

CASE 3947: Application of SKELLY  
OIL COMPANY FOR A WATERFLOOD  
PROJECT, LEA COUNTY, N. MEX.

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Case Number

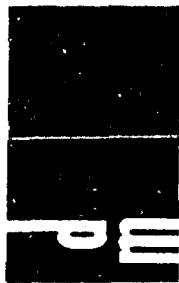
3947

Application

Transcripts.

Small Exhibits

ETC.



dearnley-meier reporting service, inc.

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-4491 • ALBUQUERQUE, NEW MEXICO

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
November 20, 1968

EXAMINER HEARING

-----  
IN THE MATTER OF: )

Application of Skelly Oil Company )  
for a waterflood project, Lea County, )  
New Mexico. )  
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Case No. 3947

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 3947.

MR. HATCH: Case 3947. Application of Skelly Oil Company for a waterflood project, Lea County, New Mexico.

MR. JACOBS: If the Commission please, Ronald Jacobs appearing for Skelly Oil Company. We have one witness we would like to have sworn, please.

MR. UTZ: Are there other appearances in this case? You may proceed to swear the witness.

(Witness sworn.)

(Whereupon, Applicant's Exhibits 1 through 4 were marked for identification.)

LARRY R. HALL

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. JACOBS:

Q First of all, if the Commission please, the Commission's file will reflect a letter from L. C. White, Attorney, Santa Fe, New Mexico, entering his appearance as local counsel for Skelly in this matter. Would you please state your name, by whom you are employed and in what capacity?

A I am Larry R. Hall; I'm employed by Skelly Oil Company in Hobbs, New Mexico as Advance Production Engineer.

Q Mr. Hall, have you testified before this Commission on prior occasions as a petroleum engineer and had your qualifications accepted?

A Yes, I have testified before the Commission before.

Q Are you familiar with the application in this case?

A Yes, I am.

Q Would you explain what is being sought by this application?

A Case Number 3947 is an application of Skelly Oil Company for authority to institute a pilot waterflood project by injecting into the Skelly E. L. Steeler No. 6 in the Langlie-Mattix Pool, Lea County, New Mexico.

Q Now, Mr. Hall, referring to what has been marked for identification as Exhibit No. 1, would you relate to the Examiner what this exhibit shows?

A Exhibit No. 1 is a copy of a plat showing a portion of the Langlie-Mattix Pool which is aerially the largest and one of the earliest developed pools in Southeastern New Mexico. This plat shows the location of the proposed

injection well, the Steeler No. 6. It is circled in red on the map and is located 1980 feet from the south line and 1980 feet from the east line, Section 17, Township 23 South, Range 37 East, Lea County, New Mexico. This exhibit also shows the locations of ownership of all the leases and wells within a two-mile radius of the proposed injection. Also outlined on this exhibit is a proposed Skelly Penrose C Unit boundary of which Skelly is the unit expediter. We have made a secondary recovery study on this proposed unit area and our unit negotiations have progressed to a point where work has begun on participation and agreement. Now, this proposed unit will not be effective prior to January 1st, 1969. Because of the New Mexico Oil Conservation Commission deadline for elimination of surface disposal on unlined pits, we must make provision for disposal of produced water from the leases within this area. It is probable that Skelly Oil Company will waterflood the Skelly leases within this proposed Penrose C Unit boundary, either under the unitization operations that are now planned or as a smaller unit with cooperative lease-line agreements. Skelly feels that the flood ability of the Langlie-Mattix has been established based on the performance of the pilots and other floods in the area. The waterflood pattern will utilize many of the same wells as injections for either of

the unitized projects. The modified 80-acre five spot pattern is to be used for the smaller unit and a modified nine spot pattern will be utilized for the unit that is now proposed. Now, the Steeler 6 was selected as the perspective pilot injection well since it is one of the wells common to both of these projects. The proposed five spot around the Steeler 6 is only partially developed. There are two direct Skelly producers, one diagonal Skelly producer, one undeveloped location and one plugged back well. Skelly Oil Company has purchased 120 acres of the Langlie-Mattie rights from Samadan. These are in Section 17, the east half of the southeast quarter and the southeast quarter of the southwest quarter, Section 17, Township 23 South, Range 37 East.

Q Now, Mr. Hall, referring to what has been marked for identification as Exhibit No. 2, would you relate to the Examiner what this exhibit shows?

A Exhibit No. 2 is a down-hole schematic diagram of the proposed pilot injection well, Steeler No. 6. It shows the size and setting depth of the casing, quantities used in tops of cement, size and setting depth of the tubing, the location of the packer and the completion interval.

Steeler 6 was drilled to a total depth of 3685 in March of 1954. Current production on this well is approximately one barrel of oil per day and five barrels of water per day. Cumulated oil production is approximately 24,000 barrels. The injection will be confined to the Langlie-Mattix interval. The injection will be down internally coated tubing below a tension packer into the overall perforated interval 3572 to 3632. Initial injection rates are approximately 500 barrels of water per day are anticipated with an additional 200 barrels per day being added in the immediate future from the proposed Blinebry development in the area. Our anticipated maximum injection pressure is 1800 psi.

MR. UTZ: 1800?

THE WITNESS: Yes, sir. The annulus will be loaded with an inert fluid and a pressure gauge attached. A copy of the portion of the radio activity log on this well has been shown as Exhibit No. 3. This exhibit shows the completion interval and formation tops.

Q And the log that you mentioned is Exhibit 3 and so marked, is that correct?

A That is correct.

Q Now, referring to what has been marked for



identification as Exhibit No. 4, Mr. Hall, would you explain to the Examiner, to the Commission, what this exhibit shows?

A Presented as Exhibit 4 is an analysis of the water produced from the J. C. Johnson No. 2 which produces approximately 90 percent of the water that will initially be injected into the proposed injection well. This analysis shows the water to be mineralized and unsuitable for general use.

MR. UTZ: Where is that well located?

THE WITNESS: The well is located in Unit A of Section 20. It's diagonally southeast of the proposed injection well.

MR. UTZ: Thank you.

THE WITNESS: Currently this water and similar waters are being disposed of in surface pits within the proposed unit boundary and other Skelly leases in the area. Initial injection water is to be from the same formation into which injection is to be made. Upon Commission approval of that application injection well will be made available for injection of the produced water within the proposed unit area and other Skelly leases in the immediate area.

Q Mr. Hall, in your opinion, what will be the affect of the injection of water into the Steeler No. 6 on the recovery of oil in this area?

A It is my opinion that the injection of water into the proposed injection well will definitely increase production in offsetting wells. The Langlie-Mattix Pool has a large number of waterflood units that are now in operation and all known projects which have utilized pilots have expanded or in the process of expanding to full-scale operation. Secondary recoverable oil by waterflood is estimated at 75 percent of ultimate primary recovery for the proposed Skelly Penrose C Unit. As previously stated, Skelly will, in all probability, flood the entire Skelly leases within this proposed unit even if the unit negotiations fail and the unit does not become effective. Therefore, Skelly request that provisions for administrative approval be set out in the order to permit administrative expansion on the Skelly leases.

Q Mr. Hall, will the granting of the application result in waste?

A No, the result of this application will be to provide for a place for immediate down-hole injection of the produced water in the area which is presently being disposed

of in surface pits; also the injection of water into the proposed injection well is expected to increase production in the offsetting wells and thereby recover oil that might not otherwise be recovered.

Q Mr. Hall, will the granting of this application result in impairment of correlative rights?

A No, the granting of this application in my opinion will not result in any impairment of correlative rights.

Q Now, Mr. Hall, with regard to the productivity of the wells in the immediate vicinity of the Steeler 6, did you give the Examiner the approximate volume of oil that is being produced from each well?

A Yes. The lease total is 16 barrels per day; that is for the eight wells. Well No. 7, which is located in the Northwest of the Southwest has the highest productivity of six barrels per day. The Steeler 4, which is immediately south of No. 7 produces four barrels per day and the other six wells, to the nearest barrel, produce one barrel of oil per day.

MR. UTZ: Total of 16 barrels?

THE WITNESS: 16 barrels, yes, sir.

Q So that this is truly a proposed waterflood project?

A That is true, advance stripper stage of production.

Q Mr. Hall, were Exhibits one through four prepared by you or under your supervision?

A Yes, they were.

Q Mr. Examiner, we offer Exhibits one through four.

MR. UTZ: Without objection Exhibits one through four will be entered into the record of this case.

MR. JACOBS: That is all the direct testimony that we have Mr. Examiner.

CROSS EXAMINATION

BY MR. UTZ:

Q This well shown in the southeast, southeast, Section 17, is that a location or is that a well?

A With a BY underneath it with a six?

Q Right.

A That well has since been completed as a Blinebry.

Q That's a Blinebry oil well?

A That is true, yes, sir. At the time this map was prepared, they were still testing the well.

Q Now, the Cornell well immediately to the west of that is shown as a gas well?

A Yes, that's a Jalmat Gas Well.

Q Jalmat? Now, what type of pattern did you say that you intended to use?

A Under the full unit participation it will be a nine spot pattern. If the unit does not go into effect, Skelly would flood their leases separately, it will be an 80-acre five spot.

Q What type of coating do you intend to use on your tubing?

A As of right now, we are looking at cement line tubing.

Q In the interval behind the five and a half inch from 3126 up to 1130 is there any fresh waters or any production in that area?

A Not to my knowledge. At 1130 feet should take the surface cement -- this surface pipe cemented to surface and that is below any fresh water sands to my knowledge in the area.

Q No oil production?

A No oil production between the top of the cement and the surface?

Q Yes.

A No, sir. There may be some Yates gas.

Q On your Exhibit No. 4, do I interpret that 2670 to

be parts per million, or equivalent?

A Yes, milligrams per liter, which is essentially parts per million.

Q Plus the small correction?

A Yes, that's right.

Q Well, this water isn't really too salty, is it?

A It is not as salty as some of it, no, sir.

MR. UTZ: Any other questions of the witness?

He may be excused. The case will be taken under advisement.

(Witness excused.)

I N D E X

<u>WITNESS</u>	<u>PAGE</u>
LARRY R. HALL	
Direct Examination by Mr. Jacobs	2
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<u>EXHIBIT</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Applicant's 1 through 4	2	10

Witness my Hand this 22nd day of November, 1968.

Blenda Burks  
COURT REPORTER

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 3947  
heard by me on Nov. 20, 1966.  
John C. [Signature] Examiner  
New Mexico Oil Conservation Commission



ROUGH DRAFT FOR WATERFLOOD LETTERS

Mr. Ronald Jacobs  
Skelly Oil Company  
Post Office Box 1650  
Tulsa, Oklahoma 74102

Dear Sir:

Reference is made to Commission Order No. R-3593, <sup>recently</sup> entered in Case No. 3947, approving the Skelly Langhe Mattix Steeler Waterflood Project.

Injection is to be through the one authorized water injection well which shall be equipped with  $2\frac{7}{8}$  inch cement-lined tubing set in a packer at approximately 3500 feet. The casing tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface to facilitate detection of leakage in the casing, tubing, or packer. As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 168 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

cc: OCC: Hobbs x  
Artesia         
Aztec       

USGS       

Mr. Frank Irby, State Engineer Office, Santa Fe, New Mexico  
Mr. D. E. Gray

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

December 2, 1968

C  
Mr. Ronald Jacobs  
Skelly Oil Company  
Post Office Box 1650  
Tulsa, Oklahoma 74102

O  
Dear Sir:

Reference is made to Commission Order No. R-3593, recently entered in Case No. 3947, approving the Skelly Langlie Mattix Steeler Water-flood Project.

P  
Injection is to be through the one authorized water injection well which shall be equipped with 2 3/8-inch cement-lined tubing set in a packer at approximately 3500 feet. The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface to facilitate detection of leakage in the casing, tubing, or packer.

Y  
As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 168 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate district proration office.

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OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

-2-

Mr. Ronald Jacobs  
Skelly Oil Company  
Post Office Box 1650  
Tulsa, Oklahoma 74102

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O Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

P  
A. L. PORTER, Jr.  
Secretary-Director

Y ALP/DSn/ir

cc: Oil Conservation Commission  
Hobbs, New Mexico

Mr. D. E. Gray  
State Engineer Office  
Santa Fe, New Mexico

State of New Mexico  
Oil Conservation Commission



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

November 26, 1968

Re: Case No. 3947  
Order No. R-3593  
Applicant:  
Skelly Oil Company

Enclosed herewith is a copy of the above-referenced Commission order recently entered in the subject case. Letter pertaining to conditions of approval and maximum allowable to follow.

A. L. Porter, Jr.  
A. L. PORTER, Jr.  
Secretary-Director

Carbon copy of order also sent to:

Hobbs OCC     x      
 Artesia OCC             
 Aztec OCC             
 State Engineer     x    

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. 3947  
Order No. R-3593

APPLICATION OF SKELLY OIL COMPANY  
FOR A WATERFLOOD PROJECT, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 8:30 a.m. on November 20, 1968, at Santa Fe, New Mexico, before Examiner Elvis A. Ute.

NOW, on this 26th 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, Skelly Oil Company, seeks permission to institute a pilot waterflood project in the Langlie-Mattix Pool by the injection of water into the Queen formation through its E. L. Steeler Well No. 6, located in Unit J of Section 17, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That the applicant further seeks an administrative procedure whereby said project could be expanded to include additional lands and injection wells in the area of the said project as may be necessary in order to complete an efficient injection pattern; that said administrative procedure should provide for administrative approval for conversion to water injection in exception to the well response requirements of Rule 701 E-5 of the Commission Rules and Regulations.

-2-  
CASE No. 3947  
Order No. R-3593

(4) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(5) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(6) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided, however, that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

IT IS THEREFORE ORDERED:

(1) That the applicant, Skelly Oil Company, is hereby authorized to institute a pilot waterflood project in the Langlie-Mattix Pool by the injection of water into the Queen formation through its E. L. Steeler Well No. 6, located in Unit J of Section 17, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) That the subject waterflood project is hereby designated the Skelly Langlie Mattix Steeler Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of the Skelly Langlie Mattix Steeler Waterflood Project to include such additional lands and injection wells in the area of said project as may be necessary to complete an efficient water injection pattern; that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

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CASE No. 3947  
Order No. R-3593

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



*David F. Cargo*  
DAVID F. CARGO, Chairman

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

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

esr/

Case. 3947

Heard 11-20-68

Rec. 11-20-68

Grant Skelly a pilot water flood  
to be named Skelly Pennock 'C'  
waterflood. Approx conversion  
of their E.L. Stiles #6 unit. of 17-235-  
37E to a water injection well.  
SW shall be injected thru 2 3/8  
cement lined tubing under a  
packer set at approx. 3500'. Logj.  
shall into the Queen form. then pipe  
3572-3672.

Thos. H.



NOTE: THIS HEARING WILL START AT 8:30 a.m. rather than the usual hour of 9:00 a.m.

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 20, 1968

8:30 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. Hutter, Alternate Examiner:

CASE 3946: Application of Coastal States Gas Producing Company for the redesignation of the Baum-Upper Pennsylvanian and Lazy J-Pennsylvanian Pools, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the extension of the Baum-Upper Pennsylvanian Pool to include the following described lands:

Township 13 South, Range 33 East, Lea County, New Mexico

Section 19: SE/4

Section 20: SW/4 and E/2

Section 21: SW/4

Section 29: All

Section 30: E/2

Section 31: N/2

Section 32: N/2 and SE/4

Township 14 South, Range 33 East, Lea County, New Mexico

Section 5: SE/4

Section 8: NE/4

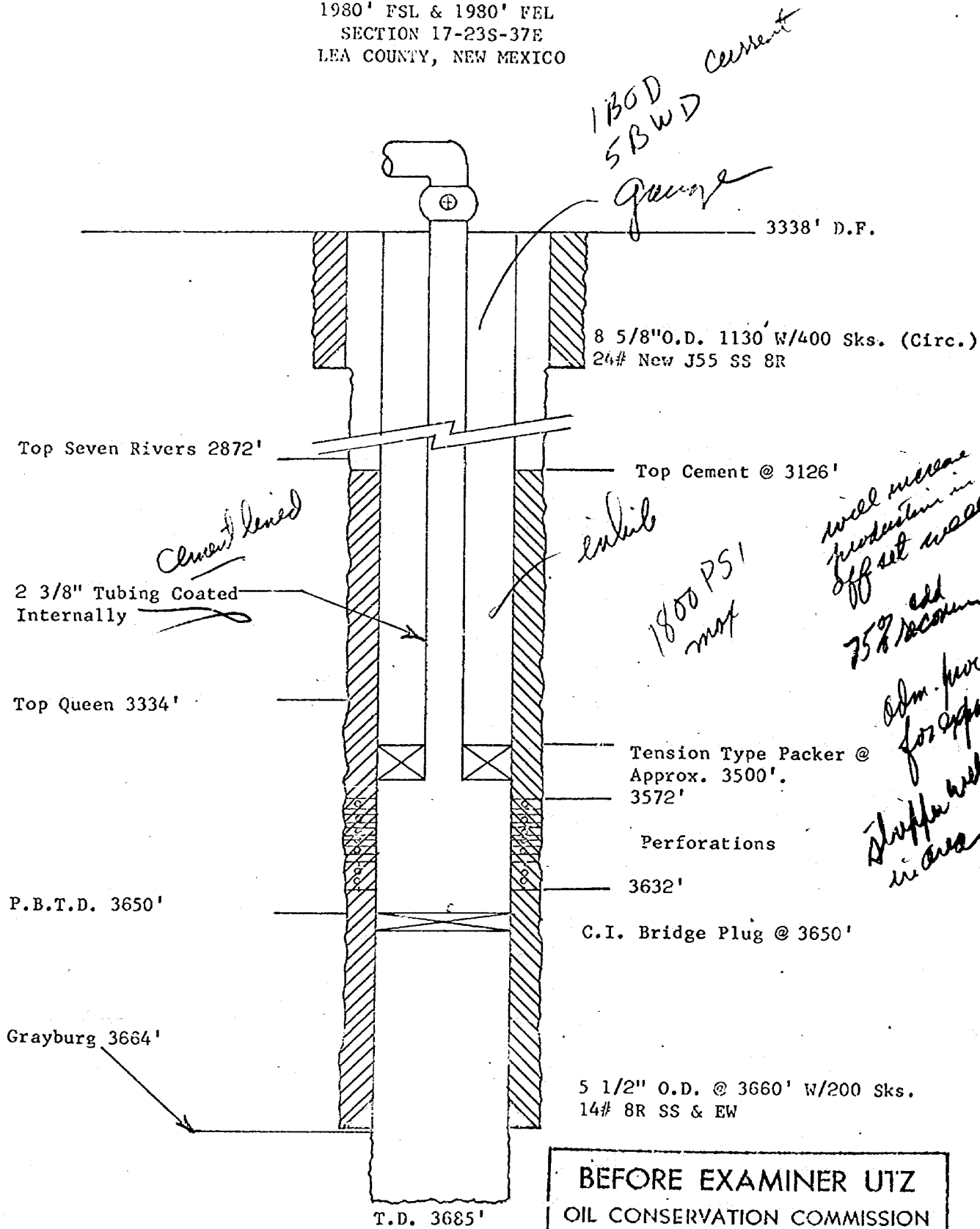
Applicant further seeks the contraction of the Lazy J-Pennsylvanian Pool by the deletion from said pool of the E/2 of Section 20 and the SE/4 and W/2 of Section 21, both in Township 13 South, Range 33 East, Lea County, New Mexico.

CASE 3947: Application of Skelly Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation through its E. L. Steeler Well No. 6 located in Unit J of Section 17, Township 23 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico. Applicant further seeks a procedure whereby said project may be expanded administratively without a showing of well response.

CASE 3948: Application of Sinclair Oil Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates and Seven Rivers formations in the perforated and open-hole interval from approximately 3110 feet to 3300 feet in its

SKELLY OIL COMPANY

E. L. STEELER WELL NO. 6  
1980' FSL & 1980' FEL  
SECTION 17-23S-37E  
LEA COUNTY, NEW MEXICO



LRH/HED/bh  
10-2-63

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
SKELLY EXHIBIT NO.	2
CASE NO.	3947

# ENJAY CHEMICAL COMPANY

Houston Chemical Plant  
8230 Stedman, Houston, Texas 77029



October 30, 1968  
WATER ANALYSIS

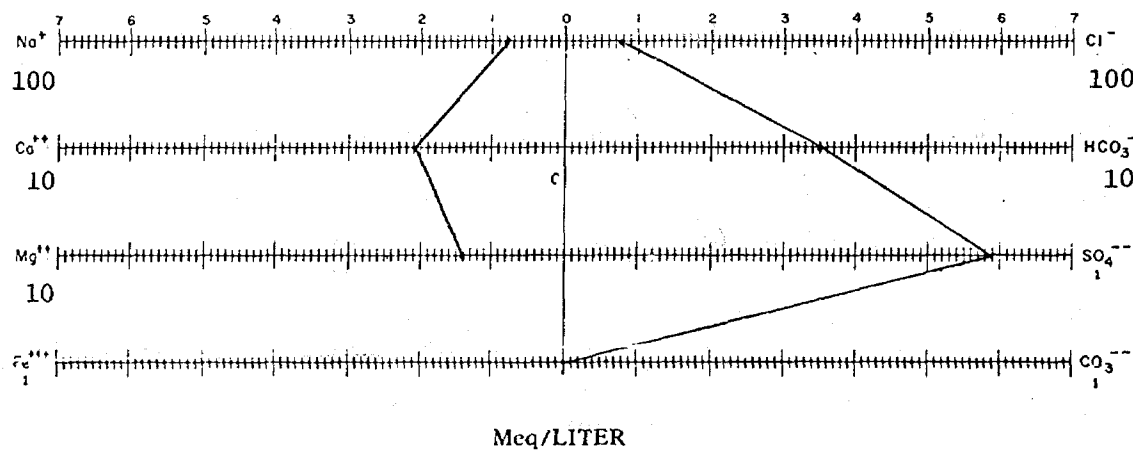
SAMPLE DESCRIPTION: Water Sample for Mineral Analysis, J. C. Johnson No. 2  
Date Sampled: October 18, 1968

COMPANY: Skelly Oil Company, Eunice, New Mexico  
STSR NUMBER: 81005  
REQUESTED BY: A. R. Bohannon

DATE RECEIVED: October 28, 1968  
ANALYZED BY: J. T. Dominy

	<u>Mg/L</u>	<u>Meq/L</u>		
Sodium	1,870	81.09	pH, Beckman	7.9
Calcium	425	21.24	Specific Gravity at 60 °F.	1.007
Magnesium	173	14.14		
Chloride	2,670	75.24		<u>Mg/L</u>
Sulfate	282	5.87	Oil Content	
Bicarbonate	2,160	35.36	Organic Matter	
Carbonate			Hydrogen Sulfide	214
Hydroxide				
TOTAL	7,580			
Dissolved Iron	Not Determined			
Total Iron				

WATER PATTERN (Stiff Method)



Remarks:

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
SKELLY EXHIBIT NO. 4  
CASE NO. 3947

WHITE, GILBERT, KOCH & KELLY  
(GILBERT, WHITE AND GILBERT)  
ATTORNEYS AND COUNSELORS AT LAW  
LINCOLN BUILDING  
SANTA FE, NEW MEXICO 87501

CARL H. GILBERT (1891-1963)  
L. C. WHITE  
WILLIAM W. GILBERT  
SUMNER S. KOCH  
WILLIAM BOOKER KELLY  
JOHN F. MCCARTHY, JR.

October 31, 1968

POST OFFICE BOX 787  
TELEPHONE 982-4301  
(AREA CODE 505)

*Case 3947*

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

Re: Skelly Oil Company  
Langlie Mattix Pool, E. L.  
Steeler Well No. 6, Lea County

MAIN OFFICE OF

Nov 1 AM 8 30

Dear Mr. Porter:

Please enter our appearance as resident counsel for Skelly Oil Company in the above captioned matter.

Very truly yours,



L. C. WHITE

LCW:el

DOCKET MAILED

Date 11-7-68



30 AM 8 54

# SKELLY OIL COMPANY

P. O. BOX 1650

PRODUCTION DEPARTMENT

TULSA, OKLAHOMA 74102

October 28, 1968

C. L. BLACKSHER, VICE PRESIDENT  
W. P. WHITMORE, MGR. PRODUCTION  
W.D. CARSON, MGR. TECHNICAL SERVICES  
J. R. TEEL, MGR. JOINT OPERATIONS  
GEORGE W. SELINGER, MGR. CONSERVATION

*Case 3947*

Re: Langlie Mattix Pool  
E. L. Steeler Well No. 6  
Unit J, Section 17, Township 23 South,  
Range 37 East,  
Lea County, New Mexico

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

Attention: Mr. A. L. Porter, Jr.  
Secretary-Director

Gentlemen:

We are attaching in triplicate our application to conduct a waterflood project in the Langlie Mattix Pool by injection into our E. L. Steeler Well No. 6, Located in Unit J of Section 17, Township 23 South, Range 37 East, Lea County, New Mexico.

We would appreciate you setting this matter down for the next Examiner's hearing, which we understand will be November 20, 1968.

Yours very truly,

Ronald J. Jacobs  
Conservation Attorney

RJJ:br  
Attach.

cc-Mr. L. C. White w/ attach.

DOCKET MAILED  
Date 11-7-68

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF SKELLY OIL )  
COMPANY FOR AN ORDER AUTHORIZING A WATERFLOOD )  
INTO THE LANGLEIE MATTIX POOL BY INJECTION INTO )  
ITS E. L. STEELER WELL NO. 6, LOCATED IN UNIT )  
"J", SECTION 17, TOWNSHIP 23 SOUTH, RANGE 37 )  
EAST, LEA COUNTY, NEW MEXICO. )

CASE NO. 3947

A P P L I C A T I O N

Comes now Skelly Oil Company and alleges and states:

1. That it is a Delaware Corporation authorized to do business in the State of New Mexico and that it operates a number of wells and leases in the Langlie Mattix Pool, and that in the near future it will form the Skelly Penrose "C" Unit covering a portion of Township 23 South, Range 37 East, Lea County, New Mexico.

2. That a number of wells and leases operated by applicant are producing considerable volumes of produced salt water, and that in view of the Commission's pending deadline for the elimination of surface disposal pits it is necessary and desirable that the produced water be disposed of underground.

3. That pending final approval by the various interest owners prior to the formation of the Skelly Penrose "C" Unit, Skelly Oil Company proposes to conduct a waterflood into the producing formation by converting its E. L. Steeler Well No. 6 to injection and that in the future when the unit is formed, said well will be one of the injection wells in the unit.

4. That based on the performance and information gained from the injection into the aforementioned well, the applicant may request administrative approval to expand the project and to convert additional wells.

5. That attached hereto and made a part hereof is Exhibit "A", a plat showing the location of the proposed injection well and the location of all other wells within a radius of two miles from the proposed injection well and the formation from which said wells are producing or have produced. The plat also indicates the lessees within the aforementioned two-mile radius.

6. That attached hereto and made a part hereof is Exhibit "B", a log of the proposed injection well.

7. That attached hereto and made a part hereof is Exhibit "C", a diagrammatic sketch of the proposed injection well showing all casing strings, including diameter and setting depths; quantities used and tops of cement; perforation interval; tubing strings, including diameter and setting depths; and the type and location of packers.

8. That applicant proposes to inject into the Langlie Mattix Pool through perforations between 3,572' to 3,632' in said well, that the fluid to be injected will initially be produced salt water from the Langlie Mattix Pool and Blinbry Pool on applicant's Steeler and Johnson leases and other leases in the immediate vicinity, and applicant anticipates that the initial volume will be 500 to 700 barrels of water per day at a maximum pressure of 1,800 psi.

WHEREFORE, PREMISES CONSIDERED, applicant prays that this Commission set this matter down for hearing, that notice hereof be given as required by law, and that at the conclusion of said hearing based on the evidence adduced, the Commission enter its order granting Skelly Oil Company permission to conduct a waterflood project in the Langlie Mattix Pool through injection into its E. L. Steeler Well No. 6, located in Unit "J" of Section 17, Township 23 South, Range 37 East, Lea County, New Mexico, to further provide for administrative expansion of the project area and conversion of additional wells by administrative means without the necessity of separate hearings, and for such other orders, rules and regulations that may be necessary in the premises.

Respectfully submitted,

SKELLY OIL COMPANY

George W. Selinger  
Ronald J. Jacobs  
Its Attorneys

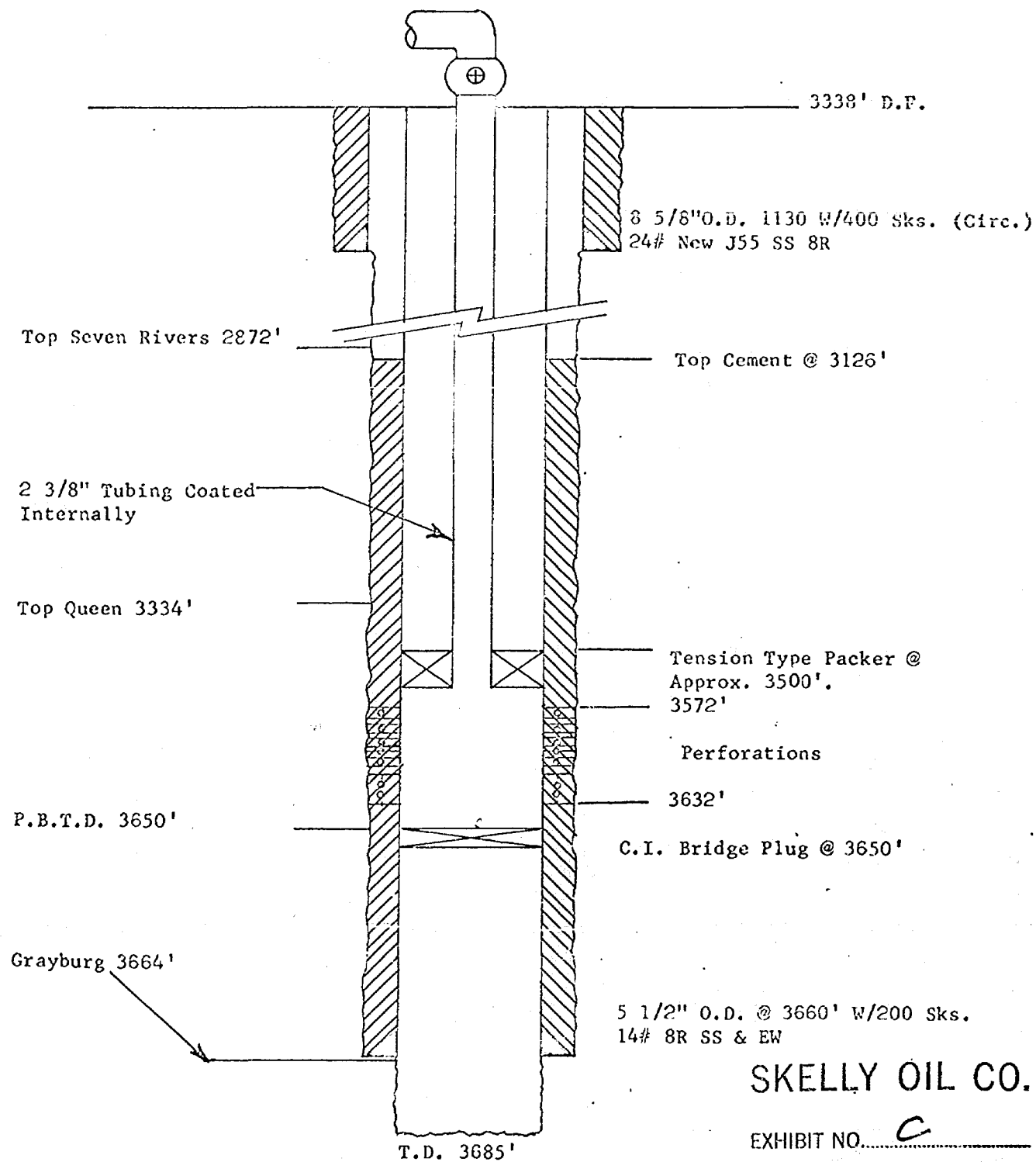
Of Counsel:

Mr. L. C. White  
White, Gilbert, Koch & Kelly  
P. O. Box 787  
Santa Fe, New Mexico 87501

By 

SKELLY OIL COMPANY

E. L. STEELER WELL NO. 6  
1980' FSL & 1980' FEL  
SECTION 17-23S-37E  
LEA COUNTY, NEW MEXICO



JRH/HED/bh  
10-2-68

SKELLY OIL CO.

EXHIBIT NO. C

DOCKET OR CASE NO. 3947

DATE NOV 20 1968

DRAFT

GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE No. 3947

Order No. R-3593

APPLICATION OF SKELLY OIL COMPANY  
FOR A WATERFLOOD PROJECT, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at <sup>8:30</sup> 9 a.m. on November 20, 1968,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

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

FINDS:

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

(2) That the applicant, Skelly Oil Company,  
seeks permission to institute a <sup>pilot</sup> waterflood project in the \_\_\_\_\_  
===== ~~Unit Area~~ Langlie-Mattix Pool by  
the injection of water into the Queen formation  
its E. L. Steeler Well No. 6, located in Unit J of Section 17,  
through /===== ~~injection wells in Section~~ =====  
Township 23 ~~North~~ South, Range 37 ~~West~~ East, NMPM,  
Lea County, New Mexico.

(3) That the applicant further seeks an administrative  
procedure whereby said project could be expanded to include  
additional lands and injection wells in the area of the said  
project as may be necessary in order to complete an efficient  
injection pattern; that said administrative procedure should  
provide for administrative approval for conversion to water  
injection in exception to the well response requirements of  
Rule 701 E-5 of the Commission Rules and Regulations.

(SEE UNDER)



(6) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided, however that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

(1) That the applicant, Skelly Oil Company (SEE UNDER) is hereby authorized to institute a <sup>pilot</sup> waterflood project in the Langlie-Mattix Pool by the injection of water into the Queen formation ~~through the following described wells in Township~~ North, South, Range West, East, NMPM, County, New Mexico through its E. L. Steeler Well No. 6, located in Unit J of Section 17, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) That the subject waterflood project is hereby designated the Skelly Langlie Mattix Steeler Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of the Skelly Langlie Mattix Steeler Waterflood Project to include such additional lands and injection wells in the area of said project as may be necessary to complete an efficient water injection pattern; that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

(SEE UNDER)

entry of such further orders as the Commission may deem necessary.

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