### OIL AND GAS DOCKET NO. 8A-0223276

# THE APPLICATION OF BURNETT OIL COMPANY, INC. FOR FIELD-WIDE MER IN THE WILD HOG (BUNGER SAND) FIELD, KING COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

### **Procedural history**

Application received: November 17, 1999 Hearing held: December 8, 1999

### Appearances

Robert Grable	
Sterling Randolph	

Representing Burnett Oil Company

# EXAMINER'S REPORT AND RECOMMENDATION

## **STATEMENT OF THE CASE**

Permanent field rules for the Wild Hog (Bunger Sand) Field, adopted November 2, 1999, under Docket No. 8A-0222732, are summarized as follows:

- 1. Designated interval from 4047 to 4075 feet as shown on the log of the Burnett Oil Company A.W.M. Lease Well No. 1;
- 2. 330-467 foot well spacing;
- 3. 40 acre proration units with 20-acre optional units; and
- 4. Allocation based on acreage with a maximum allowable of 140 BOPD.

Burnett Oil Company is requesting that Rule 4 be amended to provide every well in the Wild Hog (Bunger Sand) Field an MER of 140 BOPD, regardless of the number of acres assigned to that well.

# **DISCUSSION OF THE EVIDENCE**

The Wild Hog (Bunger Sand) Field was discovered in 1994, and now has nine producing wells, all on one lease. The initial reservoir pressure was 1674 psi and there has been only a small decline since 1994. The reservoir has a strong water drive with the original oil/water contact being at -2286 feet.

Burnett has conducted a 3D seismic survey over this field and determined that the structure

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is more complicated than well control indicated. A reservoir simulator, using input from the seismic survey, was able to match the production and rate history. This simulation showed that three additional wells on the crest of the structure were necessary for optimal recovery. These wells are predicted to recover 930,000 barrels of incremental oil. The reservoir simulation and reservoir properties indicate that reservoir pressure is drawn down by only 400 psi when wells are pumped at rates up to 140 BOPD. High permeability of 200 md reduces the chances that rapid oil flow into the wellbores will cone saltwater.

Since the unprotested hearing on the field rules, held October 22, 1999, the applicant has drilled two infill wells. The first well, thought to be on a separate structural high on the flank of the field, confirmed the structural interpretation but found the reservoir rock had already been swept by saltwater. The second infill well, drilled on the crest of the structure, is still being completed but appears to be capable of producing 140 BOPD. Because this well was drilled on less than 40-acre density its allowable would be reduced below 140 BOPD under the current rules.

The field rules as originally requested sought to have allowables be based on acreage with a maximum allowable of 140 BOPD. This application seeks to have any reference to acreage allocation removed and to set a top allowable of 140 BOPD for each well. Infill wells and many of the original wells are expected to be able to use a 140 BOPD allowable. The infill wells will be on proration units of less than 40 acres and need not have their allowables restricted by the smaller units. The applicant also requested that any overproduction to date from wells on less than 40-acre proration units be canceled.

# FINDINGS OF FACT

- 1. Notice of this hearing was given to all operators in the Wild Hog (Bunger Sand) Field and to all offset operators to the discovery tract on November 19, 1999.
- 2. The field was discovered in 1994, and has nine producing wells and two newly drilled wells.
- 3. The Wild Hog (Bunger Sand) Field has a strong water drive and has had little pressure drawdown.
- 4. Additional wells to be located between and among the existing wells, are necessary to fully drain the reservoir, and are expected to produce an incremental 930,000 BO.
- 5. Reservoir simulation indicates that 140 BOPD per well will not adversely affect the reservoir as the pressure draw down at that rate is low.
- 6. Additional infill wells are planned for units of less than 40 acres and these wells are expected to have capabilities of at least 140 BOPD.
- 7. The producing rate of 140 BOPD is efficient and there is no reason to require a well to make up overproduction through producing it at a lower rate.

# **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. Granting an MER for each well, regardless of assigned acres, will prevent waste, protect correlative rights within the field, and promote orderly development of the reservoir.

#### **EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions, the examiner recommends that the field rules for the Wild Hog (Bunger Sand) Field, be amended to provide an MER of 140 BOPD for each well in the field. Any overproduction in the field should also be canceled.

Respectfully submitted,

Margaret Allen Technical Hearings Examiner

Date of Commission Action: December 21, 1999