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March 18, 1971

Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attention: Ida Rodriguez

RE: SHENANDOAH OIL CORPORATION APPLICATION FOR  
APPROVAL OF WATERFLOOD PROJECT NO. 7

Enclosed herewith you will find the original and one copy of an Application on behalf of Shenandoah Oil Corporation for the approval of a waterflood project pursuant to Rule 701. Confirming our telephone conversation, I would appreciate it if you could put this on the docket for the hearing to be held April 14 at Hobbs. I have attached all of the exhibits, including the logs, to the original Application and the copy of the Application is complete except as to the logs as we did not have duplicate copies of these available.

I hope you find all the papers in order. If, however, you need anything further, please call me.

Shenandoah has another waterflood project pending and I hope to be able to get the necessary information so that an application can be filed to have the additional project approved at the same time on April 14.



JAMES T. JENNINGS

JTS/mb

Encl.

cc: U.S.G.S., Artesia  
Shenandoah Oil Corporation

DOCKET MARKED

4-2-71  
Date

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF  
SHENANDOAH OIL CORPORATION TO  
INSTITUTE A WATERFLOOD PROJECT BY THE  
INJECTION OF WATER INTO THE METEX AND  
PREMIER ZONES OF THE GRAYBURG FORMATION  
THROUGH NINE INJECTION WELLS TO BE  
LOCATED IN SECTIONS 25 AND 36, TOWNSHIP  
17 SOUTH, RANGE 28 EAST, AND SECTIONS  
30 AND 31, TOWNSHIP 17 SOUTH, RANGE 29  
EAST, ARTESIA QUEEN GRAYBURG SAN ANDRES  
FIELD, EDDY COUNTY, NEW MEXICO.

APPLICATION FOR APPROVAL OF  
SHENANDOAH OIL CORPORATION WATERFLOOD PROJECT NO. 7

Comes now the Applicant, Shenandoah Oil Corporation, and  
hereby makes application for approval of a waterflood project pur-  
suant to Rule 701 of the Rules and Regulations of the Commission  
and in support thereof states:

1. Applicant desires to initiate a waterflood project to  
inject fresh water into the Metex and Premier Zones of the Grayburg  
formation in the nine existing wells on the following described  
tracts:

<u>WELL NUMBER</u>	<u>LOCATION</u>	
Atsel - Federal #2	NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 30, T-17-S, R-29-E	4
Continental "B" State #3	SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 30, T-17-S, R-29-E	5
Continental "E" State #4	SE $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 30, T-17-S, R-29-E	6
Five "J" #1	NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 25, T-17-S, R-28-E	1
Five "J" #2	SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 36, T-17-S, R-28-E	3
Five "J" #3	SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 25, T-17-S, R-28-E	2
Green - Federal #1	NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 31, T-17-S, R-29-E	7
Green - Federal #5	SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 31, T-17-S, R-29-E	8
Green - Federal #7	NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 31, T-17-S, R-29-E	9

2. That the above wells and all other wells in the area have reached an advanced state of depletion and are stripper wells.

3. That Applicant feels that the waterflooding of the Metex and Premier Zones of the Grayburg formation is feasible and that flooding will result in the increased ultimate recovery of oil and prevent waste.

4. Depco, Inc. is successfully waterflooding the Artesia Unit located immediately to the West in Sections 35 and 36, Township 17 South, Range 28 East.

5. That when need arises, upon administrative approval, Applicant should be permitted to convert to water injection wells additional wells within its lease boundaries or to drill additional injection wells, as shown on Exhibit "A" attached hereto.

6. Applicant proposes to inject fresh water and produced water when available in the Metex and Premier Zones of the Grayburg formation at the approximate depth of 2200 feet for the Metex Zone and from 2400 to 2600 feet for the Premier Zone, and to inject approximately 150 barrels of water per day into each zone, or a total of 300 barrels per well per day, with a total injection rate of approximately 2700 barrels of water per day. The injection areas of the various wells are set forth on Exhibit "C". Injection water will be purchased from Double Eagle Water Company, a commercial water company operating in the area, and the injection plant will be capable of handling produced water for reinjection.

7. That in support of this application and in accordance with the provisions of Rule 701-B, Applicant submits herewith the following exhibits:

Exhibit A - Plat showing the location of Applicant's project and lands embraced therein.

Exhibit B - Plat showing location of Applicant's acreage and the location of all other wells within the radius of two miles from the proposed injection wells.

Exhibit C - Nos. 1-9 Diagrametic Sketches of the proposed injection wells showing estimated tops of the cement, perforations and depths.

Exhibit D - Diagrametic Sketch showing the typical down hole equipment to be installed in each injection well.

Exhibit E - Nos. 1-9 Logs of the proposed injection wells.

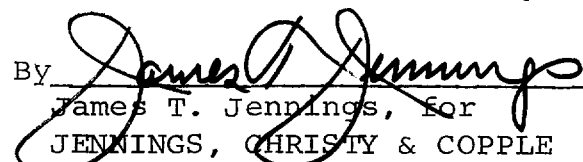
WHEREFORE, Applicant requests the Commission to set this matter down for hearing before an examiner at an early date, publish notice as required by law and, after hearing, issue its Order:

1. Authorizing the waterflood project and the injection of water into the Metex and Premier Zones of the Grayburg formation in the nine injection wells located in Sections 25 and 36, Township 17 South, Range 28 East, and Sections 30 and 31, Township 17 South, Range 29 East.

2. Establishing rules for administrative expansion and conversion of additional wells to water injection wells.

Respectfully submitted,

SHENANDOAH OIL CORPORATION

By   
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