

THE APPLICATION OF CHESAPEAKE OPERATING, INC. FOR FIELD CONSOLIDATION AND TO ADOPT FIELD RULES FOR THE (PROPOSED) LOTT RANCH (GRANITE WASH CONS.) FIELD, WHEELER COUNTY, TEXAS

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

Appearances:

Glenn Johnson
Jim Clark

Sandy Buch

Representing:

Chesapeake Operating, Inc.

Devon Energy Production Co., L.P.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Chesapeake Operating, Inc. requests that the Lott Ranch (Granite Wash -A-) Field and the Wheeler, N. (Granite Wash) Field be consolidated into a new field called the Lott Ranch (Granite Wash Cons.) Field. Chesapeake also requests that the following rules be adopted for the Lott Ranch (Granite Wash Cons.) Field:

1. Designation of the field as the correlative interval from 11,520 feet to 14,240 feet as shown on the log of the R. W. Brown No. 105;
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.

Chesapeake also requests that its O'Brien No. 1021 be transferred from the Lott Ranch (14,500) Field to the Lott Ranch (Granite Wash Cons.) Field.

The application was unopposed and the examiner recommends approval of the field consolidation, field transfer and adoption of field rules for the Lott Ranch (Granite Wash Cons.) Field 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 Lott Ranch (Granite Wash -A-) Field was discovered in 1986 and is an associated field with one producing oil well and one producing gas well. The field operates under Statewide Rules. The Wheeler, N. (Granite Wash) Field is a non-associated gas field discovered in 1978. The field operated under Statewide Rules and there is one producing gas well in the field. The two fields produce from the same Granite Wash interval and the fields have "overlapped" through development.

The O'Brien No. 1021, operated by Chesapeake, is carried in the Lott Ranch (14500) Field, which is a Morrow producing field. The well is located geographically very close to wells which have been carried in the Lott Ranch (Granite Wash -A-) Field. Chesapeake requests that this well be transferred into the new field.

Operators are currently developing the Granite Wash in this area with horizontal wellbores. Chesapeake requests that a field rule be adopted for the consolidated field 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 11,520 feet and 14,240 feet as shown on the log of the R. W. Brown No. 105. 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 Lott Ranch (Granite Wash -A-) Field was discovered in 1986 and is an associated field with one producing oil well and one producing gas well. The field operates under Statewide Rules.
3. The Wheeler, N. (Granite Wash) Field is a non-associated gas field discovered in 1978. The field operates under Statewide Rules and there is one producing gas well in the field.

4. The Lott Ranch (Granite Wash -A-) and Wheeler, N. (Granite Wash) Fields produce from the same Granite Wash interval and the fields have “overlapped” through development.
5. The Granite Wash in this area is actively being developed with horizontal drainhole wells.
6. 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.
7. 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.
8. 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.
9. The Lott Ranch (Granite Wash Cons.) Field should be designated as the correlative interval between 11,520 feet and 14,240 feet as shown on the log of the R. W. Brown No. 105.

10. 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.
11. The proposed “stacked lateral” rule for the Lott Ranch (Granite Wash Cons.) 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.
12. 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.
13. The O’Brien No. 1021 produces from the Granite Wash and should not be carried in the Lott Ranch (14500) Field, which is a Morrow field.

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. The proposed field consolidation and adoption of field rules for the Lott Ranch (Granite Wash Cons.) 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 consolidate the two subject fields, adopt field rules for the Lott Ranch (Granite Wash Cons.) Field as proposed by Chesapeake Operating, Inc., with the exception of the special Rule 38 provisions, and transfer the O’Brien No. 1021.

Respectfully submitted,

Donna K. Chandler
Technical Examiner