THE APPLICATION OF BLACKWELL BMC, LLC FOR A NET GAS OIL RATIO AUTHORITY FOR EACH WELL ON THE J. E. BARNES LEASE, BIG MINERAL CREEK

(WOODFORD) FIELD, GRAYSON COUNTY, TEXAS

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

**DATE OF HEARING:** January 7, 2011

APPEARANCES: REPRESENTING:

APPLICANT:

Mimi Winetroub Blackwell BMC, LLC

# **EXAMINER'S REPORT AND RECOMMENDATION**

# STATEMENT OF THE CASE

Blackwell BMC, LLC ("Blackwell") requests authority to produce each well on the J. E. Barnes Lease in the Big Mineral Creek (Woodford) Field under increased net gas-oil ratio authority with a daily casinghead gas limit of 600 MCFGPD. Blackwell also requests that all overproduction for the lease be canceled.

This application was unprotested and the examiner recommends approval of the increased net gas-oil ratio authority with a daily casinghead gas limit of 600 MCFGPD for each well on the J. E. Barnes Lease and cancellation of the lease overproduction.

## **DISCUSSION OF EVIDENCE**

The Big Mineral Creek (Woodford) Field was discovered in December 2009 upon completion of the J. E. Barnes Lease, Well No. 3. Blackwell is the only operator in the field and there are currently two producing wells carried on the oil proration schedule. The field operates under statewide rules and the top allowable in the field is 270 BOPD with an allowable gas-oil ratio of 2,000 cubic feet per barrel and a casinghead gas limit of 540 MCFGPD. Cumulative production through November 2009 is 16.8 MBO and 470.6 MMCFG. The lease is overproduced through December by 20,523 MCFG.

The Woodford Shale formation occurs between the base of the Mississippian and the top of the Devonian formations. In the Big Mineral Creek Field area, the Woodford Shale is found at depths between 7,000 feet and 12,000 feet and has a thickness from 50 feet up to 400 feet. Blackwell has mapped the Woodford Shale with 3-D seismic and is

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planning on drilling several infill development wells. The Big Mineral Creek (Woodford) Field is a faulted anticlinal fold striking northwest to southeast.

The closest comparable Woodford Shale field is the Madill Field located 23 miles to the north in the State of Oklahoma. The Woodford Shale formation has very low permeability with a limited natural fracture system and requires hydraulic fracturing to achieve production in commercial quantities. Restricting gas production in this formation is not necessary to prevent waste and the well is currently producing by artificial lift on rod pump.

### FINDINGS OF FACT

- 1. Notice of this hearing was given to all parties entitled to notice at least ten days prior to the date of hearing.
- 2. The Big Mineral Creek (Woodford) Field was discovered in December 2009 upon completion of the J. E. Barnes Lease, Well No. 3. Blackwell is the only operator in the field and there are currently two producing wells carried on the oil proration schedule.
- 3. The field operates under statewide rules and the top allowable in the field is 270 BOPD with an allowable gas-oil ratio of 2,000 cubic feet per barrel and a casinghead gas limit of 540 MCFGPD.
- 4. The Woodford Shale formation occurs between the base of the Mississippian and the top of the Devonian formations. In the Big Mineral Creek Field area, the Woodford Shale is found at depths between 7,000 feet and 12,000 feet and has a thickness from 50 feet up to 400 feet.
- 5. Blackwell has mapped the Woodford Shale with 3-D seismic and is planning on drilling several infill development wells. The Big Mineral Creek (Woodford) Field is a faulted anticlinal fold striking northwest to southeast.
- 6. The closest comparable Woodford Shale field is the Madill Field located 23 miles to the north in the State of Oklahoma.
- 7. The Woodford Shale formation has very low permeability with a limited natural fracture system and requires hydraulic fracturing to achieve production in commercial quantities. Restricting gas production in this formation is not necessary to prevent waste and the well is currently producing by artificial lift on rod pump.
- 8. The J. E. Barnes Lease is overproduced through December by 20,523 MCFG.

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## CONCLUSIONS OF LAW

- 1. Notice of this hearing was given as specified in the provisions of all regulatory codes.
- 2. All things have occurred or been accomplished to give the Commission jurisdiction in this matter.
- 3. Approval of an increased net gas-oil ratio authority with a casinghead gas limit of 600 MCFGPD for all wells on the J. E. Barnes Lease in the Big Mineral Creek (Woodford) Field and cancellation of the lease overproduction will not cause waste and will not harm correlative rights.

# **RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiner recommends that all wells on the J. E. Barnes Lease in the Big Mineral Creek (Woodford) Field be authorized to produce under net gas-oil ratio authority with a daily casinghead gas limit of 600 MCFGPD and that all accumulated overproduction for the lease be canceled, as requested by Blackwell BMC, LLC.

Respectfully submitted,

Richard D. Atkins, P.E. Technical Examiner