

# Gulf Oil Corporation

EXPLORATION AND PRODUCTION DEPARTMENT—U. S. OPERATIONS  
ROSWELL DISTRICT

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October 20, 1967

P. O. Drawer 1938  
Roswell, New Mexico 88201

*Waterflood*  
*Case 3684*

Secretary Director  
New Mexico Oil Conservation Commission  
Post Office Box 2088  
Santa Fe, New Mexico 87501

OCT 2

Re: Application of Gulf Oil Corporation for the Approval  
of the Stuart Langlie Mattix Unit Agreement and  
Secondary Recovery Project in a Portion of the  
Langlie Mattix Pool, Lea County, New Mexico

Dear Sir:

Gulf Oil Corporation, as Unit Operator, seeks the Commission's approval of the Stuart Langlie Mattix Unit Agreement and Secondary Recovery Project on the basis that the proposed unit plan for waterflooding certain wells in the Langlie Mattix Pool will promote the conservation of oil and gas and prevent waste. Information supporting this application is as follows:

- (1) The Unit Area shall include

Township 25 South, Range 37 East

Section 2: Lot 4, S/2 NW/4 and SW/4

Section 3: E/2 E/2

Section 10: N/2 and N/2 S/2

Section 11: NW/4 NE/4 and NW/4

containing 1120.36 acres, more or less, as shown on the attached plat (Figure I).

- (2) Average daily oil production for the 24 qualifying wells in the proposed waterflood project has declined to approximately two (2) barrels per day per well as shown by the attached plot of performance history (Figure II) and these wells "have reached an advanced state of depletion" as described in Rule 701 (E)(1). Also attached is a plat (Figure III) showing the recommended waterflood pattern and the unqualified tract in the Unit.
- (3) Applicant proposes to convert twelve (12) wells to water injection wells. The attached diagrammatic sketch (Figure IV) shows the details of a typical proposed injection well, while the accompanying tabulation (Table I) provides the summarized details of all twelve (12) proposed injection wells.
- (4) Applicant plans to inject up to 500 barrels per day of salt water into each injection well. Injection will be into the Seven Rivers (lower 100') and Queen formations in the approximate depth interval 3100' to 3500'. Copies of logs (Logs No. 1 and 2) of the only two Langlie Mattix wells logged within the Unit Area are attached. (The two particular wells logged will be producing wells.)



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- (5) Source of the injection water will be from a recompleted abandoned well, Gulf's J. A. Stuart No. 9, located in the NE/4 Unit A, Section 10, T-25S, R-37E (located on attached Unit plat, Figure I). Saline water will be produced from the San Andres formation at depths ranging from 3762' to 4943' below the surface. A copy of the log (Log No. 3) of this well is attached. Gulf's application to appropriate ground water from this source has been properly advertised and affidavit of publication filed with the State Engineer.
- (6) Prior to any expansion of the Unit, applicant will request that the expansion be authorized by administrative approval. Unit Operator will file with the Commission an executed original or an executed counterpart of the Stuart Langlie Mattix Unit Agreement within thirty (30) days after the effective date of the approved Unit and/or after the effective date of any approved expansion.
- (7) The order of the Commission should become effective upon the final approval of the Unit Agreement by the Commissioner of Public Lands of the State of New Mexico, Working Interest Owners and the United States Geological Survey, and terminate ipso facto upon termination of the Unit Agreement.

Gulf Oil Corporation has obtained preliminary approval of the Unit Agreement from both the U.S.G.S. and the Commissioner of Public Lands, and a copy of this application, complete with all attachments, has been sent to the State Engineer Office, Santa Fe, New Mexico.

It is requested that this matter be set for hearing before an examiner.

Respectfully submitted,

GULF OIL CORPORATION



M. I. Taylor

Attachments  
LCS:sz

cc: United States Department of the Interior  
Geological Survey  
Post Office Box 1857  
Roswell, New Mexico 88201

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 1148  
Santa Fe, New Mexico 87501

State Engineer Office  
Post Office Box 1079  
Santa Fe, New Mexico 87501

New Mexico Oil Conservation Commission  
Post Office Box 1980  
Hobbs, New Mexico 88240

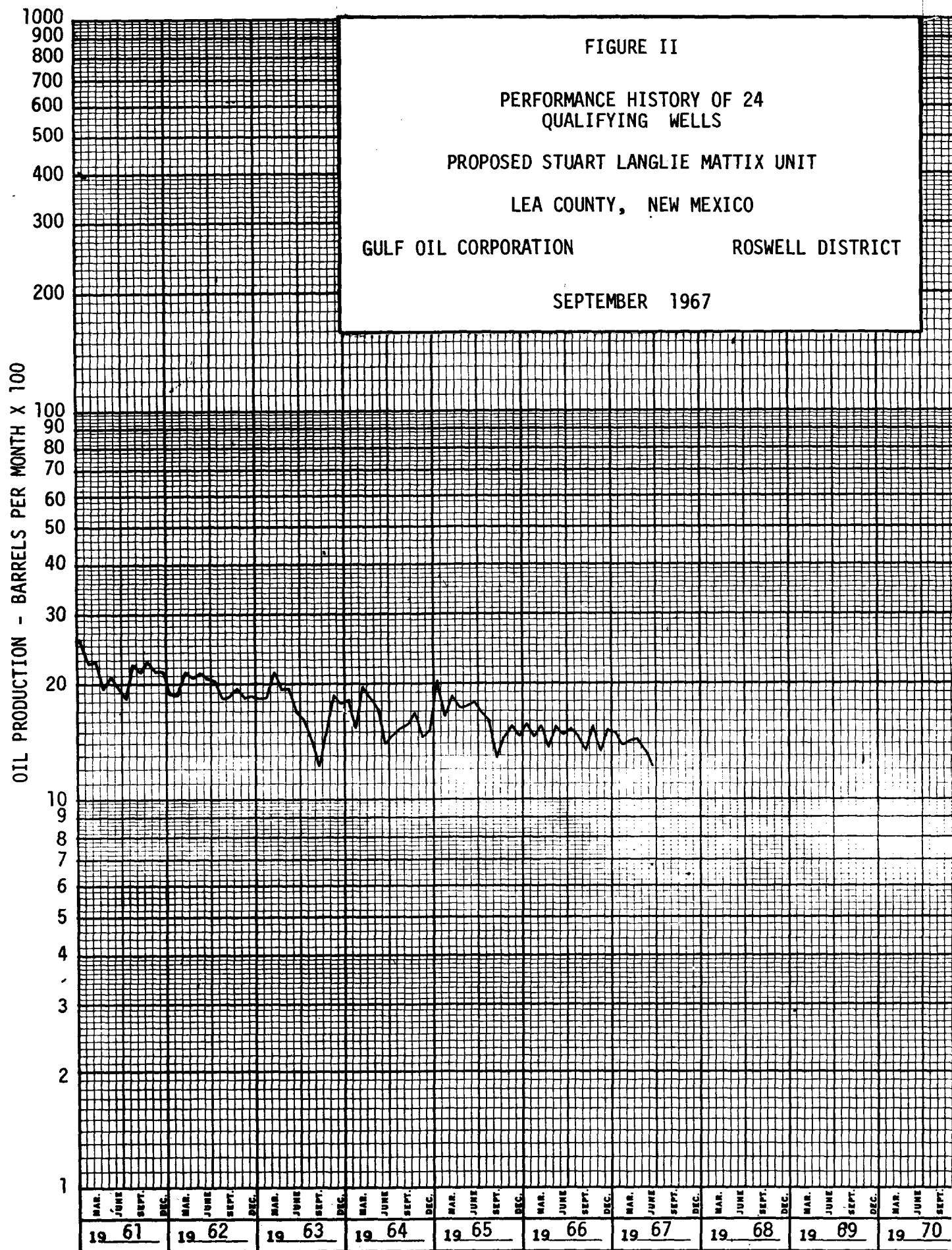




FIGURE IV  
 DIAGRAMMATIC SKETCH  
 Typical Proposed Injection Well  
 Proposed Stuart Langlie Mattix Unit  
 Lea County, New Mexico  
 Skelly Oil Company State "L" No. 1  
 Unit E Sec. 2-25S-37E

