

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 PREMIER
ZONE OF THE GRAYBURG FORMATION AND INTO
THE GRAYBURG-JACKSON ZONE OF THE SAN ANDRES
FORMATION THROUGH THREE INJECTION WELLS TO
BE LOCATED IN SECTIONS 15 AND 22, TOWNSHIP
17 SOUTH, RANGE 30 EAST, GRAYBURG-JACKSON
QUEEN SAN ANDRES FIELD, EDDY COUNTY, NEW
MEXICO.

APPLICATION FOR APPROVAL OF
SHENANDOAH OIL CORPORATION WATERFLOOD PROJECT NO. 8

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 Premier Zone of the Grayburg formation
and the Grayburg-Jackson Zone of the San Andres formation in three
existing wells on the following described tracts:

WELL NUMBER

LOCATION

Dale H. Parke "B" Tr. B,
Well No. 1

SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 15, T-17-S, R-30-E

Dale H. Parke "B",
Well No. 4

SE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 15, T-17-S, R-30-E

Dale H. Parke "A" Tr. 1,
Well No. 6

SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 22, T-17-S, R-30-E

2. That the above wells and the 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 Premier Zone of the Grayburg formation and the Grayburg-Jackson Zone of the San Andres formation is feasible and that flooding will result in the increased ultimate recovery of oil and prevent waste.

4. That waterflood projects are being successfully conducted in the area in that Windfohr Oil Company is flooding the area to the East in its Grayburg-Jackson San Andres Unit, Anadarko Production Company is the operator of the Grayburg Jackson Unit to the Southeast, and General American is operating the Grayburg Jackson Premier Sand Unit to the West.

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

6. Applicant proposes to inject fresh and produced water when available in the Premier Zone of the Grayburg formation at the approximate depth from 2450 feet to 2605 feet and in the Grayburg-Jackson Zone of the San Andres formation at the approximate depth of from 2840 feet to 2940 feet. Injection into the Parke "B" Well No. 4, located in Unit "H", Section 15, Township 17 South, Range 30 East, will be limited to the Grayburg-Jackson Zone of the San Andres formation. Applicant will inject 150 barrels of water per day into each zone, or a total of 300 barrels of water per day into two injection wells, and inject 250 barrels of water per day into the Parke "B" Well No. 4, with a total injection rate of approximately 850 barrels of water per day. The injection area of the various wells are set forth on Exhibit "C". Injection water will be purchased

from a commercial water company operating in the area and produced water will be re-injected when it becomes available.

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. 1-3 Diagrammatic Sketches of the proposed injection wells showing estimated tops of the cement, performances and depths.

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

Exhibit E - Nos. 1-2 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:

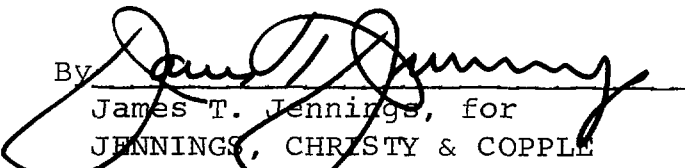
1. Authorizing the waterflood project and the injection of water into the Premier Zone of the Grayburg formation and into the Grayburg-Jackson Zone of the San Andres formation in the three injection wells located in Sections 15 and 22, Township 17 South, Range 30 East.

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

Respectfully submitted,

SHENANDOAH OIL CORPORATION

By


James T. Jennings, for
JENNINGS, CHRISTY & COPPLE
Attorneys for Applicant

P. O. Box 1180
Roswell, New Mexico 88201

CASE 4352 (Reopened):

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an opportunity to appear and present evidence as to whether the Double L-Queen and Suble-Queen Pools, Chaves County, New Mexico, are in fact separate reservoirs or one common reservoir. Further, in the event it is found that the two pools comprise one common reservoir, the Commission will consider the adoption of special rules and regulations to provide for the classification of oil and gas wells, spacing and well location requirements for oil and gas wells, and an allocation formula for withdrawals from the gas wells and oil wells.

CASE 4520: Application of Shenandoah Oil Corporation for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Artesia Pool by the injection of water into the Grayburg formation through nine wells located in Sections 25 and 36 of Township 17 South, Range 28 East and Sections 30 and 31 of Township 17 South, Range 29 East, Eddy County, New Mexico. Applicant further seeks a procedure whereby additional injection wells may be approved administratively.

CASE 4521: Application of Shenandoah Oil Corporation for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Grayburg-Jackson Pool by the injection of water into the Grayburg and San Andres formations through three wells located in Sections 15 and 22 of Township 17 South, Range 30 East, Eddy County, New Mexico. Applicant further seeks a procedure whereby additional injection wells may be approved administratively.

CASE 4522: Southeastern New Mexico nomenclature case calling for the creation of a new pool, the assignment of oil discovery allowable, and the extension of certain pools in Lea and Chaves Counties, New Mexico:

(a) Create a new pool in Chaves County, New Mexico, classified as an oil pool for Queen production and

DOCKET: REGULAR HEARING - WEDNESDAY - APRIL 14, 1971

OIL CONSERVATION COMMISSION - 9 A.M. - THE HOLIDAY INN, 200 SOUTH LINAM,
HOBBS, NEW MEXICO

ALLOWABLE: (1) Consideration of the oil allowable for May and June, 1971;

- (2) Consideration of the allowable production of gas for May, 1971, from fifteen prorated pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico. Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for May, 1971.

CASE 4487 (De Novo):

Application of Pennzoil United, Inc., for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Strawn formation underlying the W/2 of Section 6, Township 23 South, Range 27 East, South Carlsbad-Strawn Gas Pool, Eddy County, New Mexico, said acreage to be dedicated to the Morris R. Antweil Joell Well No. 1 located 660 feet from the North line and 1980 feet from the West line of said Section 6. Also to be considered will be the cost of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

Upon application of Pennzoil United, Inc., this case will be heard De Novo under the provisions of Rule 1220.

THE FOLLOWING CASES WILL BE HEARD BEFORE THE FULL COMMISSION OR
BY EXAMINER DANIEL S. NUTTER.

CASE 4352 (Reopened): (This case will be continued to the April 28,
1971, Examiner Hearing.)

In the matter of Case 4352 being reopened by the Oil Conservation Commission upon its own motion to give all interested persons