

CASE 3914: Application of TEXAS  
PACIFIC OIL CO. FOR SALT WATER  
DISPOSAL, LEA COUNTY, N. MEX.

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Case Number

3914

Application  
Transcripts.

Small Exhibits

ETC.

GOVERNOR  
DAVID F. CARGO  
CHAIRMAN

State of New Mexico  
**Oil Conservation Commission**



LAND COMMISSIONER  
GUYTON B. HAYS  
MEMBER

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

P. O. BOX 2088  
SANTA FE

November 18, 1968

Mr. Jack Russell  
Attorney at Law  
Post Office Drawer 640  
Roswell, New Mexico 88201

Re: Case No. 3914  
Order No. R-3559

Applicant:

Texas Pacific 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.  
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC       

Aztec OCC       

Other Mr. D. E. Gray, State Engineer Office, Santa Fe, N.M.

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. 3914  
Order No. R-3559

APPLICATION OF TEXAS PACIFIC OIL  
COMPANY FOR SALT WATER DISPOSAL,  
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 18th 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, Texas Pacific Oil Company, is the  
owner and operator of the State "A" A/c-2 Well No. 6, located in  
Unit B of Section 7, Township 22 South, Range 36 East, NMPM,  
South Eunice Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to  
dispose of produced salt water into the Seven Rivers and Queen  
formations, with injection into the open-hole interval from  
approximately 3721 feet to 3995 feet.

(4) That the injection should be accomplished through  
2 7/8-inch plastic-lined tubing installed in a packer set at  
approximately 3630 feet; that the casing-tubing annulus should  
be filled with an inert fluid; and that a pressure gauge should

-2-

CASE No. 3914  
Order No. R-3559

be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

(5) 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, Texas Pacific Oil Company, is hereby authorized to utilize its State "A" A/c-2 Well No. 6, located in Unit B of Section 7, Township 22 South, Range 36 East, NMPM, South Eunice Pool, Lea County, New Mexico, to dispose of produced salt water into the Seven Rivers and Queen formations, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 3630 feet, with injection into the open-hole interval from approximately 3721 feet to 3995 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 the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(3) 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

GILTON B. HAYS, Member

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

esr/

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 Texas Pacific Oil )  
Company for salt water disposal, )  
Lea County, New Mexico. )

Case No. 3914

BEFORE: ELVIS A. UTZ

TRANSCRIPT OF HEARING

MR. UTZ: Call Case 3914.

MR. HATCH: Application of Texas Pacific Oil Company  
for salt water disposal, Lea County, New Mexico.

MR. RUSSELL: John F. Russell, Roswell, New Mexico,  
appearing on behalf of the applicant, and I have one witness,  
Mr. Freels.

MR. UTZ: Are there any other appearances? Swear  
the witness.

(Witness sworn)

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

\* \* \* \* \*

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

DIRECT EXAMINATION

BY MR. RUSSELL:

Q Will you please state your name, address, name of  
your employer and the capacity in which you are employed?

A I am Ron Freels, F-r-e-e-l-s, I am employed by  
Texas Pacific Oil Company in Dallas, as assistant to the  
Vice-President of Production.

Q You have previously qualified to give testimony  
before the Commissioner and Examiner?

A I am.

Q Are you familiar with the application in Case 3914?

A Yes, I am.

Q Have you prepared some exhibits in connection with that application?

A Yes, I have.

Q Will you explain what Texas Pacific Oil Company seeks by its application and then referring to the various exhibits you have prepared, explain those to the Examiner?

A Yes. Texas Pacific Oil Company seeks authority to dispose of produced salt water into the Seven Rivers and Queen Formations in the open hole interval from 3,721 feet to 3,995 feet in the Texas Pacific 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.

The Exhibit No. 1 is a map of the area within the region of the injection well, Well No. 6 is colored with a green triangle and located in Section 7, and this map shows all the producing wells and the producing horizons within two miles of this well. The legend is at the bottom of the map. This, I might go ahead and explain, that we plan only on disposing of water from State "A" a/c-2 Lease at this time. If someone approaches us and we can reach agreement on the disposal water, we would be pleased to take water up to the



facilities that can handle it. Texas Pacific State "A" a/c-2 Lease comprises the eastern half and the southwest quarter of Section 7; the western half and the southeast quarter of Section 5; all of Section 8; the north half of Section 9 and the southwest quarter of Section 10.

Q Referring to your Exhibit 2, I believe it is, will you give the footage location of that injection well?

A Yes, the Exhibit No. 2 is a schematic of the proposed salt water disposal well and the location of the well is 1980 feet from the east line and 660 feet from the north line of Section 7, Township 22 South, Range 36 East, Lea County, New Mexico. The schematic shows that this well has 12 and 1/2-inch surface casing set at 262 feet with cement circulated to the surface. It has 9 and 5/8ths intermediate casing set at 1541 feet with 600 sacks of cement circulated to the surface. It has 7-inch production string set at 3,721 feet with 209 sacks of cement. The top of the cement is at 2121 feet. We propose to inject into the interval of 3721 to 3995 feet. We also show on the schematic the proposed location of our tubing string which will be 2 and 7/8ths-inch string of tubing internally plastic-coated, set into a packer at approximately 3630 feet. The tubing casing annulus will be loaded with

inhibited fluid and it will be monitored at the surface to make sure there is no leakage.

Exhibit 3 is a production curve of the well just showing the production history of this well. It is now off production. Earlier this year, we had gotten permission to deepen the well and to use it as a water source well for a proposed waterflood. It turned out the well did not make sufficient water, we have deepened it below the oil-water contact in this area. It's actually some 80 feet below the oil-water contact. The well has not been producing at this time, it has been shut in.

Exhibit No. 4 is a log, is a Gamma Ray Neutron log of Well No. 6 and on this log I have located the tops of the formations. I have located the top of the Tansil and the Yates, the Seven Rivers and although this well has penetrated what normal -- would go into what is considered the Queen formation, this is into the reef area and we cannot actually identify where the reef formation is in this region.

Exhibit No. 5 is a chemical analysis of the water we propose to inject. This water is, by the way, not potable. This shows one of the fresher samples we have recovered, this is 6600 parts per million. The samples we

have collected range up to 13,000 parts per million chlorides. We propose at this time to inject approximately 700 barrels of water per day into the well which is all of the water being produced on this lease. This is water that is produced from the lease and it's going back into the zone from which it's coming from, so we do not anticipate any compatibility problems.

Q Will this be injected under pressure or gravity?

A We are hopefully going to have a gravity system. This is our intention. We have actually run some injectivity tests and under the shortest we have run, it takes higher volumes than we have anticipated putting away.

Q Were Exhibits 1 through 5 prepared by you or under your supervision and direction?

A Yes, they were.

MR. RUSSELL: I would like at this time to offer into evidence Applicant's Exhibits 1 through 5.

MR. UTZ: Without objection, Exhibits 1 through 5 will be entered into the record of this case.

(Whereupon, Applicant's Exhibits 1 through 5 offered and admitted in evidence.)

Q (By Mr. Russell) Now, Exhibit No. 4 which was your log, is actually in effect two logs of the well,

showing more detail on one than on the other, is that correct?

A That is correct; actually, one is the smaller scale and the other is the larger scale of the same well.

Q In your opinion, the granting of this application would continue the life of these wells and prevent premature abandonment and prevent waste?

A It certainly will.

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

CROSS EXAMINATION

BY MR. UTZ:

Q You stated, Mr. Freels, what you would do to the annulus at the surface. Is there a pressure gauge, or are you going to leave it open?

A I think we would best be advised to put a pressure gauge on it so that will be the route we will take.

Q Since you're injecting below the water table this shouldn't have any effect on the production in the area?

A The injection will be across the oil-water contact, actually there could be some water going above the oil. Of course, if there is any oil production on the lease, it would very definitely be beneficial by supplementing the drive.

MR. UTZ: Any questions of the witness? He may be

excused.

(Witness excused.)

MR. UTZ: Are there any statements? The case  
will be taken under advisement.

I N D E X

WITNESS		PAGE
<u>RON FREELS</u>		
Direct Examination by Mr. Russell		2
Cross Examination by Mr. Utz		7
<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's 1 through 5	2	6

STATE OF NEW MEXICO    )  
                                   ) ss  
 COUNTY OF BERNALILLO    )

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. 3964,  
 heard by me on 11-27-68, 1968.  
*[Signature]*  
 New Mexico Oil Conservation Commission

3914

Heard 11-7-68

Rec. 11-8-68.

1. Grant J & P. SWD conversion  
~~for~~ in So. Tuna pool for its H.A.  
At 2. #6 B-7-225-36 E. Injection  
shell be thru 2" plastic coated tubing  
and make a packer set at approx.  
3630 and into S. R & Luen in  
open hole ~~3721~~<sup>3721</sup> to 3995. Inhibited  
fluid shall be put in annulus and  
pressure gauge at annulus surface.  
Thrust. M.

(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.



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.

DOCKET: EXAMINER HEARING - THURSDAY - NOVEMBER 7, 1968

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 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

LAW OFFICES OF  
JOHN F. RUSSELL  
412 HINKLE BUILDING  
P. O. DRAWER 640  
ROSWELL, NEW MEXICO 88201

TELEPHONE 622-4641  
AREA CODE 505

October 18, 1968

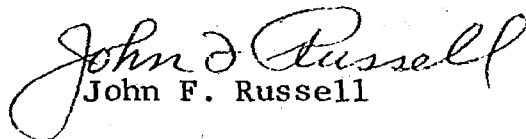
Mr. A. L. Porter, Jr.  
Secretary-Director  
Oil Conservation Commission  
Box 2088  
Santa Fe, New Mexico 87501

Dear Mr. Porter:

I transmit herewith, in triplicate, three Applications of Texas Pacific Oil Company for salt water disposal wells. It is my understanding that these cases will be set for the regular examiner hearing on November 7, 1968.

The exhibits referred to in the Applications will be forwarded to your office as soon as they are made available to me.

Very truly yours,

  
John F. Russell

JFR:d  
Enclosures

NOV 21 1968

MAILED  
Date 10-25-68

LAW OFFICES OF  
JOHN F. RUSSELL  
412 HINKLE BUILDING  
P. O. DRAWER 640  
ROSWELL, NEW MEXICO 88201  
October 29, 1968

TELEPHONE 622-4641  
AREA CODE 505

Mr. A. L. Porter, Jr.  
Secretary-Director  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Dear Mr. Porter:

I previously filed with you three Applications for salt water disposal on behalf of Texas Pacific Oil Company.

I now enclose herewith exhibits to accompany those Applications with a designation of the Case Numbers which have been assigned to each. The well logs will be available at the time of hearing.

Very truly yours,

*John F. Russell*  
by *D.L.*  
John F. Russell

JFR:d  
Enclosures

SCHEMATIC OF PROPOSED SALT WATER DISPOSAL WELL  
EL. 3606 G.L. *7/16" 209 Sx. Cmt.*

12 1/2" 50# Csg. Set @ 262'  
w/250 Sx. Cmt. Cmt Circulated

9 5/8" 36# Set @ 1541' w/600 Sx.  
Cmt. Cmt. Circulated.

Top Cement @ 2121'

*2 7/8" tubing into phs @ 3630'*

7" 24# Set @ 3721' w/209 Sx. Cmt.

*3995*

T. D. 3995'  
Open Hole

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
*Inhibited*  
*2 lines*  
APPN. EXHIBIT NO. 2  
CASE NO. 3914

*2 7/8" 209 Sx. Cmt.*

TEXAS PACIFIC OIL COMPANY  
WELL No. 6  
1980' FEL & 660' FNL  
Sec. 7, T-22-S, R-36-E  
Elevation 3606'  
Completed 10-26-37  
SOUTH EUNICE POOL  
LEA COUNTY, NEW MEXICO



TELEPHONE: HOBBS 393-6215

## UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company Texas Pacific Oil Company

Field South Eunice Grayburg

Lease State A Acct. 2 Battery #6

Sampling Date 4/24/68

Type of Sample Gun Barrel

### WATER ANALYSIS

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	36.73	736
Magnesium (Mg++)	37.58	457
Sodium (Na+) (cal.)	145.38	3342
Iron		1
Bicarbonate (HCO <sub>3</sub> -)	28.99	1769
Carbonate (CO <sub>3</sub> -)	NOT FOUND	
Hydroxide (OH-)	NOT FOUND	
Sulphate (SO <sub>4</sub> -)	4.58	220
Chloride (Cl-)	186.12	6,600
7.3 pH @ 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO <sub>3</sub>	74.31	3716
Carbonate Hardness as CaCO <sub>3</sub> (temporary)	28.99	1450
Non-Carbonate Hardness as CaCO <sub>3</sub> (permanent)	45.32	2266
Alkalinity as CaCO <sub>3</sub>	28.99	1450
Specific Gravity @ 68° F	1.000	

- \* mg/l = milligrams per Liter
- \* me/l = milliequivalents per Liter

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
APPX. EXHIBIT NO. 5  
CASE NO. 3914

MOORE BUSINESS FORMS, INC. 114

~~~~~ Makes Water Work ~~~~~

## STATE OF NEW MEXICO

No.

3914

COMES NOW Texas Pacific Oil Company, A Division of Joseph E. Seagram & Sons, Inc., by its Attorney, John F. Russell, and states:

1. Applicant proposes to commence the disposal of salt water produced from the Seven Rivers Queen Formation from the South Eunice Field by injection into the Seven Rivers Queen Formation through open hole interval from approximately 3,721 feet to 3,995 feet in the State "A" Account to Well No. 6, located in Unit "B" of Section 7, Township 22 South, Range 36 East, South Eunice Field, Lea County, New Mexico.

2. The water being disposed of is not suitable for domestic or agricultural purposes and the disposal of said water, as proposed, will not impair production of oil, gas or fresh water from the reservoir nor will it impair correlative rights.

3. Applicant attaches hereto as Exhibit "1" a plat showing the location of the proposed injection well and all wells within



two miles of said proposed injection well and the names of the lessees.

4. Applicant attaches hereto as Exhibit "2" a diagrammatic sketch showing the manner of completing the proposed injection well.

5. Applicant attaches hereto as Exhibit "3" a graph showing the production history of the aforesaid well.

6. The Applicant attaches hereto as Exhibit "4" the well log of the proposed injection well.

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

Respectfully submitted,

TEXAS PACIFIC OIL COMPANY, A  
Division of  
Joseph E. Seagram & Sons, Inc.

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

Applicant's Attorney

DATED:

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. 3914

Order No. R- 3559

APPLICATION OF TEXAS PACIFIC OIL  
COMPANY FOR SALT WATER DISPOSAL,  
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, Texas Pacific Oil Company,  
is the owner and operator of the State "A" A/c-2 Well No. 6,  
located in Unit B of Section 7, Township 22 South, Range  
36 East, NMPM, South Eunice Pool, Lea  
County, New Mexico.

(3) That the applicant proposes to utilize said well to  
dispose of produced salt water into the Seven Rivers and Queen  
formations with injection into the open-hole interval  
from approximately 3721 feet to 3995 feet.

(4) That the injection should be accomplished through  
2 7/8-inch plastic-lined tubing installed in a packer set at

approximately 3630 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus ~~or the annulus left open~~ at the surface in order to determine leakage in the casing, tubing, or packer.

(5) 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, Texas Pacific Oil Company, is hereby authorized to utilize its State "A" A/c-2 Well No. 6, located in Unit B of Section 7, Township 22 South, Range 36 East, NMPM, South Eunice Pool, Lea County, New Mexico, to dispose of produced salt water into the Seven Rivers and Queen formations, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 3630 feet, with injection into the open-hole interval from approximately 3721 feet to 3995 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 ~~or the annulus left open~~ at the surface in order to determine leakage in the casing, tubing, or packer.

(2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(3) 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.