair share is based on recoverable reserves on the entire lease or unit. J-Lyn has provided a very conservative estimate that its proposed well, at an irregular location, will recover approximately 30,000 BO from the top 17 feet and 22 acres of the target Mississippian reef in the Brownco (Miss. 5200) Field. J-Lyn's structure map shows that a well drilled at a regular location would intersect the target reef below the oil/water contact and presumably produce only water. J-Lyn's proposed location is 255 feet from the Loftin lease line and is at a reasonable location that penetrates near the top of structure, but does not so closely approach the top of structure as to imperil the well by penetrating too close to possible fault fractures on the western side of the reef that would serve as conduits to water out the well.

To establish entitlement to an exception to Rule 37 to prevent waste, an applicant must establish three elements: 1.) unusual conditions, different from conditions in adjacent parts of the field, exist under the tract for which the exception is sought; 2.) as a result of the unusual conditions, hydrocarbons will be recovered by the well for which a permit is sought that would not have been recovered by any existing well or by additional wells drilled at regular locations; and 3.) that the volume of otherwise unrecoverable reserves is substantial.

J-Lyn has shown by convincing evidence that a Mississippian reef structure of limited extent exists beneath its leased acreage, which is an unusual condition. As a result of the limited extent of the reef, past production from the reef and the probable current location of the oil/water contact, hydrocarbons will be recovered by a well at the proposed location that cannot be recovered by any existing well or any well drilled at a regular location. J-Lyn conservatively estimates that its proposed

well will recover 30,000 BO, which is a substantial quantity of hydrocarbons.

The examiners believe J-Lyn has shown it is entitled to an exception to Statewide Rule 37 in the Brownco (Miss. 5200) Field based on both waste and confiscation. Based on the record in this docket, the examiners recommend adoption of the following Findings of Fact and Conclusions of Law:

**FINDINGS OF FACT**

1. At least 10 days notice of this hearing was given to the designated operator, all offset operators, all lessees of record for tracts that have no designated operator, and all owners of record of unleased mineral interests for each affected adjacent tract.
2. J-Lyn Oil Co. ("J-Lyn" or "Applicant"), seeks an exception to Statewide Rule 37 to drill its proposed Brown Heirs Lease, Well No. 1, in the Diane D. (Caddo) Field which requires a minimum spacing of 467 feet from lease lines and 1200 feet between wells, on 40 acre density; the Young County Regular Field which requires a minimum spacing of 467 feet from lease lines and 1200 feet between wells, on 40 acre density at the requested depth of 5,001 feet to 8,000 feet; the Markley, S. (Marble Falls) Field which requires a minimum spacing distance of 467 feet from lease lines and 1200 feet between wells, on 40 acre density; the Brownco (Miss. 5200) Field, which requires a minimum spacing distance of 467 feet from lease lines and 1200 feet between wells, on 40 acre density; and the Langston-Kleiner (Strawn) Field which requires a minimum spacing distance of 330 feet from lease lines and 660 feet between wells, on 20 acre density.
3. J-Lyn Oil Co. seeks a permit to drill its proposed 70.32 acre Brown Heirs Lease, Well No. 1, at a location 255 feet east of the common lease line between the Brown Heirs lease and the Jack Loftin property, or 255 feet from the West line and 485 feet from the Southeast line.
4. J-Lyn Oil Co. did not present evidence to support its request for an exception to Statewide Rule 37 in the Markley, S. (Marble Falls) Field, the Diane D. (Caddo) Field, the Young County Regular Field or the Langston-Kleiner (Strawn) Field.
5. Seismic data, combined with log data from area wells, indicates the presence of a small Mississippian reef, corresponding to the Brownco (Miss. 5200) Field, under the Brown Heirs Lease. The reef structure is on the western edge of the Brown Heirs Lease.
  - a. Mississippian fields in this area have a strong water drive.
  - b. Log data indicates the oil/water contact in this reef is at approximately -4033 feet. The seismic data indicates the top of the reef is a few feet over -4020 feet.
  - c. The proposed location will gain approximately seventeen feet of pay in the reef over an area of 22 acres as compared to a regular location.
  - d. J-Lyn calculates the Original Oil In Place in the Mississippian reef was 300,000 BO, of

- which approximately one-third, or 100,000 BO, was recoverable.
- e. The Brown No. 1-F recovered 29,456 BO from the Mississippian over a period of 17 months.
  - f. J-Lyn conservatively estimates there are currently recoverable reserves at its proposed location of 30,000 BO.
  - g. J-Lyn is not certain whether the drop-off on the western edge of the reef is due to an almost vertical rise of the reef or indicates a fault. If the drop-off is due to a fault, J-Lyn believes it must locate its well away from that fault to avoid possible channeling of salt water through minor faults which would water out its well.
- 6. A well drilled at a regular location on the Brown Heirs Lease will penetrate the Mississippian reef at a location below the oil/water contact, resulting in a well that produces water only.
  - 7. The proposed location of the J-Lyn Brown Heirs Lease, Well No. 1, at a location 255 feet from the west line, will intersect the Mississippian reef at a point above the oil/water contact, but not so close to the western edge of the reef as to risk contact with fault channels that would direct water to the wellbore.
  - 8. The Mississippian reef below the Brown Heirs Lease and its limited extent is an unusual condition.
  - 9. Hydrocarbons will be recovered by the proposed J-Lyn Brown Heirs Lease Well No. 1 in the Brownco (Miss. 5200) Field that cannot be recovered by any existing well or a well at a regular location.
  - 10. The J-Lyn Brown Heirs Lease Well No. 1 will, according to a conservative estimate, recover 30,000 BO from the Brownco (Miss. 5200) Field, which is a substantial amount of hydrocarbons.

#### **CONCLUSIONS OF LAW**

- 1. Proper notice of hearing was timely given to all persons legally entitled to notice.
- 2. All things have occurred to give the Commission jurisdiction to decide this matter.
- 3. J-Lyn Oil Co. is not entitled to an exception to Statewide Rule 37 in the Markley, S. (Marble Falls) Field, the Diane D. (Caddo) Field, the Young County Regular Field or the Langston-Kleiner (Strawn) Field for the Brown Heirs Lease.
- 4. An exception pursuant to Statewide Rule 37 to the Brownco (Miss. 5200) Field rules regarding lease line spacing is necessary to permit drilling the applied-for well.

5. J-Lyn Oil Co. proved that an exception to Statewide Rule 37 is necessary to enable it to recover its fair share of recoverable reserves from the Brownco (Miss. 5200) Field on the Brown Heirs Lease.
6. J-Lyn Oil Co. proved that an exception to Statewide Rule 37 is necessary to prevent waste in the Brownco (Miss. 5200) Field on the Brown Heirs Lease.

### **RECOMMENDATION**

J-Lyn Oil Co. has not shown that it is entitled to a Rule 37 exception in order to prevent confiscation or waste in the Diane D. (Caddo) Field, the Young County Regular Field, the Markley, S. (Marble Falls) Field and the Langston-Kleiner (Strawn) Field for its proposed Brown Heirs Lease Well No. 1 in Young County. J-Lyn has shown that it is entitled to a Rule 37 exception in order to prevent waste and confiscation in the Brownco (Miss. 5200) Field for its proposed Brown Heirs Lease, Well No. 1 in Young County. The examiners therefore recommend that the subject application be approved as to the Brownco (Miss. 5200) Field in accordance with the attached final order.

Respectfully submitted,

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Marshall Enquist  
Hearings Examiner

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Andres Trevino  
Technical Examiner