# THE APPLICATION OF VALENCE OPERATING COMPANY TO ADOPT FIELD RULES FOR THE ARDIS & LEGGETT (PALUXY) FIELD, HOPKINS COUNTY, TEXAS

**Heard by:** Andres J. Trevino, P.E., Technical Examiner

Marshall Enquist, Legal Examiner

**Hearing Date:** March 30, 2012

Appearances: Representing:

Rick Johnston Valence Operating Company

## **EXAMINER'S REPORT AND RECOMMENDATION**

#### STATEMENT OF THE CASE

The field rules (Statewide Rules) for the Ardis & Leggett (Paluxy) Field are summarized as follows:

- 1. 467'-1,200' well spacing;
- 2. 40 acre oil units with 20 acre tolerance;
- 3. Allocation based on 100% per well.

Valence Operating Company requests that field rules be adopted as follows:

- 1. Designation of the field as the correlative interval from 4,688 feet to 4,803 feet as shown on the log of the Vaughn Petroleum's Chance Heirs No. 1;
- 2. 200'-330' well spacing;
- 10 acre units with optional 5 acre density;
- 4. Allocation based on 100% acreage.

This application was unprotested and the examiner recommends that the field rules for the Ardis & Leggett (Paluxy) Field be adopted as requested.

### **DISCUSSION OF EVIDENCE**

The Ardis & Leggett (Paluxy) Field was discovered in 1974 at a depth of approximately 4,742 feet. Cumulative production from the field is approximately 1,167,423 BO. Currently there are two producing oil wells and two shut-in wells in the field. Valence is the only operator in the field.

The Ardis & Leggett (Paluxy) Field is a marginally productive field that exists along the Talco-Mexia Fault. The Ardis & Leggett (Paluxy) Field is similar to the more prolific Talco Field in the area. The Talco Field produces from the Paluxy formation similar to the Ardis & Leggett (Paluxy) Field. The Paluxy Formation in the Talco Field is composed of lenticular sand deposits from a meandering river channel. The individual sand lens vary from well to well. Infill drilling in the Talco field demonstrated that new wells drilled next to abandoned wells sometimes encountered undrained sand lens that produced near virgin production up to 370 BOPD. Valence seeks to begin infill drilling and begin a waterflood operation as a result of the production success with the Talco field's infill drilling. Valence will infill drill new wells into the Paluxy in an attempt to encounter "new" undrained sand lens and recover additional reserves. Valence requests 200'-330' well spacing for the Ardis & Leggett (Paluxy) Field, similar to the Talco Field, so that it can infill drill the new wells and begin waterflood operations into the Paluxy without the need for Rule 37 exceptions to recover any existing oil reserves.

Valence submitted a log to establish a designated interval for the field. The interval from 4,688 feet to 4,803 feet as shown on the log of the Vaughn Petroleum's Chance Heirs No. 1 should be designated as the Ardis & Leggett (Paluxy) Field. This interval includes the entire Paluxy formation.

Valence provided the Final Order and Examiner's Report adopting special field rule for the Talco Field. Drainage calculations performed on 73 wells completed in the Talco's Paluxy formation indicates the wells will drain between ½ acre and 15 acres.

## FINDINGS OF FACT

- 1. Notice of this hearing was given to all persons entitled to notice at least ten days prior to the date of hearing.
- 2. Field rules for the Ardis & Leggett (Paluxy) Field provide for 467'-1,200' well spacing, 40 acre oil units and allocation based on 100% per well.
- 3. The Ardis & Leggett (Paluxy) Field was discovered in 1974 and cumulative production from the field is approximately 1,167,423 BO.
- 4. The field has two producing oil wells and two shut-in wells in the field. Valence is only operator in the field.
- 5. The Ardis & Leggett (Paluxy) Field is a marginally productive field that exists

along the Talco-Mexia Fault.

- 6. The interval from 4,688 feet to 4,803 feet as shown on the log of the Vaughn Petroleum's Chance Heirs No. 1 should be designated as the Ardis & Leggett (Paluxy) Field. This interval includes the entire Paluxy formation.
- 7. Development of the field on 10 acre units with optional 5 acre density is appropriate.
  - a. The Ardis & Leggett (Paluxy) Field and the Talco Field produce from the Paluxy Sand formation.
  - b. The Paluxy Sand in the Talco Field is believed to be deposited from a meandering river channel deposit with lenticular sand lens varying from well to well.
  - c. The estimated drainage area for the wells in the Talco Field varied between ½ acre and 15 acres.
- 8. The proposed 200'-330' well spacing will accommodate development on 5 acres, is similar to well spacing as the Talco Field in the area and will allow flexibility in drilling new wells and begin waterflood operations into the Paluxy to recover any remaining oil reserves.

#### **CONCLUSIONS OF LAW**

- 1. Proper notice of this hearing was issued.
- 2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.
- 3. Adopting field rules for the Ardis & Leggett (Paluxy) Field is necessary to prevent waste and protect correlative rights.

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## **RECOMMENDATION**

Based on the above findings and conclusions of law, the examiners recommend that field rules for the Ardis & Leggett (Paluxy) Field be adopted to provide for 10 acre units with optional 5 acre density and 200'-330' well spacing.

Respectfully submitted,

Andres J. Trevino, P.E. Technical Examiner

Marshall Enquist Legal Examiner