



RAILROAD COMMISSION OF TEXAS

OFFICE OF GENERAL COUNSEL

January 9, 2007

OIL AND GAS DOCKET NO. 06-0249012

THE APPLICATION OF CHESAPEAKE OPERATING, INC. TO CONSIDER PERMANENT GAS WELL CLASSIFICATION FOR ALL WELLS ON THE MILES BELL LEASE IN THE BETHANY, EAST (COTTON VALLEY) FIELD, PANOLA COUNTY, TEXAS

Heard by: Andres J. Trevino, P.E., Technical Examiner

Hearing Date: December 13, 2006

Appearances:

Representing:

Cary McGregor
Bill Spencer

Chesapeake Operating, Inc.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Chesapeake Operating, Inc. requests that all wells on its Miles Bell Lease in the Bethany, East (Cotton Valley) Field be permanently classified as gas wells.

The application is unopposed and the examiner recommends approval of the permanent gas well classifications.

DISCUSSION OF EVIDENCE

The Miles Bell Lease is a 693 pooled unit in the Bethany, East (Cotton Valley) Field. Chesapeake currently has four wells completed on the Miles Bell Lease to date: the Nos. 4, 5, 6, and 7. Another well, the No. 3, had produced from 1975 to 1993 as a gas well on the lease. The No. 4 was completed in November 2005 and classified as a gas well based on Form G-5. The No. 5 was completed in March 2006 and was also classified as a gas well based on Form G-5. The No. 6 and the No. 7 were completed in June 2006. Form G-5 for the No. 6 and the No. 7 did not meet the criteria for gas well classification and the Commission declined to administratively classify the wells as a gas wells. Chesapeake then filed this hearing application.

The data on Form G-5 for Well Nos. 5, 6 and 7 are compared below:

	Well No. 5	Well No. 6	Well No. 7
Gas Volume	1181 MCFD	1134 MCFD	710 MCFD
Cond. Volume	17 BPD	43 BPD	63 BPD
Water Volume	170 BPD	470 BPD	711 BPD
G/O Ratio	69,471 cuft/bbl	26,372 cuft/bbl	11,270 cuft/bbl
Cond. Color	Dark straw	straw	straw
Cond. Gravity	50.6 API	48.7 API	48.2 API
Init. Boiling Temp	125 F	120 F	112 F
Temp @ 80%	581 F	609 F	672 F
End Point Temp	760 F	760 F	747 F
Recovery	95%	93%	97%
Residue	4%	6%	2%

Additionally, the two wells are only 1,300 feet and 1,750 feet apart from the No. 5 well and are perforated in similar intervals in the Cotton Valley and Taylor Sand Series of the Cotton Valley.

A PVT analysis had been performed on a fluid sample taken from the Crump Well No. 7 (an adjacent unit) on April 6, 2006. The sample was recombined at a reservoir temperature of 223°F and reservoir pressure of 4,364 psia. The recombined fluid was evaluated during a Constant Composition Expansion at pressures ranging from 10,000 psi down to 500 psi. A dew point was observed at 6,865 psia. The fact that the dew point pressure is higher than original reservoir pressure is indicative that either 1) there is an oil column/gas cap in the reservoir, or 2) the produced liquid is coming from some oil zones and some gas zones.

Chesapeake believes that all wells on its Miles Bell Lease in the Bethany, East (Cotton Valley) Field should be permanently classified as gas wells. The Commission recently approved the permanent gas well classification for all wells on the Crump Gas Unit (adjacent unit) in Oil & Gas Docket No. 06-0248748 on October 30, 2006. There is no evidence that an oil column exists in the Cotton Valley anywhere in this area. Within a 10,000 acre area surrounding the Miles Bell Lease, there are about 85 Cotton Valley wells, none of which are classified as oil wells. There are almost 3,400 Cotton Valley gas wells in four Commission designated fields in this area. This compares to only 14 Cotton Valley wells classified as oil wells. Chesapeake believes that there is some free oil production in small amounts from some individual stringers within the gross Cotton Valley interval, skewing the G-5 results.

Chesapeake also compared the closest 22 Cotton Valley wells around the Miles Bell Lease Nos. 6 and 7. Some of these wells were completed as early as 1975 and all were

classified as gas wells. Data from these wells indicate that the current producing gas-oil ratios for most wells are significantly higher now than the ratios were when the wells were initially completed. Chesapeake expects similar performance from wells on the Miles Bell Lease.

FINDINGS OF FACT

1. Notice of this hearing was given to all affected persons at least ten days prior to the date of hearing. No protests were received.
2. The Miles Bell Lease is a 693 acre lease in the Bethany, East (Cotton Valley) Field. Chesapeake currently has four wells completed on the Miles Bell Lease to date: the Nos. 4, 5, 6, and 7.
3. The first two wells completed on the Unit, the No. 4 and No. 5, were classified as gas wells based on Form G-5.
4. The Miles Bell Lease No. 6 was completed in June 2006 and the data on Form G-5 did not meet the criteria for gas well classification. Chesapeake submitted a compositional analysis for this well indicating that the mole percent C_{7+} was 2.58%.
5. The Miles Bell Lease No. 7 was completed in June 2006 and the data on Form G-5 did not meet the criteria for gas well classification. Chesapeake submitted a compositional analysis for this well indicating that the mole percent C_{7+} was 2.09%.
6. The produced fluid from the Crump Unit Well No. 7 and the Miles Bell well Nos. 6 and 7 are very similar and the three wells are perforated similar intervals in the Cotton Valley and Taylor. The three wells are within 1,750 feet from each other.
7. A PVT analysis of fluid sample taken from the Crump Unit (adjacent unit) Well No. 7 indicated that the dew point pressure was higher than original reservoir pressure, indicating the presence of either an oil column/gas cap, or that the produced liquid is coming from some oil zones and some gas zones.
8. The evidence intimates that there is no oil column in the Bethany, East (Cotton Valley) Field anywhere in the area of the Miles Bell Lease.
 - a. Within a 10,000 acre area surrounding the Miles Bell Lease, there are about 85 Cotton Valley wells, none of which are classified as oil wells.
 - b. There are almost 3,400 Cotton Valley gas wells in four Commission designated fields in this area. This compares to only 14 Cotton Valley wells classified as oil wells.

- c. There are likely some thin, individual stringers within the gross Cotton Valley interval which produce free oil, resulting in unreliable G-5 data.
9. Production data from the closest 22 Cotton Valley wells around the Miles Bell Lease indicate that the current producing gas-oil ratios for most wells are significantly higher now than the ratios were when the wells were initially completed. Chesapeake expects similar performance from wells on the Miles Bell Lease.

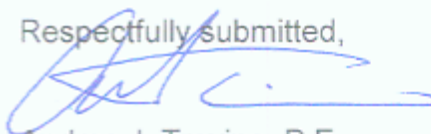
CONCLUSIONS OF LAW

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. All wells completed on the Chesapeake Operating, Inc. - Miles Bell Lease in the Bethany, East (Cotton Valley) Field are gas wells.

RECOMMENDATION

Based on the above findings and conclusions of law, the examiner recommends that all wells on the Chesapeake Operating, Inc. - Miles Bell Lease in the Bethany, East (Cotton Valley) Field be permanently classified as gas wells.

Respectfully submitted,



Andres J. Trevino, P.E.
Technical Examiner