



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

**OIL AND GAS DOCKET NO. 8A-0298754**

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**THE APPLICATION OF PARALLEL PETROLEUM, LLC TO AMEND THE SPECIAL FIELD RULES, REQUEST A FIELD-WIDE MER ALLOWABLE AND CANCELLATION OF OVERPRODUCTION IN THE HARRIS (SAN ANDRES) FIELD, GAINES COUNTY, TEXAS**

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**HEARD BY:** Paul Dubois – Technical Examiner  
Randall Collins – Administrative Law Judge

**HEARING DATE:** January 29, 2016

**CONFERENCE DATE:** March 8, 2016

**APPEARANCES:**

Matthew Baab  
Phil Miller

**REPRESENTING:**

Parallel Petroleum, LLC

### EXAMINERS' REPORT AND RECOMMENDATION

#### STATEMENT OF THE CASE

This is the application of Parallel Petroleum, LLC (Parallel) to amend the special field rules adopted in Oil & Gas Docket No. 8A-0219327, effective June 30, 1998, for the Harris (San Andres) Field in Gaines County, Texas. The current field rules include the following:

1. A correlative interval from 4,492 feet to 5,906 feet as shown on the log of the Tetens "A" Well No. 3, Section 16 Block A-22 PSL Survey, Gaines County, Texas.
2. 330-foot lease line and 600-foot between well spacing.
3. 40-acre standard proration units with 20-acre and 10-acre optional units.

4. An allowable allocation formula based on 75 percent acreage and 25 percent individual well, and a 1965 yardstick allowable of 93 barrels of oil per day (bopd).

Parallel seeks to amend the current field rules to provide dual lease line spacing for horizontal wells, elimination of the maximum diagonal rule, and a maximum efficient rate allowable of 550 bopd. Parallel also seeks certain other rules for horizontal wells, but these have since been adopted into Statewide Rule 86. Parallel also requests that all overproduction in the field be cancelled. The application was not protested. The Examiners recommend the field rules be amended as requested.

### DISCUSSION OF EVIDENCE

The Harris (San Andres) Field was discovered on February 25, 1998 at a depth of 4,843 feet. Temporary field rules were adopted field rules adopted in Oil & Gas Docket No. 8A-0219327, effective June 30, 1998. The temporary field rules were subsequently made permanent. The January 2016 oil proration schedule carries 184 producing oil wells in the field, most of which are vertical wells. The field has a cumulative oil production of 5,598,442 barrels of oil. The field produces about 2,076 bopd and 383 thousand cubic feet (mcf) gas per day. Parallel is a large operator in the field, and it operates the Harris (San Andres) Unit, which accounts for about 38 percent of the daily field production.

Field development after discovery leveled-out in 2004 to 2005, at which time the field produced about 30,000 to 50,000 barrels of oil per month. Production has maintained fairly constantly since then. During this time, the field demonstrated an average production gas to oil ratio (GOR) of about 100 to 200 standard cubic feet (scf) per barrel.

Parallel has begun to develop the southeast margin of the field with horizontal wells. Three horizontal wells have been completed (Riders of Destiny Lease, Well No. 1H; Rio Bravo Lease, Well No. 1H; and True Grit Lease, Well No. 1H), and a fourth is permitted (El Dorado Lease, Well No. 1H). The three completed horizontal account for about 657 bopd, or about 31 percent of the daily field production. Parallel has demonstrated the Harris (San Andres) Field can be successfully developed with horizontal wells.

However, the current yardstick allowable of 93 bopd is not sufficient to meet the efficient production needs of horizontal wells in the field. On October 20, 2015, the Commission granted Parallel an MER allowable of 550 bopd for the Riders of Destiny Well. In that case, the Commission found the 550 bopd MER would not cause waste or harm the ultimate recovery of oil from the Riders of Destiny well. The recent Rio Bravo and True Grit wells have also encountered overproduction issues in the field, and so Parallel now seeks an MER allowable applicable to all wells in the field.

The three horizontal wells demonstrated initial potential oil tests ranging from 269 bopd to 853 bopd, whereas recent vertical wells in the field have tested between 8 bopd and 50 bopd. Similarly, the first 90-day average production rates for the horizontal wells

ranged from 323 bopd to 636 bopd, whereas the first 90-day average production rates for the recent vertical wells ranged from 8 bopd to 50 bopd.

Parallel conducted step-rate testing for the three horizontal wells. All three wells are produced on electric submersible pumps. Each test ran for about 30 days on variable pump frequencies. The testing demonstrated that the wells produced efficiently at higher production rates. At higher production rates the wells produced higher oil cuts (generally increasing from about 19 percent to 25 to 30 percent) and corresponding lower water cuts. In addition, the GOR rates remained low and relatively stable with some variation (ranging from about 300 scf per barrel to about 500 scf per barrel). Parallel concludes the wells can efficiently produce on an MER allowable of 550 bopd.

Several miles south of the Harris (San Andres) Field, horizontal development of the Shafter Lake, N. (San Andres) field is progressing northwards, and the two fields may likely grow together in the future. Parallel seeks to align the Harris (San Andres) Field rules with those of the Shafter Lake, N. (San Andres) Field. To align the field rules, Parallel seeks to adopt dual lease line spacing provisions for horizontal wells (100-foot for first and last take points and 330-foot perpendicular). Several other horizontal well-specific field rule requests are now moot, as Statewide Rule 86 was revised on February 1, 2016, to incorporate these provisions on a statewide basis.

#### FINDINGS OF FACT

1. Notice of this hearing was given to all parties entitled to notice at least ten days prior to the date of hearing.
2. The Harris (San Andres) Field was discovered on February 25, 1998 at a depth of 4,843 feet.
  - a. Temporary field rules were adopted field rules adopted in Oil & Gas Docket No. 8A-0219327, effective June 30, 1998, and subsequently made permanent.
  - b. The January 2016 oil proration schedule carries 184 producing oil wells in the field, most of which are vertical wells.
  - c. The field has a cumulative oil production of 5,598,442 barrels of oil. The field produces about 2,076 bopd and 383 thousand cubic feet (mcf) gas per day.
  - d. Parallel is a large operator in the field, and it operates the Harris (San Andres) Unit, which accounts for about 38 percent of the daily field production.
3. Field development after discovery leveled-out in 2004 to 2005, at which time

the field produced about 30,000 to 50,000 barrels of oil per month.

- a. Production rates have maintained fairly constantly since then. During this time, the field demonstrated an average production gas to oil ratio (GOR) of about 100 to 200 standard cubic feet (scf) per barrel.
4. The Harris (San Andres) Field can be successfully developed with horizontal wells.
    - a. Initial potential oil tests ranged from 269 bopd to 853 bopd for horizontal wells, and 8 bopd to 50 bopd for recent vertical wells.
    - b. First 90-day average production rates ranged from 323 bopd to 636 bopd for horizontal wells, and 8 bopd to 50 bopd for vertical wells.
  5. Step rate testing of the three horizontal wells indicated increased production rates also yielded increased oil cuts, decreased water cuts, and nominally-changed GOR.
  6. The wells can efficiently produce on an MER allowable of 550 bopd.
  7. Dual lease line spacing provisions of 100-feet for first and last take points and 330-feet perpendicular are appropriate for the field.
  8. Other horizontal well-specific field rule requests are now moot, as Statewide Rule 86 was revised on February 1, 2016, to incorporate these provisions on a statewide basis.

#### **CONCLUSIONS OF LAW**

1. Resolution of the subject application is a matter committed to the jurisdiction of the Railroad Commission of Texas. Tex. Nat. Res. Code § 81.051.
2. Findings of fact may be based only on the evidence and on matters that are officially noticed. Tex. Gov't Code §2001.141 (b).
3. All notice requirements have been satisfied. 16 Tex. Admin. Code § 1.45.
4. Amending the field rules for the Harris (San Andres) Field will prevent waste, protect correlative rights, and promote the orderly development of the field.

#### **RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the Examiners recommend the Commission enter an order granting the application of Parallel Petroleum,

LLC to amend the special field rules and request a field-wide MER allowable and cancellation of overproduction in the Harris (San Andres) Field, Gaines County, Texas.

Respectfully submitted,



Paul Dubois  
Technical Examiner



Randall Collins  
Administrative Law Judge