

**THE APPLICATION OF SLAWSON EXPLORATION COMPANY, INC. TO CONSIDER INCREASED NET GAS-OIL RATIO AUTHORITY FOR THE HARRISON LEASE, WELL NO. 2, IN THE ANGLETON, SOUTH (12,600) FIELD, BRAZORIA COUNTY, TEXAS**

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**Heard by:** Richard D. Atkins, P.E. - Technical Examiner

**Date of Hearing:** November 3, 2008

**Appearances:**

Steve Slawson (By Telephone)

**Representing:**

Slawson Exploration Company, Inc.

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Slawson Exploration Company, Inc. requests authority to produce its Harrison Lease, Well No. 2, under increased net gas-oil ratio authority with a daily gas limit of 900 MCFGPD. Slawson 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 gas limit of 900 MCFGPD and cancellation of lease overproduction.

**DISCUSSION OF EVIDENCE**

The Angleton, South (12,600) Field was discovered in May 2008 at a depth of approximately 12,800 feet. The Harrison Lease, Well No. 2, is the only well completed in the field. The field operates under Statewide Rules and the top allowable is 312 BOPD with an allowable gas-oil ratio of 2,000 cubic feet per barrel.

The Harrison Lease, Well No. 2, was completed in the top of a Frio sand with perforations from 12,878 feet to 12,883 feet. On initial test, the well produced flowing at a rate of 291 BOPD, 827 MCFGPD and 0 BWPD. The initial GOR was 2,842 cubic feet per barrel.

The Harrison Lease, Well No. 2, represents the only oil production from a Frio sand in the area. Based on 3-D Seismic data, Slawson believes that this is a limited reservoir of less than 80 acres and is fault separated from the other gas producing Frio sands. The

primary drive mechanism for the reservoir is a solution gas drive, which results in decreasing oil production, increasing gas production and higher well GORs.

In order to determine rate sensitivity, Slawson tested the Harrison Lease, Well No. 2, during September and October 2008. The results of the testing are summarized as follows:

Choke Size (in)	Oil Rate (bopd)	Gas Rate (mcfpd)	FTP (psi)	GOR (cuft/bbl)
7/64	160	603	3,000	3,761
8/64	201	666	2,950	3,302
9/64	243	780	2,900	3,210

The step rate test clearly demonstrates that the most efficient rate to produce a well in this reservoir is at higher gas rates, which results in the lowest gas-oil ratio. In order to maximize production and prevent waste, Slawson requests an increased net gas-oil ratio authority with a casinghead gas limit of 900 MCFGPD be approved. The requested rate is slightly higher than the test rates above, but it will give flexibility in future producing rates, as the GOR increases due to the solution gas drive. This will also allow for the depletion of the reservoir without any reservoir damage, prevent oil from being left behind in the formation if the gas production is curtailed and increase the ultimate recovery from the field.

As of October 1, 2008, the well is overproduced 3,731 BO and 46,869 MCFG. Slawson requests that this overage be cancelled.

#### **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 Angleton, South (12,600) Field was discovered in May 2008 at a depth of approximately 12,800 feet. The field operates under Statewide Rules and the top allowable is 312 BOPD with an allowable gas-oil ratio of 2,000 cubic feet per barrel.
3. The Harrison Lease, Well No. 2, was completed in the top of a Frio sand with perforations from 12,878 feet to 12,883 feet. On initial test, the well produced flowing at a rate of 291 BOPD, 827 MCFGPD and 0 BWPD. The initial GOR was 2,842 cubic feet per barrel.
4. The Harrison Lease, Well No. 2, represents the only oil production from a Frio sand in the area, produces from a limited reservoir of less than 80 acres and is fault separated from the other gas producing Frio sands. The primary drive mechanism for the reservoir is a solution gas drive, which results in decreasing oil production, increasing gas production and higher well GORs.

5. The step rate test clearly demonstrates that the most efficient rate to produce a well in this reservoir is at higher gas rates, which results in the lowest gas-oil ratio.
6. Producing the well at rates of up to 900 MCFGPD will not cause waste.
7. As of October 1, 2008, the well is overproduced 3,731 BO and 46,869 MCFG.

**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 the increased net gas-oil ratio authority with a casinghead gas limit of 900 MCFGPD for the Harrison Lease, Well No. 2, in the Angleton, South (12,600) Field and cancellation of 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 the Harrison Lease, Well No. 2, in the Angleton, South (12,600) Field be authorized to produce under net gas-oil ratio authority with a daily gas limit of 900 MCFGPD and that all accumulated overproduction for this lease be canceled.

Respectfully submitted,

Richard D. Atkins, P.E.  
Technical Examiner