

**CASE 5139: Application of SKELLY  
OIL COMPANY FOR A WATERFLOOD  
PROJECT, EDDY COUNTY, N.M.**

OK  
I have been thinking about you a lot lately.  
I hope you are well.  
Love,  
John

CASE No.

5139

---

Application,

Transcripts,

Small Exhibits

ETC.

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
January 3, 1974

EXAMINER HEARING

IN THE MATTER OF:

Application of Skelly Oil  
Company for a waterflood  
project, Eddy County, New  
Mexico.

Case No. 5139

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil  
Conservation Commission:

Thomas Derryberry, Esq.  
Legal Counsel for the Com-  
mission  
State Land Office Building  
Santa Fe, New Mexico

For the Applicant:

Chester E. Blodget, Esq.  
SKELLY OIL COMPANY  
P. O. Box 1650  
Tulsa, Oklahoma 74102  
and  
Mr. L. C. White, Esq.  
220 Otero  
Santa Fe, New Mexico

THE NYE REPORTING SERVICE  
STATE-WIDE DEPOSITION NOTARIES  
225 JOHNSON STREET  
SANTA FE, NEW MEXICO 87501  
TEL. (505) 982-0386

Page..... 2.....

I N D E X

BERT BROWN

Page

Direct Examination by Mr. Blodget

3

E X H I B I T S

Marked

Admitted

Applicant's Exhibits Nos. 1 through 13

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7

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SANTA FE, NEW MEXICO 87501  
TEL. (505) 982-0386

MR. NUTTER: Call Case 5139.

MR. DERRYBERRY: Case 5139. Application of Skelly Oil Company for a waterflood project, Eddy County, New Mexico.

MR. BLODGET: Mr. Examiner, I'm Chester Blodget, appearing for Skelly Oil Company. The Applicant is ready. Mr. L. C. White of Santa Fe has entered his appearance in this case as local counsel. We will have one witness, Bert Brown, who has just testified in the previous case.

MR. NUTTER: The record will show Mr. Brown is still under affirmation.

BERT BROWN

called as a witness, having been previously affirmed, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BLODGET:

Q Mr. Brown, are you familiar with this Application?

A Yes, sir.

Q I call your attention to what has been marked as Skelly Exhibit No. 1. Would you identify that, please?

A Skelly Exhibit No. 1 is a map of Skelly Oil Company's Lea "C" Lease. It is located in Section 11, Township 17 South, Range 31 East, Eddy County, New Mexico. You might note that this is a common boundary on the South of the Lea "C"

with Skelly Oil Company Skelly units.

Q What is Skelly asking for in this Application?

A Skelly is asking for initiation of waterflooding on the Lea "C" Lease by injecting water in the three wells, Well No. 4, No. 7 and No. 9.

Q Those particular locations are set out on this Exhibit 1?

A Yes, sir. They're the ones marked with the arrows.

Q I'll call your attention to Skelly Exhibit No. 2. Would you identify that, please, 2, 3 and 4?

A Skelly Exhibits 2, 3 and 4 are well logs on the three proposed injection wells, Well No. 4, Well No. 7 and Well No. 9.

Q I call your attention to Skelly Exhibits Nos. 5, 6 and 7. Would you identify those, please?

A Exhibits Nos. 5, 6 and 7 are down-hole schematics of proposed injection wells as they would be for injection of water into the Lea "C" Well No. 4, No. 7 and No. 9.

Q I call your attention to what has been marked Skelly Exhibit No. 8. Would you identify that, please?

A Skelly Exhibit No. 8 is a water analysis showing the water quality that would be injected into the three wells on the Lea "C" lease. This water will be pressurized by

Skelly Unit Plant No. 1 which pumps fresh water.

Q I call your attention to Exhibit No 9. Would you identify that, please?

A Exhibit No. 9 is a plat of the area which includes Skelly units, Lea "D" lease and Lea "C" lease. You will note the dotted lines on here are injection lines taking the water from the plants, Plant 1 and 2, and Plant 1 is over here in Section 22, and see the lines going up to the Lea "C" to the four wells there is the lines that we plan to install and take water from the plants up to those injection wells.

Q I call your attention to what has been denominated Skelly Exhibit No. 11. Would you identify that, please?

A Skelly Exhibit No. 11 is a map of the area showing all the wells within a two-mile radius to the proposed project, showing the wells and the zones in which they produce, operators and lease names.

Q Is that Skelly Exhibit No. 10 that you just described?

A That is Skelly Unit Exhibit No. 10.

Q I call your attention to Skelly Exhibit No. 11. Would you identify that, please?

A Skelly Exhibit No. 11 is a letter from the United States Department of Interior indicating their approval of the proposed project with stipulations .

Q I call your attention to Skelly Exhibit No. 12 and No. 13. Would you identify those, please?

A Skelly Exhibits No. 12 and 13 -- let me go to No. 12 -- Exhibit No. 12 is a C-115 filed with the Oil Conservation Commission, July 1972, at which time there were nine wells drilled on the Lea "C" lease, No. 7 and No. 8 and No. 9 had been drilled, I believe, in June and July of that year. Nos. 1, 2, 3, 4, 5 and 6 were drilled in 1962 and it shows the state of depletion of those first six wells.

Exhibit No. 13 is a C-115 filed with the Oil Conservation Commission October 1973, showing the productions of the wells and the state of depletion of the wells at that time. At the present time, the average lease production -- the average production per well per month on the lease is about seven-and-a-half barrels per day.

Q What is your anticipated initial volume of water to be injected in each well?

A We expect to inject from three to 500 barrels per day per well and pressure of 1850 maximum.

MR. NUTTER: I didn't get the figure of barrels per day.

THE WITNESS: Three to 500.

MR. NUTTER: Three to five.



BY MR. BLODGET:

Q In your opinion, would this proposed waterflood project result in recovery of otherwise unrecoverable oil, thereby preventing waste?

A Yes, sir. As a matter of fact, the drilling of the last 10 wells on this lease, we have had to take into account secondary reserves in order to justify economically development of this lease.

Q Is Skelly also asking that in the event this Application is granted that it contain a provision providing for administrative expansion by administrative action without the necessity of a separate hearing for each well or each project?

A Yes, sir.

Q Were Exhibits 1 through 13 prepared by you or at your request and under your supervision?

A Yes, sir.

MR. BLODGET: Mr. Examiner, we move the admission of Exhibits 1 through 13.

MR. NUTTER: Applicant's Exhibits 1 through 13 will be admitted in evidence.

(Whereupon, Applicant's Exhibits

Nos. 1 through 13 were admitted

in evidence.)

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SANTA FE, NEW MEXICO 87501  
TEL. (505) 982-0386

MR. BLODGET: We have no further questions of this witness.

MR. NUTTER: Mr. Brown, with respect to your Exhibits 5, 6 and 7, will each of those wells be equipped with a certain pressure gauge at the surface and the casing tubing annulus loaded with inhibited water?

THE WITNESS: Yes, sir.

MR. NUTTER: Okay. Thank you.

Does anyone have any further questions of the witness? You may be excused.

(Witness is excused.)

MR. NUTTER: Do you have anything further, Mr. Blodget?

MR. BLODGET: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case 5139?

We will take the case under advisement.

STATE OF NEW MEXICO )  
                                  )ss.  
COUNTY OF SANTA FE )

I, RICHARD L. NYE, Court Reporter, do hereby certify  
that the foregoing and attached Transcript of Hearing before  
the New Mexico Oil Conservation Commission was reported by  
me, and the same is a true and correct record of the said  
proceedings, to the best of my knowledge, skill and ability.

  
COURT REPORTER

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 5139  
heard by me on 1-3, 19 74.

, Examiner  
New Mexico Oil Conservation Commission

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STATE-WIDE DEPOSITION NOTARIES  
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## OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO  
P. O. BOX 2088 - SANTA FE  
87501

I. R. TRUJILLO  
CHAIRMAN  
LAND COMMISSIONER  
ALEX J. ARMijo  
MEMBER  
STATE GEOLOGIST  
A. L. PORTER, JR.  
SECRETARY - DIRECTOR

January 24, 1974

Mr. Chester E. Blodget  
Skelly Oil Company  
Post Office Box 1650  
Tulsa, Oklahoma 74102

Re: CASE NO. 5139

ORDER NO. R-4697-A

Applicant:

SKELLY OIL COMPANY

Dear Sir:

Enclosed herewith are two copies of the above-referenced  
Commission order recently entered in the subject case.

Very truly yours,

*A. L. Porter, Jr.*

A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x  
Artesia OCC x  
Aztec OCC       

Other State Engineer Office



# OIL CONSERVATION COMMISSION

**STATE OF NEW MEXICO**  
**P. O. BOX 2088 - SANTA FE**  
**87501**

**January 15, 1974**

**I. R. TRUJILLO**  
**CHAIRMAN**

**LAND COMMISSIONER**  
**ALEX J. ARMIJO**  
**MEMBER**

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

Mr. Chester E. Blodget  
Skelly Oil Company  
Post Office Box 1650  
Tulsa, Oklahoma 74102

Re: CASE NO. 5139  
ORDER NO. R-4697  
Applicant:  
Skelly Oil Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

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

ALP/ir

Copy of order also sent to:

Hobbs OCC	<u>x</u>
Artesia OCC	<u>x</u>
Aztec OCC	<u>          </u>

Other \_\_\_\_\_ State Engineer Office

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE NO. 5139  
Order No. R-4697-A

NUNC PRO TUNC

BY THE COMMISSION:

It appearing to the Commission that due to clerical error and inadvertence, Order No. R-4697, dated January 15, 1974, does not correctly state the intended order of the Commission,

IT IS THEREFORE ORDERED:

(1) That Paragraph (1) on Page 2 of Order No. R-4697, be and the same is hereby corrected to read in its entirety as follows:

"(1) That the applicant, Skelly Oil Company, is hereby authorized to institute a waterflood project in the Lea "C" Lease, Grayburg-Jackson Pool, by the injection of water into the Grayburg-San Andres formation through the following-described wells in Section 11, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico:

Lea "C" Well No. 4 - Unit J  
Lea "C" Well No. 7 - Unit F  
Lea "C" Well No. 9 - Unit N

(2) That this order shall be effective nunc pro tunc as of January 15, 1974.

DONE at Santa Fe, New Mexico, this 24th day of January, 1974.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



*I. R. Trujillo*  
I. R. TRUJILLO, Chairman

*Alex J. Armijo*  
ALEX J. ARMIJO, Member

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

S E A L

jr/

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. 5139  
Order No. R-4697

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 3, 1974, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 15th day of January, 1974, 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 institute a waterflood project by the injection of water into the Grayburg-San Andres formation through three wells on its Lea "C" Lease in Section 11, Township 17 South, Range 31 East, Grayburg-Jackson Pool, Eddy County, New Mexico.
- (3) That the applicant further seeks a procedure whereby the subject project may be expanded by the conversion of additional wells to water injection within the boundaries of the above-described lease without the necessity for notice and hearing.
- (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 applicant should take all steps necessary to ensure that the injected water enters only the proposed injection zones and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.
- (7) That the applicant proposes to treat the water to be injected to minimize corrosion.
- (8) 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.

CASE NO. 5139  
Order No. R-4697

IT IS THEREFORE ORDERED:

(1) That the applicant, Skelly Oil Company, is hereby authorized to institute a waterflood project in the Lea "C" Lease, Grayburg-Jackson Pool, by the injection of water into the Grayburg-San Andres formation through the following-described wells in Section 11, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico:

Lea "C" Well No. 4 - Unit J  
Lea "C" Well No. 7 - Unit F  
Lea "C" Well No. 8 - Unit N

(2) That prior to initial injection of water into any of said injection wells, the operator shall obtain the approval of the supervisor of the Commission's Artesia District Office as to the casing and cementing of said well.

(3) That injection of treated water into each of said wells shall be through tubing, set in a packer which shall be located as near as practicable to the uppermost perforation, and that the casing-tubing annulus of each injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(4) That the operator shall immediately notify the supervisor of the Commission's Artesia District Office of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(5) That the subject waterflood project is hereby designated the Skelly Lea "C" Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(6) 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;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of the above-described waterflood project to include such additional injection and producing wells at orthodox and unorthodox locations in said project as may be necessary to complete an efficient injection pattern, provided however, no such unorthodox location shall be closer than 330 feet to the outer boundary of the lease.

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



-3-

CASE NO. 5139

Order No. R-4697

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
*I. R. Trujillo*  
I. R. TRUJILLO, Chairman

*Alex J. Armiijo*  
ALEX J. ARMIJO, Member

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

S E A L

jr/

Hearing - Thursday - January 3, 1974

Docket No. 1-74  
-3-

continued from Page 2)

SW/4 SE/4 of Section 27 and the S/2 SE/4 of Section 34, both in Township 17 South, Range 28 East, and the NW/4 NE/4 and the SE/4 SW/4 of Section 6, Township 18 South, Range 28 East, Empire-Abo Pool, Eddy County, New Mexico.

Applicant further seeks the amendment of Rules 3 and 4 of said special rules to provide that effective January 1, 1974, the maximum allowable for the project area be 33,000 barrels per day rather than 30,000 as presently provided.

CASE 5136: Application of Coastal States Gas Producing Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox oil well location of its McGuffin Well No. 2 at a point 1980 feet from the North line and 660 feet from the West line of Section 29, Township 9 South, Range 33 East, Flying "M"-San Andres Pool, Lea County, New Mexico.

CASE 5137: Application of Skelly Oil Company for two unorthodox locations, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill two producing wells at two unorthodox locations, one 2630 feet from the North line and 1330 feet from the West line and the other 1330 feet from the South line and 10 feet from the West line, both in Section 22, Township 17 South, Range 31 East, Grayburg-Jackson Pool, Eddy County, New Mexico.

CASE 5138: Application of Skelly Oil Company for a waterflood project and four dual completions, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Seven Rivers formation, Fren Pool, through six injection wells in its Skelly Unit Area in Sections 21, 22 and 28, Township 17 South, Range 31 East, Eddy County, New Mexico, three of which wells would be dually completed for injection into the Seven Rivers formation and the existing Grayburg-Jackson waterflood project. Applicant further seeks authority to dually complete its Skelly Unit Well No. 76 located in Unit O of said Section 21 as a dual completion to produce from the Fren Seven Rivers Pool and the Grayburg-Jackson Pool through parallel strings of tubing.

CASE 5139: Application of Skelly Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formation through three wells on its Lea "C" Lease in Section 11, Township 17 South, Range 31 East, Grayburg-Jackson Pool, Eddy County, New Mexico.

CASE 5141: Application of David Fasken for directional drilling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter an existing well, the unorthodox surface location of which is 660 feet from the South and West lines of Section 7, Township 18 South, Range 26 East, West Atoka-Morrow Gas Pool, Eddy County, New Mexico,

Examiner

(Case 5141 continued from Page 3)

and to directionally drill said well in such a manner as to both the well in the Morrow formation at a point 915 feet from the South line and 660 feet from the West line of said Section 7.

CASE 5142: Application of Amoco Production Company for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Black River-Pennsylvanian Gas Pool, Eddy County, New Mexico, including a provision for 320-acre drilling and proration units. In the absence of objection, this pool will be placed on the standard 320-acre spacing for Pennsylvanian gas pools rather than the present 160-acre spacing.

CASE 5140: (This case will be continued to January 16, 1974, Examiner Hearing)

Application of Pierce & Dehlinger for compulsory pooling, Vada-Pennsylvanian Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Vada-Pennsylvanian Pool underlying the NW/4 of Section 24, Township 9 South, Range 33 East, Lea County, New Mexico, to be dedicated to the King Resources Sheridan Well No. 1-A located in Unit C of said Section 24; Also to be considered is designation of the applicant as operator of the NW/4 of said Section 24 and the well located thereon, provision for allocation of actual operating costs and charges for supervision, and allocation of costs for reworking said well including a 200% charge attributable to any non-consenting working interest owner's pro rata share of said workover costs, for the risk involved in said workover.

CASE 4956: (Reopened) (This case will be continued to January 16, 1974, Examiner Hearing)

Application of Pierce & Dehlinger for a determination of well costs, Lea County, New Mexico. Applicant, as operator of the Sheridan Well No. 1 located in Unit M of Section 13, Township 9 South, Range 33 East, Lea County, New Mexico, to which well is dedicated the SW/4 of said Section 13, all mineral interests in the Vada-Pennsylvanian Pool thereunder having been pooled by Commission Order No. R-4560, seeks the determination of reasonable well costs attributable to applicant and to King Resources, including, but not limited to, the costs of reworking and placing said Sheridan Well No. 1 back on production and attorneys fees in connection therewith. Applicant further seeks an order assessing, as a charge for the risk involved in the reworking of the well, 120% of the pro rata share of the reasonable well costs attributable to the working interest of King Resources.

DOCKET: EXAMINER HEARING - THURSDAY - JANUARY 3, 1974

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

CASE 5000: (Continued from the June 20, 1973, Regular Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Aztec Oil and Gas Company and United States Fidelity and Guaranty Company and all other interested parties to appear and show cause why the Aztec Totah Unit Wells Nos. 17 and 18, located in Unit E of Section 20, and Unit H of Section 19, respectively, Township 29 North, Range 13 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5006: (Continued from the June 20, 1973, Regular Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Aztec Oil and Gas Company and United States Fidelity and Guaranty Company and all other interested parties to appear and show cause why the Southeast Cha Cha Unit Well No. 1 located in Unit M of Section 32, Township 29 North, Range 13 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5128: Application of Gulf Oil Corporation for a non-standard gas proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the NE/4 SW/4 and W/2 SE/4 of Section 28 and the NW/4 NE/4 of Section 33, both in Township 21 South, Range 37 East, Blinbry Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its J. N. Carson Wells Nos. 4 and 9 located in Units O and K, respectively, of Section 28.

CASE 5129: Application of Dorchester Exploration Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order force pooling all mineral interests in the Wilson-Pennsylvanian Pool underlying the E/2 of Section 13, Township 21 South, Range 34 East, Lea County, New Mexico, to be dedicated to a well to be drilled at a standard location in Unit I of said Section 13. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5130: Application of Mesa Petroleum Company for the amendment of Order No. R-4658, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-4658, which order promulgated special

(Case 5130 continued from Page 1)

pool rules for the North Shoe Bar-Strawn Pool, Lea County, New Mexico. Applicant seeks the amendment of said rules to provide for a special gas-oil ratio limitation of 4000 to one.

CASE 5131: Application of Jake Hamon for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation through the perforated interval from 12,935 feet to 12,946 feet and the open-hole interval from 12,960 feet to 13,023 feet in his Getty State L-736 Well No. 1 located in Unit D of Section 32, Township 16 South, Range 36 East, East Shoe Bar-Devonian Pool, Lea County, New Mexico.

CASE 5132: Application of American Quasar Petroleum Company of New Mexico for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the White City Unit Area comprising 5,120 acres, more or less, of Federal, State and fee lands in Township 25 South, Ranges 25 and 26 East, Eddy County, New Mexico.

CASE 5133: Application of Atlantic Richfield Company for four non-standard gas proration units and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the following 320-acre non-standard gas proration units in Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico:

The N/2 of Section 34 to be dedicated to its Curran Jones Wells Nos. 1 and 10 located in Units A and C, respectively, of Section 34;

McDonald State Lease:

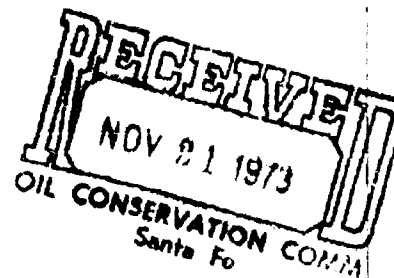
The N/2 of Section 14 to be dedicated to Wells Nos. 11 and 25 both located in Unit D of Section 14;

The E/2 of Section 26 to be dedicated to Wells Nos. 22, 9, and 8 located in Units A, G, and P, respectively, of Section 26;

The W/2 of Section 24 to be dedicated to Wells Nos. 26 and 12 located in Units D and M, respectively, of Section 24.

CASE 5134: Application of Atlantic Richfield Company for simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of four wells to a standard 640-acre unit comprising all of Section 15, Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, said wells being applicant's McDonald State WN Wells Nos. 23, 14, 15, and 13, located in Units C, G, L, and P, respectively, of Section 15.

CASE 5135: Application of Atlantic Richfield Company for the amendment of Order No. R-4549, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Rule 1 of the Special Rules for the Empire-Abo Pressure Maintenance Project as promulgated by Order No. R-4549 to expand the project area as defined therein to include the



BEFORE THE NEW MEXICO  
OIL CONSERVATION COMMISSION

*Page 5139*

APPLICATION OF SKELLY OIL COMPANY  
FOR AN ORDER AUTHORIZING A WATERFLOOD  
PROJECT IN THE GRAYBURG-JACKSON POOL  
BY INJECTION INTO ITS LEAD "C" LEASE  
WELL NOS. 4, 7, and 9, LOCATED IN  
SECTION 11, TOWNSHIP 17 SOUTH, RANGE  
31 EAST, EDDY COUNTY, NEW MEXICO

ENTRY OF APPEARANCE

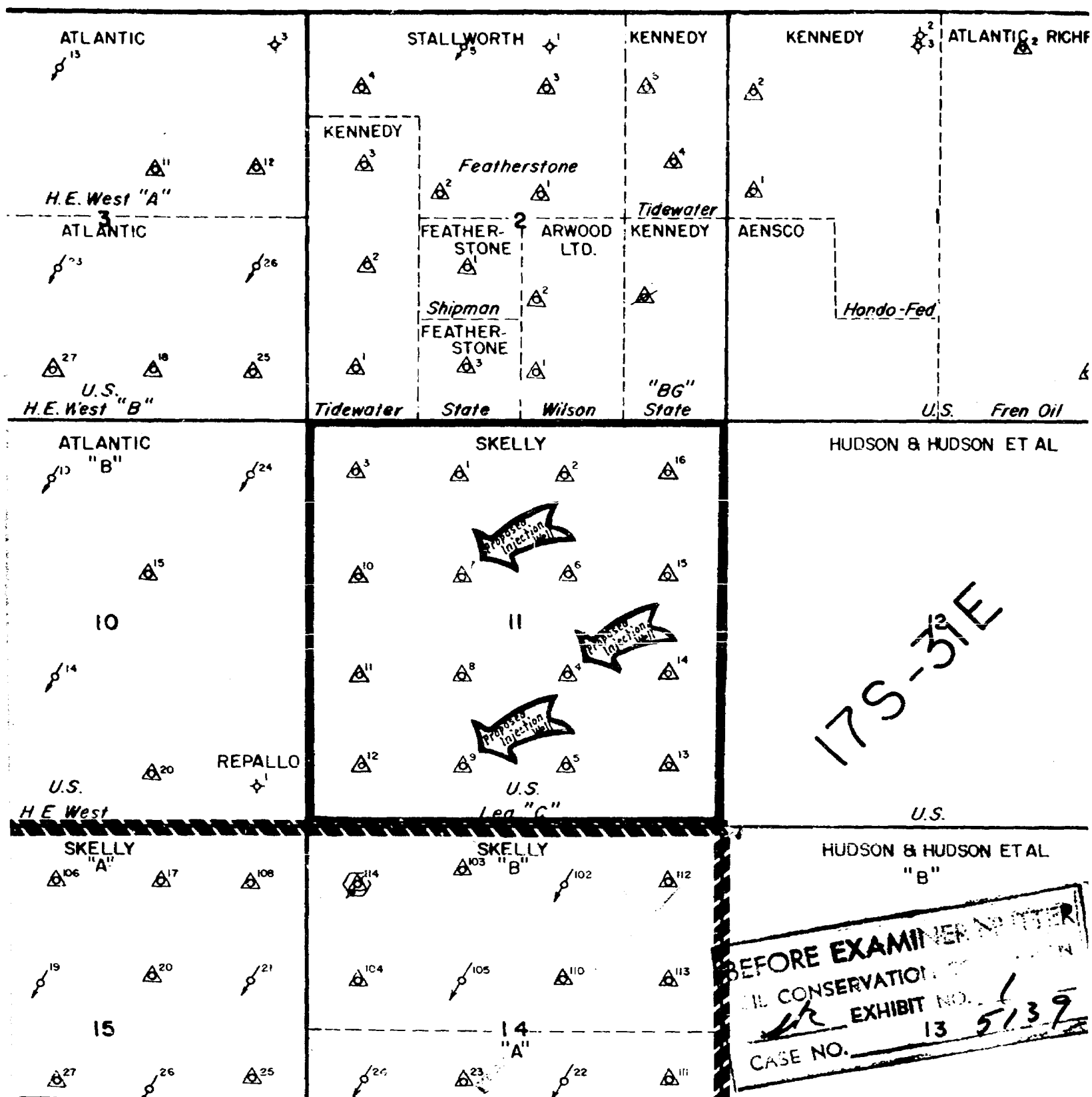
Comes now L. C. White, of White, Koch, Kelly & McCarthy, P. O.  
Box 787, Santa Fe, New Mexico, and herewith enters their  
appearance as local counsel for and on behalf of the applicant  
Skelly Oil Company in the above entitled matter.

WHITE, KOCH, KELLY & MCCARTHY

By *L. C. White*

DOCKET MAILED

Date *12-18-73*



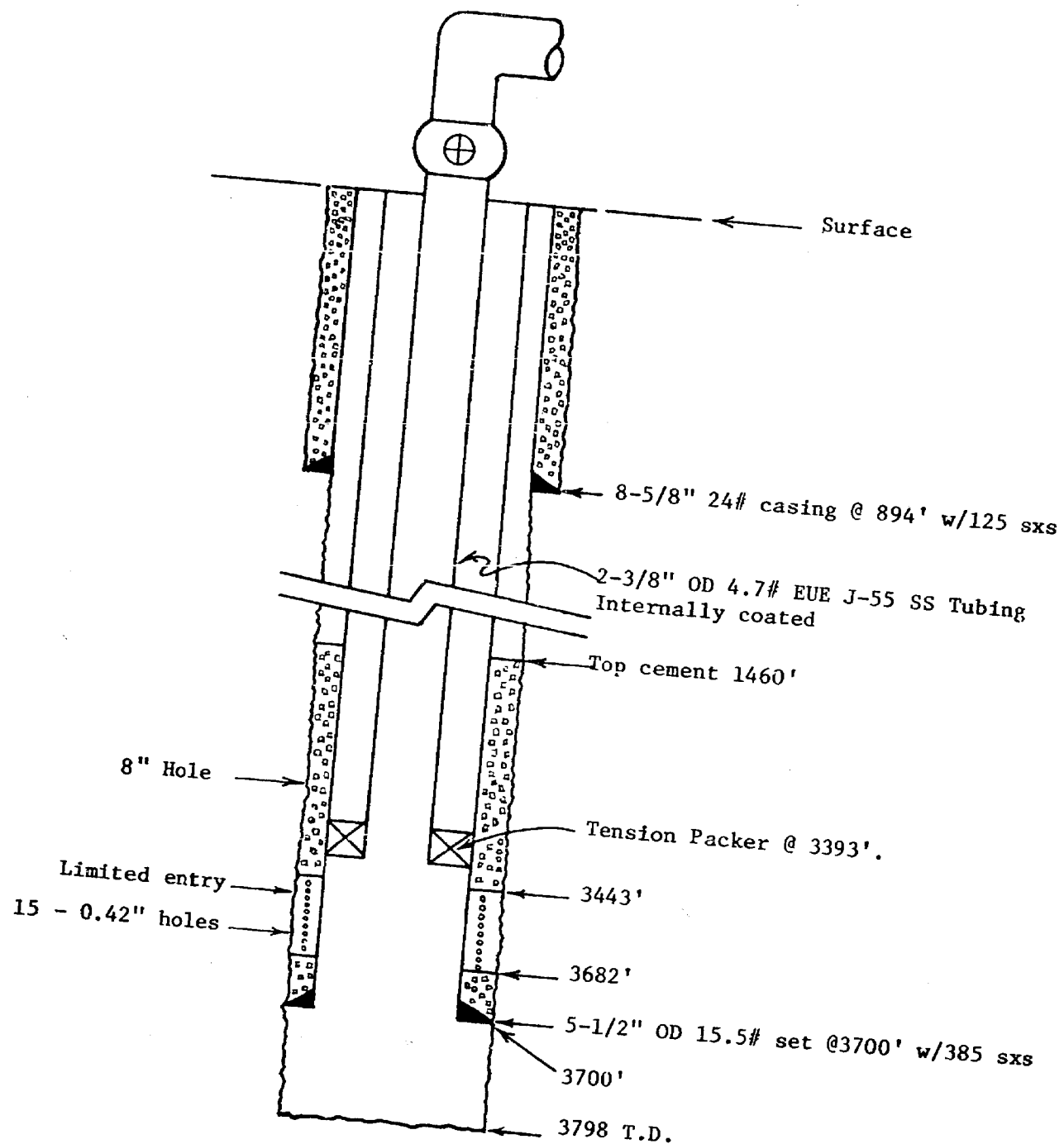
LEGEND	
	GRAYBURG-SAN ANDRES PRODUCER
	SEVEN RIVERS PRODUCER
	PENN. PRODUCER
	LOCATION
	DRY HOLE
	PLUGGED PRODUCER
	GRAYBURG-SAN ANDRES INJECTION WELL
	GAS INJECTION WELL
	ABO PRODUCER

SKELLY OIL COMPANY  
WEST CENTRAL DISTRICT  
LOVINGTON SECONDARY GROUP  
Proposed Lea "C" Waterflood  
Eddy County, New Mexico  
North Basin Geoprovence - Artesia Area  
Program No.: 645-03-04-01  
Scale: 1"=2000' Date:

BEFORE EXAMINER NOTED  
OIL CONSERVATION  
EXHIBIT NO. 13 5139  
CASE NO.

Skelly Lea "C" Lease

Skelly Oil Company  
 Lea "C" No. 4  
 1980' FSL 1980' FEL  
 Section 11 T17S R31E  
 Eddy County, New Mexico

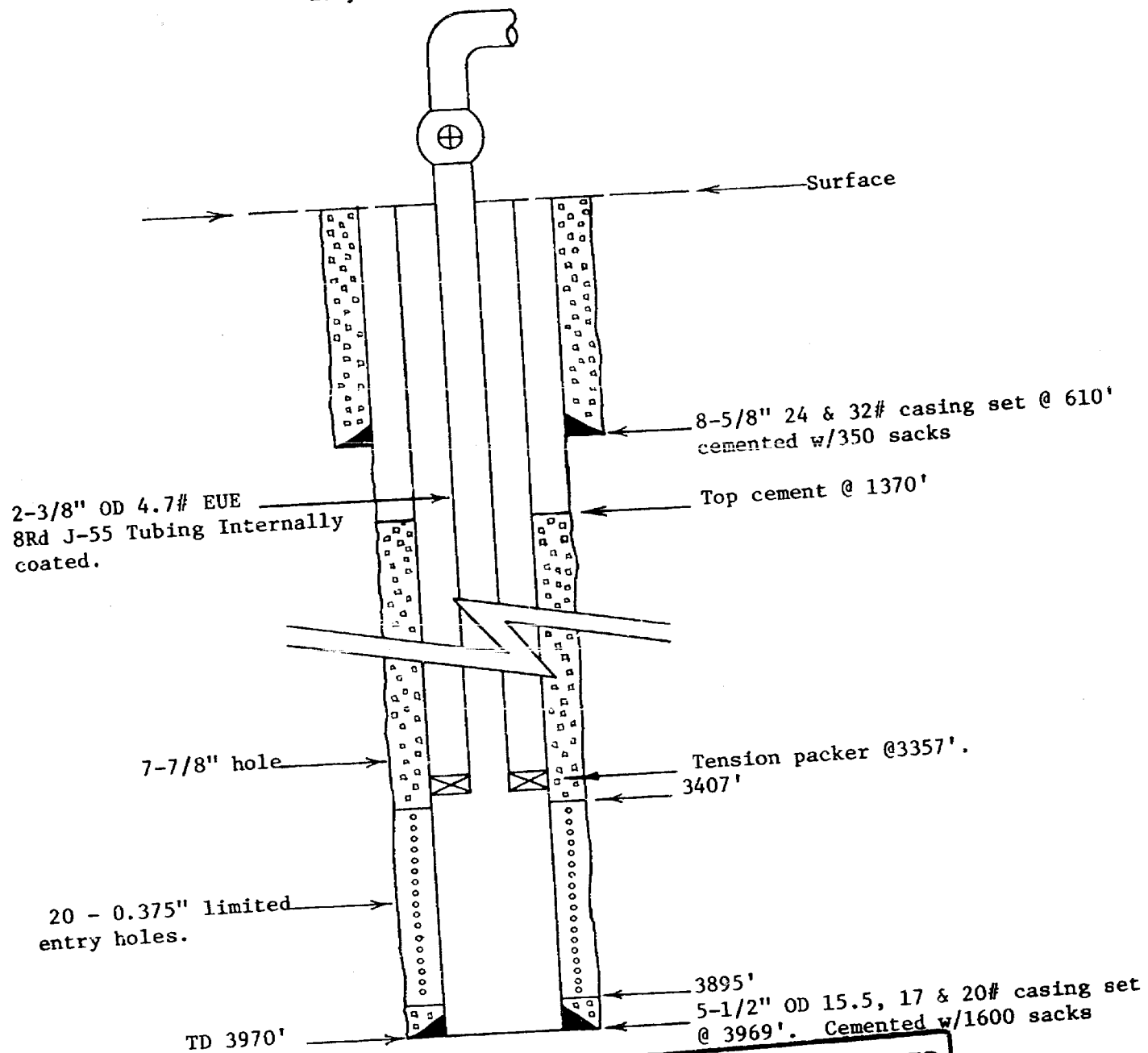


BEFORE EXAMINER NUTTER  
 OIL CONSERVATION COMMISSION  
 JR EXHIBIT NO. 5  
 CASE NO. 5139



Skelly Oil Company

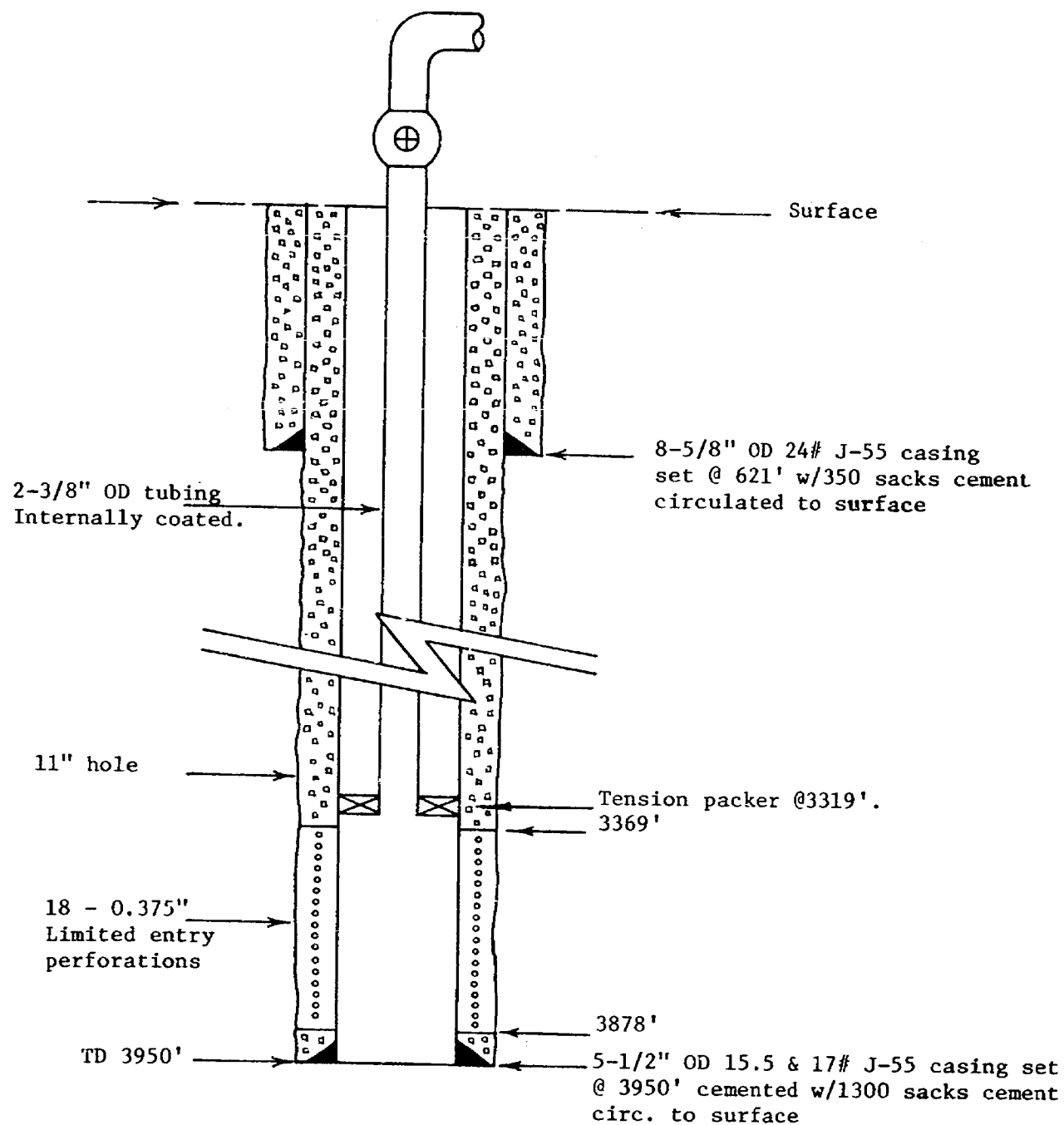
Lea "C" No. 7  
1980' FNL 1980' FWL  
Section 11 T17S R31E  
Eddy County, New Mexico



BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 6  
CASE NO. 5139

Skelly Oil Company

Lea "C" No. 9  
660' FSL 1980' FWL  
Section 11 T17S R31E  
Eddy County, New Mexico



BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 7  
CASE NO. 5139

034-0013

EXXON CHEMICAL COMPANY U.S.A.  
SPECIALTIES LABORATORY  
October 5, 1973  
8230 Stedman, Houston, Texas 77029

**EXXON**  
**CHEMICALS**

WATER ANALYSIS

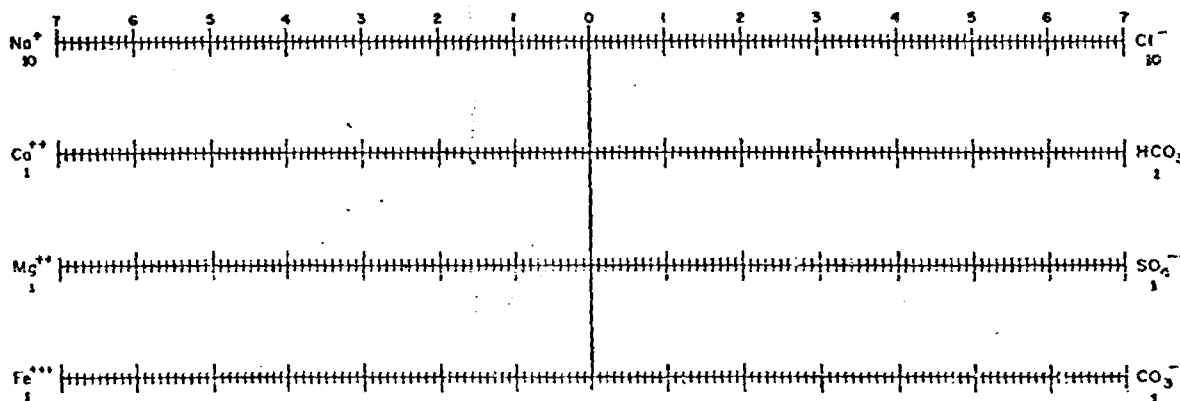
SAMPLE DESCRIPTION: Water sample from Skelly Unit WF #1 submitted for routine correlation.  
Sample taken 10-2-73.

COMPANY: Skelly Oil Company  
STSR NUMBER: 107330  
REQUESTED BY: Harold Langen

DATE RECEIVED: 10-3-73  
ANALYZED BY: Gene Keil

	<u>Mg/L</u>	<u>Meq/L</u>		
Sodium	55	2.4	pH 6.8	
Calcium	73	3.7	Specific Gravity at 60 °F.	1.0019
Magnesium	4	0.3	Resistivity ohms/m @77°F	10.00
Chloride	34	1.0		<u>Mg/L</u>
Sulfate	142	3.0	Oil Content	
Bicarbonate	151	2.5	Organic Matter	
Carbonate	0	0.0	Hydrogen Sulfide	0.0
Hydroxide	0	0.0		
TOTAL	459			
Dissolved Iron				
Total Iron	0.59	0.0		

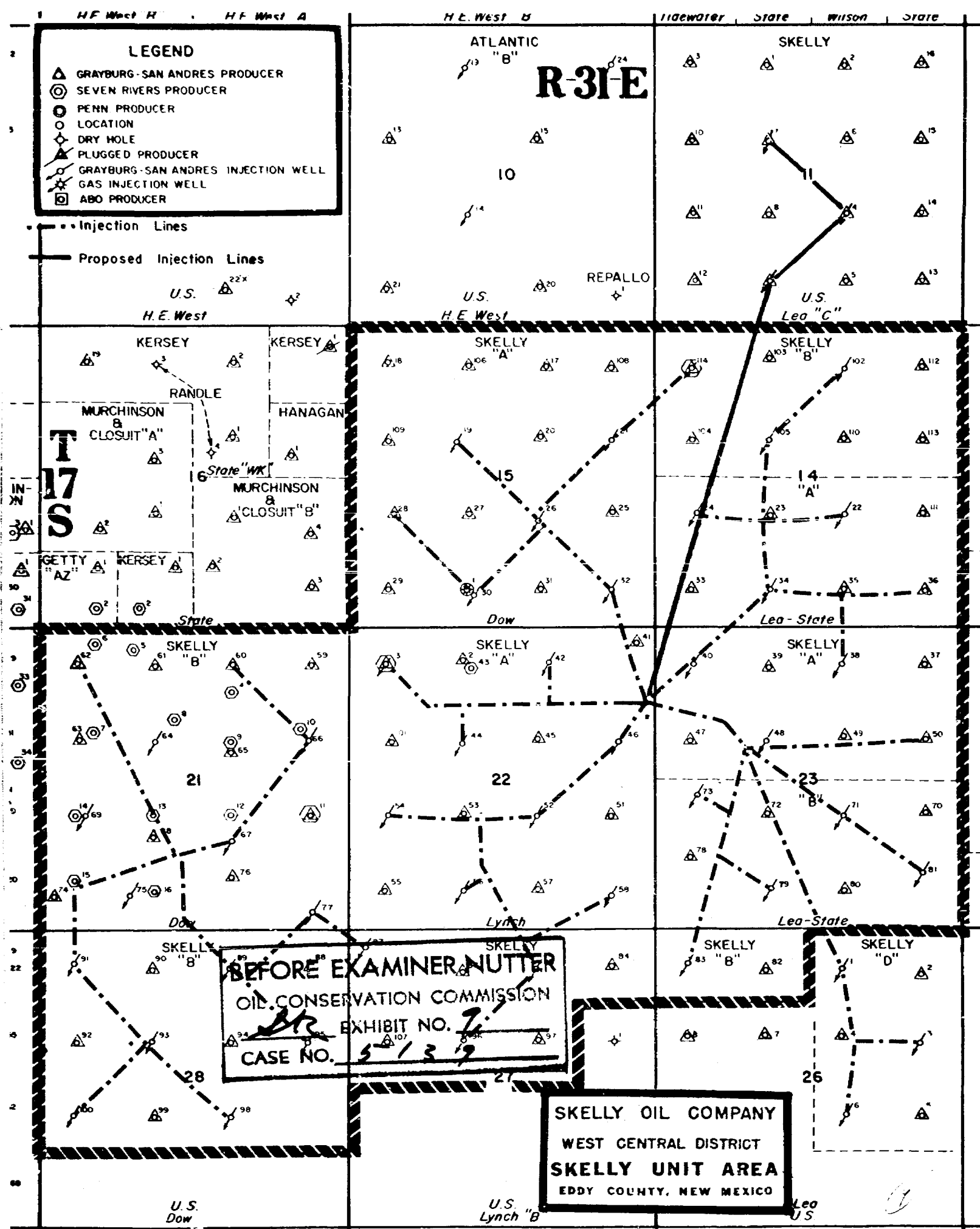
WATER PATTERN (Stiff Method)



Meq/LITER

Remarks:

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 8  
CASE NO. 5139





✓	CJL	
✓	JRA	
✓	ENG	
✓	REP	
✓	ADM	
✓	REB	
✓	D.C.	
✓	Boin	

WTT

Skelly Oil Company  
Post Office Box 1351  
Midland, Texas 79701

United States Department of the Interior SEP 28 1973

GEOLOGICAL SURVEY

P. O. Drawer U  
Artesia, New Mexico 88210

EST 10/5/73

September 27, 1973

Lea "C"  
File: Skelly Unit Joe Lea  
Lea 73647 66818

Gentlemen:

Your letter of September 13, 1973 requests approval to operate a waterflood project in the Grayburg-Jackson formations on that portion of oil and gas lease Las Cruces 029418(b) described as all of sec. 11, T. 17 S., R. 31 E., N.M.P.M., Eddy County, New Mexico.

The flood pattern would be 80-acre 5-spot, and on a pattern with the surrounding waterflood projects. The plan proposes to convert to water injection the following wells with additional conversions contingent upon common boundary agreements being made or other suitable arrangements:

Well Number and Lease	Location
4-Lea "C"	1980/S&E sec. 11
7-Lea "C"	1980/N&W sec. 11
9-Lea "C"	660/S 1980/W sec. 11

The plan for operating the above described waterflood project as proposed in the application is satisfactory to this office and hereby approved subject to approval by the New Mexico Oil Conservation Commission and the following:

1. This project will be operated in compliance with the New Mexico Oil Conservation Commission regulations governing waterflood operations.
2. A development plan for surface use will be submitted which will include information in regard to:
  - a. Plats of any additional roads or pipelines for flowlines, injection lines or water supply, which may be necessary for this project. The Bureau of Land Management will be consulted on right-of-ways or

BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

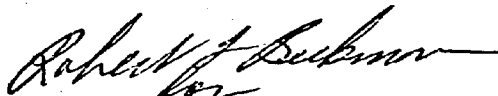
EXHIBIT NO. 11

CASE NO. 5139

other easements not covered under the oil and gas lease agreements.

- b. Plats or diagrams to indicate size, description, and location of any additional installations of injection plants, treating plants, storage batteries, emergency water pits, or other necessary use of the surface for this project.
  - c. Plans for restoration of the surface.
- 3. Prior approval will be obtained for any change or deviation from the original plans or revision thereof.
  - 4. The usual notice and reports of workovers, conversions, injection commencement or suspension, et cetera, of all wells involved will be timely submitted.
  - 5. Duplicate copies of a monthly progress report (N.M.O.C.C. form C-120 acceptable) are to be submitted to this office showing the volume of water injected and average pressure for the injection wells and production for the producing wells in the project area.

Sincerely yours,



James A. Knauf  
District Engineer

**NEW MEXICO OIL CONSERVATION COMMISSION**  
 BOX 2088 SANTA FE, NEW MEXICO  
**OPERATOR'S MONTHLY REPORT**

STATE OF NEW MEXICO  
 SUBMIT ORIGINAL TO OIL CONSERVATION COMMISSION  
 ONE COPY TO OIL CONSERVATION COMMISSION  
 ONE COPY TO TRANSPORTATION

Company or Operator: SKELLY OIL COMPANY (Agency) P. O. Box 1351, Midland, Texas FOR MONTH JUL 1972 Page 29

WELL NO. UNIT SEC. TWP. RNO.	WELL STATUS	TOTAL LIQUIDS PRODUCED			GAS PRODUCED MCF	DAYS PROD.	DISPOSITION OF GAS					DISPOSITION OF OIL				
		MONTHLY OIL ALLOWABLE	ACTUAL BARRELS PRODUCED	BARRELS OF WATER PRODUCED			VENTED	USED ON LEASE	SOLO	PURCH.	OTHER	C O D E	OIL ON HAND BEG. OF MONTH	BARRELS TO (TRANS-PORTER)	OTHER	C O D E
LEASE NAME AND STATE LAND LEASE NUMBER OR FEDERAL LEASE NUMBER																
Grayburg Jackson - Eddy																
Lea "C" - LC 029418-b																
1 C 11 17 31	P	217	183	37	837	31										
2 B 11 17 31	P	186	188	38	1245	31										
3 D 11 17 31	P	62	31	93	1163	31										
4 J 11 17 31	P	186	183	183	892	31										
5 O 11 17 31	P	217	183	123	1245	31										
6 G 11 17 31	P	62	91	177	256	31										
7 F 11 17 31	P	2170	1525	76	561	31										
8 K 11 17 31	P	1922	763	38	429	31										
9 N 11 17 31	P	1860	458	147	291	31										
Lease Total		6882	3605	912	6919			6919	CON				240	3199		TIN 646

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
CASE NO. 5129  
EXHIBIT NO. 12

**BEFORE EXAMINER NUTTER**  
 OIL CONSERVATION COMMISSION  
 CASE NO. 5139  
 EXHIBIT NO. 12

**STATUS CODE**  
 F-----FLOWING  
 P-----PUMPING  
 G-----GAS LIFT  
 S-----SHUT IN  
 T-----TEMP ABANDONED  
 I-----INJECTION

**"OTHER" GAS DISPOSITION CODE**  
 X-----USED OFF LEASE  
 O-----USED FOR DRILLING  
 G-----GAS LIFT  
 L-----LOST (MCF ESTIMATED)  
 E-----EXPLANATION ATTACHED  
 R-----REPRESSURING OR PRESSURE MAINTENANCE

**"OTHER" OIL DISPOSITION CODE**  
 C-----CIRCULATING OIL  
 L-----LOST  
 S-----SEDIMENTATION (BASE)  
 E-----EXPLANATION ATTACHED

I HEREBY CERTIFY THAT THE INFORMATION GIVEN IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

D. Brown **AUG 24 1972**  
 (SIGNATURE) (DATE)

Lead Clerk  
 (POSITION)

Submitted in Lieu of Form No. 9-329

**NEW MEXICO OIL CONSERVATION COMMISSION**  
 BOX 2088 SANTA FE, NEW MEXICO  
**OPERATOR'S MONTHLY REPORT**

STATEWIDE FORM C-113 REV. 10-1-65  
 SUBMIT: ORIGINAL TO OCC SANTA FE  
 ONE COPY TO OCC DIST. OFFICE  
 ONE COPY TO TRANSPORTER

Company or Operator: SKELLY OIL COMPANY (Address) P. O. Box 1351, Midland, Texas FOR MONTH OCT 1973 25

WELL NO. UNIT SEC. TWP. RMD.	WELL STATUS	TOTAL LIQUIDS PRODUCED			GAS PRODUCED MCF	DAYS PROD.	DISPOSITION OF GAS					DISPOSITION OF OIL						
		MONTHLY OIL ALLOWABLE	ACTUAL BARRELS PRODUCED	BARRELS OF WATER PRODUCED			VENTED	USED ON LEASE	SOLD	PURCH.	OTHER	C O D E	OIL ON HAND BEG. OF MONTH	BARRELS TO TRANS-PORTER	OTHER	C O D E	TRANS-PORTER	OIL ON HAND END OF MONTH
LEASE NAME AND STATE LAND LEASE NUMBER OR FEDERAL LEASE NUMBER																		
Grayburg Jackson - Eddy																		
Lea "C" - LC 029418-b																		
1 C 11 17 31	P	155	95	19	570	31	6000											
2 B 11 17 31	P	155	95	19	850	31	8947											
3 D 11 17 31	P	62	31	93	805	31	25968											
4 J 11 17 31	P	310	254	69	615	31	2401											
5 O 11 17 31	P	124	51	34	850	31	16667											
6 G 11 17 31	P	496	380	87	129	31	471											
7 F 11 17 31	P	558	412	21	380	31	922											
8 K 11 17 31	P	620	254	13	302	31	1189											
9 N 11 17 31	P	620	253	81	201	31	794											
10 E 11 17 31	P	682	253	253	1192	31	4731											
11 L 11 17 31	P	279	222	240	1565	31	7050											
12 M 11 17 31	P	589	312	60	839	31	2647											
Total This Page		4648	2617	989	8353													

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
APPLICANT'S EXHIBIT NO. 13  
CASE NO. 5139

(13)

**BEFORE EXAMINER NUTTER**  
 OIL CONSERVATION COMMISSION  
 APPLICATIONS EXHIBIT NO. 12  
 CASE NO. 5139

**STATUS CODE**  
 F-----FLOWING  
 P-----PUMPING  
 G-----GAS LIFT  
 S-----SHUT IN  
 T-----TEMP ABANDONED  
 I-----INJECTION

**"OTHER" GAS DISPOSITION CODE**  
 A-----USED OFF LEASE  
 D-----USED FOR DRILLING  
 G-----GAS LIFT  
 L-----LOST (MCF ESTIMATED)  
 E-----EXPLANATION ATTACHED  
 R-----REPRESSURING OR PRESSURE MAINTENANCE  
 (DESTINATION MUST BE SHOWN ON FORM C-11)

**"OTHER" OIL DISPOSITION CODE**  
 C-----CIRCULATING OIL  
 L-----LOST  
 S-----SEDIMENTATION (BSL)  
 E-----EXPLANATION ATTACHED

I HEREBY CERTIFY THAT THE INFORMATION GIVEN IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

D. R. Crow NOV 23 1973  
 (SIGNATURE) (DATE)

Lead Clerk - D. R. Crow  
 (POSITION)

Submitted in Lieu of Form No. 9-329



STATEWIDE FORM C-111 REV. 10-1-81  
 SUBMIT: ORIGINAL TO LCC SANTA FE  
 ONE COPY TO OCC DIST. OFFICE  
 ONE COPY TO TRANSPORTER

(Address)

FOR MONTH

Page 26

[illegible]

~~NOV 23 1973~~  
1944

Lead Clerk

Submitted in Lieu of Form 9-329



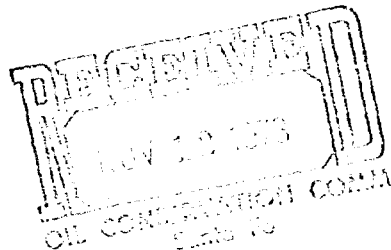
## SKELLY OIL COMPANY

P. O. BOX 1850

TULSA, OKLAHOMA 74102

November 8, 1973

LAW DEPARTMENT  
CHESTER E. BLODGET  
SENIOR ATTORNEY



Re: Application of Skelly Oil Company  
for an Order Authorizing a Waterflood  
Project in the Grayburg-Jackson Pool  
by Injection Into its Lea "C" Lease  
Well Nos. 4, 7 and 9, Located in  
Section 11, Township 17 South,  
Range 31 East, Eddy County, New Mexico

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


Gentlemen:

We are enclosing herewith the original and two copies of the above-referenced application .

We would appreciate your setting this matter down for hearing on the next Examiner Docket, which we understand will be January 3, 1974.

Yours very truly,

CEB:br  
Encl.

  
Chester E. Blodget

DOCKET MAILED

Date 12-18-73

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 ) CASE NO. 5139  
WATERFLOOD PROJECT IN THE GRAYBURG-JACKSON )  
POOL BY INJECTION INTO ITS LEA "C" LEASE ) FILED \_\_\_\_\_  
WELL NOS. 4, 7 AND 9, LOCATED IN SECTION )  
11, TOWNSHIP 17 SOUTH, RANGE 31 EAST, ) HEARING \_\_\_\_\_  
EDDY COUNTY, NEW MEXICO. )

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. That it operates a number of wells on its Lea "C" Lease in the Grayburg-Jackson Pool, and that said lease covers and includes all of Section 11, Township 17 South, Range 31 East, Eddy County, New Mexico.
2. That the wells in the project area are in an advanced state of depletion and could properly be classified as "stripper" wells.
3. That Applicant proposes to conduct a waterflood project in the producing formation by converting its Lea "C" Lease Well Nos. 4, 7 and 9 to injection wells.
4. That attached hereto and made a part hereof as Exhibit 1 is a plat showing the location of the proposed injection wells.
5. That attached hereto and made a part hereof as Exhibits 2, 3 and 4, are the logs of the proposed injection wells.
6. That attached hereto and made a part hereof as Exhibits 5, 6 and 7, are well schematics of the proposed injection wells showing all casing strings, including diameter and setting depths, quantities used and tops of cement, perforated intervals, tubing strings, including diameter and setting depths, and type and location of packers.
7. That attached hereto and made a part hereof as Exhibit 8 is an analysis of the water to be injected.
8. That attached hereto and made a part hereof as Exhibit 9 is a plat showing the proposed injection lines and wells.
9. That attached hereto and made a part hereof as Exhibit 10 is a plat including the area involved, together with the properties within a two-mile radius from same.
10. That attached hereto and made a part hereof as Exhibit 11 is a letter dated September 27, 1973 from the United States Department of the Interior, Geological Survey, to Skelly Oil Company expressing their approval of the requested waterflood project subject to the approval of the New Mexico Oil Conservation Commission.
11. That Applicant anticipates that the initial volume of water to be injected will be at a rate of 300 to 500 barrels per day per well at 1,850 psi wellhead pressure.
12. That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

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 Grayburg-Jackson Pool by injection of water into its Lea "C" Lease Well Nos. 4, 7 and 9,

located in Section 11, Township 17 South, Range 31 East, Eddy County, New Mexico, and to further provide for administrative expansion of the project and conversion of additional wells by administrative means without the necessity of separate hearings, and for such other orders, rules and regulations as may be necessary in the premises.

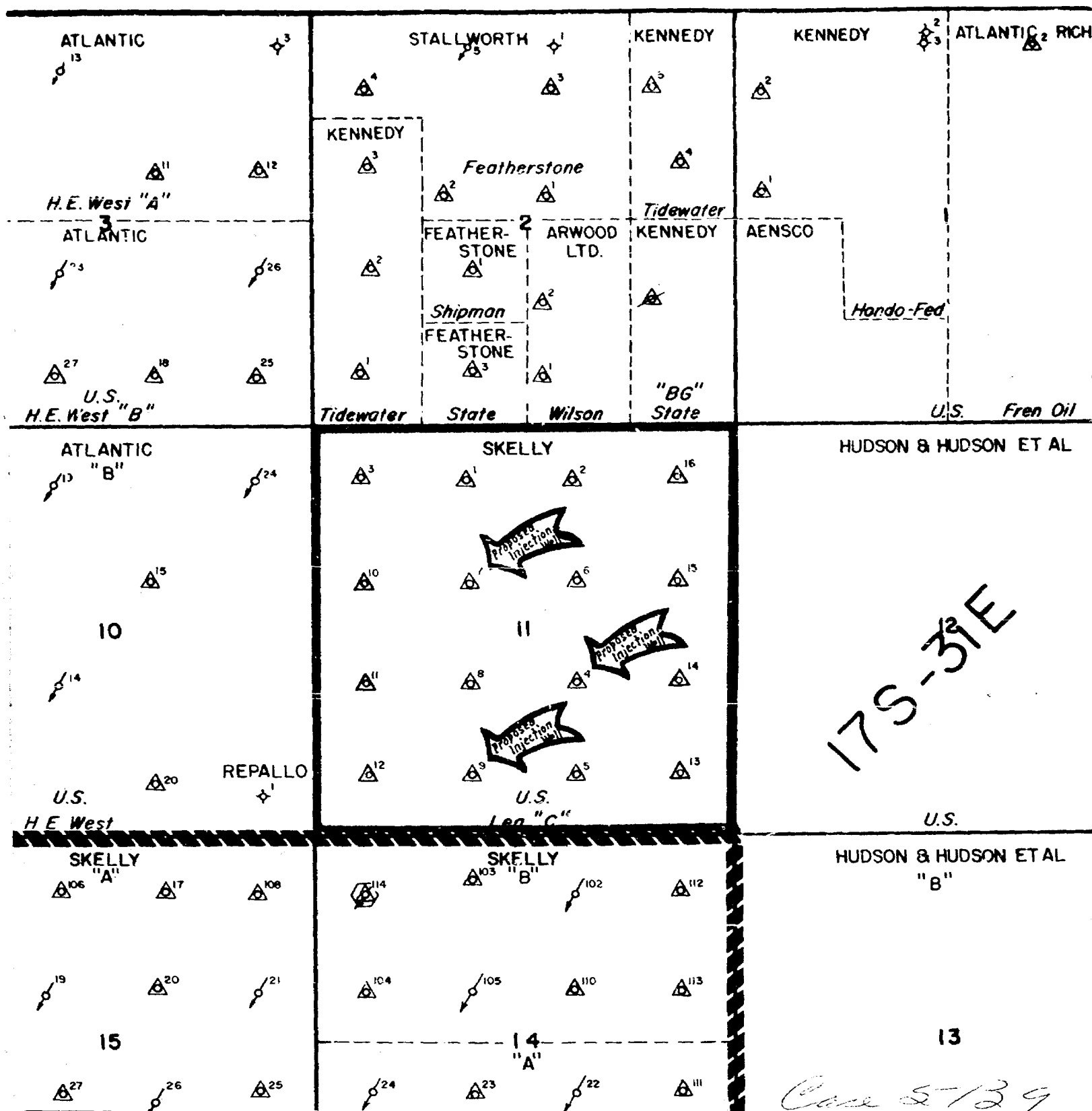
Respectfully submitted,

SKELLY OIL COMPANY

By *Chester E. Blodget*  
Chester E. Blodget, Attorney

Of Counsel:

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



### LEGEND

- △ GRAYBURG-SAN ANDRES PRODUCER
- ⊙ SEVEN RIVERS PRODUCER
- ⊙ PENN. PRODUCER
- LOCATION
- ◇ DRY HOLE
- ▲ PLUGGED PRODUCER
- ⚡ GRAYBURG-SAN ANDRES INJECTION WELL
- ⚡ GAS INJECTION WELL
- ⊠ ABO PRODUCER

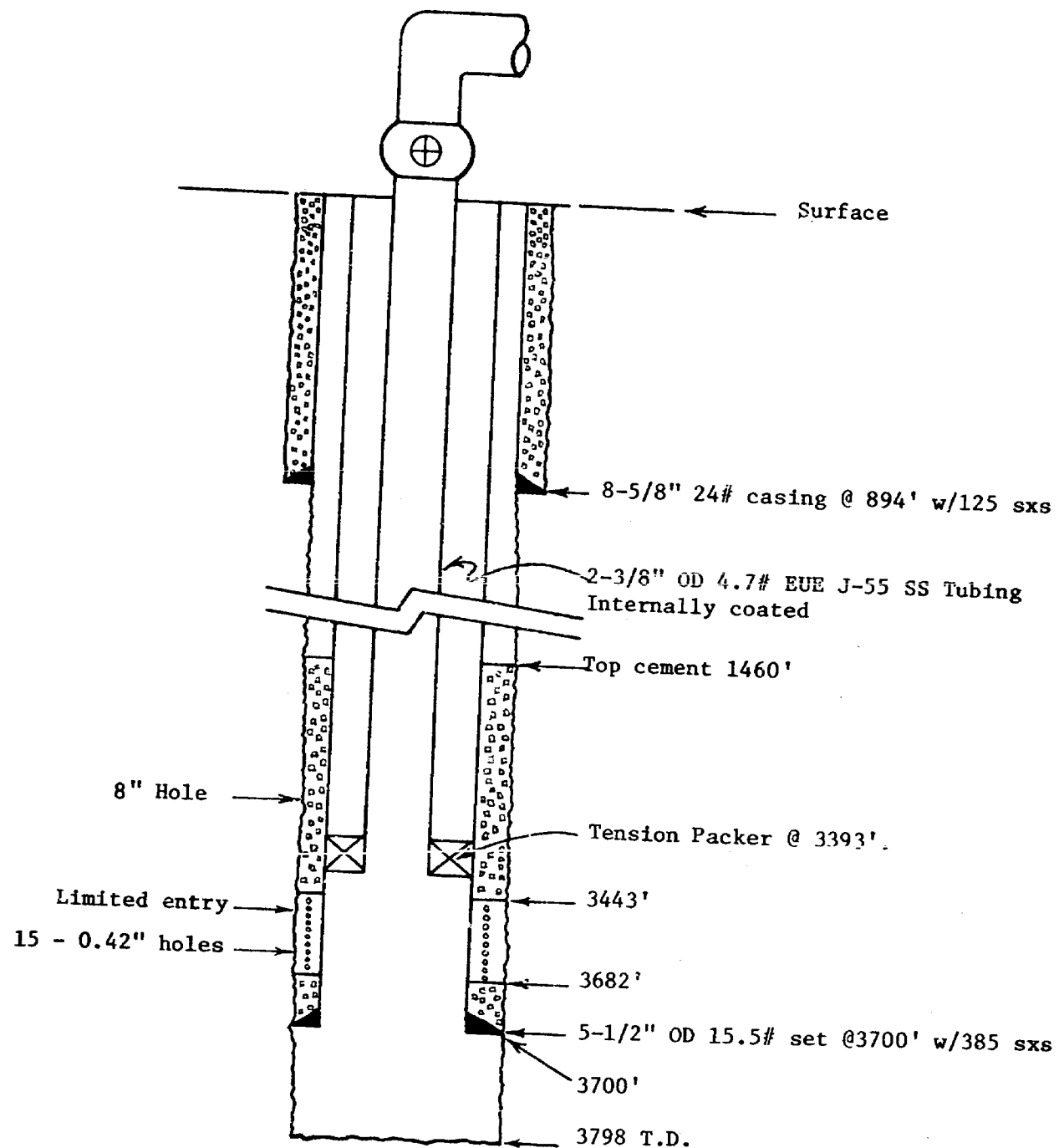
### SKELLY OIL COMPANY

WEST CENTRAL DISTRICT  
 LOVINGTON SECONDARY GROUP  
 Proposed Lea "C" Waterflood  
 Lea County, New Mexico  
 North Basin Geoprovence - Artesia Area  
 Program No.: 645-03-04-01  
 Scale: 1"=2000' Date:

Skelly Lea "C" Lease

Skelly Oil Company

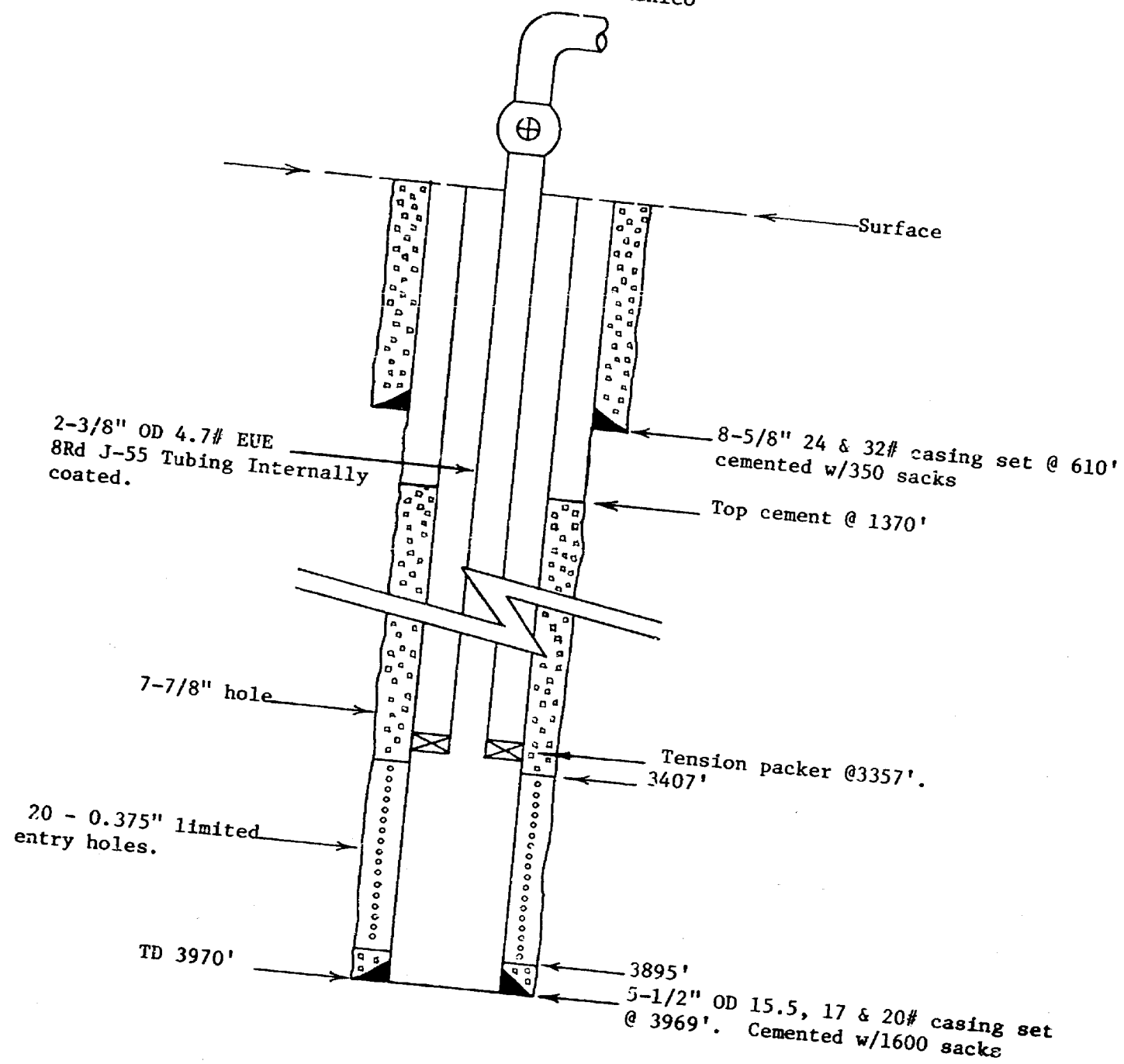
Lea "C" No. 4  
1980' FSL 1980' FEL  
Section 11 T17S R31E  
Eddy County, New Mexico



Case 15739  
Eph. # 5

Skelly Oil Company

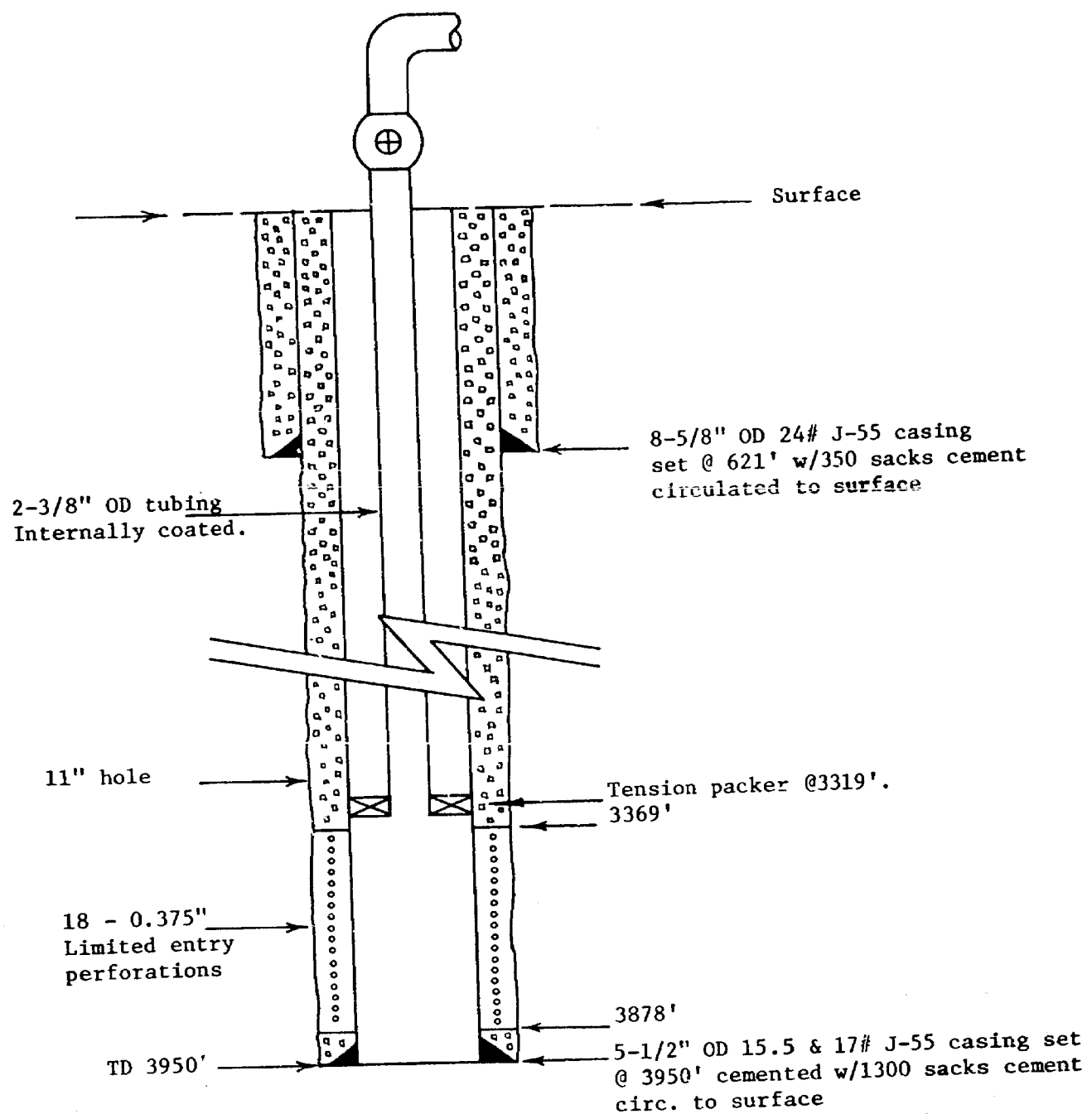
Lea "C" No. 7  
1980' FNL 1980' FWL  
Section 11 T17S R31E  
Eddy County, New Mexico



Lea 2727  
Eph # 6

Skelly Oil Company

Lea "C" No. 9  
660' FSL 1980' FWL  
Section 11 T17S R31E  
Eddy County, New Mexico



Case 5739  
Exp # 7



834-0015

EXXON CHEMICAL COMPANY U.S.A.  
SPECIALTIES LABORATORY  
October 5, 1973  
8230 Stedman, Houston, Texas 77029

**EXXON**  
**CHEMICALS**

WATER ANALYSIS

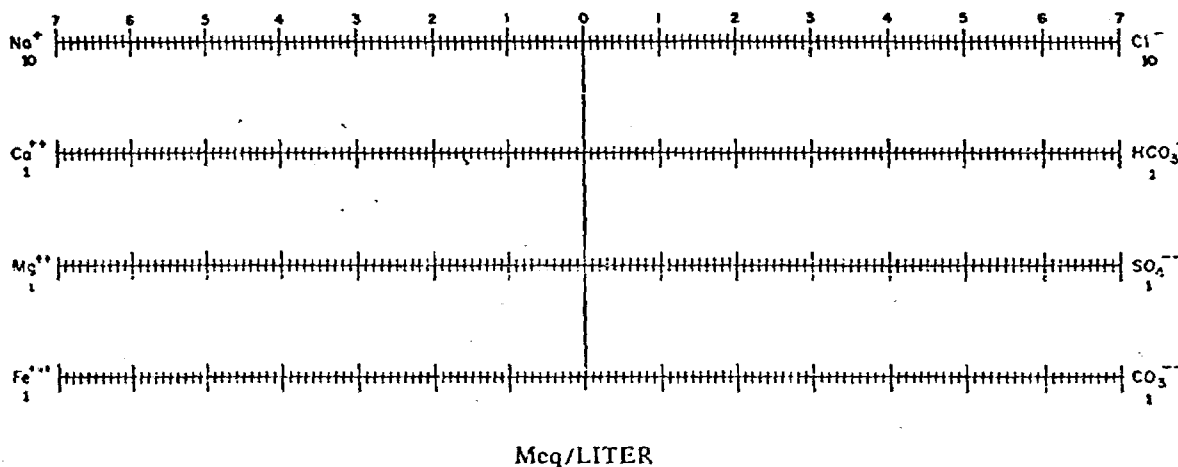
SAMPLE DESCRIPTION: Water sample from Skelly Unit WF #1 submitted for routine correlation.  
Sample taken 10-2-73.

COMPANY: Skelly Oil Company  
STSR NUMBER: 107330  
REQUESTED BY: Harold Langen

DATE RECEIVED: 10-3-73  
ANALYZED BY: Gene Keil

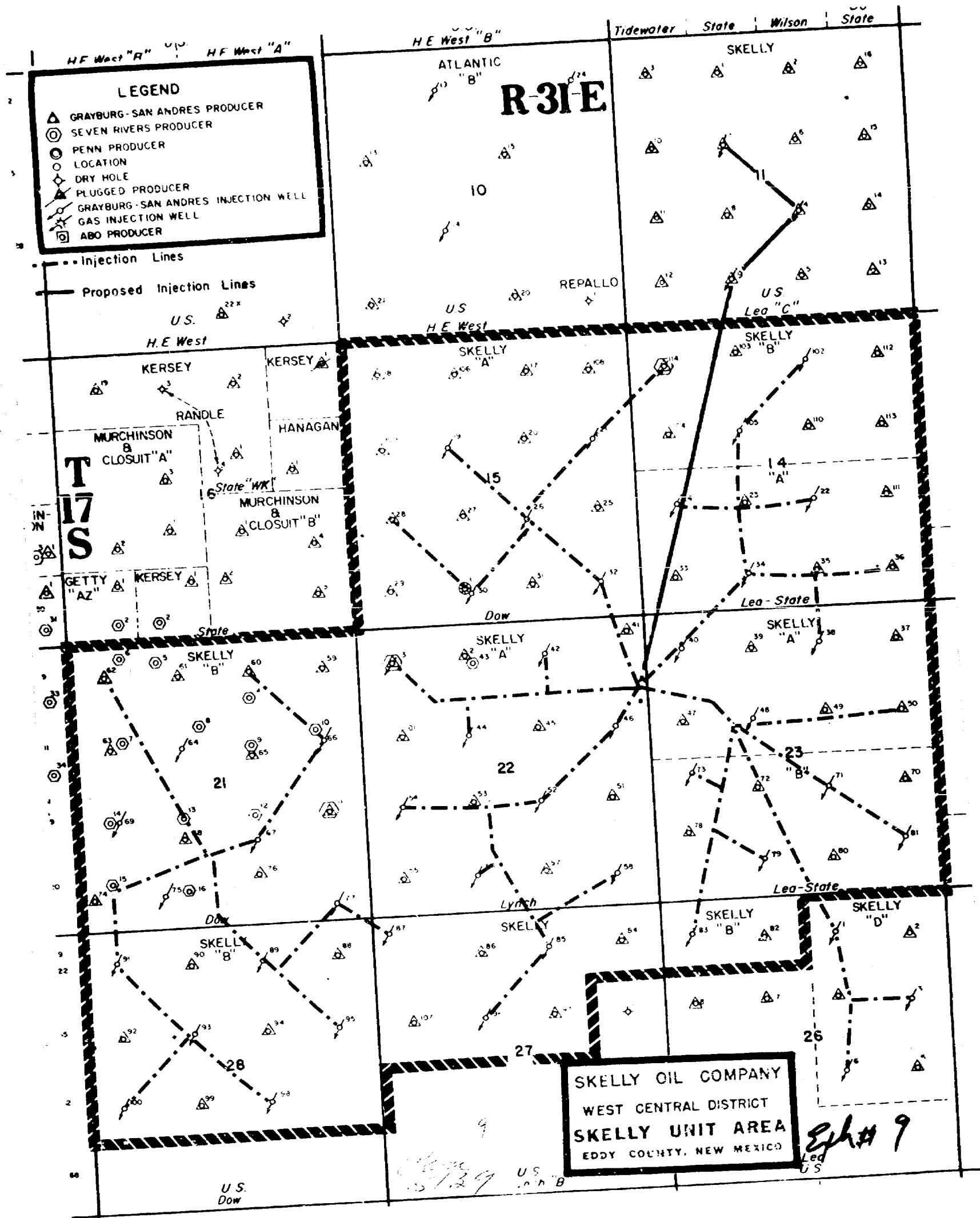
	Mg/L	Meq/L		
Sodium	55	2.4	pH 6.8	
Calcium	73	3.7	Specific Gravity at 60 °F.	1.0019
Magnesium	4	0.3	Resistivity ohms/m @77°F	10.00
Chloride	34	1.0		
Sulfate	142	3.0	Oil Content	
Bicarbonate	151	2.5	Organic Matter	
Carbonate	0	0.0	Hydrogen Sulfide	0.0
Hydroxide	0	0.0		
TOTAL	459			
Dissolved Iron				
Total Iron	0.59	0.0		

## WATER PATTERN (Stiff Method)



Remarks:

10-5-73  
Eph # 8





✓	CJL	
✓	JRA	
✓	TES	
✓	TOP	
✓	DOM	
✓	KED	
✓	J.D.C.	
✓	Boen	

United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Drawer U  
Artesia, New Mexico 88210

SEP 10/5/73

SKELLY OIL COMPANY  
EXPL. & PROD. DEPT.

SEP 28 1973

West Central District

September 27, 1973

WTT  
Skelly Oil Company  
Post Office Box 1351  
Midland, Texas 79701

Area "C"  
File: Skelly Unit for Leas  
Leas 736+7 668/8

Gentlemen:

Your letter of September 13, 1973 requests approval to operate a waterflood project in the Grayburg-Jackson formations on that portion of oil and gas lease Las Cruces 029418(b) described as all of sec. 11, T. 17 S., R. 31 E., N.M.P.M., Eddy County, New Mexico.

The flood pattern would be 80-acre 5-spot, and on a pattern with the surrounding waterflood projects. The plan proposes to convert to water injection the following wells with additional conversions contingent upon common boundary agreements being made or other suitable arrangements:

Well Number and Lease	Location
4-Lea "C"	1980/S&E sec. 11
7-Lea "C"	1980/N&W sec. 11
9-Lea "C"	660/S 1980/W sec. 11

The plan for operating the above described waterflood project as proposed in the application is satisfactory to this office and hereby approved subject to approval by the New Mexico Oil Conservation Commission and the following:

1. This project will be operated in compliance with the New Mexico Oil Conservation Commission regulations governing waterflood operations.
2. A development plan for surface use will be submitted which will include information in regard to:
  - a. Plats of any additional roads or pipelines for flowlines, injection lines or water supply, which may be necessary for this project. The Bureau of Land Management will be consulted on right-of-ways or

Exp # 11

other easements not covered under the oil and gas lease agreements.

- b. Plats or diagrams to indicate size, description, and location of any additional installations of injection plants, treating plants, storage batteries, emergency water pits, or other necessary use of the surface for this project.
  - c. Plans for restoration of the surface.
3. Prior approval will be obtained for any change or deviation from the original plans or revision thereof.
  4. The usual notice and reports of workovers, conversions, injection commencement or suspension, et cetera, of all wells involved will be timely submitted.
  5. Duplicate copies of a monthly progress report (N.M.O.C.C. form C-120 acceptable) are to be submitted to this office showing the volume of water injected and average pressure for the injection wells and production for the producing wells in the project area.

Sincerely yours,



James A. Knauf  
District Engineer

DRAFT

jr

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. 5139

Order No. R- 7697

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 3, 1974,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this        day of January, 19 74 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 institute  
a waterflood project by the injection of water into the Grayburg-San Andres  
formation through three wells on its Lea "C" Lease in Section 11, Township 17  
South, Range 31 East, Grayburg-Jackson Pool, Eddy County, New Mexico.

-2-

CASE NO. 5139

Order No. R-

(3) That the ~~Applicant~~ further seeks a procedure whereby the subject project may be expanded by the conversion of additional wells to water injection within the boundaries of the above-described <sup>Lease</sup> ~~unit~~ without the necessity for notice and hearing.

(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 ~~Applicant~~ should take all steps necessary to ensure that the injected water enters only the proposed injection zones and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(7) That the applicant proposes to treat the water to be injected to minimize corrosion.

(8) 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 within the project area.)~~

IT IS THEREFORE ORDERED:

(1) That the applicant, Skelly Oil Company, is hereby authorized to institute a waterflood project in the <sup>Lea "C" Lease,</sup> ~~Skelly Unit Area,~~ Grayburg-Jackson Pool, by the injection of water into the ~~Grayburg~~ San Andres formation through the following-described wells in Section 11, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico:

<del>Lea "C" Well No. 1 - Unit J</del>	Lea "C" Well No. 4 - Unit J
<del>Lea "C" Well No. 2 - Unit F</del>	Lea "C" Well No. 7 - Unit F
<del>Lea "C" Well No. 3 - Unit N</del>	Lea "C" Well No. 8 - Unit N

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(2) That prior to initial injection of water into any of said injection wells, the operator shall obtain the approval of the supervisor of the Commission's Artesia District Office as to the casing and cementing of said well.

(3) That injection of treated water into each of said wells shall be through tubing, set in a packer which shall be located as near as practicable to the uppermost perforation, ~~or in the case of open-hole completions, as near as practicable to the casing shoe~~ <sup>and</sup> that the casing-tubing annulus of each injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(4) That the operator shall immediately notify the supervisor of the Commission's Artesia district office of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(5) That the subject waterflood project is hereby designated the Skelly Lee "C" Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(6) 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;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of the above-described waterflood project to include such additional injection ~~wells in the area of~~ <sup>and producing wells at orthodox and unorthodox locations in</sup> said project as may be necessary <sup>such unorthodox location</sup> to complete an efficient injection pattern, <sup>provided however, no injection well shall be located closer than 330 feet to the outer boundary of the lease.</sup>

(7) 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.

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE NO. 5139  
Order No. R-4697-A

NUNC PRO TUNC

BY THE COMMISSION:

It appearing to the Commission that due to clerical error and inadvertence, Order No. R-4697, dated January 15, 1974, does not correctly state the intended order of the Commission,

IT IS THEREFORE ORDERED:

(1) That Paragraph (1) on Page 2 of Order No. R-4697, be and the same is hereby corrected to read in its entirety as follows:

"(1) That the applicant, Skelly Oil Company, is hereby authorized to institute a waterflood project in the Lea "C" Lease, Grayburg-Jackson Pool, by the injection of water into the Grayburg-San Andres formation through the following-described wells in Section 11, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico:

Lea "C" Well No. 4 - Unit J  
Lea "C" Well No. 7 - Unit F  
Lea "C" Well No. 9 - Unit N

(2) That this order shall be effective nunc pro tunc as of January 15, 1974.

DONE at Santa Fe, New Mexico, this \_\_\_\_\_ day of January, 1974.