

THE APPLICATION OF FOREST OIL CORPORATION TO AMEND THE FIELD RULES FOR THE WILLOW SPRINGS (COTTON VALLEY) FIELD, GREGG AND UPSHUR COUNTIES, TEXAS

Heard by: Andres J. Trevino, P.E. on August 27, 2008

Appearances:

Michael E. McElroy
Rick Johnston

Representing:

Forest Oil Corporation

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Field rules for the Willow Springs (Cotton Valley) Field are summarized as follows:

1. Designation of the field as the correlative interval from 8,962 feet to 10,530 feet as shown on the log of the EP Operating - WSGU 10 (Walke 4), Well No. 10;
2. 467'-600' well spacing, with No minimum between well spacing between vertical and horizontal wells;
3. 160 acre gas units with optional 40 acre units, No plats required while allocation formula is suspended;
4. Allocation based on 100% acreage, with AOF status.

Forest Oil requests that the rules be amended to include additional language allowing "take points" and off-lease penetration points in the field.

The examiner recommends that the field rules for the Willow Springs (Cotton Valley) Field be amended as proposed by Forest Oil.

DISCUSSION OF EVIDENCE

The Willow Springs (Cotton Valley) Field was discovered in 1975. The field is a non-associated gas field with approximately 94 gas wells. The allocation formula is currently

suspended.

Forest Oil is beginning to develop the field with horizontal wellbores. Completion methods involve setting intermediate casing into the correlative interval for the field. The horizontal portion of the well is then drilled and stimulated in stages using open-hole packers at various locations. This method optimizes the success of fracture stimulation throughout the open-hole horizontal interval.

Forest Oil requests that a field rule be adopted which includes language relevant to measurement of distances to lease lines. Forest Oil's proposed rule specifies that, for purposes of lease line spacing, the nearest "take point" in a horizontal well be used. This take-point could be a perforation, if a horizontal well is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased well. Similar rules have been adopted in other tight reservoirs, including the Barnett Shale, Granite Wash and other Cotton Valley fields. However, horizontal wells in those fields are typically cased and cemented, or external casing packers are used. In this Cotton Valley field, the horizontal sections are open-hole with open-hole packers permanently placed in the open-hole section.

The proposed rule would allow operators to drill horizontal wells with penetration points, as defined by Rule 86, at distances closer than 467 feet to a lease line, as long as no take-point is closer than 467 feet to any lease line. Horizontal drainhole length on a lease is then maximized, resulting in additional recovery of gas.

Forest Oil is also requesting that the field rules be amended to provide for offsite penetration points. Forest Oil has drilled the Della Melton No. 2H, a horizontal well in the field with a off-lease penetration point. Forest Oil is unable to obtain an allowable for the well as the well's penetration point is off lease. Rule 86 requires that the penetration point of a horizontal drainhole be on the lease. In some cases, it is beneficial to penetrate the reservoir off lease, while still having "take points" no closer than allowed under the field rules. In this field, it generally requires about 600 feet of horizontal displacement to make the 90 degree turn from the penetration point until the well is horizontal. If the penetration point is required to be 467 feet from lease lines, then the first point of production is over 1,000 feet from the lease line. The proposed rules will allow a larger length of producing drainhole, resulting in the recovery of additional reserves. Field rules for the Newark, East (Barnett Shale) Field and the Woodlawn (Cotton Valley) Field the provide for offsite penetration points, after notice to the mineral owners of the offsite tract on which the penetration point is located.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
2. Field rules for the Willow Springs (Cotton Valley) Field provide for a designated interval, 467'-600' well spacing and 160 acre gas units with optional 40 acre units.
3. The Willow Springs (Cotton Valley) Field was discovered in 1975. The field is a non associated gas field with approximately 94 wells and is actively being developed with horizontal drainhole wells.
4. Forest Oil has drilled the Della Melton No. 2H, a horizontal well in the field with a off-lease penetration point. Forest Oil is unable to obtain an allowable for the well as the well's penetration point is off lease.
5. A spacing rule which utilizes "take-points" in a horizontal well for determination of distances to lease lines will prevent waste and will not harm correlative rights.
 - a. Current completion methods involve setting intermediate casing into the correlative interval for the field. The horizontal portion of the well is then drilled and stimulated in stages using external liner packers at various locations.
 - b. This completion method optimizes the success of fracture stimulation throughout the open-hole horizontal interval.
 - c. The Cotton Valley is a tight formation and is not commercially productive unless fracture-stimulated.
 - d. A take-point in a horizontal well in this field may be a perforation, if a horizontal well is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased portion of the wellbore.
 - e. Adoption of the proposed rule would allow operators to drill horizontal wells with penetration points, as defined by Rule 86, at distances closer than 467 feet to a lease line, as long as no take-point is closer than 467 feet to any lease line.
 - f. Adoption of the proposed rule will allow the horizontal drainhole length on a lease to be maximized.
6. Allowing offsite penetration points, after notice to mineral owners of the offsite tract, will result in maximum producing drainhole length, thereby increasing ultimate recovery from horizontal drainhole wells.

CONCLUSIONS OF LAW

1. Proper notice of this hearing was issued.
2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.
3. Amending the field rules for the Willow Springs (Cotton Valley) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

RECOMMENDATION

Based on the above findings and conclusions of law, the examiner recommends that the Commission amend the field rules for the Willow Springs (Cotton Valley) Field to provide for take points and offsite penetration points, as proposed by Forest Oil Corporation.

Respectfully submitted,

Andres J. Trevino, P.E.
Technical Examiner