

7



## SHELL OIL COMPANY

P. O. Box 1858  
Roswell, New Mexico

December 5, 1962

Subject: Townsend Wolfcamp Field  
Lea County, New Mexico  
Pilot Waterflood Project  
NMOCC Order No. R-2053  
Change of Water Source and  
Injection Rate

New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

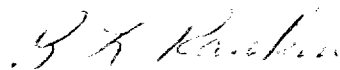
Gentlemen:

Pursuant to telephone conversation of December 3, 1962, between your Mr. D. S. Nutter and Mr. R. L. Essary, Shell Oil Company, we hereby present notice that we are applying to the State Engineer's Office for an appropriation of fresh water from the Ogallala formation for use in the subject pilot waterflood project. This appropriation is necessary in order to institute the following changes:

1. Change the source of injection water from the Santa Rosa (saline water) formation to the Ogallala (fresh water) formation. This change is required since the Santa Rosa source well has proved to have a capacity of only 500 BWPD, which is not considered adequate to provide the best probability of forming a satisfactory oil bank in the high permeability, substantially depleted Townsend Wolfcamp reservoir. Further, the time required to complete the project would be excessive at this low rate. Development of other satisfactory sources of water to supplement the present system is not considered economically attractive.
2. Increase the injection rate in the single well injection system to 2000 BWPD. In testimony, we indicated our intent to inject approximately 1000 BWPD from the Santa Rosa. During the first year of the pilot waterflood project we have injected only approximately 85,000 barrels of water. No adverse effects should occur due to the higher injection rate and the project life will be shortened considerably, which is particularly desirable in view of the late stage of depletion of the Townsend Field.

We understand from the aforementioned telephone conversation that these changes will be satisfactory to the NMOCC and this letter is presented as an information copy for your files. Please contact our Roswell office should any questions arise in regard to the foregoing.

Yours very truly,

A handwritten signature in cursive script, appearing to read "R. L. Rankin".

R. L. Rankin  
Division Production Manager

State of New Mexico  
Oil Conservation Commission

LAND COMMISSIONER  
E. S. JOHNNY WALKER  
MEMBER

**September 7, 1961**

Re: Case No. 2359  
Order No. R-2053  
Applicant:  
Shell Oil Company

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

A. L. Porter, Jr.

Carbon copy of order also sent to:

OTHER (Byram)



# THE PURE OIL COMPANY

SOUTHERN PRODUCING DIVISION • Midland Area Operations

P. O. BOX 671 • MIDLAND, TEXAS • Mutual 2-3725

August 25, 1961

New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

Gentlemen:

The Pure Oil Company as an operator in the Townsend Wolfcamp Field, Lea County, New Mexico is in agreement and supports Shell Oil Company's application for a single well pilot water flood test.

*Case  
File*

Yours very truly,

THE PURE OIL COMPANY

J. R. Murphey  
Area Petroleum Engineer

JRM:jcv

cc: Shell Oil Company  
P. O. Box 1858  
Roswell, New Mexico  
Attention: Mr. R. L. Rankin