

THE APPLICATION OF PETROHAWK OPERATING COMPANY FOR EXCEPTIONS TO RULE 86 (D)(4) FOR ITS STS B LEASE, WELL NOS. 2H, 7H AND 10H, HAWKVILLE (EAGLEFORD SHALE) FIELD, LA SALLE COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E., Technical Examiner

HEARING DATE: April 30, 2010

APPEARANCES:

REPRESENTING:

APPLICANT:

John Soule
Taylor Lepley

Petrohawk Operating Company

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Petrohawk Operating Company ("Petrohawk") requests exceptions to Rule 86(d)(4) for its STS B Lease, Well Nos. 2H, 7H and 10H. Exceptions are necessary because the surface locations, the penetration points and a portion of the horizontal drainholes, as defined by Rule 86, are not located on the STS B Lease.

This application was unopposed and the examiner recommends approval of the requested exceptions to Statewide Rule 86.

DISCUSSION

Pertinent definitions in Statewide Rule 86 are as follows:

86(a)(2) **Horizontal Drainhole:** that portion of the wellbore drilled in the correlative interval, between the penetration point and the terminus.

86(a)(3) **Horizontal Drainhole Displacement:** the calculated horizontal displacement of the horizontal drainhole from the penetration point to the terminus.

86(a)(5) **Penetration Point:** the point where the drainhole penetrates the top of the correlative interval.

86(a)(6) **Terminus:** the farthest point required to be surveyed along the horizontal drainhole from the penetration point and within the correlative interval.

Additionally, Statewide Rule 86(d)(4) requires that all points on a horizontal drainhole be within the proration and drilling unit.

In Oil and Gas Docket No. 01-026317, the following rule was adopted for the Hawkville (Eagleford Shale) Field:

Provided, however, that for purposes of spacing for horizontal wells, the following shall apply:

- a. A take point in a horizontal drainhole well is any point along a horizontal drainhole where oil and/or gas can be produced from the reservoir/field interval. The first take point may be at a different location than the penetration point and the last take point may be at a location different than the terminus point.
- b. The first take point and last take point in a horizontal drainhole well shall not be nearer than ONE HUNDRED (100) feet from the property line, lease line, or subdivision line and the minimum distance measured perpendicular to a horizontal drainhole from any take point on such drainhole to any point on any property line, lease line, or subdivision line shall be a minimum of THREE HUNDRED THIRTY (330) feet.
- c. Except for horizontal drainholes that are parallel or subparallel as provided above, all take points in a horizontal drainhole well shall be a minimum distance of SIX HUNDRED SIXTY (660) feet from take points in any existing, permitted, or applied for horizontal drainhole on the same lease, unit or unitized tract.

STS B Lease, Well Nos. 2H, 7H and 10H

On April 29, 2010, Petrohawk applied for drilling permits to drill its Well Nos. 2H, 7H and 10H, on the STS B Lease. The surface locations, the penetration points and a portion of the horizontal drainholes, as defined by Rule 86, were not located on the STS B Lease, which required this hearing.

The subject wells are proposed to be drilled to a total depth of approximately 16,600 feet (MD) and will be cased and cemented, with the top of cement behind the casing above the penetration points. The penetration points of the Eagleford Shale formation are at approximately 10,800 feet (MD). The penetration points and a portion of the horizontal drainholes, as defined by Rule 86, are approximately 300 feet off the STS B Lease. This allows the first and last take points to be 100 feet from the lease lines, as specified in the in the Field Rules for the Hawkville (Eagleford Shale) Field.

Petrohawk requests that exceptions be granted to allow the wells to produce after the completion papers are filed. The surface owner is also the mineral owner in both

Petrohawk's STS B Lease and the offsetting lease where the penetration points are located. Petrohawk is the lessee of oil and gas leases covering 10% of the mineral interests in the offsetting lease and has secured a release from the mineral owner and the other operator, Common Resources.

Petrohawk performed a decline curve analysis on three of their recently drilled horizontal wells. The three wells had an average drainhole lateral length of 3,345 feet and an average recovery of 5.9 BCF of gas equivalents. This equates to 0.18 BCF of oil and gas equivalents per 100 feet of drainhole length. By allowing the off lease penetration points, Petrohawk was able to increase the drainhole length by approximately 300 feet which will result in the additional recovery of approximately 0.5 BCF of gas equivalents per well.

Petrohawk requests that the horizontal drainhole displacement for the subject wells be determined based on the distance between the first and last take points and not on the distance from penetration point to terminus. Under the Field Rules, Petrohawk would be able to assign additional acreage to the wells for proration purposes. It does not appear that Petrohawk is attempting to circumvent Commission rules regarding spacing and assignment of acreage in the requested exceptions.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice at least ten (10) days prior to the hearing.
2. Statewide Rule 86(d)(4) requires that all points on a horizontal drainhole be within the proration and drilling unit for a well.
3. Field Rules for the Hawkville (Eagleford Shale) Field provide that, for purposes of the lease line spacing requirement for horizontal wells, a take point in a horizontal drainhole well is any point along a horizontal drainhole where oil and/or gas can be produced into the wellbore from the reservoir/field interval. The first take point may be at a different location than the penetration point and the last take point may be at a location different than the terminus point.
4. Petrohawk applied for drilling permits to drill its Well Nos. 2H, 7H and 10H, on the STS B Lease. The surface locations, the penetration points and a portion of the horizontal drainholes, as defined by Rule 86, were not located on the STS B Lease.
5. The subject wells are proposed to be drilled to a total depth of approximately 16,600 feet (MD) and will be cased and cemented, with the top of cement behind the casing above the penetration points. The penetration points of the Eagleford Shale formation are at approximately 10,800 feet (MD).

6. The penetration points and a portion of the horizontal drainholes, as defined by Rule 86, are approximately 300 feet off the STS B Lease. This allows the first and last take points to be 100 feet from the lease lines, as specified in the in the Field Rules for the Hawkville (Eagleford Shale) Field.
7. The surface owner is also the mineral owner in both Petrohawk's STS B Lease and the offsetting lease where the penetration points are located. Petrohawk is the lessee of oil and gas leases covering 10% of the mineral interests in the offsetting lease and has secured a release from the mineral owner and the other operator, Common Resources.
8. By allowing the off lease penetration points, Petrohawk was able to increase the drainhole length by approximately 300 feet which will result in the additional recovery of approximately 0.5 BCF of gas equivalents per well.

CONCLUSIONS OF LAW

1. Proper notice was timely given to all parties entitled to notice pursuant to applicable statutes and rules.
2. All things have occurred and have been accomplished to give the Commission jurisdiction in this case.
3. The requested exceptions are not intended to circumvent Commission rules regarding spacing and assignment of acreage.
4. Approval of the requested exceptions to Rule 86(d)(4) will not cause waste and will not harm correlative rights.

EXAMINER'S RECOMMENDATION

The examiner recommends that the requested exceptions to Rule 86(d)(4) be approved for the STS B Lease, Well Nos. 2H, 7H and 10H, to allow the penetration point and a portion of the horizontal drainhole, as defined by Rule 86, to be off-lease.

Respectfully submitted,

Richard D. Atkins, P.E.
Technical Examiner