

CASE 3732: Application of WEIER
DRLG. CO. for a waterflood
project, Eddy County, New Mexico.

Case No.

3732

Application, Transcript,
Small Exhibits, Etc.

**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. 3732
Order No. R-3384**

**APPLICATION OF WEIER DRILLING COMPANY
FOR A WATERFLOOD PROJECT, EDDY COUNTY,
NEW MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 28, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Mutter.

NOW, on this 4th day of March, 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, Weier Drilling Company, seeks permission to institute a waterflood project in the Grayburg-Jackson Pool by the injection of water into the Grayburg-San Andres formations through its V. L. Foster Well No. 6, located 2310 feet from the North line and 1650 feet from the East line of Section 17, Township 17 South, Range 31 East, NMPM, Eddy 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.

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CASE No. 3732

Order No. R-3384

(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, Weier Drilling Company, is hereby authorized to institute a waterflood project in the Grayburg-Jackson Pool by the injection of water into the Grayburg-San Andres formations through its V. L. Foster Well No. 6, located 2310 feet from the North line and 1650 feet from the East line of Section 17, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico.

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

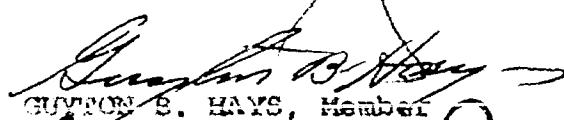
(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


GUYTON B. HAYS, Member


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


esr/



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Drawer U
Artesia, New Mexico 88210

February 6, 1968

Weier Drilling Company
Post Office Box 1266
Monahans, Texas 79756

Gentlemen:

Your letter of February 6, 1968 requests approval to operate a waterflood of the Grayburg-San Andres formation on that portion of oil and gas lease Las Cruces 049998(a) described as follows:

T. 17 S., R. 31 E., N.M.P.M., Eddy County, New Mexico

sec. 17: SW~~1/4~~NE~~1/4~~

You propose to convert to water injection well No. 6, located 2310/N and 1650/E of section 17, which would be an extension of the Sinclair Keel-West waterflood project and Sunray DK Foster-Eddy project to the north, the Franklin, Aston, and Fair Hudson project to the west, and also of the Sinclair Russell-Turner project to the west and south.

The plan for operating the above described waterflood project as proposed in the application is satisfactory to this office, and hereby approved subject to like approval by the New Mexico Oil Conservation Commission and the following:

1. This project will be operated in compliance with the New Mexico Oil Conservation Commission regulations governing waterflood operations.
2. Duplicate copies of a monthly progress report (N.M.O.C.C. form C-120 acceptable) are to be submitted to this office showing the volume of water injected and average pressures for the injection wells and production for the producing wells in the project area.

3. This approval does not preclude the necessity for further approval when the project is expanded to include other wells and leases, or the necessity to submit the usual notices and reports on wells involved. When this project is expanded to involve other operators and interests, the correlative rights of all concerned should be considered.

Sincerely yours,

(Orig. Sgd.) ROBERT L. BECKMAN

Robert L. Beekman
Acting District Engineer

cc:
N.M.O.C.C., Santa Fe
Roswell
Accounts

RLB:ih 2/6/68

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

March 6, 1968

C
Mr. Edward S. Hammond
Weier Drilling Company
Post Office Box 1266
Monahans, Texas 79756

Dear Sir:

Reference is made to Commission Order No. R-3384, entered in Case No. 3732, approving the Weier Foster Waterflood Project in the Grayburg-Jackson Pool, Eddy County, New Mexico.

P
Injection of water is to be through the one authorized water injection well which shall be equipped 2 3/8-inch tubing set in a packer located at approximately 2850 feet.

Y
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 98 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

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

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

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

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Mr. Edward S. Hammond
Weier Drilling Company
Monahans, Texas 79756

C
through purchase or unitization, when wells have received a
response to water injection, etc.

O
Your cooperation in keeping the Commission so informed as to
the status of the project and the wells therein will be appre-
ciated.
P

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/DSH/ir

cc: Oil Conservation Commission
Hobbs, New Mexico
Artesia, New Mexico
Y

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

WEIER DRILLING COMPANY
P.O. Box 1266
Monahans, Texas 79756

February 7, 1968

3732

Case 3732

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

NOCC

9 FEB 9 AM 8 46

Gentlemen:

Weier Drilling Company hereby requests approval to convert our V.L. Foster Well # 6, to water injection service. The conversion of this well will represent an extension to the Sinclair Keel West Waterflood project approved by the commission in Case # 2576, Order No. R-2268.

The subject well is presently producing oil at the rate of $\frac{3}{4}$ Barrel Oil Per Day. It is located in SW/4 of NE/4, Section 17, Township 17S, Range 31E, Eddy County, New Mexico.

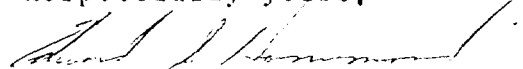
We are submitting in triplicate the following:

- (A) Plat of area, showing proposed well and location of other properties within the required radius of this project.
- (B) Diagrammatic sketch of proposed injection well of this project, showing well casing depths, amount of cement, proposed location of packer.
- (C) Waterflood data containing pertinent data.
- (D) Addresses of Offset Operators in area.
- (E) Letter of Approval from U.S.G.S., granting approval.

We feel that it is necessary to convert the V.L. Foster Well # 6 to injection service in order to maximize oil recovery from our property as well as compliment the orderly development of the Sinclair project.

Taking this opportunity to thank you, we are

Respectfully yours,


Edward S. Hammond
Weier Drilling Company

cc: NMOCC Artesia w/attachments:
Offset Operators as per address:
(less attachments)

DOCKET MAILED

Date 2-15-68

State of New Mexico
Oil Conservation Commission



P. O. BOX 2084
SANTA FE

March 4, 1968

Re: Case No. 3732
Order No. R-3384
Applicant:
Weier Drilling Company

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

Carbon copy of order also sent to:

Other _____

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 28, 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 3714: (Continued from the January 24, 1968, Examiner Hearing)

Application of Continental Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State "O" Well No. 1 located in Unit F of Section 16, Township 17 South, Range 32 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the perforated interval 3140 to 3160 feet, Maljamar-Queen Gas Pool, and the injection of water for secondary recovery purposes into the Grayburg-San Andres formations in the interval from 3700 to 4050 feet through parallel strings of 2-inch tubing.

CASE 3724: Application of El Paso Natural Gas Company for a dual completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its San Juan 27-4 Unit Well No. 30 (GD) located in Unit N of Section 32, Township 27 North, Range 4 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of gas from the Gallup formation and the Basin-Dakota Pool through tubing and the casing-tubing annulus, respectively, by means of a cross-over.

CASE 3725: Application of Continental Oil Company for two non-standard gas proration units and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the following two non-standard gas proration units in the Jalmat Gas Pool:

A 160-acre unit comprising the E/2 E/2 of Section 1, Township 25 South, Range 36 East, Lea County, New Mexico, to be dedicated to its Wells B-1 Well No. 1 located 660 feet from the North and East lines of said Section 1; and a 200-acre unit comprising the W/2 E/2 and NE/4 NW/4 of said Section 1 to be dedicated to its Wells B-1 Well No. 3 located at an unorthodox location 660 feet from the North line and 1650 feet from the West line of said Section 1.

February 28, 1958, Examiner Hearing

- CASE 3726: Application of John Yuronka and Robert Chandler for compulsory pooling, Lea County, New Mexico. Applicants, in the above-styled cause, seek an order force-pooling all mineral interests from the surface down to a depth of 7400 feet underlying the E/2 SW/4 of Section 7, Township 22 South, Range 38 East, Lea County, New Mexico, to form two 40-acre proration units for Drinkard, Paddock, Blinbry, Tubb or other oil production to be dedicated to two wells to be drilled in Units K and N of said Section 7, or to form an 80-acre non-standard gas proration unit in the event gas production is encountered in the Tubb Gas Pool. Also to be considered will be the costs of drilling said wells and a charge for the risk involved, and a provision for the allocation of actual operating costs and the establishment of charges for supervision of said wells.
- CASE 3727: Application of Monsanto Company for an unorthodox gas well location, a non-standard proration unit, a dual completion, and temporary special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of its Rock Tank Unit Well No. 1 located 560 feet from the North line and 920 feet from the West line of Section 7, Township 23 South, Range 25 East, Eddy County, New Mexico, said well to be dedicated to the proposed non-standard proration unit comprising the W/2 of said Section 7 and the E/2 of Section 12, Township 23 South, Range 24 East. Applicant also seeks approval of the dual completion (conventional) of said well to produce gas from the Upper Morrow and Lower Morrow formations through the casing-tubing annulus and the tubing, respectively. Applicant further seeks the creation of Upper Morrow and Lower Morrow gas pools for said well and the promulgation of temporary special rules therefor, including a provision for 640-acre spacing.
- CASE 3728: Application of Tenneco Oil Company for an amendment to Order No. R-3127, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3127 for the expansion of the Grayburg-Jackson West Cooperative Unit Area by some 400 additional acres of State land in Section 16, Township 17 South, Range 29 East, Eddy County, New Mexico.
- CASE 3729: Application of Pan American Petroleum Corporation for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to

February 28, 1968, Examiner Hearing

CASE 3729: (Continued from Page 2)

drill a well at an unorthodox location 510 feet from the South line and 1830 feet from the East line of Section 15, Township 24 South, Range 37 East, Fowler-Ellenburger Pool, Lea County, New Mexico, in exception to the pool rules that require that wells be drilled in the NW/4 or the SE/4 of the quarter section.

CASE 3730: Application of Tamarack Petroleum Company, Inc., for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the South Pearl Queen Unit Area comprising 1523 acres, more or less, of Fee and Federal lands in Township 20 South, Range 35 East, Lea County, New Mexico.

CASE 3731: Application of Tamarack Petroleum Company, Inc., 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 14 wells in its South Pearl Queen Unit, Township 20 South, Range 35 East, Pearl-Queen Pool, Lea County, New Mexico.

CASE 3732: Application of Weier Drilling 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 Grayburg-San Andres formations through its V. L. Foster Well No. 6 located 2310 feet from the North line and 1650 feet from the East line of Section 17, Township 17 South, Range 31 East, Grayburg-Jackson Pool, Eddy County, New Mexico.

CASE 3733: Application of Daryl Davis to re-enter a well, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter the State "A" Well No. 1 located 1980 feet from the South and West lines of Section 1, Township 4 South, Range 26 East, Chaves County, New Mexico, and attempt to complete said well as a producer from the San Andres formation.

dearnley-meier reporting service, inc.

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

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

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 28, 1968

EXAMINER HEARING

IN THE MATTER OF:

Application of Weier Drilling
Company for a waterflood project,
Eddy County, New Mexico.

CASE NO. 3732

BEFORE: DANIEL A. NUTTER, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case 3732.

MR. HATCH: Application of Weier Drilling Company for a waterflood project, Eddy County, New Mexico.

MR. HAMMOND: If it please the Examiner, I am Edward S. Hammond of Monahans, Texas. I am representing myself and my other partners in this application to establish a waterflood project in our Foster-Eddy lease located in Section 17, Township 17, Range 31, Eddy County, New Mexico, in the Grayburg-Jackson Pool.

(Witness sworn.)

MR. HAMMOND: Not being too familiar as to how this is handled, I have submitted to you already in my letter of February 7th asking for this approval, these various things which I assumed will be required, the plat of the area, the diagrammatic sketch, the waterflood data containing the pertinent data to this well, the address of offset operators, and the tentative approval from the U. S. G. S. for this.

MR. NUTTER: Mr. Hammond, why don't you take these as you have listed them, A, B, C, D, E, on here and go through them one at a time and explain them?

MR. HAMMOND: Would you like to mark each one of those as exhibits?

MR. NUTTER: We might as well mark these attachments

as exhibits.

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

MR. HAMMOND: Then Exhibit 1 will be the plat of the
area.

EDWARD S. HAMMOND,

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

DIRECT EXAMINATION

BY MR. NUTTER:

Q The plat is Exhibit 1, so you can go ahead and discuss
it.

A It is just a plat of this area showing the wells
which we have and also the wells of the offset operators in
this area. I think that you will find there I have circled
in red the proposed injection well there. It is our Foster-
Eddy Number 6.

Q Now, your lease is there in Section 17?

A Yes, sir.

Q It comprises the East half of the Northeast Quarter,
the Southwest of the Northeast quarter, and the Northwest
of the Southeast Quarter, is that correct, one hundred and
sixty acres?

A Yes.

Q There is a flood to the south on the Sinclair Turner Lease?

A The flood is not, in reality, has not been, well, they're in the process of instigating this flood. They are putting in their water plant now. They have also converted some of their wells already that have been approved by this Commission to go ahead and convert them to injection wells, and they have water going into some of them. However, their plant is being built down on the highway and as of two weeks ago, it still had not been completed. Anyway, that would be the Exhibit 1 there.

Q Well, now, Sinclair proposes three wells on injection there in 17, is that correct?

A Yes, sir, I have their wells. Some time ago when this originally came about, Sinclair approached all of us in this area to try to form a unit, which we wrote them a letter agreeing that we would be inclined to go along with them in their unit, but for some reason or other, the unit did not materialize. They came back to us asking us if we would be interested in conducting our own flood on the basis of what they had set out previously in their unit. In other words, just to follow the pattern that they had established,

and I have their old map which they sent to us at that time. It's not included, but it was basically the same thing which I have diagrammed here with a few changes that have been made since that time. They, I assume, will put those three wells that you are talking about in Section 17 as injection wells.

Q And Sunray has an injection well up there in Unit C?

A Yes, they have one, Number 4, which is located up in the Northeast Quarter of the Northwest Quarter, which has already been converted to an injection well.

Q That is an active injection well?

A Yes, they have forty-two thousand barrels of water in this well.

Q So what you are doing by adding your Number 6 to injection in this area, you are simply completing a pattern which the other companies have already started?

A That is correct.

Q Now, while we are on this plat, Mr. Hammond, I notice that there are quite a few wells on these forties. How many of those are in the Grayburg-Jackson Pool?

A All right, now, are you looking at my Number 6 there? I can go from that point.

Q Yes, sir.

A Immediately to the left you see 1-A that is a Grayburg-Jackson well.

Q On the same forty as the Number 6?

A Yes, immediately to the right of that is Number 3 well, and that is also a Grayburg-Jackson well. That's the only one of the three wells in the row of all the wells that are Grayburg-Jackson that we have on our whole lease. All the wells that Sunray have, and there are some of them on this same tract of land down here which would be Unit A, B, C, D, E, F, G -- I guess it would be in J.

Q That's labelled Murchison et al? No, J has the Number 7 and Number 2?

A That Number 7 is our well. It's a Friend Seven Rivers well. Our little Number 2 down in the corner is also a Friend well and the Number 4 down in the other corner is also a Friend sand well. This Number 2 well is a Grayburg-Jackson belonging to Sunray.

Q It's on your lease but belongs to them?

A See, we farmed this lease out from them. I would like to explain this, this relationship to you that you might understand it. The Weier Drilling Company and my father entered into an agreement many years ago to drill this lease, and Mr. Weier and Mr. Brandon were partners and they operated

this and we just, my father put up the money for it, for his part of it, along with some partners that he had, and as time has progressed, Mr. Weier has died and Mr. Brandon has died and left only heirs, and my father and I are in the production business in Texas. We operate as Wilson P. Hammond and Son and have leases over in Cochrane and Crane County, Texas.

Because of this fact, we have a half interest in this. We took over operations at the death of Mr. Brandon because the heirs are scattered from California to Pennsylvania and no one is responsible for handling. We have operated this lease and continued to operate under their name in filing the reports and so forth. We do operate the lease and bill them for their part of the working interest.

Q I am trying to find out what these wells are, for the purpose of determining what the maximum allowable as far as the waterflood project is concerned. You don't have a well up there in the Northeast, Northeast?

A No, we do not. I don't know whether or not that will ever be developed or not. That will be dependent on this flood.

Q Insofar as the Grayburg-Jackson Pool is concerned, at the present time you will have two forty-acre tracts with Grayburg-Jackson wells on them. You have the Unit G that has

your injection well and has an extra well on there being a producer, and over in Unit H you have a Number 3 Grayburg-Jackson?

A Yes.

Q And you have two forties and one extra well?

A The well just east of the Number 3 well, the 5, is a plugged and abandoned well. It was a Friend sand well.

Q Your Number 5?

A Yes, it has been plugged and abandoned for many years. Then Exhibit 2 would be a diagrammatic sketch of the casing program in this particular well, Foster Number 6. It shows that $8 \frac{5}{8}$, twenty-eight pound is set. I don't know what kind of casing that is that came off forms that they sent in, set with 150 at 511 feet. They set 7-inch, 20-pound seamless casing 1995 feet with one hundred sacks of cement. They produced this well from the time of its completion, which I believe was in 1951, until 1957, when it was deepened down to the Grayburg. It had depleted in that particular Friend sand. It never was a good well and so then they ran a string of $4 \frac{1}{2}$ set at 2850 feet of $9 \frac{1}{2}$ -pound J. S. seamless casing set with fifty sacks of cement.

Q Do you know if the cement came back up into the seven inch or not?

A I couldn't say because at this time they were still operating in this and I don't have any records. These two men weren't too fond of records anyway, and things are just as I found them and have tried to piece them together. In fact, when we took over the lease, the records were so fouled up that they were reporting this Number 6 in '62, they were still carrying it as a Friend sand well, and I had to go with the Federal and the Commission and get it straightened out.

Exhibit 3 is the tabulation of the waterflood data for the proposed project. Of course, it just sets out the lease and the field and it's an extension to this Sinclair West Keogh, our well being the V. L. Foster Number 6 located in Section 17, Township 17, Range 31 East, Eddy County, New Mexico. It was completed as a Grayburg-Jackson on December 2nd, 1957. It's presently producing oil at the rate of three-quarters of one barrel of oil per day. In other words, it's just nearly depleted. We pump it, actually pump it thirty minutes twice a day. That's how often we pump the cycle.

It's electric clock operated; it's an open hole completion there. We just produce it from the bottom of the pipe to the total depth. We have our string down within about three feet of the bottom. Of course, we want to convert

it to a water injection well; and we have been advised by the Sinclair Oil Company or Refining, or whatever it's called, and we have entered a contract to purchase our water from them under pressure to our lease line, and they have stated that we could have as much as five hundred barrels of water per day at one thousand pound pressure. Now, I don't anticipate that we'll have to have that much pressure. We may have, I don't know.

I have been observing Sunray's well very closely since they started injecting water, and they started out at about eighteen hundred - some pounds at the surface, and the last time I came by yesterday and they weren't, they were doing some work -- they have a problem there, but the last time, which was two or three weeks ago, their pressure had declined to six hundred ten pounds.

Q Do you know how much water they were able to get into the formation?

A They had on their meter about 42,000 barrels of water at the present time. They had been injecting since August, about six months.

Q So they are putting in about 7,000 a month?

A They have averaged a little over two hundred barrels a day over the whole picture. I talked with Mr. Hastings, who

is their engineer, in Roswell, Sunray's engineer, and he told me that they had a problem, they have a leak in the tubing and that's what they were trying to determine yesterday when I came by, so that's why they were not injecting any more water.

Q Do you have any idea how much you will be able to get in this well?

A No, I don't, it will be guesswork.

Q You have an option to buy up to five hundred barrels a day?

A I have an option to buy up to five hundred barrels a day and at 3.8 cents per barrel, I might add, which is a pretty good price for water. They have assured us it's going to be fresh water, but I rather imagine Sunray has set a heater since they have started theirs and they're catching all the water that that lease produces and they have laid a plastic line of some 2700 feet back down to Sinclair and delivering this produced water to them.

I talked with Mr. Hastings if it might be possible, we will have to set a heater and pressure treater, that if we did encounter quite a bit of produced water, could we enjoin with them and maybe use their line and pay a nominal fee or maybe work out something with them. That's just

depending as to when we can do that with them.

Q Do you think Sinclair will pay you there 3.8 cents per barrel, whatever it was for water?

A No, I have wells that I pay seventeen cents a barrel to have it hauled off and put in a well.

Q So you expect, however, that later on Sinclair will probably be producing water from their own flood?

A I think probably some of this water is from their own flood further north at a different line. They laid an eight-inch line down through our lease, delivering water down to this plant they are building. I don't know, they say that water is fresh. I would hate to have to drink very much of it.

Q It's probably a mixture of produced water and fresh water.

MR. STAMETS: I have talked to their field personnel. They have advised me that all of the produced water from the Keogh West floods and from these floods will be shot through this plant that he's talking about and go into these floods. I don't believe it's enough for the whole thing. It will be a combination of fresh and salt water.

A Water is a real scarce commodity there. All the fresh water has to come up from east of Maljamar off the

Caprock. We had a pumper that lived on this lease for a number of years, and we had to truck all his drinking water and bath water. We didn't have a water well which we could use for house purposes. I think the rest of the information I have stated. We are going to run a packer in this $4\frac{1}{2}$ -inch on our tubing and just produce below this packer through the tubing.

Q One item here isn't mentioned on this sheet, Mr. Hammond, that you might be able to furnish us with. How much has the well made from the Grayburg-Jackson to date?

A The best I can determine --

Q The wells.

A The Grayburg wells?

Q Yes.

A Around ninety-two thousand barrels of oil, I think.

Q How much has this one made, do you have any idea?

A I think since it was completed it hasn't made but about in the neighborhood of, oh, six thousand barrels.

Q It hasn't been a very good Grayburg-Jackson?

A No, it was potentialled for eleven barrels when it was completed in the Grayburg. We have six wells on this lease, Mr. Mutter, and we get a total of about nine barrels a day out of the six wells, Grayburg and Friends, so they're classed as strippers, very definitely.

Q Do you have any estimate as to how much you are going to make from your waterflood?

A Well, I am not an engineer and I don't have any way to determine reservoirs or anything of that nature, but I did talk with Sunray and their engineer, Mr. Hastings, and they have hoped for forty percent of their primary. I think if we got forty percent of eighty thousand, well, we'd be doing pretty good. Of course, we can't determine about what we'll be able to do. I hope it's better than that, naturally, but that forty percent would certainly be something to shoot for.

Q Then your next attachment is the list of the offset operators?

A Yes, sir, and I sent a letter just as appears on the front of this to them. I did send them all the attachments under certified mail and as of this date I have heard no objection to any of these. Of course, the next exhibit is a copy of the letter from the Department of the Interior, Geological Survey in Artesia signed by Mr. Beaton granting us permission to do so, as far as the Federal Government is concerned.

Of course, the last two instruments are just the copies of their Form 9-331 stating the history of this well, and what we intend to do if this is approved by both the New

Mexico Oil Conservation Commission and the U. S. G. S., which they have given their approval.

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

MR. STAMETS: A while ago Mr. Hammond pointed out that the Seven Rivers in the Grayburg-Jackson is commingled here.

A Yes, we have them commingled in the one battery here.

MR. NUTTER: The Friend?

A Yes, which was granted by the Commission back in 1962, I think.

MR. NUTTER: Any other questions of Mr. Hammond?
He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further you wish to offer in the case, Mr. Hammond?

MR. HAMMOND: No, sir, I have not.

MR. NUTTER: We will go ahead and identify these things as exhibits in this case, the plat as Exhibit No. 1, the diagrammatic sketch as Exhibit 2, the data sheet as Applicant's Exhibit No. 3, the list of offsets as Exhibit No. 4, and the letter from U. S. G. S. will be Applicant's Exhibit No. 5. If there's no objection, we will admit these

exhibits into the record of this case.

(Whereupon, Applicant's
Exhibits 1 through 5
were offered and ad-
mitted in evidence.)

MR. NUTTER: We will take the case under advisement
and the Hearing is adjourned.

* * * * *

I N D E XWITNESSPAGE

EDWARD S. HAMMOND

Direct Examination by Mr. Nutter

4

E X H I B I T SEXHIBITMARKEDOFFERED AND
ADMITTEDApplicant's
1 through 5

4

17

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

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.

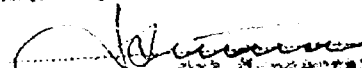
Witness my Hand and Seal this 11th day of March, 1968.


 NOTARY PUBLIC

My Commission Expires:

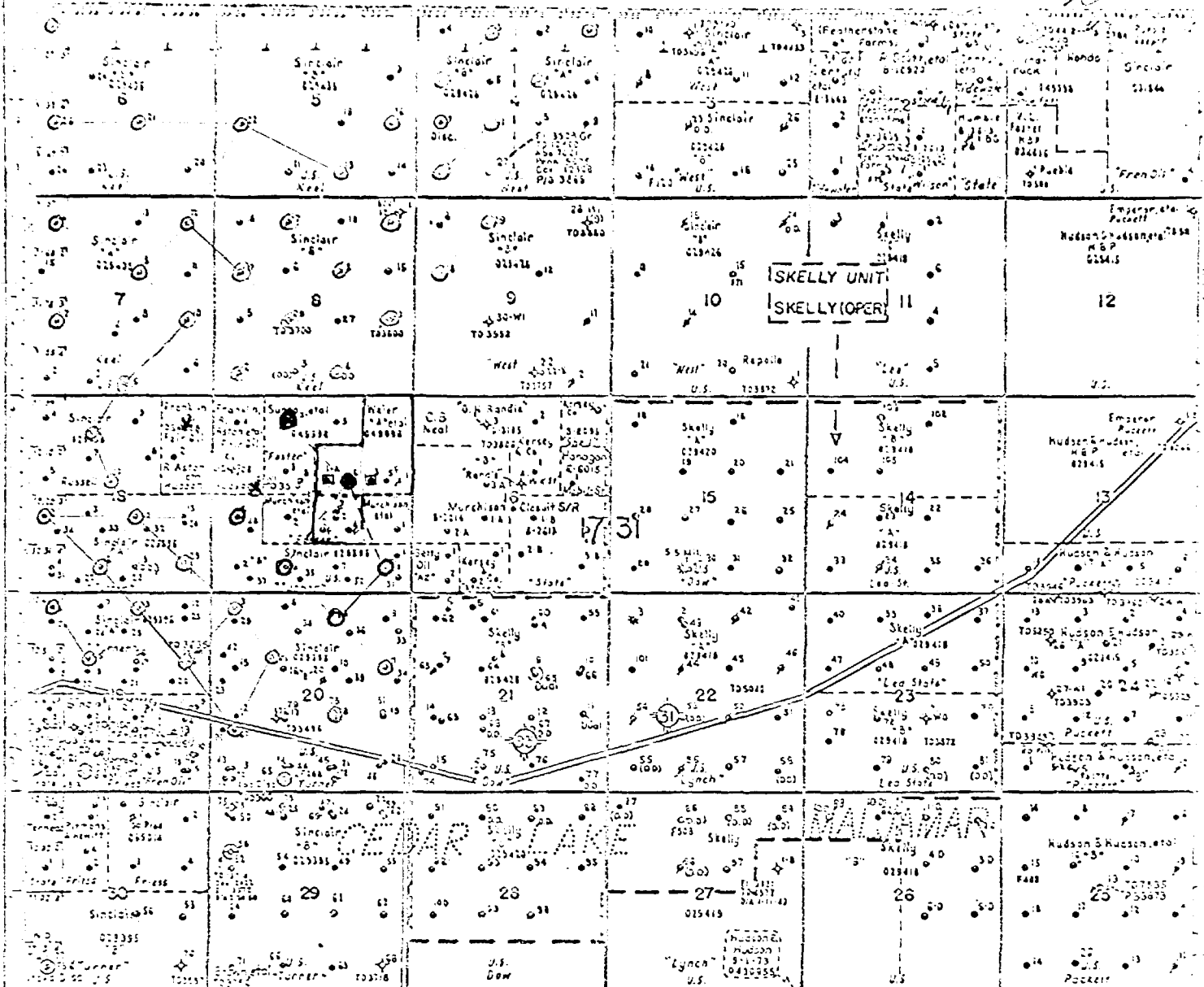
June 19, 1971.

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the American Hearing in Case No. 3732
 held by an oil... 7/28... 1968.

 Francisco
 New Mexico Oil Conservation Commission

PLAT OF WATERFLOOD OPERATIONS
 SECTION 17 TOWNSHIP 17S RANGE 31E N.M.P.M.
 EDDY COUNTY, NEW MEXICO

7-4-27
 1-4-28



Meier Drilling Company
 Proposed Water Injection Well
 V.L. Foster #3

BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

EXHIBIT NO. 1

CASE 3732

Case 3732

WEIER DRILLING COMPANY
V.L. FOSTER LEASE
FEDERAL NO. 049998 (a)

V.L. FOSTER WELL NO. 6
SEC. 17 TWP. 17S R 31E
EDDY COUNTY, NEW MEXICO

DIAGRAMMATIC SKETCH OF
V.L. FOSTER WELL NO. 6
SHOWING PROPOSED INJECT-
ION PROJECT.

8 5/8" 28# N2T Seamless Casing
Set @ 511' With 50 Sacks Cement

INJECTION FROM PACKER @ 2850'
to TOTAL DEPTH 3467'

7" 20# N2T Seamless Casing
Set @ 1995' with 100 Sacks
Cement

Proposed Packer Set @ 2850'
Approx.

Proposed Injection String:
2 3/8" E.U.E. 4.7# J-55
Seamless Tubing with packer

4 1/2" 9 1/2# J-55 Seamless Casing
Set @ 2862' With 50 Sacks Cement

Case 3732

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 3732

WEIER DRILLING COMPANY
P.O. BOX 1266
MONAHANS, TEXAS 79756

V. L. FOSTER NO. 6

TABULATION OF WATERFLOOD DATA FOR THE PROPOSED PROJECT

LEASE: V.L. FOSTER

FIELD: GRAYBURG-JACKSON

PROJECT: SINCLAIR KEEL WEST EXTENSION

WELL: V.L. FOSTER NO. 6

LOCATION: 2310' FNL and -1650' FEL, SEC. 17 TWP. 17S, R. 31E
EDDY COUNTY, N.M.

DATE COMPLETED: DECEMBER 2, 1957 (GRAYBURG-JACKSON COMPLETION)

PRESENT STATUS: PRODUCING OIL @ $\frac{3}{4}$ BOPD

PRESENT PRODUCING INTERVAL: OPEN HOLE 2862'-- 3467'

PROPOSED STATUS OF WELL: CONVERT TO WATER INJECTION WELL

TYPE OF INJECTION FLUID: FRESH WATER

FORMATION IN WHICH WATER IS TO BE INJECTED/INTO: GRAYBURG-JACKSON FORMATION

TOP OF FORMATION: 2920'

BOTTOM OF FORMATION: 3467'

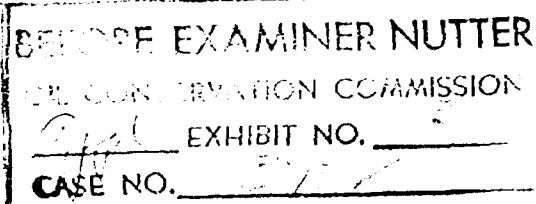
PROPOSED INJECTION INTERVAL: OPEN HOLE FROM BOTTOM OF PACKER
APPROXIMATELY 2850' to 3467'

SOURCE OF WATER FOR INJECTION: PRESSURED WATER PURCHASED FROM SINCLAIR
OIL & GAS COMPANY.

ANTICIPATED VOLUMES TO BE INJECTED: 250 BWPD

ANTICIPATED INJECTION PRESSURE: 2000 P.S.I.G.

MAXIMUM INJECTION PRESSURE: 2400 P.S.I.G.



WEIER DRILLING COMPANY
V. L. FOSTER LEASE
LIST OF OFFSET OPERATORS
GRAYBURG - JACKSON POOL
EDDY COUNTY N.M.

SUNRAY OX OIL COMPANY
4TH FLOOR
SECURITY NATIONAL BANK BLDG.
ROSWELL, N.M. 88201

Attention: John Hastings

FRANKLIN, ASTON AND FAIR
P.O. BOX 1090
ROSWELL, N.M. 88201

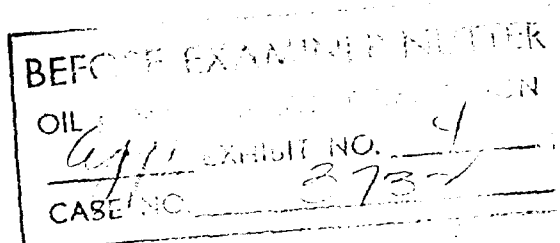
Attention: Mr. Roger Aston

SINCLAIR OIL & GAS COMPANY
P.O. BOX 1920
HOBBS, N. M. 88240

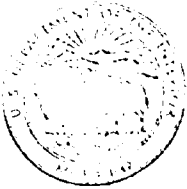
MURCHINSON-CLOSUIT -
P.O. DRAWER 105
PETROLEUM CENTER
SAN ANTONIO, TEXAS

KERSEY & COMPANY
P.O. BOX 305
ARTESIA, N.M. 88210

Attention: Harold Kersey



Case 3732



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Drawer U
Artesia, New Mexico 88210

February 6, 1968

Weier Drilling Company
Post Office Box 1266
Monahans, Texas 79756

Gentlemen:

Your letter of February 6, 1968 requests approval to operate a waterflood of the Grayburg-San Andres formation on that portion of oil and gas lease Las Cruces 049998(a) described as follows:

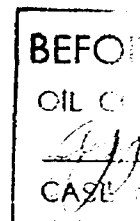
T. 17 S., R. 31 E., N.M.P.M., Eddy County, New Mexico

sec. 17: SW $\frac{1}{4}$ NE $\frac{1}{4}$

You propose to convert to water injection well No. 6, located 2310/N and 1650/E of section 17, which would be an extension of the Sinclair Keel-West waterflood project and Sunray DX Foster-Eddy project to the north, the Franklin, Aston, and Fair Hudson project to the west, and also of the Sinclair Russell-Turner project to the west and south.

The plan for operating the above described waterflood project as proposed in the application is satisfactory to this office, and hereby approved subject to like approval by the New Mexico Oil Conservation Commission and the following:

1. This project will be operated in compliance with the New Mexico Oil Conservation Commission regulations governing waterflood operations.
2. Duplicate copies of a monthly progress report (N.M.O.C.C. form C-120 acceptable) are to be submitted to this office showing the volume of water injected and average pressures for the injection wells and production for the producing wells in the project area.



Case 3732

3. This approval does not preclude the necessity for further approval when the project is expanded to include other wells and leases, or the necessity to submit the usual notices and reports on wells involved. When this project is expanded to involve other operators and interests, the correlative rights of all concerned should be considered.

Sincerely yours,



Robert L. Beekman
Acting District Engineer

cc:
N.M.O.C.C., Santa Fe
Roswell
Accounts

RLB:ih 2/6/68

Form 9-311
(May 1963)UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE*
(Other Instructions on re-
verse side)Form approved.
Budget Bureau No. 42-R1424.

6. LEASE DESIGNATION AND SERIAL NO.

V.L. Foster 049993 (a)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

1. ☒ OIL WELL ☐ GAS WELL ☐ OTHER

2. NAME OF OPERATOR
WEIER DRILLING COMPANY

3. ADDRESS OF OPERATOR
P.O. BOX 1266, MONAHANS, TEXAS 79756

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.) Located 2310' from North line and 1650'
from East line of Section 17, Twp 17S, Range 31E.
N.M.P.M. SW/4 of NE/4

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

V.L. Foster

9. WELL NO.

6

10. FIELD AND POOL, OR WILDCAT

Grayburg-Jackson

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

17-17S-R 31E N.M.P.M.

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, OR, etc.)

12. COUNTY OR PARISH

12. STATE

Eddy

New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON* ☐CHANGE PLANS ☐(Other) Supplementary Well History ☒

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐(Other) ☐REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT* ☐(Note: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any
proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones perti-
nent to this work.)*

History of V.L. Foster # 6

Well drilled and completed as Fren Seven Rivers Well, January 14, 1951. Drilled to a total depth of 2203'. Well was shot with 126 quarts Nitro from 2030'-2081' and cleaned out to a depth of 2200'. Well produced at this interval until October, 1957. At this time, well was drilled deeper to 3467'. A string of 4 1/2", 9 1/2" J-55 Smls. Casing was cemented at 2362' with 50 Sacks Cement. Well was logged and fraced at the depth of 2362' to 3467', with 18,000 gallons of lease oil and 13,500 pounds of sand. Well completed for 11 BOPD. This well has now declined to 3/4 BOPD. Wish now to convert to Water Injection Well.

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE Partner

DATE February 6, 1968

(This space for Field or State office use)

APPROVED BY

SIGNATURES OF APPROVAL, IN AND

TITLE

DATE

*See Instructions on Reverse Side

RECEIVED
FEB 6 1968
U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

FEB 9 AM 8 47

Case 2732

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)Form approved.
Budget Bureau No. 42-R1424.

6. LEASE DESIGNATION AND SERIAL NO.

V.L.Foster 049998 (a)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

1.

OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

WEIER DRILLING COMPANY

3. ADDRESS OF OPERATOR

P.O. BOX 1266, MONAHANS, TEXAS 79756

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*

See also space 17 below.)

At surface Located 2310' from North line and 1650'
from East line of Section 17, Twp. 17S, Range 31 E.
N.M.P.M. SW/4 of NE/4.

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

12. COUNTY OR PARISH

Eddy

12. STATE

New Mexico

16.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐(Other) Convert to Water Inj. Well ☒PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON* ☐CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐(Other) ☐REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT* ☐(Note: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any
proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones perti-
nent to this work.)*

We request permission to convert V.L.Foster Well #6 to water injection well to conform with the Sinclair Keel West Waterflood project. Our planned operational procedure is stated below. This work will commence as soon as possible after approval of both U.S.G.S. and the New Mexico Oil Conservation Commission.

Operational Procedure Plans:

1. Move in and rig up pulling unit.
2. Pull Rods and Tubing.
3. Rerun Tubing with packer.
4. Set packer @ approximately 2850', inside 4½" Casing.
5. Install Injection Head.
6. Start water into well.

RECEIVED
FEB 6 1968
U. S. GEOLOGICAL SURVEY
ALBUQUERQUE, NEW MEXICO

18. I hereby certify that the foregoing is true and correct.

SIGNED

TITLE Partner

DATE February 6, 1968

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

*See Instructions on Reverse Side

Case 3722