

CASE 3923; Application of TENNECO  
OIL CO. FOR SALT WATER INJECTION,  
LEA COUNTY, NEW MEXICO.

Case Number

3923

Application

Transcripts

Small Exhibits

ETC.

dearnley-meier reporting service, inc.

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

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



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
November 7, 1968

IN THE MATTER OF: )

Application of Tenneco Oil Company )  
for salt water injection, )  
Lea County, New Mexico. )

Case No. 3923

BEFORE: ELVIS A. UTZ

TRANSCRIPT OF HEARING

MR. UTZ: Case 3923.

MR. HATCH: Application of Tenneco Oil Company for salt water injection, Lea County, New Mexico.

MR. KELLY: Let the record show the same appearance as in the last three cases, the same witness who has already been sworn.

(Applicant's Exhibits 1 through 6 marked for identification.)

\* \* \* \* \*

R O N F R E E L S, called as a witness, having been previously duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLY:

Q Referring to what has been marked Exhibit No. 1 in this case, would you state what Tenneco seeks by the application?

A We seek permission to convert the Tenneco' Kemnitz-Wolfcamp Unit Well No. 7 located in Unit O of Section 19, Township 16 South, Range 34 East, Lea County, New Mexico, from gas injection to salt water disposal.

Q Now, what is the present status of the well? You said gas injection, is this part of a pressure maintenance project?

A Yes, this well is presently one of five, six, excuse me, one of six injection wells in the Kemnitz-Wolfcamp pressure maintenance project.

Q Do you show on that plat the project area and the other pressure maintenance wells?

A Yes, they're the line of wells on the plat forming an east-west line.

Q And Tenneco is the operator of this unit?

A Yes.

Q And will the other wells remain as pressure maintenance wells?

A Yes, they will.

Q Now, referring to what has been marked Exhibit No. 2, do you feel that changing this well from a gas injection well to a water disposal well will have any adverse effect on the pressure maintenance project?

A No.

Q Would you go ahead and refer to Exhibit No. 2 and 3?

A All right. No, I don't feel it will have any detrimental effect.

Q I think we have marked the structure map as Exhibit No. 2?

A O. K.

Q Would you explain the significance of that Exhibit for the Examiner?

A This is simply a structure map on the top of the Kemnitz-Wolfcamp lime within the unit area and the plat or map shows the present injection wells as well as the proposed conversion and it also, if you notice the legend near the bottom right-hand corner, shows the zones in which all other wells in this area are completed in.

Q No, go on to Exhibit No. 3 then.

A This exhibit is a gas-oil ratio contour map which simply shows the approximate gassed out area in this pressure maintenance project by themselves of a gas-oil ratio designation as indicated about these colors. This area in red shows those wells which have a gas-oil ratio in excess of 20,000. The yellow shows wells or an area which has a gas-oil ratio between 1,000 and 12,000 and 20,000. The green indicates to some degree how far down in the reservoir or how far south we have stripped the liquids from the Wolfcamp.

MR. UTZ: How about the north?

THE WITNESS: No, sir, there's a permeability barrier in an east-west direction across the north here

and apparently our gas is not moving to the north.

MR. UTZ: What is the source of the water that you will be injecting?

THE WITNESS: It's produced water from the Kemnitz-Wolfcamp line.

MR. UTZ: Do you have an exhibit which shows the water analysis?

MR. KELLY: That has been marked Exhibit No. 4.

MR. UTZ: Yes.

THE WITNESS: This is Exhibit 4 and it's simply a water analysis which is colored to be typical of the water from the Kemnitz-Wolfcamp area. It, as you can see, it's rather salty with chlorides running 43,000 or higher, indicating that it would be water not fit for domestic use.

Q (By Mr. Kelly) Now, going on to what is marked Exhibit No. 5, your proposed installation, would you explain that to the Examiner?

A This is again a schematic drawing of the well and the proposed injection, mechanical injection system that we would have. It shows 12 and 3/8ths-inch surface pipe set at 345 feet cemented with 350 sacks of cement which was circulated to the surface, 8 and 5/8ths intermediate pipe was run to 4579 and cemented with 3200 sacks also circulated

to the surface. Then the oil string is 5 and 1/2 casing set at 10,799 cemented with 300 sacks. The top of the cement was located with a temperature survey and found to be at 10,595. Here again we plan to inject our salt water down 2 and 7/8ths internally plastic-coated tubing set on a Baker Model R Hookwall retrievable type packer. Again, we'll have inhibited packer fluid in the annulus and the annulus pressure will be observed by means of a pressure gauge.

Q This water is, as I understand, Kemnitz-Wolfcamp water that will be reinjected?

A Yes.

Q You feel that the installation that you have proposed will protect any other zones of fresh water in the area?

A Yes, we believe it will.

Q I believe you've already testified that you don't feel this will have any adverse affect on the pressure maintenance unit?

A No, we don't feel that it will have any noticeable effect at all.

Q There would be no adverse effect on any correlative rights of any other operators in the area?

A No.



Q Exhibit No. 6 is the log of the proposed injection well?

A Yes.

Q Were Exhibits 1 through 6 prepared by you or under your supervision?

A Yes, they were.

MR. KELLY: I move the introduction of Tenneco's Exhibits 1 through 6 at this time.

MR. UTZ: Without objection, Exhibits 1 through 6, will be entered into the record.

(Whereupon, Tenneco's Exhibits 1 through 6 offered and admitted in evidence.)

MR. KELLY: We have no further questions on direct.

CROSS EXAMINATION

BY MR. UTZ:

Q You have got quite an interval behind the 5 and 1/2 inch here above the cement and the bottom of the 8 and 5/8ths; what formations and oil-water, if anything, lies in that area?

A To my knowledge, the 8 and 5/8ths casing is set far below any fresh water sands and to my knowledge, there are, no, there are other producing intervals within the Wolfcamp itself in this area, but in this upper range that

you are speaking of here immediately below the 8 and 5/8ths, to my knowledge, there are no productive intervals.

Q You are going to load the annulus with inert fluid so that if you do get any leakage you will know it?

A Yes.

Q Did you say you were going to use plastic-coated tubing?

A Yes, sir.

Q Now, the interval that you are going to inject in will be the same interval that you are producing from?

A Yes.

Q And it will also be in the gas area, right?

A Yes,

Q What will this do to production in this area?

A You mean the injecting of this water?

Q Yes, sir.

A I don't think it will have any effect on the production because we intend to continue to inject the same volume of gas that we have been injecting which is basically all that's produced. It's simply a recycling situation. We're going to continue to inject all of the gas that's produced in the other remaining gas injection wells and should we run into difficulty in getting all of the gas

into those remaining wells which we don't anticipate this difficulty, but if it does occur, then we will be back to talk to you about the conversion of another well, probably No. 17, which is located right southwest of the proposed salt water injection well. See this line of wells immediately south of the existing injection wells are all extremely high gas-oil ratio wells and they produce very little liquid. In fact, some of these wells are shut in at the present time because of this high, extremely high, gas-oil ratio, so this would be our plan, you see.

Q How long have you been injecting gas in these wells?

A We have been injecting gas since November 1st, 1961.

Q Undoubtedly, you came to the Commission for a hearing on this injection project, did you not?

A Yes, sir. This pressure maintenance project was under Order R 1958, dated April 28, 1961.

Q Approximately what volumes of gas are you injecting?

A Our present injection is on the order of 270 million per month.

Q And that is the total production of gas from your Kemnitz Unit?

A Yes, sir.

MR. UTZ: Any other questions?

MR. KELLY: I am not sure it was brought out on direct, but just to make sure, what is your anticipated volume of water that you will be injecting?

THE WITNESS: Our anticipated volume will be between 200 and 250 barrels, well 250 barrels per day.

MR. KELLY: How about pressure?

THE WITNESS: We anticipate this well to take this water on gravity initially; however, in any event we would not anticipate a pressure in excess of a thousand pounds.

MR. KELLY: That's all.

MR. UTZ: The witness may be excused.

(Witness excused.)

MR. UTZ: Any statements? The case will be taken under advisement.

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STATE OF NEW MEXICO )  
COUNTY OF BERNALILLO ) ss

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

WITNESS my hand this 21st day of November, 1968.

*Ada Dearnley*  
ADA DEARNLEY

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3923 heard by me on 11-2-68 19  
*Thos. A. McRae* Examiner  
New Mexico Oil Conservation Commission

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN

State of New Mexico  
**Oil Conservation Commission**



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

LAND COMMISSIONER  
GUYTON B. HAYS  
MEMBER

P. O. BOX 2088  
SANTA FE

November 21, 1968

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

Re: Case No. 3923  
Order No. R-3582  
Applicant:  
Tenneco Oil Company

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.*  
A. L. PORTER, JR.  
Secretary-Director

ALP/ir

Carbon 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. 3923  
Order No. R-3582

APPLICATION OF TENNECO OIL COMPANY  
FOR SALT WATER INJECTION, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 7, 1968,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 21st day of November, 1968, the Commission, a  
quorum being present, having considered the testimony, the record,  
and the recommendations of the Examiner, and being fully advised  
in the premises,

FINDS:

- (1) That due public notice having been given as required by  
law, the Commission has jurisdiction of this cause and the subject  
matter thereof.
- (2) That the applicant, Tenneco Oil Company, is the operator  
of the Kemnitz-Wolfcamp Unit Well No. 7, located in Unit O of Sec-  
tion 19, Township 16 South, Range 34 East, NMPM, Kemnitz-Wolfcamp  
Pool, Lea County, New Mexico.
- (3) That the subject well was authorized as a gas injection  
well in the Kemnitz-Wolfcamp Pressure Maintenance Project by  
Order No. R-1958, dated April 28, 1961.
- (4) That the applicant now proposes to utilize the subject  
well to inject produced salt water into the Wolfcamp formation,  
with injection into the perforated interval from approximately  
10,642 feet to 10,699 feet.
- (5) That the subject well should be classified as a pressure  
maintenance injection well in the aforesaid pressure maintenance  
project.
- (6) That the applicant should be authorized to convert the  
subject well from gas injection to water injection.

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CASE No. 3923

Order No. R-3582

(7) That injection should be accomplished through 2 7/8-inch plastic-lined tubing installed in a packer set at approximately 10,600 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 packer.

(8) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Tenneco Oil Company, is hereby authorized to utilize the Kemnitz-Wolfcamp Unit Well No. 7, located in Unit O of Section 19, Township 16 South, Range 34 East, NMPM, Kemnitz-Wolfcamp Pool, Lea County, New Mexico, to inject produced salt water into the Wolfcamp formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 10,600 feet, with injection into the perforated interval from approximately 10,642 feet to 10,699 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; 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 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

GUSTON B. HAYS, Member

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

esr/



Docket No. 32-68

DOCKET: EXAMINER HEARING - THURSDAY - NOVEMBER 7, 1968

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

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

CASE 3910: (Continued from the October 23, 1968 Examiner Hearing)

Application of Atlantic Richfield Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SW/4 of Section 17, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Said acreage to be dedicated to a well located in the NE/4 SW/4 of said Section 17.

CASE 3911: (Continued from the October 23, 1968 Examiner Hearing)

Application of Atlantic Richfield Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SE/4 of Section 8, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Said acreage to be dedicated to a well located in the NW/4 SE/4 of said Section 8. In the alternative applicant seeks approval of a non-standard oil proration unit comprising the E/2 SE/4 of said Section 8 and the W/2 SW/4 of Section 9, said Township and Range, said unit to be dedicated to a well to be drilled in the NE/4 SE/4 of said Section 8.

CASE 3894: (Continued and Readvertised)

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

In the alternative, applicant seeks approval of an 80-acre non-standard oil proration unit comprising the N/2 SE/4 of

(Case 3894 continued)

said Section 17 and the assignment of approximately 79% of a standard 160-acre unit allowable for said pool to said 80-acre unit.

CASE 3918: Application of R. R. Morrison for three non-standard proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of three non-standard 80-acre oil proration units in Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, described as follows:

Unit No. 1 comprising the E/2 SW/4 of Section 17, dedicated to applicant's State "17" Well No. 1 located in Unit K of said Section 17;

Unit No. 2 comprising the E/2 NE/4 of Section 17, dedicated to applicant's Atlantic "A" State Well No. 1 located in Unit A of said Section 17;

Unit No. 3 comprising the W/2 SE/4 of Section 8, dedicated to applicant's State "B" Well No. 1 located in Unit J of said Section 8.

Applicant further seeks the assignment of approximately 79% of a standard 160-acre unit allowable for said pool to each of the aforesaid 80-acre units.

CASE 3919: Application of Sunray DX Oil Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SE/4 of Section 17, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Said acreage to be dedicated to Signal Oil Company's State AP Well No. 1 located in Unit I of said Section 17. In the alternative applicant seeks approval of a non-standard proration unit comprising the S/2 SE/4 of said Section 17 and the N/2 NE/4 of Section 20, said Township and Range, said unit to be dedicated to applicant's New Mexico "AW" Well No. 1 located in the NE/4 NE/4 of said Section 20.

CASE 3912: Application of American Petrofina Company of Texas for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres, Glorieta, and Abo formations in the open-hole interval from approximately 4211 feet to 8690 feet in its Federal "C" Well No. 2 located in

November 7, 1968 - Examiner Hearing

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(Case 3912 continued)

Unit E of Section 21, Township 8 South, Range 36 East, South Prairie-Cisco Pool, Roosevelt County, New Mexico.

- CASE 3913:** Application of Pan American Petroleum Corporation for salt water disposal, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Pennsylvanian "D" formation in the perforated interval from 6267 feet to 6286 feet in its Navajo Tribal "U" Well No. 1 located in Unit L of Section 21, Township 26 North, Range 18 West, Tocito Dome-Pennsylvanian "D" Pool, San Juan County, New Mexico. Applicant further seeks an administrative procedure whereby other wells in said pool may be approved for disposal purposes, if completed in a manner similar to the subject well, without the requirement of notice and hearing.
- CASE 3914:** Application of Texas Pacific Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers and Queen formations in the open-hole interval from approximately 3721 feet to 3995 feet in its State "A" a/c-2 Well No. 6 located in Unit B of Section 7, Township 22 South, Range 36 East, South Eunice Pool, Lea County, New Mexico.
- CASE 3915:** Application of Texas Pacific Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Pennsylvanian formation in the perforated interval from approximately 9570 feet to 9972 feet in its State "AH" Well No. 2 located in Unit N of Section 14, Township 12 South, Range 34 East, Ranger Lake Field, Lea County, New Mexico.
- CASE 3916:** Application of Texas Pacific Oil Company for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Abo formation in the perforated interval from approximately 6686 feet to 6830 in its Woolley Federal No. 1 located in Unit M of Section 21, Township 17 South, Range 30 East, Loco Hills-Abo Pool, Eddy County, New Mexico.
- CASE 3917:** Application of Agua, Inc., for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres and other formations in the interval from approximately 4530 feet to 6375 feet in its Corbin SWD Well No. G-31 located in the SW/4 NE/4 of Section 31, Township 17 South, Range 33 East, Corbin Field, Lea County, New Mexico.

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CASE 3920: Application of Kern County Land Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4158 feet to 4233 feet in its Federal 23 Well No. 11 located in Unit F of Section 23, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 3921: Application of Kern County Land Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4165 feet to 4291 feet in its Federal 21 Well No. 3 located in Unit O of Section 21, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 3922: Application of Tenneco Oil Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4214 feet to 4344 feet in its State "V" Well No. 3 located in Unit K of Section 30, Township 7 South, Range 34 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 3923: Application of Tenneco Oil Company for salt water injection, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to inject produced salt water into the Wolfcamp formation in the perforated interval from approximately 10642 feet to 10699 feet in its Kemnitz-Wolfcamp Unit Well No. 7 located in Unit O of Section 19, Township 16 South, Range 34 East, Kemnitz-Wolfcamp Pool, Lea County, New Mexico.

3923

11-7-68

11-8-68.

1. Grant Denney request for conversion of their Kemitz-Wolfcamp unit #7 & 19-165-37E. to a SWD well from a gas injection well. Direction shall be thru internally plastic coated 2 $\frac{7}{8}$  tubing, under a packer set at approx. 10,600' + into the W.C. fm. thru perfor from 10642'-10699'. The 5 $\frac{1}{2}$  x 2 $\frac{7}{8}$  annulus shall be filled with inert fluid.

Thos A. M. Jr.

Docket No. 32-68

DOCKET: EXAMINER HEARING - THURSDAY - NOVEMBER 7, 1968

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Application of Atlantic Richfield Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SE/4 of Section 8, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Said acreage to be dedicated to a well located in the NW/4 SE/4 of said Section 8. In the alternative applicant seeks approval of a non-standard oil proration unit comprising the E/2 SE/4 of said Section 8 and the W/2 SW/4 of Section 9, said Township and Range, said unit to be dedicated to a well to be drilled in the NE/4 SE/4 of said Section 8.

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

In the alternative, applicant seeks approval of an 80-acre non-standard oil proration unit comprising the N/2 SE/4 of

(Case 3894 continued)

said Section 17 and the assignment of approximately 79% of a standard 160-acre unit allowable for said pool to said 80-acre unit.

CASE 3918: Application of R. R. Morrison for three non-standard proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of three non-standard 80-acre oil proration units in Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, described as follows:

Unit No. 1 comprising the E/2 SW/4 of Section 17, dedicated to applicant's State "17" Well No. 1 located in Unit K of said Section 17;

Unit No. 2 comprising the E/2 NE/4 of Section 17, dedicated to applicant's Atlantic "A" State Well No. 1 located in Unit A of said Section 17;

Unit No. 3 comprising the W/2 SE/4 of Section 8, dedicated to applicant's State "B" Well No. 1 located in Unit J of said Section 8.

Applicant further seeks the assignment of approximately 79% of a standard 160-acre unit allowable for said pool to each of the aforesaid 80-acre units.

CASE 3919: Application of Sunray DX Oil Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SE/4 of Section 17, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Said acreage to be dedicated to Signal Oil Company's State AP Well No. 1 located in Unit I of said Section 17. In the alternative applicant seeks approval of a non-standard proration unit comprising the S/2 SE/4 of said Section 17 and the N/2 NE/4 of Section 20, said Township and Range, said unit to be dedicated to applicant's New Mexico "AW" Well No. 1 located in the NE/4 NE/4 of said Section 20.

CASE 3912: Application of American Petrofina Company of Texas for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres, Glorieta, and Abo formations in the open-hole interval from approximately 4211 feet to 8690 feet in its Federal "C" Well No. 2 located in

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(Case 3912 continued)

Unit E of Section 21, Township 8 South, Range 36 East, South  
Prairie-Cisco Pool, Roosevelt County, New Mexico.

**CASE 3913:** Application of Pan American Petroleum Corporation for salt water disposal, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Pennsylvanian "D" formation in the perforated interval from 6267 feet to 6286 feet in its Navajo Tribal "U" Well No. 1 located in Unit L of Section 21, Township 26 North, Range 18 West, Tocito Dome-Pennsylvanian "D" Pool, San Juan County, New Mexico. Applicant further seeks an administrative procedure whereby other wells in said pool may be approved for disposal purposes, if completed in a manner similar to the subject well, without the requirement of notice and hearing.

**CASE 3914:** Application of Texas Pacific Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers and Queen formations in the open-hole interval from approximately 3721 feet to 3995 feet in its State "A" a/c-2 Well No. 6 located in Unit B of Section 7, Township 22 South, Range 36 East, South Eunice Pool, Lea County, New Mexico.

**CASE 3915:** Application of Texas Pacific Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Pennsylvanian formation in the perforated interval from approximately 9570 feet to 9972 feet in its State "AH" Well No. 2 located in Unit N of Section 14, Township 12 South, Range 34 East, Ranger Lake Field, Lea County, New Mexico.

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**CASE 3917:** Application of Agua, Inc., for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres and other formations in the interval from approximately 4530 feet to 6375 feet in its Corbin SWD Well No. G-31 located in the SW/4 NE/4 of Section 31, Township 17 South, Range 33 East, Corbin Field, Lea County, New Mexico.



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Docket No. 32-68

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- CASE 3920: Application of Kern County Land Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4158 feet to 4233 feet in its Federal 23 Well No. 11 located in Unit F of Section 23, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.
- CASE 3921: Application of Kern County Land Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4165 feet to 4291 feet in its Federal 21 Well No. 3 located in Unit O of Section 21, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.
- CASE 3922: Application of Tenneco Oil Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4214 feet to 4344 feet in its State "V" Well No. 3 located in Unit K of Section 30, Township 7 South, Range 34 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.
- CASE 3923: Application of Tenneco Oil Company for salt water injection, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to inject produced salt water into the Wolfcamp formation in the perforated interval from approximately 10642 feet to 10699 feet in its Kemnitz-Wolfcamp Unit Well No. 7 located in Unit O of Section 19, Township 16 South, Range 34 East, Kemnitz-Wolfcamp Pool, Lea County, New Mexico.

Docket No. 32-68

DOCKET: EXAMINER HEARING - THURSDAY - NOVEMBER 7, 1968

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

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

CASE 3910: (Continued from the October 23, 1968 Examiner Hearing)

Application of Atlantic Richfield Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SW/4 of Section 17, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Said acreage to be dedicated to a well located in the NE/4 SW/4 of said Section 17.

CASE 3911: (Continued from the October 23, 1968 Examiner Hearing)

Application of Atlantic Richfield Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SE/4 of Section 8, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Said acreage to be dedicated to a well located in the NW/4 SE/4 of said Section 8. In the alternative applicant seeks approval of a non-standard oil proration unit comprising the E/2 SE/4 of said Section 8 and the W/2 SW/4 of Section 9, said Township and Range, said unit to be dedicated to a well to be drilled in the NE/4 SE/4 of said Section 8.

CASE 3894: (Continued and Readvertised)

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

In the alternative, applicant seeks approval of an 80-acre non-standard oil proration unit comprising the N/2 SE/4 of

November 7, 1968 - Examiner Hearing

Docket No. 32-68

-2-

(Case 3894 continued)

said Section 17 and the assignment of approximately 79% of a standard 160-acre unit allowable for said pool to said 80-acre unit.

CASE 3918: Application of R. R. Morrison for three non-standard proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of three non-standard 80-acre oil proration units in Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, described as follows:

Unit No. 1 comprising the E/2 SW/4 of Section 17, dedicated to applicant's State "17" Well No. 1 located in Unit K of said Section 17;

Unit No. 2 comprising the E/2 NE/4 of Section 17, dedicated to applicant's Atlantic "A" State Well No. 1 located in Unit A of said Section 17;

Unit No. 3 comprising the W/2 SE/4 of Section 8, dedicated to applicant's State "B" Well No. 1 located in Unit J of said Section 8.

Applicant further seeks the assignment of approximately 79% of a standard 160-acre unit allowable for said pool to each of the aforesaid 80-acre units.

CASE 3919: Application of Sunray DX Oil Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Bough "C" zone of the Pennsylvanian formation underlying the SE/4 of Section 17, Township 10 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico. Said acreage to be dedicated to Signal Oil Company's State AP Well No. 1 located in Unit I of said Section 17. In the alternative applicant seeks approval of a non-standard proration unit comprising the S/2 SE/4 of said Section 17 and the N/2 NE/4 of Section 20, said Township and Range, said unit to be dedicated to applicant's New Mexico "AW" Well No. 1 located in the NE/4 NE/4 of said Section 20.

CASE 3912: Application of American Petrofina Company of Texas for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres, Glorieta, and Abo formations in the open-hole interval from approximately 4211 feet to 8690 feet in its Federal "C" Well No. 2 located in

November 7, 1968 - Examiner Hearing

Docket No. 32-68

-3-

(Case 3912 continued)

Unit E of Section 21, Township 8 South, Range 36 East, South  
Prairie-Cisco Pool, Roosevelt County, New Mexico.

**CASE 3913:** Application of Pan American Petroleum Corporation for salt water disposal, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Pennsylvanian "D" formation in the perforated interval from 6267 feet to 6286 feet in its Navajo Tribal "U" Well No. 1 located in Unit L of Section 21, Township 26 North, Range 18 West, Tociito Dome-Pennsylvanian "D" Pool, San Juan County, New Mexico. Applicant further seeks an administrative procedure whereby other wells in said pool may be approved for disposal purposes, if completed in a manner similar to the subject well, without the requirement of notice and hearing.

**CASE 3914:** Application of Texas Pacific Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers and Queen formations in the open-hole interval from approximately 3721 feet to 3995 feet in its State "A" a/c-2 Well No. 6 located in Unit B of Section 7, Township 22 South, Range 36 East, South Eunice Pool, Lea County, New Mexico.

**CASE 3915:** Application of Texas Pacific Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Pennsylvanian formation in the perforated interval from approximately 9570 feet to 9972 feet in its State "AH" Well No. 2 located in Unit N of Section 14, Township 12 South, Range 34 East, Ranger Lake Field, Lea County, New Mexico.

**CASE 3916:** Application of Texas Pacific Oil Company for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Abo formation in the perforated interval from approximately 6686 feet to 6830 in its Woolley Federal No. 1 located in Unit M of Section 21, Township 17 South, Range 30 East, Loco Hills-Abo Pool, Eddy County, New Mexico.

**CASE 3917:** Application of Agua, Inc., for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres and other formations in the interval from approximately 4530 feet to 6375 feet in its Corbin SWD Well No. G-31 located in the SW/4 NE/4 of Section 31, Township 17 South, Range 33 East, Corbin Field, Lea County, New Mexico.

November 7, 1968, Examiner Hearing

Docket No. 32-68

-4-

CASE 3920: Application of Kern County Land Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4158 feet to 4233 feet in its Federal 23 Well No. 11 located in Unit F of Section 23, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 3921: Application of Kern County Land Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4165 feet to 4291 feet in its Federal 21 Well No. 3 located in Unit O of Section 21, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 3922: Application of Tenneco Oil Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4214 feet to 4344 feet in its State "V" Well No. 3 located in Unit K of Section 30, Township 7 South, Range 34 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 3923: Application of Tenneco Oil Company for salt water injection, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to inject produced salt water into the Wolfcamp formation in the perforated interval from approximately 10642 feet to 10699 feet in its Kemnitz-Wolfcamp Unit Well No. 7 located in Unit O of Section 19, Township 16 South, Range 34 East, Kemnitz-Wolfcamp Pool, Lea County, New Mexico.

Previous Info.

Oil Temp. -95.3

Ambient Temp. -6.3

Flow - 144

TEXAS-NEW MEXICO PIPE LINE COMPANY

P.O. BOX 1510

MIDLAND, TEXAS

Form TN-278

MC-410M

LACT METER PROVING REPORT

Owner Tenneco Oil Co. Date 11-1-68  
 Meter Make A.O. Smith Size 2" 5-73 Serial No. 214253  
 Deliver To-From Tex.-N. Mex. P.L. Co. Report No. 26  
 Lease Grayburg Jackson, West, Co. op., Unit. Liquid 36.5 Crude  
 Totalizer 278,720 Previous Factor 1.0078 L.A.C.T. Pres. 50 Ambient Temp. 83  
 MASTER METER Size 2" 5-12 Serial No. 82656 Factor 1.02554 Date of Cal. 10-22-68

	RUN NO. 1	RUN NO. 2	RUN NO. 3	RUN NO. 4
1. Closing Line Meter Bbls.	740.063	760.079		
2. Opening Line Meter Bbls.	720.156	740.063		
3. Line Meter Registration Bbls.	19.967	20.016		
4. <del>Line Meter</del> <del>Time for Run</del> Gallons	836.094 MIN.	840.672 MIN.	MIN.	MIN.
5. Rate for Run	137 BPH	137 BPH	BPH	BPH
6. Closing Master Meter Gallons	9571.963	10412.938		
7. Opening Master Meter Gallons	8735.528	9571.963		
8. Master Meter Registration Gallons	836.435	840.975		
9. Average Oil Temp.	98.9	99.8		
10. Liquid Correction Factor	.9823	.9422		
11. Master Meter Factor	1.02554	1.02554		
12. Master Meter Corrected Gallons	842.614	847.102		
13. Line Meter Factor	1.00779	1.00764		

AVERAGE OF RUNS 1.00771 METER FACTOR 1.0077

Master Meter proven in shop according to A.P.I. Code. Test Liquid used is a Hydrocarbon having a viscosity of 40 to 50 S.S.U. at 100 °F.  
 Remarks: T.B. -3 Next Cal. Date 12-2-68 0.15

821.630 826.006

Tests Witnessed By:

Proven By:

APPROVED BY: TENNECO OIL COMPANY  
B. R. Fowler Gen. Prod. Clerk  
Tex. N. Mex. P.L. Co.





DOW CHEMICAL DIVISION OF THE DOW CHEMICAL COMPANY

## WATER ANALYSIS

Tenneco Oil Company  
1800 Wilco Bldg.  
Midland, Texas

DATE 3-26-65

LAB NO. 4849

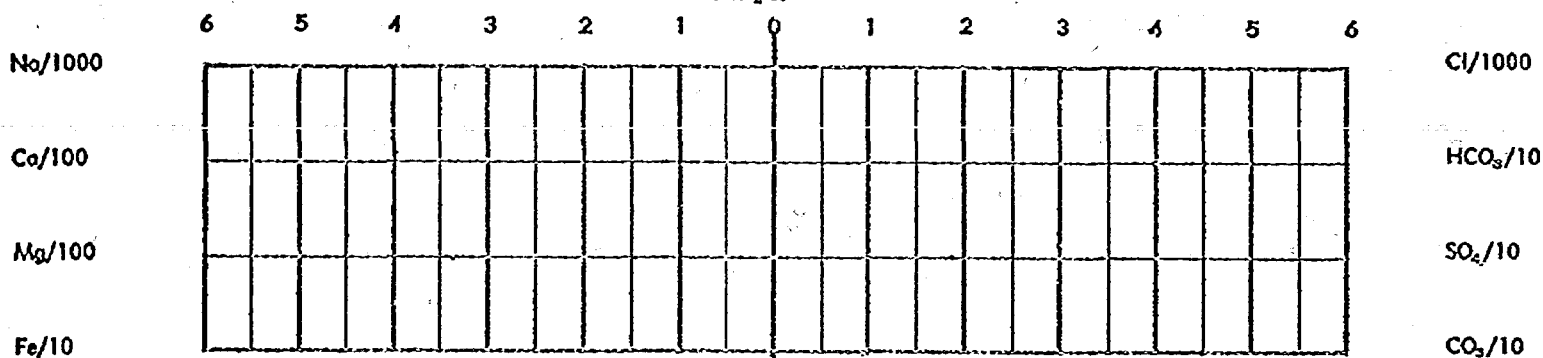
LABORATORY LOCATION

S. NO.

Hobbs, N.M.

Attention: Mr. Allen Teel

POOL Wolfcamp Unit			FORMATION		
LEGAL DESCRIPTION			DEPTH		
SOURCE	TOTAL SOLIDS		FI	SPECIFIC GRAVITY @ °F	
CONSTITUENTS	mg/L	meq/L	CONSTITUENTS	mg/L	meq/L
Sodium	23400	1017	Chloride	43300	1220
Calcium	2200	110	Bicarbonate	305	5
Magnesium	1340	110	Sulfate	600	12
Iron			Carbonate		

STIFF DIAGRAM  
(meq/L)

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

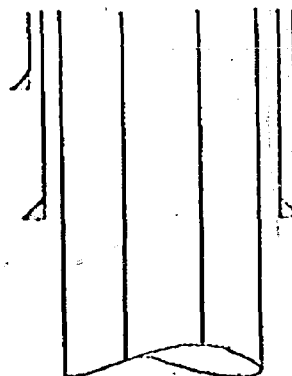
EXHIBIT NO. 4

CASE NO. 3923

C.M. Rosson

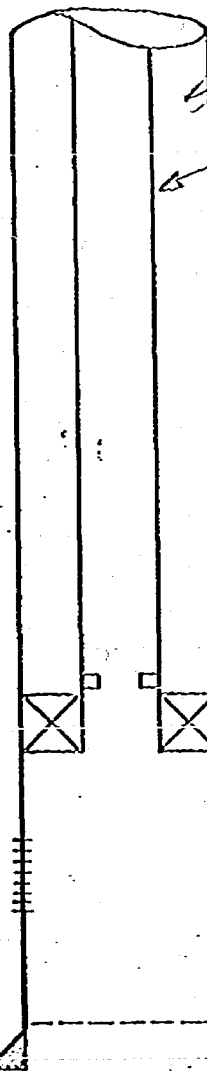
Ex  
4





13 3/8" Csg. @ 345' / 350 Sx. Cmt. to Surface

8 5/8" Csg. @ 4579' / 3200 Sx. Cmt. to Surface



2 7/8" Tubing

*Handwritten notes:*  
 4579'  
 3200'  
 81' 6"

BEFORE EXAMINER UTZ  
 OIL CONSERVATION COMMISSION  
 App. EXHIBIT NO. 5  
 CASE NO. 392.3

Top Cement @ 9395' Temp. Survey

Baker Model "R" Packer @ 10,600' ±

Perfs: 10,642' - 10,699'

5 1/2" Csg. @ 10,799' / 300 Sx.



*Handwritten numbers:*  
 42.879  
 37.3607

EX 5

TENNECO OIL COMPANY SUBSIDIARY OF TENNECO CORPORATION
KEMNITZ WOLFCAMP FIELD LEA COUNTY, NEW MEXICO
Subsurface Schematic Proposed SWD Well Kemnitz Wolfcamp Unit #7

**HOSTON, TEXAS**

Other Surveys	GRN	ML	Location of Well	Elevation: D.F.	K.B.: 4   59	or G.L.: 4   46	FILING No.
			660' f S/L 1980' f E/L	10400 - 75.8			

**FOLD HERE**

idge No. IRH A #240  
No. IRP B #56  
No. IRS C #141

## DEPTHS

INDUCTION  
200

400

0

16" NORMAL

10

Q

## INDUCTION

10

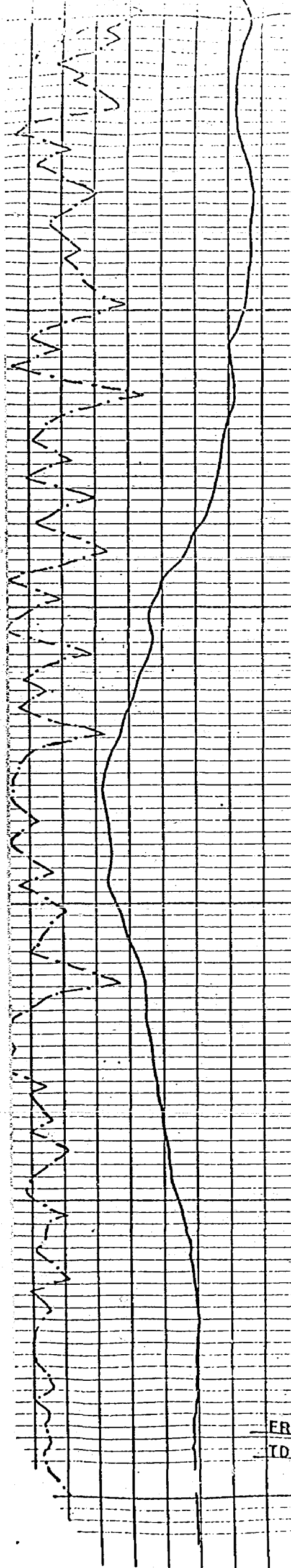
10

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
100-200 EXHIBIT NO. 6  
CASE NO. 3923  
000

# JANNA RAY SCALE

grams Radium Equiv.  
r Ton of Formation

EX  
6

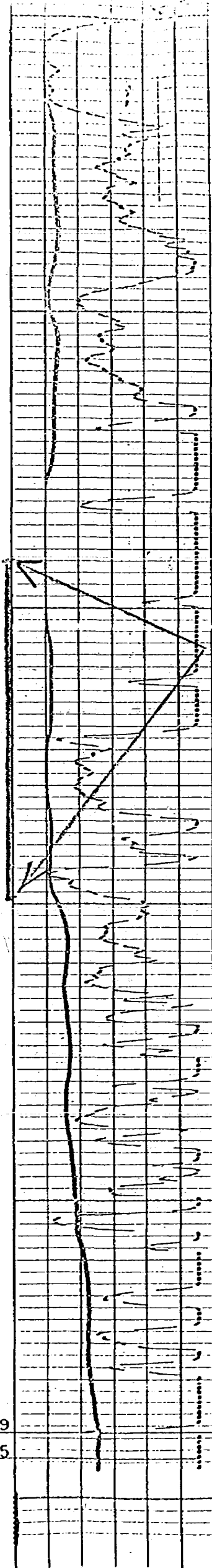


10600

10700

FR 10789  
TD 10795

10800



INTERSECTION INTERVAL



TENNECO OIL COMPANY • P. O. BOX 1031 • 1800 WILCO BUILDING • MIDLAND, TEXAS 79701

October 21, 1968

*Case  
3-723*

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

ATTENTION: Mr. D. S. Nutter

RE: Salt Water Disposal Applications  
Chaveroo Field, Roosevelt County,  
and Kemnitz Field, Lea County,  
New Mexico.

Gentlemen:

Attached are two applications, along with the necessary supporting data, to convert existing wells to salt water disposal. They are:

- (1) Tenneco's State "V" NO. 3 in the Chaveroo Field, Roosevelt County, New Mexico, which is now a producing oil well.
- (2) Tenneco's Kemnitz Wolfcamp Unit Well No. 7 in the Kemnitz Wolfcamp Unit, Lea County, New Mexico, is currently a gas injection well.

We request that these two wells be scheduled for hearing on November 7, 1968, as we discussed by phone with Mr. D. S. Nutter on Friday, October 18, 1968.

Very truly yours,

TENNECO OIL COMPANY

*F. J. McDonald*  
F. J. McDonald  
District Superintendent

LMW:cw

cc: New Mexico State Engineer  
State Capitol Building  
Santa Fe, New Mexico

All Offset Operators

99 OCT 23 1968

## NEW MEXICO OIL CONSERVATION COMMISSION

## APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Tenneco Oil Company		ADDRESS P. O. Box 1031 Midland, Texas 79701	
LEASE NAME Kemnitz Wolfcamp Unit	WELL NO. 7	FIELD Kemnitz Wolfcamp	COUNTY Lea
LOCATION UNIT LETTER 0 ; WELL IS LOCATED 660 FEET FROM THE South LINE AND 1980 FEET FROM THE East LINE, SECTION 19 TOWNSHIP 16-S RANGE 34-E NMPM.			

## CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	13-3/8	345	350	Circulated	
INTERMEDIATE	8-5/8	4579	3200	Circulated	
LONG STRING	5-1/2	10799	300	9395	Temp. Survey
TUBING	2-1/2	10600	NAME, MODEL AND DEPTH OF TUBING PACKER Baker Model "R" At 10,600' +		
NAME OF PROPOSED INJECTION FORMATION Wolfcamp		TOP OF FORMATION 10,602		BOTTOM OF FORMATION 10,750	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLE? Perforations		PROPOSED INTERVAL(S) OF INJECTION 10,642 - 10,699	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil Well		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? No	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 200		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA None	
ANTICIPATED DAILY INJECTION VOLUME (BBL/DAY) 250	MINIMUM 100	MAXIMUM 500	OPEN OR CLOSED TYPE SYSTEM Closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure	APPROX. PRESSURE (PSI) 1000
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE			WATER TO BE DISPOSED OF Yes	NATURAL WATER IN DISPOSAL ZONE Yes	ARE WATER ANALYSES ATTACHED? No
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) State of New Mexico					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Offset on all Sides by Kemnitz Wolfcamp Unit					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER Yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		PLAT OF AREA Yes		ELECTRICAL LOG Yes	
				THE NEW MEXICO STATE ENGINEER Yes	
				DIAGRAMMATIC SKETCH OF WELL Yes	

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

*L. M. Williams*  
(Signature)

L. M. Williams

Production Engineer

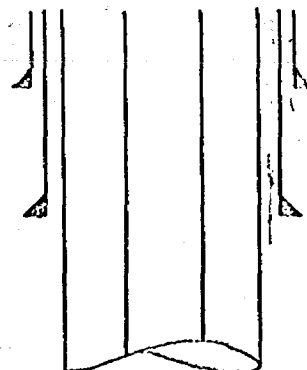
(Title)

October 21, 1968

(Date)

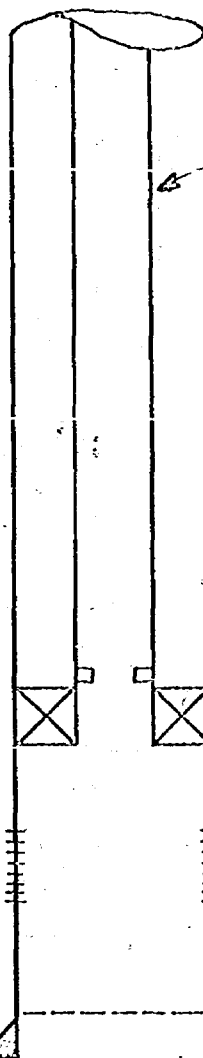
NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's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

Case 3923



13 3/8" Csg. @ 345' / 350 Sx. Cmt. to Surface

8 5/8" Csg. @ 4579' / 3200 Sx. Cmt. to Surface



2 7/8" Tubing 9395  
4579  
4716

Top Cement @ 9395'

Baker Model "R" Packer @ 10,600' ±

Perfs: 10,642' - 10,699'

5 1/2" Csg. @ 10,799' / 300 Sx.

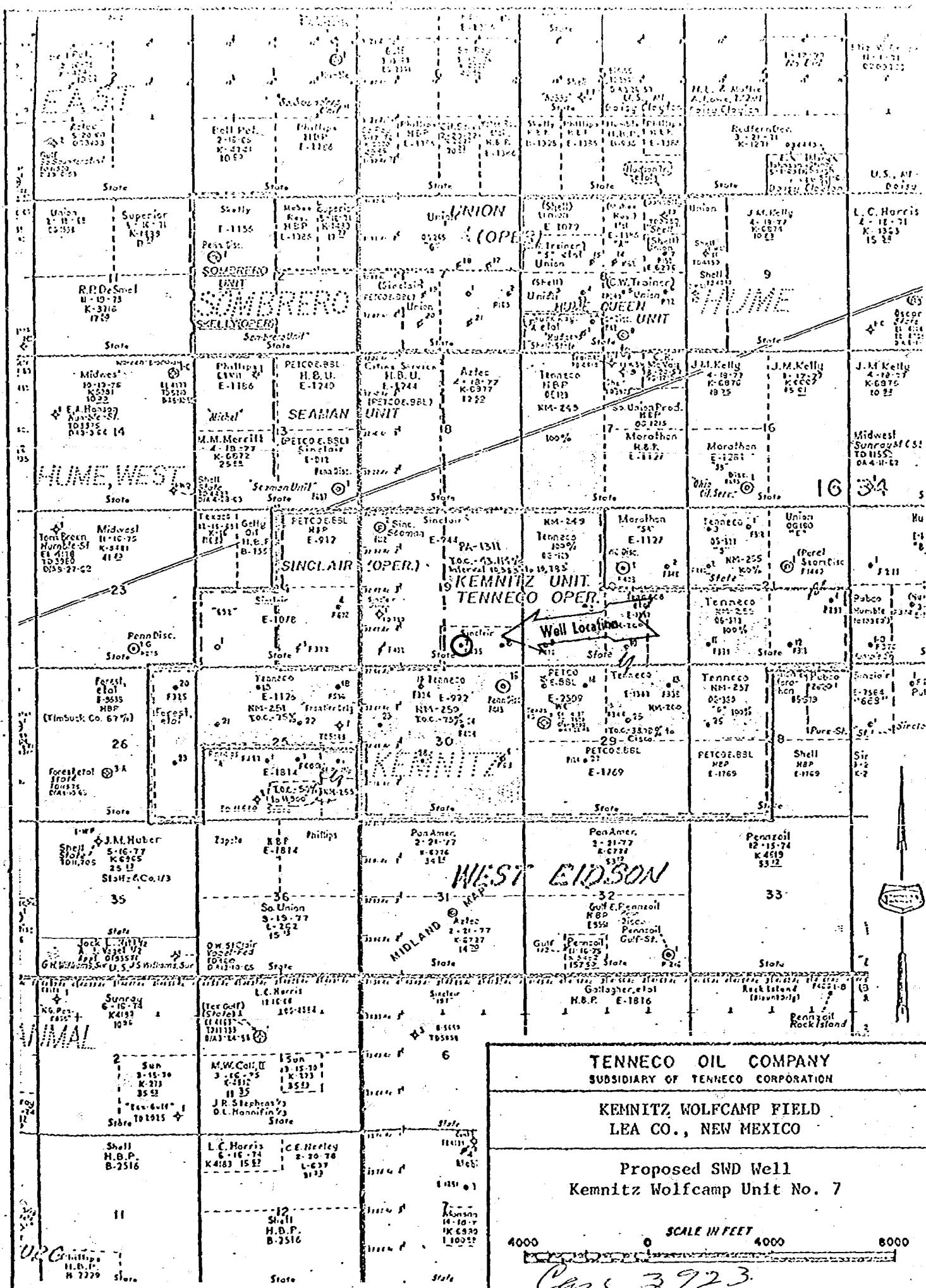


TENNECO OIL COMPANY  
SUBSIDIARY OF TENNECO CORPORATION

KEMNITZ WOLFCAMP FIELD  
LEA COUNTY, NEW MEXICO

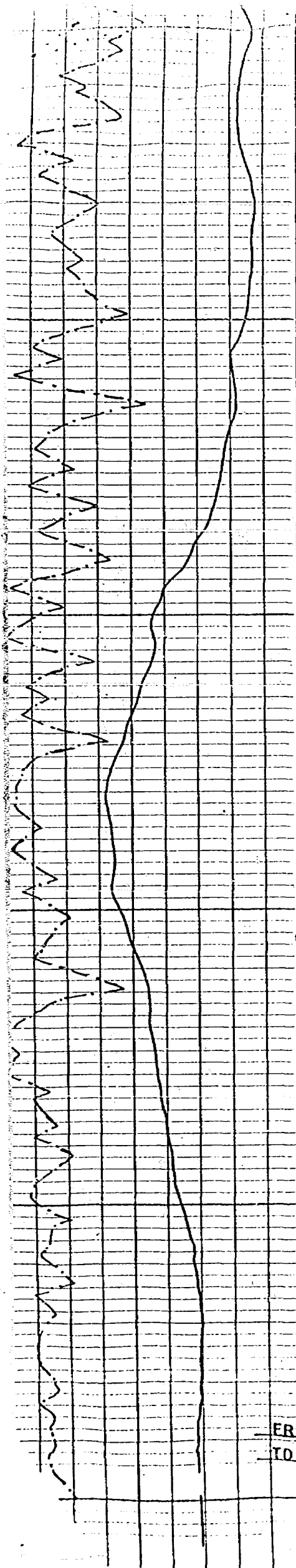
Subsurface Schematic  
Proposed SWD Well  
Kemnitz Wolfcamp Unit #7

Case 3923









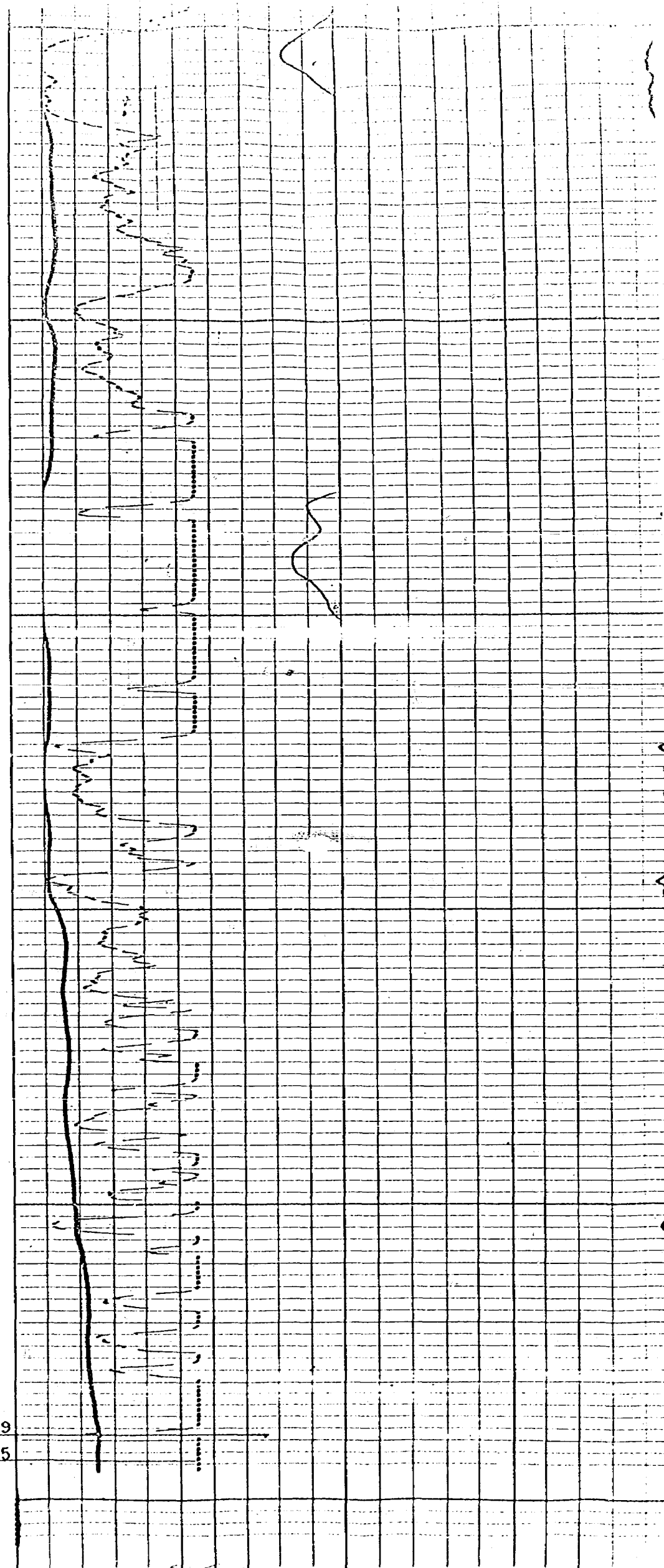
10600

10700

FR 10789

TD 10795

10800



DRAFT

GMH/esr  
11-18-68

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. 3923

Order No. R- 3582

APPLICATION OF TENNECO OIL COMPANY  
FOR SALT WATER INJECTION, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 7, 1968,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this        day of November, 1968, the Commission, a  
quorum being present, having considered the testimony, the record,  
and the recommendations of the Examiner, and being fully advised  
in the premises,

FINDS:

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

(2) That the applicant, Tenneco Oil Company, is the operator  
of the Kemnitz-Wolfcamp Unit Well No. 7, located in Unit O of Sec-  
tion 19, Township 16 South, Range 34 East, NMPM, Kemnitz-Wolfcamp  
Pool, Lea County, New Mexico.

(3) That the subject well was authorized as a gas injection  
well in the Kemnitz-Wolfcamp Pressure Maintenance Project by  
Order No. R-1958, dated April 28, 1961.

(4) That the applicant now proposes to utilize the subject  
well to inject produced salt water into the Wolfcamp formation,  
with injection into the perforated interval from approximately  
10,642 feet to 10,699 feet.

(5) That the subject well should be classified as a pressure maintenance injection well in the aforesaid pressure maintenance project.

(6) That the applicant should be authorized to convert the subject well from gas injection to water injection.

(7) That injection should be accomplished through 2 7/8-inch plastic-lined tubing installed in a packer set at approximately ~~6680~~ <sup>10,600</sup> 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 packer.

(8) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Tenneco Oil Company, is hereby authorized to utilize the Kemnitz-Wolfcamp Unit Well No. 7, located in Unit O of Section 19, Township 16 South, Range 34 East, Kemnitz-Wolfcamp Pool, Lea County, New Mexico, to inject produced salt water into the Wolfcamp formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 10,600 feet, with injection into the perforated interval from approximately 10,642 feet to 10,699 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; 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 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.

Tenneco Oil Company

Kennitz Wolfcamp Unit Well No 7

Loc O (660 FSL 1980 FEL)

19-16S-34E Rec Co.

dispose of prod slt wli into WC form  
10642 - 10699

Kennitz WC Pool Rec Co.