



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

**OIL AND GAS DOCKET NO. 01-0280555**

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**THE APPLICATION OF LEWIS PETRO PROPERTIES, INC. TO ADOPT FIELD RULES FOR THE ATLEE (OLMOS) FIELD, LA SALLE COUNTY, TEXAS**

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**HEARD BY:** Richard D. Atkins, P.E. - Technical Examiner  
Laura Miles-Valdez - Legal Examiner

**DATE OF HEARING:** February 22, 2013

**APPEARANCES:** **REPRESENTING:**

**APPLICANT:**

Keith B. Masters

Lewis Petro Properties, Inc.

**EXAMINERS' REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

The Atlee (Olmos) Field currently operates under Statewide Field Rules. Lewis Petro Properties, Inc. ("Lewis") requests that Field Rules be adopted, as shown below:

1. Designated correlative interval from 5,600 feet to 8,490 feet as shown on the log of the Lewis Petro Properties, Inc. - Killam Gonzalez A Lease, Well No. 23-H (API No. 42-479-41705);
2. 467'-0" well spacing with special provisions for "take points", 50' "box rule" and "off-lease" penetration point in horizontal drainhole wells;
3. 40 acre density;
4. Gas allocation based on 50% acres and 50% deliverability with AOF status and oil allocation based on 50% acres and 50% per well with a top oil allowable based on the 1965 Yardstick allowable of 121 BOPD;
5. Special provisions for "stacked laterals" in horizontal drainhole wells.

Lewis also requests that proration unit plats not be required for individual wells, but that Form P-15 be filed to designate the number of acres to be assigned to each well with no maximum diagonal limitation.

The application is unopposed and the examiners recommend approval of Field Rules for the Atlee (Olmos) Field, as requested by Lewis.

### **DISCUSSION OF THE EVIDENCE**

The Atlee (Olmos) Field was discovered in October 1983 at an average depth of 7,500 feet. There are 54 producing gas wells, one producing oil well and three operators carried on the proration schedules. The field operates under Statewide Rules. Cumulative production from the field through December 2012 is 15.7 BCFG and 218.7 MBO.

There is currently no defined correlative interval for the field. Lewis requests that the field be defined as the correlative interval from 5,600 feet to 8,490 feet as shown on the log of the Lewis Petro Properties, Inc. - Killam Gonzalez A Lease, Well No. 23-H (API No. 42-479-41705), Section 1970, GC&SF RR Co. Survey, A-2642, Webb County, Texas. The interval includes the entire Escondido and Olmos formations.

Lewis is developing the Atlee (Olmos) Field by drilling infill horizontal drainhole wells and requests Field Rules that will promote the efficient and effective development of the remaining hydrocarbons. Lewis requests 467'-0' well spacing with special provisions for "take points", a 50' "box rule" and "off-lease" penetration point in horizontal drainhole wells and 40 acre density. Lewis argues that the proposed 0' between well spacing is necessary to allow the drilling of horizontal drainhole wells, which may have to be placed very near vertical wells in some cases. Similar rules have been adopted in other tight reservoirs, including the Eagle Ford, Wolfcamp, Bone Springs, Cotton Valley and Barnett Shale formations.

Lewis requests that a Field Rule be adopted which includes language relevant to the measurement of distances to lease lines for horizontal drainhole wells. Lewis's proposed rule specifies that, for purposes of lease line spacing, the nearest "take point" in a horizontal well be used. This take-point could be a perforation in a horizontal well that is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased well. For purposes of the assignment of additional acreage to a horizontal drainhole well pursuant to Statewide Rule 86, it is proposed that the distance between the first and last take-point in a horizontal drainhole well be used, in lieu of the distance from penetration point to terminus.

Lewis also proposes a 50' "box rule" for horizontal drainhole wells that would allow drainholes to deviate 50 feet from either side of their permitted track without the necessity of obtaining a Statewide Rule 37 exception. As drilled wells for which all points are located within the "box" would be considered in compliance with their drilling permits.

In some cases, it is beneficial to penetrate the reservoir off lease, while still having “take points” no closer to lease lines than allowed under the field rules. Lewis requests that Field Rules for the subject field provide for an “off-lease” penetration point. Statewide Rule 86 requires that the penetration point of a horizontal drainhole be on the lease. In this field, a well generally requires approximately 600 feet of horizontal displacement to make the 90 degree turn from vertical to horizontal. If the penetration point is required to be on the lease, then the first point of production would be about 600 feet from the lease line. The proposed rule will allow approximately 200 feet of additional producing drainhole, which will result in the recovery of additional reserves. The Commission has adopted similar rules allowing offsite penetration points in other fields, after the operator has given notice to the mineral owners of the off-lease tract on which the penetration point is to be located and received no protest.

From log analysis, Lewis estimated an average porosity of 18%, an average saltwater saturation of 44%, an average net pay thickness of 16 feet and a recovery factor of 87.5%. The primary drive mechanism is a depletion drive. Lewis provided drainage area calculations for three wells that produced from the field. The drainage areas range from 12 acres up to a maximum of 24 acres. The average drainage area was calculated to be approximately 19 acres. Based on the drainage area calculations, Lewis proposes 40 acre density.

Lewis requests that a Field Rule be adopted to accommodate the drilling of stacked lateral horizontal drainhole wells. The gross thickness of the field interval is almost 3,000 feet. Lewis believes that several separate laterals may be necessary to effectively develop the field with horizontal drainhole wells. The rule would allow stacked lateral horizontal drainhole wells within the correlative interval that are drilled from different surface locations to be considered a single well for regulatory purposes. It is proposed that a stacked lateral be defined to be multiple horizontal drainhole wells which are drilled from different surface locations.

Because the correlative interval for the field includes two geologic formations, a two factor allocation formula is required by Texas statute. Lewis requests that gas allocation be based on 50% acres and 50% deliverability and that the allocation formula remain suspended, as there is a 100% market demand for all of the gas produced from the field. Lewis proposes that oil allocation be based on 50% acres and 50% per well with a top oil allowable based on the 1965 Yardstick allowable of 121 BOPD. Lewis also requests that proration unit plats not be required for individual wells, but that Form P-15 be filed to designate the number of acres to be assigned to each well.

#### **FINDINGS OF FACT**

1. Notice of this application and hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing.

2. The Atlee (Olmos) Field was discovered in October 1983 at an average depth of 7,500 feet.
  - a. There are 54 producing gas wells, one producing oil well and three operators carried on the proration schedules.
  - b. The field operates under Statewide Rules.
3. The Atlee (Olmos) Field should be designated as the correlative interval from 5,600 feet to 8,490 feet as shown on the log of the Lewis Petro Properties, Inc. - Killam Gonzalez A Lease, Well No. 23-H (API No. 42-479-41705), Section 1970, GC&SF RR Co. Survey, A-2642, Webb County, Texas. The interval includes the entire Escondido and Olmos formations.
4. A spacing rule which utilizes "take-points" in a horizontal drainhole well for determination of distances to lease lines will prevent waste and will not harm correlative rights.
  - a. A take-point in a horizontal drainhole well in this field may be a perforation in a horizontal well that is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased portion of the wellbore.
  - b. Adoption of the proposed rule will allow the horizontal drainhole length on a lease to be maximized.
  - c. For purposes of assignment of additional acreage to a horizontal drainhole well pursuant to Statewide Rule 86, the distance between the first and last take-point in a horizontal drainhole well should be used.
5. The proposed 50' "tolerance box" is necessary to allow operators reasonable minor deviations from the wellbore track that has been permitted.
6. Allowing an "off-lease" penetration point will result in maximum producing drainhole length, thereby increasing ultimate recovery from horizontal drainhole wells. To protect correlative rights, prior notice and opportunity to object should be given to the mineral owners of "off-lease" surface locations.
7. Based on the drainage area calculations, 40 acre density is appropriate for the Atlee (Olmos) Field.
  - a. The drainage areas range from 12 acres up to a maximum of 24 acres.

- b. The average drainage area was calculated to be approximately 19 acres.
- 8. The proposed "stacked lateral" rule will allow stacked lateral horizontal drainhole wells within the field correlative interval that are drilled from different surface locations to be considered a single well for regulatory purposes, which will facilitate the additional recovery of oil and gas reserves.
- 9. Similar rules have been adopted in other tight reservoirs, including the Eagle Ford, Wolfcamp, Bone Springs, Cotton Valley and Barnett Shale formations.
- 10. Gas allocation based on 50% acres and 50% deliverability with AOF status and oil allocation based on 50% acres and 50% per well with a top oil allowable based on the 1965 Yardstick allowable of 121 BOPD are reasonable formulas which will protect correlative rights and meet statutory requirements.
- 11. Continued suspension of the allocation formula is appropriate, as there is a 100% market demand for all the gas produced from the field.
- 12. The filing of Form P-15 to designate the number of acres to be assigned to each well for proration purposes with no proration unit plats will eliminate unnecessary paperwork.

**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. Adoption of Field Rules for the Atlee (Olmos) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

**RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission adopt Field Rules for the Atlee (Olmos) Field, as requested by Lewis Petro Properties, Inc.

Respectfully submitted,



Richard D. Atkins, P.E.  
Technical Examiner



Laura Miles-Valdez  
Legal Examiner