



WV 51  
Working Order  
New York Apr 12

March 27, 1961

R. C. TUCKER, PRES.

Oil Conservation Commission,  
Box 871,  
Santa Fe, New Mexico

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

Re: Application for Administrative Approval  
for Conversion of Wells 23-16, 24-12, 25-4  
and 26-8 to Water Injection, Rock Queen  
Unit, Lea and Chaves Counties, New Mexico

Gentlemen:

As provided in the Oil Conservation Commission Order R-1541, Great Western Drilling Company as operator of the Rock Queen Unit, requests administrative approval for conversion of unit wells 23-16, 24-12, 25-4 and 26-8 to water injection.

Well 23-16 is in the SE/4 of SE/4 of Sec. 23, T-13-S, R-31-E,  
Well 25-4 is in the NW/4 of NW/4 of Sec. 25, T-13-S, R-31-E,  
Well 26-8 is in the SE/4 of NE/4 of Sec. 26, T-13-S, R-31-E,  
Well 24-12 is in the NW/4 of SW/4 of Sec. 24, T-13-S, R-31-E  
all in Chaves County, New Mexico.

Well 26-1 is a direct offset to each 23-16, 25-4 and 26-8 of requested injection wells. For several months Well 26-1 has averaged 4 barrels of oil per day. On tests March 22nd and 23rd, production of this well increased to 9 barrels per day due to waterflood stimulation. Also wells 23-15 and 26-7 had their production stimulated by waterflood. Well 23-9 is a direct offset to proposed injection well 24-12. The production of well 23-9 has increased from 3 barrels on March 1st, to 69 barrels on March 26th.

We respectfully submit that the ultimate recoverable oil from the Rock Queen Unit Reservoir will be decreased and that waste will occur due to an unbalanced condition in the pattern flooding system unless Wells 23-16, 24-12, 25-4 and 26-8 are converted to water injection at this time. Proposed injection will be down 2" tubing, under a packer set at about 3000'.

Attached to this application are: The C-116 of wells 26-1, 23-15, 26-7 and 23-9 before and after stimulation; a plat of the area showing production, water injection and proposed injection wells; and offset operators.

Waivers from offset operators are being requested at this time.

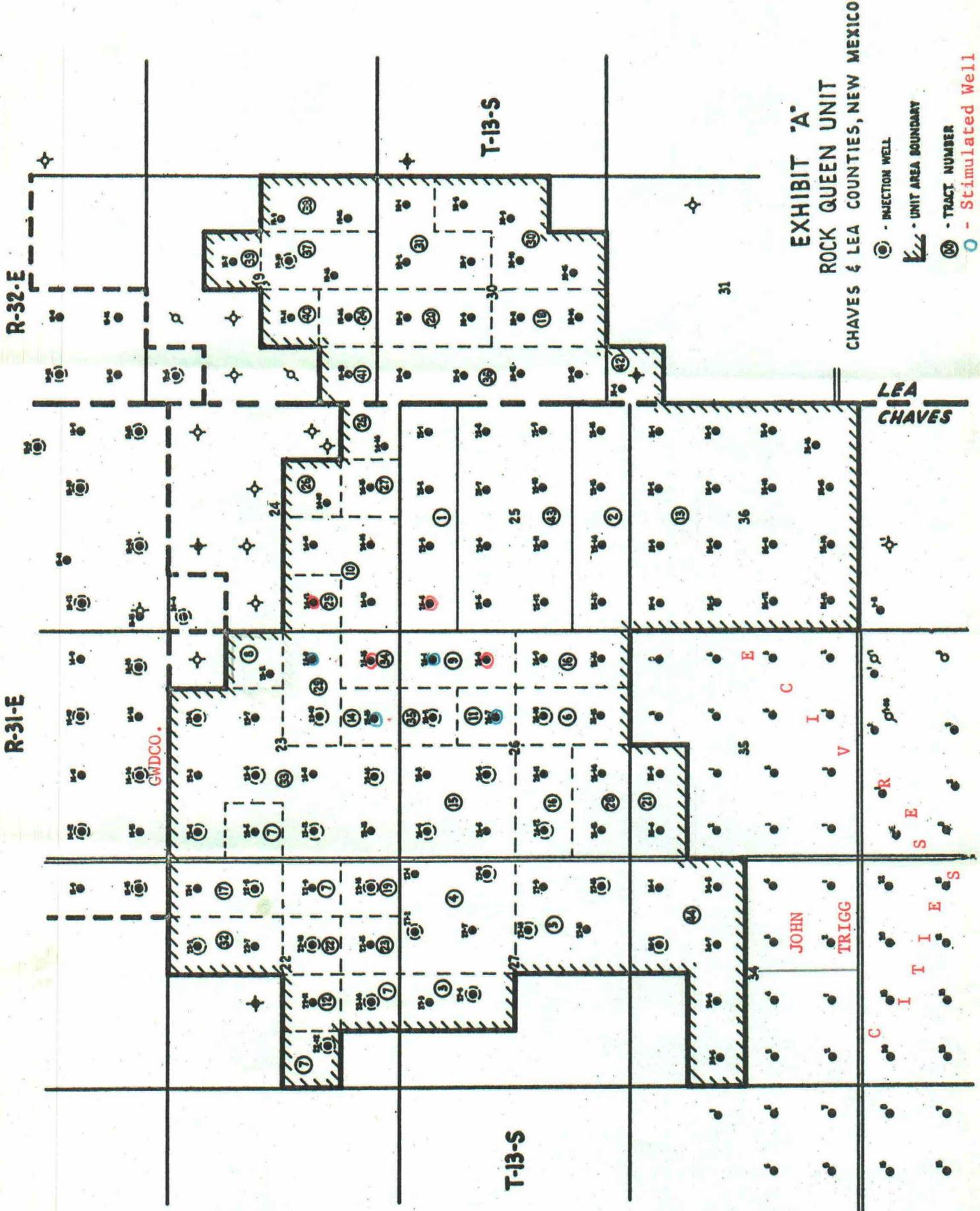
Yours very truly,

GREAT WESTERN DRILLING COMPANY

By On Lewis

OHC:tr





**EXHIBIT 'A'**  
**ROCK QUEEN UNIT**  
**CHAVES & LEA COUNTIES, NEW MEXICO**

- - INJECTION WELL
- ⊙ - UNIT AREA BOUNDARY
- ⊙ - TRACT NUMBER
- - Stimulated Well
- - Proposed Inj. Well

**LEA  
CHAVES**

**JOHN  
TRIGG**

**GMDCO.**

**C I T I E S**  
**R E S S**  
**E I V C E**

**R-32-E**

**R-31-E**

**T-13-S**

**T-13-S**

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NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR Great Western Drilling Company POOL Caprock Queen

ADDRESS Box 1659, Midland, Texas MONTH OF March, 19 61.

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	
Rock Queen Unit										
Tract 9	26-1	3-23	Pump		24	7	0	9	TSTM	
Tract 11	26-7	3-24	Pump		24	10	0	15	TSTM	
Tract 14	23-15	3-24	Pump		24	15	0	12	TSTM	
Tract 29	23-9	3-26	Pump		24	1	0	69	TSTM	
Tests after stimulation by Waterflood										

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 March 27, 1961

Great Western Drilling Company

Company

By O.H. Crews

O.H. Crews

Administrative Coordinator

Title



R. C. TUCKER, PRES.

March 27, 1961

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

Cities Service Oil Company,  
Box 97,  
Hobbs, New Mexico

Gentlemen:

We have requested expansion of the Rock Queen Unit through administrative approval as set forth in Commission Order No. R-1541. A copy of our letter requesting this expansion is enclosed.

If you have no objection to the application, please signify by signing and returning one copy of this letter to this office.

Yours very truly,

GREAT WESTERN DRILLING COMPANY

OHC:tr

By *O. H. Tucker*

We have no objection to the expansion of the Rock Queen Unit operations by reason of the conversion of the following wells to water injection wells:

<u>Unit Well No.</u>	<u>Location</u>
23-16	SE/4 of SE/4 of Sec. 23, T-13-S, R-31-E
25-4	NW/4 of NW/4 of Sec. 25, T-13-S, R-31-E
26-8	SE/4 of NE/4 of Sec. 26, T-13-S, R-31-E
24-12	NW/4 of SW/4 of Sec. 24, T-13-S, R-31-E

as requested in your application of March 27th, 1961.

CITIES SERVICE OIL COMPANY

By *R. C. Tucker*

Date March 30, 1961



GREAT WESTERN DRILLING CO.  
MIDLAND, TEXAS

March 27, 1961

John Trigg,  
Box 5629,  
Roswell, New Mexico

Dear Sir:

We have requested expansion of the Rock Queen Unit through administrative approval as set forth in Commission Order No. R-1541. A copy of our letter requesting this expansion is enclosed.

If you have no objection to the application, please signify by signing and returning one copy of this letter to this office.

Yours very truly,

GREAT WESTERN DRILLING COMPANY

OHC:tr

By *OKH*

We have no objection to the expansion of the Rock Queen Unit operations by reason of the conversion of the following wells to water injection wells:

<u>Unit Well No.</u>	<u>Location</u>
23-16	SE/4 of SE/4 of Sec. 23, T-13-S, R-31-E
25-4	NW/4 of NW/4 of Sec. 25, T-13-S, R-31-E
26-8	SE/4 of NE/4 of Sec. 26, T-13-S, R-31-E
24-12	NW/4 of SW/4 of Sec. 24, T-13-S, R-31-E

as requested in your application of March 27th, 1961.

JOHN TRIGG

By *John H. Trigg*

Date *3-29-61*

GREAT WESTERN DRILLING CO.  
MIDLAND, TEXAS

March 27, 1961

Great Western Drilling Company,  
Box 1659,  
Midland, Texas

Gentlemen:

We have requested expansion of the Rock Queen Unit through administrative approval as set forth in Commission Order No. R-1541. A copy of our letter requesting this expansion is enclosed.

If you have no objection to the application, please signify by signing and returning one copy of this letter to this office.

Yours very truly,

GREAT WESTERN DRILLING COMPANY

OHC:tr

By *E.H. Lewis*

We have no objection to the expansion of the Rock Queen Unit operations by reason of the conversion of the following wells to water injection wells:

<u>Unit Well No.</u>	<u>Location</u>
23-16	SE/4 of SE/4 of Sec. 23, T-13-S, R-31-E,
25-4	NW/4 of NW/4 of Sec. 25, T-13-S, R-31-E,
26-8	SE/4 of NE/4 of Sec. 26, T-13-S, R-31-E,
24-12	NW/4 of SW/4 of Sec. 24, T-13-S, R-31-E,

as requested in your application of March 27th, 1961.

GREAT WESTERN DRILLING COMPANY

By *E.H. Lewis*

Date *Apr 3, 1961*



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS  
STATE ENGINEER

March 28, 1961

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

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

Dear Mr. Porter:

Reference is made to the application of Great Western Drilling Company dated March 27, 1961 which seeks administrative approval for the conversion of Wells 23-16, 24-12, 25-4 and 26-8, Rock Queen Unit, Lea and Chaves Counties, New Mexico to water injection.

In view of the fact that injection will be through 2" tubing under a packer set at about 3000 feet, which in each case is well below the top of the cement behind the oil string, it is concluded that a threat of contamination to any fresh waters which may exist in the area is not likely to occur. Therefore, this office offers no objection to the granting of this application.

Yours truly,

S. E. Reynolds  
State Engineer

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

By:   
Frank E. Irby  
Chief  
Water Rights Division