

CASE 4295: Application of TEXACO  
FOR A WATERFLOOD PROJECT, LEA  
COUNTY, NEW MEXICO.

Case Number

4295

Application  
Transcripts.

Small Exhibits

ETC.

dearnley-meier

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

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



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
January 21, 1970

EXAMINER HEARING

IN THE MATTER OF:

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

Case No. 4295

BEFORE: Elvis Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 4295.

MR. HATCH: Case 4295. Application of Texaco, Inc., for waterflood project, Lea County, New Mexico.

MR. KELLY: Booker Kelly of White, Gilbert, Koch and Kelly, of Santa Fe, on behalf of the Applicant.

I have one witness and ask that he be sworn.

(Witness sworn).

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

MR. UTZ: Any other appearances in this case?

You may proceed.

CARL L. WHIGHAM

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

DIRECT EXAMINATION

BY MR. KELLY:

Q Would you state your name, position and employer?

A My name is Carl L. Whigham, Jr. I am employed by Texaco, Inc., as Midland Division Proration Engineer located in Midland, Texas.

Q You have previously qualified before this Commission as an expert witness in the field of petroleum engineering?

A Yes, sir, I have.

Q Would you briefly state what Texaco seeks by the application, referring to what has been marked Exhibit No. 1?

A Texaco, on behalf of the working interest owners in the Cotton Draw Unit and Tenneco Oil Company, operator of the Monsanto waterflood project, seeks authority from the New Mexico Oil Conservation Commission to convert to water injection service the Cotton Draw Unit Well No. 13, located in Unit G of Section 16, Township 25 South, Range 32 East, Lea County, New Mexico, in the Paduca-Delaware Oil Pool.

Q Now, the Exhibit 1 shows the outline of the Cotton Draw Unit: is that correct?

A Yes, sir.

Q This well is immediately outside the unit boundary?

A Yes, sir, it is.

Q Could you give the Examiner a brief history of the Cotton Draw Unit and Tenneco's cooperative plug?

A Yes. The Cotton Draw Unit, which is actually a large area in excess of thirty thousand acres, was formed and approved by the Oil Conservation Commission in 1958 by Order No. P-1126.

The unit shown by Exhibit No. 1 is a participating area within this larger unit and the waterflooding operations being conducted by Texaco as operator in this Cotton Draw Unit were authorized by the Oil Conservation Commission by Order No. R-3314 dated September 11, 1967.

On the same date the Commission issued Order No. R-3313, which authorized Tenneco to conduct similar waterflood operations on what is called the Monsanto waterflood project in the south half of Section 16, Township 25 South, Range 32 East.

Q And this is basically an expansion of those two flood projects?

A Yes. The entire Paduca-Delaware Field is under waterflood and it has been broken down into these different projects.

The Cotton Draw Unit, for example, operated by Texaco for the working interest owners is that area included in the outline shown on Exhibit No. 1 and here there are twelve injection wells and thirty-seven producing wells and then immediately to the west is Tenneco's operation in the south half of Section 16, where there are two injection wells and five producing wells and then on the periphery of these major projects Tenneco on the southern extremity operates a

project called the S. D. Sena, Jr. project with one injection well and one producing well.

Q What section is that in?

A That's in the south half of Section 28, and then Tenneco has another project that is called the Ray Federal B, which has one injection well and one producing well and that's located in the southeast quarter of Section 10.

Texaco also has another project that is called the Paduca-Jordan Project and that is down in the vicinity of the Sena Project operated by Tenneco in Section 28 and is comprised of two injection wells and one producing well and then outside.

MR. UTZ: What's the location of that?

THE WITNESS: Unit E in Section 28 is one of the injection wells.

Q (By Mr. Kelly) It's the forty-acre unit?

A Yes, sir, and Unit G is the other injection well and Unit H is the producing well and then in addition to those five waterflood projects, there are three other wells outside the projects which have allowables and are being produced.

They are the Texaco wells on the Ray Federal B Lease up in Section 10. There are two wells there in the

northwest quarter of Section 10 and then the other well, which is outside of all the waterflood projects, is one in the northwest corner of the southeast quarter of Section 15 and that accounts for eighteen injection wells and forty-eight producing wells in the entire Paduca-Delaware Field.

Q Now, as far as your proposed injection well, what is its history and present status?

A This well is currently designated the Cotton Draw Unit No. 13 and is located in Unit H -- in -- no, Unit G in Section 16.

This well was formerly operated by Continental Oil Company. The production on the well declined over a period of three or four years down to less than one hundred barrels of oil per month, so Continental Oil Company abandoned operations.

They were uneconomical on that well and the well has been shut-in now for a couple of years now. Tenneco and Texaco, as operator of the Cotton Draw Unit, felt that this well would serve a very useful purpose as a back-up injection well for the Tenneco waterflood and for the Cotton Draw Unit waterflood: so, Tenneco and the Cotton Draw Unit purchased the well and the equipment from Continental with the purpose -- or with the objective of converting that well to injection

service so that's what we seek here at this hearing, is approval to convert this particular well here, Well No. 14, to injection service to benefit both the Cotton Draw Unit and also the Monsanto Unit operated by Tenneco.

Q Now, referring to what has been marked Exhibit No. 2, what has been the performance history of this flood project in the area that you have described?

A Exhibit No. 2 is a set of performance curves for the Cotton Draw Unit and it shows the additional development back in 1960 and '61. It shows a steady decline through the year 1968, when water injection operations were commenced in August.

At that time, there was an immediate decrease in production due to the conversion of producing wells to injection service and at the same time there was some remedial operations performed and the production was reinstated to about a thousand barrels a day during the first half of 1969 and then in very recent months or toward the end of 1969, there has been some increase in production.

Essentially, the conclusion that we would draw from these curves is that the operation has not been conducted long enough actually to give a very good estimate of future performance. We know that the Delaware sands don't

respond quite as readily sometimes as some of the San-Andres reservoir, for example, but we do intend to continue operations here for several more months and later we should have a much better estimate of what we can expect from this operation.

Q Now, you have prepared an exhibit, being Exhibit No. 3, which shows your proposed installation on the injection well. Is that basically similar to the other injection wells in the participating area you have described?

A Yes, sir, it does. All the other injection wells in the participating area are cased through the Delaware producing formation and were perforated in a manner very similar to the one depicted here in Exhibit 3 for the Cotton Draw Unit Well No. 13.

This shows, of course, that the production casing was installed with sufficient cement to bring the top of the cement outside the casing up to a depth of about twenty-two hundred feet. The water will be injected through plastic coated tubing set on a packer at about four thousand five hundred fifty feet and with this type of installation, we are confident that the injection fluid will be confined to the Delaware reservoir.

Also, we will install an adequate pressure gauge

in the annulus between the injection tubing and the production casing.

Q Now, the perforations you have shown there, those are the original production perforations?

A Yes, sir, they are.

Q To your knowledge, is there any other production zone or fresh water zone up structure from the perforations?

A No. There are no other productive zones at a shallower depth within the participating area. Actually, Texaco attempted to develop additional water sources within the participating area and drilled more than -- more than one well for the purpose of establishing additional water sources and they were unable to develop sources within the participating area.

Q This source of water is the same as you have been using in your whole waterflood project, I assume?

A Yes, it is.

Q What will be your estimated injection pressure in volume?

A It's estimated that the rate of injection in this proposed injection well will be about five hundred barrels of water per day and we estimate that the initial injection pressure at that rate will be about four hundred PSI.

Q And you haven't had any particular problem getting your other wells to take water in that quantity, I assume?

A No, sir, we have not.

Q Now, Exhibit No. 4 is the log of the injection well and you have outlined the perforations and the top of the Delaware sand: right?

A Yes, sir.

Q Do you have anything you want to comment on that exhibit?

A No, sir, I do not.

Q In your opinion, would the granting of this application prevent waste by allowing you to recover hydrocarbons that would otherwise be left in place and adequately protect correlative rights of all parties involved?

A Yes, sir. That is my opinion.

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

A Yes, they were.

MR. KELLY: I move the introduction of our exhibits at this time.

MR. UTZ: Without objection, Exhibits 1 through 4 will be entered in the record of this case.

MR. KELLY: We have no further direct testimony.

Mr. Examiner.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Whigham, this well is actually not within the boundaries of the unit, is it?

A No, sir, it is not.

Q But, you are still going to call it the Cotton Draw Unit Well?

A Yes, sir.

Q I assume the outside is somewhat misleading; there is nothing wrong with that. But, it will be operated in conjunction with the unit or are you joint operators with Tenneco?

A We are joint owners with Tenneco and Texaco will operate the well.

Q You did say you were going to load the annulus with inhibited fluid, did you?

A We will load the annulus with inhibited fluid. yes, sir.

Q How long have you been injecting water in this unit?

A Since August, 1968.

Q You do have some response, do you not?

A It's difficult to say exactly how much. It does appear that there has been some response. We think we will be able to evaluate the effects of the injection much better within the next year.

There does appear to be some response at this time.

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

(Witness excused).

MR. KELLY: Mr. Examiner, in some of these -- some previous hearings similar to this, we have asked and were successful in getting the Commission to allow us a rule to expand floods without showing a response.

I am wondering whether this would be a situation where that could be done. It's not in the original order.

MR. HATCH: We have done that on some cases. You have no producing well on that acreage at this time?

THE WITNESS: No, sir.

MR. HATCH: You are requesting in the order?

MR. KELLY: Yes. If we could handle it administratively if it comes up again.

MR. UTZ: You mean this type, if it comes up adjacent to the unit?

MR. KELLY: Yes, sir.

THE WITNESS: Yes, sir.

MR. HATCH: You would be talking about an entirely different waterflood project then, wouldn't you, instead of --

MR. KELLY: Well, the only difference here is that there is a defined unit and these would be wells that would be outside the unit area; but, as far as that, that's a contractual arrangement with the particular operator.

I don't know whether it would interfere with the Commission's --

MR. UTZ: Wouldn't this actually be an amendment to the Cotton Draw Unit Order No. 1186?

MR. KELLY: It would necessarily have to be.

MR. UTZ: It wouldn't be advertised properly for this case, would it?

MR. KELLY: That's it. I wasn't sure what your position was on that. It seems to me that in some of the other cases, of course, at least it was tied in with that particular order; we haven't advertised, but it's just been done.

Well, if you feel that it could be done, fine. If not, that's no great problem. We can just bring it to your attention. That's all we have, Mr. Examiner.

I N D E X

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E X H I B I T S

Applicant's Exhibits	
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[illegible]

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.

Glenda Garbo  
Notary Public

My Commission Expires:

March 12, 1973

I do hereby certify that the foregoing is a complete record of the proceedings at the Executive hearing of the New Mexico Oil Conservation Board held on 1-21-70.

*[Signature]*

New Mexico Oil Conservation Commission



## OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 2088 - SANTA FE

87501

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN

LAND COMMISSIONER  
ALEX J. ARMIJO  
MEMBER

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

January 29, 1970

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

Re: Case No. 4295  
Order No. R-3914  
Applicant:  
Texaco Inc.

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC X  
Artesia OCC \_\_\_\_\_  
Aztec OCC \_\_\_\_\_  
State Engineer X

Other \_\_\_\_\_

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

February 6, 1970

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

Dear Sir:

Reference is made to Commission Order No. R-3914, recently entered in Case No. 4295, approving the conversion to water injection of the Cotton Draw Unit Well No. 13, which offsets Texaco's Cotton Draw Unit Waterflood Project and Tenneco's Paduca Monsanto Waterflood Project, both in the Paduca-Delaware Pool, Lea County, New Mexico.

Injection shall be through plastic-lined tubing set in a packer located at approximately 4550 feet.

As to allowable, it is our opinion that since the subject well is not actually a part of any waterflood project, no waterflood allowable credit should be given for it at this time.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/DSN/1r

cc: Oil Conservation Commission  
Hobbs, New Mexico

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

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 4295  
Order No. R-3914

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 January 21, 1970, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 29th day of January, 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 inject water into the Delaware formation through the Cotton Draw Unit Well No. 13, formerly the Continental Oil Company State Z-16 Well No. 1, located in Unit G of Section 16, Township 25 South, Range 32 East, NMPM, Paduca- Delaware Pool, Lea County, New Mexico.

(3) That said well would serve as a back-up water injection well to two existing waterflood projects, applicant's Cotton Draw Unit Waterflood Project immediately east and Tenneco Oil Company's Paduca Monsanto Waterflood Project immediately south.

(4) That the proposed water injection program should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

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

-2-

CASE No. 4295

Order No. R-3914

IT IS THEREFORE ORDERED:

(1) That the applicant, Texaco Inc., is hereby authorized to inject water into the Delaware formation through the Cotton Draw Unit Well No. 13, formerly the Continental Oil Company State Z-16 Well No. 1, located in Unit G of Section 16, Township 25 South, Range 32 East, NMPM, Paduca-Delaware Pool, Lea County, New Mexico.

(2) That the subject water injection program 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 water injection program 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.

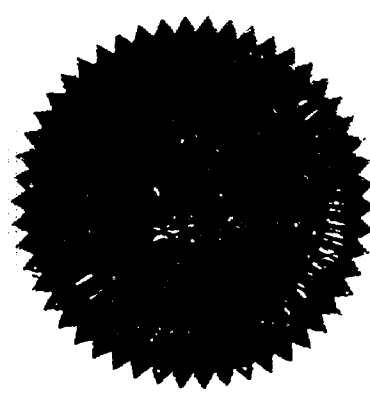
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
DAVID F. CARGO, Chairman

  
ALEX J. ARMIJO, Member

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



esr/

Case 4295  
Heard 1-21-70  
Rec. 1-21-70

Grant Texaco permission to connect their Cotton Draw unit # 13, H-16-25-32, to an injection well. This well is the pattern for the Cotton Draw as well as the Deane's Monsanto water floods.

Water to be injected down plastic lined 2 $\frac{3}{8}$  tubing under a packer into the Deane's zone. Annulus to be loaded with inert fluid w/ gauge at the surface.

Thud

Docket No. 3-70

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 21, 1970

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

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

- CASE 4295: Application of Texaco, Inc., for waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Delaware formation through the Cotton Draw Unit Well No. 13, formerly the Continental Oil Company State Z-16 Well No. 1, located in Unit G of Section 16, Township 25 South, Range 12 East, Paduca-~~Delaware~~ Pool, Lea County, New Mexico. 32
- CASE 4296: Application of S. P. Yates for a pressure maintenance project expansion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand the S. P. Yates West McMillan Anderson Pressure Maintenance Project, authorized by Order No. R-3852, by the injection of water into the Queen formation through one additional well, the Anderson Well No. 3 located 2310 feet from the East line and 990 feet from the South line of Section 11, Township 20 South, Range 26 East, West McMillan-Seven Rivers-Queen Pool, Eddy County, New Mexico.
- CASE 4297: Application of Anadarko Production Company for lease commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Langlie-Mattix production from the Langlie-Mattix Penrose Sand Unit Tracts 2, 16, and 28, comprising, respectively, the W/2 NW/4 of Section 23, the SW/4 SW/4 of Section 23, and the S/2 NW/4 and SW/4 of Section 28, Township 22 South, Range 37 East, Lea County, New Mexico, with Langlie-Mattix production from other tracts in said unit, allocating the production to each of said Tracts 2, 16 and 28 on the basis of monthly well tests.
- CASE 4298: Application of Dugan Production Corporation for a non-standard gas proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 171.15 acre non-standard gas proration unit comprising the NW/4 SE/4, S/2 SE/4 of Section 33, Township 30 North, Range 14 West, and the NW/4 NE/4 of Section 4, Township 29 North, Range 14 West, to be dedicated to a well to be drilled to an undesignated Pictured Cliffs gas pool in either the SW/4 SE/4 of said Section 33 or the NW/4 NE/4 of said Section 4. In the alternative applicant seeks approval of a 131.93 acre non-standard proration unit comprising the NW/4 SE/4 and the S/2 SE/4 of said Section 33 to be dedicated to said well in the SW/4 SE/4 of said Section 33.

CASE 4299: Application of Texas Pacific Oil Company, Inc., for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the consolidation of two existing non-standard gas proration units into one 240-acre non-standard unit comprising the N/2 NW/4 and the NE/4 of Section 8, Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be dedicated to its State "A" a/c-2 Wells Nos. 43 and 49, located in Units H and C, respectively, of said Section 8. Applicant further seeks to produce the allowable assigned to said unit from either of the afore-said wells in any proportion.

CASE 4300: Application of Texas American Oil Corporation for the creation of a new gas pool and for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Atoka gas pool for its Todd #26 Federal Well No. 1 located 1980 feet from the North and East lines of Section 26, Township 23 South, Range 31 East, Eddy County, New Mexico, and for the promulgation of special rules therefor, including a provision for 640-acre spacing units.

CASE 4301: 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 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;

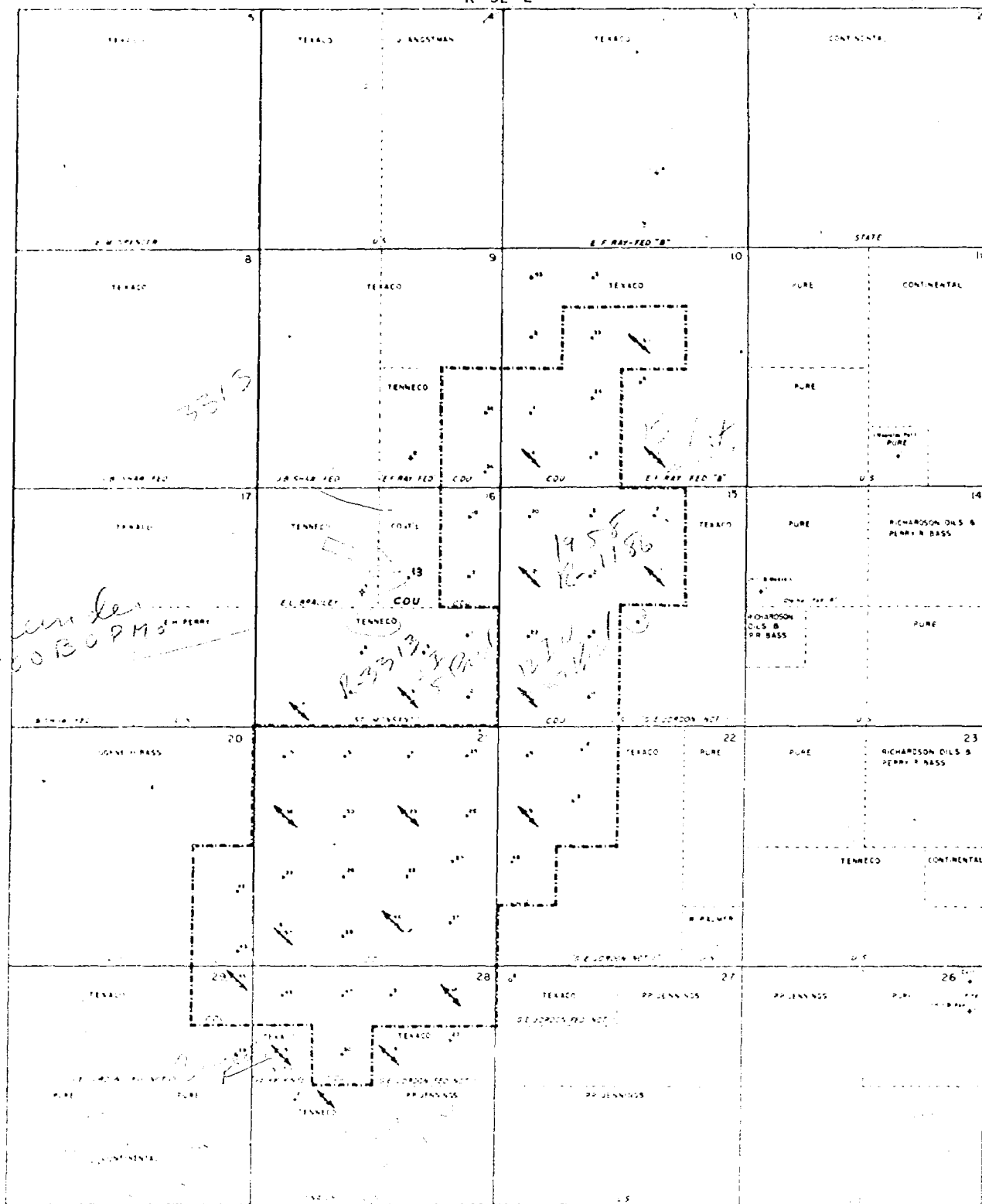
State Well No. 3 located 330 feet from the North line and 330 feet from the West line;

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

State Well No. 6-T 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.

R-32-E



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LEGEND

COTTON CRAWLER PARTICIPATING AREA

INJECTION WELLS

PADUCA DELAWARE FIELD	
ENGINEERING UNIT	
COTTON CRAWLER	
PADUCA DELAWARE FIELD	
LEA COUNTY, NEA, MISSISSIPPI	
DATE: 11/1/50	
BY: [Signature]	

**BEFORE EXAMINER UTA**

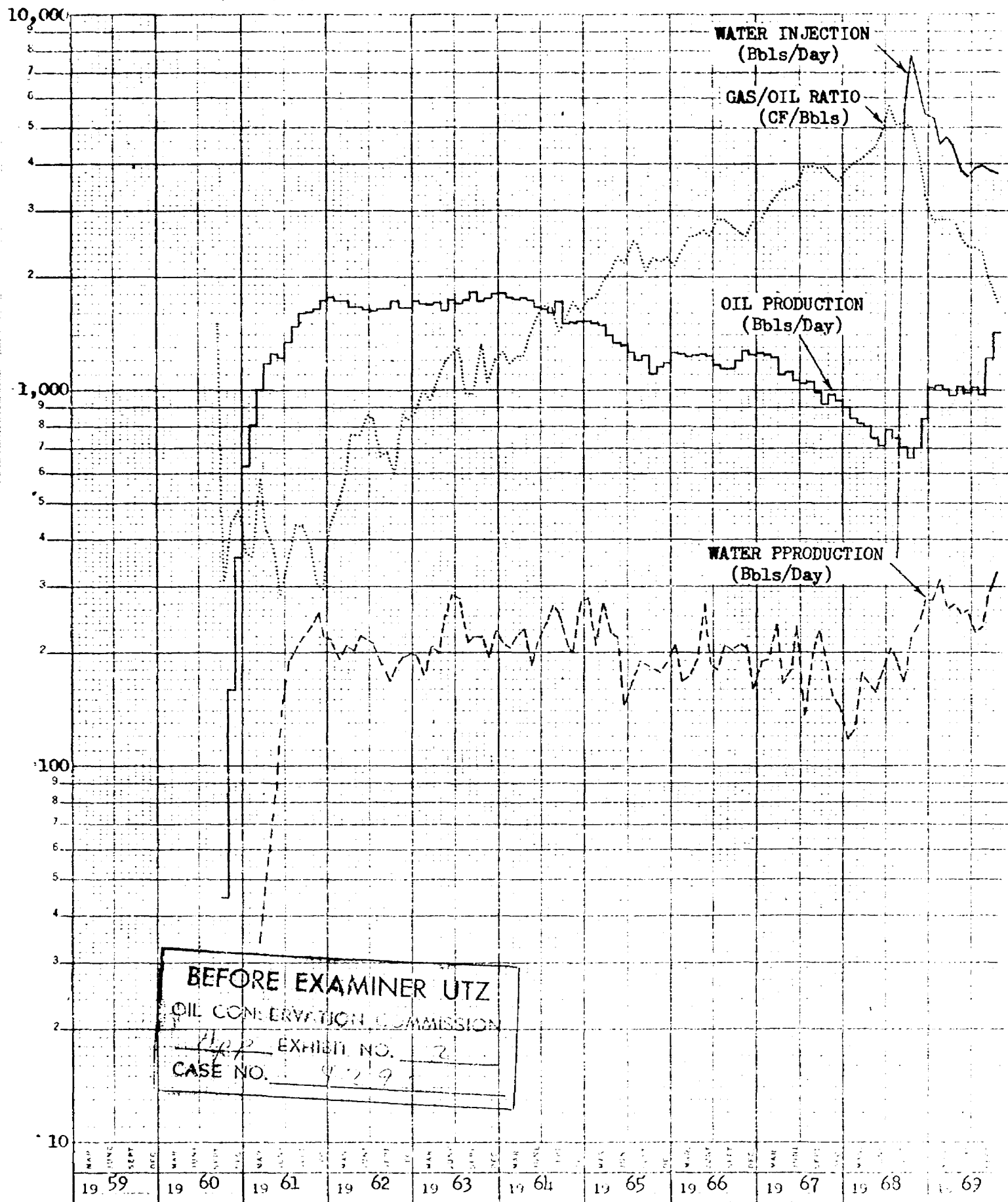
**OIL CONSERVATION COMMISSION**

EXHIBIT NO. 1

CASE NO. 11756

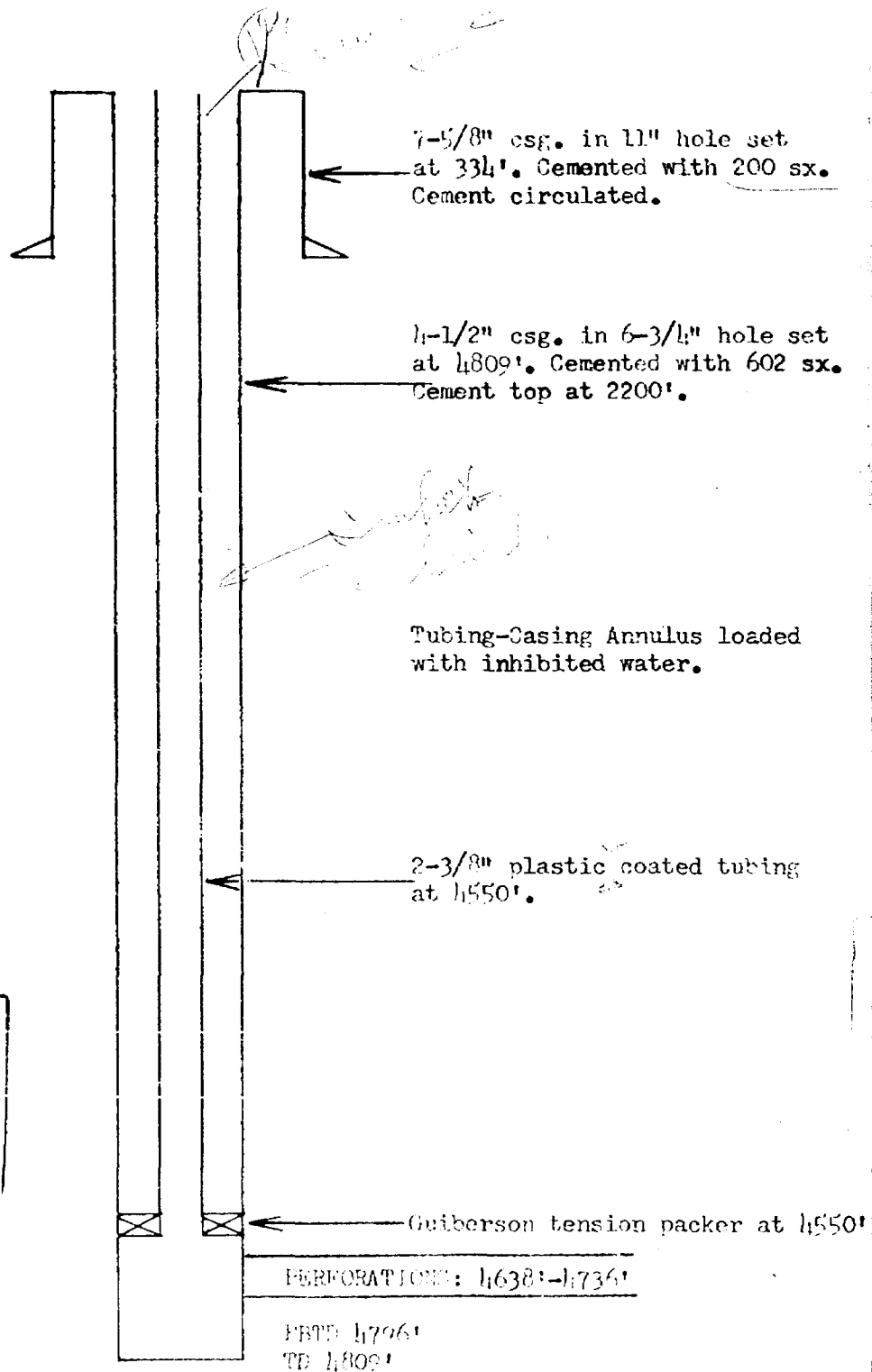
11/1/50

TEXACO'S WI: 23.469388%



OPERATOR: TEXACO Inc.

COTTON DRAW UNIT  
PADUCA DELAWARE FIELD  
LEA COUNTY, NEW MEXICO



BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 429  
CASE NO. 429

DIAGRAMATIC SKETCH OF TYPICAL INJECTION WELL  
TEXACO INC.  
ROTON DRAY UNIT WELL NO. 13  
CALUCA DELATAGE POOL  
LEA COUNTY, NEW MEXICO

TEXACO  
INC.

PETROLEUM PRODUCTS



DRAWER 728  
HOBBS, NEW MEXICO 88240

December 17, 1969

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

Re: Approval To Convert Well  
To Water Injection  
Paduca Delaware Pool  
Lea County, New Mexico

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

Gentlemen:

TEXACO Inc. respectfully requests administrative approval of the New Mexico Oil Conservation Commission to convert to injection the Cotton Draw Unit Well No. 13 located in Unit G, Section 16, T-25-S, R-32-W. This well will serve as a back up well for TEXACO's Cotton Draw Waterflood Project authorized by Commission Order No. R-3314 and Tenneco Oil Company's Paduca Monsanto Waterflood Project authorized by Order No. R-3315. The proposed injector is located on a pattern compatible with the offsetting waterflood projects and will result in a more thorough and efficient sweep of the reservoir.

Injection will be into the Delaware Sand of the Paduca Delaware Pool at a depth of 4,036' - 4,736'. Initial injection will be at a rate of approximately 500 barrels of water per day at an estimated surface pressure of 400 psi. The source of water will be from supply wells located in Section 2, T-25-S, R-32-W, Lea County, New Mexico. Water from this source is obtained from the Rustler Formation. Water injection facilities on TEXACO's Cotton Draw Waterflood Project will be utilized to inject into the proposed injection well.

The subject well was formerly owned and operated by Continental Oil Company and was designated as the State "W"-16 Well No. 1. The well was purchased by the working interest owners in the Cotton Draw Unit participating area and Tenneco Oil Company with each party owning one-half interest in the well.

DOCKET MAILED

Date 1-9-70

New Mexico Oil Conservation

- 2 -

December 17, 1969

Attached is a plat showing all wells and lessees within a two mile radius of the proposed injection well, a diagrammatic sketch of the well, and a log of the well. A pressure gauge will be installed in the casing-tubing annulus to detect any subsurface leakage.

Mr. Joe Ramey was consulted regarding this application and he advised that approval to convert the well could possibly be granted administratively under Rule 701 since the well is offsetting a full scale waterflood project. In the event that a hearing is required for the application, please schedule an examiner hearing at the earliest possible date.

Yours very truly,

*W. B. Morgan*

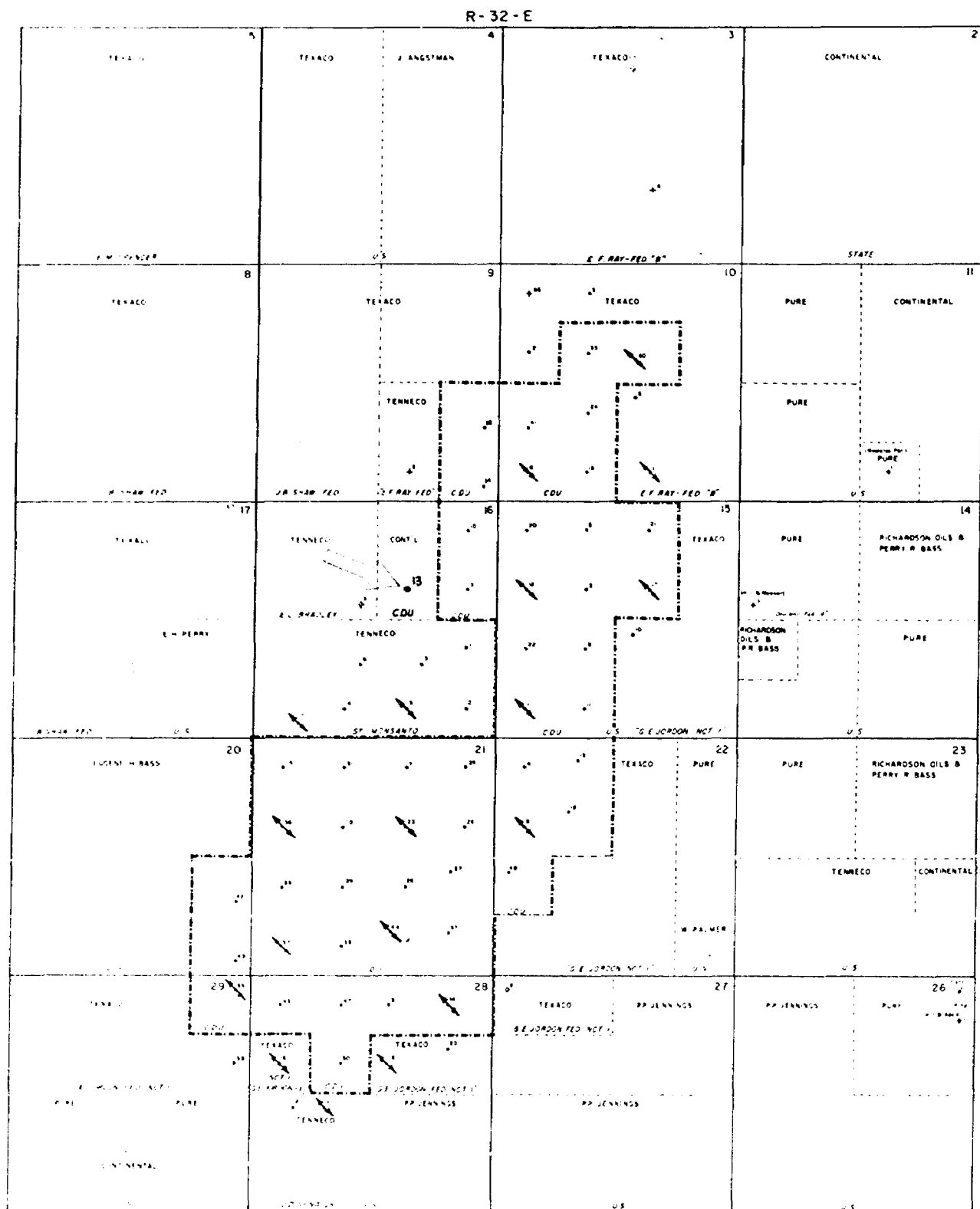
W. B. Morgan  
District Superintendent

BRM-cr

Attachment

cc: VSP

Domneco Oil Co.



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# LEGEND

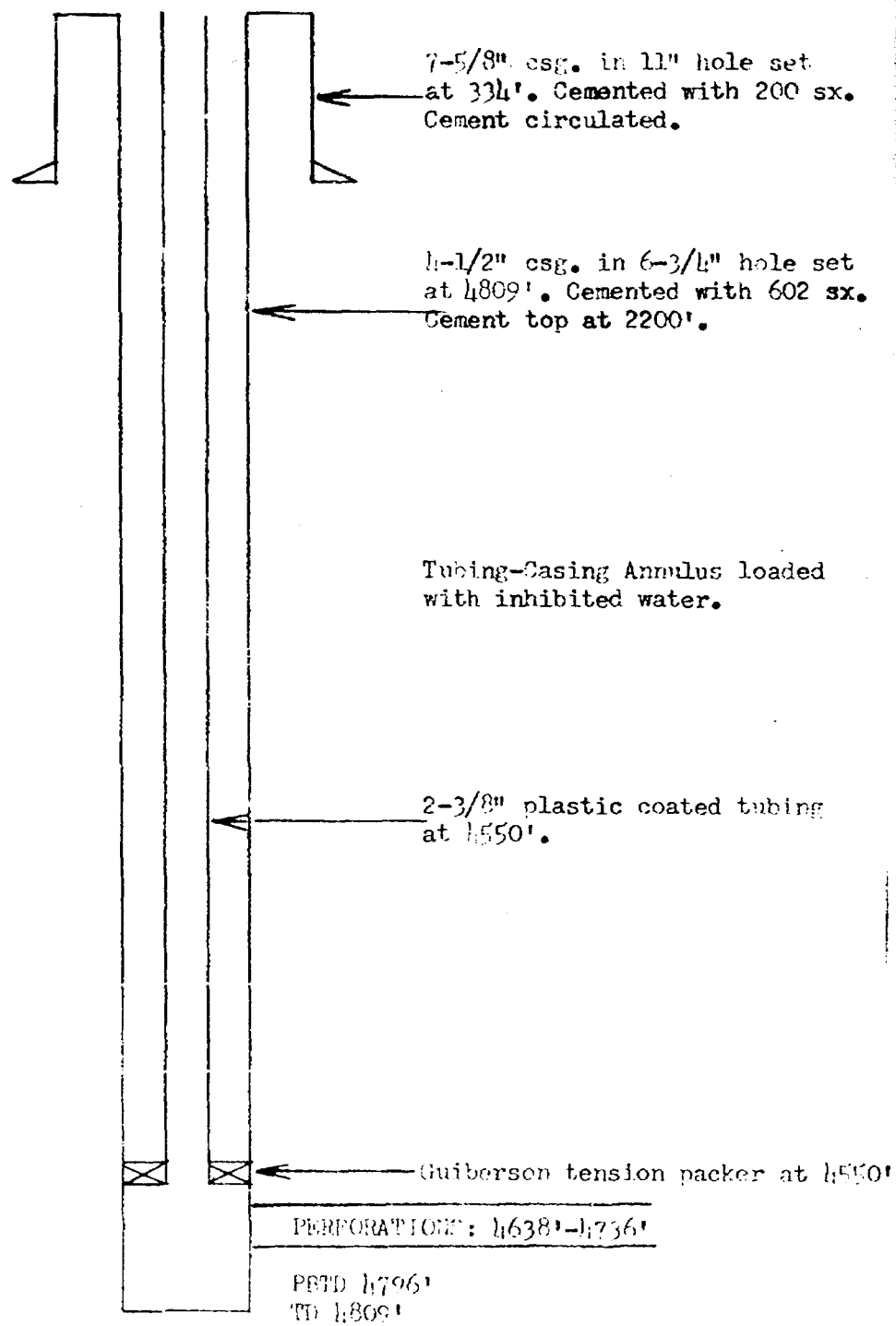
COTTON DRAW UNIT PARTICIPATING AREA

INJECTION WELLS

PADUCA DELAWARE FIELD ENGINEERING COMMITTEE	
COTTON DRAW UNIT PADUCA DELAWARE FIELD LEA COUNTY, NEW MEXICO	
Date	Drawn By
Scale	

11 Dec. 4-1-61

Page 4295



DIAGRAMATIC SKETCH OF TYPICAL INJECTION WELL  
 TRFACO INC.  
 COTTON DRAG UNIT WELL NO. 13  
 PATRICA DELATARA POOL  
 LEA COUNTY, NEW MEXICO

Case 4295-

ROUGH DRAFT FOR WATERFLOOD LETTERS

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

Dear Sir:

*Reference is made to* Commission Order No. R-3914, *recently* entered in Case No. 4295, approving the *conversion to water injection of* ~~Waterflood Project.~~ *The Cotton Draw Unit Well No 13, which affects Texaco Cotton Draw Unit waterflood project and Tennessean Paduca Monuments waterflood project, both in the Paduca-Delaware Pool, Lea County, New Mexico.* *Injection shall be through plastic-lined tubing set in a packer located at approximately 4550 feet.*

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

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

cc: OCC: Hobbs   X    
          Artesia         
          Aztec       

USGS       

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

Mr. D. E. Gray

*As to allowable, it is our opinion that since the subject well is ~~it~~ not actually a part of ~~any~~ water flood project, and is ~~jointly owned~~ no water flood allowance credit should be given ~~as~~ for it at this time.*

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. 4295

Order No. R-3914

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 January 21, 1967,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this \_\_\_\_\_ day of January, 1967, 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 inject water into the Delaware formation  
~~institute a waterflood project in the~~  
~~Unit Area, Paduca-Delaware Pool by~~  
~~the injection of water into the Delaware formation~~  
through the Cotton Draw Unit Well No. 13, formerly the Continental  
Oil Company State Z-16 Well No. 1, located in Unit G of Section 16,  
Paduca Delaware Pool,  
Township 25 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 water injection program  
waterflood project should result in  
the recovery of otherwise unrecoverable oil, thereby preventing  
waste.

(3) That said well would serve as a back-up  
water injection well to two existing waterflood projects,  
applicant's Cotton Draw Unit Waterflood Project immediately  
south and Tenneco Oil Company's Paduca Mangano  
Waterflood Project immediately south.

(5) That the subject application should be approved and the ~~project~~ <sup>injection program</sup> 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 <sup>to inject water</sup> ~~to institute a waterflood project in the~~  
~~Unit Area Paduca Delaware Pool~~  
~~to the injection of water~~ into the Delaware formation through the Cotton Draw Unit Well No. 13, formerly the Continental Oil Company State Z-16 Well No. 1, located in Unit G of Section 16, Township 25 South, Range 32 East, NMPM, <sup>Paduca-DeLaWare Pool,</sup> Lea County, New Mexico.  
A

(2) That the subject <sup>water injection program</sup> ~~waterflood project is hereby designated~~  
~~the~~ ~~waterflood Project~~ and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the <sup>water injection program</sup> ~~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.