

THE APPLICATION OF CHESAPEAKE OPERATING, INC. TO ADOPT FIELD RULES FOR THE P.C.X. (GRANITE WASH) FIELD, WHEELER COUNTY, TEXAS

Heard by: Donna K. Chandler on December 9, 2008

Appearances:

Representing:

Glenn Johnson
Jim Clark

Chesapeake Operating, Inc.

Sandy Buch

Devon Energy Production Co., L.P.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Chesapeake Operating, Inc. requests that the following rules be adopted for the P.C.X. (Granite Wash) Field:

1. Designation of the field as the correlative interval from 11,859 feet to 14,444 feet as shown on the log of the Evans No. 1;
2. 467'-660' well spacing for horizontal and vertical wells, with no limitation between vertical and horizontal wells; special language for "take points" in horizontal wells and off-lease penetration points;
3. Statewide 40 acre drilling units with special provisions for Rule 38 exceptions after notice;
4. Special provisions for stacked lateral wells;
5. Allocation based on 95% deliverability/potential and 5% per well with AOF status.

The application was unopposed and the examiner recommends that the field rules for the P.C.X. (Granite Wash) Field be adopted as proposed by Chesapeake, with the exception of the special provisions for administrative Rule 38 exceptions. Chesapeake did not consider this recommendation to be adverse.

DISCUSSION OF EVIDENCE

The P.C.X. (Granite Wash) Field was discovered in 1980 and is an associated gas field with 10 gas wells and no oil wells on the current proration schedule. The field operates under Statewide Rules and the allocation formula is currently suspended in the gas field. Cumulative production from the field is approximately 4.2 BCF of gas and 131,000 BO.

Operators are currently developing the field with horizontal wellbores. Chesapeake requests that a field rule be adopted which includes language relevant to measurement of distances to lease lines for horizontal drainhole wells. Chesapeake's proposed rule specifies that, for purposes of lease line and between-well 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, some Cotton Valley fields and other Granite Wash Fields.

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.

The evidence indicates that an effective lateral gain length of 324 feet could be obtained by moving the penetration point closer to the lease line. Chesapeake calculated an average gas recovery of 1,500 MCF per lateral foot of drainhole for Granite Wash reservoirs. Therefore, the 324 feet of lateral gain length will result in the recovery of an additional 486 MMCF per horizontal drainhole. For purposes of assignment of additional acreage pursuant to Rule 86, it is proposed that the distance between the first and last take-point in a horizontal well be used.

Chesapeake also requests that field rules for the subject field provide for off-lease penetration points. Statewide 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 to lease lines than allowed under the field rules. Similar rules allowing offsite penetration points have been adopted in other fields, after notice to the mineral owners of the off-lease tract on which the penetration point is to be located.

It is also requested that spacing rules for the field be adopted to accommodate the drilling of stacked horizontal lateral wells. The gross thickness of the Granite Wash in this area is almost 3,000 feet. Chesapeake believes that several separate laterals may be necessary to effectively develop the reservoir with horizontal wells. Similar stacked lateral

rules have already been adopted in several Granite Wash fields in the area, as well as in the Newark, East (Barnett Shale) Field. The rule would allow stacked horizontal laterals within the Granite Wash correlative interval that are drilled from different wellbores to be considered a single well for regulatory purposes. It is proposed that a stacked lateral be defined to be multiple horizontal drainholes which are drilled (1) from different surface locations on the same lease unit no more than 250 feet from each other at the surface and (2) no more than 300 feet from each other in a horizontal plane within the correlative interval.

Chesapeake requests that the field be designated as the correlative interval between 11,859 feet and 14,444 feet as shown on the log of the Evans No. 1. This proposed interval contains numerous productive sands which are not in communication. A two factor allocation formula is therefore required by statute. Chesapeake requests that the allocation formula be based on 95% deliverability and 5% per well.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
2. The P.C.X. (Granite Wash) Field is an associated field which operates under Statewide Rules and AOF status.
3. The P.C.X. (Granite Wash) Field was discovered in 1980 and there are 10 gas wells and no oil wells carried on the proration schedule. The field is actively being developed with horizontal drainhole wells.
4. 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. The Granite Wash is a tight formation and is not commercially productive unless fracture-stimulated.
 - b. 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.
 - c. 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.

- d. Adoption of the proposed rule will allow the horizontal drainhole length on a lease to be maximized.
 - e. Allowing the penetration point closer to the lease line, an effective lateral gain length of 324 feet can be obtained, which will result in the recovery of an additional 486 MMCF per horizontal drainhole.
5. Allowing off-lease 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.
 6. The proposed minimum lease line spacing of 467 feet and minimum spacing of 660 feet between wells, with no limitation between horizontal and vertical wells, will provide flexibility in developing the field.
 7. The P.C.X. (Granite Wash) Field should be designated as the correlative interval between 11,859 feet and 14,444 feet as shown on the log of the Evans No. 1.
 8. The proposed correlative interval contains numerous productive sands which are not in communication. Allocation based on 95% deliverability/potential and 5% per well will satisfy statutory requirements.
 9. The proposed "stacked lateral" rule for the P.C.X. (Granite Wash) Field will allow stacked horizontal laterals within the Granite Wash correlative interval that are drilled from different wellbores to be considered a single well for regulatory purposes.
 10. For purposes of assignment of additional acreage pursuant to Rule 86, the distance between the first and last take-point in a horizontal well should be used.

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. Adopting field rules for the P.C.X. (Granite Wash) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiner recommends that the Commission adopt field rules for the P.C.X. (Granite Wash) Field as proposed by Chesapeake Operating, Inc., with the exception of the special Rule 38 provisions.

Respectfully submitted,

Donna K. Chandler
Technical Examiner