

CASE 3089: Application of PHILLIPS
for a waterflood project, Lea
County, New Mexico

CASE No.
3089

Application,
TRANSCRIPTS,
SMALL Exhibits
ETC.

Memo

From
D. S. NUTTER
CHIEF ENGINEER

To

Injection wells to
be equipped w/ tubing
& packers - pack to
be set below the
top of the crest
on the $5\frac{1}{2}$ - Set press
to at least 10,000 ft.
allowance

42	1008
24	567
	<hr/>
168	7056
24	6048
	<hr/>
1008	5040
	<hr/>
	2712

Memo

From

R. L. STAMETS
Technical
Support Chief

To

Ranger Luke

3088
Case 3089

~~222~~

Artesia Meter

5030

5031



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

July 22, 1964

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, N. M.

Case 3084

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, N. M.

Dear Mr. Porter:

Reference is made to the application of Phillips Petroleum Corporation which seeks approval of the Ranger Lake Unit Agreement and water flood project submitted on June 19, 1964, which involves the following wells:

Ranger State No. 11	- Unit F, 26-12 S-34 E
Ranger State No. 4	- Unit F, 23-12 S-34 E
Ranger State No. 2	- Unit D, 25-12 S-34 E
State I, No. 1	- Unit P, 14-12 S-34 E
Humbler State No. 2	- Unit J, 27-12 S-34 E
State "AZ" No. 3	- Unit J, 34-12 S-34 E
State "WRA" No. 1	- Unit D, 35-12 S-34 E
State "K" No. 1	- Unit A, 27-12 S-34 E
State "24" No. 2	- Unit M, 24-12 S-34 E

The diagrammatic sketches of the wells which were submitted with the application do not show any packers. In fact, they show the wells as now constructed and equipped. It is my understanding from Phillips' attorney, Jason W. Kellahin, and their representative, Mr. McConnell, that only one string of tubing will be used in each well and that packers sealing the annulus between the tubing and casing will be installed at a point well below the top of the cement surrounding the 5½ inch casing. If the construction and equipment of the wells is in accordance with this understanding, it appears that no threat of contamination to the waters which exist in the area will occur. Therefore, this office offers no objection

to the granting of this application, provided construction
and equipment of the wells is carried out as set forth above.

Yours truly,

S. E. Reynolds
State Engineer

By: *Frank E. Irby*
Frank E. Irby
Chief
Water Rights Division

FEI/ma
cc-Mr. J. W. Kellahin
Mr. McConnell
Mr. F. H. Hennighausen

will run
Ogallala
water

will inj
12000 BPD

Shut the 9 wells
start inj immediately
Shut all 9 wells

will set
perm pack
immediately
above inj zone
& inject thru
 tubing in
each well

2-5/8" casing at 1999'
Oat. Vol. 1000 axx TOC: Circ.

BEFORE EXAMINER NUMBER	
OIL CONSERVATION COMMISSION	
Phillips EXHIBIT No.	129
CASE NO.	3088 - 3089

2-3/8" tubing at 10250'

Perforations:
10274-10284'
10300-10326'
10340-10352'

PBTD 10357'

5-1/2" casing at 10359'
Oat. Vol. 4000 axx TOC: Circ.

Ranger Lake Penn. Field
Phillips Petroleum Company &
Texas Pacific Oil Company
Ranger State No. 11 - Unit F, 26-12S-34E
Lea County, New Mexico

13-3/8" casing at 356'
Oat. Vol. 375 bbl TOC: Circ.

8-5/8" casing at 4222'
Oat. Vol. 3300 bbl TOC: Circ.

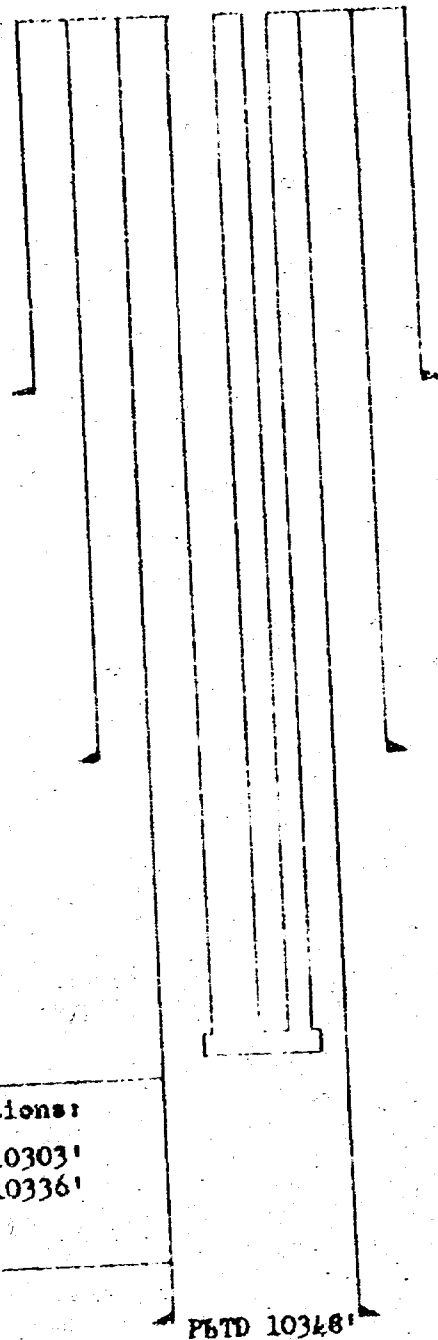
Parallel tubing strings:
2-3/8" and 1.315" at 10232'

Perforations:
10240-10286'
10304-10318'
10328-10350'

PBTD 10355'

5-1/2" casing at 10365'
Oat. Vol. 2050 bbl TOC: 2810'

Ranger Lake Penn. Field
Phillips Petroleum Company &
Texas Pacific Oil Company
Ranger State No. 4 - Unit F, 23-12S-34E
Lea County, New Mexico



13-3/8" casing at 356'
 Out. Vol. 375 exs TOC: Circ.

8-5/8" casing at 4226'
 Out. Vol. 2350 exs. TOC: Circ.

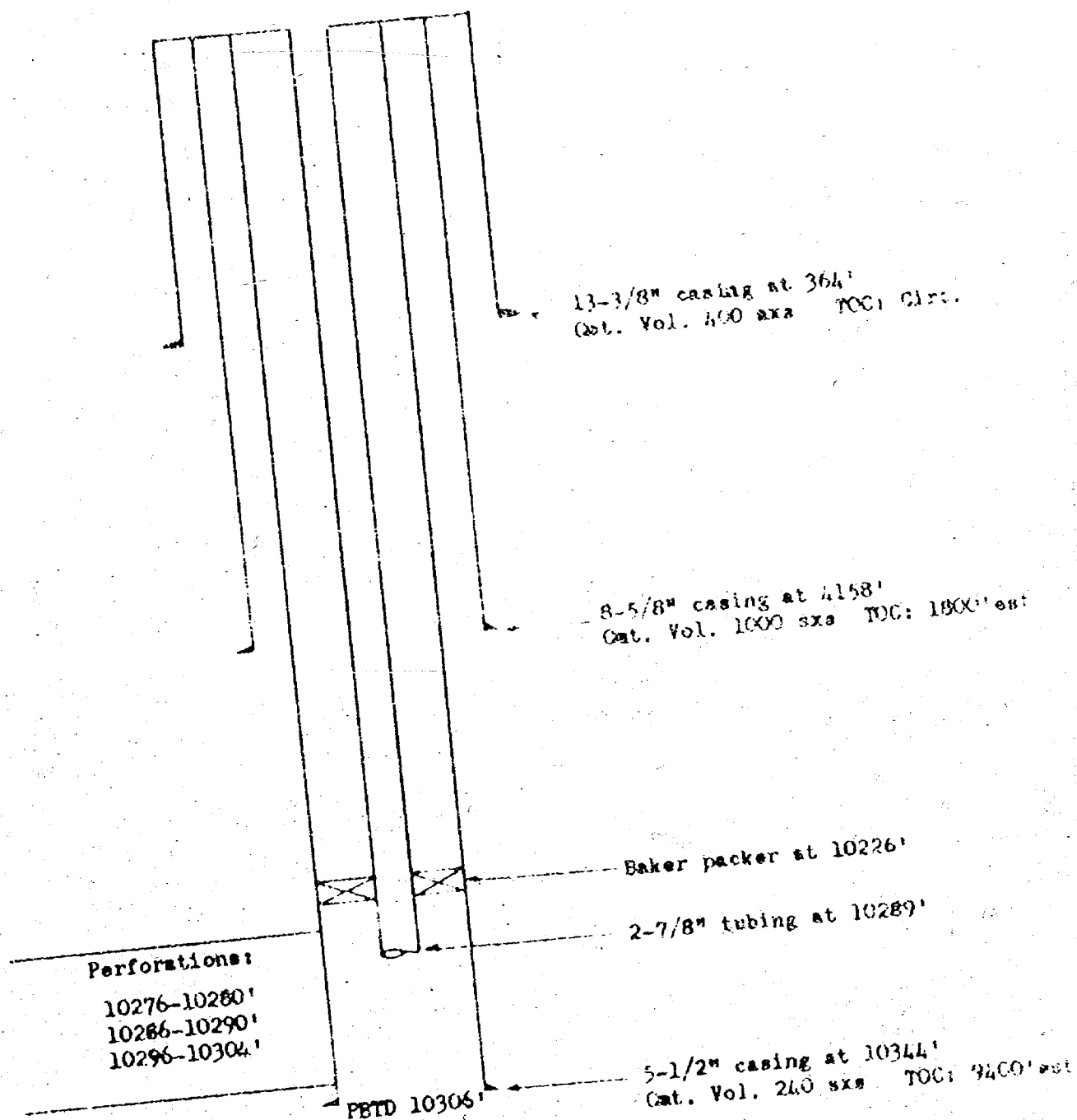
Parallel tubing strings:
 2-3/8" and 1.315" at 10234'

Perforations:
 10282-10303'
 10310-10336'

PBTD 10348'

5-1/2" casing at 10393'
 Out. Vol. 2500 exs TOC: 2750'

Ranger Lake Penn. Field
 Phillips Petroleum Company &
 Texas Pacific Oil Company
 Ranger State No. 2 - Unit D, 25-12S-34E
 Lea County, New Mexico



Ranger Lake Penn. Field
 Joseph I. O'Neill
 State "I" No. 1 - Unit P, 14-12S-34E
 Lea County, New Mexico

13-3/8" casing at 370'
Cmt. vol. 375 bbls TOC: 0195'

8-5/8" casing at 4250'
Cmt. vol. 1000 bbls TOC: 682'

2-3/8" tubing at 10,250'

Perforations:
10259-10265'
10277-10281'
10283-10291'
10298-10309'

FBTD 10310'

5-1/2" casing at 10785'
Cmt. vol. 300 bbls TOC: 9395'

Ranger Lake Penn. Field
J. C. Barnes Oil Co.
Humble State No. 2 - Unit J, 27-125 J&H
Lea County, New Mexico

13-3/8" casing at 405'
Cmt. vol. 350 sxx TOC: Circ.

8-5/8" casing at 1270'
Cmt. vol. 300 sxx TOC: 3275'

2-7/8" tubing at 7341'

Perforations:
10280-10307'
10334-10346'

PBTD 10372'

5-1/2" casing at 10440'
Cmt. vol. 300 sxx TOC: 8575'

Ranger Lake Penn. Field

Pan American Petroleum Corp.

State "AZ" No. 3 - Unit J, 34-125-34E
Lea County, New Mexico

13-3/8" casing at 417'
Cmt. vol. 375 bbls TOC 1700'

8-5/8" casing at 4209'
Cmt. vol. 1500 bbls TOC 1772'

Baker Model "D" packer at 10,200'

2-3/8"/2-7/8" tubing at 10,200'

Perforations
10237-10254'
10281-10305'

PBTD 10340'

5-1/2" liner from 4099' to 10340'
Cmt. vol. 600 bbls TOC 800'

Ranger Lake Penn. Field
Amerada Petroleum Corp.
State "WRA" No. 1 - Unit D, 35-12S-34E
Lea County, New Mexico

13-3/8" casing at 361'
Cmt. Vol. 300 bbl TOC: 6100

8-5/8" casing at 4233'
Cmt. Vol. 1000 bbl TOC: 12850

Gilbertson packer at 10203'

Combination 2-3/8" & 2-1/2" tubing
string at 10211'

Perforations:
10226-10229'
10245-10251'
10258-10269'
10272-10277'
10301-10305'
10326-10333'

5-1/2" casing at 10345'
Cmt. Vol. 600 bbl TOC: 71200

PRTD 10342'

Ranger Lake Penn. Field
Tidewater Oil Company
State "X" No. 1 - Unit A, 27-12S-34E
Las County, New Mexico

12-3/8" casing at 345'
Cmt. Vol. 350 axx TOC: Circ.

8-5/8" casing at 4240'
Cmt. Vol. 1600 axx TOC: Circ.

Perforations:
10310-10320'

2-3/8" tubing at 10,335'

PBTD 10340'

5-1/2" casing at 10375'
Cmt. Vol. 350 axx TOC: 9000' est.

Ranger Lake Penn. Field
Gordon M. Cone
State "24" No. 2 - Unit M, 24-128-341
Lea County, New Mexico

JASON W. KELLAHIN
ROBERT E. FOX

KELLAHIN AND FOX
ATTORNEYS AT LAW
54 1/2 EAST SAN FRANCISCO STREET
POST OFFICE BOX 1769
SANTA FE, NEW MEXICO

MAIN OFFICE 880
TELEPHONES
983-9396
982-2991

1964 JUN 23 AM 7:38

June 22, 1964

Case 3089

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

Re: Phillips Petroleum
Company Ranger Lake
Unit Agreement and
Water Flood Project,
Lea County, New Mexico.

Gentlemen:

Enclosed are copies of exhibits showing the casing
and cementing program on the proposed injection wells
in connection with the above application.

Logs of these wells have not yet been received but
will be forwarded to the Commission immediately upon
receipt.

Very truly yours,

Jason W. Kellahin

JASON W. KELLAHIN

jwk:mas
enclosures

DOCKET MAILED

Date 7/8/64

ASON W. KELLAHIN
ROBERT E. FOX

KELLAHIN AND FOX
ATTORNEYS AT LAW
54 1/2 EAST SAN FRANCISCO STREET
POST OFFICE BOX 1769
SANTA FE, NEW MEXICO

MAIN OFFICE OCC

TELEPHONES
983-9396
982-2991

1964 JUN 23 AM
MAIN OFFICE OCC 39

June 22, 1964

1964 JUN 23 AM 7:39

Case 3089

Mr. Frank Irby
State Engineer's Office
State Capitol
Santa Fe, New Mexico

Re: Phillips Petroleum
Company Ranger Lake
Unit Agreement and
Water Flood Project,
Lea County, New Mexico.

Dear Mr. Irby:

Enclosed are copies of exhibits showing the casing
and cementing program on the proposed injection wells
in connection with the above application.

The application of Phillips Petroleum Company will be
set for hearing before the Oil Conservation Commission's
examiner on July 22. If there is anything further you
need prior to that time, would you please let me know?

Very truly yours,

JASON W. KELLAHIN

jwk:mas
enclosures
cc: Oil Conservation Commission

C
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P
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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 22, 1964

EXAMINER HEARING

IN THE MATTER OF:

Application of Phillips Petroleum Company
for a unit agreement, Lea County, New
Mexico. Applicant, in the above-styled
cause, seeks approval of the Ranger Lake
Unit Area comprising 2,680 acres, more
or less, of State land in Township 12
South, Range 34 East, Lea County, New
Mexico.

Case No. 3088

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

Case No. 3089

BEFORE: DANIEL S. NUTTER, Examiner.

TRANSCRIPT OF HEARING

DEARNLEY-MEIER REPORTING SERVICE, Inc.
FARMINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 973-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

MR. NUTTER: We will call Case 3088.

MR. DURRETT: Application of Phillips Petroleum Company for a unit agreement, Lea County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, Santa Fe, representing the Applicant. We have one witness we would like to have sworn.

(Witness sworn.)

M. H. McCONNELL

called as a witness, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A M. H. McConnell.

Q By whom are you employed and in what position?

A Phillips Petroleum Company as a petroleum engineer.

Q Mr. McConnell, have you ever testified before the Oil Conservation Commission of New Mexico and made your qualifications a matter of record?

A Yes, I have.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. NUTTER: Yes, sir.



Q Mr. McConnell, are you familiar with the application of Phillips Petroleum Company in Case 3088?

A Yes, sir.

MR. KELLAHIN: At this time I would like to move the Commission that this case be consolidated with Case 3089 in view of the fact one is a unit agreement and the other covers a waterflood project for the same unit.

MR. NUTTER: We will now call Case 3089.

MR. DURRETT: Application of Phillips Petroleum Company for a waterflood project, Lea County, New Mexico.

MR. NUTTER: Is there objection to the consolidation of Cases 3088 and 3089 for purposes of hearing? The cases will be consolidated.

Q (By Mr. Kellahin) Are you familiar with the application of Phillips in Case 3089?

A Yes, I am.

Q Would you state briefly to the Commission Examiner what is proposed by Phillips Petroleum Company in these two cases?

A We propose to unitize the reservoir that produces in this area, the Ranger Lake-Penn formation, and we propose to initiate a water injection program to waterflood this reservoir and increase the recovery.

Q Do you have a plat showing the area involved in this

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ALBUQUERQUE, N. M.
PHONE 243.6691



application?

A Yes, sir.

(Whereupon, Applicant's Exhibit No. 1 was marked for identification.)

MR. NUTTER: Mr. McConnell, what office do you work out of?

A I work out of the Phillips office in Odessa.

Q (By Mr. Kellahin) Now, referring to what has been marked as Exhibit No. 1, Mr. McConnell, would you identify that exhibit and state what is shown on it?

A This exhibit shows lease ownership in the area surrounding the proposed Ranger Lake Unit. It shows colored in yellow the proposed unit area, which is the entire producing reservoir, and it shows all producing wells and those wells with the large circle around them as the proposed water injection wells.

Q In connection with the application, a copy of the unit agreement and unit operating agreement was filed with the Oil Conservation Commission, was it not?

A Yes, sir.

Q Making reference to that exhibit attached to the application and in particular to the unit area as shown by Exhibit A, has all of the area been committed to the unit?

A As of now it has not all been committed to the unit



agreement.

Q What areas have not been committed as to the working interest we're referring to?

A Tract 3 has not been committed, which is in Section 22. Tract 4 has not been committed in Section 24, and Tract 7 in Section 34 has not been committed.

Q Has the remainder of the tracts as shown on Exhibit A been committed to the unit?

A Yes, sir.

Q And all of the working interest owners have agreed to unitization?

A Yes, sir.

Q And have they agreed to the waterflood project as proposed?

A Yes, they have.

Q What is the status as to the royalty interest involved in this unit?

A The royalty is all owned by the State of New Mexico.

Q Has the form of unit been submitted to the office of the State Land Commissioner?

A Yes, it has.

Q Has approval been given by the State Land Commissioner as to the form and content of the unit agreement?

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ALBUQUERQUE, N. M.
PHONE 243.6691



A Yes, sir, approval has been given in letter form.

Q What is the situation as to any overriding royalties?

A All overriding royalties have been committed to the unit agreement.

Q Are all of the lands involved in this unit state lands?

A Yes, sir.

Q And there are no federal or fee lands involved?

A That's correct.

Q Does the unit agreement substantially give control of the area for secondary recovery purposes?

A Yes, sir, it does.

Q In connection with the secondary recovery program, did you file with the application an exhibit showing the present status of the wells which will be utilized for injection wells?

A We did.

Q Are those wells as presently shown, will they be utilized in that fashion for water injection purposes?

A Well, these diagrams show the present status of the wells as they are shown in the Commission office in Hobbs. The only deviation from this is that we will install a packer in each well and inject through tubing under a packer in all cases.

MR. KELLAHIN: Off the record.

(Whereupon, a discussion was held off the record.)



(Whereupon, Applicant's Exhibit No. 2, pages 1 through 9, were marked for identification.)

Q Referring to what has been marked as Exhibit 2, pages 1 through 9, are those the schematic diagrams of the present status of the wells you just mentioned?

A Of our proposed injection wells.

Q What do you propose to do to these wells for injection purposes?

A We will set a permanent packer immediately above the injection formation which is now the production formation, and set a string of tubing in the packer so that in all cases injection will be through a string of tubing and under a packer.

Q Now, the exhibit reflects that there are two strings of tubing in some of the wells on which a Kobe pump is apparently used. Only one string of tubing will be used in those wells?

A That's right, this parallel string of tubing will be pulled out and only the large string will be run back in and set in the packer.

Q Was this manner of completion discussed by you with the State Engineer?

A Yes, it was.

Q Did the State Engineer's Office, through Mr. Irby, agree to this proposed manner of completion?



A Yes, sir.

Q They furnished a letter to the Commission to that effect?

A Yes.

Q What will be the source of water to be used for injection?

A It will be an Ogallala formation.

Q Are you buying the water?

A No, we develop our own supply within the unit area.

Q You have permits from the State Engineer and have already developed the water supply?

A That is correct.

Q What volumes will be injected in the unit?

A We anticipate injecting 12,000 barrels per day.

Q Through the nine wells?

A Through the nine wells.

Q Will the injection start immediately on all of the wells, is that your plan?

A That's the plan.

Q Is this area at a substantial stage of completion?

A Yes, it's essentially depleted now.

Q Would you say it is at the stripper stage?

A Yes, sir, it is at the stripper stage.

Q Is there any primary recovery left in the field at the



present time?

A Only an insignificant amount.

Q Do you have logs of each of the injection wells?

A I believe we have them right here.

MR. NUTTER: We have the logs, I presume they are the same logs.

A Same logs.

MR. NUTTER: The file is pretty thick, I think we can probably get along without those.

Q (By Mr. Kellahin) Logs on all the wells have been supplied to the Commission, have they not?

A Yes, sir.

MR. KELLAHIN: At this time I would like to offer in evidence Exhibits 1 and 2.

MR. NUTTER: Were you planning to offer the brochure as an exhibit?

MR. KELLAHIN: If the Commission desires.

MR. NUTTER: I would like to have this as an exhibit.

(Whereupon, Applicant's Exhibit No. 3 was marked for identification.)

Q Directing your attention to what has been marked as Exhibit No. 3 in Case 3088, is that the form of unit agreement proposed in this application?



A Yes, it is.

Q Is that unit agreement substantially the same form that has been approved in previous cases by this Commission?

A Yes, it's the same form essentially.

MR. KELLAHIN: At this time I would like to offer in evidence Exhibits 1, 2 and 3.

MR. NUTTER: Applicant's Exhibits 1 through 3 will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1, 2 and 3 were offered and admitted in evidence.)

MR. KELLAHIN: That's all I have on direct examination, Mr. Nutter.

MR. NUTTER: Are there any questions of Mr. McConnell?

CROSS EXAMINATION

BY MR. NUTTER:

Q I believe you stated that Tracts 3, 4 and 7 had not been committed?

A That's right.

Q Tract No. 4 has one of the proposed injection wells on it. Is this going to be converted to injection and operated independently, or are you anticipating that the well will come into the unit?

A We expect that the well will come in, but it's not



committed as of today. If it is not committed by the time we commence injection, it just won't be one of the injection wells.

Q So we'll have eight wells rather than the nine?

A That's correct.

Q What's the status of the deal between American Trading and Texaco as far as the units are concerned?

A Well, American Trading has not elected as of the present time to ratify the unit agreement simply because that's almost a dry hole and they weren't going to have much ownership. They may sell it to the unit rather than ratify or it may be plugged. It has very little value anyway, because it's total cumulative production has only been about 1900 barrels. It was just included because we included the entire reservoir in the proposed unit.

Q How about Texaco's CS lease?

A Texaco has a half interest in that and has not ratified. Sunray DX, who has the other interest, has ratified. Whether Texaco is going to ratify, I don't know.

Q No injection well down there on that lease?

A That's right.

Q What's the total cumulative production from this field, Mr. McConnell?

A As of the first of this year it was 3,099,000 barrels.

Q That's through December of '63?



DEARNLEY-MEIER REPORTING SERVICE, Inc.

ALBUQUERQUE, N. M.
PHONE 243-6691

A Correct.

Q Have you made any estimates as to what you'll recover as a result of the secondary effort?

A Yes, we estimate 3,210,000 barrels. This is the same as the ultimate primary estimate.

Q What is the participation formula under the unit agreement?

A It's a two-phase formula. I believe Phase 1 is half the remaining primary --

Q This is it on pages 7 and 8, I presume, of the brochure?

A That's right. The primary phase is fifty percent six months' production for the first half of 1962 and fifty percent remaining primary production subsequent to June the 30th, 1962. Now, if you look on the agreement there is a typographical error there. It shows '63, that should be '62.

Q That's on page 8?

A On page 8.

Q And you do have tentative approval from the Commissioner of Public Lands of the unit agreement?

A Yes, sir.

Q Mr. McConnell, will this tubing that will be installed in these wells be plastic coated?

A Either plastic coated or cement coated.



MR. NUTTER: Any other questions of Mr. McConnell?

He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: That's all I have, Mr. Nutter.

MR. NUTTER: Does anyone have anything they wish to offer in Cases 3088 or 3089?

MR. DURRETT: I would like to state for the record that we have received a letter from Mr. Frank Irby, the State Engineer's Office, that was referred to in the testimony.

MR. NUTTER: If there's nothing further in Cases 3088 and 3089 we'll take these cases under advisement.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

ALBUQUERQUE, N. M.
PHONE 243-5591

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STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

I, ADA DEARNLEY, Notary Public 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.

Witness my Hand and Seal this 3rd day of August, 1964.

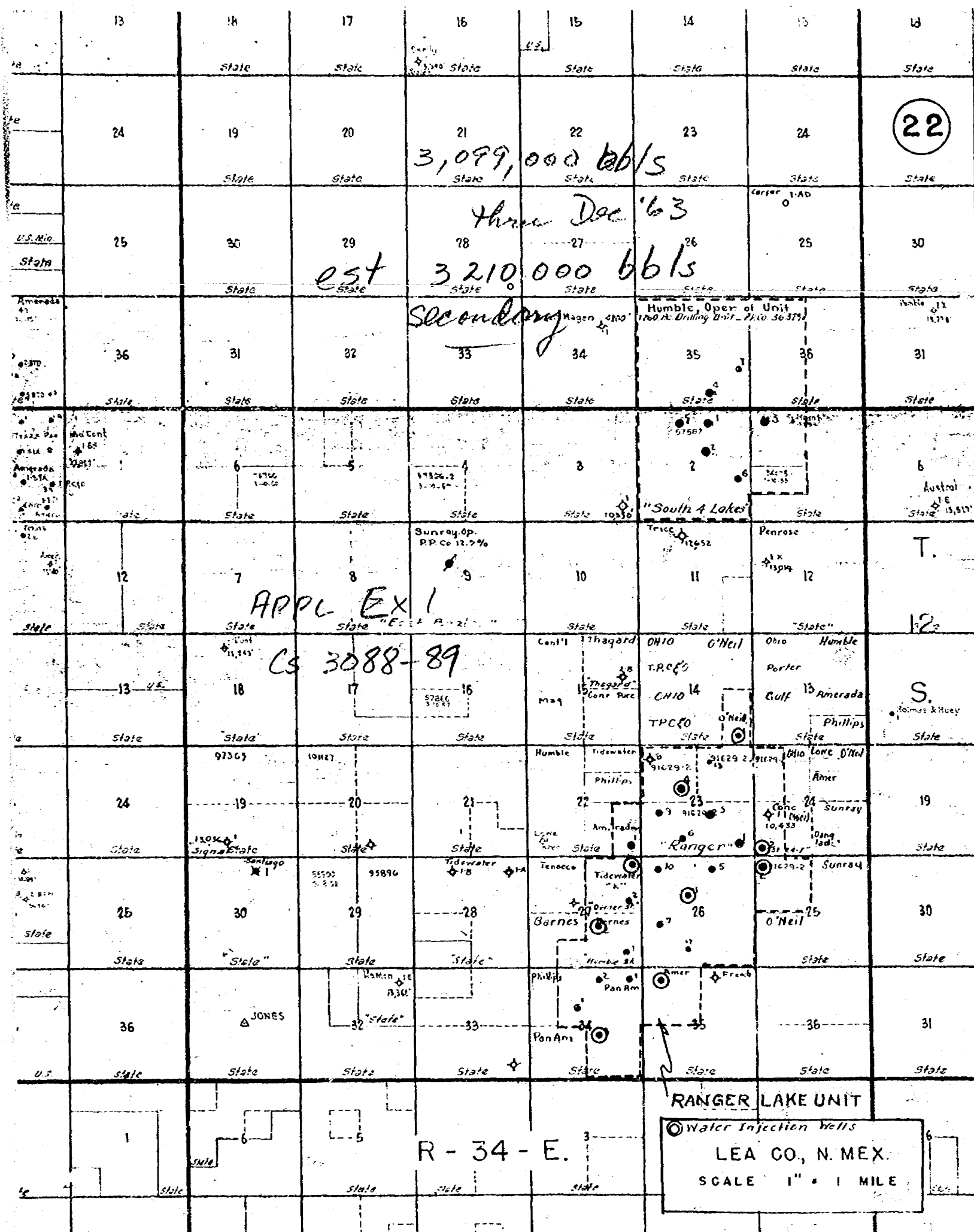
Ada Dearnley
NOTARY PUBLIC

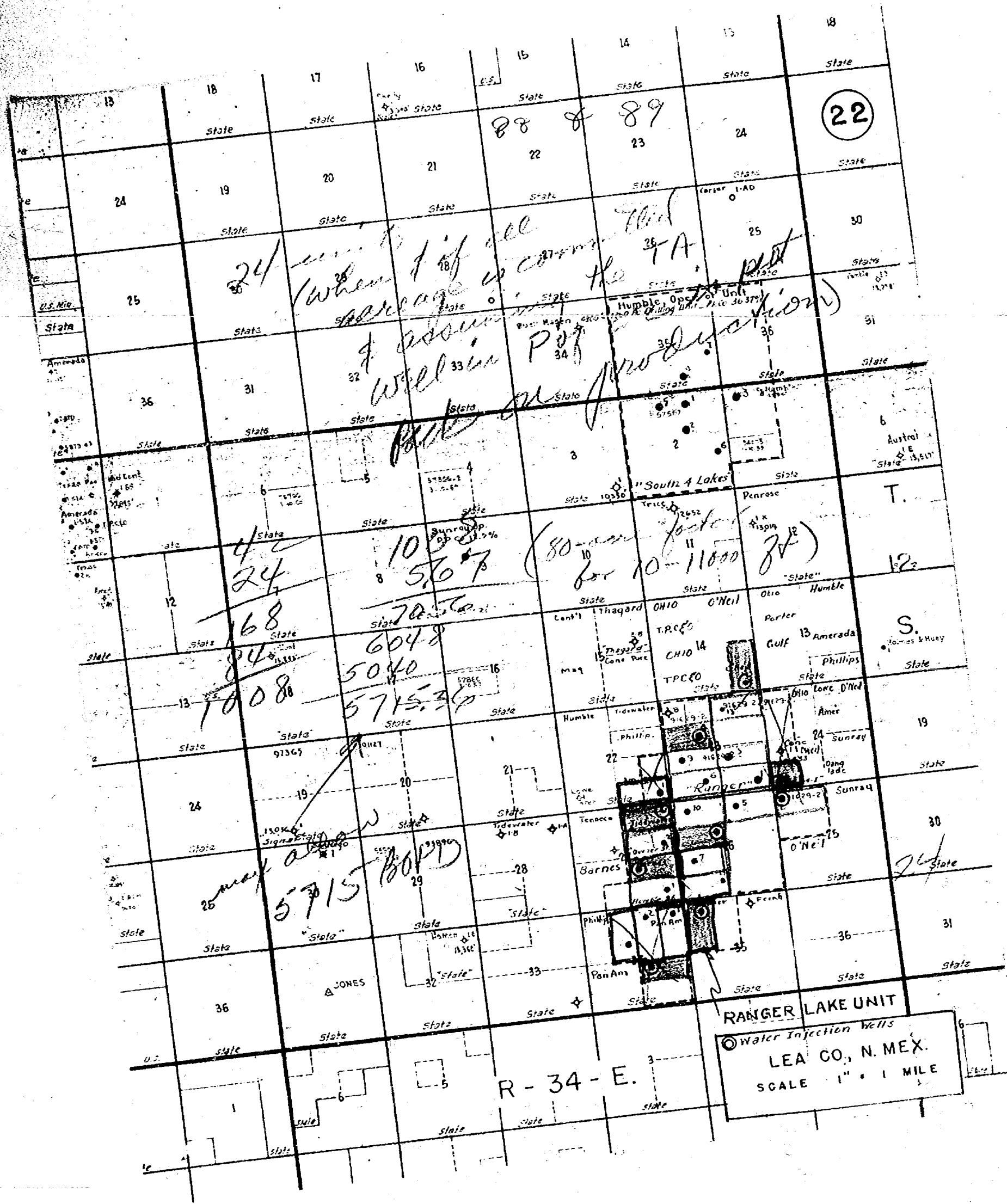
My Commission Expires:

June 19, 1967.

I do hereby certify that the foregoing is
a correct and true copy of the proceedings in
the Oil Conservation Commission of New Mexico No. 3088-3089
heard by me on *July 22*, 1964.
Examiner, Examiner
New Mexico Oil Conservation Commission







OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

August 4, 1964

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

Dear Mr. Kellahin:

Enclosed herewith is Commission Order No. R-2754, entered in Case No. 3089, approving the Phillips Petroleum Company Ranger Lake Waterflood Project.

Injection shall be through the authorized wells which are to be equipped with tubing and packers, said packers to be set to a depth of at least 10,000 feet.

As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, and assuming that all of the wells in the unit area are committed and participating, and assuming further that the well in the SE/4 SE/4 of Section 22 is restored to production, that the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 5,715 barrels per day.

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

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

-2-

Mr. Jason Kellahin

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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

ALPDSH/ir

cc: Oil Conservation Commission
Hobbs, New Mexico

Mr. Frank Irby
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. 3089
Order No. R-2754

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 o'clock a.m. on July 22, 1964, at Santa Fe, New Mexico, before Examiner Daniel S. Butler.

NOW, on this 3rd day of August, 1964, 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 Ranger Lake-Pennsylvanian Pool in the Ranger Lake Unit Area by the injection of water into the Pennsylvanian formation through nine injection wells in Sections 14, 23, 24, 25, 26, 27, 34, and 35, Township 12 South, Range 34 East, NMPN, 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. 3689
Order No. R-2754

(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 Ranger Lake-Pennsylvanian Pool in the Ranger Lake Unit Area by the injection of water into the Pennsylvanian formation through the following-described wells in Township 12 South, Range 34 East, RMPM, Lea County, New Mexico:

State I No. 1	- Unit P, Section 14
Ranger State No. 4	- Unit F, Section 23
State "24" No. 2	- Unit M, Section 24
Ranger State No. 2	- Unit D, Section 25
Ranger State No. 11	- Unit W, Section 26
State "K" No. 1	- Unit A, Section 27
Humbler State No. 2	- Unit J, Section 27
State "AS" No. 3	- Unit J, Section 34
State "WRA" No. 1	- Unit D, Section 35

(2) That the subject waterflood project 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 1115 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

JACK M. CAMPBELL, Chairman

E. S. WALKER, Member

S E A L

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

ccr/

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

P. O. BOX 2088
SANTA FE
87501

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

_____, 19____

Gentlemen:

Enclosed herewith is Commission Order No. R-2754, entered in Case No. 3089, approving the Phillips Petroleum Company Ranger Lake Water Flood Project.

as so allowable indicate that and assuming that all of the wells in the unit
According to our calculations, when all 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 5715 barrels per day.

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. *area are committed and parties*

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. *assuming further that the well in the SE 1/4 SE 1/4 of Section 22 is restored to production, that*

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,

cc: OCC-Hobbs
Frank Irby

A. L. PORTER, Jr.
Secretary-Director

DRAFT

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. 3089

Order No. R- 2754

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 o'clock a.m. on
July 22, 1964, at Santa Fe, New Mexico, before Examiner
Daniel S. Nutter.

NOW, on this July day of July, 1964, 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 Ranger
Lake-Pennsylvanian in the Ranger Lake Unit Area
Pool/by the injection of water into the
Pennsylvanian formation through nine injection wells in
14, 23, 24, 25, 26, 27,
Sections 34 and 35, Township 12 North, Range
South
34 West, NMPM, Lea County, New Mexico.
East

(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 Ranger Lake-Pennsylvanian Pool/ by the injection of water into the Pennsylvanian formation through the following-described wells in Township 12 ~~North~~ South, Range 34 ~~West~~ East, NMPM, Lea County, New Mexico:

(5) Ranger State No. 11	- Unit F, 26-12-S-34-E	<i>Action 26</i>
(2) Ranger State No. 4	- Unit F, 23-12-S-34-E	" 23
(4) Ranger State No. 2	- Unit D, 25-12-S-34-E	" 25
(1) State "D" No. 1	- Unit P, 14-12-S-34-E	" 14
(7) Humbler State No. 2	- Unit J, 27-12-S-34-E	" 27
(8) State "AZ" No. 3	- Unit J, 34-12-S-34-E	" 34
(9) State "WRA" No. 1	- Unit D, 35-12-S-34-E	" 35
(6) State "K" No. 1	- Unit A, 27-12-S-34-E	" 27
(3) State "24" No. 2	- Unit M, 24-12-S-34-E	" 24

(2) That the subject waterflood project 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 ¹¹¹⁹~~1122~~ 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.

- CASE 3087: Application of William A. and Edward R. Hudson for an unorthodox location, Eddy County, New Mexico. Applicants, in the above-styled cause, seek authority to drill their Puckett "A" Well No. 26 at an unorthodox location 1295 feet from the North and West lines of Section 24, Township 17 South, Range 31 East, Eddy County, New Mexico. Said well would be projected to the Paddock formation at approximately 5400 feet.
- CASE 3088: Application of Phillips Petroleum Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Ranger Lake Unit Area comprising 2,680 acres, more or less, of State land in Township 12 South, Range 34 East, Lea County, New Mexico.
- CASE 3089: 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 in the Ranger Lake-Pennsylvanian Pool in its Ranger Lake Unit Area by the injection of water into the Pennsylvanian formation through nine wells in Sections 14, 23, 24, 25, 26, 27, 34 and 35, Township 12 South, Range 34 East, Lea County, New Mexico.
- CASE 3090: Application of Tenneco Oil Company for salt water disposal, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the Pictured Cliffs formation through its Callow Well No. 2 located in Unit B, Section 33, Township 29 North, Range 13 West, West Kutz-Pictured Cliffs Pool, San Juan County, New Mexico.
- CASE 3091: Application of The British-American Oil Producing Company for a dual completion and pool commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its North Wilson Deep Unit Well No. 1, located in Unit O of Section 31, Township 20 South, Range 36 East, Lea County, New Mexico, to produce oil from the Upper Bone Spring formation and the Lower Bone Spring formation through parallel strings of tubing. Applicant further seeks authority to commingle the production from said pools after separately metering the Lower Bone Spring production.
- CASE 3092: Application of The British-American Oil Producing Company for the creation of a new oil pool and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Upper Bone Spring production for its North Wilson Deep Unit Well No. 1, located in Unit O of Section 31, Township 20 South, Range 36 East, Lea County, New Mexico, which well is perforated from 7888 to 7901 feet. Applicant further seeks the promulgation of special rules for said pool, including a provision for 80-acre proration units.
- CASE 3093: Application of The British-American Oil Producing Company for the creation of a new oil pool and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Lower Bone Spring production for its North Wilson Deep Unit Well No. 1, located in Unit O of Section 31, Township 20 South, Range 36 East, Lea County, New Mexico, which well is perforated from 10,094 to 10,122 feet. Applicant further seeks the promulgation of special rules for said pool, including a provision for 80-acre proration units.

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 22, 1964

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

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

- CASE 3081: Application of Shell Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Langlie-Mattix Pool by the injection of water through four wells at unorthodox locations in Section 21, Township 24 South, Range 37 East, Lea County, New Mexico.
- CASE 3082: Application of Union Oil Company of California for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation through perforations from 11,246 feet to 11,285 feet in its State-Gross Well No. 2 located in Unit L of Section 11, Township 12 South, Range 32 East, East Caprock Field, Lea County, New Mexico.
- CASE 3083: Application of General American Oil Company of Texas for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Premier Sand through twelve wells located in Sections 27, 28, 33 and 34, Township 17 South, Range 30 East, Eddy County, New Mexico. Certain of the aforesaid injection wells would be drilled at unorthodox locations.
- CASE 3084: Application of Fair Oil Company for a buffer zone extension and pool redelineation, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an amendment of Order No. R-2033 to extend the waterflood buffer zone authorized by said order to include the SE/4 NE/4 of Section 36, Township 17 South, Range 29 East, Eddy County, New Mexico. Applicant further seeks the extension of the Loco Hills Pool to include said quarter-quarter section, and the associated deletion of said acreage from the Grayburg-Jackson Pool.
- CASE 3085: Application of Humble Oil & Refining Company for two non-standard oil proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of two non-standard 80-acre oil proration units in Section 7, Township 19 South, Range 35 East, Scharb Bone Springs Pool, Lea County, New Mexico. The first unit would comprise the NW/4 NE/4 and the NE/4 NW/4 of Section 7 and be dedicated to applicant's Alves Well No. 1 located in Unit B of said Section 7. The second unit would comprise the SW/4 NE/4 and the SE/4 NW/4 of Section 7 and be dedicated to applicant's Alves Well No. 2, which would be drilled in Unit G of said Section 7.
- CASE 3086: Application of Texaco Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Rhodes Yates Oil Pool by the injection of water into the Yates and Seven Rivers formations through two wells in Section 26, Township 26 South, Range 37 East, Lea County, New Mexico.

MAIN OFFICE OCC

1961 JUN 18 PM 3 22

BEFORE THE OIL CONSERVATION COMMISSION
OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF PHILLIPS PETROLEUM COMPANY FOR
APPROVAL OF A WATER FLOOD PROJECT
OF THE RANGER LAKE ZONE OF THE
PENNSYLVANIAN FORMATION UNDERLYING
THE RANGER LAKE UNIT, LEA COUNTY,
NEW MEXICO.

Case No.

3089

A P P L I C A T I O N

Comes now Phillips Petroleum Company, a Delaware corporation
duly authorized to do business in the State of New Mexico, and
applies to the Oil Conservation Commission of New Mexico for
approval of a water flood project under the provisions of Rule
701 of the Commission's Rules and Regulations, for the formation
known as the Ranger Lake Zone of the Pennsylvanian formation,
underlying the applicant's Range Lake Unit, Lea County, New
Mexico, and in support thereof would show:

1. The area to be affected by the project is more parti-
cularly described as follows:

Township 12S, Range 34E

Section 14: E/2 SE/4
Section 22: E/2 SE/4
Section 23: All
Section 24: W/2 NW/4 and W/2 SW/4
Section 25: NW/4
Section 26: All
Section 27: E/2 and SE/4 SW/4
Section 34: E/2 and E/2 NW/4
Section 35: NW/4

2. The zone to be subject to water flood in the event this
application is approved is commonly known as the Ranger Lake
Zone of the Pennsylvanian formation, further identified as the
producing formation found in the Phillips Petroleum Company's
Ranger Lake Unit No. 1 well, located in the SE/4 SE/4, Section
23, Township 12 South, Range 34 East, N.M.P.M., Lea County, New
Mexico, between the depths of 6,080 and 6,230 feet below sea

HF 26
4 F 23
2 D 25
1P-14
2J-27
3J-34
1D-35
1A-27
2M-24

level. This zone has been substantially depleted on primary recovery and is approaching its economic limit unless secondary recovery is instituted as proposed by this application.

3. Attached hereto as Exhibit "A" and made a part hereof, is a plat showing the Range Lake Unit Area and offsetting acreage, with the ownership thereof insofar as known to applicant, and wells completed in the same zone, within a two-mile radius of the water flood project, together with the location of proposed injection wells within the project.

4. Logs of proposed injection wells and diagrammatic sketches of the proposed injection wells showing all casing strings, setting depths, cementing program, perforations and other pertinent data will be furnished to the Commission and to the Office of the State Engineer prior to the hearing of this application.

5. It is proposed that a total of approximately 12,000 barrels of water per day will be injected into the Ranger Lake Zone underlying the unit. The source of the injection water will be the Ogallala Sand.

6. A copy of this application, with exhibits, is filed simultaneously with the Office of the State Engineer, as required by Rule 701 (b) of the Rules and Regulations of the Commission.

WHEREFORE, applicant Phillips Petroleum Company requests that this application be set for hearing before the Commission's examiner and that after notice and hearing as required by law the Commission enter its order approving the water flood project for the Ranger Lake Unit, as applied for.

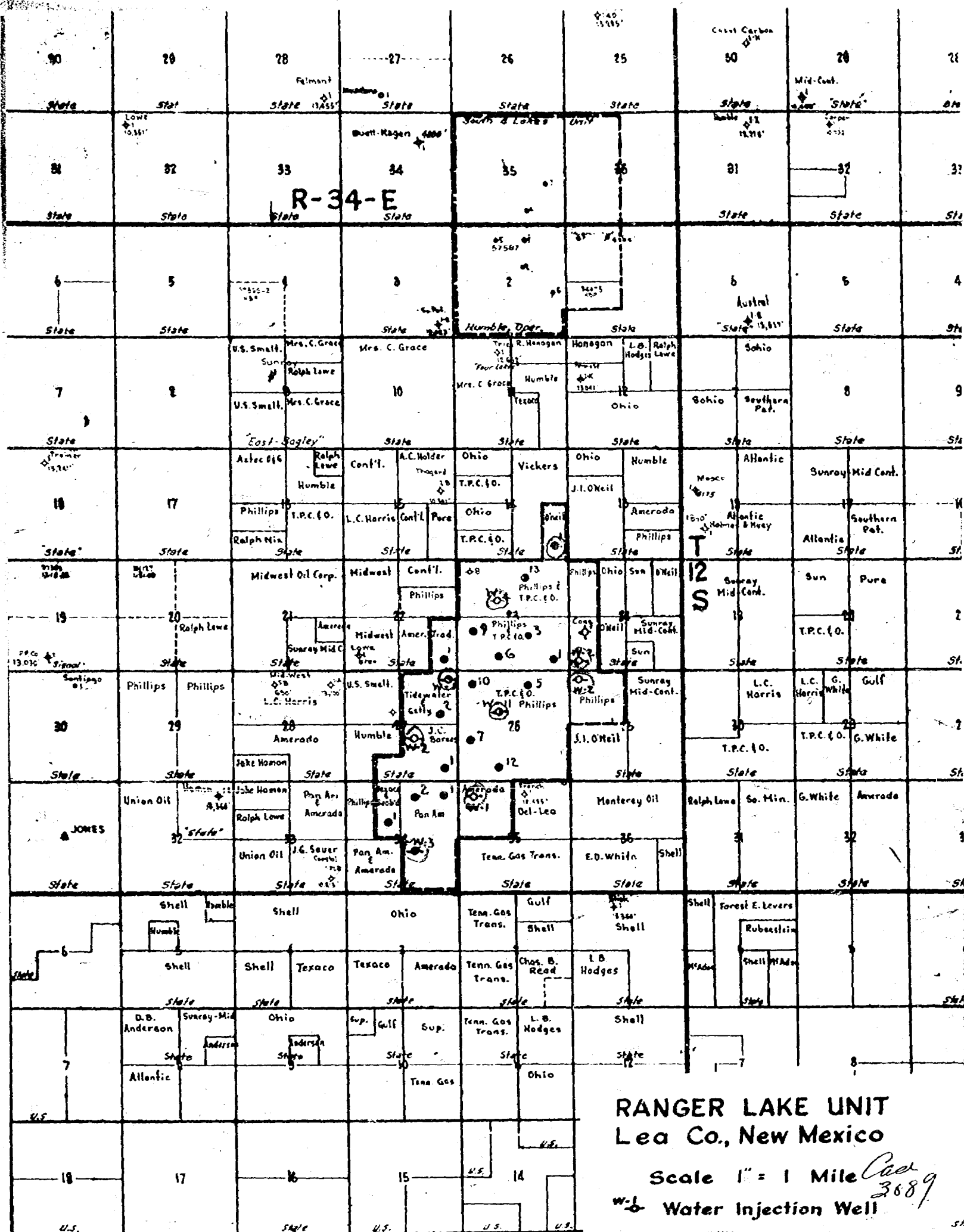
PHILLIPS PETROLEUM COMPANY

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

CARL W. JONES
P. O. Box 791
Midland, Texas

J. V. PEACOCK
P. O. Box 791
Midland, Texas

ATTORNEYS FOR APPLICANT



RANGER LAKE UNIT
Lea Co., New Mexico

Scale 1" = 1 Mile *Case*
3689
 W-1 Water Injection Well

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. 3089
Order No. R-2754

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 o'clock a.m. on July 22, 1964, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 3rd day of August, 1964, 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 Ranger Lake-Pennsylvanian Pool in the Ranger Lake Unit Area by the injection of water into the Pennsylvanian formation through nine injection wells in Sections 14, 23, 24, 25, 26, 27, 34, and 35, Township 12 South, Range 34 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. 3089
Order No. R-2754

(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 Ranger Lake-Pennsylvanian Pool in the Ranger Lake Unit Area by the injection of water into the Pennsylvanian formation through the following-described wells in Township 12 South, Range 34 East, NMPM, Lea County, New Mexico:

State I No. 1	- Unit P, Section 14
Ranger State No. 4	- Unit F, Section 23
State "24" No. 2	- Unit M, Section 24
Ranger State No. 2	- Unit D, Section 25
Ranger State No. 11	- Unit F, Section 26
State "X" No. 1	- Unit A, Section 27
Humbler State No. 2	- Unit J, Section 27
State "AZ" No. 3	- Unit J, Section 34
State "WRA" No. 1	- Unit D, Section 35

(2) That the subject waterflood project 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 1119 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

Jack M. Campbell
JACK M. CAMPBELL, Chairman

E. S. Walker
E. S. WALKER, Member

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

esr/