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March 31, 1972

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Oil Conservation Commission
Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

We enclose herewith in triplicate application of Atlantic Richfield Company for approval of a water flood project in connection with its leasehold interests in Sections 19 and 30, Township 17 South, Range 31 East.

It is our understanding that the Kennedy Oil Company has filed an application for hearing on a proposed water flood project which covers its lease on the W $\frac{1}{2}$ SW $\frac{1}{4}$ Section 19, Township 17 South, Range 31 East which adjoins the Atlantic Richfield lease and that it has indicated it would like to have the hearing on its application at the same time as that of Atlantic Richfield. We would like to have this matter set down at the earliest examiners hearing possible.

Yours very truly,

HINKLE, BONDURANT, COX & EATON

By *Clarence E. Hinkle*
CS

CEH:cs
Enc.

cc: J. C. Snyder
cc: David Owens

RECEIVED
APR 9 1972

DOCKET MARKED

Date *4-21-72*

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

APPLICATION OF ATLANTIC RICHFIELD)
COMPANY FOR APPROVAL OF A WATER)
FLOOD PROJECT COVERING THE SE $\frac{1}{4}$)
AND E $\frac{1}{2}$ SW $\frac{1}{4}$ SECTION 19, NE $\frac{1}{4}$ SECTION)
30, TOWNSHIP 17 SOUTH, RANGE 31)
EAST, N.M.P.M. IN THE GRAYBURG-)
JACKSON FIELD, EDDY COUNTY. APPLICANT)
PROPOSES TO INJECT WATER INTO THE)
PREMIER ZONE OF THE GRAYBURG FORMA-)
TION THROUGH FIVE INJECTION WELLS)

Case 4705

Oil Conservation Commission ✓
Box 2088
Santa Fe, New Mexico 87501

Comes Atlantic Richfield Company, acting by and through the undersigned attorneys, and hereby makes application for approval of a water flood project covering the SE $\frac{1}{4}$ and E $\frac{1}{2}$ SW $\frac{1}{4}$ Section 19, and NE $\frac{1}{4}$ Section 30, Township 17 South, Range 31 East, N.M.P.M. in the Grayburg-Jackson Field, Eddy County. Applicant proposes to inject water into the Premier zone of the Grayburg formation through five injection wells. In support of said application, applicant respectfully shows:

1. There is attached hereto and made a part hereof as Exhibit "A" a plat showing the location of the proposed project area, as well as the leasehold interests of applicant and others within 2 miles thereof and the wells which have been drilled in the project area and on other leases in the vicinity thereof, and the formations from which they are producing. Said plat also shows the proposed injection wells on the project area and the current injection wells surrounding the project area.

2. The five injection wells are as follows:

Atlantic Richfield Max Friess MA Well No. 1 located 660 feet from the north line and 1980 feet from the east line of Section 30, Township 17 South, Range 31 East;

Atlantic Richfield Max Friess MA Well No. 4 located 660 feet from the east line and 1980 feet from the north line Section 30, Township 17 South, Range 31 East.

Atlantic Richfield Friess Federal Well No. 2 located 1980 feet from the south line and 1980 feet from the east line Section 19, Township 17 South, Range 31 East.

Atlantic Richfield Fren Oil Company Well No. 2 located 660 feet from the south line and 1980 feet from the west line Section 19, Township 17 South, Range 31 East.

Atlantic Richfield Company Fren Oil Company Well No. 13 located 660 feet from the south line and 710 feet from the east line Section 19, Township 17 South, Range 31 East.

There are filed herewith copies of electrical logs of the above referred to wells, except in the case of the Friess Federal Well No. 2 a small scale log is not available.

3. There is also attached hereto diagrammatic sketches of each of the proposed injection wells showing all casing strings, including diameters and setting depths, quantities used and tops of cement, perforated or open hole intervals, tubing strings, including diameters and setting depths, and type and location of packers.

4. It is proposed to water flood the Premier zone of the Grayburg formation beginning at a depth of approximately 3150 feet. The majority of the injected fluid will be fresh water with a small portion thereof produced water at an average injection rate of 500 barrels of water per day, at a maximum wellhead pressure of 1600 psi. The source of the fresh water will be Atlantic Richfield Company's Keel West Water Supply System (Ogallala). The source of the produced water will be the Russell Turner plant located in adjoining Section 20, which produced water is from nearby wells.

5. The project area is covered by three oil and gas leases owned by applicant, namely the Friess Federal lease covering the NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 19, the Fren Oil Company lease covering the balance of the lands in the project area in Section 19 and the M. Friess lease covering the NE $\frac{1}{4}$ Section 30. All of the lands within the project area are lands of the United States.

6. All of the wells on the proposed project area are in a stripper stage of production and it is believed that said water flood

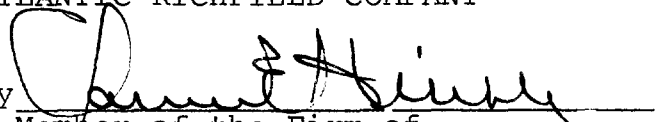
project will recover considerable secondary oil and gas and that said project will be in the interest of conservation and the prevention of waste and will tend to protect correlative rights. Applicant desires that a project allowable be established for said project in accordance with Rule 701 of the Oil Conservation Commission rules and regulations.

7. Applicant respectfully requests that this matter be set down for hearing before an examiner at the earliest possible date.

Respectfully submitted,

ATLANTIC RICHFIELD COMPANY

By



Member of the Firm of
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