



RAILROAD COMMISSION OF TEXAS

OFFICE OF GENERAL COUNSEL

OIL AND GAS DOCKET NO. 03-0256301

APPLICATION OF CENTURY EXPLORATION HOUSTON, INC. FOR A NEW FIELD DESIGNATION FOR THE VAN METER (YEGUA EY-9) FIELD AND TO ADOPT TEMPORARY FIELD RULES FOR THE VAN METER (YEGUA EY-9) FIELD, HARDIN COUNTY, TEXAS

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

DATE OF HEARING: April 15, 2008

APPEARANCES:

George C. Neale
Rick Johnston
Chris Lipari

REPRESENTING:

Century Exploration Houston, Inc.

EXAMINER'S REPORT AND RECOMMENDATION
STATEMENT OF THE CASE

Century Exploration Houston, Inc. requests that a new field designation called the Van Meter (Yegua EY-9) Field be approved for its Pat Riley, et al Well No. 1. Century requests that the following temporary field rules be adopted for the new field:

1. The correlative interval from 9,225' to 9,245' measured depth as shown on the Array Induction/Dipole Shear Sonic Imager/Sonic Porosity log for the Century Exploration Houston, Inc., Pat Riley, et al Well No. 1 (API No. 42-199-33091), C. A. Fedler Survey, A-21, Hardin County, Texas, should be designated as the Van Meter (Yegua EY-9) Field.
2. Minimum well spacing of 933'-1867' (lease line-between well);
3. 320 acre gas proration units with 10% tolerance and a maximum diagonal of 6,500'; and
4. An allocation formula based on 100% deliverability.

It is further requested that the discovery well, the Pat Riley, et al Well No. 1 be permanently classified as a gas well and any over-production be canceled.

There were no protests to this application and the examiner recommends approval of the new field designation, temporary field rules, the Pat Riley, et al Well No. 1 be permanently classified as a gas well and any over-production be canceled.

DISCUSSION OF THE EVIDENCE

The proposed Van Meter (Yegua EY-9) Field was discovered by completion of the Century Exploration Houston, Inc., Pat Riley, et al Well No. 1 through perforations from 9,230' to 9,244' measured depth on February 29, 2008. The well potentialized for 5,214 MCFGPD. The gas gravity is 0.63°, the condensate gravity is 48.1° API and the GOR is 40,331 Cf/Bbl. The bottomhole pressure is 5,592 psia and the bottomhole temperature is 195°F.

This field was discovered based on 3-D seismic data, which shows the discovery well to be in a fault block that contains only 265 acres. A new field designation is appropriate as there are no active or inactive wells in this Yegua sand within 2.5 miles of the discovery well. Two Yegua wells approximately two miles to the southwest produced from a deeper Yegua sand at 9,500 feet and have been plugged. In addition, there are nine plugged dry holes located within the 2.5 mile radius.

Century requests that the correlative interval from 9,225' to 9,245' measured depth as shown on the Array Induction/Dipole Shear Sonic Imager/Sonic Porosity log for the Century Exploration Houston, Inc., Pat Riley, et al Well No. 1 (API No. 42-199-33091), C. A. Fidler Survey, A-21, Hardin County, Texas, should be designated as the Van Meter (Yegua EY-9) Field.

Reservoir parameters are average porosity of 20.7%, average water saturation of 29.0% and average net pay of 13 feet. A single flow rate test analysis calculates a permeability of 7.2 md and indicates an effective drainage area of 320 acres. Since one well should effectively produce all of the gas reserves, minimum well spacing of 933'-1,867', 320 acre gas units and allocation based on 100% deliverability are appropriate for this field.

The data submitted on Form G-5 for the well did not meet Commission criteria for administrative classification as a gas well. Century submitted PVT analysis that was performed on separator samples taken on March 2, 2008. The samples were recombined at a reservoir temperature of 195°F and reservoir pressure of 5,592 psia. The recombined sample was evaluated during a Constant Composition Expansion at pressures ranging from 8,000 psia down to 1,040 psia. The reservoir fluid is a single phase gas until the reservoir pressure reaches 4,862 psia, the retrograde dew point pressure.

The PVT analysis confirmed that the well produces from a retrograde condensate reservoir. The well stream contained 1.9 mole% heptanes plus and 90.1 mole% methane. Typical retrograde gases contain less than 12.5 mole% heptanes plus and at least 70 mole% methane according to published literature.

Century believes the well should be classified as a gas well because the volume of liquid in the reservoir below 4,862 psia is not mobile and will not be recovered as liquid. The PVT analysis shows that the maximum percentage of hydrocarbon pore space occupied by retrograde liquid would be only 2.2%, when the reservoir pressure reached the abandonment pressure of 1,040 psia. Published literature indicates that liquid hydrocarbons in a reservoir are essentially immobile until saturations of up to 35% are reached.

Statewide Rule 79 defines a gas well as "...A well which produces hydrocarbon liquids, a part of which is formed by a condensation from a gas phase and a part of which is crude petroleum oil, shall be classified as a gas well unless there is produced one barrel or more of crude petroleum oil per 100,000 cubic feet of natural gas; and that the term "crude petroleum oil" shall not be construed to mean any liquid hydrocarbon mixture or portion thereof which is not in the liquid phase in the reservoir, removed from the reservoir in such liquid phase, and obtained at the surface as such." Century believes that because the liquid hydrocarbons in this reservoir are immobile, the liquid produced at the surface does not meet the definition of "crude petroleum oil". Instead, the produced liquid is a product of condensation and should not be used as a basis for classification of the well as an oil well.

The well has been producing since completion and has produced over 142 MMCFG. Century requests that all overproduction be cancelled.

FINDINGS OF FACT

1. Notice of this hearing was sent to all operators in the subject field at least ten (10) days prior to the subject hearing.
2. There was no protest at the call of the hearing.
3. The proposed Van Meter (Yegua EY-9) Field was discovered by completion of the Century Exploration Houston, Inc., Pat Riley, et al Well No. 1 through perforations from 9,230' to 9,244' measured depth on February 29, 2008.
 - a. A new field designation is appropriate as there are no active or inactive wells in this Yegua sand within 2.5 miles of the discovery well.
 - b. Two Yegua wells approximately two miles to the southwest produced from a deeper Yegua sand at 9,500 feet and have been plugged.
 - c. There are nine plugged dry holes located within the 2.5 mile radius.

4. The correlative interval from 9,225' to 9,245' measured depth as shown on the Array Induction/Dipole Shear Sonic Imager/Sonic Porosity log for the Century Exploration Houston, Inc., Pat Riley, et al Well No. 1 (API No. 42-199-33091), C. A. Fedler Survey, A-21, Hardin County, Texas, be designated as the Van Meter (Yegua EY-9) Field.
5. The well potential for 5,214 MCFGPD. The gas gravity is 0.63°, the condensate gravity is 48.1° API and the GOR is 40,331 Cf/Bbl. The bottomhole pressure is 5,592 psia and the bottomhole temperature is 195°F.
6. A single flow rate test analysis calculates a permeability of 7.2 md and indicates an effective drainage area of 320 acres.
7. This field was discovered based on 3-D seismic data, which shows the discovery well to be in a fault block that contains only 265 acres. Since one well should effectively produce all of the gas reserves, minimum well spacing of 933'-1,867', 320 acre gas units and allocation based on 100% deliverability are appropriate for this field.
8. PVT analysis for the Pat Riley, et al Well No. 1 confirmed that the reservoir fluid is a single phase gas until the reservoir pressure reaches 4,862 psia, the retrograde dew point pressure. In addition, the well stream contained 1.9 mole% heptanes plus and 90.1 mole% methane.
9. The PVT analysis indicates that the maximum percentage of hydrocarbon pore space occupied by retrograde liquid is 2.2% when the pressure in the reservoir reaches 1,040 psia. This small volume of liquid is not mobile and will not be produced at the surface as a liquid.
10. Liquid hydrocarbons produced at the surface from this reservoir are the product of condensation and should not be classified as crude petroleum oil.
11. Because the liquids produced from the well are not crude petroleum oil, the subject well should be classified as a gas well.
12. The well has produced approximately 140 MMCFG as of April 1, 2008.

CONCLUSIONS OF LAW

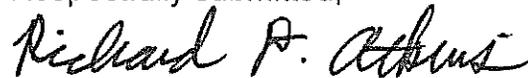
1. Proper notice was given to all parties as set out in the provisions of all applicable codes and regulatory statutes.
2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.

3. Consideration for a new field designation, temporary field rules and appropriate actions is a matter within the Commission jurisdiction.
4. Approval of the proposed new field designation and adoption of temporary field rules will prevent waste, foster conservation and protect correlative rights.
5. The Century Exploration Houston, Inc., Pat Riley, et al Well No. 1 is a gas well based on the definition of a gas well pursuant to Statewide Rule 79 (a) (11) (C).
6. Cancellation of overproduction for the subject well will not harm correlative rights or cause waste.

EXAMINER'S RECOMMENDATION

Based on the above findings of facts and conclusions of law, the examiner recommends approval of the proposed new field designation and temporary field rules for the Van Meter (Yegua EY-9) Field subject to Commission review in eighteen (18) months. It is also recommended that the Pat Riley, et al Well No. 1 be permanently classified as a gas well and any over-production be canceled.

Respectfully submitted,



Richard D. Atkins, P.E.
Technical Examiner