

FILED
JUL 29 PM '66

*Superseded by
Amended
appl*

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

IN THE MATTER OF THE APPLICATION OF)
ANADARKO PRODUCTION COMPANY FOR AN)
ORDER AUTHORIZING THE EXPANSION OF)
THE WEST SQUARE LAKE WATERFLOOD)
PROJECT TO INCLUDE THE N/2 SW/4, THE)
N/2 SE/4 AND THE SE/4 SE/4 OF SEC-)
TION 3 AND THE NE/4 NE/4 OF SECTION)
10, TOWNSHIP 17 SOUTH, RANGE 30 EAST,)
EDDY COUNTY, NEW MEXICO AND PROVID-)
ING PROCEDURES FOR SUCH EXPANSION)
AND FOR FURTHER EXPANSION.)

Case No. 4409

A P P L I C A T I O N

COMES NOW Anadarko Production Company, hereinafter referred to as "Applicant", and makes its application for the expansion by this Commission of Applicant's West Square Lake Waterflood Project, Eddy County, New Mexico to include the N/2 SW/4, the N/2 SE/4 and the SE/4 SE/4 of Section 3 and the NE/4 NE/4 of Section 10, Township 17 South, Range 30 East, Eddy County, New Mexico, and in support of this application states:

1. Order No. R-2571 entered August 21, 1963, authorized Applicant to institute a waterflood project in the Square Lake Pool, Eddy County, New Mexico by injecting water into the Lower Grayburg and Upper San Andres formations in and under the NW/4 of Section 3, Township 17 South, Range 30 East.

2. The operation of Applicant's waterflood project pursuant to said Order No. R-2571 and the operation of Newmont Oil Company's Square Lake Waterflood project in the immediate vicinity has established the feasibility of waterflooding said formations in said pool and has further established that such flooding will result in increased ultimate recovery of oil and will, therefore, prevent waste.

3. Applicant has entered into a Cooperative Waterflood Agreement with Stallworth Oil & Gas providing for the waterflooding of the said formations in and under the S/2 NE/4 and the N/2 SE/4 of Section 3, Township 17 South, Range 30 East. Pursuant to said Agreement, Applicant's Federal "KK" Well No. 3 located in the NW/4 SE/4 of Section 3 and Stallworth Oil & Gas' Federal Parke Well No. 4 located in the SE/4 NE/4 of Section 3 are proposed to be converted to injection wells. Applicant proposes to produce from its Federal KK No. 2 Well located in the NE/4 SE/4 of Section 3 and Stallworth Oil & Gas is presumed to intend to continue to produce from its Federal Parke Well No. 5 located in the SW/4 of NE/4 of Section 3.

4. Applicant has entered into an Agreement with General American Oil Company of Texas whereby Applicant will be entitled to receive an assignment of the operating rights in and under the S/2 SE/4, the SE/4 SW/4 and the W/2 SW/4 of Section 3 upon the completion of two injection wells and the commencement of the injection of water thereinto. Applicant therefore proposes to drill injection wells as follows: Federal JJ Well No. 2 located in the NW/4 SW/4 of Section 3 and Federal KK Well No. 1 located in the SE/4 SE/4 of Section 3.

5. Further, Applicant alleges that the said formations in and under the S/2 SW/4 and the SW/4 SE/4 of Section 3 and the NW/4 NE/4, the S/2 NE/4 and the NW/4 of Section 10 are properly subject to waterflooding but that the exact number and location of injection and producing wells can best be determined only after the commencement of waterflooding of the N/2 S/2 and the SE/4 SE/4 of Section 3 and the NE/4 NE/4 of Section 10 and the observance of the results thereof.

6. The data required by Rule 701B of this Commission are attached hereto as Exhibits I through III, respectively.

WHEREFORE, Applicant requests a hearing before an examiner, notice of hearing to be given according to law, and requests that after notice and hearing, this Commission issue its Order:

a. expanding the limits of Applicant's West Square Lake Waterflood Project to include the Lower Grayburg and Upper San Andres formations in and under the N/2 SW/4, the N/2 SE/4 and the SE/4 SE/4 of Section 3 and the NE/4 NE/4 of Section 10, Township 17 South, Range 30 East, Eddy County, New Mexico;

b. establishing rules for the expansion of the waterflood within the area described in subparagraph a above; and

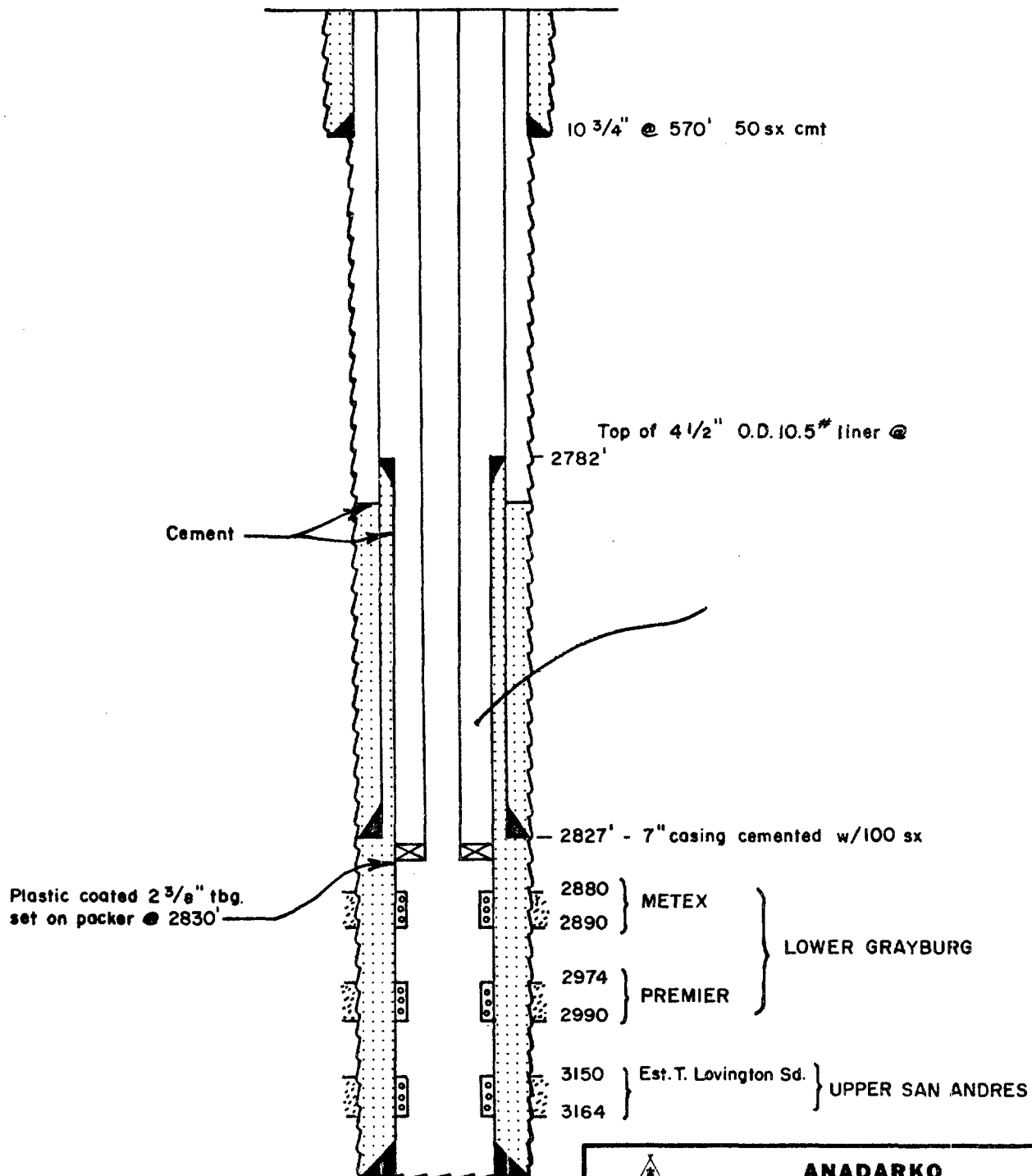
c. authorizing the further expansion of the waterflood, by administrative approval, to include the Lower Grayburg and the Upper San Andres formations in and under all or any parts of the S/2 SW/4 and the SW/4 SE/4 of Section 3 and the NW/4 NE/4, the S/2 NE/4 and the NW/4 of Section 4, Township 17 South, Range 30 East, Eddy County, New Mexico, without the necessity of a showing that a proposed injection well or producing well within said area has experienced an actual response to water injection.

ROBERT E. ANDERSON
P.O. Box 9317
Fort Worth, Texas 76107

KELLAHIN & FOX

By Jason W. Kellahin
P.O. Box 1769
Santa Fe, New Mexico 87501

Attorneys for Applicant



EST. TD 3200



**ANADARKO
PRODUCTION COMPANY**

FEDERAL KK WELL NUMBER 3
SQUARE LAKE FIELD
EDDY COUNTY, NEW MEXICO

DIAGRAMMATIC SKETCH
OF

TYPICAL WATER INJECTION WELL

App'd EX 2 C 4409

*Amended appl
(to be used w/ exhibits
attached to orig)*

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

IN THE MATTER OF THE APPLICATION OF)
ANADARKO PRODUCTION COMPANY FOR AN)
ORDER AUTHORIZING THE EXPANSION OF)
THE WEST SQUARE LAKE WATERFLOOD)
PROJECT TO INCLUDE THE N/2 SW/4,)
THE N/2 SE/4 AND THE SE/4 SE/4 OF)
SECTION 3 AND THE NE/4 NE/4 OF)
SECTION 10, TOWNSHIP 17 SOUTH,)
RANGE 30 EAST, EDDY COUNTY, NEW)
MEXICO AND PROVIDING PROCEDURES FOR)
SUCH EXPANSION AND FOR FURTHER)
EXPANSION.)

Case No. 4409

A M E N D E D A P P L I C A T I O N

COMES NOW Anadarko Production Company, hereinafter referred to as "Applicant", and makes its amended application for the expansion by this Commission of Applicant's West Square Lake Waterflood Project, Eddy County, New Mexico to include the N/2 SW/4, the N/2 SE/4 and the SE/4 SE/4 of Section 3 and the NE/4 NE/4 of Section 10, Township 17 South, Range 30 East, Eddy County, New Mexico, and in support of this application states:

1. Order No. R-2571 entered August 21, 1963, authorized Applicant to institute a waterflood project in the Square Lake Pool, Eddy County, New Mexico by injecting water into the Lower Grayburg and Upper San Andres formations in and under the NW/4 of Section 3, Township 17 South, Range 30 East.

2. The operation of Applicant's waterflood project pursuant to said Order No. R-2571 and the operation of the Newmont Oil Company and the Water Flood Associates, Inc. Square Lake Waterflood projects in the immediate vicinity have established the feasibility of waterflooding said formations in said pool and has further established that such flooding will

result in increased ultimate recovery of oil and will, therefore, prevent waste.

3. Applicant and Stallworth Oil & Gas, operating agent for Water Flood Associates, Inc., have agreed cooperatively to waterflood the said formations in and under the S/2 NE/4 and the N/2 SE/4 of Section 3, Township 17 South, Range 30 East. Pursuant to said agreement, Applicant's Federal "KK" Well No. 3 located in the NW/4 SE/4 of Section 3 and Stallworth Oil & Gas' Federal Parke Well No. 4 located in the SE/4 NE/4 of Section 3 are proposed to be converted to injection wells. The proposed action of Stallworth Oil & Gas, as operating agent for Water Flood Associates, Inc., was heretofore authorized by this Commission by Order No. R-2271, entered June 7, 1962. Applicant intends to produce from its Federal "KK" No. 2 Well located in the NE/4 SE/4 of Section 3 and Applicant is authorized to state that Stallworth Oil & Gas intends to produce from its Federal Parke Well No. 5 located in the SW/4 of NE/4 of Section 3.

4. Applicant has entered into an Agreement with General American Oil Company of Texas whereby Applicant will be entitled to receive an assignment of the operating rights in and under the S/2 SE/4, the SE/4 SW/4 and the W/2 SW/4 of Section 3 upon the completion of two injection wells and the commencement of the injection of water thereinto. Applicant therefore proposes to drill injection wells as follows: Federal "JJ" Well No. 2 located in the NW/4 SW/4 of Section 3 and Federal "KK" Well No. 1 located in the SE/4 SE/4 of Section 3.

5. Further, Applicant alleges that the said formations in and under the S/2 SW/4 and the SW/4 SE/4 of Section 3 and the NW/4 NE/4, the S/2 NE/4 and the NW/4 of Section 10 are

properly subject to waterflooding but that the exact number and location of injection and producing wells can best be determined only after the commencement of waterflooding of the N/2 S/2 and the SE/4 SE/4 of Section 3 and the NE/4 NE/4 of Section 10 and the observance of the results thereof.

6. The data required by Rule 701B of this Commission are attached hereto as Exhibits I through III, respectively.

WHEREFORE, Applicant requests a hearing before an examiner, notice of hearing to be given according to law, and requests that after notice and hearing, this Commission issue its Order:

(a) expanding the limits of Applicant's West Square Lake Waterflood Project to include the Lower Grayburg and Upper San Andres formations in and under the N/2 SW/4, the N/2 SE/4 and the SE/4 SE/4 of Section 3 and the NE/4 NE/4 of Section 10, Township 17 South, Range 30 East, Eddy County, New Mexico;

(b) establishing rules for the expansion of the waterflood within the area described in subparagraph (a) above; and

(c) authorizing the further expansion of the waterflood, by administrative approval, to include the Lower Grayburg and the Upper San Andres formations in and under all or any parts of the S/2 SW/4 and the SW/4 SE/4 of Section 3 and the NW/4 NE/4, the S/2 NE/4 and the NW/4 of Section 4, Township 17 South, Range 30 East, Eddy County, New Mexico, without the necessity of a showing that a proposed injection well or producing well within said area has experienced an actual response to water injection.

ROBERT E. ANDERSON
P. O. Box 9317
Fort Worth, Texas 76107

KELLAHIN & FOX

BY Jason W. Kellahin
P. O. Box 1769
Santa Fe, New Mexico 87501

Attorneys for Applicant