

**THE APPLICATION OF RIO-TEX, INC. TO CONSIDER A NEW FIELD DESIGNATION AND TO ADOPT TEMPORARY FIELD RULES FOR THE PROPOSED FOUR MAJORS (ELLENBURGER) FIELD, EDWARDS COUNTY, TEXAS**

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**HEARD BY:** Richard D. Atkins, P.E. - Technical Examiner

**DATE OF HEARING:** January 20, 2010

**APPEARANCES:**

Cary McGregor

**REPRESENTING:**

Rio-Tex, Inc.

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Rio-Tex, Inc. ("Rio-Tex") requests that a new field designation called the Four Majors (Ellenburger) Field be approved for its Whitehead Wardlaw Lease, Well No. 9401. Rio-Tex also requests that the following temporary Field Rules be adopted for the new field:

1. Designation of the field as the correlative interval from 11,822 feet to 12,320 feet as shown on the log of the Rio-Tex, Inc. - Whitehead Wardlaw Lease, Well No. 9401, (API No. 42-137-31948), Edwards County, Texas;
2. 467'-1,200' well spacing;
3. 160 acre gas proration units with a 10% tolerance;
4. Allocation based on 75% acres and 25% deliverability.

Rio-Tex had originally proposed Double Eagle (Ellenburger) as the field name, but that name was unavailable, so Rio-Tex selected their second choice shown on RRC Form P-7. There were no protests to this application and the examiner recommends approval of the new field designation and temporary Field Rules for the Four Majors (Ellenburger) Field.

**DISCUSSION OF EVIDENCE**

Rio-Tex completed its Whitehead Wardlaw Lease, Well No. 9401, in October 2009 through open hole in the Ellenburger formation between 12,150 feet and 12,320 feet. On initial test, the well produced dry gas at a maximum rate of 1,188 MCFGPD. Cumulative

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production through December 2009 is 83.9 MMCFG.

Rio-Tex requests that the entire correlative interval from 11,822 feet to 12,320 feet, as shown on the log of the Rio-Tex, Inc. - Whitehead Wardlaw Lease, Well No. 9401, (API No. 42-137-31948), Section 94, Block D, GC & SF RR Co. Survey, Edwards County, Texas, be designated as the Four Majors (Ellenburger) Field.

The new field designation should be approved for the Whitehead Wardlaw Lease, Well No. 9401, as there are no active or inactive wells in this fault block within 2.5 miles of the discovery well. The 2 ½ Mile Radius includes 5 producing Ellenburger wells, 4 dry holes and 15 plugged shallow wells that did not penetrate the correlative interval. The nearest comparable Ellenburger production is from the 5 producing Ellenburger wells located approximately one mile to the northwest in the Four Mills (Ellenburger) Field.

The Four Majors (Ellenburger) Field was discovered based on 3-D seismic data, which shows the discovery well to be in a separate down dip fault block from the Four Mills (Ellenburger) Field. Rio-Tex submitted a structural cross section schematic depicting the producing wells in both fault blocks. The wells in the Four Mills (Ellenburger) Field have a gas/water contact at 10,200 feet with the top of the Ellenburger occurring at approximately 9,200 feet. The discovery well in the Four Majors (Ellenburger) Field produces below 10,200 feet with the top of the Ellenburger occurring at approximately 9,900 feet.

In addition, Rio-Tex submitted bottom hole pressure information for both fields. The wells in the Four Mills (Ellenburger) Field were originally completed in October 2004 and had an original bottom hole pressure of 5,852 psi. Cumulative production for the field through December 2009 has been 10.2 BCFG and the current measured bottom hole pressure is 1,584 psi. The discovery well in the Four Majors (Ellenburger) Field was completed in October 2009 and had an original bottom hole pressure of 5,897 psi, indicating that the two fields are indeed fault separated.

The Four Majors (Ellenburger) Field has average reservoir parameters of 6% porosity, 35% water saturation and 20 feet of net pay. Rio-Tex submitted a decline curve analysis on the discovery well using 28% and 40% decline rates that shows that the well will recover 1.4 BCFG and 0.9 BCFG, respectively. A volumetric reserve calculation indicates that the discovery well will recover an estimated 1.2 BCFG with an effective drainage area of 160 acres, which is within the range of the decline curve analysis.

Rio-Tex requests 467'-1,200' well spacing in order to be consistent with the current well spacing in the offset Four Mills (Ellenburger) Field and that the Field Rules be temporary with a review in 24 months.

A two factor allocation formula is necessary to meet statutory requirements. Allocation based on 75% acres and 25% deliverability will satisfy statutory requirements. Rio-Tex also requests the suspension of the allocation formula for the field, since a market

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exists for 100% of the gas produced and that the filing of P-15's and plats not be required while the allocation formula is suspended.

### **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. Rio-Tex completed its Whitehead Wardlaw Lease, Well No. 9401, in October 2009 through open hole in the Ellenburger formation between 12,150 feet and 12,320 feet. On initial test, the well produced dry gas at a maximum rate of 1,188 MCFGPD.
3. The Whitehead Wardlaw Lease, Well No. 9401, is entitled to a new field designation.
  - a. There are no active or inactive wells in this fault block within 2.5 miles of the discovery well.
  - b. The nearest comparable Ellenburger production is from the 5 producing Ellenburger wells located approximately one mile to the northwest in the Four Mills (Ellenburger) Field.
  - c. The wells in the Four Mills (Ellenburger) Field have a gas/water contact at 10,200 feet with the top of the Ellenburger occurring at approximately 9,200 feet. The discovery well in the Four Majors (Ellenburger) Field produces below 10,200 feet with the top of the Ellenburger occurring at approximately 9,900 feet.
  - d. The wells in the Four Mills (Ellenburger) Field were originally completed in October 2004 and had an original bottom hole pressure of 5,852 psi. Cumulative production for the field through December 2009 has been 10.2 BCFG and the current measured bottom hole pressure is 1,584 psi. The discovery well in the Four Majors (Ellenburger) Field was completed in October 2009 and had an original bottom hole pressure of 5,897 psi, indicating that the two fields are indeed fault separated.
4. The entire correlative interval from 11,822 feet to 12,320 feet, as shown on the log of the Rio-Tex, Inc. - Whitehead Wardlaw Lease, Well No. 9401, (API No. 42-137-31948), Section 94, Block D, GC & SF RR Co. Survey, Edwards County, Texas, should be designated as the Four Majors (Ellenburger) Field.
5. A decline curve analysis on the discovery well using 28% and 40% decline rates shows that the well will recover 1.4 BCFG and 0.9 BCFG, respectively. A volumetric reserve calculation indicates that the discovery well will recover

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an estimated 1.2 BCFG with an effective drainage area of 160 acres, which is within the range of the decline curve analysis.

6. Well spacing of 467'-1,200' is consistent with the current well spacing in the offset Four Mills (Ellenburger) Field.
7. Allocation based on 75% acres and 25% deliverability is a reasonable formula which will protect correlative rights.

### **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. Approval of the requested new field designation and adoption of temporary Field Rules will prevent waste and protect correlative rights.

### **RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiner recommends approval of the new field designation and adoption of temporary Field Rules for the Four Majors (Ellenburger) Field, as proposed by Rio-Tex, Inc.

Respectfully submitted,

Richard D. Atkins, P.E.  
Technical Examiner