

# GRARIDGE CORPORATION

IBEX BUILDING

POST OFFICE BOX 752

BRECKENRIDGE, TEXAS

May 10, 1960

39

WEX

THE

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Oil Conservation Commission  
State of New Mexico  
State Capitol Building  
Santa Fe, New Mexico

Re: Application for Administrative  
Approval to Convert One Well  
To Water Injection Well in  
North Caprock Queen Unit No. 1  
Lea and Chaves Counties

Gentlemen:

In accordance with Commission Order No. R-972-B, issued on August 6, 1958, Graridge Corporation as Unit Operator respectively request administrative approval to convert the following well to a water injection well.

WELL NO.  
8-12

LOCATION  
NW/4, SW/4, Sec. 8, T13S, R32E

The following data pertinent to the proposed expansion are given.

(1) The proposed injection well is directly offset by a producing well which has shown response to the waterflood project. See attached Form C-116 and Exhibit No. 1.

(2) The well requested has undergone remedial work and readied for Injection.

(3) Exhibit No. 2 indicates present injection well data. It is evident that some of the injection wells are not as receptive to water injection as others, thus, it is desirable to place wells on injection as early as responses warrant in order to maintain flood balance.

(4) Exhibit No. 3 gives performance curves of the overall water-flood project.

Graridge Corporation is requesting the State Engineers Office to

May 10, 1960

waive its requirement of placing tubing and packer in this injection well as only fresh water will be injected into it. They offered no objection to this procedure when approval was granted for converting well Nos. 7-14, 7-8, and 8-4.

Copies of this application are being sent to Ambassador Oil Corporation and to Great Western Drilling Company as they are offset operators to the proposed expansion. We are submitting waivers to each and will forward these to the Commission as soon as possible.

Any consideration by the Commission in expediting this matter will be greatly appreciated.

Yours very truly,

GRARIDGE CORPORATION

A handwritten signature in dark ink, appearing to read "B. G. Harrison". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

B. G. Harrison  
Manager of Secondary Recovery

SHL:BGH:vl

Attachment

cc: Oil Conservation Commission, Hobbs  
Mr. Frank Irby  
Mr. Paul Holloway  
Mr. Cliff Chapman  
Graham Office

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR Graridge Corporation POOL Caprock Queen Unit #1  
ADDRESS Box 722, Breckenridge, Texas MONTH OF May, 19 60  
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	
<u>BEFORE WATERFLOOD RESPONSE</u>										
Caprock Unit #1	8-13	4-13	Pump	None	24	4	0	2	TSTM	TSTM
<u>AFTER WATERFLOOD RESPONSE</u>										
Caprock Unit #1	8-13	5-2	Pump	None	24	4	0	7	TSTM	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.

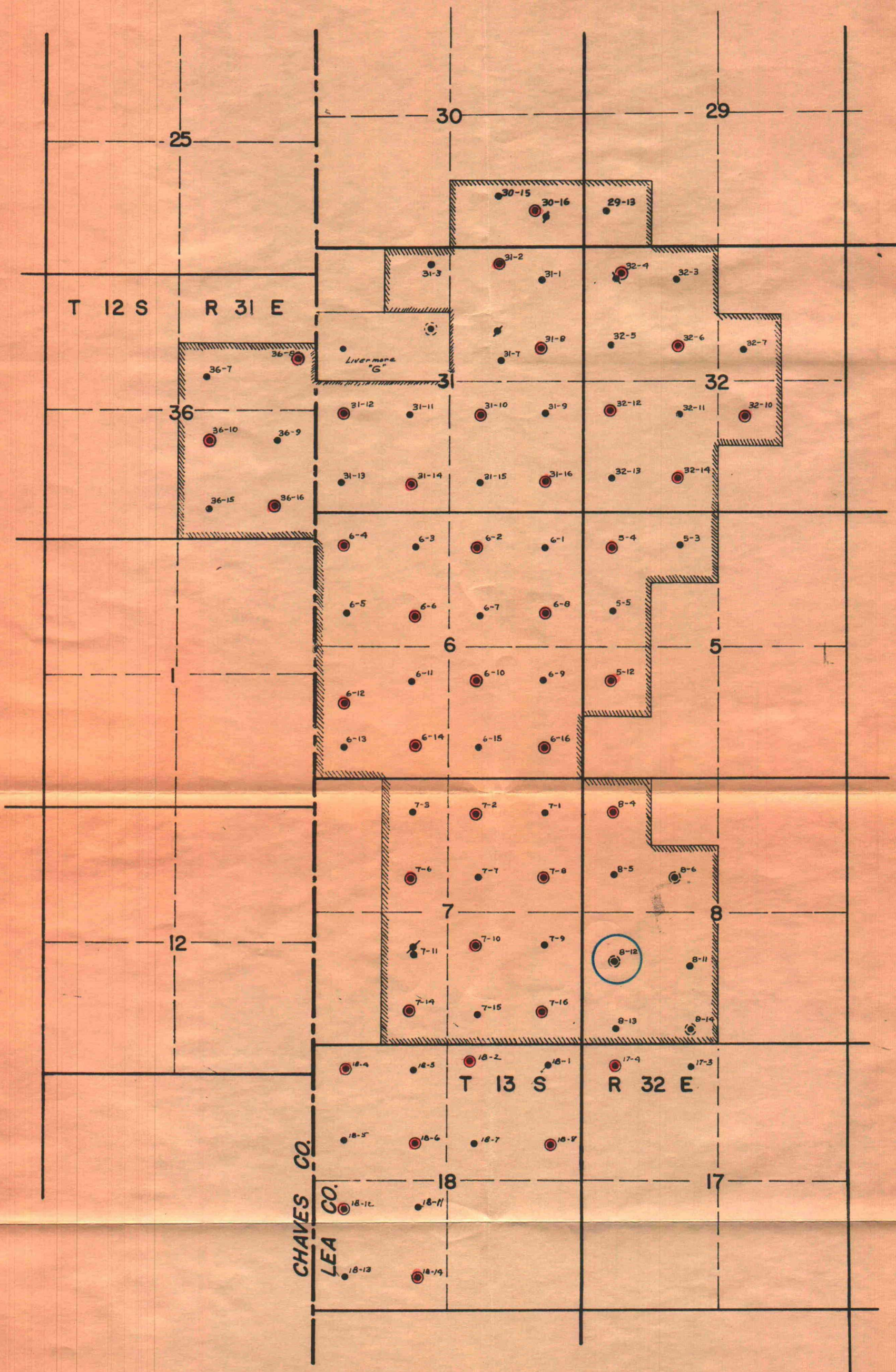
Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission. In accordance with Rule 301 and Appropriate Pool Rules,

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

Date May 10, 1960

Graridge Corporation  
Company  
By S. H. Lindsey, Jr.  
S. H. Lindsey, Jr.  
Engineer  
Title





NORTH CAPROCK QUEEN  
UNIT NO. 1  
CHAVES & LEA COUNTIES, NEW MEX.  
SCALE: 1"=2000'

● PRESENT INJECTION WELL  
⊗ PROPOSED INJECTION WELL

Exhibit 1



# GRARIDGE CORPORATION

## MONTHLY WATER FLOOD REPORT

Page 11.

### Injection Well Data

Project: Cap Unit No. 1

Month: April, 1960

Lease & Well No.	Total Water Input		Injection Pressure	Cumulative Input
	Month	Avg./Day		
Cap Unit 5-4	6,145	205	1,060	452,007
5-12	4,513	238	1,010	75,300
6-2	8,001	266	1,100	472,322
6-4	4,951	165	1,100	119,972
6-6	3,746	125	1,040	94,945
6-8	9,874	329	1,100	310,391
6-10	1,587	113	1,130	44,442
6-12	13,694	456	1,130	242,842
6-14	15,755	525	595	206,248
6-16	3,482	139	1,170	57,207
7-2	7,604	254	1,170	88,065
7-6	3,464	133	1,160	48,104
7-8	5,891	196	1,170	10,267
7-10	11,935	460	1,150	14,800
7-14	22,909	764	985	157,356
7-16	13,577	452	850	16,388
8-4	6,126	204	1,170	11,105
30-16	12,010	401	580	151,027
31-2	13,339	445	1,020	246,857
31-8	16,608	554	1,050	288,094

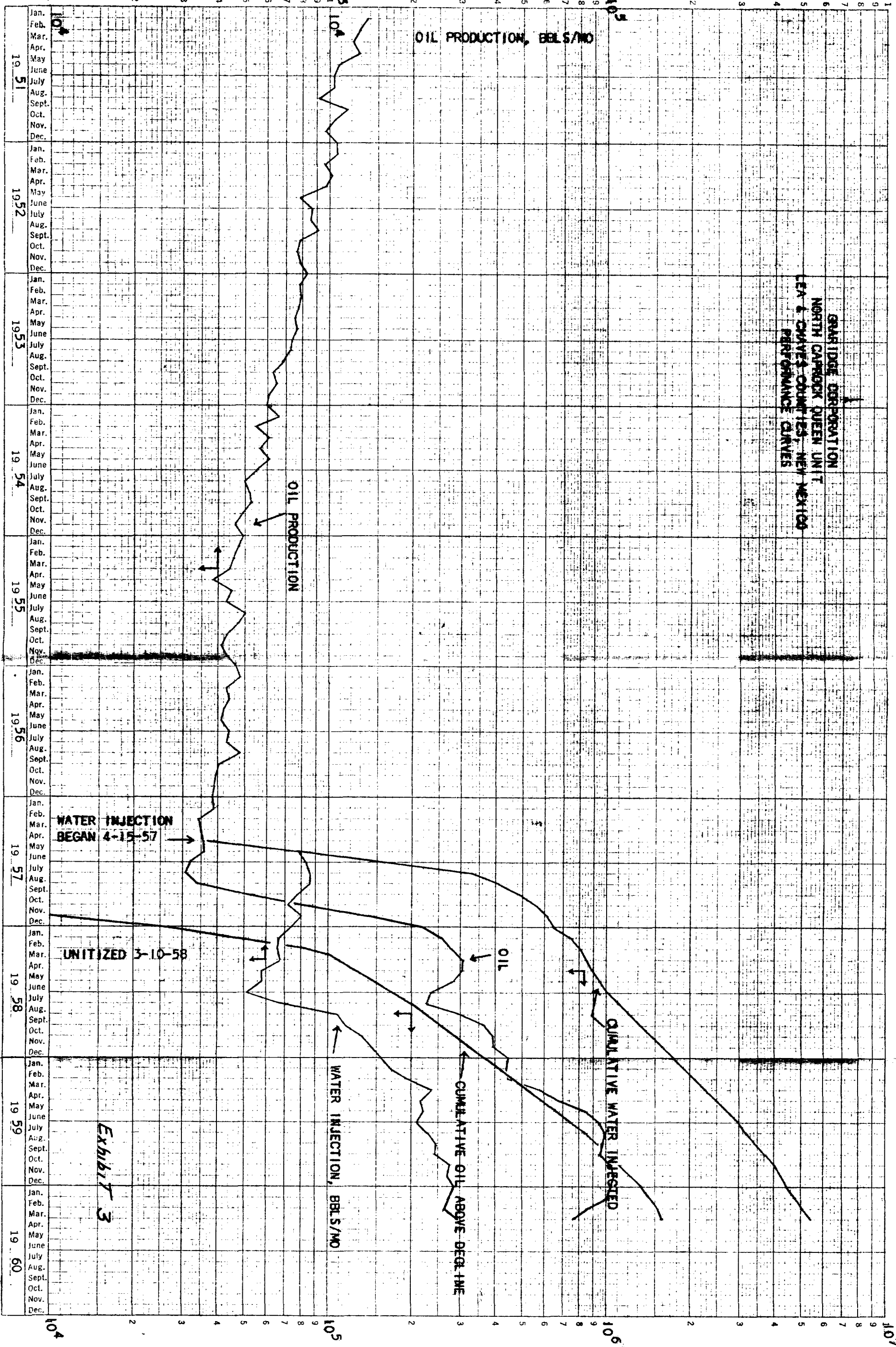
*Exhibit 11*

[illegible]

WATER INJECTED, BBL/MO

OIL PRODUCTION, BBL/MO

GRANITE CORPORATION  
NORTH CARBON QUEEN UNIT  
LEA & CHAVEZ QUARTER, NEW MEXICO  
PERFORMANCE CURVES



CUMULATIVE OIL ABOVE DECLINE AND CUMULATIVE WATER INJECTED, BBL

GRARIDGE CORPORATION  
IBEX BUILDING POST OFFICE BOX 752  
BRECKENRIDGE, TEXAS 76001  
MAY 14 1960 PM 1:31

May 14, 1960

Oil Conservation Commission  
State of New Mexico  
State Capitol Building  
Santa Fe, New Mexico

ATTENTION: Mr. Dan Nutter

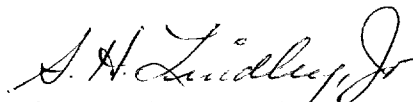
Gentlemen:

Attached please find letters from offset operators indicating that they have no objection to the expansion of North Caprock Queen Unit No. 1 by conversion of Well No. 8-12 (NW/4, SW/4, Sec. 18, T13S, R32E) to a water injection well.

These waivers should give us relief from the fifteen day waiting period. We would appreciate any effort on the part of the Commission in expediting this application.

Very truly yours,

GRARIDGE CORPORATION

  
S. H. Lindley, Jr.  
Engineer

SHL:vl

cc: Oil Conservation Commission  
Hobbs, New Mexico

Graham Office



# GRARIDGE CORPORATION

IBEX BUILDING

BRECKENRIDGE, TEXAS

POST OFFICE BOX 752

1960 MAY 13 PM 1:31

May 9, 1960

Great Western Drilling Company  
Box 1659  
Midland, Texas

Gentlemen:

It is the desire of Graridge Corporation to expand the water injection program in the North Caprock Unit No. 1 Flood in Lea County, New Mexico. The expansion is to include the following well.

WELL NO.  
8-12

LOCATION  
NW/4, SW/4, Sec. 8, T13S, R32E

If your company has no objection to the proposed expansion, please sign and return one copy of this letter to this office.

Yours very truly,

GRARIDGE CORPORATION

*B. G. Harrison*  
B. G. Harrison

Manager of Secondary Recovery

Signed By: *B. G. Harrison*

For: Great Western Drilling Company  
May 12, 1960

SHL:BGH:vl

cc: Graham Office

Date Received <b>MAY 13 1960</b>			
ROUTE TO		ROUTE TO	
LC	DATE CHECKED	LC	DATE CHECKED
CHR		CRA	
TAF		JUNO	
FFD		DOY	
WFB		NEW	
BGH <input checked="" type="checkbox"/>		JWC	
Mail To:		FILE:	
Graham		WR	

GRARIDGE CORPORATION

IBEX BUILDING

POST OFFICE BOX 732

BRECKENRIDGE, TEXAS

MAIN OFFICE 000

1960 MAY 15 PM 1:32

May 9, 1960

Ambassador Oil Corporation  
P. O. Box 9338  
Fort Worth 7, Texas

Gentlemen:

It is the desire of Graridge Corporation to expand the water injection program in the North Caprock Unit No. 1 Flood in Lea County, New Mexico. The expansion is to include the following well.

WELL NO.  
8-12

LOCATION  
NW/4, SW/4, Sec. 8, T13S, R32E

If your company has no objection to the proposed expansion, please sign and return one copy of this letter to this office.

Yours very truly,

GRARIDGE CORPORATION

*B. G. Harrison*  
B. G. Harrison

Manager of Secondary Recovery

Signed By: *Robert H. O'Neil*

For: *Ambassador Oil Corp*

SHL: BGH:vl

cc: Graham Office

OPERATIONS	
MAY 11 1960	
<input checked="" type="checkbox"/>	Exec: .....
<input type="checkbox"/>	Prim: .....
<input type="checkbox"/>	Sec: .....
<input type="checkbox"/>	Acq: .....
<input type="checkbox"/>	Engr: .....
<input checked="" type="checkbox"/>	Adm: <i>7</i>
<input type="checkbox"/>	Prod: .....
<input type="checkbox"/>	Mat: .....
<input type="checkbox"/>	Per: .....
<input checked="" type="checkbox"/>	FILE: .....

MAIN OFFICE 600



1960 MAY 17 AM 11 26

STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS  
STATE ENGINEER

May 17, 1960

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 the Graridge Corporation seeking administrative approval to convert one well to water injection well in North Caprock Queen Unit No. 1. The specific well referred to is 8-12.

Since fresh water only is to be injected through this well, it appears that there will be no threat to contamination to the fresh waters which may exist in the area. Therefore, this office offers no objection to the granting of this application, so long as fresh water only is injected through the well, but recommends that the matter be reconsidered at anytime that non-potable water is injected or proposed to be injected.

Yours truly,

S. E. Reynolds  
State Engineer

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

FEI/ma  
cc-Graridge Corp.  
F. H. Hennighausen