

July 10, 2002

OIL AND GAS DOCKET NO. 01-0229154

THE APPLICATION OF SWIFT ENERGY COMPANY TO DESIGNATE ITS SBR LEASE AS AN ENTITY FOR DENSITY PURPOSES, A.W.P. (OLMOS) FIELD, MCMULLEN COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: August 1, 2001

Hearing held: July 2, 2002

Appearances

John Camp

Neal J. Broussard, Jr.

Representing

Swift Energy Company

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Swift Energy Company is seeking to have its SBR Lease declared an entity for density purposes. The field rules for the AWP (Olmos) Field were adopted under Docket No. 1-78,135, effective June 14, 1982. The amended rules for this associated, prorated field, are summarized as follows:

1. 467'-933' well spacing;
2. 80 acre proration units with 40 acre optional units; and
3. allocation based on deliverability with the allocation formula currently suspended.

Designation of the SBR Lease as an entity for density purposes will allow development 40 acre density without regard to between-well spacing or the filing of proration plats.

DISCUSSION OF THE EVIDENCE

The A.W.P. (Olmos) Field was discovered in 1982 and Swift operates 90% of the 500 wells. Two hundred wells have been drilled on the SBR Lease, and about 180 of those are active. Swift is planning to drill 21 additional wells. The SBR Lease has 8833 acres, all thought to be productive, and even with the new wells will not be at maximum density. Fourteen of the proposed wells will require between-well Rule 37 exceptions, based on the current rules. A number of new wells were drilled in 1995, 1996 and 1997, but lease production has since declined. At one time, monthly production was as high as 1.2 BCF of gas and 15,000 barrels of condensate, but the most recent month's production was 407 MMCF and 5081 BC.

This prorated gas field was once thought to be a gas cap, but evidence showed that oil was not originally present in any significant oil amounts. The SBR Lease Well No. A3, which Swift used as an example well, had an initial deliverability of 497 MCF/D and encountered the Olmos Formation between -10,444' and -10,567'. The Olmos is a silty sandstone that was deposited in offshore bars. The permeability is very low--0.001 to .01 md--and all of the wells must be fracture stimulated. There are numerous northeast-southwest trending faults, some probably sealing, and the induced fractures trend in the same direction.

Swift discovered a problem with its proration plats last year, and 45 to 47 of its wells will need exceptions to Statewide Rule 38 before their plats can be approved. Most of these wells were drilled on regular patterns of 38 to 40 acres, and the proration units cannot be reconfigured enough to include 40 acres for all of the interior wells. If the SBR Lease is considered an entity for density purposes, proration units will not need to be assigned to each well as long as the density of the unit does not exceed one well per 40 acres.

The applicant calculated the drainage areas for the SBR Lease wells, assuming an abandonment pressure of 1500 psi and 73% recovery. Only 19 wells will drain more than 20 acres and the average drainage area was 12.3 acres. Assuming elliptical drainage areas as expected for fracture-stimulated wells, very few of the existing or proposed wells have estimated drainage areas that overlap.

EXAMINER'S OPINION

Because so few of the wells on the SBR Lease will drain close to 40 acres, the examiner believes that 20-acre optional units should be adopted. Amending the field rules was not included in the notice of hearing and the applicant was opposed to this change at the present time. Swift has no objection to a review hearing to be held in 18 months where 20-acre optional units will be considered.

FINDINGS OF FACT

1. Notice of this hearing was mailed to all operators in the A.W.P. (Olmos) Field on June 17, 2002. A waiver of objection was received July 8, 2002, from Columbia Energy Properties.
2. The A.W.P. (Olmos) Field was discovered in 1982 and Swift operates 90% of the 500 wells.
3. Field rules specify 80-acre proration units with 40-acre optional units and 467-933' well spacing.
4. Swift Energy's SBR Lease has 8833 acres with 180 active wells and monthly production has been declining.
5. The Olmos reservoir is complex, and infill drilling will be necessary to recover all of the reserves.
 - a. The Olmos is a silty sandstone that was deposited in offshore bars.

- b. Permeability is very low--0.001 to .01 md--and all of the wells must be fracture stimulated.
 - c. There are numerous northeast-southwest trending faults, some probably sealing, and the induced fractures trend in the same direction.
 - d. The average drainage area is only 12.3 acres and very few of the existing or proposed wells have overlapping drainage areas.
6. Designation of the SBR Lease as an entity for density purposes will prevent the operator from having to obtain a number of exception permits.
- a. Over forty wells on the SBR Lease were drilled on regular patterns of slightly less than 40 acres, and the proration units cannot be reconfigured enough to include 40 acres for all of the interior wells.
 - b. Proration units will not need to be assigned to each well as long as the density of the unit does not exceed one well per 40 acres.
 - c. The operator intends to drill several new wells that will require between-well Rule 37 exceptions.
 - d. Even after the proposed infill drilling, the density on the SBR Unit will not exceed one well for forty acres.
7. If the SBR Unit is treated as an entity for density purposes, all wells must be at least 467' from lease or unit lines unless an exception to Statewide Rule 37 has been granted.

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 designation of the SBR Lease as an entity for density purposes will protect correlative rights and promote conservation.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the Swift Energy Company SBR Lease in the A.W.P. (Olmos) Field be designated as an entity for density purposes. The examiner also recommends that a review field rule hearing be held early in 2004, to determine if optional 20-acre density should be adopted.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action: August 6, 2002