



# RAILROAD COMMISSION OF TEXAS

## OFFICE OF GENERAL COUNSEL

April 10, 2006

OIL AND GAS DOCKET NO. 08-0246188

---

APPLICATION OF FOUR C OIL & GAS CORP., TO CONSIDER AN INCREASED NET GOR AUTHORITY FOR THE LEHN LEASE WELL NO. 2, S.E.G. (WICHITA-ALBANY) FIELD, PECOS COUNTY, TEXAS

---

HEARD BY: Thomas H. Richter, P.E.  
DATE OF HEARING: March 23, 2006  
APPEARANCES:

Dale E. Miller

REPRESENTING:

Four C Oil & Gas Corp.

### EXAMINER'S REPORT AND RECOMMENDATION STATEMENT OF THE CASE

This is the unopposed application of Four C Oil & Gas for a net gas-oil ratio (GOR) which increases the permitted gas limit to 400 MCFD for the Lehn Lease Well No. 2. Four C also requests that all overproduction be canceled for its Lehn Lease (RRC Lease No. 37407). The examiner recommends approval.

### DISCUSSION OF THE EVIDENCE

The S.E.G. (Wichita-Albany) Field was discovered in 1989 at 4,859' subsurface depth. The field operates pursuant to Statewide Rules. The top allowable for a well completed at this depth is 93 BOPD and a casinghead gas limit of 186 MCF per day. There are three operators in the field with one well each.

The Four C Oil & Gas, Lehn Well No. 2 was completed December 4, 2003 through perforations from 4,485' to 4,788' subsurface depth. The well potentialized at 100 BOPD, 80 MCFD and 2 BWPD. The GOR was 800:1 flowing on a 16/64ths choke. The oil gravity is 39.8 ° API. The initial flowing tubing pressure was 200 psig.

A net GOR resulting in a gas limit of 400 MCFD is appropriate. The testing shows that the well is rate sensitive. When the well was restricted to the 11/64ths choke, initially the tubing pressure increased to 370 psi. However on each successive day the flowing tubing pressure continued to decrease and the water production decreased as well as the oil rate which is indicative of wellbore fluid loading. The produced oil is a high paraffin base. Because of the pressure drop across the choke, the same problem results across the perforations. A remedy to the problem has

been acidizing the well. An example of this was first discovered when the well was re-acidized in October 2005. Production had fallen to 61 BOPM and 1,600 MCFM of casinghead gas. Post acidizing increased the production to 603 BOPM and 11,000 MCFM of casinghead gas (354 MCFD). It is anticipated that future re-acidizing the solution gas drive well will increase the casinghead gas yield.

The Lehn Well No. 2 was tested over a 30 day period with the following results:

CHOKE (64ths)	OIL (BOPD)	GAS (MCFD)	GOR	FTP (PSI)	WTR (BPD)
18	11	259	22241	190	5
15	9	250	28233	220	4
11	7	240	28405	350	3

Cancellation of the over production will not harm correlative rights.

#### FINDINGS OF FACT

1. Notice of this application was given to all person entitled to notice at least ten (10) days prior to the hearing.
2. There was no protest of the application.
3. The S.E.G. (Wichita-Albany) Field was discovered in 1989 at 4,859' subsurface depth.
  - a. The field operates pursuant to Statewide Rules.
  - b. The top allowable for a well completed at this depth is 93 BOPD and a casinghead gas limit of 186 MCF per day.
  - c. There are three operators in the field with one well each.
4. The Four C Oil & Gas, Lehn Well No. 2 was completed December 4, 2003 through perforations from 4,485' to 4,788' subsurface depth.
5. A net GOR resulting in a gas limit of 400 MCFD is appropriate as the testing shows that the well is rate sensitive.
  - a. Successive choke reductions decrease the flowing tubing pressure resulting in water production decreases as well as the oil rate decreases which are indicative of wellbore fluid loading. The produced oil is a high paraffin base and requires the well to be acidized.

- b. In October 2005, production had fallen to 61 BOPM and 1,600 MCFM of casinghead gas. Post acidizing increased the production to 603 BOPM and 11,000 MCFM of casinghead gas (354 MCFD).
  - c. It is anticipated that future re-acidizing the solution gas drive well will increase the casinghead gas yield.
6. Cancellation of the over production of the Lehn Lease (RRC Lease No. 37407) will not harm correlative rights.

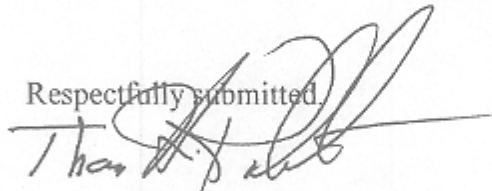
**CONCLUSIONS OF LAW**

- 1. Notice of this hearing was provided in accordance with all applicable regulatory statutes and rules.
- 2. All things have occurred or been accomplished to afford the Commission the jurisdiction to consider and decide this matter.
- 3. Consideration and approval of this application for a gas-oil ratio which results in a casinghead gas limit of 400 MCFD is a matter properly within the jurisdiction of the Commission to foster conservation and prevent waste.
- 4. Approval of the proposed application of Four C Oil & Gas Corp. for a net gas-oil ratio which increases the permitted GOR to a gas limit of 400 MCFD will foster conservation and prevent waste.
- 5. Cancellation of overproduction will not harm correlative rights.

**EXAMINER'S RECOMMENDATION**

It is recommended that the application of Four C Oil & Gas Corp. for a net gas-oil ratio (GOR) which increases the permitted GOR to a gas limit of 400 MCFD for the Lehn Well No. 2 be approved. It is further recommended that all overproduction for the Lehn Lease (RRC Lease No. 37407) be canceled.

Respectfully submitted,



Thomas H. Richter, P.E.  
Technical Examiner  
Office of General Counsel