



Put on writing  
RL?  
WFX-14  
See Aug 22-

R. C. TUCKER, PRES.

August 5, 1959

PHONE MU 2-5241  
ADDRESS REPLY TO:  
BOX 1659  
MIDLAND, TEXAS

Oil Conservation Commission  
Mabry Building  
Santa Fe, New Mexico

RE: Application for Administrative Approval for Conversion of a  
Unit Well to a Water Injection Well, North Central Caprock  
Queen Unit, Lea and Chaves Counties, New Mexico

Gentlemen:

As provided in the Oil Conservation Commission Order No. R-1311, Great Western Drilling Company, as Operator of the North Central Caprock Queen Unit, requests administrative approval for the conversion of the following Unit Well to a Water Injection Well:

Unit Well No.

Location

13-4

NW/4 NW/4, Section 13, T-13-S, R-31-E

Great Western Drilling Company, as Operator, of the North Central Caprock Queen Unit, has been notified by Ambassador Oil Corporation that the North Caprock Queen Unit Well No. 24-1, located in the SW/4 SW/4, Section 12, T-13-S, R-31-E, has had a water flood response as evidenced by a copy of Ambassador's letter of July 30. Also, Well No. 13-3 in Tract 8, North Central Caprock Queen Unit, has received response since July 28 (C-116 attached). The stimulated wells, No. 24-1 and 13-3, are directly offset by the proposed Injection Well No. 13-4. Therefore, as provided in Order No. R-1311, Great Western Drilling Company applies for the expansion of the North Central Caprock Queen Unit by reason of the conversion of Unit Well No. 13-4.

We respectfully submit that the ultimate recoverable oil from the Caprock Queen reservoir will be decreased and waste will occur due to an unbalanced condition in the pattern flooding system if Unit Well No. 13-4 is not converted to a Water Injection Well at this time.



Oil Conservation Commission  
Mabry Building  
Santa Fe, New Mexico

Page No. 2

RE: Application for Administrative Approval for Conversion of a  
Unit Well to a Water Injection Well, North Central Caprock  
Queen Unit, Lea and Chaves Counties, New Mexico

There are attached copies of the Ambassador Oil Company's letter, the C-116 of Great Western's Well No. 13-3, showing stimulation, and a plat of the area showing all producing wells, water injection wells, and proposed water injection well; and, further, showing all offset Operators.

Waivers from offset Operators are being requested at this time and these waivers will be forwarded to the Commission at such time as they are executed so as to decrease the required 15 day interim period set up by Commission order for administrative expansion.

Yours very truly,

GREAT WESTERN DRILLING COMPANY

  
O. H. Crews

General Superintendent

OHC:amk  
Enclosures:

cc: Mr. S. E. Reynolds, State Engineer  
Mabry Building  
Santa Fe, New Mexico

Graridge Corporation  
P. O. Box 752  
Breckenridge, Texas

Ambassador Oil Corporation  
P. O. Box 9338  
Fort Worth, Texas

Gulf Oil Corporation  
P. O. Box 962  
Roswell, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR Great Western Drilling Company POOL Caprock Queen  
ADDRESS P. O. Box 1659, Midland, Texas MONTH OF August, 1959  
SCHEDULED TEST \_\_\_\_\_ COMPLETION TEST \_\_\_\_\_ SPECIAL TEST X \_\_\_\_\_ (Check One)  
(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
North Central Caprock Queen Unit										
Tract 8	13-3	8-3	Pumping		24	5	0	14	TSTM	

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60 degrees F. Specific gravity base will be 0.60.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission. In accordance with Rule 301 and Appropriate Pool Rules.

(I certify that the information given is true and complete to the best of my knowledge.)

Date August 5, 1959

Great Western Drilling Company  
Company

By O. H. Crews O. H. Crews

General Superintendent  
Title

**AMBASSADOR OIL CORPORATION**

8000 WESTERN AVENUE

P. O. Box 8888

FORT WORTH 7, TEXAS

C. WILSON JENSEN  
PRESIDENT

JULY 30, 1959

GREAT WESTERN DRILLING COMPANY  
P. O. Box 1659  
MIDLAND, TEXAS

ATTENTION: MR. M. B. WILSON

GENTLEMEN:

ATTACHED IS A SCHEDULE SHOWING DAILY OIL PRODUCTION RATE ON THE NORTH CAPROCK QUEEN UNIT No. 2 WELL #24-1. AS INDICATED, THIS WELL COMMENCED A PRODUCTION RESPONSE ON JULY 5, 1959 AND IS CURRENTLY PRODUCING IN EXCESS OF 25 BOPD.

THIS RESPONSE QUALIFIES THE NORTH CENTRAL CAPROCK QUEEN UNIT WELL #13-4 (YOUR UNIT) FOR CONVERSION TO WATER INJECTION STATUS ACCORDING TO PREVIOUSLY ESTABLISHED PROCEDURE BY THE NEW MEXICO OIL & GAS COMMISSION.

WE REQUEST THAT YOU MAKE APPLICATION FOR PERMISSION TO CONVERT WELL #13-4 TO WATER INJECTION STATUS AND PLACE IT ON INJECTION AS SOON AS POSSIBLE.

THE CONVERSION WILL COMPLETE THE INJECTION PATTERN AROUND OUR UNIT'S WELL #24-1, THUS PROVIDING A BALANCED INJECTION PATTERN.

YOURS VERY TRULY,

AMBASSADOR OIL CORPORATION

E. A. RILEY  
SUPERINTENDENT SECONDARY RECOVERY DIVISION

ERJ/NA

NEW MEXICO OIL CORPORATION  
ROSWELL, NEW MEXICO

CHARLES CORPORATION  
SWEETWATER, TEXAS

**NORTH CAPROCK QUEEN UNIT NO. 2 - WELL 24-1**  
**LEA AND CHAVES COUNTIES, NEW MEXICO**

**DAILY OIL PRODUCTION**

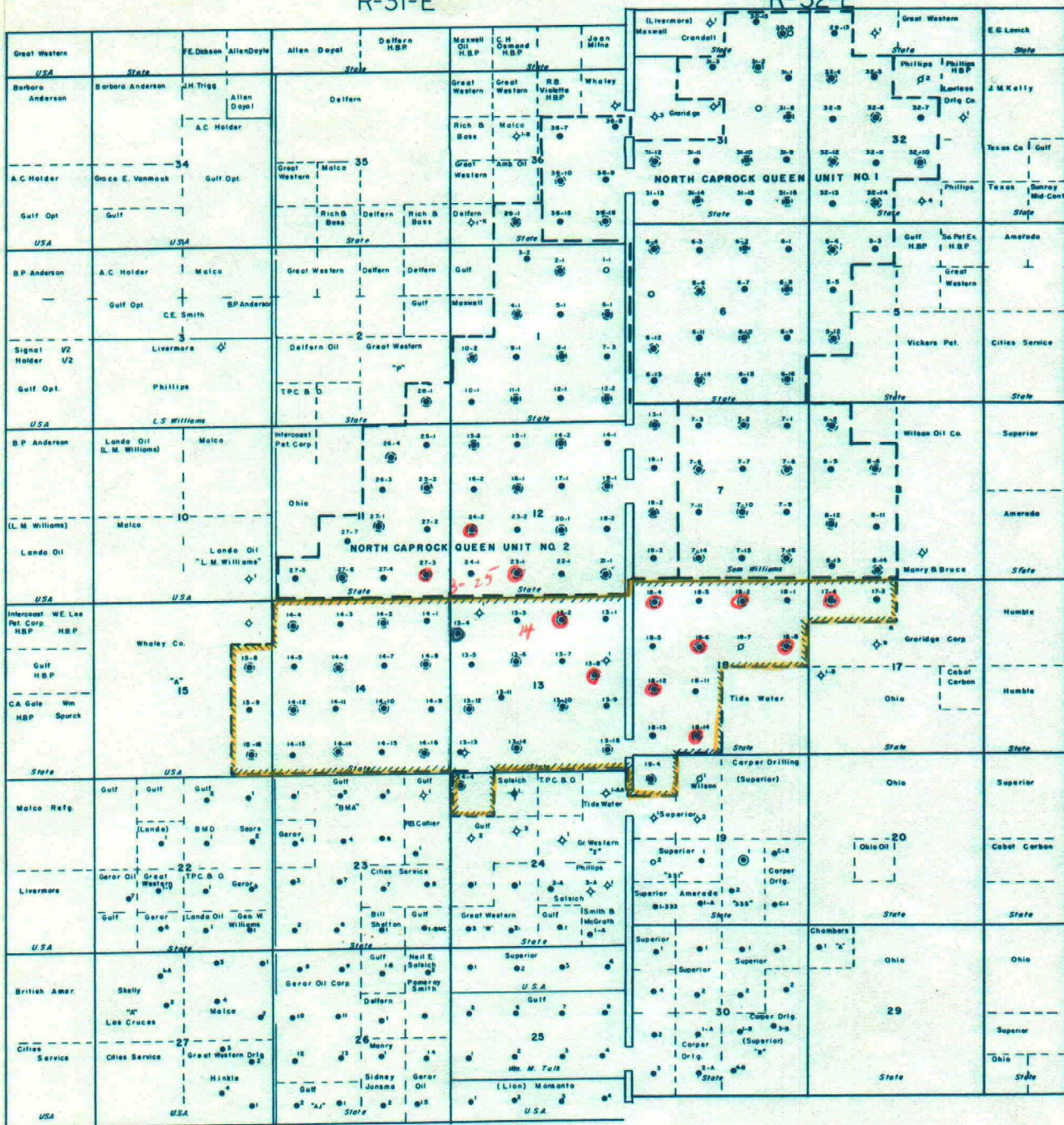
<u>DATE</u>	<u>DAILY OIL PRODUCTION - BBLs.</u>	<u>DAILY WATER PRODUCTION - BBLs.</u>
6-12		
6-13		
6-14		
6-15		
6-16		
6-17		
6-18		
6-19		
6-20		
6-21		
6-22		
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6-28		
6-29		
6-30		
7-1		
7-2		
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7-4		
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7-7		
7-8		
7-9		
7-10		
7-11		



R-31-E

R-32-E

T-12-S



T-13-S

# NORTH CENTRAL CAPROCK QUEEN UNIT

OPERATED BY  
GREAT WESTERN DRILLING COMPANY

CAPROCK QUEEN POOL

LEA AND CHAVES COUNTIES, NEW MEXICO



## LEGEND

- Producer
- Injection well
- Proposed injection well
- ◇ Dry hole

- L Unit Boundary
- Injection Well
- Proposed Injection Well

RECEIVED  
STATE ENGINEER  
AUG 21 1959



WFX-14

STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS  
STATE ENGINEER

August 20, 1959

ADDRESS CORRESPONDENCE TO:  
P. O. BOX 1079  
SANTA FE, N. M.

Oil Conservation Commission  
State Capitol  
Santa Fe, New Mexico

Attn. Mr. A. L. Porter, Jr.  
Secretary-Director

Dear Mr. Porter:


Reference is made to the application of Great Western Drilling Company dated August 5, 1959 which seeks to convert Unit Well No. 13-4 in the NW $\frac{1}{4}$ NW $\frac{1}{4}$  Section 13, Township 13 South, Range 31 East to a water injection well for secondary oil recovery.

It is my opinion that their proposed injection methods are adequate for the protection of the waters which will be encountered below the surface. Therefore, this office offers no objection to the granting of the application.

Yours truly,

S. E. Reynolds  
State Engineer

FEI/ma  
cc-F. H. Hennighausen  
Great Western Drilling Co.

By:   
Frank E. Irby  
Chief  
Water Rights Division



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

ADDRESS CORRESPONDENCE TO:  
P. O. BOX 1079  
SANTA FE, N. M.

S. E. REYNOLDS  
STATE ENGINEER

August 26, 1959

Mr. A. L. Porter, Jr.  
Secretary-Director  
Oil Conservation Commission  
Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to my letter of August 20, 1959 which I now note does not cover my opinion adequately. This concerns the application of Great Western Drilling Company dated August 5, 1959 which seeks to convert Unit Well No. 13-4 in the NW $\frac{1}{4}$ NW $\frac{1}{4}$  Section 13, Township 13 South, Range 31 East to a water injection well for secondary oil recovery.

It is my opinion that the proposed injection methods, as explained by Mr. Crews, are adequate for the production of the fresh waters which will be encountered below the surface, provided only fresh water is injected through this well. So long as fresh water only is injected, this office offers no objection to the granting of the application and the use of the well.

Yours truly,

S. E. Reynolds  
State Engineer

By: *Frank E. Irby*  
Frank E. Irby  
Chief  
Water Rights Division

FEI/ma  
cc-F.H. Hennighausen  
Great Western Drilling Co.