

Case Number

4323

Application

Transcripts.

Small Exhibits

ETC.

dearnley-meier

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

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



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 25, 1970

EXAMINER HEARING

IN THE MATTER OF:)
)
)

Application of Texaco Inc. for a
waterflood project, Lea County,
New Mexico.)
)
)

Case No. 4323

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 4323.

MR. HATCH: Case 4323. Application of Texaco Inc. for a waterflood project, Lea County, New Mexico.

MR. KELLY: Let the record show the same appearances and the witness has been sworn and is still under oath.

MR. UTZ: The record will so show.

(Witness sworn).

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

C. H. FINKAY

the Witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLY:

Q Now, sir, would you refer to the plat that has been marked Exhibit One and locate the proposed waterflood project and state briefly what Texaco seeks by this application?

A The proposed waterflood project consists of 80 acres located in the east half of the southeast of Section 15, 17 South, 32 East, Maljamar and base pools, Lea County, New Mexico.

Texaco proposes to initiate a waterflood project that will cooperate with Continental Oil Company by converting one well to injection and producing the other well on the property. There are only two properties producing on this

lease making approximately thirteen barrels of oil and fifty-two barrels of water per day.

Q Would you give the Examiner a brief history of the field here?

A The Meliama Grayburg-San Andres Field, which we plan to waterflood, was discovered in 1926. Production is from alternating sands and dolomitic sands and dolomite with an average porosity of 11.6 percent and a water saturation of thirty percent. Energy for primary production was by solution gas drive.

Q Now, the 80-acre tract shows two wells. Which well will be your injection well?

A It would be the south well or Well Number One.

Q And this is designed to cooperate with the Continental flood?

A Yes, it is.

Q Do you have figures that show the cumulative production for this lease and also the present production figures for the two wells?

A Yes. The USA Federal "C" Lease, which has been described, has an ultimate primary recovery of 97,100 barrels of oil and recovery to date has been 92,000 barrels of oil, which means that 95 percent of the oil that can be produced

in this property by primary means has already been produced.

Q What is your present rate of production now?

A Present rate of production is thirteen oil and fifty-two water.

Q For the whole lease?

A The whole lease.

Q I see. Now, I assume then you haven't had any particular response in these wells from this surrounding plug?

A No, we haven't.

Q Well, what has been the success of the surrounding plugs?

A Well, this field includes 688 wells of which presently 422 are producers and 260 are injectors and the field was in an advanced stage of depletion where secondary recovery was not initiated.

Cumulative recovery from the field has been 69,910,00 barrels of oil as of November 1st, 1969. The average producing rate for the field is currently 9,900 barrels of oil per day and 7,600 barrels of water per day with a GOR of 760 cubic feet per barrel.

Q What is your estimate of the success you will experience with your secondary recovery project?

A It is estimated that we should reach the maximum production of sixty barrels of oil per day from our property and the recovery should approach the primary production.

Q Now, you have prepared an exhibit which shows a list of all offset operators within a two-mile range of the lease?

A Yes, we have.

Q Those have all been contacted?

A And sent a copy of the application.

Q That's Exhibit Number Two?

A Exhibit Number Two.

Q What is the source of the water that you will use to inject?

A We are planning to buy water from the Continental waterflood to the south of us, the MCA Unit operated by Continental. It will be fresh water.

Q And what are you doing with your produced water?

A We have an agreement with Continental whereby they will take our produced water and dispose of it.

Q What will be your estimated initial injection rates and under what pressures?

A Initial injection rates should be 350 barrels of water per day at a pressure of 1800 PSIG.

Q Do you expect either of those to increase as time goes on?

A The pressure may increase on us but we doubt the volume will.

Q Now, referring to Exhibit Number Three, would you explain the proposed injection well installation?

A Okay. The Number One Well was drilled to a total depth of 4150 feet and plugged back to 4148 feet. Four and a half-inch casing was set on bottom and cemented with 500 sacks of cement with the top of the cement being at 2,097 feet.

We will go in this well and run two-inch tubing to 3850 feet and fill the annulus between the tubing and the casing with treated water. We will inject through perforations 3899 to 4097 and our tubing will be set on a tension packer at 3850.

Q Is your tubing going to be plastic-coated?

A Yes, our tubing will be plastic-coated.

Q Will you have any kind of a pressure gauge at the top of the annulus?

A Yes. We will have a pressure gauge on the annulus to tell us if communication is happening..

Q I believe you testified earlier that the injection water is fresh water, however?

A Yes. The injection water is fresh water.

Q Now, Exhibit Number Four is a log of the well.

Do you have anything you want to say on this?

A Yes. This is a log of the injection well which shows the interval to be injected into, the casing top and the packer top and the total depth.

Q Now, this is all federal land, isn't it?

A Yes, it is.

Q Have you been in communication with the USGS on this application?

A Yes. We sent them a copy of the application and we have talked to these people and they tell us that they are in agreement with this, but will not give us a letter of approval until they have received approval from the OCC.

Q Now, in your opinion, would the granting of this application prevent waste by allowing you to recover hydrocarbons that would otherwise be left in place?

A Yes, it would.

Q Do you feel it would have any adverse effect on correlative rights of any operators in the area?

A No, we don't.

Q Were Exhibits One through Four prepared by you or under your supervision?

A Yes, they were.

MR. KELLY: I move the introduction of Texaco's Exhibits One through Four.

MR. UTZ: Without objection, Exhibits One through Four will be entered into the record of this case.

MR. KELLY: That concludes direct examination, Mr. Examiner.

CROSS EXAMINATION

BY MR. UTZ:

Q I think you gave the lease production -- I'm sure you did -- but I missed it.

A Thirteen oil and fifty-two water from both wells.

Q Now, what was your cumulative primary?

A Cumulative primary to November 1st is 92,000 barrels of oil.

Q You intend to fill the annulus with inert fluid; is that correct?

A Yes, with treated water.

MR. UTZ: Are there other questions of the witness? He may be excused.

(Witness excused).

MR. UTZ: Statements in this case? The case will be taken under advisement.

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
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E X H I B I T S

Applicant's 1 through 4	2
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STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

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

Linda Barber
Notary Public

My Commission Expires:

March 12, 1973

I do hereby certify that the foregoing is
a complete record of the testimony given
the Executive Committee of the New Mexico
heard by me on May 28, 1920.
James G. [Signature] Secretary
New Mexico Oil Conservation Commission



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 2088 - SANTA FE

87801

GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

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

April 2, 1970

Mr. Booker Kelly
White, Gilbert, Koch & Kelly
Attorneys at Law
Post Office Box 787
Santa Fe, New Mexico

Re: Case No. 4323
Order No. R-3941
Applicant:
Texaco Inc.

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other State Engineer Office

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. 4323
Order No. R-3941

APPLICATION OF TEXACO INC.
FOR A WATERFLOOD PROJECT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 25, 1970,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1st day of April, 1970, 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, Texaco Inc., seeks permission to
institute a waterflood project in the Maljamar (Grayburg-San
Andres) Pool by the injection of water into the Grayburg and San
Andres formations through its USA Federal "C" Well No. 1, located
in Unit P of Section 15, Township 17 South, Range 32 East, NMPM,
Lea County, New Mexico.

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

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

(5) That the injection should be accomplished through 2-inch
plastic-lined tubing installed in a packer set at approximately
3850 feet; that the casing-tubing annulus should be filled with

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CASE No. 4323

Order No. R-3941

an inert fluid; and that a pressure gauge should be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

(6) 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, Texaco Inc., is hereby authorized to institute a waterflood project in the Maljamar (Grayburg-San Andres) Pool by the injection of water into the Grayburg and San Andres formations through its USA Federal "C" Well No. 1, located in Unit P of Section 15, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico;

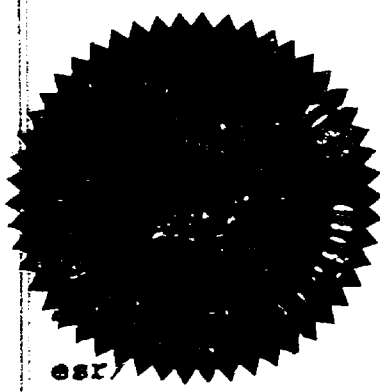
PROVIDED HOWEVER, that the injection shall be accomplished through 2-inch plastic-lined tubing installed in a packer set at approximately 3850 feet; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

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

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

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

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



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

ALEX J. ARMISTEAD, Member

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

Case 4323

Heard 8-25-70

Rec. 3-30-70

Grant Texas permission
to convert their Fed. (USA) C'
#1(P) 330/5, 660/E line, 15-17-32
to a water injection well.

They propose to form a
420 flood unit consisting
the E/2 SE/4, 15. + produce
the #2 well in unit I.

The flood is in pattern
with the Cont. flood to the
east.

Thos. D. [Signature]

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 25, 1970

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

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

- CASE 4321: Application of Sun Oil Company-DX Division for 320-acre spacing, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks 320-acre spacing for the Cass Ranch-Morrow Gas Pool, Eddy County, New Mexico. Said pool was created prior to June 1, 1964, and therefore is not automatically eligible for 320-acre spacing. In the absence of evidence to the contrary, 320-acre spacing will be established for the pool.
- CASE 4324: Application of Pennzoil United, Inc. for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the special rules and regulations governing the Lea-Bone Springs Pool to permit the completion of a well at an unorthodox location 2310 feet from the South line and 1800 feet from the East line of Section 35, Township 19 South, Range 34 East, Lea County, New Mexico.
- CASE 4325: Application of Mobil Oil Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Vacuum-Wolfcamp Pool and the Vacuum-Upper Pennsylvanian Pool in the wellbore of its Bridges State Well No. 119, a triple completion, located in Unit F of Section 24, Township 17 South, Range 34 East, Lea County, New Mexico.
- CASE 4326: Application of Newmont Oil Company for an unorthodox oil well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 104 C 1 to permit the recompletion of a well at an unorthodox oil well location 1325 feet from the South line and 990 feet from the East line of Section 31, Township 17 South, Range 30 East, Loco Hills-Queen Pool, Eddy County, New Mexico.
- CASE 4327: Application of Franklin, Aston & Fair for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico. Said exception would be for applicant's leases comprising the NE/4 and N/2 SE/4 of Section 1, Township 18 South, Range 29 East and the E/2, N/2 NW/4, and S/2 SW/4 of Section 6, Township 18 South, Range 30 East, Loco Hills Field, Eddy County, New Mexico. Applicant seeks authority to dispose of salt water produced by wells located or to be located on said leases in unlined surface pits.

Examiner Hearing - March 25, 1970

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- CASE 4328: Application of Pubco Petroleum Corporation for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the undesignated Fictured Cliffs gas pool underlying the SE/4 of Section 33, Township 30 North, Range 14 West, San Juan County, New Mexico. Said SE/4 to be dedicated to a well to be drilled in the SW/4 SE/4 of said Section 33. Applicant further seeks an order pooling all mineral interests in said gas pool underlying the NE/4 of Section 4, Township 29 North, Range 14 West, San Juan County, New Mexico. Said NE/4 to be dedicated to a well to be drilled in the NW/4 NE/4 of said Section 4. Also to be considered will be the costs of drilling said wells, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said wells.
- CASE 4329: Application of R. D. Collier for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico. Said exception would be for applicant's Sinclair Parke Well No. 1 located in Unit F, Section 22, Township 17 South, Range 30 East, Jackson-Abo Field, Eddy County, New Mexico. Applicant seeks authority to dispose of salt water produced by said well in an unlined surface pit in the vicinity of said well.
- CASE 4314: (Continued and readadvertised from February 25, 1970, Examiner Hearing and March 4, 1970 Examiner Hearing)
Application of Coastal States Gas Producing Company for pool redelineation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the redelineation of certain pool boundaries to include the deletion of the W/2 and SE/4 of Section 21, Township 13 South, Range 33 East, Lea County, New Mexico, from the Lazy J-Pennsylvanian Pool and the extension of the North Baum Upper Pennsylvanian Pool to include said deleted acreage.
- CASE 4319: (Continued from the March 4, 1970, Examiner Hearing)
Application of Texaco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the North Vacuum-Abo Pool and the Vacuum-Wolfcamp Pool in the wellbores of its New Mexico "Q" State Well No. 4 and its New Mexico "N" State Well No. 6, triple completions located respectively in Unit P of Section 25, Township 17 South, Range 34 East and Unit L

(Case 4319 continued)

of Section 30, Township 17 South, Range 35 East, Lea County, New Mexico.

CASE 4322: Application of Texaco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Vacuum-Wolfcamp and Vacuum-Upper Pennsylvanian Pools in the wellbore of its Shell State Well No. 1, a triple completion, located in Unit J of Section 25, Township 17 South, Range 34 East, Lea County, New Mexico.

CASE 4323: 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 by the injection of water into the Grayburg and San Andres formations through its USA Federal "C" Well No. 1 located in Unit P, Section 15, Township 17 South, Range 32 East, Maljamar (Grayburg-San Andres) Pool, Lea County, New Mexico.

CASE 4330: Application of Tenneco Oil Company for an unorthodox location and dual completion, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion of its Hospah Well No. 37X to produce oil from the Hospah-Upper and South Hospah-Lower Sand Oil Pools at an unorthodox location for said pools 1280 feet from the North and West lines of Section 12, Township 17 North, Range 9 West, McKinley County, New Mexico.

CASE 4331: Application of Wynn & Brooks for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Federal "E" Well No. 3, to be located 790 feet from the North and West lines of Section 13, Township 27 North, Range 8 West, Blanco-Mesaverde and Basin-Dakota Pools, San Juan County, New Mexico.

CASE 4264: (Continued from the February 4, 1970 Examiner Hearing)
Application of Wynn & Brooks for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Federal "J" Well No. 1, to be located 2390 feet from the South line and 2410 feet from the East line of Section 11, Township 27 North, Range 8 West, Blanco-Mesaverde and Basin-Dakota Pools, San Juan County, New Mexico.

CASE 4301: (Continued from the February 4, 1970 Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Robert T. Smith and all other interested persons to appear and show cause why the following Robert T. Smith wells located in Section 32, Township 20 North, Range 9 West, McKinley County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program:

State Well No. 1 located 487 feet from the North line and 990 feet from the East line;

State "A" Well No. 1 located 400 feet from the North line and 990 feet from the East line;

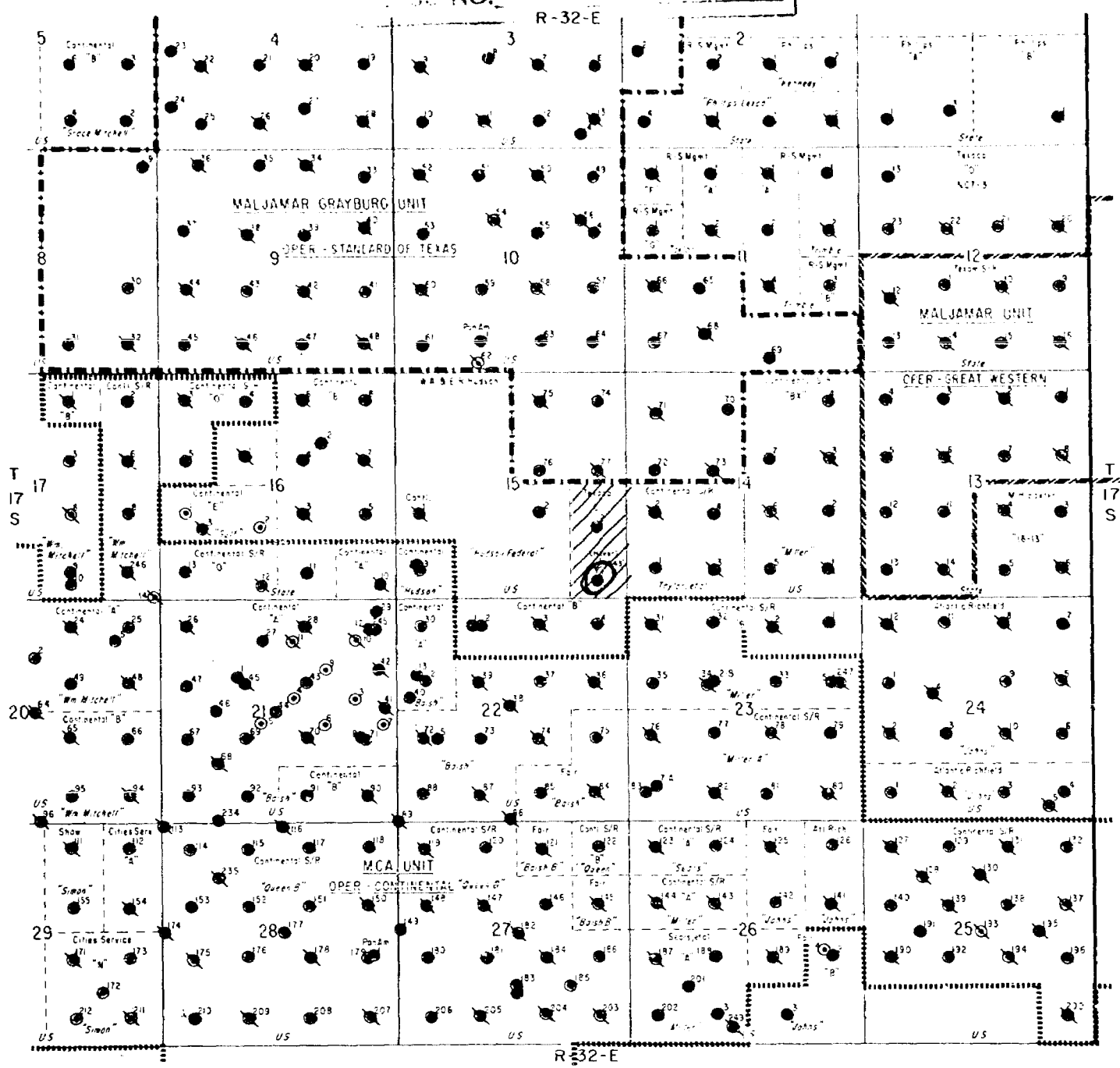
State Well No. 3 located 330 feet from the North line and 330 feet from the West line;

State Well No. 6 located 220 feet from the North line and 1485 feet from the East line;

State Well No. 6-Y located approximately 5 feet West of the above-described Well No. 6;

State Well No. 8 located 1155 feet from the North line and 2475 feet from the East line.

BEFORE [] R UTZ
 OIL CONSERVATION COMMISSION
 TITLE []
 CASE NO. []



- POOL LEGEND -
- BAISH WOLFCAMP
 - MALJAMAR GRAYBURG SAN ANDRES
 - BAISH WOLFCAMP NORTH
 - MALJAMAR PADDOCK
 - BAISH YATES
 - MALJAMAR QUEEN GAS
 - MALJAMAR ABO
 - PEARSALL QUEEN
 - MALJAMAR DEVONIAN
 - INJECTION WELL

TEXACO INC.
 MIDLAND DIVISION
 MALJAMAR & BAISH POOLS AREA
 LEA COUNTY, NEW MEXICO
 SCALE: 0' 2000' 4000'
 FMR 1-21-70

USA FEDERAL "C" COOP.

LIST OF OFFSET OPERATORS

Continental Oil Company
P.O. Box 460
Hobbs, New Mexico 88240

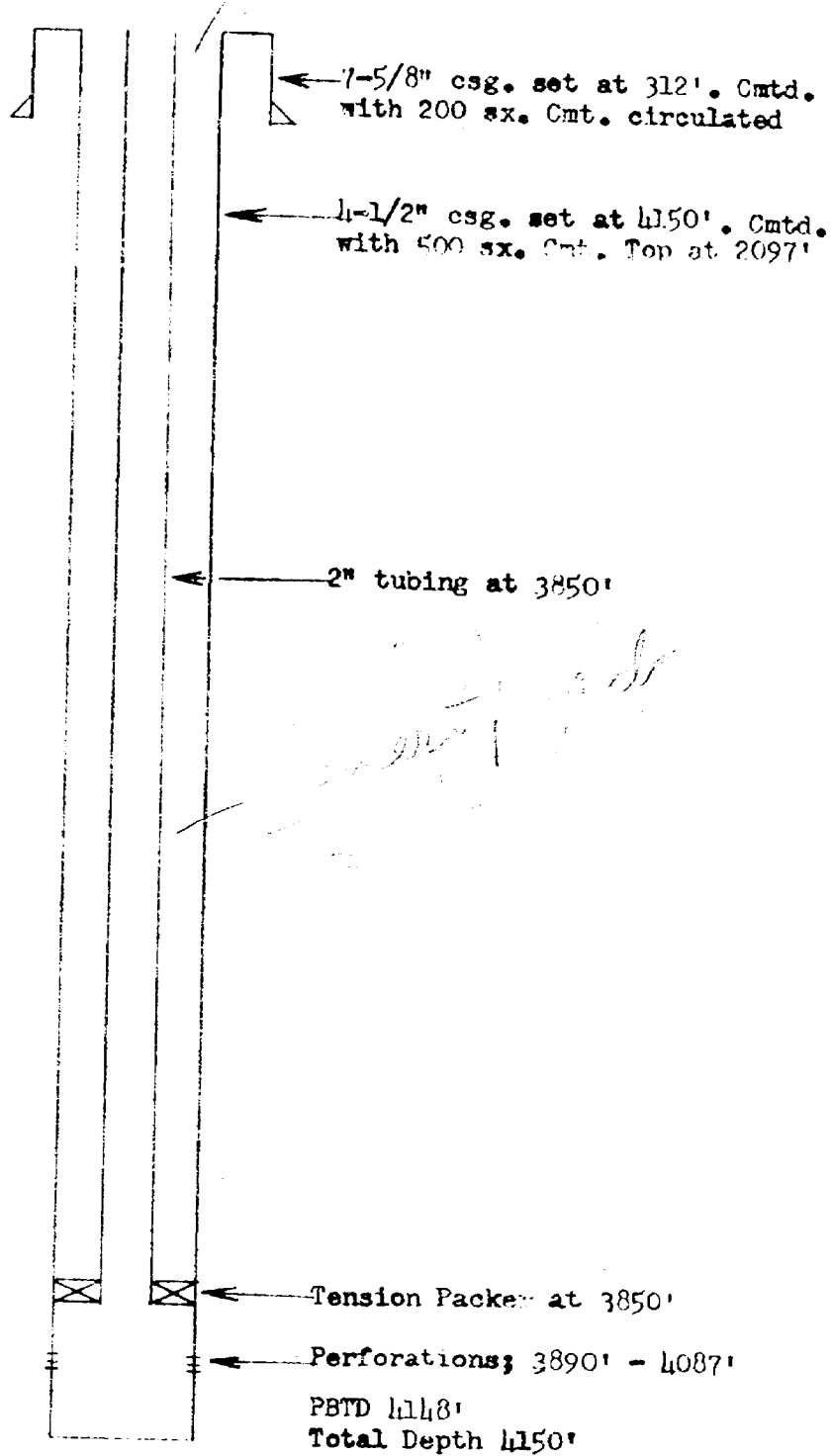
Standard of Texas
P.O. Box 1660
Midland, Texas 79701

Hudson, W.A. & Hudson, E.R.
1510 1st National Bank Bldg.
Ft. Worth, Texas 76100

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSIC	
<u>Texas</u>	EXHIBIT NO. <u>2</u>
CASE NO. <u>4323</u>	

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL

Tubing - Casing annulus loaded
with inhibited water.



BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

Texaco EXHIBIT NO. 3

CASE NO. 4-22-3

TEXACO INC.
FEDERAL (U.S.A.) "C" WELL NO. 1
MALJAMAR POOL
LEA COUNTY, NEW MEXICO



PETROLEUM PRODUCTS

PRODUCING DEPARTMENT -
UNITED STATES
MIDLAND DIVISION
DARRELL SMITH
DIVISION MANAGER

March 2, 1970

TEXACO INC.
P. O. BOX 3100
MIDLAND, TEXAS 79701

REQUEST FOR HEARING
COOPERATIVE WATERFLOOD PROJECT
USA FEDERAL "C" LEASE
MALJAMAR (GRAYBURG-SAN ANDRES) POOL
LEA COUNTY, NEW MEXICO

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

Attention: Mr. A. L. Porter, Jr.

Gentlemen:

It is requested that an examiner hearing be scheduled for March 25, 1970 at Santa Fe, New Mexico, to consider the application of Texaco Inc. to initiate a cooperative waterflood project in the Maljamar (Grayburg-San Andres) Pool, Lea County, New Mexico.

At this hearing Texaco will ask permission to inject fresh water into its USA Federal "C" No. 1 Well located in Unit P of Section 15-17S-32E and to produce its USA Federal "C" No. 2 Well located in Unit I of Section 15-17S-32E. This waterflood project is designed to cooperate with Continental Oil Company's producing properties in Sections 14 and 22-17S-32E.

The injection fluid will be Ogallala fresh water purchased from the adjacent MCA Unit operated by Continental Oil Company.

Injection will be through plastic coated tubing with a packer set above the injection interval 3890' to 4087'. The annulus between the tubing and the casing will be filled with treated fluid. Initial injection will be 350 BWPD at a pressure of 1800 psig.

Included with this request for a hearing is a plat showing the project area and injection well, a diagrammatic sketch and log of the proposed injection well, and a list of the offset operators.

DOCKET MAILED

Date 3-12-70

March 2, 1970

Copies of this letter and application are being sent to the offset operators and the U. S. Geological Survey in Roswell, New Mexico since the area involved is Federal acreage.

Yours very truly,

Darrell Smith

By


C. L. Whigham
Division Proration Engineer

CHF/pw

cc: Continental Oil Company
P. O. Box 460
Hobbs, New Mexico 88240

Standard of Texas
P. O. Box 1660
Midland, Texas 79701

Hudson, W. A. & Hudson, E. R.
1510 1st National Bank Building
Ft. Worth, Texas 76100

U. S. Geological Survey
Department of Interior
Federal Building
Roswell, New Mexico 88201

COOPERATIVE WATERFLOOD PROJECT
USA FEDERAL "C" LEASE
MALJAMAR (GRAYBURG-SAN ANDRES) POOL
LEA COUNTY, NEW MEXICO

U. S. Geological Survey
Department of Interior
Federal Building
Roswell, New Mexico 88201

Attention: Mr. Carl Traywick

Gentlemen:

Texaco Inc. respectfully requests your approval to initiate a cooperative waterflood project with Continental Oil Company that involves the U.S.A. Federal "C" Lease. This lease is composed of 80 acres located in the E/2 SE/4 of Section 15, Township 17S, Range 32E, Lea County, New Mexico.


Attached is a copy of our letter to the New Mexico Oil Conservation Commission requesting a hearing for this project. This letter sets out what we plan to do. Included with this letter are the exhibits that will be used to support this application.

Yours approval, by letter, of the plans as outlined by our application and exhibits, is respectfully requested.

Yours very truly,

Darrell Smith

By

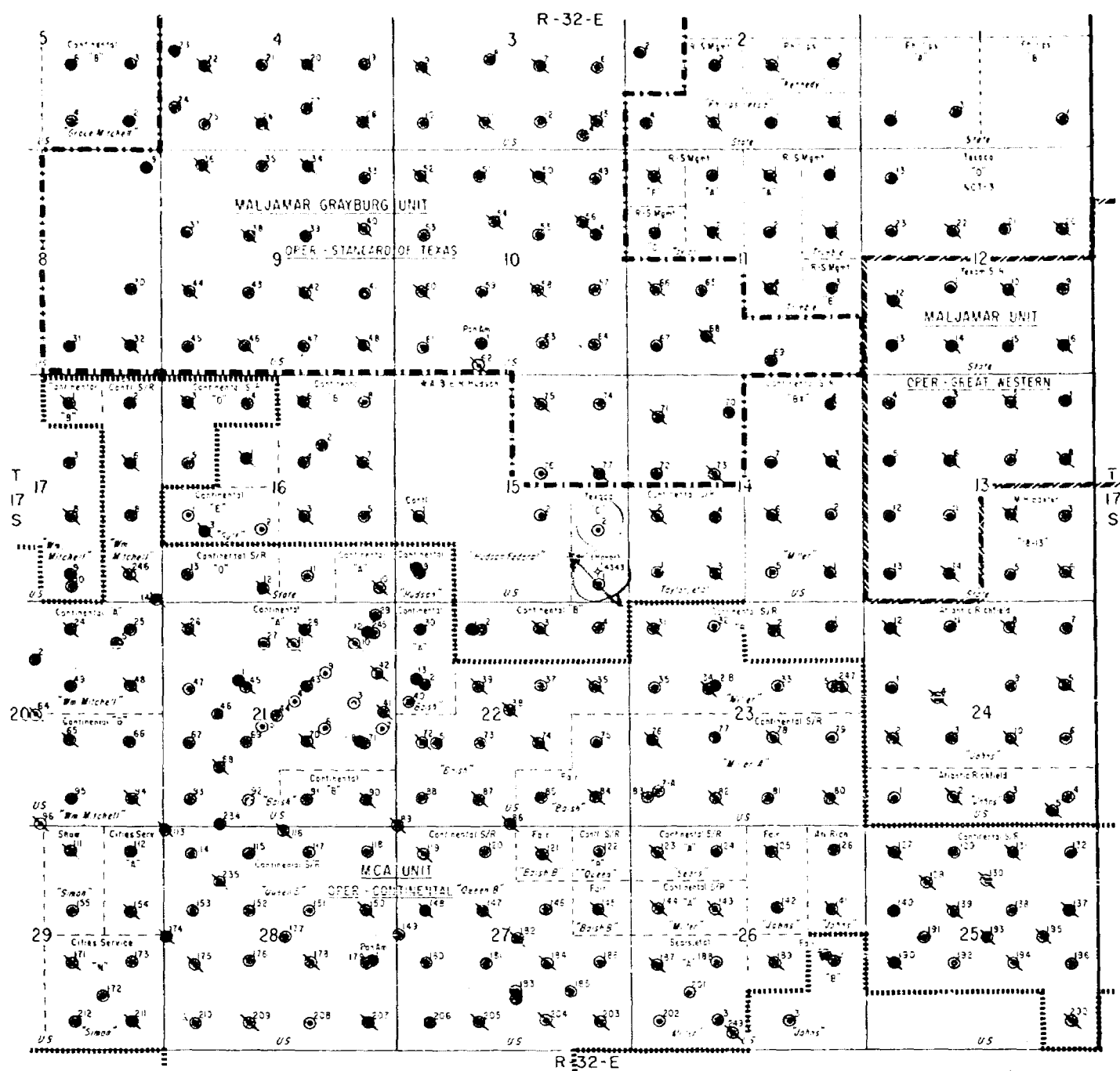

C. L. Whigham
Division Proration Engineer

CHF/pw
Attach.

cc: U. S. Geological Survey
Department of Interior
P. O. Box 1157
Hobbs, New Mexico 88240
Attn: Mr. Arthur Brown

bcc: DED

Case 4323



P O O L L E G E N D -

- BAISH WOLFCAMP
- MALJAMAR GRAYBURG SAN ANDRES
- BAISH WOLFCAMP NORTH
- MALJAMAR PADDOCK
- BAISH YATES
- MALJAMAR QUEEN GAS
- MALJAMAR ABO
- PEARSALL QUEEN
- MALJAMAR DEVONIAN
- INJECTION WELL

TEXACO INC.
MIDLAND DIVISION
MALJAMAR & BAISH POOLS AREA
LEA COUNTY, NEW MEXICO

SCALE: 0' 2000' 4000'
FMR 1-21-70

Case 4323

USA FEDERAL "C" COOP.

LIST OF OFFSET OPERATORS

Continental Oil Company
P.O. Box 460
Hobbs, New Mexico 88240

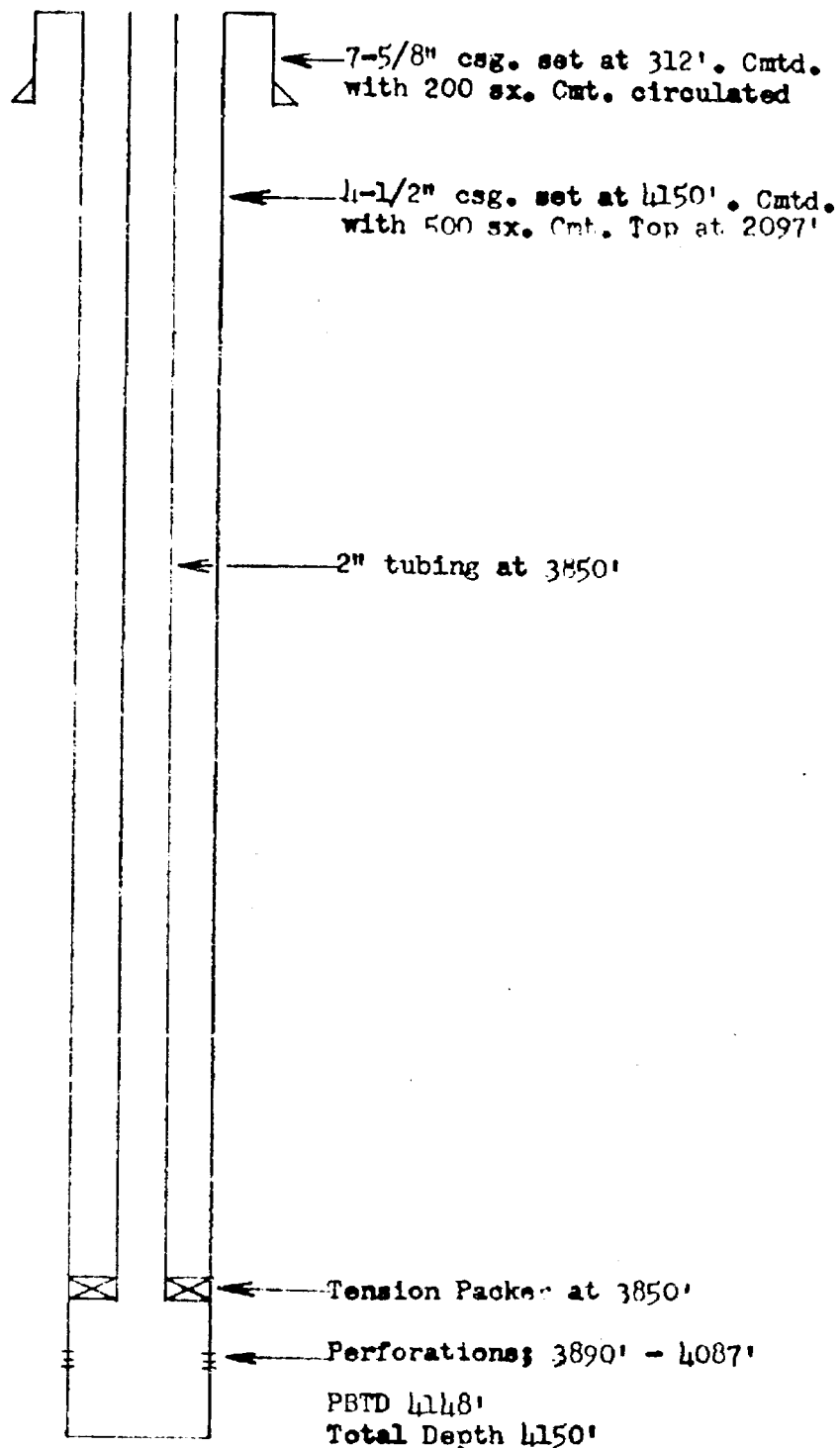
Standard of Texas
P.O. Box 1660
Midland, Texas 79701

Hudson, W.A. & Hudson, E.R.
1510 1st National Bank Bldg.
Ft. Worth, Texas 76100

Case 4323

DIAGRAMMATIC SKETCH OF PROPOSED INJECTION WELL

Tubing - Casing annulus loaded
with inhibited water.



TEXACO INC.
FEDERAL (U.S.A.) "C" WELL NO. 1
MALJAMAR POOL
LEA COUNTY, NEW MEXICO

Case 4323

DRAFT

GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 4323

Order No. R- 394

APPLICATION OF TEXACO INC.
FOR A WATERFLOOD PROJECT, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 25, 1970,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 26th day of March, 1970, 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, Texaco Inc.,
seeks permission to institute a waterflood project in the Maljamar
~~Unit Area~~, (Grayburg-San Andres) Pool by
the injection of water into the Grayburg and San Andres formations
through its USA Federal "C" Well No. 1, located in Unit P of
Section 15, Township 17 South, Range 32 East, NMPM, Lea County,
New Mexico.

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

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

(5) That the injection should be accomplished through
~~2-inch~~ 2-inch plastic-lined tubing installed in a pocket
set at approximately 3850 feet; that the casing tubing annulus
should be filled with an inert fluid; and that a pressure gauge
should be attached to the annulus at the surface in order to determine leakage
in the casing, tubing, or pocket.

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necessary
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(6) 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, Texaco Inc.,
is hereby authorized to institute a waterflood project in the
Maljamar (Grayburg-
===== Unit Area, San Andres) Pool
Grayburg and
by the injection of water into the San Andres formations
through its USA Federal "C" Well No. 1, located in Unit P of
Section 15, Township 17 South, Range 32 East, NMPM, Lea County,
New Mexico.

*Provided However, that the injection shall be
accomplished through 2 - inch ^{plastic lined} tubing installed in a
packer set at approximately 3850 feet; that the casing-
tubing annulus shall be filled with an inert fluid;
and that a pressure gauge shall be attached to the
annulus at the surface in order to determine leakage
in the casing, tubing, or packer.*

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

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

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

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