

CASE 3961: Application of TEXAS  
PACIFIC FOR SALT WATER DISPOSAL,  
LEA COUNTY, NEW MEXICO.

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Case Number

3961

Application

Transcripts.

Small Exhibits

ETC.

dearnley-meier

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6651 • ALBUQUERQUE, NEW MEXICO



BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

November 20, 1968

EXAMINER HEARING

-----  
IN THE MATTER OF: )

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

Case Number 3961

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 3961.

MR. HATCH: Case 3961, application of Texas Pacific Oil Company for salt water disposal, Lea County, New Mexico.

MR. RUSSELL: John F. Russell on behalf of the applicant. I have one witness, Mr. Ron Freels, who testified in the previous case.

(Whereupon, Applicant's Exhibits Numbers 1 through 5, inclusive, were marked for identification.)

RON FREELS

called as a witness, and having been previously sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. RUSSELL:

Q Mr. Freels, are you familiar with the application of the Texas Pacific Oil Company in Case Number 3961?

A Yes, I am.

Q What do you seek by that application?

A Texas Pacific Oil Company seeks authority to dispose of produced salt water into the Yates-Seven Rivers Formations in the open-hole interval from 3,476 feet to 3,510 feet in its Myers "C" Well No. 2, located in Unit C of Section 22, Township 24 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.

Q Have you prepared exhibits for this application?

A Yes, I have.

Q Now, identifying each exhibit, explain what they portray or represent.

A Exhibit Number 1 is a plat of the area around the proposed disposal well. The disposal well is Well No. 2, and is shown with a yellow triangle around it located near the center of the plat. The well is physically located 660 feet from the north line, and 1,980 feet from the west line of Section 22, Township 24 South, Range 36 East, in Lea County, New Mexico.

We propose to utilize this well for the disposal of water from our Myers "C" No. 1, which is located directly south of the disposal well, and also from our Cooper No. 6, which is located in the southeast quarter of the southeast quarter of Section 14. The combined total injection into this well is expected to be in the order of 4,200 barrels of water per month. Most of this water is from the Myers "C" 1, which is currently producing 3,600 barrels of water per month.

Q From what formation?

A From the Jalmat Formation.

Exhibit Number 2 is a schematic of the proposed injection well. The schematic shows that 9 and five-eighths inch casing was submitted at 310 feet with 250 sacks of cement, the cement was circulated to the surface, and the seven-inch casing was set at 3,476 feet with 535 sacks of cement, and the

top of the cement was at 1,570 feet.

The schematic shows that the top of the Yates is at 3,305 feet; and that we propose to inject down tubing set in a packer at 3,375 feet. Injection will be into the open-hole interval from 3,476 to 3,510 feet.

Exhibit Number 3 is a production curve from the proposed injection well. This well has been shut in since September, when it was determined that the well was no longer economic to produce. At that time, the well was producing approximately 380 barrels of oil per month, plus about 24,000 barrels of water.

Exhibit 4 is a log of the proposed injection well that shows the top of the Yates at 3,305 feet, and it shows the seven inch casing and the open-hole interval, because it is colored blue.

Exhibit Number 5 is an analysis of the water from the Myers "C" No. 2, and this analysis shows that the total chlorides were approximately 2,000. This is a relatively fresh water, although it is still not considered potable. Consequently, we do not expect to have any problems with corrosion with this model, and we feel we can effectively inhibit the water.

I failed to mention that we do propose to inhibit the water and inject it down uncoated tubing, and that we will provide

a coupon at the surface, and submit quarterly reports to the Commission.

The annulus behind the -- between the tubing and the casing will be loaded with inhibited fluid, and a pressure gauge will be installed at the surface.

Q Do you think the granting of this application will prevent waste or premature abandonment of wells, and protect other rights in the area?

A Yes, I do.

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

A Yes, they were.

MR. RUSSELL: Mr. Examiner, I move the introduction of Applicant's Exhibits 1 through 5, inclusive.

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

(Whereupon, Applicant's Exhibits Numbers 1 through 5, inclusive, were admitted into evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q Do you intend to use this well for your Langlie-Mattix No. 6 Well?

A That's right. We will, very likely truck the small amount of water coming from that well. It is currently producing

less than 600 barrels a month, or something in the order of 20 barrels per day. We may be forced to run a line.

Q And the well is producing how much water?

A Approximately 3,600 barrels of water a month. It is the significant source of water.

Q That is 5,200 barrels a month?

A Four thousand two hundred is what I --

Q Four thousand two hundred?

A Yes.

Q What kind of production are you getting from these two wells?

A I believe I have that. Yes, the No. 1 well is making approximately 325 barrels of oil per month. And the Cooper No. 6 is making approximately 107 barrels of oil a month, which is getting pretty slim.

MR. UTZ: Any other questions?

MR. RUSSELL: No further questions.

MR. UTZ: It will be taken under advisement.



I N D E X

<u>WITNESS</u>	<u>PAGE</u>
RON FREELS	
Direct Examination by Mr. Russell	2
Cross Examination by Mr. Utz	5

<u>EXHIBITS</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's Exhibits Numbers 1 through 5	2	5

STATE OF NEW MEXICO     )  
                                   ) ss  
 COUNTY OF BERNALILLO    )

I, SAM MORTELETTE, 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.

Sam Mortelette  
 COURT REPORTER

I do hereby certify that the foregoing is  
 a complete record of the proceedings in  
 the Examiner hearing of Case No. 3861,  
 heard by me on 6-20-66, 1966.  
Theresa L. [Signature] Examiner  
 New Mexico Oil Conservation Commission

3961

Heard 11-20-68

Rec. 11-22-69.

Grant J & P. permission to  
connect their Meyers' C1 #2-C-22-  
245-36E Jackman to and SW Drill,  
Injection shall be thru 2 7/8 tubing  
under packer and within gun  
hole into the Yates & SR flms.  
The annulus shall be loaded  
with Inert fluid w/ pressure  
gauge at the surface.  
Water shall be treated and 1/4 in.  
coupon test reports shall  
be made.

Thos L. W.

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. 3961  
Order No. R-3605

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 8:30 a.m. on November 20, 1968, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 27th 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 Meyers "C" Well No. 2, located in Unit C of Section 22, Township 24 South, Range 36 East, NMPM, Jalmat Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Yates-Seven Rivers formations, with injection into the open-hole interval from approximately 3476 feet to 3510 feet.

(4) That the injection should be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 3375 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.

(5) That the produced salt water should be continuously treated prior to injection to prevent casing and tubing corrosion

-2-

CASE No. 3961  
Order No. R-3605

and coupon tests should be conducted continuously on said well and the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission.

(6) 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:

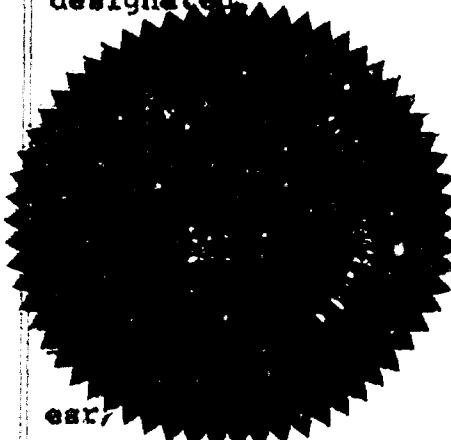
(1) That the applicant, Texas Pacific Oil Company, is hereby authorized to utilize its Meyers "C" Well No. 2, located in Unit C of Section 22, Township 24 South, Range 36 East, NMPM, Jalmat Pool, Lea County, New Mexico, to dispose of produced salt water into the Yates-Seven Rivers formations, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 3375 feet, with injection into the open-hole interval from approximately 3476 feet to 3510 feet;

PROVIDED HOWEVER, that the produced salt water shall be continuously treated prior to injection to prevent casing and tubing corrosion and coupon corrosion tests shall be conducted continuously on said well and the results filed quarterly with the Commission until further notice from the Secretary-Director of the Commission; 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*  
DAVID F. CARGO, Chairman

*Guyton B. Gays*  
GUYTON B. GAYS, Member

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

into the Yeso formation through parallel strings of tubing. The wells and completion intervals are as follows:

Johnston BE Well No. 1, Unit A of Section 8;  
Producing interval - 1270 feet to 1670 feet;  
Disposal interval - 2120 feet to 2950 feet;

Nix-Curtis BH Well No. 1, Unit I of Section 25;  
Producing interval - 1442 feet to 1684 feet;  
Disposal interval 2292 feet to 3121 feet;

A. W. Gerard Well No. 2, Unit J of Section 25;  
Producing interval - 1316 feet to 1696 feet;  
Disposal interval - 1824 feet to 2572 feet;

CASE 3959: 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 formation in the perforated interval from 2960 feet to 3068 feet in its L. Gutman Well No. 2 located in Unit J of Section 29, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.

CASE 3960: 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-Queen formations in the perforated interval from 3380 feet to 3458 feet in its S. E. Eaton Well No. 7, located in Unit P of Section 12, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.

CASE 3961: 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 Yates-Seven Rivers formations in the open-hole interval from 3476 feet to 3510 feet in its Meyers "C" Well No. 2 located in Unit C of Section 22, Township 24 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.

CASE 3962: 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 Queen formation in the perforated interval from 3180 feet to 3214 feet in its Farnsworth 4 Well No. 9 located in Unit C of Section 4, Township 26 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.



### Proposed Water Disposal Well



Langlie Mattix Seven Rivers Quee



**Jalut Yates Seven Rivers Tansil**

BEFORE EXAMINER UTZ

OK CONSERVATION COMMISSION

44-1 EXHIBIT NO.

CASE NO. 39

TEXAS PACIFIC OIL COMPANY

SECTION 22; T-24-S, R-36-E

JALMAT YATES SEVEN - RIVERS TANSIL POOL

LEA COUNTY, NEW MEXICO

SCALE: 1" = 2000'

DATE :

9-5/8" 36# Csg. @ 310' w/250 sx.  
Cement circulated to surface

Top of cement @ 1570'

2-1/2" Tubing set @ 3375'

Yates @ 3305'

7" Csg. @ 3476' w/535 sx.

TD: 3510'

BEFORE EX. OR UTZ  
OIL CONSERVATION COMMISSION  
*Open* EXH. *2*  
CASE NO. *3961*

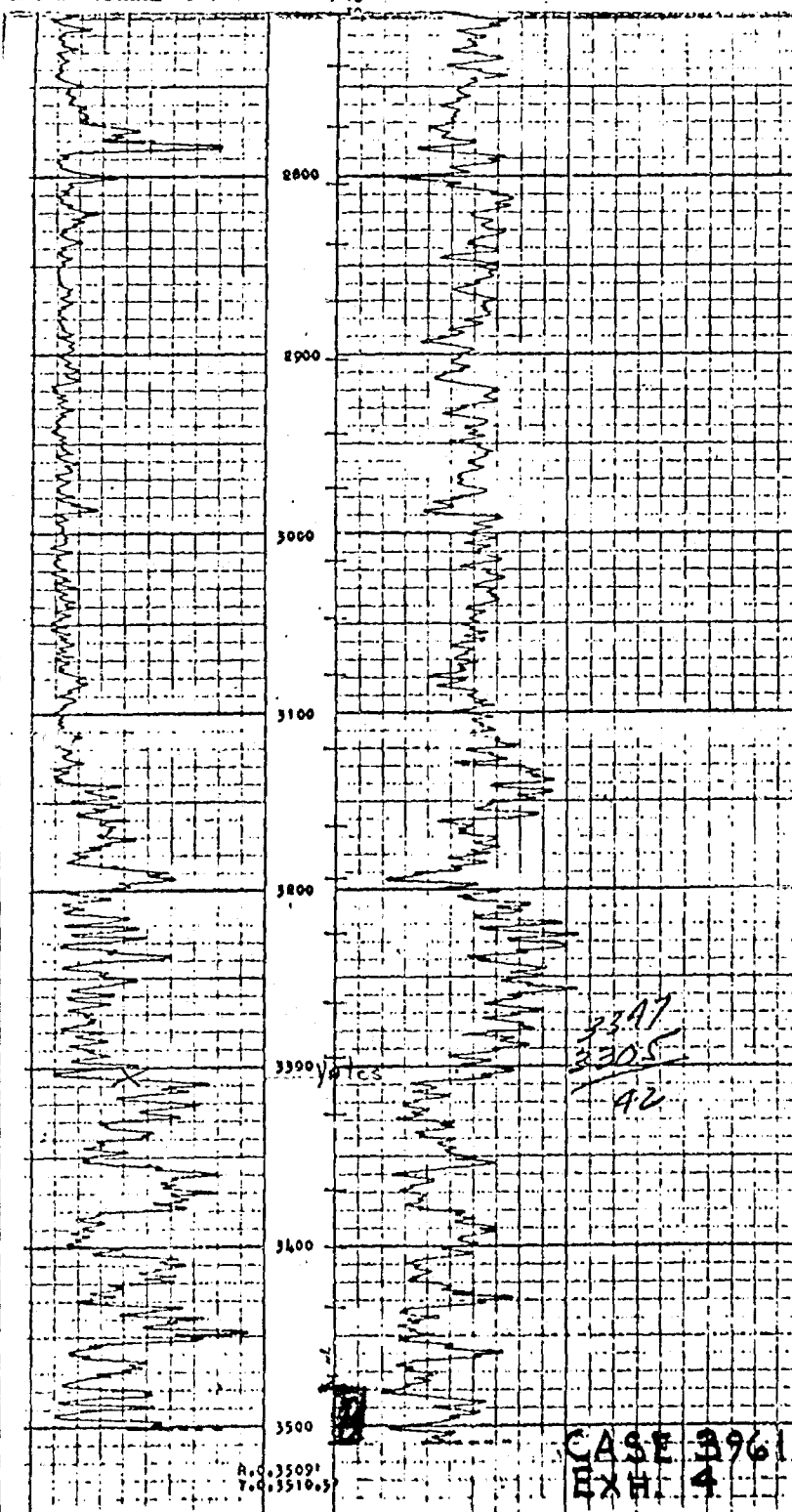
CASE 3961 EXH. 2

TEXAS PACIFIC OIL COMPANY  
Myers "C" No. 2 Unit "C"  
Elevation 3350' DF  
660' FNL & 1980' FNL  
Sec. 22, T-24-S, R-36-E  
Jalant Yates Pool  
Lea County, New Mexico





BEFORE EXAMINED BY 3354  
SOIL CONSERVATION COM. 49  
195 EXHIBIT NO. 195  
CASE NO. 3961





# UNITED CHEMICAL CORPORATION

OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company Texas PacificField Jalmat - Yates - 7 Rivers - TancillLease Meyers C #2Sampling Date 10/31/68

Type of Sample \_\_\_\_\_

## WATER ANALYSIS

IONIC FORM	me/l *	mg/l *
Calcium (Ca++)	16.17	324
Magnesium (Mg++)	14.72	179
Sodium (Na+)	60.26	1385
Iron		0.33
Bicarbonate (HCO <sub>3</sub> -)	25.59	1561
Carbonate (CO <sub>3</sub> -)	NOT	FOUND
Hydroxide (OH-)	NOT	FOUND
Sulphate (SO <sub>4</sub> -)	9.16	440
Chloride (Cl-)	56.40	2000
<div style="border: 1px solid black; padding: 5px; transform: rotate(-90deg); transform-origin: center;">           BEFORE EXAMINER UTZ            OIL CONSERVATION COMMISSION            EXHIBIT NO. <u>5</u>            CASE NO. <u>3961</u> </div>		
7.1 ph c 68 °F		
Dissolved Solids on Evap. at 103° - 105° C		
Hardness as Ca CO <sub>3</sub>	30.89	1545
Carbonate Hardness as CaCO <sub>3</sub> (temporary)	25.59	1280
Non-Carbonate Hardness as CaCO <sub>3</sub> (permanent)	5.30	265
Alkalinity as CaCO <sub>3</sub>	25.59	1280
Specific Gravity c 68° F	1.000	

\* mg/l = milligrams per Liter

\* me/l = milliequivalents per Liter

Calcium carbonate scaling index positive at 86° F

Calcium sulfate scaling index negative

CASE 3961

EXH. 5

Make Water Work

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF )  
TEXAS PACIFIC OIL COMPANY FOR PER- )  
MISSION TO DISPOSE OF PRODUCED WATER )  
INTO THE YATES, SEVEN RIVERS FORMATIONS )  
THROUGH THE OPEN HOLE INTERVALS FROM )  
APPROXIMATELY 3476 FEET TO 3510 FEET IN )  
ITS MEYERS "C" No. 2 WELL, LOCATED IN )  
UNIT "C" OF SECTION 22, TOWNSHIP 24 )  
SOUTH, RANGE 36 EAST, JALMAT POOL, LEA )  
COUNTY, NEW MEXICO. )

No. 3961

APPLICATION

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 Yates, Seven Rivers and Queen Formations by injection into the Yates-Seven Rivers Formations through the open hole intervals from approximately 3476 feet to 3510 feet in its Meyers "C" No. 2 Well, Located in Unit "C" of Section 22, Township 24 South, Range 36 East, Jalmat Pool, 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 diagramatic 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. Applicant will present at the time of the hearing 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.

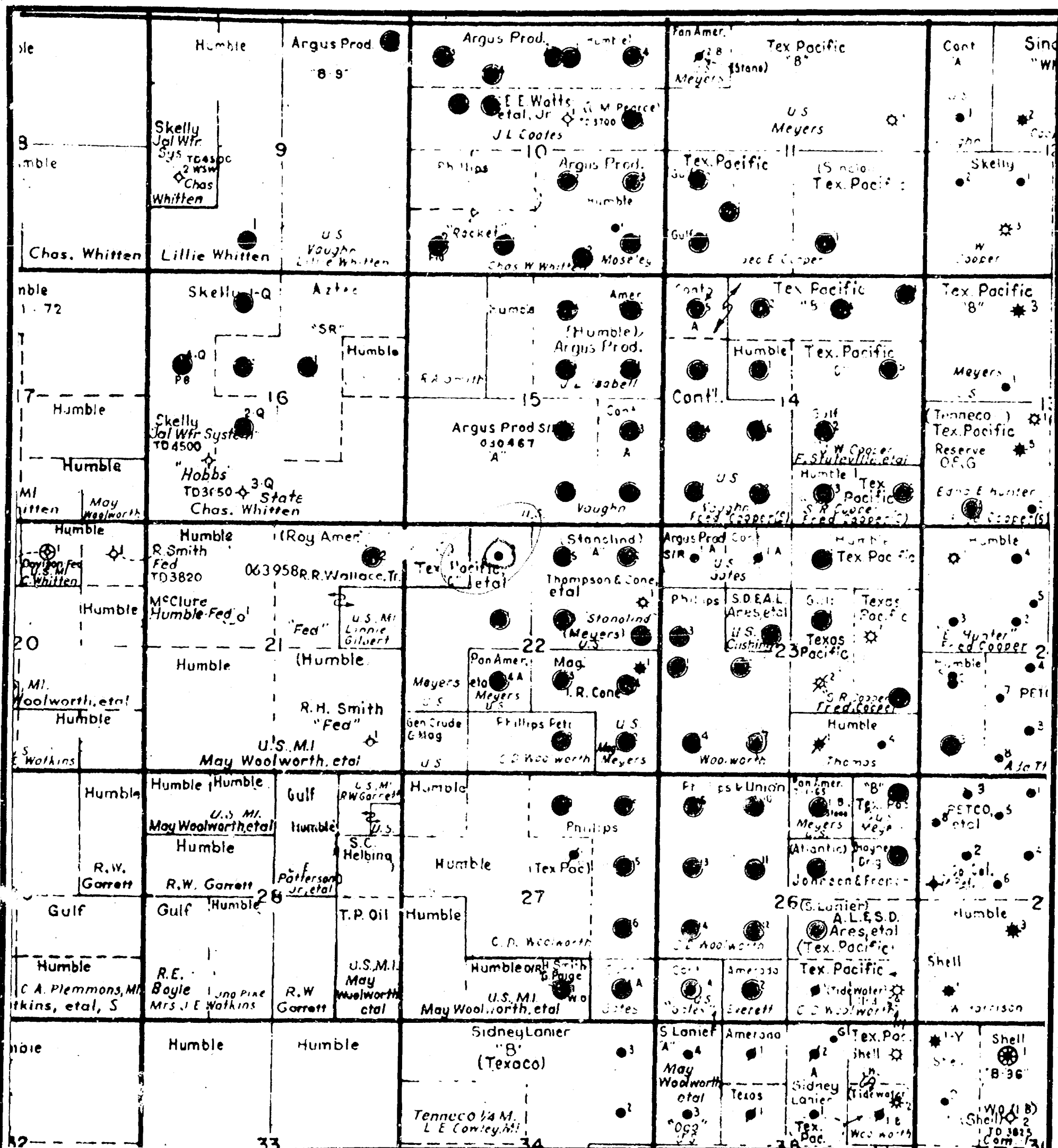
Respectfully submitted,

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:



9-5/8" 36# Csg. @ 310' w/250 sx.  
Cement circulated to surface

Top of cement @ 1570'

*Plastic*  
2-1/2" Tubing set @ 3375'

*t.c.*  
7" Csg. @ 3476' w/535 sx.

TD: 3510'

Yates @ 3305'

TEXAS PACIFIC OIL COMPANY

Myers "C" No. 2 Unit "C"  
Elevation 3350' DF  
660' FNL & 1980' FWL  
Sec. 22, T-24-S, R-36-E  
Jalmat Yates Pool  
Lea County, New Mexico



THE WESTERN COMPANY

CAMMARTON

Stratigraphic Nuclear Log

COMPANY: OILS-ONE-INCORPORATED  
WELL: JOHNS C-2  
FIELD: JALMAT  
COUNTY: LEA  
LOCATION: 1980' F.M. & 660' F.M.  
SEC. 22- TWP. 24-S. RGE. 36-E

COMPANY: OILS-ONE-INCORPORATED  
WELL: JOHNS C-2  
FIELD: JALMAT  
COUNTY: LEA  
LOCATION: 1980' F.M. & 660' F.M.  
SEC. 22- TWP. 24-S. RGE. 36-E

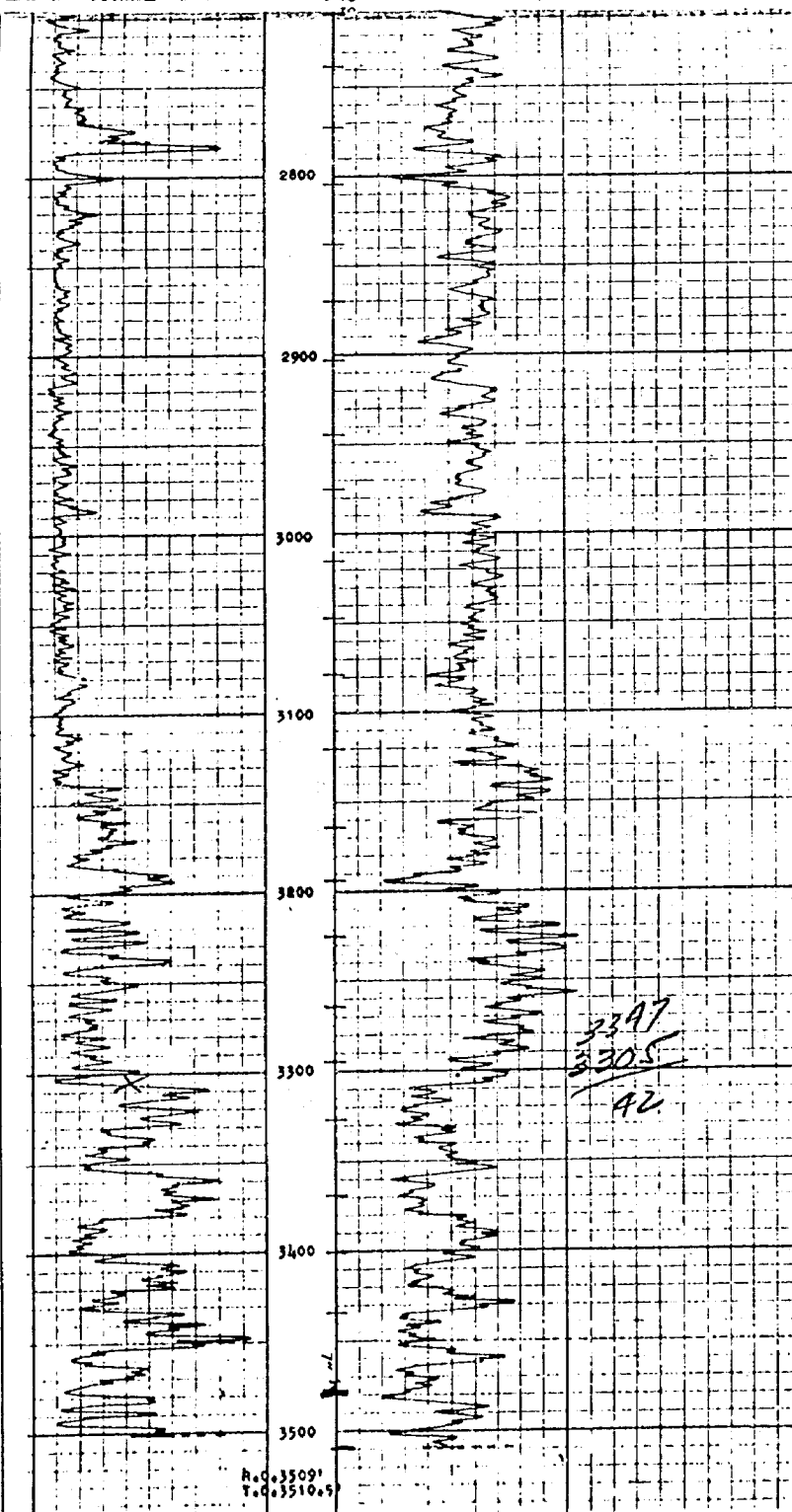
LOCATION  
1980' F.M.  
& 660' F.M.  
FRI NO.  
LOG NO.

LOG MEAS FROM 10 FT. ABOVE PERM. DATUM FISH 3350.7  
ORIG MEAS FROM KELLY DRIVE BUSHING FISH 3349.7  
PERM DATUM GROUND LEVEL FISH 3340.2

3354 D.F.  
3347 H.  
E.S. R.S.

TYPE OF LOG	GAMMA RAY	NEUTRON
RUN NO.	ONE	ONE
DATE	9-25-60	9-25-60
TOTAL DEPTH (DRILLER)	3510	3510
EFFECTIVE DEPTH (DRILLER)		
EFFECTIVE DEPTH (WESTERN)		
TOP OF LOGGED INTERVAL	SURF.	SURF.
BOTTOM OF LOGGED INTERVAL	3510.5	3510.5
TYPE OF FLUID IN HOLE	WATER	WATER
FLUID LEVEL	630'	630'
SOURCE STRENGTH & TYPE	R.B.-300	
SOURCE SPACING	13.5	
DETECTOR CLASS	SPAL2	6AG7
DETECTOR TYPE	SCINT	SCINT
DETECTOR LENGTH	1	1 3/4
O.D. OF INSTRUMENT		
TIME CONSTANT	2.0	2.0
LOGGING SPEED	30	30
STATISTICAL VARIATION		
SENSITIVITY REFERENCE		
RECORDED BY	CLABORN	CLABORN
WITNESSED BY	MR. WATSON	MR. WATSON

BIT SIZE	CASING	WT LB	CASING RECORD		INTERVAL	
			FROM WELL RECORD	FROM RA LOG		
8 5/16	2"	20	3510	TO 3476	SURF.	TO 3476



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. 3961

Order No. R- 3605

APPLICATION OF TEXAS PACIFIC OIL  
COMPANY FOR SALT WATER DISPOSAL,  
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

8:30

This cause came on for hearing at 8 a.m. on November 20, 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 Meyers "C" Well No. 2,  
located in Unit C of Section 22, Township 24 South, Range  
36 East, NMPM, Jalmat Pool, Lea  
County, New Mexico.

(3) That the applicant proposes to utilize said well to  
dispose of produced salt water into the Yates-Seven Rivers  
formations with injection into the open-hole interval  
from approximately 3476 feet to 3510 feet.

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



approximately 3375 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.

(b) 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 Meyers "C" Well No. 2, located in Unit C of Section 22, Township 24 South, Range 36 East, NMPM, Jalmat Pool, Lea County, New Mexico, to dispose of produced salt water into the Yates-Seven Rivers formations injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 3375 feet, with injection into the open-hole interval from approximately 3476 feet to 3510 feet;

*Provided However, that the produced salt water shall be continuously treated prior to injection to prevent casing and tubing corrosion, and ~~provided further that~~ coupon corrosion tests shall be conducted continuously on said well, and the results filed quarterly with the Commission until further notice from the Secretary-Director of the Commission; 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.*

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

*(5) that the produced salt water should be continuously treated prior to injection to prevent casing and tubing corrosion and coupon tests should be conducted continuously on said well, and the results thereof filed quarterly with the Commission until further notice from the Secretary-Director of the Commission.*

*Injection*