
THE APPLICATION OF LEWIS PETRO PROPERTIES, INC., FOR TEMPORARY FIELD RULES IN THE BIG REEF (EDWARDS) FIELD, WEBB COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: May 10, 2002

Hearing held: June 3, 2002

Appearances

Glenn George	Representing Lewis Petro Properties
--------------	--

Will Booth	Himself
------------	---------

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Lewis Petro Properties is seeking the following temporary rules for the Big Reef (Edwards) Field:

1. Designated interval from 9365 to 9815 feet as shown on the log of its W.V. Booth Jr. et al 2292 Lease Well No. 3-B;
2. 467-933' well spacing;
3. 160 acre gas proration units with 10% tolerance, and 40 acre optional units; and
4. allocation based 95% on deliverability and 5% per well.

Will Booth appeared at the hearing as an interested person.

DISCUSSION OF THE EVIDENCE

The Big Reef (Edwards) Field was discovered in 1991 and has four active wells, all on the same lease operated by Lewis Petro. The discovery well was the W.V. Booth, Jr. Lease Well No. 1-A, drilled by W.M. Null-Oil Producer, and perforated from 9664 to 9731 feet. This vertical well has produced 784 MMCF and is still active. The second well, W.V. Booth, Jr. No. 1-B, was drilled in 1991 and plugged back to the Austin Chalk after producing only 10 MMCF from the Edwards. The W.V. Booth, Jr. Well No. 2-A was drilled in 1991, and horizontally sidetracked in October of 2001. The sidetrack has produced 276 MMCF to date, but its current deliverability is only 29 MCF/D.

The gas contains 4% hydrogen sulfide and 6% carbon dioxide, which caused the field to remain under-developed until 2001. Lewis Petro has recently completed a new plant to treat the gas and there

is now an H₂S-capable disposal well in the field. Lewis Petro completed the W.V. Booth, Jr. et al 2922 Lease Well No. 3-B in March of 2001. It is a horizontal well that penetrated the top of the Edwards at 9365' TVD and the base at 9815' TVD, and has already produced 207 MMCF. The most recent active well is No. 3-A, a horizontal well drilled in August of 2001, with a deliverability of 2379 MCF/D.

The current deliverabilities of Well Nos. 1-A and 3-B are 1293 and 1013 MCF/D, respectively. The estimated ultimate recovery of Well No. 1-A is 3 BCF; and the reservoir in this well is 127 feet thick, with 32% porosity and 45% water saturation. Assuming an abandonment pressure of 1000 psia, this well will drain an estimated 181 acres. The estimated ultimate recovery of Well No. 3-B is 1 BCF; and the reservoir around this well is 134' thick, with 38% porosity and 35% water saturation. The estimated drainage area of this well is 41 acres. The applicant intends to drill at least one more well.

The applicant is requesting standard spacing for 40 acre optional units of 467-933'. The Edwards Formation is over 400 feet thick and contains more than one porosity lens. The applicant believes that a 2-factor allocation formula is necessary as one is required for fields with multiple reservoirs. A formula based 95% on deliverability and 5% per well will satisfy any statutory requirements. The allocation formula was suspended in May of 2001, and will remain so.

FINDINGS OF FACT

1. Notice of this hearing was mailed to all operators in the field and to all offset operators and unleased mineral interest owners to the discovery tract on May 17, 2002.
2. The discovery well was the W.M. Null-Oil Producer W.V. Booth, Jr. Lease Well No. 1-A, drilled in 1991.
3. The discovery well was perforated from 9664 to 9731 feet, and is still active after producing 784 MMCF.
4. Produced gas contains 4% hydrogen sulfide and 6% carbon dioxide, and problems with disposal of these contaminants resulted in few wells being drilled before 2001.
5. Three horizontal wells have been drilled since 2001, after approval of an H₂S-capable disposal well.
6. Gas proration units of 160 acres with 40 acre optional units are appropriate for temporary field rules.
 - a. The current deliverability of Well No. 1-A is 1293 MCF/D, and the well's cumulative production is 784 MMCF of gas.
 - b. Well No. 1-A has an estimated ultimate recovery of 3 BCF, and will drain an estimated 181 acres.
 - c. The current deliverability of Well No. 3-B is 1013 MCF/D, and the well has produced 206 MMCF of gas since April of 2001.

- d. The estimated ultimate recovery of Well No. 3-B is 1 BCF and the well's estimated drainage area is 41 acres.
7. Well spacing of 467-933' is standard for 40-acre optional units.
8. The Edwards extends from 9365' TVD to 9815' TVD as shown on the log of the Lewis Petro Properties W.V. Booth Jr. et al 2292 Lease Well No. 3-B.
9. Allocation based 95% on deliverability and 5% per well will satisfy statutory requirements for wells with multiple reservoirs.

CONCLUSIONS OF LAW

1. Proper notice was given as required by statute.
2. All things have been done or occurred to give the Railroad Commission jurisdiction to resolve this matter.
3. The requested temporary field rules will prevent waste, protect correlative rights within the field, and promote orderly development of the field.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the requested temporary field rules be adopted for the Big Reef (Edwards) Field, and be reviewed in 18 months.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner