



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

**OIL & GAS DOCKET NO. 08-0306090**

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**THE APPLICATION OF SHELL WESTERN E&P TO AMEND THE FIELD RULES FOR THE TWO GEORGES (BONE SPRING) FIELD, CULBERSON, LOVING, REEVES, WARD AND WINKLER COUNTIES, TEXAS**

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**HEARD BY:** Ryan Lammert, Administrative Law Judge  
Richard Eyster, Technical Examiner

**HEARING DATE:** November 1, 2017

**APPEARANCES:**

Brian Sullivan, Attorney at Law  
Gina Gonzalez,  
Zhen Li,

**Representing:**

Shell Western E&P

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF CASE**

Shell Western E&P (Shell) requests that Rule 2 of the field rules for the Two Georges (Bone Spring) Field be amended in Culberson, Loving, Reeves, Ward, and Winkler Counties, Texas. The current rule is:

Rule 2: No well for oil or gas shall hereafter be drilled nearer than FOUR HUNDRED SIXTY SEVEN (467) feet to any property line, lease line, or subdivision line. There is no minimum between well spacing limitation. The aforementioned distances in the above rule are minimum distances to allow an operator flexibility in locating a well; and the above spacing rule and the other rules to follow are for the purpose of permitting only one well to each drilling and proration unit. . .

Shell requests that Rule 2 be amended as follows:

Rule 2: No well for oil or gas shall hereafter be drilled nearer than THREE

HUNDRED THIRTY (330) feet to any property line, lease line, or subdivision line. There is no minimum between well spacing limitation. The aforementioned distances in the above rule are minimum distances to allow an operator flexibility in locating a well; and the above spacing rule and the other rules to follow are for the purpose of permitting only one well to each drilling and proration unit.

The application was unopposed and the Technical Examiner and the Administrative Law Judge (collectively the "Examiners") recommend approval of the requested rule change.

### **DISCUSSION OF THE EVIDENCE**

Shell requests the Two Georges lease line spacing rule be amended from 467 feet to 330 feet. Reducing the Two Georges (Bone Spring) lease line spacing to 330 feet is consistent with other fields rules in District 8, including the Phantom (Wolfcamp) Field.<sup>1</sup>The Two Georges (Bone Spring) Field rule amendment will minimize waste and protect correlative rights.

Shell is producing hydrocarbons from the overlapping intervals in the Phantom (Wolfcamp) and Two Georges (Bone Spring) fields. The reservoir in the overlap is composed of siltstone and shale with an average permeability of 100 and 10 nanodarcy respectively.<sup>2</sup> The reservoir properties require hydraulic fracture stimulation to produce hydrocarbons at commercial rates.

Shell used rate transient analysis to estimate the half fracture length.<sup>3</sup> The half fracture length is the stimulated distance from the well. BHP Billiton conducted the rate transient analysis for three wells in the Wolfcamp. The estimated well drainage areas were 170 feet, 290 feet, and 75 feet.<sup>4</sup> Shell's expert agreed with the BHP exhibits demonstrates the Wolfcamp drainage area does not exceed 290 feet. Shell's expert has seen similar results using the same method on Shell's wells. Therefore, Shell will not drain hydrocarbons from another using a lease line spacing of 330 feet in the Two Georges (Bone Spring) Field.

### **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 Two Georges (Bone Spring) Field has a lease line spacing rule of 467 feet.
3. The following District 8 fields have lease line spacing rule of 330 feet: Sandbar

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<sup>1</sup> Shell Exh. No. A-E.

<sup>2</sup> Shell Exh. No. 11.

<sup>3</sup> Shell Exh. No. 14

<sup>4</sup> Shell Exh. No. 15-17.

(Bone Spring), Grice (Wolfcamp), Phantom (Wolfcamp), Hoefs T-K (Wolfcamp), and the Wolfbone (Trend Area).

4. The reservoir at issue is composed of siltstone and shale with an average permeability of 100 and 10 nanodarcy respectively.
5. The reservoir requires hydraulic fracture stimulation to produce hydrocarbons at commercial rates.
6. Shell used rate transient analysis to estimate that the well drainage area in the Wolfcamp does not exceed 290 feet.

#### **CONCLUSIONS OF LAW**

1. Notice of this hearing was given as specified in the provisions of all regulatory codes. 16 Tex. Admin. Code § 3.10(c).
2. All things have occurred or been accomplished to give the Commission jurisdiction in this matter. Tex. Nat. Res. Code § 81.051.
3. Adoption of the proposed field rule for the Two Georges (Bone Spring) will prevent waste, protect correlative rights, and promote orderly development of the field. 16 Tex. Admin. Code § 3.10(b).

#### **RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the Examiners recommend that the Commission enter an order granting the application of Shell Western E&P to amend the field rules for the Two Georges (Bone Spring) in Culberson, Loving, Reeves, Ward, and Winkler Counties, Texas.

Respectfully submitted,



Richard Eyster, P.G.  
Technical Examiner



Ryan M. Lammert  
Administrative Law Judge