

OIL AND GAS DOCKET NO. 08-0270700

THE APPLICATION OF APACHE CORPORATION FOR A NET GAS OIL RATIO AUTHORITY FOR EACH WELL ON THE J. B. TUBB -C- LEASE, SAND HILLS (WICHITA-ALBANY) FIELD, CRANE COUNTY, TEXAS

HEARD BY: Andres J. Trevino, P.E. - Technical Examiner
Brian K. Fancher - Technical Examiner

DATE OF HEARING: July 13, 2011

APPEARANCES:

Bill Spencer
James M. Clark, P.E.

REPRESENTING:

Apache Corporation

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Apache Corporation ("Apache") requests increased net gas-oil ratio authority for all wells on the J. B. Tubb -C- Lease in the Sand Hills (Wichita-Albany) Field such that each well has a daily casinghead gas limit of 1,000 MCFGPD. Apache also requests that all overproduction for the lease be canceled.

This application was unopposed and the examiners recommend approval of the requested casinghead gas limit and cancellation of the lease overproduction.

DISCUSSION OF EVIDENCE

The Sand Hills (Wichita-Albany) Field was discovered in January 1958. There are currently eight producing wells in the field, of which two producing wells are operated by Apache. The field is under statewide rules and the top allowable in the field is 82 BOPD with a casinghead gas limit of 164 MCFGPD. Cumulative production through June 2011 is 266.6 MBO and 1.9 BCFG.

Apache recompleted its J. B. Tubb -C- Lease, Well No. 32 in November 2009 into the Sand Hills (Wichita-Albany) Field. The well was perforated from 5,538 feet to 5,622 feet. The initial potential test represented a production rate of 240 BOPD, 509 MCFGPD, and 0 BWPD. Subsequently, in November 2010, additional perforations from 4,922 feet to 5,181 feet were established in the well. Periodic well tests were performed on 01/27/2011 and 05/26/2011. The tests resulted in production rates of 16 BOPD, 868 MCFGPD, and 192 BWPD; 25 BOPD, 800 MCFGPD, and 45 BWPD, respectively.

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Apache indicated a casing choke was installed on the production casing in an attempt to produce the well at it's allowable limit. This resulted in the well loading up and producing 100% natural gas.

Apache completed it's J. B. Tubb -C- Lease, Well No. 37 in March 2010 through perforations from 5,354 feet to 5,734 feet. This well reported an initial potential test result of 28 BOPD, 55 MCFGPD, and 25 BWPD. Subsequently, in June 2010, additional perforations from 4,942 feet to 5,212 feet were established in the well. Periodic well tests were performed on 08/22/2010 and 05/26/2011. The tests resulted in production rates of 27 BOPD, 401 MCFGPD, and 210 BWPD; 14 BOPD, 211 MCFGPD, 24 BWPD, respectively. Apache indicated a casing choke was installed on the production casing in an attempt to produce the well at it's allowable limit. Consequentially, this resulted in the well loading up and producing 100% natural gas.

A designated field interval has not been established for the Sand Hills (Wichita-Albany). Apache indicated the Wichita-Albany formation is located stratigraphically between the base of the Tubb formation and the top of the Ellenburger formation. The Wichita-Albany formation consists of dolomitic and limestone carbonate rock, associated with interbedded sands. Apache has suggested the Wichita-Albany formation is comprised of upper, middle, and lower sections, collectively incorporating the subject field. Apache opined that a single section producing independently of the others is impractical. Apache has indicated additional wells within the lease will be recompleted into the subject field in an attempt to perpetuate the recovery of hydrocarbons. Restricting gas production in this reservoir is not necessary to prevent waste. In addition, restriction of gas production would allow water to further encroach and hinder the oil production, thereby reducing the ultimate recovery from the developmental wells.

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 Sand Hills (Wichita-Albany) Field was discovered in January 1958. There are currently eight producing wells in the field, of which two producing wells are operated by Apache.
3. A designated field interval has not been established for the Sand Hills (Wichita-Albany) Field.
4. The field is under statewide rules and the top allowable in the field is 82 BOPD with a casinghead gas limit of 164 MCFGPD.
5. The J. B. Tubb -C- Lease, Well No. 32, is completed through perforations

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between 4,922 and 5,622 feet. Periodic well tests were performed on 01/27/2011 and 05/26/2011. The tests resulted in production rates of 16 BOPD, 868 MCFGPD, and 192 BWPD ; 25 BOPD, 800 MCFGPD, and 45 BWPD, respectively.

6. The J. B. Tubb -C- Lease, Well No. 37, is completed through perforations between 4,942 and 5,734 feet. Periodic well tests were performed on 08/22/2010 and 05/26/2011. The tests resulted in production rates of 27 BOPD, 401 MCFGPD, and 210 BWPD; 14 BOPD, 211 MCFGPD, 24 BWPD, respectively.
7. Apache indicated casing chokes were installed on the J. B. Tubb -C- Lease, Well Nos. 32 and 37 in an attempt to produce the wells at the allowable limit. This resulted in the wells loading up and producing 100% natural gas.
8. Restricting gas production in this reservoir is not necessary to prevent waste. In addition, restriction of gas production would allow water to further encroach and hinder the oil production, thereby reducing the ultimate recovery from the developmental wells.

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 1,000 MCFGPD for all wells on the J. B. Tubb -C- Lease in the Sand Hills (Wichita-Albany) Field and cancellation of the lease overproduction will not cause waste and will not harm correlative rights.

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RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that all wells on the J. B. Tubb -C- Lease in the Sand Hills (Wichita-Albany) Field be authorized to produce under net gas-oil ratio authority with a daily casinghead gas limit of 1,000 MCFGPD and that all accumulated overproduction for the lease be canceled.

Respectfully submitted,

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