

May 6, 1996

OIL AND GAS DOCKET NO. 02-0211764

**THE APPLICATION OF UNION OIL COMPANY OF CALIFORNIA FOR PERMANENT
FIELD RULES FOR THE GANADO, WEST FIELD, JACKSON COUNTY, TEXAS**

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: March 6, 1996

Hearing held: April 9, 1996

Appearances

Carroll Martin

William Kurt Butler

John Collins

Representing

Union Oil Company of California

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Unocal is seeking the following permanent field rules for the Ganado, West Field:

1. Designated interval from 4688 to 4722' as shown on the electric log of the Pure Oil Josef Zetka Well No. 2;
2. 233-467' well spacing;
3. 20 acre oil proration units with 10 acre tolerance for the last well on a lease with a maximum diagonal on 1500'; optional 10 acre units; and
4. allocation based on acreage with the top allowable of 100 BOPD.

DISCUSSION OF THE EVIDENCE

The Ganado, West Field area was discovered in 1940 but most of the 75 wells in the area are listed in fields other than the Ganado, West. Only wells completed in the Marginulina interval are carried in the Ganado, West Field and Unocal has three such wells. Two other operators each have one well listed in the field but both of these operators' wells are shut-in. If the requested rules are approved, Unocal plans to recomplete another 15 or 16 wells to this Marginulina zone.

The average porosity of the Marginulina Sand is 28%, with 47% water saturation and permeability ranging from 20 to 750 md. Historically the wells have averaged about 35,000 BO and the recoverable reserves under 10 acres with a net pay of 10' has been calculated to be 36,800 BO. Current wells produce with a water cut of 1/3 to 2/3 of total fluid production. Sand has also been a problem in keeping wells on production, and Unocal's recompleted wells will be gravel packed.

One of the better Marginulina wells, the Halamicek No. 1 was completed in November of 1993, and has already produced 24,375 BO. Based on the well's performance to date, the expected ultimate recovery will be 73,900 BO. The Halamicek No. 1 has a net pay of 12' and the volumetric calculations indicate that this well will drain slightly less than 20 acres. The initial potential of this well was over 100 BOPD.

When the well was tested from February 13 to March 27, 1996, oil would not flow initially on the lowest choke size. When the choke size was increased, the water cut decreased from 100% to about 15% as the oil production was increased. The gas rate increased slightly from 350 MCF/D but stabilized at a rate of about 395 MCF/D. The highest production rate during the test was 82 BOPD but stabilized production appears to be between 50 and 60 BOPD. The current MER for the field is 44 BOPD. This well was drilled in 1943, has an average log response and is expected to be typical of the recompleted wells.

Well spacing of 233-467' is standard for 10 acre density. The interval from 4688 to 4722' covers the Marginulina Sand in this recompleted well.

FINDINGS OF FACT

1. Notice of this hearing was issued to all operators in the field on March 20, 1996.
2. The subject field was discovered in 1940 and the Ganado, West Field has only five wells all producing from the Marginulina Sand.
3. There are about 75 Unocal wells in the area and Unocal plans to recomplete 15 or 16 over the next two years if the requested rules are adopted.
4. Historically, the average well has produced about 35,000 BO which is approximately the recoverable reserves underneath 10 acres.

5. One of the wells recompleted to the Marginulina Sand in 1993 has already produced 24,000 BO and appears likely to drain just under 20 acres.
6. Allocation based on acreage will protect correlative rights.
7. Spacing of 233-467' is standard for wells on 10 acre optional units.
8. The producing Marginulina Sand is present between 4688 and 4722' on the log of the Pure Oil Josef Zetka Well No. 2 which has been recompleted.
9. Producing recompleted wells at rates up to 100 BOPD will encourage recompletions and allow old wellbores to produce as much as possible before being abandoned.

CONCLUSIONS OF LAW

1. Proper notice was issued as applicable in all regulatory statutes and codes.
2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
3. Granting the requested field rules and MER will prevent waste, protect correlative rights and promote an orderly development of the reservoir.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the requested permanent field rules and MER of 100 BOPD be granted.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action _____