

**THE APPLICATION OF APPROACH OPERATING LLC TO AMEND THE FIELD RULES FOR THE HOLT RANCH (CONSOLIDATED) FIELD, CROCKETT COUNTY, TEXAS**

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**HEARD BY:** Richard D. Atkins, P.E. - Technical Examiner  
Terry Johnson - Legal Examiner

**HEARING DATE:** April 27, 2012

**APPEARANCES:**

**REPRESENTING:**

**APPLICANT:**

George Neale  
Rick Johnston

Approach Operating LLC

**EXAMINERS' REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Field Rules for the Holt Ranch (Consolidated) Field were originally adopted in Final Order No. 7C-0265961, effective August 10, 2010. The Field Rules in effect for the field are summarized as follows:

1. Designated correlative interval from 7,600 feet to 8,425 feet as shown on the log of the Approach Operating LLC - West Lease, Well No. 2303 (API No. 42-105-40533);
2. 330'-660' well spacing;
3. 320 acre gas units and 160 acre oil units with optional 20 acre density;
4. Allocation based on 50% acres and 50% potential/deliverability with AOF status;
5. Maximum gas-oil ratio of 4,000 cubic feet per barrel.

Approach Operating LLC ("Approach") requests that the Field Rules be amended to provide for 330'-330' well spacing and no minimum between well spacing between vertical and horizontal drainhole wells with special provisions for "take points", 100'

leaseline spacing for the first and last take points, a lateral 50' "box", "off-lease" penetration point and stacked laterals for horizontal drainhole wells. Approach also requests that proration unit plats not be required for individual wells, but that Form P-15 be filed to designate the number of acres to be assigned to each well with no maximum diagonal limitation and that the allocation formula remain suspended.

The application is unopposed and the examiners recommend that the Field Rules be amended for the Holt Ranch (Consolidated) Field, as proposed by Approach.

### **DISCUSSION OF THE EVIDENCE**

The Holt Ranch (Consolidated) Field was created in August 2010 by the consolidation of two area fields. The field has an average depth of 8,500 feet and is classified as associated. There are 118 producing gas wells, 49 producing oil wells and six operators carried on the proration schedules. The field operates under Field Rules that provide for 330'-660' well spacing, 320 acre gas units and 160 acre oil units with optional 20 acre density and the allocation formula is currently suspended. Cumulative production from the field through January 2012 is 21.1 BCFG and 1.2 MMBO.

Approach is proposing to drill infill horizontal drainhole wells and requests the Field Rules be amended to provide for 330'-330' well spacing and no minimum between well spacing between vertical and horizontal drainhole wells with special provisions for "take points", 100' leaseline spacing for the first and last take points, a 50' "box" lateral tolerance, "off-lease" penetration point and stacked laterals for horizontal drainhole wells. Approach argues that the proposed spacing is necessary to allow drilling of horizontal drainhole wells which may have to be placed very near the existing vertical wells. The 100' leaseline spacing for the first and last take points will result in an additional recovery of reserves.

Approach also requests that a field rule be adopted which includes language relevant to the measurement of distances to lease lines for horizontal drainhole wells. Approach'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 in a horizontal well that is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased well.

Approach proposes a "box" lateral tolerance for horizontal drainhole wells that would allow drainholes to deviate 50 feet from either side of their permitted track without the necessity of obtaining a Statewide Rule 37 exception. As drilled wells for which all points are located within the "box" would be considered in compliance with their drilling permits.

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. Approach requests that Field Rules for the subject field provide for an "off-lease" penetration point. Statewide

Rule 86 requires that the penetration point of a horizontal drainhole be on the lease. In this field, a well generally requires approximately 600 feet of horizontal displacement to make the 90 degree turn from vertical to horizontal. If the penetration point is required to be on the lease, then the first point of production would be about 600 feet from the lease line. The proposed rule will allow approximately 500 feet of additional producing drainhole, resulting in the recovery of additional reserves. The Commission has adopted similar rules allowing offsite penetration points in other fields, after the operator has given notice to the mineral owners of the off-lease tract on which the penetration point is to be located and received no protest. For purposes of the assignment of additional acreage pursuant to Statewide Rule 86, it is proposed that the distance between the first and last take-point in a horizontal drainhole well be used.

Approach also requests that a Field Rule be adopted to accommodate the drilling of stacked lateral horizontal drainhole wells. The gross thickness of the field interval is almost 1,000 feet. Approach believes that several separate laterals may be necessary to effectively develop the reservoir with horizontal wells. The rule would allow stacked horizontal laterals within the correlative interval that are drilled from different surface locations 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 from different surface locations. Similar rules have been adopted in other tight reservoirs, including the Eagle Ford, Wolfcamp, Cotton Valley and Barnett Shale formations.

Approach proposes that proration unit plats not be required for individual wells, but that Form P-15 be filed to designate the number of acres to be assigned to each well with no maximum diagonal limitation. Approach also requests that the allocation formula remain suspended, as there is a 100% market demand for all of the gas produced from the field.

#### **FINDINGS OF FACT**

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
2. The Holt Ranch (Consolidated) Field was created in August 2010 by the consolidation of two area fields.
  - a. The field has an average depth of 8,500 feet and is classified as associated.
  - b. There are 118 producing gas wells, 49 producing oil wells and six operators carried on the proration schedules.
  - c. The field operates under Field Rules that provide for 330'-660' well spacing, 320 acre gas units and 160 acre oil units with optional 20

acre density.

- d. The allocation formula is currently suspended.
3. The Holt Ranch (Consolidated) Field is actively being developed with horizontal drainhole wells.
  4. Field Rules providing for 330'-330' well spacing and no minimum between well spacing between vertical and horizontal drainhole wells with special provisions for "take points", 100' lease line spacing for the first and last take points, a 50' "box" lateral tolerance, "off-lease" penetration point and stacked laterals for horizontal drainhole wells will provide consistency in developing the field and will allow greater flexibility in selecting future drilling locations.
  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. A take-point in a horizontal well in this field may be a perforation in a horizontal well that is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased portion of the wellbore.
    - b. Adoption of the proposed rule will allow the horizontal drainhole length on a lease to be maximized.
    - c. For purposes of assignment of additional acreage pursuant to Statewide Rule 86, the distance between the first and last take-point in a horizontal well should be used.
  6. The proposed 50' lateral tolerance "box" is necessary to allow operators reasonable minor deviations from the wellbore track that has been permitted.
  7. Allowing an "off-lease" penetration point will result in maximum producing drainhole length, thereby increasing ultimate recovery from horizontal drainhole wells. To protect correlative rights, prior notice and opportunity to object should be given to the mineral owners of "off-lease" surface locations.
  8. The proposed "stacked lateral" rule will allow stacked horizontal laterals within the field correlative interval that are drilled from different surface locations to be considered a single well for regulatory purposes, which will facilitate the additional recovery of oil and gas reserves.
  9. Similar rules have been adopted in other tight reservoirs, including the Eagle Ford, Wolfcamp, Cotton Valley and Barnett Shale formations.

10. The filing of Form P-15 to designate the number of acres to be assigned to each well for proration purposes with no proration plats will eliminate unnecessary paperwork.
11. Continued suspension of the allocation formula is appropriate, as there is a 100% market demand for all of the gas produced from the field.

**CONCLUSIONS OF LAW**

1. Proper notice was issued as required by all applicable codes and regulatory statutes.
2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
3. Amending the Field Rules for the Holt Ranch (Consolidated) Field will prevent waste, protect correlative rights and promote further development of the field.

**EXAMINER'S RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission amend the Field Rules for the Holt Ranch (Consolidated) Field, as requested by Approach Operating LLC.

Respectfully submitted,

Richard D. Atkins, P.E.  
Technical Examiner

Terry Johnson  
Legal Examiner