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RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL & GAS DOCKET NO. OG-19-00001684

APPLICATION OF TEXAKOMA E & P, LLC (844133) TO CONSIDER AN INCREASED NET GAS-OIL RATIO AND CANCEL OVERPRODUCTION FOR THE N McMORDIE 125 (08908) LEASE, WELL NO. 2, ST. CLAIR (GRANITE WASH) FIELD, ROBERTS COUNTY, TEXAS, DISTRICT 10

HEARD BY: Austin Gaskamp, Technical Examiner
Ezra A. Johnson, Administrative Law Judge
(collectively "Examiners")

HEARING DATE: February 25, 2020

CONFERENCE DATE: April 21, 2020

APPEARANCES: Dale E. Miller, Consultant
G. Tyson McClead, Consultant
Representing Texakoma E & P, LLC

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Texakoma E & P, LLC (844133) ("Texakoma") seeks an increased Net Gas-Oil Ratio ("Net GOR") with a daily casinghead gas limit of 2000 thousand cubic feet per day ("Mcf/d") for Well No. 2 on the N McMordie 125 (08908) Lease ("Lease"). Texakoma additionally requests cancellation of casinghead gas overproduction for the N McMordie Lease in the St. Clair (Granite Wash) Field, Roberts County, Texas. Implementing an increased daily gas limit will potentially increase the ultimate recovery of hydrocarbons from the well, thus preventing waste, while protecting correlative rights. The Examiners recommend the application for the cancellation of accrued overproduction and the increased Net GOR daily gas limit on the N McMordie 125 Lease be approved, as requested by Texakoma.

DISCUSSION OF THE EVIDENCE

The St. Clair (Granite Wash) Field was discovered in 1976. Texakoma completed their N McMordie 125 Lease, Well No. 2H ("the Well") on August 17, 2013. The initial potential test, dated August 18, 2013, shows the test rates were 1,099 barrels of oil per

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day ("BOPD"), 998 thousand cubic feet per day ("MCFPD") and 9 barrels of water per day ("BWPD"). Presently, the top allowable for this well is 450 BOPD (per Oil and Gas Docket No. 10-0288417). It also has a daily gas limit of 1500 MCFPD (per Oil and Gas Docket 10-0247091). The Well has been consistently producing casinghead gas in excess of the current daily limit and is overproduced in the amount of 30,614 MCF as of January 1, 2020.

The Well has produced oil and associated gas without any substantial interruption since 2013. Texakoma seeks to continue to produce the well in this manner for as long as possible to maximize the ultimate recovery of hydrocarbons and prevent waste.

This wellbore produces from both a natural fracture system and the native matrix porosity of 5.5% adjacent to the fractures. The well has almost 220 feet of thickness in the producing interval and over time it is expected that gravity drainage will eventually allow a secondary gas cap to form. In addition, this is a solution-gas drive reservoir. As the reservoir pressure continues to decline, gas is being liberated and the associated Gas-Oil Ratio ("GOR") is increasing as the reservoir approaches the bubble point. This is causing daily gas production rates to increase over time.

Texakoma presented evidence of recent production history for this Well in support of their request, including choke sizes. In the previous 90 days for which data was presented, the Well has averaged 1,582 MCFPD. The maximum daily production rate observed for the Well during the same 90-day period was 2033 MCFPD on November 26-28, 2019.

The data demonstrates that the Well has a lower rate of increase in the GOR when produced on a larger choke size. The slope of the reported increase in gas production rates is shown to be less when the choke is larger. When the well is produced on smaller choke sizes, the slope of the GOR becomes greater, indicating a faster rate of increase. Texakoma asserts that it will be necessary to open the choke on this well to keep the wellbore flowing and unloaded in the future due to the expected increase in the associated GOR for this reservoir.

This demonstrates that producing the Well on smaller choke sizes in an effort to reduce potential overproduction would deplete the solution gas drive mechanism faster than necessary. Allowing the Well to produce with larger choke sizes by increasing the daily gas limit will prevent waste and loss of recoverable reserves. In addition, producing the Well using smaller choke sizes was not observed to significantly reduce daily gas production and would likely not prevent overproduction in the future. The only alternative would be to shut-in the Well. Texakoma is concerned that shutting-in the Well to comply with the existing gas allowable risks current optimized production characteristics, which would cause the loss of recoverable reserves if compromised.

To avoid shutting-in this well for continuing overproduction of gas, Texakoma is requesting to be granted a gas limit of 2,000 MCFPD. Allowing this well to produce up to

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2000 MCFPD will avoid overproduction and will prevent waste and loss of recoverable reserves.

FINDINGS OF FACT

1. Texakoma seeks an increased Net Gas-Oil ratio with a daily casinghead gas limit of 2000 thousand cubic feet per day ("Mcf/d") for Well No. 2H. Additionally, Texakoma requests the cancellation of casinghead gas overproduction for the N McMordie 125 Lease in the St. Clair (Granite Wash) Field, Roberts County, Texas.
2. Texakoma submitted its request for hearing to consider an increased Net GOR and cancellation of casinghead gas overproduction on October 25, 2019.
3. On February 11, 2020 the Hearings Division of the Commission sent a Notice of Hearing ("Notice") to Applicant and all offsetting operators in the field setting a hearing date of February 25, 2020. Consequently, the parties received more than 10 days' notice. The Notice contains (1) a statement of the time, place, and nature of the hearing; (2) a statement of the legal authority and jurisdiction under which the hearing is to be held; (3) a reference to the particular sections of the statutes and rules involved; and (4) a short and plain statement of the matters asserted.
4. The hearing was held on February 25, 2020 as noticed. Applicant appeared and participated at the hearing. No one appeared in protest.
5. The Well has a lower rate of increase in the GOR when produced on a larger choke size, demonstrating the need for an increased daily gas limit.
6. The Well produces at a high gas-oil ratio. Implementing a daily gas limit of 2000 Mcfd will allow the wells to stabilize and increase the ultimate recovery of hydrocarbons from the Lease, while protecting correlative rights.
7. At the hearing, Texakoma agreed on the record that the Final Order in this docketed case is to be final and effective when a Master Order relating to this Final Order is signed.

CONCLUSIONS OF LAW

1. Resolution of the subject application is a matter committed to the jurisdiction of the Railroad Commission of Texas. Tex. Nat. Res. Code § 81.051.
2. All notice requirements have been satisfied. 16 Tex. Admin. Code §§ 1.42 and 1.45.
3. Implementing a daily casinghead gas limit of 2000 thousand cubic feet per day for the Well will potentially increase the ultimate recovery of hydrocarbons from the Lease, thus preventing waste, while protecting correlative rights.

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4. Pursuant to § 2001.144(a)(4)(A), of the Texas Government code, and the agreement of the applicant, the Final Order in this docket is effective when a Master Order relating to the Final Order is signed on April 21, 2020.


EXAMINERS' RECOMMENDATION

The Examiners recommend that Texakoma's application for a Net GOR daily gas limit of 2000 Mcfd for the Well No. 2 in the St. Clair (Granite Wash) Field, Roberts County, Texas and the cancellation of overproduction, be approved.

Respectfully submitted,

/s/ Austin Gaskamp

Austin Gaskamp
Technical Examiner

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Ezra A. Johnson
Administrative Law Judge