



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 03-0285038

THE APPLICATION OF CENTURY EXPLORATION HOUSTON, LLC TO ADOPT FIELD RULES FOR THE ADAMS RANCH (YEGUA EY-9) FIELD, JASPER AND ORANGE COUNTIES, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
Laura Miles-Valdez - Legal Examiner

HEARING DATE: November 8, 2013

APPEARANCES: REPRESENTING:

APPLICANT:

Frank J. Muser
Jessica Risien

Century Exploration Houston, LLC

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

The Adams Ranch (Yegua EY-9) Field currently operates under Statewide Field Rules. Century Exploration Houston, LLC ("Century") requests that Field Rules be adopted, as shown below:

1. Designated correlative interval from 11,098 feet to 11,323 feet as shown on the log of the Century Exploration Houston, LLC - MVP A-152 Lease, Well No. 1 (API No. 42-241-30797);
2. 467'-1,200' well spacing with no minimum between well spacing between vertical and horizontal drainhole wells and special provisions for "take points", 100' lease line spacing for the first and last take points, 50' "box" rule and "off-lease" penetration point for horizontal drainhole wells;
3. 40 acre gas units with the filing of Form P-15 without proration unit plats;
4. Allocation based on 95% acres and 5% per well with AOF status;

5. Special provisions for “stacked laterals” in horizontal drainhole wells.

The application is unopposed and the examiners recommend that Field Rules be adopted for the Adams Ranch (Yegua EY-9) Field, as proposed by Century.

DISCUSSION OF EVIDENCE

The Adams Ranch (Yegua EY-9) Field was discovered in March 2010 at an average depth of 11,200 feet. The field is classified as non-associated-prorated and there is one producing gas well carried on the gas proration schedule. Century is the only operator in the field and the field operates under Statewide Field Rules. Cumulative production from the field through October 2013 is 27.1 BCFG and 1.3 MMBO.

There is currently no defined correlative interval for the field. Century requests that the Adams Ranch (Yegua EY-9) Field be defined as the correlative interval from 11,098 feet to 11,323 feet as shown on the log of the Century Exploration Houston, LLC - MVP A-152 Lease, Well No. 1 (API No. 42-241-30797), S Gray Survey, A-152, Jasper County, Texas. The correlative interval includes the entire Yegua EY-9 Sand formation.

Century is developing the field with horizontal drainhole wells and requests that Field Rules be adopted to promote the efficient and effective development of the remaining hydrocarbons. Century proposes 467'-1,200' well spacing with no minimum between well spacing between vertical and horizontal drainhole wells and special provisions for “take points”, 100' lease line spacing for the first and last take points, 50' “box” rule and “off-lease” penetration point for horizontal drainhole wells. Similar Field Rules have been adopted in other tight reservoirs, including the Eagle Ford, Wolfcamp, Bone Spring, Cotton Valley and Barnett Shale formations.

Century requests that a Field Rule be adopted which includes language relevant to the measurement of distances to lease lines for horizontal drainhole wells. Century'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.

Century also proposes a 50' “box rule” 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. Century 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 well 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, which will result 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.

The Yegua EY-9 Sand formation is a low permeability sandstone reservoir that requires fracture stimulation and has a solution gas drive as the primary drive mechanism. Century is requesting that the first and last take points of a lateral be as close as 100' to lease lines. The Yegua EY-9 Sand reservoir has oriented fractures and most of the drainage is along the fracture orientation with little contribution from the matrix in a perpendicular direction. A wellbore can be presumed to be drilled to encounter the maximum number of fractures and, therefore, be perpendicular to the fracture direction. The end points of such a lateral will not drain over 100' from the matrix in a direction perpendicular to fracture direction. The 100' leaseline spacing for the first and last take points will result in the additional recovery of reserves.

Century 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 over 300 feet. Century believes that several separate laterals may be necessary to effectively develop the reservoir with horizontal drainhole wells. The rule would 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. Similar stacked lateral rules have already been adopted in Bone Spring, Granite Wash, Wolfcamp and Cotton Valley fields, as well as in the Newark, East (Barnett Shale) Field.

Century requests 40 acre gas units and 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 points in a horizontal drainhole well be used. Century 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. Century requests allocation based on 95% acres and 5% per well and that the allocation formula be 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 provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing and no protests were received.

2. The Adams Ranch (Yegua EY-9) Field was discovered in March 2010 at an average depth of 11,200 feet.
 - a. The field is classified as non-associated-prorated and there is one producing gas well carried on the gas proration schedule.
 - b. Century Exploration Houston, LLC ("Century") is the only operator in the field and the field operates under Statewide Field Rules.
 - c. The Adams Ranch (Yegua EY-9) Field is actively being developed with horizontal drainhole wells.
3. The Adams Ranch (Yegua EY-9) Field should be defined as the correlative interval from 11,098 feet to 11,323 feet as shown on the log of the Century Exploration Houston, LLC - MVP A-152 Lease, Well No. 1 (API No. 42-241-30797), S Gray Survey, A-152, Jasper County, Texas. The correlative interval includes the entire Yegua EY-9 Sand formation.
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. 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 points in a horizontal drainhole well should be used.
5. The proposed 50' "box rule" is necessary to allow operators reasonable minor deviations from the wellbore track that has been permitted.
6. 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.

7. A 100' leaseline spacing for the first and last take points will result in an additional recovery of reserves.
 - a. The Yegua EY-9 Sand formation is a low permeability sandstone reservoir that requires fracture stimulation.
 - b. The Yegua EY-9 Sand reservoir has oriented fractures and most of the drainage is along the fracture orientation with little contribution from the matrix in a perpendicular direction.
 - c. A wellbore can be presumed to be drilled to encounter the maximum number of fractures and, therefore, be perpendicular to the fracture direction.
 - d. The end points of such a lateral will not drain over 100' from the matrix in a direction perpendicular to fracture direction.
8. The proposed "stacked lateral" rule will allow stacked horizontal laterals within the Yegua EY-9 Sand 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 reserves.
9. Similar Field Rules have been adopted in other tight reservoirs, including the Eagle Ford, Wolfcamp, Bone Spring, Cotton Valley and Barnett Shale formations.
10. Allocation based on 95% acres and 5% per well is a reasonable formula which will satisfy state statutes and protect correlative rights of mineral owners in the field.
11. Suspension of the allocation formula is appropriate, as there is a 100% market demand for all of the gas produced from the field.
12. The filing of Form P-15 to designate the number of acres to be assigned to each well for proration purposes with no proration unit plats and no maximum diagonal limitation will eliminate unnecessary paperwork.

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 Adams Ranch (Yegua EY-9) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission adopt Field Rules for the Adams Ranch (Yegua EY-9) Field, as proposed by Century Exploration Houston, LLC.

Respectfully submitted,



Richard D. Atkins, P.E.
Technical Examiner



Laura Miles-Valdez
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