

CASE 3357: Application of SKELLY  
OIL CO. for an oil well-salt  
water disposal dual completion.

---

Case No.

3357

Application,  
Transcripts,  
Small Exhibits  
ETC.

State of New Mexico  
Oil Conservation Commission

other.

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. 3357  
Order No. R-3023

APPLICATION OF SKELLY OIL COMPANY  
FOR AN OIL WELL-SALT WATER DISPOSAL  
DUAL COMPLETION, ROOSEVELT COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on December 14, 1965, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 22nd day of December, 1965, 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, Skelly Oil Company, seeks authority to complete its Hobbs "T" Well No. 11, located in Unit F of Section 33, Township 7 South, Range 33 East, NMM, Roosevelt County, New Mexico, as a dual completion to produce oil from the Upper San Andres formation, Chaveroo-San Andres Pool, through 2 3/8-inch tubing and to dispose of produced salt water into the Lower San Andres formation in the interval from approximately 4676 to 4849 feet through a parallel string of 2 7/8-inch internally plastic-coated tubing, with separation of zones by a packer set at approximately 4450 feet.

(3) That approval of the proposed dual completion will prevent the drilling of unnecessary wells, and will otherwise prevent waste and protect correlative rights.

-2-

CASE No. 3357  
Order No. R-3023

IT IS THEREFORE ORDERED:

(1) That the applicant, Skelly Oil Company, is hereby authorized to complete its Hobbs "T" Well No. 11, located in Unit F of Section 33, Township 7 South, Range 33 East, NMPM, Roosevelt County, New Mexico, as a dual completion to produce oil from the Upper San Andres formation, Chaveroo-San Andres Pool, through 2 3/8-inch tubing and to dispose of produced salt water into the Lower San Andres formation in the interval from approximately 4676 to 4849 feet through a parallel string of 2 7/8-inch internally plastic-coated tubing, with separation of zones by a packer set at approximately 4450 feet;

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packer-leakage tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Chaveroo-San Andres Pool.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

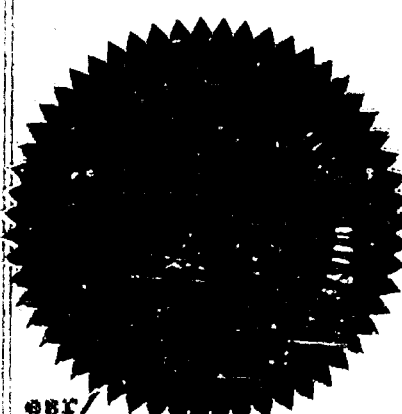
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*Jack M. Campbell*  
JACK M. CAMPBELL, Chairman

*Guyton B. Hays*  
GUYTON B. HAYS, Member

*A. L. Fortner, Jr.*  
A. L. FORTNER, Jr., Member & Secretary



esr/



STATE OF NEW MEXICO  
STATE ENGINEER OFFICE  
SANTA FE

S. E. REYNOLDS  
STATE ENGINEER

December 9, 1965

ADDRESS CORRESPONDENCE TO:  
STATE CAPITOL  
SANTA FE, NEW MEXICO 87501

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

Dear Mr. Porter:

Reference is made to the application of Skelly Oil Co. which seeks authority to complete a dual well for the purpose of producing oil from the upper zone of the San Andres and disposal of salt water into the lower zone. The well is identified as the Hobbs "T" No. 11 in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 33, Township 7 South, Range 33 East, Roosevelt County.

This office offers no objection to the granting of the application, provided the well is completed in the manner shown on diagrammatic sketch labeled "Exhibit 3."

Very truly yours,

S. E. Reynolds  
State Engineer

By: *Frank E. Irby*  
Frank E. Irby, Chief  
Water Rights Division

tmr

cc: Skelly Oil Company  
P. O. Box 1650  
Tulsa Oklahoma 74102  
Attn: George W. Selinger

F. H. Hennighausen  
District II Supervisor  
P. O. Box 1717  
Roswell, New Mexico

OIL CONSERVATION COMMISSION  
DISTRICT

OIL CONSERVATION COMMISSION  
BOX 871  
SANTA FE, NEW MEXICO

DATE Nov. 24, 1965

Re: Proposed NSP  
Proposed Triple  
Proposed NSL  
Proposed NFO  
Proposed DC  
SWD X

Gentlemen:

I have examined the application dated 11/22/65

for the Skelly Oil Co. Hobbs "T" #11 33-7-33  
Operator Lease and Well No. S-T-R

and my recommendations are as follows:

Recommend a Hearing----E.F.E.

Exhibits show separation between upper & lower San Andres reservoir. There  
are 8 wells producing from lower San Andres with no proven separation  
between lower production & injection zone. Recommend Hearing---J.W.R.

Yours very truly,

  
\_\_\_\_\_



# SKELLY OIL COMPANY

TULSA, OKLAHOMA 74102

PRODUCTION DEPARTMENT

C. L. BLACKSHER, VICE PRESIDENT  
W. P. WHITMORE, MGR. PRODUCTION  
W. D. CARSON, MGR. TECHNICAL SERVICES  
ROBERT G. HILTZ, MGR. JOINT OPERATIONS  
GEORGE W. SELINGER, MGR. CONSERVATION

November 19, 1965

Re: Proposed Salt Water Disposal Well and  
Dual Producer - Hobbs "T" No. 11  
SE SE Section 33-7S-33E  
Roosevelt County, New Mexico

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

Dear Mr. Porter:

Skelly Oil Company is in the process of drilling the captioned well in the Chaveroo Pool, and intends to complete the well so that oil will be produced from the Upper San Andres formation and produced salt water will be injected into the Lower San Andres reservoir. We anticipate that the daily water production injected into this well will be approximately 800 barrels per day. The well performance and structural position indicate the Lower San Andres zone will not be productive to the south and east of the proposed disposal well. Produced water is presently disposed of by means of surface pits.

While it is true that there are no presently approved dual completions in this field like this, since the "dual completion" will be within the San Andres reservoir we believe this matter may be handled administratively. Likewise, we feel that permission to utilize the Lower completion for disposal may be handled administratively. We are, therefore, attaching the required number of copies of Form C-107, Application for Multiple Completion, together with diagrammatic sketch, plat, and evidence of mailing a copy of the application to offset operators as required by Rule 112-A IV. As the well is presently drilling, an electrical log is not now available, but will be furnished at a later date. We are, also, attaching the required number of copies of completed Form C-108, in accordance with Rule 701-C, together with the same plat and diagrammatic sketch. A copy of this form is being sent to the surface owner, and a copy with all attachments is being sent to the State Engineer. We are, also, attaching a structure map and cross-sections, which should aid in the handling of this application.

If it is necessary for these matters to be presented at a hearing, we have a problem. This well is being drilled at this time, but we note that the only hearing to be held by the Oil Conservation Commission in December is on Tuesday, December 14th. Unfortunately, we have a very important hearing on that same day in Austin, which involves the first pooling application under the new 1965 Mineral Pooling Act affecting



Mr. A. L. Porter, Jr.  
November 19, 1965  
Page 2

a deep well, below 20,000 feet, requiring a lengthy period of time for such drilling, and it is with deepest regret that we must ask for a temporary emergency order pending a hearing to be set the early part of January. This emergency order would be based on the attached information and can be justified at the first opportunity at a hearing in January. Copies of the request together with the data are being sent to all interested parties as provided for administrative handling. By carbon copy of this letter we are likewise advising them of our emergency order request.

Yours very truly,

*George W. Selinger*

RJJ:br  
Attach.

cc-New Mexico Oil Conservation Commission w/ attach.

District I  
P. O. Box 1980  
Hobbs, New Mexico

State Engineer w/ attach.  
P. O. Box 1079  
Santa Fe, New Mexico

Mr. S. W. Tucker w/ attach. (Form C-108)  
Elida, New Mexico

Interested Parties - Mailing List Attached  
(Offset Operators indicated by \*)

# CHAUVERON POOL MAILING LIST

Allirish Company and B. G. Howell  
1133 Fulton  
Fresno, California

American Trading and Production Corp.  
Drawer 992  
Midland, Texas

\*Atlantic Refining Company  
Box 1978  
Roswell, New Mexico

\*Champlin Petroleum Company  
Box 1797  
Midland, Texas

\*Dalport Oil Corporation  
930 Fidelity Union Life Building  
Dallas, Texas

Enfield, R. W.  
Box 807  
Roswell, New Mexico

Farrell, I. F.  
Box 848  
Carlsbad, New Mexico

Olen F. Featherstone  
236 Petroleum Building  
Roswell, New Mexico

Geror Oil Production and Development  
1846 East Broadway  
Tuscon, Arizona

Hondo Drilling Company  
Box 116  
Midland, Texas

Humble Oil and Refining Company  
Box 2100  
Hobbs, New Mexico

Intex Oil Company  
Box 122  
Midland, Texas

\*Kerr-Mc Gee Oil Industries, Inc.  
Box 1347  
Odessa, Texas

November 15, 1965

/bh

Levelady, I. W.  
3409 West 27th  
Odessa, Texas

\*Marathon Oil Company  
Box 2107  
Hobbs, New Mexico

\*Morgan Drilling Company  
4904 Delwood  
Odessa, Texas

\*Pan American Petroleum Corporation  
Box 63  
Hobbs, New Mexico

Phillips Petroleum Company  
Phillips Building  
4th and Washington Streets  
Odessa, Texas

\*Shackelford, W. L.  
Shackelford Drilling Company  
Box 1095  
Fort Stockton, Texas

\*Shell Oil Company  
Petroleum Building  
Box 1509  
Midland, Texas

\*Southern Minerals Corporation  
Box 1816  
Midland, Texas

\*Southern Petroleum Exploration, Inc.  
Box 1434  
Roswell, New Mexico

Sun Oil Company  
Box 1861  
Midland, Texas

\*Sunray DX Oil Company  
1101 Wilco Building  
Midland, Texas

The Superior Oil Company  
Box 1900  
Midland, Texas

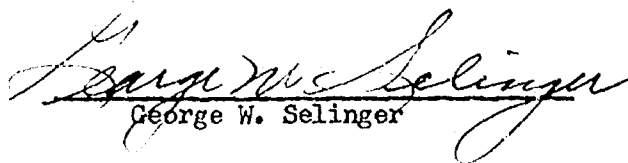
CERTIFICATE OF MAILING

This is to certify that a copy of the attached letter and a completed copy of Form C-108 has been mailed to the surface owner and all operators in the Chaveroo Pool, as shown on the attached address list.

This is to further certify that a completed copy of Form C-107 has also been mailed to offset operators indicated on the attached list by an asterisk (\*).

In addition, this is to also certify that a copy of the attached letter, completed forms C-107 and C-108, together with all Exhibits (1, 3, 5, 6, 7 and 8) was mailed to the State Engineer's Office, and that two copies of the aforementioned letters, forms and exhibits were mailed to the Commission's District Office in Hobbs.

Dated the 19th day of November, 1965.

  
George W. Selinger

NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
APPLICATION FOR MULTIPLE COMPLETION

Form C-107  
5-1-61

Operator <b>SKELLY OIL COMPANY</b>		County <b>ROOSEVELT</b>		Date <b>NOVEMBER 15, 1965</b>
Address <b>P.O. BOX 730</b>		Lease <b>HOBBS "T"</b>		Well No. <b>11</b>
Location of Well <b>P</b>	Unit <b>P</b>	Section <b>33</b>	Township <b>T 7 S</b>	Range <b>R33E</b>

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES \_\_\_\_\_ NO X
2. If answer is yes, identify one such instance: Order No. \_\_\_\_\_; Operator Lease, and Well No.: \_\_\_\_\_

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	<b>Chaveroo-San Andres</b>	<b>--</b>	<b>Chaveroo-San Andres</b>
b. Top and Bottom of Pay Section (Perforations)	<b>4310 - 4365 Est.</b>	<b>--</b>	<b>4700-4780 Est.</b>
c. Type of production (Oil or Gas)	<b>Oil</b>	<b>--</b>	<b>Water</b>
d. Method of Production (Flowing or Artificial Lift)	<b>Artificial Lift</b>	<b>--</b>	<b>Injection</b>

4. The following are attached. (Please check YES or NO)

- |                                     |                          |   |
|-------------------------------------|--------------------------|---|
| Yes                                 | No                       |   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112A.)  |

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

**See Attachment (\* Denotes Offset Operators)**

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO \_\_\_\_\_. If answer is yes, give date of such notification Nov. 19, 1965.

CERTIFICATE: I, the undersigned, state that I am the Dist Supt of the Skelly Oil Co. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

*[Signature]*

Signature

\*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard perforation unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

NEW MEXICO OIL CONSERVATION COMMISSION  
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR <b>SKELLY OIL COMPANY</b>		ADDRESS <b>P.O. BOX 730</b>	
LEASE NAME <b>HOBBS "T"</b>	WELL NO. <b>11</b>	FIELD <b>CHAUVEROO</b>	COUNTY <b>ROOSEVELT</b>
LOCATION UNIT LETTER <b>P</b> ; WELL IS LOCATED <b>660</b> FEET FROM THE <b>East</b> LINE AND <b>660</b> FEET FROM THE <b>SOUTH</b> LINE, SECTION <b>33</b> TOWNSHIP <b>7S</b> RANGE <b>33E</b> NMPM.			

CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	<b>10 3/4"</b>	<b>370'</b>	<b>350</b>	<b>Circulated</b>	<b>---</b>
INTERMEDIATE					
LONG STRING	<b>7 5/8"</b>	<b>4900'</b>	<b>850</b>	<b>2000' Est</b>	<b>Survey</b>
TUBING	<b>2 3/8"</b> <b>2 7/8"</b>	<b>4300</b> <b>4500</b>	NAME, MODEL AND DEPTH OF TUBING PACKER <b>Baker Mod. D Prod. Packer Set at approximately 4450'</b>		
NAME OF PROPOSED INJECTION FORMATION <b>LOWER SAN ANDRES</b>			TOP OF FORMATION <b>3570'</b>		BOTTOM OF FORMATION <b>(Top ) 4900' (Glorieta)</b>
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS?		PERFORATIONS OR OPEN HOLES?		PROPOSED INTERVAL(S) OF INJECTION	
<b>Tubing</b>		<b>Perf.</b>		<b>4700-4780</b>	
IS THIS A NEW WELL DRILLED FOR DISPOSAL?		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED?		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE?	
<b>Yes</b>		<b>Well to be dual producer &amp; disposal</b>		<b>Yes</b>	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH					
<b>Dual Completion W/producing perfs. 4310-4365 (Est.)</b>					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA	
<b>Ogallala (Approx. 200')</b>		<b>4500' (Approx.)</b>		<b>None</b>	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.)	MINIMUM	MAXIMUM	OPEN OR CLOSED TYPE SYSTEM	IS INJECTION TO BE BY GRAVITY OR PRESSURE?	APPROX. PRESSURE (PSI)
			<b>Closed</b>	<b>Pressure</b>	<b>1000</b>
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE -			WATER TO BE DISPOSED OF	NATURAL WATER IN DISPOSAL ZONE	ARE (AVAILABLE) ATTACHED?
			<b>Yes</b>	<b>Yes</b>	<b>No (at a later date)</b>
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)					
<b>Mr. S. W. Tucker, Elida, New Mexico</b>					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL					
<b>See Attached List</b>					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL	
		<b>Yes</b>		<b>Yes</b>	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		PLAT OF AREA		ELECTRICAL LOG	
		<b>Yes</b>		<b>No (Available at later date)</b>	
				<b>Yes</b>	

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

*[Signature]*  
(Signature)

*[Signature]*  
(Title)

*[Signature]*  
(Date)

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

R-33-E



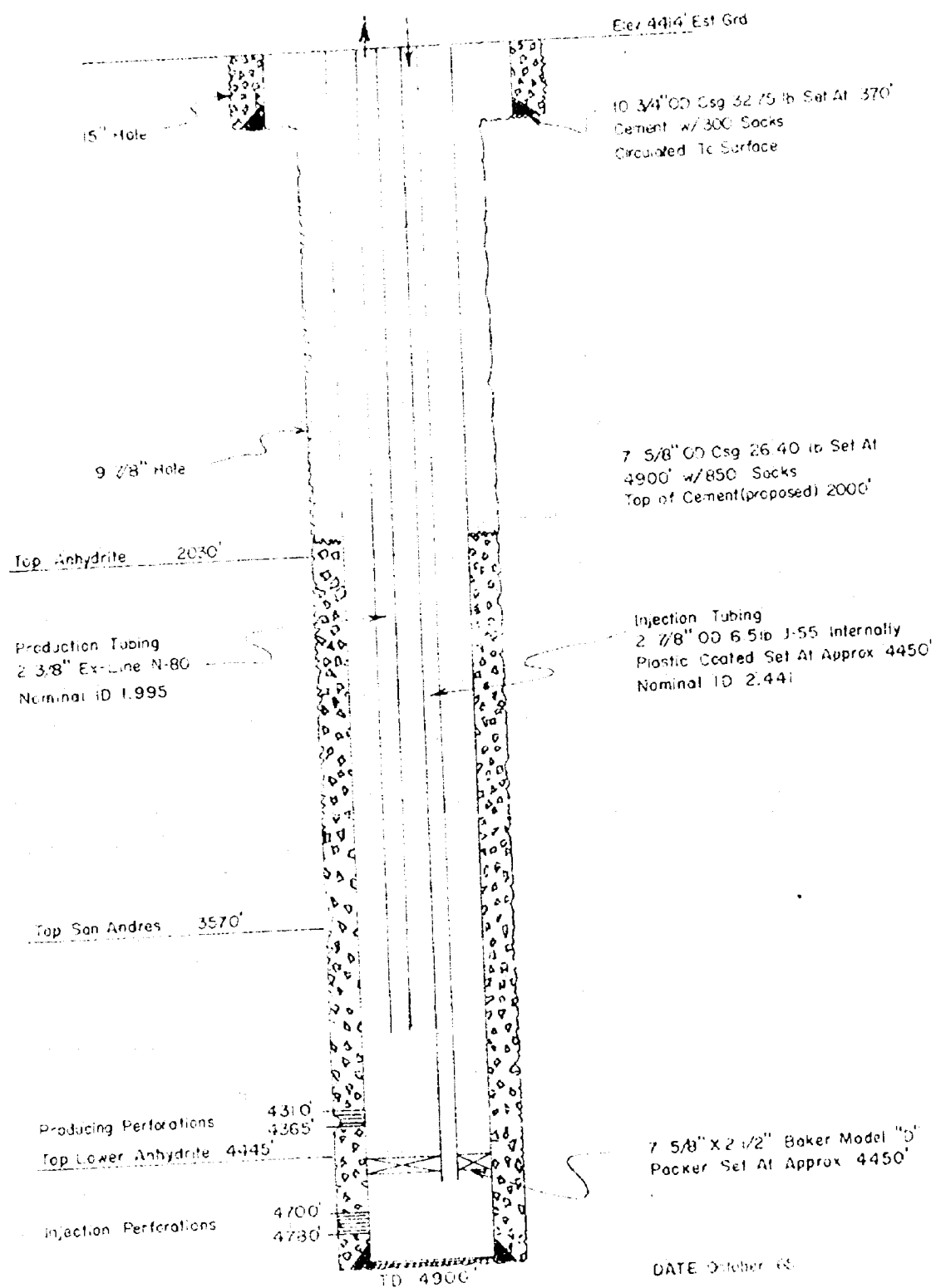
Age Group	Percentage
0-19	100
20-29	95
30-39	90
40-49	85
50-59	80
60-69	75
70-79	70
80-89	65
90+	60

DATE: October 65

- Son Andres Oil Well

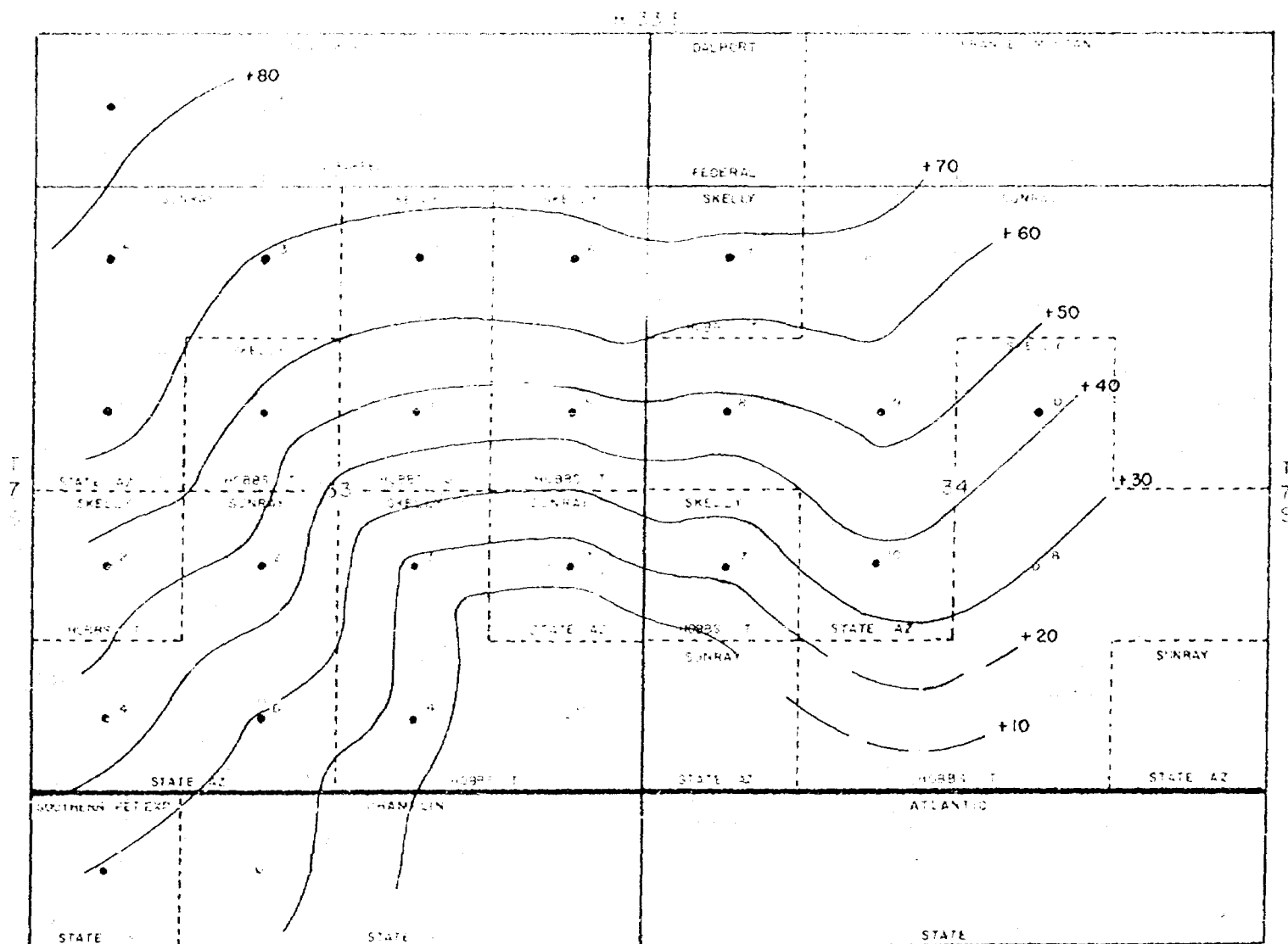
SKELLY OIL COMPANY  
CHAVEROO POOL  
ROOSEVELT COUNTY, NEW MEXICO

DIAGRAMMATIC SKETCH  
 PROPOSED SALT WATER DISPOSAL WELL  
 SKELLY OIL COMPANY HOBBS T 11  
 T60' E8L & E8L SEC. 33-T7S-R33E  
 ROOSEVELT COUNTY, NEW MEXICO



DATE October 68

# EXHIBIT 5



DATE OCTOBER 65

SCALE 1/4" = 1 MILE

SKELLY OIL COMPANY  
CHAVEROO POOL  
ROOSEVELT COUNTY, NEW MEXICO

LEGEND  
TOP LOWER ANHYDRITE  
COUNTOUR INTERVAL 10 FEET



Case 3357

Heard 12-14-65

Res. 12-16-65

Grant Skelly's request for a oil -  
SWD Dual for their Hobbs 'T' # 11  
SESE, 33-75-33E.

Will will produce San Andres oil thru  
tubing in 7 7/8 casing, Packer. set at approx  
4450 will separate producing zone from  
injection zone. Injection & produced  
salt water will be <sup>internally</sup> ~~externally~~ <sup>plaster</sup> coated  
the packer & below the producing  
section of the San Andres. Injection  
tubing will be plaster coated internally.

Thos. H. [

dearnley-meier reporting service, inc.

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-4691 • ALBUQUERQUE, NEW MEXICO

PAGE 1

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
December 14, 1965

EXAMINER      HEARING

IN THE MATTER OF:

Application of Skelly Oil Company for an  
oil well-salt water disposal dual completion,  
Roosevelt County, New Mexico. Applicant,  
in the above-styled cause, seeks authority  
to dually complete its Hobbs "T" Well No.  
11, located in Unit P of Section 33,  
Township 7 South, Range 33 East, Roosevelt  
County, New Mexico, to produce oil from  
the Upp San Andres formation, Chaveroo  
San Andres Pool, and to dispose of produced  
salt water in the Lower San Andres formation  
in the interval from approximately 4700 feet  
to 4780 feet, utilizing parallel strings  
of tubing.

Case No. 3357

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 3357 in the matter of the application of Skelly Oil Company for an oil well-salt water disposal dual completion in Roosevelt County.

MR. WHITE: If the Examiner, please. Charles White of White, Gilbert, Koch and Kelly appearing on behalf of Skelly. I ask that Mr. Cox be sworn.

(Witness sworn.)

(Whereupon, Applicant's Exhibits 1 through 10 marked for identification.)

J A Y T. COX, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. WHITE:

Q Mr. Cox, will you state your full name for the record, please?

A My name is Jay T. Cox. I am District Reservoir Engineer for Skelly Oil Company in the New Mexico District.

Q Mr. Cox, have you previously testified before the Oil Conservation Commission or one of its Examiners?

A Yes.

Q Will you briefly state what Skelly seeks by this application?

A Skelly seeks permission to dually complete their Hobbs "T" Number 11 well as a producer-injector and also seeks

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

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO  
1213 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO



permission to inject water into the Lower San Andres Reservoir.

Q Will you refer to what has been marked as Exhibit 1 and explain that location plat, please?

A Exhibit 1 is a plat showing the location of the proposed disposal well and all other wells in a two-mile radius. Also indicated on the plat are producing formations and the leasees in this area.

Q Does this show the pool development to date?

A This exhibit shows the pool development to the 1st of December of this year.

Q Are the pool limits defined as yet?

A The pool limits are not defined to date.

Q When was the first discovery well?

A The first discovery well in this pool was Champlin's Hondo State Number 1 located 1980 feet from the north line and 660 feet from the east line of Section 32, Township 7 South, Range 33 East. Development since the discovery well in March of 1965 has resulted in 28 producing wells as of October 1st. An additional seven wells were completed in October. All production reported for September was 21,700. Initial potentials indicate a daily water production would be in the order of 800 barrels per day.

Q And how is this water presently being disposed of?

MR. PORTER: That's for the whole pool?

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

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 242-6491 • ALBUQUERQUE, NEW MEXICO  
1213 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO

THE WITNESS: Yes, sir.

MR. UTZ: 21,500 is the water.

THE WITNESS: No, that's the oil production for September.

MR. UTZ: And 800 barrels of water?

THE WITNESS: The actual water production was just estimated from initial well potentials and this would be 800 barrels per day figure.

Q (By Mr. White) Now, will you refer to your log, Exhibit 2, and explain that to the Examiner, please?

A Exhibit 2 is the borehole compensated sonic log on the Hobbs "T" 11 well. Shown on the detailed portion of the log are the top of the San Andres zone at 3550 feet. The producing perforations are indicated from 4207 through 4418. The injection zone perforations are shown from 4676 to 4849 feet. The base of the San Andres or the top of the Glorieta is indicated at 4860.

Q Now, will you refer to your Exhibit 3, your diagrammatic sketch? Has this exhibit been updated since the original exhibit you submitted with your application?

A Yes, Exhibit 3 has been updated to actual information obtained upon completion of the well. Exhibit 3 is a diagrammatic sketch showing the following items: casing strings, dry diameters, setting depths, quantities used in tops of cement,

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

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tubing string diameters and setting depths and the type and location of the packer. The surface string is 10 and 3/8's inch OD casing set at 364 feet. Three hundred and fifty sacks of cement were used which circulated to the surface. This string was pressure-tested at 1,000 psi for 30 minutes and tested okay. The long string is 7 and 5/8's inches. The casing set at 4900 feet with 850 sacks of cement. The top of the cement was located by temperature survey to be 2800 feet. The top of the anhydrite in the well was encountered at 2000 feet. The strings to be used in this well in the producing zone will be 2 and 3/8's inches ex-line N-80 with a nominal ID of 1.995 inches. The injection tubing will be 2 and 7/8's inch OD J-55 internal plastic coated set at approximately 4450. The nominal ID of this string is 2.441 inches. The producing perforations are from 4207 to 4418. Injection perforations will be 4676 to 4849. Injection will be below a packer which is described as follows: A 7 and 5/8's inch by 2 and 1/2 inch Baker Model "D" packer which will be set at approximately 4450.

Exhibit 3-A is a temperature survey conducted by Halliburton which established the top of cement at 2800 feet.

Q Mr. Cox, in your opinion is the well cased and cemented in such a manner that there will be no danger of contaminating any of the other zones?

A Yes, it is.

Q Will you refer to and explain Exhibit 4 and 4-A?

A Exhibit 4 and 4-A are analyses of the produced San Andres-Slaughter water indicated as "Sample A" and the Lower San Andres water "Sample D" into which injection is intended.

Q These analyses show that both zones contain certain mineralized water?

A Yes, they do. The produced water has a chloride count in milligrams per liter of 163,600. The water from the zone of injection has a chloride count of 158,000 milligrams per liter.

Q What are your anticipated injection rates and initial pressures?

A We anticipate initial injection rates of 200 barrels per day at approximately 200 to 300 psi. These will be volumes produced from the Skelly leases.

Q Upon completion of this system, will Skelly afford the other operators in the area the opportunity to use this system?

A Yes. Skelly will afford other operators the opportunity to use the system to its capacity.

Q Will you now refer to Exhibit 5?

A Exhibit 5 is a structure map contoured on top of the Lower Anhydrite marker just below the oolitic porosity. This

oolitic porosity is the main pay in the field development in the area to date and shows the Hobbs "T" Number 11 well to be the most structurally oil well.

Q Now, will you refer to Exhibits 6 and 7, cross sections?

A Exhibits 6 and 7 are cross sections showing the well structural position and the depth of the aforementioned lower anhydrite marker.

Exhibit 6 is a north-south cross section in the Chaveroo Pool through wells on the east side of Section 33. Just above the title block is a map showing which wells the section is drawn through.

Q A - A prime?

A Yes, A - A prime. The purpose of Exhibits 6 and 7 is merely to show that the Hobbs "T" 11 is down depth on the structure. Also indicated on Exhibits 6 and 7 is the proposed producing interval and the injection interval in the Hobbs "T" 11 well.

Q This would show, would it not, that the injection interval would be far below any producing area?

A Yes. These exhibits show the injection interval would be approximately 250 feet below the top of this indicated anhydrite marker.

Q Will you now explain your diagrammatic sketch shown



on Exhibit 8?

A Exhibit 8 is a diagrammatic sketch of all wells completed in the Chaveroo Pool as of the 1st of December. Shown in the legend as A - A prime and on the first well on the left-hand side of the page is the uppermost and lowermost producing perforations in each well. Noted as "B" on this diagram is the top of the Lower Anhydrite. The plug back depth is indicated by the letter "C". The Champlin Hondo State 2 well shows the legend, letter "D", which indicates abandoned perforations.

The junction interval in the disposal well is 250 feet below the top of the indicated Lower Anhydrite. Although the proposed injection interval is San Andres formation, the zones of injection will be well below any producing interval.

Q Mr. Cox, will you now explain Exhibit 9 which is Mr. Selinger's certificate of mailing?

A Skelly Oil Company has furnished copies of the applications for the proposed salt water disposal well, Form C-108, and the proposed dual-completion, Form C-107 and associated exhibits to the following parties: all offset operators, surface land leasees and the State Engineer. Specific exhibits sent to these parties are those marked: Exhibits 1, 3, 5, 6, 7 and 8. Exhibit Number 9 is a copy of the certificate of mailing of the above-mentioned documents

to the parties named.

Q Very well. Now, will you explain Exhibit 10, please?

A Exhibit 10 is a northwest - southeast cross section from the Champlin Hondo State Number 1 to the Skelly Hobbs "T" Number 11. These wells are 1.18 miles apart, and have penetrated the entire San Andres formation and are the only wells in proximity to the pool drilled to such a depth. Pertinent points illustrated on this exhibit on the Hobbs "T" 11 well, the one on the right, item one marked in the depth column as A - A prime are stratigraphic correlations of the uppermost and the lowermost producing perforations in the Chaveroo pool. This extends from approximately 4250 to 4500 feet on the Hobbs "T" 11. Item two, producing perforations anticipated in the Hobbs "T" 11 are indicated from 4207 to 4418 feet. The perforated injection noted as B - B prime extends from 4670 feet to 4950 feet. The lithology encountered in this well is presented on the right-hand side of the log and shows composition of the reservoir material. This lithology log was calculated from a suite of logs run in the well. Noted under the lithology heading is the color code for the various types of material in the well. The yellow indicates the silica; the purple, gypsum; the green, anhydrite, and the blue, dolomite. Based on this lithology scale, porosity scales have been plotted on the sonic log. These

scales are noted at depths of 4200 feet, at 4505, 4510 and 4670, and are based on matrix villosity for the composition of the reservoir well. Indicated on the lithology log this interval from 4500 feet to 4670 shows porosities ranging from zero to three per cent. This argillaceous limestone although indicated on the lithology as silica is an impermeable material and will act as a barrier between the producing zones and the injection zones. Water injection into the interval 4670 to 4950 will be in a porous dolomite. The zones are isolated above by the impermeable argillaceous limestone and below by the anhydrite noted as 4850 to 4860 feet.

Referring now to the Hondo State Number 1 log: The anhydrite marker is correlated from the Hobbs "T" 11 to the Hondo State in which it was encountered at 4359. This anhydrite marker and the porous zones to which injection is anticipated is correlatable from the Hobbs "T" 11 to the Hondo State Number 1. Porosities on the Hondo State Number 1 are indicated to be from zero to slightly less than five per cent. The log deflections are from 4480 to 4540; have been discussed and reviewed with the logging engineer and are attributable to instrument malfunctioning due to washed out hole conditions. The impermeable barrier between the producing horizon and the zones proposed for water injection is continuous over the area between these two wells.

Q What conclusions do you draw from these two logs?

A The zones of injection and the zones of production are isolated by an impermeable barrier above and by the impermeable anhydrite barrier below.

Q Mr. Cox, do you have any economics that you would like to furnish the Commission?

A Yes. Economics show a net savings of \$27,000 by utilizing the proposed dual completion technique. The cost to drill and equip a single oil producer is \$60,000 and the estimated cost for a single salt water disposal well is \$52,000 or a total of \$112,000 for two wells. The cost to drill and complete the Hobbs "T" Number 11, as proposed, was \$85,000 which will result in the previously mentioned savings of \$27,000 for that whole completion.

Q Were these exhibits prepared by you or under at your direction?

A Yes, they were.

Q Are they true and correct to the best of your knowledge?

A Yes.

MR. WHITE: At this time we offer Exhibits 1 through 10.

MR. UTZ: Without objection, Exhibits 1 through 10 will be entered into evidence.

(Whereupon, Applicant's Exhibits 1 through 10 were offered and admitted into evidence.)

MR. WHITE: That completes our testimony on direct.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Cox, do you consider this a water-dry pool?

A The development in the area today indicates that it would be a water-dry pool. However, production has been limited to last eight or nine months and it's really too early to say.

Q And you would have no opinion at this time as to whether water/oil contact, what it would be?

A I do not believe that a true oil/water contact would exist in this reservoir.

Q Did you drill stem test the zone in which you intend to inject water?

A No, we didn't.

Q Then you don't know whether it produces any oil or not?

A We did perforate and test the zone. Upon completion only limited volumes of water production were recovered. After stimulation of the zone by fracturing techniques still only limited volumes of water and only water were recovered.

Q This was on a production test?

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A Yes, sir, on production tests.

Q Between the bottom of your producing zone and the top of your section zone is only about 268 feet. Do you feel that that water is adequately separated from one producing area in the absence of water/oil contact?

A Yes, sir, I do. I believe the argillaceous limestone material is impermeable and will act as a barrier.

Q Is it your proposal to inject at a pressure of 200 pounds surface?

A Yes.

Q And how much water do you have to inject at this time?

A At this time we would inject at approximately 200 to 300 barrels a day.

Q Now, the injection string will be plastic coated internally?

A Yes.

Q How about externally?

A No, sir, not externally.

Q What type of crude is this? Is it corrosive?

A I do not believe that it is corrosive.

Q But you're not sure?

A I'm not sure.

Q If it were corrosive then it would be pretty dangerous situation with that coated tubing as far as you are concerned?

A We would certainly recognize any break in the tubing in that the well would be producing --

Q When you start producing water?

A When we start producing water, we would know immediately something was wrong.

Q Is this an automated lease?

A No, sir.

Q You have pumpers?

A Yes, we do have pumpers.

Q And this is a flowing well?

A No, this well will be pumped.

Q How would your bottom hole pressures at your completion zone compare with the pressures on injection?

A We did not get any bottom hole pressures in the injection zones. Bottom hole pressures in the producing zone have been approximately 1200 - 1250 psi.

Q You have about 4300 feet of salt water plus?

A Yes. The bottom hole pressures in the injection zone or the injection pressure at bottom hole condition would probably be in the neighborhood of 2500 pounds.

Q It would be substantially more pressure than in your oil zone?

A Yes, very substantially.

Q In the event you had a leak or a rupture or what have

you in the injection zone, what would be the effect on the producing zone?

A We would note a very rapid increase in water production. As a matter of fact, the well would start to flow water.

Q What is the effect on the producing zone?

A The effect on the producing zone?

Q Well, your 2500 pounds going into water would go into the producing zone with this 2500 pounds?

A If conditions would permit it to exist for a very long period of time, yes. However, we would certainly cease water injection upon indications of water behind the packer and within the producing interval.

Q What would be the maximum length of time that this situation could occur before it would be discovered?

A Twenty-four hours.

Q MR. UTZ: Any other questions of the witness?

MR. PORTER: I have one or two.

BY MR. PORTER:

Q Mr. Cox, you indicated here that you had supplied copies of your application, I believe, and certain exhibits to the State Engineer's office. Have you heard anything from the State Engineer's office?

MR. WHITE: It's my understanding that the State



Engineer called my office and said he would have objection to this application.

MR. KELLY: I can testify to that. I got the call.

MR. PORTER: Oh, I see.

Q (By Mr. Porter) You also indicated that this well would be made available to other operators in the pool for disposal of salt water?

A Yes, sir.

Q Have you had any indications from them as to whether they will use the well or not?

A Nothing formal. In discussions with several of the operators in the area, they have shown interest.

Q Now, is there any land in cultivation in this area?

A No, sir.

Q Another thing. I just want to find out about the pool which would have no bearing on the case. I believe you indicated that some 27 wells were completed by October 1st or 28?

A Twenty-eight wells were completed by October 1st and an additional seven wells were completed in October which would make a total of thirty-five.

Q And there has been drilling through the month of November?

A Yes. The Chaveroc Pool is the hot spot of New Mexico

as the literature describes it. Approximately five drilling rigs are active daily.

Q How long does it take to drill one of these wells?

A Approximately 10 days.

Q Are these wells most of them still top allowable wells at the present rates of allowables?

A Yes, sir, they are.

Q What are the gas/oil ratios in the area average would you say?

A The average would be between 500 to 800 cubic feet per barrel. There is some question as to whether or not there are some thin gas zones up in the upper portion in which some wells have been perforated.

Q And they may be contributing to the over-all gas production?

A Yes. There are a few isolated wells with gas/oil ratio above 1,000 barrels but none above 2,000 barrels ratio.

Q And this pool is based on 40 acre?

A Yes.

MR. PORTER: Thank you. That's all I have.

MR. UTZ: Any other questions?

MR. WHITE: Any further statement you wish, Mr. Cox?

THE WITNESS: No.

MR. UTZ: The witness may be excused.

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PAGE 18

(Witness was excused.)

Are there any other statements to be made in this

Case?

The Case will be taken under advisement.

(Whereupon, Case Number 3357  
was concluded.)

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WITNESS	PAGE
JAY T. COX	
Direct Examination by Mr. White	2
Cross Examination by Mr. Utz	12
Cross Examination by Mr. Porter	15

E X H I B I T S

<u>Exhibit</u>	<u>Marked for Identification</u>	<u>Offered</u>	<u>Admitted</u>
App's. 1	2	12	12
App's. 2	2	12	12
App's. 3	2	12	12
App's. 3-A	2	12	12
App's. 4	2	12	12
App's. 4-A	2	12	12
App's. 5	2	12	12
App's. 6	2	12	12
App's. 7	2	12	12
App's. 8	2	12	12
App's. 9	2	12	12
App's. 10	2	12	12

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COUNTY OF BERNALILLO ) ss

I, DEAN A. ROBINSON, Notary Public 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.

Witness my Hand and Seal this 31st day of December, 1965.

*Dean A. Robinson*  
NOTARY PUBLIC

My Commission Expires:  
October 16, 1969.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 8282, heard by me on December 1, 1965.  
*[Signature]*, Examiner  
New Mexico Oil Conservation Commission

NM 0000

0001

SKELLY DUAL COMPLETION(Case 3357)

HOBBS T11, Unit "P" Sec. 33, T7S, R33E

ROOSEVELT CO., NM

December 14, 1965, Examiner Hearing

CASE 3354: Application of Shell Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the North Antelope Ridge Unit Area comprising 4,480 acres, more or less, of Federal, State, and Fee lands in Township 23 South, Range 34 East, Lea County, New Mexico.

CASE 3355: Application of Shell Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the North Square Lake Premier Unit Area comprising 1,080 acres, more or less, of Federal, State and Fee lands in Township 16 South, Range 31 East, Eddy County, New Mexico.

CASE 3356: Application of Shell Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its North Square Lake Premier Unit Area by the injection of water into the Premier Sand of the Grayburg formation through thirteen wells located in Sections 5, 6, and 8, Township 16 South, Range 31 East, Eddy County, New Mexico.

CASE 3357: Application of Skelly Oil Company for an oil well-salt water disposal dual completion, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Hobbs "T" Well No. 11, located in Unit P of Section 33, Township 7 South, Range 33 East, Roosevelt County, New Mexico, to produce oil from the Upper San Andres formation, Chaveroo San Andres Pool, and to dispose of produced salt water in the Lower San Andres formation in the interval from approximately 4700 feet to 4780 feet, utilizing parallel strings of tubing.

DOCKET: EXAMINER HEARING - TUESDAY - DECEMBER 14, 1965

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 3348: Application of Joseph I. O'Neill, Jr. for special rules for the South Prairie-San Andres Pool, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the South Prairie-San Andres Pool, Roosevelt County, New Mexico, including a provision for 80-acre proration units. Applicant further seeks the extension of said pool to include portions of Sections 16, 17, 20 and 21, Township 8 South, Range 36 East.
- CASE 3349: Application of International Oil & Gas Corporation for a dual completion Lea County, New Mexico. Applicant, in the above-styled cause, seeks the approval of the dual completion (conventional) of its Linam Federal Well No. 1 located in Unit I of Section 21, Township 18 South, Range 32 East, Lea County, New Mexico, to produce oil from the Bone Springs and Wolfcamp formations (both undesignated) through parallel strings of tubing.
- CASE 3350: Application of International Oil & Gas Corporation for the creation of a new oil pool and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Wolfcamp production in Section 21, Township 18 South, Range 32 East, Lea County, New Mexico, and the establishment of special rules therefor, including a provision for 80-acre proration units.
- CASE 3351: Application of Pan American Petroleum Corporation for special pool rules for the Dos Hermanos Morrow Gas Pool, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of temporary special pool rules for the Dos Hermanos Morrow Gas Pool in Section 28, Township 20 South, Range 30 East, Eddy County, New Mexico, including a provision for 640-acre proration units and fixed well locations.
- CASE 3352: Application of Bass Brothers Enterprises, Inc. for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the North Custer Mountain Unit Area comprising 2560 acres, more or less, of State land in Township 23 South, Range 35 East, Lea County, New Mexico.
- CASE 3353: Application of Tesoro Petroleum Corporation to amend Order No. R-2807, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks an amendment to Order No. R-2807, which authorized a waterflood project in the Hospah Unit Area, to permit the production of oil from previously designated water injection wells, to approve unorthodox locations for additional producing wells, and to authorize additional injection wells, all in Section 36, Township 18 North, Range 9 West, McKinley County, New Mexico.



NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
APPLICATION FOR MULTIPLE COMPLETION

Form C-107  
5-1-61

Operator <b>SKELLY OIL COMPANY</b>		County <b>ROOSEVELT</b>		Date <b>DECEMBER 1, 1965</b> <del>NOVEMBER 15, 1965</del>
Address <b>P.O. BOX 730</b>		Lease <b>HOBBS "T"</b>		Well No. <b>11</b>
Location of Well <b>P</b>	Unit <b>33</b>	Section <b>T 7 S</b>	Range <b>R33E</b>	

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES \_\_\_\_\_ NO X
2. If answer is yes, identify one such instance: Order No. \_\_\_\_\_ ; Operator Lease, and Well No.: \_\_\_\_\_

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	<b>Chaveroo-San Andres</b>	<b>--</b>	<b>Chaveroo-San Andres</b>
b. Top and Bottom of Pay Section (Perforations)	<b>4207 - 4413</b> <b>4310 - 4365-Est.</b>	<b>--</b>	<b>4676-4847</b> <b>4700-4730-Est.</b>
c. Type of production (Oil or Gas)	<b>Oil</b>	<b>--</b>	<b>Water</b>
d. Method of Production (Flowing or Artificial Lift)	<b>Artificial Lift</b>	<b>--</b>	<b>Injection</b>

4. The following are attached. (Please check YES or NO)

- |                                     |                          |   |
|-------------------------------------|--------------------------|---|
| Yes                                 | No                       |   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.)   |

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

See Attachment (\* Denotes Offset Operators)

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO \_\_\_\_\_. If answer is yes, give date of such notification Dec. 1, 1965.

CERTIFICATE: I, the undersigned, state that I am the Dist. Supt. of the Skelly Oil Co. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

J. E. Lab  
Signature

\*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

NEW MEXICO OIL CONSERVATION COMMISSION  
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR <b>SKELLY OIL COMPANY</b>		ADDRESS <b>P.O. BOX 730</b>	
LEASE NAME <b>HOBBS "T"</b>	WELL NO. <b>11</b>	FIELD <b>CHAVEZCO</b>	COUNTY <b>ROOSEVELT</b>
LOCATION UNIT LETTER <b>P</b> ; WELL IS LOCATED <b>660</b> FEET FROM THE <b>East</b> LINE AND <b>660</b> FEET FROM THE <b>SOUTH</b> LINE, SECTION <b>33</b> TOWNSHIP <b>7S</b> RANGE <b>33E</b> NMPM.			
CASING AND TUBING DATA			
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT
SURFACE CASING	<b>10 3/4"</b>	<b>364'</b> <del>370'</del>	<b>350</b>
INTERMEDIATE			
LONG STRING	<b>7 5/8"</b>	<b>4900'</b>	<b>850</b>
TUBING	<b>2 3/8"</b> <b>2 7/8"</b>	<b>4300</b> <b>4500</b>	NAME, MODEL AND DEPTH OF TUBING PACKER <b>Baker Mod. D Prod. Packer Set at approximately 4450'</b>
NAME OF PROPOSED INJECTION FORMATION <b>LOWER SAN ANDRES</b>		TOP OF FORMATION <b>3550'</b> <del>3570'</del>	BOTTOM OF FORMATION <b>4860' (Top)</b> <b>4200' (Glorieta)</b>
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS?		PERFORATIONS OR OPEN HOLES?	PROPOSED INTERVAL(S) OF INJECTION
<b>Tubing</b>		<b>Perf.</b>	<b>4200'-4340'</b> <del>4200'-4300'</del>
IS THIS A NEW WELL DRILLED FOR DISPOSAL?	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED?		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE?
<b>Yes</b>	<b>Well to be dual producer &amp; disposal</b>		<b>Yes</b>
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH			
<b>4200'-4418'</b>			
<b>Dual Completion W/producing perfs. 4310-4365' (East)</b>			
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA	
<b>Ogallala (Approx. 200')</b>		<b>4500' (Approx.)</b>	
ANTICIPATED DAILY INJECTION VOLUME (BBL'S.)	MINIMUM	MAXIMUM	OPEN OR CLOSED TYPE SYSTEM
<b>200</b>		<b>1000</b>	<b>Closed</b>
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE		WATER TO BE DISPOSED OF	
		<b>Yes</b>	
IS INJECTION TO BE BY GRAVITY OR PRESSURE?		APPROX. PRESSURE (PSI)	
<b>Pressure</b>		<b>1000</b>	
NATURAL WATER IN DISPOSAL ZONE		ARE WATER SAMPLES ATTACHED?	
<b>Yes</b>		<b>(Available) YES</b>	
		<b>No (at a later date)</b>	
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)			
<b>Mr. S. W. Tucker, Elida, New Mexico</b>			
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL			
<b>See Attached List</b>			
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?			
SURFACE OWNER		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL	
<b>Yes</b>		<b>Yes</b>	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)		THE NEW MEXICO STATE ENGINEER	
PLAT OF AREA		<b>Yes</b>	
<b>Yes</b>		ELECTRICAL LOG	
		<b>Yes</b>	
		DIAGRAMMATIC SKETCH OF WELL	
		<b>Yes</b>	

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

*J. E. Leab* (Signature)      *Dist. Sup't* (Title)      *Dec. 1, 1965* (Date)

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

# CHAUVERCO POOL MAILING LIST

Allirish Company and E. G. Howell  
1133 Fulton  
Fresno, California

American Trading and Production Corp.  
Drawer 992  
Midland, Texas

\*Atlantic Refining Company  
Box 1973  
Roswell, New Mexico

\*Champlin Petroleum Company  
Box 1797  
Midland, Texas

\*Dalport Oil Corporation  
930 Fidelity Union Life Building  
Dallas, Texas

Enfield, R. W.  
Box 807  
Roswell, New Mexico

Farrell, I. F.  
Box 848  
Carlsbad, New Mexico

Olen F. Featherstone  
236 Petroleum Building  
Roswell, New Mexico

Geror Oil Production and Development  
1846 East Broadway  
Tucson, Arizona

Hondo Drilling Company  
Box 116  
Midland, Texas

Humble Oil and Refining Company  
Box 2100  
Hobbs, New Mexico

Intex Oil Company  
Box 122  
Midland, Texas

\*Kerr-Mc Gee Oil Industries, Inc.  
Box 1347  
Odessa, Texas

November 15, 1965

/bh

Lovelady, I. W.  
8409 West 27th  
Odessa, Texas

Marathon Oil Company  
Box 2107  
Hobbs, New Mexico

\*Morgan Drilling Company  
4904 Delwood  
Odessa, Texas

\*Pan American Petroleum Corporation  
Box 68  
Hobbs, New Mexico

Phillips Petroleum Company  
Phillips Building  
4th and Washington Streets  
Odessa, Texas

\*Shackelford, W. L.  
Shackelford Drilling Company  
Box 1095  
Fort Stockton, Texas

\*Shell Oil Company  
Petroleum Building  
Box 1509  
Midland, Texas

\*Southern Minerals Corporation  
Box 1816  
Midland, Texas

\*Southern Petroleum Exploration, Inc.  
Box 1434  
Roswell, New Mexico

Sun Oil Company  
Box 1861  
Midland, Texas

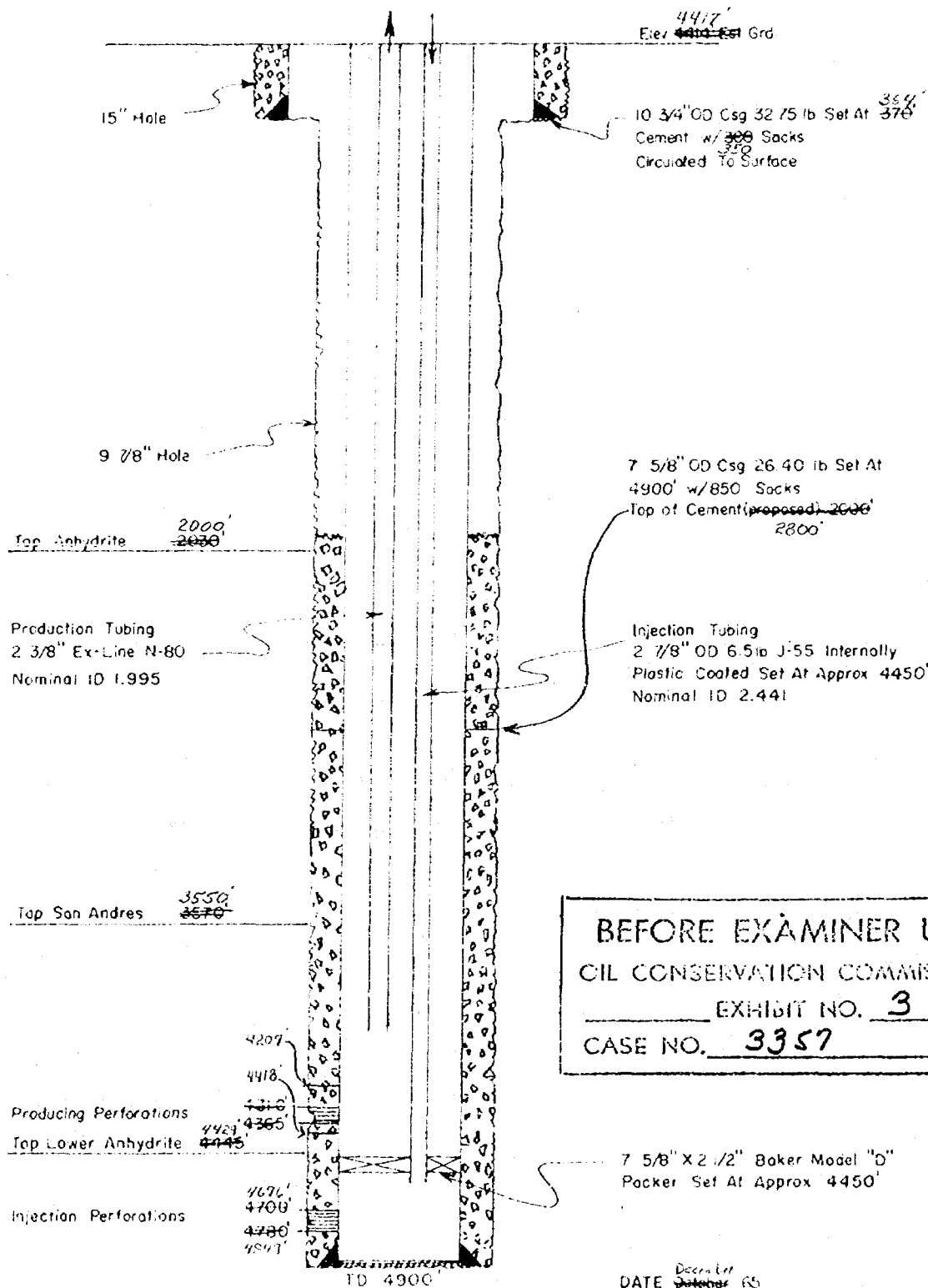
\*Sunray DX Oil Company  
1101 Wilco Building  
Midland, Texas

The Superior Oil Company  
Box 1900  
Midland, Texas

LIST OF EXHIBITS

1. LOCATION PLAT
2. WELL LOG - HOBBS "T" NO. 11
3. DIAGRAMMATIC SKETCH - HOBBS "T" NO. 11
4. WATER ANALYSES - SAN ANDRES - SLAUGHTER  
LOWER SAN ANDRES
5. STRUCTURE MAP - LOWER ANHYDRITE MARKER
6. NORTH-SOUTH CROSS-SECTION
7. WEST-EAST CROSS-SECTION
8. DIAGRAMMATIC SKETCH - ALL COMPLETIONS
9. CERTIFIED MAIL RECEIPTS
10. NORTHWEST-SOUTHEAST CROSS-SECTION  
Hondo SE No. 1 - Hobbs "T" No. 11

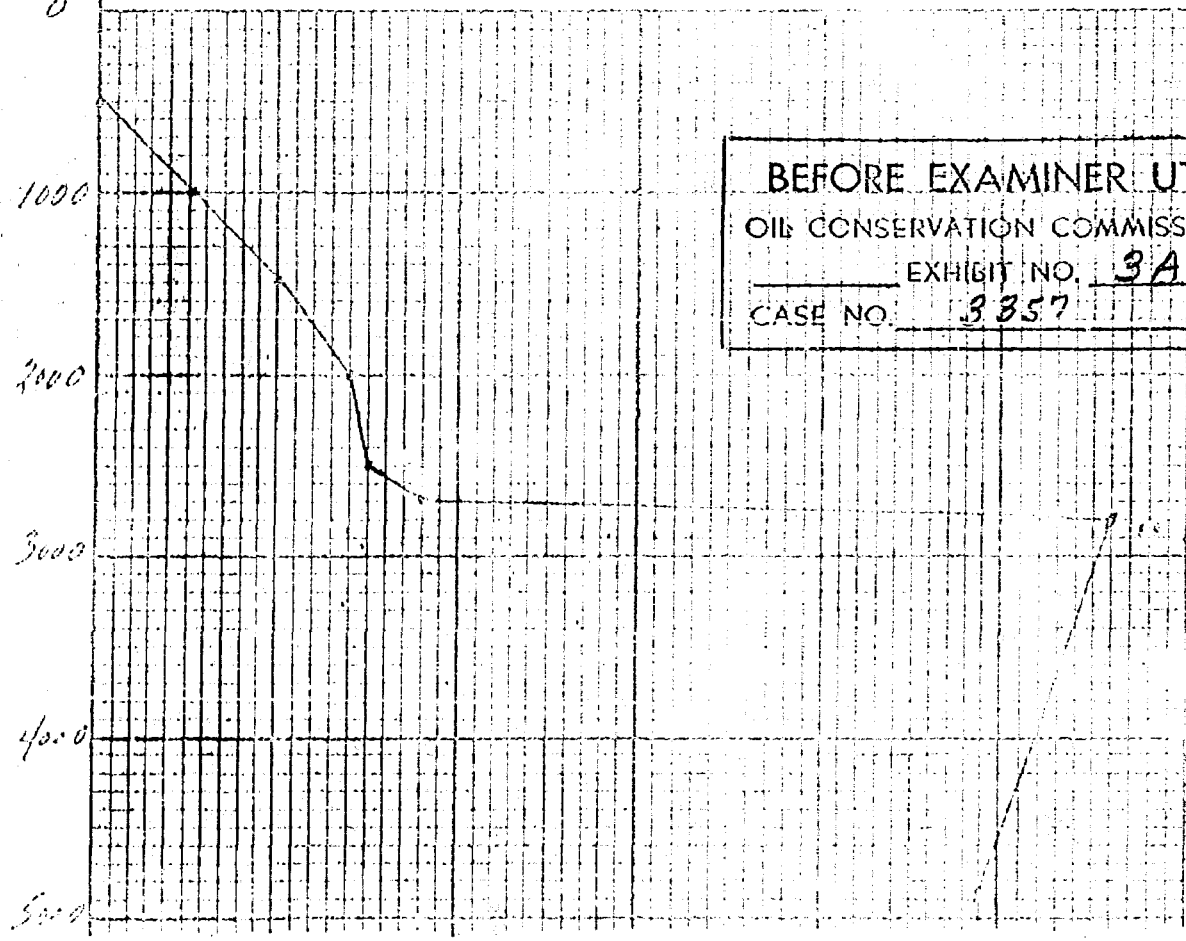
DIAGRAMMATIC SKETCH  
 PROPOSED SALT WATER DISPOSAL WELL  
 SKELLY OIL COMPANY HOBBS T 11  
 C60' FSL & FEL SEC. 33-T7S-R33E  
 ROOSEVELT COUNTY, NEW MEXICO



BEFORE EXAMINER UTZ  
 OIL CONSERVATION COMMISSION  
 EXHIBIT NO. 3  
 CASE NO. 3357

DATE December 1955

TEMPERATURE IN DEGREES FAHRENHEIT.					
70°	90°	100°	110°	120°	130°



BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 3A  
CASE NO. 3357



**DOWELL** DIVISION OF THE DOW CHEMICAL COMPANY

FIELD LABORATORY REPORT

WATER ANALYSIS

TO: Skelly Oil Company  
Box 730  
Hobbs, N.M.

LABORATORY LOCATION Hobbs, N.M.	REPORT NUMBER 5026
COMPANY Skelly Oil Co.	WELL Hobbs T Lease
POOL Chaveroo	LOCATION
COUNTY Roosevelt	STATE N.M.
FORMATION San Andres	DEPTH
SUBMITTED BY (Dowell)	TESTS DESIRED W/A

DATE SAMPLE SUBMITTED

12-3-65

SAMPLE SOURCE

Sample A Produced water

	XXX MG/L	XXX MG/L		XXX MG/L	XXX MG/L
CALCIUM	23880	1190	CHLORIDE	163600	4610
MAGNESIUM	10800	890	SULFATE	500	10
SODIUM	58600	2545	BICARBONATE	340	5
IRON			CARBONATE		
HYDROGEN SULFIDE			HYDROXIDE		

SPECIFIC GRAVITY

1.184

AT

72

°F

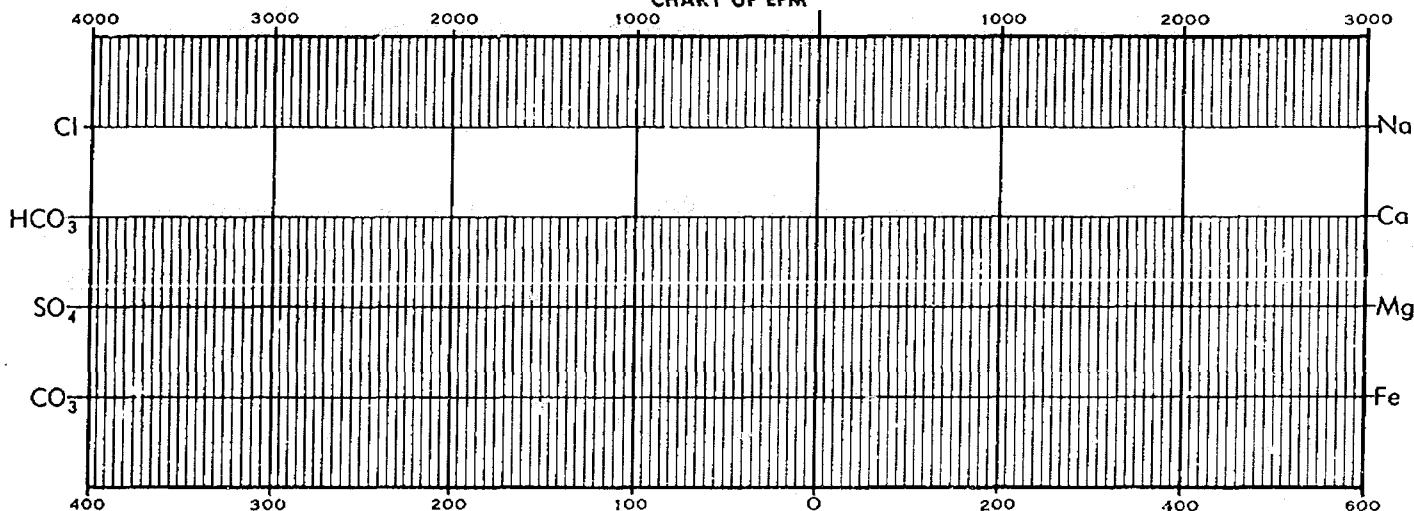
pH

5.5

CaCl<sub>2</sub>/MgCl<sub>2</sub>

% SALT SATURATION

CHART OF EPM



REMARKS:

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	4
CASE NO.	3357

F.E. Rugg  
CHEMIST

12-3-65  
DATE



**DOWELL** DIVISION OF THE DOW CHEMICAL COMPANY

FIELD LABORATORY REPORT

WATER ANALYSIS

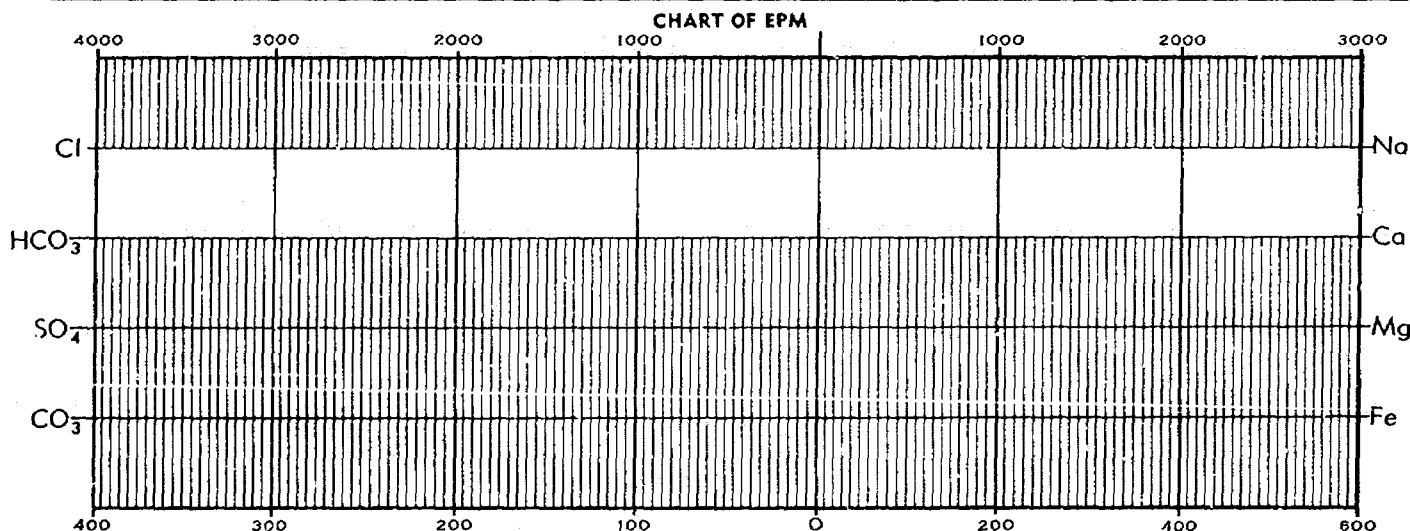
TO: Skelly Oil Company  
Box 730  
Hobbs, New Mexico

LABORATORY LOCATION	REPORT NUMBER
Hobbs, New Mexico	5025
COMPANY	WELL
Skelly Oil Co.	Hobbs T Lease
POOL	LOCATION
Chaveroo	
COUNTY	STATE
Roosevelt	New Mexico
FORMATION	DEPTH
San Andres(Lower)	
SUBMITTED BY	TESTS DESIRED
(Dowell)	N/A

DATE SAMPLE SUBMITTED  
12-3-65  
SAMPLE SOURCE Bottom of Swab  
Sample "D" Lower San Andres

	mg/L	mg/L		mg/L	mg/L
CALCIUM	29,900	1490	CHLORIDE	150000	4480
MAGNESIUM	6920	570	SULFATE	700	14
SODIUM	56,100	2437	BICARBONATE	103	3
IRON			CARBONATE		
HYDROGEN SULFIDE			HYDROXIDE		

SPECIFIC GRAVITY 1.189 AT 72 °F pH 4.7 CaCl<sub>2</sub>/MgCl<sub>2</sub> % SALT SATURATION



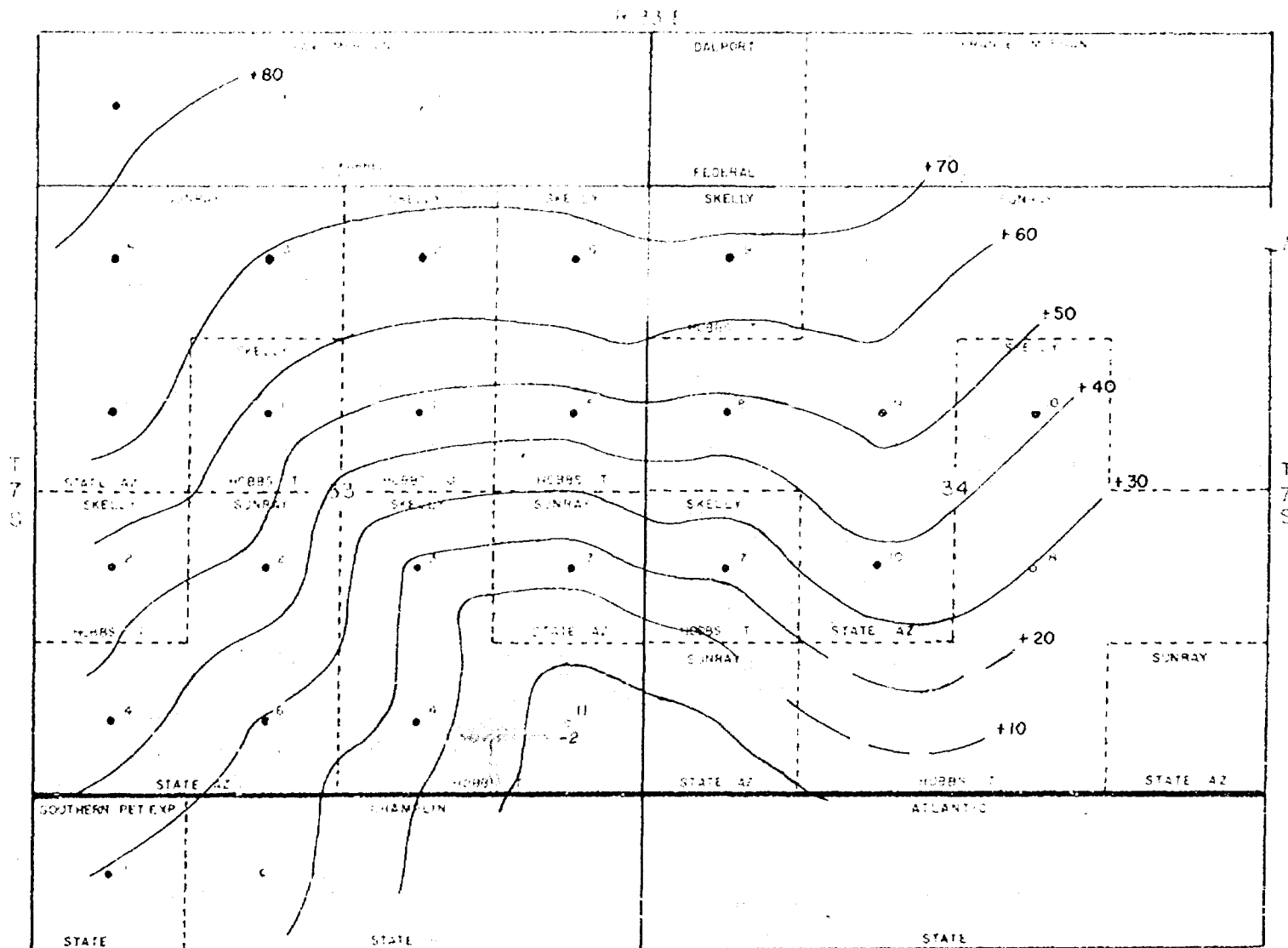
REMARKS:

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 4A  
CASE NO. 3357

CHEMIST

DATE





DATE ~~NOVEMBER~~ DECEMBER 65

SCALE 4" = 1 MILE

LE'END  
TOP LOWER ANHYDRITE  
COUNTOUR INTERVAL 10 FEET

SKELLY OIL COMPANY  
CHAVEROO POOL  
ROOSEVELT COUNTY, NEW MEXICO

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 5  
CASE NO. 3357