

CASE 3083: Application of GENERAL
AMERICAN OIL CO. OF TEXAS for a
waterflood project, Eddy County.

Memo

From

JAMES M. DURRETT JR.
GENERAL COUNSEL

To Case 3083 7-20-64

TF Jack Russell
will amend application
at hearing to include
additional \$40 ac.
that was erroneously
omitted from original
application.

CASE NO.

3093

Application,

TRANSCRIPTS,

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. 3083
Order No. R-2749

APPLICATION OF GENERAL AMERICAN OIL
COMPANY OF TEXAS FOR A WATERFLOOD
PROJECT, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 22, 1964, at Santa Fe, New Mexico, before Examiner Daniel S. Nuttar.

NOW, on this 29th day of July, 1964, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, General American Oil Company of Texas, seeks permission to institute a waterflood project in the Grayburg Jackson Pool by the injection of water into the Premier Sand through twelve injection wells on acreage which it has acquired or will acquire in Sections 27, 28, 33, and 34, Township 17 South, Range 30 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. 3083

Order No. R-2749

(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, General American Oil Company of Texas, is hereby authorized to institute a waterflood project in two stages in the Grayburg Jackson Pool by the injection of water into the Premier Sand through the following-described wells in Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico:

Stage I

Arnold "D" No. 1, 1980 feet from the North line and 1980 feet from the West line of Section 27;

Arnold "D" No. 6, 2310 feet from the North line and 330 feet from the West line of Section 27;

Maddren "B" No. 9, 2310 feet from the South line and 1650 feet from the East line of Section 27;

Maddren "A" No. 2, 2615 feet from the North line and 1295 feet from the East line of Section 28;

Maddren "E" No. 1, 990 feet from the South line and 1650 feet from the East line of Section 28;

Beeson "B" No. 1, 330 feet from the North line and 990 feet from the East line of Section 33;

Arnold "D" No. 8, 330 feet from the North line and 2140 feet from the East line of Section 34;

Arnold "D" No. 9, 330 feet from the North line and 640 feet from the East line of Section 34;

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CASE No. 3083

Order No. R-2749

Federal "G" No. 1, 330 feet from the North line and
330 feet from the West line of
Section 34;

Federal "G" No. 2, 330 feet from the North line and
1650 feet from the West line of
Section 34;

Stage II

Arnold "D" No. 7, 25 feet from the North line and
1100 feet from the West line of
Section 27;

Beeson "A" No. 2, 330 feet from the North line and
330 feet from the East line of
Section 28.

(2) That the subject waterflood project shall be governed
by the provisions of Rules 701, 702, and 703 of the Commission
Rules and Regulations.

(3) That monthly progress reports of the waterflood project
herein authorized shall be submitted to the Commission in accord-
ance with Rules 704 and 1119 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 neces-
sary.

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jack M. Campbell
JACK M. CAMPBELL, Chairman

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

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

esr/

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER



P. O. BOX 2088
SANTA FE
87501

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

Mr. John F. Russell
Attorney at Law
Post Office Drawer 640
Roswell, New Mexico

_____, 19____

Gentlemen:

Enclosed herewith is Commission Order No. R-2749, entered in Case No. 3083, approving the General American Brayburg-Jackson Water Flood Project.

para *as to allowable* *indicate that*
According to our calculations, when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 766 barrels per day.

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

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly 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,

cc: OCC - Artesia
Frank Irby

A. L. PORTER, Jr.
Secretary-Director

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

July 29, 1964

Mr. John Russell
Attorney at Law
Post Office Drawer 640
Roswell, New Mexico

Dear Sir:

Enclosed herewith is Commission Order No. R-2749, entered in Case No. 3083, approving the General American Grayburg-Jackson Water-flood Project.

Injection in each of the authorized injection wells is to be through tubing and under packers; packers shall be set not more than 100 feet above the casing shoe.

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 966 barrels per day.

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

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly 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

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

-2-

Mr. John Russell
Post Office Drawer 640
Roswell, New Mexico
July 29, 1964

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

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status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

P
Y ALP/DSM/ir

cc: Oil Conservation Commission
Artesia, New Mexico

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

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

EXAMINER HEARING

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1162

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

IN THE MATTER OF: Application of General American Oil Company of Texas for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Premier Sand through twelve wells located in Sections 27, 28, 33 and 34, Township 17 South, Range 30 East, Eddy County, New Mexico. Certain of the aforesaid injection wells would be drilled at unorthodox locations.

Case No. 3083

BEFORE: DANIEL S. NUTTER, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case No. 3083.

MR. DURRETT: Application of General American Oil Company of Texas for a waterflood, Eddy County, New Mexico.

MR. RUSSELL: John F. Russell, Roswell, New Mexico, appearing on behalf of General American Oil Company of Texas.

have one witness.

(Witness sworn.)

(Whereupon, Applicant's Exhibits 1 through 4 were marked for identification.)

ROY L. CROW

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

DIRECT EXAMINATION

BY MR. RUSSELL:

Q Will you please state your name, address, by whom you are employed and in what capacity?

A My name is Roy Lee Crow. I am employed by General American Oil Company of Texas, Post Office Box 416, Loco Hills, New Mexico. I am employed in the capacity of petroleum engineer.

Q Have you previously qualified to testify before this Commission?

A No, sir.

Q Will you give a brief resume of your educational back-

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ground and your experience in the field?

A I graduated from Southern Methodist University in 1961 with a Bachelor of Science degree in geology. I have been employed by General American Oil Company for the past nine years. The first five years of my employment were as an engineer trainee and mostly secondary recovery projects in Dallas. For the past three years I have been employed as a petroleum engineer in Texas, Oklahoma, and currently in New Mexico, mostly in secondary recovery work.

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

MR. NUTTER: Yes, sir.

Q Mr. Crow, are you familiar with the application filed in Case No. 3083?

A Yes, sir.

Q Will you please explain what you seek to accomplish by this application?

A We seek to gain approval for a Premier Sand flood in Eddy County, New Mexico in Sections 27, 28, 33, 34 and 35. We seek to put in a two-stage peripheral flood which we feel would be the best pattern to recover the most oil.

Q Referring you to Exhibit No. 1, what does that show?

A Exhibit 1 is a plat showing a radius of two miles from



all injection wells showing the wells and their current producing formation, or the formations in which the wells last produced. It also encloses two areas, the lighter line is the area General American proposes to include in its Premier Sand flood and the broken line area encloses the currently existing Ambassador Grayburg Jackson Premier Sand Unit, or 23, 23.

Q I refer you to Exhibit No. 2 and ask you what that shows.

A Exhibit No. 2 again is a plat which has two areas, again outlined the two areas mentioned in Exhibit 1, the hashed lines enclosing Ambassador's currently existing flood and the broken line enclosing General American's proposed flood. The exhibit shows how General American intends to join Ambassador's existing five spot currently. They are only a pilot stage but which is shown by the dashed lines and they are ready to expand to their full pattern on the five spot basis as shown. General American shows how they intend to cooperate along common boundaries with our peripheral type flood.

It also shows that due to the unorthodox location or the close spacing of the wells developed on General American's property, that a pattern flood would not be feasible to possibly recover as much productive oil as might be remaining in the reservoir. Therefore, a peripheral flood which encloses as close as possible

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the productive limits of the reservoir would be a better type flood.

It also shows the two stages in which General American will attempt to conduct this flood. Stage 1, as denoted by the triangles, shows that wells which are currently existing to be converted to injection are solid circle wells enclosed by the triangle or wells which might be deepened are solid circles enclosed by a triangle with the letter D beneath, and four wells that will be drilled as injection wells symbolized by open circles were enclosed within the triangle.

Q What sections are included within your proposed flood?

A Sections 27, 28, 33, 34 and 35 of Township 17 South, Range 30 East, Eddy County, New Mexico.

Q I refer your attention specifically to the Northwest Quarter of the Northwest Quarter of Section 35, am I correct that it is not anticipated that any injection well will be located on that tract?

A No injection well will be located on this tract.

Q But there is a producing well at this time?

A Yes, sir.

Q Mr. Crow, your application did not include specifically Section 35. Do you request at this time that your application be amended to include the Northwest Quarter of the Northwest Quarter



of Section 35, Township 17 South, Range 30 East?

A I do wish the application to be amended.

MR. NUTTER: The application is amended to include Section 35.

Q In connection with Exhibit 2 you have shown by various symbols the two stages. You are asking actually that all of the injection wells for Stage 1 and Stage 2 be approved at this time, is that correct?

A This is correct.

Q Do you know when you might go to Stage 2 of this flood?

A The development of Stage 2 would be wholly dependent upon the operation of Stage 1. If it is economically successful, then Stage 2 would be entered as soon as possible. Due to the sparse development of Stage 2 area in the primary development it is somewhat questionable as to the economic feasibility of this stage. Therefore, it will not be entered upon until the results of Stage 1 are noted.

Q Is it anticipated that if the flood is approved it will be expanded to include Stage 2 in accordance with the Rule 701, that is by administrative order after response has been received?

A Yes.

Q In the producing wells in Stage 2?

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A Yes.

Q From what formation or formations are these wells with-
in your flood area producing at this time?

A Currently, all but two wells are of the Premier Sand
section of the Grayburg Jackson formation. One well, No. 9,
noted in Section 27, to be converted to an injection well would be
deepened to the Premier Sand as illustrated in Exhibit 3.

MR. NUTTER: That's the No. 9 well, right?

A Yes, sir, and in Stage 2 the No. 3 well with the DD
above it would be deepened from the Seven Rivers formation to the
Premier Sand, if Stage 2 is developed.

Q Is there a possibility that you may deepen that well
you just referred to prior to the expansion into Stage 2?

A There is a possibility, since this well is offset by two
injection wells of Ambassador's flood, that this well possibly
might be deepened to check results prior to drilling the No. 7
well or the drilling of the No. 5 producer in Section 27, Stage 2.

Q Is General American Oil Company of Texas the owner of
the operating rights of all of the leases within this area at
this time?

A General American is the owner of the operating rights
in all the leases except the North Half of the Northwest Quarter
of Section 34, shown to be Ambassador, and the Northeast Quarter



of the Northeast Quarter of Section 28, shown to be Sinclair, and the Northeast Quarter of the Southeast Quarter of 28, shown to be Sinclair. At the present time exchange of operating rights with both Sinclair and Ambassador have been verbally agreed and the present status is that we're only waiting for the attorneys to draft the legal documents. At this time General American will own all the operating rights within the proposed flood.

Q Do you have lease line agreement with Ambassador as to their adjoining flood?

A We have also verbal agreement with Ambassador on cooperating along the common boundary and probably at approximately the same time as the operating rights exchange is legally signed, also a line agreement will be entered.

Q But you do have a verbal agreement at this time?

A We have a verbal agreement at this time.

Q Have you received notice from the United States Geological Survey of their approval of this proposed flood?

A Yes, we have.

Q Will you furnish the Commission with a copy of a letter indicating their approval?

A Yes.

Q What is the present status, production status of the wells within the proposed flood area?



A The current status is all wells average about three and a half barrels a day, would be a per day per well average for the wells within the flood area.

Q Referring you to Exhibit No. 3, will you explain what that exhibit reflects?

A Exhibit No. 3 is a group of diagrammatic sketches on all injection wells that will be converted from producing wells or will be deepened for the purpose of injection or wells that are proposed to be drilled for injection. It shows the casing strings, the approximate tops of the cement where the strings are set, the size of the casing and the number of sacks run. It shows the pay zone, the total depth or plug back total depth, and it also shows where we plan to approximately set the two-inch tubing with a tension-type packer.

Q In what intervals do you propose to inject water for your flood?

A At the current time we propose the intervals of approximately 3110 to 3305. Possibly these intervals might need to be revised slightly after the drilling of the proposed four other injection wells.

Q The information on these wells is rather sketchy, is it not?

A Yes, it is.



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Q And these intervals may have to be revised slightly if going into the wells to complete as injection wells it reflects information other than is available at this time?

A Yes.

Q This Exhibit No. 3 reflects the proposed completion data as to the existing wells and also the additional wells which you contemplate drilling for injection wells?

A Yes. The first one, Arnold D-1, is a current producing well. It would show the current status of the casing, and as in the second Madren B-9 it would be noted that this would be the proposed. Your exhibit may not be in that order. Madren B-9. In other words, this well is a Seven Rivers, it would be deepened to the Premier Sand, and this would be the approximate location of the pay zone. The total depth and the approximate place that the casing would be set.

MR. NUTTER: This well has seven-inch casing in it now, is that correct?

A Yes, sir.

MR. NUTTER: Then you would run this five and a half after deepening it?

A All the way to the surface. Arnold D-9 would be an example of the other type well shown as the well that is to be drilled, and these are, of course, the approximate amounts and



depths that would be encountered.

MR. NUTTER: Going back to your Madren B-9--

A Yes, sir.

MR. NUTTER: -- would that 75 sacks that you are proposing to use be sufficient to come back into the seven-inch pipe?

A No, sir, it probably would not. That may actually be an erroneous figure there. Sufficient cement would be run to guarantee any commingling of possible fluids from any zones.

MR. NUTTER: This well would be equipped with a tubing and packer just like the others?

A Yes.

Q (By Mr. Russell) I refer you to Exhibit 4 and ask you to explain what that portrays.

A Exhibit 4 is a tabulation of data available on the current wells that are to be converted to water injection, showing their location, the elevation, total depth, plug back total depth, also again the surface casing where it's set, the number of sacks, the production string, the number of sacks and depth set, the pay zone and any shot record that may be available or any acidizing record, if any, or any fracturing record if any. This information is submitted in the absence of any available logs.

Q What is your proposed source of supply for the water that you propose to inject in this flood?



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A Water will be purchased from the Caprock Water Company from their Red Lake Basin area in Eddy County, New Mexico.

Q What is your anticipated rate of injection minimum and maximum approximately?

A The minimum injection rate probably would not fall below 200 barrels a day, or the maximum injection rate would not exceed 800 barrels per day.

Q Is that per well?

A Per well.

Q Do you anticipate that this water will be injected under pressure or not?

A Yes, before the flood life is out it would be injected under pressure, probably 2,000 pounds would be the maximum expected pressure. This being based on the currently existing pilot flood of Ambassador, who is currently encountering about 1500 pounds.

Q Do you request that your application as amended be approved for the two-stage flood and that the Commission retain jurisdiction for the purpose of giving administrative approval under Rule 701 to the expansion into Stage No. 2?

A Yes.

Q Have you received a copy of a letter from Mr. Irby to the Commission indicating his approval of this proposed project?



A Yes, I have.

Q Did you also furnish to the State Engineer an analysis of the water which will be injected into these formations?

A Yes.

Q Do you request that the Commission establish allowables for this flood in accordance with Rule 701?

A Yes.

Q Were Exhibits 1 through 4 inclusive prepared by you or under your direction?

A Yes, they were.

MR. RUSSELL: I offer Exhibits 1 through 4 into evidence.

MR. NUTTER: Applicant's Exhibits 1 through 4 will be admitted into evidence.

(Whereupon, Applicant's Exhibits 1 through 4 were offered and admitted in evidence.)

MR. RUSSELL: I have no further questions of this witness.

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

MR. DURRETT: I have a question.

MR. NUTTER: Mr. Durrett.

CROSS EXAMINATION

BY MR. DURRETT:

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Q Am I correct, now, Mr. Crow, that your Exhibit No. 4 concerns injection wells in Stage 1 or does it also cover the ones in Stage 2?

A It would cover the one existing well, the Beeson "A" No. 2, the second well on the second page. This well would be in Stage 2, but it is a currently existing well, Sinclair. The other wells are in Stage 1.

Q Does this exhibit include all of the wells in Stage 1?

A Except the wells to be drilled, of course. There are four wells to be drilled.

Q Four injection wells to be drilled?

A Yes, sir.

Q Here's the line of thought that I'm proceeding under, the Commission might decide that since you do want to proceed with Stage 2 under Rule 701, that it is not necessary or would not be necessary at this time to specifically authorize these wells for injection purposes. In other words, the Commission might determine that all it needed to authorize at this time would be your Stage 1 wells. Then you could apply for administrative procedure to put your additional wells in Stage 2 on as they receive a response. If so, we will need to know specifically which wells are Well No. 1 so we will have a location on them, and the other necessary information to write the order. So, in some manner can



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you point out to me which ones are Stage 1 so we can pick their location off?

A Well, referring back to --

MR. NUTTER: Exhibit 3 gives the location of all twelve wells.

A It gives the exact location on a footage basis, and Exhibit 2 gives the location of the stages by symbols.

Q (By Mr. Durrett) Then just by correlating the two exhibits we can have this?

A Exhibit 2 mainly will give you the wells in the different stages, and Exhibit 3 will give you the footage of all wells. We would like for the Commission to approve both stages at this time if possible.

MR. NUTTER: Let's see, let's straighten this up on Exhibit 3 right now.

A All right.

MR. NUTTER: The first page is Beeson "A" 2, that's a Stage 2 well, isn't it?

A I am sorry, your Exhibits No. 3 were not in order. In other words, there are only two injection wells to be included in Stage 2 and they are the Arnold D-7, which is the well to be drilled, that is a Stage 2 well. The first one on your list, Beeson "A" 2, I believe it's the first one.



MR. NUTTER: All the others are Stage 1?

A All the others are Stage 1.

Q (By Mr. Durrett) Am I correct, Mr. Crow, that you do not desire to place your Stage 2 wells on injection until they have received a response and would fall within the provisions of Rule 701 concerning expansion?

A Yes, sir.

MR. DURRETT: Thank you.

BY MR. NUTTER

Q What has been the cumulative production to date from the wells in this waterflood project area?

A From the General American wells, approximately 970,000 barrels. At this time I cannot give you the exact cumulative production on the four other wells which we intend to take in, but I would imagine the four wells combined would be somewhere in the neighborhood of 200,000, so it would be approximately a million three hundred thousand.

Q Have you made any studies or estimates of your secondary recovery?

A From the other floods we have run on similar depths now we are assuming the one to one recovery.

Q Has Ambassador received a response in its pilot area?

A Yes, they have, and are awaiting on our approval to expand to their full-stage flood.



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Q Right now they've only got the six pilot wells on injection, is that right?

A Yes.

Q Then they propose to put all the remaining wells that are shown in your pattern here on Exhibit 2 on injection?

A As far as I know, when their expansion is done this time they would include all these wells.

Q Are all of these lands in your area federal lands, Mr. Crow?

A Yes.

Q United States Geological Survey I presume has consented to this?

A Yes, sir, I will furnish you a copy of their approval.

(Whereupon, Applicant's Exhibit No. 5 was marked for identification.)

MR. NUTTER: Exhibit 5 will also be admitted in evidence.

(Whereupon, Applicant's Exhibit No. 5 was admitted in evidence.)

MR. NUTTER: Does anyone have any further questions?

MR. RUSSELL: I would like to ask one further question.

REDIRECT EXAMINATION

BY MR. RUSSELL:



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ALBUQUERQUE, N. M.
PHONE 243-6691

Q Mr. Crow, in your opinion will this purple type flood result in recovery of oil that might not otherwise be recovered and therefore prevent economic waste?

A Yes, sir.

MR. NUTTER: If there are no further questions of the witness, he may be excused.

(Witness excused.)

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

MR. RUSSELL: No, I do not.

MR. NUTTER: Does anyone have anything further to offer in Case 3083?

MR. DURRETT: I would like to state for the record that we have received a letter from Mr. Frank Irby of the State Engineer's Office stating that they have no objection to the application.

MR. NUTTER: Thank you, Mr. Durrett. We'll take this case under advisement and take a fifteen-minute recess.

(Whereupon, a recess was taken.)



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 27th day of July, 1964.

Ada Dearnley
 NOTARY PUBLIC

My Commission Expires:

June 19, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Bernalillo hearing of Case No. 3083 heard by me on July 22, 19 64.
Samuel A. [Signature], Examiner
 New Mexico Oil Conservation Commission

DEARNLEY-MEIER REPORTING SERVICE, Inc.

ALBUQUERQUE, N. M.
 PHONE 243-6691



DRAFT

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 3083

Order No. R-2749

APPLICATION OF GENERAL AMERICAN OIL COMPANY OF TEXAS
FOR A WATERFLOOD PROJECT, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on
July 22, 1964, at Santa Fe, New Mexico, before Examiner
Daniel S. Nutter.

NOW, on this _____ day of July, 1964, the Commission,
a quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

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

(2) That the applicant, General American Oil Company
of Texas

seeks permission to institute a waterflood project in the _____

Krayburg Jackson Pool by the injection of water into the
Premier Sand formation through twelve injection wells in an
acreage which it has acquired or will acquire in

Sections 27, 28, 33, / and 34, Township 17 N55E, Range
South

30 N55E, NMPM, Eddy County, New Mexico
East

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

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

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

IT IS THEREFORE ORDERED:

(1) That the applicant, General American Oil Company of Texas, ^{in two stages} is hereby authorized to institute a waterflood project in the ¹ ~~in the~~ Wrayburg Jackson ~~Unit Area~~ Pool by the injection of water into the Premier Sand ~~formation~~ through the following-described wells in Township 17 ~~North~~, Range 30 ~~West~~, ^{South} Eddy County, New Mexico:

unintentional

Stage I

Arnold "D" No. 1, 1980 feet from the North line and 1980 feet from the West line of Section 27;

Arnold "D" No. 6, 2310 feet from the North line and 350 feet from the West line of Section 27;

Maddren "B" No. 9, 2310 feet from the South line and 1650 feet from the East line of Section 27;

Maddren "A" No. 2, 2615 feet from the North line and 1295 feet from the East line of Section 28;

Maddren "E" No. 1, 990 feet from the South line and 1650 feet from the East line of Section 28;

(2) That the subject waterflood project shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and ¹¹¹⁹ ~~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.

Beeson "B" No 1, 330 feet from the North line and 990 feet from the East line of Section 33;
Arnold "D" No. 8, 330 feet from the North line and 2140 feet from the East line of Section 34;
Arnold "D" No. 9, 330 feet from the North line and 640 feet from the East line of Section 34;
Federal "G" No 1, 330 feet from the North line and ~~340~~³³⁰ feet from the West line of Section 34;
Federal "G" No 2, 330 feet from the North line and 1650 feet from the West line of Section 34; ✓

Stage II

Arnold "D" ~~6~~ No 7, 25 feet from the North line and 1100 feet from the West line of Section 27;
Beeson "A" No. 2, 330 feet from the North line and 330 feet from the ~~West~~^{East} line of Section 28; ✓

MAIN OFFICE 000

LAW OFFICES OF
JOHN F. RUSSELL
SUITE 1010 SECURITY NATIONAL BANK BUILDING
P. O. DRAWER 640
ROSWELL, NEW MEXICO 88201

TELEPHONE 622-4641
AREA CODE 505

1964 JUN 30 PM 2:52

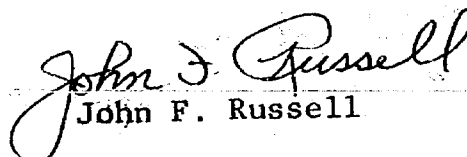
June 30, 1964

Oil Conservation Commission
Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

I transmit herewith in triplicate the application of General American Oil Company of Texas for an order authorizing a two-stage waterflood project.

Very truly yours,


John F. Russell

JFR:np

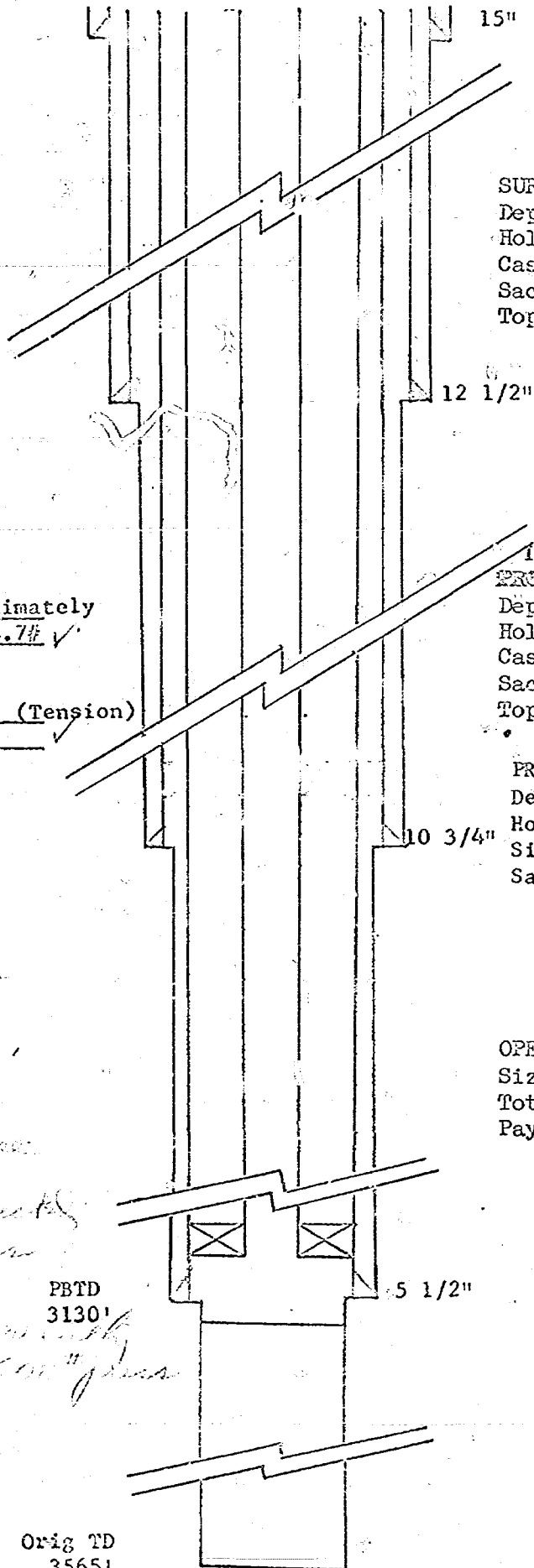
Enclosures

GENERAL AMERICAN OIL COMPANY OF TEXAS
SCHEMATIC DIAGRAM OF
PROPOSED INJECTION WELL

3

Lease and Well No.: Reason "A" #2
Location: 330' feet from North line and
330' feet from East line of
Section 28 TWP 17-S RGE 30-E
N.M.P.M. Eddy County, New Mexico

BEFORE EXAMINEE NUTTER
OIL CONSERVATION COMMISSION
APPN EXHIBIT NO. 3
CASE NO. 3083



SURFACE CASING

Depth Set: 61' 450'
Hole Size: 18" 14"
Casing Size & Wt.: 15" 12 1/2"
Sacks Cement: 50
Top of Cement: 250 Est.

**INTERMEDIATE
PRODUCTION CASING**

Depth Set: 1251'
Hole Size: 11 3/4"
Casing Size & Wt.: 10 3/4"
Sacks Cement: 50 Est.
Top of Cement: 1000' Est.

PRODUCTION CASING

Depth Set: 3115' Approximate
Hole Size: 8" Est.
Size & Wt.: 5 1/2" 14#
Sacks Cement: 100

Top Casing

OPEN HOLE

Size: 5"
Total Depth: 3130' -
Pay Zone: 3116-3125'

*3115' casing shoe
3050' packer
65'*

TUBING
Depth Set: 3050' Approximately
Size, Wt. & Type: 2" EUE 4.7# ✓

PACKER
Make & Type: Totem Type "E" (Tension)
Depth Set: 3050' ✓

*Water will be
produced from
Caprock water Co.*

200-800 BPD/well

*2000' may expect
inj. pressure*

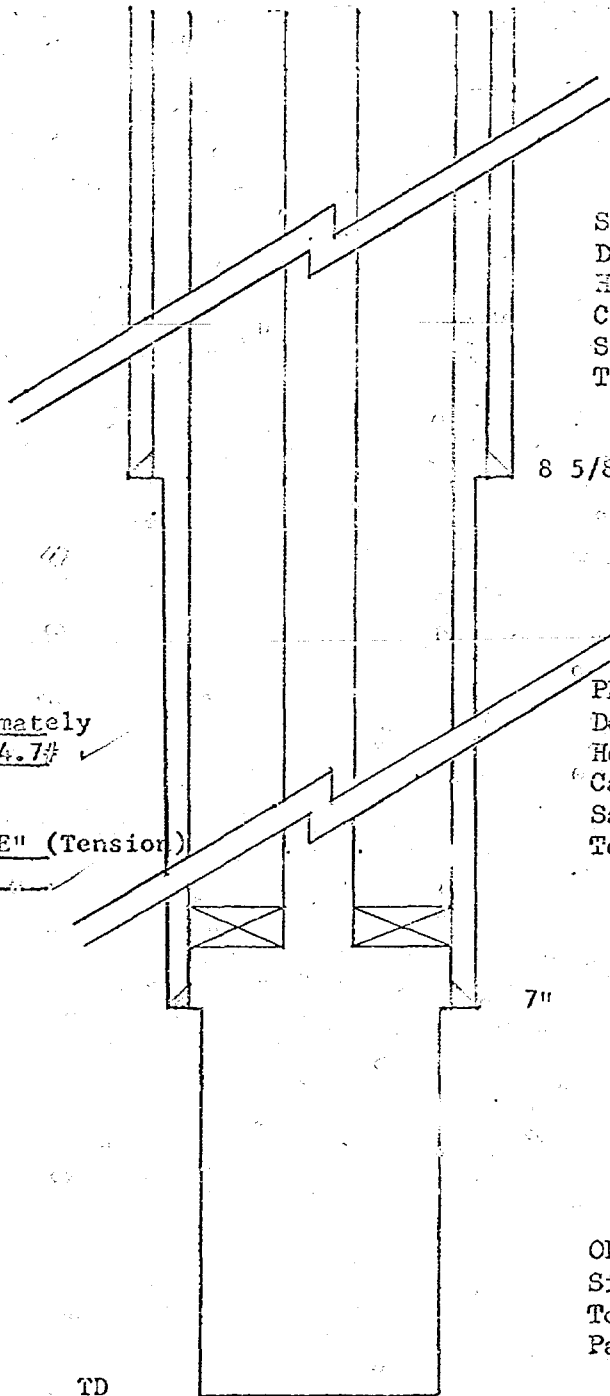
*Anticipated casing
encountering 1500' pressure*

PBTD
3130'

Orig TD
3565'

GENERAL AMERICAN OIL COMPANY OF TEXAS
SCHEMATIC DIAGRAM OF
PROPOSED INJECTION WELL

Lease and Well No.: Federal "G" #2
Location: 330 feet from North line and
1650 feet from West line of
Section 34 TWP 17-S RGE 30-E
N.M.P.M. Reddy County, New Mexico



SURFACE CASING

Depth Set: 699'
Hole Size: 10"
Casing Size & Wt.: 8 5/8" 24#
Sacks Cement: 50
Top of Cement: 590' Est.

8 5/8"

TUBING

Depth Set: 3120' Approximately
Size, Wt. & Type: 2" EUE 4.7#

PACKER

Make & Type: Totem Type "E" (Tension)
Depth Set: 3120'

PRODUCTION CASING

Depth Set: 3178' ✓
Hole Size: 8" ✓
Casing Size & Wt.: 7" 20#
Sacks Cement: 100
Top of Cement: 2300' Est.

7"

OPEN HOLE

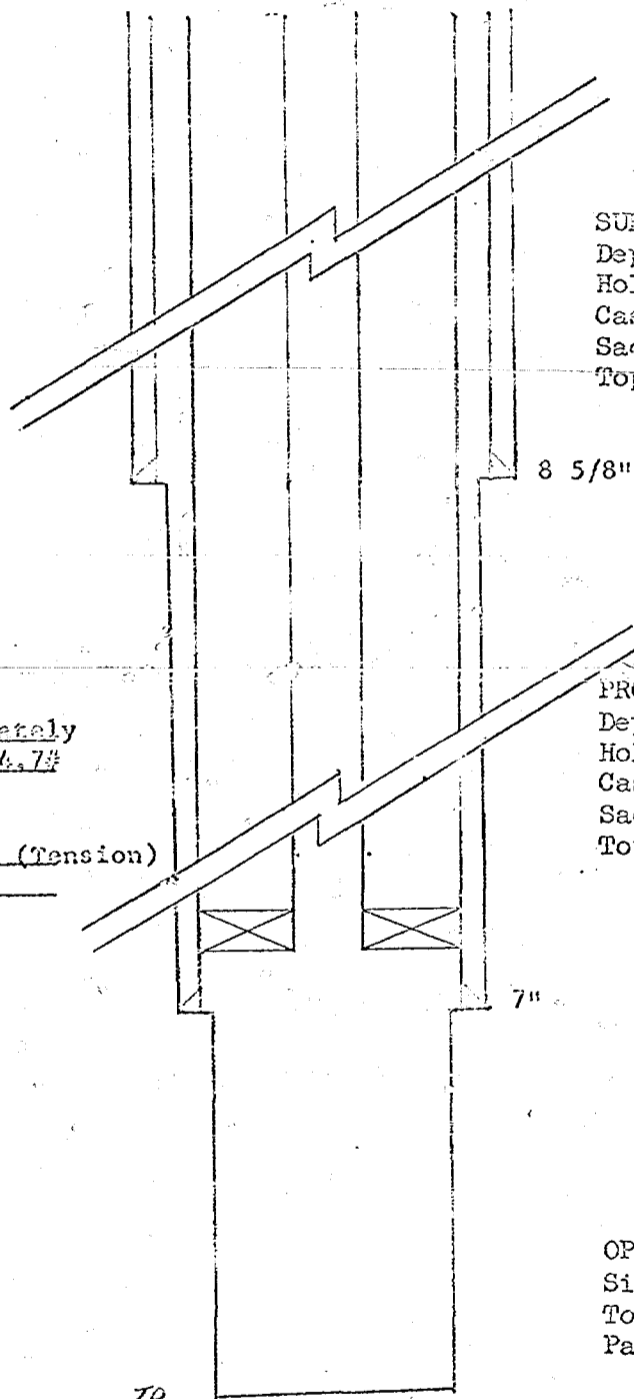
Size: 6"
Total Depth: 3281'
Pay Zone: 3265-3277

TD
3281'

3178
3120
58

GENERAL AMERICAN OIL COMPANY OF TEXAS
SCHEMATIC DIAGRAM OF
PROPOSED INJECTION WELL

Lease and Well No.: _____
Location: _____ Feet from _____ line and
_____ Feet from _____ line of
Section _____ TWP _____ RGE _____
N.M.P.M. _____ County, New Mexico



SURFACE CASING

Depth Set: 557'
Hole Size: 10"
Casing Size & Wt.: 8 5/8" 24#
Sacks Cement: 50
Top of Cement: 300' Est.

TUBING

Depth Set: 2890' Approximately
Size, Wt. & Type: 2" EUE 4.7#

PACKER

Make & Type: Toren Type "E" (Tension)
Depth Set: 2890'

PRODUCTION CASING

Depth Set: 2947'
Hole Size: 8"
Casing Size & Wt.: 7" 20#
Sacks Cement: 100
Top of Cement: 2100' Est.

OPEN HOLE

Size: 6"
Total Depth: 3360'
Pay Zone: 3297-3305'

2947
2890
57

Lease and Well No.: _____
Location: _____
_____ Feet from _____ Mine and
_____ Feet from _____ Mine on
Section _____ and _____ NGS 30-
R.M.P.M. _____ County, New Mexico

Depth Set: 520'
Hole Size: 10"
Casing Size & Wt.: 8 5/8" 26#
Sacks Cement: 75
Top of Cement: 150' Est.

8 5/8"

Depth Set: 3000' Approximately
Size, Wt. & Type: 2 1/2" EUE 4.74

Make & Type: Tension Type "E" (Tension)
Depth Set: 3000'

Depth Set:	3062'
Hole Size:	8"
Casing Size & Wt.:	7" 20#
Sacks Cement:	100
Top of Cement:	2260' Est.

718

Cement &
Gravel

Size: 31
Total Depth: 3210 P2
Pay Zone: 3170-3175

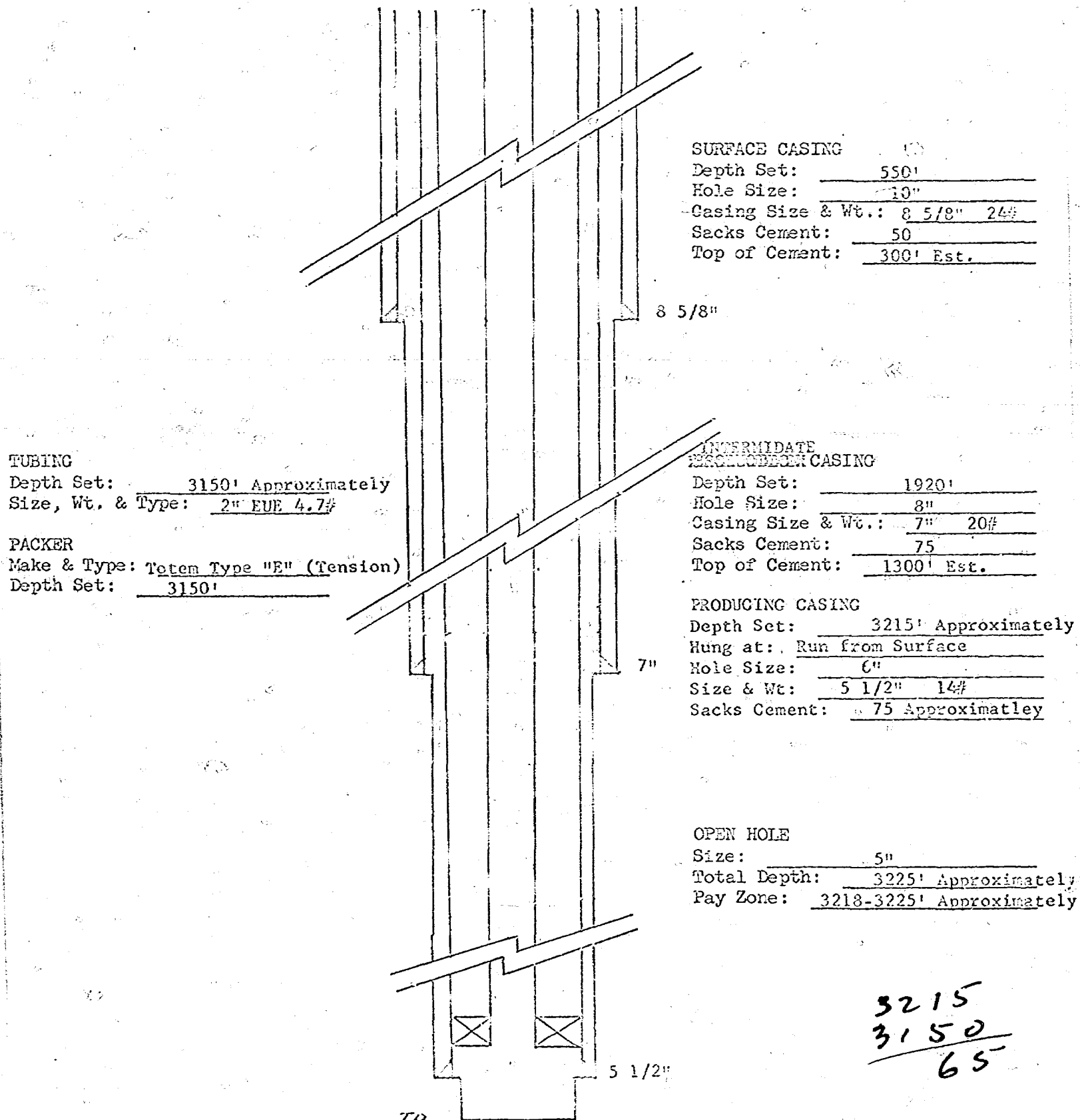
Orig 2D
36221

3062
3000
62

GENERAL AMERICAN OIL COMPANY OF TEXAS
SCHEMATIC DIAGRAM OF
PROPOSED INJECTION WELL

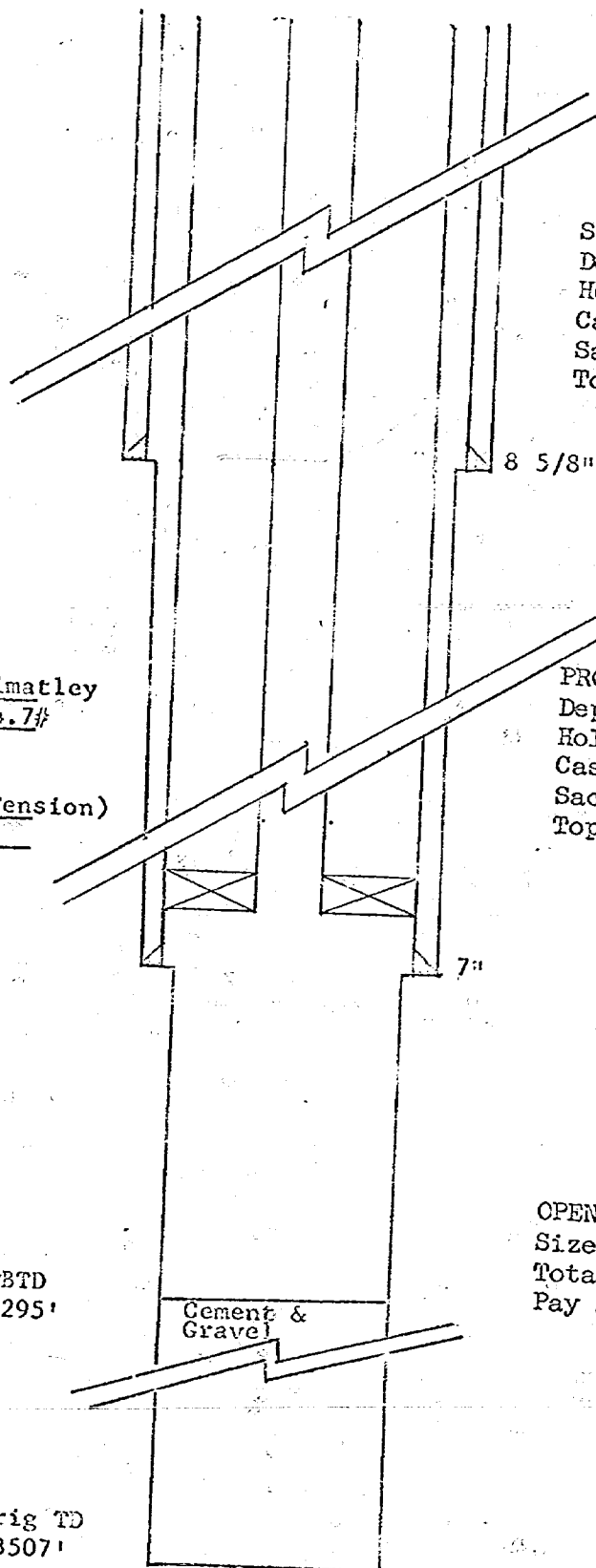
Lease and Well No.: Maddren "B" #9
Location: 2310 feet from South line and
1350 feet from East line of
Section 27 T1P 17-S R0E 30-E
N.M.P.M. Edgy County, New Mexico

Well is to be deepened to approximately depths
indicated below.



GENERAL AMERICAN OIL COMPANY OF TEXAS
SCHEMATIC DIAGRAM OF
PROPOSED INJECTION WELL

Lease and Well No.: Wesson #21 #1
Location: 330' feet from North line and
990' feet from East line of
Section 33 TWP 17-S RGE 30-E
N.M.P.M. Eddy County, New Mexico



SURFACE CASING

Depth Set: 666'
Hole Size: 10"
Casing Size & Wt.: 8 5/8" 24#
Sacks Cement: 75
Top of Cement: 200' Est.

8 5/8"

TUBING

Depth Set: 3100' approximately
Size, Wt. & Type: 2" EUE 4.7#

PACKER

Make & Type: Totem Type E (Tension)
Depth Set: 3100'

PRODUCTION CASING

Depth Set: 3160'
Hole Size: 8"
Casing Size & Wt.: 7" 20#
Sacks Cement: 100
Top of Cement: 2360' Est.

7"

OPEN HOLE

Size: 6"
Total Depth: 3295 PB
Pay Zone: 3287-92

PBTD
3295'

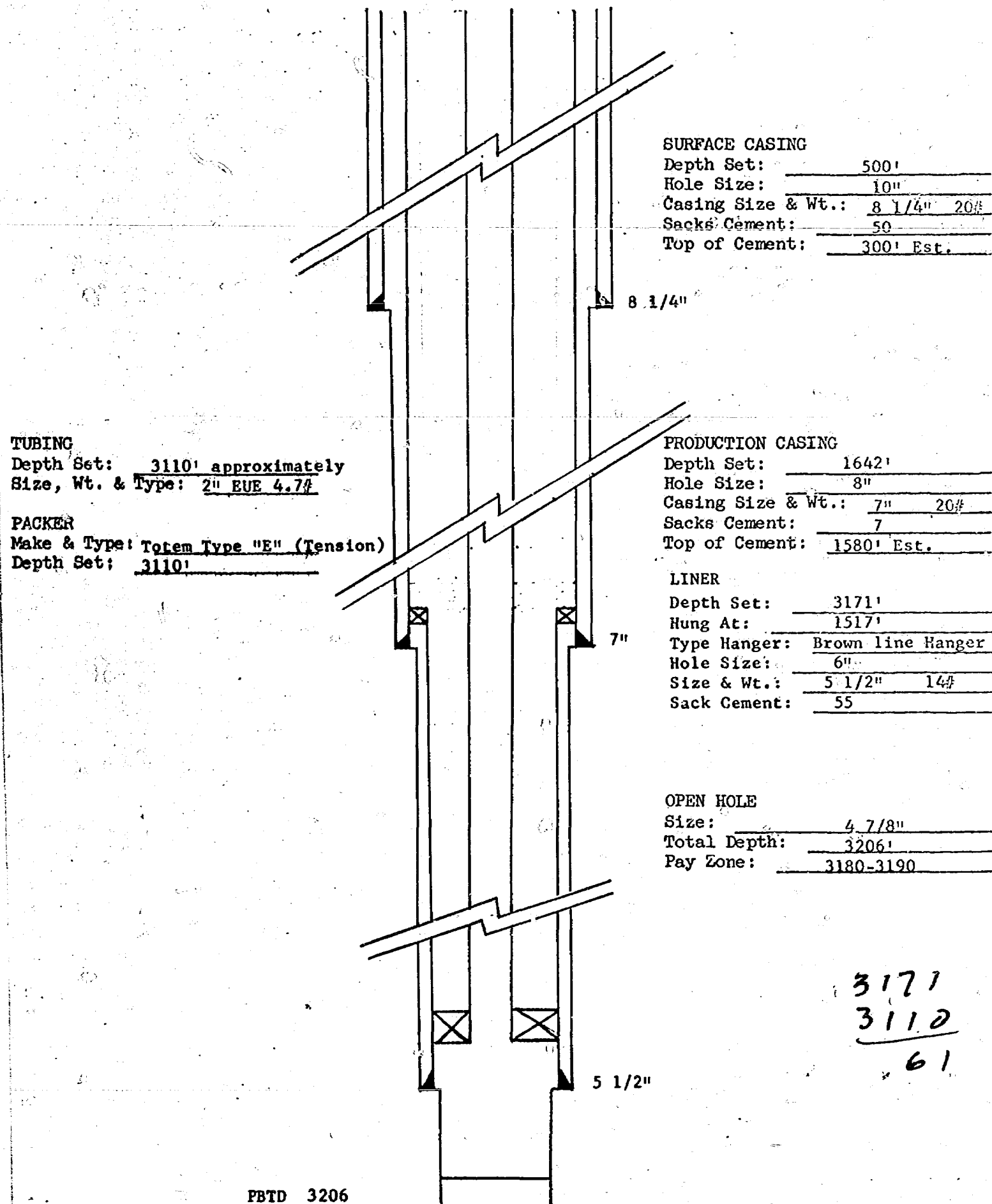
Cement &
Gravel

Orig TD
3507'

3160
3100
60

GENERAL AMERICAN OIL COMPANY OF TEXAS
SCHEMATIC DIAGRAM OF
PROPOSED INJECTION WELL

Lease and Well No.: Maddren "E" #1
Location: 990 feet from South line and
1650 feet from East line of
Section 28 TWP 17-S RGE 30-E
N.M.P.M. Eddy County, New Mexico

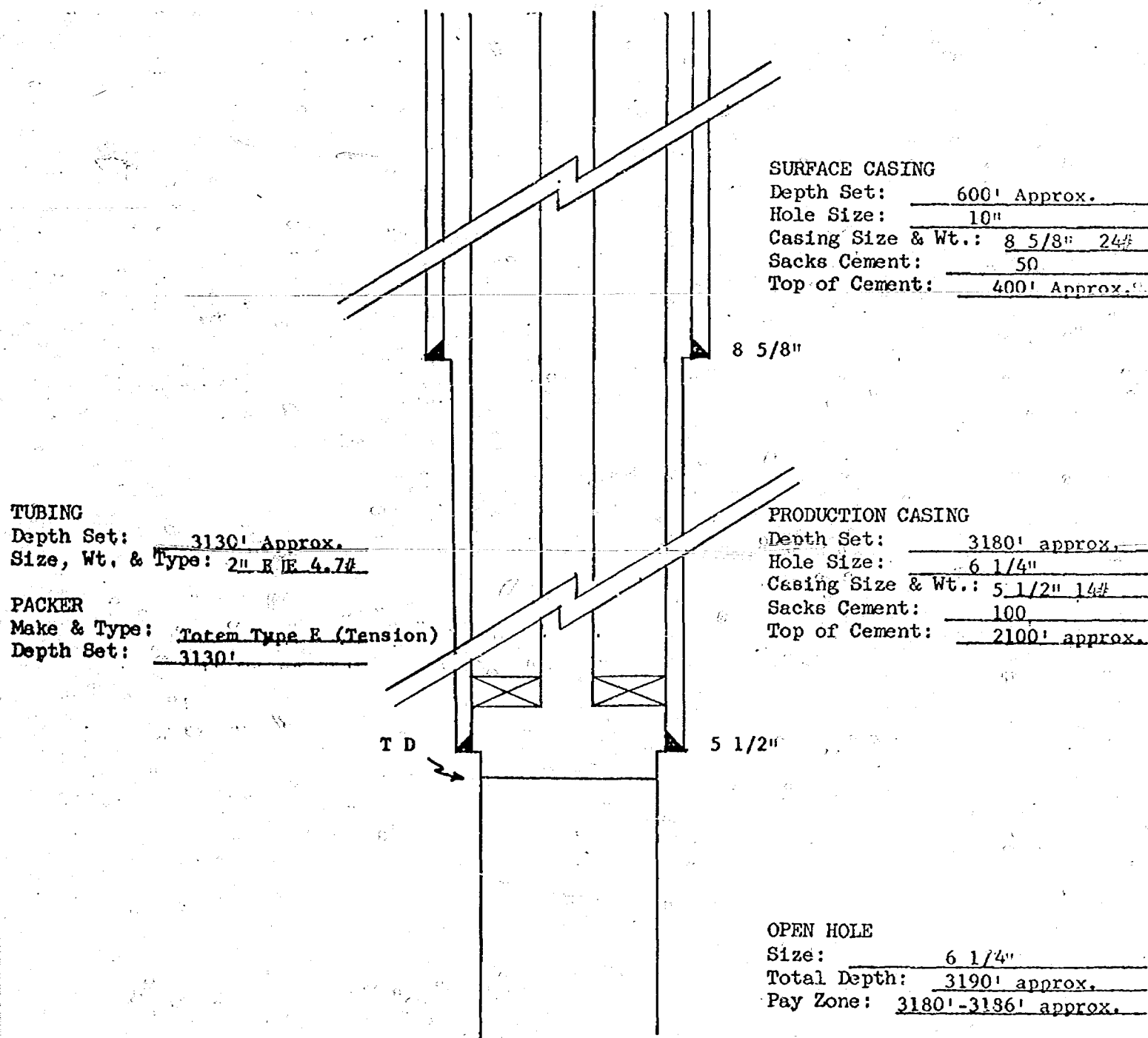


3171
3110
61

GENERAL AMERICAN OIL COMPANY OF TEXAS
SCHEMATIC DIAGRAM OF
PROPOSED INJECTION WELL

Lease and Well No.: Maddren "A" #2
Location: 2615 feet from North line and
1295 feet from East line of
Section 28 TWP 17-S RGE 30-E
N.M.P.M. Eddy County, New Mexico

This well is to be drilled

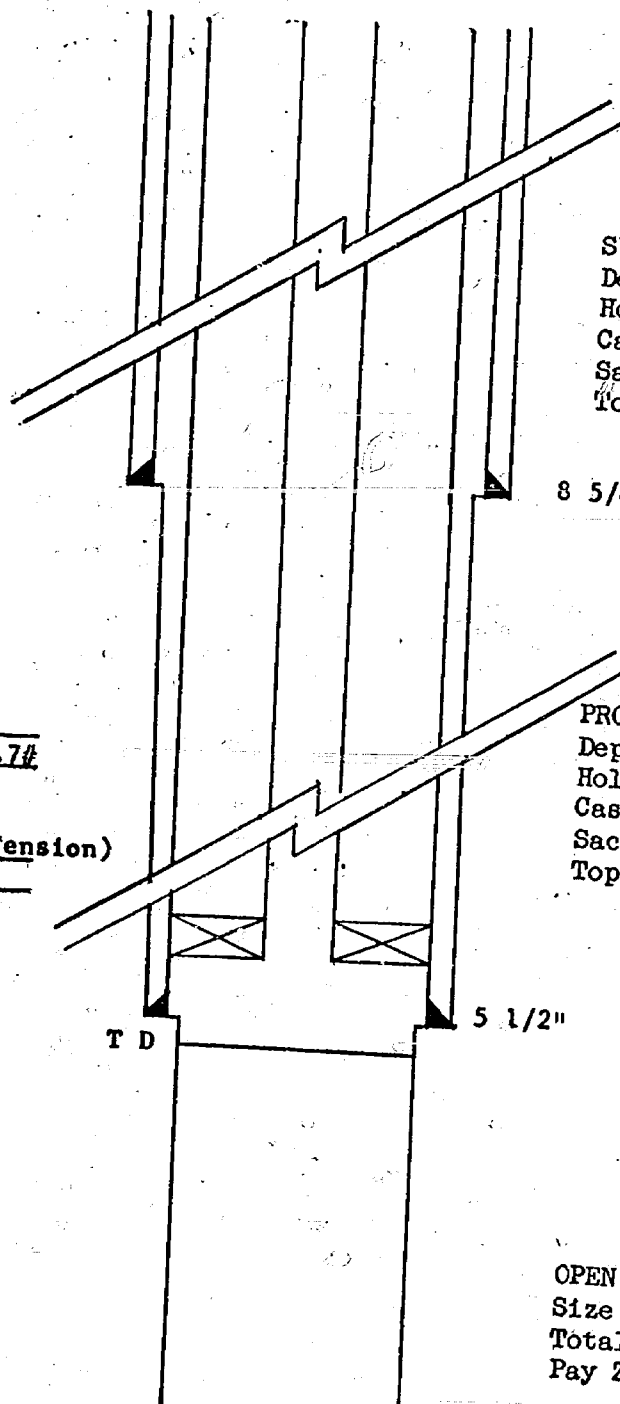


3180
3130
50

GENERAL AMERICAN OIL COMPANY OF TEXAS
SCHEMATIC DIAGRAM OF
PROPOSED INJECTION WELL

Lease and Well No.: Arnold "D" #9
Location: 330' feet from North line and
640' feet from East line of
Section 34 TWP 17-S RGE 30-E
N.M.P.M. Eddy County, New Mexico

This well is to be drilled.



SURFACE CASING

Depth Set: 600' approx.
Hole Size: 10"
Casing Size & Wt.: 8 5/8" 24#
Sacks Cement: 50
Top of Cement: 400' approx.

8 5/8"

TUBING

Depth Set: 3240' approx.
Size, Wt. & Type: 2" EUE 4.7#

PACKER

Make & Type: Totem Type E (Tension)
Depth Set: 3240'

PRODUCTION CASING

Depth Set: 3290' approx.
Hole Size: 6 1/4"
Casing Size & Wt.: 5 1/2" 14#
Sacks Cement: 100
Top of Cement: 2200' approx.

5 1/2"

OPEN HOLE

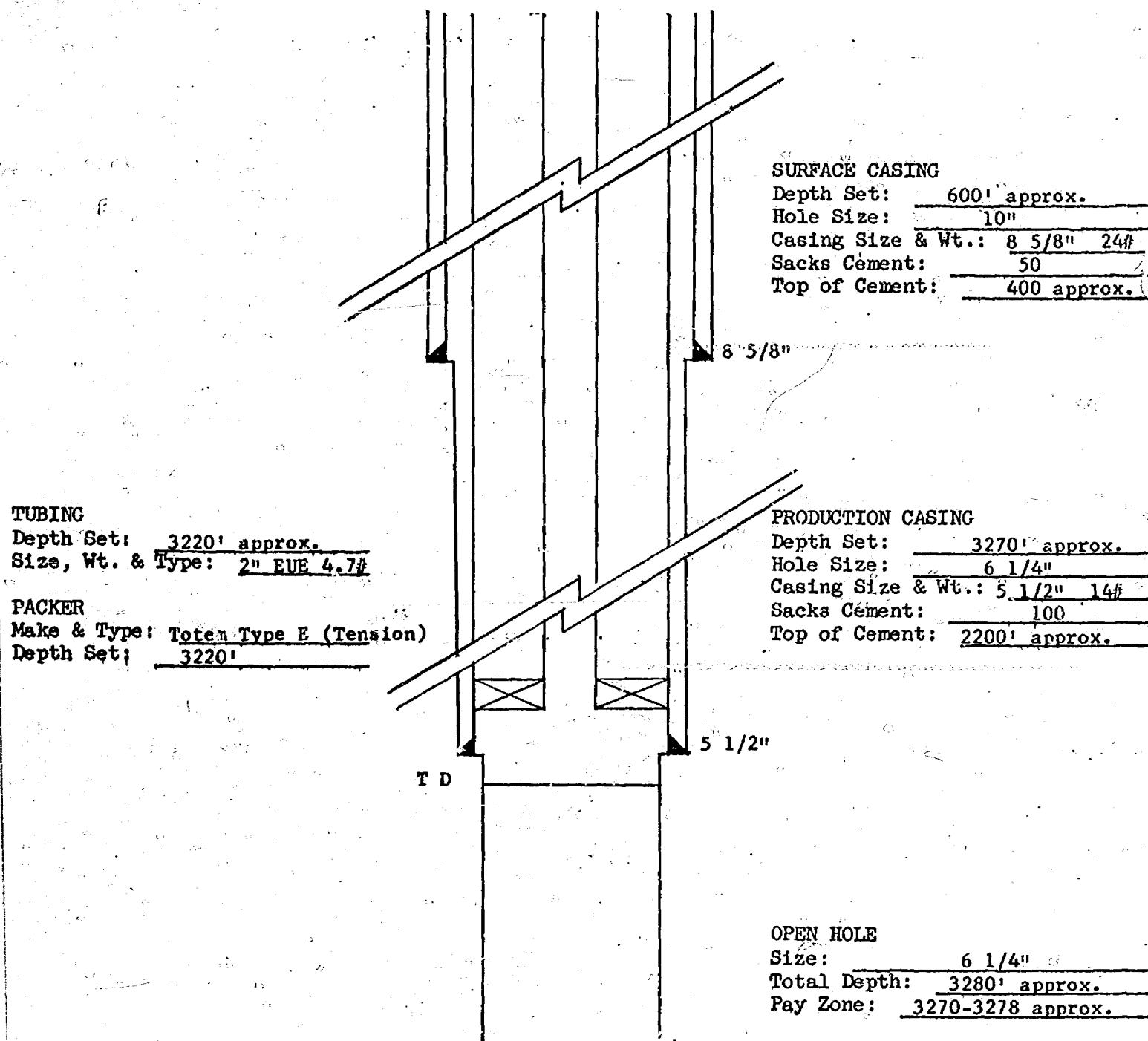
Size: 6 1/4"
Total Depth: 3300' approx.
Pay Zone: 3290-3298' approx.

3290
3240
50

GENERAL AMERICAN OIL COMPANY OF TEXAS
SCHEMATIC DIAGRAM OF
PROPOSED INJECTION WELL

Lease and Well No.: Arnold "D" #8
Location: 330' feet from North line and
2140' feet from East line of
Section 34 TWP 17-S RGE 30-E
N.M.P.M. Eddy County, New Mexico

This well is to be drilled.



3270
3220
50

GENERAL AMERICAN OIL COMPANY OF TEXAS
SCHEMATIC DIAGRAM OF
PROPOSED INJECTION WELL

Lease and Well No.: Arnold "D" #7
Location: 25 feet from North line, and
1100 feet from West line of
Section 27 TWP 17-S RGE 30-E
N.M.P.M. Eddy County, New Mexico

This well is to be drilled.

TUBING
Depth Set: 3080' approx.
Size, Wt. & Type: 2" EVE 4.7#

PACKER
Make & Type: Totem Type E (Tension)
Depth Set: 3080'

SURFACE CASING
Depth Set: 600' approx.
Hole Size: 10"
Casing Size & Wt.: 8 5/8" 24#
Sacks Cement: 50
Top of Cement: 400' approx.

PRODUCTION CASING
Depth Set: 3130' approx.
Hole Size: 6 1/4"
Casing Size & Wt.: 5 1/2" 14#
Sacks Cement: 100
Top of Cement: 2050' approx.

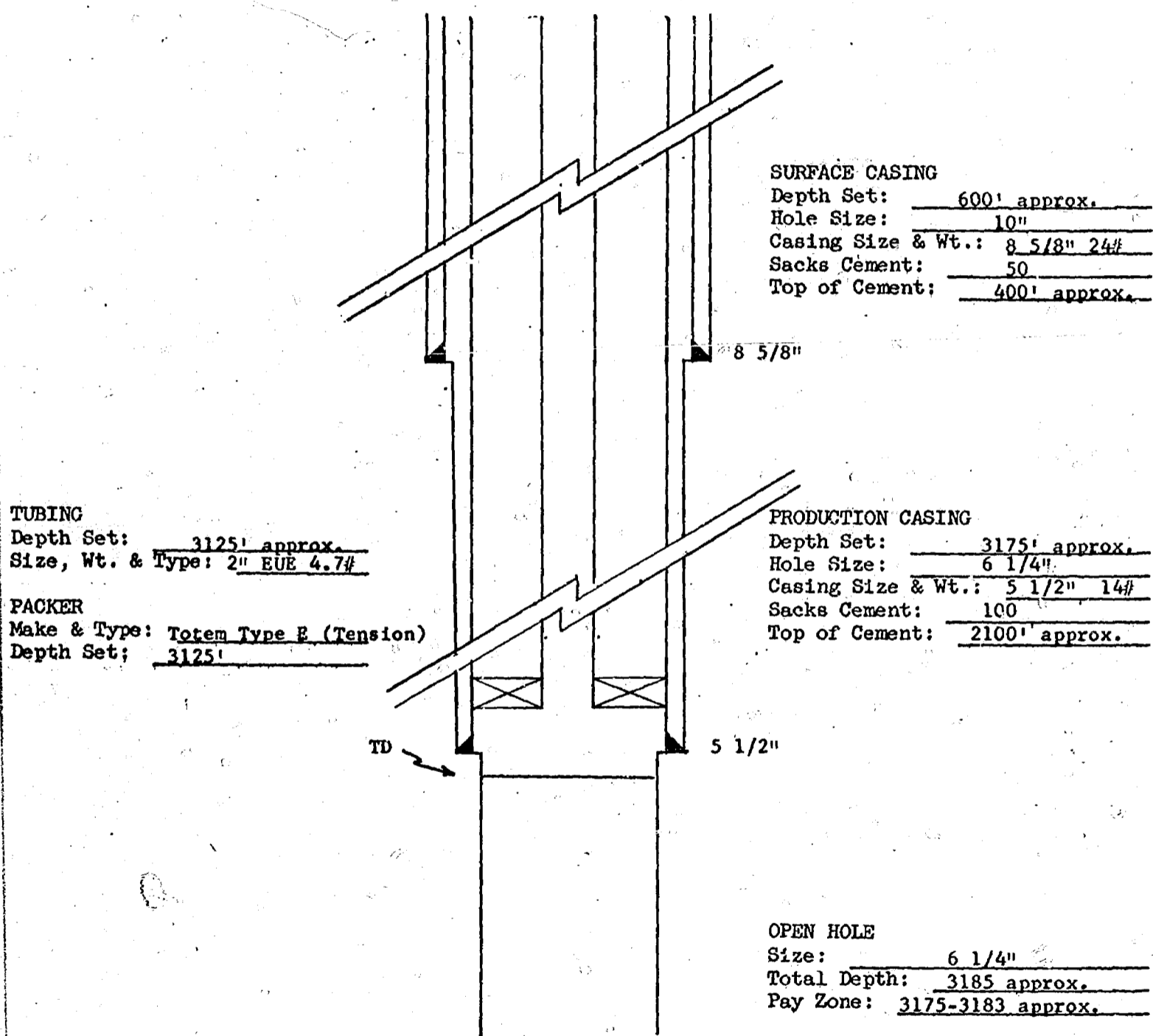
OPEN HOLE
Size: 6 1/4"
Total Depth: 3140 approx.
Pay Zone: 3130-3138 approx.

3130
3080
50

GENERAL AMERICAN OIL COMPANY OF TEXAS
SCHEMATIC DIAGRAM OF
PROPOSED INJECTION WELL

Lease and Well No.: Arnold "D" #6
Location: 2310' feet from North line and
330' feet from West line of
Section 27 TWP 17-S RGE 30-E
N.M.P.M. Eddy County, New Mexico

This well is to be drilled.



3175
3125
50

MAIN OFFICE OCC

JUN 30 PM 2:52
BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF)
GENERAL AMERICAN OIL COMPANY OF TEXAS)
FOR AN ORDER AUTHORIZING A TWO-STAGE)
WATERFLOOD PROJECT INJECTING WATER)
INTO THE PREMIER SAND OF THE GRAYBURG)
JACKSON POOL, EDDY COUNTY, NEW MEXICO,)
FOR THE PURPOSE OF THE SECONDARY RE-)
COVERY OF OIL IN SECTIONS 27, 28, 33,)
and 34, OF TOWNSHIP 17 SOUTH, RANGE 30)
EAST.)

No. 3082

APPLICATION

COMES NOW General American Oil Company of Texas by its attorney, John F. Russell, and states:

1. Applicant General American Oil Company of Texas is the owner or is in the process of acquiring all of the operating rights covering the Premier Sand underlying all that portion of Sections 27, 28, 33, and 34 of Township 17 South, Range 30 East, covered by their proposed waterflood operations in the Grayburg Jackson Pool, Eddy County, New Mexico.

2. It proposes to conduct its waterflood project in two stages. The injection wells for the first stage are described as follows:

- a) Arnold "D" Well No. 1 located 1980 ft. from the North line and 1980 feet from the West line of Section 27;
- b) Arnold "D" Well No. 6 to be located 330 feet from the West line and 2310 feet from the North line of Section 27;
- c) Maddren Beeson Well No. 9 located 1650 feet from the East line and 2310 feet from the South line of Section 27;

DOCKET MAILED

Date 7-8-64

- d) Maddren "A" Well No. 2 to be located 2615 feet from the North line and 1295 feet from the East line of Section 28;
- e) Maddren "E" Well No. 1 located 990 feet from the South line and 1650 feet from the East line of Section 28;
- f) Beeson "B" Well No. 1 located 330 feet from the North line and 990 feet from the East line of Section 33;
- g) Arnold "D" Well No. 8 to be located 330 feet from the North line and 2140 feet from the East line of Section 34;
- h) Arnold "D" Well No. 9 to be located 330 feet from the North line and 640 feet from the East line of Section 34;
- i) Federal "G" Well No. 1 located 330 feet from the North line and 330 feet from the West line of Section 34;
- j) Federal "G" Well No. 2 located 330 feet from the North line and 1650 feet from the West line of Section 34;

Immediately following the completion of Stage I, it proposes to add the following injection wells:

- a) Arnold "D" Well No. 7 to be located 25 feet from the North line and 1100 feet from the West line of Section 27;
- b) Beeson "A" Well No. 2 located 330 feet from the north line and 330 feet from the West line of Section 28.

3. Applicant attaches hereto, as Exhibit 1, a plat showing the location of the proposed injection wells and the location of all other wells within a radius of two miles from said proposed injection wells and the formation from which said wells are producing or have produced. The plat also indicates the lessees within said two-mile radius.

4. Applicant attaches hereto, as Exhibit 2, a plat showing the area to be covered by its proposed flood project and

the location of its proposed injection wells.

5. Applicant attaches hereto, as Exhibit 3, a diagrammatic sketch of the proposed injection well showing all casing strings, including diameters and setting depths, quantities used and tops of cement, perforated or open hole intervals, tubing strings, including diameters and setting depths, and the type and location of the packer.

6. Applicant attaches hereto, as Exhibit 4, the available information covering all injection wells.

7. Applicant proposes to flood the Premier Sand between the interval of 3,170 feet to 3,300 feet from the surface, at an approximate minimum rate of 200 barrels per day and an approximate maximum rate of 800 barrels per day. The water used will be purchased from Caprock Water Company, from its Red Lake Basin Area.

8. A copy of this Application, complete with all attachments, has been delivered to Mr. Frank Irby in the office of the State Engineer, Santa Fe, New Mexico.

WHEREFORE, Applicant requests that the Commission set this matter down for hearing before its examiner, publish notice as required by law, and, after hearing, issue its order authorizing the injection of water as aforesaid.

Respectfully submitted,

GENERAL AMERICAN OIL COMPANY
OF TEXAS

By

John D. Russell
P.O. Drawer 640
Roswell, New Mexico 88201

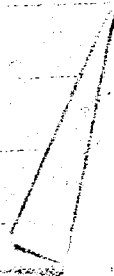
Applicant's Attorney

June 30, 1964

weeds eggd w/ tbg & jkr

jdkr sit not more than 100' above
csg shae

Belowace 966 BOPD (both
stages)



DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 22, 1964

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

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

- CASE 3081: Application of Shell Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Langlie-Mattix Pool by the injection of water through four wells at unorthodox locations in Section 21, Township 24 South, Range 37 East, Lea County, New Mexico.
- CASE 3082: Application of Union Oil Company of California for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation through perforations from 11,246 feet to 11,255 feet in its State-Gross Well No. 2 located in Unit L of Section 11, Township 12 South, Range 32 East, East Caprock Field, Lea County, New Mexico.
- CASE 3083: Application of General American Oil Company of Texas for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Premier Sand through twelve wells located in Sections 27, 28, 33 and 34, Township 17 South, Range 30 East, Eddy County, New Mexico. Certain of the aforesaid injection wells would be drilled at unorthodox locations.
- CASE 3084: Application of Fair Oil Company for a buffer zone extension and pool redelineation, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an amendment of Order No. R-2033 to extend the waterflood buffer zone authorized by said order to include the SE/4 NE/4 of Section 36, Township 17 South, Range 29 East, Eddy County, New Mexico. Applicant further seeks the extension of the Loco Hills Pool to include said quarter-quarter section, and the associated deletion of said acreage from the Grayburg-Jackson Pool.
- CASE 3085: Application of Humble Oil & Refining Company for two non-standard oil proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of two non-standard 80-acre oil proration units in Section 7, Township 19 South, Range 35 East, Schar Bone Springs Pool, Lea County, New Mexico. The first unit would comprise the NW/4 NE/4 and the NE/4 NW/4 of Section 7 and be dedicated to applicant's Alves Well No. 1 located in Unit B of said Section 7. The second unit would comprise the SW/4 NE/4 and the SE/4 NW/4 of Section 7 and be dedicated to applicant's Alves Well No. 2, which would be drilled in Unit G of said Section 7.
- CASE 3086: Application of Texaco Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Rhodes Yates Oil Pool by the injection of water into the Yates and Seven Rivers formations through two wells in Section 26, Township 26 South, Range 37 East, Lea County, New Mexico.



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

July 2, 1964

Case 3083
MAIN OFFICE OCC

1964 JUL 6 AM 7:42

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

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to the application of General American Oil Company of Texas submitted on June 30, 1964 by John F. Russell, which seeks authorization of the two-stage waterflood project injecting water into the Premier Sand in Sections 27, 28, 33 and 34 of Township 17 S., Range 30 E.

After reviewing the application and Exhibits 1 through 4, it appears that no threat of contamination to any fresh waters which may exist in the area will occur, provided the plan is followed. This office offers no objection to the granting of the application provided the wells are cased, cemented and equipped as indicated in the diagrammatic sketches for the individual wells.

Yours truly,

S. E. Reynolds
State Engineer

FEI/ma
cc-John F. Russell (2 copies)

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

DOCKET MAILED

Date 7-8-64

Well data on wells to be converted to injection

BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

APPROX EXHIBIT NO. 4

CASE NO. 3083

General American Oil Company of Texas

Grayburg-Jackson Premier Sand Field
Eddy County, New Mexico

Operator:	General American	General American	General American
Well No:	Beeson "B" #1	Maddren "E" #1	Maddren "B" #9
Location:	330' FNL & 990' FEL Sec. 33, 17-S 30-E	990' FSL & 1650' FEL Sec 28, 17-S 30-E	2310' FSL & 1650' FEL Sec 27, 17-S 30-E
Elevation:	3619' DF	3623' DF	3617' DF
			Well is to be Deepened
Completion Data:			
Total Depth:	3507'	3418'	2022'
PP Total Depth:	3295'	3206'	
Surface Casing:			
Depth Set:	666'	500'	550'
Size & Wt.:	8 5/8" 24#	8 1/4" 20#	8 5/8" 24#
No. Sacks:	75	50	50
Production Casing:			
Depth Set:	3160'	1642'	1920'
Size & Wt.:	7" 20#	7" 20#	7" 20#
No. Sacks:	100	7	75
		Liner	
Pay Zone:	3287-3292'	3180-3190'	1985-1999'
Shot Record:			
Date:	?	10-21-38	12-31
Interval	3271-3295'	3180-3190'	1960-2022'
No. Quarts	?	60	280
Acidizing Record:			
Date:	None	1-25-63	
Gals:		500 ahead of Frac	
Interval:		3171-96"	
Fracing Record:			
Date:	4-11-55	1-25-63	
Interval:	3287-3295	3171-96	
Volume:	17500 gals and 25000# sand	40740 gals and 50,000# sand	

Well data on wells to be converted to injection

General American Oil Company of Texas
Grayburg-Jackson Premier Sand Flood
Eddy County, New Mexico

Operator:	General American	General American	General American
Well No:	Arnold "D" #1	Beeson "A" #2	Federal "G" #1
Location:	1980' FNL & 1980' FNL Sec 27, 17-S, 30-E	330' FNL & 330' FEL Sec 28, 17-S, 30-E	330' FNL & 330' FEL Sec 34, 17-S, 30-E
Elevation:	3631	3644	3618
Completion Data:			
Total Depth:	3622'	3565'	3360'
PB Total Depth:	3210'	3130'	
Surface Casing:			
Depth Set:	520'	61'	557'
Size & Wt.:	8 5/8" 28#	15"	12 1/2"
No. Sacks:	75		50
Production Casing:			
Depth Set:	3062'	1251'	2947'
Size & Wt.:	7" 20#	10 3/4"	7" 20#
No. Sacks:	100		100
Pay Zone:	3170-3175'	3116-3125'	3297-3305'
Shot Record:			
Date:	7-18-43	7-23-43	5-23-39
Interval:	3160-3210	3160-3205	3297-3305
No Quarts:	320	790	90
Acidizing Record:			
Date:			
Gals:			
Interval:			
Fracing Record:			
Date:			
Interval:			
Volume:			

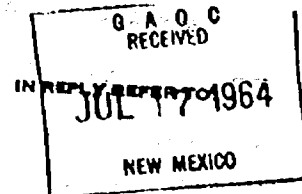
Well data on wells to be converted to injection

General American Oil Company of Texas
Grayburg-Jackson Premier Sand Flood
Eddy County, New Mexico

Operator:	General American		
Well No:	Federal "G" #2		
Location:	330' FNL & 1650' FEL Sec 34, 17-S, 30-E		
Elevation:	3596'		
Completion Data:			
Total Depth:	3281'		
PB Total Depth:			
Surface Casing:			
Depth Set	699'		
Size & Wt.	8 5/8" 24#		
No. Sacks	50		
Production Casing:			
Depth Set	3178'		
Size & Wt.	7" 20#		
No. Sacks	100		
Pay Zone:	3265-3277'		
Shot Record:			
Date	6-17-41		
Interval	3260-3281'		
No Quarts	100		
Acidizing Record:			
Date:			
Gals:			
Interval:			
Fracture Record:			
Date:			
Interval:			
Volume:			



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Drawer U
Artesia, New Mexico 88210



July 16, 1964

General American Oil Co. of Texas
P. O. Box 416
Loco Hills, New Mexico

Re: Oil & Gas Leases
LC 028936(a), LC 028936(e),
LC 028992(b), LC 053259(a),
LC 060525, NM 0467934

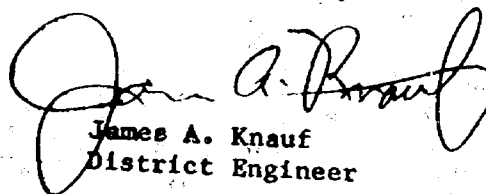
Gentlemen:

Your application of June 30, 1964, requests approval to instigate a waterflood of the Premier sand section of the Grayburg-Jackson Field in sections 27, 28, 33, 34, and 35 of T. 17 S., R. 30 E., Eddy County, New Mexico. The waterflood is to include the subject leases in the sections as described above.

The plan you propose for waterflooding the Grayburg formation is satisfactory to this office and is hereby approved on a lease basis provided that the properties of Sinclair and Ambassador are acquired by General American as stated in the application. It is understood that you may unitize these leases at a later date.

Appropriate notices and reports to convert existing producing wells to water injection should be submitted for approval on form 9-331 prior to commencing the work. Duplicate copies of a monthly progress report are to be submitted showing the volume of water injected and average pressures for each injection well and monthly oil and water production for the producing wells in the project area.

Sincerely yours,


James A. Knauf
District Engineer

cc:
Koswell

REShook:hb

BEFORE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	5
CASE NO.	3083