



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

**OIL & GAS DOCKET NO. 08-0319492**

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**APPLICATION OF NOBLE ENERGY INC. (611665) TO CONSIDER AN INCREASED NET GAS-OIL RATIO AND CANCEL OVERPRODUCTION FOR THE TRIGGER 39-40 UNIT D (49509) LEASE, WOLFBONE (TREND AREA) FIELD, REEVES COUNTY, TEXAS**

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

**HEARING DATE:** July 19, 2019

**CONFERENCE DATE:** August 20, 2019

**APPEARANCES:** Maxwell Bergland, Production Engineer  
Kelli Kenney, Attorney  
Noble Energy Inc.

### EXAMINERS' REPORT AND RECOMMENDATION

#### STATEMENT OF THE CASE

Noble Energy Inc. (611665) ("Noble") seeks an increased net gas-oil ratio ("Net GOR") with a daily casinghead gas limit of 2500 thousand cubic feet per day ("Mcf") on Well No. 12H, 1000 Mcfd on Well No. 13HL, and 2000 Mcfd on Well No. 14H on the Trigger 39-40 Unit D (49509) Lease ("Lease"). Noble additionally requests cancellation of casinghead gas overproduction for the Trigger 39-40 Unit D Lease in the Wolfbone (Trend Area) Field, Reeves County, Texas. The July 2019 proration schedule reflects a penalized daily oil allowable for Wells No. 12H and 14H due to overproduction of casinghead gas. 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 limits on the Trigger 39-40 Unit D Lease be approved, as requested by Noble.

## DISCUSSION OF THE EVIDENCE

The Wolfbone (Trend Area) Field was discovered in 2010. Noble operates approximately 300 wells in the field. The yardstick oil allowable is 843 barrels of oil per day ("bopd") and the statewide gas-oil ratio ("GOR") of 2000 cubic feet per barrel ("cf/bbl") is applicable. The daily gas limit for the field is 1686 thousand cubic feet per day ("Mcf") per 160-acre proration unit. The allocation formula is based on 75% acreage and 25% potential. Based on the statewide GOR of 2000 cf/bbl and the field's allocation formula, the daily gas limit for Well No. 12H is approximately 956 Mcfd.<sup>1</sup> The daily gas limit of the Well No. 13HL is approximately 816 Mcfd. The daily gas limit of the Well No. 14H is approximately 974 Mcfd. Due to the wells' high producing GOR's the Lease is overproduced on casinghead gas.

Noble has attempted to keep the Lease producing to maximize the ultimate recovery of hydrocarbons and prevent waste. All wells on the Lease are producing with artificial lift. Well No. 12H and 14H are producing with electric submersible pumps ("ESP") and the 13HL is implementing gas-lift. Noble has tested variable frequencies on the ESP with little change on the rising GOR. Noble provided production data plotted with varying frequencies of the ESP from 45 hertz ("Hz") to 60 Hz, with 55 Hz being the lower normal operational limit of the ESP. Lower motor frequencies generally increased the GOR while lowering overall production and destabilizing water production. It is evident that the wells produce at GOR's closer to 5000 cf/bbl regardless of pump rates. Noble is still in the process optimizing its gas-lift operations on Well 13HL. Previously, this well had an ESP, but it malfunctioned and was removed. After a work-over period the well was brought back online with gas-lift. The production is reduced as compared to the ESP. Currently, the GOR is around 2500 and it is anticipated to rise as the overall production is increased with gas-lift optimization. If the wells are not able to produce with an increased daily gas limit, the wells will need to be shut-in, causing waste.

## FINDINGS OF FACT

1. Noble seeks an increased Net Gas-Oil ratio with a daily casinghead gas limit of 2500 thousand cubic feet per day ("Mcf") for Well No. 12H (API No.42-389-35443), 1000 mcf for Well No. 13HL (API No. 42-389-35442) and 2000 Mcfd for Well No. 14H (42-389-35439). Additionally, Noble requests the cancellation of casinghead gas overproduction for the Trigger 39-40 Unit D Lease in the Wolfbone (Trend Area) Field, Reeves County, Texas.
2. Noble submitted its request for hearing to consider an increased Net GOR and cancellation of casinghead gas overproduction on April 8, 2019.
3. On June 21, 2019 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 July 19, 2019. Consequently, the parties received more than 10

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<sup>1</sup> The daily gas limit is partially based on deliverability and can fluctuate due to reported well tests.

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 July 19, 2019 as noticed. Applicant appeared and participated at the hearing. No one appeared in protest.
5. During the testing of Wells No. 12H, 13HL and 14H between April and July 2019, varying the pump frequencies did not affect rising GOR, but adversely affected the wells' stability and water production.
6. Wells on the Trigger 39-40 Unit D Lease produce at a high gas-oil ratio. Implementing a daily gas limit of 2500 Mcfd, 1000 Mcfd, and 2000 Mcfd on the 12H, 13HL and 14H, respectively, will allow the wells to stabilize and increase the ultimate recovery of hydrocarbons from the Lease, while protecting correlative rights.
7. At the hearing, Noble 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 2500 thousand cubic feet per day ("Mcf") for Well No. 12H, 1000 Mcfd for well 13HL and 2000 mcfd for the Well 14H will potentially increase the ultimate recovery of hydrocarbons from the Lease, thus preventing waste, while protecting correlative rights.
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 August 20, 2019.

#### **EXAMINERS' RECOMMENDATION**

The Examiners recommend that Noble's application for a Net GOR daily gas limit of 2500 Mcfd for the Well No. 12H (API No. 42-389-35443), 1000 Mcfd for Well No. 13HL (API No. 42-389-35442), and 2000 Mcfd for Well No. 14H (API No. 42-389-35439) in the

Wolfbone (Trend Area) Field, Reeves County, Texas and the cancellation of overproduction, be approved.



Austin Gaskamp  
Technical Examiner

Respectfully submitted,



Ezra A. Johnson  
Administrative Law Judge