March 29, 2001

OIL AND GAS DOCKET NO. 04-0227721

THE APPLICATION OF COASTAL OIL & GAS CORPORATION FOR NEW FIELD DESIGNATIONS AND RULES FOR THE (PROPOSED) MCCOOK, SE. (VICKSBURG 14300) FIELD AND MCCOOK, SE. (VICKSBURG 15500) FIELD, HIDALGO COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: March 6, 2001
Hearing held: March 28, 2001

Appearances

	Representing
James Cowden	Coastal Oil & Gas Corporation
Terry Payne	

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Coastal Oil & Gas is seeking to have its Winding Brook Lease Well No. 1, between 14,278 and 15,152 feet, designated as the discovery well for a field to be known as McCook, SE. (Vicksburg 14300) Field. It is also seeking to have the interval between 15,505 and 16,234 feet in the same well, designated as the McCook, SE. (Vicksburg 15500) Field. Coastal is proposing the following field rules:

1. Respective designated intervals as shown on the log of the Coastal Oil & Gas Winding Brook Lease Well No. 1;

2. well spacing of 467-933 feet; and

3. allocation based 5% per well and 95% on deliverability

The statewide density requiring 40 acre drilling units would remain in effect and there would be no rule prescribing proration units.

DISCUSSION OF THE EVIDENCE

The Winding Brook Lease Well No. 1 was completed in February of 2001, in a number of lower Vicksburg sandstones. The well was perforated between 15,798 and 15,909 feet and tested

on February 7, at a maximum producing rate of 2189 MCF/D. The static bottom-hole pressure was 15,005 psi, indicating a relatively high gradient for this area of 0.97 psi per foot. The closest well producing from a sand of comparable depth is the Clayton Williams Mary Johnson Well No. 3, about 1-1/2 miles to the southeast. This well is fault separated from the Winding Brook Well No. 1 at this depth.

A bridge plug was then set above the first perforations and the well perforated from 15564 to 15654 feet. Another bridge plug was set and more perforations were added between 15,009 and 15,137 feet. This set was tested on February 13, at a maximum producing rate of 3715 MCF/D. The static bottom-hole pressure was measured at 14,546 psi, indicating a gradient of 0.95 psi per foot. The closest well producing from a sand of comparable depth is the Mobil F.I. Johnson Well No. 31, 4300 feet to the east. This well is also fault separated from the correlative perforations in the Winding Brook Well No. 1. More perforations were added from 14,717 to 14,899 feet and from 14,491 to 14,653 feet, and the bridge plugs removed.

Both proposed fields produce from reservoirs in a small triangular block bounded on three sides by faults. One other well, a dry hole drilled by Shell, penetrated the proposed Vicksburg 14300 field. This wellbore was deep enough to test the Vicksburg 15500 field but one of the bounding faults separates the Shell well and the Winding Brook No. 1 below 15000 feet. A second Winding Brook well is being drilled.

Commingled production was initially 28-29 MMCF per day but has already decreased to 10 MMCF per day. The applicant is requesting a Rule 10 exception to produce all of the perforated lower Vicksburg sandstones together. There is a significant shale break between the two fields that Coastal is asking to designate--between 14,278 and 16,234 feet. There are smaller shales breaks within these two correlative intervals, possibly causing separate lenticular reservoirs within each proposed field. Because of the possible multiple reservoirs, a two-factor allocation formula is required by statute in each field. An allocation formula based 5% per well and 95% on deliverability is close to the Statewide allocation formula, while satisfying the statutory requirement for two factors.

There are numerous surrounding Vicksburg wells in the area, carried in several different fields. Almost all of these fields have 40 acre density either as an option under special field rules or under Statewide Rules. Coastal is requesting that a special density rule not be adopted for either field and that both be governed by the statewide density rule. Most of the other Vicksburg fields in the area have between-well spacing of 933 feet. A spacing rule for this field allowing wells to be as close as 933 feet will make it easier to recomplete or commingle wells between fields.

FINDINGS OF FACT

1. Notice of this hearing was given to all operators in the proposed McCook, SE. (Vicksburg 14300) and McCook, SE. (Vicksburg 15500) Fields and to all offset operators to the discovery tract on March 9, 2001.

2. The Winding Brook Well No. 1 is the discovery well for the proposed new fields, both of which are located in the lower Vicksburg section of Hidalgo County.

3. The proposed designated interval for the McCook, SE. (Vicksburg 15500) Field, in the Winding Brook Lease Well No. 1, is a new field not previously produced.

    a. The well was perforated between 15,798 and 15,909 feet and tested on February 7, at a maximum producing rate of 2189 MCF/D.

    b. The static bottom-hole pressure was 15,005 psi, indicating a virgin pressure gradient.

    c. Further perforations (between 15564 to 15654 feet) were added within the interval of the McCook, SE. (Vicksburg 15500) Field.

    d. The productive sand/shale interval between 15,505 and 16,234 feet, can be considered as a single interval for the McCook, SE. (Vicksburg 15500) Field.

4. The proposed designated interval for the McCook, SE. (Vicksburg 14300) Field in the Winding Brook Lease Well No. 1, is a new field not previously produced.

    a. A set of perforations between 15,009 and 15,137 feet were tested on February 13, at a maximum producing rate of 3715 MCF/D.

    b. The static bottom-hole pressure was measured at 14,546 psi, indicating a virgin pressure gradient.

    c. Perforations (between 14,717 and 14,899 feet and between 14,491 and 14,653 feet) were added within the interval of the McCook, SE. (Vicksburg 14300) Field.

    d. The productive sand/shale interval between 14,278 and 15,152 feet, can be considered as a single interval for the McCook, SE. (Vicksburg 14300) Field.

5. Older producing wells completed in intervals comparable to the proposed designated intervals, that are within 2-1/2 miles of the Winding Brook Well No. 1, are separated at these depths by faults.

6. Commingled production from all of the perforations in the Winding Brook No. 1 began at 28-29 MMCF per day but has already decreased to 10 MMCF per day.

7. A rule 10 exception to produce the McCook, SE. (Vicksburg 14300) and (Vicksburg 15500) Fields together in the Winding Brook No. 1 is pending.

8. A second well has been proposed in the same fault block as the Winding Brook No. 1.

9. Most other Vicksburg fields in the area have 933-foot between-well spacing and similar spacing for the proposed new fields will facilitate recompletions and commingling among

the various Vicksburg fields.

10. There may be separate reservoir lenses within each designated interval for the proposed McCook, SE. (Vicksburg 14300) and (Vicksburg 15500) Fields.

11. Allocation based 5% per well and 95% on deliverability will protect correlative rights and satisfy statutory requirements.

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 Coastal Winding Brook Lease Well No. 1, in the lower Vicksburg sandstones between 14,278 and 15,152 feet, is entitled to be considered a new field discovery interval as it produces from a reservoir that has not been produced before.

4. The Coastal Winding Brook Lease Well No. 1, in the lower Vicksburg sandstones between 15,505 and 16,234 feet, is entitled to be considered a new field discovery interval as it produces from a reservoir that has not been produced before.

5. The requested designated intervals, well spacing and allocation formula will prevent waste, protect correlative rights within the fields, and satisfy statutory requirements.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the Coastal Winding Brook Lease Well No. 1, between 14,278 and 15,152 feet, be considered the discovery well for a new field to be known as the McCook, SE. (Vicksburg 14300) Field. The interval between 15,515 and 16,234 feet in the same well should be considered the discovery well for a new field to be known as the McCook, SE. (Vicksburg 15500) Field. The requested rules for the newly-designated fields should be approved.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action: April 24, 2001

Exhibits

1. P-7
2. Map
3. Data sheet for wells within 2-1/2 miles
4. Form G-1
5. Log
6. Rate vs. time graph
7. Structure map
8. BHP data
9. Gas analyses
10. Water analyses
11. Field rules summary
12. Field areas base map
13. Illustration of between-well spacing flexibility