

CASE 3902: Appli. of CONTINENTAL
for a waterflood project, Lea
County, New Mexico.

Case Number

3902

Application
Transcripts.

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
October 23, 1968

EXAMINER HEARING

IN THE MATTER OF:)
)
)
)
)

Application of Continental Oil)
Company for a waterflood)
project, Lea County, New)
Mexico.)
)
)

Case No. 3902

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Call case No. 3902.

MR. HATCH: Application of Continental Oil Company
for a waterflood project, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin,
appearing for the Applicant and we have the same witness who
has been previously sworn, Mr. V. T. Lyon.

(Whereupon, Applicant's Exhibits
1 through 7 marked for identification)

* * * * *

V. T. L Y O N, called as a witness, having been previously
duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A V. T. Lyon.

Q Are you the same Mr. Lyon who testified in Case
No. 3900?

A Yes, I am.

Q Mr. Lyon are you familiar with the application of
Continental Oil Company in Case 3902?

A Yes, sir.

Q What is proposed by Continental in this case?

A Case 3902 is the application of Continental Oil
Company for authority to install a pilot waterflood project

in the Langley-Mattix Pool by converting to water injection the Stevens B Well No. 8 which is located 660 feet from the north line and 660 feet from the east line of Section 12, Township 23 South, Range 36 East.

Q Referring to what has been marked as Exhibit No. 1, would you identify that exhibit?

A Exhibit No. 1 is a location and ownership plat showing the proposed injection well circled in red, the outlines of the Stevens B lease which is outlined in red, and described as the northeast quarter; the north half of the northwest quarter; the south half of the southwest quarter of Section 12, Township 23 South, Range 36 East; The south half and the south half of the north half of Section 7; the west half and the northwest quarter of the northeast quarter of Section 18, Township 23 South, Range 37 East. It also shows the location and ownership of wells and area at least two miles in each direction from the proposed injection well.

Q Does it also show the outline of the Skelly-Penrose B Unit?

A Yes, sir, it is shown by the dotted line over here to the northeast of our lease.

Q Now, referring to what has been marked as Exhibit No. 2, would you describe that exhibit?

A Exhibit No. 2 is a copy of the form C-108 which was filed with the application and we used this form because it contains information which is pertinent to an injection well. This is for use of our Stevens B No. 3 as an injection well. The surface casing is shown to have been set at 7 and 7/8ths inch, set at 336 feet with 200 sacks of cement, the cement was circulated to the surface; 4 and 1/2 inch casing was set at 3735 feet with 684 sacks of cement, top of the cement by temperature survey is 1405 feet.

It shows that the 2 and 3/8ths inch tubing will be set at 3600 feet in a packer set at that depth, that we propose to inject into the Queen formation in the intervals 3644 to 3662 and 3694 to 3706, 3712 to 3718.

Q Now referring to what has been marked as Exhibit No. 3, would you identify that exhibit?

A Exhibit No. 3 is a schematic diagram showing essentially the same information which I have just described which was shown on Exhibit No. 2.

Q Now, will the casing tubing annulus, are you going to use a plastic-coated tubing?

A Yes, sir, we will.

Q Will the casing tubing annulus be filled with an inert fluid?

A Yes, sir.

Q And you propose to install a pressure gauge at the surface?

A Yes, sir.

Q Now, referring to what has been marked as Exhibit No. 4, would you identify that exhibit?

A Exhibit No. 4 is a copy of a portion of the radioactivity log run on this well. It shows the top of the Queen formation at 3608, shows the perforations 3646 to 3664, 3696 to 3708, 3714 to 3720. I believe these differ by two feet from those shown on Exhibits 2 and 3. This is due to the fact that these are the measurements shown by the logging instrument, shows the collars and so forth, which we must find to perforate. The measurements shown on the other exhibits are Pilars measurements.

Q Now, would you give a brief history of the Stevens area in the Langlie-Mattix Pool?

A The initial production from this portion of the Stevens B lease, that portion described as the northeast quarter and the north half of the northwest quarter, was from Continental's Stevens B No. 3, which is located in the northwest quarter northwest quarter of the lease. It was completed November 19, 1959; the remaining wells in this area were completed during 1960, the last of which was the

Stevens B No. 10, completed July 20th, 1960. No. 10 is in the, well it's the well directly south of No. 8. All of the completions were through perforations from a minus 205 to a minus 337 feet subsea and were hydraulically fractured. Three of the wells are currently producing and three are shut in, including the proposed injection well. During the month of August, 1969, the three wells produced 127 barrels of oil, 150 barrels of water, 480 mcf gas, for an average gas-oil ratio of 3,780 cubic feet per barrel and an average daily rate of production 1.35 barrels per day per well.

Q Does this indicate that this particular reservoir is at an advanced stage of depletion?

A Yes, it does.

Q What's the cumulative production from the leases?

A The cumulative production as of September 1st, 1968, was 198,834 barrels.

Q And what is the reservoir producing mechanism on the primary recovery?

A At least in this portion of the Langley-Mattix Pool the driving mechanism is solution gas.

Q Now, referring to what has been marked as Exhibit No. 5, would you identify that exhibit?

A Exhibit No. 5 is a structure map on the Penrose Sand

which immediately underlies the portion of the Queen Formation which we are proposing to flood. The contour interval is 25 feet. The subject well is circled in red. The Stevens B Lease is situated on the south end of a broad north-south trending syncline, the Queen becomes more dolomitic and tighter to the east in the middle of Section 7. This facies change to the east forms the updip limit of the local Queen Sand Reservoir.

Q Now, referring to what has been marked as Exhibit No. 6, would you identify that exhibit?

A Exhibit No. 6, is a tabulation of data, it shows the porosity at 18%, initial oil saturation at 54%, residual oil saturation at 33%, formation volume factor of 1.09. The primary production as of September 1st, 1968, as I have previously testified for this Stevens B Lease, is 198,834. Considering a project area which would involve the quarter quarter section on which this well is located, and all direct and diagonal quarter quarter sections, the cumulative recovery is 259,918 barrels. This is to August 1st, 1968. We estimate the secondary recovery from the Stevens B Lease at 139,200 barrels and that from the project area, 181,300 barrels.

Q Is it your opinion that this area can be economically waterflooded?

A Yes, sir, after reviewing available data in regard to porosity, oil saturation, oil recovery under primary operations and calculations by accepted methods, as to anticipated performance, it is my opinion that this area can be economically and feasibly waterflooded.

Q Now, will waterflooding of the Stevens B Area result in the recovery of oil that would not otherwise be recovered?

A Yes, sir, it will. We estimate that we will recover 139,200 barrels of additional oil from our lease.

Q And how much water do you anticipate you will inject into this project?

A We expect to inject between 150 and 300 barrels per day into this injection well. The total water requirements for the flood will depend, of course, on the size of the waterflood that is ultimately developed.

Q Now, what is the source of the water you will use?

A We will use water which is produced on this lease and water which may be tendered to us from other leases of Continental and other operators in this area.

Q Do you have a chemical analysis of the water you propose to use?

A Yes, sir. Exhibit No. 7 is an analysis of the water which was sampled at our battery. I see that there's a

typographical error on this. It identifies the lease as Stevens B 21, it should be B 12, which is that portion of the Stevens B lease located in Section 12.

Q Is this water compatible with the Queens Seven Rivers formation water?

A It should be, it is the same water.

Q Now, what is the waterflood allowable which you would anticipate for this unit?

A There are two direct and one diagonal offset wells on our lease to the injection well, creating a four well project area. Based on the minimum waterflood allowable of 42 barrels per day, as provided in Rule 701 E, a minimum waterflood unit allowable of 168 barrels a day would be anticipated. Under the current allowables, 58 barrels per day, the project allowable would be 232 barrels per day.

Q You mean 323 barrels, do you not?

A No, that's a typographical error.

Q 232 barrels, then, correct?

A Yes, sir.

Q In your opinion, will the granting of this application result in the protection of correlative rights and prevention of waste?

A Yes, it will.

Q Were Exhibits 2 through 7 prepared by you or under your supervision?

A Yes, sir, they were.

Q And Exhibit No. 1 --

A Was prepared under my supervision, too.

Q -- was also prepared under your supervision?

A Yes, sir.

MR. KELLAHIN: At this time, I'll offer in evidence Exhibits 1 through 7, inclusive.

MR. NUTTER: Applicant's Exhibits 1 through 7 will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1 through 7 offered and admitted in evidence.)

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

MR. NUTTER: Does anyone have any questions of Mr. Lyon?

MR. PORTER: Yes, one general question. Mr. Lyon, do you have other waterfloods in the Langlie-Mattix?

THE WITNESS: Yes, sir. We are, just within the past month, we have placed the Langlie-Jack unit under waterflood.

MR. PORTER: But you haven't had experience with any where you have had a response, so far?

THE WITNESS: No, except as a non-operating working

interest owner, we are a working interest owner in the Langlie-Mattix Woolworth Flood where they have had excellent response.

MR. PORTER: And that's in the Queen?

THE WITNESS: Queen and there may be some Seven Rivers in it.

MR. PORTER: Thank you.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Lyon, I would like to review just what you have got here as far as wells on this lease are concerned. Turn to your Exhibit No. 1, please.

A Yes, sir.

Q Now, the No. 3 over there in Unit G, is producing from the Langlie-Mattix now?

A Yes, sir.

Q The No. 7 is a shut in Langlie-Mattix?

A Yes, sir.

Q No. 6 is a shut in Langlie-Mattix well?

A Yes.

Q No. 9 and No. 10 are producing?

A Right.

Q And No. 8 at the present time is shut in?

A Yes, sir.

Q But it will be the injection well?

A Yes, sir.

Q And No. 13 over here in Section 7 is an abandoned producer?

A It's a dry hole.

Q It was a dry hole?

A Yes, sir.

Q So far as the project area on your Stevens B-12 lease, you would have four wells in that project area?

A Yes, sir.

Q The injection well and the No. 6, 9 and 10. Do you plan to reactivate the No. 6?

A We will monitor it and when there is a measureable flood level in it, we'll place it back on production.

Q So for the time being, the project area would consist of the No. 8 and the No. 9 and 10, correct?

A Well, I'm not sure that I understand how you --

Q Well, the project area, this is not unitized with any other lease?

A No.

Q So the project area would be limited to your lease?

A Just to the producing wells, you mean?

Q Well, the one injection well, the No. 8 and then the No. 9 and 10 are offsetting producing wells?

A Yes; the No. 6 also offsets.

Q Well, it's not producing at the present time, so it wouldn't receive allowable until such time as it was turned on.

A All right, I am with you.

Q So at the time being, our project area would be limited to three forty's and on reactivation of No. 6, it would be four forty's.

A I see.

Q Isn't that correct?

A I wasn't aware you figured it that way, but if this is the way you figure it, that's correct.

MR. NUTTER: Are there any other questions of the witness? You may be excused.

(Witness excused.)

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

MR. KELLAHIN: No, sir, that's all, Mr. Nutter.

MR. NUTTER: Does anyone have anything they would like to offer in Case No. 3902? We'll take the case under advisement and recess the hearing until 1:15.

I N D E X

WITNESS

V. T. LYON

Direct Examination by Mr. Kellahin

Cross Examination by Mr. Nutter

PAGE

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EXHIBITS

Applicant's 1 through 7

MARKED

2

OFFERED AND
ADMITTED

10

STATE OF NEW MEXICO)

) ss

COUNTY OF BERNALILLO)

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

WITNESS my hand this 1st day of November, 1968.

Gela L. Larnley
Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. **3902** heard by me on **10/23**, 1968.

[Signature] Examiner
New Mexico Oil Conservation Commission

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

November 5, 1968

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

Dear Sir:

Reference is made to Commission Order No. R-3539, recently entered in Case No. 3902, approving the Continental Langlie Mattix Stevens Waterflood Project.

Initial injection is to be through the one authorized water injection well, which shall be equipped with plastic-coated tubing set in a packer at approximately 3600 feet. The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge to facilitate detection of leakage in the casing, tubing, or packer.

As to allowable, our calculations indicate that 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 126 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less. This figure would of course be increased to 168 upon restoration of Well No. 6 to production.

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

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

-2-

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

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

ALP/DSN/ir

cc: Oil Conservation Commission
Hobbs, New Mexico

U. S. G. S
Hobbs, New Mexico

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

ROUGH DRAFT FOR WATERFLOOD LETTERS

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law - P. O. Box 1769
Santa Fe, New Mexico

Dear Sir:

Reference is made to Commission Order No. R-3539, ^{recently} entered in Case No. 3902, approving the Continental Laugle Mattie Stevens Waterflood Project.

Initial injection is to be through the one authorized water injection well, which shall be equipped with plastic-coated tubing set in a packer at approximately 3600 feet. The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge to facilitate detection of leakage in the casing, tubing or packer.

As to allowable, our calculations indicate that 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 126 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less. *This figure would of course be increased to 168 upon restoration of Well No. 1 to production.* 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 Hobbs

~~Mr. Frank Irby~~, State Engineer Office, Santa Fe, New Mexico

Mr. D. E. Gray

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. 3902
Order No. R-3539

APPLICATION OF CONTINENTAL OIL
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 October 23, 1968,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 31st day of October, 1968, 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, Continental Oil Company, seeks
permission to institute a pilot waterflood project in the
Langlie-Mattix Pool by the injection of water into the Queen
formation through its Stevens "B" Well No. 8, located in Unit A
of Section 12, Township 23 South, Range 36 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 pilot waterflood project should
result in the recovery of otherwise unrecoverable oil, thereby
preventing waste.

-2-

CASE No. 3902

Order No. R-3539

(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:

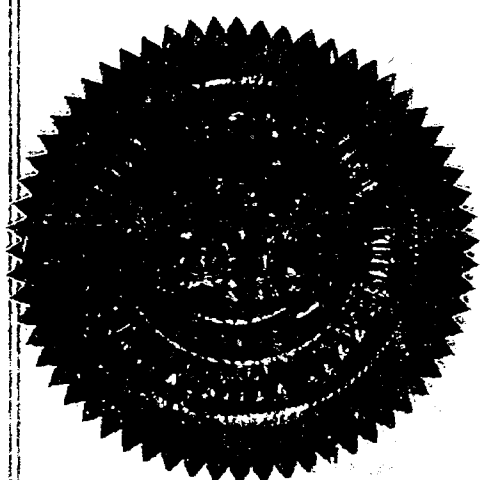
(1) That the applicant, Continental Oil Company, is hereby authorized to institute a pilot waterflood project in the Langlie-Mattix Pool by the injection of water into the Queen formation through its Stevens "B" Well No. 8, located in Unit A of Section 12, Township 23 South, Range 36 East, NMPM, Lea County, New Mexico.

(2) That the subject pilot waterflood project is hereby designated the Continental Langlie Mattix Stevens "B" 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 pilot 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
DAVID F. CARGO, Chairman

Guyton B. Hays
GUYTON B. HAYS, Member

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

esr/

State of New Mexico
Oil Conservation Commission



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

Re: Case No. 3902
3903 ✓
3904 ✓
Order No. R-3539, R-3540, R-3541
Applicant:
Continental Oil Company

Dear Sir:

Enclosed herewith is a copy of the above-referenced Commission order recently entered in the subject case. Letter pertaining to conditions of approval and maximum allowable to follow.

A. L. PORTER, Jr.
Secretary-Director

other _____

Docket No. 31-68

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 23, 1968

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 3894: Application of Signal Oil and Gas Company for a non-standard oil proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a non-standard oil proration unit comprising the W/2 NE/4 and the N/2 SE/4 of Section 17, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico, said unit to be dedicated to its State AP Well No. 1 located 1980 feet from the South line and 660 feet from the East line of said Section 17.

CASE 3895: Application of Sun Oil Company for a pressure maintenance project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in its New Mexico State "H" Lease by the injection of water into the San Andres formation through its New Mexico State "H" Well No. 13 located in the SE/4 SE/4 of Section 16, Township 8 South, Range 30 East, Cato-San Andres Pool, Chaves County, New Mexico. Applicant further seeks the promulgation of special rules to govern operation of said pressure maintenance project.

CASE 3887: (Continued from the October 9, 1968, Examiner Hearing)
Application of Kersey & Company 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 of Grayburg formation through two wells to be located in Units E and K of Section 12, Township 18 South, Range 28 East, Artesia Pool, Eddy County, New Mexico. Applicant further proposes to produce oil from the Upper Grayburg through parallel strings of tubing, if said zones are productive in the subject wells.

CASE 3896: Application of Kersey & Hanson, Yates Drilling Company, and John H. Trigg for several waterflood projects, Eddy County, New Mexico. Applicants, in the above-styled cause, seek authority to institute several cooperative waterflood projects by the injection of water into the Queen and Grayburg formations through four injection wells located in Sections 21

CASE 3896 continued

and 23, Township 12 South, Range 29 East, Turkey
Track Queen-Grayburg Pool, Eddy County, New Mexico.

CASE 3897: Application of Kersey-Wittkopp and E. A. Hanson for two waterflood projects, Eddy County, New Mexico. Applicants, in the above-styled cause, seek authority to institute two cooperative waterflood projects by the injection of water into the Queen formation through two injection wells located in the NW/4 SE/4 and the SW/4 SE/4 of Section 6, Township 19 South, Range 31 East, Shugart Pool, Eddy County, New Mexico.

CASE 3898: Application of Tenneco Oil 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 Queen formation in the open-hole interval from approximately 3258 feet to 3341 feet in its Ginsberg-Federal Well No. 6 located in Unit E of Section 31, Township 25 South, Range 38 East, Langlie-Mattix Field, Lea County, New Mexico.

CASE 3899: Application of Cities Service Oil 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 San Andres formation in the interval from approximately 4087 feet to 4176 feet in its State AD Well No. 8 located in Unit J of Section 22, Township 10 South, Range 32 East, Mescalero-San Andres Pool, Lea County, New Mexico.

CASE 3900: Application of Continental Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Vacuum Wolfcamp Pool and the North Vacuum Abo Pool in the well-bore of its State H-35 Well No. 7 located 660 feet from the North line and 1780 feet from the East line of Section 35, Township 17 South, Range 34 East, Lea County, New Mexico.

CASE 3901: Application of Continental Oil 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 approximately 3330 feet to 3552 feet in its Lynn A-28 Well No. 6 located in Unit H of Section 28, Township

(CASE 3901 continued)

23 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.

CASE 3902: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the Queen formation through its Stevens "B" Well No. 8 located in Unit A of Section 12, Township 23 South, Range 36 East, Langlie-Mattix Pool, Lea County, New Mexico.

CASE 3903: Application of Continental Oil 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 Delaware formation in the perforated intervals from approximately 4675 feet to 4765 feet in its Payne Well No. 11 and from 4666 feet to 4740 feet in its Payne Well No. 12 located 660 feet from the South line and 1650 feet from the West line of Section 30, 1935 feet from the North line and 2090 feet from the West line of Section 31, respectively, Township 26 South, Range 33 East, El Mar-Delaware Pool, Lea County, New Mexico.

CASE 3904: Application of Continental Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the Delaware formation through its Thompson Federal 19 Well No. 2 located in Unit F of Section 19, Township 26 South, Range 32 East, North Mason-Delaware Pool, Lea County, New Mexico.

CASE 3905: Application of Texas Pacific Oil 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 Devonian formation in the open-hole interval from approximately 12,269 feet to 12,541 feet in its State "O" Well No. 1 located in Unit J of Section 15, Township 10 South, Range 36 East, South Crossroads-Devonian Pool, Lea County, New Mexico.

- CASE 3906:** Application of Skelly Oil 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 Queen formation through its Mattix "A" Well No. 4 located in Unit K of Section 2, Township 24 South, Range 37 East, Langlie-Mattix Oil Pool, Lea County, New Mexico. Applicant further seeks a procedure whereby said project may be expanded administratively without a showing of well response.
- CASE 3907:** Application of Skelly Oil Company for a waterflood project, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the San Andres formation through its Hobbs "W" Well No. 9 located in Unit F of Section 29, Township 7 South, Range 34 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico. Applicant further seeks a procedure whereby said project may be expanded administratively without a showing of well response.
- CASE 3908:** Application of Pan American Petroleum Corporation for salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 3932 feet to 4027 feet in its Miller Federal Well No. 4 located in Unit L of Section 35, Township 7 South, Range 31 East, Tom-Tom San Andres Pool, Chaves County, New Mexico.
- CASE 3909:** Application of Champlin Petroleum Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into San Andres formation, Chaveroo-San Andres Pool, Roosevelt County, New Mexico, through the following two wells located in Township 7 South, Range 33 East:

Champlin Lauck-Federal Well No. 12,
Unit J of Section 29; Disposal Interval -
4202 feet to 4404 feet;

Champlin State 32-7-33 Well No. 5, Unit J
of Section 32; Disposal Interval - 4303
feet to 4425 feet.

- CASE 3910: Application of Atlantic Richfield Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SW/4 of Section 17, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Said acreage to be dedicated to a well located in the NE/4 SW/4 of said Section 17.
- CASE 3911: Application of Atlantic Richfield Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SE/4 of Section 8, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Said acreage to be dedicated to a well located in the NW/4 SE/4 of said Section 8. In the alternative applicant seeks approval of a non-standard oil proration unit comprising the E/2 SE/4 of said Section 8 and the W/2 SW/4 of Section 9, said Township and Range, said unit to be dedicated to a well to be drilled in the NE/4 SE/4 of said Section 8.
- CASE 3882: (Continued from the October 9, 1968, Examiner Hearing)
Application of Solar Oil Company for a special gas-oil ratio limitation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 506 of the Commission Rules and Regulations to provide for a limiting gas-oil ratio of 6,000 cubic feet of gas per barrel of oil in the Teague Blinbry Pool, Lea County, New Mexico.
- CASE 3883: (Continued from the October 9, 1968, Examiner Hearing)
Application of Solar Oil Company for a special gas-oil ratio limitation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 506 of the Commission Rules and Regulations to provide for a limiting gas-oil ratio of 6,000 cubic feet of gas per barrel of oil in the Imperial Tubb-Drinkard Pool, Lea County, New Mexico.

BEFORE EXAMINER NUTTER
CIL. INTERVIEWED BY N
App. EXHIBIT NO. 2
CASE NO. 3902

Form C-108
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Continental Oil Company		ADDRESS P. O. Box 460 Hobbs, New Mexico					
LEASE NAME Stevens "B"	WELL NO. 8	FIELD Langlie Mattix	COUNTY Lea				
LOCATION UNIT LETTER A WELL IS LOCATED 660 FEET FROM THE N LINE AND 660 FEET FROM THE E LINE, SECTION 12 TOWNSHIP 23S RANGE 36E NMPM.							
CASING AND TUBING DATA							
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY		
SURFACE CASING	7 5/8	336	200	surface	circulated		
INTERMEDIATE	4 1/2	3735	684	1405	Temp. survey		
LONG STRING							
TUBING	2 3/8	3600	NAME, MODEL AND DEPTH OF TUBING PACKER Baker tension Model AD or equivalent @ 3600'				
NAME OF PROPOSED INJECTION FORMATION Queen		TOP OF FORMATION 3608'		BOTTOM OF FORMATION est. 3900'			
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? tubing		PERFORATIONS OR OPEN HOLE? perforations		PROPOSED INTERVAL(S) OF INJECTION 3644-3662, 3694-3706, 3712-3718			
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? producing oil well		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? No			
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH							

DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 300'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 3400		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None			
ANTICIPATED DAILY INJECTION VOLUME (BBL'S.)	MINIMUM 150	MAXIMUM 300	OPEN OR CLOSED TYPE SYSTEM closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? pressure	APPROX. PRESSURE (PSI) 1000		
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -			WATER TO BE DISPOSED OF yes	NATURAL WATER IN DISPOSAL ZONE yes	ARE WATER ANALYSES ATTACHED? no		
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) E. F. King, 723 East Green Acres, Hobbs, New Mexico							
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF MILE OF THIS INJECTION WELL Sun Oil Company, Box 1861, Midland, Texas Sinclair Oil & Gas Company, Box 1920, Hobbs, New Mexico Albert Gackle, Box 2038, Hobbs, New Mexico Texas Pacific Oil Company, Box 1069, Hobbs, New Mexico Getty Oil Company, Box 547, Hobbs, New Mexico Dalport Oil Corporation, 3471 First National Bank Building, Dallas, Texas							
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER no		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL no		THE NEW MEXICO STATE ENGINEER no	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-D)?		PLAT OF AREA yes		ELECTRICAL LOG no		DIAGRAMMATIC SKETCH OF WELL no	

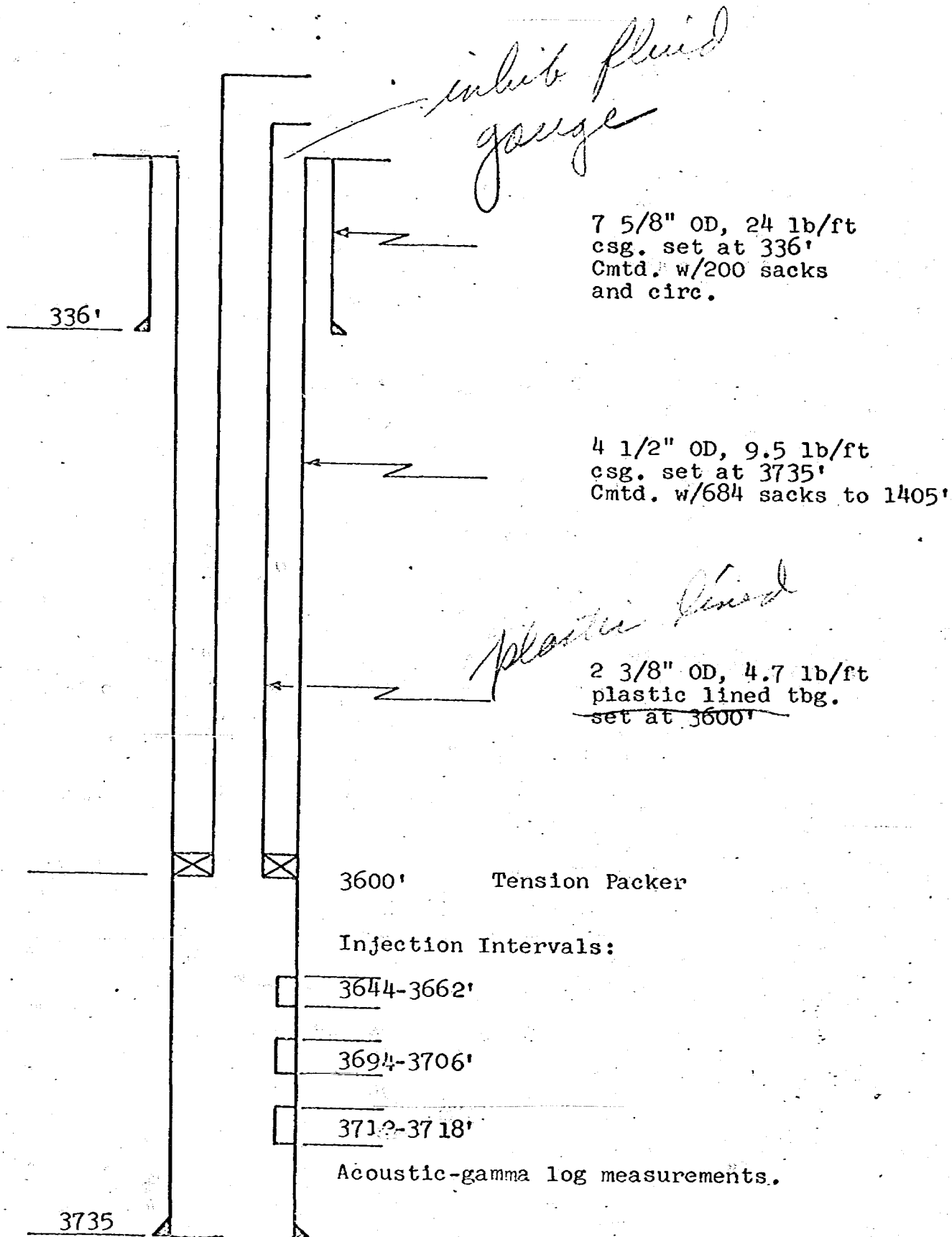
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

(Signature) Asst. Division Manager (Title) September 26, 1968 (Date)

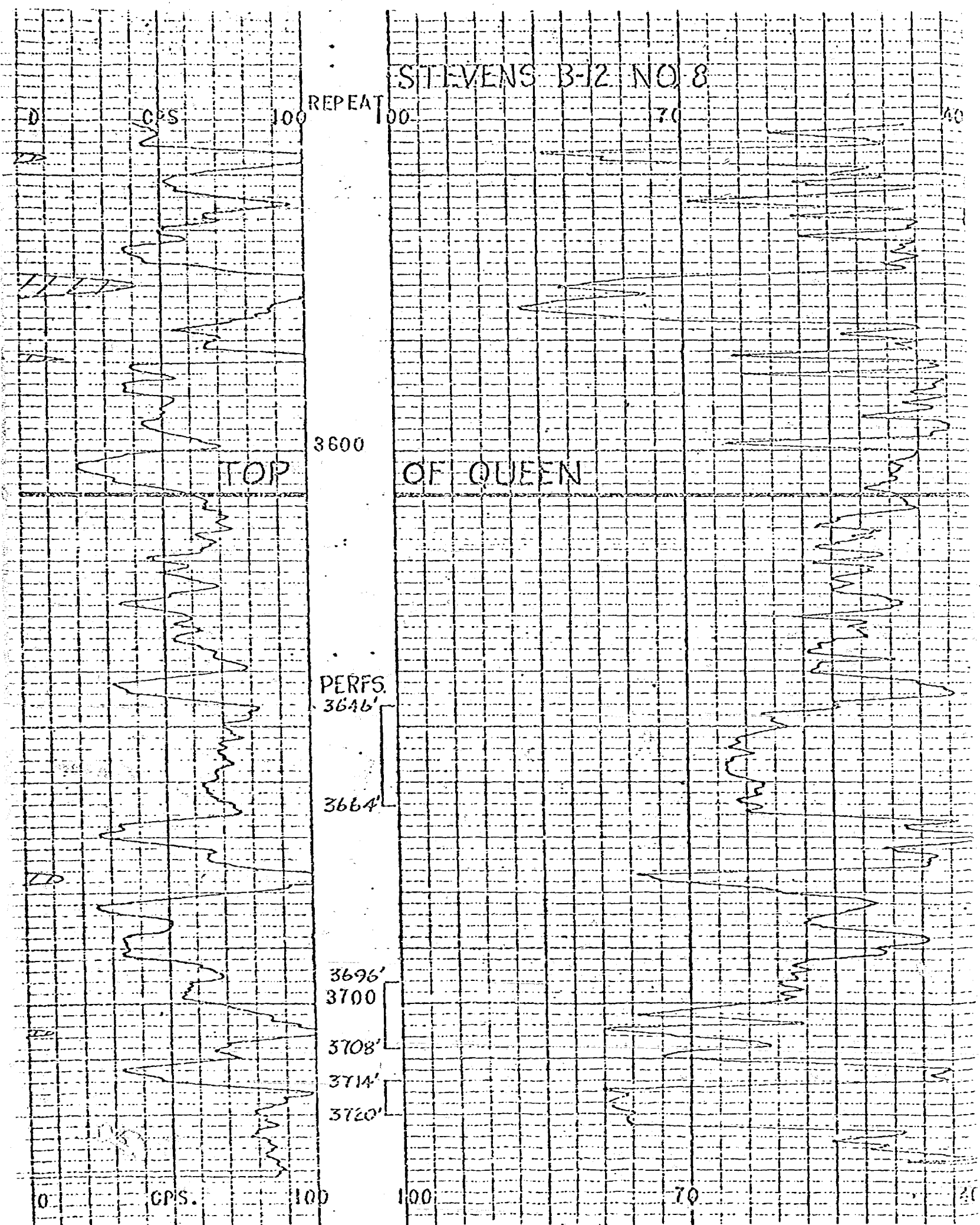
NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

EXHIBIT NO. 2

Stevens "B" No. 8
660' FNL & 660' FEL, Sec. 12, T-23S, R-36E
Lea County, New Mexico



BEFORE EXAMINED MUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 3982

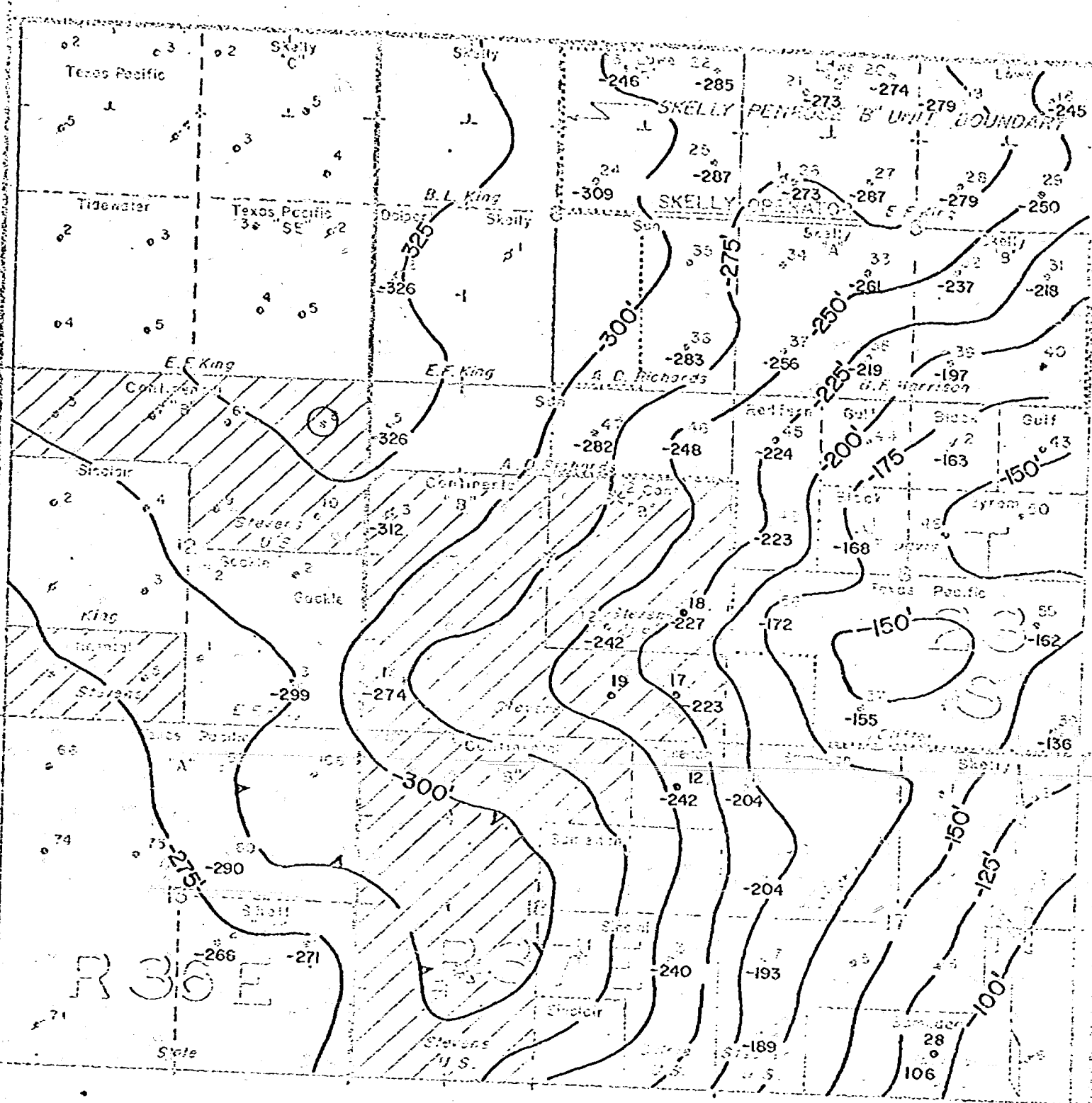


BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

EXHIBIT NO. 4

EXHIBIT NO. 4



BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

App. EXHIBIT NO. 5
CASE NO. 3902

CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT--HOSSBS DISTRICT

LANGLIE MATTIX MULTIZONE POOL
LEA COUNTY, NEW MEXICO
PENROSE SAND STRUCTURE MAP

Contour Interval: 25'

Rev. NGC 1/67

EXHIBIT NO. 1

STEVENS "B" LEASE

Average Porosity	18%
Initial Oil Saturation	54%
Residual Oil Saturation	33%
Formation Volume Factor	1.09
Average NEP	6 feet
Primary Production to 9-1-68	
Stevens B-12 Lease	198,834
Project Area	259,918
Estimated Secondary	
Stevens B-12 Lease	139,200
Project Area	181,300
Current Production (project area)	308 barrels oil 143 barrels water 1,583 MCF gas

BEFORE EXAMINED NUTTER
OIL CONSERVATION COMMISSION
app. EXHIBIT NO. 6
CASE NO. 3902

TELEPHONE: HOBBS 393-6215



UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company Continental Oil Co.
 Field Langlie Mattix
 Lease Stevens B-21 Sampling Date 11/4/67
 Type of Sample _____

WATER ANALYSIS

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	45.91	920
Magnesium (Mg++)	71.88	874
Sodium (Na+) (calculated)	227.60	5233
Iron		1
Bicarbonate (HCO ₃)	22.40	1366
Carbonate (CO ₃ -)	NOT	FOUND
Hydroxide (OH-)	NOT	FOUND
Sulphate (SO ₄ -)	18.43	885
Chloride (Cl-)	304.56	10,800
7.0 pH c 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO ₃	117.79	5890
Carbonate Hardness, as CaCO ₃ (temporary)	22.40	1120
Non-Carbonate Hardness as CaCO ₃ (permanent)	95.39	4770
Alkalinity as CaCO ₃	22.40	1120
Specific Gravity c 68° F 1.010		

* mg/l = milligrams per Liter
 * me/l = milliequivalents per Liter

BEFORE EXAMINER NUTTER
 OIL CONSERVATION COMMISSION
 a/p EXHIBIT NO. 7
 CASE NO. 5922

EXHIBIT No. 7

~~~~~ Makes Water Work ~~~~~



## CONTINENTAL OIL COMPANY

P. O. Box 460  
Hobbs, New Mexico  
September 27, 1968

*Case 3902*

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


Attention of Mr. A. L. Porter, Jr.  
Secretary-Director

Re: Application to Install a  
Pilot Waterflood Project  
in the Langlie Mattix Pool,  
Lea County, New Mexico

Gentlemen:

Forwarded herewith in triplicate is completed  
Form C-108 requesting authority to install a pilot water  
flood project in the Langlie Mattix Pool by injecting  
into its Stevens "B" Well No. 8.

Please set this matter for hearing on your  
October 23, 1968, Examiner docket.

Yours very truly,  


VTL-JS  
cc: RLA JJB JWK  
Attach

68 Oct 1 AM 8 45

DOCKET MAILED

Date 10-11-68

# NEW MEXICO OIL CONSERVATION COMMISSION APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         |                                                                                                         |                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------|
| OPERATOR<br><b>Continental Oil Company</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         | ADDRESS<br><b>P. O. Box 460 Hobbs, New Mexico</b>                                                       |                                |
| LEASE NAME<br><b>Stevens "B"</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         | COUNTY<br><b>Lea</b>                                                                                    |                                |
| LOCATION<br><b>E</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | UNIT LETTER<br><b>A</b> | WELL NO.<br><b>8</b>                                                                                    | FIELD<br><b>Langlie Mattix</b> |
| LINE, SECTION<br><b>12</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         | TOWNSHIP<br><b>23S</b>                                                                                  | RANGE<br><b>36E</b>            |
| NAME OF STRING<br><b>Queen</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         | SIZE<br><b>7 5/8</b>                                                                                    | SETTING DEPTH<br><b>336</b>    |
| SURFACE CASING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                         | SIZE<br><b>4 1/2</b>                                                                                    | SETTING DEPTH<br><b>3735</b>   |
| INTERMEDIATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                         | SIZE<br><b>2 3/8</b>                                                                                    | SETTING DEPTH<br><b>3600</b>   |
| LONG STRING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         | SIZE<br><b>2 3/8</b>                                                                                    | SETTING DEPTH<br><b>3600</b>   |
| TUBING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                         | SIZE<br><b>2 3/8</b>                                                                                    | SETTING DEPTH<br><b>3600</b>   |
| NAME OF PROPOSED INJECTION FORMATION<br><b>Queen</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         | PERFORATIONS OR OPEN HOLES<br><b>perforations</b>                                                       |                                |
| IS INJECTION THROUGH TUBING, CASING, OR ANNULUS?<br><b>tubing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         | IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED?<br><b>producing oil well</b>             |                                |
| IS THIS A NEW WELL DRILLED FOR DISPOSAL?<br><b>No</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         | LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH<br><b>3600'</b> |                                |
| DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA<br><b>300'</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         | DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA<br><b>3400</b>                                  |                                |
| ANTICIPATED DAILY INJECTION VOLUME (BBLs.)<br><b>150</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         | MINIMUM<br><b>300</b>                                                                                   |                                |
| ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE<br><b>no</b>                                                                                                                                                                                                                                                                                                                                                                                                                     |                         | OPEN OR CLOSED TYPE SYSTEM<br><b>closed</b>                                                             |                                |
| NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)<br><b>E. F. King, 723 East Green Acres, Hobbs, New Mexico</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         | IS INJECTION TO BE BY GRAVITY OR PRESSURE?<br><b>pressure</b>                                           |                                |
| LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF MILE OF THIS INJECTION WELL<br><b>Sun Oil Company, Box 1861, Midland, Texas</b><br><b>Sinclair Oil &amp; Gas Company, Box 1920, Hobbs, New Mexico</b><br><b>Albert Gackle, Box 2038, Hobbs, New Mexico</b><br><b>Texas Pacific Oil Company, Box 1069, Hobbs, New Mexico</b><br><b>Getty Oil Company, Box 547, Hobbs, New Mexico</b><br><b>Dalport Oil Corporation, 3471 First National Bank Building, Dallas, Texas</b>                                                                                                    |                         | NATURAL WATER IN DISPOSAL ZONE<br><b>yes</b>                                                            |                                |
| HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?<br><b>no</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         | ARE WATER ANALYSES ATTACHED?<br><b>no</b>                                                               |                                |
| ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)?<br><b>yes</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         | EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL<br><b>no</b>                                            |                                |
| I hereby certify that the information above is true and complete to the best of my knowledge and belief.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         | ELECTRICAL LOG<br><b>no</b>                                                                             |                                |
| (Signature)<br><b>[Signature]</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         | THE NEW MEXICO STATE ENGINEER<br><b>no</b>                                                              |                                |
| Asst. Division Manager<br>(Title)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         | DIAGRAMMATIC SKETCH OF WELL<br><b>no</b>                                                                |                                |
| NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701. |                         | September 26, 1968<br>(Date)                                                                            |                                |

Case 3902

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. 3902

Order No. R-3529

APPLICATION OF CONTINENTAL OIL 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 October 23, 1968,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 20th day of Oct, 1968, 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, Continental Oil Company,  
pilot  
seeks permission to institute a/waterflood project in the         
Unit Area, Langlie-Mattix Pool by  
the injection of water into the Queen formation  
its Stevens "B" Well No. 8, located in Unit A of Section 12,  
through xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx  
Township 23 North South, Range 36 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.

pilot  
(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, Continental Oil Company,  
pilot  
is hereby authorized to institute a/waterflood project in the  
Unit Area Langlie-Mattix Pool  
by the injection of water into the Queen formation  
~~through the following described wells in Township~~  
~~North, South, Range West, East, NMPM,~~  
~~County, New Mexico~~  
through its Stevens "B" Well No. 8, located in Unit A of Section 12,  
Township 23 South, Range 36 East, NMPM, Lea County, New Mexico.

(2) That the subject <sup>pilot</sup>/waterflood project is hereby designated  
the Continental Langlie Mattix Stevens "B" 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 <sup>pilot</sup>/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.