October 27, 1999

OIL AND GAS DOCKET NO. 02-0222874

THE APPLICATION OF COASTAL OIL & GAS CORPORATION FOR FIELD RULES IN THE BRUSHY CREEK, S. (WILCOX 13900) FIELD, LAVACA COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: October 6, 1999
Hearing held: October 27, 1999

Appearances

	Representing
Jim Cowden	Coastal Oil & Gas Corporation
Terry Payne	

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Coastal Oil & Gas Corporation is seeking the following field rules:

1. Designated interval from 13,110 to14,060 feet as shown on the log of the Coastal Oil & Gas (formerly Union Gas Operating Company) Mathews Well No. 1; and

2. Allocation based 95% on deliverability and 5% per well.

DISCUSSION OF THE EVIDENCE

The Brushy Creek, S. (Wilcox 13900) Field was approved as a new field in March of 1999, with a designated interval extending from 13,890 to 14,060 feet in the discovery well, the Matthews No. 1. This well was first perforated between 13,896 and 14,048 feet and had a test rate of 9457 MCF per day at a shut-in bottomhole pressure of 10,600 psi. This completion declined rapidly to about 600 MCF per day. A bridge plug was set above these perforations and a new set was added between 13,719 and 13,750 feet. This set of perforations were tested briefly at a daily rate of 6 MMCF. A bridge plug was then set above the second set of perforations and a third interval perforated between 13,534 and 13,598 feet. This interval was tested briefly and the daily rate appeared to be 4 MMCF/D. A fourth set of perforations between 13,306 and 13,434 was tested and found capable, at least initially, of 4 MMCF per day. Production from this uppermost interval dropped to 1,200 MCF per day within two weeks.

All of these completions had been fracture-stimulated prior to being tested, as all of these

Wilcox sands have low permeability. Texaco was the first to test the Matthew sands in its R.E. Matthew Well No. 1, located less than 1000 feet east of Coastal's Matthews No. 1. This well was initially perforated in an interval equivalent to the first set of perforations in Coastal's well. Texaco received a tight gas sand designation for this interval in its R.E. Matthews No. 1, but was unable to produce this interval and its well was recompleted in a shallower zone.

Flowing tubing pressure along with production rates dropped quickly for each set of perforations. The applicant estimated that the ultimate recovery for the first set of perforations, those in the new field discovery designation, was less than 1 BCF. If allowed to produce all of the tested intervals together, the ultimate recovery may be between three and four BCF of gas. This well cost about $3,000,000 to drill.

Cumulative production from the designated discovery well has been 0.5 BCF since March of 1999. All of the Wilcox sands within the proposed designated interval have similar properties and produce similar hydrocarbons. All perforated intervals have been fracture stimulated, making water comparisons difficult. The lowermost sands, those within the interval designated with the new field approval, were declared tight gas sands under the original application filed by Texaco. This field, with the additional designated interval, is a good candidate for expanded tight gas sand designation.

The applicant is doing additional drilling in the area, and allowing less productive intervals to be produced with more productive intervals will promote further development of the Wilcox. Because the proposed designated interval includes multiple reservoirs not in communication, a two-factor allocation formula is required for statutory reasons. The formula proposed is close to the Statewide allocation formula, and the applicant is not requesting any changes to the Statewide rules for spacing and density.

FINDINGS OF FACT

1. Notice of this hearing was given to all operators in the Brushy Creek, S. (Wilcox 13900) Field and to all offset operators to the discovery tract on October 13, 1999.

2. The Brushy Creek, S. (Wilcox 13900) Field was discovered in March of 1999, with the completion of the Coastal Matthews Well No. 1.

3. The current designated interval extends from 13,890 to 14,060 feet, as shown on the log of the discovery well, the Matthews No. 1.

4. Three other sets of perforations: between 13,719 and 13,750 feet; between 13,534 and 13,596 feet; and between 13,306 and 13,321 feet; were tested separately.
5. All four sets of perforations had initial high production rates and flowing tubing pressures that declined rapidly.

6. All of the tested sands are tight gas sands though only the lower interval has been designated as such to date.

7. It is not economically possible to produce these Wilcox sands between 13,110 and 14,060 feet separately, as the well is only marginally successful even with all perforations open.

a. The rapid drop in producing rate and in flowing tubing pressure from these lower sands show that they are cannot be developed economically unless they can be consolidated with more productive intervals.

b. This area is being rapidly developed and allowing poorer sandstones to be produced along with better sandstones will encourage further drilling.

8. The four productive zones within the proposed designated interval produce similar gas from rock that is part of a single formation.

9. A field whose designated interval includes multiple, non-connected reservoirs, such as this one, is required by statute to have a two-factor allocation formula.

10. The proposed allocation formula, based 95% on deliverability and 5% per well, is close to the Statewide allocation formula.

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 field rules will prevent waste, protect correlative rights within the field, and promote orderly development of the reservoirs.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the requested field rules for the Brushy Cree, S. (Wilcox 13900) Field be approved, as per the attached order.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action: November 16, 1999

Exhibits

1. Proration schedule
2. New field discovery
3. Map
4. Well completion data
5. Log
6. Wellbore schematic
7. Forms G-1
8. Production history
9. Gas analyses