Gulf Oil Company-U.S.

EXPLORATION AND PRODUCTION DEPARTMENT MIDLAND DISTRICT

W. B. Hopkins
D STRICT MANAGER

J. A. Hord DISTRICT EXPLORATION MANAGER

J. L. Pike
DISTRICT PRODUCT ON
MANAGER

M. B. Moseley
DISTRICT SERVICES MANAGER

October 16, 1972

P. O. Drawer 1150 Midland, Texas 79701

Case 4856

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

Attention: Mr. A. L. Porter, Jr.



Re: Application of Gulf Oil Corporation to Initiate a Waterflood Project in the Shugart (Y.SR.Q.G) Pool, Eddy County, New Mexico

Gentlemen:

Gulf Oil Corporation requests an Examiner Hearing to consider its application to initiate a waterflood project on its Littlefield "AB" Federal Lease in the Shugart (Yates, Seven Rivers, Queen, Grayburg) Pool, Eddy County, New Mexico.

In support of this application the following facts are submitted:

- (1) The applicant is the owner and operator of the Littlefield "AB" Federal Lease covering all of Section 22, T-18-S, R-31-E, Eddy County, New Mexico, as more fully shown on the attached plat. The proposed project, however, will comprise only the East half consisting of 320 acres. The reservoir to be flooded, Queen member, has insufficient porosity development on the West half of the lease to be conducive to flooding.
- (2) The average daily production for the wells in the proposed project area has declined to approximately 14.8 barrels oil per day per well, and all wells have reached an advance stage of depletion as described in Rule 701(E)(1).
- (3) The applicant initially proposes to convert three wells to water injection wells. The wells are identified on the attached plat. A schematic diagram giving pertinent well information for each of the proposed injection wells are enclosed. Also enclosed is a copy of a typical injection well log.



- (4) The applicant plans to use produced Shugart Pool water from the lease and purchased Ogallala water from the Eagle Water System. Plans are to inject up to 500 barrels of water per day per input well into the Queen member of the Shugart Pool.
- (5) The Littlefield "AB" Federal Lease has Federal Lease No. NM 014103. It carries a November 20, 1945 KGS Classification, North Shugart Pool. The United States Geological Survey is being furnished a copy of this application and are being asked to furnish a letter of approval for the project.
- (6) The attached list of operators in the Pool within a two mile radius of the proposed injection wells are being furnished a copy of the application.

Respectfully submitted,

GULF OIL CORPORATION

R. O. BOBO District Proration Engineer

ROB: jmc Enclosures

cc: New Mexico Oil Conservation Commission Drawer "DD" Artesia, New Mexico 88210

> James A. Knauf United States Geological Survey Drawer "U" Artesia, New Mexico 88210

Operators shown on attached list

SHUGART POOL OPERATORS

(2 Mile Radius of Gulf's Littlefield "AB" Federal Lease)

Amarillo Oil Company
P. O. Box 234
Farmington, New Mexico 87401

APCO Oil Corporation P. O. Box 1027 Odessa, Texas 79760

Atlantic Richfield Company P. O. Box 1610 Midland, Texas 79701

Tom Boyd & Tom Boyd Drilling Company, Inc. 510 West Texas Avenue
Artesia, New Mexico 88210

George A. Chase P. O. Box 637 Artesia, New Mexico 88210

R. D. Collier
P. O. Box 798
Artesia, New Mexico 88210

Wm. A. and Edward R. Hudson 1000 First National Bldg. Fort Worth, Texas 76102 Keohane & Saunders et al P. O. Box 1120 Roswell, New Mexico 88201

Marathon Oil Company P. O. Box 2409 Hobbs, New Mexico 88240

Maxwell Oil Company 2017 Continental Natl. Bank Bldg. Fort Worth, Texas 76102

Paton Brothers
P. O. Box 667
Artesia, New Mexico 88210

Shenandoah Oil Corporation 1500 Commerce Building Fort Worth, Texas 76102

J. J. Travis
P. O. Box 873
Midland, Texas 79701