

CASE 5023: Application of SKELLY
OIL FOR A WATERFLOOD PROJECT,
ROOSEVELT COUNTY, NEW MEXICO.

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. 5023
Order No. R-4597

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 11, 1973,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 23rd day of July, 1973, 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 on its Hobbs "T" Lease,
Chaveroo-San Andres Pool, by the injection of water into the
Upper and Lower San Andres formations through perforations in
the intervals from 4207 feet to 4418 feet and from 4676 feet
to 4849 feet in its Hobbs "T" Well No. 11 located in Unit P of
Section 33, Township 7 South, Range 33 East, Chaveroo-San Andres
Pool, Roosevelt County, New Mexico.

(3) That the well in the project area is in an advanced
state of depletion and should properly be classified as a "stripper"
well.

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

(5) 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.

-2-

Case No. 5023

Order No. R-4597

IT IS THEREFORE ORDERED:

(1) That the applicant, Skelly Oil Company, is hereby authorized to institute a waterflood project on its Hobbs "T" Lease, Chaveroo-San Andres Pool, by the injection of water into the Upper and Lower San Andres formations through perforations in the intervals from 4207 feet to 4418 feet and from 4676 feet to 4849 feet in its Hobbs "T" Well No. 11 located in Unit P of Section 33, Township 7 South, Range 33 East, NMPM, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

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

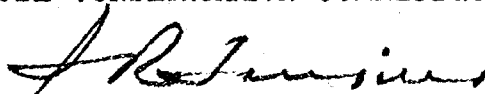
(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(4) That Commission Order No. R-3023, which authorized the dual completion of the aforesaid Hobbs "T" Well No. 11 to produce oil from the Chaveroo San Andres Pool and to dispose of produced salt water into the Lower San Andres formation, is hereby superseded.


(5) 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


I. R. TRUJILLO, Chairman


ALEX J. ARMILLO, Member


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

S E A L

dr/

BEFORE THE NEW MEXICO
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE APPLICATION OF
SKELLY OIL COMPANY FOR A WATERFLOOD
PROJECT IN ROOSEVELT COUNTY, NEW
MEXICO

Case No. 5023

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*
Attorneys for Skelly Oil Company

DOCKET MAILED

Date 6-28-73

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
OIL CONSERVATION COMMISSION CONFERENCE ROOM
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
Wednesday, July 11, 1973

EXAMINER HEARING

IN THE MATTER OF:

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

Case Number 5023

BEFORE: Daniel S. Nutter
Examiner

TRANSCRIPT OF HEARING

dearnley, meier & associates

209 SIMMS BLDG., P.O. BOX 1092, PHONE 243-0691, ALBUQUERQUE, NEW MEXICO 87103
1216 FIRST NATIONAL BANK BLDG. EAST, ALBUQUERQUE, NEW MEXICO 87108

1 MR. NUTTER: Call next case 5023.

2 MR. CARR: Case 5023, application of Skelly Oil
3 Company for a waterflood project, Roosevelt County, New
4 Mexico.

5 MR. BLODGET: Mr. Examiner, we have one witness and
6 four exhibits.

7 WILLIAM T. THOMAS,
8 was called as a witness, and after being duly sworn according
9 to law, testified as follows:

10 MR. BLODGET: I'm Chester Blodget also representing
11 Skelly in this matter, and we have written entry of
12 appearance by Mr. White which has heretofore been filed
13 in this Cause.

14 DIRECT EXAMINATION

15 BY MR. BLODGET:

16 Q Would you state your name, occupation, and who you work
17 for?

18 A Bill Thomas, presently employed as Advance Production
19 Engineer, Skelly Oil Company.

20 Q Have you heretofore testified before this Commission?

21 A No, I haven't.

22 Q Mr. Thomas, would you give us a resume of your educational
23 background, higher educational background?

24 A All right. I was graduated from Texas Tech in 1955 with
25 a Bachelor of Science in Petroleum Geology, and I worked

1 approximately two years for Core Laboratories as a
2 co-analyst in reservoir evaluations. For approximately
3 the next nine years, I was employed by Riley G. Maxwell
4 Company in similar-type capacity, and for the past
5 six-and-a-half years I've been employed by Skelly.

6 Q And in what capacity have you been employed by Skelly?

7 A As a production engineer.

8 Q And in what areas has your experience been?

9 A Southeast New Mexico. In fact, approximately fifteen
10 years of my experience has been in the Southeastern New
11 Mexico area.

12 MR. BLODGET: We move to qualify this witness.

13 MR. NUTTER: The witness is qualified.

14 MR. BLODGET: Thank you.

15 Q (By Mr. Blodget) You are familiar with the application
16 in this case, are you not, Case Number 5023?

17 A Yes.

18 Q What does Skelly seek by this application?

19 A We seek to institute a pilot waterflood in the Chaveroo-
20 San Andres Pool to evaluate the floodability of the
21 Chaveroo pay in the Southern portion of the pool.

22 Q Now, I notice that there were four exhibits attached to
23 that application, and they were designated as A, B, C,
24 and D. Were these exhibits prepared by you or under
25 your supervision?

1 A Yes, they were.

2 Q And they have been marked for the purposes of this
3 Hearing as Hearing Numbers 1, 2, 3, and 4; is that correct?

4 A Correct, right.

5 Q I call your attention to Skelly Exhibit Number 1. Would
6 you state what that is and what it tends to show?

7 A Exhibit Number 1 is a map showing the location of a
8 proposed injection well and the location of all other wells
9 within a radius of two miles from the proposed well and
10 the formation from which wells are producing or have
11 produced.

12 Q I call your attention to Exhibit Number 2. What does
13 that show?

14 A Exhibit Number 2 is a Borehole Compensated Sonic and Gamma
15 Ray Log on the proposed injection well, and existing
16 perforations are indicated on the log.

17 Q I call your attention to Skelly Exhibit Number 3. Would
18 you identify that and tell us what it shows?

19 A Exhibit Number 3 is an analysis of the water which will
20 be injected, and it indicates it's mineralized to a degree
21 that it's unsuitable for drinking purposes or agricultural
22 or irrigation usage.

23 Q I call your attention to Skelly Exhibit Number 4. What
24 is that and what does it show?

25 A Exhibit Number 4 is a diagrammatic sketch of the proposed

1 injection well showing all casing strings' diameter,
2 setting depths, quantities used and tops of cement,
3 perforated intervals, tubing string diameter and setting
4 depth, and type and location of a proposed packer.

5 Q All right. This shows the intervals through which you
6 propose to inject water?

7 A Yes. We propose to inject water over the intervals as
8 indicated from 4207 to 4418 and 4676 to 4849. Now, we
9 are presently injecting into the lower intervals, but
10 our plans are to set a packer above the upper interval
11 and inject into both intervals.

12 Q Was this a well previously approved by the Commission
13 as a disposal well for salt water?

14 A Yes. It was approved by the Commission for injection into
15 the lower interval and production from the upper interval.
16 However, it proved to be barren from the upper interval;
17 and subsequently it was equipped to inject or dispose of
18 water into the lower interval; and the upper perforations
19 presently are open above the packer.

20 Q To your knowledge have the offset operators given their
21 consent to this water injection pilot plan?

22 A Yes, they have. We have waivers of objections from the
23 three offset operators.

24 Q Which operators are they?

25 A It would be Atlantic Richfield, Sun Oil Company, and

1 Western States Producing Company.

2 Q And copies of those consents were attached to the
3 application and to the exhibits; is that correct?

4 A Yes, correct.

5 Q Do you have any opinion as to the reason you want to try
6 this pilot waterflood project and the measure of its
7 success?

8 A Yes. It's necessary that we, of course, dispose of our
9 produced water; and as we are all on the South end of
10 a pool, we would like to inject into a possible pay
11 interval and possibly recover some updip oil, because
12 we are structurally low on this well. And, of course,
13 if we are successful, we are considering requesting
14 administrative approval to extend the flood.

15 MR. BLODGET: Skelly moves the admission of Exhibits
16 1, 2, 3, and 4.

17 MR. NUTTER: Exhibits 1 through 4 will be admitted
18 into evidence.

19 MR. BLODGET: We have no further questions from this
20 witness.

21 MR. NUTTER: You had another exhibit attached here.
22 Does that one not count?

23 MR. BLODGET: That's just decoration. That's just
24 got color on it.

25 * * * * *

CROSS-EXAMINATION

BY MR. NUTTER:

Q State what that shows.

A It was just for reference, just an additional plat.
Skelly's leases are colored in yellow.

Q Mr. Thomas, referring to Exhibit Number 4 --

A Yes.

Q I note the old Model "D" Packer down here at 4644. You
will just pull that tubing out of the packer and inject
through it; is this correct?

A Right. Yes, sir, just purely in an economic standpoint
we are going to leave it in; and, of course, if necessary,
we could always put a plug in the packer.

Q It's a Model "D", so to remove it, you would have to drill
it out?

A Yes, sir. That's a permanent-type packer.

Q Now, your exhibit does state that you will internally
coat the tubing. What about the casing tubing annulus?
Will that be loaded with an inert fluid?

A Yes, sir. It will be loaded with an inert fluid and
equipped with a pressure gauge where we can detect any
packer leakage.

MR. NUTTER: Are there any further questions of Mr.
Thomas? He may be excused. Do you have anything further,
Mr. Blodget?


1 MR. BLODGET: No, sir.

2 MR. NUTTER: Does anyone have anything further they
3 wish to offer in Case 5023? The case will be taken under
4 advisement.

5 * * * * *

6 STATE OF NEW MEXICO)
7) ss.
8 COUNTY OF BERNALILLO)

9 I, JANET RUSSELL, a Certified Shorthand Reporter, in
10 and for the County of Bernalillo, State of New Mexico, do
11 hereby certify that the foregoing and attached Transcript of
12 Hearing before the New Mexico Oil Conservation Commission was
13 reported by me; and that the same is a true and correct
14 record of said proceedings to the best of my knowledge, skill
15 and ability.

16 
17 CERTIFIED SHORTHAND REPORTER

18
19
20
21
22 I do hereby certify that the foregoing is
23 a complete record of the proceedings in
24 the Examiner hearing of Case No. 5023
25 heard by me on 7/11, 1973.


Examiner
New Mexico Oil Conservation Commission

I N D E XWITNESSPAGE

WILLIAM T. THOMAS

Direct Examination by Mr. Blodget

3

Cross-Examination by Mr. Nutter

8

E X H I B I T SOFFEREDADMITTED

Applicant's Exhibit #1

7

7

Applicant's Exhibit #2

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7

Applicant's Exhibit #3

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7

Applicant's Exhibit #4

7

7



Case 5023

SKELLY OIL COMPANY

P. O. BOX 1650

TULSA, OKLAHOMA 74102

LAW DEPARTMENT

CHESTER E. BLODGET
SENIOR ATTORNEY

June 13, 1973

Re: Application for Waterflood
Project, Hobbs "T" Well No. 11,
Chaveroo San Andres Pool
Roosevelt County, New Mexico.

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

Gentlemen:

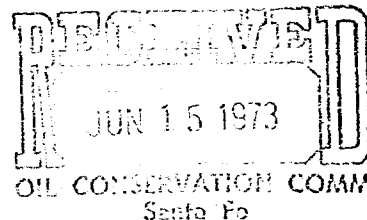
We are enclosing herewith the original and two copies of
the above referenced application for a waterflood project.

We would appreciate your setting this matter down for
hearing on the July Examiner Docket, which we understand
will be July 11, 1973.

Yours very truly,

CEB:br
Encl.

Chester E. Blodget
Chester E. Blodget





OIL CONSERVATION COMMISSION

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

July 24, 1973

GOVERNOR
BRUCE KING
CHAIRMAN
LAND COMMISSIONER
ALEX J. ARMijo
MEMBER
STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

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

Re: Case No. 5023
Order No. R-4597
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.
Secretary-Director

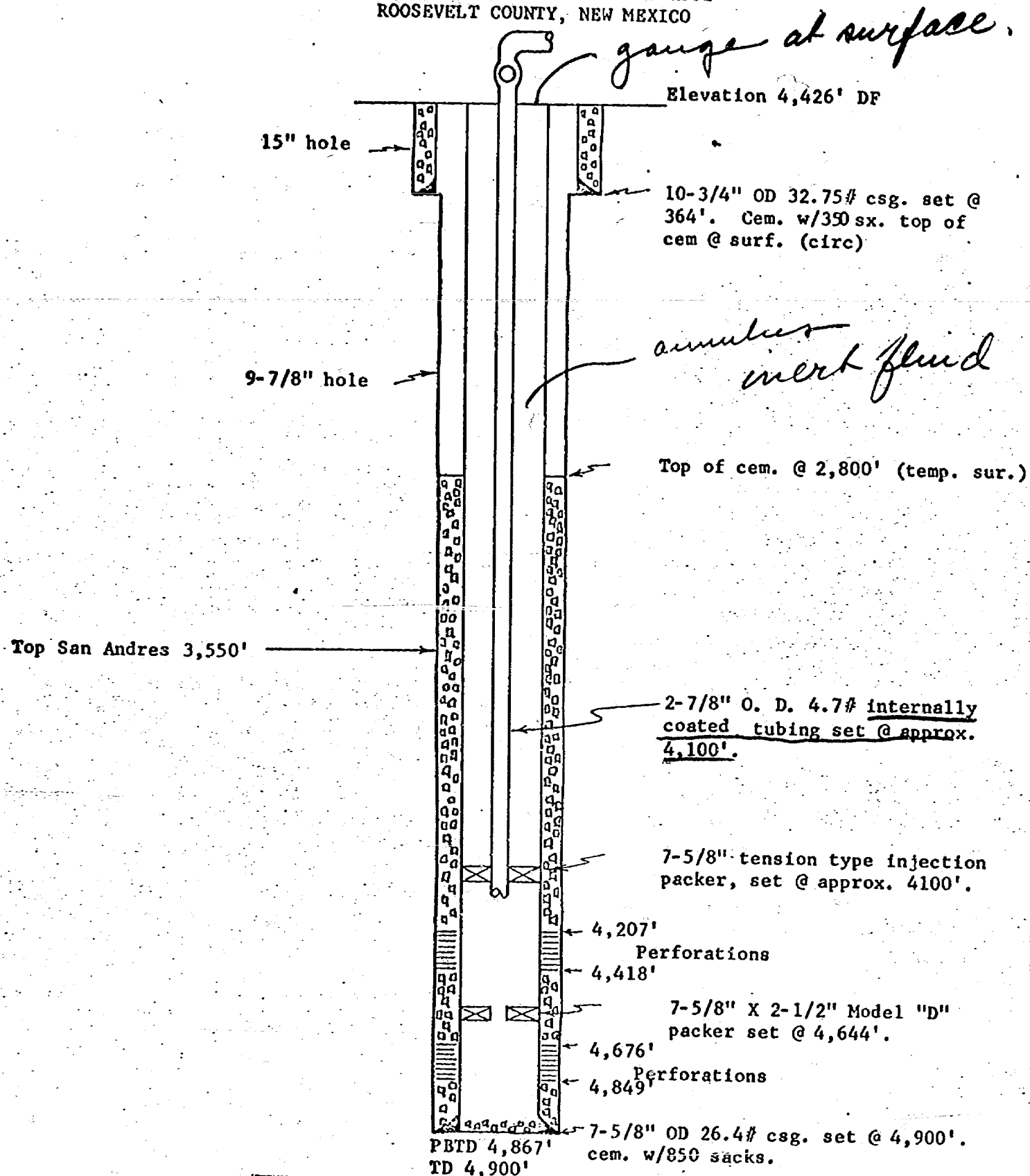
ALP/ir

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other State Engineer Office

PROPOSED WATER INJECTION WELL
 SKELLY OIL COMPANY HOBBS "T" NO. 11
 660' FSL & FEL SEC. 33-T7S-R33E
 ROOSEVELT COUNTY, NEW MEXICO



BEFORE EXAMINER NUTTER
 OIL CONSERVATION COMMISSION
 Skelly EXHIBIT NO. 4
 CASE NO. 5023

EXHIBIT 4

1348-A

Best O'Brien

HALLIBURTON DIVISION LABORATORY
HALLIBURTON COMPANY
LOVINGTON, NEW MEXICO

LABORATORY WATER ANALYSIS No. W73-023

To Skelly Oil Company

Date 1-12-73

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by _____ Date Rec. 1-12-73

Well No. SWD #1 Depth _____ Formation San Andres

County Roosevelt Field Chaveroo Source Disposal Tank

Resistivity	<u>0.047 @ 70° F.</u>	
Specific Gravity	<u>1.182</u>	
pH	<u>5.4</u>	
Calcium (Ca)	<u>22,560</u>	<u>*MPL</u>
Magnesium (Mg)	<u>7,240</u>	
Chlorides (Cl)	<u>160,000</u>	
Sulfates (SO ₄)	<u>68</u>	
Bicarbonates (HCO ₃)	<u>170</u>	
Soluble Iron (Fe)	<u>Nil</u>	
Sodium, Na	<u>64,350</u>	
Total Dissolved Solids, TDS	<u>254,390</u>	

Remarks:

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Skelly EXHIBIT NO. 3
CASE NO. 5023

Respectfully submitted,

Analyst: Brewer
cc:

HALLIBURTON COMPANY

By W. L. Brewer

CHEMIST

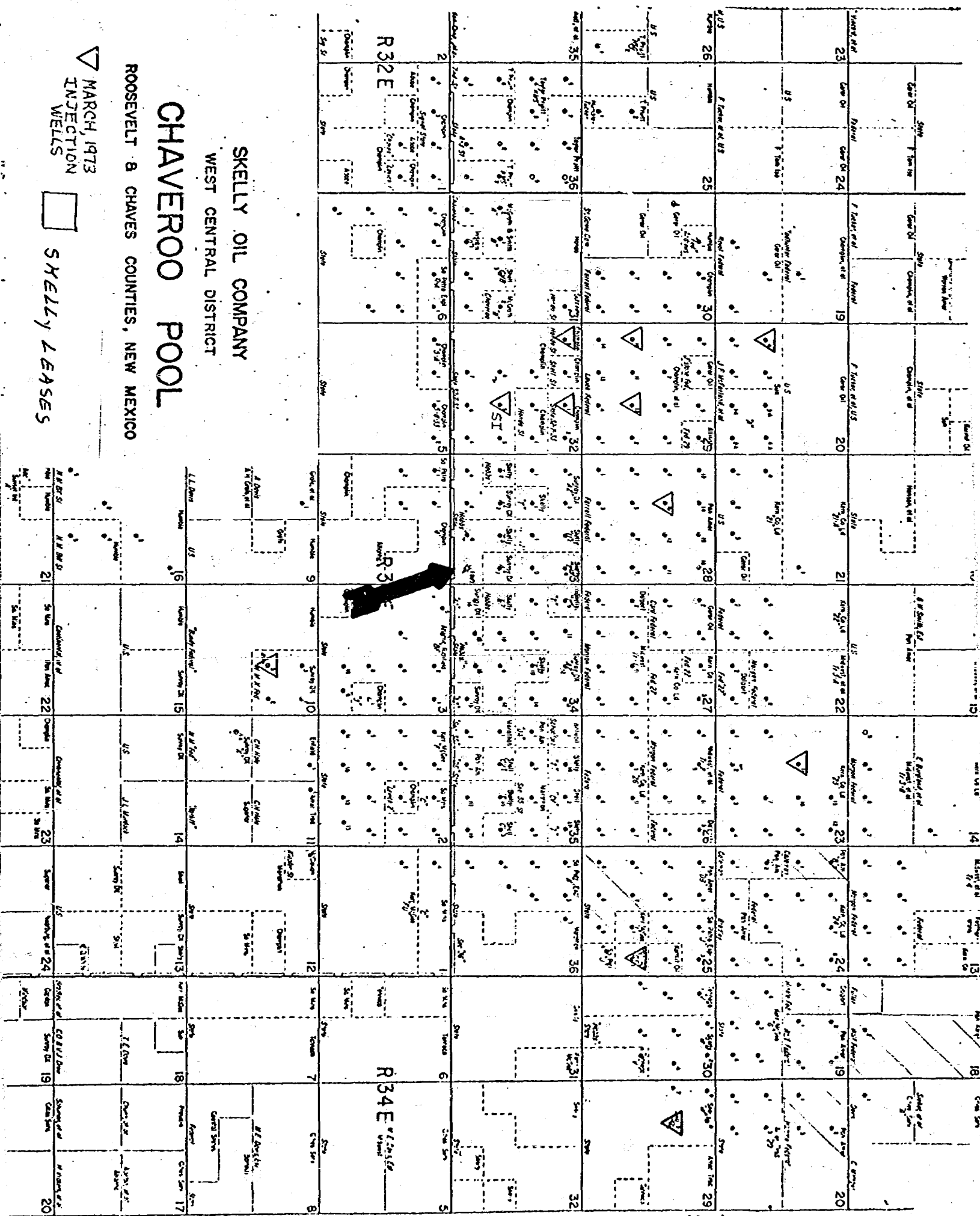
NOTICE **EXHIBIT** "C"

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether it be to act or omission, resulting from such report or its use.

SKELLY OIL COMPANY
 WEST CENTRAL DISTRICT
CHAVEROO POOL
 ROOSEVELT & CHAVES COUNTIES, NEW MEXICO

▽ MARCH, 1973
 INJECTION
 WELLS

□ SHELLEY LEASES



T 8 S

T 7 S

Docket No. 19-73

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 11, 1973

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:

- ALLOWABLE: (1) Consideration of the allowable production of gas for August, 1973, from seventeen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico.
- (2) Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for August, 1973.

CASE 4749: (Reopened) (Continued from the June 6, 1973, Examiner Hearing)

In the matter of Case No. 4749 being reopened pursuant to the provisions of Order No. R-4338, which order established special rules and regulations for the Humble City-Strawn Pool, Lea County, New Mexico, including a provision for 80-acre proration units. All interested parties may appear and show cause why said pool should be developed on other than 40-acre units.

CASE 5019: Application of Cities Service Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the S/2 of Section 14, Township 20 South, Range 28 East, Eddy County, New Mexico, to be dedicated to a well to be drilled in an undesignated Morrow gas pool at a standard location in Unit K of said Section 14. 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 up to 200 percent charge for risk involved in drilling said well.

CASE 5020: Application of Belco Petroleum Corporation for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the South Salt Lake-Morrow Gas Pool, including a provision for 320-acre drilling and proration units. In the absence of objection, this pool will be placed on 320-acre spacing rather than the present 160-acre spacing.

CASE 5021: Application of Mobil Oil Corporation for an unorthodox oil well location and special pool allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its proposed New Mexico "B" Well No. 9 at an unorthodox location 940 feet from the North line and 1510 feet from the East line of Section 27, Township 10 South, Range 32 East, Mescalero-Devonian Pool,

(Case 5021 continued from page 1)

Lea County, New Mexico. Applicant further seeks the assignment of a special depth bracket allowable for said pool of 604 barrels of oil per day.

CASE 5022: Application of Skelly Oil Company for an exception to Rule 104, Lea County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to Rule 104, authority to produce its Mexico "L" Wells Nos. 1 and 23 located less than 330 feet from each other in Unit A of Section 5, Township 25 South, Range 38 East, and its Mexico "J" Wells Nos. 2 and 23 located less than 330 feet from each other in Unit O in Section 32, Township 24 South, Range 38 East, and its Mexico "J" Wells Nos. 4 and 17 located less than 330 feet from each other in Unit N of said Section 32, all in the Dollarhide-Fusselman Pool, Lea County, New Mexico, each 40-acre unit being limited to one top unit allowable.

CASE 5023: Application of Skelly Oil Company for a waterflood project, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the Upper and Lower San Andres formations through perforations in the intervals from 4207 feet to 4418 feet and from 4676 to 4849 feet in its Hobbs "T" Well No. 11 located in Unit P of Section 33, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 5024: Application of Midwest Oil Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Cottonwood Spring Unit Area comprising 3838 acres, more or less, of federal and fee lands in Township 25 South, Range 26 East, Eddy County, New Mexico.

CASE 5025: Application of The Superior Oil Company for down-hole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Upper Seven Rivers gas and Lower Seven Rivers oil in the wellbore of its State "12" Well No. 1 located in Unit L of Section 12, Township 21 South, Range 35 East, Eumont Pool, Lea County, New Mexico. Said well was authorized as a gas-oil dual completion in the Eumont Pool by Commission Order DC-142.

CASE 5026: Application of The Superior Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow, Atoka, Strawn and Canyon formations underlying the N/2 of Section 7, Township 23 South, Range 27 East, South Carlsbad Field, Eddy County, New Mexico. 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 150 percent charge for risk involved in drilling said well.

CASE 5027: Application of Dalport Oil Corporation for the amendment of Order No. R-4553, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-4553 to provide that the well to be drilled on the proration unit pooled by said order shall be located in Unit G of Section 17, Township 12 South, Range 31 East, Chaves County, New Mexico, rather than Unit J of said Section 17. In the absence of objection, Order No. R-4553 will be amended as above.

CASE 5015: (Continued and Readvertised)

Application of Michael P. Grace II and Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicants, in the above-styled cause, seek an order pooling all mineral interests down to and including the Pennsylvanian formation underlying Section 16, Township 24 South, Range 26 East, adjacent to the White City-Pennsylvanian Gas Pool, Eddy County, New Mexico, to form a standard 640-acre unit for said pool, to be dedicated to a well to be drilled at an orthodox location for said unit. 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 up to 200 percent charge for risk involved in drilling said well.

CASE 5010: (Continued from the June 27, 1973, Examiner Hearing)

Application of Yates Petroleum Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests down to and including the Pennsylvanian formation underlying the N/2 of Section 18, Township 18 South, Range 26 East adjacent to the West Atoka Morrow Gas Pool, Eddy County, New Mexico, to be dedicated to a well to be drilled 1650 feet from the North line and 660 feet from the West line of said Section 18, the unorthodox location of which was previously approved by Commission Order No. R-4508. 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 up to 200 percent charge for risk involved in drilling said well.

CASE 5012: (Continued from the June 27, 1973, Examiner Hearing)

Application of Gandy Construction for an oil treating plant permit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority for the construction and operation of an oil treating plant for the purpose of treating and reclaiming sediment oil at a site in the SE/4 of Section 11, or the SW/4 of Section 12, Township 10 South, Range 35 East, Lea County, New Mexico.

BEFORE THE NEW MEXICO
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE APPLICATION OF
SKELLY OIL COMPANY FOR A WATERFLOOD
PROJECT IN ROOSEVELT COUNTY, NEW
MEXICO

Case No. 5023

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*
Attorneys for Skelly Oil Company

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF SKELLY)
OIL COMPANY FOR A WATERFLOOD PROJECT IN) CASE NO. 5023
ROOSEVELT 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, and that it is operating wells on its Hobbs "T" lease located in portions of Sections 33, 34, and 35, Township 7 South, Range 33 East, Roosevelt County, New Mexico.

2. That the wells on this lease are producing oil from the Chaveroo San Andres Pool and produce substantial quantities of salt water in association with that production and it is necessary that subsurface injection be utilized due to the elimination of surface disposal pits.

3. That Skelly Oil Company drilled its Hobbs "T" Well No. 11, located in Unit "P" of Section 33, Township 7 South, Range 33 East, Roosevelt County, New Mexico and that attempts were made to dually complete the well for oil production from the Upper San Andres and for water disposal in the Lower San Andres. Approval for such dual completion was secured from the New Mexico Oil Conservation Commission (Order No. R-3023). However, attempts to secure an effective oil completion in the Upper San Andres were unsuccessful. The Hobbs "T" No. 11 was singly completed for water disposal with a 2-7/8" O.D. string of internally plastic coated tubing set in a packer at 4,644'.

4. That Applicant seeks permission to institute a pilot waterflood project in the Chaveroo San Andres Pool by the injection of water into the San Andres formation through its Hobbs "T" Well No. 11, located in Section 33, Township 7 South, Range 33 East, Roosevelt County, New Mexico. The wells in the project area are in an advanced state of depletion.

5. That the proposed pilot waterflood project would result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

6. That based on performance and information gained from injection into the aforementioned Hobbs "T" Well No. 11, Applicant may request administrative approval to expand the project and to convert additional wells to water injection.

7. That attached hereto and made a part hereof is Exhibit "A", a map 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 wells are producing or have produced.

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

9. That attached hereto and made a part hereof is Exhibit "C", a current analysis of the water which will be injected.

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

11. That the interval into which injection will be made is the Chaveroo San Andres Pool, approximately 4,523' below surface thru perforations over the intervals 4,207'-4,418' and 4,676'-4,849', and that the water will be produced water from Skelly Oil Company's Hobbs "T" lease and from other wells in the immediate area, and that initial injection volumes will be between 200-300 barrels of water per day, with an anticipated maximum pressure of 1,500 psi. The casing - tubing annulus will be loaded with an inhibited fluid and equipped

with a pressure gauge to facilitate detection of leakage in the casing, tubing, or packer.

12. Attached hereto and made a part hereof are waivers of objection from all operators offsetting the proposed injection well.

WHEREFORE, PREMISES CONSIDERED, Applicant requests that the 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 Chaveroo San Andres Pool through injection in its Hobbs "T" Well No. 11, located in Unit "P" of Section 33, Township 7 South, Range 33 East, Roosevelt County, New Mexico, and to further provide for administrative expansion of the project area and the 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.

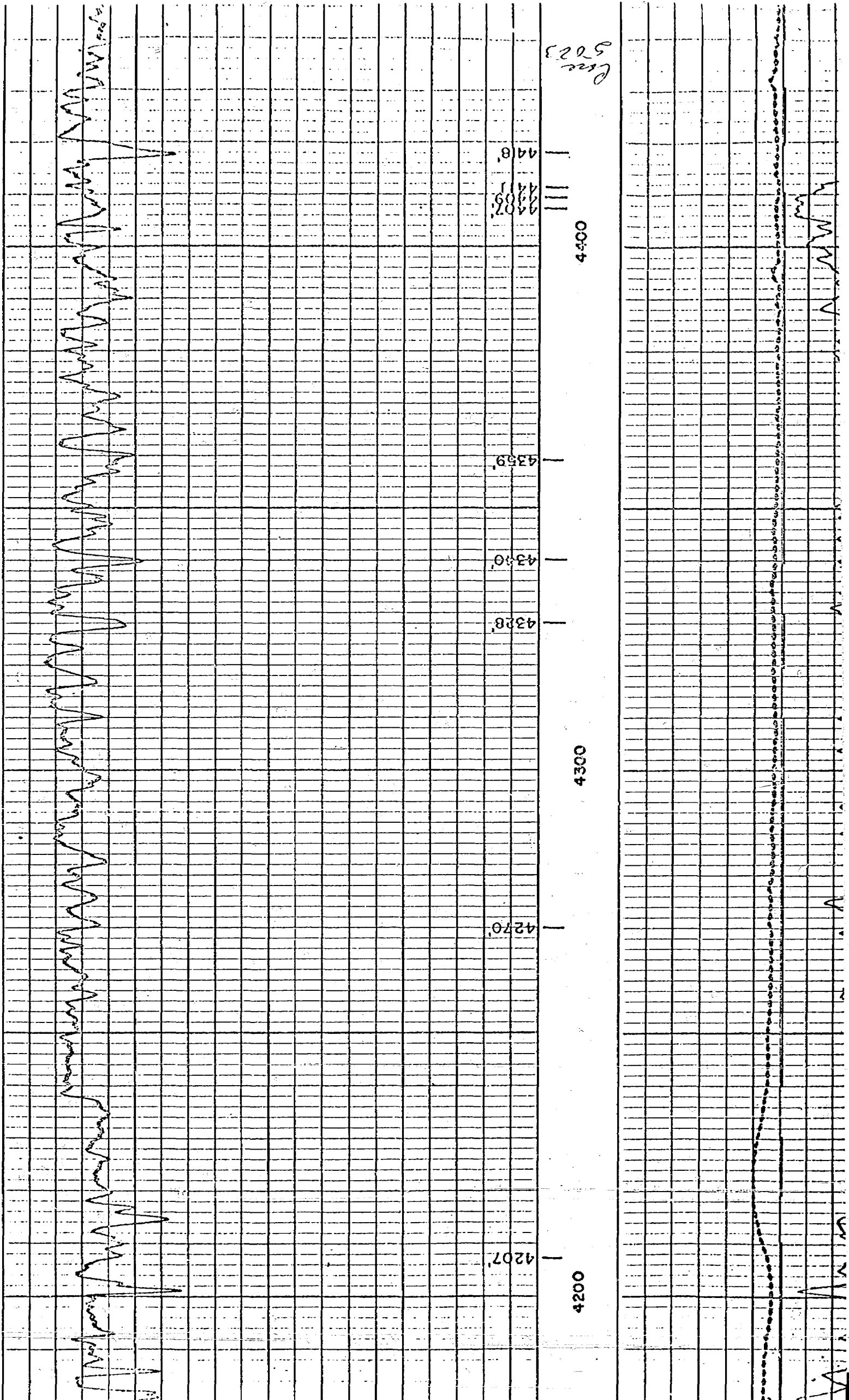
Respectfully submitted,

SKELLY OIL COMPANY

(SIGNED) CHESTER E. BLODGET

By Chester E. Blodget
Its Attorney

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



Handwritten text on lined paper, likely a signature or name, written in cursive script.

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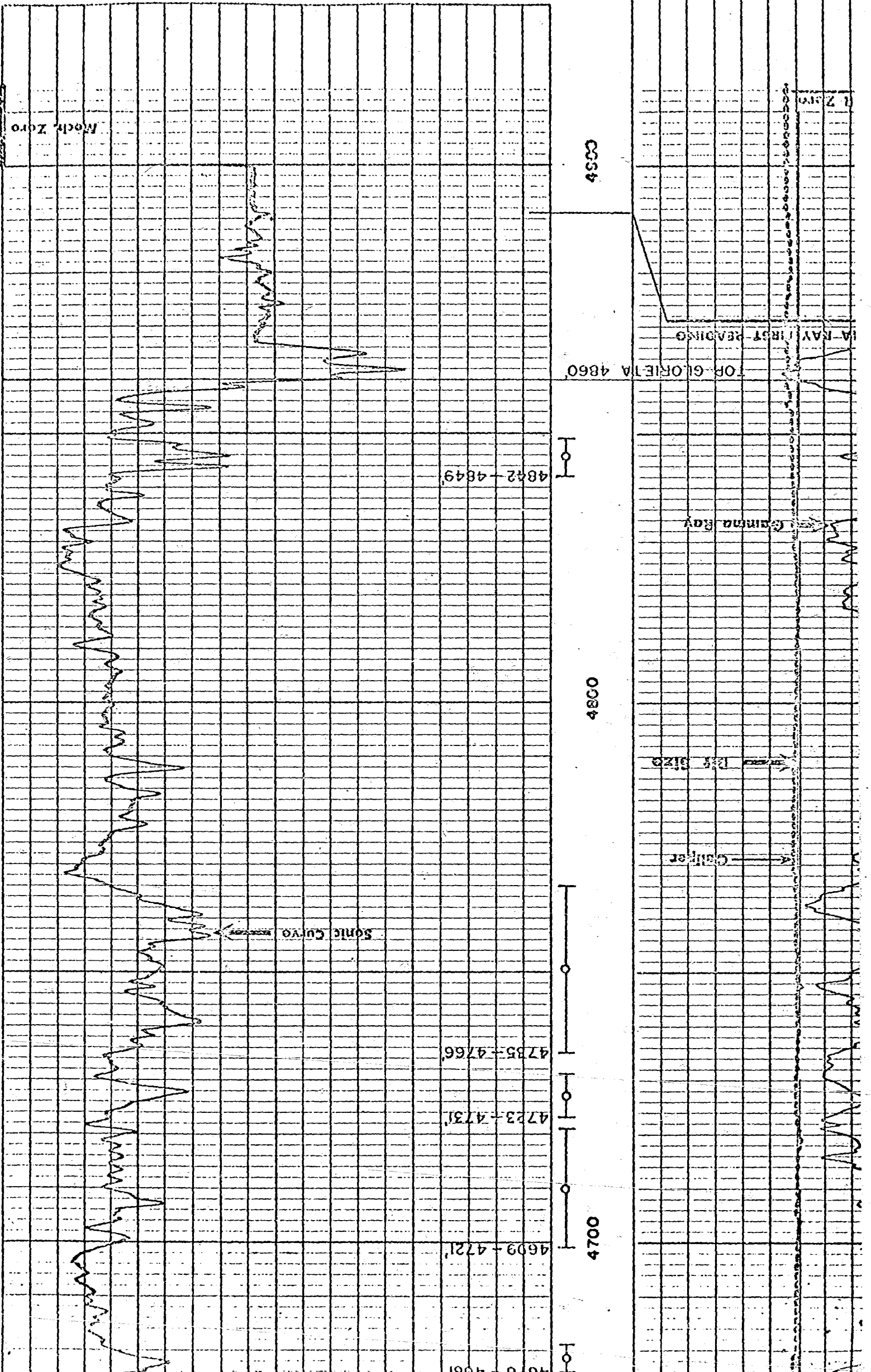
4500

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4

Handwritten musical notation on a five-line staff. The notation consists of a series of vertical strokes, some with flags, and some with horizontal lines, suggesting a rhythmic pattern. The staff is divided into measures by vertical bar lines.



1342-A

HALLIBURTON DIVISION LABORATORY
HALLIBURTON COMPANY
LOVINGTON, NEW MEXICO

Case 4923
5023

LABORATORY WATER ANALYSIS

No. W73-023To Skelly Oil CompanyDate 1-12-73

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or persons and employees thereof receiving such report from Halliburton Company.

Submitted by _____

Date Rec. 1-12-73Well No. S&D #1

Depth _____

Formation San AndresCounty Roosevelt

Field _____

ChaverooSource Disposal Tank

Resistivity	<u>0.047 @ 70°F.</u>	
Specific Gravity	<u>1.182</u>	
pH	<u>5.4</u>	
Calcium (Ca)	<u>22,560</u>	<u>*MPL</u>
Magnesium (Mg)	<u>7,240</u>	
Chlorides (Cl)	<u>160,000</u>	
Sulfates (SO ₄)	<u>68</u>	
Bicarbonates (HCO ₃)	<u>170</u>	
Soluble Iron (Fe)	<u>Nil</u>	
Sodium, Na	<u>64,350</u>	
Total Dissolved Solids, TDS	<u>254,390</u>	

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

cc:

HALLIBURTON COMPANY

By W. L. Brewer

CHEMIST

NOTICE

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether it be to act or omission, resulting from such report or its use.

Exhibit "C"

PROPOSED WATER INJECTION WELL
 SKELLY OIL COMPANY HOBBS "T" NO. 11
 660' FSL & FEL SEC. 33-T7S-R33E
 ROOSEVELT COUNTY, NEW MEXICO

Case 5023

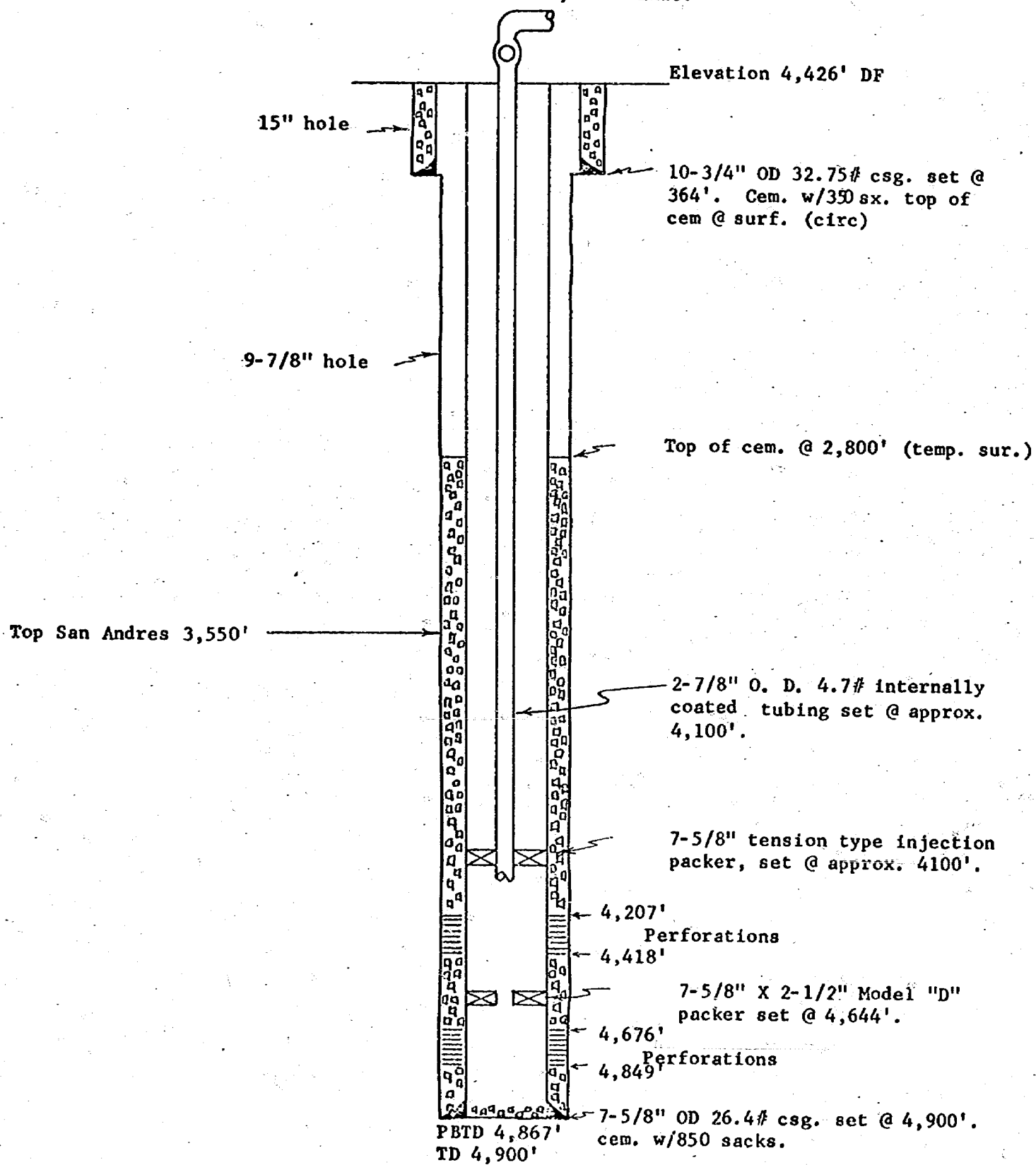


Exhibit "D"

We have no objection to the conversion of Skelly Oil Company's Chaveroo
SWD System Well No. 1 to a pilot injection well in the Chaveroo San Andres
Pool. The location of this well is 660' FSL and 660' FEL of Section 33-7S-33E,
Roosevelt County, New Mexico.

Atlantic Richfield Company

By: V M Hollrah

Date: 3-21-73

Sun Oil Company

By: _____

Date: _____

Champlin Petroleum Company

By: _____

Date: _____

We have no objection to the conversion of Skelly Oil Company's Chaveroo SWD System Well No. 1 to a pilot injection well in the Chaveroo San Andres Pool. The location of this well is 660' FSL and 660' FEL of Section 33-7S-33E, Roosevelt County, New Mexico.

Atlantic Richfield Company

By: _____

Date: _____

Sun Oil Company

By: H.R. Huey

Date: 3-20-73

Champlin Petroleum Company

By: _____

Date: _____

We have no objection to the conversion of Skelly Oil Company's Chaveroo SWD System Well No. 1 to a pilot injection well in the Chaveroo San Andres Pool. The location of this well is 660' FSL and 660' FEL of Section 33-7S-33E, Roosevelt County, New Mexico.

Atlantic Richfield Company

By: _____

Date: _____

Sun Oil Company

By: _____

Date: _____

Western States Producing Company

By: Don L. Bennett

Date: 5-1-73

ac/dmft

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. 5023

Order No. R-4597

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 11, 1973, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of _____, 1973, 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 ~~in the~~ on its Hobbs "T" Lease, ~~Unit Area,~~ Chaveroo-San Andres Pool, by the injection of water into the Upper and Lower San Andres formations through perforations in the intervals from 4207 feet to 4418 feet and from 4676 to 4849 feet in its Hobbs "T" Well No. 11 located in Unit P of Section 33, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

(3) That the well in the project area is in an advanced state of depletion and should properly be classified as a "stripper" well.

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

(5) 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.

-2-

Case No. 5023

Order No. R-

IT IS THEREFORE ORDERED:

(1) That the applicant, Skelly Oil Company, is hereby authorized to institute a waterflood project ~~in the~~ on its Hobbs "T" Lease, ~~Unit Area,~~ Chaveroo-San Andres Pool, by the injection of water into the Upper and Lower San Andres formations through perforations in the intervals from 4207 feet to 4418 feet and from 4676 to 4849 feet in its Hobbs "T" Well No. 11 located in Unit P of Section 33, Township 7 South, Range 33 East, NMPM, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

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

(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.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

(4) That Commission Order No. R-3023, which authorized the dual completion of the aforesaid Hobbs "T" Well No 11 to produce oil from the Chaveroo San Andres Pool and to dispose of produced saltwater into the Lower San Andres Formation, is hereby super-