

CASE 3916: Application of TEXAS
PACIFIC OIL CO. FOR SALT WATER
DISPOSAL, EDDY COUNTY.

DOCKET MAILED

Jack Russell

Date _____

Case 3916

Texas Pacific

(1) Disposal 7R-Q SW, into 7R-Q
open hole int approx 3721 to 3995'
State A Asset Well No 6
B Sec 7 T22S R36E
South Eunice Lea

(2) Disposal of Abo SW in Abo form
perf int from approx 6686
to 6830
Woolley Fed No 1
N Sec 21 17S 30E
Roco Hills-Abo Eddy Co

(3) Disposal of Dev & Perm Wt. into
Perm perf approx 9570-
9572 and 9835 to 9972
St. AH # 2
N of H-12S-34E
Ranger Lake Field Lea Co.

WOOLLEY

— 000 — 000000

39 16

Application
Transcripts.

Small Exhibits

ETC.



BRUCE KING
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Case 3916

Mr. Lowell M. Irby
Double "I" Inc.
P. O. Box 7
Loco Hills, New Mexico 88255

Dear Mr. Irby:

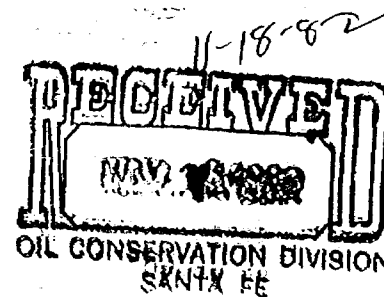
You are hereby granted permission to utilize the Woolley Federal Well No. 1, located in Unit M, Section 21, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico, as a salt water disposal well.

This well was previously authorized by Division Order No. R-3580, and it is my understanding that you will inject in the interval 6750-6830 feet, through lined tubing, below a packer set near the top of the perforated interval. The tubing-casing annular space will be filled with an inert fluid and surface injection pressure will not exceed 1350 psi, unless you can satisfactorily prove that the formation can withstand higher pressure without fracturing.

Yours very truly,

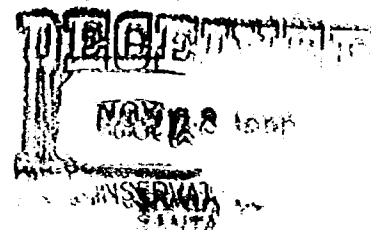
JOE D. RAMEY
Director

JDR/fd



November 17, 1982

Mr. Joe D. Ramey, Director
Oil Conservation Division
Santa Fe, N. Mex.



Mr. Ramey,

We are applying for reinstatement of authority for the use as a salt water disposal of the Woolley Federal Well No.1, located in Unit M of Section 21, Township 17 South, Range 30 East, NMPM, Loco Hills-Abo Pool, Eddy County, New Mexico.

The commission originally authorized the application by Texas Pacific Oil Company on November 19, 1968. A copy of this original order by the commission is enclosed. We have recently purchased this well and have checked with Mike Williams of the Oil Conservation Division in Artesia. He finds the construction and condition of the well satisfactory for use as a salt water disposal.

The local office concurs with our application and finds that there will be no damage to surface or subsurface areas from the use of this site as a salt water disposal.

We are also enclosing a schematic of the well site and two diagrams of our proposed disposal system.

Your favorably and prompt consideration of this application would be appreciated.

Doubel "I" Inc.
Lowell M. Irby, President

LMI/dkh

Enclosures

A handwritten signature in cursive script, appearing to read "Lowell M. Irby".

November 17, 1982

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Oil Conservation Division
Santa Fe, N. Mex.

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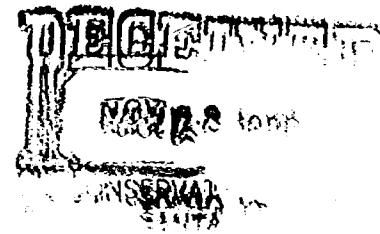
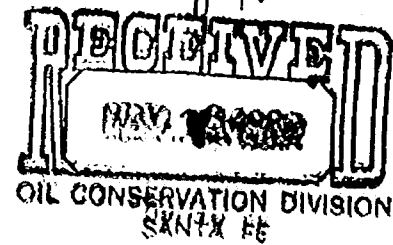
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Lowell M. Irby, President

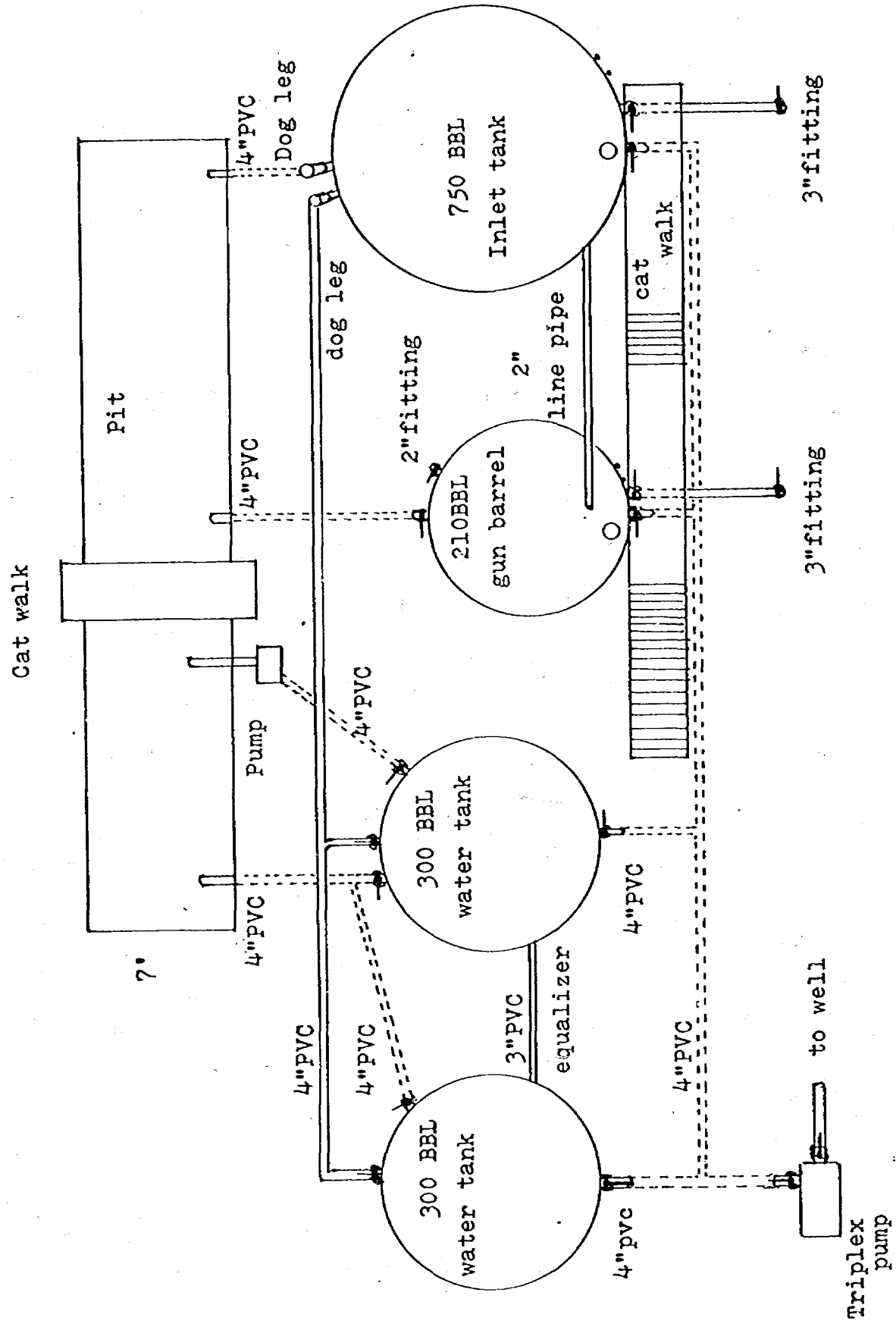
LMI/dkh

Enclosures

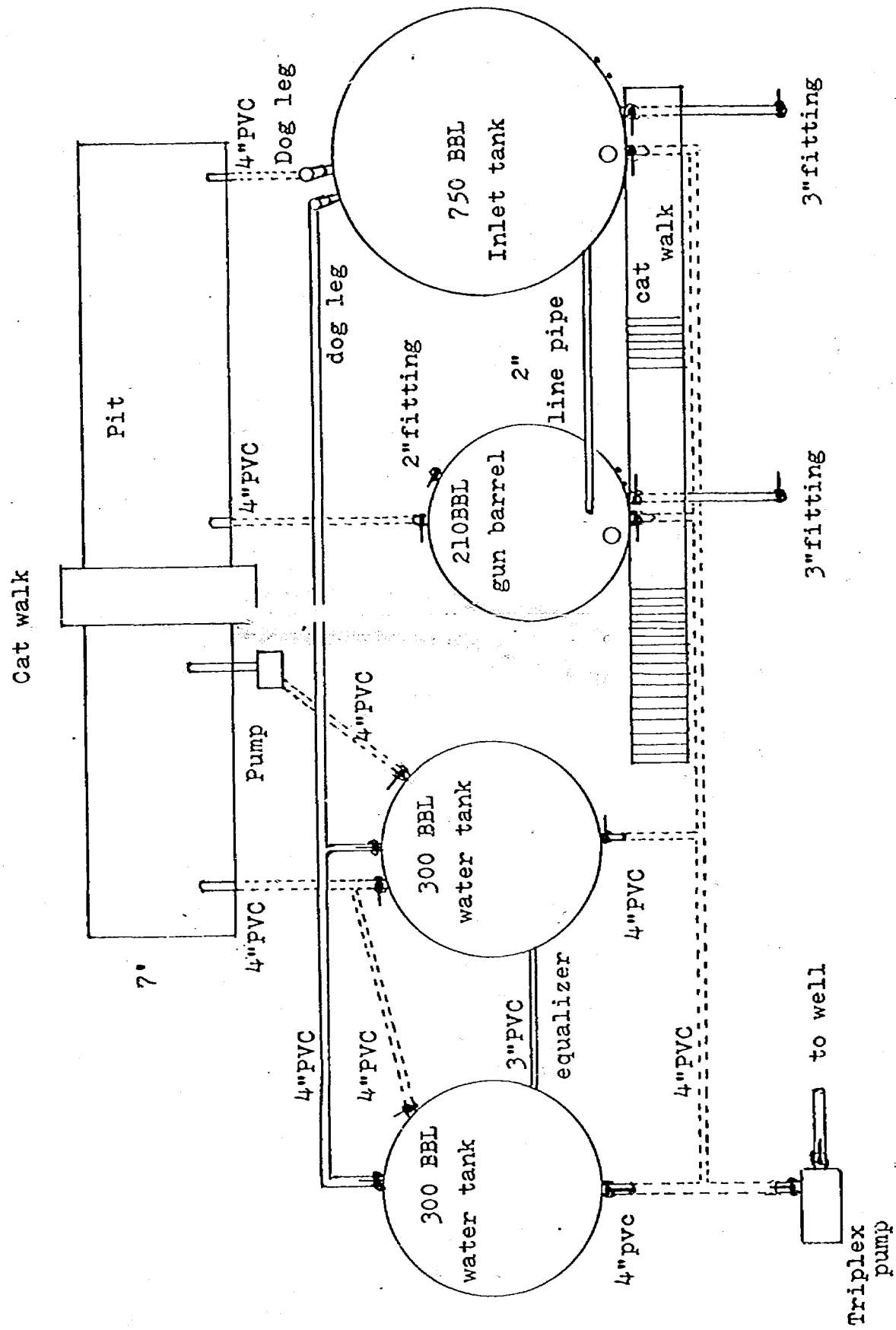


A handwritten signature in cursive script, appearing to read "Lowell M. Irby".

Scale: 1" equals appx. 7'



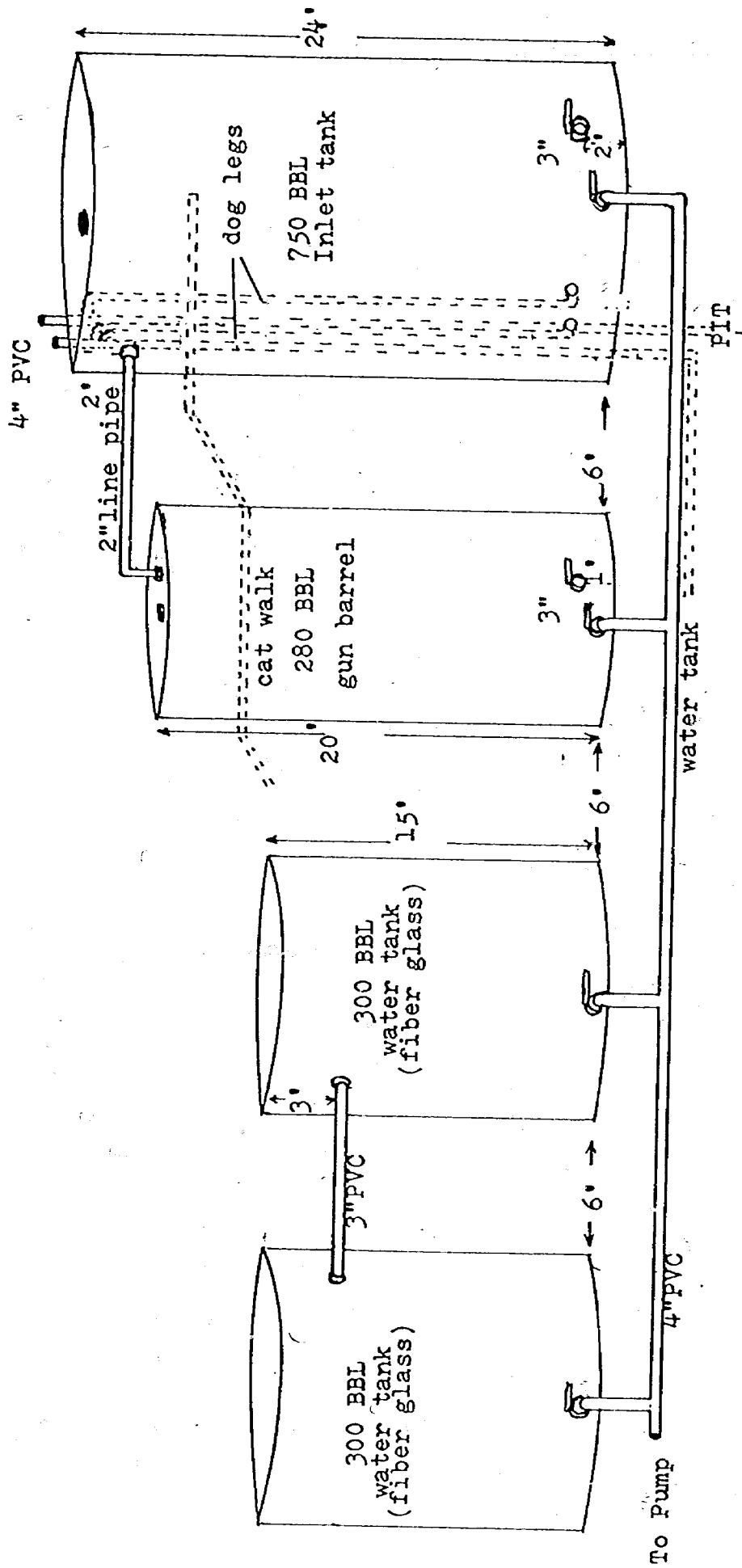
Scale: 1" equals app. 7'



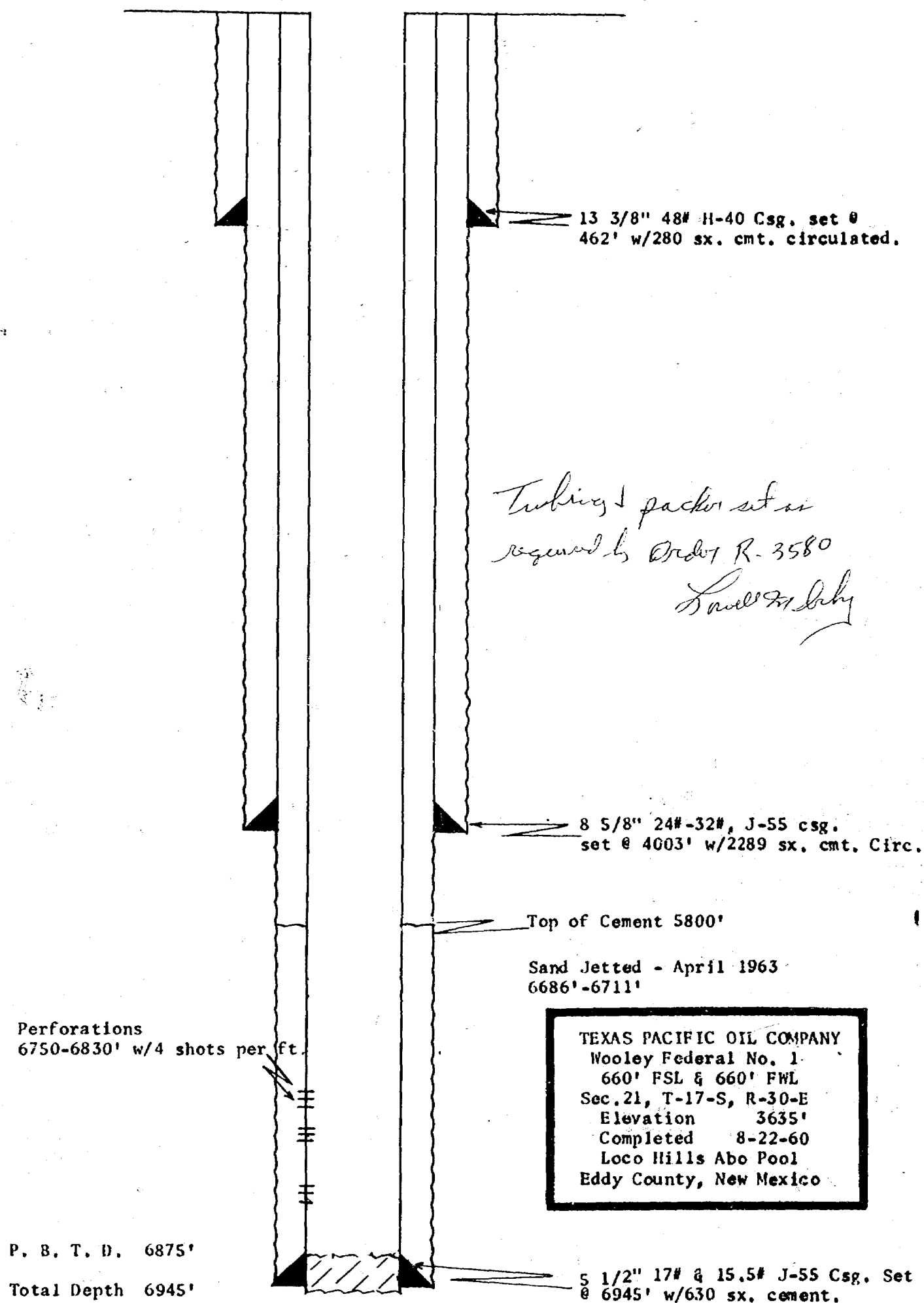
PROPOSED DISPOSAL SYSTEM

Front View

Scale: 1" equals appx. 7'

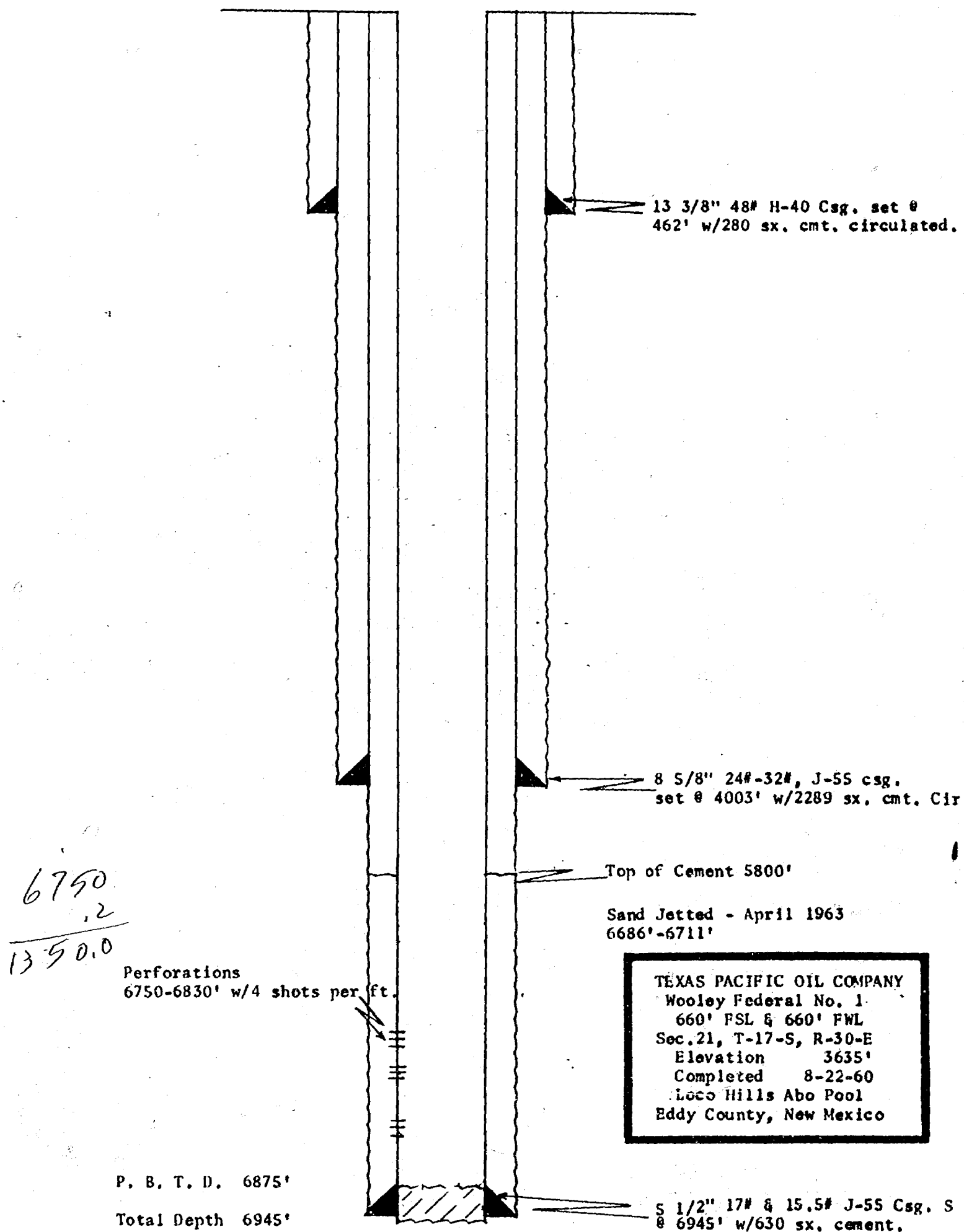


SCHEMATIC OF PROPOSED SALT WATER DISPOSAL WELL EL. 3635 G.L.



TEXAS PACIFIC OIL COMPANY
Wooley Federal No. 1
660' FSL & 660' FWL
Sec. 21, T-17-S, R-30-E
Elevation 3635'
Completed 8-22-60
Loco Hills Abo Pool
Eddy County, New Mexico

SCHEMATIC OF PROPOSED SALT WATER DISPOSAL WELL EL. 3635 G.L.



RECEIVED

NOV 21 1968

O. C. C.
ARTESIA, 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. 3916
Order No. R-3580

APPLICATION OF TEXAS PACIFIC
OIL COMPANY FOR SALT WATER
DISPOSAL, EDDY 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 19th 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 Woolley Federal Well No. 1, located in Unit M of Section 21, Township 17 South, Range 30 East, NMPM, Loco Hills-Abo Pool, Eddy County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Abo formation, with injection into the perforated interval from approximately 6686 feet to 6830 feet.

(4) That the injection should be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 6680 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be

-2-

CASE NO. 3916
Order No. R-3580

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 Woolley Federal Well No. 1, located in Unit M of Section 21, Township 17 South, Range 30 East, NMPM, Loco Hills-Abo Pool, Eddy County, New Mexico, to dispose of produced salt water into the Abo formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 6680 feet, with injection into the perforated interval from approximately 6686 feet to 6830 feet;

PROVIDED HOWEVER, 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

GUYTON B. HAYS, Member

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

S E A L

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,
Eddy County, New Mexico.

Case No. 3916

BEFORE: ELVIS A. UTZ

TRANSCRIPT OF HEARING

MR. UTZ: Case 3916.

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

MR. RUSSELL: John F. Russell, Roswell, New Mexico,
appearing on behalf of the applicant. I have one witness,
Mr. Ron Freels who was previously sworn and testified in the
prior two cases.

(Applicant's Exhibits 1 through 5
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. RUSSELL:

Q Mr. Freels, are you familiar with the application
in Case No. 3916?

A Yes, I am.

Q Did you prepare exhibits in connection with that
application?

A Yes, I have.

Q Will you explain what you seek by the application
and identify and describe the exhibits?

A Texas Pacific Oil Company requests authority to

dispose of produced salt water into the Abo Formation in the perforated interval from approximately 6686 feet to 6830 feet 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.

Exhibit No. 1 is a plat of the area location of the injection well. The injection well is shown as a purple triangle located in Section 21, the location of that well, that is the Texas Pacific Oil Company's Woolley Federal No. 1, located 660 feet from the south line and 660 feet from the west line of Section 21, Township 17 South, Range 30 East, Eddy County, New Mexico.

This plat also shows the location of all other producing wells within the region and the zones in which they are producing from. Also, the Well No. 3 which is located in the northeast quarter of the southwest quarter of Section 21 is the well from which the water is being produced that will be disposed of into this well. This well is currently producing approximately 60 barrels of water per day.

Exhibit No. 2 is a schematic of the proposed injection well. This schematic shows there is 13 and 3/8ths-inch surface casing set at 462 feet, cemented to the surface. There is an 8 and 5/8ths-inch intermediate string set at 4003 feet, with cement circulated to the surface; that there is a

5 and 1/2-inch production string cemented at 6945 feet with 630 sacks of cement, the top of the cement is at 5800 feet. This shows that the perforated interval in which we are going to inject water is from 6750 to 6830 feet.

You will note also this is another region in which we are at a real economic disadvantage when it comes to trying to find a place to dispose of the salt water. As a consequence, we have had to engineer our systems to a bare minimum of cost, but yet provide adequate and sufficient protection that we could control where we're putting the water.

You will note that we have in this well, also, eliminated a string of tubing. This project is expected to last less than five years. This well was drilled as I recall it, in 1960. It has a good string of casing in it and of course there was luckily the intermediate string which is set deep, cemented to the surface and also our oil string which was cemented back to 5800 feet. We feel that we can adequately protect any zones this way.

The water that we are proposing to inject will be approximately 60 barrels of water per day and we do not expect any significant increases in this water production. We will inhibit the water and we will maintain a coupon

at the surface to monitor the effectiveness of our inhibiting program and we will be pleased to submit quarterly reports or whatever you like on these coupons that we are using.

Exhibit No. 3 is a curve, a production curve of the Well No. 1. It has been shut in. It has been a producing well, but is no longer economic and we are shutting it in and this is to be the injection well.

Exhibit No. 4 is a log of the proposed injection well and on this log we have shown the top of the Queen at 2280 feet, the top of the Grayburg at 2660 feet, the top of the San Andres at 3170 feet, the top of the Glorieta at 4493 feet, the top of the Tubb at 5680 feet and the top of the Abo at 6662 feet and we have also shown the perforated interval in which we will be injecting water.

Q Did you indicate that you were going to dispose of the water produced from your No. 3 Well in the northeast of the southwest of Section --

A I thought I did, if not, that is true. Our No. 3 Well is the only one we are proposing to inject in.

Q What is the oil production from that well at this time?

A Let's see if I have that well test. Our well No. 3 produced, I have my columns changed, it produced 526 barrels

of oil during September which would be approximately 20 barrels of oil per day.

Q Then in the event this application is granted, it will prevent the premature abandonment of that producing well, is that correct?

A That is right. Also, I failed, I had one additional exhibit that I failed to discuss. It is the chemical analysis of the water which we are injecting, and it shows that the chlorides are 11,100 parts per million which is a relatively, it's a non-potable water.

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.

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.)

CROSS EXAMINATION

BY MR. UTZ:

Q Where is your No. 3 Well located?

A It's located near the northeast quarter of the

southwest quarter of Section 21. It's to the northeast of the injection well there. See, the Well No. 3, it's the brown one.

Q Yes, has water production been relatively stable on this well, for sometime?

A Yes, it has been and we don't anticipate any sharp increase in this water. The biggest problem is the decrease in the oil production.

Q It seems to be a rather common complaint these days.

A We're really finding them now.

Q In the interval behind the 5 and 1/2-inch casing, from 5800 to 4003, it's about 1797 feet that's open?

A Yes.

Q What formations and any oil and water, or whatever might be behind that?

A Let me check my intervals here. I believe the basal San Andres and the Glorieta intervals and also right to the top of the Tubb are within this interval. Now, these zones, I believe, well the Grayburg is productive; however, it's behind the pipe. I don't show any San Andres production in this or anything other than, no, I do not show any of these zones being produced in this region. The Grayburg above this and the Abo or the Queen is also in the Seven

Rivers, but in shallower zones, so, although I don't believe there are any of those zones producing.

Q How old is the 5 and 1/2-inch casing?

A This well is approximately, it was drilled approximately 8 years ago. It was drilled in 1960 as I recall, let me check that log; that's right. It gives you an idea of what we're faced with on this well, if you might be interested in the economic picture, the reason again we're having this problem is that the future revenue we expect to recover from this well over a five year period is slightly over \$11,000.00, and that sure does make slim pickings.

Q That's gross revenue?

A That's net revenue.

Q This note on the schematic sand jetted 6686 --

A Yes --

Q -- is that beyond, what is that 6686 --

A -- that would be within, let me check, I believe that would be, let me see, I think that's still within the Abo interval.

Q That's within your perforation interval; no, it isn't.

A No, it's right above it. That is within 6686, that would be from the top of the Abo down to these zones.

It would still be within the Abo interval and very definitely for those zones, will take water, we would be putting water into that, too. That should be included within our interval, it certainly should.

Q It's 6686 to 6711 feet sand jetted?

A I do not have anything where I can verify this was an effective opening but I feel certain it was if we went to the trouble of doing it. This again is within the producing interval of the Abo, the same zone in which we are producing water in the other well.

Q It is your intention to treat the water and coupon?

A Yes, we intend to inhibit the water. Generally, what we will do is we're actually going to slug the casing with an inhibitor to start with to try and coat everything good and then we will maintain the inhibiting program throughout the time and in this way you maintain the covering on your metal. It's usually a pretty effective method, and we will maintain a coupon at the surface too, as a check on it.

Q I presume you intend to, or you hope that this will take water by gravity?

A Yes, if it doesn't, we're again in a bind and I feel we would be extremely hard pressed to, well, in fact,

if we had to go to pressure again, we would also have to run tubing and the combination of tubing and pumps would put us completely out of the picture economically.

MR. UTZ: Any other questions? The witness may be excused.

(Witness excused.)

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

I N D E X

<u>WITNESS</u>		<u>PAGE</u>
<u>PAUL G. WHITE</u>		
Direct Examination by Mr. Russell		2
Cross Examination by Mr. Utz		6
<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.

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the Examiner hearing of Case No. 3916,
 heard by me on 11-2-68 10.....

Thos. G. White
 New Mexico Oil Conservation Commission

Ada Dearnley
 ADA DEARNLEY

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 19, 1968

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

Re: Case No. 3916
Order No. R-3580
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.
A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC X

Artesia OCC X

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. 3916
Order No. R-3580

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

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NOW, on this 19th day of November, 1968, the Commission, a
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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 Woolley Federal Well No. 1, located in
Unit M of Section 21, Township 17 South, Range 30 East, NMPM,
Loco Hills-Abo Pool, Eddy County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Abo formation, with
injection into the perforated interval from approximately 6686
feet to 6830 feet.

(4) That the injection should be accomplished through
2 3/8-inch tubing installed in a packer set at approximately
6680 feet; that the casing-tubing annulus should be filled
with an inert fluid; and that a pressure gauge should be

-2-

CASE NO. 3916
Order No. R-3580

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(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:

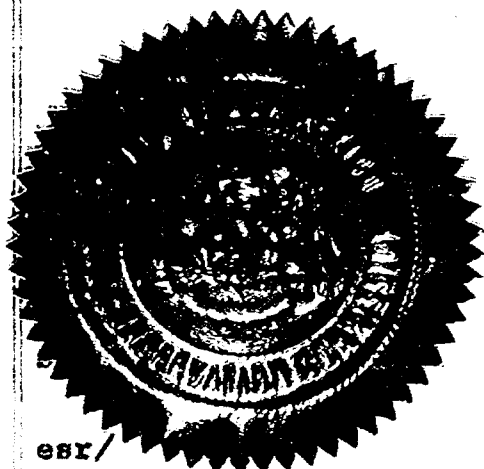
(1) That the applicant, Texas Pacific Oil Company, is hereby authorized to utilize its Woolley Federal Well No. 1, located in Unit M of Section 21, Township 17 South, Range 30 East, NMPM, Loco Hills-Abo Pool, Eddy County, New Mexico, to dispose of produced salt water into the Abo formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 6680 feet, with injection into the perforated interval from approximately 6686 feet to 6830 feet;

PROVIDED HOWEVER, 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

Guston B. Hays
GUSTON B. HAYS, Member

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

esr/

3916

Heard 11-7-65

Rec. 11-8-65

1. Grant D & P Oil Co. permission to convert their Woolley D^{ad} #1 N-21-175-30E, Loco Hella - also pool to an SW Dwell by injecting saltwater down 5 1/2" casing & into perforations from - 6680 to 6830 into the abo zone.

Approve this SWP for the only the life of operators, Woolley D^{ad} #3 N-21-17-30, an abo producer which is estimated to be 6 yrs.

Shuddh

Injection water shall be treated & continuous coupon survey shall be run.

EDP

Ron Duls, agreed to put tubing in this well. Suggest you write it to show 2 3/8" tubing set at approx. 6680'. Sweet oil in 2 3/8" x 5 1/2" annulus. Pressure gauge at surface.

Shuddh

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

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

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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.

November 7, 1968, Examiner Hearing

Docket No. 32-68

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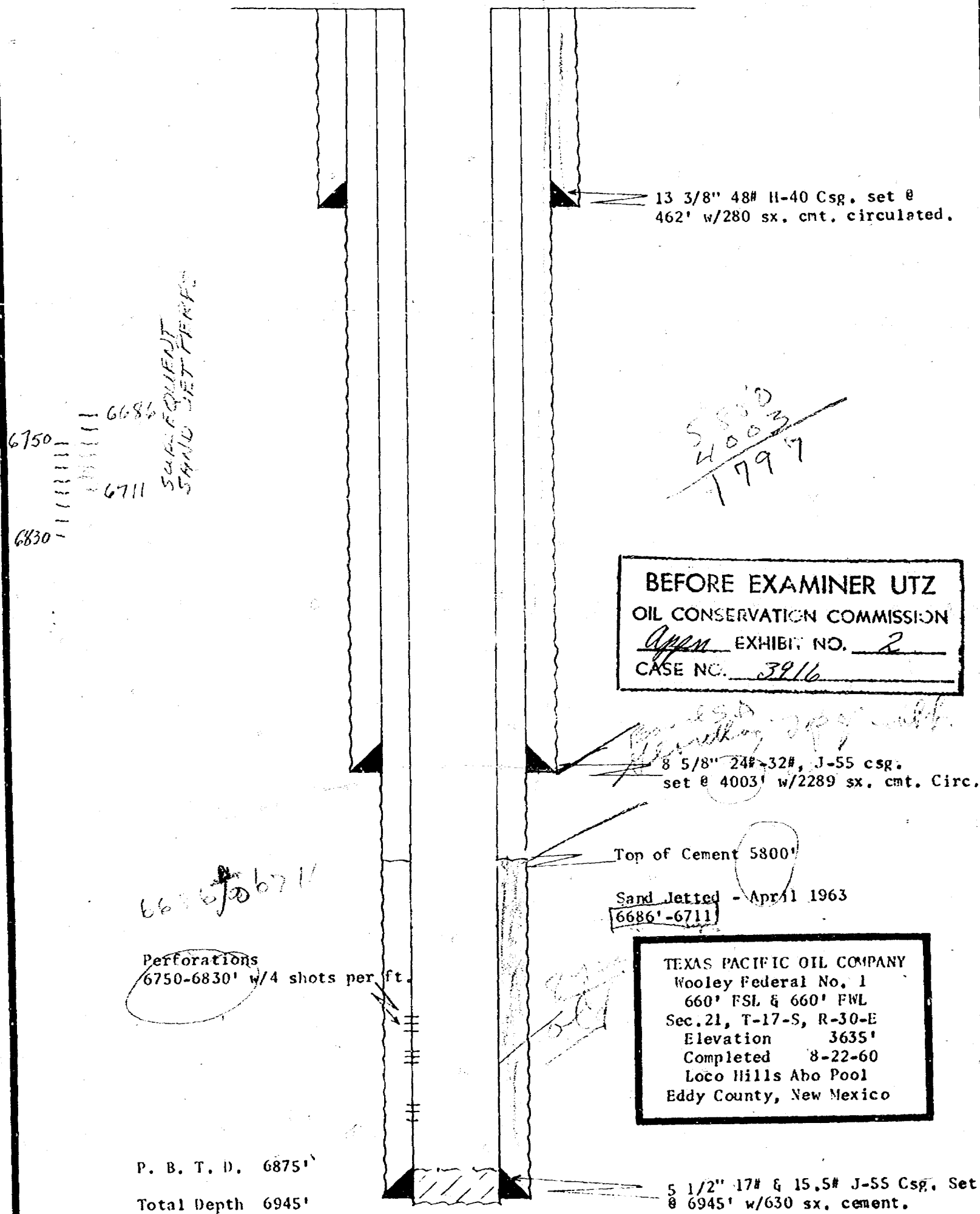
CASE 3920: Application of Kern County Land Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the perforated interval from approximately 4158 feet to 4233 feet in its Federal 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.

SCHEMATIC OF PROPOSED SALT WATER DISPOSAL WELL EL. 3635 G.L.



HALLIBURTON RESEARCH AND TESTING LABORATORIES

Lubbock Division Laboratory
Lovington, New Mexico

MAINTAINED BY HALLIBURTON OIL WELL CEMENTING CO.

No. WT 538

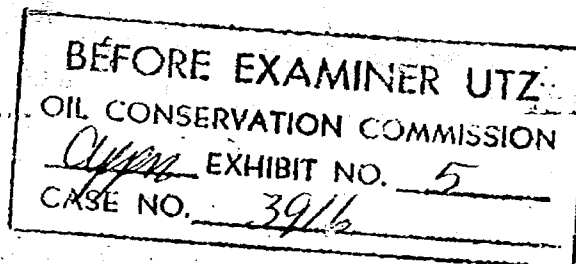
WATER ANALYSIS

Date 8-16-60

To T.P. Coal & Oil Co.
Box 1688
Hobbs, N.M.
Source DST #8

Well & Lease USA Wooley #1
Location File
Formation S
Depth

Tool Top
Specific gravity 60/60 °F 1.020
Color, filtrate light brown
pH 8.45
Resistivity @ 75°F 0.37 ppm
Chlorides, Cl 11,100
Sulfates, SO₄ 5,050
M Alkalinity HNO₃ 2,720
Calcium, Ca 1,060
Magnesium, Mg 305
Iron, Fe negl.
Sodium, Na* 8,580
Sulfides, H₂S 1,122



Remarks:

NOW
HALLIBURTON COMPANY

ppm equals Parts per million uncorrected or milligrams per liter
* includes Potassium as Na.

Laboratory Analyst

M.A. Carter

Respectfully submitted

Halliburton Oil Well Cementing Co.

By MA Carter

BEFORE THE OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
TEXAS PACIFIC OIL COMPANY FOR AN ORDER
AUTHORIZING THE DISPOSAL OF SALT WATER
PRODUCED FROM THE LOCO HILLS ABO POOL,
EDDY COUNTY, NEW MEXICO, INTO THE ABO
FORMATION IN THE PERFORATED INTERVAL
FROM APPROXIMATELY 6686 FEET TO 6830
FEET IN ITS WOOLLEY FEDERAL NO. 1 WELL
LOCATED IN UNIT "M" OF SECTION 21,
TOWNSHIP 17 SOUTH, RANGE 30 EAST, LOCO
HILLS ABO POOL, EDDY COUNTY, NEW MEXICO.

No. 3916

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 that is produced from the Loco Hills Abo Pool, Eddy County, New Mexico, by injection into the Abo Formation in the perforated intervals from approximately 6686 feet to 6830 feet in its Woolley Federal No. 1 Well, located in Unit "M" of Section 21, Township 17 South, Range 30 East, Loco Hills Abo Pool, Eddy 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.

DOCKET MARED
10-25-68
Date

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:

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. 3916

Order No. R-2580

*Application of Texas Pacific
Oil Company For Salt
Water Disposal, Eddy
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. Utey.

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 Woolley Federal Well No. 1,
located in Unit M of Section 21, Township 17 South, Range
30 East, NMPM, Los Hills - Abo Pool, Eddy
County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the abo
formation, with injection into the perforated interval
from approximately 6686 feet to 6830 feet.

(4) That the injection should be accomplished through
2 3/8-inch plastic-lined tubing installed in a packer set at

CASE No. _____

approximately 6680 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 Woolley Federal Well No. 1 located in Unit M of Section 21, Township 17 South, Range 30 East, NMPM, Loca Hills - Abo Pool, Eddy County, New Mexico, to dispose of produced salt water into the Abo formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 6680 feet, with injection into the perforated interval from approximately 6686 feet to 6830 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.