

CASE 4035: Application of PHILLIPS
for a waterflood project, Lea
County, New Mexico.

65/5

-idse Number

4035

Application
Transcripts.

Small Exhibits

ETC.

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 22, 1969

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 4013: (Continued and Readvertised)
Application of Redfern Development Corporation and Wil-Mc Oil Corporation for salt water disposal, Lea County, New Mexico. Applicants, in the above-styled cause, seek authority to dispose of produced salt water into the San Andres formation in the interval from approximately 4042 feet to 4179 feet in the Wil-Mc State K Well No. 1 located in Unit O of Section 11, Township 10 South, Range 32 East, Mescalero-San Andres Pool, Lea County, New Mexico.
- CASE 4029: Application of General American Oil Company for a waterflood expansion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its pilot waterflood project in the Grayburg zone of the San Andres formation in the Grayburg-Jackson Pool, Eddy County, New Mexico, authorized by Order No. R-2324, by the conversion to water injection of 13 additional injection wells located in Township 17 South, Ranges 29 and 30 East, Eddy County, New Mexico.
- CASE 4030: Application of Argus Production Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation in the perforated and open-hole interval from approximately 3554 feet to 3775 feet in its J. T. Lynn A-28 Well No. 3, located 2310 feet from the South line and 1650 feet from the East line of Section 28, Township 23 South, Range 36 East, Jalmat Yates-Seven Rivers Pool, Lea County, New Mexico.
- CASE 4031: Application of Texaco Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates-Seven Rivers formations in the open-hole interval from approximately 2964 feet to 3119 feet in its C. W. Shepherd Federal "B" Well No. 5 located in Unit I of Section 1, Township 26 South, Range 36 East, Jalmat Yates-Seven Rivers Pool, Lea County, New Mexico.

CASE 4032: In the matter of the hearing called by the Oil Conservation Commission upon its own motion to consider the establishment of non-standard gas proration units and unorthodox gas well locations, where necessary, in the Aztec and Blanco-Pictured Cliffs Gas Pools in Sections 6, 7, 18, 19, 30, and 31, Townships 29 and 30 North, Ranges 8 and 9 West, San Juan County, New Mexico. Said non-standard units and locations being necessitated by variations in said legal subdivisions of the U. S. Public Land Surveys.

CASE 4033: Application of Phillips Petroleum Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates-Seven Rivers formations in the perforated interval from 3606 feet to 3740 feet in its Cruces Federal Well No. 5 located in Unit P of Section 26, Township 20 South, Range 34 East, Lynch Yates-Seven Rivers Pool, Lea County, New Mexico.

CASE 4034: Application of Phillips Petroleum Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates-Seven Rivers formations in the open-hole interval from 3360 feet to 3520 feet in its C. D. Woolworth Well No. 9 located in Unit B of Section 27, Township 24 South, Range 36 East, Jalmat Yates-Seven Rivers Pool, Lea County, New Mexico.

CASE 4035: Application of Phillips Petroleum Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through its Philmex Well No. 5 located in Unit N of Section 27, Township 17 South, Range 33 East, Maljamar Grayburg-San Andres Pool, Lea County, New Mexico.

ROUGH DRAFT FOR WATERFLOOD LETTERS

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Dear Sir:

Enclosed herewith Commission Order No. R-3668, entered in Case No. 4035, approving the Phillips Majumdar Philmes Waterflood Project.

Injection is to be through the one authorized water injection well, which shall be equipped with a string of 2 3/8-inch tubing set in a packer at 4225 feet

As to allowable, our calculations indicate that when ~~all~~ ^{less} of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 84 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

cc: OCC: Hobbs X
Artesia
Aztec

USGS

Mr. Frank Irby, State Engineer Office, Santa Fe, New Mexico
Mr. D. E. Gray

Case 4035.

Heard 1-22-69

Rec. 1-22-69.

Grant Phillips has permission to convert these Philmax #5-N-27-175-33E. to a waterflood injection well. Injection to be thru 2" uncoiled tubing. ~~Under~~ under a packer set at approx. 4230.8 inls at Grappling - S.A. in ~~open hole~~ perforated from 4236 - 440 & open hole from 4460 - 4570.

Fresh water to be injected & produced water returned to Penn-Goil to reinject.

Thos. G. W.

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

January 24, 1969

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Dear Sir:

Enclosed herewith is Commission Order No. R-3668, entered in Case No. 4035, approving the Phillips Maljamar Philmex Waterflood Project.

Injection is to be through the one authorized water injection well, which shall be equipped with a string of 2 3/8-inch tubing set in a packer at 4225 feet.

As to allowable, our calculations indicate that when the authorized injection well has been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 84 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

-2-

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Santa Fe, New Mexico

January 24, 1969

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

C
O
P
Y
Enclosure
ALP/DSN/ir

cc: Oil Conservation Commission
Hobbs, New Mexico

State Engineer Office
Santa Fe, New Mexico

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 4035
Order No. R-3668

APPLICATION OF PHILLIPS PETROLEUM
COMPANY FOR A WATERFLOOD PROJECT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 22, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 24th day of January, 1969, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Phillips Petroleum Company, seeks
permission to institute a waterflood project in the Maljamar
Grayburg-San Andres Pool by the injection of water into the
Grayburg-San Andres formations through its Philmex Well No. 5,
located in Unit N of Section 27, Township 17 South, Range 33
East, NMPM, Lea County, New Mexico.

(3) That the wells in the project area are in an advanced
state of depletion and should properly be classified as "stripper"
wells.

(4) That the proposed waterflood project should result in
the recovery of otherwise unrecoverable oil, thereby preventing
waste.

-2-

CASE No. 4035

Order No. R-3668

(5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Phillips Petroleum Company, is hereby authorized to institute a waterflood project in the Maljamar Grayburg-San Andres Pool by the injection of water into the Grayburg-San Andres formations through its Philmex Well No. 5, located in Unit N of Section 27, Township 17 South, Range 33 East, NMPM, Lea County, New Mexico.

(2) That the subject waterflood project is hereby designated the Phillips Maljamar Philmex Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

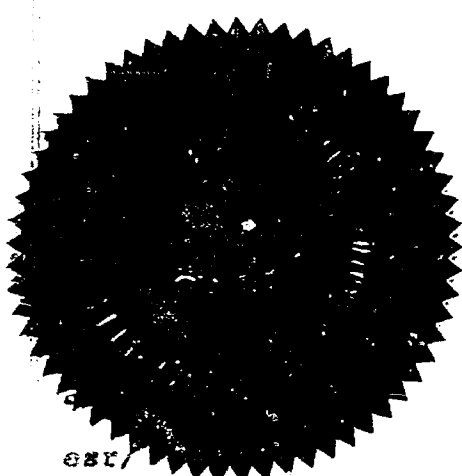
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


ALEX J. ARMIJO, Chairman


A. L. PORTER, Jr., Member & Secretary



621/

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 22, 1969

EXAMINER HEARING

IN THE MATTER OF:)
)
)

Application of Phillips Petroleum)
Company for a waterflood project,)
Lea County, New Mexico.)
)

Case No. 4035

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 4035.

MR. HATCH: Case 4035, application of Phillips Petroleum Company for a waterflood project, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, may the record show the same appearance, and the fact that the witness has previously been sworn.

MR. UTZ: Yes.

(Whereupon, Applicant's Exhibits Numbers 1 through 5, inclusive, were marked for identification.)

W. J. MUELLER

called as a witness by the Applicant, having been previously duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A W. J. Mueller.

Q Are you the same Mr. Mueller who testified in the two preceeding cases?

A Yes, sir.

Q Mr. Mueller, in Case 4035, will you state briefly what Phillips Petroleum Company proposes?

A Phillips here seeks authority to institute a waterflood

project on its Philmex Lease by injection of water into the Philmex No. 5, located in Unit N of Section 27, Township 17 South, Range 33 East, in the Maljamar Grayburg-San Andres Pool, Lea County, New Mexico.

Q Referring to Exhibit Number 1, would you identify that exhibit?

A Exhibit Number 1 is a plat of the area outlining in red again the Phillips Philmex Lease, showing the two wells that are currently producing on this lease in the Maljamar Pool, the Philmex Nos. 5 and 6 in the south half of the southwest quarter of Section 27.

Q What is the present status of the Philmex Well No. 5?

A This is currently a producing well of about 10 barrels per day magnitude.

Q Is the Philmex Lease offset by a waterflood project?

A Yes, the Philmex lease is offset to the west and north by waterflood projects, the one to the west being the Pennzoil Maljamar Waterflood Project that was approved by Commission Order R-3129, in October of 1966; and in the fall of 1968, Pennzoil obtained an Administrative Approval WFX-295 for conversion for the Phillips State C 1 Well located in Unit L of Section 27, and offsetting our Philmex Well No. 6 to the north.

Q How are the offset injection wells shown on your

Exhibit 1?

A The offset injection wells are shown as brown circles, and the producing wells are shown as brown triangles.

Q Now, referring to what has been marked as Exhibit 2, would you identify that exhibit?

A Exhibit Number 2 is a production graph in barrels of oil per month for Phillips Philmex Lease, and the three offsetting leases to this Philmex production.

Q Does that exhibit reflect a response to the waterflood project offsetting the Philmex Lease?

A Yes, it shows that all of these leases have shown some response since June of 1968.

Q In your opinion, does this indicate that Phillips must take some action at this time to protect itself in connection with these waterflood projects?

A We feel that, yes, to protect correlative rights, we should flood in cooperation with the offset operator, and the conversion of Philmex No. 5 would fulfill a standard five spot pattern, including the area in question.

Q Now, referring to what has been marked as Exhibit Number 3, would you identify that exhibit?

A Exhibit Number 3 is our proposed installation of Philmex No. 5 for injection, and shows two and three-eighths-inch

tubing at 4,230 with a Johnston packer, and the current perforated intervals that exist in the well in the open-hole interval.

Q How will that well be completed? Will you run a plastic-lined tubing?

A We are negotiating for a contract from Pennzoil, who has offered to sell us pressured water, and this is fresh Ogalalla water, and we had not planned to use plastic coating in the tubing, because I do not believe Pennzoil is using it.

Q You will be injecting fresh Ogalalla water?

A Yes.

Q What volume of water will you be injecting?

A These wells take in the neighborhood of 300 barrels of water initially, but then taper on down to a hundred or 150-barrel range.

Q What pressure will you anticipate using?

A Pressure initially is under 2,000, but then rapidly rises to 2300 or above. And Pennzoil, the water they have offered us, their injection station delivers water at 2500 pounds.

Q And you anticipate you will get that at an offsetting well?

A Yes, current negotiations are to pick up injection at their injection Well No. 13.

Q What volume of water are you presently producing from this No. 6 Well?

A From the No. 6 Well?

Q Do you have that information?

A Yes. Currently, the No. 6 Well is producing about 25 to 30 barrels of water a day.

Q Would this water be re-injected on your waterflood project?

A No, sir, probably not on ours. In the agreement we are negotiating with Pennzoil, we will buy pressured water from them, and then we will deliver our produced water back to their injection station, and they are going to select certain wells in their flood for the injection of produced water. They do not want to mix the waters.

Q So all you will use on your injection well will be fresh water, and you will not re-inject produced water in this well?

A This is right.

Q Referring to what has been marked as Exhibit Number 4, would you identify that exhibit?

A Exhibit Number 4 is an east-west cross-section through Phillips Philmex No. 5 and 6 into the Pennzoil Phillips State No. 13, and its west offset, the State 9X. This cross-section

shows the same injection intervals we propose in Philmex No. 5, or the producing intervals in our Philmex No. 6, and also encompasses the injection intervals in the Pennzoil Phillips State No. 13, west offset to Philmex No. 6.

Q You will actually be injecting into zones other than those in which the offsetting wells are injecting, will you not?

A Yes, the San Andres open-hole interval in our Philmex No. 5 is open, whereas in the Pennzoil Phillips State No. 13 has not been perforated.

Q Now, referring to what has been marked as Exhibit Number 5, would you identify that exhibit?

A Exhibit 5 is a PGAC radiation log, gamma ray neutron log of Philmex No. 5, showing its perforated and open-hole intervals which we would plan to inject water into.

Q Were Exhibits 1 through 5 prepared by you or under your supervision?

A Yes, sir.

Q Mr. Mueller, in your opinion, will the approval of this waterflood project result in the recovery of oil that would not otherwise be recovered?

A Definitely. Our experience in the Maljamar Field on other flood injecting with other offset operators have seen a secondary recovery in the neighborhood of 50 per cent to 100

per cent of primary, so this would anticipate an increased recovery on our Philmex Lease here from these two wells in the vicinity of from 40,000 to 80,000 barrels of oil.

Q Is approval of the application essential to the protection of the correlative rights of Phillips Petroleum Company?

A Yes, sir.

Q Will it be to the benefit of the correlative rights of the offsetting operators?

A Yes. In fact, Pennzoil has requested that we also convert this well to fulfill their pattern and keep pressure built up.

MR. KELLAHIN: At this time, I would like to offer in evidence Phillips' Exhibits 1 through 5, inclusive.

MR. UTZ: Exhibits 1 through 5 will be entered into the evidence.

(Whereupon, Applicant's Exhibits
Numbers 1 through 5, inclusive,
were admitted in evidence.)

MR. KELLAHIN: That is all I have on direct examination.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Mueller, did you state how you were going to handle

the annulus?

A I don't remember if we did or not. We would fill it with an inert fluid, with a pressure gauge.

Q The location of this well is shown at the bottom here of Exhibit 3, and is the correct location to the best of your knowledge?

A Yes, sir.

MR. UTZ: Any other questions? The witness may be excused. Are there any statements? The case will be taken under advisement.

The hearing is adjourned.

I N D E X

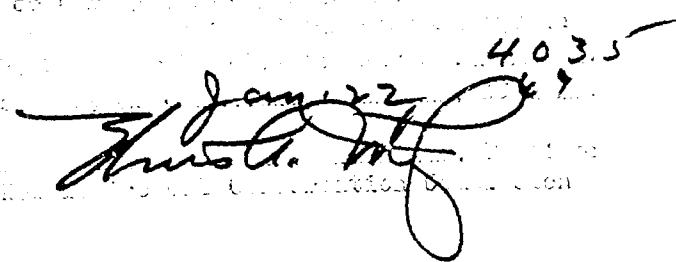
<u>WITNESS</u>	<u>PAGE</u>
W. J. MUELLER	
Direct Examination by Mr. Kellahin	2
Cross Examination by Mr. Utz	8

<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's Exhibits Numbers 1 through 5	2	8

STATE OF NEW MEXICO)
) ss.
 COUNTY OF BERNALILLO)

I, SAMUEL MORTELETTE, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.


 COURT REPORTER

4035
 Jan 22 1949

 Samuel Mortelette

3 5/8" casing at 1473'
w/985 ex cement
cement circulated

BEFORE EXAMINER USE
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 4035

Johnston 101 Tension Type
Pkr at 4225'
2 3/8" tbg at 4250'

4236
4246
4263
4297
4353
4363
4420
4440

5 1/2" casing at 4460'
w/556 ex. cement. 400 2130'

TD: 4570

HILLMAN'S PLANTATION COMPANY
HILLMAN, TEXAS

8461 FSL, 1473' PSL, Sec. 27, T-17-S, R-33-E, 1st 6., Hillman

BEFORE THE
OIL CONSERVATION COMMISSION OF NEW MEXICO

APPLICATION OF PHILLIPS PETROLEUM
COMPANY FOR APPROVAL OF A WATERFLOOD
PROJECT ON THE PHILMEX LEASE,
MALJAMAR-GRAYBURG-SAN ANDRES POOL,
LEA COUNTY, NEW MEXICO

Page 4635

A P P L I C A T I O N

Comes now PHILLIPS PETROLEUM COMPANY and applies to the Oil Conservation Commission of New Mexico for approval of a waterflood project on its Philmex Lease, in the Maljamar-Grayburg-San Andres Pool, Lea County, New Mexico, and in support thereof would show the Commission:

1. Applicant proposes to institute a waterflood project on its Philmex Lease by injecting water into the Grayburg-San Andres formation in the Philmex No. 5 Well, located in Unit N of Section 27, Township 17 South, Range 33 East, N.M.P.M.

2. The approval of this application will result in the recovery of oil that would not otherwise be recovered.

3. Applicant's lease is offset by a waterflood project, and in order to protect applicant's correlative rights, approval of this waterflood project is necessary.

WHEREFORE, applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law, the Commission enter its order approving the waterflood project as prayed for.

Respectfully submitted,

PHILLIPS PETROLEUM COMPANY

BY: Robert L. Johnson
 Hollahan & Bok
 Post Office Box 1799
 Santa Fe, New Mexico

DOCKET # 11-152

7.10.8. US 201 122-3 111 Date 1-7-64

DRAFT
GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 4035

Order No. R-3668

APPLICATION OF PHILLIPS PETROLEUM COMPANY
FOR A WATERFLOOD PROJECT, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 22, 1969,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this _____ day of January, 1969, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Phillips Petroleum Company,
seeks permission to institute a waterflood project in the _____
Maljamar Grayburg-
San Andres Pool by
the injection of water into the Grayburg-San Andres formations
its Philmex Well No. 5, located in Unit N of Section 27,
through injection wells in Section,
Township 17 North South, Range 33 West East, NMPM,
Lea County, New Mexico.

(3) That the wells in the project area are in an advanced
state of depletion and should properly be classified as "stripper"
wells.

(4) That the proposed waterflood project should result in
the recovery of otherwise unrecoverable oil, thereby preventing
waste.

(5) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Phillips Petroleum Company,
is hereby authorized to institute a waterflood project in the
Maljamar Grayburg-
Unit Area San Andres Pool
by the injection of water into the Grayburg-San Andres formations *through*
~~through the following described wells in Township~~
~~North, South, Range~~ ~~West, East, NMPM,~~
~~County, New Mexico~~
its Philmex Well No. 5, located in Unit N of Section 27, Township
17 South, Range 33 East, NMPM, Lea County, New Mexico.

(2) That the subject waterflood project is hereby designated
the Phillips Maljamar Philmex Waterflood Project and shall
be governed by the provisions of Rules 701, 702, and 703 of the
Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood project
herein authorized shall be submitted to the Commission in accor-
dance with Rules 704 and 1120 of the Commission Rules and Regula-
tions.

(4) That jurisdiction of this cause is retained for the
entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove
designated.

Phillip

3.

water flood -

~~Philmer~~ Philmer Lease

Grayburg - San Andres formation

Philmer #5

N - 27 - 17S - 33E

Maljarmoy - Grayburg - San Andres

Pool -

Lea Co.